# SCX800E

# **HYDRAULIC CRAWLER CRANE**

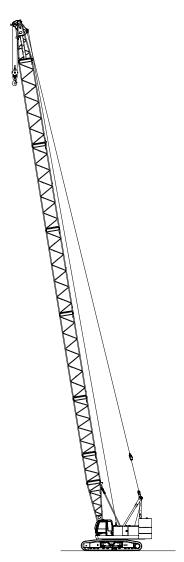




# Variation of The Attachment

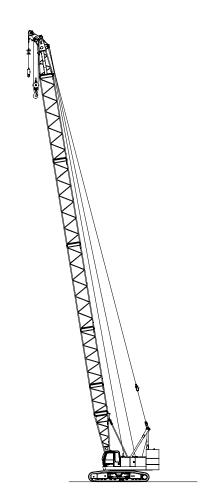
| Line S                    | Front / Rear Winch | m/min                   | 37/75                         |
|---------------------------|--------------------|-------------------------|-------------------------------|
| Speed *                   | Boom Hoist Winch   | 117111111               | 62                            |
| Swing Speed               |                    | min <sup>-1</sup> (rpm) | 3.0                           |
| Travel Speed *            |                    | km/h                    | 1.3                           |
| Gradeability              |                    | % (Degree)              | 30 (17)                       |
| Engine Model              |                    |                         | ISUZU 6HK1 (Stage II, Tier 2) |
| Engine Rated Output Power |                    | kW/min <sup>-1</sup>    | 140 / 2,000                   |
|                           |                    | (ps/rpm)                | (190 / 2,000)                 |

Note: Speeds marked with "\*" may vary depending on load applied.



Crane Specification (Boom Longest Length)

| Boom Length                 | m             | 54.5   |
|-----------------------------|---------------|--|
| Ground Contact<br>Pressure  | kPa (kgf/cm²) | 85 (0.87)<br>Boom longest length with 15 t hook          |
| Overall Operating<br>Weight | t             | Approximately 76.6<br>Boom longest length with 15 t hook |



Crane Specification (Boom Longest Length with Aux. Sheave)

| Boom Length                 | m             | 51.5 + Aux. sheave   |
|-----------------------------|---------------|--|
| Ground Contact<br>Pressure  | kPa (kgf/cm²) | 85 (0.87) Boom longest length + aux. sheave, 15 t + 6.5 t hook attached                |
| Overall Operating<br>Weight | t             | Approximately 76.7<br>Boom longest length + aux. sheave,<br>15 t + 6.5 t hook attached |

### **VARIATION**

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|----|-----------------|----------|--------|----------|
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# **Specifications**



# Engine

| Model              | ISUZU 6HK1  |  |
|--------------------|---|--|
| Туре               | 4-cycle, Water-cooled, Direct injection, Turbo-charged,   |  |
|                    | Diesel engine   |  |
| Displacement       | 7.79 liters   |  |
| Rated Output       | 140 kW / 2,000 min <sup>-1</sup> (190 ps / 2,000 rpm)   |  |
| Fuel Tank Capacity | 285 liters  |  |
| Notes              | Engine meets Tier 2 / Stage II of engine exhaust gas emission regulations in USA, Europe, and Japan.              |  |
|                    | Engine rated horsepower is based on international rating formula that includes engine alternator and without fan. |  |

# Control

| Control System       | Main actuators are actuated by main hydraulic system controlled with pilot hydraulic system. Safety devices are securely operated by combined various electronic control with hydraulic system. Working speed can be precisely controlled according to control lever stroke depending on work. |
|----------------------|--|
| Control Levers       | Control levers are designed and located based on ergonomics. Control lever system is cross operation lever type.   |
| Display Panel Design | 7 inches size. Located to check work state easily without disturbing the view of the operator.   |



# Hydraulic System

| Hydraulic Oil Tank Capacity |      |                  | 250 liters   |
|-----------------------------|------|------------------|--|
|                             | Max. | 29.4 MPa         |  |
| Hydraulic Pump              | P1   | 230 liters / min | for Front, Rear, boom hoist winch,travel and sideframe retract |
| Capacity                    | P2   | 230 liters / min | for Front, Rear and travel                                     |
|                             | P3   | 131 liters / min | for Swing  |
|                             | P4   | 36 liters / min  | for Pilot control  |



### Winch

| Front and Rear Winch     |                  |   |       |  |
|--------------------------|------------------|---|-------|--|
| Winch                    |                  | Front                                   | Rear  |  |
| Rope Diameter            |                  | 22 mm                                   | 22 mm |  |
| Standard Standard        |                  | 220 m                                   | 135 m |  |
| Rope Length              | Winding Capacity | 320 m                                   | 320 m |  |
| Line Pull Rated          |                  | 68 kN                                   | 68 kN |  |
| Boom Hoist Win           |                  |   |       |  |
| Rope Diameter            |                  | 16 mm                                   |       |  |
| Rope Length Incorporated |                  | 150 m                                   |       |  |
|                          |                  | Hydraulic motor with multi-disc brakes. |       |  |

# Swing System

Constructed with a hydraulic motor with reduction gear and multi-disc brakes and a swing bearing which has

### **Counter Weight**

|                | Total Weight          | 27.9 ton |
|----------------|-----------------------|----------|
| Counter Weight | 8.5 ton Base Weight   | 2 pieces |
| Counter Weight | 4.9 ton Insert Weight | 1 piece  |
|                | 6.0 ton Top Weight    | 1 piece  |

# Carbody Frame

Welded steel construction.



