



# Harsco Track Technologies

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## SERVICE BULLETIN MAINTENANCE OF WAY EQUIPMENT

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**DATE:** 2-2007 **BULLETIN NO:** 02-036A

**TITLE:** 200457 STEERING STOP GROUP

**RATING:**  **DIRECTIVE** (Action Is Required)  **ALERT** (Potential Problem)  
 **INFORMATION** (Action Is Optional)  **PRODUCT IMPROVEMENT** (Enhance Product)

**PRODUCT SERIES / MODEL:** All 2001 to present Chevrolet 2500HD 4X2 and 4X4 Vehicles Equipped With Series 0307, HR0307A, HR0307B, HR1000A or HR1500B HY-RAIL® Guide Wheel Equipment.

**SERIAL NO:** N/A

**SUMMARY:** Reports have been received that front wheels on 2001 to present Chevrolet 2500HD vehicles were found to have rubbed on the upper control arms when turning hard left or right, and particularly when bouncing on uneven ground. As a result, the anti-lock brake sensor wires have been cut. Therefore, we recommend to inspect the vehicle's front tires, wheels, upper control arms and anti-lock brake sensor wires for damage, wear, nicks, gouges, rubbing, cut or frayed wires, etc.

**OPERATIONAL IMPACT:** To prevent the vehicle's front wheels from rubbing on the upper control arms when turning hard left or right, or bouncing on uneven ground, and possibly damaging the vehicle, tires, wheels and/or anti-lock brake sensor wires.

**ACTION:** It is recommended to take the vehicle to an authorized vehicle maintenance shop to inspect the vehicle's front tires, wheels, upper control arms and anti-lock brake sensor wires. After thoroughly removing any grease, dirt, etc., ensure there is no damage, wear, nicks, gouges, cut or frayed wires, etc. If any of the above is found, determine if control arm guard plates are needed and /or replace the steering stops. Relocate the anti-lock brake sensor wires per the instructions in this Service Bulletin. If needed, order Steering Stop Group #200457.

**CONTACT:** If you have any questions or if we can be of any service, please contact the Fairmont, MN facility, HY-RAIL® Guide Wheel Equipment Service Department at (507) 235-7212 or to order parts, contact the Parts Department at (507) 235-7143 or (507) 235-7191.

## 1.0 Safety Information



■ IT IS THE RESPONSIBILITY OF THE UP-FITTER OR REPAIR FACILITY TO ENSURE THESE INSPECTIONS AND MODIFICATIONS ARE DONE CORRECTLY TO OBTAIN SATISFACTORY VEHICLE PERFORMANCE.

■ FOLLOW APPLICABLE RAILROAD LOCKOUT - TAGOUT PROCEDURE TO REMOVE ALL ENERGY SOURCES FROM VEHICLE AND RAIL GUIDE WHEEL EQUIPMENT.

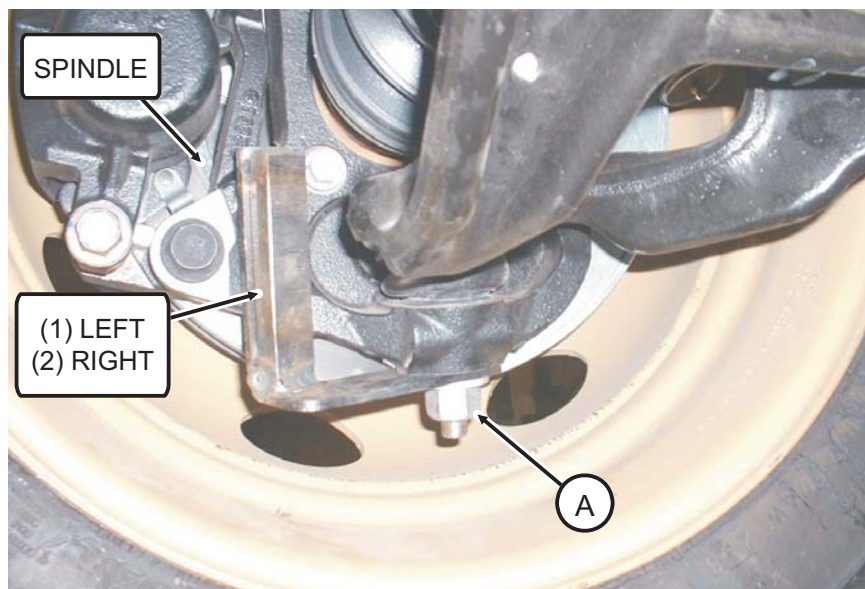
■ ANY JACK, JACK STANDS, HOIST, ETC. USED MUST BE RATED TO LIFT WEIGHT OF VEHICLE.

