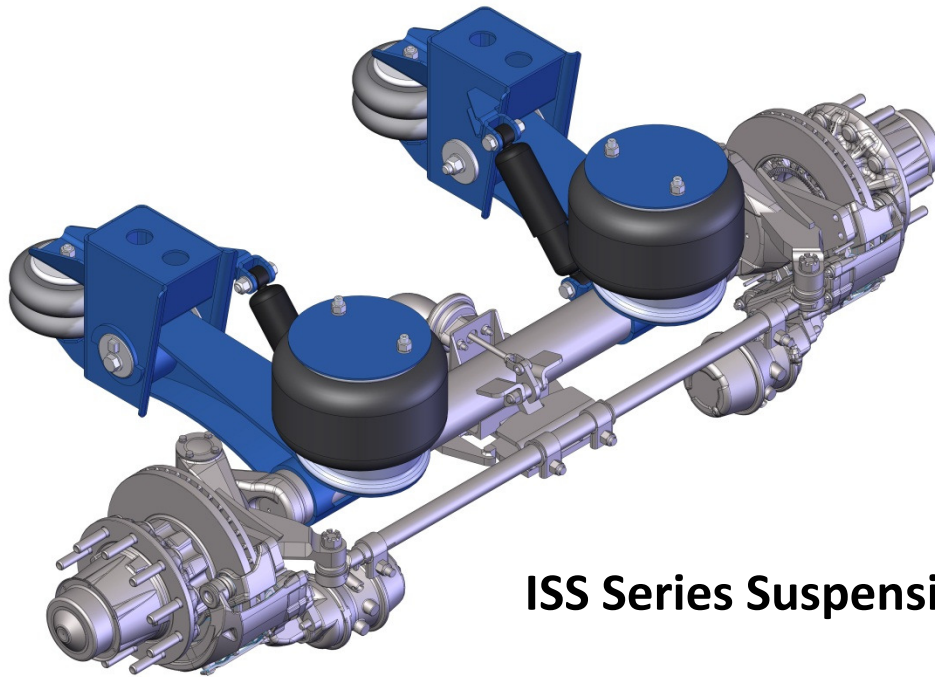


IMPORTANT This manual must accompany the trailer when delivered to the end user.

INSTALLATION AND MAINTENANCE MANUAL



ISS Series Suspensions

 **INGERSOLL AXLES**
A N I M T C O M P A N Y TM

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SAFETY

This manual is intended to retain the safety, dependability, and performance engineered into Ingersoll Axles Suspension Products. Study this manual carefully before you perform any installation or maintenance procedures.

CAUTIONS and WARNINGS will be used to point out any circumstances that can cause personal injury or damage components.

Before any repair or maintenance work that requires raising a vehicle, secure it with lift stands that are properly rated. Also make sure wheel chocks are accurately inserted. Do not depend on wheel jacks alone for support of vehicle. Without proper training, safety equipment, and tools, serious if not fatal accidents can occur. Read and understand procedures in this manual before attempting any work.

Suspensions are designed to operate within specific parameters. Operating the suspension outside the design parameters may result in improper performance, damaged equipment, and voiding of the warranty.

The load carried by each axle must not exceed the rated capacity of the components involved. Overloading can cause component failure resulting in accidents and injuries.

No welding of any of the suspension components is permitted, except if approved by Ingersoll Axles.

No welding of the axle assembly or axle components is permitted except if approved by Ingersoll Axles.

No alteration of any of the suspension components is permitted. Warranty will be considered void if any alteration has occurred.

WELDING

When welding, be sure to wear all personal protective equipment for face and eyes, and have adequate ventilation. When welding, protect air springs and shock absorbers from weld spatter and grinder sparks.

Under normal use, steel presents few health hazards. Prolonged or repeated breathing of iron oxide fumes produced during welding may cause health issues.

To perform the welding, the welder must be qualified for 2G positions per ANSI / AWS D1.1-94 Section 5 Part C "Welder Qualification." It recommended that all welds must be performed in a flat, horizontal position as closely as possible. Suspension components and their mating parts me be free of dirt, scale, paint, grease and moisture. Any deviation from these welding specifications must be reviewed and approved by Ingersoll Axles in writing prior to commencement of any work.

METHODS

Four methods may be used to weld hardware to trailer axles:

- Shielded metal arc (stick electrodes)
- Gas metal arc (MIG, solid wire)
- Gas tungsten arc (TIG)
- Flux cored arc (tubular wire)

American Welding Society (AWS) classifications and specifications for these four methods are shown in below.

Method for Welding Carbon & Low Alloy Steels	AWS Electrode Classification	AWS Specifications
Shielded Metal Arc	E70XX	A5.1 / A5.5
Gas Metal Arc	ER70S-X	A5.18
Gas Tungsten Arc	ER70S-X	A5.18
Flux Cored Arc	E70T-X	A5.20

AWS WELDING SPECIFICATIONS

- The weld tensile strength must be 70,000 psi as per AWS specifications. Weld tensile strengths which are either higher or lower than this rating are not acceptable.
- The best fusion and strength will be obtained using the voltage, current and shielding medium recommended by the electrode manufacturer. If the shielded metal arc method is used, electrodes must be clean, dry and have been stored per AWS specifications (AWS Section 4.5.2).

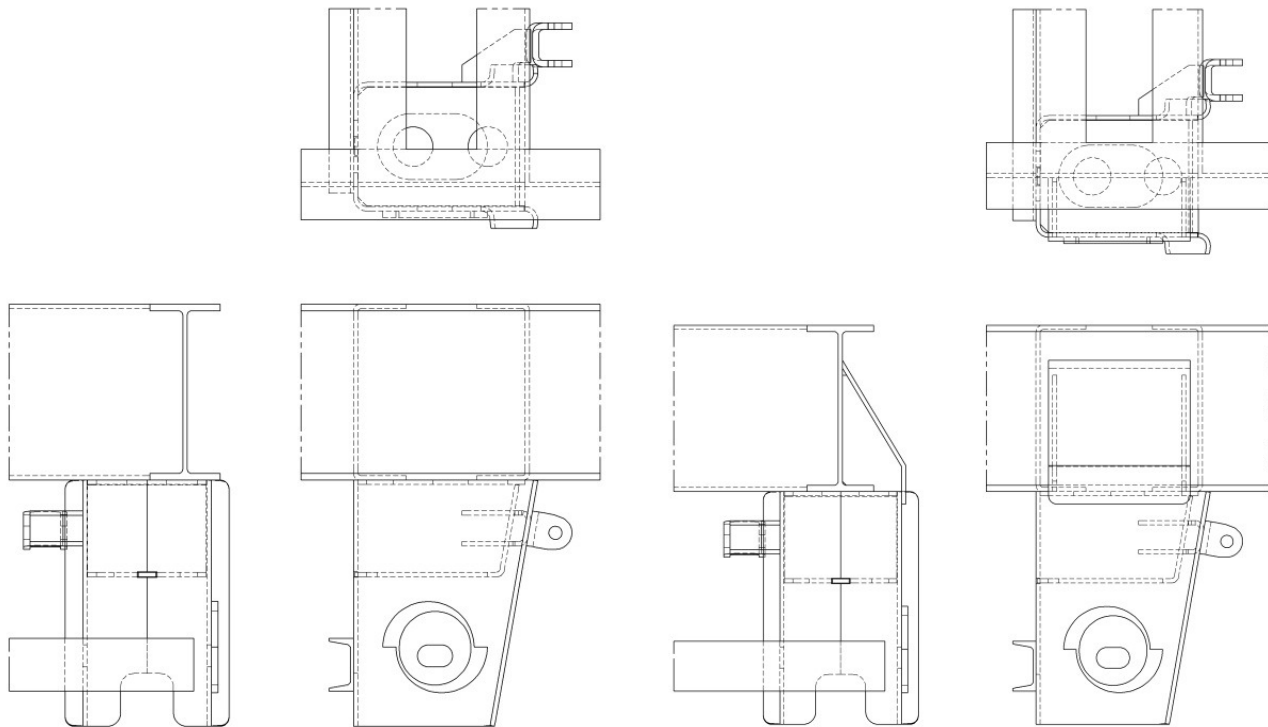
SUSPENSION TO FRAME INSTALLATION

Cross members are required at all Frame Bracket and Air Spring Top Plate locations. See the specific suspension model installation drawing for locations. Cross members are customer supplied and are the responsibility of the customer to ensure adequate support. Suspension Frame Brackets are not to be used as a structural component of the trailer. All welding to be done in accordance to Ingersoll Axles welding specifications noted earlier.

