

Asia Pacific Region Only



PARTS LIST

HT250US UNDERSLUNG SUSPENSION

LIT NO: 97114-049

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REVISION: C





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Document Interactivity

The interactive **Table of Contents** allows users to quickly navigate to the appropriate page with a single mouse click. The **INDEX** button at the bottom of each page returns you to the **Table of Contents**. Other links within the document are identified by black underlined text, whereas links to external websites are identified by blue underlined text.

ABBREVIATIONS

Abbreviations used in this document include the following terms:

- AR – As Required
- Assy – Assembly
- Inc. – Including
- N/A – Not Available
- NSS – Not Serviced Separately
- UBL™ – UNDER BEAM LIFT™



INTRODUCTION

The purpose of this parts list is to document the available repair parts for underslung Hendrickson HT250US suspension assemblies.

The major components included in this parts list is as follows:

- HT underslung suspension assemblies
- Air springs, relevant mounting hardware and fasteners
- Shock Absorbers, relevant mounting hardware and fasteners
- Frame Hangers
- QUIK-ALIGN® pivot hardware and fasteners
- Axle lift system

This parts list should be used in conjunction with the following Hendrickson parts listings:

- [97114-100](#) Trailer Wheel End Systems Parts List
- [97114-097](#) Trailer Brake Systems Parts List

NOTE: All quantities listed within this parts list are as applicable for a single axle.

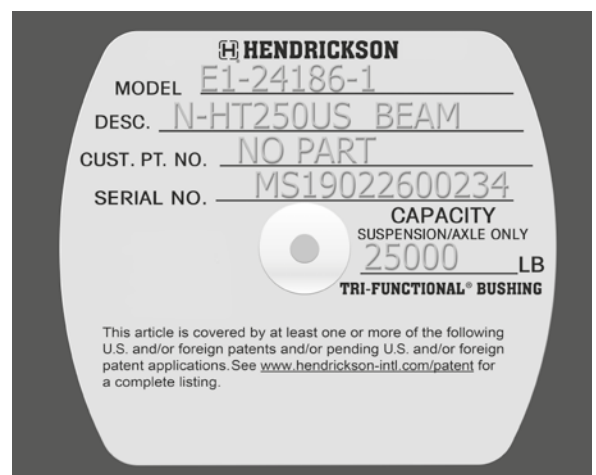
AXLE AND SUSPENSION IDENTIFICATION

To assist with the identification of the HT suspension system, reference should be made to the beam ID plate.

HT SUSPENSION ID PLATE

The HT suspension beam ID plate is usually located on the left side of the trailing arms and provide the following:

- MODEL – Model number of the beam
- DESCRIPTION – This will include the HT250US designation
- CUSTOMER PART NUMBER – This will read NO PART
- SERIAL NUMBER – The serial number of the HT beam
- CAPACITY – This is suspension capacity, which is 25,000 lbs (11,340 kg)



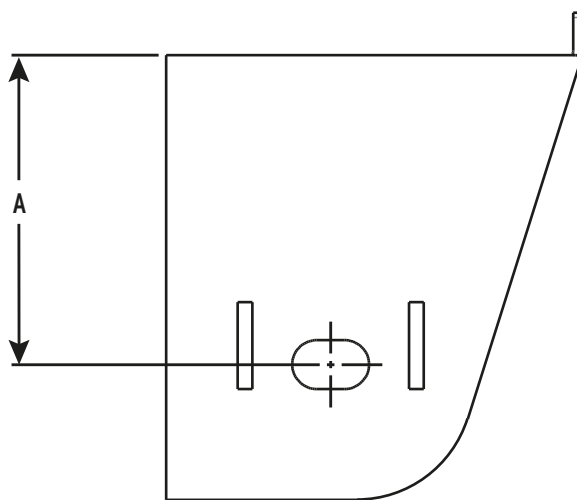
FRAME HANGER

FRAME HANGER DROP

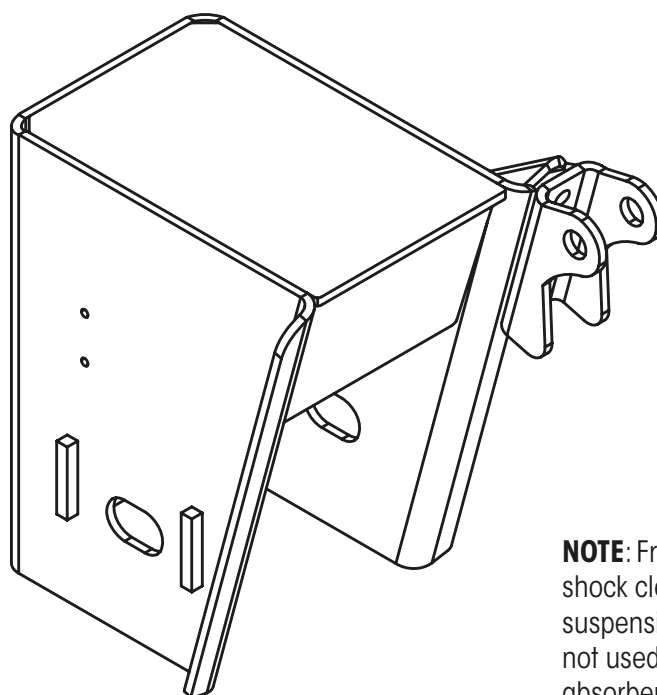
To determine the applicable frame hanger for a specific suspension, the hanger 'drop' will often need to be determined. (Refer to "Beam, U-Bolt & Pivot" on page 6.)

Frame drop is the measurement in millimetres from the underside of the trailer frame to the centre of the pivot bolt hole. Refer to dimension "A".

NOTE: All HT250US hangers include a shock absorber clevis. However, this clevis is not used if the suspension incorporates a remote mounted shock absorber.



