



**KOBELCO**

**NEW RK SERIES**

## **ROUGH TERRAIN CRANE**

# **RK500**

## **SPECIFICATIONS**

Max. Lifting Capacity: **51 tons x 2.9 m**

Max. Boom Length: **39.0 m**



**KOBELCO CONSTRUCTION MACHINERY CO., LTD.**



# SPECIFICATIONS

## UPPER STRUCTURE



### SWING UNIT

A hydraulic piston motor drives the swing pinion through a deck-mounted planetary gear reducer for 360° continuous rotation.

Hydraulic flow into the swing motor is controlled by a manual valve in the swing circuit. The brake valve allows the operator to select free or automatic braking when the swing control lever is set in neutral.

**SWING PARKING BRAKE:** manual disc brake

**SWING GEAR:** Internal spur gear

**SLEWING RING:** Integral with the swing gear, with a single row of ball bearings.

**SWNG SPEED:** 2.4 min<sup>-1</sup>



### WINCHES

Mounted side by side, power hoisting and lowering with inching capability. Hydraulic motor drive, spur gear reduction, and counterbalance valve.

### BRAKES

Band type, with negative brake.

### DRUMS

**Main hoist:** 380 mm P.C.D. x 446 mm width

**Aux. hoist:** 380 mm P.C.D. x 446 mm width

### WIRE ROPES

|                   |                    |                                                                                      |
|-------------------|--------------------|--------------------------------------------------------------------------------------|
| <b>Main hoist</b> | 18 mm dia. x 220 m | IWRC 6 X Fi (29) c/o hard twist rope<br>4 x F (39) c/o anti twist rope (Europe area) |
| <b>Aux. hoist</b> | 18 mm dia. x 120 m | IWRC 6 X Ws (26) c/o hard twist rope<br>4 x F (39) c/o anti twist rope (Europe area) |

### LINE SPEED

**Main hoist:** 122 (high)/52 (low) m/min (at 4th layer)

**Aux. hoist:** 105 (high)/45 (low) m/min (at 2nd layer)

### BOOM HOIST

One-double acting hydraulic cylinder with holding valve.



### BOOM TELESCOPE

Full power telescoping by two hydraulic cylinders with holding valves and telescoping assistance cables for the boom tip section.

### CONTROLS

Four adjustable hand control levers for swing, main winch, auxiliary winch (with pedal), and boom hoist (with pedal). These can be tilted in three neutral positions and stored in their bases when not in use.

**Other controls include:** one short lever for swing parking brake; one lever for telescope; one lever for telescope change; one lever for transmission gear selection; swing lock pin; throttle control; and one travel brake pedal.



### OPERATOR'S CAB

All-weather, wide-view cab with safety glass, sliding door; roll-down window, and sashless roof window with wiper. Adjustable driver's seat with seat belt.

### SAFETY DEVICES (Standard)

|                                                      |                                         |
|------------------------------------------------------|-----------------------------------------|
| Moment limiter (auto-stop)                           | Multi-display                           |
| Swing range limit device                             | Working range limit device              |
| Swing automatic stop device                          | Overhoist prevention device (auto-stop) |
| Base machine inclination meter                       | Interceptive lever lock for on and off  |
| Outrigger extension width automatic detecting device | Auxiliary brake for operating           |
| Swing lock device                                    | Safety lock lever                       |
| Hydraulic safety valve                               | Sling wire lock                         |
| Boom telescoping default operation prevension device | Boom telescope safety device            |
| Boom hoist safety device                             | Check & Safety Monitor                  |
| Winch drum safety device                             | Swing alarm lamps                       |
| Outrigger safety device                              | Anti-slip seat                          |

## HYDRAULIC SYSTEM



### PUMPS

2 variable plunger pumps and 3 gear pumps

**1st pump :** Boom hoist, boom telescope, and winch assist

**2nd pump:** Outriggers, and winch system

**3rd pump :** Swing and steering

**4th pump :** Pilot circuits for the clutches and negative brake cylinders, air conditioner.

**5th pump :** Steering assist, power set jib

**MOTORS :** .. 3 plunger motors power the main hoist, the auxiliary hoist, and the swing.

### CONTROL VALVES

#### Upper

**One 5-stack valve :** Winch, boom telescope, and boom hoist

**One 4-stack valve :** Clutch and brake

**One 1-stack valve :** Swing

#### Lower

**Solenoid valves :** Outriggers and suspension-lock system.

**One 2-stack valve :** Steering

**OIL RESERVOIR :** 575 liters



# RK500

## CARRIER



### TYPE

4-wheel drive (4WD), with 2-wheel drive (2WD) select for high speed mode.

**MAX. TRAVEL SPEED:** 49 km/h or 45 km/h

**GRADEABILITY:** tan  $\theta$  0.6 (31°)

**PASSENGER:** 1 person



### OUTRIGGERS

**Type:** Hydraulic H-type outriggers.

**Control:** Eight double-acting hydraulic cylinders provide independent horizontal and vertical movement for each outrigger. Outriggers can be set from inside the cab or at the side of the carrier.

|                     |      |      |      |      |       |
|---------------------|------|------|------|------|-------|
| Outrigger extension | 7.4m | 6.8m | 5.4m | 4.1m | 2.55m |
|---------------------|------|------|------|------|-------|



### ENGINE

MITSUBISHI 6D24-TCE2/6D24-TCUA (Europe), intercooled, turbocharged, water-cooled diesel engine with 4 cycles, 6 cylinders, and direct injection.

|             |                                                                                            |
|-------------|--------------------------------------------------------------------------------------------|
| Max. output | 257 kW at 2,200 min <sup>-1</sup><br>242 kW at 2,000 min <sup>-1</sup> (Europe area)       |
| Max. torque | 1,323 N·m at 1,500 min <sup>-1</sup><br>1,255 N·m at 1,400 min <sup>-1</sup> (Europe area) |

Displacement ..... 11,945 cc

### ELECTRICAL SYSTEM

24-volt DC system with two 12-volt batteries

### FUEL TANK

Capacity ..... 300 liters

### TORQUE CONVERTER

3 element, single-stage, 2 phases, torque converter with fully automatically controlled lock-up clutch.

### TRANSMISSION

3-speed for forward and 1-speed for reverse with high-low shift.

### BRAKES

**Service:** Hydraulic and air booster disc brakes on all wheels.

**Auxiliary:** Torque converter lock-up linked electronic control exhaust brake, with fluid-type retarder.

**Parking:** Propel shaft brake internal expansion type with auxiliary brake for crane operation.



### STEERING

Hydraulic power steering system with emergency steering device and about-face steering compensation device.

