

PARTS LIST

AR2™ Rear Walking Beam Air Suspension

LIT NO: SP-177

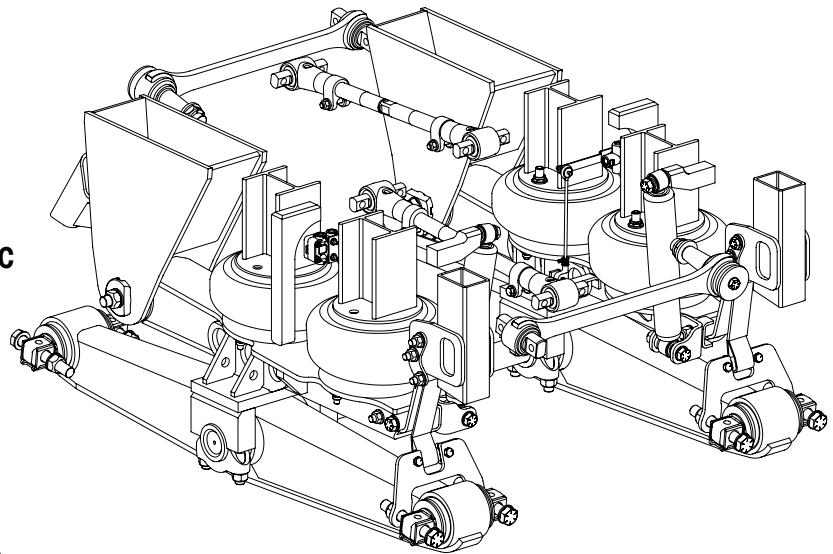
DATE: October 2019

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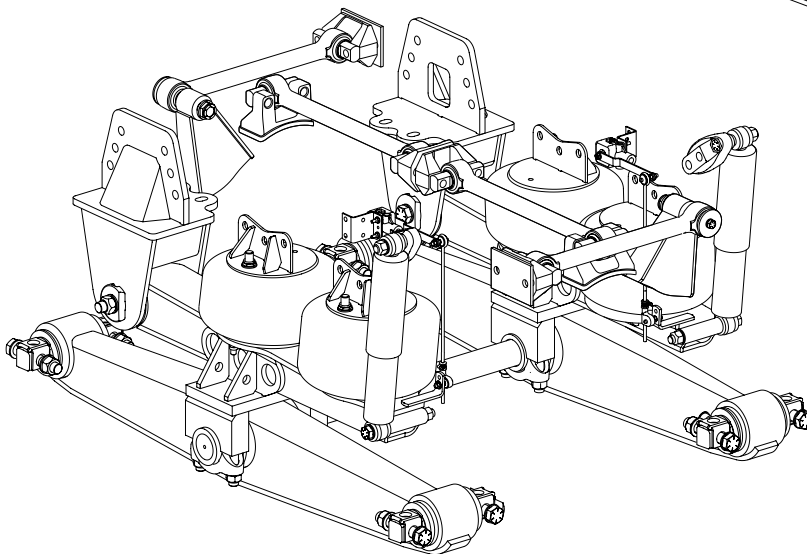
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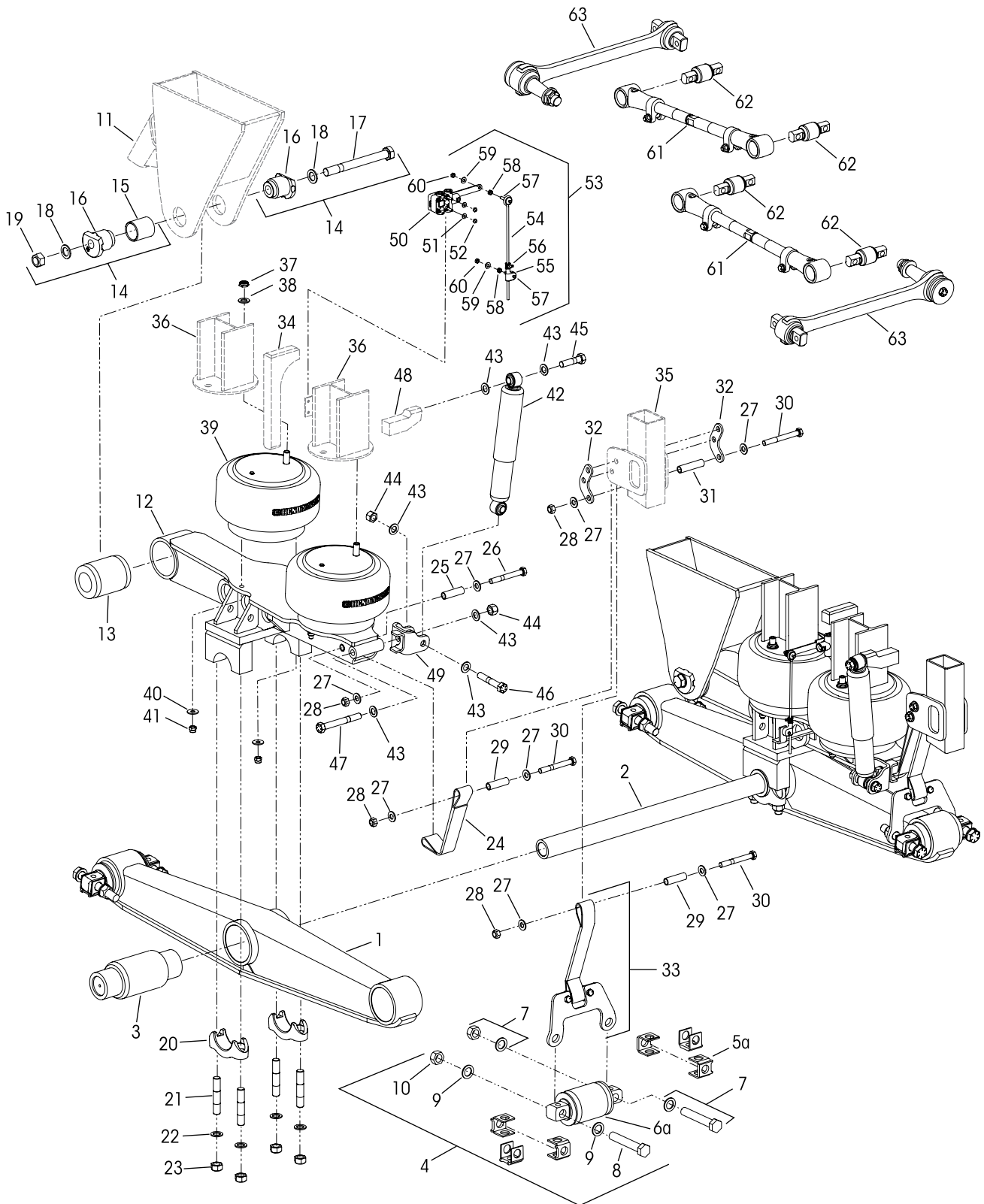
AR2™ for Manitowoc



