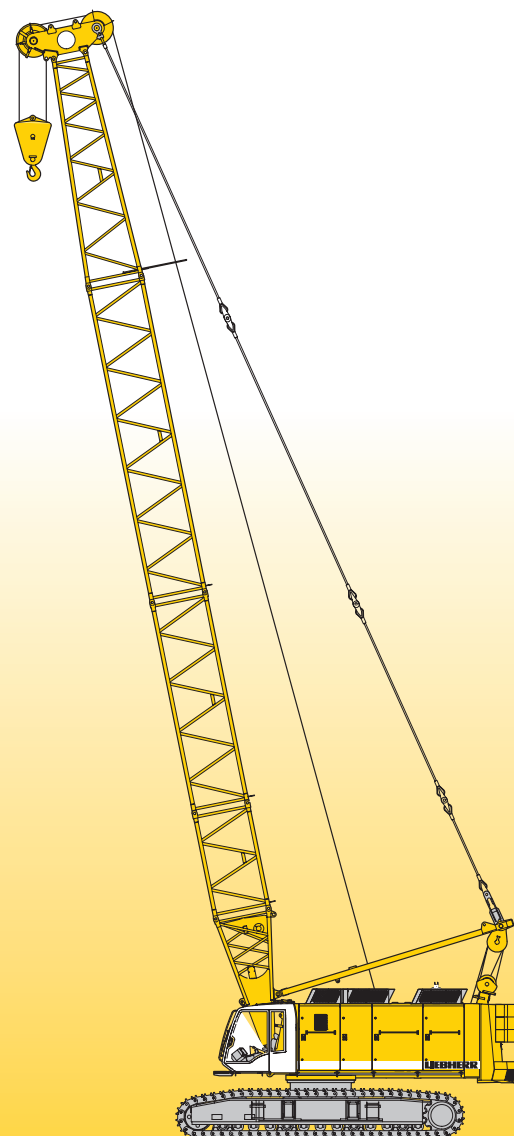


**Technical data**  
**Hydraulic crawler crane**

**HS 885 HD**  
Litronic®

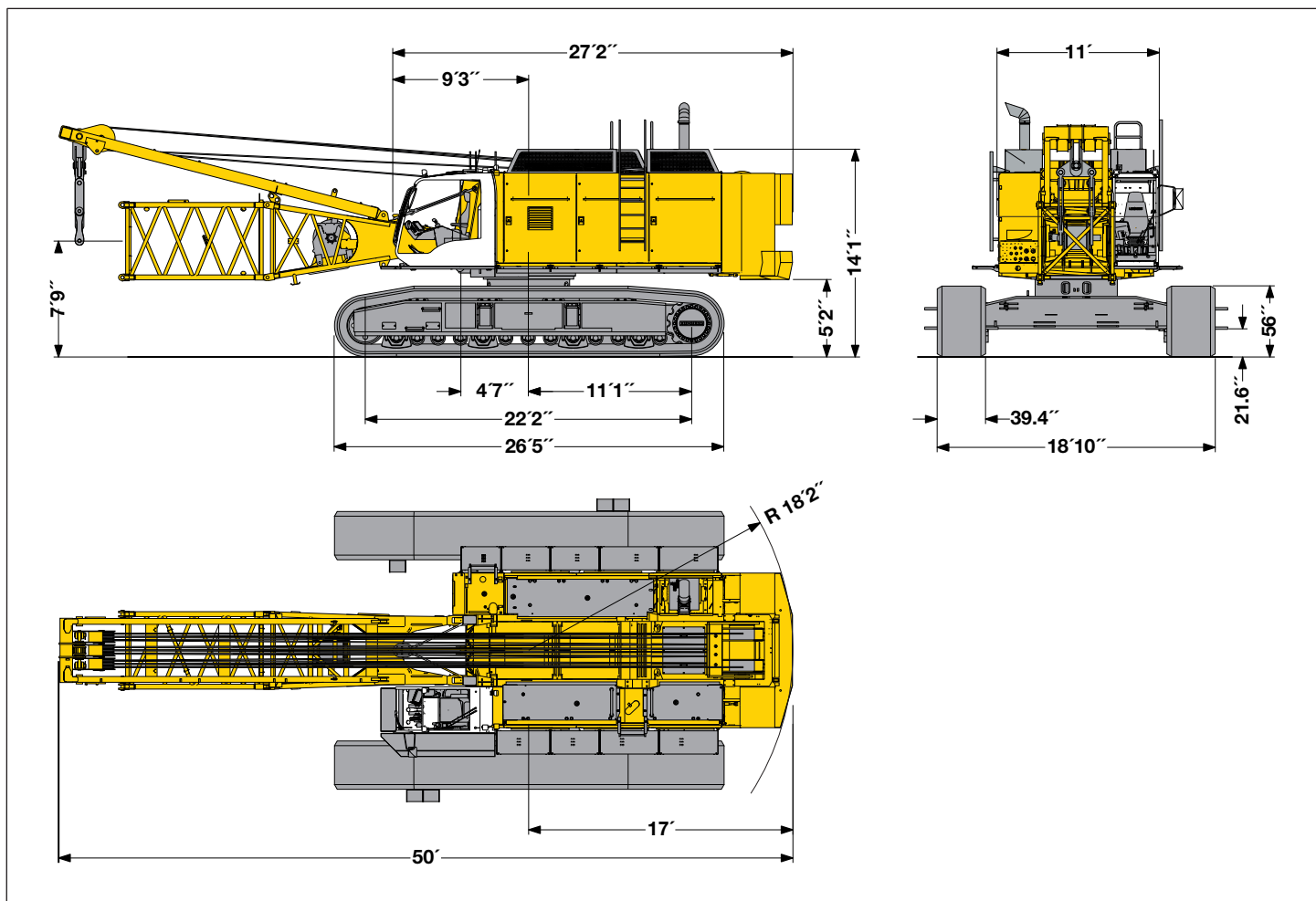
**Complies with ANSI B 30.5**



**LIEBHERR**

# Dimensions

## Basic machine with undercarriage



## Operating weight

The operating weight includes the basic machine with HD undercarriage, 2 main winches 66,200 lbs with speed change gear and 36 ft boom, consisting of A-frame, boom foot (13 ft), boom head section (21 ft), boom head (2 ft) and 53,200 lbs basic counterweight, 33,900 lbs add. counterweight and 15,400 lbs carbody counterweight.

