



# Service Repair Manual

## **Models**

140G Motor Grader

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Product: MOTOR GRADER

Model: 140G MOTOR GRADER 13W

Configuration: 140G MOTOR GRADER 13W00425-00740 (MACHINE) POWERED BY 3306DI ENGINE

## Disassembly and Assembly 12G, 120G, 130G & 140G MOTOR GRADER VEHICLE SYSTEMS

Media Number -SEN3650-00

Publication Date -01/09/1987

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SEN36500039

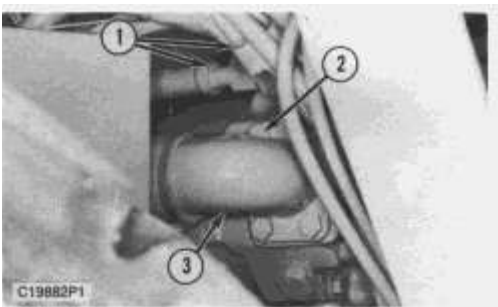
### Hydraulic Pump

SMCS - 5070-010; 5070-015; 5070-016

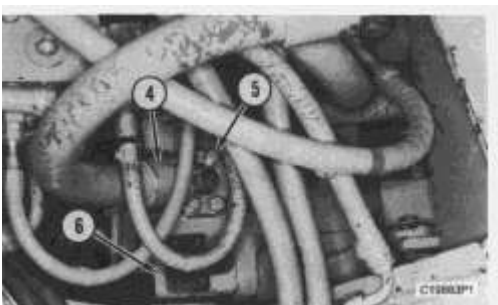
### Remove and Install Hydraulic Pump

Start By:

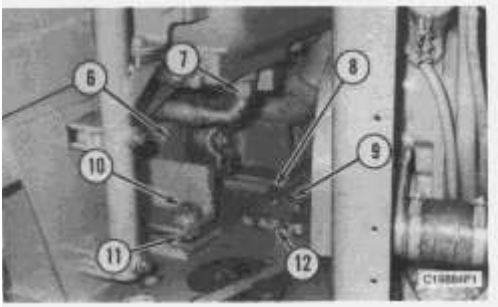
- a. articulate the frame and install the anti-pivot pin.
- b. remove pump drive
- c. remove pressure and flow compensator valve



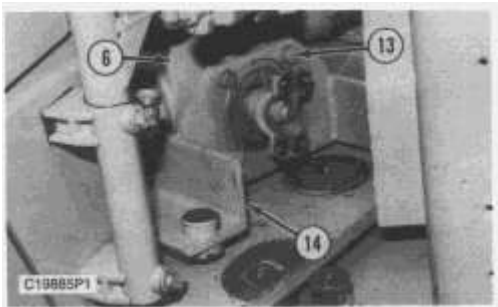
1. Remove four bolts (2) and disconnect elbow (3). Disconnect two hose assemblies (1), (one not shown).



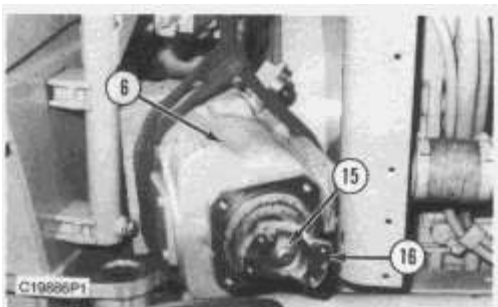
2. Remove four bolts (5) and disconnect hose assembly (4) from hydraulic pump (6).



**3.** Disconnect hose assembly (7). Remove six bolts (8) and plate (12). Remove fitting (9) from the upper hitch pin. Remove four bolts and washers (10). Note: Keep shims between mount assembly (11) and the front frame.



**4.** Remove four bolts (13) and plate assembly (14) from hydraulic pump (6).



**5.** Fasten a hoist to hydraulic pump (6) and remove the pump from the machine. The weight of the hydraulic pump is 77 Kg (170 lbs.).

**6.** Remove nut (15) and yoke (16) from hydraulic pump (6). Note: Remove the woodruff Key from the shaft of the pump.

**NOTE:** The following steps are for installation of the hydraulic pump.

**7.** Apply 2P2506 Thread Lubricant on the taper and threads of the pump shaft. Install the woodruff key and yoke (16) on the pump shaft. Install nut (15) and torque the nut to  $180 \pm 14 \text{ N}\cdot\text{m}$  ( $135 \pm 10 \text{ lb}\cdot\text{ft}$ ).

**8.** Position hydraulic pump on the front frame. Install plate assembly (14) and four bolts (13) on the hydraulic pump.