FRAME HANGER SELECTION

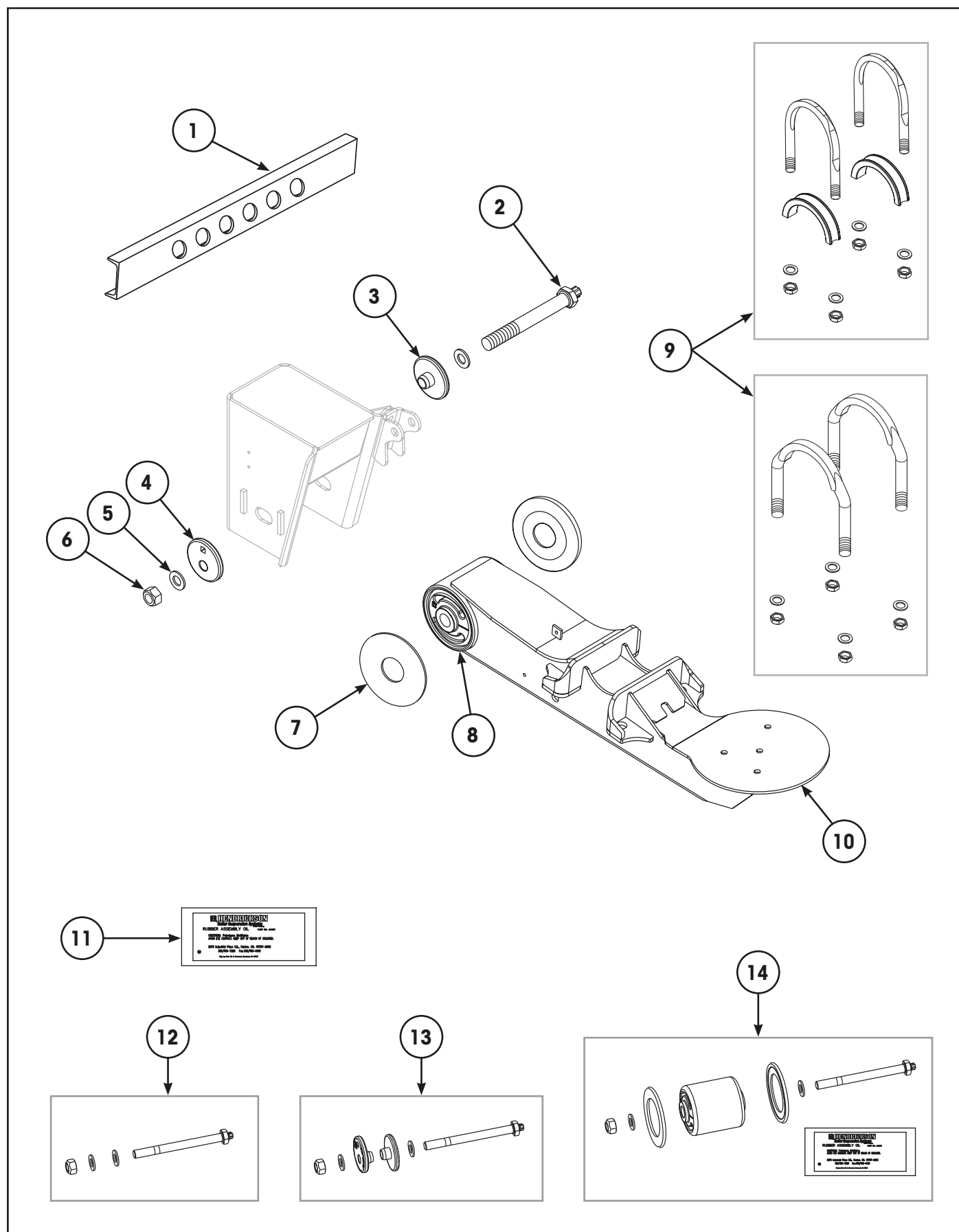


NOTE: Frame hangers with integrated shock clevis are used on all suspension layouts. The shock clevis is not used on trailers with remote shock absorber mount.

Item	Part Number	Description	Qty	Notes
1	S-22826-1	Frame Hanger, LH – Standard	1	[1] 203 mm drop, 5.5" & 6.5" ride height.
	S-22826-2	Frame Hanger, RH – Standard	1	
	S-22827-1	Frame Hanger, LH – Standard	1	[1] 254 mm drop, 7.5", 9" & 10" ride height, including 9" limited jounce & 9" liftable.
	S-22827-2	Frame Hanger, RH – Standard	1	
	S-22828-1	Frame Hanger, LH – Standard	1	[1] 305 mm drop, 11" & 12" ride height, including 12" limited jounce & 12" liftable.
	S-22828-2	Frame Hanger, RH – Standard	1	

[1] **NOTE:** Hanger repairs kits are available. Refer to "Hanger Repair Kits" on page 7.

BEAM, U-BOLT & PIVOT



**BEAM, U-BOLT & PIVOT**

Item	Part Number	Description	Qty	Notes
1	98870-016	C-Channel Brace Support – 40 x 202 x 1040 mm	1	6 mm thick.
2	NSS	Shear Bolt – QUIK-ALIGN®	2	Use Item 12, 13 or 14.
3	C-20924	Flanged Washer, Inner – QUIK-ALIGN	2	Concentric. Included in item 13.
4	C-20925	Flanged Washer, Outer – QUIK-ALIGN	2	Eccentric. Also included in item 13.
5	NSS	Hardened Washer – 7/8"	4	Use Item 12, 13 or 14.
6	NSS	Nut, Prevailing Torque – 7/8" UNC	2	Use Item 12, 13 or 14.
7	S-21099-4P	Kit – Wear Bush, Flat Style	1	Also included in item 14.
	S-40230-1	Wear Bush, Heavy Duty Flat	4	For severe off-highway applications.
8	NSS	Bush, TRI-FUNCTIONAL™	2	Use Item 14.
9	A-22237	U-Bolt Kit, Axle – Flattened with Spacer	1	Only for 12-1/4" brakes (17.5" tyres). Includes U-bolts, spacers, nuts & washers.
	S-21140	U-Bolt Kit, Axle – Updated Stepped	1	For 15" & 16-1/2" brakes (19.5" or larger tyres). Replaces early design with spacers, as they are not used with new stepped design U-bolts. Includes U-bolts, nuts & washers.
10	S-24186-1	Beam Assembly – Left Hand	1	Includes pivot bush, item 8.
	S-24186-2	Beam Assembly – Right Hand	1	
11	A-14011	Lube Pack, TRI-FUNCTIONAL Bush	2	Also included in item 14.
12	S-31623	Kit, QUIK-ALIGN Pivot Bolt	2	Includes Items 2, 5 & 6.
13	S-31625	Kit, QUIK-ALIGN Alignment	2	Includes Item 2, 3, 4, 5 & 6.
14	A-31624	Kit, TRI-FUNCTIONAL Bush	2	[1] Includes Items 2, 5, 6, 7, 8 & 11.

