

John Deere 643L-II Wheeled Feller Buncher Operation & Test Technical Manual (TM14331X19)

643L-II Wheeled Feller Buncher Diagnostic

PIN: 1DW643L___C690815—

PIN: 1DW643L___D690815—



JOHN HARE



COLLECTION

OPERATION & TEST TECHNICAL MANUAL

643L-II Wheeled Feller Buncher

(PIN: 1DW643L___C690815—, PIN: 1DW643L___D690815—)

TM14331X19 30NOV19 (ENGLISH)

For complete service information also see:

PowerTech 4345, 6368 Diesel Engine Level 14 Electronic Fuel System with the Denso High Pressure Common Rail (H-PCR) Level 14 ECU.....	dm320
PowerTech 4.5L & 5.8L Diesel Engines Tier 1 2/Stage I, for 3/Stage I/A, (Base Engine).....	
TeamVate IV 1400 Series II.....	
JDLink™ 2G / 3G MTG Technical Vario.....	
JDLink™ (M-3) 43 LITE Technical Vario.....	
18000 Series HMD Transmission.....	
643L-II Wheeled Feller Buncher Repair.....	dm2X15
Hydraulic Cylinders.....	dm120512



Worldwide Construction and
Forestry Division

Type: Service Manual

Language: English

Pages: 717

Format: PDF

Features: Bookmarked, searchable, printable

Compatibility: Windows/Mac/Tablet/Mobile

This service manual contains important information for the maintenance, troubleshooting and servicing of the **John Deere 643L-II Wheeled Feller Buncher Operation & Test Technical Manual (TM14331X19)**

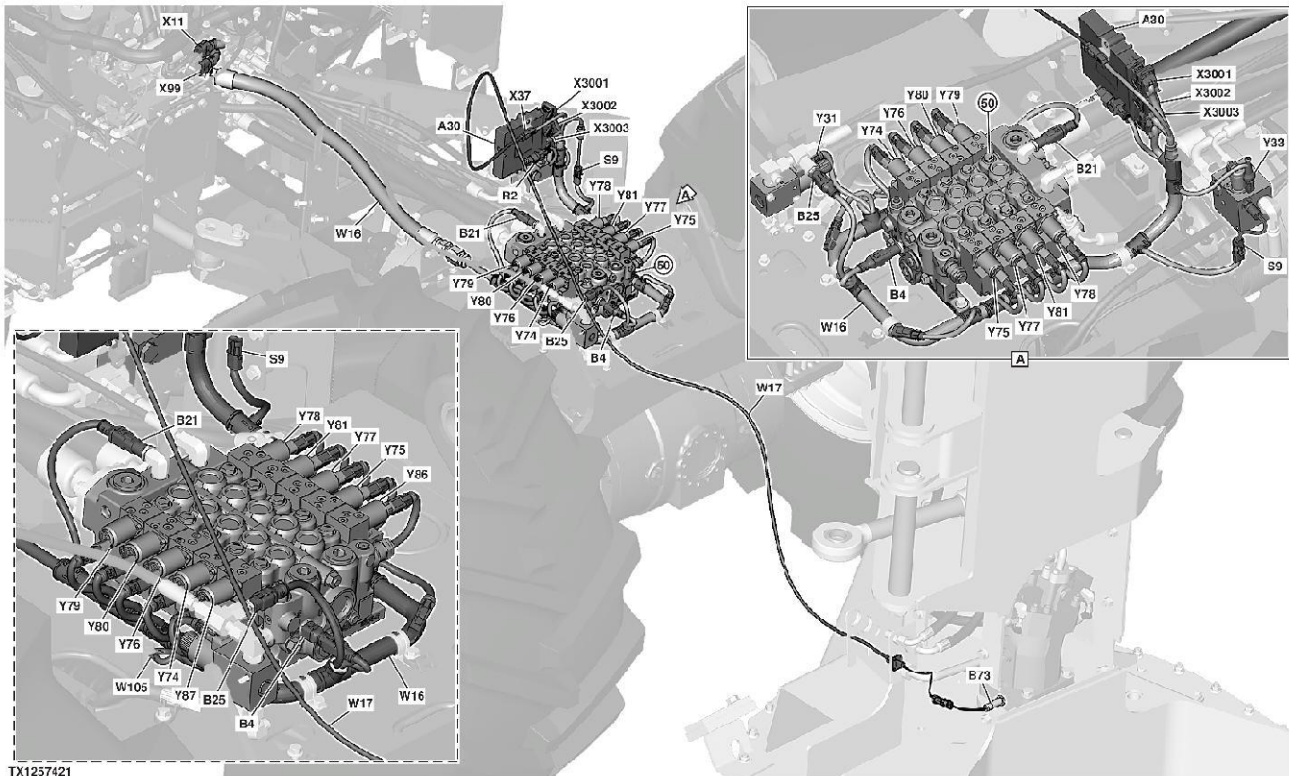
In this manual you will find detailed specifications, illustrations, schematics, diagrams and step-by-step procedures to properly service and diagnose the machine to the manufacturer's standards.

