

Australia & New Zealand Region Only



PARTS LIST

TOUGHLIFT™ FMT DISC BRAKE LIFT AXLE for MACK TRUCKS

LIT NO: 97114-137

DATE: October 2022

REVISION: B

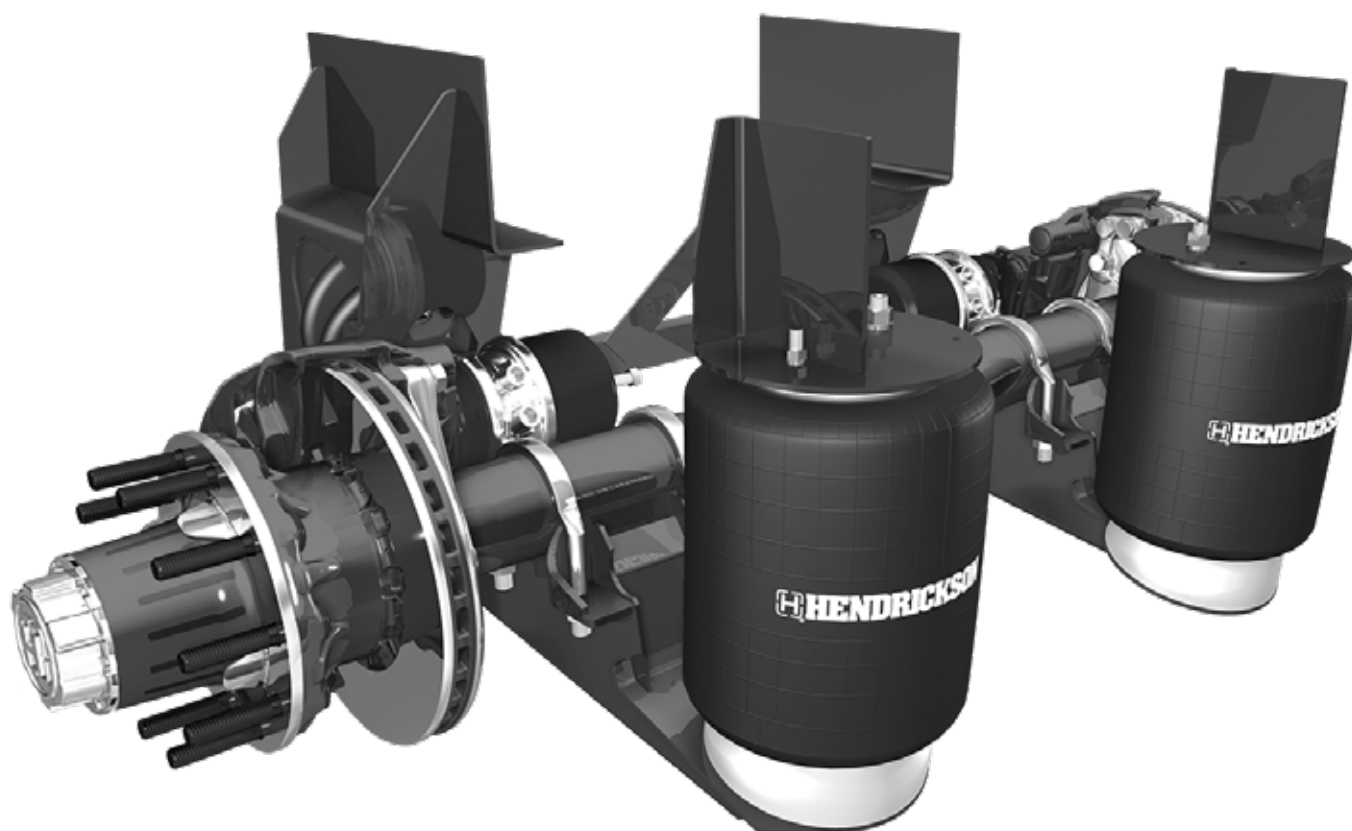




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ABBREVIATIONS

Abbreviations used in this document may include the following terms:

- AR – As Required
- ARL – Auxiliary Rebound Limiter
- Assy – Assembly
- HCV – Height Control Valve
- NSS – Not Serviced Separately
- PCD – Pitch Circle Diameter
- Std – Standard
- TFB™ – TRI-FUNCTIONAL™ Bush



INTRODUCTION

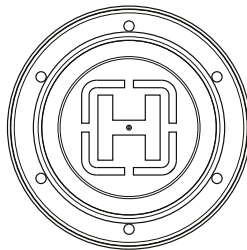
This document details replacement parts available for Hendrickson TOUGHLIFT™ FMT disc brake lift axle and suspension system factory installed to Mack Trucks in Australia. For aftermarket HLM-2 or TOUGHLIFT suspensions refer to Hendrickson parts bulletin [97114-088](#).

AXLE & SUSPENSION IDENTIFICATION



Suspension Part Number Label – Door Opening

Hendrickson truck air suspensions are supplied with an identifying part number label, which should be attached onto the driver door jamb.