Total weight ————— approx. 296,700 lbs

## Ground pressure

Ground bearing pressure over side, on compact ground ——— 24 psi

## Equipment

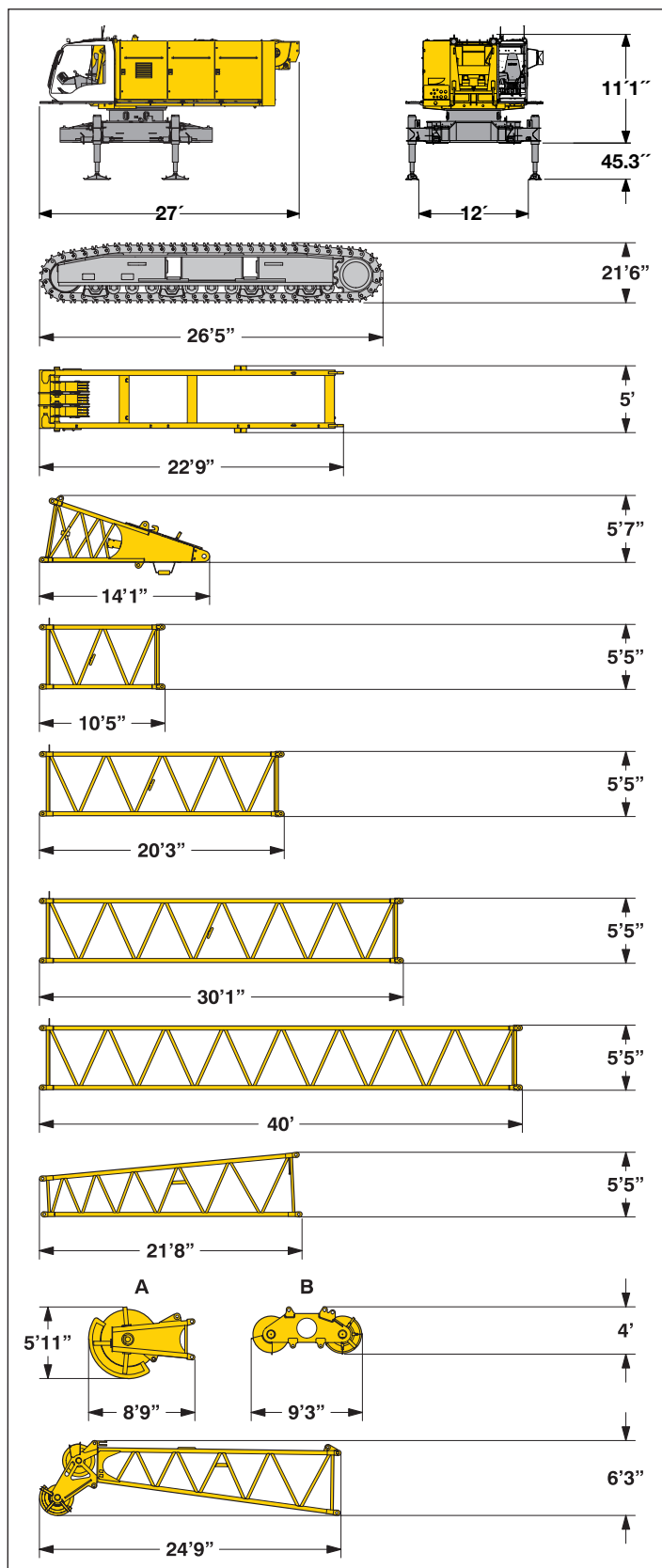
Main boom max. length ————— 184 f t  
 Fixed jib (No. 0806.xx) ————— 36 ft – 105 f t  
 Universal boom head with interchangeable rope pulleys.  
 Modular designed equipment for operation as crane, with dragline or clamshell. For dragline operation, a rotating fairlead is fitted into the boom foot. This minimizes the rope angle to drum, which results in lower rope wear.

## Remarks

1. The lifting capacities stated are valid for lifting operation only (corresponds with crane classification according to F.E.M. 1.001, crane group A1)
2. Crane standing on firm, horizontal ground.
3. The weight of the lifting device (hoisting ropes, hook block, shackle etc.) must be deducted from the gross lifting capacity to obtain a net lifting value.
4. Additional equipment on boom (e.g. boom walkways, auxiliary jib) must be deducted to get the net lifting capacity.
5. For max. wind speed please refer to lift chart in operator's cab or manual.
6. Working radii are measured from centre of swing and under load.
7. The lifting capacities are valid for 360 degrees of swing.
8. The structures are calculated according to F.E.M. 1.001 – 1998 (EN 13001-2/ 2004).
9. ANSI B 30.5

# Transport dimensions and weights

## Basic machine and boom



→ Including pendant ropes

### Basic machine

with HD undercarriage, V12- Mercedes Benz diesel engine, 2x66,200 lbs winches with change gear box, without counterweight, boom foot and A-frame

|        |            |
|--------|------------|
| Width  | 16'2"      |
| Weight | 96,700 lbs |

### Crawler

|                            |            |
|----------------------------|------------|
| Double grouser track shoes | 39.4"      |
| Width                      | 41.7"      |
| Weight                     | 41,300 lbs |

### A-frame

|        |           |
|--------|-----------|
| Width  | 24"       |
| Weight | 4,850 lbs |

### Boom foot

|         |           |
|---------|-----------|
| Width   | 5'5"      |
| Weight* | 4,600 lbs |

### Boom section 10 ft

|         |           |
|---------|-----------|
| Width   | 5'5"      |
| Weight* | 1,700 lbs |

### Boom section 20 ft

|         |           |
|---------|-----------|
| Width   | 5'5"      |
| Weight* | 2,750 lbs |

### Boom section 30 ft

|         |           |
|---------|-----------|
| Width   | 5'5"      |
| Weight* | 3,700 lbs |

### Boom section 40 ft

|         |           |
|---------|-----------|
| Width   | 5'5"      |
| Weight* | 4,700 lbs |

### Boom head section 21 ft

|         |            |
|---------|------------|
| Width   | 9'9"       |
| Weight* | 11,900 lbs |

### Boom head

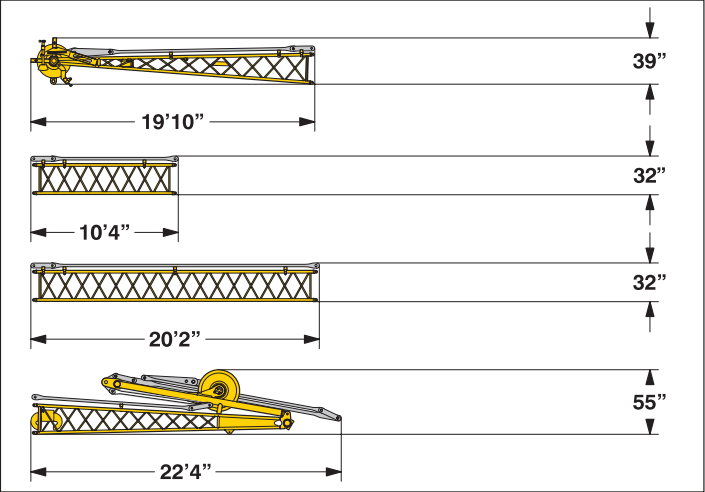
|         |       |           |
|---------|-------|-----------|
| Width   | 30.7" | 42.1"     |
| Weight* | 3,300 | 4,000 lbs |

### L-boom head

|         |           |
|---------|-----------|
| Width   | 5'5"      |
| Weight* | 2,600 lbs |

# Transport dimensions and weights

**Fixed jib** (No. 0806.xx)



\*) Including pendant straps

| Fixed jib head (No. 0806.xx) |  |     |
|------------------------------|--|-----|
| Width                        |  | 45" |
| Weight in lbs*               |  | 980 |

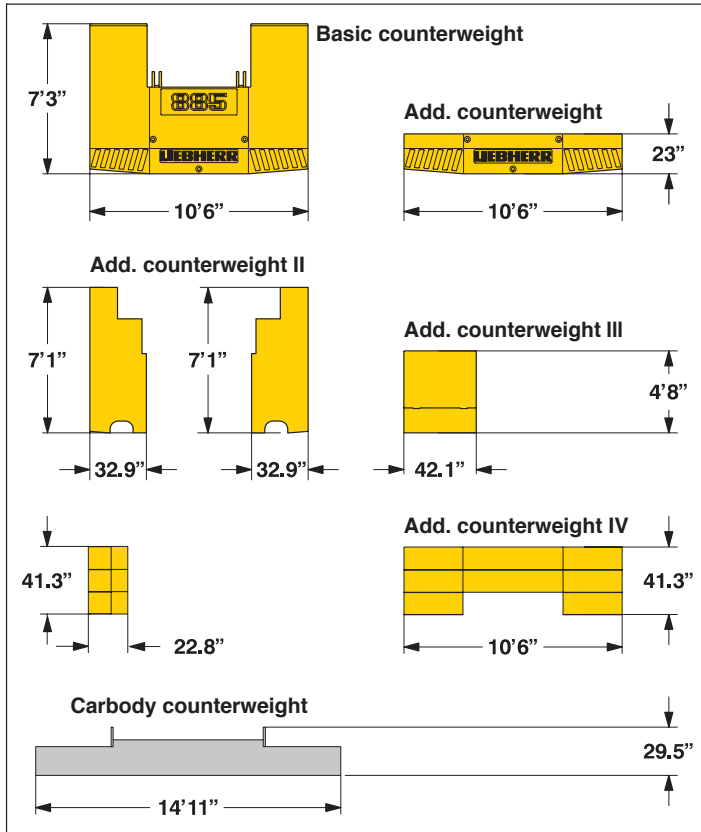
| Fixed jib section (No. 0806.xx) |  | 10 ft |
|---------------------------------|--|-------|
| Width                           |  | 37"   |
| Weight in lbs*                  |  | 245   |

| Fixed jib section (No. 0806.xx) |  | 20 ft |
|---------------------------------|--|-------|
| Width                           |  | 37"   |
| Weight in lbs*                  |  | 430   |

| Fixed jib foot with A-frame (No. 0806.xx) |  |       |
|-------------------------------------------|--|-------|
| Width                                     |  | 59"   |
| Weight in lbs*                            |  | 2,050 |

