

# **H** PARTS LIST

## PRIMAAX® EX • PRIMAAX® Rear Air Suspension for Mack Vehicles

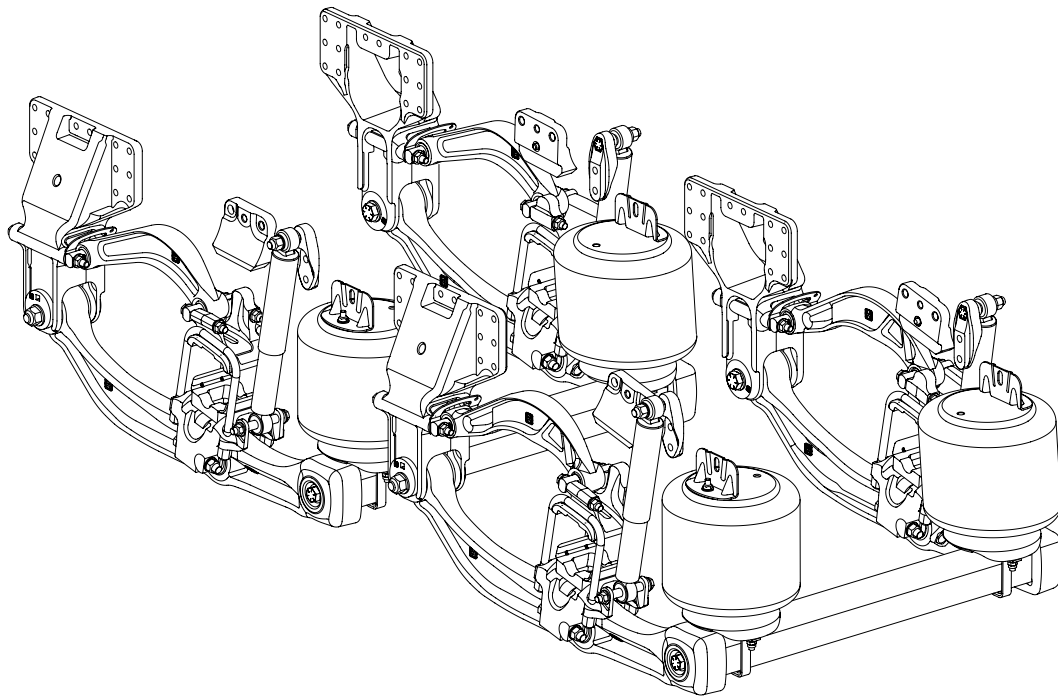
LIT NO: SP-231

DATE: October 2023

REVISION: G

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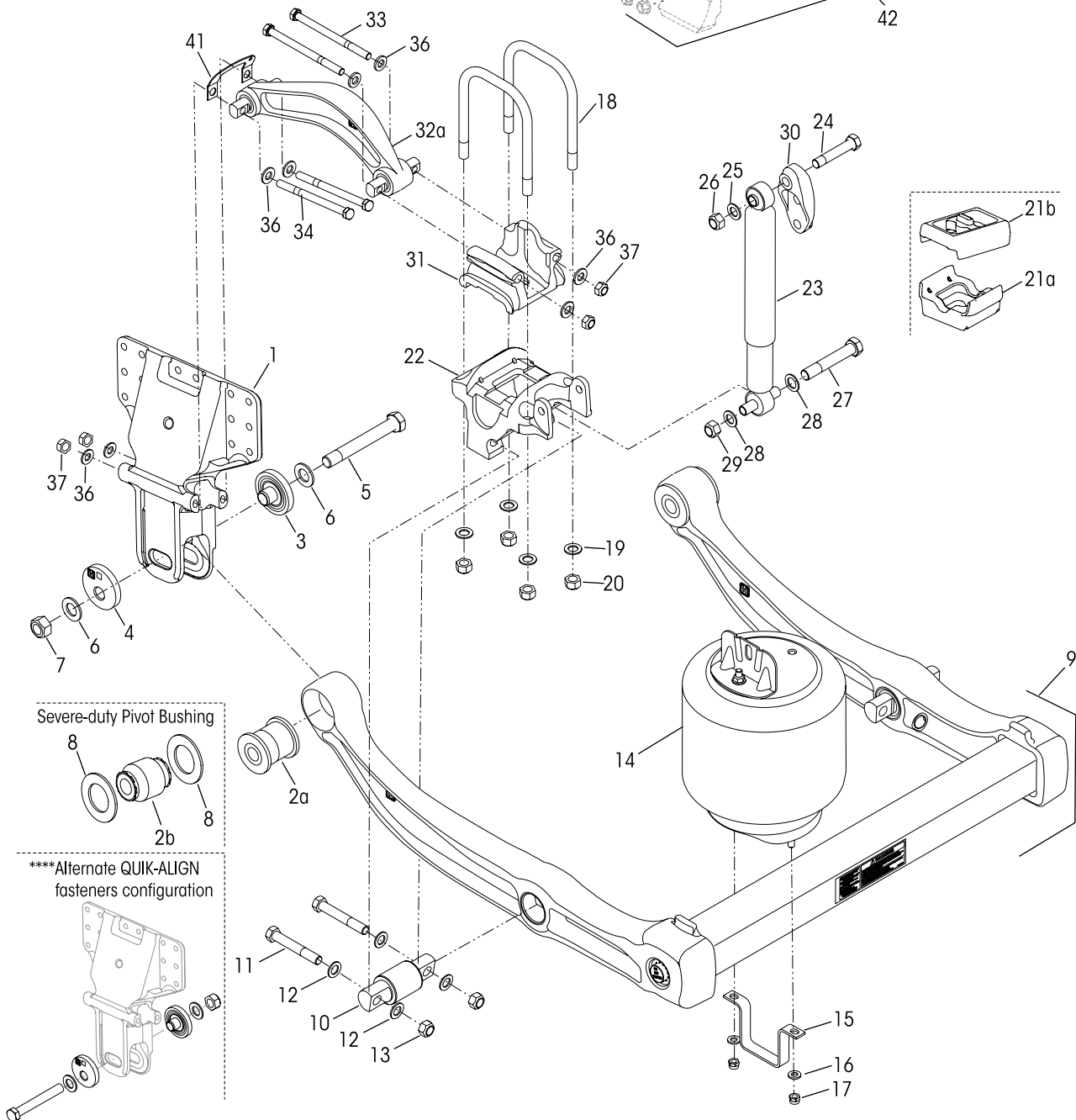
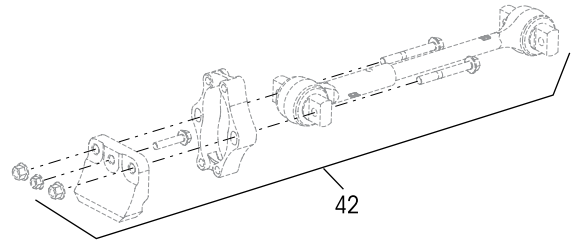
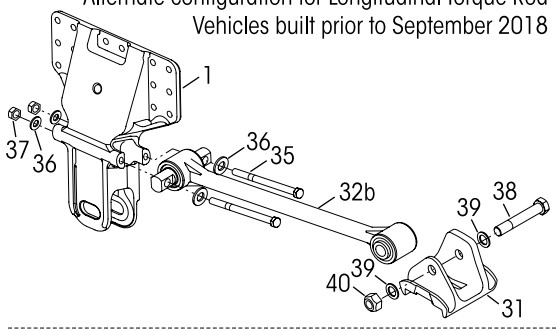


PRIMAAX EX 23K • 46K • 69K

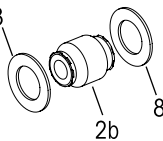
Equipped with Air Disc Brake / Drum Brake

8½" • 10" Ride Height  
Vehicles built after April 2011

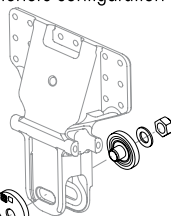
Alternate configuration for Longitudinal Torque Rod  
Vehicles built prior to September 2018



