

POWER MODULE

DIESEL POWER OPTIONS

DETROIT DIESEL ENGINE

	Tier Two
Model	16V Series 2000
Type	4-cycle turbocharged
Rated Power	1205 HP (898 kW) @ 1800 rpm
Bore and Stroke	5.12 in x 5.91 in (130 mm x 150 mm)
Displacement	1944 cu in (31.86 L)

CUMMINS DIESEL ENGINE

	Tier Two
Standard Model	QSK 38 V12
Type	Single stage turbocharged
Rated Power	1260 HP (940 kW) @ 1800 rpm
Bore and Stroke	6.26 in x 6.26 in (159 mm x 159 mm)
Displacement	2307 cu in (37.8 L)

RADIATOR/OIL COOLER MODULE

- Replaceable tube type, side-by-side split flow
- Thermostatically controlled, variable speed hydraulic motor-driven, radiator-mounted fan
- Auxiliary oil cooler available for high ambient conditions

EXHAUST SYSTEM

Dual low restriction mufflers with vertical, mid-hood discharge

AIR FILTRATION

PRIMARY

LeTourneau Self Cleaning KLENZ™ Filtration System 99.9% Efficiency Removing to 0.3 Microns (nominal)

- Extends maintenance intervals
- Filtered air for engine, drive system cooling and pressurized cab

SECONDARY

Dual safety filters for engine

CONTROL SYSTEM-LINCS II™

LeTOURNEAU INTEGRATED NETWORK CONTROL SYSTEM-LINCS II™

A second generation, modular designed microprocessor with full digital controlled monitoring and built-in diagnostics.

The system monitors engine, hydraulics, electrical, electronics and traction drive functions.

LINCS II™ provides color-coded text message warnings on the dash-mounted touch-screen display. Warnings are accompanied by red and yellow indicator lights advising the severity of the problem along with an audible alarm.

In addition, the touch-screen display provides repair technicians with operational data and fault messages in the event of an issue.

LINCS II™ LOAD WEIGH

Integrated microprocessor based data logging and storage system
Displays real-time load per pass, per truck and total loads

- Memory capable of retaining months of production information
- Interfaces with radio dispatch systems for real-time monitoring

PROPULSION SYSTEM

LeTourneau Switch Reluctance (SR) Hybrid Technology Propulsion System

- Digital microprocessor controlled traction drive
- Switch Reluctance (SR) drive advantages include:
 - High electrical efficiency
 - No commutator or brushes on traction SR motors or SR generator
 - Regenerative energy storage

TRAVEL SPEED

Forward and reverse 0-12 mph (0-19.3 kph)

GENERATOR

- LeTourneau G100 SR generator
- Switched reluctance (SR)

TRACTION MOTORS

- LeTourneau B40A SR motor
- Switch Reluctance (SR) all wheel drive

DRIVE GEARING

Model	LeTourneau 45
• In-line gear train mounted within the rim of the tire, transmitting power from the traction motor through the tire/rim assembly	
• A four-stage planetary drive unit in each position	
• Total reduction	92.18:1

PRIMARY BRAKING SYSTEM

PRIMARY BRAKE SYSTEM

Electric dynamic braking system may be controlled from the accelerator and/or brake pedal. Braking system brings the loader to a full stop without application of mechanical brakes.

SECONDARY BRAKE SYSTEM

Air modulated motor speed disc brakes

- Single disc and caliper per position
- Emergency fail safe brake mode is spring applied in the event of pressure loss

PARKING BRAKE SYSTEM

Spring applied, air release motor speed disc brakes

FRAME

The unique LeTourneau frames are fabricated from high strength, low-alloy steel with excellent weld characteristics and extreme low temperature application properties. The front axle is an integral, fixed part of the front frame. The rear axle center oscillates +/- 11 degrees.

The independent power module mounting system, consisting of the engine coupled to the SR generator cradled within the rear frame by the three-point isolation system.

STEERING AND HOISTING SYSTEM

STEERING

Joystick controlled articulating frame, power steering. LeTourneau's constant engine rated RPM assures full hydraulic steering response regardless of vehicle speed and operation.

• Steering pressure	3,000 PSI (20,684 kPa)
• Articulation angle	42°
• Turning radius	
• Standard Lift	34 ft 5 in (10.49 m)
• High Lift	35 ft 11 in (10.95 m)

HOIST AND BUCKET CONTROL

Simple joystick controlled hoist and bucket functions. Proportional electro-hydraulic joystick controlled hoist and bucket functions are independent of the steering system utilizing single-stage, double-acting cylinders for hoist and bucket tilt.

