



SCX700

HYDRAULIC CRAWLER CRANE

S

Specifications

1

2

3

4

HITACHI SUMITOMO

SCX700

HYDRAULIC CRAWLER CRANE



INDEX

| | |
|-------------------------------------|--|
| CRAWLER CRANE | <ul style="list-style-type: none"> ■ Dimensions ■ Specifications 3 ■ Superstructure 4 ■ Working Ranges 8 ■ Crane Ratings (Main Boom in 360° Working Area) 9 ■ Crane Ratings (Jib in 360° Working Area) 10 to 11 ■ Crane Boom Construction ■ Crane Jib Construction ■ Component Weights and Dimensions for Transport 12 |
| FULL-LUFFING TOWER CRANE | <ul style="list-style-type: none"> ■ Dimensions ■ Tower Jib Construction ■ Specifications 13 ■ Rated Loads for 25 m Tower Crane ■ Working Ranges 14 ■ Rated Loads for 28 m Tower Crane ■ Working Ranges 15 ■ Rated Loads for 31 m Tower Crane ■ Working Ranges 16 ■ Rated Loads for 34 m Tower Crane ■ Working Ranges 17 ■ Rated Loads for 37 m Tower Crane ■ Working Ranges 18 ■ Rated Loads for 40 m Tower Crane ■ Working Ranges 19 ■ Rated Loads for 43 m Tower Crane ■ Working Ranges 20 ■ Tower Boom Construction ■ Tower Jib Construction ■ Tower/Crawler Crane Construction ■ Crane Jib Construction 21 ■ Component Weights and Dimensions for Transport 22 |
| CLAMSHELL | <ul style="list-style-type: none"> ■ Dimensions ■ Specifications ■ Working Ranges ■ Clamshell Bucket 23 |
| DLAGLINE | <ul style="list-style-type: none"> ■ Dimensions ■ Specifications ■ Working Ranges ■ Dragline Bucket 24 |
| TECHNICAL DATA | <ul style="list-style-type: none"> ■ Standard and Optional Equipment 25 to 26 |

Note: • All "t" implies metric tons in this catalog.
 • Specifications conform to the Safety Regulations for Cranes and Mobile Cranes in Japan.

■ Dimensions

Unit, mm

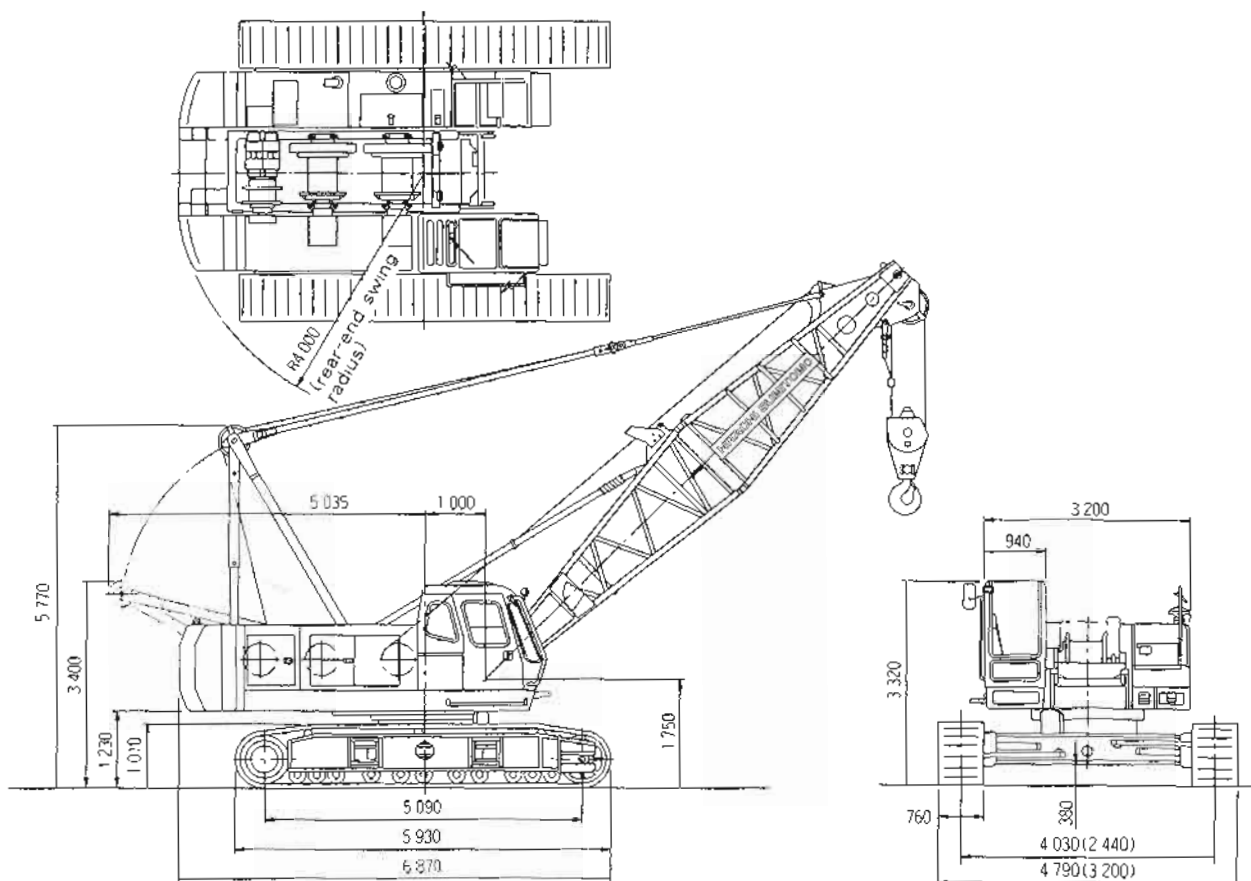


Figure in () shows dimension when side frames are retracted for trailer transport

■ Specifications

(1 t = 1 000 kg)

| | | |
|-------------------------------------|-------------------------------|--|
| Maximum rated Load × Working radius | t × m | 70×3.7 |
| Basic boom length | m | 9 |
| Maximum boom length | m | 54 |
| Winch | | |
| Maximum line pull | t | 15.6 |
| Maximum rated line pull | t | 6.5 |
| Line speeds | | |
| Main hoist drum | m/min | * 100/65/32 |
| Auxiliary hoist drum | m/min | * 100/65/32 |
| Boom hoist drum | m/min | * 53 |
| Swing speed | min ⁻¹ (rpm) | 3.0 (3.0) |
| Travel speed | km/h | 1.3/0.9 |
| Gradeability | % (°) | 40 (22) |
| Diesel Engine | | |
| Rated horsepower | kW/min ⁻¹ (PS/rpm) | 136/2 000 (185/2 000) |
| Ground Pressure | kPa(kgf/cm ²) | 77.6 (0.79) |
| Operating Weight | t | 64.9 (including 9 m boom and 70 000 kg capacity hook) |

Notes 1. Data is expressed in SI units followed by conventional units in ().
2. * Line speeds will vary with the load

■ Technical Description



Engine

| | |
|---------------------------|--|
| Model | Isuzu BB-6HK1T |
| Type | Water-cooled, 4-cycle, 6-cylinder, direct fuel injection type diesel engine |
| Rated horsepower | 136 kW (185 PS) at 2 000 min ⁻¹ (2 000 rpm) |
| Maximum torque | 735 N·m (75 kgf·m) at 1 600 min ⁻¹ (1 600 rpm) |
| Piston displacement | 7.79 L |
| Fuel tank capacity | 300 L |
| Electric system | DC 24 V |

Main and Auxiliary Hoist Mechanism

- The SCX700 is equipped with dual hoist mechanisms, each consisting of independent main and auxiliary hoist drums driven by a hydraulic motor.
- Hoisting and lowering the load is achieved by forward/reverse rotation of the hydraulic motor
- Power lowering is carried out with a hydraulic brake.
- Hoisting and lowering can be carried out at three speeds-fast, medium and slow-to suit job requirements.
- Each drum is fitted with a friction band-type brake. This allows free fall (rapid lowering) of the hook.
- Main and auxiliary hoist drums are each fitted with a pawl-type drum lock to positively hold the load in the air.
- The drum brake is an external contracting friction band-type using durable non-asbestos lining.
- The brake is controlled by the hydraulic servo system to reduce control force. With the hoist lever in neutral, auto braking or foot braking can be selected.

Boom Hoist Mechanism

- Independent operation separated from other functions.
- Boom hoisting/lowering is done by forward/reverse rotation of a hydraulic motor. Boom lowering is made by power lowering through a hydraulic brake.
- Both hydraulic brake and spring-set/hydraulic-released multiplate disc type brake offer positive stopping of the boom. When the boom is hoisted or lowered, brakes are automatically released.
- Boom hoist drum is fitted with a pawl-type drum lock.

Swing Mechanism

- Independent operation separated from other functions
- Driven by the hydraulic motor through reduction gear.
Swing speeds are freely controllable from zero to maximum speed with a single lever.

Swing Brake

The disc-type swing brake can be hydraulically applied by the brake switch on the swing lever.

Swing Lock

Manual mechanical-lock with a rod tip engaged in the holder of the track frame for transportation.

Swing Circle

Single-row shear-type ball bearing with heat-treated internal gear.

Revolving Frame

All welded steel construction, stress-relieved, precision-machined for rigidity and strength.

Gantry

Lowerable for transportation.

Counterweight

| | |
|----------------------------|--------------|
| Total weight | 23 800 kg |
| Consisting of 3 sections : | One 7 400 kg |
| | One 7 900 kg |
| | One 8 500 kg |

Boom

Tubular Chord Crane Boom

1 400 mm wide by 1 400 mm deep at connection, lattice construction using high-tensile steel tubular chords

| | |
|------------------------|---|
| Basic boom..... | Total length 9.0 m, 2-piece construction; upper section 4.0 m and lower section 5.0 m |
| Boom point | Offset boom point, 5 sheaves (462 mm PCD) mounted on anti-friction bearings on boom top |
| Boom inserts..... | 3.0 m, 6.0 m and 9.0 m long available |
| Connection type | Pin-connected |
| Boom backstop..... | Dual-rail, telescopic tubular construction with spring damper |
| Boom hoist bridle..... | Serves as connection between pendants and boom hoist wire rope reeving, equipped with 6 sheaves (340 mm PCD) for 12-part boom hoist wire rope reeving |

Crane Jib

540 mm wide by 510 mm deep at connection, lattice construction using high-tensile steel tubular chords.

| | |
|----------------------|--|
| Jib length | Total length 9.0 m, 2-piece construction; upper section 4.5 m and lower section 4.5 m |
| Jib point | 1 sheave (520 mm PCD) mounted on anti-friction bearings on jib top |
| jib insert | 4.5 m long available |
| Connection type..... | Pin-connected |
| Auxiliary jib..... | Optional. Attachable to the main boom top to hoist the light load quickly with a single rope |

Note: Boom insert, crane jib, or auxiliary jib can be attached to the basic boom when needed. However, both crane jib and auxiliary jib cannot be attached simultaneously to the boom.

Tubular Chord Tower Crane Boom

1 400 mm wide by 1 400 mm deep at connection, lattice construction using high-tensile steel tubular chords

| | |
|-----------------------|---|
| Tower boom length .. | 25.0 m minimum 43.0 m maximum |
| Tower inserts | 1.5 m, 3.0 m, 6.0 m and 9.0 m tower inserts are in common with crane boom inserts |
| Connection type..... | Pin-connected |
| Tower backstop | Dual-rail, telescopic tubular construction with spring damper |
| Tower hoist bridle .. | Serves as connection between tower boom pendants and tower boom hoist wire rope reeving, equipped with 6 sheaves (340 mm PCD) for 12-part tower hoist wire rope reeving |

Tower Jib

1 150 mm wide by 900 mm deep at connection, lattice construction using high-tensile steel tubular chords

| | |
|---------------------------|--|
| Jib length | 19.0 m to 31.0 m |
| Jib inserts | 3.0 m and 6.0 m long available |
| Connection type..... | Pin-connected |
| Tower jib hoist bridle .. | Serves as connection between tower jib pendants and tower jib hoist wire rope reeving, equipped with 4 sheaves (360 mm PCD × 3 & 420 mm PCD × 1) for 8-part tower jib hoist wire rope reeving. |

Operator's Cab

All-weather, well-ventilated, roomy operator's cab with good visibility. The independent cab is insulated against noise and vibration.

Hydraulic System

- 3 variable displacement piston pumps allow both independent and combined operations of all functions.
- Variable displacement piston pumps control working speeds, and make effective use of engine horsepower.

| | Pump-1 | Pump-2 |
|------------------|--|--|
| Type of pump | Variable displacement | |
| Pressure setting | 29.4 MPa (300 kgf/cm ²) | 29.4 MPa (300 kgf/cm ²) |
| Max. Oil flow * | 216 L/min | 216 L/min |

| | Pump-3 | Pump-4 |
|------------------|--|--------------------------------------|
| Type of pump | Variable displacement | Gear |
| Pressure setting | 27.5 MPa (280 kgf/cm ²) | 4.9 MPa (50 kgf/cm ²) |
| Max. Oil flow * | 135 L/min | 32 L/min |

* with non-loaded condition

Main and Auxiliary Hoist Motors

Axial piston motors with counterbalance valves

Boom Hoist Motor

Axial piston motor with counterbalance valve

Swing Motor

Axial piston motor

Travel Motors

Axial piston motors with brake valve and spring-set/hydraulic-released multiplate disc brake

Relief and Brake Valves

- Each hydraulic circuit incorporates large-capacity relief valves to protect circuit from overload and shock load.
- Counterbalance valves, provided for hoist motor, compensate load lowering and prevent accidental load drop if hydraulic power is suddenly reduced.
- Brake valves (consisting of relief valve and counterbalance valve) are provided for travel circuit.

Pressure Settings

Main Circuit

- Main relief valves
 - Hoist (main and aux.)..... 29.4 MPa (300 kgf/cm²)
 - Swing 23.0 MPa (235 kgf/cm²)
- Overload relief valves
 - Hoist (main and aux.) circuits 31.4 MPa (320 kgf/cm²)
 - Boom hoist circuit 30.4 MPa (310 kgf/cm²)
 - Travel circuit 23.1 MPa (236 kgf/cm²)

Pilot Circuit

- Main relief valve..... 4.9 MPa (50 kgf/cm²)

Line Filters

High-filtration 10 μm full-flow filter element is incorporated in the return line. Pilot filter and suction filter are provided in each circuit.

UNDERCARRIAGE

Traction mechanism

- Each track is driven by an axial piston motor through reduction gear. This mechanism allows counter-rotation of tracks for maneuverability in close quarters
- When the lever is in neutral position, both hydraulic brake and spring-set/hydraulic-released multiplate disc brake are automatically applied for stopping.

Track Frame

All-welded, stress-relieved, box-section construction

Side Frames

Side frames of all-welded construction can be retracted for transportation.

