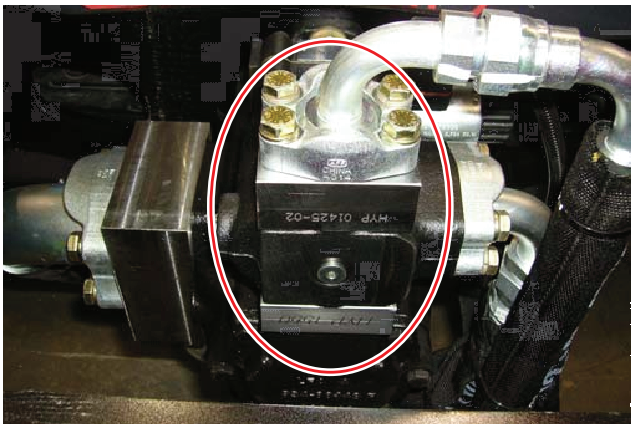
Inspecting the Pump

The hydraulic pump is powered by the vehicle engine through a drive shaft. The pump should be visually inspected every working day.

Figure 4-4 Pump



When inspecting the pump:

1. Start the engine and engage the hydraulic pump.
   The pump should turn freely without excessive noise or vibrations.
2. Open the cab grill (if necessary) to check for oil leaks under the pump and at connection points.
3. Lock out and tag out the vehicle (see *Locking out and Taging Out the Vehicle* on page 6).

If electrical problems occured with the pump, see *Troubleshooting* on page 133.

Caution!

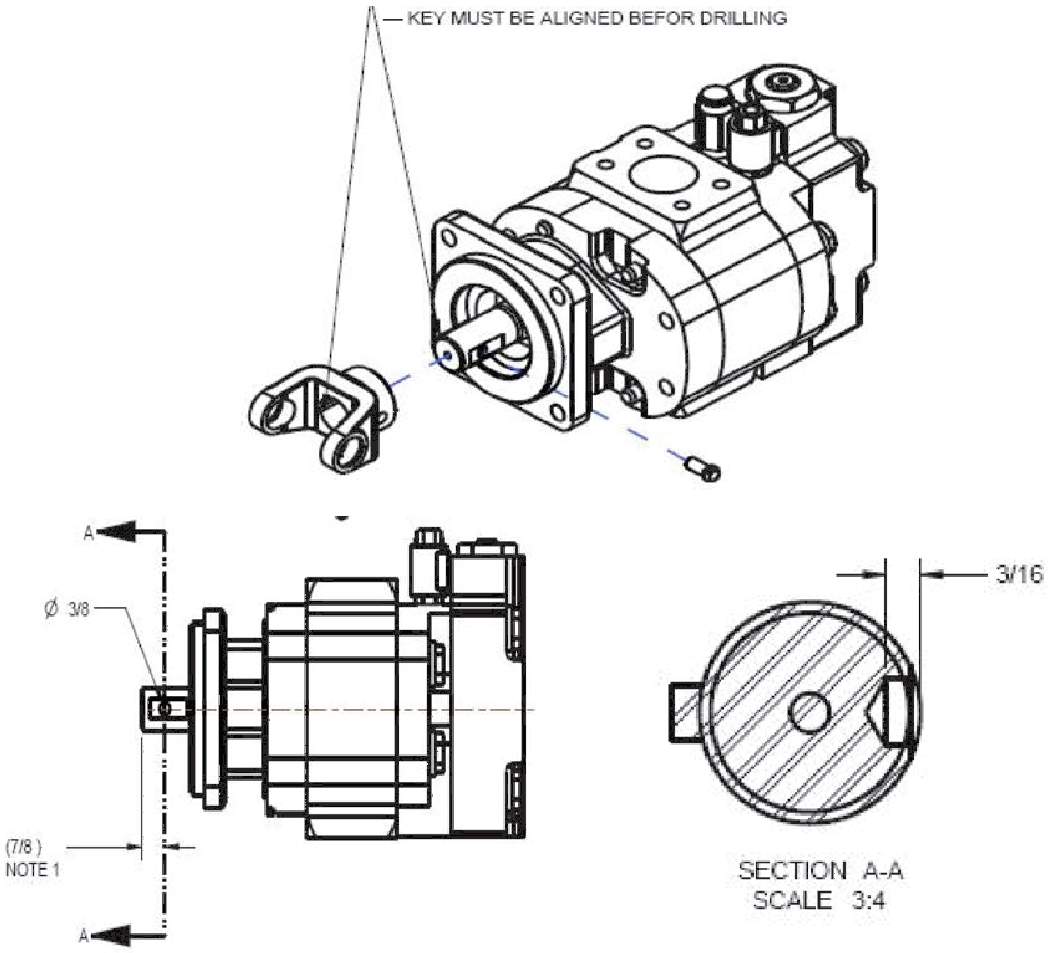
If the unit has to be driven away for repairs on the hydraulic system, remove the drive shaft between the engine and the pump before restarting the engine.

