




Lifting your dreams

ROUGH TERRAIN CRANE

120 TON CAPACITY

**ROUGH
TERRAIN
CRANE**





Crane capacity: 242,500 lbs at 8 ft (110,000 kg at 2.44 m)
6-section long boom: 39.4 ft–183.7 ft (12.0 m–56.0 m)
2-staged bi-fold jib: 33.2 ft, 58.1 ft (10.1 m, 17.7 m)
Max. lifting height: 184.0 ft (56.1 m) [Boom only]
241.4 ft (73.6 m) [Boom + Jib]
Max. working radius: 150.0 ft (45.7 m) [Boom only]
159.0 ft (48.4 m) [Boom + Jib]

ROUGH TERRAIN CRANE

GR-1200XL

Compact Rough Terrain Crane with Improved Work Capacity

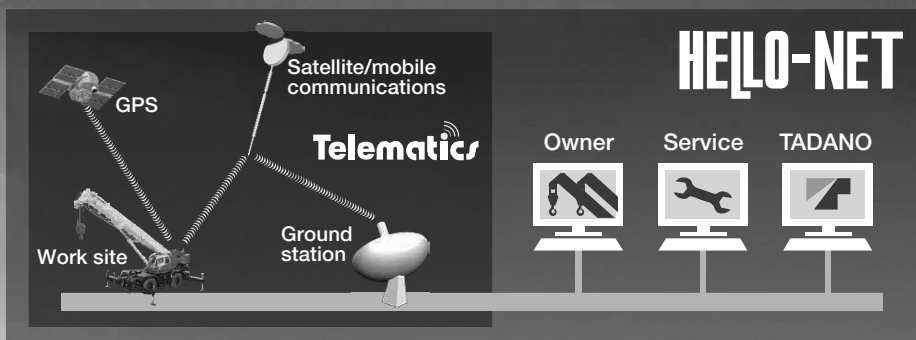
The GR-1200XL is a new, state-of-the-art crane with the largest lifting capacity among Tadano's two-axle rough terrain models. The crane sits on a compact two-axle carrier and comes with the longest boom of all Tadano's two-axle rough terrain cranes. It offers compactness—almost as small as the existing 100-ton-class rough terrain model—and is especially easy to transport. The new crane design provides for improved safety, greater work efficiency, environmental considerations and exceptional quality. This new, next-generation crane is ready to work for you.

Equipped with Satellite/Mobile Communications and Environmentally Friendly Features

HELLO-NET



Hello-Net allows you to monitor crane activity directly from your computer or mobile device and is connected through satellite or mobile communications. It provides advanced customer support capability by providing operational information as well as the ability to manage inspection and maintenance schedules.



Note: HELLO-NET availability varies by country.
For details, please contact your distributor or regional sales staff.

Eco mode

The Eco Mode System controls the maximum engine speed during crane operation. The system will reduce any unnecessary rise in engine speed when there is excessive acceleration and allow fuel consumption and CO₂ emissions to be reduced by a maximum 22% with Eco Mode 1, and maximum 30% with Eco Mode 2. This also results in reduced noise levels.



Eco mode switch

Positive control

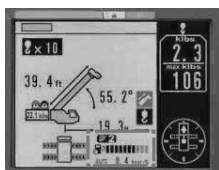
The Positive Control System effectively controls the hydraulic pump discharge during crane operation in direct response to the amount of movement applied by the operating control lever.

Keeping the quantity of hydraulic pump discharge to a minimum, helps to reduce fuel consumption and CO₂ emissions by up to 20%.



Fuel monitoring

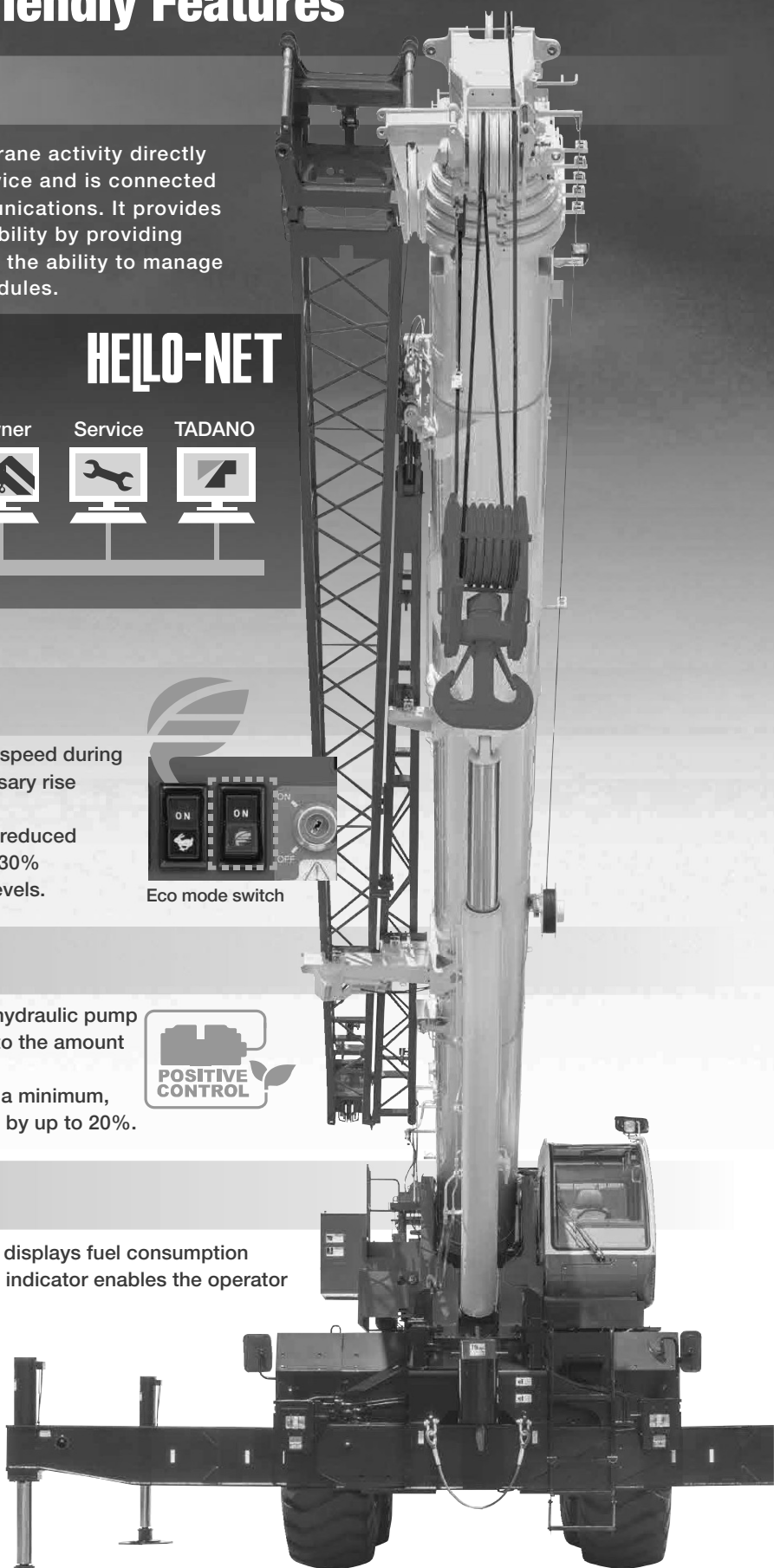
The Fuel Monitoring System constantly monitors and displays fuel consumption conditions on the AML screen. Monitoring the screen indicator enables the operator to prevent wasteful acceleration and idling.