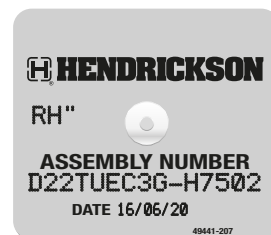


[H] Standard Wheel End Hubcap

All TOUGHLIFT FMT lift axles are manufactured by Hendrickson and have a hubcap labelled with a large [H]. The hubcap will show other details about the wheel end, such as recommended grease.



Axle ID Plate – RH Brake Chamber Bracket



Suspension Assembly Plate – Suspension Beam

In addition to the identifying hubcap, Hendrickson axles have an identification plate that is usually attached to a suspension beam. TOUGHLIFT lift axles have a Hendrickson assembly plate attached to the opposite suspension beam, usually on the left-hand side.

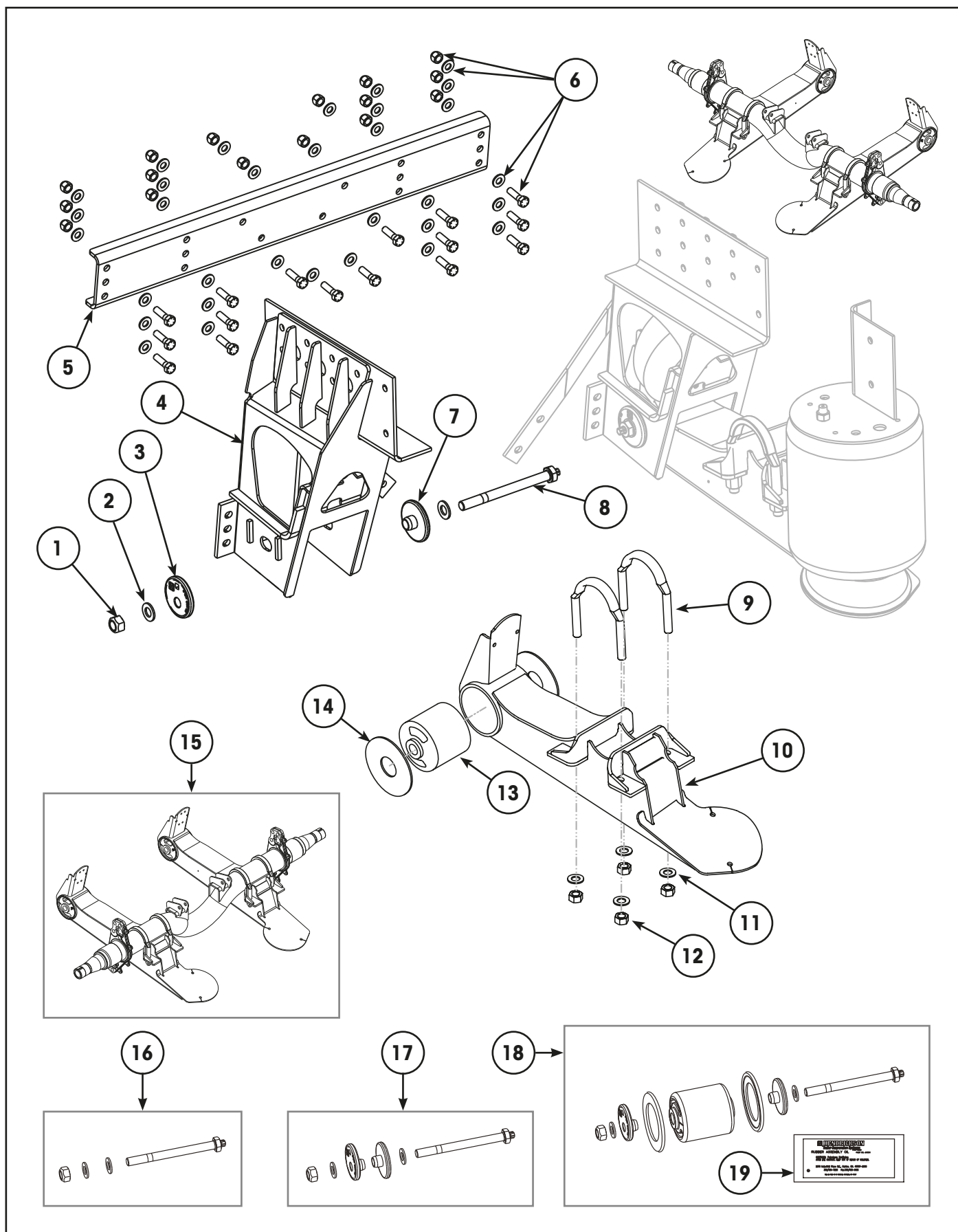
NOTE: The part number, axle ID and assembly numbers will vary, depending on selected options and assembly date.

Mack Truck OEM installed suspensions can be identified by a bolted frame hanger C-Channel. They may use fasteners and other components that are only available from the manufacturer. Some brake components are unique and are not available from Hendrickson. This parts list only details parts available through Hendrickson. Refer to the vehicle manufacturer for all other parts.

Parts published in this parts bulletin are the latest available parts. Unless otherwise noted, they are functionally equivalent to, or better than, the originally supplied components.