[1] NOTE: The TRI-FUNCTIONAL™ bush (TFB™) is larger than the inner diameter of suspension beam tube. To avoid damaging the TFB, the correct installation tool **MUST** be used along with the appropriate lubricants. Refer to the "Special Tools" on page 15 section for tool details. For bush replacement procedures, refer to Hendrickson [Technical Bulletin L427](#).

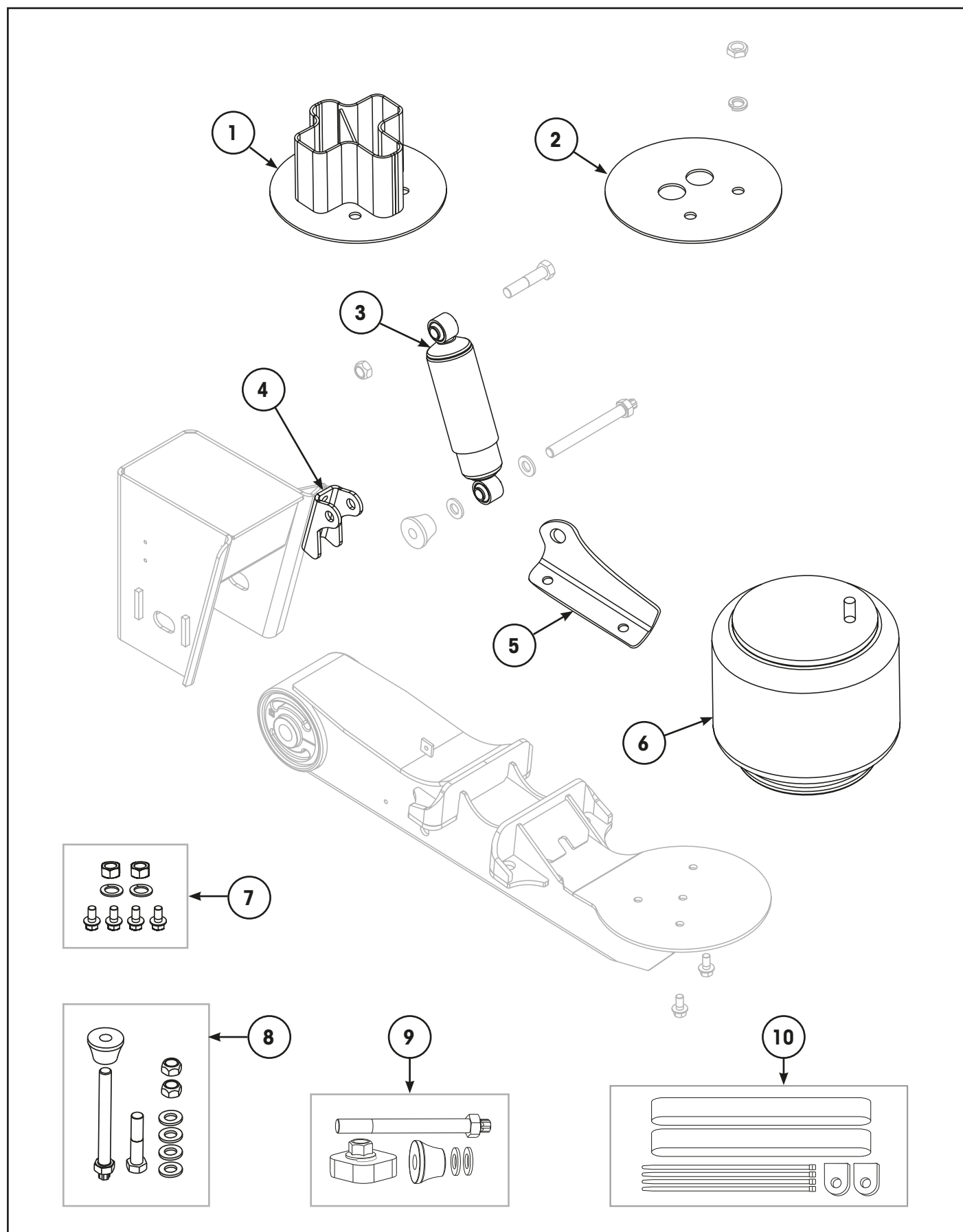
HANGER REPAIR KITS

Two hanger repair kits are available to assist with repair of cracked, worn or gouged hangers. Depending on the damage involved it may be possible to use one of these kits instead of replacing the entire hanger. A hanger that has been repaired with kit 98690-001 will require a unique pivot bolt and collars. These are available as pivot bolt 98591-013 (item 12), bolt & collar kit 98591-012 (item 13) and bolt, flat wear washer & bush kit 98591-011 (item 14).

For more details refer to Hendrickson [Technical Bulletin 97117-101](#).

- 98690-001 is for worn or gouged hangers
- 98544-024 is for hangers with minor cracking

