GR-XL Series
35-100 TON CAPACITY

ROUGH TERRAIN CRANE

ROUGH TERRAIN CRANE

TADANO AMERICA Corporation
4242 West Greens Road, Houston, TX 77066
Tel: 281-869-0030  Fax: 281-869-0040
www.tadanoamerica.com  Email: sales@tadano-cranes.com
Parts Hotline: 713-865-1041  Service Hotline: 281-869-5925
Crane capacity: 100 tons (90.7 metric tons)
5-section boom: 154.2 ft (47.0 m)
2-staged bi-fold jib: 33.2 ft / 58.1 ft (10.1 m / 17.7 m)

Crane capacity: 75 tons (68.0 metric tons)
5-section boom: 141.1 ft (43.0 m)
2-staged bi-fold jib: 33.2 ft / 58.1 ft (10.1 m / 17.7 m)

Crane capacity: 55 tons (50.0 metric tons)
4-section boom: 113.9 ft (34.7 m)
2-staged jib: 28.9 ft / 50 ft (8.8 m / 15.2 m)

Crane capacity: 35 tons (31.8 metric tons)
4-section boom: 101.7 ft (31.0 m)
2-staged jib: 23.6 ft / 42 ft (7.2 m / 12.8 m)
At Tadano, crane development is our number one priority. Our goal is to provide the safest, most innovative and reliable cranes in the industry that are able to handle all aspects of your job. Tadano has a rough terrain crane solution for even the most hard to reach projects. Our cranes adapt to the changing needs of your business and at the same time reduce environmental impact. Experience the new generation of cranes!
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 can display the day-to-day operational status, mileage and remaining fuel for each machine that is 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 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.

HELLO-NET Telematics - Available in the U.S. and Canada, other countries may vary. Contact your distributor or sales@tadano-cranes.com for details.
The Environmentally Friendly Features

Designed to minimize environmental impact.

TADANO’s rough terrain cranes are equipped with Fuel Monitoring System, Eco Mode System and Positive Control Systems that substantially reduce fuel consumption and CO$_2$ emissions.

Introducing Fuel Monitoring System

The Fuel Monitoring System, displayed on the AML-C screen, monitors fuel consumption rates during crane operations, idling, and while traveling, allowing the operator to optimize fuel efficiency, reduce CO$_2$ emissions and noise level.

Two devices reduce fuel consumption

TADANO aims to reduce fuel consumption by its two newly developed technologies, the Eco Mode System and the Positive Control System. Consideration was given to the length of actual operating hours as well as non-operating time (when the crane is in a state of idling). In this relation, the average ratio between the operating hours and the non-operating time is 40/60% according to the results of our investigation. This understanding helped us to successfully achieve our objectives.

Eco Mode System - reduces fuel consumption by approximately 40% while the crane is being operated.

Positive Control System - reduces fuel consumption by approximately 60% when the crane is in a state of idling.
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.

**Working**

![Display panel](image)

**Display panel**

- During crane operation:
  - Current fuel consumption
  - Average fuel consumption
  - Fuel consumption while idling

- While idling:
  - Current fuel consumption
  - Average fuel consumption
  - Fuel consumption while idling

**Driving**

![Display panel](image)

- While traveling:
  - Current fuel consumption
  - Average fuel consumption

- While idling:
  - Fuel consumption while idling

The display changes every time you push the display change key.

**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, and the noise level is reduced.

**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 above figures differ according to the type of crane used and its operating conditions.
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, and the noise level is reduced.

Fuel consumption
CO₂ emissions

<table>
<thead>
<tr>
<th>Eco mode 1</th>
<th>Eco mode 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Down max. 22%</td>
<td>Down max. 30%</td>
</tr>
</tbody>
</table>

* The above figures differ according to the type of crane used and its operating conditions.

Screen setting the eco mode to be selected

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%.