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

FRAME HANGER & PIVOT





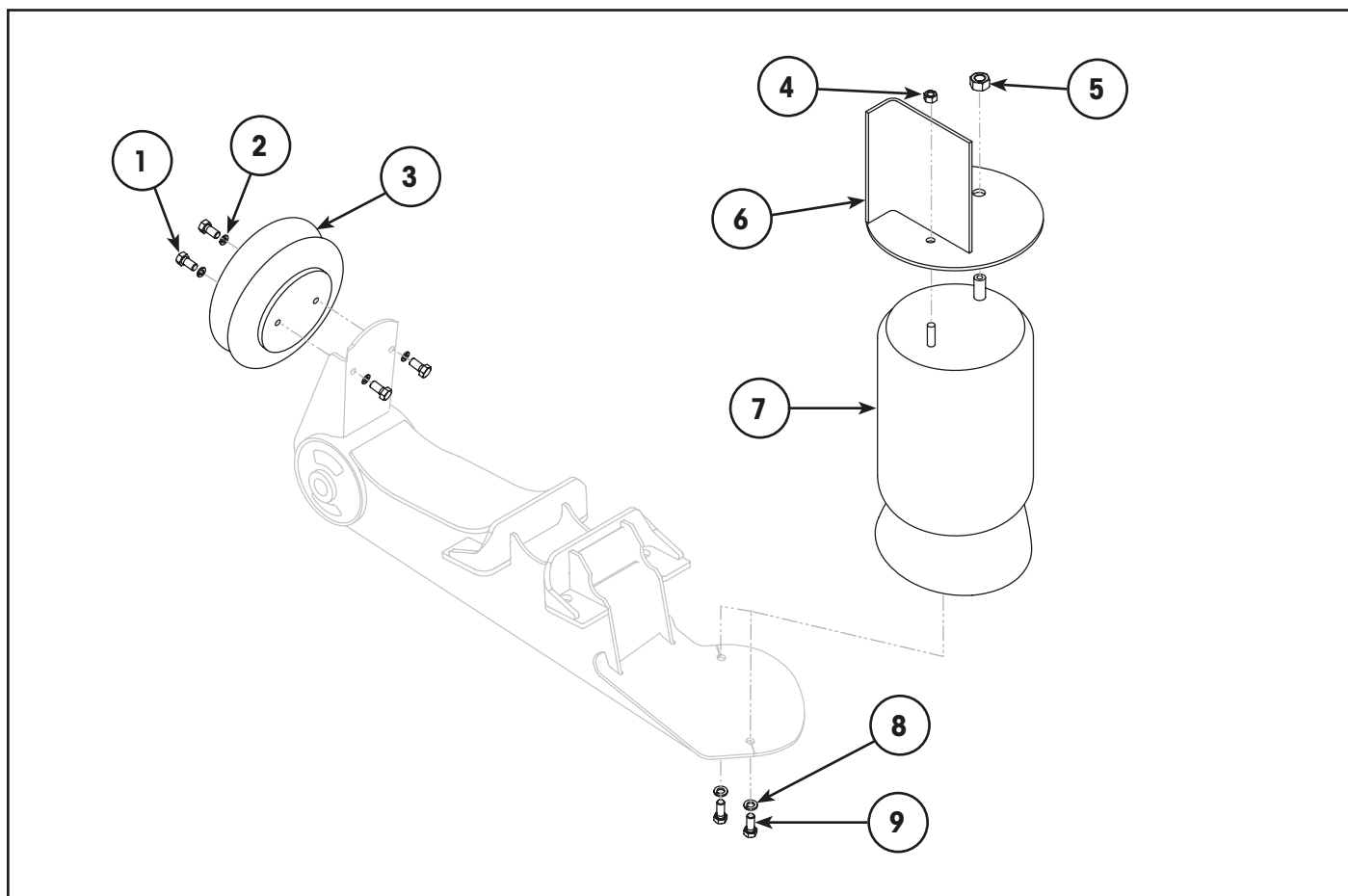
FRAME HANGER & PIVOT

| Item | Part Number | Description | Qty | Notes |
|------|-------------|---------------------------------------|-----|---|
| 1 | NSS | Nut, Prevailing Torque – 7/8 UNC | 2 | Use item 16, 17 or 18. |
| 2 | NSS | Hardened Washer – 7/8" | 4 | Use item 16, 17 or 18. |
| 3 | C-20925 | Flanged Washer, Outer – QUIK-ALIGN® | 2 | Eccentric. Included in items 17 & 18. |
| 4 | 98938-085 | Frame Hanger Assembly – Left Hand | 1 | [1] Includes brace. |
| | 98938-086 | Frame Hanger Assembly – Right Hand | 1 | [1] Includes brace. |
| 5 | 97077-015 | Cross-Channel, Bolted | 1 | 855 mm frame width. |
| 6 | 98111-217 | Hardware Kit, Cross-Channel | 1 | Contains set of bolts, washers & nuts. |
| 7 | C-20924 | Flanged Washer, Inner – QUIK-ALIGN | 2 | Concentric. Included in items 17 & 18. |
| 8 | NSS | Shear Bolt – QUIK-ALIGN | 2 | Use item 16, 17 or 18. |
| 9 | NSS | U-Bolt, Axle | 4 | Use item 20. |
| 10 | 13389-001 | Beam Assembly – Disc Brake Left Hand | 1 | Suits disc brake. Includes bush, item 13. |
| | 13389-002 | Beam Assembly – Disc Brake Right Hand | 1 | Suits disc brake. Includes bush, item 13. |
| 11 | NSS | Washer, Flat 7/8" | 8 | Use item 20. |
| 12 | NSS | Nut, 7/8"-14 | 8 | Use item 20. |
| 13 | NSS | Bush, TRI-FUNCTIONAL™ | 2 | [2] Use item 18. |
| 14 | S-21099-4P | Kit, Wear Washer – Flat | 1 | Included in item 18. |
| 15 | 98961-038 | Assembly, Axle & Suspension beams | 2 | Includes TFB™ Pivot bushes & U-Bolts. |
| 16 | S-31623 | Kit, Pivot Bolt | 2 | Includes items 1, 2 & 8. |
| 17 | S-31625 | Kit, QUIK-ALIGN | 2 | Includes item 1, 2, 3, 7 & 8. |
| 18 | 98785-178 | Kit, Pivot Bush – Flat Washer | 2 | [2] Includes items 1, 2, 3, 7, 8, 13, 14 & 19. |
| 19 | A-14011 | Lube Pack, TRI-FUNCTIONAL Bush | 2 | Included in item 18. |
| 20 | 006362 | U-Bolt Kit – Not Illustrated | 1 | Includes U-bolts, nuts & washers, items 9, 11 & 12. |