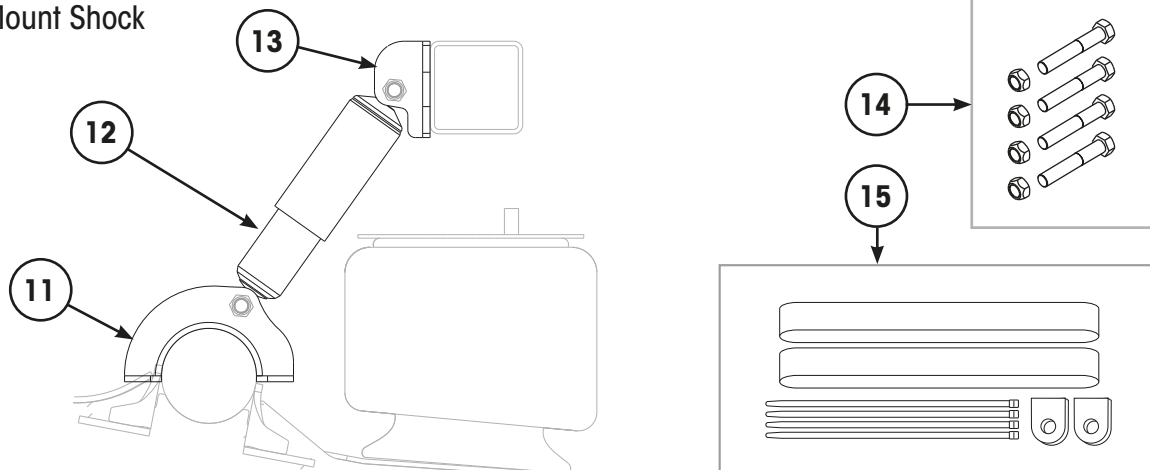
AIR SPRING & SHOCK ABSORBER



AIR SPRING & SHOCK ABSORBER

Item	Part Number	Description	Qty	Notes
1	C-21210-2	Mount, Air Spring Spacer	2	10" ride height.
	S-21210-3	Mount, Air Spring Spacer	2	11" & 12" ride height (excluding 12" limited jounce). 9" limited jounce & 12" liftable.
	S-21210-5	Mount, Air Spring Spacer	2	12" limited jounce.
2	S-21209	Plate, Air Spring	2	5.5", 6.5" 7.5" & 9" ride height & 9" liftable (excluding 9" limited jounce).
3	B-33432	Shock Absorber, Road Friendly	2	5.5" & 6.5" ride height. Standard mount.
	S-23744	Shock Absorber, Non-Road Friendly	2	
	B-33431	Shock Absorber, Road Friendly	2	7.5", 9", 10", 11" & 12" ride height. Standard mount. Including 9" & 12 limited jounce & liftable.
	S-23743	Shock Absorber, Non-Road Friendly	2	
4	S-20918	Clevis, Top Shock Hanger Mount	2	Included in hanger assembly.
5	D-36734	Bracket, Shock Support	1	Contains both brackets & two hardened washers.
6	C-20127	Air Spring	2	
7	A-20033P	Kit, Air Spring Mount	1	Includes 2x nuts, 2x washers & 4x bolts.
8	S-24024	Kit, Shock Bolt – Standard Mount	2	Includes extra nut & instructions if lower nut thread is damaged. 2x bolts, 2x nuts, 4x washers & 1x spacer.
9	98357-004	Kit, Shock Mount Repair – Standard Mount	2	This kit contains a threaded nut & spacer block assembly (along with bolt, spacer & washers) to completely replace the lower shock mount within one beam.
10	S-23086-10	Kit, Shock Strap	1	Suits B-33432 & S-23744. Inc. straps, clevises & ties.
	S-23086-5	Kit, Shock Strap	1	Suits B-33431 & S-23743. Inc. straps, clevises & ties.
11	98482-012	Lower Bracket – Remote Mount	2	
12	S-21699	Shock Absorber – Remote Mount	2	Suits remote mount with 7.5" & 9" ride height.
13	98482-009	Top Bracket – Remote Mount	2	
14	A-2157	Kit, Shock Bolt – Remote Mount	1	Includes 4x bolts & 4x nuts.
15	98918-009	Kit, Shock Strap	1	Suits S-21699. Includes straps, clevises & cable ties.

Remote Mount Shock

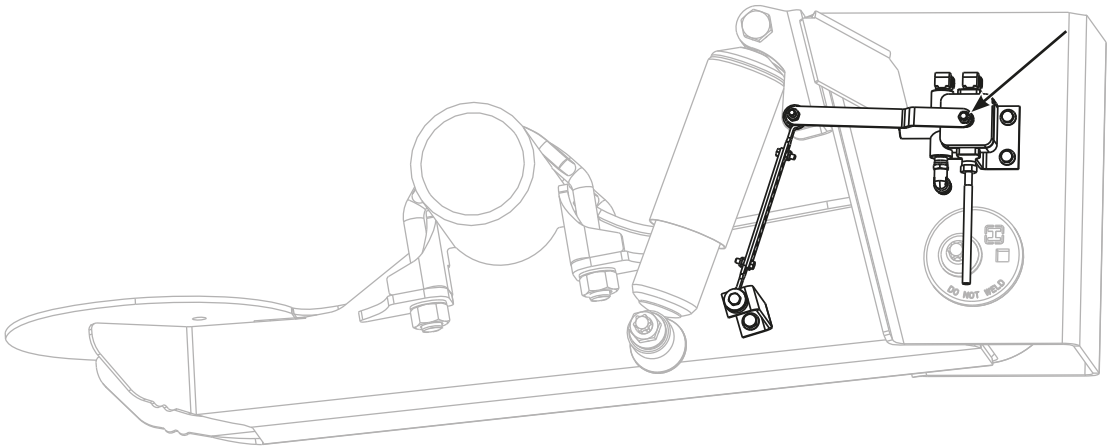




HEIGHT CONTROL VALVE

HCV SYSTEM LAYOUT

The HCV mounting bracket is attached to the beam assembly and does not vary with shock absorber mounting. Refer to the following layout diagram.