Severe-duty Pivot Bushing



\*\*\*\*Alternate QUIK-ALIGN  
fasteners configuration





KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.	KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
1	67222-002	Frame Hanger	4		48718-501	<b>U-bolt Fastener Kit, One Wheel End</b> Includes Key Nos. 19-20	
	60961-720	<b>Pivot Bushing Service Kit</b> <b>One Wheel End</b> , Includes Key Nos. 2a, 3-7, 43		19		*3/4" Flat Washer	16
	60632-020	<b>Axle Set</b> , Includes Key Nos. 2a, 3-7, 43		20		*3/4"-16 UNF U-bolt Locknut	16
	60632-043	<b>Axle Set</b> , Severe-duty, Includes Key Nos. 2b, 3-8, 43		21		Axle Spacer	4
		<b>QUIK-ALIGN Collar Service Kit</b> , Includes Key Nos. 3-7		a	65139-003	8 1/2" Ride Height, Lower	
	60632-019	<b>One Wheel End</b>		b	76960-001	10" Ride Height, Upper	
	60632-021	<b>Axle Set</b>		22	60556-XXX	Bottom Cap, <i>See Selection Guide on Page 6</i>	4
	60632-018	<b>QUIK-ALIGN Fastener Service Kit</b> , <b>One Wheel End</b> , Includes Key Nos. 5-7		23		Shock Absorber	4
2	a	*Heavy-duty Pivot Bushing	4		60657-007	8 1/2" Ride Height	
	b	*Severe-duty Pivot Bushing	4		60657-003	10" Ride Height	
3		*QUIK-ALIGN Concentric Collar	4		50754-030	<b>Single Shock Absorber Fastener Service Kit</b> , Includes Key Nos. 24-29	
4		*QUIK-ALIGN Eccentric Collar	4	24		*3/4"-10 UNC x 4 1/4" Upper Shock Bolt	4
5		*1"-14 UNF x 7 1/2" Hendrickson Coated Hex Bolt	4	25		*3/4" Flat Washer	4
6		*1" Hendrickson Coated Flat Washer	8	26		*3/4"-10 UNC Locknut	4
7		*1"-14 UNF Hendrickson Coated Locknut	4	27		*5/8"-11 UNC X 6" Lower Shock Bolt	4
8		*Confinement Washer	4	28		*5/8" Flat Washer	8
9		U-beam Assembly, Includes Key Nos. 2, 10		29		*5/8"-11 UNC Locknut	4
	67249-003	Rear	1	30	67463-006	Upper Shock Frame Bracket	4
	67249-004	Front	1	31		Top Pad	4
		<b>D-pin Bushing Service Kits</b> , <i>See Selection Guide on Page 6</i>		a	76961-000	• Use with Arched Style Torque Rod	
	34013-XXX	<b>Single</b> , Includes Key Nos. 10-13		b	60877-001	• Use with Thru Bolt Style Torque rod	
