

# TK750s

Model TK750

## TELESCOPIC CRAWLER CRANE

**Max. Lifting Capacity : 75t × 3.0m** Comply with Japanese Construction Codes for Mobile Cranes.

### ▣ GENERAL SPECIFICATION

| Model  |  | TK750   |                        |
|--|--|---|------------------------|
| <b>Weight</b>  |  |   |                        |
| Operating weight   | t  | 69.2  |                        |
| Ground pressure  | kPa{kgf/cm <sup>2</sup> }  | 82.7{0.84}  |                        |
| <b>Crane Performance</b>   |  |   |                        |
| Max. rated load  | 9.99m boom   | t×m   | 75.0×3.0 (11-lines)    |
|  | 16.7m boom   | t×m   | 36.0×4.5 (6-lines)     |
|  | 23.4m boom   | t×m   | 29.0×6.0 (5-lines)     |
|  | 30.1m boom   | t×m   | 18.5×8.0 (4-lines)     |
|  | Aux. sheave (max.)   | t×m   | 7.0 (1-line)           |
| Main boom length   | m  | 9.99~30.1   |                        |
| Main hook max. height  | m  | 30.4  |                        |
| Main hook max. operating radius  | m  | 27.8  |                        |
| Line speed   | Main   | m/min   | 120 (at 1st layer)     |
|  | Aux.   | m/min   | 120 (at 1st layer)     |
|  | Third (optional)   | m/min   | 100 (at 1st layer)     |
| Rated line pull  | Main   | kN{tf}  | 68.7{7.0}              |
|  | Aux.   | kN{tf}  | 68.7{7.0}              |
|  | Third (optional)   | kN{tf}  | 52.0{5.3}              |
| Max. line pull<br>(Referential performance)  | Main   | kN{tf}  | 153{15.6}              |
|  | Aux.   | kN{tf}  | 153{15.6}              |
|  | Third (optional)   | kN{tf}  | 107{10.9}              |
| Boom telescoping speed   | sec/m  | 125/20.1  |                        |
| Boom raising speed   | sec/degree   | 64/0~83   |                        |
| Swing speed  | min <sup>-1</sup> {rpm}  | 2.5{2.5}  |                        |
| <b>Boom Structure</b>  |  |   |                        |
| Main boom  | Four section, box construction, 2nd and 3rd simultaneously telescoping, 4th independently telescoping                  |   |                        |
| Boom hoist device  | Direct forced type by double acting hydraulic cylinder (one)   |   |                        |
| Boom telescoping device  | Direct forced type by double acting hydraulic cylinder (three)   |   |                        |
| Load hoist device  | Hydraulic motor drive with spur gear reduction with auto-brake, independent 2 winches, with free-fall function         |   |                        |
| Swing device   | Hydraulic drive motor with planetary gear reduction with hand brake, swing neutral-free or neutral-brake selector type |   |                        |
| <b>Wire Rope</b>   |  |   |                        |
| Main winch   | mm×m   | 22dia.×170 IWRC6×Fi (29) anti twist rope  |                        |
| Aux. winch   | mm×m   | 22dia.×75 IWRC6×Fi (29) anti twist rope   |                        |
| Third winch (optional)   | mm×m   | 18dia.×170 IWRC6×Ws (26) anti twist rope  |                        |
| <b>Hydraulic Device</b>  |  |   |                        |
| 4-pumps (2 variable plunger pumps + 2 gear pumps)<br>+ 4-pumps (2 variable plunger pumps + 2 gear pumps) |  |   |                        |
| Hydraulic oil tank   | ℓ  | 860   |                        |
| <b>Upper Structure</b>   |  |   |                        |
| Engine   | Model  | MITSUBISHI 6D24-TLE2A   |                        |
|  | Type   | Water cooled, 4 cycle, 6 cyls, direct injection diesel with turbocharger, intercooler |                        |
|  | Total displacement   | ℓ   | 11,945                 |
|  | Max. output  | kW/min <sup>-1</sup> {PS/rpm}   | 235/2,000{320/2,000}   |
|  | Max. torque  | N·m/min <sup>-1</sup> {kgf·m/rpm}   | 1,245/1,400{127/1,400} |
| Fuel tank  | ℓ  | 400   |                        |
| <b>Lower Structure</b>   |  |   |                        |
| Propel system  | Hydraulic motors, planetary reducer, direct drive, shoe-in-type  |   |                        |
| Travel speed   | km/h   | 1.9/1.2   |                        |
| Gradeability   | %  | 40  |                        |

Units are SI units. { } indicates conventional units.

