



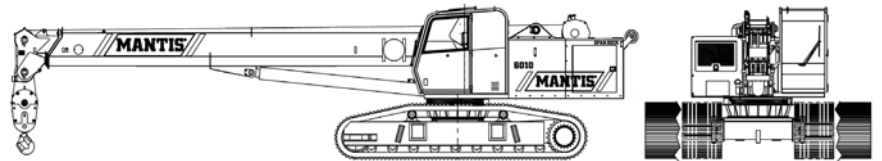
# MANTIS 6010

## 30 Ton Tele-Boom Crawler Crane

### PRODUCT DESCRIPTION

With 10-plus years worldwide service behind it, the Mantis 6010 is one of the most performance-proven, bullet-proof telescopic boom crawler cranes available anywhere! This 30-ton (27.2-tonne) capacity crane shares the supercompact dimensions of its smaller sister, the Mantis 3612. And like all Mantis cranes, it can pick-and-carry its entire load chart – through 360°.

Low center of gravity and a wide stance make the 6010 a favorite where extra lifting capacity and reach are needed. The 6010 can walk with full boom and jib deployed, or with full nominal capacity suspended. It can even walk with 30-tons (27.3-tonnes) suspended with full counterweight removed or tracks retracted when lower ground bearing pressure or narrower widths are needed.



### BOOM

The boom consists of three full power sections. Retracted length is 32 ft 8 in (9.96 m) and extended length is 80 ft (24.38 m). Maximum tip height is 85 ft (25.91 m). The elevating system features a single cylinder and counterbalance lock valves which provides boom elevations from -1° to 78°. The telescoping system features a single double-acting hydraulic cylinder and counterbalance lock valves. Five 15 in (381 mm) diameter cast nylon sheaves on heavy-duty roller bearings are mounted in the boom head.

### ANTI-TWO BLOCK

Standard Rated Capacity Limiter and Anti-Two Block System includes audio and video warnings and control function shutdown. System's LCD screen provides a continuous electronic 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. The standard Work Area Definition audio and video warnings aid the operator in avoiding job-site obstructions by pre-setting and defining the work area. The anti-two block weight allows quick reeving of hook blocks.

### OPERATOR'S CAB

The fully-enclosed, air conditioned all-steel modular cab includes a lockable swinging door, acoustical lining, anti-slip floor and tinted safety glass. Sliding windows are located in the cab door and cab boom side. A vent window is positioned in the rear of the cab. Grab bars and steps are appropriately located for easy access to the cab. Erectable swing barricades are attached to the superstructure. Rear view cameras are appropriately located as are work lights.

Standard cab accessories include a two-speed windshield wiper, top glass wiper, defroster, heater, circulating fan, adjustable hand and foot throttles, six-way adjustable fabric seat with headrest, seat belt, dome light, and a dry-chemical fire extinguisher.

MAIN BOOM with TRACKS FULLY EXTENDED								
10,000 lb COUNTERWEIGHT								
RADIUS (ft)	MAIN BOOM LENGTH (ft)							RADIUS (ft)
	39.0	48.0	56.0	65.0	73.0	82.0	90.0	
10	80.0 70.9°	41.5 74.4°	40.0 76.8°					10
12	80.0 67.7°	39.0 71.9°	37.0 74.7°	36.0 76.8°				12
15	66.0 62.8°	35.0 68.0°	34.5 71.5°	34.0 74.0°	33.0 75.9°	32.0 77.4°		15
20	39.8 53.9°	34.0 61.2°	33.0 65.9°	27.0 69.3°	26.0 71.8°	25.0 73.8°	24.5 75.4°	20
25	26.6 43.9°	27.0 53.9°	27.0 60.1°	26.0 64.4°	25.0 67.6°	24.0 70.1°	20.0 72.0°	25
30	19.5 31.3°	19.7 45.9°	19.9 53.9°	19.5 59.3°	19.0 63.3°	18.5 66.3°	18.0 68.6°	30
35	14.9 3.8°	15.2 36.4°	15.4 47.2°	15.5 53.9°	15.6 58.7°	15.6 62.3°	15.7 65.1°	35
40		12.1 23.7°	12.3 39.5°	12.4 48.1°	12.4 53.9°	12.5 58.2°	12.5 61.6°	40
45			10.0 30.3°	10.1 41.7°	10.2 48.9°	10.2 54.0°	10.2 57.8°	45
50			8.2 16.7°	8.3 34.3°	8.4 43.3°	8.5 49.4°	8.5 54.0°	50
55				7.0 25.0°	7.1 37.1°	7.1 44.5°	7.1 49.9°	55
60				5.9 8.4°	6.0 29.8°	6.0 39.2°	6.0 45.5°	60
65					5.0 20.1°	5.1 33.1°	5.1 40.8°	65
70						4.3 25.7°	4.3 35.5°	70
75						3.7 15.2°	3.7 29.5°	75
80							3.1 21.9°	80
85							2.6 9.4°	85

