

POWER MODULE

DIESEL POWER OPTIONS

DETROIT DIESEL ENGINE

	Her One	Her Iwo
Model	12 V Series 4000	12 V Series 4000
	12 cylinders	12 cylinders

Type 4-cycle turbocharged 4-cycle turbocharged
Rated Power 1600 HP (1193 kW) @ 1900 rpm 1600 HP (1193 kW) @ 1800 rpm

Bore and Stroke 6.5 in x 7.5 in 6.69 in x 8.27 in (165 mm x 190 mm) (170 mm x 210 mm)

Displacement 2975 cu in (48.75 l) 3490 cu in (57.20 l)

CUMMINS DIESEL ENGINE

 Tier One
 Tier Two

 Model
 QSK 45
 QSK 50

 12 cylinders
 12 cylinders

 Type
 4-cycle turbocharged
 4-cycle turbocharged

 Rated Power
 1600 HP (1193 kW)@1900 rpm
 1600 HP (1193 kW)@1800 rpm

Bore and Stroke 6.26 in x 7.48 in (159 mm x 190 mm) (159 mm x 159 mm)

Displacement 2746 cu in (45.99 l) 3069 cu in (50.3 l)

RADIATOR/OIL COOLER

· Replaceable tube type, side by side split flow

- Thermostatically controlled, independent hydraulic motor-driven, radiator –mounted fan
- Variable-speed fan
- Auxiliary oil cooler available for high ambient conditions

AIR FILTRATION

 LeTourneau Self Cleaning KLENZ™ System 99.9% Efficiency removing +0.3 microns

Longest filter maintenance interval in industry

Supply filtered air for:

- Engine air
- Drive system cooling
- Pressurized cab

EXHAUST SYSTEM

Dual low restriction mufflers with top hood discharge

CONTROL SYSTEM-LINCS ™

LeTourneau Integrated Network Control System-LINCS™

Microprocessor Based Full Digital Control and Monitoring

Hydraulics • Electrics • Engine • Propulsion System

- · Modular design
- Built-in diagnostics
- Dash display and keypad

LINCS LOAD WEIGH

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

- Alerts operator if overload occurs
- · Stores several month's of production information
- · Interfaces with radio dispatch systems for real-time monitoring

PROPULSION SYSTEM

Switched Reluctance (SR) Propulsion System

- · Unique solid-state controlled traction drive
- · SR drive advantages include:

No commutator, rotor windings or brushes

TRAVEL SPEED

INFINITELY VARIABLE

Forward and reverse 0-10 mph (0-16.1 kph)

GENERATOR

- LeTourneau 9B generator
- Alternating-current, 3-phase, 4-pole
- Solid-state controlled
- Standby power capability

TRACTION MOTORS

- LeTourneau SR B40
- All wheel drive
- Independent

DRIVE GEARING

Model

LeTourneau 51-B

- In-line gear train mounted within the rim of the tire, transmitting power from the traction motor to the tire/rim assembly.
- · Each drive unit consists of a planetary gear train.
- Total reduction 140:1

PRIMARY BRAKING SYSTEM

Electric braking (retarding) is designed as the primary braking system which can be controlled from the accelerator or retard/brake pedal. This solid-state, non-wearing braking system will bring the loader to a full stop without application of the air-operated disc brakes.

SECONDARY AND PARKING BRAKE SYSTEM

Motor speed disc brakes, air-applied, spring-release, automatic actuation on all four wheels in the event of pressure loss. Parking brakes are spring-applied, air-release.

FRAME

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

The independent power module mounting system is cradled within the rear frame by a three-point isolation system.

STEERING AND HOISTING SYSTEM

STEERING

Articulated frame, joystick controlled power steering. LeTourneau's constant-rated engine RPM provides full steering response regardless of vehicle speed.

Operating pressure 3400 PSI (23,426 kPa)

Articulation angle
 Rear axle oscillation
 40°
 +/-11°

Turning radius

Standard lift 40 ft 6 in (12.34 m) High lift 42 ft 1 in (12.82 m)

HOIST AND BUCKET CONTROL

Hoist and bucket control functions are incorporated into a simple joystick control. The proportional electro-hydraulic controlled hoist and bucket system is independent of the steering system utilizing single stage, double-acting cylinders.

