

MODEL : GR-500EXL (Right-hand drive)

SPECIFICATIONS

| | |
|------------------------|--|
| MAXIMUM CAPACITY | 51,000 kg at 2.5 m (50,000 kg at 3.0 m) |
| PERFORMANCE | |
| Max. traveling speed | 48 km/h |
| Gradeability (tan θ) | 65% (at stall), 30%* |
| | * Machine should be operated within limit of engine crackcase design. (17°: Mitsubishi 6M60-TL) |
| WEIGHT | |
| Gross vehicle mass | 38,480 kg (incl. 51 ton hook block) |
| -front axle | 18,910 kg |
| -rear axle | 19,570 kg |
| MIN. TURNING RADIUS | 10.3 m (2-wheel steering), 6.0 m (4-wheel steering) (at center of extreme outer tire) |
| BOOM | |
| Fully retracted length | 5-section full power synchronized telescoping boom. 11.1 m |
| Fully extended length | 42.0 m |
| Extension speed | 30.9 m in 150 s |
| Angle | -1°-80.5° |
| Elevation speed | 20° to 60° in 30 s |
| JIB | |
| | 2-staged jib with triple offset (tilt type). Single sheave at jib head. |
| Offset | 5°, 25°, 45° |
| Length | 8.0 m and 12.7 m |
| MAIN WINCH | |
| | Variable speed type with grooved drum driven by hydraulic axial piston motor through speed reducer. |
| Single line pull | 44.1 kN (4,500 kgf) |
| Single line speed | 132 m/min. (at 4th layer) |
| Wire rope | 16 mm x 225 m (Diameter x length) |
| AUXILIARY WINCH | |
| | Variable speed type with grooved drum driven by hydraulic axial piston motor through speed reducer. |
| Single line pull | 44.1 kN (4,500 kgf) |
| Single line speed | 124 m/min. (at 3rd layer) |
| Wire rope | 16 mm x 117 m (Diameter x length) |
| SLEWING | |
| Slewing speed | 2.1 min ⁻¹ {rpm} |
| Tail slewing radius | 4,100 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... 690 liters capacity. External sight level gauge. |
| | Oil Cooler... Air cooled fan type. |

| | |
|--|--|
| TADANO Automatic Moment Limiter (Model: AML-C) | Following information is displayed. • Control lever lockout function with audible and visual pre-warning • Number of parts of line • Boom position indicator • 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 on 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 / auxiliary winch select • 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 jack is controlled independently from cab. |
| Extension width | Max. ... 7,000 mm, Mid. ... 6,500 mm & 5,000 mm Min. ... 2,480 mm, Float size (Diameter)... 400 mm |
| CARRIER | Rear engine, right-hand drive, driving axle 2-way selected type by manual switch. 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. Piston displacement... 7.54 liters Bore x stroke... 118 mm x 115 mm Max. output... 200 kW at 2,600 min ⁻¹ {rpm} Max. torque... 785 N-m at 1,400 min ⁻¹ {rpm} |
| TRANSMISSION | Electronically controlled full automatic transmission. |
| STEERING | Hydraulic power steering. 3 steering modes available: 2-wheel front, 4-wheel coordinated, 4-wheel crab |
| SUSPENSION | Front... Semi-elliptic leaf springs. Rear... Semi-elliptic leaf springs. |
| TIRES | Front... 505/95R25, Single x 2 Rear... 505/95R25, Single x 2 |
| FUEL TANK CAPACITY | 300 liters |