Side-frame Extending/Retracting Device

- Side frame are extended and retracted with a hydraulic cylinder located inside the track frame. Hydraulic power source for the two hydraulic cylinders is separated from other systems to allow combined operation of travel and side frame.
- The side frames are extended and retracted quickly without need for piping

Track Shoes

Heat-treated alloy steel castings with induction-hardened roller path and driving lugs.

| | |
|---------------------------------------|--------|
| No. of upper rollers (each side)..... | 3 |
| No. of lower rollers (each side)..... | 11 |
| No. of track shoes (each side)..... | 63 |
| Shoe width..... | 760 mm |

CONTROLS

Boom, Main and Auxiliary Hoist, Swing and Travel

Remote controlled hydraulic servo. Working speed can be precisely controlled according to lever stroke.

● Electric Accelerator Grip

Engine power can be controlled according to job needs by electric finger-touch grip atop the swing lever, accelerator lever and accelerator pedal.

● Monitor Displaying Machine Conditions

With the monitor, the operator can check, at a glance, engine oil pressure, water temperature and fuel level, as well as levels of hydraulic oil, engine oil and coolant. The red light turns on and the buzzer sounds in the event of an abnormality

SAFETY DEVICE

Boom Angle Indicator

Mechanical-type boom angle indicator is provided at boom foot.

Counterbalance Valves (Brake Valves)

Counterbalance valves are each incorporated in travel motors, boom hoist motor, and main and auxiliary hoist motors. If the hydraulic line is broken, this valve is automatically actuated to prevent motor rotation.

Spring-Set/Hydraulic-Released Multiplate Disc Type Travel Brakes

Swing Lock and Swing Parking Brake

Drum Locks (Electric Type)

A pawl-type drum locks, provided at main drum, auxiliary drum and boom drum, are automatically applied when the engine key is set to OFF or ACC position.

Lever Locks

Main and auxiliary hoist levers, boom hoist lever, and travel levers are each fitted with lock mechanisms to prevent mishandling.

Devices for Crane Operation

● Moment Limiter

On the moment limiter, analog displays and pictorial load indications are functionally arranged for easy reading

● Hook Overhoist Prevention Device

When the hook reaches its hoist limit, the bell sounds and the auto-stop automatically actuates at the same time.

● Boom Overhoist Prevention Device

When the boom reaches its angle limit, the buzzer alarm sounds and boom hoisting automatically stops at the same time. The telescopic-type boom backstop is also provided.

● Secondary Boom Overhoist Prevention Device

In addition to the hook overhoist prevention device and boom overhoist prevention device, the secondary boom overhoist prevention device is provided. It actuates at a boom angle of 82° to avoid overhoisting of both the boom and/or hook.

● Pilot Control Shut-off Lever

The pilot control shut-off lever shuts out the hydraulic pilot pressure to pilot control valves. With the pilot control shut-off lever in the LOCK position, the machine will not operate even if the lever is accidentally shifted

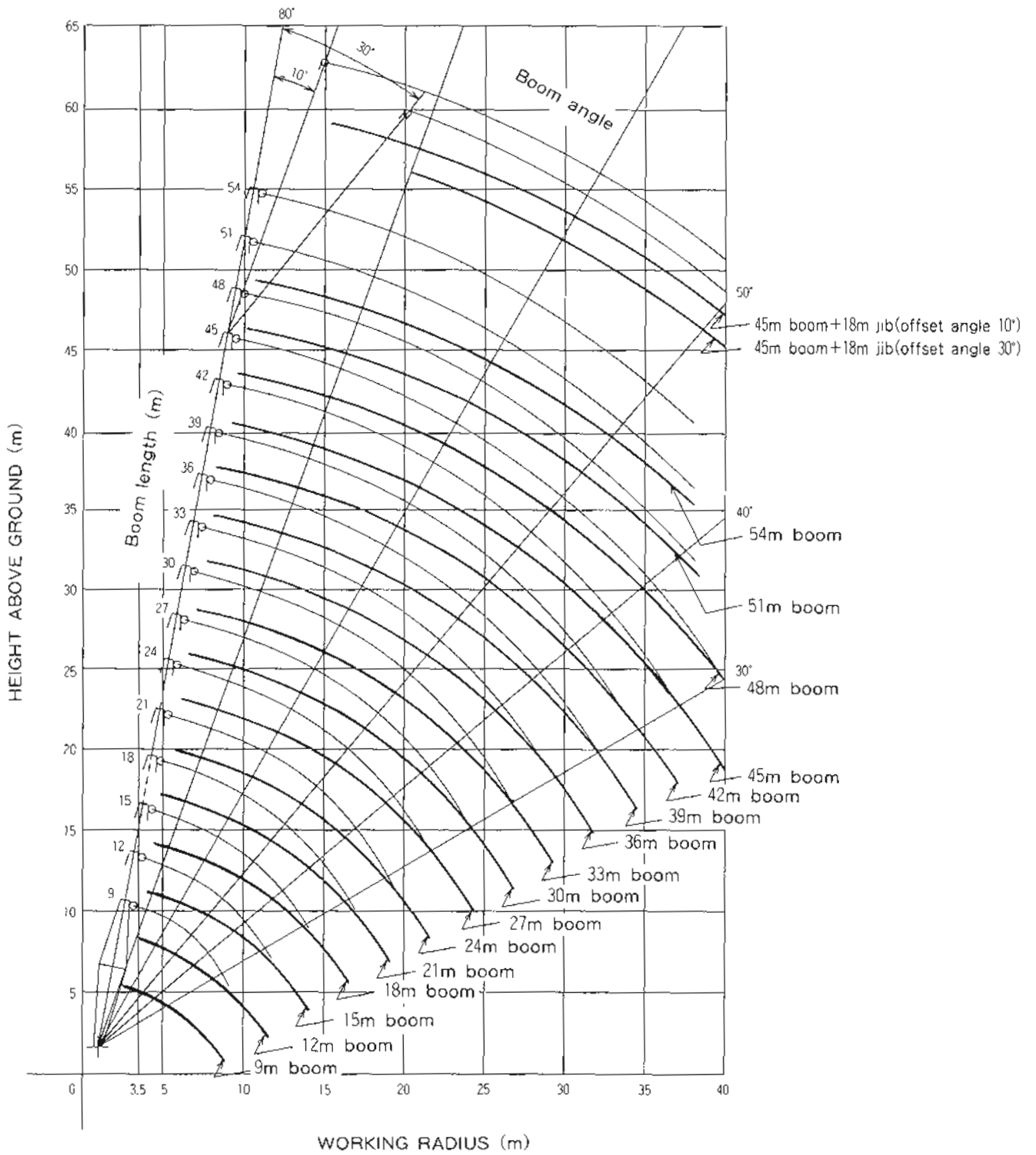
● Reliable mechanism

The related movements stop automatically if an electric wire is broken.

 SERVICE REFILL CAPACITIES

| | Liter |
|---|--------|
| Fuel tank | 300 |
| Engine coolant | 25.1 |
| Engine oil | 28 |
| Pump transmission | 2 |
| Boom hoist reduction device | 9.5 |
| Winch hoist reduction device | 12.5×2 |
| Swing reduction device | 8 |
| Travel reduction device | 14×2 |
| Hydraulic system, including tank capacity | 305 |
| Hydraulic tank | 230 |

■ Working Ranges





Unit: t

■Crane Ratings (Main Boom in 360° Working Area)

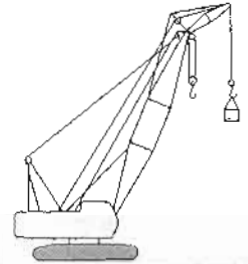
| Working radius (m) | Booms length (m) | | | | | | | | | | | | | | | | |
|--------------------|------------------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------|
| | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 | 39 | 42 | 45 | 48 | 51 | 54 | |
| 3.5 | 70.00 | 3.7×70.00 | | | | | | | | | | | | | | | |
| 4.0 | 65.00 | 65.00 | 4.2×61.85 | | | | | | | | | | | | | | |
| 4.5 | 58.35 | 58.15 | 57.95 | 4.7×55.45 | | | | | | | | | | | | | |
| 5.0 | 52.10 | 51.95 | 51.85 | 51.80 | 5.3×47.05 | | | | | | | | | | | | |
| 5.5 | 44.80 | 44.70 | 44.55 | 44.45 | 44.35 | 5.8×40.80 | | | | | | | | | | | |
| 6.0 | 39.30 | 39.15 | 39.00 | 38.90 | 38.80 | 38.75 | 6.4×35.15 | 6.9×31.35 | | | | | | | | | |
| 7.0 | 31.45 | 31.30 | 31.15 | 31.05 | 30.95 | 30.85 | 30.80 | 30.70 | 7.5×27.70 | | | | | | | | |
| 8.0 | 25.05 | 25.95 | 25.80 | 25.70 | 25.60 | 25.50 | 25.45 | 25.35 | 25.25 | 25.20 | 8.6×22.60 | | | | | | |
| 9.0 | 19.30 | 22.15 | 21.95 | 21.90 | 21.75 | 21.65 | 21.60 | 21.50 | 21.40 | 21.35 | 21.20 | 9.1×19.50 | 9.7×18.90 | | | | |
| 10.0 | | 19.30 | 19.10 | 19.00 | 18.85 | 18.75 | 18.70 | 18.60 | 18.45 | 18.40 | 18.30 | 18.20 | 18.10 | 10.2×17.50 | 10.7×16.20 | 11.3×13.00 | |
| 12.0 | | 11.6×15.20 | 15.05 | 14.95 | 14.75 | 14.65 | 14.60 | 14.50 | 14.35 | 14.30 | 14.20 | 14.10 | 14.00 | 13.90 | 13.75 | 13.00 | |
| 14.0 | | | 12.35 | 12.20 | 12.05 | 11.95 | 11.90 | 11.75 | 11.60 | 11.55 | 11.40 | 11.35 | 11.25 | 11.10 | 11.00 | 10.95 | |
| 16.0 | | | 14.2×12.15 | 10.30 | 10.10 | 10.00 | 9.90 | 9.80 | 9.65 | 9.60 | 9.45 | 9.40 | 9.30 | 9.15 | 9.00 | 9.00 | |
| 18.0 | | | | 16.8×9.65 | 8.65 | 8.55 | 8.45 | 8.30 | 8.20 | 8.15 | 7.95 | 7.90 | 7.80 | 7.65 | 7.50 | 7.50 | |
| 20.0 | | | | | 18.4×7.85 | 7.40 | 7.30 | 7.20 | 7.05 | 7.00 | 6.80 | 6.75 | 6.65 | 6.50 | 6.35 | 6.35 | |
| 22.0 | | | | | | 6.50 | 6.40 | 6.25 | 6.15 | 6.05 | 5.90 | 5.80 | 5.70 | 5.55 | 5.45 | 5.40 | |
| 24.0 | | | | | | | 5.70 | 5.55 | 5.40 | 5.30 | 5.15 | 5.05 | 4.95 | 4.80 | 4.70 | 4.65 | |
| 26.0 | | | | | | | | 24.6×5.50 | 4.90 | 4.75 | 4.70 | 4.55 | 4.45 | 4.35 | 4.20 | 4.05 | 3.95 |
| 28.0 | | | | | | | | | 27.2×4.60 | 4.25 | 4.15 | 4.00 | 3.90 | 3.80 | 3.60 | 3.45 | 3.40 |
| 30.0 | | | | | | | | | | 29.8×3.85 | 3.70 | 3.55 | 3.45 | 3.30 | 3.10 | 2.95 | 2.85 |
| 32.0 | | | | | | | | | | | 3.35 | 3.15 | 3.00 | 2.85 | 2.65 | 2.50 | 2.40 |
| 34.0 | | | | | | | | | | | 32.4×3.25 | 2.80 | 2.65 | 2.50 | 2.30 | 2.10 | 2.05 |
| 36.0 | | | | | | | | | | | | 35.0×2.60 | 2.30 | 2.15 | 1.95 | 1.80 | 1.70 |
| 38.0 | | | | | | | | | | | | | 37.6×2.05 | 1.85 | 1.65 | 1.50 | 1.40 |
| 40.0 | | | | | | | | | | | | | | 1.60 | 1.40 | | |

- Notes
- 1 The rated loads shown do not exceed 78% of tipping long with the machine on firm level ground, and are not less than 1.15 times over-front stability stipulated by the mobile crane construction standards
 - 2 To calculate the maximum load that can actually be lifted, deduct weight of all lifting accessories, such as main hook, from figures shown above
 - 3 Working radius is the horizontal distance from the swing center to the center of gravity of a lifted load.
 - 4 The counterweight is 23.8 t.
 5. Be sure to fully extend the side frames before operating the machine
 6. Correlation between the number of falls, maximum rated loads, hook weights are shown in the table below.

| Hook capacity (t) | Hook weight (t) | Maximum rated load (t) | | | | | | | | | |
|-------------------|-----------------|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | 10 Rope reevings | 9 Rope reevings | 8 Rope reevings | 7 Rope reevings | 6 Rope reevings | 5 Rope reevings | 4 Rope reevings | 3 Rope reevings | 2 Rope reevings | 1 Rope* reeving |
| 70 | 0.80 | 70.0 | 58.5 | 52.0 | 45.5 | 39.0 | 32.5 | 26.0 | 19.5 | 13.0 | — |
| 40 | 0.36 | | | | 40.0 | 39.0 | 32.5 | 26.0 | 19.5 | 13.0 | — |
| 15 | 0.36 | | | | | | | | 15.0 | 13.0 | — |
| 6.5 | 0.18 | | | | | | | | | | 6.5 |

* The boom length should be at least 15 m when operating the machine with a single suspension line

7 Figures described as ○○×○○ in the tables indicate working radius (m) × rated load (t)

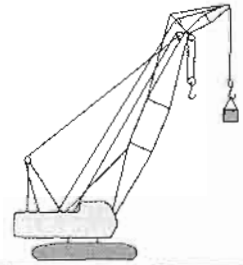


■ Crane Ratings (Jib in 360° Working Area) (1)