AR2™ 40K • 46K



AR2 for Manitowoc





KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.	KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
1		Equalizing Beam Assembly <i>See Selection Guide 45745-147</i>	2	30	32043-019	5/8"-11 UNC x 5 1/2" Hex Bolt	6
2	44643-009L	Cross Tube 44 7/8", (If converted from RT•RTE suspension, refer to Lit. No. SP-168 Parts List)	1	31	66100-001	3.6" Rebound Bracket Tube	2
3		Rubber Center Bushing <i>See Table 1 on Page 6</i>	2	32	66099-001	Rebound Strap Support Plate	4
	29483-005L	Welded End Plug		33	66142-001	Equalizing Beam Rebound Strap Assembly	2
	34013-097L	with Loose End Plug		34		****Trailing Arm Stop Bar	2
4		Bar Pin End Bushing Service Kit, One Wheel End		35		****Rebound Strap Bracket and Axle Stop Assembly	2
	34013-324	Shim Type, Includes Key Nos. 5a, 6a, 7		36		****Air Spring Bracket	
Not Shown	34013-332	Rotating Bar Pin, Shim Type, Includes Key Nos. 5a, 6b, 7				Front	2
5		Bar Pin Shim	8			Rear Left Hand	1
a	50131-000	0.25" / 0.12" Standard				Rear Right Hand	1
b	50130-000	0.19" / 0.19" Optional		49177-018		Single Upper Air Spring Fasteners Service Kit, Includes Key Nos. 37-38	
c	57026-000	0.375" Optional flat shim		37	17700-031	3/4"-16 UNF Nylocknut	4
6		*Bar Pin End Bushing	4	38	22962-001	3/4" Hardened Washer	4
a		Shim Type			34013-328	Single Air Spring and Lower Fasteners Service Kit, Includes Key Nos. 39-41	
b		Rotating Bar Pin, Shim Type (Not Shown)		39	65455-002L	Air Spring	4
7	34013-323	Bar Pin End Bushing Fastener Kit, One Wheel End, Includes Key Nos. 8-10		40	22962-031	1/2" Hardened Washer	8
8		*1"-8 UNC x 7" Hex Bolt	8	41	17700-010	1/2"-13 UNC Nylocknut	8
9		*1" Hardened Washer	16		64178-025	Single Shock Absorber Service Kit with Fasteners, Includes Key Nos. 42-47	
10		*1"-8 UNC Locknut	8	42	60665-020L	Shock Absorber	2
11		Frame Hanger Assembly		43	22962-001	3/4" Hardened Washer	12
		****Left Hand	1	44	49842-000	3/4"-10 UNC Locknut	4
		****Right Hand	1	45	50764-005	3/4"-10 UNC x 3" Bolt	2
		Trailing Arm Assembly, Includes Key Nos. 12, 13, 20-23		46	50764-019	3/4"-10 UNC x 4 1/2" Bolt	2
	65655-009	Left Hand	1	47	50764-021	3/4"-10 UNC x 6" Bolt	2
	65655-010	Right Hand	1	48		****Upper Shock Bracket	2
12		Trailing Arm		49		Lower Shock Bracket	
		*Left Hand	1		91704-001	Left Hand	1
		*Right Hand	1		91704-002	Right Hand	1
	34013-112L	Trailing Arm Bushing Service Kit, One Beam End, Includes Key Nos. 13-14			59013-000	Height Control Valve Service Kit, One Side Includes Key Nos. 50-52	
13	29878-001L	Trailing Arm Bushing	2	50	60501-000	Height Control Valve	2
14	21140-053L	Adapter Assembly, Includes Key Nos. 15-19	2	51		*1/4" Hardened Washer	4
15	45289-003	Adapter Tube	2	52		*1/4"-20 UNC Locknut	4
16	45871-000	Trailing Arm Adapter	4	53		Height Control Valve Linkage Assembly Includes Key Nos. 54-60	
17	30550-005	1"-14 UNS x 9 3/4" Bolt	2		58994-035	Right Hand	1
18	22962-008	1" Hardened Washer	4		58994-036	Left Hand	1
19	08017-000	1"-14 UNS Locknut	2	54		*Linkage Extension Rod	2
20	58795-000	Saddle Cap	4	55		*Adj. Valve Arm Joint	2
21	06696-000	7/8"-14 UNF Saddle Cap Stud	8	56		*Valve Arm Clamp	2
22	22962-002	7/8" Hardened Washer	8	57		*5/16"-18 UNC Stud	4
23	04842-000	7/8"-14 UNF Locknut	8	58		*5/16"-18 UNC Jam Nut	4
	34013-330	Trailing Arm Rebound Strap Service Kit, One Side, Includes Key Nos. 24-29		59		*5/16" Hardened Washer	4
24	57878-009	Trailing Arm Rebound Strap	2	60		*5/16"-18 UNC Locknut	4
25	66091-000	3 7/8" Rebound Strap Tube	2	61		Adjustable Longitudinal Torque Rod Assembly, Straddle/Straddle, Includes Key No. 62	
	34013-331	Equalizing Beam Rebound Strap Service Kit, One Side, Includes Key Nos. 7, 26-29, 33			80918-001	Front	1
26	32043-011	5/8"-11 UNC x 5" Hex Bolt	2		80918-002	Rear	1
27	22962-004	5/8" Washer	16	62	47691-000	ULTRA ROD Straddle Bushing	4
28	47764-000	5/8"-11 UNC Locknut	8	63	8244-0099-590	***TRAAX ROD one-piece Transverse Torque Rod Assembly, Straddle / Taper, 590 mm Length	2
29	66100-000	3" Rebound Strap Tube	4	64	70867-001	P-80 - 10 ml (Not Shown) Per Bushing	