**9.** Put the shims between mount assemblies (11) and the front frame. Use shims as required to maintain 6 mm (.236 in.) clearance with the frame. Install four bolts and washers (10). Install plate (12) and six bolts (8). Install fitting (9) on the upper hitch pin. Connect hose assembly (7) to the hydraulic tank.

10. Position hose assembly (4) on hydraulic pump (6) and install four bolts (5).

11. Position hose assembly (3) on hydraulic pump (6) and install four bolts (2). Connect two hoses (1), (one not shown).

End By:

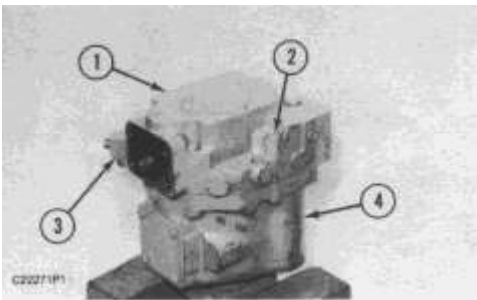
- a. install pressure and flow compensator valve
- b. install pump drive
- c. remove anti-pivot pin from the main frames

## Disassemble Hydraulic Pump

Tools Needed		A	B
1P510	Driver Group	1	
1P1858	Retaining Ring Pliers		1

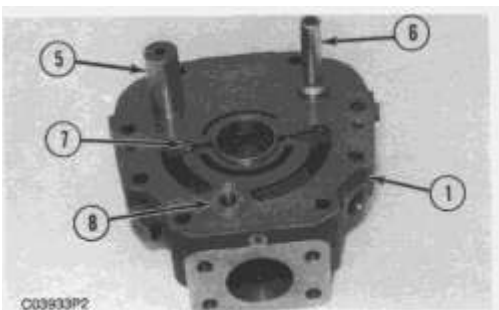
Start By:

- a. remove implement pump

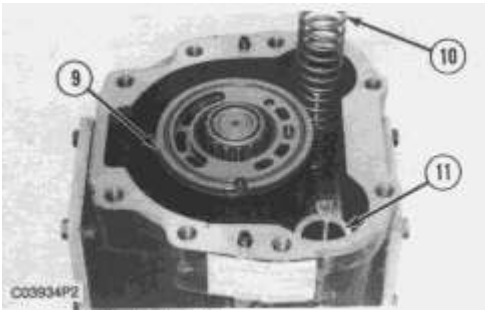


1. Remove fitting (3) from valve block (1).

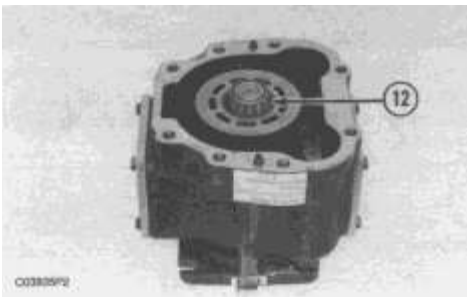
2. Remove bolts (2) and remove valve block (1) from pump body (4). Remove the bias cylinder from the spring in the pump body. Remove the gasket from the pump body.



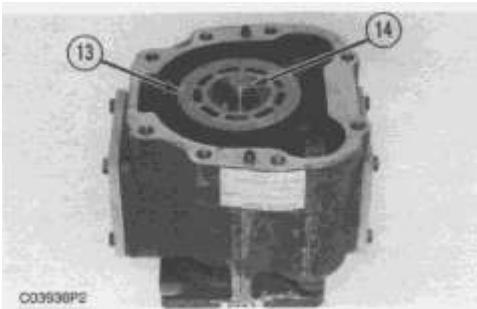
3. Remove stem (5), stem (6), pin (7) and check valve assembly (8) from the valve block (1).



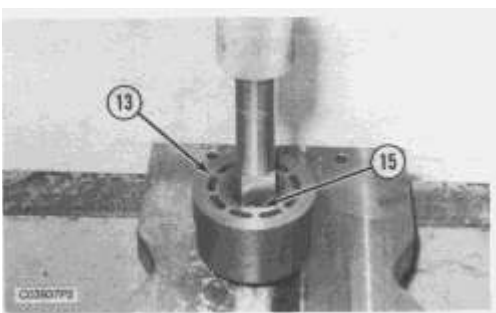
4. Remove spring (10), water plate (9) and control cylinder (11).



5. Remove bearing assembly (12). Remove the spacers under bearing assembly (12).



6. Remove cylinder block (13) from shaft (14).



**WARNING**

**The spring located within the cylinder block is under high compression and can cause bodily harm, if caution is not used, if or when the retaining ring is removed.**

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