

H PARTS LIST

HAS™ Rear Air Suspension

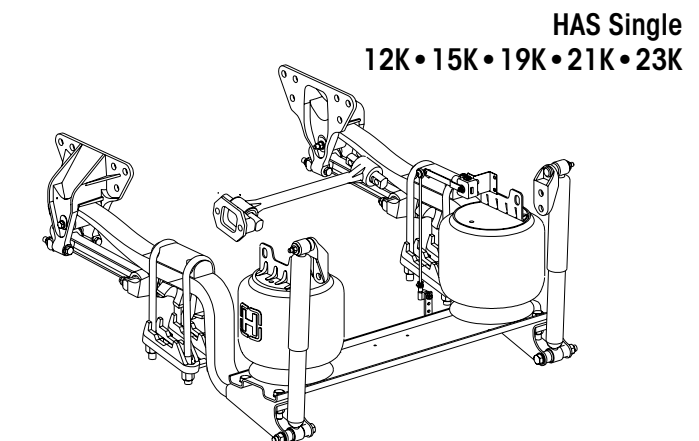
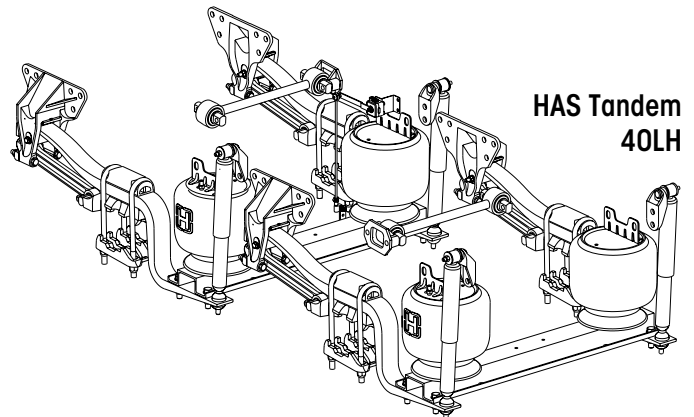
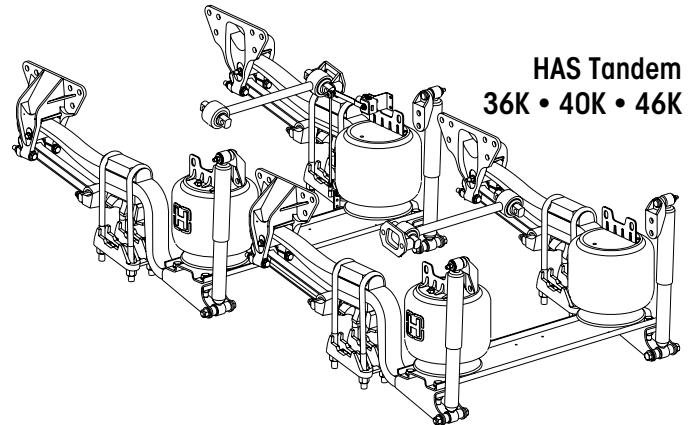
LIT NO: SP-149

DATE: October 2022

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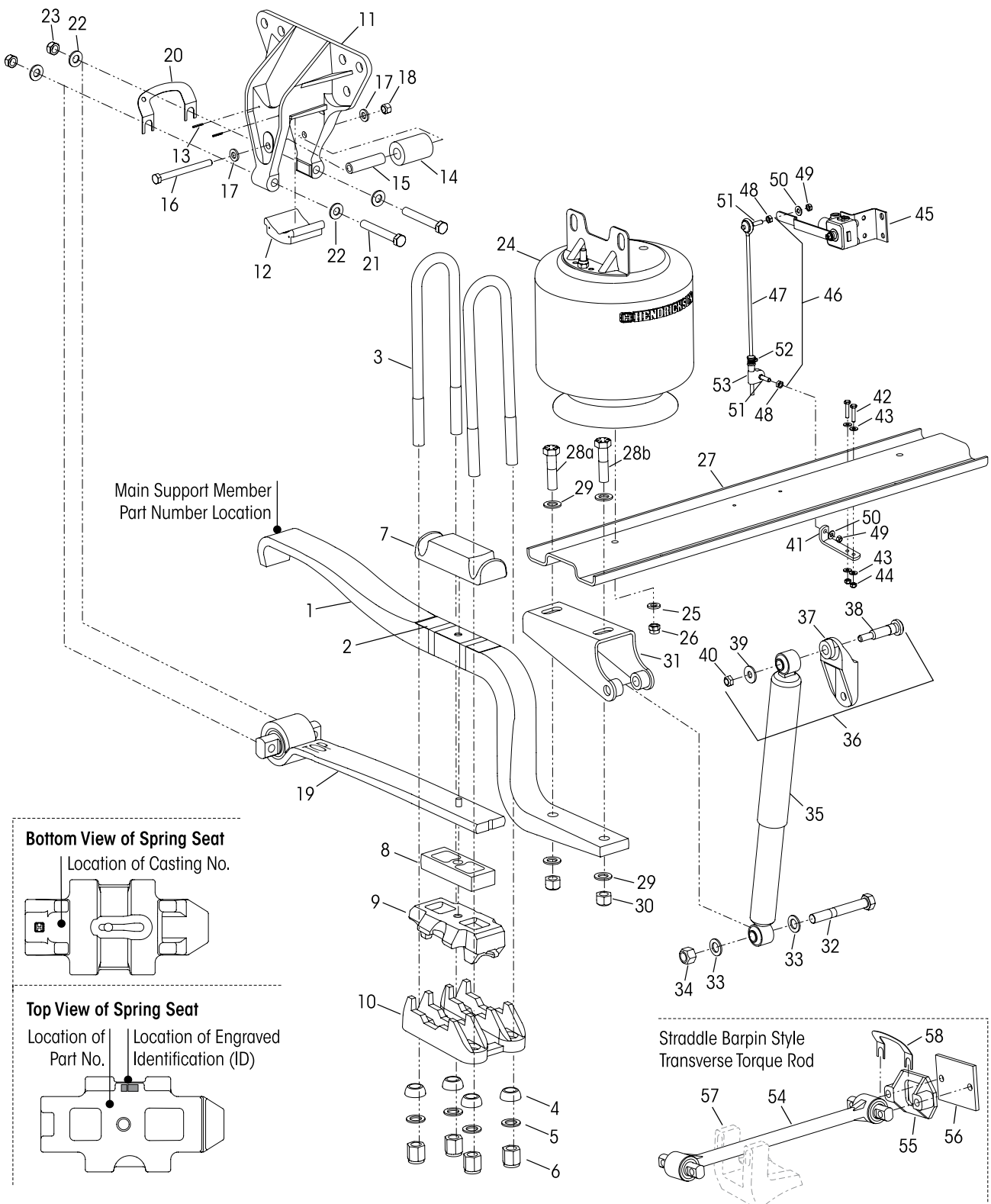
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HAS Single 21K • 23K | Tandem 40K • 46K

