



## Lifting height chart

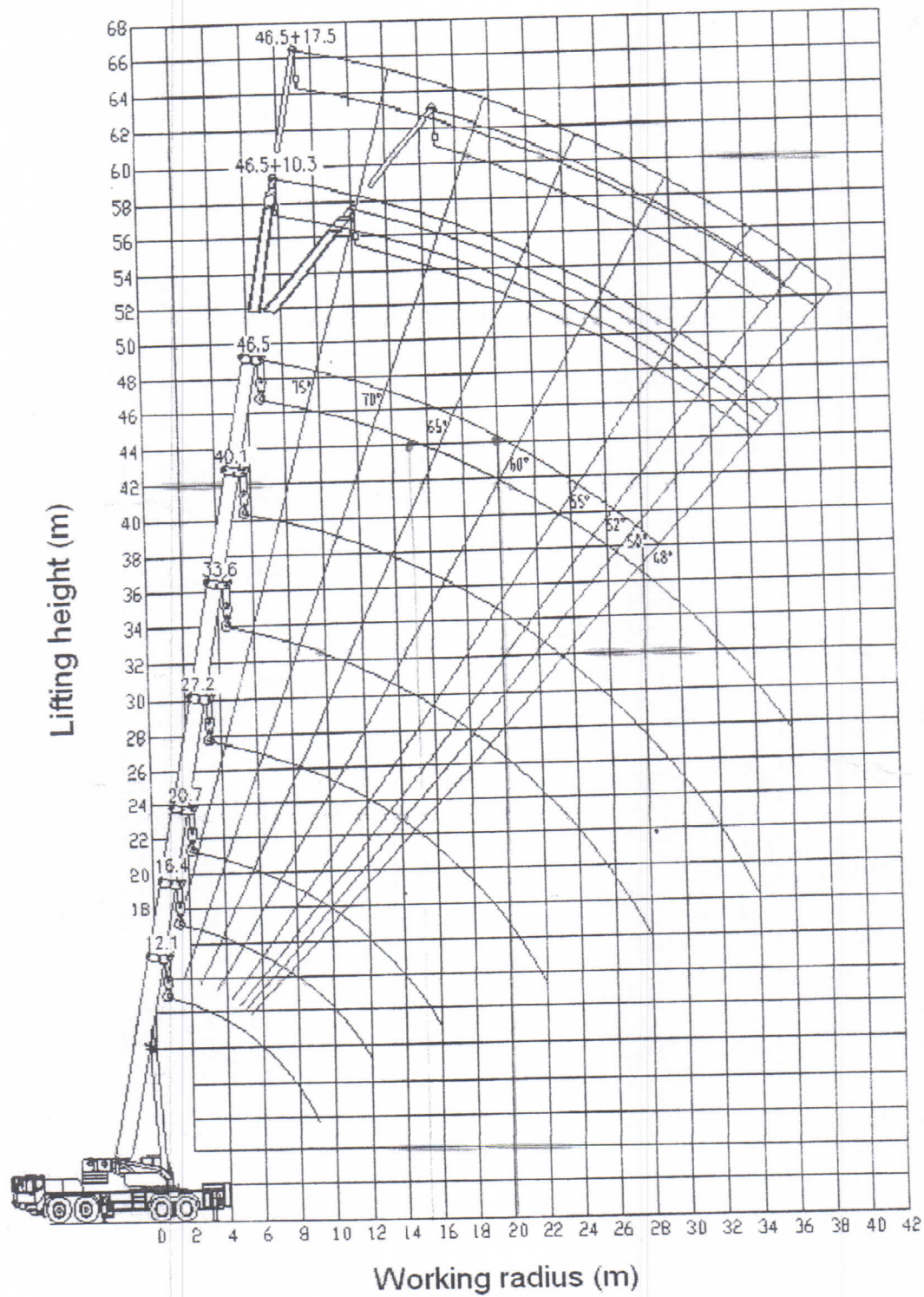




Table 2 - 20

Unit: Metric kg

| Working<br>radius<br>(m) | Main boom (m)                                                                                                                                                                 |       |       |       |       |       |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|
|                          | Telescopic cylinder I intermediately extended and outriggers completely extended<br>over side and over rear, with 3 t fixed counterweight and 8.5 t moveable<br>counterweight |       |       |       |       |       |
|                          | 12.1                                                                                                                                                                          | 16.4  | 22.9  | 29.3  | 35.8  | 42.2  |
| 3.0                      | 80000*                                                                                                                                                                        | 65000 | 32000 |       |       |       |
| 3.5                      | 75000*                                                                                                                                                                        | 63000 | 32000 |       |       |       |
| 4.0                      | 68000                                                                                                                                                                         | 61000 | 32000 |       |       |       |
| 4.5                      | 65000                                                                                                                                                                         | 60000 | 32000 |       |       |       |
| 5.0                      | 58000                                                                                                                                                                         | 54000 | 32000 | 27000 |       |       |
| 5.5                      | 54000                                                                                                                                                                         | 50000 | 31000 | 26000 |       |       |
| 6.0                      | 50000                                                                                                                                                                         | 46000 | 30000 | 25000 |       |       |
| 7.0                      | 41500                                                                                                                                                                         | 40000 | 29000 | 24000 | 19000 |       |
| 8.0                      | 35000                                                                                                                                                                         | 34500 | 28000 | 23000 | 18000 |       |
| 9.0                      | 28000                                                                                                                                                                         | 27300 | 27000 | 22000 | 16800 | 13000 |
| 10.0                     |                                                                                                                                                                               | 22600 | 24500 | 21000 | 15600 | 12500 |
| 11.0                     |                                                                                                                                                                               | 19000 | 20500 | 20200 | 14500 | 12000 |
| 12.0                     |                                                                                                                                                                               | 16000 | 17500 | 18500 | 13600 | 11000 |
