

CREVO 200EXC

MODEL TR-200EXC

GENERAL DATA

CRANE CAPACITY	20,000 kg at 2.5 m	
BOOM	6-section, 6.5 m—27.5 m	
DIMENSIONS		
Overall length	approx.	8,680 mm
Overall width	approx.	2,200 mm
Overall height	approx.	3,170 mm
MASS		
Gross vehicle mass	approx.	19,895 kg
- front axle	approx.	9,950 kg
- rear axle	approx.	9,945 kg
PERFORMANCE		
Max. travelling speed	computed	55 km/h
Gradeability (tan θ)	computed	60 % (at stall)

CRANE SPECIFICATIONS

CAPACITY

20,000 kg at 2.5 m

BOOM

6-section full length power telescoping boom of box construction with 3 sheaves at boom head. 4th, 5th and top boom section, as well as 2nd and 3rd boom section, telescope synchronously by means of a double-acting cylinder, extension cables and retraction cables.

Hydraulic cylinders fitted with holding valves.

Fully retracted length6.5 m

Fully extended length27.5 m

Extension speed21 m in 87 s

JIB

Single stage. Triple offset (5°/25°/45°) type. Single sheave at jib head.

Stored under base boom section.

Length3.5 m

SINGLE TOP (AUXILIARY BOOM SHEAVE)

Single sheave. Mounted to main boom head for single line work.

ELEVATION

By a double-acting hydraulic cylinder, fitted with holding valve.

Elevation speed -2° to 82° in 35 s

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HOIST — Main winch

Grooved drum driven by hydraulic axial piston motor through winch speed reducer. Power load lowering and hoisting.

Equipped with automatic fail-safe brake and counterbalance valve.

Controlled independently of auxiliary winch.

Single line pull28.0 kN {2,860 kgf}

Single line speed123 m/min. (at the 5th layer)

Wire ropeNo-spin type

Diameter × length...14 mm × 155 m

HOOK BLOCK— 20 ton capacity

3 sheaves, swivel type hook with safety latch.

HOIST— Auxiliary winch

Grooved drum driven by hydraulic axial piston motor through winch speed reducer. Power load lowering and hoisting.

Equipped with automatic fail-safe brake and counterbalance valve.

Controlled independently of main winch.

Single line pull29.4 kN {3,000 kgf}

Single line speed107 m/min. (at the 3rd layer)

Wire ropeNo-spin type

Diameter × length...14 mm × 72 m

HOOK BLOCK— 3 ton capacity

Swivel hook with safety latch for single line use.

SWING

Hydraulic piston motor driven through planetary swing speed reducer. Continuous 360° full circle swing on ball bearing slew ring.

Equipped with spring loaded swing brake.

Swing speed2.9 min⁻¹ {rpm}

HYDRAULIC SYSTEM

PumpsTwo variable piston pump for telescoping, elevating and winches.

Tandem gear pump for swing, steering and accumulator.

Control valves.....Multiple valves actuated by pilot pressure with integral pressure relief valves.

CircuitEquipped with air cooled type oil cooler. Oil pressure appears on AML display for main circuit and accumulator.

Hydraulic oil tank

capacityapprox. 293 liters

FiltersReturn line filter

CAB

Both crane and drive operations can be performed from cab mounted on rotating superstructure. One sided one-man type, steel construction cab with safety glass, sliding door access and windows opening at side and rear, 3-way adjustable, shoulder-supportable, cloth-covered operator's seat.

TADANO Automatic Moment Limiter

(Model: AML-L)

Main unit in crane cab gives audible and visual warning of approach to overload. Automatically cuts out crane motions (including swing motion) before overload. With working range (load radius and/or boom angle and/or tip height and/or swing range) limit function.

Eight functions are constantly displayed.

Digital liquid crystal display:

Boom angle

Either boom length or potential hook height*

Either actual load radius or swing angle*

Actual hook load

Permissible load

Either jib offset angle or number of parts of line of rope*

Boom position indicator

Either outriggers position or on-tire indicator

Bar graphical display:

Either moment as percentage or main hydraulic pressure and accumulator pressure.*

* : Display changes by alternation key.

OUTRIGGERS

Hydraulically operated H-type outriggers. Each outrigger controlled simultaneously or independently from the cab. Equipped with sight level gauge. Floats mounted integrally with the jacks retract to within vehicle width.

All jack cylinders fitted with pilot check valves.