# KOBELCO

# ► LIFTING CAPACITY

## ► Note

(1) Rated load do not exceed 78% of the tipping loads with machine set horizontally on a firm and level ground, safety the specified stability over the front, and include weight of hook block (s) and other handling accessories.

Ratings shown in   are based on the machine's structural strength, and others are determined by the machine's stability.

|        |        |        |       |               |
|--------|--------|--------|-------|---------------|
| Hooks  | 75-ton | 32-ton | 7-ton | 7-ton (light) |
| Weight | 800kg  | 500kg  | 160kg | 60kg          |

Note : 7-ton light swivel ball hook is option.

(2) Rated loads shown are based on freely suspended loads and make no allowance for such factors as wind effect on lifted load, ground conditions out-of-level. Operating speeds or any other condition that could be detrimental to the safe operation of this equipment, the operator, therefore, has the responsibility to judge the existing conditions and reduce lifted loads and operating speeds accordingly.

(3) Operating radius is the horizontal distance from centerline of rotation to a vertical line through the center of gravity of the load. Operating radius given in the charts allow for loaded boom deflection and reduce lifted loads and operating speeds accordingly.

(4) Both crawlers should be fully extended.

(5) The ratings of the auxiliary sheave are the same as the main boom ratings, but should not exceed 7,000kg. Ratings of the auxiliary sheave are calculated by deducting from the main boom ratings 75 ton hook weight (800kg) with the main boom extended ranging from 9.99m to 16.7m, and 32 ton hook weight (500kg) with the main boom extended over 16.7m up to its maximum length.

(6) The main boom ratings shall be applied to the third drum ratings, but the jib ratings shall not exceed 31,800kg.

(7) To determine load ratings that fall between those shown in the charts, proceed as follows :

- a) For boom lengths not listed use rating for next longer boom length or next shorter boom length, whichever is smaller.
- b) For load radii not shown, use rating for next larger radius.

(8) At radii and boom lengths where no ratings are shown on chart, operation is not intended nor approved.

(9) Standard hoist reevings are shown below. Rated single-line pull must not exceed 7,000kg.

|                |        |       |        |       |
|----------------|--------|-------|--------|-------|
| Boom length    | 9.99m  | 16.7m | 23.4m  | 30.1m |
| Hook           | 75-ton |       | 32-ton |       |
| No. of reeving | 11     | 6     | 5      | 4     |

(10) Third drum hoist reevings are shown below. Rated single-line pull must not exceed 5,300kg.

|                |        |       |        |       |
|----------------|--------|-------|--------|-------|
| Boom length    | 9.99m  | 16.7m | 23.4m  | 30.1m |
| Hook           | 75-ton |       | 32-ton |       |
| No. of reeving | 6      | 6     | 4      | 4     |

(11) In order to prevent a load from falling down to mistake of operation, do not use free-fall in crane operation.

## ► With 17.2 ton counterweight

(Unit : metric ton)

