

AgPubs 5040

Allis Chalmers 5040 Diesel Tractor Service Repair Manual

Technical Shop Book for Repair, Overhaul, and Troubleshooting

INTRODUCTION TO THIS MANUAL

This document serves as a comprehensive service and repair manual for the Allis Chalmers 5040 Diesel Tractor. It is designed to provide detailed instructions for repair, overhaul, and troubleshooting procedures, enabling technicians and owners to maintain and restore the tractor to optimal operating condition.

Understanding the correct manual type is crucial for effective maintenance and repair. Manuals are generally categorized as follows:

- **Service Manual:** Focuses on repair, overhaul, and troubleshooting. This manual falls into this category.
- **Operators Manual:** Provides information on basic maintenance, operation, fluid types, quantities, and adjustments.
- **Parts Catalog:** Contains exploded views, parts names, and factory (OEM) parts numbers for identification and ordering.

Utilizing a factory-authored manual, such as this one, ensures access to accurate and reliable information, which is superior to aftermarket alternatives for precise repairs and maintenance.

GENERAL INFORMATION

This manual is a quality reproduction, designed for durability and longevity, often surpassing the original vintage prints. It empowers users to perform repairs and maintenance independently, potentially saving costs and reducing downtime.



Figure 1: Front cover of the Allis Chalmers 5040 Diesel Tractor Service Manual. The cover clearly indicates 'SERVICE MANUAL' and 'Model 5040 Diesel Tractor'.

MANUAL STRUCTURE AND CONTENT OVERVIEW

The manual is organized into logical sections to facilitate easy navigation and access to specific repair information. Key sections include detailed procedures for the engine, transmission, and hydraulic systems, along with specifications and troubleshooting guides.

ENGINE	
INDEX	
Specifications - Removal - Installation	
Description	3
Specifications	4
Fault-Finding	5
Removing Engine from Tractor	6
Disassembly and Reassembly	9
Installation	9
Crankcase - Cylinder Head - Oil Sump	
Crankcase and Cylinder Liners	12
Checking and Cleaning the Crankcase	12
Cylinder Liner Re-boring and Replacement	12
Cylinder Head	13
Oil Sump	15
Valves and Timing Mechanism	
General	16
Timing Data	16
Camshaft	16
Valves, Guides and Springs	18
Valve Gap Adjustment	20
Tappets, Push-Rods and Rocker Arms	20
Timing Gear Assembly	21
Tachourmeter	22
Crank Gear Assembly	
General	23
Crankshaft	23
Crankshaft Bearings	26
Pistons and Rings	26
Connecting Rods	28
Engine Flywheel	29
Fuel System	
Air Supply	31
Fuel Supply	31
Fuel Tank	32
Fuel Priming Pump	32
Fuel Filters	32
C.A.V. INJECTION PUMP	34
General Description	34
Operation	35
Overhauling	43
Disassembly	43
Inspection	46
Assembly	46
Pump Tests	53
Calibration Data C.A.V. DPA 3233330 - 768729	57
Trouble Shooting	59
Pump Installation and Timing	61
Injectors	62
Starting Aid	63
Lubrication	
General	64
Oil Pump	65
Oil Filter	65
Low Oil Pressure Warning Light	65
Lube and Capacity Chart	67
Cooling	
General	68
Water Pump	69
Radiator	70
Thermostat	71
Fan	72
Water Temperature Gauge	72
Fits and Tolerances - Torque Specifications - Service Tools	
Fits and Tolerances	73
Torque Specifications	76
Service Tools	78

Figure 2: An index page from the manual, specifically detailing the contents of the 'ENGINE' section. This includes topics such as Disassembly, Removal, Installation, Crankcase, Cylinder Head, Valves, Timing, Fuel System, Lubrication, Cooling, and Specifications.

ENGINE SECTION

This section provides comprehensive details for the maintenance, repair, and overhaul of the Allis Chalmers 5040 Diesel Tractor engine. It covers various components and systems within the engine.

Description and Specifications

Detailed descriptions of engine components and specifications are provided to aid in accurate diagnosis and repair.

