STANDARD BOOM EQUIPMENT

BOOM
40-126' (10.67- 33.53 m), four- section full power boom. Telescoping is mechanically synchronized with single lever control. The synchronization system consists of a single telescope cylinder and high strength leaf chains to extend and retract the third and tip sections. High-strength four- plate construction with embossed side plate holes reduces weight and increases strength. A single boom hoist cylinder provides for boom elevation of -4 to 78 degrees. Max tip height is 133' (40.54 m).

BOOM HEAD
Welded to outer section of boom. Five or six load sheaves and two idler sheaves are made of nylon and mounted on heavy-duty anti-friction bearings. Quick reeving boom head. Provisions made for side-stow jib mounting.

OPTIONAL BOOM EQUIPMENT

MAIN BOOM
33' (9.68 m) four section full power boom. Telescoping is mechanically synchronized with single pedal control. The synchronization system consists of a single telescope cylinder and high strength leaf chains to extend and retract the third and tip sections. High-strength four plate construction with embossed side plate holes reduces weight and increases strength. A single boom hoist cylinder provides for boom elevation of -4 to 78 degrees. Max tip height is 133' (40.54 m)

JIBS
32' (9.68 m) side stow swing-on one-piece lattice type jib. Single sheave mounted on anti-friction bearing. Jib is offsettable at 0°, 15°, or 30°. Max. tip height is 164' (49.99 m)

33-57' (10.15-17.30 m) side stow swing-on lattice type jib. Single sheave mounted on anti-friction bearing. Jib is extendible to 57' (17.30 m) by means of a 25' (7.62 m) manual pull-out tip section, roller supported for ease of extension. Jib is offsettable at 0°, 15°, or 30°. Max. tip height is 189’ (57.61 m)

AUXILIARY BOOM HEAD
Removable auxiliary boom head has single nylon sheave mounted on anti-friction bearing. Removable pin-type rope guard for quick reeving. Installs on main boom head only. Removal is not required for jib use.

HOOK BLOCK
75 ton (68.0 mt) block with five metallic sheaves on anti-friction bearings with hook and heavy duty hook latch. Quick reeving design does not require removal of wedge and socket from rope.

60 ton (54.4 mt) block with five metallic sheave on anti-friction bearings with hook and heavy duty hook latch. Quick reeving design does not require removal of wedge and socket from rope.

HOOK AND BALL
12 ton (10.9 mt) top swivel ball with hook and hook latch.
STANDARD UPPERSTRUCTURE EQUIPMENT

UPPERSTRUCTURE FRAME
All welded one-piece structure fabricated with high tensile strength alloy steel. Counterweight is bolted to frame.

COUNTERWEIGHT
Counterweight is bolted to frame. Counterweight removal system permits counterweight slabs to be carried on the deck of the carrier to optimize axle weights and counterweight to be added or removed without the need for auxiliary equipment to assist.

TURNTABLE CONNECTION
Swing bearing is a single row, ball type, with internal teeth. The swing bearing is bolted to the revolving upperstructure and to the carrier frame.

SWING
A hydraulic motor drives a double planetary reduction gear for precise and smooth swing function. Swing speed (no load) is 2.5 rpm.

SWING BRAKE
Heavy duty multiple disc swing brake is mechanically actuated from operator's cab by foot pedal. Brake may be locked on or used as a momentary brake. An air operated 360° house lock is standard.

RATED CAPACITY INDICATOR
Rated Capacity Indicator with visual and audible warning system and automatic function disconnects. Pictographic display includes: boom radius, boom angle, tip height and work area exclusion zone.

INSTRUMENTS AND ACCESSORIES
In-cab gauges include bubble level, engine oil pressure, fuel, engine temperature, voltmeter. Indicators include high coolant temperature/low engine oil pressure audio visual warning, low coolant level audio visual warning, and Rated Capacity Indicator. Accessories include fire extinguisher, windshield washer/wiper, spotlight, left and right hand rear view mirrors, dash and dome lights, and seat belt. Circuit breakers protect electrical circuits.

HYDRAULIC CONTROL VALVES
Valves are mounted on the rear of the upperstructure and are easily accessible. Valves utilize electric over hydraulic operators and include one pressure compensated load sensing two spool valve for boom elevation and telescope, one pressure compensated load sensing two spool valve for boom elevation and telescope, one pressure compensated load sensing two spool valve for main and auxiliary winch, and one single spool valve for swing. System provides for simultaneous operation of all crane functions. High pressure regeneration feature provides two-speed boom extension. Quick disconnects are provided for ease of installation of pressure check gauges.

OPTIONAL EQUIPMENT
Single Axle Armrest Mounted Crane Controls, LP Heater/Defroster, Hydraulically Powered Air Conditioner or Heater and Air Conditioner, Tachometer, Work Lights, Electric Remote Control of Carrier from Upper Cab, 3rd Wrap Indicator.