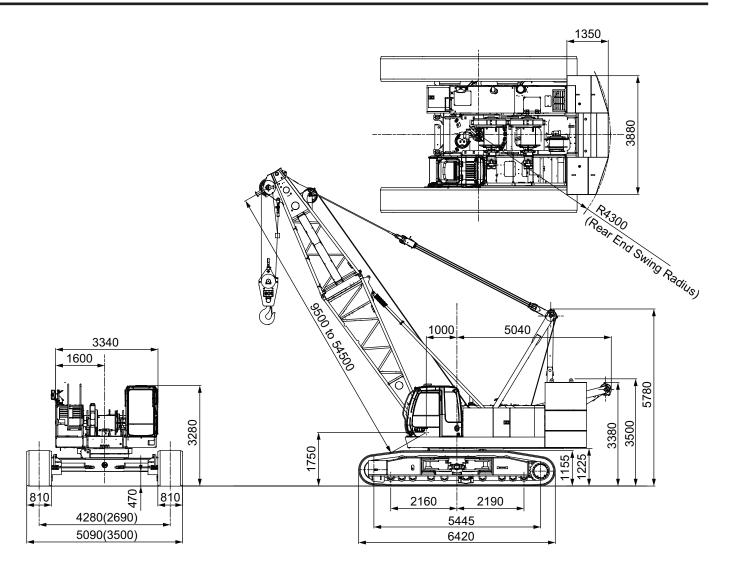
### Crawler Sideframe

| Frame         | Welded steel box co transportation. | Welded steel box construction and can be retracted for transportation.                        |  |  |  |  |  |  |
|---------------|-------------------------------------|---|--|--|--|--|--|--|
| Shoe          |                                     | 62 track shoes with triple grousers made of induction-<br>hardened rolled alloy. 810mm width. |  |  |  |  |  |  |
| Upper Roller  | 2 pieces each side.                 | 2 pieces each side.   |  |  |  |  |  |  |
| Lower Roller  | 10 pieces each side.                |   |  |  |  |  |  |  |
|               | 1 peace each side.                  |   |  |  |  |  |  |  |
| Travel Device | Hydraulic travel devi               | ce (Hydrayulic motor and reducer)   |  |  |  |  |  |  |
| Havel Device  | Travel speed<br>(Gradability : 30%) | 1.3 km/h  |  |  |  |  |  |  |



# Crane Specifications

# **Dimensions and Specifications**



| t × m           | 80 × 3.2                           |
|-----------------|------------------------------------|
| m               | 9.5                                |
| m               | 54.5                               |
| kDa (kaf/cm²)   | 80 (0.82)                          |
| KFa (Kgi/Cili ) | 9.5m basic boom and 80t hook block |
| +               | 72.5                               |
|                 | 9.5m basic boom and 80t hook block |
|                 | m                                  |

| Hook Weight |              |
|-------------|--------------|
| 80 t        | 800 kg       |
| 40 t        | 410 kg       |
| 15 t        | 320 kg       |
| 7 t         | 180 kg       |
|             | 80 t<br>40 t |

NOTE: Data is expressed in SI units followed by conventional units in ().

| Front / Rear Winch Ro | Front / Rear Winch Rope No. of Falls and Lifting Load |          |         |         |         |         |         |         |         |         |        |
|-----------------------|---|----------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| Hook Capacity         | Hack Consite: Maximum Rated Load ( ton )              |          |         |         |         |         |         |         |         |         |        |
| поок Сарасіту         | 11 Falls  | 10 Falls | 9 Falls | 8 Falls | 7 Falls | 6 Falls | 5 Falls | 4 Falls | 3 Falls | 2 Falls | 1 Fall |
| 80 t                  | 80  | 70       | 63      | 56      | 49      | 42      | 35      | 28      | 21      | 14      | -      |
| 40 t                  | -   | -        | -       | -       | -       | 40      | 35      | 28      | 21      | 14      | -      |
| 15 t                  | -   | -        | -       | -       | -       | -       | -       | -       | 15      | 14      | -      |
| 7 t                   | -   | -        | -       | -       | -       | -       | -       | -       | -       | -       | 7      |

# **Boom Standard Configurations**

| Boom (1/2)<br>Boom Length<br>(m) | Boom Configurations   |
|----------------------------------|---|
| 9.5                              | 3.22<br><u>5.54</u>   |
| 12.5                             | 3.3.22<br>5.534   |
| 15.5                             | 6 3.22<br>5.5 6 4 0<br>3 3 3.22<br>5.5 3 3 4 0  |
| 18.5                             | 3, 6, 3,22<br>5,5,3,6,4<br>9, 3,22<br>5,5,9,4   |
| 21.5                             | 3 9 3.22<br>5.5 3 9 4 0<br>6 6 3.22<br>5.5 6 6 6 4 0<br>3 3 6 3.22<br>5.5 3 3 6 4 0       |
| 24.5                             | 6 9 3.22<br>5.5 6 9 4 0<br>3 3 9 3.22<br>5.5 3 3 9 4 0<br>3 6 6 3.22<br>5.5 3 6 6 4 0     |
| 27.5                             | 3 6 9 3.22<br>5.5 3 6 9 4 0<br>9 9 3.22<br>5.5 9 9 4 0<br>3 3 6 6 3.22<br>5.5 3 3 6 6 4 0 |
| 30.5                             | 3 9 9 3.22<br>5.5 3 9 9 4<br>3 3 6 9 3.22<br>5.5 3 3 6 9 4                                |

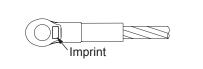
| Boom (2/2)<br>Boom Length<br>(m) | Boom Configurations   |
|----------------------------------|---|
| 33.5                             | 6 9 9 3.22<br>55 6 9 9 4 0<br>3 3 9 9 3.22<br>55 3 3 9 9 4  |
| 36.5                             | 3 6 9 9 3.22<br>5.5 3 6 9 9 4<br>9 9 9 3.22<br>5.5 9 9 9 4  |
| 39.5                             | 3 9 9 9 3.22<br>5.5 3 9 9 9 4<br>3 3 6 9 9 3.22<br>5.5 3 3 6 9 9 4  |
| 42.5                             | 6     9     9     9     3.22       5.5     6     9     9     9     4       3     3     9     9     9     3.22       5.5     3     3     9     9     9     4                               |
| 45.5                             | 3, 6, 9, 9, 9, 3,22<br>5,5,3,6,9,9,9,4<br>9,9,9,9,3,22<br>5,5,9,9,9,9,4   |
| 48.5                             | 3 9 9 9 9 3.22<br>5.5 3 9 9 9 9 4<br>3 3 6 9 9 9 9 3.22<br>5.5 3 3 6 9 9 9 9 4  |
| 51.5                             | 6     9     9     9     9     3.22       5.5     6     9     9     9     9     9     4       3     3     9     9     9     9     3.22       5.5     3     3     9     9     9     9     4 |
| 54.5                             | 3, 6, 9, 9, 9, 9, 3,22<br>5,5,3, 6, 9, 9, 9, 9, 4   |

| Aux. Sheave Ins  | Aux. Sheave Installable Boom Length |      |      |      |      |      |      |      |      |      |      |      |             |         |            |           |
|------------------|-------------------------------------|------|------|------|------|------|------|------|------|------|------|------|-------------|---------|------------|-----------|
| Boom Length (m)  | 9.5                                 | 12.5 | 15.5 | 18.5 | 21.5 | 24.5 | 27.5 | 30.5 | 33.5 | 36.5 | 39.5 | 42.5 | 45.5        | 48.5    | 51.5       | 54.5      |
| With Aux. Sheave | ×                                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0           | 0       | 0          | ×         |
|                  |                                     |      |      |      |      |      |      |      |      |      |      |      | ( O · Attac | hable > | · Not Atta | achable ) |

| Dimension | Dimensions Not Shown In The Figure |      |  |  |  |  |  |  |  |  |  |
|-----------|------------------------------------|------|--|--|--|--|--|--|--|--|--|
| Symbols   | Boom                               | Note |  |  |  |  |  |  |  |  |  |
|           | Length (m)                         |      |  |  |  |  |  |  |  |  |  |
| 3         | 3                                  |      |  |  |  |  |  |  |  |  |  |
| 6         | 6                                  |      |  |  |  |  |  |  |  |  |  |
| 9         | 9                                  |      |  |  |  |  |  |  |  |  |  |

