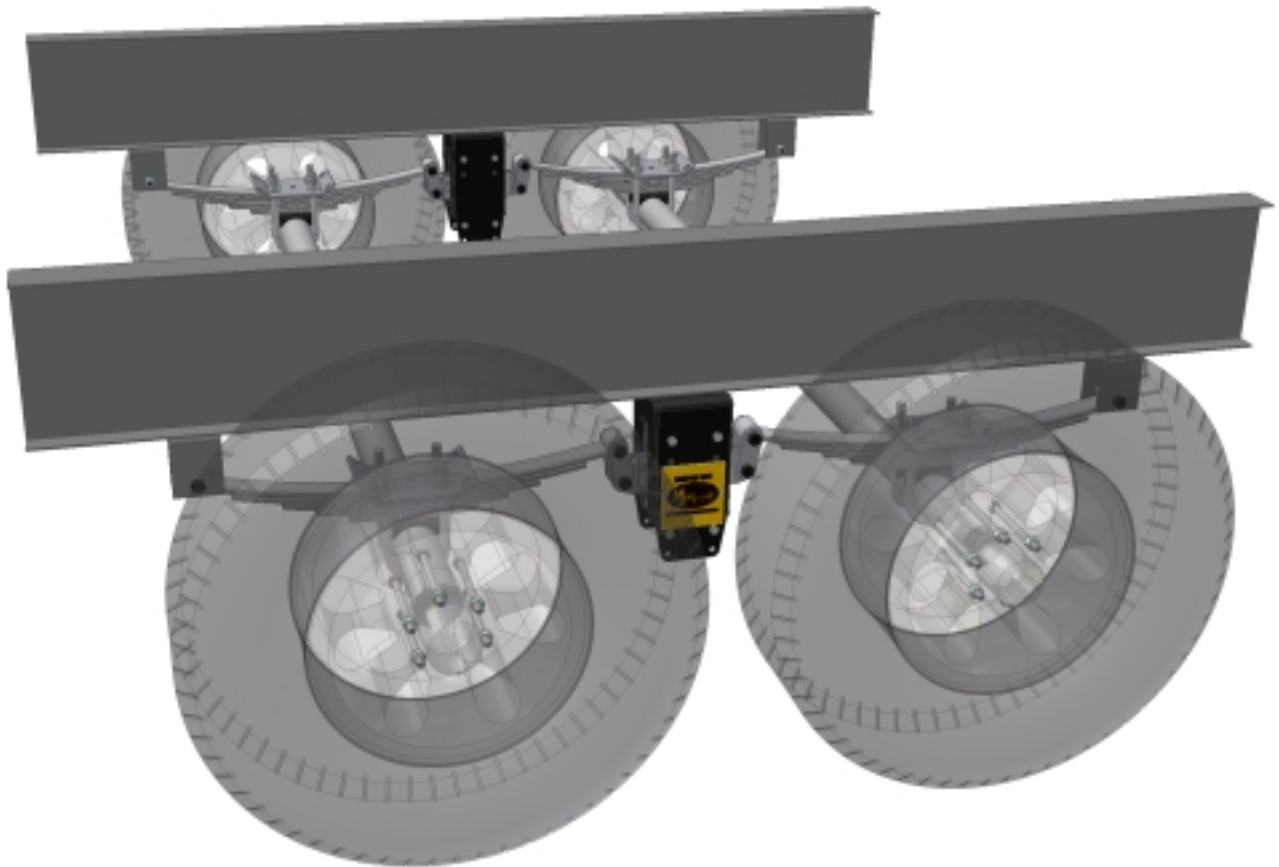




# **LRE SUSPENSION SYSTEM OWNER'S MANUAL**



# LRE SUSPENSION SYSTEM

## CONTENTS

|  |   |
|--|---|
| INTRODUCTION.....                      | 3 |
| PARTS LISTING.....                     | 4 |
| MEASURING SHEAR SPRING DEFLECTION..... | 5 |
| MINIMUM CLEARANCE REQUIREMENTS.....    | 5 |
| RUBBER SHEAR SPRING INSPECTION.....    | 5 |
| BASIC TROUBLESHOOTING.....             | 6 |

