

NEWAY[®]

AS-Series

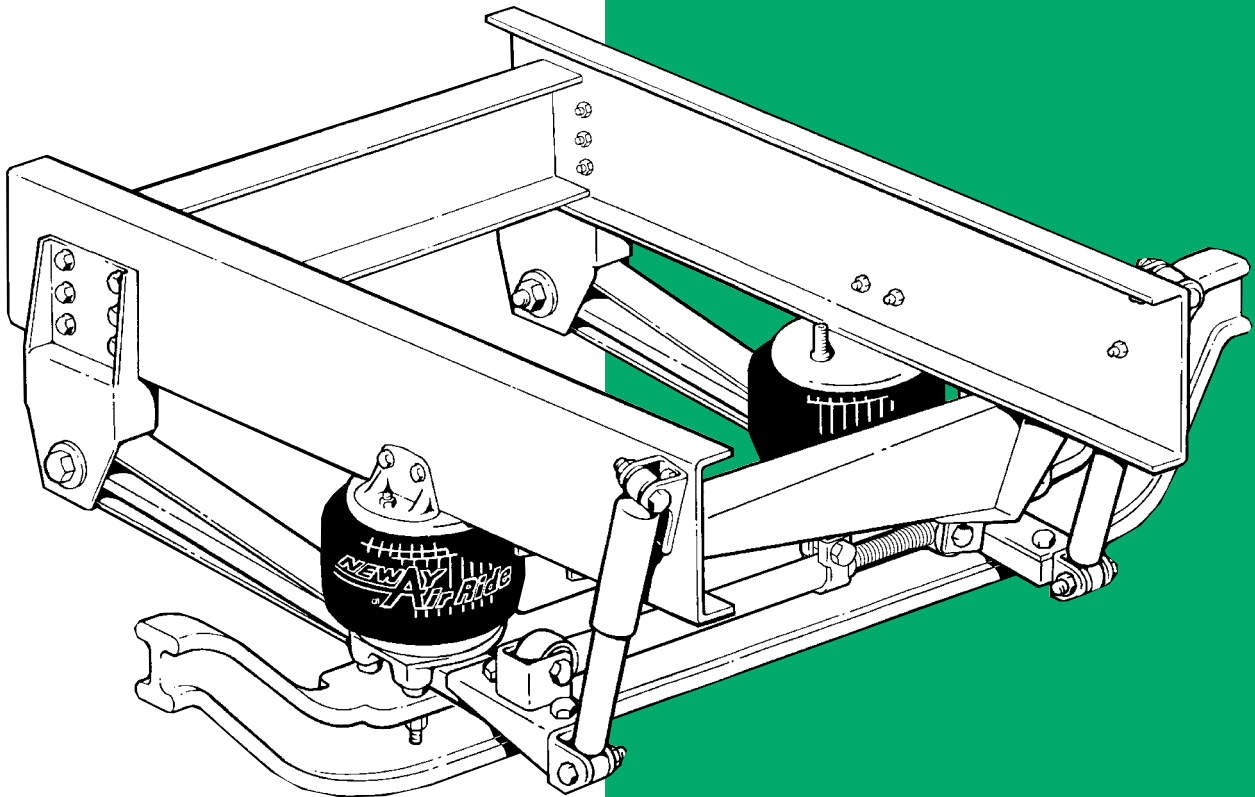
Steer Axle Air Suspension

MODELS:

AS-090

AS-120

AS-140



MAINTENANCE MANUAL

THIS MANUAL MUST ACCOMPANY THE VEHICLE TO THE END USER.

VEHICLE REFERENCE INFORMATION

NOTE:

This manual applies to the suspension models or series shown and for special orders of the same. It is very important to determine your specific model number, serial number and parts list number. Write those numbers here, and refer to them when obtaining information or replacement parts.

NOTE:

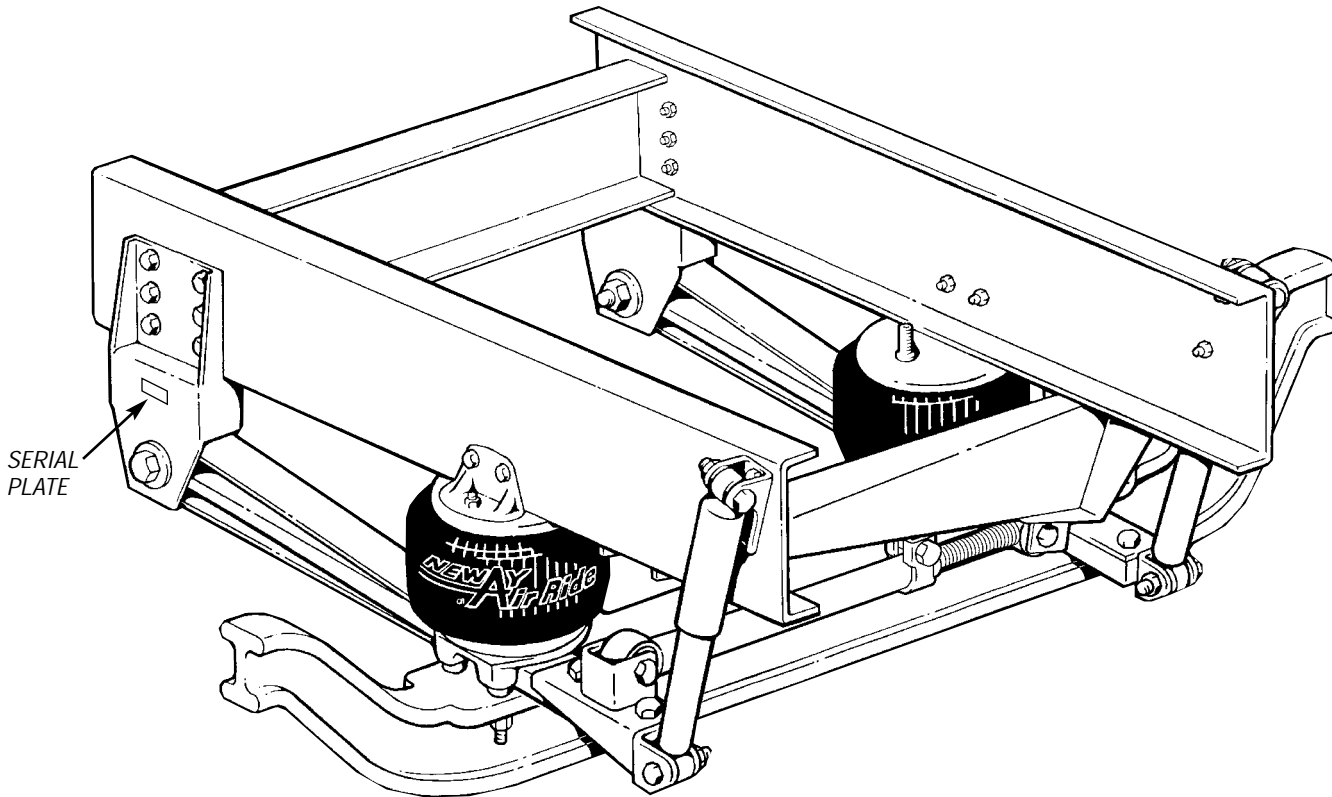
REFER TO SERIAL NUMBER PLATE ATTACHED TO THE FRONT FRAME BRACKET FOR INFORMATION.

MODEL NUMBER _____

SERIAL NUMBER _____

PARTS LISTS NUMBER _____

IN SERVICE DATE _____



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INTRODUCTION

This manual gives you information necessary for the care, maintenance, inspection, and safe operation of Neway's AS-Series steer axle air suspension models specified. The Air Suspension is designed and engineered to provide trouble-free service. In the event of minor breakdown, such as a loss of air in the air springs, there are safety features designed into the suspension that will allow the vehicle to be driven CAUTIOUSLY at slow speed, to the nearest service facility. Be sure tires are not rubbing against any object. This suspension uses air drawn from the vehicle air system to pressurize the air springs. The height control valve regulates the air pressure required for varying loads. This suspension can provide a cushioned ride throughout the load range, from empty to rated capacity.

