

H PARTS LIST

HAS™ Rear Air Suspension

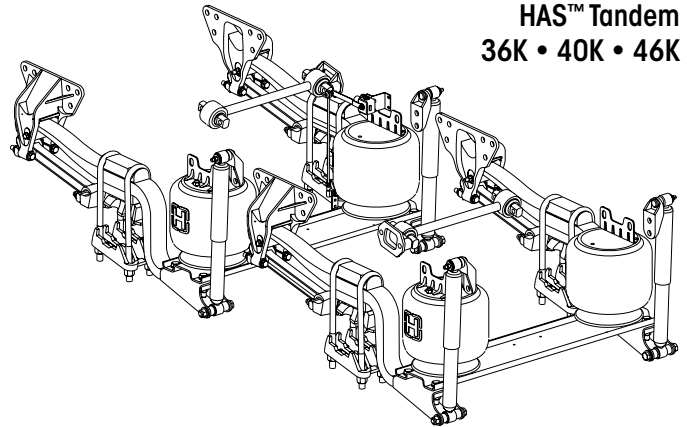
LIT NO: SP-149

DATE: April 2020

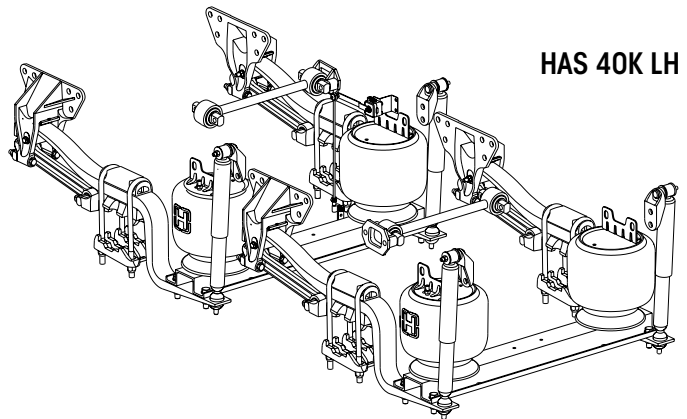
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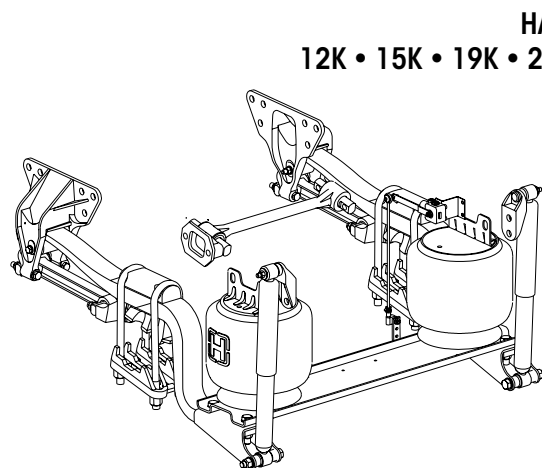
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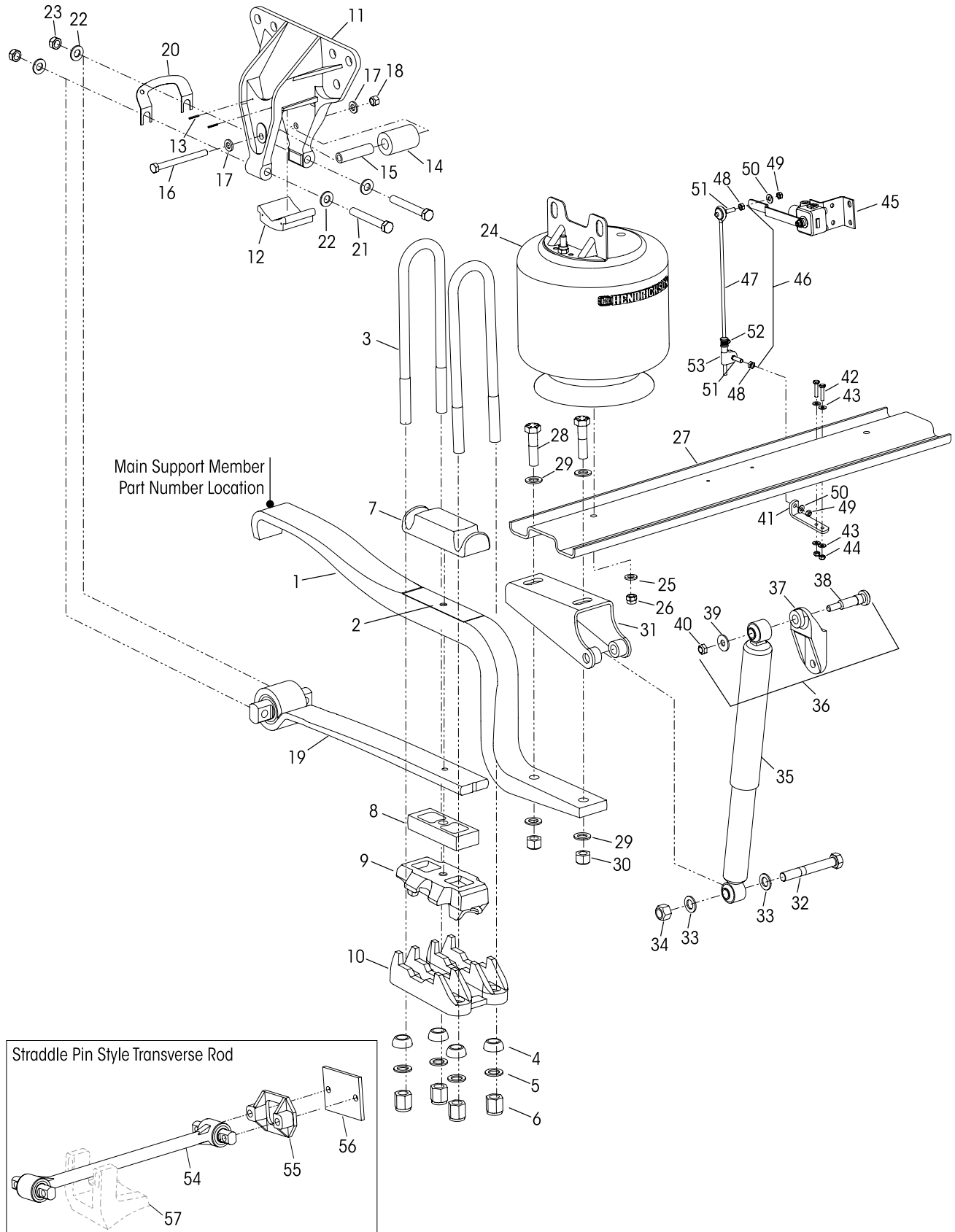
HAS™ Tandem
36K • 40K • 46K



