Group 05 - Specifications

Specifications (Summary of References)

- Specifications (Summary of References)
- Engine Specifications
- Cooling System
- Electronic Fuel System with Common Rail (Denso)
- Air Intake System
- Electrical System
- Hydrostatic Steering
- Clutch
- PowrQuad Plus Transmission
- Creeper Transmission
- Rear PTO
- Front PTO
- Differential
- Differential Lock
- Final Drives
- Front-Wheel Drive
- Hydraulic Brakes
- Handbrake
- Park Lock
- Hydraulic System with Axial Piston Pump (PFC System)
- Hydraulic System with Gear-Type Pump (PC System)
- Hitch
- Front Hitch
- Ground Speeds
- Front and Rear Wheels
- Dimensions and Weights
- Capacities
- Handling and Storing Diesel Fuel
- Diesel Fuel
- Bio-Diesel Fuel
- Diesel Engine Oil and Filter Service Intervals
- Lubricity of Diesel Fuel
- Diesel Engine Break-In Oil
- Diesel Engine Oil
- Transmission and Hydraulic Oil
- Front Wheel Drive Axle Oil
- Diesel Engine Coolant
- Coolant for High-Performance Diesel Engines
- Supplemental Coolant Additives
- Lubricants
- Oil Filters
- Mixing Lubricants

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Group 00 - Removal and Installation of Components

Engine - Removal and Installation of Components, Summary of References

Remove the Engine

Install the Engine

Engine Mounting

Replace the Engine Mountings

Special Tools

Special tools (available as spare part), see Section 99, Group 10

D01042AA - Load-positioning sling

JDG19 - Lifting eye

JDG820 - Flywheel turning tool, 6-cylinder engine

Specifications

Item	Measurement	Specification
Engine mounting screws	Torque	100 N˙m
		74 lb-ft
Rear engine supports to main frame, cap screws	Torque	100 N˙m
		74 lb-ft
Front engine supports to main frame, cap screws	Torque	100 N˙m
		74 lb-ft
Front engine supports to engine block, M16 cap screws	Torque	230 N˙m
		170 lb-ft
Rear mounting of front frame, nuts	Torque	55 N˙m
		40 lb-ft
Front mounting of front frame, screws	Torque	55 N˙m
		40 lb-ft

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Group 00 - Removal and Installation of Components

Fuel, Air Intake, Cooling and Exhaust Systems - Removal and Installation of Components, Summary of References

Remove Engine Hood

Install Engine Hood

Remove Battery

Install Battery

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Group 05 - Connector Information

Connectors - Summary of References

- Special tools
- General
- Using High-pressure Washers
- Disconnecting Electrical Circuit
- Stripping Wire Ends
- Installing Electrical Connectors
- WEATHER PACK connectors
- METRI PACK connectors with terminal lock at the rear
- METRI PACK connectors with terminal lock at the front
- METRI PACK connectors
- Connectors for Electronic Control Units
- Connectors
- CRIMP SNAP IN connector
- KOSTAL connectors
- DEUTSCH Connector
- Changing terminals
- Fuse and relay boxes

PREVIEW - YOUFIXTHIS.COM

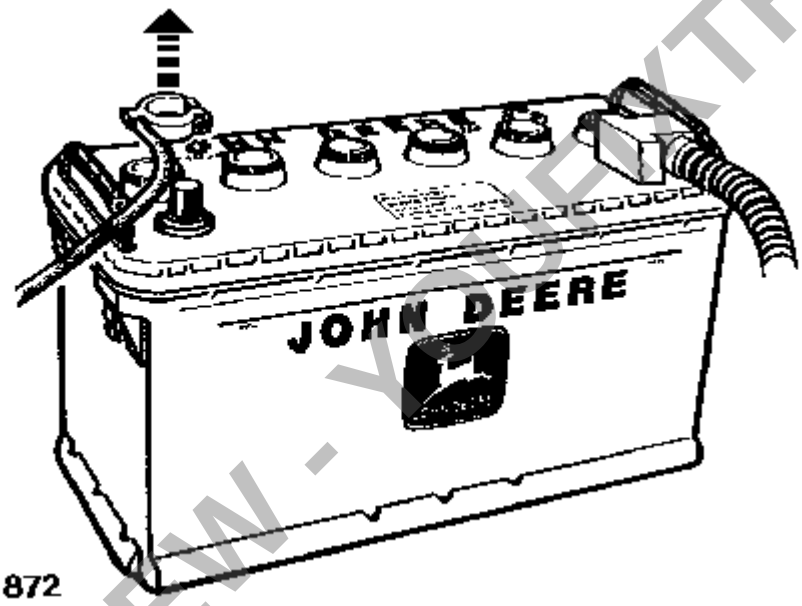
Download full manual at youfixthis.com

Group 05 - Removal and Installation of Electronic Control Units

Electronic Control Units - Summary of References

- Instructions when Replacing a VIN Control Unit
- Instructions when Replacing a Control Unit
- Safety
- Replace BCU Control Unit
- Replace EPC Control Unit
- Replace ECU Control Unit
- Replace TSC Control Unit

Disconnecting electrical circuits



Before working on the electrical system, always disconnect battery ground strap (-).

