

# 梯 形 钢 屋 架

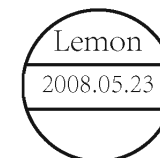
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## 总说明

### 1. 一般说明及适用范围

- 1.1 本图集为18m、21m、24m、27m、30m、33m、36m的梯形钢屋架（以下简称屋架）及其相应的支撑施工详图。
- 1.2 屋面采用1.5×6m的预应力混凝土屋面板05G410-1~2，卷材防水。屋面坡度均为1/10。
- 1.3 本图集的屋架适用于非抗震地区、抗震设防烈度小于等于8度和9度I、II类场地的地区。
- 1.4 本图集适用于构件表面长期受辐射热≤150℃的场所。当长期受辐射热达150℃以上时，或短期内可能受火焰作用时，应采取有效的隔热、防护措施。
- 1.5 设计未考虑在各种相对湿度条件下，侵蚀性作用的环境。如遇上述环境的车间，应由选用者按有关规范或规程处理。
- 1.6 本图集适用于屋架间距为6m的单层工业厂房，屋架与柱的连接为铰接支承。当柱距为12m时，采用托架支承中间屋架。当边列柱有托架时，本图均按边柱外缘和纵向定位轴线间加250mm的联系尺寸考虑。
- 1.7 屋架适用于无天窗、有纵向天窗和有纵向天窗带挡风板三种情况。18m、21m屋架配用6m钢天窗架；24m、27m、30m屋架配用9m钢天窗架；33m、36m屋架配用12m钢天窗架。
- 1.8 当屋架节间内设内天沟或通风设备等局部荷载时，相应节间的屋架上弦应按页(17)节点2~4加强。

### 2. 设计依据

- 2.1 建筑结构荷载规范 GB 50009-2001
- 2.2 钢结构设计规范 GB 50017-2003
- 2.3 建筑抗震设计规范 GB 50011-2001
- 2.4 房屋建筑制图统一标准 GB/T 50001-2001
- 2.5 建筑结构制图标准 GB/T 50105-2001
- 2.6 钢结构工程施工质量验收规范 GB 50205-2001
- 2.7 建筑钢结构焊接技术规程 JGJ 81-2002

### 3. 配用的图集

- 3.1 《1.5m×6m预应力混凝土屋面板》04G410-1~2
- 3.2 《钢天窗架》05G512
- 3.3 《钢托架》05G513
- 3.4 《钢天窗架建筑构造》05J623-1
- 3.5 《平屋面建筑构造（一）》99J201-1、99（03）J201-1
- 3.6 《悬挂运输设备轨道》05G359-4

### 4. 设计计算

- 4.1 本设计的结构构件安全等级为二级，设计使用年限为50年，结构构件重要性系数 $\gamma_0=1.0$ 。
- 4.2 屋面荷载设计的分级及其荷载：
  - 4.2.1 屋面荷载设计值分3.5kN/m<sup>2</sup>、4.0kN/m<sup>2</sup>、4.5kN/m<sup>2</sup>、5.0kN/m<sup>2</sup>、5.5kN/m<sup>2</sup>、6.0kN/m<sup>2</sup>等六级（不包括屋架自重及支撑重量）。设计未

考虑不均匀积雪和积灰。但考虑了吊装时可能出现的半跨屋面板和半跨活荷载的影响，也考虑了在使用过程中半跨雪荷载或半跨活荷载的影响，此时，活荷载或雪荷载标准值均取0.5kN/m<sup>2</sup>。

- 4.2.2 天窗架或天窗端壁立柱传给屋架的集中力包括窗扇、上档、中档、天窗侧板、天窗架及天窗端壁板及其支撑的自重、以及天窗侧板、端壁板的保温层重。当天窗架带挡风板时，亦考虑了挡风板横梁传给天窗架的重量，见表1。

天窗架、挡风板传给屋架的荷载设计值(kN) 表1

| 类别       | 天窗跨度                             |  |  |
|----------|----------------------------------|--|--|
|          | 3m                               | 6m                                     | 9m                                     |
| 天窗架      | $P_1=19$                         | $P_1=21$<br>$P_3=7$                    | $P_1=22$<br>$P_3=12$                   |
| 天窗端壁     | $P_1=22$<br>$P_3=17$             | $P_1=24$<br>$P_3=20$<br>$P_4=16$       | $P_1=25$<br>$P_3=32$<br>$P_4=21$       |
| 天窗架带挡风板  | $P_1=19$<br>$P_2=15.5$           | $P_1=21$<br>$P_2=19$<br>$P_3=7$        | $P_1=22$<br>$P_2=19$<br>$P_3=12$       |
| 天窗端壁带挡风板 | $P_1=26$<br>$P_2=12$<br>$P_3=17$ | $P_1=29$ $P_3=20$<br>$P_2=14$ $P_4=16$ | $P_1=32$ $P_3=32$<br>$P_2=16$ $P_4=21$ |

- 4.2.3 屋架自重及支撑重量在选用屋架时不考虑，但在计算屋架内力时已考虑。

- 4.2.4 在18m、21m、24m的各跨屋架设计中，均考虑了一台起重量为1t、2t、3t的电动葫芦或单梁悬挂吊车，悬挂吊车传到屋架下弦上的节点荷载设计值见表2。吊轨的吊点在一榀屋架中不得多于两个。悬吊设备的构件布置及其节点详图，选用者可参照本图集15、18页及《悬挂运输设备轨道》05G359-4中的对应节点详图进行选用或修改。

- 4.3 在屋架设计时，未考虑排架计算中厂房柱对屋架下弦产生的附加拉力，也未考虑当屋架支承在托架上时，由于屋架端板与托架的连接偏心，对屋架上、下弦杆所产生的附加压、拉力影响。选用者应根据具体情况对上下弦进行验算，不足时应加大上下弦截面。

悬挂吊车传到屋架上、下弦节点上的荷载设计值F(kN) 表2

| 起重量      | 一台1t            |           |       |       | 一台2t  |       |       |       | 一台3t  |       |       |       |       |       |
|----------|-----------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|          | 跨度/m            | 6         | 9     | 12    | 15    | 6     | 9     | 12    | 15    | 6     | 9     | 12    | 15    |       |
| 电动单梁悬挂吊车 | 轮压标准值 $P_{max}$ | 13.1      | 14.5  | 15.0  | 17.2  | 14.5  | 15.4  | 16.2  | 17.2  | 21.2  | 22.7  | 23.5  | 24.3  |       |
|          | 轮压标准值 $P_{min}$ | 3.1       | 3.7   | 4.3   | 4.9   | 2.9   | 4.0   | 4.7   | 5.6   | 2.7   | 3.9   | 4.7   | 5.5   |       |
| 电动葫芦     | 轮距/m            | 0.0       | 0.5   | 1.5   | 2.0   | 1.0   | 1.5   | 1.5   | 2.0   | 1.0   | 1.5   | 1.5   | 2.0   |       |
|          | F               | $P_{max}$ | 39.39 | 42.22 | 43.52 | 47.04 | 44.01 | 44.55 | 46.61 | 47.07 | 62.75 | 64.01 | 65.07 | 65.16 |
|          |                 | $P_{min}$ | 12.44 | 14.45 | 15.99 | 16.94 | 12.74 | 15.22 | 17.03 | 18.65 | 12.90 | 15.65 | 17.71 | 19.10 |
|          | F               |           | 24.00 |       |       |       | 42.49 |       |       |       | 61.10 |       |       |       |

注：表中F为悬挂吊车荷载设计值，包括悬挂吊车自重、吊重、轨道及节点连接件重，其中悬挂吊车自重视为可变荷载，并已考虑动力系数1.05。

- 4.4 屋架按只受上、下弦节点荷载的铰接桁架计算，不计非节点荷载及次应力影响。

- 4.5 地震作用

- 4.5.1 屋架本身已满足横向抗震计算，屋面的纵向地震作用全部由端部竖向支撑承受，计算时纵向基本周期取特征周期（即相应于结构基本自振周期的地震影响系数 $\alpha_1=\alpha_{max}$ ）。

- 4.5.2 当屋盖设有天窗时，天窗在厂房纵向的地震作用，已考虑按底部剪力法将底部剪力通过天窗架的竖向支撑对屋架产生的竖向力。本设计已按此对屋架进行了抗震附加验算，均能满足要求。

- 4.5.3 对于抗震设防烈度为8度和9度I、II类场地的地区，跨度为27m、30m、33m、36m的屋架均已考虑竖向地震作用，经验算均满足抗震要求。

- 4.5.4 屋架受压构件的容许长细比为150，受拉构件的容许长细比按重级工作制吊车（A6~A8）厂房考虑为250。

- 4.6 设计考虑了屋架下弦螺栓孔削弱截面的影响，削弱后的截面在强度不足处，用扩大节点板的方法补强。

- 4.7 考虑到屋面板起一定的支撑作用，屋架上弦平面外的计算长度取3m。位于天窗架下的一段上弦，计算长度取支撑节点间的距离。

- 4.8 屋架和钢筋混凝土柱（或钢柱）顶的连接，一般采用锚栓（或螺栓）连接并将锚栓（或螺栓）的小垫板与屋架支座底板焊接。除采取上述措施外还必须将屋架支座底板与钢筋混凝土柱顶的预埋钢板用12mm的焊脚尺寸焊接。

- 4.9 当厂房边列柱或中列柱一侧设有托架时，设有托架一侧的钢柱头，应增设两块连接支撑用的节点板。该支撑节点板在安装节点图中已示出，选用者应按安装节点图（见本图集第16页安装节点图中的剖面8-8）中所给的尺寸增设。

- 4.10 山墙抗风柱与屋架上、下弦杆的连接必须位于横向支撑的节点处，这时上弦杆连接支撑用的节点板应按安装节点图（见本图集第18页中的山墙柱与屋架连接节点示意图）所示形式修改。当山墙抗风柱不在横向支撑的节点处时，应根据具体情况，采取设置传递梁或在支撑中增设再分压杆等措施进行处理。

### 5. 支撑布置

- 5.1 本图集支撑分别按重级工作制（A6~A8）和轻、中级工作制（A1~A5）吊车厂房所规定的容许长细比进行设计（即支撑压杆取 $\lambda < 200$ ；支撑拉杆，有重级工作制（A6~A8）吊车者取 $\lambda < 350$ ，无吊车和有中轻级工作制（A1~A5）吊车者取 $\lambda < 400$ ）。本详图系按重级工作制吊车厂房所需的杆件截面绘制。当用于轻、中级工作制吊车厂房时，仅将杆件（横向或纵向交叉支撑和柔性系杆）截面进行代换即可（代换方法见支撑详图第19~22页注）。对于厂房较高、风力较大的地区，选用者应对支撑截面和节点连接重新设计或验算后采用。

- 5.2 本图集集中屋架上、下弦支撑及竖向支撑构件编号图主要为支撑构件和安装节点编号用。其布置只适用于设防烈度小于和等于9度地区的一般工程情况。因此在非一般情况下仅供参考，选用时尚应注意当屋架跨度 $L=24\sim 36m$ ，抗震设防烈度为8度，设计基本地震加速度为0.30g的地区时，支撑均应按9度抗震设防区要求布置和编号。

### 5.3 横向支撑的设置

一般厂房应在厂房结构单元两端第一柱间屋架上、下弦,各设一道横向支撑。当结构单元的长度大于66m,小于和等于96m时,还应在这个区段中部的屋架上、下弦,各增设一道横向支撑。

当抗震设防烈度为8度或9度时,在天窗开洞范围内两端各增设局部上弦或上、下弦横向支撑一道。

在非抗震设防地区,当厂房端部为山墙承重时,横向支撑应设在厂房端部第二柱间。

### 5.4 纵向支撑的设置

当设有托架时,必须在屋架下弦端部设置纵向支撑。当局部柱间设有托架时,可以仅在设有托架的柱间及其两端相邻的柱间屋架下弦端部设置纵向支撑。

对于无托架厂房的纵向支撑,应根据厂房的跨度、高度、单跨、多跨、吊车类型、起重量和工作制、振动设备大小以及地震设防烈度等情况,由选用者自行处理。

### 5.5 竖向支撑的设置

所有跨度的屋架均应设端部竖向支撑,其布置除满足《建筑抗震设计规范》(GB 50011-2001)要求外,并已按纵向地震作用对本图集集中竖向支撑的截面进行验算。

跨度为18m、21m、24m,抗震设防烈度小于9度,及跨度为27m、30m的屋架,在设有上弦横向支撑的两榀屋架间,均应在跨中设置一道竖向支撑。跨度为33m、36m的屋架及抗震设防烈度为9度跨度为27m、30m的屋架,在设有上弦横向支撑的两榀屋架之间跨中L/3范围内设置两道竖向支撑,当天窗时应设置在天窗侧立柱的下面。

### 5.6 系杆的设置

5.6.1 一般厂房在未设竖向支撑的屋架间,在相应于竖向支撑平面的屋架上、下弦节点,应设置通长系杆。

5.6.2 跨度33m、36m的屋架,还应在上弦中央节点增设一道系杆。

5.6.3 有天窗的厂房,还应在天窗侧柱下的屋架上弦节点处增设一道系杆。

5.6.4 设在屋架上、下弦端部节点的系杆,屋架上弦跨中屋脊节点的系杆以及横向支撑中的系杆均采用刚性系杆。其余均可采用柔性系杆。

5.6.5 当横向支撑设在厂房端部第二柱间时,则在第一柱间内的所有系杆均采用刚性系杆。

5.6.6 当屋架下弦设有沿厂房纵向运行的悬挂运输设备且没有通到下弦横向支撑时,应在轨道端部设置刚性系杆与邻近的下弦横向支撑的节点相连。

5.6.7 当抗震设防烈度为8度时要求柱间支撑开间的柱顶处设置刚性系杆,9度时要求柱顶设置通长的刚性系杆,并能传递由屋架端部竖向支撑传给的水平地震作用。

## 6. 材料

6.1 屋架钢材采用《碳素结构钢》GB/T700-1988规定的Q235-B级镇静钢或沸腾钢。

当工作温度低于-20℃时,应采用Q235-B级镇静钢。

6.2 焊条采用《碳钢焊条》GB/T5117-1988中规定的E4303型焊条。

6.3 普通螺栓应采用性能等级为4.6级C级螺栓。锚栓采用《碳素结构钢》GB/T700-1988中规定的Q235级钢制成。

6.4 角钢型号按《热轧等边角钢尺寸、外形、重量及允许偏差》GB/T9787-1988和《热轧不等边角钢尺寸、外形、重量及允许偏差》GB/T9788-1988选用。

## 7. 制作、运输、安装

7.1 构件应按《钢结构工程施工质量验收规范》GB50205-2001进行制作、安装和验收。所有屋架上下弦同时起拱,起拱度为跨度的1/500。

7.2 杆件材料接头当采用与母材等强度的对接焊缝时,其质量等级为二级,其它焊缝的外观质量不低于三级。

7.3 构件运输单元的划分,应根据运输条件确定。一般以整榀或两个半榀运输为宜。当运输条件受限制而运输单元划分较多,或需要拆散运输时,构件应根据拼接方案在工地平整场地上组拼。构件运输时应采取措施,以防止构件变形和损伤。所有构件在安装前必须经过严格检查。

7.4 为避免屋架吊装时产生侧向变形,在吊装前应采取加强措施。当屋架就位完毕后,应随即连以支撑。待支撑安装完毕后方能安装屋面板。在屋面板安装后,不得在屋架的任何部位(支座底板除外)进行焊接。

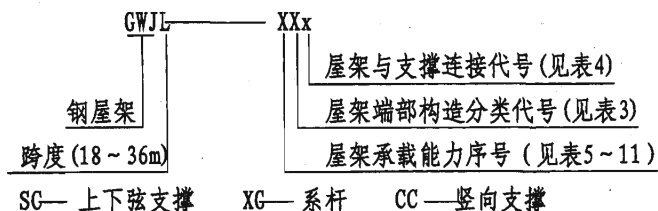
7.5 本图集支撑与屋架上、下弦除螺栓连接外,还应加安装焊缝。

7.6 屋架设计考虑了屋面板起一定的支撑作用,因此每块屋面板与屋架的焊接不应少于三个角(厂房端部和温度伸缩缝处不应少于两个角);每个角上角焊缝的焊脚尺寸为6mm,其焊缝长度为:平行屋架上弦杆方向的焊缝不小于60mm;垂直屋架上弦杆方向的焊缝不小于80mm。

7.7 所有构件在制作检验合格后,应对其表面进行除锈和涂装。除具体工程说明者外,除锈等级应不低于Sa2或ST2,涂装应采用与除锈方法相匹配的防锈底漆和面漆。涂层厚度及涂装施工环境等应满足《钢结构工程施工质量验收规范》GB50205-2001中所规定的要求。对于有防火、防腐要求时,还必须涂装具体工程设计所要求的防火、防腐涂料。

## 8. 屋架选用方法

8.1 本图集构件代号表示如下:



屋架端部构造分类表

表3

| 支承情况<br>编号 | 屋架两端均与钢筋混凝土柱连接 | 屋架两端均与托架或钢柱头连接 | 屋架一端与钢筋混凝土柱连接另一端与托架或钢柱头连接 |
|------------|----------------|----------------|---------------------------|
| GWJL-X(x)  | A              | B              | C                         |

屋架与支撑连接分类表

表4

| 连接情况<br>编号 | 屋架上、下弦连有横向支撑和竖向支撑 | 屋架上弦在对应于横向支撑的节点处(<6m)连有系杆,下弦连有纵向支撑和必要系杆 | 屋架上弦连有必要系杆,下弦连有纵向支撑和必要系杆 | 屋架上、下弦仅有必要的系杆或竖向支撑 |
|------------|-------------------|---|--------------------------|--------------------|
| GWJL-XX(x) | 1                 | 2                                       | 3                        | 4                  |

注: 1. 上、下弦必要的系杆是指上、下弦对应于竖向支撑处和有天窗时,天窗侧柱处的系杆。对于33m、36m屋架以及抗震设防烈度为9度跨度为27m、30m的屋架,除上述系杆外,在屋脊节点处和屋脊节点与天窗侧柱之间还有系杆。  
2. 厂房端部第一榀屋架和温度伸缩缝处屋架,根据支撑的设置情况,其支撑连接分类代号为1或4。  
3. 屋架与支撑的连接分类代号图(即屋架上、下弦钻孔及支撑连接板位置图),见本图集第26、27页图。

## 总说明

|     |        |
|-----|--------|
| 图集号 | 05G511 |
| 页   | 3      |

GWJ18屋架选用表 表5

| 屋架基本型号  | 天窗类别 | 屋面荷载设计值<br>(kN/m <sup>2</sup> ) | 吊车吨位<br>(t) |
|---------|------|---------------------------------|-------------|
| GWJ18-1 | 无天窗  | 3.5                             | —           |
| GWJ18-2 | 无天窗  | 3.5                             | <1.0        |
|         |      | 4.0                             | —           |
|         | 有天窗  | 3.5                             | —           |
| GWJ18-3 | 无天窗  | 3.5                             | <3.0        |
|         |      | 4.0                             | <2.0        |
|         |      | 4.5                             | —           |
|         | 有天窗  | 4.0                             | —           |
| GWJ18-4 | 无天窗  | 4.0                             | <3.0        |
|         |      | 4.5                             | <1.0        |
|         |      | 5.0                             | —           |
|         | 有天窗  | 3.5                             | <2.0        |
|         |      | 4.5                             | —           |
| GWJ18-5 | 无天窗  | 4.5                             | <3.0        |
|         |      | 5.0                             | <2.0        |
|         |      | 5.5                             | —           |
|         | 有天窗  | 3.5                             | <3.0        |
|         |      | 4.0                             | <2.0        |
|         |      | 5.0                             | —           |
| GWJ18-6 | 无天窗  | 5.0                             | <3.0        |
|         |      | 5.5                             | <1.0        |
|         |      | 6.0                             | —           |
|         | 有天窗  | 4.0                             | <3.0        |
| 4.5     |      | <2.0                            |             |
|         |      | 5.5                             | —           |
| GWJ18-7 | 无天窗  | 5.5                             | <3.0        |
|         |      | 6.0                             | <2.0        |
|         | 有天窗  | 4.5                             | <3.0        |
|         |      | 5.0                             | <3.0        |
|         |      | 6.0                             | —           |

GWJ21屋架选用表 表6

| 屋架基本型号  | 天窗类别 | 屋面荷载设计值<br>(kN/m <sup>2</sup> ) | 吊车吨位<br>(t) |
|---------|------|---------------------------------|-------------|
| GWJ21-1 | 无天窗  | 3.5                             | —           |
| GWJ21-2 | 无天窗  | 3.5                             | <2.0        |
|         |      | 4.0                             | —           |
| GWJ21-3 | 无天窗  | 3.5                             | <3.0        |
|         |      | 4.0                             | <1.0        |
|         |      | 4.5                             | —           |
|         | 有天窗  | 3.5                             | —           |
| GWJ21-4 | 无天窗  | 4.0                             | <3.0        |
|         |      | 4.5                             | <1.0        |
|         |      | 5.0                             | —           |
|         | 有天窗  | 3.5                             | <2.0        |
|         |      | 4.0                             | —           |
| GWJ21-5 | 无天窗  | 4.5                             | <3.0        |
|         |      | 5.0                             | <2.0        |
|         |      | 5.5                             | —           |
|         | 有天窗  | 3.5                             | <3.0        |
|         |      | 4.0                             | <3.0        |
|         |      | 4.5                             | —           |
| GWJ21-6 | 无天窗  | 5.0                             | <3.0        |
|         |      | 6.0                             | —           |
|         | 有天窗  | 4.5                             | <3.0        |
|         |      | 5.0                             | —           |
| GWJ21-7 | 有天窗  | 5.0                             | <3.0        |
|         |      | 5.5                             | —           |
|         |      | 6.0                             | —           |

注：1. 因屋面永久荷载较大，故表中荷载均按永久荷载效应控制的组合确定。  
 2. 屋面荷载中不包括屋架和支撑自重。但在屋架内力计算中，已考虑了屋架及支撑自重。  
 3. 表中"有天窗"栏也包括了有天窗端壁、有天窗带挡风板和天窗端壁带挡风板三种情况。

GWJ24屋架选用表 表7

| 屋架基本型号  | 天窗类别 | 屋面荷载设计值<br>(kN/m <sup>2</sup> ) | 吊车吨位<br>(t) |
|---------|------|---------------------------------|-------------|
| GWJ24-1 | 无天窗  | 3.5                             | —           |
| GWJ24-2 | 无天窗  | 3.5                             | <1.0        |
|         |      | 4.0                             | —           |
| GWJ24-3 | 无天窗  | 3.5                             | <3.0        |
|         |      | 4.0                             | <1.0        |
|         |      | 4.5                             | —           |
|         | 有天窗  | 3.5                             | —           |
| GWJ24-4 | 无天窗  | 4.0                             | <3.0        |
|         |      | 4.5                             | <1.0        |
|         |      | 5.0                             | —           |
|         | 有天窗  | 3.5                             | <3.0        |
|         |      | 4.0                             | —           |
| GWJ24-5 | 无天窗  | 4.5                             | <3.0        |
|         |      | 5.0                             | <2.0        |
|         |      | 5.5                             | —           |
|         | 有天窗  | 4.0                             | <3.0        |
|         |      | 4.5                             | —           |
|         |      |                                 |             |
| GWJ24-6 | 无天窗  | 5.0                             | <3.0        |
|         |      | 6.0                             | —           |
|         | 有天窗  | 4.5                             | <3.0        |
|         |      | 5.0                             | —           |
| GWJ24-7 | 有天窗  | 5.0                             | <3.0        |
|         |      | 5.5                             | —           |
|         |      | 6.0                             | —           |

4. 当屋架支承在托架上时，屋架上下弦杆应力应留有3~7%的余量。  
 5. 表中荷载设计值为外加荷载基本组合设计值Q，其标准组合设计值Q<sub>k</sub>为Q/1.25，重力荷载代表值Q<sub>r</sub>=Q/1.4。

GWJ27屋架选用表 表8

| 屋架基本型号  | 天窗类别 | 屋面荷载设计值 (kN/m <sup>2</sup> ) |
|---------|------|------------------------------|
| GWJ27-1 | 无天窗  | 3.5                          |
| GWJ27-2 | 有天窗  | 3.5                          |
|         | 无天窗  | 4.0                          |
| GWJ27-3 | 有天窗  | 4.0                          |
|         | 无天窗  | 4.5                          |
| GWJ27-4 | 有天窗  | 4.5                          |
|         | 无天窗  | 5.0                          |
| GWJ27-5 | 有天窗  | 5.0                          |
|         | 无天窗  | 5.5                          |
| GWJ27-6 | 有天窗  | 5.5                          |
|         | 无天窗  | 6.0                          |
| GWJ27-7 | 有天窗  | 6.0                          |

GWJ33屋架选用表 表10

| 屋架基本型号  | 天窗类别 | 屋面荷载设计值 (kN/m <sup>2</sup> ) |
|---------|------|------------------------------|
| GWJ33-1 | 无天窗  | 3.5                          |
| GWJ33-2 | 无天窗  | 4.0                          |
| GWJ33-3 | 有天窗  | 3.5                          |
|         | 无天窗  | 4.5                          |
| GWJ33-4 | 有天窗  | 4.0                          |
|         | 无天窗  | 5.0                          |
| GWJ33-5 | 有天窗  | 4.5                          |
|         | 无天窗  | 5.5                          |
| GWJ33-6 | 有天窗  | 5.5                          |
|         | 无天窗  | 6.0                          |
| GWJ33-7 | 有天窗  | 5.0                          |
|         |      | 6.0                          |

## 8.2 屋架选用实例

某车间，跨度为24m，屋架间距为6m，屋架一端与钢筋混凝土柱连接，另一端与托架连接，有天窗，屋架上、下弦均连有横向支撑和竖向支撑，抗震设防烈度按8度考虑，结构重要性系数  $\gamma_0 = 1.0$ ，有2t悬挂吊车，屋面荷载标准值为：

|                                  |                       |
|----------------------------------|-----------------------|
| (1) 防水层                          | 0.35kN/m <sup>2</sup> |
| (2) 保温层                          | 0.48kN/m <sup>2</sup> |
| (3) 水泥砂浆找平层                      | 0.40kN/m <sup>2</sup> |
| (4) 预应力混凝土屋面板 [04G410-1~2] (加灌缝) | 1.50kN/m <sup>2</sup> |
| (5) 屋架悬挂管道                       | 0.10kN/m <sup>2</sup> |

GWJ30屋架选用表 表9

| 屋架基本型号  | 天窗类别 | 屋面荷载设计值 (kN/m <sup>2</sup> ) |
|---------|------|------------------------------|
| GWJ30-1 | 无天窗  | 3.5                          |
| GWJ30-2 | 有天窗  | 3.5                          |
|         | 无天窗  | 4.0                          |
| GWJ30-3 | 有天窗  | 4.0                          |
|         | 无天窗  | 4.5                          |
| GWJ30-4 | 有天窗  | 4.5                          |
|         | 无天窗  | 5.0                          |
| GWJ30-5 | 有天窗  | 5.0                          |
|         | 无天窗  | 5.5                          |
| GWJ30-6 | 有天窗  | 5.5                          |
|         | 无天窗  | 6.0                          |
| GWJ30-7 | 有天窗  | 6.0                          |

GWJ36屋架选用表 表11

| 屋架基本型号  | 天窗类别 | 屋面荷载设计值 (kN/m <sup>2</sup> ) |
|---------|------|------------------------------|
| GWJ36-1 | 无天窗  | 3.5                          |
| GWJ36-2 | 无天窗  | 4.0                          |
| GWJ36-3 | 有天窗  | 3.5                          |
|         | 无天窗  | 4.5                          |
| GWJ36-4 | 有天窗  | 4.0                          |
|         | 无天窗  | 5.0                          |
| GWJ36-5 | 有天窗  | 5.0                          |
|         |      | 5.5                          |
| GWJ36-6 | 有天窗  | 4.5                          |
|         | 无天窗  | 6.0                          |

## (6) 雪荷载

0.70kN/m<sup>2</sup>

解：永久荷载效应控制的基本组合设计值

$$1.35 \times (0.35 + 0.48 + 0.40 + 1.50 + 0.10) + 1.4 \times 0.7 \times 0.7 = 4.50 \text{ kN/m}^2$$

根据上述情况查表7，满足有天窗、屋面荷载4.50kN/m<sup>2</sup>、吊车吨位 < 3.0t 的条件，应选择第6号屋架；由表3屋架两端构造连接分类属于屋架一端与钢筋混凝土柱连接，另一端与托架连接，其代号为C；再由表4屋架上、下弦连有横向支撑和竖向支撑，代号为1。因此所选用的屋架型号为GWJ24-6C<sub>1</sub>。

## 9. 详图说明

- 9.1 尺寸以mm为单位。
- 9.2 屋架详图中的杆件内力以kN为单位。
- 9.3 屋架与托架或钢柱头连接螺栓，屋架与天窗架的连接螺栓，支撑的安装螺栓和安装拼接用的螺栓一律采用M20，孔径为 $\phi 21.5$ ，屋架支座连接用的锚栓为M24，垫板孔为 $\phi 26$ 。
- 9.4 未注明的角焊缝焊脚尺寸为5mm，其长度不小于80mm（双角钢构件的填板焊缝长度一律为60mm）。所有焊缝一律满焊。
- 9.5 与端部竖向支撑连接的屋架，其混凝土柱顶的预埋件下，应设抗剪件。
- 9.6 详图中的a。为防震缝（或伸缩缝）宽度，由具体工程确定。
- 9.7 本图集采用图例及连接的标注方法见表12。
- 9.8 屋架的节点细部尺寸的标注含义见图80。

图例

表12

| 序号 | 名称    | 型式 | 图例 | 说明   |
|----|-------|----|----|--|
| 1  | 圆形螺栓孔 |    |    |  |
| 2  | 普通螺栓  |    |    | 一般作为永久螺栓 M20   |
| 3  | 安装螺栓  |    |    |  |
| 4  | 双面角焊缝 |    |    | 同上   |
|    |       |    |    | 角钢肢背和肢尖角焊缝的焊脚尺寸为10mm，长度为120mm                        |
|    |       |    |    | 角钢肢背角焊缝的焊脚尺寸为10mm，长度为120mm；角钢肢尖角焊缝的焊脚尺寸为8mm，长度为100mm |

续表

| 序号 | 名称         | 型式 | 图例 | 说明                    |
|----|------------|----|----|-----------------------|
| 5  | 单面角焊缝      |    |    | 角焊缝的焊脚尺寸为8mm，长度为100mm |
| 6  | 单面安装焊缝     |    |    | 角焊缝的焊脚尺寸为8mm，长度为100mm |
| 7  | 双面安装焊缝     |    |    | 角焊缝的焊脚尺寸为8mm，长度为100mm |
| 8  | 周围焊缝       |    |    | 周围焊缝的焊脚尺寸为8mm         |
| 9  | 三面围焊       |    |    | 三面围焊焊缝的焊脚尺寸为8mm       |
| 10 | 塞焊缝        |    |    | 塞焊缝（焊脚尺寸分别见屋架详图塞焊示意）  |
| 11 | 单边V型焊缝（带弧） |    |    | 单边V型焊缝（带弧）焊脚尺寸为8mm    |

总说明

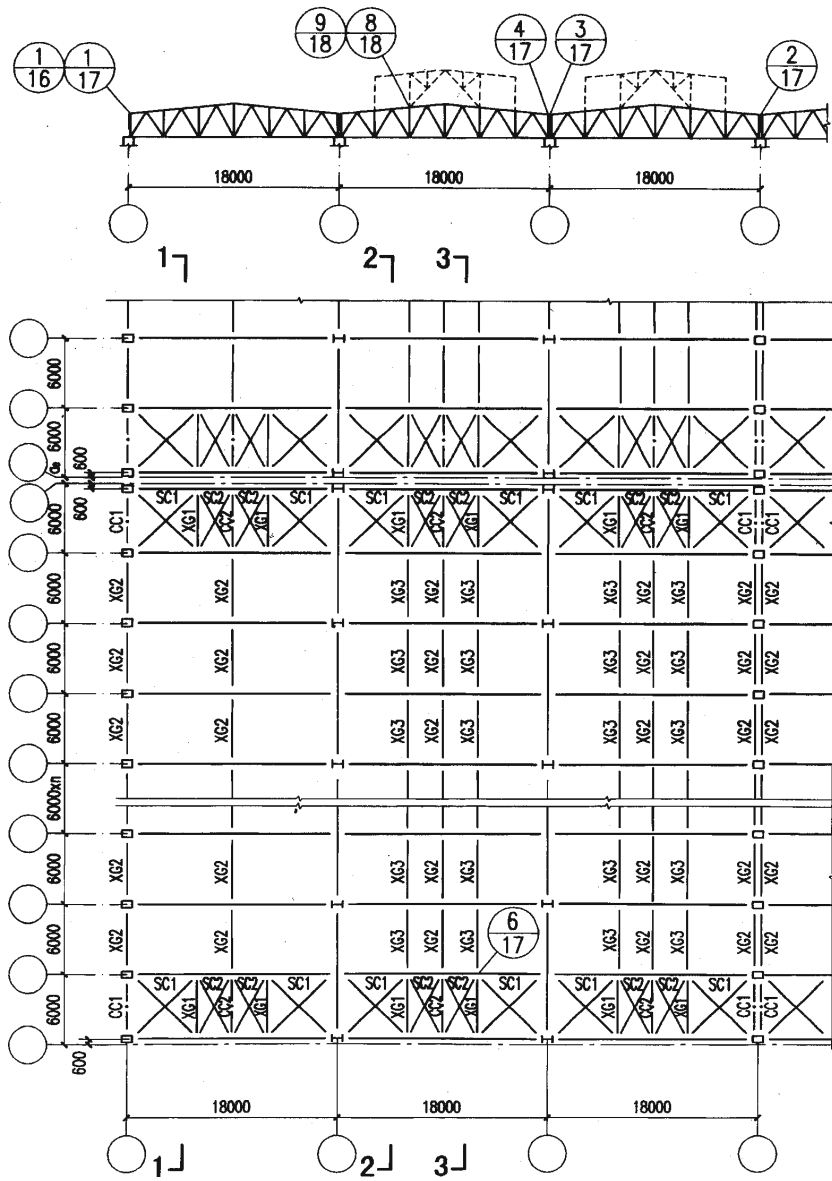
图集号

05G511

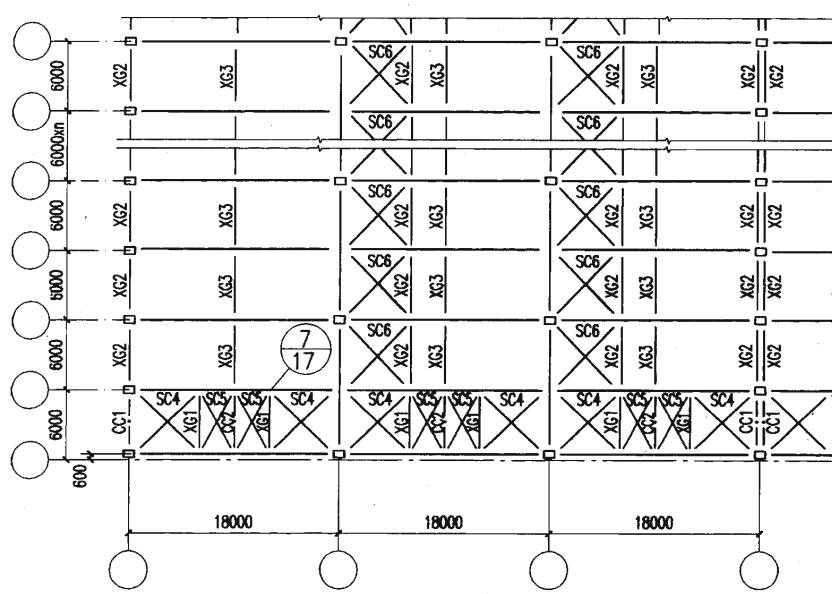
审核 汪一敏 设计 冯东 冯东 设计 姜兰潮 姜兰潮

页

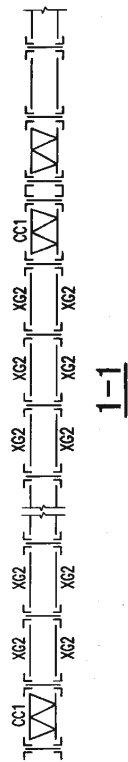
5



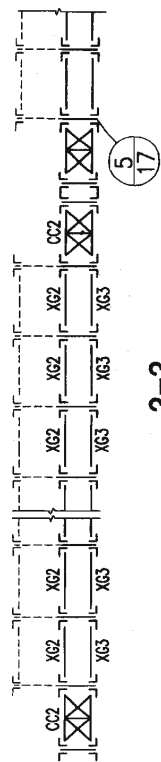
屋架上弦支撑构件编号图(一)  
(用于非抗震设计及6、7度区)



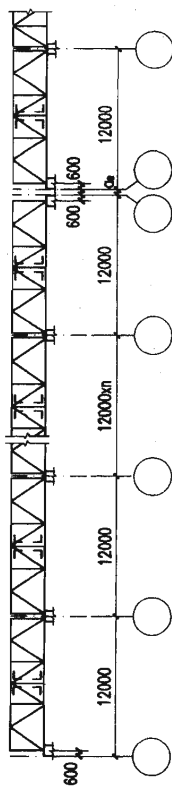
屋架下弦支撑构件编号图(一)  
(用于非抗震设计及6、7度区)



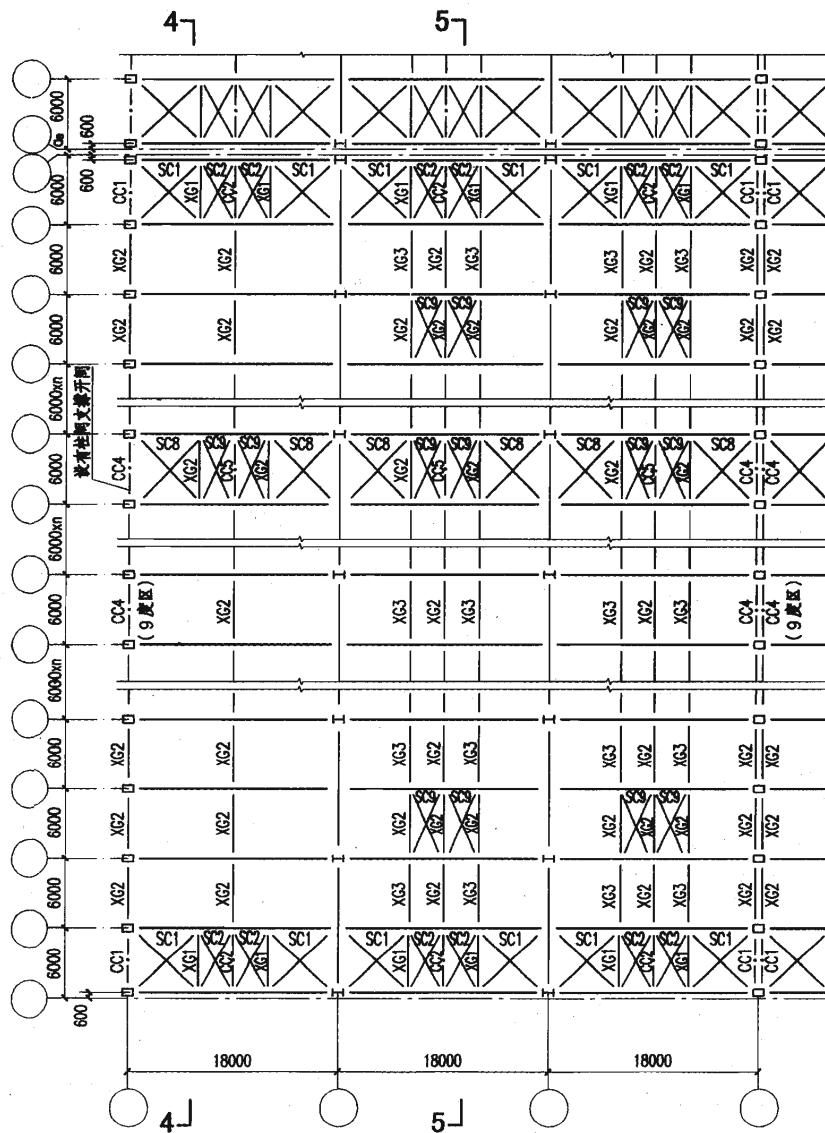
1-1



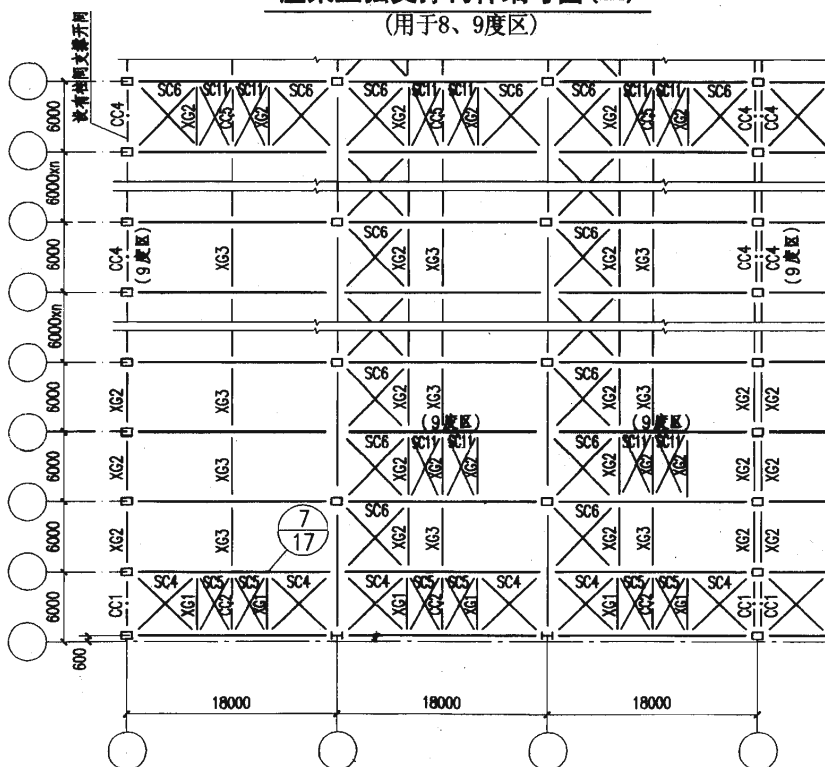
3-3



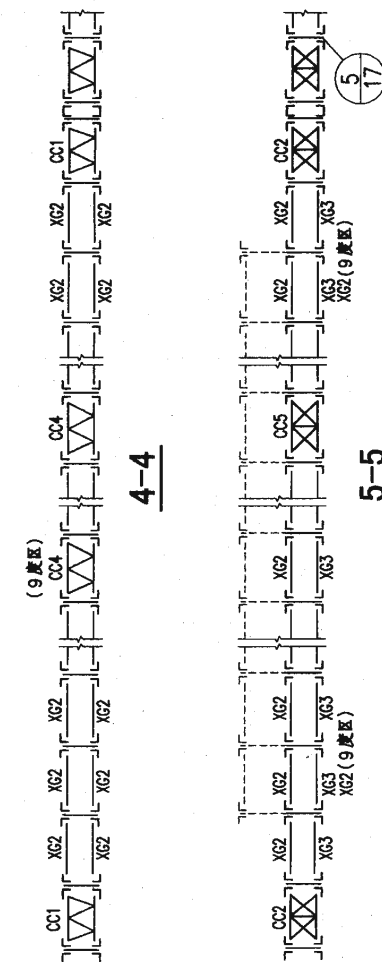
2-2



屋架上弦支撑构件编号图(二)  
(用于8、9度区)



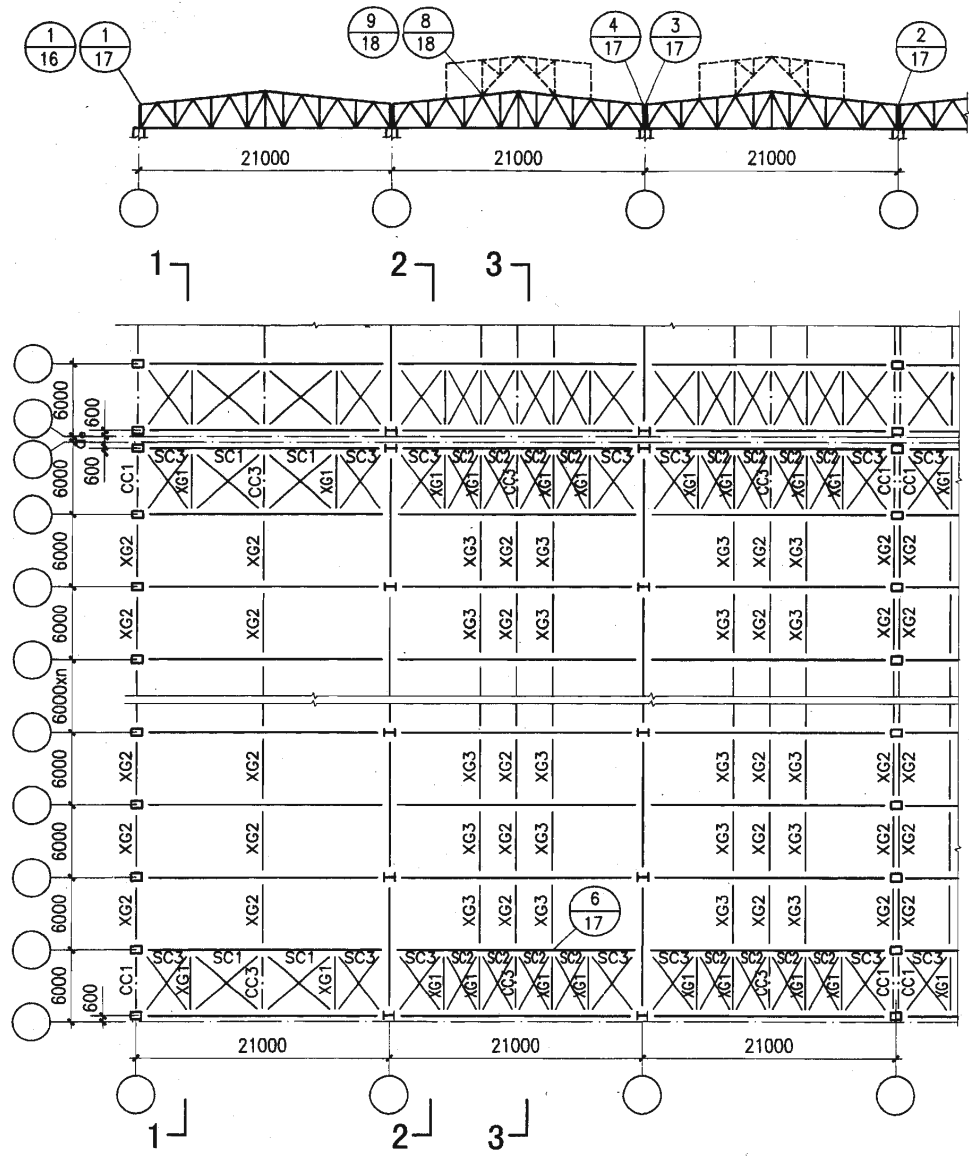
屋架下弦支撑构件编号图(二)  
(用于8、9度区)



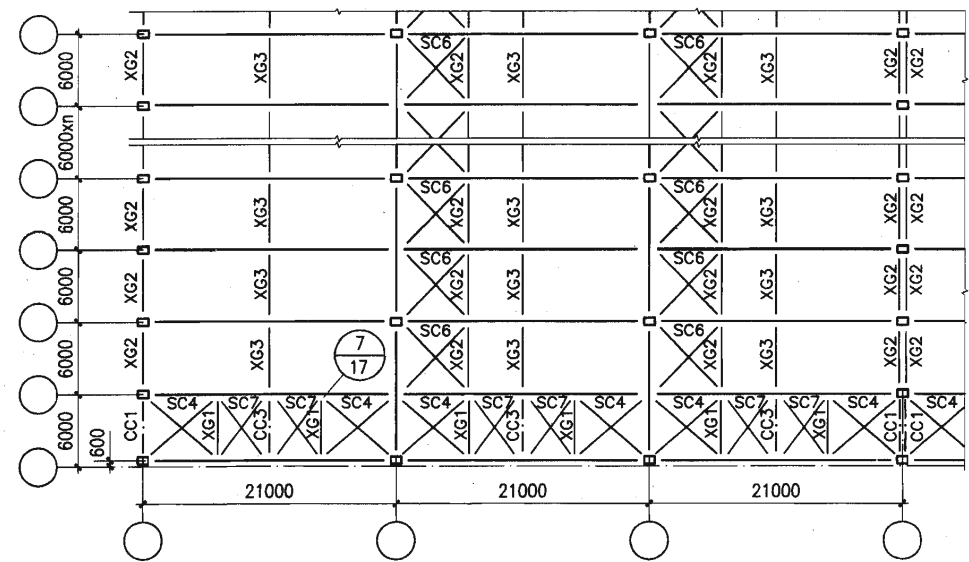
4-4

5-5

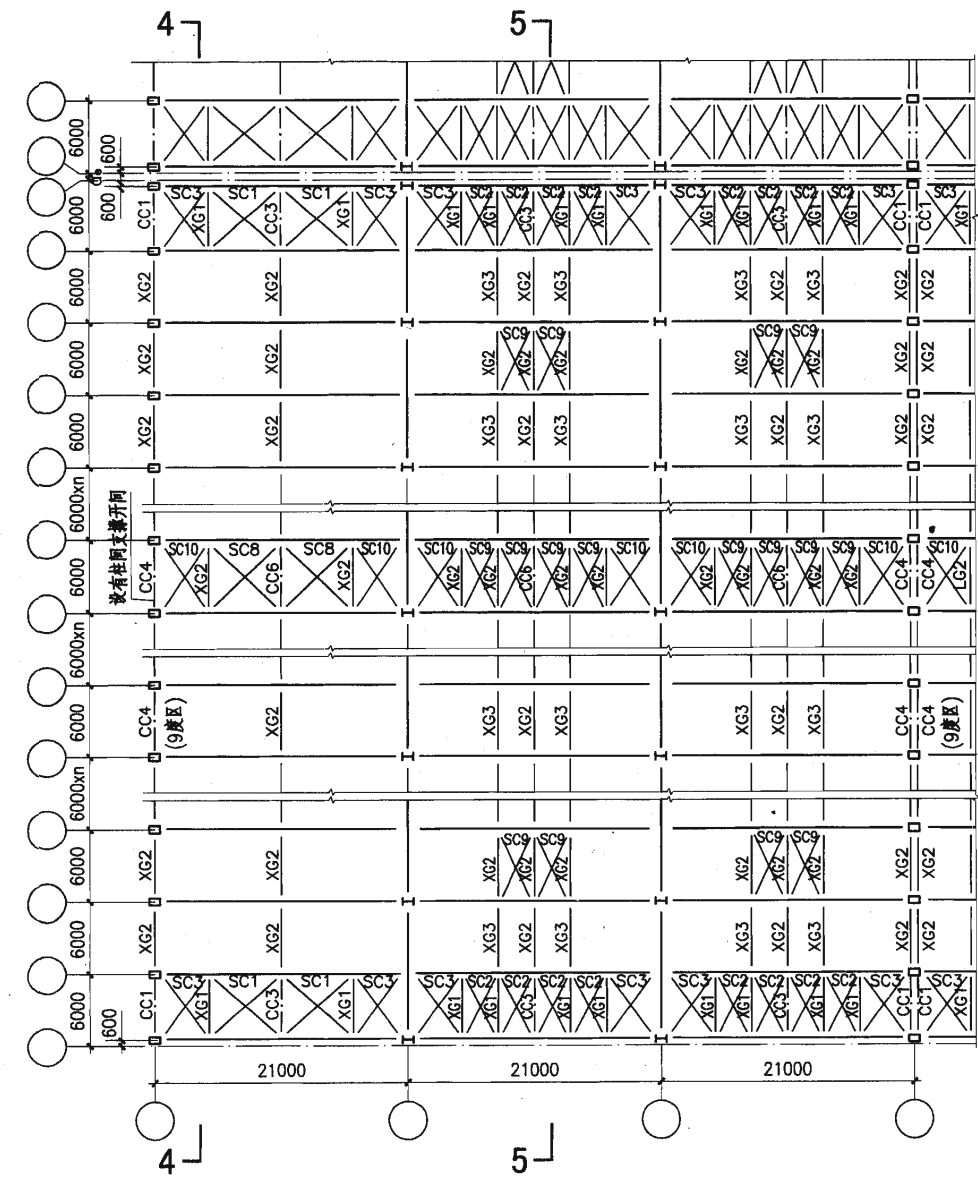
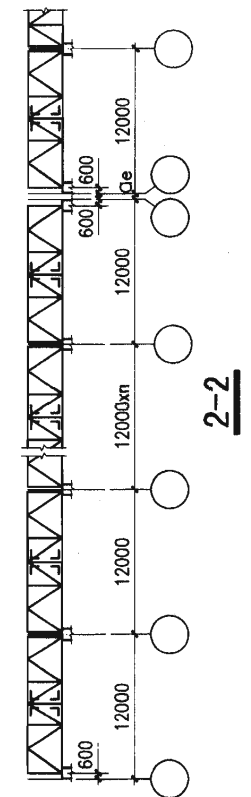
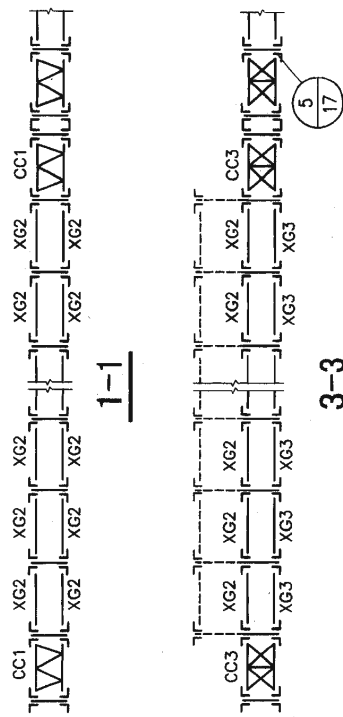
- 注:
1. 本图为支撑编号, 具体工程应按总说明的5.2条编制构件平面图, 做施工之用。
  2. 屋架编号和选用方法见总说明。
  3. 本图中点划线——表示竖向支撑。
  4. 9度区, 每隔30m各设一道屋架端部竖向支撑, 且在天窗开洞范围的两端再增设局部的下弦横向支撑。



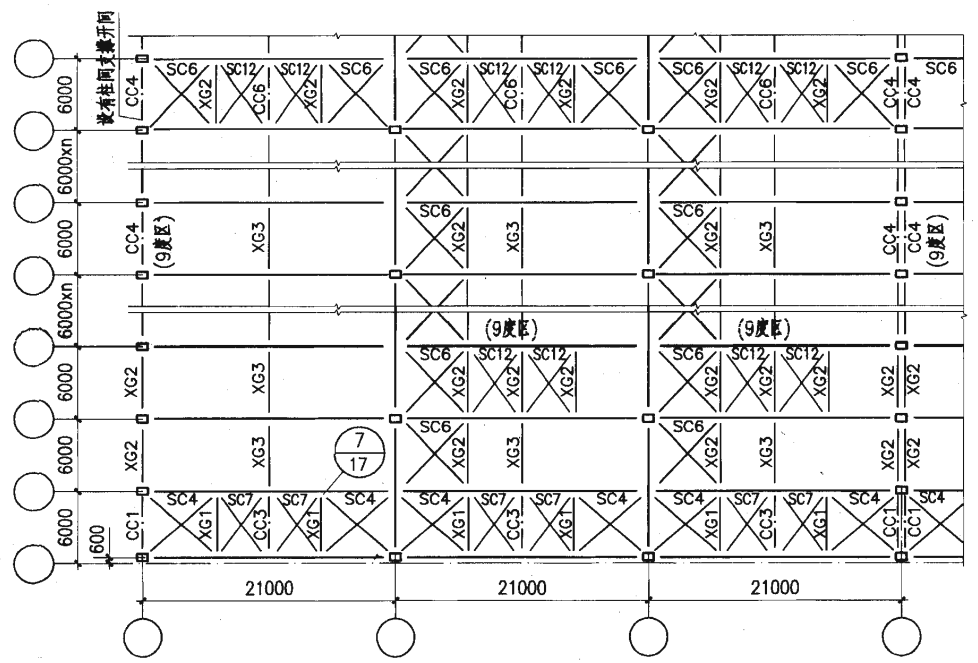
屋架上弦支撑构件编号图 (一)  
(用于非抗震设计及 6、7 度区)



屋架下弦支撑构件编号图 (一)  
(用于非抗震设计及 6、7 度区)



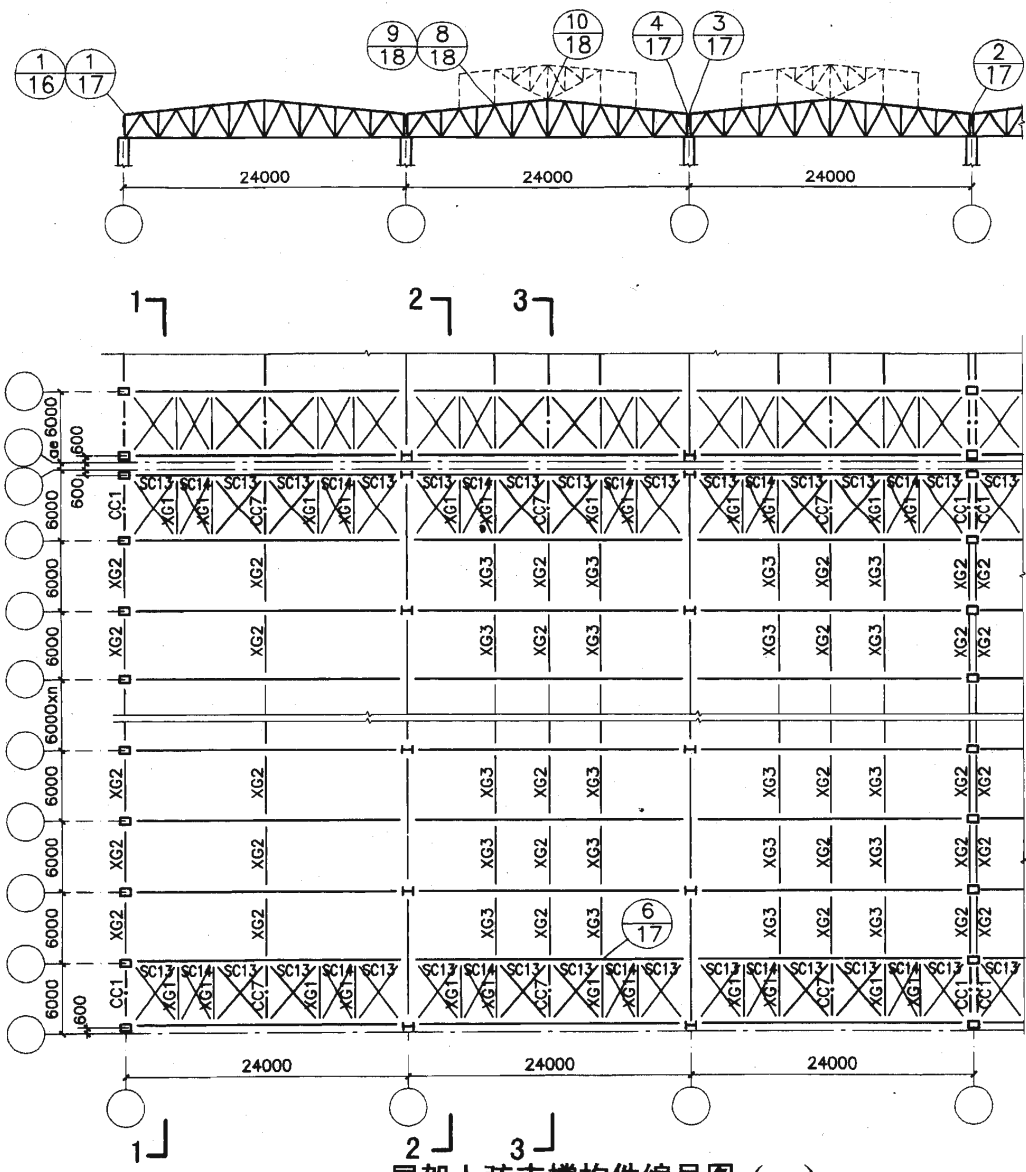
屋架上弦支撑构件编号图 (二)  
(用于 8、9 度区)



屋架下弦支撑构件编号图 (二)  
(用于 8、9 度区)

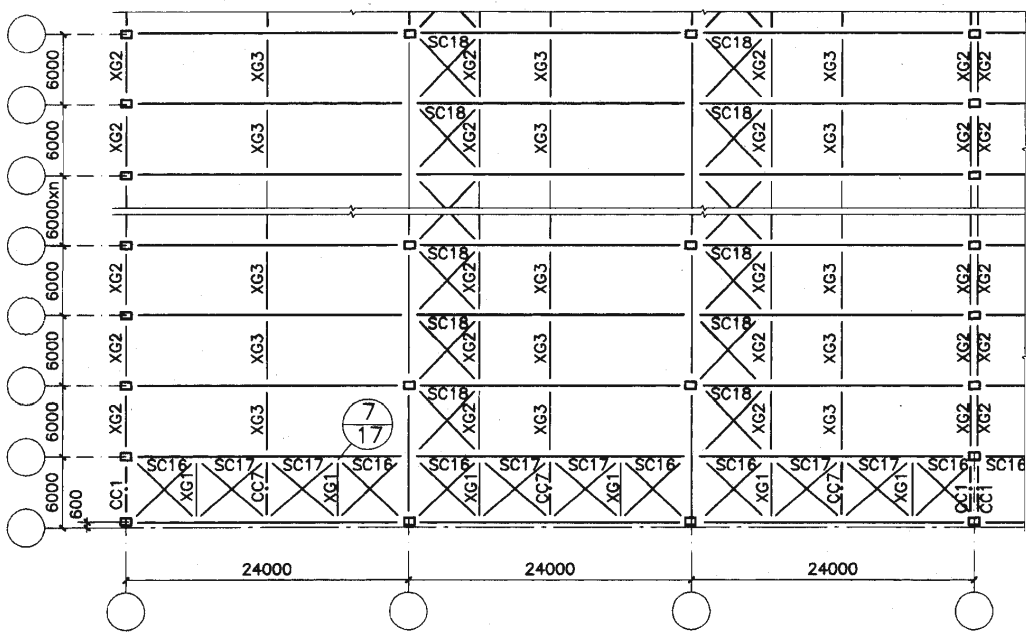
注:

1. 本图为支撑编号, 具体工程应按总说明的 5.2 编制构件平面图, 做施工之用。
2. 屋架编号和选用方法见总说明。
3. 本图中点划线——表示竖向支撑。
4. 9 度区每隔 30m 各设一道屋架端部竖向支撑, 且在天窗开洞范围的两端再增设局部的下弦横向支撑。



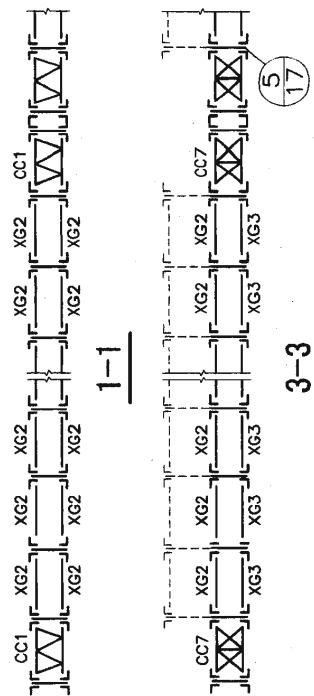
屋架上弦支撑构件编号图 (一)

(用于非抗震设计及 6、7 度区)

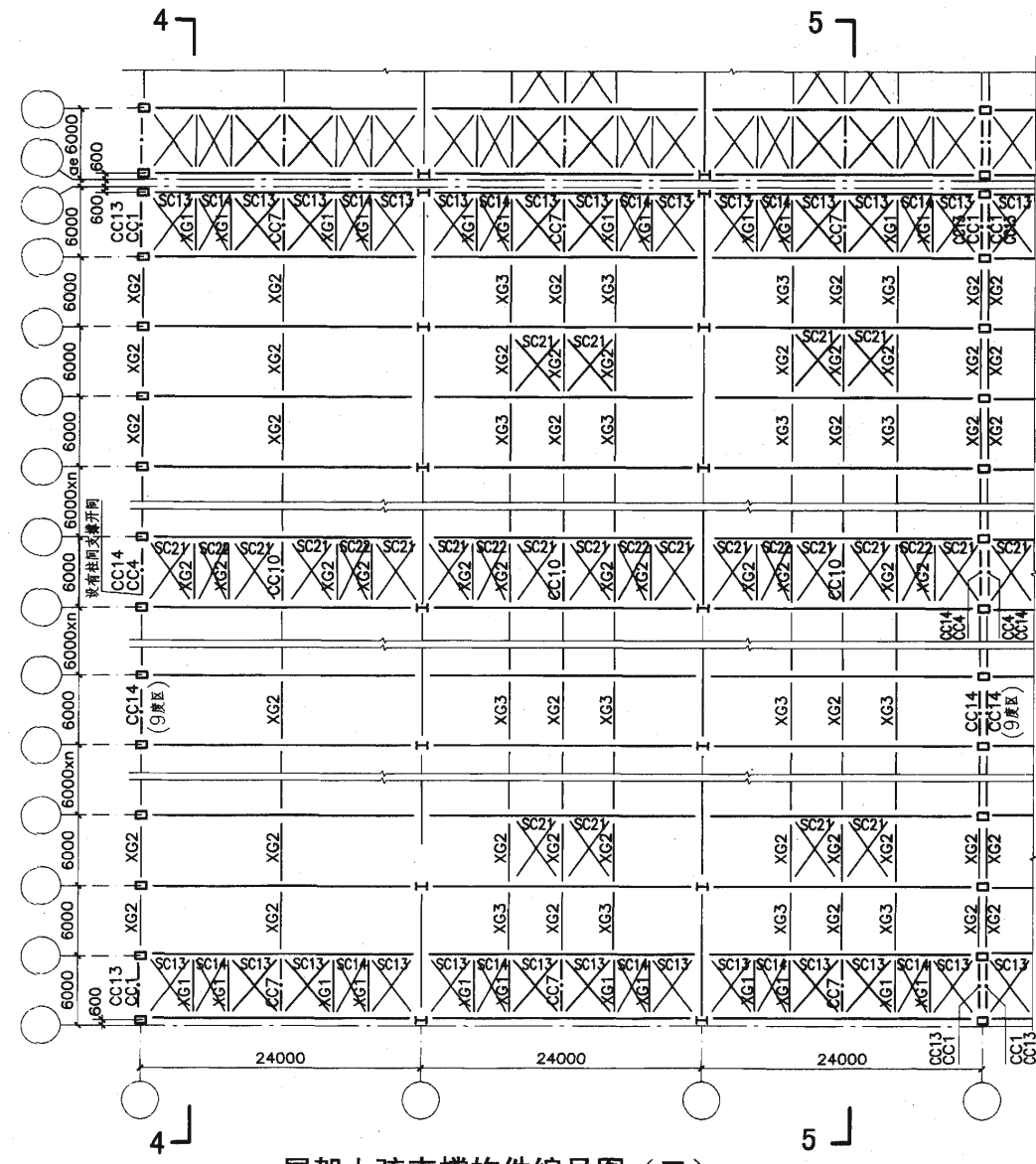


屋架下弦支撑构件编号图 (一)

(用于非抗震设计及 6、7 度区)

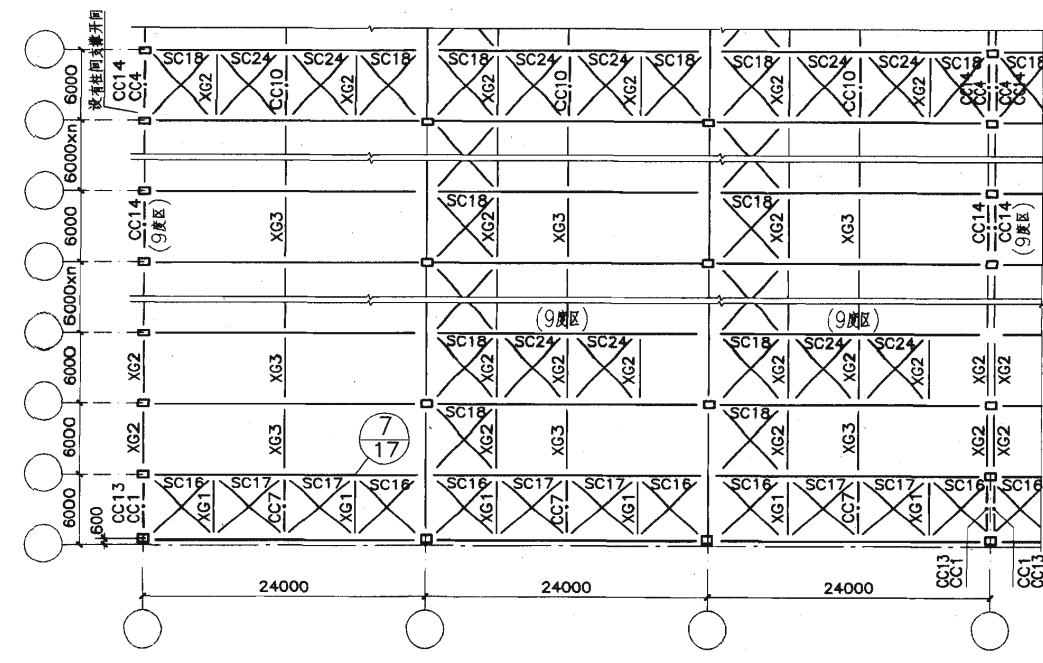


2-2



屋架上弦支撑构件编号图 (二)

(用于 8、9 度区)



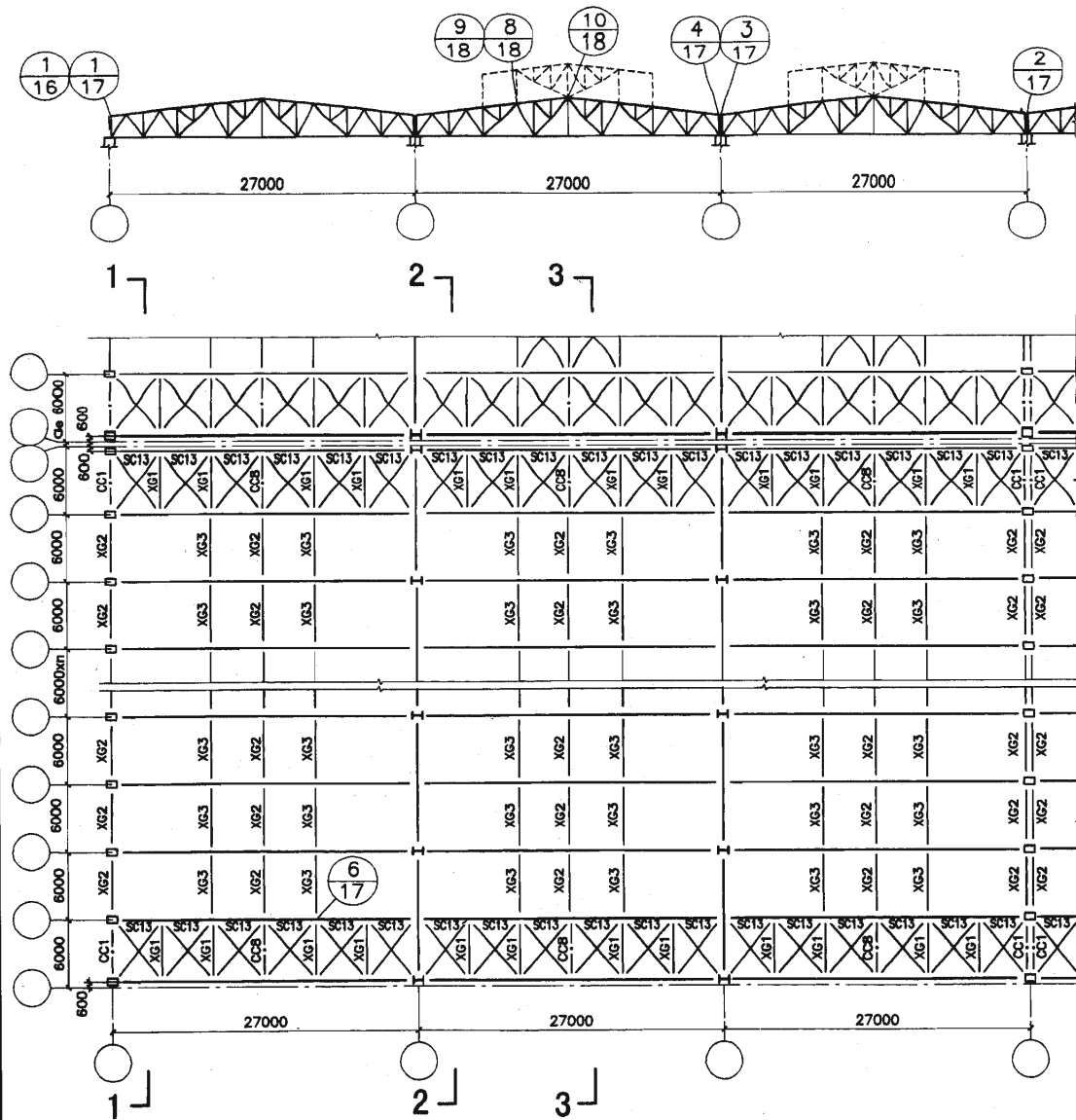
屋架下弦支撑构件编号图 (二)

(用于 8、9 度区)

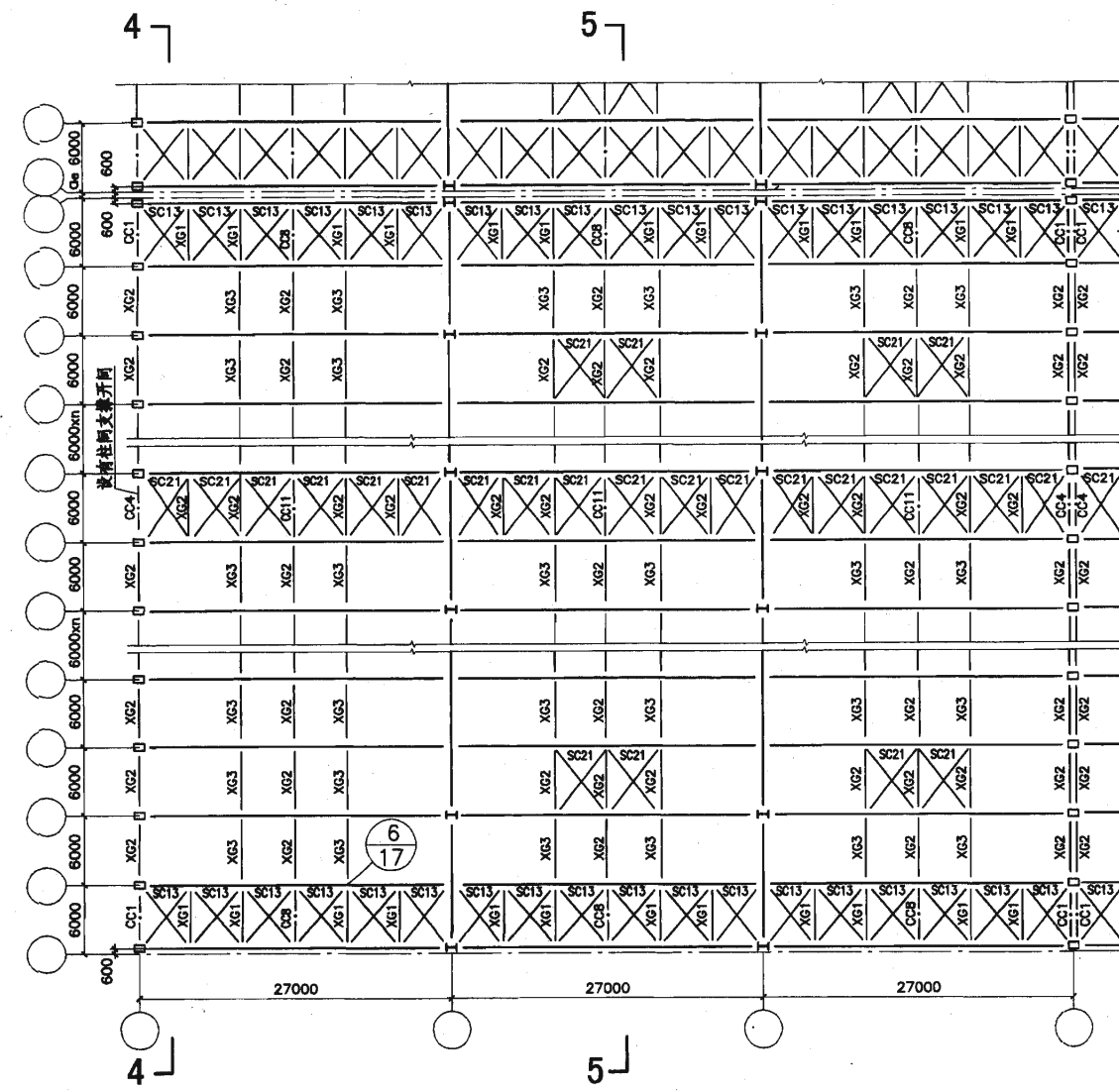
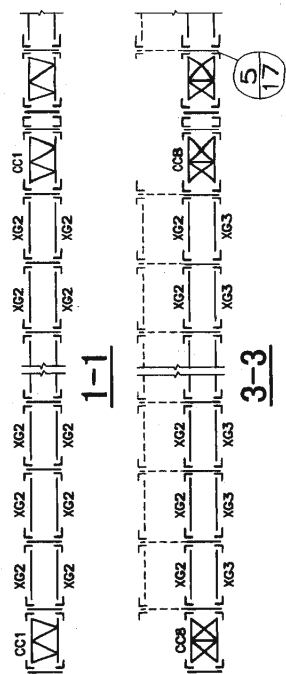
注:

1. 本图为支撑编号, 具体工程应按总说明的 5.2 编制构件平面图, 做施工之用。
2. 屋架编号和选用方法见总说明。
3. 本图中点划线 —— 表示竖向支撑。
4. 9 度区, 每隔 30m 各设一道屋架端部竖向支撑, 且在天窗开洞范围的两端再增设局部的下弦横向支撑。
5. 8、9 度区屋架端部竖向支撑在厂房单元端间分别采用 CC1, CC13; 在厂房单元中部开间分别采用 CC4, CC14;
6. 本图 8 度区适用于设计基本地震加速度为 0.2g 的地区; 当为 0.3g 时, 应按 9 度区的支撑布置和编号。

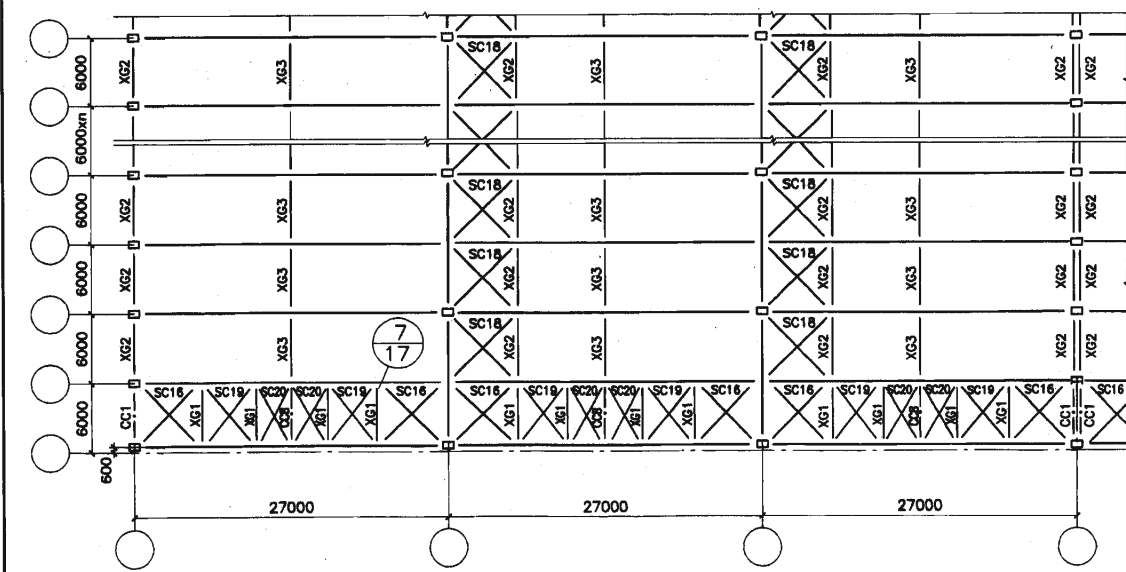
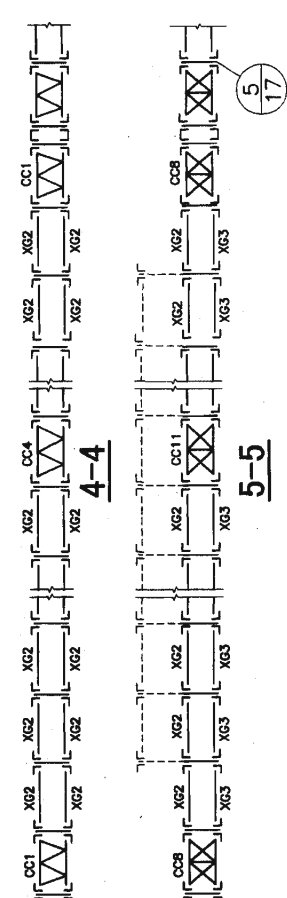




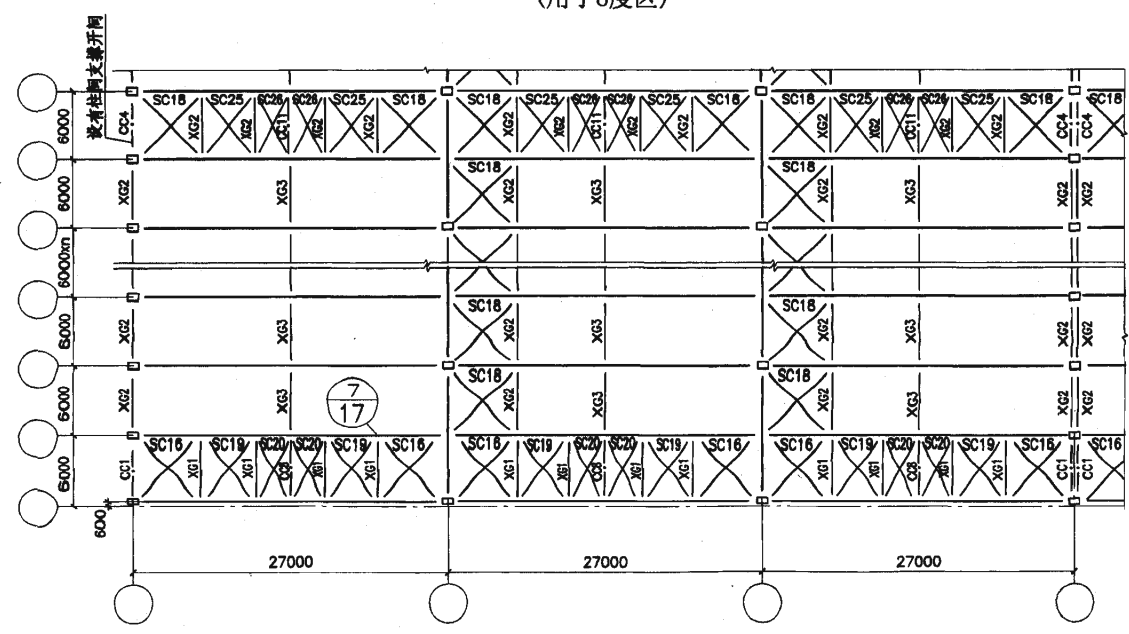
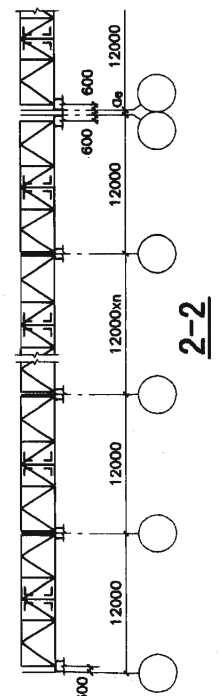
屋架上弦支撑构件编号图 (一)  
(用于非抗震设计及 6、7 度区)



屋架上弦支撑构件编号图 (二)  
(用于 8 度区)

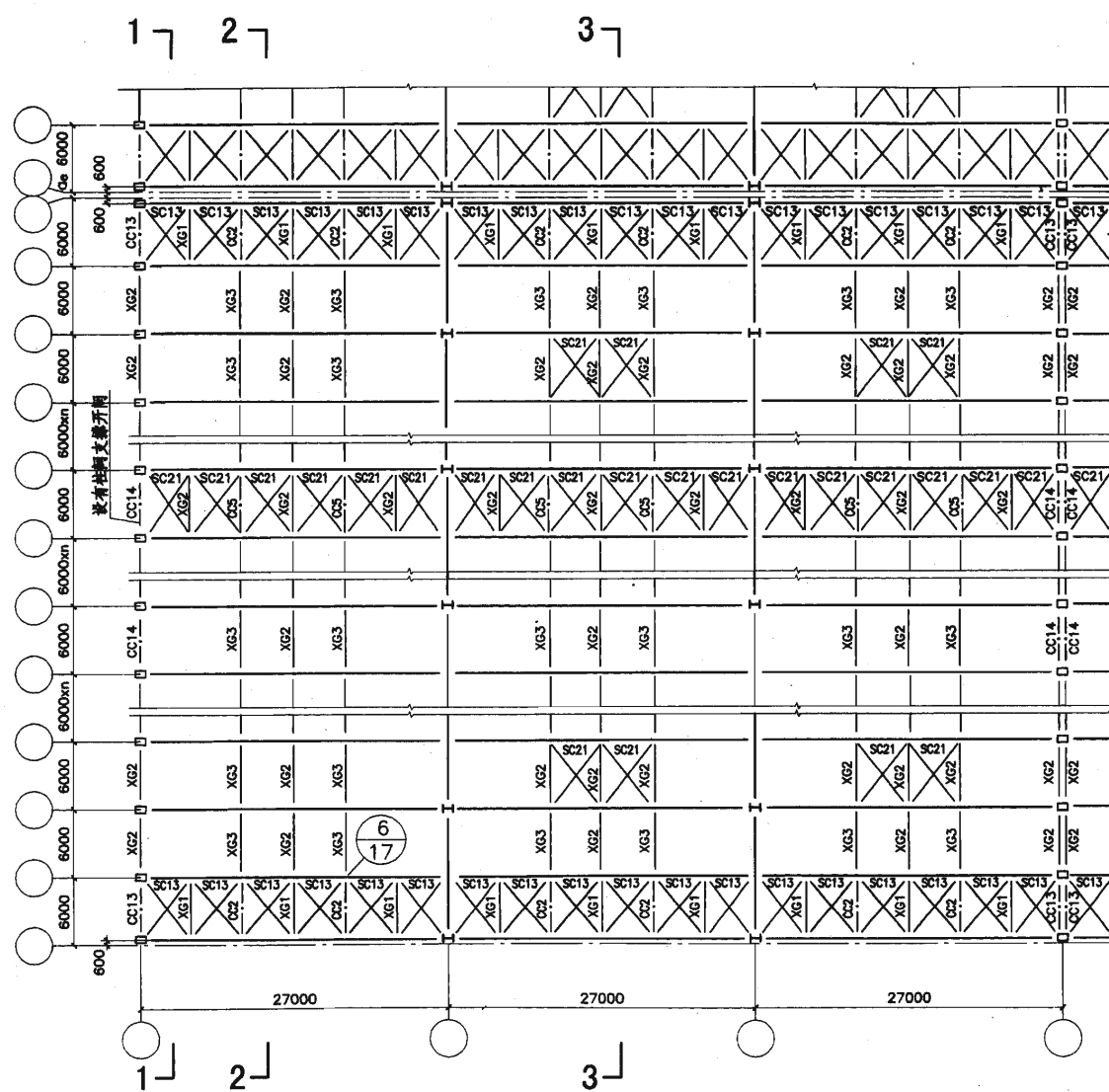
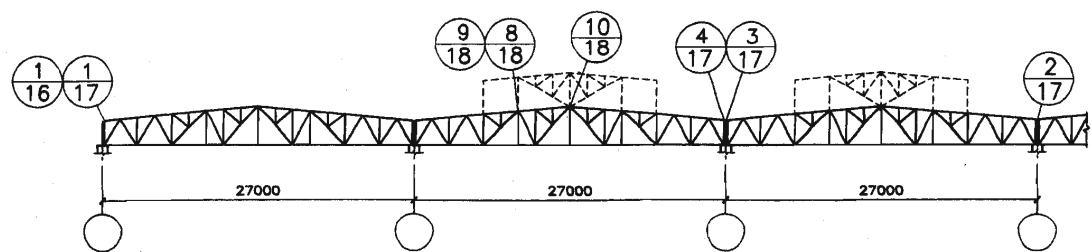


屋架下弦支撑构件编号图 (一)  
(用于非抗震设计及 6、7 度区)

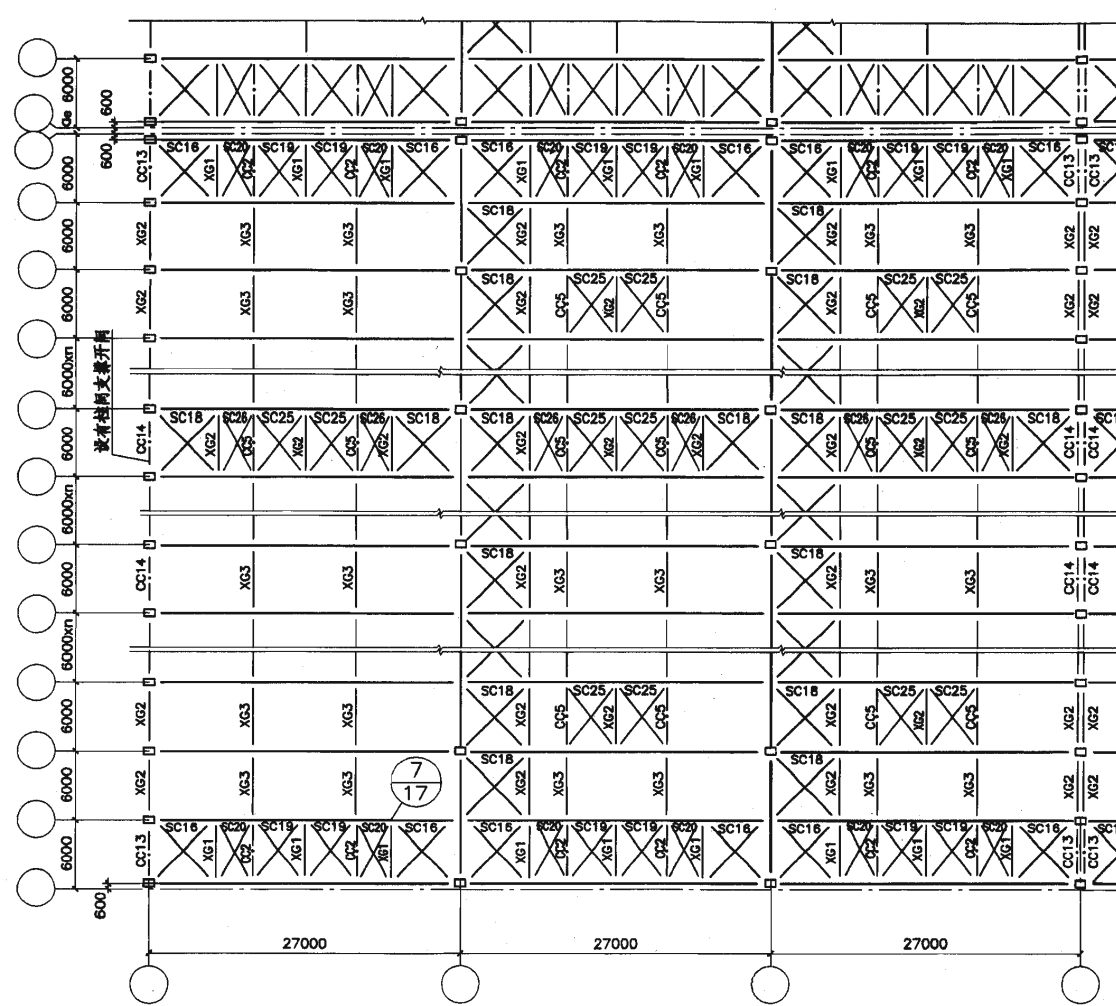
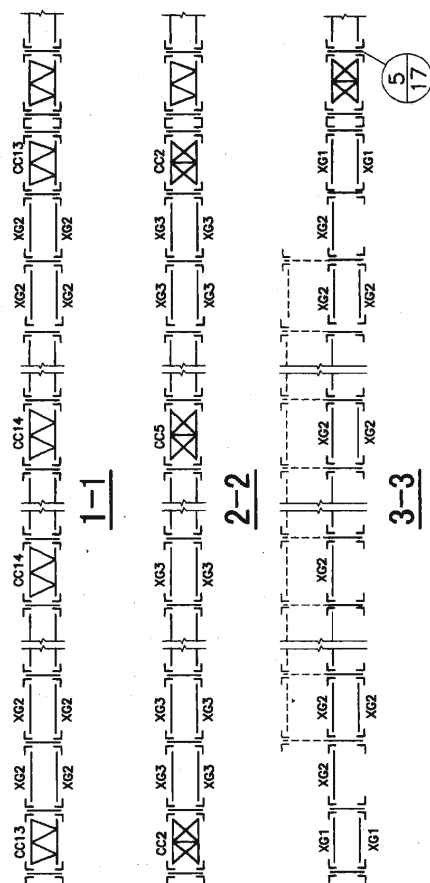


屋架下弦支撑构件编号图 (二)  
(用于 8 度区)

- 注:
1. 本图为支撑编号, 具体工程应按总说明的 5.2 编制构件平面图, 做施工之用。
  2. 屋架编号和选用方法见总说明。
  3. 本图中点划线——表示竖向支撑。
  4. 本图 8 度区适用于设计基本地震加速度为 0.2g, 当为 0.3g 时, 应按 9 度区的支撑布置和编号。



屋架上弦支撑构件编号图 (三)  
(用于9度区)

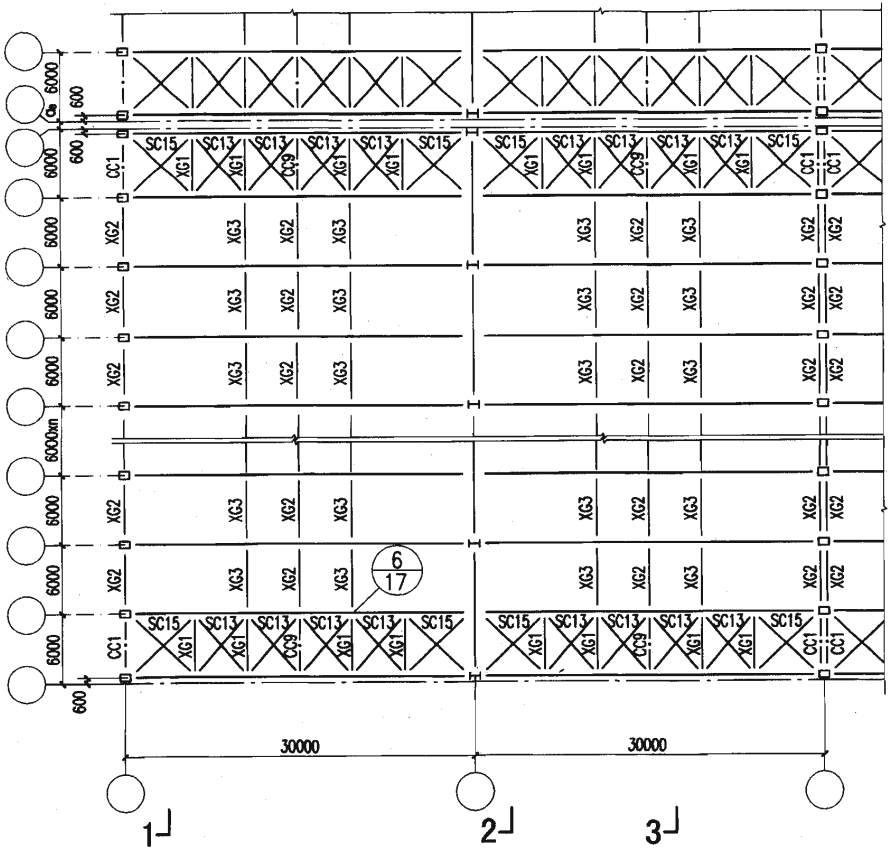
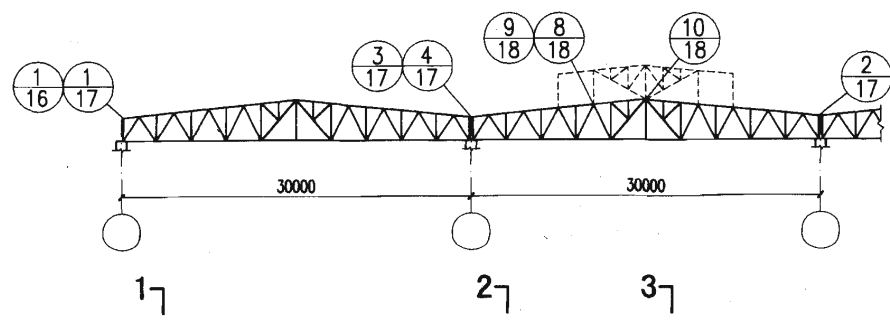


屋架下弦支撑构件编号图 (三)  
(用于9度区)

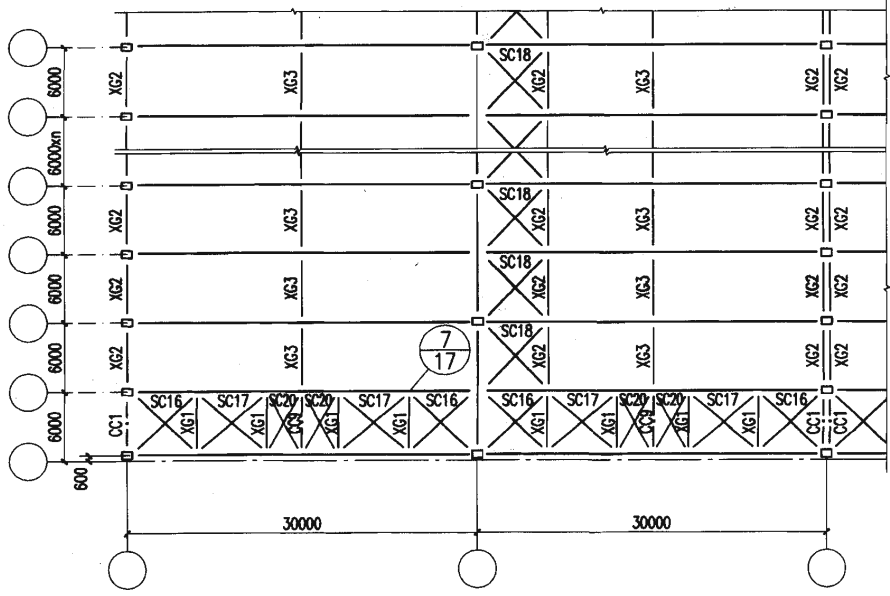
注:

1. 本图为支撑编号, 具体工程应按总说明的5.2编制构件平面图, 做施工之用。
2. 屋架编号和选用方法见总说明。
3. 本图中点划线 —— 表示竖向支撑。
4. 9度区, 每隔30m各设一道屋架端部支撑, 且在天窗开洞范围的两端再增设局部的上、下弦横向支撑。

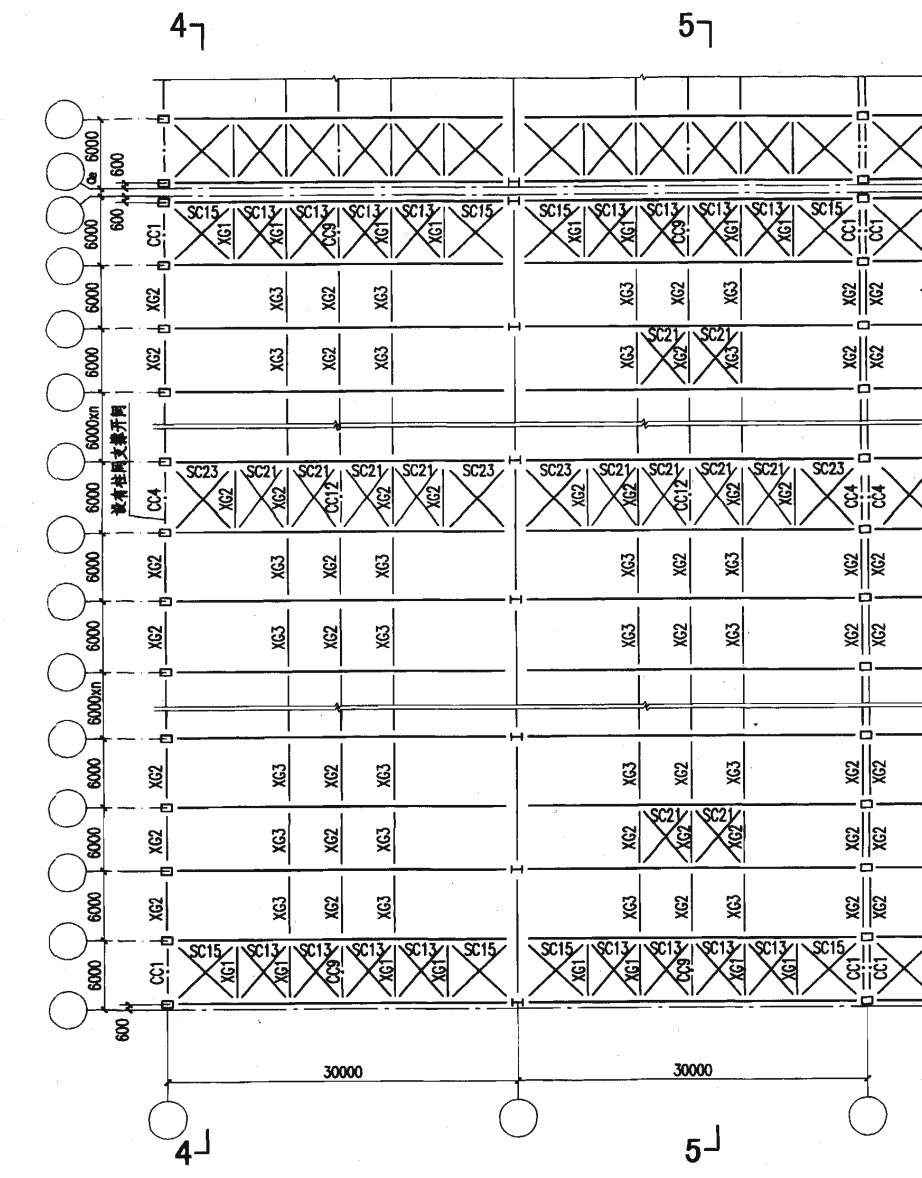
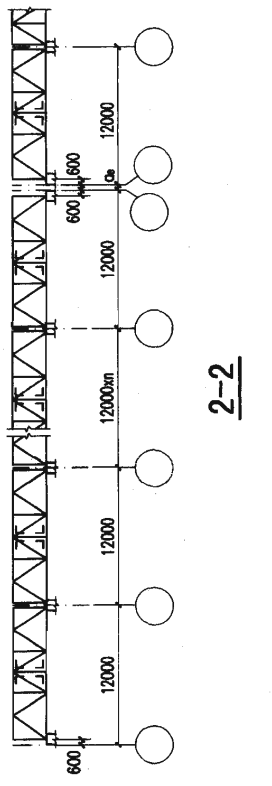
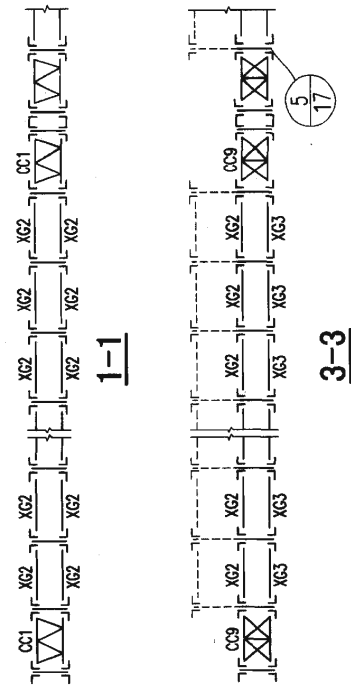
|                            |   |     |        |
|----------------------------|---|-----|--------|
| 27m屋架支撑构件编号图 (三)           |   | 图样号 | 05G511 |
| 审核 冯东 冯东 校对 张丽娟 张丽娟 设计 李志通 | 页 | 10  |        |



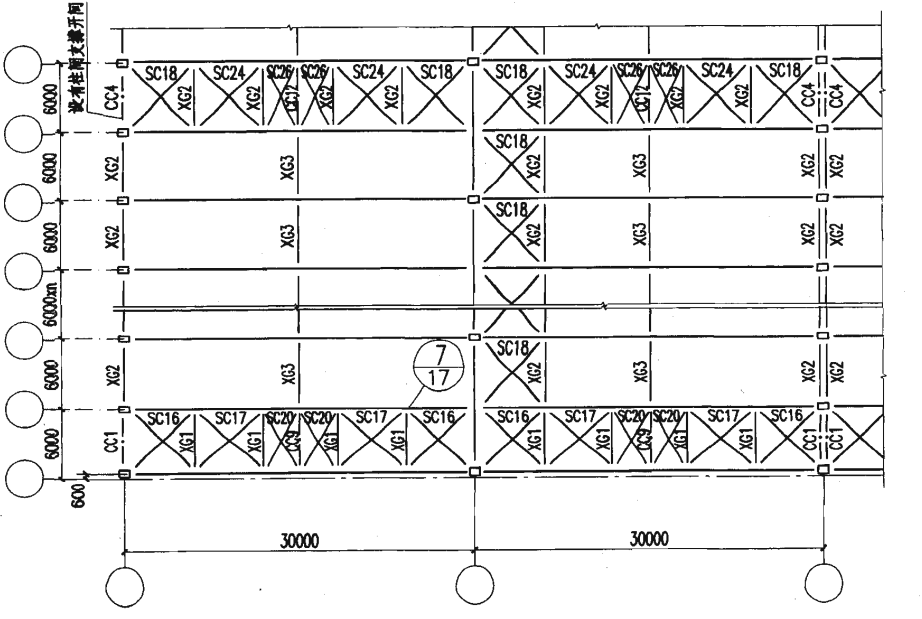
屋架上弦支撑构件编号图 (一)  
(用于非抗震设计及6、7度区)



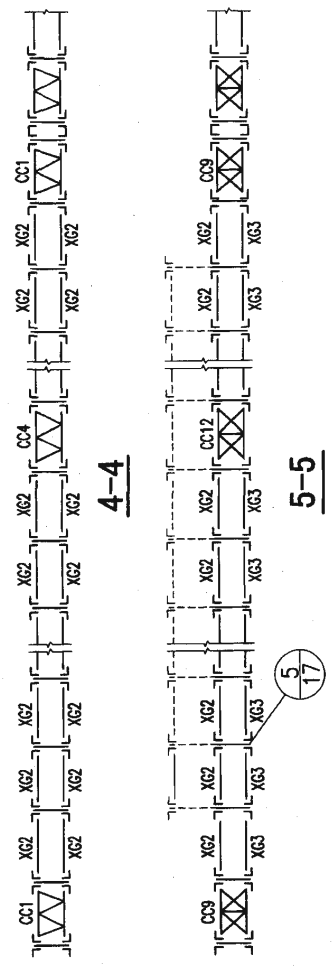
屋架下弦支撑构件编号图 (一)  
(用于非抗震设计及6、7度区)