**Steering modes:**

|                    |                 |
|--------------------|-----------------|
| Normal: 2W (front) | Rear: 2W (rear) |
| Cramp: 4W          | Crab: 4W        |

### SUSPENSION

Fully automaticsteering, front and rear axles are fitted with hydro-pneumatic suspension with suspension-lock system.

### FRONT/REAR AXLES

Fully floating drive-steer type axles.



### AXLE LOADING

|                      |           |
|----------------------|-----------|
| Gross-Vehicle Weight | 38,495 kg |
| Front-Vehicle Weight | 19,245 kg |
| Rear-Vehicle Weight  | 19,250 kg |

### TIRES

Front/Rear: 505/95 R25 183E ROAD

### LIGHTS

|                 |                     |
|-----------------|---------------------|
| Headlights      | License plate light |
| Clearance light | Directional lights  |
| Parking lights  | Back light          |

### SAFETY DEVICES

|                               |
|-------------------------------|
| Emergency steering device     |
| Rear steering auto-lock       |
| Suspension lock device        |
| Engine overrun warning buzzer |
| Check & Safety Monitor        |
| Boom mirror                   |
| Reverse travel buzzer         |

## ATTACHMENTS



### BOOM

Boom consists of a boom base and four power telescoping sections. The first sections extended separately as do the 2nd and section 3rd, 4th and 5th sections synchronized.

All-welded, high tensile strength steel box construction.

**Max. rated lifting capacity:** 51.0 metric ton x 2.9 m

**Fully retracted length** ..... 10.2 m

**Fully extended length** ..... 39.0 m

**Boom raising angle:** 0° to 82.5°

**Boom raising time:** 60.0 sec

**Boom telescoping time:** 120 sec / 28.8 m



### JIB

Compressed truss, 2-step drawing up type jib extendable to stored alongside boom. Jib swing down under the boom and set out. Jib offsets 5°, 17°, and 30° with suspension rods.

**Jib length** ..... 9.0 m/15.0 m

### AUXILIARY SHEAVE

The auxiliary sheave permits one-part line operation.



### HOOK BLOCK

5-sheave, 50 metric ton block (double-sheave 25 metric ton block), with safety latch for main hoist, 4.5 metric ton hook with swivel and safety latch for aux. hoist.



# LIFTING CAPACITIES

## NOTES:

### OPERATION WITH OUTRIGGERS

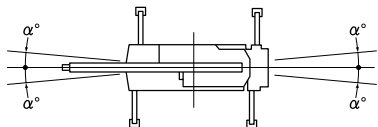
- 1. Rated load do not exceed 78% of the tipping loads with machine set horizontally on a firm and level ground, satisfy the specified stability over the front, and include weight of hook block(s) and other handling accessories. Ratings shown in ☐ are based on the machine's structural strength, and others are determined by the machine's stability.
- 2. The working radius given in the charts allow for loaded boom deflection. Always operate the machine on the basis of actual operating radius.
- 3. Weight of hooks, hook blocks, slings and other lifting devices are a part of the total load. Their total weight must be subtracted load to obtain the weight that can be lifted.

| Hooks  | 51-ton | 25-ton | 4.5-ton |
|--------|--------|--------|---------|
| Weight | 400 kg | 300 kg | 90 kg   |

- 4. Maximum outrigger extension is 7.4 m. Three intermediate extension positions are also provided at 6.8 m, 5.4 m and 4.1 m. Minimum outrigger extension is 2.55 m.

Over-the-front area

Over-the-rear area



| Outrigger extension | 6.8m | 5.4m | 4.1m | Min. outrigger extension |
|---------------------|------|------|------|--------------------------|
| $\alpha^\circ$      | 33°  | 28°  | 20°  | 5°                       |

- 5. Rated load in the over-the-side whole around various depending on the extension position of outriggers. Therefore, crane operation must be performed based on the rating chart corresponding to each extended outrigger position.
- 6. 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.
- 7. Ratings of the auxiliary sheave are the same as main boom ratings, but should not exceed 4,500 kg. Ratings of the auxiliary sheave are calculated by deducting 51-ton hook weight (400 kg) or 25-ton hook weight (300 kg) from main boom ratings.
- 8. Jib operation must be based on the main boom angle.
- 9. Ratings of the boom with extended jib are calculated by deducting 1,800 kg at 9.0m jib or 2,100 kg at 15.0m jib besides the weight of 25-ton hook block and the sling wire from rated loads. At this time, do not use the auxiliary sheave.
- 10. In such a condition not shown in the rating chart, operation is impossible. Lowering the boom over critical degrees leads to overturn even with no load. Be careful extremely.
- 11. Standard hoist reevings are shown bellow. Rated single-line pull must not exceed 4,500 kg.

| Boom length    | 10.2m  | 17.4m | 24.6m  | 31.8m | 39.0m | Jib aux. sheave |
|----------------|--------|-------|--------|-------|-------|-----------------|
| Hook           | 51-ton |       | 25-ton |       |       | 4.5-ton         |
| No. of reeving | 12     | 6     | 5      | 4     | 4     | 1               |

- 12. In lifting load operation in an oblique direction (direction toward the outrigger), sometimes the outrigger float in the diagonal side against the lifted load may be raised depending on a condition. This is caused by torsional rigidity and deflection of the carrier frame, and stability is not lost. The stability of this machine in operation within the rating is secured in the condition that the machine is set horizontally on a level and firm ground.

### OPERATION WITHOUT OUTRIGGERS (ON TIRES)

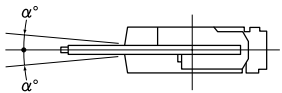
- 1. Rated load do not exceed 78% of the tipping loads with machine set horizontally on a firm and level ground, satisfy the specified stability over the front, and include weight of hook block(s) and other handling accessories. Ratings shown in ☐ are based on the machine's structural strength, and others are determined by the machine's stability. Tire specified air pressure is set to 800kPa (8.0 kgf/cm<sup>2</sup>)
- 2. The working radius given in the charts allow for loaded boom deflection. Always operate the machine on the basis of actual operating radius.
- 3. Weight of hooks, hook blocks, slings and other lifting devices are a part of the total load. Their total weight must be subtracted load to obtain the weight that can be lifted.

| Hooks  | 51-ton | 25-ton | 4.5-ton |
|--------|--------|--------|---------|
| Weight | 400 kg | 300 kg | 90 kg   |

\*Tire specified air pressure: 800kPa (8.0 kgf/cm<sup>2</sup>)

- 4. Load ratings differ for over-the-front and over-the-side operation. Care must e taken to avoid overload when swinging a load from an over-the-front position to an over-the-side position.