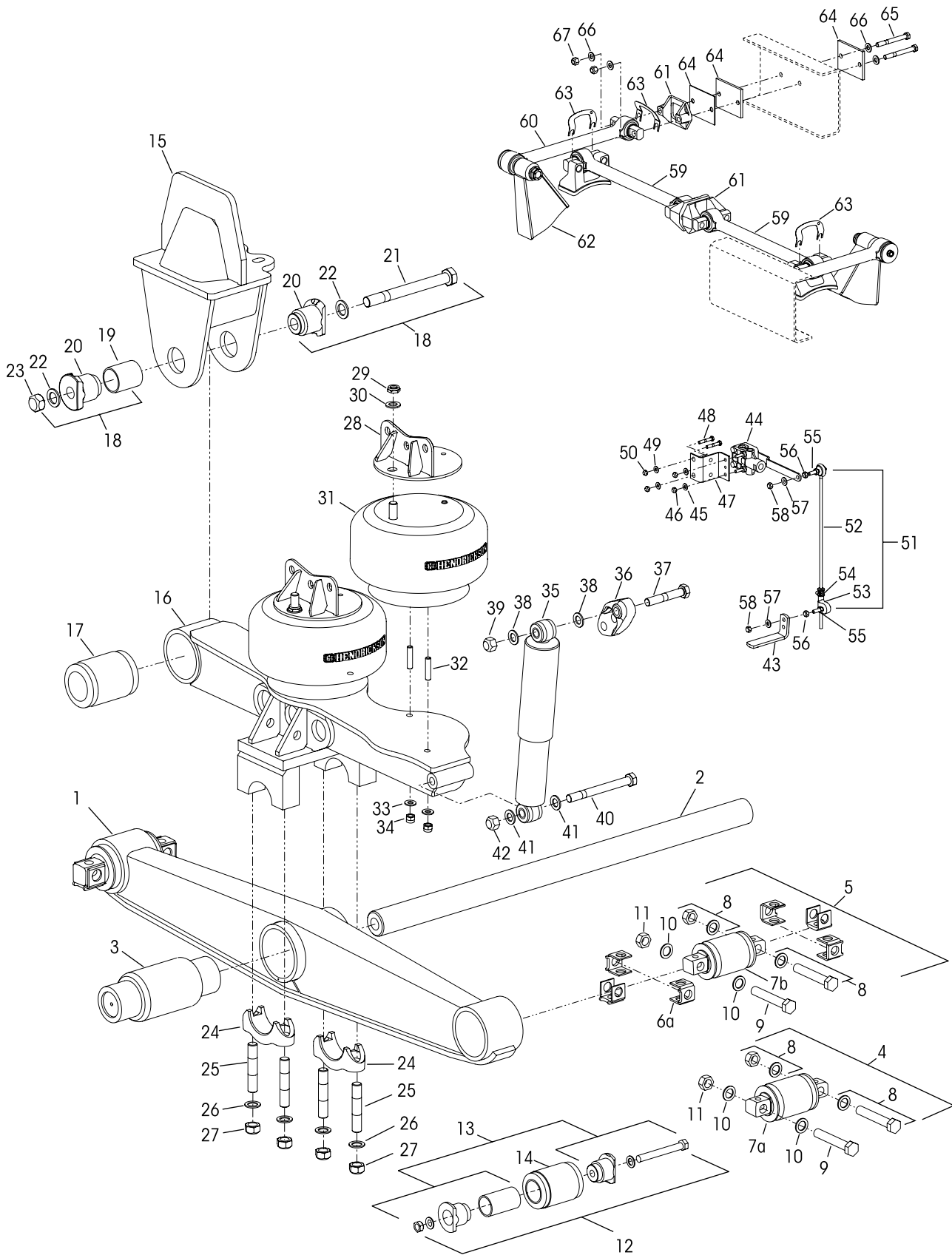
NOTE: * Item included in assembly/kit only, part not sold separately.

** Hendrickson's part number is stamped on the torque rod for identification. Be sure to include the suffix number when ordering, this number indicates torque rod length. Hendrickson's two-piece ULTRA ROD can be used to create the desired length, see literature number 45745-148.

*** Transverse torque rods are mandatory with the AR2 Suspension regardless of axle spacing and require rubber center bushings, see Literature No. 59310-004 and 59310-058 for more information. TRAAX ROD bushings are non-serviceable, the entire torque rod assembly requires replacement. Visit TRAAX ROD website www.traaxrods.com for more information.

**** AR2 for Manitowoc welded component per the vehicle manufacturer, illustration for reference only. Contact the vehicle manufacturer for preventive maintenance and service instructions.

