



# Product Services Information

## INSTALLATION INSTRUCTIONS

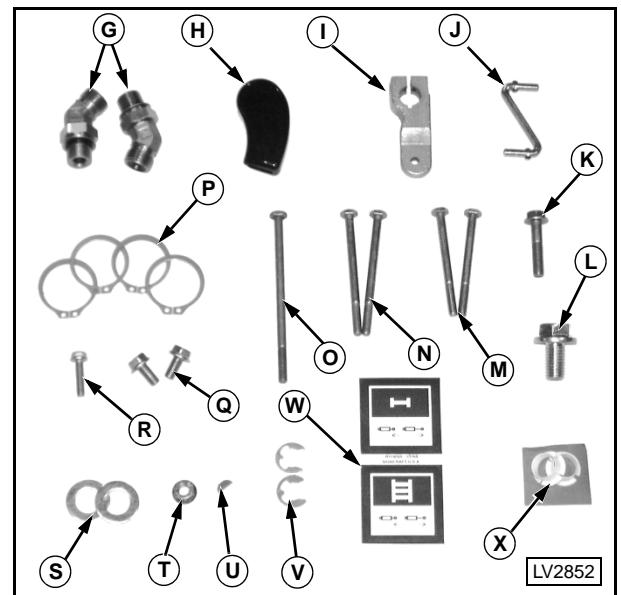
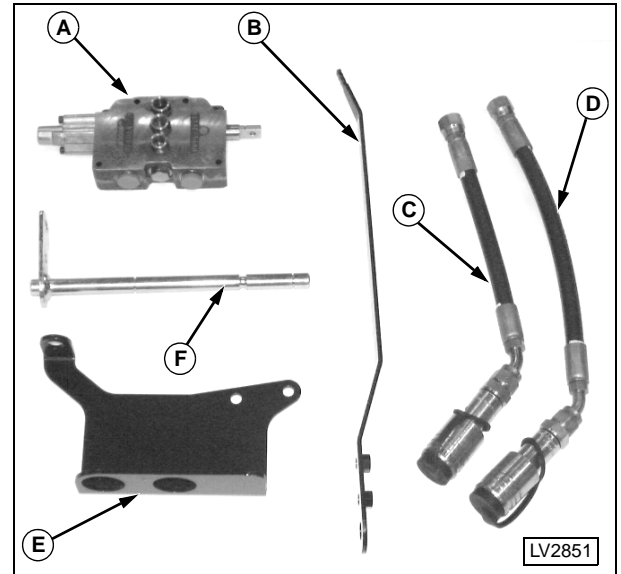
LV100117

### SINGLE/THIRD SCV KIT

5200, 5210, 5300, 5310, 5400, 5410, 5500 AND  
5510 TRACTORS WITH OR WITHOUT CAB

#### PARTS IN KIT

Qty.	Description
1	A - Single/Third Selective Control Valve (SCV)
1	B - Control Lever
1	C - Short Hydraulic Hose and Coupler Assembly
1	D - Long Hydraulic Hose and Coupler Assembly
1	E - Coupler Bracket
1	F - Control Shaft (Std. equipment on cab tractors)
2	G - Fitting 45° Elbow
1	H - Knob
1	I - Lever (Std. equipment on cab tractors)
1	J - Link
1	K - Cap Screw M8 x 40 mm
1	L - Cap Screw M14 x 25 mm
2	M - Cap Screw 1/4-28 x 3 in.
2	N - Cap Screw 1/4 x 3-1/2 in.
1	O - Cap Screw 1/4 x 4-3/4 in.
4	P - Snap Ring (Std. equipment on cab tractors)
2	Q - Cap Screw M8 x 16 mm
1	R - Cap Screw M6 x 25 mm
2	S - Washer 5/8 in. (Std. equipment on cab tractors)
1	T - Nut M8
1	U - Woodruff Key (Std. equipment on cab tractors)
2	V - E-Clip (Std. equipment on cab tractors)
1	W - Label
2	X - Bushing (Std. equipment on cab tractors)