Please refer to the appropriate installation drawing for the model of your suspension for the detailed layout dimensions.

HANGERS (FRAME BRACKETS)

1. Locate hangers in proper position on frame rails as shown in installation drawing.
2. Ensure that they are square to the frame and to each other. Alignment slots must line up.
3. Tack weld hangers in place.
4. Check that the frame-brackets have not been compressed or distorted.
5. Weld hangers to frame in accordance with Ingersoll Axles welding specifications.



TYPICAL HANGER SUPPORT

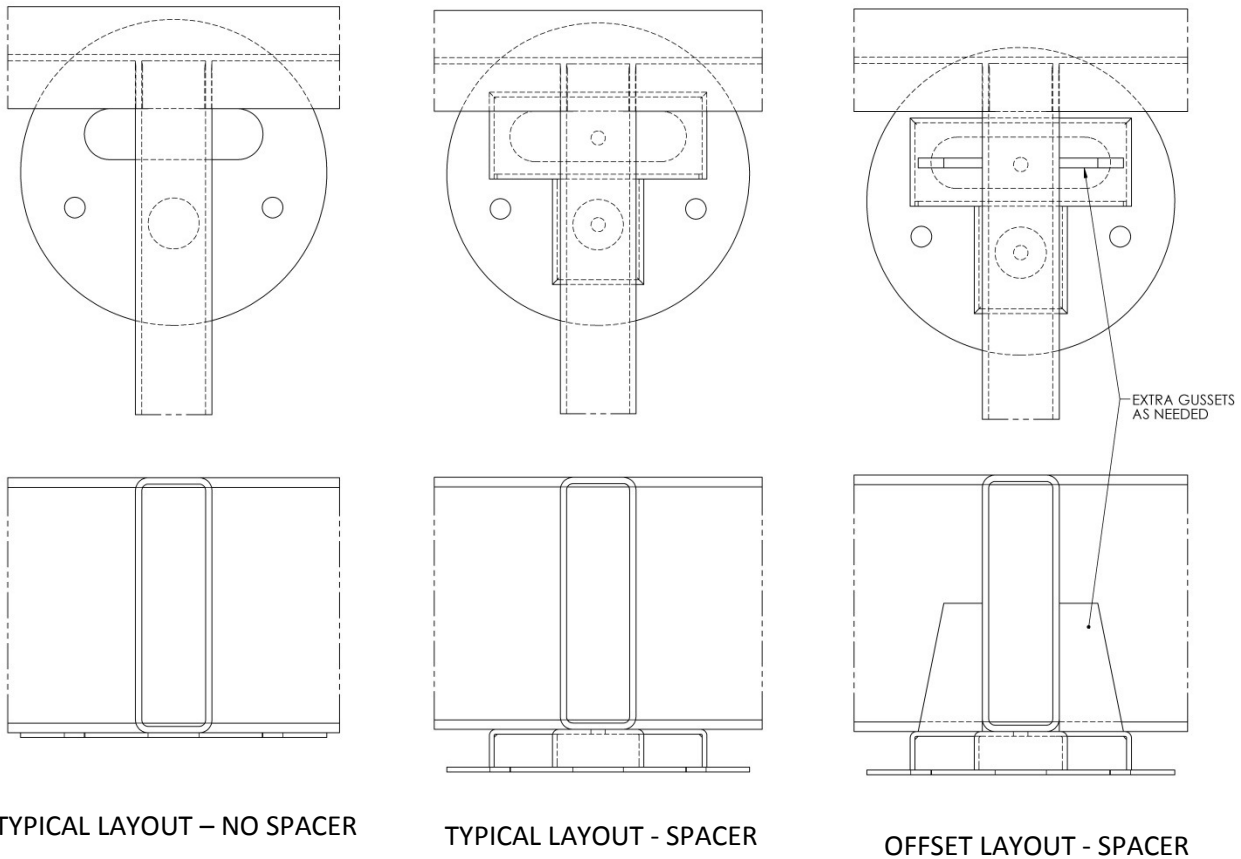
SEVERE OFFSET HANGER SUPPORT

NOTE: The figures are examples of typical installations. The actual installation may need to be modified to ensure proper support for varying trailer frame designs. It is the responsibility of the suspension installer to ensure adequate support.

AIR SPRING TOP PLATE ASSEMBLY

1. Locate the air spring top plate assembly in proper position on frame rails as shown in installation drawing.
2. Tack weld air spring top plate assembly in place.
3. Re-confirm location of air spring top plate
4. Weld air spring top plate assembly to frame in accordance with Ingersoll Axles welding specifications.

Note: Additional supports and gusseting may be required and is the responsibility of the suspension installer. Approximately 60% of air spring top plate must be supported.



NOTE: The figures are examples of typical installations. The actual installation may need to be modified to ensure proper support for varying trailer frame designs. It is the responsibility of the suspension installer to ensure adequate support.

SUSPENSION/AXLE ALIGNMENT

Below are the two styles of pivot connections offered by Ingersoll Axles. These allow movement of the suspension forward and rearward to properly align the axles.

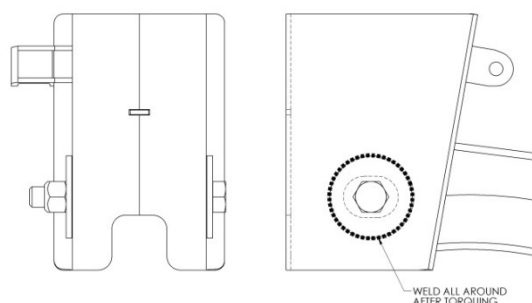
Note: For spare parts information and exploded view please refer to Page XX.

WARNING: When the suspension leaves the factory, the pivot connections are **NOT** torqued by the Ingersoll Axles.

WELDED COLLAR PIVOT CONNECTION

The Welded Collar style pivot connection is clamped together by a 1-1/8" heavy hex cap screw and nut. After the alignment is completed, weld the entire circumference of both inboard and outboard collars to the hangers.

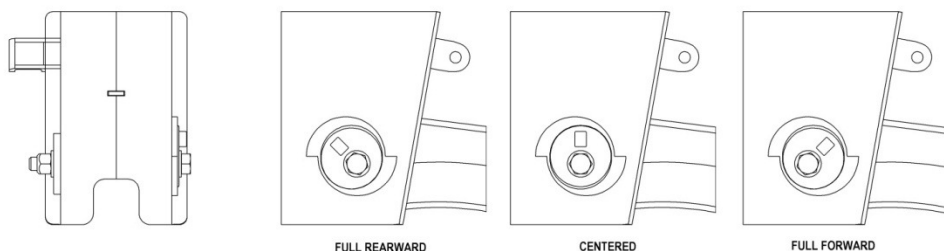
To realign the welds must be removed so the pivot connection can be repositioned.



