info@tadano.com
www.tadano.com

Tadano Ltd.
KANDA SQUARE 18th Floor, 2-2-1 Kanda-Nishikicho,
Chiyoda-ku, Tokyo 101-0054, Japan
Phone: +81-3-6811-7309

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TADANO

~~GR-1300EX-E-23-11-01-81-636-A~~
Printed in Japan

TADANO

ROUGH TERRAIN CRANE

GR-1300EX-4

130 METRIC TON CAPACITY

Next-Generation 130 Metric Ton RT

The GR-1300EX-4 is redefining the rough terrain crane market. Its six-section boom can extend up to 56 m using a reliable telescoping pinning system, making it the longest boom of any rough terrain crane in the 130 ton weight class.
Tadano's "Smart Chart" is also on-board, allowing the crane's work performance to be maximized.
The GR-1300EX-4's new design offers improved safety, greater work efficiency, environmental integrity and exceptional quality.
This new, next-generation crane is ready to work for you.

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New Superstructure Frame
Winch Drum Camera 04
Catwalk for Easy Access to Cab
Tiltable Cab
Two Winches with Cable Follower
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WORKING RANGE
DIMENSION

Crane capacity: 130,000 kg at 2.44 m
6-section boom: 12.2 m – 56.0 m
2-staged bi-fold jib: 10.3 m / 18.0 m
Maximum lifting height: 55.5 m [Boom]
72.5 m [Boom + Jib]
Maximum load radius: 52 m [Boom]
58 m [Boom + Jib]
Overall length: approx. 14,700 mm
Overall width: approx. 3,315 mm
Overall height: approx. 3,950 mm

