



CLICK ANYWHERE FOR MORE DETAILS

MANUAL PREVIEW

J.I. Case

Service Manual

1000D Crawler

purchase full manual at

Service Manual

JENSALES.COM

or Call **800-443-0625**

JENSALES

CLICK ANYWHERE FOR MORE DETAILS

THIS IS A MANUAL PRODUCED BY JENSALES INC. WITHOUT THE AUTHORIZATION OF
J.I. CASE OR IT'S SUCCESSORS. J.I. CASE AND IT'S SUCCESSORS
ARE NOT RESPONSIBLE FOR THE QUALITY OR ACCURACY OF THIS MANUAL.

TRADE MARKS AND TRADE NAMES CONTAINED AND USED HEREIN ARE THOSE OF OTHERS,
AND ARE USED HERE IN A DESCRIPTIVE SENSE TO REFER TO THE PRODUCTS OF OTHERS.

CA-S-1000D CLR

1000D CRAWLER

TABLE OF CONTENTS

SERIES/SECTION

- 10 SERIES - GENERAL
Basic Crawler Specifications (pages are numbered with Roman numeral prefix I)
- 20 SERIES - ENGINE
Engine (pages are numbered with Roman numeral prefix II)
- 30 SERIES - FUEL SYSTEM
Fuel System (pages are numbered with Roman numeral prefix III)
- 40 SERIES - HYDRAULICS
Hydraulic System (pages are numbered with Roman numeral prefix VIII)
- 50 SERIES - TRACK AND SUSPENSION
Track and Suspension System (pages are numbered with Roman numeral prefix VI)
- 60 SERIES - POWER TRAIN
Torque Converter (pages are numbered with Roman numeral prefix IV)
Transmission and Final Drive (pages are numbered with Roman numerals prefix V)
- 80 SERIES - ELECTRICAL
Electrical System (pages are numbered with Roman numeral prefix VII)
- 90 SERIES - MOUNTED EQUIPMENT
Loader, Dozer, Ripper (pages are numbered with Roman numeral prefix IX)

JENSALES.COM
or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS

1. BASIC CRAWLER SPECIFICATIONS

Engine

Model (Continental)	JD-382
*Horsepower, maximum (gross)	93
net flywheel hp	85
Fuel	No. 2 Diesel
No. cylinders	4
Bore and stroke	4-1/2" x 6"
Piston displacement (cu. in.)	382
RPM (governed at full load)	1800
Max. torque, lbs. ft. @ 1200 RPM	278
Fuel injection	Roosa-Master
Starting	24-volt electric
*Sea level (calculated) maximum horsepower (based on 60° F. and 29.92" Hg.). Manufacturer's rating.	

Dimensions and Weight

Overall Length	115-1/2 Inches
Height (over fuel tank cap 6 ft. 1-1/2 inches)	8 Ft. 4 Inches
Overall Width	6 Ft. 3 Inches
Ground Clearance (at drawbar)	12 Inches
Ground Pressure	6.0 P.S.I.
Weight (approximate working - fuel and operator)	14,185 lbs.

Tracks

*Track Gauge	60 Inches
Standard Shoe Width	15 Inches
Lower Track Rollers (each side)	6
Upper Support Rollers (each side)	2
*Length of Track on Ground	79 Inches
Total Area of Ground Contact (std. shoes)	2370 Square Inches

Travel Speeds , MPH

	Forward	Reverse
1st (Lo-Lo)	0 to 1.7	0 to 2.0
2nd (Hi-Lo)	0 to 2.9	0 to 3.5
3rd (Lo-Hi)	0 to 3.4	0 to 4.1
4th (Hi-Hi)	0 to 6.0	0 to 7.1

Capacities

Fuel Tank	52 U.S. Gallons
Transmission and Torque Converter	13 U.S. Gallons
Final Drive (each side)	1-1/2 U.S. Gallons
Track Roller Reservoir (each side)	8-1/2 lbs.
Equipment Hydraulic System	16 U.S. Gallons
Cooling System	11 U.S. Gallons
Crankcase	11-1/2 U.S. Quarts

1. GENERAL INFORMATION AND SPECIFICATIONS

Engine Specifications

	Model 1000
Continental Diesel	JD 382
Number of Cylinders	4
Bore	4-1/2"
Stroke	6
Displacement in Cubic Inches	382
Compression Ratio	15.0:1
Injection System	Roosa Master
Firing Order	1-3-4-2

Elementary Principles of Diesel Engines

In order to dispel any mystery there may be with regard to the diesel engine and how it operates, compare the diesel engine with its gasoline counterpart.

Mechanically, the two are alike. Both have pistons moving up and down in cylinders with connecting rods attached to a crankshaft. Both convert the reciprocating motion of the pistons into a rotary motion. Both have valves in the cylinder heads operated by a camshaft and push rods. An intake valve admits air into the cylinder, and an exhaust valve permits the disposition of the burned gases. The camshaft is driven through a train of timing gears so that the opening and closing of the exhaust and intake valves are properly timed with the stroke of the piston and crankshaft.

The engines are so much alike in exterior appearance that the only way most people are able to distinguish between them is to look for the carburetor and the distributor on the gasoline engine or the injection pump on the diesel.

Both operate on mixtures of liquid fuel and air inside the combustion chambers. The ignition of these mixtures under pressure, and the subsequent expansion furnishes the power to drive the piston downward on its power stroke. The one big difference between the two types of engine lies in the way the fuel is handled and combustion brought about.

In a gasoline engine desired proportions of fuel and air are mixed in the carburetor before entering the cylinder through the intake valve. In a diesel engine, air is drawn into the cylinder through the intake valve and is compressed. At the proper time a measured quantity of fuel is injected into this air thus forming a combustible mixture which is self-ignited by the high temperature of the compressed air.

Fuel System Precautions

1. Fill the fuel tank at the end of each day to keep condensation to a minimum. When emptying the drum of fuel oil, agitate it as little as possible, and leave about 1" of fuel, which may contain sediment or water, in the bottom of the drum.
2. Shut off fuel supply valve at fuel tank when disconnecting lines -- to save needless waste of fuel.
3. Drain first stage fuel filter daily. This will also prevent ice damage to the filtering element where freezing temperatures are encountered.
4. DO NOT USE WASTE OR LINTY RAGS AROUND FUEL CONTAINERS OR FUEL INJECTION EQUIPMENT.
5. Use of clean fuel and daily care of the first-stage filter will prolong the life of the final-stage filter. For further details see Section on Fuel Injection.

Fuel Lines

The fuel supply arrangement is with the fuel tank mounted higher than the injection pump and filters. This provides gravity feed to the filters and pump.

The fuel supply lines should be 3/8" copper tubing minimum under 10 feet and 1/2" copper tubing for lines over 10 feet. The return lines should be 5/16" minimum tubing. Return lines must also be piped to the tank and never back to the inlet, as its fuel flow cools, lubricates, and purges air from the tank.



Figure 6 - Schematic of Fuel Filtering System