During crane operation



At traveling



Crane

The rounded boom is made of high tensile steel, which allows for decreased boom weight as well as increased boom strength. In addition, the high-performance AML-C ensures operational safety.



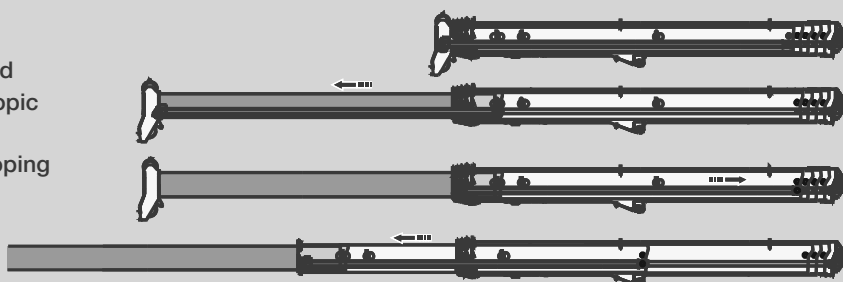
Ultimate boom for rough terrain crane

Single telescopic cylinder

6 box type sections consisting of 1 base section and 5 telescopic sections are extended by a single telescopic cylinder. All sections are fully extended/retracted automatically and locked in the selected working position.

Outline of telescoping mode

Boom telescoping of the crane is performed with one telescoping cylinder. Each telescopic section is extended and fixed with pins in sequence from the top with several telescoping modes based on the designated job plan.



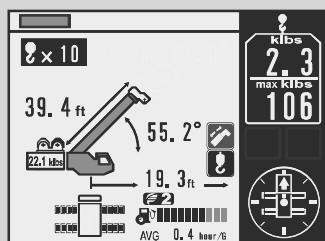
Display telescoping status

The cylinder and each boom section conditions are displayed on the AML using the Telescoping monitor switch.



Telescoping status indicator

AML displays load moment indicator



No.	ft	1	2	3	4	5
1	39.4	0	0	0	0	0
2	52.7	0	0	0	0	46
3	66.1	0	0	0	0	92
4	79.4	0	0	0	46	92
5	92.8	0	0	0	92	92
6	106.1	0	0	46	92	92
7	119.5	0	0	92	92	92
8	132.8	0	46	92	92	92
9	146.2	0	92	92	92	92

Telescoping menu screen

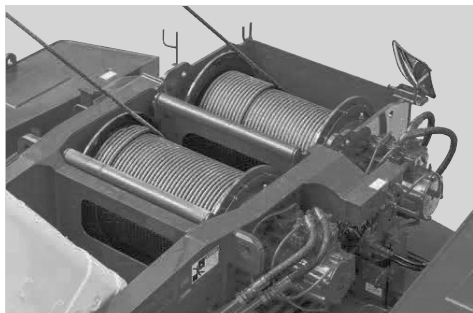
No.	ft	1	2	3	4	5
1	39.4	0	0	0	0	0
2	52.7	0	0	0	0	46
3	66.1	0	0	0	0	92
4	79.4	0	0	0	46	92
5	92.8	0	0	0	92	92
6	106.1	0	0	46	92	92
7	119.5	0	0	92	92	92
8	132.8	0	46	92	92	92
9	146.2	0	92	92	92	92

Telescoping status screen

Two winches with cable follower

Both the main winch and the auxiliary winch with powerful line pull operate at high speeds, serving to enhance work efficiency.