Instructions when Replacing a VIN Control Unit

The following control units are of this type:

- BCU control unit
- EPC control unit
- ECU control unit

A software update must be carried out for the control unit that has been replaced.

Download current Software for the control unit from the John Deere Custom Performance Software Delivery System.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Group 00 - Removal and Installation of Components

PowrQuad Transmission - Removal and Installation of Components, Summary of References

PowrQuad Plus Transmission, Removal and Installation

Install the PowrQuad Transmission - Preliminary Work

Remove the PowrQuad Transmission

Install the PowrQuad Transmission

Remove the Creeper Transmission

Install the Creeper Transmission

Remove the Range Transmission

Install the Range Transmission

Special Tools

Special Tools (Available as Spare Part), Section 99

JDG19 - Lifting eye

JDG1655A - Suspension device for PowrQuad transmission

Specifications

Item	Measurement	Specification
PowrQuad module to range transmission or creeper, cap screws	Torque	70 N˙m
		50 lb-ft
Suction line to PowrQuad module, cap screw	Torque	18 N˙m
		13.3 lb-ft
Creeper transmission to range transmission, cap screw	Torque	70 N˙m
		50 lb-ft
Range transmission housing to differential housing, cap screw	Torque	90 N˙m
		66 lb-ft
Adapter plate to range transmission, cap screws	Torque	70 N˙m
		50 lb-ft

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Group 00 - Removal and Installation of Components

Drive Systems - Removal and Installation of Components, Summary of References

Remove the FWD clutch

Install the FWD Clutch

Remove the Differential Housing

Install the Differential Housing

Remove Final Drives

Install Final Drives

Remove Rear PTO

Install Rear PTO

Remove Front PTO

Install Front PTO

Special Tools

Special tools (dealer-fabricated), Section 99, Group 05

DFLX1 - Adapter Strut

DFLX5 - Lifting Eye for Cab

DFLX13 - Holding Device

DFLX15 - Holding Device for Tractor Components

Special tools (available as spare part), Section 99, Group 10

D05007ST - Tractor Splitting Stand

JDG23 - Lifting Sling

JDG820 - Flywheel Turning Tool, 6-cylinder engines

JT05723 - Medium-Duty Rear Tractor Splitting Stand

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Group 05 - Hydrostatic Steering

Steering and Brakes - Hydrostatic Steering, Summary of References

- Special Tools
- Specifications
- Preliminary Work
- Disconnect/Connect Steering or Brake Hoses
- Steering Unit Removal
- Disassemble the Steering Unit
- Exploded View of Steering Unit
- Assemble the Steering Unit
- Adjust the Shock Valves
- Exploded View of Steering Column
- Recondition the Steering Column
- Steering Unit Installation

Special Tools

→NOTE:

Order tools according to information given in the U.S. SERVICEGARD ™ Catalog or from the European Microfiche Tool Catalog (MTC).

- KJD10293 - Disconnecting Tool
- KML10018 - Assembly Tool Set
- D01019AA - Manually-Operated Hydraulic Pump
- JT03248 - Fitting

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Group 05 - Operator Controls

Recondition Controls - Summary of References

Selective Control Valves (M-SCVs) - Remove and Install the Actuating Elements

Selective Control Valves (M-SCVs) - Adjust the Bowden Cable

Remove and Install the Multi-Function Lever (on Floor Plate) for M-ICVs

Adjust the Multi-Function Lever (on Floor Plate) for M-ICVs

Specifications

Item	Measurement	Specification
Control lever to bearing lever		
Hex. nut	Torque	5 N˙m
		3.7 lb-ft
Bowden cable on M-SCV		
Sleeve to flange	Torque	30 ± 5 N˙m
		22 ± 3.7 lb-ft
Lock nut to sleeve	Torque	30 ± 5 N˙m
		22 ± 3.7 lb-ft
Bowden cable on M-ICV		
Sleeve to flange	Torque	30 ± 5 N˙m
		22 ± 3.7 lb-ft
Lock nut to sleeve	Torque	30 ± 5 N˙m
		22 ± 3.7 lb-ft

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Group 00 - Removal and Installation of Components

Miscellaneous - Removal and Installation of Components, Summary of References

Remove and Install the Main Frame (Summary of References)

Preliminary Work for Removal of the Main Frame

Remove the Main Frame

Install the Main Frame

Remove and Install the Front-Wheel Drive Axle (Summary of References)

Remove the Front-Wheel Drive Axle

Install the Front-Wheel Drive Axle

Remove the Front-Wheel Drive Axle with TLS

Install the Front-Wheel Drive Axle with TLS

Remove and Install the Front Axle Support (Summary of References)