**FAILURE TO COMPLY COULD RESULT IN SEVERE BODILY INJURY.**

## 2.0 Steering Stop Replacement - See Figure 1

1. Raise the front of the vehicle high enough so both of the front wheels are off of the ground. Remove both vehicle front wheels.
2. Visually inspect the vehicle components and tires for damage, wear, nicks, gouges, rubbing, cut or frayed wires, etc. Replace any damaged or worn component as necessary.
3. Remove lower ball joint nut (A) to remove the existing steering stop (not illustrated).
4. Install the new steering stop (1 or 2) over the stud so the stop plate is towards the rear of the vehicle. Re-install lower ball joint nut (A) Push the steering stop (1 or 2) firmly against the spindle and torque nut (A) to 94 lb-ft (128 N-m).
5. Repeat Steps 3 and 4 for the other side of the vehicle.

FIGURE 1  
STEERING STOP REPLACEMENT



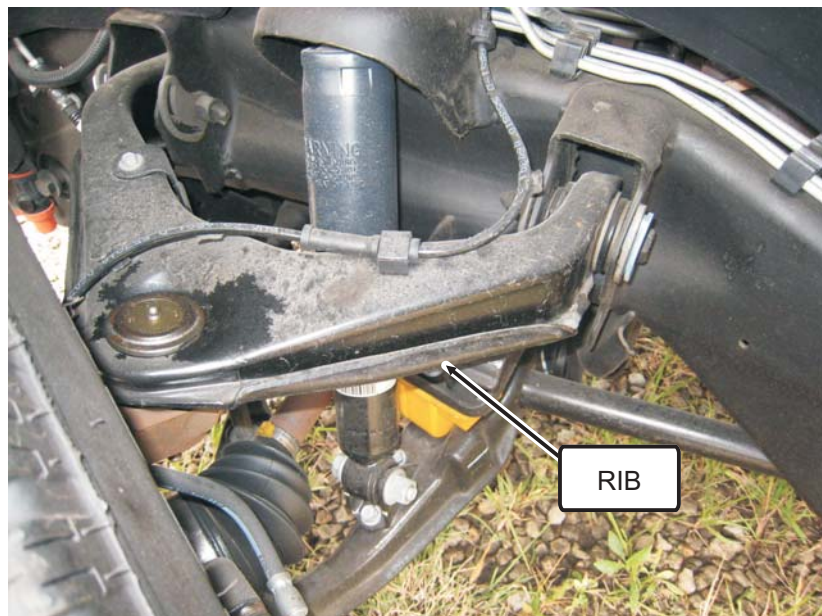
### 3.0 Control Arm Guard Plate - See Figures 2 and 3

1. Determine if a control arm guard plate is or is not needed.
  - a. If the control arm on the vehicle does not have a rib, as shown in Figure 2, a guard plate is needed. Go to 3.1 Installing Control Arm Guard Plate.
  - b. If the control arm on the vehicle has a rib, as shown in Figure 3, a guard plate is not required. Go to 4.0 Anti-Lock Brake Sensor Wire Relocation.