**AFTER ALIGNING AXLES
TORQUE 1-1/8" LOCK NUT TO
1220-1250 N•m (900-920 ft•lbs)**

ECCENTRIC COLLAR PIVOT CONNECTION

The Eccentric Collar style pivot connection uses two flanged collars inserted into slots on each side of the hanger. The eccentric collar on the outboard side of the hanger is used to adjust the position of the axle during an alignment. The alignment guide on the outboard side of the hanger limits the eccentric collar to rotational movement in the hanger slot. Rotating the eccentric collar clockwise or counter clockwise causes the axle to move forward or rearward respectively. If proper torque is maintained, no welding of this style of pivot connection is required.



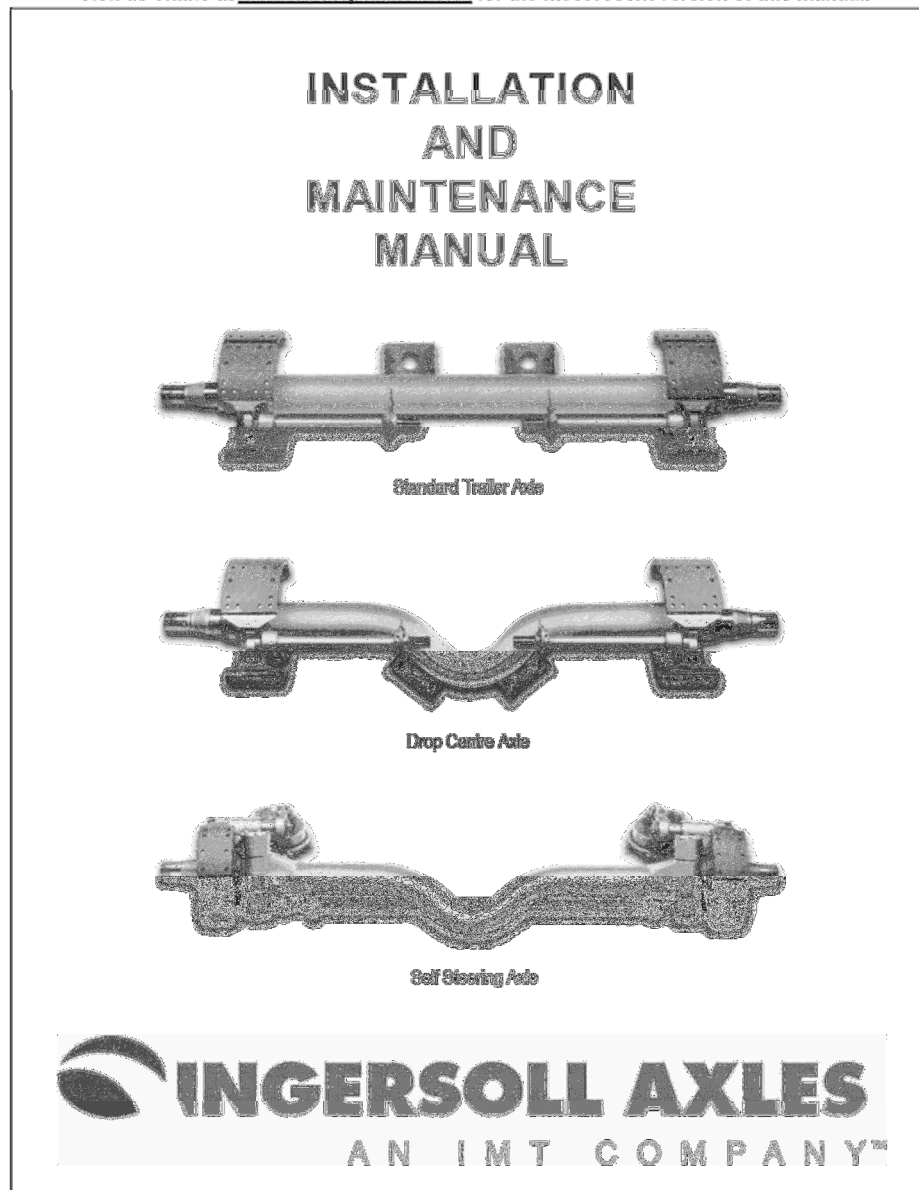
**AFTER ALIGNING AXLES
TORQUE 7/8" LOCK NUT TO
540-575 N•m (400-425 ft•lbs)**

WARNING: The eccentric collar must remain flat against the hanger throughout the alignment process. If the pivot connection fasteners are too loose, the eccentric collar may raise up on the alignment guide and become wedged or raised. This will result in an improper alignment. This can be avoided by tapping on the inboard side of the hanger while adjusting the outer eccentric collar.

AXLE ALIGNMENT

The following pages are extracted from the Ingersoll Axles Installation and Maintenance Manual for axles.

Visit us online at www.imtcorporation.com for the most recent version of this manual.



- Details on Laser alignment method, setups for auto reverse kits and lift mechanisms etc. are also included in the above manual.
- Important maintenance information on SSA's can be found in this manual.
- This manual can be ordered in hardcopy or downloaded on our website.

PROCEDURE IN016-A

NEW INSTALLATION

Sept. 14, 2011

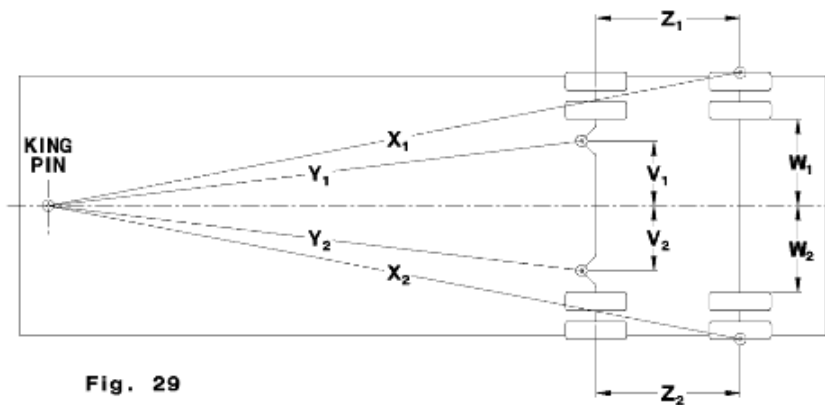
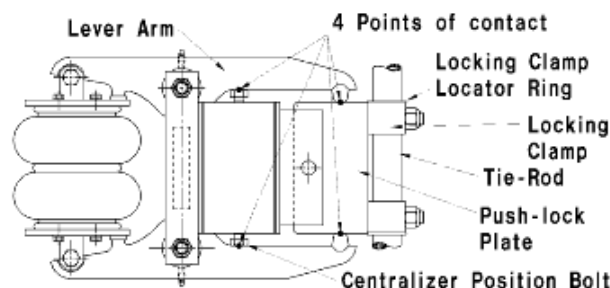


Fig. 29

ALIGNMENT - INGERSOLL SELF-STEERING AXLES

IMPORTANT: ALL SELF-STEERING AXLES MUST HAVE AN IMT ENGINEERING APPROVAL NUMBER.