Unit: t

| Main boom length (m) | 27 | | | | | | 30 | | | | | |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Jib boom length (m) | 9.0 | | 13.5 | | 18.0 | | 9.0 | | 13.5 | | 18.0 | |
| Offset angle (°) | 10 | 30 | 10 | 30 | 10 | 30 | 10 | 30 | 10 | 30 | 10 | 30 |
| Working radius (m) | | | | | | | | | | | | |
| 9.4 | 6.50 | | | | | | | | | | | |
| 10.0 | 6.50 | | 11.0×6.50 | | | | 6.50 | | 11.5×6.50 | | | |
| 12.0 | 6.50 | 12.1×6.50 | 6.50 | | 12.6×5.90 | | 6.50 | 12.7×6.50 | 6.50 | | 13.1×5.90 | |
| 14.0 | 6.50 | 6.50 | 6.50 | 15.0×6.50 | 5.70 | | 6.50 | 6.50 | 6.50 | 15.6×6.50 | 5.80 | |
| 16.0 | 6.50 | 6.50 | 6.50 | 6.50 | 5.40 | 17.9×4.30 | 6.50 | 6.50 | 6.50 | 6.50 | 5.50 | |
| 18.0 | 6.50 | 6.50 | 6.50 | 6.25 | 5.15 | 4.30 | 6.50 | 6.50 | 6.50 | 6.35 | 5.25 | 18.5×4.30 |
| 20.0 | 6.50 | 6.50 | 6.50 | 5.85 | 4.95 | 4.15 | 6.50 | 6.50 | 6.50 | 6.00 | 5.05 | 4.20 |
| 22.0 | 6.45 | 6.50 | 6.50 | 5.55 | 4.75 | 4.05 | 6.35 | 6.50 | 6.50 | 5.70 | 4.85 | 4.10 |
| 24.0 | 5.70 | 5.80 | 5.85 | 5.25 | 4.55 | 3.95 | 5.55 | 5.70 | 5.75 | 5.40 | 4.65 | 4.00 |
| 26.0 | 5.05 | 5.15 | 5.20 | 5.00 | 4.40 | 3.85 | 4.90 | 5.00 | 5.10 | 5.15 | 4.50 | 3.90 |
| 28.0 | 4.50 | 4.55 | 4.65 | 4.60 | 4.25 | 3.65 | 4.40 | 4.45 | 4.55 | 4.70 | 4.35 | 3.75 |
| 30.0 | 4.05 | 4.10 | 4.20 | 4.30 | 4.10 | 3.50 | 3.90 | 3.95 | 4.05 | 4.20 | 4.15 | 3.60 |
| 32.0 | 3.65 | 3.65 | 3.80 | 3.85 | 3.90 | 3.35 | 3.50 | 3.55 | 3.65 | 3.75 | 3.75 | 3.45 |
| 34.0 | 33.3×3.45 | 33.8×3.35 | 3.45 | 3.50 | 3.50 | 3.20 | 3.15 | 3.20 | 3.30 | 3.40 | 3.40 | 3.30 |
| 36.0 | | | 3.10 | 3.15 | 3.20 | 3.10 | 35.9×2.85 | 2.85 | 3.00 | 3.05 | 3.05 | 3.20 |
| 38.0 | | | 37.5×2.90 | 2.85 | 2.95 | 3.00 | | 36.4×2.80 | 2.70 | 2.75 | 2.80 | 2.90 |
| 40.0 | | | | 38.3×2.80 | 2.70 | 2.75 | | | 2.40 | 2.45 | 2.55 | 2.60 |
| 42.0 | | | | | 41.7×2.50 | 2.50 | | | 40.1×2.40 | 40.9×2.30 | 2.25 | 2.35 |
| 44.0 | | | | | | 42.8×2.40 | | | | | 2.05 | 2.10 |
| 46.0 | | | | | | | | | | | 44.3×2.00 | 45.4×1.90 |

| Main boom length (m) | 33 | | | | | | 36 | | | | | |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Jib boom length (m) | 9.0 | | 13.5 | | 18.0 | | 9.0 | | 13.5 | | 18.0 | |
| Offset angle (°) | 10 | 30 | 10 | 30 | 10 | 30 | 10 | 30 | 10 | 30 | 10 | 30 |
| Working radius (m) | | | | | | | | | | | | |
| 10.5 | 6.50 | | | | | | 11.0×6.50 | | | | | |
| 12.0 | 6.50 | 13.2×6.50 | 12.1×6.50 | | 13.7×5.90 | | 6.50 | 13.7×6.50 | 12.6×6.50 | | | |
| 14.0 | 6.50 | 6.50 | 6.50 | | 5.85 | | 6.50 | 6.50 | 6.50 | | 14.2×5.90 | |
| 16.0 | 6.50 | 6.50 | 6.50 | 16.1×6.50 | 5.60 | | 6.50 | 6.50 | 6.50 | 16.7×6.50 | 5.65 | |
| 18.0 | 6.50 | 6.50 | 6.50 | 6.50 | 5.35 | 19.0×4.30 | 6.50 | 6.50 | 6.50 | 6.50 | 5.45 | 19.6×4.25 |
| 20.0 | 6.50 | 6.50 | 6.50 | 6.15 | 5.15 | 4.20 | 6.50 | 6.50 | 6.50 | 6.25 | 5.20 | 4.25 |
| 22.0 | 6.20 | 6.40 | 6.40 | 5.85 | 4.95 | 4.10 | 6.10 | 6.30 | 6.30 | 5.95 | 5.05 | 4.15 |
| 24.0 | 5.40 | 5.55 | 5.60 | 5.55 | 4.75 | 4.00 | 5.35 | 5.50 | 5.50 | 5.70 | 4.85 | 4.05 |
| 26.0 | 4.80 | 4.90 | 4.95 | 5.15 | 4.60 | 3.95 | 4.70 | 4.85 | 4.85 | 5.10 | 4.70 | 3.95 |
| 28.0 | 4.25 | 4.35 | 4.40 | 4.60 | 4.45 | 3.85 | 4.15 | 4.25 | 4.30 | 4.50 | 4.45 | 3.90 |
| 30.0 | 3.75 | 3.85 | 3.90 | 4.10 | 4.05 | 3.70 | 3.70 | 3.80 | 3.85 | 4.00 | 3.95 | 3.75 |
| 32.0 | 3.35 | 3.40 | 3.50 | 3.65 | 3.60 | 3.55 | 3.25 | 3.35 | 3.40 | 3.60 | 3.55 | 3.60 |
| 34.0 | 3.00 | 3.05 | 3.15 | 3.25 | 3.25 | 3.40 | 2.90 | 2.95 | 3.05 | 3.20 | 3.15 | 3.40 |
| 36.0 | 2.65 | 2.70 | 2.85 | 2.95 | 2.95 | 3.10 | 2.55 | 2.60 | 2.70 | 2.85 | 2.85 | 3.05 |
| 38.0 | 2.35 | 2.35 | 2.50 | 2.60 | 2.65 | 2.80 | 2.25 | 2.25 | 2.40 | 2.50 | 2.50 | 2.75 |
| 40.0 | 38.5×2.30 | 39.0×2.20 | 2.25 | 2.30 | 2.35 | 2.50 | 1.95 | 1.95 | 2.10 | 2.20 | 2.25 | 2.40 |
| 42.0 | | | 2.00 | 2.00 | 2.10 | 2.20 | 41.1×1.80 | 41.6×1.75 | 1.85 | 1.95 | 2.00 | 2.15 |
| 44.0 | | | 42.7×1.90 | 43.5×1.85 | 1.85 | 1.95 | | | 1.65 | 1.70 | 1.75 | 1.85 |
| 46.0 | | | | | 1.65 | 1.70 | | | 45.3×1.50 | 1.45 | 1.55 | 1.65 |
| 48.0 | | | | | 46.9×1.60 | 1.50 | | | | 46.1×1.45 | 1.35 | 1.40 |



Crane Ratings (Jib in 360° Working Area) (2)

Unit: t

| Main boom length (m) | 39 | | | | | | 42 | | | | | |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Jib boom length (m) | 9.0 | | 13.5 | | 18.0 | | 9.0 | | 13.5 | | 18.0 | |
| Offset angle (°) | 10 | 30 | 10 | 30 | 10 | 30 | 10 | 30 | 10 | 30 | 10 | 30 |
| Working radius (m) | | | | | | | | | | | | |
| 11.6 | 6.50 | | | | | | | | | | | |
| 12.0 | 6.50 | | 13.2×6.50 | | | | 12.1×6.50 | | 13.7×6.50 | | | |
| 14.0 | 6.50 | 14.3×6.50 | 6.50 | | 14.7×5.90 | | 6.50 | 14.8×6.50 | 6.50 | | 15.3×5.90 | |
| 16.0 | 6.50 | 6.50 | 6.50 | 17.2×6.50 | 5.75 | | 6.50 | 6.50 | 6.50 | 17.8×6.50 | 5.80 | |
| 18.0 | 6.50 | 6.50 | 6.50 | 6.50 | 5.50 | | 6.50 | 6.50 | 6.50 | 6.50 | 5.60 | |
| 20.0 | 6.50 | 6.50 | 6.50 | 6.40 | 5.30 | 20.1×4.25 | 6.50 | 6.50 | 6.50 | 6.50 | 5.35 | 20.7×4.25 |
| 22.0 | 5.95 | 6.20 | 6.15 | 6.10 | 5.10 | 4.15 | 5.90 | 6.15 | 6.10 | 6.20 | 5.20 | 4.20 |
| 24.0 | 5.20 | 5.40 | 5.35 | 5.70 | 4.95 | 4.05 | 5.10 | 5.30 | 5.30 | 5.65 | 5.00 | 4.10 |
| 26.0 | 4.55 | 4.70 | 4.70 | 5.00 | 4.75 | 4.00 | 4.45 | 4.65 | 4.65 | 4.95 | 4.75 | 4.00 |
| 28.0 | 4.00 | 4.15 | 4.15 | 4.40 | 4.30 | 3.90 | 3.90 | 4.05 | 4.05 | 4.35 | 4.20 | 3.95 |
| 30.0 | 3.50 | 3.65 | 3.70 | 3.90 | 3.80 | 3.85 | 3.40 | 3.55 | 3.60 | 3.85 | 3.70 | 3.85 |
| 32.0 | 3.10 | 3.20 | 3.25 | 3.45 | 3.40 | 3.65 | 2.95 | 3.10 | 3.15 | 3.40 | 3.30 | 3.60 |
| 34.0 | 2.70 | 2.80 | 2.85 | 3.05 | 3.00 | 3.25 | 2.55 | 2.65 | 2.75 | 2.95 | 2.90 | 3.20 |
| 36.0 | 2.35 | 2.40 | 2.50 | 2.70 | 2.65 | 2.90 | 2.20 | 2.30 | 2.40 | 2.60 | 2.55 | 2.85 |
| 38.0 | 2.00 | 2.10 | 2.20 | 2.35 | 2.35 | 2.60 | 1.90 | 1.95 | 2.05 | 2.25 | 2.20 | 2.50 |
| 40.0 | 1.75 | 1.80 | 1.90 | 2.05 | 2.05 | 2.25 | 1.60 | 1.65 | 1.80 | 1.95 | 1.90 | 2.15 |
| 42.0 | 1.50 | 1.55 | 1.65 | 1.75 | 1.80 | 1.95 | 1.35 | 1.40 | 1.55 | 1.65 | 1.65 | 1.85 |
| 44.0 | 43.7×1.30 | 1.30 | 1.45 | 1.50 | 1.55 | 1.70 | | | 1.30 | 1.40 | 1.45 | 1.60 |
| 46.0 | | | | 1.30 | 1.35 | 1.50 | | | | | | 1.35 |

| Main boom length (m) | 45 | | | | | |
|----------------------|------|-----------|-----------|-----------|-----------|-----------|
| Jib boom length (m) | 9.0 | | 13.5 | | 18.0 | |
| Offset angle (°) | 10 | 30 | 10 | 30 | 10 | 30 |
| Working radius (m) | | | | | | |
| 12.7 | 6.50 | | | | | |
| 14.0 | 6.50 | 15.4×6.50 | 14.3×6.50 | | 15.8×5.90 | |
| 16.0 | 6.50 | 6.50 | 6.50 | | 5.85 | |
| 18.0 | 6.50 | 6.50 | 6.50 | 18.3×6.50 | 5.65 | |
| 20.0 | 6.50 | 6.50 | 6.50 | 6.50 | 5.45 | 21.2×4.25 |
| 22.0 | 5.75 | 6.05 | 5.95 | 6.30 | 5.25 | 4.20 |
| 24.0 | 5.00 | 5.20 | 5.20 | 5.55 | 5.10 | 4.10 |
| 26.0 | 4.35 | 4.55 | 4.50 | 4.85 | 4.65 | 4.05 |
| 28.0 | 3.80 | 3.95 | 3.95 | 4.25 | 4.10 | 3.95 |
| 30.0 | 3.25 | 3.45 | 3.45 | 3.75 | 3.60 | 3.90 |
| 32.0 | 2.80 | 2.95 | 3.00 | 3.30 | 3.15 | 3.50 |
| 34.0 | 2.40 | 2.55 | 2.60 | 2.85 | 2.75 | 3.10 |
| 36.0 | 2.05 | 2.15 | 2.25 | 2.45 | 2.40 | 2.70 |
| 38.0 | 1.75 | 1.85 | 1.90 | 2.10 | 2.05 | 2.35 |
| 40.0 | 1.45 | 1.55 | 1.65 | 1.80 | 1.75 | 2.05 |
| 42.0 | | | 1.40 | 1.55 | 1.50 | 1.75 |
| 44.0 | | | | | 1.30 | 1.50 |

Notes: 1. The rated loads shown do not exceed 78% of tipping load with the machine on firm level ground, and are not less than 1.15 times over-front stability stipulated by the mobile crane construction standards

2. To calculate the maximum load that can actually be lifted, deduct weight of all lifting accessories, such as main hook, from figures shown above

| Hook capacity (t) | Weight (t) |
|-------------------|------------|
| 70 | 0.80 |
| 40 | 0.41 |
| 15 | 0.36 |
| 6.5 | 0.18 |

3. Working radius is the horizontal distance from the swing center to the center of gravity of a lifted load.

4. The counterweight is 23.8 t.

5. Be sure to fully extend the side frames before operating the machine.

6. Correlation between the number of falls, maximum rated loads, hook weights are shown in the table below.

7. Figures described as ○○×○○ in the tables indicate working radius (m) × rated load (t).

■ Crane Boom Construction

| Boom length (m) | | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 | 39 | 42 | 45 | 48 | 51 | 54 | | | | | | |
|-------------------------|-----|----------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|---|---|---|
| Elements | | | | | | | | | | | | | | | | | | | | | | | |
| Lower boom | 5 m | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | |
| Upper boom | 4 m | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | |
| Boom insert combination | | I | II | I | II | I | II | I | II | I | II | I | II | I | II | I | II | | | | | | |
| 3 m boom insert | | | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | | |
| 6 m boom insert | | | | | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | | |
| 9 m boom insert | | | | | | | | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 3 | 2 | 3 | 2 | 3 | 2 | 4 | 3 |
| 9 m (B) boom insert | | | | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Available jib | | ← Jib length 9 m to 18 m → | | | | | | | | | | | | | | | | | | | | | |
| Available aux. jib | | ← → | | | | | | | | | | | | | | | | | | | | | |

Boom inserts combination:

- I For operation of crane boom only
 - II For operation of crane boom with jib
- 6 m boom insert can be replaced with two 3 m boom inserts, and 9 m boom insert with a combination of 3 m and 6 m boom inserts.