NOTE: This manual applies to the suspension models or series shown and for special orders of the same. **It is very important to determine your specific model number, serial number and parts list number.** Write those numbers in the inside front cover, and refer to them when obtaining information or replacement parts. See serial number tag located on front frame bracket.

NOTE: For warranty information for the suspension models covered in this manual consult the appropriate warranty document for your specific suspension or contact Neway Anchorlok International Service Department.

NOTES, CAUTIONS, AND WARNINGS

Throughout this manual, you will notice the terms "NOTE", "IMPORTANT", and "CAUTION" followed by important product information. So that you may better understand the manual, those terms are defined as follows:

NOTE:

Is used as a reminder of an instruction where the concern deals with product integrity and has to do with installation, operation, maintenance or service and care of the product.

IMPORTANT:

Is with product integrity and has to do with installation, operation, maintenance or service and care of the product. It is intended to show that vehicle breakdown and/or expensive repair could result if the instruction is not followed.

CAUTION:

Is used with an instruction for the distinct purpose of showing that a safe practice must be adhered to or that an unsafe practice must be avoided, and that if proper precautions are not taken, personal injury could result.

NEWAY Steer Axle Air Suspension Operation

The NEWAY Steer Axle Air Suspension is controlled by dual "Type CR (controlled response)" or "Type IR (immediate response)" height control valves. Properly adjusted, they will maintain the desired ride height throughout the unloaded to loaded range automatically. The height control valves automatically add air to, or exhaust air from the air springs to maintain a constant ride height. The Type CR HCV does not respond to short duration dynamic changes in axle position, while the Type IR does.

Before putting the vehicle in operation, build air pressure in excess of 70 P.S.I. This will open the pressure protection valve, and allow air flow to the height control valves.

NOTE: Be sure tires are not rubbing the underside of vehicle or any other object with the suspension at full up position.

RECOMMENDED INSPECTIONS AND ROUTINE MAINTENANCE

Daily Inspection

Daily or before each trip, check the suspension to be sure it is fully operational. Visually inspect air springs for sufficient and equal pressure and to see that suspension is set at proper ride height. See page 7 for ride height measurement and re-setting instructions. Service as necessary.

Initial 5,000 Mile (8,000 KM) Inspection

1. After initial 5,000 miles (8000 KM) Inspect bolts and nuts at the pivot and axle connections to assure they are properly torqued. Check all other nuts and bolts for proper torque. Re-torque as necessary thereafter.
2. With vehicle on level surface and air pressure in excess of 70 P.S.I.G., all air springs should be of sufficient and equal firmness to maintain the suspension ride height.

NOTE: Height control valves control all air springs. Check all fittings for air leaks, by applying a soapy solution, checking for bubbles at all air connections and fittings.

3. Suspension ride height (underside of frame to top of axle) **MUST BE WITHIN $\pm 1/4$ " OF RECOMMENDED DESIGN HEIGHT.** Improper ride height could result in a poor ride or damage to the suspension and erratic vehicle handling. See page 7 for instructions on measuring ride height.

Routine Maintenance - 50,000 Miles (80,000 KM) or 1 year min. or as needed

At 50,000 miles (80,000 KM) or 1 year, or when servicing vehicle brake system, inspect suspension components per 5,000 mile (8,000 KM) inspection. Also check all other suspension components for any sign of damage, looseness, wear or cracks. Replace any damaged parts to prevent failure or equipment breakdown.

Visual Inspection Schedule and Recommended Procedure

A schedule for physical and visual inspections should be established by the operator based on severity of operation.

During each pre-trip and safety inspection of the vehicle, a visual inspection of the suspension should be done.

VISUALLY CHECK FOR:

- Bolt movement - loose dirt, rust or metal wear around bolt head and nut.
- Air springs - wear damage and proper inflation.
- Shock absorbers - leaking or damaged.
- Cracked parts or welds.

TORQUE CHART

<u>Size/Item</u>	<u>Torque in Ft. Lbs.</u>	<u>in Nm</u>
1/2" & 3/4" Air Spring Nuts Top & Bottom	35	47
3/4" Shock Absorber Upper & Lower	110	149
7/8" Track Bar, Etc.	200	271
3/4" Transverse Beam Bracket at Spring	200	271
3/4" Axle Connection	280	379
1" Pivot Connection	480	650

NOTE:

Torque specifications are with clean threads lubricated with oil.

IMPORTANT:

Torque specs do not include threads lubricated with anti-seize.

PRE-OPERATIONAL CHECKLIST

Prior to placing unit in service, check the following items:

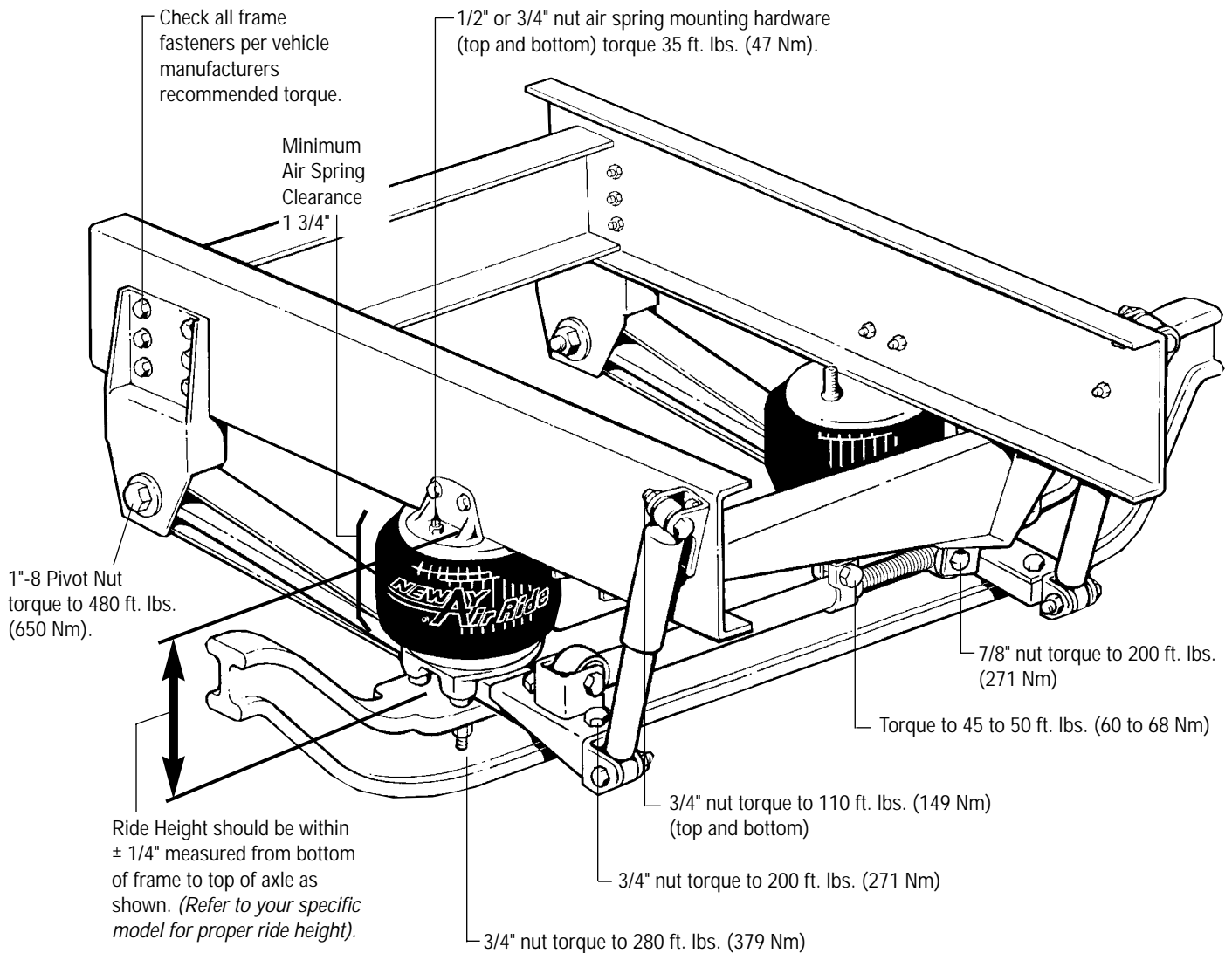
Build air pressure above 70 P.S.I.G. (4.8 Bar). With vehicle shut off, check system for air leaks.