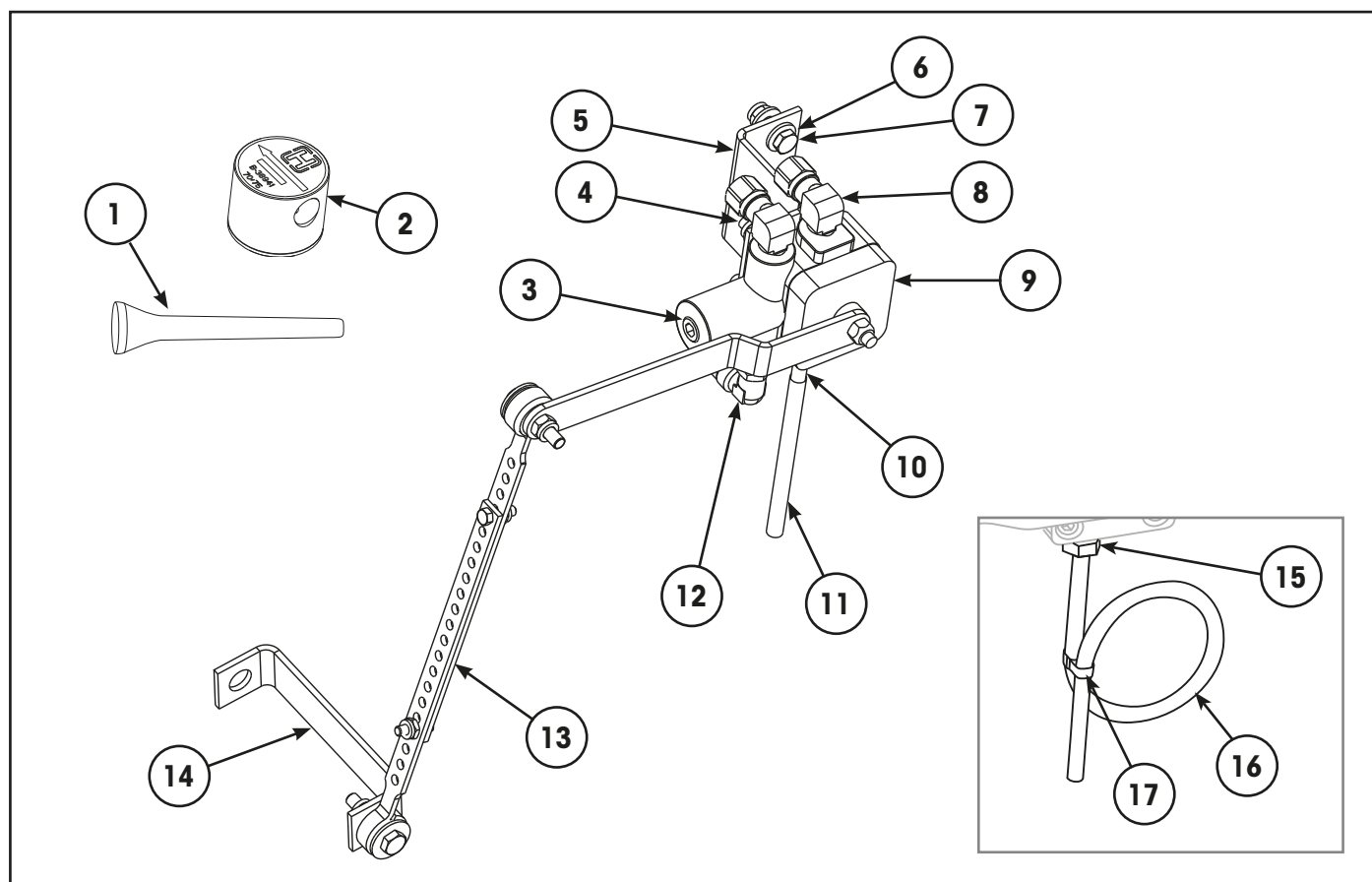
NOTICE: The HCV assembly (Part no. 98603-022) includes the lever arm. The nut that retains the lever arm to the HCV shaft is held tight with thread lock and **MUST NOT** be removed! (Refer arrows.) Attempting to remove the nut will most likely result in fracture of the HCV shaft.

Complete HCV Kits

Complete Height Control Valve kits include HCV, protection valve, linkages, brackets, clamps and necessary hardware.

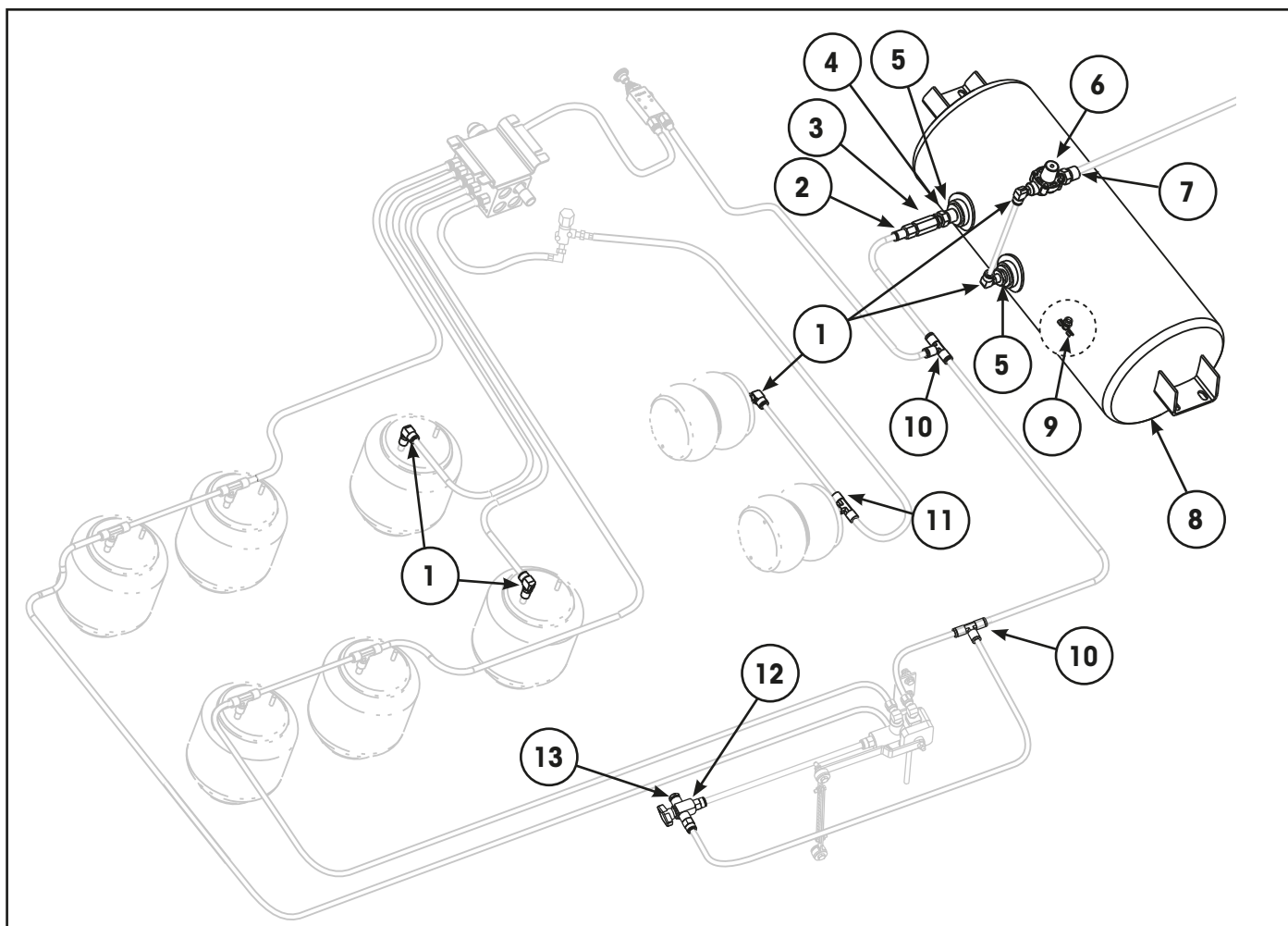
Number	Suitable For	Components
98606-095	Beam Mount	Includes items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 & 14.

