



AR2™ Rear Walking Beam Air Suspension Parts Manual

Pro Gear's Hendrickson AR2™ Rear Walking Beam Air Suspension Parts Manual to assist in identifying your Hendrickson unit.

If you need any assistance identifying the correct transfer case unit for your truck and equipment, contact your Hendrickson replacement part specialists at Pro Gear and Transmission.

Pro Gear Transmission has same day shipping and 1000's of products in stock and ready to ship internationally for your next project.

For parts or service contact the Hendrickson specialists at Pro Gear & Transmission, Inc.

1 (877) 776-4600
(407) 872-1901
parts@eprogear.com

PARTS LIST

AR2™ Rear Walking Beam Air Suspension

LIT NO: SP-177

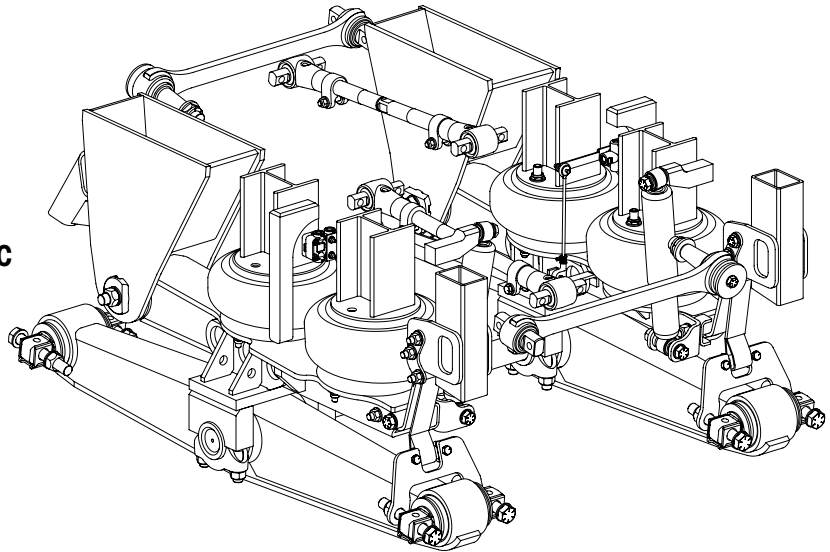
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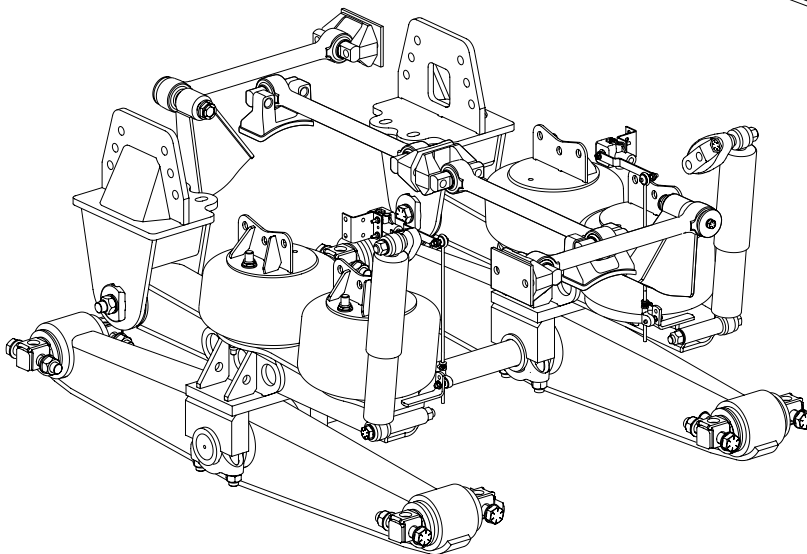
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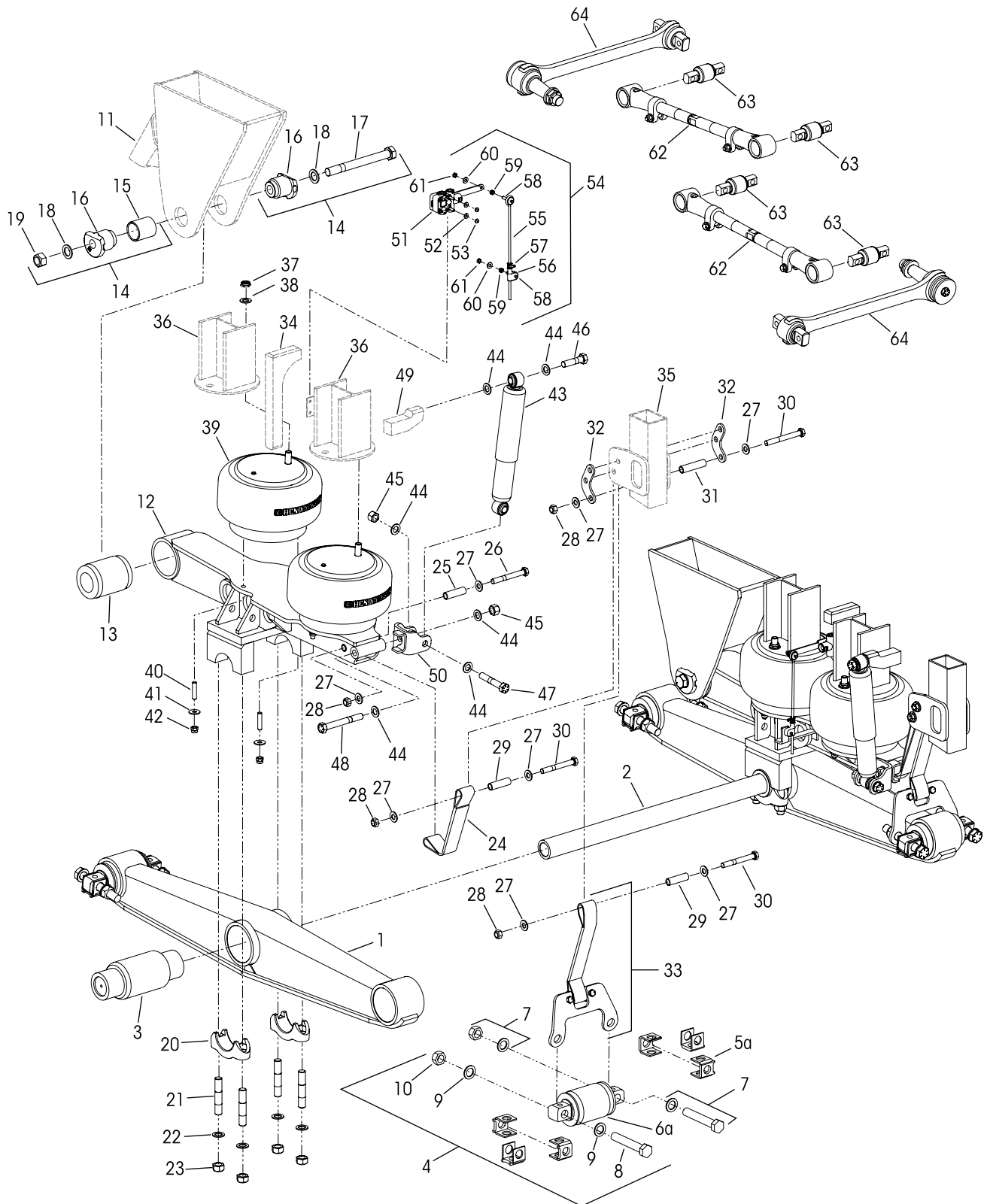
AR2™ for Manitowoc