ROUGH TERRAIN CRANE
GR-1300EX-4

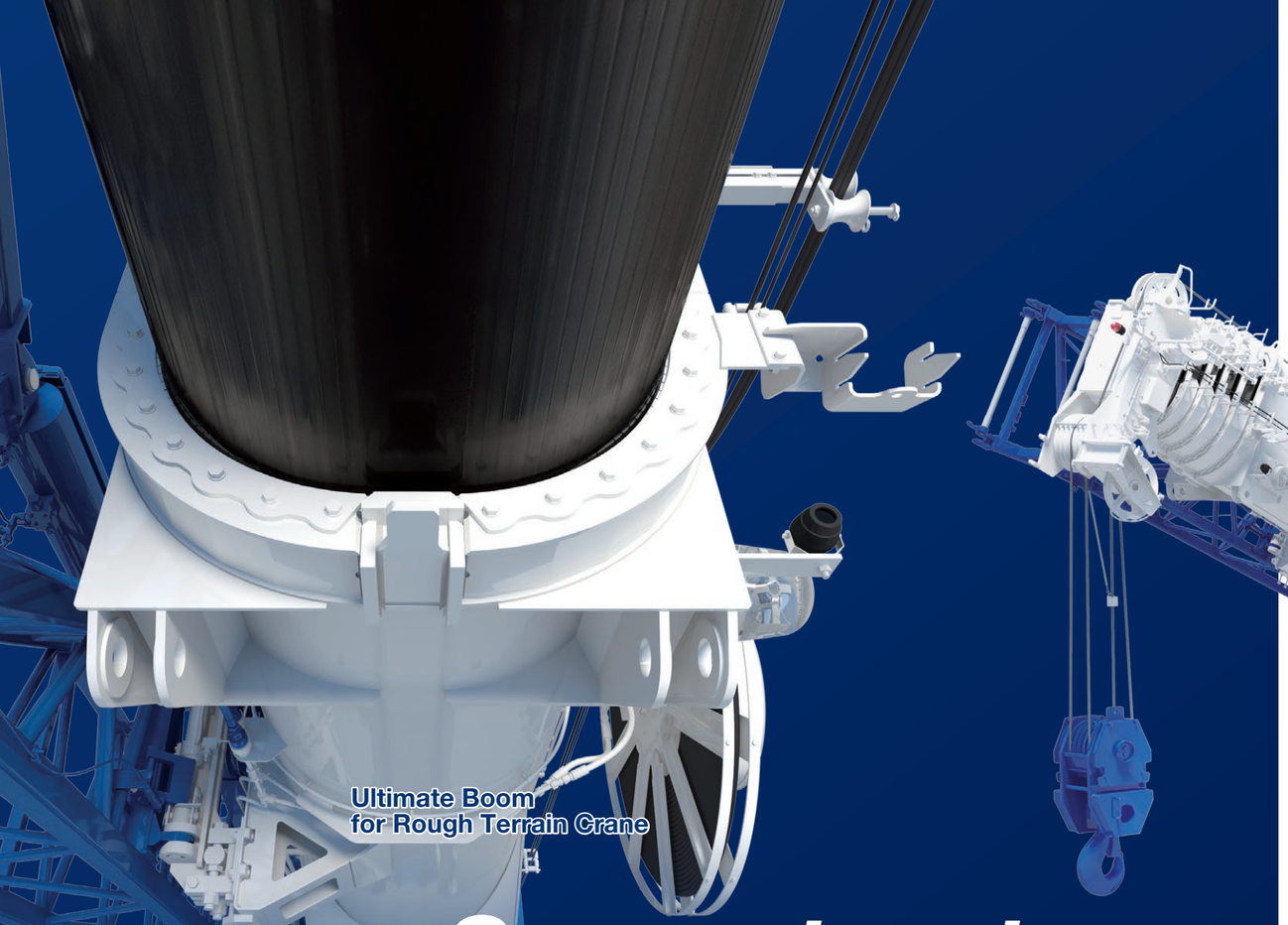
Photo: optional model

The Longest Boom Among 130 Ton RTs
12.2 m – **56.0 m**

GVW: **71,700 kg**

Carrier length: approx. **8,530 mm**

Compact Carrier with Two Axles



Ultimate Boom
for Rough Terrain Crane

Superstructure

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-E ensures operational safety.

Longest Boom and Speedy Operation

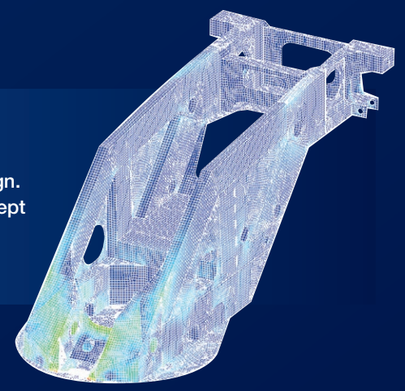
Max. boom length: **56.0 m**

Telescoping mechanism:
Single hydraulic cylinders with pinning system
Boom sections: 6

New Superstructure Frame

When developing the crane structure, importance is attached to the shape that is best suited for crane operation. FEM analysis is used to create the design. It is 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



NEW DESIGN

Emergency Engine Stop Switch

Rubber Floor Mat

Outrigger Control Panel

Winch Drum Camera

Stowed position when transporting

Two-Roll Sunshade

Adjustable in any position

Longer Wiper Blade

Flat Windshield

Photo: optional mode

Two Winches with Cable Follower

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.

Cab tilt indicator and switch

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 20°.

Catwalk for Easy Access to Cab

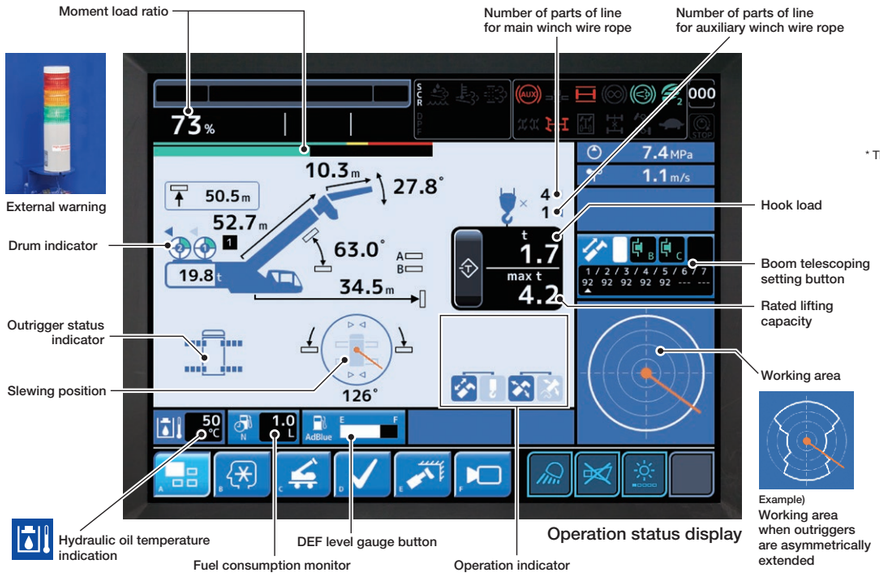
Optimally-Designed Cab

Crane cab and equipment designed
for safety and operational efficiency.

Automatic Moment Limiter [AML-E]

Large Multi-Function Display

The 10.4-inch color touch panel consolidates operation information and settings for increased work efficiency and comfort. The touch panel is pressure-sensitive to handle gloved operation.



Winch drum monitoring camera
* The camera image in the photo are simulated.

