CLEANING AND INSPECTION (Continued)

3. Check steering gear mountings and tie rod connections for looseness. Tighten all mountings to specification. If tie rods are worn or bent, replace parts. Refer to Section 11-02.
4. Spin each front wheel with wheel spinner and check and balance each wheel as necessary. Refer to Section 04-01.
5. Check action of shock absorbers and suspension springs. If they are not in good condition, vehicle may not settle in normal / level position.

Ball Joint, Lower

Inspection

1. Raise vehicle until wheels fall to full down position. Refer to Section 00-02.
2. Have an assistant grasp lower edge of tire and move wheel and tire assembly in and out.
3. As wheel is being moved in and out, observe lower end of knuckle and lower control arm. Any movement indicates abnormal ball joint wear.
4. If any movement is observed, install new lower control arm assembly.

Suspension, Rear

At regular intervals, the following rear suspension checks should be made:

1. Check for evidence of fluid leaks on rear shock absorbers. (A light film of fluid is permissible. Make sure fluid is not from sources other than shock absorber.)
2. Check shock absorber operation.
3. Check condition of upper and lower suspension arms pivot bushings and tension strut bushings.

   Replace any damaged or worn components. Refer to procedures under Removal and Installation.

Shock Absorber Checks

All vehicles are equipped with low-pressure gas-filled hydraulic shock absorber struts of the direct acting type. They are non-adjustable and non-refillable. They cannot be serviced as a cartridge and must be serviced as an assembly.

1. **Oil Leak:** A light film of oil (weepage) on the upper portion of the shock absorber is permissible and is a result of proper shock lubrication. Weepage is a condition in which a thin film of oil may be deposited on the shock outer tube (body) and is normally noticed due to the collection of dust in this area. Shock absorbers which exhibit this weepage condition are functional units and should not be replaced. Leakage is a condition in which the entire shock body is covered with oil and the oil will drip from the shock onto the pavement.
   If this condition exists:
   a. Ensure that fluid observed is not from sources other than the shock absorber.
   b. Replace the worn or damaged shock absorber.
2. **Vehicle Sag:** Many times shock absorbers are replaced in an effort to solve a vehicle sag concern. Shock absorbers by design are hydraulic damping units only, and unlike suspension springs, do not support any suspension loads. Therefore, replacing a shock absorber will not correct a vehicle sag concern.
3. **Replacement in Pairs:** In the past it was recommended that shock absorbers be replaced in pairs if one unit became unserviceable. Improved sealing, due to new materials and design and improved rod machining and hardening techniques along with improved manufacturing quality checks have added to the functional reliability of shock absorbers. **Therefore, shocks no longer need to be replaced in pairs when only one unit is not serviceable.**

Vehicle Inspection

1. Check all tires for proper inflation pressure.
2. Check tire condition to confirm proper front end alignment, tire balance and overall tire condition such as separation or bulges.
3. Check the vehicle for optional suspension equipment such as heavy duty handling or trailer tow suspensions. These suspensions will have a firmer ride feeling than standard suspensions.
4. Check vehicle attitude for evidence of possible overload or sagging. Check luggage compartment area.
5. Road test vehicle to confirm customer concern after performing above Steps.

Hoist Check

1. **Noise:** Noise can be caused by loose suspension or shock attachments. Verify that all attachments or the suspension components and shock absorbers are tight. Replace any worn or damaged upper stud insulators. Replace any shock absorber that has a damaged integral lower mounting bushing. Check shock absorbers for external damage.