



JOHN DEERE

Product Services Information

INSTALLATION INSTRUCTIONS

(Includes English, French, German, Spanish and Italian)



JOHN DEERE

DIVERTER KIT

Parts In Kit

Qty.	Description
1	Valve, Diverter
1	Bracket, Diverter Valve Support
1	Bracket, Diverter Valve Mounting
1	Bracket, Rear Hydraulic Coupler
1	Harness, Diverter Wiring
1	Relay, w/Bracket
1	Switch, Diverter Valve
1	Oil Line, SCV Port A to Diverter D (LVA13146)
1	Oil Line, SCV Port B to Diverter C (LVA13147)
1	Oil Line, SCV Port C to Diverter B (LVA13148)
1	Oil Line, SCV Port D to Diverter A (LVA13149)
1	Hose, Hydraulic Diverter Pilot (LVA13280)
2	Hose, Hydraulic (LVA13279)
1	Oil Line, Hydraulic Port (A2) (MIA10119)
1	Oil Line, Hydraulic Port (B2) (MIA10118)
1	Oil Line, Hydraulic Port (C2) (MIA10121)
1	Oil Line, Hydraulic Port (D2) (MIA10120)
2	Oil Line, Hydraulic Port (MIA10268)
2	Oil Line, Hydraulic Port (MIA10269)
4	Coupler, Quick-Connect, 1/2 in. Female
12	Straight Adapter w/ O-Rings, M18
4	Straight Adapter w/ O-Rings, M12

Qty.	Description
4	Capscrew, M10x16
2	Capscrew, M10x30
4	Capscrew, M8x20
1	Capscrew, M6x16
1	Capscrew, M6x12
2	Nut, M10
4	Nut, M8
2	Nut, M6
1	Clip, Insulated
8	Snap Ring
10	Clamp, Worm Gear
10	Four - Line Stay
3	Tie Strap
2	Dust Plug (Red)
2	Dust Plug (Yellow)
1	Spacer
8	O-Ring (41/64 x 13/16 x 0.087 in.)
1	O-Ring (7.65 mm I.D.)
4	O-Ring (12.42 mm I.D.)
1	Grommet

Parking Safely

1. Stop machine on a level surface, not on a slope.
2. Disengage PTO and stop attachments.
3. Lower attachments to the ground.
4. Lock park brake.
5. Stop engine.
6. Remove key.
7. Wait for engine and all moving parts to stop before you leave the operator's station.
8. Close fuel shut-off valve, if your machine is equipped.
9. Disconnect the negative (-) battery cable before

servicing the machine.

Prepare Machine

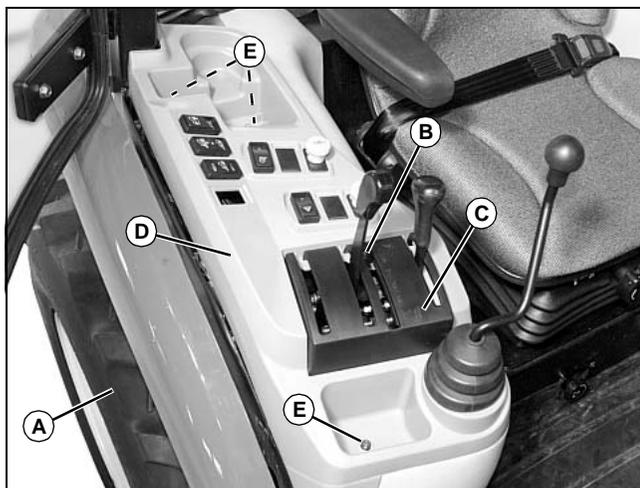
1. Park machine safely.

CAUTION: Avoid injury! Before performing this procedure involving the hydraulic system, the rockshaft must be completely lowered.

2. Lower rockshaft completely to relieve hydraulic oil pressure from the system.

CAUTION: Avoid injury! Remove wheels safely.

- Use a safe lifting device and support machine securely on jack stands.
- Block front and rear of wheel not raised to prevent machine movement.
- Wheel can be heavy or difficult to handle when removing.

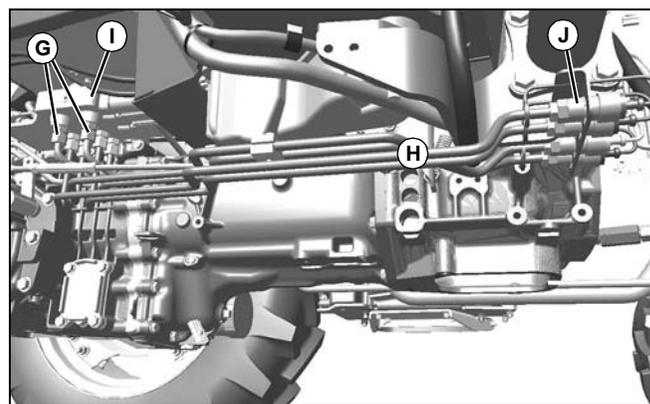


3. Remove rear wheel (A) on right side of machine.
4. Remove one capscrew (B) retaining black lever cover (C) to right side console (D). Tilt front of lever cover up to remove. Cover is held in place with tabs at the front and rear. If third SCV is installed, control lever may have to be pulled to the rear to aid removal of lever cover.
5. Remove three capscrews (E) securing right side console and lift / tilt the console toward the operator's seat.

