

Advanced American Construction GTC-700EX

EOP





TADANO





The GTC-700EX from TADANO MANTIS sets the global standard for telescopic boom crawler cranes and is built on the field proven MANTIS crane platform. TADANO MANTIS cranes are engineered like no other. Massive steel fabrications and powerful diesel engines matched to state of the art hydraulics and controls make this crane ideal for both lift applications as well as heavy duty work. TADANO MANTIS Corporation remains one of the few crane manufacturers ready to work with contractors and project engineers to develop customized lifting solutions that meet the most unusual of project challenges.

Advanced American onstruction

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.





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



Standard operators cab tilts up for improved operator comfort. Improved design walkways allow easy access into the cab.



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



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



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

SPECIFICATIONS



CAPACITY

70t at 3.0m

BOOM

4-section full power synchronized telescoping boom. Synchronized telescoping system consists of two double acting hydraulic cylinders with load holding valves and extension and retraction cables.

- Retracted Length: 11.4 m
 Extended Length: 34.0 m
- Extension Time: 102 s
- Elevating Time: 64 s Elevating Angles: -1° to 78°
- Boom Head: Seven, 483 mm diameter cast nylon sheaves on heavy-duty roller bearings
- Auxiliary Boom Head: Quick reeve, single 483 mm diameter high-strength, cast nylon sheave mounted on a heavy-duty roller bearing.
- Hook Block: 70t hook block Five 483 mm diameter sheaves mounted on heavy duty roller bearings with swivel hook and safety latch.
- Headache Ball: 11t ball includes a swivel hook with a safety latch.

WINCHES

Planetary geared two-speed winch includes a bent axis hydraulic motor, multi-disc internal brake, counterbalance valve ,grooved drum and cable follower. Drum rotation indicator is included.

- Main Winch
 - Rope Diameter and Length: 19mm x 213m
 - Single line pull: 78.2 kN (first layer)
 - Single line speed: 68.6 m/min (at the 4th layer)
- Auxiliary Winch
 - Rope Diameter and Length: 19mm x 107m
 - Single line pull: 78.2 kN (first layer)
 - Single line speed: 68.6 m/min (at the 4th layer)

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.

- Travel Speed (Low/High) 1.0 km/h / 2.8 km/h
- Gradeability (unladen): 68%

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 (operator set), relative load moment, maximum permissible load and actual load.
- Optional 3-color light bar for external indication of load state.

OPERATOR'S CAB

Fully-enclosed, air conditioned all-steel modular cab with lockable swinging door, acoustical lining, anti-slip floor and tinted safety glass.

- Cab tilts 20°.
- Rear view cameras are appropriately located as are three remote control work lights.
- Six-way adjustable fabric seat with headrest, seat belt
- Four-way electronic armrest mounted joysticks control swing, boom extend, main winch, auxiliary winch and boom hoist. Electronic foot pedals control the travel and swing service brake functions.

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: 194 kW (260 hp) @ 2200 RPM

ELECTRICAL SYSTEM

12 VDC

COUNTERWEIGHT

Total 15,875 kg rear counterweight (Two pieces - 7,938 kg each)

SWING

Gear motor driving a planetary gear reducer with a shaft mounted pinion, external gear shear ball slew bearing bolted to the superstructure and the carbody allows the superstructure to rotate 360°. Dual mode swing, free/lock selectable.

- Swing Speed: 0 2.2 rpm
- Swing Parking Brake: Spring applied failsafe brake with hydraulic release that is controlled from the operators 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. One variable axial piston pump for cooling loop
- Directional Valves: Multiple pressure and flow compensated valves with integrated relief valves
- Pump output: 583 liter/min @ 2100 RPM engine speed. 330 bar maximum pressure

SIDE FRAMES

• Filtration: 5 micron

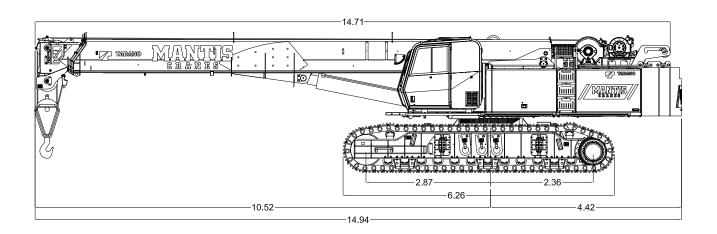
Two welded steel side frames are paired with a track group. The side frames extend and retract hydraulically and are controlled from the cab.