Operation status

Working area setting

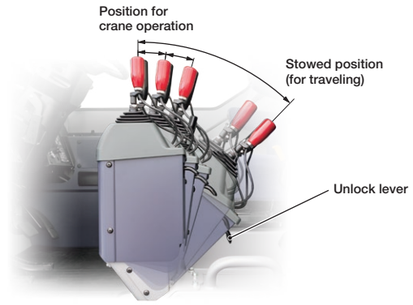
Seat Adjustment

Multiple seat adjustment positions for ease of operation.

Adjustment of Control Lever Stand

- The control lever stand has a 3-stage adjustment feature.
- Before you enter or exit the cab, or when you complete the crane operation, set the control lever stand on the left to the stowing position.
- The unlock lever is used by pulling to adjust for all positions of the control lever stand.

The control levers are smooth and responsive to the operators touch.



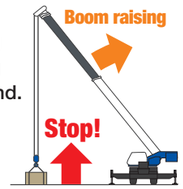
Multi-Function Display Operation Switch

Convenient hand controls are also available for when operating the touchscreen is difficult (for instance when the seat is sliding back).

Safety Control for Boom Raising Operation

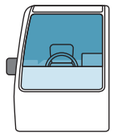
Prevent overload using boom raising operation for lifting a load off the ground.

*Release switch available for emergency operation



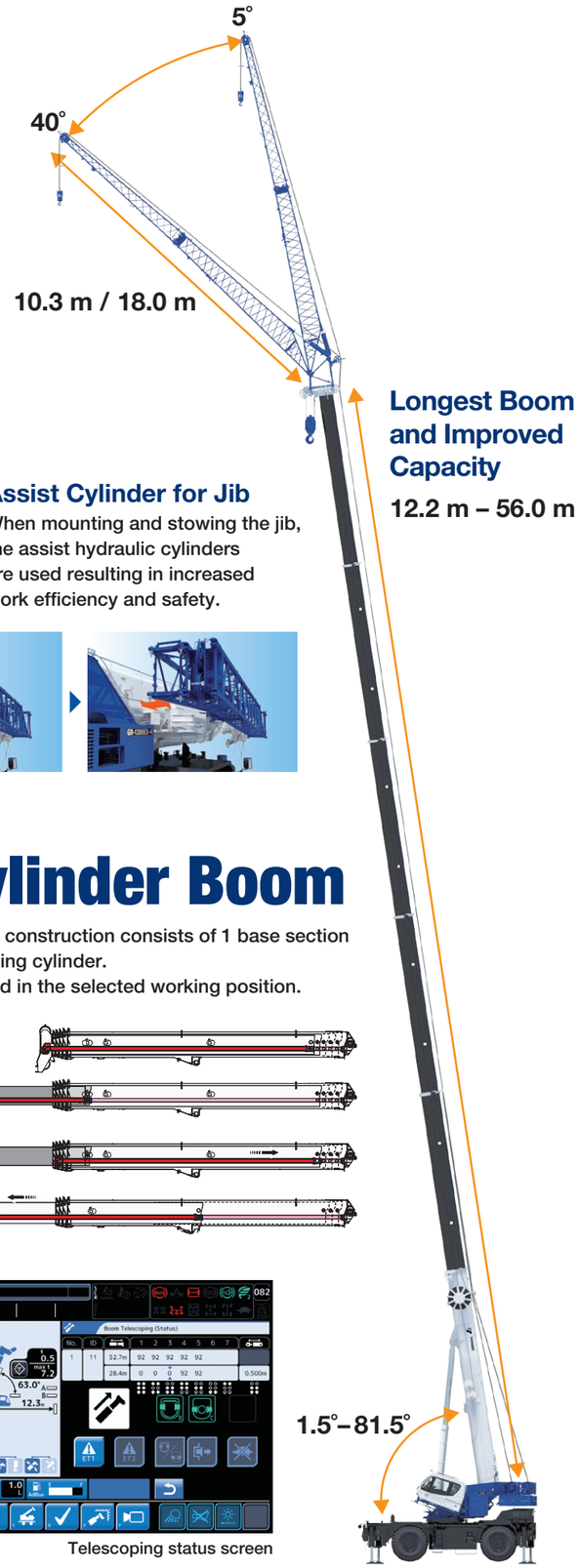
Visibility

The shape and height of the instrument panel as well as the angle of the windshield have all been designed for optimum forward visibility.