■ Crane Jib Construction

| Jib length (m) | | 9 | 13.5 | 18 |
|------------------|-------|---|------|----|
| Elements | | | | |
| Lower jib | 4.5 m | 1 | 1 | 1 |
| Upper jib | 4.5 m | 1 | 1 | 1 |
| 4.5 m jib insert | | | 1 | 2 |

■ Component Weights and Dimensions for Transport

| Components | | Weight (t) | Qty | Length × Width × Height (m) | | | Remarks |
|---------------|---------------------|------------|------|-----------------------------|------|------|---|
| Basic machine | Basic machine | 36.8 | 1 | 7.98 | 3.20 | 3.40 | Gantry, ropes and side frames included, except counterweight |
| | Basic machine | 22.4 | 1 | 6.96 | 3.20 | 3.02 | Including gantry and ropes. Excluding side frames and counterweight |
| | Side frame | 7.2 | 2 | 5.93 | 0.92 | 1.01 | |
| | Gantry | 1.2 | 1 | 3.17 | 1.33 | 0.62 | |
| | Aux. counterweight | 0.6 | 2 | 0.69 | 0.29 | 0.67 | Mounted to side for boom hoist drum |
| | Counterweight | 7.4 | 1 | 3.20 | 0.62 | 1.37 | Inner |
| | Counterweight | 7.9 | 1 | 3.20 | 0.73 | 1.37 | Center |
| | Counterweight | 8.5 | 1 | 3.20 | 0.71 | 1.48 | Outer |
| Crane front | Lower boom | 1.01 | 1 | 5.16 | 1.63 | 1.72 | Backstop included |
| | Upper boom | 1.14 | 1 | 4.43 | 1.49 | 1.54 | Pendant rope included |
| | Bridle | 0.29 | 1 | 1.72 | 0.69 | 0.28 | |
| | 3 m boom insert | 0.42 | 1 | 3.10 | 1.50 | 1.61 | Pendant rope included |
| | 6 m boom insert | 0.70 | 1 | 6.10 | 1.50 | 1.61 | |
| | 9 m boom insert | 0.93 | 1 | 9.10 | 1.50 | 1.61 | |
| | 9 m (B) boom insert | 0.94 | 1 | 9.10 | 1.50 | 1.62 | |
| | Lower jib | 0.57 | 1 | 4.62 | 0.82 | 0.75 | Jib mast included |
| | Upper jib | 0.25 | 1 | 4.93 | 0.78 | 1.11 | |
| | 4.5 m jib insert | 0.14 | 1 | 4.60 | 0.64 | 0.74 | |
| | Aux. Jib | 0.21 | 1 | 1.26 | 0.82 | 0.87 | |
| | 70 t hook | 0.80 | 1 | 0.62 | 0.59 | 1.82 | |
| | 40 t hook | 0.41 | 1 | 0.62 | 0.32 | 1.59 | |
| | 15 t hook | 0.36 | 1 | 0.62 | 0.31 | 1.36 | |
| 6.5 t hook | 0.18 | 1 | 0.30 | 0.30 | 0.84 | | |

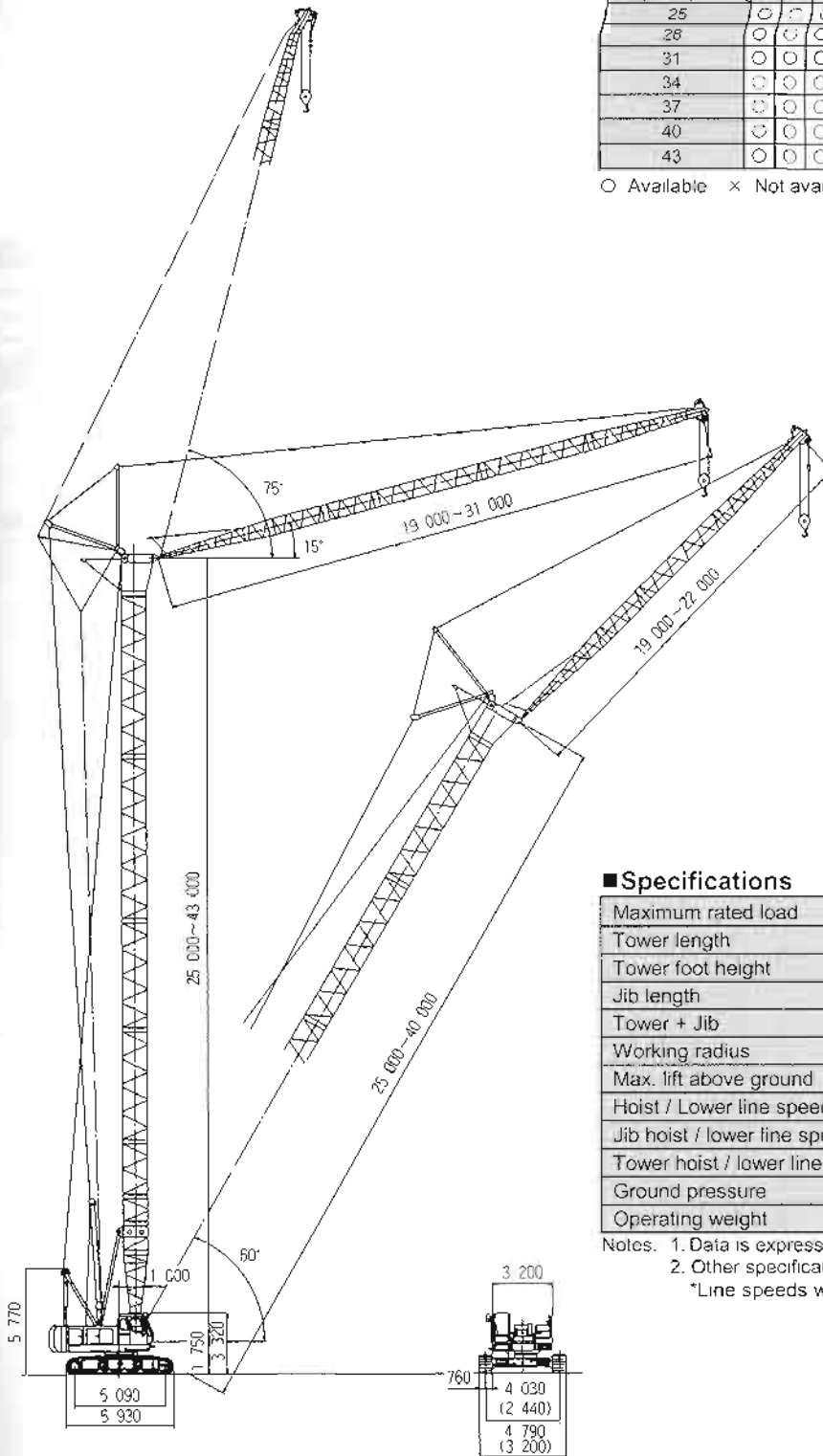
■ Dimensions

Unit: mm

■ Tower Jib Construction

| Jib length (m) | 19 | | | | 22 | | | | 25 | | | | 28 | | | | 31 | | | |
|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Tower angle (°) | 90 | 80 | 70 | 60 | 90 | 80 | 70 | 60 | 90 | 80 | 70 | 60 | 90 | 80 | 70 | 60 | 90 | 80 | 70 | 60 |
| Tower length (m) | | | | | | | | | | | | | | | | | | | | |
| 25 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 28 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 31 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 34 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 37 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 40 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 43 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

○ Available × Not available



■ Specifications

(1 t = 1 000 kg)

| | | |
|--------------------------------|----------------------------|-------------------------------------|
| Maximum rated load | t × m | 13 0 × 12 0 (25 m tower + 19 m jib) |
| Tower length | m | 25 to 43 |
| Tower foot height | m | 1.75 |
| Jib length | m | 19 to 31 |
| Tower + Jib | m | 43+31 |
| Working radius | m | 8.3 to 46.9 |
| Max. lift above ground | m | 70.4 |
| Hoist / Lower line speeds | m/min | *100/65/32 |
| Jib hoist / lower line speed | m/min | *50/32 |
| Tower hoist / lower line speed | m/min | *53 |
| Ground pressure | kPa (kgf/cm ²) | 86 3 (0.88) |
| Operating weight | ton | 73 6 (43 m tower + 31 m jib) |

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

Figures in () indicate crawlers retracted.

25 m Tower (2-Rope Reeving)

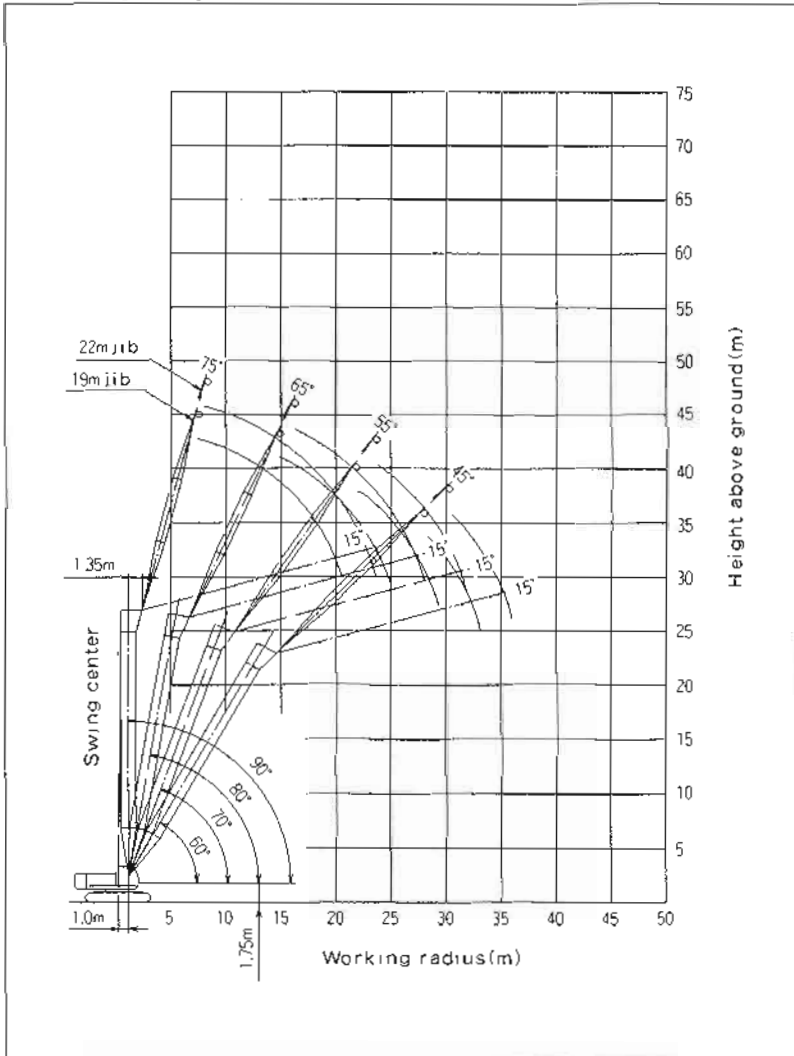
Rated Loads for Tower Crane

Unit: t

| Working radius (m) | Jib length (m) | | | | | | | |
|--------------------|----------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 19m | | | | 22m | | | |
| | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° |
| 8.3 | 13.00 | | | | | | | |
| 9.0 | 13.00 | | | | 9.1×13.00 | | | |
| 10.0 | 13.00 | | | | 13.00 | | | |
| 12.0 | 13.00 | | | | 13.00 | | | |
| 14.0 | 11.70 | 15.0×10.25t | | | 11.65 | | | |
| 16.0 | 10.15 | 9.55 | | | 10.10 | 16.2×9.35 | | |
| 18.0 | 8.55 | 8.35 | | | 8.85 | 8.30 | | |
| 20.0 | 6.80 | 7.40 | | | 7.55 | 7.30 | | |
| 22.0 | 20.7×6.10 | 6.55 | 6.05 | | 6.25 | 6.50 | 23.7×5.45 | |
| 24.0 | | 5.90 | 5.45 | | 23.6×5.20 | 5.85 | 5.40 | |
| 26.0 | | 25.0×5.65 | 4.95 | | | 5.30 | 4.90 | |
| 28.0 | | | 4.50 | 28.3×4.10 | | 27.9×4.85 | 4.45 | |
| 30.0 | | | 29.2×4.30 | 3.80 | | | 4.10 | 30.4×3.70 |
| 32.0 | | | | 3.50 | | | 3.75 | 3.45 |
| 34.0 | | | | 33.×3.40 | | | 32.1×3.70 | 3.20 |
| 35.9 | | | | | | | | 3.00 |

- Notes:
- The rated loads shown do not exceed 78% of tipping load with the machine on firm level ground, and are not less than 1.15 times over-front stability stipulated by the mobile crane construction standards
 - The load to be actually lifted will be the rated load shown minus the weight of all lifting attachments such as a hook.
15 ton hook..... weight 0.36 t
 - Working radius is the horizontal distance between swing center of the machine and center of gravity of the load lifted
 - Counterweight is 13.8 ton
 - In operation with 1-rope reeving, use a 6.5 t hook (option). In this case, the rated loads for tower crane (with 1-rope reeving) described in the Operation Manual will be applied
 - Crawlers must be extended into position before crane operation.
 - Figures described as OO×OO in the tables indicate working radius (m) × rated load (t)

Working Ranges



Working ranges are shown for unloading.

28 m Tower (2-Rope Reeving)

