TADANO CARGO CRANE

# MODEL : TM-ZR604G(HS)

## CRANE SPECIFICATIONS

MAXIMUM LIFTING CAPACITY 6,000 kg at 2.4 m (4-part lines)

CRANE CAPACITY 4,840 kg at 3.1 m (4-part lines)

BOOM Four-sectioned, fully powered partly synchronized telescoping boom

Retracted length --------- 4.31 m
Extended length ----------12.91m
Extending speed --------- 8.6 m / 23 s
Elevation ---------- Elevated by a double-acting hydraulic cylinder
Elevating speed ---------- $1^{o}$ to $82^{o}$ / 24 s
Boom point ---------- 2 sheaves

WINCH Hydraulic motor driven Spur gear speed reduction, provided with mechanical brake

Single line pull ---------- 14.72 kN {1,500 kgf}
Single line speed --------- 64 m/min (at 4th layer)
Wire rope
Diameter x length --- 10 mm x 80 m
Breaking strength --- 73.5 kN {7.5 tf}
Construction ---------- 7 x 7 + 6 x Fi(29)
Hook block ---------- 2 sheaves

HOOK STOWING DEVICE Mechanically stowed beneath boom top portion

SWING

Hydraulic motor driven Worm gear speed reduction Continuous 360° full circle swing on ball bearing slew ring Automatic swing lock

Swing speed ---------- 2.5 $min^{-1}${rpm}

OUTRIGGERS

Hydraulically extended sliders and hydraulically extended jacks

Integral with crane frame Power up and down

Extended width ---------- Min. 2.25 m

Mid. 3.10 m

Max. 3.90 m

HYDRAULICS

Hydraulic pump ---------- Tandem gear pump

Hydraulic motors ---------- Axial piston type for winch

Axial piston type for swing

Control valves ---------- Multiple control valves with integral safety valve

Oil tank capacity ---------- approx. 90 L

SAFETY DEVICES

AML(Automatic Moment Limiter)

Load indication

Load moment ratio to rated load indication

Warning alarm

Over load limiter

WHL(Working Height Limiter)

Load indicator

Over-unwinding prevention

Terminal for emergency stop switch

Over-winding alarm

Hoisting limiter

P.T.O indicator lamp

Hook safety latch

Hydraulic safety valves, check valves and holding valves

Level gauge

CRANE MASS

Approx. 2,647 kg (crane bare)

NOTE : Operating speeds of the crane are guaranteed under the condition that the pump delivery is 85 L/min.

# RATED LIFTING CAPACITIES IN KILOGRAMS

## Empty Chassis Rated Capacities

Table A

| Load Radius | 4.31m / 7.19m Boom Outriggers Extended | | Load Radius | 10.05m Boom Outriggers Extended | | Load Radius | 12.91 m Boom Outriggers Extended | |
|---|---|---|---|---|---|---|---|---|
| | Full | Minimum | | Full | Minimum | | Full | Minimum |
| 2.4 m and below | 6,000 | 2,940 | 2.4 m and below | 2,940 | 2,940 | 2.4 m and below | 2,940 | 2,940 |
| 3.1 m | 4,840 | 2,490 | 3.1 m | 2,940 | 2,490 | 3.1 m | 2,940 | 2,490 |
| 3.5 m | 4,140 | 2,040 | 3.5 m | 2,940 | 2,040 | 3.5 m | 2,940 | 2,040 |
| 4.0 m | 3,640 | 1,690 | 4.1 m | 2,940 | 1,640 | 4.1 m | 2,940 | 1,640 |
| 4.5 m | 2,640 | 1,390 | 5.0 m | 2,290 | 1,190 | 5.0 m | 2,290 | 1,190 |
| 5.0 m | 2,290 | 1,190 | 6.0 m | 1,740 | 890 | 6.0 m | 1,740 | 890 |
| 6.0 m | 1,740 | 890 | 7.0 m | 1,340 | 690 | 7.0 m | 1,340 | 690 |
| 6.94 m | 1,390 | 690 | 8.0 m | 1,090 | 540 | 8.0 m | 1,090 | 540 |
| | | | 9.0 m | 940 | 440 | 9.0 m | 940 | 440 |
| | | | 9.8 m | 790 | 390 | 10.0 m | 790 | 390 |
| | | | | | | 11.0 m | 690 | 340 |
| | | | | | | 12.66 m | 540 | 190 |

