

## Case 320

# Case 320 Tractor Loader Backhoe Service Manual

Essential guide for maintenance, repair, and diagnostics.

## 1. INTRODUCTION

This service manual provides detailed information for the maintenance, repair, and troubleshooting of the Case 320 Tractor Loader Backhoe (TLB). It is intended for qualified service personnel and technicians. Adherence to the procedures outlined in this manual is crucial for ensuring the safe and efficient operation and longevity of the equipment.

The manual is organized into sections covering various aspects of the TLB, including safety, component descriptions, preventative maintenance schedules, diagnostic procedures, and technical specifications. Always refer to the latest version of this manual for the most accurate information.

## 2. SAFETY INFORMATION

Safety is paramount when working with heavy machinery. Always observe the following general safety precautions to prevent injury to personnel or damage to the equipment.

- **Read and Understand:** Before performing any service or maintenance, thoroughly read and understand all instructions and warnings in this manual and on the machine itself.
- **Personal Protective Equipment (PPE):** Always wear appropriate PPE, including safety glasses, gloves, hard hat, and steel-toed boots.
- **Lockout/Tagout:** Ensure the machine is properly shut down, parked on level ground, and all attachments are lowered. Disconnect the battery and apply lockout/tagout procedures before working on electrical systems or moving parts.
- **Hydraulic Pressure:** Relieve all hydraulic pressure before disconnecting hydraulic lines or components. Hydraulic fluid under pressure can cause severe injury.
- **Hot Surfaces/Fluids:** Be aware of hot engine components, exhaust systems, and fluids (oil, coolant) which can cause burns. Allow the machine to cool before servicing.
- **Proper Tools:** Use only the correct tools for the job. Ensure tools are in good condition.
- **Cleanliness:** Keep the work area clean and free of clutter. Spills can lead to slips and falls.

### 3. COMPONENT OVERVIEW

The Case 320 TLB is comprised of several key systems working in conjunction. Understanding the basic function and location of these components is essential for effective servicing.

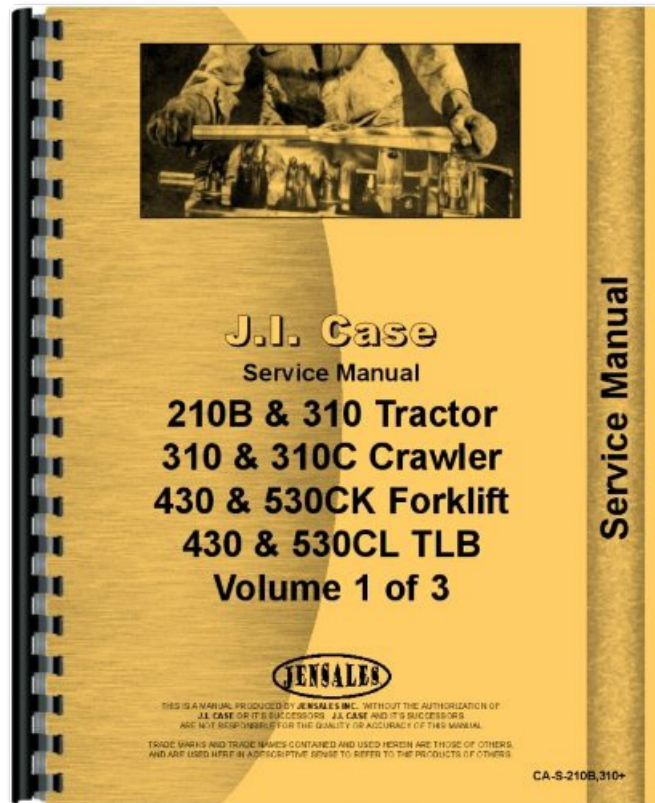


Figure 3.1: Representative cover of a J.I. Case Service Manual. While this specific cover details models such as 210B, 310, 430, and 530 series, it illustrates the typical format and appearance of service documentation for Case heavy equipment. This manual provides comprehensive service information for the Case 320 Tractor Loader Backhoe.

- **Engine System:** Powers the machine and its hydraulic systems. Includes fuel, cooling, lubrication, and exhaust sub-systems.
- **Hydraulic System:** Provides power for the loader, backhoe, steering, and other hydraulic functions. Consists of pumps, valves, cylinders, and reservoirs.
- **Drivetrain:** Transmits power from the engine to the wheels, including the transmission, axles, and differential.
- **Loader Assembly:** Front-mounted attachment for digging, lifting, and carrying materials.
- **Backhoe Assembly:** Rear-mounted attachment for excavation and trenching.
- **Electrical System:** Controls engine starting, lighting, instrumentation, and various electronic components.

### 4. PREVENTATIVE MAINTENANCE

Regular preventative maintenance is critical for the reliable operation and extended lifespan of your Case 320 TLB. Follow the recommended service intervals and procedures.

#### 4.1 Daily Checks (Before Operation)

- Check engine oil level.
- Inspect coolant level.
- Verify hydraulic fluid level.