With vehicle on level surface, air supply pressure in excess of 70 P.S.I.G. (4.8 Bar), both Air Springs should be of equal firmness.

Check Shock Absorbers for proper installation.

NOTE: Torque specifications are with clean threads lubricated with oil.

IMPORTANT: Torque specs do not include threads lubricated with anti-seize.

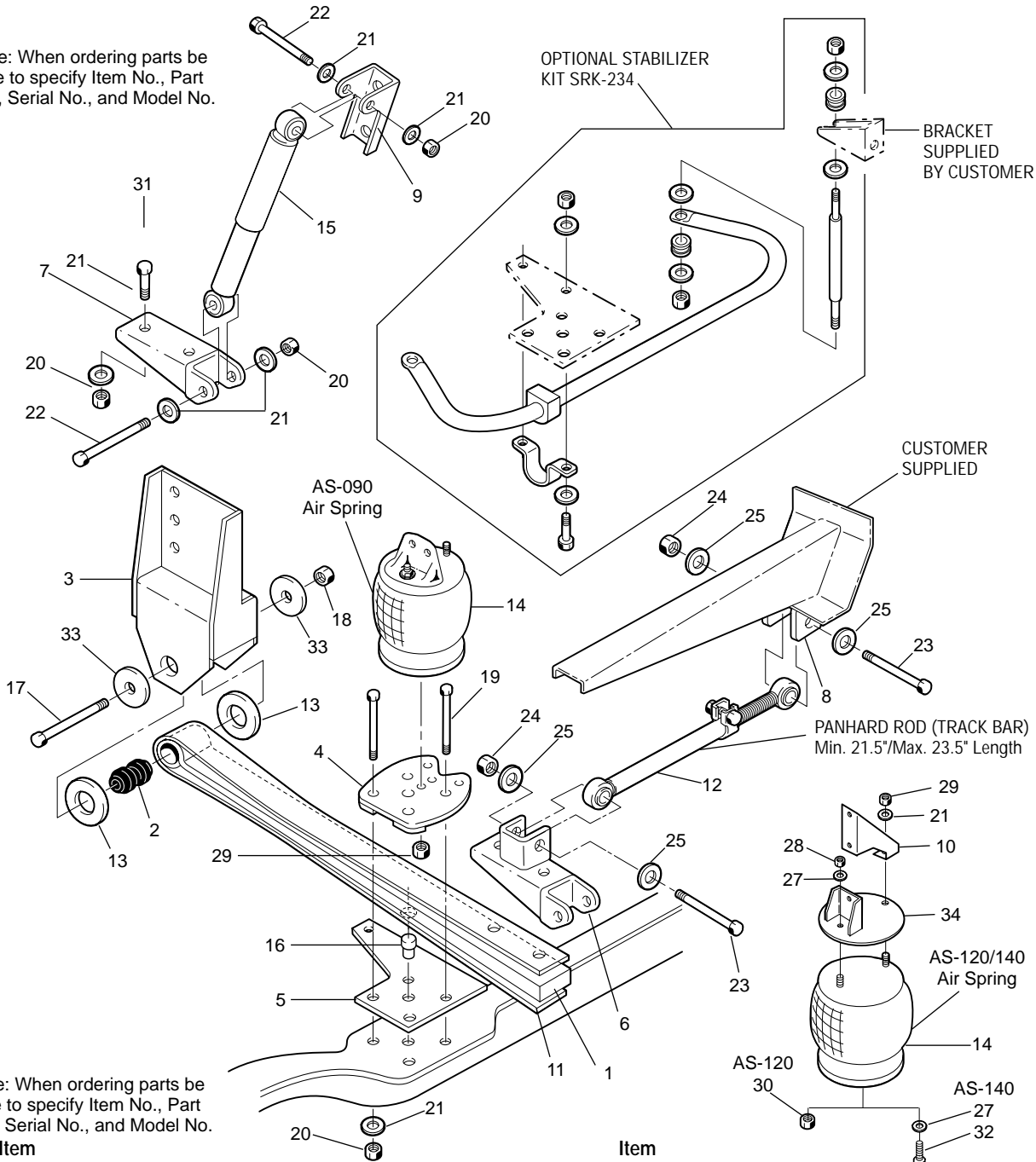


Ride Height Chart

Model No.	Ride Height
AS-09	9.5
AS-120	10.31
AS-140	10.31

PARTS LIST - AS SERIES

Note: When ordering parts be sure to specify Item No., Part No., Serial No., and Model No.



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Item No.	Description	Qty
1	Leaf Spring Assembly	2
2	Pivot Bushing	2
3	Frame Bracket (Fixed or Adjustable)	2
4	Lower Bracket, Air Spring Mounting Plate	2
5	Spacer Plate	2
6	Control Arm Bracket and Lower Shock Bracket	1
7	Lower Shock Bracket	1
8	Control Arm Bracket	1
9	Upper Shock Bracket	2
10	Brace	2
11	Retainer Strap	2
12	Torque Rod (Adjustable)	1
13	Pivot Shim	4
14	Air Spring	2
15	Shock	2
16	Dowel Pin	2
17	Hex Bolt 1-8 x 6 1/4"	2

Item No.	Description	Qty.
18	Hex Lock Nut 1-8 (GR B)	2
19	Hex Bolt 3/4-10 x 5" (GR 8)	8
20	Hex Lock Nut 3/4"-10 (GR C)	16
21	Flat Washer 3/4"	14
22	Hex Bolt 3/4"-10 x 3 3/4" (GR 5)	4
23	Hex Bolt 7/8"-9 x 4 1/2" (GR 5)	2
24	Hex Lock Nut 7/8"-9 (GR B)	2
25	Flat Washer 7/8"	4
27	Lock Washer .53"	4
28	Hex Nut 1/2"-13 (GR B)	2
29	Hex Lock Nut 3/4"-16 (GR A)	2
30	Hex Nut 3/4"-10 (GR B)	2
31	Hex Bolt 3/4"-10 x 3 1/2" (GR 2)	4
32	Hex Bolt 1/2"-13 x 1 1/4" (GR 5)	2
33	Alignment Block	2
34	Air Spring Mounting Plate	1

TYPE CR (Controlled Response) SINGLE HEIGHT CONTROL VALVE ADJUSTMENT

Adjustment Procedure

1. Prior to adjustment, the vehicle must be in an unladen condition and on a level floor.
2. Pressurize the air system with a constant supply of air in excess of 70 P.S.I.G. All air springs should inflate and be a proper ride height.
3. If ride height is off, adjust ride height by the 1/4" adjusting lock nut (see Figure 1). Loosen the 1/4" nut, push up to increase ride height and pull down to decrease ride height.

NOTE: Valve has a built in time delay feature; therefore, several seconds may elapse prior to air flow.

4. Inspect air system and eliminate any air leaks.

NOTE: If proper ride height is not obtained or air springs do not inflate properly, check air pressure, check for proper piping and check CR valve as shown on page 8, Figure 3, Valve Inspection Procedure. Then if not functioning properly, contact the Neway Service Department.