New cab

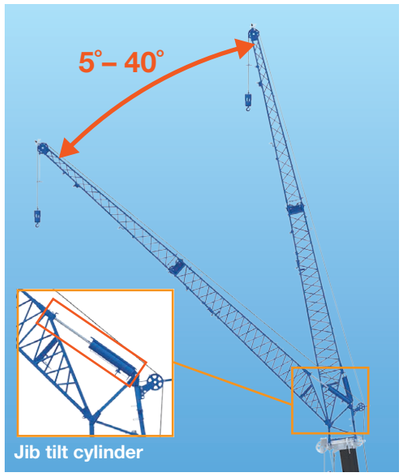
Jib

Extra reach is provided by a 2-staged bi-fold lattice type hydraulic offset jib that stows alongside the base boom section and features self-stowing jib mounting pins.
When erected, the jib can be offset 5° - 40° from the main boom center line, thus increasing operating range.



Longest Boom and Improved Capacity
12.2 m – 56.0 m

Hydraulic Offset Jib (5°– 40°)



Assist Cylinder for Jib

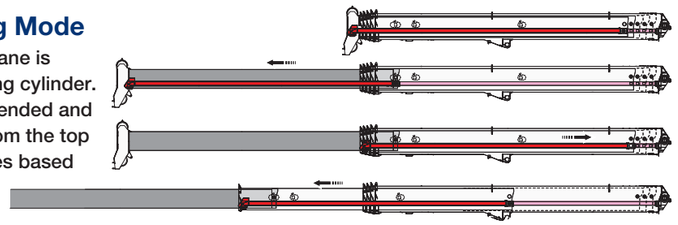
When mounting and stowing the jib, the assist hydraulic cylinders are used resulting in increased work efficiency and safety.

Single Telescopic Cylinder Boom

For extension and retraction of sections, the 6-section, box type construction consists of 1 base section and 5 telescopic sections and are extended by a single telescoping cylinder.
All sections are fully extended/retracted automatically and locked in the selected working position.

Outline of Telescoping Mode

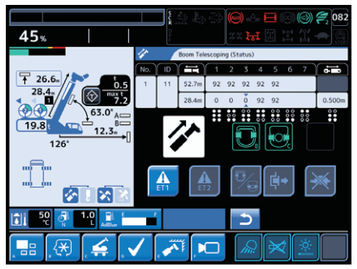
The boom telescope of this crane is performed with one telescoping cylinder. Each telescopic section is extended and fixed with pins in sequence from the top with several telescoping modes based on the designated job plan.



Telescoping Status Display

A single cylinder and each section of the boom's actual condition are displayed on the AML-E by activating the telescoping monitor switch.

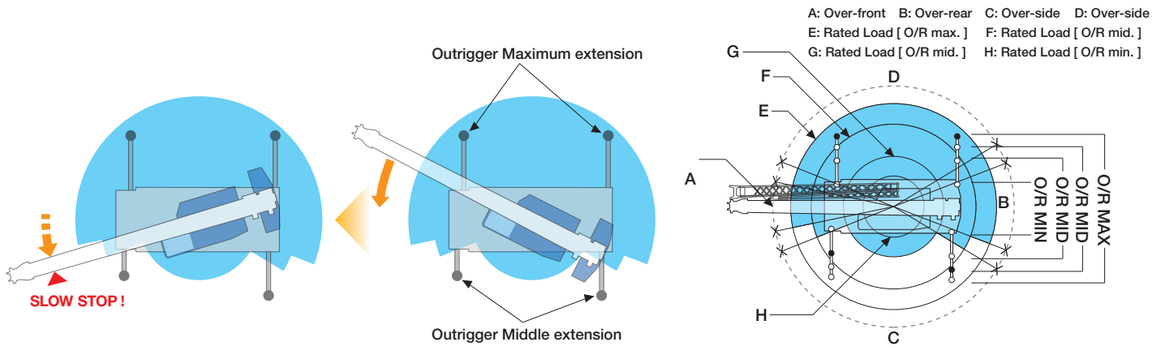
Telescoping status indicator



Telescoping status screen

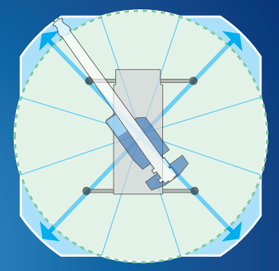
Asymmetric Outrigger Extension Width Control

When operating the crane with the asymmetric outriggers extended, the AML-E 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-E 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-E's slow stop function will help to minimize any safety risks even in the cases of operator error.



Smart Chart System

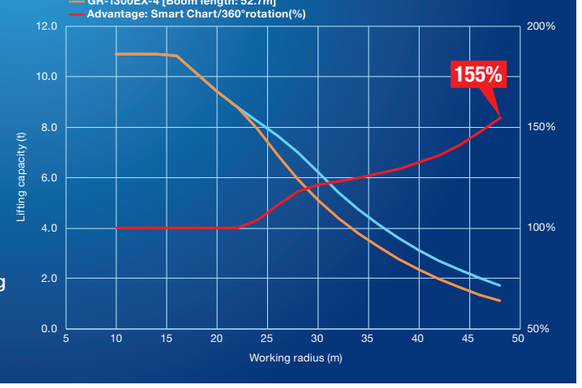
The newly-developed Smart Chart expands the working area, allowing you to get the best crane performance in any outrigger extension setup.