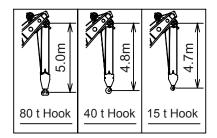
| Pendan  | t Rope     |                       |                       |
|---------|------------|-----------------------|-----------------------|
| Symbols | Length (m) | Rope<br>Diameter (mm) | Imprint               |
| 3       | 3          | 30                    | □ • △ • 30 • 3 • C    |
| 3.22    | 3.22       | 30                    | □ • △ • 30 • 3.22 • C |
| 6       | 6          | 30                    | □ • △ • 30 • 6 • C    |
| 9       | 9          | 30                    | □ · △ · 30 · 9 · C    |

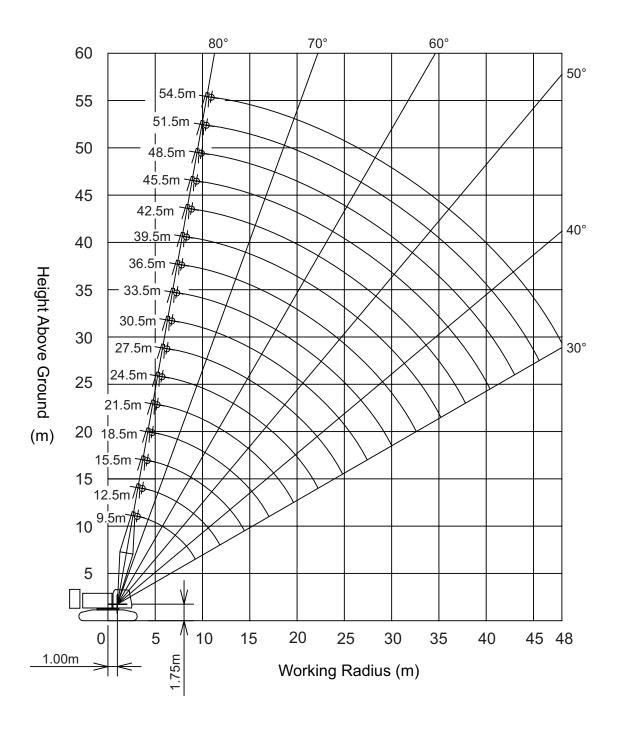
Check the pendant rope with referring to the imprints on the rope end.



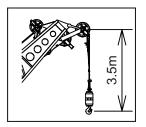
# **Working Ranges**

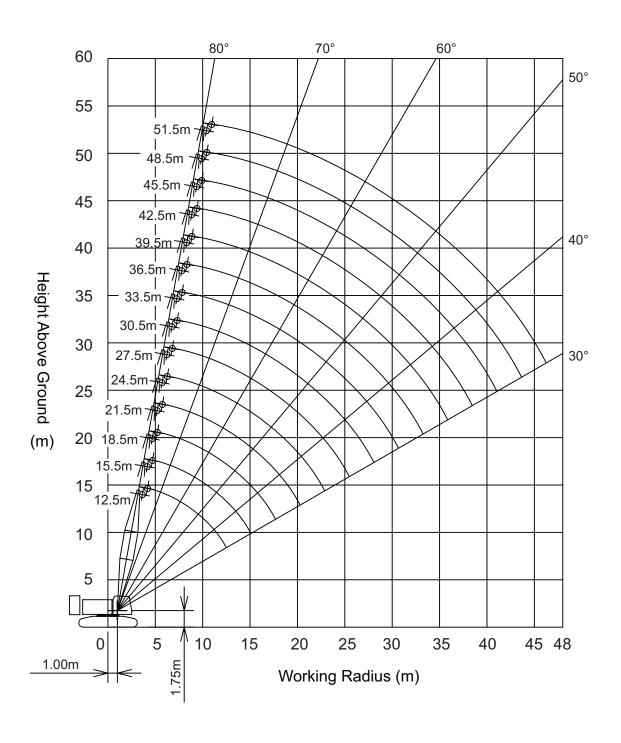
#### Main Boom





#### Aux. Sheave





### **Gross Rated Load Table**

#### Main Boom



| Working Radius |        | Boom Length (m) |         |         |         |         |         |         |         |     |  |  |
|----------------|--------|-----------------|---------|---------|---------|---------|---------|---------|---------|-----|--|--|
| (m)            | 9.5    | 12.5            | 15.5    | 18.5    | 21.5    | 24.5    | 27.5    | 30.5    | 33.5    | (m) |  |  |
| 3.2            | 80.00  | 3.8m x          |         |         |         |         |         |         |         | 3.2 |  |  |
| 3.5            | 80.00  | 76.75t          | 4.3m x  |         |         |         |         |         |         | 3.5 |  |  |
| 4              | 73.25  | 73.10           | 68.10t  | 4.9m x  |         |         |         |         |         | 4   |  |  |
| 4.5            | 65.50  | 65.35           | 65.20   | 60.00t  | 5.4m x  |         |         |         |         | 4.5 |  |  |
| 5              | 59.20  | 59.05           | 58.90   | 58.85   | 52.75t  |         |         |         |         | 5   |  |  |
| 5.5            | 52.50  | 53.85           | 53.70   | 52.75   | 51.55   |         | 6.5m x  |         |         | 5.5 |  |  |
| 6              | 46.15  | 48.55           | 48.35   | 47.40   | 46.35   | 45.55   | 40.75t  | 7.1m x  | 7.6m x  | 6   |  |  |
| 7              | 36.45  | 39.60           | 39.65   | 39.40   | 38.60   | 37.90   | 37.30   | 36.25t  | 32.75t  | 7   |  |  |
| 8              | 29.15  | 32.65           | 32.55   | 32.55   | 32.50   | 32.45   | 31.90   | 31.45   | 30.80   | 8   |  |  |
| 9              | 23.10  | 27.65           | 27.55   | 27.55   | 27.45   | 27.45   | 27.40   | 27.35   | 26.85   | 9   |  |  |
| 10             | 9.4m x | 23.60           | 23.85   | 23.80   | 23.75   | 23.70   | 23.65   | 23.60   | 23.50   | 10  |  |  |
| 12             | 20.85t | 16.55           | 18.70   | 18.65   | 18.55   | 18.50   | 18.45   | 18.35   | 18.30   | 12  |  |  |
| 14             |        |                 | 14.80   | 15.20   | 15.10   | 15.05   | 15.00   | 14.90   | 14.85   | 14  |  |  |
| 16             |        |                 | 14.6m x | 12.80   | 12.70   | 12.60   | 12.55   | 12.45   | 12.40   | 16  |  |  |
| 18             |        |                 | 13.45t  | 17.2m x | 10.85   | 10.80   | 10.75   | 10.65   | 10.55   | 18  |  |  |
| 20             |        |                 |         | 11.20t  | 19.8m x | 9.40    | 9.30    | 9.20    | 9.15    | 20  |  |  |
| 22             |        |                 |         |         | 9.40t   | 8.30    | 8.20    | 8.10    | 8.00    | 22  |  |  |
| 24             |        |                 |         |         |         | 22.4m x | 7.30    | 7.20    | 7.10    | 24  |  |  |
| 26             |        |                 |         |         |         | 8.05t   | 25.0m x | 6.40    | 6.30    | 26  |  |  |
| 28             |        |                 |         |         |         |         | 6.90t   | 27.6m x | 5.65    | 28  |  |  |
| 30             |        |                 |         |         |         |         |         | 5.85t   | 5.10    | 30  |  |  |
| 32             |        |                 |         |         |         |         |         |         | 30.2m x | 32  |  |  |
| 34             |        |                 |         |         |         |         |         |         | 5.05t   | 34  |  |  |