| Working radius (m) | Boom length (m) |       |       |       | Working radius (m) |
|--------------------|-----------------|-------|-------|-------|--------------------|
|                    | 9.99            | 16.7  | 23.4  | 30.1  |                    |
| 3.0                | 75.00           | 36.00 | 29.00 | 18.50 | 3.0                |
| 3.5                | 60.00           | 36.00 | 29.00 | 18.50 | 3.5                |
| 3.7                | 56.00           | 36.00 | 29.00 | 18.50 | 3.7                |
| 4.0                | 51.00           | 36.00 | 29.00 | 18.50 | 4.0                |
| 4.5                | 44.50           | 36.00 | 29.00 | 18.50 | 4.5                |
| 5.0                | 39.50           | 35.00 | 29.00 | 18.50 | 5.0                |
| 5.5                | 36.00           | 33.00 | 29.00 | 18.50 | 5.5                |
| 6.0                | 34.40           | 30.70 | 29.00 | 18.50 | 6.0                |
| 6.5                | 31.40           | 29.80 | 26.10 | 18.50 | 6.5                |
| 7.0                | 28.90           | 27.20 | 23.20 | 18.50 | 7.0                |
| 7.5                | 25.90           | 25.10 | 21.60 | 18.50 | 7.5                |
| 7.7                | 24.90           | 24.40 | 20.90 | 18.50 | 7.7                |
| 8.0                |                 | 23.00 | 20.00 | 18.50 | 8.0                |
| 8.5                |                 | 21.00 | 19.00 | 17.00 | 8.5                |
| 9.0                |                 | 19.20 | 18.10 | 15.50 | 9.0                |
| 9.5                |                 | 17.60 | 17.00 | 14.50 | 9.5                |
| 10.0               |                 | 16.30 | 16.10 | 13.50 | 10.0               |
| 11.0               |                 | 14.00 | 13.80 | 12.80 | 11.0               |
| 12.0               |                 | 12.20 | 12.00 | 11.80 | 12.0               |
| 13.0               |                 | 10.80 | 10.50 | 11.00 | 13.0               |
| 14.0               |                 | 9.60  | 9.30  | 9.90  | 14.0               |
| 14.4               |                 | 9.10  | 8.90  | 9.40  | 14.4               |
| 15.0               |                 |       | 8.30  | 8.80  | 15.0               |
| 16.0               |                 |       | 7.40  | 8.00  | 16.0               |
| 17.0               |                 |       | 6.60  | 7.20  | 17.0               |
| 18.0               |                 |       | 6.00  | 6.50  | 18.0               |
| 19.0               |                 |       | 5.40  | 5.90  | 19.0               |
| 20.0               |                 |       | 4.90  | 5.40  | 20.0               |
| 21.0               |                 |       | 4.50  | 4.90  | 21.0               |
| 21.1               |                 |       | 4.40  | 4.90  | 21.1               |
| 22.0               |                 |       |       | 4.50  | 22.0               |
| 23.0               |                 |       |       | 4.10  | 23.0               |
| 24.0               |                 |       |       | 3.80  | 24.0               |
| 25.0               |                 |       |       | 3.50  | 25.0               |
| 26.0               |                 |       |       | 3.20  | 26.0               |
| 27.0               |                 |       |       | 2.90  | 27.0               |
| 27.8               |                 |       |       | 2.70  | 27.8               |
| Max. boom angle    | 65.0°           | 75.6° | 79.8° | 82.1° | Max. boom angle    |
| Min. boom angle    | 0°              | 0°    | 0°    | 0°    | Min. boom angle    |

Ratings shown in   are determined by the strength of the boom or other structural components.

With 8.2 ton counterweight (optional setting)

(Unit : metric ton)