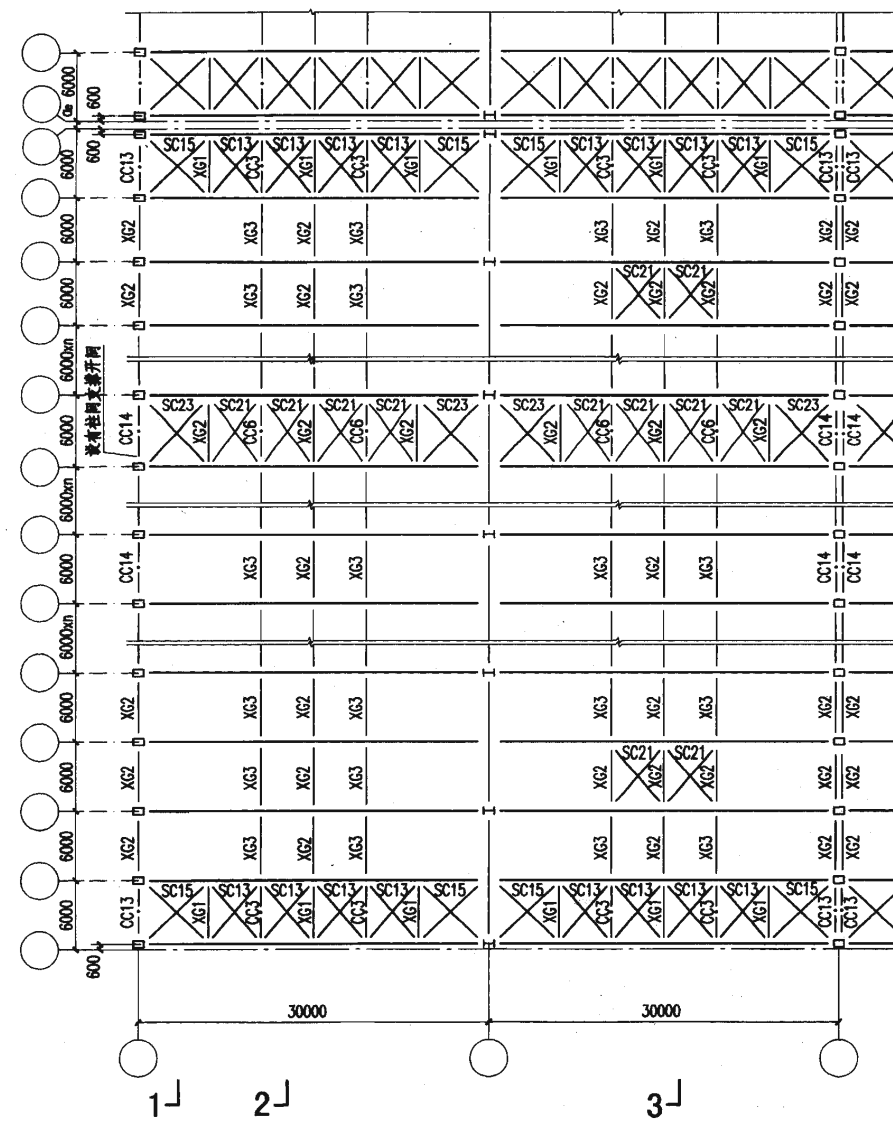
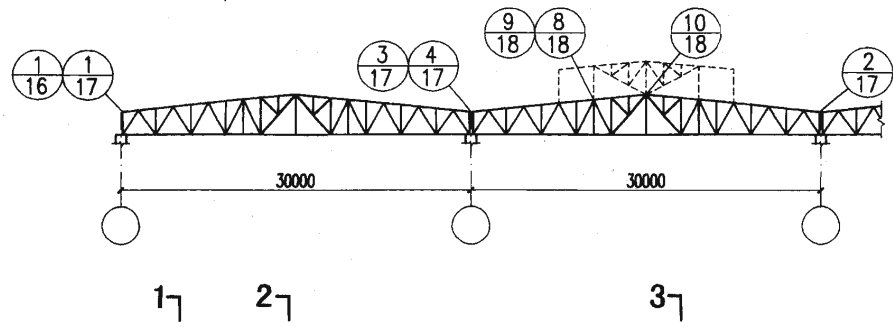
屋架上弦支撑构件编号图 (二)  
(用于8度区)



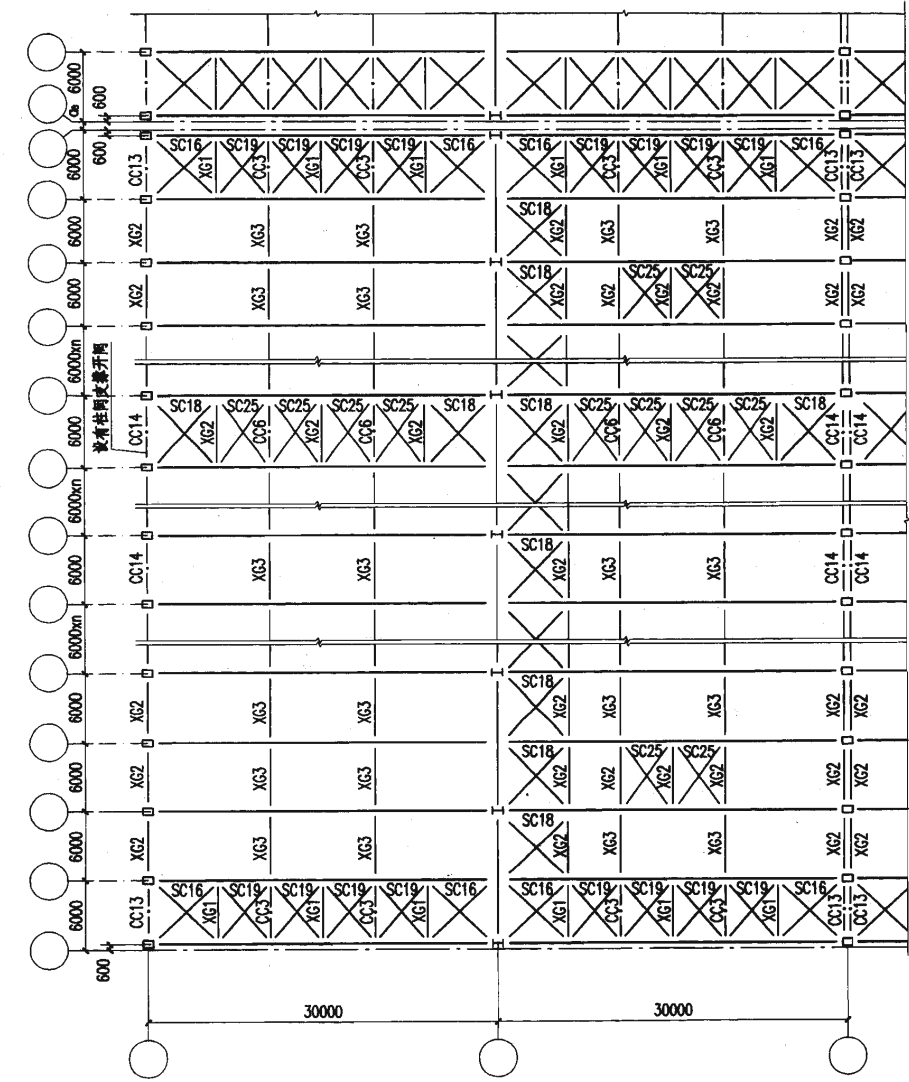
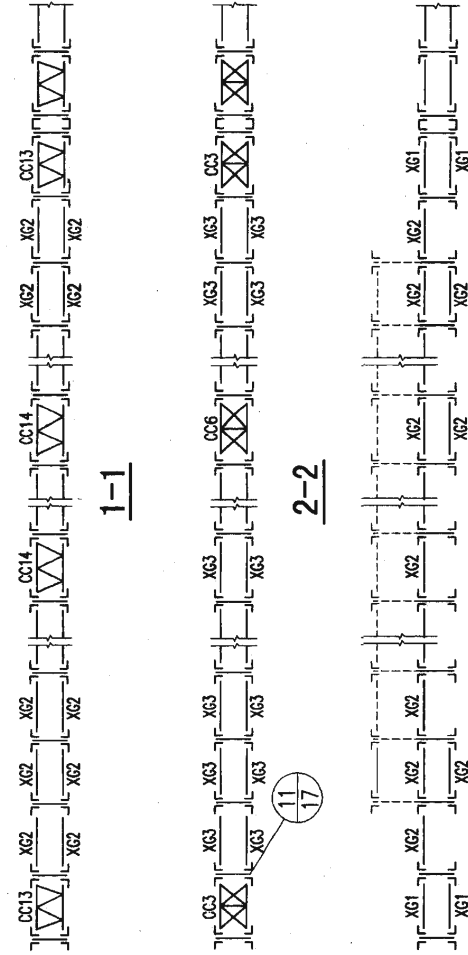
屋架下弦支撑构件编号图 (二)  
(用于8度区)



- 注:
1. 本图为支撑编号, 具体工程应按总说明的 5.2 条编制构件平面图, 做施工之用。
  2. 屋架编号和选用方法见总说明。
  3. 本图中点划线 —— 表示竖向支撑。
  4. 本图 8 度区适用于设计基本地震加速度为 0.29, 当其为 0.39 时, 应按 9 度区的支撑布置和编号。



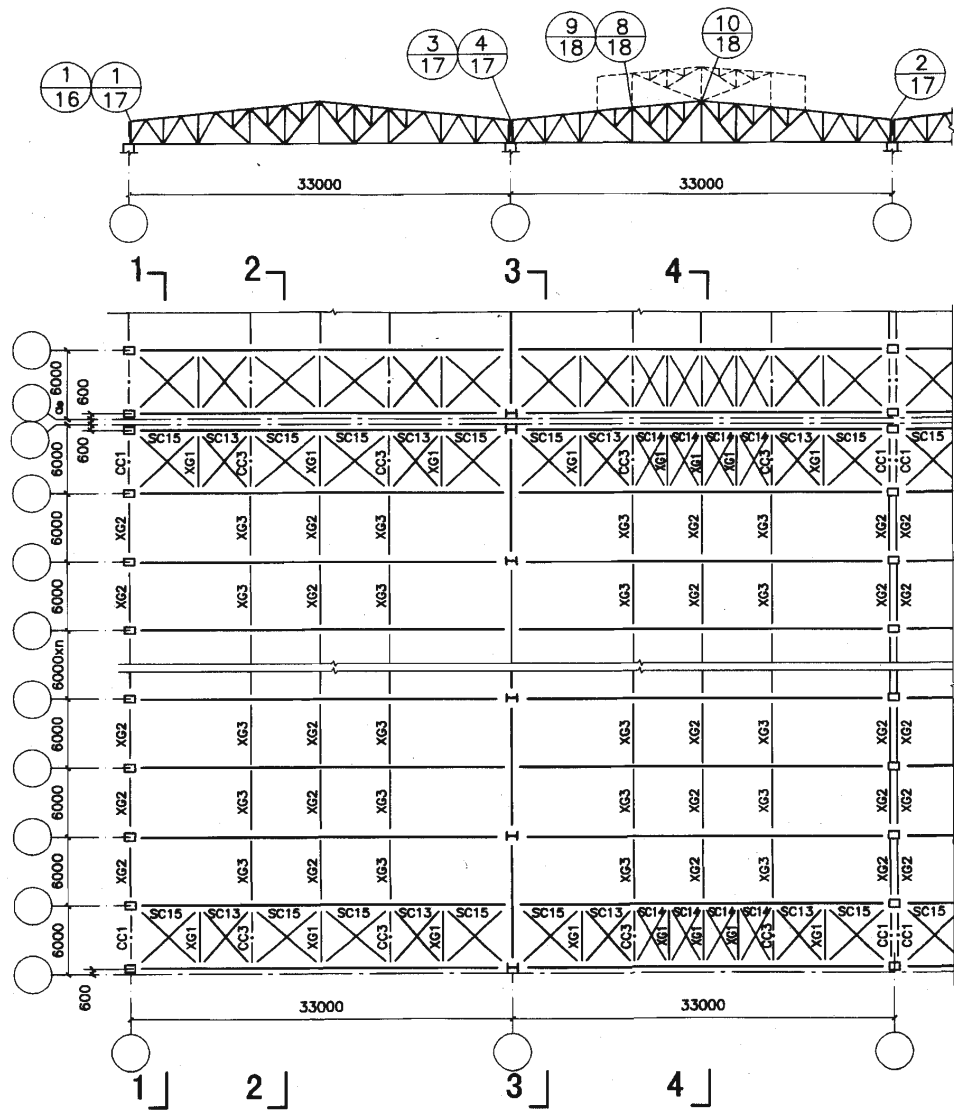
屋架上弦支撑构件编号图 (三)  
(用于9度区)



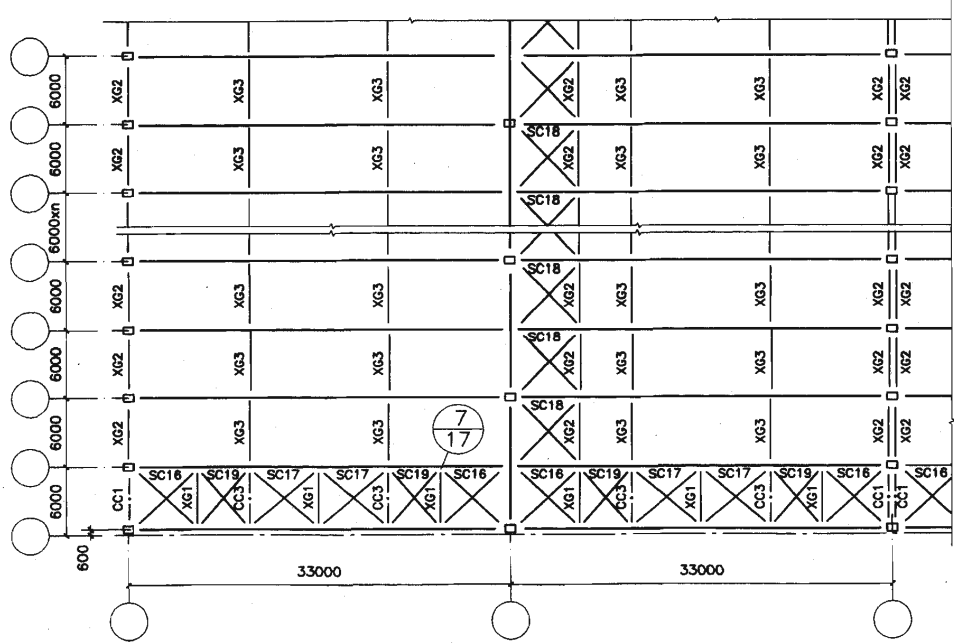
屋架下弦支撑构件编号图 (三)  
(用于9度区)

注:

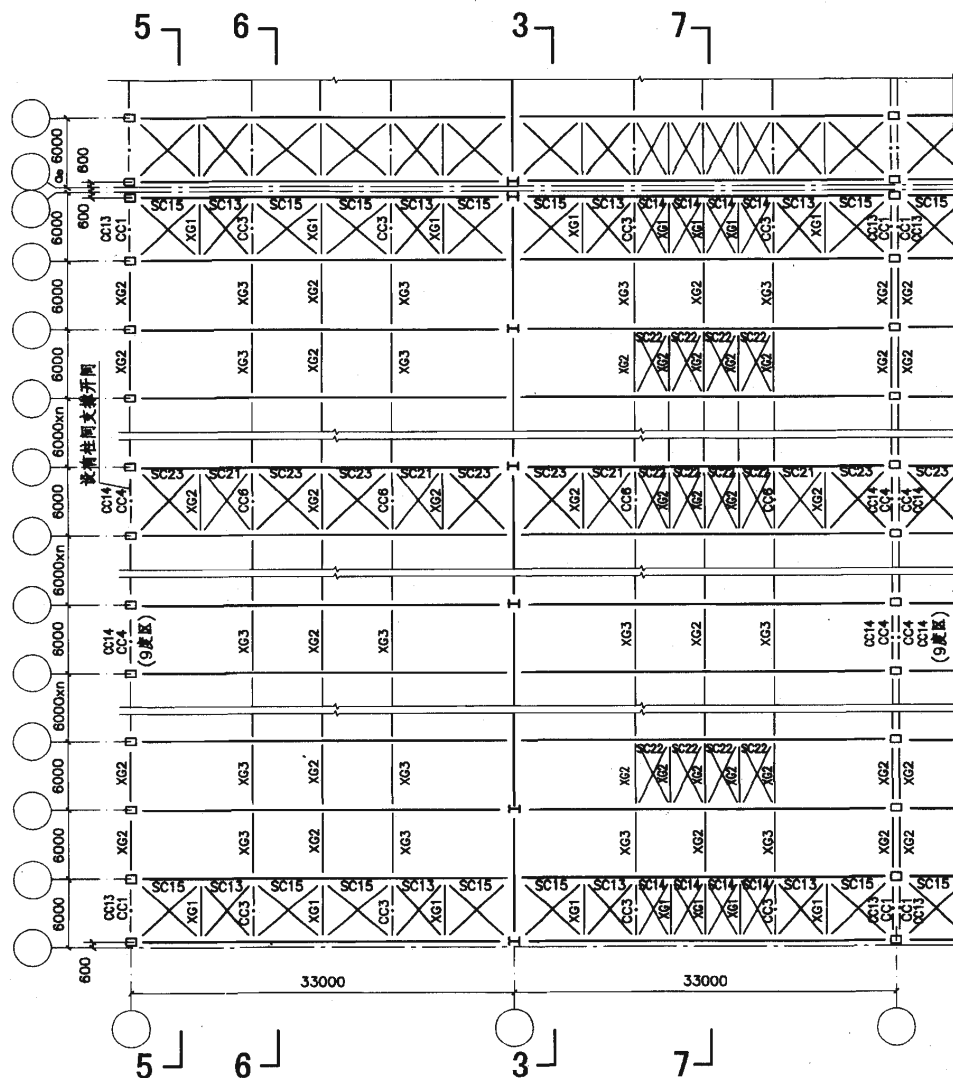
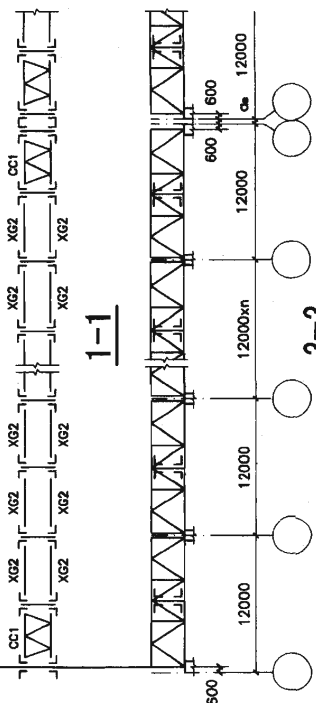
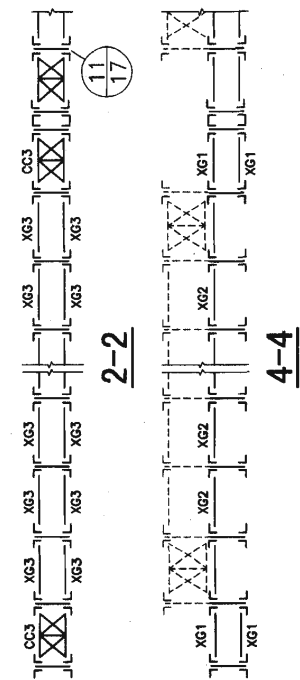
1. 本图为支撑编号, 具体工程应按总说明的5.2条编制构件平面图, 做施工之用。
2. 屋架编号和选用方法见总说明。
3. 本图中点划线 —— 表示竖向支撑。
4. 9度区, 每隔30m各设一道屋架端部竖向支撑, 且在天窗开洞范围的两端各增设局部的上下弦横向支撑。



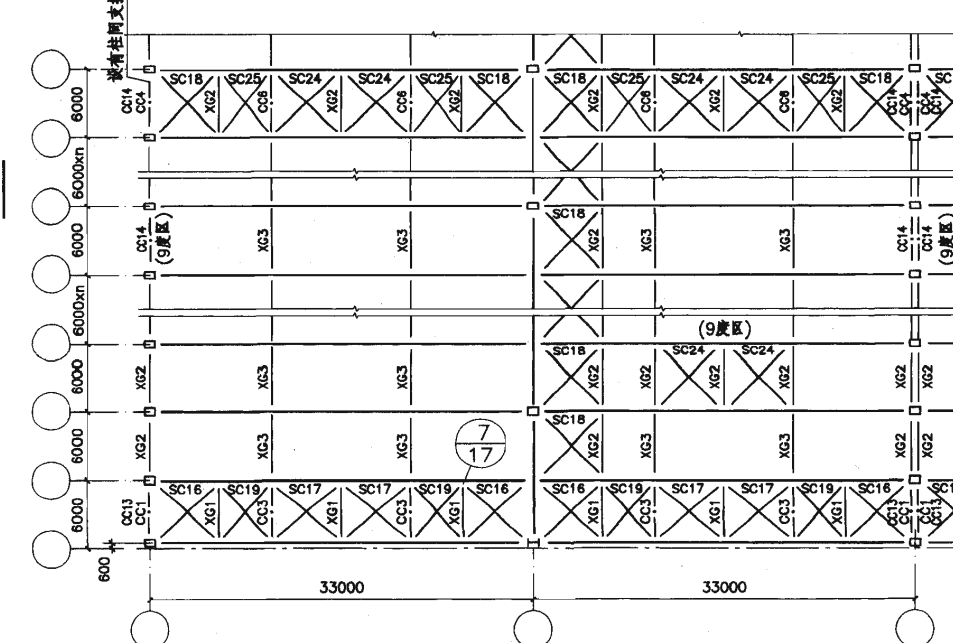
屋架上弦支撑构件编号图 (一)  
(用于非抗震设计及 6、7度区)



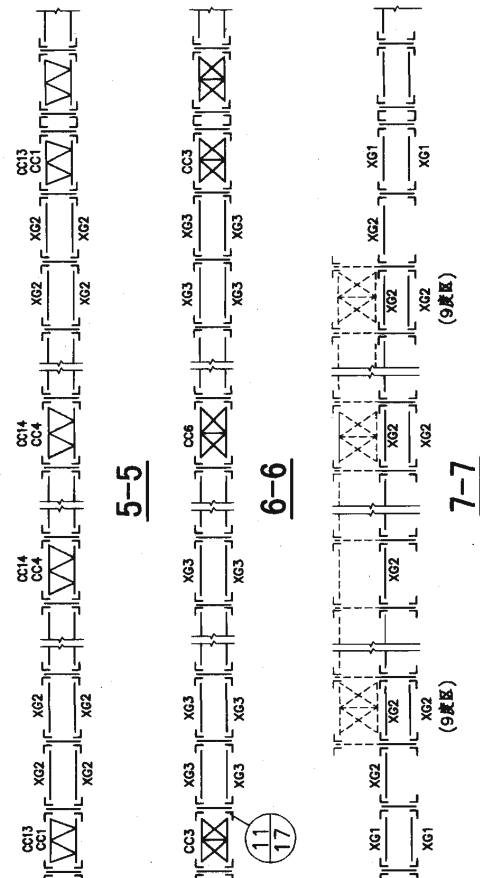
屋架下弦支撑构件编号图 (一)  
(用于非抗震设计及 6、7度区)



屋架上弦支撑构件编号图 (二)  
(用于 8、9度区)



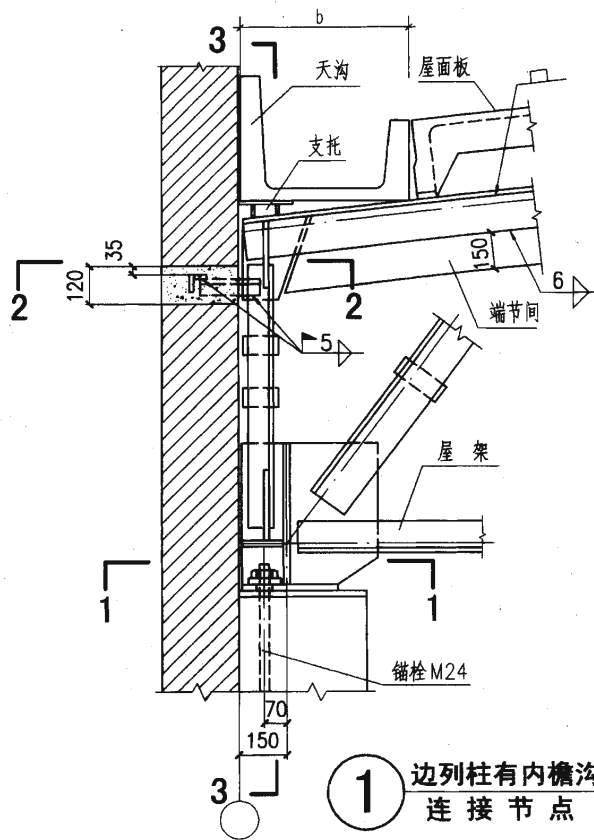
屋架下弦支撑构件编号图 (二)  
(用于 8、9度区)



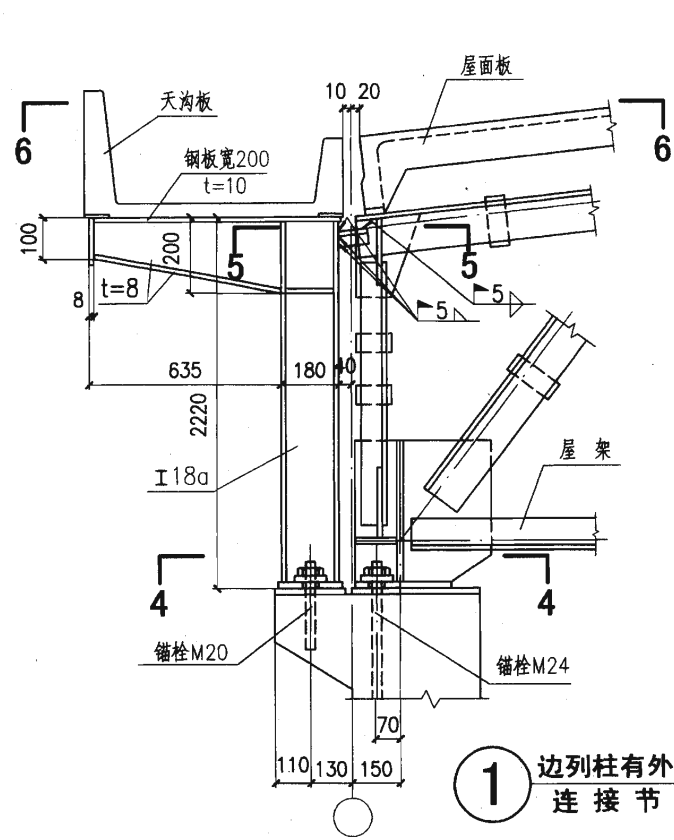
- 注:
1. 本图为支撑编号, 具体工程应按总说明的 5.2 编制构件平面图, 做施工之用。
  2. 屋架编号和选用方法见总说明。
  3. 本图中点划线 —— 表示竖向支撑。
  4. 9度区, 每隔 30m 各设一道屋架端部竖向支撑, 且在天窗开洞范围的两端再增设局部的下弦横向支撑。
  5. 8、9度区, 屋架端部的竖向支撑, 在厂房单元端部开间分别采用 CC1、CC13; 在厂房单元中部开间分别采用 CC4、CC14。
  6. 本图 8 度区适用于设计基本地震加速度为 0.2g, 当为 0.3g 时, 应按 9 度区的支撑布置和编号。



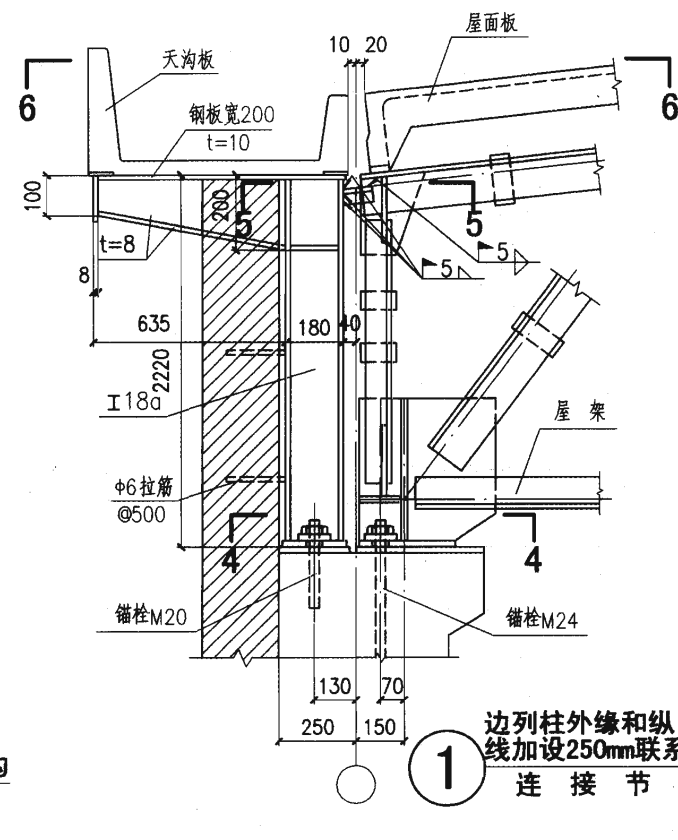




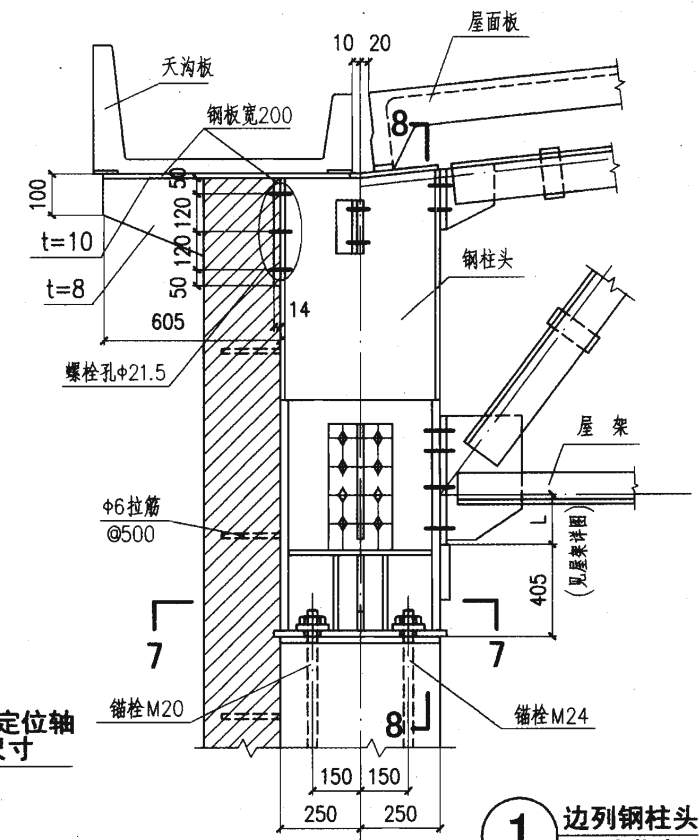
1 边列柱有内檐沟  
连接节点



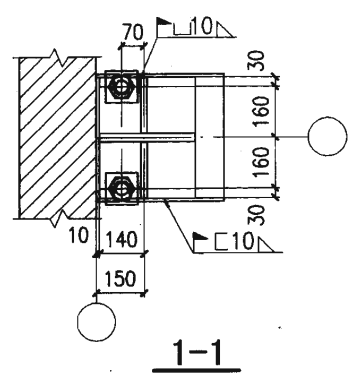
1 边列柱有外檐沟  
连接节点



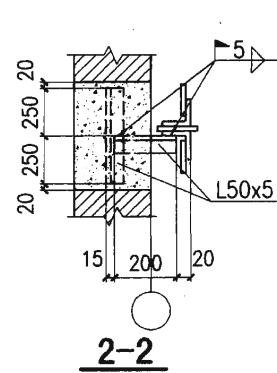
1 边列柱外缘和纵向定位轴  
线加设250mm联系尺寸  
连接节点



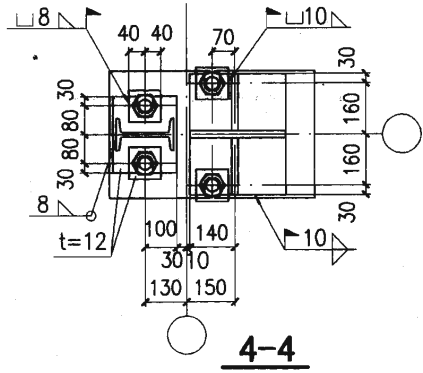
1 边列钢柱头  
连接节点



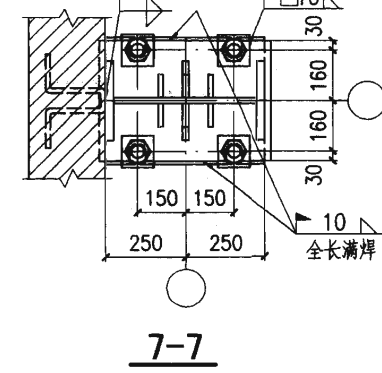
1-1



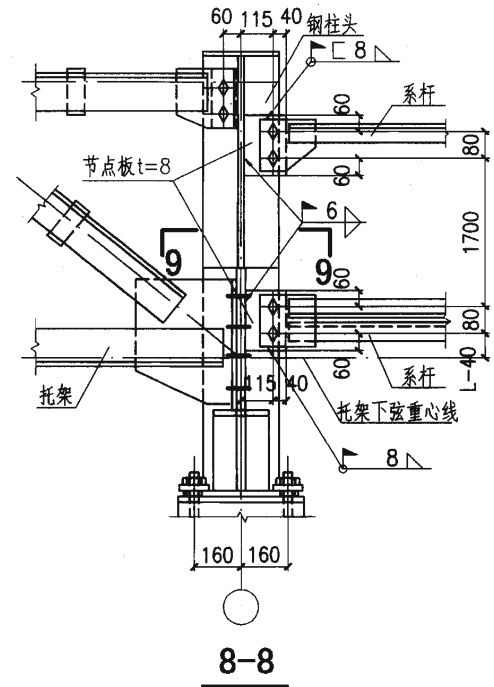
2-2



4-4

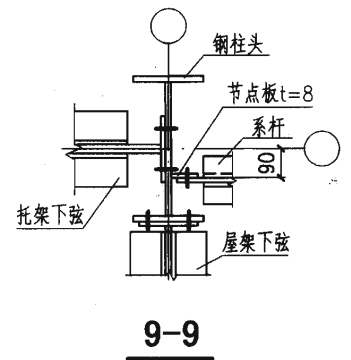


7-7

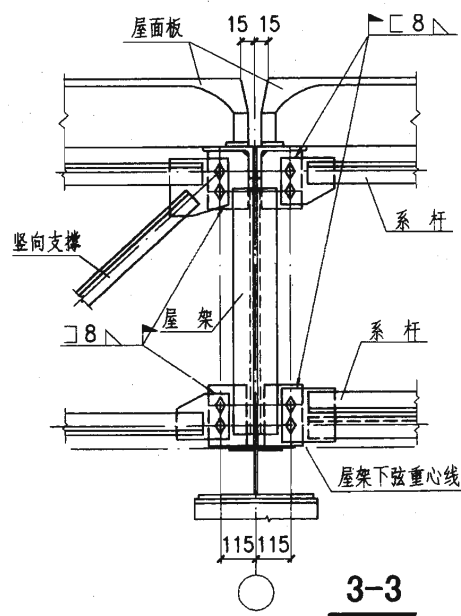


8-8

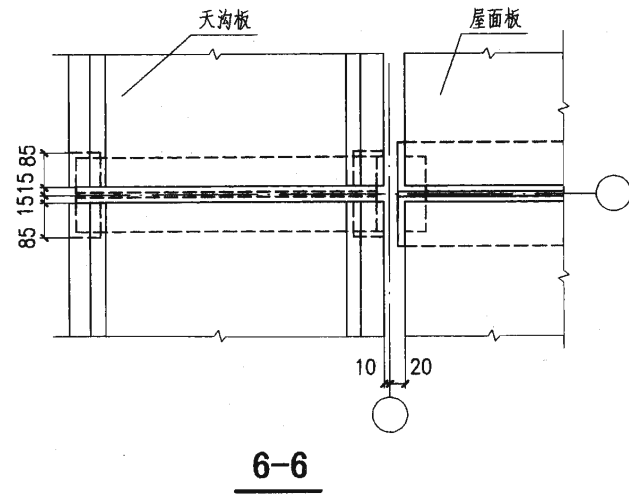
(一边有托架一边设有支撑)



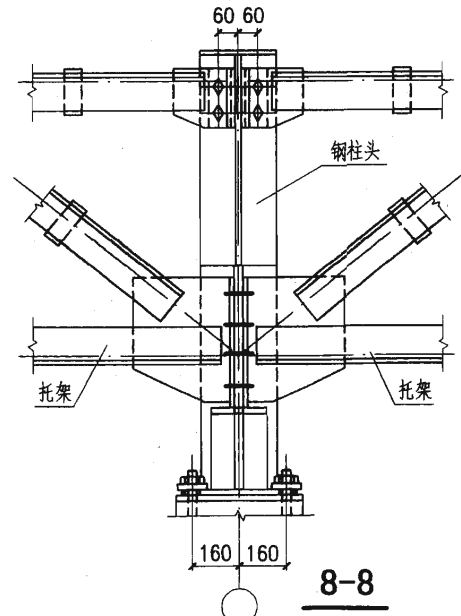
9-9



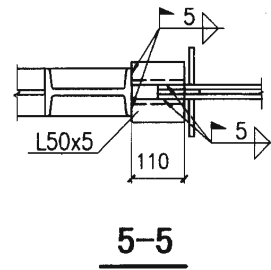
3-3



6-6



8-8



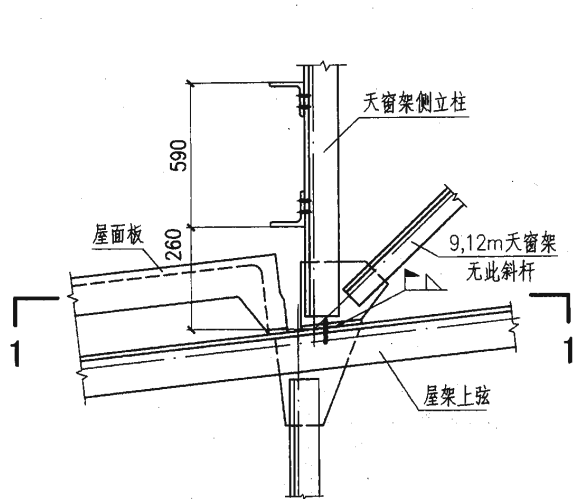
5-5

- 注:
1. 天沟板、屋面板应分别与屋架端部挑梁和屋架上弦保证有三点焊接(厂房端部和伸缩缝处应不少于两点)。焊脚尺寸不小于6mm, 长度不小于80mm。
  2. 剖面8-8中当钢柱头一边有托架, 另一边设有支撑时, 选用者应按图示尺寸在钢柱头上增设节点板。
  3. 未注明的螺栓为M20, 孔径为Φ21.5。
  4. 天沟见04G410-1~2, 宽度按工程设计。

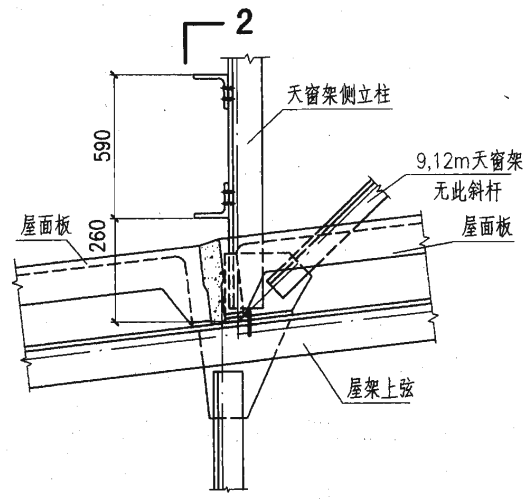
|                 |        |        |        |
|-----------------|--------|--------|--------|
| <b>安装节点图(一)</b> |        | 图集号    | 05G511 |
| 审核 汪一敏          | 设计 纪福宏 | 校对 张利军 | 页 16   |



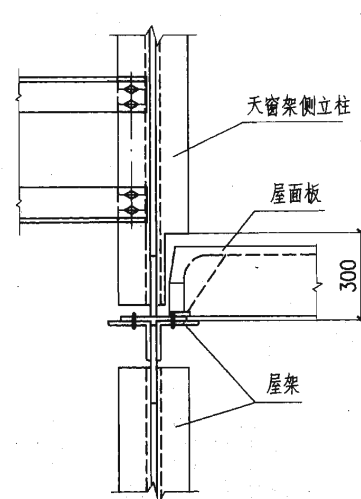




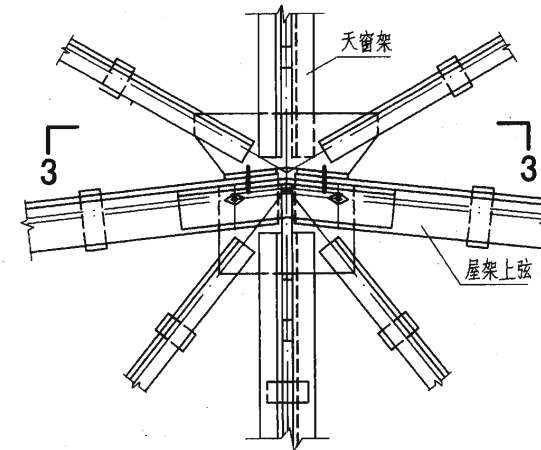
8



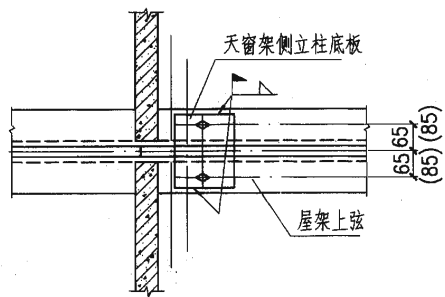
9



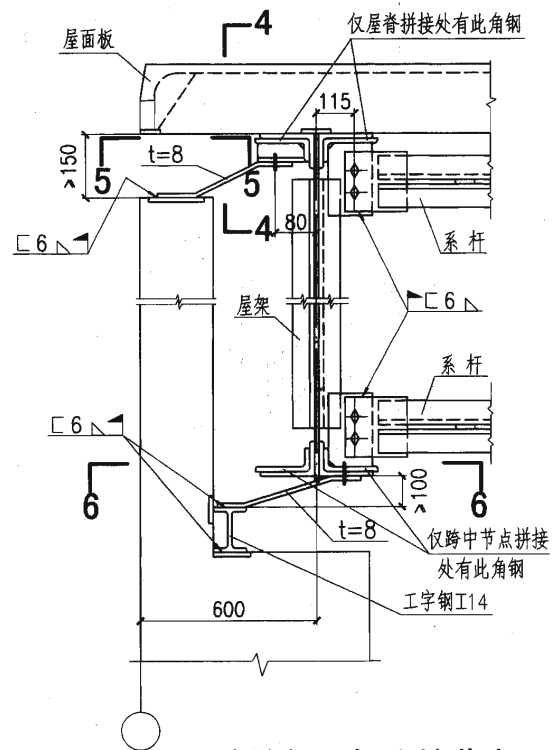
2-2



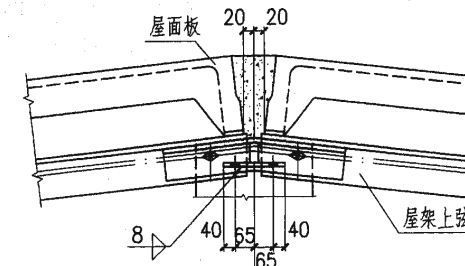
10



1-1

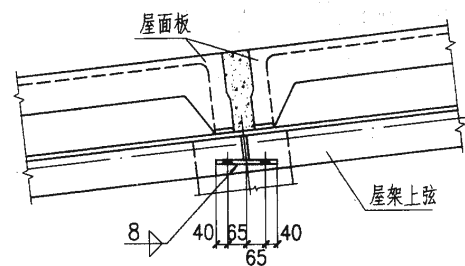


山墙柱与屋架连接节点示意图



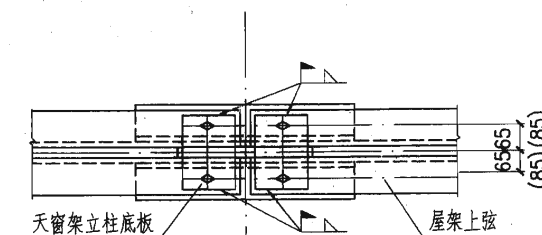
4-4

(与屋脊连接)

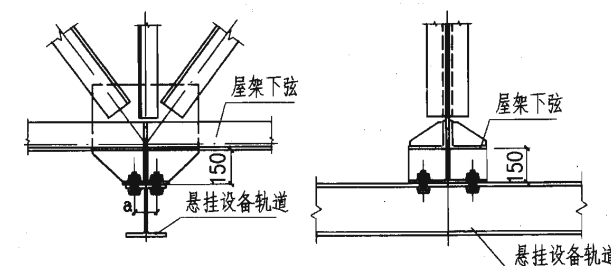


4-4

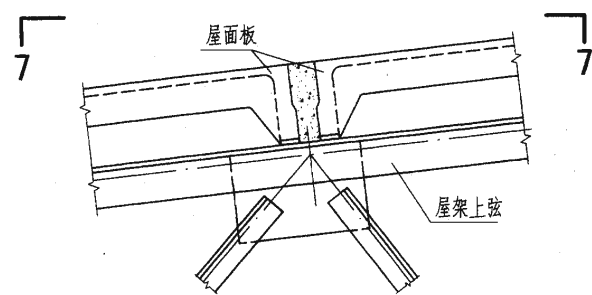
(与上弦节点连接)



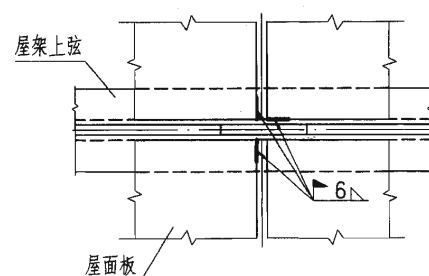
3-3



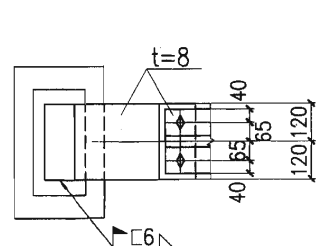
悬挂设备轨道连接示意图



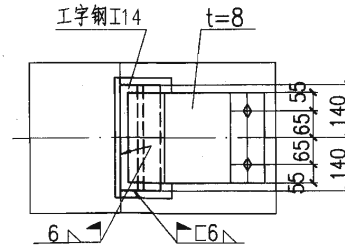
屋面板与屋架焊接示意图



7-7



5-5



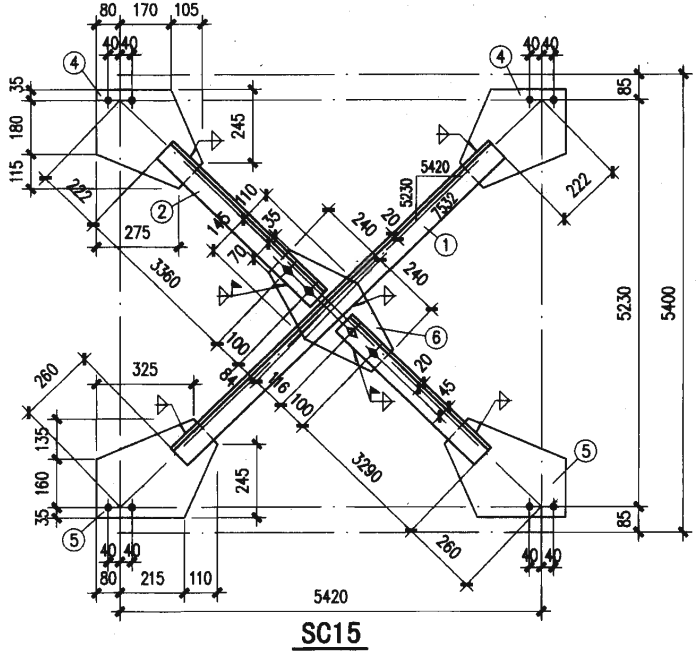
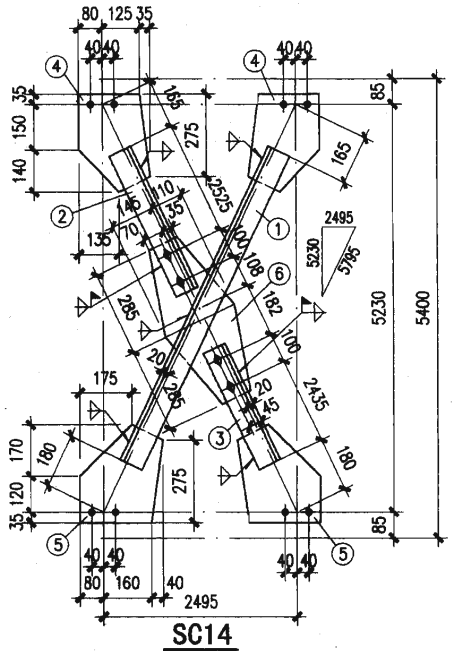
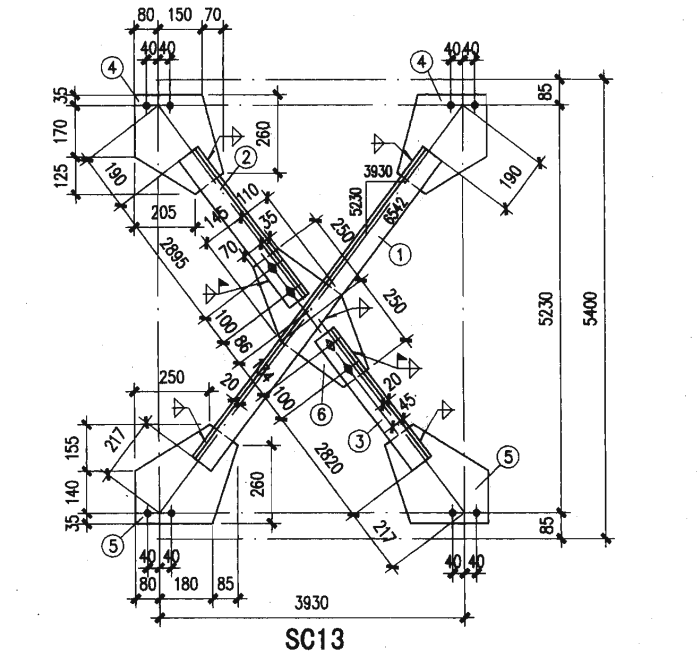
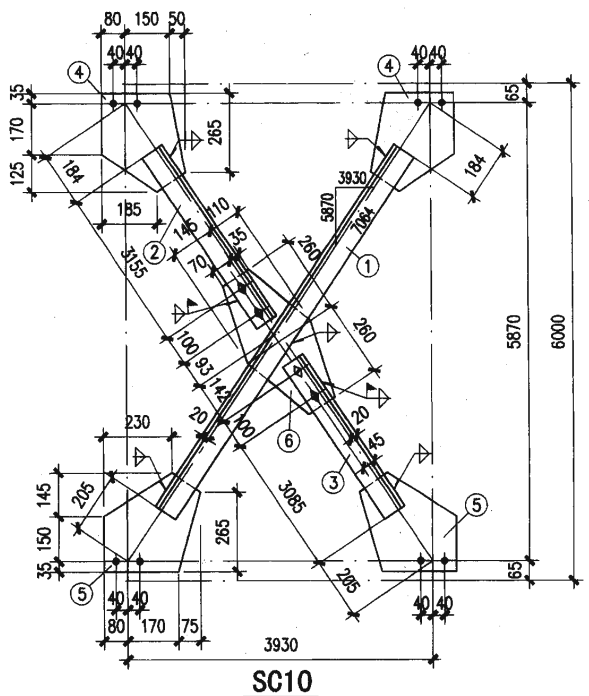
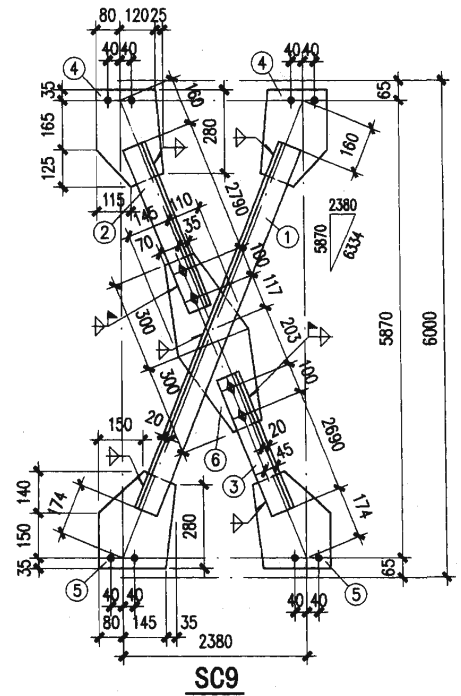
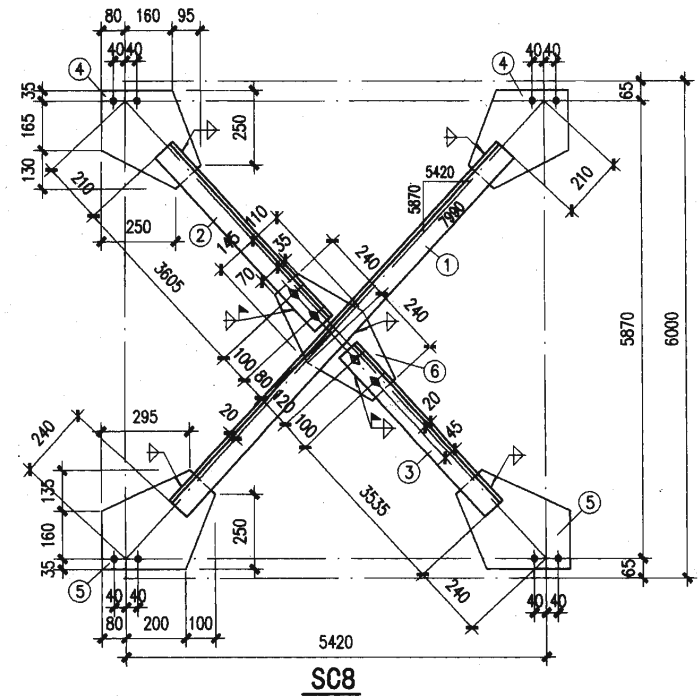
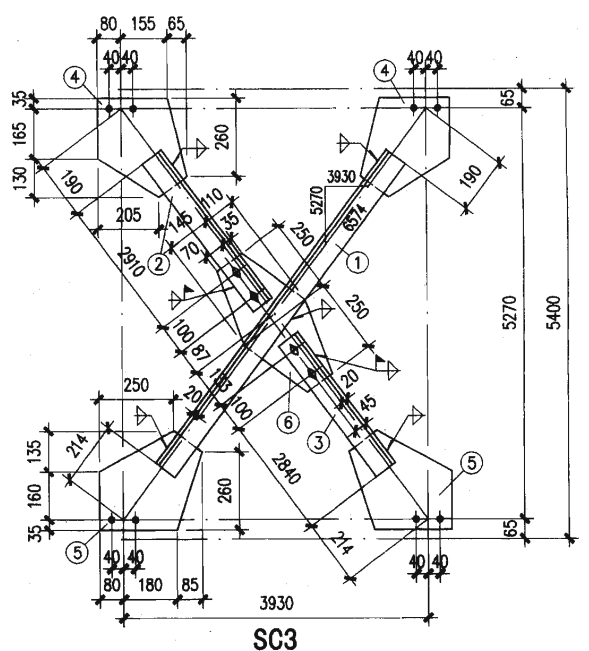
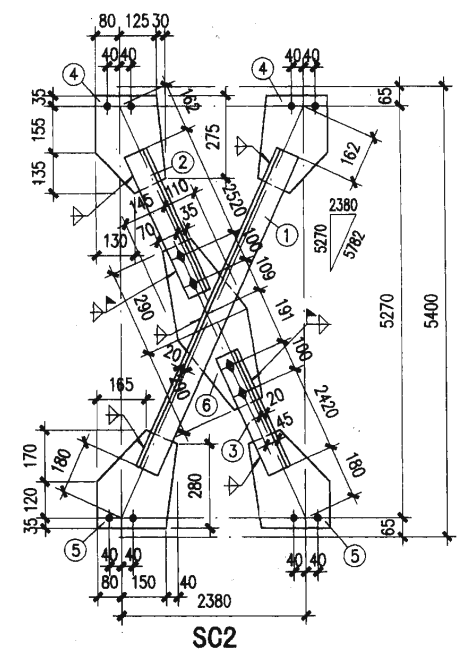
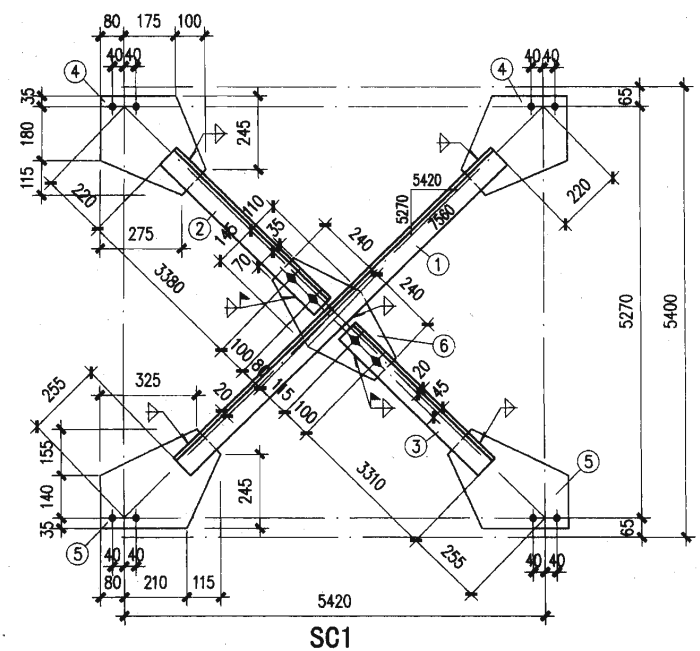
6-6

注:

1. 山墙柱与屋架连接节点示意图仅供具体工程设计时参考, 屋架上弦和弹簧钢板连接用的节点板由选用者按图所示进行修改补充。当厂房不高而且无屋架上弦横向支撑时, 山墙柱可直接与屋架上弦连接。
2. 屋面板与屋架上弦保证有三点焊接(厂房端部和伸缩缝处应不少于两点), 焊脚尺寸不小于6mm, 长度不小于80mm。
3. 未注明的螺栓为M20, 孔径为 $\phi 21.5$ 。

安装节点图(三)

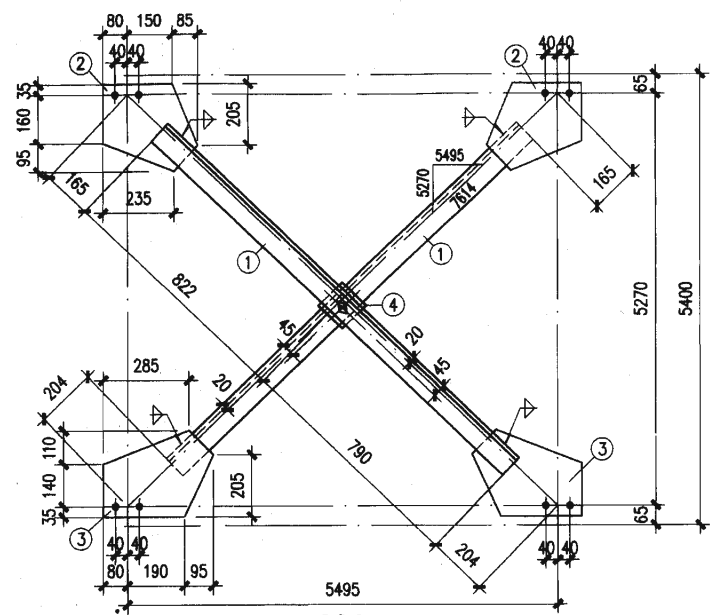
图号 05G511



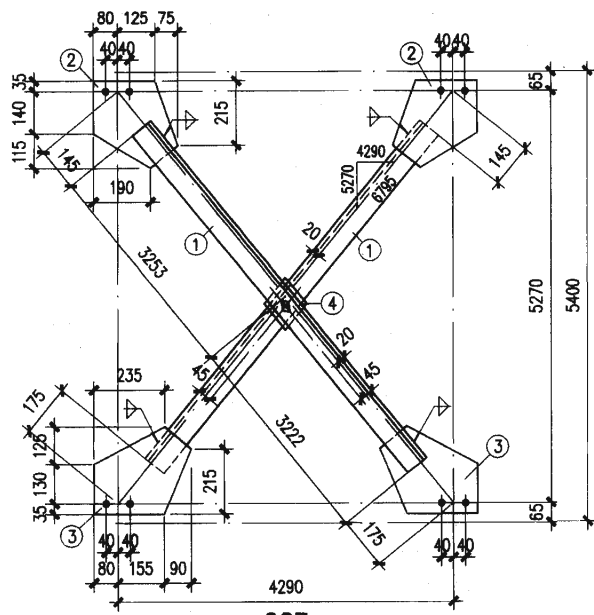
材 料 表

| 构件号  | 零件号 | 断面     | 长度 (mm) | 数量 |   | 重量 (kg) |    |
|------|-----|--------|---------|----|---|---------|----|
|      |     |        |         | 正  | 反 | 每个      | 共计 |
| SC1  | 1   | L75x5  | 7085    | 1  |   | 41.2    | 41 |
|      | 2   | L75x5  | 3520    | 1  |   | 20.5    | 21 |
|      | 3   | L75x5  | 3450    | 1  |   | 20.1    | 20 |
|      | 4   | -330x8 | 355     | 2  |   | 7.4     | 15 |
|      | 5   | -330x8 | 405     | 2  |   | 8.4     | 17 |
|      | 6   | -255x8 | 480     | 1  |   | 7.7     | 8  |
| SC2  | 1   | L75x5  | 5440    | 1  |   | 31.6    | 32 |
|      | 2   | L75x5  | 2660    | 1  |   | 15.5    | 16 |
|      | 3   | L75x5  | 2560    | 1  |   | 14.9    | 15 |
|      | 4   | -235x8 | 325     | 2  |   | 4.8     | 10 |
|      | 5   | -270x8 | 325     | 2  |   | 5.5     | 11 |
|      | 6   | -255x8 | 580     | 1  |   | 9.3     | 9  |
| SC3  | 1   | L75x5  | 6170    | 1  |   | 35.9    | 36 |
|      | 2   | L75x5  | 3050    | 1  |   | 17.7    | 18 |
|      | 3   | L75x5  | 2980    | 1  |   | 17.3    | 17 |
|      | 4   | -300x8 | 330     | 2  |   | 6.2     | 12 |
|      | 5   | -330x8 | 345     | 2  |   | 7.1     | 14 |
|      | 6   | -255x8 | 500     | 1  |   | 8.0     | 8  |
| SC8  | 1   | L75x5  | 7540    | 1  |   | 43.9    | 44 |
|      | 2   | L75x5  | 3745    | 1  |   | 21.8    | 22 |
|      | 3   | L75x5  | 3675    | 1  |   | 21.4    | 21 |
|      | 4   | -235x8 | 335     | 2  |   | 6.9     | 14 |
|      | 5   | -330x8 | 380     | 2  |   | 7.9     | 16 |
|      | 6   | -255x8 | 480     | 1  |   | 7.7     | 8  |
| SC9  | 1   | L75x5  | 6000    | 1  |   | 34.9    | 35 |
|      | 2   | L75x5  | 2930    | 1  |   | 17.0    | 17 |
|      | 3   | L75x5  | 2830    | 1  |   | 16.5    | 17 |
|      | 4   | -225x8 | 325     | 2  |   | 4.6     | 9  |
|      | 5   | -260x8 | 325     | 2  |   | 5.3     | 11 |
|      | 6   | -255x8 | 600     | 1  |   | 9.6     | 10 |
| SC10 | 1   | L75x5  | 6675    | 1  |   | 38.8    | 39 |
|      | 2   | L75x5  | 3295    | 1  |   | 19.2    | 19 |
|      | 3   | L75x5  | 3225    | 1  |   | 18.8    | 19 |
|      | 4   | -280x8 | 330     | 2  |   | 5.8     | 12 |
|      | 5   | -325x8 | 330     | 2  |   | 6.7     | 13 |
|      | 6   | -255x8 | 520     | 1  |   | 8.3     | 8  |
| SC13 | 1   | L75x5  | 6135    | 1  |   | 35.7    | 36 |
|      | 2   | L75x5  | 3035    | 1  |   | 17.7    | 18 |
|      | 3   | L75x5  | 2960    | 1  |   | 17.2    | 17 |
|      | 4   | -300x8 | 330     | 2  |   | 6.2     | 12 |
|      | 5   | -330x8 | 345     | 2  |   | 7.1     | 14 |
|      | 6   | -255x8 | 500     | 1  |   | 8.0     | 8  |
| SC14 | 1   | L75x5  | 5450    | 1  |   | 31.7    | 32 |
|      | 2   | L75x5  | 2665    | 1  |   | 15.5    | 16 |
|      | 3   | L75x5  | 2575    | 1  |   | 15.0    | 15 |
|      | 4   | -240x8 | 325     | 2  |   | 4.9     | 10 |
|      | 5   | -280x8 | 325     | 2  |   | 5.7     | 11 |
|      | 6   | -255x8 | 570     | 1  |   | 9.1     | 9  |
| SC15 | 1   | L75x5  | 7050    | 1  |   | 41.0    | 41 |
|      | 2   | L75x5  | 3500    | 1  |   | 20.4    | 20 |
|      | 3   | L75x5  | 3430    | 1  |   | 20.0    | 20 |
|      | 4   | -330x8 | 355     | 2  |   | 7.4     | 15 |
|      | 5   | -330x8 | 405     | 2  |   | 8.4     | 17 |
|      | 6   | -255x8 | 480     | 1  |   | 7.7     | 8  |

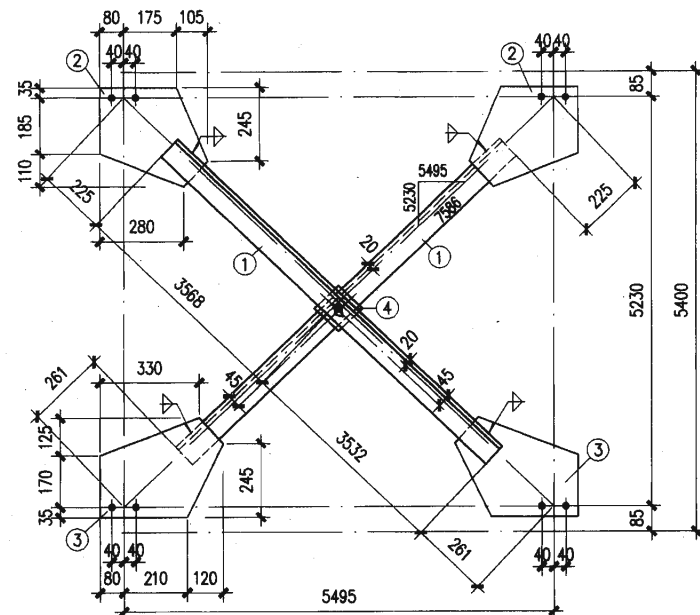
- 注:
- 未注明的角焊缝焊脚尺寸为5mm。
  - 对于7、8、9度抗震区及有重级工作制吊车时，角钢两端与节点板改用三面围焊，其焊脚尺寸分别为：肢背6mm，角钢端部和肢尖5mm。
  - 未注明长度的焊缝一律满焊。
  - 未注明的螺栓为M20，孔径为 $\phi 21.5$ 。
  - 图中所有构件用于轻、中级工作制吊车(A1~A5)的厂房时，应将角钢L75x5改为L70x5。



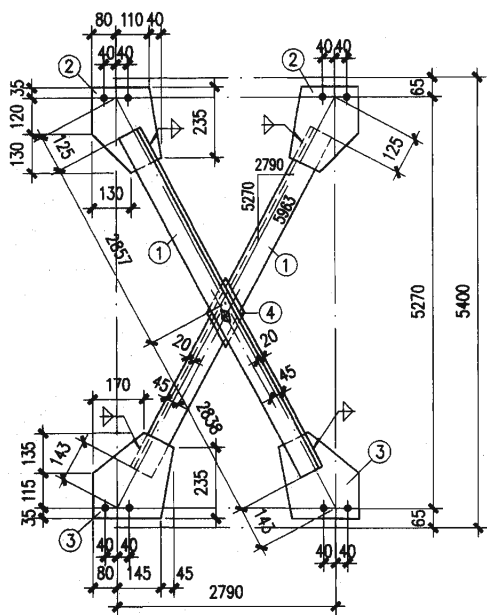
SC4



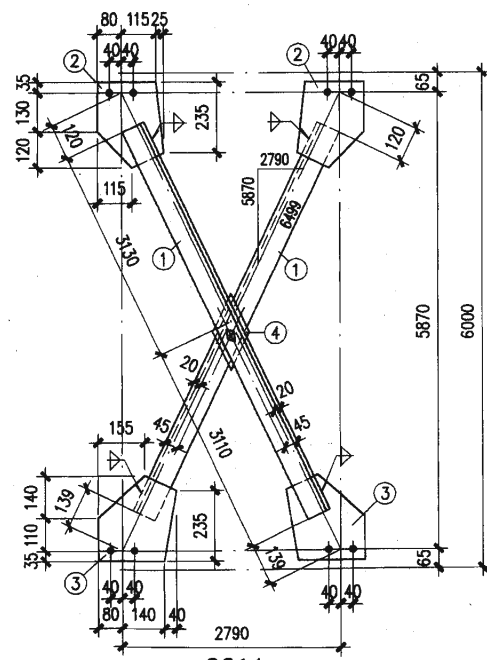
SC7



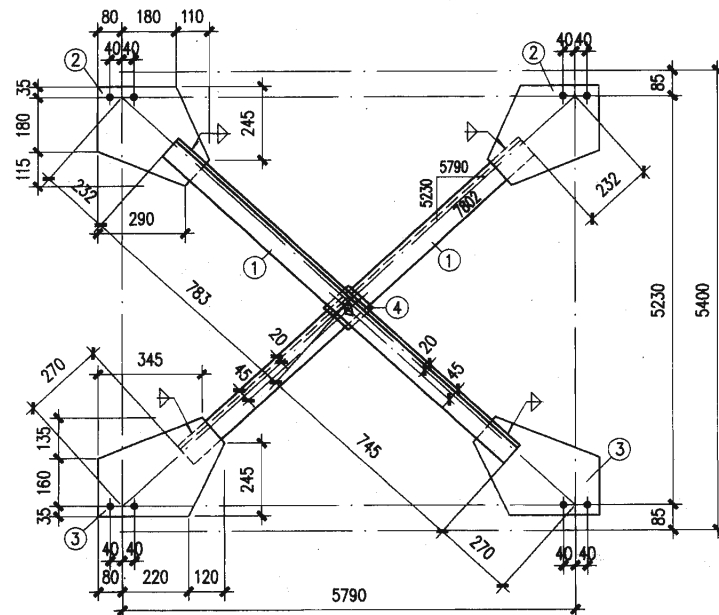
SC16



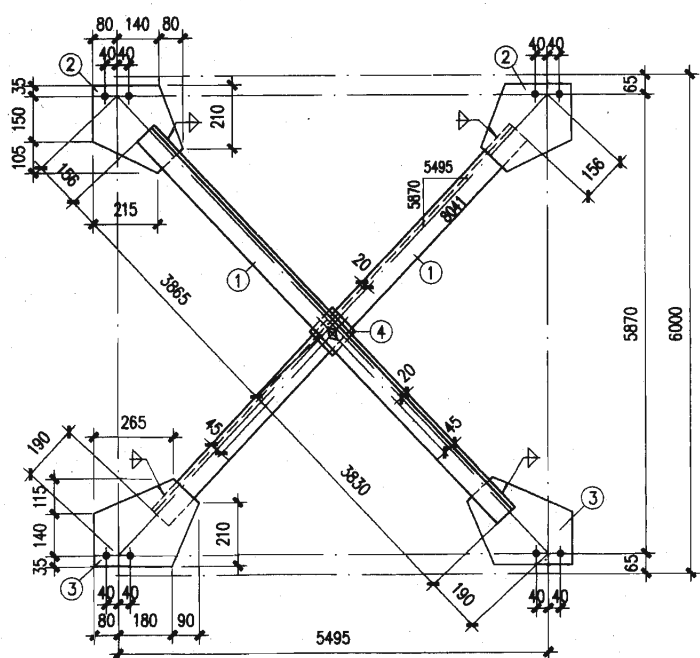
SC5



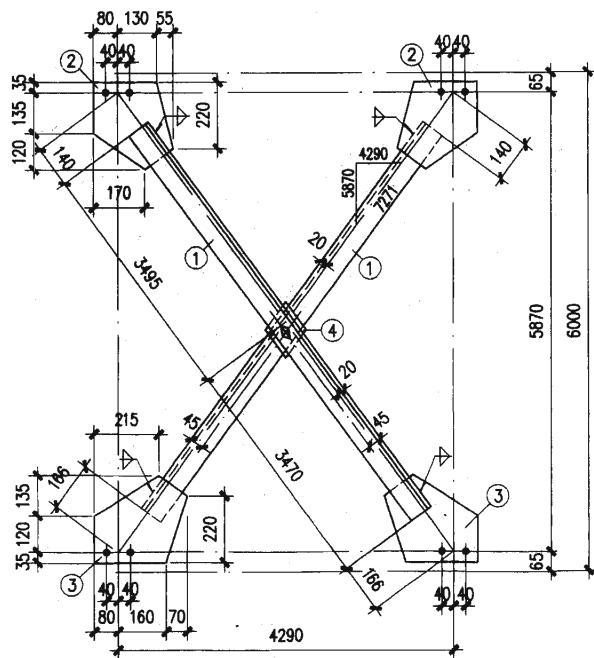
SC11



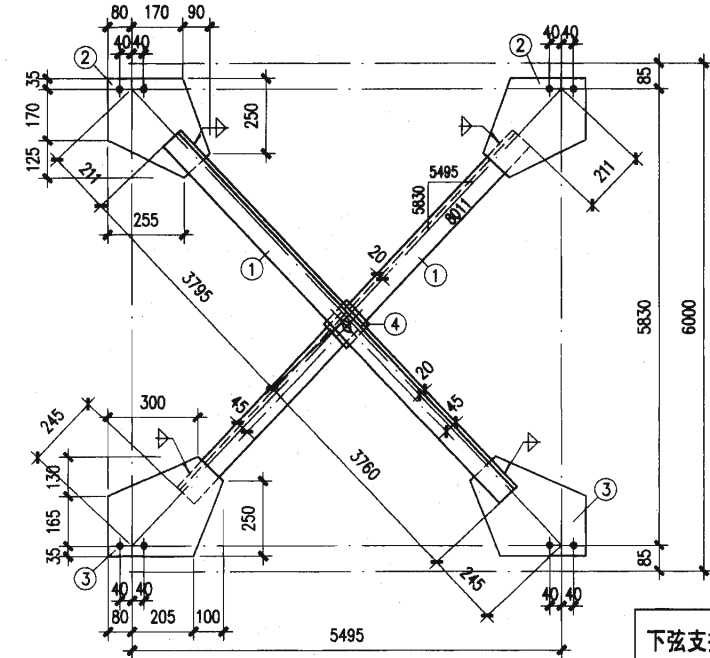
SC17



SC6



SC12



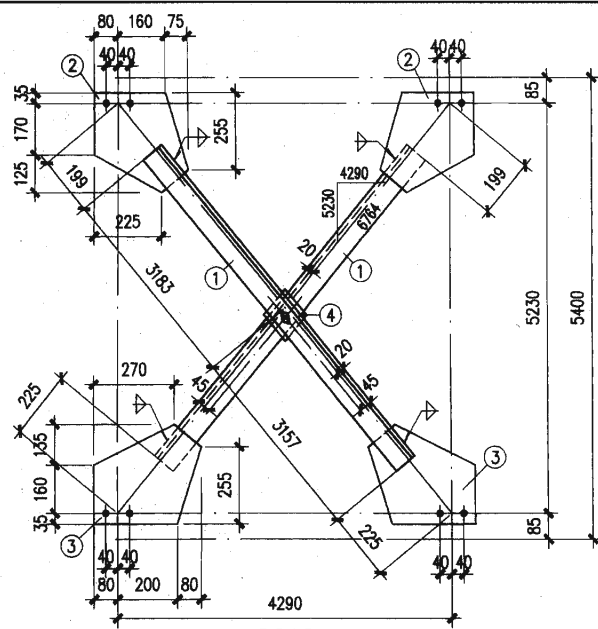
SC18

材料表

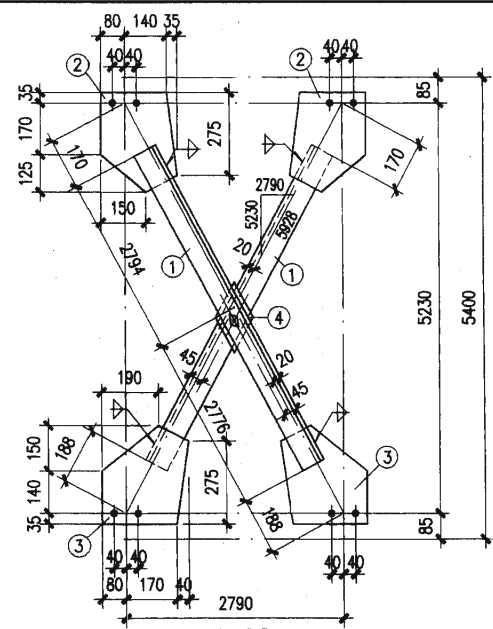
| 构件号  | 零件号 | 断面     | 长度   |   | 数量 |      | 重量(kg) |     |
|------|-----|--------|------|---|----|------|--------|-----|
|      |     |        | 正    | 反 | 每个 | 共计   | 合计     |     |
| SC4  | 1   | L75x5  | 7245 | 2 |    | 42.2 | 84     | 109 |
|      | 2   | -290x8 | 315  | 2 |    | 5.7  | 11     |     |
|      | 3   | -285x8 | 365  | 2 |    | 6.5  | 13     |     |
|      | 4   | -105x8 | 110  | 1 |    | 0.7  | 1      |     |
| SC5  | 1   | L75x5  | 5695 | 2 |    | 33.1 | 66     | 85  |
|      | 2   | -230x8 | 285  | 2 |    | 4.1  | 8      |     |
|      | 3   | -270x8 | 285  | 2 |    | 4.8  | 10     |     |
|      | 4   | -105x8 | 200  | 1 |    | 1.3  | 1      |     |
| SC6  | 1   | L75x5  | 7695 | 2 |    | 44.8 | 90     | 115 |
|      | 2   | -290x8 | 300  | 2 |    | 5.5  | 11     |     |
|      | 3   | -290x8 | 350  | 2 |    | 6.4  | 13     |     |
|      | 4   | -105x8 | 115  | 1 |    | 0.8  | 1      |     |
| SC7  | 1   | L75x5  | 6475 | 2 |    | 37.7 | 75     | 98  |
|      | 2   | -280x8 | 290  | 2 |    | 5.1  | 10     |     |
|      | 3   | -290x8 | 325  | 2 |    | 5.9  | 12     |     |
|      | 4   | -105x8 | 130  | 1 |    | 0.9  | 1      |     |
| SC11 | 1   | L75x5  | 6240 | 2 |    | 36.3 | 73     | 92  |
|      | 2   | -220x8 | 285  | 2 |    | 3.9  | 8      |     |
|      | 3   | -260x8 | 285  | 2 |    | 4.7  | 9      |     |
|      | 4   | -105x8 | 225  | 1 |    | 1.5  | 2      |     |
| SC12 | 1   | L75x5  | 6965 | 2 |    | 40.5 | 81     | 103 |
|      | 2   | -265x8 | 290  | 2 |    | 4.8  | 10     |     |
|      | 3   | -290x8 | 310  | 2 |    | 5.6  | 11     |     |
|      | 4   | -105x8 | 145  | 1 |    | 1.0  | 1      |     |
| SC16 | 1   | L75x5  | 7100 | 2 |    | 41.3 | 83     | 116 |
|      | 2   | -330x8 | 360  | 2 |    | 7.5  | 15     |     |
|      | 3   | -330x8 | 410  | 2 |    | 8.5  | 17     |     |
|      | 4   | -105x8 | 110  | 1 |    | 0.7  | 1      |     |
| SC17 | 1   | L75x5  | 7300 | 2 |    | 42.5 | 85     | 118 |
|      | 2   | -330x8 | 370  | 2 |    | 7.7  | 15     |     |
|      | 3   | -330x8 | 420  | 2 |    | 8.7  | 17     |     |
|      | 4   | -105x8 | 120  | 1 |    | 0.8  | 1      |     |
| SC18 | 1   | L75x5  | 7555 | 2 |    | 44.0 | 88     | 119 |
|      | 2   | -330x8 | 340  | 2 |    | 7.0  | 14     |     |
|      | 3   | -330x8 | 385  | 2 |    | 8.0  | 16     |     |
|      | 4   | -105x8 | 115  | 1 |    | 0.8  | 1      |     |

注:

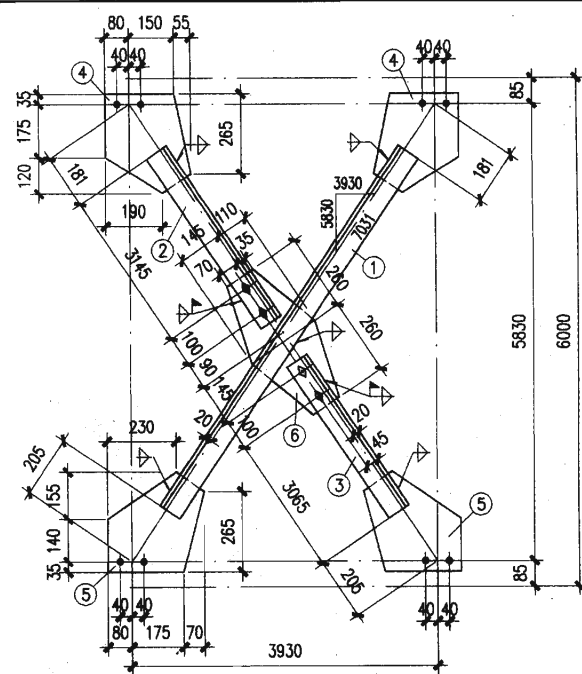
1. 未注明的角焊缝焊脚尺寸为5mm。
2. 对于7、8、9度抗震区及有重级工作制吊车时，角钢两端与节点板改用三面围焊，其焊脚尺寸分别为：肢背6mm，角钢端部和肢尖5mm。
3. 未注明长度的焊缝一律满焊。
4. 未注明的螺栓为M20，孔径为 $\phi 21.5$ 。
5. 图中所有构件用于轻、中级工作制吊车(A1~A5)的厂房时，应将角钢L75x5改为L70x5。



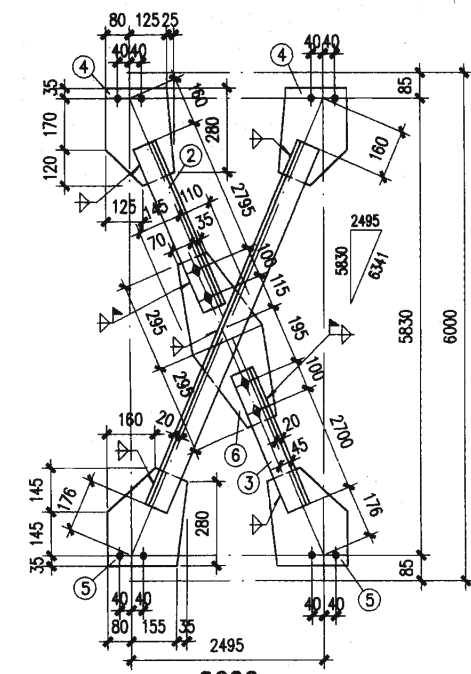
SC19



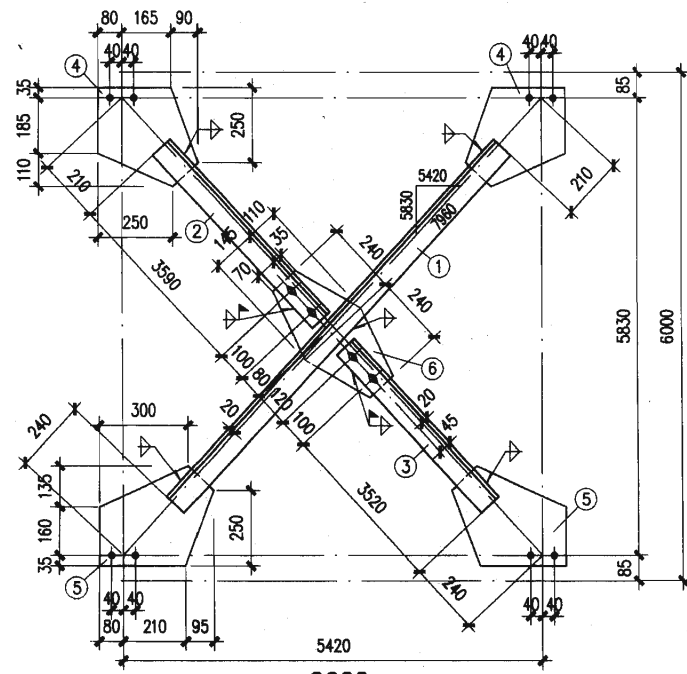
SC20



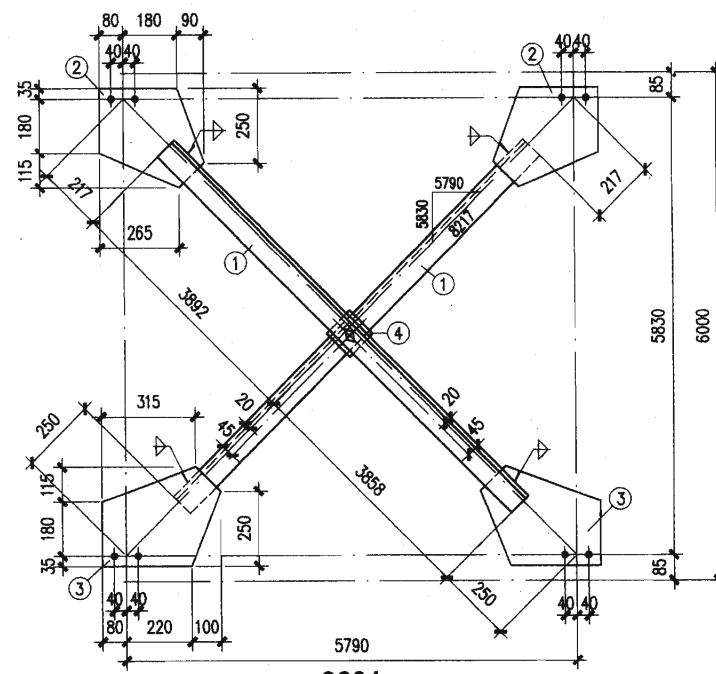
SC21



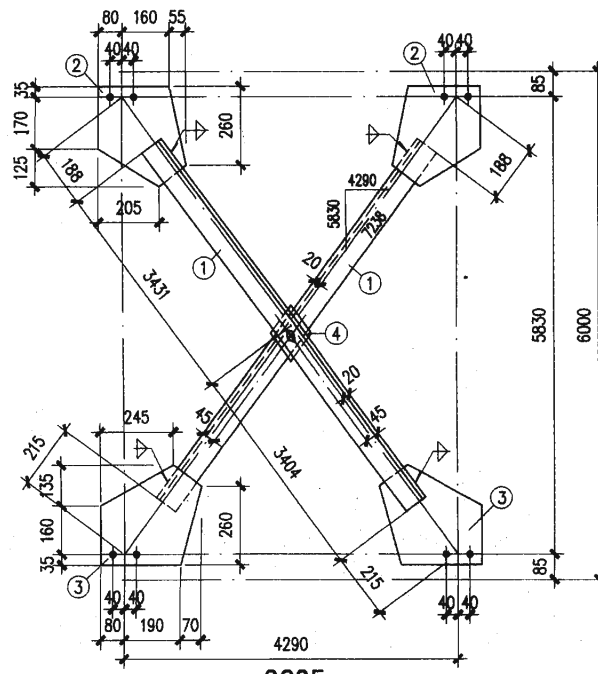
SC22



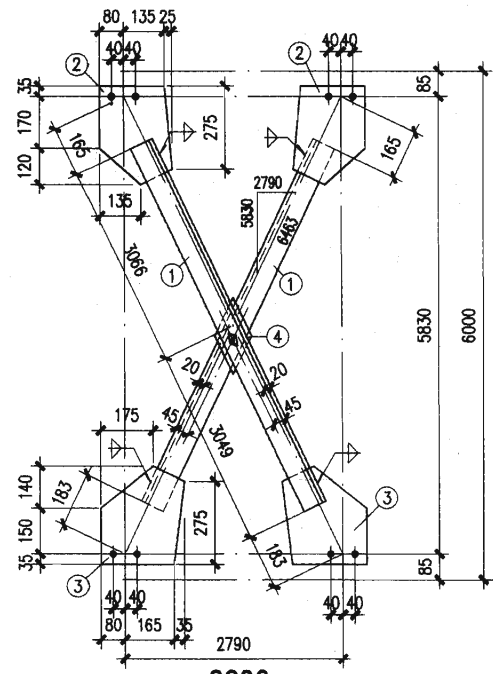
SC23



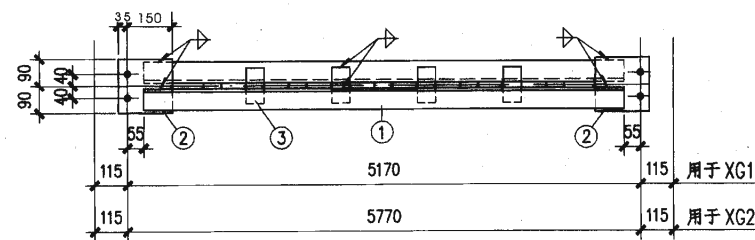
SC24



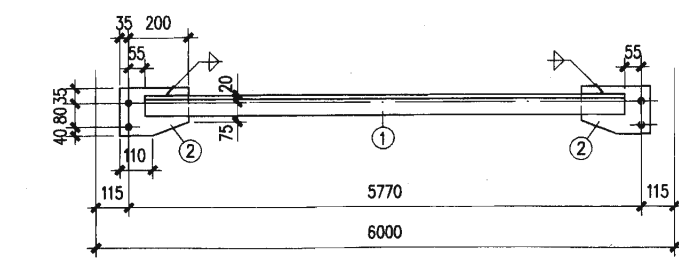
SC25



SC26



XG1、XG2



XG3

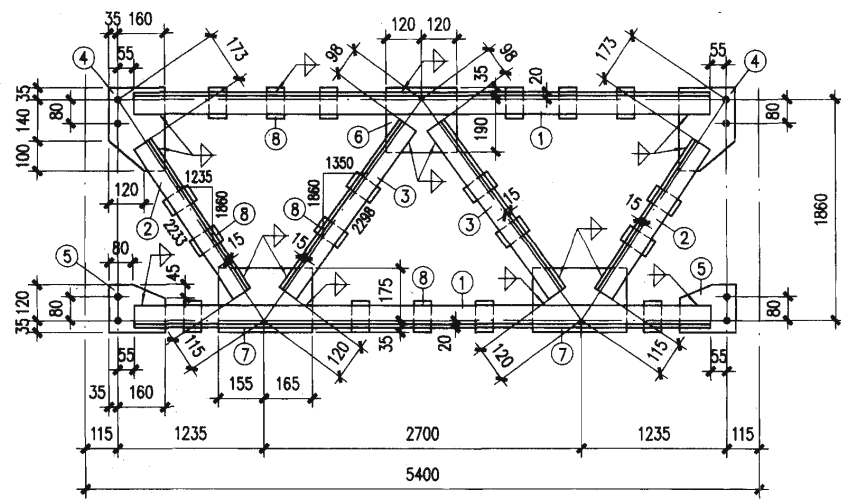
材料表

| 构件编号 | 零件号 | 断面     | 长度 (mm) |   | 数量 |      | 重量 (kg) |     |
|------|-----|--------|---------|---|----|------|---------|-----|
|      |     |        | 正       | 反 | 每个 | 共计   | 合计      |     |
| SC19 | 1   | L75x5  | 6340    | 2 |    | 36.9 | 74      | 103 |
|      | 2   | -315x8 | 330     | 2 |    | 6.5  | 13      |     |
|      | 3   | -330x8 | 360     | 2 |    | 7.5  | 15      |     |
|      | 4   | -105x8 | 130     | 1 |    | 0.9  | 1       |     |
| SC20 | 1   | L75x5  | 5570    | 2 |    | 32.4 | 65      | 89  |
|      | 2   | -255x8 | 330     | 2 |    | 5.3  | 11      |     |
|      | 3   | -290x8 | 325     | 2 |    | 5.9  | 12      |     |
|      | 4   | -105x8 | 200     | 1 |    | 1.3  | 1       |     |
| SC21 | 1   | L75x5  | 6645    | 1 |    | 38.7 | 39      | 109 |
|      | 2   | L75x5  | 3285    | 1 |    | 19.1 | 19      |     |
|      | 3   | L75x5  | 3205    | 1 |    | 18.6 | 19      |     |
|      | 4   | -285x8 | 330     | 2 |    | 5.9  | 12      |     |
|      | 5   | -325x8 | 330     | 2 |    | 6.7  | 13      |     |
|      | 6   | -225x8 | 520     | 1 |    | 7.3  | 7       |     |
| SC22 | 1   | L75x5  | 6005    | 1 |    | 34.9 | 35      | 97  |
|      | 2   | L75x5  | 2935    | 1 |    | 17.1 | 17      |     |
|      | 3   | L75x5  | 2840    | 1 |    | 16.5 | 17      |     |
|      | 4   | -230x8 | 325     | 2 |    | 4.7  | 9       |     |
|      | 5   | -270x8 | 325     | 2 |    | 5.5  | 11      |     |
|      | 6   | -225x8 | 590     | 1 |    | 8.3  | 8       |     |
| SC23 | 1   | L75x5  | 7510    | 1 |    | 43.7 | 44      | 124 |
|      | 2   | L75x5  | 3730    | 1 |    | 21.7 | 22      |     |
|      | 3   | L75x5  | 3660    | 1 |    | 21.3 | 21      |     |
|      | 4   | -330x8 | 335     | 2 |    | 6.9  | 14      |     |
|      | 5   | -330x8 | 385     | 2 |    | 8.0  | 16      |     |
|      | 6   | -225x8 | 480     | 1 |    | 6.8  | 7       |     |
| SC24 | 1   | L75x5  | 7750    | 2 |    | 45.1 | 90      | 123 |
|      | 2   | -330x8 | 350     | 2 |    | 7.3  | 15      |     |
|      | 3   | -330x8 | 400     | 2 |    | 8.3  | 17      |     |
|      | 4   | -105x8 | 110     | 1 |    | 0.7  | 1       |     |
| SC25 | 1   | L75x5  | 6835    | 2 |    | 39.8 | 80      | 107 |
|      | 2   | -295x8 | 330     | 2 |    | 6.1  | 12      |     |
|      | 3   | -330x8 | 340     | 2 |    | 7.0  | 14      |     |
|      | 4   | -105x8 | 145     | 1 |    | 1.0  | 1       |     |
| SC26 | 1   | L75x5  | 6115    | 2 |    | 35.6 | 71      | 94  |
|      | 2   | -240x8 | 325     | 2 |    | 4.9  | 10      |     |
|      | 3   | -280x8 | 325     | 2 |    | 5.7  | 11      |     |
|      | 4   | -105x8 | 220     | 1 |    | 1.5  | 2       |     |
| XG1  | 1   | L70x5  | 5060    | 2 |    | 27.3 | 55      | 64  |
|      | 2   | -180x8 | 185     | 2 |    | 2.1  | 4       |     |
|      | 3   | -60x8  | 120     | 9 |    | 0.5  | 5       |     |
| XG2  | 1   | L70x5  | 5660    | 2 |    | 30.5 | 61      | 70  |
|      | 2   | -180x8 | 185     | 2 |    | 2.1  | 4       |     |
|      | 3   | -60x8  | 120     | 9 |    | 0.5  | 5       |     |
| XG3  | 1   | L80x5  | 5660    | 1 |    | 35.2 | 35      | 40  |
|      | 2   | -155x8 | 235     | 2 |    | 2.3  | 5       |     |

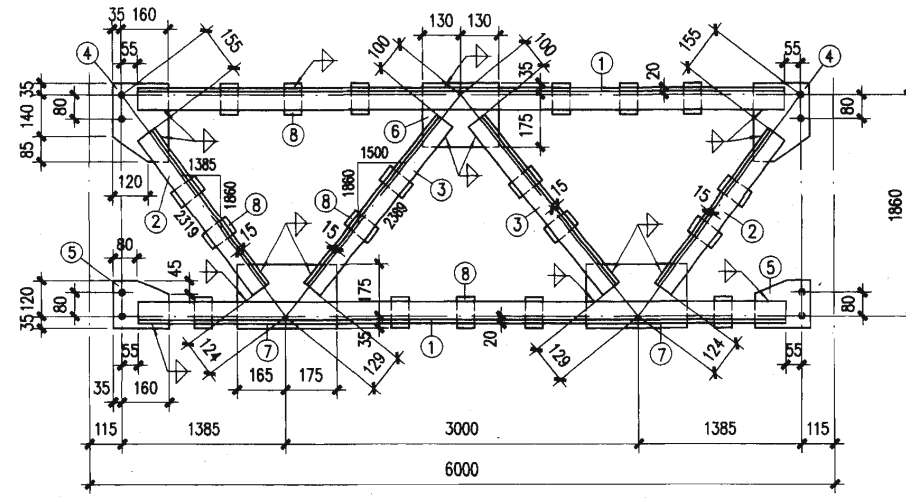
注:

1. 未注明的角焊缝焊脚尺寸为5mm。
2. 对于7、8、9度抗震区及有重级工作制吊车时，角钢两端与节点板改用三面围焊，其焊脚尺寸分别为：肢背6mm，角钢端部和肢尖5mm。
3. 未注明长度的焊缝一律满焊。
4. 未注明的螺栓为M20，孔径为 $\phi 21.5$ 。
5. 图中构件SC19~SC26和XG3用于轻、中级工作制吊车(A1~A5)的厂房时，应将角钢L75x5和L80x5改为L70x5。

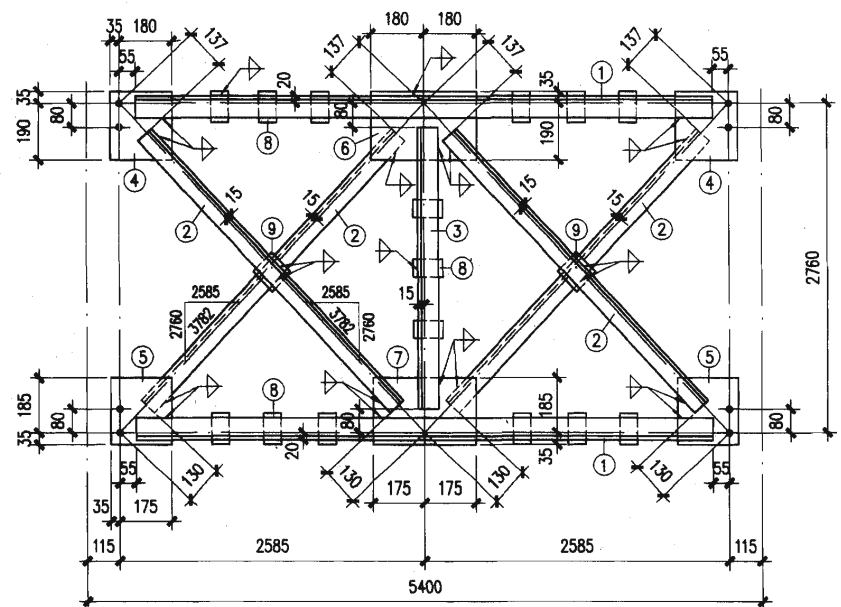




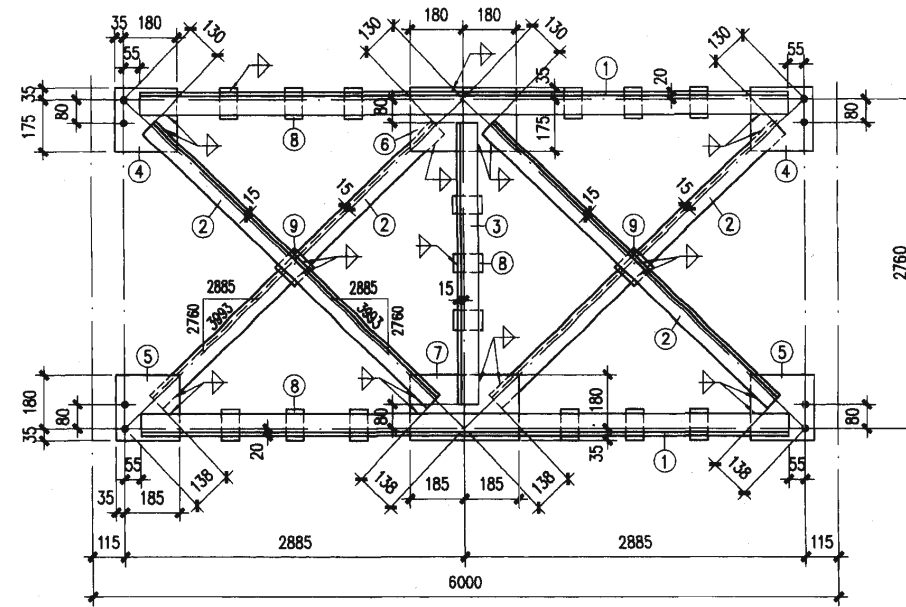
CC1



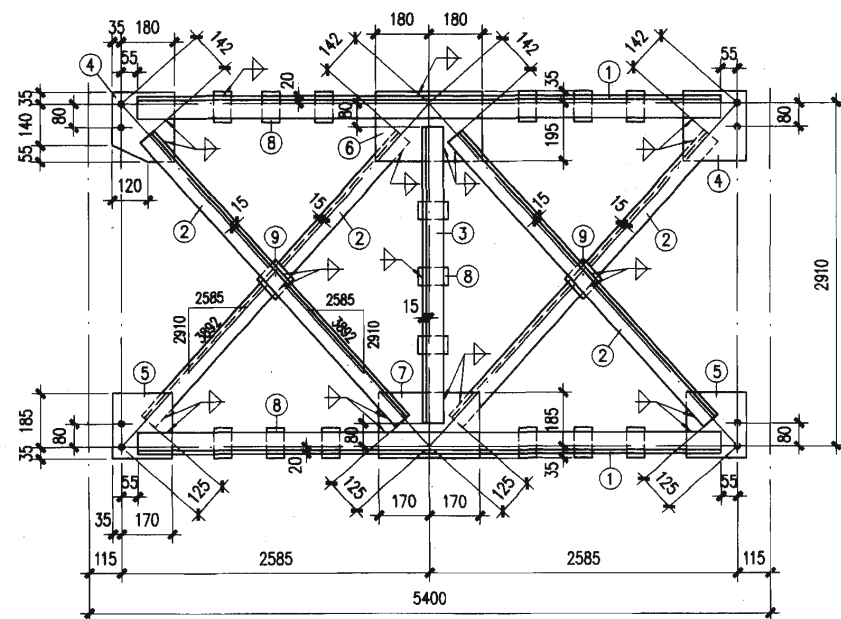
CC4



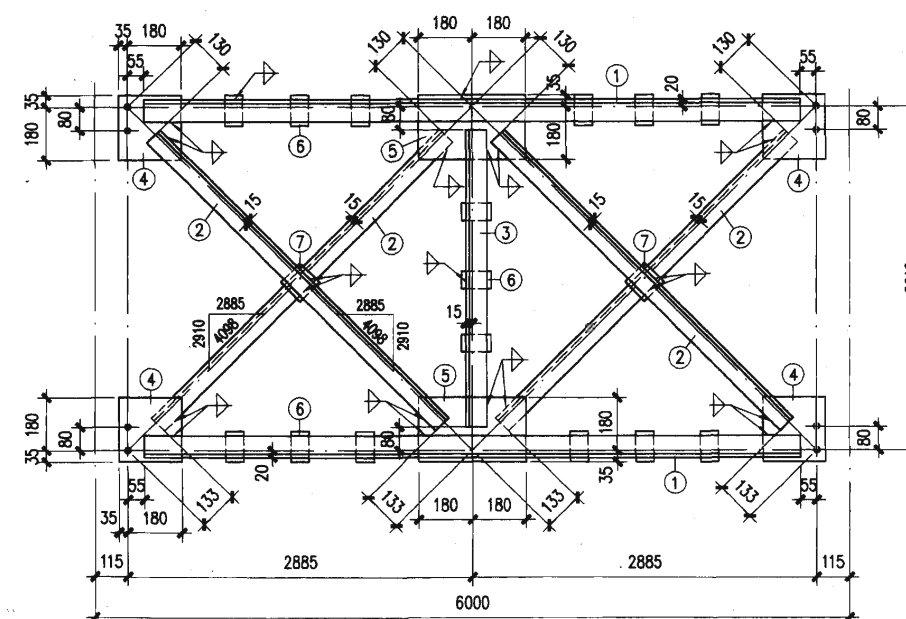
CC2



CC5



CC3



CC6

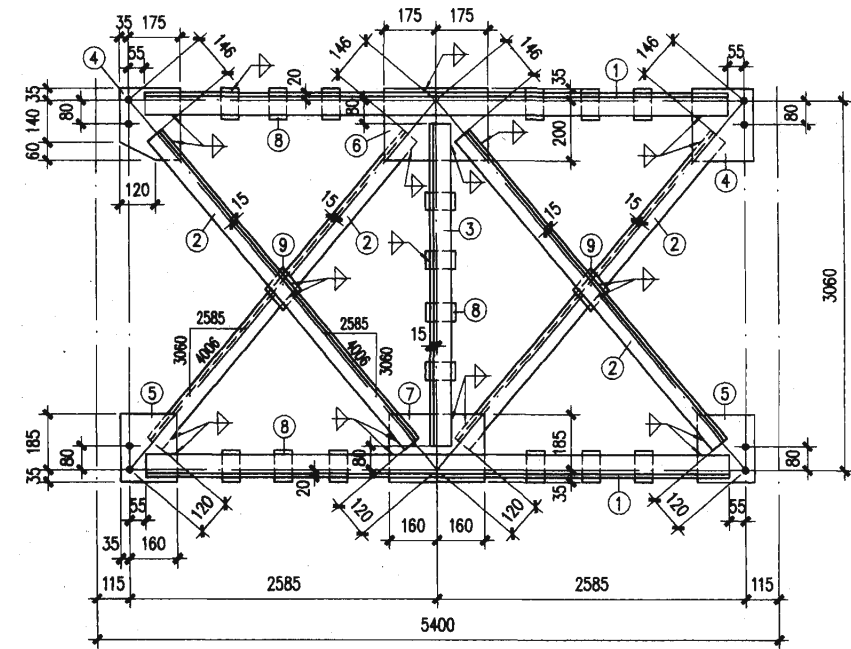
材料表

| 构件号 | 零件号 | 断面     | 长度 (mm) | 数量 |   | 重量 (kg) |     |
|-----|-----|--------|---------|----|---|---------|-----|
|     |     |        |         | 正  | 反 | 每个      | 共计  |
| CC1 | 1   | L70x5  | 5060    | 4  |   | 27.3    | 109 |
|     | 2   | L63x5  | 1945    | 4  |   | 9.4     | 38  |
|     | 3   | L63x5  | 2080    | 4  |   | 10.0    | 40  |
|     | 4   | -195x8 | 275     | 2  |   | 3.4     | 7   |
|     | 5   | -155x8 | 195     | 2  |   | 1.9     | 4   |
|     | 6   | -225x8 | 240     | 1  |   | 3.4     | 3   |
|     | 7   | -210x8 | 320     | 2  |   | 4.2     | 8   |
|     | 8   | -60x8  | 90      | 19 |   | 0.3     | 6   |
| CC2 | 1   | L70x5  | 5060    | 4  |   | 27.3    | 109 |
|     | 2   | L50x5  | 3515    | 4  |   | 13.3    | 53  |
|     | 3   | L63x5  | 2600    | 2  |   | 12.5    | 25  |
|     | 4   | -215x8 | 225     | 2  |   | 3.0     | 6   |
|     | 5   | -210x8 | 220     | 2  |   | 2.9     | 6   |
|     | 6   | -225x8 | 360     | 1  |   | 5.1     | 5   |
|     | 7   | -220x8 | 350     | 1  |   | 4.8     | 5   |
|     | 8   | -60x8  | 90      | 15 |   | 0.3     | 5   |
|     | 9   | -80x8  | 85      | 2  |   | 0.4     | 1   |
| CC3 | 1   | L70x5  | 5060    | 4  |   | 27.3    | 109 |
|     | 2   | L50x5  | 3625    | 4  |   | 13.7    | 55  |
|     | 3   | L63x5  | 2750    | 2  |   | 13.3    | 27  |
|     | 4   | -215x8 | 230     | 2  |   | 3.1     | 6   |
|     | 5   | -205x8 | 220     | 2  |   | 2.8     | 6   |
|     | 6   | -230x8 | 360     | 1  |   | 5.2     | 5   |
|     | 7   | -220x8 | 340     | 1  |   | 4.7     | 5   |
|     | 8   | -60x8  | 90      | 15 |   | 0.3     | 5   |
|     | 9   | -80x8  | 90      | 2  |   | 0.5     | 1   |
| CC4 | 1   | L70x5  | 5660    | 4  |   | 30.5    | 122 |
|     | 2   | L63x5  | 2040    | 4  |   | 9.8     | 39  |
|     | 3   | L63x5  | 2160    | 4  |   | 10.4    | 42  |
|     | 4   | -195x8 | 260     | 2  |   | 3.2     | 6   |
|     | 5   | -155x8 | 195     | 2  |   | 1.9     | 4   |
|     | 6   | -210x8 | 260     | 1  |   | 3.4     | 3   |
|     | 7   | -210x8 | 340     | 2  |   | 4.5     | 9   |
|     | 8   | -60x8  | 90      | 19 |   | 0.3     | 6   |
| CC5 | 1   | L70x5  | 5660    | 4  |   | 30.5    | 122 |
|     | 2   | L50x5  | 3725    | 4  |   | 14.0    | 56  |
|     | 3   | L63x5  | 2600    | 2  |   | 12.5    | 25  |
|     | 4   | -210x8 | 215     | 2  |   | 2.8     | 6   |
|     | 5   | -215x8 | 220     | 2  |   | 3.0     | 6   |
|     | 6   | -210x8 | 360     | 1  |   | 4.7     | 5   |
|     | 7   | -215x8 | 370     | 1  |   | 5.0     | 5   |
|     | 8   | -60x8  | 90      | 15 |   | 0.3     | 5   |
|     | 9   | -80x8  | 85      | 2  |   | 0.4     | 1   |
| CC6 | 1   | L70x5  | 5660    | 4  |   | 30.5    | 122 |
|     | 2   | L50x5  | 3835    | 4  |   | 14.5    | 58  |
|     | 3   | L63x5  | 2750    | 2  |   | 13.3    | 27  |
|     | 4   | -215x8 | 215     | 4  |   | 2.9     | 12  |
|     | 5   | -215x8 | 360     | 2  |   | 4.9     | 10  |
|     | 6   | -60x8  | 90      | 15 |   | 0.3     | 5   |
|     | 7   | -80x8  | 85      | 2  |   | 0.4     | 1   |