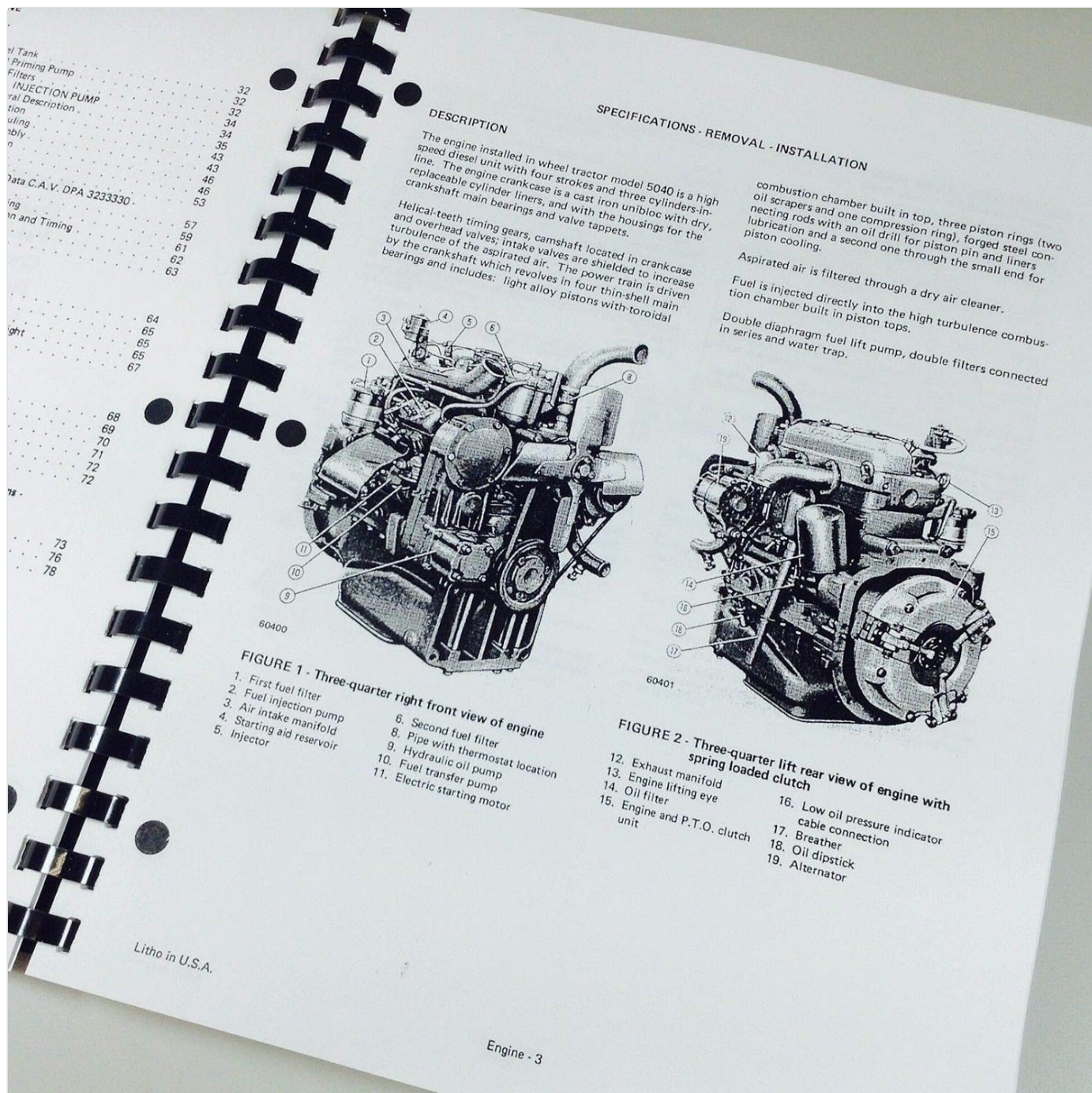


Figure 3: A page from the manual illustrating the engine description, specifications, and initial removal/installation procedures. It includes diagrams of the engine from different perspectives, labeling key components such as the fuel injection pump, starter motor, and alternator.

Engine Sectional Views

Exploded and sectional diagrams offer visual guidance for understanding internal engine structure and component placement.

