TELESCOPIC BOOM CRAWLER CRANE

8012

40 TON CAPACITY

TELESCOPIC BOOM CRAWLER CRANE

MANTIS CRANES
VERSATILE. POWERFUL. DEPENDABLE.

Tadano Mantis cranes are engineered as VERSATILE, heavy-duty machines. We match massive steel fabrications with diesel engines and state of the art hydraulics to provide a POWERFUL crane that meets the toughest demands in full load pick-and-carry as well as lift applications. MANTIS... the one DEPENDABLE crane that does it all on your jobsite.
FEATURES

NO OTHER CRANE COMBINES SO MANY VALUABLE FEATURES:

- Pick-and-carry the full crane load chart through 360°.
- Lift and walk...even with tracks retracted.
- Climb steeper grades, thanks to minimized counterweight and low center of gravity.
- Pull through deep mud without bogging down.
- Telescope or lift the boom with a full load on the hook.
- Save time and money on the job due to low clearance height, retract on-the-fly tracks and telescopic boom.
- Independent hydrostatic track drives allow pivot turns and counter rotation.
- Hydraulic tool circuit option powers wide choice of Mantis-approved tools.
- New luxury cab with state-of-the-art operator aids.
- Saves time and money on deployment and shipping with less haul vehicles, less time wasted on boom erection and fewer personnel on the erection crew.

Large access doors, spacious machinery compartments simplify preventative maintenance and service of the crane.

Conveniently positioned cameras display the winch as well as the blind area directly behind the crane. Full color video display in operator cab is standard equipment.

Spacious cab, adjustable seat, and conveniently located controls are common in all Tadano Mantis Cranes.

Tadano AML-C rated capacity indicator provides continuous feedback of crane lift position and data.
## SPECIFICATIONS

### MAXIMUM LIFTING CAPACITY

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Description</th>
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<tbody>
<tr>
<td>12 ton</td>
<td>36 ft x 3.6 m</td>
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</tbody>
</table>

### BOOM

- 3-section full power synchronized telescoping boom. Synchronized telescoping system consists of one double acting hydraulic cylinder with load holding valve and extension and retraction cables.
  - Retracted Length: 39’9” (11.9 m)
  - Extended Length: 90’0” (27.4 m)
  - Extension Time: 102 s
  - Elevating Angles: -1° to 78°
  - Boom Head: Four, 15 inch (381 mm) diameter cast nylon sheaves on heavy-duty roller bearings
  - Auxiliary Boom Head: Quick-reeve, single 19 inch (483 mm) diameter high-strength, cast nylon sheave mounted on a heavy-duty roller bearing.
  - Hook Block: 40 ton (36t) hook block - Four 19 inch (483 mm) diameter sheaves mounted on a heavy-duty roller bearing with swivel hook and safety latch.
  - Headache Ball: 12 ton (11t) ball includes a swivel hook with a safety latch.

### WINCHES

**Main Winch**
- Rope Diameter and Length: 5/8” x 500 ft (16mm x 152m)
- Single line pull: 15,530 lb (69.1 kN)(first layer)
- Single line speed: 247 ft/min (75.0 m/min)(4th layer)

**Auxiliary Winch**
- Rope Diameter and Length: 5/8” x 350 ft (16mm x 107m)
- Single line pull: 15,530 lb (69.1 kN)(first layer)
- Single line speed: 247 ft/min (75.0 m/min)(at the 4th layer)

### ELECTRICAL SYSTEM

- 12 VDC

### COUNTERWEIGHT

- Total 10,000 lb (4,540 kg) rear counterweight (One piece)

### SWING

- Gear motor driving a planetary gear reducer with a shaft mounted pinion, external gear shear ball screw bearing bolted to the superstructure and the cab allows the superstructure to rotate 360°
  - Swing Speed: 0 – 2.2 rpm
  - Swing Parking Brake: Spring applied fail-safe brake with hydraulic release that is controlled from the operator’s cab
  - Swing Service Brake: Hydraulically applied, controlled through foot actuated pedal
  - House Lock System: 2-position, manually pinned

### HYDRAULIC SYSTEM

- Hydraulic Pumps: Two high pressure, variable axial piston pumps with load sense and power limiting control for crane functions.
- Directional Valves: Multiple pressure and flow compensated valves with integrated relief valves controlled by hydraulic pilot signals.
- Pump Output: 154 gpm (583 l/min) @ 2100 RPM engine speed, 4,800 psi (330 bar) maximum pressure
- Filtration: 5 micron.

### TRAVEL

Each side frame contains a pilot controlled, two-speed track drive with hydraulic axial piston motor and parking brake. Travel system provides skid steering and counter rotation.