HAS 40K LH



HAS Single
12K • 15K • 19K • 21K • 23K

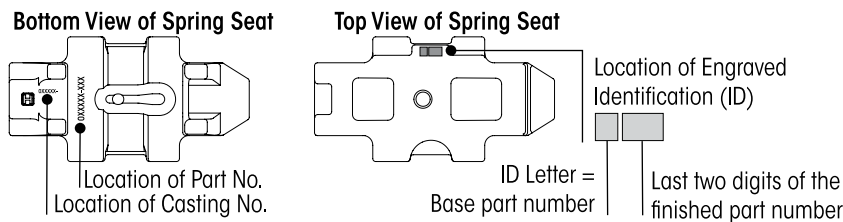




KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
1	59193-000	Main Support Member, Includes Key No. 2, see Part No. Location on Page 2	4
2		**Delrin Liner	4
3	47417-XXX	7/8"-14 UNF U-bolt, see Selection Guide on Page 13	8
	48718-157	U-bolt Fastener Service Kit, Two U-bolts, Includes Key Nos. 4-6	
4	48574-000	7/8" Spherical Washer	16
5	22962-002	7/8" Flat Hardened Washer	16
6	57347-000	7/8"-14 UNF U-bolt Nut	16
7	56805-000	Top Pad	4
8	48531-020	Spring Seat Spacer - 1 1/4" Height	4
9		Spring Seat Assembly, see Selection Guide below	4
10		Axle Bottom Cap	4
		•LHF/RHF/LHR/RHR Meritor RT 40-145, RT 46-160	
		•LHF/RHR Meritor SSHD, SQ-100; Dana DS-402/451	
	50216-000	2°-9.5° Pinion Angle	
	50222-000	10°-12° Pinion Angle	
11	58425-001	Frame Hanger Assembly, Includes Key Nos. 12-13	4
	56557-005	Slipper Pad Service Kit, One Hanger, Includes Key Nos. 12-13	
12	56929-000	Slipper Pad	4
13	58287-001	1" Lock Pin - 1/8" Diameter Retainer Lock Pin	8
	49175-013	Rebound Roller Kit, Axle Set, Includes Key Nos. 14-18	
14	57989-000	Rebound Roller	4
15	57988-000	Rebound Bolt Spacer	4
16	24531-015	1/2"-13 UNC x 5 1/2" Hex Bolt	4
17	22962-014	1/2" Flat Washer	8
18	49846-000	1/2"-13 UNC Locknut	4
19	53350-000	Single Leaf Spring	4
20	49689-000L	Shim - 1/16"	4
21	32043-005	5/8"-11 UNC x 4 1/2" Bolt	8
22	22962-004	5/8" Flat Hardened Washer	16
23	47764-000	5/8"-11 UNC Locknut	8
24	50898-002	Air Spring Assembly	4
25	22962-014	1/2" Flat Hardened Washer	4
26	17700-010	1/2"-13 UNC Nylocknut	4
27	57317-001	Cross Channel - 40" Dowel Pin Centers	2

KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
28	50764-003	3/4"-10 UNC x 3 1/2" Bolt	8
	50764-005	3/4"-10 UNC x 3" Bolt	
29	22962-001	3/4" Flat Hardened Washer	16
30	49842-000	3/4"-10 UNC Locknut	8
	57356-000	Lower Shock Bracket Assembly, Includes Key Nos. 31-34	4
31	57355-000	Lower Shock Bracket	4
32	50764-002	3/4"-10 UNC x 5 1/2" Bolt	4
33	22962-001	3/4" Flat Hardened Washer	8
34	49842-000	3/4"-10 UNC Locknut	4
35	60670-005L	Shock Absorber	4
36	57322-002	Upper Shock Bracket Assy, Includes Key Nos. 37-40	4
37		**Upper Shock Bracket	4
38	50368-000	1/2"-13 UNC x 3 3/4" Serrated Shank Bolt	4
39	22962-031	1/2" Flat Hardened Washer	4
40	49846-000	1/2"-13 UNC Locknut	4
	57430-000	HCV Linkage Lower Bracket Kit Includes Key Nos. 41-44	
41	56789-000	HCV Linkage Lower Bracket	1
42	56935-001	1/4"-20 UNC x 1" Bolt	2
43	22962-028	1/4" Flat Hardened Washer	4
44	49983-000	1/4"-20 UNC Locknut	2
45	57977-000	Height Control Valve	1
46	58994-XXX	HCV Linkage Assembly, Specify Length, Includes Key Nos. 47-53	1
47		**Linkage Rod, Specify Length	1
48		**5/16"-18 UNC Jam Nut	2
49		**5/16"-18 UNC Locknut	2
50		**5/16" Flat Hardened Washer	2
51		**5/16"-18 UNC Stud	2
52		**Linkage Rod Clamp	1
53		**Adjustable Linkage Rod P Mount	1
54	60218-000	****Two-Piece Transverse Torque Rod Kit, Includes Bushings	2
55	22186-000	Transverse Torque Rod Frame Bracket	2
56	45045-003	Back up Plate	2
57		*Transverse Torque Rod Axle Bracket	2
Not Shown	70867-001	P-80 Lubricant - 10 ml	Per Bushing

■ HAS Spring Seat Selection Guide



Equipped with Air Disc Brakes

Total of two (2) spring seats required per single and four (4) spring seats required per tandem suspension. One of each located at the left / right front and left / right rear.

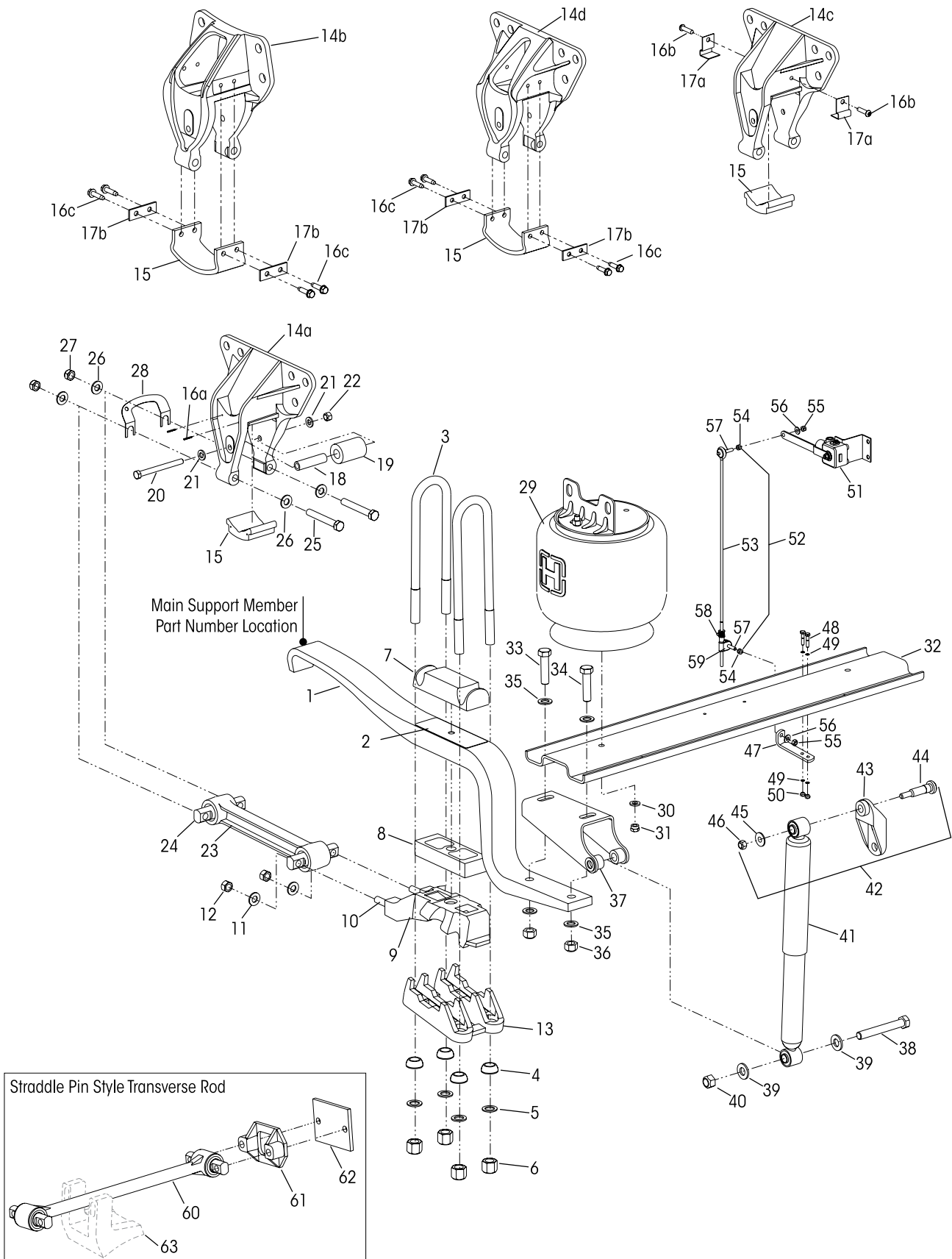
		FRONT RIGHT HAND						REAR LEFT HAND					
Casting No.		56500_①						56504_②					
SPRING SEATS	Seat Angle	Part No.	ID	Seat Angle	Part No.	ID	Seat Angle	Part No.	ID	Seat Angle	Part No.	ID	
	0.0°	56501-037	D37	3.5°	56501-029	D29	8.0°	70856-001	E01	11.0°	70856-007	E07	
	0.5°	56501-038	D38	4.0°	56501-030	D30	8.5°	70856-002	E02	11.5°	70856-008	E08	
	1.0°	56501-039	D39	4.5°	56501-031	D31	9.0°	70856-003	E03	12.0°	70856-009	E09	
	1.5°	56501-040	D40	5.0°	56501-032	D32	9.5°	70856-004	E04	12.5°	70856-010	E10	
	2.0°	56501-035	D35	5.5°	56501-033	D33	10.0°	70856-005	E05	13.0°	70856-011	E11	
	2.5°	56501-036	D36	6.0°	56501-034	D34	10.5°	70856-006	E06	13.5°	70856-012	E12	
	3.0°	56501-028	D28										