Equipped with extension width detector for each outrigger.

Extended width

Fully5,200 mm

Middle4,800 mm/4,400 mm/3,200 mm

Minimum ...1,790 mm

Float size (Diameter)400 mm

NOTE :

Each crane motion speed is based on unladen conditions.

TYPE

Rear engine, right-hand steering, driving axle 2-way selected type (by manual switch).

4 × 2 front drive

4 × 4 front and rear drive

FRAME

High-tensile steel, all welded box construction.

ENGINE

Model.....MITSUBISHI 6D16TUA **EUROMOT 1**

Type4 cycle, turbo charged, 6 cylinder in line, direct injection, water cooled diesel engine.

Piston displacement ...7,546 cm³

Bore × Stroke118 mm × 115 mm

Max. output

.....158 kW {215 PS} at 2,800 min⁻¹ {rpm}

Max. torque

.....706 N·m {72 kgf·m} at 1,250 min⁻¹ {rpm}

TRANSMISSION

Full automatic transmission.

Torque converter (with automatic lock up device at forward 2nd, 3rd and 4th of High range) driving full powershift.

High range ...4 forward and 1 reverse speeds.

Low range.....4 forward and 1 reverse speeds.

AXLES

FrontFull floating type, steering and driving axle with planetary reduction.

RearFull floating type, steering and driving axle with planetary reduction.

STEERING

Hydraulic power steering controlled by steering wheel.

4 steering modes available:

2-wheel front

2-wheel rear

4-wheel coordinated

4-wheel crab

SUSPENSION

FrontSemi-elliptic leaf springs with hydraulic lockout device.

RearSemi-elliptic leaf springs with hydraulic lockout device.

BRAKE SYSTEM

ServiceAir over hydraulic disc brakes on all 4 wheels.

ParkingSpring operated air released brake acting on input shaft of front axle.

AuxiliaryExhaust brake and eddy current retarder.

ELECTRIC SYSTEM

24 V DC. 2 batteries of 12 V-120 Ah capacity.

FUEL TANK CAPACITY

250 liters

TIRES

Front325/95 R24 161E ROAD, Single × 2

Rear325/95 R24 161E ROAD, Single × 2

TURN RADIUS

Min. turning radius (at center of extreme outer tire)

2-wheel steering8.7 m

4-wheel steering5.1 m

EQUIPMENT

STANDARD EQUIPMENT

Automatic moment limiter (AML-L)

External lamp (AML)

Pendant type over-winding cutout

Winch automatic fail-safe brake

Over-unwinding prevention

Hook stowing device (Mechanically stowed beneath boom top portion)

Hook safety latch

Pilot check valves

Holding valves

Counterbalance valves

Hydraulic pressure relief valves

Swing brake

Working area control device

Swing signal lamp

Boom elevation slowing-down and stop function

Load follower control switch

Boom angle indicator

Boom telescoping foot pedal

Boom elevating foot pedal

Winch drum rotation indicator (Visual)

Outrigger extension width detector

Sight level gauge

Hydraulic oil cooler

Electric windshield wiper and washer

Roof window wiper and washer

Tachometer/Speedometer

Seat belt (Driver's seat)

Air conditioner (Hot water heater type with dehumidification function)

Power window (Right-hand door of the cab)

Cab floor mats

Sun visor (Roof and side)

Neutral position adjustable crane control levers

Automatic drive system

Transmission neutral position engine start

Overshift prevention

Parking braked travel warning

Rear steering lock

Tilt-telescope steering wheel

Back-up alarm

Air cleaner dust indicator

Air dryer

Engine over-run alarm

Hydraulic lockout suspension

Towing eyes-front and rear

Reversing steering compensator

Emergency steering

Central lubricating system

Power stowing mirror

Rear fog lamps

OPTIONAL EQUIPMENT

Tire inflation kit

Outrigger control box (Both sides of carrier)

