

DATA SHEET FOR TADANO GR-700EX ROUGH TERRAIN CRANE

Type and name of Crane : TADANO ROUGH TERRAIN CRANE (GR-700EX) LEFT HAND DRIVE

Name of Manufacturer & Origin : Tadano , Japan

Crane Capacity : 70 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 : MITSUBISHI 6M60-TLU3R [ECE-R96-02]

Max. power : 200 kW (267 IIP) 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: 24,130 KG

Type of Rear axle , capacity : Full floating type, steering and driving axle with planetary reduction and non-spin rear differential., Capacity: 20,760 KG

ر.مهندسين اقدم
عمار مصطفى عبد الرسول
رئيس اللجنة

ر.مهندسين
أيسر محمود سليم
عضو

ر.مهندسين
ماجد حاييف عبد راضي
عضو

ر.مهندسين
مخلد خليل اسماعيل
عضو

ر.مهندسين
احسان فيصل عباس
عضو

Tire size :

Front tire : 29.5-25 34PR
Rear tire : 29.5-25 34PR

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. 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 & type) : 5 section full power partially synchronized telescoping boom of round box construction with 5 sheaves at boom head.
Fully retracted length : 12 m
Fully extended length : 47 m
Extension speed : 35 m in 142 s
Sheaves at boom head : 5 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 kN, max. permissible line pull wire strength: 69.4 KN
Line Speed (winch up) : 181 m/min (7th Layer).
Hook speed (winch up) : Hoist-up speed Low speed 107m/min (4th layer) & 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) & 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.

DATA SHEET FOR TADANO GR-700EX ROUGH TERRAIN CRANE

ر. مهندسين اقدم
عمار مصطفى عبد الرسول
رئيس اللجنة

ر. مهندسين
أيمن محمود البيم
عضو

ر. مهندسين
ماجد حاييف عبد راضي
عضو

ر. مهندسين
مخالد خليل اسماعيل
عضو

ر. مهندسين
احسان فيصل عباس
عضو

Main winch type : Variable speed type with grooved drum driven by hydraulic axle piston motor.
 Diameter : 0.362 m
 Length : for main drum 253 m .
 Auxiliary winch type : Variable speed type with grooved drum driven by hydraulic axial piston motor
 Diameter : 0.362 m
 Length : for auxiliary winch 139 m.
 Hook block capacity : 6.6 ton , 35 ton and 70 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 82.0cm³ *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. 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

ر. مهندسين اقدم
 عمار مصطفى عبد الرسول
 رئيس اللجنة

ر. مهندسين
 أيسر محمود مليم
 عضو

ر. مهندسين
 ماجد حنيف عبد راضي
 عضو

ر. مهندسين
 مخاد خليل اسماعيل
 عضو

ر. مهندسين
 احسان فيصل عباس
 عضو

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.

Truck crane Measurement:

Overall length : 14,375 mm

Overall width : 3,315 mm

Overall height : 3,820 mm

Wheel Base : 3,950 mm.

Gross vehicle weight (G . V . W) : 44,890 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 & spare parts , operation (user)guide)& spare tire

Year of manufacture: Year by year according to order .

And all necessary TADANO standard equipments.