* Comparison made when a crane is not being operated
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>POSITIVE CONTROL</td>
<td>Down max. 20%</td>
</tr>
</tbody>
</table>

* The above figures differ according to the type of crane used and its operating conditions.
The rounded boom is made of high tensile steel, which allows for decreased boom weight and increased boom strength. The high performance AML-C comes standard and aids the operator in maintaining a safe operation.

The Ultimate boom for rough terrain crane (GR-1000XL, GR-750XL, GR-550XL)

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

Assist cylinder for jib (GR-1000XL, GR-750XL, GR-550XL)

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.

New crane structure (GR-1000XL, GR-750XL, GR-550XL)

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

Two winches with cable follower

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

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

Two telescoping modes Ⅰ&Ⅱ (GR-1000XL, GR-750XL)

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

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

*FEM: Finite Element Method

GR-350XL

The hexagonal boom
**Assist cylinder for jib**  
( GR-1000XL, GR-750XL, GR-550XL )  
When mounting and stowing the jib, the assist hydraulic cylinders are used resulting in increased work efficiency and safety.

**Jib installation**  
( GR-1000XL, GR-750XL, GR-550XL )

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**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.

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**Two telescoping modes I & II**  
( GR-1000XL, GR-750XL )  
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.  
Then follows the synchronized extension of 3rd, 4th and 5th sections.

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

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**New crane structure**  
( GR-1000XL, GR-750XL, GR-550XL )  
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
A two-stage, bi-fold lattice-type jib is used for this model of crane.

**Bi-fold jib**
( GR-1000XL, GR-750XL, GR-550XL )

Crane capacity: 100 tons (90.7 metric tons)
5-section boom: 154.2 ft (47.0 m)
2-staged bi-fold jib: 33.2 ft / 58.1 ft (10.1 m / 17.7 m)
Maximum lifting height: 154.5 ft (47.1 m) [Boom]
211.3 ft (64.4 m) [Jib]
Maximum load radius: 135.0 ft (41.2 m) [Boom]
177.0 ft (53.9 m) [Jib]

Crane capacity: 75 tons (68.0 metric tons)
5-section boom: 141.1 ft (43.0 m)
2-staged bi-fold jib: 33.2 ft / 58.1 ft (10.1 m / 17.7 m)
Maximum lifting height: 142.4 ft (43.4 m) [Boom]
198.9 ft (60.5 m) [Jib]
Maximum load radius: 132.5 ft (39.6 m) [Boom]
165.0 ft (50.3 m) [Jib]
A two-stage, bi-fold lattice-type jib is used for this model of crane. 

**Box type top section** telescopes from lattice type base section which stows alongside base boom section.

### Crane Specifications

**Gr-1000xl, Gr-750xl, Gr-550xl**

- **Crane capacity:** 55 tons (50.0 metric tons)
- **4-section boom:** 101.7 ft (31.0 m)
- **2-staged jib:** 23.6 ft / 42 ft (7.2 m / 12.8 m)
- **Maximum lifting height:**
  - Boom: 104.3 ft (31.8 m)
  - Jib: 144.3 ft (44.0 m)
- **Maximum load radius:**
  - Boom: 93.6 ft (28.0 m)
  - Jib: 122.0 ft (37.2 m)

- **Middle extension**
  - 21' 3-7/8" (6.5 m)
  - 16' 4-7/8" (5.0 m)
  - Minimum extension: 8' 1-5/8" (2.48 m)
  - Maximum extension: 22' 11-5/8" (7.0 m)

**Gr-350xl**

- **Crane capacity:** 35 tons (31.8 metric tons)
- **4-section boom:** 113.9 ft (34.7 m)
- **2-staged bi-fold jib:** 28.9 ft / 50.0 ft (8.8 m / 15.2 m)
- **Maximum lifting height:**
  - Boom: 114.5 ft (34.9 m)
  - Jib: 164.3 ft (44.0 m)
- **Maximum load radius:**
  - Boom: 105.4 ft (32.0 m)
  - Jib: 138.5 ft (42.2 m)