| Working radius (m) \ Boom length (m) | 9.99  | 16.7  | 23.4  | 30.1  | Boom length (m) \ Working radius (m) |
|--------------------------------------|-------|-------|-------|-------|--------------------------------------|
| 3.0                                  | 75.00 | 36.00 | 29.00 | 18.50 | 3.0                                  |
| 3.5                                  | 60.00 | 36.00 | 29.00 | 18.50 | 3.5                                  |
| 3.7                                  | 56.00 | 36.00 | 29.00 | 18.50 | 3.7                                  |
| 4.0                                  | 51.00 | 36.00 | 29.00 | 18.50 | 4.0                                  |
| 4.5                                  | 44.50 | 36.00 | 29.00 | 18.50 | 4.5                                  |
| 5.0                                  | 37.20 | 35.00 | 29.00 | 18.50 | 5.0                                  |
| 5.5                                  | 31.30 | 30.90 | 29.00 | 18.50 | 5.5                                  |
| 6.0                                  | 26.90 | 26.50 | 26.25 | 18.50 | 6.0                                  |
| 6.5                                  | 23.50 | 23.10 | 22.85 | 18.50 | 6.5                                  |
| 7.0                                  | 20.75 | 20.35 | 20.10 | 18.50 | 7.0                                  |
| 7.5                                  | 18.55 | 18.10 | 17.85 | 18.50 | 7.5                                  |
| 7.7                                  | 17.75 | 17.35 | 17.15 | 18.50 | 7.7                                  |
| 8.0                                  |       | 16.30 | 16.05 | 16.75 | 8.0                                  |
| 8.5                                  |       | 14.75 | 14.50 | 15.15 | 8.5                                  |
| 9.0                                  |       | 13.40 | 13.15 | 13.80 | 9.0                                  |
| 9.5                                  |       | 12.25 | 12.00 | 12.65 | 9.5                                  |
| 10.0                                 |       | 11.20 | 11.00 | 11.65 | 10.0                                 |
| 11.0                                 |       | 9.55  | 9.30  | 9.95  | 11.0                                 |
| 12.0                                 |       | 8.20  | 8.00  | 8.55  | 12.0                                 |
| 13.0                                 |       | 7.10  | 6.90  | 7.45  | 13.0                                 |
| 14.0                                 |       | 6.20  | 5.95  | 6.55  | 14.0                                 |
| 14.4                                 |       | 5.90  | 5.65  | 6.20  | 14.4                                 |
| 15.0                                 |       |       | 5.20  | 5.75  | 15.0                                 |
| 16.0                                 |       |       | 4.55  | 5.10  | 16.0                                 |
| 17.0                                 |       |       | 4.00  | 4.50  | 17.0                                 |
| 18.0                                 |       |       | 3.50  | 4.00  | 18.0                                 |
| 19.0                                 |       |       | 2.95  | 3.55  | 19.0                                 |
| 20.0                                 |       |       | 2.55  | 3.15  | 20.0                                 |
| 21.0                                 |       |       | 2.15  | 2.75  | 21.0                                 |
| 21.1                                 |       |       | 2.10  | 2.70  | 21.1                                 |
| 22.0                                 |       |       |       | 2.40  | 22.0                                 |
| 23.0                                 |       |       |       | 2.05  | 23.0                                 |
| 24.0                                 |       |       |       | 1.75  | 24.0                                 |
| 25.0                                 |       |       |       | 1.50  | 25.0                                 |
| 26.0                                 |       |       |       | 1.25  | 26.0                                 |
| Max. boom angle                      | 65.0° | 75.6° | 79.8° | 82.1° | Max. boom angle                      |
| Min. boom angle                      | 0°    | 0°    | 0°    | 22.4° | Min. boom angle                      |