Table D

| Load Radius | 4.31m / 7.19m Boom Outriggers Extended | | Load Radius | 10.05m Boom Outriggers Extended | | Load Radius | 12.91 m Boom Outriggers Extended | |
|---|---|---|---|---|---|---|---|---|
| | Full | Minimum | | Full | Minimum | | Full | Minimum |
| 2.4 m and below | 6,000 | 2,940 | 2.4 m and below | 2,940 | 2,940 | 2.4 m and below | 2,940 | 2,940 |
| 3.1 m | 4,840 | 2,540 | 3.1 m | 2,940 | 2,540 | 3.1 m | 2,940 | 2,540 |
| 3.5 m | 4,140 | 2,090 | 3.5 m | 2,940 | 2,090 | 3.5 m | 2,940 | 2,090 |
| 4.0 m | 3,640 | 1,740 | 4.1 m | 2,940 | 1,640 | 4.1 m | 2,940 | 1,640 |
| 4.5 m | 3,240 | 1,440 | 4.5 m | 2,940 | 1,440 | 4.5 m | 2,940 | 1,440 |
| 5.0 m | 2,840 | 1,190 | 5.0 m | 2,840 | 1,190 | 5.0 m | 2,590 | 1,190 |
| 6.0 m | 2,140 | 890 | 6.0 m | 2,140 | 890 | 6.0 m | 2,140 | 890 |
| 6.94 m | 1,740 | 690 | 7.0 m | 1,740 | 690 | 7.0 m | 1,740 | 690 |
| | | | 8.0 m | 1,490 | 540 | 8.0 m | 1,440 | 540 |
| | | | 9.0 m | 1,290 | 440 | 9.0 m | 1,240 | 440 |
| | | | 9.8 m | 1,140 | 390 | 10.0 m | 1,040 | 390 |
| | | | | | | 11.0 m | 890 | 340 |
| | | | | | | 12.66m | 640 | 190 |

NOTES : 1. Empty Chassis Rated Capacities in these tables depend on condition that crane is set level on firm level ground.

2. Capacities in these tables include slings and similarly used load handling devices, and they must be added to the mass of the load. They don't, however, include the mass of hook block (60kg).

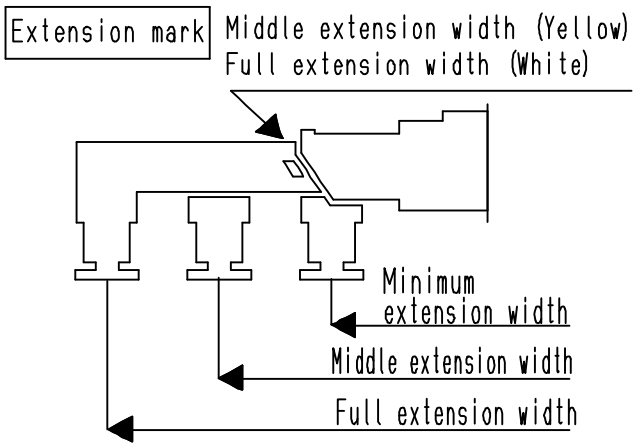
3. For boom lengths not shown, use the rated lifting capacity of next longer boom.

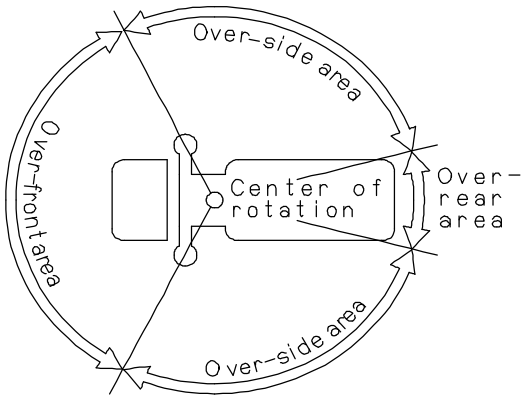
4. When outriggers are extended to middle extension width, use the rated lifting capacities for outriggers are extended to minimum extension width.

5. 10.05m boom means ▱ mark on 3rd boom section side plate is half seen.