CAUTION: Avoid injury! Escaping fluid under high pressure can penetrate the skin and cause serious injury. Avoid the hazard by relieving pressure before connecting hydraulic or other lines. Tighten all connections before applying pressure.

- Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.
- If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A. In the United States and Canada only, this information may be obtained by calling 1-800-822-8262.

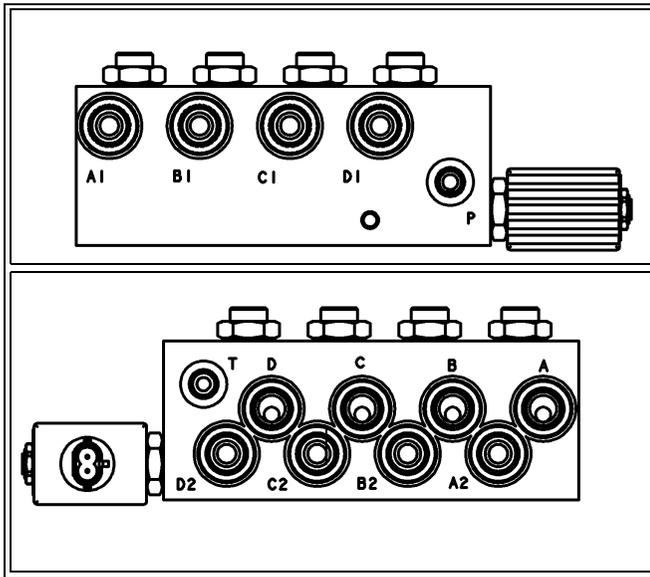
NOTE: If machine is equipped with a third SCV, two additional hydraulic oil lines attached to the selective control valve must be disconnected.



Picture Note: Hydraulic lines (G) shown for model with optional 3rd SCV.

6. Remove four hydraulic oil lines (H) installed between selective control valve (I) and quick couplers (J).

Install Diverter Valve



LVA10503B, LVA10503C

Picture Note: Diverter valve port locations are stamped on the valve housing as shown.

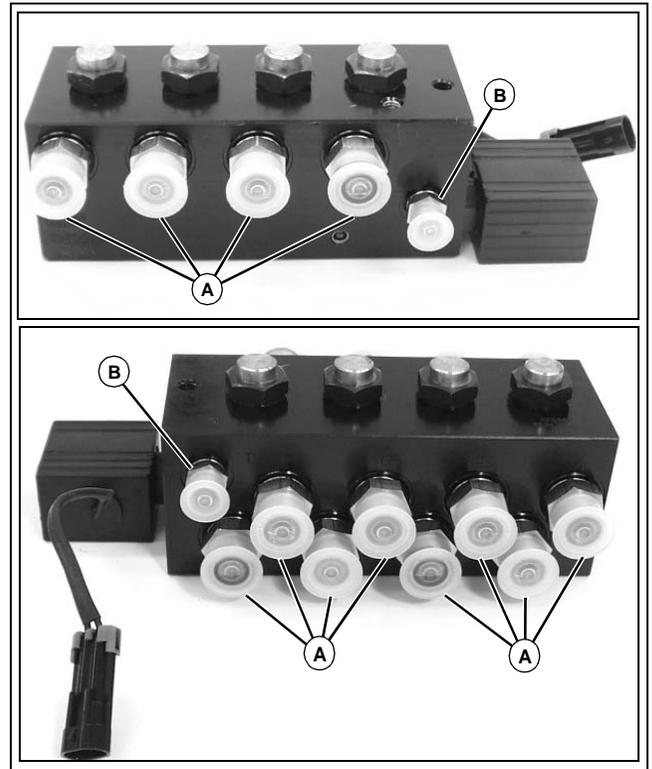
Assemble Diverter Valve

NOTE: Plastic caps protecting external adapter threads can remain installed to prevent oil drain from valve during assembly.

1. Remove plastic caps from internal ends of adapters.
2. Check to be sure external O-rings and face seals are properly installed on adapters.

NOTE: Oil will drain from valve when plugs are removed from ports.

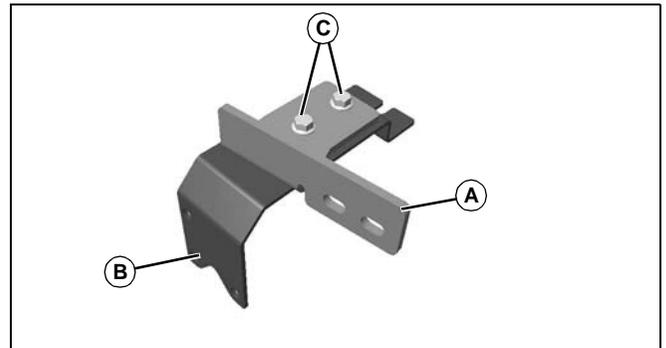
3. Remove plastic plugs from diverter valve ports.