1. Install and center the axle in the suspension and set the caster on the SSA per Procedure IN015. Secure by hard tack welding or clamping.
2. Center the axle and suspension assembly on the vehicle centerline using the SSA king pin centers for reference: See Fig 29. $Y_1=Y_2$, $V_1=V_2$. Do not use a fabric measuring tape or a string. Use steel measuring tape only.
3. Set the "fixed axle" alignment: See Fig 29. $X_1=X_2$, $W_1=W_2$
4. Safely hard tack weld suspension into place. Verify caster at working height again: (Procedure IN015). When axle and suspension are correctly aligned and caster is correct, complete all welding per suspension manufacturer's recommendations.
5. Remove the shipping bar that locks the SSA to center position.
6. When SSA king pin location is correct, adjust SSA alignment at spindle end, using the centralizer position bolts: $Z_1 = Z_2$. Centralizer bag must be at normal operating pressure.
7. Verify that both lever arms contact the centralizer position bolt and the push-lock plate (4 points of contact). The torpress must be centered and the axle must be at zero turning angle (centered).
8. Tack weld the Locking Clamp Locator Rings on the tie-rod, to positively locate the Push-lock plate. Rotate and torque the tie-rod-end locking clamps in correct positions per drawing to avoid all contact with suspension parts and frame. Next operation is Toe-In Setting IN020.



Alignment Advisory !

If Y_1 is not \neq to Y_2 , the wheels will be slightly turned when Z_1 is made $=$ to Z_2 , using the common alignment method for straight axles. This would result in tire wear, since the Centralizer will fight the tendency for the tires to straighten when the axle is going forward.

Consult IMT Procedures IN016-A & B.

$$Y_1 \neq Y_2$$

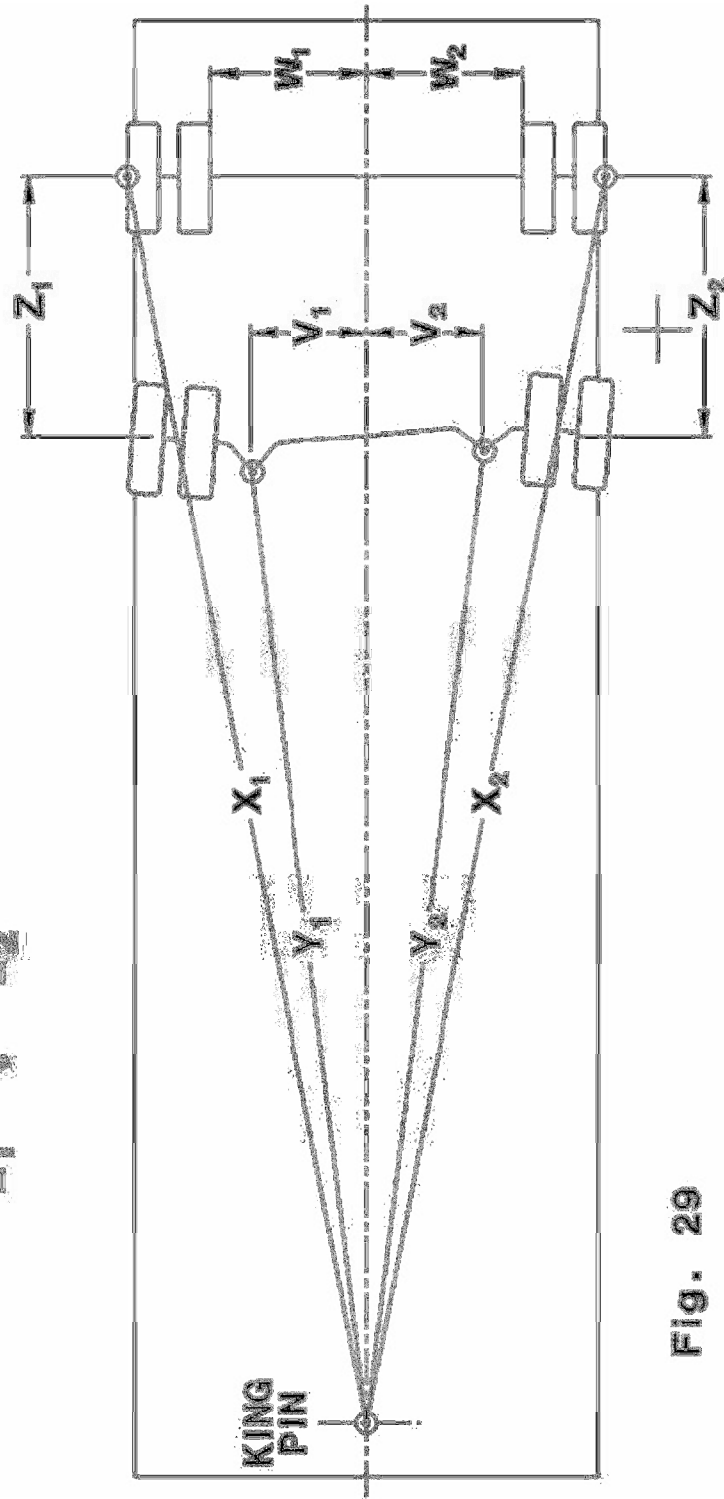


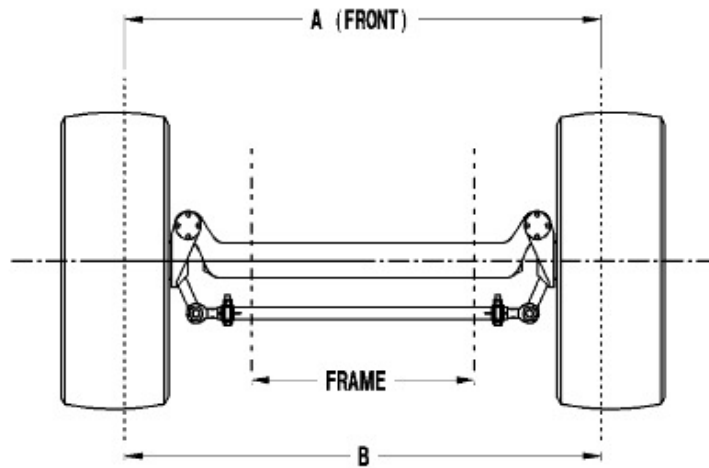
Fig. 29

PROCEDURE IN020

September 28, 2011

P-1/2

IMT Self Steer Axle (700000 Series) TOE-IN ADJUSTMENT



1. Tires must be of the same size, pressure, and tread pattern. Hubs, drums and brakes must be identical. All suspension bushings and parts must be in good mechanical order and correctly adjusted.
2. Scribe a fine line on the tire tread all around the tire.
3. Measure between the scribed lines on tires in front and on the back, on axle center line. "A" is always measured in front, when axle/suspension is normally loaded. "B" is always measured behind the axle. See "Toe-in/out" Chart and Drawing P2/3 for correct toe setting.
 - a. TOE-IN: "A" is smaller than "B".
 - b. TOE-OUT: "A" is larger than "B".
4. Adjust by rotating the tie-rod with axle un-loaded. Tie-rod ends must be square with stud, and guide plate must be centered in u-bracket before tightening the clamps. Tighten all the clamp bolts and the tie-rod end nuts to 150/200 ft-lbs. of torque.
5. Check toe-in after each adjustment until the axle is within specification.

WHEN TO CHECK TOE-IN

1. Before releasing all new installations.
2. Whenever the vehicle experiences unusual vibration or when the axle is unstable.
3. When tires experience unusual edge wear.
4. Each time new tires are installed.
5. Each time the tractor steering is aligned.
6. Each time repairs are done to the axle.

PROCEDURE IN020

September 28, 2011

P-2/2

Toe-In/Out Setting for IMT SSA

9-Sep-11

SSA Axles Toe-in/Toe-out changes from unloaded to loaded condition due to normal flexing of the axle and suspension components. Setting Toe values will be affected by load and tie-rod height position.

