

# **S760, S770, S780, and S790 Combines (Until Serial Number -140099) Repair**



JOHN HARE



COLLECTION

## **REPAIR TECHNICAL MANUAL S760, S770, S780, and S790 Combines (Until Serial Number -140099)**

TM806319 01DEC19 (ENGLISH)



John Deere Horizontina

## 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.



### CAUTION:

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 operation and tests. Repair sections tell how to repair the components.

Operation and tests 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.

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

Fundamental service information is available from other sources covering basic theory of operation, fundamentals of troubleshooting, general maintenance, and basic type of failures and their causes.

DX, TMIFC-19-20140415

## **Section 05 - Safety**

[Group 05 - Safety](#)

## **Section 10 - General**

[Group 05 - Specifications](#)

[Group 10 - Serial Numbers](#)

[Group 15 - Tune - Up and Adjustment](#)

[Group 20 - Fuels, Lubricants, and Coolant](#)

[Group 25 - Engine Lubricants - S760 and S780](#)

[Group 30 - Engine Lubricants - S770 and S790](#)

## **Section 20 - Engine**

[Group 05 - Remove and Install Components](#)

[Group 10 - Cooling System](#)

## **Section 30 - Fuel and Air**

[Group 05 - Air Intake System](#)

[Group 10 - Diesel Fuel System](#)

## **Section 40 - Electrical System**

[Group 05 - Batteries](#)

[Group 10 - Harness and Connector Repair](#)

[Group 20 - Control Units and Power Distribution](#)

[Group 25 - Lighting](#)

[Group 30 - Operator `s Station](#)

[Group 35 - Sensors and Switches](#)

[Group 40 - Wiper](#)

[Group 45 - Alternator](#)

[Group 50 - Starting Motor](#)

[Group 55 - GreenStar™ Components](#)

## **Section 50 - Power Train**

[Group 05 - Transmission and Differential - Three Speed](#)

[Transmission](#)

[Group 10 - Hydrostatic System - Three Speed](#)

[Transmission](#)

[Group 15 - Transmission and Differential - Two - Range](#)

[Automatic Transmission](#)

[Group 20 - Hydrostatic Drive Pump - Two - Range](#)

[Automatic Transmission](#)

[Group 25 - Hydrostatic Drive Motor - Two - Range](#)

[Automatic Transmission](#)

[Group 30 - Single Reduction Final Drive](#)

[Group 35 - Cam Lobe Motor](#)

[Group 40 - Tires and Wheels](#)

## **Section 60 - Steering and Brakes**

[Group 05 - Steering](#)

[Group 10 - Brakes](#)

[Group 15 - Brakes - Two - Range Automatic](#)

[Transmission](#)

## **Section 70 - Hydraulic System**

[Group 05 - Hydraulic Reservoir](#)

[Group 10 - Hydraulic Motors and Pumps](#)

[Group 15 - Hydraulic Valves](#)

[Group 20 - Hydraulic Cylinders](#)

[Group 25 - Accumulators](#)

## **Section 80 - Separator Shell**

[Group 05 - Gull Wing Doors](#)

[Group 10 - Fiberglass Repair](#)

## **Section 90 - Operator Station**

[Group 05 - Air Conditioner System \(R - 134a\)](#)

[Group 10 - System Components](#)

[Group 15 - Cab](#)

## **Section 110 - Feeder House**

[Group 05 - Conveyor](#)

[Group 10 - Top Shaft and Slip Clutch](#)

[Group 15 - Feeder House Drives and Reverser Gear](#)

[Case](#)

[Group 20 - Fore/Aft and Lateral Tilt Frame](#)

[Group 25 - Five Speed Feeder House Drive Gear](#)

[Case](#)

## **Section 120 - Separator**

[Group 05 - Separator Repair](#)

[Group 10 - Separator Drives](#)

[Group 15 - Residue Disposal](#)

[Group 20 - Conveyor Augers, Cleaning Fan and Chaffer](#)

[and Sieve Frame](#)

[Group 25 - Tailings Elevator and Augers](#)

[Group 30 - Primary Countershaft Gear Case](#)

[Group 35 - Header Electromagnetic Clutch](#)

## **Section 130 - Grain Tank and Unloading System**

[Group 05 - Grain Tank Cross Augers](#)

[Group 10 - Unloading Auger System Drives](#)

[Group 15 - Vertical Unloading Auger and Lower Gear](#)

[Case](#)

[Group 20 - Horizontal Unloading Auger and Gear](#)

