

## DATA SHEET FOR TADANO GR-1000EX ROUGH TERRAIN CRANE

Type and name of Crane : TADANO ROUGH TERRAIN CRANE (GR-1000EX) LEFT HAND DRIVE  
 Name of Manufacturer & Origin : Tadano , Japan  
 Crane Capacity : 100 TON @ 2.5 m refer to loading chart as attached

Completely brand new , Suitable for tropical area , dusty area ,off road ,Suitable for Iraqi fuel.

### Carrier specification:

#### Engine:

Model : MITSUBISHI 6M60-TLU3R [ECE-R96-02]  
 Max. power : 200 kW (267 HP) at 2,600 rpm  
 Type and description : Direct injection diesel , 4 cycle, turbo charged and after cooled  
 Numbers of cylinders(Bore x stroke) : - 6 cylinder (118 x 115 mm)  
 Total displacement : 7.54 liters.  
 Air cleaner type : Dry type , replaceable element.  
 Air intake : up to engine.  
 Fuel filter : Full flow with replaceable element with water separator.  
 Air filter : Dust And Particulate filter, inner & outer element filter.

#### Electric system

Starter motor : ( 24 volt)  
 Batteries : ( 24 V) X 2-120 AMP  
 Lights( no. & location) : 4 lights ( 2 front & 2 rear) .

#### Power Train & Transmission Equipment:

Type of Transmission : Electronically controlled full automatic transmission. Torque converter driving full power shift with driving axle selector  
 Number of speeds : 6 forward & 2 reverse  
 Maximum Traveling speed : 36 km/h

#### Suspensions:

Front (type) : Rigid mounted to the frame.  
 Rear (type) : Pivot mounted with hydraulic lockout device  
 Outriggers : 4 Hydraulic , beam and jack outriggers.

#### Axle and Wheels ( mentioned according to any standard & codes ):

Drive system type : driving axle 2-way selected type by manual switch, 4x2 front drive, 4x4 front and rear drive.

Type of Front axle , capacity : Full floating type, steering and driving axle with planetary reduction , Capacity: 26,400 KG

Type of Rear axle , capacity : Full floating type, steering and driving axle with planetary reduction and non-spin rear differential., Capacity: 28,650 KG

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**Tire size :**

Front tire : 29.5-25 36PR

Rear tire : 29.5-25 36PR

**Brake system:**

Service brake type : Air over hydraulic disc brakes on all 4 wheels.

Parking &amp; Emergency : Spring applied-air released brake acting on input shaft of front axle, Electro-pneumatic operated exhaust brake.

**Steering system:**

Steering type : Hydraulic power steering controlled by steering wheel. 4 steering modes available: 2 wheel front, 2 wheel rear, 4 wheel coordinated and 4 wheel crab.

Minimum turning radius (center of extreme outer tire) : 4 wheel steer :6.8m , 2 wheel steer :10.9 m

Automatic Moment Limiter (AML-C) including: all necessary instruments , indicators, monitoring systems, levers, pedals, gauges, switches and lamps.

**Boom:**

Main boom ( sections &amp; type ) : 5 section full power partially synchronized telescoping boom of round box construction with 7 sheaves at boom head.

Fully retracted length : 12.8 m

Fully extended length : 51 m

Extension speed : 38.2 m in 170 s

Sheaves at boom head : 7 sheaves at boom head.

Main Boom cylinders : 1 telescopic cylinder.

**Hoist :**

Hoist main winch: variable speed type with grooved drum driven by hydraulic axle piston motor through speed reducer. Power load lowering and raising .

Hoisting motor type : hydraulic axial piston motor.

Pull : maximum single line pull: 89.1 kN, max. permissible line pull wire strength: 64.7KN

Line Speed (winch up) : 181m/min (7th layer)

Hook speed (winch up) : Hoist-up speed Low speed 107m/min (4th layer) &amp; High speed 149m/min (4th layer)

Hoist auxiliary winch: variable speed type with grooved drum driven by hydraulic axle piston m motor through speed reducer. Power load lowering and raising.

Hoisting motor type : hydraulic axial piston motor.

Pull KN : 89.1 KN , max. permissible line pull wire strength: 64.7 KN

Line speed (winch up) : 181 m/min (7th layer)

Hook speed (winch up) : Hoist-up speed Low speed 92m/min (2nd layer) &amp; High speed 128m/min (2nd layer).

Wire rope : Non-rotating wire (no-spin), extra improved plow steel, preformed, independent wire rope core, right regular lay, 19 mm.

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Main winch type : Variable speed type with grooved drum driven by hydraulic axle piston motor.  
 Diameter : 0.362 m  
 Length : for main drum 285 m .  
 Auxiliary winch type : Variable speed type with grooved drum driven by hydraulic axial piston motor  
 Diameter : 0.362 m  
 Length : for auxiliary winch 147 m.  
 Hook block capacity : 6.6 ton , 35 ton , 50 ton and 100 ton.

#### Swing system:

Swing motor Type : hydraulic axial piston motor driven through planetary speed reducer ,Continuous 360 . full circle slewing on ball bearing.  
 Swing brake : Manually locked, released slewing brake.  
 Swing speed : 1.5 ( rpm )  
 Swing lock : a positive swing lock for travel modes, manually engaged in cab.