# Transport dimensions and weights

## Counterweight



| Basic counterweight 1x |        |
|------------------------|--------|
| Width                  | 28.3"  |
| Weight in lbs          | 43,200 |

| Add. counterweight 1x |        |
|-----------------------|--------|
| Width                 | 26"    |
| Weight in lbs         | 10,000 |

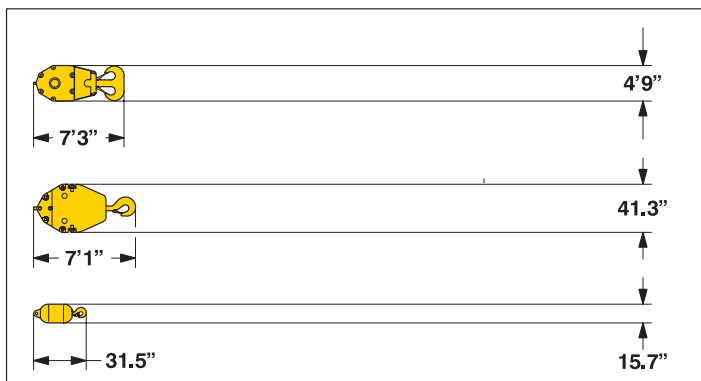
| Add. counterweight II 2x |       |
|--------------------------|-------|
| Width                    | 13.4" |
| Weight in lbs            | 5,725 |

| Add. counterweight III 1x |       |
|---------------------------|-------|
| Width                     | 14.8" |
| Weight in lbs             | 7,050 |

| Add. counterweight IV 1x |        |
|--------------------------|--------|
| Width                    | 22.8"  |
| Weight in lbs            | 15,400 |

| Carbody counterweight 2x |       |
|--------------------------|-------|
| Width                    | 8"    |
| Weight in lbs            | 7,700 |

## Hooks



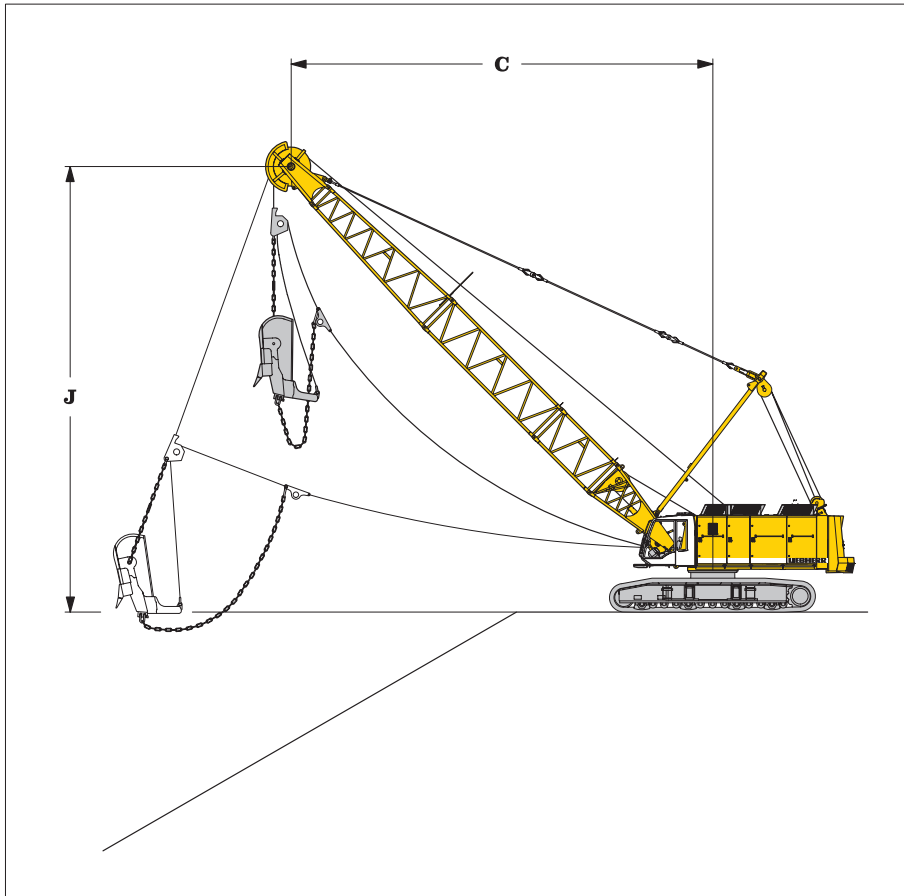
| 264,600 lbs hook block - 2 sheaves |       |
|------------------------------------|-------|
| Width                              | 12.6" |
| Weight in lbs                      | 3,100 |

| 132,300 lbs hook block - 1 sheave |       |
|-----------------------------------|-------|
| Width                             | 12"   |
| Weight in lbs                     | 2,150 |

| 66,150 lbs single hook |     |
|------------------------|-----|
| Width                  | 16" |
| Weight in lbs          | 880 |

# Dragline equipment

## 71,700 lbs counterweight



### Working diagram

C = Radius / dumping radius

J = Height of boom head sheave centre above ground level

| Capacities in 1000 lbs for boom lengths (59 ft – 108 ft) |       |      |      |       |      |      |       |      |      |       |      |      | counterweight 71,700 lbs |      |      |        |      |      |
|----------------------------------------------------------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|--------------------------|------|------|--------|------|------|
|                                                          | 59 ft |      |      | 69 ft |      |      | 79 ft |      |      | 89 ft |      |      | 98 ft                    |      |      | 108 ft |      |      |
| $\alpha$                                                 | C     | J    |      | C     | J    |      | C     | J    |      | C     | J    |      | C                        | J    |      | C      | J    |      |
|                                                          | ft    | lbs  | lbs  | ft    | ft   | lbs  | ft    | ft   | lbs  | ft    | ft   | lbs  | ft                       | ft   | lbs  | ft     | ft   | t    |
| 45                                                       | 48.2  | 48.9 | 46,3 | 55.4  | 55.8 | 36,8 | 62.3  | 62.6 | 29,5 | 69.2  | 69.9 | 24,7 | 76.4                     | 76.8 | 20,7 | 83.0   | 84.0 | 18,7 |
| 40                                                       | 51.8  | 44.9 | 40,1 | 59.4  | 51.5 | 30,8 | 66.9  | 57.7 | 25,1 | 74.5  | 64.0 | 21,2 | 82.0                     | 70.2 | 17,9 | 89.6   | 76.8 | 16,8 |
| 35                                                       | 55.1  | 41.0 | 33,5 | 63.0  | 49.9 | 26,5 | 71.2  | 52.1 | 22,6 | 79.1  | 57.7 | 19,0 | 87.3                     | 63.6 | 15,9 | 95.5   | 69.6 | 15,0 |
| 30                                                       | 57.7  | 36.7 | 29,3 | 66.3  | 41.7 | 24,0 | 74.8  | 46.6 | 19,8 | 83.3  | 51.5 | 16,5 | 91.9                     | 56.4 | 13,9 | 100.4  | 61.4 | 13,7 |
| 25                                                       | 60.0  | 32.2 | 26,2 | 68.9  | 36.0 | 21,4 | 78.0  | 40.4 | 18,1 | 86.9  | 44.6 | 15,0 | 95.8                     | 48.6 | 12,6 | 104.7  | 53.1 | 12,3 |

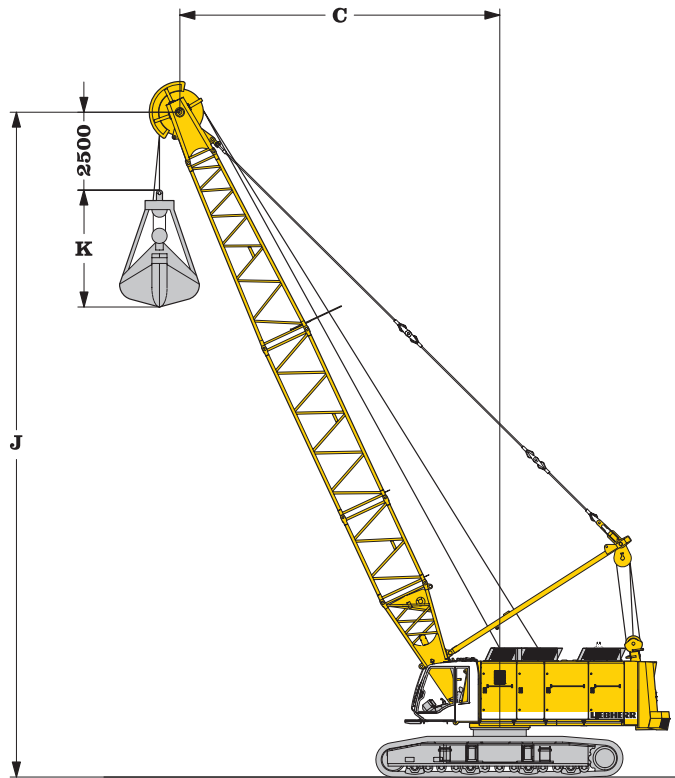
Max. capacities in metric tons do not exceed 75% of tipping load.

