

AgPubs Case 450 Crawler Loader Dozer 188 Diesel Engine

Service Repair Parts Catalog Operators Manual Set

FOR CASE 450 CRAWLER LOADER DOZER 188 DIESEL ENGINE

Brand: AgPubs

Introduction

This manual set provides essential information for the maintenance, repair, and operation of the Case 450 Crawler Loader Dozer equipped with a 188 Diesel Engine. It is divided into three primary types: Service Manual, Operators Manual, and Parts Catalog, each serving a distinct purpose to ensure proper care and functionality of your equipment.

- **Service Manual:** Contains detailed instructions for repair, overhaul procedures, and troubleshooting guides for various components.
- **Operators Manual:** Covers basic maintenance, operational procedures, fluid types and quantities, and necessary adjustments for daily use.
- **Parts Catalog:** Provides exploded views of assemblies, part names, and factory (OEM) part numbers for accurate identification and ordering of replacement parts.

Refer to the appropriate manual type based on your specific needs to ensure correct procedures are followed.

General Information

This section covers fundamental aspects of the Case 450 Crawler Loader Dozer, including general specifications, detailed technical data, and essential maintenance schedules. Understanding these basics is crucial for effective operation and longevity of the equipment.

SERIES/SECTION	SECTION NO.
60 SERIES - POWER TRAIN (CONT'D)	
Torque Converter	6016
Charging Pump	6017
Declutch Lockout	6019
Drive Shafts	6023
70 SERIES - BRAKES	
Master Cylinders, Parking Brakes, Adjustments	7010
NOTE: Also refer to Brakes in Section 64.	
80 SERIES - ELECTRICAL SYSTEM	
Wiring Diagrams	8011
Trouble Shooting	8012
Ignition System	8013
Batteries	8014
Starter and Starter Solenoid	8015
Generator and Voltage Regulator	8017
90 SERIES - MOUNTED EQUIPMENT	
Loader	9011
Dozers	9013
Models 9 and 19 Gearmatic Winches	9014
Ripper	9015
Roll-Over Protective Structure	9019
Models 26 and 26C Backhoe	9022
Model 32 Backhoe	9023
Model 35 Backhoe	9024
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Figure 1: Partial Table of Contents from the Service Manual, detailing major sections.

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Figure 2: Continuation of the Table of Contents from the Service Manual, listing additional systems.

450 CRAWLER	
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Torque Chart	1051
20 SERIES - ENGINE	
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Engine Block Assemblies	23
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Air Cleaner	2051
30 SERIES - FUEL SYSTEM	
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Roosa Master Model DB Fuel Injection Pump	32
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40 SERIES - HYDRAULICS	
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Equipment Pump	4013
Loader and Dozer Control Valves	4021
Commercial-Shearing Backhoe Control Valves	4022
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D26726 and D45399 Diversion Valves	
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D43550 Anti-Rollback Check Valve	
D46850 Relief Valve	
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Figure 3: Table of Contents from the Operators Manual, outlining operational and basic maintenance topics.

Engine

The 188 Diesel Engine is the power core of the Case 450. This section details its components, removal, installation, and specific maintenance procedures.

Cylinder Block, Sleeves, Pistons, and Rods

Detailed steps for the removal and inspection of cylinder block components, including pistons, sleeves, and connecting rods. Proper reassembly is critical for engine performance.