[Case](#)

[Group 25 - Clean Grain Elevator](#)

[Group 30 - Grain Tank and Extensions](#)

## **Section 140 - Engine Gear Case and Control Valve**

[Group 05 - Engine Gear Case and Valve](#)

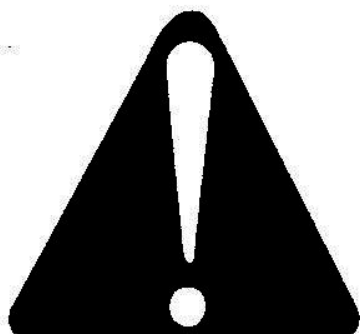
## **Section 199 - Dealer Fabricated Tools**

[Group 05 - Dealer Fabricated Tools](#)

## Contents

	Page		Page
<b>Group 05 - Safety</b>		<a href="#">Work In Ventilated Area</a>	05-05-7
<a href="#">Recognize Safety Information</a>	05-05-1	<a href="#">Illuminate Work Area Safely</a>	05-05-7
<a href="#">Follow Safety Instructions</a>	05-05-1	<a href="#">Replace Safety Signs</a>	05-05-7
<a href="#">Service Tires Safely</a>	05-05-2	<a href="#">Use Proper Lifting Equipment</a>	05-05-8
<a href="#">Understand Signal Words</a>	05-05-2	<a href="#">Avoid Harmful Asbestos Dust</a>	05-05-8
<a href="#">Remove Paint Before Welding or Heating</a>	05-05-2	<a href="#">Work in Clean Area</a>	05-05-8
<a href="#">Handle Fluids Safely - Avoid Fires</a>	05-05-3	<a href="#">Practice Safe Maintenance</a>	05-05-9
<a href="#">Prevent Battery Explosions</a>	05-05-3	<a href="#">Use Proper Tools</a>	05-05-9
<a href="#">Handling Batteries Safely</a>	05-05-3	<a href="#">Construct Dealer - Made Tools Safely</a>	05-05-9
<a href="#">Prepare for Emergencies</a>	05-05-4	<a href="#">Avoid Heating Near Pressurized Fluid Lines</a>	05-05-10
<a href="#">In Case of Fire</a>	05-05-4	<a href="#">Decommissioning - Proper Recycling and Disposal of Fluids and Components</a>	05-05-10
<a href="#">Prevent Acid Burns</a>	05-05-5	<a href="#">Use Adequate Service Facilities</a>	05-05-10
<a href="#">Avoid High - Pressure Fluids</a>	05-05-5	<a href="#">Live With Safety</a>	05-05-11
<a href="#">Service Accumulator Systems Safely</a>	05-05-5	<a href="#">Servicing Electronic Control Units</a>	05-05-11
<a href="#">Wait Before Opening High - Pressure Fuel System</a>	05-05-6	<a href="#">Welding Near Electronic Control Units</a>	05-05-11
<a href="#">Park Machine Safely</a>	05-05-6	<a href="#">Precautions for Welding</a>	05-05-11
<a href="#">Support Machine Properly</a>	05-05-6	<a href="#">Keep Electronic Control Unit Connectors Clean</a>	05-05-12
<a href="#">Wear Protective Clothing</a>	05-05-6	<a href="#">Clean Exhaust Filter Safely</a>	05-05-12
<a href="#">Service Machines Safely</a>	05-05-7	<a href="#">Avoid Static Electricity Risk When Refueling</a>	05-05-13

## Recognize Safety Information



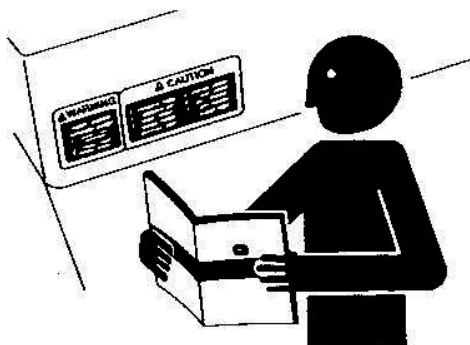
T81389-UN: Safety-alert symbol

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

Follow recommended precautions and safe operating practices.

DX,ALERT-19-19980929

## Follow Safety Instructions



TS201-UN: Safety Messages

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

There can be additional safety information contained on parts and components sourced from suppliers that is not reproduced in this operator's manual.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.

DX,READ-19-20090616



Thank you very much  
for your reading.  
Please click here  
to get more information.