Recommended Toe-In LOADED: 1/16", (+1/16", - 0")

When loaded, all SSA should have 1/16" (+1/16", -0") toe-in.

Recommended Toe-In UNLOADED varies with Tie-Rod Height:

When setting the toe UNLOADED, please follow guide below.

Note: Plus 5" tie-rod position requires TOE-OUT.

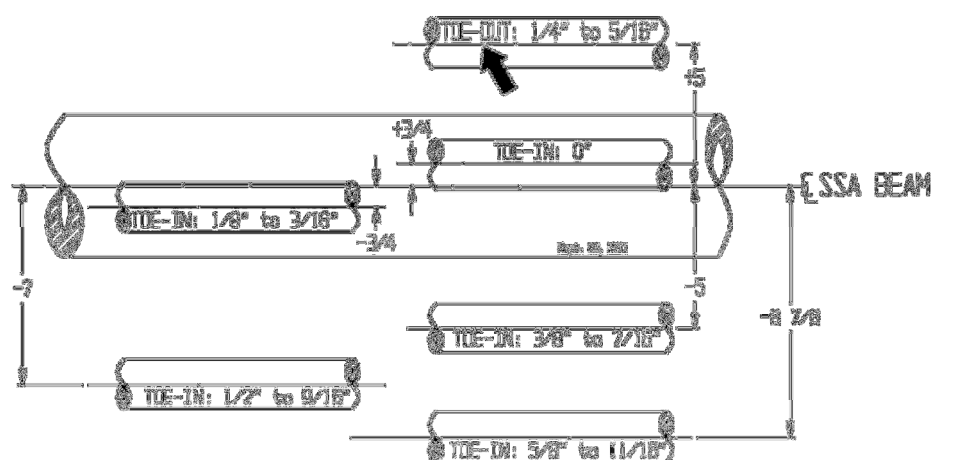
Tie-Rod Height	Toe Setting	TOE Direction
+ 5"	1/4" to 5/16"	Toe-Out
+ 3/4"	0"	Toe-In
- 3/4"	1/8 to 3/16"	Toe-In
- 5"	3/8"to 7/16"	Toe-In
- 7"	1/2 to 9/16"	Toe-In
- 8 7/8"	5/8 to 11/16"	Toe-In

SSA should be lifted/raised when unloaded.

IMT SSA

TOE-IN / TOE-OUT VALUES (UNLOADED)

SET ACCORDING TO TIE-ROD HEIGHT

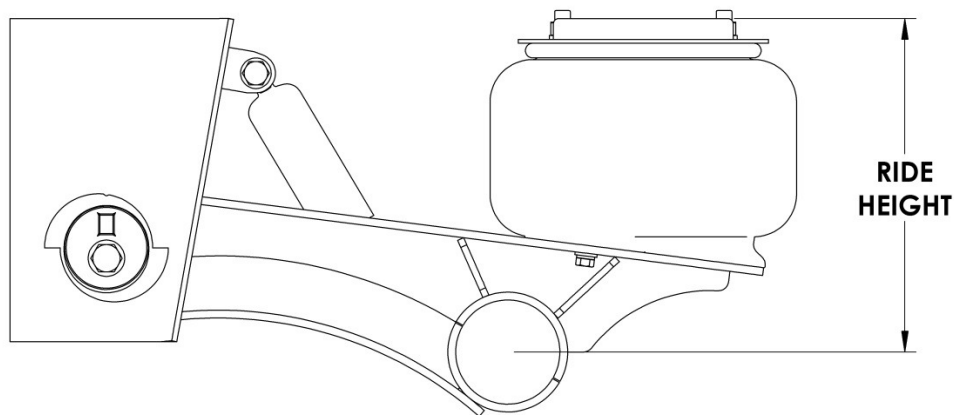


*** LOADED TOE-IN SHOULD BE 1/16", + 1/16" -0" ***

RIDE HEIGHT

- Ingersoll Axles recommends that one height control valve is used regardless of number of axles. The air springs are all connected and maintain the same air pressure.
- It is crucial to suspension performance to maintain the ride height designated for the suspension model you have selected.

This is especially important when installed with a Leading Kingpin Self-steering Axle (SSA). Failure to maintain proper ride height will result in poor performance from the SSA.



- Ingersoll Axles recommended that a Pressure Protection Valve and Filter are installed between the Height Control Valve and the air reservoir.
- Ingersoll Axles recommends a check valve is installed into the system to maintain 5-10psi in the air spring at all times. This allows the air springs to collapse properly and not create folds in the rubber when the air is exhausted.

SUSPENSION FASTENER TORQUES

Recommended fastener inspection intervals:

1. Pre-service inspection.
2. First service inspection, after 1600-4,800 km, (1,000-3,000).
3. PM inspections, concurrently with required annual inspection.
4. During replacement of any service parts.
5. Upon discovery of any loose components.

TORQUE REQUIREMENTS (Verify with each scheduled inspection.)

FASTENER	Ft·lbs	N·m
1-1/8" - PIVOT BOLT LOCK NUT	900-920	1220-1290
7/8" - PIVOT BOLT LOCK NUT	425-440	575-595
3/4" - SHOCK ABSORBER LOCK NUT	150-175	205-240
1/2" - LOWER AIR SPRING BOLT	25-30	28-40
3/4" - UPPER AIR SPRING NUT	40-45	55-60
1/4" - AIR VALVE & LINKAGE NUT	5	7
3/8" - LOWER AIR SPRING BOLTS – LIFT AS	15-20	20-25
5/8" – BOLT-ON CROSS MEMBER LOCK NUT	160-175	215-240

VISUAL INSPECTION

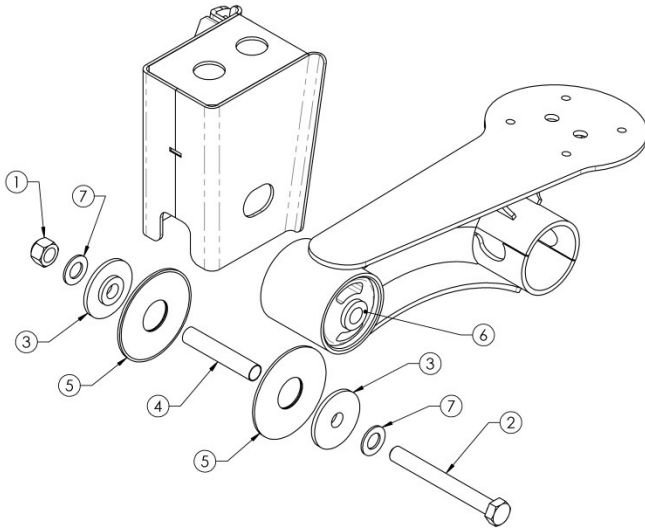
Look for:

- Loose or missing fasteners.
- Damaged hangers or axle connection brackets and welds.
- Axle and trailing beam alignment.

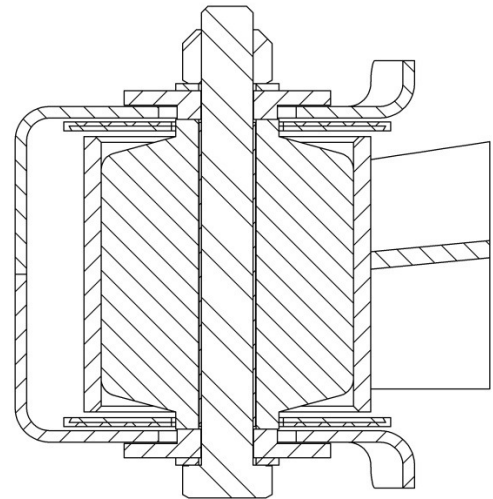
IMPORTANT: All torque values are with clean and dry fasteners and should only be verified with a quality calibrated wrench of known accuracy. Failure to follow these recommendations will void the warranty. Failure to maintain the specified torque values and/or to replace worn parts, can cause component and/or system failure resulting in an accident with consequent injury.