| 14.0                     |                                                                                                                                                                               |       | 13200 | 14200 | 12000 | 10000 |
| 16.0                     |                                                                                                                                                                               |       | 10200 | 11200 | 11000 | 9100  |
| 18.0                     |                                                                                                                                                                               |       | 8000  | 8900  | 9400  | 8200  |
| 20.0                     |                                                                                                                                                                               |       |       | 7200  | 7700  | 7400  |
| 22.0                     |                                                                                                                                                                               |       |       | 5800  | 6300  | 6600  |
| 24.0                     |                                                                                                                                                                               |       |       | 4800  | 5200  | 5600  |
| 26.0                     |                                                                                                                                                                               |       |       |       | 4400  | 4700  |
| 28.0                     |                                                                                                                                                                               |       |       |       | 3600  | 4000  |
| 30.0                     |                                                                                                                                                                               |       |       |       | 3000  | 3300  |
| 32.0                     |                                                                                                                                                                               |       |       |       |       | 2800  |
| 34.0                     |                                                                                                                                                                               |       |       |       |       | 2300  |
| 36.0                     |                                                                                                                                                                               |       |       |       |       | 1900  |
| I                        | 0                                                                                                                                                                             | 4.3   | 4.3   | 4.3   | 4.3   | 4.3   |
| II                       | 0                                                                                                                                                                             | 0     | 6.5   | 12.9  | 19.4  | 25.8  |
| Reevings                 | 12                                                                                                                                                                            | 11    | 6     | 5     | 4     | 3     |
| Hook                     | 70 t main hook                                                                                                                                                                |       |       |       |       |       |