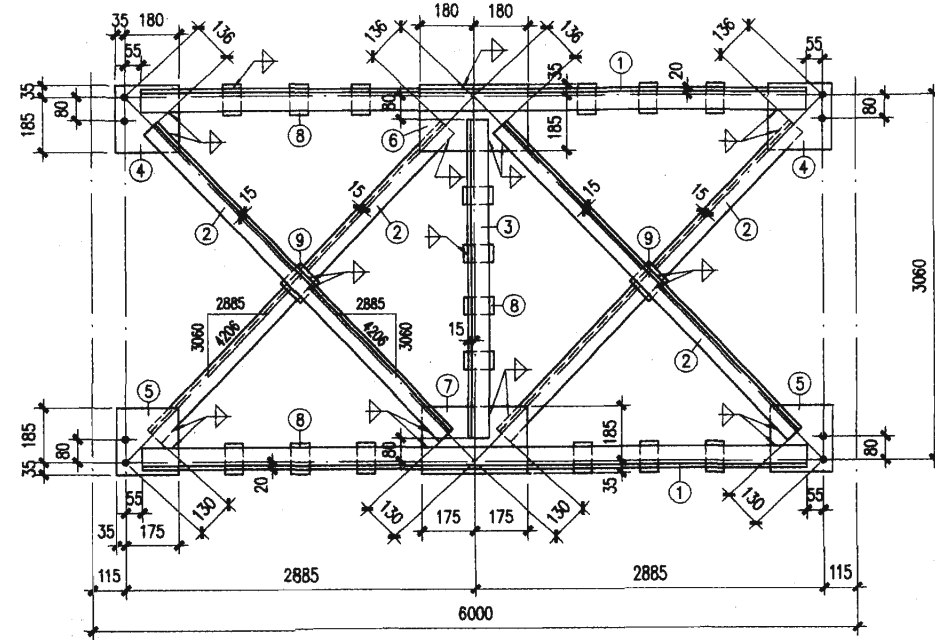
- 注:
1. 未注明的角焊缝焊脚尺寸为5mm。
  2. 未注明长度的焊缝一律满焊。
  3. 对于7、8、9度抗震区时，所有杆件均三面围焊。
  4. 未注明的螺栓为M20，孔径为 $\phi 21.5$ 。

竖向支撑 CC1~CC6 详图

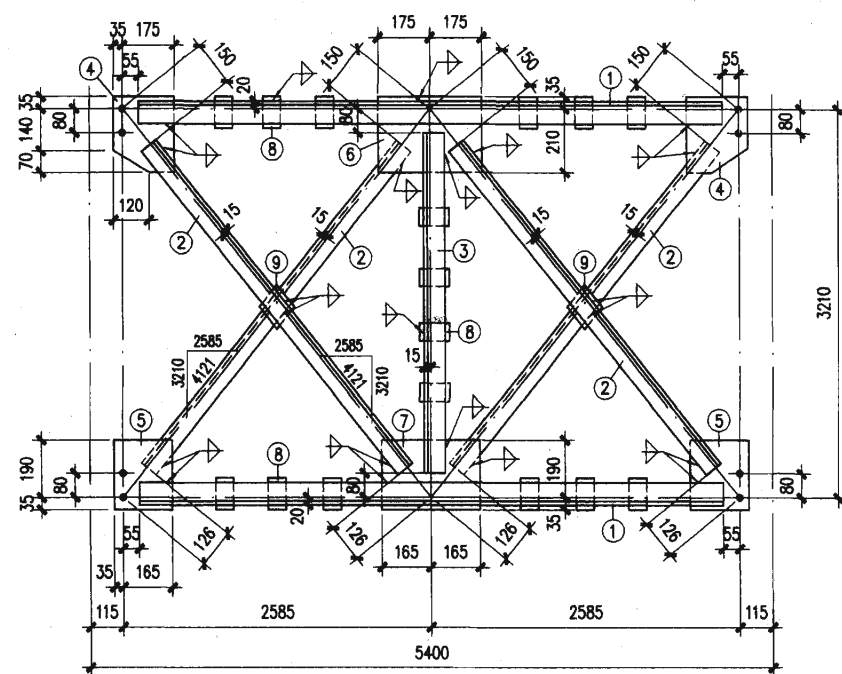
图集号 05G511



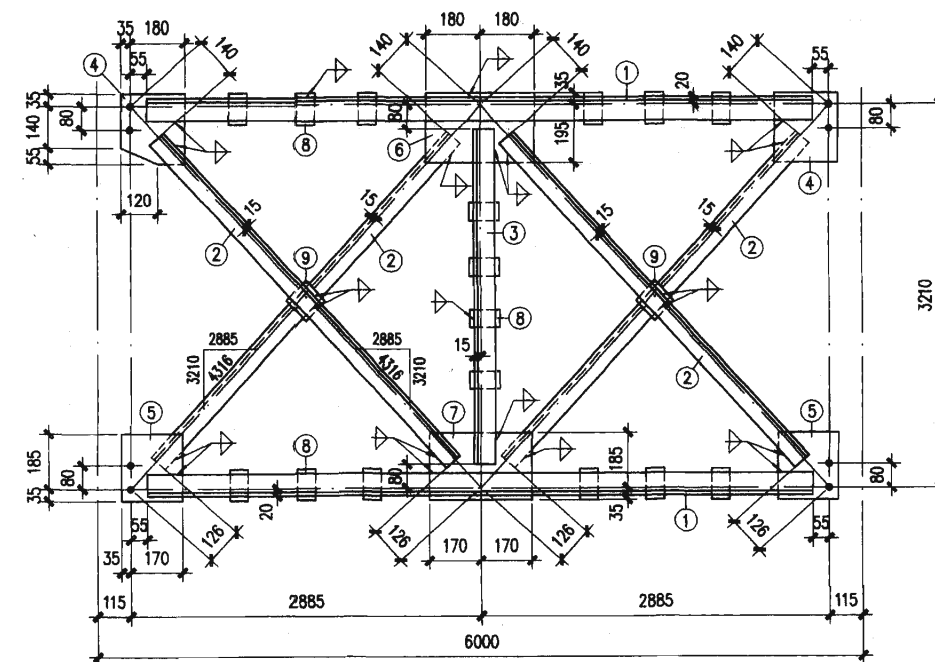
CC7



CC10



CC8



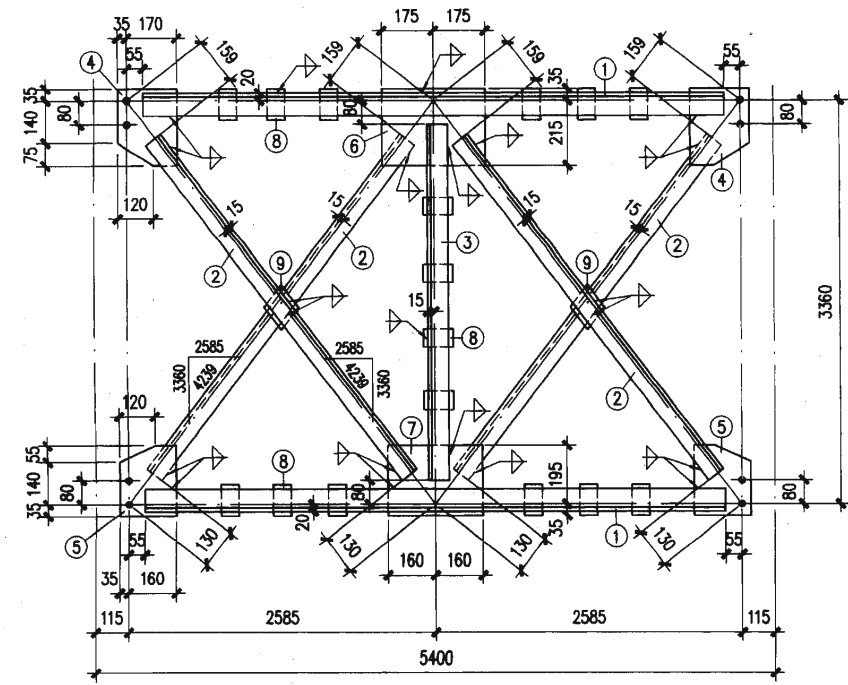
CC11

材 料 表

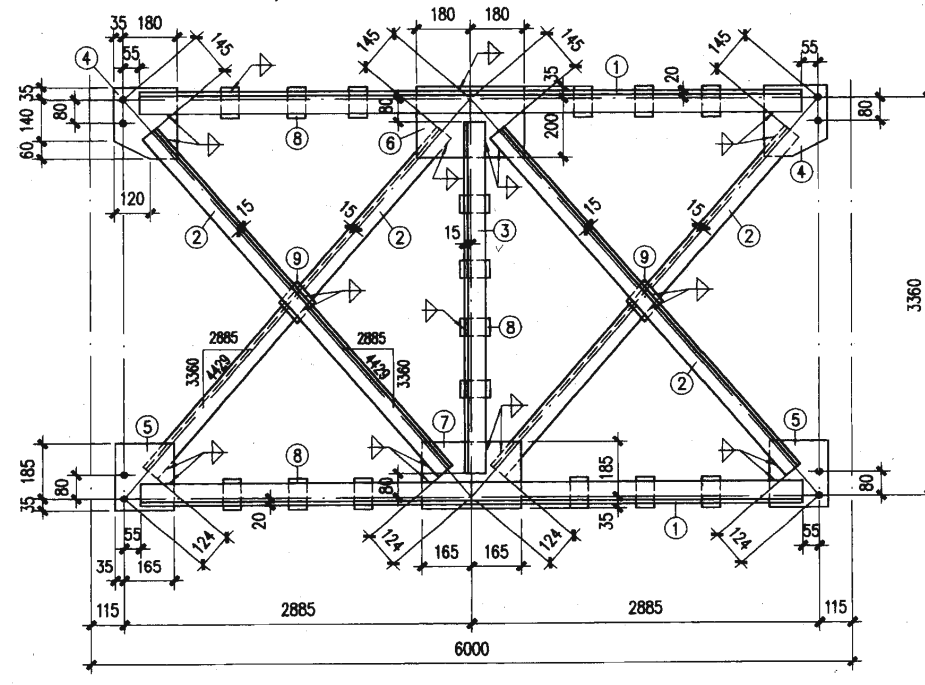
| 构件编号 | 零件号 | 断面     | 长度 (mm) | 数量 |   | 重量 (kg) |     | 合计  |
|------|-----|--------|---------|----|---|---------|-----|-----|
|      |     |        |         | 正  | 反 | 每个      | 共计  |     |
| CC7  | 1   | L70x5  | 5060    | 4  |   | 27.3    | 109 | 219 |
|      | 2   | L50x5  | 3740    | 4  |   | 14.1    | 56  |     |
|      | 3   | L63x5  | 2900    | 2  |   | 14.0    | 28  |     |
|      | 4   | -210x8 | 235     | 2  |   | 3.1     | 6   |     |
|      | 5   | -195x8 | 220     | 2  |   | 2.7     | 5   |     |
|      | 6   | -235x8 | 350     | 1  |   | 5.1     | 5   |     |
|      | 7   | -220x8 | 320     | 1  |   | 4.4     | 4   |     |
|      | 8   | -60x8  | 90      | 16 |   | 0.3     | 5   |     |
|      | 9   | -80x8  | 95      | 2  |   | 0.5     | 1   |     |
| CC8  | 1   | L70x5  | 5060    | 4  |   | 27.3    | 109 | 224 |
|      | 2   | L50x5  | 3845    | 4  |   | 14.5    | 58  |     |
|      | 3   | L63x5  | 3050    | 2  |   | 14.7    | 29  |     |
|      | 4   | -210x8 | 245     | 2  |   | 3.2     | 6   |     |
|      | 5   | -195x8 | 225     | 2  |   | 2.8     | 6   |     |
|      | 6   | -245x8 | 350     | 1  |   | 5.4     | 5   |     |
|      | 7   | -225x8 | 330     | 1  |   | 4.7     | 5   |     |
|      | 8   | -60x8  | 90      | 16 |   | 0.3     | 5   |     |
|      | 9   | -80x8  | 100     | 2  |   | 0.5     | 1   |     |
| CC10 | 1   | L70x5  | 5660    | 4  |   | 30.5    | 122 | 238 |
|      | 2   | L50x5  | 3940    | 4  |   | 14.9    | 60  |     |
|      | 3   | L63x5  | 2900    | 2  |   | 14.0    | 28  |     |
|      | 4   | -215x8 | 220     | 2  |   | 3.0     | 6   |     |
|      | 5   | -210x8 | 220     | 2  |   | 2.9     | 6   |     |
|      | 6   | -220x8 | 360     | 1  |   | 5.0     | 5   |     |
|      | 7   | -220x8 | 350     | 1  |   | 4.8     | 5   |     |
|      | 8   | -60x8  | 90      | 16 |   | 0.3     | 5   |     |
|      | 9   | -80x8  | 85      | 2  |   | 0.4     | 1   |     |
| CC11 | 1   | L70x5  | 5660    | 4  |   | 30.5    | 122 | 240 |
|      | 2   | L50x5  | 4050    | 4  |   | 15.3    | 61  |     |
|      | 3   | L63x5  | 3050    | 2  |   | 14.7    | 29  |     |
|      | 4   | -215x8 | 230     | 2  |   | 3.1     | 6   |     |
|      | 5   | -205x8 | 220     | 2  |   | 2.8     | 6   |     |
|      | 6   | -230x8 | 360     | 1  |   | 5.2     | 5   |     |
|      | 7   | -220x8 | 340     | 1  |   | 4.7     | 5   |     |
|      | 8   | -60x8  | 90      | 16 |   | 0.3     | 5   |     |
|      | 9   | -80x8  | 90      | 2  |   | 0.5     | 1   |     |

- 注:
1. 未注明的角焊缝脚尺寸为 5mm。
  2. 未注明长度的焊缝一律满焊。
  3. 对于 7、8、9 度抗震区时, 所有杆件均三面围焊。
  4. 未注明的螺栓为 M20, 孔径为  $\phi 21.5$ 。

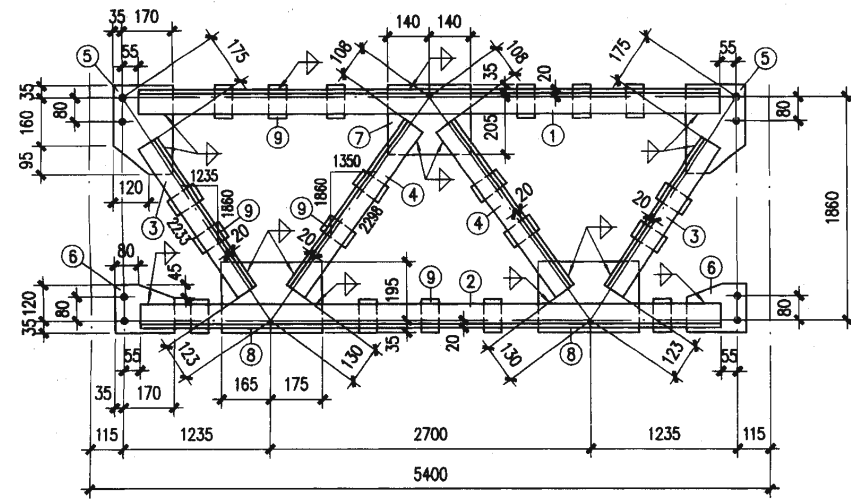




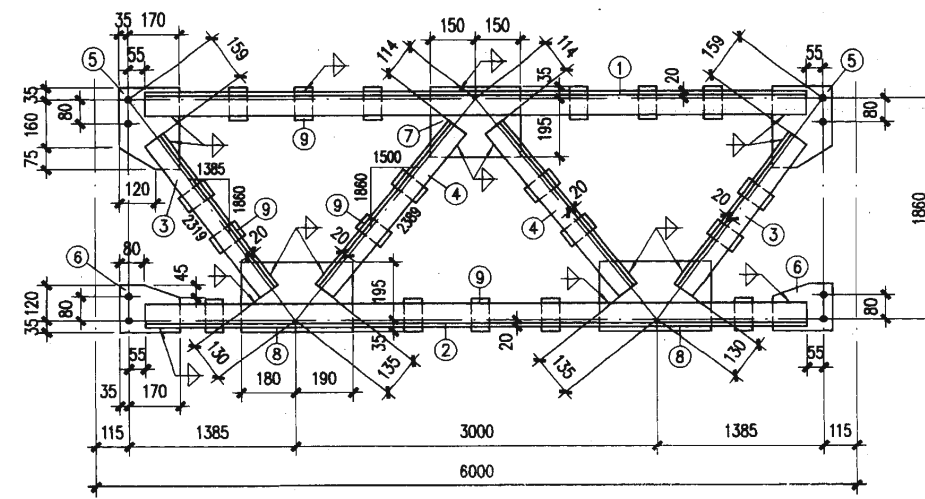
CC9



CC12



CC13



CC14

材料表

| 构件号  | 零件号 | 断面     | 长度 (mm) | 数量 |   | 重量 (kg) |     |
|------|-----|--------|---------|----|---|---------|-----|
|      |     |        |         | 正  | 反 | 每个      | 共计  |
| CC9  | 1   | L70x5  | 5060    | 4  |   | 27.3    | 109 |
|      | 2   | L50x5  | 3950    | 4  |   | 14.9    | 60  |
|      | 3   | L63x5  | 3200    | 2  |   | 15.4    | 31  |
|      | 4   | -205x8 | 250     | 2  |   | 3.2     | 6   |
|      | 5   | -195x8 | 230     | 2  |   | 2.8     | 6   |
|      | 6   | -250x8 | 350     | 1  |   | 5.5     | 6   |
|      | 7   | -230x8 | 320     | 1  |   | 4.6     | 5   |
|      | 8   | -60x8  | 90      | 16 |   | 0.3     | 5   |
|      | 9   | -80x8  | 105     | 2  |   | 0.5     | 1   |
| CC12 | 1   | L70x5  | 5660    | 4  |   | 30.5    | 122 |
|      | 2   | L50x5  | 4160    | 4  |   | 15.7    | 63  |
|      | 3   | L63x5  | 3200    | 2  |   | 15.4    | 31  |
|      | 4   | -215x8 | 235     | 2  |   | 3.2     | 6   |
|      | 5   | -200x8 | 220     | 2  |   | 2.8     | 6   |
|      | 6   | -235x8 | 360     | 1  |   | 5.3     | 5   |
|      | 7   | -220x8 | 330     | 1  |   | 4.6     | 5   |
|      | 8   | -60x8  | 90      | 16 |   | 0.3     | 5   |
|      | 9   | -80x8  | 95      | 2  |   | 0.5     | 1   |
| CC13 | 1   | L75x5  | 5060    | 2  |   | 29.4    | 59  |
|      | 2   | L75x7  | 5060    | 2  |   | 40.4    | 81  |
|      | 3   | L70x5  | 1935    | 4  |   | 10.4    | 42  |
|      | 4   | L70x5  | 2060    | 4  |   | 11.1    | 44  |
|      | 5   | -205x8 | 290     | 2  |   | 3.7     | 7   |
|      | 6   | -155x8 | 205     | 2  |   | 2.0     | 4   |
|      | 7   | -240x8 | 280     | 1  |   | 4.2     | 4   |
|      | 8   | -230x8 | 340     | 2  |   | 4.9     | 10  |
|      | 9   | -60x8  | 95      | 19 |   | 0.4     | 8   |
| CC14 | 1   | L75x5  | 5660    | 2  |   | 32.9    | 66  |
|      | 2   | L75x7  | 5660    | 2  |   | 45.1    | 90  |
|      | 3   | L70x5  | 2030    | 4  |   | 11.0    | 44  |
|      | 4   | L70x5  | 2140    | 4  |   | 11.5    | 46  |
|      | 5   | -205x8 | 270     | 2  |   | 3.5     | 7   |
|      | 6   | -155x8 | 205     | 2  |   | 2.0     | 4   |
|      | 7   | -230x8 | 300     | 1  |   | 4.3     | 4   |
|      | 8   | -230x8 | 370     | 2  |   | 5.3     | 11  |
|      | 9   | -60x8  | 95      | 19 |   | 0.4     | 8   |

注:

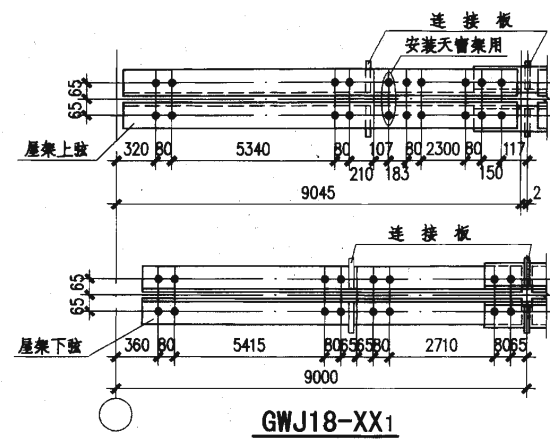
1. 未注明的角焊缝焊脚尺寸为5mm。
2. 未注明长度的焊缝一律满焊。
3. 对于7、8、9度抗震区时，所有杆件均三面围焊。
4. 未注明的螺栓为M20，孔径为 $\phi 21.5$ 。

竖向支撑 CC9、CC12~CC14 详图

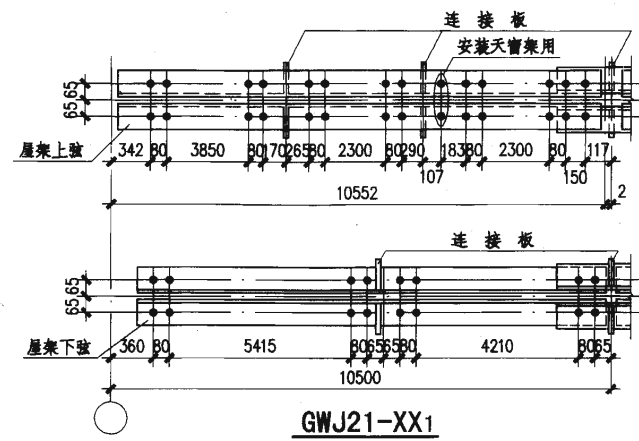
图集号 05G511

审核 汪一骏 设计 汪一骏 校对 汪一骏 设计 冯东 冯东

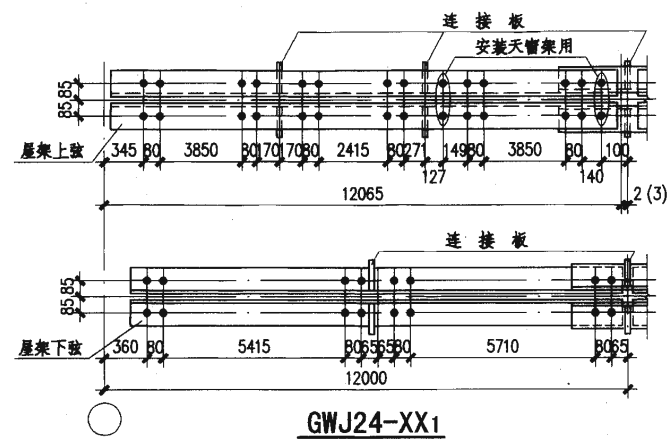
页 25



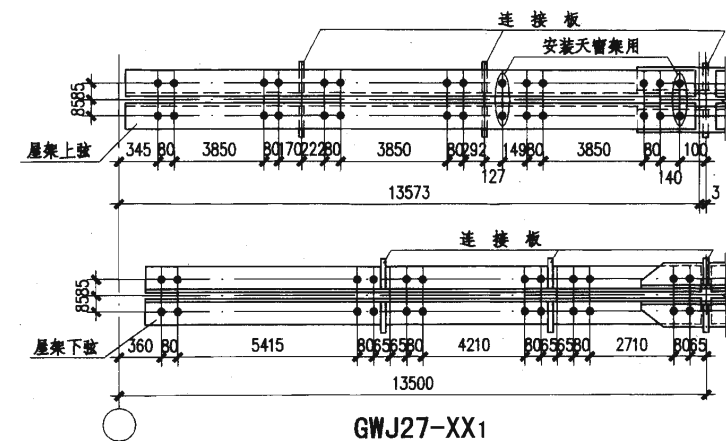
GWJ18-XX1



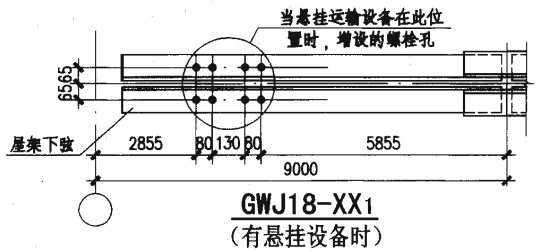
GWJ21-XX1



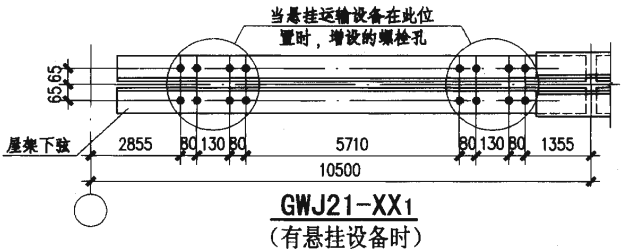
GWJ24-XX1



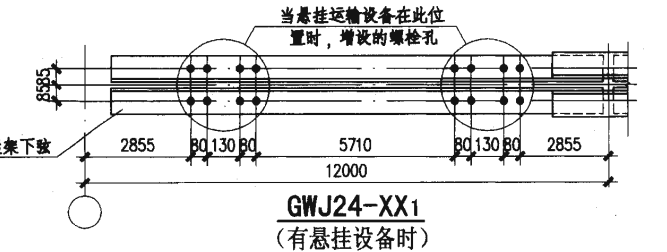
GWJ27-XX1



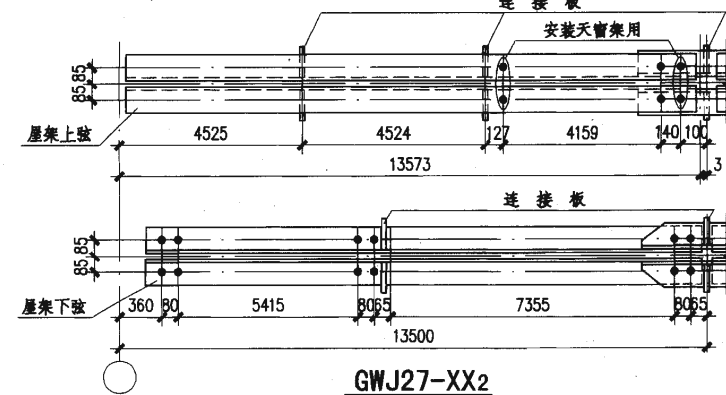
GWJ18-XX1  
(有悬挂设备时)



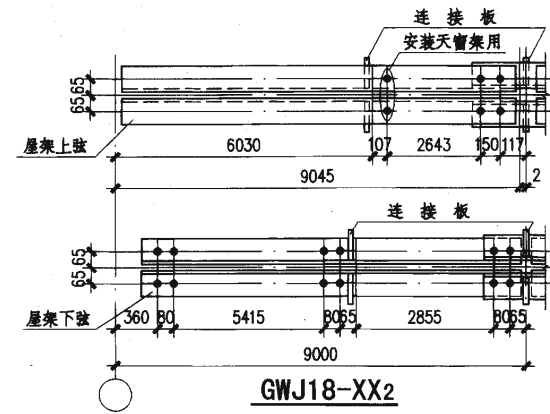
GWJ21-XX1  
(有悬挂设备时)



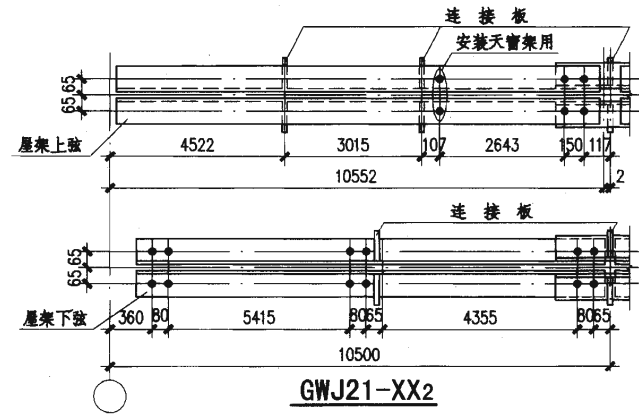
GWJ24-XX1  
(有悬挂设备时)



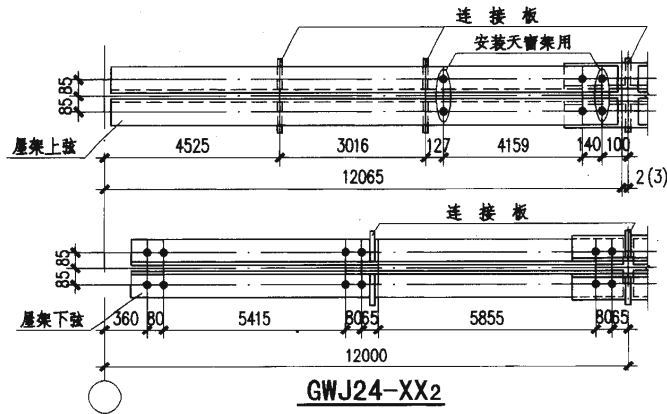
GWJ27-XX2



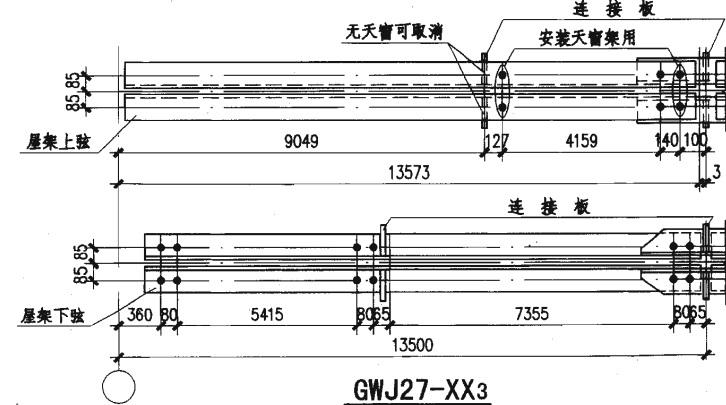
GWJ18-XX2



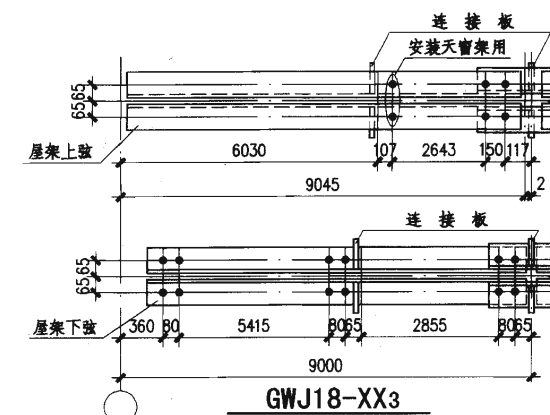
GWJ21-XX2



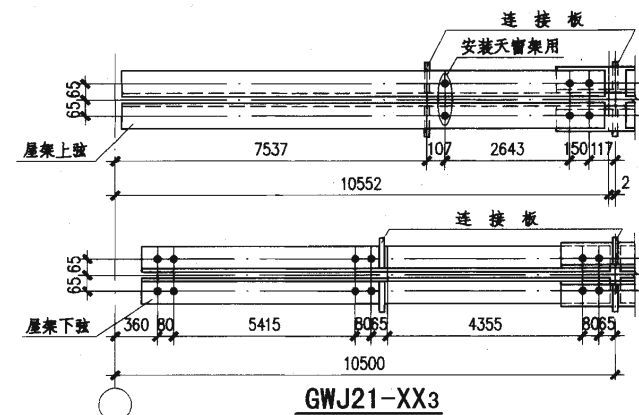
GWJ24-XX2



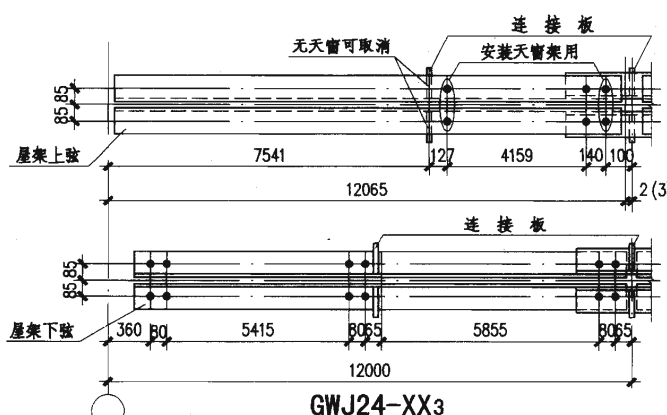
GWJ27-XX3



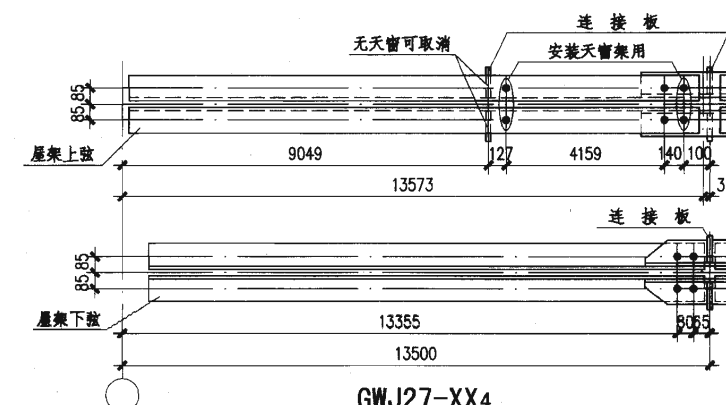
GWJ18-XX3  
(同GWJ18-XX2)



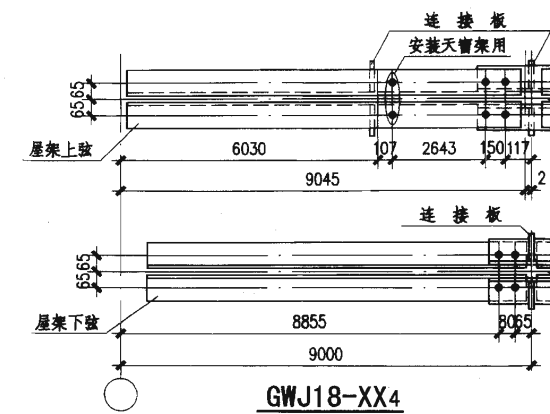
GWJ21-XX3



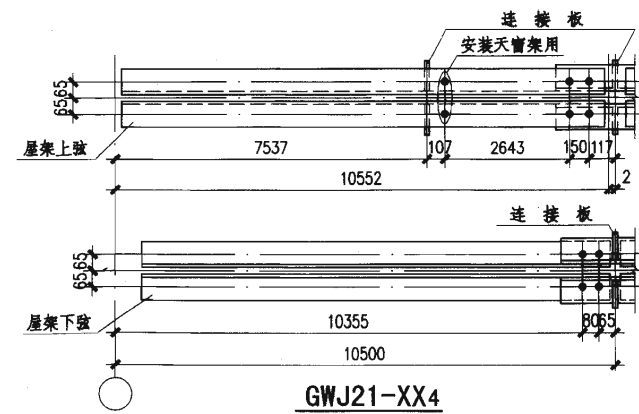
GWJ24-XX3



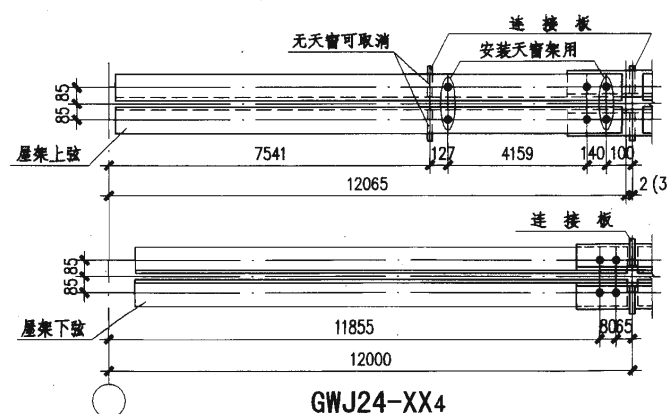
GWJ27-XX4



GWJ18-XX4

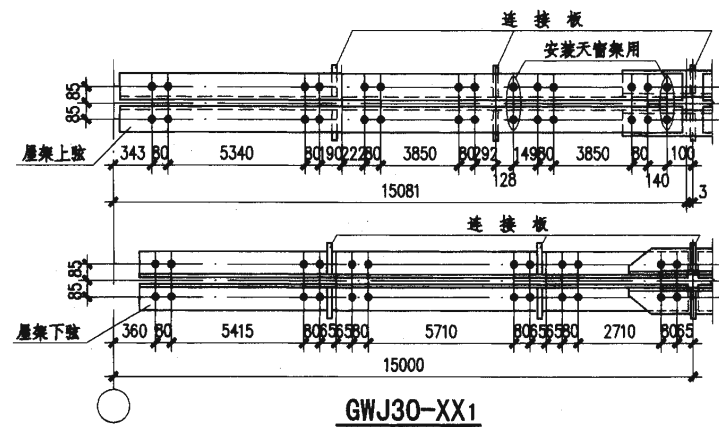


GWJ21-XX4

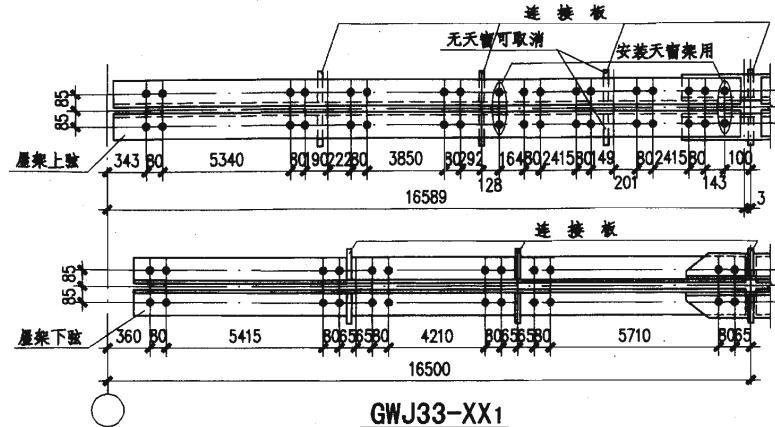


GWJ24-XX4

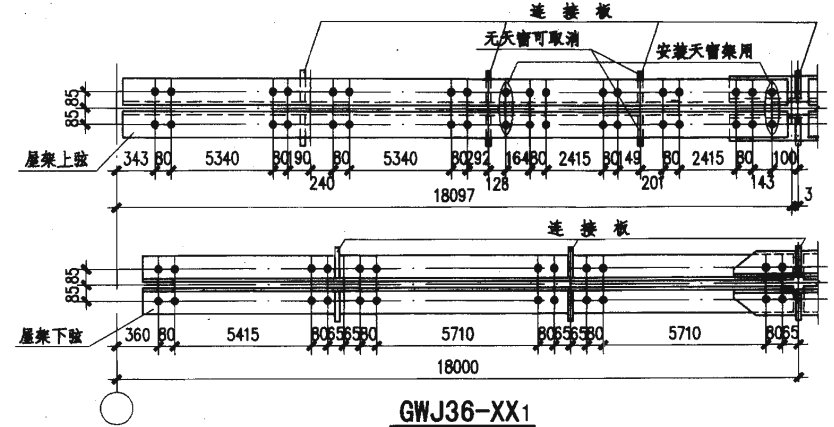
- 注:
1. 本图分别与18m~27m 屋架详图(页28~57)配合使用。
  2. 构件编号中的XX, 前者代表屋架承载能力序号1~7, 后者代表端部不同构造A、B、C。
  3. 对于端部为B型的屋架两端上、下弦和端部为C型的屋架一端上、下弦, 均有连接板, 本图不作重复表示, 其连接位置和加工尺寸按各屋架详图施工。
  4. 屋架上、下弦垂直肢的打孔, 均按各屋架详图施工。
  5. 图中的螺栓孔径为 $\phi 21.5$ , 支撑连接板加工尺寸分别见各屋架详图。



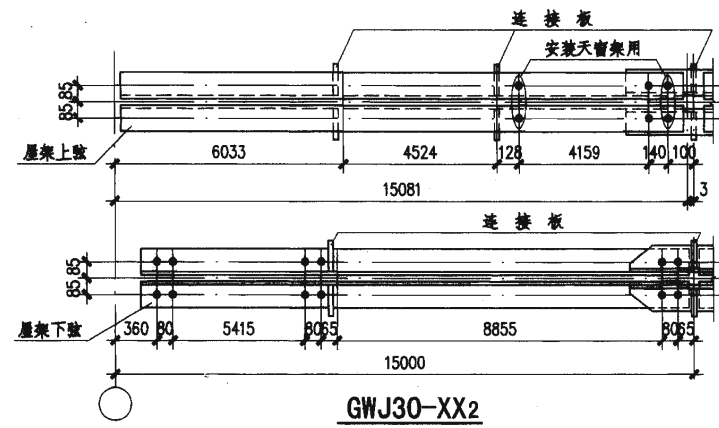
GWJ30-XX1



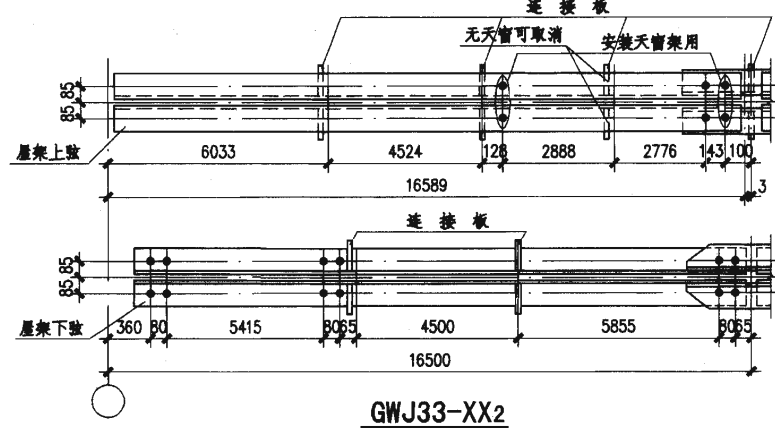
GWJ33-XX1



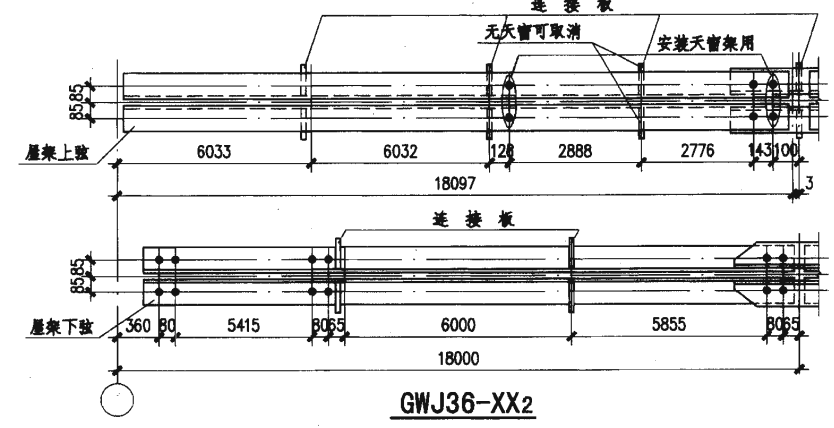
GWJ36-XX1



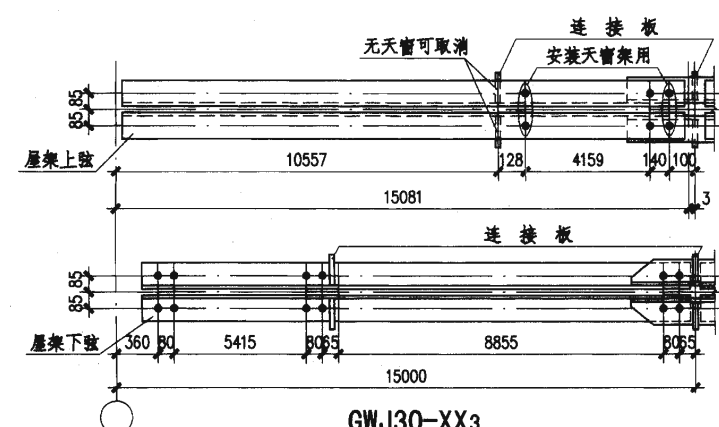
GWJ30-XX2



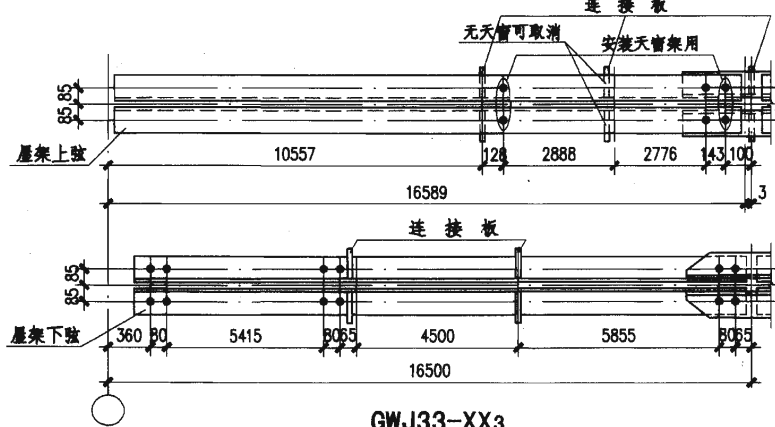
GWJ33-XX2



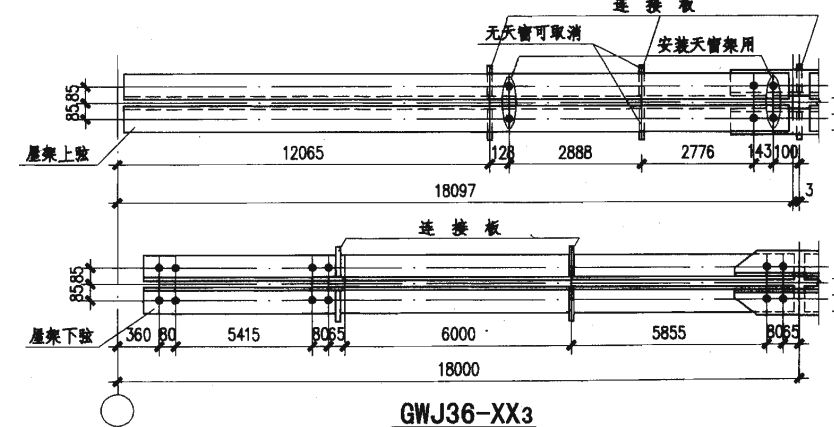
GWJ36-XX2



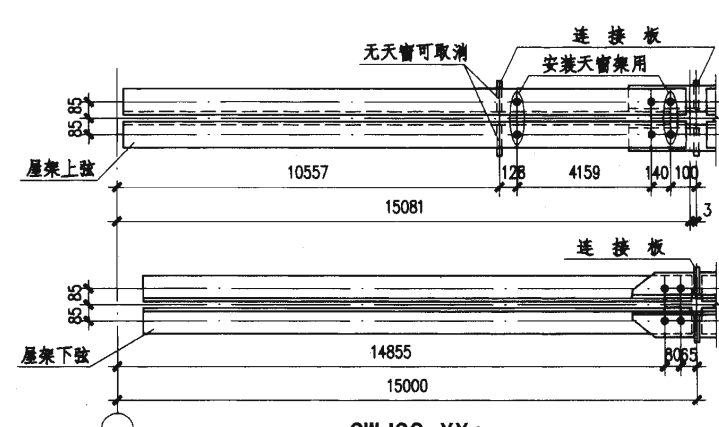
GWJ30-XX3



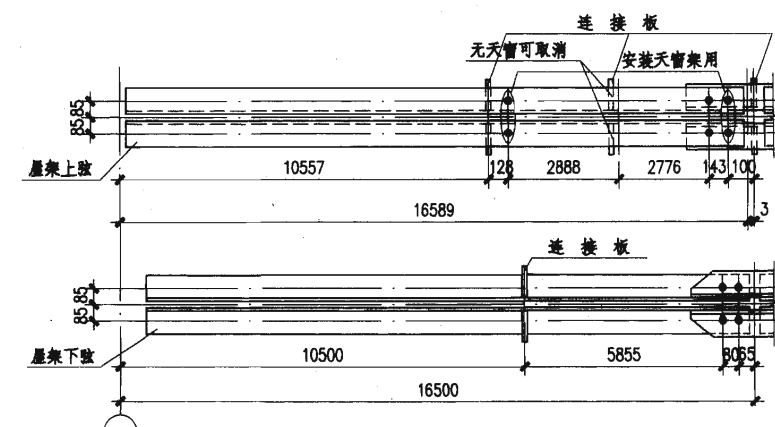
GWJ33-XX3



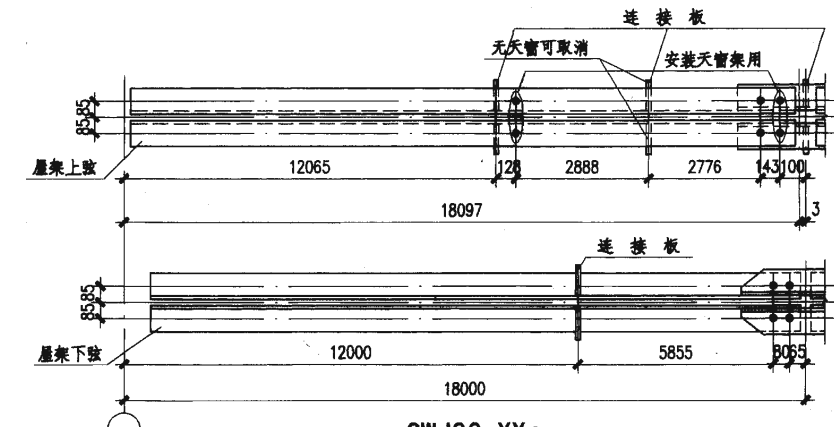
GWJ36-XX3



GWJ30-XX4



GWJ33-XX4



GWJ36-XX4

注:

1. 本图分别与30m~36m屋架详图(页58~79)配合使用。
2. 构件编号中的XX,前者代表屋架承载力序号1~7,后者代表端部不同构造A、B、C。
3. 对于端部为B型的屋架两端上、下弦和端部为C型的屋架一端上、下弦,均有连接板,本图不作重复表示,其连接位置和加工尺寸按各屋架详图施工。
4. 屋架上、下弦垂直肢的打孔,均按各屋架详图施工。
5. 图中的螺栓孔径为 $\phi 21.5$ ,支撑连接板加工尺寸分别见各屋架详图。

材 料 表

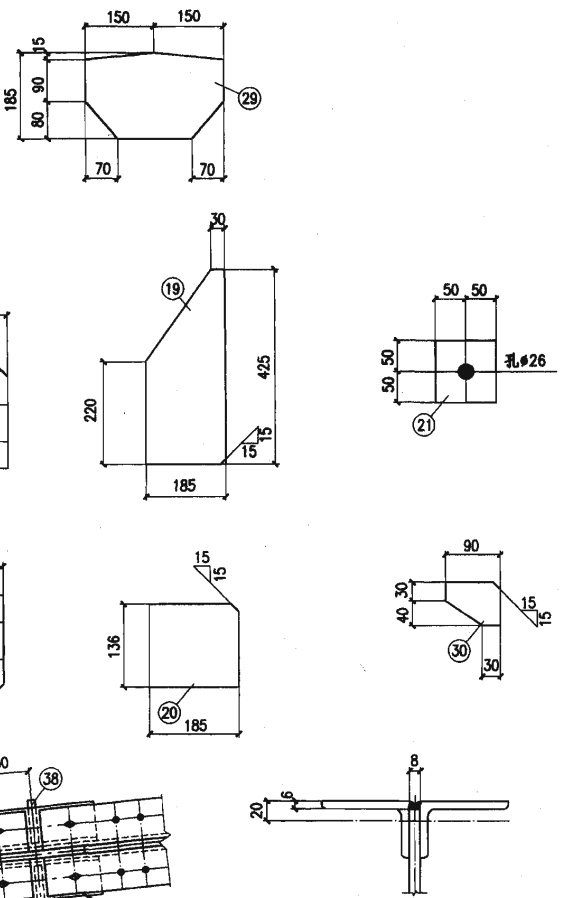
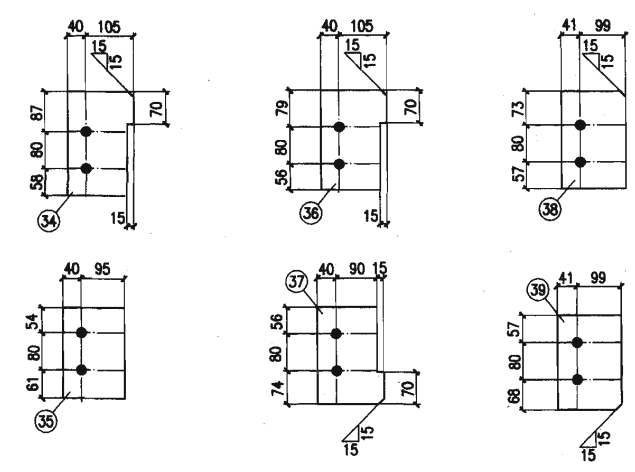
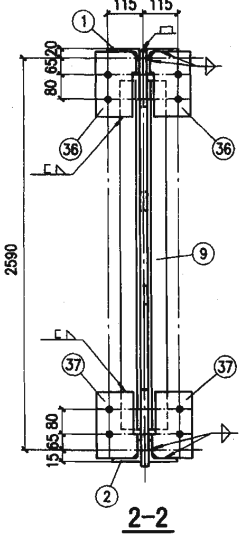
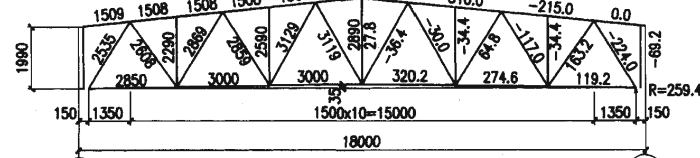
| 构件编号      | 零件号        | 断面  | 长度 (mm) | 数量 |      | 重量 (kg) |    |                        |            |      |    |   |      |     |
|-----------|------------|-----|---------|----|------|---------|----|------------------------|------------|------|----|---|------|-----|
|           |            |     |         | 正  | 反    | 每个      | 共计 |                        |            |      |    |   |      |     |
| GWJ18-1A1 |            |     |         |    |      |         |    |                        |            |      |    |   |      |     |
|           |            |     |         |    |      |         |    | 1                      | L100X80X6  | 9030 | 2  | 2 | 75.4 | 302 |
|           |            |     |         |    |      |         |    | 2                      | L90X56X6   | 8810 | 2  | 2 | 59.2 | 237 |
|           |            |     |         |    |      |         |    | 3                      | L63X5      | 1860 | 4  |   | 9.0  | 36  |
|           |            |     |         |    |      |         |    | 4                      | L100X80X6  | 2290 | 4  |   | 19.1 | 76  |
|           |            |     |         |    |      |         |    | 5                      | L50X5      | 2400 | 4  |   | 9.0  | 36  |
|           |            |     |         |    |      |         |    | 6                      | L50X5      | 2140 | 4  |   | 8.1  | 32  |
|           |            |     |         |    |      |         |    | 7                      | L70X5      | 2615 | 4  |   | 14.1 | 56  |
|           |            |     |         |    |      |         |    | 8                      | L50X5      | 2665 | 4  |   | 10.0 | 40  |
|           |            |     |         |    |      |         |    | 9                      | L50X5      | 2440 | 4  |   | 9.2  | 37  |
|           |            |     |         |    |      |         |    | 10                     | L56X5      | 2875 | 4  |   | 12.2 | 49  |
|           |            |     |         |    |      |         |    | 11                     | L63X5      | 2810 | 2  |   | 13.5 | 27  |
|           |            |     |         |    |      |         |    | 12                     | L63X5      | 2810 | 1  | 1 | 13.5 | 27  |
|           |            |     |         |    |      |         |    | 13                     | L63X5      | 2735 | 2  |   | 13.2 | 26  |
|           |            |     |         |    |      |         |    | 14                     | L100X80X6  | 400  | 2  |   | 3.3  | 7   |
|           |            |     |         |    |      |         |    | 15                     | L90X56X6   | 410  | 2  |   | 2.8  | 6   |
|           |            |     |         |    |      |         |    | 16                     | -150X8     | 200  | 2  |   | 1.9  | 4   |
|           |            |     |         |    |      |         |    | 17                     | -320X10    | 425  | 2  |   | 10.7 | 21  |
|           |            |     |         |    |      |         |    | 18                     | -300X20    | 380  | 2  |   | 17.9 | 36  |
|           |            |     |         |    |      |         |    | 19                     | -185X8     | 425  | 4  |   | 5.0  | 20  |
|           |            |     |         |    |      |         |    | 20                     | -136X8     | 185  | 4  |   | 1.6  | 6   |
|           |            |     |         |    |      |         |    | 21                     | -100X20    | 100  | 4  |   | 1.6  | 6   |
|           |            |     |         |    |      |         |    | 22                     | -235X8     | 310  | 2  |   | 4.6  | 9   |
|           |            |     |         |    |      |         |    | 23                     | -240X8     | 310  | 2  |   | 4.7  | 9   |
|           |            |     |         |    |      |         |    | 24                     | -180X8     | 185  | 4  |   | 2.1  | 8   |
|           |            |     |         |    |      |         |    | 25                     | -210X8     | 240  | 2  |   | 3.2  | 6   |
|           |            |     |         |    |      |         |    | 26                     | -245X8     | 490  | 2  |   | 7.5  | 15  |
|           |            |     |         |    |      |         |    | 27                     | -200X8     | 215  | 2  |   | 2.7  | 5   |
|           |            |     |         |    |      |         |    | 28                     | -300X8     | 380  | 1  |   | 7.2  | 7   |
|           |            |     |         |    |      |         |    | 29                     | -185X8     | 300  | 1  |   | 3.5  | 4   |
|           |            |     |         |    |      |         |    | 30                     | -70X8      | 90   | 16 |   | 0.4  | 6   |
|           |            |     |         |    |      |         |    | 31                     | -60X8      | 100  | 15 |   | 0.4  | 6   |
|           |            |     |         |    |      |         |    | 32                     | -60X8      | 85   | 46 |   | 0.3  | 14  |
|           |            |     |         |    |      |         |    | 33                     | -60X8      | 120  | 4  |   | 0.5  | 2   |
|           |            |     |         |    |      |         |    | 34                     | -145X8     | 225  | 4  |   | 2.0  | 8   |
|           |            |     |         |    |      |         |    | 35                     | -135X8     | 195  | 4  |   | 1.7  | 7   |
|           |            |     |         |    |      |         |    | 36                     | -145X8     | 215  | 4  |   | 2.0  | 8   |
|           |            |     |         |    |      |         |    | 37                     | -145X8     | 210  | 4  |   | 1.9  | 8   |
|           |            |     |         |    |      |         |    | 38                     | -140X8     | 210  | 2  |   | 1.8  | 4   |
| 39        | -140X8     | 205 | 2       |    | 1.8  | 4       |    |                        |            |      |    |   |      |     |
| GWJ18-1B1 |            |     |         |    |      |         |    |                        |            |      |    |   |      |     |
|           |            |     |         |    |      |         |    | 5-15, 22-31, 33, 36-39 | 同GWJ18-1A1 |      |    |   | 444  |     |
|           |            |     |         |    |      |         |    | 32                     | -60X8      | 85   | 42 |   | 0.3  | 13  |
|           |            |     |         |    |      |         |    | 40                     | L100X80X6  | 8760 | 2  | 2 | 73.1 | 292 |
|           |            |     |         |    |      |         |    | 41                     | L90X56X6   | 8705 | 2  | 2 | 58.5 | 234 |
|           |            |     |         |    |      |         |    | 42                     | L100X80X6  | 2240 | 4  |   | 18.7 | 75  |
|           |            |     |         |    |      |         |    | 43                     | -150X8     | 215  | 2  |   | 2.0  | 4   |
|           |            |     |         |    |      |         |    | 44                     | -190X20    | 200  | 2  |   | 6.0  | 12  |
| 45        | -155X10    | 440 | 2       |    | 5.4  | 11      |    |                        |            |      |    |   |      |     |
| 46        | -200X20    | 455 | 2       |    | 14.3 | 29      |    |                        |            |      |    |   |      |     |
| GWJ18-1C1 |            |     |         |    |      |         |    |                        |            |      |    |   |      |     |
|           |            |     |         |    |      |         |    | 1-4, 16-21, 34, 35     | 同GWJ18-1A1 |      |    |   | 380  |     |
|           |            |     |         |    |      |         |    | 5-15, 22-31, 33, 36-39 | 同GWJ18-1A1 |      |    |   | 444  |     |
|           |            |     |         |    |      |         |    | 32                     | -60X8      | 85   | 44 |   | 0.3  | 13  |
| 40-46     | 同GWJ18-1B1 |     |         |    | 数量减半 | 329     |    |                        |            |      |    |   |      |     |

1217

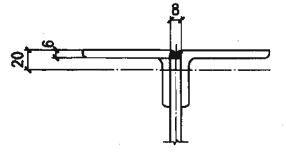
1114

1166

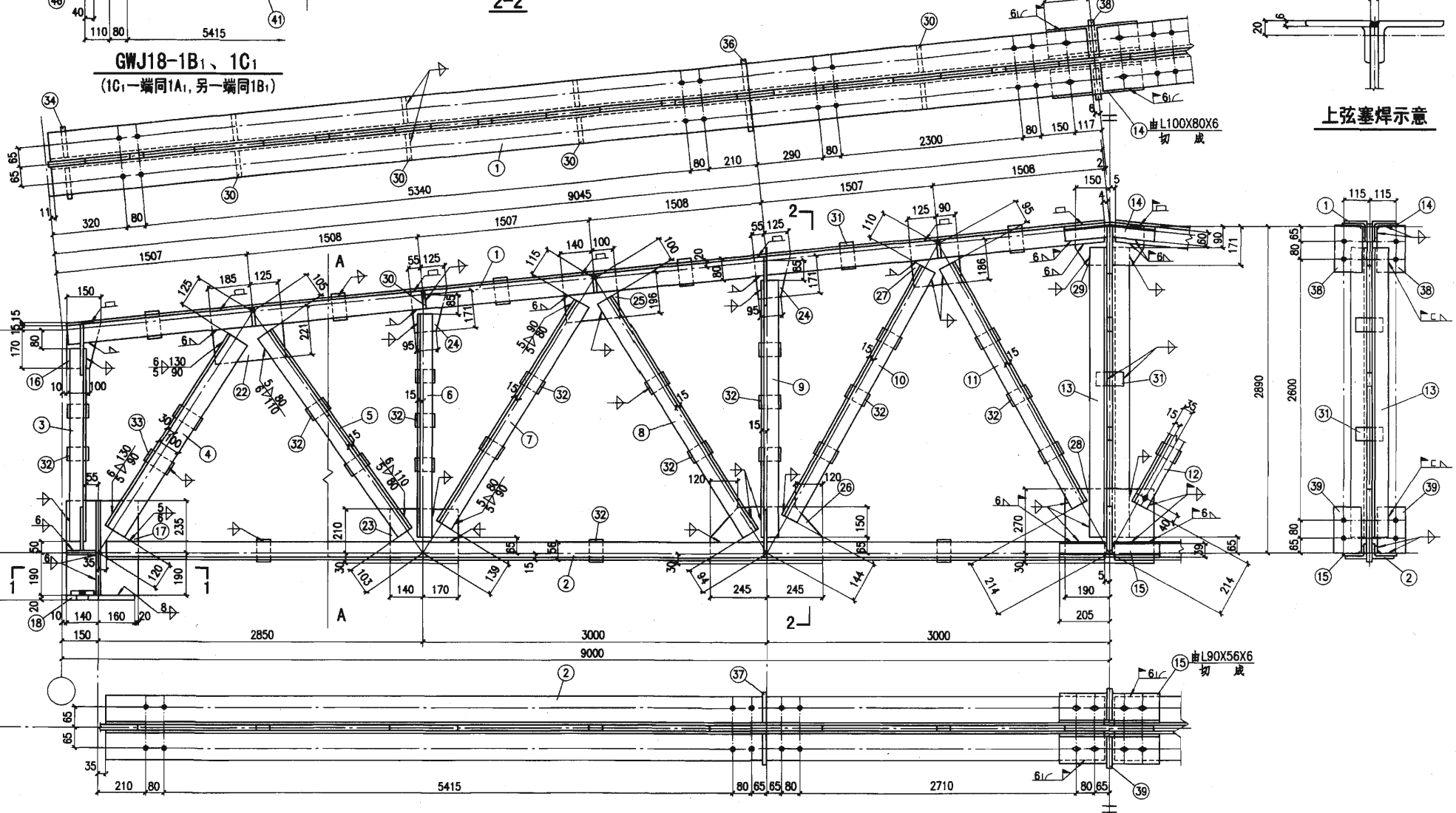
GWJ18-1A1 几何尺寸及内力图



上弦塞焊示意

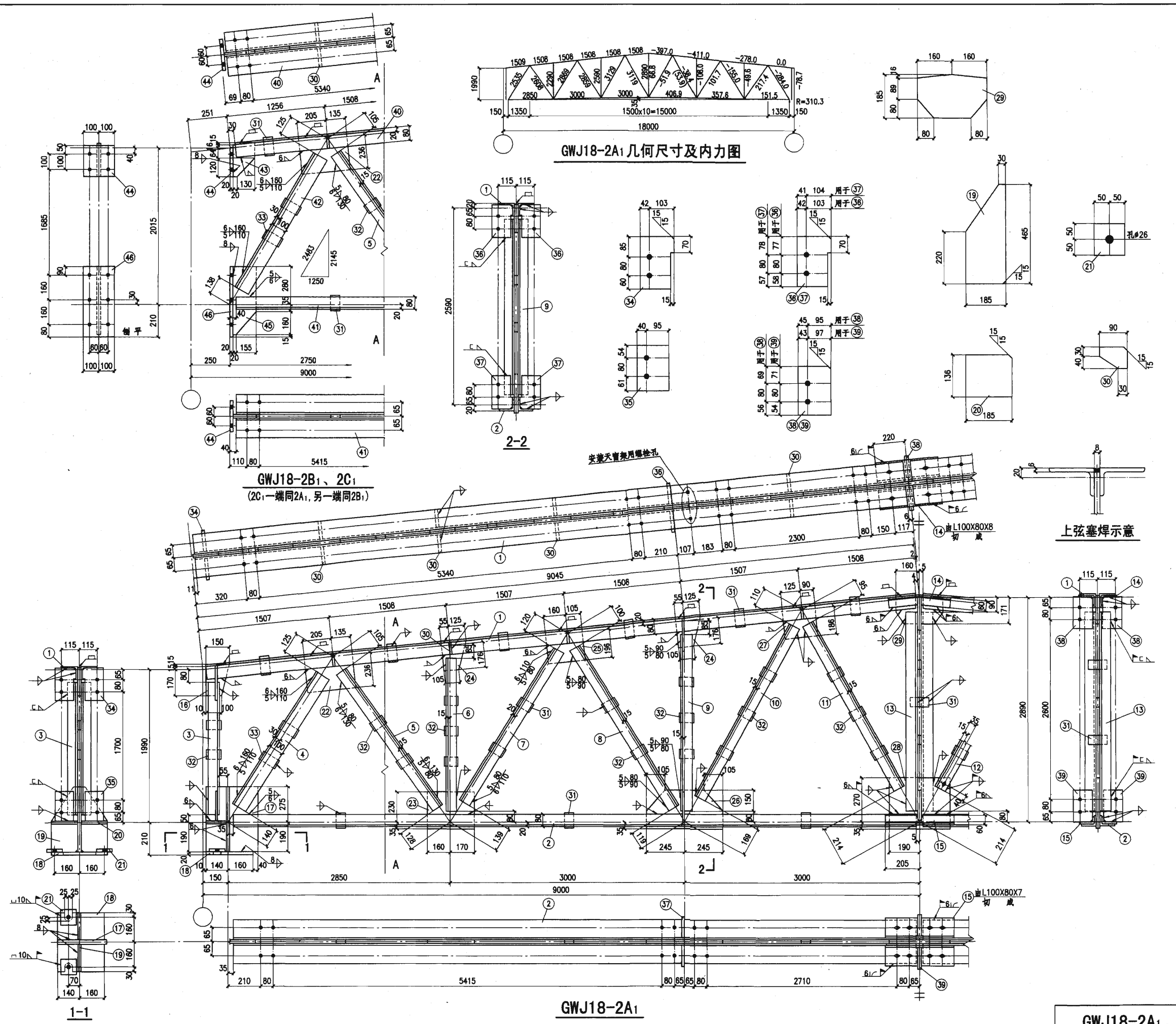


GWJ18-1B1, 1C1  
(1C1一端同1A1, 另一端同1B1)



GWJ18-1A1

- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为中21.5。



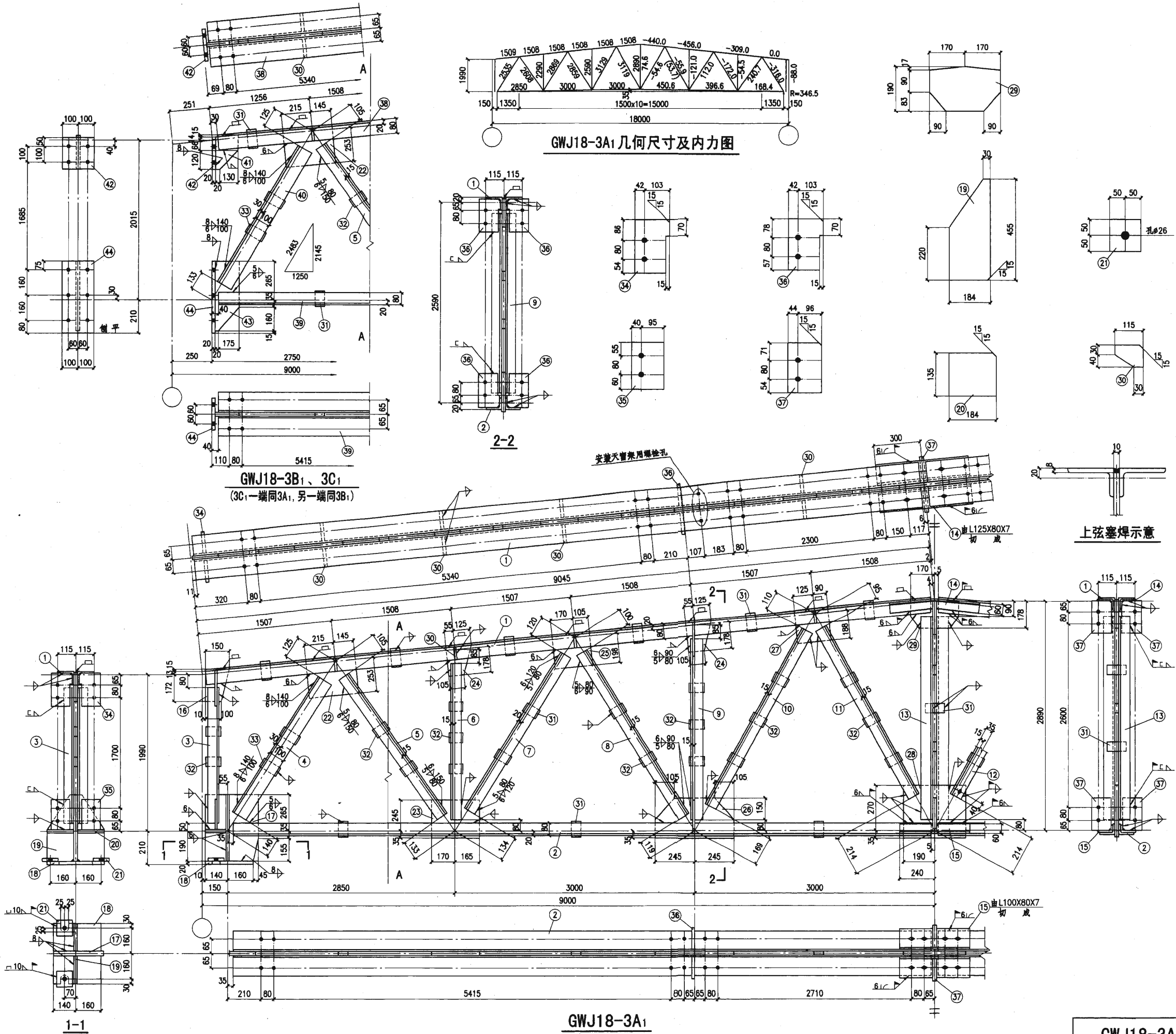
GWJ18-2A1 几何尺寸及内力图

GWJ18-2B1、2C1  
(2C1一端同2A1, 另一端同2B1)

GWJ18-2A1

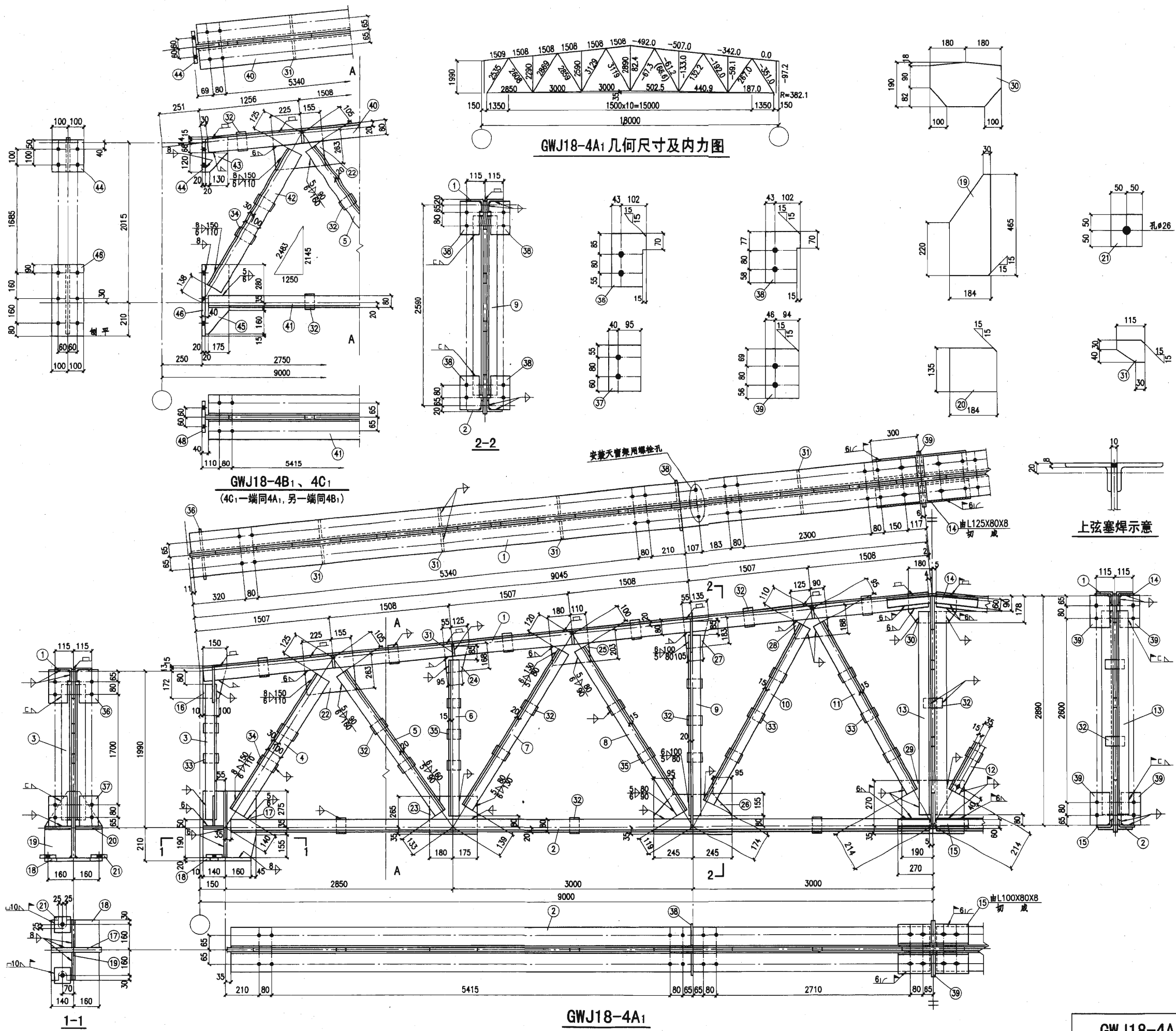
| 材 料 表                  |             |      |         |    |        |        |
|------------------------|-------------|------|---------|----|--------|--------|
| 构件编号                   | 零件号         | 断面   | 长度 (mm) | 数量 |        | 重量(kg) |
|                        |             |      |         | 正  | 反 每个共计 |        |
| GWJ18-2A1              |             |      |         |    |        |        |
| 1                      | L100X80X8   | 9030 | 2       | 2  | 98.8   | 395    |
| 2                      | L100X80X7   | 8810 | 2       | 2  | 85.1   | 340    |
| 3                      | L63X5       | 1860 | 4       | 2  | 9.0    | 36     |
| 4                      | L100X80X7   | 2270 | 4       | 2  | 21.9   | 88     |
| 5                      | L56X5       | 2375 | 4       | 2  | 10.1   | 40     |
| 6                      | L50X5       | 2125 | 4       | 2  | 8.0    | 32     |
| 7                      | L75X5       | 2610 | 4       | 2  | 15.2   | 61     |
| 8                      | L50X5       | 2640 | 4       | 2  | 10.0   | 40     |
| 9                      | L63X5       | 2425 | 4       | 2  | 11.7   | 47     |
| 10                     | L56X5       | 2850 | 4       | 2  | 12.1   | 48     |
| 11                     | L63X5       | 2810 | 2       | 2  | 13.5   | 27     |
| 12                     | L63X5       | 2810 | 1       | 1  | 13.5   | 27     |
| 13                     | L63X5       | 2720 | 2       | 2  | 13.1   | 26     |
| 14                     | L100X80X8   | 440  | 2       | 2  | 4.8    | 10     |
| 15                     | L100X80X7   | 410  | 2       | 2  | 4.0    | 8      |
| 16                     | -150X8      | 200  | 2       | 2  | 1.9    | 4      |
| 17                     | -340X10     | 465  | 2       | 2  | 12.4   | 25     |
| 18                     | -300X20     | 380  | 2       | 2  | 17.9   | 36     |
| 19                     | -185X8      | 165  | 4       | 2  | 5.4    | 22     |
| 20                     | -136X8      | 185  | 4       | 2  | 1.6    | 6      |
| 21                     | -100X20     | 100  | 4       | 2  | 1.6    | 6      |
| 22                     | -250X8      | 340  | 2       | 2  | 5.3    | 11     |
| 23                     | -265X8      | 330  | 2       | 2  | 5.5    | 11     |
| 24                     | -180X8      | 190  | 4       | 2  | 2.1    | 8      |
| 25                     | -210X8      | 265  | 2       | 2  | 3.5    | 7      |
| 26                     | -265X8      | 490  | 2       | 2  | 8.2    | 16     |
| 27                     | -200X8      | 215  | 2       | 2  | 2.7    | 5      |
| 28                     | -305X8      | 380  | 1       | 2  | 7.3    | 7      |
| 29                     | -185X8      | 320  | 1       | 2  | 3.7    | 4      |
| 30                     | -70X8       | 90   | 16      | 2  | 0.4    | 6      |
| 31                     | -60X8       | 100  | 25      | 2  | 0.4    | 10     |
| 32                     | -60X8       | 85   | 36      | 2  | 0.3    | 11     |
| 33                     | -60X8       | 120  | 4       | 2  | 0.5    | 2      |
| 34                     | -145X8      | 225  | 4       | 2  | 2.0    | 8      |
| 35                     | -135X8      | 195  | 4       | 2  | 1.7    | 7      |
| 36                     | -145X8      | 215  | 4       | 2  | 2.0    | 8      |
| 37                     | -145X8      | 215  | 4       | 2  | 2.0    | 8      |
| 38                     | -140X8      | 205  | 2       | 2  | 1.8    | 4      |
| 39                     | -140X8      | 205  | 2       | 2  | 1.8    | 4      |
| GWJ18-2B1              |             |      |         |    |        |        |
| 5-15, 22-31, 33, 36-39 | 同 GWJ18-2A1 |      |         |    | 477    |        |
| 32                     | -60X8       | 85   | 32      | 2  | 0.3    | 10     |
| 40                     | L100X80X8   | 8760 | 2       | 2  | 95.9   | 384    |
| 41                     | L100X80X7   | 8705 | 2       | 2  | 84.1   | 336    |
| 42                     | L100X80X7   | 2220 | 4       | 2  | 21.4   | 86     |
| 43                     | -150X8      | 215  | 2       | 2  | 2.0    | 4      |
| 44                     | -190X20     | 200  | 2       | 2  | 6.0    | 12     |
| 45                     | -175X10     | 475  | 2       | 2  | 6.5    | 13     |
| 46                     | -200X20     | 490  | 2       | 2  | 15.4   | 31     |
| GWJ18-2C1              |             |      |         |    |        |        |
| 1-4, 16-21, 34, 35     | 同 GWJ18-2A1 |      |         |    | 487    |        |
| 5-15, 22-31, 33, 36-39 | 同 GWJ18-2A1 |      |         |    | 477    |        |
| 32                     | -60X8       | 85   | 34      | 2  | 0.3    | 10     |
| 40-46                  | 同 GWJ18-2B1 |      |         |    | 433    |        |
| 合计                     |             |      |         |    |        |        |
|                        |             |      |         |    |        | 1461   |
|                        |             |      |         |    |        | 1353   |
|                        |             |      |         |    |        | 1407   |

注：  
 1. 本图应与页 26 配合使用。  
 2. 未注明的角焊缝焊脚尺寸为 5mm，其长度不小于 80mm。  
 3. 所有焊缝一律满焊。  
 4. 未注明的螺栓为 M20，孔径为  $\Phi 21.5$ 。



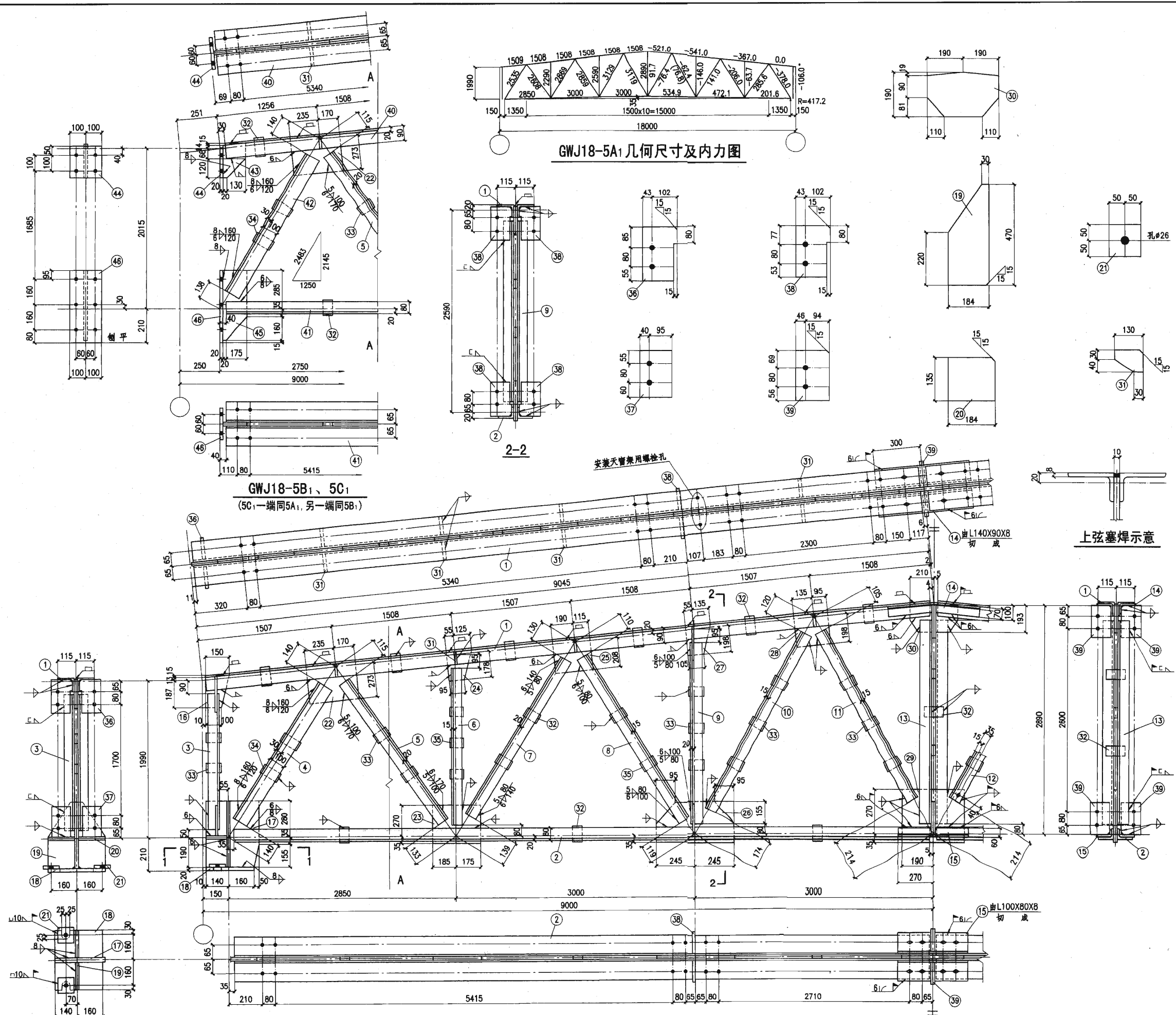
| 材 料 表               |            |      |         |    |      |         |
|---------------------|------------|------|---------|----|------|---------|
| 构件编号                | 零件号        | 断面   | 长度 (mm) | 数量 |      | 重量 (kg) |
|                     |            |      |         | 正  | 反    |         |
| GWJ18-3A1           |            |      |         |    |      |         |
| 1                   | L125X80X7  | 9030 | 2       | 2  | 99.9 | 400     |
| 2                   | L100X80X7  | 8810 | 2       | 2  | 85.1 | 340     |
| 3                   | L63X5      | 1860 | 4       |    | 9.0  | 36      |
| 4                   | L100X80X7  | 2270 | 4       |    | 21.9 | 88      |
| 5                   | L63X5      | 2370 | 4       |    | 11.4 | 46      |
| 6                   | L50X5      | 2125 | 4       |    | 8.0  | 32      |
| 7                   | L75X5      | 2615 | 4       |    | 15.2 | 61      |
| 8                   | L50X5      | 2640 | 4       |    | 10.0 | 40      |
| 9                   | L63X5      | 2425 | 4       |    | 11.7 | 47      |
| 10                  | L63X5      | 2850 | 4       |    | 13.7 | 55      |
| 11                  | L63X5      | 2810 | 2       |    | 13.5 | 27      |
| 12                  | L63X5      | 2810 | 1       | 1  | 13.5 | 27      |
| 13                  | L63X5      | 2720 | 2       |    | 13.1 | 26      |
| 14                  | L125X80X7  | 600  | 2       |    | 6.6  | 13      |
| 15                  | L100X80X7  | 480  | 2       |    | 4.6  | 9       |
| 16                  | -150X10    | 200  | 2       |    | 2.4  | 5       |
| 17                  | -345X12    | 455  | 2       |    | 14.8 | 30      |
| 18                  | -300X20    | 380  | 2       |    | 17.9 | 36      |
| 19                  | -184X10    | 455  | 4       |    | 6.6  | 26      |
| 20                  | -135X10    | 184  | 4       |    | 1.9  | 8       |
| 21                  | -100X20    | 100  | 4       |    | 1.6  | 6       |
| 22                  | -265X10    | 360  | 2       |    | 7.5  | 15      |
| 23                  | -280X10    | 335  | 2       |    | 7.4  | 15      |
| 24                  | -180X10    | 190  | 4       |    | 2.7  | 11      |
| 25                  | -210X10    | 275  | 2       |    | 4.5  | 9       |
| 26                  | -265X10    | 490  | 2       |    | 10.2 | 20      |
| 27                  | -200X10    | 215  | 2       |    | 3.4  | 7       |
| 28                  | -305X10    | 380  | 1       |    | 9.1  | 9       |
| 29                  | -190X10    | 340  | 1       |    | 5.1  | 5       |
| 30                  | -70X8      | 115  | 16      |    | 0.5  | 8       |
| 31                  | -60X10     | 100  | 25      |    | 0.5  | 13      |
| 32                  | -60X10     | 85   | 36      |    | 0.4  | 14      |
| 33                  | -60X10     | 120  | 4       |    | 0.6  | 2       |
| 34                  | -145X8     | 220  | 4       |    | 2.0  | 8       |
| 35                  | -135X8     | 195  | 4       |    | 1.7  | 7       |
| 36                  | -145X8     | 215  | 8       |    | 2.0  | 16      |
| 37                  | -140X8     | 205  | 4       |    | 1.8  | 7       |
| GWJ18-3B1           |            |      |         |    |      |         |
| 5-15-22-31-33-36-37 | 同GWJ18-3A1 |      |         |    | 520  |         |
| 32                  | -60X10     | 85   | 32      |    | 0.4  | 13      |
| 38                  | L125X80X7  | 8760 | 2       |    | 96.9 | 388     |
| 39                  | L100X80X7  | 8705 | 2       |    | 84.1 | 336     |
| 40                  | L100X80X7  | 2225 | 4       |    | 21.4 | 86      |
| 41                  | -150X10    | 215  | 2       |    | 2.5  | 5       |
| 42                  | -190X20    | 200  | 2       |    | 6.0  | 12      |
| 43                  | -195X12    | 460  | 2       |    | 8.4  | 17      |
| 44                  | -200X20    | 475  | 2       |    | 14.9 | 30      |
| GWJ18-3C1           |            |      |         |    |      |         |
| 1-4-16-21-34-35     | 同GWJ18-3A1 |      |         |    | 495  |         |
| 5-15-22-31-33-36-37 | 同GWJ18-3A1 |      |         |    | 520  |         |
| 32                  | -60X10     | 85   | 34      |    | 0.4  | 14      |
| 38-44               | 同GWJ18-3B1 |      |         |    | 437  |         |

- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为Φ21.5。



| 材 料 表                  |            |      |         |    |       |        |
|------------------------|------------|------|---------|----|-------|--------|
| 构件编号                   | 零件号        | 断面   | 长度 (mm) | 数量 |       | 重量(kg) |
|                        |            |      |         | 正  | 反     |        |
| GWJ18-4A1              |            |      |         |    |       |        |
| 1                      | L125X80X8  | 9030 | 2       | 2  | 113.3 | 453    |
| 2                      | L100X80X8  | 8810 | 2       | 2  | 96.4  | 386    |
| 3                      | L63X5      | 1860 | 4       |    | 9.0   | 36     |
| 4                      | L100X80X8  | 2270 | 4       |    | 24.8  | 99     |
| 5                      | L70X5      | 2370 | 4       |    | 12.8  | 51     |
| 6                      | L50X5      | 2125 | 4       |    | 8.0   | 32     |
| 7                      | L80X5      | 2610 | 4       |    | 16.2  | 65     |
| 8                      | L50X5      | 2640 | 4       |    | 10.0  | 40     |
| 9                      | L70X5      | 2425 | 4       |    | 13.1  | 52     |
| 10                     | L63X5      | 2845 | 4       |    | 13.7  | 55     |
| 11                     | L63X5      | 2810 | 2       |    | 13.5  | 27     |
| 12                     | L63X5      | 2810 | 1       | 1  | 13.5  | 27     |
| 13                     | L63X5      | 2710 | 2       |    | 13.1  | 26     |
| 14                     | L125X80X8  | 600  | 2       |    | 7.5   | 15     |
| 15                     | L100X80X8  | 540  | 2       |    | 5.9   | 12     |
| 16                     | -150X10    | 200  | 2       |    | 2.4   | 5      |
| 17                     | -345X12    | 465  | 2       |    | 15.1  | 30     |
| 18                     | -300X20    | 380  | 2       |    | 17.9  | 36     |
| 19                     | -184X10    | 465  | 4       |    | 6.7   | 27     |
| 20                     | -135X10    | 184  | 4       |    | 1.9   | 8      |
| 21                     | -100X20    | 100  | 4       |    | 1.6   | 6      |
| 22                     | -275X10    | 380  | 2       |    | 8.2   | 16     |
| 23                     | -300X10    | 355  | 2       |    | 8.4   | 17     |
| 24                     | -180X10    | 180  | 2       |    | 2.5   | 5      |
| 25                     | -215X10    | 290  | 2       |    | 4.9   | 10     |
| 26                     | -270X10    | 490  | 2       |    | 10.4  | 21     |
| 27                     | -190X10    | 195  | 2       |    | 2.9   | 6      |
| 28                     | -200X10    | 215  | 2       |    | 3.4   | 7      |
| 29                     | -305X10    | 380  | 1       |    | 9.1   | 9      |
| 30                     | -190X10    | 360  | 1       |    | 5.4   | 5      |
| 31                     | -70X8      | 115  | 16      |    | 0.5   | 8      |
| 32                     | -60X10     | 100  | 35      |    | 0.5   | 18     |
| 33                     | -60X10     | 85   | 16      |    | 0.4   | 6      |
| 34                     | -60X10     | 120  | 4       |    | 0.8   | 2      |
| 35                     | -60X10     | 70   | 10      |    | 0.3   | 3      |
| 36                     | -145X8     | 220  | 4       |    | 2.0   | 8      |
| 37                     | -135X8     | 195  | 4       |    | 1.7   | 7      |
| 38                     | -145X8     | 215  | 8       |    | 2.0   | 16     |
| 39                     | -140X8     | 205  | 4       |    | 1.8   | 7      |
| GWJ18-4B1              |            |      |         |    |       |        |
| 5-15-22-32-34-35-38-39 | 同GWJ18-4A1 | 552  |         |    |       |        |
| 33                     | -60X10     | 85   | 12      |    | 0.4   | 5      |
| 40                     | L125X80X8  | 8760 | 2       |    | 108.9 | 440    |
| 41                     | L100X80X8  | 8705 | 2       |    | 95.3  | 381    |
| 42                     | L100X80X8  | 2220 | 4       |    | 24.3  | 97     |
| 43                     | -150X10    | 215  | 2       |    | 2.5   | 5      |
| 44                     | -190X20    | 200  | 2       |    | 6.0   | 12     |
| 45                     | -195X12    | 475  | 2       |    | 8.8   | 17     |
| 46                     | -200X20    | 490  | 2       |    | 15.4  | 31     |
| GWJ18-4C1              |            |      |         |    |       |        |
| 1-4-16-21-36-37        | 同GWJ18-4A1 | 数量减半 |         |    |       | 551    |
| 5-15-22-32-34-35-38-39 | 同GWJ18-4A1 | 552  |         |    |       |        |
| 33                     | -60X10     | 85   | 14      |    | 0.4   | 6      |
| 40-46                  | 同GWJ18-4B1 | 数量减半 |         |    |       | 492    |

注：  
 1. 本图应与页26配合使用。  
 2. 未注明的角焊缝焊脚尺寸为5mm,其长度不小于80mm。  
 3. 所有焊缝一律满焊。  
 4. 未注明的螺栓为M20, 孔径为Φ21.5。



GWJ18-5A1 几何尺寸及内力图

GWJ18-5B<sub>1</sub>、5C<sub>1</sub>  
(5C<sub>1</sub>一端同5A<sub>1</sub>, 另一端同5B<sub>1</sub>)

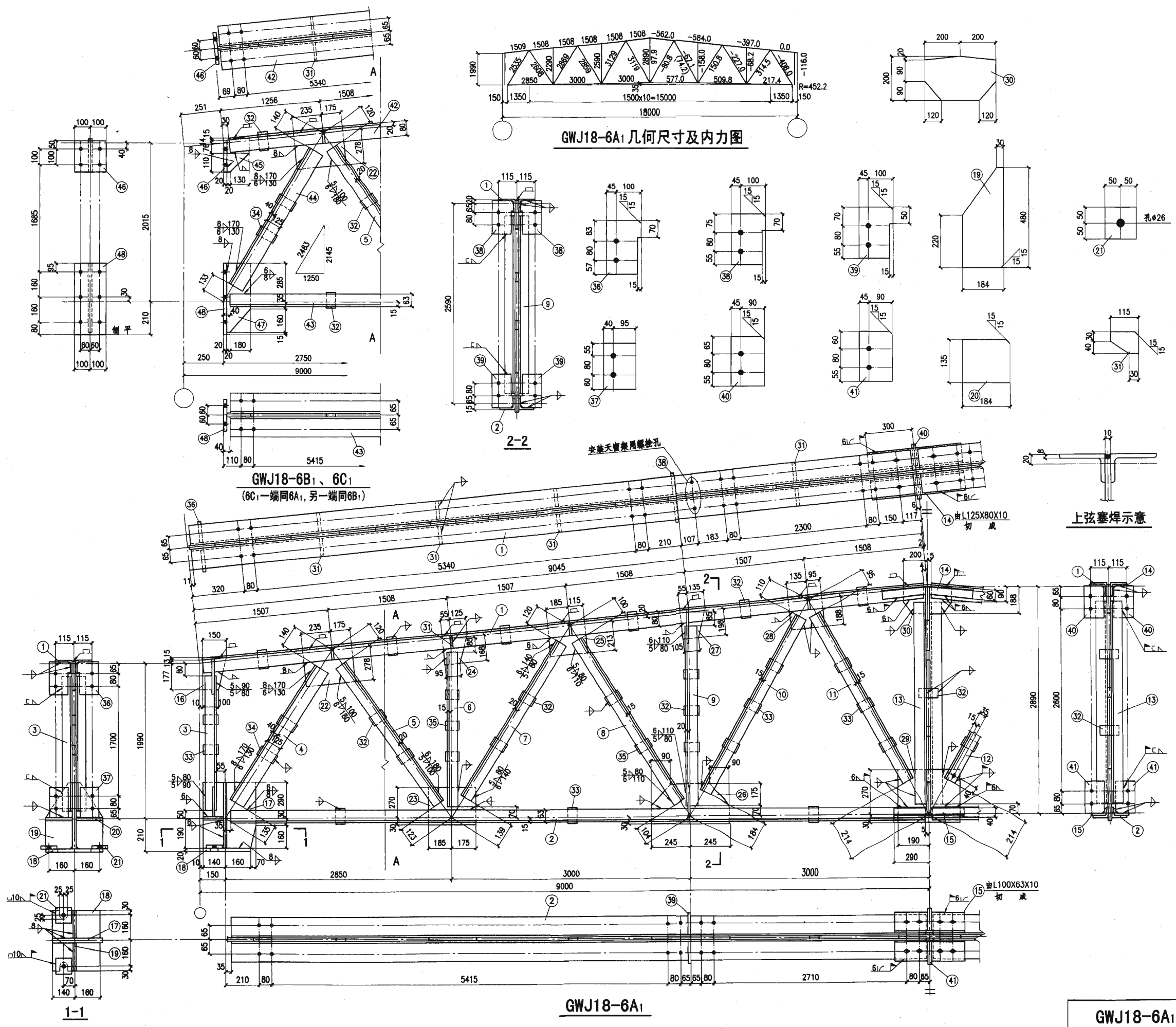
GWJ18-5A<sub>1</sub>

上弦塞焊示意

| 材 料 表                      |                        |      |         |    |       |        |
|----------------------------|------------------------|------|---------|----|-------|--------|
| 物件编号                       | 零件号                    | 断面   | 长度 (mm) | 数量 |       | 重量(kg) |
|                            |                        |      |         | 正  | 反     |        |
| GWJ18-5A <sub>1</sub>      |                        |      |         |    |       |        |
| 1                          | L140X90X8              | 9030 | 2       | 2  | 127.9 | 512    |
| 2                          | L100X80X8              | 8810 | 2       | 2  | 96.4  | 386    |
| 3                          | L63X5                  | 1850 | 4       | 4  | 8.9   | 36     |
| 4                          | L100X80X8              | 2255 | 4       | 4  | 24.7  | 99     |
| 5                          | L70X5                  | 2360 | 4       | 4  | 12.7  | 51     |
| 6                          | L50X5                  | 2115 | 4       | 4  | 8.0   | 32     |
| 7                          | L80X6                  | 2600 | 4       | 4  | 19.2  | 77     |
| 8                          | L50X5                  | 2630 | 4       | 4  | 9.9   | 40     |
| 9                          | L70X5                  | 2415 | 4       | 4  | 13.0  | 52     |
| 10                         | L63X5                  | 2835 | 4       | 4  | 13.7  | 55     |
| 11                         | L63X5                  | 2800 | 2       | 2  | 13.5  | 27     |
| 12                         | L63X5                  | 2800 | 1       | 1  | 13.5  | 27     |
| 13                         | L63X5                  | 2710 | 2       | 2  | 13.1  | 26     |
| 14                         | L140X90X8              | 600  | 2       | 2  | 8.5   | 17     |
| 15                         | L100X80X8              | 540  | 2       | 2  | 5.9   | 12     |
| 16                         | -150X10                | 215  | 2       | 2  | 2.5   | 5      |
| 17                         | -350X12                | 470  | 2       | 2  | 15.5  | 31     |
| 18                         | -300X20                | 380  | 2       | 2  | 17.9  | 36     |
| 19                         | -184X10                | 470  | 4       | 4  | 6.8   | 27     |
| 20                         | -135X10                | 184  | 4       | 4  | 1.9   | 8      |
| 21                         | -100X20                | 100  | 4       | 4  | 1.6   | 6      |
| 22                         | -285X10                | 405  | 2       | 2  | 9.1   | 18     |
| 23                         | -305X10                | 360  | 2       | 2  | 8.6   | 17     |
| 24                         | -180X10                | 190  | 2       | 2  | 2.7   | 5      |
| 25                         | -220X10                | 305  | 2       | 2  | 5.3   | 11     |
| 26                         | -270X10                | 490  | 2       | 2  | 10.4  | 21     |
| 27                         | -190X10                | 210  | 2       | 2  | 3.1   | 6      |
| 28                         | -210X10                | 230  | 2       | 2  | 3.8   | 8      |
| 29                         | -305X10                | 380  | 1       | 1  | 9.1   | 9      |
| 30                         | -205X10                | 420  | 1       | 1  | 6.8   | 7      |
| 31                         | -70X8                  | 130  | 16      | 16 | 0.6   | 10     |
| 32                         | -60X10                 | 110  | 25      | 25 | 0.5   | 13     |
| 33                         | -60X10                 | 90   | 26      | 26 | 0.4   | 10     |
| 34                         | -60X10                 | 120  | 4       | 4  | 0.6   | 2      |
| 35                         | -60X10                 | 70   | 10      | 10 | 0.3   | 3      |
| 36                         | -145X8                 | 220  | 4       | 4  | 2.0   | 8      |
| 37                         | -135X8                 | 195  | 4       | 4  | 1.7   | 7      |
| 38                         | -145X8                 | 210  | 8       | 8  | 1.9   | 15     |
| 39                         | -140X8                 | 205  | 4       | 4  | 1.8   | 7      |
| GWJ18-5B <sub>1</sub>      |                        |      |         |    |       |        |
| 5-15, 22-32, 34, 35, 38-39 | 同GWJ18-5A <sub>1</sub> |      | 568     |    |       |        |
| 33                         | -60X10                 | 90   | 22      | 22 | 0.4   | 9      |
| 40                         | L140X90X8              | 8760 | 2       | 2  | 124.0 | 496    |
| 41                         | L100X80X8              | 8705 | 2       | 2  | 95.3  | 381    |
| 42                         | L100X80X8              | 2205 | 4       | 4  | 24.1  | 96     |
| 43                         | -150X10                | 215  | 2       | 2  | 2.5   | 5      |
| 44                         | -190X20                | 200  | 2       | 2  | 6.0   | 12     |
| 45                         | -195X12                | 480  | 2       | 2  | 8.8   | 18     |
| 46                         | -200X20                | 495  | 2       | 2  | 15.5  | 31     |
| GWJ18-5C <sub>1</sub>      |                        |      |         |    |       |        |
| 1-4, 16-21, 36, 37         | 同GWJ18-5A <sub>1</sub> |      | 581     |    |       |        |
| 5-15, 22-32, 34, 35, 38-39 | 同GWJ18-5A <sub>1</sub> |      | 568     |    |       |        |
| 33                         | -60X10                 | 90   | 24      | 24 | 0.4   | 10     |
| 40-46                      | 同GWJ18-5B <sub>1</sub> |      | 520     |    |       |        |
|                            |                        |      |         |    |       | 1739   |
|                            |                        |      |         |    |       | 1616   |
|                            |                        |      |         |    |       | 1679   |