Lifting your dreams

ROUGH TERRAIN CRANE

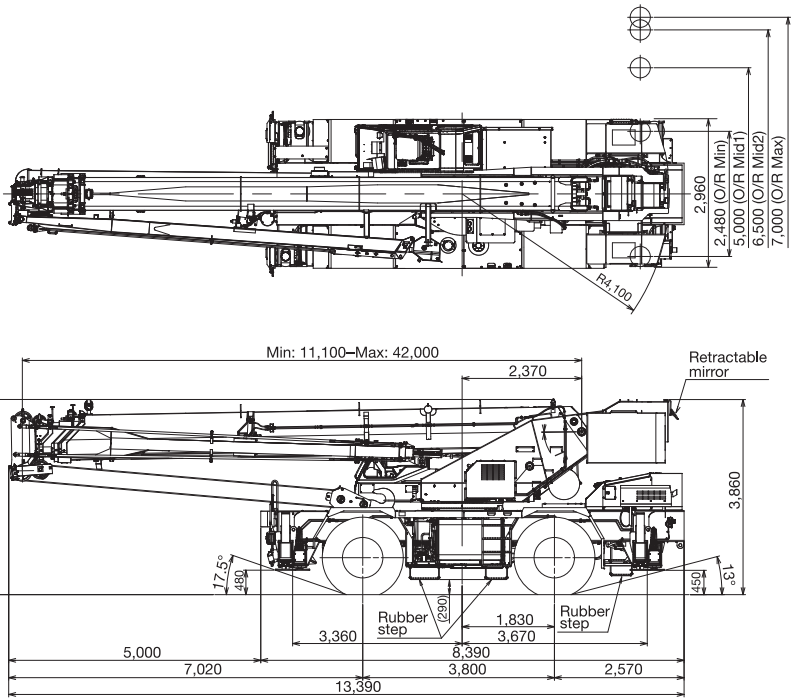
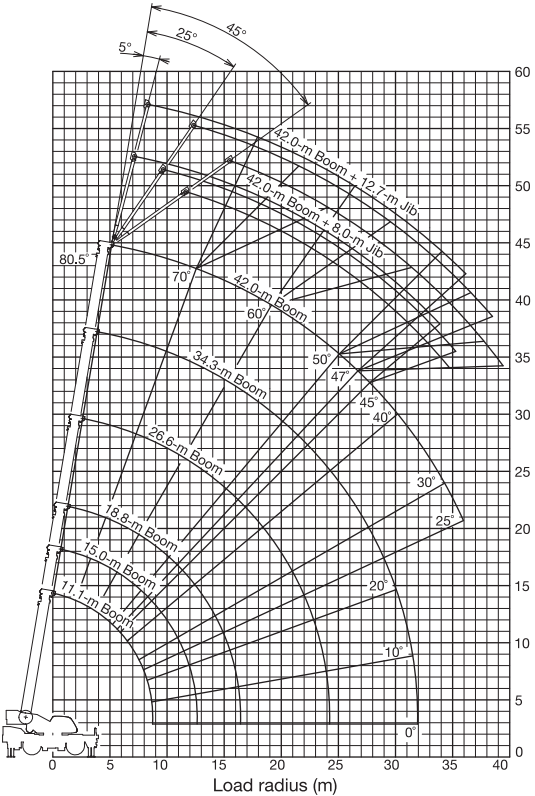
GR-500EXL

Right-hand drive — 51 METRIC TON CAPACITY

ROUGH TERRAIN CRANE

WORKING RANGE

DIMENSIONS



Dimensions are with boom angle at -1° unless otherwise specified.

Some specifications are subject to change



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The GR-500EXL:
High Quality We Are Proud Of



* Hook retaining rope is optional.

New Design

Compact carrier for rough terrain crane

Overall length: approx. 13,390 mm
Overall width : approx. 2,960 mm
Overall height: approx. 3,865 mm

ROUGH TERRAIN CRANE GR-500EXL

Right-hand drive

The Debut of a new crane for a solution to your problems!

Tadano has launched a new rough terrain crane that better meets customer's requirements. Our new crane combines a compact carrier for better maneuverability with improved driving performance. In addition, it equips the longest boom in its class. Tadano has also enhanced safety and operator comfort by improved accessibility, environmental friendliness and high maintainability. We are convinced that the GR-500EXL is the best solution for you.

Carrier

Newly designed carrier provides improved driving performance.