ON OUTRIGGERS

Unit : kg

Outriggers fully extended (5.2m) — 360° rotation —						
B \ A	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m
2.5 m	20,000	12,000	9,000	7,000		
3.0 m	16,000	12,000	9,000	7,000		
3.5 m	14,000	12,000	9,000	7,000	5,000	3,500
4.0 m	12,500	12,000	9,000	7,000	5,000	3,500
4.5 m	11,500	11,100	9,000	7,000	5,000	3,500
5.0 m		10,250	8,900	7,000	5,000	3,500
5.5 m		9,400	8,200	6,700	5,000	3,500
6.0 m		8,450	7,600	6,300	5,000	3,500
7.0 m		6,450	6,400	5,600	4,700	3,500
8.0 m		5,050	4,800	5,000	4,150	3,350
9.0 m		4,100	3,800	4,250	3,700	3,000
10.0 m		(8.7m)	3,100	3,350	3,300	2,750
11.0 m			2,500	2,800	3,000	2,500
12.0 m			2,050	2,350	2,700	2,300
13.0 m			1,700	1,950	2,200	2,100
14.0 m			(12.9m)	1,650	1,900	1,900
15.0 m				1,350	1,600	1,600
16.0 m				1,200	1,350	1,400
17.0 m				1,000	1,200	1,250
18.0 m					1,000	1,050
19.0 m					850	900
20.0 m					700	750
22.0 m						550

Outriggers fully extended (5.2m) — 360° rotation —						
C \ D	3.5m					
	5 °		25 °		45 °	
E	B (m)	W (kg)	B (m)	W (kg)	B (m)	W (kg)
82 °	4.2	1,750	5.1	1,500	6.1	1,250
75 °	8.1	1,750	8.8	1,500	9.8	1,250
70 °	10.8	1,750	11.4	1,500	12.3	1,250
65 °	13.2	1,500	13.8	1,350	14.6	1,250
60 °	15.5	1,300	16.1	1,150	16.8	1,150
55 °	17.7	1,050	18.2	1,000	18.8	1,000
50 °	19.7	850	20.1	800	20.7	800
45 °	21.6	650	21.9	600	22.3	600
40 °	23.2	500	23.5	450		
35 °	24.7	350	24.9	350		

A : Boom length

B : Load radius

C : Jib length

D : Jib offset

E : Boom angle

W : Rated lifting capacity

Unit : kg

Outriggers extended to middle (4.8m) — Over side —						
B \ A	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m
2.5 m	20,000	12,000	9,000	7,000		
3.0 m	16,000	12,000	9,000	7,000		
3.5 m	14,000	12,000	9,000	7,000	5,000	3,500
4.0 m	12,500	12,000	9,000	7,000	5,000	3,500
4.5 m	11,500	11,100	9,000	7,000	5,000	3,500
5.0 m		10,250	8,900	7,000	5,000	3,500
5.5 m		8,800	8,200	6,700	5,000	3,500
6.0 m		7,550	7,200	6,300	5,000	3,500
7.0 m		5,600	5,600	5,600	4,700	3,500
8.0 m		4,350	4,300	4,600	4,150	3,350
9.0 m		3,650	3,400	3,750	3,700	3,000
10.0 m		(8.7m)	2,700	3,000	3,300	2,750
11.0 m			2,200	2,500	2,650	2,500
12.0 m			1,750	2,050	2,250	2,300
13.0 m			1,400	1,650	1,850	2,000
14.0 m			(12.9m)	1,350	1,550	1,650
15.0 m				1,150	1,300	1,400
16.0 m				950	1,150	1,200
17.0 m				800	950	1,000
18.0 m					800	850
19.0 m					650	700

Outriggers extended to middle (4.8m) — Over side —						
C \ D	3.5m					
	5 °		25 °		45 °	
E	B (m)	W (kg)	B (m)	W (kg)	B (m)	W (kg)
82 °	4.2	1,750	5.1	1,500	6.1	1,250
75 °	8.1	1,750	8.8	1,500	9.8	1,250
70 °	10.8	1,750	11.4	1,500	12.3	1,250
65 °	13.2	1,500	13.8	1,350	14.6	1,250
60 °	15.5	1,250	16.1	1,150	16.8	1,150
55 °	17.7	900	18.2	850	18.8	850
50 °	19.7	650	20.1	650	20.6	600