# Clamshell equipment

## 71,700 lbs counterweight

### Working diagram

- C = Radius / dumping radius  
 J = Height of boom head sheave centre above ground level  
 K = Length of clamshell (depending on type and capacity of bucket)



Capacities in 1000 lbs for boom lengths (59 ft – 108 ft)

counterweight 71,700 lbs

| $\alpha$ | 59 ft   |         |      | 69 ft   |         |      | 79 ft   |         |      | 89 ft   |         |      | 98 ft   |         |      | 108 ft  |         |      |
|----------|---------|---------|------|---------|---------|------|---------|---------|------|---------|---------|------|---------|---------|------|---------|---------|------|
|          | C<br>ft | J<br>ft | lbs  | C<br>ft | J<br>ft | lbs  | C<br>ft | J<br>ft | lbs  | C<br>ft | J<br>ft | lbs  | C<br>ft | J<br>ft | lbs  | C<br>ft | J<br>ft | lbs  |
| 65       | 31.5    | 60.7    | 66,1 | 35.8    | 69.6    | 62,2 | 40.0    | 78.4    | 52,9 | 43.9    | 87.2    | 45,8 | 48.2    | 96.1    | 39,9 | 52.4    | 105.3   | 35,1 |
| 60       | 36.0    | 58.0    | 61,3 | 41.0    | 66.6    | 51,1 | 45.9    | 75.1    | 43,7 | 50.8    | 83.7    | 37,5 | 55.8    | 92.2    | 32,4 | 60.7    | 101.0   | 28,2 |
| 55       | 40.7    | 55.4    | 52,5 | 46.3    | 63.6    | 43,6 | 51.8    | 71.5    | 37,0 | 57.4    | 79.7    | 31,5 | 63.0    | 87.6    | 27,3 | 68.9    | 96.1    | 23,6 |
| 50       | 44.6    | 52.1    | 46,1 | 50.8    | 59.7    | 38,1 | 57.0    | 67.3    | 32,2 | 63.6    | 74.8    | 27,3 | 69.9    | 82.3    | 23,4 | 76.1    | 90.2    | 20,0 |
| 45       | 48.2    | 48.9    | 41,2 | 55.4    | 55.8    | 34,2 | 62.3    | 62.7    | 28,7 | 69.2    | 69.9    | 24,0 | 76.1    | 76.8    | 20,5 | 83.0    | 82.7    | 17,4 |
| 40       | 51.8    | 44.9    | 37,5 | 59.4    | 51.5    | 30,2 | 66.9    | 57.7    | 25,1 | 74.4    | 64.0    | 21,2 | 82.0    | 70.2    | 17,6 | 89.6    | 76.8    | 17,8 |
| 35       | 55.1    | 41.0    | 33,1 | 63.0    | 46.6    | 26,7 | 71.2    | 52.1    | 22,3 | 79.1    | 58.7    | 18,7 | 87.2    | 63.6    | 15,6 | 95.5    | 69.6    | 13,2 |
| 30       | 57.7    | 36.7    | 29,3 | 66.3    | 41.7    | 24,0 | 74.8    | 46.6    | 19,8 | 83.3    | 51.5    | 16,7 | 91.8    | 56.4    | 13,9 | 100.4   | 61.3    | 11,5 |
| 25       | 60.0    | 32.1    | 26,2 | 68.9    | 36.0    | 21,4 | 78.0    | 40.4    | 17,6 | 86.9    | 44.6    | 14,8 | 95.8    | 48.6    | 12,1 | 104.7   | 53.1    | 9,9  |

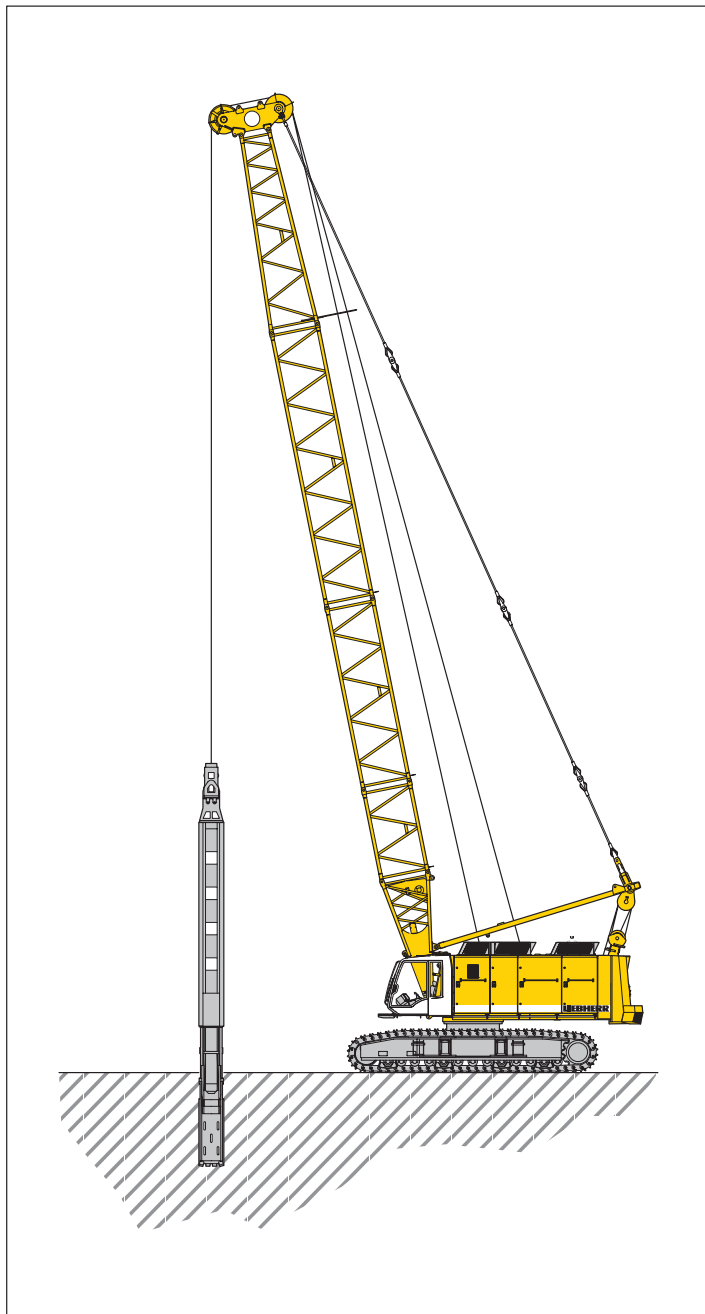
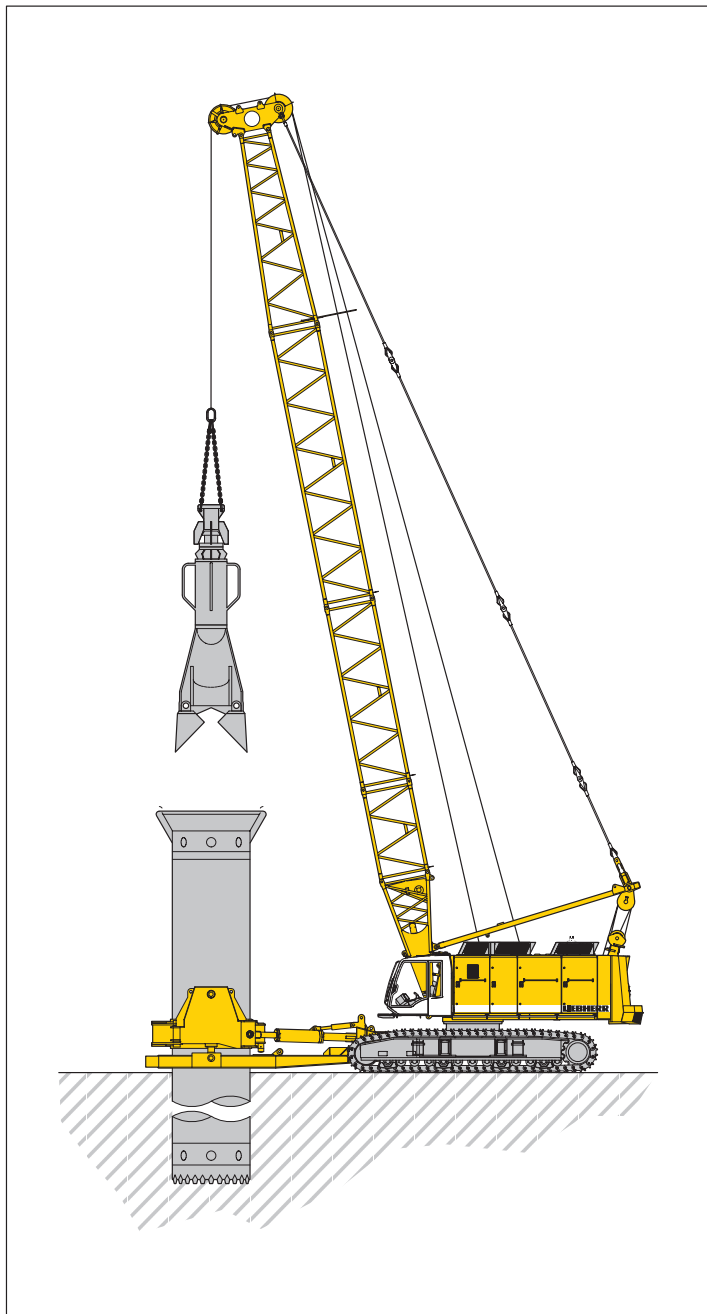
Max. capacities in metric tons do not exceed 66.7 % of tipping load.