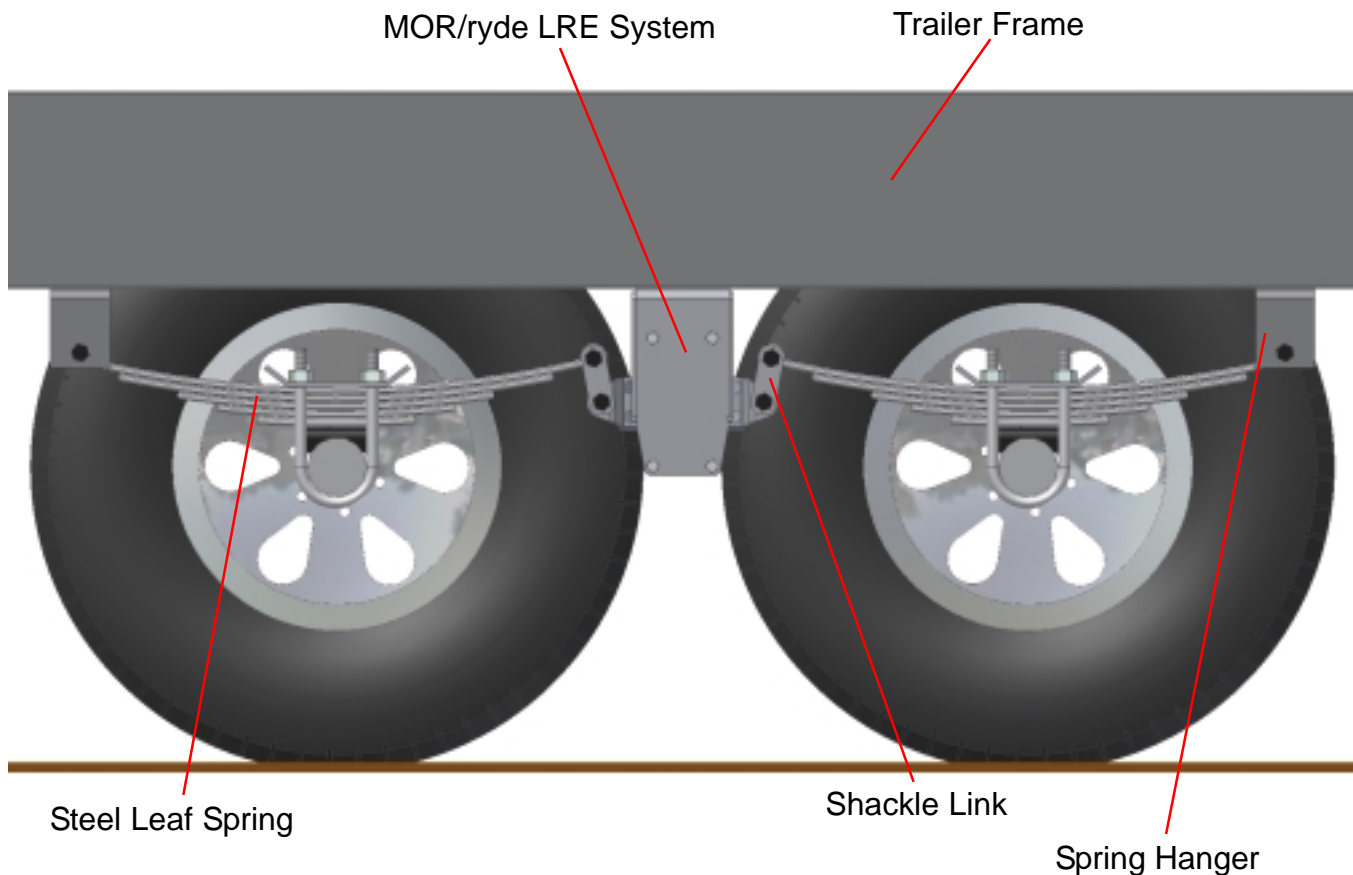
# INTRODUCTION

Your recreational vehicle has been equipped with the MOR/ryde Suspension System. The MOR/ryde system is located between the tandem axles on your trailer, replacing the steel equalizer (see diagram below). This system is uniquely engineered to work in concert with your steel leaf spring suspension to improve overall suspension performance.