Figure 1

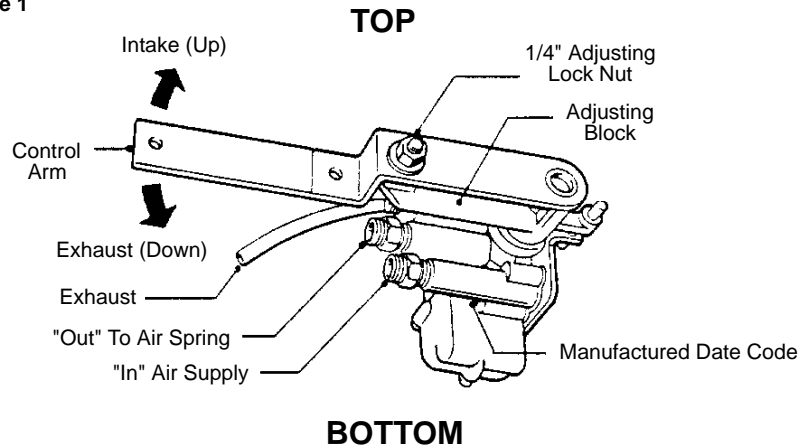
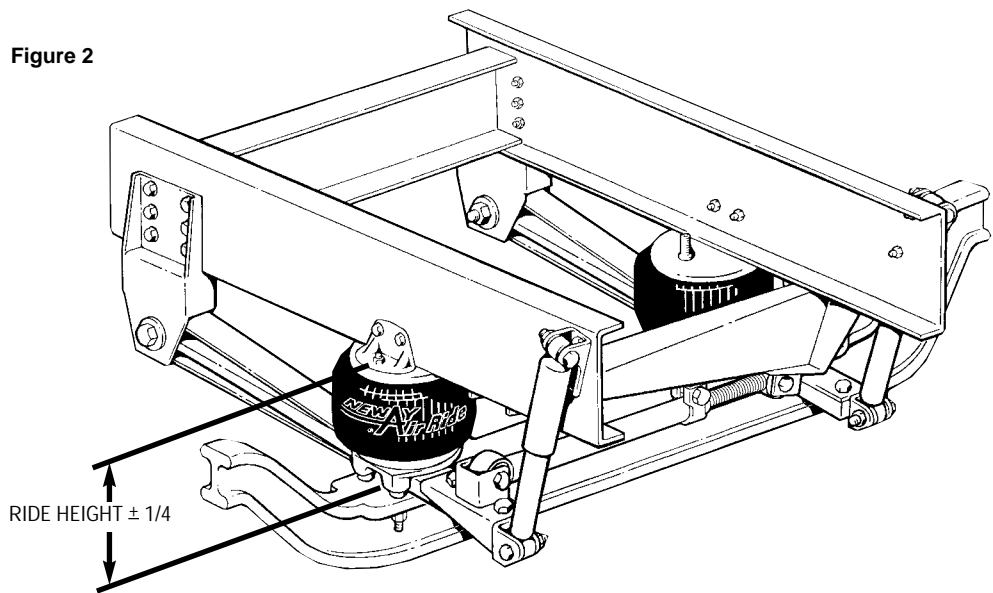


Figure 2



Ride Height should be within $\pm 1/4$ " measured from bottom of frame to top of axle as shown. (Refer to your specific model for proper ride height).

Ride Height Chart

Model No.	Ride Height
AS-090	9.5
AS-120	10.31
AS-140	10.31

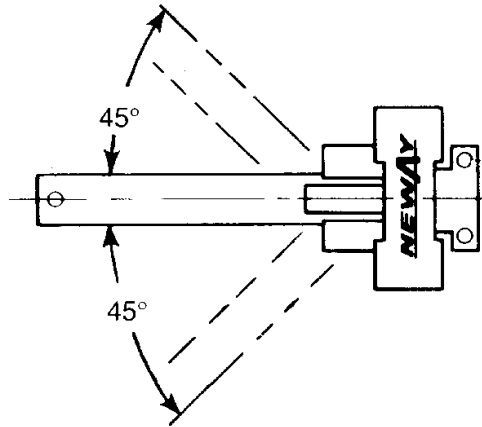
TYPE CR HEIGHT CONTROL VALVE INSPECTION

Inspection Procedure

Proper inspection can eliminate unnecessary replacement of height control valve.

1. Apply air pressure in excess of 70 P.S.I.G. (4.8 Bar)*.
2. Disconnect the link.
3. Move control arm up 45° for ten seconds (See Figure 3) - air pressure should inflate the air spring(s).
4. If the air spring(s) are not being inflated recheck the air lines for proper port connection and the control arm for proper position.
5. Move control arm to neutral position - valve should shut off air flow.
6. Move control arm down 45° for ten seconds - air should exhaust from the air spring(s) through the exhaust port of the CR-HCV.
7. Move control arm to neutral position - valve should shut off air flow.
8. Valve is good if performance is as noted.
9. If necessary, refer to adjustment procedure - page 7.

Figure 3



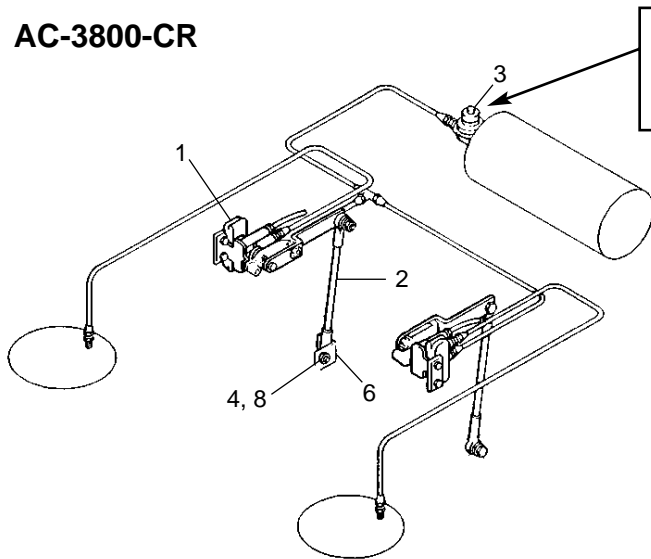
*If 70 P.S.I.G. (4.8 Bar) air system pressure cannot be achieved, check Pressure Protection Valve and vehicle Air Compressor to see if they are operating properly. Also check the air lines for obstructions caused by dirt particles, foreign debris, ice, etc.

Height Control Valve Care and Maintenance

1. Visually inspect the valve on a regular basis for proper clearance around or damage to valve control arm or adjusting block.
2. Dirt or foreign particles in the air line may harm the internal workings of the valve. Even though it contains a protective filter to eliminate foreign matter, normal air brake system maintenance should be practiced – DO NOT grease valve.
3. Drain moisture from air tank periodically. In severe cold weather an air dryer and/or alcohol evaporator is recommended to avoid valve freezing and damage.

PARTS LIST — AIR CONTROLS - DUAL TYPE "CR" HEIGHT CONTROL VALVES

AC-3800-CR



AIR PRESSURE PROTECTION VALVE & FILTER MAINTAINS SAFE AIR BRAKE PRESSURE AND CLEANS AIR. SET TO 70 P.S.I.G. (4.8 Bar) AT FACTORY

Item	Part No.	Description	Qty.
1	900 54 007	Height Control Valve	2
2	481 00 225	Flexible Link Assembly - SRK 168	2
3	905 54 107	Air Pressure Protection Valve & Filter	1
4	934 00 060	1/4 - 20 Hex. Lock Nut (Gr. B)	4
5	941 00 119	Decal (Operating) (Not Shown)	1
6	900 31 425	Axle Bracket	2
7	900 18 090	Mounting Bracket (Not Shown)	2
8	930 02 349	1/4 - 20 x 3/4 Hex. Hd. Cap Screw (Gr. 4)	4
9	941 00 466	Height Control Valve Instructions	1

FLEXIBLE LINK ASSEMBLY (Type CR HCV)

Assembly Procedure

1. Determine length of Link Assembly required ("A" Dim.). (See Figure 4) This can be done by measuring the link removed or the distance from centerline of height control valve arm hole to centerline of lower connection bracket hole.