Load diagram restricted by safety factors of standard ropes:

|                     |             |             |             |
|---------------------|-------------|-------------|-------------|
| Winches             | 44,100 lbs  | 55,200 lbs  | 66,200 lbs  |
| Rope diameter       | 30 mm       | 34 mm       | 36 mm       |
| Calc. breaking load | 181,000 lbf | 232,000 lbf | 261,000 lbf |
| 1-rope clamshell    | 36,400 lbs  | 46,300 lbs  | 51,800 lbs  |
| 2-rope clamshell    | 48,500 lbs  | 61,700 lbs  | 69,000 lbs  |

# Equipment

## Casing oscillator and slurry wall grab



### Casing oscillator

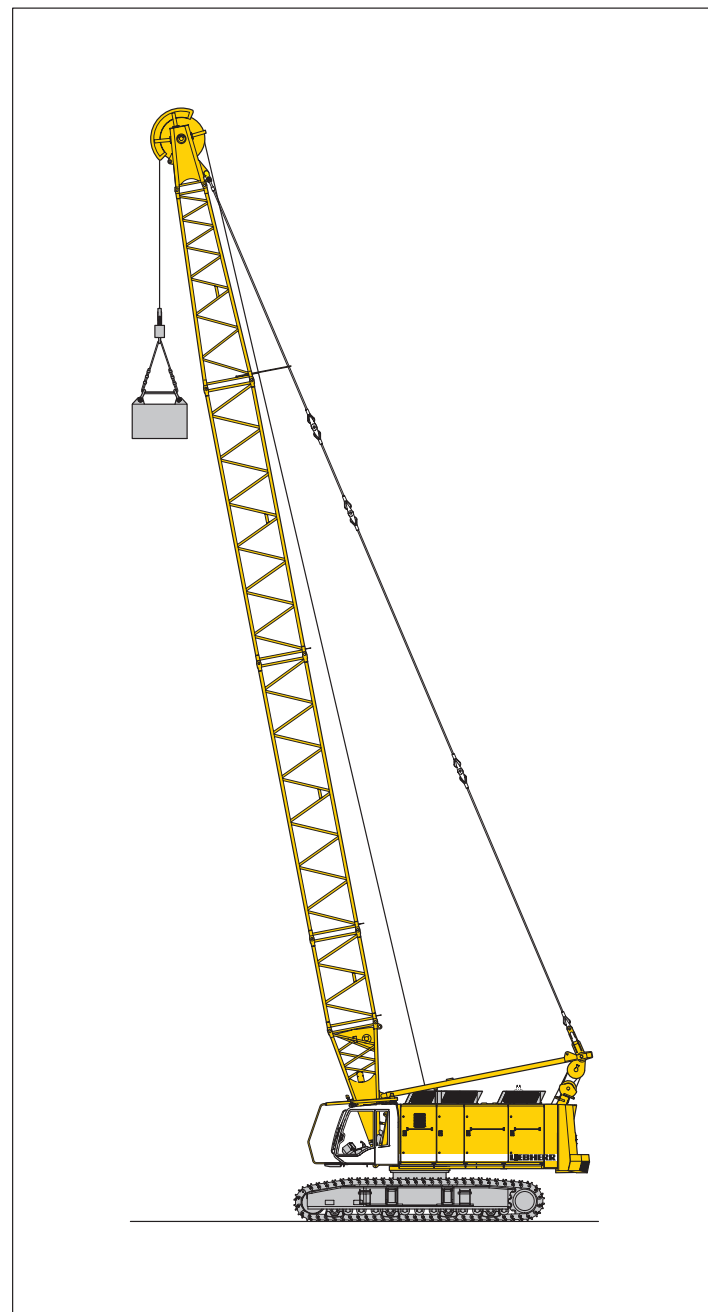
|                                                |                |                |
|------------------------------------------------|----------------|----------------|
| Winch options                                  | 2 x 55,200 lbs | 2 x 66,200 lbs |
| Line speed 1st gear (ft/min)                   | 0-226          | 0-180          |
| Line speed 2nd gear (ft/min)                   | 0-403          | 0-390          |
| Drilling diameter                              | 8'3"           | 9'10"          |
| Maximum allowable weight in two rope operation | 56,200 lbs     | 71,700 lbs     |

### Slurry wall grab

|                                                |                |                |
|------------------------------------------------|----------------|----------------|
| Winch options                                  | 2 x 55,200 lbs | 2 x 66,200 lbs |
| Line speed 1st gear (ft/min)                   | 0-226          | 0-180          |
| Line speed 2nd gear (ft/min)                   | 0-403          | 0-390          |
| Max. chisel weight                             | 20 t           | 25 t           |
| Maximum allowable weight in two rope operation | 56,200 lbs     | 71,700 lbs     |

# Equipment

## Dynamic soil compaction



Capacities in metric tons for boom lengths (69 ft – 108 ft)