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



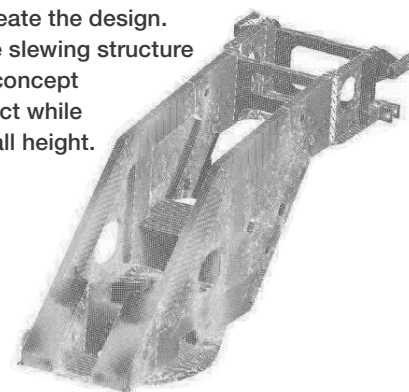
New crane structure

When developing the crane structure, importance was attached to the shape that is best suited for crane operation.

FEM analysis was used to create the design.

It was also important that the slewing structure be true to Tadano's original concept and be both rigid and compact while maintaining a desirable overall height.

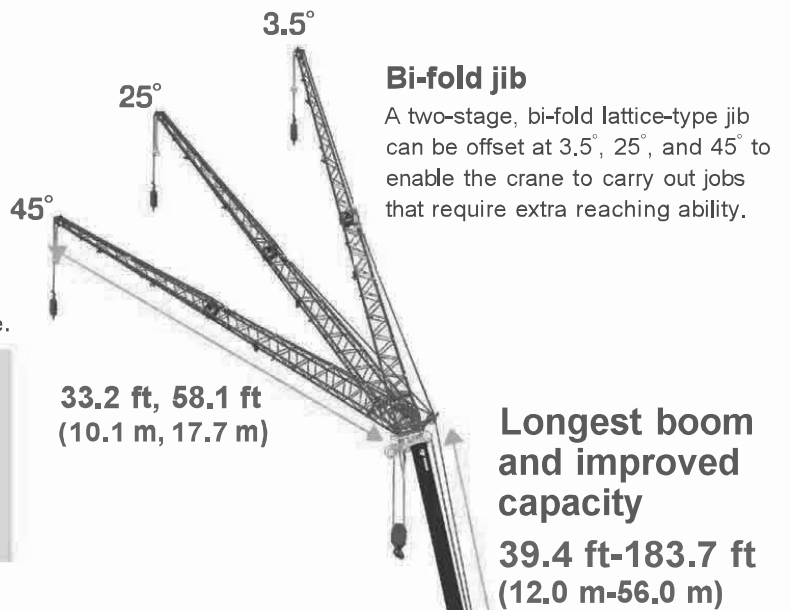
*FEM: Finite Element Method





Assist cylinder for jib

When mounting and stowing the jib, an assist cylinder ensures effective operation by increasing the work efficiency of jib mounting and storage.



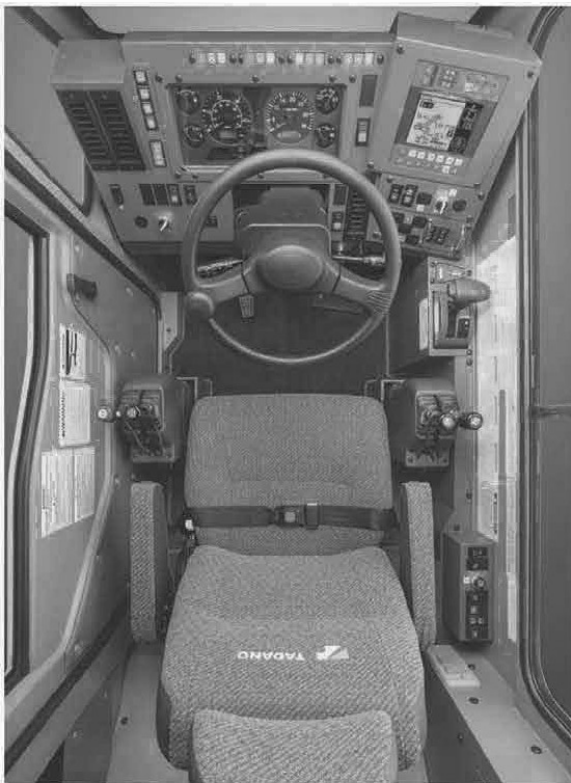
Bi-fold jib

A two-stage, bi-fold lattice-type jib can be offset at 3.5°, 25°, and 45° to enable the crane to carry out jobs that require extra reaching ability.

Longest boom and improved capacity
39.4 ft-183.7 ft (12.0 m-56.0 m)

Operator comfort

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



The control levers are smooth and responsive to the operator's touch.

Tiltable cab

You can operate the crane comfortably by tilting the cab during high hoisting operations such as lifting with the jib. The cab tilting angle is between 0° and 15°.



Cab tilt indicator and switch



-1.5° - 81.0°



Load moment indicator [AML-C]



Tadano's new AML-C is easy to use. It allows the operator to simultaneously monitor: boom angle, boom length, operating pressure of the elevating cylinder, the extension width of outriggers, slewing position, rated lifting capacity and present hook load. All of this enables the AML-C to move easily through lifting capacity changes without changing configurations and codes to make a lift.

The AML-C provides both audio and visual warnings when a condition exists that will overload the crane and automatically employs our slow stop function to avoid shock loads.