- **Middle extension**
  - 21' 11-3/4" (6.6 m)
  - 18' 1-1/2" (5.5 m)
  - Minimum extension: 8' 10-1/4" (2.7 m)
  - Maximum extension: 20' 8" (6.0 m)

**Gr-350xl**

- **Crane capacity:** 75 tons (68.0 metric tons)
- **5-section boom:** 141.1 ft (43.0 m)
- **2-staged bi-fold jib:** 33.2 ft / 58.1 ft (10.1 m / 17.7 m)
- **Maximum lifting height:**
  - Boom: 142.4 ft (43.4 m)
  - Jib: 198.9 ft (60.5 m)
- **Maximum load radius:**
  - Boom: 132.5 ft (39.6 m)
  - Jib: 165.0 ft (49.3 m)

- **Middle extension**
  - 19' 4-1/4" (5.9 m)
  - 16' 4-7/8" (5.0 m)
  - Minimum extension: 7' 2-5/8" (2.2 m)
  - Maximum extension: 20' 8" (6.3 m)

**Gr-350xl**

- **Crane capacity:** 100 tons (90.7 metric tons)
- **5-section boom:** 154.2 ft (47.0 m)
- **2-staged bi-fold jib:** 33.2 ft / 58.1 ft (10.1 m / 17.7 m)
- **Maximum lifting height:**
  - Boom: 154.5 ft (47.1 m)
  - Jib: 211.3 ft (64.4 m)
- **Maximum load radius:**
  - Boom: 135.0 ft (40.6 m)
  - Jib: 177.0 ft (53.9 m)

- **Middle extension**
  - 21' 11-3/4" (6.7 m)
  - 18' 1-1/2" (5.5 m)
  - Minimum extension: 8' 10-5/16" (2.7 m)
  - Maximum extension: 23' 11-3/8" (7.3 m)

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**Jib (Gr-350xl)**

Box type top section telescopes from lattice type base section which stows alongside base boom section.
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 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.

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

- Moment load ratio
- Jib length
- Jib lift
- Number of part lines
- Boom telescoping mode
- Boom length
- Boom lift
- Winch selection
- Outrigger status
- Eco mode
- Fuel consumption
- Load radius
- Boom angle
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. Therefore, even in the case of operator error, the AML-C’s slow stop function will help to minimize any safety risk.

**Safety First!**

**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. Therefore, even in the case of operator error, the AML-C's slow stop function will help to minimize any safety risk.

The AML-C calculates the hook load and rated lifting capacity based on the operation state registered by the operator and input signal from each detector, and displays them as a moment load ratio. When the moment load ratio reaches or exceeds 100%, the AML-C stops the crane operations toward the critical sides and warns with error codes and a buzzer. (The AML-C is a safety device that aids the operator in preventing accidents, such as machine overturn, and damage resulting from overload.)
Operator comfort
The crane cab provides improved livability and offers the operator a comfortable working environment.
The crane cab provides improved livability and offers the operator a comfortable working environment.

**Seat adjustment**

Multiple seat adjustment positions for ease of operation.

- **Headrest**
- **Armrest**
- **Headrest height adjustment knob**
- **Armrest adjustment button**
- **Reclining angle range**
- **Height adjustment lever**
- **Slide adjustment lever**

**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.

**Wider steps and hand rails**

- **Front steps**
- **Rear steps**
- **Left side steps**
- **Right side steps**
New carrier frame  ( GR-1000XL, GR-750XL, GR-550XL )
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

High performance engine

Cummins QSB6.7 [Tier 4]

Winch drum monitoring mirror
( GR-1000XL, GR-750XL, GR-550XL )
Folding mirror reduces height during transport.

Model  Cummins QSB6.7 [Tier 4]
Type  4 cycle, turbo charged and after cooled,
       6 cylinder in-line, direct injection,
       water cooled diesel engine.
Piston displacement  409 in³ (6,700 cm³)
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.