Unit: Metric kg

| Unit: Metric kg    |                                                                                                                                                                          |       |       |       |       |       |       |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|
| Working radius (m) | Main boom (m)                                                                                                                                                            |       |       |       |       |       |       |
|                    | Telescopic cylinder I completely extended and outriggers intermediately extended, over side and over rear, with 3 t fixed counterweight and 8.5 t moveable counterweight |       |       |       |       |       |       |
|                    | 12.1                                                                                                                                                                     | 16.4  | 20.7  | 27.2  | 33.6  | 40.1  | 46.5  |
| 3.0                | 70000                                                                                                                                                                    | 62000 |       |       |       |       |       |
| 3.5                | 67000                                                                                                                                                                    | 62000 | 44000 |       |       |       |       |
| 4.0                | 64000                                                                                                                                                                    | 60000 | 44000 |       |       |       |       |
| 4.5                | 57000                                                                                                                                                                    | 55000 | 44000 | 32000 |       |       |       |
| 5.0                | 50000                                                                                                                                                                    | 49000 | 42000 | 32000 |       |       |       |
| 5.5                | 42000                                                                                                                                                                    | 41000 | 39000 | 31000 | 25000 |       |       |
| 6.0                | 34900                                                                                                                                                                    | 34000 | 33300 | 30000 | 24000 |       |       |
| 7.0                | 25500                                                                                                                                                                    | 24800 | 24400 | 26200 | 22000 |       |       |
| 8.0                | 19800                                                                                                                                                                    | 19100 | 18700 | 20500 | 20000 | 17000 |       |
| 9.0                | 15800                                                                                                                                                                    | 15100 | 14600 | 16400 | 17400 | 15800 |       |
| 10.0               |                                                                                                                                                                          | 12200 | 11600 | 13300 | 14400 | 14700 | 12500 |
| 11.0               |                                                                                                                                                                          | 9900  | 9700  | 11000 | 12000 | 12600 | 11500 |
| 12.0               |                                                                                                                                                                          | 8100  | 7900  | 9300  | 10100 | 10700 | 10000 |
| 14.0               |                                                                                                                                                                          |       | 5300  | 6600  | 7400  | 7900  | 8500  |
| 16.0               |                                                                                                                                                                          |       | 3400  | 4700  | 5500  | 6000  | 6500  |
| 18.0               |                                                                                                                                                                          |       |       | 3300  | 4000  | 4600  | 5000  |
| 20.0               |                                                                                                                                                                          |       |       | 2200  | 2900  | 3500  | 3900  |
| 22.0               |                                                                                                                                                                          |       |       | 1400  | 2100  | 2600  | 3000  |
| 24.0               |                                                                                                                                                                          |       |       |       | 1400  | 1900  | 2300  |
| 26.0               |                                                                                                                                                                          |       |       |       |       | 1300  | 1700  |
| 28.0               |                                                                                                                                                                          |       |       |       |       |       |       |
| I                  | 0                                                                                                                                                                        | 4.3   | 8.6   | 8.6   | 8.6   | 8.6   | 1200  |
| II                 | 0                                                                                                                                                                        | 0     | 0     | 6.5   | 12.9  | 19.4  | 25.8  |
| Reevings           | 12                                                                                                                                                                       | 11    | 8     | 6     | 5     | 4     | 3     |
| Hook               | 70 t main hook                                                                                                                                                           |       |       |       |       |       |       |

Table 2 - 23

Unit: Metric kg

| Working<br>radius<br>(m) | Main boom (m)                                                                                                                                        |       |       |       |       |       |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|
|                          | Telescopic cylinder I and outriggers intermediately extended, over side and over rear, with 3 t fixed counterweight and 8.5 t moveable counterweight |       |       |       |       |       |
|                          | 12.1                                                                                                                                                 | 16.4  | 22.9  | 29.3  | 35.8  | 42.2  |
| 3.0                      | 70000                                                                                                                                                | 62000 | 32000 |       |       |       |
| 3.5                      | 67000                                                                                                                                                | 62000 | 32000 |       |       |       |
| 4.0                      | 64000                                                                                                                                                | 60000 | 32000 |       |       |       |
| 4.5                      | 57000                                                                                                                                                | 55000 | 32000 |       |       |       |
| 5.0                      | 50000                                                                                                                                                | 49000 | 32000 | 27000 |       |       |
| 5.5                      | 41500                                                                                                                                                | 41000 | 31000 | 26000 |       |       |
| 6.0                      | 34500                                                                                                                                                | 34000 | 30000 | 25000 |       |       |
| 7.0                      | 25500                                                                                                                                                | 24800 | 27000 | 24000 | 19000 |       |
| 8.0                      | 19800                                                                                                                                                | 19100 | 21000 | 22000 | 18000 |       |
| 9.0                      | 15800                                                                                                                                                | 15100 | 16800 | 17800 | 16800 | 13000 |
| 10.0                     |                                                                                                                                                      | 12200 | 13600 | 14800 | 15000 | 12500 |
| 11.0                     |                                                                                                                                                      | 9900  | 11500 | 12400 | 13000 | 11500 |
| 12.0                     |                                                                                                                                                      | 8100  | 9700  | 10500 | 11200 | 10500 |
| 14.0                     |                                                                                                                                                      |       | 7000  | 7900  | 8400  | 8900  |
| 16.0                     |                                                                                                                                                      |       | 5100  | 5900  | 6400  | 6800  |
| 18.0                     |                                                                                                                                                      |       | 3700  | 4500  | 4900  | 5400  |
| 20.0                     |                                                                                                                                                      |       |       | 3500  | 3800  | 4300  |
| 22.0                     |                                                                                                                                                      |       |       | 2600  | 3000  | 3400  |
| 24.0                     |                                                                                                                                                      |       |       | 1900  | 2300  | 2700  |
| 26.0                     |                                                                                                                                                      |       |       |       | 1700  | 2100  |
| 28.0                     |                                                                                                                                                      |       |       |       | 1200  | 1500  |
| I                        | 0                                                                                                                                                    | 4.3   | 4.3   | 4.3   | 4.3   | 4.3   |
| II                       | 0                                                                                                                                                    | 0     | 6.5   | 12.9  | 19.4  | 25.8  |
| Reevings                 | 12                                                                                                                                                   | 11    | 6     | 5     | 4     | 3     |
| Hook                     | 70 t main hook                                                                                                                                       |       |       |       |       |       |

