

SPEC. SHEET No. TM-23Z-2-002/EX-01 [TM-ZR233]
SPEC. SHEET No. TM-23Z-2-302/EX-01 [TM-ZR233(H)]
DATE August, 1999

TADANO CARGO CRANE

MODEL : TM-ZR233
 TM-ZR233 (H) — with hook stowing device

CRANE SPECIFICATIONS

CRANE CAPACITY 2,330 kg at 1.7 m (4-part lines)

BOOM 3-sectioned, fully powered synchronized telescoping boom
of pentagonal box construction
Retracted length ----- 2.65 m
Extended length ----- 6.4 m
Extending speed ----- 3.75 m / 10.5 s
Elevation ----- Elevated by a double-acting
hydraulic cylinder
Elevating speed ----- 1° to 75° / 6.5 s
Boom point ----- 2 sheaves

WINCH Hydraulic motor driven Spur gear speed reduction, provided
with mechanical brake
Single line pull ----- 5.74 kN {585 kgf}
Single line speed ----- 80 m/min (at 4th layer)
Wire rope
diameter × length -----
8 mm × 45 m
breaking strength --- 43.1 kN {4.39 tf}
construction ----- 7 × 7 + 6 × WS(26)
Hook block ----- 2 sheaves

HOOK STOWING DEVICE Mechanically stowed beneath boom top portion
[TM-ZR233(H) only]

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 Manually extended sliders and hydraulically extended jacks
Integral with crane frame Power up and down
Extended width ----- Min. 1,535 mm
Mid. 2,100 mm
Max. 2,600 mm

HYDRAULICS Hydraulic pump ----- Single gear pump
Hydraulic motors ----- Axial piston type for winch
Axial piston type for swing
Control valves ----- Multiple control valves with integral
safety valve

SAFETY DEVICES Load meter
Load indicator
Over-winding alarm
Hoisting limiter [TM-ZR233(H) only]
P.T.O indicator lamp
Hook safety latch
Hydraulic safety valves, check valves and holding valves
Level gauge

CRANE MASS Approx. 850 kg (includes standardized mounting parts)

NOTE : Operating speeds of the crane are guaranteed under the
condition that the pump delivery is 45 L /min.

RATED LIFTING CAPACITIES IN KILOGRAMS

A		A	
B	2.65 m 4.52 m	B	6.4 m
1.7 m and below	2,330	3.0 m and below	1,230
2.0 m	2,030	3.5 m	1,030
2.5 m	1,530	4.0 m	880
3.0 m	1,280	4.5 m	780
3.5 m	1,080	5.0 m	680
4.0 m	980	5.5 m	630
4.32m	880	6.2 m	530