Remove the Front Axle Support

Install the Front Axle Support

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Group 00 - Removal and Installation of Components

Operator´s Cab - Removal and Installation of Components, Summary of References

Operator´s Cab - Removal and Installation of Components, Summary of References

Tilt Operator's Cab Upward

Tilt Operator's Cab Downward

Remove Operator's Cab

Install Operator´s Cab

Check and Adjust Shift Mechanisms/Linkages

Special Tools

Special Tools (Dealer-Fabricated), Section 99

DFLX5 - Lifting Eye for Cab

Special Tools (Available as Spare Part), Section 99

JDG18 - Installation Tool

JDG23 - Lifting Sling

JT02043 - Support Stand

JT02044 - Support Stand

KJD10557 - Cab Tilting Device

KJD10283- Supplementary kit

Repair Specifications

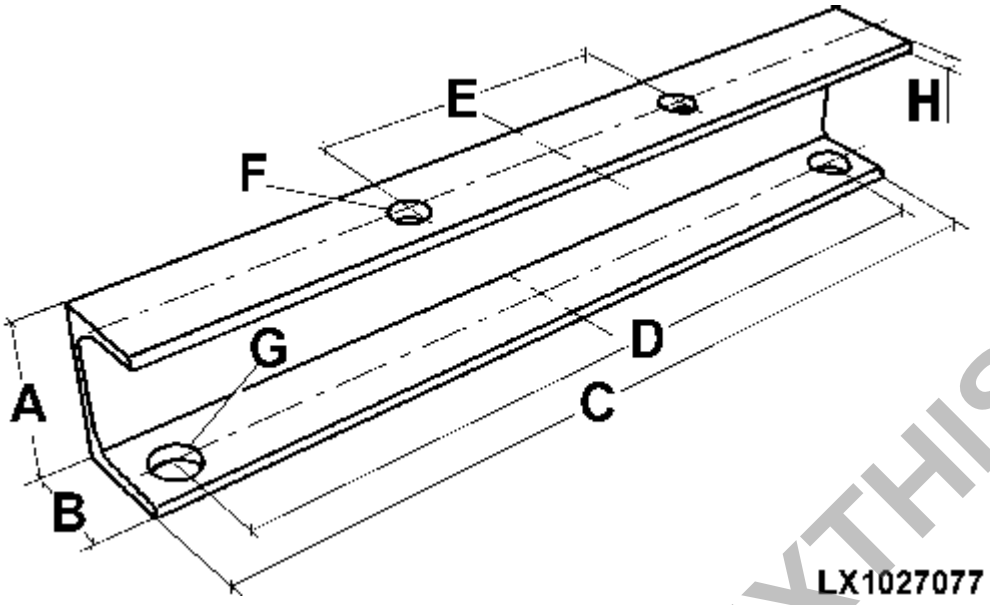
Item	Measurement	Specification
Cab mounting screws	Torque	220 Nm
		160 lb-ft
Cab to cab support, cap screws	Torque	200 Nm
		150 lb-ft

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Group 05 - Special Tools (Dealer-Fabricated)

DFLX1 - Adapter Strut



LEGEND:

A	80 mm (3.2 in.)
B	45 mm (1.8 in.)
C	400 mm (16 in.)
D	360 mm (14.17 in.)
E	140 mm (5.51 in.)
F	Bore, 13 mm (1/2”)
G	Bore, 19 mm (3/4”)
H	8 mm (5/16”)

Installing the rear PTO housing on a support stand.

Use in conjunction with JT05723 universal support stand

→NOTE:

Use high-tensile attaching screws only. When securing the adapter strut, remember to use washers to DIN6918 on the inside; the washers must have an 8% incline.

Make from U-shaped steel to U-80 DIN1026-St37-2 (UNP-80 EN10279) standard. Hardware required: Two M12 x 60 mm cap screws and two M16 x 40 mm cap screws.

DFLX4 - Suspension Device for AutoPowr/IVT

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Foreword

This Repair Manual applies to the following tractor types:

6830 and 6930

This manual is written for experienced technicians. 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 initial section of this manual and the cautions presented throughout the text of the manual.

CAUTION:

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Technical Manuals are service guidelines 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.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

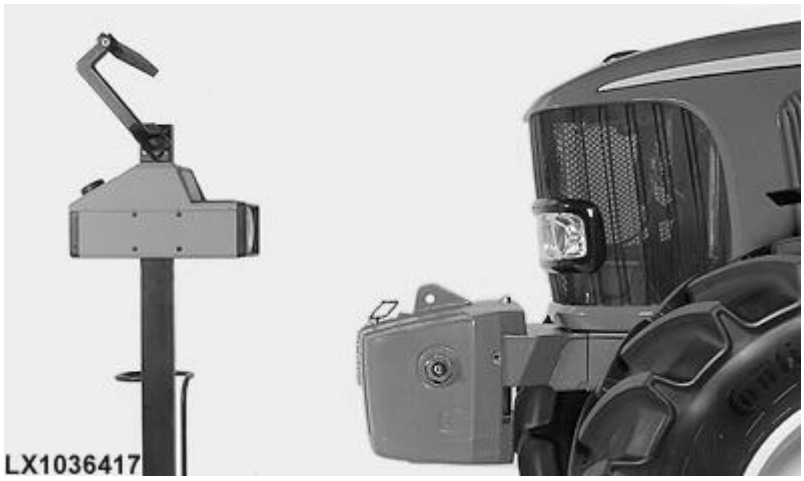
Fuel preheater 50
Transmission Oil Preheater on Transmission and on Charge Pump 50
Group 30 - Exhaust System 53
Exhaust System - Summary of References 53
General Information 53
Specifications 53
Exhaust System to Top Right 54