ON OUTRIGGERS

Unit : kg

Outriggers extended to middle (4.4m) — Over side —						
B \ A	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m
2.5 m	20,000	12,000	9,000	7,000		
3.0 m	16,000	12,000	9,000	7,000		
3.5 m	14,000	12,000	9,000	7,000	5,000	3,500
4.0 m	12,500	12,000	9,000	7,000	5,000	3,500
4.5 m	11,050	11,100	9,000	7,000	5,000	3,500
5.0 m		9,100	8,500	7,000	5,000	3,500
5.5 m		7,700	7,300	6,700	5,000	3,500
6.0 m		6,550	6,350	6,300	5,000	3,500
7.0 m		4,850	4,800	5,000	4,700	3,500
8.0 m		3,700	3,700	3,950	4,000	3,350
9.0 m		3,050	2,850	3,150	3,350	3,000
10.0 m		(8.7m)	2,250	2,500	2,750	2,750
11.0 m			1,750	2,050	2,250	2,400
12.0 m			1,350	1,650	1,850	2,000
13.0 m			1,050	1,300	1,500	1,650
14.0 m			(12.9m)	1,100	1,250	1,400
15.0 m				900	1,050	1,200
16.0 m				700	850	1,000
17.0 m					700	800
18.0 m						650

Unit : kg

Outriggers extended to middle (3.2m) — Over side —						
B \ A	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m
2.5 m	16,000	12,000	9,000	7,000		
3.0 m	13,900	12,000	9,000	7,000		
3.5 m	10,050	9,600	8,200	7,000	5,000	3,500
4.0 m	7,650	7,800	6,750	6,550	5,000	3,500
4.5 m	6,250	6,300	5,650	5,550	5,000	3,500
5.0 m		5,200	4,800	4,800	4,650	3,500
5.5 m		4,400	4,100	4,150	4,100	3,500
6.0 m		3,750	3,500	3,650	3,600	3,200
7.0 m		2,750	2,600	2,800	2,850	2,850
8.0 m		2,100	1,950	2,200	2,300	2,300
9.0 m		1,600	1,400	1,700	1,850	1,900
10.0 m		(8.7m)	950	1,300	1,500	1,550
11.0 m			650	950	1,200	1,250
12.0 m				700	900	1,000
13.0 m					700	800
14.0 m						600

Unit : kg

Outriggers extended to minimum (1.79m) — Over side —						
B \ A	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m
2.5 m	6,700	6,000	4,900	4,700		
3.0 m	5,350	4,650	3,850	3,800		
3.5 m	4,000	3,700	3,050	3,100	3,000	2,500
4.0 m	3,150	2,950	2,400	2,550	2,500	2,450
4.5 m	2,650	2,350	1,950	2,100	2,100	2,100
5.0 m		1,900	1,550	1,700	1,800	1,750
5.5 m		1,550	1,200	1,400	1,500	1,500
6.0 m		1,250	900	1,150	1,250	1,300
7.0 m		750		750	900	900

Outriggers extended to middle (4.4m) — Over side —						
C \ D	3.5m					
	5 °		25 °		45 °	
E	B (m)	W (kg)	B (m)	W (kg)	B (m)	W (kg)
82 °	4.2	1,750	5.1	1,500	6.1	1,250
75 °	8.1	1,750	8.8	1,500	9.8	1,250
70 °	10.8	1,750	11.4	1,500	12.3	1,250
65 °	13.1	1,450	13.8	1,350	14.6	1,250
60 °	15.4	1,000	16.0	1,000	16.8	900

A : Boom length

B : Load radius

C : Jib length

D : Jib offset

E : Boom angle

W : Rated lifting capacity

Outriggers extended to middle (3.2m) - Over side -						
C \ D	3.5m					
	5 °		25 °		45 °	
E	B (m)	W (kg)	B (m)	W (kg)	B (m)	W (kg)
82 °	4.2	1,750	5.1	1,500	6.1	1,250
75 °	8.1	1,750	8.8	1,500	9.8	1,250
72 °	9.6	1,400	10.3	1,250	11.3	1,200
70 °	10.6	1,150	11.3	1,050	12.2	1,000

NOTES FOR "ON OUTRIGGERS" TABLES

- Rated lifting capacities based on crane stability are according to ISO4305.
- Rated lifting capacities shown in the table are based on condition that crane is set on firm level surface. Those above bold lines are based on crane strength and those below, on its stability.
- The mass of the hook (220 kg for 20,000 kg capacity, 60 kg for 3,000 kg capacity), slings and all similarly used load handling devices must be added to the weight of the load.
- For rated lifting capacity of single top, reduce the 220 kg from the relevant boom rated lifting capacity.
Rated lifting capacity of single top should not exceed 3,000 kg.
- Standard number of part lines for each boom length is as shown below. Load per line should not surpass 28.0 kN [2,860 kgf] for main winch and 29.4 kN [3,000 kgf] for auxiliary winch.