#### Hydraulic system:

Boom elevation cylinder type : By a double acting hydraulic cylinders with holding valve.  
 Boom angle indicator.  
 Boom angle ..... -1.5°-80.5°  
 Quantity : 1  
 Arm cylinder type : the synchronization system consist of 2 Telescopic cylinder.  
 Quantity : 2  
 Hydraulic motor drive( Quantity & type ) : 3 and axial piston motor .  
 Boom elevation Oil pump type : variable piston pumps.  
 Discharge of oil pump: Hydraulic pump (P2) Displacement 82.0cm<sup>3</sup>\*P2 operating Telescoping, elevation.  
 Max. pressure of oil pump : Hydraulic cylinder for elevation : Working pressure 27.5Mpa.

#### Operator Station:

Both crane and drive operations can be performed from one cab mounted on rotating superstructure.  
 20° tilt, left side, 1 man type, steel construction with sliding door access and safety glass windows opening at side.  
 Door window is powered control. Windshield glass window and roof glass window are shatter-resistant. Wiper and washer (front windshield and roof window). Tinted safety glass and sun visor. Tilt-telescoping steering wheel.  
 Adjustable control lever stands for slewing, boom elevating, boom telescoping, auxiliary winch and main winch.  
 Control lever stands can change neutral positions and tilt for easy access to cab. Foot operated controls: boom elevating, boom telescoping, service brake and engine throttle. 3 way adjustable operator's seat with high back, headrest and armrest. Cab floor mat. Engine throttle knob. Hot water cab heater and air conditioning.  
 Dash-mounted Instrument panel, Multifunction Display, Starter switch (engine start / stop), 12 V power outlet, USB port, drive selector switch, parking brake switch, steering mode select switch, power window switch, pump engaged/disengaged switch, slewing brake switch, boom telescoping/auxiliary winch select switch, outrigger control panel, free slewing/lock slewing selector switch and air conditioning control switch.

#### Safety devices :

instruments panel - Torque converter oil temperature, engine water temperature, air pressure, fuel, speedometer, tachometer, hour meter and odometer/tripmeter. Multi function display - Fuel consumption monitor.

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**Truck crane Measurement:**

Overall length : 15,185 mm

Overall width : 3,315 mm

Overall height : 3,805 mm

Wheel Base : 3,950 mm.

Gross vehicle weight ( G . V . W ) : 55,050 kg

Center to center of extended outriggers :

Min. Extension 2.7 m center to center

Mid. Extension 5.5 m center to center

Mid. Extension 6.7 m center to center

Max. Extension 7.3 m center to center

**Additional equipment:**

Set of catalog for( maintenance &amp; spare parts , operation (user)guide )&amp; spare tire

*Year of manufacture : Year by year according to order .*

And all necessary TADANO standard equipments.

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**SARJAR**  
MACHINERY  
أ. س. الراسي  
8/11/24

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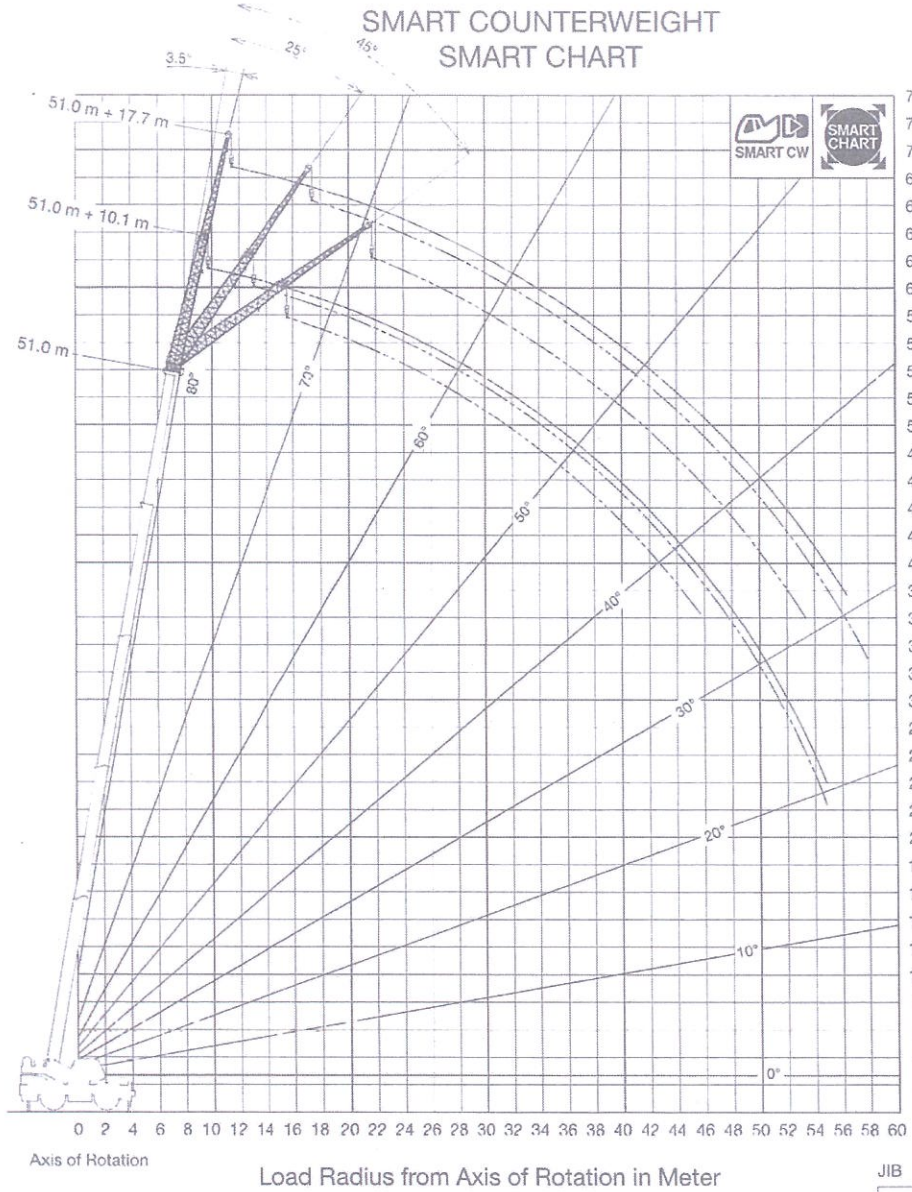
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# GR-1000EX-4 WORKING RANGE CHART