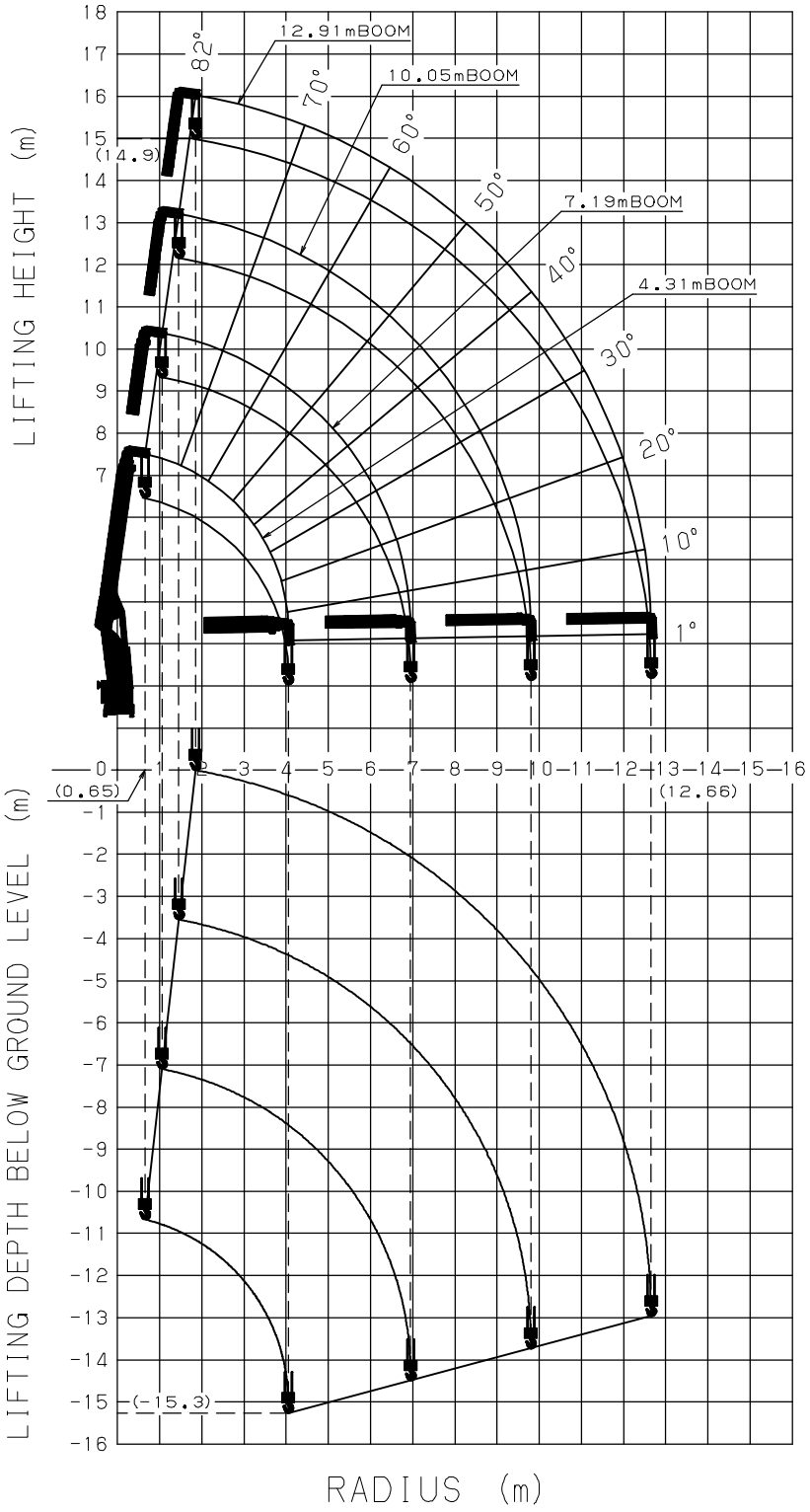
6. Empty Chassis Rated Capacities table A and D depend on the types of chassis.

7. Empty Chassis Rated Capacities are shown for over - side areas and over-rear area. These capacities for over - front area may lowered depending on the types of chassis.