Over-the-front area



| On tires               | Stationery | Pick & carry |
|------------------------|------------|--------------|
| $\alpha^\circ$ (FRONT) | 1°         | 1°           |

- 5. Ratings of the auxiliary sheave are the same as main boom ratings, but should not exceed 4,500 kg. Ratings of the auxiliary sheave are calculated by deducting 51-ton hook weight (400 kg) or 25-ton hook weight (300 kg) from main boom ratings.
- 6. Parking brake and auxiliary operation brake must be applied during stationary load lifting.
- 7. Pick and carry operations must be done in the low travel mode.
- 8. During pick and carry operations, keep the load close to the ground to avoid swaying, and travel no faster than 2.0 km/h. Avoid cornering, sudden starts (acceleration), and sudden braking. Boom must be centered over the front area.
- 9. Do not operate the crane functions while carrying the load.
- 10. Standard hoist reevings are shown bellow. Single-line load must not exceed 4,500 kg.

| Boom length    | 10.2m  | 17.4m | 24.6m  | Jib aux. sheave |
|----------------|--------|-------|--------|-----------------|
| Hook           | 51-ton |       | 25-ton | 4.5-ton         |
| No. of reeving | 12     | 6     | 5      | 4               |



# BOOM LIFTING CAPACITIES

# RK500

Main Boom Lifting Capacities with Outriggers

Unit: metric ton

| MAIN                 | With outriggers in 7.4m position |       |       |       |      | With outriggers in 6.8m position |       |       |       |      | With outriggers in 5.4m position |       |       |       |      | With outriggers in 4.1m position |       |       |       |      |
|----------------------|----------------------------------|-------|-------|-------|------|----------------------------------|-------|-------|-------|------|----------------------------------|-------|-------|-------|------|----------------------------------|-------|-------|-------|------|
|                      | 360° swing area                  |       |       |       |      | Over the side                    |       |       |       |      | Over the side                    |       |       |       |      | Over the side                    |       |       |       |      |
|                      | Boom length in meters            |       |       |       |      | Boom length in meters            |       |       |       |      | Boom length in meters            |       |       |       |      | Boom length in meters            |       |       |       |      |
| Operating radius (m) | 10.2                             | 17.4  | 24.6  | 31.8  | 39.0 | 10.2                             | 17.4  | 24.6  | 31.8  | 39.0 | 10.2                             | 17.4  | 24.6  | 31.8  | 39.0 | 10.2                             | 17.4  | 24.6  | 31.8  | 39.0 |
| 2.9                  | 51.00                            |       |       |       |      | 51.00                            |       |       |       |      | 45.00                            |       |       |       |      | 40.00                            |       |       |       |      |
| 3.0                  | 50.00                            | 28.00 | 20.00 |       |      | 50.00                            | 28.00 | 20.00 |       |      | 45.00                            | 28.00 | 20.00 |       |      | 40.00                            | 28.00 | 20.00 |       |      |
| 3.2                  | 45.00                            | 28.00 | 20.00 | 14.00 |      | 45.00                            | 28.00 | 20.00 | 14.00 |      | 43.30                            | 28.00 | 20.00 | 14.00 |      | 37.30                            | 28.00 | 20.00 | 14.00 |      |
| 3.5                  | 41.00                            | 28.00 | 20.00 | 14.00 |      | 41.00                            | 28.00 | 20.00 | 14.00 |      | 41.00                            | 28.00 | 20.00 | 14.00 |      | 33.20                            | 28.00 | 20.00 | 14.00 |      |
| 3.75                 | 38.90                            | 28.00 | 20.00 | 14.00 |      | 38.90                            | 28.00 | 20.00 | 14.00 |      | 38.90                            | 28.00 | 20.00 | 14.00 |      | 30.00                            | 28.00 | 20.00 | 14.00 |      |
| 4.0                  | 37.00                            | 28.00 | 20.00 | 14.00 |      | 37.00                            | 28.00 | 20.00 | 14.00 |      | 37.00                            | 28.00 | 20.00 | 14.00 |      | 27.00                            | 28.00 | 20.00 | 14.00 |      |
| 4.5                  | 33.50                            | 28.00 | 20.00 | 14.00 | 7.60 | 33.50                            | 28.00 | 20.00 | 14.00 | 7.60 | 33.50                            | 28.00 | 20.00 | 14.00 | 7.60 | 22.00                            | 23.00 | 20.00 | 14.00 | 7.60 |
| 5.0                  | 30.20                            | 28.00 | 20.00 | 14.00 | 7.60 | 30.20                            | 28.00 | 20.00 | 14.00 | 7.60 | 30.20                            | 28.00 | 20.00 | 14.00 | 7.60 | 18.50                            | 18.50 | 17.00 | 14.00 | 7.60 |
| 5.5                  | 27.50                            | 26.10 | 20.00 | 14.00 | 7.60 | 27.50                            | 26.10 | 20.00 | 14.00 | 7.60 | 25.00                            | 24.00 | 20.00 | 14.00 | 7.60 | 15.70                            | 15.30 | 14.90 | 14.00 | 7.60 |
| 6.0                  | 25.00                            | 24.40 | 20.00 | 14.00 | 7.60 | 25.00                            | 24.40 | 20.00 | 14.00 | 7.60 | 21.15                            | 20.85 | 18.50 | 14.00 | 7.60 | 13.30                            | 13.00 | 12.80 | 12.70 | 7.60 |
| 6.5                  | 22.70                            | 22.40 | 18.70 | 14.00 | 7.60 | 22.70                            | 22.40 | 18.70 | 14.00 | 7.60 | 17.90                            | 17.60 | 16.65 | 14.00 | 7.60 | 11.40                            | 11.10 | 11.00 | 11.50 | 7.60 |
| 7.0                  | 20.70                            | 20.60 | 17.60 | 13.50 | 7.60 | 20.70                            | 20.60 | 17.60 | 13.50 | 7.60 | 15.45                            | 15.15 | 15.05 | 13.50 | 7.60 | 9.90                             | 9.60  | 9.50  | 10.40 | 7.60 |
| 7.2                  | 11.50                            | 19.80 | 17.15 | 13.30 | 7.60 | 11.50                            | 19.80 | 17.15 | 13.30 | 7.60 | 11.50                            | 14.40 | 14.25 | 13.30 | 7.60 | 9.40                             | 9.10  | 9.00  | 9.90  | 7.60 |
| 7.5                  |                                  | 18.90 | 16.60 | 13.00 | 7.60 |                                  | 18.90 | 16.60 | 13.00 | 7.60 |                                  | 13.15 | 13.15 | 13.00 | 7.60 |                                  | 8.40  | 8.30  | 9.20  | 7.60 |
| 8.0                  |                                  | 17.50 | 15.60 | 12.50 | 7.60 |                                  | 17.50 | 15.60 | 12.50 | 7.60 |                                  | 11.65 | 11.55 | 12.00 | 7.60 |                                  | 7.40  | 7.30  | 8.20  | 7.60 |
| 8.5                  |                                  | 16.20 | 14.70 | 11.90 | 7.60 |                                  | 15.60 | 14.70 | 11.90 | 7.60 |                                  | 10.40 | 10.25 | 11.00 | 7.60 |                                  | 6.55  | 6.45  | 7.30  | 7.60 |
| 9.0                  |                                  | 15.00 | 13.90 | 11.30 | 7.60 |                                  | 13.75 | 13.90 | 11.30 | 7.60 |                                  | 9.30  | 9.15  | 10.00 | 7.60 |                                  | 5.80  | 5.70  | 6.55  | 7.00 |
| 9.5                  |                                  | 14.00 | 13.10 | 10.80 | 7.60 |                                  | 12.40 | 12.50 | 10.80 | 7.60 |                                  | 8.35  | 8.20  | 9.10  | 7.60 |                                  | 5.20  | 5.10  | 5.90  | 6.35 |
| 10.0                 |                                  | 13.10 | 12.30 | 10.30 | 7.60 |                                  | 11.20 | 11.25 | 10.30 | 7.60 |                                  | 7.50  | 7.35  | 8.30  | 7.60 |                                  | 4.65  | 4.55  | 5.35  | 5.80 |