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
						Rear Left Hand	1
						Rear Right Hand	1
5		Bar Pin Shim	8	49177-018		Single Upper Air Spring Fasteners Service Kit, Includes Key Nos. 37-38	
a	50131-000	0.25" / 0.12" Standard		37	17700-031	3/4"-16 UNF Nylocknut	4
b	50130-000	0.19" / 0.19" Optional		38	22962-001	3/4" Hardened Washer	4
c	57026-000	0.375" Optional flat shim				Single Air Spring and Lower Fasteners Service Kit, Includes Key Nos. 39-42	
6		*Bar Pin End Bushing	4	39	65455-002L	Air Spring	4
a		Shim Type		40	65999-000	1/2"-13 UNC x 2 1/4" Stud, <i>Replaces 65454-000</i>	8
b		Rotating Bar Pin, Shim Type (Not Shown)		41	22962-031	1/2" Hardened Washer	8
7	34013-323	Bar Pin End Bushing Fastener Kit, One Wheel End, Includes Key Nos. 8-10		42	17700-010	1/2"-13 UNC Nylocknut	8
8		*1"-8 UNC x 7" Hex Bolt	8			Single Shock Absorber Service Kit with Fasteners, Includes Key Nos. 43-48	
9		*1" Hardened Washer	16	43	60665-020L	Shock Absorber	2
10		*1"-8 UNC Locknut	8	44	22962-001	3/4" Hardened Washer	12
11		Frame Hanger Assembly		45	49842-000	3/4"-10 UNC Locknut	4
		****Left Hand	1	46	50764-005	3/4"-10 UNC x 3" Bolt	2
		****Right Hand	1	47	50764-019	3/4"-10 UNC x 4 1/2" Bolt	2
		Trailing Arm Assembly, Includes Key Nos. 12, 13, 20-23		48	50764-021	3/4"-10 UNC x 6" Bolt	2
	65655-009	Left Hand	1	49		****Upper Shock Bracket	2
	65655-010	Right Hand	1	50		Lower Shock Bracket	
12		Trailing Arm			91704-001	Left Hand	1
		*Left Hand	1		91704-002	Right Hand	1
		*Right Hand	1		59013-000	Height Control Valve Service Kit, One Side Includes Key Nos. 51-53	
	34013-112L	Trailing Arm Bushing Service Kit, One Beam End, Includes Key Nos. 13-14		51	60501-000	Height Control Valve	2
13	29878-001L	Trailing Arm Bushing	2	52		*1/4" Hardened Washer	4
14	21140-053L	Adapter Assembly, Includes Key Nos. 15-19	2	53		*1/4"-20 UNC Locknut	4
15	45289-003	Adapter Tube	2	54		Height Control Valve Linkage Assembly Includes Key Nos. 55-61	
16	45871-000	Trailing Arm Adapter	4		58994-035	Right Hand	1
17	30550-005	1"-14 UNS x 9 3/4" Bolt	2		58994-036	Left Hand	1
18	22962-008	1" Hardened Washer	4	55		*Linkage Extension Rod	2
19	08017-000	1"-14 UNS Locknut	2	56		*Adj. Valve Arm Joint	2
20	58795-000	Saddle Cap	4	57		*Valve Arm Clamp	2
21	06696-000	7/8"-14 UNF Saddle Cap Stud	8	58		*5/16"-18 UNC Stud	4
22	22962-002	7/8" Hardened Washer	8	59		*5/16"-18 UNC Jam Nut	4
23	04842-000	7/8"-14 UNF Locknut	8	60		*5/16" Hardened Washer	4
	34013-330	Trailing Arm Rebound Strap Service Kit, One Side, Includes Key Nos. 24-29		61		*5/16"-18 UNC Locknut	4
24	57878-009	Trailing Arm Rebound Strap	2	62		Adjustable Longitudinal Torque Rod Assembly, Straddle/Straddle, Includes Key No. 63	
25	66091-000	3 7/8" Rebound Strap Tube	2		80918-001	Front	1
	34013-331	Equalizing Beam Rebound Strap Service Kit, One Side, Includes Key Nos. 7, 26-29, 33			80918-002	Rear	1
26	32043-011	5/8"-11 UNC x 5" Hex Bolt	2	63	47691-000	ULTRA ROD Straddle Bushing	4
27	22962-004	5/8" Washer	16	64	8244-0099-590	***TRAAX ROD one-piece Transverse Torque Rod Assembly, Straddle / Taper, 590 mm Length	2
28	47764-000	5/8"-11 UNC Locknut	8	65	70867-001	P-80 - 10 ml (Not Shown)	Per Bushing
29	66100-000	3" Rebound Strap Tube	4				