Under maximum outrigger extension setups

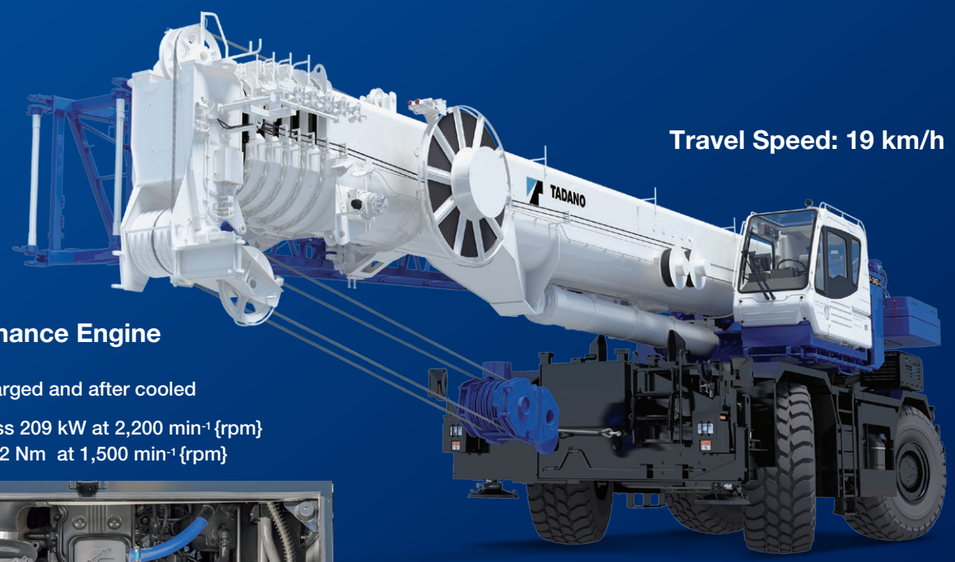
The Smart Chart taps the potential of a crane by expanding the conventional circular working area into a square one, improving work safety and efficiency.

Performance comparison graph (Smart Chart)



Carrier

The GR-1300EX-4 has a compact width/height 2-axle carrier which offers improved maneuverability and reduced footprint for ease of transportation.



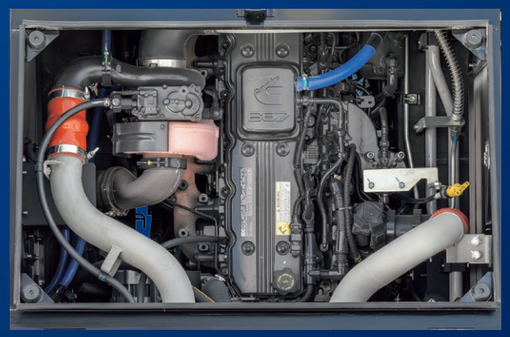
Travel Speed: 19 km/h

Photo: optional model

High-Performance Engine

Cummins B6.7
4 cycle, turbo charged and after cooled

Max. output: Gross 209 kW at 2,200 min^{-1} {rpm}
Max. torque: 1,152 Nm at 1,500 min^{-1} {rpm}



Smooth Transmission

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

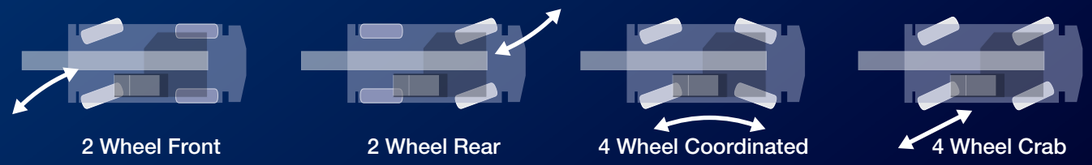
2 speeds - High range - 2 wheel drive; 4 wheel drive
3 speeds - Low range - 4 wheel drive

Axle

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

Four Steering Modes

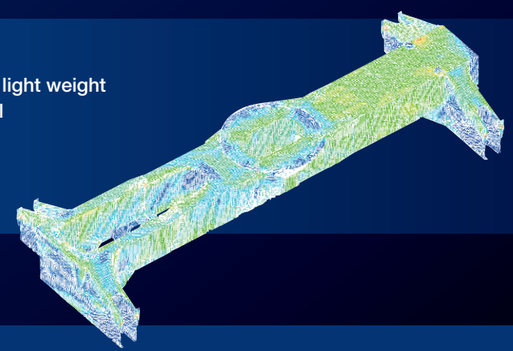
Hydraulic power steering controlled by steering wheel.



