

TADANO
HYDRAULIC CRANE

TL-251

25-ton capacity
38.4-meter outreach
Electronic moment limiter



Operator confidence with safety.
Reliability with sure operation.
Efficiency with high production.

The mobile hydraulic crane TL-251 is fresh off the production line, but it's tried in performance. More than two decades of Tadano specialization in hydraulic cranes is behind it. The tough TL-251 joins the growing Tadano hydraulic crane lineup that now has a capacity range from 1 to 75 metric tons. Besides its lifting capacity of 25 metric tons and a maximum lifting

height of 38.4 meters, it has high mobility and a fast setup time. And to make it a safer and still more efficient producer, the sturdy TL-251 offers Tadano's unique electronic moment limiter, a four-stage, fully hydraulic boom, a powerful dual winch system, a continuous 360° swing and fully hydraulic outriggers with automatic leveling control.

SPECIFICATIONS

MAX. TOTAL RATED LOAD	
9.8m boom	25,000kg at 3m (9-part line)
16.8m boom	14,000kg at 5.2m (6-part line)
23.8m boom	9,000kg at 6.5m (4-part line)
30.4m boom	6,000kg at 7.4° (3-part line)
30.4m boom + 8.0m jib	2,500kg at 7.7° (1-part line)
BOOM LENGTH	9.8 to 30.4m
JIB LENGTH	8.0m
BOOM EXTENSION SPEED	20.6m/110sec
HOISTING SPEED (Rope speed)	
Main winch	93m/min (max.)
Auxiliary winch	76m/min (max.)
BOOM ELEVATION SPEED	0° to 80°/67sec
SWING SPEED	1.8rpm
WIRE ROPE	
Main winch	Breaking load: 17.6t Structure: 7 x 7 + 6 x Fi (29) Dia. x length: 16mm x 140m
Auxiliary winch	Breaking load: 17.6t Structure: 7 x 7 + 6 x Fi (29) Dia x length: 16mm x 85m
OUTRIGGERS	Fully hydraulic, extended in "H" configuration, provided with pilot check valves Max. extended width: 5,200mm
HYDRAULIC PUMP	Dual tandem gear type
BOOM	Box-construction, four-stage, fully hydraulic telescoping type
JIB	Side-folded type
WINCHES	Constant volume type, hydraulic motor-driven; spur-gear speed reduction; power up, down and free fall
TELESCOPING CYLINDERS	Double-acting hydraulic cylinders and single-acting hydraulic cylinder with counterbalance valves
ELEVATING CYLINDER	Double-acting hydraulic cylinder with counterbalance valve, push-up type
SWING GEAR	Hydraulic motor-driven, spur-gear speed reduction, ball bearings.
SAFETY DEVICES	<ul style="list-style-type: none"> • Electronic moment limiter • Load meter • Overwinding cut-out device • Automatic leveling control • Swing brake • Hook safety latch • Hydraulic safety valves, counterbalance valves, pilot check valves
CARRIER	
Model	Tadano ZR256
Engine	Hino EK100 Diesel engine Max. output: 250PS at 2,300rpm Max. torque: 88kgm at 1,400rpm
Max. travel speed	65km/h
Gradeability	30% (tan θ)
Service brakes	Air brakes on all wheels, two circuits, internal expanding type Front: 10.00-20-16PR Rear: 10.00-20-16PR
Tires	
DIMENSIONS	Overall length: Approx. 11,920mm Overall width: Approx. 2,490mm Overall height: Approx. 3,600mm
WEIGHT	Gross vehicle weight: Approx. 27,300kg, excluding operator

All specifications are subject to change without notice.



TADANO

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No crane overloading with electronic moment limiter

- Tadano's electronic moment limiter, the A.M.L., automatically detects operating conditions accurately.
- It detects the combined moment of the load weight and the boom tare weight. At 90% capacity of the total rated loads, it warns the operator with audio and visual alarms, at 100% capacity, it automatically cuts off all critical functions, like boom lowering or extension and load hoisting. The crane, however, can be operated toward a safe direction.
- The A.M.L.'s control accuracy is a high $\pm 5\%$.

Ideal no-step control of lifting capacities

- Since the A.M.L. automatically shows the operator the limit lifting load for any boom length, ideal continuous control of lifting capacities is possible.
- Only a single lever controls the four-stage, fully hydraulic boom to telescope from 9.8 to 30.4 meters.

