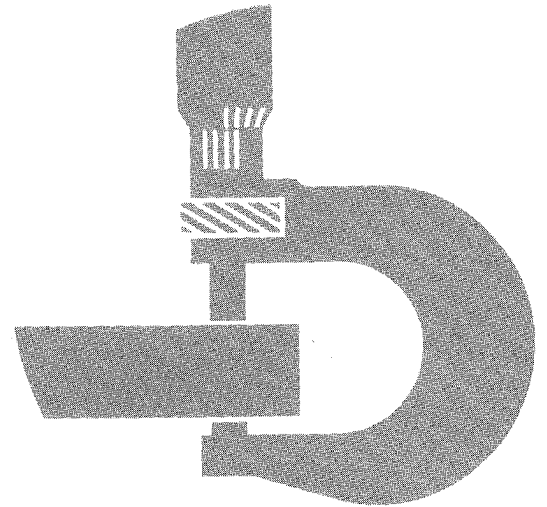


**John Deere 410B,  
410C, 510B, 510C  
Backhoe Loaders  
Repair**

**TECHNICAL  
MANUAL**



**TM-1469 (Dec-88)**

LITHO IN U.S.A.

# Introduction

## FOREWORD

This manual is written for an experienced technician. Essential tools required in performing certain service work are identified in this manual and are recommended for use.

Live with safety: Read the safety messages in the introduction of this manual and the cautions presented throughout the text of the manual.



**This is the safety-alert symbol. When you see this symbol on the machine or in this manual, be alert to the potential for personal injury.**

Technical manuals are divided in two parts: repair and diagnostics. Repair sections tell how to repair the components. Diagnostic sections help you identify the majority of routine failures quickly.

Information is organized in groups for the various components requiring service instruction. At the beginning of each group are summary listings of all applicable essential tools, service equipment and tools, other materials needed to do the job, service parts kits, specifications, wear tolerances, and torque values.

Binders, binder labels, and tab sets can be ordered by John Deere dealers direct from the John Deere Distribution Service Center.

This manual is part of a total product support program.

## FOS Manuals-reference

### Technical Manuals-machine service

### Component Manuals-component service

*Fundamentals of Service (FOS) Manuals* cover basic theory of operation, fundamentals of troubleshooting, general maintenance, and basic types of failures and their causes. FOS Manuals are for training new personnel and for reference by experienced technicians.

*Technicals Manuals* are concise guides for specific machines. Technical manuals are on-the-job guides containing only the vital information needed for diagnosis, analysis, testing, and repair.

*Component Technical Manuals* are concise service guides for specific components. Component technicals manuals are written as stand-alone manuals covering multiple machine applications.

## **JOHN DEERE DEALERS**

**IMPORTANT: Please remove this page and route through your service department.**

This is a complete revision for TM-1364, 410B/410C and 510B/510C Backhoe Loaders.

TM-1468 (Operation and Test) and TM-1469 (Repair) replace TM-1364.

The new pages are dated (Dec-88). Listed below is a brief explanation of "WHAT" was changed and "WHY" it was changed.

This manual was revised:

1. Update hydraulic cylinder torque-turn specifications.
2. New procedure for repair of axle and integral steering cylinder.
3. Update to include unitized stroke control valve on the 3000 series hydraulic pump.
4. Update repair section to utilize CTM's.
5. Update repair and adjustment procedure of cab windows.
6. Update electrical and hydraulic sections.