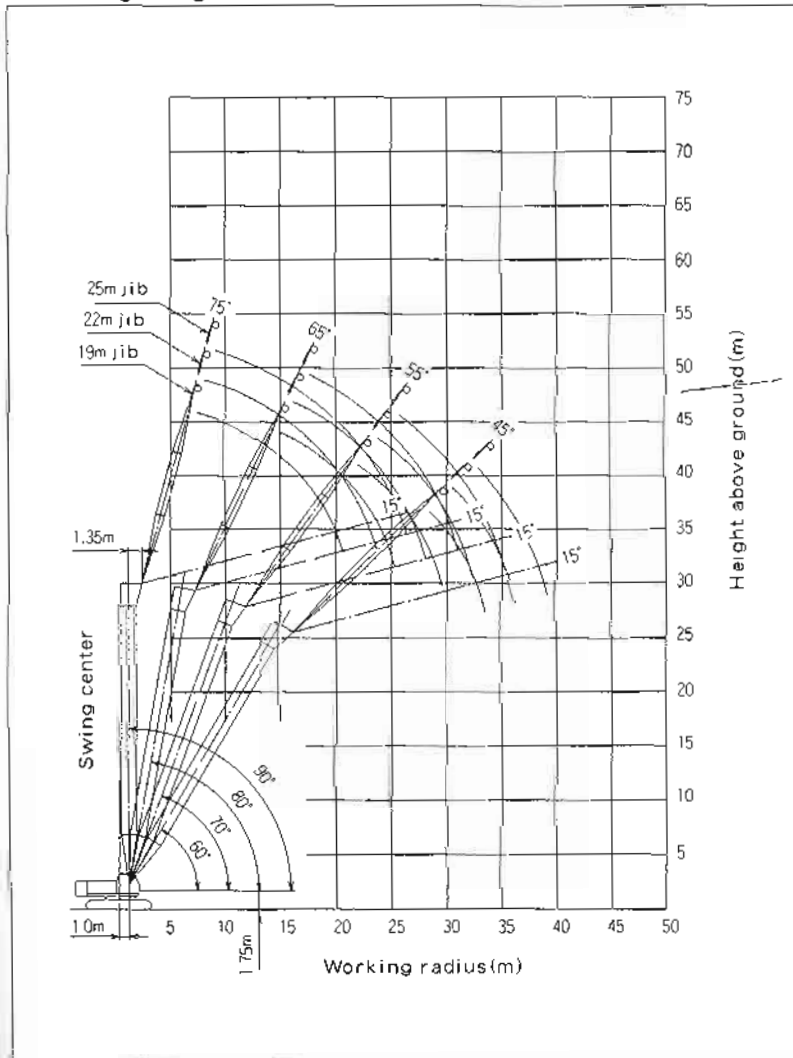
Rated Loads for Tower Crane

Unit: t

| Working radius (m) | Jib length (m) | | | | | | | | | | | |
|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 19m | | | | 22m | | | | 25m | | | |
| | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° |
| 8.3 | 13.00 | | | | | | | | | | | |
| 9.0 | 13.00 | | | | 9.2×13.00 | | | | | | | |
| 10.0 | 13.00 | | | | 13.00 | | | | 13.00 | | | |
| 12.0 | 13.00 | | | | 13.00 | | | | 13.00 | | | |
| 14.0 | 11.70 | 15.5×9.75 | | | 11.65 | | | | 11.55 | | | |
| 16.0 | 10.10 | 9.45 | | | 10.05 | 16.7×8.95 | | | 10.00 | | | |
| 18.0 | 8.60 | 8.30 | | | 8.85 | 8.20 | | | 8.75 | 8.15 | | |
| 20.0 | 6.80 | 7.30 | | | 7.60 | 7.25 | | | 7.70 | 7.15 | | |
| 22.0 | 20.7×6.05 | 6.50 | 23.0×5.60 | | 6.25 | 6.45 | | | 6.70 | 6.35 | | |
| 24.0 | | 5.85 | 5.35 | | 23.6×5.15 | 5.80 | 24.7×5.05 | | 5.65 | 5.70 | | |
| 26.0 | | 25.6×5.40 | 4.85 | | | 5.25 | 4.75 | | 4.65 | 5.15 | 26.4×4.55 | |
| 28.0 | | | 4.40 | 29.8×3.70 | | 4.80 | 4.35 | | 26.5×4.40 | 4.70 | 4.25 | |
| 30.0 | | | 4.05 | 3.65 | | 28.5×4.70 | 4.00 | 31.9×3.30 | | 4.30 | 3.90 | |
| 32.0 | | | 30.2×4.00 | 3.40 | | | 3.65 | 3.30 | | 31.3×4.10 | 3.60 | |
| 34.0 | | | | 3.15 | | | 33.1×3.50 | 3.05 | | | 3.30 | 34.1×2.95 |
| 36.0 | | | | 34.5×3.05 | | | | 2.85 | | | 3.05 | 2.75 |
| 38.0 | | | | | | | | 37.4×2.70 | | | | 2.55 |
| 40.0 | | | | | | | | | | | | 2.35 |
| 40.3 | | | | | | | | | | | | 2.30 |

For notes, refer to those on the 25 m tower

Working Ranges



Working ranges are shown for unloading.

31 m Tower (2-Rope Reeving)

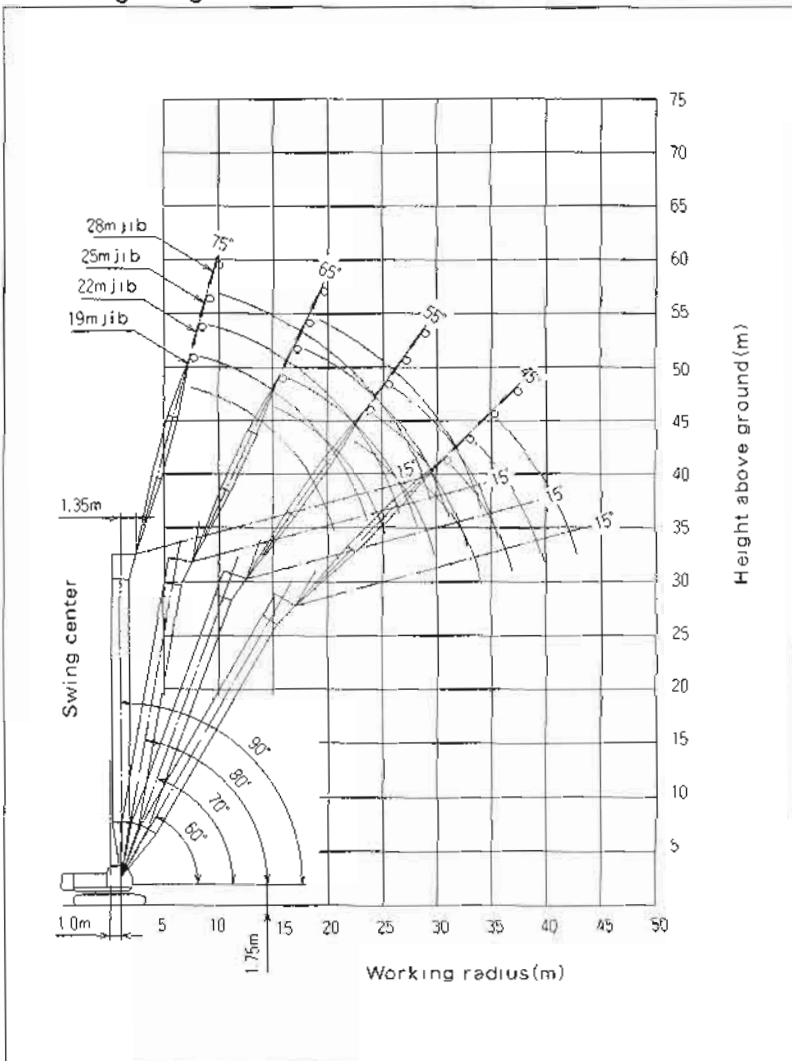
Rated Loads for Tower Crane

Unit: t

| Working radius (m) | Jib length (m) | | | | | | | | | | | | | | | |
|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| | 19m | | | | 22m | | | | 25m | | | | 28m | | | |
| | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° |
| 8.4 | 13.00 | | | | | | | | | | | | | | | |
| 9.0 | 13.00 | | | | 9.2×13.00 | | | | | | | | | | | |
| 10.0 | 13.00 | | | | 13.00 | | | | 10.1×13.00 | | | | 10.9×10.75 | | | |
| 12.0 | 13.00 | | | | 13.00 | | | | 12.95 | | | | 10.75 | | | |
| 14.0 | 11.70 | | | | 11.65 | | | | 11.55 | | | | 10.75 | | | |
| 16.0 | 10.10 | 9.35 | | | 10.05 | 17.3×8.50 | | | 10.00 | | | | 9.95 | | | |
| 18.0 | 8.60 | 8.20 | | | 8.85 | 8.10 | | | 8.75 | 18.5×7.75 | | | 8.70 | 19.8×6.85 | | |
| 20.0 | 6.85 | 7.20 | | | 7.60 | 7.15 | | | 7.70 | 7.05 | | | 7.65 | 6.85 | | |
| 22.0 | 20.7×6.15 | 6.40 | | | 6.25 | 6.35 | | | 6.70 | 6.25 | | | 6.80 | 6.20 | | |
| 24.0 | | 5.75 | 5.15 | | 23.6×5.20 | 5.70 | 25.7×4.65 | | 5.65 | 5.65 | | | 5.95 | 5.55 | | |
| 26.0 | | 5.25 | 4.70 | | | 5.20 | 4.60 | | 4.65 | 5.10 | 27.4×4.20 | | 5.10 | 5.05 | | |
| 28.0 | | 26.1×5.20 | 4.25 | | | 4.75 | 4.20 | | 26.5×4.40 | 4.65 | 4.10 | | 4.35 | 4.60 | 29.2×3.80 | |
| 30.0 | | | 3.90 | 31.3×3.30 | | 29.0×4.50 | 3.85 | | | 4.25 | 3.75 | | 29.4×3.80 | 4.20 | 3.70 | |
| 32.0 | | | 31.2×3.75 | 3.20 | | | 3.55 | 33.4×2.95 | | 31.9×3.95 | 3.45 | | | 3.85 | 3.40 | |
| 34.0 | | | | 2.95 | | | 3.30 | 2.85 | | | 3.20 | 35.6×2.60 | | 3.60 | 3.10 | |
| 36.0 | | | | 2.75 | | | 34.1×3.25 | 2.65 | | | 2.95 | 2.55 | | 34.8×3.45 | 2.90 | 37.7×2.35 |
| 28.0 | | | | | | | | 2.50 | | | 37.0×2.85 | 2.40 | | 2.70 | 2.30 | |
| 40.0 | | | | | | | | 38.9×2.40 | | | | 2.20 | | 39.9×2.50 | 2.15 | |
| 42.0 | | | | | | | | | | | | 41.8×2.10 | | | | 2.00 |
| 44.0 | | | | | | | | | | | | | | | | 1.85 |
| 44.7 | | | | | | | | | | | | | | | | 1.80 |

For notes, refer to those on the 25 m tower.

Working Ranges



Working ranges are shown for unloading.

34 m Tower (2-Rope Reeving)

Rated Loads for Tower Crane

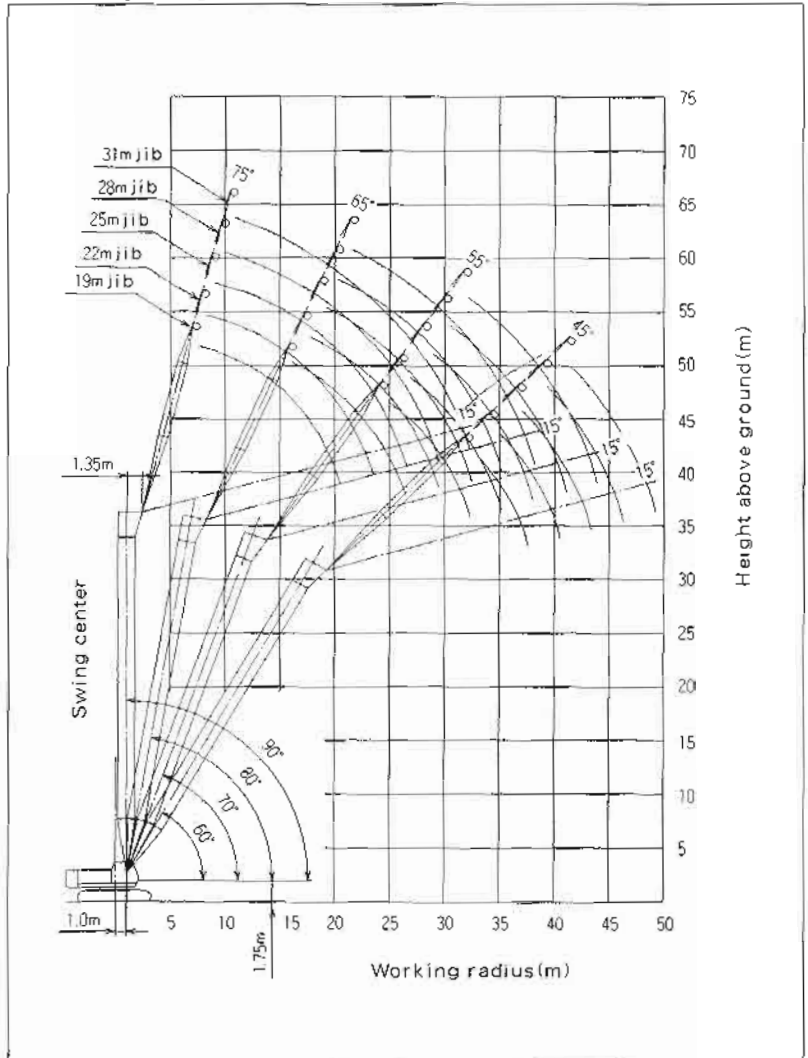
Unit: t

| Working radius (m) | Jib length (m) | | | | | | | | | | | | | | | |
|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| | 19m | | | | 22m | | | | 25m | | | | 28m | | | |
| | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° |
| 8.5 | 13.00 | | | | | | | | | | | | | | | |
| 9.0 | 13.00 | | | | 9.3×13.00 | | | | | | | | | | | |
| 10.0 | 13.00 | | | | 13.00 | | | | 10.1×13.00 | | | | 10.9×10.60 | | | |
| 12.0 | 13.00 | | | | 13.00 | | | | 12.60 | | | | 10.60 | | | |
| 14.0 | 11.65 | | | | 11.60 | | | | 11.40 | | | | 10.60 | | | |
| 16.0 | 10.10 | 16.5×8.90 | | | 10.05 | 17.8×8.10 | | | 10.00 | | | | 9.90 | | | |
| 18.0 | 8.60 | 8.05 | | | 8.80 | 8.00 | | | 8.75 | 19.1×7.35 | | | 8.70 | | | |
| 20.0 | 6.85 | 7.10 | | | 7.60 | 7.05 | | | 7.70 | 6.95 | | | 7.65 | 20.3×6.75 | | |
| 22.0 | 20.7×6.20 | 6.35 | | | 6.25 | 6.25 | | | 6.70 | 6.15 | | | 6.80 | 6.10 | | |
| 24.0 | | 5.70 | 25.0×4.75 | | 23.6×5.20 | 5.65 | | | 5.65 | 5.55 | | | 5.95 | 5.50 | | |
| 26.0 | | 5.15 | 4.50 | | | 5.10 | 26.8×4.30 | | 4.65 | 5.00 | | | 5.10 | 4.95 | | |
| 28.0 | | 26.6×5.00 | 4.10 | | | 4.65 | 4.05 | | 26.5×4.40 | 4.55 | 28.5×3.85 | | 4.35 | 4.50 | | |
| 30.0 | | | 3.80 | | | 29.5×4.35 | 3.70 | | | 4.20 | 3.60 | | 29.4×3.80 | 4.15 | 30.2×3.60 | |
| 32.0 | | | 3.50 | 32.8×2.90 | | | 3.40 | | | 3.85 | 3.30 | | | 3.80 | 3.25 | |
| 34.0 | | | 32.3×3.45 | 2.80 | | | 3.15 | 34.9×2.60 | | 32.4×3.80 | 3.05 | | | 3.50 | 3.00 | |
| 36.0 | | | | 2.60 | | | 35.2×3.00 | 2.50 | | | 2.85 | 37.1×2.30 | | 35.3×3.35 | 2.75 | |
| 38.0 | | | | 37.5×2.45 | | | | 2.30 | | | 2.65 | 2.20 | | | 2.55 | 39.2×2.05 |
| 40.0 | | | | | | | | 2.15 | | | 38.1×2.60 | 2.05 | | 2.40 | 2.00 | |
| 42.0 | | | | | | | | | 40.4×2.10 | | | 1.90 | | 41.0×2.30 | 1.85 | |
| 44.0 | | | | | | | | | | | | 43.3×1.85 | | | | 1.70 |
| 46.0 | | | | | | | | | | | | | | | | 1.60 |
| 46.2 | | | | | | | | | | | | | | | | 1.55 |

| Working radius (m) | Jib length (m) | | | |
|--------------------|----------------|-----------|-----------|-----------|
| | 31m | | | |
| | 90° | 80° | 70° | 60° |
| 11.8 | 8.60 | | | |
| 12.0 | 8.60 | | | |
| 14.0 | 8.60 | | | |
| 16.0 | 8.15 | | | |
| 18.0 | 7.40 | | | |
| 20.0 | 6.75 | 21.6×5.40 | | |
| 22.0 | 6.20 | 5.40 | | |
| 24.0 | 5.65 | 5.40 | | |
| 26.0 | 4.95 | 4.85 | | |
| 28.0 | 4.30 | 4.40 | | |
| 30.0 | 3.75 | 4.05 | 31.9×3.15 | |
| 32.0 | 3.30 | 3.70 | 3.15 | |
| 34.0 | 32.3×3.20 | 3.45 | 2.90 | |
| 36.0 | | 3.20 | 2.70 | |
| 38.0 | | 2.95 | 2.50 | |
| 40.0 | | 38.2×2.90 | 2.30 | 41.3×1.75 |
| 42.0 | | | 2.15 | 1.70 |
| 44.0 | | | 43.9×2.00 | 1.55 |
| 46.0 | | | | 1.45 |
| 48.0 | | | | 1.35 |
| 49.1 | | | | 1.30 |

For notes, refer to those on the 25 m tower

Working Ranges



Working ranges are shown for unloading.