| 11.0                 |                                  | 11.00 | 10.90 | 9.40  | 7.10 |                                  | 9.30  | 9.30  | 9.40  | 7.10 |                                  | 6.20  | 6.00  | 6.90  | 7.10 |                                  | 3.70  | 3.60  | 4.40  | 4.80 |
| 12.0                 |                                  | 9.30  | 9.20  | 8.65  | 6.60 |                                  | 7.85  | 7.65  | 8.65  | 6.60 |                                  | 5.15  | 4.95  | 5.80  | 6.10 |                                  | 2.95  | 2.85  | 3.60  | 4.05 |
| 13.0                 |                                  | 7.90  | 7.75  | 8.00  | 6.15 |                                  | 6.70  | 6.35  | 7.40  | 6.15 |                                  | 4.25  | 4.05  | 4.90  | 5.40 |                                  | 2.30  | 2.15  | 3.00  | 3.40 |
| 14.0                 |                                  | 6.75  | 6.60  | 7.40  | 5.75 |                                  | 5.75  | 5.40  | 6.40  | 5.75 |                                  | 3.50  | 3.30  | 4.20  | 4.65 |                                  | 1.70  | 1.55  | 2.45  | 2.90 |
| 14.4                 |                                  | 4.00  | 6.20  | 7.00  | 5.60 |                                  | 4.00  | 5.00  | 6.05  | 5.60 |                                  | 3.25  | 3.05  | 3.95  | 4.40 |                                  | 1.50  | 1.30  | 2.25  | 2.70 |
| 15.0                 |                                  |       | 5.65  | 6.50  | 5.35 |                                  |       | 4.55  | 5.60  | 5.35 |                                  |       | 2.65  | 3.60  | 4.05 |                                  |       | 1.00  | 1.95  | 2.45 |
| 16.0                 |                                  |       | 4.90  | 5.70  | 5.00 |                                  |       | 3.90  | 4.85  | 5.00 |                                  |       | 2.10  | 3.10  | 3.55 |                                  |       |       | 1.50  | 2.00 |
| 17.0                 |                                  |       | 4.25  | 5.00  | 4.70 |                                  |       | 3.35  | 4.25  | 4.70 |                                  |       | 1.65  | 2.60  | 3.10 |                                  |       |       | 1.10  | 1.60 |
| 18.0                 |                                  |       | 3.70  | 4.40  | 4.40 |                                  |       | 2.80  | 3.75  | 4.20 |                                  |       | 1.20  | 2.15  | 2.70 |                                  |       |       | 0.75  | 1.25 |
| 19.0                 |                                  |       | 3.20  | 3.90  | 4.20 |                                  |       | 2.35  | 3.25  | 3.75 |                                  |       | 0.85  | 1.75  | 2.35 |                                  |       |       |       | 0.95 |
| 20.0                 |                                  |       | 2.70  | 3.45  | 4.00 |                                  |       | 2.00  | 2.85  | 3.35 |                                  |       |       | 1.40  | 2.00 |                                  |       |       |       | 0.70 |
| 21.0                 |                                  |       | 2.30  | 3.05  | 3.55 |                                  |       | 1.65  | 2.50  | 3.00 |                                  |       |       | 1.10  | 1.65 |                                  |       |       |       |      |
| 21.6                 |                                  |       | 2.05  | 2.90  | 3.30 |                                  |       | 1.45  | 2.30  | 2.80 |                                  |       |       | 0.95  | 1.50 |                                  |       |       |       |      |
| 22.0                 |                                  |       |       | 2.75  | 3.15 |                                  |       |       | 2.15  | 2.65 |                                  |       |       | 0.85  | 1.35 |                                  |       |       |       |      |
| 23.0                 |                                  |       |       | 2.40  | 2.80 |                                  |       |       | 1.85  | 2.35 |                                  |       |       | 0.60  | 1.10 |                                  |       |       |       |      |
| 24.0                 |                                  |       |       | 2.05  | 2.55 |                                  |       |       | 1.55  | 2.05 |                                  |       |       |       | 0.85 |                                  |       |       |       |      |
| 25.0                 |                                  |       |       | 1.75  | 2.30 |                                  |       |       | 1.30  | 1.75 |                                  |       |       |       | 0.65 |                                  |       |       |       |      |
| 26.0                 |                                  |       |       | 1.50  | 2.00 |                                  |       |       | 1.05  | 1.50 |                                  |       |       |       | 0.50 |                                  |       |       |       |      |
| 27.0                 |                                  |       |       | 1.25  | 1.75 |                                  |       |       | 0.85  | 1.30 |                                  |       |       |       |      |                                  |       |       |       |      |
| 28.0                 |                                  |       |       | 1.05  | 1.55 |                                  |       |       | 0.65  | 1.10 |                                  |       |       |       |      |                                  |       |       |       |      |
| 28.8                 |                                  |       |       | 0.90  | 1.40 |                                  |       |       |       | 0.95 |                                  |       |       |       |      |                                  |       |       |       |      |
| 29.0                 |                                  |       |       |       | 1.35 |                                  |       |       |       | 0.90 |                                  |       |       |       |      |                                  |       |       |       |      |
| 30.0                 |                                  |       |       |       | 1.15 |                                  |       |       |       | 0.70 |                                  |       |       |       |      |                                  |       |       |       |      |
| 31.0                 |                                  |       |       |       | 1.00 |                                  |       |       |       | 0.55 |                                  |       |       |       |      |                                  |       |       |       |      |
| 32.0                 |                                  |       |       |       | 0.85 |                                  |       |       |       |      |                                  |       |       |       |      |                                  |       |       |       |      |
| 33.0                 |                                  |       |       |       | 0.70 |                                  |       |       |       |      |                                  |       |       |       |      |                                  |       |       |       |      |
| 34.0                 |                                  |       |       |       | 0.55 |                                  |       |       |       |      |                                  |       |       |       |      |                                  |       |       |       |      |
| Min. boom angle      | 0°                               | 0°    | 0°    | 0°    | 0°   | 0°                               | 0°    | 0°    | 14°   | 30°  | 0°                               | 0°    | 28°   | 36°   | 43°  | 0°                               | 0°    | 45°   | 50°   | 55°  |

