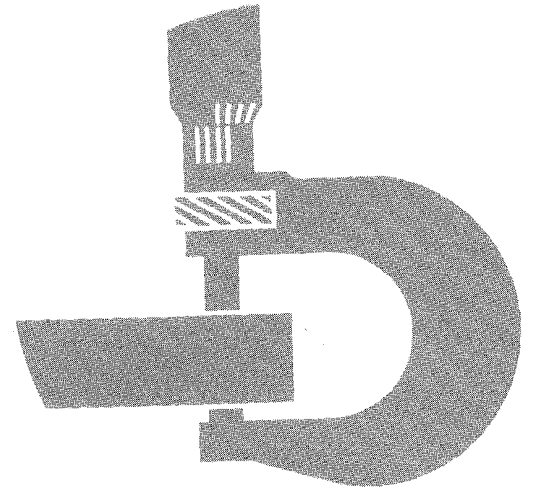


**John Deere  
495D  
Excavator  
Repair**



**TECHNICAL MANUAL**

**TM-1457 (Feb-89)**  
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.

*Technical 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.

# 495D EXCAVATOR TECHNICAL MANUAL TM-1457 (FEB-89)

## SECTION AND GROUP CONTENTS

*NOTE: This manual covers machine repair. For operation and tests information, see TM-1456.*

### SECTION I—GENERAL INFORMATION

- Group I—Safety
- Group II—General Specifications
- Group III—Torque Values
- Group IV—Fuels and Lubricants
- Group V—Inspection Procedures

### SECTION 01—WHEELS

- Group 0110—Powered Wheels and Fastenings

### SECTION 02—AXLES AND SUSPENSION SYSTEMS

- Group 0200—Removal and Installation
- Group 0210—Differential or Bevel Drive
- Group 0225—Input Drive Shafts and U-Joints
- Group 0250—Axle Shafts, Bearings and Reduction Gears
  - Tow Excavator, Hub Reduction,
  - Steering Knuckle, Front and Rear
  - Axle Housings

### SECTION 03—TRANSMISSION

- Group 0300—Removal and Installation
- Group 0350—Gears, Shafts, Bearings, and Power Shift Clutch
  - Transmission, 2WD-4WD
  - Shift Unit, Front Output Housing,
  - Bevel Gear Housing, and Pinion Shaft
- Group 0360—Hydraulic System
  - Travel (Transmission Drive)
  - Motor, Counterbalance Valve, and Rotary Manifold

### SECTION 04—ENGINE

*NOTE: For engine, 4.5L (276 cu in.), repair, see CTM-4.*

- Group 0400—Removal and Installation
  - Engine, Fuel Injection Pump, Fuel Injection Nozzles, Bleed Fuel System, Turbocharger, Fuel Transfer Pump, Water Pump, Intake Manifold, Exhaust Manifold and Engine Oil Cooler

### SECTION 05—ENGINE AUXILIARY SYSTEMS

- Group 0505—Cold Weather Starting Aids
  - Starting Aid Solenoid, Nozzle and Engine Coolant Heater
- Group 0510—Cooling System
  - Fan, Fan Belt and Radiator
- Group 0515—Speed Controls
  - Speed Control Assembly and Linkage
- Group 0520—Intake System
  - Air Cleaner and Air Intake System
  - Leakage Test
- Group 0560—External Fuel Supply System

### SECTION 07—DAMPENER DRIVE (FLEX COUPLING)

- Group 0752—Elements

### SECTION 09—STEERING SYSTEM

- Group 0960—Hydraulic System
  - Steering Valve, Pump, Flow Regulator, Switch Valve, Cylinder, Crossover Relief 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.*

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TX.1457 CC1 170589

## **SECTION 10—SERVICE BRAKES**

- Group 1011—Active Elements
- Group 1060—Hydraulic System

## **SECTION 11—PARK BRAKE**

- Group 1111—Active Elements

## **SECTION 16—ELECTRICAL SYSTEM**

- Group 1671—Batteries, Support and Cables
- Group 1672—Alternator, Regulator and Charging System Wiring
- Group 1674—Wiring Harness and Switches
- Group 1676—Instruments and Indicators
- Group 1677—Motors and Actuators
  - Starting Motor