Contents:

- General Information
- Specifications
- Serial Number Location
- Engine Specifications
- Engine Diagnostics
- Engine Tests and Adjustments
- Engine Repair
- Power Train
- Transmission
- Axles
- Differential
- PTO
- Hydraulic System
- Electrical System
- Electrical Tests and Diagnostics
- Wiring Diagram / Schematic
- Ignition and Charging
- Steering
- Brakes
- Wheels
- Operator's Platform
- Body Panels
- Disassembly and Assembly
- Diagnostics, Tests and Adjustments
- Troubleshooting
- and much more...

Please note this manual is in **downloadable PDF format only**. If you have any questions about this product or would like to request sample pages, please contact us and reference the product name or SKU.

Equipment Frame Interface Harness (W16) Component Location



TX1237421

1 X12b / 421-UN: Equipment - rama Interface Harness (W16) Component Location

LEGEND:

50-Main Control Valve (4-spool)

A30-Vehicle Control Unit (VCU)

B4-Load Sense Pressure Sensor

B21-Hydraulic Pump Pressure Sensor

B25-Service Brake Pressure Sensor

B73-Saw Speed Sensor

R2-Vehicle CAN Termination Resistor 2

S9-Park Brake Pressure Switch

W16-Equipment Frame Interface Harness

W17-Saw Head Harness

W105-Equipment Frame Ground

X11-Engine Frame Harness-to-Equipment
Frame Interface Harness 31-Pin Connector

X37-Equipment Frame Interface Harness-to-
Saw Head Harness 2-Pin Connector

X99-Engine Frame Harness-to-Equipment
Frame Interface Harness 12-Pin Connector

X3001-Vehicle Control Unit (VCU) Connector
1

X3002-Vehicle Control Unit (VCU) Connector
2

X3003-Vehicle Control Unit (VCU) Connector
3

Y31-Service Brake Solenoid

Y33-Park Brake Solenoid

Y74-Boom Up/Shear Close Solenoid

Y75-Boom Down/Shear Open Solenoid

Y76-Head Tilt In Solenoid

Y77-Head Tilt Out Solenoid

Y78-Accumulator Arm Close Solenoid

Y79-Accumulator Arm Open Solenoid

Y80-Clamp Arm Close Solenoid

