







GR-600EX







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ROUGH TERRAIN CRANE

GR-800EX GR-600EX 60 METRIC TON CAPACITY GR-300EX

GR-30 Crane capacity: 30,000 kg at 3.0 m 4-section long boom: 9.7 m - 31.0 m 2-staged jib: 7.2 m / 12.8 m

Crane capacity: 60,000 kg at 3.0 m 5-section long boom: 11.0 m - 43.0 m 2-staged bi-fold jib: 10.1 m / 17.7 m

GR-5

TADAN

GR-800 Crane capacity: 80,000 kg at 3.0 m 5-section long boom: 12.0 m - 47.0 m

2-staged bi-fold jib: 10.1 m / 17.7 m

Our cranes can help you explore your future. At Tadano we are concerned about our environment. Improving our cranes operations and specifications to meet this goal is important to us. However user friendliness, operator comfort, safety and customer support are also part of our essential goals.

TADANO

New Generation of Cranes

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To this end Tadano has launched a new generation of crane that is friendly to the environment, our earth and our future.

NEW FEATURES

HELLO-NET System

TADANO supports your crane management via the Internet, providing information about operational status, position and maintenance.

HELLO-NET Owner's Site enables sharing of machine data between TADANO Group and machine owners. We offer you advanced customer support.







Monitoring machine information from your computer

1. Work History

HELLO-NET Owner's Site displays the day-to-day operational status, mileage and remaining fuel for each machine equipped with a communication terminal. In addition, you can view a list displaying the number of hours of operation and the mileage of all your machines for any specified month.

2. Machine Position Data

Using HELLO-NET Owner's Site, you can check a machine's latest position (up until the previous day) on a map. Two types of position data, listed below, are transmitted automatically from your machine once every day. Work Site: The location where the machine's PTO has been activated (for one hour or more). Position at Day's End: The final location from which GPS was able to receive data on a given day.

3. Maintenance Information

You can check the maintenance timetable of your machines for periodical replacement parts and inspection schedule.

HELLO-NET supports the maintenance of your machine.



Telematics (machine data logging and monitoring system) with HELLO-NET via internet (*availability depends on the situation). DETAILS: The availability of data communication systems, such as satellite or mobile communications which serve to

widen the service area differs according to individual countries. Besides, there are some countries where the system itself is not in use yet. For details, please contact your distributor or our sales staff in charge.





Fuel Monitoring System

The Fuel Monitoring System constantly monitors fuel consumption on the AML screen. Checking this monitor enables you to prevent wasteful fuel consumption from unnecessary acceleration and idling.





Eco Mode System



Positive Control System

The Positive Control System effectively controls the quantity of hydraulic pump discharge during crane operation in response to the amount of movement applied by the operating control lever. When the crane is in a state of idling, the Positive Control System keeps the quantity of hydraulic pump discharge to a minimum, reducing fuel consumption and CO₂ emissions by up to 20%.



The Environmentally Friendly Features





The round hexagonal box boom (GR-300EX)

Assist cylinder for jib (GR-800EX, GR-600EX)

When mounting and stowing the jib, the assist hydraulic cylinders are used resulting in increased work efficiency and safety.





Two telescoping modes I & I (GR-800EX, GR-600EX)

The operator has enhanced capabilities with two boom telescoping options whichever suits the lift needs.



Mode I Mode I is extension of 2nd section only. 4th and 5th sections.

New crane structure (GR-800EX, GR-600EX)

During development of the structural shape of the crane, *FEM analysis was applied to achieve a design tailored for optimal operation. The slewing frames' structure ensures a highly rigid, compact style that is well suited for the overall planned design of the crane. Continuing the TADANO tradition of excellence and innovation. *FEM: Finite Element Method









Then follows the synchronized extension of 3rd,



Mode **I** Mode II is synchronized extension of 3rd, 4th and 5th sections. Then 2nd section extends independently.





Crane

Two w with ca			ver
	 -	-	

Both the main winch and the auxiliary winch have powerful line pull and operate at high speeds thus enhancing work efficiency.

*Maximum permissible line pull may be affected by wire rope strength.

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Load moment indicator [AML-C]

Tadano's AML-C is easy to use, innovative in design, displays important information to the operator and enables the operator to preset a custom working environment. For example, the AML-C shows the boom angle, boom length, load radius, operating pressure of the elevating cylinder, the extension width of the outriggers, slewing position, rated lifting capacity through all lifting operations without having to change configurations or input new codes to make the lift.

The AML-C safety features provide both audible and visual warnings. When an operation approaches the load limit Tadano's slow stop function engages to avoid shock loads.