- Hoist pressure 4,000 PSI (27,579 kPa)

Hydraulic Cycle Times: Standard/High Lift

Hoist	12 Seconds
Dump	3 Seconds
Float	5 Seconds

HYDRAULIC SYSTEM

HPD GEAR BOX

Direct driven off the back of the SR generator

- Independent pressurized, filtered and cooled lubrication system
- Wet spline design assures long pump to gearbox coupling life
- Ratio 1:1
- Independent lubrication system capacity: 5 gallons (19L)

PUMPS

Main Pumps	(3) Piston Pump	300 GPM	(1135 L/min)
Steering	Vane Pump	110 GPM	(416 L/min)
Fan/Blower Drive	Tandem Piston Pump	45/45 GPM	(170/170 L/min)
Cooling System Circulation	Vane Pump	110 GPM	(416 L/min)
Gearbox Lube	Vane Pump	17 GPM	(64 L/min)
Accessory	Piston Pump	21 GPM	(78 L/min)

VALVES

Main	Relief Pressure	4,000 PSI (27,579 kPa)
Steering	Relief Pressure	3,000 PSI (20,684 kPa)

CYLINDERS

Double-acting, single-stage

- Hoist 12.5 in x 62.5 in (318 mm x 1588 mm)
- Bucket 12.5 in x 25.5 in (318 mm x 648 mm)
- Steering 7.5 in x 30 in (190 mm x 762 mm)

GENERAL SERVICE DATA

FLUID CAPACITIES

• Fuel	630 gals	(2,384 L)
• Hydraulic	260 gals	(984 L)
• Cooling system	88 gals	(333 L)
• Crankcase (includes filters)		
Detroit	25 gals	(94 L)
Cummins	23 gals	(87 L)
• Gearbox	5 gals	(19 L)
• Drivers (each)	20 gals	(76 L)

STANDARD FEATURES

TIRES/RIMS

- Tires 50/65-51 62 PR (L-5)
- Rims 40-51

STANDARD EQUIPMENT

- Access Ladder Lights
- Air Clean-Out Hose In Cab
- Air Conditioning / Heater-Defroster (Filtered and Pressurized)
- Air Dryer System
- Air Horn
- Air Tank Bleed System
- Automatic Adjustable Lift Height Cut Off

- Automatic Bucket Leveling Control
- Automatic Electrical Cabinet Lights
- Automatic Lubrication System
- Back-up Alarm, Audible
- Battery Disconnect Switch
- Brake Lights
- Cigar / Cigarette Lighter
- Door Interlock on Electrical Cabinet
- Drawbar with Tow Hitch
- Dual Access Door Cab
- Emergency Stop Buttons (Cab and Remote Mounted)
- Engine Compartment Lights
- Fire Extinguisher, Manual, 21 lbs (9.5 kgs)
- FOPS - Falling Object Protection System
- Ground Fault Electrics
- HID Working Lights (10 Forward, 2 Rear)
- High, Low Idle Control Switch
- Interior Lights
- Joystick Hoist and Bucket Controls
- Joystick Steering
- Jump Start
- Ladder Walkway (Rear Access)
- LINC'S II Alarms
- LINC'S II Load Weigh & Monitoring
- L&M Mesabi Radiator
- Maintenance Lock-Out Switch
- Mirrors, Rearview (Parabolic)(2)
- Operator Seat (9-Way Adjustable)
- Overspeed Alarm
- Parking Brake
- Retractable Lap Belt with Shoulder Harness
- Rock Deflectors (Bucket)
- ROPS - Rollover Protection Structure
- Sun Visor
- Tinted Safety Glass Throughout
- Touch Screen Display
- Turn Signals
- Twelve (12) Volt Power Supply In Cab
- Windshield Washer Reservoir (5 gal)
- Windshield Wiper and Washer (Front & Rear)

OPTIONAL FEATURES

- Auxiliary Hydraulic Oil Cooler
- Auxiliary Steering
- Beacon Light Kit
- Central Service with Fast Fuel
- Engine Heating System (Oil and Water)
- Fast Fuel
- Fire Detection and Suppression System (Manual)
- Fluid Sampling Kit
- Grease Reservoir Heater
- High Lift
- Hydraulic Tank and Battery Heater
- Remote Monitoring System
- Training Seat (w/Lap Belt)
- Video Camera (Rear Mounted)

BUCKET HARDWARE OPTIONS

- Skid Plates (Replaceable)
- Lip Wear Protection
- Wear Liner Kits

For actual bucket configuration and sizing, consult your dealer representative.