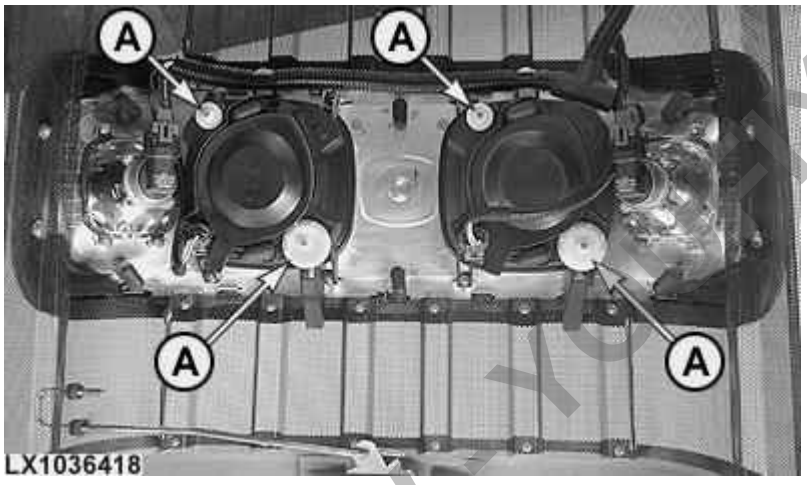
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Adjusting the headlights

With testing device





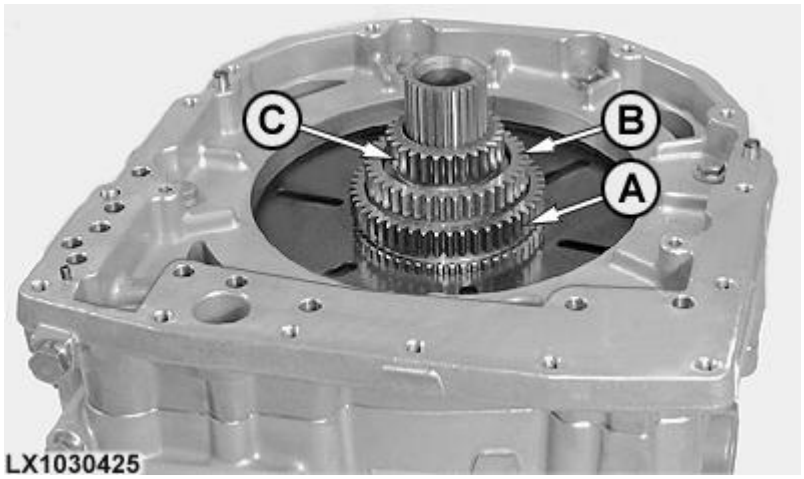
To adjust headlights, use a commercial headlight testing device with optical lens system. Test each light individually. Make the required corrections by turning adjusting screws (A).

Without testing device

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

[5] -



LEGEND:

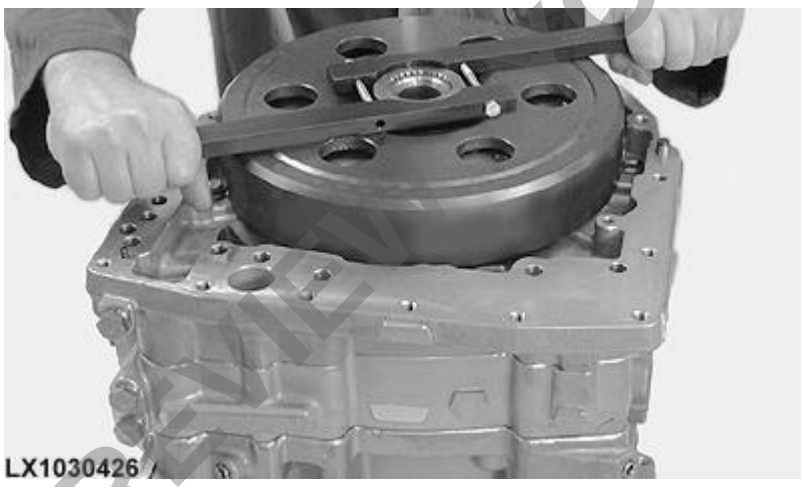
A	1st gear sun gear
B	2nd gear sun gear
C	3rd gear sun gear with thrust washer

Install sun gears (A), (B) and (C), remembering to include thrust washers.