Vehicles equipped with Air Disc Brakes





HAS™ Single 21K • 23K | Tandem 40K • 46K with Air Disc Brakes

VEHICLE				VEHICLE			
KEY NO.	PART NO.	DESCRIPTION	*QTY.	KEY NO.	PART NO.	DESCRIPTION	*QTY.
1	59193-000	Main Support Member, Includes Key No. 2, <i>See Part No. Location on Page 2</i>	4	29	22962-001	¾" Flat Hardened Washer	16
2		**Delrin Liner	4	30	49842-000	¾"-10 UNC Locknut	8
3	47417-XXX	⅞"-14 UNF U-bolt, <i>See Selection Guide on Page 13</i>	8		57356-000	Lower Shock Bracket Assembly, Includes Key Nos. 31-34	4
	48718-502	U-bolt Fastener Service Kit, Two U-bolts, Includes Key Nos. 4-6		31	57355-000	Lower Shock Bracket	4
4		**⅞" Spherical Washer	16	32	50764-002	¾"-10 UNC x ½" Bolt	4
5		**⅞" Flat Hardened Washer	16	33	22962-001	¾" Flat Hardened Washer	8
6		**⅞"-14 UNF U-bolt Nut	16	34	49842-000	¾"-10 UNC Locknut	4
7	56805-000	Top Pad	4	35	60670-005L	Shock Absorber	4
8	48531-020	Spring Seat Spacer - 1¼" Height	4	36	57322-002	Upper Shock Bracket Assy, Includes Key Nos. 37-40	4
9		Spring Seat Assembly, <i>See Selection Guide below</i>	4	37		**Upper Shock Bracket	4
10		Axle Bottom Cap	4	38	50368-000	½"-13 UNC x ¾" Serrated Shank Bolt	4
		•LHF/RHF/LHR/RHR Meritor RT 40-145, RT 46-160		39	22962-031	½" Flat Hardened Washer	4
		•LHF/RHR Meritor SSHD, SQ-100; Dana DS-402/451		40	49846-000	½"-13 UNC Locknut	4
	93302-000	2°-9.5° Pinion Angle, <i>Replaces 50216-000</i>			57430-000	Lower Linkage Bracket Kit Includes Key Nos. 41-44	
	93315-000	10°-12° Pinion Angle, <i>Replaces 50222-000</i>		41	56789-000	Lower Linkage Lower Bracket	1
11	58425-001	Frame Hanger Assembly, Includes Key Nos. 12-13	4	42	56935-001	¼"-20 UNC x 1" Bolt	2
	56557-005	Slipper Pad Service Kit, One Hanger , Includes Key Nos. 12-13		43	22962-028	¼" Flat Hardened Washer	4
12	56929-000	Slipper Pad	4	44	49983-000	¼"-20 UNC Locknut	2
13	58287-001	1" Roll Pin - ⅝" Diameter	8	45	57977-000	Height Control Valve	1
	49175-014	Rebound Roller Kit, Axle Set , Includes Key Nos. 14-18		46	58994-XXX	Linkage Assembly, Specify Length, Includes Key Nos. 47-53	1
14	57989-000	Rebound Roller	4	47		**Linkage Rod, Specify Length	1
15	57988-000	Rebound Bolt Spacer	4	48		**⅝"-18 UNC Jam Nut	2
16	24531-015	½"-13 UNC x ½" Hex Bolt	4	49		**⅝"-18 UNC Locknut	2
17	22962-014	½" Flat Washer	8	50		**⅝" Flat Hardened Washer	2
18	49846-000	½"-13 UNC Locknut	4	51		**⅝"-18 UNC Stud	2
19	53350-000	Single Leaf Spring with Bushing	4	52		**Linkage Rod Clamp	1
20	49689-000L	Shim - ⅛"	4	53		**Adjustable Linkage Rod P Mount	1
21	32043-005	⅝"-11 UNC x 4½" Bolt	8	54		****Transverse Torque Rod, Includes Bushings	2
22	22962-004	⅝" Flat Hardened Washer	16	a	8240-0000-XXX	****TRAAX ROD®	
23	47764-000	⅝"-11 UNC Locknut	8	b	62000-XXX	ULTRA ROD®	
24	50898-002L	Air Spring Assembly	4	c	60218-000	ULTRA ROD Two-Piece Kit	
25	22962-014	½" Flat Hardened Washer	4	55	22186-000	Transverse Torque Rod Frame Bracket	2
26	17700-010	½"-13 UNC Nylocknut	4	56	45045-010	Backup Plate, <i>Replaces 45045-003</i>	2
27	57317-001	Cross Channel - 40" Dowel Pin Centers	2	57		*Transverse Torque Rod Axle Bracket	2
28a	50764-003	¾"-10 UNC x 3½" Bolt	8	58	49689-000L	Torque Rod Shim 1.52 mm	As Req.
b	50764-005	¾"-10 UNC x 3" Bolt		Not Shown	70867-001	P-80 Lubricant - 10 ml	Per Bushing

NOTE: * Quantities specified are shown for tandem suspension. Adjust quantities for single suspensions. Quantities of service kit components may vary from amount shown in the list. For all other (*) see Notes on Page 14.