| MAIN                 | With outriggers in min. position |       |       |
|----------------------|----------------------------------|-------|-------|
|                      | Over the side                    |       |       |
|                      | Boom length in meters            |       |       |
| Operating radius (m) | 10.2                             | 17.4  | 24.6  |
| 2.9                  | 16.00                            |       |       |
| 3.0                  | 16.00                            | 12.00 | 11.00 |
| 3.2                  | 16.00                            | 12.00 | 11.00 |
| 3.5                  | 16.00                            | 12.00 | 11.00 |
| 3.75                 | 15.40                            | 12.00 | 11.00 |
| 4.0                  | 14.00                            | 12.00 | 11.00 |
| 4.5                  | 11.30                            | 10.90 | 10.80 |
| 5.0                  | 9.30                             | 9.05  | 8.90  |
| 5.5                  | 7.80                             | 7.55  | 7.45  |
| 6.0                  | 6.60                             | 6.40  | 6.25  |
| 6.5                  | 5.65                             | 5.45  | 5.30  |
| 7.0                  | 4.85                             | 4.65  | 4.55  |
| 7.2                  | 4.55                             | 4.40  | 4.25  |
| 7.5                  |                                  | 4.00  | 3.90  |
| 8.0                  |                                  | 3.45  | 3.30  |
| 8.5                  |                                  | 2.95  | 2.80  |
| 9.0                  |                                  | 2.50  | 2.35  |
| 9.5                  |                                  | 2.05  | 1.90  |
| 10.0                 |                                  | 1.65  | 1.50  |
| 11.0                 |                                  | 0.95  | 0.80  |
| 12.0                 |                                  |       |       |
| Min. boom angle      | 0°                               | 39°   | 57°   |



# BOOM LIFTING CAPACITIES

Main Boom Lifting Capacities without Outriggers Unit: metric ton

| MAIN            | Stationary            |       |      |                       |       |       | Pick & Carry (under 2 km/h) |      |      |                       |       |      |
|-----------------|-----------------------|-------|------|-----------------------|-------|-------|-----------------------------|------|------|-----------------------|-------|------|
|                 | 360° swing area       |       |      | Over the front        |       |       | 360° swing area             |      |      | Over the front        |       |      |
|                 | Boom length in meters |       |      | Boom length in meters |       |       | Boom length in meters       |      |      | Boom length in meters |       |      |
|                 | 10.2                  | 17.4  | 24.6 | 10.2                  | 17.4  | 24.6  | 10.2                        | 17.4 | 24.6 | 10.2                  | 17.4  | 24.6 |
|                 | Operating radius (m)  |       |      |                       |       |       |                             |      |      |                       |       |      |
| 3.0             | 12.00                 | 10.00 | 5.50 | 20.00                 | 15.00 | 10.50 | 8.00                        | 6.50 | 4.50 | 14.50                 | 10.50 | 8.00 |
| 3.5             | 9.10                  | 8.50  | 5.50 | 20.00                 | 15.00 | 10.50 | 8.00                        | 6.50 | 4.50 | 14.50                 | 10.50 | 8.00 |
| 3.75            | 8.05                  | 7.50  | 5.50 | 20.00                 | 15.00 | 10.50 | 8.00                        | 6.50 | 4.50 | 14.50                 | 10.50 | 8.00 |
| 4.0             | 7.20                  | 6.65  | 5.50 | 20.00                 | 15.00 | 10.50 | 7.20                        | 6.50 | 4.50 | 14.50                 | 10.50 | 8.00 |
| 4.5             | 5.70                  | 5.25  | 5.00 | 17.40                 | 15.00 | 10.50 | 5.70                        | 5.30 | 4.50 | 12.50                 | 10.50 | 8.00 |
| 5.0             | 4.50                  | 4.15  | 4.00 | 15.50                 | 15.00 | 10.50 | 4.50                        | 4.20 | 4.20 | 11.00                 | 10.50 | 8.00 |
| 5.5             | 3.60                  | 3.25  | 3.15 | 14.00                 | 13.70 | 10.50 | 3.60                        | 3.30 | 3.25 | 10.00                 | 10.50 | 8.00 |
| 6.0             | 2.80                  | 2.55  | 2.45 | 12.80                 | 12.40 | 10.50 | 2.80                        | 2.60 | 2.45 | 9.10                  | 9.50  | 8.00 |
| 6.5             | 2.20                  | 1.95  | 1.85 | 11.70                 | 11.30 | 9.50  | 2.20                        | 2.00 | 1.90 | 8.40                  | 8.60  | 8.00 |
| 7.0             | 1.70                  | 1.45  | 1.35 | 10.70                 | 10.30 | 8.70  | 1.70                        | 1.50 | 1.40 | 7.80                  | 7.80  | 7.25 |
| 7.2             | 1.50                  | 1.25  | 1.15 | 10.20                 | 9.90  | 8.35  | 1.50                        | 1.30 | 1.20 | 7.50                  | 7.50  | 7.00 |
| 7.5             |                       | 1.05  | 0.95 |                       | 9.40  | 7.90  |                             | 1.10 | 1.00 |                       | 7.10  | 6.65 |
| 8.0             |                       | 0.70  | 0.65 |                       | 8.60  | 7.30  |                             | 0.75 | 0.65 |                       | 6.50  | 6.05 |
| 8.5             |                       |       |      |                       | 7.70  | 6.80  |                             |      |      |                       | 5.85  | 5.50 |
| 9.0             |                       |       |      |                       | 6.80  | 6.30  |                             |      |      |                       | 5.30  | 5.00 |
| 9.5             |                       |       |      |                       | 6.05  | 5.75  |                             |      |      |                       | 4.80  | 4.55 |
| 10.0            |                       |       |      |                       | 5.40  | 5.25  |                             |      |      |                       | 4.30  | 4.10 |
| 11.0            |                       |       |      |                       | 4.35  | 4.20  |                             |      |      |                       | 3.60  | 3.35 |
| 12.0            |                       |       |      |                       | 3.50  | 3.35  |                             |      |      |                       | 3.00  | 2.75 |
| 13.0            |                       |       |      |                       | 2.80  | 2.65  |                             |      |      |                       | 2.45  | 2.25 |
| 14.0            |                       |       |      |                       | 2.20  | 2.10  |                             |      |      |                       | 2.00  | 1.80 |
| 14.4            |                       |       |      |                       | 2.00  | 1.90  |                             |      |      |                       | 1.80  | 1.65 |
| 15.0            |                       |       |      |                       |       | 1.60  |                             |      |      |                       |       | 1.40 |
| 16.0            |                       |       |      |                       |       | 1.20  |                             |      |      |                       |       | 1.05 |
| 17.0            |                       |       |      |                       |       | 0.85  |                             |      |      |                       |       | 0.75 |
| Min. boom angle | 0°                    | 54°   | 65°  | 0°                    | 0°    | 37°   | 0°                          | 54°  | 65°  | 0°                    | 0°    | 37°  |

