# 5440 AND 5460 SELF-PROPELLED HARVESTERS

## Technical Manual

### CONTENTS

<table>
<thead>
<tr>
<th>SECTION 10 - GENERAL</th>
<th>SECTION 30 - FUEL SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 5 - Specifications</td>
<td>Group 5 - General Information</td>
</tr>
<tr>
<td>Group 10 - Predelivery, Delivery, and After-Sale Services</td>
<td>Group 15 - Diagnosing Malfunctions</td>
</tr>
<tr>
<td>Group 15 - Tune-Up</td>
<td>Group 16 - Fuel Injection System</td>
</tr>
<tr>
<td>Group 20 - Lubrication</td>
<td>Group 20 - Air Intake System</td>
</tr>
<tr>
<td>Group 25 - Diagnosing and Testing Procedures</td>
<td>Group 25 - Specifications, Torques, and Special Tools</td>
</tr>
<tr>
<td>Group 30 - Separation</td>
<td></td>
</tr>
<tr>
<td>Group 35 - Torque Values and Special Tools</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECTION 20 - ENGINE</th>
<th>SECTION 40 - ELECTRICAL SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 5 - General Information (6404 OFE Engine)</td>
<td>Group 5 - General Information and Diagrams</td>
</tr>
<tr>
<td>Group 10 - Diagnosing Malfunction (6404A)</td>
<td>Group 10 - Delco-Remy Charging Circuit</td>
</tr>
<tr>
<td>Group 15 - Cylinder Head, Valves, and Camshaft (6404A)</td>
<td>Group 15 - Delco-Remy Starting Circuit</td>
</tr>
<tr>
<td>Group 20 - Cylinder Block, Liners, Pistons, and Rods (6404A)</td>
<td>Group 20 - John Deere Starting Circuit</td>
</tr>
<tr>
<td>Group 25 - Crankshaft Main Bearings, and Flywheel (6404A)</td>
<td>Group 25 - Lighting and Miscellaneous Components</td>
</tr>
<tr>
<td>Group 30 - Lubrication System (6404A)</td>
<td>Group 30 - Specifications and Special Tools</td>
</tr>
<tr>
<td>Group 35 - Cooling System (6404A)</td>
<td></td>
</tr>
<tr>
<td>Group 40 - Specifications, Torques, and Special Tools (6404A)</td>
<td></td>
</tr>
<tr>
<td>Group 45 - General Information (6619A OEM Engine)</td>
<td></td>
</tr>
<tr>
<td>Group 50 - Diagnosing Malfunctions (6619A)</td>
<td></td>
</tr>
<tr>
<td>Group 55 - Cylinder Head, Valves, and Camshaft (6619A)</td>
<td></td>
</tr>
<tr>
<td>Group 60 - Cylinder Block, Liners, Pistons, and Rods (6619A)</td>
<td></td>
</tr>
<tr>
<td>Group 65 - Crankshaft, Main Bearings and Flywheel (6619A)</td>
<td></td>
</tr>
<tr>
<td>Group 70 - Lubrication System (6619A)</td>
<td></td>
</tr>
<tr>
<td>Group 75 - Cooling System (6619A)</td>
<td></td>
</tr>
<tr>
<td>Group 80 - Specifications, Torques, and Special Tools (6619A)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECTION 50 - POWER TRAIN</th>
<th>SECTION 60 - STEERING AND BRAKES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 5 - General Information and Diagrams</td>
<td>Group 5 - Diagnosing Malfunctions</td>
</tr>
<tr>
<td>Group 10 - Hydrostatic Drive</td>
<td>Group 10 - Steering</td>
</tr>
<tr>
<td>Group 15 - Transmission</td>
<td>Group 15 - Brakes</td>
</tr>
<tr>
<td>Group 20 - Differential</td>
<td>Group 20 - Specifications, Torques, and Special Tools</td>
</tr>
<tr>
<td>Group 25 - Final Drive</td>
<td></td>
</tr>
<tr>
<td>Group 30 - Power Rear Wheel Drive</td>
<td></td>
</tr>
<tr>
<td>Group 35 - Specifications, Torques, and Special Tools</td>
<td></td>
</tr>
</tbody>
</table>

---

TM-1177 (Apr-77) Litho in U.S.A.  
Harvesters, Self-Propelled - 5440 and 5460
CONTENTS—Continued