	56659-XXX	<b>Axle Set</b> , Fasteners Only, Includes Key Nos. 11-13			65641-000	8 1/2" Ride Height	
10		*D-pin Bushing	4	32		Longitudinal Torque Rod, <i>See Selection Guide on Page 6</i>	4
11		*3/4"-16 UNF Bolt, <i>See Selection Guide on Page 6</i>	8	a		Arched Style	
12		*3/4" Flat Washer	16	b	67274-XXX	Thru Bolt Style, <i>Replaces 64981-XXX</i>	
13		*3/4"-16 UNF Locknut	8			<b>Longitudinal Torque Rod Fastener Service Kits</b> , <b>One Side</b>	
		<b>Air Spring Service Kits</b>			49176-060	To Top Pad, Includes Key Nos. 33, 36-37	
	60961-230	<b>One Wheel End</b> , Includes Key Nos. 14-17			49176-050	To Frame Hanger, Includes Key Nos. 34, 36-37	
	49177-006	<b>Single</b> , Fasteners only, Includes Key Nos. 16-17			58821-027	To Frame Hanger, Includes Key Nos. 35-37	
14	67043-002	Air Spring Assembly	4		58821-012	To Top Pad, Includes Key Nos. 38-40	
15	60911-002	Lower Air Spring Mounting Bracket	4	33		*5/8"-11 UNC x 5 1/2" Hex Bolt	8
16		*1/2" Flat Washer	8	34		*5/8"-11 UNC x 10 1/2" Hex Bolt <b>or</b> **M16 x 2-6G Bolt	8
17		*1/2"-13 UNC Locknut	8	35		*5/8"-11 UNC x 8" Hex Bolt <b>or</b> **M16 x 2-6G Bolt	8
		<b>U-bolt Service Kit, One Wheel End</b> , Includes Kit No. 48718-501		36		*5/8" Flat Washer <b>or</b> **M16 Washer	32
		• Used with Key No. 31a		37		*5/8"-11 UNC Locknut <b>or</b> **M16 x 2-6H Locknut	16
	91430-048	8 1/2" Ride Height, Includes Key Nos. 18a		38		*7/8"-14 UNF-2A x 5 1/2" Hex Bolt	4
	91430-050	10" Ride Height, Includes Key Nos. 18b		39		*7/8" Flat Washer	8
		• Used with Key No. 31b		40		*7/8"-14 UNF-2B Locknut	4
	91430-041	8 1/2" Ride Height, Includes Key Nos. 18c		41		Torque Rod Shim, <i>See Selection Guide on Page 6</i>	As Req.
	91430-044	10" Ride Height, Includes Key Nos. 18d			70240-001	3.0 mm	
18		*3/4"-16 UNF Square U-bolt	8		70240-002	1.5 mm	
a		10 3/8" - 8 1/2" Ride Height		42		**Transverse Torque Rod Assembly	2
b		9 7/8" - 10" Ride Height		43	70867-001	P-80 Lubricant - 10 ml (Not Shown)	Per Bushing 1
c		10 3/8" - 8 1/2" Ride Height			Not Shown	**Height Control Valve and Linkage Assembly	1
d		9 7/8" - 10" Ride Height					