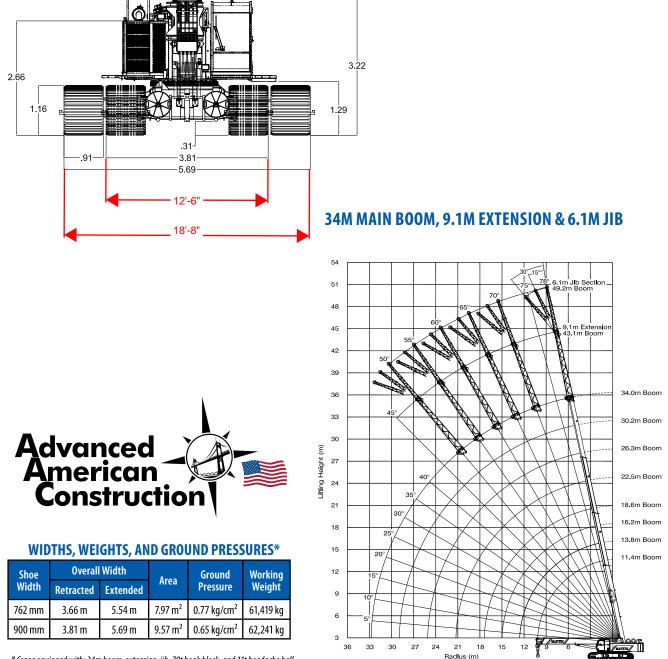
- Track Rollers: Two top and twelve bottom sealed rollers on each track frame Idler: Oil filled, self lubricating with spring type tensioner
- Track Shoes: 900mm 3-bar semi grouser

OPTIONAL EQUIPMENT

- Boom Extension: Lattice type, swing away
 - Length: 9,1m
 - Head: Two, 483 mm diameter cast nylon sheaves on heavy-duty roller bearings
 - Max. Lifting Height: 43,3m
- Boom Jib: Lattice type, swing away, stores along boom extension
 - Length: 6,1m
 - Max. Lifting Height: 49,4m
 - Offset Angles: 15° & 30°
- 45t hook block Three 457 mm steel sheaves, swivel hook & safety latch
- Auger Ready Package: Includes hoses, fasteners and stowage bracket assembly
 mounted to the base section of the boom with a flow capability of 130 liter/min
- Complete Auger Package: Adds a two speed auger motor/gear box and one 1,52m kelly bar to the Auger Ready Package.
- Tool Circuit: Provides 23 liter/min and 45 liter/min at 176 bar through a 15,24m twin hose reel with quick disconnect fittings to operate open center tools.
- Free Fall Hoists: All winches are available in controlled free fall configurations.
- Clip on flat track shoes

DIMENSIONS GTC-700EX





* Crane equipped with: 34m boom, extension, jib, 70t hook block, and 11t headache ball







Lifting your dreams

TADANO MANTIS Corporation

1705 Columbia Avenue Franklin, Tennessee 37064, U.S.A. Phone: +1-800-272-3325 Fax: +1-615-790-6803 http://www.mantiscranes.com/ E-mail: sales@mantiscranes.com **TADANO LTD**. (International Division)4-12, Kamezawa 2-chome, Sumida-ku Tokyo 130-0014, JapanPhone: 81-3-3621-7750 Fax: 81-3-3621-7785http://www.tadano-global.comE-mail: tdnihq@tadano.co.jp