



# INDEPENDENT SUSPENSION

TROUBLESHOOTING GUIDE



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# INDEPENDENT SUSPENSION SYSTEM

## TROUBLESHOOTING GUIDE

### CONTENTS

- Miscellaneous ..... 3
- How to Identify Beam Assemblies..... 5
- How to Identify Spindles..... 6
- Tires/Bearings & Brakes ..... 7
- Troubleshooting..... 9
- Packing Bearings ..... 10

# INDEPENDENT SUSPENSION SYSTEM

## MISCELLANEOUS

The MORryde Independent Suspension system, or I.S. system, uses 100% natural rubber springs to support the trailer weight and absorb road shock. By absorbing the shock, the rubber provides a much smoother towing experience than steel leaf springs. With the new MORryde I.S. system, there are no more broken leaf springs! The towing is virtually hassle-free with the smoothest towing available for 5th wheels and travel trailers.

## DISC BRAKE PAD REPLACEMENT

1. Automotive Style Brake Pads – Specify Pad #D-289 for Model #225 used on 1980-1990 Buick Skylark-Front and Pad #MD-215 semi-metallic for Model #250 used on 1983-1995 Buick Century HD-Front.
2. Hub and Rotor cannot be picked up at an auto parts store. They can be turned if not grooved too deeply.
3. Caliper cannot be replaced at an auto parts store, but you can get a rebuild kit at the auto parts store.
4. DeeMaxx and Kodiak have a three-year warranty against workmanship and material defects.
5. Warranty-Brakes and Actuator are under the Manufacturing Warranty (unless there's an installation issue).

## WARRANTY

- > Air One – 2 Year Retail / 2 Year 45k Commercial
- > Rubber Shackle (RL) – 3 Year
- > Rubber Leaf (RL) – 3 Year
- > Rubber Pin Box (RPB) – 3 Year
- > CRE3000 – 2 Year
- > Independent Suspension – 5 Year
- > Rubber Equalizer (RE) – 3 Year
- > BRSC – 3 Year
- > RSX – 3 Year
- > Specialty Prod. – 1 Year
- > Ramp Door – 1 Year
- > Fabricated Parts – 1 Year



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## MISCELLANEOUS

### I.S. PREVENTIVE MAINTENANCE

1. Grease Torque Brackets every 6 months.
2. Visually inspect the rubber springs for tears of 3" long and 3/4" deep every 6 months.
3. Inspect the tires for abnormal wear at every stop. If there's abnormal wear, schedule a wheel alignment ASAP.
4. Use an infrared heat sensor to feel hubs for excessive heat at every stop. If it is so hot that you can't hold your hand on it, you may have a possible bearing or brake issue.
5. Inspect shock absorber for any leaks.
6. Check brake fluid level at least once a year or during any break performance concerns.

### CLEAR DUST COVERS

1. Clear dust covers are for oil bath bearings, and solid dust covers are for grease pack bearings.
2. MORryde uses the clear caps, but grease pack the bearings (clear caps are used because the solid color had flaws and broke often).
3. As an FYI – you can not mix oil with grease.
4. The actual bearings are the same. The difference is the seals used on the inner bearing.

### USING LARGER TIRES

1. If a 17-1/2" is used to replace a 16", there will be no issues as the diameter of the 17-1/2" is less than a 16" tire.
2. In some cases, you can use a larger tire depending on wheel well clearances and gap between the tires.

### QUESTIONS/FAQ

1. **Jacking location?** See Page 5 of the I.S. Suspension Owner's Manual.
2. **Where Can an Alignment Be Done?** Schedule with us or visit our website to find our list of IS-approved alignment centers located across the U.S.A. (Independent Suspension product page > Product Docs > I.S. Alignment Service Centers). You can also locate a semi-truck alignment shop and show the techs Pages 8-10 on the I.S. Suspension Owner's Manual.
3. **How Do You Repack Bearings? How Often?** Once a year or every 12,000 miles (whichever comes first).