■ Spring Seat Selection Guide | HAS Single 21K•23K | Tandem40K•46K

Vehicles equipped with Air Disc Brakes

Total of two (2) spring seats required per single and four (4) spring seats per tandem suspension. One of each located at the left / right front and left / right rear. See Page 2 for locations of ID, Casting No. and Part No.

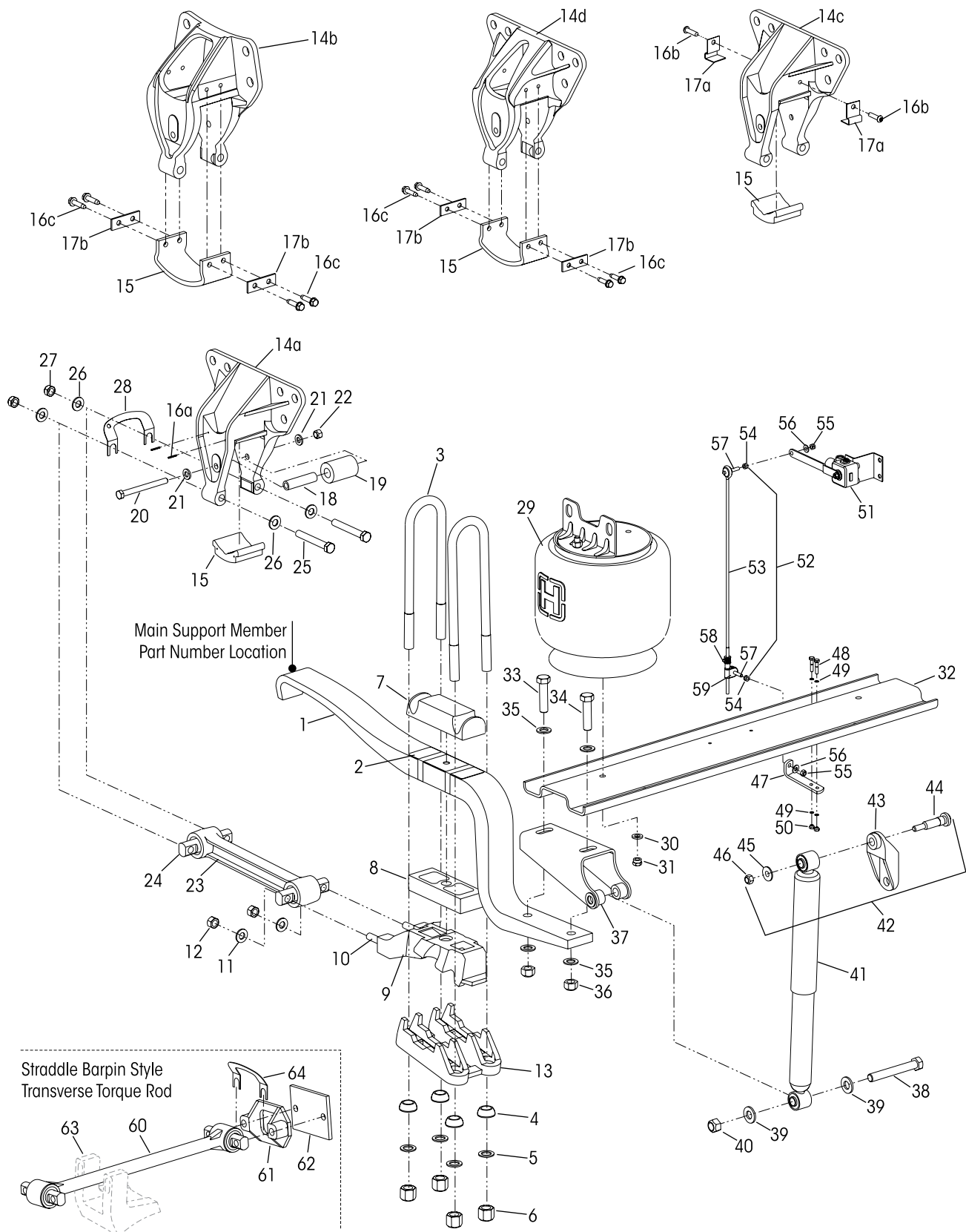
Key No. 9		FRONT RIGHT HAND						REAR LEFT HAND					
		Casting No. ❶ 56500						Casting No. ❷ 56504					
SPRING SEATS	Seat Angle	Part No.	ID	Seat Angle	Part No.	ID	Seat Angle	Part No.	ID	Seat Angle	Part No.	ID	
	0.0°	56501-037	D37	3.5°	56501-029	D29	8.0°	70856-001	E01	11.0°	70856-007	E07	
	0.5°	56501-038	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