## PREPARE TRACTOR FOR INSTALLATION

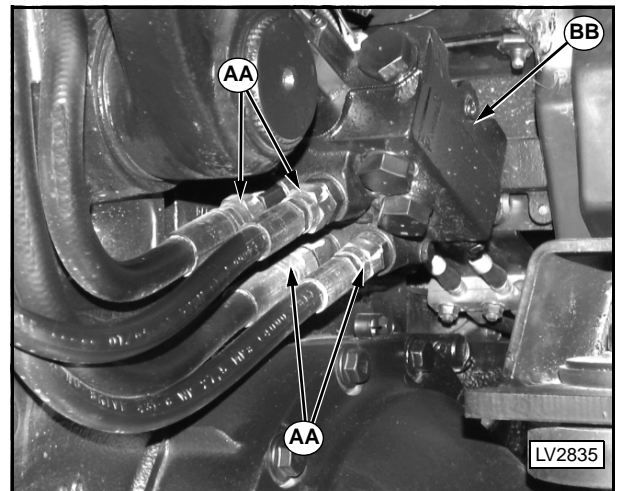
1. Park tractor on flat level surface and engage park brake.
2. **Tractors without cab:** chock the front and back of both front tires and left-hand rear tire.

**NOTE:** *If more detailed instructions for steps (3, 4 or 5) are needed, see the applicable tractor technical manual TM1520 or TM1716.*

3. **Tractors without cab:** remove right-hand rear wheel and fender. Install a jack stand under right-hand rear axle to support tractor.
4. **Tractors with cab:** remove seat, support and base plate.
5. **Tractors without cab:** remove seat, support and plastic SCV cover if equipped.
6. Remove right-hand control console and panel
7. Position drain pan under right-hand rear axle.

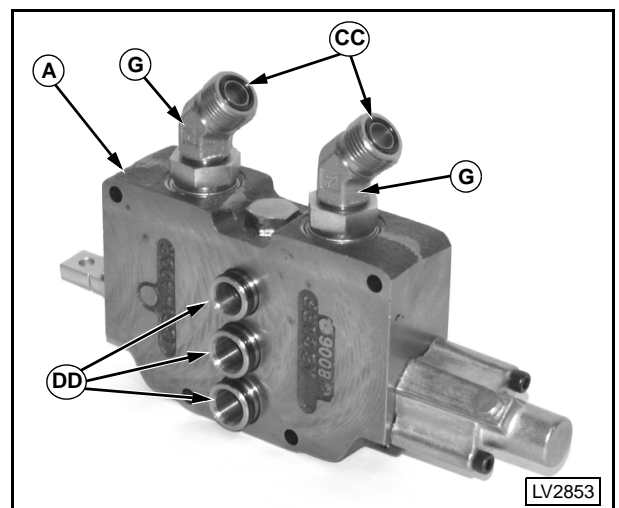
**NOTE:** *Tag or label location of hydraulic lines or hoses, if equipped with dual SCV or mid-mount coupler, to aid during installation.*

8. Tag or label locations of four hydraulic hoses (AA) on dual SCV (BB), if equipped. Disconnect hoses from SCV and allow to drain into pan.



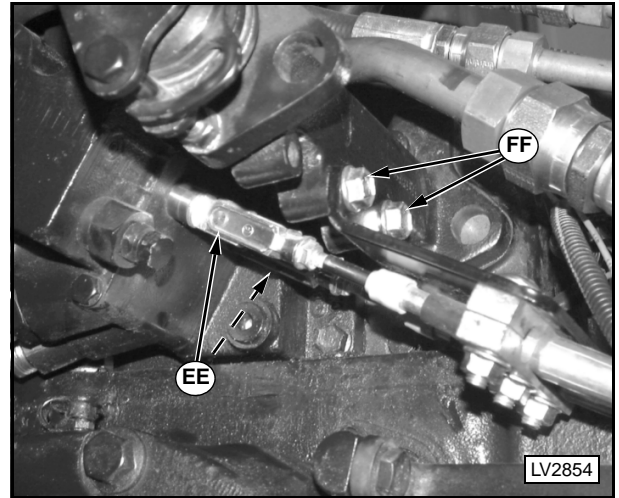
## INSTALLATION

1. Install two 45° elbow fittings (G) into valve (A) supplied in kit. Apply petroleum jelly to O-rings (CC) to hold them in place.
2. Position fittings (G) as shown in photograph and tighten securely.
3. Apply clean transmission/hydraulic oil to O-rings (DD).