Table 2 - 24

Unit: Metric kg

| Working<br>radius<br>(m) | Main boom (m)                                                                                                                                                                   |       |       |       |       |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|
|                          | Telescopic cylinder I completely retracted and outriggers intermediately extended,<br>over side and over rear, with 3 t fixed counterweight and 8.5 t moveable<br>counterweight |       |       |       |       |
|                          | 12.1                                                                                                                                                                            | 18.6  | 25.0  | 31.5  | 37.9  |
| 3.0                      | 70000                                                                                                                                                                           | 32000 |       |       |       |
| 3.5                      | 67000                                                                                                                                                                           | 32000 |       |       |       |
| 4.0                      | 64000                                                                                                                                                                           | 32000 | 28000 |       |       |
| 4.5                      | 57000                                                                                                                                                                           | 32000 | 28000 |       |       |
| 5.0                      | 50000                                                                                                                                                                           | 32000 | 27000 |       |       |
| 5.5                      | 41500                                                                                                                                                                           | 31000 | 26000 | 20000 |       |
| 6.0                      | 34500                                                                                                                                                                           | 30000 | 25000 | 19000 |       |
| 7.0                      | 25500                                                                                                                                                                           | 27800 | 24000 | 18000 |       |
| 8.0                      | 19800                                                                                                                                                                           | 21800 | 22800 | 17000 | 13000 |
| 9.0                      | 15800                                                                                                                                                                           | 17700 | 18600 | 16000 | 13000 |
| 10.0                     |                                                                                                                                                                                 | 14700 | 15400 | 15000 | 12500 |
| 11.0                     |                                                                                                                                                                                 | 12300 | 13100 | 13500 | 12000 |
| 12.0                     |                                                                                                                                                                                 | 10500 | 11300 | 11600 | 11000 |
| 14.0                     |                                                                                                                                                                                 | 7700  | 8500  | 9000  | 9400  |
| 16.0                     |                                                                                                                                                                                 |       | 6600  | 7000  | 7400  |
| 18.0                     |                                                                                                                                                                                 |       | 5200  | 5600  | 5900  |
| 20.0                     |                                                                                                                                                                                 |       | 4000  | 4400  | 4700  |
| 22.0                     |                                                                                                                                                                                 |       |       | 3500  | 3800  |
| 24.0                     |                                                                                                                                                                                 |       |       | 2800  | 3100  |
| 26.0                     |                                                                                                                                                                                 |       |       | 2200  | 2500  |
| 28.0                     |                                                                                                                                                                                 |       |       |       | 2000  |
| I                        | 0                                                                                                                                                                               | 0     | 0     | 0     | 0     |
| II                       | 0                                                                                                                                                                               | 6.5   | 12.9  | 19.4  | 25.8  |
| Reevings                 | 12                                                                                                                                                                              | 6     | 5     | 4     | 3     |
| Hook                     | 70 t main hook                                                                                                                                                                  |       |       |       |       |

Table 2 - 25

Unit: Metric kg

| Boom<br>angle<br>(°) | Main boom (m) + Jib (m)                                                               |      |             |      |
|----------------------|---------------------------------------------------------------------------------------|------|-------------|------|
|                      | Outriggers completely extended, over side and over rear, with 3 t fixed counterweight |      |             |      |
|                      | 46.5 + 10.3                                                                           |      | 46.5 + 17.5 |      |
|                      | 0°                                                                                    | 30°  | 0°          | 30°  |
| 80                   | 6000                                                                                  | 4000 | 3500        | 1500 |
| 78                   | 6000                                                                                  | 4000 | 3500        | 1500 |
| 76                   | 6000                                                                                  | 3800 | 3300        | 1400 |
| 74                   | 5500                                                                                  | 3600 | 3000        | 1300 |
| 72                   | 5100                                                                                  | 3500 | 2700        | 1300 |
| 70                   | 4300                                                                                  | 3200 | 2300        | 1200 |
| 68                   | 3600                                                                                  | 3000 | 2100        | 1100 |
| 66                   | 3000                                                                                  | 2500 | 1800        | 1000 |
| 64                   | 2500                                                                                  | 2100 | 1600        | 900  |
| 62                   | 2000                                                                                  | 1700 | 1500        | 900  |
| 60                   | 1600                                                                                  | 1400 | 1300        | 850  |
| 58                   | 1300                                                                                  | 1100 | 1000        | 800  |
| 56                   | 900                                                                                   |      |             |      |
| 54                   |                                                                                       |      |             |      |
| 52                   |                                                                                       |      |             |      |
| Reevings             | 1                                                                                     |      |             |      |
| Hook                 | 6 t auxiliary hook                                                                    |      |             |      |

