TADANO

Rough Terrain Crane

EVOLT

eGR-1000XLL-1

100 Ton Capacity (90.7 Metric Tons)

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FULLY ELECTRIC ROUGH TERRAIN CRANE

EVOLT eGR-1000XLL-1

CO_2 emissions

ZERO

EVOLT – Evolution Meets Voltage
This new EVOLT eGR-1000XLL-1 delivers
the same powerful lifting capability as a GR-1000XLL-4,
but in a quieter, zero-emissions package.
Crane operation noise is reduced by 9 dB,
and approximately 48,500 lbs of CO_2 emissions per year will be eliminated.
The eGR-1000XLL-1 offers up to 7 hours of lifting
or up to 16 miles of traveling with its on-board battery pack.
As a working example for normal daily use,
it provides 5 hours of lifting and 5.5 miles of traveling.
This new crane is one of the many ways Tadano Green Solutions is
lowering CO_2 emissions because our true mission is zero emissions.

Tadano's goal is to achieve Net Zero Carbon Emissions by 2050 in order to contribute to a better global environment as a part of the society through our products, services, and business activities and through the behavior of our individual employees.

TADANO GREEN SOLUTIONS

OUR TRUE MISSION
ZERO EMISSIONS

Distance and times vary depending on air conditioner and battery thermal management system.

Traveling Performance

Two high-power motors provide driving comfort.
In addition to low noise, the shock-free and dramatically improved acceleration will reduce the stress of long-distance driving.

Motor Output

194 kW [97 kW + 97 kW]

Full time 4 x 4

Max. travel speed: 11 mph [18 km/h]

Gradeability: 40% [21.8°]

Cruising range: 16 miles [26 km]

*Only traveling. Distance varies depending on air conditioner and battery thermal management system.

New Panel

Power meter (traction)
ePTO tachometer (crane operation)

Battery indicator

Regenerative brake

The regenerative brake uses energy generated by resistance when the motor is driven by wheel rotation during deceleration to charge the battery packs.

During deceleration

High powered motor and inverter

DANA TM4 SUMO-MD

Power Source

The on-board battery provides the necessary distance and crane operation time during daytime work.
The battery can be charged by way of normal or rapid charge to ensure adequate charging capacity.

Battery Total

226 kWh

As a working example;
Crane operation & Travel:
5.0 hours & 5.5 miles [8.7 km]

*Distance and times vary depending on air conditioner and battery thermal management system.

Rapid charge
(CCS1, 125 kW, 350 A)
2.0 hours

Normal charge
(480 V 3-phase AC, 60 A)
4.5 - 5.5 hours

Charge port

Distance and times vary depending on air conditioner and battery thermal management system.

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Lifting Performance

Lowering operation noise provides for a more comfortable experience for operators. This will be very useful in work environments where noise levels are critical, such as during nighttime work.

Crane Operation Noise

99 dB

Noise reduction 9 dB* comparing with GR-1000XLL-4

*EN standard test condition

Plug-in operation

The battery consumption can be reduced by operating the crane during normal or rapid charging.

ePTO Motor Provides High Powered Hydraulic Systems

Boom length: **167.3** ft

Max lifting capacity: **100** ton

Crane operation time: **7.0** hours

*Crane operation only. Times vary depending on air conditioner and battery thermal management system.

Distance and times vary depending on air conditioner and battery thermal management system.

Distance and times vary depending on air conditioner and battery thermal management system.

Lift Visualizer

LIFT VIZ

Control switches

Iris switch
(Bright/dark adjustment)

Focus switch
(Far/near adjustment)

Preset switch
(A maximum of three optical zoom values are memorized.)

Optical zoom switch
(Zoom-in/out adjustment)

Lift Visualizer System

The lift visualizer receives images from a wireless camera mounted on the boom or jib head, superimposes the crane information via AML, and displays it on the dedicated monitor.
This allows the operator to visually check camera images and working areas even in blind spots caused by obstacles, providing visual support.

Monitor

Maximum extension of outriggers

Outrigger
Left: Minimum extension Right: Maximum extension

Unequal extension of outriggers

Working area display function

The working area according to the operation configuration is superimposed on the image of the lifted load.

Distance and times vary depending on air conditioner and battery thermal management system.

Operation & Function Features

Crane capacity: 100 ton
(90.7 metric ton)
5-section boom: 167.3 ft (51.0 m)
2-stage bi-fold jib:
33.2 ft / 58.1 ft (10.1 m / 17.7 m)
Maximum lifting height:
166.0 ft (50.6 m) [Boom]
224.1 ft (68.3 m) [Jib]
Maximum load radius:
155.0 ft (47.2 m) [Boom]
190.0 ft (57.9 m) [Jib]

Bi-Fold Jib

A 2-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.

