

H PARTS LIST

PRIMAAX® EX Rear Air Suspension for Freightliner • Western Star Vehicles

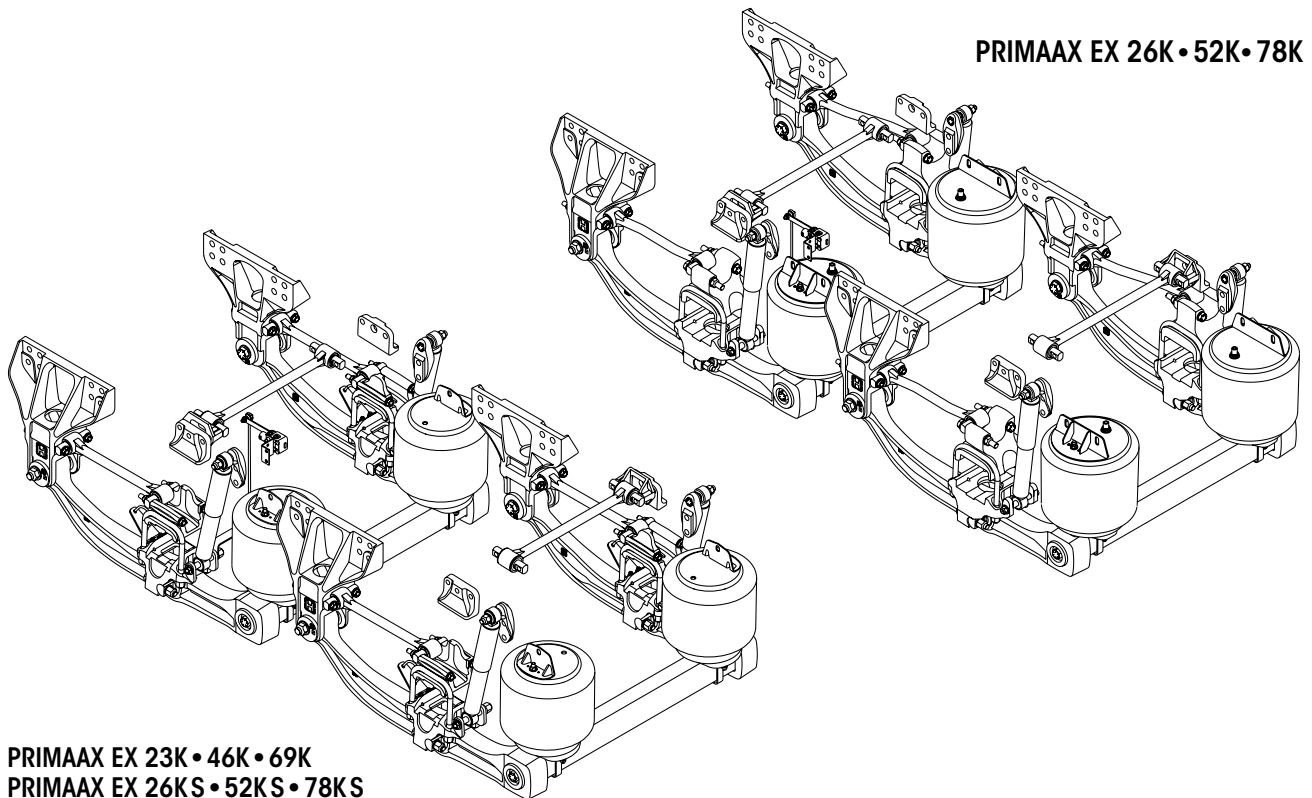
LIT NO: SP-230

DATE: May 2024

REVISION: D

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PRIMAAX EX 23K • 46K • 69K
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PRIMAAX EX 26K • 52K • 78K