At the heart of your MOR/ryde system are MOR/ryde's time tested rubber shear springs that have been a mainstay in the recreational vehicle market for over 40 years. This new system has been engineered specifically for your trailer using the rubber shear spring's ability to isolate and absorb road shock and increase your trailer's overall dynamic axle travel. The combination of the MOR/ryde rubber equalizer working in concert with your trailer's leaf springs will greatly enhance your suspension system's ability to deal with today's rough roads. This means you will experience:

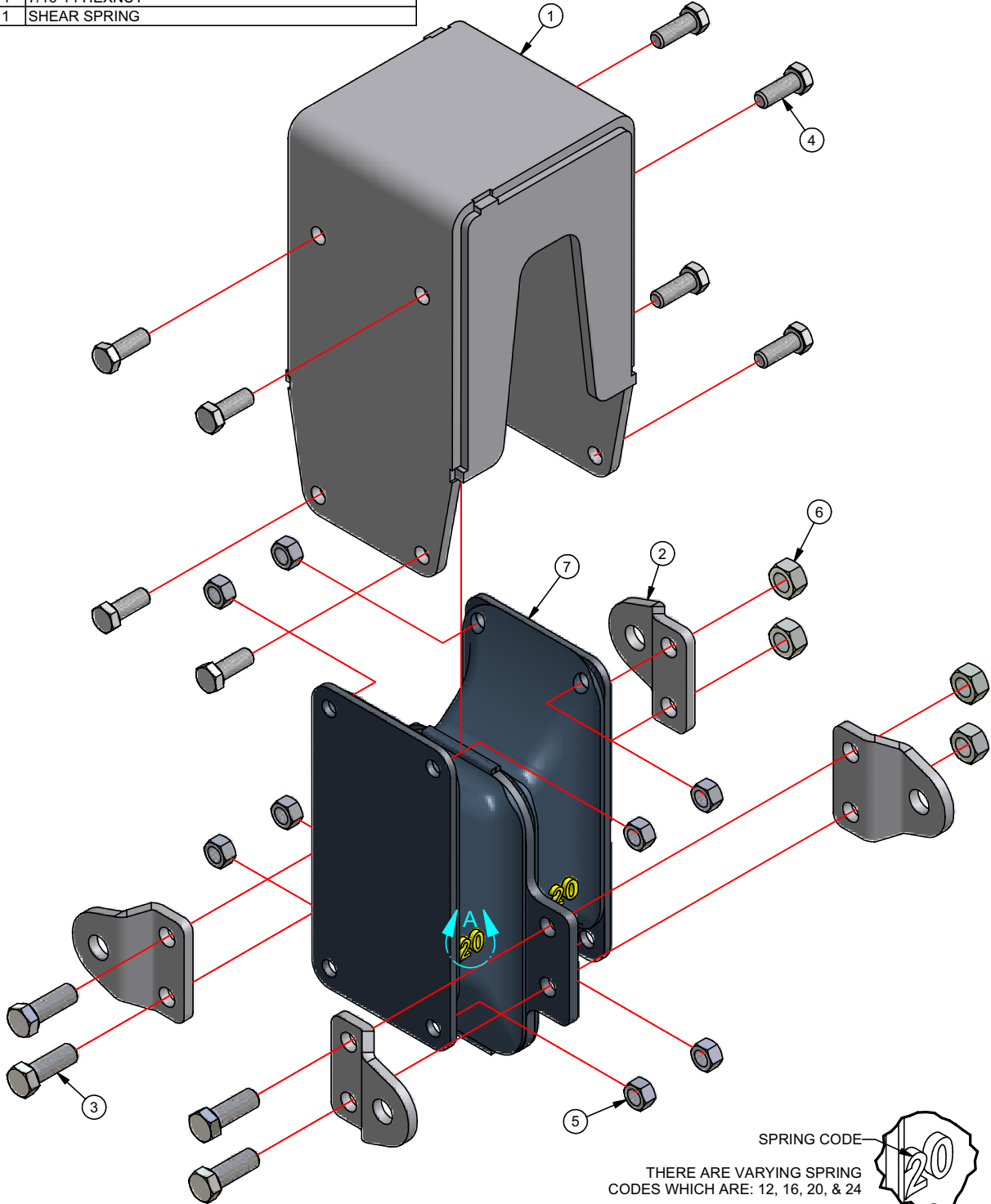
- **Smoother towing than with conventional leaf springs**
- **Better protection of your trailer from damaging road shock**

This manual will outline basic troubleshooting and check procedures for your MOR/ryde Suspension System. Service manuals and instructions will be provided with replacement parts in the unlikely event that service is required.