New carrier frame
( GR-1000XL, GR-750XL, GR-550XL )

*Compared with our conventional crane models

Model Cummins QSB6.7 [Tier 4]
Type 4 cycle, turbo charged and after cooled,
6 cylinder in-line, direct injection, water cooled diesel engine.

Piston displacement 409 in³ (6,700 cm³)

Cummins QSB6.7 [Tier 4]
High performance engine

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

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

GR-1000XL, GR-750XL
3 speeds - High range - 2 wheel drive; 4 wheel drive
3 speeds - Low range - 4 wheel drive

GR-550XL
4 speeds - High range - 2 wheel drive; 4 wheel drive
4 speeds - Low range - 4 wheel drive

GR-350XL
4 speeds - High range - 2 wheel drive; 4 wheel drive
4 speeds - Low range - 4 wheel drive

Dashboard indicator and warning symbols
**Fastest traveling speed** (GR-550XL, GR-350XL)
Maximum traveling speed 31 MPH (50 km/h)
Cummins Engine + 6 forward speeds transmission

**Comfortable suspension** (GR-550XL, GR-350XL)
Semi-elliptic leaf springs with hydraulic lockout device provide good riding comfort.

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**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.

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### 4 steering modes
Hydraulic power steering

<table>
<thead>
<tr>
<th></th>
<th>GR-1000XL</th>
<th>GR-750XL</th>
<th>GR-550XL</th>
<th>GR-350XL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Traveling on roads</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 wheel front</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Front steering only. This steering method is the same as that of general vehicles.</td>
<td></td>
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<tr>
<td><strong>Driving in work site</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 wheel rear</td>
<td>○</td>
<td>○</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Rear steering only. The rear end of the vehicle swings outward like a forklift. Useful for easy approach of a narrow area.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 wheel coordinated</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Front and rear wheels are steered in opposite directions. The turning radius is decreased. Useful for movement in a small area.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 wheel crab</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Front and rear wheels are steered in the same direction. The vehicle can move diagonally. Useful for pulling over.</td>
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</tbody>
</table>

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**Self-removable counterweight** (GR-1000XL)
When using the auxiliary winch, dismounted counterweights can be lifted and moved for transport, and then remounted for operation at a work site without a helper crane.

Weight of removable counterweight: 22,000 lbs (9,979 kg)
### GR-1000XL
Max. traveling speed: 22 mph (36 km/h)
Overall length: approx. 47’ 2” (14,375 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)
  - 2-wheel steering: 39’ 1” (11.9 m)
  - 4-wheel steering: 22’ 4” (6.8 m)

### GR-750XL
Max. traveling speed: 22 mph (36 km/h)
Overall length: approx. 43’ 10-3/4” (13,380 mm)
Overall width: approx. 10’ 10-1/2” (3,315 mm)
Overall height: approx. 12’ 5-1/2” (3,790 mm)
Min. turning radius (at center of extreme outer tire)
  - 2-wheel steering: 39’ 1” (11.9 m)
  - 4-wheel steering: 22’ 4” (6.8 m)

### GR-550XL
Max. traveling speed: 31 mph (50 km/h)
Overall length: approx. 42’ 10” (13,055 mm)
Overall width: approx. 9’ 9-3/8” (2,980 mm)
Overall height: approx. 12’ 2-7/8” (3,730 mm)
Min. turning radius (at center of extreme outer tire)
  - 2-wheel steering: 38’ 5” (11.7 m)
  - 4-wheel steering: 22’ (6.7 m)

### GR-350XL
Max. traveling speed: 31 mph (50 km/h)
Overall length: approx. 36’ 10-3/4” (11,245 mm)
Overall width: approx. 8’ 10-1/2” (2,705 mm)
Overall height: approx. 11’ 5” (3,480 mm)
Min. turning radius (at center of extreme outer tire)
  - 2-wheel steering: 37’ 5” (11.4 m)
  - 4-wheel steering: 21’ 4” (6.5 m)
**WORKING RANGE**

**DIMENSIONS**

Note: Dimension is with boom angle at -1.5 degree.