MX12211, MX12212

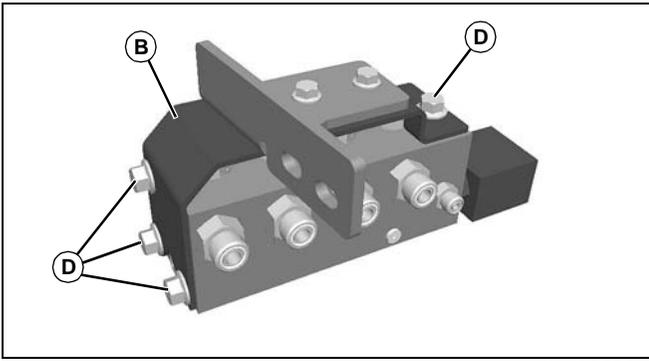
4. Install adapter (A) into each large port.
 - Tighten to 21 N•m (15 lb-ft).
5. Install adapter (B) into each small port.
 - Tighten to 9 N•m (7 lb-ft).

Install Diverter Valve



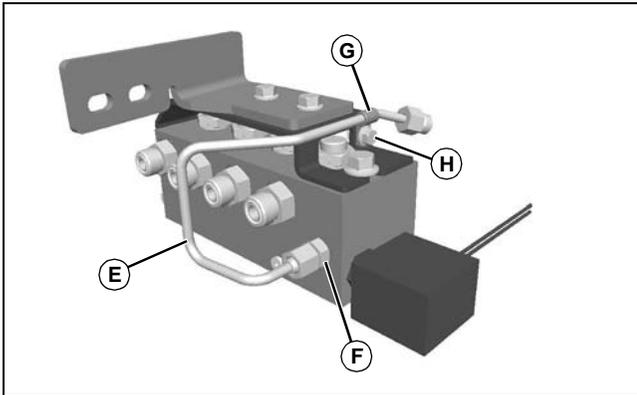
MX36029

1. Install support bracket (A) to mounting bracket (B), as shown, with two M8x20 cap screws (C) and M8 nuts. Tighten to 30 N•m (22 lb-ft).



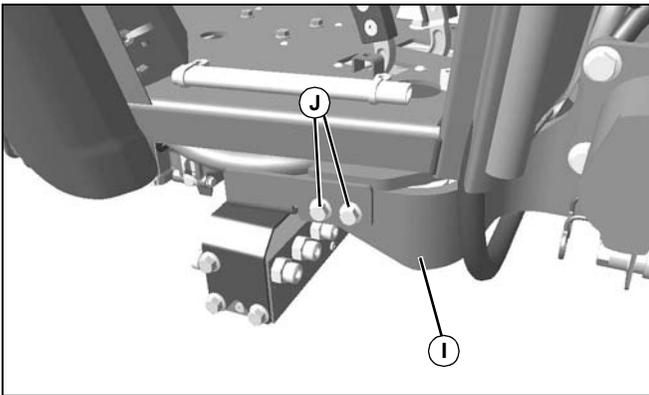
MX36030

2. Fasten diverter valve mounting bracket (B) to valve with four M10x16 capscrews (D). Tighten to 60 N•m (44 lb-ft).



MX36031

3. Loosely install line LVA13280 (E) on adapter (F). Install line on valve with clip (G), M6 x 12 screw (H) and M6 nut. Tighten line on adapter (F).



MX36032

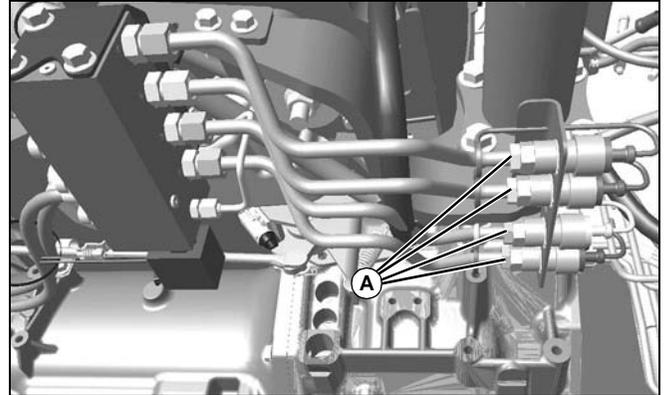
4. Loosely install valve and bracket assembly on right foot cab support (I) with two M10x30 capscrews (J) and M10 nuts.

Install Hydraulic Oil Lines

NOTE: Lines are identified with part number tags. Installation of lines must be done in order shown.

Diverter Valve to Front Couplers

1. Remove plastic plugs from ends of two MIA10268 and two MIA10269 lines.
2. Remove plastic caps from diverter valve adapters.

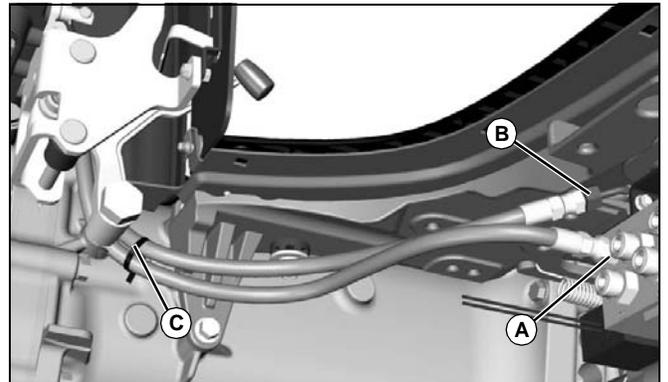


MX36033

3. Install 41/64 x 13/16 x 0.087 in. O-ring on the quick coupler end (A) of each line and install lines as shown. Do not tighten tube nuts.

