



**SMART/ryde
TAG AXLE
SUSPENSION
OWNERS
MANUAL**

SECTION I

INTRODUCTION

Congratulations, your motorhome is equipped with a MOR/ryde tag axle suspension package. This package includes:

- * MOR/ryde Rubber Suspension System.
- * Tag axle equipped with hydraulic or electric brakes manufactured by Dexter Axle.
- * Brake Booster and synchronizing valve, (if equipped with hydraulic brakes), manufactured by Master Brake Inc.
- * Brake controller (if equipped with electric brakes).

The MOR/ryde tag axle suspension package provides several distinct benefits to motorhome owners. This include:

Smooth Ride - MOR/ryde's rubber springs absorb the road shocks making the ride much smoother.

Greater Roll Stability - The MOR/ryde rubber suspension is designed to limit body roll, thereby improving the stability and handling of the motorhome.

Virtual Maintenance Free Suspension - The MOR/ryde suspension requires little maintenance - periodic checks on U-bolts and shocks - That's it! No hassles, no maintenance, trouble free!

Allows OEM's to increase GVWR - Motorhome manufacturers, with proper testing, increase the GVWR on the chassis when it is equipped with a tag axle. This increase in GVWR can provide consumers with significantly more payload. Please be sure to check your owner's manual for the specific gross vehicle weight rating (GVWR) and gross axle weight rating (GAWR) on your motorhome.

This manual is designed to familiarize you with the primary components on the tag axle suspension package, as well as the basic preventive maintenance intervals. The manual is broken down as follows:

SECTION I	INTRODUCTION
SECTION II	SCHEMATIC/PARTS BREAKDOWN OF SUSPENSION
SECTION III	HYDRAULIC TAG AXLE BRAKE DESCRIPTION
SECTION IV	PREVENTIVE MAINTENANCE SCHEDULE
SECTION V	SERVICE/WARRANTY INFORMATION
SECTION VI	OWNER REPLY CARD