New Carrier Frame

The new carrier frame design is developed and built so that its light weight is compatible with its high rigidity to achieve an advanced level of performance and highly-stabilized maneuverability for the new model of crane.

*Compared with our conventional crane models



Tadano View System

Supports safety confirmation through an above-the-vehicle image shown on the large multi-function display.

*Camera range is limited. Do not rely only on the image. Confirm safety around the vehicle directly before driving.

Right front view monitor*

Right front view camera

Right front and Rear view monitor*

Rear view camera

Rear view monitor*

*The camera images in the photos are simulated.

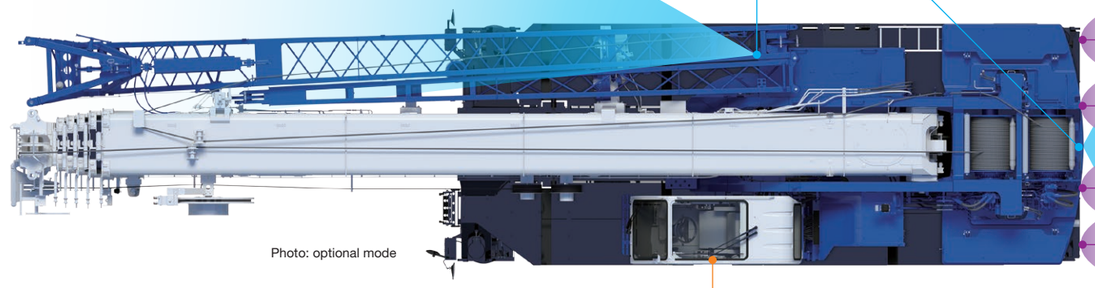
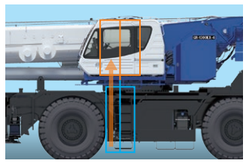


Photo: optional mode

Improved Accessibility to Cab



New Designed Step
*Left side

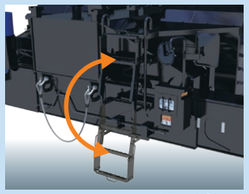
Clearance Sonar

Detects obstacles right behind the vehicle, and warns you with a flashing icon on the indicator and buzzer sound.

Clearance sonar monitor

Clearance sonar

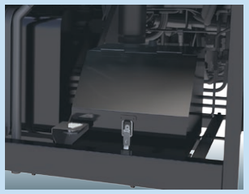
Standard Equipment



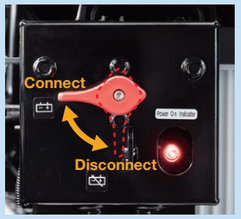
Front Steps

Right Side Steps

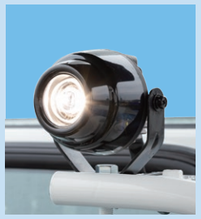
Rear Steps



Tool Box



Battery Disconnect Switch



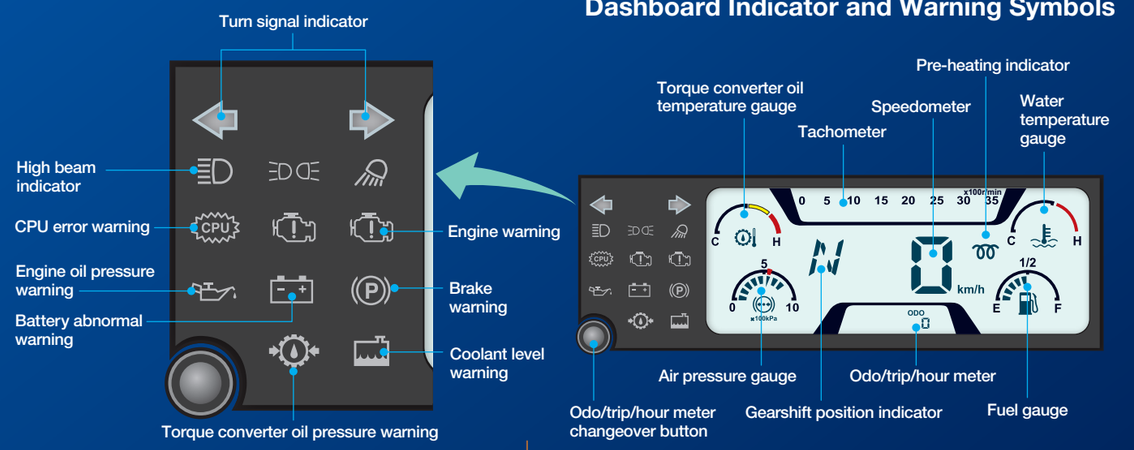
Work Light

DEF Tank

Data Logger (ISU)
USB Connection Port

Aviation Obstruction and Anemometer

Dashboard Indicator and Warning Symbols



* The camera image in the photo are simulated.