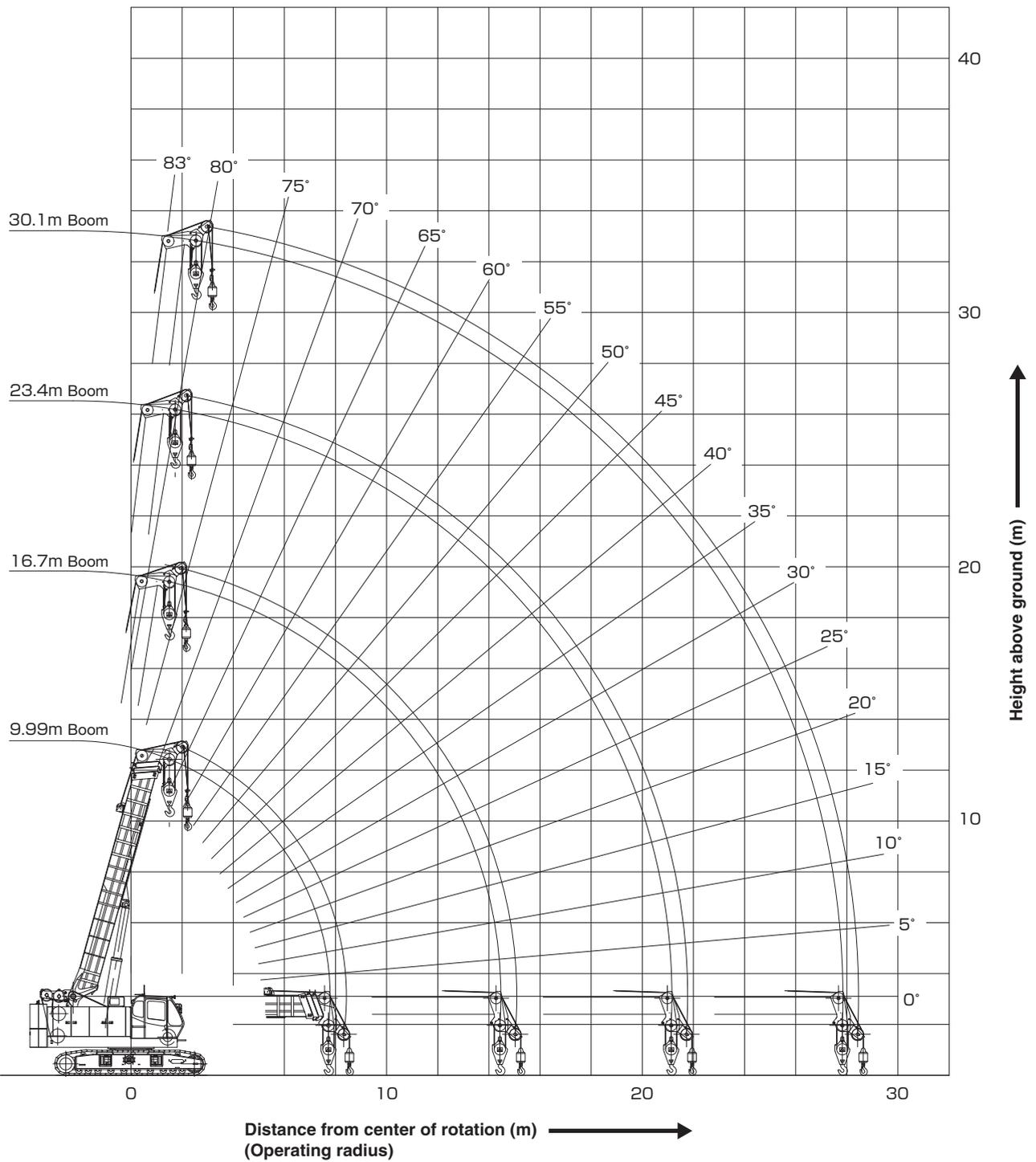
Ratings shown in  are determined by the strength of the boom or other structural components.

Without counterweight (optional setting)