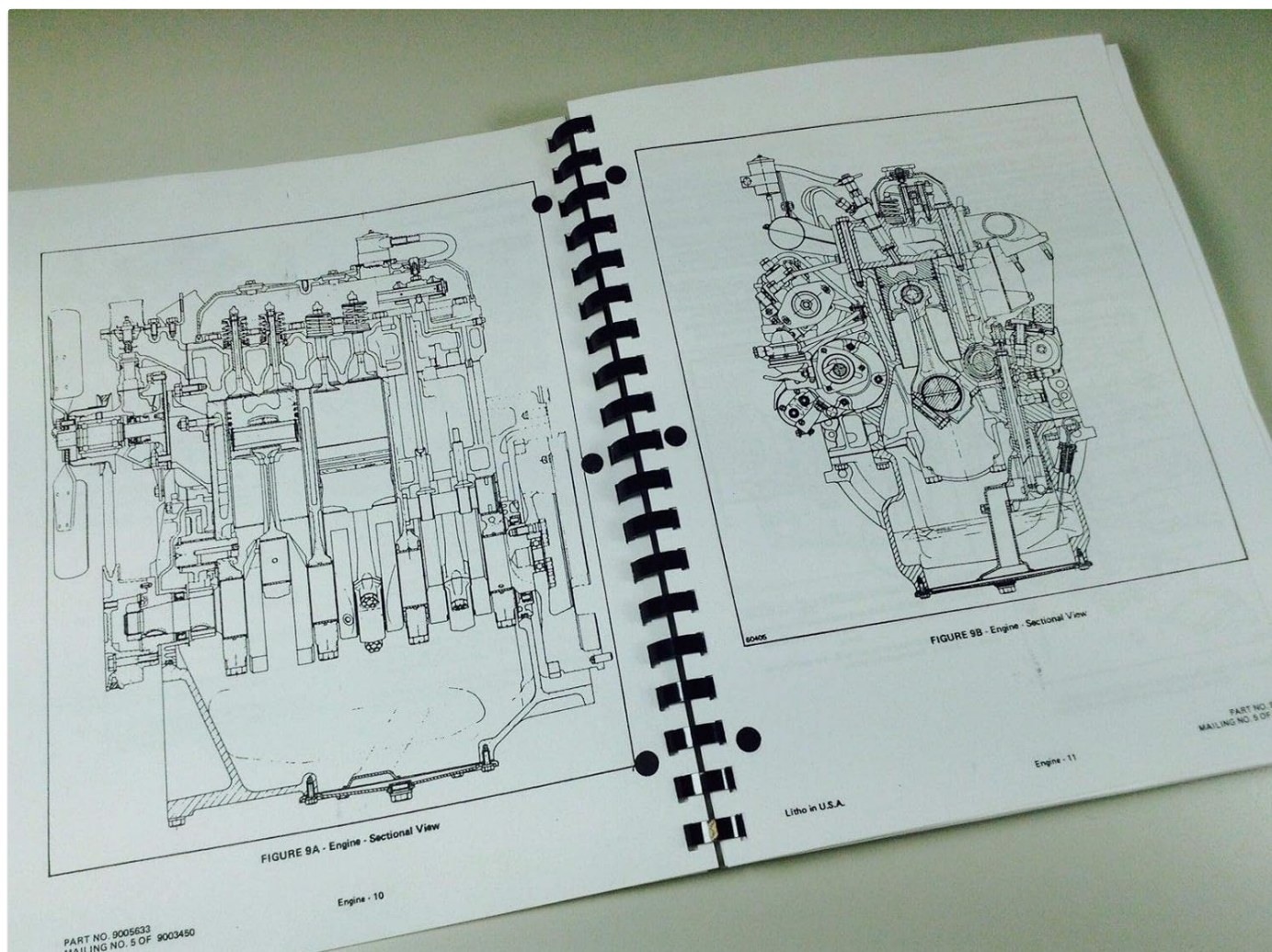


Figure 4: This image displays two detailed sectional views of the engine, labeled as Figure 8A and Figure 8B. These diagrams are essential for understanding the internal workings and assembly of the engine components.

TRANSMISSION SYSTEM

This section details the transmission system, including its description, operation, and removal procedures.

Transmission Description and Operation

Information on the transmission's design and how it functions is provided, along with diagrams to illustrate its components.