NOTE: This measurement must be taken with suspension at proper ride height.

2. Determine length of rod required ("B" Dim.) by subtracting 1 3/4" (44mm) from "A" Dim. Example: 13 3/4" (349 mm) "A" Dim. minus 1 3/4" (44mm) = 12" (305mm) "B" Dim., the length of the rod required.

3. Cut rod to length required; remove any sharp edges that may cause damage to the rubber link ends during assembly.

4. Assemble clamps, link ends and rods as shown.(See Figure 4) Insert rod into link end equal distance both ends, **observing the minimum and maximum tolerance.** Be certain the link ends are parallel to each other.

5. With link ends properly aligned and link assembly at required length, tighten clamps.

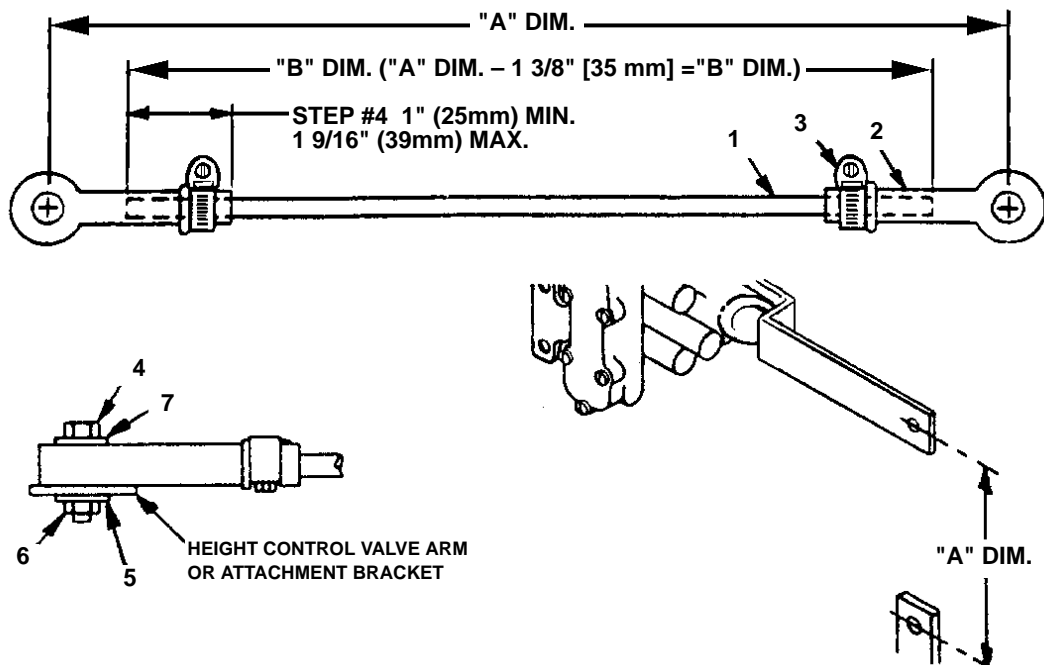
6. Install link assembly.
NOTE: 1/4" washers to be inserted between nut and control arm or bracket, 5/16" washer between bolt head and rubber link. Torque to 24 - 48 lb. in. (See Figure 4).

Service Repair Kit SRK-168

Item	Part No.	Description	Qty.
*1	900 06 396	Rod 18 1/4" long (SRK-168)	1
2	900 54 516	Link End	2
3	939 00 198	Hose Clamp	2
4	939 00 224	Shoulder Bolt	2
5	939 00 119	Washer 1/4" Plain	2
6	934 00 060	Lock Nut 1/4" - 20	2
7	936 00 118	Washer 5/16"	2

***NOTE:** Item 1 - P/N 900 06 396 (SRK-168) is for use when servicing Link Assemblies with required lengths from 4.5 inches (114 mm) to 20 inches (508 mm).

Figure 4

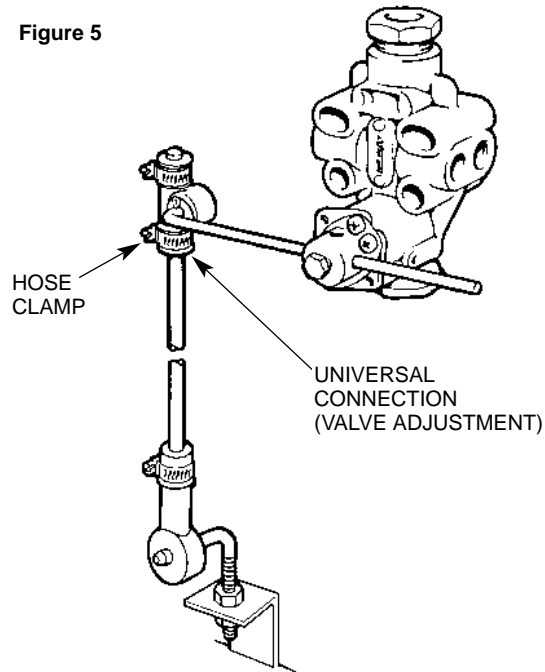


TYPE IR (Immediate Response) SINGLE HEIGHT CONTROL VALVE ADJUSTMENT

Adjustment Procedure

1. Prior to adjustment, the vehicle must be in an unladen condition and a level floor.
2. Pressurize the air system with a constant supply of air in excess of 80 P.S.I.G. (5.5 Bar). All air springs should inflate and be a proper ride height.
3. If ride height is off, adjust height control valve by loosening the hose clamp (See Figure 5) on the universal connection fitting. Push up to raise ride height and push down to lower ride height (Retighten hose clamp after adjustment).
4. Inspect air system and eliminate any air leaks.

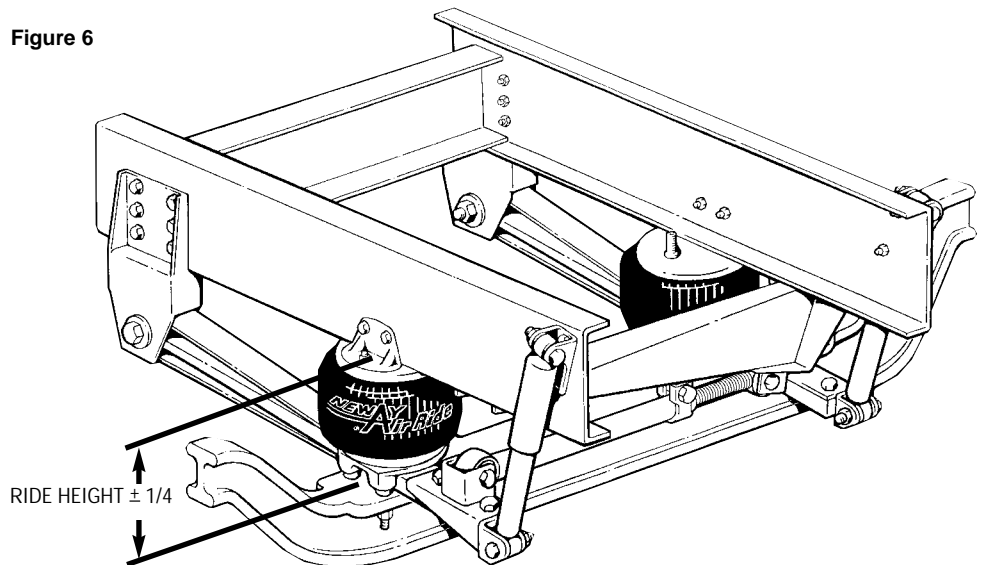
Figure 5



NOTE: If proper ride height is not obtained or air springs do not inflate properly, check air pressure, check for proper piping and repeat above steps. Then if not functioning properly, contact the Newway Service Department.