## **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
  - Cab (Without Floor)
- Group 1810—Operator Enclosure
  - Window Panes, Cab Door and Latch, Door Release Handle, Windshield Washer and Wiper
- Group 1821—Seat
- Group 1830—Heater and Air Conditioning

## **SECTION 19—SHEET METAL AND STYLING**

- Group 1910—Hood or Engine Enclosure

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

- Group 2004—Horn and Warning Devices

## **SECTION 22—PNEUMATIC SYSTEM**

- Group 2261—Pump and Drives
  - Air Compressor, Idle Pulley
- Group 2262—Control Valves
  - Control Valves, Relief Valves
- Group 2264—Reservoir, Filter, and Trap
  - Air Dryer, Air Horn

## **SECTION 32—BULLDOZERS**

- Group 3200—Removal and Installation
- Group 3260—Hydraulic System

## **SECTION 33—EXCAVATOR**

- Group 3302—Buckets
  - Bucket, Linkage, Bushings, Tooth Tip and Tooth Shank
- Group 3340—Frames
  - Arm, Boom and Bushings
- Group 3360—Hydraulic System
  - Hydraulic Pump, Hydraulic Pump Regulator, Rate-of-Shift Valve, Travel Solenoid Valve, Maximum Displacement Valve, Pilot Pump, Pilot Filter, Pilot Shut-Off Valve, Pilot Pressure Regulating Valve and Solenoid Valve, Mode Selection Cylinders, Main Control Valve, System Relief Valves, Flow Sense Valves, Restriction Valve, Stabilizer and Blade Solenoid Valves, Diverter Valves, Shuttle Check Valves, Reservoir, Reservoir Cap, Return Filter and Bypass Valve, Suction Filter, Oil Cooler, Bypass Valve, Cylinders, Travel Pilot Controller, Dig Function Pilot Controller, Auxiliary Pilot Controller, F-N-R Shift Valve, Flow Regulator Valve, Axle Lock Lockout Valve, Stabilizer Lockout Valve and Pressure Reducing Valve

## **SECTION 43—SWING, ROTATION, OR PIVOTING SYSTEM**

- Group 4311—Brakes
- Group 4350—Mechanical Drive Elements
  - Swing Gearbox and Swing Bearing
- Group 4360—Hydraulic System
  - Swing Motor, Crossover Relief Valves, Make-up Valves and Swing Brake Release Valve

## **SECTION 99—DEALER FABRICATED TOOLS**

- Group 9900—Dealer Fabricated Tools

TX,1457 CC2 170589

### **HANDLE FLUIDS SAFELY—AVOID FIRES**

When you work around fuel, do not smoke or work near heaters or other fire hazards.

Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

Make sure machine is clean of trash, grease, and debris.

Do not store oily rags; they can ignite and burn spontaneously.



AB6;TS227 053;FLAME 050188

### **PREVENT BATTERY EXPLOSIONS**

Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.

Never check battery charge by placing a metal object across the posts. Use a volt-meter or hydrometer.

Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).



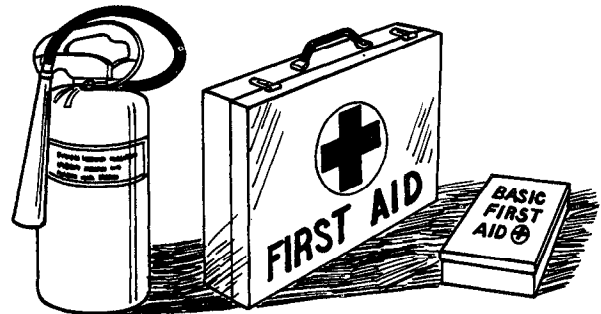
AB6;TS204 053;SPARKS 280688

### **PREPARE FOR EMERGENCIES**

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



AB6;TS186 053;FIRE2 080785

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