John Deere Agriculture

5103, 5203, 5303, 5403, 5045, 5055, 5065 And 5075 USA, Mexico and Australia Tractors; 5103, 5203, 5303 And 5403 Australia Tractors; 5303 And 5403 Latin America Tractors; 5204 And 5303 Mexico Tractors

TECHNICAL MANUAL

Models 5303, 5103, 5203, 5204, 5403



TM900019, September 2013



Table of contents

FOREWORD

Section 10 - GENERAL INFORMATION

- Group 05 Safety
- Group 10 General Specifications
- Group 15 Fuel and Lubricants
- Group 20 Serial Number Locations
- Group 25 Features and Accessories

Section 20 - ENGINE REPAIR

- Group 05 Engine
- Group 10 Cylinder Head and Valves
- Group 15 Cyl. Block, Liners, Pistons & Rods
- Group 20 Crankshaft, Main Bearings and Flywheel
- Group 25 Camshaft and Timing Gear Train
- Group 30 Lubrication System
- Group 35 Cooling System

Section 30 - FUEL AND AIR REPAIR

- Group 05 Fuel System
- Group 10 Air Intake and Exhaust System
- Group 15 Speed Control Linkage

Section 40 - ELECTRICAL REPAIR

- Group 05 Battery, Starter and Alternator
- Group 10 Electrical System Components
- Group 15 Wiring Harness

Section 50 - POWER TRAIN REPAIR

- Group 05 Clutch Housing
- Group 10 Clutch Assembly
- Group 15 'S' Transmission
- Group 20 'AA' Transmission
- Group 21 Rear PTO ('S' Transmission)
- Group 25 Rear PTO ('AA' Transmission)
- Group 26 Differential
- Group 30 Final Drives
- Group 35 Mechanical Front Wheel Drive

Section 60 - STEERING AND BRAKE REPAIR

- Group 05 Steering Repair
- Group 10 Brake Repair ('S' Transmission)
- Group 15 Brake Repair ('AA' Transmission)

Section 70 - HYDRAULIC REPAIR

- Group 05 Hydraulic Pump and Filter
- Group 10 MITA Rockshaft
- Group 15 JD Rockshaft
- Group 20 MITA Selective Control Valve (SCV)
- Group 25 EATON Selective Control Valve (SCV)
- Group 30 Mid Mount Selective Control Valve (SCV)

Section 80 - MISCELLANEOUS REPAIR

- Group 05 Front Axle 2WD
- Group 10 Wheels
- Group 15 3-Point Hitch
- Group 25 Hood

Section 90 - OPERATOR STATION REPAIR

- Group 05 Seat and Support
- Group 06 Center Console
- Group 10 Roll-GardRoll-Gard is a trademark of Deere & Company
- Group 15 Operator Platform
- Group 20 Fenders
- Group 25 Canopy (If Equipped)

Section 210 - OPERATIONAL CHECKOUT PROCEDURES

Group 10 - Operational Checkout Procedures

Section 220 - ENGINE OPERATION, TESTS AND ADJUSTMENTS

- Group 05 Component Location
- Group 10 Theory of Operation
- Group 15 Diagnosis, Tests and Adjustments

Section 230 - FUEL/AIR OPERATION, TEST AND ADJUSTMENTS

- Group 05 Component Location
- Group 10 Theory of Operation
- Group 15 Diagnosis, Tests and Adjustments

Section 240 - ELECTRICAL SYSTEM OPERATION, TESTS & ADJUST

- Group 05 Component Location
- Group 10 Theory of Operation—Latin America, Mexico, USA and Australia (5103, 5203,
 - 5303, 5403) Tractors
- Group 15 Theory of Operation—USA and Australia Tractors
- Group 20 Diagnosis, Test and Adjust—Latin America, Mexico (5303), USA and Australia (5103, 5203, 5303, 5403) Tractors
- Group 25 Diagnosis, Test and Adjust—USA and Australia Tractors
- Group 30 Diagnosis, Test and Adjust (Mexico 5204 Tractors)
- Group 35 Wiring Schematics—Latin America, Mexico (5303), USA and Australia (5103, 5203, 5303, 5403) Tractors
- Group 40 Wiring Schematics—For USA and Australia Tractors
- Group 45 Wiring Schematics (Mexico 5204 Tractors)
- Group 50 Component Information—Connectors(For USA and Australia Tractors)

Section 250 - POWER TRAIN OPERATION, TESTS AND ADJUSTMENTS

- Group 05 Component Location—Transmission
- Group 10 Theory of Operation—Transmission
- Group 15 Diagnosis, Tests, and Adjustments-Transmission

Section 260 - STEERING AND BRAKE OPERATION, TEST & ADJUSTMENTS

- Group 05 Component Location
- Group 10 Theory of Operation
- Group 15 Diagnosis, Tests and Adjustments

Section 270 - HYDRAULIC SYSTEM OPERATION, TEST AND ADJUSTMENTS

- Group 05 Component Location
- Group 10 Theory of Operation
- Group 15 Diagnosis
- Group 20 Hydraulic Tests Without SCV
- Group 25 Hydraulic Tests—With SCV
- Group 18 Hydraulic Tests—With Mid Mount Control Valve
- Group 30 Hydraulic Tests All
- Group 40 Adjustments
- Group 45 Hydraulic Schematics



GENERAL INFORMATION (g) by Belgreen

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.

A 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.



Thank you very much for your reading.

Please click here to get more information.