

# PROBLEM *Solver*<sup>™</sup> BULLETIN

## Tie Rod End Failures

2001-2004  
General Motors  
1500/2500/3500 Trucks

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### PROBLEM:

#### OE tie rod ends failing prematurely due to boot failure

- The boot fails, allowing contaminants and moisture inside. Resulting corrosion and wear cause excessive deflection in the tie rod socket assembly, with loose steering and associated toe angle changes. Tie rods with a non-serviceable polymer socket design are unable to flush the contamination, and corrosion/accelerated wear quickly sets in.
- Boot failure is due to the reduction of carbon black strengthening filler in the polychloroprene material in order to achieve a blue color. Reducing carbon black content cuts material strength, resulting in boot degradation and failure.



**Note:** Not all blue-colored boots are created equal. MOOG bellows-style boots (featured on other MOOG applications) are blue in color, but are manufactured from a premium urethane material. These boots will not degrade like blue polychloroprene.

SILVERADO 2500HD 2WD  
17,613 miles  
OE Outer Dust Boot

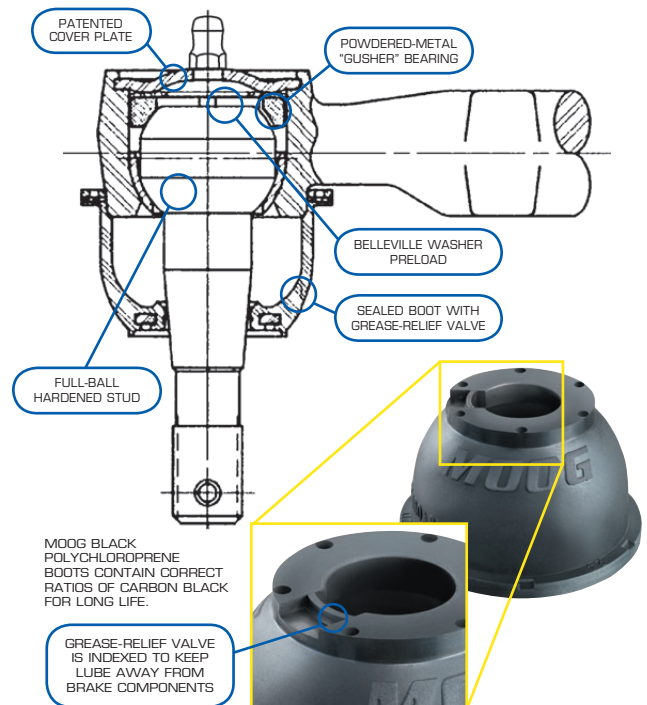
Year	Make/Model	Replacement Part Number
2002-2003	2WD 2500 Avalanche	ES3609
2002-2006	4WD 2500 Avalanche	
2001-2003	2WD & 4WD 1500 Silverado/Sierra HD Crew Cab	
2005-2006	2WD & 4WD 1500 Silverado/Sierra HD Crew Cab w/153 In. W.B.	
2001-2006	2WD & 4WD 1500 Silverado/Sierra HD	
2001-2006	2WD & 4WD 2500/3500 Silverado/Sierra	
2003-2006	2500 Express/Savana Van w/8500-8600 lb. GVWR	
2003 2007	Express/Savana Van	
2003-2007	3500 Express/Savana Van	
2001-2006	2500 Yukon XL	
2003-2006	Hummer H2	

### SOLUTION:

#### MOOG® ES3609



- The MOOG tie rod, featuring a greaseable design, uses a premium polychloroprene boot with a special grease-relief valve designed to resist intrusion and flush contamination out of the socket, preventing corrosion and premature wear.
- Hardened powdered-metal “gusher” bearings allow lubrication to penetrate the bearing surface, providing the most durable bearing available for longer service life.
- A full-ball stud maintains ball-to-bearing contact for greater load capacity.



THE PROBLEM SOLVER™