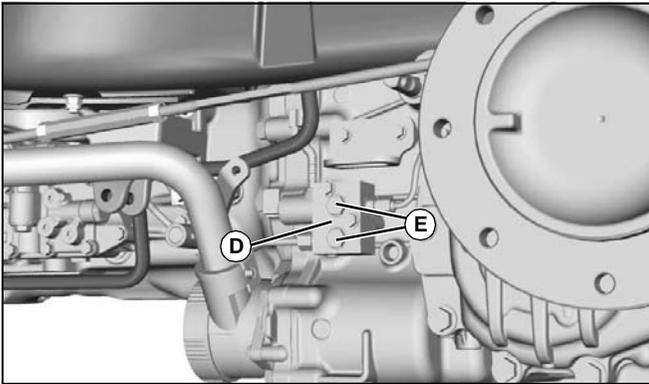
Diverter Valve to Mid-PTO Diverter Valve

NOTE: Mark both ends of one hose to identify.



MX21810

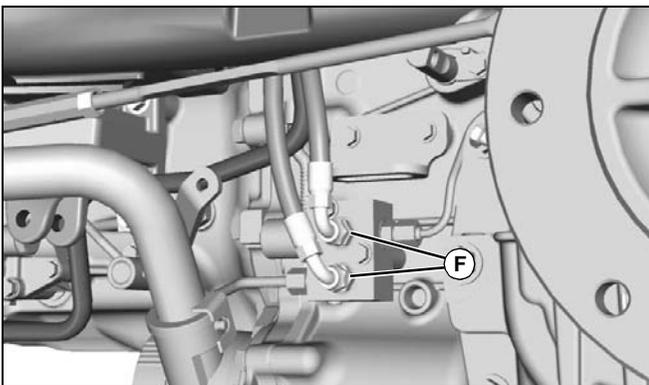
1. Install one LVA10789 hose on adapter (A) in diverter valve port T.
2. Install 7.65 mm O-ring on line LVA13280 (B), and install second LVA10789 hose on line LVA13280.
3. Install tie strap (C) in position shown, and route hoses over transmission to other side of tractor.



MX21811

4. Locate the mid-PTO diverter valve (D).
5. Position drain pan under valve and remove plugs (E).

NOTE: Plastic caps protecting external adapter threads can remain installed to prevent oil drain from valve during assembly.

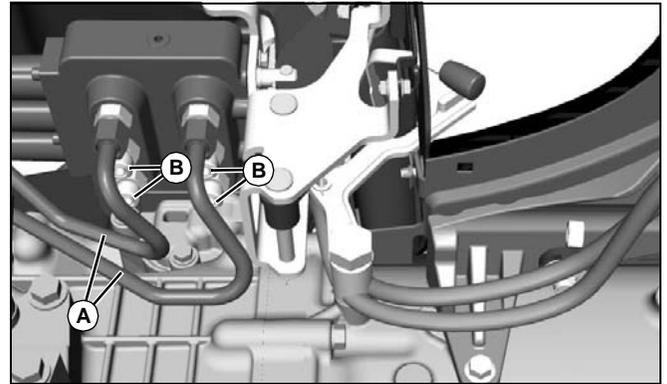


MX21812

6. Install adapter (F) into each port.
 - Tighten to 9 N•m (7 lb-ft).
7. Install hose from diverter valve port T on top adapter.
8. Install hose on end of line LVA13280 on bottom adapter.

Diverter Valve to Selective Control Valve (SCV)

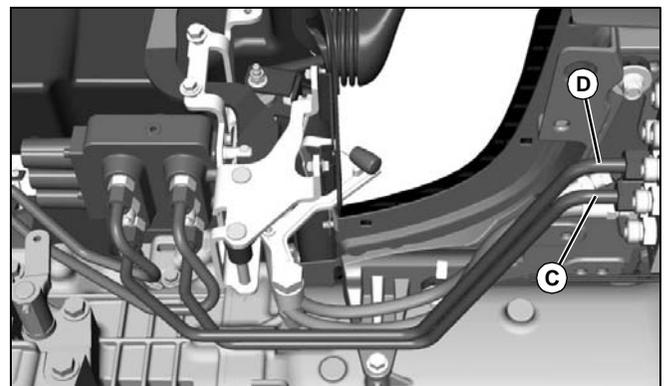
1. Remove plastic plugs from ends of lines LVA13146, LVA13147, LVA13148 and LVA13149.



MX21813

Picture Note: Hydraulic lines (A) shown for model with optional 3rd SCV.