[6] - If the sun gears cannot be installed because the disks have slipped or the clutch hub is not seated properly, the B1 brake housing must be detached.

See ”Remove the B1 Brake Housing” .

[7] -



Install the planetary drive on the sun gears using a JDG772 planetary holding tool.

→NOTE:

Turn the planetary drive to and fro; this will help facilitate its installation.

PREVIEW YOUFIXTHIS.COM

Download full manual at youfixthis.com

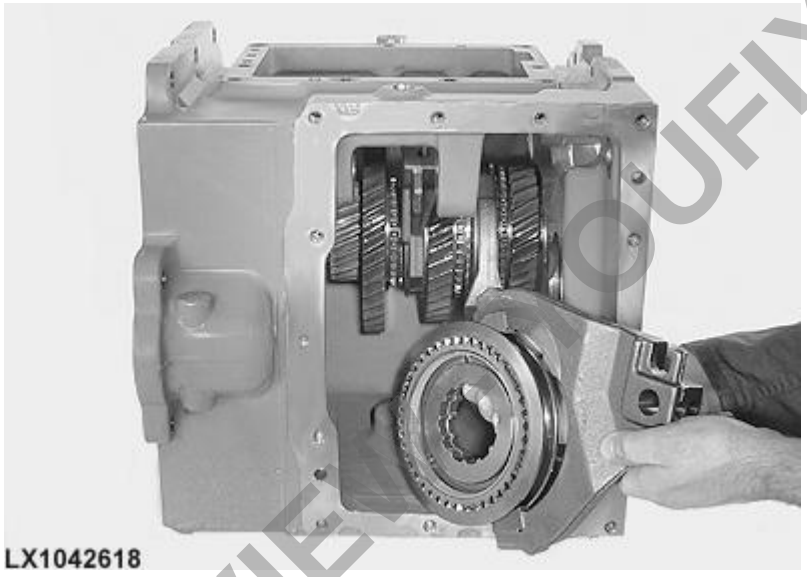
[24] -



LX1042617

Take off the gear for range B and the bushing.

[25] -



LX1042618

Take out the synchronizer unit and shifter fork for ranges A-B.

PREVIEW ONLY YOUFIXTHIS.COM

Download full manual at youfixthis.com

[1] -



LEGEND:

A	Bearing bushings

Remove the torsion damper. Remove bearing housing.

[2] - Press bearing bushings (A; 2 used) into the bearing housing.

[3] -



LEGEND:

A	Torsion damper
B	Bearing housing

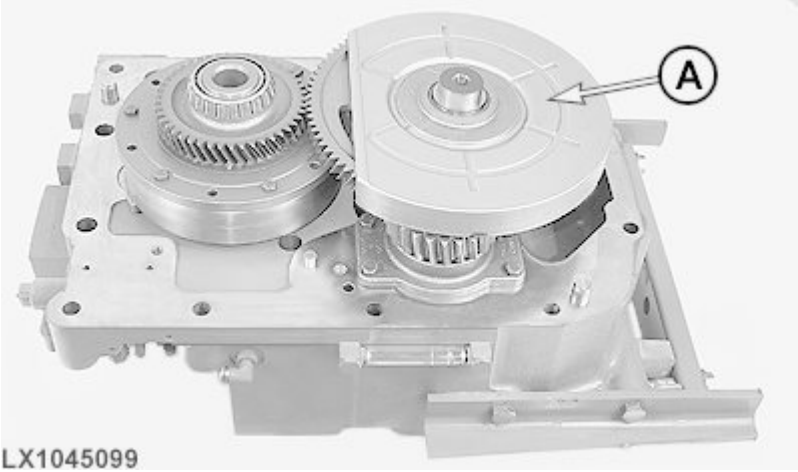
Install torsion damper (A) on bearing housing (B).

[4] - Install torsion damper.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

[5] -

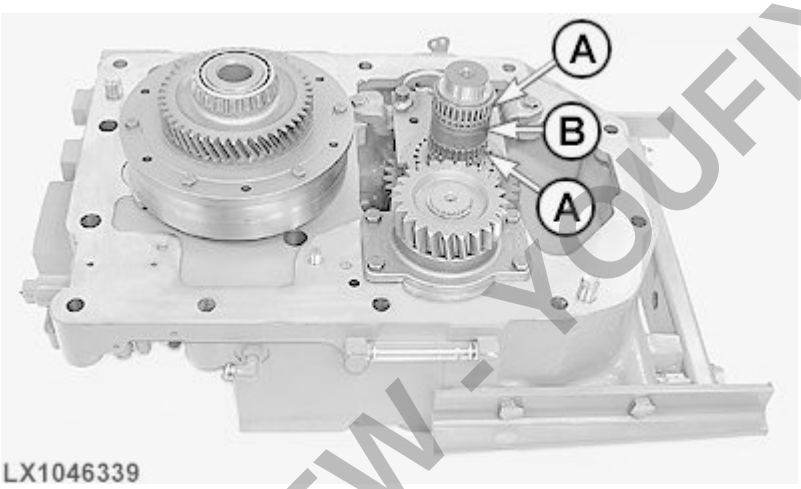


LEGEND:

A	Gear wheel

Pull gear wheel (A) off the output shaft.