Corresponding axles:

- ① Dana: 17060, 19060, 21060, 21080, 21090, 23090, 26090, P20060, P22060,
- ② Dana: DS-402, Meritor: SQ100, SSHD, RT-40, RT-46

HAS Tandem 36K • 40K • 46K

Equipped with Drum Brakes





HAS™ Tandem 36K • 40K • 46K Equipped with Drum Brakes

		VEHICLE				VEHICLE	
KEY NO.	PART NO.	DESCRIPTION	QTY.	KEY NO.	PART NO.	DESCRIPTION	QTY.
1		Main Support Member, Includes Key No. 2 <i>see Part No. Location on Page 4, 46K Severe Service Kit on Page 6</i>	4	17		Retaining Bracket or Plate, <i>see Selection Guide on Page 13</i>	8
	56940-000	36K, 1.75" Thickness		a	57566-000	Retaining Bracket	
	56931-000	40K Low Profile, 1.875" Thickness		b	50597-000	Retaining Plate	
	56943-000	40K, 1.875" Thickness			49175-013	Rebound Roller Kit, Axle Set, Includes Key Nos. 18-22	
	56934-000	46K Low Profile, 2" Thickness		18	57988-000	Rebound Bolt Spacer, <i>Replaces 47458-000</i>	4
	56946-000	40K, 46K, 2" Thickness		19	57989-000	Rebound Roller, <i>Replaces 48883-000</i>	4
2	47905-000	Delrin Liner	4	20	24531-015	½"-13 UNC x 5½" Rebound Bolt	4
3	47417-XXX	⅞"-14 UNF U-bolt, <i>see Selection Guide on Page 13</i>	8	21	22962-014	½" Flat Hardened Washer	8
	48718-157	U-bolt Fastener Service Kit, Two U-bolts, Includes Key Nos. 4-6		22	49846-000	½"-13 UNC Locknut	4
4	48574-000	⅞" Spherical Washer	16	23		Longitudinal Torque Rod Assembly Includes Key No. 24	4
5	22962-002	⅞" Flat Hardened Washer	16		48411-006	36K • 40K	
6		U-bolt Nut	16		62007-365	46K, <i>Replaces 50376-001 Torque Rod & 57256-000 Bushing</i>	
	50765-000	⅞"-14 UNF Locknut		24	47691-000L	Torque Rod Bushing	8
	57347-000	⅞"-14 UNF Nylocknut		25	32043-005	⅝"-11 UNC x 4½" Bolt	8
7	56805-000	Top Pad	4	26	22962-004	⅝" Flat Hardened Washer	16
8		Spring Seat Spacer, (If Equipped)	4	27	47764-000	⅝"-11 UNC Locknut	8
	48902-000	1"		28		Torque Rod Shim	As Req.
	48903-000	1½"			49689-000L	⅛"	
9		Spring Seat Assembly, Includes Key Nos. 10-12, <i>See Selection Guide on Page 7</i>			57856-000	⅓"	
		Left Front, Right Front	(each) 1	29		Air Spring Assembly with Upper Frame Bracket	4
		Left Rear, Right Rear	(each) 1		56917-002L	40K Low Profile	
10	50918-000	⅝"-11 UNC Stud	8		50898-002	40K Low Profile (Kenworth only)	
11	22962-004	⅝" Flat Hardened Washer	8		57122-002L	40K • 46K	
12	47764-000	⅝"-11 UNC Locknut	8	30	22962-014	½" Flat Hardened Washer	4
13		Axle Bottom Cap	4	31	17700-010	½"-13 UNC Nylocknut	4
		• 40K • 46K		32		Cross Channel	2
		Meritor RT40/41/44-145, RT46/50, RT40-160, RT46-158; Dana 404/405/454, DSP40/41, DSH40/44, DSS40/462/463, D40/46-170			57317-001	40" Dowel Pin Centers	
	50216-000	LHF/RHF/LHR/RHR 0-9.5° Pinion Angle			57317-002	40¼" Dowel Pin Centers	
	50222-000	LHR/RHR 10-14° Pinion Angle			57317-003	40½" Dowel Pin Centers	
		Meritor SSHD, RT46-157; Dana D402/403/451			57317-004	40⅝" Dowel Pin Centers	
	50216-000	LHF 0-9.5° Pinion Angle			57317-006	40¼" Dowel Pin Centers with Left Hand HCV	
	50217-001	RHF 0-9.5° Pinion Angle				• 40K • 46K with Rear Inboard Shock	
	50222-006	LHR 10-14° Pinion Angle, <i>Replaces 50221-001</i>			57773-001	40" Dowel Pin Centers	
	50222-000	RHR 10-14° Pinion Angle			57773-002	40¼" Dowel Pin Centers	
		• 40K • 46K			57773-003	40½" Dowel Pin Centers	
		Dana D461			57773-004	40⅝" Dowel Pin Centers	
	50085-000	LHF 0-9.5° Pinion Angle		33		¾"-10 UNC Bolt	4
	50086-000	RHF 0-9.5° Pinion Angle			50764-005	36K • 40K - 3" Length	
	50095-000	LHR 10-14° Pinion Angle			50764-003	40K • 46K - 3½" Length	
	50094-000	RHR 10-14° Pinion Angle		34		¾"-10 UNC Bolt	4
14		Frame Hanger Assembly	4		50764-007	36K • 40K - 2½" Length	
a		40K • 46K, Includes Key Nos. 15-16			50764-005	40K • 46K - 3" Length	
	58425-001	• Standard Frame, Casting No. 57188-001, <i>Replaces 57190-001 (***)14c) & 50752-001 (***)14d)</i>		35	22962-001	¾" Flat Hardened Washer	16
	59045-003	• Standard Frame, Casting No. 59043-001		36	49842-000	¾"-10 UNC Locknut	8
	58688-001	• Rein. Frame, Casting No. 57476-001, <i>Replaces 57478-001 (***)14c)</i>				Lower Shock Bracket Assembly, Includes Key Nos. 37-40	4
b	50753-001	36K, Includes Key Nos. 15-17 Casting No. 49848-000 or 56666-001			57356-000	36K • 40K • 46K	
		Slipper Pad Service Kit, One Hanger, <i>see Selection Guide on Page 13</i>			49690-002	40K Low Profile	
15		Slipper Pad, <i>see Selection Guide on Page 13</i>	4	37		Lower Shock Bracket	4
16		Retainer Lock Pin or Screw, <i>see Selection Guide on Page 13</i>			57355-000	36K • 40K • 46K	
a	58287-001	1" Lock Pin - ⅜" Diameter	8		49324-002	40K Low Profile	
b	57540-000	⅝" Button Head Screw	8	38	50764-002	¾"-10 UNC x 5½" Bolt	4
c	57306-000	⅝" Rolok Screw	16	39	22962-001	¾" Flat Hardened Washer	8
				40	49842-000	¾"-10 UNC Locknut	4
				41		Shock Absorber	4
					60670-005L	36K • 40K • 46K Standard	
					60670-007L	40K • 46K Standard Inboard Rear	
					60675-003L	Hi-Torque, <i>Replaces 57905-001</i>	
					60675-006L	40K • 46K Hi-Torque Inboard Rear	
					60670-008L	40K • 46K Low Profile	
				42	57322-001	Upper Shock Bracket Assembly, Includes Key Nos. 43-46	4
				43		**Upper Shock Bracket	4