# INDEPENDENT SUSPENSION SYSTEM

## HOW TO IDENTIFY BEAM ASSEMBLIES

### 7K BEAM / 7K BRAKES

- 1.5" Thick Beam
- 5 Bolt Brake Flange
- 13" 7K Rotor
- Caliper Clocked at 3 or 9 o'clock

### 7K BEAM / 8K BRAKES

- 1.5" Thick Beam
- 4 Bolt Brake Flange
- 13" 8K Rotor
- Caliper Clocked at 3 or 9 o'clock

### 8K BEAM / 8K BRAKES

- 2" Thick Beam
- 4 Bolt Brake Flange
- 13" 8K Rotor
- Caliper Clocked at 3 or 9 o'clock

### 8.4K BEAM / 8.4K BRAKES

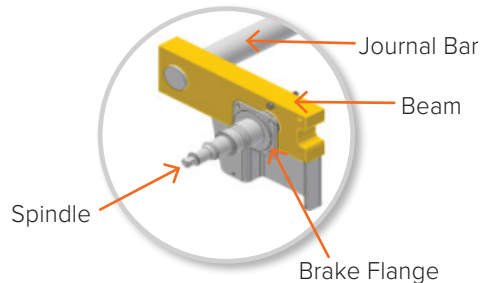
- 2" Thick Beam
- 4 Bolt Brake Flange
- 11" 8.4K Rotor
- Caliper Clocked at 12 o'clock

### 9K BEAM / 9K BRAKES

- 2.5" Thick Beam
- 4 Bolt Brake Flange
- 13" 9K Rotor
- Caliper Clocked at 12 o'clock



Caliper



Rotor

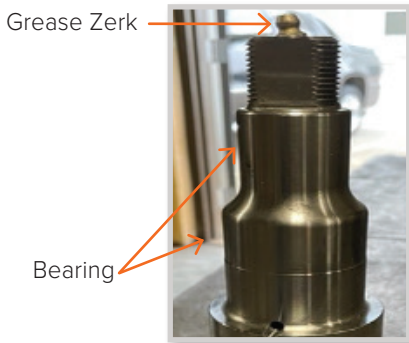


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## HOW TO IDENTIFY SPINDLES



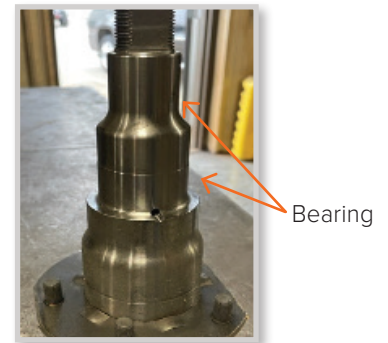
### EZ LUBE

- Grease located on end of the spindle
- Allows bearings to be greased without removing hub
- Not recommended
- 2-piece bearing
- Found on 7K and 8K



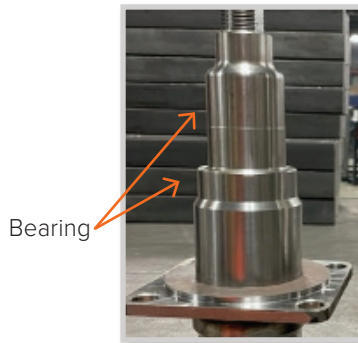
### NEV-R-LUBE

- Uses a single sealed bearing
- Spindle is shorter with a larger diameter
- Not recommended



