# **SERVICE MANUAL**

## **SERVICE MANUAL SECTION**

## STEERING WHEEL REMOVAL AND INSTALLATION

Truck Model: 4200

Truck Model: 4300

Truck Model: 4400

Truck Model: 7300

Truck Model: 7400

Truck Model: 7500

Truck Model: 8500

Truck Model: 8600

**S05016** 

01/05/2001

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## **DESCRIPTION**

This instruction addresses removal and installation of the steering wheel, clock spring, and cruise control switch modules.

### **REMOVE**



WARNING – Always disconnect power source before working on electrical equipment.

**CAUTION** – Follow the installation instructions printed on the clock spring to avoid part damage.

### **REMOVE FRONT AND SIDE COVERS**

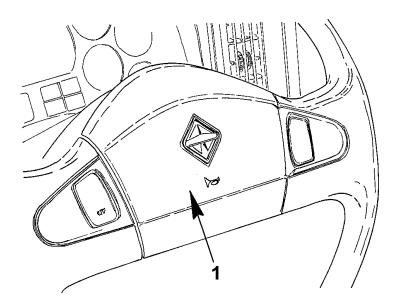


Figure 1 Arrow Indicates Front Cover

1. FRONT COVER

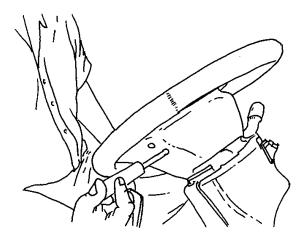


Figure 2 Releasing Cover with Tool

To release front cover, insert removal tool into the aperture. Phillips head screwdriver may be used.

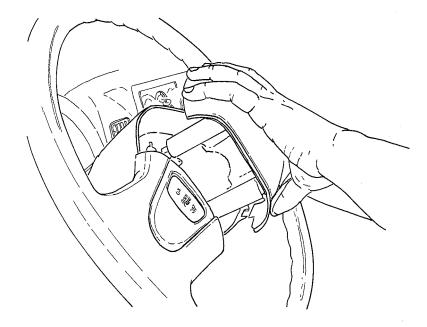


Figure 3 Removing Cover

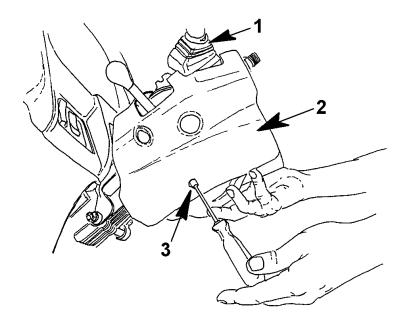


Figure 4 Remove of Side Covers Seen From Below

- 1. TURN SIGNAL
- 2. SIDE COVER
- 3. RETAINING SCREW

### **REMOVE THE LOCKING CLIP**

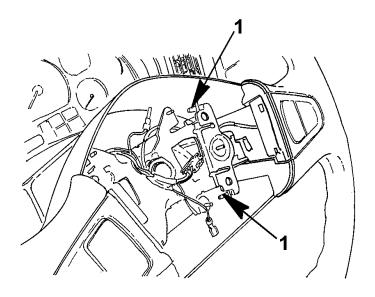


Figure 5 Arrows Indicate Locking Clip

1. LOCKING CLIP

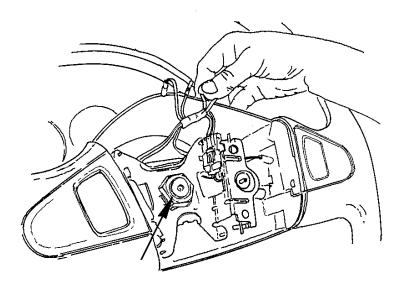


Figure 6 Arrow Indicates Retaining Nut

Remove the retaining nut from the shaft spindle.

# **DISCONNECT HARNESS**

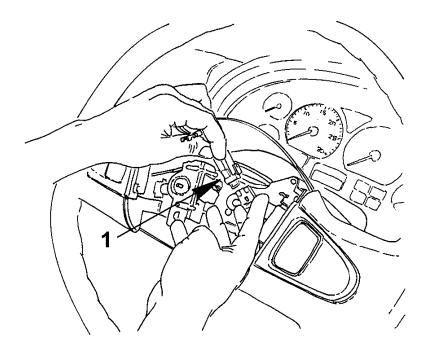


Figure 7 Disconnecting the Wheel Harness

Disconnect the harness.

### **REMOVE WHEEL**

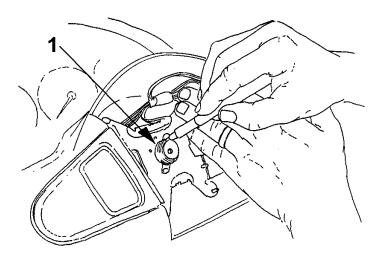


Figure 8 Arrow Indicates Location to Mark Shaft and Spindle

1. MARK THE SHAFT SPINDLE AND PLATE TO AID ALIGNMENT AT REASSEMBLY

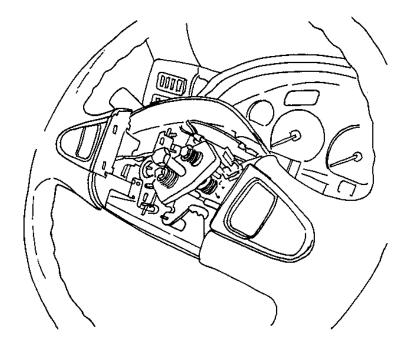


Figure 9 Arrow Indicates Wheel Puller

Use wheel puller to loosen wheel from shaft spindle. Remove wheel from spindle.