NOTE: A Newway Type IR-HCV can be installed in a vertical or horizontal position with the control arm in either left-hand or right-hand position. Refer to Form SD-922 or contact Newway Service Dept. for information.

Figure 6



Ride Height should be within $\pm 1/4$ " measured from bottom of frame to top of axle as shown. (Refer to your specific model for proper ride height).

Ride Height Chart

Model No.	Ride Height
AS-090	9.5
AS-120	10.31
AS-140	10.31

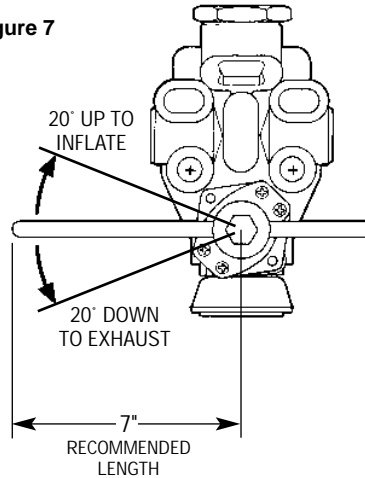
TYPE IR HEIGHT CONTROL VALVE INSPECTION PROCEDURE

Inspection Procedure

Proper inspection can eliminate unnecessary replacement of height control valve.

1. Apply air pressure in excess of 70 P.S.I.G. (4.8 Bar)*
2. Loosen hose clamp and disconnect the universal link.
3. Move control arm up 20° (above horizontal) - air pressure should inflate the air spring. (See Figure 7)
4. If the air spring(s) are not being inflated, recheck the air lines for proper port connection and the control arm and actuation shaft for proper position.
4. Move control arm to neutral position - valve should shut off air flow.
5. Move control arm down 20° - air should exhaust from the air spring(s) through the exhaust port of the IR-HCV.
6. Move control arm to neutral position - valve should shut off air flow.
7. Valve is good if functioning as noted.
8. If necessary, refer to adjustment procedure - page 10.

Figure 7



*If 70 P.S.I.G. (4.8 Bar) system pressure cannot be achieved, check pressure protection valve and vehicle air compressor to see if they are operating properly. Also check the air lines for obstructions caused by dirt particles, foreign debris, ice, etc.

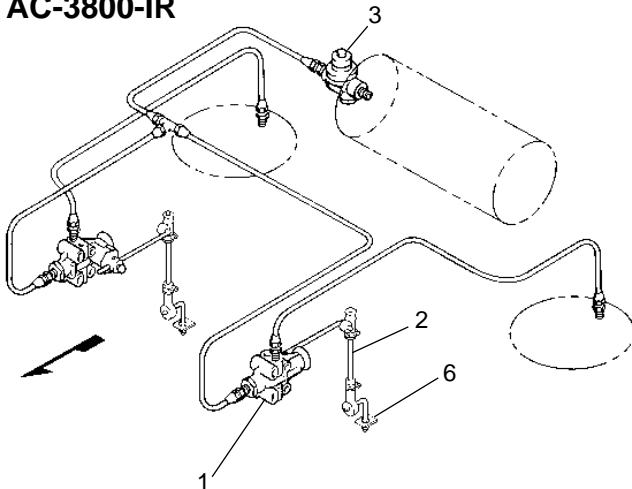
Height Control Valve Care and Maintenance

1. Visually inspect the valve on a regular basis for proper clearance around or damage to valve control arm.
2. Dirt or foreign particles in the air line may harm the internal workings of the valve. Normal air brake system maintenance should be practiced – DO NOT grease valve.
3. Drain moisture from air tank periodically. In severe cold weather an air dryer and/or alcohol evaporator is recommended to avoid valve freezing and damage.

NOTE: The Type IR Height Control Valve has filter screens in the supply port and both air spring ports. To prevent air flow restrictions, the filters should be cleaned every six months or when air flow becomes restricted.

PARTS LIST — AIR CONTROLS - DUAL TYPE "IR" HEIGHT CONTROL VALVES

AC-3800-IR



Item	Part No.	Description	Qty.
1	905 52 241	IR Height Control Valve	2
2	481 00 267	SRK-205 Link Assembly	2
3	905 54 107	Air Pressure Protection Valve & Filter	1
6	900 23 121	Axle Bracket	2
7	900 18 541	Mounting Bracket (Not Shown)	2

NOTE: A Newway Type IR-HCV can be installed in a vertical or horizontal position with the control arm in either left-hand or right-hand position. Refer to SD-922 or contact Newway Service Dept. for information.

NOTE: GENERALLY DUAL (2) HEIGHT CONTROL VALVES ARE USED, BUT ON SOME APPLICATIONS A SINGLE (1) HEIGHT CONTROL VALVE MAY BE USED.

Assembly Procedure

1. Determine length of rod required.

NOTE: Link assembly must be done with suspension at proper ride height.

2. Cut off excess rod if required; remove any sharp edges that may cause damage to the rubber link ends during assembly.

3. Assemble clamps, link ends and rod as shown.

NOTE: Control arm should extend 7" from center of lock bolt to universal link. (See Figure 8A)

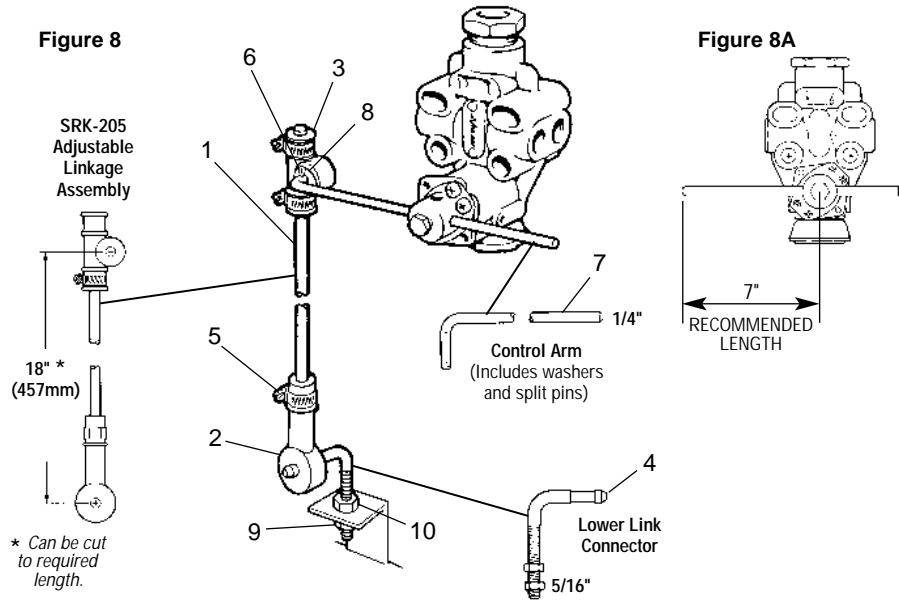
4. With link ends properly aligned and link assembly at required length, tighten clamps.

NOTE: 1/4" washers to be inserted between cotter pins and universal link (one on each side).

NOTE: A Neway Type IR-HCV can be installed in a vertical or horizontal position with the control arm in either left-hand or right-hand position. Refer to form SD-922 or contact Neway Service Dept. for information.