### 7K 5 BOLT

- Hand pack bearing
- Tapered spindle
- 5 bolt brake flange



### 8K 4 BOLT

- Hand pack bearing
- Tapered spindle
- 4 bolt brake flange



### 9K

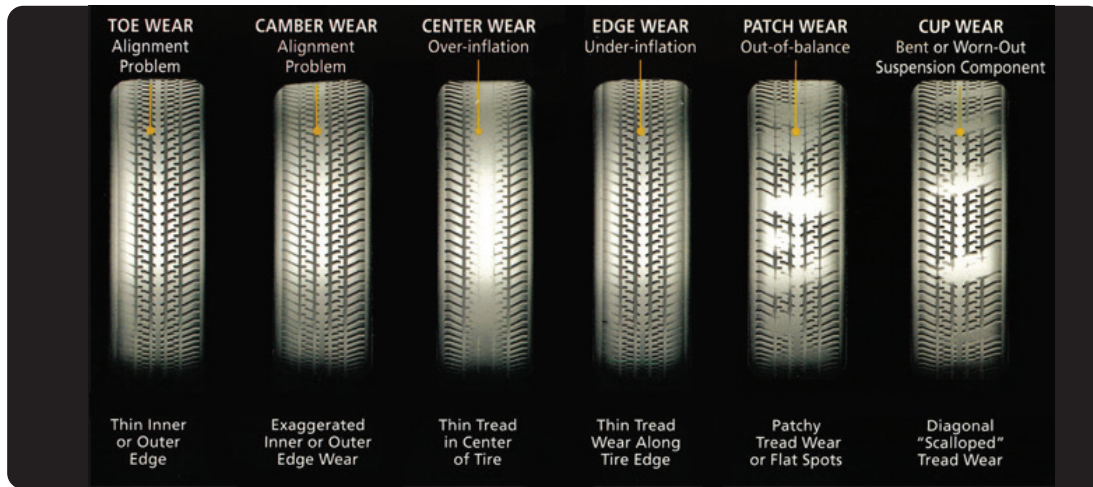
- Hand pack bearing
- Tapered spindle
- Thick brake flange plate

## WHAT TO INSPECT ON A SPINDLE

- > Scratches or gouges (should be a smooth surface).
- > Discoloration – If blue, it could be due to overheated bearing. If brown or black, it could be due to moisture. Use an Emery Cloth to clean.
- > Inspect the brake flange, ensuring the bolt holes are not wallowed.

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## TIRES/BEARINGS



### LUG NUT TORQUE SPECIFICATIONS

1/2" STUD – 100 FOOT LBS.

9/16" STUD – 140 FOOT LBS.

5/8" STUD – 150 FOOT LBS.

PROBLEM / SYMPTOM	CAUSE	CORRECTION
<b>Flat Tire</b>	<ul style="list-style-type: none"> <li>Defective tire</li> <li>Road debris</li> <li>Tire wobbling</li> <li>Excessive Wear</li> <li>Alignment</li> </ul>	<ul style="list-style-type: none"> <li>Contact tire manufacturer</li> <li>Unavoidable</li> <li>Broken studs, loose lug nut, bad wheel bearing</li> <li>Determine reason using the Wear Chart</li> <li>MORryde website for alignment service centers</li> </ul>

### CHECK OWNER'S MANUAL FOR JACK LOCATION



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# INDEPENDENT SUSPENSION SYSTEM

## TIRES/BEARINGS

### BEARINGS

PROBLEM / SYMPTOM	CAUSE	CORRECTION
<ul style="list-style-type: none"> <li>• Unusual noise</li> <li>• Wheel wobble</li> <li>• Odd brake pad wear</li> <li>• Odd tire wear</li> <li>• High hub temperature</li> </ul>	<ul style="list-style-type: none"> <li>• Bearing damaged or no lube</li> <li>• Bearing damaged or not torqued properly</li> <li>• Possible bad bearing</li> <li>• Possible bearing issue</li> <li>• Damaged bearing or brakes locking</li> </ul>	<ul style="list-style-type: none"> <li>• Service or replace</li> <li>• Service or replace</li> <li>• Service or replace</li> <li>• Service or replace</li> <li>• Service or replace</li> </ul>