SECTION 70 - HYDRAULIC SYSTEM
Group 5 - General Information and Tests
Group 10 - Diagnosing Malfunctions
Group 15 - Reservoir
Group 20 - Hydraulic Pump
Group 25 - Hydraulic Valves
Group 30 - Hydraulic Cylinders
Group 35 - Reverse Knife Grinder Motor
Group 40 - Breakaway Coupler
Group 45 - Spout Control Motor
Group 50 - Specifications and Torques

SECTION 80 - MACHINE FUNCTIONS
Group 5 - General Information
Group 10 - Diagnosing Malfunctions
Group 15 - Clutch
Group 20 - Main Gear Case
Group 25 - Fan and Spout
Group 30 - Cutterhead, Knife Grinder, and Feed Rolls
Group 35 - Augers
Group 40 - Specifications, Torques, and Special Tools

SECTION 90 - OPERATOR'S CAB
Group 5 - Pressurizer System
Group 10 - Air Conditioning System
Group 15 - Heater System
Group 20 - Specifications, Torques, and Special Tools

SECTION 100 - HARVESTING UNITS
Group 5 - 7-Foot Hay Pickup Unit
Group 10 - Row Crop Unit
Group 15 - Corn Head Attaching Parts
Group 20 - Mower Bar Unit
Group 25 - Specifications and Torques

Copyright© 1974
DEERE & COMPANY
Moline, Illinois
All rights reserved

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.

TM-1177 (Apr-77) Litho in U.S.A.

Harvesters, Self-Propelled - 5440 and 5460
INTRODUCTION

This technical manual is part of a twin concept of service:

- **FOS Manuals**—for reference
- **Technical Manuals**—for actual service

The two kinds of manuals work as a team to give you both the general background and technical details of shop service.

**Fundamentals of Service (FOS) Manuals** cover basic theory of operation, fundamentals of trouble shooting, 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 on-the-job service guides containing only the vital information needed for a specific machine.

When a technician should refer to a FOS Manual for more information, a FOS symbol like the one at the left is used in the TM to identify the reference.

---

Some features of this technical manual:

- **Table of contents at front of manual**
- **Exploded views showing parts relationship**
- **Photos showing service techniques**
- **Specifications grouped for easy reference**

This technical manual was planned and written for you—an experienced mechanic. Keep it in a permanent binder in the shop where it is handy. Refer to it whenever in doubt about correct service procedures or specifications.

Using the technical manual as a guide will reduce error and costly delay. It will also assure you the best in finished service work.

Because John Deere sells its products world-wide, U.S. units of measure are shown with their respective Metric equivalents throughout this operator’s manual. These equivalents are the SI (International System) Units of Measure.

---

*TM-1177 (Apr-77) Litho in U.S.A.*
SAFETY AND YOU

INTRODUCTION

This safety alert symbol identifies important safety messages in this manual and on the harvester. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

Be prepared if an accident or fire should occur. Know where the first aid kit and the fire extinguishers are located—know how to use them.

SERVICE AREA

Keep the service area clean and dry. Wet or oily floors are slippery. Wet spots can be dangerous when working with electrical equipment.

Make sure the service area is adequately vented. Periodically check the shop exhaust system for leakage. Engine exhaust gas is dangerous.

Be sure all electrical outlets and tools are properly grounded.

Use adequate light for the job at hand.

AVOID FIRE HAZARDS

Don’t smoke while refueling or handling highly flammable materials.

Engine should be shut off when refueling.

Use care in refueling if the engine is hot.

Don’t use open pans of gasoline or diesel fuel for cleaning parts. Good commercial, nonflammable solvents are preferred.

Provide adequate ventilation when charging batteries.

Don’t check battery charge by placing metal objects across the posts.

Don’t allow sparks or open flame near batteries.

Don’t smoke near battery.

Never check fuel, battery electrolyte or coolant levels with an open flame.

Never use an open flame to look for leaks anywhere on the equipment.

Never use a open flame as a light anywhere on or around the equipment.

When preparing engine for storage, remember that inhibitor is volatile and therefore dangerous. Seal and tape openings after adding the inhibitor. Keep container tightly closed when not in use.

Harvesters, Self-Propelled - 5440 and 5460