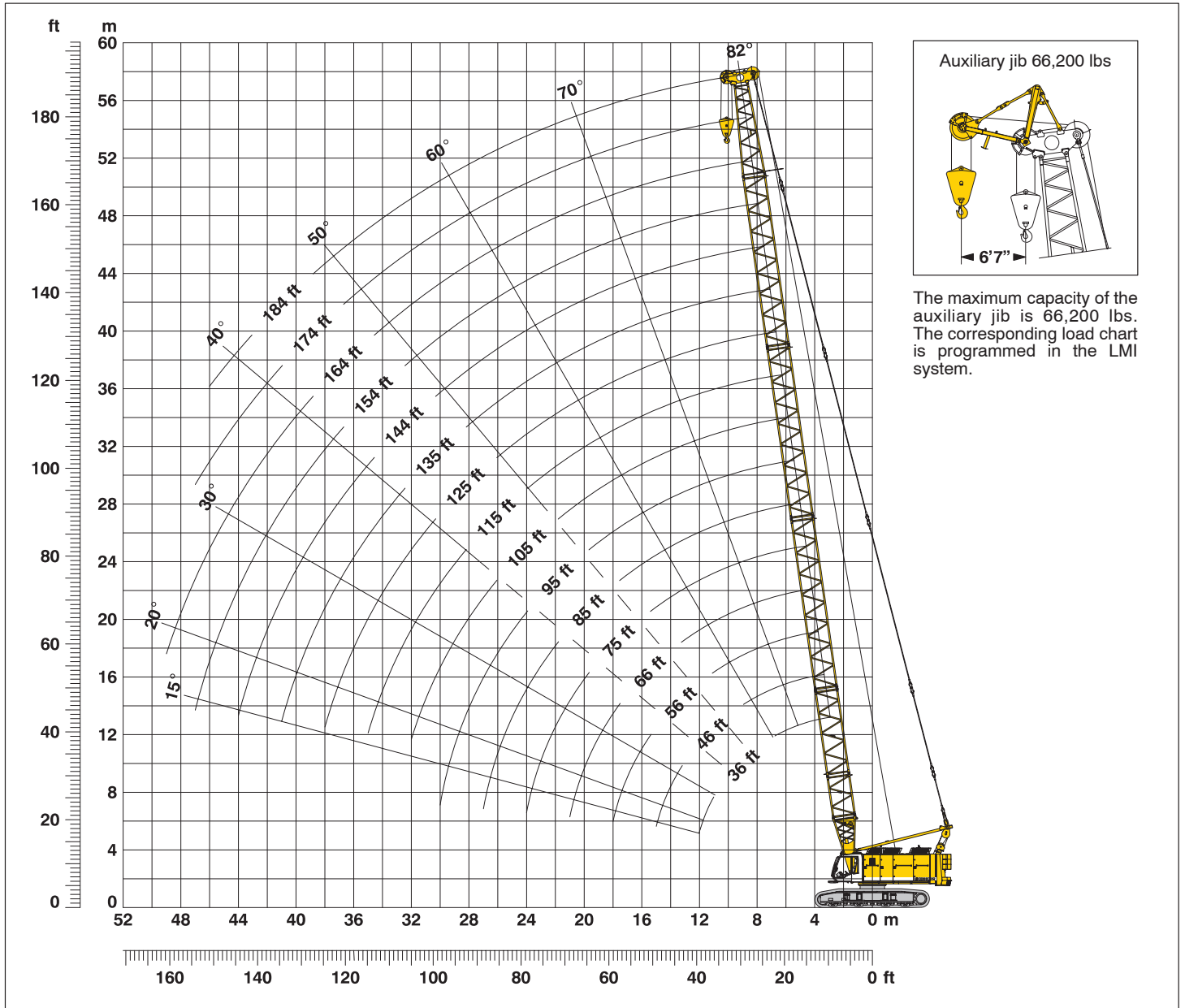
| Radius<br>(ft) | Boom length |        |        |        |        |
|----------------|-------------|--------|--------|--------|--------|
|                | 69 ft       | 79 ft  | 89 ft  | 98 ft  | 108 ft |
|                | lbs         | lbs    | lbs    | lbs    | lbs    |
| 26.2           | 66,200      | 66,200 | 55,200 | 55,200 | 55,200 |
| 29.5           | 44,100      | 44,100 | 44,100 | 44,100 | 44,100 |

Max. capacities in metric tons do not exceed 75% of tipping load.

All loads given are max. values and must not be exceeded. They are only permitted in two rope automatic operation and are valid for work on a surface with max. inclination of 1 %. Lifting heights shall not exceed 82 ft.

# Working range - main boom 86° - 15°

## 87,100 lbs counterweight and 15,400 carbody counterweight



### Main boom configuration (table 1)

Configuration for boom lengths (36 ft – 184 ft)

|                     | Length | Amount of boom extensions |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
|---------------------|--------|---------------------------|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Boom foot           | 13 ft* | 1                         | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| Boom extension      | 10 ft* |                           | 1  |    |    | 1  |    | 1  |     | 1   |     | 1   |     | 1   |     | 1   |     |
| Boom extension      | 20 ft* |                           |    | 1  |    |    | 1  | 1  |     |     | 1   | 1   |     |     |     | 1   | 1   |
| Boom extension      | 30 ft* |                           |    |    | 1  | 1  | 1  | 1  | 2   |     |     |     |     |     |     |     |     |
| Boom extension      | 40 ft* |                           |    |    |    |    |    |    |     | 2   | 2   | 2   | 2   | 3   | 3   | 3   | 3   |
| Boom head section   | 21 ft  | 1                         | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| Boom head           | 2 ft*  | 1                         | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| Boom length in (ft) |        | 36                        | 46 | 56 | 66 | 75 | 85 | 95 | 105 | 115 | 125 | 135 | 144 | 154 | 164 | 174 | 184 |

\* Actual lengths of boom sections are metric (e.g. 4 m ,3 m, 6 m, 9 m, 12 m, 0.6 m). The figures shown above are approximate conversions to feet.