[6] -



LEGEND:

A	Needle bearing
B	Sleeve

Remove needle bearings (A) and sleeve (B).

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Recondition the Rear Brakes

Preliminary work:

See Remove the Rear Brakes in Section 60.

[1] -



LEGEND:

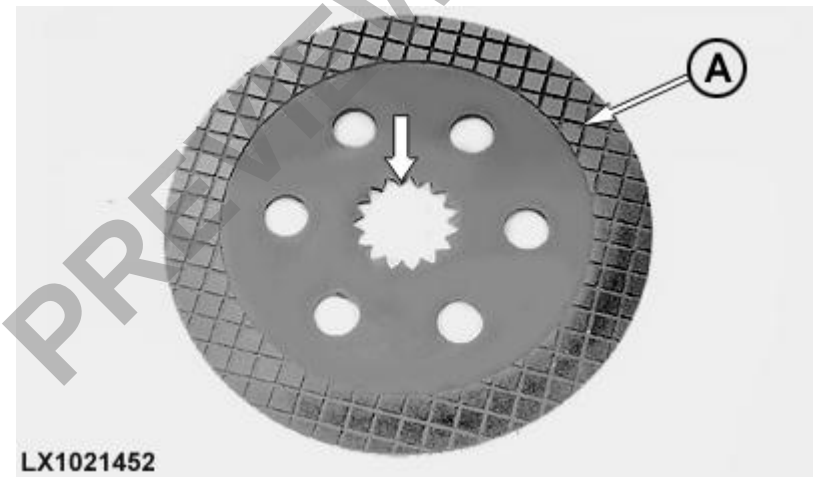
A	Brake piston
B	Brake plate

Inspect brake piston (A) and brake plate (B) for flatness and for excessive wear on the braking surfaces.

[2] - Check the brake plate retraction pins for wear, and replace if necessary.

See Replace the Retraction Pins on the Rear Brakes in Section 60.

[3] -



LEGEND:

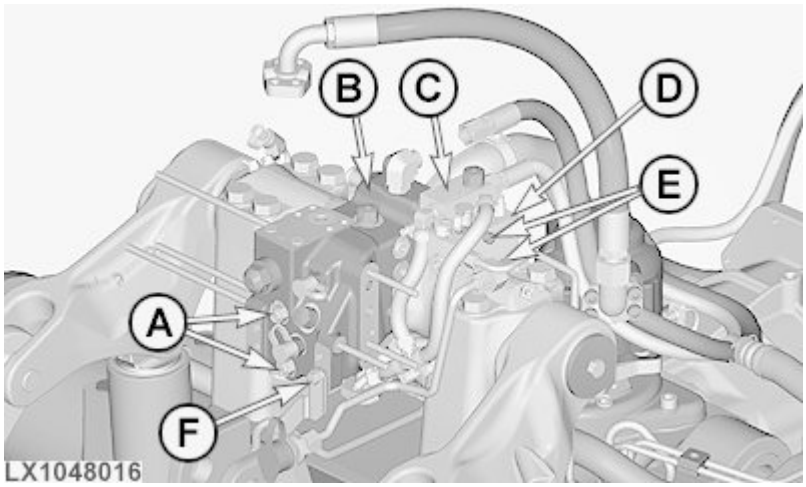
A	Brake disk

Check the lining of brake disk (A).

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

[15] -



(With HTB and TLS)

LEGEND:

A	Hex. nut
B	Priority valve
C	Supply block (TLS) [With hydraulically suspended front-wheel drive axle (TLS)]
D	HTB control block [With hydraulic trailer brake (HTB)]
E	Hex. socket screws (2 used)
F	Cap screw

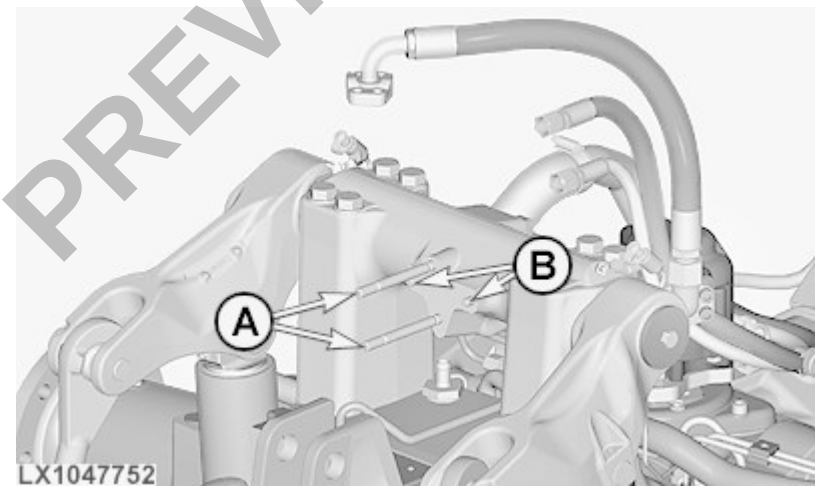
Remove hex. socket screws (E).