AR2 40K • 46K





		VEHICLE			VEHICLE		
KEY NO.	PART NO.	DESCRIPTION	QTY.	KEY NO.	PART NO.	DESCRIPTION	QTY.
1		Equalizing Beam Assembly <i>See Selection Guide 45745-147</i>	2	22	22962-008	1" Hardened Washer	4
2	44643-009L	Cross Tube 44 ⁷ / ₈ ", (If converted from RT•RTE suspension, refer to Lit. No. SP-168 Parts List)	1	23	08017-000	1"-14 UNS Locknut	2
3		Rubber Center Bushing <i>See Table 1 on Page 6</i>	2	24	58795-000	Saddle Cap	4
	49400-000L	40K Welded End Plug		25	06696-000	⁷ / ₈ "-14 UNF Saddle Cap Stud	8
	49600-000L	40K with Loose End Plug		26	22962-002	⁷ / ₈ " Hardened Washer	8
	29483-005L	46K Welded End Plug		27	04842-000	⁷ / ₈ "-14 UNF Locknut	8
	34013-097L	46K with Loose End Plug		28		Air Spring Bracket	
		Bar Pin End Bushing Service Kit, One Wheel End			65426-000	Forward	2
4	34013-087L	Non-Shim Type, Includes Key No. 7a, 8			65680-000	Rear	2
5	34013-088L	Shim Type, Includes Key Nos. 6a, 7b, 8			49177-018	Single Upper Air Spring Fasteners Service Kit, Includes Key Nos. 29-30	
	34013-188L	Rotating Bar Pin (Not Shown), Shim Type, Includes Key Nos. 6a, 7c, 8		29	17700-031	³ / ₄ "-16 UNF Nylocknut	4
6		Bar Pin Shim	8	30	22962-001	³ / ₄ " Hardened Washer	4
a	50131-000	0.25" / 0.12" Standard				Single Air Spring and Lower Fasteners Service Kit	
b	50130-000	0.19" / 0.19" Optional			34013-328	Forward, Includes Key Nos. 31a -34	
c	57026-000	0.375" flat shim			34013-329	Rear, Includes Key Nos. 31b -34	
7		*Bar Pin End Bushing	4	31		Air Spring	
a		Non-Shim Type		a	65455-002L	Forward	2
b		Shim Type		b	65652-002L	Rear	2
c		Rotating Bar Pin, Shim Type (Not Shown)		32	65999-000	¹ / ₂ "-13 UNC x 2 ¹ / ₄ " Stud, <i>Replaces 65454-000</i>	4
8	34013-104	Bar Pin End Bushing Fastener Kit, One Wheel End, Includes Key Nos. 9-11		33	22962-031	¹ / ₂ " Hardened Washer, <i>Replaces 22962-011</i>	8
9		*1"-8 UNC x 6" Hex Bolt	8	34	17700-010	¹ / ₂ "-13 UNC Nylocknut	8
10		*1" Hardened Washer	16	35	60665-012L	Shock Absorber	2
11		*1"-8 UNC Locknut	8		50754-013	Single Upper Shock Bracket and Fastener Service Kit, Includes Key Nos. 36-39	
12		End Bushing and Adapter Style Service Kit, One Wheel End		36	67463-001	Shock Bracket, <i>Replaces 65000-001</i>	2
	34013-049L	40K, Includes Key Nos. 13a, 14		37	50764-010	³ / ₄ "-10 UNC x 4 ³ / ₄ " Bolt	2
	34013-073L	46K, Includes Key Nos. 13b, 14		38	22962-001	³ / ₄ " Hardened Washer	4
13		Adapter Style Fastener Service Kit, One Wheel End		39	49842-000	³ / ₄ "-10 UNC Locknut	2