# Lift chart for main boom

**87,100 lbs counterweight and 15,400 lbs carbody counterweight**

| Capacities in 1000 lbs for boom lengths (36 ft – 243 ft) – with 66,200 lbs winches |                     |       |       |       |       |       |       |       |       |       |      |      |      |               |      |      |      |        |
|------------------------------------------------------------------------------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|---------------|------|------|------|--------|
| Radius                                                                             | Boom length in (ft) |       |       |       |       |       |       |       |       |       |      |      |      |               |      |      |      | Radius |
|                                                                                    | Standard boom head  |       |       |       |       |       |       |       |       |       |      |      |      | L – boom head |      |      |      |        |
| (ft)                                                                               | 36                  | 46    | 56    | 66    | 75    | 85    | 95    | 105   | 115   | 135   | 154  | 164  | 184  | 194           | 203  | 223  | 243  | (ft)   |
| lbs                                                                                | lbs                 | lbs   | lbs   | lbs   | lbs   | lbs   | lbs   | lbs   | lbs   | lbs   | lbs  | lbs  | lbs  | lbs           | lbs  | lbs  | lbs  | lbs    |
| *14.4                                                                              | 300.0               |       |       |       |       |       |       |       |       |       |      |      |      |               |      |      |      | *14.4  |
| *15                                                                                | 286.4               | 276.7 | 251.5 |       |       |       |       |       |       |       |      |      |      |               |      |      |      | *15    |
| 20                                                                                 | 223.1               | 219.6 | 215.9 | 213.4 | 208.8 | 203.7 |       |       |       |       |      |      |      |               |      |      |      | 20     |
| 25                                                                                 | 166.7               | 167.2 | 167.4 | 167.4 | 166.9 | 162.8 | 161.1 | 151.0 | 140.4 |       |      |      |      |               |      |      |      | 25     |
| 30                                                                                 | 126.9               | 127.4 | 127.6 | 127.6 | 127.5 | 127.4 | 127.2 | 127.0 | 124.8 | 108.0 | 88.5 |      |      |               |      |      |      | 30     |
| 35                                                                                 | 101.8               | 102.4 | 102.6 | 102.6 | 102.4 | 102.3 | 102.1 | 101.8 | 101.6 | 94.6  | 83.4 | 76.1 | 63.3 | 58.2          |      |      |      | 35     |
| 40                                                                                 |                     | 85.1  | 85.3  | 85.3  | 85.2  | 85.0  | 84.8  | 84.5  | 84.2  | 83.7  | 75.7 | 70.6 | 59.4 | 55.8          | 50.9 | 42.3 |      | 40     |
| 45                                                                                 |                     | 72.4  | 72.7  | 72.8  | 72.6  | 72.4  | 72.2  | 71.9  | 71.6  | 71.0  | 69.3 | 64.4 | 55.3 | 52.6          | 48.1 | 40.3 | 32.6 | 45     |
| 50                                                                                 |                     |       | 63.0  | 63.1  | 63.0  | 62.8  | 62.5  | 62.2  | 61.9  | 61.3  | 60.6 | 58.9 | 51.4 | 48.4          | 45.8 | 38.4 | 31.1 | 50     |
| 55                                                                                 |                     |       | 55.3  | 55.5  | 55.4  | 55.2  | 55.0  | 54.6  | 54.3  | 53.7  | 53.0 | 51.4 | 50.7 | 44.0          | 42.8 | 37.4 | 29.9 | 55     |
| 60                                                                                 |                     |       |       | 49.6  | 49.5  | 49.3  | 49.1  | 48.8  | 48.4  | 47.8  | 47.1 | 46.5 | 45.1 | 40.6          | 39.6 | 36.3 | 29.2 | 60     |
| 65                                                                                 |                     |       |       | 44.4  | 44.4  | 44.2  | 44.0  | 43.7  | 43.4  | 42.7  | 42.0 | 41.6 | 40.3 | 37.0          | 35.9 | 33.7 | 28.4 | 65     |
| 70                                                                                 |                     |       |       |       | 40.0  | 39.9  | 39.7  | 39.4  | 39.1  | 38.4  | 37.7 | 37.3 | 36.4 | 33.8          | 32.7 | 30.6 | 26.7 | 70     |
| 75                                                                                 |                     |       |       |       | 36.3  | 36.3  | 36.1  | 35.8  | 35.4  | 34.8  | 34.0 | 33.7 | 32.9 | 30.9          | 29.9 | 27.9 | 24.7 | 75     |
| 80                                                                                 |                     |       |       |       |       | 33.1  | 32.9  | 32.6  | 32.3  | 31.6  | 30.9 | 30.5 | 29.3 | 28.3          | 27.4 | 25.4 | 22.7 | 80     |
| 85                                                                                 |                     |       |       |       |       | 30.3  | 30.2  | 29.9  | 29.6  | 28.9  | 28.2 | 27.8 | 26.1 | 26.0          | 25.1 | 23.2 | 20.7 | 85     |
| 90                                                                                 |                     |       |       |       |       |       | 27.7  | 27.4  | 27.2  | 26.5  | 25.8 | 25.3 | 23.3 | 24.0          | 23.1 | 21.3 | 18.9 | 90     |
| 95                                                                                 |                     |       |       |       |       |       | 25.5  | 25.3  | 25.0  | 24.3  | 23.6 | 23.2 | 21.0 | 22.1          | 21.3 | 19.5 | 17.3 | 95     |
| 100                                                                                |                     |       |       |       |       |       |       | 23.4  | 23.1  | 22.4  | 21.7 | 21.3 | 19.3 | 20.4          | 19.6 | 17.9 | 16.0 | 100    |
| 110                                                                                |                     |       |       |       |       |       |       |       | 19.8  | 19.2  | 18.5 | 18.0 | 16.4 | 17.2          | 16.7 | 15.0 | 13.3 | 110    |
| 115                                                                                |                     |       |       |       |       |       |       |       |       | 17.8  | 17.0 | 16.6 | 15.1 | 15.9          | 15.4 | 13.7 | 11.9 | 115    |
| 120                                                                                |                     |       |       |       |       |       |       |       |       | 16.5  | 15.8 | 15.4 | 14.0 | 14.6          | 14.1 | 12.6 | 10.6 | 120    |
| 125                                                                                |                     |       |       |       |       |       |       |       |       | 15.3  | 14.6 | 14.2 | 13.0 | 13.4          | 12.9 | 11.6 | 9.4  | 125    |
| 130                                                                                |                     |       |       |       |       |       |       |       |       | 14.2  | 13.5 | 13.1 | 12.1 | 12.1          | 11.8 | 10.6 | 8.6  | 130    |
| 135                                                                                |                     |       |       |       |       |       |       |       |       |       | 12.5 | 12.1 | 11.1 | 11.1          | 10.6 | 9.7  | 7.9  | 135    |
| 140                                                                                |                     |       |       |       |       |       |       |       |       |       | 11.6 | 11.2 | 10.1 | 10.2          | 9.6  | 8.8  | 7.2  | 140    |
| 145                                                                                |                     |       |       |       |       |       |       |       |       |       | 10.5 | 10.3 | 9.2  | 9.5           | 8.9  | 7.9  | 6.5  | 145    |
| 150                                                                                |                     |       |       |       |       |       |       |       |       |       | 9.3  | 9.3  | 8.3  | 8.7           | 8.1  | 7.0  | 5.7  | 150    |
| 155                                                                                |                     |       |       |       |       |       |       |       |       |       |      | 8.2  | 7.6  | 7.9           | 7.4  | 6.3  | 5.0  | 155    |
| 160                                                                                |                     |       |       |       |       |       |       |       |       |       |      | 7.2  | 6.9  | 7.1           | 6.7  | 5.7  | 4.3  | 160    |
| 165                                                                                |                     |       |       |       |       |       |       |       |       |       |      |      | 6.1  | 6.4           | 6.0  | 5.1  | 3.6  | 165    |
| 170                                                                                |                     |       |       |       |       |       |       |       |       |       |      |      | 5.2  | 5.7           | 5.4  | 4.4  | 3.2  | 170    |
| 175                                                                                |                     |       |       |       |       |       |       |       |       |       |      |      | 4.4  | 5.1           | 4.7  | 3.8  | 2.7  | 175    |
| 180                                                                                |                     |       |       |       |       |       |       |       |       |       |      |      | 3.6  | 4.5           | 4.1  | 3.3  | 2.3  | 180    |
| 185                                                                                |                     |       |       |       |       |       |       |       |       |       |      |      |      | 3.9           | 3.5  | 2.8  |      | 185    |
| 190                                                                                |                     |       |       |       |       |       |       |       |       |       |      |      |      | 3.3           | 3.0  | 2.3  |      | 190    |
| 195                                                                                |                     |       |       |       |       |       |       |       |       |       |      |      |      |               | 2.4  | 1.8  |      | 195    |

Above lift chart is for reference only. For actual lift duty please refer to lift chart in operator's cab or manual.

\* Capacities over 246,300 lbs require a special heavy duty boom head.