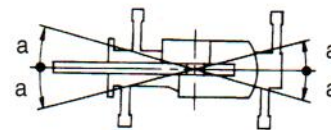
Boom length (m)	6.5	10.7	14.9	19.1	23.3	27.5	JIB/Single top
No. of part of line	7	6	4	4	4	4	1

The lifting capacity data stored in the AUTOMATIC MOMENT LIMITER (AML-L) is based on the standard number of parts of line listed in the chart.

Maximum lifting capacity is restricted by the number of parts of line of AUTOMATIC MOMENT LIMITER (AML-L).

- The over-side rated lifting capacity depends on outrigger extension. Rated lifting capacity of over-front and over-rear assume fully extended outrigger position. Working area for each outrigger position are given separately and must be followed accordingly during operation.

Outriggers position	Extended to middle (4.8m)	Extended to middle (4.4m)	Extended to middle (3.2m)	Extended to minimum (1.79m)
Angle a°	30	25	15	5



ON TIRES

Unit : kg

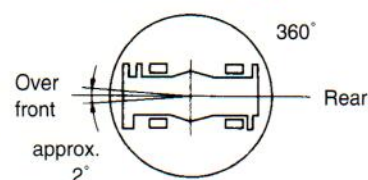
Load radius	Stationary								Creep							
	6.5m Boom		10.7m Boom		14.9m Boom		19.1m Boom		6.5m Boom		10.7m Boom		14.9m Boom		19.1m Boom	
	Over front	360°	Over front	360°	Over front	360°	Over front	360°	Over front	360°	Over front	360°	Over front	360°	Over front	360°
3.0m	8,000	4,200	7,500	4,300	7,000	4,450	5,500	4,800	6,700	3,700	6,300	3,800	5,900	3,800	4,600	4,200
3.5m	7,400	3,350	7,200	3,500	6,700	3,550	5,500	3,800	6,500	2,950	6,300	3,000	5,900	3,100	4,600	3,350
4.0m	7,000	2,650	7,000	2,750	6,500	2,850	5,500	3,000	6,100	2,350	6,000	2,450	5,750	2,500	4,600	2,650
4.5m	6,300	2,100	6,150	2,300	5,500	2,300	5,100	2,400	5,500	1,850	5,400	2,000	4,850	2,000	4,500	2,100
5.0m			5,200	1,800	4,650	1,750	4,800	1,900			4,600	1,600	4,100	1,550	4,200	1,650
5.5m			4,400	1,400	3,950	1,300	4,250	1,550			3,850	1,250	3,500	1,150	3,700	1,350
6.0m			3,750	1,100	3,550	1,000	3,750	1,250			3,000	950	3,100		3,400	1,100
7.0m			2,850		2,850		2,850				2,500		2,500		2,500	
8.0m			2,200		2,200		2,350				1,900		1,900		2,050	
9.0m					1,600		1,800						1,400		1,600	
10.0m					1,200		1,350						1,050		1,200	
11.0m							1,100									

NOTES FOR "ON TIRES" TABLES

- Rated lifting capacities based on crane stability are according to ISO4305.
- Rated lifting capacities shown in the table are based on condition that crane is set on firm level surface, with suspension lock applied. Those above bold lines are based on tire capacity and those below, on crane stability. They are based on actual working radii increased by tire deformation and boom deflection.
- The mass of the hook (220 kg for 20,000 kg capacity, 60 kg for 3,000 kg capacity), slings and all similarly used load handling devices must be added to the weight of the load.
- For rated lifting capacity of single top, reduce the 220 kg from the relevant boom rated lifting capacity.
Rated lifting capacity of single top should not exceed 3,000 kg.
- On tires lifting with "jib" is not permitted. Maximum permissible boom length is 19.1m.
- CREEP is motion for crane not to travel more than 60 m in any 30 min. period and to travel at the speed of less than 1.6 km/h.
- During "CREEP" duties travel slowly and keep the lifting load as close to the ground as possible, and especially avoid any abrupt steering, accelerating or braking.
- Do not operate the crane while carrying the load.
- Tires should be inflated to their correct air pressure of 900 kPa [9,00 kgf/cm²].
- For CREEP operation, set Drive select switch to "4-WHEEL(Lo)" and set gear shift lever to "1".
- Standard number of parts of line for each boom length is as shown below.
Load per line should not surpass 28.0 kN [2,860 kgf] for main winch and 29.4kN [3,000 kgf] for auxiliary winch.