Pump Replacement

It is important to apply the following procedure after making a pump replacement or a pump drive shaft replacement.

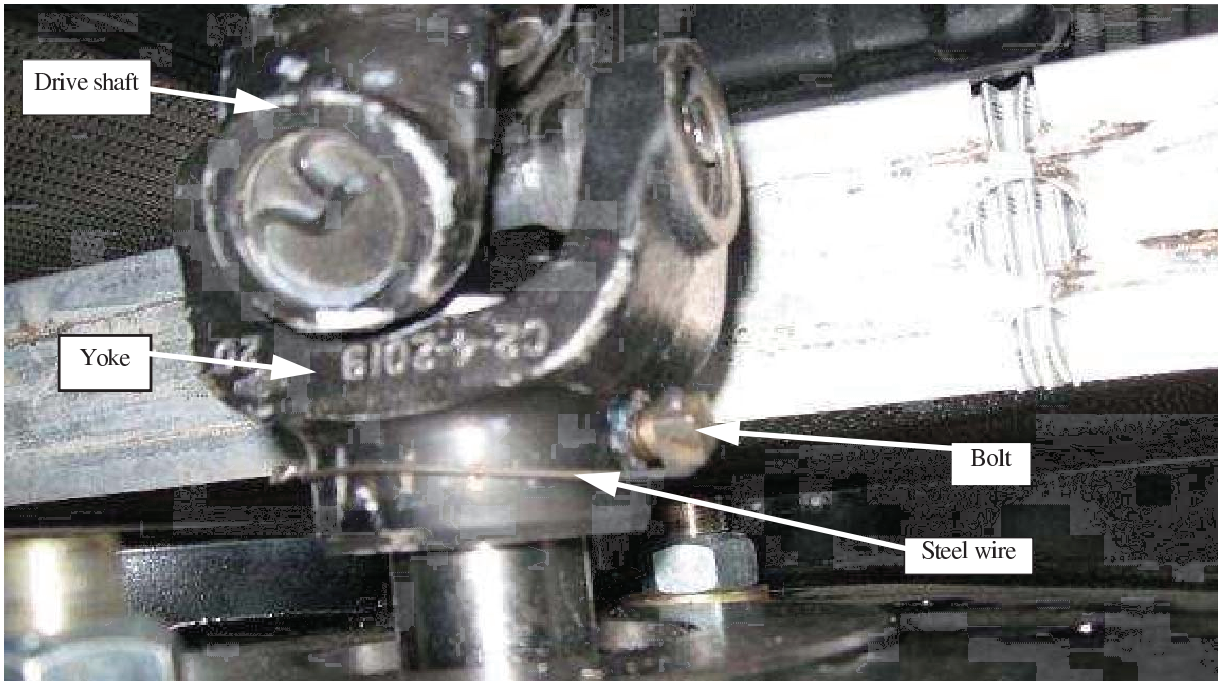
For standard drive shaft, do the following:

1. Locate the hole with the yoke bolt (the yoke must be fully engaged on shaft).



2. Apply Loctite 243 (medium strength) on the bolt before assembly.
3. Install a steel wire on the yoke bolt (the wire must be fixed tight around the bolt).