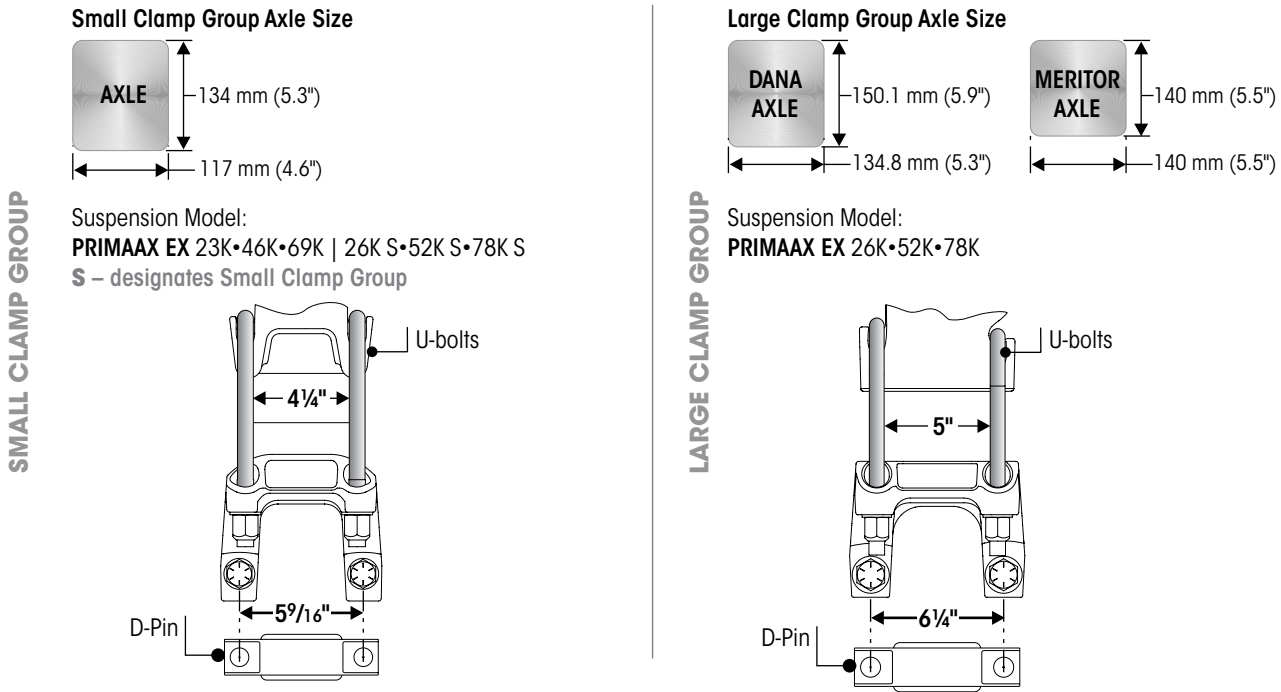


■ Technical Notes

The following information (Figure 1) helps to determine the suspension rating / capacity.

FIGURE 1

SUSPENSION RATING • CAPACITY

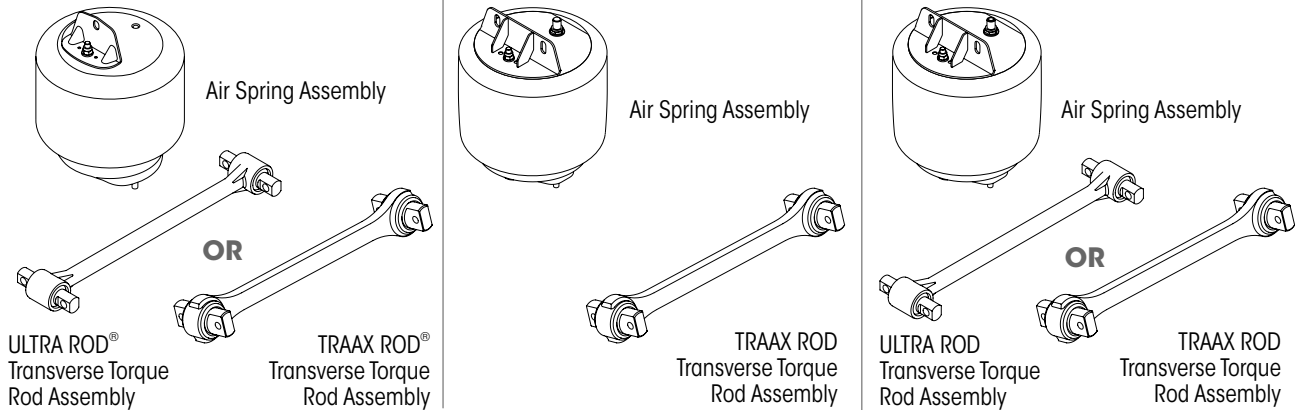


AIR SPRINGS • TRANSVERSE TORQUE RODS

PRIMAAX EX 23K • 46K • 69K

PRIMAAX EX 26KS • 52KS • 78KS

PRIMAAX EX 26K • 52K • 78K



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.

** Transverse Torque Rods are mandatory for the PRIMAAX EX suspensions regardless of axle spacing. See Literature Nos. 59310-004 and 59310-058 for more information. TRAAX ROD bushings are non-serviceable, the entire torque rod assembly requires replacement. Visit the TRAAX ROD website www.traaxrods.com for more information.

*** S-cam is not required for disc brakes.

**** 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.

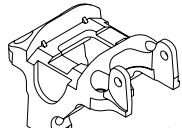
***** As originally equipped by the vehicle manufacturer.