HEIGHT CONTROL VALVE



Item	Part Number	Description	Qty	Notes
1	NSS	HCV Centring Dowel	1	Use item 18.
2	S-38941	Pressure Protection Valve	1	
3	NSS	Pipe Plug 1/4" NPTF	1	Use item 18.
4	NSS	Nut Lock Hex 1/4"-20 UNC	4	Use item 18.
5	57975-000	Bracket, HCV Mounting	1	Standard hanger
6	22962-028	Washer, Hardened – 1/4"	6	
7	NSS	Bolt, 1/4"-20 UNC x 3/4"	2	Use item 18.
8	98732-003	Elbow 90° x 1/4" NPTF Compression	2	Compression. Two are included in item 18.
9	98603-022	Height Control Valve 1/4" NPT	1	
10	NSS	Barbed Tube Fitting, 1/4" NPT, Plastic	1	Use item 18. For heavy duty applications use items 15, 16 & 17.
11	NSS	Tube 1/4" ID x 4" Long	1	
12	98934-031	Elbow 90° Swivel x 1/4" NPT	1	Push to connect, swivel.
13	S-14187	Link Assembly – Bolted	1	
14	S-22787	HCV Bracket	1	
15	98934-035	Fitting 1/4 NPT, Metal	1	Optional vent tube & fitting suitable for heavy duty axle use.
16	SA-6400-2	Tube, Black Nylon – 1/4" x 12" Long	1	
17	S-11430-1	Tie, Nylon	1	
18	S-29870	HCV Sub Kit (Not illustrated)	1	Includes items 1, 3, 4, 7, 8, 10 & 11. See also "Complete HCV Kits" on page 10.

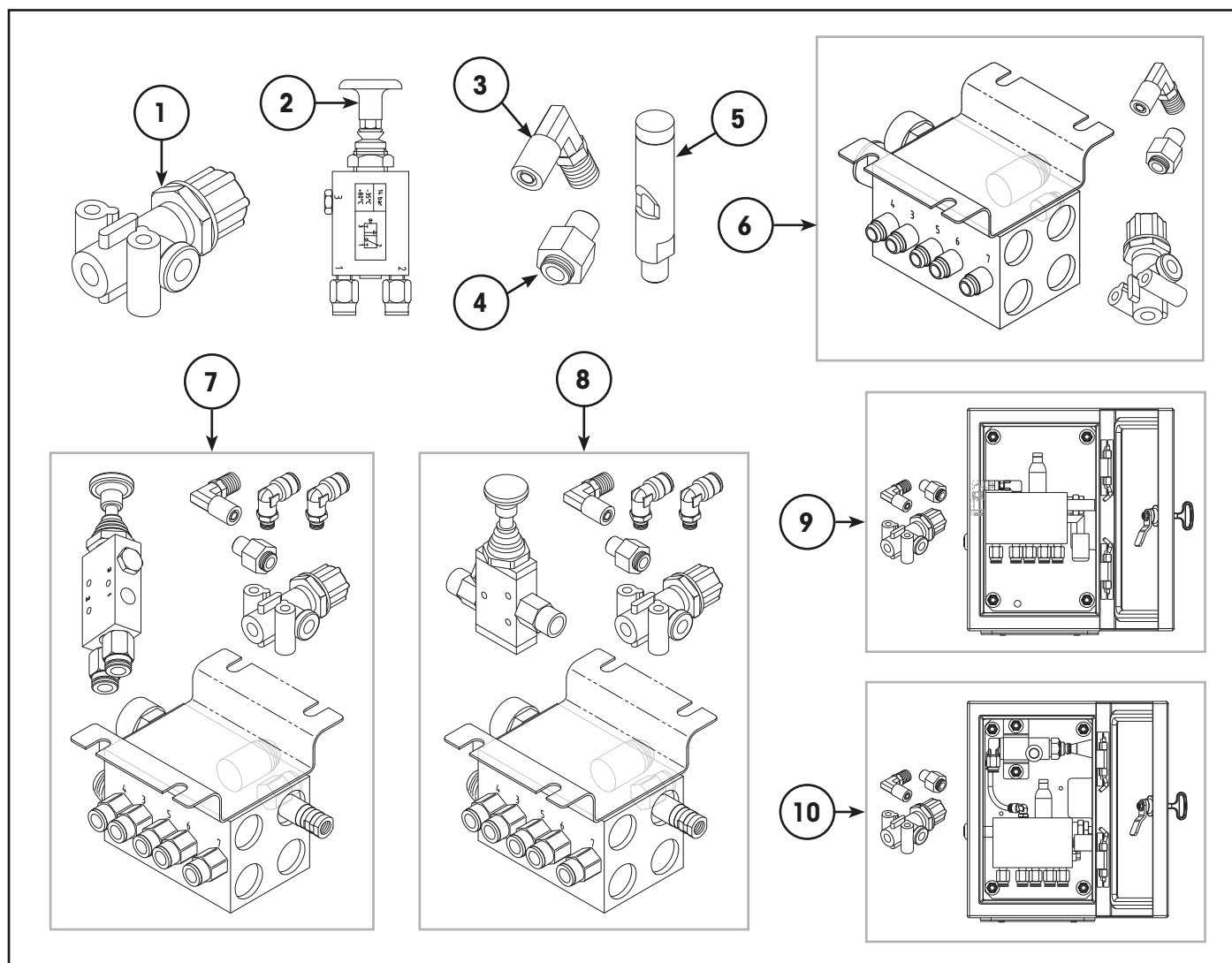
AXLE LIFT SYSTEM CONTROL



Item	Part Number	Description	Qty	Notes
1	98934-031	Male 90° Elbow – 3/8" x 1/4" NPT	AR	
2	98934-005	Connector – Female 3/8" x 1/4" NPT	1	For in-line filter, item 3.
3	98499-006	Air In-Line Filter – 1/4" NPT	1	Use with fitting, item 2.
4	98934-025	Fitting, 1/4" Male x 1/4" Male	1	For in-line filter, item 3.
5	98934-028	Reducing Bush – 3/4" NPT x 1/4" NPT	1	
6	S-38941	Pressure Protection Valve	1	
7	98934-026	Fitting – 1/2" x 1/4" NPT	2	
8	97065-004	Air Tank – 24 Litre, 240 x 630 mm	1	
9	98934-027	Drain Valve	1	
10	98934-015	Tee – 3/8"	1	
11	98934-032	Tee Male Swivel – 3/8"	AR	
12	A-22535	Dump Valve, 3-Way Ball	1	For suspension dump option.
13	98732-015	Silencer Fitting	1	To suit dump valve, item 12.