* Hook retaining rope is optional.

Good front and side view for driving

Double short elevating cylinders are installed at the rear side of cab to improve visibility while driving.

Radial tire (505/95 R 25)

Radial tires have been adopted to extend continuous travel time.

Radial tire

Continuous travel without a break

Non-radial tire

30 minutes drive

120 minutes break

30 minutes drive

Suspension

Front / Rear: Semi-elliptic leaf springs

Locking Differential

A locking differential assists operators on rough roads.

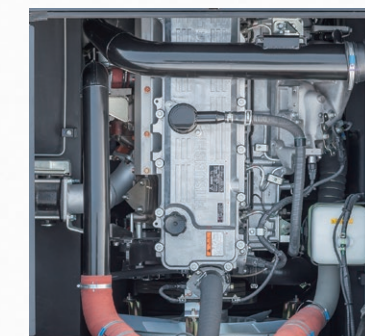


Fast traveling speed

Max. traveling speed: 48km/h

High performance engine

Increased engine durability.



MITSUBISHI 6M60-TL
 4 cycle, turbo charged and after cooled.
 Max. output:
 200 kW at 2600 min⁻¹ {rpm}
 Max. torque:
 785 N-m at 1,400 min⁻¹ {rpm}

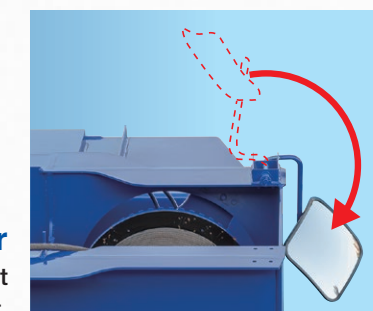
Boom head mirror

Boom head mirrors are used for checking the immediate area on each side of the vehicle in order to enhance driving safety.



Winch drum monitoring mirror

Folding mirror reduces height during transport.





Crane

Longest boom & largest class lifting capacity in its class!

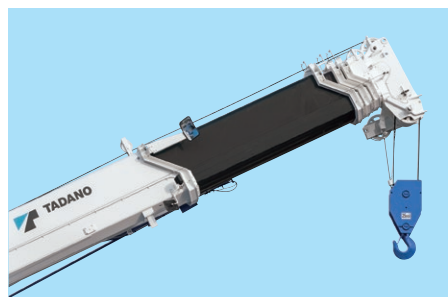
Crane capacity: 51 ton at 2.5 m (50 ton at 3.0 m)
5-section long boom: 11.1 m–42.0 m
2-staged under slung jib: 8.0 m / 12.7 m

Two telescoping modes I & II

Operator capabilities are enhanced by two boom telescoping options for individual lift requirements.

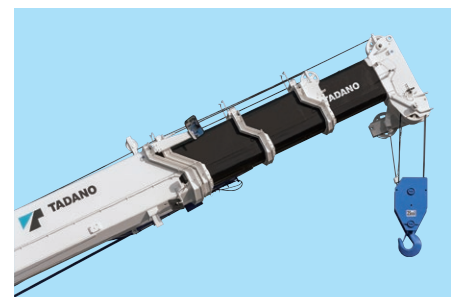
Mode I

Mode I is the extension of the 2nd section only. This is followed by the synchronized extension of the 3rd, 4th, and 5th sections.



Mode II

Mode II is the synchronized extensions of the 3rd, 4th and 5th sections. The 2nd section then extends independently.



Under slung jib (side up type)

A two-stage, under slung jib makes installation in narrow spaces possible.