|                |                 |         |        |         |         |         |         | Unit : ton     |
|----------------|-----------------|---------|--------|---------|---------|---------|---------|----------------|
| Working Radius | Boom Length (m) |         |        |         |         |         |         | Working Radius |
| (m)            | 36.5            | 39.5    | 42.5   | 45.5    | 48.5    | 51.5    | 54.5    | (m)            |
| 7              | 8.2m x          | 8.7m x  |        |         |         |         |         | 7              |
| 8              | 29.75t          | 27.20t  | 9.3m x | 9.8m x  |         |         |         | 8              |
| 9              | 26.65           | 26.10   | 25.20t | 23.20t  | 10.3m x | 10.9m x | 11.5m x | 9              |
| 10             | 23.45           | 23.05   | 23.05  | 22.65   | 21.40t  | 19.65t  | 14.00t  | 10             |
| 12             | 18.25           | 18.15   | 18.10  | 18.05   | 17.80   | 17.45   | 14.00   | 12             |
| 14             | 14.80           | 14.70   | 14.65  | 14.55   | 14.45   | 14.35   | 14.00   | 14             |
| 16             | 12.35           | 12.20   | 12.20  | 12.10   | 11.95   | 11.90   | 11.90   | 16             |
| 18             | 10.50           | 10.40   | 10.35  | 10.25   | 10.15   | 10.05   | 10.00   | 18             |
| 20             | 9.05            | 8.95    | 8.90   | 8.80    | 8.70    | 8.55    | 8.55    | 20             |
| 22             | 7.95            | 7.80    | 7.75   | 7.65    | 7.50    | 7.40    | 7.35    | 22             |
| 24             | 7.00            | 6.85    | 6.80   | 6.70    | 6.55    | 6.45    | 6.40    | 24             |
| 26             | 6.20            | 6.05    | 6.00   | 5.90    | 5.75    | 5.65    | 5.60    | 26             |
| 28             | 5.55            | 5.40    | 5.35   | 5.25    | 5.10    | 4.95    | 4.90    | 28             |
| 30             | 5.00            | 4.85    | 4.75   | 4.65    | 4.50    | 4.40    | 4.35    | 30             |
| 32             | 4.50            | 4.35    | 4.30   | 4.15    | 4.00    | 3.90    | 3.85    | 32             |
| 34             | 32.8m x         | 3.90    | 3.85   | 3.75    | 3.60    | 3.45    | 3.40    | 34             |
| 36             | 4.30t           | 35.4m x | 3.45   | 3.35    | 3.20    | 3.10    | 3.00    | 36             |
| 38             |                 | 3.65t   | 3.15   | 3.00    | 2.85    | 2.75    | 2.70    | 38             |
| 40             |                 |         |        | 2.70    | 2.55    | 2.45    | 2.40    | 40             |
| 42             |                 |         |        | 40.6m x | 2.30    | 2.20    | 2.10    | 42             |
| 44             |                 |         |        | 2.65t   | 43.2m x | 1.95    | 1.85    | 44             |
| 46             |                 |         |        |         | 2.15t   | 45.8m x | 1.65    | 46             |
| 48             |                 |         |        |         |         | 1.75t   | 1.45    | 48             |
| 50             |                 |         |        |         |         |         | 48.3m x | 50             |
|                |                 |         |        |         |         |         | 1.40t   |                |

- 1. Capacities are the maximum allowable and based on machine standing level on firm supporting surface under ideal job conditions.
- Capacities are in metric tones, and are not more than 78% of minimum tipping loads except the figures surrounded by bold lines
  which are based on other factor of machine structural strength limitation; the design codes/standards applied to the capacitie are
  from "Construction Codes for Mobile Crane" and "Ordinance on Safety of Crane and Similar Equipment" issued by Ministry of
  Health, Labour and Welfare, Japan.
- Capacities are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stop of loads, supporting surface conditions and operating speed. Operator must reduce load ratings to take such conditions into account.
- 4. Deduction from rated capacities must be made for weight of hook block, hook ball, sling, spreader bar or any suspended gear.
- 5. 27.9ton counter weight is required for all capacities on this chart.
- 6. Figures described as OOm x OOt in the tables indicate "working radius" m x "rated load" ton.
- 7. Correlation between the number of reeved lines, maximum rated loads, hook mass are shown in the table below.

| Hook     | Hook      |         | Maximum Rated Load (ton) |        |        |        |        |        |        |        |        |  |
|----------|-----------|---------|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| Capacity | Mass(ton) | 11falls | 10falls                  | 9falls | 8falls | 7falls | 6falls | 5falls | 4falls | 3falls | 2falls |  |
| 80t      | 0.80      | 80      | 70                       | 63     | 56     | 49     | 42     | 35     | 28     | 21     | 14     |  |
| 40t      | 0.41      | -       | -                        | -      | -      | -      | 40     | 35     | 28     | 21     | 14     |  |
| 15t      | 0.32      | -       | -                        | -      | -      | -      | -      | -      | -      | 15     | 14     |  |