FIGURE 2  
UPPER CONTROL ARM WITHOUT RIB



FIGURE 3  
UPPER CONTROL ARM WITH RIB

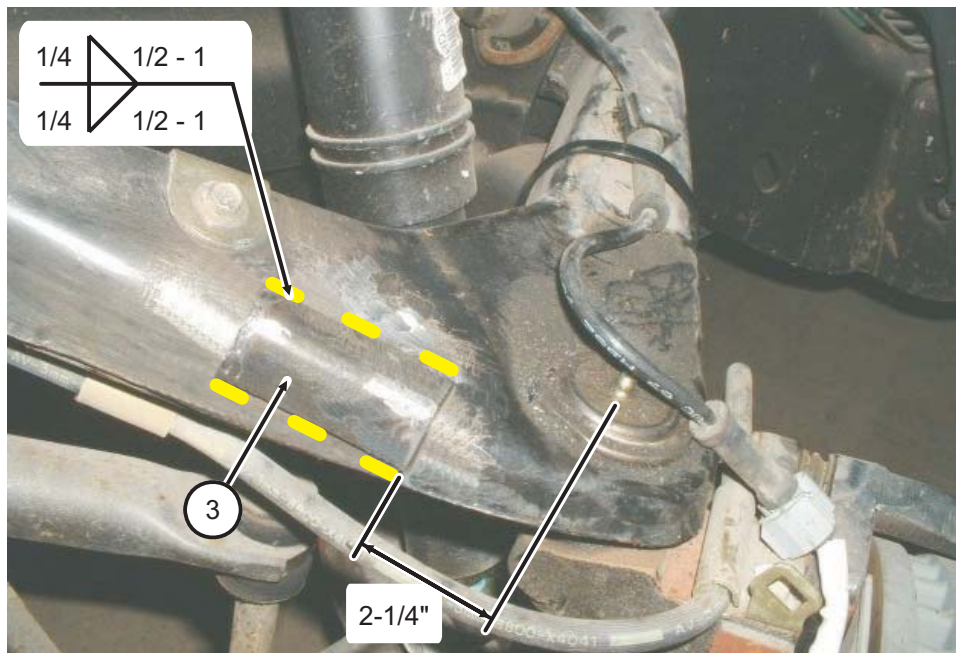


### 3.0 Control Arm Guard Plate

#### 3.1 Installing Control Arm Guard Plate - See Figure 4

1. **Important:** Before doing any welding on the vehicle, disconnect all electrical cables from the battery and from the alternator.
2. Thoroughly clean the surface area on the vehicle upper control arm of all dirt, grease, rust, etc. where the new guard plate (3) will be welded to.
3. If necessary, reform the guard plate (3) to match the contour of the upper control arm before welding it on.
4. Position and weld the guard plate (3) to the upper control arm per the dimension and weld symbol shown.
5. Repeat Steps 2 through 4 for the other side of the vehicle.

FIGURE 4  
UPPER CONTROL ARM PLATE INSTALLATION



#### 4.0 Anti-Lock Brake Sensor Wire Relocation - See Figures 5 and 6

1. **Important:** Before relocating the anti-lock brake sensor wires, disconnect all electrical cables from the battery.
2. Inspect the anti-lock brake sensor wire for any damage, wear, fraying, etc. If any damage is found, replace the sensor wire.



#### 4.0 Anti-Lock Brake Sensor Wire Relocation - See Figures 5 and 6

3. Relocate the anti-lock brake sensor wire from its original mounting location as shown in Figure 5 to its new mounting location as shown in Figure 6 re-using all of the original factory mounting clips. Secure the sensor wire to the upper control arm using ty-raps as necessary.
- 4 Repeat Steps 2 and 3 for the other side of the vehicle.

