

DATA SHEET FOR TADANO GR-300EX ROUGH TERRAIN CRANE

Type and name of Crane : TADANO ROUGH TERRAIN CRANE (GR-300EX) LEFT HAND DRIVE

Name of Manufacturer & Origin : Tadano , Japan

Crane Capacity : 30 TON @ 3 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 : Cummins QSB6.7 [EU] Stage IIIA

Max. power : 160 kW (220 HP) at 2,500 rpm

Type and description : Direct injection diesel , 4 cycle, turbo charged and after cooled

Numbers of cylinders(Bore x stroke) : - 6 cylinder (107 x 124 mm)

Total displacement : 6.7 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 Fronts & 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 : 50 km/h

Suspensions:

Front (type) : Semi-elliptic leaf springs with hydraulic lockout device.

Rear (type) : Semi-elliptic leaf springs 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: 13,650 KG

Type of Rear axle , capacity : Full floating type, steering and driving axle with planetary reduction and

non-spin rear differential., Capacity: 13,540 KG

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Tire size :

Front tire : 445/95R25
Rear tire : 445/95R25.

Brake system:

Service brake type : Air over hydraulic disc brakes on all 4 wheels.
Parking & 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. 3 steering modes available: 2 wheel front, 4 wheel coordinated and 4 wheel crab.
Minimum turning radius (center of extreme outer tire) : 4 wheel steer :5.8m , 2 wheel steer :9.8m

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

Boom:

Main boom (sections & type) : 4 section full power partially synchronized telescoping boom of round hexagonal box construction with 3 sheaves at boom head
Fully retracted length : 9.7 m
Fully extended length : 31 m
Extension speed : 21.3 m in 91s
Sheaves at boom head : 3 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:56.0 kN, max. permissible line pull wire strength:49.3 KN
Line Speed (winch up) :142 m/min (6th layer).
Hook speed (winch up) : Hoist-up speed . 125m/min (4th layer).
Hoist auxiliary 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 KN : 56 KN , max. permissible line pull wire strength:58.2 KN
Line speed (winch up) : 142 m/min (6th layer).
Hook speed (winch up) : Hoist-up speed : 125m/min (4th layer)
Wire rope : Filler or warrington seal wire (spin-resistance) , extra improved plow steel , performed , independent wire rope core , right regular lay , 16 mm.

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Main winch type : Variable speed type with grooved drum driven by hydraulic axle piston motor.
 Diameter : 0.32 m
 Length : for main drum 170 m .
 Auxiliary winch type : Variable speed type with grooved drum driven by hydraulic axial piston motor
 Diameter : 0.32 m
 Length : for auxiliary winch 98 m.
 Hook block capacity : 4 ton and 30 ton .

Swing system:

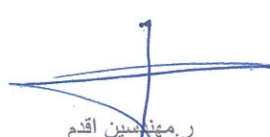
Swing motor Type : hydraulic axial piston motor driven through planetary speed reducer ,Continuous 360° . full circle slewing on ball bearing.
 Swing brake : Manually locked, released slewing brake.
 Swing speed : 3.2 (rpm)
 Swing lock : a positive swing lock for travel modes, manually engaged in cab.

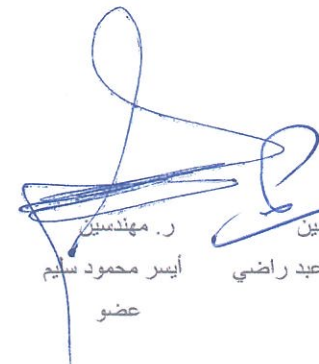
Hydraulic system:

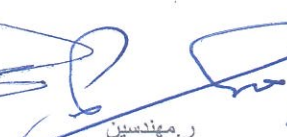
Boom elevation cylinder type : By a double acting hydraulic cylinders with holding valve.
 Boom angle indicator.
 Boom angle 0° - 81°
 Quantity : 1
 Arm cylinder type : the synchronization system consist of 2 Telescopic cylinder.
 Quantity : 2
 Hydraulic motor drive(Quantity & type) : 3 and axial piston motor .
 Boom elevation Oil pump type : variable piston pumps.
 Discharge of oil pump : Hydraulic pump (P2) : Displacement : 63.0cm³ *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. 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 engine start/stop, monitor lamps, cigarette lighter, 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, and slewing free/ lock selector switch


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Safety devices :

Instruments - Torque converter oil temperature, engine water temperature, air pressure, fuel, speedometer, tachometer, hour meter and odometer / tripmeter. Engine over-run alarm. Back-up alarm. Low oil pressure/high water temp. Warning device (visual). Rear steer centering light. Hydraulic oil pressure is monitored and displayed on the AML-C display panel.

Truck crane Measurement:

Overall length : 11,245 mm
 Overall width : 2,620 mm
 Overall height : 3,535 mm
 Wheel Base : 3,500 mm.
 Gross vehicle weight (G . V . W) : 27,190 kg
 Center to center of extended outriggers :
 Min. Extension 2.2 m center to center
 Mid. Extension 5.0 m center to center
 Mid. Extension 5.9 m center to center
 Max. Extension 6.3 m center to center

Additional equipment:

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



Year of manufacture : Year by year according to order .