Table 2 – 26

Unit: Metric kg

| Boom<br>angle<br>(°) | Main boom (m) + Jib (m)                                                                                                |      |             |      |
|----------------------|------------------------------------------------------------------------------------------------------------------------|------|-------------|------|
|                      | Outriggers completely extended, over side and over rear, with 3 t fixed counterweight and 2.5 t moveable counterweight |      |             |      |
|                      | 46.5 + 10.3                                                                                                            |      | 46.5 + 17.5 |      |
|                      | 0°                                                                                                                     | 30°  | 0°          | 30°  |
| 80                   | 6000                                                                                                                   | 4000 | 3500        | 1500 |
| 78                   | 6000                                                                                                                   | 4000 | 3500        | 1500 |
| 76                   | 6000                                                                                                                   | 3800 | 3300        | 1400 |
| 74                   | 5500                                                                                                                   | 3600 | 3000        | 1300 |
| 72                   | 5100                                                                                                                   | 3500 | 2700        | 1300 |
| 70                   | 4700                                                                                                                   | 3300 | 2400        | 1300 |
| 68                   | 4200                                                                                                                   | 3200 | 2200        | 1200 |
| 66                   | 3500                                                                                                                   | 2800 | 1900        | 1050 |
| 64                   | 3000                                                                                                                   | 2600 | 1700        | 950  |
| 62                   | 2500                                                                                                                   | 2200 | 1600        | 950  |
| 60                   | 2100                                                                                                                   | 1800 | 1500        | 950  |
| 58                   | 1700                                                                                                                   | 1500 | 1400        | 900  |
| 56                   | 1400                                                                                                                   | 1200 | 1100        | 900  |
| 54                   | 1100                                                                                                                   | 1000 | 800         |      |
| 52                   | 800                                                                                                                    |      |             |      |
| Reevings             | 1                                                                                                                      |      |             |      |
| Hook                 | 6 t auxiliary hook                                                                                                     |      |             |      |

Table 2 - 27

Unit: Metric kg

| Boom<br>angle<br>(°) | Main boom (m) + Jib (m)                                                                                                |      |             |      |
|----------------------|------------------------------------------------------------------------------------------------------------------------|------|-------------|------|
|                      | Outriggers completely extended, over side and over rear, with 3 t fixed counterweight and 5.5 t moveable counterweight |      |             |      |
|                      | 46.5 + 10.3                                                                                                            |      | 46.5 + 17.5 |      |
|                      | 0°                                                                                                                     | 30°  | 0°          | 30°  |
| 80                   | 6000                                                                                                                   | 4000 | 3500        | 1500 |
| 78                   | 6000                                                                                                                   | 4000 | 3500        | 1500 |
| 76                   | 6000                                                                                                                   | 3800 | 3300        | 1400 |
| 74                   | 5500                                                                                                                   | 3600 | 3000        | 1300 |
| 72                   | 5100                                                                                                                   | 3500 | 2700        | 1300 |
| 70                   | 4700                                                                                                                   | 3300 | 2400        | 1300 |
| 68                   | 4200                                                                                                                   | 3200 | 2200        | 1200 |
| 66                   | 3900                                                                                                                   | 2900 | 2000        | 1100 |
| 64                   | 3600                                                                                                                   | 2800 | 1800        | 1000 |
| 62                   | 3100                                                                                                                   | 2600 | 1700        | 1000 |
| 60                   | 2600                                                                                                                   | 2300 | 1600        | 1000 |
| 58                   | 2200                                                                                                                   | 2000 | 1500        | 950  |
| 56                   | 1900                                                                                                                   | 1700 | 1400        | 950  |
| 54                   | 1600                                                                                                                   | 1400 | 1300        | 950  |
| 52                   | 1300                                                                                                                   | 1200 | 1000        | 850  |
| Reevings             | 1                                                                                                                      |      |             |      |
| Hook                 | 6 t auxiliary hook                                                                                                     |      |             |      |