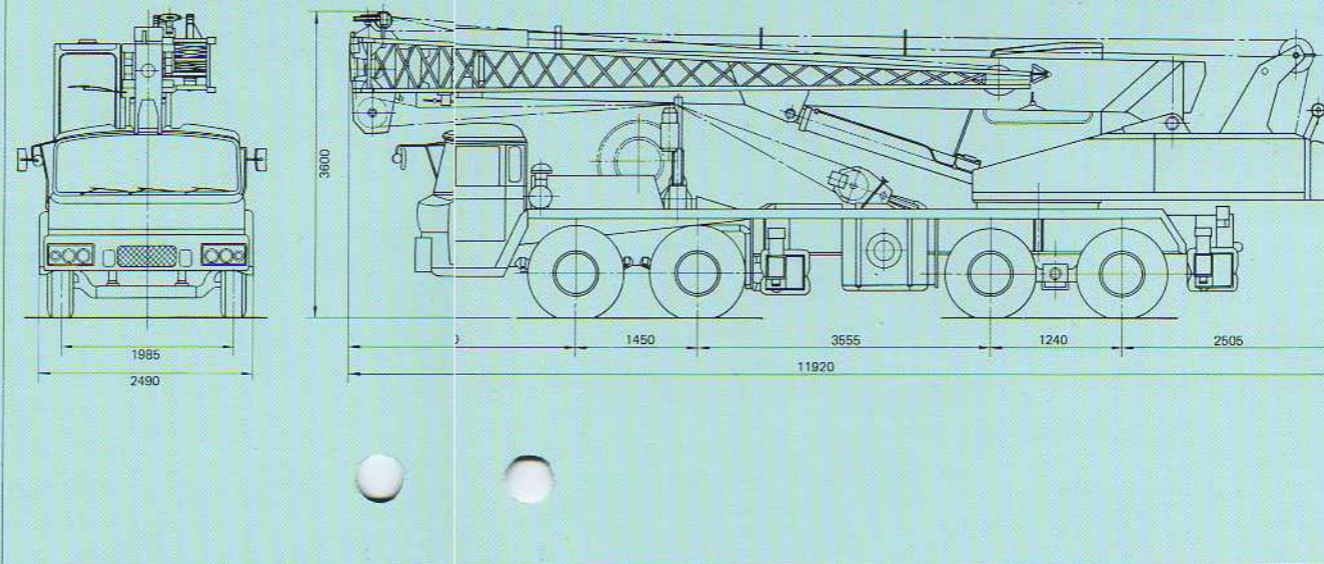
Quick, automatic crane leveling

By simply pushing buttons, Tadano's unique automatic leveling control sets the outriggers and levels the crane within a minute with high control accuracy even on slopes or at rough construction sites.

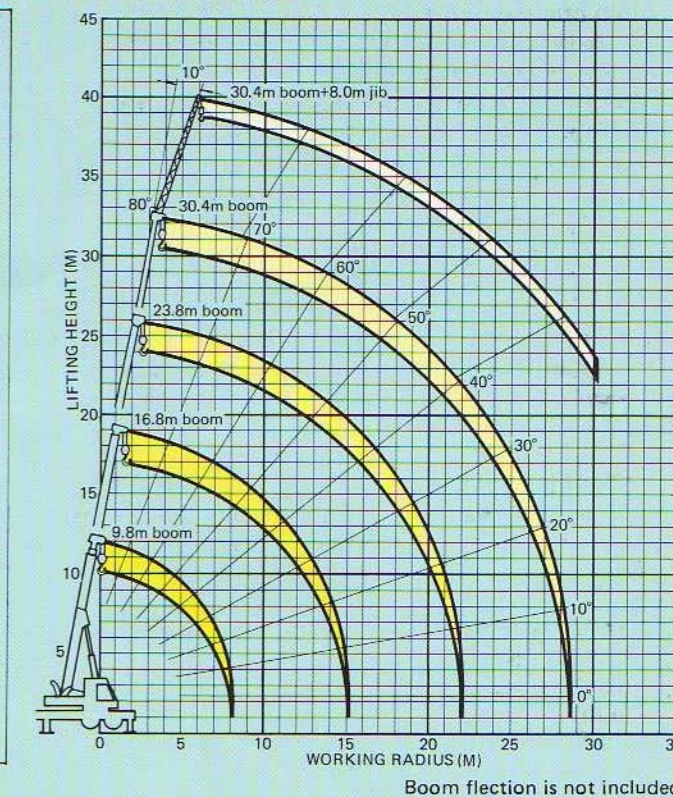
Time- and manpower-saving, side-folded extension jib

Being the side-folded type, Tadano's extension jib can be quickly erected and fixed by only one person, and without the need to use tension wire rope as you would with cranes of other makes.

DIMENSIONS (unit:mm)



WORKING RANGES



TOTAL RATED LOAD TABLE

unit: kg

Working radius	Outriggers fully ended (over side and rear)						
	9.8m	16.8m	3.8m	Elevation angle	30.4m	+8.0m jib	
3.0m	25,000	14,000	000	80°	6,000	2,500	
3.5m	22,900	14,000	000	77°	6,000	2,500	
4.0m	21,000	14,000	000	74°	6,000	2,300	
4.5m	19,300	14,000	000	70°	4,800	2,000	
5.0m	17,900	14,000	000	65°	3,700	1,600	
5.2m	17,300	14,000	000	60°	3,000	1,300	
6.0m	15,300	12,400	000	55°	2,400	1,100	
6.5m	13,500	11,600	000	50°	1,950	950	
7.0m	11,700	10,900	400	45°	1,550	700	
8.0m	9,100	8,600	300	40°	1,250	450	
9.0m		6,900	500	35°	1,000	300	
10.0m		5,700	800	30°	850		
12.0m		4,000	200	25°	700		
14.0m		2,800	100	20°	600		
15.3m		2,300	600	10°	500		
18.0m			800	0°	450		
20.0m			300				
22.0m			950				

NOTES

1. The ratings shown in the table above are based on the condition that the crane is set on firm ground horizontally. Those above the bold lines are based on crane strength; those below, on crane stability.
2. Total rated loads do not exceed 78% of tipping.
3. Each rating includes the weight of hooks (280kg for main hook and 60kg for auxiliary hook) and slings.
4. Load per line should be less than 2,800kg. For fall operation, loads should be no more than 1/5 of the total rated loads; that is, the load per line should be less than 500kg.

TOTAL RATED LOADS DIAGRAM