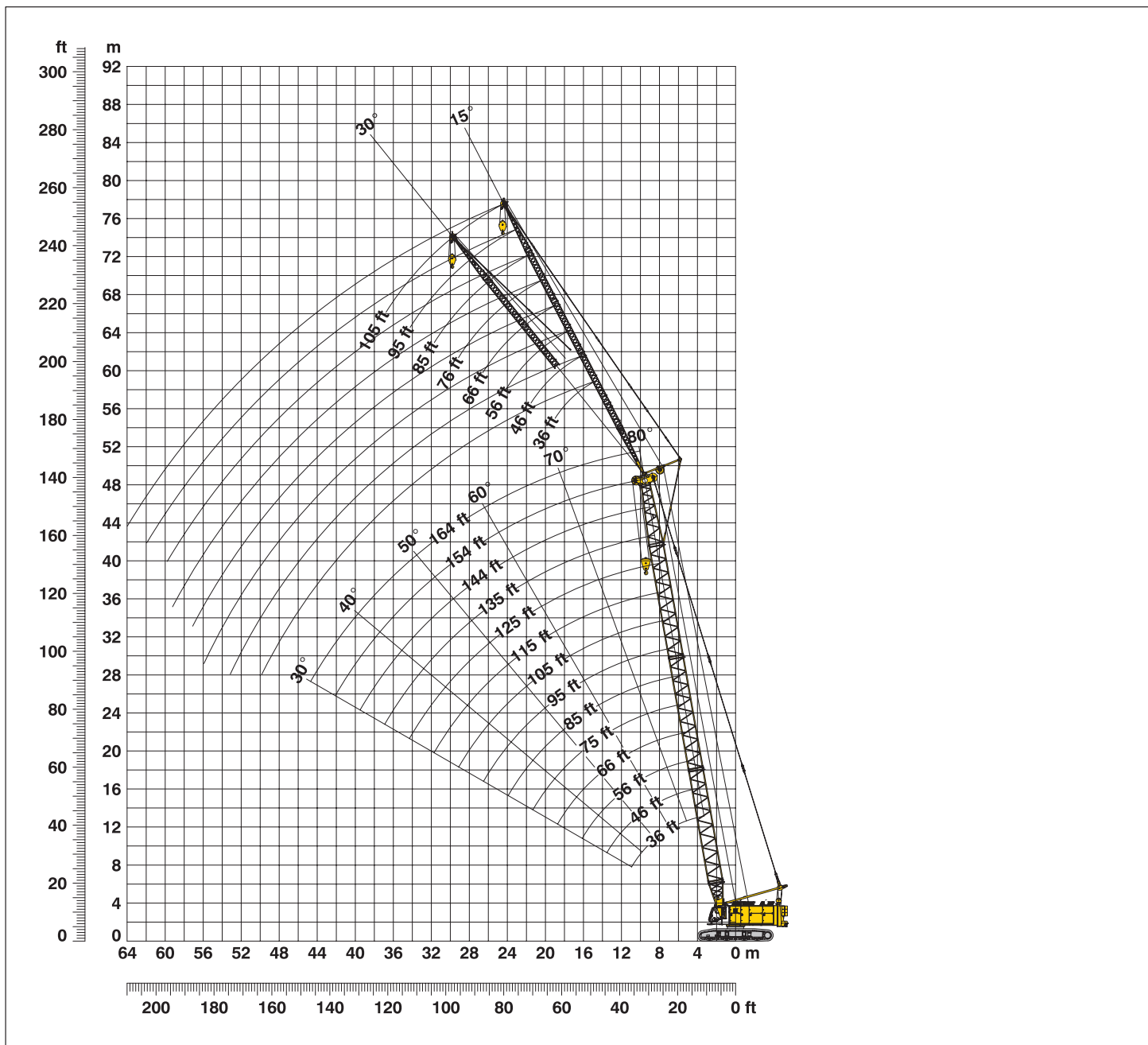
## L – boom configuration

| Configuration for boom lengths (194 ft – 243 ft) |        |                           |     |     |     |     |     |
|--------------------------------------------------|--------|---------------------------|-----|-----|-----|-----|-----|
|                                                  | Length | Amount of boom extensions |     |     |     |     |     |
| Boom foot                                        | 13 ft* | 1                         | 1   | 1   | 1   | 1   | 1   |
| Boom extension                                   | 10 ft* |                           | 1   |     | 1   |     | 1   |
| Boom extension                                   | 20 ft* |                           |     | 1   | 1   |     |     |
| Boom extension                                   | 40 ft* | 4                         | 4   | 4   | 4   | 5   | 5   |
| L – boom head                                    | 23 ft* | 1                         | 1   | 1   | 1   | 1   | 1   |
| L – boom length in (ft)                          |        | 194                       | 203 | 213 | 223 | 233 | 243 |

\* Actual lengths of boom sections are metric (e.g. 4 m .3 m. 6 m. 12 m. 7 m). The figures shown above are approximate conversions to feet.

# Working range - fixed jib (No. 0806.xx) 15° and 30°

## Main boom 80° - 30°



### Boom configuration for boom lengths (36 ft - 164 ft) — see table 1 on page 10

### Fixed jib configuration for fixed jib lengths (36 ft - 105 ft)

|                       | Length | Amount of fixed jib extensions |    |    |    |    |    |    |     |
|-----------------------|--------|--------------------------------|----|----|----|----|----|----|-----|
| Fixed jib foot        | 18 ft  | 1                              | 1  | 1  | 1  | 1  | 1  | 1  | 1   |
| Fixed jib insert      | 10 ft* |                                | 1  |    | 1  |    | 1  |    | 1   |
| Fixed jib insert      | 20 ft* | 0                              | 0  | 1  | 1  | 2  | 2  | 3  | 3   |
| Fixed jib head        | 18 ft  | 1                              | 1  | 1  | 1  | 1  | 1  | 1  | 1   |
| Fixed jib length (ft) |        | 36                             | 46 | 56 | 66 | 76 | 85 | 95 | 105 |

\*Actual lengths of boom sections are metric (e.g. 3 m, 6 m). The figures shown above are approximate conversions to feet.

# Technical description



## Engine

Power rating according to ISO 9249, 450 kW (603 hp) at 1900 rpm

Engine type — Liebherr D 9508 A7

Fuel tank — 920 l capacity with continuous level  
indicator and reserve warning

Engine complies with NRMM exhaust certification EPA / CARB Tier 3 and 97/68 EC Stage III

Option:

Power rating according to ISO 3046, 670 kW (898 hp) at 1900 rpm

Engine type — MAN D 2842 LE

Fuel tank — 920 l capacity with continuous level  
indicator and reserve warning

Engine complies with NRMM exhaust certification EPA / CARB Tier 2.



## Hydraulic system

The main pumps are operated by a distributor gearbox. Axial piston displacement pumps work in closed and open circuits supplying oil only when needed (flow control on demand). To minimize peak pressure an automatically working pressure cut off is integrated. This spares pumps and saves energy. The hydraulic oil is cleaned through electronically controlled pressure and return filters. Possible contamination is signaled in the cabin. The use of synthetic environmentally friendly oils is possible. Ready made hydraulic retrofit kits are available to customize requirements e.g. powering casing oscillators, VM-vibrators, hydraulic grabs, hanging leads etc.

Working pressure — max. 5076 psi

Oil tank capacity — 238 gal



## Boom winch

Line pull — max. 2 x 15,500 lbs

Rope diameter — 20 mm

Boom up — 84 sec. from 15° to 82°



## Swing

Consists of rollerbearing with external teeth for lower tooth flank pressure, fixed axial piston hydraulic motor, spring loaded and hydraulically released multi-disc holding brake, planetary gearbox and pinion. Swing speed from 0 – 3.6 rpm continuously variable, selector for 3 speed ranges to increase swing precision.

Standard:

Second swing drive



## Noise emission

Noise emissions correspond with 2000/14/EC directive on noise emission by equipment used outdoors.



## Main winches

Winch options:

Line pull (nom. load) — 47,400 lbs — 55,200 lbs — 66,200 lbs

Rope diameter — 30 m — 34 m — 36 m

Drum diameter — 24.8" — 29.5" — 32.3"

Rope speed (ft/min) — 0-279 — 0-226 — 0-180

With change gear bos (ft/min) — 0-403 — 0-390

Rope capacity 1st layer — 153 ft — 151 ft — 151 ft

The winches are outstanding in their compact design and easy assembly. Propulsion is via a planetary gearbox in an oil bath. Load support by the hydraulic system; additional safety factor provided by a spring loaded, multi-disc holding brake. The main winches use pressure controlled, variable flow hydraulic motors. This system features sensors that automatically adjust oil flow to provide max. winch speed depending on load.

Option:

Crane winch (main winch) — 35,300 lbs with multi-disc holding brake

Auxiliary winch — 15,500 lbs in boom foot

Tagline winch — 15,500 lbs with free fall  
15,500 lbs with free fall



## Crawlers

The track width of the undercarriage is changed hydraulically.

Propulsion through axial piston motor, hydraulically released spring loaded multi-disc brake, maintenance free crawler tracks, hydraulic chain tensioning device.

Flat or double grouser track shoes

Drive speed 0 – 0.8 mph

Option:

- 2 speed hydraulic motor for higher travel speed



## Control

The control system – developed and manufactured by Liebherr – is designed to withstand extreme temperature changes and the rough heavy duty tasks common in the construction industry. Complete machine operating data are shown on a high resolution display. The crane is equipped with proportional control for all movements, which can be carried out simultaneously. Dragline operation: A special "Interlock" control system is an option available. It is designed for power lifting of the dragline bucket without using the drag winch brake.

An additional option is the "Redundant Control System", which allows restricted operation of the machine in the event of a failure on the electronic base control or its sensors.

On request, Liebherr also offers special custom designed control systems for free fall winches.

Operation: Left joy stick for boom winch and swing, right two directional levers for winch I and II. Crawler control is actuated with the two central foot pedals. Additionally, hand levers can be attached to the pedals.

Options:

- Special demolition control system
- MDE: Machine data recording
- PDE: Process data recording
- GSM modem.

## Notice

A full-page sheet of white graph paper featuring a uniform grid of thin, light gray horizontal and vertical lines. The grid covers the entire area of the page, creating a series of small squares suitable for technical drawing or mathematics.

## Notice