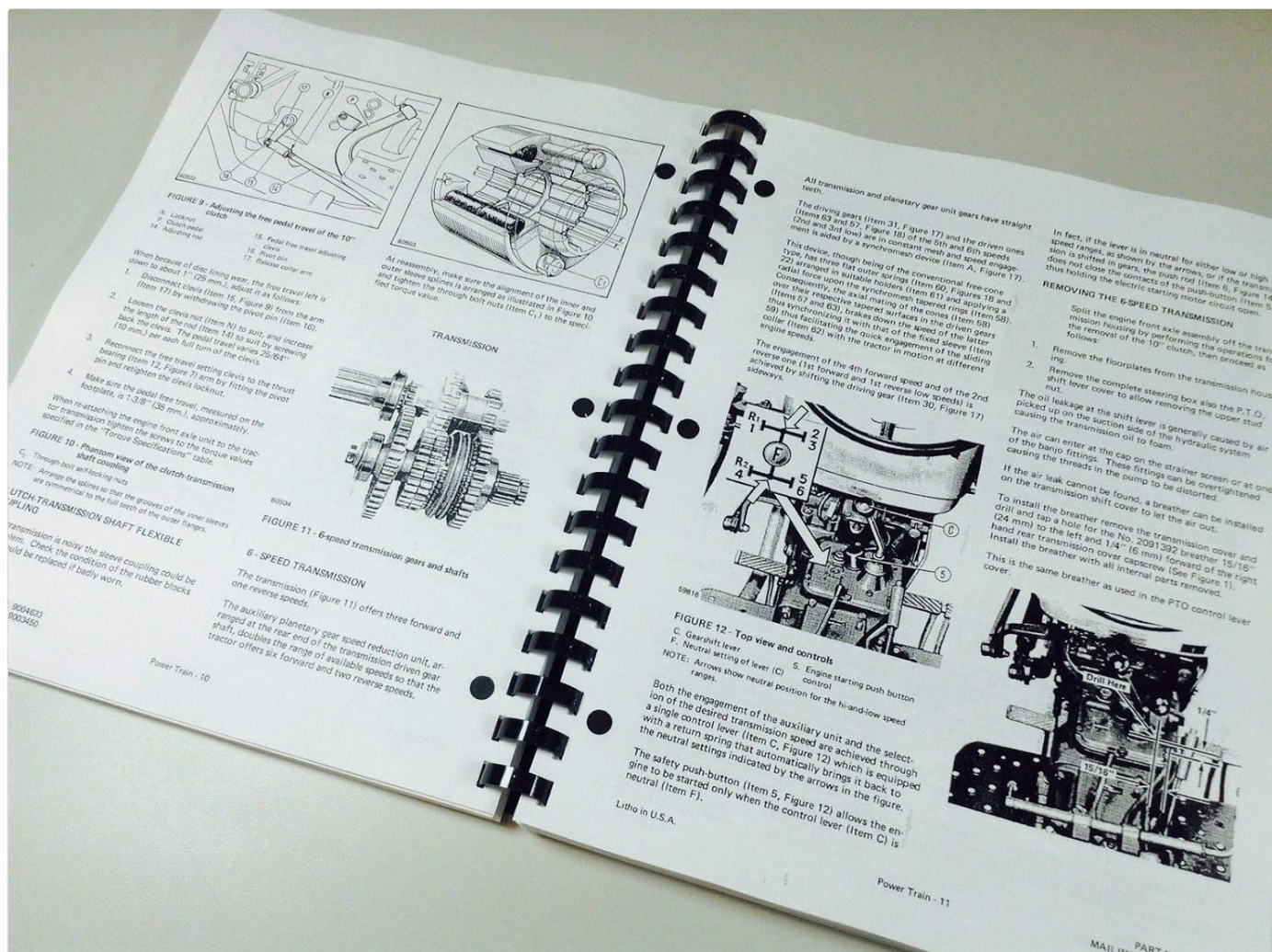


Figure 5: A page from the manual dedicated to the transmission system. It includes a description of the transmission, diagrams of the speed transmission gears and shafts, and instructions for removing the transmission from the tractor.

HYDRAULIC SYSTEM

This section focuses on the hydraulic components, specifically the lift hydraulic control valve.

Lift Hydraulic Control Valve

A detailed diagram and explanation of the lift hydraulic control valve are provided for troubleshooting and repair.