PIVOT CONNECTION DETAILS

1-1/8" WELDED COLLAR PIVOT CONNECTION



1-1/8" WELDED COLLAR PIVOT CONNECTION			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	653501-01	φ1-1/8" LOCK NUT	1
2	653502-03	φ1-1/8" x 10" HEX BOLT	1
3	653509-01	PIVOT WELDED COLLAR	2
4	653508-01	PIVOT BOLT SLEEVE	1
5	653523-01	BEAM SPACER - HYBRID	2
6	653500	PIVOT BUSHING	1
7	653503-02	φ1-1/8" HRDND WASHER	2

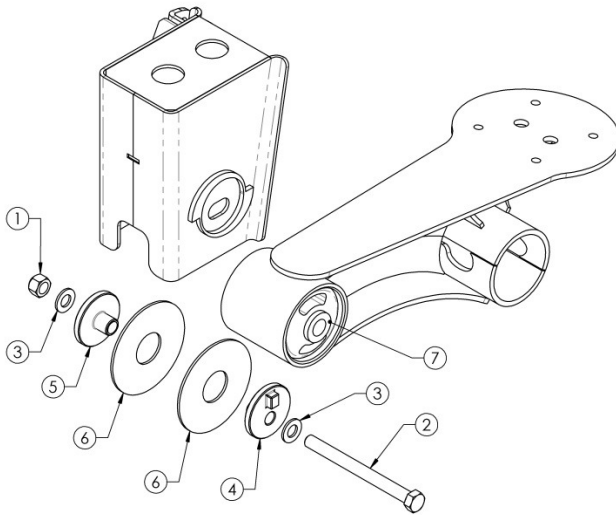


**TORQUE 1-1/8" LOCK NUT TO
1220-1250 N•m (900-920 ft•lbs)**

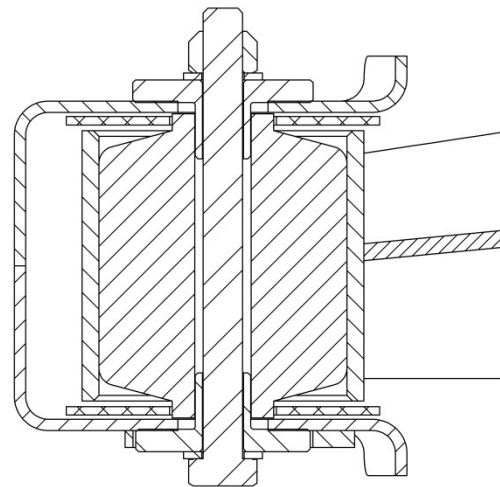
HARDWARE KIT: 653510-01

REBUSH KIT: 653510-02 (INCLUDES BUSHING)

7/8" ECCENTRIC COLLAR PIVOT CONNECTION



7/8" ECCENTRIC PIVOT CONNECTION			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	653501-03	φ7/8" LOCK NUT	1
2	653502-04	φ7/8" x 10" HEX BOLT	1
3	653503-04	φ7/8" HARDENED WASHER	2
4	653517-01	ECCENTRIC PIVOT CLAMP	1
5	653524-01	PLAIN PIVOT CLAMP	1
6	653523-01	BEAM SPACER - HYBRID	2
7	653500	PIVOT BUSHING	1



**TORQUE 7/8" LOCK NUT TO
540-575 N•m (400-425 ft•lbs)**

HARDWARE KIT: 653525-01

REBUSH KIT: 653525-02 (INCLUDES BUSHING)

WARNING: PIVOT CONNECTION IS NOT TORQUED AT THE FACTORY

PIVOT CONNECTION CHECKLIST

RECOMMENDED INSPECTION FREQUENCY

- Inspect on **annual** maintenance for Normal Service
- Inspect **semi-annually** for Off-road Service
- Inspect **monthly** for Severe Loading/Off-road

- ✓ Check for evidence of loose fasteners and movement in the pivot connection, any damage or signs of deterioration.
⇒ Replace pivot hardware as required. Ensure pivot connection torque is at proper value.
- ✓ Check beam spacers for excessive wear.
⇒ Replace beam spacers using new hardware and realign the axle.
- ✓ Check pivot bushing to determine if centered in bushing tube housing.
⇒ Replace bushing and beam spacers using new hardware and realign the axle.
- ✓ Check pivot bushing tube (part of trailing beam) for wear – measure the length of the bushing tube and depending on the measured length follow the procedure in the chart below.

Length	Procedure
Up to 6"	Replace beam spacers using new hardware and realign the axle.
5-7/8" to 6"	Chamfer end of bushing tube, replace bushing and beam spacers using new hardware and realign the axle.
5-3/4" to 5-7/8"	Chamfer end of bushing tube, replace bushing and beam spacers (use 3 beam spacers) using new hardware and realign the axle.
Under 5-3/4"	Replace trailing arm and pivot connection hardware and realign axle.

REBUSH PROCEDURE

PROCEDURE IN056 SUSPENSION PIVOT BUSHING REPLACEMENT

CAUTION: Before any repair or maintenance work that requires raising a vehicle, secure it with lift stands that are properly rated. Also make sure wheel chocks are accurately inserted. Provide support for the trailing beams for when the pivot connection is disassembled and trailing beams are removed. Do not depend on wheel jacks alone for support of vehicle. Without proper training, safety equipment, and tools, serious if not fatal accidents can occur.

PROCEDURE

1. Disassemble the pivot connection.
2. Carefully remove the trailing beams from the suspension hangers.
3. Remove bushing from the trailing beams.
4. Clean the internal surfaces of the bushing tube on the trailing beam. All rust, rubber, scale, etc. must be removed.
5. Inspect the bushing tube for excessive wear or damage. If unsure about critical amounts of wear refer to Pivot Connection Checklist earlier in this manual.
6. Remove any burrs, sharp edges on the internal surfaces of the bushing tube; they may damage the bushing upon installation.
7. Apply lubricant (P-80 Lubricant recommended & supplied with kit) to inside wall of bushing tube and outside face of rubber bushing.

WARNING: Do not use grease or oil based lubricants.

8. Position bushing in alignment with bushing tube. Locator mark on bushing must be oriented as shown on Figure 1.
9. Install bushing into tube so that it is centered in the trailing beam as shown in Figure 1.
10. Install Beam Spacers over edges of metal bushing tube. They should rest loosely on the metal tube.
11. Carefully position the trailing beams back into the suspension hangers.
12. Install pivot connection hardware components, making sure components are clean and debris free.

NOTE: If re-using existing hardware, inspect parts for damage, excessive wear and replace if necessary.

NOTE: Do not apply any lubricant to hardware when assembling the pivot connection.

13. Follow the Axle Alignment Procedure and Pivot Connection Torque requirements to finish.

SEALANT PROCEDURE

Ingersoll Axles applies a bead of sealant around the axle wrap connection. This sealant has been applied to help prevent crevice corrosion or rust-jacking. This sealant should be re-applied after “blasting” or preparation for final painting. Also, over time it may be necessary to re-apply the sealant due to damage from debris or weathering.