**NOTES:** Quantities specified are shown for a tandem suspension. Adjust quantities for single or tridem suspensions. Quantities of service kit components may vary from amount shown in lists.

\* Item included in kit/assembly only, part not sold separately.

\*\* Item required, component supplied by Vehicle Manufacturer. Hendrickson is not responsible for components not supplied by Hendrickson, for assistance with maintenance and rebuild instructions on these components see vehicle manufacturer.

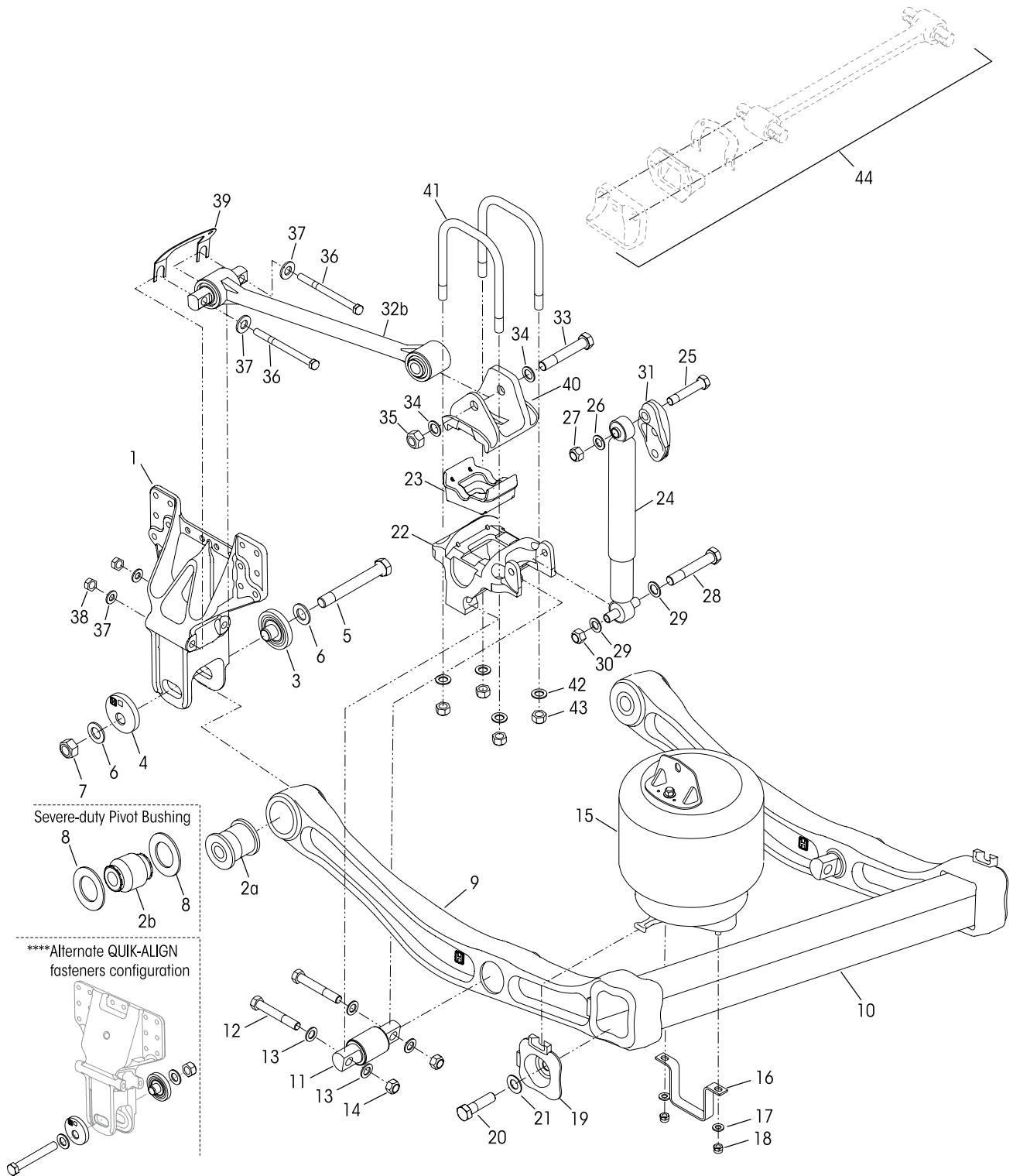
\*\*\* No longer available for service, see replacement guide on Page 5. For more information, refer to Hendrickson Technical Bulletin Literature No. SEU-0229 or contact Hendrickson Tech Services.