37 m Tower (2-Rope Reeving)

Rated Loads for Tower Crane

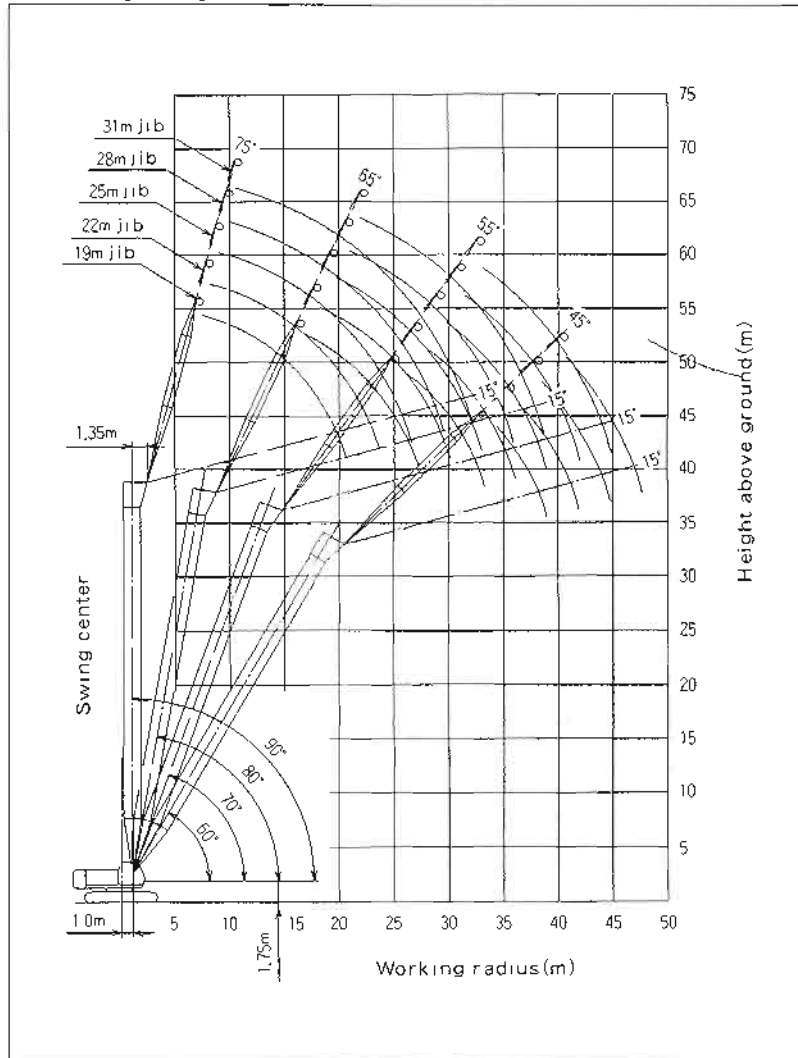
Unit: t

| Working radius (m) | Jib length (m) | | | | | | | | | | | | | | | |
|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| | 19m | | | | 22m | | | | 25m | | | | 28m | | | |
| | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° |
| 8.5 | 13.00 | | | | | | | | | | | | | | | |
| 9.0 | 13.00 | | | | 9.3×13.00 | | | | | | | | | | | |
| 10.0 | 13.00 | | | | 13.00 | | | | 10.2×13.00 | | | | 11.0×10.45 | | | |
| 12.0 | 13.00 | | | | 12.75 | | | | 12.20 | | | | 10.45 | | | |
| 14.0 | 11.65 | | | | 11.50 | | | | 11.05 | | | | 40.45 | | | |
| 16.0 | 10.10 | 17.0×8.50 | | | 10.05 | | | | 9.95 | | | | 9.75 | | | |
| 18.0 | 8.60 | 7.95 | | | 8.80 | 18.3×7.75 | | | 8.70 | 19.8×7.00 | | | 8.65 | | | |
| 20.0 | 6.85 | 7.00 | | | 7.60 | 6.95 | | | 7.65 | 6.85 | | | 7.60 | 20.8×6.45 | | |
| 22.0 | 20.7×6.25 | 6.25 | | | 6.25 | 6.15 | | | 6.70 | 6.10 | | | 6.75 | 6.00 | | |
| 24.0 | | 5.60 | | | 23.8×5.20 | 5.55 | | | 5.65 | 5.45 | | | 5.95 | 5.40 | | |
| 26.0 | | 5.10 | 26.1×4.35 | | | 5.00 | 27.8×3.95 | | 4.65 | 4.95 | | | 5.10 | 4.85 | | |
| 28.0 | | 27.1×4.85 | 4.00 | | | 4.60 | 3.90 | | 26.5×4.40 | 4.50 | 29.5×3.55 | | 4.35 | 4.45 | | |
| 30.0 | | | 3.65 | | | 4.20 | 3.55 | | | 4.10 | 3.45 | | 29.4×3.75 | 4.05 | 31.2×3.20 | |
| 32.0 | | | 3.35 | | | | 3.30 | | | 3.80 | 3.20 | | | 3.75 | 3.10 | |
| 34.0 | | | 33.3×3.20 | 34.3×2.60 | | | 3.05 | | | 32.9×6.35 | 2.95 | | | 3.45 | 2.85 | |
| 36.0 | | | | 2.40 | | | 2.80 | 36.4×2.30 | | | 2.70 | | | 35.8×3.25 | 2.65 | |
| 38.0 | | | | 2.25 | | | 36.2×2.75 | 2.15 | | | 2.55 | 38.6×2.00 | | | 2.45 | |
| 40.0 | | | | 39.0×2.15 | | | | 2.00 | | | 38.1×2.45 | 1.90 | | | 2.30 | 40.7×1.75 |
| 42.0 | | | | | | | | 41.9×1.90 | | | | 1.75 | | | 2.15 | 1.65 |
| 44.0 | | | | | | | | | | | | 1.60 | | | | 1.50 |
| 46.0 | | | | | | | | | | | | 44.8×1.55 | | | | 1.40 |
| 47.7 | | | | | | | | | | | | | | | | 1.30 |

| Working radius (m) | Jib length (m) | | |
|--------------------|----------------|-----------|-----------|
| | 90° | 80° | 70° |
| 11.8 | 8.50 | | |
| 12.0 | 8.50 | | |
| 14.0 | 8.50 | | |
| 16.0 | 8.15 | | |
| 18.0 | 7.40 | | |
| 20.0 | 6.75 | | |
| 22.0 | 6.20 | 22.1×5.30 | |
| 24.0 | 5.70 | 5.30 | |
| 26.0 | 4.90 | 4.80 | |
| 28.0 | 4.20 | 4.35 | |
| 30.0 | 3.70 | 3.95 | |
| 32.0 | 3.25 | 3.65 | 32.9×2.90 |
| 34.0 | 32.3×3.20 | 3.35 | 2.75 |
| 36.0 | | 3.10 | 2.55 |
| 38.0 | | 2.90 | 2.35 |
| 40.0 | | 38.7×2.85 | 2.20 |
| 42.0 | | | 2.05 |
| 44.0 | | | 1.90 |
| 44.9 | | | 1.85 |

For notes, refer to those on the 25 m tower

Working Ranges



Working ranges are shown for unloading.

40 m Tower (2-Rope Reeving)

Rated Loads for Tower Crane

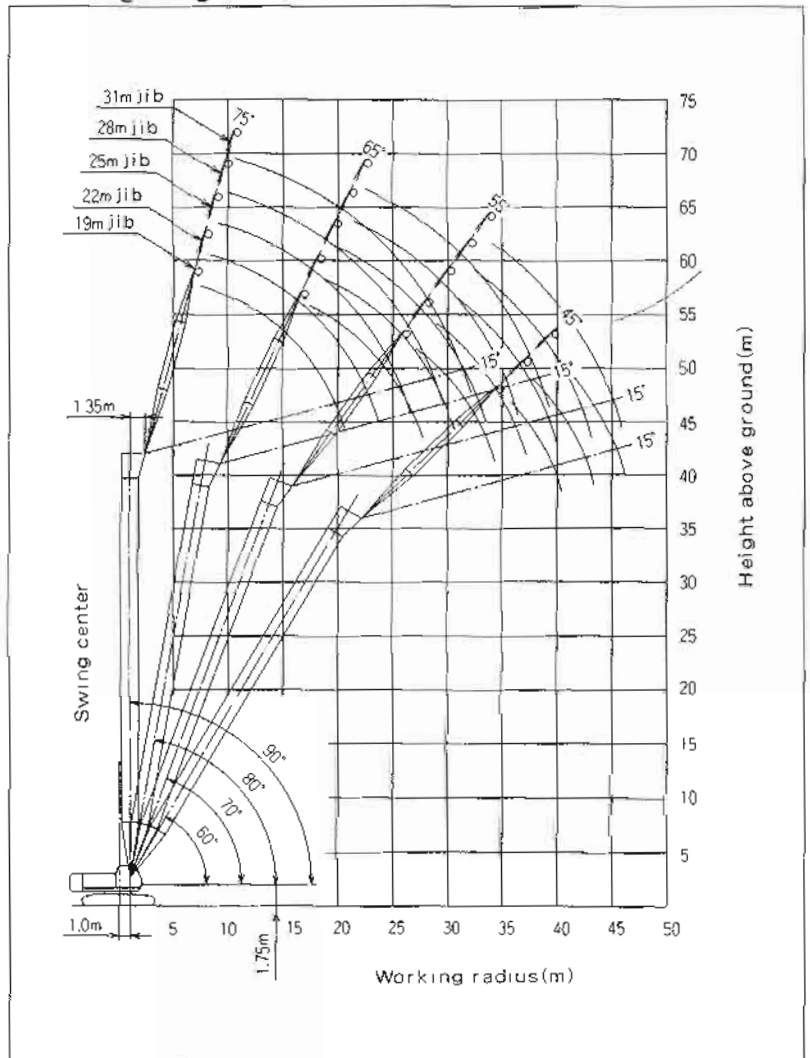
Unit t

| Working radius (m) | Jib length (m) | | | | | | | | | | | | | | |
|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|------------|-----------|-----------|
| | 19m | | | | 22m | | | | 25m | | | | 28m | | |
| | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° | 90° | 80° | 70° | 60° | 90° | 80° | 70° |
| 8.6 | 13.00 | | | | | | | | | | | | | | |
| 9.0 | 13.00 | | | | 9.4×13.00 | | | | | | | | | | |
| 10.0 | 13.00 | | | | 13.00 | | | | 10.2×12.25 | | | | 11.0×10.35 | | |
| 12.0 | 12.85 | | | | 12.35 | | | | 11.85 | | | | 10.35 | | |
| 14.0 | 11.60 | | | | 11.20 | | | | 10.75 | | | | 10.35 | | |
| 16.0 | 10.05 | 17.6×8.05 | | | 10.00 | | | | 9.85 | | | | 9.50 | | |
| 18.0 | 8.65 | 7.85 | | | 8.80 | 18.8×7.35 | | | 8.70 | | | | 8.65 | | |
| 20.0 | 6.85 | 6.90 | | | 7.60 | 6.80 | | | 7.65 | 20.1×6.70 | | | 7.60 | 21.4×6.10 | |
| 22.0 | 20.7×6.25 | 6.15 | | | 6.25 | 6.05 | | | 6.70 | 5.95 | | | 6.75 | 5.90 | |
| 24.0 | | 5.50 | | | 23.6×5.20 | 5.45 | | | 5.65 | 5.35 | | | 5.95 | 5.30 | |
| 26.0 | | 5.00 | 27.1×3.95 | | | 4.95 | | | 4.65 | 4.85 | | | 5.10 | 4.80 | |
| 28.0 | | 27.6×4.65 | 3.80 | | | 4.50 | 28.8×3.60 | | 26.5×4.40 | 4.40 | | | 4.35 | 4.35 | |
| 30.0 | | | 3.50 | | | 4.10 | 3.40 | | | 4.05 | 30.5×3.25 | | 29.4×3.75 | 4.00 | |
| 32.0 | | | 3.20 | | | 30.5×4.05 | 3.15 | | | 3.70 | 3.05 | | | 3.65 | 32.2×2.95 |
| 34.0 | | | 2.95 | 35.8×2.25 | | | 2.90 | | | 33.4×3.50 | 2.80 | | | 3.40 | 2.70 |
| 36.0 | | | 34.3×2.90 | 2.20 | | | 2.70 | 37.9×1.95 | | | 2.60 | | | 3.15 | 2.50 |
| 38.0 | | | | 2.05 | | | 37.2×2.55 | 1.95 | | | 2.40 | | | 36.3×3.10 | 2.35 |
| 40.0 | | | | 1.90 | | | | 1.80 | | | 2.25 | 40.1×1.80 | | | 2.15 |
| 42.0 | | | | 40.5×1.85 | | | | 1.65 | | | 40.1×2.20 | 1.50 | | | 2.00 |
| 44.0 | | | | | | | | 43.4×1.55 | | | | 1.40 | | | 43.0×1.95 |
| 46.0 | | | | | | | | | | | | 1.30 | | | |
| 46.3 | | | | | | | | | | | | 1.25 | | | |

| Working radius (m) | Jib length (m) | | |
|--------------------|----------------|-----------|------|
| | 90° | 80° | 70° |
| 11.9 | 8.40 | | |
| 12.0 | 8.40 | | |
| 14.0 | 8.40 | | |
| 16.0 | 8.15 | | |
| 18.0 | 7.40 | | |
| 20.0 | 6.75 | | |
| 22.0 | 6.20 | 22.6×5.25 | |
| 24.0 | 5.65 | 5.20 | |
| 26.0 | 4.85 | 4.70 | |
| 28.0 | 4.15 | 4.25 | |
| 30.0 | 3.60 | 3.90 | |
| 32.0 | 3.20 | 3.55 | |
| 34.0 | 32.3×3.10 | 3.30 | 2.60 |
| 36.0 | | 3.05 | 2.40 |
| 38.0 | | 2.85 | 2.25 |
| 40.0 | | 39.2×2.70 | 2.05 |
| 42.0 | | | 1.90 |
| 44.0 | | | 1.80 |
| 45.9 | | | 1.70 |

For notes, refer to those on the 25 m tower.