Standard/high lift cycle times:

Hoist
Dump
Float
Total time
13 Seconds
3 Seconds
5 Seconds
21 Seconds

HYDRAULIC SYSTEM

HPD DRIVE BOX

- Wet spline design with pressurized, cooled and filtered lubrication
- Ratio 1:1

PUMPS

Main	Piston (3)	375 GPM	(1419 I/min)
Steering	Piston	90 GPM	(341 l/min)
Fan Drive	Piston	45 GPM	(170 I/min)
Blower	Piston	60 GPM	(227 l/min)
Cooling System			
Circulating Pump	Vane	100 GPM	(379 l/min)

VALVES

Main	Three (3)	185 GPM	(700 l/min)
	Relief Pressure	3300 PSI	(22,737 kPa)
Steering	One (1)	90 GPM	(341 l/min)
	Relief Pressure	3400 PSI	(23,426 kPa)
01/1/11/15/55/5			

CYLINDERS

Double-acting, single-stage (diameter and stroke), (standard and high lift)

HoistBucketSteering

13.5 in x 74.5 in (343 mm x 1892 mm) 10.0 in x 41.5 in (254 mm x 1054 mm) 7.5 in x 30.0 in (191 mm x 762 mm)

GENERAL SERVICE DATA

FLUID CAPACITIES

Fuel tank	925 gals	(3501 I)
Hydraulic tank	375 gals	
Cooling system	101 gals	
Crankcase (includes filters)	Ü	
 Detroit Diesel 	58 gals	(220 I)
 Gearbox 	7 gals	(27 I)
Drivers (each)	36 gals	(136 I)

STANDARD FEATURES

JIRES/RIMS

 Tires 50/80-57 68 PR (L-4) Rims 36-57

GAUGES AND INDICATORS

- Engine coolant temperature gauge
- Engine lube-oil pressure gauge
- · Fuel level gauge
- Hourmeter
- Speedometer
 System air pressure gauge

INDICATOR LIGHTS AND AUDIBLE ALARMS

The operator is informed of a potential problem by an audible alarm and indicator lights in addition to text messages on an in-dash display. The digital display also provides repair technicians with operational data and fault messages in the event of a malfunction.

Three warning lights immediately advise the operator of the severity/condition of various engine, hydraulic, electrical and electronic systems of the loader (RED, AMBER and BLUE).

STANDARD EQUIPMENT

- Access Ladder Light
- · 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 Device
- Automatic Cabinet Lights
- · Automatic Lubrication System
- Backup Alarm, Audible
- Battery Disconnect Switch
- Cigar/Cigarette Lighter

- Dual Door Interlock System
- · Drawbar with Tow Hitch
- Emergency Exit Removable Safety Window
- · Emergency Stop Kit Cab and Remote Mounted
- Engine Compartment Light
- Five (5) Gallon Windshield Washer Reservoir
- · FOPS, Falling Object Protection System
- Ground Fault Electrics
- HID Headlights
- · High, Low Idle Switch
- · Idle Timer
- Illuminated Instrument Panel
- · Interior Lights
- · Joystick Hoist and Bucket Controls
- · Joystick Steering
- · Ladder Walkway-Rear Access with Retracting Ladder
- LINCS Alarms
- · LINCS LeTourneau Integrated Network Control System
- Manual Fire Extinguisher, 21 lbs (9.53 kgs)
- · Maintenance Lock-Out Switch
- Mirror, Rearview (Parabolic) (2)
- Operator Seat 9-Way Adjustable w/ Retractable Seat Belt
- Overspeed Alarm
- Parking Brake
- Rock Deflectors (Bucket)
- ROPS, Rollover Protective Structure
- · Standby Power Capability
- Sun Visor
- Tinted Safety Glass Throughout (Thermopane)
- Turn Signals
- · Twelve (12) Volt Power Supply
- · Windshield Wiper and Washer, Front and Rear
- Work Lights, 110 Volt 500 Watt (4) Front (2) Rear

OPTIONAL FEATURES

- · Auxiliary Oil Cooler
- · Auxiliary Cab Heater
- Auxiliary Steering System
- · Central Service with Fast Fuel
- Engine Heating System Oil and Water
- Fast Fuel
- Fluid Sampling Kit
- Grease Reservoir Heater
- · Hydraulic Tank and Battery Heater
- · Jump Start Kit
- Manual Fire Detection and Suppression System
- · Remote Monitoring System
- · Standby Power
- · Tires/Rims