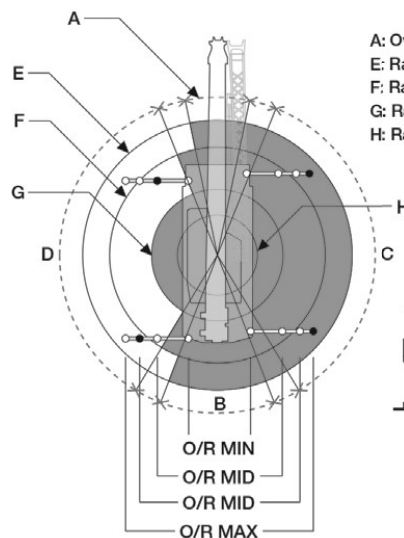
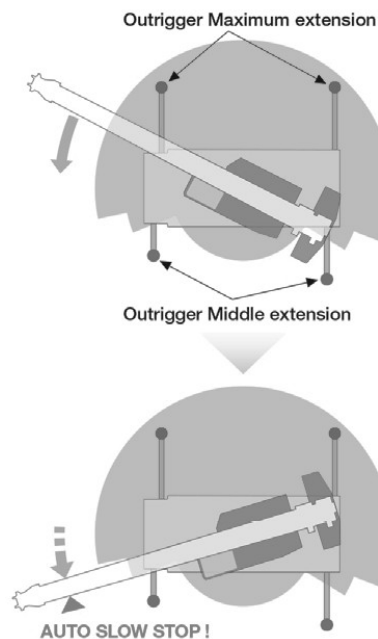
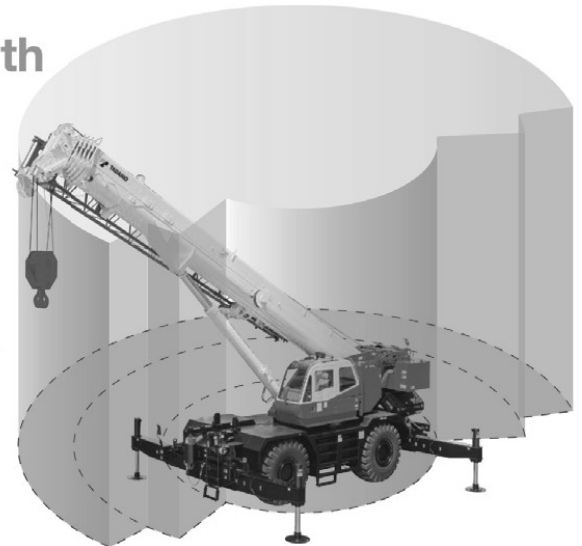
The AML-C with "OPERATOR" pre-set working range limits and automatic slow stop functions will assist the operator to deliver safe smooth operations.



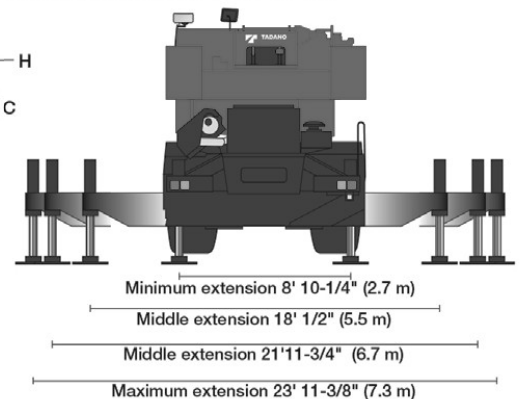
AML lamp

Control of asymmetric extension width of outriggers

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. Regardless of the operators' awareness, the AML-C's slow stop function will help to minimize any safety risk.



- A: Over-front B: Over-rear C: Over-side D: Over-side
- E: Rated Load [O/R max. 23' 11-3/8" (7.3 m)]
- F: Rated Load [O/R mid. 21' 11-3/4" (6.7 m)]
- G: Rated Load [O/R mid. 18' 1/2" (5.5 m)]
- H: Rated Load [O/R min. 8' 10-1/4" (2.7 m)]





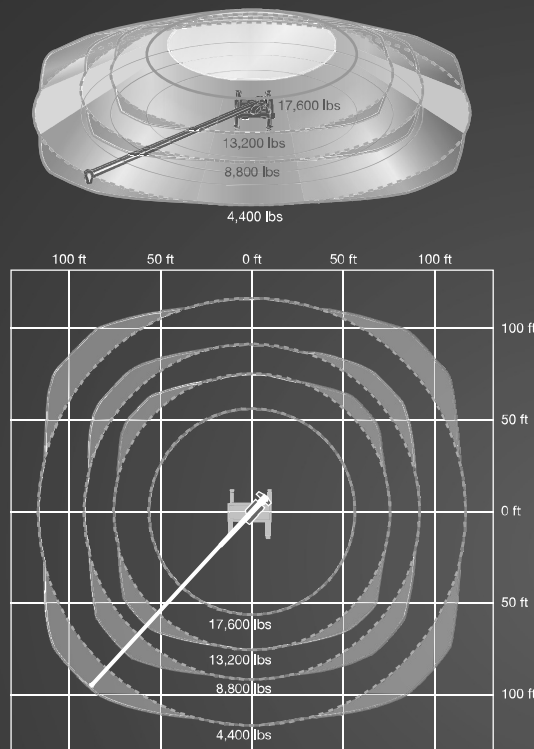
Smart Chart system

The newly developed Smart Chart expands the working area, allowing you to get the best crane performance in any outrigger extension setup.