## BRAKES

PROBLEM / SYMPTOM	CAUSE	CORRECTION
<b>No brakes</b>	<ul style="list-style-type: none"> <li>• No brake fluid</li> <li>• Broken brake line</li> <li>• Actuator not working</li> <li>• Worn brake pads</li> <li>• Grease or fluid on pads</li> <li>• Glazed brake pads</li> </ul>	<ul style="list-style-type: none"> <li>• Fill and bleed brakes</li> <li>• Replace, fill fluid, bleed</li> <li>• Call your respected supplier (below)</li> <li>• Replace pads</li> <li>• Repair leak / replace pads</li> <li>• Replace pads</li> </ul>
<b>Weak brakes</b>	<ul style="list-style-type: none"> <li>• Excessive rotor wear</li> <li>• Air in brake lines</li> <li>• Excessive tow weight</li> <li>• Actuator issue</li> </ul>	<ul style="list-style-type: none"> <li>• Turn rotor or replace</li> <li>• Check for leaks/bleed</li> <li>• Reduce weight</li> <li>• Call your respected supplier (below)</li> </ul>
<b>Brake noise</b>	<ul style="list-style-type: none"> <li>• Broken pads</li> <li>• Less than 1/8" thick</li> <li>• Caliber issue</li> </ul>	<ul style="list-style-type: none"> <li>• Replace pads</li> <li>• Replace parts</li> <li>• Call your respected supplier (below)</li> </ul>
<b>Locking brakes</b>	<ul style="list-style-type: none"> <li>• Loose, bent or broken parts</li> <li>• Warped rotor</li> <li>• Caliper</li> </ul>	<ul style="list-style-type: none"> <li>• Replace defective parts</li> <li>• Turn or replace rotor</li> <li>• Rebuild or replace</li> </ul>

Hydrastar (812) 655-4544 | DeeMaxx (801) 901-6732 | Kodiak (800) 756-3425

# INDEPENDENT SUSPENSION SYSTEM

## BRAKES

### PAD REPLACEMENT

The Kodiak Caliper will accommodate GM Replacement Pads which should be available at your local auto parts store.

### SPECIFY

1. Pad #D-289 for Model #225 (1980-1990 Buick Skylark Front)
2. Pad #MD-215 semi-metallic for Model #260 for 1983-1995 Buick Century H/D Front

## TROUBLESHOOTING

The following list covers the most frequent causes for concern that may arise with the I.S. system. If a problem occurs that is not addressed here, please contact MORryde directly for further service information at **574-293-1581** or by emailing [parts@morryde.com](mailto:parts@morryde.com).

PROBLEM / SYMPTOM	CAUSE	CORRECTION
<b>Excessive tire wear</b>	<ul style="list-style-type: none"><li>• Improper wheel alignment</li><li>• Worn torque bracket bearings</li><li>• Improper tire pressure</li></ul>	<ul style="list-style-type: none"><li>• Realign wheels</li><li>• Replace torque bracket bearings</li><li>• Adjust air pressure</li></ul>
<b>Rough ride</b>	<ul style="list-style-type: none"><li>• Improper rubber spring deflection</li><li>• Worn shock absorbers</li><li>• Tires rubbing on wheel well or suspension bottoming out</li></ul>	<ul style="list-style-type: none"><li>• Call MORryde for a different rubber spring</li><li>• Replace shock absorber</li><li>• If spring deflection is correct and height adjustment is insufficient, a spacer tube needs to be welded between the frame and the I.S. Suspension System</li></ul>
<b>Excessive sway</b>	<ul style="list-style-type: none"><li>• Improper tire pressure*</li><li>• Torn rubber shear spring</li><li>• Improper hitch weight</li></ul>	<ul style="list-style-type: none"><li>• Adjust air pressure</li><li>• Replace rubber shear spring</li><li>• Travel trailers should have 10-12% hitch weight. 5<sup>th</sup> wheel trailers should have 20-25% pin weight</li></ul>

*\*According to the tire manufacturer specifications, proper tire pressure means inflating tires according to individual wheel weights, not necessarily inflating to the maximum pressure as specified on the tire.*



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## PACKING BEARINGS

### STEP 1

Remove the Dust Cover and determine if it is grease or oil bath set up.