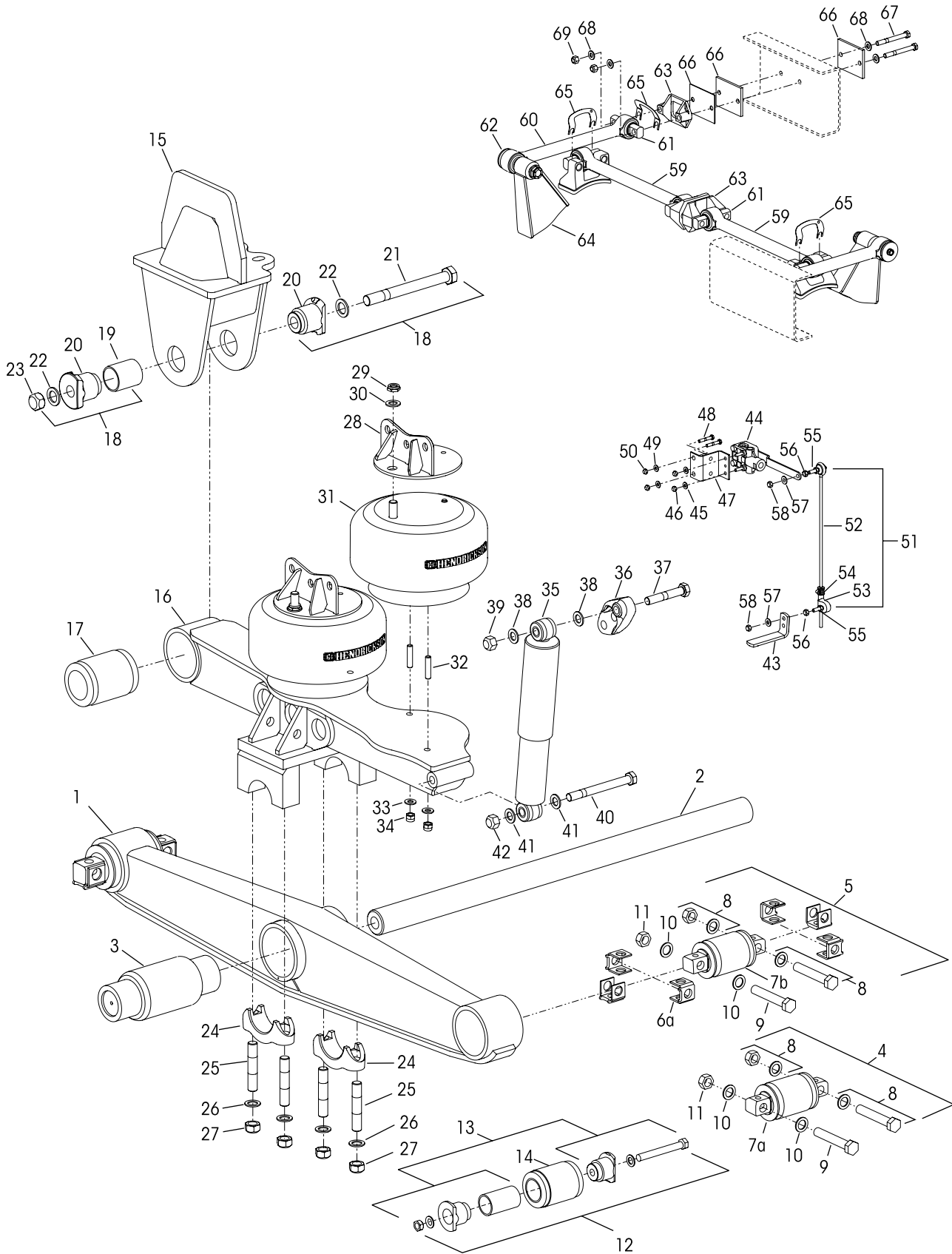
NOTE: * Item included in assembly/kit only, part not sold separately.