**Bottom Cap • Longitudinal Torque Rod Assembly
Top Pad • Torque Rod Spacer Selection Guide**

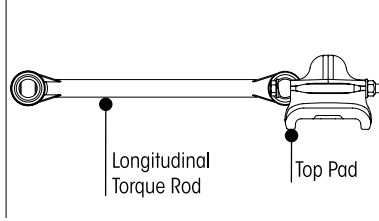
Small Clamp Group

Bottom Cap

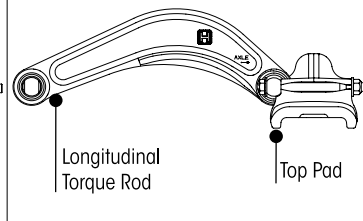


Location of stamped Part No. (last three digits) or see pinion angle chart below

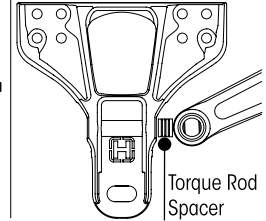
DRUM BRAKE Configuration



DISC BRAKE Configuration



Torque Rod Spacer



Page 6		PRIMAAX EX 23K • 46K • 69K • 26KS • 52KS • 78KS							
DRUM BRAKES	Pinion Angle	D-Pin Bolt Length	Bottom Cap	*Longitudinal Torque Rod Assembly	Pinion Angle	D-Pin Bolt Length	Bottom Cap	*Longitudinal Torque Rod Assembly	
	Front				Rear				
	1.5°	5"	60556-025	67428-425A (LH) 67428-425B (RH)	6.5°	5½"	60556-065	67430-435A (LH) 67430-435B (RH)	
	2.5°		60556-025	67428-430A (LH) 67428-430B (RH)	8.0°	4¾"	60556-100	67430-465A (LH) 67430-465B (RH)	
	3.0°		60556-030	67428-435A (LH) 67428-435B (RH)	8.5°		60556-105	67430-470A (LH) 67430-470B (RH)	
	3.5°	60556-035	9.5°		60556-105				
	5.0°	5½"	60556-050	67428-475A (LH) 67428-475B (RH)	10.0°	5"	60556-100		
			10.5°		60556-105				
			11.0°		60556-110				
			11.5°		60556-115				
			12.0°		60556-120				

AIR DISC BRAKES	Pinion Angle	D-Pin Bolt Length	Bottom Cap	*Longitudinal Torque Rod Assembly	**Torque Rod Pinion Spacer	Top Pad		
	Front						Left	Right
	1.5°	5"	60556-525	68801-101	10.5 mm	65289-001	65289-002	
	3.0°		60556-530		16.5 mm			
	3.5°		60556-535		15 mm			
	5.0°	5½"	60556-550	68801-205	4.5 mm	65289-001	65289-002	
	6.5°		60556-565					10.5 mm
8.0°	4¾"	60556-600	15 mm		65289-001			65289-002
8.5°		60556-605						
9.5°		60556-605						
10.0°	5"	60556-600	65289-001		65289-002			
10.5°		60556-605						
11.0°	5"	60556-610	65289-001		65289-002			
11.5°		60556-615						
12.0°		60556-620						

NOTES: ♦ Torque rod bushings are non-serviceable, replacement requires complete torque rod assembly with bushings.
 ** Not supplied by Hendrickson, used for reference only. Hendrickson is not responsible for components supplied by the vehicle manufacturer. For assistance with maintenance and rebuild instructions on these components see vehicle manufacturer.

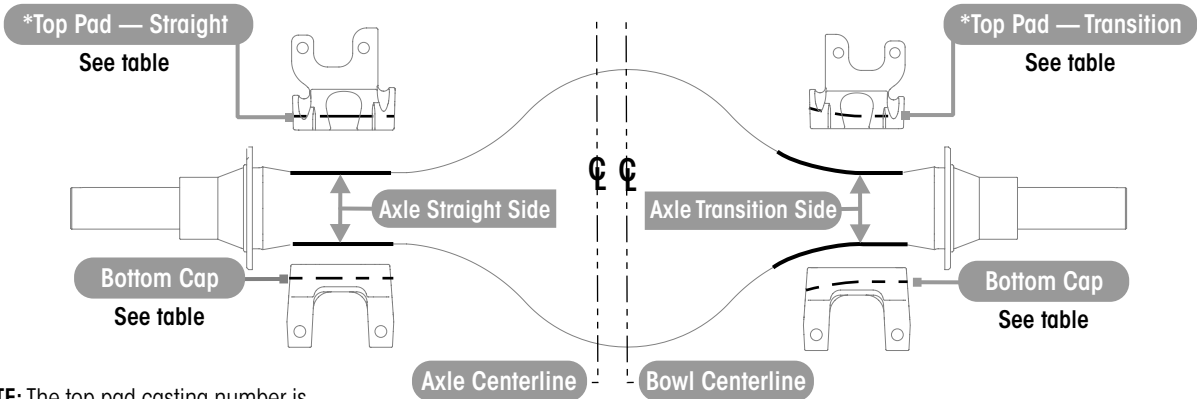


Bottom Cap • Top Pad Selection Guide

Large Clamp Group

Page 8

PRIMAAX EX 26K • 52K • 78K



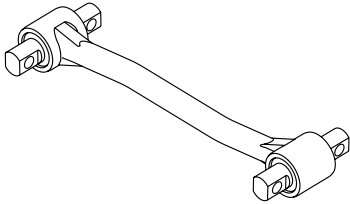
*NOTE: The top pad casting number is located on bottom surface of the top pad.

Axle Manufacturer	Beam Spacing	Pinion Angle	BOTTOM CAP				TOP PAD			
			Left Side		Right Side		Left Side		Right Side	
			Straight	Transition	Straight	Transition	Straight	Transition	Straight	Transition
SINGLE AXLE										
Meritor	40	3.0°		65208-005	65208-001		65273-003	65210-001		
		5.0°								
	40.5	3.0°		67913-005						
		5.0°								
TANDEM FRONT • TRIDEM FRONT • TRIDEM MID										
Meritor	40	1.5°	65208-001			65208-006	65210-001			65210-003
	40.3	3.5°							65273-003	
	40.5	1.5°				67913-006				
Dana	40	3.5°	65208-002			65208-008	65210-002			65210-004
	40.5	2.5°				67913-008			65273-004	
TANDEM REAR • TRIDEM REAR										
Meritor	40	12.0°	65208-009		65208-003			65210-003	65210-001	
	40.3	11.5°						65273-003		
	40.5	12.0°			67913-009					
Dana	40	11.5°	65208-011		65208-004			65210-004	65210-002	
	40.5	10.0°				67913-011				65273-004