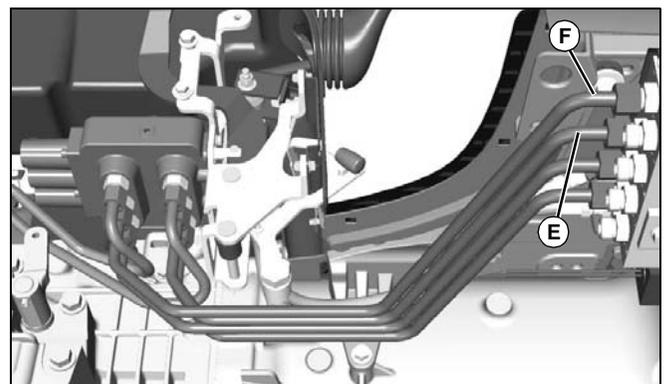
2. Replace the O-ring in each SCV fitting (B) with 12.42 mm O-rings.



MX21814

3. Install line LVA13146 (C) between diverter valve port D and right rear port on SCV valve.
 - Tighten tube nuts to 50 N•m (37 lb-ft).

4. Install line LVA13147 (D) between diverter valve port C and left rear port on SCV valve.
 - Tighten tube nuts to 50 N•m (37 lb-ft).



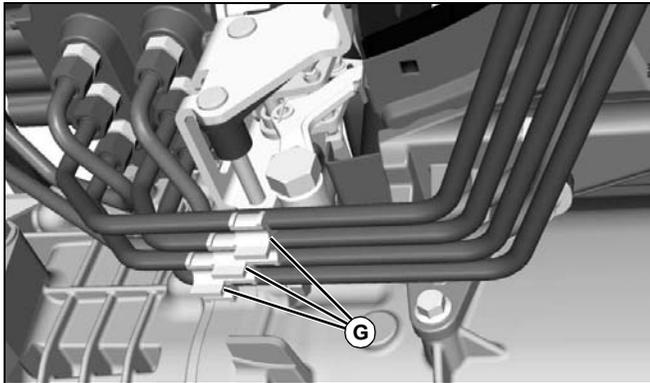
MX21815

5. Install line LVA13148 (E) between diverter valve port B and right middle port on SCV valve.
 - Tighten tube nuts to 50 N•m (37 lb-ft).

6. Install line LVA13149 (F) between diverter valve port A

and left middle port on SCV valve.

- Tighten tube nuts to 50 N•m (37 lb-ft).

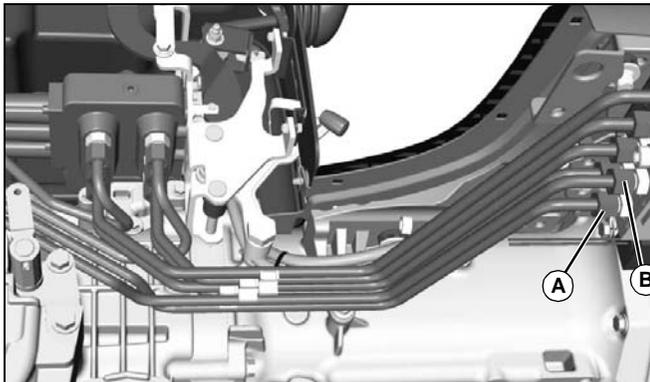


MX21918

7. Install three 4-line stays (G) between lines as shown.

Diverter Valve to Rear of Machine

1. Remove plastic plugs from ends of lines MIA10118, MIA10119, MIA10120, and MIA10121.



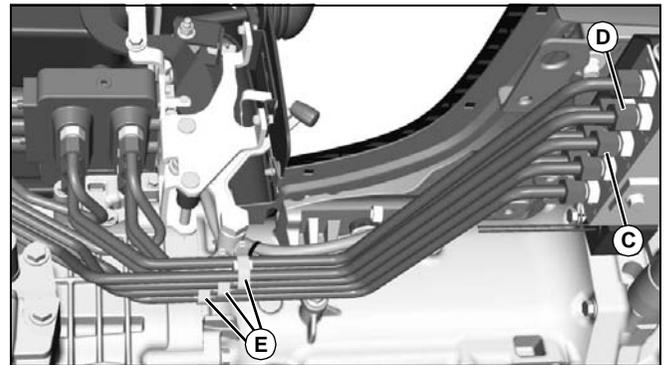
MX21919

2. Install line MIA10120 (A) to diverter valve port D2. Extend the other end of the line to the rear inside the ROPS.

- Tighten tube nut to 50 N•m (37 lb-ft).

3. Install line MIA10121 (B) to diverter valve port C2. Extend the other end of the line to the rear inside the ROPS.

- Tighten tube nut to 50 N•m (37 lb-ft).



MX21920

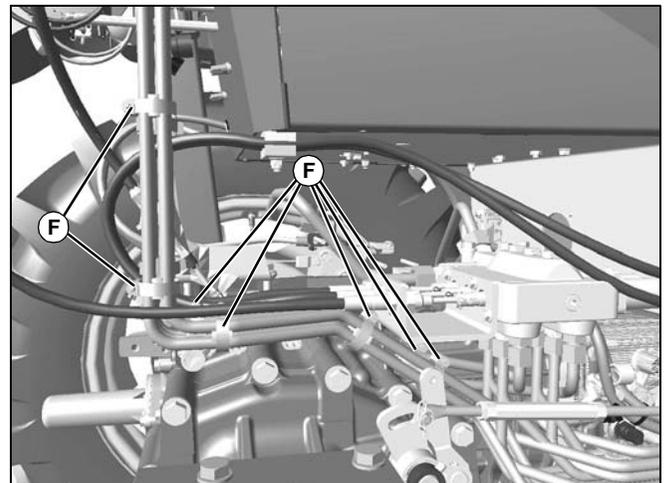
4. Install line MIA10118 (C) to diverter valve port B2. Extend the other end of the line to the rear inside the ROPS.