A : Boom length

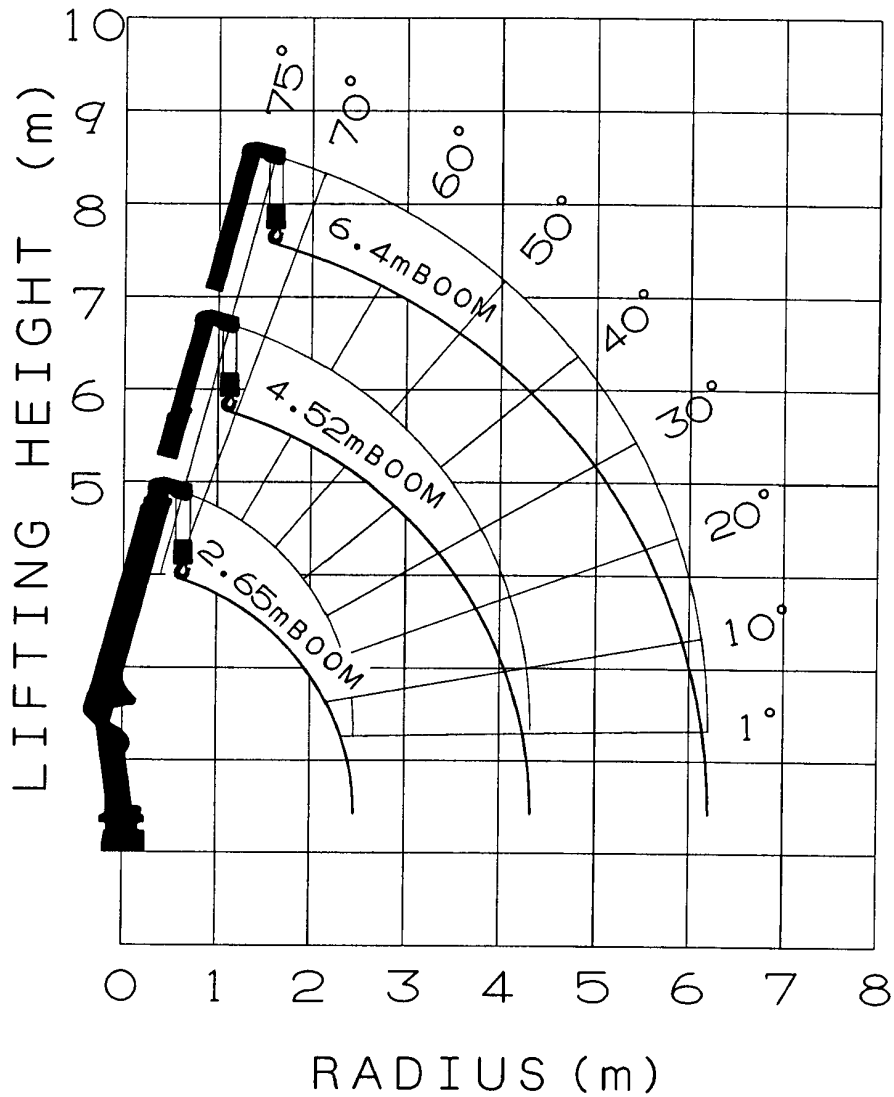
B : Load radius

NOTES :

1. The mass of the hook (30 kg), slings and all similarly used load handling devices must be added to the mass of the load.
2. The above numerical values of rated lifting capacities are based on crane strength only.

The rated lifting capacities based on stability may lower than those in the above table depending on the loading conditions and the types of the chassis.

WORKING RANGE

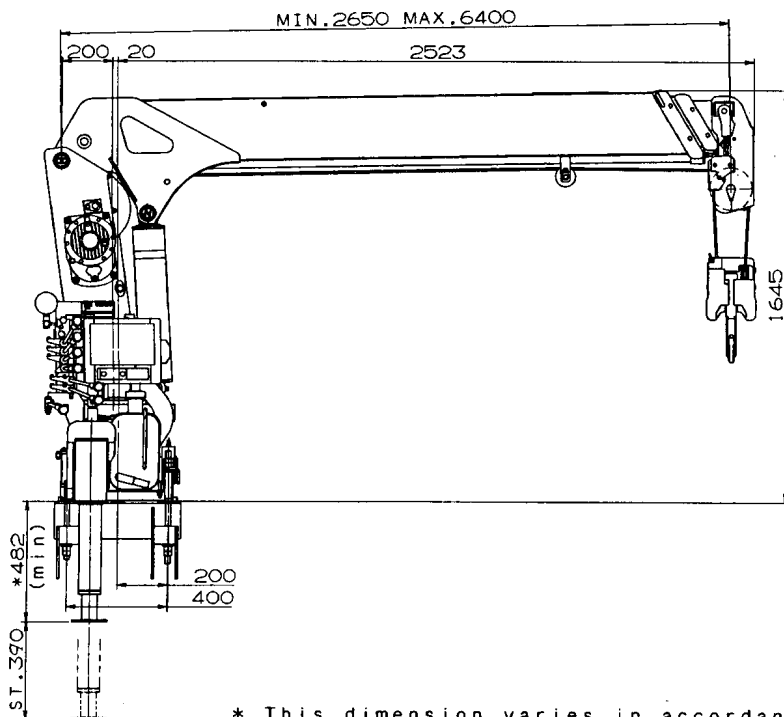


NOTE:

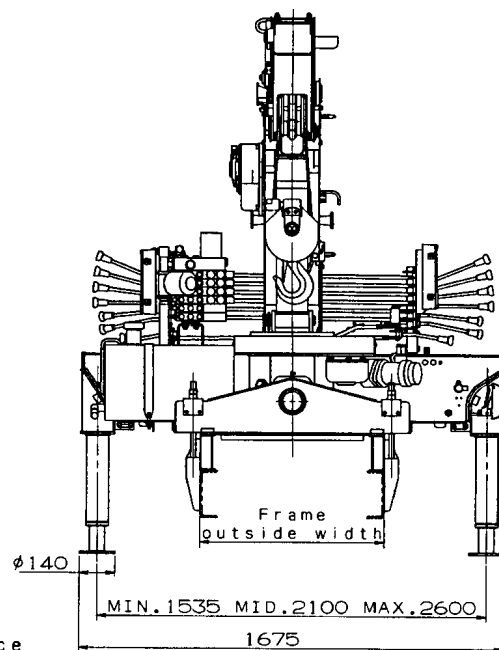
The above lifting heights and boom angles are based on a straight (unladen) boom, and allowance should be made for boom deflection obtained under laden conditions.