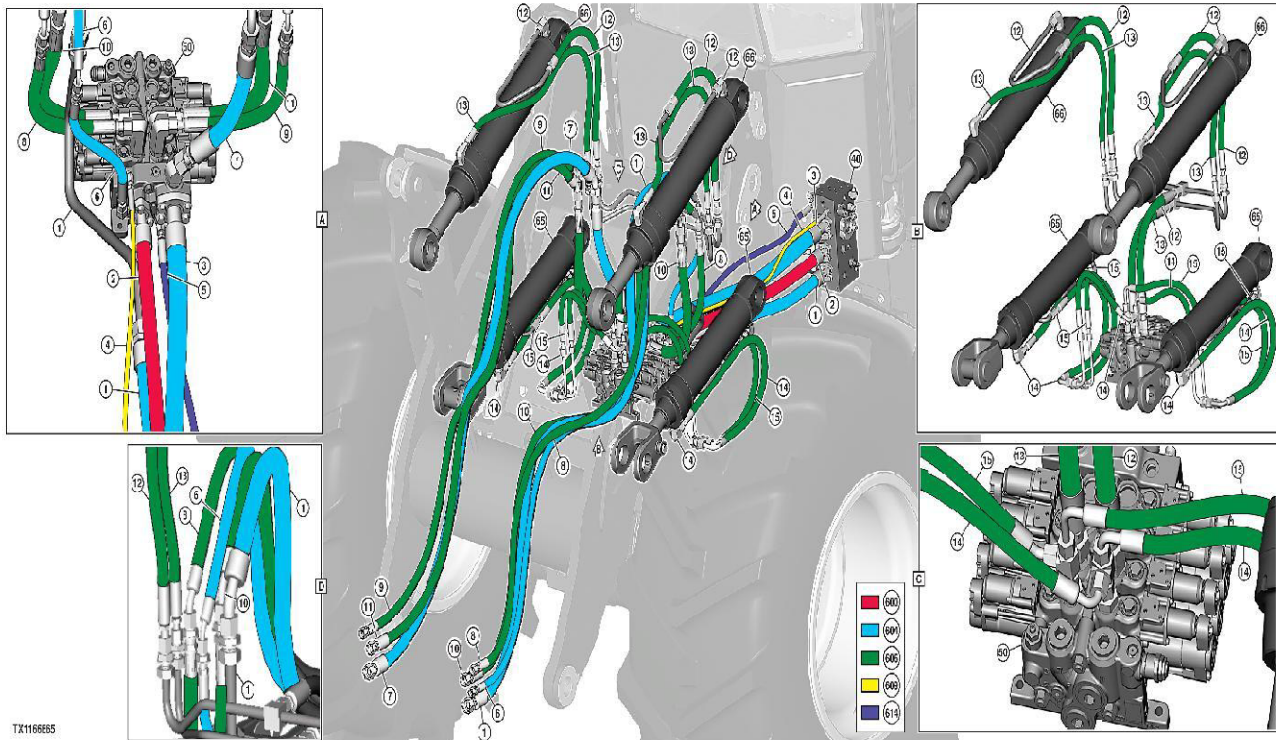
Y81-Clamp Arm Open Solenoid

Y86-Boom Down Solenoid (shear option)

Y87-Boom Up Solenoid (shear option)

KA78187,00001R5-15-20180615

Main Control Valve and Boom Circuit Line Identification



TX1166265

TX1166365-UN: Main Control Valve and Boom Circuit Line Identification

LEGEND:

1-Return Line (hydraulic pump manifold port SAW MOTOR to saw motor port B)
 2-High-Pressure Line (hydraulic pump manifold port P MAIN VALVE to main control valve [4-spool] port P)
 3-Return Line (main control valve [4-spool] port T to hydraulic pump manifold port T1)
 4-Pilot Line (hydraulic pump manifold port PILOT MAIN to main control valve [4-spool])
 5-Load Sense Line (hydraulic pump manifold port LS MAIN VALVE to main control valve [4-spool] port LS)
 6-Case Drain Line (saw motor port T2 to main control valve [4-spool] port SUMP)

7-Return Line (saw motor port A to main control valve [4-spool])
 8-Accumulator Arm Close Line (main control valve [4-spool] port A to accumulator cylinder head end)
 9-Accumulator Arm Open Line (main control valve [4-spool] port B to accumulator cylinder rod end)
 10-Clamp Open Line (main control valve [4-spool] port A to clamp cylinder rod end)
 11-Clamp Close Line (main control valve [4-spool] port B to clamp cylinder head end)
 12-Tilt Out Line (main control valve [4-spool] port A to tilt cylinders head end)

13-Tilt In Line (main control valve [4-spool] port B to tilt cylinders rod end)
 14-Boom Lower Line (main control valve [4-spool] port A to boom cylinders rod end)
 15-Boom Lift Line (main control valve [4-spool] port B to boom cylinders head end)
 40-Hydraulic Pump Manifold
 50-Main Control Valve (4-spool)
 65-Boom Cylinder (2 used)
 66-Tilt Cylinder (2 used)
 600-High-Pressure Oil
 604-Return Oil
 606-Trapped Oil
 609-Pilot Oil
 614-Load Sense Oil



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