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Drum rotation indicator

To let the operator know when the winch is rotating, the drum rotation indicator on the AML beeps and flashes sequentially. The moving distance of the hook block per one flash of the indicator is approximately 7.9 in. to 11.8 in. (20 cm to 30 cm).

AML display symbols







Crane

Operator comfort

The crane cab provides improved livability and a more comfortable working environment.





Air conditioner Hot-water heater and air conditioning.

The control levers are smooth

Seat adjustment



Armrest adjustment button



Slide adjustment lever

Adjustment of control lever stand

- the stowing position.

and responsive to the operators touch.

Wider steps and hand rails





Front steps

Rear steps





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Multiple seat adjustment positions for ease of operation.

• The control lever stand has a 3-stage adjustment feature.

• Before you enter or exit the cab, or when Position for you complete the crane operation, crane operation set the control lever stand on the left to Stowing position (for traveling) • The unlock lever is used by pulling to adjust for all positions of the control lever stand. Unlock lever





Right side steps





Dashboard indicator and warning symbols

Speedometer

Odometer/tripmeter

Fuel gauge

Engine water temperature

gauge



New carrier frame (GR-800EX, GR-600EX)

Photo: GR-800EX

The new carrier frame design was developed and built so that its lightweight is compatible with its high rigidity to achieve an advanced level of performance. As a result, the rigidity was enhanced by as much as *35% which enables highly stabilized maneuverability for the new model of crane.

*Compared with our conventional crane models

Winch drum monitoring mirror

(GR-800EX, GR-600EX) Folding mirror reduces height during transport.



High performance engine



GR-800EX, GR-600EX

Model

Туре

Mitsubishi 6M60-TL 4-cycle, turbo charged and after cooled, 6-cylinder, direct injection diesel. Piston displacement 7.54 liters

Max. output 200 kW at 2,600 min⁻¹ {rpm} 785 N·m at 1,400 min⁻¹ {rpm} Max. torque



Mitsubishi 6M60-TL

GR-300EX

Model Cummins QSB6.7 EU) stage IIIA 4-cycle, turbo charged and after cooled, 6-cylinder, Type direct injection diesel. Piston displacement 6.70 liters Max. output 160 kW at 2,500 min⁻¹ {rpm} 843 N·m at 1,600 min⁻¹ {rpm} Max. torque



Cummins QSB6.7 EU) stage III A



Engine warning (red) CPU error Water separator

Engine warning (yellow) Coolant level

Smooth transmission

- Electronically controlled, fully automatic transmission.
- Torque converter driving full power shift with driving axle selector.
- 6 forward and 2 reverse speeds, constant mesh.

GR-800EX, GR-600EX

3 speeds - High range - 2 wheel drive; 4 wheel drive 3 speeds - Low range - 4 wheel drive

GR-300EX

4 speeds - Low range - 4 wheel drive





Photo: GR-600EX



4 speeds - High range - 2 wheel drive; 4 wheel drive

Fastest traveling speed (GR-300EX)

Maximum traveling speed 50 km/h Cummins Engine + 6 forward speeds transmission

Comfortable suspension (GR-300EX)

Semi-elliptic leaf springs with hydraulic lockout device provide good riding comfort.



Axle

Front: Full floating type, steering and driving axle with planetary reduction.

Rear: Full floating type, steering and driving axle with planetary reduction and non-spin rear differential.

Brake Systems

Service: Air over hydraulic disc brakes on all 4 wheels. Parking/Emergency: Spring applied-air released brake acting on input shaft of front axle. Auxiliary: Electropneumatic operated exhaust brake.

4 steering modes

Hydraulic power steering.

	leering.		GR-800EX	GR-600EX	GR-300EX
Traveling on roads Driving in work site		2 wheel front Front steering only. This steering method is the same as that of general vehicles.	\bigcirc	\bigcirc	\bigcirc
		2 wheel rear Rear steering only. The rear end of the vehicle swings outward like a forklift. Useful for easy approach of a narrow area.	\bigcirc	\bigcirc	
Driving in work site		4 wheel coordinated Front and rear wheels are steered in opposite directions. The turning radius is decreased. Useful for movement in a small area.	0	0	\bigcirc
		4 wheel crab Front and rear wheels are steered in the same direction. The vehicle can move diagonally. Useful for pulling over.	\bigcirc	\bigcirc	\bigcirc



GR-800EX

Max. traveling speed: 36 km/h Overall length: approx. 14,375 mm Overall width: approx. 3,315 mm Overall height: approx. 3,795 mm Min. turning radius (at center of extreme outer tire) 2-wheel steering: 11.9 m 4-wheel steering: 6.8 m

