

# 7610, 7710 and 7810 Tractors Operation and Test

## DIAGNOSIS AND TESTS MANUAL

2WD or MFWD models 7610, 7710; 2WD or MFWD - PIN prefix RW - USA  
models 7810

TM2030 22APR10 (ENGLISH)

For complete service information also see:

7610 7710 and 7810 Tractors Repair	TM1651
PowerTech 8.1 L Diesel Engines Base Engine	CTM86
Alternators and Starting Motors	CTM77
OEM Engine Accessories	CTM67
MFWD Axles 1100 and 1150 Series.	CTM44
PowerTech 8.1L Diesel Engines Electronic Fuel System With De Pressure Common Rail	
PowerTech 8.1 L Diesel Engines Mechanical Fuel Systems	CTM243
PowerTech 4.5L and 6.8L Diesel Engines Mechanical Fuel Systems	CTM207
PowerTech 6.8L and 8.1L, 6068 and 6081 Diesel Engines (Level 3 Electronic Fuel Systems with Bosch In-Line Pump)	CTM134
PowerTech 4.5L & 6.8L Diesel Engines Tier 1/Stage I, Tier 2/Stage II, Tier 3/Stage IIIA, Tier 3/Stage IIA Tier 3/Stage III, (Base Engine)	CTM104

PDF



DOWNLOAD



## Table of contents

### **FOREWORD**

#### **Section 210 - GENERAL**

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

#### **Section 211 - SERVICE CODE DIAGNOSTICS**

- Group APC - APC Code Diagnostics
- Group CCU - CCU Code Diagnostics
- Group ECU - ECU Code Diagnostics
- Group HCU - HCU Code Diagnostics
- Group JdL - JdL Code Diagnostics
- Group LHP - LHP Code Diagnostics
- Group PCU - PCU Code Diagnostics
- Group PEC - PEC Code Diagnostics
- Group RCU - rcu Code Diagnostics
- Group SFA - SFA Codes Diagnostics
- Group UIC - UIC Code Diagnostics

#### **Section 212 - OBSERVABLE SYMPTOMS**

- Group 05 - Axles
- Group 10 - Brakes
- Group 13 - Control Units
- Group 15 - Electrical
- Group 18 - Engine
- Group 20 - Hitch
- Group 25 - Heating, Ventilation, and Air Conditioning
- Group 30 - Operators Station
- Group 40 - Power Take-Off
- Group 45 - Selective Control Valves
- Group 46B - JdLink
- Group 50 - Steering
- Group 51 - AutoPowr / IVT Transmission
- Group 55 - Powershift Transmission
- Group 56 - PowerQuad Transmission
- Group 57 - AutoQuad II Transmission
- Group 70 - Hydraulics

#### **Section 213 - COMPLETE SYSTEM DIAGNOSTICS**

- Group 40A - North American Lighting
- Group 40B - European Lighting
- Group 50 - Power Shift Transmission
- Group 51 - AutoPowr / IVT Transmission
- Group 54 - Autoquad II Transmission Autoquad II Is A Trademark Of Deere & Company.
- Group 55 - PowrQuad Transmission
- Group 56 - Drive Systems
- Group 56A - Differential Lock
- Group 56B - MFWD
- Group 56C - Front PTO
- Group 56D - Rear PTO
- Group 56E - SFA
- Group 60A - Brakes
- Group 60B - Steering
- Group 70 - Hydraulic System
- Group 90 - Air Conditioning System Diagnosis

**Section 220 - ENGINES**

- Group 05 - General Information
- Group 10 - Operational Checks
- Group 15 - Test And References
- Group 20 - Engine System Theory of Operation
- Group 25 - Schematics and Diagrams

**Section 230 - FUEL AND AIR**

- Group 15 - Tests and References
- Group 20 - Fuel/Air/Cooling System Theory of Operation

**Section 240 - ELECTRICAL**

- Group 05 - General Information
- Group 15 - Tests and Adjustments
- Group 20 - Theory of Operation
- Group 25 - Functional Schematics
- Group 35 - Sub-System Diagnostic Schematics

**Section 245 - CONTROL UNITS**

- Group 05 - Codes And Addresses
- Group APC - APC References
- Group CCU - CCU References
- Group ECU - ECU References
- Group HCU - HCU References
- Group LHP - LHP References
- Group PCU - PCU References
- Group PEC - PEC References
- Group RCU - rcu References
- Group SFA - SFA References
- Group UIC - UIC References

**Section 246B - AG MANAGEMENT SOLUTIONS (AMS)—JDLINK**

- Group 10A - Accessing Diagnostic Addresses and Codes
- Group 10B - Diagnostic Trouble Codes
- Group 10C - Diagnostic Addresses
- Group 15A - JDLINK™ Machine Messenger Diagnostics

**Section 250 - POWERSHIFT TRANSMISSION**

- Group 05 - General References
- Group 10 - Operational Checks
- Group 15 - Test And Procedure References
- Group 20 - POWERSHIFT THEORY OF OPERATION
- Group 25 - SCHEMATICS DIAGRAMS AND COMPONENT LOCATIONS

**Section 251 - AUTOPOWR / IVT/IVT IS A TRADEMARK OF DEERE & COMPANY TRANSMISSION**

- Group 05 - General References
- Group 10 - Operational Checks
- Group 15 - Test And Procedure References
- Group 20 - AutoPowr / IVT Theory of Operation
- Group 25 - Schematics Diagrams And Component Locations

**Section 254 - AUTOQUAD II TRANSMISSION**

- Group 05 - General References
- Group 10 - Operational And Preliminary Checks
- Group 15 - Test And Adjustments
- Group 20 - AutoQuad Theory Of Operation
- Group 25 - SCHEMATICS DIAGRAMS AND COMPONENT LOCATIONS

**Section 255 - POWRQUAD TRANSMISSION**

- Group 05 - General References
- Group 10 - Operational Checks

- Group 15 - Test And Adjustments
- Group 20 - PowrQuad Theory Of Operation
- Group 25 - SCHEMATICS DIAGRAMS AND COMPONENT LOCATIONS

**Section 256 - DRIVE SYSTEMS**

- Group 10 - OPERATIONAL CHECKS
- Group 15 - TEST REFERENCES
- Group 20 - Theory Of Operation
- Group 25 - SCHEMATICS DIAGRAMS AND COMPONENT LOCATIONS

**Section 260 - STEERING AND BRAKES**

- Group 15 - Tests and Adjustments
- Group 20 - STEERING AND BRAKES THEORY OF OPERATION
- Group 25 - SCHEMATICS DIAGRAMS AND COMPONENT LOCATIONS

**Section 270 - HYDRAULICS**

- Group 05 - GENERAL REFERENCES
- Group 10 - OPERATIONAL AND PRELIMINARY CHECKS
- Group 15 - TEST AND PROCEDURE REFERENCES
- Group 20 - HYDRAULIC SYSTEM THEORY OF OPERATION
- Group 25 - SCHEMATICS DIAGRAMS AND COMPONENT LOCATIONS

**Section 290 - OPERATOR STATION**

- Group 10 - Operational Checks
- Group 15 - Air Conditioning System References
- Group 20 - Theory of Operation
- Group 25 - Schematics, Diagrams and Component Locations

**Section 299 - SERVICE TOOLS**

- Group 05 - Dealer Fabricated Tools
- Group 10 - Service Test Kit Listing





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