[1] NOTE: Refer to the vehicle manufacturer for other OEM components and fasteners.

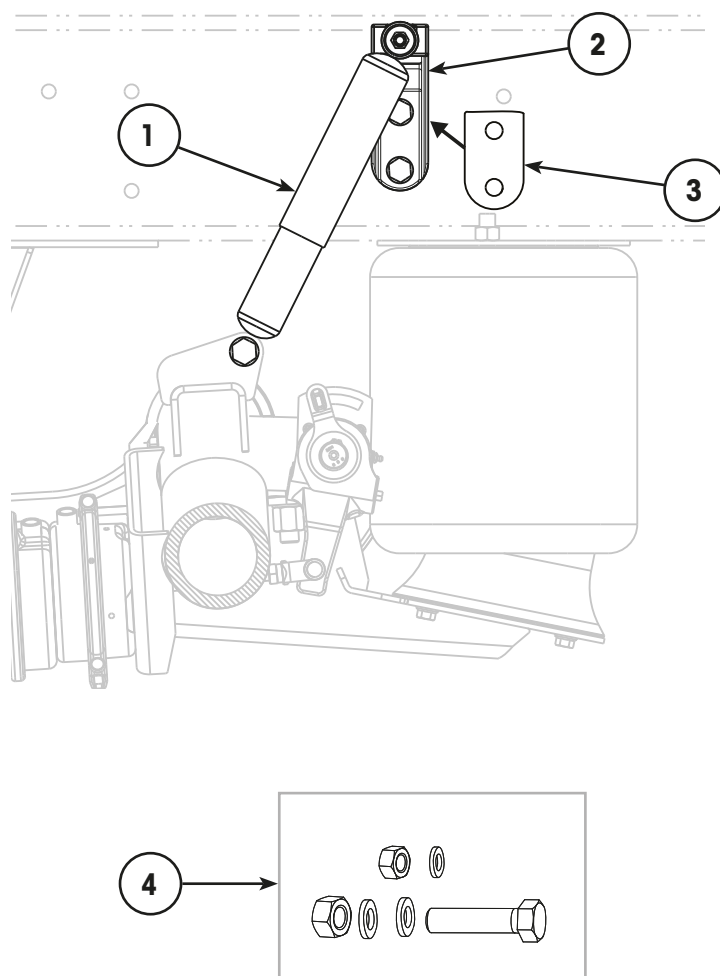
[2] NOTE: The TRI-FUNCTIONAL™ bush (TFB™) is larger than the inner diameter of axle beam tube. To avoid damaging the TFB, the correct installation tool MUST be used along with the appropriate lubricants. Refer to the "Special Tools" on page 13 section for tool details. For bush replacement procedures, refer to Hendrickson [Technical Bulletin L427](#).