Working Ranges



Working ranges are shown for unloading

43 m Tower (2-Rope Reeving)

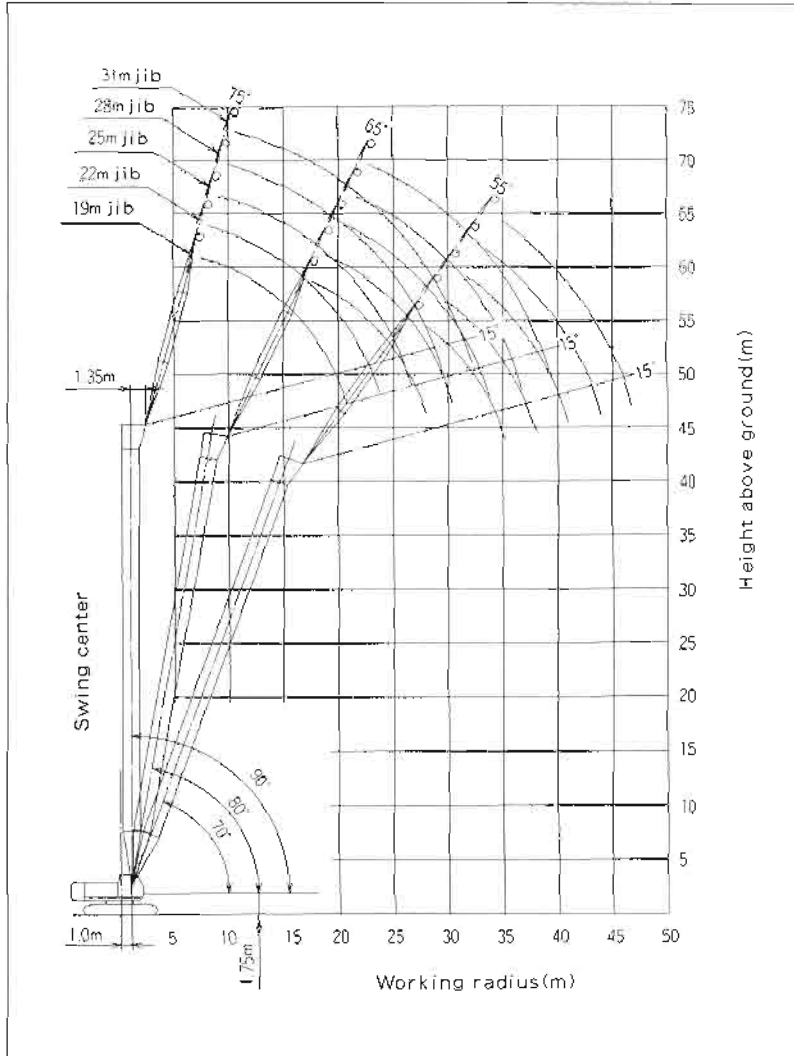
Rated Loads for Tower Crane

Unit t

| Working radius (m) | Jib length (m) | | | | | | | | | | | | | | |
|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 19m | | | 22m | | | 25m | | | 28m | | | 31m | | |
| | 90° | 80° | 70° | 90° | 80° | 70° | 90° | 80° | 70° | 90° | 80° | 70° | 90° | 80° | 70° |
| 8.6 | 13.00 | | | | | | | | | | | | | | |
| 9.0 | 13.00 | | | 9.4×11.95 | | | | | | | | | | | |
| 10.0 | 13.00 | | | 11.95 | | | 10.3×10.75 | | | 11.1×9.85 | | | | 11.9×8.35 | |
| 12.0 | 12.40 | | | 11.80 | | | 10.75 | | | 9.65 | | | | 8.35 | |
| 14.0 | 11.30 | | | 10.85 | | | 10.40 | | | 9.60 | | | | 8.35 | |
| 16.0 | 10.05 | | | 9.95 | | | 9.60 | | | 9.15 | | | | 8.15 | |
| 18.0 | 8.65 | 18.1×7.65 | | 8.75 | 19.4×6.95 | | 8.70 | | | 8.55 | | | | 7.40 | |
| 20.0 | 6.85 | 6.75 | | 7.60 | 6.70 | | 7.65 | 20.6×6.35 | | 7.60 | 21.9×5.80 | | | 6.75 | |
| 22.0 | 20.7×6.25 | 6.05 | | 6.25 | 5.95 | | 6.70 | 5.85 | | 6.75 | 5.80 | | | 6.20 | 23.2×5.25 |
| 24.0 | | 5.40 | | 23.6×5.20 | 5.35 | | 5.65 | 5.25 | | 5.95 | 5.20 | | | 5.60 | 5.10 |
| 26.0 | | 4.90 | | | 4.85 | | 4.65 | 4.75 | | 5.10 | 4.70 | | | 4.80 | 4.60 |
| 28.0 | | 4.50 | 28.1×3.65 | | 4.40 | 29.8×3.30 | 26.5×4.40 | 4.30 | | 4.35 | 4.25 | | | 4.15 | 4.15 |
| 30.0 | | 28.2×4.45 | 3.35 | | 4.05 | 3.25 | | 3.95 | 31.6×2.95 | 29.4×3.75 | 3.90 | | | 3.65 | 3.80 |
| 32.0 | | | 3.05 | | 31.1×3.85 | 3.00 | | 3.65 | 2.90 | | 3.60 | 33.3×2.65 | 3.10 | 3.50 | |
| 34.0 | | | 2.85 | | | 2.75 | | 3.35 | 2.65 | | 3.30 | 2.60 | 32.3×3.05 | 3.20 | 35.0×2.35 |
| 36.0 | | | 35.3×2.70 | | | 2.55 | | | 2.45 | | 3.05 | 2.40 | | 3.00 | 2.30 |
| 38.0 | | | | | | 2.35 | | | 2.25 | | 36.9×2.95 | 2.20 | | 2.75 | 2.10 |
| 40.0 | | | | | | 38.2×2.30 | | | 2.10 | | | 2.05 | | 39.7×2.80 | 1.90 |
| 42.0 | | | | | | | | | 41.1×2.05 | | | 1.90 | | | 1.75 |
| 44.0 | | | | | | | | | | | | 1.75 | | | 1.65 |
| 46.0 | | | | | | | | | | | | | | | 1.50 |
| 46.9 | | | | | | | | | | | | | | | 1.45 |

For notes, refer to those on the 25 m tower

Working Ranges



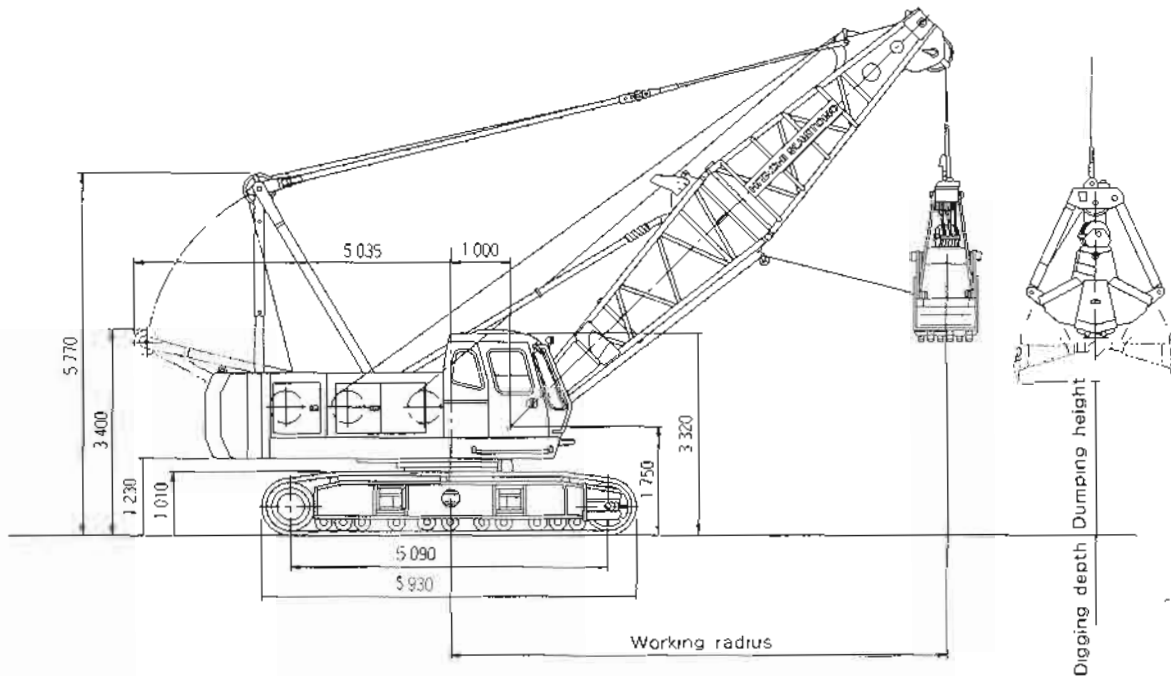
Working ranges are shown for unloading

■ Component Weights and Dimensions for Transport

| Components | | Weight (t) | Qty | Length × Width × Height (m) | | | Remarks |
|---------------|---------------------------|------------|------|-----------------------------|------|------|---|
| Basic machine | Basic machine | 36.8 | 1 | 7.98 | 3.20 | 3.40 | Including gantry, ropes and side frames. Excluding counterweight |
| | Basic machine | 22.4 | 1 | 6.96 | 3.20 | 3.02 | Including gantry and ropes. Excluding side frames and counterweight |
| | Side frame | 7.2 | 2 | 5.93 | 0.92 | 1.01 | |
| | Gantry | 1.2 | 1 | 3.17 | 1.33 | 0.62 | |
| | Aux. counterweight | 0.6 | 2 | 0.69 | 0.29 | 0.67 | |
| | Counterweight | 7.4 | 1 | 3.20 | 0.62 | 1.37 | Inner |
| | Counterweight | 7.9 | 1 | 3.20 | 0.73 | 1.37 | Center |
| | Counterweight | 8.5 | 1 | 3.20 | 0.71 | 1.48 | Outer |
| Tower front | Lower boom | 0.92 | 1 | 5.16 | 1.63 | 1.72 | |
| | 1.5 m tower insert, Lower | 0.45 | 1 | 1.62 | 1.53 | 1.98 | |
| | 1.5 m tower insert, Upper | 0.28 | 1 | 1.62 | 1.51 | 1.52 | |
| | 3 m boom insert | 0.44 | 1 | 3.12 | 1.53 | 1.61 | |
| | 6 m boom insert | 0.73 | 1 | 6.12 | 1.53 | 1.61 | |
| | 9 m boom insert | 0.99 | 1 | 9.12 | 1.53 | 1.61 | |
| | 9 m (B) boom insert | 1.00 | 1 | 9.12 | 1.53 | 1.62 | |
| | Upper tower | 0.69 | 1 | 2.77 | 1.52 | 2.38 | Guide roller excluded |
| | Swing levers | 0.66 | 1 | 4.68 | 1.56 | 0.79 | 3 levers included |
| | Tower stop, right | 0.33 | 1 | 5.68 | 0.23 | 0.32 | |
| | Tower stop, left | 0.33 | 1 | 5.68 | 0.20 | 0.41 | |
| | Jib boom, Lower | 0.48 | 1 | 6.92 | 1.50 | 0.98 | Jib stop included |
| | 3 m tower jib insert | 0.15 | 1 | 3.08 | 1.25 | 1.09 | |
| | 6 m tower jib insert | 0.26 | 1 | 6.08 | 1.25 | 1.09 | |
| | Jib boom, Upper | 0.43 | 1 | 6.98 | 1.23 | 1.07 | |
| | Guide roller | 0.09 | 1 | 2.82 | 0.79 | 0.28 | |
| | Hanger (Tower jib) | 0.23 | 1 | 1.44 | 0.80 | 0.70 | |
| | Bridle (Tower jib) | 0.19 | 1 | 0.99 | 0.68 | 0.62 | |
| | Bridle (Tower boom) | 0.28 | 1 | 1.72 | 0.69 | 0.28 | |
| | 15 t hook | 0.36 | 1 | 1.36 | 0.62 | 0.31 | |
| 6.5 t hook | 0.18 | 1 | 0.84 | 0.30 | 0.30 | | |

■Dimensions

Unit: mm



■Specifications

| | | |
|----------------------------------|----------------------------|---|
| Bucket capacity | m ³ | 0.8/1.0/1.2 |
| Allowable clamshell gross weight | t | 6.0 |
| Boom length | m | 9 to 18 |
| Max. digging depth | m | 36 |
| Suspend line speeds | m/min | *74/37 |
| Open/close line speeds | m/min | *74/37 |
| Boom hoist/ lower line speed | m/min | *60 |
| Travel speeds | km/h | 1.5/11 |
| Ground pressure | kPa (kgf/cm ²) | 79.4 (0.81) |
| Operating weight | t | 66.7 (9 m boom + 1.2 m ³ bucket) |

■Clamshell Buckets

| Capacity (m ³) | Weight (t) | Use |
|----------------------------|------------|-------------------------|
| 0.8 | 2.00 | Excavation |
| 1.0 | 2.45 | Excavation |
| 1.2 | 2.40 | Excavation (light-duty) |