\* Capacity based on maximum obtainable boom angle.  
 ° Boom angles are stated in degrees.



3112 E State Rd 124  
Bluffton, IN 46714  
USA

T. 1-800-252-0043  
P. 1-260-824-6340  
F. 1-260-824-6350

nescosales.com  
www.nescosales.com  
An American Company

Effective Date  
8/17/08



# MANTIS 6010

## 30 Ton Tele-Boom Crawler Crane

WEIGHT REDUCTIONS	
LOAD HANDLING DEVICES	
HOOKBLOCK: 30 Ton - 3 Sheave	760 lbs
OVERHAUL BALL: 12 Ton w/Swivel	162 lbs
OPTIONAL HANDLING DEVICES	
20 ft. Extension - Stowed**	320 lbs
20 ft. Extension - Erected**	1,600 lbs
20 ft. Ext. and 20 ft. Jib - Stowed**	450 lbs
20 ft. Ext. and 20 ft. Jib - Erected**	3,100 lbs
Auxillary Nose Sheave**	160 lbs

\*\* Reduction of main boom capacities.



### INSTRUMENTATION

Dash instrumentation features a 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.

### CONTROL

Two-way hydraulic joysticks mounted in the armrests of the operator's seat control swing, boom extend, main winch and boom hoist. Three two-way hydraulic foot pedals control the travel and swing service brake functions. Travel pedal hand levers are available as an option. A fourth pedal controls engine speed

### COUNTERWEIGHT

The 11,500 lb (5,220 kg) single piece counterweight can be removed and installed via a pendant attached to the boom.

### SWING

The superstructure rotates 360° on an external gear shear ball slew bearing bolted to the superstructure and the carbody. The hydraulic swing drive powers the system and consists of a gear motor driving a planetary gear reducer with a shaft mounted pinion, providing infinitely variable speeds of up to 3 rpm.

Swing braking is achieved through a "failsafe", hydraulically released, spring applied, multi-disc brake which includes a foot applied service brake. Alternatively, the brake can be electrically actuated through a cab mounted switch into a "locked-on" (parking) mode. A two position house lock system is included. Regular lubrication of the bearing is achieved through a cab mounted grease applicator.

### FUEL SYSTEM

An 80 US gal (303 liter) tank is bolted to the superstructure. The fuel filtration system consists of an inline fuel/water separator as well as an engine mounted fuel filter.

### HYDRAULIC SYSTEM

The load sensing, open-loop hydraulic system is served by two variable volume pumps mounted in tandem. The pumps are torque limiting and pressure compensated providing a maximum output of 115 gpm (437l/min) @ 2,200 rpm and maximum operating pressure of 4,850 psi (339.5kg/cm<sup>2</sup>). An extra circuit is included for ready adaptation to hydraulic accessories.

The system includes two pilot operated valve banks that are pressure and flow compensated. The 150 US gal (568 liter) capacity hydraulic oil reservoir has a spin-on filler-breather cap, external sight gauge, cleanout access and a sump type drain. Hydraulic oil filtering is achieved with two 5 micron full flow cartridge type filters designed to return in-tank with bypass protection and an electronic bypass indicator.



3112 E State Rd 124  
Bluffton, IN 46714  
USA

T. 1-800-252-0043  
P. 1-260-824-6340  
F. 1-260-824-6350

nescosales.com  
www.nescosales.com  
An American Company

Effective Date

8/17/08