Longitudinal Torque Rod Selection Guide

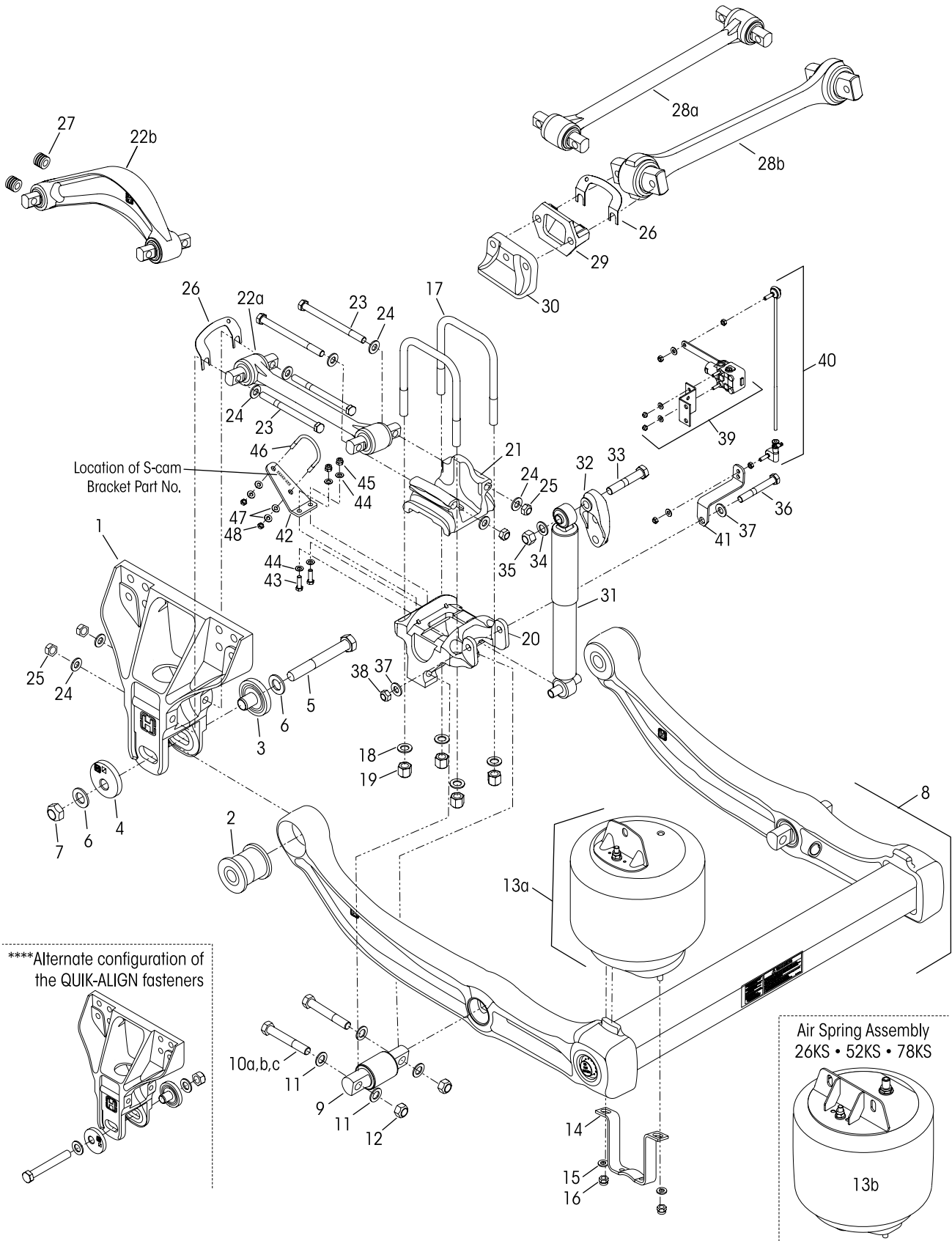
Large Clamp Group

Page 8		PRIMAAX EX 26K • 52K • 78K				
	Axle Manufacturer	Beam Spacing	Pinion Angle	LONGITUDINAL TORQUE ROD		Torque Rod Fastener Kit
				Left Side	Right Side	
SINGLE AXLE						
	Meritor	40	3.0°	65302-470A	65302-470B	49176-032
			5.0°	65302-475A	65302-475B	
	40.5	3.0°	65302-470A	65302-470B		
		5.0°	65302-475A	65302-475B		
TANDEM FRONT • TRIDEM FRONT • TRIDEM MID						
	Meritor	40	1.5°	65302-460A	65302-460B	49176-032
		40.3	3.5°	65302-470A	65302-470B	49176-028
	40.5	1.5°	65302-460A	65302-460B	49176-032	
		3.5°	65302-470A	65302-470B	49176-028	
Dana	40	3.5°	65302-470A	65302-470B	49176-028	
	40.5	2.5°				
TANDEM REAR • TRIDEM REAR						
	Meritor	40	12.0°	65302-525A	65302-525B	49176-032
		40.3	11.5°	65302-520A	65302-520B	49176-028
				65302-525A	65302-525B	49176-032
Dana	40	11.5°	65302-520A	65302-520B	49176-028	
	40.5	10.0°				