Vehicles 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			49175-014	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
		U-bolt Fastener Service Kit, Two U-bolts,		22	49846-000	½"-13 UNC Locknut	4
	48718-157	Includes Key Nos. 4-6a		23		ULTRA ROD® Longitudinal Torque Rod Assembly Includes Key No. 24	4
	48718-502	Includes Key Nos. 4-6b			48411-006	36K • 40K	
4		**⅞" Spherical Washer	16		62007-365	46K, <i>Replaces 50376-001 Torque Rod & 57256-000 Bushing</i>	
5		**⅞" Flat Hardened Washer	16	24	47691-000L	Torque Rod Bushing	8
6		**U-bolt Nut	16	25	32043-005	⅝"-11 UNC x 4½" Bolt	8
a		⅞"-14 UNF Locknut		26	22962-004	⅝" Flat Hardened Washer	16
b		⅞"-14 UNF Nylocknut		27	47764-000	⅝"-11 UNC Locknut	8
7	56805-000	Top Pad	4	28		Torque Rod Shim	As Req.
8		Spring Seat Spacer, (If Equipped)	4		49689-000L	⅛"	
	48902-000	1"			57856-000	⅜"	
	48903-000	1½"		29		Air Spring Assembly with Upper Frame Bracket	4
9		Spring Seat Assembly, Includes Key Nos. 10-12, <i>See Selection Guide on Page 7</i>			56917-002L	40K Low Profile	
		Left Front, Right Front (each) 1			50898-002L	40K Low Profile (Kenworth only)	
		Left Rear, Right Rear (each) 1			57122-002L	40K • 46K	
10	50918-000	⅝"-11 UNC Stud	8	30	22962-014	½" Flat Hardened Washer	4
11	22962-004	⅝" Flat Hardened Washer	8	31	17700-010	½"-13 UNC Nylocknut	4
12	47764-000	⅝"-11 UNC Locknut	8	32		Cross Channel	2
13		Axle Bottom Cap	4			• 36K • 40K • 46K	
		• 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	
	93302-000	LHF/RHF/LHR/RHR 0-9.5° Pinion Angle <i>Replaces 50216-000</i>			57317-002	40¼" Dowel Pin Centers	
	93315-000	LHR/RHR 10-14° Pinion Angle, <i>Replaces 50222-000</i>			57317-003	40½" Dowel Pin Centers	
		Meritor SSHD, RT46-157; Dana D402/403/451			57317-004	40⅝" Dowel Pin Centers	
	93302-000	LHF 0-9.5° Pinion Angle, <i>Replaces 50216-000</i>			57317-006	40¼" Dowel Pin Centers with Left Hand HCV	
	50217-001	RHF 0-9.5° Pinion Angle			57773-001	• 40K • 46K with Rear Inboard Shock	
	93315-006	LHR 10-14° Pinion Angle, <i>Replaces 50221-001 50222-006</i>			57773-002	40" Dowel Pin Centers	
	93315-000	RHR 10-14° Pinion Angle, <i>Replaces 50222-000</i>			57773-003	40¼" 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
	50095-000	LHR 10-14° Pinion Angle			50764-005	36K • 40K - 3" Length	
	50094-000	RHR 10-14° Pinion Angle			50764-003	40K • 46K - 3½" Length	
14a		Frame Hanger Assembly	4	34		¾"-10 UNC Bolt	4
	58425-001	Includes Key Nos. 15-16			50764-007	36K • 40K - 2½" Length	
		• Standard Frame, Casting No. 57188-001 or ***56666-001, <i>Replaces 50753-001 (**14b), 57190-001 (**14c) & 50752-001 (**14d)</i>			50764-005	40K • 46K - 3" Length	
	59045-003	• Standard Frame, Casting No. 59043-001		35	22962-001	¾" Flat Hardened Washer	16
	58688-001	• Rein. Frame, Casting No. 57476-001, <i>Replaces 57478-001 (**14c)</i>		36	49842-000	¾"-10 UNC Locknut	8
		Slipper Pad Service Kit, One Hanger, <i>See Selection Guide on Page 13</i>				Lower Shock Bracket Assembly, Includes Key Nos. 37-40	4
15		Slipper Pad, <i>see Selection Guide on Page 13</i>	4		57356-000	36K • 40K • 46K	
16		Roll Pin or Screw, <i>see Selection Guide on Page 13</i>			49690-002	40K Low Profile	
a	58287-001	1" Roll Pin - ⅛" Diameter	8	37		Lower Shock Bracket	4
b	57540-000	⅝" Button Head Screw	8		57355-000	36K • 40K • 46K	
c	57306-000	⅝" Rolok Screw	16		49324-002	40K Low Profile	
				38	50764-002	¾"-10 UNC x 5½" Bolt	4
				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

KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
44	50368-000	½"-13 UNC x 3¾" Serrated Shank Bolt	4
45	22962-031	½" Flat Hardened Washer	4
46	49846-000	½"-13 UNC Locknut	4
	57430-000	Lower Linkage Lower Bracket Kit, Includes Key Nos. 47-50	
47	56789-000	Lower 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	Linkage Assembly, Specify Length, <i>Contact Hendrickson for Part Number,</i> Includes Key Nos. 53-59	1
53		**Linkage Rod, Specify Length	1
54		**⅝"-18 UNC Jam Nut	2

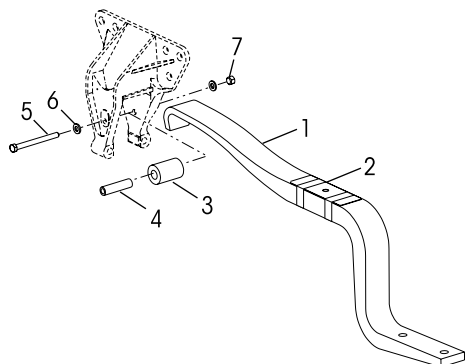
Vehicles equipped with Drum Brakes

KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
55		**⅝"-18 UNC Locknut	2
56		**⅝"-18 Flat Hardened Washer	2
57		**⅝"-18 UNC Stud	2
58		**Linkage Rod Clamp	1
59		**Adjustable Linkage Rod Mount	1
60		****Transverse Torque Rod, Includes Bushings	2
a	8240-0000-XXX	*****TRAAX ROD	
b	62000-XXX	ULTRA ROD	
c	60218-000	ULTRA ROD Two-Piece Kit	
61	22186-000	Transverse Torque Rod Frame Bracket	2
62	45045-010	Backup Plate, <i>Replaces 45045-003</i>	2
63		*Transverse Torque Rod Axle Bracket	2
64	49689-000L	Torque Rod Shim 1.52 mm	As Req.
Not Shown	70867-001	P-80 Lubricant - 10 ml	Per Bushing