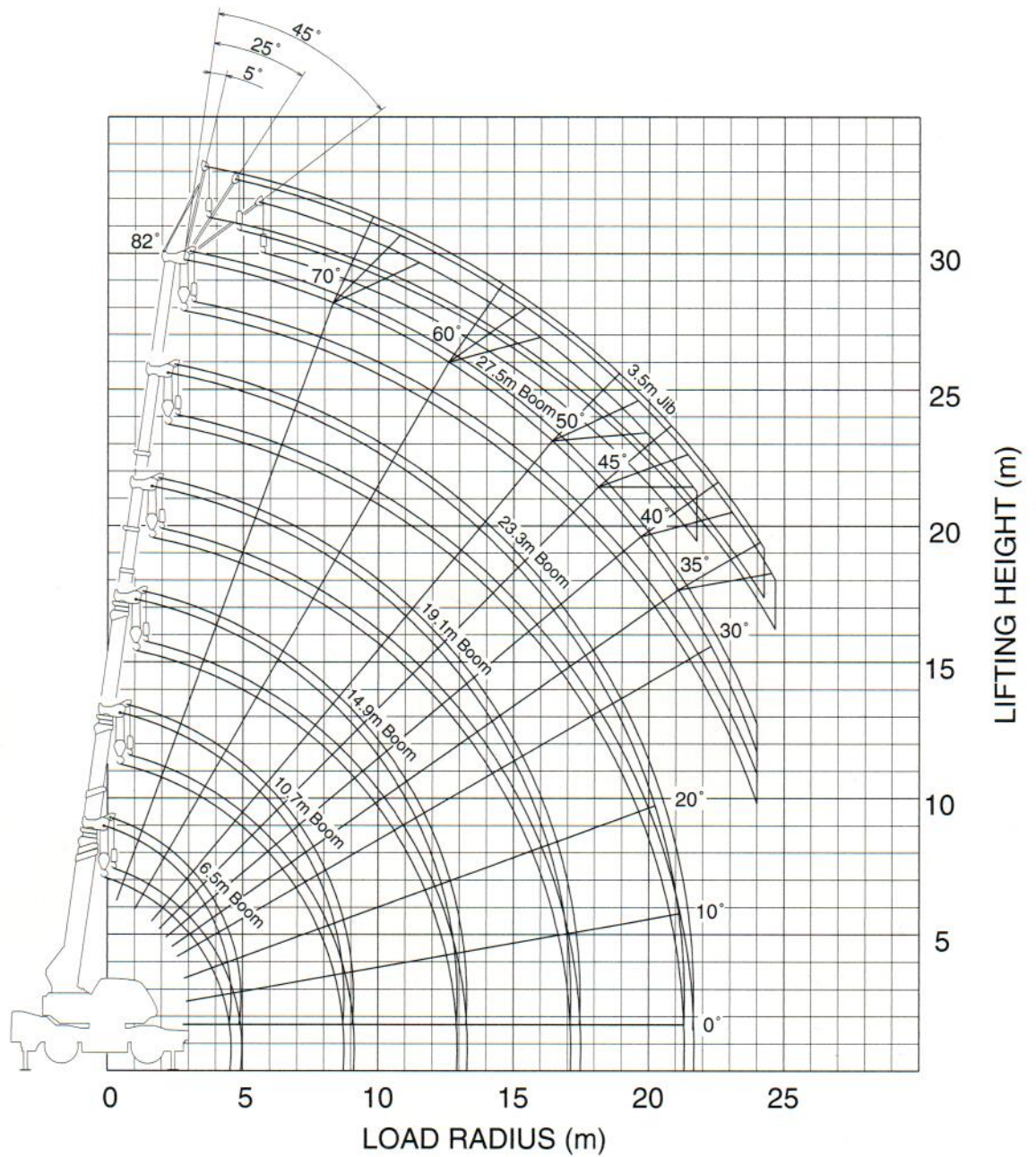
Boom length (m)	6.5	10.7	14.9	19.1	Single top
No. of part line	4	4	4	4	1