In the case of GR-1200XL

Main Boom: 187.7'

Outrigger: Maximum extension



An example of effects with the Smart Chart
(Comparison with conventional control)

Load radius

130 ft → 145 ft

Approx. **11.5%** expansion

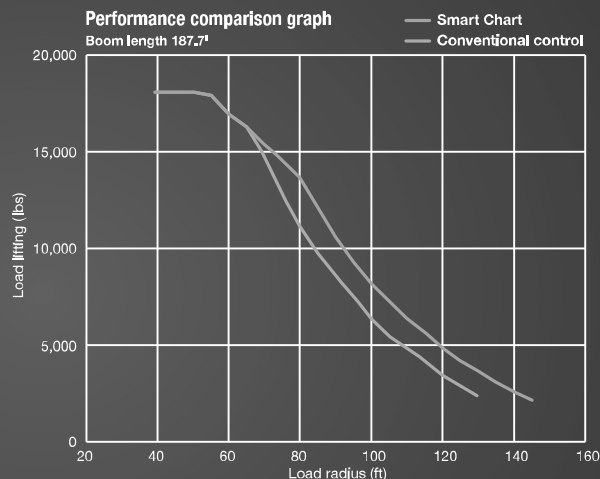
Load lifting capacity

2,400 lbs → 3,700 lbs

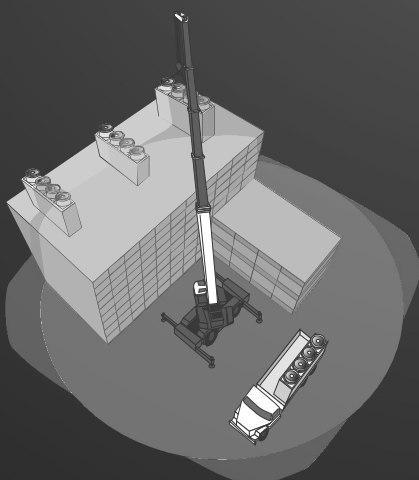
Approx. **54.2%** improvement

Performance comparison graph

Boom length 187.7'



New working area Smart Chart creates for you.



In maximum outrigger extension setups

The Smart Chart taps the potential of a crane by expanding the conventional circular working area into a square one, improving work safety and efficiency.



In asymmetrical outrigger extension setups

In a site where all outriggers cannot be extended fully, the Smart Chart always draws out maximum work performance to support your job.

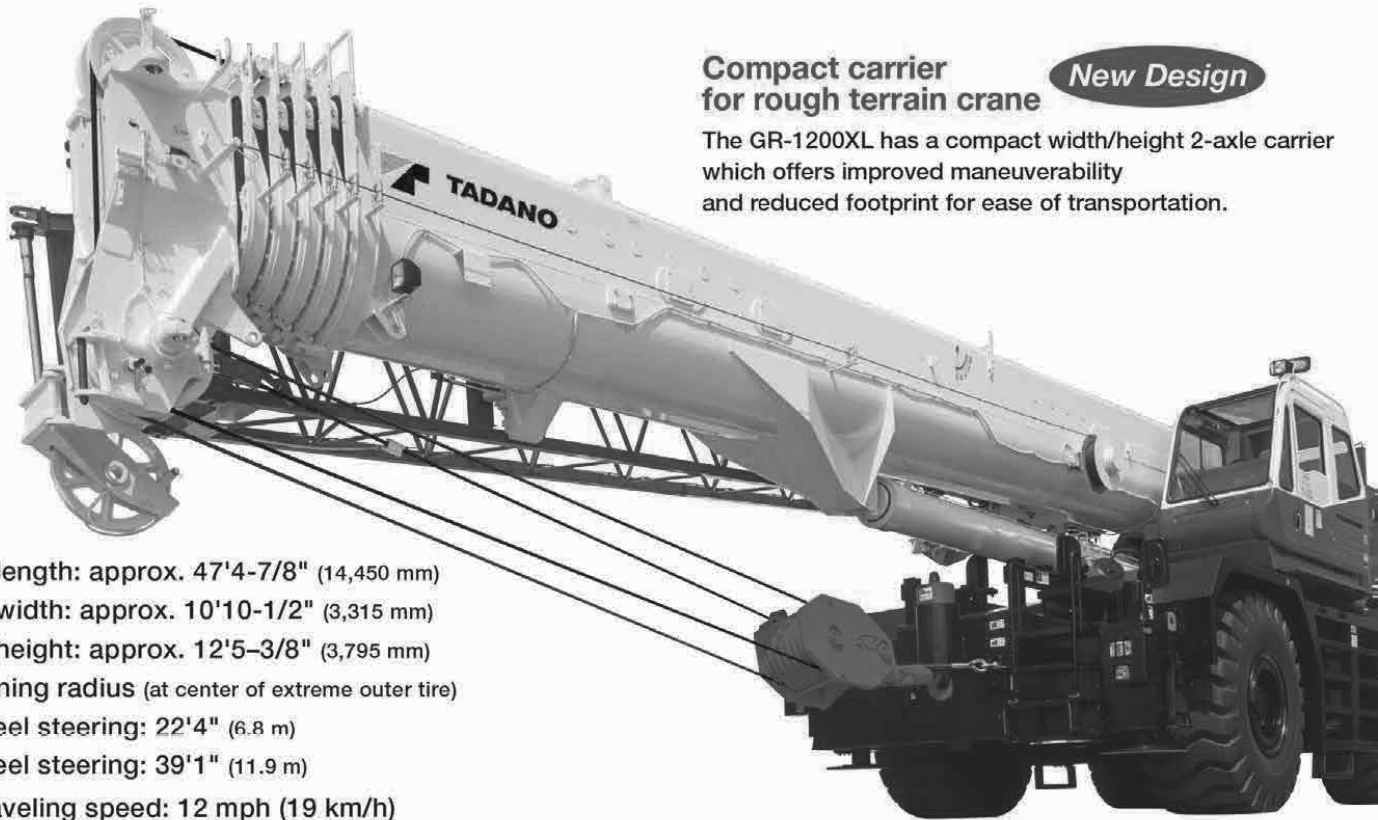
Even in a work site where space is limited, the Smart Chart provides a safe and comfortable work environment.