SECTION II

SCHEMATIC / PARTS BREAKDOWN OF SUSPENSION

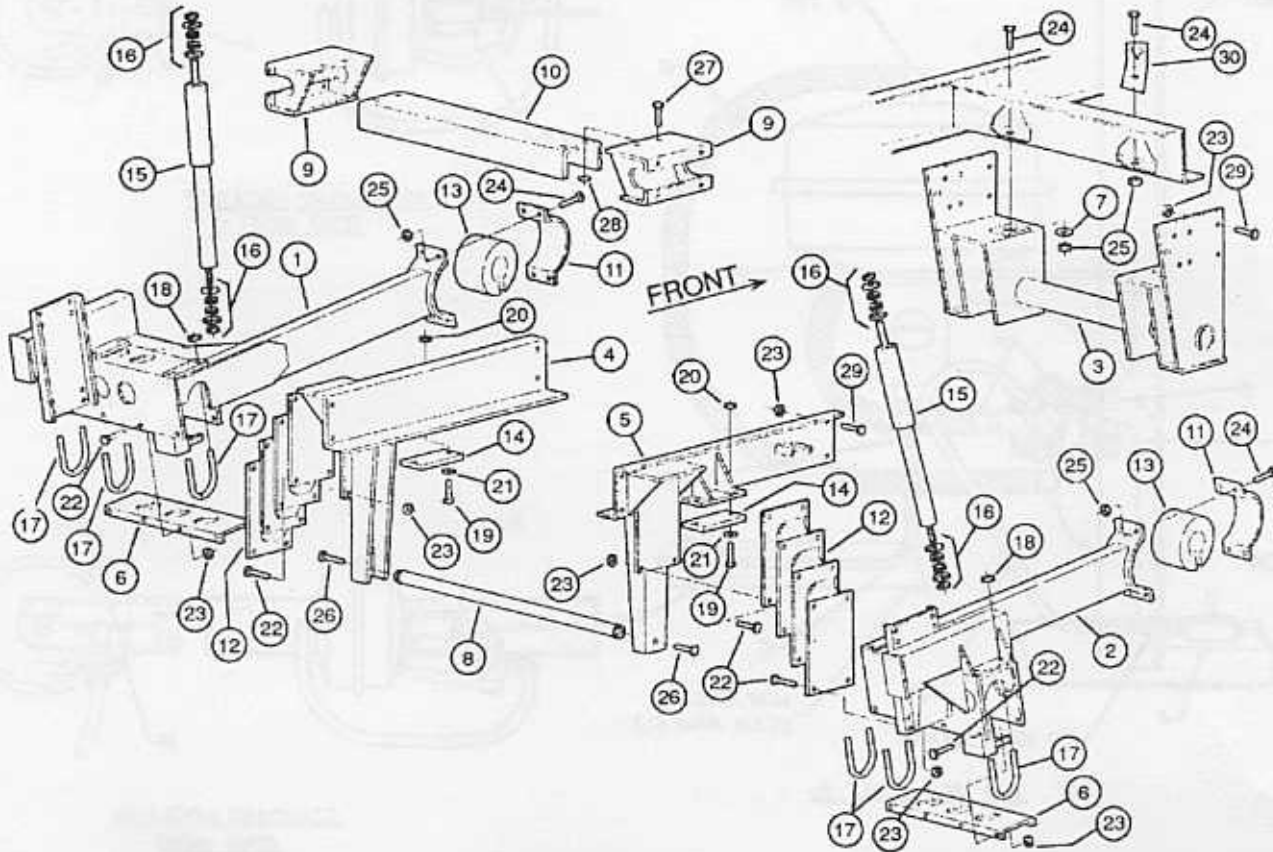
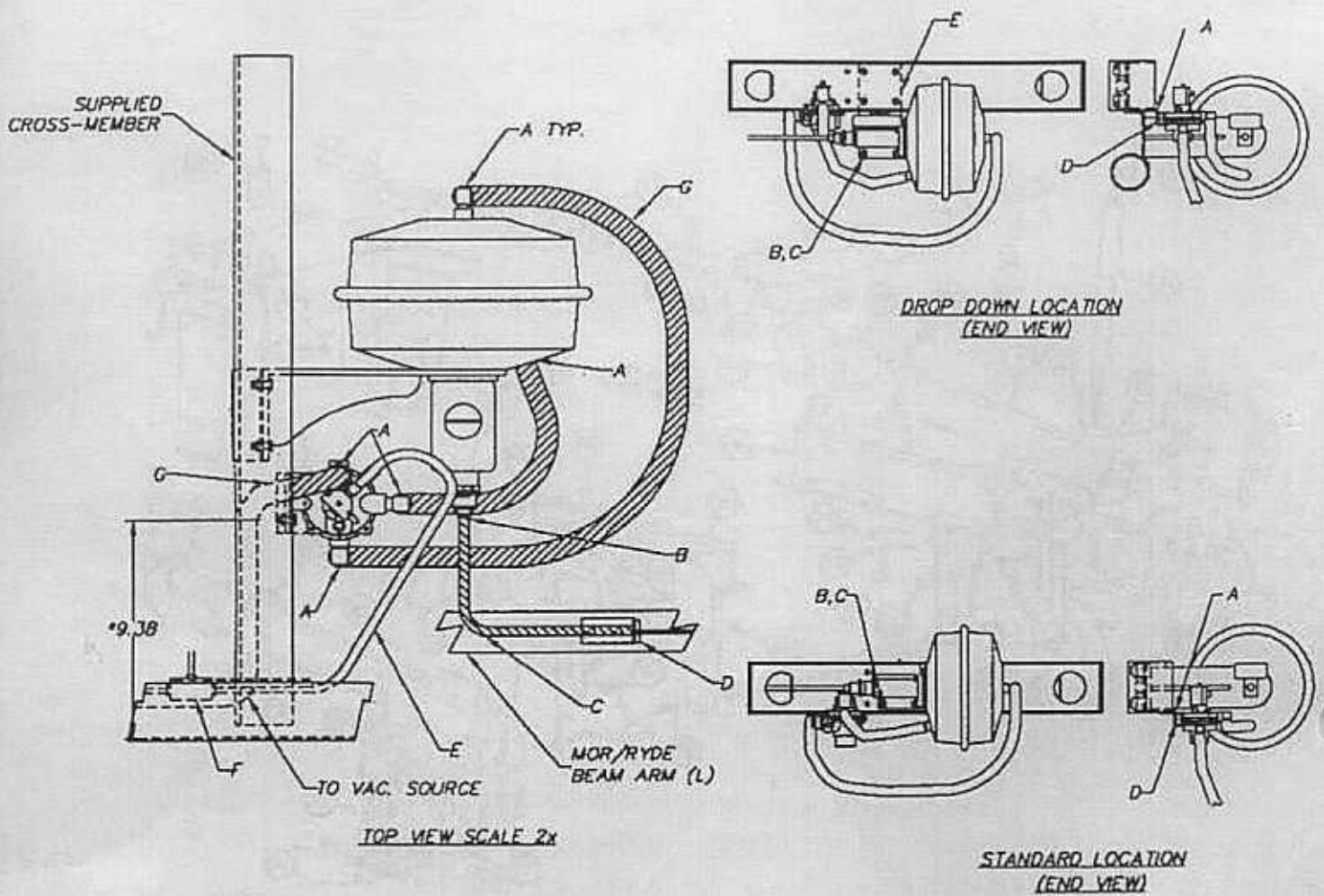