** 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 RODs are non-rebushable. The entire torque rod assembly must be replaced.

**** 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>	8
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
		Left Hand Frame	1		57977-000	Height Control Valve Assembly, Includes Key Nos. 44-47	
	65461-001	33.94-34.19" Frame Width		44	60501-000	Height Control Valve	2
	65461-003	34.25-34.50" Frame Width		45		*1/4" Hardened Washer	4
	65461-005	34.56-34.81" Frame Width		46		*3/4"-20 UNC Locknut	4
		Right Hand Frame (Not Shown)	1	47		*Height Control Valve Bracket	2
	65461-002	33.94-34.19" Frame Width			57430-004	Height Control Valve Bracket Fastener Service Kit, Includes Key Nos. 48-50	
	65461-004	34.25-34.50" Frame Width		48	58035-004	3/8"-16 UNC x 1 1/4" Bolt	4
	65461-006	34.56-34.81" Frame Width		49	22962-015	3/8" Hardened Washer	4
16		Trailing Arm Assembly, Includes Key Nos. 17, 24-27		50	17700-006	3/8"-16 UNC Nylocknut	4
		• Left Hand	1	51	58994-001	Height Control Valve Linkage Assembly Includes Key Nos. 52-58	2
	65655-001	40K - 9 1/2"		52		*Linkage Extension Rod	2
	65655-003	40K - 10 1/2"		53		*Adj. Valve Arm Joint	2
	65655-005	46K - 9 1/2"		54		*Valve Arm Clamp	2
	65655-007	46K - 10 1/2"		55		*5/16"-18 UNC Stud	4
		• Right Hand	1	56		*5/16"-18 UNC Jam Nut	4
	65655-002	40K - 9 1/2"		57		*5/16" Hardened Washer	4
	65655-004	40K - 10 1/2"		58		*5/16"-18 UNC Locknut	4
	65655-006	46K - 9 1/2"		59		One-piece Longitudinal Torque Rod Assembly Straddle/Straddle, Specify Length in mm **ULTRA ROD™ PLUS™. Includes Key No. 61a	
	65655-008	46K - 10 1/2"			72000-XXX	Front	1
		Trailing Arm Bushing Service Kit, One Beam End, Includes Key Nos. 17-18			72001-XXX	Rear	1
	34013-111L	40K			82XX-XXXX-XXX	****TRAAX ROD™	2
	34013-112L	46K		60		***One-piece Transverse Torque Rod Assembly Straddle/Taper, Specify Length in mm	2
17		Trailing Arm Bushing	2		72350-XXX	ULTRA ROD PLUS, Includes Key Nos. 61a-62a	
	45900-000L	40K			92350-XXX	XTRB, Includes Key Nos. 61b-62b	
	29878-001L	46K			82XX-XXXX-XXX	****TRAAX ROD	
18	21140-053L	AR2 Adapter Assembly, Includes Key Nos. 19-23	2	61		Straddle Bushing	6
19	45289-003	Adapter Tube	2	a	64400-002L	ULTRA ROD PLUS	
20	45871-000	Trailing Arm Adapter	4	b	66649-002L	XTRB	
21	30550-005	1"-14 UNS x 9 3/4" Bolt	2				



KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.	KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
62		Taper Bushing	2	65	49689-000L	Torque Rod Shim (As Required)	
a	64400-004L	ULTRA ROD PLUS		66		Torque Rod Back-up Plate	As Req.
b	66649-004L	XTRB			45045-001	1/8" Thickness	
		**Two-Piece Torque Rod Assembly with Bushings Service Kit			45045-002	1/4" Thickness	
	65781-000	ULTRA ROD PLUS Straddle/Taper			45045-003	3/8" Thickness	
	65781-001	XTRB Straddle/Straddle		67	32043-019	5/8"-11 UNC x 5 1/2" Bolt	4
	65781-002	XTRB Straddle/Taper		68	22962-004	5/8" Hardened Flat Washer	8
63	22186-000	Torque Rod Bracket	4	69	47764-000	5/8"-11 UNC Locknut	4
64		Torque Rod Axle Bracket	2		70867-001	P-80 Lubricant - 10 ml (Not Shown)	Per Bushing
	46868-000	For Meritor Axle		70	65202-001	Pressure Protection Valve, <i>See plumbing diagram</i>	1
	48042-000	For Dana Axle		71	66029-000	In Cab Air Dump Switch, <i>See plumbing diagram</i>	1
				72	48940-000	In Cab Air Switch Plate (Not Shown)	1

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 PLUS can be used to create the desired length, see literature number 45745-148.

*** Transverse torque rods are mandatory for the AR2 Suspension regardless of axle spacing and require rubber center bushings, see Literature No. 59310-004 and 59310-058 for more information.