\*\*\*\* Alternate configuration of the QUIK-ALIGN fasteners. The locknuts located inboard will allow additional clearance for wider tires or tires with chains. Tightening is still required ONLY on the locknut.



PRIMAAX 230 • 460 • 690  
Equipped with Drum Brakes

8½" • 10" Ride Height  
Vehicles built prior to April 2011





KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.	KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
1	67222-000	Frame Hanger, <i>Replaces 65702-001</i>	4	22	60556-XXX	Bottom Cap, <i>See Selection Guide on Page 6</i>	4
	60961-720	<b>Pivot Bushing Service Kit</b>		23	65139-003	Axle Spacer	4
	60632-020	<b>One Wheel End</b> , Includes Key Nos. 2a, 3-7, 45		24		Shock Absorber	4
	60632-043	<b>Axle Set</b> , Includes Key Nos. 2a, 3-7, 45			60657-007	8½" Ride Height	
		<b>Axle Set</b> , Severe-duty, Includes Key Nos. 2b, 3-8, 45			60657-003	10" Ride Height	
		<b>QUIK-ALIGN Collar Service Kit</b> , Includes Key Nos. 3-7			50754-030	<b>Single Shock Absorber Fastener Service Kit</b> , Includes Key Nos. 25-30	
	60632-019	<b>One Wheel End</b>		25		*¾"-10 UNC x 4¼" Upper Shock Bolt	4
	60632-021	<b>Axle Set</b>		26		*¾" Flat Washer	4
	60632-018	<b>QUIK-ALIGN Fastener Service Kit</b> , <b>One Wheel End</b> , Includes Key Nos. 5-7		27		*¾"-10 UNC Locknut	4
2 a		*Heavy-duty Pivot Bushing	4	28		*⅝"-11 UNC X 6" Lower Shock Bolt	4
b		*Severe-duty Pivot Bushing	4	29		*⅝" Flat Washer	8
3		*QUIK-ALIGN Concentric Collar	4	30		*⅝"-11 UNC-2B Locknut	4
4		*QUIK-ALIGN Eccentric Collar	4	31	67463-006	Upper Shock Frame Bracket, <i>Replaces 65000-006</i>	4
5		*1"-14 UNF x 7½" Hendrickson Coated Hex Bolt	4	32b	67274-XXX	Longitudinal Torque Rod, <i>Replaces 64981-XXX</i>	4
6		*1" Hendrickson Coated Flat Washer	8			<i>See Selection Guide on Page 6</i>	
7		*1"-14 UNF Hendrickson Coated Locknut	4		58821-012	<b>Longitudinal Rod Fastener Service Kits, One Side</b>	
8		*Confinement Washer	4		58821-027	To Top Pad, Includes Key Nos. 33-35	
9		***Support Beam Assembly, <i>60831-</i> , <i>see Replacement Guide below</i>				To Frame Hanger, Includes Key Nos. 36-38	
10		***Cross Tube, <i>60912-005</i> , <i>see Replacement Guide below</i>		33		*⅞"-14 UNF-2A x 5½" Hex Bolt	4
		<b>D-pin Bushing Service Kits</b>		34		*⅞" Flat Washer	8
	34013-107	<b>Single</b> , Includes Key Nos. 11-14		35		*⅞"-14 UNF-2B Locknut	4
	56659-009	<b>Axle Set</b> , Fasteners Only, Includes Key Nos. 12-14		36		*⅝"-11 UNC x 8" Hex Bolt <i>or</i> **M16 x 2-6G Bolt	8
11		*D-pin Bushing	4	37		*⅝" Flat Washer <i>or</i> **M16 Washer	16
12		*¾"-16 UNF x 5" Bolt	8	38		*⅝"-11 UNC Locknut <i>or</i> **M16 x 2-6H Locknut	8
13		*¾" Flat Washer	16	39		Torque Rod Shim	As Req.
14		*¾"-16 UNF Locknut	8		70240-001	3.0 mm	
		<b>Air Spring Service Kits</b>			70240-002	1.5 mm	
	60961-062	<b>One Wheel End</b> , Includes Key Nos. 15-18		40	60877-001	Top Pad	4
	49177-006	<b>Single</b> , Fasteners only, Includes Key Nos. 17-18			91430-041	<b>U-bolt Service Kit, One Wheel End</b> , Includes Key No. 25 & Kit No. 48718-501	
15	60271-002	Air Spring Assembly	4	41		*¾"-16 UNF x 10⅝" U-bolt	8
16	60911-000	Lower Air Spring Mounting Bracket	4		48718-501	<b>U-bolt Fastener Kit, One Wheel End</b> , Includes Key Nos. 26-27	
17		*½" Flat Washer	8	42		*¾" Flat Washer	16
18		*½"-13 UNC Locknut	8	43		*¾"-16 UNF U-bolt Locknut	16
	46772-001	<b>End Cap and Fastener Kit, Axle Set</b> , Includes Key Nos. 19-21		44		**Transverse Torque Rod Assembly	2
19		*End Cap	4	45	70867-001	P-80 Lubricant - 10 ml (Not Shown)	Per Bushing 1
20		*⅞"-9 UNC x 3½" Hex Bolt	4			**Height Control Valve and Linkage Assembly	1
21		*⅞" Flat Washer	4			Not Shown	

■ Support Beam and Cross Tube Replacement Guide

Drive Axle	DISCONTINUED		Cross Tube Part No.	NEW	COMMENTS
	Support Beam Assembly Part No.			U-beam Assembly Replacement Kit No.	
Forward	60831-003	60831-004	60912-005	<b>60961-237</b>	Each U-beam assembly replacement kit is intended to service the associated suspension parts on one axle. It includes two new support beam assemblies, one cross tube, two air spring assemblies, air spring fasteners, QUIK-ALIGN fasteners and D-pin fasteners.
Rear	60831-001	60831-002		<b>60961-238</b>	



