



**CRANE
SERVICE**

325.365.5494

features

- 40 ton (40 mt) Capacity
- 29 ft.-95 ft. (8.8-29 m) 4 section, full power synchronized boom
- 26 ft.-45 ft. (7.9-13.7 m) offsettable telescopic swingaway extension
- Optional 8,460 lb. (3837 kg) heavy counterweight package
- Rear air suspension with shock absorbers
- 300 bhp (224 kw) Cummins diesel engine



GROVE®

TMS500E ■



**product
guide**

contents

Features

2

Specifications

3

Dimensions

5

Counterweight
Configurations

6

Working Range

7

Main Boom Charts

8

Telescopic Swingaway
Charts

9

Standard Counterweight
Charts

11

Light Counterweight
Charts

15

Load Handling

19

Manitowoc
Crane Group

www.manitowoccrane.com

Truck Mounted Crane

*Product may be shown with optional equipment.

features

2



26 ft. - 45 ft. telescoping swingaway extension with offset up to 30° maximizes up and over capacity.

Rear air suspension over walking beams with shock absorbers makes a comfortable ride even at max speed of 65 mph (105 Km/h)



Standard aluminum rims save weight and add aesthetic value



All steel fabricated superstructure cab has padded acoustical lining for sound suppression, safety glass and excellent visibility under close working conditions.

specifications

3

Superstructure

Boom

29 ft. - 95 ft. (8.8 m - 29 m) four-section, full power boom.
Maximum Tip Height: 102.5 ft. (31.2 m).

Telescopic Swingaway Extension

26 ft. - 45 ft. (7.92 m - 13.7 m) telescoping offsettable swingaway extension. Offsettable at 0° and 30°. Stows alongside base boom section. Maximum Tip Height: 146 ft. (44.5 m)

Boom Nose

Four nylatron sheaves mounted on heavy duty tapered roller bearings with removable pin-type rope guards. Quick reeve type boom nose. *Optional removable/stowable auxiliary boom nose with removable pin type rope guard.

Boom Elevation

One double-acting hydraulic cylinder with integral holding valve provides elevation from -3° to 76°.

Load Moment & Anti-Two Block System

Standard "Graphics Display" load moment and anti-two block system with audio-visual warning and control lever lockout. These systems provide electronic display of boom angle, length, radius, tip height, counterweight, relative load moment, maximum permissible load, load indication and warning of impending two-block condition. The standard "**Work Area Definition System**" allows the operator to pre-select and define safe working areas. If the crane approaches the pre-set limits, audio-visual warnings aid the operator in avoiding job-site obstructions.

Cab

High vision, galvanized steel fabricated with acoustical lining and tinted safety glass throughout. Deluxe seat incorporates armrest mounted hydraulic single-axis controllers. Dash panel incorporates gauges for all engine functions. Other standard features include: hot water heater, cab circulating air fan, sliding side and rear windows, sliding skylight with electric wiper, windshield wash/wipe, fire extinguisher, 12v power outlet, and seat belt.

Swing

Planetary swing with foot applied multi-disc brake. Spring applied, hydraulically released swing brake and plunger-type, one position, mechanical house lock operated from cab. 360° mechanical swing lock.
Maximum speed: 3.0 RPM.

Counterweight

Standard, consisting of 2,300 lbs. (1 043 kg) on superstructure.
Optional: 8,460 lbs. (3 837 kg) heavy counterweight package.

Hydraulic System

Two main gear pumps with a combined capacity of 127.7 GPM (483 L/m). Maximum operating pressure: 3500 PSI (26.2 MPa). Two individual valve banks. Return line type filter with full flow by-pass protection and service indicator. Replaceable cartridge with micron filtration rating of 2/20/75. 96 gallon (363 L) reservoir. Oil cooler on carrier. System pressure test ports.

Hoist Specifications Main and Auxiliary Hoists

Model HP15B9-17G

Planetary reduction with automatic spring applied multi-disc brake. Grooved drum. Electronic hoist drum rotation indicator and hoist drum cable followers.