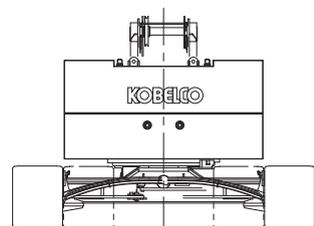
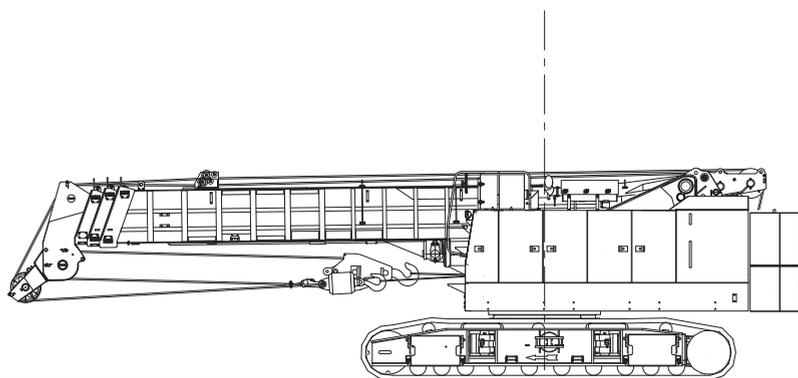
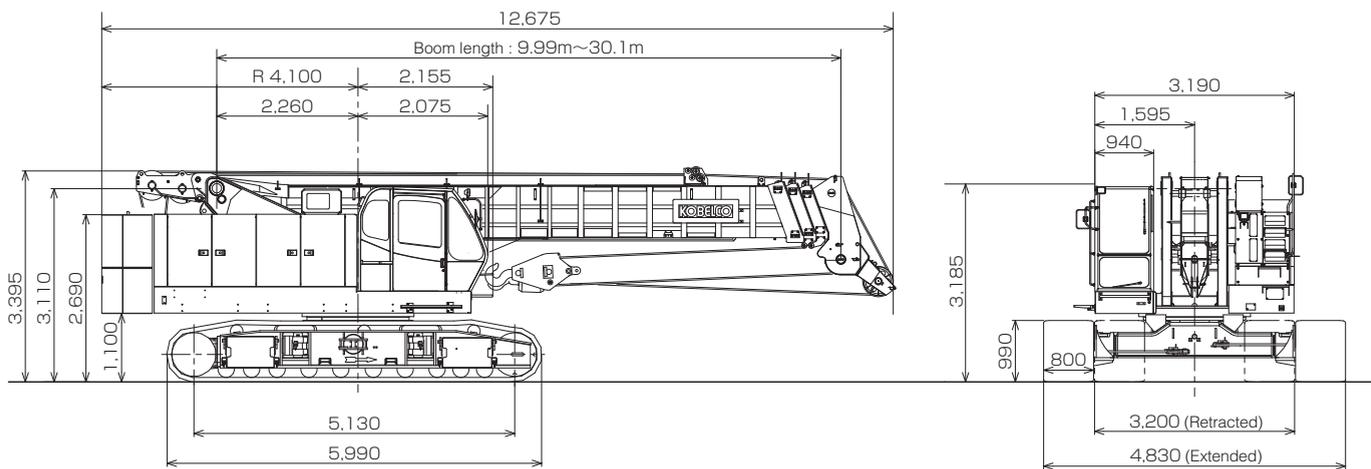
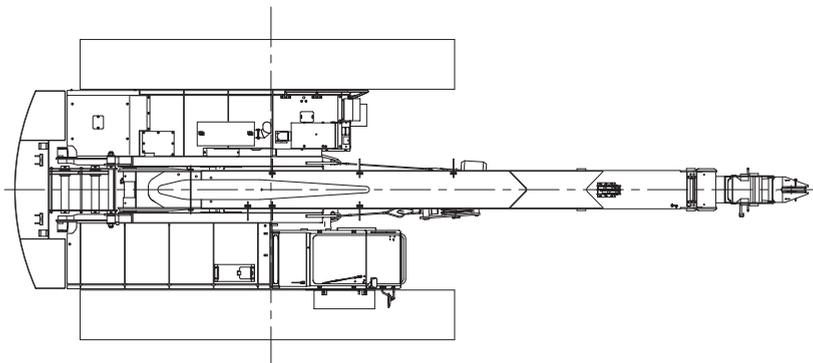
(Unit : metric ton)

| Working radius (m) \ Boom length (m) | 9.99  | 16.7  | Boom length (m) \ Working radius (m) |
|--------------------------------------|-------|-------|--------------------------------------|
| 3.0                                  | 30.00 | 20.00 | 3.0                                  |
| 3.5                                  | 30.00 | 20.00 | 3.5                                  |
| 3.7                                  | 30.00 | 20.00 | 3.7                                  |
| 4.0                                  | 30.00 | 20.00 | 4.0                                  |
| 4.5                                  | 30.00 | 20.00 | 4.5                                  |
| 5.0                                  | 24.50 | 20.00 | 5.0                                  |
| 5.5                                  | 20.45 | 20.00 | 5.5                                  |
| 6.0                                  | 17.45 | 17.05 | 6.0                                  |
| 6.5                                  | 15.10 | 14.75 | 6.5                                  |
| 7.0                                  | 13.25 | 12.90 | 7.0                                  |
| 7.5                                  | 11.75 | 11.35 | 7.5                                  |
| 7.7                                  | 11.20 | 10.80 | 7.7                                  |
| 8.0                                  |       | 10.10 | 8.0                                  |
| 8.5                                  |       | 9.05  | 8.5                                  |
| 9.0                                  |       | 8.10  | 9.0                                  |
| 9.5                                  |       | 7.35  | 9.5                                  |
| 10.0                                 |       | 6.65  | 10.0                                 |
| 11.0                                 |       | 5.50  | 11.0                                 |
| 12.0                                 |       | 4.60  | 12.0                                 |
| 13.0                                 |       | 3.85  | 13.0                                 |
| 14.0                                 |       | 3.25  | 14.0                                 |
| 14.4                                 |       | 3.05  | 14.4                                 |
| Max. boom angle                      | 65.0° | 75.6° | Max. boom angle                      |
| Min. boom angle                      | 0°    | 0°    | Min. boom angle                      |