[16] - Remove cap screw (F).

[17] - Remove hex. nuts (A).

[18] - Remove priority valve (B).

[19] - Recondition the priority valve; see PC Hydraulic System - Reconditioning the Priority Valve in this Group.



LEGEND:

A	Threaded pin (2 used)
B	Dowel pins (2 used)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

[6] - Install detent housing (2).

a. Position O-rings (4 through 6) on the detent housing.
b. Align the detent housing; the bores on the detent housing and on valve housing (9) must match.
c. Engage the detented shaft in the spool, making sure to pull the spool only far enough out of valve housing (9) to engage the detented shaft.
d. Install hex. socket screws (3).

Item	Measurement	Specification
Detent housing, hex. socket screws	Torque	10 N·m 7.4 lb-ft

[7] - Align the lug of selector knob (1) with the groove on the detent housing (2) and put on the selector knob.

[8] - Install flow control (7).

a. Unscrew the spindle with the knob all the way to the left stop.
b. Screw the flow control freely into valve housing (9) by hand until it reaches its final position.
c. Tighten the flow control.

Item	Measurement	Specification
Flow Control on SCV	Torque	55 N·m 41 lb-ft

[9] - Do not twist seal ring (11) during installation.

[10] - Install flange (14) with O-ring (13) and hex. socket screws (15).

Item	Measurement	Specification
Flange, hex. socket screws	Torque	10 N·m 7.4 lb-ft

[11] - Install plug (17) of the check valve (19) with O-ring (18).

Item	Measurement	Specification
Check valve, plug	Torque	55 N·m 41 lb-ft

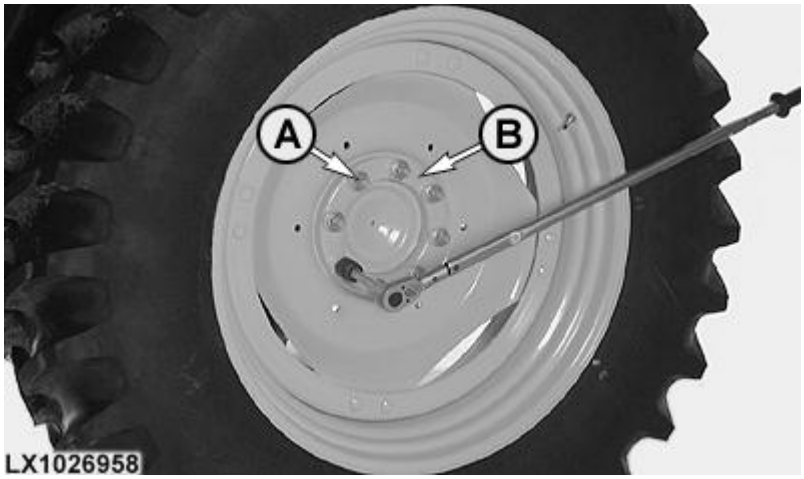
[12] - Attach ball (20) and restrictor (21). Push the restrictor all the way in.

[13] - Install the SCV, see Removal and Installation of the Selective Control Valves (SCV) in this group.

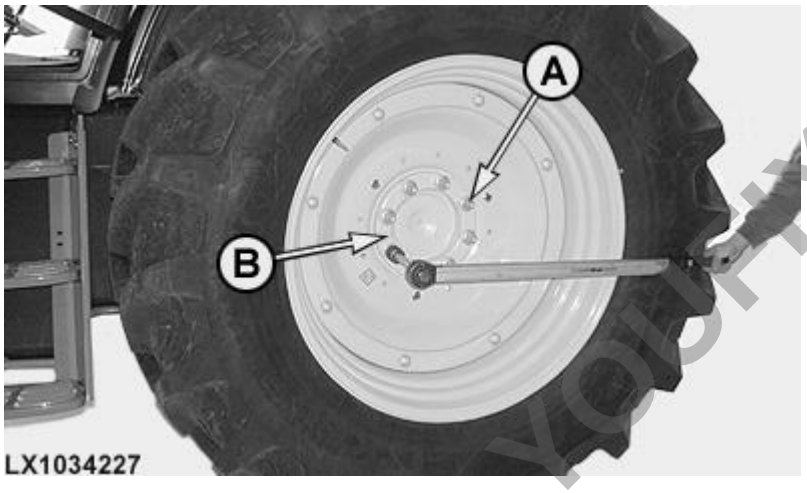
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

[1] -



Rear Wheel Attached with Wheel Nuts



Take off wheel nuts (A).