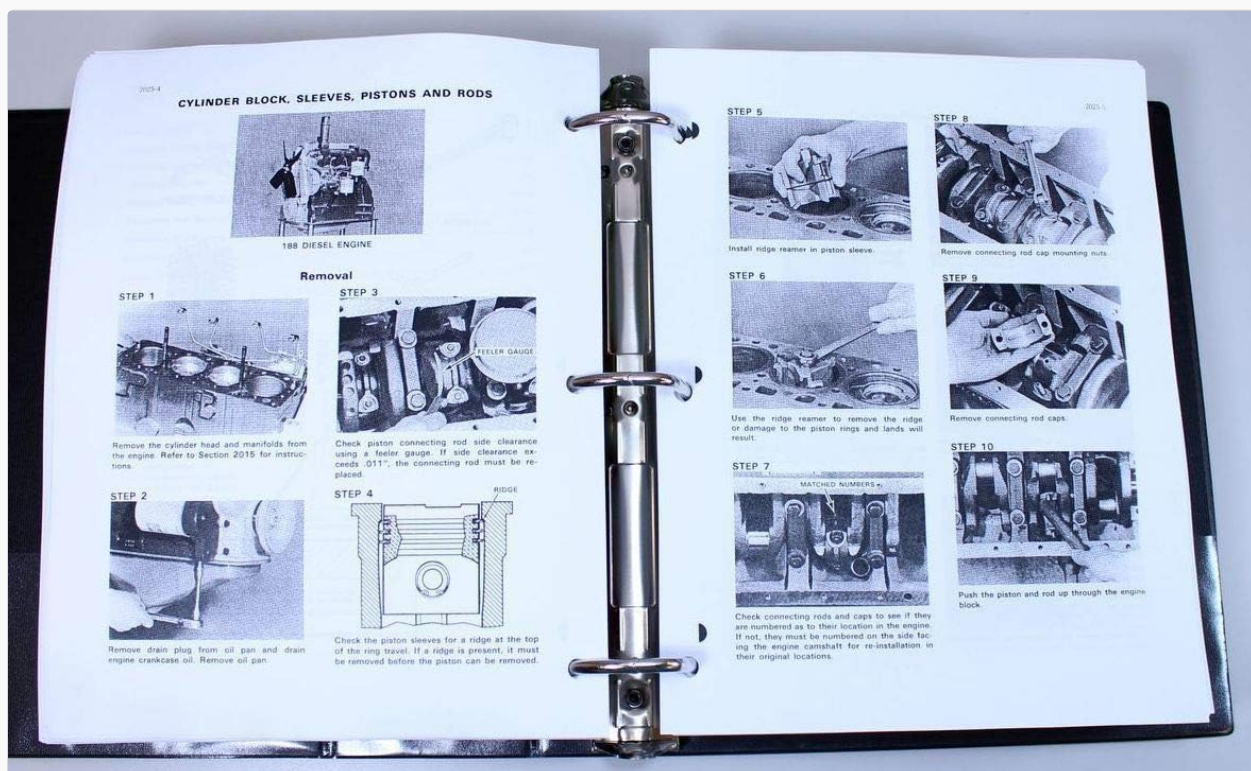


Figure 4: Illustrated guide for servicing engine cylinder components.

Engine Lubricating Oil and Coolant System

Understanding the flow and function of the engine's lubrication and cooling systems is vital for preventing overheating and wear. This includes oil and coolant pathways, filter locations, and maintenance points.