**NOTE: Tractor without cab shown during kit installation. Procedure for tractors with cab is similar.**

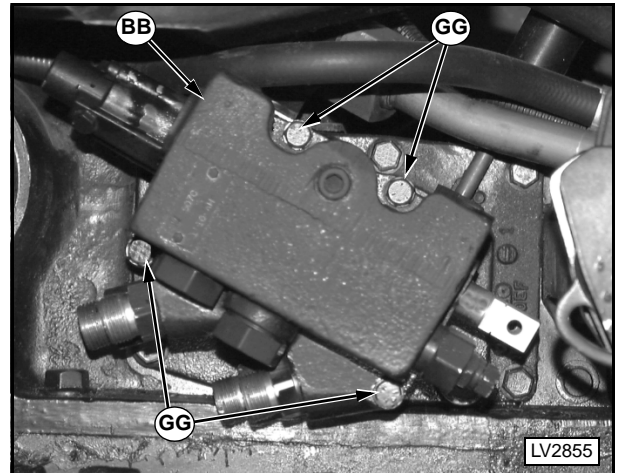
4. If equipped with dual SCV, remove clip-pins (EE) attaching joystick control cables to valve spools. Remove two cap screws (FF) from control cable support bracket. Position cables and bracket away from work area.



**NOTE: Tractor with dual SCV shown in photograph**

5. Remove four cap screws (GG) from rockshaft inlet housing end plate or dual SCV (BB), if equipped. Discard four cap screws (GG).

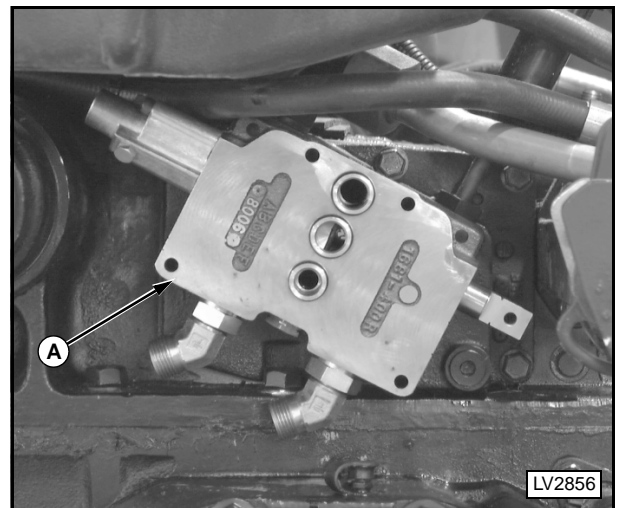
6. Remove rockshaft inlet housing end plate or dual SCV (BB), if equipped. Transfer any internal tubes, O-rings and seals that may stay attached to the end plate or dual SCV, if equipped, to the rockshaft inlet housing.



**IMPORTANT: Clean mating surfaces of all components before installation.**

**NOTE: Firmly push inward on single/third SCV (A) until seated against rockshaft inlet housing. Do not use excessive force or hammer during installation.**

7. Install single/third SCV (A) supplied in kit to rockshaft inlet housing. Tubes with O-rings between valve and rockshaft inlet housing will hold valve in position.



8. Install end plate or dual SCV (BB), if equipped, on top of single/third SCV, pushing firmly until seated.

**IMPORTANT:** Early model tractors used an SCV housing with a thinner cast boss in the lower front cap screw position (O). If installing this kit on a tractor with model and serial number listed below, use a 1/4-28 x 3 in. cap screw supplied in kit in position (O). All other units use 1/4x4-3/4 in. cap screw in position (O).

Model	Tractor Serial Number
5200	-420462
5300	-431125
5400	-440970

9. Install two 1/4x3-1/2 in. cap screws (N), one 1/4x4-3/4 in. cap screw (O) {or one 1/4-28x3 in.--see **Important** above} and one 1/4-28x3 in. cap screw (M) supplied in kit, in locations shown in photograph.