HAS Tandem 36K • 40K • 46K

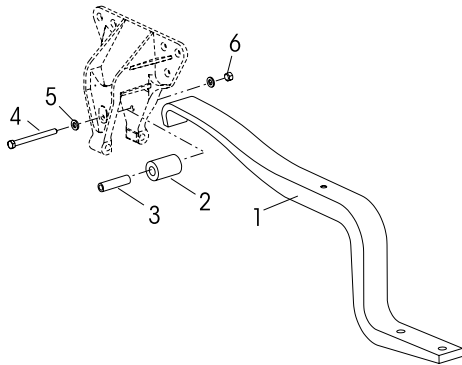
Equipped with Drum Brakes

KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.	KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
44	50368-000	½"-13 UNC x 3¾" Serrated Shank Bolt	4	54		**5/16"-18 UNC Jam Nut	2
45	22962-031	½" Flat Hardened Washer	4	55		**5/16"-18 UNC Locknut	2
46	49846-000	½"-13 UNC Locknut	4	56		**5/16" Flat Hardened Washer	2
	57430-000	HCV Linkage Lower Bracket Kit, Includes Key Nos. 47-50		57		**5/16"-18 UNC Stud	2
47	56789-000	HCV Linkage Bracket	1	58		**Linkage Rod Clamp	1
48	56935-001	¼"-20 UNC x 1" Bolt, <i>Replaces 56935-002</i>	2	59		**Adjustable Linkage Rod Mount	1
49	22962-028	¼" Flat Hardened Washer	4	60	60218-000	****Two-Piece Transverse Torque Rod Kit, Includes Bushings	2
50	49983-000	¼"-20 UNC Locknut	2	61	22186-000	Transverse Torque Rod Frame Bracket	2
51	57977-000	Height Control Valve	1	62	45045-003	Back up Plate	2
52	58994-XXX	HCV Linkage Assembly, Specify Length, <i>Contact Hendrickson for Part Number,</i> Includes Key Nos. 53-59	1	63		*Transverse Torque Rod Axle Bracket	2
53		**Linkage Rod, Specify Length	1	Not Shown	70867-001	P-80 Lubricant - 10 ml	Per Bushing

HAS 46K Severe Service Kit

Severe Service Kit | Axle Set
No. 49175-024

Reference Lit. No. SEU-0103

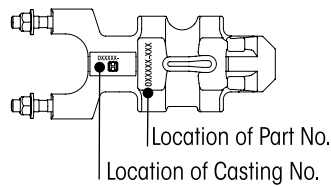


KEY NO.	PART NO.	DESCRIPTION	KIT QTY.
	49175-024	Main Support Member Severe Service Kit, 46K, Axle Set, Includes Key Nos. 1-6, Frame Hanger not included	
1	59597-000	Main Support Member	2
2	59598-000	Rebound Roller	2
3	57988-000	Rebound Spacer	2
4	24531-015	½"-13 UNC x 5½" Rebound Bolt	2
5	22962-014	½" Flat Hardened Washer	4
6	49846-000	½"-13 UNC Locknut	2

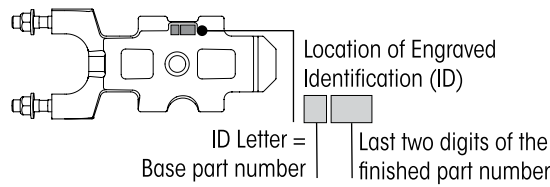


■ HAS TANDEM • HAS 40K LH Spring Seat Selection Guide

Bottom View of Spring Seat



Top View of Spring Seat



Equipped with Drum Brakes

Includes fasteners.
Total of four (4) spring seats required per tandem suspension.
One of each located at the left / right front and left / right rear.

Key No. 9
Pages 4, 8

		LEFT FRONT					RIGHT FRONT						
Casting No.		50923_①		50923-② <i>Replaces 50986_</i>			50923_①		50923_③ <i>Replaces 50974_</i>			50923_④ <i>Replaces 50986_</i>	
FRONT SPRING SEATS	Seat Angle	Part No.	ID	Part No.	ID	Part No.	ID	Part No.	ID	Part No.	ID	Part No.	ID
	2°	50970-001	A01	50988-001	K01	50970-001	A01	50976-001	M01	50976-012	M12	50994-001	I01
	2.5°	50970-002	A02	50988-002	K02	50970-002	A02	50976-002	M02	50976-016	M16	50994-002	I02
	3°	50970-003	A03	50988-003	K03	50970-003	A03	50976-003	M03	50976-013	M13	50994-003	I03
	3.5°	50970-004	A04	50988-004	K04	50970-004	A04	50976-004	M04	50976-017	M17	50994-004	I04
	4°	50970-005	A05	50988-005	K05	50970-005	A05	50976-005	M05	50976-014	M14	50994-005	I05
	4.5°	50970-006	A06	50988-006	K06	50970-006	A06	50976-006	M06	50976-018	M18	50994-006	I06
	5°	50970-007	A07	50988-007	K07	50970-007	A07	50976-007	M07			50994-007	I07
	5.5°	50970-008	A08	50988-008	K08	50970-008	A08	50976-008	M08			50994-008	I08
	6°	50970-009	A09	50988-009	K09	50970-009	A09	50976-009	M09			50994-009	I09
	6.5°	50970-010	A10	50988-010	K10	50970-010	A10	50976-010	M10			50994-010	I10
7°	50970-011	A11	50988-011	K11	50970-011	A11	50976-011	M11			50994-011	I11	