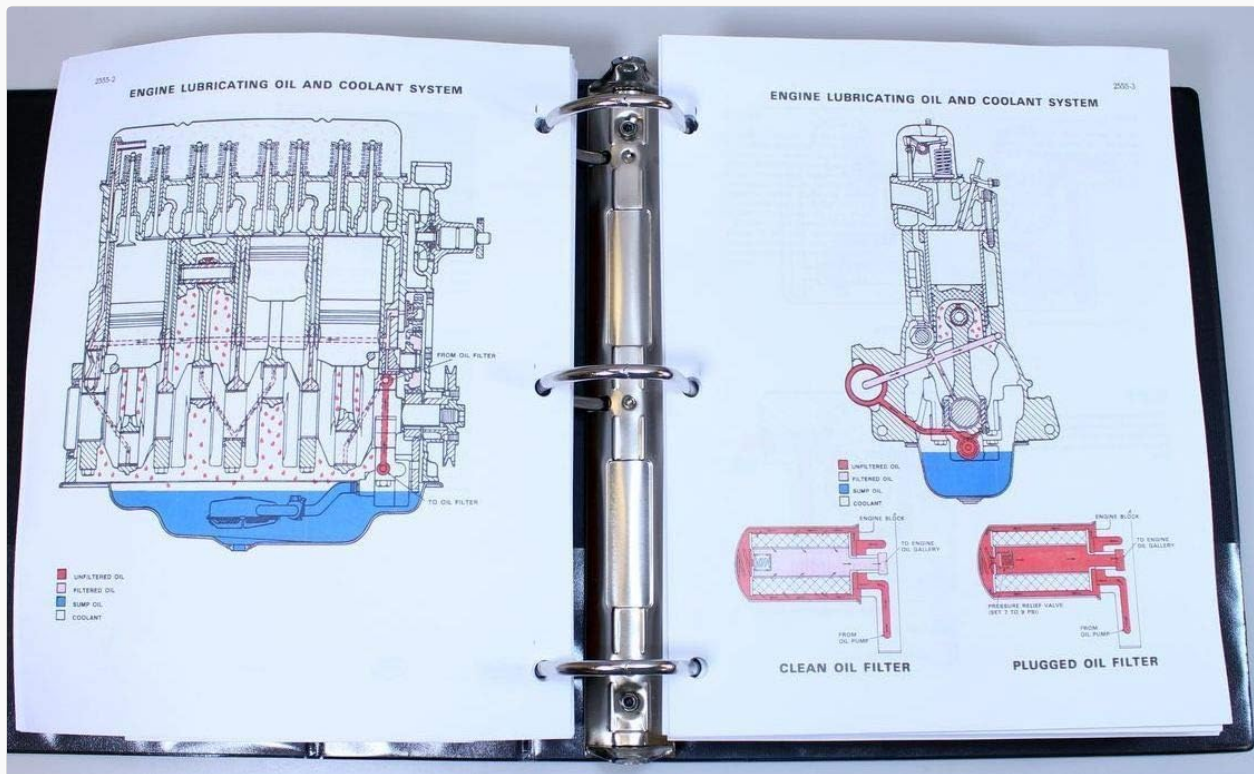


Figure 5: Schematic of the engine's oil and coolant circulation.

Fuel System

The fuel system ensures proper fuel delivery to the 188 Diesel Engine. This section covers components such as fuel filters, the Roosa Master Model DB Fuel Injection Pump, fuel injectors, and throttle linkage adjustments.

- Fuel System and Filters
- Roosa Master Model DB Fuel Injection Pump
- Roosa Master Fuel Injectors
- Throttle Linkage Adjustments, Fuel Lines

Hydraulics

The hydraulic system powers the loader, dozer, and other attachments. This section provides diagrams, troubleshooting steps, and details on various hydraulic components.

Equipment Pump Servicing

Instructions for servicing the hydraulic equipment pump, including disassembly, inspection, and reassembly procedures. Proper maintenance of the pump is crucial for hydraulic system efficiency.