And all necessary TADANO standard equipments.

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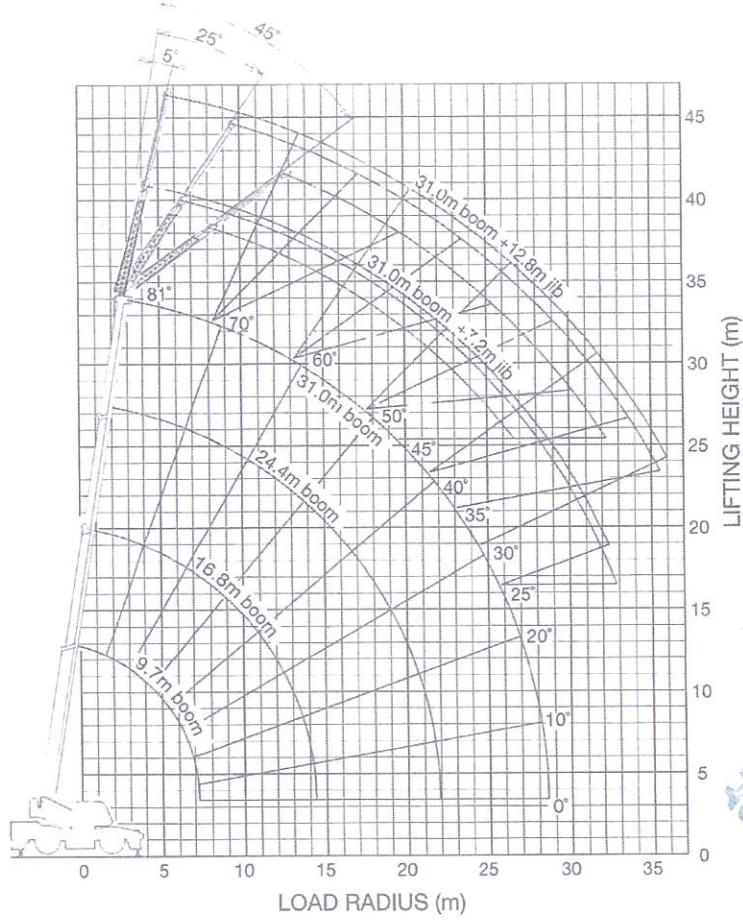
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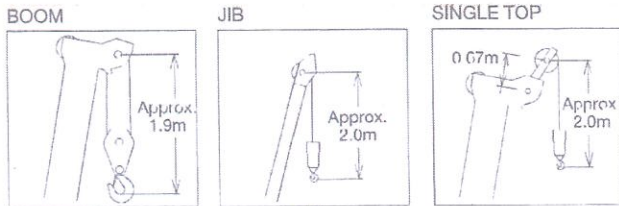
				
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GR-300EX WORKING RANGE CHART

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GR-300EX RATED LIFTING CAPACITIES

6-6

ON OUTRIGGERS FULLY EXTENDED 6.3 m SPREAD 360° ROTATION (Unit: ×1000 kg)									
B	A	9.7 m		16.8 m		24.4 m		31.0 m	
		C	C	C	C	C	C	C	C
3.0		60.6	30.0	74.4	19.2	79.7	12.5		
3.5		57.0	27.2	72.5	19.2	78.5	12.5		
4.0		53.1	23.4	70.9	19.2	77.5	12.5	80.8	8.4
4.5		49.2	21.3	68.9	18.3	76.3	12.5	80.0	8.4
5.0		44.7	19.6	67.1	17.0	75.0	12.5	79.1	8.4
5.5		40.3	18.1	65.1	15.8	74.0	12.5	78.3	8.4
6.0		34.9	16.6	63.3	14.7	72.8	12.5	77.3	8.4
6.5		28.7	15.2	61.4	13.6	71.9	11.7	76.8	8.4
7.0		18.3	14.1	58.4	12.9	70.9	11.0	75.5	8.1
8.0				54.9	10.9	67.7	9.75	73.7	7.5
9.0				50.5	9.0	65.0	8.75	71.8	6.8
10.0				45.8	7.05	62.4	7.9	69.8	6.2
11.0				40.3	5.8	59.5	6.6	67.6	5.8
12.0				34.3	4.8	56.5	5.6	65.6	5.4
13.0				27.0	4.05	53.6	4.75	63.5	5.0
14.0				15.7	3.4	50.4	4.15	61.3	4.4
15.0						47.0	3.6	59.0	3.85
16.0						43.4	3.2	56.6	3.45
17.0						39.6	2.75	54.2	3.05
18.0						35.5	2.45	51.8	2.65
19.0						30.7	2.05	49.2	2.4
20.0						25.6	1.8	46.6	2.1
22.0								40.8	1.7
24.0								34.4	1.3
26.0								28.2	1.0
28.0								13.4	0.5
D					0°				

LIFTING CAPACITIES AT ZERO DEGREE BOOM ANGLE ON OUTRIGGERS FULLY EXTENDED 6.3 m SPREAD 360° ROTATION									
C	A	9.7 m		16.8 m		24.4 m		31.0 m	
		B	B	B	B	B	B	B	B
0°		7.2	13.4	14.3	3.2	21.9	1.2	28.5	0.5

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