Assist Cylinder for Jib

When mounting and stowing the jib, the assist hydraulic cylinders are used to increase work efficiency and safety.

Two Telescoping Modes 1 & 2

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

Mode 1

Mode 1 is extension of 2nd section only. Then follows the synchronized extension of 3rd, 4th and 5th sections.

Mode 2

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

Automatic Accelerator

Automatically controls the ePTO motor speed in conjunction with lever/pedal operation during crane operation.
It eliminates the need to operate the accelerator pedal during crane operation, enabling speed control with the lever alone. Additionally, it increases the ePTO speed more efficiently rather than constantly depressing the accelerator pedal, reducing power consumption and motor noise.

* The conventional system and the automatic accelerator can be switched using a switch, allowing both systems to be used.

Automatic Pump Disconnect

Automatically stops the ePTO motor by turning ON the pump automatic stop switch when the crane is not used for a certain period, reducing power consumption and noise. During pump stop, the crane operation mode is maintained, and the crane status can be monitored on the operation screen. Even during long periods of standby, the crane operation settings, such as the outrigger setting, will not be reset, and the air conditioner will remain on.

* The function becomes active under certain conditions and the pump can be restarted using the horn switch.
* The standby time until the pump stops can be set to one of three options: 1 minute, 3 minutes, or 5 minutes.

Hydraulic pump configuration diagram

Eco Mode System

Controls the maximum ePTO motor speed at the time of crane operation and enables battery consumption to decrease by two of selection which Eco mode 1 and 2, and noise level is reduced.

Positive Control System

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

Electric Hot Water Heater

By adopting the electric hot water heater to the superstructure, the hot water circuit has become more compact compared to the conventional hot water heater, resulting in improved maintenance and faster heating.

Distance and times vary depending on air conditioner and battery thermal management system.

Load Moment Indicator [AML-E]

Large Multi-Function Display

The size-up 12.1-inch color touch panel consolidates operation information and settings for increased work efficiency and comfort. It also uses a capacitive touch panel, allowing you to tap and flick like on a mobile device.

Operation status display

Lithium-ion battery information

Safety Control for Boom Raising Operation

Prevents overload when boom raising operation is used for lifting a load off the ground.

*Release switch available for emergency operation

Asymmetric Outrigger Extension Width Control

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

Smart Counterweight System

The Smart Counterweight allows the counterweight to be moved between two mounting positions.
This feature improves lifting capacity by up to 19%.

Smart Counterweight 1 (Front position)

Tail swing: 13.9' (4,190 mm)

Smart Counterweight 2 (Rear position)

Tail swing: 15.9' (4,790 mm)

Smart Chart System

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

Lifting capacity by up to 85%

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*

*The camera images in the photos are simulated.

Rear view monitor*

Clearance sonar monitor

Clearance Sonar

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

*Detection distance: approx. 1 ft – 8.5 ft (0.3 m – 2.6 m)

Distance and times vary depending on air conditioner and battery thermal management system.

Standard Equipment

Boom and jib mounted aircraft warning light (optional)

Emergency stop switch

USB port

Outrigger control panel

Cab floor mat

Cup holder

Shift switch

LED work light

Two-roll sunshade

Adjustable in any position

20° tilt cab

Cab tilt indicator and switch

Search light (optional)

Wind speed indicator

Winch drum camera with light

Stowed position when transporting

Winch drum monitoring camera

Cable follower for winches

LED head lamp

Normal charging cable (included)

LED rear combination lamp

Tool box

Right side steps

External warning

Front steps

Catwalk

Left side steps

Battery disconnect

Applications

EVOLT App

EVOLT App for crane owners clearly displays the battery status, operating history, and distance to the destination for Tadano electric rough terrain crane on the screen.

[App overview]

Displays information related to operations and traveling of the electric rough terrain crane to support the operator.
In the “Battery information”, it timely displays the “battery level”, “cruising range”, and “time until fully charged”.
In the “Operating history”, it displays work records and travel history, including operating hours, distance traveled, and energy consumption.
In the “Map”, it displays the “approximate distance to the destination” by setting a destination.

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 the 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.

HELLO-NET Telematics - Available in the U.S. and Canada, other countries may vary. Contact your distributor for details.

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 real-time from outside the cab.
HELLO-DATA LINK helps crane and site supervisors to monitor operating status and stay informed on repairs and maintenance.

Three Working Displays

*Available display modes and information may differ depending on machine model.

Display information from connected machines via handy smartphone or tablet. Swipe to easily change screens.