( ) Reference dimensions in mm.
### SPECIFICATIONS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>GR-1000XL</th>
<th>GR-750XL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PERFORMANCE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Traveling speed</td>
<td>22 mph (36 km)</td>
<td>22 mph (36 km)</td>
</tr>
<tr>
<td>Gradeability</td>
<td>94 % (at stall)</td>
<td>147 % (at stall)</td>
</tr>
<tr>
<td>Gross vehicle mass</td>
<td>115,610 lbs (52,440 kg)</td>
<td>97,620 lbs (44,280 kg)</td>
</tr>
<tr>
<td>- front axle</td>
<td>57,340 lbs (26,010 kg)</td>
<td>49,650 lbs (22,520 kg)</td>
</tr>
<tr>
<td>- rear axle</td>
<td>58,270 lbs (26,430 kg)</td>
<td>47,970 lbs (21,760 kg)</td>
</tr>
<tr>
<td><strong>MIN. TURNING RADIUS</strong></td>
<td>39” (1.19 m)</td>
<td>39” (1.19 m)</td>
</tr>
<tr>
<td>(2-wheel steering)</td>
<td>22° 4” (6.8 m)</td>
<td>(2-wheel steering)</td>
</tr>
<tr>
<td>(at center of outer tire)</td>
<td></td>
<td>(4-wheel steering)</td>
</tr>
<tr>
<td><strong>BOOM</strong></td>
<td>5-section full power synchronized telescoping boom</td>
<td>6-section full power synchronized telescoping boom</td>
</tr>
<tr>
<td>Fully retracted length</td>
<td>39.4” (12.0 m)</td>
<td>36.1” (11.0 m)</td>
</tr>
<tr>
<td>Fully extended length</td>
<td>154.2” (47.0 m)</td>
<td>141.1” (43.0 m)</td>
</tr>
<tr>
<td>Extension speed</td>
<td>114.8” (35.0 m) in 160 seconds</td>
<td>105” (32.0 m) in 128 seconds</td>
</tr>
<tr>
<td>Elevation speed</td>
<td>20” to 60” in 46 seconds</td>
<td>20” to 60” in 46 seconds</td>
</tr>
<tr>
<td><strong>JIB</strong></td>
<td>2-stage bi-fold lattice type, Single sheave at jib head.</td>
<td>2-stage bi-fold lattice type, Single sheave at jib head.</td>
</tr>
<tr>
<td>Offset</td>
<td>3.5°/ 25°/ 45° (Tilt type)</td>
<td>3.5°/ 25°/ 45° (Tilt type)</td>
</tr>
<tr>
<td>Length</td>
<td>33.2” (10.1 m) or 58.1” (17.7 m)</td>
<td>33.2” (10.1 m) or 58.1” (17.7 m)</td>
</tr>
<tr>
<td><strong>MAIN WINCH</strong></td>
<td>Variable speed type with grooved drum driven by hydraulic axial piston motor.</td>
<td>Variable speed type with grooved drum driven by hydraulic axial piston motor.</td>
</tr>
<tr>
<td>Single line pull</td>
<td>14,600 lbs (6,600 kg)</td>
<td>12,300 lbs (5,600 kg)</td>
</tr>
<tr>
<td>Wire rope</td>
<td>491 ft/min (149 m/min) (at 4th layer) 830’ of 3/4” (253 m of 19 mm)</td>
<td>420 ft/min (125 m/min) (at 4th layer) 771’ of 3/4” (235 m of 19 mm)</td>
</tr>
<tr>
<td><strong>AUXILIARY WINCH</strong></td>
<td>Variable speed type with grooved drum driven by hydraulic axial piston motor</td>
<td>Variable speed type with grooved drum driven by hydraulic axial piston motor</td>
</tr>
<tr>
<td>Single line pull</td>
<td>14,600 lbs (6,600 kg)</td>
<td>12,300 lbs (5,600 kg)</td>
</tr>