STANDARD CARRIER EQUIPMENT

CARRIER CHASSIS
Chassis is Terex designed and built with a 8 x 4 drive. Box construction frame with integral diaphragms is fabricated form high strength alloy steel and provides superior frame rigidity. Full aluminum decking improves access and reduces weight. Four lockable storage compartments are built into decking along with standard mud flaps. Aluminum engine housing with sliding cover optimizes engine access while reducing weight and improving corrosion resistance.

AXLES AND SUSPENSION
Rear Axles - 60,000 lb (27,216 kg) capacity tandem axles with heat treated housing have inter-axle differential with lockout. Axles are mounted on standard air suspension system over equalizer beams with shock absorbers to distribute weight evenly.
Front Axles - 48,000 lb (21,772 kg) capacity tubular beam type axles are mounted on standard air suspension system over equalizer beams with shock absorbers.

TIRES AND WHEELS
Front: Four 445/65R22.5-20 R.R. All-Position type tubeless
Rear: Eight 315/80R22.5-20 R.R. All-Position type tubeless
Aluminum wheels with stainless steel hub covers are standard.

BRAKES
Full air brakes on all wheels with ABS split circuit system.
Front brakes: 16.5 x 7” (419 x 178 mm)
Rear brakes: 16.5 x 7” (419 x 178 mm)
All brakes are air operated “S” cam type with automatic slack adjusters. Lining areas are 920 in² (5935 cm²) front and rear. Air compressor has standard air dryer. Rear tandem axles have spring set, air released parking or emergency brake chambers. Parking brake is applied with valve mounted on dash panel. Emergency brakes apply automatically when air pressure drops below 40 psi (2.8 kg/cm²)

STEERING
Mechanism includes rack and pinion with integral hydraulic power. Turning radius: 26.5° or tires: 33-4” (10.16 m)

TRANSMISSION
Eaton Fuller 11 speed manual transmission. Optional Allison 4070 automatic transmission has 7 speeds forward and 1 reverse, with neutral safety start. Provides wide ratio coverage with “hands free” shifting. A lock up torque converter further improves performance.

MULTI-POSITION OUT & DOWN OUTRIGGERS
Fully independent two stage hydraulic outriggers may be utilized fully extended to 26’ (7.92 m), in their 1/2 extended position, or fully retracted. Removable aluminum outrigger pads are 452 in² (2919 cm²) and stow on the carrier frame. Complete controls and sight leveling bubble are located in the operator’s cab. Additional optional ground level controls can be incorporated into the aluminum decking. Includes standard 5th, front, outrigger which incorporates a self stowing permanently attached float.
STANDARD CARRIER EQUIPMENT (CONTINUED)

CARRIER CAB

One-man aluminum cab is mounted on vibration absorbing pads and has optimum visibility, safety glass, acoustical foam padding inside cab for insulating against sound and weather, hot water heater hot air defroster, six-way adjustable air suspension seat with seat belt and a locking door with roll down window.

CONTROLS

Included are transmission shift, inter-axle differential lock, cruise control, Jacobs brake, parking brake, two-speed windshield wiper/washer, heater and defroster, lights, headlight dimmer, dome light, and ignition switch.

INSTRUMENTS

Included are speedometer, hourmeter, tachometer, voltmeter, fuel gauge, engine oil pressure gauge, water temperature gauge, dual air pressure gauges. Warning lights include low coolant level, parking brakes on, low-air, pumps engaged, and high beam lights.

HYDRAULIC SYSTEM

HYDRAULIC PUMPS

A double and a single pump driven from hot shift transmission PTOs. A separate steering pump is driven directly from the engine. Combined system capacity is 131 gpm (495 lpm). Remote hydraulic oil cooler is standard.

Main Winch Pump

- 57.3 gpm (216.9 lpm) @ 4,500 psi (316.4 kg/cm²)

Boom Hoist and Telescope Pump

- 42.6 gpm (161.3 lpm) @ 4,500 psi (316.4 kg/cm²)

Outrigger and Swing Pump

- 21.2 gpm (80.3 lpm) @ 3,500 psi (246.1 kg/cm²)

Power Steering Pump

- 8 gpm (30.3 lpm) @ 1900 psi (133.0 kg/cm²)

MAIN WINCH SPECIFICATIONS

Hydraulic winch with bent axis piston motor and planetary reduction gearing provides two speed operation with equal speeds for power up and down. Winch is equipped with an integral automatic brake, grooved drum, tapered flanges, standard cable roller on drum, and electronic drum rotation indicator.

Performance | LO-Range | HI-Range
---|---|---
Max line speed (no load) | 280 fpm (85.3 m/min) | 320 fpm (97.5 m/min)
First layer | 287 fpm (86.7 m/min) | 460 fpm (140.2 m/min)
Fifth layer | 18,450 lb (8,368 kg) | 10,002 lb (4,537 kg)
Max. line pull-first layer | 12,845 lb (5,826 kg) | 6,963 lb (3,158 kg)
Max. line pull-fifth layer | 13,800 lb (6,260 kg) |
Permissible line pull | | 

Drum Dimensions | Drum Capacity
---|---
13.00” (330 mm) drum diameter | Max. Storage: 561” (171.0 m)
20.15” (512 mm) length | Max. useable: 561” (171.0 m)

Cable type: 3/4” (19 mm) 6 x 19 IWRC XIPS

Auxiliary hydraulic two-speed winch with bent axis piston motor, equal speed power up and down, planetary reduction with integral automatic brake, grooved drum with tapered flanges, drum roller, and rotation indicator.