12 V power outlet

Large multi-function display

USB port

Air conditioner control panel

Transmission shiftswitch

Cup holder

Efficient Transportability

2 axle carrier - light weight and compact size

8,530 mm carrier - including outrigger boxes (no more disassembly)

You can use same trailer if dismounting counterweight

COUNTERWEIGHT: 19,800 kg

GVW: 71,700 kg

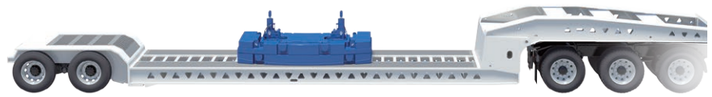


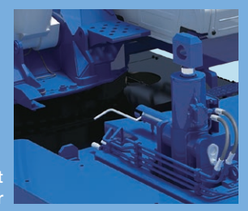
Photo: optional model

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

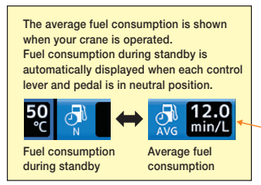


Counterweight mounting/dismounting cylinder

Reduced Fuel Consumption

Fuel Monitoring

Fuel consumption monitoring allows an operator to minimize fuel waste from unnecessary acceleration and idling.



Preset menu display
(during crane operation)

Fuel consumption history display
(during crane operation)

Fuel consumption history display
(during traveling)

Positive Control System

Effectively controls the quantity of hydraulic pump discharge during crane operation in response to the amount of movement applied, and reduces CO_2 consumption.

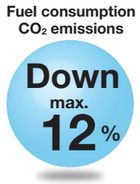
Eco Mode System

Controls the maximum engine speed at the time of crane operation and enables fuel consumption and CO_2 emission to decrease by Max. 28% with Eco mode 1, and Max. 37% with Eco mode 2, and noise level is reduced.

Automatic Pump Disconnect

When the automatic pump disconnect switch is set to ON and the crane is not in use for a duration of time, the crane's hydraulic pump automatically shuts off, helping to reduce fuel consumption. Three settings are available for the duration of the crane operation standby before the pump shuts off: MIN, MID and MAX.

MIN: 1 minute MID: 3 minutes MAX: 5 minutes

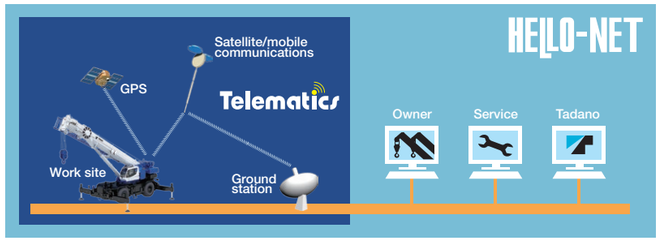


HELLO-NET

HELLO-NET is a tool that connects the crane operations with owners, their service staff and the manufacturer through satellite. This high quality telematic tool collects data of the crane including working history, maintenance data and machine location. HELLO-NET can be accessed by the manufacturer to assist with downtime and to help improve Tadano support services.

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.



HELLO-DATA LINK

HELLO-DATA LINK connects cranes to mobile devices by wireless LAN, allowing you to receive operating status, indications, error codes and other information in realtime from outside the cab. HELLO-DATA LINK helps crane and site supervisors to monitor operating status and stay informed on repairs and maintenance.