HAS 46K Severe Service Kit

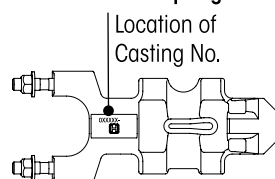
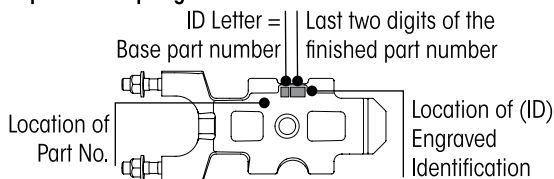
Severe Service Kit | Axle Set
No. 49175-024

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. 1-7, Frame Hanger not included	
1	59597-000	Main Support Member	2
2	47905-000	Delrin Liner	2
3	59598-000	Rebound Roller	2
4	57988-000	Rebound Spacer	2
5	24531-015	½"-13 UNC x 5½" Rebound Bolt	2
6	22962-014	½" Flat Hardened Washer	4
7	49846-000	½"-13 UNC Locknut	2

■ Spring Seat Selection Guide | HAS Tandem • HAS 40K LH

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.		❶ 50923		❷ 50923 <i>Replaces 50986</i>		❶ 50923		❸ 50923 <i>Replaces 50974</i>				❹ 50923 <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.		❺ 50971		❸ 50971 <i>Replaces 50977</i>		❹ 50971 <i>Replaces 50995</i>		❺ 50971		❹ 50971 <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:

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

❷ Dana: DS-461, 23105

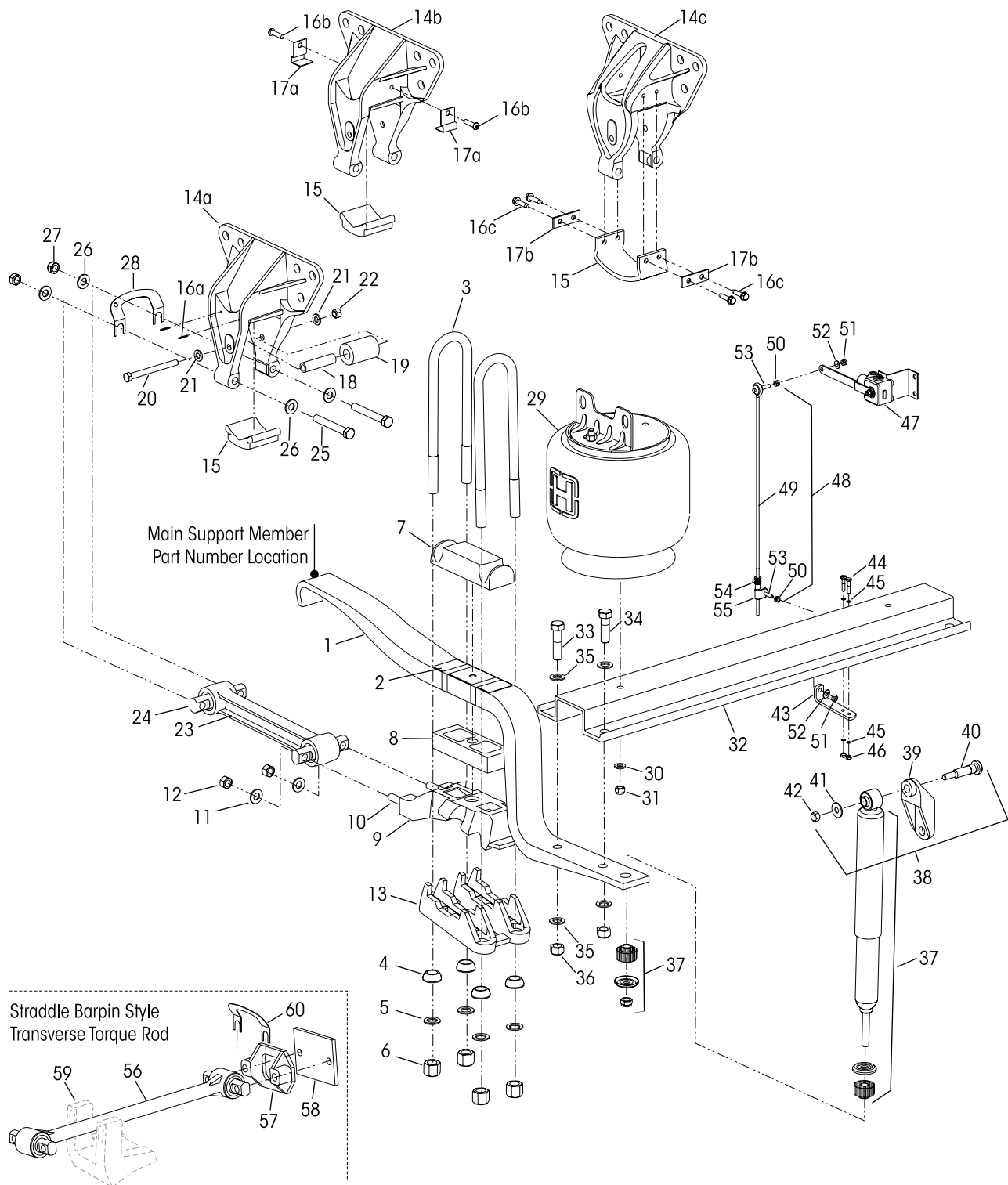
❸ Dana: DS-402; Meritor: SQ100

❹ Dana: DS-461

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

HAS Tandem 40KLH

Vehicles equipped with Drum Brakes





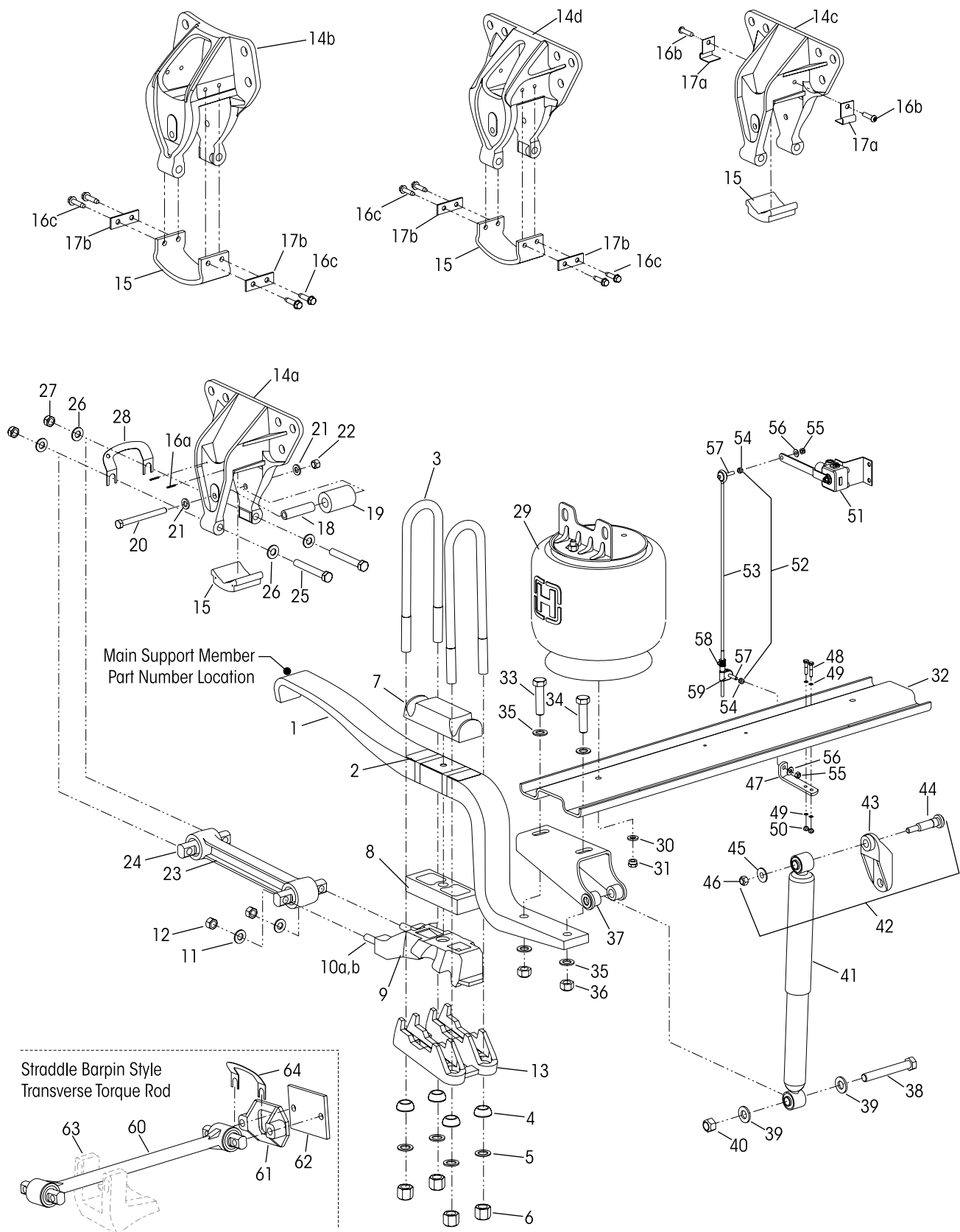
HAS™ Tandem 40K LH Equipped with Drum Brakes

KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
1		Main Support Member, <i>see Part No. Location on Page 8</i>	4
	57217-000	Includes Key No. 2	
	60262-000	Mack only	
2	47905-000	Delrin Liner	4
3		¾"-16 UNF U-bolt, <i>see Selection Guide on Page 13</i>	8
	48718-158	U-bolt Fastener Service Kit, Two U-bolts, Includes Key Nos. 4-6	
4		**¾" Spherical Washer	16
5		**¾" Flat Hardened Washer	16
6		**¾"-16 UNF Locknut	16
7	56805-000	Top Pad, <i>Replaces 57195-000</i>	4
8		Spring Seat Spacer (If Equipped)	4
	48902-000	1"	
	48903-000	1½"	
9		Spring Seat Assembly, Includes Key Nos. 10-12, <i>See Selection Guide on Page 7</i>	
		Left Front, Right Front (each)	1
		Left Rear, Right Rear (each)	1
10	50918-000	⅝"-11 UNC Stud	8
11	22962-004	⅝" Flat Hardened Washer	8
12	47764-000	⅝"-11 UNC Locknut	8
13		Axle Bottom Cap	4
		• 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	
	57198-000	LHF/RHF/LHR/RHR 0-9.5° Pinion Angle	
	57200-000	LHR/RHR 10-14° Pinion Angle	
		• Dana D402/403/451	
	57198-000	LHF 0-9.5° Pinion Angle	
	57197-000	RHF 0-9.5° Pinion Angle	
	57200-000	LHR 10-14° Pinion Angle	
	57199-000	RHR 10-14° Pinion Angle	
14a		Frame Hanger Assembly, Includes Key Nos. 15-16 4	
	58425-001	• Standard Frame Casting No. 57188-001, <i>Replaces</i> <i>57190-001(**14b) & 50752-001(**14c)</i>	
	58688-001	• Rein. Frame, Casting No. 57476-001, <i>Replaces 57478-001(**14b)</i>	
		Slipper Pad Service Kit, One Hanger, <i>See Selection Guide on Page 13</i>	
15		Slipper Pad, <i>see Selection Guide on Page 13</i>	4
16		Roll Pin or Screw, <i>see Selection Guide on Page 13</i>	
	a 58287-001	1" Roll Pin - ⅛" Diameter	8
	b 57540-000	⅝" Button Head Screw	8
	c 57306-000	⅝" Rolok Screw	16
17		Retaining Bracket or Plate, <i>see Selection Guide on Page 13</i>	
	a 57566-000	Retaining Bracket	8
	b 50597-000	Retaining Plate	8
	49175-014	Rebound Roller Kit, Axle Set, Includes Key Nos. 18-22	
18	57988-000	Rebound Bolt Spacer, <i>Replaces 47458-000</i>	4

KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
19	57989-000	Rebound Roller, <i>Replaces 48883-000</i>	4
20	24531-015	½"-13 UNC x 5½" Rebound Bolt	4
21	22962-014	½" Flat Hardened Washer	8
22	49846-000	½"-13 UNC Locknut	4
23	48411-006	ULTRA ROD Longitudinal Torque Rod Assembly Includes Key No. 24	4
24	47691-000L	Torque Rod Bushing	8
25	32043-005	⅝"-11 UNC x 4½" Bolt	8
26	22962-004	⅝" Flat Hardened Washer	16
27	47764-000	⅝"-11 UNC Locknut	8
28		Torque Rod Shim	As Req.
	49689-000L	⅛"	
	57856-000	⅜"	
29	50898-002L	Air Spring Assembly with Upper Frame Bracket	4
30	22962-014	½" Flat Hardened Washer	4
31	17700-010	½"-13 UNC Nylocknut	4
32	57192-001	Cross Channel, 40" Dowel Pin Centers	2
33	50764-002	¾"-10 UNC x 5½" Bolt	4
34	50764-005	¾"-10 UNC x 3" Bolt	4
35	22962-001	¾" Flat Hardened Washer	16
36	49842-000	¾"-10 UNC Locknut	8
37		Shock Absorber	4
	60680-001L	Standard	
	60685-001L	Hi-Torque	
38	57322-001	Upper Shock Bracket Assembly, Includes Key Nos. 39-42	4
39		**Upper Shock Bracket	4
40	50368-000	½"-13 UNC x 3¾" Serrated Shank Bolt	4
41	22962-031	½" Flat Hardened Washer	4
42	49846-000	½"-13 UNC Locknut	4
	57430-000	Lower Linkage Bracket Kit, Includes Key Nos. 43-46	
43	56789-000	Lower Linkage Bracket	1
44	56935-001	¼"-20 UNC x 1" Bolt, <i>Replaces 56935-002</i>	2
45	22962-028	¼" Flat Hardened Washer	4
46	49983-000	¼"-20 UNC Locknut	2
47	57977-000	Height Control Valve,	1
48	58994-XXX	Linkage Assembly, Specify Length, <i>Contact Hendrickson for Part Number,</i> Includes Key Nos. 49-55	1
49		**Linkage Rod, Specify Length	1
50		**⅝"-18 UNC Jam Nut	2
51		**⅝"-18 UNC Locknut	2
52		**⅝"-18 Flat Hardened Washer	2
53		**⅝"-18 UNC Stud	2
54		**Linkage Rod Clamp	1
55		**Adjustable Linkage Rod Mount	1
56		****Transverse Torque Rod, Includes Bushings	2
	a 8240-0000-XXX	****TRAAX ROD	
	b 62000-XXX	ULTRA ROD	
	c 60218-000	ULTRA ROD Two-Piece Kits	
57	22186-000	Transverse Torque Rod Frame Bracket	2
58	45045-010	Backup Plate, <i>Replaces 45045-003</i>	2
59		*Transverse Torque Rod Axle Bracket	2
60	49689-000L	Torque Rod Shim 1.52 mm	As Req.
Not Shown	70867-001	P-80 Lubricant - 10 ml	Per Bushing