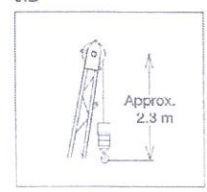
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Lifting Height in Meter

**SARFAR**  
MACHINERY

8/11/2021



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## GR-1000EX-4 RATED LIFTING CAPACITIES

6-6

COUNTERWEIGHT 11.2 t ON OUTRIGGERS FULLY EXTENDED 7.3 m SPREAD 360° ROTATION SMART OW1										
(Unit: 1,000 kg)										
B	A	12.8 Overhaul 360	17.6	22.4	31.9	41.5	46.2	51.0		
2.5		100.0 ★ 80.0 ★	45.10							
3.0		83.00 ★	45.10	33.90	15.30					
3.5		74.40	45.10	33.90	15.30					
4.0		67.20	45.10	33.90	15.30					
4.5		61.10	45.10	33.90	15.30					
5.0		55.90	45.10	33.90	15.30					
5.5		51.30	45.10	33.90	15.30	15.30	12.50			
6.0		47.10	45.10	33.90	15.30	15.30	12.50			
6.5		42.90	42.60	32.00	15.30	15.30	12.50			
7.0		39.30	39.10	30.20	15.30	15.30	12.50			
7.5		36.30	35.60	28.60	15.30	15.30	12.50	12.80	12.40	
8.0		33.60	32.10	27.10	15.30	15.30	12.50	12.80	12.40	
9.0		28.20	26.60	24.10	15.30	15.30	12.50	12.80	11.90	10.90
10.0		23.00	22.40	20.40	15.30	15.30	12.50	12.80	11.20	10.90
11.0			18.60	17.50	15.30	15.30	12.50	12.80	10.60	10.50
12.0			15.60	15.20	15.30	14.30	12.50	12.50	9.90	10.00
14.0			11.50	11.10	13.90	12.00	11.70	10.60	8.60	9.10
16.0				8.20	10.90	9.70	10.40	9.20	7.70	8.30
18.0				6.20	8.80	7.60	9.30	8.00	6.90	7.40
20.0				4.70	7.20	6.10	7.70	6.60	6.20	6.70
22.0						4.80	6.40	5.40	5.70	6.20
24.0						3.80	5.40	4.40	5.20	5.50
26.0						3.00	4.60	3.60	4.80	4.60
28.0						2.40	3.90	2.90	4.10	3.90
30.0								2.40	3.50	3.20
32.0								1.90	3.00	2.70
34.0								1.40	2.60	2.20
36.0								1.10	2.20	1.70
38.0									1.90	1.40
40.0										1.20
42.0										0.90
TELESCOPING CONDITIONS (%)										
Telescoping mode	1, 2	1	1	2	1	2	1	2	2	1, 2
2nd Boom	0	50	100	0	100	0	100	0	50	100
3rd Boom	0	0	0	33	33	67	67	100	100	100
4th Boom	0	0	0	33	33	67	67	100	100	100
Top Boom	0	0	0	33	33	67	67	100	100	100

★ With attachment sheaves

A: Boom length (m)

B: Load radius (m)

NOTE: The lifting capacity data stored in the AUTOMATIC MOMENT LIMITER (AML-E2) is based on the standard number of parts of line listed in the chart.  
Standard number of parts of line for each boom length should be according to the following table.

Boom length	12.8 m ★	12.8 m	12.8 m to 22.4 m	22.4 m to 51.0 m	Single top jib
Telescoping mode	1, 2	1, 2	1	2	1, 2
Number of parts of line	18	14	8	4	4

★ With attachment sheaves

SAFIYAR  
MACHINERY

Sub total 1.9  
8/11/2021

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