FIGURE 5  
ANTI-LOCK BRAKE SENSOR WIRE IN ORIGINAL LOCATION

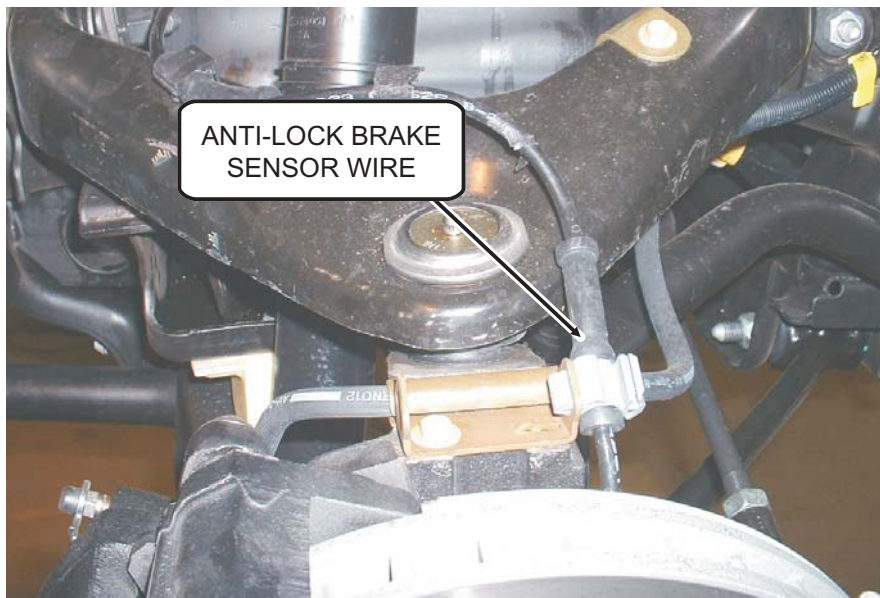
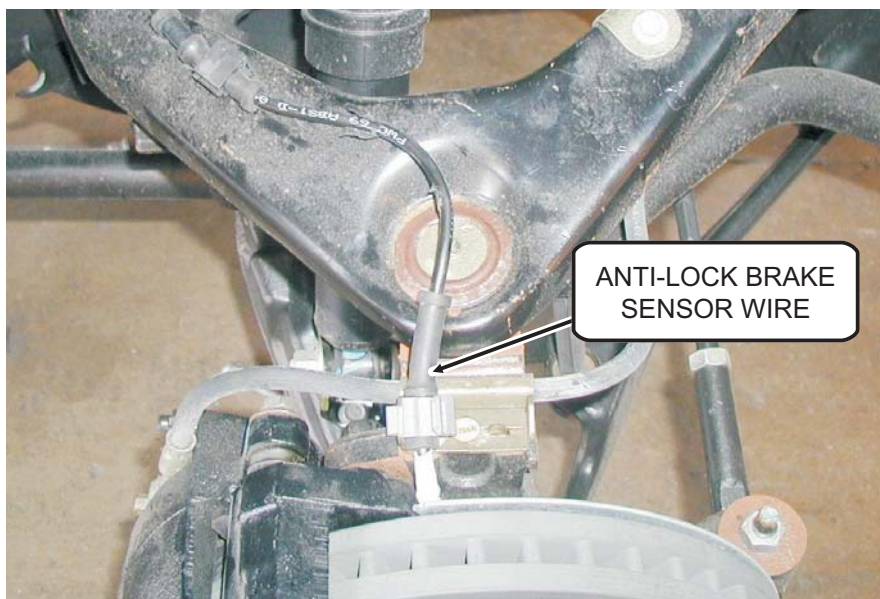