DIMENSIONS

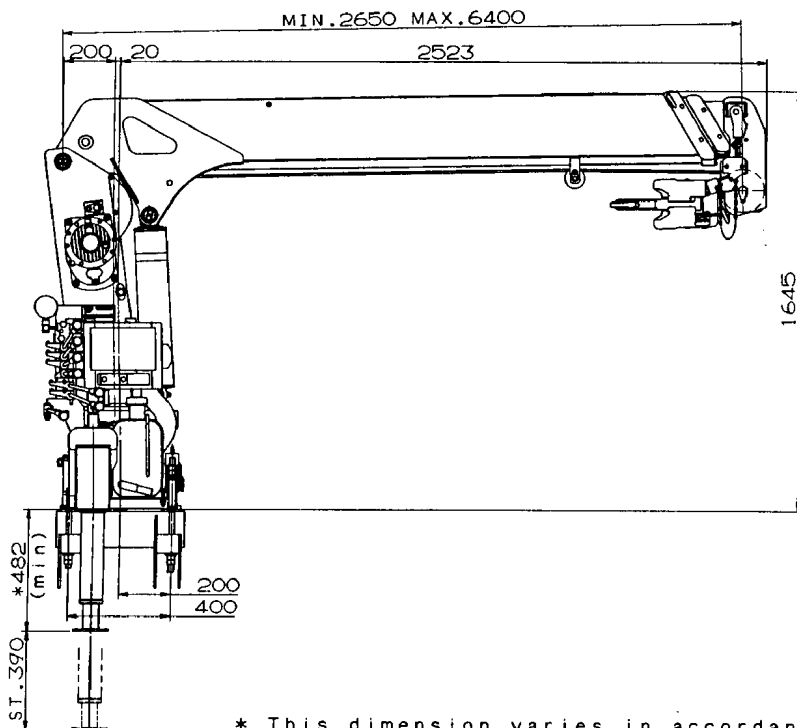
ZR233



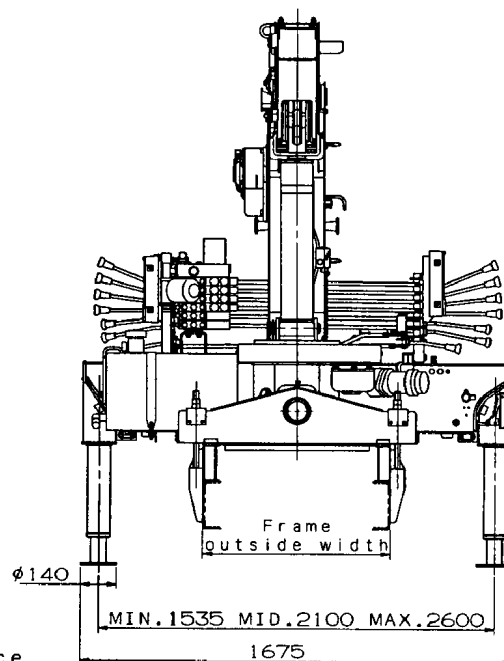
* This dimension varies in accordance with jack floats applied.



ZR233 (H)



* This dimension varies in accordance with jack floats applied.



GENERAL DATA FOR SUITABLE TRUCKS

Gross vehicle mass (including crane mass) -----
 4,000 to 6,000 kg

P.T.O. torque ----- 98 N·m {10 kgf·m} min.

P.T.O. revolution ----- Approx. 300 to 2,500 min⁻¹ {rpm}

Width for crane mounting --- Approx. 620 mm min.

Frame ----- Weight distribution and frame strength
 should be calculated for each truck

Frame width range (inside to outside) -----
 Approx. 650 to 820 mm

Frame height (ground to frame top) -----
 Approx. 905 mm max.
 (Height of crane mounting base can be
 changed by combination of jack floats
 and crane bases)