GR-600EX

Max. traveling speed: 36 km/h Overall length: approx. 13,380 mm Overall width: approx. 3,315 mm Overall height: approx. 3,790 mm Min. turning radius (at center of extreme outer tire) 2-wheel steering: 11.9 m 4-wheel steering: 6.8 m

GR-300EX

Max. traveling speed: 50 km/h Overall length: approx. 11,245 mm Overall width: approx. 2,620 mm Overall height: approx. 3,535 mm Min. turning radius (at center of extreme outer tire) 2-wheel steering: 9.8 m 4-wheel steering: 5.8 m

Carrier





GR-600EX







MODEL	GR-800EX	GR-600EX
MAXIMUM CAPACITY	80,000 kg at 3.0 m	60,000 kg at 3.0 m
PERFORMANCE		
Max. Traveling speed	36 km/h	36 km/h
Gradeability (tan θ)	94%(at stall), 30%*	147% (at stall), 30%*
	* Machine should be operated within limit of engine	* Machine should be operated within limit of engine
WEIGHT	crackcase design. (17°: Mitsubishi 6M60-TL)	crackcase design. (17°: Mitsubishi 6M60-TL)
Gross vehicle mass	52,110 kg (incl. 80 ton hook block)	44,275 kg (incl. 60 ton hook block)
front axle	25,675 kg	22,515 kg
rear axle	26,435 kg	21,760 kg
MIN. TURNING RADIUS	11.9 m (2-wheel steering), 6.8 m (4-wheel steering)	11.9 m (2-wheel steering), 6.8 m (4-wheel steering)
	(at center of extreme outer tire)	(at center of extreme outer tire)
BOOM	5-section full power telescoping boom. 12.0 m	5-section full power telescoping boom.
Fully retracted length Fully extended length	47.0 m	11.0 m 43.0 m
Extension speed	35.0 m in 160 s	32.0 m in 128 s
Angle	-1.5°-80.5°	-1.6°-80.3°
Elevation speed	20° to 60° in 46 s	20° to 60° in 46 s
JIB	2-staged bi-fold lattice type with triple offset	2-staged bi-fold lattice type with triple offset (tilt type).
0.4	(tilt type). Single sheave at jib head.	Single sheave at jib head.
Offset	3.5°, 25°, 45° 10.1 m and 17.7 m	3.5°, 25°, 45° 10.1 m and 17.7 m
Length MAIN WINCH	Variable speed type with grooved drum driven by	Variable speed type with grooved drum driven by
	hydraulic axial piston motor.	hydraulic axial piston motor.
Single line pull	64.7 kN {6,600 kgf}	54.9 kN {5,600 kgf}
Single line speed	149 m/min. (at 4th layer)	128 m/min. (at 4th layer)
Wire rope	19 mm x 253 m (Diameter x length)	19 mm x 235 m (Diameter x length)
AUXILIARY WINCH	Variable speed type with grooved drum driven by	Variable speed type with grooved drum driven by
Qingle line null	hydraulic axial piston motor.	hydraulic axial piston motor.
Single line pull Single line speed	64.7 kN {6,600 kgf} 128 m/min. (at 2nd layer)	54.9 kN {5,600 kgf} 110 m/min. (at 2nd layer)
Wire rope	19 mm x 139 m (Diameter x length)	19 mm x 133 m (Diameter x length)
SLEWING		
Slewing speed	1.5 min ⁻¹ {rpm}	2.4 min ⁻¹ {rpm}
Tail slewing radius	4,190 mm	4,190 mm
HYDRAULIC SYSTEM	Pumps 2 variable piston pumps for crane functions.	Pumps 2 variable piston pumps for crane functions.
	Tandem gear pump for steering, slewing	Tandem gear pump for steering, slewing
	and optional equipment.	and optional equipment.
	Control valves Multiple valves actuated by pilot pressure	Control valves Multiple valves actuated by pilot pressure
	with integral pressure relief valves.	with integral pressure relief valves.
	Reservoir 763 liters capacity. External sight level gauge.	Reservoir 763 liters capacity. External sight level gauge.
	Oil cooler Air cooled fan type.	Oil cooler Air cooled fan type.
TADANO Automatic	Following information is displayed:	Following information is displayed:
Moment Limiter	Control lever lockout function with audible and visual pre-warning	Control lever lockout function with audible and visual pre-warning