WORKING AREA



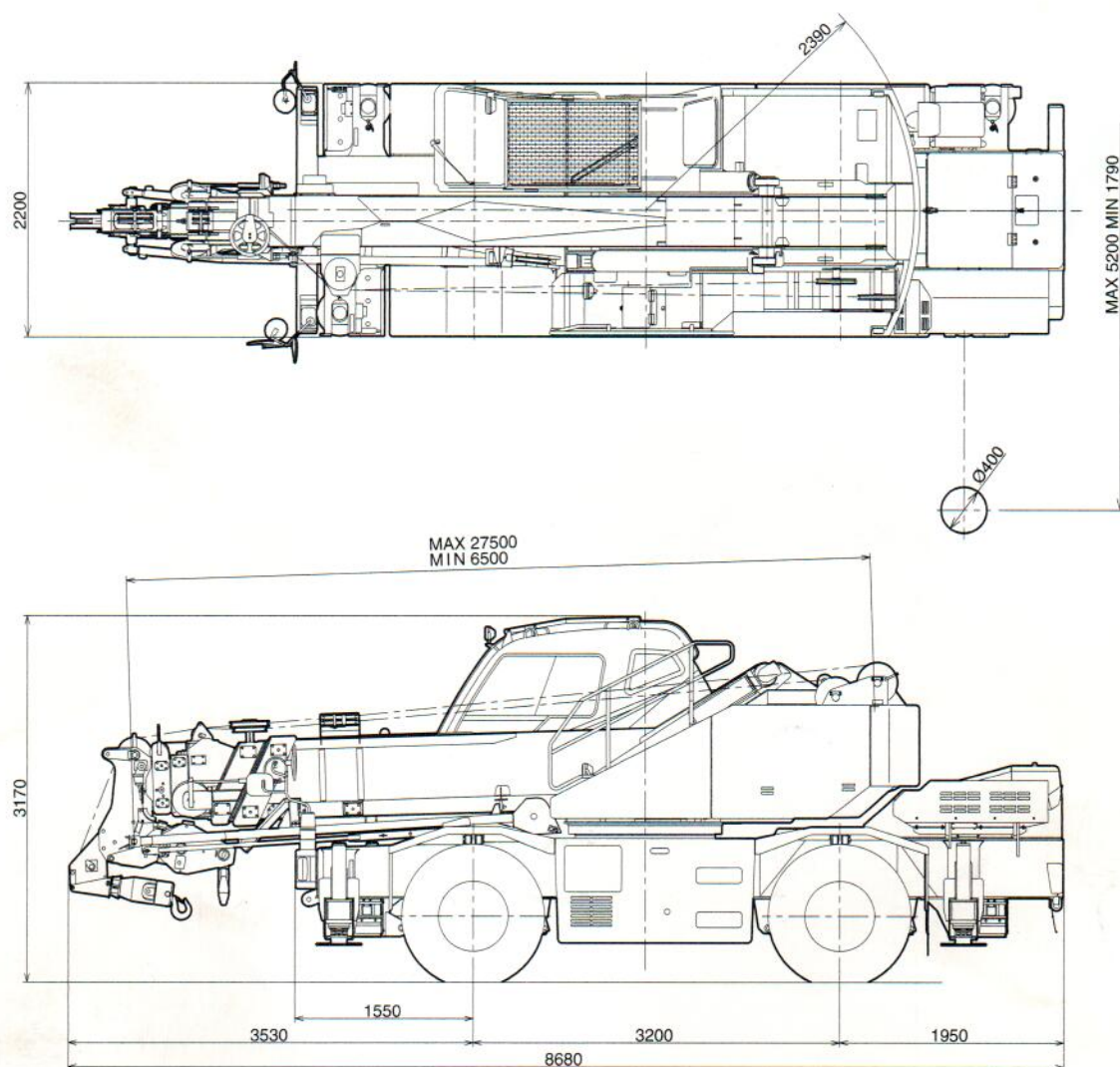
Without outriggers "Over front" operation should be performed within 2 degrees in front of chassis.

- The lifting capacity data stored in the AUTOMATIC MOMENT LIMITER (AML-L) is based on the standard number of parts of line listed in the chart.
Maximum lifting capacity is restricted by the number of parts of line of AUTOMATIC MOMENT LIMITER (AML-L).



NOTE :

1. The above lifting heights and boom angles are based on a straight (unladen) boom, and allowance should be made for boom deflection obtained under laden conditions.
2. The above working range is shown on condition with outriggers fully extended (360°).



Tread (track) —Front.....1,820 mm
—Rear1,820 mm

NOTE :

The drawing is with boom angle at -2°.

Specifications are subject to change without notice.



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