Dust Cover

### STEP 2

Remove Cotter Pin and Castle Nut.



Castle Nut

Cotter Pin

### STEP 3

Clean all the old grease from the Spindle and inspect for any damage.



Cotter Pin

### STEP 4

Clean Bearings, Castle Nut, Washer, and Dust Cover (use a cleaning solvent for bearings).



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## PACKING BEARINGS

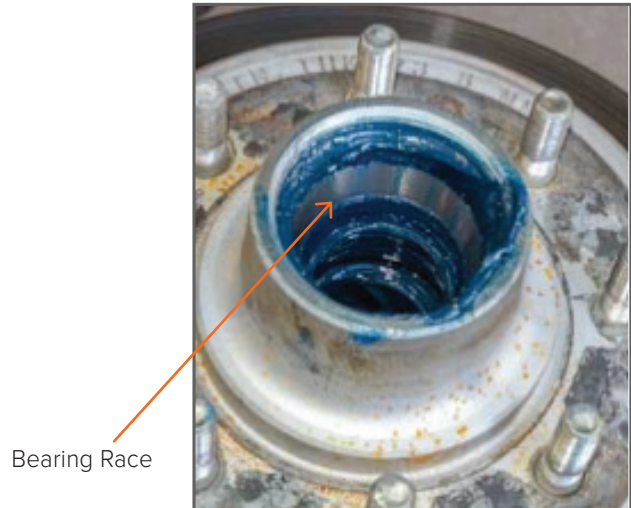
### STEP 5

Closely inspect the Bearings looking for scratches, scoring, loose roller bearings, or blue discoloration.



### STEP 6

Clean old grease from the Hub and inspect the Races.

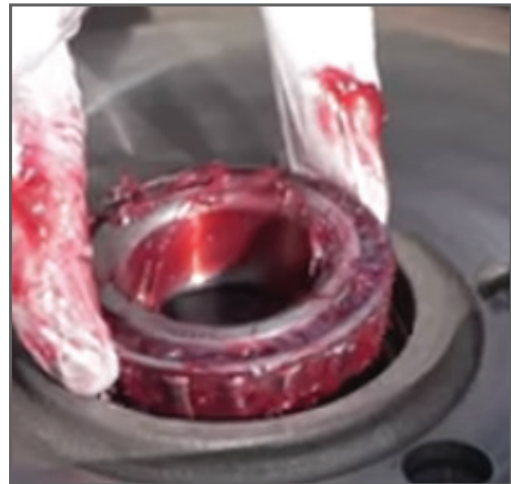


### STEP 7

Repack the Bearings with a good high temperature grease.

### STEP 8

Replace the larger Bearing on the back side of the Hub.



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## PACKING BEARINGS

### STEP 9

Replace the Grease Seal (always use a new seal).



### STEP 10

Replace the Outer Bearing (smaller one), replace the Washer, then replace the Castle Nut.



# INDEPENDENT SUSPENSION SYSTEM

## PACKING BEARINGS

### STEP 11

Great care should be taken when tightening the Spindle Nut.

- > While tightening the Spindle Nut, rotate the Hub
- > Tighten the Nut to 50 ft-lbs
- > Completely loosen the Nut
- > Finger-tighten and install a (new) Cotter Pin, then replace the Dust Cover

If you have any questions regarding the installation procedure or have difficulty with any of the troubleshooting steps, please contact the Parts Department at **574-293-1581** or email [parts@morryde.com](mailto:parts@morryde.com).



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At MORryde, we have a passion for solving problems. Whether we're fabricating custom solutions, modifying a commercial chassis, or creating our innovative products, we answer to a wide range of markets and deliver on a variety of needs. At MORryde, it's simply about doing MORE for our customers, and it doesn't stop at the sale. We stand behind our products, believing in quality first, service always. No matter the issue, we'll be the first to respond and the last to be satisfied. In short, we build better — together.



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