Jib installation



-1°–80.5°

Automatic moment limiter [AML-C]



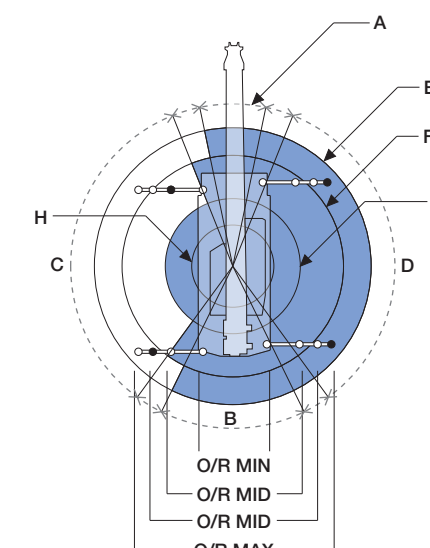
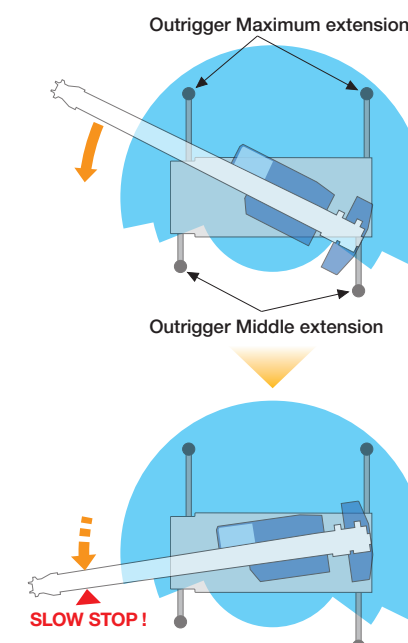
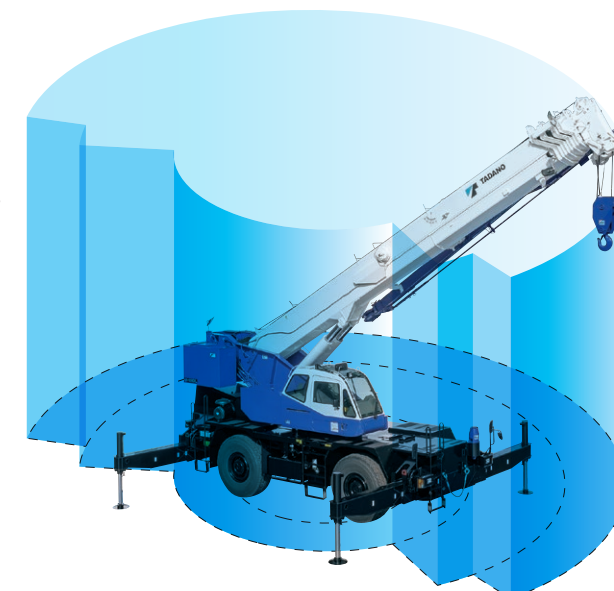
Tadano's AML-C is easy to use, innovative in design, displays important information to the operator and enables the operator to preset a custom working environment. For example, the AML-C shows the boom angle, boom length, load radius, operating pressure of the elevating cylinder, the extension width of the outriggers, slewing position, rated lifting capacity and present hook load. These features allow the AML-C to move seamlessly 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.



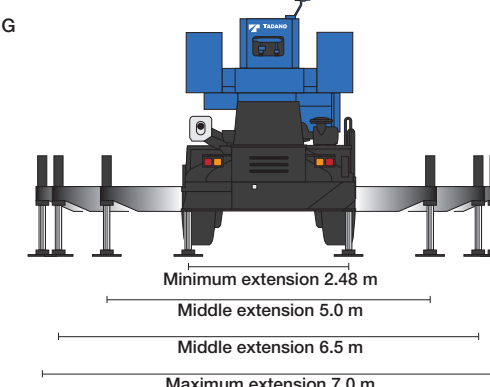
AML lamp

Outrigger asymmetric extension width control

When operating the crane with the asymmetric outriggers extended, the AML-C detects the extension width of all of the crane's outriggers (front, rear, left and right) to measure maximum work capacity in each area. When slewing the boom from the longer outrigger area to the shorter outrigger area, the AML-C detects the motion and displays the maximum capacity according to the extension width of each of the outriggers, and brings the motion to a slow stop before it reaches the maximum capacity. The AML-C's slow stop function will help to minimize any safety risks even in the cases of operator error.