■ Bottom Cap, Longitudinal Torque Rod Selection Guide

Vehicles Equipped with Air Disc Brakes

	◆Pinion Angle	Brake Clocking		Key No. 11			Key No. 22	Key No. 32a	Key No. 41	
		Ride Height		D-pin Bolt Length	D-pin Bushing Service Kit No.	D-pin Fasteners Service Kit No.	Bottom Cap Part No.	◆◆Longitudinal Torque Rod (Arched Style) Part No.	Torque Rod Shims	
		8½"	10"						8½"	10"
FRONT	1.5°	92°	84°	4¾"	34013-117	56659-012	60556-025	67219-435	3 mm	3 mm
	2.5°						60556-035		4 mm	4 mm
	4°			60556-050	6 mm	5 mm				
	6°	95°	84°	5½"	34013-116	56659-013	60556-845	77128-435	6 mm	6 mm
	7°			6"	34013-200	56659-024	60556-855		6 mm	4 mm
REAR	9°	95°	90°	4¾"	34013-117	56659-012	60556-805	68801-205	6 mm	5 mm
	9.5°						60556-810		4 mm	3.0 mm
	10°			5"	34013-107	56659-009	60556-820		5 mm	
	10.5°						60556-825		6 mm	4 mm
	11°			5¼"	34013-201	56659-014	60556-830		6 mm	4 mm
	11.5°						60556-835		6 mm	4 mm
	12°			5½"	34013-116	56659-013	60556-840		6 mm	4 mm
	12.5°						60556-845		6 mm	4 mm

Vehicles Equipped with Drum Brakes

	◆Pinion Angle		Key No. 11			Key No. 22	Key No. 32b
	8½" Ride Height	10" Ride Height	D-pin Bolt Length	D-pin Bushing Service Kit No.	D-pin Fasteners Service Kit No.	Bottom Cap Part No.	◆◆Longitudinal Torque Rod (Thru Bolt Style) Part No.
FRONT	2.9°	2.9°	4¾"	34013-117	56659-012	60556-025	67274-530
	6.0°	6.1°	5¼"	34013-201	56659-014	60556-060	
	7.9°	8.2°	5"	34013-107	56659-009	60556-120	
REAR	10.3°	9.8°	4¾"	34013-117	56659-012	60556-100	67274-575
	10.7°	10.2°				60556-105	
	11.2°	10.7°				60556-110	
	11.6°	11.2°				60556-115	
	12.1°	11.6°	5"	34013-107	56659-009	60556-120	
	13.0°	12.6°	5¼"	34013-201	56659-014	60556-130	
13.4°	13.1°	60556-135					

NOTES: ◆ Measured with QUIK-ALIGN pinion set at neutral position (12 O'Clock)

◆◆ Torque rod bushings are non-serviceable, replacement requires complete torque rod assembly with bushings.

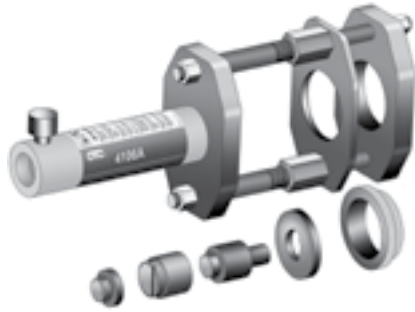


■ Special Tools

D-PIN / QUIK-ALIGN PIVOT BUSHING SERVICE TOOLS

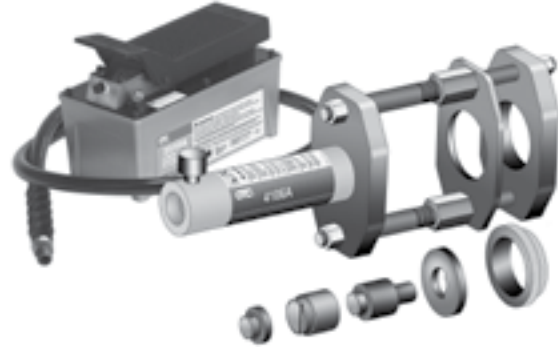
Hendrickson Part No. 66086-202

OTC Part No. 4246 Visit [otctools.com](http://otctools.com)



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QUIK-ALIGN SOCKET TOOL

Hendrickson Part No. 66086-200

OTC Part No. 1767

Visit [otctools.com](http://otctools.com)



QUIK-ALIGN PIVOT BUSHING SERVICE TOOL

Hendrickson Part No. 66086-203L



This is a general parts list to provide directional information. Components may vary by model. Questions in regards to parts, contact Hendrickson Truck Parts at 1.866.755.5968 (Toll-free U.S. and Canada), 630.910.2800 (Outside U.S. and Canada) or email: [truckparts@hendrickson-intl.com](mailto:truckparts@hendrickson-intl.com) available during normal business hours.

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.

*Call Hendrickson at **1.866.755.5968** (toll-free) or **1.630.910.2800** for additional information.*



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