a	45000-007L	40K		40	50764-013	³ / ₄ "-10 UNC x 7 ¹ / ₂ " Bolt	2
b	21140-034L	46K		41	22962-001	³ / ₄ " Hardened Washer	4
14	45900-000L	Rubber End Bushing	4	42	49842-000	³ / ₄ "-10 UNC Locknut	2
15		Frame Hanger Assembly - Blank		43	65427-000	Lower Height Control Valve Bracket	2
	65461-001	• Left Hand Frame	1		57977-000	Height Control Valve Assembly, Includes Key Nos. 44-47	
	65461-003	33.94-34.19" Frame Width		44	60501-000	Height Control Valve	2
	65461-005	34.25-34.50" Frame Width		45		* ¹ / ₄ " Hardened Washer	4
		• Right Hand Frame (Not Shown)	1	46		* ³ / ₄ "-20 UNC Locknut	4
	65461-002	33.94-34.19" Frame Width		47		*Height Control Valve Bracket	2
	65461-004	34.25-34.50" Frame Width			57430-004	Height Control Valve Bracket Fastener Service Kit, Includes Key Nos. 48-50	
	65461-006	34.56-34.81" Frame Width		48	58035-004	³ / ₈ "-16 UNC x 1 ¹ / ₄ " Bolt	4
16		Trailing Arm Assembly, Includes Key Nos. 17, 24-27		49	22962-015	³ / ₈ " Hardened Washer	4
		• Left Hand	1	50	17700-006	³ / ₈ "-16 UNC Nylocknut	4
	65655-001	40K - 9 ¹ / ₂ "		51	58994-001	Height Control Valve Linkage Assembly Includes Key Nos. 52-58	2
	65655-003	40K - 10 ¹ / ₂ "		52		*Linkage Extension Rod	2
	65655-005	46K - 9 ¹ / ₂ "		53		*Adj. Valve Arm Joint	2
	65655-007	46K - 10 ¹ / ₂ "		54		*Valve Arm Clamp	2
		• Right Hand	1	55		* ⁵ / ₁₆ "-18 UNC Stud	4
	65655-002	40K - 9 ¹ / ₂ "		56		* ⁵ / ₁₆ "-18 UNC Jam Nut	4
	65655-004	40K - 10 ¹ / ₂ "		57		* ⁵ / ₁₆ " Hardened Washer	4
	65655-006	46K - 9 ¹ / ₂ "		58		* ⁵ / ₁₆ "-18 UNC Locknut	4
	65655-008	46K - 10 ¹ / ₂ "		59	8240-00XX-XXX	****One-piece Longitudinal TRAAX ROD® Assembly, Straddle/Straddle, Specify Length in mm, <i>Replaces 72000-XXX and 72001-XXX</i>	2
		Trailing Arm Bushing Service Kit, One Beam End, Includes Key Nos. 17-18		60		****One-piece Transverse TRAAX ROD Assembly, Straddle/Taper, Specify Length in mm <i>Replaces 72350-XXX</i> <i>Replaces 92350-XXX</i>	2
	34013-111L	40K			8244-0099-XXX		
	34013-112L	46K			8233-0099-XXX		
17		Trailing Arm Bushing	2			**Two-Piece Torque Rod Assembly with Bushings Service Kit	
	45900-000L	40K			65781-000	ULTRA ROD PLUS Straddle/Taper	
	29878-001L	46K			65781-001	XTRB Straddle/Straddle	
18	21140-053L	AR2 Adapter Assembly, Includes Key Nos. 19-23	2		65781-002	XTRB Straddle/Taper	
19	45289-003	Adapter Tube	2	61	22186-000	Torque Rod Bracket	4
20	45871-000	Trailing Arm Adapter	4				
21	30550-005	1"-14 UNS x 9 ³ / ₄ " Bolt	2				