[2] - Remove the reinforcing ring (B).

[3] - Take the rear wheel off the axle.

IMPORTANT:

When removing, take care not to damage the threads on the studs.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

removethecontrolvalveblock_19.smg

If you can`t open video, download and install CATIA Composer Player>

Recondition the Valves in the Control Block - 3D Animation

→NOTE:

3D Animations are currently in pilot phase and not supported in all languages.

rec_th_va_in_th_contr_va_bl_19.smg

If you can`t open video, download and install CATIA Composer Player>

Install the Control Block - 3D Animation

→NOTE:

3D Animations are currently in pilot phase and not supported in all languages.

installthecontrolvalveblock_19.smg

If you can`t open video, download and install CATIA Composer Player>

Remove the Accumulator - 3D Animation

→NOTE:

3D Animations are currently in pilot phase and not supported in all languages.

Download full manual at youfixthis.com
PREVIEW - YOUFIXTHIS.COM

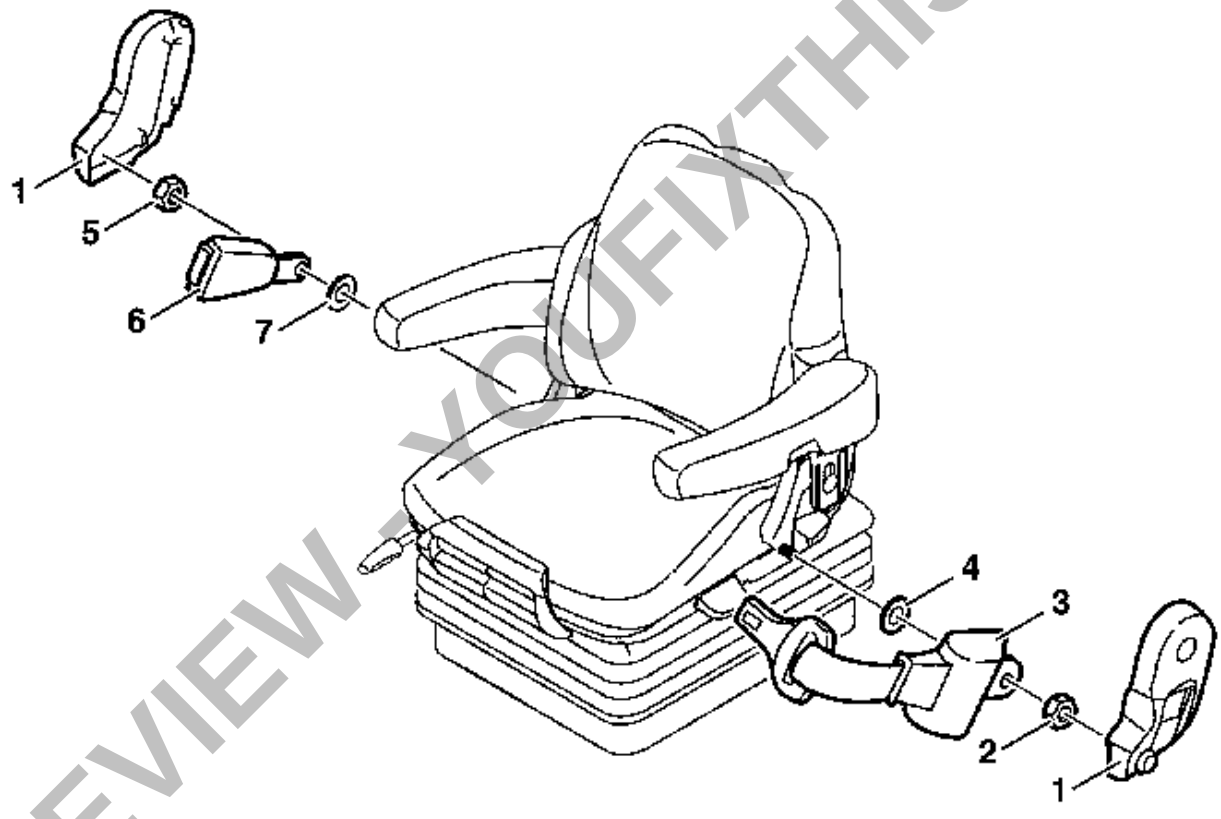
Disengage bracket (3) from carrier (4).

Take out hex. socket screw (5) and lift off adjusting knob (6) together with gear (7).

Knock out rivets (8) and remove loop-spring brake (9) and carrier (4).

Install in reverse order.

Comfort Seat MSG85 - Remove and Install the Lap-Strap



LX1021401

Take off covers (1).

Remove hex. nut (2).

Remove lap-strap (3) and washer (4).

Remove parts 5 to 7 in the same way.

Install in reverse order.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 25 of 1624 pages

The full manual includes:

- All 1624 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

John Deere 6830, 6930 Repair Manual



Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual