

DATE:

**APRIL 6, 1995** 

**MODEL YEAR:** 

1986 - 1994

CHASSIS:

ALL

**BULLETIN#:** 

ST - 02 (REV. 04/95)

**DESTROY OLD BULLETIN** 

**FILE IN STEERING SECTION** 

# DRAG LINK ADJUSTMENT PROCEDURE (PROCEDURAL INFORMATION CHANGE)

### PURPOSE:

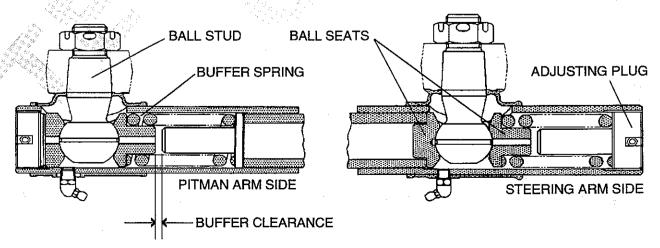
To provide a description of the construction and operation of the drag link assembly utilized in 1986 - 1994 Model Year UD Trucks, and to provide the correct adjustment procedure for the drag link assembly. Beginning with the 1994 UD1400 and all 1995 Model Year vehicles, the drag link will no longer utilize this design.

## **DESCRIPTION:**

The drag link assembly in all 1994 and prior UD Truck models (except 1994 UD1400) utilize a *buffer spring* and a *buffer clearance* in the design of this steering component.

The purpose of the **buffer spring** is to dampen shock from the tire contact with the road surface from being transmitted directly to the steering wheel. The **buffer spring** permits this dampening action in either direction of drag link travel.

The **buffer clearance** provides necessary and effective dampening action by providing a space for the **buffer spring** to operate. The **buffer clearance** can be adjusted by means of the adjusting end plug during normal maintenance procedures or when rebuilding the drag link assembly.



## **DESCRIPTION** (continued):

The **buffer clearance** is actuated and compressed by severe road conditions and road shocks. Under normal road conditions and normal vehicle turning, the tension provided by the **buffer spring** prevents any measureable or visible play in the drag link joints. In this case, the drag link joints operate more as fixed joints designed without buffer clearance.

# **BUFFER SPRING TENSION**

MODEL YEAR	TENSION	COMPRESSED LENGTH
<u>CMA / CLA</u> 1987	441.0 lb (200.0 kg)	3.03" (77 mm)
<u>CPB12 / CPC12</u> 1986 - 1987	574.01 lb (260.32 kg)	2.95" (75 mm)
<u>UD3000</u> 1988 - 1991	681.0 lb (309 kg)	2.894" (73.5 mm)
<u>UD3000HD, UD3300</u> <u>UD550T, UD600T</u> 1989 - 1994	681.0 lb (309 kg)	2.894" (73.5 mm)
<u>UD1800</u> <u>UD2000, UD2300</u> 1989 - 1994	441.0 lb (200 kg)	3.03 <sup>"</sup> (77 mm)
<u>UD2600, UD2800</u> <u>UD3000SD</u> 1989 - 1994	681.0 lb (309 kg)	2.894" (73.5 mm)

### **SERVICE NOTICE:**

When performing steering component inspection at the recommended intervals as listed in the vehicle Service Manual, the *standard by-hand method* to determine play also applies to the drag link.

The buffer spring applies the rated tension on the ball stud and ball seats. Any noticeable play obtained by hand and by working the drag link side-to-side and end-to-end is an indication of a problem in the drag link joint. If play is found, the drag links must be disassembled and the component parts inspected for damage or excessive wear. Refer to the appropriate Service Manual for complete component inspection and repair procedures.

# **SERVICE NOTICE (continued):**

The following chart provides the necessary information for the UD Truck technician to properly check and/or adjust the drag link assembly *buffer clearance* on all 1986 - 1994 UD Truck models (except the 1994 UD1400).

It is recommended that the **pitman arm** end <u>and</u> the **steering arm** end of the drag link assembly be adjusted to the specified clearance listed in the **BUFFER CLEARANCE** column of the following chart.

MODEL (1986 - 1994)	BUFFER CLEARANCE	TIGHTEN THE END CAP TO "0" CLEARANCE AND "BACK-OFF":
UD1100 (SU-40)	0.4 mm (0.016")	Until specification is obtained
UD1300 (RU-40)	0.4 mm (0.016")	Until specification is obtained
UD1400 (RU-41)	Non - adjustable	Non - adjustable
UD1800 (CMA/CME)	5.0 mm (0.197")	3 1/3 Turns
UD2000 (CLA/CLE)	5.0 mm (0.197")	3 1/3 Turns
UD2300 (CLG)	5.0 mm (0.197")	3 1/3 Turns
UD2600 (CPA)	3.0 mm (0.118")	2 Turns
UD2800 (CPH)	3.0 mm (0.118")	2 Turns
UD3000SD (CPB88)	3.0 mm (0.118")	2 Turns
UD3000HD (CPB12 - 15)	3.0 mm (0.118")	2 Turns
UD3300 (CPC12 - 15)	3.0 mm (0.118")	2 Turns
UD550T (CPC12 - 14BT)	3.0 mm (0.118")	2 Turns
UD600T (CPC15BT)	3.0 mm (0.118")	2 Turns

NOTE: ALWAYS LOCK THE ADJUSTING END CAP WITH A COTTER KEY. For complete rebuild and component inspection information, refer to the appropriate Service Manual.

The information in this bulletin should not be interpreted as the basis for a UD Warranty Claim unless so designated.