#### Aux. Sheave



| Working Radius |         |         |         | В       | oom Length ( | m)      |         |         |         | Working Radius |
|----------------|---------|---------|---------|---------|--------------|---------|---------|---------|---------|----------------|
| (m)            | 12.5    | 15.5    | 18.5    | 21.5    | 24.5         | 27.5    | 30.5    | 33.5    | 36.5    | (m)            |
| 4.6            | 7.00    | 5.1m x  |         |         |              |         |         |         |         | 4.6            |
| 5              | 7.00    | 7.00t   | 5.7m x  |         |              |         |         |         |         | 5              |
| 5.5            | 7.00    | 7.00    | 7.00t   | 6.2m x  | 6.8m x       |         |         |         |         | 5.5            |
| 6              | 7.00    | 7.00    | 7.00    | 7.00t   | 7.00t        | 7.3m x  | 7.9m x  |         |         | 6              |
| 7              | 7.00    | 7.00    | 7.00    | 7.00    | 7.00         | 7.00t   | 7.00t   | 8.4m x  |         | 7              |
| 8              | 7.00    | 7.00    | 7.00    | 7.00    | 7.00         | 7.00    | 7.00    | 7.00t   |         | 8              |
| 9              | 7.00    | 7.00    | 7.00    | 7.00    | 7.00         | 7.00    | 7.00    | 7.00    | 7.00    | 9              |
| 10             | 7.00    | 7.00    | 7.00    | 7.00    | 7.00         | 7.00    | 7.00    | 7.00    | 7.00    | 10             |
| 12             | 7.00    | 7.00    | 7.00    | 7.00    | 7.00         | 7.00    | 7.00    | 7.00    | 7.00    | 12             |
| 14             | 13.1m x | 7.00    | 7.00    | 7.00    | 7.00         | 7.00    | 7.00    | 7.00    | 7.00    | 14             |
| 16             | 7.00t   | 15.7m x | 7.00    | 7.00    | 7.00         | 7.00    | 7.00    | 7.00    | 7.00    | 16             |
| 18             |         | 7.00t   | 7.00    | 7.00    | 7.00         | 7.00    | 7.00    | 7.00    | 7.00    | 18             |
| 20             |         |         | 18.3m x | 7.00    | 7.00         | 7.00    | 7.00    | 7.00    | 7.00    | 20             |
| 22             |         |         | 7.00t   | 20.9m x | 7.00         | 7.00    | 7.00    | 7.00    | 7.00    | 22             |
| 24             |         |         |         | 7.00t   | 23.5m x      | 7.00    | 7.00    | 6.90    | 6.80    | 24             |
| 26             |         |         |         |         | 7.00t        | 6.35    | 6.25    | 6.10    | 6.05    | 26             |
| 28             |         |         |         |         |              | 26.1m x | 5.55    | 5.45    | 5.35    | 28             |
| 30             |         |         |         |         |              | 6.35t   | 28.7m x | 4.90    | 4.80    | 30             |
| 32             |         |         |         |         |              |         | 5.35t   | 31.3m x | 4.30    | 32             |
| 34             |         |         |         |         |              |         |         | 4.55t   | 33.9m x | 34             |
| 36             |         |         |         |         |              |         |         |         | 3.90t   | 36             |

|                |         |         |              |         |         | Unit: ton      |
|----------------|---------|---------|--------------|---------|---------|----------------|
| Working Radius |         | Bo      | oom Length ( |         |         | Working Radius |
| (m)            | 39.5    | 42.5    | 45.5         | 48.5    | 51.5    | (m)            |
| 8              | 9.5m x  |         |              |         |         | 8              |
| 9              | 7.00t   | 10.1m x | 10.6m x      | 11.1m x | 11.7m x | 9              |
| 10             | 7.00    | 7.00t   | 7.00t        | 7.00t   | 7.00t   | 10             |
| 12             | 7.00    | 7.00    | 7.00         | 7.00    | 7.00    | 12             |
| 14             | 7.00    | 7.00    | 7.00         | 7.00    | 7.00    | 14             |
| 16             | 7.00    | 7.00    | 7.00         | 7.00    | 7.00    | 16             |
| 18             | 7.00    | 7.00    | 7.00         | 7.00    | 7.00    | 18             |
| 20             | 7.00    | 7.00    | 7.00         | 7.00    | 7.00    | 20             |
| 22             | 7.00    | 7.00    | 7.00         | 7.00    | 7.00    | 22             |
| 24             | 6.70    | 6.60    | 6.50         | 6.35    | 6.25    | 24             |
| 26             | 5.90    | 5.80    | 5.70         | 5.55    | 5.45    | 26             |
| 28             | 5.20    | 5.15    | 5.00         | 4.85    | 4.75    | 28             |
| 30             | 4.65    | 4.55    | 4.45         | 4.30    | 4.20    | 30             |
| 32             | 4.15    | 4.05    | 3.95         | 3.80    | 3.70    | 32             |
| 34             | 3.70    | 3.65    | 3.50         | 3.35    | 3.25    | 34             |
| 36             | 3.35    | 3.25    | 3.15         | 3.00    | 2.85    | 36             |
| 38             | 36.5m x | 2.90    | 2.80         | 2.65    | 2.50    | 38             |
| 40             | 3.25t   | 39.1m x | 2.50         | 2.35    | 2.20    | 40             |
| 42             |         | 2.75t   | 41.7m x      | 2.05    | 1.95    | 42             |
| 44             |         |         | 2.25t        | 1.85    | 1.70    | 44             |
| 46             |         |         |              | 44.3m x | 1.50    | 46             |
| 48             |         |         |              | 1.80t   | 46.9m x | 48             |
|                |         |         |              |         | 1.40t   |                |

- 1. Capacities are the maximum allowable and based on machine standing level on firm supporting surface under ideal job conditions.
- Capacities are in metric tones, and are not more than 78% of minimum tipping loads except the figures surrounded by bold lines which are based on other factor of machine structural strength limitation; the design codes/standards applied to the capacitie are from "Construction Codes for Mobile Crane" and "Ordinance on Safety of Crane and Similar Equipment" issued by Ministry of Health, Labour and Welfare, Japan.
- Health, Labour and Welfare, Japan.