OPERATING CAPACITIES, WEIGHTS AND DIMENSIONS

STANDARD LIFT

HIGH LIFT

Bucket Capacity	25 yd ³	19.11 m ³	23 yd ³	17.58 m ³
Operating Payload	76,000 lbs	34,473 kgs	70,000 lbs	31,751 kgs
Bucket Width with Deflectors	19 ft 5 in	5.92 m	19 ft 5 in	5.92 m
Bucket Width without Deflectors	18 ft 0 in	5.49 m	18 ft 0 in	5.49 m
Hinge-Pin Height	25 ft 8 in	7.82 m	27 ft 7 in	8.41 m
Dump Clearance	18 ft 6 in	5.64 m	20 ft 7 in	6.27 m
Reach @ Full Lift	9 ft 3 in	2.82 m	9 ft 5 in	2.87 m
Digging Depth	0 ft 5 in	0.13 m	0 ft 9 in	0.24 m
Height - Bucket Fully Raised	34 ft 6 in	10.52 m	35 ft 11 in	10.95 m
Ground Clearance	2 ft 4 in	0.71 m	2 ft 4 in	0.71 m
Overall Length Bucket Down	53 ft 5 in	16.28 m	54 ft 11 in	16.74 m
Overall Length Carry Position	52 ft 5 in	15.98 m	53 ft 11 in	16.43 m
Wheelbase	20 ft 2 in	6.15 m	20 ft 2 in	6.15 m
Tread	12 ft 7 in	3.84 m	12 ft 7 in	3.84 m
Width Outside Tires	16 ft 9 in	5.11 m	16 ft 9 in	5.11 m
Height Over Cab	19 ft 1 in	5.82 m	19 ft 1 in	5.82 m
Static Tipping Loads:				
Straight	179,204 lbs	81,285 kgs	TBD	TBD
Full 42° Turn	156,976 lbs	71,203 kgs	TBD	TBD
Breakout Force	220,000 lbs	99,790 kgs	217,000	98,430 kgs
Operating Weight	310,000 lbs	140,614 kgs	313,000	141,974 kgs

STANDARD CONFIGURATION

	<u>TOP VIEW</u>		<u>SIDE VIEW</u>	<u>STANDARD LIFT</u>		<u>HIGH LIFT</u>	
(A)	12 ft 7 in	(3.84 m)	Bucket	25 yd ³	19.11 m ³	23 yd ³	17.58 m ³
(B)	16 ft 9 in	(5.11 m)	(A)	34 ft 6 in	10.52 m	35 ft 11 in	10.95 m
(C)	18 ft 0 in	(5.49 m)	(B)	25 ft 8 in	7.82 m	27 ft 7 in	8.41 m
			(C)	18 ft 6 in	5.64 m	20 ft 7 in	6.27 m
			(D)	9 ft 3 in	2.82 m	9 ft 5 in	2.87 m
			(E)	0 ft 5 in	0.13 m	0 ft 9 in	0.24 m
			(F)	2 ft 4 in	0.71 m	2 ft 4 in	0.71 m
			(G)	20 ft 2 in	6.15 m	20 ft 2 in	6.15 m
			(H)	53 ft 5 in	16.28 m	54 ft 11 in	16.74 m
			(I)	19 ft 1 in	5.82 m	19 ft 1 in	5.82 m

All dimensions calculated with teeth on bucket.



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Meets the following MSHA, SAE and ISO Safety Standards:

Brake Performance Test SAE J1473 / ISO 3450 • Capacity Rating - Loader Bucket SAE J742 • Exterior Sound Level SAE J88 • FOPS SAE J231 / ISO 3449
Interior Sound Level SAE J919 • Rated Operating Load for Loaders SAE J818 • ROPS SAE J1040 / ISO 3471 • Steering Test SAE J1511 / ISO 5010

Please Note: Standard/Optional Equipment, Features and Performance conform to U.S. and International Codes as Required. LeTourneau Technologies, Inc. has made every effort to make these specifications as accurate as possible at the time of printing. However, we reserve the right to make changes and improvements at any time without notice, in equipment, materials and specifications. To ensure the most current information, please contact your dealer representative.

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