# JIB LIFTING CAPACITIES

Jib Lifting Capacities with Outriggers Unit: metric ton

| 7.4 M           | With outriggers in 7.4m position (360° swing area) |            |                |                |
|-----------------|----------------------------------------------------|------------|----------------|----------------|
|                 | 9.0 m jib                                          |            |                |                |
|                 | Jib angle: 5°                                      |            | Jib angle: 17° | Jib angle: 30° |
|                 | To 36m                                             | 36m to 39m |                |                |
|                 | Boom angle                                         |            |                |                |
| 82°             | 3.50                                               | 3.50       | 2.80           | 2.20           |
| 75°             | 3.50                                               | 3.50       | 2.80           | 2.20           |
| 72°             | 3.50                                               | 3.22       | 2.55           | 2.03           |
| 70°             | 3.42                                               | 2.95       | 2.34           | 1.92           |
| 66°             | 2.88                                               | 2.45       | 2.02           | 1.72           |
| 60°             | 2.33                                               | 1.92       | 1.70           | 1.49           |
| 57°             | 2.11                                               | 1.70       | 1.54           | 1.38           |
| 56°             | 2.01                                               | 1.62       | 1.48           | 1.33           |
| 55°             | 1.85                                               | 1.50       | 1.40           | 1.26           |
| 54°             | 1.70                                               | 1.36       | 1.27           | 1.17           |
| 50°             | 1.18                                               | 0.88       | 0.82           | 0.79           |
| 47°             | 0.87                                               | 0.60       | 0.55           | 0.53           |
| 45°             | 0.69                                               | 0.43       | 0.39           | 0.38           |
| 44°             | 0.60                                               | 0.35       |                |                |
| Min. boom angle | 44°                                                | 44°        | 45°            | 45°            |
|                 | 15.0 m jib                                         |            |                |                |
|                 |                                                    |            |                |                |
|                 |                                                    |            |                |                |
|                 |                                                    |            |                |                |
|                 |                                                    |            |                |                |
| 82°             | 2.40                                               |            | 1.75           | 1.25           |
| 78°             | 2.40                                               |            | 1.75           | 1.25           |
| 75°             | 2.30                                               |            | 1.65           | 1.20           |
| 72°             | 2.08                                               |            | 1.55           | 1.15           |
| 70°             | 1.93                                               |            | 1.47           | 1.12           |
| 66°             | 1.69                                               |            | 1.29           | 1.02           |
| 60°             | 1.40                                               |            | 1.10           | 0.89           |
| 56°             | 1.25                                               |            | 1.01           | 0.83           |
| 55°             | 1.16                                               |            | 0.99           | 0.81           |
| 54°             | 1.06                                               |            | 0.97           | 0.79           |
| 53°             | 0.98                                               |            | 0.88           | 0.78           |
| 50°             | 0.70                                               |            | 0.63           | 0.56           |
| 47°             | 0.45                                               |            | 0.41           | 0.36           |
| 46°             | 0.38                                               |            |                |                |
| Min. boom angle | 46°                                                |            | 47°            | 47°            |