Carrier

Compact carrier for rough terrain crane

New Design

The GR-1200XL has a compact width/height 2-axle carrier which offers improved maneuverability and reduced footprint for ease of transportation.



Overall length: approx. 47'4-7/8" (14,450 mm)

Overall width: approx. 10'10-1/2" (3,315 mm)

Overall height: approx. 12'5-3/8" (3,795 mm)

Min. turning radius (at center of extreme outer tire)

4-wheel steering: 22'4" (6.8 m)

2-wheel steering: 39'1" (11.9 m)

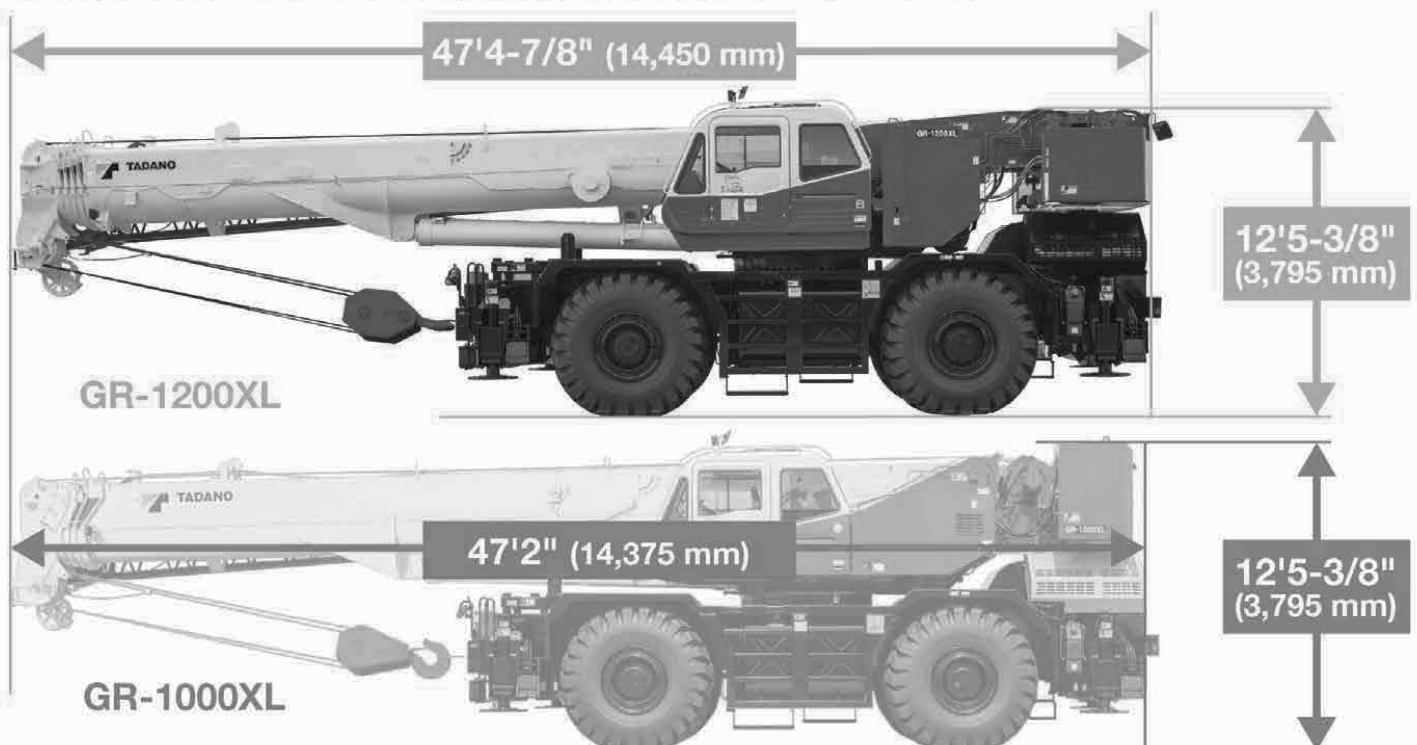
Max. traveling speed: 12 mph (19 km/h)

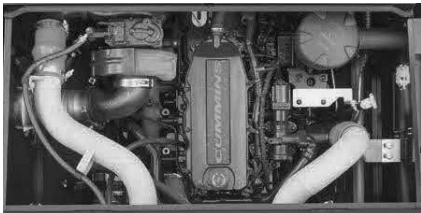
Gradeability (tan θ): 84%, 57%*

* Machine should be operated within the limit of engine crankcase design (30°: Cummins QSB6.7 EPA Tier4 Final)

Highly Maneuverable Compact Carrier

The GR-1200XL features a compact carrier that is nearly the same size as Tadano's smaller capacity GR-1000XL. Its compactness makes the GR-1200XL both highly maneuverable and easy to transport.





High performance engine

Cummins QSB6.7 EPA

4-cycle, turbo charged and after cooled, direct injection diesel.

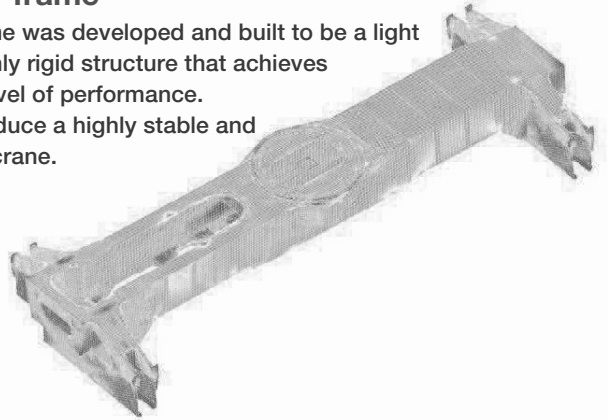
Max. output: Gross 270 HP (201 kW) at 2,000 min⁻¹ {rpm}

Max. torque: 730 ft-lb (990 Nm) at 1,500 min⁻¹ {rpm}

New carrier frame

The carrier frame was developed and built to be a light weight and highly rigid structure that achieves an advanced level of performance.