A: Over-front B: Over-rear C: Over-side D: Over-side
 E: Rated Load [O/R max. 7.0 m]
 F: Rated Load [O/R mid. 6.5 m]
 G: Rated Load [O/R mid. 5.0 m]
 H: Rated Load [O/R min. 2.48 m]





Operator comfort

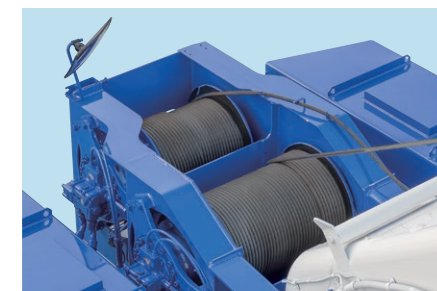
The crane cab provides improved livability and a more comfortable working environment.



Standard Equipment



Tool storage compartment



Two winches with cable follower

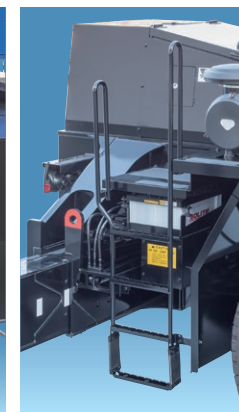


Air conditioner
Hot-water heater and air conditioning.

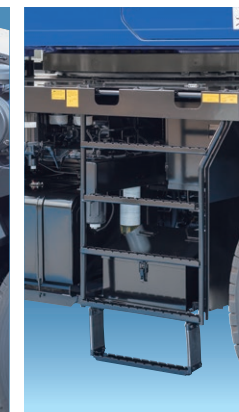
Improved accessibility



Front steps



Rear steps



Right side steps



Left side steps



Steps on the superstructure

Environmentally Friendly Features

Eco Mode System

The Eco Mode System controls the maximum engine speed at the time of crane operation. To prevent an unnecessary rise in engine speed when there is excessive acceleration, the system enables fuel consumption and CO₂ emissions to decrease by Max. 22 % with Eco mode I, and Max. 30 % with Eco mode II while simultaneously reducing noise levels.



Eco mode switch

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.



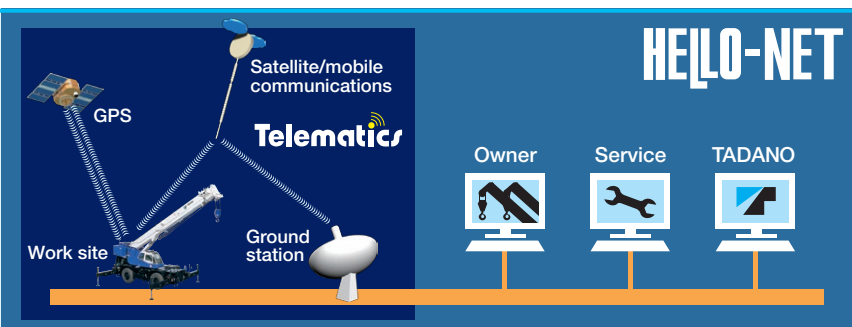
During crane operation



While traveling

HELLO-NET System

The HELLO-NET System is used to monitor crane activity straight from your computer or mobile device. You have the ability to view work history, machine position data and maintenance information. HELLO-NET provides advanced customer support between the owners' site and TADANO Group.



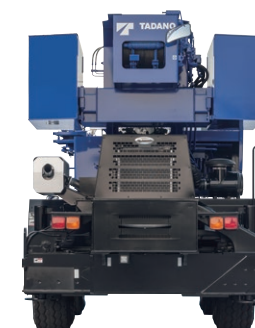
Note: HELLO-NET availability varies by situation. For detail, please contact your distributor or our sales staff in charge.



Front



Left



Rear



Right

* The hook retaining rope is optional.