		LEFT REAR						RIGHT REAR					
Casting No.		50971_⑤		50971_③ <i>Replaces 50977_</i>				50971_④ <i>Replaces 50995_</i>		50971_⑤		50971_④ <i>Replaces 50989_</i>	
REAR SPRING SEATS	Seat Angle	Part No.	ID	Part No.	ID	Part No.	ID	Part No.	ID	Part No.	ID	Part No.	ID
	5°	50973-011	B11	50979-011	C11	50979-013	C13	50997-011	J11	50973-011	B11	50991-011	L11
	6.5°	50973-012	B12	50979-012	C12			50997-012	J12	50973-012	B12	50991-012	L12
	7.5°	50973-013	B13	50979-014	C14					50973-013	B13		
	8°	50973-001	B01	50979-001	C01			50997-001	J01	50973-001	B01	50991-001	L01
	8.5°	50973-002	B02	50979-002	C02			50997-002	J02	50973-002	B02	50991-002	L02
	9°	50973-003	B03	50979-003	C03	50979-026		50997-003	J03	50973-003	B03	50991-003	L03
	9.5°	50973-004	B04	50979-004	C04	50979-027		50997-004	J04	50973-004	B04	50991-004	L04
	10°	50973-005	B05	50979-005	C05	50979-028		50997-005	J05	50973-005	B05	50991-005	L05
	10.5°	50973-006	B06	50979-006	C06	50979-020	C20	50997-006	J06	50973-006	B06	50991-006	L06
	11°	50973-007	B07	50979-007	C07	50979-030		50997-007	J07	50973-007	B07	50991-007	L07
	11.5°	50973-008	B08	50979-008	C08	50979-019	C19	50997-008	J08	50973-008	B08	50991-008	L08
	12°	50973-009	B09	50979-009	C09	50979-032		50997-009	J09	50973-009	B09	50991-009	L09
	12.5°	50973-010	B10	50979-010	C10	50979-015	C15	50997-010	J10	50973-010	B10	50991-010	L10
	13°	50973-015	B15	50979-017	C17	50979-034		50997-013	J13	50973-015	B15	50991-013	L13
	13.5°	50973-014	B14	50979-018	C18	50979-016	C16			50973-014	B14		
14°	50973-016	B16			50979-038				50973-016	B16			

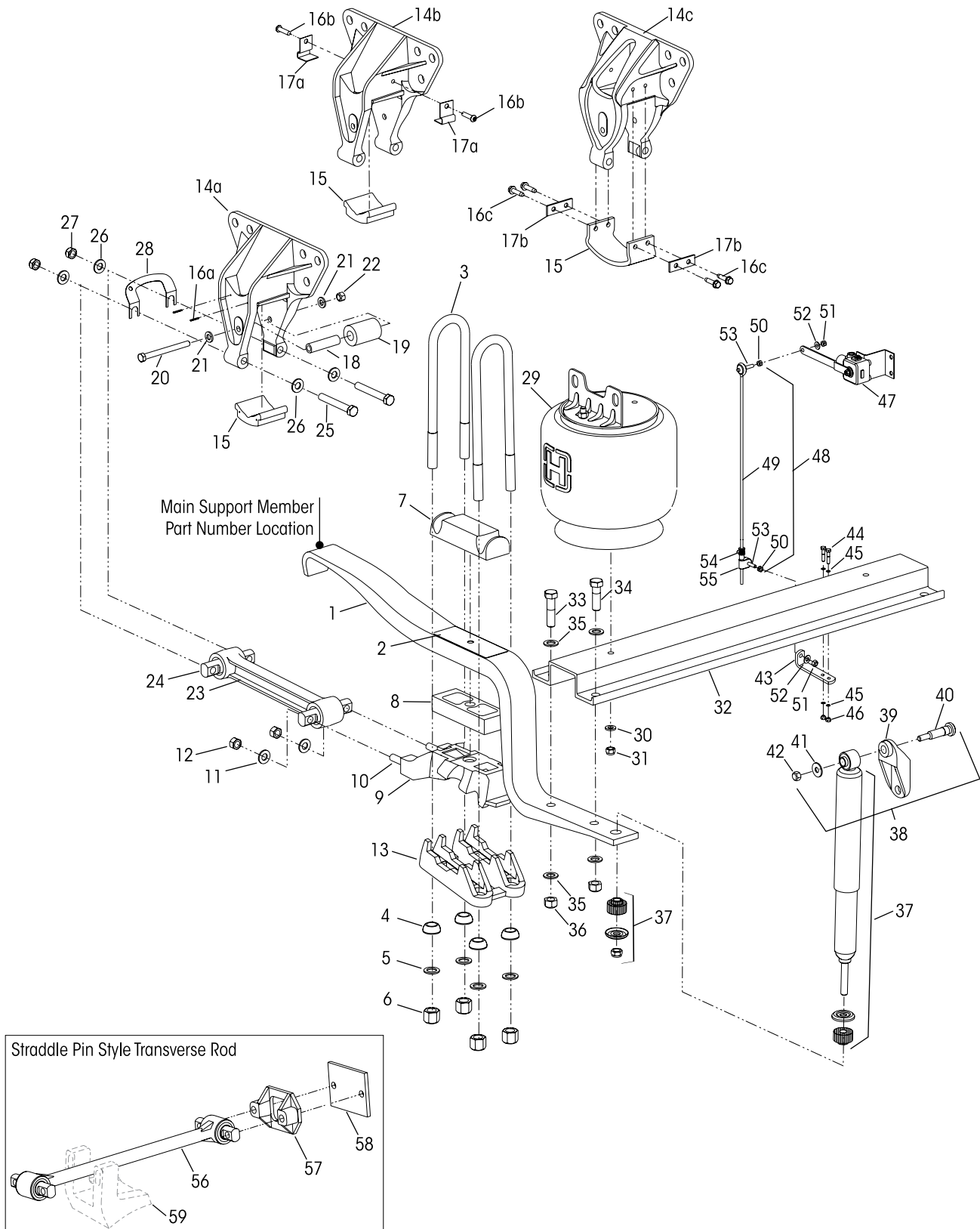
Corresponding axle:

- ① Dana: DS-402, Meritor: SQ100, SSHD, RT-40, RT-46
- ② Dana: DS-461, 23105

③ Dana: DS-402; Meritor: SQ100

④ Dana: DS-461

⑤ Dana: DS-401, Meritor: SQ100, SSHD, RT-40, RT-46



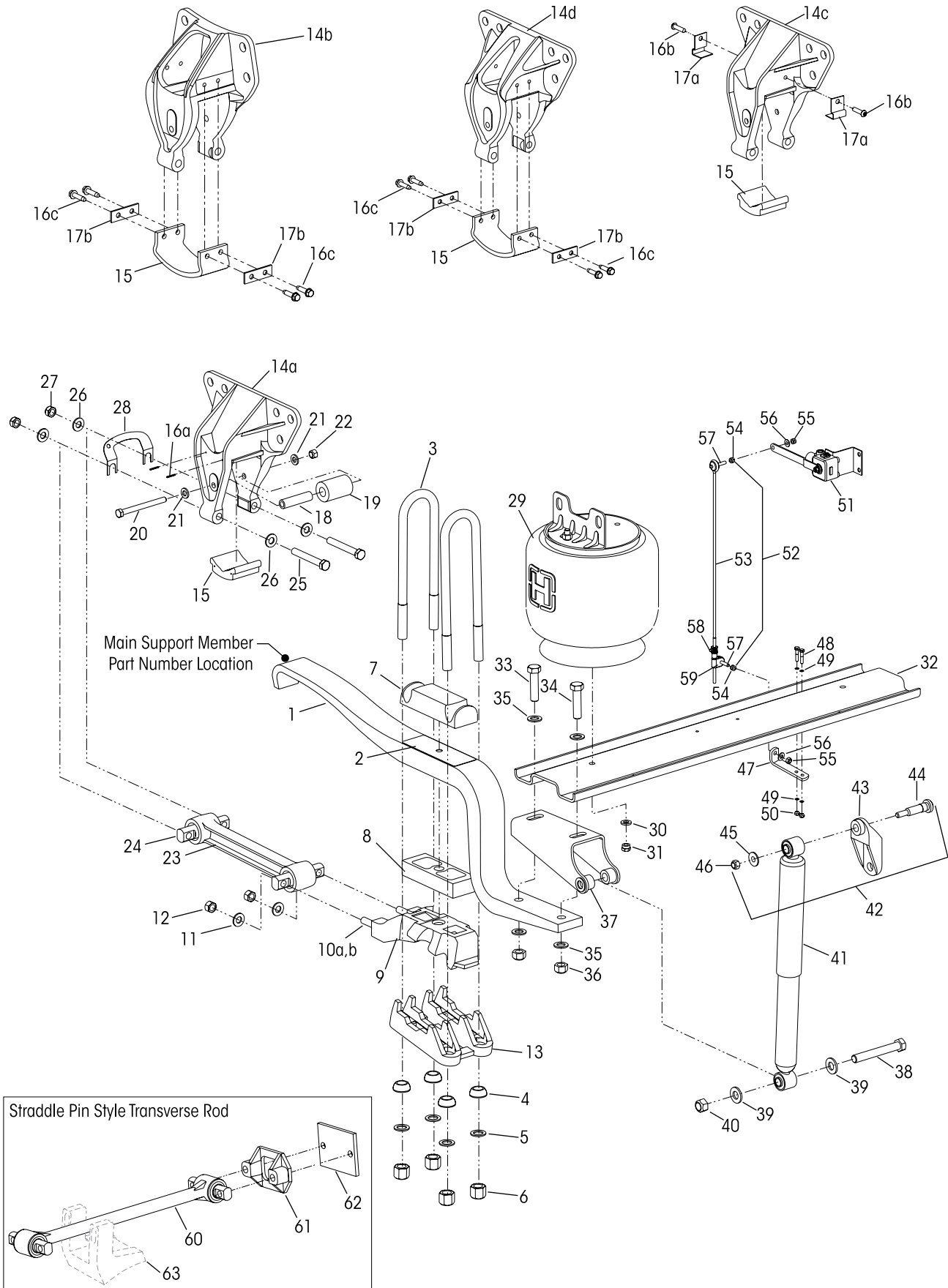


HAS™ Tandem 40K LH Equipped with Drum Brakes

KEY NO. PART NO.		DESCRIPTION	VEHICLE QTY.	KEY NO. PART NO.		DESCRIPTION	VEHICLE QTY.
1		Main Support Member, <i>see Part No. Location on Page 8</i>	4	18	57988-000	Rebound Bolt Spacer, <i>Replaces 47458-000</i>	4
	57217-000	Includes Key No. 2		19	57989-000	Rebound Roller, <i>Replaces 48883-000</i>	4
	60262-000	Mack only		20	24531-015	½"-13 UNC x 5½" Rebound Bolt	4
2	47905-000	Delrin Liner	4	21	22962-014	½" Flat Hardened Washer	8
3		¾"-16 UNF U-bolt, <i>see Selection Guide on Page 13</i>	8	22	49846-000	½"-13 UNC Locknut	4
	48718-158	U-bolt Fastener Service Kit, Two U-bolts, Includes Key Nos. 4-6		23	48411-006	Longitudinal Torque Rod Assembly Includes Key No. 24	4
4	49947-000	¾" Spherical Washer	16	24	47691-000L	Torque Rod Bushing	8
5	22962-001	¾" Flat Hardened Washer	16	25	32043-005	⅝"-11 UNC x 4½" Bolt	8
6	49685-000	¾"-16 UNF Locknut	16	26	22962-004	⅝" Flat Hardened Washer	16
7	56805-000	Top Pad, <i>Replaces 57195-000</i>	4	27	47764-000	⅝"-11 UNC Locknut	8
8		Spring Seat Spacer (If Equipped)	4	28		Torque Rod Shim	As Req.
	48902-000	1"			49689-000L	⅛"	
	48903-000	1½"			57856-000	⅜"	
9		Spring Seat Assembly, Includes Key Nos. 10-12, <i>see Selection Guide on Page 7</i>		29	50898-002L	Air Spring Assembly with Upper Frame Bracket	4
		Left Front, Right Front (each) 1		30	22962-014	½" Flat Hardened Washer	4
		Left Rear, Right Rear (each) 1		31	17700-010	½"-13 UNC Nylocknut	4
10	50918-000	⅝"-11 UNC Stud	8	32	57192-001	Cross Channel, 40" Dowel Pin Centers	2
11	22962-004	⅝" Flat Hardened Washer	8	33	50764-002	¾"-10 UNC x 5½" Bolt	4
12	47764-000	⅝"-11 UNC Locknut	8	34	50764-005	¾"-10 UNC x 3" Bolt	4
13		Axle Bottom Cap	4	35	22962-001	¾" Flat Hardened Washer	16
		Meritor RT40/41/44-145, RT46/50, RT40-160; RT46-158; Dana 404/405/454, DSP40/41, DSH40/44, DSS40/462/463, D40/46-170		36	49842-000	¾"-10 UNC Locknut	8
	57198-000	LHF/RHF/LHR/RHR 0-9.5° Pinion Angle		37		Shock Absorber	4
	57200-000	LHR/RHR 10-14° Pinion Angle			60680-001L	Standard	
		Dana D402/403/451			60685-001L	Hi-Torque	
	57198-000	LHF 0-9.5° Pinion Angle		38	57322-001	Upper Shock Bracket Assembly, Includes Key Nos. 39-42	4
	57197-000	RHF 0-9.5° Pinion Angle		39		**Upper Shock Bracket	4
	57200-000	LHR 10-14° Pinion Angle		40	50368-000	½"-13 UNC x 3¾" Serrated Shank Bolt	4
	57199-000	RHR 10-14° Pinion Angle		41	22962-031	½" Flat Hardened Washer	4
14a		Frame Hanger Assembly, Includes Key Nos. 15-16 4		42	49846-000	½"-13 UNC Locknut	4
	58425-001	• Standard Frame Casting No. 57188-001, <i>Replaces 57190-001(**14b) & 50752-001(**14c)</i>			57430-000	HCV Linkage Lower Bracket Kit, Includes Key Nos. 43-46	
	58688-001	• Rein. Frame, Casting No. 57476-001, <i>Replaces 57478-001(**14b)</i>		43	56789-000	HCV Linkage Bracket	1
		Slipper Pad Service Kit, One Hanger, <i>see Selection Guide on Page 13</i>		44	56935-001	¼"-20 UNC x 1" Bolt, <i>Replaces 56935-002</i>	2
15		Slipper Pad, <i>see Selection Guide on Page 13</i>	4	45	22962-028	¼" Flat Hardened Washer	4
16		Retainer Lock Pin or Screw, <i>see Selection Guide on Page 13</i>		46	49983-000	¼"-20 UNC Locknut	2
	a	1" Lock Pin - ⅛" Diameter	8	47	57977-000	Height Control Valve,	1
	b	⅝" Button Head Screw	8	48	58994-XXX	HCV Linkage Assembly, Specify Length, <i>contact Hendrickson for Part Number,</i> Includes Key Nos. 49-55	1
	c	⅝" Rolok Screw	16	49		**Linkage Rod, Specify Length	1
17		Retaining Bracket or Plate, <i>see Selection Guide on Page 13</i>		50		**⅝"-18 UNC Jam Nut	2
	a	Retaining Bracket	8	51		**⅝"-18 UNC Locknut	2
	b	Retaining Plate	8	52		**⅝"-18 Flat Hardened Washer	2
	49175-013	Rebound Roller Kit, Axle Set, Includes Key Nos. 18-22		53		**⅝"-18 UNC Stud	2
				54		**Linkage Rod Clamp	1
				55		**Adjustable Linkage Rod P Mount	1
				56	60218-000	****Two-Piece Transverse Torque Rod Kit, Includes Bushings	2
				57	22186-000	Transverse Torque Rod Frame Bracket	2
				58	45045-003	Back up Plate	2
				59		*Transverse Torque Rod Axle Bracket	2
				Not Shown	70867-001	P-80 Lubricant - 10 ml	Per Bushing