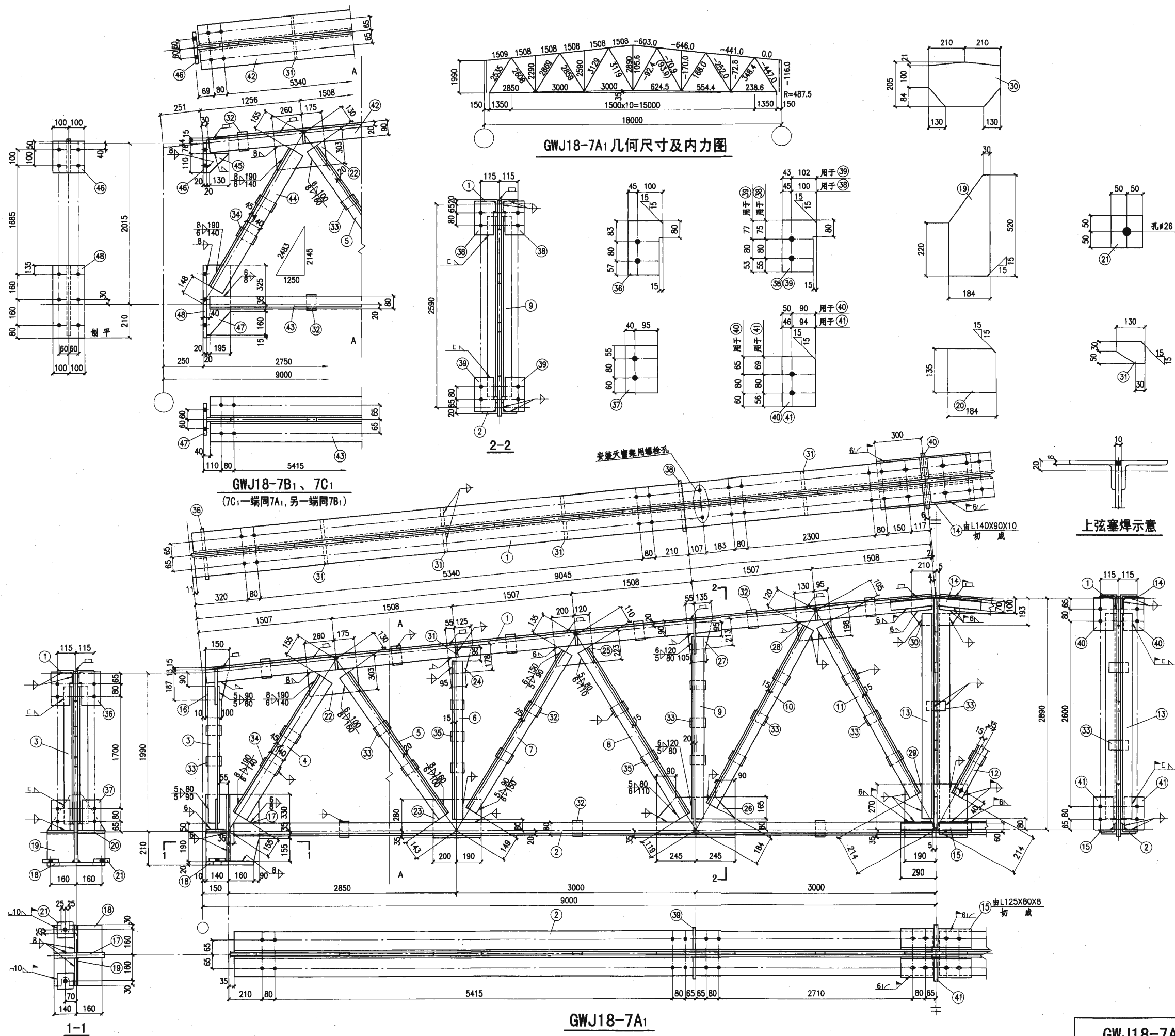
- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为中21.5。





| 材料表                    |            |      |         |    |       |         |
|------------------------|------------|------|---------|----|-------|---------|
| 构件编号                   | 零件号        | 断面   | 长度 (mm) | 数量 |       | 重量 (kg) |
|                        |            |      |         | 正  | 反     |         |
| GWJ18-6A1              |            |      |         |    |       |         |
| 1                      | L125X80X10 | 9030 | 2       | 2  | 139.7 | 559     |
| 2                      | L100X63X10 | 8810 | 2       | 2  | 107.0 | 428     |
| 3                      | L63X5      | 1860 | 4       | 4  | 9.0   | 36      |
| 4                      | L125X80X8  | 2260 | 4       | 4  | 28.4  | 114     |
| 5                      | L75X5      | 2365 | 4       | 4  | 13.8  | 55      |
| 6                      | L50X5      | 2135 | 4       | 4  | 8.0   | 32      |
| 7                      | L80X6      | 2610 | 4       | 4  | 19.3  | 77      |
| 8                      | L50X5      | 2655 | 4       | 4  | 10.0  | 40      |
| 9                      | L75X5      | 2435 | 4       | 4  | 14.2  | 57      |
| 10                     | L63X5      | 2835 | 4       | 4  | 13.7  | 55      |
| 11                     | L63X5      | 2810 | 2       | 2  | 13.5  | 27      |
| 12                     | L63X5      | 2810 | 1       | 1  | 13.5  | 27      |
| 13                     | L63X5      | 2730 | 2       | 2  | 13.2  | 26      |
| 14                     | L125X80X10 | 600  | 2       | 2  | 9.3   | 19      |
| 15                     | L100X63X10 | 580  | 2       | 2  | 7.0   | 14      |
| 16                     | -150X10    | 205  | 2       | 2  | 2.4   | 5       |
| 17                     | -370X12    | 480  | 2       | 2  | 16.7  | 33      |
| 18                     | -300X20    | 380  | 2       | 2  | 17.9  | 36      |
| 19                     | -184X10    | 480  | 4       | 4  | 6.9   | 28      |
| 20                     | -135X10    | 184  | 4       | 4  | 1.9   | 8       |
| 21                     | -100X20    | 100  | 4       | 4  | 1.6   | 6       |
| 22                     | -290X10    | 410  | 2       | 2  | 9.3   | 19      |
| 23                     | -300X10    | 360  | 2       | 2  | 8.5   | 17      |
| 24                     | -180X10    | 180  | 2       | 2  | 2.5   | 5       |
| 25                     | -225X10    | 300  | 2       | 2  | 5.3   | 11      |
| 26                     | -275X10    | 490  | 2       | 2  | 10.6  | 21      |
| 27                     | -190X10    | 210  | 2       | 2  | 3.1   | 6       |
| 28                     | -200X10    | 230  | 2       | 2  | 3.6   | 7       |
| 29                     | -300X10    | 380  | 1       | 1  | 8.9   | 9       |
| 30                     | -200X10    | 400  | 1       | 1  | 6.3   | 6       |
| 31                     | -70X8      | 115  | 16      | 16 | 0.5   | 8       |
| 32                     | -60X10     | 100  | 29      | 29 | 0.5   | 15      |
| 33                     | -60X10     | 95   | 22      | 22 | 0.4   | 9       |
| 34                     | -60X10     | 145  | 4       | 4  | 0.7   | 3       |
| 35                     | -60X10     | 70   | 10      | 10 | 0.3   | 3       |
| 36                     | -145X8     | 220  | 4       | 4  | 2.0   | 8       |
| 37                     | -135X8     | 195  | 4       | 4  | 1.7   | 7       |
| 38                     | -145X8     | 210  | 4       | 4  | 1.9   | 8       |
| 39                     | -145X8     | 205  | 4       | 4  | 1.9   | 8       |
| 40                     | -135X8     | 200  | 2       | 2  | 1.7   | 3       |
| 41                     | -135X8     | 195  | 2       | 2  | 1.7   | 3       |
| GWJ18-6B1              |            |      |         |    |       |         |
| 5-15-22-32-34-35-36-41 | 同GWJ18-6A1 | 581  |         |    |       |         |
| 33                     | -60X10     | 95   | 18      | 18 | 0.4   | 7       |
| 42                     | L125X80X10 | 8760 | 2       | 2  | 135.6 | 542     |
| 43                     | L100X63X10 | 8705 | 2       | 2  | 105.7 | 423     |
| 44                     | L125X80X8  | 2210 | 4       | 4  | 27.7  | 111     |
| 45                     | -150X10    | 215  | 2       | 2  | 2.5   | 5       |
| 46                     | -190X20    | 200  | 2       | 2  | 6.0   | 12      |
| 47                     | -200X12    | 480  | 2       | 2  | 9.0   | 18      |
| 48                     | -200X20    | 495  | 2       | 2  | 15.5  | 31      |
| GWJ18-6C1              |            |      |         |    |       |         |
| 1-4-16-21-36-37        | 同GWJ18-6A1 | 634  |         |    |       |         |
| 5-15-22-32-34-35-36-41 | 同GWJ18-6A1 | 581  |         |    |       |         |
| 33                     | -60X10     | 95   | 20      | 20 | 0.4   | 8       |
| 42-48                  | 同GWJ18-6B1 | 数量减半 |         |    |       |         |
| 1794                   |            |      |         |    |       |         |

- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为Φ21.5。



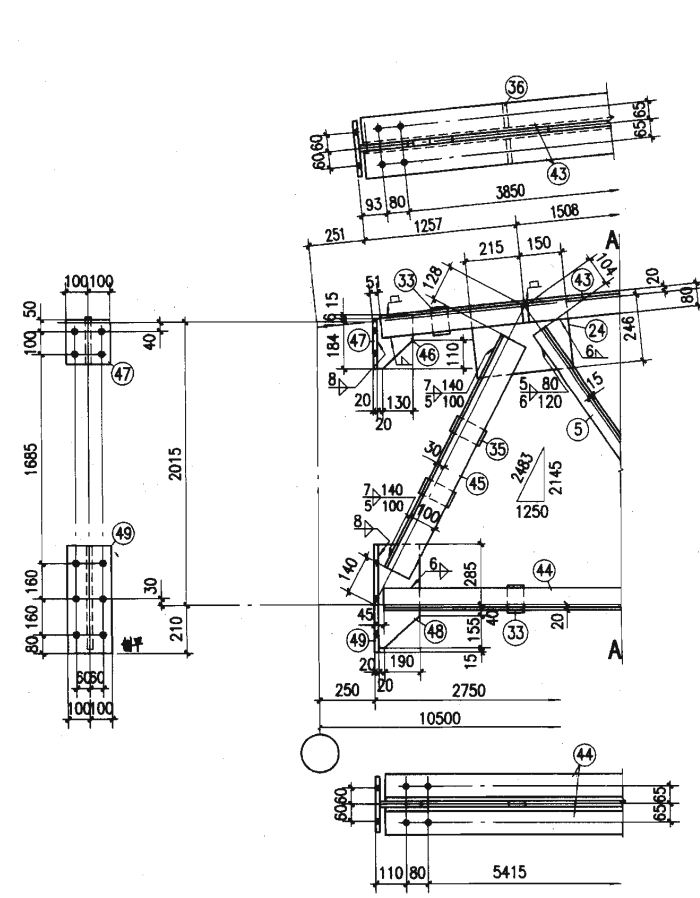
GWJ18-7A1 几何尺寸及内力图

GWJ18-7B<sub>1</sub>、7C<sub>1</sub>  
(7C<sub>1</sub>一端同7A<sub>1</sub>, 另一端同7B<sub>1</sub>)

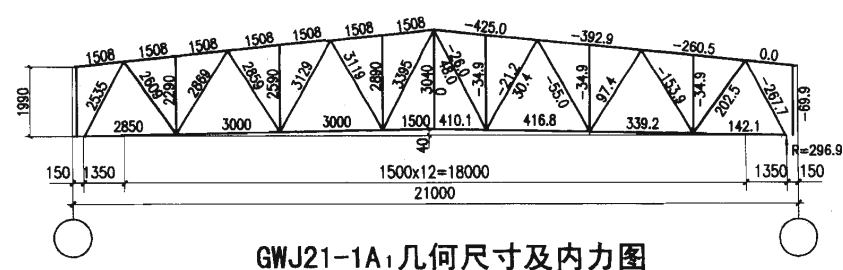
GWJ18-7A<sub>1</sub>

| 材 料 表                  |                        |      |         |    |       |        |
|------------------------|------------------------|------|---------|----|-------|--------|
| 构件编号                   | 零件号                    | 断面   | 长度 (mm) | 数量 |       | 重量(kg) |
|                        |                        |      |         | 正  | 反     |        |
| GWJ18-7A <sub>1</sub>  |                        |      |         |    |       |        |
| 1                      | L140X90X10             | 9030 | 2       | 2  | 157.8 | 631    |
| 2                      | L125X80X8              | 8810 | 2       | 2  | 110.6 | 442    |
| 3                      | L63X5                  | 1850 | 4       |    | 8.9   | 36     |
| 4                      | L140X90X8              | 2225 | 4       |    | 31.5  | 126    |
| 5                      | L80X6                  | 2335 | 4       |    | 17.2  | 69     |
| 6                      | L50X5                  | 2115 | 4       |    | 8.0   | 32     |
| 7                      | L90X6                  | 2585 | 4       |    | 21.6  | 86     |
| 8                      | L50X5                  | 2630 | 4       |    | 9.9   | 40     |
| 9                      | L75X5                  | 2415 | 4       |    | 14.1  | 56     |
| 10                     | L63X5                  | 2825 | 4       |    | 13.6  | 54     |
| 11                     | L63X5                  | 2800 | 2       |    | 13.5  | 27     |
| 12                     | L63X5                  | 2800 | 1       | 1  | 13.5  | 27     |
| 13                     | L63X5                  | 2710 | 2       |    | 13.1  | 26     |
| 14                     | L140X90X10             | 600  | 2       |    | 10.5  | 21     |
| 15                     | L125X80X8              | 580  | 2       |    | 7.3   | 15     |
| 16                     | -150X10                | 215  | 2       |    | 2.5   | 5      |
| 17                     | -390X12                | 520  | 2       |    | 19.1  | 38     |
| 18                     | -300X20                | 380  | 2       |    | 17.9  | 36     |
| 19                     | -184X10                | 520  | 4       |    | 7.5   | 30     |
| 20                     | -135X10                | 184  | 4       |    | 1.9   | 8      |
| 21                     | -100X20                | 100  | 4       |    | 1.6   | 6      |
| 22                     | -315X10                | 435  | 2       |    | 10.8  | 22     |
| 23                     | -315X10                | 390  | 2       |    | 9.6   | 19     |
| 24                     | -180X10                | 190  | 2       |    | 2.7   | 5      |
| 25                     | -235X10                | 320  | 2       |    | 5.9   | 12     |
| 26                     | -280X10                | 490  | 2       |    | 10.8  | 22     |
| 27                     | -190X10                | 225  | 2       |    | 3.4   | 7      |
| 28                     | -210X10                | 225  | 2       |    | 3.7   | 7      |
| 29                     | -305X10                | 380  | 1       |    | 9.1   | 9      |
| 30                     | -205X10                | 420  | 1       |    | 6.8   | 7      |
| 31                     | -80X8                  | 130  | 16      |    | 0.7   | 11     |
| 32                     | -60X10                 | 110  | 22      |    | 0.5   | 11     |
| 33                     | -60X10                 | 95   | 29      |    | 0.4   | 12     |
| 34                     | -60X10                 | 160  | 4       |    | 0.8   | 3      |
| 35                     | -60X10                 | 70   | 10      |    | 0.3   | 3      |
| 36                     | -145X8                 | 220  | 4       |    | 2.0   | 8      |
| 37                     | -135X8                 | 195  | 4       |    | 1.7   | 7      |
| 38                     | -145X8                 | 210  | 4       |    | 1.9   | 8      |
| 39                     | -145X8                 | 210  | 4       |    | 1.9   | 8      |
| 40                     | -140X8                 | 205  | 2       |    | 1.8   | 4      |
| 41                     | -140X8                 | 205  | 2       |    | 1.8   | 4      |
| GWJ18-7B <sub>1</sub>  |                        |      |         |    |       |        |
| 5-15-22-32-34-35-38-41 | 同GWJ18-7A <sub>1</sub> |      | 615     |    |       |        |
| 33                     | -60X10                 | 95   | 25      |    | 0.4   | 10     |
| 42                     | L140X90X10             | 8760 | 2       |    | 153.1 | 612    |
| 43                     | L125X80X8              | 8705 | 2       |    | 109.3 | 437    |
| 44                     | L140X90X8              | 2180 | 4       |    | 30.9  | 124    |
| 45                     | -150X10                | 215  | 2       |    | 2.5   | 5      |
| 46                     | -190X20                | 200  | 2       |    | 6.0   | 12     |
| 47                     | -215X12                | 520  | 2       |    | 10.5  | 21     |
| 48                     | -200X20                | 535  | 2       |    | 16.8  | 34     |
| GWJ18-7C <sub>1</sub>  |                        |      |         |    |       |        |
| 1-4-16-21-36-37        | 同GWJ18-7A <sub>1</sub> |      | 687     |    |       |        |
| 5-15-22-32-34-35-38-41 | 同GWJ18-7A <sub>1</sub> |      | 615     |    |       |        |
| 33                     | -60X10                 | 95   | 27      |    | 0.4   | 11     |
| 42-48                  | 同GWJ18-7B <sub>1</sub> |      | 623     |    |       |        |

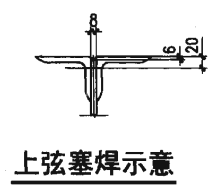
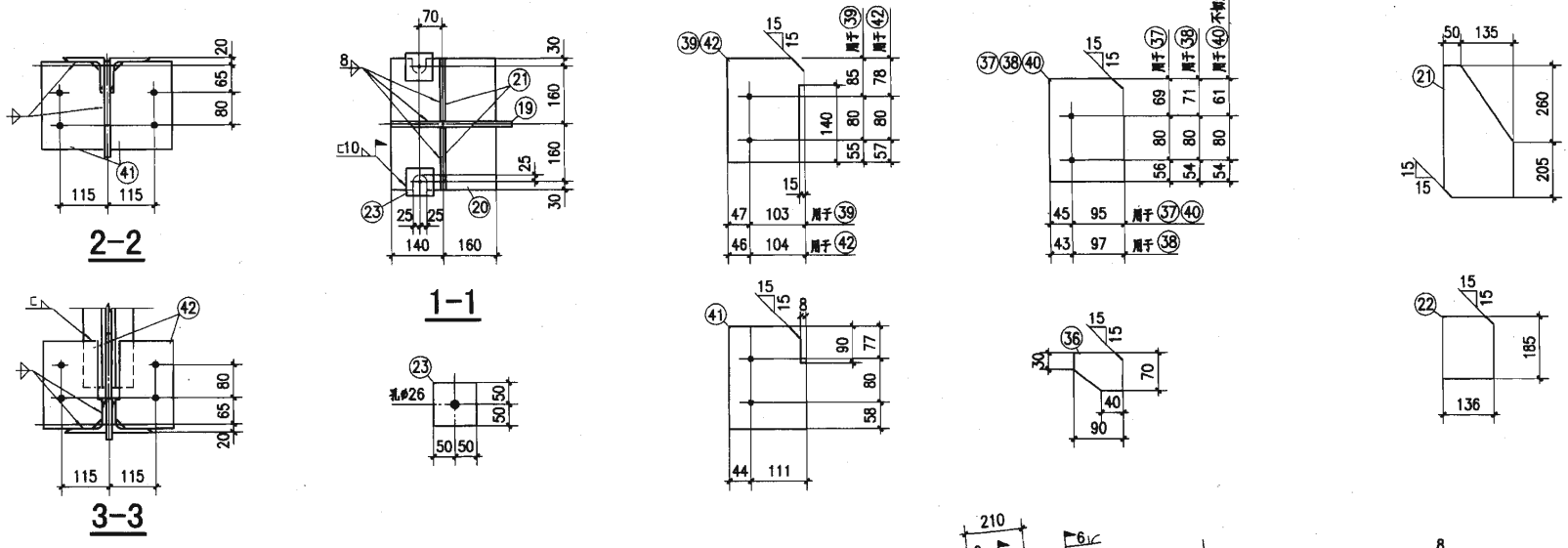
- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为Φ21.5。



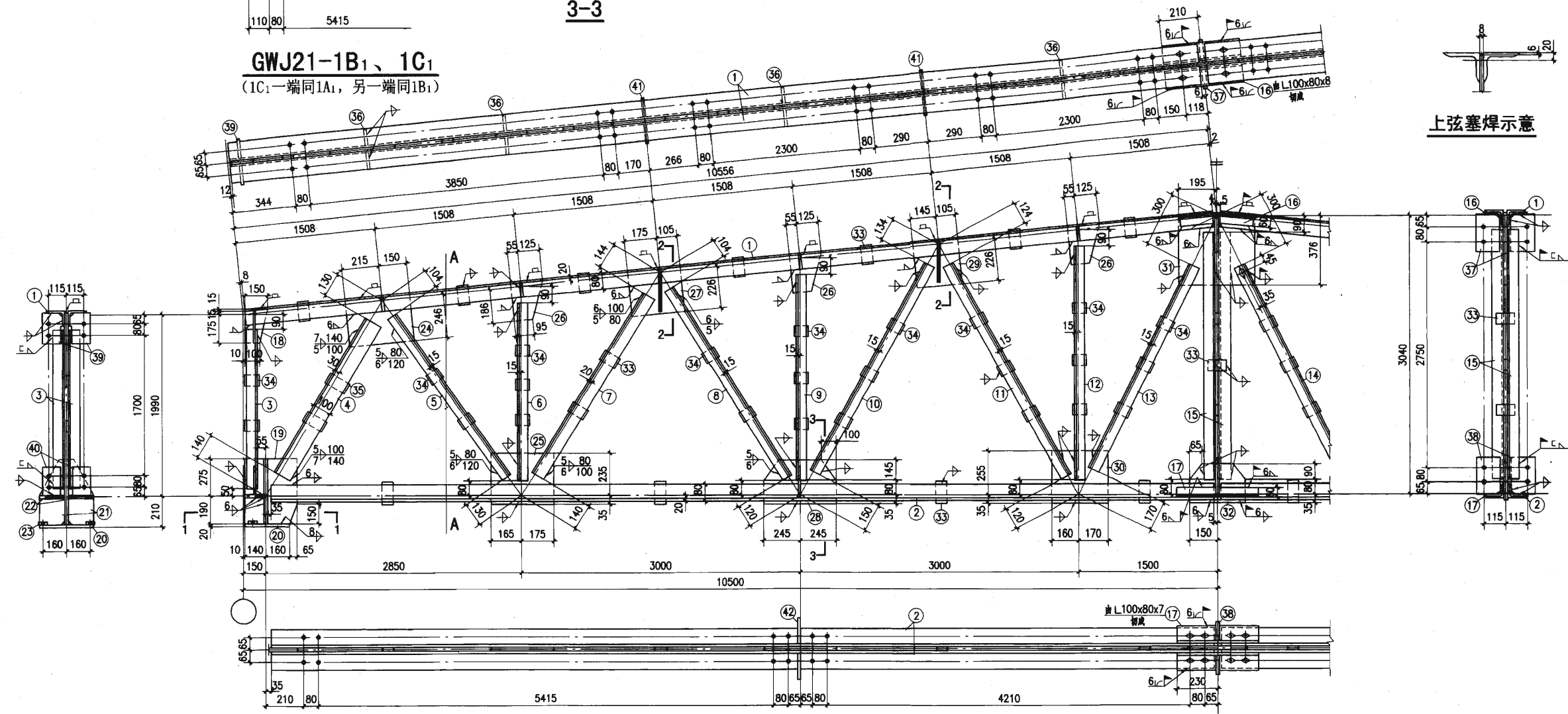
GWJ21-1B<sub>1</sub>、1C<sub>1</sub>  
(1C<sub>1</sub>一端同1A<sub>1</sub>, 另一端同1B<sub>1</sub>)



GWJ21-1A<sub>1</sub>几何尺寸及内力图



上弦塞焊示意



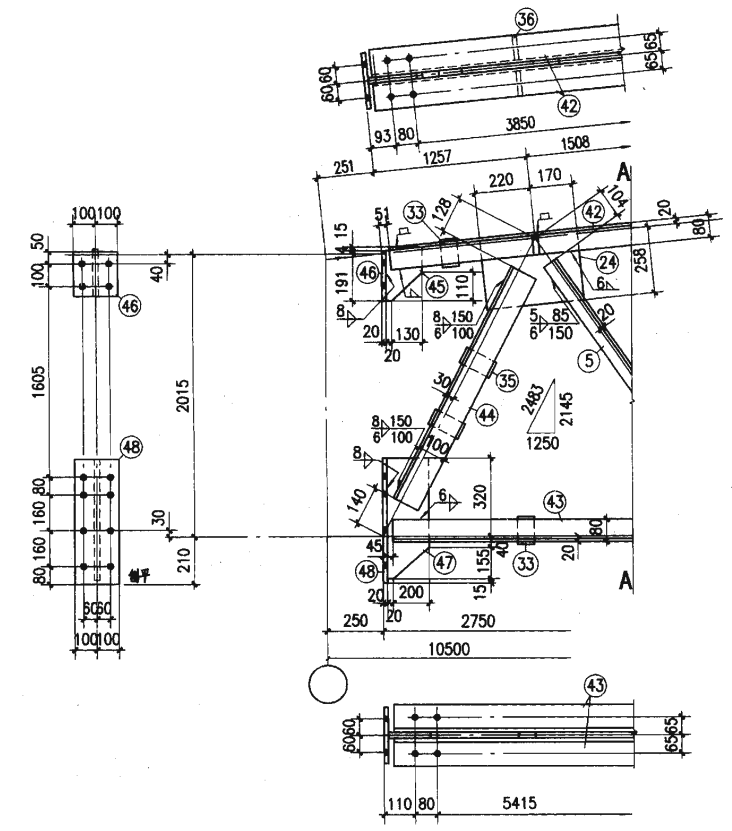
GWJ21-1A<sub>1</sub>

| 材料表                    |                        |         |    |   |           |
|------------------------|------------------------|---------|----|---|-----------|
| 零件编号                   | 断面                     | 长度 (mm) | 数量 |   | 重量 (kg)   |
|                        |                        |         | 正  | 反 |           |
| 1                      | L100x80x8              | 10540   | 2  | 2 | 115.4 462 |
| 2                      | L100x80x7              | 10310   | 2  | 2 | 99.6 398  |
| 3                      | L63x5                  | 1850    | 4  |   | 8.9 36    |
| 4                      | L100x80x6              | 2265    | 4  |   | 18.9 76   |
| 5                      | L56x5                  | 2375    | 4  |   | 10.1 40   |
| 6                      | L50x5                  | 2120    | 4  |   | 8.0 32    |
| 7                      | L75x5                  | 2585    | 4  |   | 15.0 60   |
| 8                      | L50x5                  | 2635    | 4  |   | 9.9 40    |
| 9                      | L50x5                  | 2420    | 4  |   | 9.1 36    |
| 10                     | L56x5                  | 2845    | 4  |   | 12.1 48   |
| 11                     | L56x5                  | 2875    | 4  |   | 12.2 49   |
| 12                     | L56x5                  | 2720    | 4  |   | 11.6 46   |
| 13                     | L63x5                  | 2925    | 2  |   | 14.1 28   |
| 14                     | L63x5                  | 2925    | 1  | 1 | 14.1 28   |
| 15                     | L63x5                  | 2870    | 2  |   | 13.8 28   |
| 16                     | L100x80x8              | 420     | 2  |   | 4.6 9     |
| 17                     | L100x80x7              | 460     | 2  |   | 4.4 9     |
| 18                     | -150x8                 | 205     | 2  |   | 1.9 4     |
| 19                     | -365x10                | 465     | 2  |   | 13.3 27   |
| 20                     | -300x20                | 380     | 2  |   | 17.9 36   |
| 21                     | -185x8                 | 465     | 4  |   | 5.4 22    |
| 22                     | -136x8                 | 185     | 4  |   | 1.6 6     |
| 23                     | -100x20                | 100     | 4  |   | 1.6 6     |
| 24                     | -260x8                 | 365     | 2  |   | 6.0 12    |
| 25                     | -270x8                 | 340     | 2  |   | 5.8 12    |
| 26                     | -180x8                 | 200     | 6  |   | 2.3 14    |
| 27                     | -240x8                 | 280     | 2  |   | 4.2 8     |
| 28                     | -260x8                 | 490     | 2  |   | 8.0 16    |
| 29                     | -240x8                 | 250     | 2  |   | 3.8 8     |
| 30                     | -290x8                 | 330     | 2  |   | 6.0 12    |
| 31                     | -390x8                 | 390     | 1  |   | 9.6 10    |
| 32                     | -205x8                 | 300     | 1  |   | 3.9 4     |
| 33                     | -60x8                  | 100     | 29 |   | 0.4 12    |
| 34                     | -60x8                  | 85      | 48 |   | 0.3 14    |
| 35                     | -60x8                  | 120     | 4  |   | 0.5 2     |
| 36                     | -70x8                  | 90      | 16 |   | 0.4 6     |
| 37                     | -140x8                 | 205     | 2  |   | 1.8 4     |
| 38                     | -140x8                 | 205     | 2  |   | 1.8 4     |
| 39                     | -150x8                 | 220     | 4  |   | 2.1 8     |
| 40                     | -140x8                 | 195     | 4  |   | 1.7 7     |
| 41                     | -155x8                 | 215     | 8  |   | 2.1 17    |
| 42                     | -150x8                 | 215     | 4  |   | 2.0 8     |
| 5~17,24~33,35~38,41,42 | 同GWJ21-1A <sub>1</sub> |         |    |   | 601       |
| 34                     | -60x8                  | 85      | 44 |   | 0.3 13    |
| 43                     | L100x80x8              | 10250   | 2  | 2 | 112.2 449 |
| 44                     | L100x80x7              | 10200   | 2  | 2 | 98.5 394  |
| 45                     | L100x80x6              | 2215    | 4  |   | 18.5 74   |
| 46                     | -150x8                 | 215     | 2  |   | 2.0 4     |
| 47                     | -200x20                | 200     | 2  |   | 6.3 13    |
| 48                     | -210x10                | 480     | 2  |   | 7.9 16    |
| 49                     | -200x20                | 495     | 2  |   | 15.5 31   |
| 1~4,18~23,39,40        | 同GWJ21-1A <sub>1</sub> |         |    |   | 544       |
| 5~17,24~33,35~38,41,42 | 同GWJ21-1A <sub>1</sub> |         |    |   | 601       |
| 34                     | -60x8                  | 85      | 46 |   | 0.3 14    |
| 43~49                  | 同GWJ21-1B <sub>1</sub> |         |    |   | 491       |

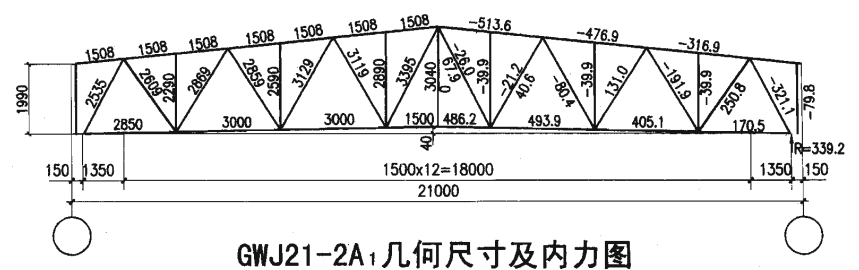
- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为φ21.5。

材料表

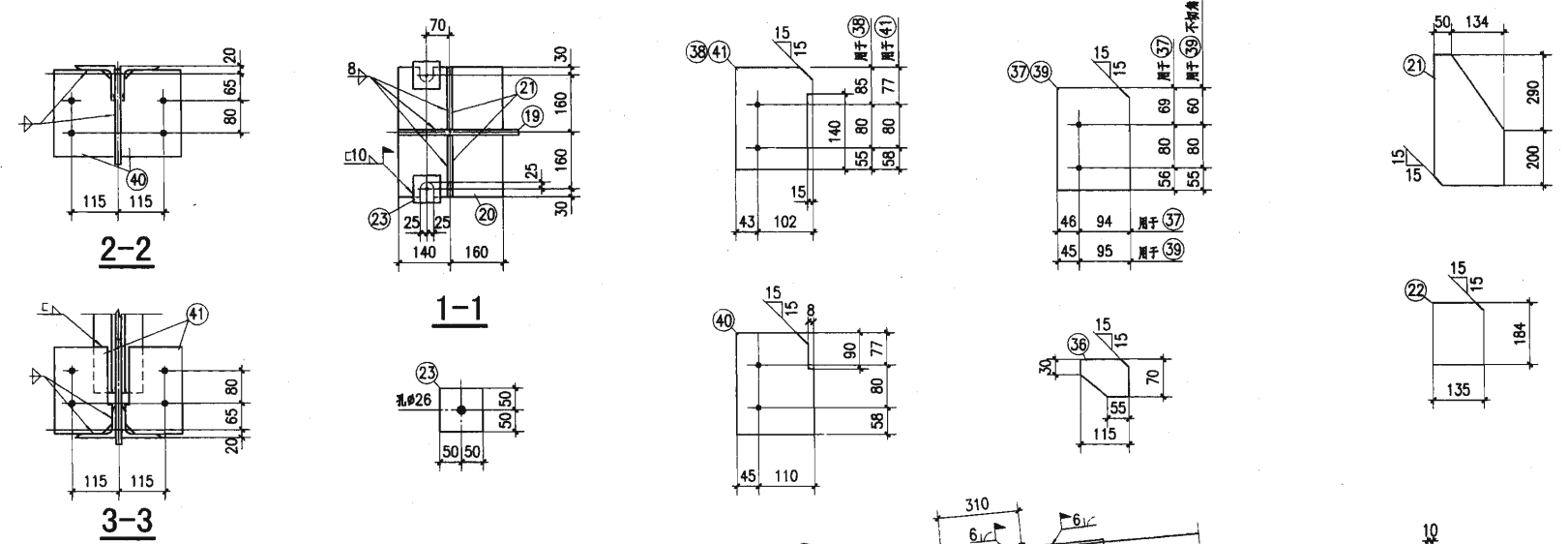
| 零件编号                             | 规格        | 长度 (mm) | 数量 |    | 重量 (kg) |     |      |
|----------------------------------|-----------|---------|----|----|---------|-----|------|
|                                  |           |         | 正  | 反  | 共       | 计   |      |
| 1                                | L125x80x8 | 10540   | 2  | 2  | 132.3   | 529 |      |
| 2                                | L100x80x8 | 10310   | 2  | 2  | 112.9   | 452 |      |
| 3                                | L63x5     | 1850    | 4  | 4  | 8.9     | 36  |      |
| 4                                | L100x80x7 | 2265    | 4  | 4  | 21.9    | 88  |      |
| 5                                | L70x5     | 2365    | 4  | 4  | 12.8    | 51  |      |
| 6                                | L50x5     | 2120    | 4  | 4  | 8.0     | 32  |      |
| 7                                | L75x6     | 2585    | 4  | 4  | 17.9    | 72  |      |
| 8                                | L50x5     | 2635    | 4  | 4  | 9.9     | 40  |      |
| 9                                | L50x5     | 2420    | 4  | 4  | 9.1     | 36  |      |
| 10                               | L63x5     | 2835    | 4  | 4  | 13.7    | 55  |      |
| 11                               | L56x5     | 2875    | 4  | 4  | 12.2    | 49  |      |
| 12                               | L56x5     | 2720    | 4  | 4  | 11.6    | 46  |      |
| 13                               | L63x5     | 2925    | 2  | 2  | 14.1    | 28  |      |
| 14                               | L63x5     | 2925    | 1  | 1  | 14.1    | 28  |      |
| 15                               | L63x5     | 2870    | 2  | 2  | 13.8    | 28  |      |
| 16                               | L125x80x8 | 620     | 2  | 2  | 7.8     | 16  |      |
| 17                               | L100x80x8 | 540     | 2  | 2  | 5.9     | 12  |      |
| 18                               | -150x10   | 205     | 2  | 2  | 2.4     | 5   |      |
| 19                               | -370x12   | 490     | 2  | 2  | 17.1    | 34  |      |
| 20                               | -300x20   | 380     | 2  | 2  | 17.9    | 36  |      |
| 21                               | -184x10   | 490     | 4  | 4  | 7.1     | 28  |      |
| 22                               | -135x10   | 184     | 4  | 4  | 1.9     | 8   |      |
| 23                               | -100x20   | 100     | 4  | 4  | 1.6     | 6   |      |
| 24                               | -270x10   | 390     | 2  | 2  | 8.3     | 17  |      |
| 25                               | -300x10   | 360     | 2  | 2  | 8.5     | 17  |      |
| 26                               | -180x10   | 200     | 6  | 6  | 2.8     | 17  |      |
| 27                               | -250x10   | 300     | 2  | 2  | 5.9     | 12  |      |
| 28                               | -260x10   | 490     | 2  | 2  | 10.0    | 20  |      |
| 29                               | -240x10   | 255     | 2  | 2  | 4.8     | 10  |      |
| 30                               | -290x10   | 330     | 2  | 2  | 7.5     | 15  |      |
| 31                               | -390x10   | 390     | 1  | 1  | 11.9    | 12  |      |
| 32                               | -205x10   | 300     | 1  | 1  | 4.8     | 5   |      |
| 33                               | -60x10    | 100     | 33 | 33 | 0.5     | 17  |      |
| 34                               | -60x10    | 85      | 44 | 44 | 0.4     | 18  |      |
| 35                               | -60x10    | 120     | 4  | 4  | 0.6     | 2   |      |
| 36                               | -70x8     | 115     | 16 | 16 | 0.5     | 8   |      |
| 37                               | -140x8    | 205     | 4  | 4  | 1.8     | 7   |      |
| 38                               | -145x8    | 220     | 4  | 4  | 2.0     | 8   |      |
| 39                               | -140x8    | 195     | 4  | 4  | 1.7     | 7   |      |
| 40                               | -155x8    | 215     | 8  | 8  | 2.1     | 17  |      |
| 41                               | -145x8    | 215     | 4  | 4  | 2.0     | 8   |      |
| GWJ21-2A1                        |           |         |    |    |         |     | 1932 |
| 5~17,24~33,35~37,40,41同GWJ21-2A1 |           |         |    |    |         |     | 677  |
| 34                               | -60x10    | 85      | 40 | 40 | 0.4     | 16  |      |
| 42                               | L125x80x8 | 10250   | 2  | 2  | 128.6   | 514 |      |
| 43                               | L100x80x8 | 10200   | 2  | 2  | 111.7   | 447 |      |
| 44                               | L100x80x7 | 2215    | 4  | 4  | 21.4    | 86  |      |
| 45                               | -150x10   | 220     | 2  | 2  | 2.6     | 5   |      |
| 46                               | -200x20   | 200     | 2  | 2  | 6.3     | 13  |      |
| 47                               | -220x12   | 515     | 2  | 2  | 10.7    | 21  |      |
| 48                               | -200x20   | 530     | 2  | 2  | 16.6    | 33  |      |
| GWJ21-2B1                        |           |         |    |    |         |     | 1813 |
| 1~4,18~23,38,39同GWJ21-2A1; 数量减半  |           |         |    |    |         |     | 619  |
| 5~17,24~33,35~37,40,41同GWJ21-2A1 |           |         |    |    |         |     | 677  |
| 34                               | -60x10    | 85      | 42 | 42 | 0.4     | 17  |      |
| 42~48同GWJ21-2B1; 数量减半            |           |         |    |    |         |     | 560  |
| GWJ21-2C1                        |           |         |    |    |         |     | 1873 |



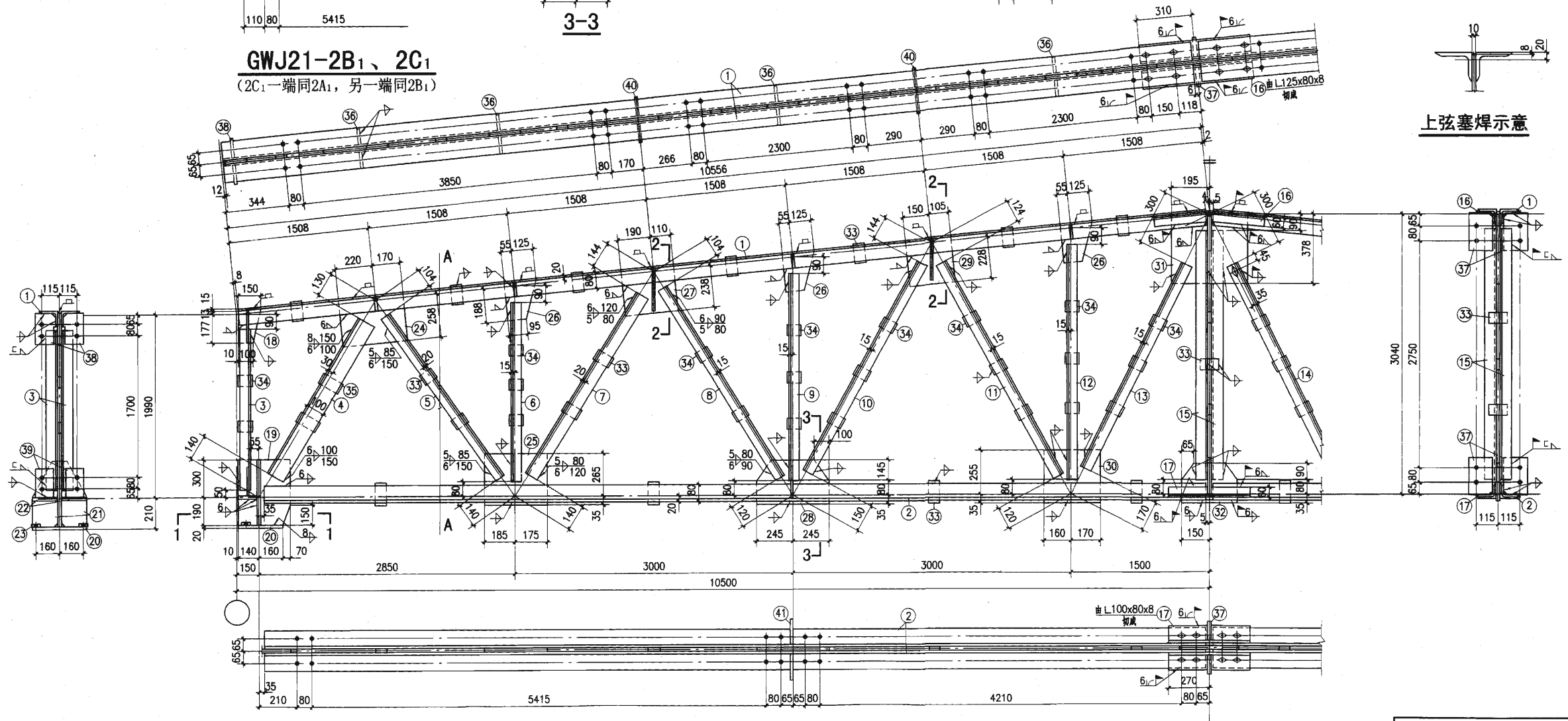
GWJ21-2B<sub>1</sub>、2C<sub>1</sub>  
(2C<sub>1</sub>一端同2A<sub>1</sub>, 另一端同2B<sub>1</sub>)



GWJ21-2A<sub>1</sub>几何尺寸及内力图



上弦塞焊示意



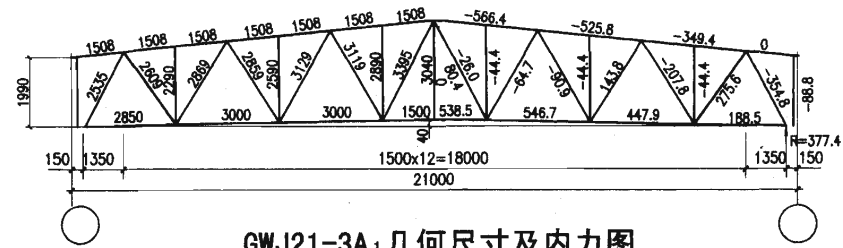
GWJ21-2A<sub>1</sub>

GWJ21-2A<sub>1</sub>、2B<sub>1</sub>、2C<sub>1</sub>详图 图集号 05G511

- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为Φ21.5。

材料表

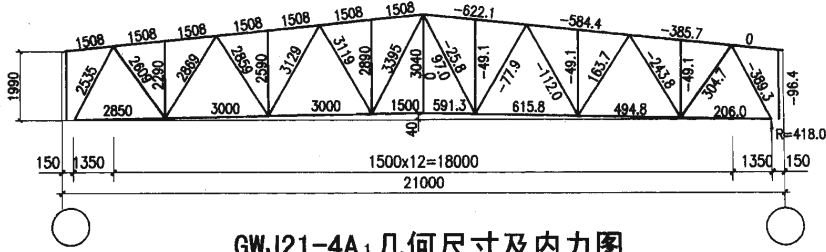
| 序号                                     | 规格                    | 长度<br>(mm) | 数量  |   | 重量<br>(kg) | 备注  |
|--|-----------------------|------------|-----|---|------------|-----|
|  |                       |            | 正   | 反 |            |     |
| 1                                      | L140x90x8             | 10540      | 2   | 2 | 149.2      | 597 |
| 2                                      | L125x80x8             | 10310      | 2   | 2 | 129.4      | 518 |
| 3                                      | L63x5                 | 1840       | 4   |   | 8.9        | 36  |
| 4                                      | L100x80x8             | 2255       | 4   |   | 24.7       | 99  |
| 5                                      | L75x5                 | 2345       | 4   |   | 13.6       | 55  |
| 6                                      | L50x5                 | 2110       | 4   |   | 8.0        | 32  |
| 7                                      | L80x6                 | 2585       | 4   |   | 19.1       | 76  |
| 8                                      | L50x5                 | 2625       | 4   |   | 9.9        | 40  |
| 9                                      | L50x5                 | 2410       | 4   |   | 9.1        | 36  |
| 10                                     | L70x5                 | 2835       | 4   |   | 15.3       | 61  |
| 11                                     | L63x5                 | 2855       | 4   |   | 13.8       | 55  |
| 12                                     | L56x5                 | 2710       | 4   |   | 11.5       | 46  |
| 13                                     | L63x5                 | 2925       | 2   |   | 14.1       | 28  |
| 14                                     | L63x5                 | 2925       | 1   | 1 | 14.1       | 28  |
| 15                                     | L63x5                 | 2860       | 2   |   | 13.8       | 28  |
| 16                                     | L140x90x8             | 620        | 2   |   | 8.8        | 18  |
| 17                                     | L125x80x8             | 600        | 2   |   | 7.5        | 15  |
| 18                                     | -200x10               | 220        | 2   |   | 3.5        | 7   |
| 19                                     | -370x12               | 490        | 2   |   | 17.1       | 34  |
| 20                                     | -300x20               | 380        | 2   |   | 17.9       | 36  |
| 21                                     | -184x10               | 490        | 4   |   | 7.1        | 28  |
| 22                                     | -135x10               | 184        | 4   |   | 1.9        | 8   |
| 23                                     | -100x20               | 100        | 4   |   | 1.6        | 6   |
| 24                                     | -280x10               | 430        | 2   |   | 9.5        | 19  |
| 25                                     | -310x10               | 370        | 2   |   | 9.0        | 18  |
| 26                                     | -180x10               | 210        | 6   |   | 3.0        | 18  |
| 27                                     | -250x10               | 315        | 2   |   | 6.2        | 12  |
| 28                                     | -265x10               | 490        | 2   |   | 10.2       | 20  |
| 29                                     | -250x10               | 265        | 2   |   | 5.2        | 10  |
| 30                                     | -290x10               | 330        | 2   |   | 7.5        | 15  |
| 31                                     | -390x10               | 390        | 1   |   | 11.9       | 12  |
| 32                                     | -205x10               | 400        | 1   |   | 6.4        | 6   |
| 33                                     | -60x10                | 120        | 26  |   | 0.6        | 15  |
| 34                                     | -60x10                | 100        | 17  |   | 0.5        | 9   |
| 35                                     | -60x10                | 85         | 38  |   | 0.4        | 15  |
| 36                                     | -80x8                 | 130        | 16  |   | 0.7        | 11  |
| 37                                     | -140x8                | 205        | 4   |   | 1.8        | 7   |
| 38                                     | -145x8                | 220        | 4   |   | 2.0        | 8   |
| 39                                     | -140x8                | 195        | 4   |   | 1.7        | 7   |
| 40                                     | -155x8                | 215        | 8   |   | 2.1        | 17  |
| 41                                     | -145x8                | 215        | 4   |   | 2.0        | 8   |
| GWJ21-3A1                              |                       |            |     |   |            |     |
| GWJ21-3B1                              |                       |            |     |   |            |     |
| 5                                      | -17,24~34,36,37,40,41 | GWJ21-3A1  | 715 |   |            |     |
| 35                                     | -60x10                | 85         | 34  |   | 0.4        | 14  |
| 42                                     | L140x90x8             | 10250      | 2   |   | 145.1      | 580 |
| 43                                     | L125x80x8             | 10200      | 2   |   | 128.0      | 512 |
| 44                                     | L100x80x8             | 2205       | 4   |   | 24.1       | 96  |
| 45                                     | -200x10               | 220        | 2   |   | 3.5        | 7   |
| 46                                     | -200x20               | 200        | 2   |   | 6.3        | 13  |
| 47                                     | -220x12               | 515        | 2   |   | 10.7       | 21  |
| 48                                     | -200x20               | 530        | 2   |   | 16.6       | 33  |
| GWJ21-3C1                              |                       |            |     |   |            |     |
| 1~4,18~23,38,39 同 GWJ21-3A1 数量减半 692   |                       |            |     |   |            |     |
| 5~17,24~34,36,37,40,41 同 GWJ21-3A1 715 |                       |            |     |   |            |     |
| 35                                     | -60x10                | 85         | 36  |   | 0.4        | 14  |
| 42~48 同 GWJ21-3B1 数量减半 631 2052        |                       |            |     |   |            |     |



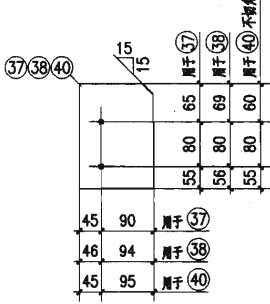
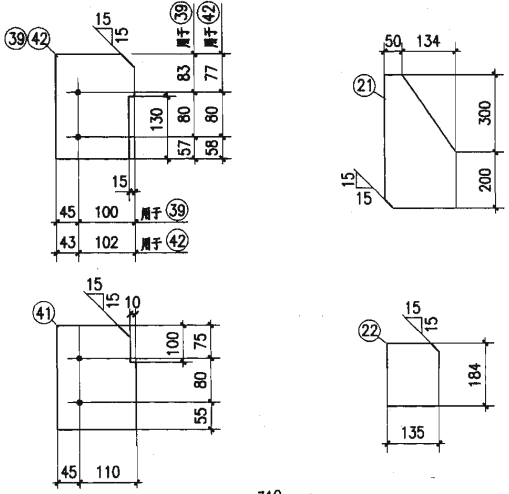
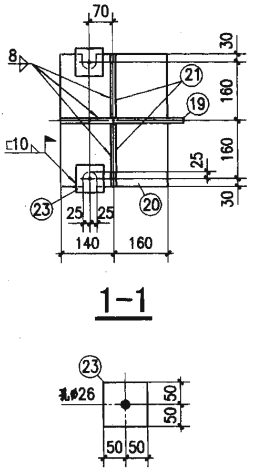
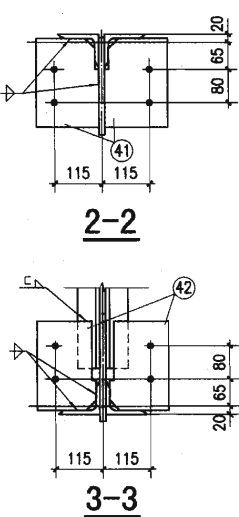
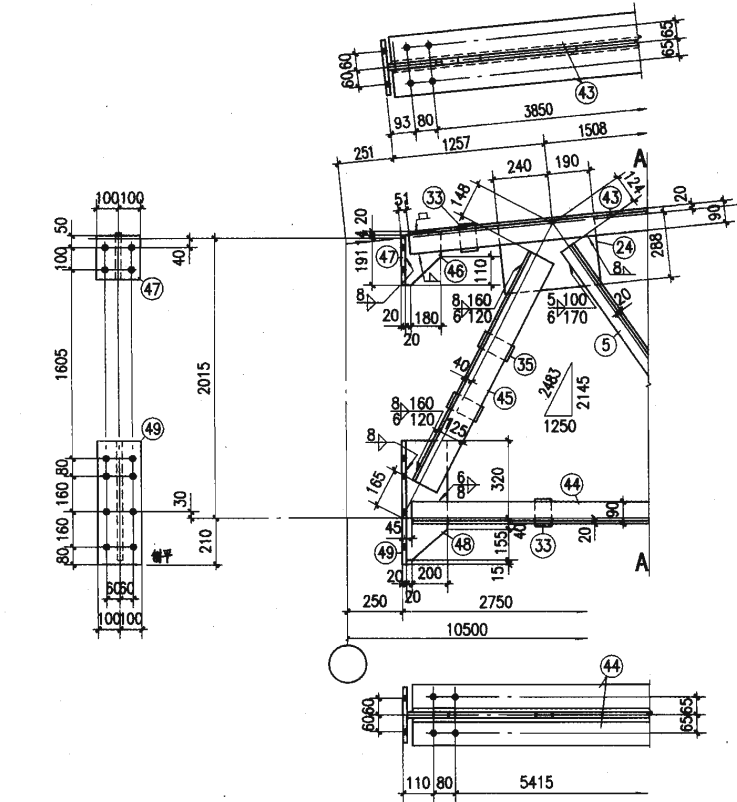
材料表

| 材料编号                       | 规格         | 长度 (mm) | 数量  | 重量 (kg) |     |
|----------------------------|------------|---------|-----|---------|-----|
|                            |            |         |     | 每个      | 合计  |
| 1                          | L140x90x10 | 10540   | 2   | 184.2   | 737 |
| 2                          | L140x90x8  | 10310   | 2   | 146.0   | 584 |
| 3                          | L63x5      | 1840    | 4   | 8.9     | 36  |
| 4                          | L125x80x8  | 2220    | 4   | 27.9    | 112 |
| 5                          | L80x5      | 2330    | 4   | 14.5    | 58  |
| 6                          | L50x5      | 2100    | 4   | 7.9     | 32  |
| 7                          | L90x6      | 2565    | 4   | 21.4    | 86  |
| 8                          | L50x5      | 2615    | 4   | 9.9     | 40  |
| 9                          | L50x5      | 2400    | 4   | 9.0     | 36  |
| 10                         | L70x5      | 2835    | 4   | 15.3    | 61  |
| 11                         | L63x5      | 2845    | 4   | 13.7    | 55  |
| 12                         | L56x5      | 2700    | 4   | 11.5    | 46  |
| 13                         | L63x5      | 2925    | 2   | 14.1    | 28  |
| 14                         | L63x5      | 2925    | 1   | 14.1    | 28  |
| 15                         | L63x5      | 2850    | 2   | 13.7    | 27  |
| 16                         | L140x90x10 | 620     | 2   | 10.8    | 22  |
| 17                         | L140x90x8  | 600     | 2   | 8.5     | 17  |
| 18                         | -200x10    | 220     | 2   | 3.5     | 7   |
| 19                         | -380x12    | 500     | 2   | 17.9    | 36  |
| 20                         | -300x20    | 380     | 2   | 17.9    | 36  |
| 21                         | -184x10    | 500     | 4   | 7.2     | 29  |
| 22                         | -135x10    | 184     | 4   | 1.9     | 8   |
| 23                         | -100x20    | 100     | 4   | 1.6     | 6   |
| 24                         | -300x10    | 430     | 2   | 10.1    | 20  |
| 25                         | -320x10    | 405     | 2   | 10.2    | 20  |
| 26                         | -180x10    | 210     | 6   | 3.0     | 18  |
| 27                         | -260x10    | 340     | 2   | 6.9     | 14  |
| 28                         | -280x10    | 490     | 2   | 10.8    | 22  |
| 29                         | -250x10    | 270     | 2   | 5.3     | 11  |
| 30                         | -290x10    | 330     | 2   | 7.5     | 15  |
| 31                         | -390x10    | 390     | 1   | 11.9    | 12  |
| 32                         | -215x10    | 400     | 1   | 6.8     | 7   |
| 33                         | -60x10     | 110     | 26  | 0.5     | 13  |
| 34                         | -60x10     | 85      | 38  | 0.4     | 15  |
| 35                         | -60x10     | 145     | 4   | 0.7     | 3   |
| 36                         | -60x10     | 100     | 13  | 0.5     | 7   |
| 37                         | -135x8     | 200     | 2   | 1.7     | 3   |
| 38                         | -140x8     | 205     | 2   | 1.8     | 4   |
| 39                         | -145x8     | 220     | 4   | 2.0     | 8   |
| 40                         | -140x8     | 195     | 4   | 1.7     | 7   |
| 41                         | -155x8     | 210     | 8   | 2.0     | 16  |
| 42                         | -145x8     | 215     | 4   | 2.0     | 8   |
| 5~17, 24~33, 35~38, 41, 42 | 同GWJ21-4A1 |         | 729 |         |     |
| 34                         | -60x10     | 85      | 34  | 0.4     | 14  |
| 43                         | L140x90x10 | 10250   | 2   | 179.2   | 717 |
| 44                         | L140x90x8  | 10200   | 2   | 144.4   | 578 |
| 45                         | L125x80x8  | 2170    | 4   | 27.2    | 109 |
| 46                         | -200x10    | 225     | 2   | 3.5     | 7   |
| 47                         | -200x20    | 200     | 2   | 6.3     | 13  |
| 48                         | -220x12    | 515     | 2   | 10.7    | 21  |
| 49                         | -200x20    | 530     | 2   | 16.6    | 33  |
| 1~4, 18~23, 39, 40         | 同GWJ21-4A1 |         | 803 |         |     |
| 5~17, 24~33, 35~38, 41, 42 | 同GWJ21-4A1 |         | 729 |         |     |
| 34                         | -60x10     | 85      | 36  | 0.4     | 14  |
| 43~49                      | 同GWJ21-4B1 |         | 739 |         |     |
|                            |            |         |     | 2285    |     |

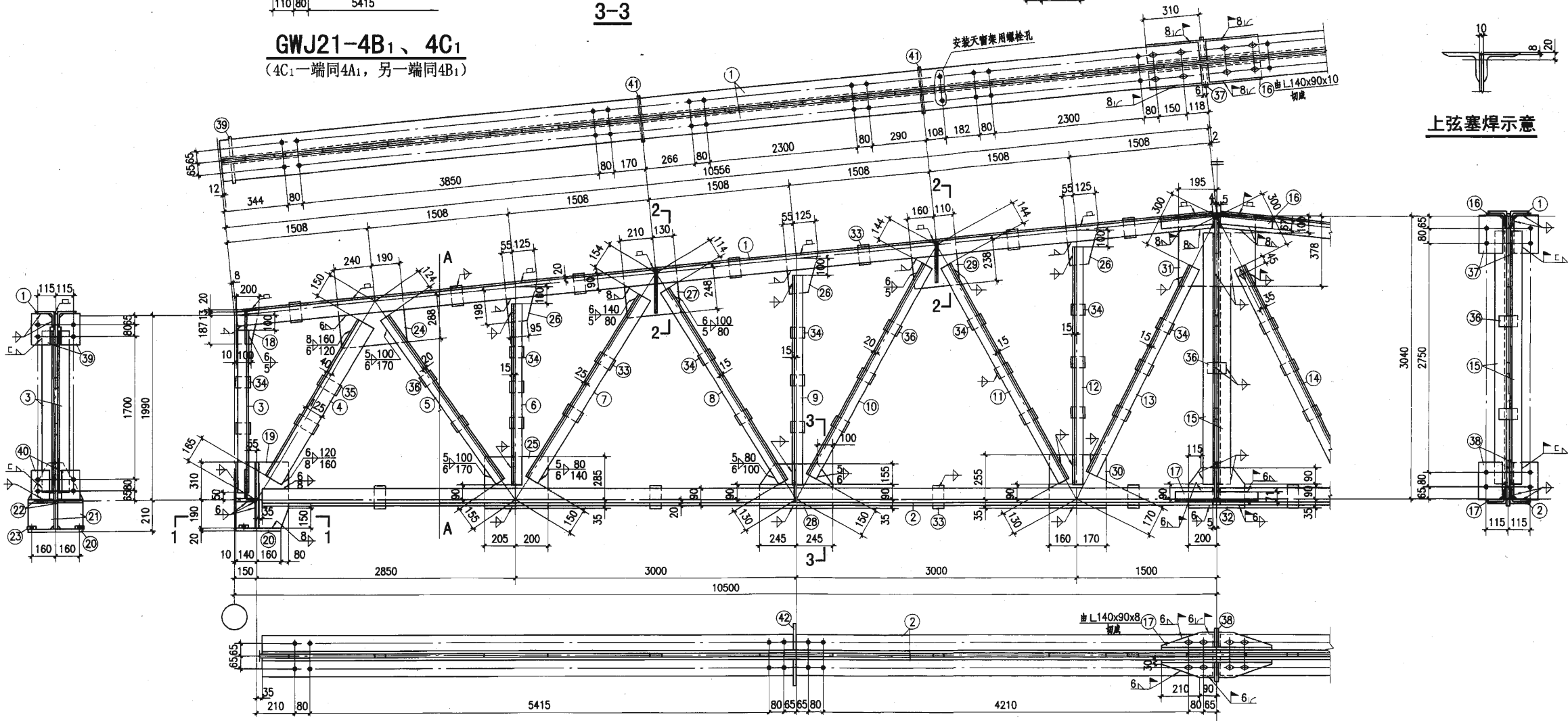
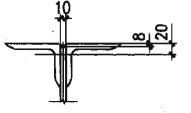
GWJ21-4A1 几何尺寸及内力图



GWJ21-4B1、4C1  
(4C1一端同4A1, 另一端同4B1)



上弦塞焊示意

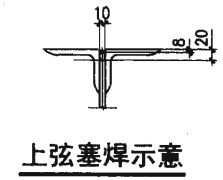
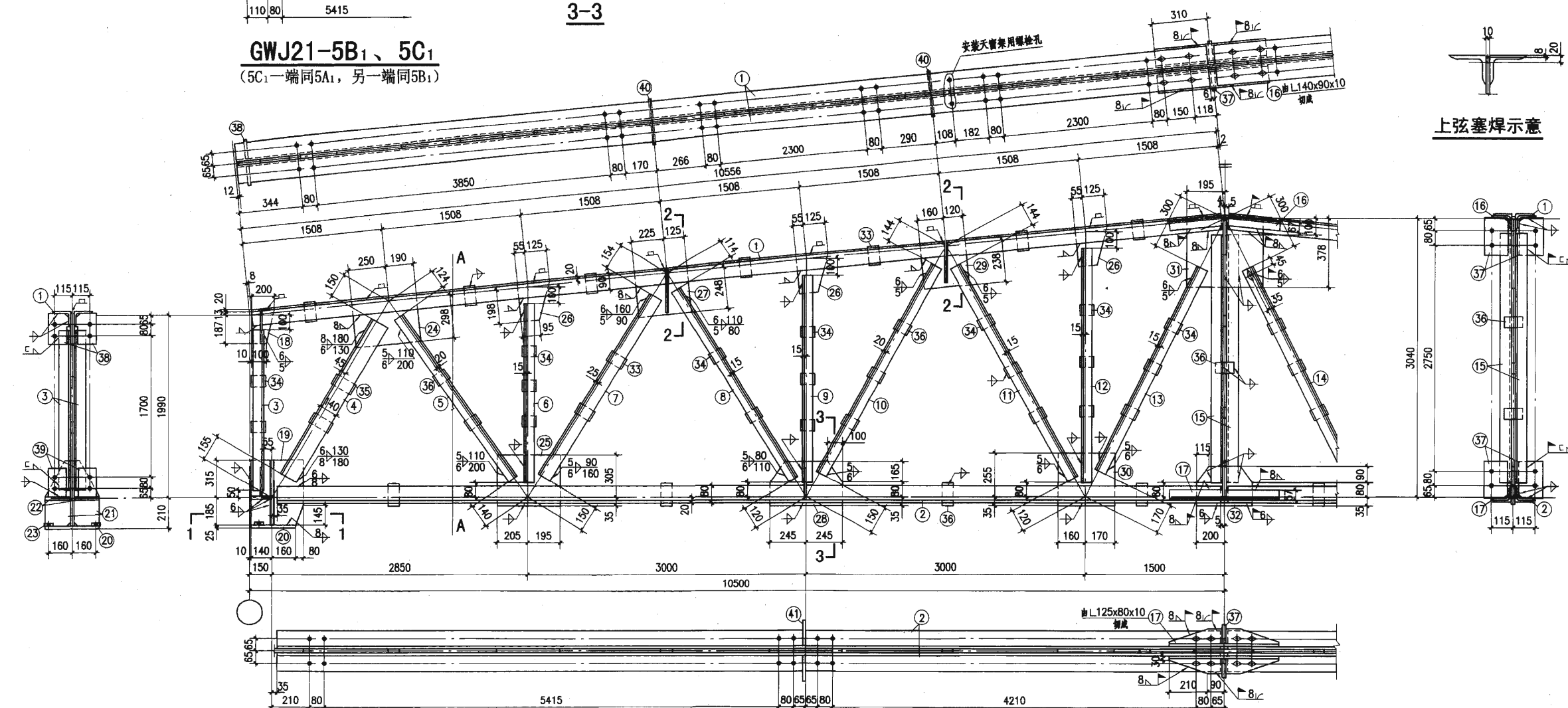
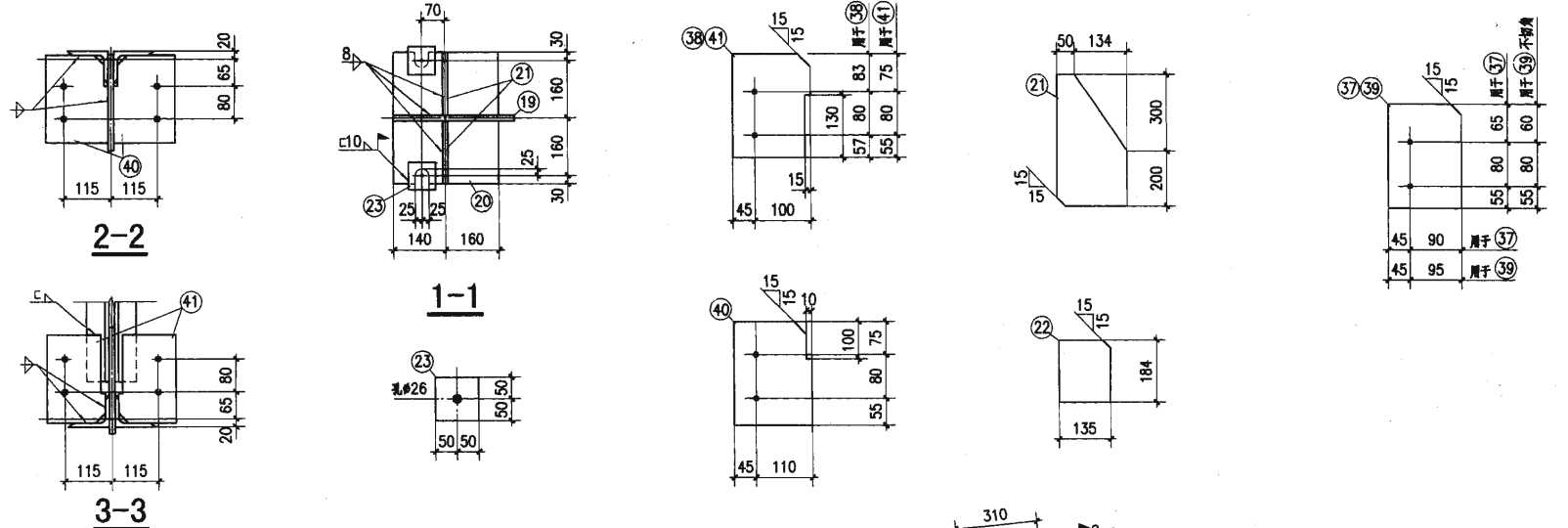
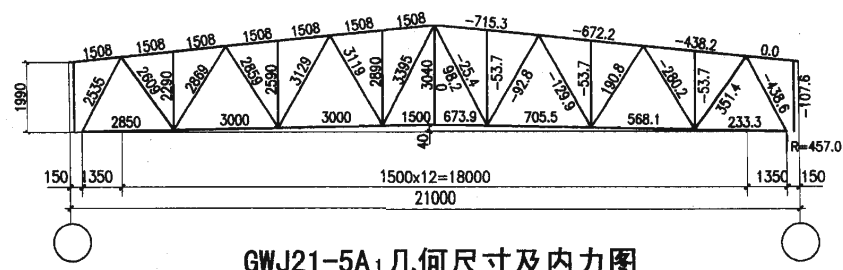
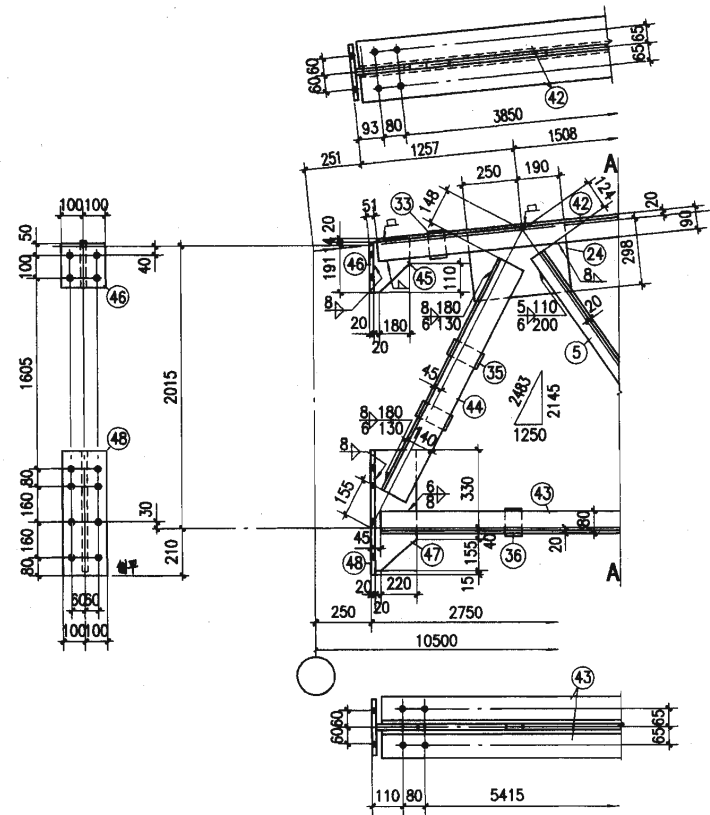


GWJ21-4A1

GWJ21-4A1、4B1、4C1 详图

图集号 05G511

- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为Φ21.5。



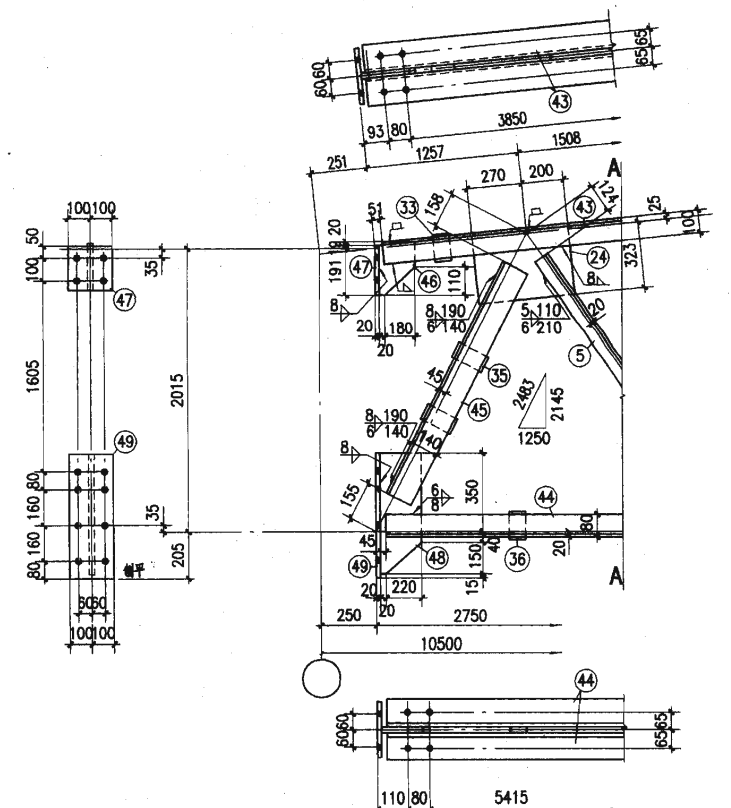
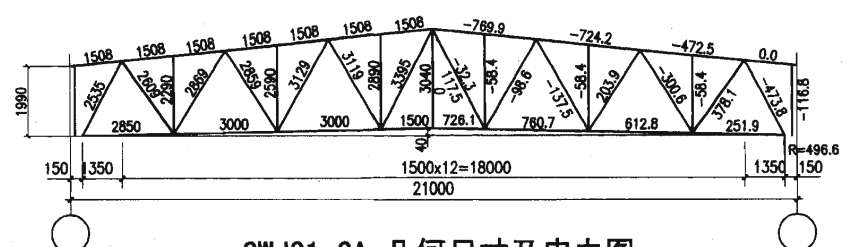
| 材料表                        |                        |         |     |   |           |
|----------------------------|------------------------|---------|-----|---|-----------|
| 构件编号                       | 断面                     | 长度 (mm) | 数量  |   | 重量 (kg)   |
|                            |                        |         | 正   | 反 |           |
| 1                          | L140x90x10             | 10540   | 2   | 2 | 184.2 737 |
| 2                          | L125x80x10             | 10310   | 2   | 2 | 159.5 638 |
| 3                          | L63x5                  | 1840    | 4   |   | 8.9 36    |
| 4                          | L140x90x8              | 2230    | 4   |   | 31.6 126  |
| 5                          | L75x6                  | 2345    | 4   |   | 16.2 85   |
| 6                          | L50x5                  | 2110    | 4   |   | 8.0 32    |
| 7                          | L90x6                  | 2565    | 4   |   | 21.4 86   |
| 8                          | L50x5                  | 2625    | 4   |   | 9.9 40    |
| 9                          | L50x5                  | 2410    | 4   |   | 9.1 36    |
| 10                         | L70x5                  | 2835    | 4   |   | 15.3 61   |
| 11                         | L63x5                  | 2855    | 4   |   | 13.8 55   |
| 12                         | L56x5                  | 2710    | 4   |   | 11.5 46   |
| 13                         | L63x5                  | 2925    | 2   |   | 14.1 28   |
| 14                         | L63x5                  | 2925    | 1   | 1 | 14.1 28   |
| 15                         | L63x5                  | 2860    | 2   |   | 13.8 28   |
| 16                         | L140x90x10             | 620     | 2   |   | 10.8 22   |
| 17                         | L125x80x10             | 600     | 2   |   | 9.3 19    |
| 18                         | -200x10                | 220     | 2   |   | 3.5 7     |
| 19                         | -380x12                | 500     | 2   |   | 17.9 36   |
| 20                         | -300x25                | 380     | 2   |   | 22.4 45   |
| 21                         | -184x10                | 500     | 4   |   | 7.2 29    |
| 22                         | -135x10                | 184     | 4   |   | 1.9 8     |
| 23                         | -100x25                | 100     | 4   |   | 2.0 8     |
| 24                         | -310x10                | 440     | 2   |   | 10.7 21   |
| 25                         | -340x10                | 400     | 2   |   | 10.7 21   |
| 26                         | -180x10                | 210     | 6   |   | 3.0 18    |
| 27                         | -260x10                | 350     | 2   |   | 7.1 14    |
| 28                         | -280x10                | 490     | 2   |   | 10.8 22   |
| 29                         | -250x10                | 280     | 2   |   | 5.5 11    |
| 30                         | -290x10                | 330     | 2   |   | 7.5 15    |
| 31                         | -390x10                | 390     | 1   |   | 11.9 12   |
| 32                         | -205x10                | 400     | 1   |   | 6.4 6     |
| 33                         | -60x10                 | 110     | 18  |   | 0.5 9     |
| 34                         | -60x10                 | 85      | 38  |   | 0.4 15    |
| 35                         | -60x10                 | 145     | 4   |   | 0.7 3     |
| 36                         | -60x10                 | 100     | 21  |   | 0.5 11    |
| 37                         | -135x8                 | 200     | 4   |   | 1.7 7     |
| 38                         | -145x8                 | 220     | 4   |   | 2.0 8     |
| 39                         | -140x8                 | 195     | 4   |   | 1.7 7     |
| 40                         | -155x8                 | 210     | 8   |   | 2.0 16    |
| 41                         | -145x8                 | 210     | 4   |   | 1.9 8     |
| 5~17, 24~33, 35~37, 40, 41 | 同GWJ21-5A <sub>1</sub> |         | 740 |   |           |
| 34                         | -60x10                 | 85      | 34  |   | 0.4 14    |
| 42                         | L140x90x10             | 10250   | 2   | 2 | 179.2 717 |
| 43                         | L125x80x10             | 10200   | 2   | 2 | 157.8 631 |
| 44                         | L140x90x8              | 2180    | 4   |   | 30.9 124  |
| 45                         | -200x10                | 225     | 2   |   | 3.5 7     |
| 46                         | -200x20                | 200     | 2   |   | 6.3 13    |
| 47                         | -240x12                | 525     | 2   |   | 11.9 24   |
| 48                         | -200x20                | 540     | 2   |   | 17.0 34   |
| 1~4, 18~23, 38, 39         | 同GWJ21-5A <sub>1</sub> |         | 843 |   |           |
| 5~17, 24~33, 35~37, 40, 41 | 同GWJ21-5A <sub>1</sub> |         | 740 |   |           |
| 34                         | -60x10                 | 85      | 36  |   | 0.4 14    |
| 42~48                      | 同GWJ21-5B <sub>1</sub> |         | 775 |   |           |

- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为φ21.5。

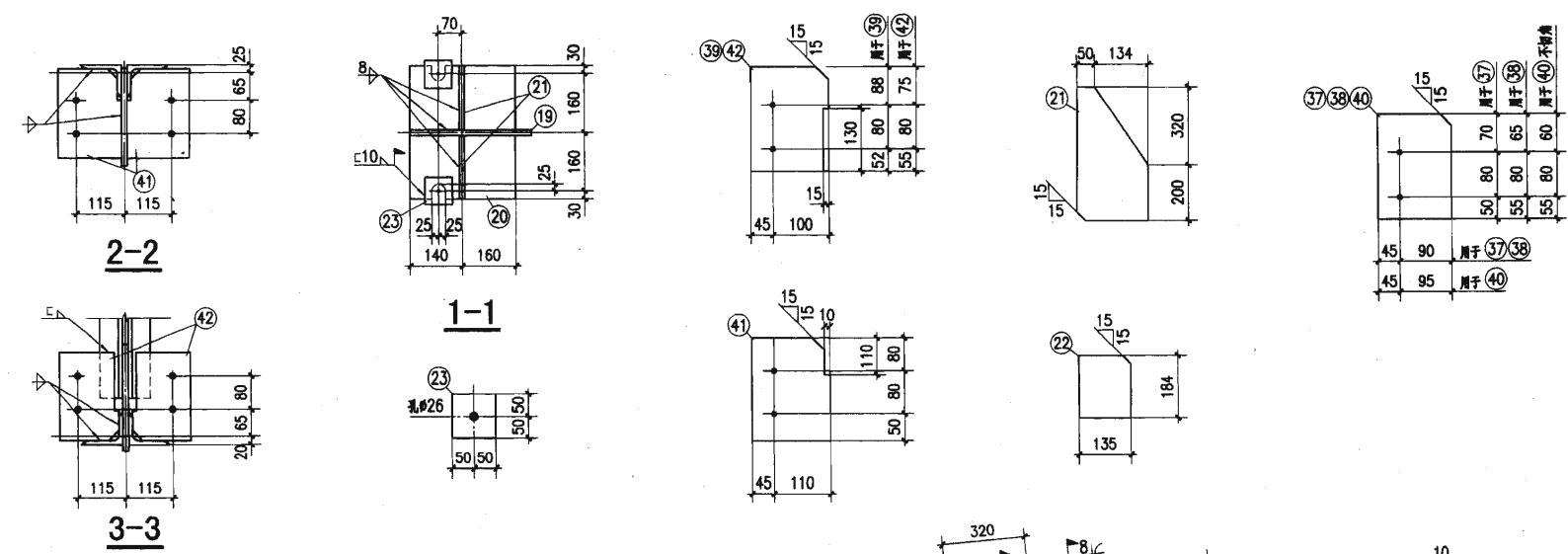
材料表

| 序号                                     | 规格          | 长度 (mm) | 数量 |   | 重量 (kg) |     |                     |
|--|-------------|---------|----|---|---------|-----|---------------------|
|  |             |         | 正  | 反 | 每个      | 共计  |                     |
| 1                                      | L160x100x10 | 10540   | 2  | 2 | 209.4   | 838 |                     |
| 2                                      | L125x80x10  | 10310   | 2  | 2 | 159.5   | 638 |                     |
| 3                                      | L63x5       | 1840    | 4  |   | 8.9     | 36  |                     |
| 4                                      | L140x90x8   | 2220    | 4  |   | 31.4    | 126 |                     |
| 5                                      | L80x6       | 2345    | 4  |   | 17.3    | 69  |                     |
| 6                                      | L50x5       | 2110    | 4  |   | 8.0     | 32  |                     |
| 7                                      | L90x6       | 2565    | 4  |   | 21.4    | 86  |                     |
| 8                                      | L56x5       | 2625    | 4  |   | 11.2    | 45  |                     |
| 9                                      | L50x5       | 2410    | 4  |   | 9.1     | 36  |                     |
| 10                                     | L75x5       | 2825    | 4  |   | 16.4    | 66  |                     |
| 11                                     | L70x5       | 2855    | 4  |   | 15.4    | 62  |                     |
| 12                                     | L56x5       | 2710    | 4  |   | 11.5    | 46  |                     |
| 13                                     | L63x5       | 2925    | 2  |   | 14.1    | 28  |                     |
| 14                                     | L63x5       | 2925    | 1  | 1 | 14.1    | 28  |                     |
| 15                                     | L63x5       | 2850    | 2  |   | 13.7    | 27  |                     |
| 16                                     | L160x100x10 | 640     | 2  |   | 12.7    | 25  |                     |
| 17                                     | L125x80x10  | 600     | 2  |   | 9.3     | 19  |                     |
| 18                                     | -200x10     | 220     | 2  |   | 3.5     | 7   |                     |
| 19                                     | -390x12     | 520     | 2  |   | 19.1    | 38  |                     |
| 20                                     | -300x25     | 380     | 2  |   | 22.4    | 45  |                     |
| 21                                     | -184x10     | 520     | 4  |   | 7.5     | 30  |                     |
| 22                                     | -135x10     | 184     | 4  |   | 1.9     | 8   |                     |
| 23                                     | -100x25     | 100     | 4  |   | 2.0     | 8   |                     |
| 24                                     | -340x10     | 470     | 2  |   | 12.5    | 25  |                     |
| 25                                     | -360x10     | 400     | 2  |   | 11.3    | 23  |                     |
| 26                                     | -180x10     | 220     | 6  |   | 3.1     | 19  |                     |
| 27                                     | -270x10     | 360     | 2  |   | 7.6     | 15  |                     |
| 28                                     | -280x10     | 490     | 2  |   | 10.8    | 22  |                     |
| 29                                     | -270x10     | 290     | 2  |   | 6.1     | 12  |                     |
| 30                                     | -290x10     | 330     | 2  |   | 7.5     | 15  |                     |
| 31                                     | -390x10     | 400     | 1  |   | 12.2    | 12  |                     |
| 32                                     | -205x10     | 500     | 1  |   | 8.0     | 8   |                     |
| 33                                     | -60x10      | 120     | 18 |   | 0.6     | 11  |                     |
| 34                                     | -60x10      | 85      | 32 |   | 0.4     | 13  |                     |
| 35                                     | -60x10      | 160     | 4  |   | 0.8     | 3   |                     |
| 36                                     | -60x10      | 100     | 27 |   | 0.5     | 14  |                     |
| 37                                     | -135x8      | 200     | 2  |   | 1.7     | 3   |                     |
| 38                                     | -135x8      | 200     | 2  |   | 1.7     | 3   |                     |
| 39                                     | -145x8      | 220     | 4  |   | 2.0     | 8   |                     |
| 40                                     | -140x8      | 195     | 4  |   | 1.7     | 7   |                     |
| 41                                     | -155x8      | 210     | 8  |   | 2.0     | 16  |                     |
| 42                                     | -145x8      | 210     | 4  |   | 1.9     | 8   |                     |
| GWJ21-6A1                              |             |         |    |   |         |     | 2580                |
| GWJ21-6B1                              |             |         |    |   |         |     | 2437                |
| GWJ21-6C1                              |             |         |    |   |         |     | 2509                |
| 5~17, 24~33, 35~38, 41, 42 同 GWJ21-6A1 |             |         |    |   |         |     | 778                 |
| 34 -60x10                              |             |         |    |   |         |     | 85 28 0.4 11        |
| 43 L160x100x10                         |             |         |    |   |         |     | 10250 2 2 203.7 815 |
| 44 L125x80x10                          |             |         |    |   |         |     | 10200 2 2 157.8 631 |
| 45 L140x90x8                           |             |         |    |   |         |     | 2170 4 30.7 123     |
| 46 -200x10                             |             |         |    |   |         |     | 230 2 3.6 7         |
| 47 -200x10                             |             |         |    |   |         |     | 200 2 6.3 13        |
| 48 -240x12                             |             |         |    |   |         |     | 540 2 12.2 24       |
| 49 -200x20                             |             |         |    |   |         |     | 555 2 17.4 35       |
| 1~4, 18~23, 39, 40 同 GWJ21-6A1 数量减半    |             |         |    |   |         |     | 895                 |
| 5~17, 24~33, 35~38, 41, 42 同 GWJ21-6A1 |             |         |    |   |         |     | 778                 |
| 34 -60x10                              |             |         |    |   |         |     | 85 30 0.4 12        |
| 43~49 同 GWJ21-6B1 数量减半                 |             |         |    |   |         |     | 824                 |

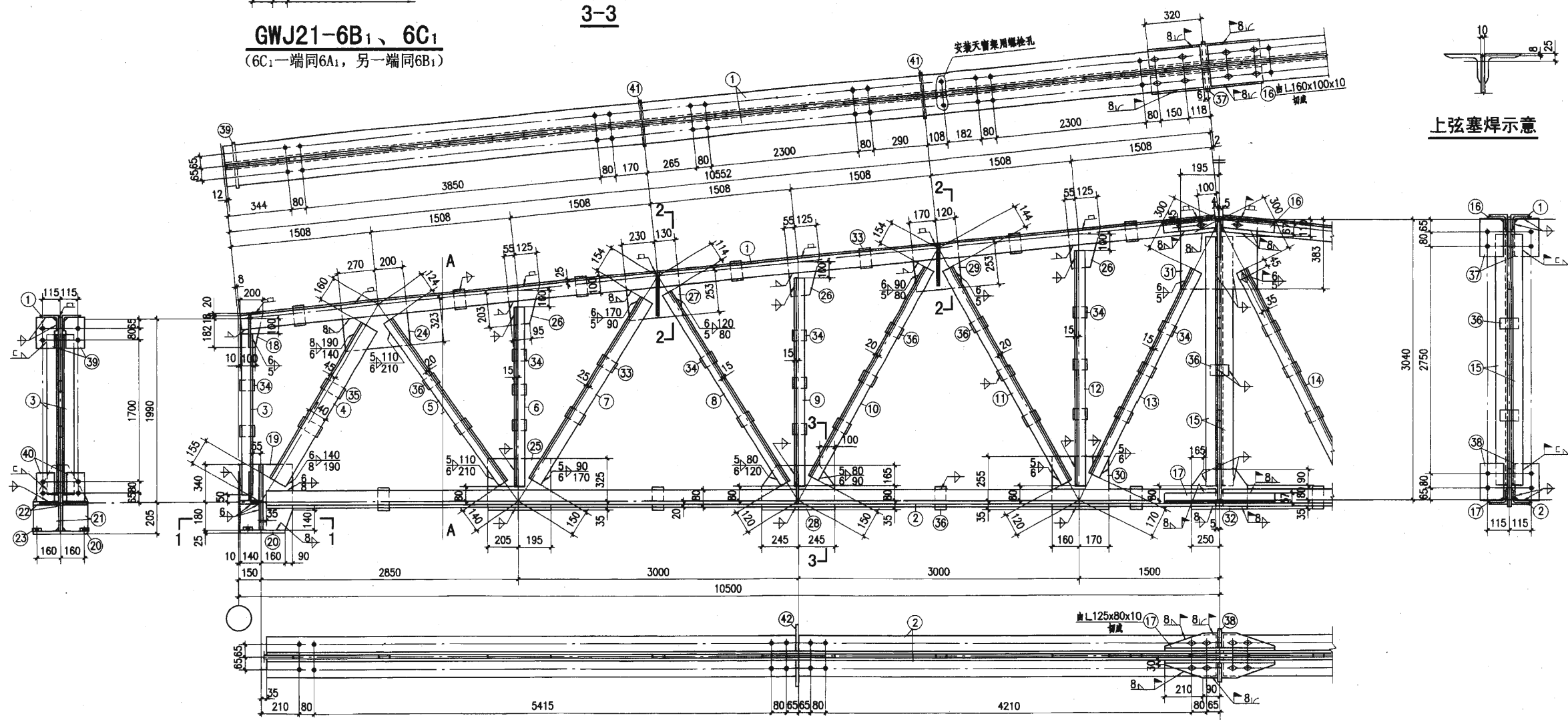
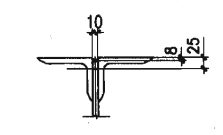
GWJ21-6A1 几何尺寸及内力图



GWJ21-6B1、6C1  
(6C1一端同6A1, 另一端同6B1)



上弦塞焊示意



GWJ21-6A1

GWJ21-6A1、6B1、6C1 详图 图集号 05G511

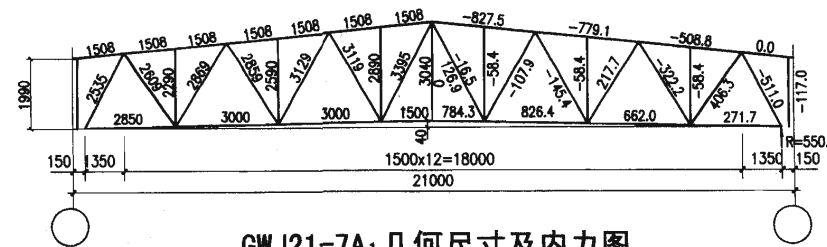
- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为 $\phi 21.5$ 。



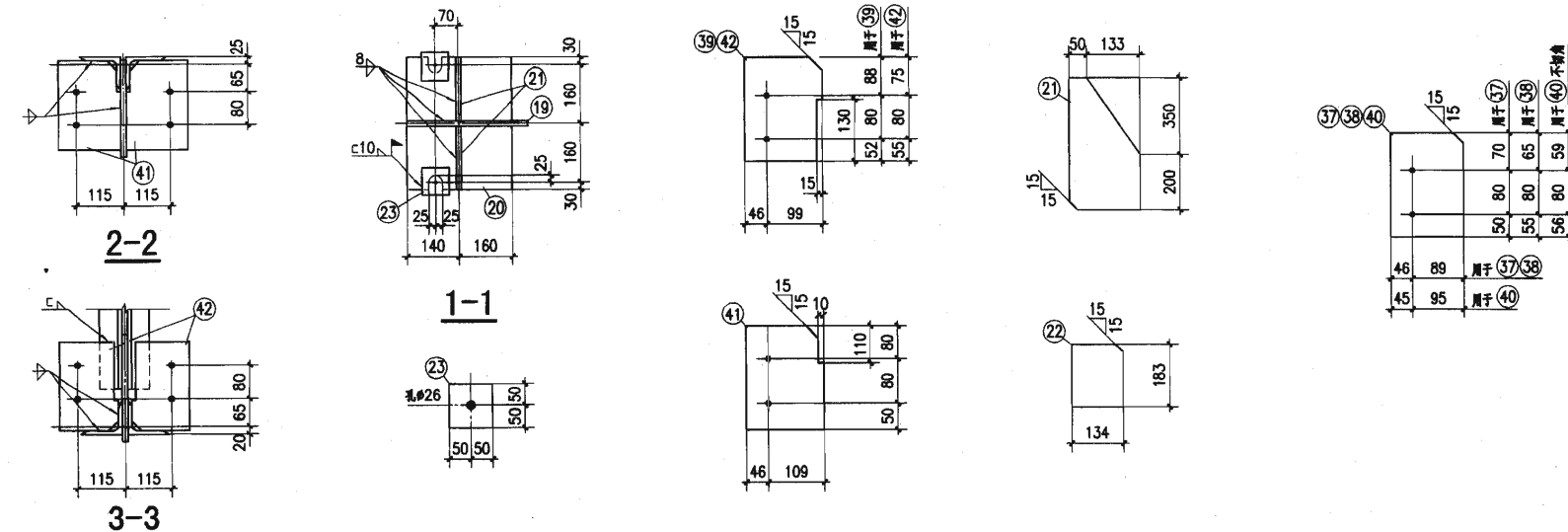
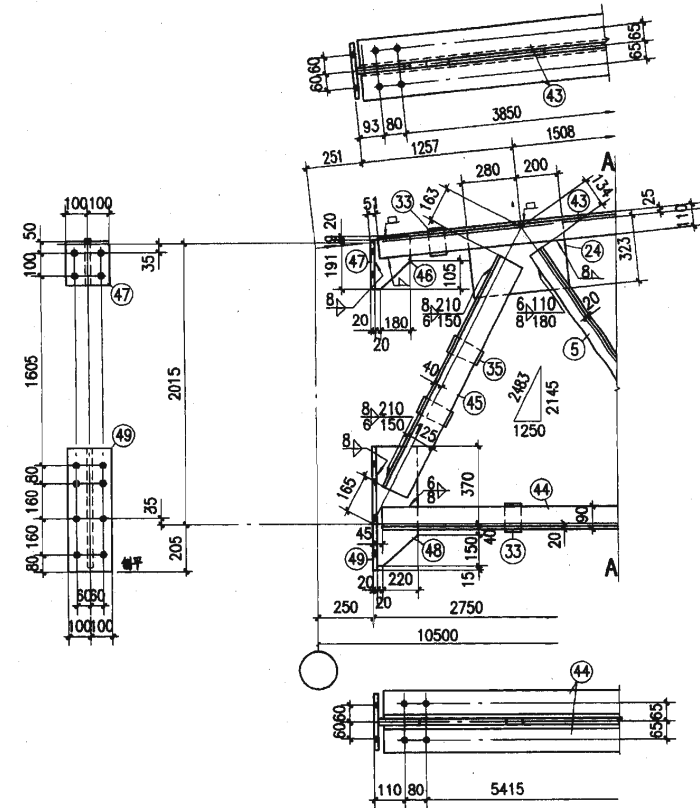
材料表

| 材料编号                   | 规格          | 长度 (mm) | 数量   |    | 重量 (kg) |
|------------------------|-------------|---------|------|----|---------|
|                        |             |         | 正负   | 合计 |         |
| 1                      | L180x110x10 | 10540   | 2    | 2  | 234.7   |
| 2                      | L140x90x10  | 10310   | 2    | 2  | 180.2   |
| 3                      | L63x5       | 1830    | 4    | 4  | 8.8     |
| 4                      | L125x80x10  | 2205    | 4    | 4  | 34.1    |
| 5                      | L75x7       | 2325    | 4    | 4  | 18.6    |
| 6                      | L50x5       | 2090    | 4    | 4  | 7.9     |
| 7                      | L100x6      | 2535    | 4    | 4  | 23.8    |
| 8                      | L63x5       | 2595    | 4    | 4  | 12.5    |
| 9                      | L50x5       | 2390    | 4    | 4  | 9.0     |
| 10                     | L80x5       | 2815    | 4    | 4  | 17.5    |
| 11                     | L70x5       | 2845    | 4    | 4  | 15.4    |
| 12                     | L56x5       | 2690    | 4    | 4  | 11.4    |
| 13                     | L63x5       | 2925    | 2    | 2  | 14.1    |
| 14                     | L63x5       | 2925    | 1    | 1  | 14.1    |
| 15                     | L63x5       | 2830    | 2    | 2  | 13.6    |
| 16                     | L180x110x10 | 620     | 2    | 2  | 13.8    |
| 17                     | L140x90x10  | 700     | 2    | 2  | 12.2    |
| 18                     | -200x12     | 225     | 2    | 2  | 4.2     |
| 19                     | -410x14     | 550     | 2    | 2  | 24.8    |
| 20                     | -300x25     | 380     | 2    | 2  | 22.4    |
| 21                     | -183x12     | 550     | 4    | 4  | 9.5     |
| 22                     | -134x12     | 183     | 4    | 4  | 2.3     |
| 23                     | -100x25     | 100     | 4    | 4  | 2.0     |
| 24                     | -340x12     | 480     | 2    | 2  | 15.4    |
| 25                     | -360x12     | 440     | 2    | 2  | 14.9    |
| 26                     | -180x12     | 220     | 6    | 6  | 3.7     |
| 27                     | -300x12     | 405     | 2    | 2  | 11.4    |
| 28                     | -300x12     | 490     | 2    | 2  | 13.8    |
| 29                     | -270x12     | 300     | 2    | 2  | 7.6     |
| 30                     | -290x12     | 330     | 2    | 2  | 9.0     |
| 31                     | -400x12     | 410     | 1    | 1  | 15.4    |
| 32                     | -215x12     | 500     | 1    | 1  | 10.1    |
| 33                     | -60x12      | 130     | 26   | 26 | 0.7     |
| 34                     | -60x12      | 85      | 32   | 32 | 0.5     |
| 35                     | -60x12      | 160     | 4    | 4  | 0.9     |
| 36                     | -60x12      | 100     | 19   | 19 | 0.6     |
| 37                     | -135x8      | 200     | 2    | 2  | 1.7     |
| 38                     | -135x8      | 200     | 2    | 2  | 1.7     |
| 39                     | -145x8      | 220     | 4    | 4  | 2.0     |
| 40                     | -140x8      | 195     | 4    | 4  | 1.7     |
| 41                     | -155x8      | 210     | 8    | 8  | 2.0     |
| 42                     | -145x8      | 210     | 4    | 4  | 1.9     |
| 5~17,24~33,35~38,41,42 | 同GWJ21-7A1  |         | 854  |    | 854     |
| 34                     | -60x12      | 85      | 28   | 28 | 0.5     |
| 43                     | L180x110x10 | 10250   | 2    | 2  | 228.3   |
| 44                     | L140x90x10  | 10200   | 2    | 2  | 178.3   |
| 45                     | L125x80x10  | 2155    | 4    | 4  | 33.3    |
| 46                     | -200x12     | 230     | 2    | 2  | 4.3     |
| 47                     | -200x20     | 200     | 2    | 2  | 6.3     |
| 48                     | -240x14     | 560     | 2    | 2  | 14.8    |
| 49                     | -200x20     | 575     | 2    | 2  | 18.1    |
| 1~4,18~23,39,40        | 同GWJ21-7A1  |         | 1002 |    | 1002    |
| 5~17,24~33,35~38,41,42 | 同GWJ21-7A1  |         | 854  |    | 854     |
| 34                     | -60x12      | 85      | 30   | 30 | 0.5     |
| 43~49                  | 同GWJ21-7B1  |         | 924  |    | 924     |

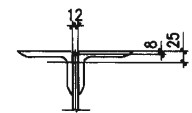
GWJ21-7A1 几何尺寸及内力图



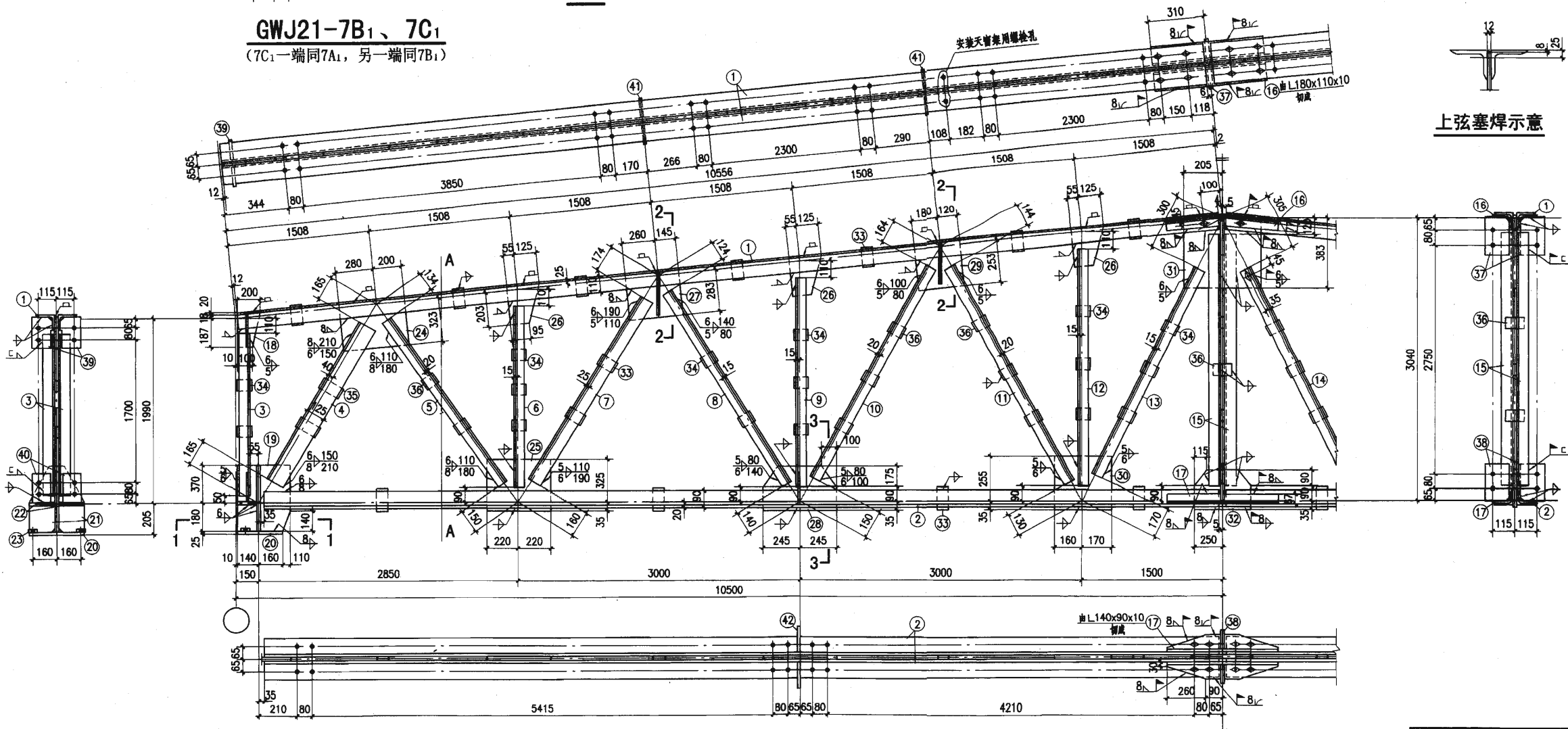
GWJ21-7B1、7C1  
(7C1一端同7A1, 另一端同7B1)



上弦塞焊示意

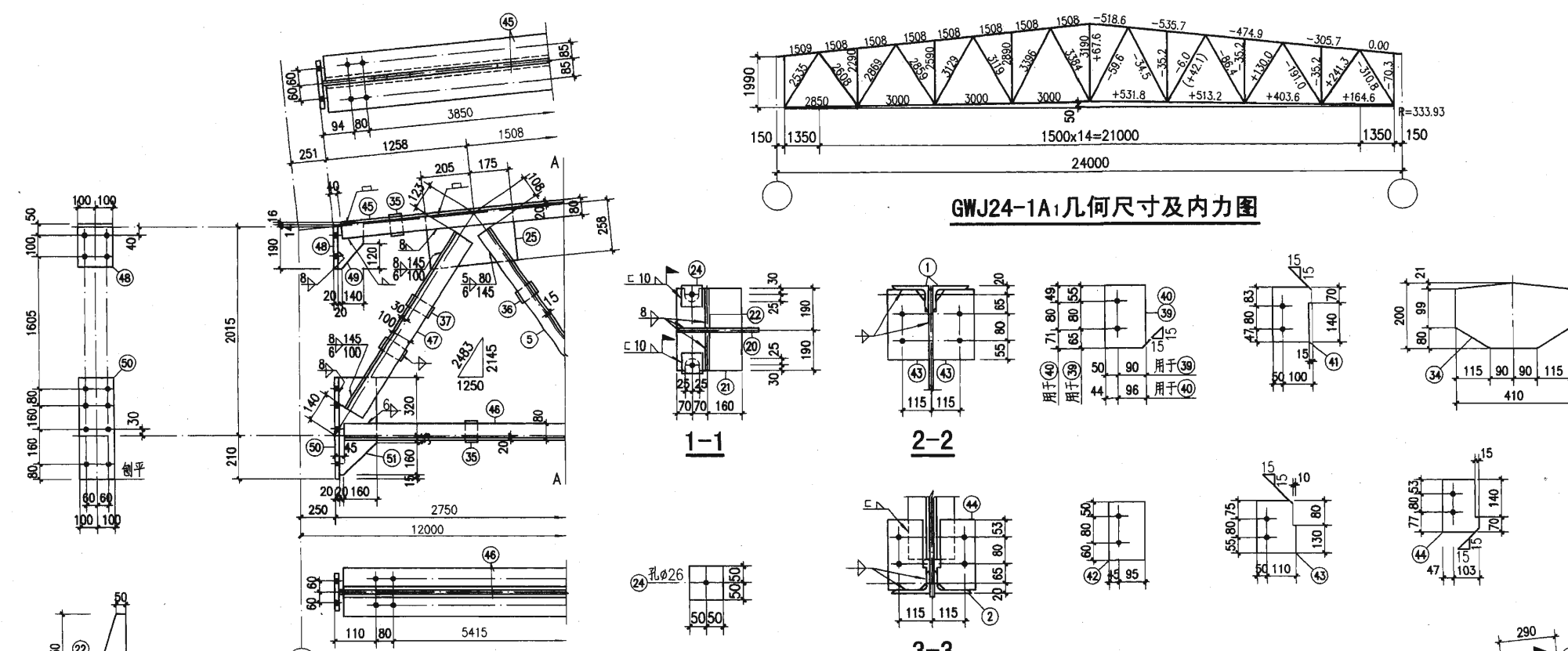


GWJ21-7A1



GWJ21-7A1、7B1、7C1 详图

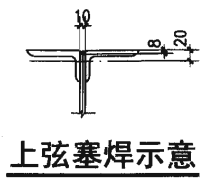
- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为φ21.5。