DATA SHEET FOR TADANO GR-700EX ROUGH TERRAIN CRANE

SARFAR
MACHINERY

8 / 11 / 2021

ر. مهندسين اقدم
عمار مصطفى عبد الرسول
رئيس اللجنة

ر. مهندسين
ايسر محمود سليم
عضو

ر. مهندسين
ماجد حاييف عبد راضي
عضو

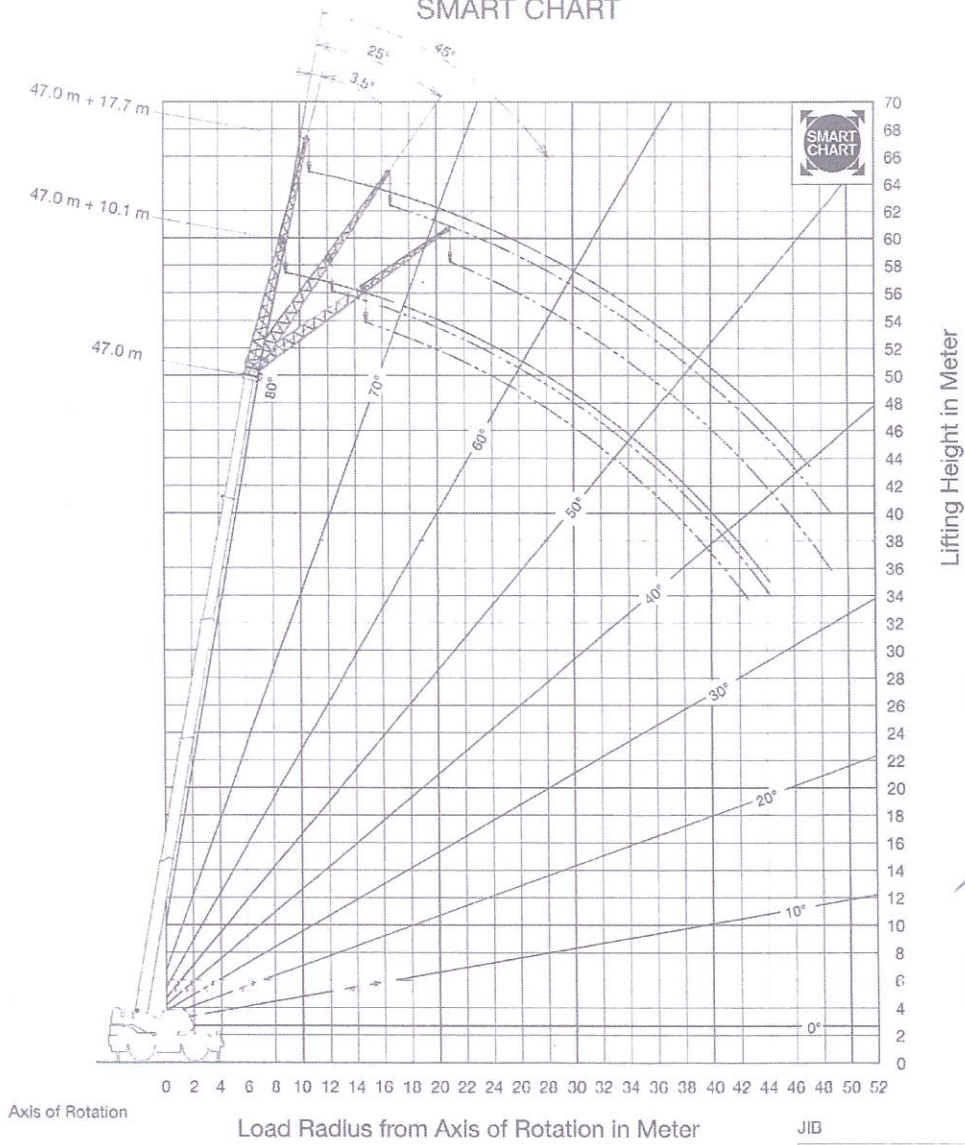
ر. مهندسين
مخاد خليل اسماعيل
عضو

ر. مهندسين
احسان فيصل عباس
عضو

GR-700EX-4 WORKING RANGE CHART

5-6

SMART CHART



SARDAR
MACHINES
Handwritten signature and date: 8/11/2021

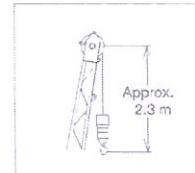
ر. مهندسین اقدم
عمار مصطفى عبد الرسول
رئيس اللجنة

ر. مهندسین
ایسر محمود سلیم
عضو

ر. مهندسین
ماجد حایف عبد راضی
عضو

ر. مهندسین
مخلد خلیل اسماعیل
عضو

ر. مهندسین
احسان فیصل عباس
عضو



GR-700EX-4 RATED LIFTING CAPACITIES

6-6

ON OUTRIGGERS FULLY EXTENDED 7.3 m SPREAD 360° ROTATION										
(Unit. → 1,000 kg)										
B	A	12.0	16.4	20.8		29.5		38.3		47.0
3.0		70.00	40.80	24.00	18.60					
3.5		62.90	40.80	24.00	18.60					
4.0		56.70	40.80	24.00	18.60					
4.5		51.50	40.80	24.00	18.60					
5.0		47.00	40.80	24.00	18.60	18.50	15.50			
5.5		43.10	40.80	24.00	18.60	18.50	15.50			
6.0		39.80	39.50	24.00	18.60	18.50	15.50			
6.5		36.80	35.40	24.00	18.60	18.50	15.50			
7.0		34.20	31.20	24.00	18.60	18.40	15.50	14.10	12.00	
7.5		31.60	27.80	23.60	18.60	17.40	15.50	14.10	12.00	
8.0		27.60	24.90	22.40	18.60	16.50	14.70	13.80	11.40	
9.0		21.60	20.50	18.60	18.60	14.90	13.50	12.40	10.30	10.10
10.0			16.90	15.60	18.40	13.60	12.40	11.20	9.30	10.00
11.0			13.90	13.30	15.50	12.50	11.50	10.30	8.50	9.20
12.0			11.60	11.40	13.20	11.40	10.60	9.40	7.90	8.50
14.0			8.30	8.10	9.90	8.90	9.30	8.00	6.70	7.30
16.0				5.90	7.70	6.90	8.20	6.90	5.80	6.40
18.0				4.30	6.10	5.30	6.60	5.70	5.10	5.60
20.0						4.10	5.30	4.60	4.50	5.00
22.0						3.20	4.40	3.60	4.00	4.30
24.0						2.40	3.60	2.90	3.60	3.50
26.0						1.80	3.00	2.30	3.20	2.90
28.0								1.70	2.70	2.40
30.0								1.30	2.30	1.90
32.0								0.90	1.90	1.50
34.0									1.60	1.20
36.0									1.30	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

BARQIAH

8/11/2021

ر. مهندسين اقدم
عمار مصطفى عبد الرسول
رئيس اللجنة

ر. مهندسين
أيمن محمود سليم
عضو

ر. مهندسين
ماجد حاييف عبد راضي
عضو

ر. مهندسين
مخلد خليل اسماعيل
عضو

ر. مهندسين
احسان فيصل عباس
عضو