AIR SPRINGS & HARDWARE

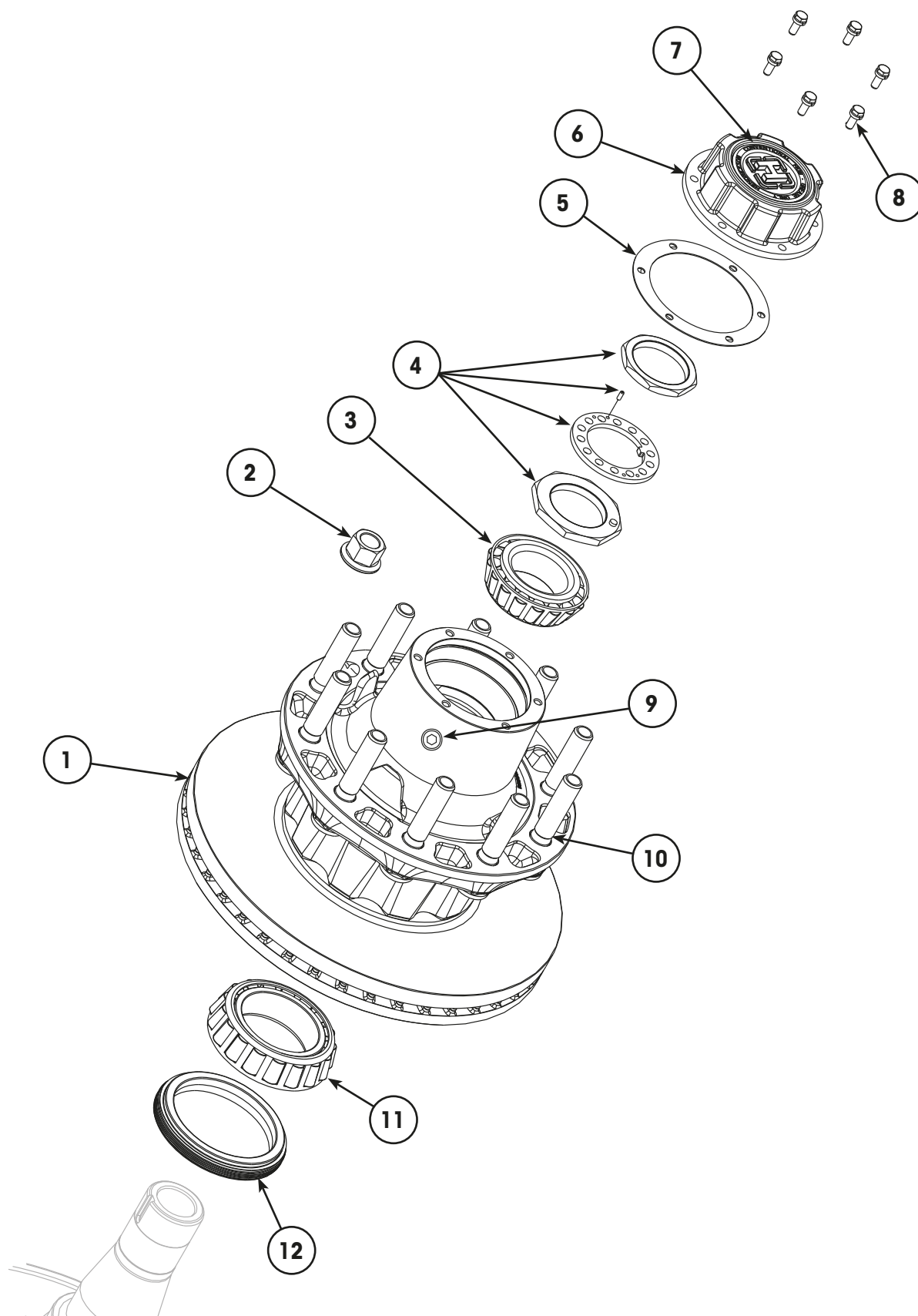


| Item | Part Number | Description | Qty | Notes |
|------|-------------|--|-----|--|
| 1 | NSS | Bolt, 3/8"-16 x 1" | 8 | Use item 10. |
| 2 | NSS | Lock Washer, 3/8" | 8 | Use item 10. |
| 3 | S-14318 | Lift Air Spring | 2 | |
| 4 | NSS | Nut, 1/2"-13 | 2 | Use item 11. |
| 5 | NSS | Nut, 3/4"-16 | 2 | Use item 11. |
| 6 | 97055-017 | Upper Air Spring Mount – Left Hand | 1 | |
| | 97055-018 | Upper Air Spring Mount – Right Hand | 1 | |
| 7 | S-14249 | Air Spring | 2 | |
| 8 | NSS | Lock Washer, 1/2" | 4 | Use item 11. |
| 9 | NSS | Bolt, 1/2"-13 x 1-1/4" | 4 | Use item 11. |
| 10 | 98111-152 | Lift Spring Fastener Kit (Not Illustrated) | 2 | Includes bolts & washers, items 1 & 2. |
| 11 | S-1981/2 | Air Spring Fastener Kit (Not Illustrated) | 2 | Includes nuts, bolts & washers, items 4, 5, 8 & 9. |

SHOCK ABSORBERS & HARDWARE



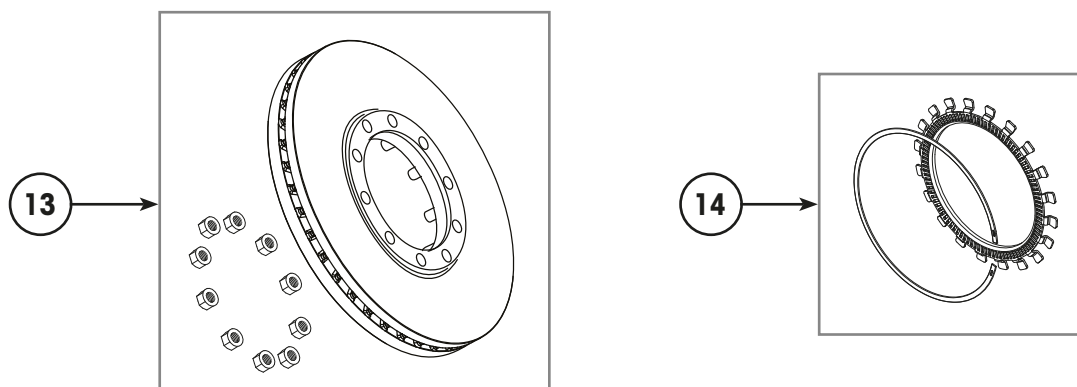
| Item | Part Number | Description | Qty | Notes |
|------|-------------|----------------------------------|-----|--|
| 1 | 60670-002-L | Shock Absorber | 2 | |
| 2 | 57328-001 | Bracket, Upper Shock – Inboard | 2 | Includes top shock stud, washer & nut. |
| 3 | 98844-009 | Shock Bracket Spacer | 2 | 5 mm thickness. |
| 4 | 98785-177 | Shock Absorber Mounting Hardware | 2 | Includes 1 bolt, 2 nuts & 3 washers. |