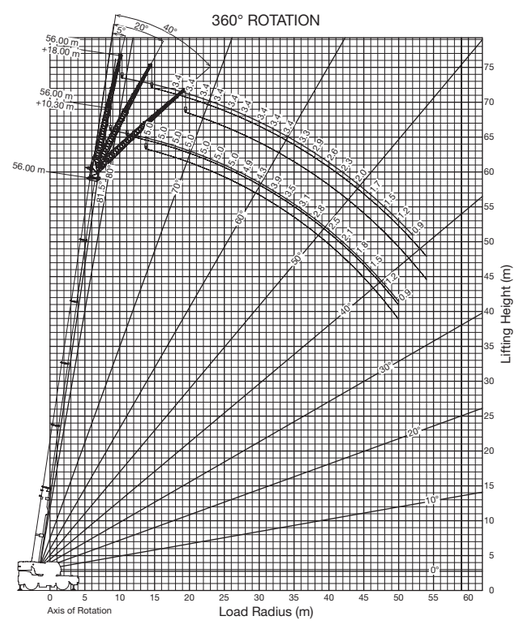
MODEL: GR-1300EX-4

SPECIFICATIONS

MAXIMUM CAPACITY	130,000 kg at 2.44 m
PERFORMANCE Max. traveling speed Gradeability (tan θ)	 19 km/h 57% (at stall), 57%* * Machine should be operated within the limit of engine crankcase design (30°: Cummins B6.7)
WEIGHT Gross vehicle mass -1st axle -2nd axle MIN. TURNING RADIUS	 71,700 kg 35,860 kg 35,840 kg 2-wheel steer: 13.4 m 4-wheel steer: 7.5 m (at center of extreme outer tire)
BOOM Fully retracted length Fully extended length Extension speed Angle Elevation speed	6-section extended by single telescoping cylinder. 12.2 m 56.0 m 43.8 m in 410 s 1.5–81.5° 20° to 60° in 28 s
JIB Offset Length	2 stage bi-fold lattice type; Single sheave at the head of both jib sections. Offset angle (5–40°) by tilt cylinder. 10.3 m, 18.0 m
MAIN WINCH Single line pull Single line speed Wire rope	Variable speed type with grooved drum driven by hydraulic axial piston motor. 9,900 kgf 136 m/min. (at the 4th layer) 19 mm x 320 m (Diameter x length)
AUXILIARY WINCH Single line pull Single line speed Wire rope	Variable speed type with grooved drum driven by hydraulic axial piston motor. 9,900 kgf 117 m/min. (at the 2nd layer) 19 mm x 225 m (Diameter x length)
SLEWING Slewing speed Tail slewing radius	 1.3 min^{-1} {rpm} 4,600 mm
HYDRAULIC SYSTEM	Pumps... 2 variable piston pumps for crane functions. Tandem gear pump for steering, slewing and other hydraulic systems. Control valves... Multiple valves actuated by pilot pressure with integral pressure relief valves. Reservoir... 795 liters capacity. External sight level gauge. Oil cooler... Air cooled fan type.

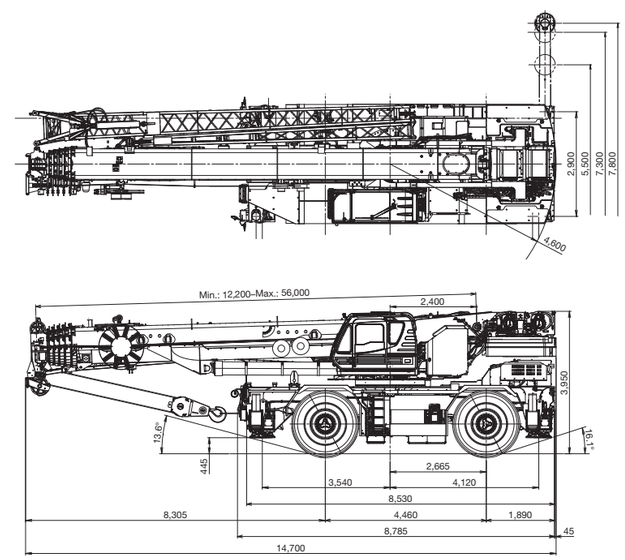
Automatic Moment Limiter (AML-E2)	Following information is displayed: • Control lever lockout function with audible and visual pre-warning • Number of parts of line • Boom position indicator • Outrigger state indicator • Slewing angle • Boom angle / boom length / jib offset angle / jib length / load 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 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 / auxiliary winch select • Drum rotation indicator (audible and visible type) main and auxiliary winch • On-rubber indicator
OUTRIGGERS Extension width	4 hydraulic, beam and jack outriggers. Vertical jack cylinders equipped with integral holding valve. Each outrigger beam and jack is controlled independently from cab. Max. ... 7,800 mm, Mid. ... 5,500 mm & 7,300 mm, Min. ... 2,900 mm, Float size (Diameter)... 570 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 B6.7 Type... 4-cycle, turbo charged and after cooled, direct injection diesel. Piston displacement ... 6.7 liters Bore x stroke... 107 mm x 124 mm Max. output... Gross 209 kW at 2,200 min^{-1} {rpm} Max. torque... 1,152 N•m 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 the frame. Rear : Pivot mounted with hydraulic lockout device.
TIRES	29.5R25☆☆ (OR) or 29.5-25 38PR (OR)
FUEL TANK CAPACITY	300 lit.

WORKING RANGE



DIMENSION

(mm)



Notes:
1. Dimension is with boom angle at -1.5 degree.
2. Some specifications are subject to change.