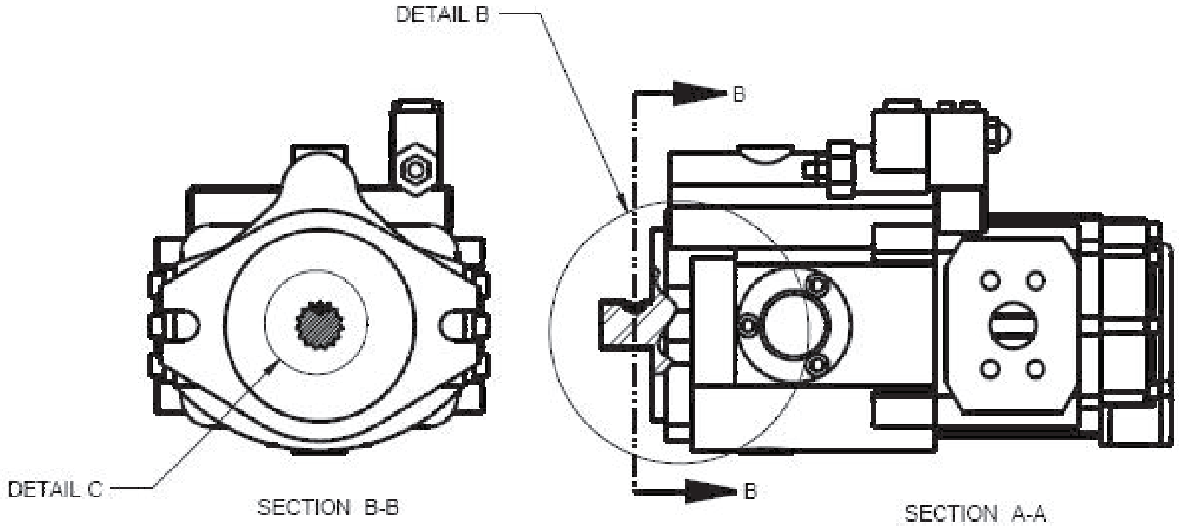
Figure 4-5 Steel wire on yoke

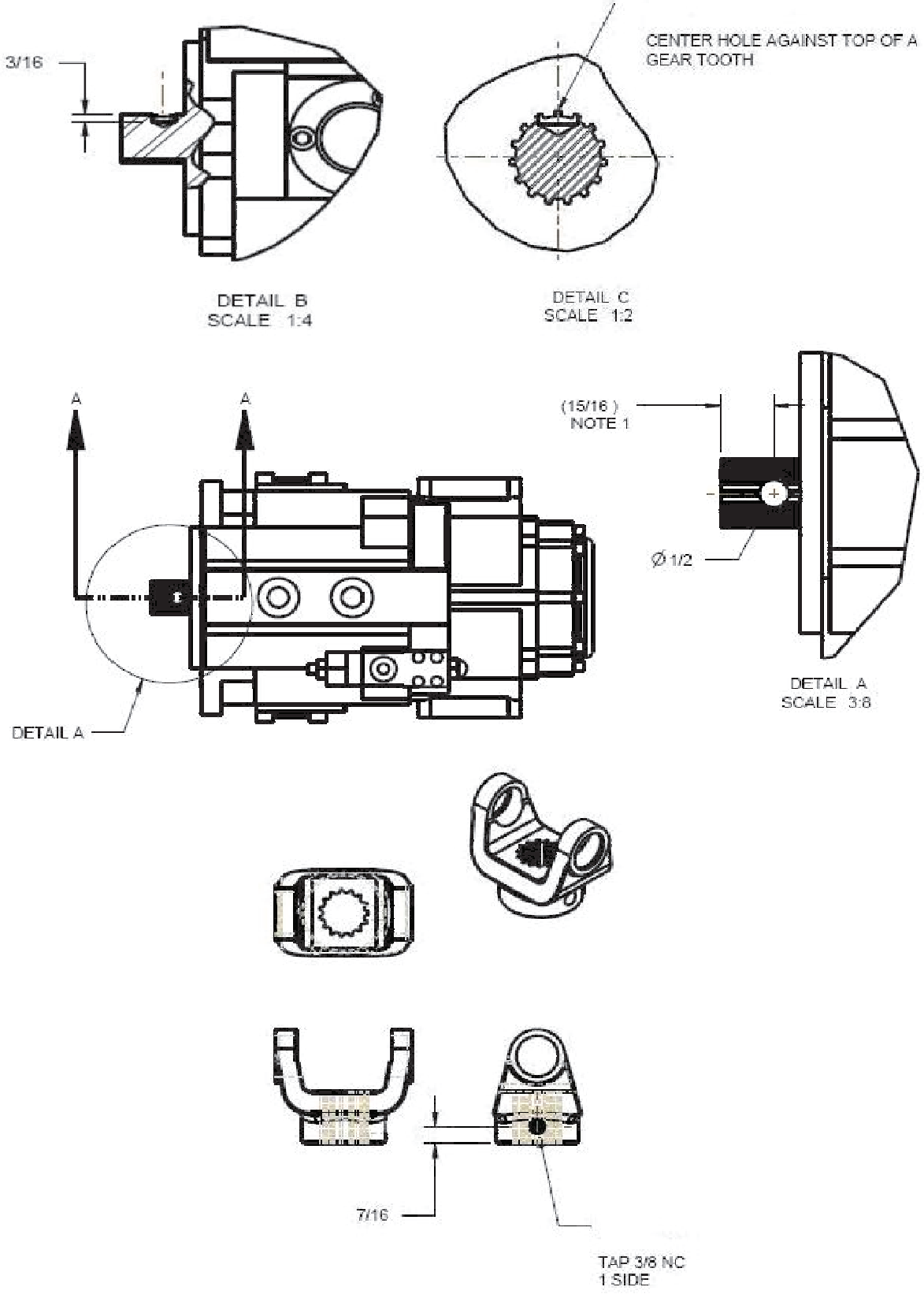


4. Use the following parts: QUB00700 (bolt) and 154503 (steel wire).

For spline drive shaft, do the following:

1. Locate the hole with the yoke bolt (the yoke must be fully engaged on shaft).




3/16
DETAIL B
SCALE 1:4
CENTER HOLE AGAINST TOP OF A
GEAR TOOTH
DETAIL C
SCALE 1:2
A
A
DETAIL A
(15/16)
NOTE 1
Ø 1/2
DETAIL A
SCALE 3:8
7/16
TAP 3/8 NC
1 SIDE

2. Apply Loctite 243 (medium strength) on the bolt before assembly.
3. Install a steel wire on the yoke bolt (the wire must be fixed tight around the bolt) (see Figure 4-5).
4. Use the following parts: QUB00700 (bolt) and 154503 (steel wire).

Priming a New Pump

To prevent cavitation or air in the hydraulic system after installing a new pump or even when flushing the hydraulic system, make sure to prime the pump before starting the engine.

Apply the following procedure for any new installed pump:

1. Make sure the parking brake is applied and the vehicle is tagged out for maintenance purposes (refer to "Locking out and Taging Out the Vehicle" on page 6)..

Danger!

Apply the lockout / tagout procedure at all times when maintenance or inspection is carried out on the vehicle.

2. With the ball valve closed, fill the suction line before installing it on the pump.
3. Fill the pump housing with new oil.
4. Reinstall the pressure hose on the pump housing.
5. Open the ball valve on the suction line.
6. Crank the engine repeatedly — about five times — without letting it start in order to fill the suction hose and the pump with hudraulic oil and to push the air back into the tank.
7. Start the engine. You can slowly raise the engine RPM only after 5 minutes. When you raise the RPM, always make sure that the pump doesn't make excessive noise.
8. Before putting the vehicle back in service, recalibrate the system pressures.

NOTE: For units equipped with vane pump.

Inspecting the Hydraulic Tank

Verify that the oil in the tank is clean (not colored) and always at the appropriate level.

Caution!

Maximum temperature for hydraulic oil is 77 °C (180 °F).

To inspect the hydraulic tank:

1. Lock out and tag out the vehicle (see *Locking out and Taging Out the Vehicle* on page 6).