23K • 46K • 69K Capacity
26KS • 52KS • 78KS Capacity

10" Ride Height
S – designates Small Clamp Group



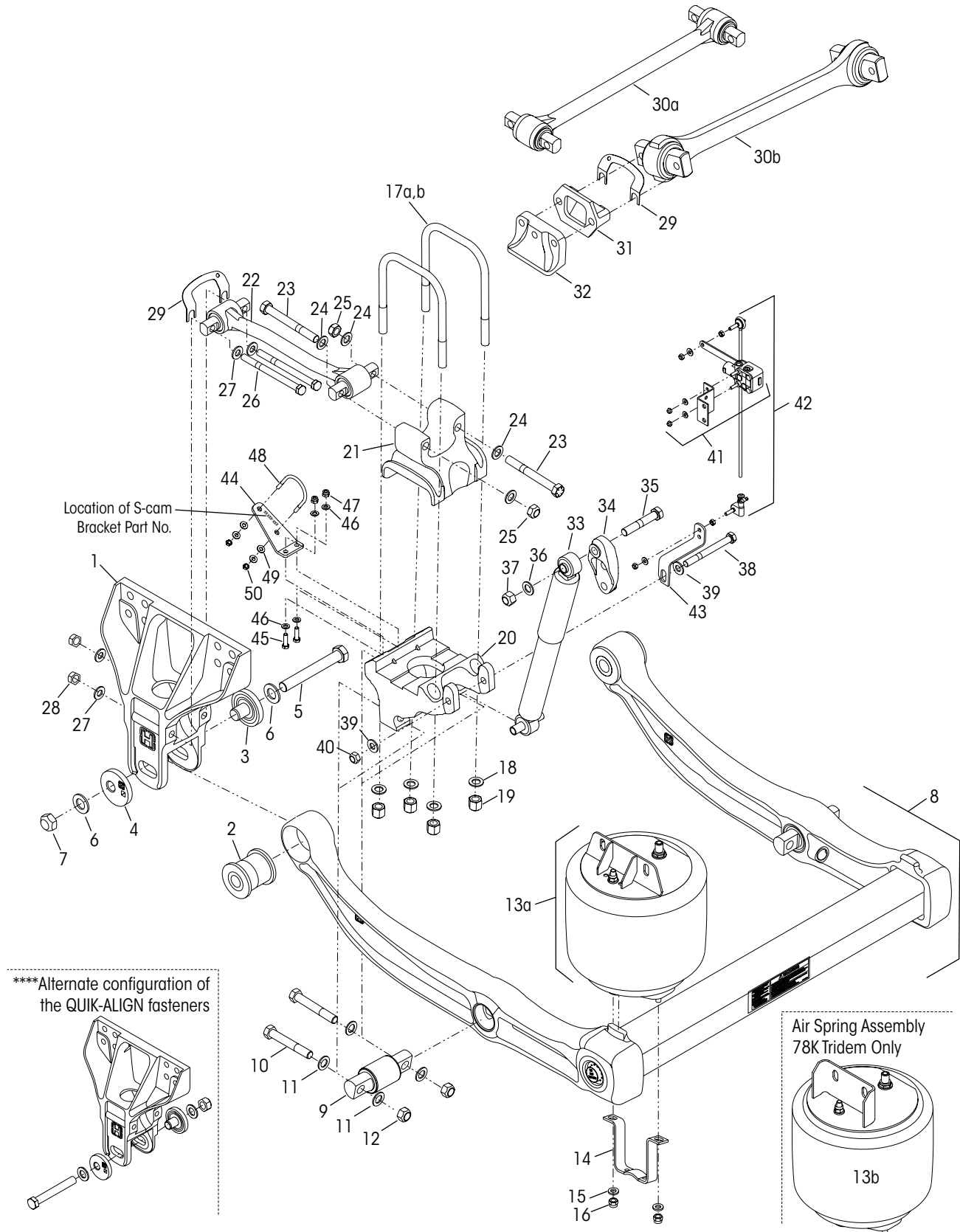


KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.	KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
1	67706-000	Frame Hanger	4	20	60556-XXX	Bottom Cap - Front and Rear (Casting No. 60272-000), <i>see Selection Guide on Page 3</i>	4
	60961-720	QUIK-ALIGN Pivot Bushing Service Kit, Includes Key Nos. 2-7, 49		21	65289-000	Top Pad	4
	60632-020	One Wheel End Axle Set			65289-XXX	Drum Brakes Air Disc Brake, <i>see Selection Guide on Page 3</i>	
	60632-019	QUIK-ALIGN Collar Service Kit, Includes Key Nos. 3-7		22		Longitudinal Torque Rod, <i>see Selection Guide on Page 3</i>	4
	60632-021	One Wheel End Axle Set		a	67428-XXX	Drum Brakes, Front / Rear	
	60632-018	QUIK-ALIGN Fastener Service Kit, One Wheel End, Includes Key Nos. 5-7			67430-XXX	Drum Brakes, Rear	
2		*QUIK-ALIGN Pivot Bushing	4	b	68801-XXX	Air Disc Brakes	
3		*QUIK-ALIGN Concentric Collar	4		49176-032	Longitudinal Torque Rod Fastener Service Kit, One Torque Rod, Includes Key Nos. 23a-25	
4		*QUIK-ALIGN Eccentric Collar	4	23		*5/8"-11 UNC Bolt	16
5		*1"-1.4 UNF x 7 1/2" Hex Bolt	4	a		8" Length	
6		*1" Flat Washer	8	b		9" Length	
7		*1"-1.4 UNF Locknut	4	24		*5/8" Flat Washer	32
8		U-beam Assembly, Includes Key Nos. 2, 9	2	25		*5/8"-11 UNC Locknut	16
	67249-004	• Front 34" Frame Width		26	49689-000L	Shim	As required
	67249-012	34 5/16" Frame Width		27		Torque Rod Pinion Spacer, <i>see Selection Guide on Page 3</i>	8
	67249-010	34 1/2" Frame Width		28		**Transverse Torque Rod Assembly, Includes Bushings, Specify length in mm	2
	67249-003	• Rear 34" Frame Width		a	67428-XXX	ULTRA ROD with Non-serviceable Bushings	
	67249-011	34 5/16" Frame Width		b	8240-0000-XXX	TRAAX ROD®, <i>Replaces 72000-XXXS and 72000-XXXC</i>	
	67249-009	34 1/2" Frame Width		29	22186-000	Transverse Torque Rod Frame Bracket	2
	34013-107	Single D-Pin Bushing Service Kit, Includes Key Nos. 9, 10a, 11-12		30	60593-000L	Axle Stop, Frame Mounted	4
	34013-117	Includes Key Nos. 9, 10b, 11-12		31		Shock Absorber	4