| 6.8 M           | With outriggers in 6.8m position (Over the side) |            |                |                |
|-----------------|--------------------------------------------------|------------|----------------|----------------|
|                 | 9.0 m jib                                        |            |                |                |
|                 | Jib angle: 5°                                    |            | Jib angle: 17° | Jib angle: 30° |
|                 | To 36m                                           | 36m to 39m |                |                |
|                 | Boom angle                                       |            |                |                |
| 82°             | 3.50                                             | 3.50       | 2.80           | 2.20           |
| 78°             | 3.50                                             | 3.50       | 2.80           | 2.20           |
| 75°             | 3.50                                             | 3.50       | 2.80           | 2.20           |
| 72°             | 3.50                                             | 3.22       | 2.55           | 2.03           |
| 70°             | 3.42                                             | 2.95       | 2.34           | 1.92           |
| 66°             | 2.88                                             | 2.45       | 2.02           | 1.72           |
| 62°             | 2.50                                             | 2.05       | 1.80           | 1.56           |
| 60°             | 2.26                                             | 1.85       | 1.70           | 1.49           |
| 58°             | 1.88                                             | 1.63       | 1.50           | 1.36           |
| 55°             | 1.41                                             | 1.19       | 1.12           | 1.04           |
| 52°             | 1.02                                             | 0.82       | 0.77           | 0.72           |
| 48°             | 0.61                                             | 0.40       | 0.35           | 0.34           |
| 47°             | 0.52                                             | 0.30       |                |                |
| 44°             | 0.28                                             |            |                |                |
| Min. boom angle | 44°                                              | 47°        | 48°            | 48°            |
|                 | 15.0 m jib                                       |            |                |                |
|                 |                                                  |            |                |                |
|                 |                                                  |            |                |                |
|                 |                                                  |            |                |                |
|                 |                                                  |            |                |                |
| 82°             | 2.40                                             |            | 1.75           | 1.25           |
| 78°             | 2.40                                             |            | 1.75           | 1.25           |
| 75°             | 2.30                                             |            | 1.65           | 1.20           |
| 72°             | 2.08                                             |            | 1.55           | 1.15           |
| 70°             | 1.93                                             |            | 1.47           | 1.12           |
| 66°             | 1.69                                             |            | 1.29           | 1.02           |
| 62°             | 1.49                                             |            | 1.16           | 0.93           |
| 58°             | 1.24                                             |            | 1.05           | 0.86           |
| 57°             | 1.16                                             |            | 1.03           | 0.84           |
| 56°             | 1.04                                             |            | 0.95           | 0.83           |
| 53°             | 0.71                                             |            | 0.64           | 0.58           |
| 50°             | 0.44                                             |            | 0.38           | 0.35           |
| 48°             | 0.28                                             |            |                |                |
| Min. boom angle | 48°                                              |            | 50°            | 50°            |



# RK500

## Jib Lifting Capacities with Outriggers

Unit: metric ton

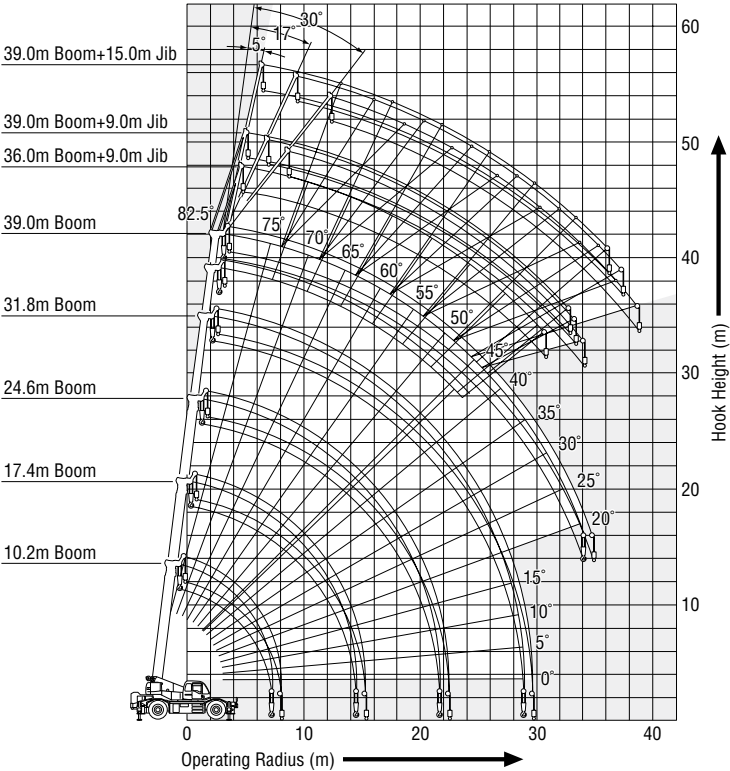
| 5.4 M           | With outriggers in 5.4m position (Over the side) |               |            |                |                |
|-----------------|--------------------------------------------------|---------------|------------|----------------|----------------|
|                 | 9.0 m jib                                        |               |            |                |                |
|                 | Boom angle                                       | Jib angle: 5° |            | Jib angle: 17° | Jib angle: 30° |
|                 |                                                  | To 36m        | 36m to 39m |                |                |
| 82°             | 3.50                                             | 3.50          | 2.80       | 2.20           |                |
| 78°             | 3.50                                             | 3.50          | 2.80       | 2.20           |                |
| 75°             | 3.50                                             | 3.50          | 2.80       | 2.20           |                |
| 70°             | 3.42                                             | 2.95          | 2.34       | 1.92           |                |
| 68°             | 2.86                                             | 2.52          | 2.16       | 1.81           |                |
| 66°             | 2.28                                             | 2.03          | 1.80       | 1.72           |                |
| 64°             | 1.81                                             | 1.60          | 1.48       | 1.40           |                |
| 60°             | 1.06                                             | 0.91          | 0.85       | 0.77           |                |
| 57°             | 0.63                                             | 0.50          | 0.44       | 0.39           |                |
| 56°             | 0.51                                             | 0.40          | 0.31       |                |                |
| 54°             | 0.28                                             |               |            |                |                |
| Min. boom angle | 54°                                              | 56°           | 56°        | 57°            |                |

|                 | 15.0 m jib |  |      |      |
|-----------------|------------|--|------|------|
| 82°             | 2.40       |  | 1.75 | 1.25 |
| 78°             | 2.40       |  | 1.75 | 1.25 |
| 75°             | 2.30       |  | 1.65 | 1.20 |
| 70°             | 1.93       |  | 1.47 | 1.12 |
| 68°             | 1.81       |  | 1.38 | 1.07 |
| 66°             | 1.69       |  | 1.29 | 1.02 |
| 65°             | 1.46       |  | 1.21 | 0.99 |
| 64°             | 1.31       |  | 1.13 | 0.97 |
| 62°             | 0.98       |  | 0.83 | 0.74 |
| 58°             | 0.47       |  | 0.38 | 0.33 |
| 57°             | 0.36       |  |      |      |
| Min. boom angle | 57°        |  | 58°  | 58°  |