HAS Single 12K • 15K • 19K • 21K • 23K

Equipped with Drum Brakes





HAS™ Single 12K • 15K • 19K • 21K • 23K Equipped with Drum Brakes

KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.	KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
1		Main Support Member, Includes Key No. 2, <i>see Part No. Location on Page 10</i>	2			12K • 15K • 19K, Includes Key Nos. 15-17	
	56925-000	12K Low Profile/15K Low Profile		b	50753-001	Casting No. 49848-000 or 56666-001	
	56937-000	12K/15K			60636-001	Casting No. 60634-001	
	56928-000	19K Low Profile			59045-003	• Standard Frame, Casting No. 59043-001	
	56940-000	19K				Slipper Pad Service Kit, One Hanger, <i>see Selection Guide on Page 13</i>	
	56931-000	21K Low Profile		15		Slipper Pad, <i>see Selection Guide on Page 13</i>	2
	56943-000	21K		16		Retainer Lock Pin or Screw, <i>see Selection Guide on Page 13</i>	
	56934-000	23K Low Profile		a	58287-001	1" Lock Pin - 1/8" Diameter	4
	56946-000	23K		b	57540-000	3/8" Button Head Screw	4
2	47905-000	Delrin Liner	2	c	57306-000	3/8" Rolok Screw	8
3		U-bolt, <i>see Selection Guide on Page 13</i>	4	17		Retaining Bracket or Plate, <i>see Selection Guide on Page 13</i>	4
	49684-XXX	3/4"-16 UNF - 12K • 15K		a	57566-000	Retaining Bracket	
	47417-XXX	7/8"-14 UNF - 19K • 21K • 23K		b	50597-000	Retaining Plate	
		U-bolt Fastener Service Kit, Two U-bolts, Includes Key Nos. 4-6			49175-014	Rebound Roller Kit, Axle Set, Includes Key Nos. 18-22	
	48718-158	3/4" - 12K • 15K		18	57988-000	Rebound Bolt Spacer, <i>Replaces 47458-000</i>	2
	48718-157	7/8" - 19K • 21K • 23K		19	57989-000	Rebound Roller, <i>Replaces 48883-000</i>	2
4		Spherical Washer	8	20	24531-015	1/2"-13 UNC x 5 1/2" Rebound Bolt	2
	49947-000	3/4" - 12K • 15K		21	22962-014	1/2" Flat Hardened Washer	4
	48574-000	7/8" - 19K • 21K • 23K		22	49846-000	1/2"-13 UNC Locknut	2
5		Flat Hardened Washer	8	23		Longitudinal Torque Rod Assembly	2
	22962-001	3/4" - 12K • 15K				Includes Key No. 24	
	22962-002	7/8" - 19K • 21K • 23K			48411-006	12K • 15K • 19K	
6		U-bolt Nut	8		62007-365	23K, <i>Replaces Torque Rod 50376-001 & Bushing 57256-000</i>	
	49685-000	3/4"-16 UNF Locknut - 12K • 15K		24	47691-000L	Torque Rod Bushing	4
	50765-000	7/8"-14 UNF Locknut - 19K • 21K • 23K		25	32043-005	5/8"-11 UNC x 4 1/2" Bolt	4
	57347-000	7/8"-14 UNF Nylocknut - 19K • 21K • 23K		26	22962-004	5/8" Flat Hardened Washer	8
7		Top Pad	2	27	47764-000	5/8"-11 UNC Locknut	4
	57224-000	12K • 15K		28		Torque Rod Shim	As Req.
	56805-000	19K • 21K • 23K			49689-000L	1/16"	
8		Spring Seat Spacer (If equipped)	2		57856-000	1/32"	
	48531-009	1", 12K • 15K - 6 1/4" length		29		Air Spring Assembly with Upper Frame Bracket	2
	48902-000	1", 19K • 21K • 23K - 7 3/4" length			57920-002L	12K Low Profile	
	48903-000	1 1/2", 19K • 21K • 23K - 7 3/4" length			56917-002L	15K Low Profile • 19K Low Profile • 21K Low Profile • 23K Low Profile	
9		Spring Seat Assembly, Includes Key Nos. 10-12, <i>see Selection Guide on Page 12</i>	2		57122-002L	19K • 21K • 23K	
10a	50918-000	5/8"-11 UNC x 4" Stud	4	30	22962-014	1/2" Flat Hardened Washer	2
		for Part Nos. 50970-XXX & 50988-XXX		31	17700-010	1/2"-13 UNC Nylocknut	2
	b	32043-005	4	32		Cross Channel	1
		5/8"-11 UNC x 4 1/2" Hex Bolt				• 12K	
		for Part Nos. 57033-XXX & 59795-XXX			57855-001	40" Dowel Pin Centers	
11		5/8" Flat Hardened Washer	4		57855-002	40 1/4" Dowel Pin Centers	
	a	22962-004			57855-003	40 1/2" Dowel Pin Centers	
	b	22962-025			57855-004	40 5/8" Dowel Pin Centers	
		for Part Nos. 50970-XXX & 50988-XXX				• 15K • 19K • 21K • 23K	
		for Part Nos. 57033-XXX & 59795-XXX			57317-001	40" Dowel Pin Centers	
12	47764-000	5/8"-11 UNC Locknut	4		57317-002	40 1/4" Dowel Pin Centers	
13		Axle Bottom Cap	2		57317-003	40 1/2" Dowel Pin Centers	
		Meritor RS13-120, RS15-120, RS15-210			57317-004	40 5/8" Dowel Pin Centers	
	57024-000	LHF/RHF 0-5° Pinion Angle			57317-006	40 1/4" Dowel Pin Centers with LH HCV	
		• 19K • 21K • 23K		33		3/4"-10 UNC Bolt	2
		Meritor RS21-145, RS21-160, RS23-160/161;			50764-005	12K • 15K • 19K • 21K - 3" Length	
		Dana 19060/21060/21080/21090/23090/ 26090, S21/23/26-170/190			50764-003	23K - 3 1/2" Length	
	50216-000	LHF/RHF 0-9.5° Pinion Angle		34		3/4"-10 UNC Bolt	2
		• 23K			50764-007	12K • 15K • 19K • 21K - 2 1/2" Length	
		Dana 23080/23105/26015			50764-005	23K - 3" Length	
	50085-000	LHF 0-9.5° Pinion Angle		35	22962-001	3/4" Flat Hardened Washer	8
	50086-000	RHF 0-9.5° Pinion Angle		36	49842-000	3/4"-10 UNC Locknut	4
	50095-000	LHR 10-14° Pinion Angle				Lower Shock Bracket Assembly	2
	50094-000	RHR 10-14° Pinion Angle				Includes Key Nos. 37-40	
14		Front Frame Hanger Assembly,	2		49690-002	12K Low Profile • 15K Low Profile • 19K Low Profile • 21K Low Profile • 23K Low Profile	
	a	58425-001			57356-000	19K • 21K • 23K	
		• Standard Frame, Casting No. 57188-001, <i>Replaces 57190-001 (***) & 50752-001 (***)</i>					
		58688-001					
		• Rein. Frame, Casting No. 57476-001, <i>Replaces 57478-001 (***)</i>					