	34013-201	Includes Key Nos. 9, 10c, 11-12			60657-003L	23K • 46K • 69K	
9		*D-Pin Bushing	4		60665-011L	26KS • 52KS • 72KS	
	56659-009	D-Pin Fastener Service Kit, Axle Set, Includes Key Nos. 10a, 11-12		32	67463-002	Upper Shock Frame Bracket	4
	56659-012	Includes Key Nos. 10b, 11-12				Single Shock Fastener Service Kits, Includes Key Nos. 33-38	
	56659-014	Includes Key Nos. 10c, 11-12			50754-030	23K • 46K • 69K	
10		*3/4"-1.6 UNF Bolt	8		50754-029	26KS • 52KS • 72KS	
a		Length 5"		33		*3/4"-1.0 UNC x 4 1/4" Upper Shock Bolt	4
b		Length 4 3/4"		34		*3/4" Flat Washer	4
c		Length 5 1/4"		35		*3/4"-1.0 UNC Locknut	4
11		*3/4" Flat Washer	16	36		*5/8"-1.1 UNC Lower Shock Bolt	4
12		*3/4"-1.6 UNF Locknut	8	37		*5/8" Flat Washer	8
	60961-230	Single Air Spring Service Kit, 23K • 46K • 69K, Includes Key Nos. 13a, 14-16		38		*5/8"-1.1 UNC-2B Locknut	4
	60961-744	26KS • 52KS • 72KS, Includes Key Nos. 13b, 14-16			58525-019	Height Control Valve Assembly Service Kit, Includes Key Nos. 39-41	
	49177-006	Lower Fasteners, Includes Key Nos. 15-16			58525-024	Single Axle Set	
13		Air Spring Assembly, Includes Upper Frame Bracket		39	57977-000	*****Height Control Valve Assembly	
a	67043-002L	23K • 46K • 69K		40	58994-005L	*****HCV Linkage Assembly	
b	67247-002L	26KS • 52KS • 72KS		41	60921-000	*****Height Control Valve Linkage Bracket	
14	60911-002	Lower Air Spring Mounting Bracket	4	42	64508-XXX	***S-cam Support Bracket <i>See Part No. on Component</i>	4
15		*1/2" Flat Washer	8		58821-017	***S-cam Fastener Service Kit, Axle Set, Includes Key Nos. 43-48	
16		*1/2"-1.3 UNC Locknut	8	43		*3/8"-1.6 UNC x 1 1/4" Hex Bolt	8
	91430-047	U-bolt Service Kit, One Wheel End, Includes Key No. 17 & Kit No. 48718-501		44		*3/8" Hardened Washer	16
17		*3/4" Square U-bolt - Length 8 7/8"	8	45		*3/8"-1.6 UNC Locknut	8
	48718-501	U-bolt Fastener Service Kit, One Wheel End, Includes Key Nos. 18-19		46		*5/16" S-Cam U-bolt	4
18		*3/4" Flat Washer	16	47		*5/16" Hardened Washer	16
19		*3/4"-1.6 UNF U-bolt Locknut	16	48		*5/16"-1.8 UNC Locknut	8
				49	70867-001	P-80 Lubricant - 10 ml (Not Shown)	Per Bushing 1