  3. Capacities are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stop of loads, supporting surface conditions and operating speed. Operator must reduce load ratings to take such conditions into account.
- 4. Deduction from rated capacities must be made for weight of hook block, hook ball, sling, spreader bar or any suspended gear.
- 5. 27.9ton counter weight is required for all capacities on this chart.
- 6. Figures described as OOm x OOt in the tables indicate "working radius" m x "rated load" ton.
- 7. Hook mass are shown in the table below.

| Hook<br>Capacity | Hook<br>Mass(ton) |
|------------------|-------------------|
| 80t              | 0.80              |
| 40t              | 0.41              |
| 15t              | 0.32              |
| 7t               | 0.18              |

#### Main Boom with Aux. Sheave



| Working Radius |  |  |         | В       | oom Length ( | m)      |         |         |         | Working Radius |
|----------------|--|--|---------|---------|--------------|---------|---------|---------|---------|----------------|
| (m)            | 12.5   | 15.5   | 18.5    | 21.5    | 24.5         | 27.5    | 30.5    | 33.5    | 36.5    | (m)            |
| 3.8            | 76.30  | 4.3m x   |         |         |              |         |         |         |         | 3.8            |
| 4              | 72.70  | 67.70t   | 4.9m x  |         |              |         |         |         |         | 4              |
| 4.5            | 64.95  | 64.80  | 59.55t  | 5.4m x  |              |         |         |         |         | 4.5            |
| 5              | 58.65  | 58.50  | 58.40   | 52.30t  |              |         |         |         |         | 5              |
| 5.5            | 53.45  | 53.30  | 52.30   | 51.15   |              | 6.5m x  |         |         |         | 5.5            |
| 6              | 48.15  | 47.90  | 47.00   | 45.95   | 45.10        | 40.30t  | 7.1m x  | 7.6m x  |         | 6              |
| 7              | 39.15  | 39.40  | 38.95   | 38.15   | 37.45        | 36.85   | 35.75t  | 32.25t  | 8.2m x  | 7              |
| 8              | 32.40  | 32.35  | 32.30   | 32.25   | 31.95        | 31.40   | 30.95   | 30.30   | 29.25t  | 8              |
| 9              | 27.35  | 27.35  | 27.30   | 27.20   | 27.20        | 27.15   | 26.95   | 26.35   | 26.15   | 9              |
| 10             | 23.10  | 23.65  | 23.60   | 23.50   | 23.45        | 23.40   | 23.35   | 23.25   | 23.05   | 10             |
| 12             | 16.10  | 18.45  | 18.40   | 18.30   | 18.25        | 18.20   | 18.10   | 18.05   | 18.00   | 12             |
| 14             |  | 14.30  | 15.00   | 14.90   | 14.85        | 14.75   | 14.65   | 14.60   | 14.55   | 14             |
| 16             |  | 14.6m x  | 12.60   | 12.45   | 12.40        | 12.30   | 12.20   | 12.15   | 12.05   | 16             |
| 18             |  | 13.00t   | 17.2m x | 10.65   | 10.60        | 10.50   | 10.40   | 10.30   | 10.25   | 18             |
| 20             |  |  | 10.75t  | 19.8m x | 9.20         | 9.10    | 9.00    | 8.90    | 8.80    | 20             |
| 22             |  |  |         | 8.95t   | 7.90         | 7.95    | 7.85    | 7.75    | 7.65    | 22             |
| 24             |  |  |         |         | 22.4m x      | 7.05    | 6.90    | 6.80    | 6.70    | 24             |
| 26             |  |  |         |         | 7.55t        | 25.0m x | 6.15    | 6.00    | 5.95    | 26             |
| 28             |  |  |         |         |              | 6.45t   | 27.6m x | 5.35    | 5.25    | 28             |
| 30             |  |  |         |         |              |         | 5.45t   | 4.70    | 4.70    | 30             |
| 32             |  |  |         |         |              |         |         | 30.2m x | 4.20    | 32             |
| 34             |  |  |         |         |              |         |         | 4.60t   | 32.8m x | 34             |
| 36             | , and the second | , and the second |         |         |              |         |         |         | 3.90t   | 36             |

| - 1 | - la | nit | tο |
|-----|------|-----|----|
|     |      |     |    |

| Working Radius |         | В      | oom Length ( | m)      |         | Working Radius |
|----------------|---------|--------|--------------|---------|---------|----------------|
| (m)            | 39.5    | 42.5   | 45.5         | 48.5    | 51.5    | (m)            |
| 7              | 8.7m x  |        |              |         |         | 7              |
| 8              | 29.65t  | 9.3m x | 9.8m x       |         |         | 8              |
| 9              | 25.60   | 24.65t | 22.65t       | 10.3m x | 10.9m x | 9              |
| 10             | 22.50   | 22.55  | 22.10        | 20.85t  | 15.00t  | 10             |
| 12             | 17.85   | 17.85  | 17.60        | 17.20   | 15.00   | 12             |
| 14             | 14.40   | 14.35  | 14.25        | 14.15   | 13.85   | 14             |
| 16             | 11.95   | 11.90  | 11.80        | 11.70   | 11.60   | 16             |
| 18             | 10.10   | 10.05  | 9.95         | 9.85    | 9.70    | 18             |
| 20             | 8.70    | 8.60   | 8.50         | 8.35    | 8.25    | 20             |
| 22             | 7.50    | 7.45   | 7.35         | 7.20    | 7.05    | 22             |
| 24             | 6.55    | 6.50   | 6.40         | 6.25    | 6.10    | 24             |
| 26             | 5.80    | 5.70   | 5.60         | 5.45    | 5.30    | 26             |
| 28             | 5.10    | 5.05   | 4.90         | 4.75    | 4.65    | 28             |
| 30             | 4.55    | 4.50   | 4.35         | 4.20    | 4.10    | 30             |
| 32             | 4.05    | 4.00   | 3.85         | 3.70    | 3.60    | 32             |
| 34             | 3.65    | 3.55   | 3.45         | 3.30    | 3.15    | 34             |
| 36             | 35.4m x | 3.20   | 3.05         | 2.90    | 2.80    | 36             |
| 38             | 3.20t   | 2.70   | 2.75         | 2.55    | 2.45    | 38             |
| 40             |         |        | 2.30         | 2.30    | 2.15    | 40             |
| 42             |         |        | 40.6m x      | 1.90    | 1.85    | 42             |
| 44             |         |        | 2.15t        | 43.2m x | 1.50    | 44             |
| 46             |         |        |              | 1.65t   | 45.8m x | 46             |
|                |         |        |              |         | 1.20t   |                |

- 1. Capacities are the maximum allowable and based on machine standing level on firm supporting surface under ideal job conditions.