- Tighten tube nut to 50 N•m (37 lb-ft).

5. Install line MIA10119 (D) to diverter valve port A2. Extend the other end of the line to the rear inside the ROPS.

- Tighten tube nut to 50 N•m (37 lb-ft).

6. Secure lines and 4-line stays with adjustable clamps (E). Do not tighten clamps.

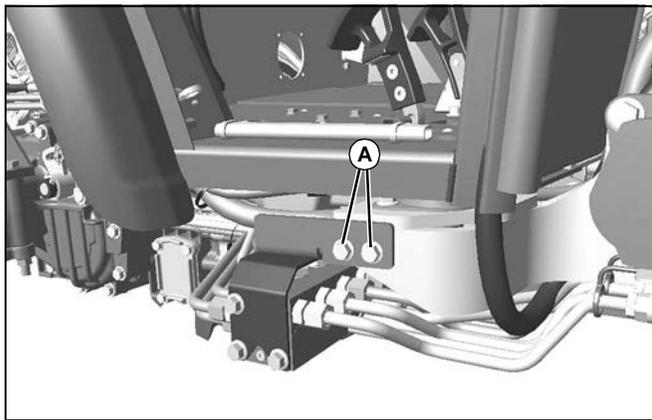


MX36034

7. Install seven 4-line stays (F) equally spaced between the ROPS and the SCV valve. Secure with adjustable clamps. Do not tighten clamps.

8. Check position of installed 4-line stays. Tighten all adjustable clamps.

Finish Diverter Valve Installation



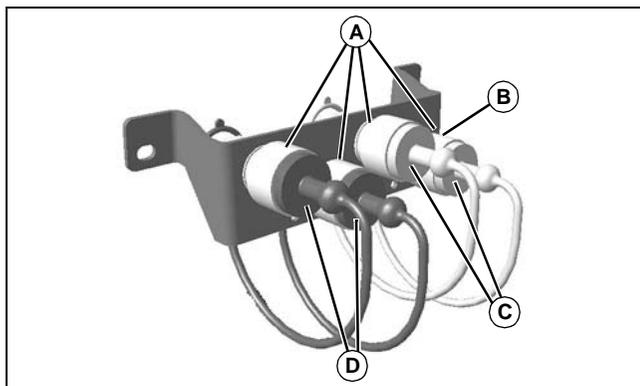
MX36035

1. Tighten hardware (A) attaching the diverter valve mounting bracket to the right foot deck support.

Install Diverter Coupler Bracket

Assemble Bracket

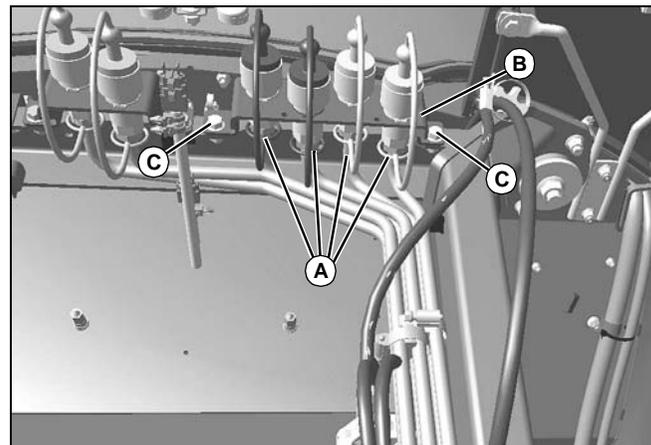
NOTE: Make sure snap rings are fully seated in coupler grooves.



MX36036

1. Install couplers (A) into diverter coupler bracket mounting holes with snap rings on both sides of bracket. Begin at outside corner hole (B).
2. Install yellow dust plugs (C) into each outside female quick coupler outlet.
3. Install red dust plugs (D) into each inside female quick coupler outlet.

Install Bracket



MX36037

1. Install 41/64 x 13/16 x 0.087 in. O-ring on end of lines, and attach hydraulic lines (A) to the rear of each coupler assembly. Tighten tube nuts to 50 N•m (37 lb-ft).
2. Install rear hydraulic coupler bracket (B) to the cab frame with two M8x20 bolts (C) and M8 nuts.

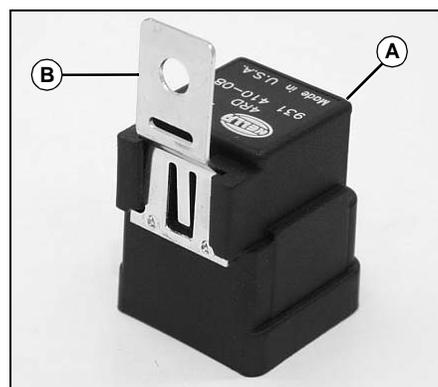
IMPORTANT: Avoid damage! Prevent overheating of the hydraulic system and damage to other internal hydraulic components.