<tr>
<td>Wire rope</td>
<td>491 ft/min (149 m/min) (at 4th layer) 456’ of 3/4” (139 m of 19 mm)</td>
<td>420 ft/min (125 m/min) (at 4th layer) 436’ of 3/4” (133 m of 19 mm)</td>
</tr>
<tr>
<td><strong>SLEWING</strong></td>
<td>Slowing speed</td>
<td>Slowing speed</td>
</tr>
<tr>
<td></td>
<td>1.5 min−1 (rpm)</td>
<td>2.4 min−1 (rpm)</td>
</tr>
<tr>
<td>Tail slewing radius</td>
<td>13’ 9” (4,190 mm)</td>
<td>13’ 9” (4,190 mm)</td>
</tr>
<tr>
<td><strong>HYDRAULIC SYSTEM</strong></td>
<td>Pumps...</td>
<td>Pumps...</td>
</tr>
<tr>
<td></td>
<td>2 variable piston pumps for crane functions.</td>
<td>2 variable piston pumps for crane functions.</td>
</tr>
<tr>
<td></td>
<td>Tandem gear pump for steering, slowing and optional equipment.</td>
<td>Tandem gear pump for steering, slowing and optional equipment.</td>
</tr>
<tr>
<td></td>
<td>Control valves...</td>
<td>Control valves...</td>
</tr>
<tr>
<td></td>
<td>Multiple valves actuated by pilot pressure with integral pressure relief valves.</td>
<td>Multiple valves actuated by pilot pressure with integral pressure relief valves.</td>
</tr>
<tr>
<td></td>
<td>Reservoir...</td>
<td>Reservoir...</td>
</tr>
<tr>
<td></td>
<td>202 gallon (763 lit.) capacity. External sight level gauge.</td>
<td>202 gallon (763 lit.) capacity. External sight level gauge.</td>
</tr>
<tr>
<td></td>
<td>Oil cooler...</td>
<td>Oil cooler...</td>
</tr>
<tr>
<td></td>
<td>Air cooled fan type.</td>
<td>Air cooled fan type.</td>
</tr>
<tr>
<td><strong>LOAD MOMENT INDICATOR (TADANO AML-C)</strong></td>
<td>Following information is displayed:</td>
<td>Following information is displayed:</td>
</tr>
<tr>
<td></td>
<td>•Control lever lockout function with audible and visual pre-warning •Boom position indicator •Outrigger state indicator</td>
<td>•Control lever lockout function with audible and visual pre-warning •Boom position indicator •Outrigger state indicator</td>
</tr>
<tr>
<td></td>
<td>•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 for boom elevation and slowing •Working condition register switch •Load radius / boom angle / tip height / slewng range preset function •External warning lamp •Tare function •Fuel consumption monitor •Main hoist / auxiliary hoist select •Drum rotation indicator (audible and visual type) main and auxiliary hoist</td>
<td>•Control lever lockout function with audible and visual pre-warning •Boom position indicator •Outrigger state indicator</td>
</tr>
<tr>
<td><strong>OUTRIGGERS</strong></td>
<td>4 hydraulic, beam and jack outriggers. Vertical jack cylinders equipped with integral holding valve. Each outrigger beam and jack is controlled independently from cab.</td>
<td>4 hydraulic, beam and jack outriggers. Vertical jack cylinders equipped with integral holding valve. Each outrigger beam and jack is controlled independently from cab.</td>