### **REMOVE CLOCK SPRING**

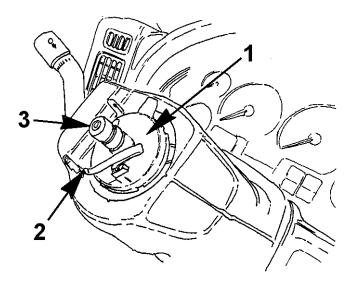


Figure 10 Clock Spring

- 1. CLOCK SPRING BODY
- 2. CLOCK SPRING HARNESS
- 3. SPINDLE

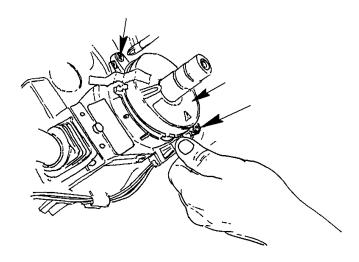


Figure 11 Clock Spring with Details and Harness

CLOCK SPRING BODY SHOWING ATTACHMENT TABS WITH PHILLIPS HEAD SCREWS

Remove screws from tabs.

Remove clock spring.

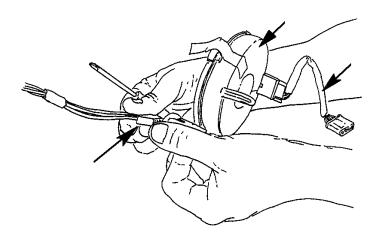


Figure 12 Clock Spring with Harness

Disconnect the clock spring harness from dash harness.

## **REMOVAL OF CRUISE CONTROL SWITCH MODULES**

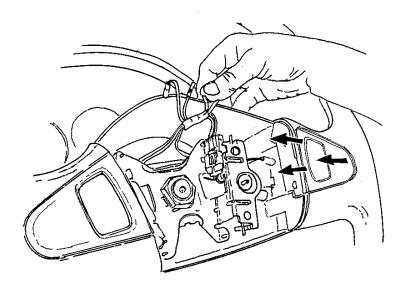


Figure 13 Remove Switch Modules

To remove the switch modules slide them toward the center.

### RE-ASSEMBLY OF STEERING COLUMN

Read and follow directions for clock spring installation very carefully. This device will break if not properly installed.

#### **INSTALLATION OF CLOCK SPRING**

CAUTION - If the clock spring binds, it must be re-aligned or it will break in use.

Connect the clock spring harness to the dash harness (see Figure 12).

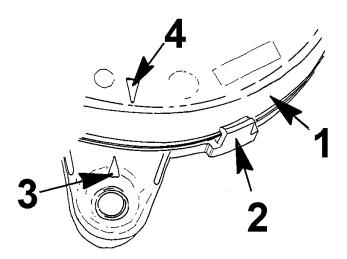


Figure 14 Clock Spring Detail

- 1. CLOCK SPRING BODY
- 2. RETAINER CLIP
- 3. ALIGNMENT ARROW ON TAB
- 4. ALIGNMENT ARROW ON CLOCK SPRING BODY

Install the clock spring using alignment arrows on the spring body and on the tab.

To assure that the spring is centered, do the following:

- A. Turn the spring 3 1/2 turns counter-clockwise
- B. Return the spring clockwise 3 1/2 turns.
- C. Turn the spring 3 1/2 more turns clockwise.
- D. Return the spring 3 1/2 turns counter-clockwise to the center.

If no binding has occurred, the spring is now centered. If binding occurs, rotate the clock spring body appropriately and repeat steps A, B, C, and D until no binding occurs through 3 1/2 turns from center in each direction. (Seven turns lock-to-lock.)

#### IF THE CLOCK SPRING BINDS, IT MUST BE RE-ALIGNED OR IT WILL BREAK IN USE!

#### **INSTALLATION OF THE STEERING WHEEL**

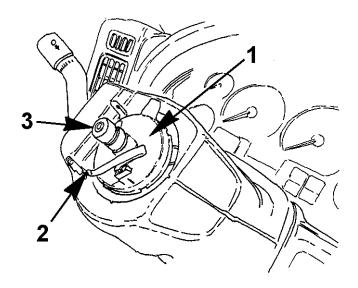


Figure 15 Clock Spring Installed

- 1. CLOCK SPRING BODY
- 2. CLOCK SPRING HARNESS
- 3. SPINDLE

Line up the marks made earlier to assure the wheel is centered on the spindle (Figure 8) (See Figure 8, page 5).

Install nut on spindle. Tighten the nut to 55 to 60 Lbf-ft (75 to 81 Nm).

Assure that the locking clip is properly located to prevent it working loose (Figure 5) (See Figure 5, page 3).

Install side covers (Figure 4) (See Figure 4, page 3).

Install front cover (Figure 2) (See Figure 2, page 2).