IMPORTANT: These axle lift system control parts are only applicable to LACV systems supplied by Hendrickson Australia.

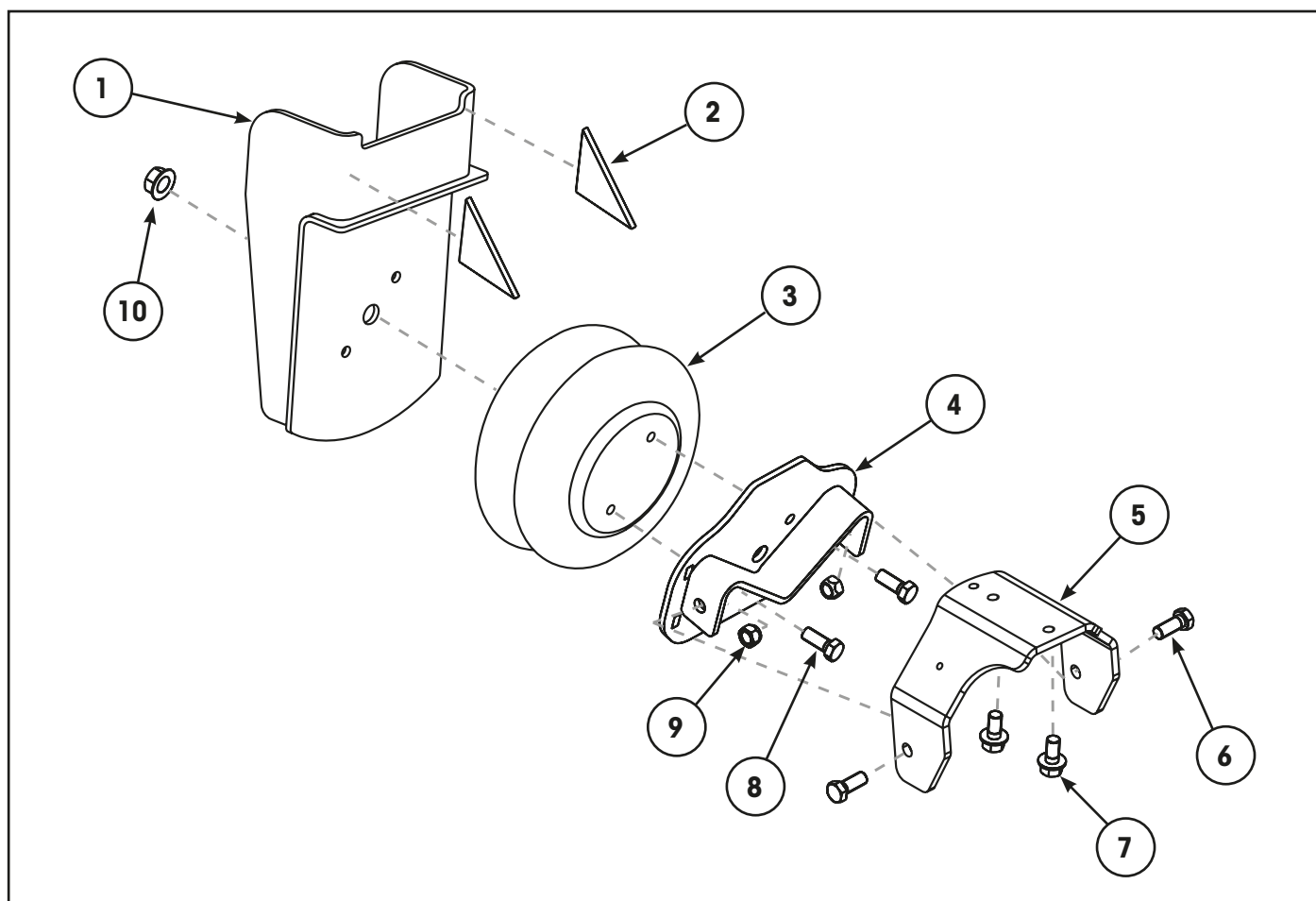
LIFT AXLE CONTROL VALVE



Item	Part Number	Description	Qty	Notes
1	98732-006	Pressure Regulator – 80 psi	1	Included in items 6, 7, 8, 9 & 10.
2	98402-003	Valve – Manual Override	1	Standard override valve for Auto/Auto LACV. Includes fittings. Included in items 7 & 10.
3	98732-003	Air Fitting – 90° Elbow	1	Use with pressure regulator, item 1.
4	98732-002	Air Fitting – Straight	1	
5	98732-059	Whistle	2	Included in complete LACV, items 9 & 10.
6	98975-004	Manual/Auto – With 80 psi Regulator	1	LACV with fittings & decal. Includes item 1, 3 & 4.
7	98975-005	Auto/Auto – With 80 psi Regulator	1	LACV with standard override valve, fittings & decal. Includes items 1, 2, 3 & 4. Refer illustration.
8	98975-008	Auto/Auto – With 80 psi Regulator	1	LACV with alternate override valve, fittings & decal. Includes items 1, 3, 4 & alternate (straight) version of item 2. Refer illustration.
9	98975-013	Manual/Auto – With 80 psi Regulator	1	Enclosure with LACV, regulator & fittings, item 6.
10	98975-014	Auto/Auto – With 80 psi Regulator	1	Enclosure with LACV, valve, regulator & fittings, item 7.

IMPORTANT: These axle lift control system components are only applicable to systems supplied by Hendrickson Australia.