# 410B AND 510B BACKHOE LOADER 410C AND 510C BACKHOE LOADER TECHNICAL MANUAL TM-1469 (DEC-88)

## SECTION AND GROUP CONTENTS

*NOTE: This manual covers machine repair. For Operation and Test information, see TM-1468.*

### SECTION I—GENERAL INFORMATION

- Group I—Introduction and Safety Information
- Group II—General Specifications
- Group III—Torque Values
- Group IV—Lubrication
- Group V—Inspection Procedures

### SECTION 01—WHEELS

- Group 0110—Powered Wheels and Fastenings
- Group 0120—Non-Powered Wheels and Fastenings

### SECTION 02—AXLES AND SUSPENSION SYSTEMS

- Group 0230—Non-Powered Wheel Axles
- Group 0250—Axle Shafts, Bearings and Reduction Gears

### SECTION 03—TRANSMISSION

- Group 0300—Removal and Installation
- Group 0315—Controls
- Group 0325—Input Drive Shafts and U-Joints
- Group 0350—Gears, Shafts, Housings, Bearings, Differential Lock, Brake and Park Brake
- Group 0360—Hydraulic System, Control Valve, Suction Screen, Oil Pump, and Lubrication System

### SECTION 04—ENGINE

- Group 0400—Removal and Installation
- Group 0413—Fuel Injection System
- Group 0414—Intake Manifold
- Group 0416—Turbocharger
- Group 0417—Water Pump
- Group 0418—Thermostats, Housing and Water Piping
- Group 0419—Oil Cooler
- Group 0420—Fuel Filter
- Group 0421—Fuel Transfer Pump
- Group 0422—Starting Motor and Fastenings

### SECTION 05—ENGINE AUXILIARY SYSTEMS

- Group 0505—Cold Weather Starting Aids
- Group 0510—Cooling Systems
- Group 0515—Speed Controls
- Group 0520—Intake System
- Group 0560—External Fuel Supply Systems

### SECTION 09—STEERING SYSTEM

- Group 0960—Hydraulic System Steering Valve and Cylinder

### SECTION 10—SERVICE BRAKES

- Group 1011—Active Elements, Brake Disks and Control Linkage
- Group 1060—Hydraulic System Brake Valve

*Continued on next page*

*All information, illustrations and specifications contained in this technical manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.*

COPYRIGHT® 1988  
DEERE & COMPANY  
Moline, Illinois  
All rights reserved  
A John Deere ILLUSTRATION™ Manual

T64;1469 K1 070289

## **SECTION 11—PARK BRAKES**

- Group 1111—Active Elements
- Group 1115—Controls Linkage

## **SECTION 16—ELECTRICAL SYSTEMS**

- Group 1671—Batteries, Support and Cables
- Group 1672—Alternator, Regulator and Charging System Wiring
- Group 1673—Lighting System
- Group 1674—Wiring Harness and Switches
- Group 1675—System Controls
- Group 1676—Instruments, Indicators and Senders
- Group 1677—Motors and Actuators

## **SECTION 17—FRAME, CHASSIS, OR SUPPORTING STRUCTURE**

- Group 1740—Frame Installation
- Group 1749—Chassis Weights

## **SECTION 18—OPERATOR'S STATION**

- Group 1800—Removal and Installation
- Group 1810—Operator Enclosure  
Wiper Motor and Windshield Washer
- Group 1821—Seat and Seat Belt
- Group 1830—Heating and Air Conditioning

## **SECTION 20—SAFETY, CONVENIENCE AND MISCELLANEOUS**

- Group 2004—Horn and Warning Devices

## **SECTION 21—MAIN HYDRAULIC SYSTEM**

- Group 2160—Hydraulic System  
Main Hydraulic Pump, Pump Drive,  
Main Hydraulic Filter, Oil Cooler, Oil  
Cooler Bypass Valve, and System  
Relief Valve

## **SECTION 31—LOADER**

- Group 3100—Removal and Installation
- Group 3102—Buckets
- Group 3115—Controls Linkage
- Group 3140—Frames
- Group 3160—Hydraulic System  
Control Valve and Cylinders

## **SECTION 33—BACKHOE**

- Group 3302—Buckets
- Group 3315—Controls Linkage
- Group 3340—Frames
- Group 3360—Hydraulic System  
Control Valve and Cylinders

Thank you so much for reading.  
Please click the “Buy Now!”  
button below to download the  
complete manual.



After you pay.

You can download the most  
perfect and complete manual in  
the world immediately.

Our support email:

[ebooklibonline@outlook.com](mailto:ebooklibonline@outlook.com)