Performance | Drum Dimensions and Capacity
---|---
(Same as main winch) | (Same as main winch)

ACCESSORIES

Included are Fire extinguisher, right and left hand rear view mirrors, electric horn, access steps and grab handles (located at six separate points around the crane), back-up alarm, two position boom rack, front and rear towing loops.

OPTIONAL EQUIPMENT

Spare Tire with Wheel • Immersion Heater(s) • Pintle Hook • Cold Weather Kit • Air Conditioner • Ground level outrigger controls • Boom Float Kit • Boom Dolly • Allison automatic transmission

HYDRAULIC RESERVOIR

All welded construction with internal baffles and diffuser. Provides easy access to filters and is equipped with an external sight level gauge. The hydraulic tank is pressurized to aid in keeping out contaminants and in reducing potential pump cavitation. Capacity is 202 gal (765 L).

FILTRATION

Full flow oil filtration system with bypass protection includes a removable 60 mesh (250 micron) suction screen-type filter and five micron replaceable return line filters.

ENGINE SPECIFICATIONS

Detroit Diesel Series 60

- Transmission: Allison HD 4070
- Type: 6 Cylinder
- Bore and Stroke: 5.246 x 6.821 in (398 x 172.9 mm)
- Displacement: 851 in³ (14.0 L)
- Rated HP: 500 hp (1,373 kW) @ 2,100 rpm
- Max. Gross HP: 500 hp (1,373 kW) @ 2,100 rpm
- Gross Torque/rpm: 1,450 ft·lb (1,960 N·m) @ 1,000 rpm
- Max. Net HP: 437 hp (326 kW) @ 1,600 rpm
- Aspiration: Turbocharged & Aftercooled
- Electrical System: 12 volt
- Alternator: 130 amp
- Battery @ 0°F (30°C): (1) 12-2400 C.C.A.
- Fuel Capacity: 100 gal (379 l)

Eaton Fuller RTO-14909 ALL

- Transmission: Eaton Fuller RTO-14909 ALL
- Type: 6 Cylinder
- Bore and Stroke: 5.126 x 6.30 in (398 x 160 mm)
- Displacement: 778 in³ (12.7 L)
- Rated HP: 430 hp (321 kW) @ 2,100 rpm
- Max. Gross HP: 452 hp (337 kW) @ 1,700 rpm
- Gross Torque/rpm: 1,450 ft·lb (1,960 N·m) @ 1,200 rpm
- Max. Net HP: 406 hp (303 kW) @ 1,650 rpm
- Aspiration: Turbocharged & Aftercooled
- Electrical System: 12 volt
- Alternator: 130 amp
- Battery @ 0°F (30°C): (1) 12-2400 C.C.A.
- Fuel Capacity: 100 gal (379 l)

SPEED AND GRADEABILITY

Engine Transmission

- 60 Series Allison HD 4070: 65 mph (105 km/h)
- 60 Series Eaton RTO-14909 ALL: 67 mph (108 km/h)

Performance data is based on a gross vehicle weight of 106,000 lb (48 081 kg) with the Allison transmission and 101,300 lb (45 949 kg) with the manual transmission. Performance may vary due to engine performance, weight, tire size, etc. Gradeability data is theoretical and is limited by tire slip, stability, oil pan angle, etc.
| Add Semi-Permanent Counterweight: 2,000 lb (907 kg) on upper and 1,000 lb (454 kg) in front bumper | GROSS WEIGHT (POUNDS) | GROSS WEIGHT (KG) |
| Add Options: | (TRAVEL POSITION) | FRONT | REAR |
| Auxiliary Boom Head | 32’ (9.68 m) Swing-on Jib | | |
| Add 1-2,000 lb (907 kg) Counterweight slab on Superstructure (Max of 1-2,000 lb (907 kg) slab on crane in addition to 1 semi-permanent) | 1-4,000 lb (1 814 kg) Counterweight slab on Superstructure (Max of 1-4,000 lb (1 814 kg) slabs on crane) | 2,000 | 700 |
| Add 1-4,000 lb (1 814 kg) Counterweight slab on Superstructure (Max of 2-4,000 lb (1 814 kg) slabs on crane) | 1-4,000 lb (1 814 kg) Counterweight slab on Carrier Deck (Max of 2-4,000 lb (1 814 kg) slabs on crane) | 1-4,000 lb (1 814 kg) Counterweight slab on Carrier Deck (Max of 2-4,000 lb (1 814 kg) slabs on crane) | |
| Add Full tank of fuel | Auxiliary winch with drum roller and 60’ x 6x19 Class wire rope | Electric remote control | |
| Substitute spin resistant wire rope (main winch) | Substitute spin resistant wire rope (auxiliary winch) | | |