



# SERVICE BULLETIN



SERVICE DEPARTMENT... CHRYSLER-PLYMOUTH DIVISION  
CHRYSLER MOTORS CORPORATION

TECHNICAL INFORMATION ON  IMPERIAL  CHRYSLER  PLYMOUTH  VALIANT

The front suspension lower ball joints are designed to have stud to bearing clearance of 0.000 inch minimum to .050 inch maximum. Lower ball joints should not be replaced for looseness if the axial end play (up and down movement) is under .050 inch).

A new tool C-3911 has been developed to accurately measure lower ball joint end play and to eliminate needless replacement of ball joints that are within specifications. See Figure 1.

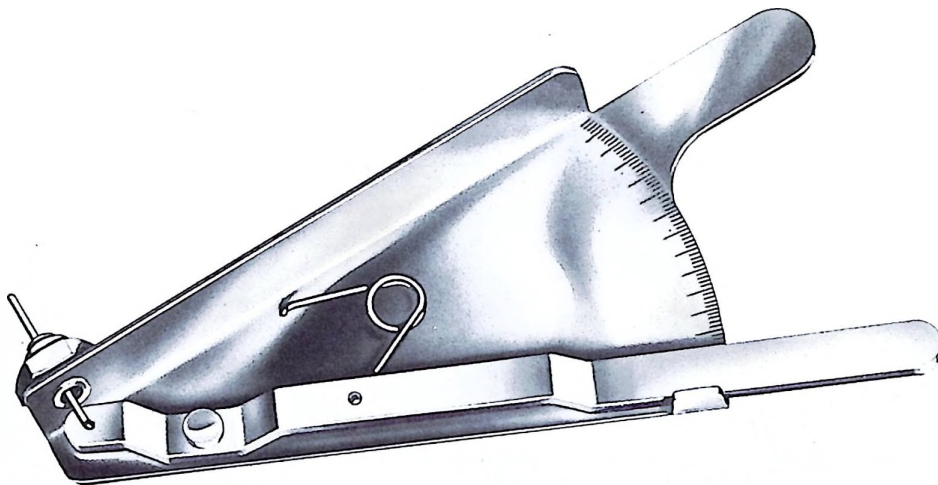


Figure 1

To measure lower ball joint end play, proceed as follows:

1. Raise the front of the vehicle at the lower control arms to bring the wheels clear of the floor.

**CAUTION:** Lower control arms must be supported sufficiently outboard so that the rebound bumper is not compressed in order to unload the lower ball joint.

(Over)

October 30, 1962

No. 63-14

FRONT  
SUSPENSION

LOWER  
BALL  
JOINTS

ALL  
IMPERIAL,  
CHRYSLER,  
PLYMOUTH,  
AND  
VALIANT  
MODELS  
FROM  
1957 THRU 1963

P-4438-C

Service Mgr.	
Shop Foreman	
Technicians	
Parts Mgr.	
Partsmen	

2. Remove the ball joint plug and screw the threaded fitting of the tool into the ball joint plug hole until it is firmly seated, see Figure 2.