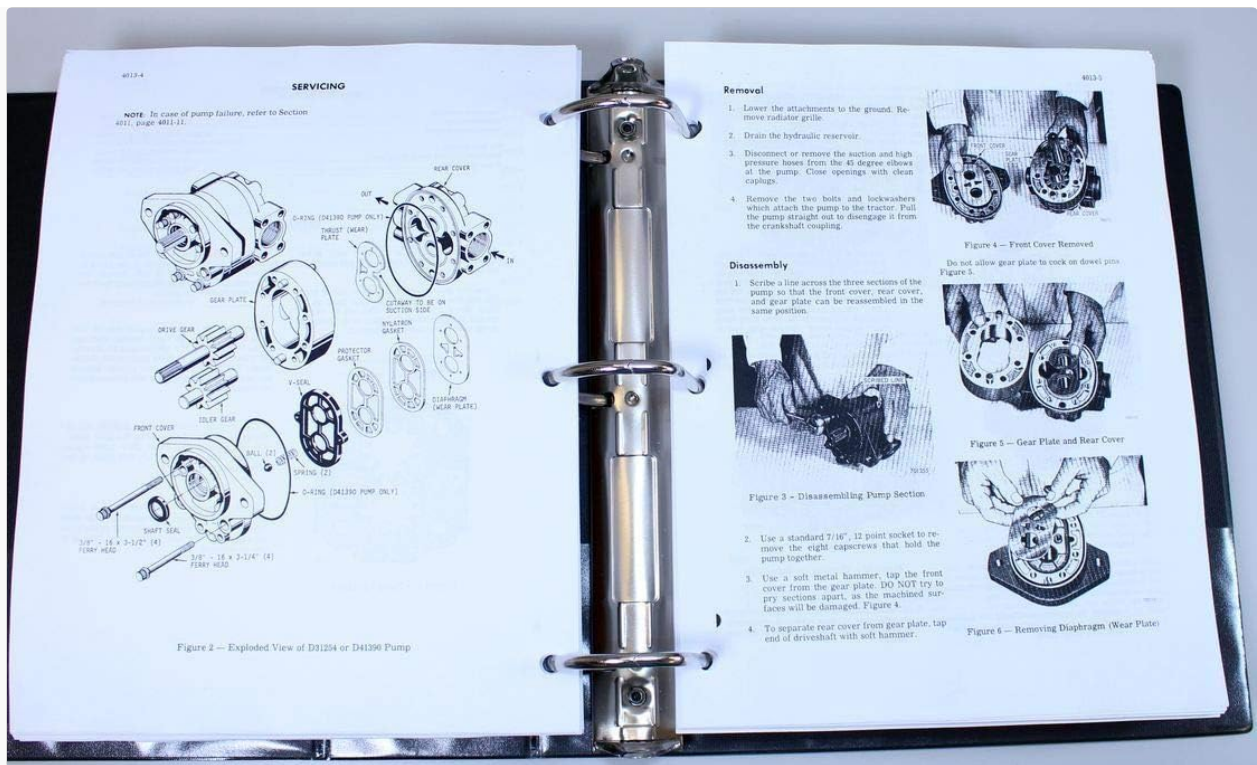


Figure 6: Detailed view of hydraulic pump components and servicing steps.

Oil Flow and Spool Operation

Understanding the hydraulic oil flow and the function of control spools is essential for diagnosing and repairing hydraulic issues. This includes oil flow in neutral and actuated positions.

