



MANTIS 9010

45 Ton Tele-Boom Crawler Crane

PRODUCT DESCRIPTION

The new Mantis 9010 combines the rugged dependability of its sister-machine, the job-proven Mantis 8012 with increased capacity and reach. Based upon performance-proven components and fabrications, the 9010 is assured of the same bullet-proof reputation of its peers. Rated at 45-ton (40-tonne) lifting capacity at a full 10ft (3m) radius, the Mantis 9010 is the envy of its imitators. For like all Mantis cranes, the 9010 is purpose-designed from the ground-up, not an assortment of pieces borrowed from other products.

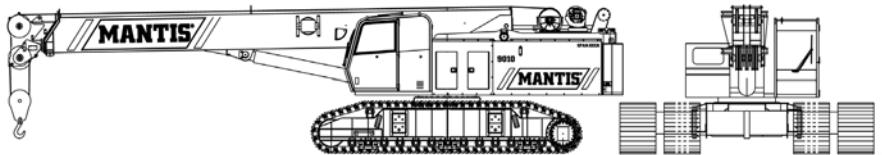
Like all Mantis cranes, the 9010 can pick-and-carry its entire load chart – through 360°. It can even walk with 45-tons (40-tonnes) suspended when equipped with zero counterweight. And should narrow roadways demand lifting with tracks retracted for 11-12ft (3.35-3.66m) overall width, the 9010 can still walk with 75,000lbs (34-tonnes), swing it through 360° and deploy the full 105ft (32m) full power main boom.

For its size and power, the Mantis 9010 has an extraordinarily low center of gravity with a minimum overhead clearance height of just 10ft (3.05m). And like all Mantis cranes, the 9010 doesn't depend upon massive counterweighting for its strength – for big counterweights are a liability when climbing grades! The 9010 can walk with full boom and jib deployed, delivering an impressive 159ft (48.5m) maximum tip height. Such is the stability of the 9010 that it can operate with the fully telescoped main boom laid out completely horizontal!



MAIN BOOM with TRACKS FULLY RETRACTED									
15,000 lb COUNTERWEIGHT									
RADIUS (ft)	MAIN BOOM LENGTH (ft)								RADIUS (ft)
	34.0	41.9	49.8	57.7	69.5	81.3	93.2	105.0	
10	75.0	79.8	70.0	60.8*					10
	68.1*	72.5*	75.3*	77.4*					
12	54.4	55.9	55.4	55.0	48.0*				12
	64.4*	69.5*	72.9*	75.3*	77.9*				
15	43.0	42.5	41.2	39.5	40.4	41.5			15
	58.5*	65.0*	69.2*	72.2*	75.3*	77.5*			
20	27.9	26.7	25.6	24.7	25.8	27.2	28.4	29.5	20
	47.6*	57.1*	62.9*	66.9*	71.0*	73.9*	76.0*	77.6*	
25	18.8	18.5	18.2	18.0	18.6	18.9	19.8	20.7	25
	34.0*	48.2*	56.1*	61.3*	66.5*	70.1*	72.8*	74.8*	
30	13.2	13.1	12.9	12.7	13.0	13.4	13.6	14.0	30
	4.9*	37.8*	48.6*	55.3*	61.9*	66.3*	69.5*	71.9*	
35		9.0	8.9	8.7	9.4	10.1	10.9	11.6	35
		23.5*	40.1*	48.9*	57.1*	62.4*	66.1*	69.0*	
40			6.4	6.2	6.8	7.5	8.7	9.4	40
			29.6*	41.7*	51.9*	58.3*	62.7*	66.0*	
45			5.3	5.1	5.8	6.2	6.9	7.5	45
			11.9*	33.3*	46.4*	53.4*	59.2*	63.0*	
50				3.9	4.3	4.9	5.4	5.8	50
				22.0*	40.2*	49.4*	55.5*	59.8*	
55					3.3	3.8	4.1	4.4	55
					33.1*	44.5*	51.6*	56.6*	
60					2.1	2.6	2.9	3.2	60
					24.2*	39.1*	47.5*	53.2*	
65					1.2	1.7	2.0	2.3	65
					8.2*	33.0*	43.1*	49.7*	
70						1.0	1.2	1.5	70
						25.6*	38.3*	46.0*	

WEIGHT REDUCTIONS LOAD HANDLING DEVICES	
HOOKBLOCK: 45 Ton - 4 Sheave	1,086 lbs
OVERHAUL BALL: 12 Ton w/Swivel	396 lbs
OPTIONAL HANDLING DEVICES	
30 ft. Extension - Stowed**	350 lbs
30 ft. Extension - Erected**	2,000 lbs
30 ft. Ext. and 20 ft. Jib - Stowed**	750 lbs
30 ft. Ext. and 20 ft. Jib - Erected**	3,500 lbs
Auxiliary Nose Sheave**	200 lbs
Auger Ready Package**	225 lbs
Auger Package Complete - Stowed**	560 lbs
Auger Package Complete - Erected**	1,200 lbs



BOOM

The boom consists of four full power sections, 34 ft 0 in (10.4 m) retracted and 105 ft 0 in (32 m) fully extended. Maximum tip height is 111 ft (33.8 m). The elevating system features a cylinder and counterbalance lock valves which provide boom elevations from -1° to 78°. The telescoping system features two double-acting hydraulic cylinders and counterbalance lock valves. Six 19 in (483 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 audible and visual warnings and function shutdown. The 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 (operator set), 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 and sends an audible alarm of imminent two-block conditions.



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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.

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 single piece 15,000 lb (6,804 kg) counterweight can be removed and installed via a pendant attached to the boom.

FUEL SYSTEM

An 80 US gal (303 l) 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 horsepower limiting providing a maximum output of 168 gpm (636 l/min) @ 2,200 rpm and maximum operating pressure of 4,850 psi (339.5 kg/cm²). 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 300 US gal (1 136 l) capacity hydraulic oil reservoir has a spin-on filler-breather cap, external sight gauge, clean-out access and a sump type drain. An air to oil remote mounted cooler provides oil cooling with thermostatically-controlled, electrically driven fans. Hydraulic oil filtering is achieved with two 3 micron full flow cartridge type filters designed to return in-tank with bypass protection and an electronic bypass indicator.



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