26k • 52k • 78k Capacity

10" Ride Height





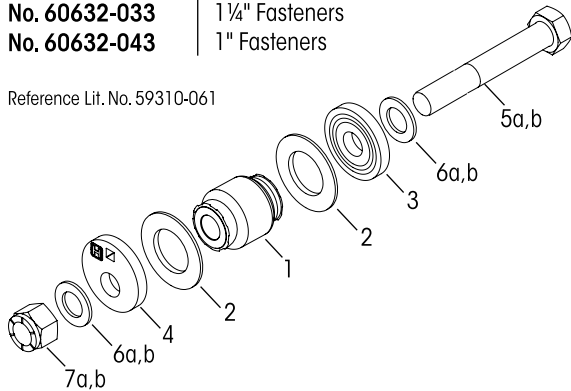
KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.	KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
1	67706-000	Frame Hanger	4	20		Bottom Cap, <i>see Selection Guide on Page 4</i>	4
		QUIK-ALIGN Pivot Bushing Service Kit, Includes Key Nos. 2-7, 51			65208-XXX 67913-XXX	Straight Side / Transition Side Transition Side	
	60961-720 60632-020	One Wheel End Axle Set		21	65210-XXX 65273-XXX	Top Pad, <i>see Illustration on Page 4</i> Straight Side / Transition Side Transition Side	2
		QUIK-ALIGN Collar Service Kit, Includes Key Nos. 3-7		22	65302-XXX	Longitudinal Torque Rod, <i>see Selection Guide on Page 5</i>	4
	60632-019 60632-021	One Wheel End Axle Set				Longitudinal Torque Rod Fastener Service Kit, Axle Set	
	60632-018	QUIK-ALIGN Fastener Service Kit, One Wheel End, Includes Key Nos. 5-7			49176-031 49176-032	Includes Key Nos. 23-28 Includes Key Nos. 26-28	
2		*QUIK-ALIGN Pivot Bushing	4	23		*3/4"-16 UNF x 6" Hex Bolt	8
3		*QUIK-ALIGN Concentric Collar	4	24		*3/4" Flat Washer	16
4		*QUIK-ALIGN Eccentric Collar	4	25		*3/4"-16 UNF Locknut	8
5		*1"-14 UNF x 7 1/2" Hex Bolt	4	26		*5/8"-11 UNF x 8" Hex Bolt	8
6		*1" Flat Washer	8	27		*5/8" Flat Washer	16
7		*1"-14 UNF Locknut	4	28		*5/8"-11 UNF Locknut	8
8		U-beam Assembly, Includes Key Nos. 2, 9	2	29	49689-000L	Shim (As Required)	
		• Front		30		**Transverse Torque Rod Assembly, Includes Bushings, Specify length in mm	2
	67249-006	34" Frame Width		a	67428-XXX	ULTRA ROD with Non-serviceable Bushings	
	67249-014	34 5/16" Frame Width		b	8240-0000-XXX	TRAAX ROD, <i>Replaces 72000-XXXS</i>	
	67249-016	34 1/2" Frame Width		31	22186-000	Transverse Torque Rod Frame Bracket	2
		• Rear		32	60593-000L	Axle Stop, Frame Mounted	4
	67249-005	34" Frame Width		33	60665-013L	Shock Absorber	4
	67249-013	34 5/16" Frame Width		34	67463-002	Upper Shock Frame Bracket	4
	67249-015	34 1/2" Frame Width			50754-029	Single Shock Absorber Fastener Service Kit, Includes Key Nos. 35-40	
	34013-114	Single D-Pin Bushing Service Kit, Includes Key Nos. 9-12		35		*3/4"-10 UNC x 4 1/4" Upper Shock Bolt	4
9		*D-Pin Bushing	4	36		*3/4" Flat Washer	4
	56659-010	D-Pin Fastener Service Kit, Axle Set Includes Key Nos. 10-12		37		*3/4"-10 UNC Locknut	4
10		*7/8"-14 UNF x 5" Bolt	8	38		*5/8"-11 UNC x 7" Lower Shock Bolt	4
11		*7/8" Flat Washer	16	39		*5/8" Flat Washer	8
12		*7/8"-14 UNF Locknut	8	40		*5/8"-11 UNC Locknut	4
		Single Air Spring Service Kits				Height Control Valve Assembly Service Kit, Includes Key Nos. 41-43	
	60961-744	Includes Key Nos. 13a, 14-16			58525-019	Single	
	49177-052	Lower, Includes Key Nos. 14-16			58525-024	Axle Set	
	49177-006	Lower Fasteners, Includes Key Nos. 15-16		41	57977-000	****Height Control Valve Assembly	
13		Air Spring Assembly with Upper Frame Bracket	4	42	58994-005L	****HCV Linkage Assembly	
a	67247-002L	Standard		43	60921-000	****Height Control Valve Linkage Bracket	
b	68056-002	Tridem 78K Only		44	64508-XXX	***S-cam Support Bracket <i>See Part No. on Component</i>	4
14	60911-002	Lower Air Spring Mounting Bracket	4		58821-017	***S-cam Service Kit, Axle Set Includes Key Nos. 45-50	
15		*1/2" Flat Washer	4	45		*3/8"-16 UNC x 1 1/4" Hex Bolt	8
16		*1/2"-13 UNC Locknut	4	46		*3/8" Hardened Washer	16
	48718-120	U-bolt Service Kit, One Wheel End, Includes Kit No. 17-19		47		*3/8"-16 UNC Locknut	8
17		*3/4" Square U-bolt	4	48		*5/16" S-Cam U-bolt	4
a		10", Outboard		49		*5/16" Hardened Washer	16
b		10 1/2", Inboard		50		*5/16"-18 UNC Locknut	8
	48718-501	U-bolt Fastener Service Kit, One Wheel End, Includes Key Nos. 18-19		51	70867-001	P-80 Lubricant - 10 ml (Not Shown)	Per Bushing 1
18		*3/4" Flat Washer	16				
19		*3/4"-16 UNF U-bolt Locknut	16				



■ Severe Service Kits

Severe Service Kit | QUIK-ALIGN Pivot Bushing, Axle Set
No. 60632-033 | 1 ¼" Fasteners
No. 60632-043 | 1" Fasteners

Reference Lit. No. 59310-061



PRIMAAX EX Service Kit Nos.