(Model: AML-C)	Number of parts of line Boom position indicator	Number of parts of line Boom position indicator
	Outrigger state indicator Slewing angle	Outrigger state indicator Slewing angle
	Boom angle / boom length / jib offset angle / jib length / load	Boom angle / boom length / jib offset angle / jib length / load
	 radius / rated lifting capacities / actual loads read out Potential lifting height Ratio of actual load moment to rated 	radius / rated lifting capacities / actual loads read out • Potential lifting height • Ratio of actual load moment to rated
	load moment indication • Permissible load	load moment indication • Permissible load
	Automatic speed reduction and slow stop function for boom	Automatic speed reduction and slow stop function for boom
	elevation and slewing • Working condition register switch	elevation and slewing • Working condition register switch
	Load radius / boom angle / tip height / slewing range preset	• Load radius / boom angle / tip height / slewing range preset
	function • External warning lamp • Tare function	function • External warning lamp • Tare function
	Main hydraulic oil pressure Fuel consumption monitor	Main hydraulic oil pressure Fuel consumption monitor
	Main winch / auxiliarly winch select	Main winch / auxiliarly winch select
	Drum rotation indicator (audible and visible type) main and	Drum rotation indicator (audible and visible type) main and
OUTRIGGERS	auxiliary winch • On-rubber indicator 4 hydraulic, beam and jack outriggers. Vertical jack cylinders	auxiliary winch • On-rubber indicator 4 hydraulic, beam and jack outriggers. Vertical jack cylinders
00 middlh0	equipped with integral holding valve. Each outrigger beam and	equipped with integral holding valve. Each outrigger beam and
	jack is controlled independently from cab.	jack is controlled independently from cab.
Extension width	Max 7,300 mm, Mid 6,700 mm & 5,500 mm	Max 7,300 mm, Mid 6,700 mm & 5,500 mm
	Min 2,700 mm, Float size (Diameter) 600 mm	Min 2,700 mm, Float size (Diameter) 600 mm
CARRIER	Rear engine, left-hand drive, driving axle 2-way selected type by	Rear engine, left-hand drive, driving axle 2-way selected type by
	manual switch.	manual switch.
ENCINE	4 x 2 front drive, 4 x 4 front and rear drive	4 x 2 front drive, 4 x 4 front and rear drive
ENGINE	Model Mitsubishi 6M60-TL Type 4-cycle, turbo charged and after cooled,	Model Mitsubishi 6M60-TL Type 4-cycle, turbo charged and after cooled,
	6-cylinder, direct injection diesel.	6-cylinder, direct injection diesel.
	Piston displacement7.54 liters	Piston displacement7.54 liters
	Bore x stroke 118 mm x 115 mm	Bore x stroke 118 mm x 115 mm
	Max. output 200 kW at 2,600 min ⁻¹ {rpm}	Max. output 200 kW at 2,600 min ⁻¹ {rpm}
	Max. torque 785 N·m at 1,400 min ⁻¹ {rpm}	Max. torque 785 N•m at 1,400 min ⁻¹ {rpm}
TRANSMISSION	Electronically controlled full automatic transmission.	Electronically controlled full automatic transmission.
STEERING	Hydraulic power steering.	Hydraulic power steering.
	4 steering modes available:	4 steering modes available:
	2-wheel front, 2-wheel rear, 4-wheel coordinated, 4-wheel crab	2-wheel front, 2-wheel rear, 4-wheel coordinated, 4-wheel crab
SUSPENSION	Front Rigid mounted to frame.	Front Rigid mounted to frame.
	Rear Pivot mounted with hydraulic lockout cylinders.	Rear Pivot mounted with hydraulic lockout cylinders.
TIRES FUEL TANK CAPACITY	29.5–25 34PR (OR), Single x 4	29.5–25 22PR (OR) or 29.5–25 28PR (OR), Single x 4 300 liters