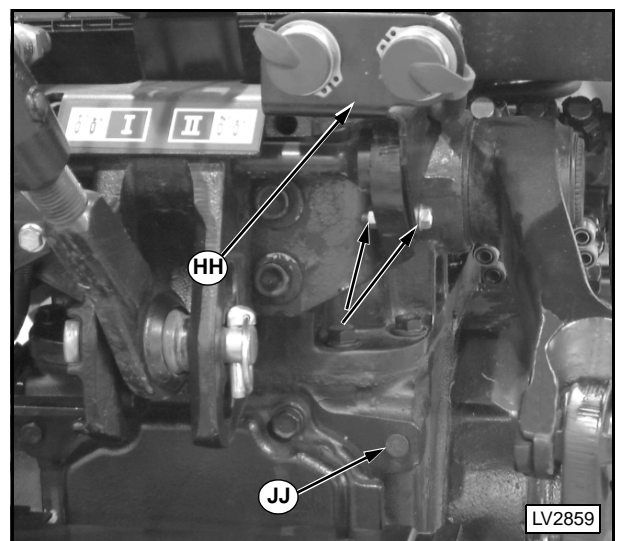
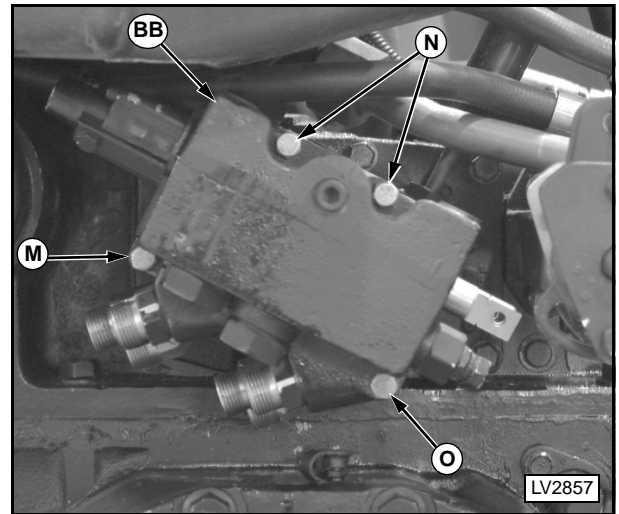
**IMPORTANT:** Do not overtighten mounting cap screws. Spools inside valve(s) will bind.

10. Tighten cap screws (M, N and O) in a criss-cross pattern to 12 N•m (106 lb-in.).

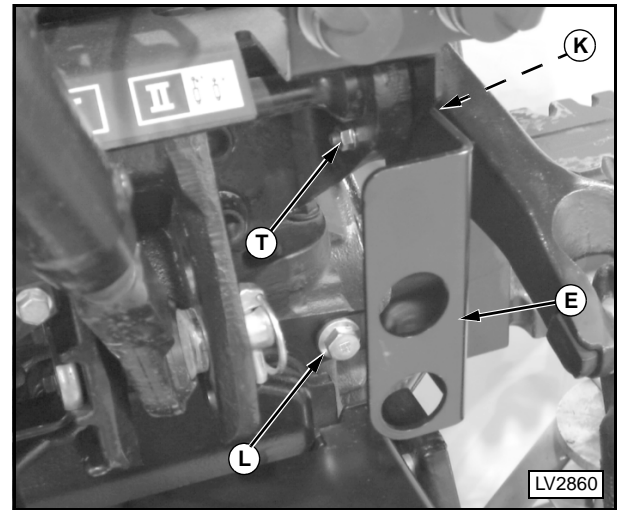
**NOTE:** Dual SCV coupler bracket (HH) shown. The procedure below is similar without dual SCV bracket.

11. If equipped with dual SCV coupler bracket (HH): remove nut and cap screw (II) on right-hand side of center link support.

12. Remove plastic plug (JJ) covering threaded hole on rear right-hand side of differential case.

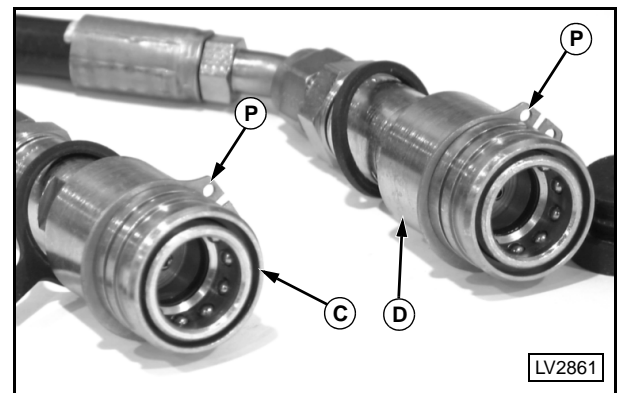


13. Position coupler bracket (E) supplied in kit as shown in photograph. Install M8x40 mm cap screw (K), M8 nut (T) and M14x25 mm cap screw (L) also supplied in kit. Tighten mounting hardware securely.