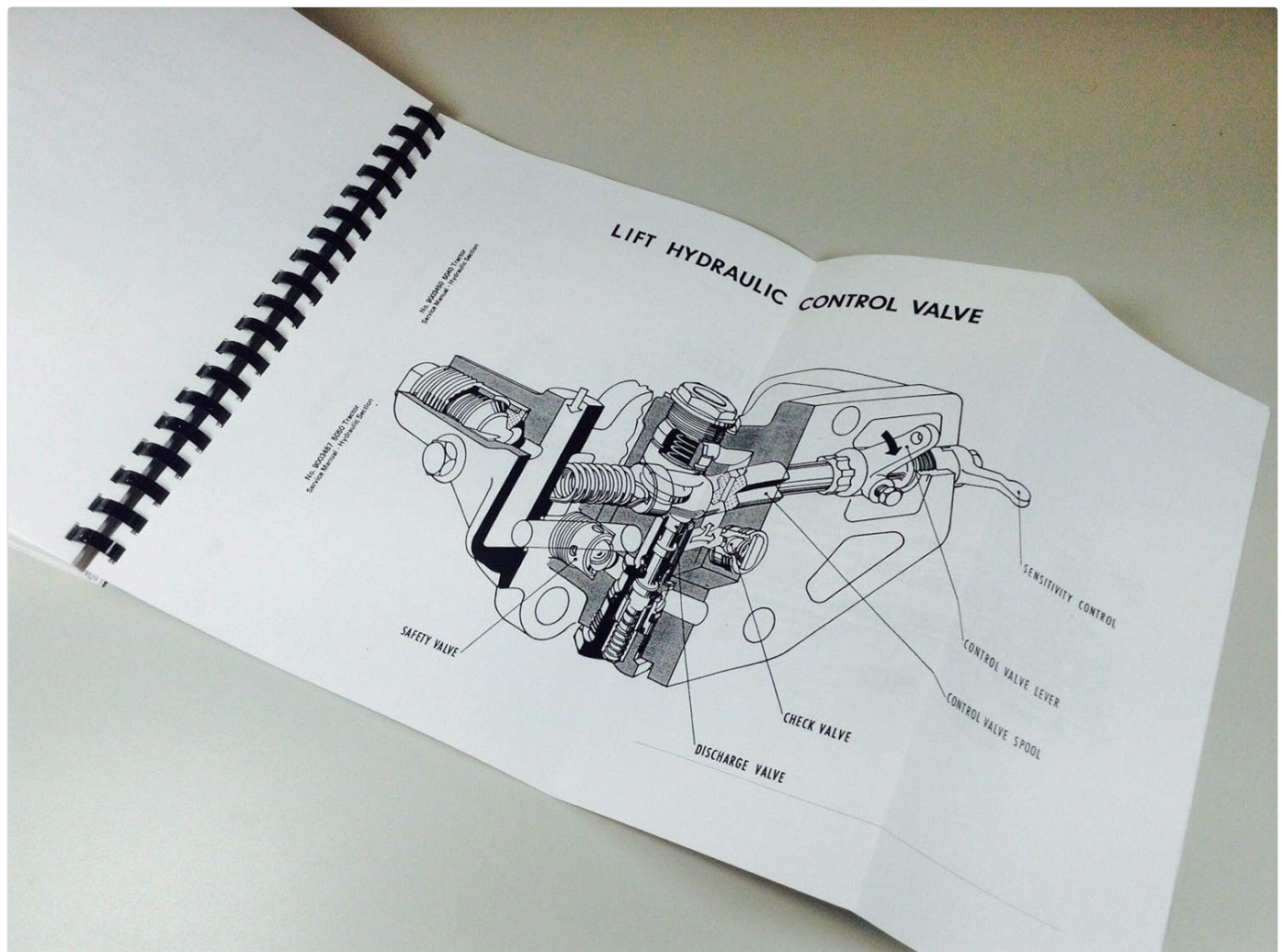


Figure 6: This image displays a detailed diagram of the 'LIFT HYDRAULIC CONTROL VALVE'. Key components such as the sensitivity control, control valve lever, check valve, discharge valve, and safety valve are clearly labeled, aiding in understanding its function and repair.

TROUBLESHOOTING AND SPECIFICATIONS

The manual includes sections dedicated to troubleshooting common issues and providing essential specifications for various components. These sections are critical for diagnosing problems and ensuring correct assembly and operation after repairs.

- **Troubleshooting:** Guides for identifying and resolving operational issues.
- **Fits and Tolerances:** Critical dimensions and clearances for proper component fit.
- **Torque Specifications:** Essential torque values for fasteners to ensure secure and correct assembly.
- **Service Tools:** Information on specialized tools required for specific repair procedures.

SUPPORT AND WARRANTY INFORMATION

For specific product support or warranty inquiries regarding this AgPubs reproduction manual, please refer to the vendor or manufacturer's provided contact information at the time of purchase. This manual is intended as a technical reference for the Allis Chalmers 5040 Diesel Tractor.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question