</tr>
<tr>
<td>Extension width</td>
<td>Max... 23 11/3 - 8” (7.3 m); Mid... 21 11/3 - 4’ (6.7 m) &amp; 8 1/8 - 2” (5.5 m), Min... 8 10-1/4 - 2” (2.7 m)</td>
<td>Max... 23 11-3/4 - 8” (7.3 m); Mid... 21 11-3/4 - 4’ (8.7 m) &amp; 8 1/12 - 1” (5.5 m), Min... 8 10-7/8 - 2” (2.7 m)</td>
</tr>
<tr>
<td></td>
<td>4 section telescoping outriggers.</td>
<td>4 section telescoping outriggers.</td>
</tr>
<tr>
<td></td>
<td>Float size (Diameter)... 1’ 11-5 / 8” (0.6 m)</td>
<td>Float size (Diameter)... 1’ 11-5 / 8” (0.6 m)</td>
</tr>
<tr>
<td><strong>CARRIER</strong></td>
<td>Rear engine, left-hand drive, driving axle 2-way selected type by manual switch.</td>
<td>Rear engine, left-hand drive, driving axle 2-way selected type by manual switch.</td>
</tr>
<tr>
<td></td>
<td>4 x 2 front drive, 4 x 4 front and rear drive.</td>
<td>4 x 2 front drive, 4 x 4 front and rear drive.</td>
</tr>
<tr>
<td><strong>ENGINE</strong></td>
<td>4 cycle, turbo charged and after cooled, 6-cylinder, direct injection diesel.</td>
<td>4 cycle, turbo charged and after cooled, 6-cylinder, direct injection diesel.</td>
</tr>
<tr>
<td></td>
<td>Piston displacement... 409 in. (6.700 liters)</td>
<td>Piston displacement... 409 in. (6.700 liters)</td>
</tr>
<tr>
<td></td>
<td>Bore x stroke... 4.212 in. x 3.882 in. (107 mm x 124 mm)</td>
<td>Bore x stroke... 4.212 in. x 3.882 in. (107 mm x 124 mm)</td>
</tr>
<tr>
<td></td>
<td>Max. output... Gross 270 HP (201 kW) at 2,400 rpm Max. Torque... 730 ft-lb (990 N·m) at 1,500 rpm</td>
<td>Max. output... Gross 270 HP (201 kW) at 2,400 rpm Max. Torque... 730 ft-lb (990 N·m) at 1,500 rpm</td>
</tr>
<tr>
<td><strong>TRANSMISSION</strong></td>
<td>Electronically controlled fully automatic transmission.</td>
<td>Electronically controlled fully automatic transmission.</td>
</tr>
<tr>
<td><strong>STEERING</strong></td>
<td>Hydraulic power steering.</td>
<td>Hydraulic power steering.</td>
</tr>
<tr>
<td></td>
<td>4 steering modes available:</td>
<td>4 steering modes available:</td>
</tr>
<tr>
<td></td>
<td>2-wheel front, 2-wheel rear, 4-wheel coordinated, 4-wheel crab</td>
<td>2-wheel front, 2-wheel rear, 4-wheel coordinated, 4-wheel crab</td>
</tr>
<tr>
<td><strong>SUSPENSION</strong></td>
<td>Front..... Rigid mounted to the frame. Rear..... Pivot mounted with hydraulic lockout device.</td>
<td>Front..... Rigid mounted to the frame. Rear..... Pivot mounted with hydraulic lockout device.</td>
</tr>
<tr>
<td><strong>TIRES</strong></td>
<td>29.5 - 25 (OR)</td>
<td>29.5 - 25 (OR)</td>
</tr>
<tr>
<td><strong>FUEL TANK CAPACITY</strong></td>
<td>79.2 gallon (300 liters)</td>
<td>79.2 gallon (300 liters)</td>
</tr>
</tbody>
</table>

