

5425, 5425 Narrow, 5425 Orchard, 5425 HC, 5625, 5625 HC, 5725, 5725 Narrow, 5725 Orchard and 5725 HC Tractors



DIAGNOSTIC TECHNICAL MANUAL 5025 Series Tractors — Operation and Test

TM6033 04OCT12 (ENGLISH)

For complete service information also see:

5025 Series Tractor Repair	TM6032
Component Technical Manual 4045 Engine 4.5 L	CTM104
Component Technical Manual 4045 Mechanical Fuel System	CTM207
Alternators and Starting Motors	CTM77
Component Technical Manual Front-Wheel Drive (Carraro)	CTM4870
Component Technical Manual Front-Wheel Drive (Dana)	CTM4820
Component Technical Manual Transmission (PY021, PY00736).....	CTM8134
Component Technical Manual Transmission (PY008, PY00735).....	CTM8135
Component Technical Manual Transmissions (PY00970, PY00992, PY00321).....	CTM900419
PowrReverser™ Transmission John Deere™ Sanaswadi Factory (Serial Number PYXXXXXXXXXX)	CTM900519
Augusta 5E 4cyl Diagnostic Technical Manual..	TM112419

Industrias John Deere S.A. de C.V.
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 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 -19-29SEP98-1/1

Preview Only

Contents

Section 210—General

- Group 05—Safety
- Group 10—General Specifications
- Group 15—General References

Section 211—DIAGNOSTIC TROUBLE CODES

- Group CCU—CCU Code Diagnostics (If Equipped)
- Group HCU—HCU Code Diagnostics (If Equipped)
- Group PTR—PTR Code Diagnostics (If Equipped)

Section 211A—DIAGNOSTIC TROUBLE CODES (Cab, August 2012, Serial Number: 025651—)

- Group EHC—Control Unit Code Diagnostics (Cab, August 2012, Serial Number: 025651—)

Section 211B—DIAGNOSTIC TROUBLE CODES (OOS, August 2012, Serial Number: 025651—)

- Group EHC—Control Unit Code Diagnostics (OOS, August 2012, Serial Number: 025651—)
- Group ICC—ICC Code Diagnostics (OOS, August 2012, Serial Number: 025651—)

Section 212—OBSERVABLE SYMPTOMS

- Group 20—Engines
- Group 30—Fuel and Air
- Group 40—Electrical
- Group 45—Control Units
- Group 51—COLLARSHIFT and SYNC SHUTTLE Transmissions
- Group 55—PowrReverser Transmissions
- Group 56—Drive Systems
- Group 60—Steering and Brakes
- Group 70—Hydraulics
- Group 90—Operator Cab

Section 213—SYSTEM DIAGNOSIS

- Group 40—Starting, Charging and Start Aid
- Group 51—COLLARSHIFT and SYNC SHUTTLE Transmission
- Group 55—PowrReverser Transmission (If Equipped)
- Group 56A—Differential Lock
- Group 56B—MFWD
- Group 56C—Rear PTO
- Group 60A—Steering
- Group 60B—Rear Brakes

- Group 70A—SCV System Diagnosis
- Group 70C—Rear Hitch System Diagnosis

Section 220—ENGINES

- Group 05—General Information
- Group 15—Tests and Adjustments
- Group 20—Engine System Theory of Operation

Section 230—FUEL AND AIR

- Group 05—General Information
- Group 20—Fuel and Air Theory of Operation

Section 240—ELECTRICAL

- Group 15—Diagnosis, Test and Adjust
- Group 20—Wiring Schematics

Section 240A—ELECTRICAL (Cab, August 2012, Serial Number: 025651—)

- Group 15—Diagnosis, Test and Adjust (Cab, August 2012, Serial Number: 025651—)
- Group 20—Wiring Schematics (Cab, August 2012, Serial Number: 025651—)

Section 240B—ELECTRICAL (OOS, August 2012, Serial Number: 025651—)

- Group 15—Diagnosis, Test and Adjust (OOS, August 2012, Serial Number: 025651—)
- Group 20—Wiring Schematics (OOS, August 2012, Serial Number: 025651—)

Section 245—CONTROL UNITS

- Group 05—General References
- Group 15—Tests and Adjustments
- Group CCU—CCU (If Equipped)
- Group HCU—HCU (If Equipped)
- Group PTR—PTR (If Equipped)

Section 245A—CONTROL UNITS (Cab, August 2012, Serial Number: 025651—)

- Group 05—General References (Cab, August 2012, Serial Number: 025651—)
- Group 15—Tests and Adjustments (Cab, August 2012, Serial Number: 025651—)
- Group EHC—CCU and PTR Control Units (Cab, August 2012, Serial Number: 025651—)

Continued on next page

Original Instructions. All information, illustrations and specifications in this 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.