**NOTE: Install snap rings (P) in groove closest to threaded end of coupler.**

14. Install one snap ring (P) on each coupler end of long and short hydraulic hose assembly (C and D) supplied in kit.

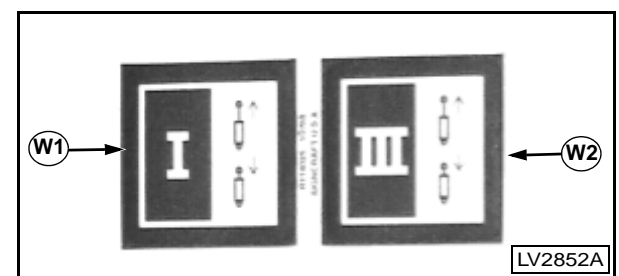
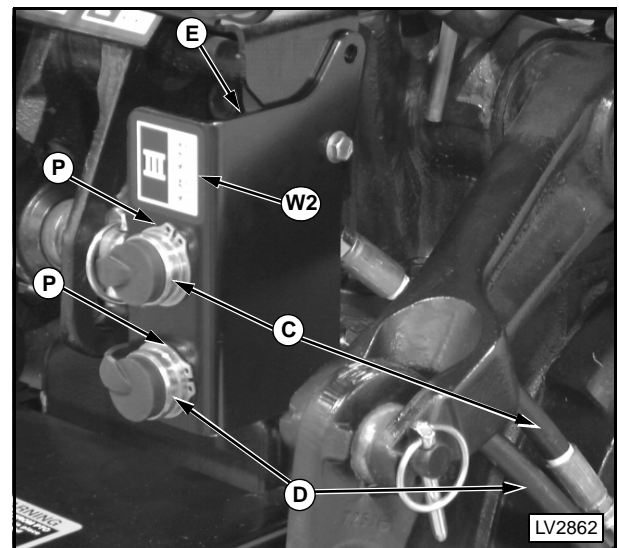


15. Install short hydraulic hose and coupler assembly (C), supplied in kit in upper hole of coupler bracket (E) and install one snap ring (P).

16. Install long hydraulic hose and coupler assembly (D), supplied in kit in lower hole of coupler bracket (E) and install remaining snap ring (P).

17. Install appropriate label on coupler bracket (E):

- Units not equipped with dual SCV - install "I" label (W1).
- Units equipped with dual SCV - install "III" label (W2).



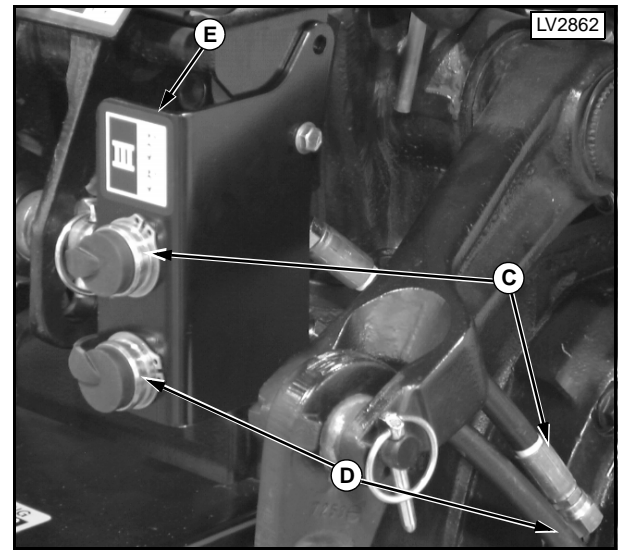
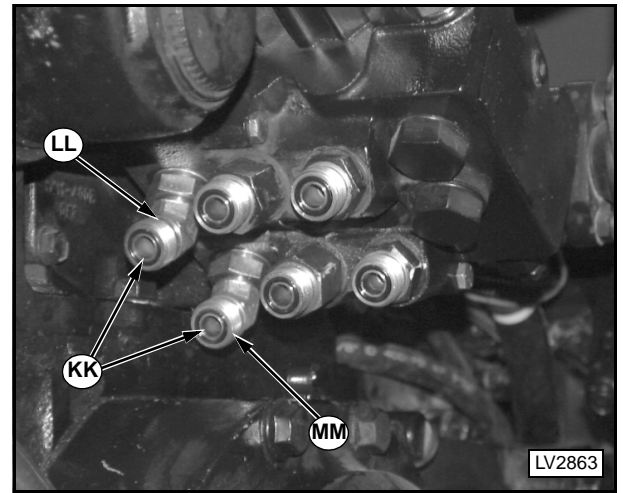
18. Make sure all O-rings (KK) are in place on single/third SCV fittings and dual SCV, if equipped.