Recommended Sealant:

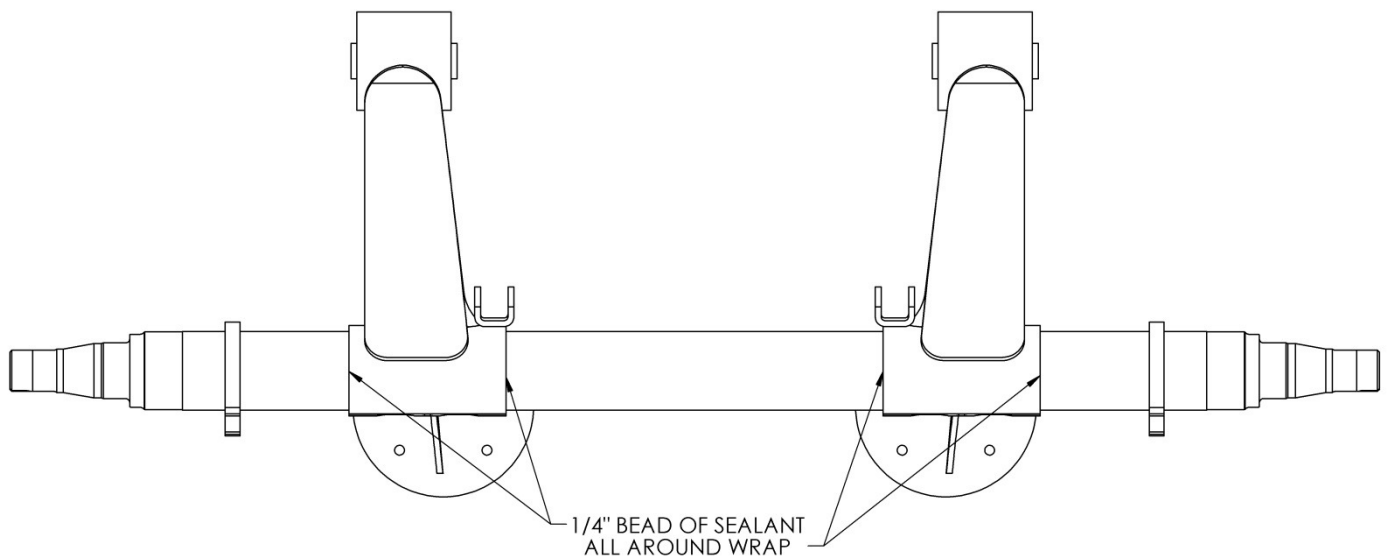
IS803 Silicone Rubber Adhesive Sealant (GE Momentive)

Fastenal #: 653054

Manufacturer #: 36261

Store: below 20°C (80°F)

Operating: -60°C (-75°F) to 204°C (400°F)

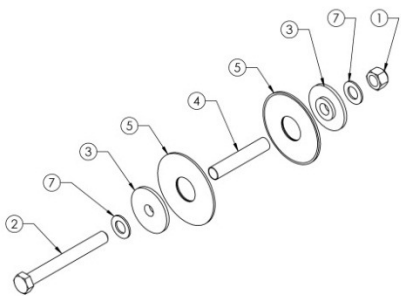
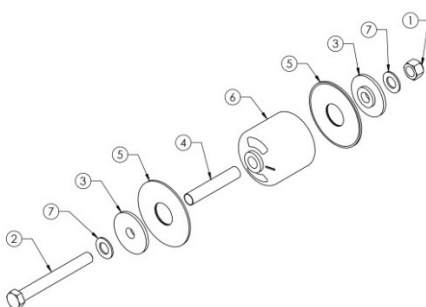


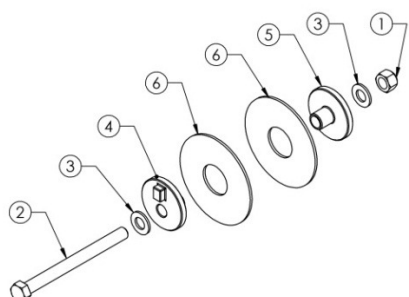
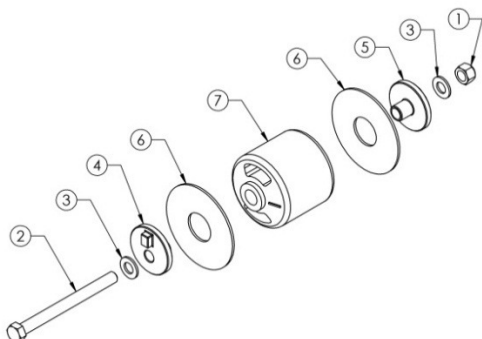
COMMON ISSUES

TRAILER NOT PULLING STRAIGHT	<ul style="list-style-type: none"> ✓ Check alignment. ✓ Recheck alignment at annual inspections.
AXLES NOT EQUALIZING	<ul style="list-style-type: none"> ✓ Mounting height may be incorrect due to sloping trailer or frame deflection. ✓ Height control valve may be improperly adjusted. ✓ Ensure correct air springs are installed. ✓ Check for blockage/leakage in airlines.
TRAILER LEANS TO ONE SIDE	<ul style="list-style-type: none"> ✓ Check axle connection welds. ✓ Trailing beams could be installed out of parallel. ✓ Pivot bushing could be faulty or worn and require replacement. ✓ Alignment washer welds could be broken or missing.
BUSHING WALK This is indicated by the trailing beams shifting off of the bushings.	<ul style="list-style-type: none"> ✓ Check axle alignment. ✓ Trailing beams could be installed out of parallel. ✓ Hangers are not centered to the trailing beams. ✓ Application related and may be caused by none of the above.
BREAKING/CRACKING HANGERS	<ul style="list-style-type: none"> ✓ Check axle alignment. ✓ Hangers are not centered to the trailing beams. ✓ Insufficient support and/or gussets. ✓ Alignment washer welds could be broken or missing. ✓ Application related and may be caused by none of the above.
FASTENERS Loose fasteners need immediate attention.	<ul style="list-style-type: none"> ✓ Check components for wear and be sure holes are not worn or egg shaped. ✓ When replacing, be sure threads are clean and not deformed. Replace any fastener that is damaged or will not stay torqued. ✓ Use the same grade bolt and torque connections appropriately.
PIVOT CONNECTION A properly torqued pivot connection is the key to a long life of a suspension. It is crucial to ensure sufficient clamp load through the bushing to prevent premature failure.	<ul style="list-style-type: none"> ✓ Ensure proper installation/torque procedures are followed.
SHOCKS Shocks may fail due to over extension or compression.	<ul style="list-style-type: none"> ✓ Check the mounting bolts to be sure no damage to the mounts has occurred. ✓ Ensure that the correct shock has been installed. ✓ Leaking (dripping) shocks need to be replaced. ✓ Shocks with a slight mist of oil on them need to be checked, not necessarily replaced.