COPYRIGHT © 2012
DEERE & COMPANY
Moline, Illinois
All rights reserved.
A John Deere ILLUSTRATION © Manual
Previous Editions
Copyright © 2010

**Section 245B—CONTROL UNITS (OOS,
August 2012, Serial Number:
025651—)**

- Group 05—General References (OOS, August 2012,
Serial Number: 025651—)
- Group 15—Tests and Adjustments (OOS, August 2012,
Serial Number: 025651—)
- Group CCU—CCU (OOS, August 2012, Serial Number:
025651—)
- Group ICC—ICC (OOS, August 2012, Serial Number:
025651—)
- Group PTR—PTR (OOS, August 2012, Serial Number:
025651—)

**Section 251—COLLARSHIFT AND SYNC-
SHUTTLE™ Transmissions**

- Group 15—Tests and Adjustments
- Group 20—Theory of Operation
- Group 25—Schematics and Diagrams

**Section 255—PowrReverser™ TRANSMIS-
SION (IF EQUIPPED)**

- Group 05—General Information
- Group 10—Preliminary and Operational Checks
- Group 15—Tests and Adjustments
- Group 20—Theory of Operation
- Group 25—Schematics and Diagrams

Section 256—DRIVE SYSTEMS

- Group 10—Preliminary and Operational Checks
- Group 15—Tests and Adjustments
- Group 20—Theory of Operation
- Group 25—Schematics and Diagrams

Section 260—STEERING AND BRAKES

- Group 05—General Information
- Group 10—Preliminary and Operational Checks
- Group 15—Test and Adjustments
- Group 20—Theory of Operation

Section 270—HYDRAULICS

- Group 05—General Information
- Group 10—Preliminary and Operational Checks
- Group 15—Tests and Adjustments
- Group 20—Theory of Operation
- Group 25—Schematics and Diagrams

Section 290—Operator's Cab

- Group 10—Operational Tests
- Group 15—Tests and Adjustments
- Group 20—Theory of Operation

Section 299—SERVICE TOOLS

- Group 05—Dealer Fabricated Tools
- Group 10—Service Tools and Kits

Section 210 General

Contents

	Page		Page
Group 05—Safety			
Recognize Safety Information	210-05-1	Service Front-Wheel Drive Tractor Safely.....	210-05-17
Understand Signal Words.....	210-05-1	Tightening Wheel Retaining Bolts/Nuts	210-05-18
Follow Safety Instructions.....	210-05-1	Avoid High-Pressure Fluids	210-05-18
Prepare for Emergencies.....	210-05-2	Do Not Open High-Pressure Fuel System.....	210-05-18
Wear Protective Clothing.....	210-05-2	Store Attachments Safely.....	210-05-19
Protect Against Noise.....	210-05-2	Dispose of Waste Properly	210-05-19
Handle Fuel Safely—Avoid Fires.....	210-05-3	Group 10—General Specifications	
Handle Starting Fluid Safely	210-05-3	General Specifications.....	210-10-1
Keep ROPS Installed Properly	210-05-3	Group 15—General References	
Use Foldable ROPS and Seat Belt Properly	210-05-4	Bolt and Cap Screw Torque Values	210-15-1
Stay Clear of Rotating Drivelines.....	210-05-4	Glossary of Terms.....	210-15-3
Use Steps and Handholds Correctly	210-05-5	JIC Hydraulic Symbols	210-15-5
Read Operator Manuals for ISOBUS Implements	210-05-5	Wiring Diagram and Schematic Information.....	210-15-7
Use Seat Belt Properly	210-05-5	Electrical Schematic Symbols	210-15-8
Operating the Tractor Safely	210-05-6	Reading Wiring Schematics and Diagrams	210-15-11
Limited Use in Forestry Operation.....	210-05-7	Visually Inspect Electrical System.....	210-15-14
Operating the Loader Tractor Safely.....	210-05-7	Seven-Step Electrical Procedure.....	210-15-15
Keep Riders Off Machine	210-05-7	Using a Probe Light.....	210-15-17
Instructional Seat.....	210-05-8	Circuit Types.....	210-15-18
Use Safety Lights and Devices.....	210-05-8	Circuit Malfunctions	210-15-20
Use a Safety Chain.....	210-05-8	Troubleshooting Circuit Malfunctions	210-15-23
Transport Towed Equipment at Safe Speeds	210-05-9	Understanding Electrical vs. Electronic Circuits.....	210-15-27
Use Caution On Slopes and Uneven Terrain	210-05-9	Intermittent Electronic Problems.....	210-15-29
Freeing a Mired Machine.....	210-05-10	Relay Circuit Types.....	210-15-32
Avoid Contact with Agricultural Chemicals.....	210-05-10	Using a Digital Multimeter.....	210-15-45
Handle Agricultural Chemicals Safely.....	210-05-11	Troubleshooting Unresolved Problems	210-15-46
Handling Batteries Safely	210-05-12		
Avoid Heating Near Pressurized Fluid Lines	210-05-12		
Remove Paint Before Welding or Heating	210-05-13		
Handle Electronic Components and Brackets Safely.....	210-05-13		
Practice Safe Maintenance.....	210-05-14		
Exhaust Filter Cleaning	210-05-14		
Work In Ventilated Area.....	210-05-15		
Support Machine Properly	210-05-15		
Prevent Machine Runaway.....	210-05-15		
Park Machine Safely.....	210-05-16		
Transport Tractor Safely	210-05-16		
Service Cooling System Safely	210-05-16		
Service Accumulator Systems Safely.....	210-05-17		
Service Tires Safely.....	210-05-17		