Tires 50/80-57 (L-4), 52/80-57 (L-4), 55/80R-57 (L-5) Rims 44-57

· Video Camera, rear mounted

BUCKETS

STANDARD, SAE-RATED CAPACITY: 84,000 LBS (38,102 KGS) ROCK / COAL

Bucket sized to material density

HIGH LIFT, SAE-RATED CAPACITY: 78,000 LBS (35,381 KGS) ROCK / COAL

· Bucket sized to material density

BUCKET HARDWARE OPTIONS

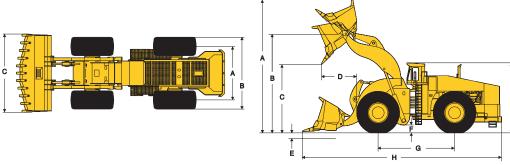
- · Lip Wear Protection and Teeth
- Skid Plates Replaceable
- · Wear Liner Kits

For additional bucket sizes and hardware options consult your dealer representative.

OPERATING CAPACITIES, WEIGHTS AND DIMENSIONS

	STANI	DARD LIFT	<u> </u>	HIGH LIFT
Bucket Capacity	28 yd ³	21.41 m ³	26 yd ³	19.88 m ³
Operating Payload	84,000 lbs	38,102 kgs	78,000 lbs	35,381 kgs
Bucket Width	20 ft 7 in	6.27 m	20 ft 7 in	6.27 m
Bucket Width with Deflectors	22 ft 6.25 in	6.86 m	22 ft 6.75 in	6.88 m
Hinge-Pin Height	28 ft 0.75 in	8.55 m	29 ft 10.25 in	9.10 m
Dump Clearance	21 ft 1.25 in	6.43 m	23 ft 6.75 in	7.18 m
Reach @ Full Lift	8 ft 9.5 in	2.68 m	9 ft 5.75 in	2.88 m
Digging Depth	0 ft 8.25 in	0.21 m	1 ft 3 in	0.38 m
Height - Bucket Fully Raised	36 ft 5.5 in	11.11 m	37 ft 11.5 in	11.56 m
Ground Clearance	2 ft 0.5 in	0.74 m	2 ft 0.5 in	0.74 m
Overall Length Bucket Down	55 ft 5.25 in	16.89 m	57 ft 2.25 in	17.43 m
Overall Length Carry Position	54 ft 11.25 in	16.74 m	57 ft 3.75 in	17.46 m
Wheel Base	21 ft 3.25 in	6.48 m	21 ft 3.25 in	6.48 m
Tread	14 ft 7 in	4.45 m	14 ft 7 in	4.45 m
Width Outside Tires	18 ft 11 in	5.77 m	18 ft 11 in	5.77 m
Height Over Cab	19 ft 9.5 in	6.03 m	19 ft 9.5 in	6.03 m
Static Tipping Loads				
Straight	229,434 lbs	104,071 kgs	210,070 lbs	(95,485 kgs)
Full 45° Turn	192,950 lbs	87,522 kgs	181,460 lbs	(82,480 kgs)
Breakout Force	220,000 lbs	99,792 kgs	217,930 lbs	(99,060 kgs)
Operating Weight	400,000 lbs	181,438 kgs	405,000 lbs	(183,705 kgs)

STANDARD CONFIGURATION



TOP V	<u>IEW</u>		SIDE VIEW	STAN	DARD LIFT	HIGH	<u>l LIFT</u>
(A)	14 ft 7 in	4.45 m	Bucket	28 yd ³	21.41 m ³	26 yd ³	19.88 m ³
(B) 18 ft 11 in (C) 20 ft 7 in	5.77 m	(A)	36 ft 5.5 in	11.11 m	37 ft 11.5 in	11.56 m	
	20 ft 7 in	6.27 m (B) (C)	(B)	28 ft .75 in	8.53 m	29 ft 10.25 in	9.10 m
			(C)	21 ft 1.25 in	6.43 m	23 ft 6.75 in	7.18 m
			(D)	8 ft 9.5 in	2.68 m	9 ft 5.75 in	2.88 m
		(E) (F)	0 ft 8.25 in	0.21 m	1 ft 3 in	0.38 m	
			2 ft 0.5 in	0.74 m	2 ft 0.5 in	0.74 m	
			(G)	21 ft 3 in	6.48 m	21 ft 3 in	6.48 m
			(H)	55 ft 5.25 in	16.89 m	57 ft 2.25 in	17.43 m
			(I)	19 ft 9.5 in	6.03 m	1 9 ft 9.5 in	6.03 m



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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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