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

■Working Ranges

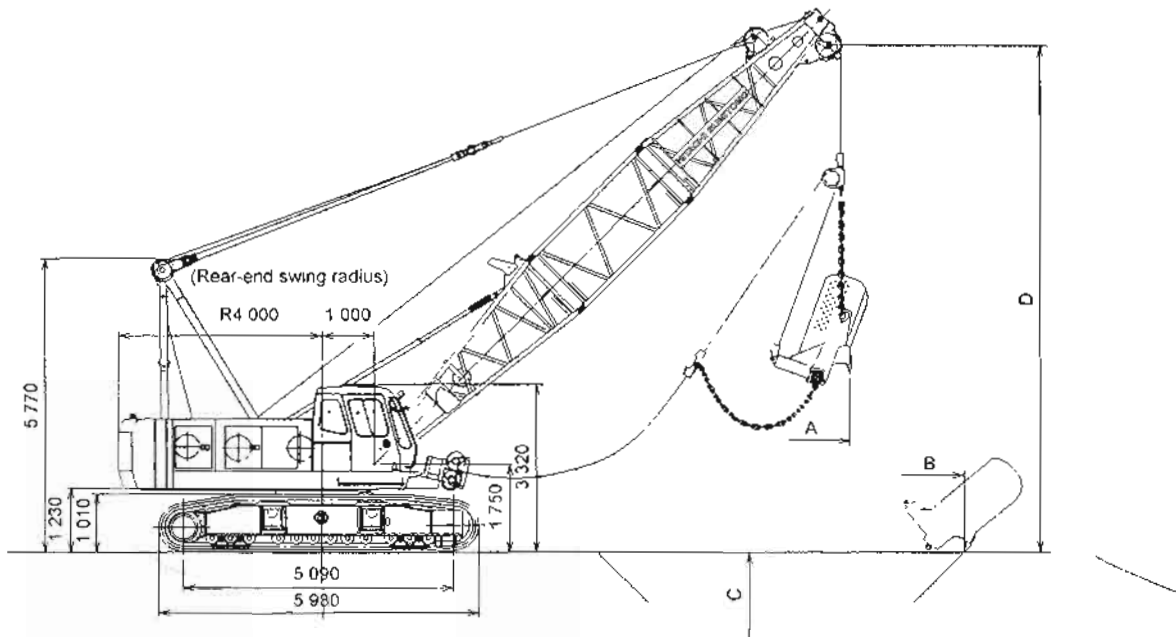
| Boom length | m | 9 | | | | 12 | | | | 15 | | | | 18 | | | |
|---------------------------|--------|-----|-----|-----|-----|------|------|-----|-----|------|------|------|------|------|------|------|------|
| | | 35 | 45 | 55 | 65 | 35 | 45 | 55 | 65 | 35 | 45 | 55 | 65 | 35 | 45 | 55 | 65 |
| Boom angle | degree | 35 | 45 | 55 | 65 | 35 | 45 | 55 | 65 | 35 | 45 | 55 | 65 | 35 | 45 | 55 | 65 |
| Working radius | m | 8.8 | 7.9 | 6.7 | 5.4 | 11.3 | 10.0 | 8.4 | 6.7 | 13.7 | 12.1 | 10.2 | 7.9 | 16.2 | 14.2 | 11.9 | 9.2 |
| Rated load | 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 |
| Bucket dumping height | m | | | | | | | | | | | | | | | | |
| 0.8 m ³ bucket | | 1.5 | 2.7 | 3.8 | 4.6 | 3.2 | 4.9 | 6.3 | 7.3 | 4.9 | 7.0 | 8.7 | 10.0 | 6.6 | 9.1 | 11.2 | 12.8 |
| 1.0 m ³ bucket | | 1.3 | 2.5 | 3.6 | 4.4 | 3.0 | 4.7 | 6.1 | 7.1 | 4.7 | 6.8 | 8.5 | 9.8 | 6.5 | 8.9 | 11.0 | 12.6 |
| 1.2 m ³ bucket | 1.1 | 2.3 | 3.4 | 4.2 | 2.8 | 4.5 | 5.9 | 6.9 | 4.5 | 6.6 | 8.3 | 9.6 | 6.2 | 8.7 | 10.8 | 12.4 | |

- Notes: 1. Rated loads for clamshell do not exceed 90% those for crane.
 2. 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.

$$\text{Rated load} = \text{Bucket capacity (m}^3\text{)} \times \text{Specific gravity of load (t/m}^3\text{)} + \text{Bucket weight (t)}$$
 Be careful that brake will be overheated if the bucket is too heavy even within the rated loads.
 3. Working radius is the horizontal distance from the swing center to the center of gravity of lifted load.
 4. The bucket weight is 2.45 t. (Max)
 5. The counterweight is 23.8 t.
 6. Be sure to fully extend the side frames before operating the machine.
 7. Free fall using brake will vary with operating conditions such as bucket weight and work cycle, but its height should be within 10 m.

■ Dimensions

Unit: mm



■ Specifications

| | | |
|--------------------------------------|-------------------------------|---|
| Bucket capacity | m ³ | 1 15/1 7 |
| Max. bare line pull (1st drum layer) | t | 15.6 |
| Boom length | m | 12 to 24 |
| Suspend line speeds | m/min | *74/37 Rope 22 mm dia. |
| Drag line speeds | m/min | *74/37 Rope 22 mm dia. |
| Boom hoist/lower line speed | m/min | *60 Rope 16 mm dia. |
| Travel speeds | km/h | *1 5/1 1 |
| Swing seeds | min ⁻¹ (rpm) | 3.0 (3.0) |
| Ground pressure | kPa (kgf/cm ²) | 79.4 (0 81) |
| Operating weight | t | 67.1 (12 m boom + 1.15 m ³ bucket) |
| Engine | kW/min ⁻¹ (PS/rpm) | BB-6HK1T/ Isuzu 136/2 000 (185/2 000) |

■ Dragline Buckets (Reference data)

| Capacity (m ³) | Weight (t) | Use |
|----------------------------|------------|----------------|
| 1.15 | 1.28 | Heavy duty |
| 1.7 | 1.68 | Medium service |

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

■ Specifications

| Boom length | m | 12 | | | 15 | | | 18 | | | 21 | | | 24 | | |
|----------------------|---|-------|-------|-------|-------|-------|-------|------|------|-------|------|------|------|------|------|------|
| | | 30 | 40 | 50 | 30 | 30 | 40 | 30 | 40 | 50 | 30 | 40 | 50 | 30 | 40 | 50 |
| A Working radius | m | 12.1 | 10.9 | 9.4 | 14.7 | 13.2 | 11.3 | 17.3 | 15.5 | 13.3 | 19.9 | 17.8 | 15.2 | 22.5 | 20.1 | 17.1 |
| Rated load | t | 13.84 | 15.82 | 18.29 | 10.24 | 12.08 | 14.85 | 8.16 | 9.74 | 11.91 | 6.62 | 7.98 | 9.87 | 5.70 | 6.66 | 8.36 |
| B Max. digging reach | m | 15.3 | 14.9 | 14.1 | 18.6 | 18.1 | 17.1 | 21.9 | 21.2 | 20.0 | 25.1 | 24.4 | 23.0 | 28.4 | 27.6 | 26.0 |
| C Max. digging depth | m | 7.5 | 7.2 | 6.6 | 10.0 | 9.6 | 8.8 | 12.4 | 12.0 | 11.1 | 14.9 | 14.3 | 13.3 | 17.3 | 16.7 | 15.5 |
| D Boom point height | m | 7.2 | 9.0 | 10.5 | 8.7 | 10.9 | 12.8 | 10.2 | 12.8 | 15.1 | 11.7 | 14.7 | 17.4 | 13.2 | 16.7 | 19.7 |

Notes: 1 The size of the bucket has to be determined according to local conditions.
 2 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 above, according to kinds of the loads handled
 Rated load = Bucket capacity (m³) × Specific gravity of load (t/m³) + Bucket weight (t)
 Be careful that brake will be overheated if the bucket is too heavy even within the rated loads.
 3 Working radius is the horizontal distance from the swing center to the center of gravity of lifted load
 4 Maximum digging reach/depth may vary considerable depending on digging condition and the skill of the operator
 5 The counterweight is 23 8 t
 6 Be sure to fully extend the side frames before operating the machine

■ STANDARD EQUIPMENT

BASIC MACHINE

Undercarriage

- Crawler-type undercarriage (with 760 mm shoes)
- Side frame extend cylinder (1 pc)

Superstructure

- Front lights (2 pcs)
- Rearview mirrors (left and right)
- Hoist drum check mirror
- Centralized lubrication system (for gantry and swing circle)
- Electric refuel device
- Under-cover (at superstructure bottom)
- Cab climbing steps
- Ultra slow speed controller
- Drum rotation sensing system
- 23.8 t counterweight
- Standard tool kit

Cab

- Intermittent-wipers (front and roof window)
- Washers (front and roof windows)
- Rolled sunshade (roof windows)
- Sunvisor
- Floor mat
- Room light
- Auto-tuning clock radio (AM/FM)
- Cigarette lighter
- Ashtray
- Brake mode selector switch (interlocked)
- Work mode selector (interlocked)
- Electric tilt-type stand

Safety Devices

- Swing lock
- Drum pawl lock (main and auxiliary hoist, and boom hoist)
- Swing alarm
- Fail safe brake system
- Pilot control shut-off lever
- Before-work check monitor

FRONT ATTACHMENTS

Crane

- 9 m basic boom (lower 5 m, upper 4 m)
- Boom stop
- Boom angle indicator
- 70 t hook
- Main hoist rope ($\phi 22$ mm \times 215 m)
- Boom hoist rope ($\phi 22$ mm \times 135 m)
- Moment limiter
- Overhoist prevention devices (main hook, boom hoist, secondary)

Full-Luffing Tower Crane

- 43 m tower boom (lower: 5 m, 1.5 m \times 2, 3 m \times 1, 6 m \times 2, 9 m \times 2, upper: 2 m)
- 31 m tower jib (lower: 6.5 m, 3 m \times 2, 6 m \times 2, upper: 6.5 m)
- Tower stop
- Tower boom angle indicator
- 15 t hook
- Main hoist rope ($\phi 22$ mm \times 235 m)
- Tower jib hoist rope (22 mm \times 145 m)
- Tower hoist rope ($\phi 16$ mm \times 135 m)
- Moment limiter
- Overhoist prevention devices (hook, tower, tower jib and secondary)
- Blocks for assembling 31 m or higher tower

Clamshell

- 9 m basic boom (lower 5 m, upper 4 m)
- Boom stop
- Boom angle indicator
- Open/close and suspend rope disengagement prevention device (for tubular chord boom)
- Open/close rope ($\phi 22$ mm \times 67 m)*
- Suspend rope ($\phi 22$ mm \times 60 m)*
- Hydraulic tagline (with $\phi 10$ mm \times 45 m rope) and boom hoist rope ($\phi 16$ mm \times 135 m)

* Open/close and suspend ropes are determined based on 18 m boom length and 12 m digging depth

Lifting Magnet

- 9 m basic boom [Lower 5 m, upper 4 m wide-angle sheave (with 2 boom-point sheaves)]
- Boom stop
- Boom angle indicator
- 70 t hook (with hook lock)
- Hoist rope ($\phi 22$ mm \times 215 m)
- Boom hoist rope ($\phi 16$ mm \times 135 m)
- Hoist rope disengagement prevention device
- Hydraulic tagline (with $\phi 10$ mm \times 45 m rope)
- Moment limiter
- Overhoist prevention device (hook, boom hoist, secondary)

Dragline

- 12 m boom (Lower 5 m, insert 3 m, upper 4 m and wide-angle sheave)
- Boom stop
- Boom angle indicator
- Hoist rope ($\phi 22$ mm \times 50 m)
- Drag rope ($\phi 22$ mm \times 60 m)
- Boom hoist rope ($\phi 16$ mm \times 135 m)
- Fair-lead
- Overhoist prevention device (Boom hoist and secondary)

■ Standard and Optional Equipment

○: Standard equipment ●: Optional equipment —: Not recommended

| | CRAWLWER CRANE | FULL-LUFFING TOWER CRANE | CLAMSHELL | LIFTING MAGNET | DRAGLINE |
|--|----------------|--------------------------|-----------|----------------|----------|
| Superstructure | | | | | |
| 3rd drum (free fall type, excluding rope) | ● | — | — | — | — |
| 3rd drum rope ($\phi 20$ mm \times 200 m) | ● | — | — | — | — |
| Drum cooler (for aux. drum) | — | — | ● | ● | — |
| Side walk (folded type) | ● | ● | ● | ● | ● |
| Side walk (fixed type with handrails) | ● | ● | ● | ● | ● |
| Fuel double element | ● | ● | ● | ● | ● |
| Engine air cleaner double element | ● | ● | ● | ● | ● |
| Cab | | | | | |
| AM/FM radio | ○ | ○ | ○ | ○ | ○ |
| Fan | ● | ● | ● | ● | ● |
| Loudspeaker | ● | ● | ● | ● | ● |
| Heater | ● | ● | ● | ● | ● |
| Air conditioner | ● | ● | ● | ● | ● |
| Safety devices | | | | | |
| Foam type level (in cab) | ● | ● | ● | ● | ● |
| Bucket overhoist prevention device | — | — | ● | — | — |
| Front attachments for crane and tower crane | | | | | |
| 70 t hook (10-rope reevings) | ○ | ●*1 | — | ○*4 | — |
| 40 t hook (7-rope reevings) | — | — | — | ●*5 | — |
| 15 t hook (3-rope reevings) | ● | ○ | — | ●*5 | — |
| 6.5 t hook | ● | ● | — | — | — |
| 3 m boom insert | ● | ○ | ● | — | — |
| 6 m boom insert | ● | ○ | ● | — | — |
| 9 m boom insert | ● | ● | ● | — | — |
| 9 m (B) boom insert (for use with jib) | ● | ○ | — | — | — |
| 9 m jib assembly (9 m basic jib, aux. Jib hook overhoist prevention device, jib mast aux. jib rope ($\phi 22$ mm \times 135 m), 6.5 t hook) | ● | ●*2 | — | — | — |
| 3 m jib insert | ● | ●*2 | — | — | — |
| Aux. Jib assembly (aux. Jib, aux. Jib hook overhoist prevention device, aux. jib rope ($\phi 22$ mm \times 135 m), 6.5 t hook) | ● | ●*2 | — | — | — |
| Aux. Jib (aux. jib, aux. jib hook over hoist prevention device) | ● | ●*2,*3 | — | — | — |
| Crane kit (4 m upper boom, 70 t hook, boom stop, main hoist hook overhoist prevention device) | — | ● | — | — | — |
| Front attachment for other | | | | | |
| 0.8 m ³ clamshell bucket | — | — | ● | — | — |
| 1.0 m ³ clamshell bucket | — | — | ● | — | — |
| 1.2 m ³ clamshell bucket | — | — | ● | — | — |
| 1.2 m ³ clamshell bucket (light-service) | — | — | ● | — | — |
| Hydraulic tagline | ● | — | ○ | ○ | — |
| Open/close and suspend rope | — | — | ○ | — | — |
| 1.15 m ³ Dragline bucket | — | — | — | — | ● |
| Fair-lead | — | — | — | — | ○ |
| $\phi 1$ 800 mm lifting magnet assembly | — | — | — | ● | — |
| $\phi 1$ 500 mm lifting magnet assembly | — | — | — | ● | — |

Notes: *1 Included in crane kit.

*2. Designed for use with crane kit

*3. When purchased together with jib assembly, these component, excluding common parts such as hook and wire rope, are added

*4 With hook lock

*5 Wide-angle quenched sheave with hook lock



BT Equipment Pty Ltd
ABN 89 094 476 141

Specifications subject to change without notice

(1300 65 8888)

Website: www.btequipment.com.au

| | |
|-----------|---|
| BRISBANE | 10-14 Ashover Road, Rocklea. Qld 4106 |
| SYDNEY | 6 Ferngrove Place, South Granville. NSW 2142 |
| MELBOURNE | 80-86 Frankston-Dandenong Road, Dandenong. Vic 3175 |
| ADELAIDE | 908 Main North Road, Mawson Lakes. SA 5095 |
| PERTH | 50 Great Eastern Highway, South Guildford. WA 6055 |

| Phone | Fax |
|----------------|----------------|
| (07) 3373 6400 | (07) 3875 1680 |
| (02) 9780 7200 | (02) 9780 7290 |
| (03) 9554 0300 | (03) 9554 0398 |
| (08) 8262 8292 | (08) 8262 8320 |
| (08) 9478 0600 | (08) 9478 0688 |