19. Connect short hydraulic hose (C) from upper hole on coupler bracket (E) to top rear fitting (LL). Tighten to 50 N•m (37 lb-ft).

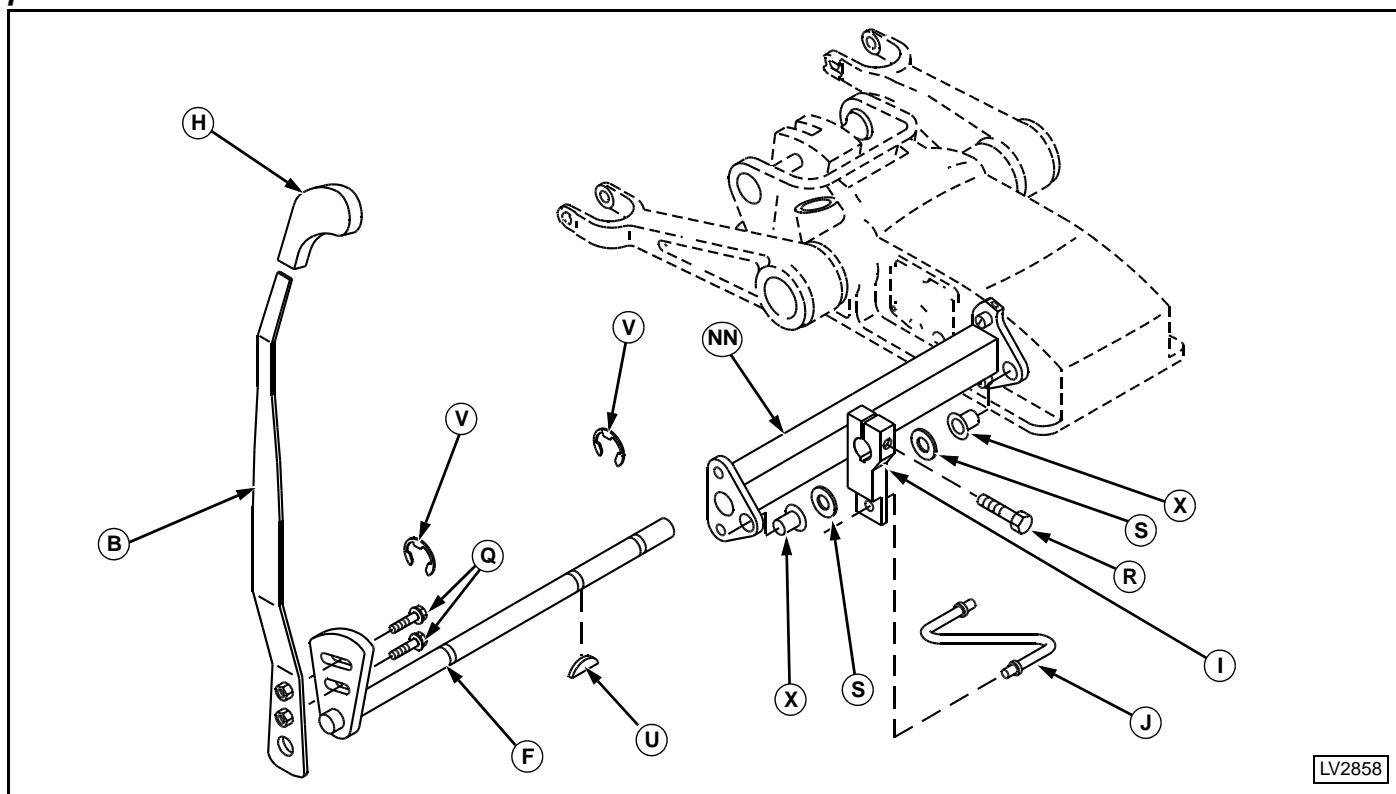
20. Connect long hydraulic hose (D) from lower hole on coupler bracket (E) to bottom rear fitting (MM). Tighten to 50 N•m (37 lb-ft).