Maximum Single Line Speed:	429 FPM (131 m/min)
Maximum Permissible Line Pull:	11,640 lb. (5 280kg) Standard 6 x 37 class rope
	11,640 lb. (5 280kg) Optional 35 x 7 class rope
Rope Diameter:	5/8 in. (16 mm)
Rope Length:	450 ft. (137 m)
Rope Type:	6 x 37 class EIPS IWRC *Optional 35 x 7 class rotation resistant
Maximum Rope Stowage:	596 ft. (181 m)

*Denotes optional equipment

TMS500E

GROVE

specifications

4

Carrier

Chassis

Box section frame fabricated from high-strength, alloy steel. Integral outrigger housings and front/rear towing and tie down lugs.

Outrigger System

Hydraulic single-stage, double box beam outriggers with front stabilizer and inverted jack design; equipped with integral holding valves. Three positions with fully extended, intermediate (50%) extended and fully retracted settings. Steel fabricated, outrigger pads, 24 in. (610 mm) round. An aluminum, permanently stowed, front center stabilizer pad. Optional aluminum outrigger pads available in place of steel. Maximum outrigger pad load; 72,000 lbs. (32 659 kg)

Outrigger Controls

Located in the superstructure cab and on the left side (umbilical design), requires two hand operation. Crane level indicator (sight bubble) on right side console. Carrier mounted controls located on each side of the carrier for initial setup.

Engine

Cummins ISC300, six cylinder, turbocharged and after cooled diesel, 506 cu. in. (8.3L) 300 bhp (224 kW) @ 2,000 RPM. Maximum torque: 860 ft. lb. (1166 Nm) @ 1,600 RPM.

Transmission

Allison automatic with 6 speeds forward and 1 reverse.

Fuel Tank Capacity

60 gallons (227 L).

Electrical System

Two 12 V low maintenance batteries. 12 V system with 12 V headlights. Battery disconnect in battery box compartment.

Drive

6 x 4 x 2.

Steering

Front axles, mechanical with hydraulic power assist controlled by steering wheel.

Axles

Front: (1) beam-type steering axle, 82.7 in. (2.10 m) track. Capacity: 21,000 lbs. (9 526 kg)

Rear: (2) single reduction drive, 72.3 in. (1.84 m) track. Inter-axle differential lock. Capacity: 41,000 lbs. (18 598 kg)

Brakes

S-cam, dual line air system operating on all wheels. Spring-applied, air released parking brake acting on rear axles. Air dryer standard.

Tires

Standard Front: 425/65R 22.5 radial highway tread tubeless singles. Standard Rear: 11R22.5 highway tread tube type duals.

Suspension

Front: Spring mounted single axle with shock absorbers. Rear: Air bag suspension with shock absorbers.

Lights

Full carrier lighting package including front and rear turn indicators, headlights and LED tail lights, brake and hazard warning lights.

Cab

One man design, galvanized steel fabricated with acoustical lining and tinted safety glass throughout. Deluxe fabric covered, fully air adjustable seat with armrests. Complete driving controls and engine instrumentation including tilt telescope steering wheel, tachometer, speedometer, voltmeter, water temp., oil pressure, fuel level, dual air pressure gauges with A/V warning, engine high temp./low coolant A/V warning. Other standard items include: hot water heater/defroster, electric variable speed windshield washer and wiper, fire extinguisher, cab circulating fan, seat belt, door and window locks, and a 12V power outlet for cell phone or fax machine.

Maximum Speed

65 MPH (105 kph)

Gradeability (Theoretical)

32% (Based on 52,000 lbs. [23 587 kg] GVW)

Miscellaneous Standard Equipment

Full length aluminum fenders, rear view mirrors, electronic back-up alarm, sling/tool box, electric controlled pump disconnect, auxiliary air supply, battery disconnect, air cleaner restriction indicator, block and ball stowage, aluminum front/rear wheels (outer rear only).

**Denotes optional equipment*

TMS500E

GROVE