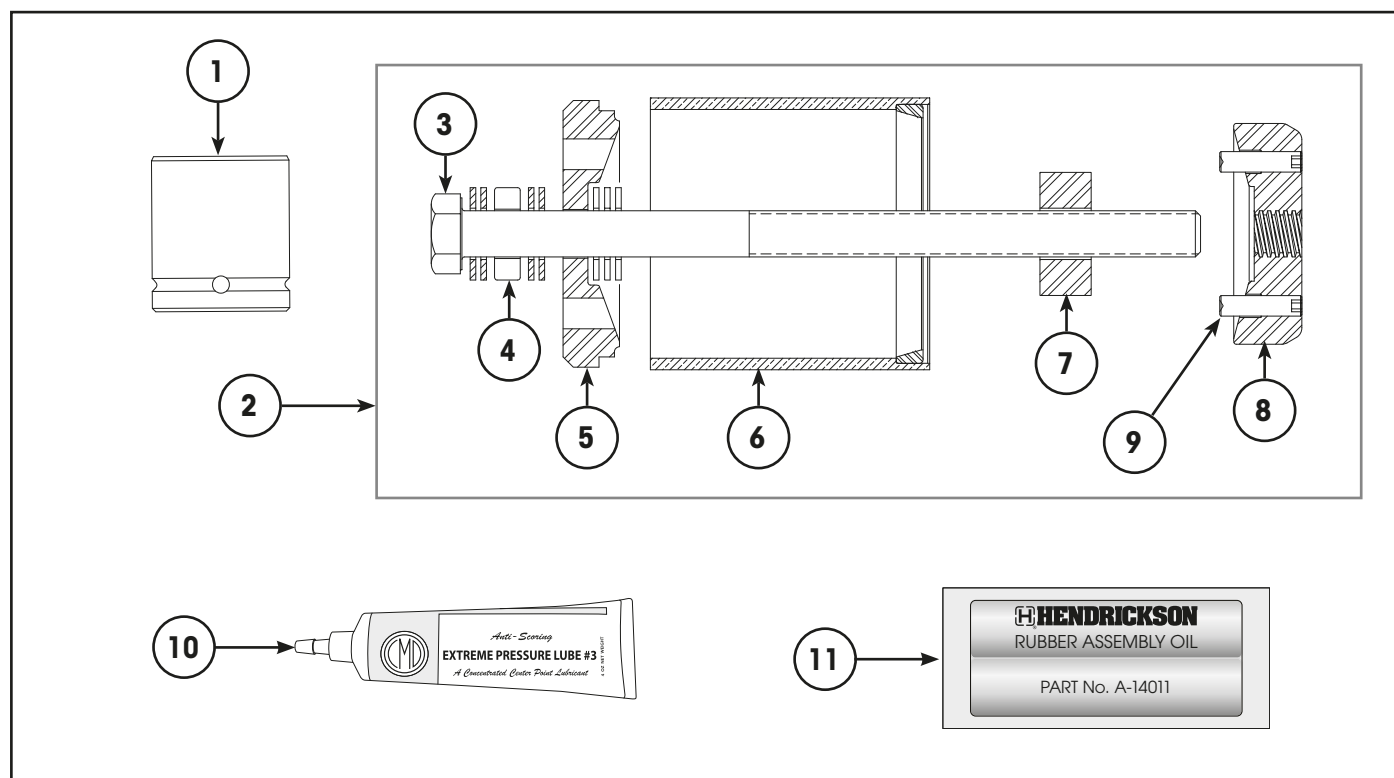
UBL™ AXLE LIFT SYSTEM HARDWARE



Item	Part Number	Description	Qty	Notes
1	D-23301C	Bracket Assembly – Hanger Support	2	
2	S-2901-37	Gusset, Hanger Support Bracket	4	
3	S-23114	Air Spring – UBL Axle Lift	2	
4	B-27945	Plate Assembly – Beam, Air Spring	2	
5	C-23299C	Bracket Assembly – Beam, Air Spring	2	
6	NSS	Bolt, Plate to Bracket – 1/2"-13 x 1.25"	4	Use item 11.
7	NSS	Self-Tapping Bolt – 3/8"-16	4	[1] For installation only.
8	NSS	Bolt, Air Spring to Plate – 3/8"-16 x 0.75"	4	Use item 11.
9	NSS	Nut, Plate to Bracket – 1/2"-13	4	Use item 11.
10	S-22490-5	Nut, Air Spring – 3/4"-16 Spiralock	2	Included in item 11.
11	S-24614	Fastener Kit – Axle Lift (Not Illustrated)	1	[1] Includes items 6, 7, 8, 9 & 10.
12	S-24343	Complete UBL™ Kit – Axle Lift (Not Illustrated)	1	Complete kit, includes all listed items.

[1] NOTE: The S-24614 fastener kit includes four 3/8"-16 self-tapping bolts (item 7). These are only required during initial system installation and must be removed and discarded once system installation is complete.

SPECIAL TOOLS



Item	Part Number	Description	Qty	Notes
1	S-24303	Socket, Pivot Bolt – E20	1	3/4 inch drive
	S-24536	Socket, Pivot Bolt – E20	1	1 inch drive standard duty
	S-25119	Socket, Pivot Bolt – E20	1	1 inch drive heavy duty
2	S-21307A	Tool Kit - Wide TRI-FUNCTIONAL™ Bush	1	[1] Refer Note.
3	S-21308	Bolt, Acme Thread – 18 Inch	1	Included in item 2.
4	98762-001	Bearing, Thrust – TFB™ Tool	1	Included in item 2.
5	S-21312	Plate, Front – TFB Tool	1	Included in item 2.
6	S-21313	Tube, Transition – TFB Tool	1	Included in item 2.
7	S-21314	Spacer, Removal – TFB Tool	1	Included in item 2.
8	S-21309	Plate, Rear Drive – TFB Tool	1	Included in item 2.
9	SA-2800-4	Set Screw – 1/2-13 x 4 inch	2	Removal only. Included in item 2.
	SA-2800-7	Set Screw – 1/2-13 x 2 inch	2	Installation only. Included in item 2.
10	S-21337	Grease, Extreme Pressure	1	[1] Essential for use with tool on installation. Included in item 2.
11	A-14011	Lube Pack - TRI-FUNCTIONAL Bush	1	To lubricate bushes on installation. This grease is included with TFB replacement kits.

[1] NOTE: The TRI-FUNCTIONAL™ tool kits are supplied with one tube of extreme pressure grease. It is essential to use this grease on the tool's Acme thread to avoid thread form damage. This grease must not be used on the rubber TRI-FUNCTIONAL bushes.



REVISIONS TABLE

DATE	REV	PAGE	DESCRIPTION
Feb-2020	B	All	Update document and parts, ECN 10938, 11015, 11090, 11533, 11559 & 11650.
Feb-2024	C	11, 12	Update PP valve, ECN 11716.
Feb-2024	C	3	Correct some descriptions.
Feb-2024	C	7	Add HD wear bush, ECN 11834.
Feb-2024	C	8, 9	Add shock mount repair kit, ECN 12172.

Actual product performance may vary depending upon vehicle configuration, operation, service and other factors.
All applications must comply with applicable Hendrickson specifications and must be approved by the respective vehicle manufacturer with the vehicle in its original, as-built configuration.
Contact Hendrickson for additional details regarding specifications, applications, capacities, and operation, service and maintenance instructions.

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