The results produce a highly stable and maneuverable crane.



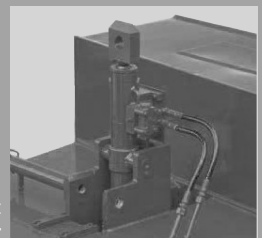
Mounting and dismounting systems



Self-removable counterweight

Counterweight is hydraulically mounted and dismounted; in addition, dismounted counterweights can be lifted and moved for transport, and then remounted for operation at a work site without a helper crane.

Counterweight mounting/dismounting remote controller



Counterweight mounting/dismounting cylinder



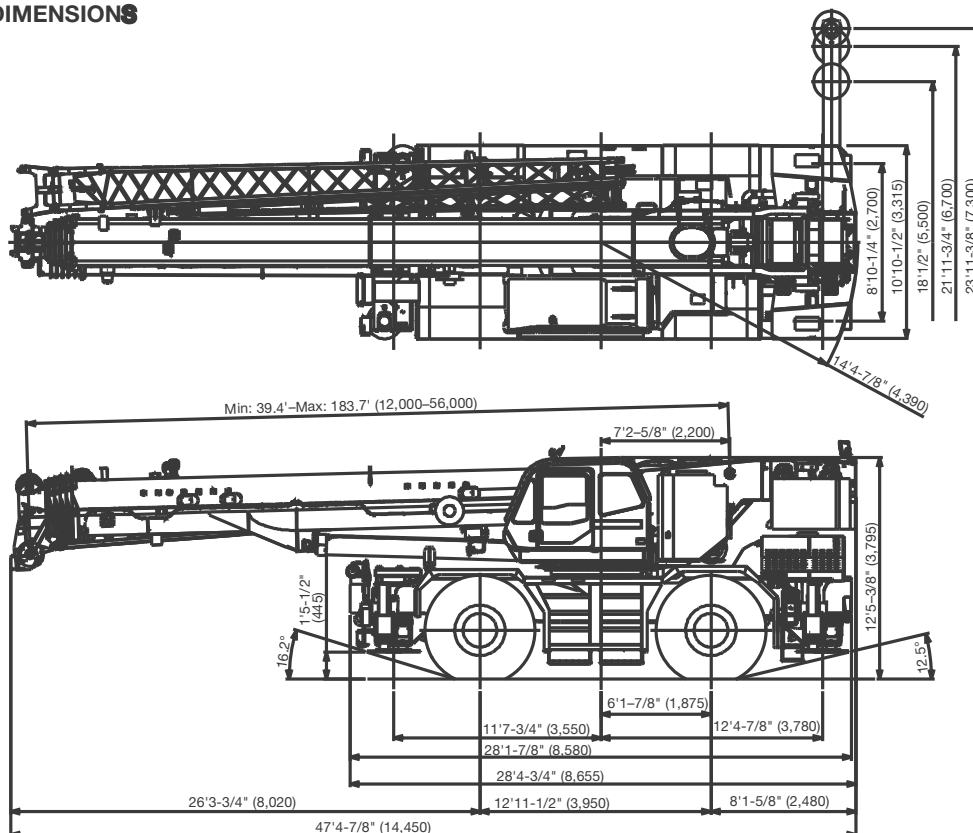
MODEL: GR-1200XL

SPECIFICATIONS

MAXIMUM CAPACITY	242,500 lbs at 8 ft
PERFORMANCE	
Max. traveling speed	12 mph (19 km/h)
Gradeability (tan θ)	84%, 57%*
	* Machine should be operated within limit of engine crackcase design. (30°: Cummins QSB6.7 Tier4 Final)
WEIGHT	
Gross vehicle mass	122,554 lbs (55,590 kg)
-1st axle	61,156 lbs (27,740 kg)
-2nd axle	61,398 lbs (27,850 kg)
MIN. TURNING RADIUS	
	2-wheel steer: 39' 1" (11.9 m)
	4-wheel steer: 22' 4" (6.8 m)
	(at center of extreme outer tire)
BOOM	
Fully retracted length	6-section extended by single telescoping cylinder. 39.4' (12.0 m)
Fully extended length	183.7' (56.0 m)
Extension speed	144.4' (44.0 m) in 340 s
Angle	-1.5°-81°
Elevation speed	20° to 60° in 40 s
JIB	
	2 stage bi-fold lattice type;
Offset	Single sheave at the head of both jib sections. 3.5°, 25° or 45°
Length	33.2', 58.1' (10.1 m, 17.7 m)
MAIN WINCH	
	Variable speed type with grooved drum driven by hydraulic axial piston motor.
Max. single line pull	21,800 lbs (9,900 kgf) (1st layer)
Single line speed	446 fpm (136 m/min.) (at the 4th layer)
Wire rope	3/4" (19 mm) x 984' (300 m) (Diameter x length)
AUXILIARY WINCH	
	Variable speed type with grooved drum driven by hydraulic axial piston motor.
Max. single line pull	21,800 lbs (9,900 kgf) (1st layer)
Single line speed	384 fpm (117 m/min.) (at the 2nd layer)
Wire rope	3/4" (19 mm) x 518' (158 m) (Diameter x length)
SLEWING	
Slewing speed	1.5 min ⁻¹ {rpm}
Tail slewing radius	14'4-7/8" (4,390 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... 202 gal. (763 lit.) capacity. External sight level gauge.
	Oil cooler... Air cooled fan type.