21. **If equipped with dual SCV:** connect hydraulic lines to SCV following tags or labels as instructed in step 8 of “**Prepare Tractor for Installation**” to identify connection locations.

22. Tighten all hydraulic line connections at SCV to 50 N•m (37 lb-ft).



**NOTE:** Tractors equipped with cab have most of the control lever parts as shown below already installed from the factory, with the exception of control lever (B), knob (H), link (J), two cap screws (Q), one cap screw (R) and woodruff key (U). See procedures below for tractors with or without cab.



### 23. TRACTOR WITH CAB—CONTROL LEVER INSTALLATION:

- Install woodruff key (U) on control shaft (F).
- Connect link (J) to spool on single/third SCV.
- When moving lever (I) into position, connect the other end of link (J) to hole in lever (I).
- Slide lever (I) outward to engage woodruff key (U) in keyway slot on lever (I) and connect the other end of link (J) during positioning.
- Install M6x25 mm cap screw (R), control lever (B), two M8x16 mm cap screws (Q) and knob (H).

### 23. TRACTORS WITHOUT CAB—CONTROL LEVER INSTALLATION

- Install two bushings (X) into inner and outer control shaft bores on rockshaft lever support (NN).
- Connect link (J) to spool on single/third SCV.
- Install control shaft (F), one 5/8 in. washer (S), woodruff key (U), lever (I) and remaining 5/8 in. washer (S). Install control shaft (F) until seated in inner bore.
- When moving lever (I) into position, connect the other end of link (J) to hole in lever (I).
- Slide lever (I) outward to engage woodruff key (U) in keyway slot on lever (I) and connect the other end of link (J) during positioning.
- Install M6x25 mm cap screw (R), control lever (B), two M8x16 mm cap screws (Q) and knob (H).

24. **If equipped with dual SCV:** Install control cable support bracket (OO) to the outer and middle mounting holes on rockshaft lever support using two cap screws (FF). Secure cables to SCV using two clip-pins (EE).

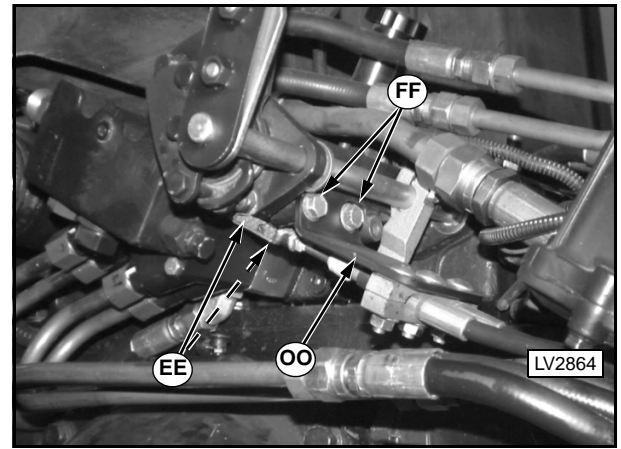
**NOTE:** If more detailed instructions for the following procedures are needed, see the applicable tractor technical manual TM1520 or TM1716.

25. **Tractors without cab:** install fender and right rear wheel. Tighten wheel cap screws to 175 N•m (130 lb-ft) if equipped with steel rim or 225 N•m (165 lb-ft) if equipped with cast rim.

26. Install right-hand control console and panel.

27. **Tractors without cab:** install plastic SCV cover, if equipped, and seat and support.

28. **Tractors with cab:** install base plate and seat and support



**CAUTION:** Do not use hands to check for leaks with hydraulic fluid under pressure. Escaping fluid under pressure can and will penetrate the skin causing serious injury. 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.

29. Start engine and move SCV joystick in all positions. Visually check for hydraulic oil leaks.