MODEL	GR-300EX	
	30,000 kg at 3.0 m	BOUOU
PERFORMANCE		ROUGH
Max. Traveling speed	50 km/h	
Gradeability (tan θ)	78% (at stall), 57%*	
	* Machine should be operated within limit of engine crackcase design. (30°: Cummins QSB6.7**)	TERRAIN
WEIGHT		
Gross vehicle mass	27,190 kg (incl. 30 ton hook block)	
front axle	13,650 kg	
rear axle MIN. TURNING RADIUS	13,540 kg 9.8 m (2-wheel steering), 5.8 m (4-wheel steering)	CRANE
MIN. TURINING RADIUS	(at center of extreme outer tire)	
BOOM	4-section full power telescoping boom.	
Fully retracted length	9.7 m	
Fully extended length	31.0 m	100 3
Extension speed Angle	21.3 m in 91 s 0°-81°	and and
Elevation speed	20° to 60° in 22 s	1 Starland
JIB	2-staged jib with triple offset (tilt type).	A Marine
	Single sheave at jib head.	
Offset	5°, 25°, 45°	
Length MAIN WINCH	7.2 m and 12.8 m Variable speed type with grooved drum driven by	
	hydraulic axial piston motor.	
Single line pull	39.2 kN {4,000 kgf}	
Single line speed	125 m/min. (at 4th layer)	E-TK E
Wire rope AUXILIARY WINCH	16 mm x 170 m (Diameter x length) Variable speed type with grooved drum driven by	
	hydraulic axial piston motor.	6
Single line pull	39.2 kN {4,000 kgf}	
Single line speed	125 m/min.(at 4th layer)	
Wire rope	16 mm x 98 m (Diameter x length)	
SLEWING Slewing speed	3.2 min ⁻¹ {rpm}	
Tail slewing radius	3,330 mm	
HYDRAULIC SYSTEM	Pumps 2 variable piston pumps for crane functions.	
	Tandem gear pump for steering, slewing	
	and optional equipment.	
	Control valves Multiple valves actuated by pilot pressure	
	with integral pressure relief valves.	
	Reservoir 380 liters capacity. External sight level gauge	
	Oil cooler Air cooled fan type.	
TADANO Automatic	Following information is displayed:	
Moment Limiter (Model: AML-C)	Control lever lockout function with audible and visual pre-warning Number of parts of line Boom position indicator	
(WODEL AWE-O)	Outrigger state indicator Slewing angle	
	Boom angle / boom length / jib offset angle / jib length / load	
	radius / rated lifting capacities / actual loads read out	
	Potential lifting height Ratio of actual load moment to rated	
	load moment indication • Permissible load • Automatic speed reduction and slow stop function for boom	
	elevation and slewing • Working condition register switch	
	Load radius / boom angle / tip height / slewing range preset	
	function • External warning lamp • Tare function	
	Main hydraulic oil pressure Fuel consumption monitor	
	 Main winch / auxiliarly winch select Drum rotation indicator (audible and visible type) main and 	
	 Drum rotation indicator (audible and visible type) main and auxiliary winch On-rubber indicator 	
OUTRIGGERS	4 hydraulic, beam and jack outriggers. Vertical jack cylinders	
	equipped with integral holding valve. Each outrigger beam and	
E	jack is controlled independently from cab.	
Extension width	Max 6,300 mm, Mid 5,900 mm & 5,000mm	
CARRIER	Min 2,200 mm, Float size (Diameter) 400 mm	P
	Rear engine left-hand drive driving axle 2-way selected type by	
JARNIER	Rear engine, left-hand drive, driving axle 2-way selected type by manual switch.	
-	manual switch. 4 x 2 front drive, 4 x 4 front and rear drive.	
-	manual switch. 4 x 2 front drive, 4 x 4 front and rear drive. Model Cummins QSB6.7 EU) stage IIIA	
ENGINE	manual switch. 4 x 2 front drive, 4 x 4 front and rear drive. Model Cummins QSB6.7 EU) stage IIIA Type 4-cycle, turbo charged and after cooled,	
-	manual switch. 4 x 2 front drive, 4 x 4 front and rear drive. Model Cummins QSB6.7 EU) stage IIIA Type 4-cycle, turbo charged and after cooled, 6-cylinder, direct injection diesel.	Ĥ
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ENGINE	 manual switch. 4 x 2 front drive, 4 x 4 front and rear drive. Model Cummins QSB6.7 EU) stage IIIA Type 4-cycle, turbo charged and after cooled, 6-cylinder, direct injection diesel. Piston displacement 6.70 liters Bore x stroke 107 mm x 124 mm Max. output 160 kW at 2,500 min⁻¹ (rpm) Max. torque 843 N·m at 1,600 min⁻¹ (rpm) Electronically controlled full automatic transmission. 	
ENGINE TRANSMISSION STEERING	 manual switch. 4 x 2 front drive, 4 x 4 front and rear drive. Model Cummins QSB6.7 EU) stage IIIA Type 4-cycle, turbo charged and after cooled, 6-cylinder, direct injection diesel. Piston displacement 6.70 liters Bore x stroke 107 mm x 124 mm Max. output 160 kW at 2,500 min⁻¹ {rpm} Max. torque 843 N·m at 1,600 min⁻¹ {rpm} Electronically controlled full automatic transmission. Hydraulic power steering. 3 steering modes available: 2-wheel front, 4-wheel coordinated, 4-wheel crab 	
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