Table 2 - 28

Unit: Metric kg

| Boom<br>angle<br>(°) | Main boom (m) + Jib (m)                                                                                                |      |             |      |
|----------------------|------------------------------------------------------------------------------------------------------------------------|------|-------------|------|
|                      | Outriggers completely extended, over side and over rear, with 3 t fixed counterweight and 8.5 t moveable counterweight |      |             |      |
|                      | 46.5 + 10.3                                                                                                            |      | 46.5 + 17.5 |      |
|                      | 0°                                                                                                                     | 30°  | 0°          | 30°  |
| 80                   | 6000                                                                                                                   | 4000 | 3500        | 1500 |
| 78                   | 6000                                                                                                                   | 4000 | 3500        | 1500 |
| 76                   | 6000                                                                                                                   | 3800 | 3300        | 1400 |
| 74                   | 5500                                                                                                                   | 3600 | 3000        | 1300 |
| 72                   | 5100                                                                                                                   | 3500 | 2700        | 1300 |
| 70                   | 4700                                                                                                                   | 3300 | 2400        | 1300 |
| 68                   | 4200                                                                                                                   | 3200 | 2200        | 1200 |
| 66                   | 4000                                                                                                                   | 3000 | 2100        | 1200 |
| 64                   | 3700                                                                                                                   | 2900 | 1900        | 1100 |
| 62                   | 3300                                                                                                                   | 2700 | 1800        | 1100 |
| 60                   | 2900                                                                                                                   | 2400 | 1700        | 1100 |
| 58                   | 2500                                                                                                                   | 2300 | 1600        | 1000 |
| 56                   | 2200                                                                                                                   | 1900 | 1500        | 1000 |
| 54                   | 1900                                                                                                                   | 1700 | 1400        | 1000 |
| 52                   | 1600                                                                                                                   | 1400 | 1300        | 900  |
| 50                   | 1300                                                                                                                   | 1200 | 1200        |      |
| 48                   | 1100                                                                                                                   | 1000 |             |      |
| Reevings             | 1                                                                                                                      |      |             |      |
| Hook                 | 6 t auxiliary hook                                                                                                     |      |             |      |

### **3 Components, superstructure**

#### **3.1 Main boom and telescoping mechanism**

The box-shaped main boom consists of 5 U-type boom sections made of low-alloy and high-strength steel plate, providing the boom with excellent bending-resistance capacity, super load bearing capacity, light deadweight, large lateral stiffness and small end deflection. Self-created built-in sliding block and a series of optimized design have the deadweight of the boom greatly decreased and the stress on the boom evenly distributed to avoid partial distortion. Furthermore, the boom has good guidance quality and adjustability.

The telescopic boom sections are telescoped in / out via two telescopic cylinders and two sets of boom extension / retraction rope. The telescopic cylinder I drives the telescopic boom section 1 to telescope in / out; the telescopic cylinder II drives telescopic boom sections 2, 3, and 4 to telescope in / out simultaneously together with the boom extension / retraction rope. This compact design makes the crane work reliably. Each cylinder is fitted with a balance valve.

#### **3.2 Jib**

It consists of two jib sections and is folded on the side of main boom when it is not used and can be installed and removed by inserted pins.

Jib section 1, reducing and lattice structured, with good load bearing capacity.

Jib section 2, box-shaped, can be pulled out from jib section 1.

Jib section 1 is articulated on the head of top boom section with pins and can be assembled below an angle of 0° or 30° to the telescopic boom according to your needs. The offset can be conveniently changed via the pins and pull bracket.

Jib length:

Jib section 1: 10.3 m

Jib section 1 + jib section 2: 17.5 m

#### **3.3 Slewing table**

Single ribbed plate structured and optimized slewing table made from high-strength steel plate makes the layout of articulated points of main boom and derricking mechanism more reasonable. It also has a novel style and beautiful figure.

The engine hood is of a human-based layout.

The securing device installed in the front of the slewing table can prevent the superstructure from slewing during driving.

#### **3.4 Rooster sheave**

It is secured at the outside of the boom head when it is not used. It can be rotated around the shaft and pinned onto the boom head when it is used.

This option is set up for rapid hoists over the boom head to improve the working efficiency when the loads are light.