► **WORKING RANGES** (Unit : m)



► **GENERAL DIMENSIONS** (Unit : mm)



## ▶ STANDARD EQUIPMENT

| Upper Structure/Lower Structure   |
|---|
| Counterweight : 17.2t (9.0t + 8.2t)   |
| Crawlerweight : 2.0t (0.5t x 4)   |
| 800mm shoe crawlers   |
| 165G51 battery  |
| Electric hand throttle grip   |
| Variable main/aux. speed controller   |
| Side deck (for cab) : 300mm (W) x 970mm (L)   |
| Anti-slip sheet   |
| Tools (for routine maintenance)   |
| Lubrication device  |
| Tool box (equipped on right-side guard)   |
| Three front working lights  |
| Two back mirrors  |
| Cab   |
| Air conditioner   |
| Convenient compartment  |
| Cup holder  |
| AM/FM Radio   |
| Ashtray   |
| Cigarette lighter   |
| Intermittent windshield wiper with window washer (roof, front and lower front window) |
| Sun visor   |
| Roof blind  |
| Tinted glass  |
| Floor mat (cloth)   |
| Foot pedal cover (rubber)   |
| Shoe tray   |

| Safety Device   |
|---|
| Over-load prevention device (auto stop function)                        |
| Release prevention key for hook over-hoist prevention device            |
| LCD Multi-display (shows gauges and warning signs)                      |
| Hook over-hoist auto-stop device  |
| Operating zone limit device   |
| Safety lever lock   |
| Propel lever lock   |
| Manual drum safety pawl (main, aux.)                                    |
| Negative brake in lever neutral-position (main, aux., third, travel)    |
| Brake fail safe mechanism (main, aux., third, travel)                   |
| Service brake pedal lock (main, aux.)                                   |
| Lamp for neutral-free/brake select switch (main, aux.)                  |
| Neutral-free/brake select switch (main, aux.)                           |
| Neutral brake release prevention key (main, aux.)                       |
| Brake activating device for engine stop                                 |
| Hydraulically safety valve  |
| Boom telescoping default operation prevention device (Automatic)        |
| Boom telescoping safety device  |
| Boom hoist safety device  |
| Over hook limit device  |
| Sling wire lock   |
| Horn  |
| Swing lock pin  |
| Swing flashers  |
| Swing warning buzzer  |
| Voice alarm for travel/swing (over hoist, over load, crawler extension) |
| Level gauge   |

## ▶ OPTIONAL EQUIPMENT

|  |
|--|
| Third drum : wire rope 18dia. x 170m, without free-fall  |
| 4-spool valve : Max. discharge pressure 17.2MPa{175kgf/cm <sup>2</sup> }<br>Max. discharge flow 40liters/min   |
| Outlet for Auger : Max. output 145kW{200PS}<br>Max. discharge pressure 30.0MPa{305kgf/cm <sup>2</sup> }<br>Max. discharge flow 425liters/min (with oil flow select switch) |
| Hydraulic tagline : 10dia. x 45m   |
| Lifting capacity set : insert counterweight/without counterweight  |
| Swing neutral brake : cannot select swing neutral free   |
| 7-ton light swivel ball hook : 60kg  |
| Counterweight self-removal device  |
| Trans-lifter   |

|  |
|--|
| Foot acceleration : right hand   |
| Boom hoist pedal : right hand (not available to equipt with foot acceleration)             |
| Engine rpm fix switch : 4-steps  |
| Cab roof guard   |
| Side catwalk (without handrail) : 300mm (W) x 3,710mm (L)-right hand/4,090mm (L)-left hand |
| Color monitoring camera (backward) with monitor  |
| Monitoring camera for main/aux. with lightning   |
| Overload alarm lamp (3 colors, square shape)   |
| One way call   |
| Electric fuel pump   |
| Fire extinguisher  |
| Electric fan   |

Note: This catalog may contain photographs of machines with specifications, attachments and optional equipment not certified for operation in your country. Please consult KOBELCO for those items you may require. Due to our policy of continual product improvements all designs and specifications are subject to change without advance notice.

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