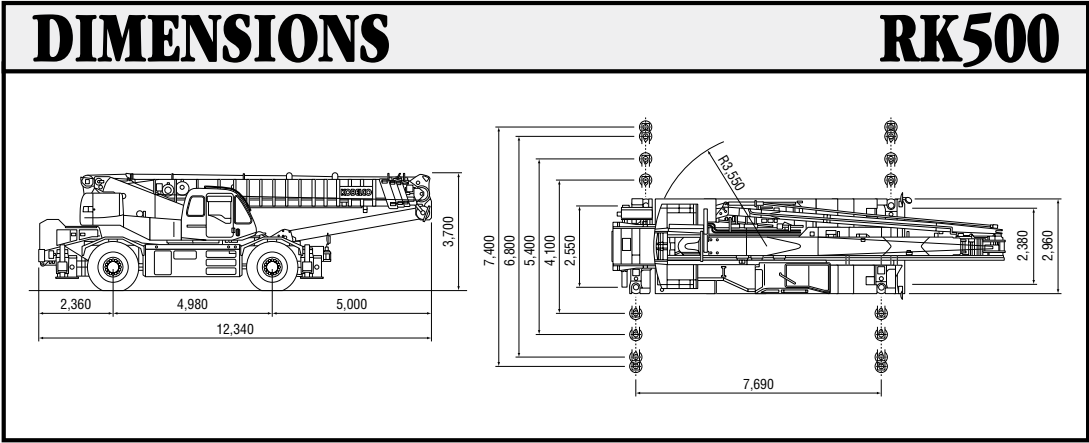
| 4.1 M           | With outriggers in 4.1m position (Over the side) |               |            |                |                |
|-----------------|--------------------------------------------------|---------------|------------|----------------|----------------|
|                 | 9.0 m jib                                        |               |            |                |                |
|                 | Boom angle                                       | Jib angle: 5° |            | Jib angle: 17° | Jib angle: 30° |
|                 |                                                  | To 36m        | 36m to 39m |                |                |
| 82°             | 3.50                                             | 3.50          | 2.80       | 2.20           |                |
| 78°             | 3.50                                             | 3.50          | 2.80       | 2.20           |                |
| 75°             | 3.50                                             | 3.50          | 2.80       | 2.20           |                |
| 74°             | 3.38                                             | 3.05          | 2.59       | 2.11           |                |
| 72°             | 2.56                                             | 2.25          | 1.92       | 1.68           |                |
| 70°             | 1.91                                             | 1.65          | 1.41       | 1.22           |                |
| 68°             | 1.38                                             | 1.15          | 0.98       | 0.84           |                |
| 66°             | 0.95                                             | 0.73          | 0.61       | 0.51           |                |
| 65°             | 0.75                                             | 0.55          |            |                |                |
| 62°             | 0.28                                             |               |            |                |                |
| Min. boom angle | 62°                                              | 65°           | 66°        | 66°            |                |

| 15.0 m jib      |      |  |      |      |
|-----------------|------|--|------|------|
| 82°             | 2.40 |  | 1.75 | 1.25 |
| 78°             | 2.40 |  | 1.75 | 1.25 |
| 75°             | 2.30 |  | 1.65 | 1.20 |
| 73°             | 2.15 |  | 1.59 | 1.16 |
| 72°             | 1.83 |  | 1.41 | 1.15 |
| 71°             | 1.57 |  | 1.26 | 1.02 |
| 69°             | 1.11 |  | 0.88 | 0.73 |
| 66°             | 0.57 |  | 0.43 | 0.30 |
| Min. boom angle | 66°  |  | 66°  | 66°  |

## Working Ranges

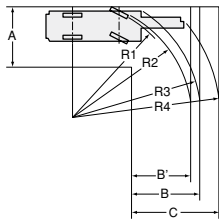


\*Boom/jib bending is not involved in figure of working ranges.



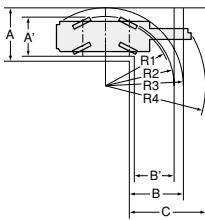
TURNING RADIUS

2-Drive Steering (Front)



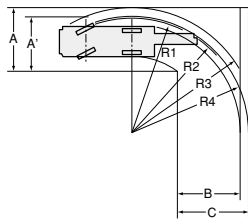
|    |                          |        |
|----|--------------------------|--------|
| R1 | Minimum turning radius   | 10.90m |
| R2 | Tire clearance with cab  | 11.22m |
| R3 | Carrier clearance        | 12.04m |
| R4 | Boom clearance           | 13.42m |
| A  | Entrance width (carrier) | 6.23m  |
| B  | Exit width (carrier)     | 6.23m  |
| B' | Exit width (tires)       | 5.41m  |
| C  | Exit width (boom)        | 7.61m  |

4-Drive Steering



|    |                          |       |
|----|--------------------------|-------|
| R1 | Minimum turning radius   | 6.10m |
| R2 | Tire clearance with cab  | 6.43m |
| R3 | Carrier clearance        | 7.21m |
| R4 | Boom clearance           | 8.88m |
| A  | Entrance width (carrier) | 5.16m |
| A' | Entrance width (tires)   | 3.79m |
| B  | Exit width (tires)       | 5.16m |
| B' | Exit width (carrier)     | 3.79m |
| C  | Exit width (boom)        | 6.83m |

2-Drive Steering (Rear)



|    |                          |        |
|----|--------------------------|--------|
| R1 | Minimum turning radius   | 10.90m |
| R2 | Tire clearance with cab  | 11.22m |
| R3 | Carrier clearance        | 12.05m |
| R4 | Boom clearance           | 10.34m |
| A  | Entrance width (carrier) | 6.20m  |
| A' | Entrance width (tires)   | 5.37m  |
| B  | Exit width (carrier)     | 6.20m  |
| C  | Exit width (boom)        | 6.40m  |

STANDARD EQUIPMENT

|                                    |
|------------------------------------|
| Engine tachometer                  |
| Tachograph                         |
| Hourmeter                          |
| Engine over running alarm          |
| Paper-element air cleaner          |
| Three working lights               |
| Remote back mirror                 |
| Horn                               |
| Towing hooks (one front, one rear) |
| Outrigger plates                   |
| Oil cooler                         |
| Cab heater/defroster               |
| Air conditioner                    |
| Operation Manual: one set          |

OTHER AMENITIES

|                         |
|-------------------------|
| Radio                   |
| Cigarette lighter       |
| Ashtray                 |
| Sun visor               |
| Floor mat               |
| Windshield wiper/washer |

OPTIONAL EQUIPMENT

|                                                 |
|-------------------------------------------------|
| Extra hydraulic oil cooler for hydraulic system |
|-------------------------------------------------|

Note: Due to our policy of continual product improvements all designs and specifications are subject to change without advance notice.

KOBELCO CONSTRUCTION MACHINERY CO., LTD.

3-13, Nihonbashi 1-chome, Chuo-ku, TOKYO, 103-8246 JAPAN  
Tel: ++81 (0)3 3278-7080/ Fax: ++81 (0)3 3278-7138