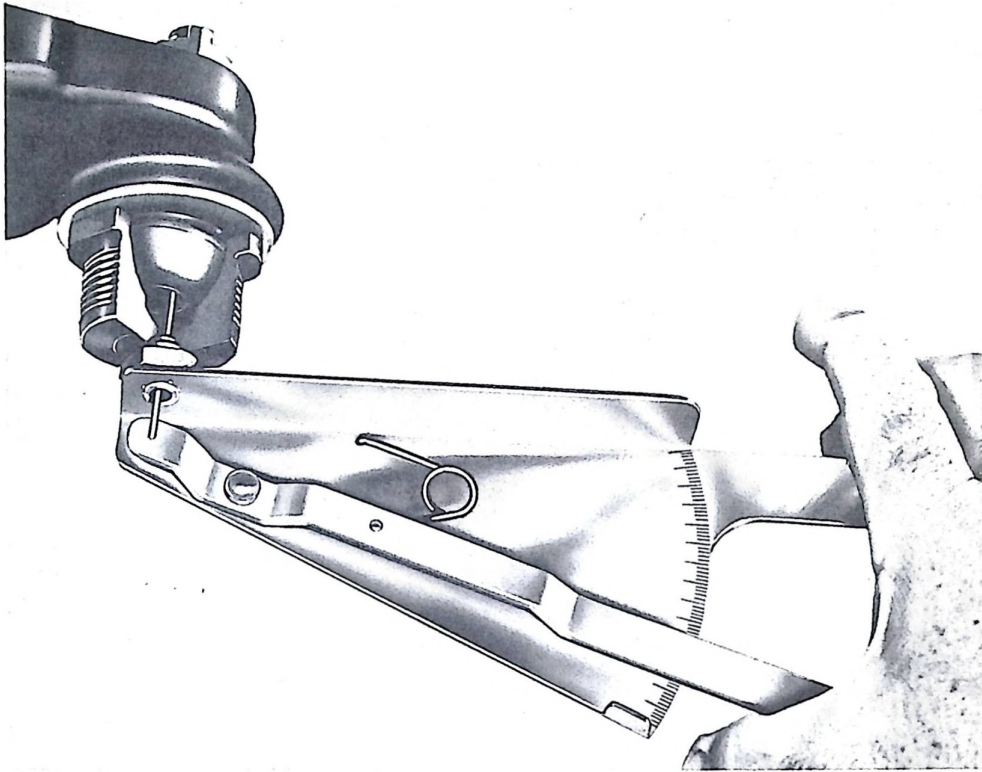


Figure 2

3. Raise and lower the wheel either by hand or with the aid of a pry bar and note the free play indicated on the scale of the gauge.

The scale of the gauge is graduated to indicate free play in minor increments of .010" with the major increments indicating .050".

Replacement is necessary only when movement of the gauge arm exceeds a travel of five minor increments (.050" indicated on the scale).

POLICY: INFORMATION ONLY.

*J. W. Farley*  
J. W. FARLEY

Manager-Service

CHRYSLER-PLYMOUTH DIVISION



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TECHNICAL INFORMATION ON  IMPERIAL  CHRYSLER  PLYMOUTH  VALIANT

Indications are that many front end problems such as shimmy, shake, wheel fight, tire wear, etc., are blamed on lower ball joints because of their apparent looseness when unloaded. This is generally a false assumption stemming from the lack of knowledge of the loading and operation of the lower ball joints. In most cases, where replacing or preloading lower ball joints has eliminated a complaint, it has in effect eliminated the symptoms but not the ailment.

The replacement of lower ball joints is unnecessary except when the end play has surpassed the specified limits, or its operation is objectionable or unsafe due to a deficiency or as the result of an accident. (Refer to measuring procedure outlined in Bulletin No. 63-14, dated October 30, 1962, using Tool No. C-3911).

For reasons of safety, preloading of lower ball joints in the field with external parts, or a kit, is definitely not approved. Kits being sold for this purpose have been evaluated and the following objections noted:

1. They require removal of the ball joint seal and do not themselves provide a satisfactory seal even for 1000 mile lube intervals.
2. They restrict ball joint angularity to approximately half the specified angularity.
3. They create excessive friction in the ball joint assembly. This will increase harshness and decrease returnability.
4. They apply an excessive load to the ball joint housing, bearing, and stud, increasing wear and causing premature failure.

Free play up to .050 inch is necessary to permit proper lubrication and free movement at the bearing surfaces.

*J. W. Farley*  
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CHRYSLER-PLYMOUTH DIVISION

February 13, 1963

No. 63-60

FRONT  
SUSPENSION

LOWER  
BALL  
JOINTS

ALL  
MODELS  
1957  
THRU  
1963

P-541-C

Service Mgr.	
Shop Foreman	
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Parts Mgr.	
Partsmen	