■ Special Tools

BAR PIN STYLE END BUSHING TOOLS

INSTALLATION TOOL

Hendrickson Part No. 66086-103
OTC Part No. 1757 Visit otctools.com



Use with the equalizing beam removed from the truck, and in conjunction with OTC No. 51100 press plate and a 100-ton hydraulic shop press.

REMOVAL TOOLS

Hendrickson Part No. 66086-104
OTC Part No. 206457
Visit otctools.com



Hendrickson Part No. 66086-105
OTC Part No. 302030
Visit otctools.com



ADAPTER STYLE END BUSHING • CENTER BUSHING • TRAILING ARM BUSHING TOOLS

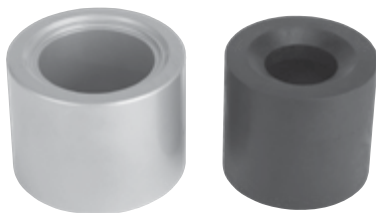


28K-52K lb. Capacity Bushings

Hendrickson Part No. 66086-102
OTC Part No. 1764 Visit otctools.com

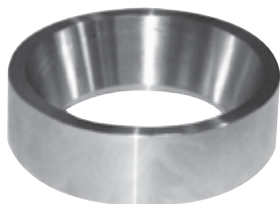
Use with the beam removed from the truck and a 100-ton or larger hydraulic shop press.

CENTER BUSHING TOOLS



40K lb. Capacity Rubber Bushings
Hendrickson Part No. 66086-100
OTC Part No. 1746 Visit otctools.com

TORQUE ROD BUSHING FUNNEL TOOLS



ULTRA ROD
Hendrickson Part No. 66086-001L
ULTRA ROD PLUS
Hendrickson Part No. 66086-000L

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 e-mail: 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

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