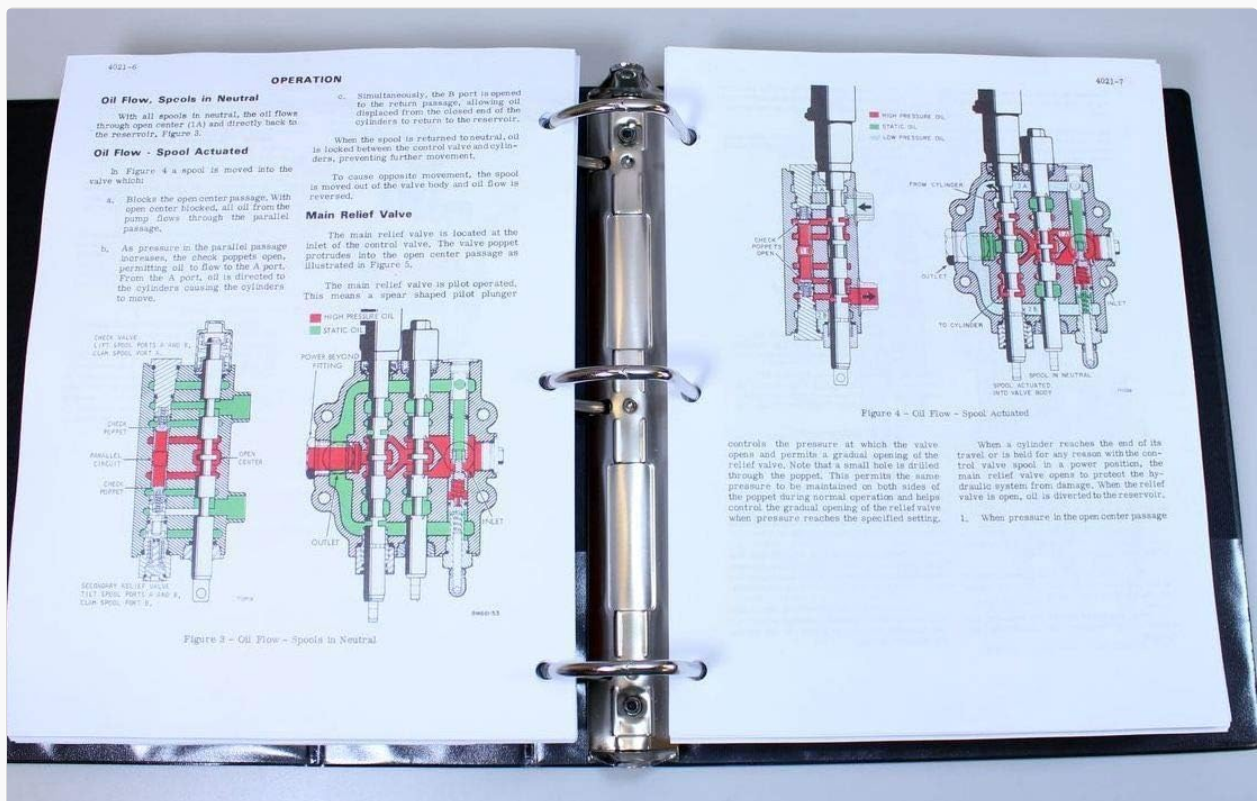


Figure 7: Hydraulic oil flow diagrams for control spools.

Hydraulic System Diagram

A comprehensive overview of the entire hydraulic system, illustrating the connections and flow paths between various components. This diagram is invaluable for troubleshooting and system understanding.

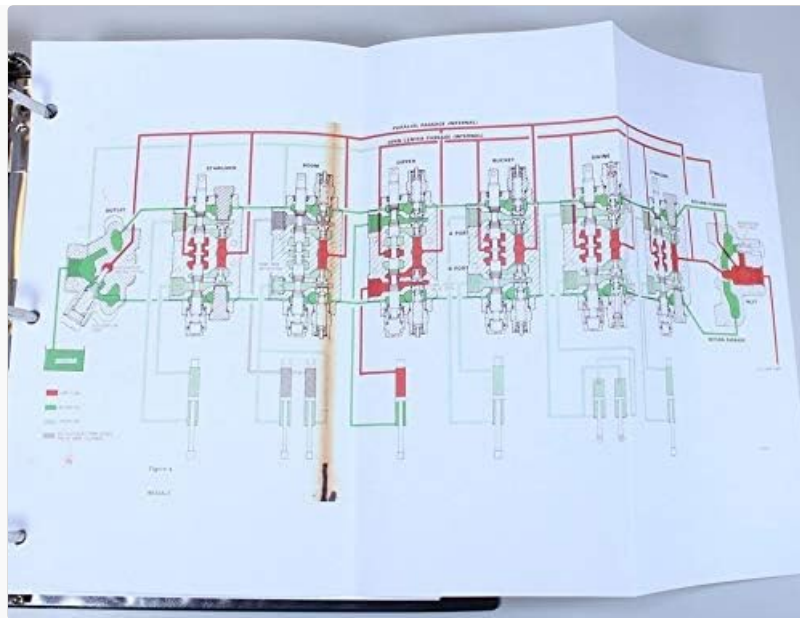


Figure 8: Full hydraulic system schematic.

Track System

The track system is critical for the mobility and stability of the crawler. This section covers its components, maintenance, and adjustment procedures.