Crane display | Meter display | Indicators display

Specifications

MAXIMUM CAPACITY	200,000 lbs at 8 ft (100 US ton at 2.4 m)
PERFORMANCE Max. traveling speed Gradeability (tanθ)	 11 mph (18 km/h) 40% (in short time), 20% (continuously)
WEIGHT Gross vehicle mass -1st axle -2nd axle	 129,000 lbs (58,500 kg) 64,700 lbs (29,340 kg) 64,300 lbs (29,160 kg)
MIN. TURNING RADIUS	2-wheel steer: 36' 8-15/16" (11.2 m) 4-wheel steer: 22' 11-9/16" (7.0 m) [at center of extreme outer tire]
BOOM Fully retracted length Fully extended length Extension speed Angle Elevation speed	5 section full power synchronized telescoping boom. 42.0' (12.8 m) 183.7' (51.0 m) 125.3' (38.2 m) in 170 seconds -1.5° – 80.5° 20° to 60° in 46 seconds
JIB Length	2-stage bi-fold lattice type, 3.5°, 25° or 45° offset (tilt type). 33.2', 58.1' (10.1 m, 17.7 m)
MAIN WINCH Max. single line pull Single line speed Wire rope	Variable speed type with grooved drum driven by hydraulic axial piston motor through speed reducer. 1st layer 20,000 lb (9,090 kg) 491 fpm (149 m/min) [at 4th layer] Non-rotating 3/4" P · S (19) + 39 x P · 7
AUXILIARY WINCH Max. single line pull Single line speed Wire rope	Variable speed type with grooved drum driven by hydraulic axial piston motor through speed reducer. 1st layer 20,000 lb (9,090 kg) 491 fpm (149 m/min) [at 4th layer] Non-rotating 3/4" P · S (19) + 39 x P · 7
SLEWING Slewing speed Tail slewing radius	 1.5 min^{-1} {rpm} SMART CW1: 13' 9" (4,190 mm) SMART CW2: 15' 9" (4,790 mm)
HYDRAULIC SYSTEM	PUMPS: 2 variable piston pumps for crane functions. Tandem gear pump for steering slewing and other hydraulicsystems. Powered by electric motor. CONTROL VALVES: Electrically controlled multiple valves actuated by pilot pressure with integral pressure relief valves. RESERVOIR: 210 gallons (795 lit.) capacity. External sight level gauge. FILTRATION: BETA10 = 10 return filter, full flow with bypass protection, located inside of hydraulic reservoir. Accessible for easy replacement. OIL COOLER: Air cooled fan type.

TADANO Load Moment Indicator (TADANO 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 • 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 • Lithium ion battery information monitor • Main winch / auxiliary winch select • Drum rotation indicator (audible and visible type) main and auxiliary winch • On rubber indicator
OUTRIGGERS Extension widths	Four hydraulic, beam and jack outriggers. Vertical jack cylinders equipped with integral holding valve. Each outrigger beam and jack is controlled independently from cab. Min. extension: 8' 10-1/4" (2.7 m) center to center Mid. extension: 18' 1/2" (5.5 m) center to center Mid. extension: 21' 11-3/4" (6.7 m) center to center Max. extension: 23' 11-3/8" (7.3 m) center to center Float size (diameter): 1' 11- 5/8" (0.6 m)
CARRIER	Front and rear motor, left hand steering, 4 x 4 front and rear drive.
ELECTRIC MOTOR	Name: DANA TM4 LSM200C Type: AC synchronous motor Max. output: 97 kW {132 PS} + 97 kW {132 PS} / 2,750 min^{-1} {rpm} Max. torque: 2,500 N·m {255 kgf·m} + 2,500 N·m {255 kgf·m} / 250 min^{-1} {rpm}
Axle	Front: Full floating type, steering and driving axle with planetary reduction and inter-wheel differential lock. Rear: Full floating type, steering and driving axle with planetary reduction, inter-wheel differential lock and emergency steering gear box.
STEERING	Hydraulic power steering controlled by steering wheel. Four 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
BATTERY	Batteries for driving: Lithium ion battery, 6 packs, 332 V, 226 kWh (37.7 kWh / 1 pack)
TIRES	26.5R25☆☆ - air pressure: 94 psi (650 kPa)

DIMENSIONS

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

GVW: 129,000 lbs (58,500 kg) Counterweight: 24,700 lbs (11,200 kg) Jib: 2,650 lbs (1,200 kg) 100 ton hook block: 1,900 lbs (850 kg)

Distance and times vary depending on air conditioner and battery thermal management system.

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Actual specification may differ.

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