#### **3.5 Derricking mechanism**

1 front-mounted hydraulic cylinder with safety balance valve provides the boom with smooth derricking movements from -2° to 80°.

### 3.6 Slewing mechanism

The slewing mechanism is equipped with two slewing gears.

Via the planetary gear reducer, the hydraulic motor drives the pinion gear on the output shaft to rotate the exterior toothed ring of slewing ring fixed on chassis frame, providing superstructure with 360° unlimited slewing.

The slewing mechanism is of controllable aligning function, which can make the load be aligned automatically during operation. Slewing cushion valve and normally-closed brake can ensure stable and reliable slewing operation of the crane. 4-point contact ball-type slewing ring ensures the slewing table with super-strong load bearing capability and long service life.

### 3.7 Hoist mechanism

It consists of main and auxiliary hoist mechanisms.

The two hoist mechanisms are driven by hydraulic variable motor with built-in planetary gear reducer to lift or lower the hook. A brake is fitted between the motor and reducer.

The two winch mechanisms can be controlled independently and also can carry out simultaneous movements.

Models of main and auxiliary winch reducers are the same.

The lowering limit switch is fitted on the main winch.

The built-in planetary reducer is of compact structure, light deadweight and high reliability.

Specifications for high-tensile torsion resistant hoist rope:

Diameter:  $\phi 20.0$  mm

Strength grade: 1870 N/mm<sup>2</sup>

Length of main hoist rope: 220 m

Length of auxiliary hoist rope: 140 m

### 3.8 Main and auxiliary hooks

Rotatable main hook: 80 t, with 6 pulleys, press nipple and hook safety device

Anti-rotating auxiliary hook (1 reeving): 6 t, with hook safety device

### 3.9 Operator's cab

It is of steel-structure welded with front-mounted instrument console and adjustable seat with headrest. It is equipped with two joysticks, windshield wiper, washing system, air conditioning and heater. The arrangement provides spacious operating space, reasonable arrangement, human-based design, convenient and safe operation.

### 3.10 Outriggers

H-type outriggers, which are in box-shaped structure and welded of low-alloy and high-strength steel plate, are of good sectional performance and strong load bearing capability via Pro/E simulated design and actual-used calculation.

2-section horizontal sliding beam can be extended and retracted with a horizontal cylinder and a set of outrigger extension / retraction rope. Large outrigger span ensures stability of the crane.

The outrigger pad which is mounted at the bottom of vertical cylinder can be pushed inwards (to avoid the complete vehicle from being over-wide during driving) and pulled outwards (for convenient operation) to greatly reduce the labor intensity. After the outriggers are completely extended or retracted, the outrigger pads can be locked with retaining pins.

- f) Two-way hydraulic lock
- g) Balance valve
- h) Relief valve

### 3.14 Air conditioning and heater

The operator's cab is equipped with special air conditioning and heater for vehicle.

### 3.15 Counterweight

The counterweight consists of one 3 t fixed counterweight plate (counterweight plate 1), one 2.5 t counterweight plate (counterweight plate 2), two 3 t movable counterweight plates (counterweight plates 3 and 4).

Total weight: 11.5 t

There are 4 variants according to various working conditions:

| Counterweight (t) | Combination     | Individual weight (t) |
|-------------------|-----------------|-----------------------|
| 3                 | Counterweight 1 | 3                     |
| 5.5               | Counterweight 1 | 3                     |
|                   | Counterweight 2 | 2.5                   |
| 8.5               | Counterweight 1 | 3                     |
|                   | Counterweight 2 | 2.5                   |
|                   | Counterweight 3 | 3                     |
| 11.5              | Counterweight 1 | 3                     |
|                   | Counterweight 2 | 2.5                   |
|                   | Counterweight 3 | 3                     |
|                   | Counterweight 4 | 3                     |

## 4 Specifications, chassis

|         |                                         |                                                                |                         |
|---------|-----------------------------------------|----------------------------------------------------------------|-------------------------|
| Chassis | Engine                                  | Model                                                          | WP12.375N               |
|         |                                         | Rated power<br>kW/r/min                                        | 276/1900                |
|         |                                         | Max. output torque N.m/r/min                                   | 1800/1000 – 1400        |
|         |                                         | Manufacturer                                                   | Weichai Power Co., Ltd. |
|         | Model                                   | ZLJ5500                                                        |                         |
|         | Type                                    | II                                                             |                         |
|         | Code                                    | ZLJ5500V3                                                      |                         |
|         | Limits for exhaust pollutants and smoke | Comply with GB3847-2005 /<br>GB17691-2005 (National Stage III) |                         |
|         | Manufacturer                            | Zoomlion Heavy Industry Science &<br>Technology Co., Ltd.      |                         |

For detailed information, please refer to *Technical Specifications, Special Purpose Chassis for Truck Crane*.