Service Repair Kit SRK-205

Item	Part No.	Description	Qty.
*1	900 54 634	Rod 18" long	1
2	900 54 670	Link End (Bottom Connector)	1
3	900 54 630	Link End (Universal Connector)	1
4	900 54 636	Lower Link Connector	1
5	939 00 198	Hose Clamp	3
6	938 00 070	Cotter Pin	2
7	900 54 635	Control Arm	1
8	936 00 522	Flat Washer	2
9	934 00 468	Lock Nut	1
10	934 00 124	Nut	1



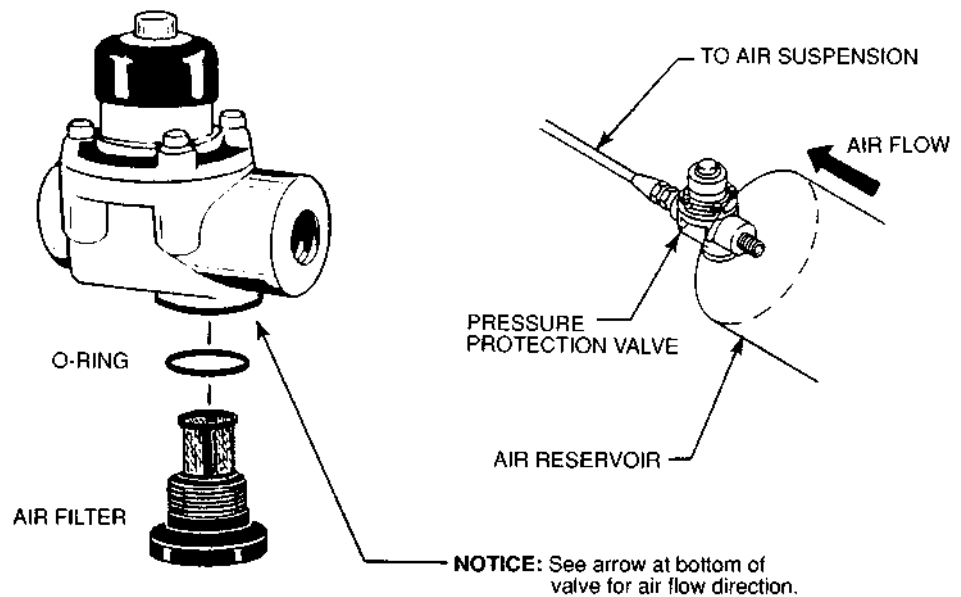
PRESSURE PROTECTION VALVE & FILTER

Periodic Maintenance

Drain all moisture from air reservoir at regular intervals. Approximately every 3 months, remove air filter and "O" ring from bottom of valve and inspect. (See Figure 9) replace if necessary (SRK-143). Replace "O" ring and air filter, **hand tighten only**.

The PPV **must be** checked for proper operation during each brake system inspection. The purpose of the valve is to maintain at least 70 P.S.I.G. (4.8 Bar) brake operating pressure in event of a serious air leak in the suspension system. With the air tank pressure charged above 75 P.S.I.G. (5.2 Bar), disconnect air line from downstream (suspension) side of PPV. Air should stop flowing through the valve before the spring brakes begin to apply or before 70 P.S.I.G. (4.8 Bar) tank pressure is reached. If air does not stop flowing, **replace the valve**.

Figure 9



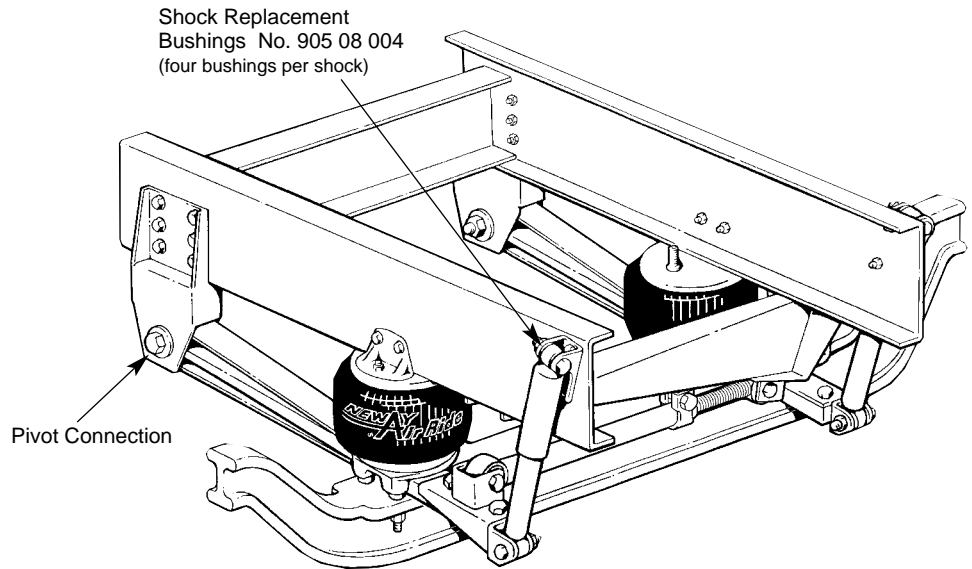
SERVICE REPAIR KITS

When servicing your Neway Air Ride Steer Axle Suspension use the convenient service repair kits noted below.

Model	Pivot Connection
AS-090, 120, 140	SRK-242

NOTE: One (1) SRK required per axle.

Figure 10



REPLACEMENT INSTRUCTION — FRAME BRACKET

Frame Bracket Installation

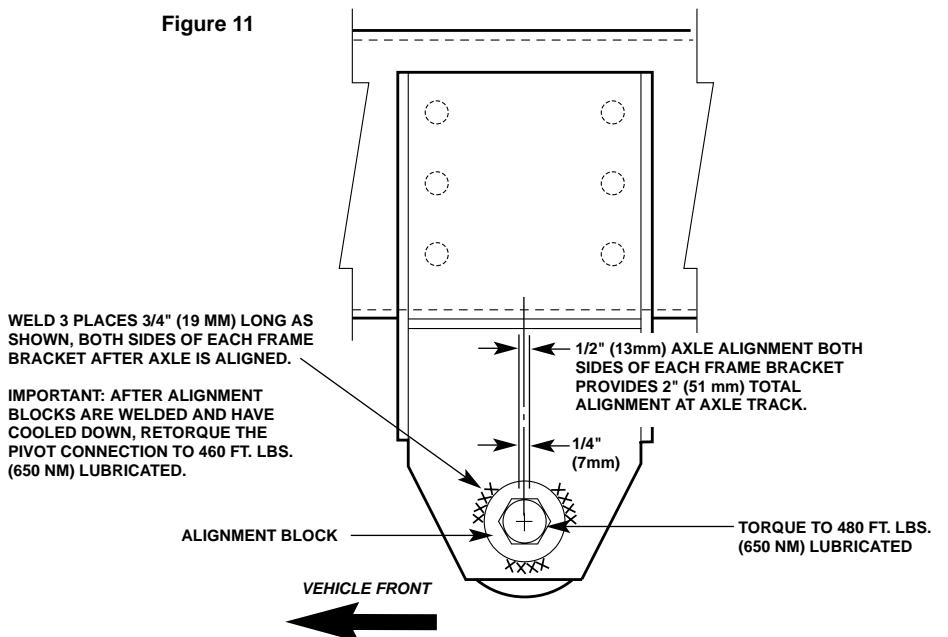
1. Support frame, then exhaust air from air springs.
2. Disconnect frame bracket and remove. (Make note of alignment block position for reassembly).
3. Replace pivot rubber bushing if necessary.
4. Reassemble pivot connection, hardware and position alignment blocks as previously noted in Step 2. **DO NOT WELD ALIGNMENT BLOCKS AT THIS TIME.**
5. With suspension set at its proper ride height, make sure the axle is setting squarely under the frame, then align axle per vehicle manufacturer recommendation.
6. Torque connection to 480 ft. lbs. (650 Nm) lubricated. Then recheck alignment. (See torque note).