FIGURE 6  
ANTI-LOCK BRAKE SENSOR WIRE IN NEW LOCATION



## 5.0 Wheel and Tire Clearance Inspection

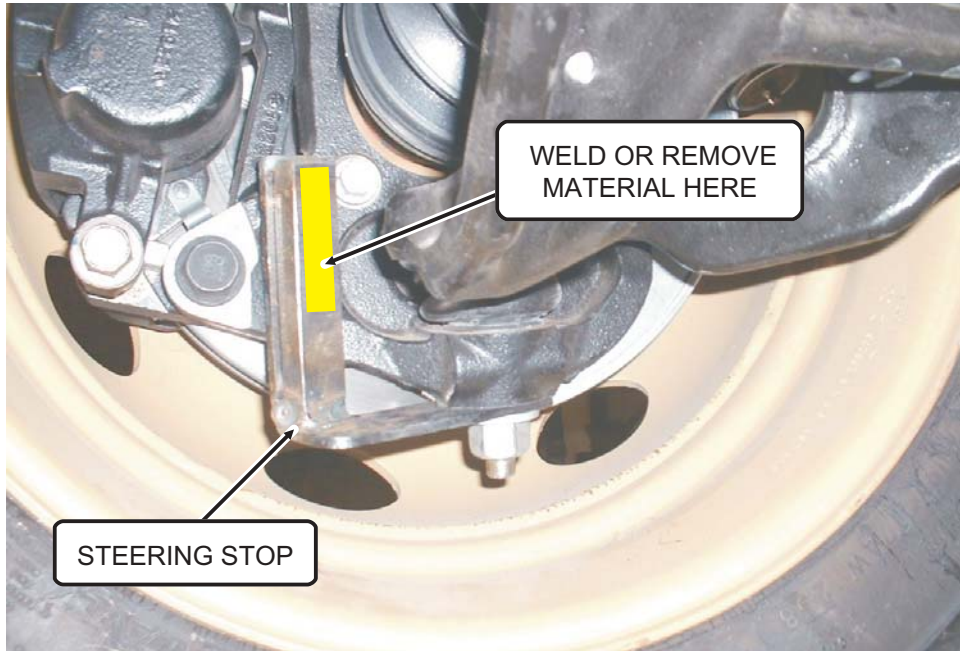
1. After installing the new steering stops, welding on the upper control arm guard plates (if needed) and relocating the anti-lock brake wires, reconnect all electrical cables to the alternator and to the battery.
2. Re-install both vehicle front wheels. Torque the vehicle wheel nuts to the torque shown on the decal located on the rim or to the torque shown on the wheel modification application drawing for you vehicle.
3. Lower the front of the vehicle to the ground. Turn the vehicle front wheels both hard left and hard right. Check the vehicle's front wheels (tires and rims) for contact with any components (upper control arm, brake lines, anti-lock brake sensor wire, etc.) of the vehicle in both directions. There must be a minimum of 3/8 - 1/2 inch (9.5 - 12.7 mm) clearance between the vehicle front wheel rim and any of the above listed components.
4. If there is 3/8 - 1/2 inch (9.5 - 12.7 mm) of clearance, the clearance is acceptable.
5. If there is less than 3/8 - 1/2 inch (9.5 - 12.7 mm) of clearance or any contact at all, the steering stops must be modified. Go to 6.0 Steering Stop Modification.
6. If there is more than 1/2 inch (12.7 mm) of clearance, the steering stops can be modified to help decrease the turning radius of the vehicle. Go to 6.0 Steering Stop Modification.

## 6.0 Steering Stop Modification - See Figure 7

1. Raise the front of the vehicle so both front wheels are off the ground. Remove both vehicle front wheels.
2. **Important:** Before doing any welding on the vehicle, disconnect all electrical cables from the battery and from the alternator.
3. Thoroughly clean the contact area of the steering stop surface of all dirt, grease, rust, etc. where material (not supplied) will be welded to.
4. If there was less than 3/8 - 1/2 inch (9.5 - 12.7 mm) of clearance or any contact at all, weld a 1 inch wide piece of suitable material to the steering stop surface in the area shown for the thickness needed and length required. Repeat the Wheel and Tire Clearance Inspection procedure. See 5.0 Wheel and Tire Clearance Inspection.
5. If there was more than 1/2 inch (12.2 mm) of clearance, use a grinder to remove material from the steering stop surface in the area shown. Do not remove more than 1/16 inch (1.6 mm) material before rechecking the vehicle wheel clearance. Repeat the Wheel and Tire Clearance Inspection procedure. See 5.0 Wheel and Tire Clearance Inspection.