- Check tire pressure and condition.
- Inspect all hoses and lines for leaks or damage.
- Test all lights, gauges, and safety devices.
- Clean windows and mirrors.

4.2 Scheduled Maintenance (Every 250 Hours / Monthly)

- Change engine oil and filter.
- Inspect air filter elements.
- Lubricate all grease points on loader and backhoe linkages.
- Check battery electrolyte level and terminals.
- Inspect fan belt tension and condition.

4.3 Scheduled Maintenance (Every 500 Hours / Quarterly)

- Replace fuel filters.
- Change hydraulic filter.
- Inspect and adjust brake pedal free play.
- Check transmission fluid level and condition.

Refer to the detailed maintenance schedule within the full service manual for comprehensive instructions and additional intervals.

5. TROUBLESHOOTING & DIAGNOSTICS

This section provides a guide to common issues that may arise with the Case 320 TLB and outlines basic diagnostic steps. For complex problems, consult a qualified technician or the detailed diagnostic charts in the complete service manual.

Symptom	Possible Cause	Corrective Action
Engine Fails to Start	Low battery charge, fuel system issue, starter motor fault.	Check battery connections and charge, verify fuel supply, inspect starter.
Loss of Hydraulic Power	Low hydraulic fluid, clogged filter, faulty pump, relief valve issue.	Check fluid level, replace filter, inspect pump/valves.
Overheating Engine	Low coolant, clogged radiator, faulty thermostat, fan belt issue.	Check coolant, clean radiator, test thermostat, inspect fan belt.
Poor Braking Performance	Worn brake pads, air in hydraulic lines, low brake fluid.	Inspect pads, bleed brake system, check fluid level.

6. TECHNICAL SPECIFICATIONS

The following are general technical specifications for the Case 320 Tractor Loader Backhoe. Specific values may vary based on configuration and year of manufacture. Always refer to the machine's data plate for precise information.

- **Engine Type:** Diesel, 4-cylinder (Specific model details in full manual)

- **Operating Weight:** Approximately 14,000 - 16,000 lbs (6,350 - 7,250 kg)
- **Loader Bucket Capacity:** 0.75 - 1.0 cu yd (0.57 - 0.76 cu m)
- **Backhoe Digging Depth:** 14 - 16 ft (4.2 - 4.8 m)
- **Fuel Tank Capacity:** Approximately 30 - 40 US gallons (113 - 151 liters)
- **Hydraulic System Capacity:** Approximately 20 - 25 US gallons (75 - 95 liters)

## 7. SUPPORT & ORDERING INFORMATION

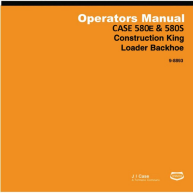
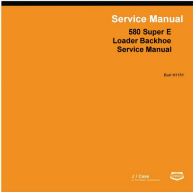

For additional support, genuine replacement parts, or to order supplementary manuals, please contact the publisher or an authorized Case dealer.

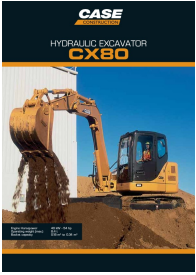
This manual is published by **Jensales**. When ordering parts, always provide the full model number and serial number of your Case 320 TLB to ensure compatibility.

*Note: This document is a general guide. For comprehensive repair procedures, detailed schematics, and specific part numbers, refer to the complete official Case 320 Service Manual.*

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### Related Documents - 320

	<p><a href="#">CASE 580E &amp; 580S Construction King Loader Backhoe Operator's Manual   JI Case</a></p> <p>Comprehensive operator's manual for the CASE 580E and 580S Construction King Loader Backhoe. Covers safety, operation, maintenance, and specifications. Provided by JI Case.</p>
	<p><a href="#">Case 580 Super E Loader Backhoe Service Manual</a></p> <p>Comprehensive service manual for the Case 580 Super E Loader Backhoe, covering maintenance, troubleshooting, and specifications for all major systems including engine, fuel, electrical, brakes, hydraulics, and power train.</p>
	<p><a href="#">CASE CX80C Excavator Dozer Blade - Specifications and Performance</a></p> <p>Detailed specifications, performance data, and lift capacities for the CASE CX80C Excavator with Dozer Blade, Tier 4 Final Certified. Includes engine, drivetrain, hydraulics, operator environment, dimensions, and equipment details.</p>



### [CASE CX80 Hydraulic Excavator: Specifications and Features](#)

Explore the CASE CX80 hydraulic excavator, a powerful and versatile machine designed for various construction and site work. This document details its engine, hydraulic system, cab comfort, undercarriage, attachments, performance data, dimensions, and standard/optional equipment.



### [CASE 621D/XT/XR Articulated Wheel Loader Specifications and Data](#)

Detailed specifications, dimensions, performance data, and equipment information for the CASE 621D, 621XT, and 621XR articulated wheel loaders.



### [CASE TV450B Compact Track Loader - Tier 4 Final Specifications](#)

Detailed specifications for the CASE TV450B Compact Track Loader, including engine, drivetrain, hydraulics, dimensions, capacities, and performance data. Tier 4 Final certified.