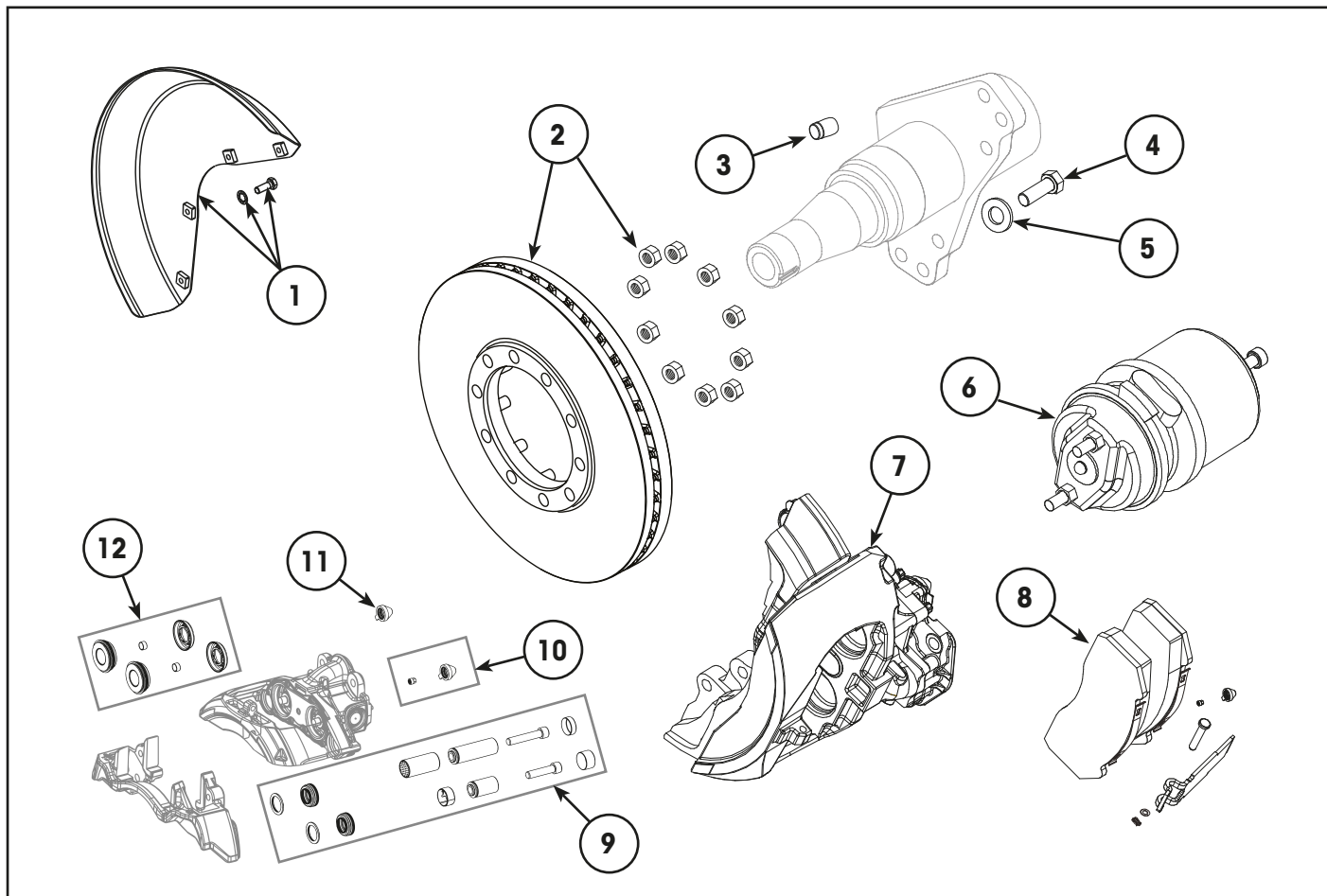


CONVENTIONAL HN DISC BRAKE WITH ALUMINIUM WHEEL END – 22.5

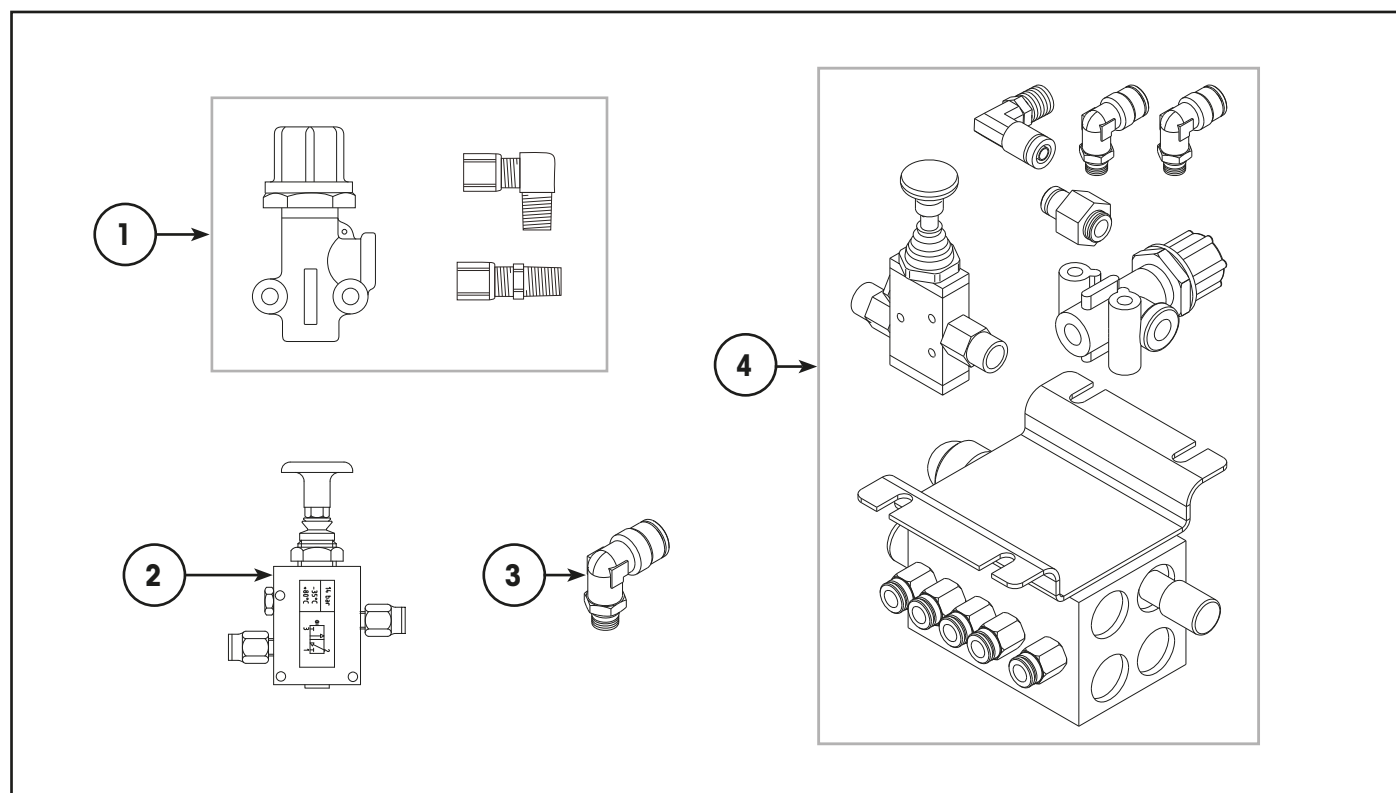
| Item | Part Number | Description | Qty | Notes |
|------|-------------|--|-----|--|
| 1 | D-39889-1 | Assembly, Hub & 430 mm Rotor – 10 Stud 285 | 2 | Pre-assembled hub & rotor. Includes nuts, ABS tone ring, bearing cups, filler plug & wheel studs, items 1, 9, 10, 13 & 14. |
| 2 | A-24695 | Nut Wheel, Standard – M22 x 1.5 | 20 | |
| 3 | NSS | Bearing Cone, Outer | 2 | Use item 15. |
| 4 | A-20492 | Spindle Nut Kit – HN | 1 | Serves a complete axle. Includes 2 each of nuts, washer & set screw. |
| 5 | A-32098 | Gasket, Hubcap | 2 | Included in item 15. |
| 6 | 98846-046P | Conventional HN Standard Hubcap | 2 | Includes decal, item 7. |
| 7 | 97453-007 | Decal, Hubcap – Conventional Wheel End | 2 | Included in hubcap, item 6. |
| 8 | 98879-004 | Assembly, Bolt & Washer – 5/16" UNF x 7/8" | 12 | Hubcap bolt includes attached washer. |
| 9 | 98934-054 | Filler Plug – 9/16"-18 UNF | 2 | Included in item 1. |
| 10 | 98900-022 | Stud, Wheel – M22 x 1.5 x 126 mm | 20 | Included in item 1. |
| 11 | NSS | Bearing Cone, Inner | 2 | Use item 15. |
| 12 | 98794-012 | Seal, Spindle Mounted – Standard Fitment | 2 | [1] Special tool required. |
| 13 | 98815-031 | ConMet Offset Rotor Assembly, 430 mm. Includes Hardware. | 2 | Includes locking circlip style ABS ring, item 14. |
| 14 | 98814-026 | Kit, ConMet ABS Tone Ring | 2 | Locking circlip style. Includes circlip. Included in item 13. |
| 15 | 98800-010 | Bearing Rebuild Kit (Not Illustrated) | 2 | Includes bearing cones & cups, hubcap gasket & hub seal, items 3, 5, 11 & 12. |

[1] NOTE: Refer to on "Special Tools" on page 13. For complete standard service wheel end maintenance procedures and tools, refer to Hendrickson technical bulletin [97117-250 Wheel End Maintenance](#).