- Read instructions before operating.
- When not using the power beyond for operating a rear mounted attachment, the hydraulic hose end with the male quick connector must be connected to the female quick-connect coupler.

3. Tighten all hardware.

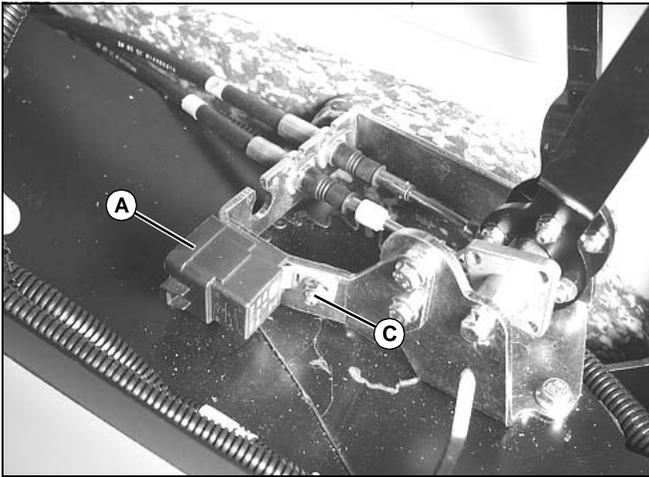
Install Switches and Harness

Install Relay Switch and Bracket Assembly



MX12235

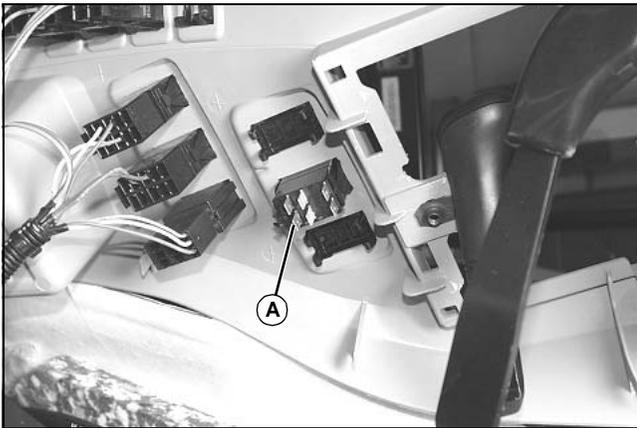
1. Assemble relay switch (A) and bracket (B) as shown.



MX36038

2. Fasten relay switch (A) and bracket assembly to the SCV lock lever assembly with M6x16 capscrew (C) and M6 nut.

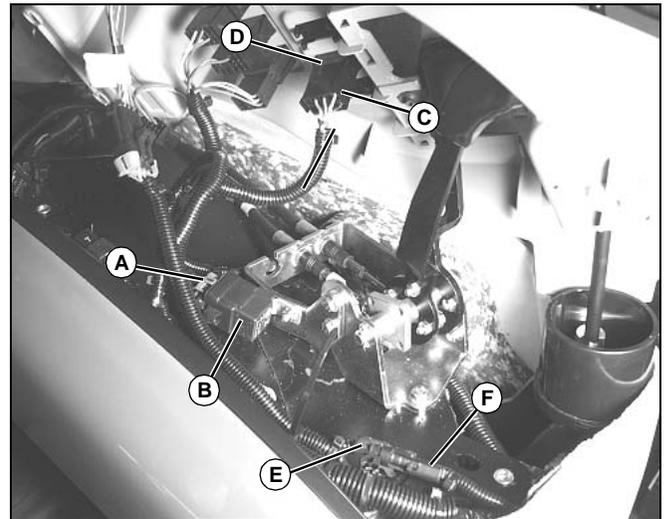
Install Diverter Valve Control Switch



MX36039

1. Remove plug and install control switch (A) into opening, as shown, with indicator light on front of switch towards machine front.

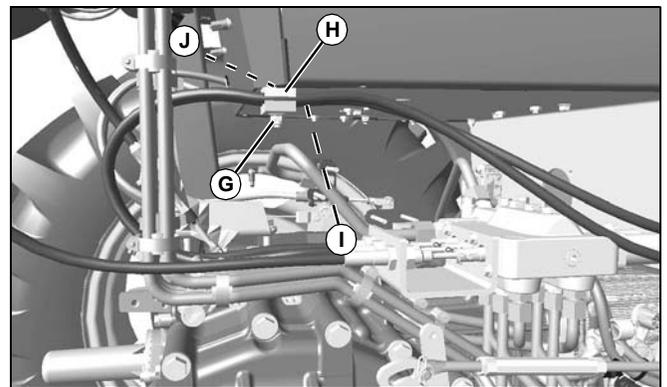
Install Diverter Valve Wire Harness



MX36040

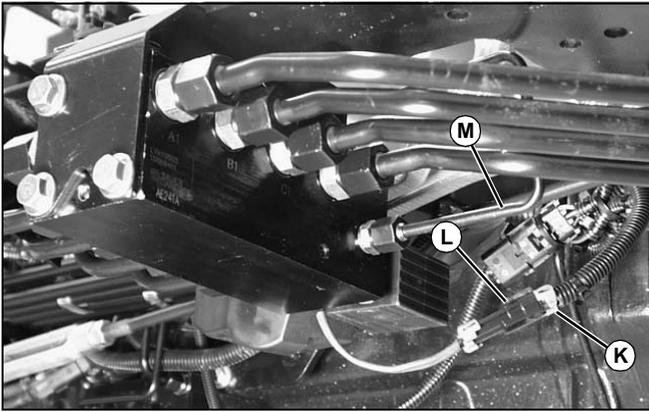
1. Fasten connector (A) to relay (B).
2. Fasten connector (C) to diverter valve control switch (D).
3. Fasten wire connector (E) to main wiring connector (F).