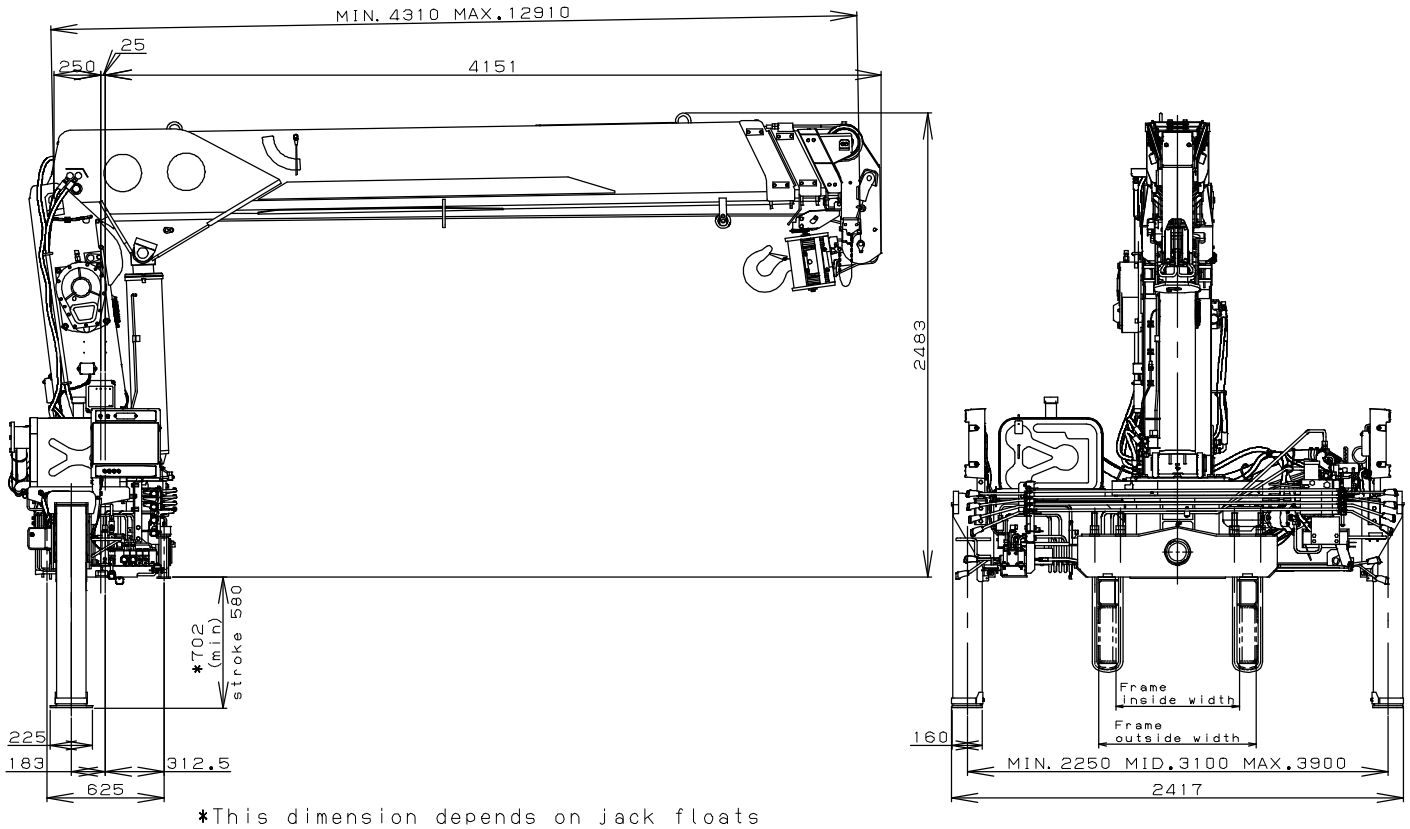



# WORKING RANGE




NOTE: 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.

# DIMENSIONS




*This dimension depends on jack floats applied.

# GENERAL DATA FOR SUITABLE TRUCKS

Gross vehicle mass (including crane mass) -------- 20,000 to 25,000 kg
P.T.O. torque ---------- 245 N-m{25 kgf-m} min.
P.T.O. revolution ---------- Approx. 270 to 2,800 $min^{-1}${rpm}
Width for crane mounting ---------- Approx. 1,000 mm min.
Frame ---------- Weight distribution and frame strength should be calculated for each truck
Frame width range (inside to outside) ---------- Approx. 576 to 953 mm
Frame height (ground to frame top) ---------- Approx. 1,055 mm max.
(Height of crane mounting base can be changed by combination of jack floats and crane bases)