LIFT AXLE CONTROL VALVE

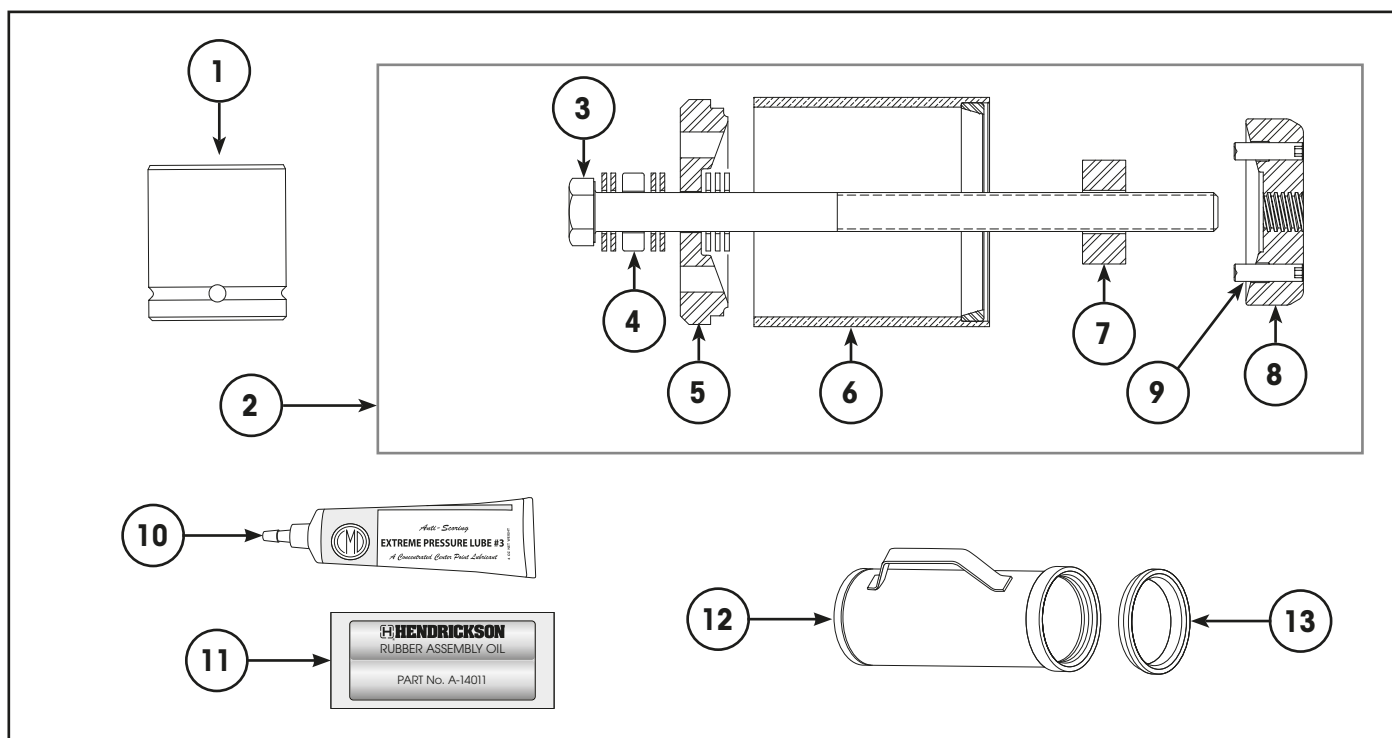


| Item | Part Number | Description | Qty | Notes |
|------|-------------|-------------------------------------|-----|---|
| 1 | 98732-058 | Pressure Regulator Kit – 80 psi | 1 | Includes fittings. Included in item 4. |
| 2 | 98402-005 | Valve – Manual Override | 1 | Override valve for Auto/Auto LACV. Includes fittings. Included in item 4. |
| 3 | 98732-003 | Fitting, 90 Degree 1/4" Compression | 2 | Included in item 4. |
| 4 | 98975-008 | Auto/Auto Lift Axle Control Valve | 1 | Includes LACV, override valve & fittings, items 1, 2 & 3. |



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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] Refer Note. 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. |
| 12 | 97781-003 | Spindle Mounted Seal Insertion Tool Tube | 1 | Use with adapter ring – item 13. |
| 13 | 97781-001 | HN Spindle Mounted Seal Tool Adapter Ring | 1 | Use with universal tool tube – item 12. |

[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. Do not apply this grease to the bush. For more details refer to Hendrickson technical bulletin [L427 Pivot Bush Replacement Procedures](#).

REVISIONS TABLE

| DATE | REV | PAGE | DESCRIPTION |
|----------|-----|------|--|
| Nov-2020 | A | All | New document to suit TOUGHLIFT™ FMT disc brake suspensions & axles for Mack. |
| Oct-2022 | B | 10 | Update brake pad kit number, ECN 11985. |
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*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.*

Need Help? Call **03 8792 3600** or Email **customerservice@hendrickson.com.au**



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