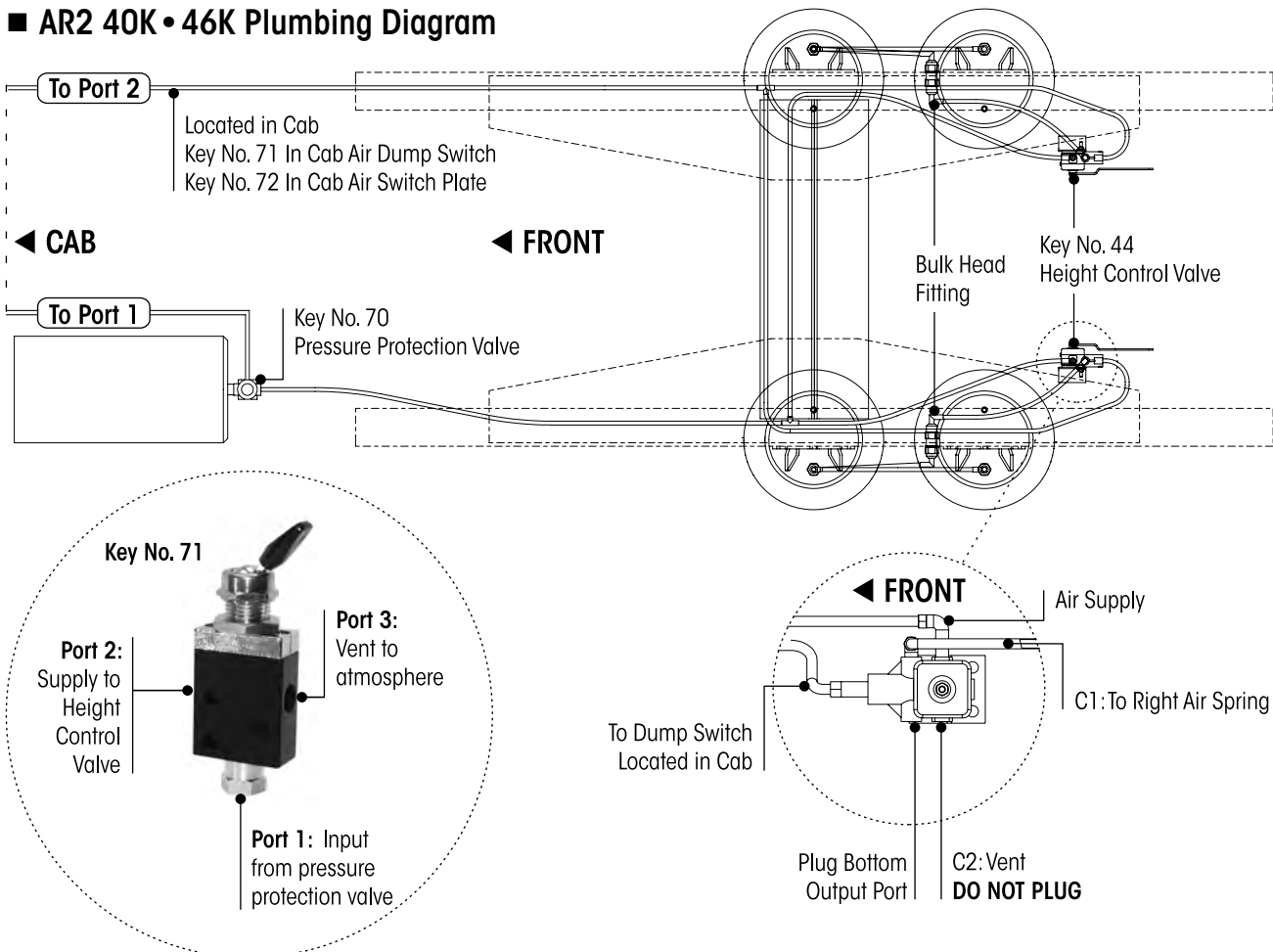
**** TRAAX RODS are non-rebushable. The entire torque rod assembly must be replaced.

TABLE 1

Key No. 3 Corresponding Center Bushing End Plug for Cross Tube Replacement

Capacity	Rubber Center Bushing	End Plug Part Number
40K	49600-000L • 49400-000L	22281-000
46K	34013-097L • 29483-005L	

AR2 40K • 46K Plumbing Diagram





■ 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

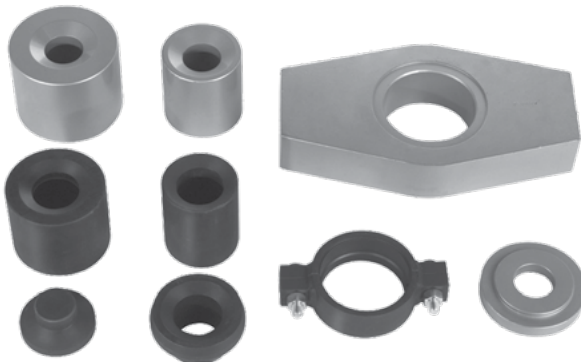
Hendrickson Part No. 66086-104
OTC Part No. 206457
Visit otctools.com



Hendrickson Part No. 66086-105
OTC Part No. 302030
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ADAPTER STYLE END BUSHING • CENTER BUSHING • TRAILING ARM BUSHING TOOLS

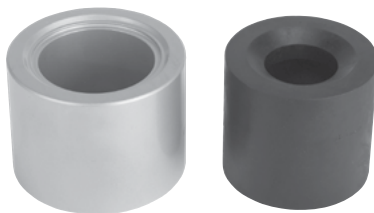


28K-52K lb. Capacity Bushings

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.

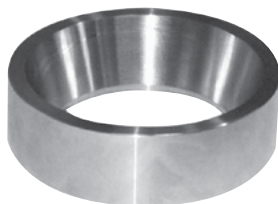
CENTER BUSHING TOOLS



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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