HAS Single 12K • 15K • 19K • 21K • 23K

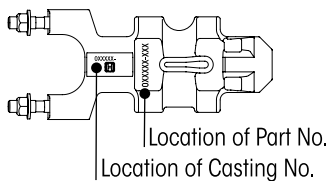
Equipped with Drum Brakes

KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
37	49324-002	Lower Shock Bracket 12K Low Profile • 15K Low Profile • 19K Low Profile • 21K Low Profile • 23K Low Profile	2
	57355-000	19K • 21K • 23K	
38	50764-002	¾" -10 UNC x 5½" Bolt	2
39	22962-001	¾" Flat Hardened Washer	4
40	49842-000	¾" -10 UNC Locknut	2
41		Shock Absorber	2
	60670-005L	19K • 21K • 23K Standard	
	60675-003L	Hi-Torque, <i>Replaces 57905-001</i>	
	60670-010L	12K Low Profile	
	60670-003L	15K Low Profile	
	60670-008L	19K Low Profile • 21K Low Profile • 23K Low Profile	
42	57322-001	Upper Shock Bracket Assembly, Includes Key Nos. 43-46	2
43		**Upper Shock Bracket	2
44	50368-000	½" -13 UNC x 3¾" Serrated Shank Bolt	2
45	22962-031	½" Flat Hardened Washer	2
46	49846-000	½" -13 UNC Locknut	2
	57430-000	HCV Linkage Lower Bracket Kit, Includes Key Nos. 47-50	

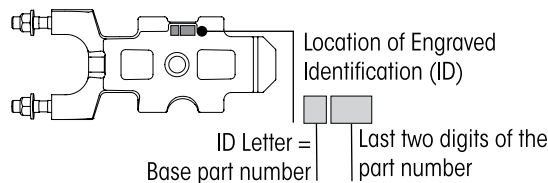
KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
47	56789-000	HCV Linkage Bracket	1
48	56935-001	¼" -20 UNC x 1" Bolt, <i>Replaces 56935-002</i>	2
49	22962-028	¼" Flat Hardened Washer	4
50	49983-000	¼" -20 UNC Locknut	2
51	57977-000	Height Control Valve,	1
52	58994-XXX	HCV Linkage Assembly, Specify Length, <i>contact Hendrickson for Part Number,</i> Includes Key Nos. 53-59	1
53		**Linkage Rod, Specify Length	1
54		**5/16" -18 UNC Jam Nut	2
55		**5/16" -18 UNC Locknut	2
56		**5/16" Flat Hardened Washer	2
57		**5/16" -18 UNC Stud	2
58		**Linkage Rod Clamp	1
59		**Adjustable Linkage Rod P Mount	1
60	60218-000	**** Two-Piece Transverse Torque Rod Kit, Includes Bushings	1
61	22186-000	Transverse Torque Rod Frame Bracket	1
62	45045-003	Back up Plate	1
63		*Transverse Torque Rod Axle Bracket	1
Not Shown	70867-001	P-80 Lubricant - 10 ml	Per Bushing

■ HAS SINGLE Spring Seat Selection Guide

Bottom View of Spring Seat



Top View of Spring Seat



Equipped with Drum Brakes

Includes fasteners.
Total of two (2) spring seats required per suspension.
One of each located at the left front and right front

Key No. 9 • Page 10		LEFT • RIGHT			
Casting No.		50923_①		50923_② <i>Replaces 50986_</i>	
SPRING SEATS	Seat Angle	Part No.	ID	Part No.	ID
	2°	50970-001	A01	50988-001	K01
	2.5°	50970-002	A02	50988-002	K02
	3°	50970-003	A03	50988-003	K03
	3.5°	50970-004	A04	50988-004	K04
	4°	50970-005	A05	50988-005	K05
	4.5°	50970-006	A06	50988-006	K06
	5°	50970-007	A07	50988-007	K07
	5.5°	50970-008	A08	50988-008	K08
	6°	50970-009	A09	50988-009	K09
	6.5°	50970-010	A10	50988-010	K10
	7°	50970-011	A11	50988-011	K11

Corresponding axle:

① Dana: DS-402, Meritor: SQ100, SSHD, RT-40, RT-46

② Dana: DS-461, 23105



■ U-bolt and Slipper Pad Selection Guide

	19K•21K•23K•36K•40K•46K				12K•15K•40K LH			
	7/8"-14 UNF 2A U-bolt				3/4"-16 UNF 2A U-bolt			
	Part No.	Length A	Thread Length B	*7/8" Fastener Kit	Part No.	Length A	Thread Length B	*3/4" Fastener Kit
<p>Approximate location for stamped part number</p>	47417-001	16 1/4"	4"	48718-157	49684-001	14"	4"	48718-158
	47417-002	13"						
	47417-003	17 1/2"						
	47417-004	17 1/4"						
	47417-005	16 3/4"						
	47417-006	14"						
	47417-007	15"						
	47417-008	15 1/2"						
	47417-009	18"			4 1/8"			
	47417-010	19"	4"					

* U-bolt fastener kit includes four (4) of each - spherical washer, hardened washer and locknut. Two (2) kits per axle or four (4) kits per tandem will be required to do a replacement.

	SLIPPER PAD SERVICE KITS			FRAME HANGERS	
				Casting No.	Part No.
FRAME HANGER SLIPPER PAD	KIT NO. 56557-002 KIT INCLUDES: • 1 Slipper Pad • 2 Retaining Plates • 4 Self Tapping Screws	SLIPPER PAD PART NO. 50612-000 		♦49676-000 50849-XXX ♦49676-000 56552-XXX 49848-000 50027-001 56666-001 50753-001 56669-001 56670-XXX 56669-001 50752-XXX 56885-001 56887-000	
	KIT NO. 56557-004 KIT INCLUDES: • 1 Slipper Pad • 2 Retaining Brackets • 2 Self Tapping Screws	SLIPPER PAD PART NO. 56929-000 		57188-001 57190-XXX 57476-001 57478-XXX	
	KIT NO. 56557-005 KIT INCLUDES: • 1 Slipper Pad • 2 Slotted Spring Pins	SLIPPER PAD PART NO. 56929-000 		57188-001 58425-XXX 57476-001 58688-XXX 57543-001 57544-XXX 58659-001 58661-001 59043-001 59045-XXX ♦59050-001 ♦59052-002 59747-001 59768-XXX	
	KIT NO. 56557-006 KIT INCLUDES: • 1 Slipper Pad • 2 Roll Pins	SLIPPER PAD PART NO. 58959-000 		♦59050-001 ♦59052-002	

♦ Part number no longer in production, contact Hendrickson Truck Parts for available options.

■ Special Tools

ULTRA ROD TORQUE ROD BUSHING FUNNEL TOOL

Hendrickson Part No. 66086-001L



NOTE: * 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.

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

*** These frame hangers are obsolete, although replacement slipper pads and hardware are currently still available.

**** Transverse torque rods are mandatory on HAS suspensions, refer to Hendrickson Lit. No. 59310-004 for mandatory use of transverse torque rods.

Hendrickson HAS ride height gauges can be obtained on-line at www.hendrickson-intl.com/litform

- **Unloaded vehicles:** Literature No. 45745-106
- **Loaded vehicles:** Literature No. 45745-050



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.*



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