

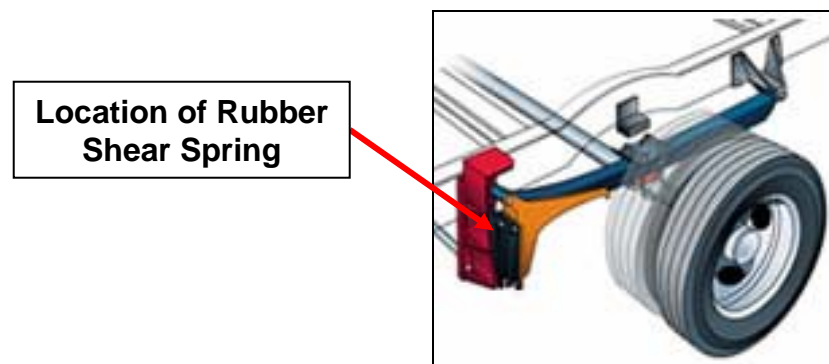
INFORMATION BULLETIN



July 14, 2003

MOR/ryde RUBBER SHEAR SPRING (REPLACEMENT CRITERIA)

MOR/ryde International, Inc. (MOR/ryde) has informed the California Highway Patrol (CHP) of the proper inspection procedures regarding their "RL" Rubber Shear Spring suspension system. MOR/ryde's RL system is unique in that their rubber shear springs work with the factory leaf springs on a vehicle to create a new "shared" suspension system. The axle spring hanger and spring shackles are replaced by the rubber shear spring. The rubber shear springs are designed to isolate and absorb road shock, which reduces the vibrations transmitted to the vehicle, providing for a smoother ride. The vibrations are absorbed before they get to the vehicle frame, its components, and contents. This better protects the vehicle from damaging road shock. Figure 1 illustrates a typical rubber shear spring location in reference to the vehicle's suspension system.



**Location of Rubber
Shear Spring**

Fig. 1. Typical Location of Rubber Shear Spring

The rubber springs should be periodically inspected for any tears or cracks. MOR/ryde suggests the inspection should be conducted at each oil change. Figures 2, 3 and 4 illustrate various acceptable rubber shear spring conditions and Figure 5 shows MOR/ryde's Inspection Numbering System and indications for spring replacement.



Condition 0
**No Visible Signs
of Tearing**
No Action Required

Fig. 2. Condition 0 – No Visible Signs of Tearing

Condition 1
**Initial Signs of Tearing up to
1-inch Wide, No more than
1/4-inch Deep**
No Action Required



Fig. 3. Condition 1 - Initial Signs of Tearing up to 1-inch Wide, No More than 1/4-inch Deep.



Condition 2
**Tear 1-inch to 3-inches
Wide Across the Shear
Spring, 1/4-inch Deep**

Fig. 4. Condition 2 - Tear 1-inch to 3-inches Wide, Across the Shear Spring, 1/4-inch Deep

Shear springs illustrated in Figures 2, 3 and 4, do not need to be replaced until a tear goes all of the way across the body of the shear spring and works its way into the shear spring more than ¼ -inch in depth.

Note: It is normal to see rubber spring weather checking, which is small surface cracks in the rubber. Weather checking does not require a rubber spring to be replaced.

The rubber shear spring should be replaced if it exhibits a 3-inch wide and ¼ to ½-inch deep crack or tear all of the way across the rubber shear spring. This can be checked by using a flat tool such as a putty knife. The putty knife can be used to probe the rubber shear spring in the affected area. If the knife can be inserted ¼ to ½-inch deep, at least 3 inches across the body of the shear spring, the integrity of the spring is affected and it should be replaced. The CHP considers this condition improper maintenance and a violation of Title 13, California Code of Regulations (13 CCR), Section 1232(a).

If a rubber shear spring exhibits a tear all the way across the shear spring which is more than ½-inch deep, the spring must be replaced. The CHP considers this condition a violation of Section 24002(a) VC and the vehicle should be placed out-of-service.

Spring Condition	Description	Action Required
0	No visible signs of tearing	None
1	Initial signs of tearing. 0-inch to 1-inch wide, no more than ¼-inch deep	None
2	Tear 1-inch to 3-inch wide across the shear spring and ¼-inch deep	None
3	Tear 3" wide, all of the way across the spring and ¼ to ½-inch deep	Violation of 13 CCR 1232(a)
4	Tear all of the way across the shear spring and exceeding ½-inch or more in depth	Violation of Vehicle Code (VC) Section 24002(a) (Out-of-Service)

Fig. 5. MOR/ryde Rubber Shear Spring Inspection Numbering System

Any questions regarding this Information Bulletin should be directed to Mr. Mike Ellis of Commercial Vehicle Section at (916) 445-1865.

ENFORCEMENT SERVICES DIVISION

OPI: 062

DISTRIBUTION: 3A E S[Holders of HPG 83.2, Motor Carrier Advisory Committee (MCAC), Motor Carrier Interested Parties (MCIP), School Pupil Transportation Advisory Committee (SPTAC), Bus Manufacturers and Dealers (BMAD) and School Bus Mailing List].