- Track and Suspension System
- Interquac Procedure for Sprocket Mounting Bolts
- Torquing Rollers
- Track Lubrication
- Track Shoes
- Track Wear Gauge
- Track Tension

Power Train

The power train transmits engine power to the tracks. This section details the transmission, final drives, and related components.

- Transmission and Final Drives
- Troubleshooting the Transmission/Converter Hydraulic System with a Flowmeter
- Transmission/Converter Hydraulic System Diagram
- Transmission Removal, Transmission Controls
- Torque Converter
- Charging Pump
- Declutch Lockout
- Drive Shafts

Brakes

Proper functioning of the braking system is paramount for safety. This section covers the master cylinders,

parking brakes, and adjustment procedures.

- Master Cylinders, Parking Brakes, Adjustments
- Foot Brake Adjustment
- Bleeding the Brakes
- Parking Brake Adjustment

Electrical System

This section provides details on the electrical components, including wiring diagrams, troubleshooting, and maintenance of key electrical parts.

- Wiring Diagram
- Troubleshooting
- Ignition System
- Batteries
- Starter and Starter Solenoid
- Generator and Voltage Regulator
- Instrument Panel Light
- Headlight and Rear Light

Mounted Equipment

Information regarding the various mounted equipment and attachments for the Case 450, including loaders, winches, rippers, and backhoes.

- Loader Specifications, Operating Instructions, Operating Tips, Maintenance
- Models 9 and 19 Gearmatic Winches
- Ripper Specifications, Operating Instructions, Lubrication
- Roll-over Protective Structure
- Models 9 and 9C Backhoe
- Model 33 Backhoe
- Seat and Tank Assembly

Operating Instructions

This section from the Operators Manual provides guidance for safe and efficient operation of the Case 450 Crawler Loader Dozer.

- **Safety Rules:** Essential guidelines for safe operation to prevent accidents and injuries.
- **Introduction to the Machine:** Overview for new operators, including delivery checks and serial number location.
- **Gauges and Controls:** Explanation of all dashboard gauges and control levers.
- **Engine Operation:** Procedures for starting, running-in, and operating the 188 Diesel Engine under various conditions (cold/hot weather).
- **Operating the Crawler:** Instructions for maneuvering the crawler, including specific tips for different

terrains and tasks.

- **Fuels and Lubricants:** Recommended fuel types, lubricants, and fluid capacities for all systems.
- **Crawler Storage and Reactivation:** Procedures for preparing the crawler for long-term storage and bringing it back into service.

Maintenance

Regular maintenance is crucial for the performance and longevity of your Case 450. This section outlines routine service procedures.

- **Maintenance Schedule:** Recommended intervals for inspections and service tasks.
- **Engine Lubrication System:** Oil service, oil changes, and filter replacement.
- **Air Cleaning System:** Maintenance for both oil bath and dry type air cleaners.
- **Cooling System:** Radiator cap, coolant levels, system cleaning, and thermostat checks.
- **Fuel System Maintenance:** Cleaning, bleeding, and replacing fuel filters.
- **Transmission-Torque Converter:** Oil level checks, oil changes, screen and filter maintenance.
- **Equipment Hydraulic System:** Oil level, oil changes, suction line screen, and return line filter maintenance.

Troubleshooting

This section provides guidance for identifying and resolving common issues that may arise with the Case 450 Crawler Loader Dozer. Refer to the Service Manual for detailed diagnostic procedures.

- Hydraulic Diagrams, Trouble Shooting, Pressure Checks
- Trouble Shooting the Transmission/Converter Hydraulic System with a Flowmeter
- Electrical System Troubleshooting

Specifications

Detailed technical specifications for the Case 450 Crawler Loader Dozer and its various components are provided within the manual set. These specifications are crucial for proper operation, maintenance, and repair.

- General Specifications
- Detailed Specifications for Engine, Hydraulics, and other systems
- Torque Chart for fasteners
- Fluid Capacities and Types

This manual set is a reproduction of original factory documentation, designed for durability and clarity.
For further assistance, consult the specific sections within the Service, Parts, or Operators Manuals.