Figure 1- SMART/ryde Tag Axle Suspension System

Item No.	Description	Item No.	Description	Item No.	Description
1	Beam Assembly LH	11	Beam Cap	21	Washer; .25 ID
2	Beam Assembly RH	12	Rubber Spring Assembly	22	Bolt; .38-16 x .88 HHCB GR5
3	Front Hanger Assembly	13	Rubber Bushing	23	Nut; .38-16 Hex LK
4	Rear Hanger Assembly LH	14	Rubber Bumper Stop	24	Bolt; .50-13 x 1.50 HHCB GR5
5	Rear Hanger Assembly RH	15	Shock Absorber	25	Nut; .50-13 Hex LK
6	Bottom Beam Insert	16	Shock Fastener	26	Bolt; .75-10 x 2 HHCB GR5
7	Washer; .50 ID	17	U-bolt; .63-18 x 1.75	27	Bolt; .75-10 x 1.5 HHCB GR5
8	Cross Member Tube	18	Nut; .63-18 Hex Flange	28	Nut; .75-10 Hex
9	Cross Member End	19	Bolt; .25-20 x 1.5 HHCB GR5	29	Bolt; .38-16 x 1.25 HHCB GR5
10	Cross Member	20	Nut; 25-20 Hex LK	30	Brake Line Retainer

TAG AXLE BOOSTER BRAKE DIAGRAM



SECTION III

TAG AXLE BRAKE SYSTEM

The MOR/ryde tag axle suspension package includes a tag axle equipped with hydraulic brakes. The components that provide tag axle brake application include: tag axle brakes, brake booster, synchronizing valve and associated plumbing lines, hoses, and fittings. These components work in conjunction with the chassis brakes to provide braking action for the motorhome. The tag axle brakes do require a "burnishing" period of 500 stops. Prior to the brakes being "burnished", you may notice the tag axle brakes to be sensitive to quick or sudden stops. This is a normal occurrence during the burnishing period. The diagram above depicts the primary components. Should you have a question on the tag axle brake operation, please contact MOR/ryde at (574) 293-1581.