SERVICE KITS

PIVOT HARDWARE KITS

1-1/8" WELDED COLLAR PIVOT CONNECTION																																							
HARDWARE KIT: 653510-01		<table><tr><th colspan="4">1-1/8" WELDED COLLAR PIVOT CONNECTION</th></tr><tr><th>ITEM</th><th>PART NUMBER</th><th>DESCRIPTION</th><th>QTY</th></tr><tr><td>1</td><td>653501-01</td><td>φ1-1/8" LOCK NUT</td><td>1</td></tr><tr><td>2</td><td>653502-03</td><td>φ1-1/8" x 10" HEX BOLT</td><td>1</td></tr><tr><td>3</td><td>653509-01</td><td>PIVOT WELDED COLLAR</td><td>2</td></tr><tr><td>4</td><td>653508-01</td><td>PIVOT BOLT SLEEVE</td><td>1</td></tr><tr><td>5</td><td>653523-01</td><td>BEAM SPACER - HYBRID</td><td>2</td></tr><tr><td>6</td><td>653500</td><td>PIVOT BUSHING</td><td>1</td></tr><tr><td>7</td><td>653503-02</td><td>φ1-1/8" HRDND WASHER</td><td>2</td></tr></table>		1-1/8" WELDED COLLAR PIVOT CONNECTION				ITEM	PART NUMBER	DESCRIPTION	QTY	1	653501-01	φ1-1/8" LOCK NUT	1	2	653502-03	φ1-1/8" x 10" HEX BOLT	1	3	653509-01	PIVOT WELDED COLLAR	2	4	653508-01	PIVOT BOLT SLEEVE	1	5	653523-01	BEAM SPACER - HYBRID	2	6	653500	PIVOT BUSHING	1	7	653503-02	φ1-1/8" HRDND WASHER	2
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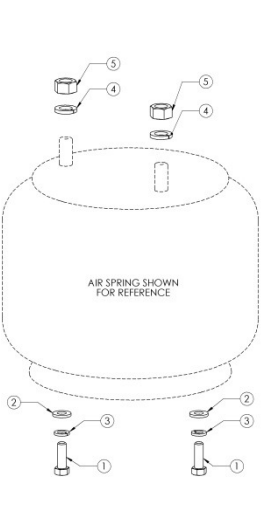


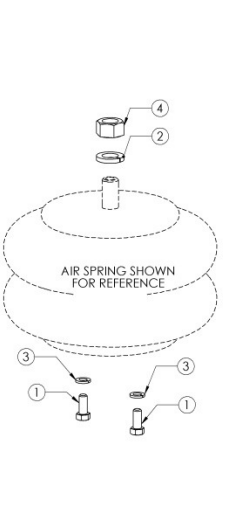
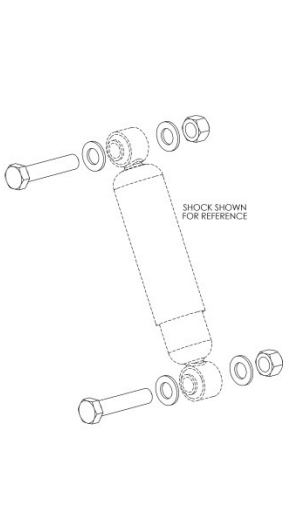
NOTE: Kit quantities are for one trailing beam only, for one axle double quantities.

SUSPENSION SERVICE PARTS

SUSPENSION MODEL	DWG NUMBER (Wx - WELD-ON) (BEx - BOLT-ON)	RIDE HEIGHT	TRAILING ARM/AXLE ASSEMBLY	TOP ASSEMBLY	BOTTOM ASSEMBLY	SHOCK ABSORBER	AIR SPRING
ISS-30K-xxT	650001 (Wx)	14" - 15"	652011	652009	652006	653511-02	653512-01
	650011 (BEx)	16" - 19"	652008	652005	652006	653511-01	
ISS-30K-xxTIN	650021 (Wx)	16" - 19"	652072	652071	652006	653511-01	653512-01
ISS-30K-xxTHTx	650022 (BEx)	14" - 19"	652008	652005	652006	653511-01	653512-01
ISS-30K-xxTL	650003 (Wx)	14" - 19"	652016	652014	652015	653511-02	653513-01
	650013 (BEx)					653511-01	
ISS-30K-xxTLS	650006 (Wx)	14" - 16"	652058	652056	652057	653511-02	653512-01
	650016 (BEx)	17" - 19"	652050	652048	652049	653511-01	
ISS-25K-xxT	650002 (Wx)	14" - 15"	652011	652009	652006	653511-02	653512-01
	650012 (BEx)	16" - 19"	652008	652005	652006	653511-01	
ISS-25K-xxTL	650004 (Wx)	14" - 19"	652016	652014	652015	653511-02	653515-01
	650014 (BEx)					653511-01	
ISS-25K-xxTLS	650005 (Wx)	14" - 16"	652058	652056	652057	653511-02	653512-01
	650015 (BEx)	17" - 19"	652050	652048	652049	653511-01	
ISS-30K-xxU	650007 (Wx) 650017 (BEx)	9" - 12"	652068	652039	652067	653511-03	653513-01
ISS-30K-xxUL	650009 (Wx) 650019 (BEx)	9" - 12"	652080	652039	652075	653511-03	653513-01
ISS-25K-xxU	650008 (Wx) 650018 (BEx)	9" - 12"	652068	652039	652067	653511-03	653515-01
ISS-25K-xxUL	650010(Wx) 650020 (BEx)	9" - 12"	652080	652039	652075	653511-03	653515-01
ISS-25K-xxULT	650025 (Wx)	9" - 12"	652099	652097	652098	653511-03	653513-01
ISS-25K-xxUS	650024 (Wx)	6.5" - 10"	652092	~	652086	653511-04	653515-01
ISS-30K-xxTS	650023 (Wx)	15" - 19"	652102	652101	652006	653511-02	653512-01

LIFT KIT	AIR SPRING
FHL	653514-01
UHL	653514-01
CHL	TBA
TFL	TBA

AIR SPRING HARDWARE KITS

KIT: 653519-01	KIT: 653527-01	KIT: 653529-01	KIT: 653521-01	KIT: 653518-01
				
FOR AIR SPRING 653512-01	FOR AIR SPRING 653513-01	FOR AIR SPRING 653515-01	FOR AIR SPRING 653514-01	FOR SHOCK 653511-XX

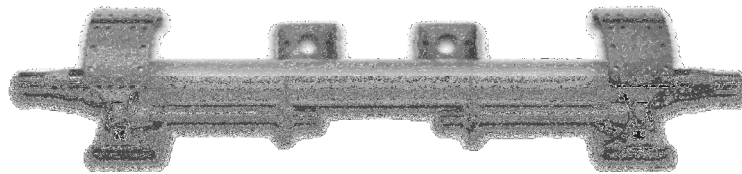
- NOTES:
- Kits do not include the air spring or shock absorber
 - Kit quantities are for one air spring or shock absorber, for one axle double quantities.

SSA AXLE MAINTENANCE

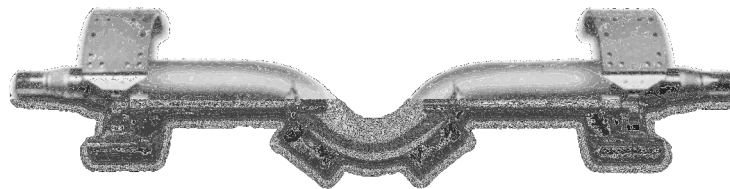
For the complete details on maintaining your SSA, please refer to the Ingersoll Axles Installation and Maintenance Manual for axles. This manual can be ordered in hardcopy or downloaded on our website.

Visit us online at www.imtcorporation.com for the most recent version of this manual.

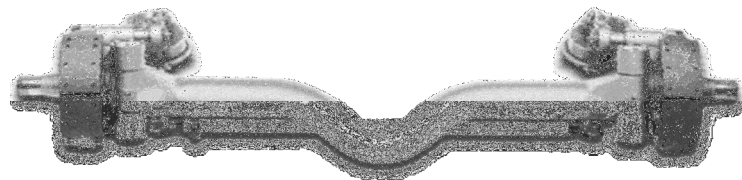
INSTALLATION AND MAINTENANCE MANUAL



Standard Trailer Axle



Drop Centre Axle



Self Steering Axle



NOTES:

[illegible]



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www.ingersollaxles.com

REVISION A, 07/11/2012