- Low travel speed: 0.78 mph (3.2 km/h)
- High travel speed: 1.29 mph (4.8 km/h)
- Gradeability (unladen): 78%

### SWING TRAVEL

- Retracted Length: 39 feet (9.1m)
- Extended Length: 90 feet (27.4m)
- Max. Lifting Height: 140 feet (42.7m)
- Offset Angles: 15° & 30°
- Length: 20 feet (6.1m)
- Head: Two, 19-inch (483 mm) diameter cast nylon sheaves on heavy-duty roller bearings
- Max. Lifting Height: 121 ft (36.9 m)
- Length: 30 feet (9.1m)
- Head: Two, 19-inch (483 mm) diameter cast nylon sheaves on heavy-duty roller bearings

### SIDE FRAMES

Two welded steel side frames are paired with a track group. The side frames extend and retract hydraulically and are controlled from the cab.

- Track Rollers: Two top and thirteen bottom sealed rollers on each track frame idler. Oil filled, self lubricating with spring type tensioner
- Track Shoes: 36 inch (900 mm) 3-bar semi grouser

### LOAD MOMENT INDICATOR & ANTI -TWO BLOCK

**TADANO AML-C Rated Capacity Limiter and Anti-Two Block system**

- Control function shutdown. Audible and visual warnings.
- LCD screen provides a continuous display of working boom length, boom angle, working load radius, tip height, parts-of-line (operator set), machine track configuration, relative load moment, maximum permissible load and actual load.

### OPERATOR’S CAB

- Fully-enclosed, air conditioned all-steel modular cab with lockable swinging door, acoustical lining, anti-slip floor and tinted safety glass.
- Rear view cameras are appropriately located as are three remote control work lights.
- 2-speed windshield wiper, top glass wiper.
- Six-way adjustable fabric seat with headrest, seat belt.
- Seat and armrest termination switches immediately disable all hydraulic functions as the operator rises from the seat or lifts the left hand armrest.
- Dash instrumentation: tachometer, voltmeter, oil pressure gauge, temperature gauge, hour meter and fuel gauge.
- Indicators are provided for crane level, load moment, drum rotation, air filter restriction, hydraulic oil temperature and filter restriction, engine oil pressure and temperature.

### ENGINE

- Make/ Model: Cummins QSB 6.7
- Rating: 260 hp (194 kW) @ 2,000 RPM
- Alternator: 130 amp

### OPTIONAL EQUIPMENT

- Auger Ready Package: Includes hoses, fasteners and stowage bracket assembly mounted to the base section of the boom with a flow capability of 34 gpm (130 l/min)
- Complete Auger Package: Adds a two speed auger motor/gear box and one 60 inch (1.52 m) kelly bar to the Auger Ready Package.
- Tool Circuit: Provides 5 gpm (23 l/min) and 10 gpm (45 l/min) at 2,500 PSI (176 bar) through a 50 foot section of the boom with a flow capability of 34 gpm (130 l/min)
- Cold Weather Packages: Cold weather options are available for operation to -40°C (Consult factory for application support)
- Work Platform: Model WP750 – 36 in x 72 in (0.9m x 1.8m), all steel, welded, two person platform with maximum capacity of 750 lbs (340 kg).
- Pole Claw: Heavy-duty pole claw with hydraulic clamp and tilt.
- Radio control package.
- Rotation resistant wire rope.

Specifications are subject to change without prior notice.
DIMENSIONS

8012
40 Ton Tele-Boom Crawler Crane

WIDTHS, WEIGHTS, AND GROUND PRESSURES*

<table>
<thead>
<tr>
<th>Shoe Width</th>
<th>Overall Width</th>
<th>Area</th>
<th>Ground Pressure</th>
<th>Working Weight</th>
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</thead>
<tbody>
<tr>
<td>24 in (609 mm)</td>
<td>Retracted: 11 ft 0 in (3.35 m)</td>
<td>9,360 in² (6.04 m²)</td>
<td>8.9 psi (0.62 kg/cm²)</td>
<td>82,950 lb (37,630 kg)</td>
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<tr>
<td></td>
<td>Extended: 17 ft 2 in (5.23 m)</td>
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<tr>
<td>30 in (762 mm)</td>
<td>Retracted: 11 ft 6 in (3.51 m)</td>
<td>11,700 in² (7.55 m²)</td>
<td>7.3 psi (0.51 kg/cm²)</td>
<td>84,934 lb (38,530 kg)</td>
</tr>
<tr>
<td></td>
<td>Extended: 17 ft 8 in (5.39 m)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>36 in (900 mm)</td>
<td>Retracted: 12 ft 0 in (3.66 m)</td>
<td>14,040 in² (9.06 m²)</td>
<td>6.2 psi (0.44 kg/cm²)</td>
<td>86,904 lb (39,420 kg)</td>
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<tr>
<td></td>
<td>Extended: 18 ft 4 in (5.59 m)</td>
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</table>

* Crane equipped with: 80 ft boom, extension, jib, 30 ton hook block, 7 ton headache ball

90 FT MAIN BOOM, 30 FT EXTENSION & 20 FT JIB

* Crane equipped with: 80 ft boom, extension, jib, 30 ton hook block, 7 ton headache ball