IMPORTANT: Avoid damage! Route wiring harness connections away from moving parts and pinch points. Use tie straps to secure harness to machine to prevent damage.



MX36034

4. Remove nut (G) and clamp (H) securing dual SCV cables to frame.
5. Install grommet on harness, and route harness between the hydraulic oil lines and transmission housing and along the machine main wire harness and through hole (I). Install grommet into hole.
6. Install spacer (J) between clamp (H) and frame. Install clamp and nut (G).



MX12242

7. Fasten harness connector (K) to diverter valve solenoid connector (L).

8. Install tie strap(s) to secure diverter harness to LVA13280 oil line (M). Route the rest of the wires with any existing wires and bundle any excess wiring with tie strap(s), as necessary.

Test Diverter Valve Installation

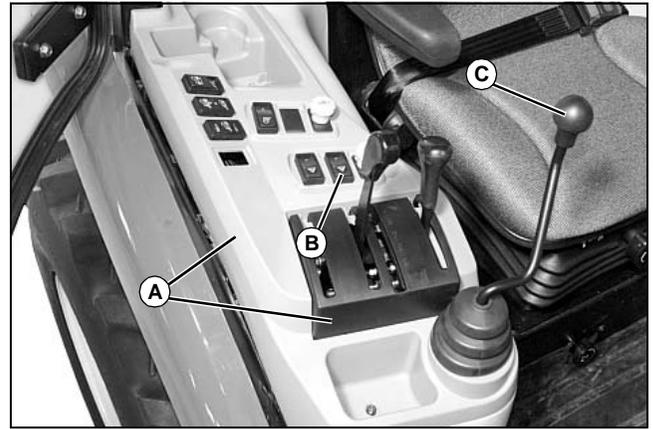
1. Connect main harness connectors to pod control switches.
2. Start engine.
3. Move the selective control valve (SCV) lever side to side and front to rear. Check for oil leaks.
4. Stop engine.
5. Tighten hydraulic line connections if necessary.

NOTE: Refer to the operator's manual for the transmission oil recommendation and the service procedure for checking or adding oil.

6. Check transmission oil level. Add oil if necessary.
7. Start engine.

NOTE: Use a hydraulic test gauge capable of reading 0-5000 psi when performing these test procedures.

8. Check each front SCV quick coupler port for oil pressure. The reading for each port should be 2500 +/- 50 psi.



MX35915a

9. Lower right side console and black cover (A), and press front of diverter valve control switch (B) to activate rear SCV coupler ports. The switch indicator light will illuminate when the switch is activated.

10. Move the SCV lever (C) side to side and front to rear. Check for oil leaks.

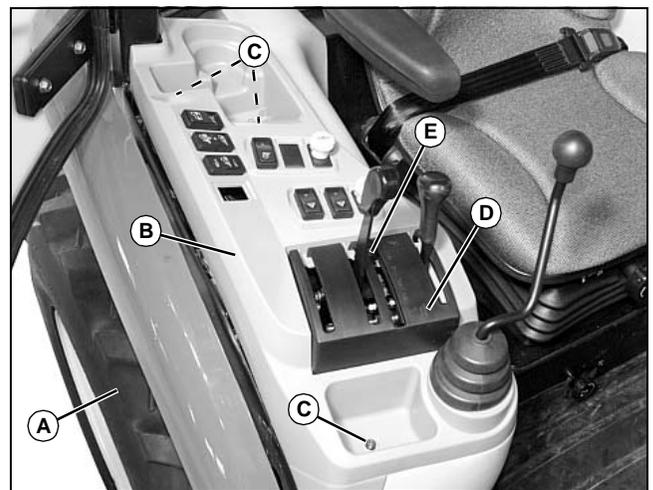
NOTE: Use a hydraulic test gauge capable of reading 0-5000 psi when performing these test procedures.

11. Check each rear SCV quick coupler port for oil pressure. The reading for each port should be 2500 +/- 50 psi.

12. Press back of switch to deactivate rear SCV coupler ports.

13. Stop engine.

Assemble Machine



MX35915s

1. Install right rear wheel (A) on right side of machine. Tighten lug bolts to 140 N•m (103 lb-ft).

2. Replace right side console (B) with three capscrews (C), and black lever cover (D) with capscrew (E).

3. Lower machine.

Operating the Diverter Valve

NOTE: If the key switch is moved to the off position, the dual SCV lever will default to operating the front quick couplers. The key switch must be moved to the run position and the diverter system re-activated to operate the rear couplers.



MX35915a

1. Press front of control switch (A) to activate the rear SCV quick coupler ports. Switch indicator light will go on.
2. Press back of control switch to deactivate the rear SCV quick coupler ports. Switch indicator light will go off.