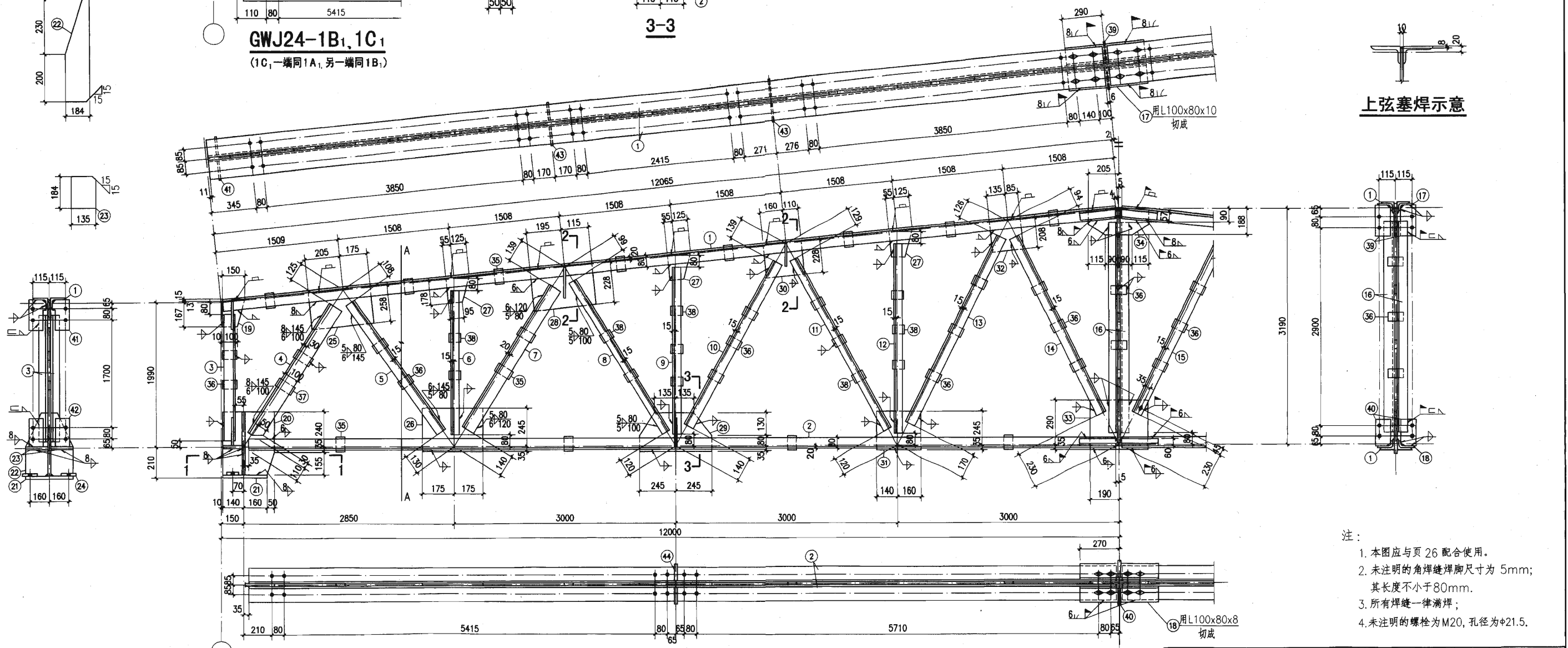
GWJ24-1A1几何尺寸及内力图

GWJ24-1B1, 1C1  
(1C1一端同1A1, 另一端同1B1)

| 材料表       |     |            |         |    | 材料表     |      |                            |                    |                            |            |         |      |       |     |
|-----------|-----|------------|---------|----|---------|------|----------------------------|--------------------|----------------------------|------------|---------|------|-------|-----|
| 构件编号      | 零件号 | 断面         | 长度 (mm) | 数量 | 重量 (kg) | 构件编号 | 零件号                        | 断面                 | 长度 (mm)                    | 数量         | 重量 (kg) |      |       |     |
| GWJ24-1A1 | 1   | L125x80x10 | 12050   | 2  | 186.4   | 746  | GWJ24-1B1                  | 32                 | -220x10                    | 220        | 2       | 3.8  |       |     |
|           | 2   | L125x80x7  | 11810   | 2  | 130.7   | 523  |                            | 33                 | -325x10                    | 380        | 1       | 9.7  |       |     |
|           | 3   | L63x5      | 1860    | 4  | 9.0     | 36   |                            | 34                 | -200x10                    | 410        | 1       | 6.4  |       |     |
|           | 4   | L100x80x7  | 2300    | 2  | 22.2    | 89   |                            | 35                 | -60x10                     | 100        | 28      | 0.5  |       |     |
|           | 5   | L63x5      | 2370    | 4  | 11.4    | 46   |                            | 36                 | -60x10                     | 90         | 31      | 0.4  |       |     |
|           | 6   | L50x5      | 2130    | 4  | 8.0     | 32   |                            | 37                 | -60x10                     | 120        | 4       | 0.6  |       |     |
|           | 7   | L80x5      | 2590    | 4  | 16.1    | 64   |                            | 38                 | -60x10                     | 80         | 26      | 0.4  |       |     |
|           | 8   | L50x5      | 2840    | 4  | 10.0    | 40   |                            | 39                 | -140x8                     | 200        | 2       | 1.8  |       |     |
|           | 9   | L50x5      | 2430    | 4  | 9.2     | 37   |                            | 40                 | -140x8                     | 200        | 2       | 1.8  |       |     |
|           | 10  | L63x5      | 2850    | 4  | 13.7    | 55   |                            | 41                 | -150x8                     | 210        | 4       | 2.0  |       |     |
|           | 11  | L56x5      | 2870    | 4  | 12.2    | 49   |                            | 42                 | -140x8                     | 190        | 4       | 1.7  |       |     |
|           | 12  | L56x5      | 2730    | 4  | 11.6    | 46   |                            | 43                 | -160x8                     | 210        | 8       | 2.1  |       |     |
|           | 13  | L63x5      | 3100    | 4  | 14.9    | 60   |                            | 44                 | -150x8                     | 210        | 4       | 2.0  |       |     |
|           | 14  | L63x5      | 3060    | 2  | 14.7    | 29   |                            | GWJ24-1C1          | 5~18, 25~35, 37~40, 43, 44 | 同GWJ24-1A1 |         | 727  |       |     |
|           | 15  | L63x5      | 3060    | 1  | 14.7    | 29   |                            |                    | 2259                       | 36         | -60x10  | 90   | 27    | 0.4 |
|           | 16  | L63x5      | 3020    | 2  | 14.6    | 29   |                            |                    | 45                         | L125x80x10 | 11770   | 2    | 182.1 |     |
|           | 17  | L125x80x10 | 580     | 2  | 9.0     | 18   |                            |                    | 46                         | L125x80x7  | 11700   | 2    | 129.5 |     |
|           | 18  | L125x80x7  | 540     | 2  | 6.0     | 12   |                            |                    | 47                         | L100x80x7  | 2220    | 4    | 21.4  |     |
|           | 19  | -150x10    | 195     | 2  | 2.3     | 5    |                            |                    | 48                         | -200x20    | 200     | 2    | 6.3   |     |
|           | 20  | -350x12    | 430     | 2  | 14.2    | 28   |                            |                    | 49                         | -160x10    | 220     | 2    | 2.8   |     |
|           | 21  | -300x20    | 380     | 2  | 17.9    | 36   |                            | 50                 | -200x20                    | 530        | 2       | 16.6 |       |     |
|           | 22  | -184x10    | 430     | 4  | 6.2     | 25   |                            | 51                 | -180x12                    | 515        | 2       | 8.7  |       |     |
|           | 23  | -135x10    | 184     | 4  | 1.9     | 8    |                            |                    |                            |            |         |      |       |     |
|           | 24  | -100x20    | 100     | 4  | 1.6     | 6    |                            | 1~4, 19~24, 41, 42 | 同GWJ24-1A1                 |            |         | 708  |       |     |
|           | 25  | -270x10    | 380     | 2  | 8.1     | 16   | 5~18, 25~35, 37~40, 43, 44 | 同GWJ24-1A1         |                            |            | 727     |      |       |     |
|           | 26  | -280x10    | 350     | 2  | 7.7     | 15   | 36                         | -60x10             | 90                         | 29         | 0.4     |      |       |     |
|           | 27  | -180x10    | 190     | 6  | 2.7     | 16   | 45~51                      | 同GWJ24-1B1         |                            |            | 651     |      |       |     |
|           | 28  | -240x10    | 310     | 2  | 5.8     | 12   |                            |                    |                            |            |         |      |       |     |
|           | 29  | -245x10    | 490     | 2  | 9.4     | 19   |                            |                    |                            |            |         |      |       |     |
|           | 30  | -240x10    | 270     | 2  | 5.1     | 10   |                            |                    |                            |            |         |      |       |     |
|           | 31  | -280x10    | 300     | 2  | 6.6     | 13   |                            |                    |                            |            |         |      |       |     |



上弦塞焊示意



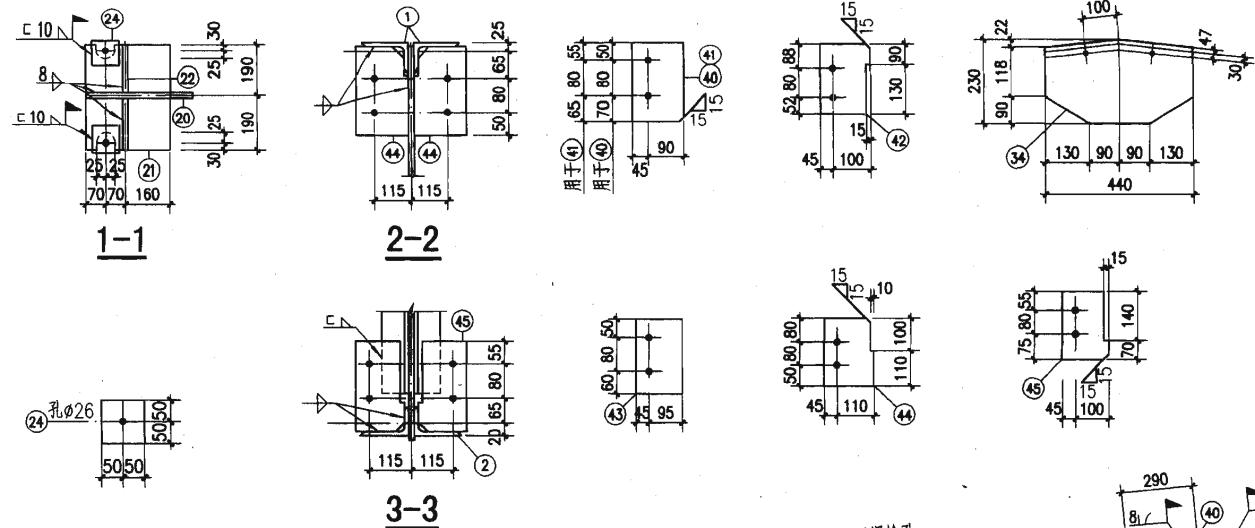
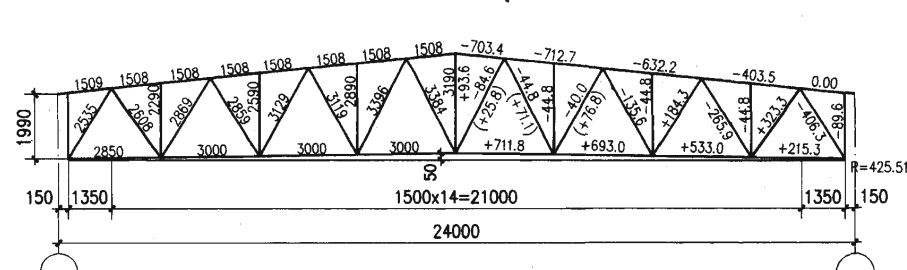
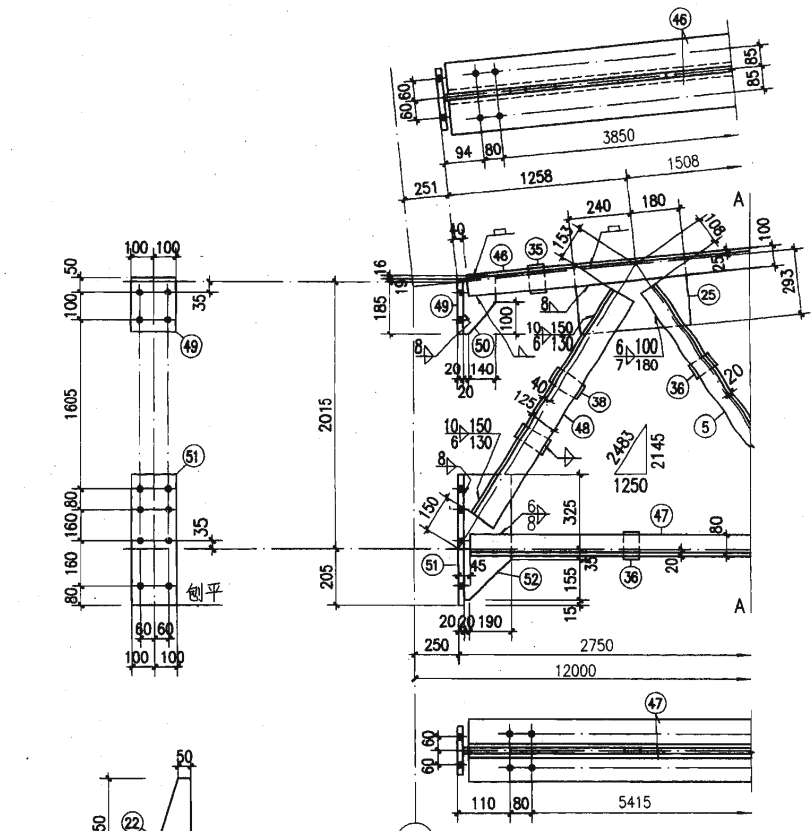
GWJ24-1A1

GWJ24-1A1, 1B1, 1C1详图

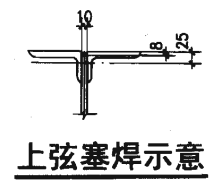
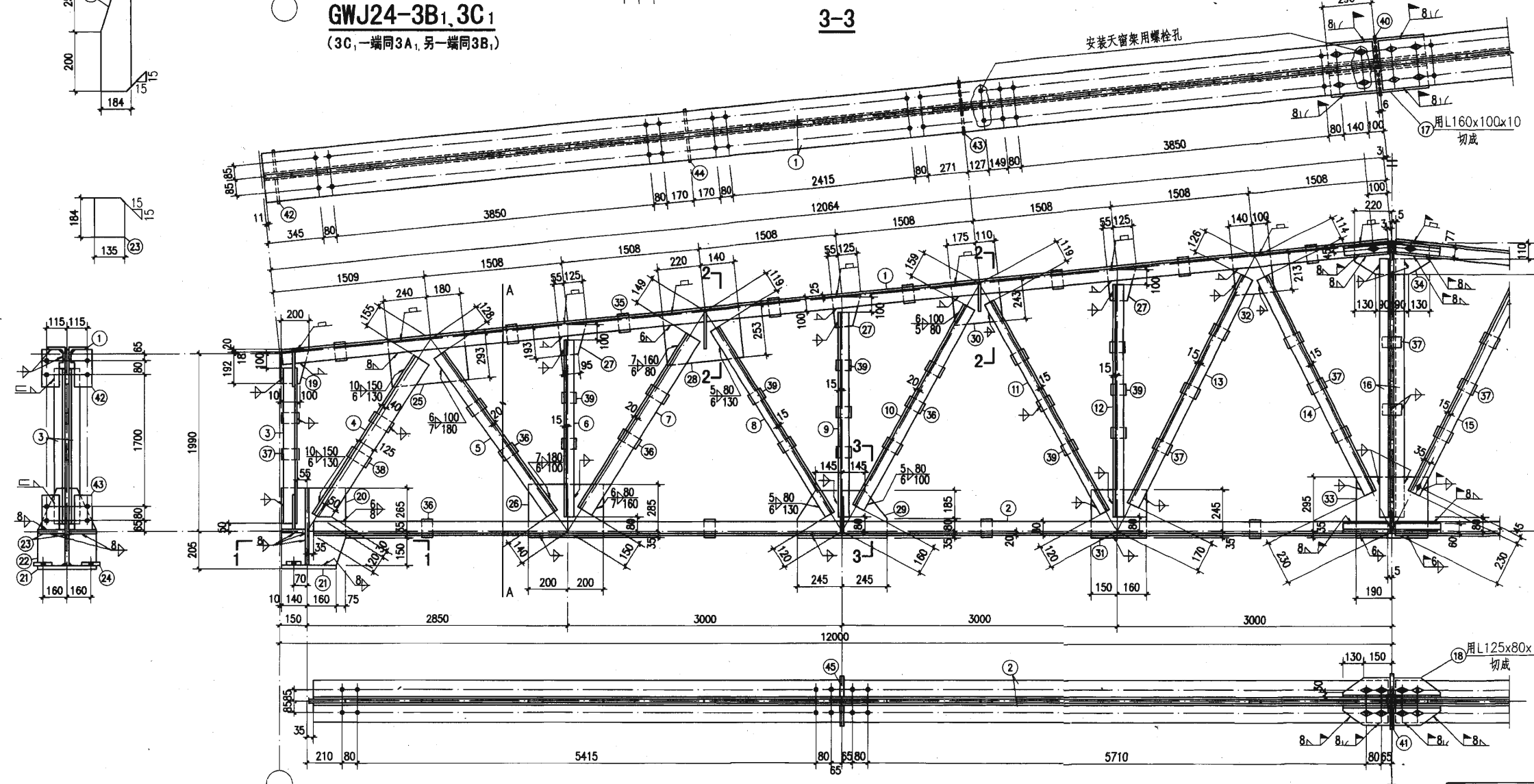
图集号 05G511

- 注:
1. 本图应与页 26 配合使用。
  2. 未注明的角焊缝焊脚尺寸为 5mm; 其长度不小于 80mm。
  3. 所有焊缝一律满焊;
  4. 未注明的螺栓为 M20, 孔径为  $\phi 21.5$ 。

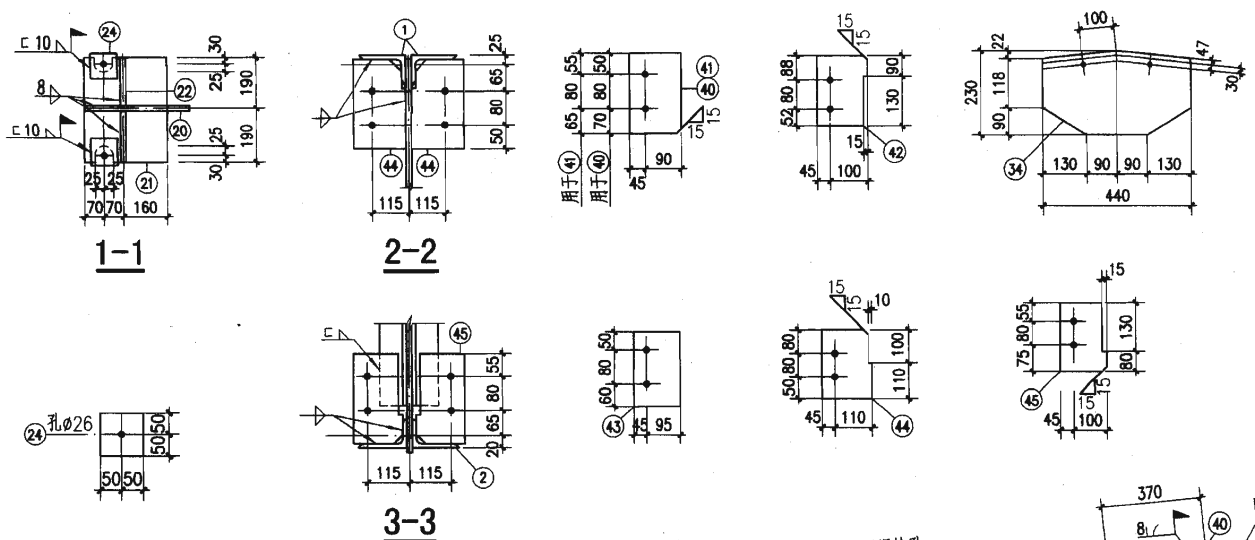
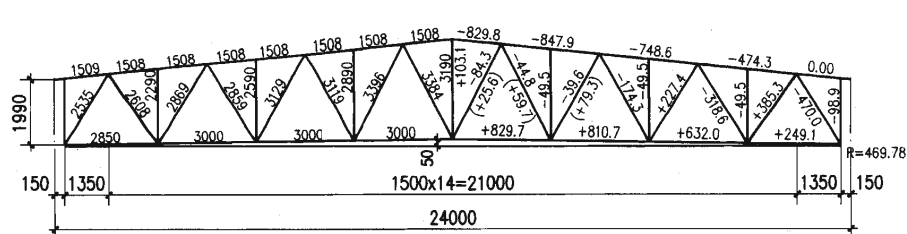
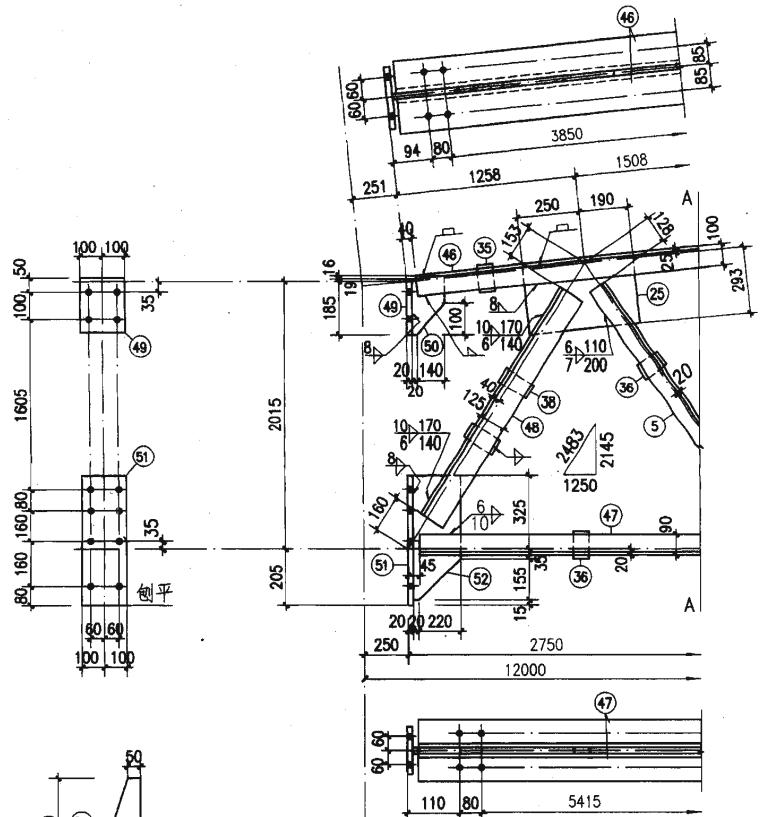




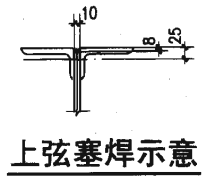
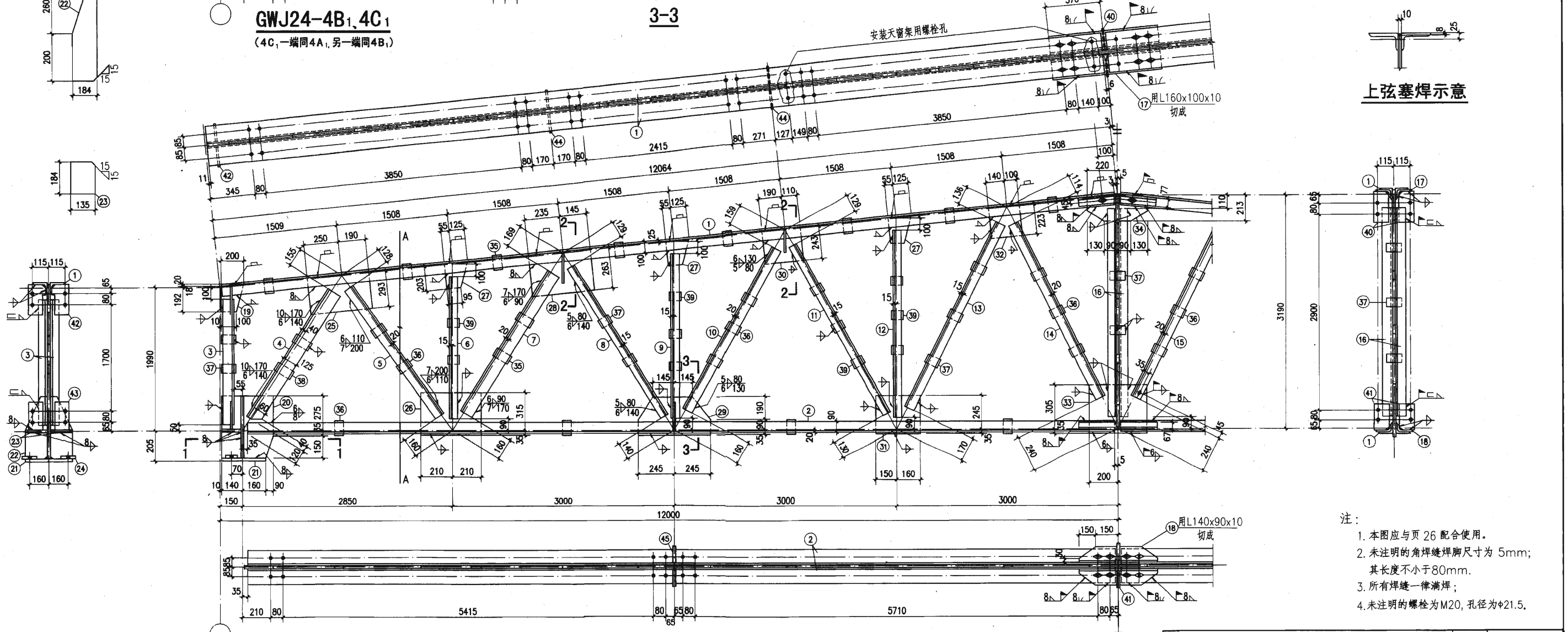
| 材料表  |             |        |    |         | 材料表  |      |  |       |         |       |     |      |
|------|-------------|--------|----|---------|------|------|--|-------|---------|-------|-----|------|
| 构件编号 | 断面          | 长度(mm) | 数量 | 重量(kg)  | 构件编号 | 断面   | 长度(mm)                                       | 数量    | 重量(kg)  |       |     |      |
|      |             |        | 正  | 反 每个 共计 |      |      |  | 正     | 反 每个 共计 |       |     |      |
| 1    | L160x100x10 | 12050  | 2  | 239.4   | 958  | 32   | -230x10                                      | 240   | 2       | 4.3   | 9   |      |
| 2    | L125x80x10  | 11810  | 2  | 182.7   | 731  | 33   | -330x10                                      | 380   | 1       | 9.8   | 10  |      |
| 3    | L63x5       | 1840   | 4  | 8.9     | 36   | 34   | -230x10                                      | 440   | 1       | 7.9   | 8   |      |
| 4    | L125x80x8   | 2260   | 2  | 28.4    | 113  | 35   | -60x10                                       | 120   | 16      | 0.5   | 8   |      |
| 5    | L75x6       | 2340   | 4  | 16.2    | 65   | 36   | -60x10                                       | 110   | 22      | 0.5   | 11  |      |
| 6    | L50x5       | 2110   | 4  | 8.0     | 32   | 37   | -60x10                                       | 90    | 21      | 0.4   | 8   |      |
| 7    | L90x6       | 2570   | 4  | 21.5    | 86   | 38   | -60x10                                       | 145   | 4       | 0.7   | 3   |      |
| 8    | L56x5       | 2620   | 4  | 11.1    | 44   | 39   | -60x10                                       | 80    | 26      | 0.4   | 10  |      |
| 9    | L50x5       | 2410   | 4  | 9.1     | 36   | 40   | -135x8                                       | 200   | 2       | 1.7   | 3   |      |
| 10   | L80x5       | 2810   | 4  | 17.5    | 70   | 41   | -135x8                                       | 200   | 2       | 1.7   | 3   |      |
| 11   | L56x5       | 2880   | 4  | 12.2    | 49   | 42   | -145x8                                       | 220   | 4       | 2.0   | 8   |      |
| 12   | L56x5       | 2710   | 4  | 11.5    | 46   | 43   | -140x8                                       | 190   | 4       | 1.7   | 7   |      |
| 13   | L63x5       | 3100   | 4  | 14.9    | 60   | 44   | -155x8                                       | 210   | 8       | 2.0   | 16  |      |
| 14   | L63x5       | 3040   | 2  | 14.7    | 29   | 45   | -145x8                                       | 210   | 4       | 1.9   | 8   |      |
| 15   | L63x5       | 3040   | 1  | 14.7    | 29   | 2802 | 5-18,25-36,38-41,44,45同GWJ24-3A <sub>1</sub> | 827   |         |       |     |      |
| 16   | L63x5       | 3000   | 2  | 14.5    | 29   | 37   | -60x10                                       | 90    | 17      | 0.4   | 7   |      |
| 17   | L160x100x10 | 580    | 2  | 11.5    | 23   | 46   | L160x100x10                                  | 11770 | 2       | 233.9 | 935 |      |
| 18   | L125x80x10  | 560    | 2  | 8.7     | 17   | 47   | L125x80x10                                   | 11700 | 2       | 181.0 | 724 |      |
| 19   | -200x10     | 230    | 2  | 3.6     | 7    | 48   | L125x80x8                                    | 2180  | 4       | 27.3  | 109 | 2673 |
| 20   | -375x12     | 450    | 2  | 15.9    | 32   | 49   | -200x20                                      | 200   | 2       | 6.3   | 13  |      |
| 21   | -300x20     | 380    | 2  | 17.9    | 36   | 50   | -160x10                                      | 220   | 2       | 2.8   | 6   |      |
| 22   | -184x10     | 450    | 4  | 6.5     | 26   | 51   | -200x20                                      | 530   | 2       | 16.6  | 33  |      |
| 23   | -135x10     | 184    | 4  | 1.9     | 8    | 52   | -210x12                                      | 515   | 2       | 10.2  | 20  |      |
| 24   | -100x20     | 100    | 4  | 1.6     | 6    |      |  |       |         |       |     |      |
| 25   | -310x10     | 420    | 2  | 10.2    | 20   |      |  |       |         |       |     |      |
| 26   | -320x10     | 400    | 2  | 10.0    | 20   |      |  |       |         |       |     |      |
| 27   | -180x10     | 210    | 6  | 3.0     | 18   |      |  |       |         |       |     |      |
| 28   | -270x10     | 360    | 2  | 7.6     | 15   |      |  |       |         |       |     |      |
| 29   | -300x10     | 490    | 2  | 11.5    | 23   |      |  |       |         |       |     |      |
| 30   | -260x10     | 285    | 2  | 5.8     | 12   |      |  |       |         |       |     |      |
| 31   | -280x10     | 310    | 2  | 6.8     | 14   |      |  |       |         |       |     |      |



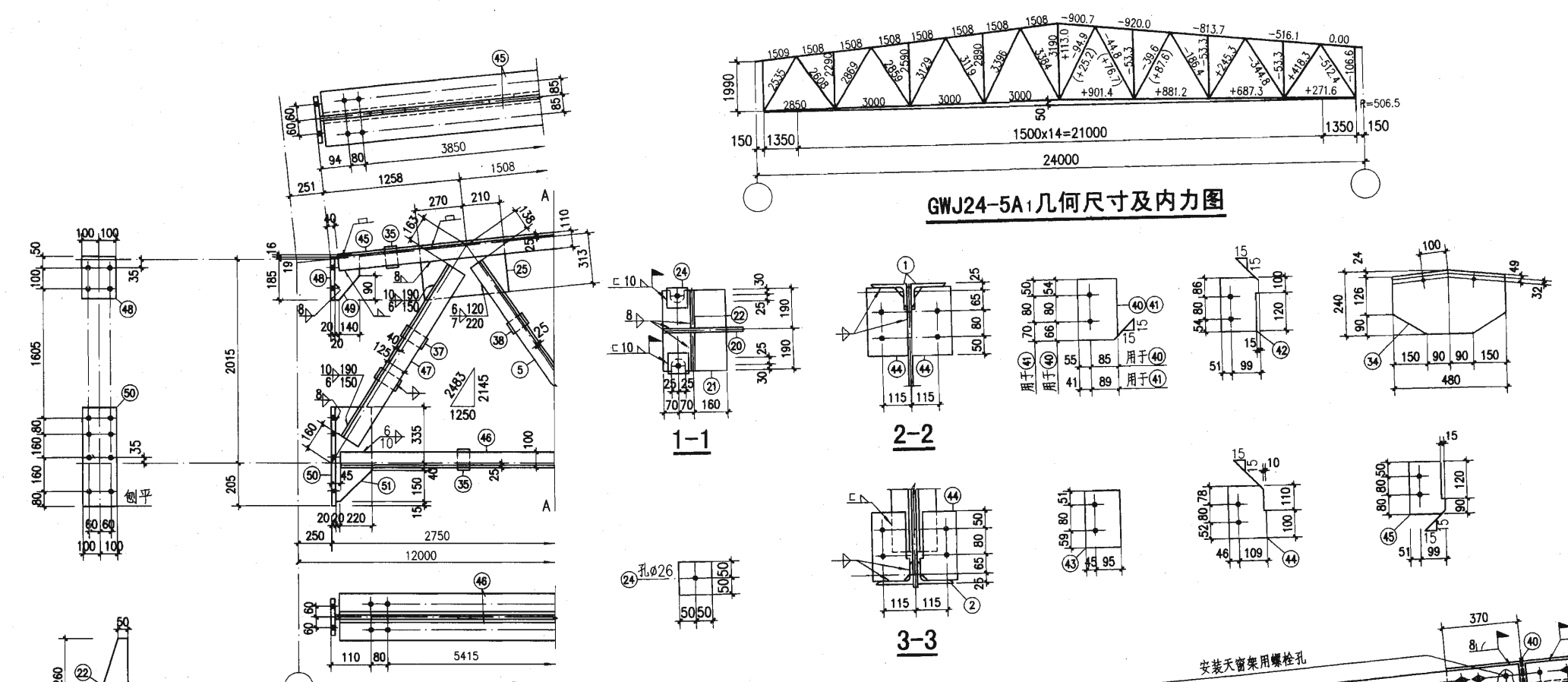
注：  
1. 本图应与页 26 配合使用。  
2. 未注明的角焊缝焊脚尺寸为 5mm；  
其长度不小于 80mm。  
3. 所有焊缝一律满焊；  
4. 未注明的螺栓为 M20，孔径为  $\phi$ 21.5。



| 材 料 表 |     |             |         |    | 材 料 表  |      |      |                        |                        |    |        |     |
|-------|-----|-------------|---------|----|--------|------|------|------------------------|------------------------|----|--------|-----|
| 构件编号  | 零件号 | 断面          | 长度 (mm) | 数量 | 重量(kg) | 构件编号 | 零件号  | 断面                     | 长度 (mm)                | 数量 | 重量(kg) |     |
|       |     |             |         |    | 正      | 反    | 每个   | 共计                     |                        |    |        |     |
| 1     |     | L160x100x10 | 12050   | 2  | 239.4  | 958  | 32   | -240x10                | 240                    | 2  | 4.5    | 9   |
| 2     |     | L140x90x10  | 11810   | 2  | 206.4  | 826  | 33   | -340x10                | 400                    | 1  | 10.7   | 11  |
| 3     |     | L63x5       | 1840    | 4  | 8.9    | 35   | 34   | -230x10                | 440                    | 1  | 7.9    | 8   |
| 4     |     | L125x80x10  | 2260    | 2  | 35.0   | 140  | 35   | -60x10                 | 120                    | 20 | 0.6    | 12  |
| 5     |     | L80x6       | 2320    | 4  | 17.1   | 68   | 36   | -60x10                 | 110                    | 24 | 0.5    | 12  |
| 6     |     | L50x5       | 2100    | 4  | 7.9    | 32   | 37   | -60x10                 | 90                     | 19 | 0.4    | 8   |
| 7     |     | L100x6      | 2540    | 4  | 23.8   | 95   | 38   | -60x10                 | 145                    | 4  | 0.7    | 3   |
| 8     |     | L63x5       | 2590    | 4  | 12.5   | 50   | 39   | -60x10                 | 80                     | 22 | 0.4    | 9   |
| 9     |     | L50x5       | 2400    | 4  | 9.0    | 36   | 40   | -135x8                 | 200                    | 2  | 1.7    | 3   |
| 10    |     | L80x6       | 2810    | 4  | 20.7   | 83   | 41   | -135x8                 | 200                    | 2  | 1.7    | 3   |
| 11    |     | L56x5       | 2860    | 4  | 12.2   | 49   | 42   | -145x8                 | 220                    | 4  | 2.0    | 8   |
| 12    |     | L56x5       | 2700    | 4  | 11.5   | 46   | 43   | -140x8                 | 190                    | 4  | 1.7    | 7   |
| 13    |     | L63x5       | 3090    | 4  | 14.9   | 60   | 44   | -155x8                 | 210                    | 8  | 2.0    | 16  |
| 14    |     | L75x5       | 3030    | 2  | 17.6   | 35   | 45   | -145x8                 | 210                    | 4  | 1.9    | 8   |
| 15    |     | L75x5       | 3030    | 1  | 17.6   | 35   | 2991 | 5-18,25-36,38-41,44,45 | 同GWJ24-4A <sub>1</sub> |    |        | 891 |
| 16    |     | L63x5       | 2990    | 2  | 14.4   | 29   | 37   | -60x10                 | 90                     | 15 | 0.4    | 6   |
| 17    |     | L160x100x10 | 740     | 2  | 14.7   | 29   | 46   | L160x100x10            | 11770                  | 2  | 233.9  | 936 |
| 18    |     | L140x90x10  | 600     | 2  | 10.5   | 21   | 47   | L140x90x10             | 11700                  | 2  | 204.5  | 818 |
| 19    |     | -200x10     | 230     | 2  | 3.6    | 7    | 48   | L125x80x10             | 2170                   | 4  | 33.6   | 134 |
| 20    |     | -390x12     | 460     | 2  | 16.9   | 34   | 49   | -200x20                | 200                    | 2  | 6.3    | 13  |
| 21    |     | -300x20     | 380     | 2  | 17.9   | 36   | 50   | -160x10                | 220                    | 2  | 2.8    | 6   |
| 22    |     | -184x10     | 460     | 4  | 6.6    | 26   | 51   | -200x20                | 530                    | 2  | 16.6   | 33  |
| 23    |     | -135x10     | 184     | 4  | 1.9    | 8    | 52   | -240x12                | 515                    | 2  | 11.6   | 23  |
| 24    |     | -100x20     | 100     | 4  | 1.6    | 6    |      |                        |                        |    |        |     |
| 25    |     | -310x10     | 440     | 2  | 10.7   | 21   |      |                        |                        |    |        |     |
| 26    |     | -350x10     | 420     | 2  | 11.5   | 23   |      |                        |                        |    |        |     |
| 27    |     | -180x10     | 220     | 6  | 3.1    | 19   |      |                        |                        |    |        |     |
| 28    |     | -280x10     | 380     | 2  | 8.4    | 17   |      |                        |                        |    |        |     |
| 29    |     | -315x10     | 490     | 2  | 12.1   | 24   |      |                        |                        |    |        |     |
| 30    |     | -260x10     | 300     | 2  | 6.1    | 12   |      |                        |                        |    |        |     |
| 31    |     | -280x10     | 310     | 2  | 6.8    | 14   |      |                        |                        |    |        |     |
|       |     |             |         |    |        |      |      |                        |                        |    |        |     |



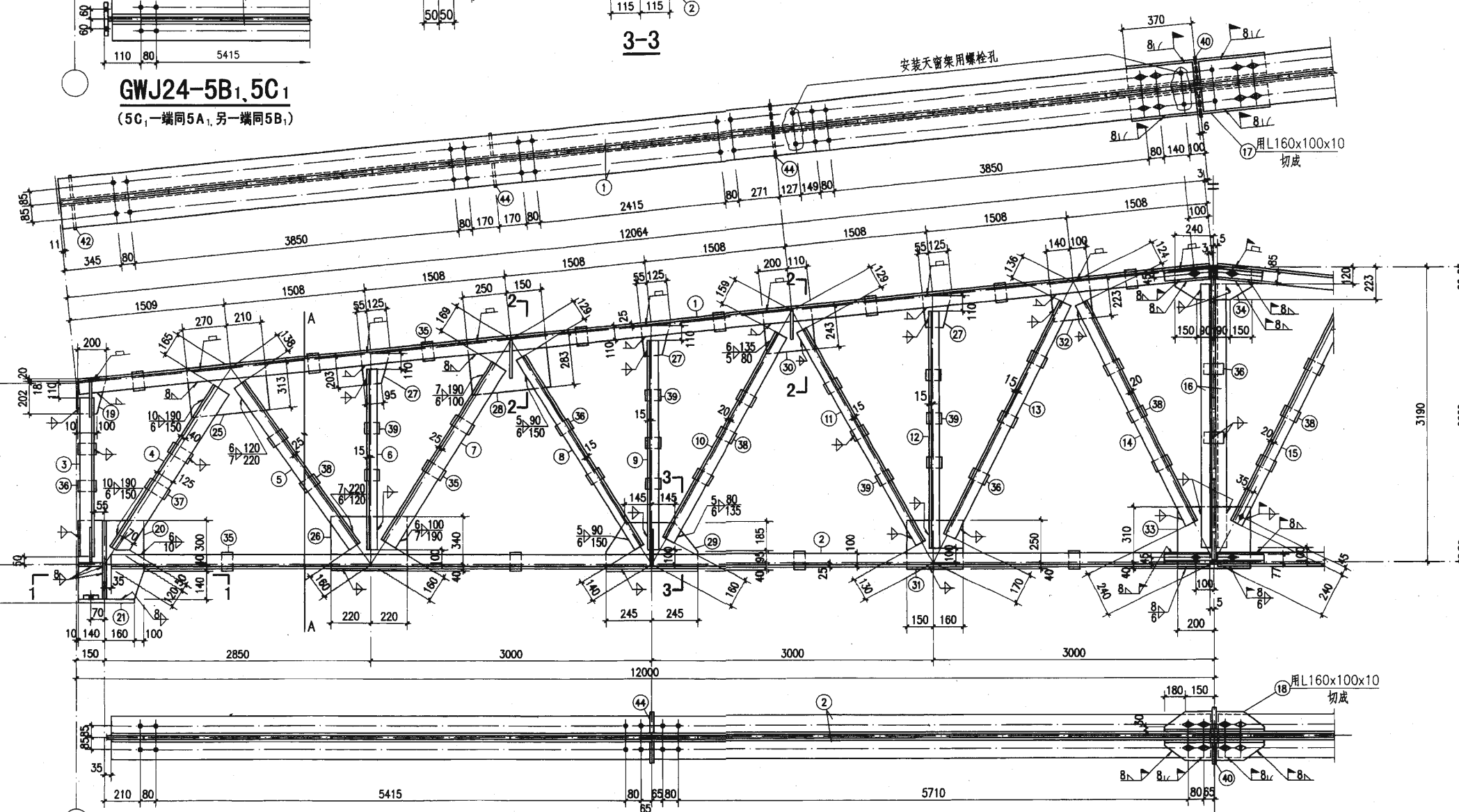
- 注:
1. 本图应与页 26 配合使用。
  2. 未注明的角焊缝焊脚尺寸为 5mm; 其长度不小于 80mm。
  3. 所有焊缝一律满焊;
  4. 未注明的螺栓为 M20, 孔径为  $\phi 21.5$ 。



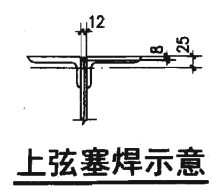
GWJ24-5A<sub>1</sub>几何尺寸及内力图

GWJ24-5B<sub>1</sub>, 5C<sub>1</sub>  
(5C<sub>1</sub>一端同5A<sub>1</sub>,另一端同5B<sub>1</sub>)

| 材 料 表    |             |            |        |       | 材 料 表    |      |                        |                       |    |       |      |
|----------|-------------|------------|--------|-------|----------|------|------------------------|-----------------------|----|-------|------|
| 构件<br>编号 | 断面          | 长度<br>(mm) | 重量(kg) |       | 构件<br>编号 | 断面   | 长度<br>(mm)             | 重量(kg)                |    |       |      |
|          |             |            | 正      | 反     |          |      |                        | 正                     | 反  |       |      |
| 1        | L180x10x12  | 12050      | 2      | 318.8 | 1275     | 32   | -240x12                | 240                   | 2  | 5.4   | 11   |
| 2        | L160x100x10 | 11810      | 2      | 234.7 | 939      | 33   | -350x12                | 400                   | 1  | 13.2  | 13   |
| 3        | L63x5       | 1830       | 4      | 8.8   | 35       | 34   | -240x12                | 480                   | 1  | 10.9  | 11   |
| 4        | L125x80x10  | 2250       | 2      | 34.8  | 139      | 35   | -60x12                 | 130                   | 28 | 0.7   | 20   |
| 5        | L90x6       | 2310       | 4      | 19.3  | 77       | 36   | -60x12                 | 90                    | 19 | 0.5   | 10   |
| 6        | L50x5       | 2080       | 4      | 7.8   | 31       | 37   | -60x12                 | 145                   | 4  | 0.8   | 3    |
| 7        | L100x6      | 2540       | 4      | 23.8  | 95       | 38   | -60x12                 | 110                   | 18 | 0.6   | 11   |
| 8        | L63x5       | 2590       | 4      | 12.5  | 50       | 39   | -60x12                 | 80                    | 16 | 0.5   | 8    |
| 9        | L50x5       | 2380       | 4      | 9.0   | 36       | 40   | -140x8                 | 200                   | 4  | 1.8   | 7    |
| 10       | L80x6       | 2810       | 4      | 20.7  | 83       | 41   | -130x8                 | 200                   | 2  | 1.6   | 3    |
| 11       | L56x5       | 2860       | 4      | 12.2  | 49       | 42   | -150x8                 | 220                   | 4  | 2.1   | 8    |
| 12       | L56x5       | 2680       | 4      | 11.4  | 46       | 43   | -140x8                 | 190                   | 4  | 1.7   | 7    |
| 13       | L63x5       | 3090       | 4      | 14.9  | 60       | 44   | -155x8                 | 210                   | 8  | 2.0   | 16   |
| 14       | L75x5       | 3020       | 2      | 17.6  | 35       | 45   | -150x8                 | 210                   | 8  | 2.0   | 16   |
| 15       | L75x5       | 3020       | 1      | 17.6  | 35       | 3529 | 5~18,25~35,37~40,43,44 | GWJ24-5A <sub>1</sub> |    |       | 963  |
| 16       | L63x5       | 2970       | 2      | 14.3  | 29       | 36   | -60x10                 | 90                    | 15 | 0.5   | 8    |
| 17       | L180x10x12  | 740        | 2      | 19.6  | 39       | 45   | L180x10x12             | 11770                 | 2  | 311.4 | 1246 |
| 18       | L160x100x10 | 660        | 2      | 13.1  | 26       | 46   | L160x100x10            | 11700                 | 2  | 232.5 | 930  |
| 19       | -200x12     | 240        | 2      | 4.5   | 9        | 47   | L125x80x10             | 2160                  | 4  | 33.4  | 134  |
| 20       | -400x14     | 480        | 2      | 21.1  | 42       | 48   | -200x20                | 200                   | 2  | 6.3   | 13   |
| 21       | -300x25     | 380        | 2      | 22.4  | 45       | 49   | -160x12                | 220                   | 2  | 3.3   | 7    |
| 22       | -183x12     | 460        | 4      | 7.9   | 32       | 50   | -200x20                | 540                   | 2  | 17.0  | 34   |
| 23       | -134x12     | 183        | 4      | 2.3   | 9        | 51   | -240x14                | 525                   | 2  | 13.8  | 28   |
| 24       | -100x25     | 100        | 4      | 2.0   | 8        |      |                        |                       |    |       |      |
| 25       | -330x12     | 480        | 2      | 14.9  | 30       |      |                        |                       |    |       |      |
| 26       | -380x12     | 440        | 2      | 15.8  | 32       |      |                        |                       |    |       |      |
| 27       | -180x12     | 220        | 6      | 3.7   | 22       |      |                        |                       |    |       |      |
| 28       | -300x12     | 400        | 2      | 11.3  | 23       |      |                        |                       |    |       |      |
| 29       | -320x12     | 490        | 2      | 14.8  | 30       |      |                        |                       |    |       |      |
| 30       | -280x12     | 310        | 2      | 7.6   | 15       |      |                        |                       |    |       |      |
| 31       | -290x12     | 310        | 2      | 8.5   | 17       |      |                        |                       |    |       |      |

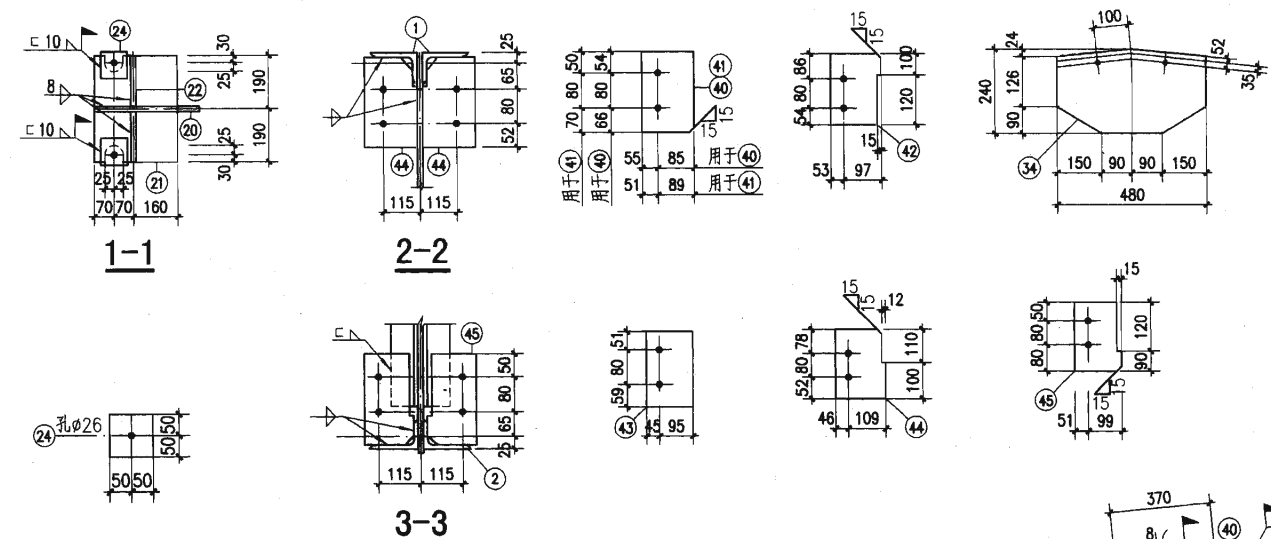
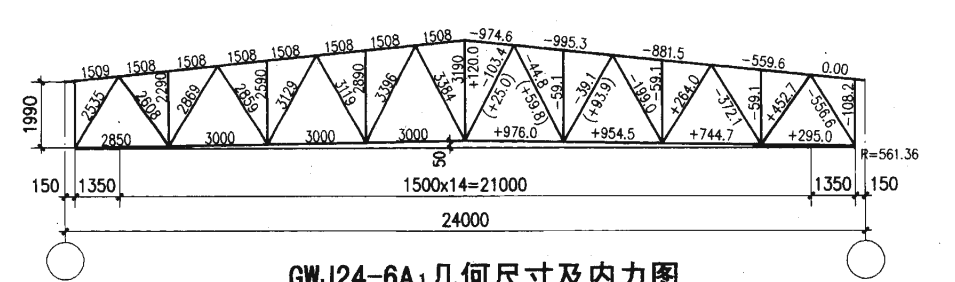
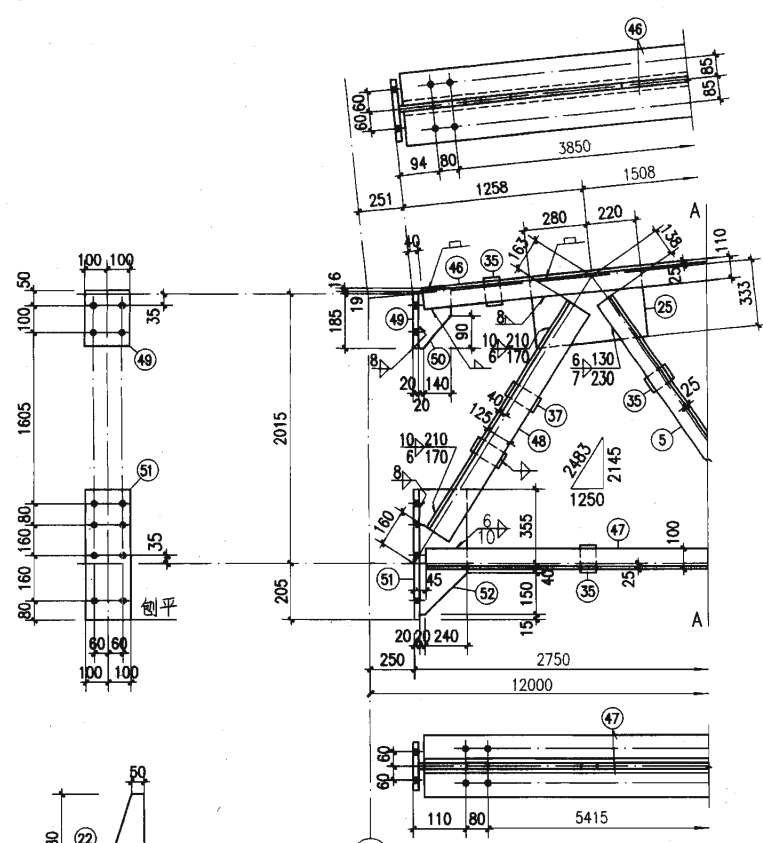


GWJ24-5A<sub>1</sub>

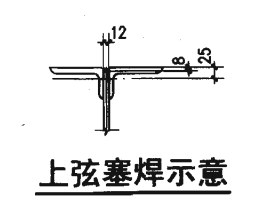
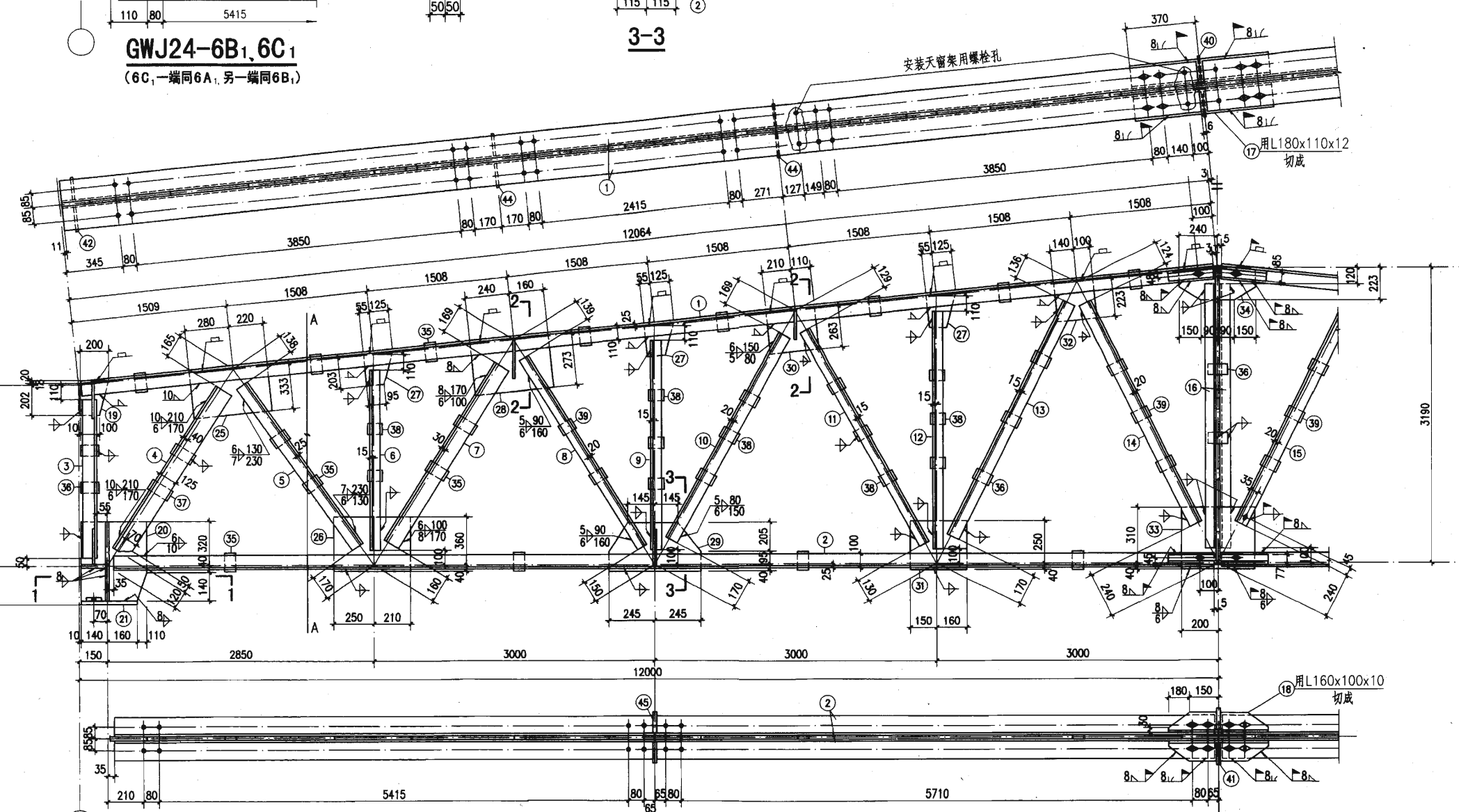


上弦塞焊示意

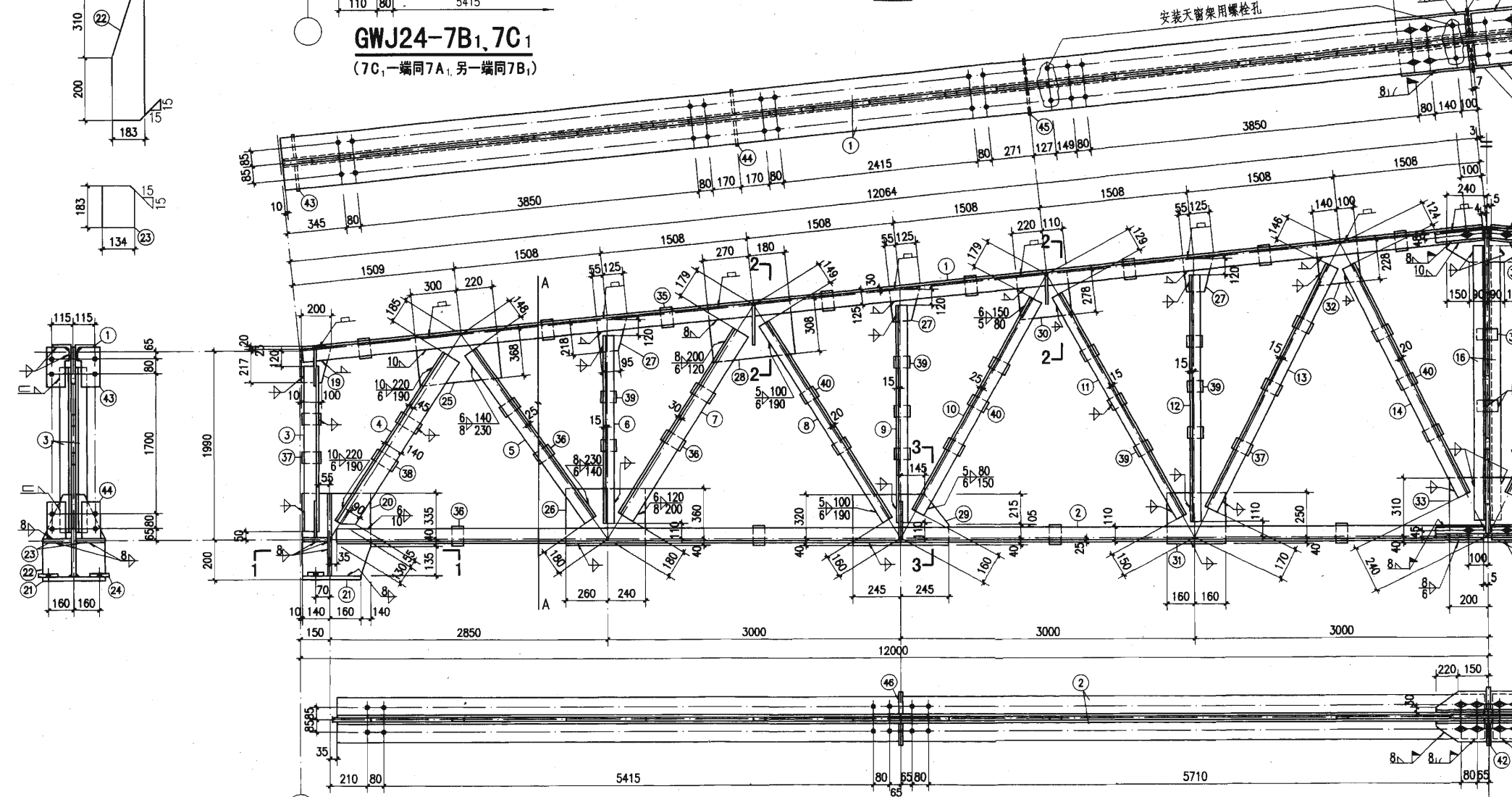
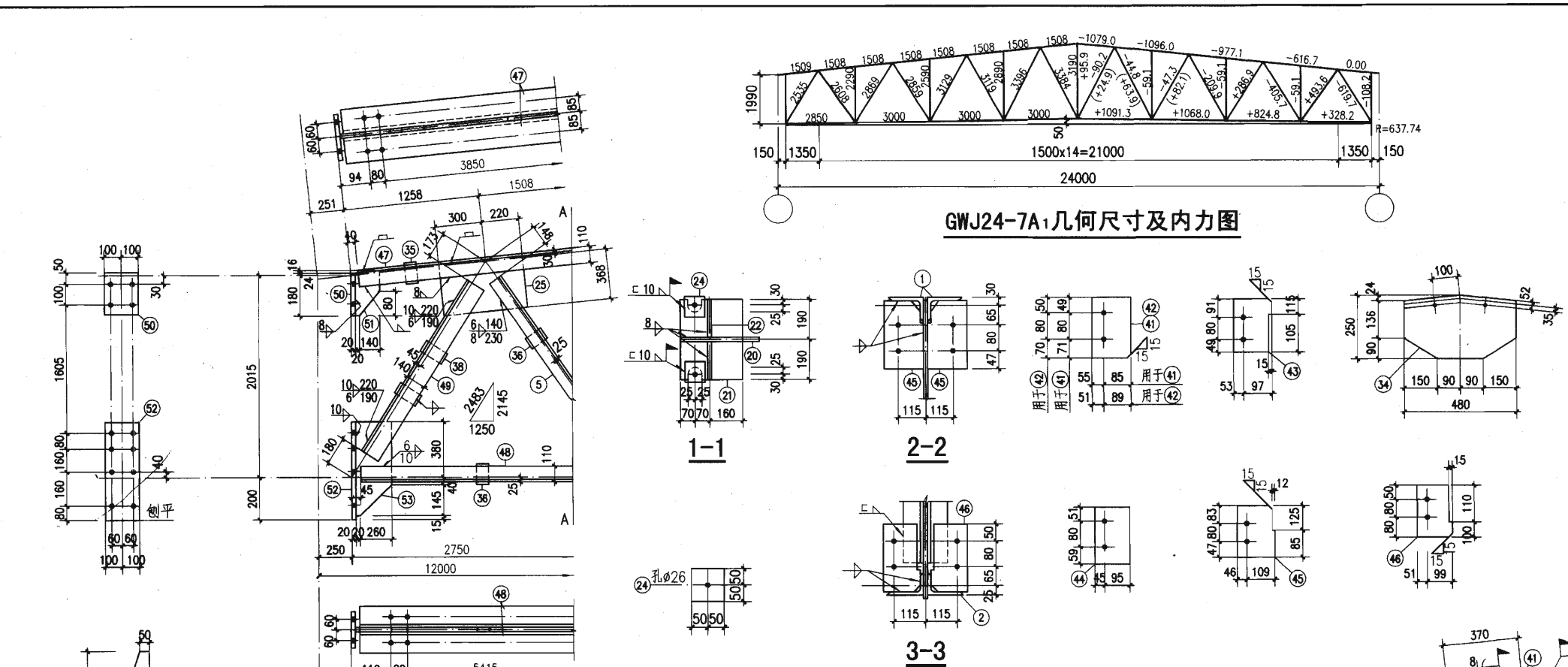
- 注:
1. 本图应与页 26 配合使用。
  2. 未注明的角焊缝焊脚尺寸为 5mm; 其长度不小于 80mm。
  3. 所有焊缝一律满焊;
  4. 未注明的螺栓为 M20, 孔径为  $\Phi 21.5$ 。



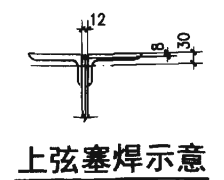
| 材料表                         |             |         |    |   | 材料表     |      |   |             |       |    |         |       |      |
|-----------------------------|-------------|---------|----|---|---------|------|---|-------------|-------|----|---------|-------|------|
| 构件编号                        | 断面          | 长度 (mm) | 数量 |   | 重量 (kg) | 构件编号 | 断面  | 长度 (mm)     | 数量    |    | 重量 (kg) |       |      |
|                             |             |         | 正  | 反 |         |      |   |             | 每个    | 共计 |         |       |      |
| <b>GWJ24-6A<sub>1</sub></b> |             |         |    |   |         |      |   |             |       |    |         |       |      |
| 1                           | L180x110x12 | 12050   | 2  | 2 | 318.8   | 1275 | 32  | -240x12     | 240   | 2  | 5.4     | 11    |      |
| 2                           | L160x100x10 | 11810   | 2  | 2 | 234.7   | 939  | 33  | -350x12     | 400   | 1  | 13.2    | 13    |      |
| 3                           | L63x5       | 1830    | 4  | 4 | 8.8     | 35   | 34  | -240x12     | 480   | 1  | 10.9    | 11    |      |
| 4                           | L125x80x10  | 2250    | 2  | 2 | 34.8    | 139  | 35  | -60x12      | 130   | 32 | 0.7     | 22    |      |
| 5                           | L100x6      | 2300    | 4  | 4 | 21.6    | 86   | 36  | -60x12      | 90    | 15 | 0.5     | 8     |      |
| 6                           | L50x5       | 2080    | 4  | 4 | 7.8     | 31   | 37  | -60x12      | 145   | 4  | 0.8     | 3     |      |
| 7                           | L100x8      | 2540    | 4  | 4 | 31.2    | 125  | 38  | -60x12      | 80    | 28 | 0.5     | 14    |      |
| 8                           | L75x5       | 2570    | 4  | 4 | 15.0    | 60   | 39  | -60x12      | 110   | 10 | 0.6     | 6     |      |
| 9                           | L50x5       | 2380    | 4  | 4 | 9.0     | 36   | 40  | -140x8      | 200   | 2  | 1.8     | 4     |      |
| 10                          | L90x6       | 2790    | 4  | 4 | 23.3    | 93   | 41  | -140x8      | 200   | 2  | 1.8     | 4     |      |
| 11                          | L56x5       | 2860    | 4  | 4 | 12.2    | 49   | 42  | -150x8      | 220   | 4  | 2.1     | 8     |      |
| 12                          | L56x5       | 2680    | 4  | 4 | 11.4    | 46   | 43  | -140x8      | 190   | 4  | 1.7     | 7     |      |
| 13                          | L63x5       | 3090    | 4  | 4 | 14.9    | 60   | 44  | -155x8      | 210   | 8  | 2.0     | 16    |      |
| 14                          | L75x5       | 3020    | 2  | 2 | 17.6    | 35   | 45  | -150x8      | 210   | 4  | 2.0     | 8     |      |
| 15                          | L75x5       | 3020    | 1  | 1 | 17.6    | 35   | 5~18, 25~35, 37~41, 44, 45 同 GWJ24-6A <sub>1</sub> 1039 |             |       |    |         |       |      |
| 16                          | L63x5       | 2970    | 2  | 2 | 14.3    | 29   | 36  | -60x10      | 90    | 11 | 0.5     | 6     |      |
| 17                          | L180x110x12 | 740     | 2  | 2 | 19.6    | 39   | 46  | L180x110x12 | 11770 | 2  | 2       | 311.4 | 1246 |
| 18                          | L160x100x10 | 660     | 2  | 2 | 13.1    | 26   | 47  | L160x100x10 | 11700 | 2  | 2       | 232.5 | 930  |
| 19                          | -200x12     | 240     | 2  | 2 | 4.5     | 9    | 48  | L125x80x10  | 2160  | 4  | 33.4    | 134   | 3440 |
| 20                          | -410x14     | 500     | 2  | 2 | 22.5    | 45   | 49  | -200x20     | 200   | 2  | 6.3     | 13    |      |
| 21                          | -300x25     | 380     | 2  | 2 | 22.4    | 45   | 50  | -160x12     | 220   | 2  | 3.3     | 7     |      |
| 22                          | -183x12     | 480     | 4  | 4 | 8.3     | 33   | 51  | -200x20     | 560   | 2  | 17.6    | 35    |      |
| 23                          | -134x12     | 183     | 4  | 4 | 2.3     | 9    | 52  | -260x14     | 545   | 2  | 15.6    | 31    |      |
| 24                          | -100x25     | 100     | 4  | 4 | 2.0     | 8    | 1~4, 19~24, 42, 43 同 GWJ24-6A <sub>1</sub> , 数量减半 1278  |             |       |    |         |       |      |
| 25                          | -350x12     | 500     | 2  | 2 | 16.5    | 33   | 5~18, 25~35, 37~41, 44, 45 同 GWJ24-6A <sub>1</sub> 1039 |             |       |    |         |       |      |
| 26                          | -400x12     | 460     | 2  | 2 | 17.3    | 35   | 46~52 同 GWJ24-6B <sub>1</sub> , 数量减半 1195               |             |       |    |         |       |      |
| 27                          | -180x12     | 220     | 6  | 6 | 3.7     | 22   |   |             |       |    |         |       |      |
| 28                          | -290x12     | 400     | 2  | 2 | 10.9    | 22   |   |             |       |    |         |       |      |
| 29                          | -340x12     | 490     | 2  | 2 | 15.7    | 31   |   |             |       |    |         |       |      |
| 30                          | -270x12     | 320     | 2  | 2 | 8.1     | 16   |   |             |       |    |         |       |      |
| 31                          | -290x12     | 310     | 2  | 2 | 8.5     | 17   |   |             |       |    |         |       |      |



- 注:
1. 本图应与页 26 配合使用。
  2. 未注明的角焊缝焊脚尺寸为 5mm; 其长度不小于 80mm。
  3. 所有焊缝一律满焊;
  4. 未注明的螺栓为 M20, 孔径为  $\phi 21.5$ 。

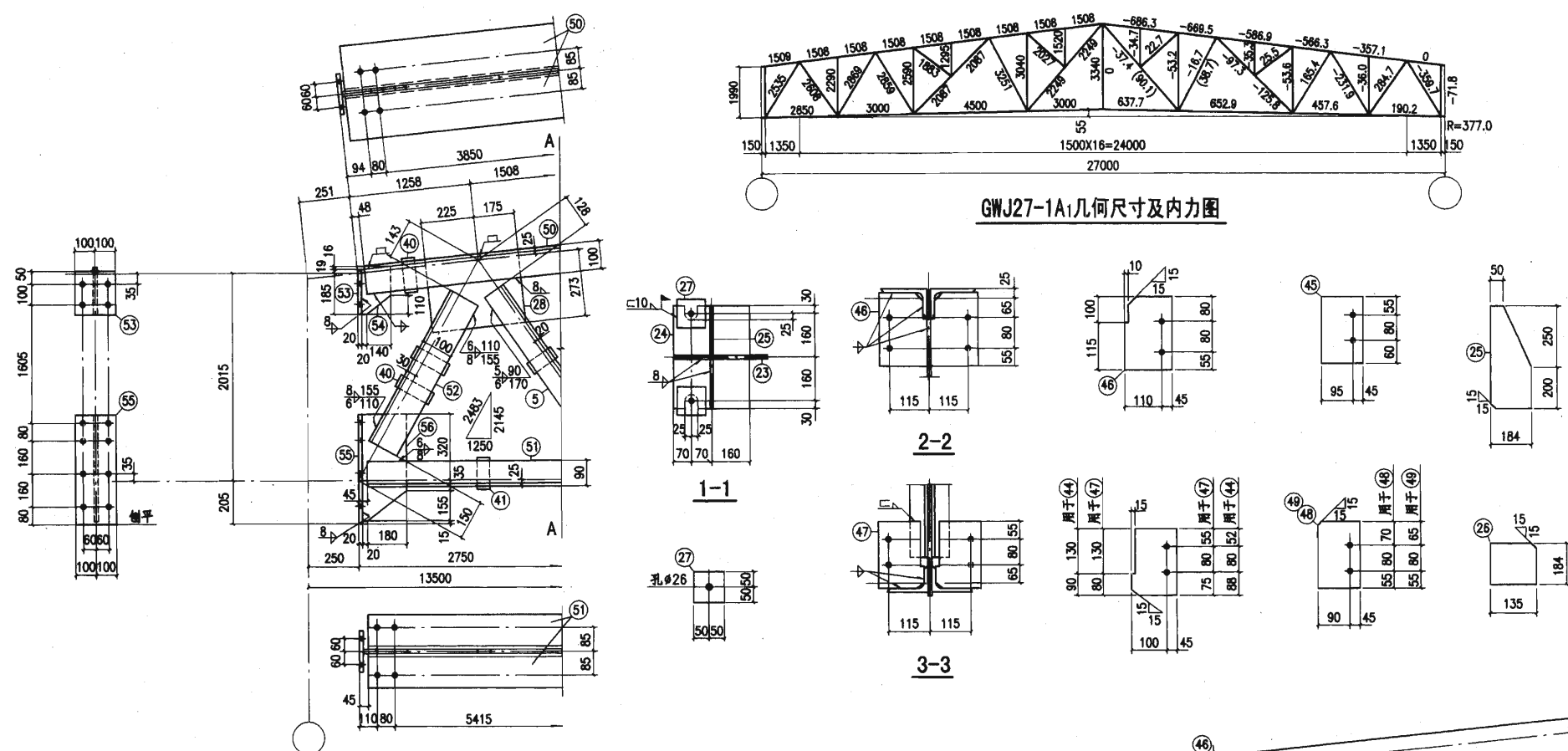


| 材料表  |             |         |    |   | 材料表    |      |                            |             |       |    |        |      |
|------|-------------|---------|----|---|--------|------|----------------------------|-------------|-------|----|--------|------|
| 构件编号 | 断面          | 长度 (mm) | 数量 |   | 重量(kg) | 构件编号 | 断面                         | 长度 (mm)     | 数量    |    | 重量(kg) |      |
|      |             |         | 正  | 反 |        |      |                            |             | 每个    | 共计 |        |      |
| 1    | L200x125x12 | 12050   | 2  | 2 | 358.6  | 1434 | 32                         | -240x12     | 250   | 2  | 5.7    | 11   |
| 2    | L180x110x10 | 11810   | 2  | 2 | 263.0  | 1052 | 33                         | -350x12     | 400   | 1  | 13.2   | 13   |
| 3    | L63x5       | 1820    | 4  | 4 | 8.8    | 35   | 34                         | -250x12     | 480   | 1  | 11.3   | 11   |
| 4    | L140x90x10  | 2220    | 2  | 2 | 38.8   | 155  | 35                         | -60x12      | 145   | 16 | 0.8    | 13   |
| 5    | L100x7      | 2280    | 4  | 4 | 24.7   | 99   | 36                         | -60x12      | 130   | 16 | 0.7    | 11   |
| 6    | L50x5       | 2060    | 4  | 4 | 7.8    | 31   | 37                         | -60x12      | 90    | 15 | 0.5    | 8    |
| 7    | L110x7      | 2510    | 4  | 4 | 29.9   | 120  | 38                         | -60x12      | 160   | 4  | 0.9    | 4    |
| 8    | L80x6       | 2550    | 4  | 4 | 18.8   | 75   | 39                         | -60x12      | 80    | 22 | 0.5    | 11   |
| 9    | L50x5       | 2360    | 4  | 4 | 8.9    | 36   | 40                         | -60x12      | 110   | 16 | 0.6    | 10   |
| 10   | L90x6       | 2790    | 4  | 4 | 23.3   | 93   | 41                         | -140x8      | 200   | 2  | 1.8    | 4    |
| 11   | L56x5       | 2840    | 4  | 4 | 12.1   | 48   | 42                         | -140x8      | 200   | 2  | 1.8    | 4    |
| 12   | L56x5       | 2660    | 4  | 4 | 11.3   | 45   | 43                         | -150x8      | 220   | 4  | 2.1    | 8    |
| 13   | L63x5       | 3080    | 4  | 4 | 14.8   | 59   | 44                         | -140x8      | 190   | 4  | 1.7    | 7    |
| 14   | L75x5       | 3020    | 2  | 2 | 17.6   | 35   | 45                         | -155x8      | 210   | 8  | 2.0    | 16   |
| 15   | L75x5       | 3020    | 1  | 1 | 17.6   | 35   | 46                         | -150x8      | 210   | 4  | 2.0    | 8    |
| 16   | L63x5       | 2950    | 2  | 2 | 14.2   | 28   | 5-18, 25-36, 38-42, 45, 46 | 同GWJ24-7A1  |       |    | 1082   |      |
| 17   | L200x125x12 | 740     | 2  | 2 | 22.0   | 44   | 37                         | -60x10      | 90    | 11 | 0.5    | 6    |
| 18   | L180x110x10 | 740     | 2  | 2 | 16.5   | 33   | 47                         | L200x125x12 | 11770 | 2  | 350.3  | 1401 |
| 19   | -200x12     | 260     | 2  | 2 | 4.9    | 10   | 48                         | L180x110x10 | 11700 | 2  | 260.6  | 1042 |
| 20   | -440x14     | 510     | 2  | 2 | 24.7   | 49   | 49                         | L140x90x10  | 2130  | 4  | 37.2   | 149  |
| 21   | -300x25     | 380     | 2  | 2 | 22.4   | 45   | 50                         | -200x20     | 200   | 2  | 6.3    | 13   |
| 22   | -183x12     | 510     | 4  | 4 | 8.8    | 35   | 51                         | -160x12     | 220   | 2  | 3.3    | 7    |
| 23   | -134x12     | 183     | 4  | 4 | 2.3    | 9    | 52                         | -200x20     | 580   | 2  | 18.2   | 36   |
| 24   | -100x25     | 100     | 4  | 4 | 2.0    | 8    | 53                         | -280x14     | 585   | 2  | 17.4   | 35   |
| 25   | -390x12     | 520     | 2  | 2 | 19.1   | 38   |                            |             |       |    |        |      |
| 26   | -400x12     | 500     | 2  | 2 | 18.8   | 38   |                            |             |       |    |        |      |
| 27   | -180x12     | 240     | 6  | 6 | 4.1    | 25   |                            |             |       |    |        |      |
| 28   | -330x12     | 450     | 2  | 2 | 14.0   | 28   |                            |             |       |    |        |      |
| 29   | -360x12     | 490     | 2  | 2 | 16.6   | 33   |                            |             |       |    |        |      |
| 30   | -300x12     | 330     | 2  | 2 | 9.3    | 19   |                            |             |       |    |        |      |
| 31   | -290x12     | 320     | 2  | 2 | 8.7    | 17   |                            |             |       |    |        |      |



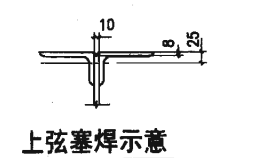
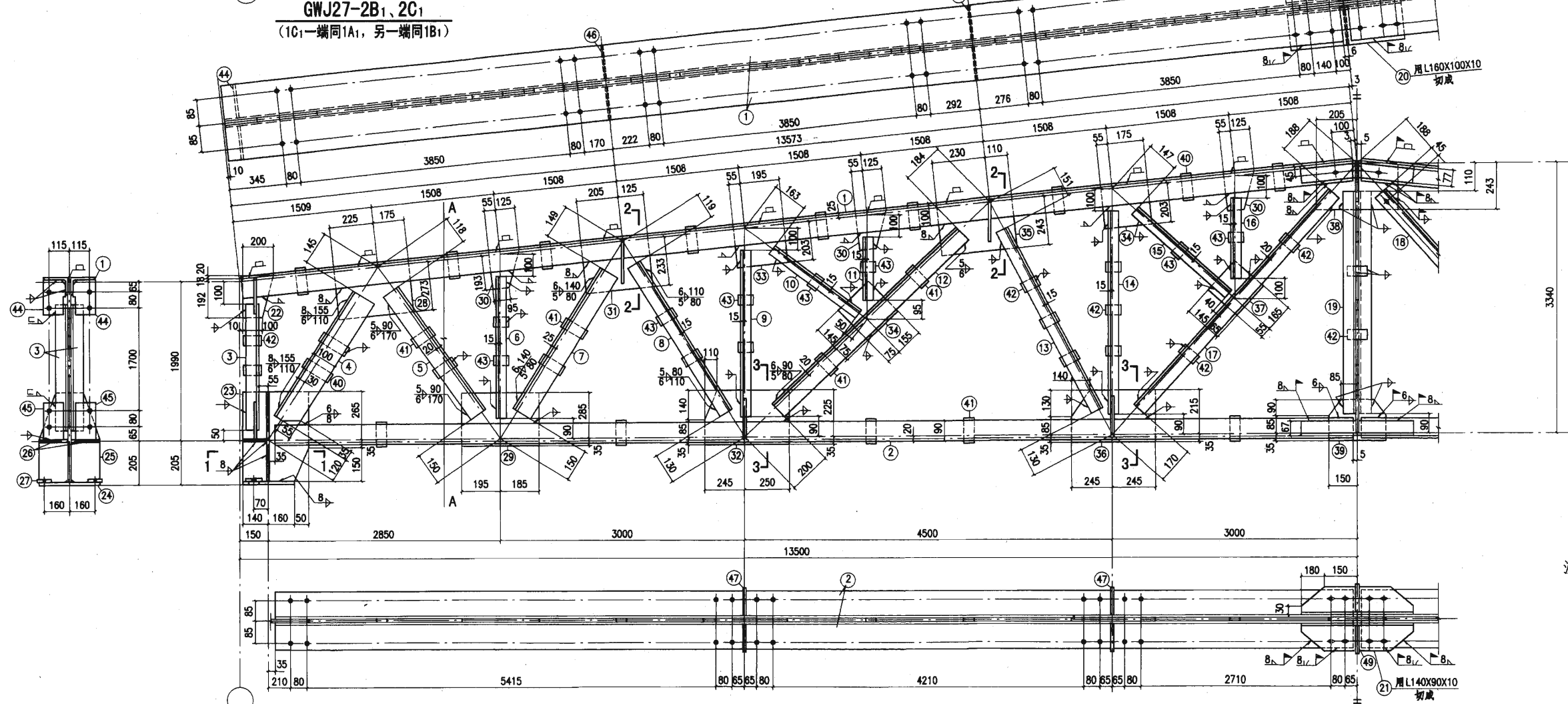
- 注:
1. 本图应与页 26 配合使用。
  2. 未注明的角焊缝焊脚尺寸为 5mm; 其长度不小于 80mm。
  3. 所有焊缝一律满焊;
  4. 未注明的螺栓为 M20, 孔径为  $\phi 21.5$ 。



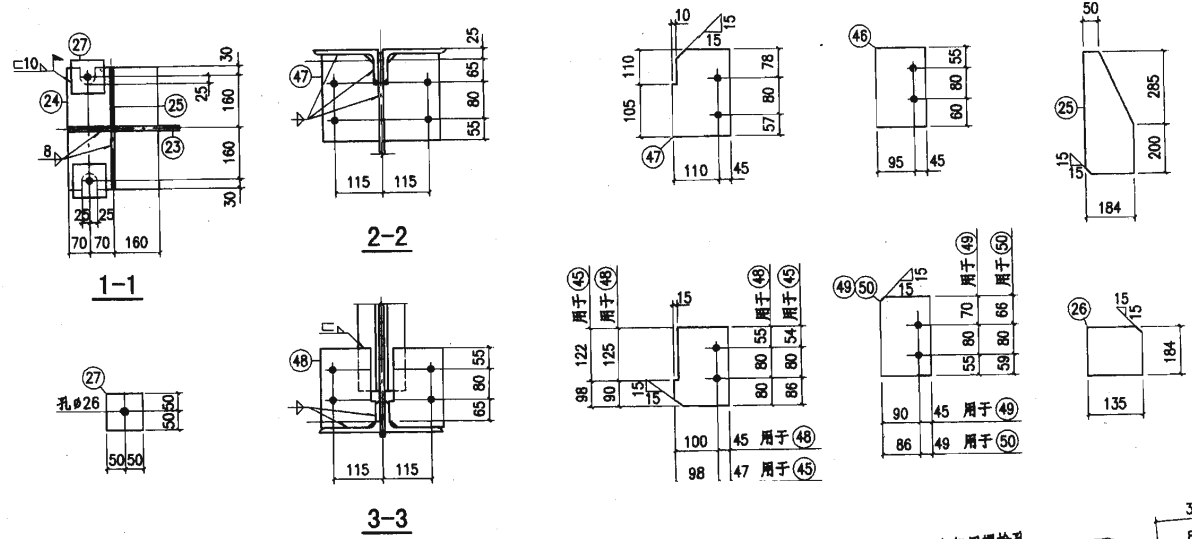
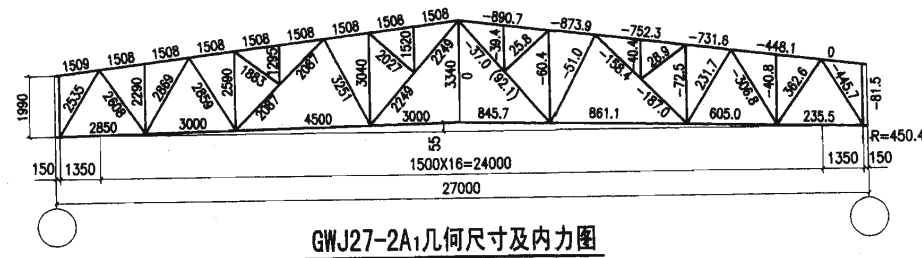
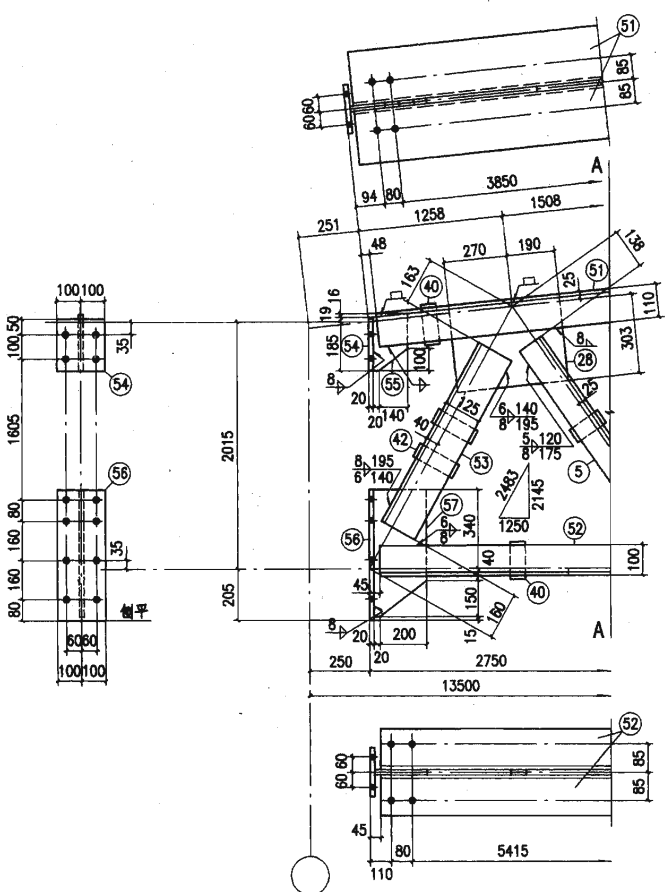


| 构件编号 | 断面          | 长度 (mm) | 数量 |   | 重量 (kg) |      |
|------|-------------|---------|----|---|---------|------|
|      |             |         | 正  | 反 | 单个      | 共计   |
| 1    | L160x100x10 | 13560   | 2  | 2 | 269.5   | 1078 |
| 2    | L140x90x10  | 13310   | 2  | 2 | 232.6   | 930  |
| 3    | L63x5       | 1840    | 4  |   | 8.9     | 36   |
| 4    | L100x80x8   | 2270    | 2  | 2 | 24.8    | 99   |
| 5    | L80x6       | 2340    | 4  |   | 17.3    | 69   |
| 6    | L50x5       | 2100    | 4  |   | 7.9     | 32   |
| 7    | L90x6       | 2570    | 4  |   | 21.5    | 86   |
| 8    | L50x5       | 2610    | 4  |   | 9.8     | 39   |
| 9    | L50x5       | 2400    | 4  |   | 9.0     | 36   |
| 10   | L50x5       | 1670    | 4  |   | 6.3     | 25   |
| 11   | L50x5       | 1100    | 4  |   | 4.1     | 16   |
| 12   | L80x6       | 3790    | 4  |   | 28.0    | 112  |
| 13   | L63x5       | 2970    | 4  |   | 14.3    | 57   |
| 14   | L63x5       | 2850    | 4  |   | 13.7    | 55   |
| 15   | L50x5       | 1840    | 4  |   | 6.9     | 28   |
| 16   | L50x5       | 1320    | 4  |   | 5.0     | 20   |
| 17   | L70x5       | 4140    | 2  |   | 22.3    | 45   |
| 18   | L70x5       | 4140    | 1  | 1 | 22.3    | 45   |
| 19   | L63x5       | 3140    | 2  |   | 15.1    | 30   |
| 20   | L160x100x10 | 740     | 2  |   | 14.7    | 29   |
| 21   | L140x90x10  | 660     | 2  |   | 11.5    | 23   |
| 22   | -200x10     | 230     | 2  |   | 3.6     | 7    |
| 23   | -350x12     | 450     | 2  |   | 14.8    | 30   |
| 24   | -300x20     | 380     | 2  |   | 17.9    | 36   |
| 25   | -184x10     | 450     | 4  |   | 6.5     | 26   |
| 26   | -135x10     | 184     | 4  |   | 1.9     | 8    |
| 27   | -100x20     | 100     | 4  |   | 1.6     | 6    |
| 28   | -290x10     | 400     | 2  |   | 9.1     | 18   |
| 29   | -320x10     | 380     | 2  |   | 9.5     | 19   |
| 30   | -180x10     | 210     | 6  |   | 3.0     | 18   |
| 31   | -250x10     | 330     | 2  |   | 6.5     | 13   |

| 构件编号 | 重量 (kg) | 数量  | 重量 (kg) |      |    |
|------|---------|-----|---------|------|----|
| 32   | -260x10 | 495 | 2       | 10.1 | 20 |
| 33   | -220x10 | 250 | 2       | 4.3  | 9  |
| 34   | -220x10 | 230 | 4       | 4.0  | 16 |
| 35   | -260x10 | 340 | 2       | 6.9  | 14 |
| 36   | -250x10 | 490 | 2       | 9.6  | 19 |
| 37   | -210x10 | 220 | 2       | 3.6  | 7  |
| 38   | -260x10 | 410 | 1       | 8.4  | 8  |
| 39   | -210x10 | 300 | 1       | 4.9  | 5  |
| 40   | -60x10  | 120 | 22      | 0.6  | 13 |
| 41   | -60x10  | 110 | 22      | 0.5  | 11 |
| 42   | -60x10  | 90  | 25      | 0.4  | 10 |
| 43   | -60x10  | 70  | 20      | 0.3  | 6  |
| 44   | -145x8  | 220 | 4       | 2.0  | 8  |
| 45   | -140x8  | 195 | 4       | 1.7  | 7  |
| 46   | -155x8  | 215 | 8       | 2.1  | 17 |
| 47   | -145x8  | 210 | 8       | 1.9  | 15 |
| 48   | -135x8  | 205 | 2       | 1.7  | 3  |
| 49   | -135x8  | 200 | 2       | 1.7  | 3  |

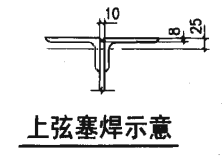
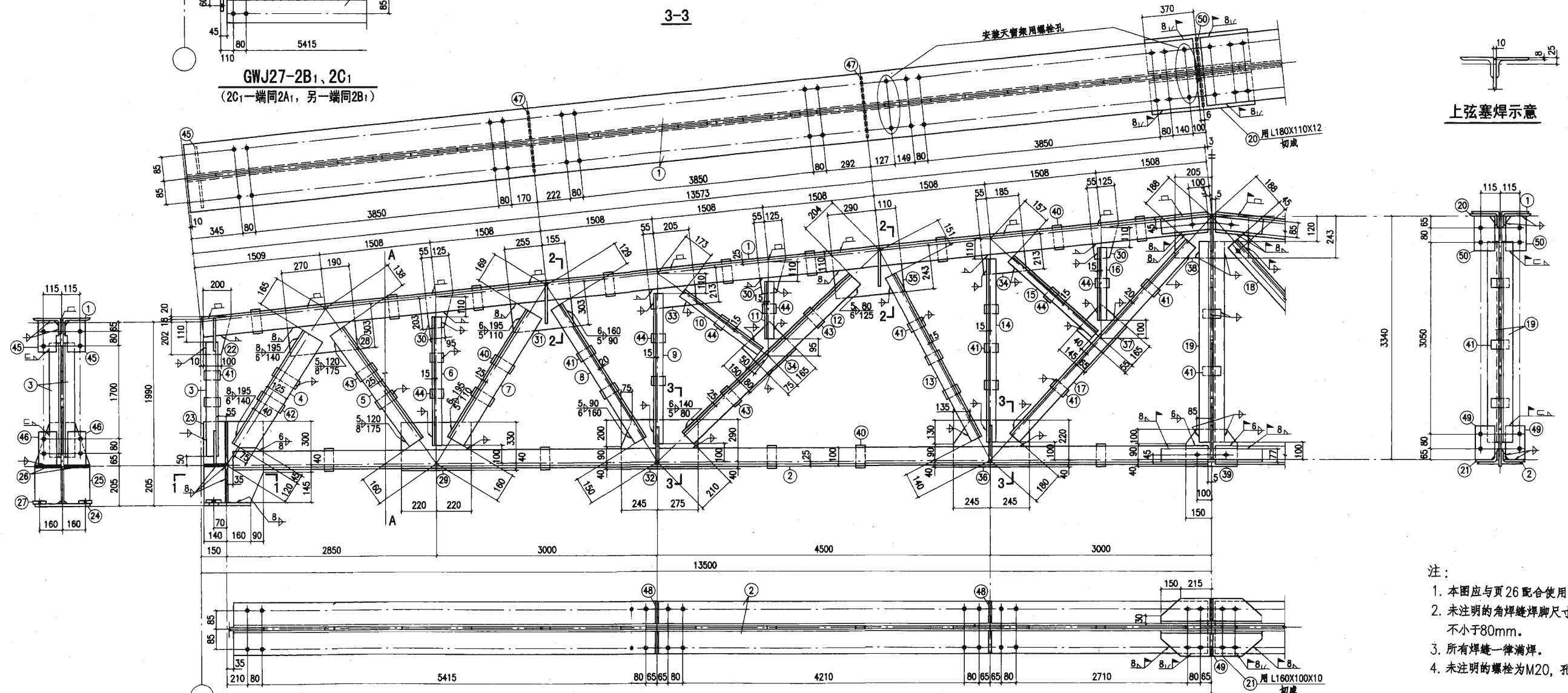


- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为中21.5。

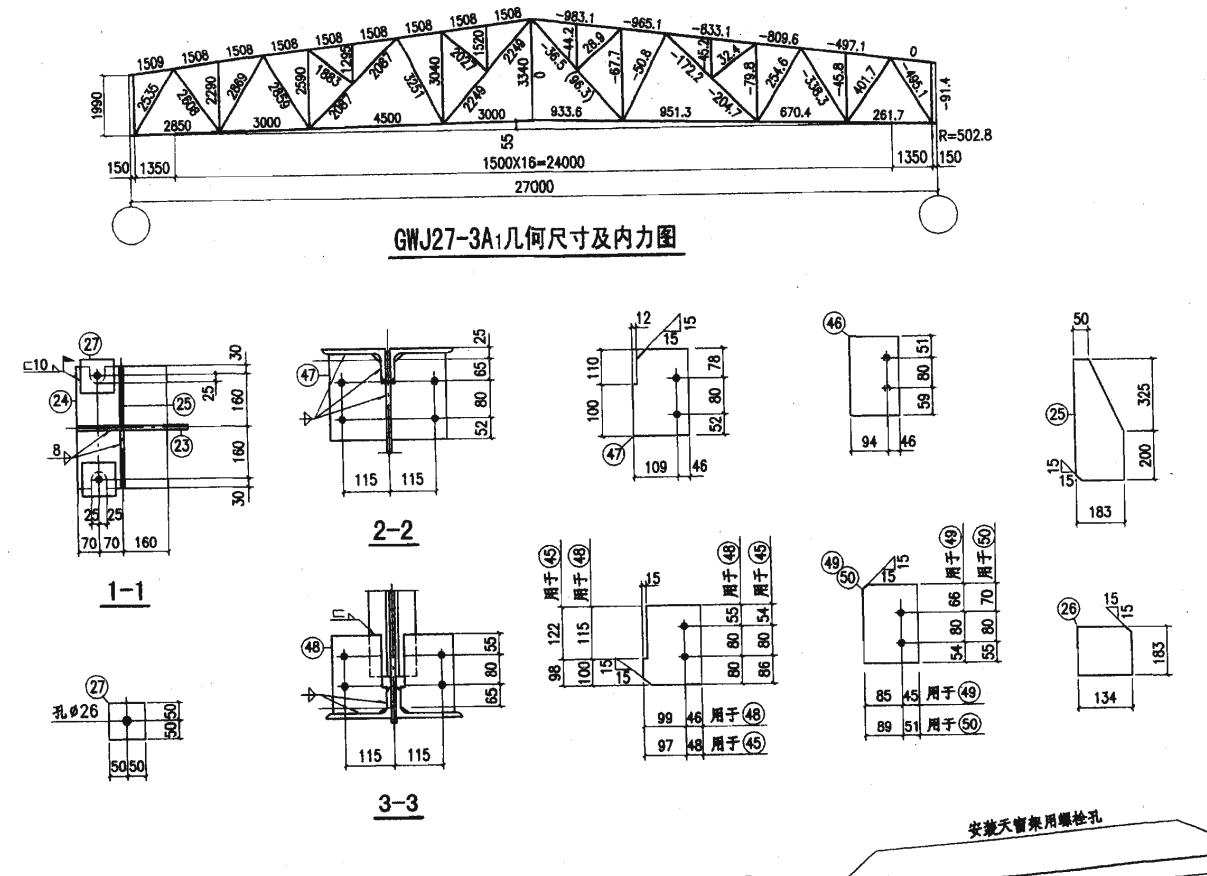
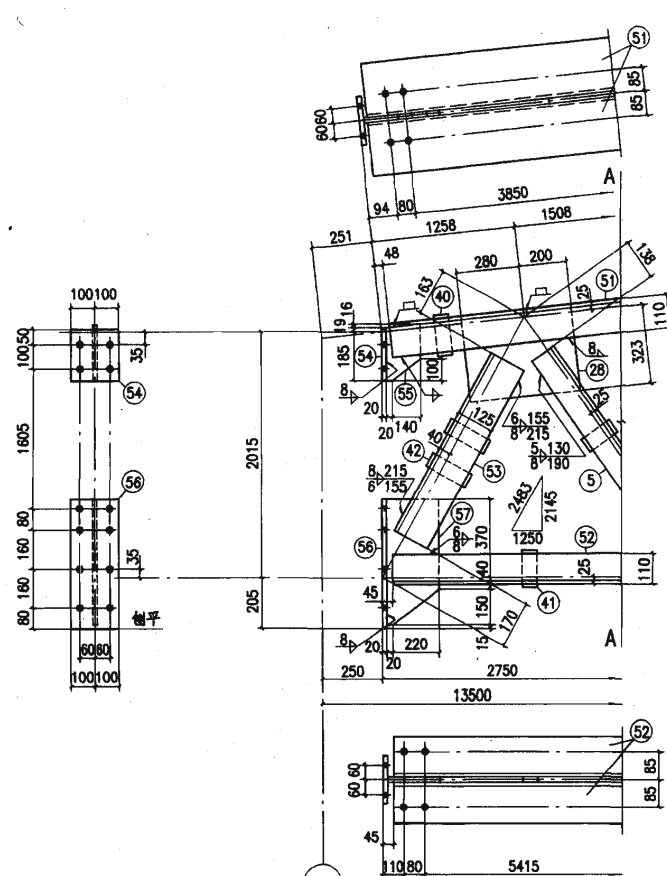


| 材料表  |             |         |    |      |         |
|------|-------------|---------|----|------|---------|
| 构件编号 | 断面          | 长度 (mm) | 数量 |      | 重量 (kg) |
|      |             |         | 正  | 反    |         |
| 1    | L180x110x12 | 13560   | 2  | 2    | 358.8   |
| 2    | L180x100x10 | 13310   | 2  | 2    | 264.5   |
| 3    | L63x5       | 1830    | 4  | 2    | 8.8     |
| 4    | L125x80x10  | 2250    | 2  | 2    | 34.8    |
| 5    | L90x6       | 2310    | 4  | 4    | 19.3    |
| 6    | L50x5       | 2080    | 4  | 7.8  | 31      |
| 7    | L100x6      | 2540    | 4  | 23.8 | 95      |
| 8    | L70x5       | 2580    | 4  | 13.9 | 56      |
| 9    | L50x5       | 2380    | 4  | 9.0  | 36      |
| 10   | L50x5       | 1660    | 4  | 6.3  | 25      |
| 11   | L50x5       | 1090    | 4  | 4.1  | 16      |
| 12   | L90x6       | 3760    | 4  | 31.4 | 126     |
| 13   | L63x5       | 2960    | 4  | 14.3 | 57      |
| 14   | L63x5       | 2830    | 4  | 13.6 | 54      |
| 15   | L50x5       | 1830    | 4  | 6.9  | 28      |
| 16   | L50x5       | 1310    | 4  | 4.9  | 20      |
| 17   | L70x5       | 4130    | 2  | 22.3 | 45      |
| 18   | L70x5       | 4130    | 1  | 1    | 22.3    |
| 19   | L63x5       | 3120    | 2  | 15.0 | 30      |
| 20   | L180x110x12 | 740     | 2  | 19.6 | 39      |
| 21   | L180x100x10 | 730     | 2  | 14.5 | 29      |
| 22   | -200x10     | 240     | 2  | 3.8  | 8       |
| 23   | -390x12     | 485     | 2  | 17.8 | 36      |
| 24   | -300x20     | 380     | 2  | 17.9 | 36      |
| 25   | -184x10     | 485     | 4  | 7.0  | 28      |
| 26   | -135x10     | 184     | 4  | 1.9  | 8       |
| 27   | -100x20     | 100     | 4  | 1.6  | 6       |
| 28   | -320x10     | 460     | 2  | 11.6 | 23      |
| 29   | -370x10     | 440     | 2  | 12.8 | 26      |
| 30   | -180x10     | 220     | 6  | 3.1  | 19      |
| 31   | -320x10     | 410     | 2  | 10.3 | 21      |

|                           |                               |       |    |       |      |
|---------------------------|-------------------------------|-------|----|-------|------|
| 32                        | -330x10                       | 520   | 2  | 13.5  | 27   |
| 33                        | -230x10                       | 260   | 2  | 4.7   | 9    |
| 34                        | -230x10                       | 240   | 4  | 4.3   | 17   |
| 35                        | -260x10                       | 400   | 2  | 8.1   | 16   |
| 36                        | -260x10                       | 490   | 2  | 10.0  | 20   |
| 37                        | -210x10                       | 220   | 2  | 3.6   | 7    |
| 38                        | -260x10                       | 410   | 1  | 8.4   | 8    |
| 39                        | -230x10                       | 300   | 1  | 5.4   | 5    |
| 40                        | -60x10                        | 130   | 32 | 0.6   | 19   |
| 41                        | -60x10                        | 90    | 29 | 0.4   | 12   |
| 42                        | -60x10                        | 145   | 4  | 0.7   | 3    |
| 43                        | -60x10                        | 110   | 8  | 0.5   | 4    |
| 44                        | -60x10                        | 70    | 16 | 0.3   | 5    |
| 45                        | -145x8                        | 220   | 4  | 2.0   | 8    |
| 46                        | -140x8                        | 195   | 4  | 1.7   | 7    |
| 47                        | -155x8                        | 215   | 8  | 2.0   | 16   |
| 48                        | -145x8                        | 215   | 8  | 2.0   | 16   |
| 49                        | -135x8                        | 205   | 2  | 1.7   | 3    |
| 50                        | -135x8                        | 205   | 2  | 1.7   | 3    |
| 5-21, 28-40, 42-44, 47-50 | 同GWJ27-2A <sub>1</sub>        |       |    |       | 1076 |
| 41                        | -60x10                        | 90    | 25 | 0.4   | 10   |
| 51                        | L180x110x12                   | 13270 | 2  | 35.12 | 1405 |
| 52                        | L160x100x10                   | 13200 | 2  | 262.3 | 1049 |
| 53                        | L125x80x10                    | 2160  | 4  | 33.3  | 133  |
| 54                        | -200x20                       | 200   | 2  | 6.3   | 13   |
| 55                        | -160x10                       | 220   | 2  | 2.8   | 6    |
| 56                        | -200x20                       | 545   | 2  | 17.1  | 34   |
| 57                        | -220x12                       | 530   | 2  | 11.0  | 22   |
| 1-4, 22-27, 45, 46        | 同GWJ27-2A <sub>1</sub> , 数量减半 |       |    |       | 1402 |
| 5-21, 28-40, 42-44, 47-50 | 同GWJ27-2A <sub>1</sub>        |       |    |       | 1076 |
| 41                        | -60x10                        | 90    | 27 | 0.4   | 11   |
| 51-57                     | 同GWJ27-2B <sub>1</sub> , 数量减半 |       |    |       | 1331 |



- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为Φ21.5。



GWJ27-3A1几何尺寸及内力图

| 材料表  |             |         |         |       |      |
|------|-------------|---------|---------|-------|------|
| 零件编号 | 断面          | 长度 (mm) | 重量 (kg) |       |      |
|      |             |         | 数量      | 正     | 反    |
| 1    | L180x110x12 | 13560   | 2       | 358.8 | 1435 |
| 2    | L180x110x10 | 13310   | 2       | 296.4 | 1186 |
| 3    | L63x5       | 1830    | 4       | 8.8   | 35   |
| 4    | L125x80x10  | 2230    | 2       | 34.5  | 138  |
| 5    | L90x7       | 2300    | 4       | 22.2  | 89   |
| 6    | L50x5       | 2070    | 4       | 7.8   | 31   |
| 7    | L100x7      | 2540    | 4       | 27.5  | 110  |
| 8    | L80x5       | 2550    | 4       | 15.8  | 63   |
| 9    | L56x5       | 2370    | 4       | 10.1  | 40   |
| 10   | L50x5       | 1660    | 4       | 6.3   | 25   |
| 11   | L50x5       | 1090    | 4       | 4.1   | 16   |
| 12   | L90x7       | 3750    | 4       | 36.2  | 145  |
| 13   | L63x5       | 2950    | 4       | 14.2  | 57   |
| 14   | L63x5       | 2820    | 4       | 13.6  | 54   |
| 15   | L50x5       | 1830    | 4       | 6.9   | 28   |
| 16   | L50x5       | 1310    | 4       | 4.9   | 20   |
| 17   | L70x5       | 4120    | 2       | 22.2  | 44   |
| 18   | L70x5       | 4120    | 1       | 22.2  | 44   |
| 19   | L63x5       | 3110    | 2       | 15.0  | 30   |
| 20   | L180x110x12 | 740     | 2       | 19.6  | 39   |
| 21   | L180x110x10 | 860     | 2       | 19.2  | 38   |
| 22   | -200x12     | 240     | 2       | 4.5   | 9    |
| 23   | -400x14     | 525     | 2       | 23.1  | 46   |
| 24   | -300x22     | 380     | 2       | 19.7  | 39   |
| 25   | -183x12     | 525     | 4       | 9.1   | 36   |
| 26   | -134x12     | 183     | 4       | 2.3   | 9    |
| 27   | -100x22     | 100     | 4       | 1.7   | 7    |
| 28   | -340x12     | 480     | 2       | 15.4  | 31   |
| 29   | -360x12     | 460     | 2       | 15.6  | 31   |
| 30   | -180x12     | 220     | 6       | 3.7   | 22   |
| 31   | -330x12     | 400     | 2       | 12.4  | 25   |
| 32   | -340x12     | 530     | 2       | 17.0  | 34   |

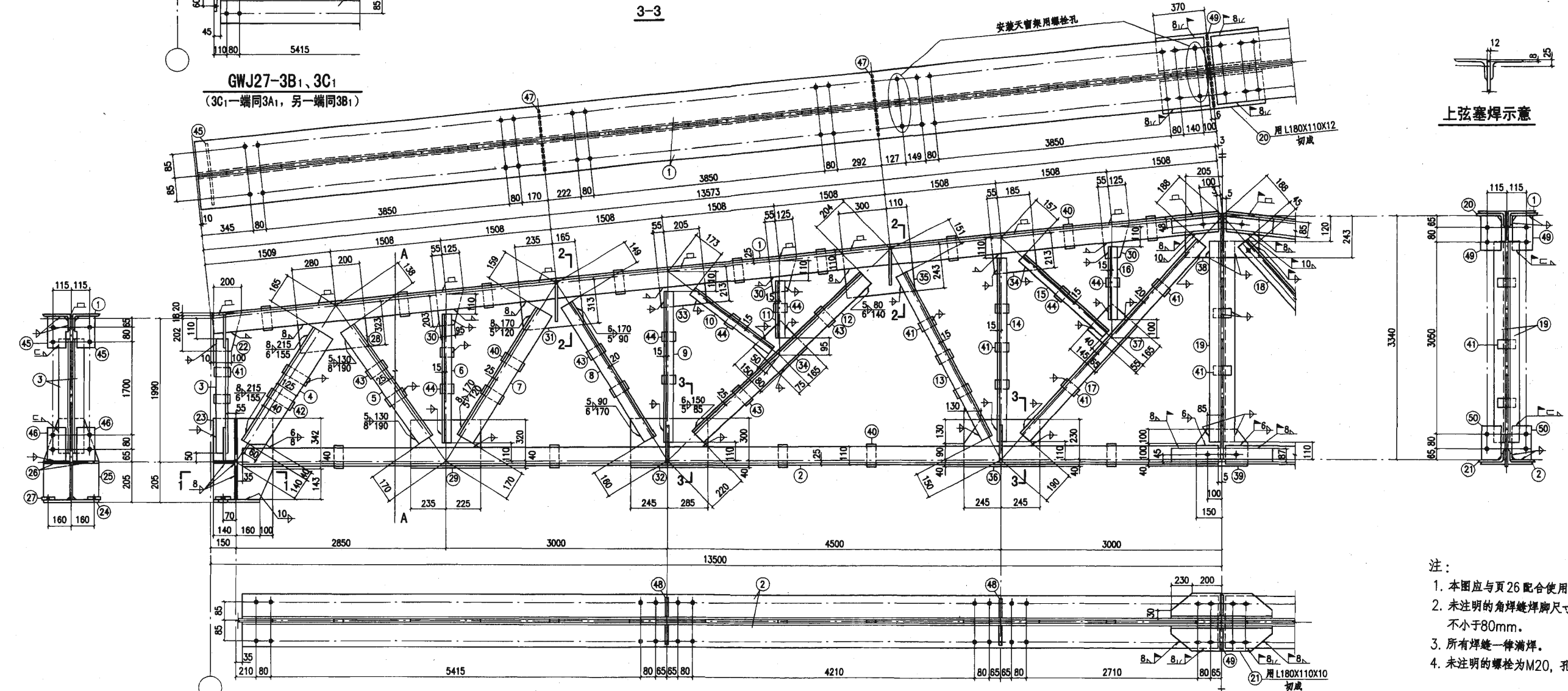
GWJ27-3A1

|    |         |     |    |      |    |
|----|---------|-----|----|------|----|
| 33 | -230x12 | 260 | 2  | 5.6  | 11 |
| 34 | -230x12 | 240 | 4  | 5.2  | 21 |
| 35 | -260x12 | 410 | 2  | 10.0 | 20 |
| 36 | -270x12 | 490 | 2  | 12.5 | 25 |
| 37 | -210x12 | 220 | 2  | 4.4  | 9  |
| 38 | -260x12 | 410 | 1  | 10.0 | 10 |
| 39 | -240x12 | 300 | 1  | 6.8  | 7  |
| 40 | -60x12  | 130 | 32 | 0.7  | 22 |
| 41 | -60x12  | 90  | 25 | 0.5  | 13 |
| 42 | -60x12  | 145 | 4  | 0.8  | 3  |
| 43 | -60x12  | 110 | 12 | 0.6  | 7  |
| 44 | -60x12  | 80  | 16 | 0.5  | 8  |
| 45 | -145x8  | 220 | 4  | 2.0  | 8  |
| 46 | -140x8  | 190 | 4  | 1.7  | 7  |
| 47 | -155x8  | 210 | 8  | 2.0  | 16 |
| 48 | -145x8  | 215 | 8  | 2.0  | 16 |
| 49 | -130x8  | 200 | 2  | 1.6  | 3  |
| 50 | -140x8  | 205 | 2  | 1.8  | 4  |

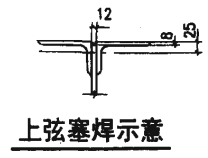
GWJ27-3B1

GWJ27-3C1

GWJ27-3B1、3C1  
(3C1一端同3A1, 另一端同3B1)



GWJ27-3A1

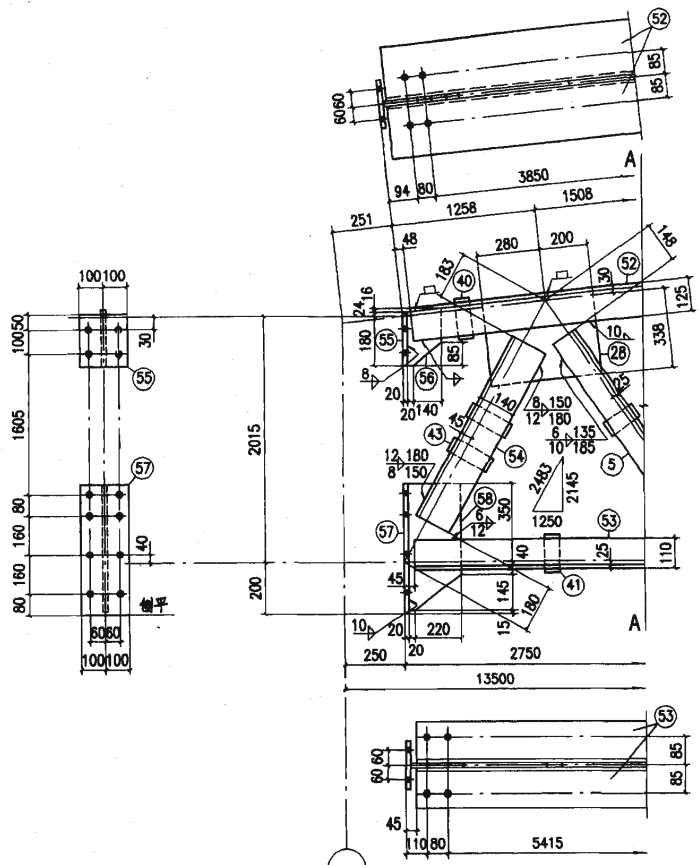


上弦塞焊示意

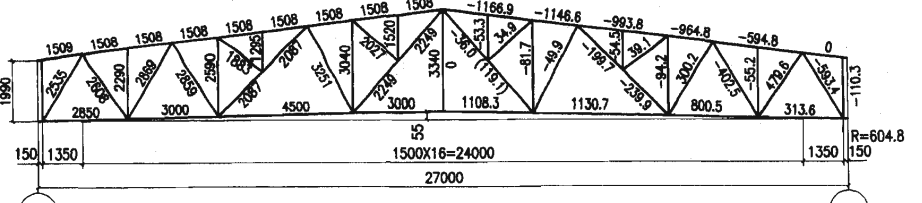
- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为Φ21.5。

|                     |       |     |         |
|---------------------|-------|-----|---------|
| GWJ27-3A1、3B1、3C1详图 |       | 图集号 | 05G511  |
| 审核                  | 冯东 冯东 | 校对  | 张丽娟 张丽娟 |
| 设计                  | 李志通   | 设计  | 李志通     |
| 页                   | 51    |     |         |

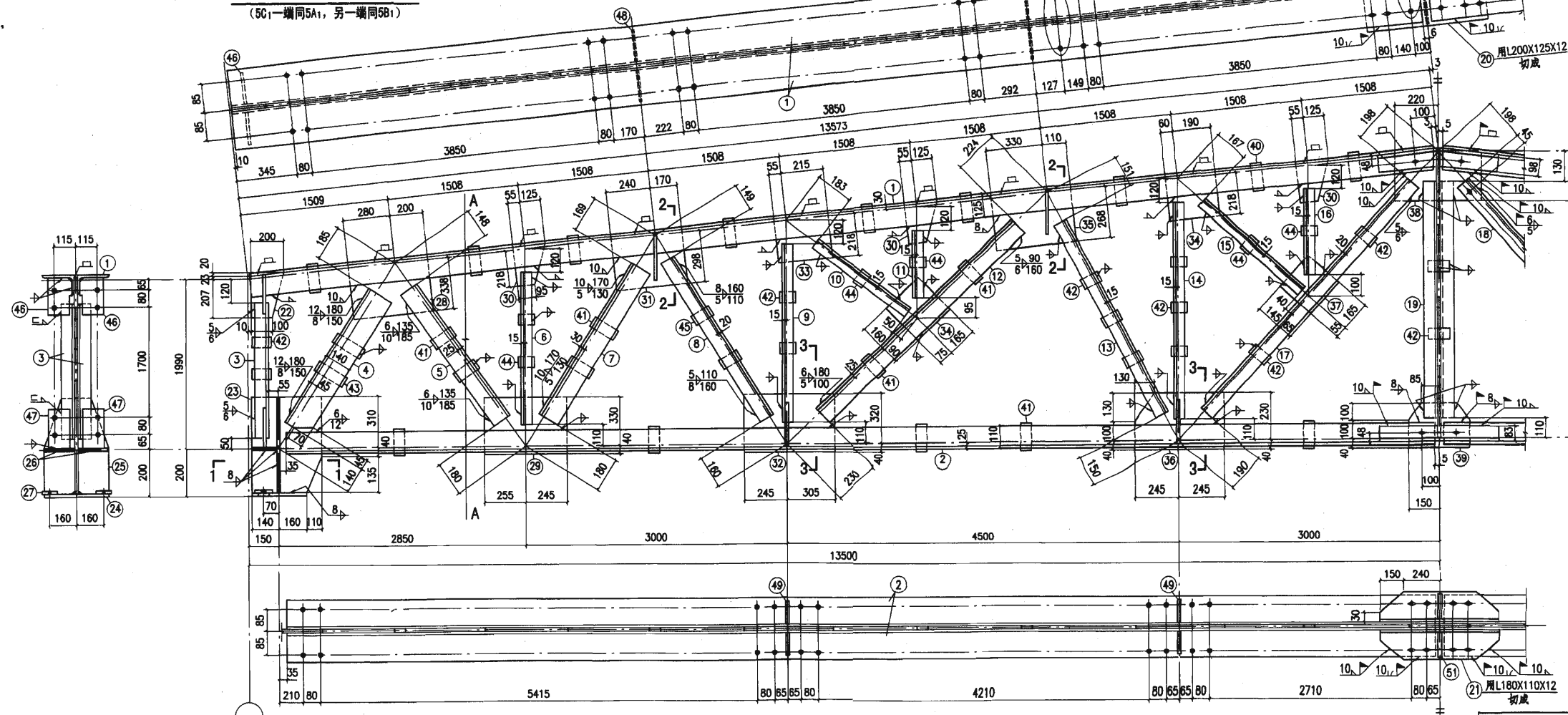
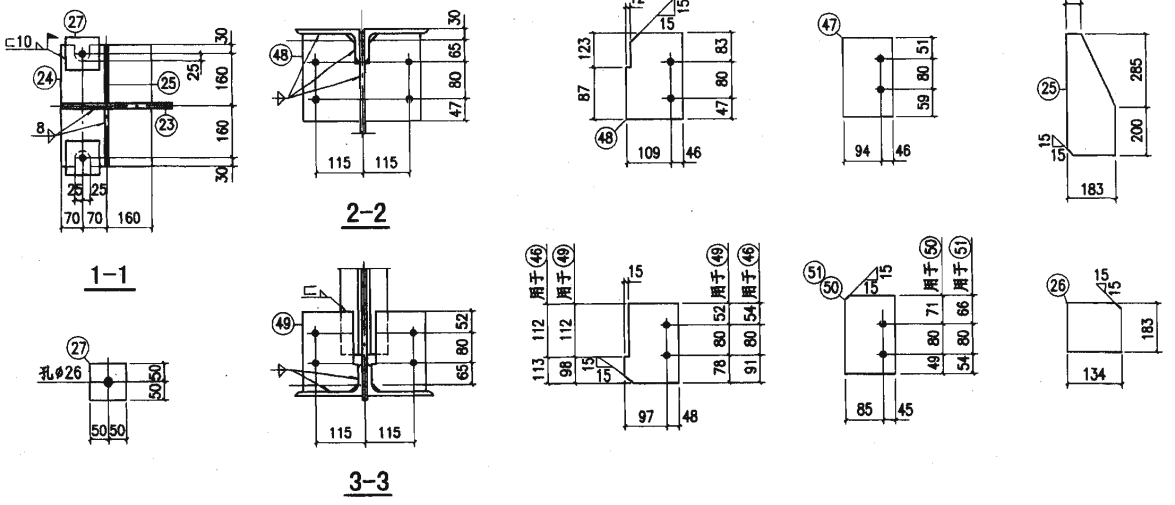




GWJ27-5B<sub>1</sub>, 5C<sub>1</sub>  
(5C<sub>1</sub>一端同5A<sub>1</sub>, 另一端同5B<sub>1</sub>)



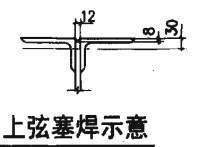
GWJ27-5A<sub>1</sub>几何尺寸及内力图



GWJ27-5A<sub>1</sub>

| 材料表  |             |         |    |   |         |
|------|-------------|---------|----|---|---------|
| 构件编号 | 截面          | 长度 (mm) | 数量 |   | 重量 (kg) |
|      |             |         | 正  | 反 |         |
| 1    | L200x125x12 | 13560   | 2  | 2 | 403.5   |
| 2    | L180x110x12 | 13310   | 2  | 2 | 352.2   |
| 3    | L63x5       | 1820    | 4  | 4 | 8.8     |
| 4    | L140x90x10  | 2210    | 2  | 2 | 38.6    |
| 5    | L100x7      | 2280    | 4  | 4 | 24.7    |
| 6    | L50x5       | 2060    | 4  | 4 | 7.8     |
| 7    | L110x7      | 2520    | 4  | 4 | 30.1    |
| 8    | L80x6       | 2550    | 4  | 4 | 18.8    |
| 9    | L63x5       | 2360    | 4  | 4 | 11.4    |
| 10   | L50x5       | 1650    | 4  | 4 | 6.2     |
| 11   | L50x5       | 1080    | 4  | 4 | 4.1     |
| 12   | L100x7      | 3720    | 4  | 4 | 40.3    |
| 13   | L63x5       | 2950    | 4  | 4 | 14.2    |
| 14   | L63x5       | 2810    | 4  | 4 | 13.5    |
| 15   | L50x5       | 1820    | 4  | 4 | 6.9     |
| 16   | L50x5       | 1300    | 4  | 4 | 4.9     |
| 17   | L70x5       | 4110    | 2  | 2 | 22.2    |
| 18   | L70x5       | 4110    | 1  | 1 | 22.2    |
| 19   | L63x5       | 3100    | 2  | 2 | 14.9    |
| 20   | L200x125x12 | 740     | 2  | 2 | 22.0    |
| 21   | L180x110x12 | 780     | 2  | 2 | 20.6    |
| 22   | -200x12     | 250     | 2  | 2 | 4.7     |
| 23   | -410x14     | 485     | 2  | 2 | 21.9    |
| 24   | -300x25     | 380     | 2  | 2 | 22.4    |
| 25   | -183x12     | 485     | 4  | 4 | 8.4     |
| 26   | -134x12     | 183     | 4  | 4 | 2.3     |
| 27   | -100x25     | 100     | 4  | 2 | 8       |
| 28   | -360x12     | 480     | 2  | 2 | 16.3    |
| 29   | -370x12     | 500     | 2  | 2 | 17.4    |
| 30   | -180x12     | 240     | 6  | 6 | 4.1     |
| 31   | -320x12     | 410     | 2  | 2 | 12.4    |
| 32   | -360x12     | 550     | 2  | 2 | 18.7    |

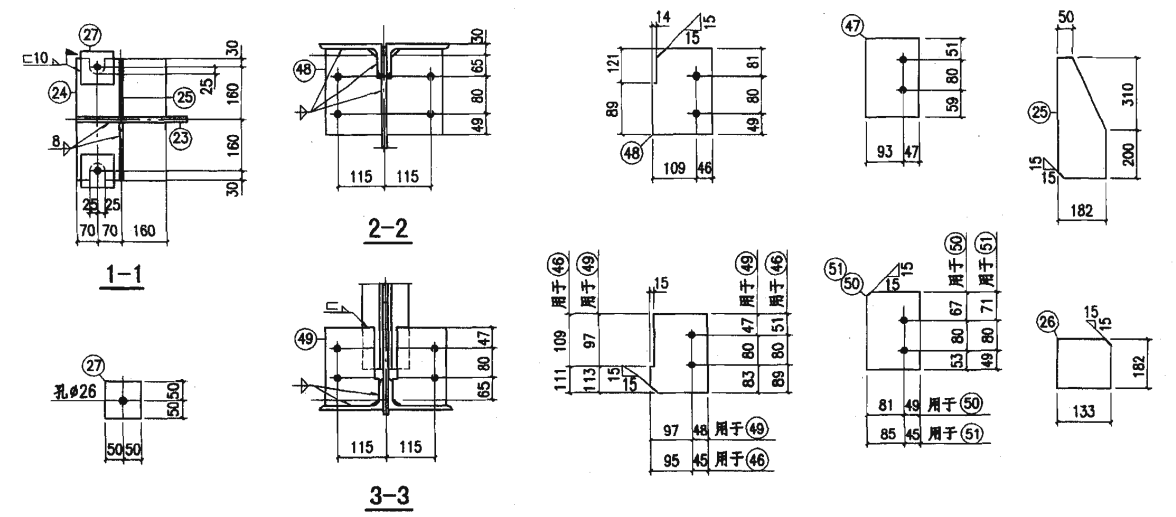
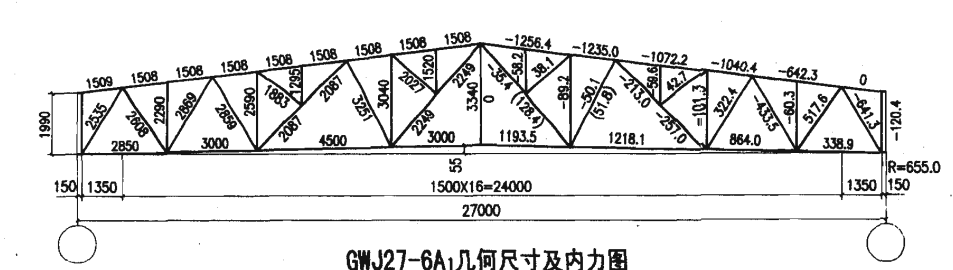
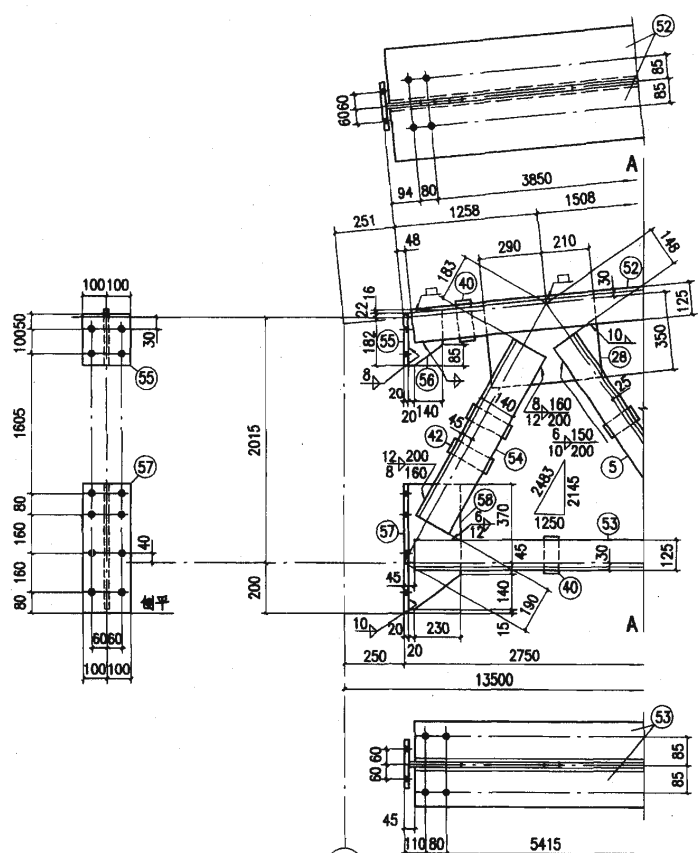
| 构件编号 | 截面      | 长度 (mm) | 数量 |     | 重量 (kg) |
|------|---------|---------|----|-----|---------|
|      |         |         | 正  | 反   |         |
| 33   | -240x12 | 270     | 2  | 2   | 6.1     |
| 34   | -240x12 | 250     | 4  | 4   | 5.7     |
| 35   | -280x12 | 440     | 2  | 2   | 12.0    |
| 36   | -270x12 | 490     | 2  | 2   | 12.5    |
| 37   | -210x12 | 220     | 2  | 2   | 4.4     |
| 38   | -270x12 | 440     | 1  | 1   | 11.2    |
| 39   | -240x12 | 300     | 1  | 1   | 6.8     |
| 40   | -60x12  | 145     | 18 | 18  | 0.8     |
| 41   | -60x12  | 130     | 22 | 22  | 0.7     |
| 42   | -60x12  | 90      | 29 | 29  | 0.5     |
| 43   | -60x12  | 160     | 4  | 4   | 0.9     |
| 44   | -60x12  | 80      | 12 | 12  | 0.5     |
| 45   | -60x12  | 100     | 4  | 4   | 0.6     |
| 46   | -145x8  | 225     | 4  | 2   | 2.0     |
| 47   | -140x8  | 190     | 4  | 4   | 1.7     |
| 48   | -155x8  | 210     | 8  | 2   | 2.0     |
| 49   | -145x8  | 210     | 8  | 1.9 | 1.5     |
| 50   | -130x8  | 200     | 2  | 2   | 1.6     |
| 51   | -130x8  | 200     | 2  | 2   | 1.6     |



上弦塞焊示意

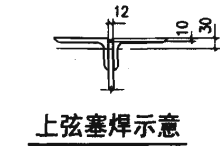
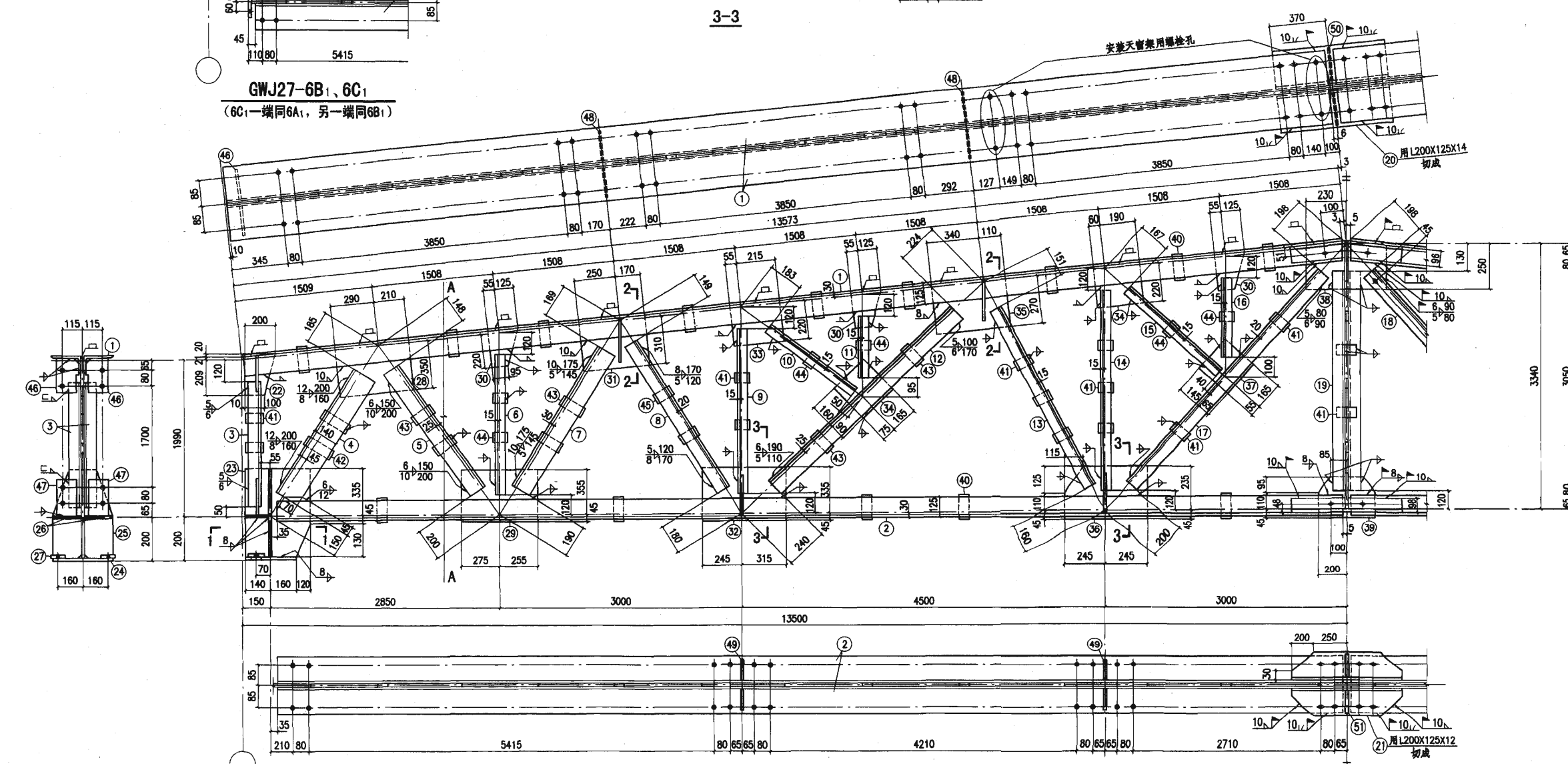
- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为φ21.5。

GWJ27-5A<sub>1</sub>, 5B<sub>1</sub>, 5C<sub>1</sub>详图

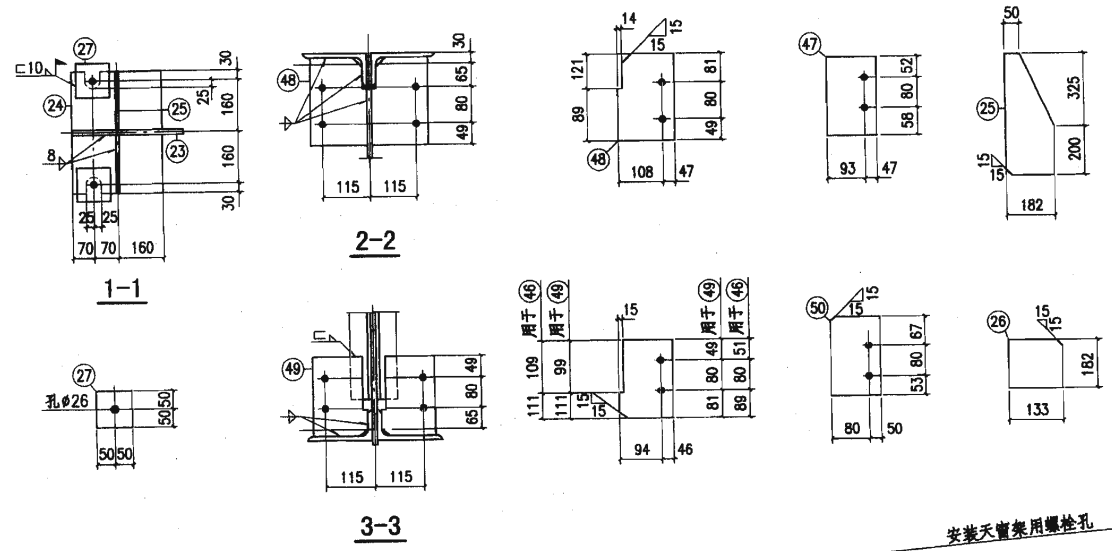
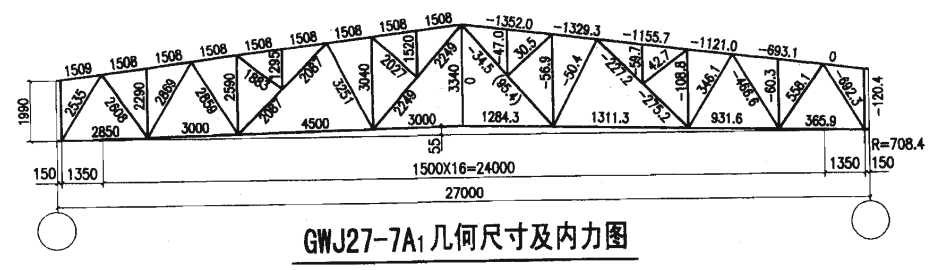
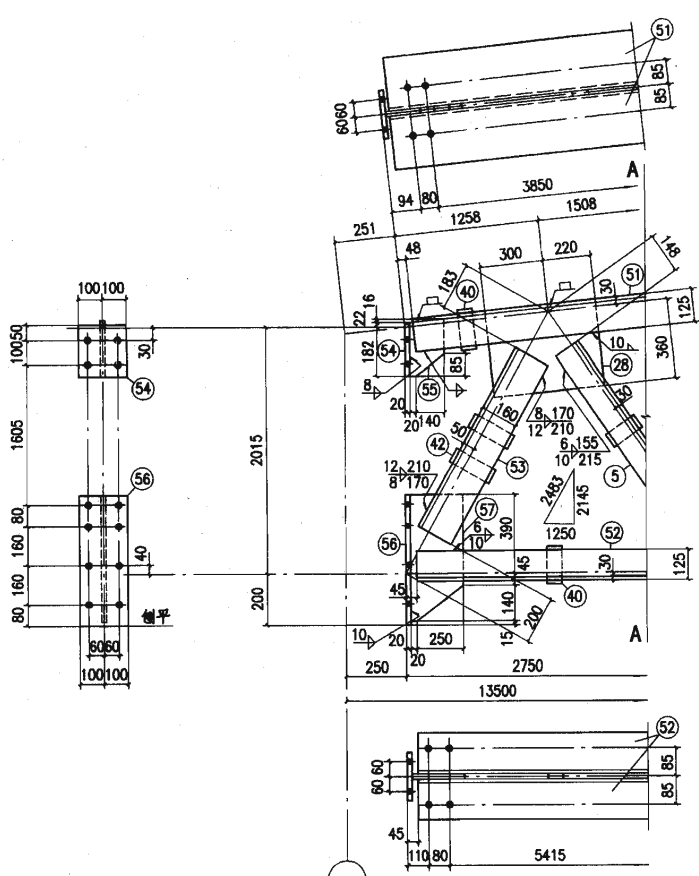


| 材料表  |             |         |    |   |         |
|------|-------------|---------|----|---|---------|
| 构件编号 | 断面          | 长度 (mm) | 数量 |   | 重量 (kg) |
|      |             |         | 正  | 反 |         |
| 1    | L200x125x14 | 13560   | 2  | 2 | 467.0   |
| 2    | L200x125x12 | 13310   | 2  | 2 | 396.1   |
| 3    | L63x5       | 1820    | 4  |   | 8.8     |
| 4    | L140x90x10  | 2200    | 2  | 2 | 38.4    |
| 5    | L100x7      | 2260    | 4  |   | 24.5    |
| 6    | L50x5       | 2050    | 4  |   | 7.7     |
| 7    | L110x8      | 2510    | 4  |   | 34.0    |
| 8    | L80x6       | 2530    | 4  |   | 18.7    |
| 9    | L63x5       | 2350    | 4  |   | 11.3    |
| 10   | L50x5       | 1650    | 4  |   | 6.2     |
| 11   | L50x5       | 1080    | 4  |   | 4.1     |
| 12   | L100x7      | 3710    | 4  |   | 40.2    |
| 13   | L63x5       | 2940    | 4  |   | 14.2    |
| 14   | L63x5       | 2800    | 4  |   | 13.5    |
| 15   | L50x5       | 1820    | 4  |   | 6.9     |
| 16   | L50x5       | 1300    | 4  |   | 4.9     |
| 17   | L70x5       | 4100    | 2  |   | 22.1    |
| 18   | L70x5       | 4100    | 1  | 1 | 22.1    |
| 19   | L63x5       | 3090    | 2  |   | 14.9    |
| 20   | L200x125x14 | 740     | 2  |   | 25.5    |
| 21   | L200x125x12 | 900     | 2  |   | 26.8    |
| 22   | -200x12     | 250     | 2  |   | 4.7     |
| 23   | -420x14     | 510     | 2  |   | 23.5    |
| 24   | -300x25     | 380     | 2  |   | 22.4    |
| 25   | -182x12     | 510     | 4  |   | 8.7     |
| 26   | -133x12     | 182     | 4  |   | 2.3     |
| 27   | -100x25     | 100     | 4  |   | 2.0     |
| 28   | -370x12     | 500     | 2  |   | 17.4    |
| 29   | -400x12     | 530     | 2  |   | 20.0    |
| 30   | -180x12     | 240     | 6  |   | 4.1     |
| 31   | -330x12     | 420     | 2  |   | 13.1    |
| 32   | -380x12     | 560     | 2  |   | 20.0    |

|    |         |     |    |  |      |    |
|----|---------|-----|----|--|------|----|
| 33 | -240x12 | 270 | 2  |  | 6.1  | 12 |
| 34 | -240x12 | 250 | 4  |  | 5.7  | 23 |
| 35 | -290x12 | 450 | 2  |  | 12.3 | 25 |
| 36 | -280x12 | 490 | 2  |  | 12.9 | 26 |
| 37 | -210x12 | 220 | 2  |  | 4.4  | 9  |
| 38 | -270x12 | 480 | 1  |  | 11.7 | 12 |
| 39 | -250x12 | 400 | 1  |  | 9.4  | 9  |
| 40 | -60x12  | 145 | 28 |  | 0.8  | 22 |
| 41 | -60x12  | 90  | 29 |  | 0.5  | 15 |
| 42 | -60x12  | 160 | 4  |  | 0.9  | 4  |
| 43 | -60x12  | 130 | 12 |  | 0.7  | 8  |
| 44 | -60x12  | 70  | 12 |  | 0.4  | 5  |
| 45 | -60x12  | 100 | 4  |  | 0.6  | 2  |
| 46 | -140x8  | 220 | 4  |  | 1.9  | 8  |
| 47 | -140x8  | 190 | 4  |  | 1.7  | 7  |
| 48 | -155x8  | 210 | 8  |  | 2.0  | 16 |
| 49 | -145x8  | 210 | 8  |  | 1.9  | 15 |
| 50 | -130x8  | 200 | 2  |  | 1.6  | 3  |
| 51 | -130x8  | 200 | 2  |  | 1.6  | 3  |

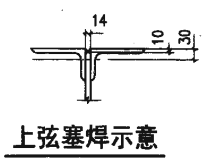
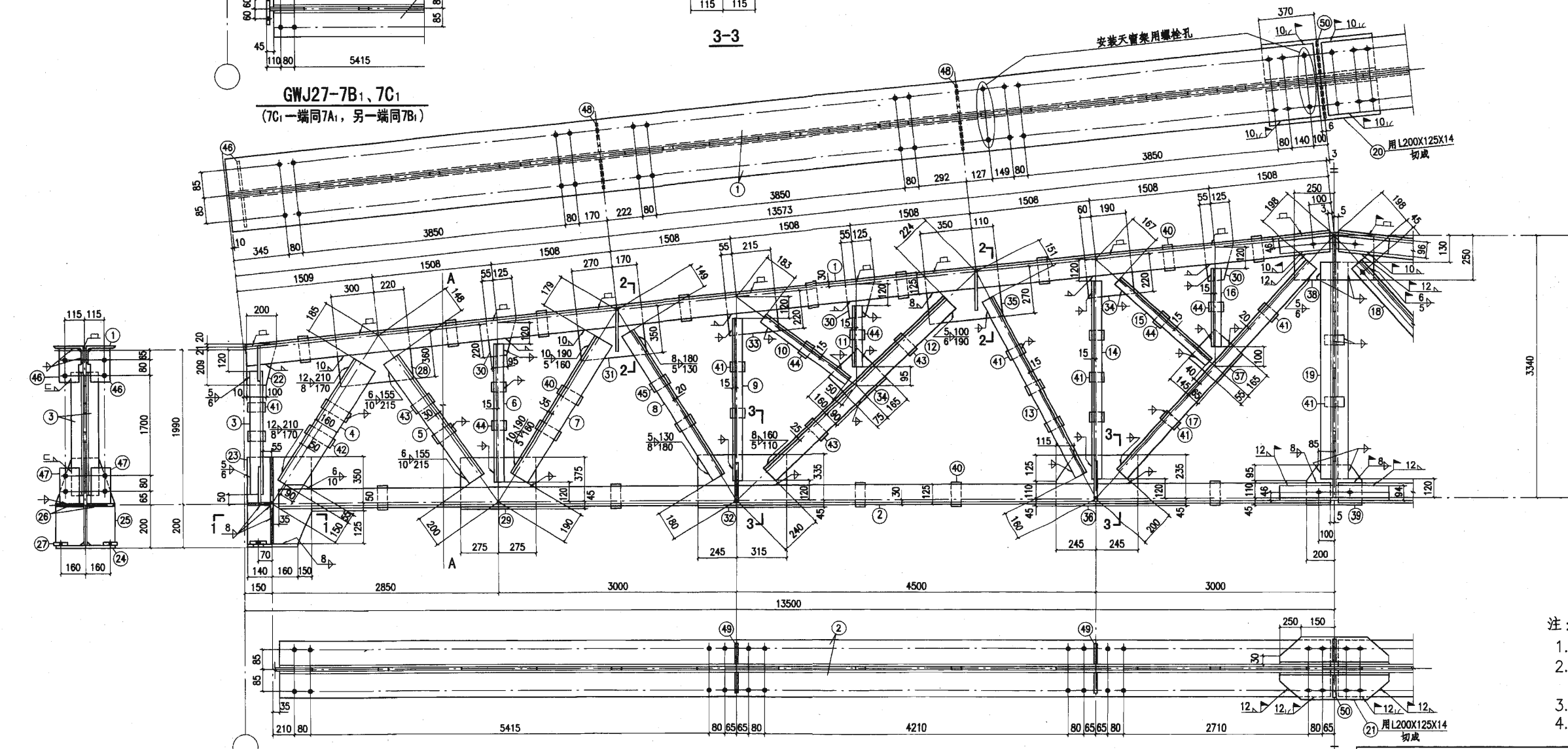


- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为 $\phi 21.5$ 。

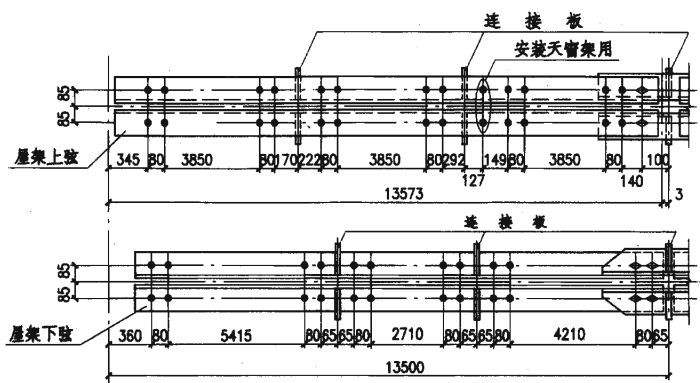


| 材料表  |             |         |    |   |         |
|------|-------------|---------|----|---|---------|
| 构件编号 | 断面          | 长度 (mm) | 数量 |   | 重量 (kg) |
|      |             |         | 正  | 反 |         |
| 1    | L200x125x14 | 13560   | 2  | 2 | 467.0   |
| 2    | L200x125x14 | 13310   | 2  | 2 | 458.4   |
| 3    | L63x5       | 1820    | 4  |   | 8.8     |
| 4    | L160x100x10 | 2200    | 2  | 2 | 43.7    |
| 5    | L100x8      | 2260    | 4  |   | 27.7    |
| 6    | L50x5       | 2050    | 4  |   | 7.7     |
| 7    | L125x8      | 2500    | 4  |   | 38.8    |
| 8    | L80x7       | 2530    | 4  |   | 21.6    |
| 9    | L63x5       | 2350    | 4  |   | 11.3    |
| 10   | L50x5       | 1650    | 4  |   | 6.2     |
| 11   | L50x5       | 1080    | 4  |   | 4.1     |
| 12   | L100x7      | 3710    | 4  |   | 40.2    |
| 13   | L63x5       | 2940    | 4  |   | 14.2    |
| 14   | L63x5       | 2800    | 4  |   | 13.5    |
| 15   | L50x5       | 1820    | 4  |   | 6.9     |
| 16   | L50x5       | 1300    | 4  |   | 4.9     |
| 17   | L70x5       | 4100    | 2  |   | 22.1    |
| 18   | L70x5       | 4100    | 1  | 1 | 22.1    |
| 19   | L63x5       | 3090    | 2  |   | 14.9    |
| 20   | L200x125x14 | 740     | 2  |   | 25.5    |
| 21   | L200x125x14 | 800     | 2  |   | 27.6    |
| 22   | -200x14     | 250     | 2  |   | 5.5     |
| 23   | -450x16     | 525     | 2  |   | 29.7    |
| 24   | -300x25     | 380     | 2  |   | 22.4    |
| 25   | -182x14     | 525     | 4  |   | 10.5    |
| 26   | -133x14     | 182     | 4  |   | 2.7     |
| 27   | -100x25     | 100     | 4  |   | 2.0     |
| 28   | -380x14     | 520     | 2  |   | 21.7    |
| 29   | -420x14     | 550     | 2  |   | 25.4    |
| 30   | -180x14     | 240     | 6  |   | 4.7     |
| 31   | -370x14     | 440     | 2  |   | 17.9    |
| 32   | -380x14     | 560     | 2  |   | 23.4    |

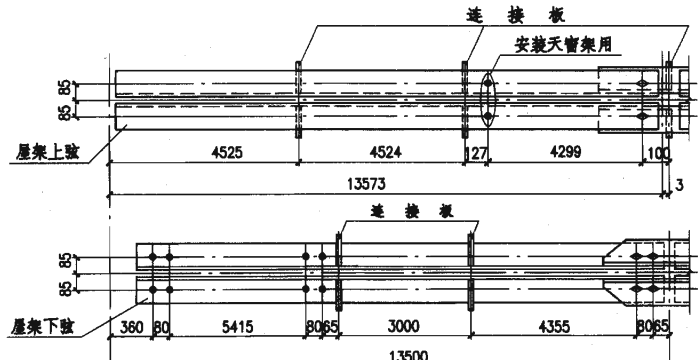
|    |         |     |    |  |      |    |
|----|---------|-----|----|--|------|----|
| 33 | -240x14 | 270 | 2  |  | 7.1  | 14 |
| 34 | -240x14 | 250 | 4  |  | 6.6  | 26 |
| 35 | -290x14 | 460 | 2  |  | 14.7 | 29 |
| 36 | -280x14 | 490 | 2  |  | 15.1 | 30 |
| 37 | -210x14 | 220 | 2  |  | 5.1  | 10 |
| 38 | -270x14 | 500 | 1  |  | 14.8 | 15 |
| 39 | -250x14 | 400 | 1  |  | 11.0 | 11 |
| 40 | -60x14  | 145 | 32 |  | 1.0  | 32 |
| 41 | -60x14  | 90  | 29 |  | 0.6  | 17 |
| 42 | -60x14  | 180 | 4  |  | 1.2  | 5  |
| 43 | -60x14  | 120 | 8  |  | 0.8  | 6  |
| 44 | -60x14  | 70  | 12 |  | 0.5  | 6  |
| 45 | -60x14  | 100 | 4  |  | 0.7  | 3  |
| 46 | -140x8  | 220 | 4  |  | 1.9  | 8  |
| 47 | -140x8  | 190 | 4  |  | 1.7  | 7  |
| 48 | -155x8  | 210 | 8  |  | 2.0  | 16 |
| 49 | -140x8  | 210 | 8  |  | 1.8  | 14 |
| 50 | -130x8  | 200 | 4  |  | 1.6  | 6  |



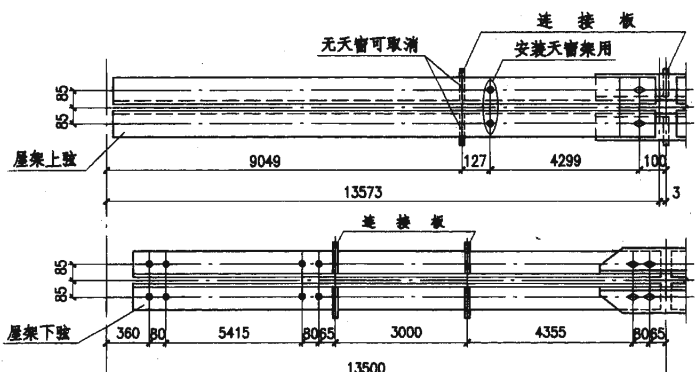
- 注:
1. 本图应与页26配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为 $\phi 21.5$ 。



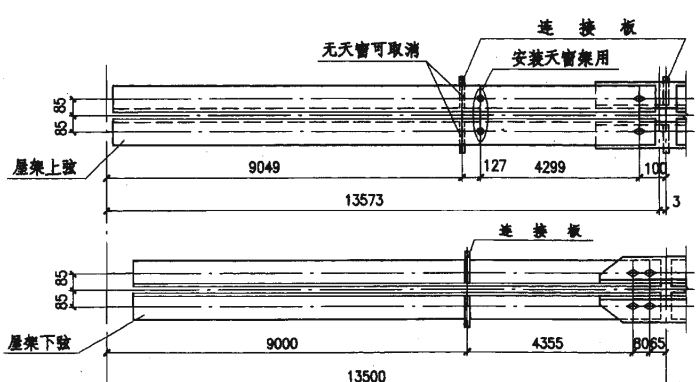
GWJ27-XX1



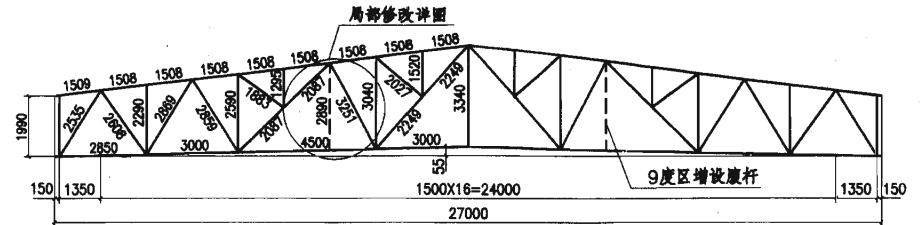
GWJ27-XX2



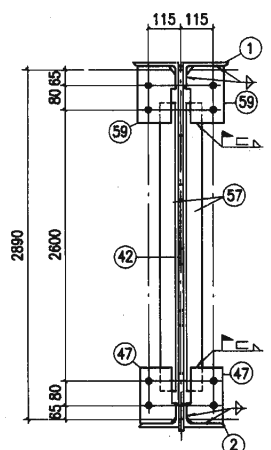
GWJ27-XX3



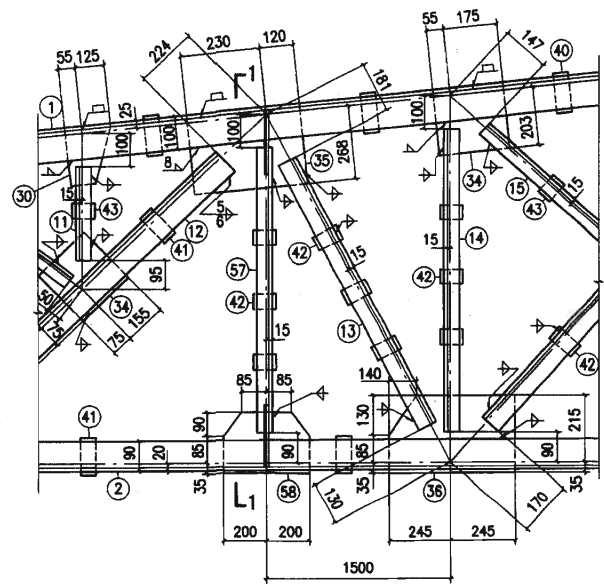
GWJ27-XX4



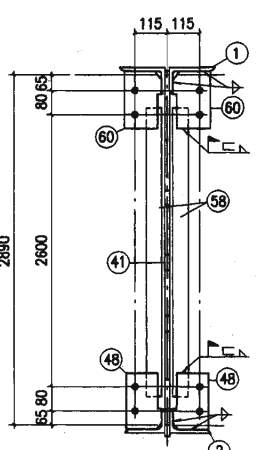
GWJ27-XA1 几何尺寸



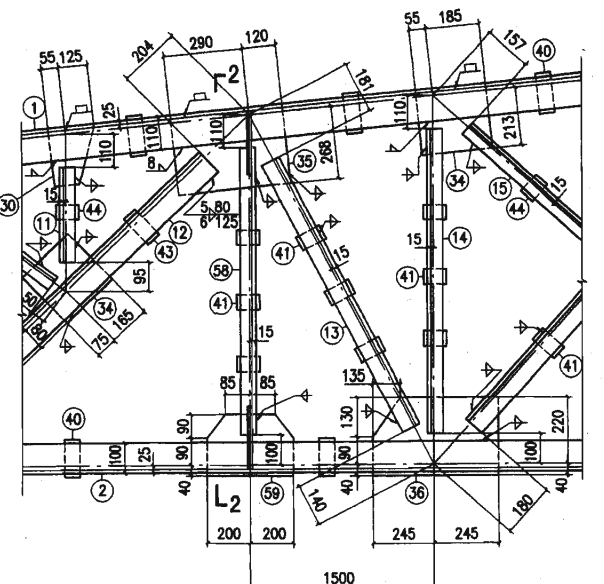
1-1



GWJ27-1A1~1C1

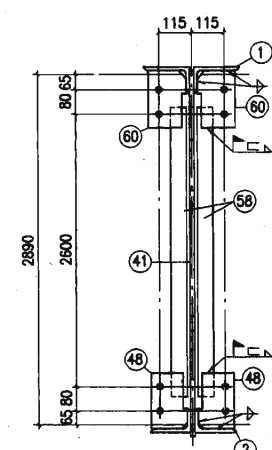


2-2

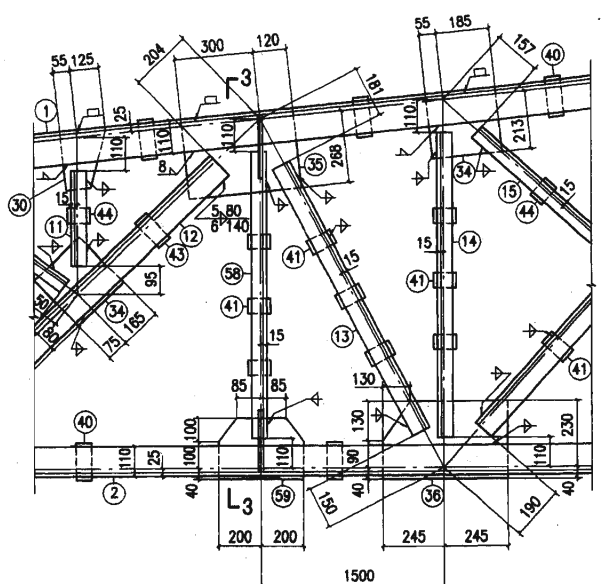


GWJ27-2A1~2C1

|     |     |                     |    |
|-----|-----|---------------------|----|
| 90  | 120 | 用于GWJ27-1A1 (59)    | 15 |
| 98  | 117 | 用于GWJ27-2A1 (60)    |    |
| 98  | 112 | 用于GWJ27-3A1 (60)    |    |
| 80  | 80  | 50 用于GWJ27-1A1 (59) |    |
| 78  | 80  | 57 用于GWJ27-2A1 (60) |    |
| 78  | 80  | 52 用于GWJ27-3A1 (60) |    |
| 100 | 45  | 用于GWJ27-1A1 (59)    |    |
| 98  | 47  | 用于GWJ27-2A1 (60)    |    |
| 97  | 48  | 用于GWJ27-3A1 (60)    |    |



3-3



GWJ27-3A1~3C1

注:

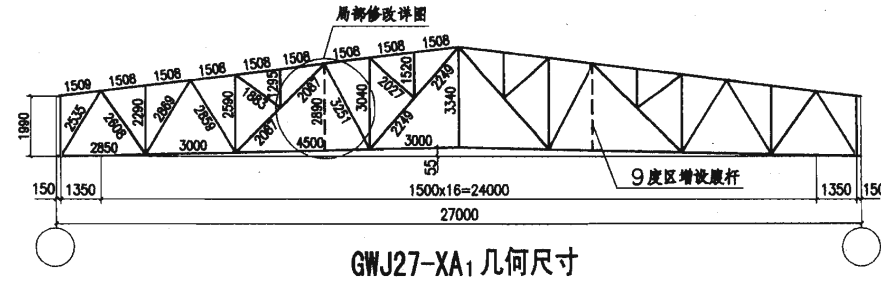
1. 本图用于9度区及8度区设计基本地震加速度为0.3g地区的27m屋架, 仅给出局部修改详图, 未详部分参见原图。
2. 构件编号中的XX, 前者代表屋架承载力序号1~3, 后者代表端部不同构造A、B、C。
3. 对于端部为B型的屋架两端上、下弦和端部为C型的屋架一端上下弦, 均有连接板, 本图不作重复表示, 其连接位置和加工尺寸按各屋架详图施工。
4. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。所有焊缝一律满焊。
5. 未注明的螺栓为M20, 孔径为 $\phi 21.5$ 。
6. 屋架跨中上、下弦垂直肋的打孔均按各屋架施工详图。

材料表

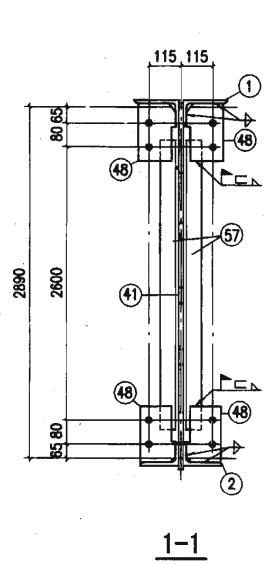
| 构件编号      | 零件号                               | 断面         | 长度 (mm) | 数量 |   | 重量 (kg) |      |
|-----------|-----------------------------------|------------|---------|----|---|---------|------|
|           |                                   |            |         | 正  | 反 | 每个      | 合计   |
| GWJ27-1A1 | 1~12, 14~34, 36~41, 43~45, 48, 49 | 同GWJ27-1A1 |         |    |   |         | 3164 |
|           | 13                                | L 63x5     | 2940    | 4  |   | 14.2    | 57   |
|           | 35                                | -285x10    | 350     | 2  |   | 7.8     | 16   |
|           | 42                                | -60x10     | 90      | 31 |   | 0.4     | 13   |
|           | 46                                | -155x8     | 215     | 4  |   | 2.1     | 8    |
|           | 57                                | L 63x5     | 2700    | 4  |   | 13.0    | 52   |
|           | 58                                | -210x10    | 400     | 2  |   | 6.6     | 13   |
|           | 59                                | -145x8     | 210     | 4  |   | 1.9     | 8    |
| GWJ27-2A1 | 1~12, 14~34, 36~40, 42~46, 48~50  | 同GWJ27-2A1 |         |    |   |         | 3791 |
|           | 13                                | L 63x5     | 2830    | 4  |   | 14.1    | 56   |
|           | 35                                | -285x10    | 410     | 2  |   | 9.2     | 18   |
|           | 41                                | -60x10     | 90      | 34 |   | 0.4     | 14   |
|           | 47                                | -155x8     | 215     | 4  |   | 2.1     | 8    |
|           | 58                                | L 63x5     | 2680    | 4  |   | 12.9    | 52   |
|           | 59                                | -220x10    | 400     | 2  |   | 6.9     | 14   |
|           | 60                                | -145x8     | 215     | 4  |   | 2.0     | 8    |
| GWJ27-3A1 | 1~12, 14~34, 36~40, 42~46, 48~50  | 同GWJ27-3A1 |         |    |   |         | 4060 |
|           | 13                                | L 63x5     | 2920    | 4  |   | 14.1    | 56   |
|           | 35                                | -285x12    | 420     | 2  |   | 11.3    | 23   |
|           | 41                                | -60x12     | 90      | 31 |   | 0.5     | 16   |
|           | 47                                | -155x8     | 210     | 4  |   | 2.0     | 8    |
|           | 58                                | L 63x5     | 2670    | 4  |   | 12.9    | 52   |
|           | 59                                | -240x12    | 400     | 2  |   | 9.0     | 18   |
|           | 60                                | -145x8     | 210     | 4  |   | 1.9     | 8    |



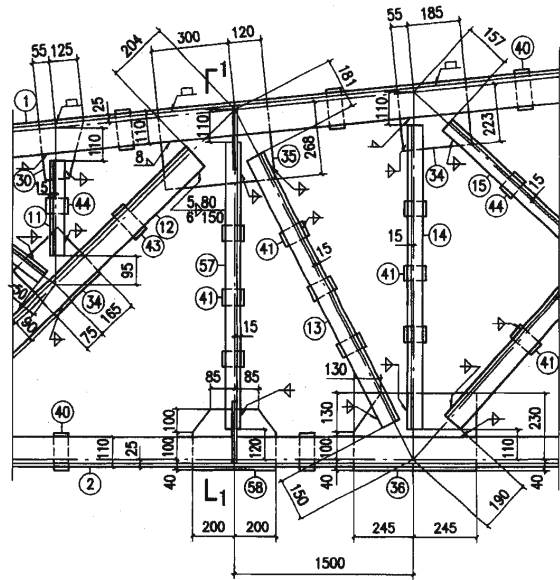
|     |    |             |
|-----|----|-------------|
| 113 | 97 | 周于GWJ27-5A1 |
| 111 | 99 | 周于GWJ27-6A1 |
| 15  | 15 |             |
| 83  | 80 | 周于GWJ27-5A1 |
| 81  | 80 | 周于GWJ27-6A1 |
| 97  | 48 | 周于GWJ27-5A1 |
| 95  | 50 | 周于GWJ27-6A1 |



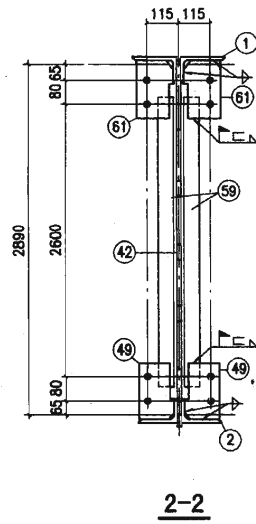
GWJ27-XA1 几何尺寸



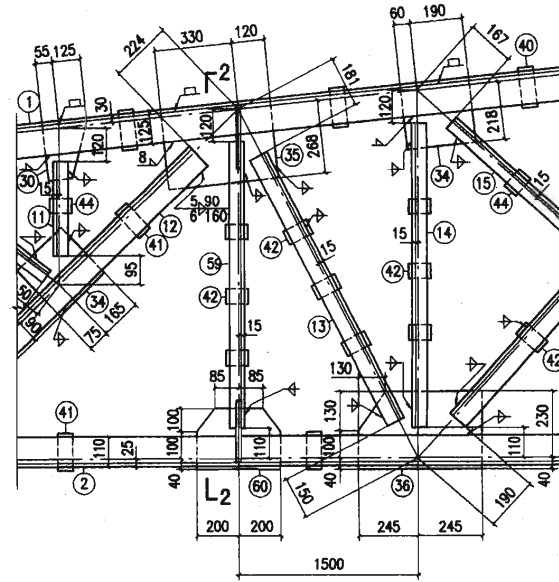
1-1



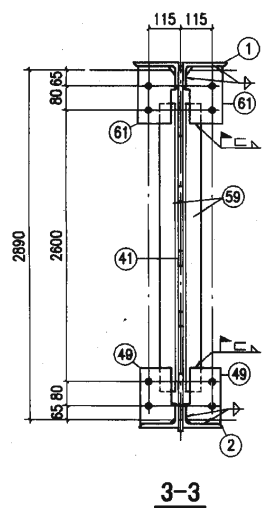
GWJ27-4A1~4C1



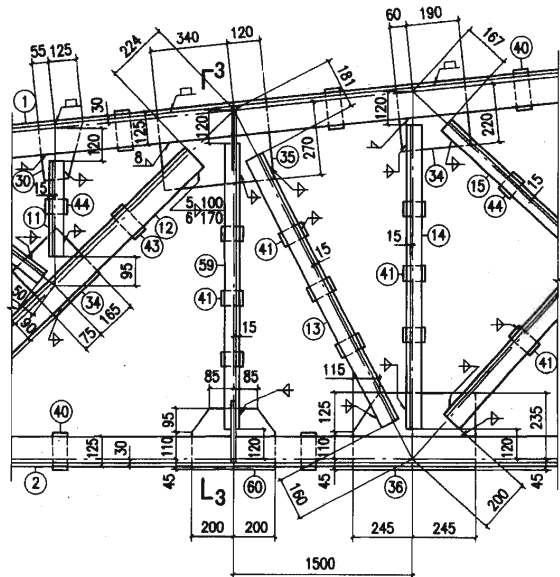
2-2



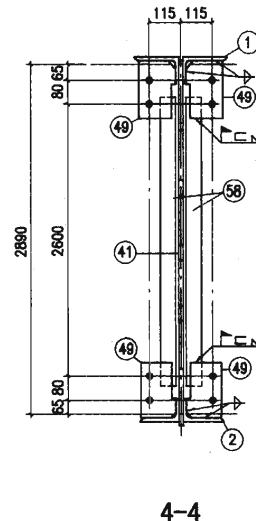
GWJ27-5A1~5C1



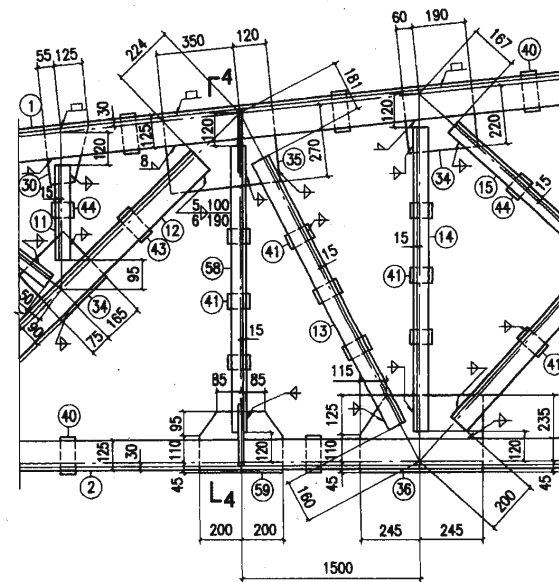
3-3



GWJ27-6A1~6C1



4-4



GWJ27-7A1~7C1

注:

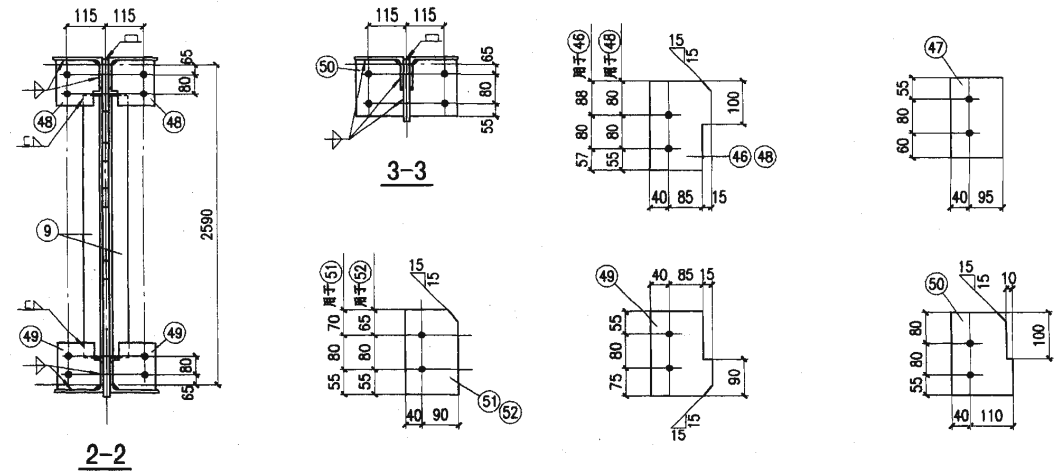
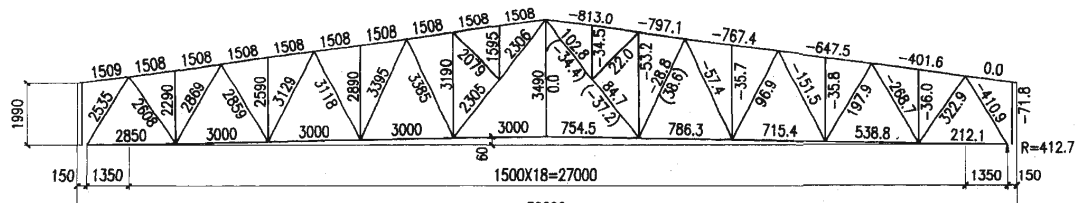
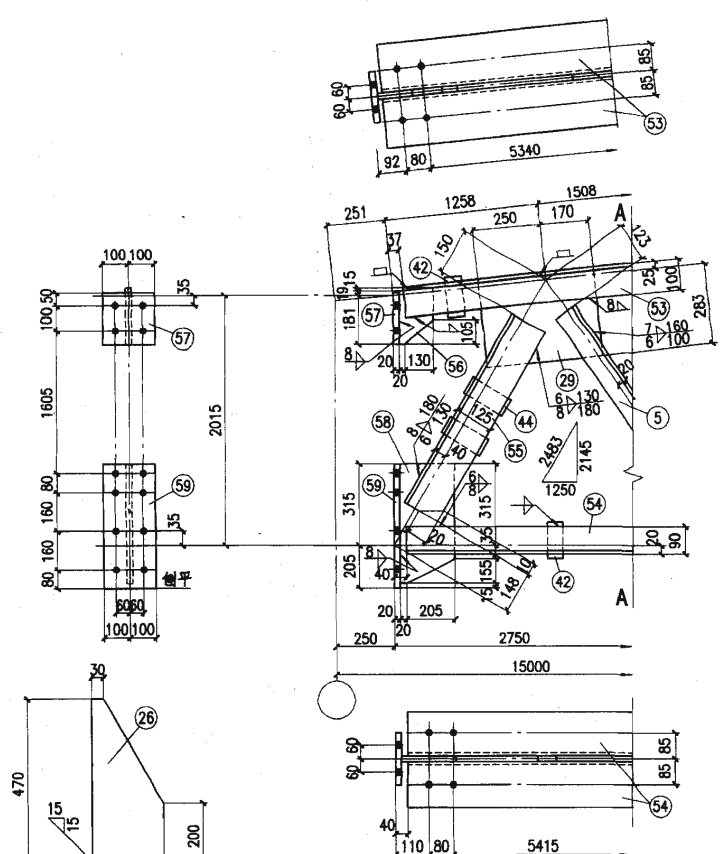
1. 本图用于9度区及8度区设计基本地震加速度为0.3g地区的27m屋架, 仅给出局部修改详图, 未详部分参见原图。
2. 构件编号中的XX, 前者代表屋架承载力序号4~7, 后者代表端部不同构造A、B、C。
3. 对于端部为B型的屋架两端上、下弦和端部为C型的屋架一端上下弦, 均有连接板, 本图不作重复表示, 其连接位置和加工尺寸按各屋架详图施工。
4. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。所有焊缝一律满焊。
5. 未注明的螺栓为M20, 孔径为 $\phi 21.5$ 。
6. 屋架跨中上、下弦垂直肢的打孔均按各屋架施工详图。

材料表

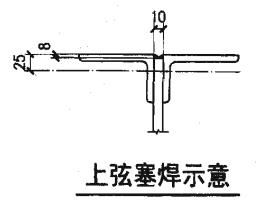
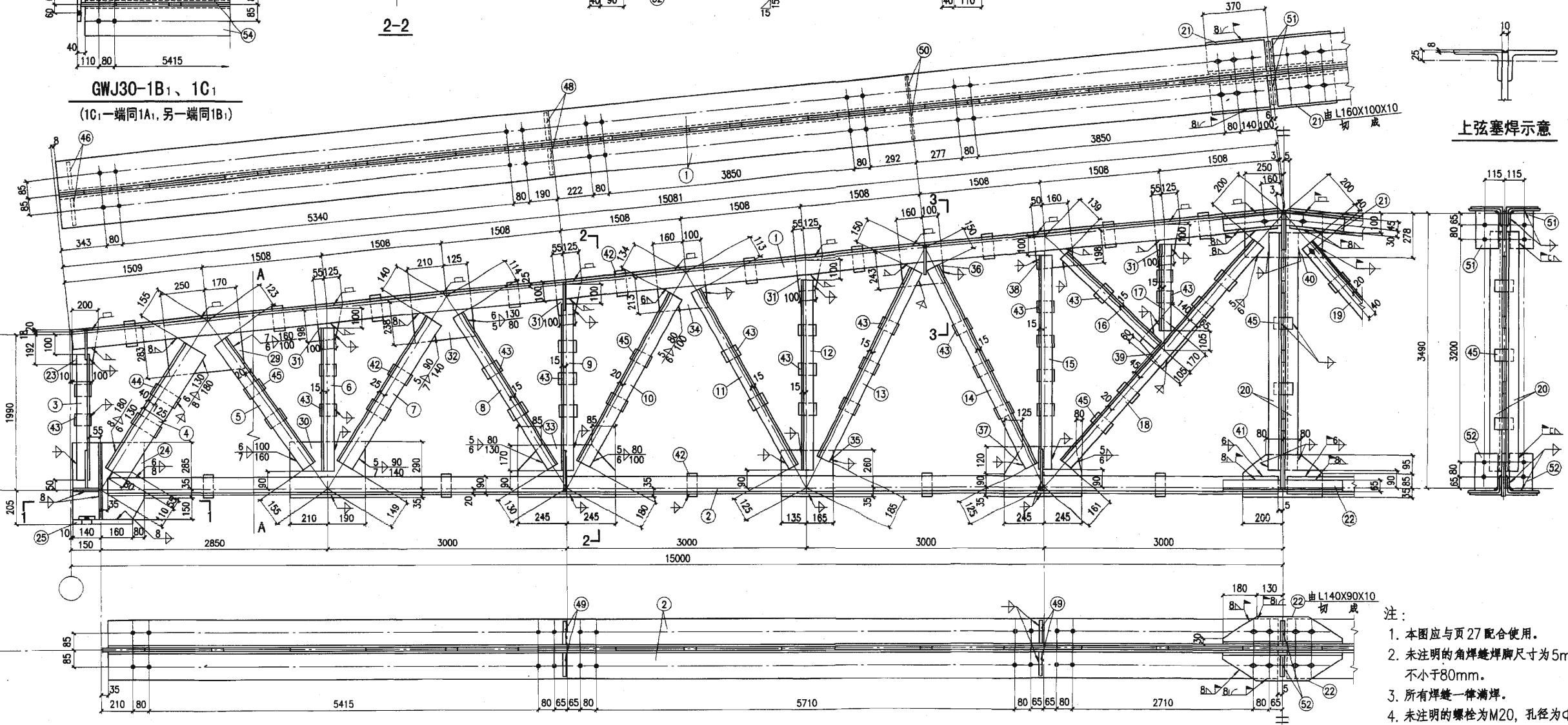
| 构件编号      | 零件号                              | 断面         | 长度 (mm) | 数量   |      | 重量 (kg) |      |
|-----------|----------------------------------|------------|---------|------|------|---------|------|
|           |                                  |            |         | 正    | 反    | 每个      | 共计   |
| GWJ27-4A1 | 1~12, 14~34, 36~40, 42~46, 48    | 同GWJ27-4A1 |         |      |      | 4293    |      |
|           | 13                               | L 63x5     | 2920    | 4    | 14.1 | 56      |      |
|           | 35                               | -285x12    | 420     | 2    | 11.3 | 23      |      |
|           | 41                               | -60x12     | 90      | 31   | 0.5  | 16      |      |
|           | 47                               | -155x8     | 210     | 4    | 2.0  | 8       | 4489 |
|           | 48                               | -145x8     | 210     | 12   | 1.9  | 23      |      |
|           | 57                               | L 63x5     | 2670    | 4    | 12.9 | 52      |      |
| 58        | -240x12                          | 400        | 2       | 9.0  | 18   |         |      |
| GWJ27-5A1 | 1~12, 14~34, 36~41, 43~47, 49~51 | 同GWJ27-5A1 |         |      |      | 4556    |      |
|           | 13                               | L 63x5     | 2920    | 4    | 14.1 | 56      |      |
|           | 35                               | -290x12    | 450     | 2    | 12.3 | 25      |      |
|           | 42                               | -60x12     | 90      | 35   | 0.5  | 18      |      |
|           | 48                               | -155x8     | 210     | 4    | 2.0  | 8       | 4740 |
|           | 59                               | L 63x5     | 2660    | 4    | 12.8 | 51      |      |
|           | 60                               | -240x12    | 400     | 2    | 9.0  | 18      |      |
| 61        | -145x8                           | 210        | 4       | 1.9  | 8    |         |      |
| GWJ27-6A1 | 1~12, 14~34, 36~40, 42~47, 49~51 | 同GWJ27-6A1 |         |      |      | 5039    |      |
|           | 13                               | L 63x5     | 2910    | 4    | 14.0 | 56      |      |
|           | 35                               | -290x12    | 460     | 2    | 12.6 | 25      |      |
|           | 41                               | -60x12     | 90      | 35   | 0.5  | 18      |      |
|           | 48                               | -155x8     | 210     | 4    | 2.0  | 8       | 5224 |
|           | 59                               | L 63x5     | 2650    | 4    | 12.8 | 51      |      |
|           | 60                               | -250x12    | 400     | 2    | 9.4  | 19      |      |
| 61        | -145x8                           | 210        | 4       | 1.9  | 8    |         |      |
| GWJ27-7A1 | 1~12, 14~34, 36~40, 42~47, 50    | 同GWJ27-7A1 |         |      |      | 5428    |      |
|           | 13                               | L 63x5     | 2910    | 4    | 14.0 | 56      |      |
|           | 35                               | -290x14    | 470     | 2    | 15.0 | 30      |      |
|           | 41                               | -60x14     | 90      | 35   | 0.6  | 21      |      |
|           | 48                               | -155x8     | 210     | 4    | 2.0  | 8       | 5639 |
|           | 49                               | -140x8     | 210     | 12   | 1.9  | 23      |      |
|           | 58                               | L 63x5     | 2650    | 4    | 12.8 | 51      |      |
| 59        | -250x14                          | 400        | 2       | 11.0 | 22   |         |      |

GWJ27-XA1~XC1 (局部) 详图2

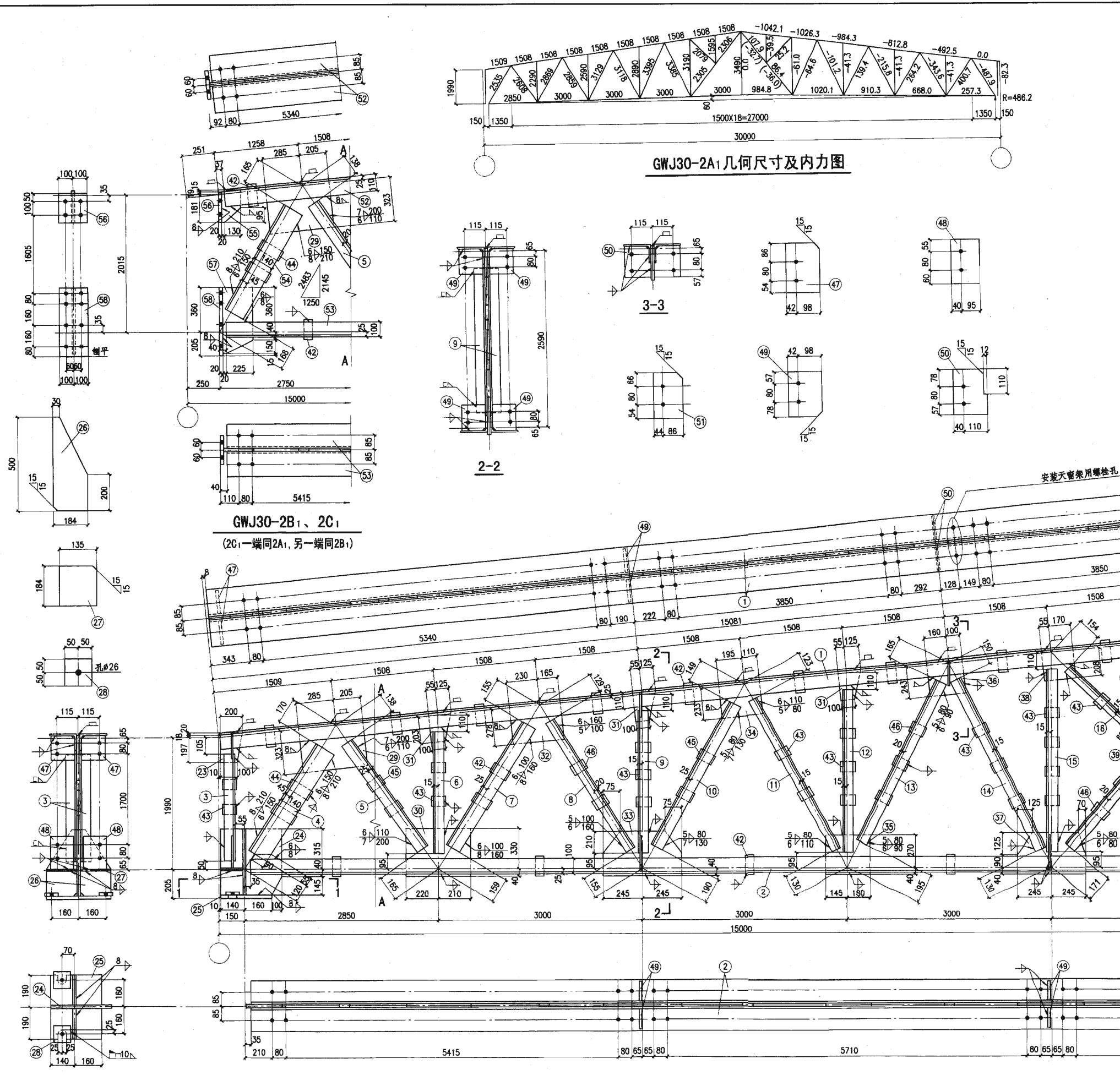
图集号 05G511



| 材 料 表                      |                         |       |            |    |       |        |
|----------------------------|-------------------------|-------|------------|----|-------|--------|
| 构件编号                       | 零件号                     | 断面    | 长度<br>(mm) | 数量 |       | 重量(kg) |
|                            |                         |       |            | 正  | 反     |        |
| GWJ30-1A <sub>1</sub>      |                         |       |            |    |       |        |
| 1                          | L160X100X10             | 15070 | 2          | 2  | 299.5 | 1198   |
| 2                          | L140X90X10              | 14810 | 2          | 2  | 258.8 | 1035   |
| 3                          | L63X5                   | 1840  | 4          |    | 8.9   | 36     |
| 4                          | L125X80X8               | 2270  | 2          | 2  | 28.5  | 114    |
| 5                          | L80X6                   | 2330  | 4          |    | 17.2  | 69     |
| 6                          | L50X5                   | 2100  | 4          |    | 7.9   | 32     |
| 7                          | L90X6                   | 2580  | 4          |    | 21.5  | 86     |
| 8                          | L50X5                   | 2615  | 4          |    | 9.9   | 40     |
| 9                          | L63X5                   | 2400  | 4          |    | 11.6  | 46     |
| 10                         | L80X5                   | 2815  | 4          |    | 17.5  | 70     |
| 11                         | L50X5                   | 2880  | 4          |    | 10.9  | 44     |
| 12                         | L63X5                   | 2700  | 4          |    | 13.0  | 52     |
| 13                         | L63X5                   | 3060  | 4          |    | 14.8  | 59     |
| 14                         | L63X5                   | 3110  | 4          |    | 15.0  | 60     |
| 15                         | L63X5                   | 3000  | 4          |    | 14.5  | 58     |
| 16                         | L50X5                   | 1895  | 4          |    | 7.1   | 28     |
| 17                         | L50X5                   | 1390  | 4          |    | 5.2   | 21     |
| 18                         | L70X5                   | 4250  | 2          |    | 22.9  | 46     |
| 19                         | L70X5                   | 4250  | 1          | 1  | 22.9  | 46     |
| 20                         | L63X5                   | 3300  | 2          |    | 15.9  | 32     |
| 21                         | L160X100X10             | 740   | 2          |    | 14.7  | 29     |
| 22                         | L140X90X10              | 620   | 2          |    | 10.8  | 22     |
| 23                         | -200X10                 | 230   | 2          |    | 3.6   | 7      |
| 24                         | -380X12                 | 470   | 2          |    | 16.8  | 34     |
| 25                         | -300X20                 | 380   | 2          |    | 17.9  | 36     |
| 26                         | -184X10                 | 470   | 4          |    | 6.8   | 27     |
| 27                         | -135X10                 | 184   | 4          |    | 1.9   | 8      |
| 28                         | -100X20                 | 100   | 4          |    | 1.6   | 6      |
| 29                         | -300X10                 | 420   | 2          |    | 9.9   | 20     |
| 30                         | -325X10                 | 400   | 2          |    | 10.2  | 20     |
| 31                         | -180X10                 | 215   | 8          |    | 3.0   | 24     |
| 32                         | -255X10                 | 335   | 2          |    | 6.7   | 13     |
| GWJ30-1B <sub>1</sub>      |                         |       |            |    |       |        |
| 5-22, 29-42, 44, 45, 48-52 | 同 GWJ30-1A <sub>1</sub> |       |            |    |       | 1098   |
| 43                         | -60X10                  | 85    | 50         |    | 0.4   | 20     |
| 53                         | L160X100X10             | 14790 | 2          | 2  | 293.9 | 1176   |
| 54                         | L140X90X10              | 14705 | 2          | 2  | 257.0 | 1028   |
| 55                         | L125X80X8               | 2185  | 2          | 2  | 27.4  | 110    |
| 56                         | -150X10                 | 215   | 2          |    | 2.5   | 5      |
| 57                         | -190X20                 | 200   | 2          |    | 6.0   | 12     |
| 58                         | -225X12                 | 505   | 2          |    | 10.7  | 21     |
| 59                         | -200X20                 | 520   | 2          |    | 16.3  | 33     |
| GWJ30-1C <sub>1</sub>      |                         |       |            |    |       |        |
| 1-4, 23-28, 46, 47         | 同 GWJ30-1A <sub>1</sub> |       |            |    |       | 1258   |
| 5-22, 29-42, 44, 45, 48-52 | 同 GWJ30-1A <sub>1</sub> |       |            |    |       | 1098   |
| 43                         | -60X10                  | 85    | 52         |    | 0.4   | 21     |
| 53-59                      | 同 GWJ30-1B <sub>1</sub> |       |            |    |       | 1193   |



- 注:
1. 本图应与页27配合使用。
  2. 未注明的角焊缝脚尺寸为5mm,其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20,孔径为Φ21.5。

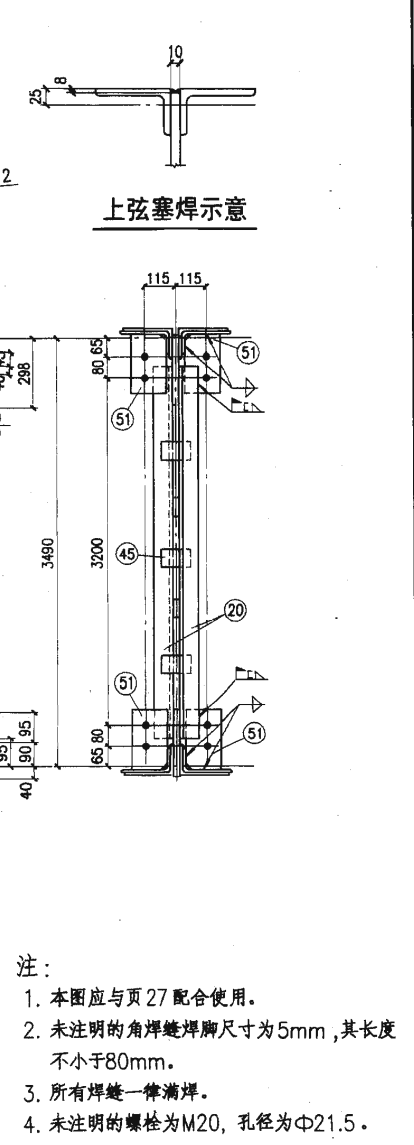


GWJ30-2A1 几何尺寸及内力图

| 材 料 表 |             |       |         |    |       |         |
|-------|-------------|-------|---------|----|-------|---------|
| 构件编号  | 零件号         | 断面    | 长度 (mm) | 数量 |       | 重量 (kg) |
|       |             |       |         | 正  | 反     |         |
| 1     | L180X110X12 | 15070 | 2       | 2  | 388.8 | 1595    |
| 2     | L160X100X12 | 14810 | 2       | 2  | 348.4 | 1398    |
| 3     | L63X5       | 1835  | 4       |    | 8.8   | 35      |
| 4     | L140X90X8   | 2245  | 2       | 2  | 31.8  | 127     |
| 5     | L90X6       | 2305  | 4       |    | 19.2  | 77      |
| 6     | L50X5       | 2085  | 4       |    | 7.9   | 32      |
| 7     | L100X7      | 2555  | 4       |    | 27.7  | 111     |
| 8     | L75X5       | 2575  | 4       |    | 15.0  | 60      |
| 9     | L63X5       | 2385  | 4       |    | 11.5  | 46      |
| 10    | L90X6       | 2790  | 4       |    | 23.3  | 93      |
| 11    | L50X5       | 2865  | 4       |    | 10.8  | 43      |
| 12    | L63X5       | 2685  | 4       |    | 12.9  | 52      |
| 13    | L75X5       | 3035  | 4       |    | 17.7  | 71      |
| 14    | L63X5       | 3105  | 4       |    | 15.0  | 60      |
| 15    | L63X5       | 2985  | 4       |    | 14.4  | 58      |
| 16    | L50X5       | 1880  | 4       |    | 7.1   | 28      |
| 17    | L50X5       | 1380  | 4       |    | 5.2   | 21      |
| 18    | L70X5       | 4240  | 2       |    | 22.9  | 46      |
| 19    | L70X5       | 4240  | 1       | 1  | 22.9  | 46      |
| 20    | L63X5       | 3280  | 2       |    | 15.8  | 32      |
| 21    | L180X110X12 | 740   | 2       |    | 19.6  | 39      |
| 22    | L160X100X12 | 680   | 2       |    | 16.0  | 32      |
| 23    | -200X10     | 235   | 2       |    | 3.7   | 7       |
| 24    | -400X12     | 500   | 2       |    | 18.8  | 38      |
| 25    | -300X20     | 380   | 2       |    | 17.9  | 36      |
| 26    | -184X10     | 500   | 4       |    | 7.2   | 29      |
| 27    | -135X10     | 184   | 4       |    | 1.9   | 8       |
| 28    | -100X20     | 100   | 4       |    | 1.6   | 6       |
| 29    | -340X10     | 490   | 2       |    | 13.1  | 26      |
| 30    | -370X10     | 430   | 2       |    | 12.5  | 25      |
| 31    | -180X10     | 220   | 8       |    | 3.1   | 25      |
| 32    | -295X10     | 395   | 2       |    | 9.1   | 18      |

| 构件编号 | 零件号     | 数量  | 重量 (kg) |
|------|---------|-----|---------|
| 33   | -345X10 | 490 | 2       |
| 34   | -250X10 | 305 | 2       |
| 35   | -310X10 | 325 | 2       |
| 36   | -260X10 | 260 | 2       |
| 37   | -255X10 | 490 | 2       |
| 38   | -225X10 | 225 | 2       |
| 39   | -205X10 | 275 | 2       |
| 40   | -315X10 | 540 | 1       |
| 41   | -225X10 | 400 | 1       |
| 42   | -60X10  | 130 | 34      |
| 43   | -60X10  | 85  | 144     |
| 44   | -60X10  | 160 | 4       |
| 45   | -60X10  | 110 | 13      |
| 46   | -60X10  | 95  | 18      |
| 47   | -140X8  | 220 | 4       |
| 48   | -135X8  | 195 | 4       |
| 49   | -140X8  | 215 | 12      |
| 50   | -150X8  | 215 | 4       |
| 51   | -130X8  | 200 | 4       |

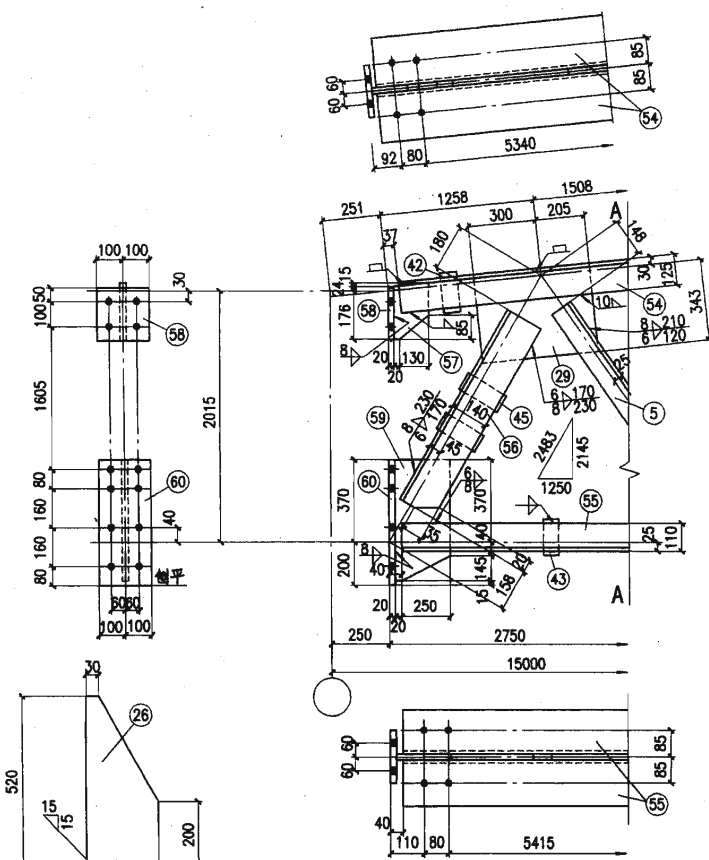
| 构件编号                   | 零件号         | 数量    | 重量 (kg) |
|------------------------|-------------|-------|---------|
| 5-22-29-42-44-46-49-51 | 同 GWJ30-2A1 | 数量减半  | 1647    |
| 43                     | -60X10      | 85    | 40      |
| 52                     | L180X110X12 | 14790 | 2       |
| 53                     | L160X100X12 | 14705 | 2       |
| 54                     | L140X90X8   | 2150  | 2       |
| 55                     | -150X10     | 215   | 2       |
| 56                     | -190X20     | 200   | 2       |
| 57                     | -245X12     | 550   | 2       |
| 58                     | -200X20     | 565   | 2       |



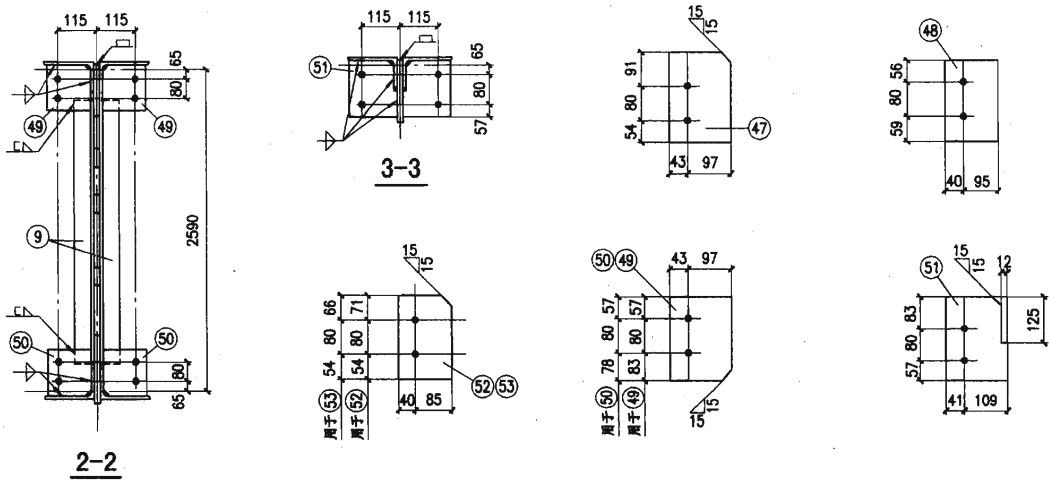
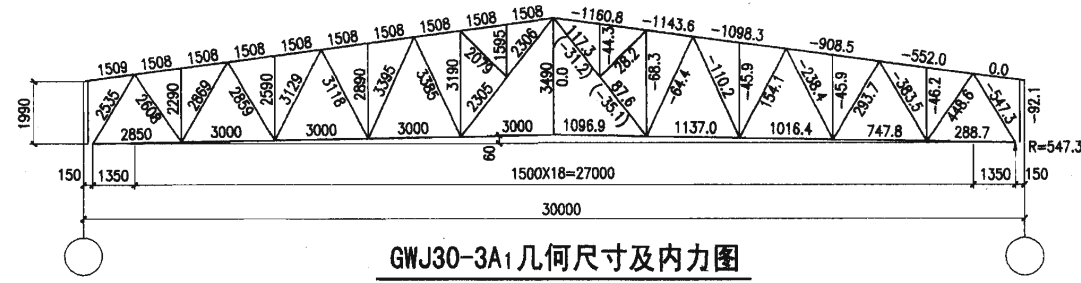
- 注:
1. 本图应与页 27 配合使用。
  2. 未注明的角焊缝焊脚尺寸为 5mm, 其长度不小于 80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为 M20, 孔径为中 21.5。

GWJ30-2A1

|                      |     |     |        |
|----------------------|-----|-----|--------|
| GWJ30-2A1、2B1、2C1 详图 |     | 图集号 | 05G511 |
| 审核                   | 冯东  | 校核  | 李志通    |
| 设计                   | 张丽娟 | 张丽娟 | 页      |
|                      |     |     | 59     |



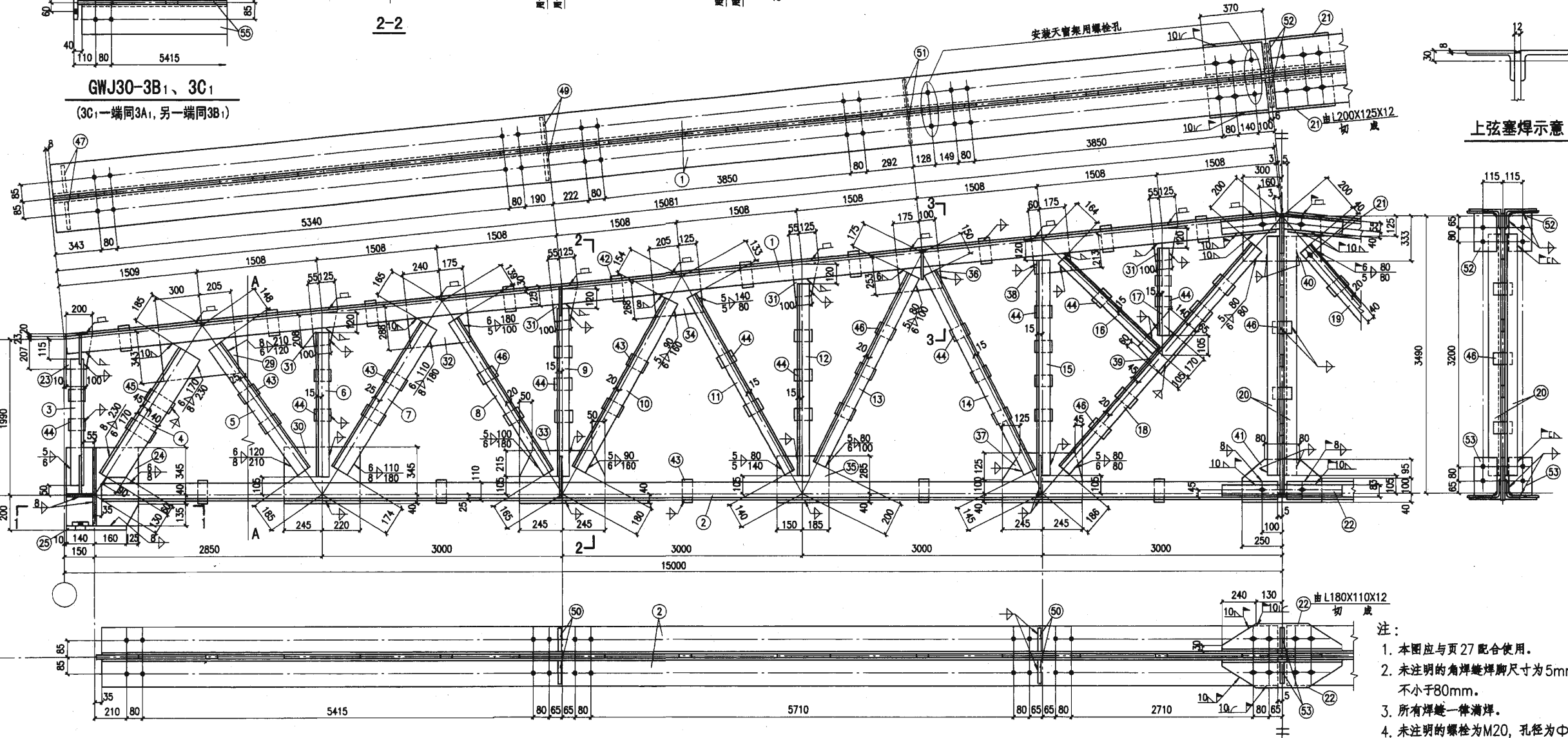
GWJ30-3B<sub>1</sub>、3C<sub>1</sub>  
(3C<sub>1</sub>一端同3A<sub>1</sub>,另一端同3B<sub>1</sub>)



GWJ30-3A<sub>1</sub>

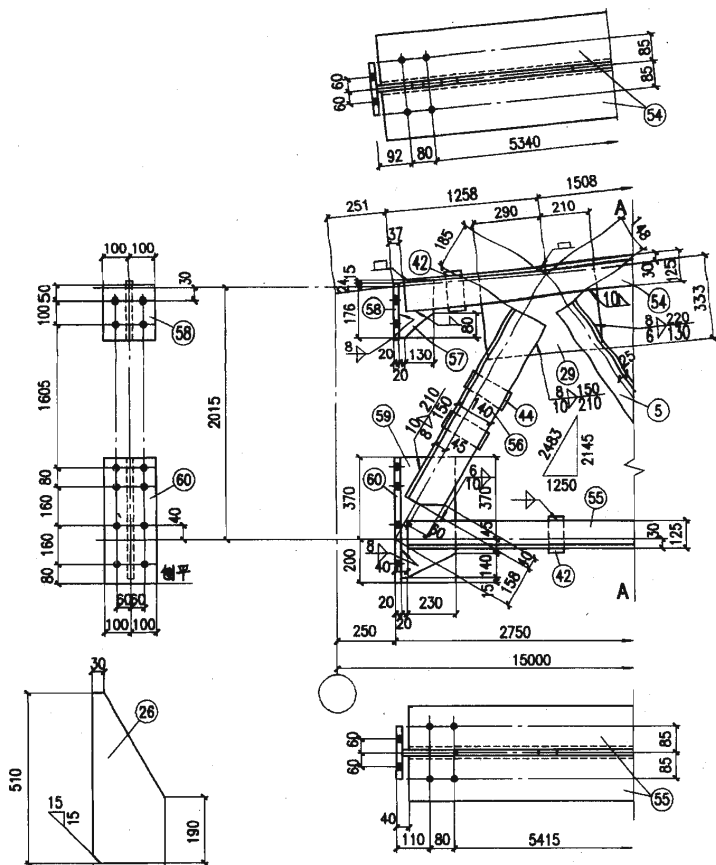
| 材 料 表 |             |         |    |   |         |
|-------|-------------|---------|----|---|---------|
| 构件编号  | 断面          | 长度 (mm) | 数量 |   | 重量 (kg) |
|       |             |         | 正  | 反 |         |
| 1     | L200X125X12 | 15070   | 2  | 2 | 448.5   |
| 2     | L180X110X12 | 14810   | 2  | 2 | 391.9   |
| 3     | L63X5       | 1825    | 4  | 4 | 8.8     |
| 4     | L140X90X10  | 2220    | 2  | 2 | 38.8    |
| 5     | L100X7      | 2275    | 4  | 4 | 24.6    |
| 6     | L50X5       | 2065    | 4  | 4 | 7.8     |
| 7     | L100X7      | 2530    | 4  | 4 | 27.4    |
| 8     | L80X5       | 2555    | 4  | 4 | 15.9    |
| 9     | L63X5       | 2365    | 4  | 4 | 11.4    |
| 10    | L90X6       | 2795    | 4  | 4 | 23.3    |
| 11    | L50X5       | 2845    | 4  | 4 | 10.7    |
| 12    | L63X5       | 2665    | 4  | 4 | 12.9    |
| 13    | L80X5       | 3020    | 4  | 4 | 18.8    |
| 14    | L63X5       | 3090    | 4  | 4 | 14.9    |
| 15    | L63X5       | 2965    | 4  | 4 | 14.3    |
| 16    | L50X5       | 1870    | 4  | 4 | 7.0     |
| 17    | L50X5       | 1370    | 4  | 4 | 5.2     |
| 18    | L70X5       | 4225    | 2  | 2 | 22.8    |
| 19    | L70X5       | 4225    | 1  | 1 | 22.8    |
| 20    | L63X5       | 3260    | 2  | 2 | 15.7    |
| 21    | L200X125X12 | 740     | 2  | 2 | 22.0    |
| 22    | L180X110X12 | 740     | 2  | 2 | 19.6    |
| 23    | -200X12     | 250     | 2  | 2 | 4.7     |
| 24    | -425X14     | 520     | 2  | 2 | 24.3    |
| 25    | -300X20     | 380     | 2  | 2 | 17.9    |
| 26    | -183X12     | 520     | 4  | 4 | 9.0     |
| 27    | -134X12     | 183     | 4  | 4 | 2.3     |
| 28    | -100X20     | 100     | 4  | 4 | 1.6     |
| 29    | -365X12     | 505     | 2  | 2 | 17.4    |
| 30    | -385X12     | 465     | 2  | 2 | 16.9    |
| 31    | -180X12     | 230     | 8  | 8 | 3.9     |
| 32    | -310X12     | 415     | 2  | 2 | 12.1    |

|  |             |       |    |    |       |      |
|--|-------------|-------|----|----|-------|------|
| 33   | -360X12     | 490   | 2  | 2  | 16.6  | 33   |
| 34   | -290X12     | 330   | 2  | 2  | 9.0   | 18   |
| 35   | -325X12     | 335   | 2  | 2  | 10.3  | 21   |
| 36   | -275X12     | 275   | 2  | 2  | 7.1   | 14   |
| 37   | -265X12     | 490   | 2  | 2  | 12.2  | 24   |
| 38   | -235X12     | 235   | 2  | 2  | 5.2   | 10   |
| 39   | -205X12     | 275   | 2  | 2  | 5.3   | 11   |
| 40   | -355X12     | 600   | 1  | 1  | 20.1  | 20   |
| 41   | -235X12     | 500   | 1  | 1  | 11.1  | 11   |
| 42   | -60X12      | 145   | 20 | 20 | 0.8   | 16   |
| 43   | -60X12      | 130   | 22 | 22 | 0.7   | 15   |
| 44   | -60X12      | 85    | 44 | 44 | 0.5   | 22   |
| 45   | -60X12      | 160   | 4  | 4  | 0.9   | 4    |
| 46   | -60X12      | 100   | 23 | 23 | 0.6   | 14   |
| 47   | -140X8      | 225   | 4  | 4  | 2.0   | 8    |
| 48   | -135X8      | 195   | 4  | 4  | 1.7   | 7    |
| 49   | -140X8      | 220   | 4  | 4  | 1.9   | 8    |
| 50   | -140X8      | 215   | 8  | 8  | 1.9   | 15   |
| 51   | -150X8      | 220   | 4  | 4  | 2.1   | 8    |
| 52   | -125X8      | 205   | 2  | 2  | 1.6   | 3    |
| 53   | -125X8      | 200   | 2  | 2  | 1.6   | 3    |
| 5-22-29-43-45-46-49-53同GWJ30-3A <sub>1</sub> |             |       |    |    |       | 1356 |
| 44   | -60X12      | 85    | 40 | 40 | 0.5   | 20   |
| 54   | L200X125X12 | 14790 | 2  | 2  | 440.2 | 1761 |
| 55   | L180X110X12 | 14705 | 2  | 2  | 389.1 | 1556 |
| 56   | L140X90X10  | 2145  | 2  | 2  | 37.5  | 150  |
| 57   | -150X12     | 215   | 2  | 2  | 3.0   | 6    |
| 58   | -190X20     | 200   | 2  | 2  | 6.0   | 12   |
| 59   | -270X14     | 555   | 2  | 2  | 16.5  | 33   |
| 60   | -200X20     | 570   | 2  | 2  | 17.9  | 36   |
| 1-4-23-28-47-48同GWJ30-3A <sub>1</sub> ; 数量减半 |             |       |    |    |       | 1856 |
| 5-22-29-43-45-46-49-53同GWJ30-3A <sub>1</sub> |             |       |    |    |       | 1356 |
| 44   | -60X12      | 85    | 42 | 42 | 0.5   | 21   |
| 54-60同GWJ30-3B <sub>1</sub> ; 数量减半           |             |       |    |    |       | 1777 |

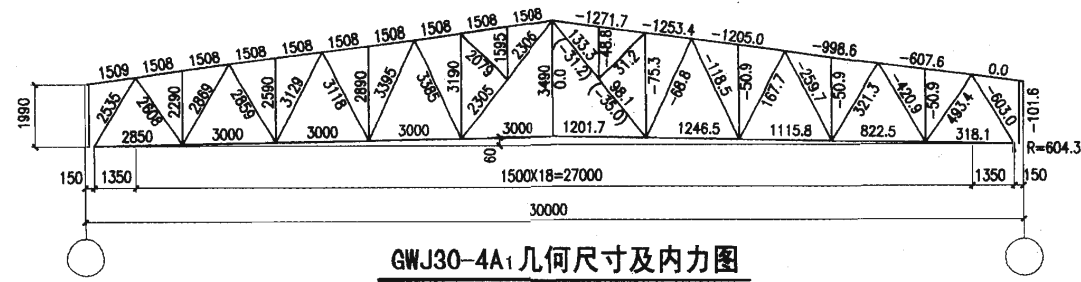


上弦塞焊示意

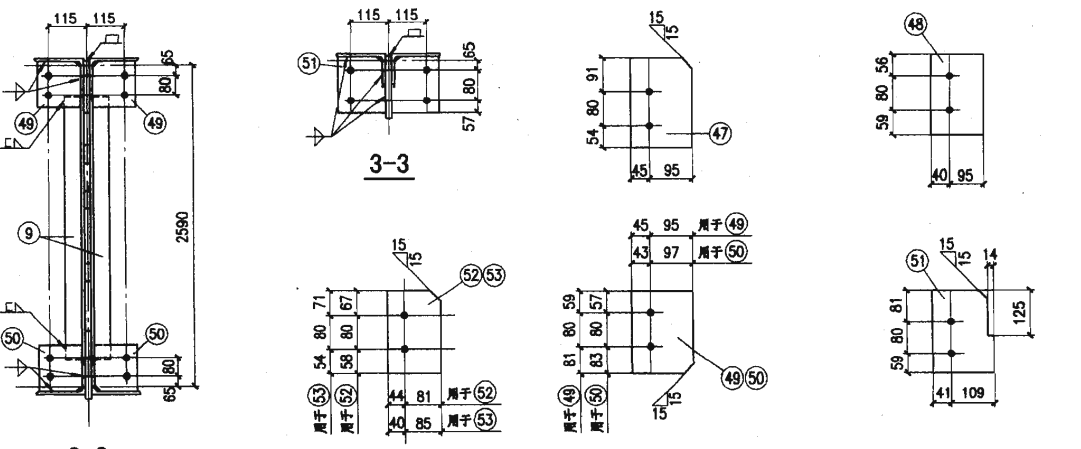
- 注:
1. 本图应与页 27 配合使用。
  2. 未注明的角焊缝焊脚尺寸为 5mm, 其长度不小于 80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为 M20, 孔径为  $\Phi 21.5$ 。



**GWJ30-4B<sub>1</sub>、4C<sub>1</sub>**  
(4C<sub>1</sub>一端同4A<sub>1</sub>,另一端同4B<sub>1</sub>)

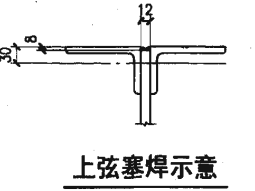
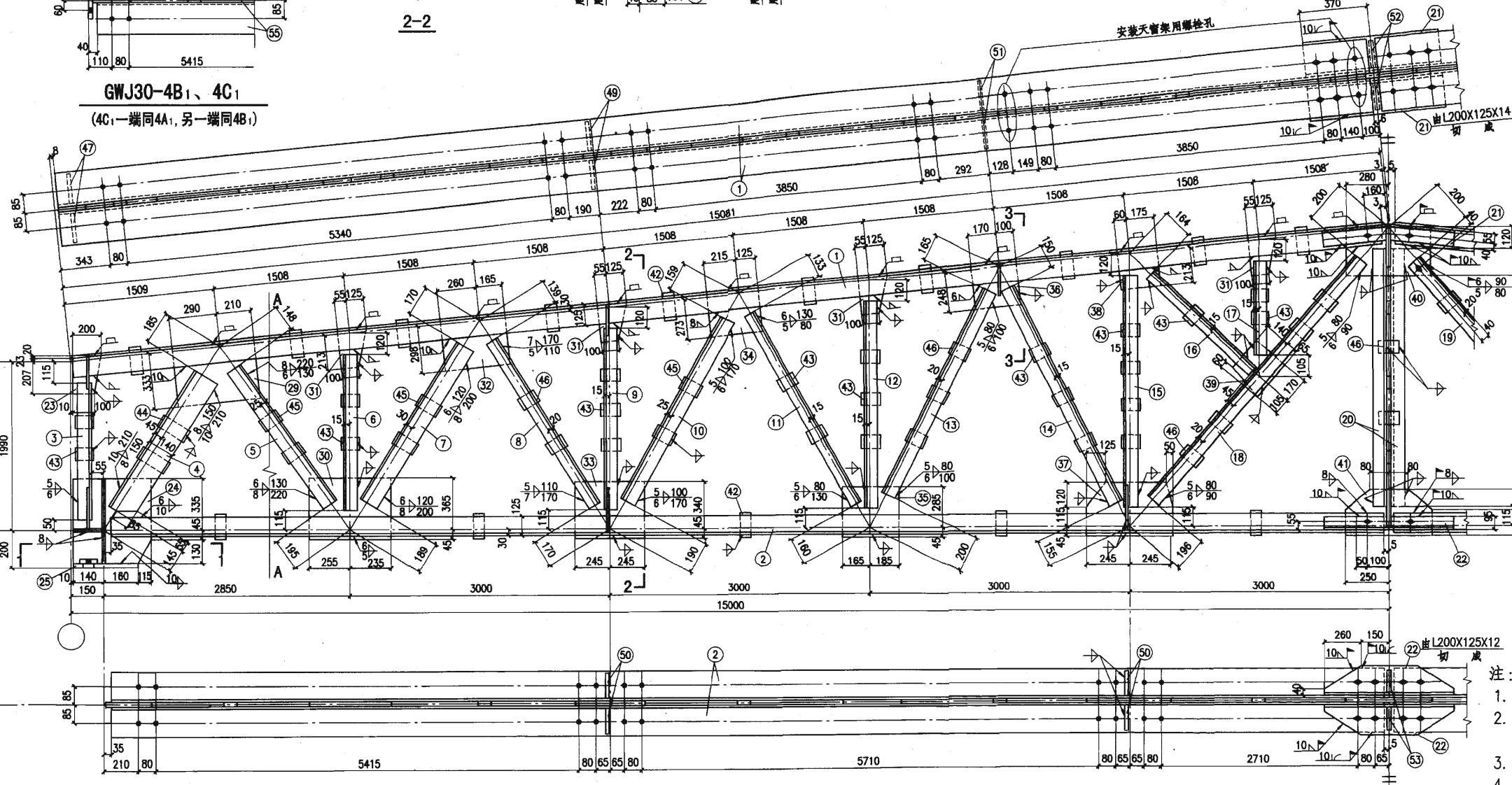


**GWJ30-4A<sub>1</sub>几何尺寸及内力图**



| 材 料 表 |     |             |         |    |      |           |
|-------|-----|-------------|---------|----|------|-----------|
| 构件编号  | 零件号 | 断面          | 长度 (mm) | 数量 |      | 重量(kg)    |
|       |     |             |         | 正  | 反    |           |
|       |     |             |         | 合计 | 5654 |           |
| 1     |     | L200X125X14 | 15070   | 2  | 2    | 5190.2076 |
| 2     |     | L200X125X12 | 14810   | 2  | 2    | 4408.1763 |
| 3     |     | L63X5       | 1825    | 4  | 4    | 8.8 35    |
| 4     |     | L140X90X10  | 2205    | 2  | 2    | 38.5 154  |
| 5     |     | L100X7      | 2285    | 4  | 4    | 24.5 98   |
| 6     |     | L50X5       | 2055    | 4  | 4    | 7.7 31    |
| 7     |     | L110X7      | 2510    | 4  | 4    | 29.9 120  |
| 8     |     | L75X6       | 2550    | 4  | 4    | 17.6 70   |
| 9     |     | L63X5       | 2355    | 4  | 4    | 11.4 46   |
| 10    |     | L100X7      | 2780    | 4  | 4    | 30.1 120  |
| 11    |     | L63X5       | 2825    | 4  | 4    | 13.6 54   |
| 12    |     | L63X5       | 2655    | 4  | 4    | 12.8 51   |
| 13    |     | L80X5       | 3030    | 4  | 4    | 18.8 75   |
| 14    |     | L63X5       | 3080    | 4  | 4    | 14.9 60   |
| 15    |     | L63X5       | 2955    | 4  | 4    | 14.2 57   |
| 16    |     | L50X5       | 1870    | 4  | 4    | 7.0 28    |
| 17    |     | L50X5       | 1370    | 4  | 4    | 5.2 21    |
| 18    |     | L70X5       | 4215    | 2  | 2    | 22.7 45   |
| 19    |     | L70X5       | 4215    | 1  | 1    | 22.7 45   |
| 20    |     | L63X5       | 3255    | 2  | 2    | 15.7 31   |
| 21    |     | L200X125X14 | 740     | 2  | 2    | 25.5 51   |
| 22    |     | L200X125X12 | 820     | 2  | 2    | 24.4 49   |
| 23    |     | -200X12     | 250     | 2  | 2    | 4.7 9     |
| 24    |     | -415X14     | 510     | 2  | 2    | 23.3 47   |
| 25    |     | -300X25     | 380     | 2  | 2    | 22.4 45   |
| 26    |     | -183X12     | 510     | 4  | 4    | 8.8 35    |
| 27    |     | -134X12     | 183     | 4  | 4    | 2.3 9     |
| 28    |     | -100X25     | 100     | 4  | 4    | 2.0 8     |
| 29    |     | -355X12     | 500     | 2  | 2    | 16.7 33   |
| 30    |     | -410X12     | 490     | 2  | 2    | 18.9 38   |
| 31    |     | -180X12     | 235     | 8  | 8    | 4.0 32    |
| 32    |     | -320X12     | 425     | 2  | 2    | 12.8 26   |

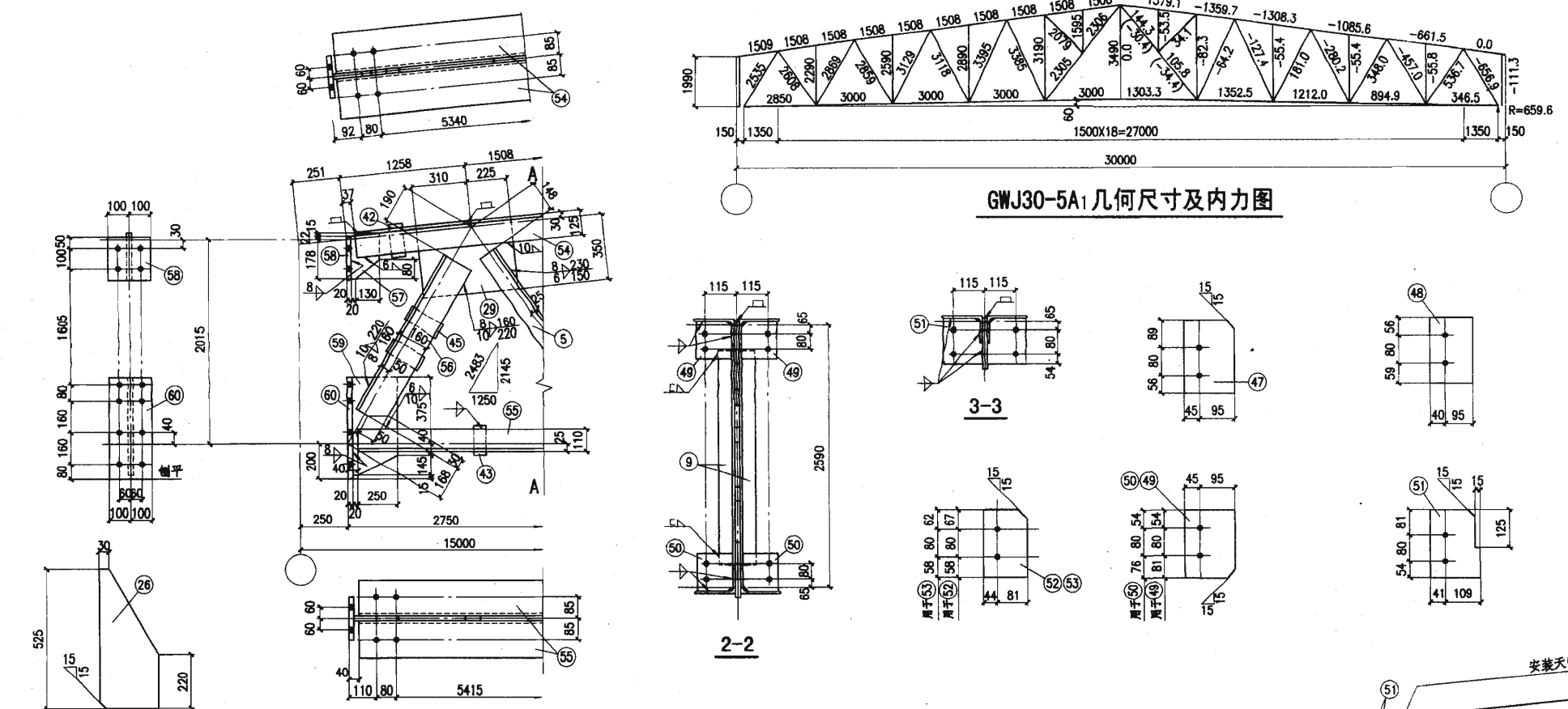
|    |         |     |    |      |    |
|----|---------|-----|----|------|----|
| 33 | -385X12 | 490 | 2  | 17.8 | 36 |
| 34 | -295X12 | 340 | 2  | 9.4  | 19 |
| 35 | -330X12 | 350 | 2  | 10.9 | 22 |
| 36 | -270X12 | 270 | 2  | 6.9  | 14 |
| 37 | -280X12 | 490 | 2  | 12.9 | 26 |
| 38 | -235X12 | 235 | 2  | 5.2  | 10 |
| 39 | -205X12 | 275 | 2  | 5.3  | 11 |
| 40 | -335X12 | 560 | 1  | 17.7 | 18 |
| 41 | -250X12 | 500 | 1  | 11.8 | 12 |
| 42 | -60X12  | 145 | 30 | 0.8  | 24 |
| 43 | -60X12  | 85  | 44 | 0.5  | 22 |
| 44 | -60X12  | 160 | 4  | 0.9  | 4  |
| 45 | -60X12  | 130 | 12 | 0.7  | 8  |
| 46 | -60X12  | 100 | 23 | 0.6  | 14 |
| 47 | -140X8  | 225 | 4  | 2.0  | 8  |
| 48 | -135X8  | 195 | 4  | 1.7  | 7  |
| 49 | -140X8  | 220 | 4  | 1.9  | 8  |
| 50 | -140X8  | 220 | 8  | 1.9  | 15 |
| 51 | -150X8  | 220 | 4  | 2.1  | 8  |
| 52 | -125X8  | 205 | 2  | 1.6  | 3  |
| 53 | -125X8  | 205 | 2  | 1.6  | 3  |



- 注:
1. 本图应与页27配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm,其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20,孔径为Φ21.5。

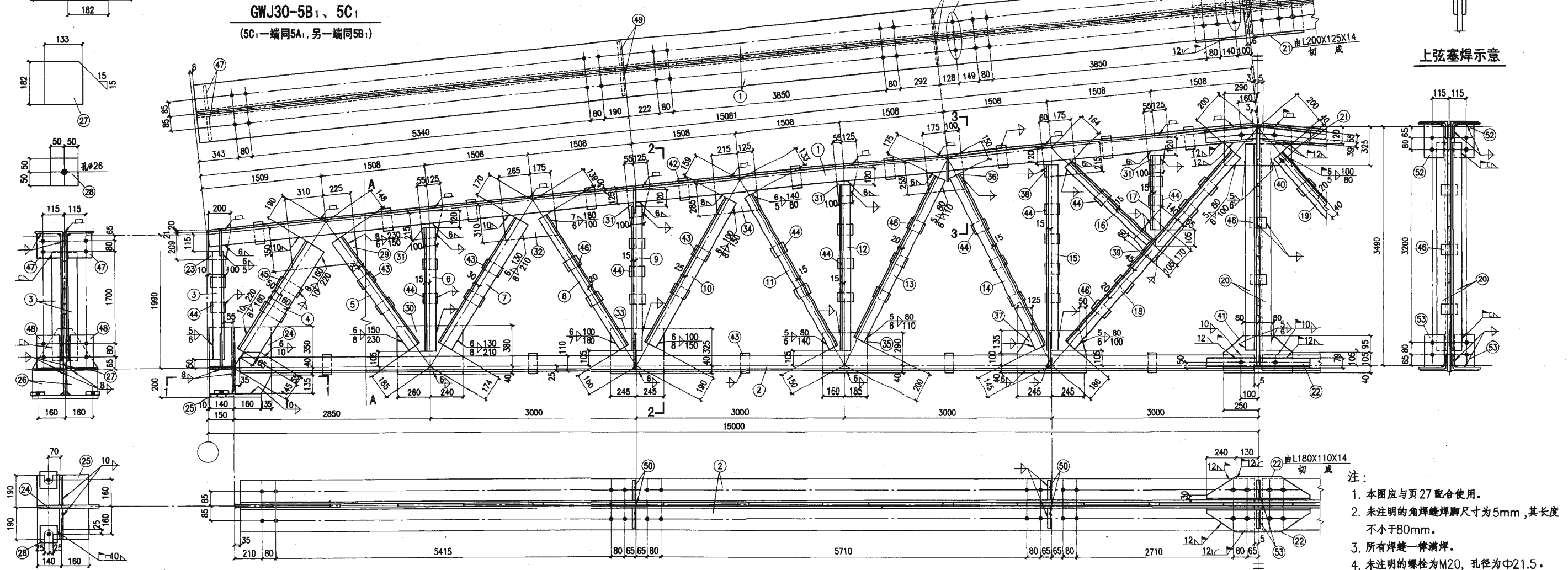
**GWJ30-4A<sub>1</sub>**

**GWJ30-4A<sub>1</sub>、4B<sub>1</sub>、4C<sub>1</sub>详图** 图集号 05G511

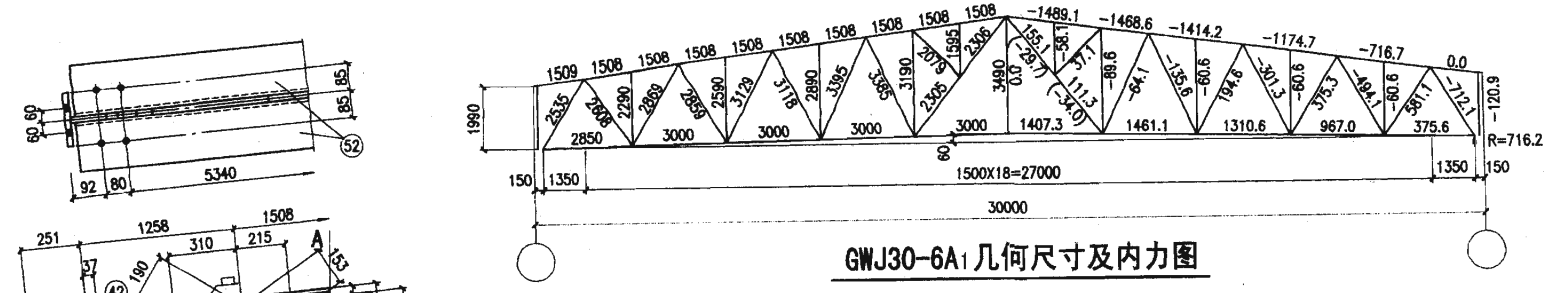


GWJ30-5A1 几何尺寸及内力图

| 材 料 表                                   |     |             |         |    |    |         |      |
|---|-----|-------------|---------|----|----|---------|------|
| 构件编号                                    | 零件号 | 断面          | 长度 (mm) | 数量 |    | 重量 (kg) |      |
|   |     |             |         | 正  | 反  |         |      |
|   |     |             |         | 每个 | 共计 | 合计      |      |
| GWJ30-5A1                               | 1   | L200X125X14 | 15070   | 2  | 2  | 519.0   | 2076 |
|   | 2   | L180X110X14 | 14810   | 2  | 2  | 453.0   | 1812 |
|   | 3   | L63X5       | 1825    | 4  | 4  | 8.8     | 35   |
|   | 4   | L180X100X10 | 2200    | 2  | 2  | 43.7    | 175  |
|   | 5   | L100X7      | 2275    | 4  | 4  | 24.6    | 98   |
|   | 6   | L50X5       | 2065    | 4  | 4  | 7.8     | 31   |
|   | 7   | L110X8      | 2525    | 4  | 4  | 34.2    | 137  |
|   | 8   | L80X6       | 2560    | 4  | 4  | 18.9    | 76   |
|   | 9   | L63X5       | 2365    | 4  | 4  | 11.4    | 46   |
|   | 10  | L100X7      | 2780    | 4  | 4  | 30.1    | 120  |
|   | 11  | L63X5       | 2835    | 4  | 4  | 13.7    | 55   |
|   | 12  | L63X5       | 2665    | 4  | 4  | 12.9    | 52   |
|   | 13  | L80X6       | 3020    | 4  | 4  | 22.3    | 89   |
|   | 14  | L63X5       | 3090    | 4  | 4  | 14.9    | 60   |
|   | 15  | L63X5       | 2965    | 4  | 4  | 14.3    | 57   |
|   | 16  | L50X5       | 1870    | 4  | 4  | 7.0     | 28   |
|   | 17  | L50X5       | 1370    | 4  | 4  | 5.2     | 21   |
|   | 18  | L70X5       | 4225    | 2  | 2  | 22.8    | 46   |
|   | 19  | L70X5       | 4225    | 1  | 1  | 22.8    | 46   |
|   | 20  | L63X5       | 3265    | 2  | 2  | 15.7    | 31   |
|   | 21  | L200X125X14 | 740     | 2  | 2  | 25.5    | 51   |
|   | 22  | L180X110X14 | 740     | 2  | 2  | 22.6    | 45   |
|   | 23  | -200X12     | 250     | 2  | 2  | 4.7     | 9    |
|   | 24  | -435X14     | 525     | 2  | 2  | 25.1    | 50   |
|   | 25  | -300X25     | 380     | 2  | 2  | 22.4    | 45   |
|   | 26  | -182X12     | 525     | 4  | 4  | 9.0     | 36   |
|   | 27  | -133X12     | 182     | 4  | 4  | 2.3     | 9    |
|   | 28  | -100X25     | 100     | 4  | 4  | 2.0     | 8    |
|   | 29  | -370X12     | 535     | 2  | 2  | 18.6    | 37   |
|   | 30  | -420X12     | 500     | 2  | 2  | 19.8    | 40   |
|   | 31  | -180X12     | 235     | 8  | 8  | 4.0     | 32   |
|   | 32  | -330X12     | 440     | 2  | 2  | 13.7    | 27   |
| 5767                                    |     |             |         |    |    |         |      |
| GWJ30-5B1                               |     |             |         |    |    |         |      |
| 5-22-29-43-45-46-49-53 同 GWJ30-5A1 1475 |     |             |         |    |    |         |      |
| 44 -60X12 85 40 0.5 20                  |     |             |         |    |    |         |      |
| 54 L200X125X14 14790 2 2 508.3 2037     |     |             |         |    |    |         |      |
| 55 L180X110X14 14705 2 2 448.9 1800     |     |             |         |    |    |         |      |
| 56 L180X100X10 2125 2 2 42.2 169        |     |             |         |    |    |         |      |
| 57 -150X12 215 2 3.0 6                  |     |             |         |    |    |         |      |
| 58 -190X20 200 2 6.0 12                 |     |             |         |    |    |         |      |
| 59 -270X14 560 2 16.6 33                |     |             |         |    |    |         |      |
| 60 -200X20 575 2 18.1 36                |     |             |         |    |    |         |      |
| 5588                                    |     |             |         |    |    |         |      |
| GWJ30-5C1                               |     |             |         |    |    |         |      |
| 1-4-23-28-47-48 同 GWJ30-5A1 数量减半 2135   |     |             |         |    |    |         |      |
| 5-22-29-43-45-46-49-53 同 GWJ30-5A1 1475 |     |             |         |    |    |         |      |
| 44 -60X12 85 42 0.5 21                  |     |             |         |    |    |         |      |
| 54-60 同 GWJ30-5B1 数量减半 2047             |     |             |         |    |    |         |      |
| 5678                                    |     |             |         |    |    |         |      |

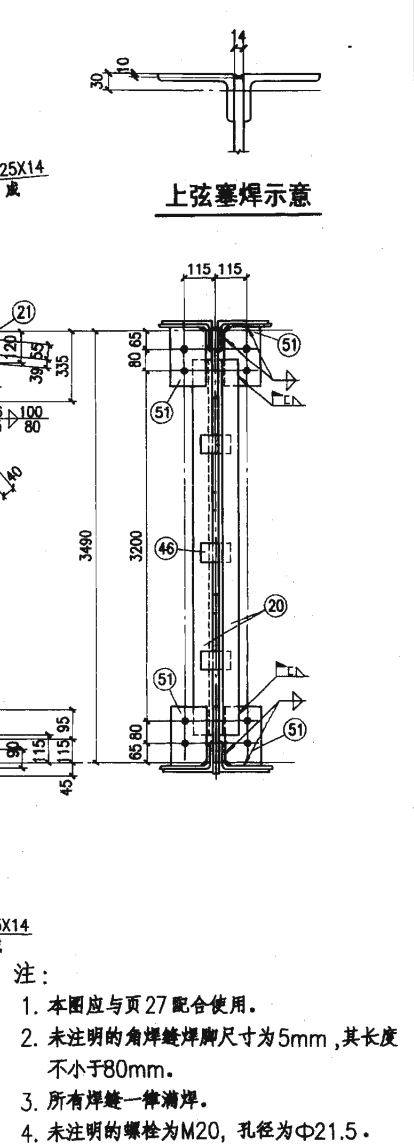
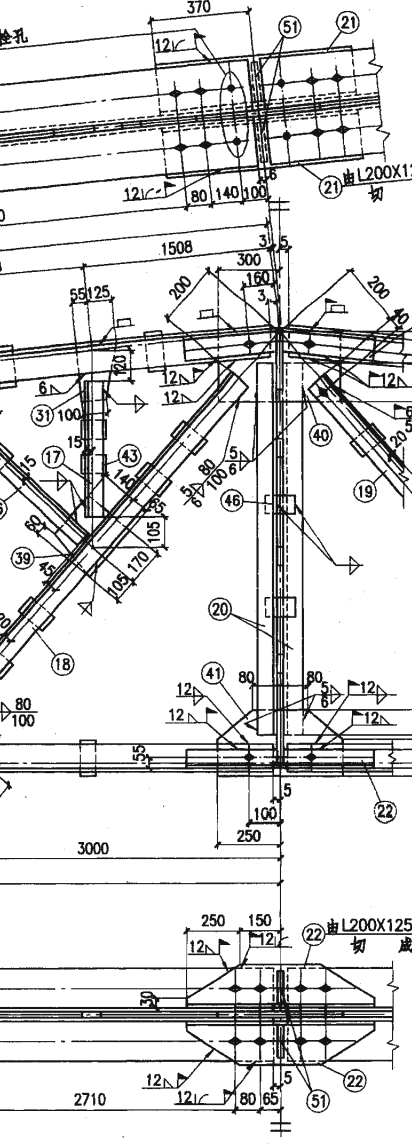
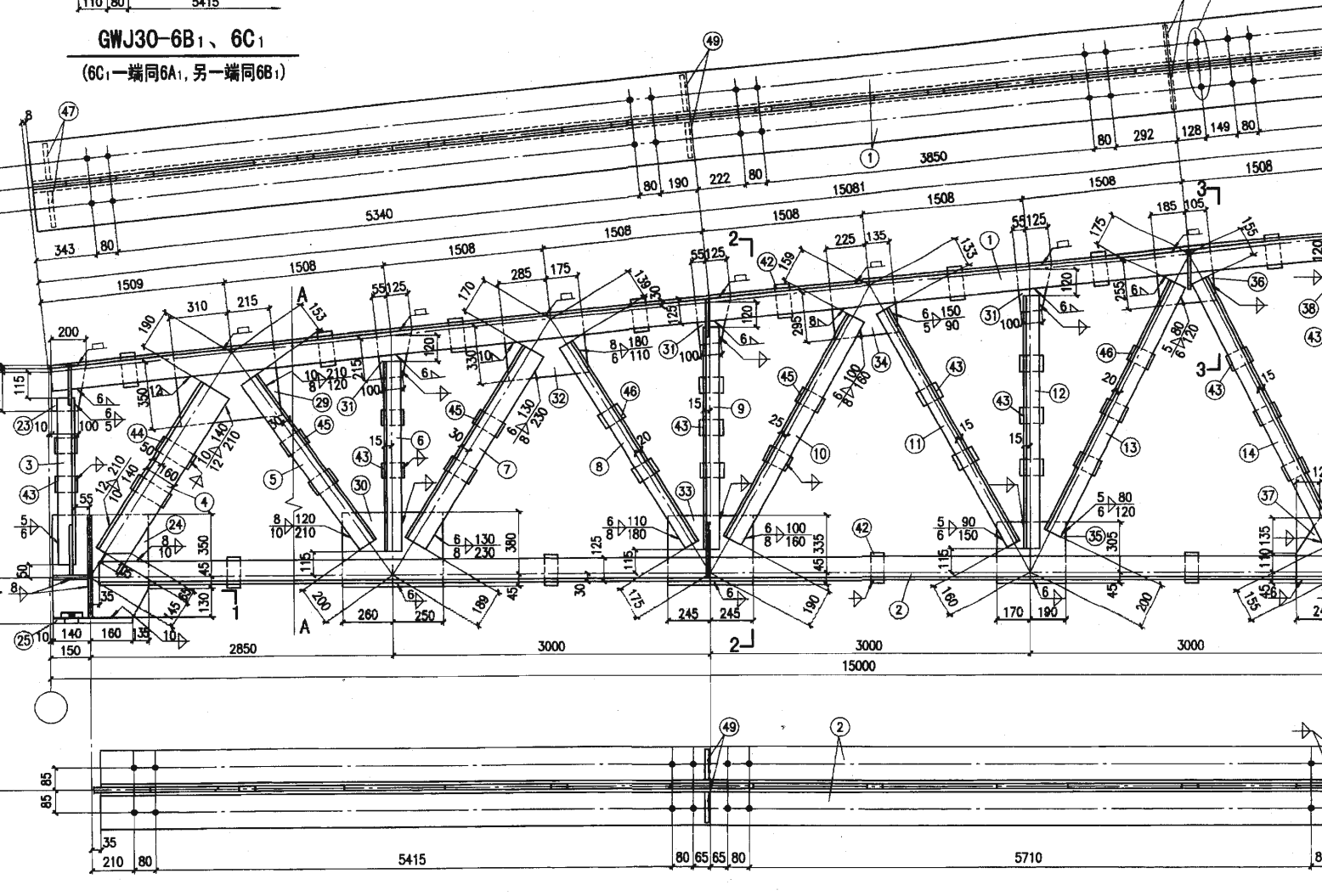
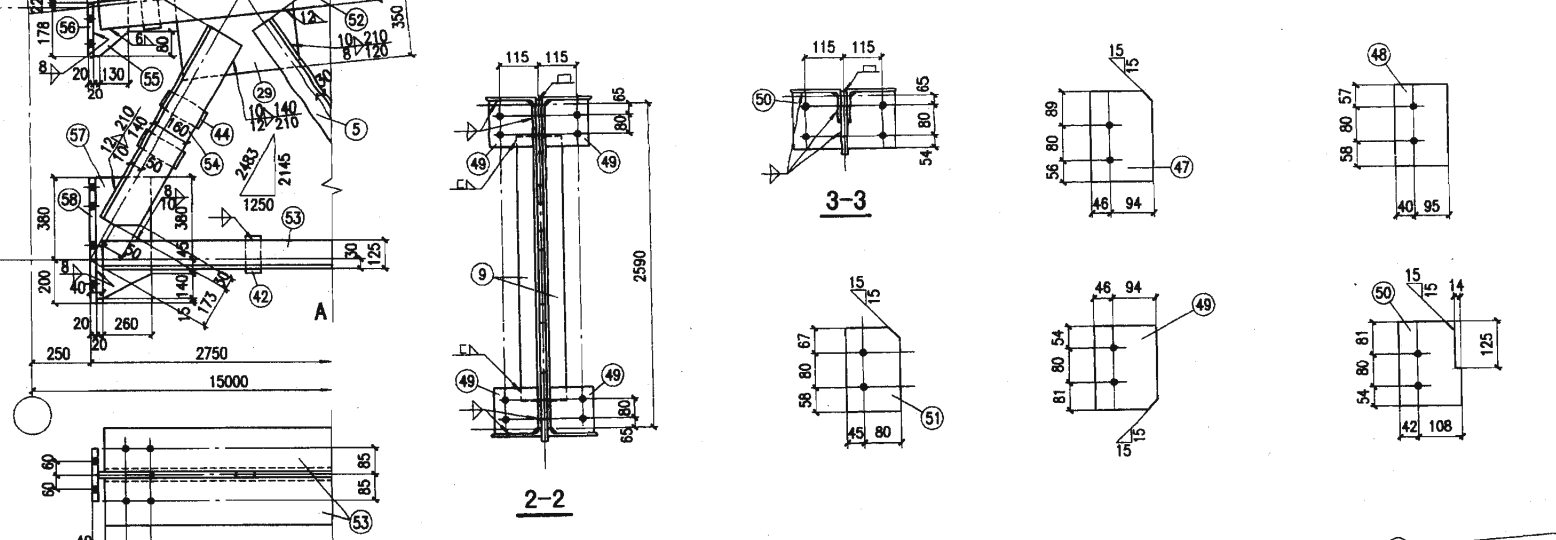


注：  
 1. 本图应与页27配合使用。  
 2. 未注明的角焊缝焊脚尺寸为5mm，其长度不小于80mm。  
 3. 所有焊缝一律满焊。  
 4. 未注明的螺栓为M20，孔径为中21.5。



| 材料表  |             | 数量      |   | 重量(kg) |       |      |    |
|------|-------------|---------|---|--------|-------|------|----|
| 零件编号 | 断面          | 长度 (mm) | 正 | 反      | 每个    | 共计   | 合计 |
| 1    | L200X125X14 | 15070   | 2 | 2      | 519.0 | 2078 |    |
| 2    | L200X125X14 | 14810   | 2 | 2      | 510.0 | 2040 |    |
| 3    | L63X5       | 1825    | 4 | 4      | 8.8   | 35   |    |
| 4    | L160X100X10 | 2200    | 2 | 2      | 43.7  | 175  |    |
| 5    | L110X8      | 2255    | 4 | 4      | 30.5  | 122  |    |
| 6    | L50X5       | 2055    | 4 | 4      | 7.7   | 31   |    |
| 7    | L110X8      | 2510    | 4 | 4      | 34.0  | 136  |    |
| 8    | L80X7       | 2545    | 4 | 4      | 21.7  | 87   |    |
| 9    | L63X5       | 2355    | 4 | 4      | 11.4  | 46   |    |
| 10   | L100X7      | 2780    | 4 | 4      | 30.1  | 120  |    |
| 11   | L63X5       | 2825    | 4 | 4      | 13.6  | 54   |    |
| 12   | L63X5       | 2655    | 4 | 4      | 12.8  | 51   |    |
| 13   | L80X7       | 3020    | 4 | 4      | 25.7  | 103  |    |
| 14   | L63X5       | 3075    | 4 | 4      | 14.8  | 59   |    |
| 15   | L63X5       | 2955    | 4 | 4      | 14.2  | 57   |    |
| 16   | L50X5       | 1870    | 4 | 4      | 7.0   | 28   |    |
| 17   | L50X5       | 1370    | 4 | 4      | 5.2   | 21   |    |
| 18   | L70X5       | 4215    | 2 | 2      | 22.9  | 46   |    |
| 19   | L70X5       | 4215    | 1 | 1      | 22.9  | 46   |    |
| 20   | L63X5       | 3255    | 2 | 2      | 15.7  | 31   |    |
| 21   | L200X125X14 | 740     | 2 | 2      | 25.5  | 51   |    |
| 22   | L200X125X14 | 800     | 2 | 2      | 27.5  | 55   |    |
| 23   | -200X14     | 250     | 2 | 2      | 5.5   | 11   |    |
| 24   | -435X16     | 525     | 2 | 2      | 28.7  | 57   |    |
| 25   | -300X25     | 380     | 2 | 2      | 22.4  | 45   |    |
| 26   | -182X14     | 525     | 4 | 4      | 10.5  | 42   |    |
| 27   | -133X14     | 182     | 4 | 4      | 2.7   | 11   |    |
| 28   | -100X25     | 100     | 4 | 4      | 2.0   | 8    |    |
| 29   | -370X14     | 525     | 2 | 2      | 21.3  | 43   |    |
| 30   | -425X14     | 510     | 2 | 2      | 23.8  | 48   |    |
| 31   | -180X14     | 235     | 8 | 8      | 4.6   | 37   |    |
| 32   | -350X14     | 460     | 2 | 2      | 17.7  | 35   |    |

| 零件编号 | 断面      | 长度 (mm) | 数量 | 重量(kg) |    |
|------|---------|---------|----|--------|----|
| 33   | -380X14 | 490     | 2  | 20.5   | 41 |
| 34   | -315X14 | 360     | 2  | 12.5   | 25 |
| 35   | -350X14 | 360     | 2  | 13.8   | 28 |
| 36   | -275X14 | 290     | 2  | 8.8    | 18 |
| 37   | -290X14 | 490     | 2  | 15.6   | 31 |
| 38   | -235X14 | 235     | 2  | 6.1    | 12 |
| 39   | -205X14 | 275     | 2  | 6.2    | 12 |
| 40   | -355X14 | 600     | 1  | 23.4   | 23 |
| 41   | -255X14 | 500     | 1  | 14.0   | 14 |
| 42   | -60X14  | 145     | 30 | 1.0    | 30 |
| 43   | -60X14  | 85      | 44 | 0.6    | 26 |
| 44   | -60X14  | 180     | 4  | 1.2    | 5  |
| 45   | -60X14  | 130     | 12 | 0.9    | 11 |
| 46   | -60X14  | 100     | 23 | 0.7    | 16 |
| 47   | -140X8  | 225     | 4  | 2.0    | 8  |
| 48   | -135X8  | 195     | 4  | 1.7    | 7  |
| 49   | -140X8  | 215     | 12 | 1.9    | 23 |
| 50   | -150X8  | 215     | 4  | 2.0    | 8  |
| 51   | -125X8  | 205     | 4  | 1.6    | 6  |



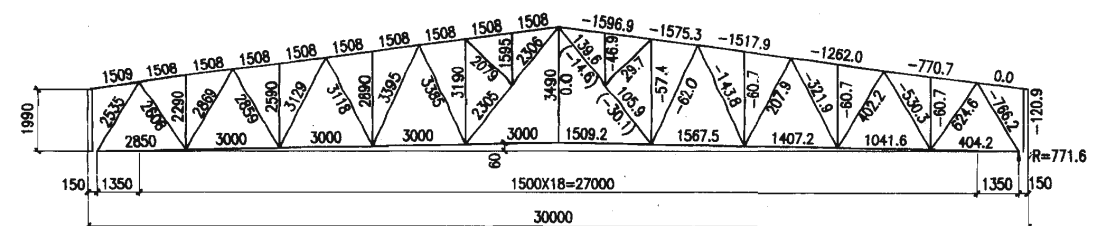
GWJ30-6A1

GWJ30-6A1、6B1、6C1 详图

图集号 05G511  
页 63

注:  
1. 本图应与页 27 配合使用。  
2. 未注明的角焊缝焊脚尺寸为 5mm, 其长度不小于 80mm。  
3. 所有焊缝一律满焊。  
4. 未注明的螺栓为 M20, 孔径为中 21.5。

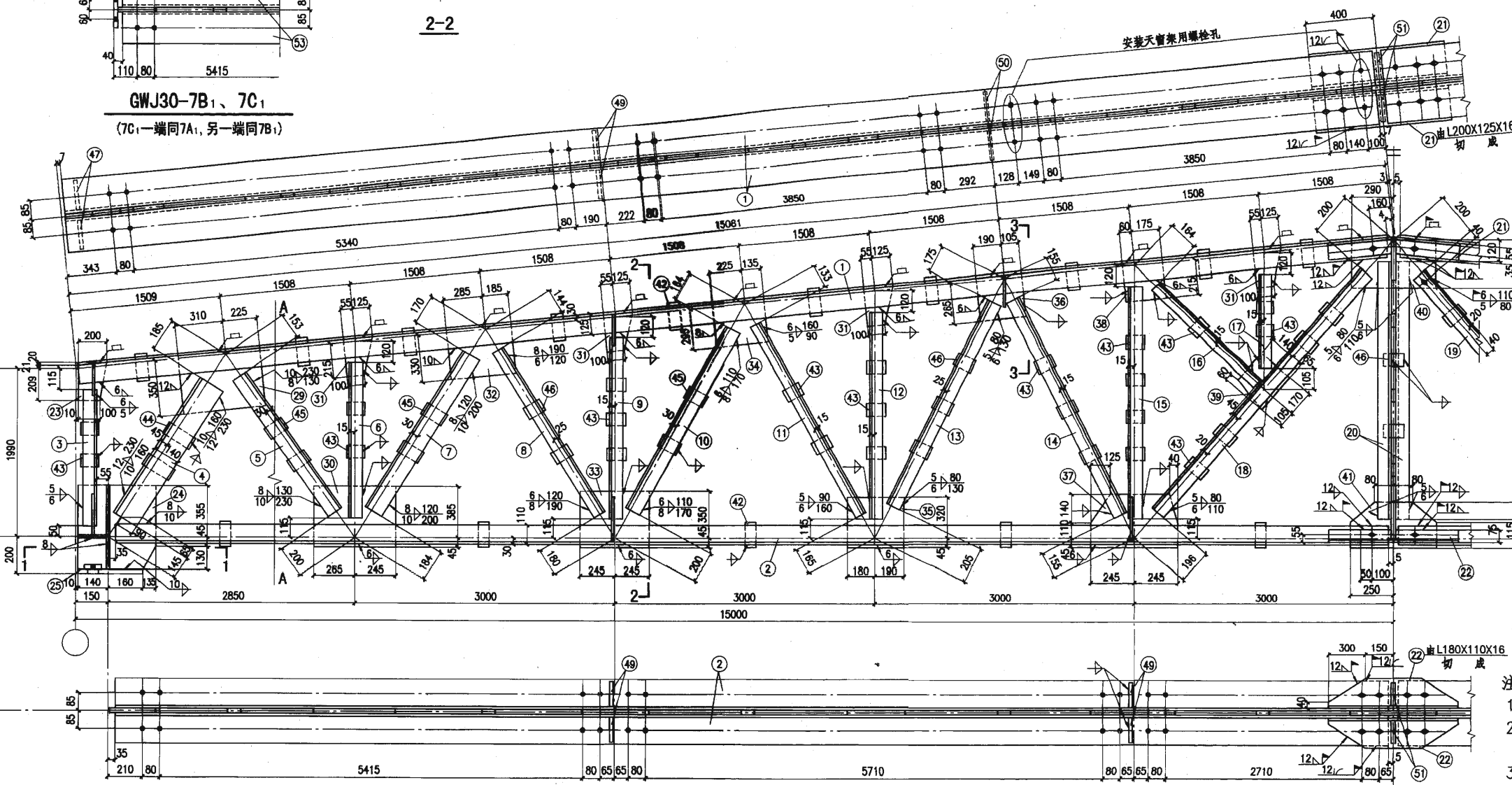
GWJ30-7A1几何尺寸及内力图



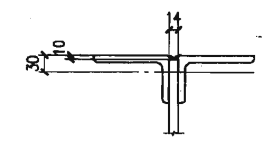
| 材 料 表 |     |             |         |    |   |         |
|-------|-----|-------------|---------|----|---|---------|
| 构件编号  | 零件号 | 断面          | 长度 (mm) | 数量 |   | 重量 (kg) |
|       |     |             |         | 正  | 反 |         |
| 1     |     | L200X125X16 | 15070   | 2  | 2 | 588.4   |
| 2     |     | L180X110X16 | 14810   | 2  | 2 | 513.2   |
| 3     |     | L63X5       | 1825    | 4  |   | 8.8     |
| 4     |     | L140X90X12  | 2205    | 2  | 2 | 45.7    |
| 5     |     | L110X8      | 2255    | 4  |   | 30.5    |
| 6     |     | L50X5       | 2055    | 4  |   | 7.7     |
| 7     |     | L100X10     | 2515    | 4  |   | 38.0    |
| 8     |     | L90X7       | 2535    | 4  |   | 24.5    |
| 9     |     | L63X5       | 2355    | 4  |   | 11.4    |
| 10    |     | L110X8      | 2785    | 4  |   | 37.4    |
| 11    |     | L70X5       | 2820    | 4  |   | 15.2    |
| 12    |     | L63X5       | 2655    | 4  |   | 12.8    |
| 13    |     | L90X7       | 3015    | 4  |   | 29.1    |
| 14    |     | L63X5       | 3075    | 4  |   | 14.8    |
| 15    |     | L63X5       | 2955    | 4  |   | 14.2    |
| 16    |     | L50X5       | 1870    | 4  |   | 7.0     |
| 17    |     | L50X5       | 1370    | 4  |   | 5.2     |
| 18    |     | L70X5       | 4215    | 2  | 2 | 22.7    |
| 19    |     | L70X5       | 4215    | 1  | 1 | 22.7    |
| 20    |     | L63X5       | 3255    | 2  | 2 | 15.7    |
| 21    |     | L200X125X16 | 800     | 2  | 2 | 31.2    |
| 22    |     | L180X110X16 | 900     | 2  | 2 | 31.2    |
| 23    |     | -200X14     | 250     | 2  | 2 | 5.5     |
| 24    |     | -435X16     | 530     | 2  | 2 | 29.0    |
| 25    |     | -300X25     | 380     | 2  | 2 | 22.4    |
| 26    |     | -182X14     | 530     | 4  |   | 10.6    |
| 27    |     | -133X14     | 182     | 4  |   | 2.7     |
| 28    |     | -100X25     | 100     | 4  |   | 2.0     |
| 29    |     | -370X14     | 535     | 2  | 2 | 21.8    |
| 30    |     | -430X14     | 510     | 2  | 2 | 24.1    |
| 31    |     | -180X14     | 235     | 8  |   | 4.6     |
| 32    |     | -350X14     | 470     | 2  | 2 | 18.0    |

|    |         |     |    |      |    |
|----|---------|-----|----|------|----|
| 33 | -395X14 | 490 | 2  | 21.3 | 43 |
| 34 | -315X14 | 360 | 2  | 12.5 | 25 |
| 35 | -365X14 | 370 | 2  | 14.8 | 30 |
| 36 | -285X14 | 295 | 2  | 9.2  | 18 |
| 37 | -295X14 | 490 | 2  | 15.9 | 32 |
| 38 | -235X14 | 235 | 2  | 6.1  | 12 |
| 39 | -205X14 | 275 | 2  | 6.2  | 12 |
| 40 | -345X14 | 580 | 1  | 22.0 | 22 |
| 41 | -255X14 | 500 | 1  | 14.0 | 14 |
| 42 | -60X14  | 145 | 30 | 1.0  | 30 |
| 43 | -60X14  | 90  | 52 | 0.6  | 31 |
| 44 | -60X14  | 160 | 4  | 1.1  | 4  |
| 45 | -60X14  | 130 | 12 | 0.9  | 11 |
| 46 | -60X14  | 110 | 15 | 0.7  | 11 |
| 47 | -135X8  | 220 | 4  | 1.9  | 8  |
| 48 | -135X8  | 200 | 4  | 1.7  | 7  |
| 49 | -135X8  | 215 | 12 | 1.8  | 22 |
| 50 | -150X8  | 215 | 4  | 2.0  | 8  |
| 51 | -120X8  | 200 | 4  | 1.5  | 6  |

GWJ30-7B1、7C1  
(7C1一端同7A1, 另一端同7B1)



上弦塞焊示意



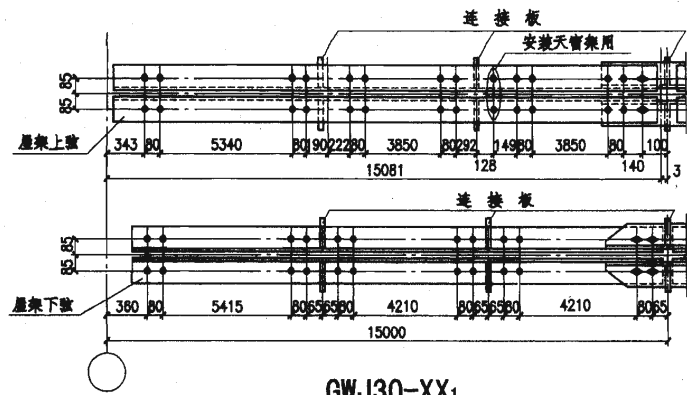
GWJ30-7A1

GWJ30-7A1、7B1、7C1详图

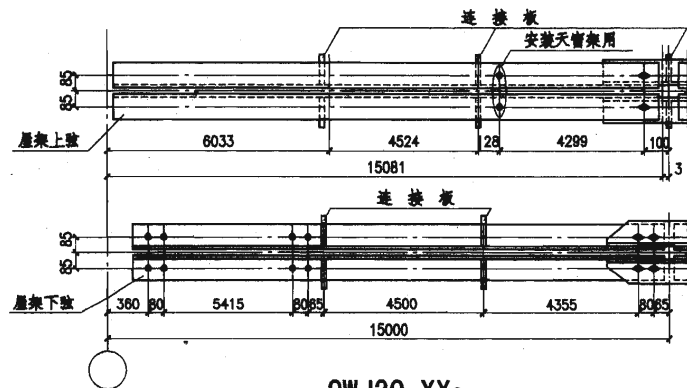
图集号 05G511

- 注:
1. 本图应与页27配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为Φ21.5。

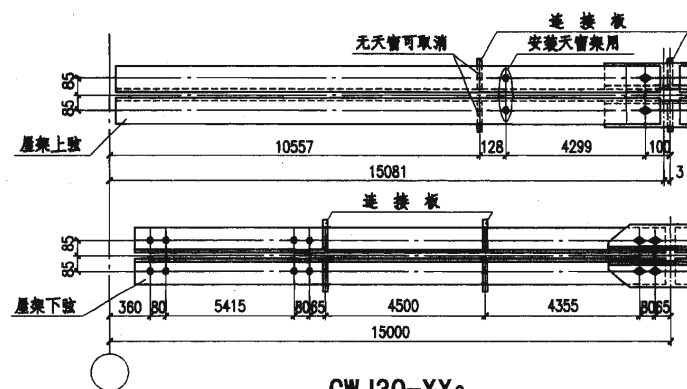




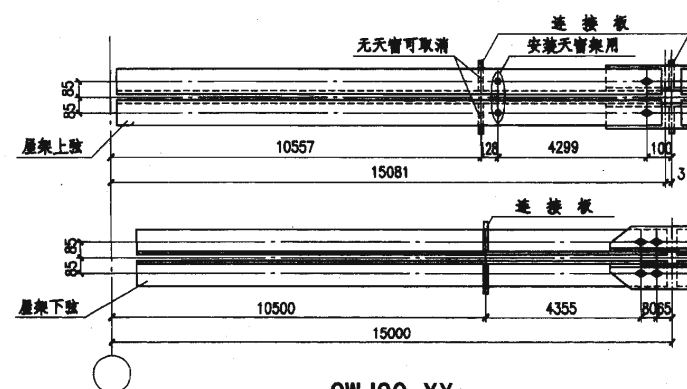
GWJ30-XX1



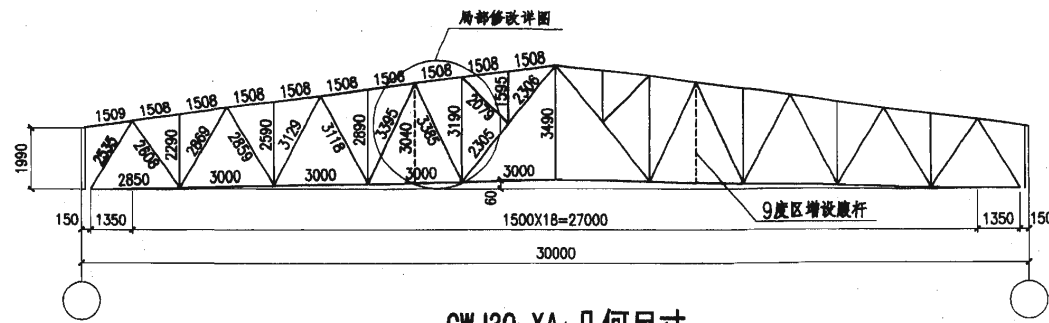
GWJ30-XX2



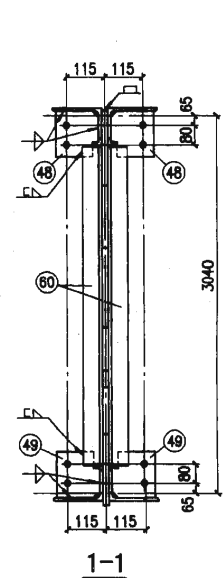
GWJ30-XX3



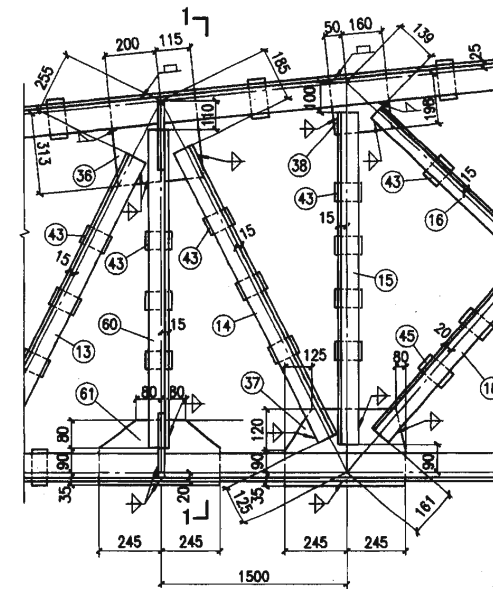
GWJ30-XX4



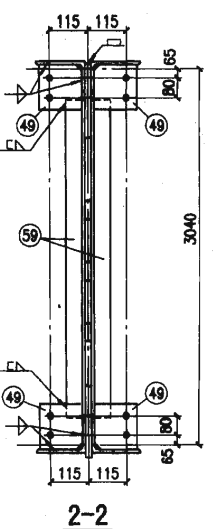
GWJ30-XA1几何尺寸



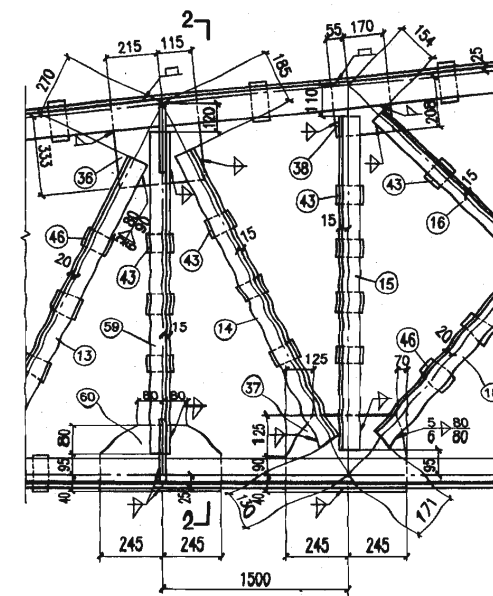
1-1



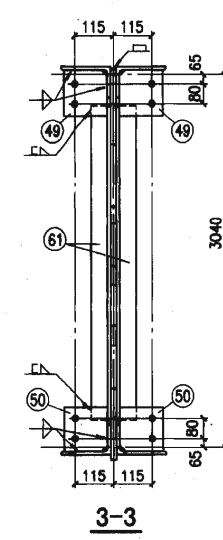
GWJ30-1A1~1C1



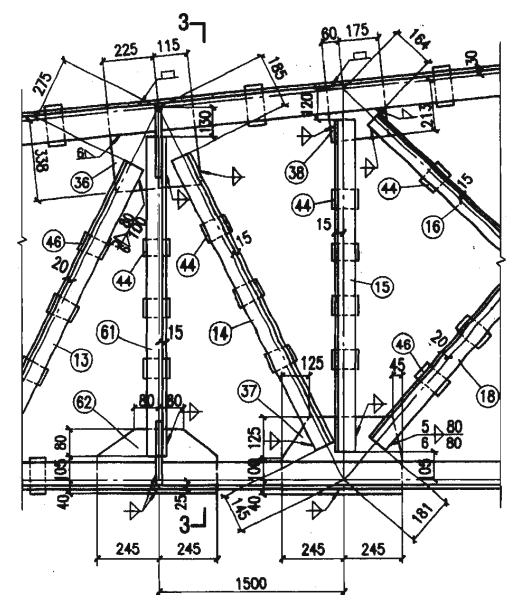
2-2



GWJ30-2A1~2C1



3-3



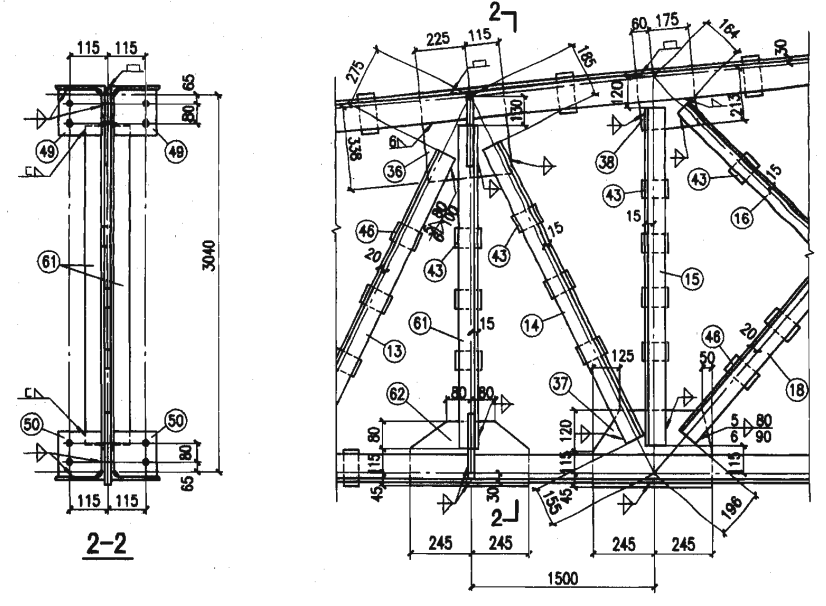
GWJ30-3A1~3C1

| 材 料 表     |                                       |         |         |    |    |        |
|-----------|---------------------------------------|---------|---------|----|----|--------|
| 构件编号      | 零件号                                   | 断面      | 长度 (mm) | 数量 |    | 重量(kg) |
|           |                                       |         |         | 正  | 反  |        |
| GWJ30-1A1 | 1-12, 15-35, 37-42, 44-47, 49, 51, 52 | 角钢      | 1508    | 4  | 4  | 3468   |
|           | 13                                    | L63X5   | 2955    | 4  | 4  | 57     |
|           | 14                                    | L63X5   | 3075    | 4  | 4  | 59     |
|           | 36                                    | -330X10 | 315     | 2  | 2  | 16     |
|           | 43                                    | -60X10  | 85      | 60 | 0  | 24     |
|           | 48                                    | -140X8  | 215     | 8  | 0  | 15     |
|           | 50                                    | -150X8  | 215     | 0  | 2  | 0      |
| 60        | L63X5                                 | 2840    | 4       | 4  | 55 |        |
| 61        | -205X10                               | 490     | 2       | 2  | 16 |        |
| GWJ30-2A1 | 1-12, 15-35, 37-42, 44-48, 51         | 角钢      | 1508    | 4  | 4  | 4359   |
|           | 13                                    | L75X5   | 2930    | 4  | 4  | 68     |
|           | 14                                    | L63X5   | 3070    | 4  | 4  | 59     |
|           | 36                                    | -350X10 | 330     | 2  | 2  | 18     |
|           | 43                                    | -60X10  | 85      | 50 | 0  | 20     |
|           | 49                                    | -140X8  | 215     | 16 | 0  | 30     |
|           | 50                                    | -150X8  | 215     | 0  | 2  | 0      |
| 59        | L63X5                                 | 2825    | 4       | 4  | 55 |        |
| 60        | -215X10                               | 490     | 2       | 2  | 17 |        |
| GWJ30-3A1 | 1-12, 15-35, 37-43, 45-48, 50, 52, 53 | 角钢      | 1508    | 4  | 4  | 4903   |
|           | 13                                    | L80X5   | 2920    | 4  | 4  | 73     |
|           | 14                                    | L63X5   | 3055    | 4  | 4  | 59     |
|           | 36                                    | -360X12 | 340     | 2  | 2  | 23     |
|           | 44                                    | -60X12  | 85      | 50 | 0  | 25     |
|           | 49                                    | -140X8  | 220     | 8  | 0  | 15     |
|           | 51                                    | -150X8  | 220     | 0  | 2  | 0      |
| 61        | L63X5                                 | 2805    | 4       | 4  | 54 |        |
| 62        | -225X12                               | 490     | 2       | 2  | 21 |        |

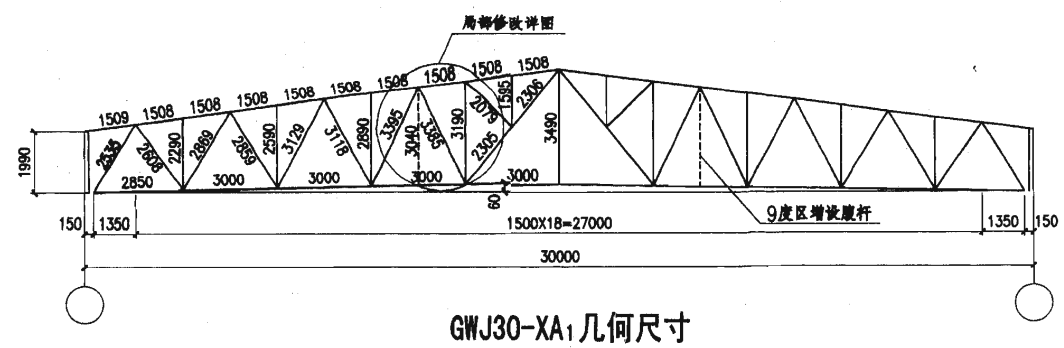
- 注:
1. 本图用于9度区及8度区设计基本地震加速度为0.3g地区的30米屋架, 仅给出局部修改详图, 未详部分参见原图。
  2. 构件编号中的XX, 前者代表屋架承载能力序号4~7, 后者代表端部不同构造A、B、C。
  3. 对于端部为B型的屋架两端上、下弦和端部为C型屋架一端上下弦, 均有连接板, 本图不作重复表示, 其连接位置和加工尺寸按各屋架详图施工。
  4. 未注明的角焊缝焊脚尺寸为5mm; 其长度不小于80mm。
  5. 所有焊缝一律满焊。
  6. 未注明的螺栓为M20, 孔为Φ21.5。
  7. 屋架跨中上、下弦垂直肢的打孔均按各屋架施工详图。

材 料 表

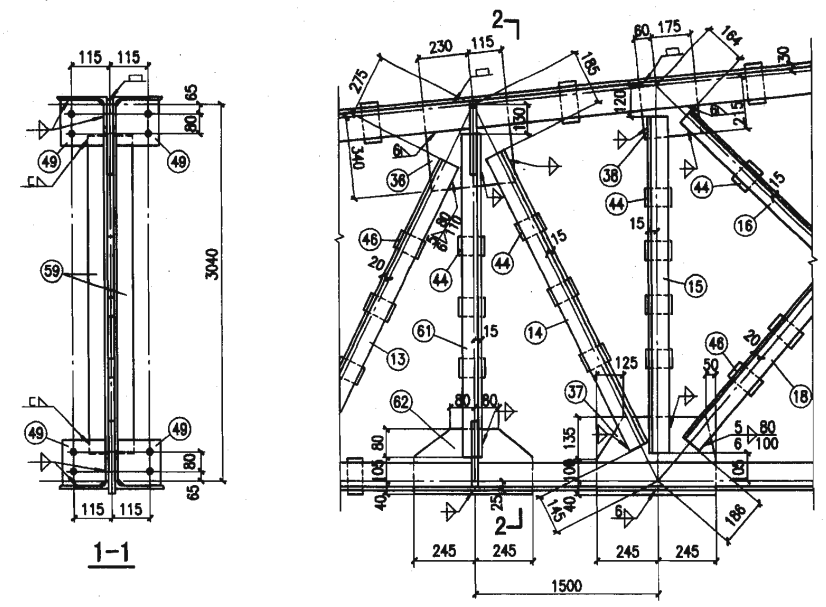
| 构件编号                  | 零件号                                  | 断面                                   | 长度 (mm)                 | 数量 |   | 重量 (kg) | 共计   |      |
|-----------------------|--------------------------------------|--------------------------------------|-------------------------|----|---|---------|------|------|
|                       |                                      |                                      |                         | 正  | 反 |         |      |      |
| GWJ30-4A <sub>1</sub> | 1-12, 15-35, 37-42, 44-48, 50, 52-53 | 同 GWJ30-4A <sub>1</sub>              |                         |    |   | 5467    | 5737 |      |
|                       | 13                                   | L80X5                                | 2920                    | 4  |   | 18.1    |      | 72   |
|                       | 14                                   | L63X5                                | 3045                    | 4  |   | 14.7    |      | 59   |
|                       | 36                                   | -360X12                              | 340                     | 2  |   | 11.5    |      | 23   |
|                       | 43                                   | -60X12                               | 85                      | 50 |   | 0.5     |      | 25   |
|                       | 49                                   | -140X8                               | 220                     | 8  |   | 1.9     |      | 15   |
|                       | 51                                   | -150X8                               | 220                     | 0  |   | 2.1     |      | 0    |
|                       | 61                                   | L63X5                                | 2795                    | 4  |   | 13.5    |      | 54   |
|                       | 62                                   | -240X12                              | 490                     | 2  |   | 11.1    |      | 22   |
|                       | GWJ30-5A <sub>1</sub>                | 1-12, 15-35, 37-43, 45-48, 50, 52-53 | 同 GWJ30-5A <sub>1</sub> |    |   |         |      | 5566 |
| 13                    |                                      | L80X6                                | 2920                    | 4  |   | 21.6    | 86   |      |
| 14                    |                                      | L63X5                                | 3055                    | 4  |   | 14.8    | 59   |      |
| 36                    |                                      | -360X12                              | 345                     | 2  |   | 11.7    | 23   |      |
| 44                    |                                      | -60X12                               | 85                      | 50 |   | 0.5     | 25   |      |
| 49                    |                                      | -140X8                               | 215                     | 8  |   | 1.9     | 15   |      |
| 51                    |                                      | -150X8                               | 215                     | 0  |   | 2.0     | 0    |      |
| 61                    |                                      | L63X5                                | 2805                    | 4  |   | 13.6    | 54   |      |
| 62                    |                                      | -225X12                              | 490                     | 2  |   | 10.5    | 21   |      |
| GWJ30-6A <sub>1</sub> |                                      | 1-12, 15-35, 37-42, 44-48, 51        | 同 GWJ30-6A <sub>1</sub> |    |   |         | 5914 | 6241 |
|                       | 13                                   | L80X7                                | 2920                    | 4  |   | 24.9    | 100  |      |
|                       | 14                                   | L63X5                                | 3045                    | 4  |   | 14.7    | 59   |      |
|                       | 36                                   | -360X14                              | 350                     | 2  |   | 13.8    | 28   |      |
|                       | 43                                   | -60X14                               | 85                      | 50 |   | 0.6     | 30   |      |
|                       | 49                                   | -140X8                               | 215                     | 16 |   | 1.9     | 30   |      |
|                       | 50                                   | -150X8                               | 215                     | 0  |   | 2.0     | 0    |      |
|                       | 59                                   | L63X5                                | 2795                    | 4  |   | 13.5    | 54   |      |
|                       | 60                                   | -240X14                              | 490                     | 2  |   | 12.9    | 26   |      |
|                       | GWJ30-7A <sub>1</sub>                | 1-12, 15-35, 37-42, 44-48, 51        | 同 GWJ30-7A <sub>1</sub> |    |   |         | 6294 |      |
| 13                    |                                      | L90X7                                | 2905                    | 4  |   | 28.1    | 112  |      |
| 14                    |                                      | L63X5                                | 3045                    | 4  |   | 14.7    | 59   |      |
| 36                    |                                      | -370X14                              | 365                     | 2  |   | 14.8    | 30   |      |
| 43                    |                                      | -60X14                               | 90                      | 58 |   | 0.6     | 35   |      |
| 49                    |                                      | -135X8                               | 215                     | 16 |   | 1.8     | 29   |      |
| 50                    |                                      | -150X8                               | 215                     | 0  |   | 2.0     | 0    |      |
| 59                    |                                      | L63X5                                | 2795                    | 4  |   | 13.5    | 54   |      |
| 60                    |                                      | -240X14                              | 490                     | 2  |   | 12.9    | 26   |      |



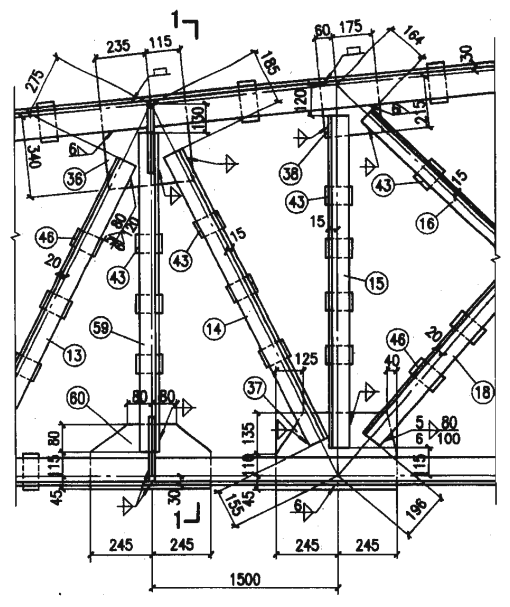
GWJ30-4A<sub>1</sub>~4C<sub>1</sub>



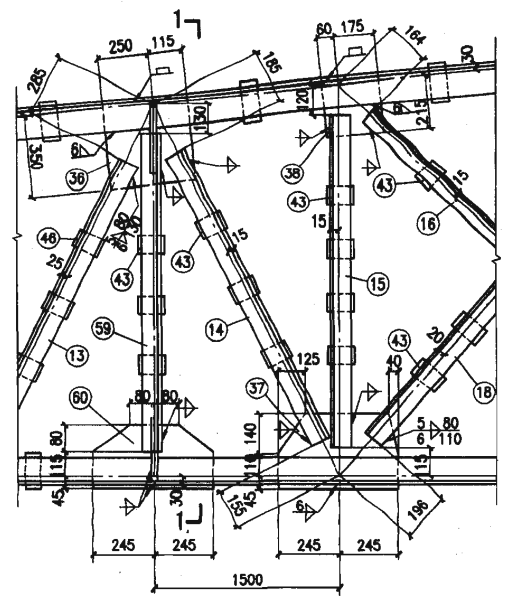
GWJ30-XA<sub>1</sub>几何尺寸



GWJ30-5A<sub>1</sub>~5C<sub>1</sub>



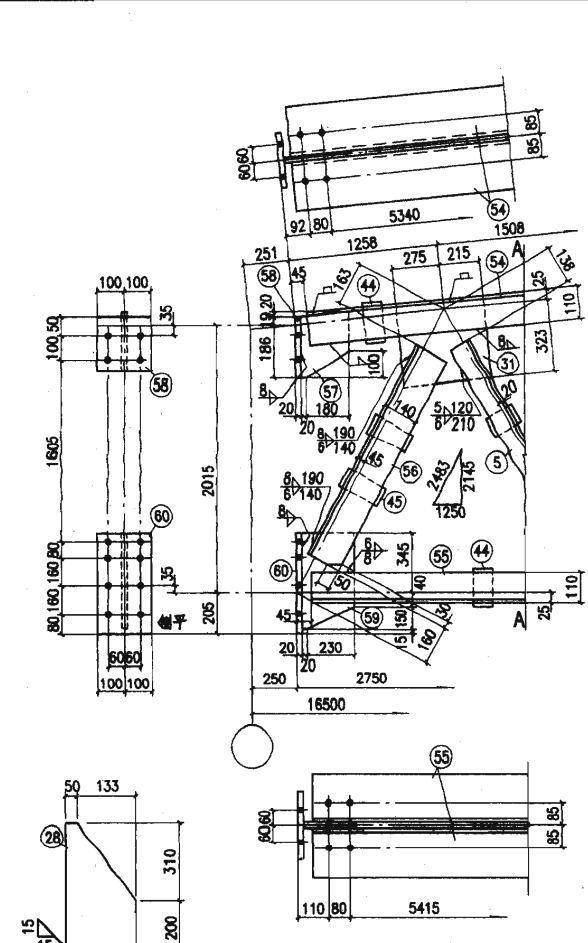
GWJ30-6A<sub>1</sub>~6C<sub>1</sub>



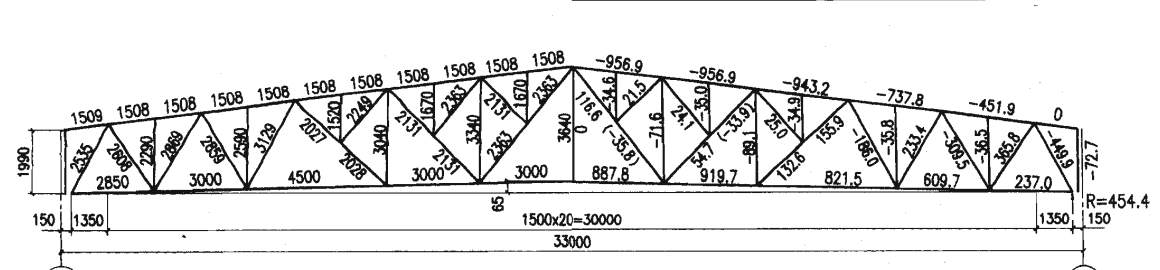
GWJ30-7A<sub>1</sub>~7C<sub>1</sub>

注:

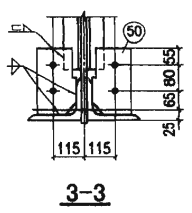
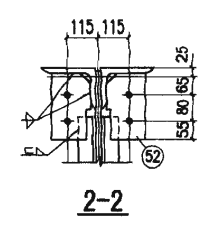
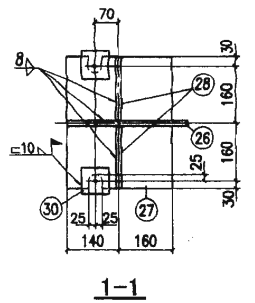
1. 本图用于9度区及8度区设计基本地震加速度为0.3g地区的30米屋架, 仅给出局部修改详图, 未详部分参见原图。
2. 构件编号中的XX, 前者代表屋架承载能力序号4~7, 后者代表端部不同构造A、B、C。
3. 对于端部为B型的屋架两端上、下弦和端部为C型屋架一端上下弦, 均有连接板, 本图不作重复表示, 其连接位置和加工尺寸按各屋架详图施工。
4. 未注明的角焊缝焊脚尺寸为5mm; 其长度不小于80mm。
5. 所有焊缝一律满焊。
6. 未注明的螺栓为M20, 孔为Φ21.5。
7. 屋架跨中上、下弦垂直胶的打孔均按各屋架施工详图。



GWJ33-1B<sub>1</sub>、1C<sub>1</sub>  
(1C<sub>1</sub>一端同1A<sub>1</sub>, 另一端同1B<sub>1</sub>)



GWJ33-1A<sub>1</sub>几何尺寸及内力图



|     |    |        |
|-----|----|--------|
| 95  | 45 | 用于(49) |
| 90  | 45 | 用于(51) |
| 86  | 49 | 用于(53) |
| 100 | 45 | 用于(50) |
| 98  | 47 | 用于(52) |

| 材料表  |             |         |    |    |         |
|------|-------------|---------|----|----|---------|
| 零件编号 | 断面          | 长度 (mm) | 数量 |    | 重量 (kg) |
|      |             |         | 正  | 反  |         |
| 1    | L180x110x12 | 16570   | 2  | 2  | 438.5   |
| 2    | L180x110x10 | 16310   | 2  | 2  | 363.3   |
| 3    | L63x5       | 1820    | 4  | 4  | 8.8     |
| 4    | L140x90x8   | 2220    | 2  | 2  | 31.4    |
| 5    | L80x6       | 2300    | 4  | 4  | 17.0    |
| 6    | L50x5       | 2060    | 4  | 4  | 7.8     |
| 7    | L100x6      | 2530    | 4  | 4  | 23.7    |
| 8    | L70x5       | 2570    | 4  | 4  | 13.9    |
| 9    | L50x5       | 2360    | 4  | 4  | 8.9     |
| 10   | L80x6       | 2820    | 4  | 4  | 20.8    |
| 11   | L56x5       | 3700    | 4  | 4  | 15.7    |
| 12   | L50x5       | 1300    | 4  | 4  | 4.9     |
| 13   | L50x5       | 2020    | 4  | 4  | 7.6     |
| 14   | L63x5       | 2810    | 4  | 4  | 13.5    |
| 15   | L63x5       | 3900    | 4  | 4  | 18.8    |
| 16   | L50x5       | 1440    | 8  | 8  | 5.4     |
| 17   | L50x5       | 2150    | 4  | 4  | 8.1     |
| 18   | L63x5       | 3110    | 4  | 4  | 15.0    |
| 19   | L50x5       | 1930    | 4  | 4  | 7.3     |
| 20   | L70x5       | 4340    | 2  | 2  | 23.4    |
| 21   | L70x5       | 4340    | 1  | 1  | 23.4    |
| 22   | L63x5       | 3410    | 2  | 2  | 16.5    |
| 23   | L180x110x12 | 740     | 2  | 2  | 19.6    |
| 24   | L180x110x10 | 740     | 2  | 2  | 16.5    |
| 25   | -200x10     | 250     | 2  | 2  | 3.9     |
| 26   | -420x10     | 510     | 2  | 2  | 16.8    |
| 27   | -300x20     | 380     | 2  | 2  | 17.9    |
| 28   | -183x10     | 510     | 4  | 4  | 7.3     |
| 29   | -134x10     | 183     | 4  | 4  | 1.9     |
| 30   | -100x20     | 100     | 4  | 4  | 1.6     |
| 31   | -340x10     | 490     | 2  | 2  | 13.1    |
| 32   | -390x10     | 450     | 2  | 2  | 13.8    |
| 33   | -180x10     | 230     | 10 | 10 | 3.2     |

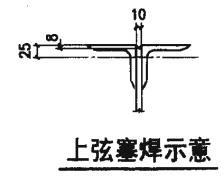
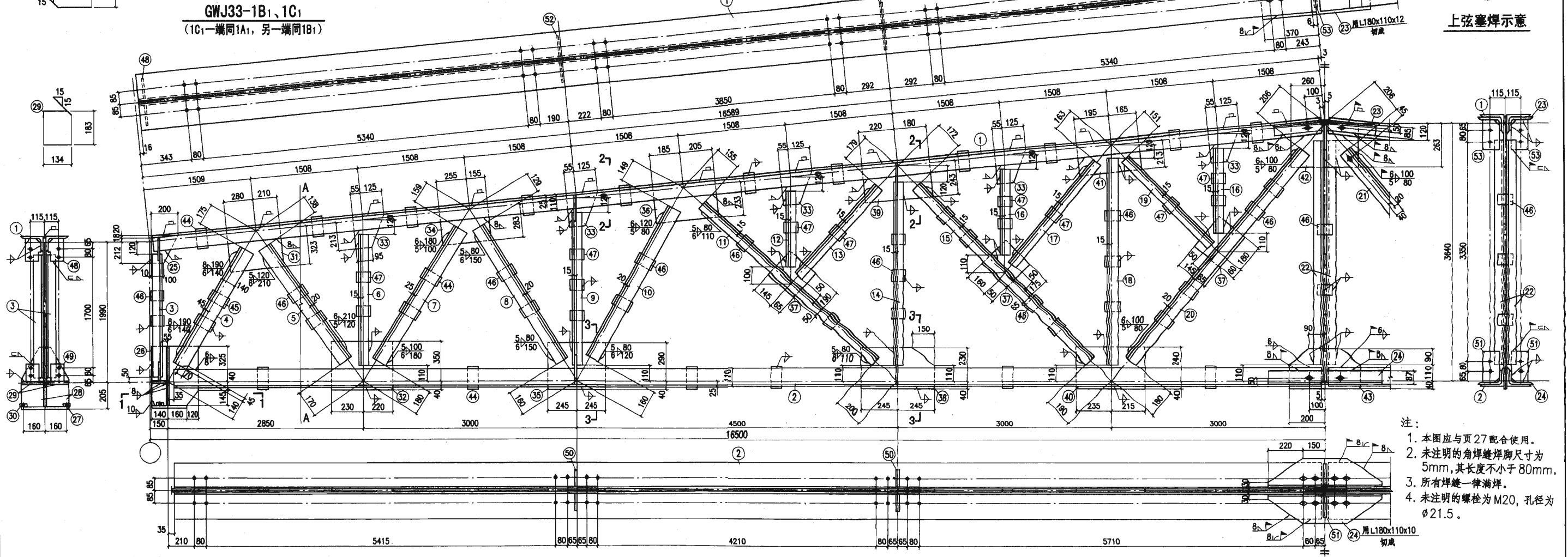
| 零件编号 | 断面      | 长度 (mm) | 数量 | 重量 (kg) |
|------|---------|---------|----|---------|
| 34   | -300x10 | 410     | 2  | 9.7     |
| 35   | -330x10 | 490     | 2  | 12.7    |
| 36   | -250x10 | 390     | 2  | 7.7     |
| 37   | -210x10 | 240     | 6  | 4.0     |
| 38   | -270x10 | 490     | 2  | 10.4    |
| 39   | -260x10 | 400     | 2  | 8.2     |
| 40   | -280x10 | 450     | 2  | 9.8     |
| 41   | -230x10 | 360     | 2  | 6.5     |
| 42   | -280x10 | 520     | 1  | 11.4    |
| 43   | -240x10 | 400     | 1  | 7.5     |
| 44   | -60x10  | 130     | 38 | 0.6     |
| 45   | -60x10  | 160     | 4  | 0.8     |
| 46   | -60x10  | 100     | 53 | 0.5     |
| 47   | -60x10  | 70      | 26 | 0.3     |
| 48   | -145x8  | 225     | 4  | 2.0     |
| 49   | -140x8  | 195     | 4  | 1.7     |
| 50   | -145x8  | 215     | 8  | 2.0     |
| 51   | -135x8  | 205     | 2  | 1.7     |
| 52   | -145x8  | 215     | 8  | 2.0     |
| 53   | -135x8  | 205     | 2  | 1.7     |

GWJ33-1B<sub>1</sub>

GWJ33-1C<sub>1</sub>

|  |             |       |
|--|-------------|-------|
| 5~24, 31~45, 47, 50~53 同 GWJ33-1A <sub>1</sub> | 1306        | 4710  |
| 46   | -60x10      | 100   |
| 54   | L180x110x12 | 16290 |
| 55   | L180x110x10 | 16200 |
| 56   | L140x90x8   | 2160  |
| 57   | -200x10     | 225   |
| 58   | -200x20     | 200   |
| 59   | -250x12     | 535   |
| 60   | -200x20     | 550   |

|   |        |      |
|---|--------|------|
| 1~4, 25~30, 48, 49 同 GWJ33-1A <sub>1</sub> 数量减半 | 1752   | 4775 |
| 5~24, 31~45, 47, 50~53 同 GWJ33-1A <sub>1</sub>  | 1307   |      |
| 46  | -80x10 | 100  |
| 54~60 同 GWJ33-1B <sub>1</sub> 数量减半              | 1690   |      |

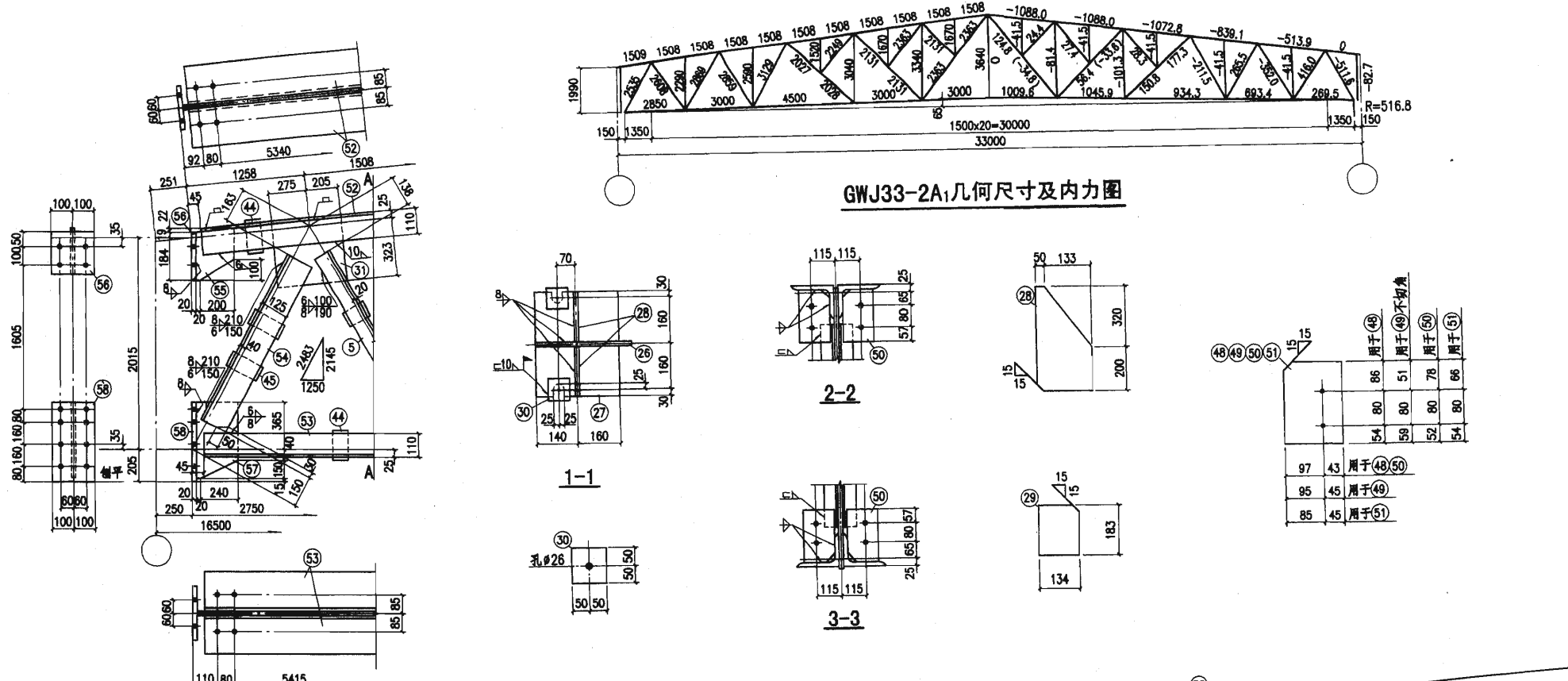


上弦塞焊示意

- 注:
1. 本图应与页27配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为φ21.5。

GWJ33-1A<sub>1</sub>

|  |     |     |        |
|--|-----|-----|--------|
| GWJ33-1A <sub>1</sub> 、1B <sub>1</sub> 、1C <sub>1</sub> 详图 |     | 图集号 | 05G511 |
| 审核   | 冯东  | 校对  | 张丽娟    |
| 设计   | 李志通 | 页   | 67     |

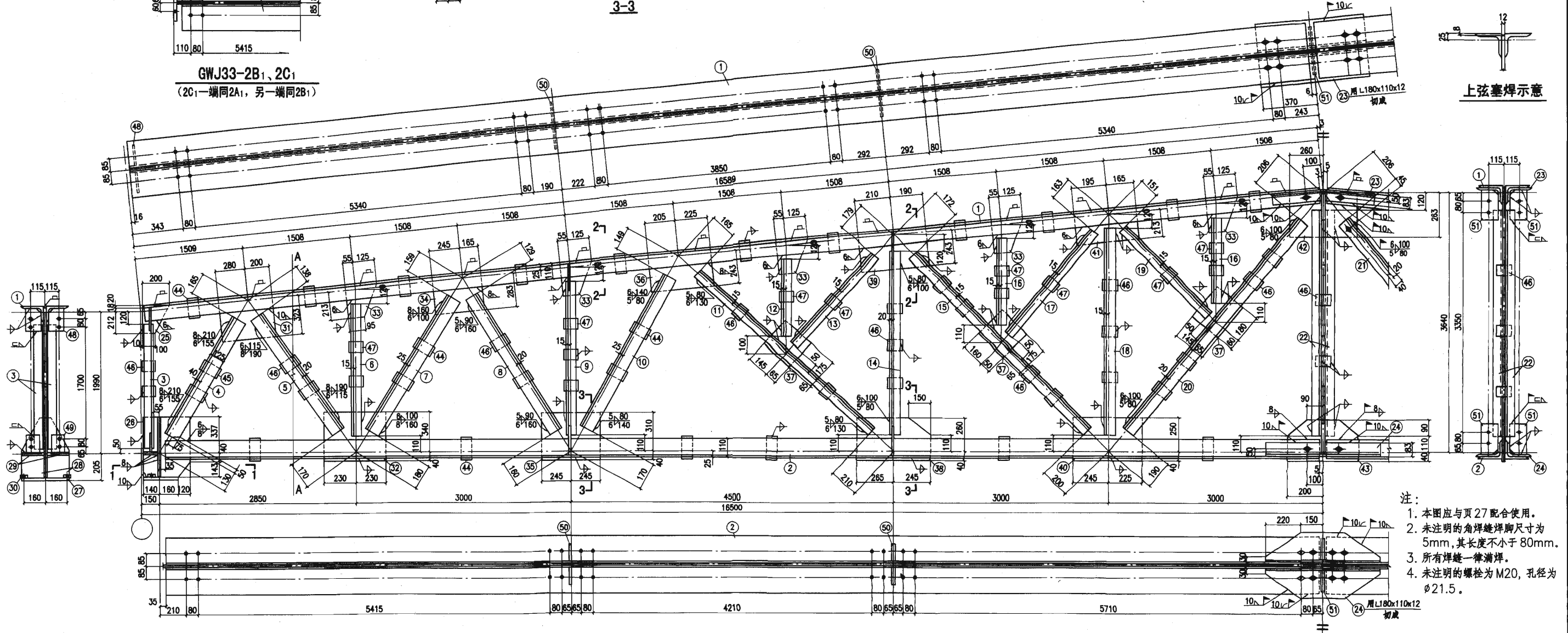


GWJ33-2A1几何尺寸及内力图

| 材料表  |             |         |    |   |         |
|------|-------------|---------|----|---|---------|
| 材料编号 | 断面          | 长度 (mm) | 数量 |   | 重量 (kg) |
|      |             |         | 正  | 反 |         |
| 1    | L180x110x12 | 16370   | 2  | 2 | 431.8   |
| 2    | L180x110x12 | 16310   | 2  | 2 | 431.8   |
| 3    | L63x5       | 1820    | 4  | 4 | 8.8     |
| 4    | L125x80x10  | 2220    | 2  | 2 | 34.4    |
| 5    | L80x7       | 2300    | 4  | 4 | 19.6    |
| 6    | L50x5       | 2080    | 4  | 4 | 7.8     |
| 7    | L100x7      | 2530    | 4  | 4 | 27.4    |
| 8    | L75x5       | 2570    | 4  | 4 | 14.9    |
| 9    | L50x5       | 2360    | 4  | 4 | 8.9     |
| 10   | L90x6       | 2810    | 4  | 4 | 23.4    |
| 11   | L63x5       | 3880    | 4  | 4 | 17.7    |
| 12   | L50x5       | 1300    | 4  | 4 | 4.9     |
| 13   | L50x5       | 2020    | 4  | 4 | 7.6     |
| 14   | L70x5       | 2810    | 4  | 4 | 15.2    |
| 15   | L63x5       | 3880    | 4  | 4 | 18.8    |
| 16   | L50x5       | 1440    | 8  | 8 | 5.4     |
| 17   | L50x5       | 2150    | 4  | 4 | 8.1     |
| 18   | L63x5       | 3110    | 4  | 4 | 15.0    |
| 19   | L50x5       | 1930    | 4  | 4 | 7.3     |
| 20   | L70x5       | 4330    | 2  | 2 | 23.4    |
| 21   | L70x5       | 4330    | 1  | 1 | 23.3    |
| 22   | L63x5       | 3410    | 2  | 2 | 18.4    |
| 23   | L180x110x12 | 740     | 2  | 2 | 18.8    |
| 24   | L180x110x12 | 740     | 2  | 2 | 18.8    |
| 25   | -200x12     | 250     | 2  | 2 | 4.7     |
| 26   | -420x14     | 520     | 2  | 2 | 24.0    |
| 27   | -300x22     | 380     | 2  | 2 | 19.7    |
| 28   | -183x12     | 520     | 4  | 4 | 9.0     |
| 29   | -134x12     | 183     | 4  | 4 | 2.3     |
| 30   | -100x22     | 100     | 4  | 4 | 1.7     |
| 31   | -340x12     | 480     | 2  | 2 | 15.4    |
| 32   | 380x12      | 460     | 2  | 2 | 18.5    |

| 材料表  |         |         |    |    |         |
|------|---------|---------|----|----|---------|
| 材料编号 | 断面      | 长度 (mm) | 数量 |    | 重量 (kg) |
|      |         |         | 正  | 反  |         |
| 33   | -180x12 | 230     | 10 | 10 | 3.9     |
| 34   | -300x12 | 410     | 2  | 2  | 11.6    |
| 35   | -350x12 | 490     | 2  | 2  | 16.2    |
| 36   | -260x12 | 430     | 2  | 2  | 10.5    |
| 37   | -210x12 | 240     | 8  | 8  | 4.7     |
| 38   | -300x12 | 510     | 2  | 2  | 14.4    |
| 39   | -260x12 | 400     | 2  | 2  | 9.8     |
| 40   | -290x12 | 470     | 2  | 2  | 12.8    |
| 41   | -230x12 | 380     | 2  | 2  | 7.8     |
| 42   | -280x12 | 520     | 1  | 1  | 13.7    |
| 43   | -240x12 | 400     | 1  | 1  | 9.0     |
| 44   | -60x12  | 130     | 42 | 42 | 0.7     |
| 45   | -60x12  | 145     | 4  | 4  | 0.8     |
| 46   | -80x12  | 100     | 49 | 49 | 0.6     |
| 47   | -60x12  | 70      | 26 | 26 | 0.4     |
| 48   | -140x8  | 220     | 4  | 4  | 1.9     |
| 49   | -140x8  | 190     | 4  | 4  | 1.7     |
| 50   | -140x8  | 210     | 16 | 16 | 1.8     |
| 51   | -130x8  | 200     | 4  | 4  | 1.6     |

GWJ33-2B1, 2C1  
(2C1一端同2A1, 另一端同2B1)



上弦焊缝示意

- 注:
1. 本图应与页27配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为 $\phi 21.5$ 。

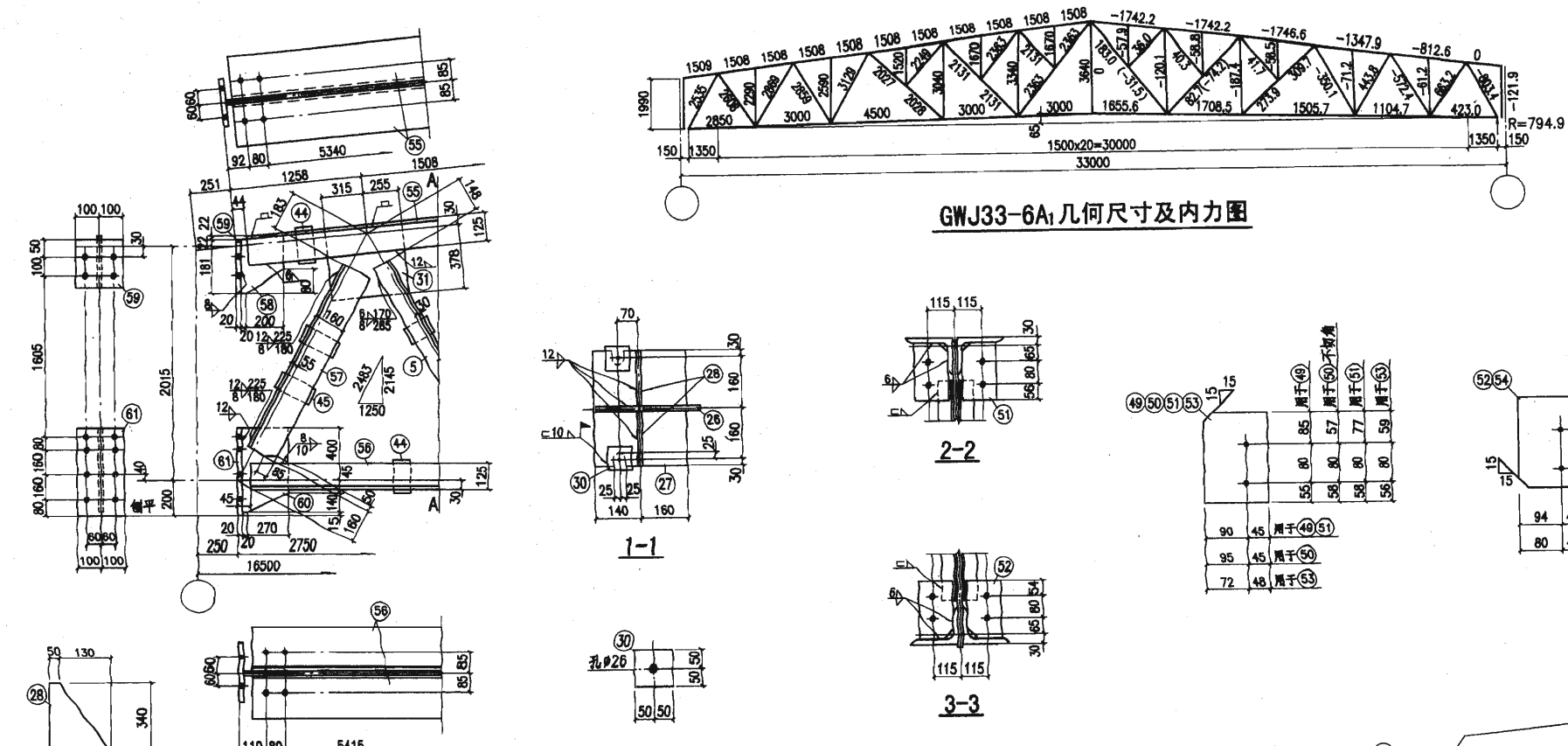
GWJ33-2A1

|                                |     |        |
|--------------------------------|-----|--------|
| GWJ33-2A1, 2B1, 2C1 详图         | 图集号 | 05G511 |
| 审核 冯东 冯东 校对 张丽娟 张丽娟 设计 李志通 李志通 | 页   | 68     |









GWJ33-6A1 几何尺寸及内力图

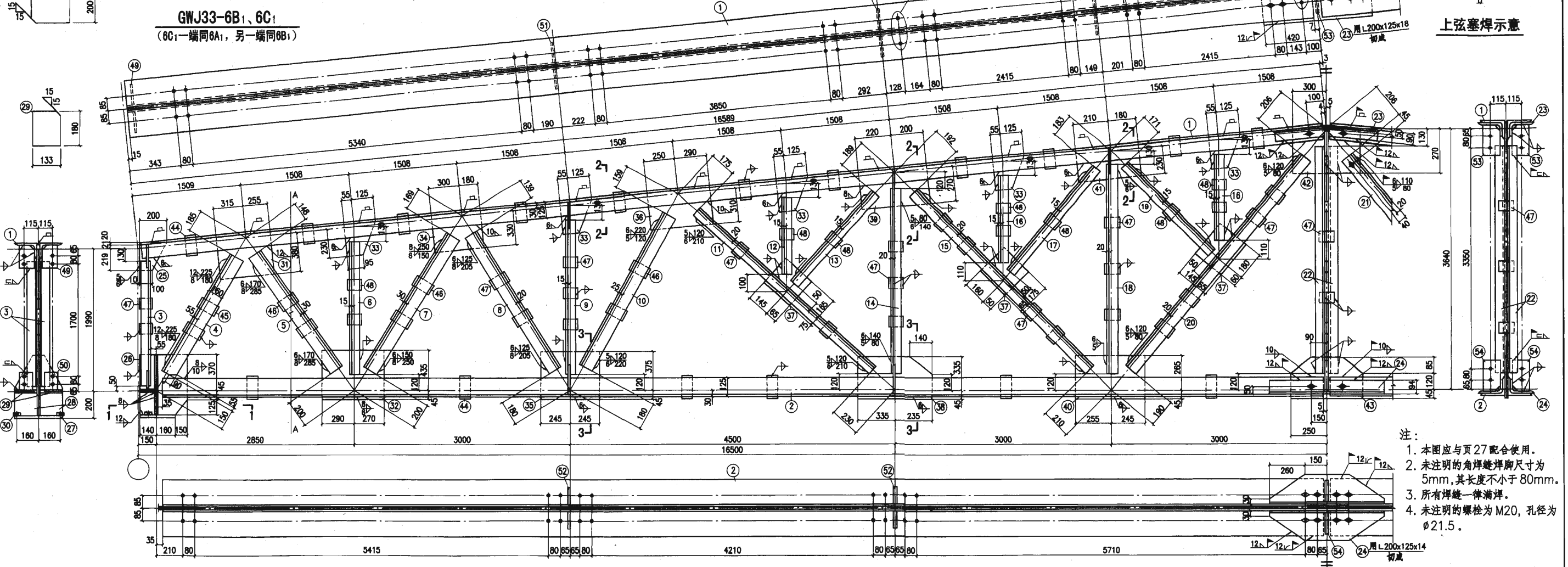
| 构件编号 | 断面           | 长度 (mm) | 数量 |   | 重量 (kg) |
|------|--------------|---------|----|---|---------|
|      |              |         | 正  | 反 |         |
| 1    | L 200x125x18 | 16570   | 2  | 2 | 722.3   |
| 2    | L 200x125x14 | 16310   | 2  | 2 | 561.7   |
| 3    | L 63x5       | 1810    | 4  |   | 8.7     |
| 4    | L 180x100x12 | 2200    | 2  | 2 | 51.9    |
| 5    | L 110x8      | 2280    | 4  |   | 30.8    |
| 6    | L 50x5       | 2040    | 4  |   | 7.7     |
| 7    | L 110x10     | 2500    | 4  |   | 41.7    |
| 8    | L 80x8       | 2540    | 4  |   | 24.5    |
| 9    | L 63x5       | 2340    | 4  |   | 11.3    |
| 10   | L 100x7      | 2790    | 4  |   | 30.2    |
| 11   | L 80x6       | 3650    | 4  |   | 28.9    |
| 12   | L 50x5       | 1290    | 4  |   | 4.8     |
| 13   | L 50x5       | 2010    | 4  |   | 7.5     |
| 14   | L 80x6       | 2800    | 4  |   | 20.7    |
| 15   | L 70x5       | 3860    | 4  |   | 20.8    |
| 16   | L 50x5       | 1430    | 8  |   | 5.4     |
| 17   | L 50x5       | 2130    | 4  |   | 8.0     |
| 18   | L 70x5       | 3090    | 4  |   | 16.7    |
| 19   | L 50x5       | 1910    | 4  |   | 7.2     |
| 20   | L 70x5       | 4330    | 2  |   | 23.4    |
| 21   | L 70x5       | 4330    | 1  | 1 | 23.4    |
| 22   | L 63x5       | 3390    | 2  |   | 16.3    |
| 23   | L 200x125x18 | 840     | 2  |   | 38.8    |
| 24   | L 200x125x14 | 820     | 2  |   | 28.2    |
| 25   | -200x14      | 280     | 2  |   | 5.7     |
| 26   | -450x16      | 540     | 2  |   | 30.5    |
| 27   | -300x30      | 390     | 2  |   | 28.8    |
| 28   | -182x14      | 540     | 4  |   | 10.8    |
| 29   | -133x14      | 182     | 4  |   | 2.7     |
| 30   | -100x30      | 100     | 4  |   | 2.4     |
| 31   | -400x14      | 570     | 2  |   | 25.1    |
| 32   | -480x14      | 580     | 2  |   | 29.5    |
| 33   | -180x14      | 250     | 10 |   | 4.9     |

GWJ33-6A1

|    |         |     |    |  |      |
|----|---------|-----|----|--|------|
| 34 | -350x14 | 480 | 2  |  | 18.5 |
| 35 | -420x14 | 480 | 2  |  | 22.6 |
| 36 | -330x14 | 540 | 2  |  | 19.6 |
| 37 | -210x14 | 240 | 6  |  | 5.5  |
| 38 | -380x14 | 570 | 2  |  | 23.8 |
| 39 | -290x14 | 420 | 2  |  | 13.4 |
| 40 | -310x14 | 500 | 2  |  | 17.0 |
| 41 | -250x14 | 390 | 2  |  | 10.7 |
| 42 | -290x14 | 600 | 1  |  | 19.1 |
| 43 | -250x14 | 500 | 1  |  | 13.7 |
| 44 | -60x14  | 145 | 34 |  | 1.0  |
| 45 | -60x14  | 180 | 4  |  | 1.2  |
| 46 | -60x14  | 130 | 12 |  | 0.9  |
| 47 | -60x14  | 100 | 51 |  | 0.7  |
| 48 | -60x14  | 70  | 20 |  | 0.5  |
| 49 | -135x8  | 220 | 4  |  | 1.9  |
| 50 | -140x8  | 195 | 4  |  | 1.7  |
| 51 | -135x8  | 215 | 12 |  | 1.8  |
| 52 | -140x8  | 215 | 8  |  | 1.9  |
| 53 | -120x8  | 195 | 2  |  | 1.5  |
| 54 | -125x8  | 205 | 2  |  | 1.6  |

GWJ33-6B1

GWJ33-6C1

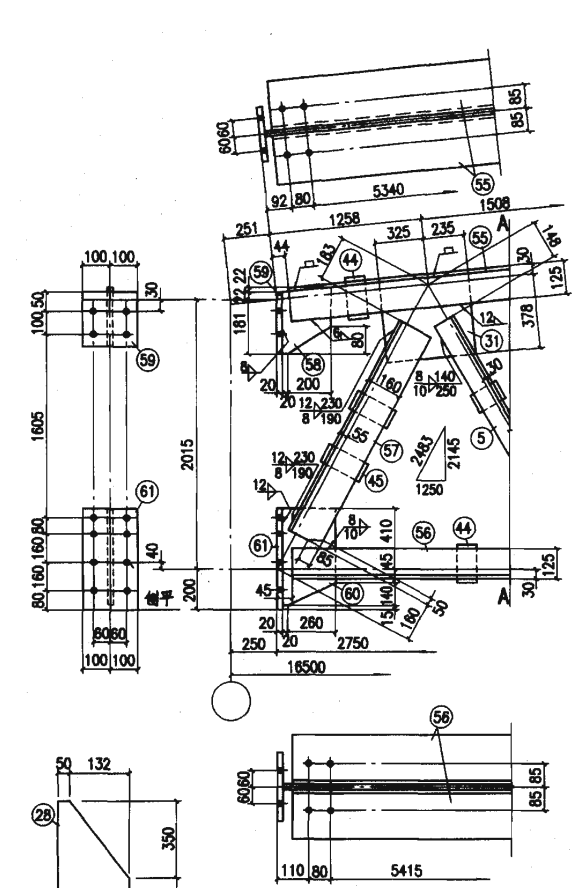


GWJ33-6A1

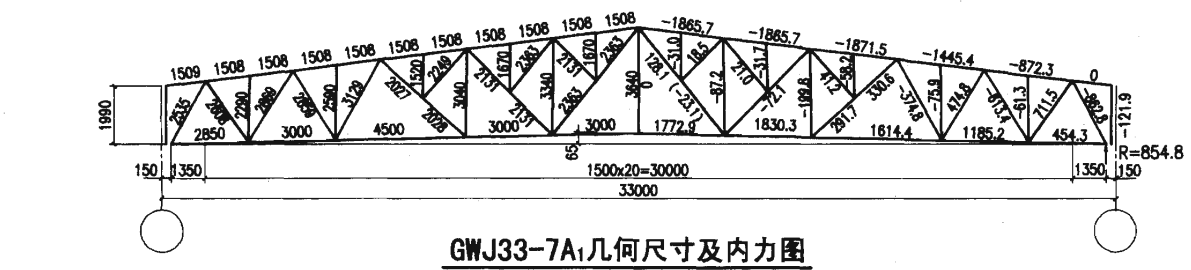
|                            |     |        |
|----------------------------|-----|--------|
| GWJ33-6A1, 6B1, 6C1 详图     | 图集号 | 05G511 |
| 审核 冯东 冯康 校对 张丽娟 张丽娟 设计 李志通 | 页   | 72     |

- 注:
1. 本图应与页27配合使用。
  2. 未注明的角焊缝脚尺寸为5mm, 其长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为 $\phi 21.5$ 。

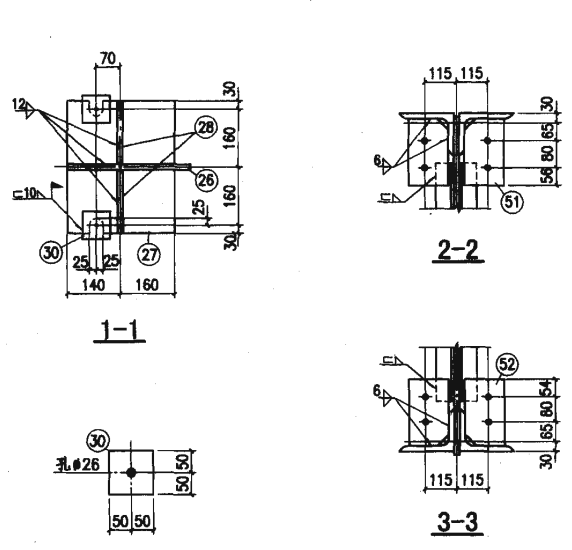




GWJ33-7B<sub>1</sub>、7C<sub>1</sub>  
(7C<sub>1</sub>一端同7A<sub>1</sub>, 另一端同7B<sub>1</sub>)



GWJ33-7A<sub>1</sub>几何尺寸及内力图

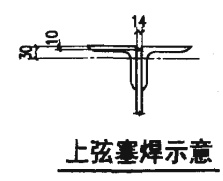
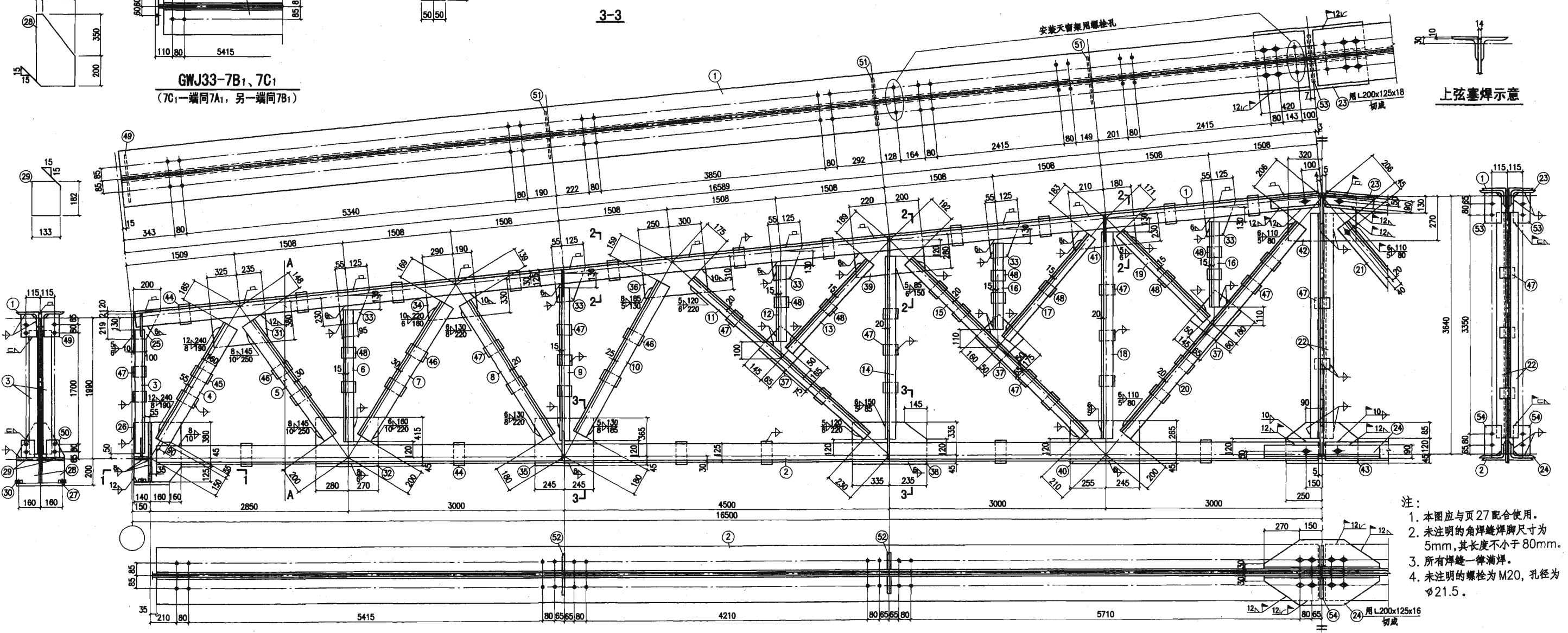


|    |    |            |    |           |
|----|----|------------|----|-----------|
| 49 | 50 | 51         | 53 | 15        |
| 55 | 80 | 85         | 85 | 周于(49)    |
| 58 | 80 | 80         | 57 | 周于(50)不割直 |
| 58 | 80 | 80         | 77 | 周于(51)    |
| 56 | 80 | 58         | 59 | 周于(53)    |
| 90 | 45 | 周于(49)(51) |    |           |
| 95 | 45 | 周于(50)     |    |           |
| 72 | 48 | 周于(53)     |    |           |

| 材料表  |              |         |    |   |         |
|------|--------------|---------|----|---|---------|
| 零件编号 | 断面           | 长度 (mm) | 数量 |   | 重量 (kg) |
|      |              |         | 正  | 反 |         |
| 1    | L 200x125x18 | 16570   | 2  | 2 | 2898    |
| 2    | L 200x125x18 | 16310   | 2  | 2 | 2547    |
| 3    | L 63x5       | 1810    | 4  | 4 | 8.8     |
| 4    | L 160x100x12 | 2200    | 2  | 2 | 51.9    |
| 5    | L 110x10     | 2280    | 4  | 4 | 37.7    |
| 6    | L 50x5       | 2040    | 4  | 4 | 7.7     |
| 7    | L 110x10     | 2500    | 4  | 4 | 41.7    |
| 8    | L 80x8       | 2540    | 4  | 4 | 24.5    |
| 9    | L 63x5       | 2340    | 4  | 4 | 11.3    |
| 10   | L 100x7      | 2790    | 4  | 4 | 30.2    |
| 11   | L 80x6       | 3850    | 4  | 4 | 26.9    |
| 12   | L 50x5       | 1290    | 4  | 4 | 4.8     |
| 13   | L 50x5       | 2010    | 4  | 4 | 7.6     |
| 14   | L 80x6       | 2800    | 4  | 4 | 20.7    |
| 15   | L 70x5       | 3860    | 4  | 4 | 20.8    |
| 16   | L 50x5       | 1430    | 8  | 8 | 5.4     |
| 17   | L 50x5       | 2130    | 4  | 4 | 8.0     |
| 18   | L 70x5       | 3090    | 4  | 4 | 16.7    |
| 19   | L 50x5       | 1910    | 4  | 4 | 7.2     |
| 20   | L 70x5       | 4320    | 2  | 2 | 23.3    |
| 21   | L 70x5       | 4320    | 1  | 1 | 23.3    |
| 22   | L 63x5       | 3390    | 2  | 2 | 16.3    |
| 23   | L 200x125x18 | 840     | 2  | 2 | 36.8    |
| 24   | L 200x125x18 | 840     | 2  | 2 | 32.8    |
| 25   | -200x14      | 280     | 2  | 2 | 5.7     |
| 26   | -460x16      | 550     | 2  | 2 | 31.8    |
| 27   | -300x30      | 380     | 2  | 2 | 28.8    |
| 28   | -182x14      | 550     | 4  | 4 | 11.0    |
| 29   | -133x14      | 182     | 4  | 4 | 2.7     |
| 30   | -100x30      | 100     | 4  | 4 | 2.4     |
| 31   | -400x14      | 560     | 2  | 2 | 24.6    |
| 32   | -480x14      | 550     | 2  | 2 | 27.8    |
| 33   | -180x14      | 250     | 10 | 4 | 4.9     |

| GWJ33-7B <sub>1</sub>  |                         |       |    |      |
|------------------------|-------------------------|-------|----|------|
| 5~24, 31~46, 48, 51~54 | 同 GWJ33-7A <sub>1</sub> | 1940  |    |      |
| 47                     | -60x14                  | 100   | 47 | 0.7  |
| 55                     | L 200x125x18            | 16290 | 2  | 2    |
| 56                     | L 200x125x18            | 16200 | 2  | 2    |
| 57                     | L 160x100x12            | 2140  | 2  | 2    |
| 58                     | -220x14                 | 225   | 2  | 5.3  |
| 59                     | -200x20                 | 200   | 2  | 6.3  |
| 60                     | -280x16                 | 595   | 2  | 20.9 |
| 61                     | -200x20                 | 610   | 2  | 19.2 |

| GWJ33-7C <sub>1</sub>  |                         |      |      |     |
|------------------------|-------------------------|------|------|-----|
| 1~4, 25~30, 49, 50     | 同 GWJ33-7A <sub>1</sub> | 数量减半 | 2944 |     |
| 5~24, 31~46, 48, 51~54 | 同 GWJ33-7A <sub>1</sub> | 1940 |      |     |
| 47                     | -60x14                  | 100  | 47   | 0.7 |
| 55~61                  | 同 GWJ33-7B <sub>1</sub> | 数量减半 | 2838 |     |

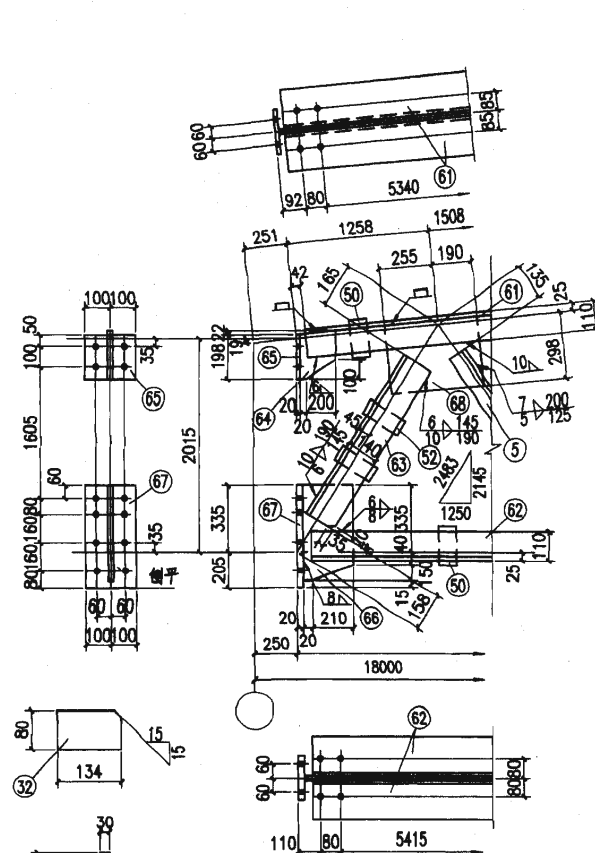


上弦塞焊示意

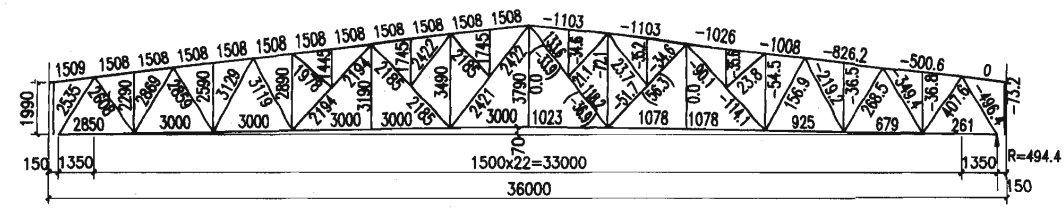
- 注:
1. 本图应与页 27 配合使用。
  2. 未注明的角焊缝焊脚尺寸为 5mm, 其长度不小于 80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为 M20, 孔径为  $\phi 21.5$ 。

GWJ33-7A<sub>1</sub>

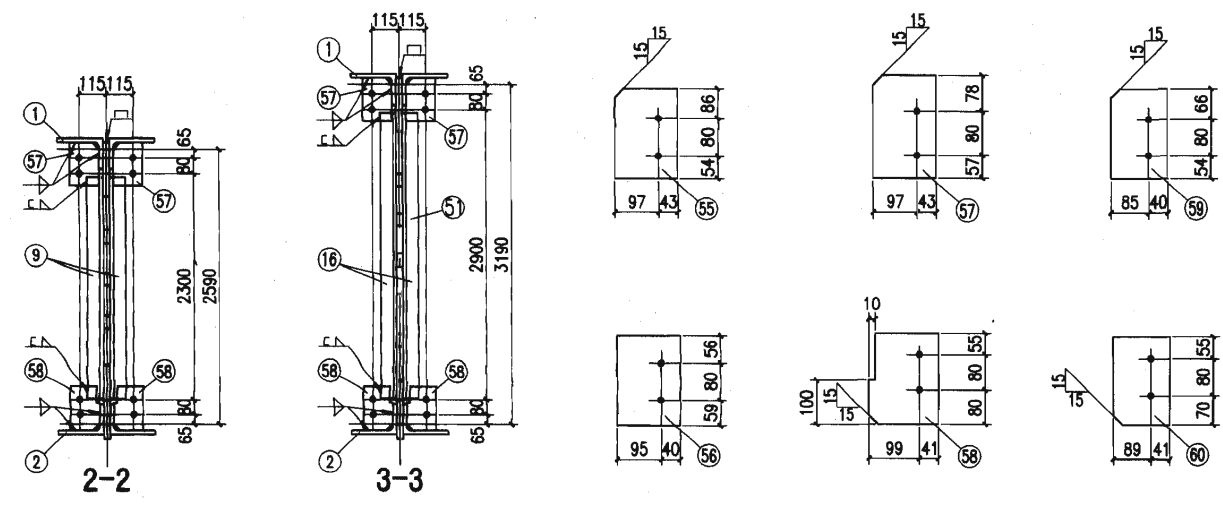
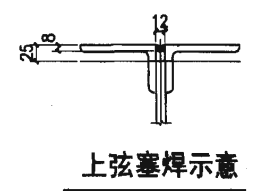
|  |     |        |
|--|-----|--------|
| GWJ33-7A <sub>1</sub> 、7B <sub>1</sub> 、7C <sub>1</sub> 详图 | 图集号 | 05G511 |
| 审核 冯东 冯东 校对 张丽娟 魏丽娟 设计 李志通                                 | 页   | 73     |



GWJ36-1B<sub>1</sub>、1C<sub>1</sub>  
(1C<sub>1</sub>一端同1A<sub>1</sub>, 另一端同1B<sub>1</sub>)

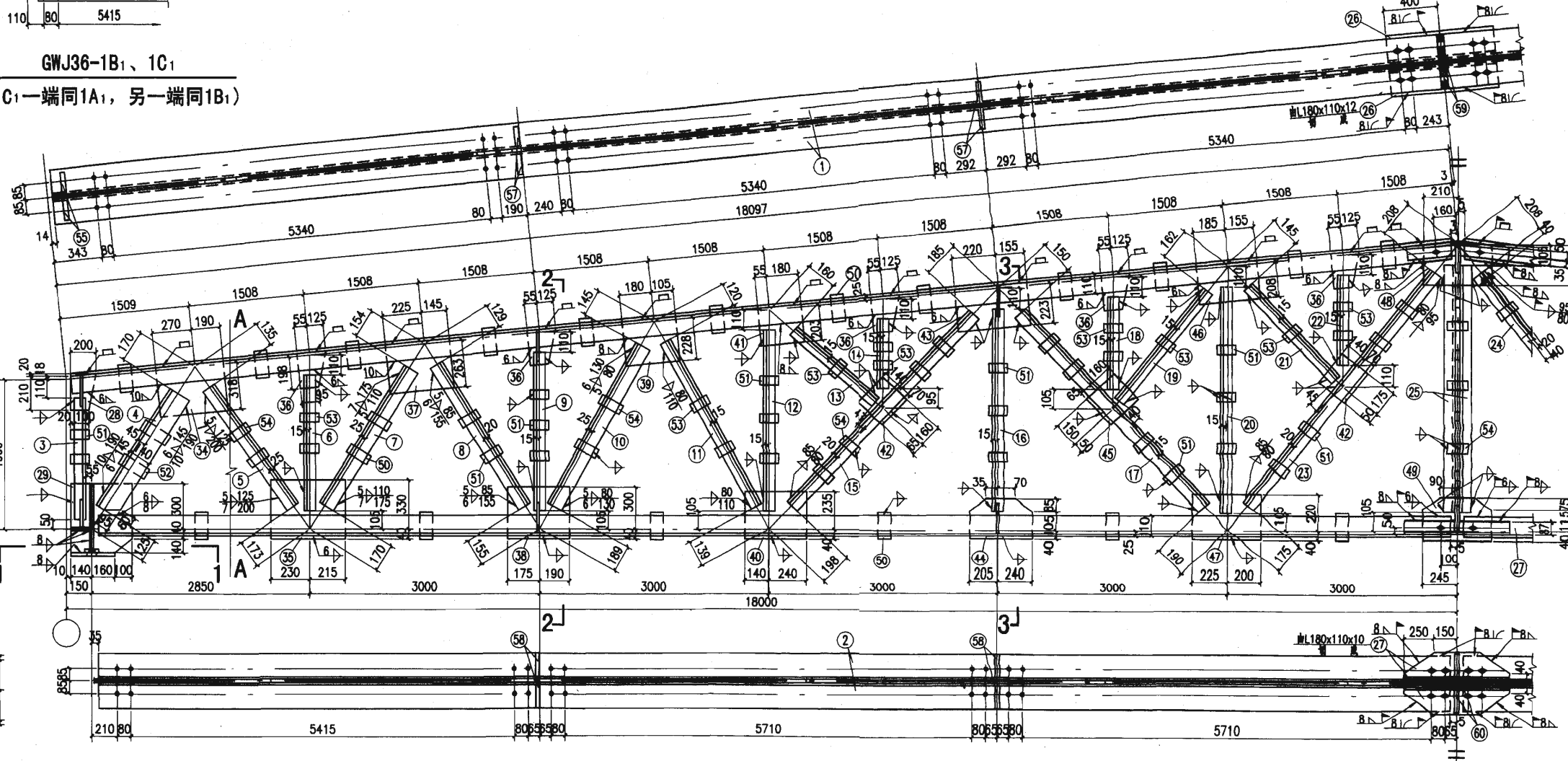


GWJ36-1A<sub>1</sub>几何尺寸及内力图



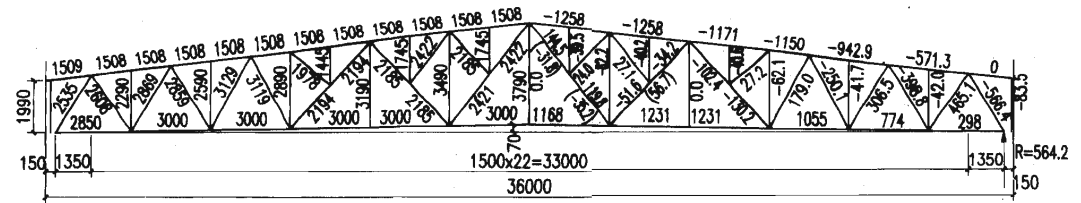
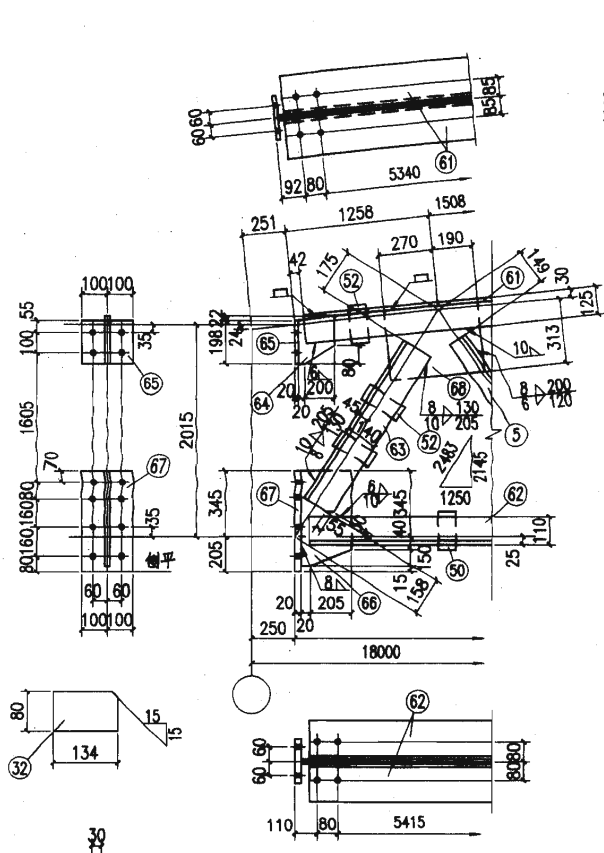
GWJ36-1A<sub>1</sub>

| 材 料 表 |             |       |    |    |        |      |                        |                       |       |      |    |        |      |
|-------|-------------|-------|----|----|--------|------|------------------------|-----------------------|-------|------|----|--------|------|
| 构件编号  | 断面          | 长度    |    | 数量 | 重量(kg) |      | 构件编号                   | 断面                    | 长度    |      | 数量 | 重量(kg) |      |
|       |             | 正     | 反  |    | 每个     | 合计   |                        |                       | 正     | 反    |    | 每个     | 合计   |
| 1     | L180X110X12 | 18080 | 2  | 2  | 478.4  | 1914 | 38                     | -340X12               | 365   | 2    | 2  | 11.7   | 23   |
| 2     | L180X110X10 | 17810 | 2  | 2  | 396.7  | 1587 | 39                     | -245X12               | 285   | 2    | 2  | 6.6    | 13   |
| 3     | L63X5       | 1830  | 4  | 4  | 8.8    | 35   | 40                     | -275X12               | 380   | 2    | 2  | 9.8    | 20   |
| 4     | L140X90X8   | 2240  | 2  | 2  | 31.7   | 127  | 41                     | -220X12               | 235   | 2    | 2  | 4.9    | 10   |
| 5     | L90X6       | 2300  | 4  | 4  | 19.2   | 77   | 42                     | -210X12               | 225   | 4    | 4  | 4.5    | 18   |
| 6     | L50X5       | 2075  | 4  | 4  | 7.8    | 31   | 43                     | -240X12               | 375   | 2    | 2  | 8.5    | 17   |
| 7     | L100X6      | 2545  | 4  | 4  | 23.8   | 95   | 44                     | -230X12               | 445   | 2    | 2  | 9.6    | 19   |
| 8     | L70X5       | 2575  | 4  | 4  | 13.9   | 56   | 45                     | -200X12               | 225   | 2    | 2  | 4.2    | 8    |
| 9     | L63X5       | 2375  | 4  | 4  | 11.5   | 46   | 46                     | -225X12               | 340   | 2    | 2  | 7.2    | 14   |
| 10    | L90X6       | 2795  | 4  | 4  | 23.3   | 93   | 47                     | -280X12               | 425   | 2    | 2  | 10.4   | 21   |
| 11    | L50X5       | 2860  | 4  | 4  | 10.8   | 43   | 48                     | -280X12               | 420   | 1    | 1  | 11.1   | 11   |
| 12    | L63X5       | 2675  | 4  | 4  | 12.9   | 52   | 49                     | -230X12               | 490   | 1    | 1  | 10.6   | 11   |
| 13    | L50X5       | 1775  | 4  | 4  | 6.7    | 27   | 50                     | -60X12                | 130   | 40   | 40 | 0.7    | 28   |
| 14    | L50X5       | 1240  | 4  | 4  | 4.7    | 19   | 51                     | -60X12                | 90    | 48   | 48 | 0.5    | 24   |
| 15    | L80X5       | 4005  | 4  | 4  | 24.9   | 99   | 52                     | -60X12                | 160   | 4    | 4  | 0.9    | 4    |
| 16    | L63X5       | 2975  | 4  | 4  | 14.4   | 57   | 53                     | -60X12                | 70    | 26   | 26 | 0.4    | 10   |
| 17    | L63X5       | 4030  | 4  | 4  | 19.4   | 78   | 54                     | -60X12                | 110   | 23   | 23 | 0.6    | 14   |
| 18    | L50X5       | 1530  | 4  | 4  | 5.8    | 23   | 55                     | -140X8                | 220   | 4    | 4  | 1.9    | 8    |
| 19    | L50X5       | 2220  | 4  | 4  | 8.4    | 33   | 56                     | -135X8                | 195   | 4    | 4  | 1.7    | 7    |
| 20    | L63X5       | 3275  | 4  | 4  | 15.8   | 63   | 57                     | -140X8                | 215   | 8    | 8  | 1.9    | 15   |
| 21    | L50X5       | 1995  | 4  | 4  | 7.5    | 30   | 58                     | -140X8                | 215   | 8    | 8  | 1.9    | 15   |
| 22    | L50X5       | 1525  | 4  | 4  | 5.8    | 23   | 59                     | -125X8                | 200   | 2    | 2  | 1.6    | 3    |
| 23    | L70X5       | 4460  | 2  | 2  | 24.1   | 48   | 60                     | -130X8                | 205   | 2    | 2  | 1.7    | 3    |
| 24    | L70X5       | 4460  | 1  | 1  | 24.1   | 48   | 5~27,35~50,52~54,57~60 | GWJ36-1A <sub>1</sub> | 1521  |      |    |        |      |
| 25    | L63X5       | 3570  | 2  | 2  | 17.2   | 34   | 51                     | -60X12                | 90    | 44   | 44 | 0.5    | 22   |
| 26    | L180X110X12 | 800   | 2  | 2  | 21.2   | 42   | 61                     | L180X110X12           | 17800 | 2    | 2  | 471.0  | 1884 |
| 27    | L180X110X10 | 800   | 2  | 2  | 17.8   | 36   | 62                     | L180X110X10           | 17705 | 2    | 2  | 394.4  | 1577 |
| 28    | -200X12     | 230   | 2  | 2  | 4.3    | 9    | 63                     | L140X90X8             | 2160  | 2    | 2  | 30.6   | 122  |
| 29    | -400X14     | 480   | 2  | 2  | 21.1   | 42   | 64                     | -220X12               | 220   | 2    | 2  | 4.6    | 9    |
| 30    | -300X25     | 380   | 2  | 2  | 22.4   | 45   | 65                     | -195X12               | 200   | 2    | 2  | 6.1    | 12   |
| 31    | -80X12      | 480   | 4  | 4  | 3.6    | 14   | 66                     | -230X14               | 525   | 2    | 2  | 13.0   | 26   |
| 32    | -80X12      | 134   | 4  | 4  | 1.0    | 4    | 67                     | -200X20               | 540   | 2    | 2  | 16.6   | 33   |
| 33    | -100X25     | 100   | 4  | 4  | 2.0    | 8    | 68                     | -315X12               | 445   | 2    | 2  | 13.2   | 26   |
| 34    | -335X12     | 460   | 2  | 2  | 14.5   | 29   | 1~4,28~33,55,56        | GWJ36-1A <sub>1</sub> | 数量详单  | 1900 |    |        |      |
| 35    | -370X12     | 445   | 2  | 2  | 15.5   | 31   | 5~27,35~50,52~54,57~60 | GWJ36-1A <sub>1</sub> | 1521  |      |    |        |      |
| 36    | -180X12     | 215   | 10 | 10 | 3.6    | 36   | 51                     | -60X12                | 90    | 46   | 46 | 0.5    | 23   |
| 37    | -280X12     | 370   | 2  | 2  | 9.8    | 20   | 61~68                  | GWJ36-1B <sub>1</sub> | 数量详单  | 1846 |    |        |      |

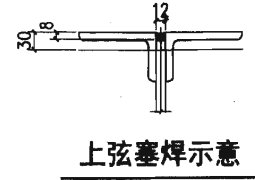


GWJ36-1A<sub>1</sub>

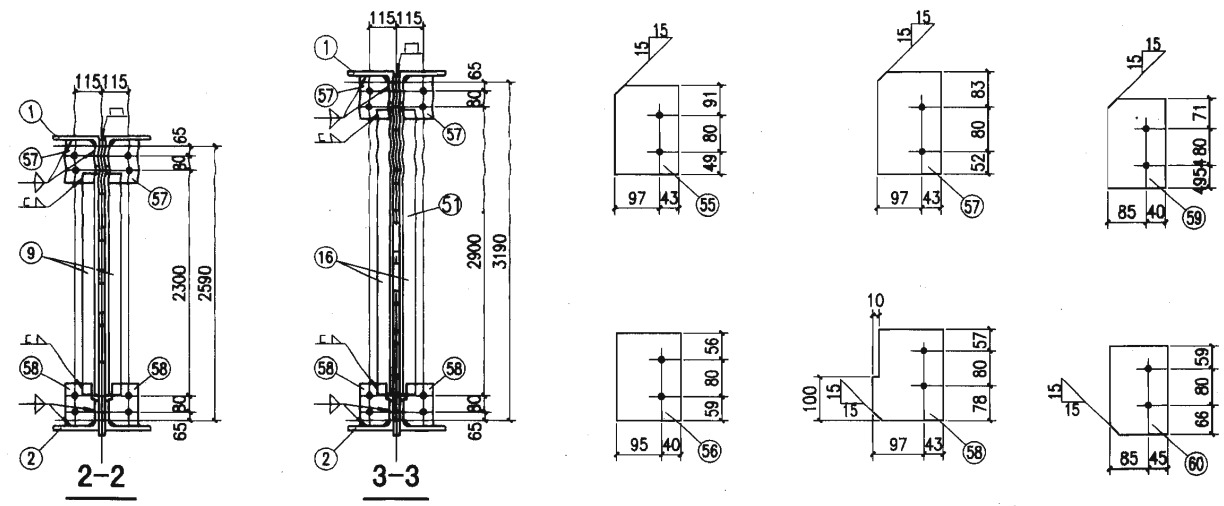
- 注:
1. 本图应与页27配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm; 焊缝长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为 $\phi$ 21.5。



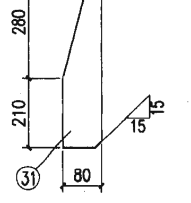
GWJ36-2A1几何尺寸及内力图



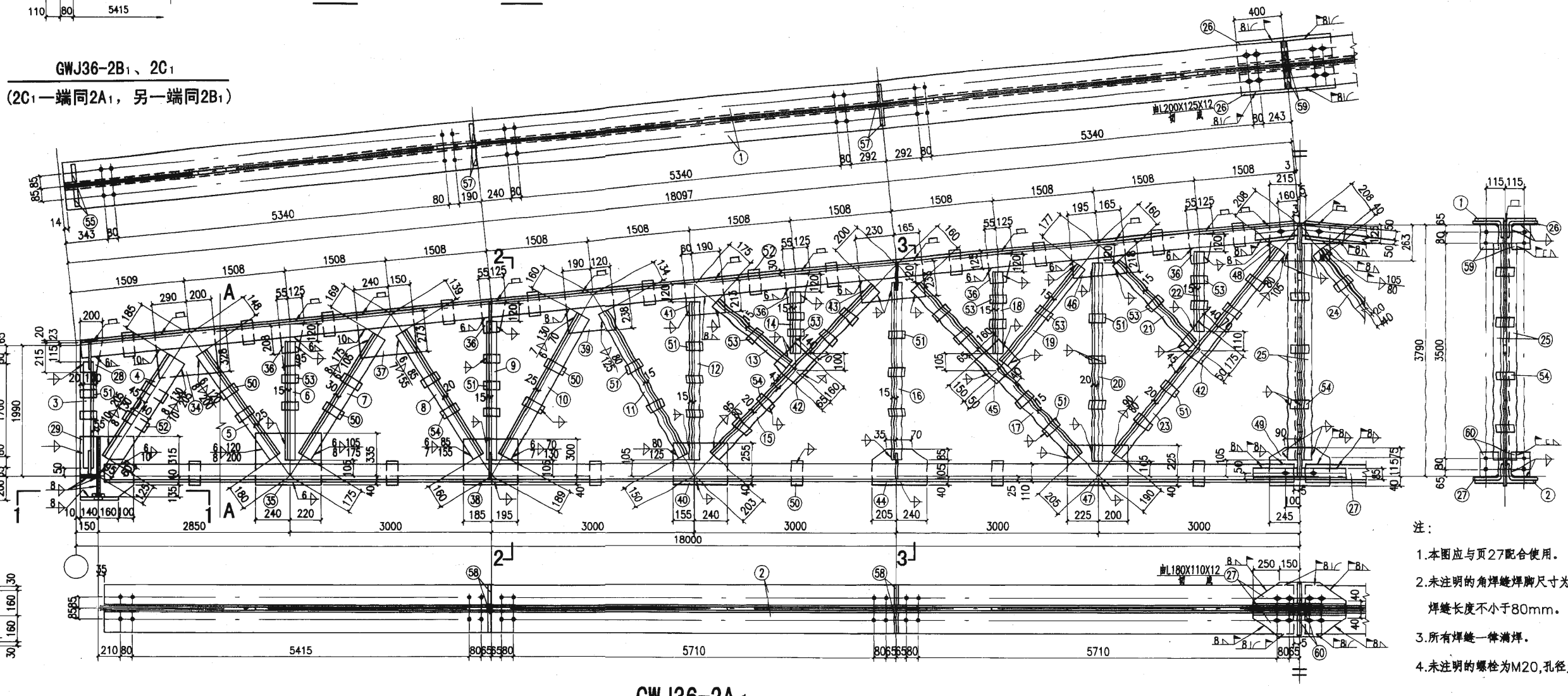
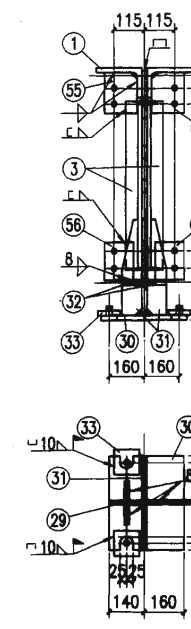
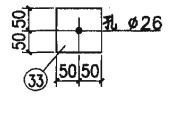
上弦塞焊示意



| 材 料 表                            |             |         |         |       |      |    |         |         |    |            |    |
|----------------------------------|-------------|---------|---------|-------|------|----|---------|---------|----|------------|----|
| 构件编号                             | 规格          | 长度 (mm) | 重量 (kg) |       | 构件编号 | 规格 | 长度 (mm) | 重量 (kg) |    |            |    |
|                                  |             |         | 正       | 反     |      |    |         | 正       | 反  |            |    |
| 1                                | L200X125X12 | 18080   | 2       | 538.0 | 2152 | 38 | -340X12 | 380     | 2  | 12.2       | 24 |
| 2                                | L180X110X12 | 17810   | 2       | 471.3 | 1885 | 39 | -260X12 | 310     | 2  | 7.6        | 15 |
| 3                                | L63X5       | 1825    | 4       | 8.8   | 35   | 40 | -295X12 | 395     | 2  | 11.0       | 22 |
| 4                                | L140X90X10  | 2225    | 2       | 38.9  | 156  | 41 | -235X12 | 250     | 2  | 5.5        | 11 |
| 5                                | L100X7      | 2280    | 4       | 24.7  | 99   | 42 | -210X12 | 225     | 4  | 4.5        | 18 |
| 6                                | L50X5       | 2065    | 4       | 7.8   | 31   | 43 | -255X12 | 395     | 2  | 9.5        | 19 |
| 7                                | L110X7      | 2525    | 4       | 30.1  | 120  | 44 | -230X12 | 445     | 2  | 9.6        | 19 |
| 8                                | L80X6       | 2560    | 4       | 18.9  | 76   | 45 | -200X12 | 225     | 2  | 4.2        | 8  |
| 9                                | L63X5       | 2365    | 4       | 11.4  | 46   | 46 | -240X12 | 380     | 2  | 8.1        | 16 |
| 10                               | L100X7      | 2780    | 4       | 30.1  | 120  | 47 | -265X12 | 425     | 2  | 10.6       | 21 |
| 11                               | L63X5       | 2835    | 4       | 10.7  | 43   | 48 | -285X12 | 430     | 1  | 11.5       | 12 |
| 12                               | L63X5       | 2665    | 4       | 12.9  | 51   | 49 | -230X12 | 490     | 1  | 10.6       | 11 |
| 13                               | L50X5       | 1760    | 4       | 6.6   | 27   | 50 | -60X12  | 130     | 24 | 0.7        | 18 |
| 14                               | L50X5       | 1225    | 4       | 4.6   | 18   | 51 | -60X12  | 90      | 48 | 0.5        | 24 |
| 15                               | L80X6       | 3985    | 4       | 29.4  | 118  | 52 | -60X12  | 180     | 28 | 0.9        | 25 |
| 16                               | L63X5       | 2965    | 4       | 14.3  | 57   | 53 | -60X12  | 70      | 22 | 0.4        | 9  |
| 17                               | L63X5       | 4005    | 4       | 19.3  | 77   | 54 | -60X12  | 110     | 19 | 0.6        | 12 |
| 18                               | L50X5       | 1520    | 4       | 5.7   | 23   | 55 | -140X8  | 220     | 4  | 1.9        | 8  |
| 19                               | L50X5       | 2205    | 4       | 8.3   | 33   | 56 | -135X8  | 195     | 4  | 1.7        | 7  |
| 20                               | L70X5       | 3265    | 4       | 17.6  | 70   | 57 | -140X8  | 215     | 8  | 1.9        | 15 |
| 21                               | L50X5       | 1980    | 4       | 7.5   | 30   | 58 | -140X8  | 215     | 8  | 1.9        | 15 |
| 22                               | L50X5       | 1515    | 4       | 5.7   | 23   | 59 | -125X8  | 200     | 2  | 1.6        | 3  |
| 23                               | L70X5       | 4445    | 2       | 24.0  | 48   | 60 | -130X8  | 205     | 2  | 1.7        | 3  |
| 24                               | L70X5       | 4445    | 1       | 24.0  | 48   |    |         |         |    |            |    |
| 25                               | L63X5       | 3560    | 2       | 17.2  | 34   |    |         |         |    |            |    |
| 26                               | L200X125X12 | 800     | 2       | 23.8  | 48   |    |         |         |    |            |    |
| 27                               | L180X110X12 | 800     | 2       | 21.2  | 42   |    |         |         |    |            |    |
| 28                               | -200X12     | 235     | 2       | 4.4   | 9    |    |         |         |    |            |    |
| 29                               | -400X14     | 490     | 2       | 21.5  | 43   |    |         |         |    |            |    |
| 30                               | -300X25     | 380     | 2       | 22.4  | 45   |    |         |         |    |            |    |
| 31                               | -80X12      | 480     | 4       | 3.6   | 14   |    |         |         |    |            |    |
| 32                               | -80X12      | 134     | 4       | 1.0   | 4    |    |         |         |    |            |    |
| 33                               | -100X25     | 100     | 4       | 2.0   | 8    |    |         |         |    |            |    |
| 34                               | -350X12     | 490     | 2       | 16.2  | 32   |    |         |         |    |            |    |
| 35                               | -375X12     | 460     | 2       | 16.2  | 32   |    |         |         |    |            |    |
| 36                               | -180X12     | 230     | 10      | 3.9   | 39   |    |         |         |    |            |    |
| 37                               | -295X12     | 390     | 2       | 10.8  | 22   |    |         |         |    |            |    |
| GWJ36-2A1                        |             |         |         |       |      |    |         |         |    | 5947       |    |
| GWJ36-2B1                        |             |         |         |       |      |    |         |         |    | 6001       |    |
| 5~27,35~50,52~54,57~60 GWJ36-2A1 |             |         |         |       |      |    |         |         |    | 1673       |    |
| 51~60X12 90 38                   |             |         |         |       |      |    |         |         |    | 0.5 19     |    |
| 61 L200X125X12 17800 2 2         |             |         |         |       |      |    |         |         |    | 529.7 2119 |    |
| 62 L180X110X12 17705 2 2         |             |         |         |       |      |    |         |         |    | 468.5 1874 |    |
| 63 L140X90X10 2150 2 2           |             |         |         |       |      |    |         |         |    | 37.6 150   |    |
| 64 -220X12 220 2 2               |             |         |         |       |      |    |         |         |    | 4.6 9      |    |
| 65 -195X12 200 2 2               |             |         |         |       |      |    |         |         |    | 6.1 12     |    |
| 66 -225X14 535 2 2               |             |         |         |       |      |    |         |         |    | 13.2 26    |    |
| 67 -200X20 550 2 2               |             |         |         |       |      |    |         |         |    | 17.3 35    |    |
| 68 -335X12 480 2 2               |             |         |         |       |      |    |         |         |    | 14.5 29    |    |
| 1~4,28~33,55,56 GWJ36-2A1 数量详平   |             |         |         |       |      |    |         |         |    | 2182       |    |
| 5~27,35~50,52~54,57~60 GWJ36-2A1 |             |         |         |       |      |    |         |         |    | 1673       |    |
| 51~60X12 90 36                   |             |         |         |       |      |    |         |         |    | 0.5 18     |    |
| 61~68 GWJ36-2B1 数量详平             |             |         |         |       |      |    |         |         |    | 2127       |    |

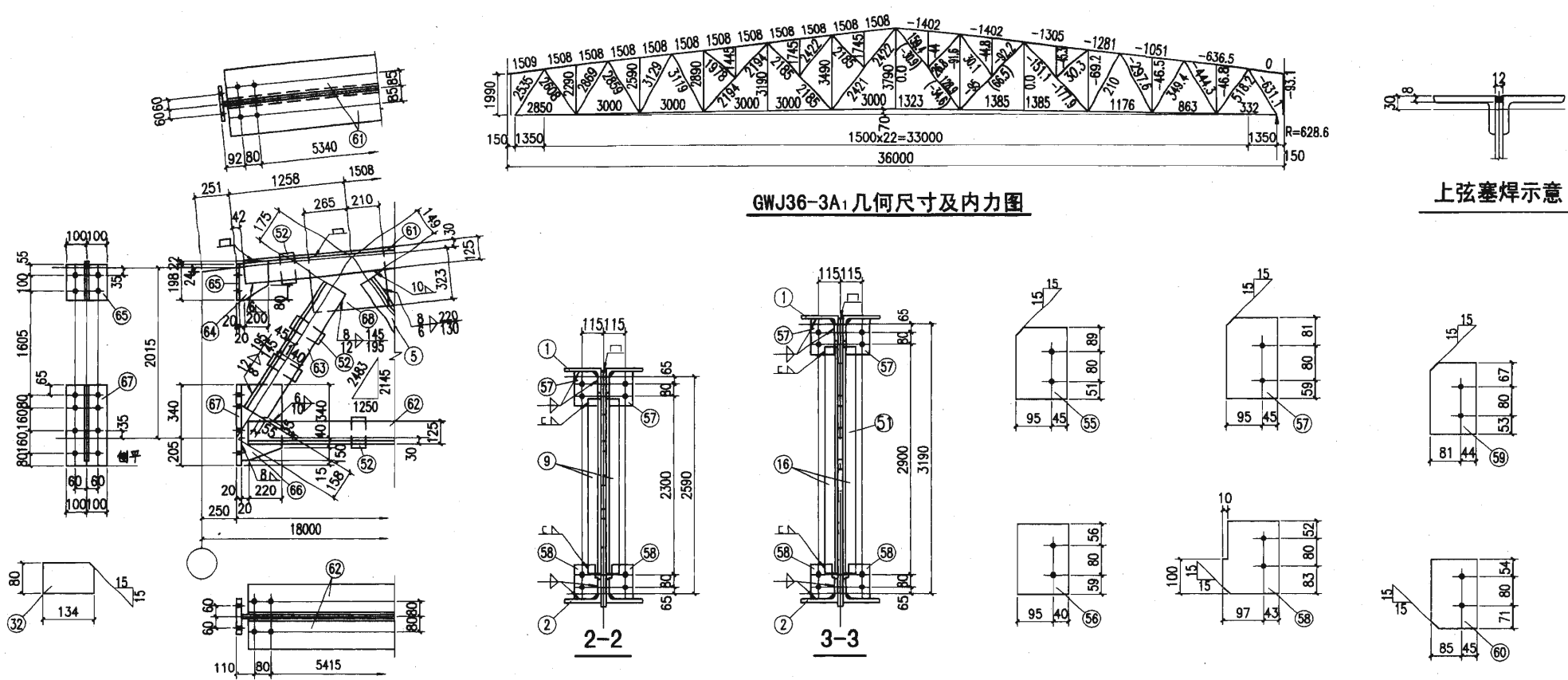


GWJ36-2B1、2C1  
(2C1一端同2A1, 另一端同2B1)

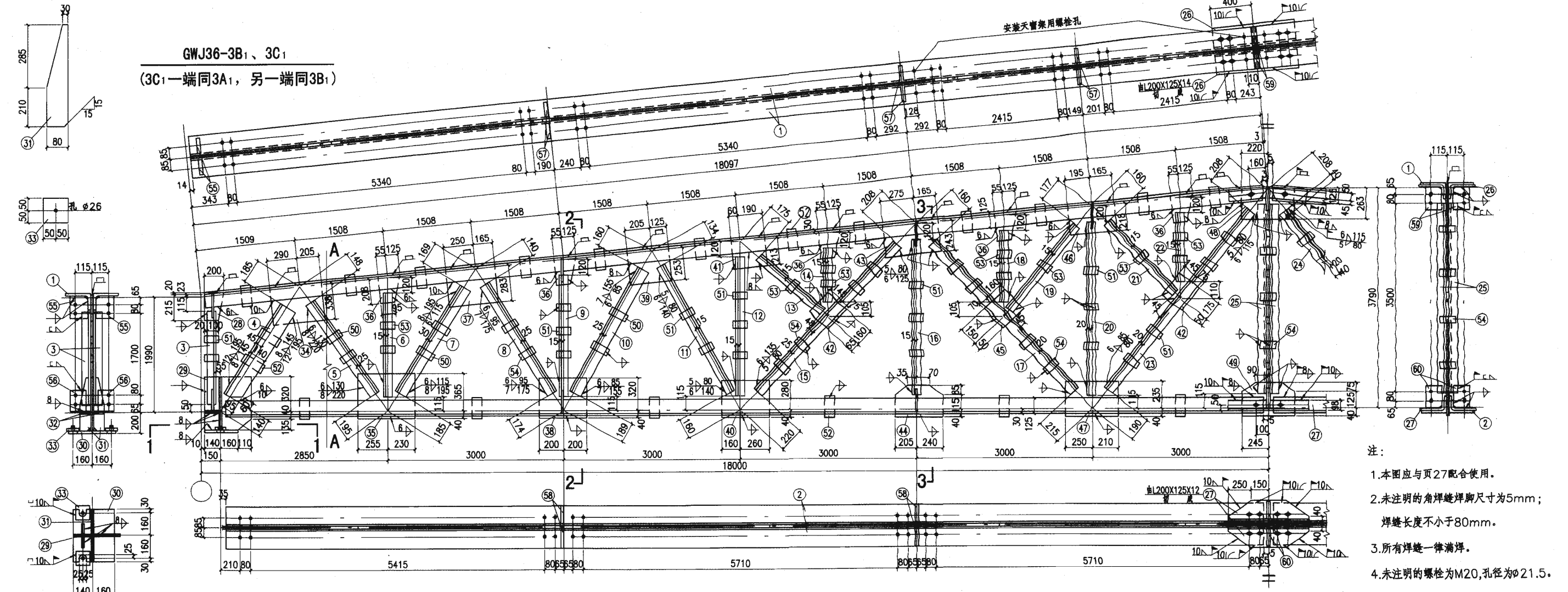


GWJ36-2A1

- 注:
- 1.本图应与页27配合使用。
  - 2.未注明的角焊缝焊脚尺寸为5mm; 焊缝长度不小于80mm。
  - 3.所有焊缝一律满焊。
  - 4.未注明的螺栓为M20,孔径为φ21.5。



| 材 料 表     |                            |           |      |    |      |        |   |    |      |     |                     |           |    |     |        |      |           |  |  |  |  |  |  |  |  |  |
|-----------|----------------------------|-----------|------|----|------|--------|---|----|------|-----|---------------------|-----------|----|-----|--------|------|-----------|--|--|--|--|--|--|--|--|--|
| 构件编号      | 零件号                        | 断面        | 长度数量 |    |      | 重量(kg) |   |    | 构件编号 | 零件号 | 断面                  | 长度数量      |    |     | 重量(kg) |      |           |  |  |  |  |  |  |  |  |  |
|           |                            |           | 正    | 反  | 每个   | 正      | 反 | 每个 |      |     |                     | 正         | 反  | 每个  | 正      | 反    | 每个        |  |  |  |  |  |  |  |  |  |
| GWJ36-3A1 |                            |           |      |    |      |        |   |    |      | 38  | L200X125X14         | 400       | 2  | 2   | 622.6  | 2490 | GWJ36-3B1 |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 39  | L200X125X12         | 330       | 2  | 2   | 530.0  | 2120 |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 40  | L63X5               | 420       | 2  | 2   | 8.8    | 35   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 41  | L140X90X10          | 250       | 2  | 2   | 38.6   | 154  |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 42  | L100X7              | 225       | 4  | 4   | 24.5   | 98   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 43  | L50X5               | 2055      | 4  | 4   | 7.8    | 31   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 44  | L110X7              | 2515      | 4  | 4   | 30.0   | 120  |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 45  | L90X6               | 2545      | 4  | 4   | 21.2   | 85   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 46  | L63X5               | 2355      | 4  | 4   | 11.4   | 45   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 47  | L100X7              | 2780      | 4  | 4   | 30.1   | 120  |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 48  | L63X5               | 2825      | 4  | 4   | 10.7   | 43   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 49  | L63X5               | 2655      | 4  | 4   | 12.8   | 51   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 50  | L50X5               | 1755      | 4  | 4   | 6.6    | 26   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 51  | L50X5               | 1220      | 4  | 4   | 4.6    | 18   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 52  | L90X6               | 3960      | 4  | 4   | 33.0   | 132  |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 53  | L63X5               | 2955      | 4  | 4   | 14.3   | 57   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 54  | L75X5               | 3995      | 4  | 4   | 23.2   | 93   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 55  | L50X5               | 1520      | 4  | 4   | 5.7    | 23   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 56  | L50X5               | 2200      | 4  | 4   | 8.3    | 33   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 57  | L70X5               | 3255      | 4  | 4   | 17.6   | 70   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 58  | L50X5               | 1980      | 4  | 4   | 7.5    | 30   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 59  | L50X5               | 1515      | 4  | 4   | 5.7    | 23   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 60  | L70X5               | 4445      | 2  | 2   | 24.0   | 48   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 61  | L70X5               | 4445      | 1  | 1   | 24.0   | 48   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 62  | L63X5               | 3550      | 2  | 2   | 17.1   | 34   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 63  | L200X125X14         | 800       | 2  | 2   | 27.5   | 55   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 64  | L200X125X12         | 800       | 2  | 2   | 23.8   | 48   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 65  | L200X12             | 235       | 2  | 2   | 4.4    | 9    |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 66  | L410X14             | 495       | 2  | 2   | 22.3   | 45   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 67  | L300X25             | 380       | 2  | 2   | 22.4   | 45   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 68  | L80X12              | 495       | 4  | 4   | 3.7    | 15   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 69  | L80X12              | 134       | 4  | 4   | 1.0    | 4    |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 70  | L100X25             | 100       | 4  | 4   | 2.0    | 8    |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 71  | L360X12             | 495       | 2  | 2   | 16.8   | 34   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 72  | L405X12             | 485       | 2  | 2   | 18.5   | 37   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 73  | L180X12             | 230       | 10 | 10  | 3.9    | 39   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 74  | L305X12             | 415       | 2  | 2   | 11.9   | 24   |           |  |  |  |  |  |  |  |  |  |
| GWJ36-3C1 |                            |           |      |    |      |        |   |    |      | 75  | L200X125X14         | 90        | 36 | 0.5 | 18     |      |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 76  | L200X125X14         | 17800     | 2  | 2   | 612.9  | 2452 |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 77  | L200X125X12         | 17705     | 2  | 2   | 526.9  | 2108 |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 78  | L140X90X10          | 2150      | 2  | 2   | 37.6   | 150  |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 79  | L220X12             | 220       | 2  | 2   | 4.6    | 9    |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 80  | L195X20             | 200       | 2  | 2   | 6.1    | 12   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 81  | L240X14             | 530       | 2  | 2   | 14.0   | 28   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 82  | L200X20             | 545       | 2  | 2   | 17.1   | 34   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 83  | L345X12             | 475       | 2  | 2   | 15.4   | 31   |           |  |  |  |  |  |  |  |  |  |
|           |                            |           |      |    |      |        |   |    |      | 84  | L1~4, 28~33, 55, 56 | GWJ36-3A1 | 数量 | 调平  | 2470   |      |           |  |  |  |  |  |  |  |  |  |
| 85        | L5~27, 35~50, 52~54, 57~60 | GWJ36-3A1 | 数量   | 调平 | 1761 |        |   |    |      |     |                     |           |    |     |        |      |           |  |  |  |  |  |  |  |  |  |
| 86        | L61~68                     | GWJ36-3B1 | 数量   | 调平 | 6603 |        |   |    |      |     |                     |           |    |     |        |      |           |  |  |  |  |  |  |  |  |  |
| 87        | L51~60                     | GWJ36-3C1 | 数量   | 调平 | 6662 |        |   |    |      |     |                     |           |    |     |        |      |           |  |  |  |  |  |  |  |  |  |
| 88        | L61~68                     | GWJ36-3B1 | 数量   | 调平 | 2412 |        |   |    |      |     |                     |           |    |     |        |      |           |  |  |  |  |  |  |  |  |  |



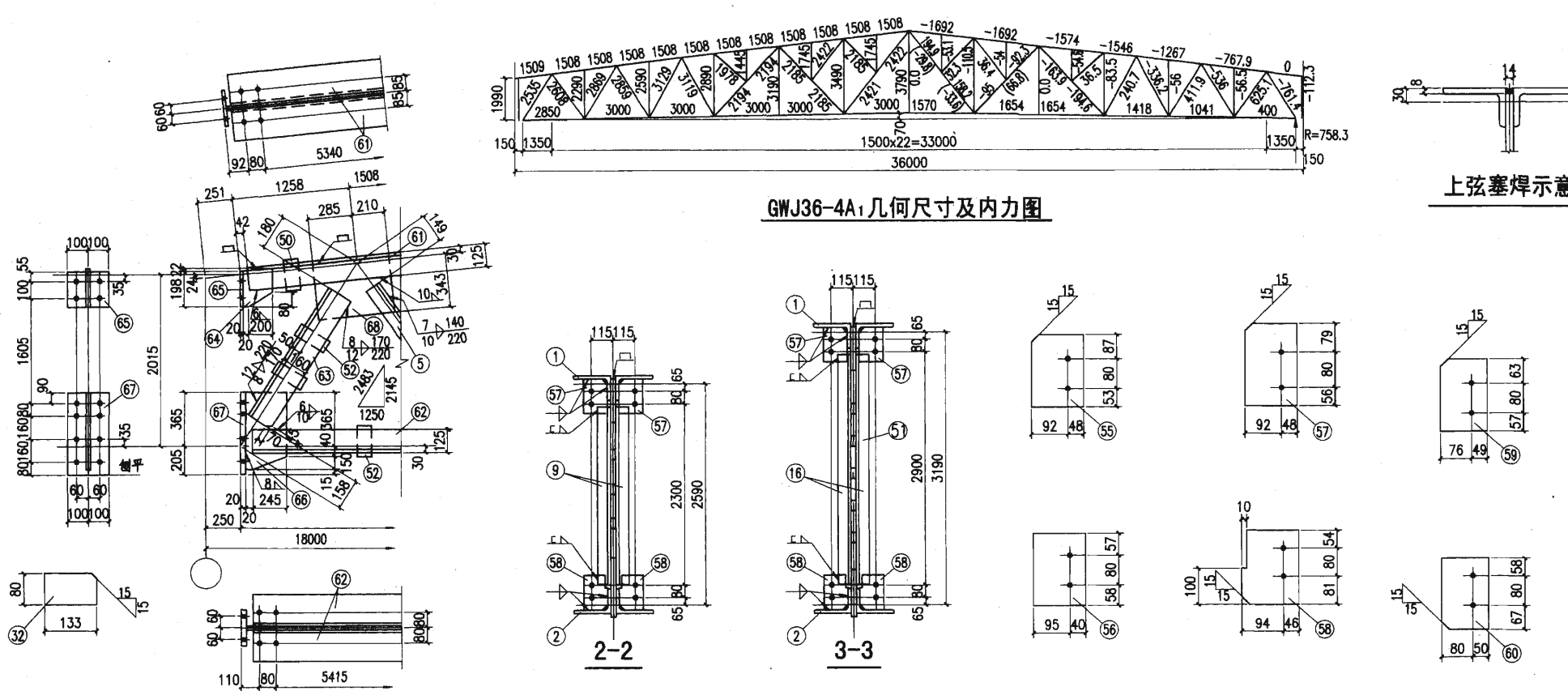
GWJ36-3A1

|                     |     |     |                  |
|---------------------|-----|-----|------------------|
| GWJ36-3A1、3B1、3C1详图 |     | 图集号 | 05G511           |
| 审核                  | 汪一骏 | 校对  | 张丽娟 张丽娟 设计 汪源 汪源 |
| 页                   | 76  |     |                  |

材 料 表

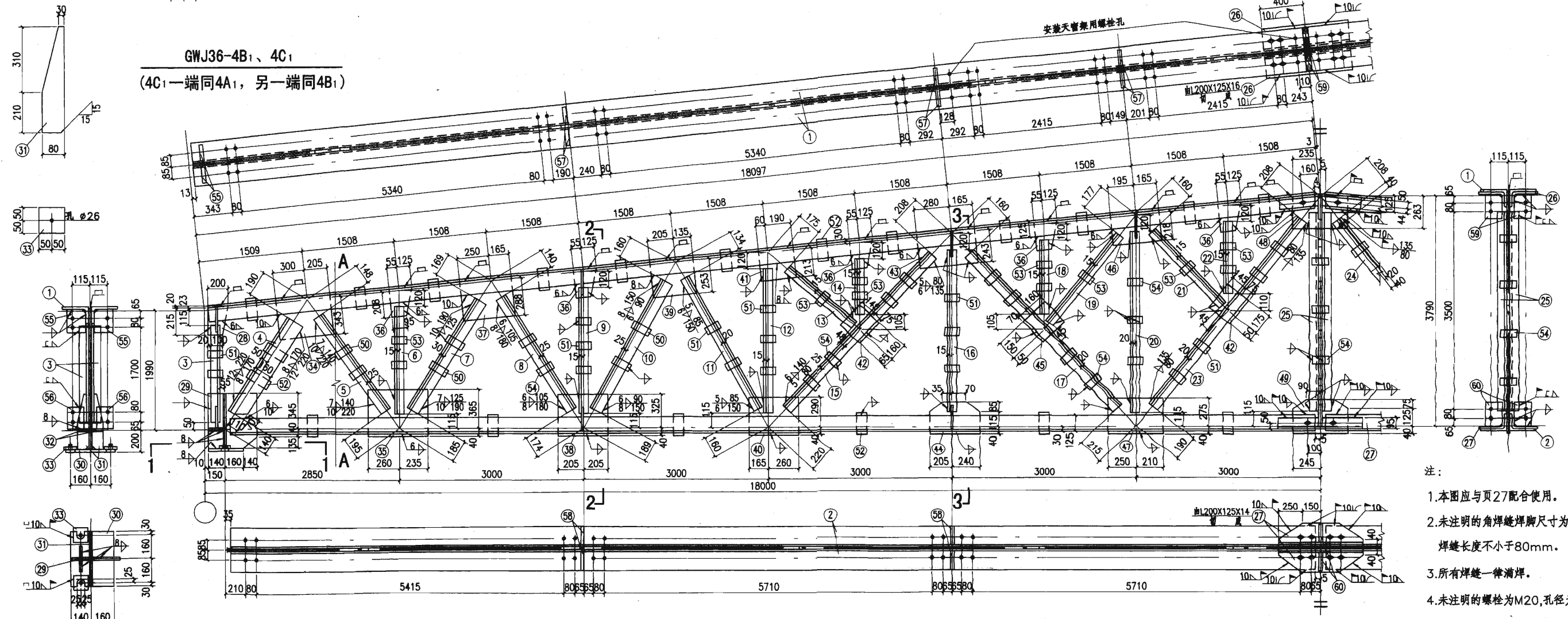
| 构件编号                      | 零件号                   | 新 面   | 长度 (mm) | 数量 |       | 重量 (kg) |    | 构件编号    | 零件号 | 新 面 | 长度 (mm) | 数量 |   | 重量 (kg) |    |
|---------------------------|-----------------------|-------|---------|----|-------|---------|----|---------|-----|-----|---------|----|---|---------|----|
|                           |                       |       |         | 正  | 反     | 每个      | 共计 |         |     |     |         | 正  | 反 | 每个      | 共计 |
| GWJ36-4A1                 |                       |       |         |    |       |         |    |         |     |     |         |    |   |         |    |
| 1                         | L200X125X16           | 18080 | 2       | 2  | 705.9 | 2824    | 38 | -365X14 | 410 | 2   | 16.4    | 33 |   |         |    |
| 2                         | L200X125X14           | 17810 | 2       | 2  | 613.3 | 2453    | 39 | -275X14 | 340 | 2   | 10.3    | 21 |   |         |    |
| 3                         | L63X5                 | 1825  | 4       | 4  | 8.8   | 35      | 40 | -330X14 | 425 | 2   | 15.4    | 31 |   |         |    |
| 4                         | L160X100X12           | 2205  | 2       | 2  | 52.0  | 208     | 41 | -235X14 | 250 | 2   | 6.5     | 13 |   |         |    |
| 5                         | L100X8                | 2265  | 4       | 4  | 27.8  | 111     | 42 | -220X14 | 225 | 4   | 5.4     | 22 |   |         |    |
| 6                         | L50X5                 | 2055  | 4       | 4  | 7.8   | 31      | 43 | -265X14 | 445 | 2   | 13.0    | 26 |   |         |    |
| 7                         | L110X8                | 2515  | 4       | 4  | 34.0  | 136     | 44 | -240X14 | 445 | 2   | 11.7    | 23 |   |         |    |
| 8                         | L90X7                 | 2545  | 4       | 4  | 24.6  | 98      | 45 | -200X14 | 230 | 2   | 5.1     | 10 |   |         |    |
| 9                         | L63X5                 | 2355  | 4       | 4  | 11.4  | 45      | 46 | -240X14 | 360 | 2   | 9.5     | 19 |   |         |    |
| 10                        | L100X8                | 2780  | 4       | 4  | 34.1  | 137     | 47 | -315X14 | 460 | 2   | 15.9    | 32 |   |         |    |
| 11                        | L70X5                 | 2825  | 4       | 4  | 15.2  | 61      | 48 | -285X14 | 470 | 1   | 14.7    | 15 |   |         |    |
| 12                        | L63X5                 | 2655  | 4       | 4  | 12.8  | 51      | 49 | -240X14 | 490 | 1   | 12.9    | 13 |   |         |    |
| 13                        | L50X5                 | 1755  | 4       | 4  | 6.6   | 26      | 50 | -60X14  | 130 | 12  | 0.9     | 10 |   |         |    |
| 14                        | L50X5                 | 1220  | 4       | 4  | 4.6   | 18      | 51 | -60X14  | 90  | 34  | 0.6     | 20 |   |         |    |
| 15                        | L90X7                 | 3960  | 4       | 4  | 38.2  | 153     | 52 | -60X14  | 180 | 40  | 1.2     | 47 |   |         |    |
| 16                        | L63X5                 | 2955  | 4       | 4  | 14.3  | 57      | 53 | -60X14  | 70  | 22  | 0.5     | 10 |   |         |    |
| 17                        | L75X5                 | 3995  | 4       | 4  | 23.2  | 93      | 54 | -60X14  | 110 | 33  | 0.7     | 24 |   |         |    |
| 18                        | L50X5                 | 1520  | 4       | 4  | 5.7   | 23      | 55 | -140X8  | 220 | 4   | 1.9     | 8  |   |         |    |
| 19                        | L50X5                 | 2200  | 4       | 4  | 8.3   | 33      | 56 | -135X8  | 195 | 4   | 1.7     | 7  |   |         |    |
| 20                        | L75X5                 | 3255  | 4       | 4  | 18.9  | 76      | 57 | -140X8  | 215 | 12  | 1.9     | 23 |   |         |    |
| 21                        | L50X5                 | 1980  | 4       | 4  | 7.5   | 30      | 58 | -140X8  | 215 | 8   | 1.9     | 15 |   |         |    |
| 22                        | L50X5                 | 1515  | 4       | 4  | 5.7   | 23      | 59 | -125X8  | 200 | 2   | 1.6     | 3  |   |         |    |
| 23                        | L70X5                 | 4445  | 2       | 2  | 24.0  | 48      | 60 | -130X8  | 205 | 2   | 1.7     | 3  |   |         |    |
| 24                        | L70X5                 | 4445  | 1       | 1  | 24.0  | 48      |    |         |     |     |         |    |   |         |    |
| 25                        | L63X5                 | 3550  | 2       | 2  | 17.1  | 34      |    |         |     |     |         |    |   |         |    |
| 26                        | L200X125X16           | 800   | 2       | 2  | 31.2  | 62      |    |         |     |     |         |    |   |         |    |
| 27                        | L200X125X14           | 800   | 2       | 2  | 27.5  | 55      |    |         |     |     |         |    |   |         |    |
| 28                        | -200X14               | 235   | 2       | 2  | 5.2   | 10      |    |         |     |     |         |    |   |         |    |
| 29                        | -440X16               | 520   | 2       | 2  | 28.7  | 57      |    |         |     |     |         |    |   |         |    |
| 30                        | -300X25               | 380   | 2       | 2  | 22.4  | 45      |    |         |     |     |         |    |   |         |    |
| 31                        | -80X14                | 520   | 4       | 4  | 4.6   | 18      |    |         |     |     |         |    |   |         |    |
| 32                        | -80X14                | 133   | 4       | 4  | 1.2   | 5       |    |         |     |     |         |    |   |         |    |
| 33                        | -100X25               | 100   | 4       | 4  | 2.0   | 8       |    |         |     |     |         |    |   |         |    |
| 34                        | -365X14               | 505   | 2       | 2  | 20.3  | 41      |    |         |     |     |         |    |   |         |    |
| 35                        | -405X14               | 495   | 2       | 2  | 22.0  | 44      |    |         |     |     |         |    |   |         |    |
| 36                        | -180X14               | 230   | 10      | 10 | 4.5   | 45      |    |         |     |     |         |    |   |         |    |
| 37                        | -310X14               | 415   | 2       | 2  | 14.1  | 28      |    |         |     |     |         |    |   |         |    |
| GWJ36-4B1                 |                       |       |         |    |       |         |    |         |     |     |         |    |   |         |    |
| 5                         | -27.35~50.52~54.57~60 |       |         |    |       |         |    |         |     |     |         |    |   |         |    |
| 51                        | -60X14                | 90    | 30      | 30 | 0.6   | 18      |    |         |     |     |         |    |   |         |    |
| 61                        | L200X125X16           | 17800 | 2       | 2  | 695.0 | 2780    |    |         |     |     |         |    |   |         |    |
| 62                        | L200X125X14           | 17705 | 2       | 2  | 609.7 | 2439    |    |         |     |     |         |    |   |         |    |
| 63                        | L160X100X10           | 2145  | 2       | 2  | 50.6  | 202     |    |         |     |     |         |    |   |         |    |
| 64                        | -220X14               | 220   | 2       | 2  | 5.3   | 11      |    |         |     |     |         |    |   |         |    |
| 65                        | -195X24               | 200   | 2       | 2  | 7.3   | 15      |    |         |     |     |         |    |   |         |    |
| 66                        | -265X16               | 555   | 2       | 2  | 18.5  | 37      |    |         |     |     |         |    |   |         |    |
| 67                        | -200X20               | 570   | 2       | 2  | 17.9  | 36      |    |         |     |     |         |    |   |         |    |
| 68                        | -365X14               | 495   | 2       | 2  | 19.9  | 40      |    |         |     |     |         |    |   |         |    |
| GWJ36-4C1                 |                       |       |         |    |       |         |    |         |     |     |         |    |   |         |    |
| 1~4, 28~33, 55, 56        |                       |       |         |    |       |         |    |         |     |     |         |    |   |         |    |
| 5~27, 35~50, 52~54, 57~60 |                       |       |         |    |       |         |    |         |     |     |         |    |   |         |    |
| 51                        | -60X12                | 90    | 32      | 32 | 0.5   | 19      |    |         |     |     |         |    |   |         |    |
| 61~68                     |                       |       |         |    |       |         |    |         |     |     |         |    |   |         |    |

GWJ36-4A1 几何尺寸及内力图



上弦塞焊示意

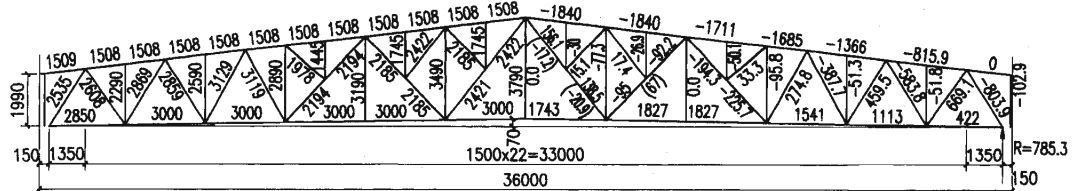
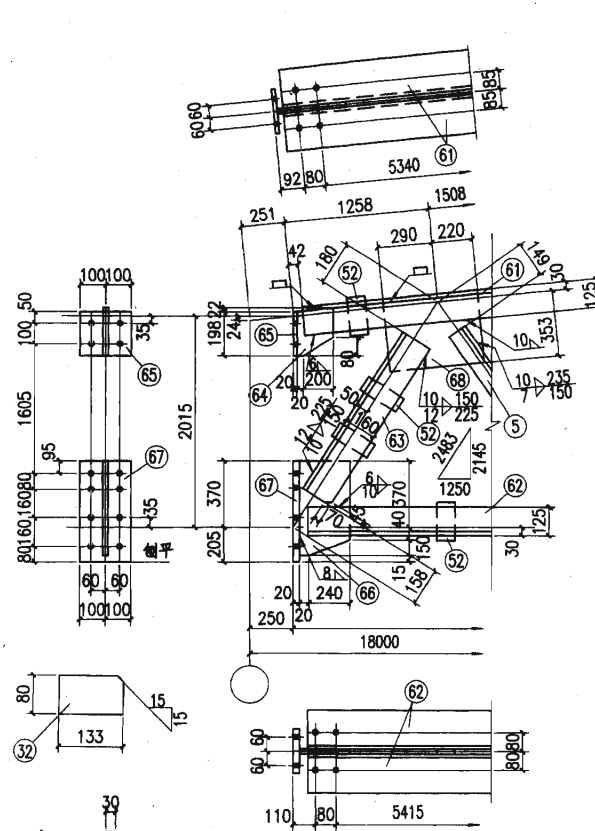
GWJ36-4B1、4C1  
(4C1一端同4A1, 另一端同4B1)



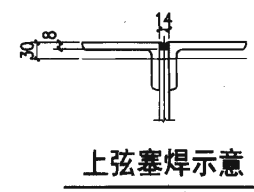
- 注:
1. 本图应与页27配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm; 焊缝长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为 $\phi 21.5$ 。

GWJ36-4A1

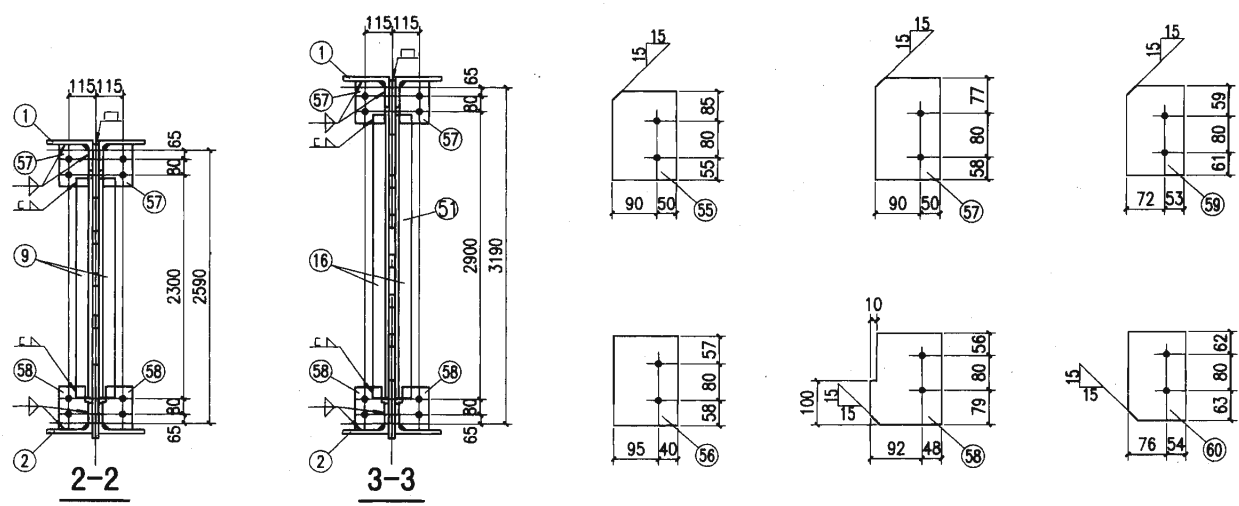
|                      |     |     |         |
|----------------------|-----|-----|---------|
| GWJ36-4A1、4B1、4C1 详图 |     | 图集号 | 05G511  |
| 审核                   | 汪一骏 | 设计  | 张丽娟 张丽娟 |
| 校对                   | 汪一骏 | 设计  | 汪一骏     |
| 页                    | 77  |     |         |



GWJ36-5A1几何尺寸及内力图



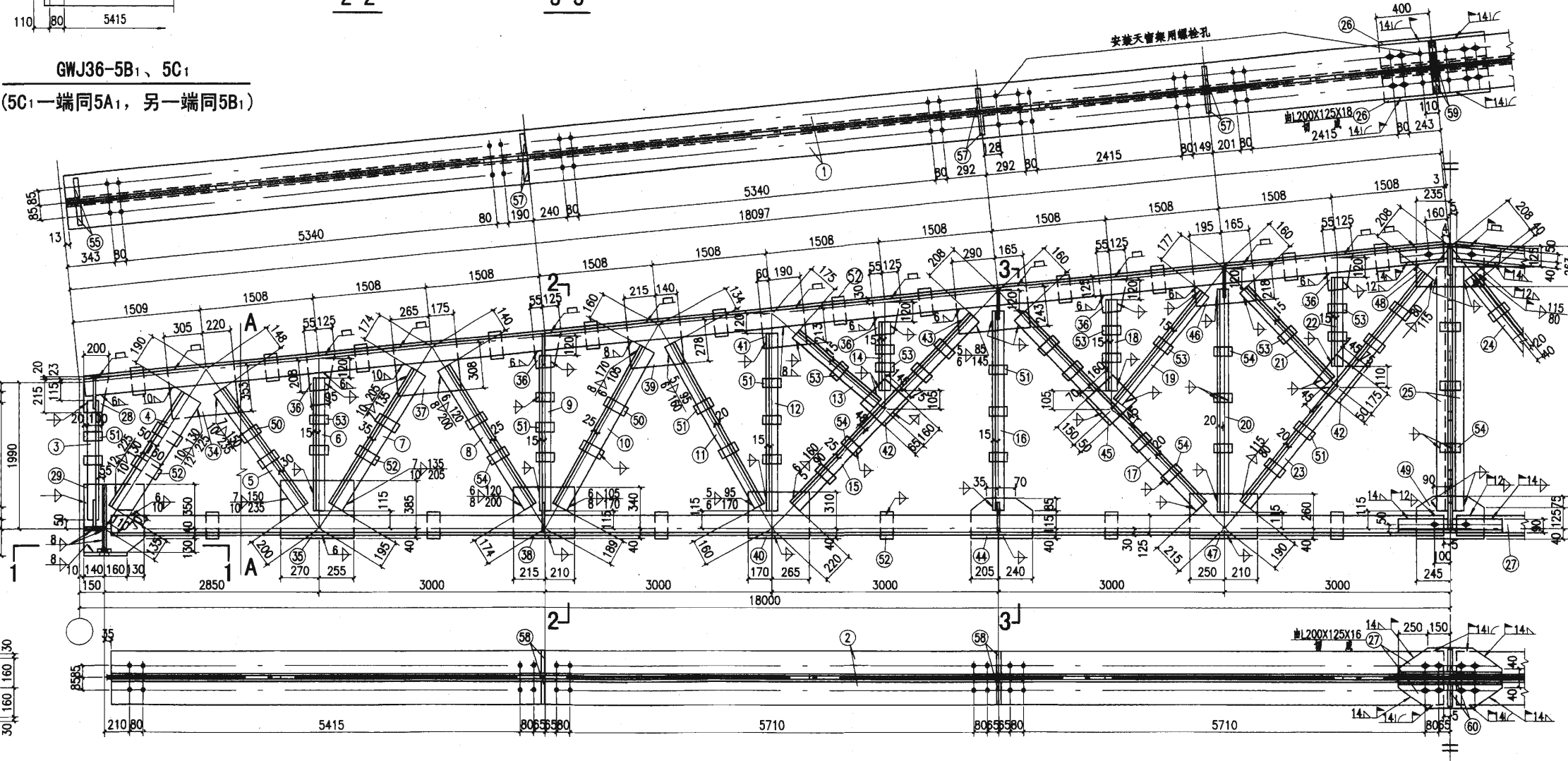
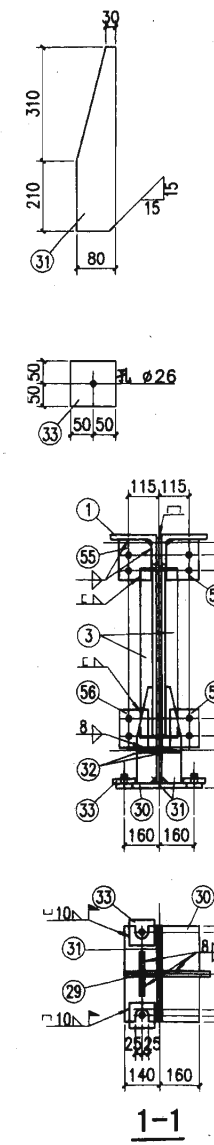
上弦塞焊示意



2-2

3-3

GWJ36-5B1、5C1  
(5C1一端同5A1, 另一端同5B1)



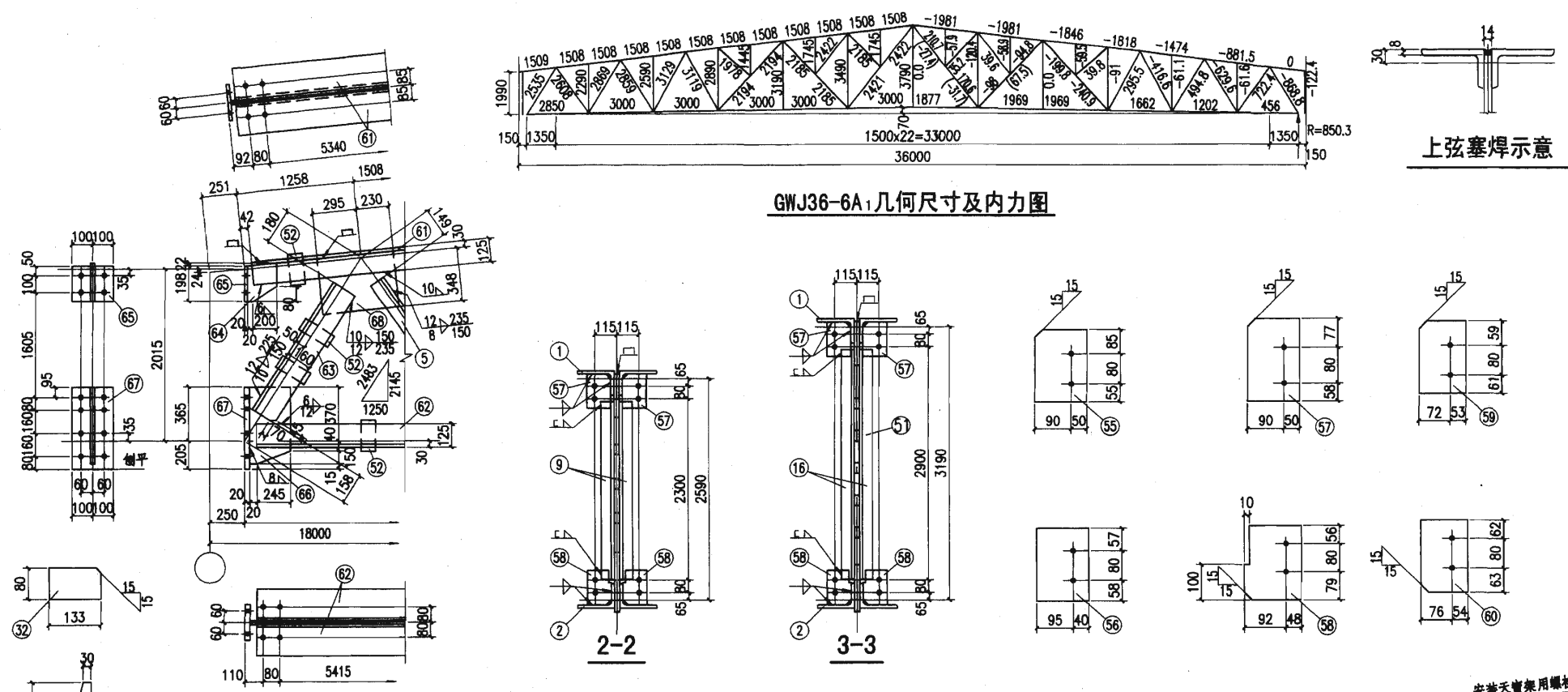
GWJ36-5A1

材料表

| 构件编号 | 断面          | 长度(mm) | 数量 |    | 重量(kg) |      | 构件编号                   | 断面          | 长度(mm) | 数量 |      | 重量(kg) |      |  |
|------|-------------|--------|----|----|--------|------|------------------------|-------------|--------|----|------|--------|------|--|
|      |             |        | 正  | 反  | 每个     | 合计   |                        |             |        | 正  | 反    | 每个     | 合计   |  |
| 1    | L200X125X18 | 18080  | 2  | 2  | 788.1  | 3152 | 38                     | -380X14     | 425    | 2  | 17.7 | 35     |      |  |
| 2    | L200X125X16 | 17810  | 2  | 2  | 695.4  | 2782 | 39                     | -300X14     | 355    | 2  | 11.7 | 23     |      |  |
| 3    | L63X5       | 1825   | 4  | 4  | 8.8    | 35   | 40                     | -350X14     | 435    | 2  | 16.7 | 33     |      |  |
| 4    | L160X100X12 | 2210   | 2  | 2  | 52.1   | 209  | 41                     | -235X14     | 250    | 2  | 6.5  | 13     |      |  |
| 5    | L110X8      | 2260   | 4  | 4  | 30.6   | 122  | 42                     | -220X14     | 225    | 4  | 5.4  | 22     |      |  |
| 6    | L50X5       | 2055   | 4  | 4  | 7.8    | 31   | 43                     | -285X14     | 455    | 2  | 13.3 | 27     |      |  |
| 7    | L125X8      | 2500   | 4  | 4  | 38.8   | 155  | 44                     | -240X14     | 445    | 2  | 11.7 | 23     |      |  |
| 8    | L90X7       | 2545   | 4  | 4  | 24.6   | 98   | 45                     | -200X14     | 230    | 2  | 5.1  | 10     |      |  |
| 9    | L63X5       | 2355   | 4  | 4  | 11.4   | 45   | 46                     | -240X14     | 360    | 2  | 9.5  | 19     |      |  |
| 10   | L100X8      | 2780   | 4  | 4  | 34.1   | 137  | 47                     | -300X14     | 460    | 2  | 15.2 | 30     |      |  |
| 11   | L70X5       | 2825   | 4  | 4  | 15.2   | 61   | 48                     | -285X14     | 470    | 1  | 13.8 | 14     |      |  |
| 12   | L63X5       | 2855   | 4  | 4  | 12.8   | 51   | 49                     | -240X14     | 490    | 1  | 12.9 | 13     |      |  |
| 13   | L50X5       | 1755   | 4  | 4  | 6.6    | 26   | 50                     | -60X14      | 130    | 8  | 0.9  | 7      |      |  |
| 14   | L50X5       | 1220   | 4  | 4  | 4.6    | 18   | 51                     | -60X14      | 90     | 34 | 0.6  | 20     |      |  |
| 15   | L90X7       | 3960   | 4  | 4  | 38.2   | 153  | 52                     | -60X14      | 180    | 44 | 1.2  | 52     |      |  |
| 16   | L63X5       | 2955   | 4  | 4  | 14.3   | 57   | 53                     | -60X14      | 70     | 22 | 0.5  | 10     |      |  |
| 17   | L75X5       | 3995   | 4  | 4  | 23.2   | 93   | 54                     | -60X14      | 110    | 33 | 0.7  | 24     |      |  |
| 18   | L50X5       | 1520   | 4  | 4  | 5.7    | 23   | 55                     | -140X8      | 220    | 4  | 1.9  | 8      |      |  |
| 19   | L50X5       | 2200   | 4  | 4  | 8.3    | 33   | 56                     | -135X8      | 195    | 4  | 1.7  | 7      |      |  |
| 20   | L75X5       | 3255   | 4  | 4  | 18.9   | 76   | 57                     | -140X8      | 215    | 12 | 1.9  | 23     |      |  |
| 21   | L50X5       | 1980   | 4  | 4  | 7.5    | 30   | 58                     | -140X8      | 215    | 8  | 1.9  | 15     |      |  |
| 22   | L50X5       | 1515   | 4  | 4  | 5.7    | 23   | 59                     | -125X8      | 200    | 2  | 1.6  | 3      |      |  |
| 23   | L70X5       | 4445   | 2  | 2  | 24.0   | 48   | 60                     | -130X8      | 205    | 2  | 1.7  | 3      |      |  |
| 24   | L70X5       | 4445   | 1  | 1  | 24.0   | 48   | 5~27,35~50,52~54,57~60 | GWJ36-5A1   | 2025   |    |      |        |      |  |
| 25   | L63X5       | 3550   | 2  | 2  | 17.1   | 34   | 51                     | -60X14      | 90     | 30 | 0.6  | 18     |      |  |
| 26   | L200X125X18 | 800    | 2  | 2  | 34.9   | 70   | 61                     | L200X125X18 | 17800  | 2  | 2    | 775.9  | 3103 |  |
| 27   | L200X125X16 | 800    | 2  | 2  | 31.2   | 62   | 62                     | L200X125X16 | 17705  | 2  | 2    | 691.3  | 2765 |  |
| 28   | -200X14     | 235    | 2  | 2  | 5.2    | 10   | 63                     | L160X100X12 | 2145   | 2  | 2    | 50.6   | 202  |  |
| 29   | -430X16     | 520    | 2  | 2  | 28.1   | 56   | 64                     | -220X14     | 220    | 2  | 5.3  | 11     |      |  |
| 30   | -300X30     | 380    | 2  | 2  | 26.8   | 54   | 65                     | -195X20     | 200    | 2  | 6.1  | 12     |      |  |
| 31   | -80X14      | 520    | 4  | 4  | 4.6    | 18   | 66                     | -260X16     | 560    | 2  | 18.3 | 37     |      |  |
| 32   | -80X14      | 133    | 4  | 4  | 1.2    | 5    | 67                     | -200X20     | 575    | 2  | 18.1 | 36     |      |  |
| 33   | -100X30     | 100    | 4  | 4  | 2.4    | 9    | 68                     | -375X14     | 510    | 2  | 21.0 | 42     |      |  |
| 34   | -375X14     | 525    | 2  | 2  | 21.6   | 43   | 1~4,28~33,55,56        | GWJ36-5A1   | 3172   |    |      |        |      |  |
| 35   | -425X14     | 525    | 2  | 2  | 24.5   | 49   | 5~27,35~50,52~54,57~60 | GWJ36-5A1   | 2025   |    |      |        |      |  |
| 36   | -180X14     | 230    | 10 | 10 | 4.5    | 45   | 51                     | -60X14      | 90     | 32 | 0.6  | 19     |      |  |
| 37   | -330X14     | 440    | 2  | 2  | 16.0   | 32   | 61~68                  | GWJ36-5B1   | 3104   |    |      |        |      |  |

- 注:
- 1.本图应与页27配合使用。
  - 2.未注明的角焊缝焊脚尺寸为5mm; 焊缝长度不小于80mm。
  - 3.所有焊缝一律满焊。
  - 4.未注明的螺栓为M20,孔径为 $\phi$ 21.5。

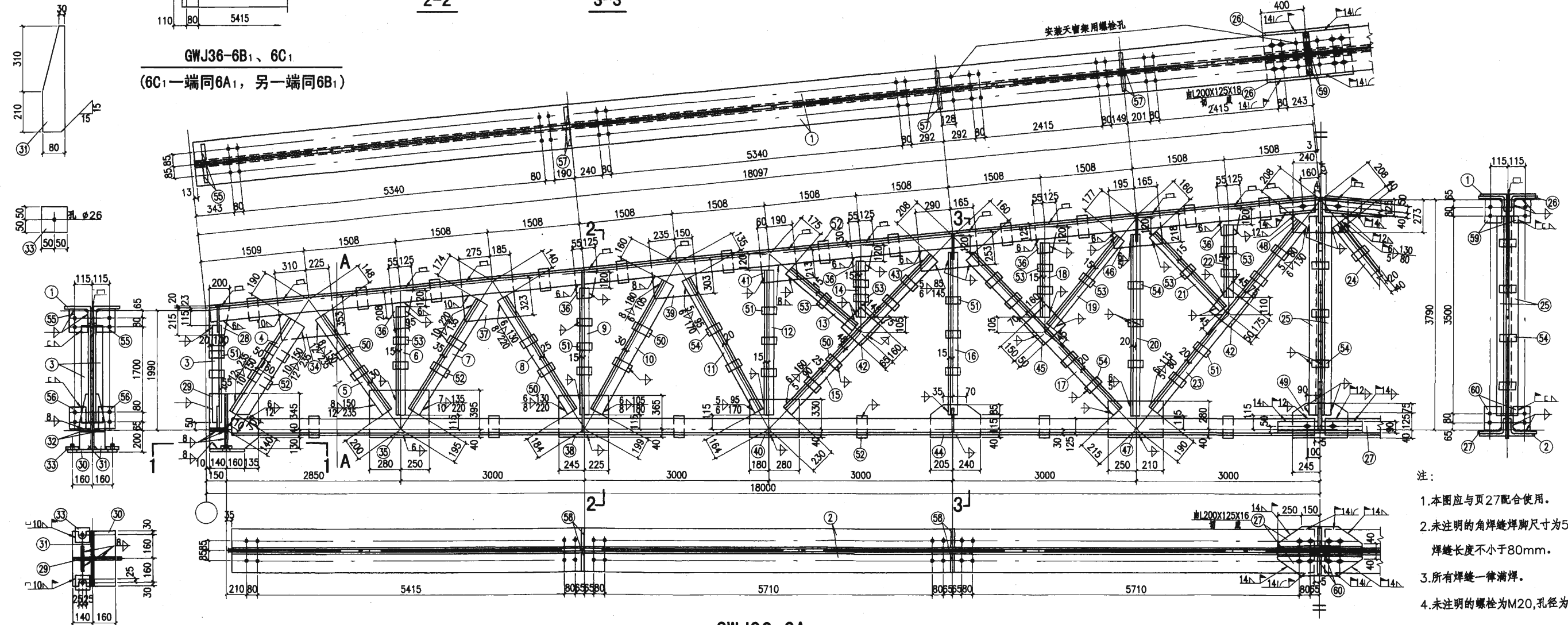
GWJ36-5A1、5B1、5C1详图 图集号 05G511



GWJ36-6A1 几何尺寸及内力图

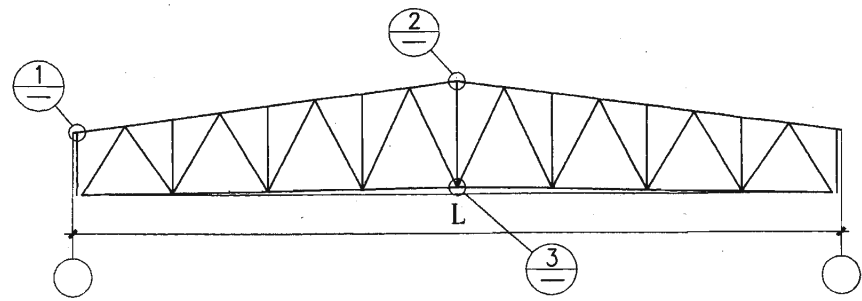
| 材 料 表 |             |         |         |       |      |     |         |         |    |      |    |
|-------|-------------|---------|---------|-------|------|-----|---------|---------|----|------|----|
| 构件编号  | 断 面         | 长度 (mm) | 重量 (kg) |       | 构件编号 | 断 面 | 长度 (mm) | 重量 (kg) |    |      |    |
|       |             |         | 正       | 反     |      |     |         | 正       | 反  |      |    |
| 1     | L200X125X18 | 18080   | 2       | 788.1 | 3152 | 38  | -405X14 | 470     | 2  | 20.9 | 42 |
| 2     | L200X125X16 | 17810   | 2       | 695.4 | 2782 | 39  | -325X14 | 385     | 2  | 13.8 | 28 |
| 3     | L63X5       | 1825    | 4       | 8.8   | 35   | 40  | -370X14 | 460     | 2  | 18.7 | 37 |
| 4     | L160X100X12 | 2205    | 2       | 52.0  | 208  | 41  | -235X14 | 250     | 2  | 6.5  | 13 |
| 5     | L110X10     | 2260    | 4       | 34.2  | 137  | 42  | -220X14 | 225     | 4  | 5.4  | 22 |
| 6     | L50X5       | 2055    | 4       | 7.8   | 31   | 43  | -275X14 | 455     | 2  | 13.8 | 28 |
| 7     | L125X8      | 2500    | 4       | 38.8  | 155  | 44  | -240X14 | 445     | 2  | 11.7 | 23 |
| 8     | L100X7      | 2335    | 4       | 27.5  | 110  | 45  | -200X14 | 230     | 2  | 5.1  | 10 |
| 9     | L63X5       | 2355    | 4       | 11.4  | 45   | 46  | -240X14 | 360     | 2  | 9.5  | 19 |
| 10    | L110X8      | 2770    | 4       | 37.5  | 150  | 47  | -320X14 | 460     | 2  | 16.2 | 32 |
| 11    | L75X5       | 2820    | 4       | 16.4  | 66   | 48  | -295X14 | 480     | 1  | 15.6 | 16 |
| 12    | L63X5       | 2655    | 4       | 12.8  | 51   | 49  | -240X14 | 490     | 1  | 12.9 | 13 |
| 13    | L50X5       | 1755    | 4       | 6.6   | 26   | 50  | -60X14  | 130     | 20 | 0.9  | 17 |
| 14    | L50X5       | 1220    | 4       | 4.6   | 18   | 51  | -60X14  | 90      | 30 | 0.6  | 18 |
| 15    | L100X7      | 3950    | 4       | 42.8  | 171  | 52  | -60X14  | 180     | 44 | 1.2  | 52 |
| 16    | L63X5       | 2955    | 4       | 14.3  | 57   | 53  | -60X14  | 70      | 22 | 0.5  | 10 |
| 17    | L75X5       | 3995    | 4       | 23.2  | 93   | 54  | -60X14  | 110     | 25 | 0.7  | 18 |
| 18    | L50X5       | 1520    | 4       | 5.7   | 23   | 55  | -140X8  | 220     | 4  | 1.9  | 8  |
| 19    | L50X5       | 2200    | 4       | 8.3   | 33   | 56  | -135X8  | 195     | 4  | 1.7  | 7  |
| 20    | L75X5       | 3255    | 4       | 18.9  | 76   | 57  | -140X8  | 215     | 12 | 1.9  | 23 |
| 21    | L50X5       | 1980    | 4       | 7.5   | 30   | 58  | -140X8  | 215     | 8  | 1.9  | 15 |
| 22    | L50X5       | 1515    | 4       | 5.7   | 23   | 59  | -125X8  | 200     | 2  | 1.6  | 3  |
| 23    | L70X5       | 4445    | 1       | 24.0  | 48   | 60  | -130X8  | 205     | 2  | 1.7  | 3  |
| 24    | L70X5       | 4445    | 1       | 24.0  | 48   |     |         |         |    |      |    |
| 25    | L63X5       | 3550    | 2       | 17.1  | 34   |     |         |         |    |      |    |
| 26    | L200X125X18 | 800     | 2       | 34.9  | 70   |     |         |         |    |      |    |
| 27    | L200X125X16 | 800     | 2       | 31.2  | 62   |     |         |         |    |      |    |
| 28    | -200X14     | 235     | 2       | 5.2   | 10   |     |         |         |    |      |    |
| 29    | -435X16     | 520     | 2       | 28.4  | 57   |     |         |         |    |      |    |
| 30    | -300X30     | 380     | 2       | 26.8  | 54   |     |         |         |    |      |    |
| 31    | -80X14      | 520     | 4       | 4.6   | 18   |     |         |         |    |      |    |
| 32    | -80X14      | 133     | 4       | 1.2   | 5    |     |         |         |    |      |    |
| 33    | -100X30     | 100     | 4       | 2.4   | 9    |     |         |         |    |      |    |
| 34    | -375X14     | 535     | 2       | 22.0  | 44   |     |         |         |    |      |    |
| 35    | -435X14     | 530     | 2       | 25.3  | 51   |     |         |         |    |      |    |
| 36    | -180X14     | 230     | 10      | 4.5   | 45   |     |         |         |    |      |    |
| 37    | -345X14     | 480     | 2       | 17.4  | 35   |     |         |         |    |      |    |

GWJ36-6B1、6C1  
(6C1一端同6A1, 另一端同6B1)

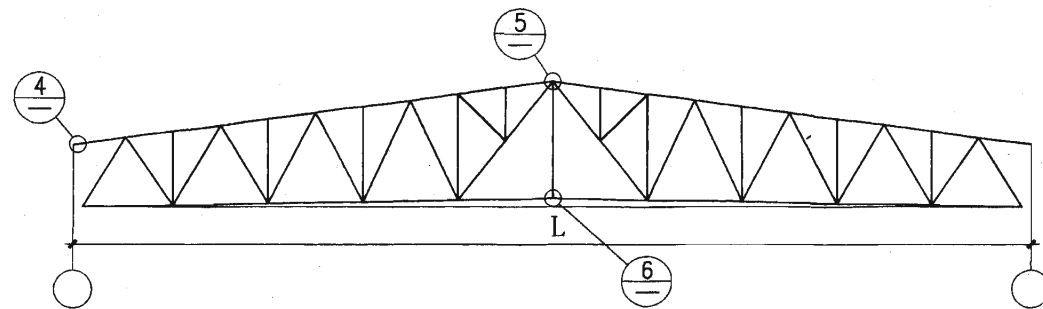


GWJ36-6A1

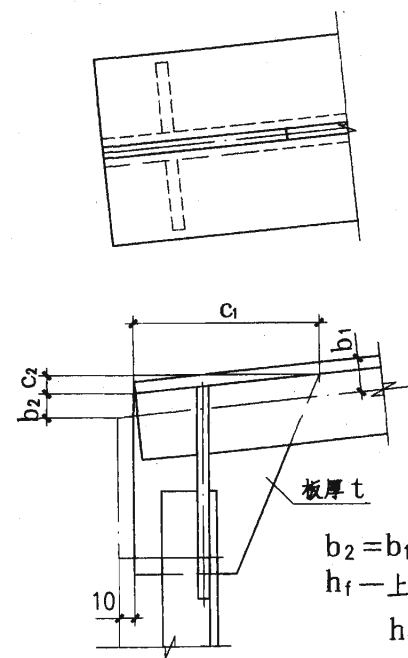
- 注:
1. 本图应与页27配合使用。
  2. 未注明的角焊缝焊脚尺寸为5mm; 焊缝长度不小于80mm。
  3. 所有焊缝一律满焊。
  4. 未注明的螺栓为M20, 孔径为 $\phi$ 21.5。



屋架示意图 1

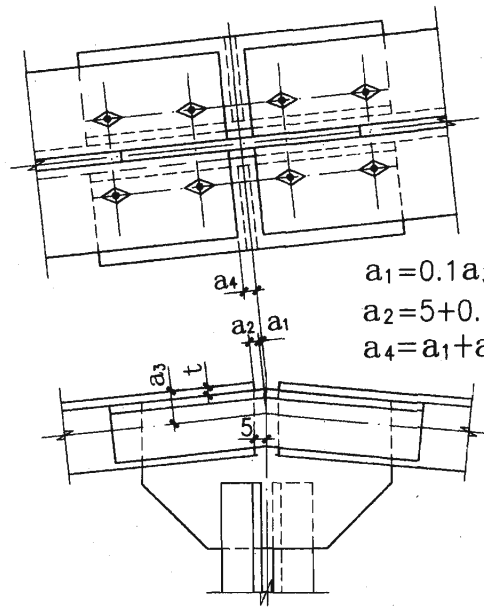


屋架示意图 2



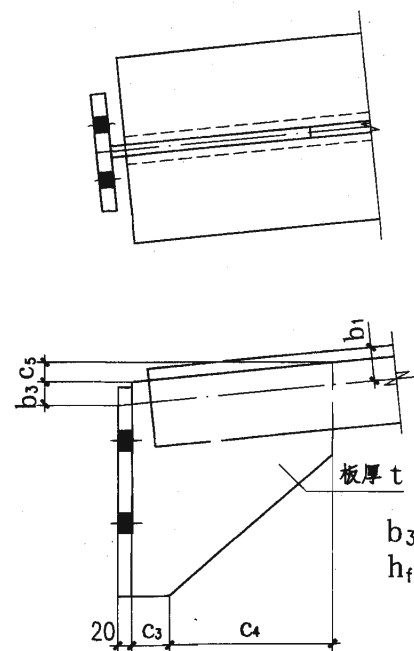
1

$b_2 = b_1 - h_f + 1$   
 $h_f$  — 上弦塞焊缝脚尺寸  
 $h_f \doteq \frac{t}{2} + 2$   
 $C_2 = 0.1 C_1$



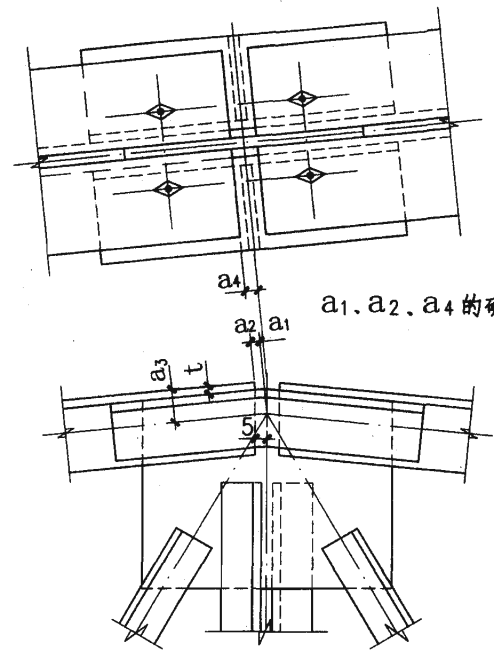
2

$a_1 = 0.1 a_3$   
 $a_2 = 5 + 0.1 t - a_1$   
 $a_4 = a_1 + a_2$



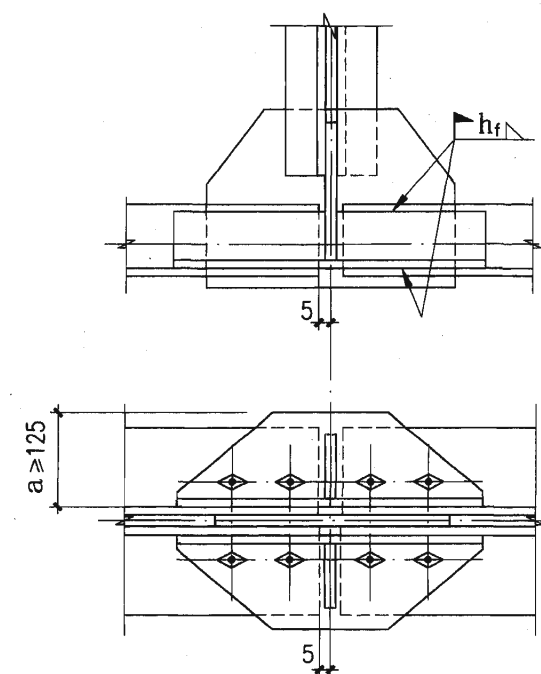
4

$b_3 = b_1 - h_f + 2$   
 $h_f$  — 上弦塞焊缝脚尺寸  
 $h_f \doteq \frac{t}{2} + 2$   
 $C_5 = 0.1(C_3 + C_4)$



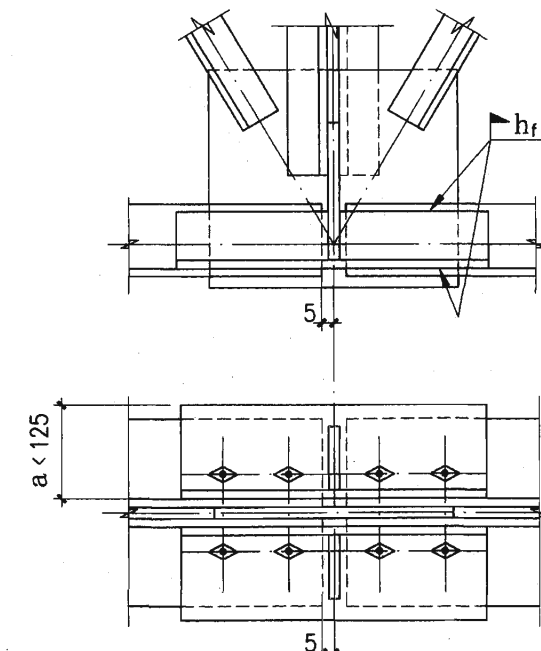
5

$a_1, a_2, a_4$  的确定方法与节点 2 相同。



3

$t$  — 拼接角钢肢厚;  
 $h_f$  — 角焊缝焊接角尺寸  
 $h_f \leq t - (1 \sim 2) (t > 6)$   
 具体尺寸见详图;  
 $b$  — 角钢短肢尺寸;  
 $a$  — 角钢长肢尺寸;  
 $t + h_f + 5 \leq \Delta \leq t + h_f + 10$   
 $b - \Delta$  的值见详图。



6

$\Delta$  的确定方法与节点 3 相同。

注:  
 本图为屋架详图中节点大样及其细部尺寸的确定方法, 具体尺寸见有关详图。



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