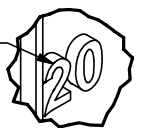
# PARTS LISTING

| Parts List |     |                                 |
|------------|-----|---------------------------------|
| ITEM       | QTY | DESCRIPTION                     |
| 1          | 1   | HANGER BOX                      |
| 2          | 4   | SHACKLE BRACKET                 |
| 3          | 4   | 7/16-14 X 1.25 HEXHEAD CAPSCREW |
| 4          | 8   | 3/8-16 x 1 HEXHEAD CAPSCREW     |
| 5          | 8   | 3/8-16 HEXNUT                   |
| 6          | 4   | 7/16-14 HEXNUT                  |
| 7          | 1   | SHEAR SPRING                    |



SPRING CODE

THERE ARE VARYING SPRING CODES WHICH ARE: 12, 16, 20, & 24



DETAIL A

Made in the U.S.A. Patent Number 6,478,321

## MEASURING SHEAR SPRING DEFLECTION

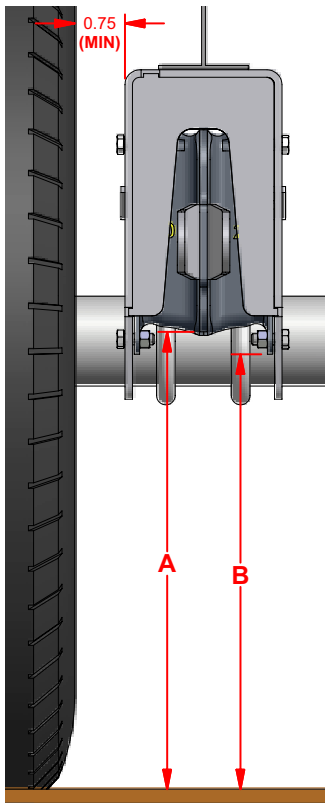


FIG. 1

Park the vehicle on level ground. Measure Dimension A, ground to bottom edge of the center rubber spring metal. Measure Dimension B, ground to bottom edge of the outer spring metal. Use the following formula to determine shear spring deflection:

$$\text{Defl} = A - B$$

\*Note: the Dimension A should always be greater than Dimension B if the unit is properly sprung.

\*\*Nominal rubber spring deflection should be 1/2" to 3/4".

## MINIMUM CLEARANCE REQUIREMENTS

To ensure proper tire to frame clearance, MOR/ryde requires a minimum of 3/4" (0.75) between the inside wall of the tire and the MOR/ryde LRE hanger box (Fig. 1).

## RUBBER SHEAR SPRING INSPECTION

The shear springs (#7 in Parts Listing) should be periodically inspected for any tears or cracks. If a shear spring exhibits a 3" long and 3/4" deep crack or tear, the shear spring should be replaced. This can be checked by using a flat tool such as a putty knife. The putty knife can be used to probe the shear spring in the affected area. If the knife can be inserted 3/4" deep, by at least 3" long, the spring rate of the spring is affected and should be replaced. *Note: It is normal to see shear spring weather checking, which is small surface cracks in the rubber. Weather checking does not require a shear spring to be replaced.*

## BASIC TROUBLESHOOTING

| PROBLEM/SYMPTOM     | CAUSE                               | CORRECTION  |
|---------------------|-------------------------------------|---|
| Excessive Tire Wear | Axle alignment.                     | Align axles.  |
|                     | Improper tire pressure.             | Adjust air pressure.  |
| Rough Ride          | Torn shear spring.                  | Replace shear spring.   |
|                     | Improper shear spring deflection.   | Call MOR/ryde service department to select a different shear spring.                                      |
|                     | Trailer is not level front to back. | Adjust pin box height to level out trailer.   |
| Excessive Sway      | Improper tire pressure.             | Adjust air pressure.  |
|                     | Torn shear spring.                  | Replace shear spring.   |
|                     | Improper hitch weight.              | Travel trailers should have 10%-12% hitch weight.<br>5th wheel trailers should have 20%-25% hitch weight. |

\*If a problem occurs that is not addressed here, please contact MOR/ryde International direct for further service information at 574-293-1581.

# **MOR/RYPDE LRE SUSPENSION SYSTEM LIMITED WARRANTY**

## **SUMMARY OF WARRANTY**

We, MOR/ryde, inc., 1966 Moyer avenue, P.O. box 579, Elkhart, Indiana 46515 (“MOR/ryde”), warrant to you, the original first purchaser of new MOR/ryde rubber suspension system (“Product”), for a period of three (3) years from the date of original first purchase (“Warranty Period”), that the Product is free of defects in material or workmanship under normal use and service and will meet or exceed all of our advertised written specifications, excepting items and uses excluded from this Warranty. For a copy of the complete MOR/ryde Warranty please call, write, or email us using the correspondence information listed below.

## **PLEASE DIRECT ALL CORRESPONDENCE TO:**

**MOR/ryde International  
1966 Moyer Ave  
Elkhart, IN 46516  
Phone: (574) 293-1581  
Fax: (574) 294-4936  
www.morryde.com  
Email: [service@morryde.com](mailto:service@morryde.com)**