SECTION IV

PREVENTIVE SCHEDULE

ITEM	FUNCTION REQUIRED	6 MONTHS OR 6,000 MILES	12 MONTHS OR 12,000 MILES
BRAKE MAGNETS (ELECTRIC BRAKES)	INSPECT FOR WEAR AND DRAW	X	
BRAKE BOOSTER	PROPER OPERATION		X
BRAKE LINES	INSPECT FOR CRACKS LEAKS AND KINKS.		X
ELECTRIC BRAKE WIRING	INSPECT FOR WIRING BARE SPOTS, FRAY ETC..		X
WHEEL BEARING AND CUPS	INSPECT FOR CORROSION OR WEAR CLEAN AND REPACK		X
SEALS	INSPECT FOR LEAKAGE REPLACE IF REMOVED		X
BRAKE FLUID (TAG AXLES)	INSPECT FLUID IN TAG BRAKE MASTER CYLINDER	X	
U-BOLT TORQUE	CHECK U-BOLTS FOR PROPER TORQUE		X

Torque Requirements

The following table provides the torque requirements for bolts used on the SMART/ryde.

Bolt Size	Grade 5	Grade 8
.25-20	7	10
.38 - 16	24	30
.44 - 14	38	45
.50 - 13	50	68
.63 - 11	95	115
.75 - 10	60	
	U-Bolt	
.63 - 18		150
.75 - 16		250
.88 - 14		500

Use above torque values unless otherwise specified on installation print.

NOTE: TORQUE VALUE MUST BE VERIFIED WITH A TORQUE WRENCH. A CALIBRATED PNEUMATIC IMPACT WRENCH IS NOT AN ACCEPTABLE SUBSTITUTE.

SECTION V

SERVICE/WARRANTY INFORMATION

WARRANTY INFORMATION

The warranty coverage for the tag axle suspension components are as follows:

- Tag Axle Suspension - 7 years or 70,000 miles coverage provided by MOR/ryde.
- Tag Axle - 12 month or 12,000 miles provided by Dexter Axle.
- Brake Booster/
Synchronizing Valve - 12 month provided by Master Brake.
(labor charges covered for one year)

MOR/ryde Warranty Summary

MOR/ryde does warrant to the original retail purchaser of a MOR/ryde tag axle suspension system, that for 7 years 70,000 miles, whichever occurs first, that the MOR/ryde tag axle rubber suspension, under normal use and service, will meet or exceed all our advertised written specifications, excepting items and uses excluded from the complete warranty. MOR/ryde will remedy any defect in materials or workmanship by authorized repair or replacement during the warranty period. For a copy of the complete MOR/ryde warranty, please call (574) 293-1581 or write to 1966 Moyer Ave., Elkhart, IN 46516.

Tag Axle and Brake Booster Warranty

The tag axle and brake booster components are covered under warranties provided by the manufacturer of these components. Should you have a warranty problem with these components, MOR/ryde will assist you in obtaining coverage. This assistance does not constitute warranty coverage, but it rather a service on our part. Should you have any questions on the specific warranties you may call:

- Dexter Axle - (574) 295-1900
- Master Brake Inc. - (574) 241-0164

or please feel free to call MOR ryde at (574) 293-1581.

REPLACEMENT PARTS

MOR/ryde does carry replacement components for the tag axle suspension package. A partial listing of available components include:

- Shock Absorbers - gas charged shock absorbers are available for upgrading the shocks on the tag axle and/or chassis. Both Bilstein and Monroe shocks are available.
- Rubber Springs
- Brake Components
- Axle Components
- Booster Components

For replacement part information, please call MOR/ryde at (574) 293-1581.

SECTION VI

OWNER REGISTRATION CARD

MOR/ryde is requesting that you complete the registration information listed below so we may have a record of your purchase. Upon receipt of this form, MOR/ryde will forward to you a _____ as a token of our appreciation.

ORIGINAL OWNER

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone Number: _____

Motorhome Make: _____
Model: _____ Year: _____
VIN No.: _____
Selling Dealer: _____
City: _____ State: _____

SECOND OWNER

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone Number: _____

Motorhome Make: _____
Model: _____ Year: _____
VIN No.: _____
Selling Dealer: _____
City: _____ State: _____

THIRD OWNER

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone Number: _____

Motorhome Make: _____
Model: _____ Year: _____
VIN No.: _____
Selling Dealer: _____
City: _____ State: _____