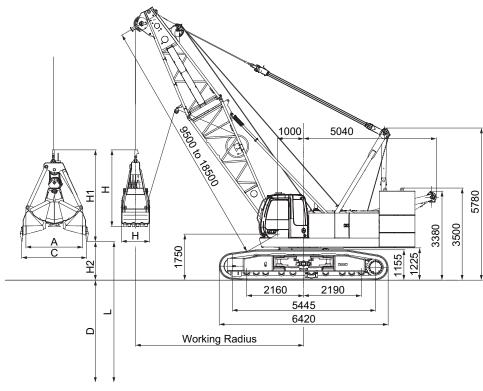
  2. Capacities are in metric tones, and are not more than 78% of minimum tipping loads except the figures surrounded by bold lines which are based on other factor of machine structural strength limitation; the design codes/standards applied to the capacitie are from "Construction Codes for Mobile Crane" and "Ordinance on Safety of Crane and Similar Equipment" issued by Ministry of Health, Labour and Welfare, Japan.
- 3. Capacities are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stop of loads, supporting surface conditions and operating speed. Operator must reduce load ratings to take such conditions into account.
- Deduction from rated capacities must be made for weight of hook block, hook ball, sling, spreader bar or any suspended gear.
- 5. 27.9ton counter weight is required for all capacities on this chart.
- 6. Figures described as OOm  $\dot{x}$  OOt in the tables indicate "working radius" m  $\dot{x}$  "rated load" ton.
- 7. Correlation between the number of reeved lines, maximum rated loads, hook mass are shown in the table below.

| Hook     | Hook      |         | Maximum Rated Load (ton) |        |        |        |        |        |        |        |        |
|----------|-----------|---------|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Capacity | Mass(ton) | 11falls | 10falls                  | 9falls | 8falls | 7falls | 6falls | 5falls | 4falls | 3falls | 2falls |
| 80t      | 0.80      | 80      | 70                       | 63     | 56     | 49     | 42     | 35     | 28     | 21     | 14     |
| 40t      | 0.41      | -       | -                        | -      | -      | -      | 40     | 35     | 28     | 21     | 14     |
| 15t      | 0.32      | -       | -                        | -      | -      | -      | -      | -      | -      | 15     | 14     |



# Clamshell Specifications

### **Dimensions and Specifications**



#### Working Ranges

| Boom Length                            | m |      | 9.   | .5   |      |      | 12   | 2.5  |      |      | 15   | 5.5  |      |      | 18   | 3.5  |      |
|--|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Boom Angle                             | ٥ | 35   | 45   | 55   | 65   | 35   | 45   | 55   | 65   | 35   | 45   | 55   | 65   | 35   | 45   | 55   | 65   |
| Working Radius                         | m | 9.2  | 8.2  | 7.0  | 5.7  | 11.7 | 10.4 | 8.7  | 7.0  | 14.2 | 12.5 | 10.5 | 8.3  | 16.6 | 14.6 | 12.2 | 9.5  |
| Allowable Gross Weight                 | t | 6.0  | 6.0  | 6.0  | 6.0  | 6.0  | 6.0  | 6.0  | 6.0  | 6.0  | 6.0  | 6.0  | 6.0  | 6.0  | 6.0  | 6.0  | 6.0  |
| Lifting Height L (D + H <sub>2</sub> ) | m | 37.4 | 38.7 | 39.8 | 40.7 | 39.1 | 40.9 | 42.3 | 43.4 | 40.8 | 43.0 | 44.7 | 46.1 | 42.5 | 45.1 | 47.2 | 48.9 |
| Max. Excavation Depth D                | m |      |      |      |      |      |      |      | 3    | 6    |      |      |      |      |      |      |      |
| Dumping Height H <sub>2</sub>          | m | 1.4  | 2.7  | 3.8  | 4.7  | 3.1  | 4.9  | 6.3  | 7.4  | 4.8  | 7.0  | 8.7  | 10.1 | 6.5  | 9.1  | 11.2 | 12.9 |

#### Specifications

|                         |                | Clamsh          | nell Specifications                    |
|-------------------------|----------------|-----------------|--|
| Bucket Capacity         | m <sup>3</sup> |                 | 0.8/1.0/1.2                            |
| Allowable Gross Weight  | t              |                 | 6.0                                    |
| Boom Length             | m              |                 | 9.5 to 18.5                            |
| Max. Excavation Depth   | m              |                 | 36                                     |
| Suspend Line Speed      | m/min          | *75             | Wire Rope Diameter 22 mm               |
| Open/Close Line Speed   | m/min          | *75             | Wife Rope Diameter 22 min              |
| Boom Hoist Line Speed   | m/min          | *62             | Wire Rope Diameter 16 mm               |
| Boom Lower Line Speed   | m/min          | *62             | Wife Rope Diameter To Illin            |
| Ground Contact Pressure | kPa (kgf/cm²)  | 83.0 (0.85) (w/ | 9.5m Boom + 1.2 m <sup>3</sup> Bucket) |
| Operating Weight        | t              | 74.6 (w/ 9.5r   | m Boom + 1.2 m³ Bucket)                |
| NOTE                    |                |                 |  |

#### NOTF ·

- 1.\*Line speeds will vary with the load.
- 2.Data is expressed in SI units, followed by conventional units in ( ).
- 3. Other specifications, not shown are similar to those for the cranes.

#### Clamshell Bucket

| Capacity ( m <sup>3</sup> ) | Weight (t) | A (mm) | B (mm) | C (mm) | H (mm) | H1 (mm) | Use           |
|-----------------------------|------------|--------|--------|--------|--------|---------|---------------|
| 0.8                         | 2.00       | 1880   | 970    | 2230   | 2270   | 2980    | Excavation    |
| 1.0                         | 2.45       | 2020   | 1070   | 2430   | 2430   | 3150    | Excavation    |
| 1.2                         | 3.10       | 2020   | 1070   | 2430   | 2430   | 3150    | Excavation    |
| 1.2                         | 2.40       | 2000   | 1160   | 2650   | 2600   | 3240    | Light Service |

#### Gross Rated Load Table

|                |        |         |         | Unit ; tor |
|----------------|--------|---------|---------|------------|
| Working Radius |        |         |         |            |
| (m)            | 9.5    | 12.5    | 15.5    | 18.5       |
| 5.7            | 6.00   |         |         |            |
| 6              | 6.00   |         |         |            |
| 7              | 6.00   | 6.00    | 8.3m x  |            |
| 8              | 6.00   | 6.00    | 6.00t   | 9.5m x     |
| 9              | 6.00   | 6.00    | 6.00    | 6.00t      |
| 10             | 9.2m x | 11.7m x | 6.00    | 6.00       |
| 12             | 6.00t  | 6.00t   | 6.00    | 6.00       |
| 14             |        |         | 6.00    | 6.00       |
| 16             |        |         | 14.2m x | 6.00       |
| 16             |        |         | 6.00t   | 6.00       |

- 1. Working radius is the horizontal distance from the swing center to the gravity of lifted load.
- 2. The rated loads for clamshell do not exceed 70% of tipping load.
- 3. The rated loads shown are upper limits determined by the following equation. Please select a bucket in such a manner that its rated load does not exceed the rated load shown below, according to kinds of the loads handled.

Rated load = Bucket capacity (m³) x Specific gravity of load (t/m³) + Bucket weight (t)

- 4. Even if using different capacity of the bucket according to kinds of load, don't exceed the rated load.
- 5. The counter weight is 27.9 t.



# Weights and Dimensions of Disassembled Units

# **Weights and Dimensions List**

Comply with the regulations when transporting. "Weight" refers to the mass of each single unit.