*Some specifications are subject to change without prior notification.*
**SPECIFICATIONS**

**FUEL TANK CAPACITY**
- 79.2 gallon (300 liters) for GR-S50XL
- 79.2 gallon (300 liters) for GR-350XL

**WEIGHT**
- Gross vehicle mass:
  - 13,300 lbs (6,000 kg) for GR-S50XL
  - 13,300 lbs (6,000 kg) for GR-350XL
- Rear axle:
  - 8,820 lbs (4,000 kg) for GR-S50XL
  - 8,820 lbs (4,000 kg) for GR-350XL
- Front axle:
  - 4,100 lbs (1,850 kg) for GR-S50XL
  - 4,100 lbs (1,850 kg) for GR-350XL

**MIN. TURNING RADIUS**
- 10° / 25° / 45° (Tilt type) for GR-S50XL
- 12° / 25° / 45° (Tilt type) for GR-350XL

**BOOM**
- Fully retracted length: 39.4’ (12.0 m)
- Fully extended length: 114.8’ (35.0 m)
- Tail slewing radius: 37° 5” (11.4 m) for GR-S50XL
- Elevation speed: 20° to 60° in 27 seconds for GR-S50XL
- JIB Offset Length: 20° to 60° in 22 seconds for GR-S50XL

**MAIN WINCH**
- Single line pull:
  - 558’ of 5/8” (170 m of 16 mm) for GR-S50XL
  - 558’ of 5/8” (170 m of 16 mm) for GR-350XL
- Wire rope:
  - 410 ft/min (125 m/min) (at 4th layer) for GR-S50XL
  - 410 ft/min (125 m/min) (at 4th layer) for GR-350XL

**AUXILIARY WINCH**
- Single line pull:
  - 361’/10” (110 m/min) (at 2nd layer) for GR-S50XL
  - 322’ of 5/8” (98 m of 16 mm) for GR-350XL
- Wire rope:
  - 361’/10” (110 m of 19 mm) for GR-S50XL

**SLEWING**
- Slewling speed:
  - 2.7 min⁻¹ (rpm) for GR-S50XL
  - 3.2 min⁻¹ (rpm) for GR-350XL

**HYDRAULIC SYSTEM**
- Axial piston motor:
  - Pressure relief valves.
- Control valves...
  - Multiple valves actuated by pilot pressure with integral pressure relief valves.
- Warning lamp Tare function Fuel consumption monitor Main equipment.

**LOAD MOMENT INDICATOR**
(TADANO AML-C)
- Following information is displayed:
  - 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 for boom elevation and slewning
  - Control lever lockout function with audible and visual
  - Following information is displayed:
  - 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 for boom elevation and slewning

**OUTRIGGERS**
- Extension width:
  - Max... 22’ 11-5/8” (7.0 m), Min... 8’ 10-7/8” (2.7 m), Float size (Diameter)... 1’ 11-5/8” (0.6 m)
  - Max... 23’ 11-3/8” (7.3 m), Mid... 21’ 11-3/4” (6.7 m) & 18’ 1-2” (5.5 m), 3-section full power synchronized telescoping boom.

**CARRIER**
- Rear engine, left-hand drive, driving axle 2-way selected type by manual switch.
- Rear engine, left-hand drive, driving axle 2-way selected type by manual switch.

**ENGINE**
- 4 cycle, turbo charged and after cooled, 6-cylinder, direct injection diesel.
- Piston displacement... 409 in. (6.700 liters)
- 4 cycle, turbo charged and after cooled, 6-cylinder, direct injection diesel.
- Piston displacement... 409 in. (6.700 liters)

**TRANSMISSION**
- Electronically controlled fully automatic transmission.
- Electronically controlled fully automatic transmission.

**STEERING**
- Hydraulic power steering.
- 3 steering modes available:
  - 2-wheel front, 4-wheel coordinated, 4-wheel crab
  - 2-wheel front, 4-wheel coordinated, 4-wheel crab

**SUSPENSION**
- Semi-elliptic leaf springs with hydraulic lockout device.
- Semi-elliptic leaf springs with hydraulic lockout device.

**TIRES**
- 23.5 - 25 (OR)
- 20.5 - 25 (OR)

**FUEL TANK CAPACITY**
- 21 gallon (763 liters)

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GR-1000XL (100 TON)

GR-750XL (75 TON)

GR-550XL (55 TON)

GR-350XL (35 TON)