7. Weld alignment blocks on both sides of each frame bracket. Make three 1/4" welds - 3/4" long using welding rod E-7028 or equivalent. (See Figure 7) (Optional - 1/4" weld all around each frame bracket.)
8. AFTER ALIGNMENT blocks are welded and have cooled down retorque the pivot connection to 480 ft. lbs. (650 Nm) lubricated.

TORQUE NOTE: Torque specifications are with clean threads lubricated with oil.

IMPORTANT: Torque specs do not include threads lubricated with anti-seize.

Figure 11



Shock Absorbers

1. It is recommended the vehicle be unloaded. Block vehicle to prevent rolling.
2. Remove upper and lower mounting bolts and shock absorber.
3. Replace with correct shock absorber.
4. See Torque Chart page 4.

Bushings - Spring Beam

The rubber bushings in the spring beam may be replaced using a hydraulic press with a capacity of 10,000 lbs. or greater.

To replace the bushings in an equalizing beam, first remove the beam from the vehicle. The following procedure is recommended:

1. It is recommended the vehicle be unloaded. Block vehicle to prevent rolling. Support vehicle frame with adequate jacks or stands. Remove tires.
2. Exhaust air by:
 - A. Automatic - height control valve - disconnect link at lower connection, then rotate control arm down to exhaust (approx. 45° down for Type CR HCV), (approx. 20° down for Type IR HCV).

Drain all air from air reservoir.

- B. Disconnect air supply line from air springs.
3. Disconnect shock absorbers, pan hard rod, air springs at lower end and axle bolts. Remove beam.
 5. Support beam, and press out old bushings with a hydraulic press
CAUTION: The Beam support fixture must be securely mounted to the hydraulic press.
 6. Clean out bushing receptacles in beam of all foreign material before pressing in new bushings.
 7. Lubricate new replacement bushing and tube receptacle with an approved rubber lubricant or a soap and water solution.

NOTE: DO NOT USE AN OIL-BASED LUBRICATION OR BRAKE FLUID, as it can cause damage to the rubber.

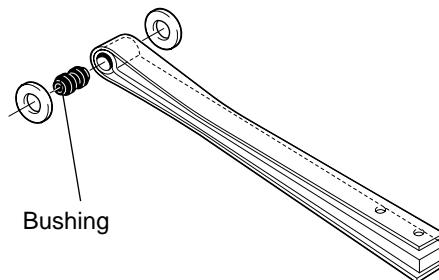
With the beam supported press the new bushing into the beam. (Refer to Step No. 9 and Figure 13).

8. Inspect all parts for wear, cracks or failed welds - repair or replace if necessary.

CAUTION: DO NOT REPAIR A CRACKED EQUALIZING BEAM - REPLACE IT

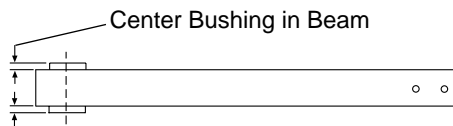
Figure 12

BEAM BUSHING LOCATION



9. **NOTE:** Bushings are to be centered in the equalizing beam. (See Figure 13)

Figure 13



10. Reassemble new or rebushed spring beam to frame bracket.
11. Reassemble axle connections.
NOTE: BEFORE TORQUING FRONT PIVOT BOLT, SET SUSPENSION AT PROPER RIDE HEIGHT.
12. Reconnect air springs, shock absorbers, height control valve link and pan hard rod (Torque to proper specifications).
13. Re-install wheels and tires. Remove jacks and or stands, and build air reservoir pressure in excess of 70 P.S.I.G (4.8 Bar). Check for proper ride height, page 7. **CAUTION: 100 P.S.I.G. (6.9 Bar) IS MAXIMUM ALLOWABLE OPERATING AIR SYSTEM PRESSURE.**

Suspension Air Springs

1. **CAUTION:** Be sure to use proper air spring replacement.
2. **CAUTION:** Prior to removing air spring, vehicle must be unloaded. Support vehicle frame with adequate jacks or stands at approximate ride height.
3. Exhaust air from suspension system.
Exhaust air by:
 - A. Automatic Control - Height control valve - disconnect link at lower connection, then rotate control arm down to exhaust (approx. 45° down for Type CR HCV), (approx. 20° down for Type IR HCV).
 - B. Disconnect air supply line from air spring.
4. Disconnect and remove old air spring assembly.
5. Install new air spring assembly and properly torque fasteners. See Torque Chart Page 4.

6. Reconnect air supply line and link connections.
7. Remove jacks and or stands.
8. Build air supply system to compressor. Cut-off pressure, check for leaks.

CAUTION: 100 P.S.I.G. (4.8 Bar) IS THE MAXIMUM ALLOWABLE OPERATING PRESSURE.

TROUBLE SHOOTING

Problem

*Air spring related problems.

Possible Cause and Remedy

Insufficient air pressure to suspension. Build vehicle air pressure in excess of 75 P.S.I.G. (5 BARS). Malfunctioning air pressure protection valve. Test the valve using instructions on page 8, replace if necessary, check air compressor. HCV control valve not working, follow HCV inspection procedure page 8.

Air leak or damaged line. Locate and repair.

Air spring punctured or leaking. Replace with proper air spring, then check for proper clearance around air spring, 1 3/4" minimum. Also check shock absorbers.

Tire, tire rim or brake component rubbing air spring. Check inside to inside tire dimension. There must be 1 3/4" minimum clearance around air spring, if not it may be necessary to reinstall suspension. Use tire rim back spacers to provide more clearance.

Air brake chamber rubbing air cell. Relocate chamber or rotate clamp ring for more clearance (consult chamber manufacturers instructions).

Over-extension of air spring. Suspension riding too high. Re-adjust height control valve(s) to attain proper vehicle ride height. See page 7. Shock absorbers and/or connections broken, replace. Wrong length shock absorbers, replace. Mislocation of upper shock bracket, relocate. Air spring improperly installed, reinstall with proper Installation Instructions.

* "Temporary Operation" If air loss occurs in the air suspension system and after attempts to repair have failed to correct the problem, it is recommended that the Height Control Valve Linkage be disconnected and all air exhausted from the system. There is an internal rubber bumper built into the air spring which makes it possible to operate the vehicle cautiously at a reduced speed to the nearest place of repair. CAUTION: DO NOT OVERLOAD AXLES.

Front pivot bushings worn prematurely.

Alignment bushing(s) not welded or worn. (Front Pivot) Weld per installation instructions. If worn, replace and realign axles.

Front pivot bolt loose. Connection not properly tightened, refer to page 13 for tightening procedure.

Excessive lateral axle walk. (3/4" maximum) Axle connection bolts loose, properly tightened. Refer to proper Neway specifications for applicable model. Front pivot connection bushings worn, replace with proper SRK.

Repeated shock absorber failures.

Over-extending shock absorbers. Suspension set at improper ride height, re-adjust height control valve(s). Suspension mounted at wrong ride height, check specification sheet, or refer to page 7 for correct ride height and adjustment procedure. Wrong length or improper replacement shock absorber(s), replace if necessary. Mislocation of upper shock bracket. Relocate, refer to Installation Instructions.

Rattling from front suspension.

Retainer strap loose. By design, the retainer strap must fit tight against top and bottom of spring beam at bushing end. If loose, retainer strap can be removed (see page 14) and fit adjusted by pressing end together to close up any gap.

Axle misaligned.

Alignment bushings not welded or out of alignment. Realign and weld to specifications.

Pivot bushings worn. Replace and torque to proper specifications.

Axle off tracking.

Alignment bushing(s) not welded or worn. If worn, replace. If not welded properly, weld alignment bushing(s) after axle is aligned.

Axle misaligned. Align axle by removing weld from alignment bushing, loosen pivot connection, shift axle, torque pivot nut (see page 5). Check alignment if correct, reweld alignment bushing as described on page 13.

Loose or worn bushings at pivot. If loose, tighten connection. Then check axle alignment and realign if necessary.

Suspension not properly installed. Check suspension installation, correct where necessary.

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