Weights and Dimensions of Disassembled Units

| Weights and Dimensions of Dis   |     |                      |             |
|---|-----|----------------------|-------------|
| Description   | Qty | Dimensions (mm)      | Weight (kg) |
| Base Crane with :<br>Boom Base<br>Front Winch Wire Rope<br>Boom Hoist Wire Rope | 1   | 11750<br>06E<br>3500 | 42600       |
| Base Crane with :<br>Front Winch Wire Rope<br>Boom Hoist Wire Rope              | 1   | 8250<br>8250<br>8250 | 41100       |
| Counter Weight Top (Right Side)   | 1   | 1240                 | 6000        |
| Counter Weight Top (Left Side)  | 1   | 1040                 | 4900        |
| Counter Weight (Middle)   | 1   | 3890 790             | 8500        |
| Counter Weight (Base)   | 1   | 3890 670             | 8500        |

#### Weights and Dimensions of Disassembled Units

| Description   | Qty | Dimensions (mm) | Weight (kg) |
|---|-----|-----------------|-------------|
| Upper Spreader  | 1   | 1530            | 265         |
| Boom Base<br>with Connect Pins<br>with Boom Back Stops        | 1   | 1500 5650       | 1200        |
| Boom Top<br>with Pendant Ropes                                | 1   | 1500 4420       | 1060        |
| 3 m Boom Insert<br>with Connect Pins<br>without Pendant Ropes | 1   | 3120            | 310         |
| 6 m Boom Insert<br>with Connect Pins<br>without Pendant Ropes | 1   | 6120            | 520         |
| 9 m Boom Insert<br>with Connect Pins<br>without Pendant Ropes | 1   | 9120            | 710         |
| Aux. Sheave<br>with Connect Pins                              | 1   | 1240            | 220         |

#### Weights and Dimensions of Disassembled Units

| Description | Qty | Dimensions (mm) | Weight (kg) |
|-------------|-----|-----------------|-------------|
| 80 t Hook   | 1   | 660             | 800         |
| 40 t Hook   | 1   | 620             | 410         |
| 15 t Hook   | 1   | 620             | 320         |
| 7 t Hook    | 1   | 250             | 180         |



# **Equipment List**

# **Standard and Optional Equipment**

|                | Item   |                    | Lift Crane             | ○ : Standard ● : Opt |  |
|----------------|--|--------------------|------------------------|----------------------|--|
|                | Winch with Free Mechanism                        |                    | 0                      | Front and Rear Winch |  |
|                | Brake Pedals for Front and Rear Winch            |                    | 0                      |                      |  |
|                | Crawler Extend / Retract Device                  | 0                  |                        |                      |  |
|                | Working Light (× 2)                              | 0                  |                        |                      |  |
|                | Back Mirror (Left and right)                     |                    | 0                      |                      |  |
|                | Wiper with Washer (Front window)                 | 0                  |                        |                      |  |
|                | Room Lamp  | 0                  |                        |                      |  |
|                | Cigar Lighter Socket (24 V)                      | 0                  |                        |                      |  |
|                | Ashtray  | 0                  |                        |                      |  |
|                | Cup Holder                                       | 0                  |                        |                      |  |
|                | AM / FM Radio                                    |                    | 0                      |                      |  |
|                | Air Conditioner                                  | 0                  | Full Automatic         |                      |  |
|                | Cross Operation Lever                            |                    | 0                      |                      |  |
|                | Accelerator Pedal (Right side)                   |                    | 0                      |                      |  |
|                | Hydraulic Pump Flow Rate Select Switch           |                    | 0                      | Max. or Min. Rate    |  |
| Decis II       | Electric Fuel Pump                               |                    | 0                      |                      |  |
| Basic Items    | Travel Operation Pedal                           |                    | 0                      |                      |  |
|                | Under Cover (Right side)                         |                    | 0                      | Engine Side          |  |
|                | Under Cover (Left side)                          |                    | •                      | Cab Side             |  |
|                | Left Side House Cover                            | •                  |                        |                      |  |
|                | Clear Roof Cover                                 | •                  | Smoke Tinted           |                      |  |
|                | Counter Weight Lifting Wire Rope                 |                    | 0                      |                      |  |
|                | 3 m Boom Insert                                  |                    | •                      |                      |  |
|                | 6 m Boom Insert                                  |                    | •                      |                      |  |
|                | 9 m Boom Insert                                  |                    | •                      |                      |  |
|                | Parts Set for Auxiliary Sheave (Auxiliary sheave | e, Anti-two block) | 0                      |                      |  |
|                | 80 t Hook (5 sheaves)                            | ,                  | •                      |                      |  |
|                | 40 t Hook (3 sheaves)                            |                    | •                      |                      |  |
|                | 15 t Hook (1 sheave)                             |                    | •                      |                      |  |
|                | 7 t Hook   |                    | •                      |                      |  |
|                | Rear Winch Wire Rope                             |                    | 0                      |                      |  |
|                | Spring Type Tagline                              | •                  |                        |                      |  |
|                | Coolant Temp. Gauge                              |                    | 0                      |                      |  |
|                | Fuel Gauge                                       |                    | 0                      |                      |  |
|                | Hourmeter  |                    | 0                      |                      |  |
|                | Swing Brake Indicator                            |                    | 0                      |                      |  |
| leters & Lamps | Alternator Indicator                             |                    | 0                      |                      |  |
| ·              | Engine Oil Pressure Indicator                    |                    | 0                      |                      |  |
|                | Air Filter Restriction Indicator                 |                    | 0                      |                      |  |
|                | Overheat Indicator                               |                    | 0                      |                      |  |
|                | Preheat Indicator                                | 0                  |                        |                      |  |
|                | Moment Limiter                                   |                    | 0                      |                      |  |
|                | Anti-Two Block                                   |                    | 0                      |                      |  |
|                | Boom Hoist Limiting Device                       |                    | Ö                      |                      |  |
|                | Secondary Boom Over Hoist Prevent Device         | Ö                  |                        |                      |  |
|                | Swing & Travel Alarm                             | 0                  |                        |                      |  |
|                | 3 Color Percentage Indicator                     | 0                  |                        |                      |  |
| Safety         |  | Front Winch        | 0                      |                      |  |
| .,             | Drum Lock  | Rear Winch         | 0                      |                      |  |
|                |  | Boom Hoist Winch   | 0                      | Automatic            |  |
|                | Swing Lock                                       | 0                  | Lock Pin for Transport |                      |  |
|                | Gate Lock Lever                                  | 0                  |                        |                      |  |
|                | Auto Stop Override Select Key Switch             |                    |                        |                      |  |
|                | Auto Stop Override Switch                        | 0                  |                        |                      |  |