### Appendix

**Table – Main purchased parts and manufacturers**

| Ser. No. | Description                           | Manufacturer                                                             | Remarks |
|----------|---------------------------------------|--------------------------------------------------------------------------|---------|
| 1        | Main valve                            | Changde Zoomlion Heavy Industry Science & Technology Hydraulic Co., Ltd. |         |
| 2        | Main pump                             | Bucher Hydraulics Remscheid GMBH (Germany)                               |         |
|          |                                       | Linde Hydraulics Co., Ltd. (Germany)                                     |         |
| 3        | Winch motor                           | Avic Liyuan Hydraulic Co., Ltd.                                          |         |
|          |                                       | Beijing Huade Hydraulic Industrial Group Co., Ltd.                       |         |
|          |                                       | Shanghai Electric Hydraulics and Pneumatics Co., Ltd.                    |         |
| 4        | Winch reducer                         | Xuzhou Keyuan Hydraulic Co., Ltd.                                        |         |
|          |                                       | Tongshan County Branch Company                                           |         |
|          |                                       | Bosch Rexroth (Beijing) Hydraulic Co., Ltd.                              |         |
| 5        | Slewing motor                         | Hubei Planetary Gearboxes Co., Ltd.                                      |         |
|          |                                       | Avic Liyuan Hydraulic Co., Ltd.                                          |         |
| 6        | Slewing reducer                       | Beijing Huade Hydraulic Industrial Group Co., Ltd.                       |         |
| 7        | Slewing ring                          | Xuzhou Keyuan Hydraulic Co., Ltd.                                        |         |
|          |                                       | Tongshan County Branch Company                                           |         |
|          |                                       | Xuzhou Rothe Erde Slewing Bearing Co., Ltd.                              |         |
|          |                                       | Yantai HaoYang Machinery Co., Ltd.                                       |         |
| 8        | Telescopic cylinder                   | Luoyang LYC Bearing Co., Ltd.                                            |         |
|          |                                       | Wafang Dian Bearing Group Corp.                                          |         |
| 9        | Derricking cylinder                   | Hunan Teli Hydraulic Co., Ltd.                                           |         |
| 10       | Horizontal cylinder                   | Hunan Teli Hydraulic Co., Ltd.                                           |         |
| 11       | Vertical cylinder                     | Hunan Teli Hydraulic Co., Ltd.                                           |         |
| 12       | Balance valve – telescoping mechanism | Bucher Hydraulics Remscheid GMBH (Germany)                               |         |
| 13       | Balance valve – derricking mechanism  | Bucher Hydraulics Remscheid GMBH (Germany)                               |         |
| 14       | Balance valve – hoist mechanism       | Shanghai Bosch Rexroth Hydraulics and Automation Ltd.                    |         |
|          |                                       | SANT (Shenzhen) Hydraulic Co., Ltd.                                      |         |
| 15       | Wire rope                             | Hubei Fuxing Science and Technology Co., Ltd.                            |         |
|          |                                       | JULI Sling Co., Ltd.                                                     |         |

| Ser. No. | Description          | Manufacturer                                        | Remarks |
|----------|----------------------|-----------------------------------------------------|---------|
|          |                      | Jiangsu SAFETY Steel Wire Rope Co., Ltd.            |         |
|          |                      | Xianyang BOMCO Steel Tube & Wire Rope Co., Ltd.     |         |
| 16       | Hook                 | Shandong Hong Ruida Machinery Co., Ltd.             |         |
|          |                      | Changsha Lanying Industry Co., Ltd.                 |         |
|          |                      | Xuzhou Da Changshi Construction Machinery Co., Ltd. |         |
| 17       | Load moment limiter  | Changsha WIDE Technology Development Co., Ltd.      |         |
|          |                      | Zoomlion Electrical Appliance Company               |         |
|          |                      | Hirschmann Electronics (Shanghai) Co., Ltd.         |         |
| 18       | Operator's cab assy. | Hubei Qixing Vehicle-Body Limited Company           |         |

**Note:**

The equipment fitted in the crane is subject to changes due to design improvements or other reasons. Therefore, the above table is for reference only.