

John Deere Agriculture

**6010, 6110, 6210, 6310, 6410, 6510, 6610 and
SE Tractors**

REPAIR MANUAL

**6210, 6410, 6510, 6610, 6010, 6110, 6310,
SE6510, SE6610, SE6010, SE6110, SE6310,
SE6410**



tm4559, February 2010



Table of contents

FOREWORD

Section 05 - SAFETY

Group 05 - Safety Measures

Section 10 - GENERAL INFORMATION

Group 05 - Specifications

Group 10 - Tune-Up

Group 15 - Predelivery Inspection

Section 20 - ENGINE

Group 00 - Engine Removal and Installation

Section 30 - FUEL, AIR INTAKE, COOLING AND EXHAUST SYSTEMS

Group 05 - Speed Control Linkage

Group 10 - Fuel System

Group 15 - Air Intake System

Group 20 - Cooling System

Group 25 - Cold-Weather Starting Aids

Group 30 - Exhaust System

Section 40 - ELECTRICAL SYSTEM

Group 05 - Connectors

Group 10 - Wiring Harnesses

Group 15 - Charging Circuit

Group 20 - Starting Motor Circuit

Group 25 - Fuses, Relays and Switches

Group 30 - Monitoring Systems

Group 40 - Electrical Components

Section 50 - SYNCROPLUS TRANSMISSION

Group 00 - Removal and Installation of Transmission Components

Group 05 - Transmission Shift Controls

Group 10 - Perma Clutch II

Group 15 - Gear Transmission

Section 51 - POWER REVERSER

Group 00 - Removal and Installation of Power Reverser Module

Group 05 - Transmission Shift Controls

Group 10 - Power Reverser Module

Group 15 - Gear Transmission

Section 53 - AUTOPOWR TRANSMISSION

Group 00 - Removing and Installing the AutoPowr Transmission

Group 05 - Transmission Shift Controls

Group 10 - Input Housing

Group 15 - Output Housing

Group 20 - Assembling the Differential Drive Shaft

Section 55 - POWRQUAD, POWRQUAD PLUS AND AUTOQUAD TRANSMISSIONS

Group 00 - Removal and Installation of PowrQuad Module

Group 05 - Transmission Shift Controls

Group 10 - PowrQuad Module

Group 15 - Creeper Transmission

Group 20 - Option Transmission

Group 25 - Range Transmission

Section 56 - DRIVE SYSTEMS

- Group 00 - Removal and Installation of Components
- Group 05 - U-Jointed Shafts and Torsion Damper
- Group 10 - Front-Wheel Drive Clutch
- Group 15 - Differential
- Group 20 - Hydraulic Pump Drive
- Group 25 - Final Drives
- Group 30 - Rear PTO Options
- Group 35 - Front PTO
- Group 40 - Front Implement Drive

Section 60 - STEERING AND BRAKES

- Group 05 - Hydrostatic Steering
- Group 10 - Steering Cylinders
- Group 15A - Brake Valve (Non-Power Brakes)
- Group 15B - Brake Valve (Power Fill Brakes)
- Group 15C - Brake Valve (with MFWD and Disk Brake)
- Group 20 - Rear Brakes
- Group 25 - Handbrake
- Group 30 - Hydraulic Trailer Brake
- Group 35 - Air Brakes

Section 70 - HYDRAULIC SYSTEM

- Group 05 - Controls
- Group 10 - Hydraulic Pump and Charge Pump (PFC Hydraulic System)
- Group 11 - Hydraulic Pump (PC Hydraulic System)
- Group 15 - Valves
- Group 16 - Valves on PC Hydraulic System
- Group 20 - Rockshaft and Rockshaft Cylinder
- Group 25 - Three-Point Hitch
- Group 30 - Selective Control Valves and Couplers
- Group 35 - Independent Control Valve

Section 80 - MISCELLANEOUS

- Group 00 - Removal and Installation of Components
- Group 05 - Main Frame
- Group 10 - Front Axle
- Group 15 - Front and Rear Wheels
- Group 20 - Trailer Hitch and Swinging Drawbar
- Group 25 - Triple Link Suspension (TLS) of FWD Axle
- Group 30 - Pick-Up Hitch

Section 90 - OPERATOR'S CAB AND 2-POST ROPS

- Group 00 - Tilting, Removing and Installing the Operator's Cab
- Group 01 - Tilting, Removing and Installing the Operator's Cab (SE Tractors)
- Group 02 - Removing and Installing the Open Operator's Station
- Group 05 - Controls and Instruments
- Group 10 - Electronic Hitch Control Components
- Group 15 - Air Conditioning System
- Group 20 - Heating System (6010 to 6610)
- Group 21 - Heating System (SE 6010 to SE 6610)
- Group 25 - Operator's Cab
- Group 30 - Seats
- Group 35 - Radio

Section 99 - SPECIAL TOOLS (DEALER-FABRICATED)

Group 05 - Special Tools (Dealer-Fabricated)



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