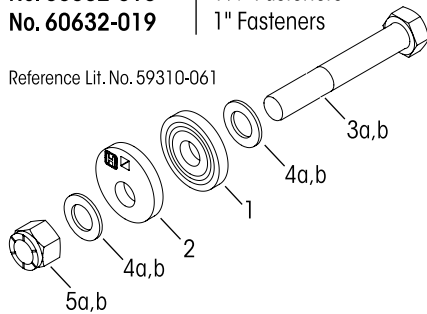
60632-043 – 1" Fasteners, Includes Key Nos. 1-4, 5b-7b, 8

60632-033 – 1 ¼" Fasteners (Requires Hendickson Approval)
 Includes Key Nos. 1-4, 5a-7a, 8

KEY NO.	CONTENTS	KIT QTY.
1	QUIK-ALIGN Pivot Bushing	2
2	Confinement Washer	4
3	QUIK-ALIGN Concentric Collar	2
4	QUIK-ALIGN Eccentric Collar	2
5 a	1 ¼"-12 UNF x 8" Bolt	2
b	1"-14 UNF x 7 ½" Bolt	2
6 a	1 ¼" Hardened Washer	4
b	1" Hardened Washer	4
7 a	1 ¼"-12 UNF Nylocknut	2
b	1"-14 UNF Nylocknut	2
8	P-80 Bushing Lubricant - 10 ml. (per Bushing 1)	2

Severe Service Kit | QUIK-ALIGN Collar, Axle Set
No. 60632-015 | 1 ¼" Fasteners
No. 60632-019 | 1" Fasteners

Reference Lit. No. 59310-061



PRIMAAX EX Service Kits

60632-015 – 1 ¼" Fasteners, Includes Key Nos. 1-2, 3a-5a

60632-019 – 1" Fasteners, Includes Key Nos. 1-2, 3b-5b

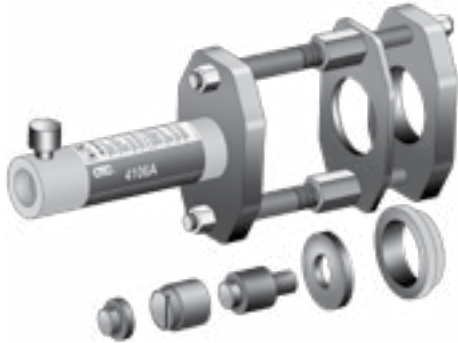
KEY NO.	CONTENTS	KIT QTY.
1	QUIK-ALIGN Concentric Collar	2
2	QUIK-ALIGN Eccentric Collar	2
3 a	1 ¼"-12 UNF x 8" Bolt	2
b	1"-14 UNF x 7 ½" Bolt	2
4 a	1 ¼" Hardened Washer	4
b	1" Hardened Washer	4
5 a	1 ¼"-12 UNF Nylocknut	2
b	1"-14 UNF Nylocknut	2



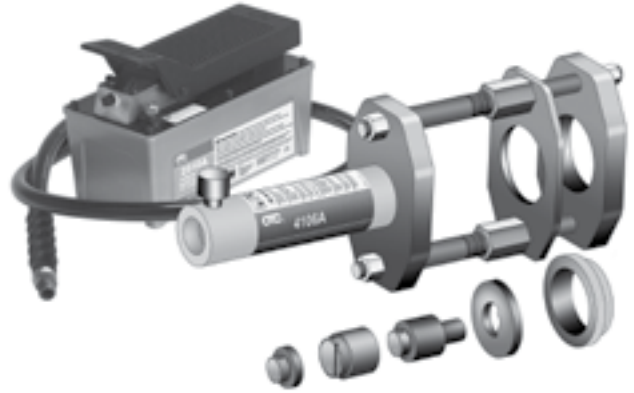
■ Special Tools

D-PIN / QUIK-ALIGN PIVOT BUSHING SERVICE TOOLS

OTC PART NO. 4246 Visit otctools.com



OTC PART NO. 4247 Visit otctools.com



QUIK-ALIGN PIVOT BUSHING SERVICE TOOL

Hendrickson Part No. 66086-203L

Reference Literature No. 59310-061



QUIK-ALIGN SOCKET TOOL

OTC Part No. 1767

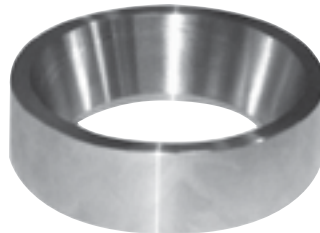
Visit otctools.com



TORQUE ROD BUSHING FUNNEL TOOL

ULTRA ROD

Hendrickson Part No. 66086-001L



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.
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.*



www.hendrickson-intl.com

TRUCK COMMERCIAL VEHICLE SYSTEMS
800 South Frontage Road
Woodridge, IL 60517-4904 USA
1.866.755.5968 (Toll-free U.S. and Canada)
1.630.910.2800 (Outside U.S. and Canada)
Fax 1.630.910.2899

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