TADANO Load Moment Indicator (TADANO AML-C)	Following information is displayed: <ul style="list-style-type: none"> Control lever lockout function with audible and visual pre-warning Boom position indicator Outrigger state indicator Boom angle / boom length / jib offset angle / jib length / load radius / rated lifting capacities / actual loads read out Ratio of actual load moment to rated load moment indication Automatic speed reduction and slow stop function on boom elevation and slewing Working condition register switch Load radius / boom angle / tip height / slewing range preset function External warning lamp Tare function Fuel consumption monitor Main winch / auxiliary winch select Drum rotation indicator (audible and visible type) main and auxiliary winch
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 widths	Max. ... 23' 11-3/8" (7,300 mm), Mid. ... 18' 1/2" & 21'11-3/4" (5,500 mm & 6,700 mm), Min. ... 8' 10-1/4" (2,700 mm), Float size (Diameter)... 1'11-5/8" (600 mm)
CARRIER	Rear engine, left-hand steering, driving axle 2-way selected type by manual switch. 4 x 2 front drive, 4 x 4 front and rear drive.
ENGINE	Model... Cummins QSB6.7 Tier4 Final Type... 4-cycle, turbo charged and after cooled, direct injection diesel. Piston displacement ... 409 cu. in. (6.7 liters) Bore x stroke... 4.212 in. x 4.882 in. (107 mm x 124 mm) Max. output... Gross 270 HP (201 kW) at 2,000 min ⁻¹ {rpm} Max. torque... 730 ft-lb (990 kgm) at 1,500 min ⁻¹ {rpm}
TRANSMISSION	Electronically controlled full automatic transmission.
STEERING	Hydraulic power steering controlled by steering wheel. 4 steering modes available: 2-wheel front, 2-wheel rear, 4-wheel coordinated and 4 wheel crab
SUSPENSION	Front: Rigid mounted to frame. Rear : Pivot mounted with hydraulic lockout device.
TIRES	29.5-25 34PR (OR)
FUEL TANK CAPACITY	79.2 gal. (300 lit.)

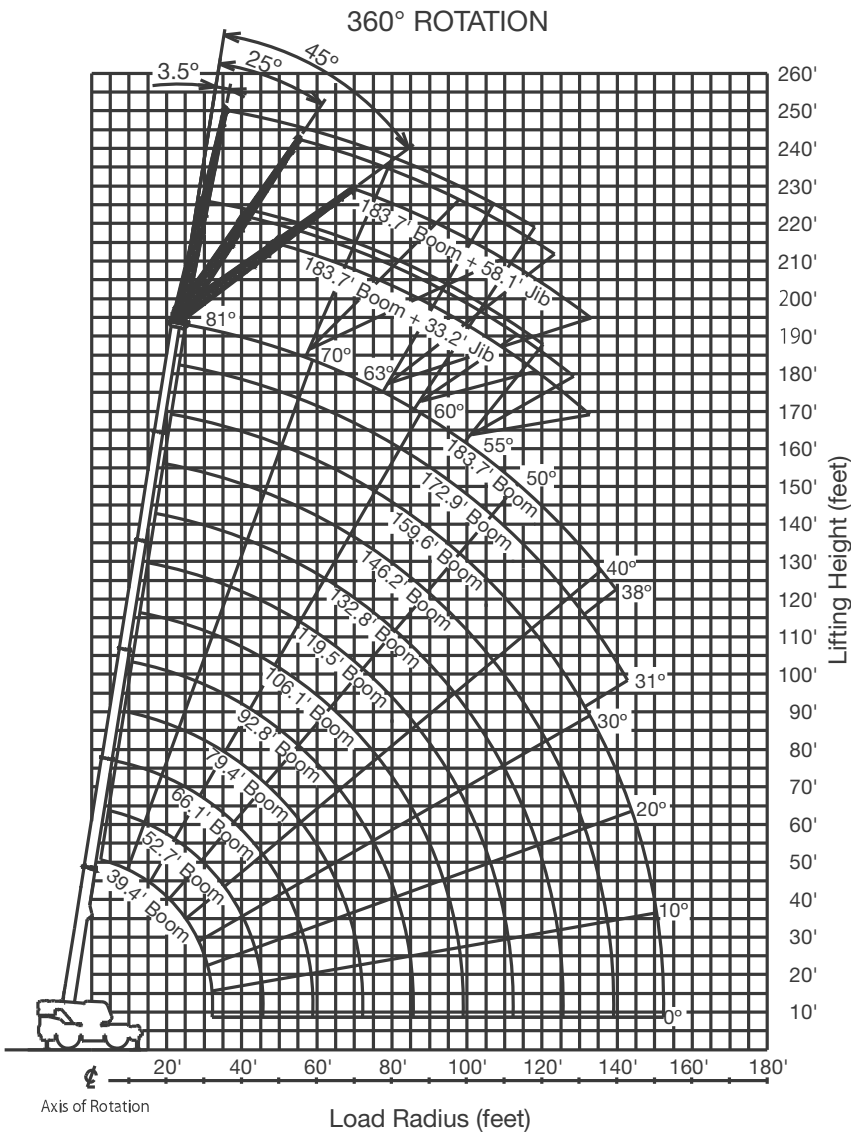
DIMENSIONS



Note: Dimension is with boom angle at -1.5 degree.
() Reference dimensions in mm.

Note: Specifications are subject to change.

WORKING RANGE





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