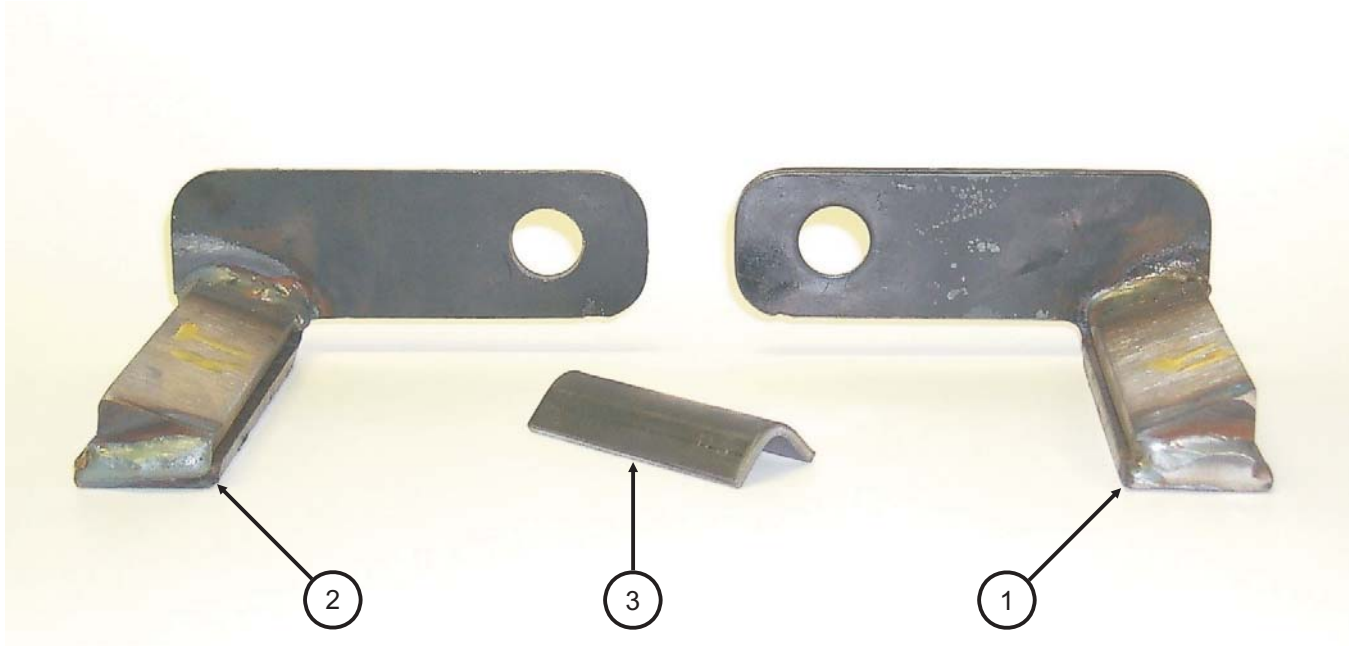
6.0 Steering Stop Modification

FIGURE 7  
STEERING STOP MODIFICATION



**200457 Steering Stop Group - See Figure 8**

FIGURE 8  
STEERING STOP GROUP PARTS



| ITEM | PART NO | DESCRIPTION                                     | QTY |
|------|---------|---|-----|
|      | 200457  | STEERING STOP GROUP .....                       | 1   |
| 1    | 200455  | Wheel Stop - Left .....                         | 1   |
| 2    | 200456  | Wheel Stop - Right .....                        | 1   |
| 3    | 200453  | Guard Plate - Upper Control Arm (weld on) ..... | 2   |

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