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

Vehicles 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		60636-001	12K • 15K • 19K Casting No. 60634-001	
	56925-000	12K Low Profile/15K Low Profile				Slipper Pad Service Kit, One Hanger, <i>See Selection Guide on Page 13</i>	
	56937-000	12K/15K		15		Slipper Pad, <i>see Selection Guide on Page 13</i>	2
	56928-000	19K Low Profile		16		Roll Pin or Screw, <i>see Selection Guide on Page 13</i>	
	56940-000	19K		a	58287-001	1" Roll Pin - 1/8" Diameter	4
	56931-000	21K Low Profile		b	57540-000	3/8" Button Head Screw	4
	56943-000	21K		c	57306-000	3/8" Rolok Screw	8
	56934-000	23K Low Profile		17		Retaining Bracket or Plate, <i>see Selection Guide on Page 13</i>	4
	56946-000	23K		a	57566-000	Retaining Bracket	
2	47905-000	Delrin Liner	2	b	50597-000	Retaining Plate	
3		U-bolt, <i>see Selection Guide on Page 13</i>	4		49175-014	Rebound Roller Kit, Axle Set, Includes Key Nos. 18-22	
	49684-XXX	3/4"-16 UNF - 12K • 15K		18	57988-000	Rebound Bolt Spacer, <i>Replaces 47458-000</i>	2
	47417-XXX	7/8"-14 UNF - 19K • 21K • 23K		19	57989-000	Rebound Roller, <i>Replaces 48883-000</i>	2
		U-bolt Fastener Service Kit, Two U-bolts		20	24531-015	1/2"-13 UNC x 5 1/2" Rebound Bolt	2
	48718-158	3/4" - 12K • 15K, Includes Key Nos. 4a-6a		21	22962-014	1/2" Flat Hardened Washer	4
	48718-157	7/8" - 19K • 21K • 23K, Includes Key Nos. 4b-6b		22	49846-000	1/2"-13 UNC Locknut	2
	48718-502	7/8" - 19K • 21K • 23K, Includes Key Nos. 4b, 5b, 6c		23		ULTRA ROD Longitudinal Torque Rod Assembly Includes Key No. 24 12K • 15K • 19K 23K, <i>Replaces Torque Rod 50376-001</i> & <i>Bushing 57256-000</i>	2
4		**Spherical Washer	8	24	47691-000L	Torque Rod Bushing	4
a		3/4" - 12K • 15K		25	32043-005	5/8"-11 UNC x 4 1/2" Bolt	4
b		7/8" - 19K • 21K • 23K		26	22962-004	5/8" Flat Hardened Washer	8
5		**Flat Hardened Washer	8	27	47764-000	5/8"-11 UNC Locknut	4
a		3/4" - 12K • 15K		28		Torque Rod Shim 1/16" 1/32"	As Req.
b		7/8" - 19K • 21K • 23K		29		Air Spring Assembly with Upper Frame Bracket 12K Low Profile 15K Low Profile • 19K Low Profile • 21K Low Profile • 23K Low Profile 19K • 21K • 23K	2
6		**U-bolt Nut	8		57920-002L	12K Low Profile	
a		3/4"-16 UNF Locknut - 12K • 15K			56917-002L	15K Low Profile • 19K Low Profile • 21K Low Profile • 23K Low Profile	
b		7/8"-14 UNF Locknut - 19K • 21K • 23K			57122-002L	19K • 21K • 23K	
c		7/8"-14 UNF Nylocknut - 19K • 21K • 23K		30	22962-014	1/2" Flat Hardened Washer	2
7		Top Pad	2	31	17700-010	1/2"-13 UNC Nylocknut	2
	57224-000	12K • 15K		32		Cross Channel, <i>Replaces 57855-XXX</i>	1
	56805-000	19K • 21K • 23K			57317-001	40" Dowel Pin Centers	
8		Spring Seat Spacer (If equipped)	2		57317-002	40 1/4" Dowel Pin Centers	
	48531-009	1", 12K • 15K - 6 1/4" length			57317-003	40 1/2" Dowel Pin Centers	
	48902-000	1", 19K • 21K • 23K - 7 3/4" length			57317-004	40 5/8" Dowel Pin Centers	
	48903-000	1 1/2", 19K • 21K • 23K - 7 3/4" length			57317-006	40 1/4" Dowel Pin Centers with LH HCV	
9		Spring Seat Assembly, Includes Key Nos. 10-12, <i>See Selection Guide on Page 12</i>	2	33		3/4"-10 UNC Bolt 12K • 15K • 19K • 21K - 3" Length 23K - 3 1/2" Length	2
10a	50918-000	5/8"-11 UNC x 4" Stud for Part Nos. 50970-XXX & 50988-XXX	4		50764-005	12K • 15K • 19K • 21K - 2 1/2" Length	
b	32043-005	5/8"-11 UNC x 4 1/2" Hex Bolt for Part Nos. 57033-XXX & 59795-XXX	4	34		3/4"-10 UNC Bolt 12K • 15K • 19K • 21K - 2 1/2" Length 23K - 3" Length	2
11		5/8" Flat Hardened Washer for Part Nos. 50970-XXX & 50988-XXX for Part Nos. 57033-XXX & 59795-XXX	4		50764-007	12K • 15K • 19K • 21K - 2 1/2" Length	
a	22962-004				50764-005	23K - 3" Length	
b	22962-025			35	22962-001	3/4" Flat Hardened Washer	8
12	47764-000	5/8"-11 UNC Locknut	4	36	49842-000	3/4"-10 UNC Locknut	4
13		Axle Bottom Cap	2			Lower Shock Bracket Assembly Includes Key Nos. 37-40 12K Low Profile • 15K Low Profile • 19K Low Profile • 21K Low Profile • 23K Low Profile 19K • 21K • 23K	2
		Meritor RS13-120, RS15-120, RS15-210 LHF/RHF 0-5° Pinion Angle • 12K • 15K • 19K • 21K • 23K Meritor RS21-145, RS21-160, RS23-160/161; Dana 19060/21060/21080/21090/23090/ 26090, S21/23/26-170/190 LHF/RHF 0-9.5° Pinion Angle, <i>Replaces 50216-000</i> • 23K Dana 23080/23105/26015 LHF 0-9.5° Pinion Angle LHR 10-14° Pinion Angle RHR 10-14° Pinion Angle		37		Lower Shock Bracket 12K Low Profile • 15K Low Profile • 19K Low Profile • 21K Low Profile • 23K Low Profile 19K • 21K • 23K	2
14a		Frame Hanger Assembly 21K • 23K, Includes Key Nos. 15-16	4		49324-002	12K Low Profile • 15K Low Profile • 19K Low Profile • 21K Low Profile • 23K Low Profile 19K • 21K • 23K	
	58425-001	• Standard Frame, Casting No. 57188-001 or ***56666-001, <i>Replaces 50753-001(***14b),</i> <i>57190-001(***14c) & 50752-001(***14d)</i>			57355-000	19K • 21K • 23K	
	59045-003	• Standard Frame, Casting No. 59043-001		38	50764-002	3/4"-10 UNC x 5 1/2" Bolt	2
	58688-001	• Rein. Frame, Casting No. 57476-001, <i>Replaces</i> <i>57478-001(***14c)</i>		39	22962-001	3/4" Flat Hardened Washer	4
				40	49842-000	3/4"-10 UNC Locknut	2

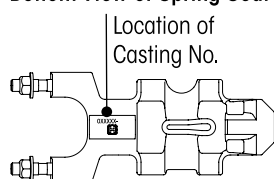
HAS Single 12K • 15K • 19K • 21K • 23K

Vehicles equipped with Drum Brakes

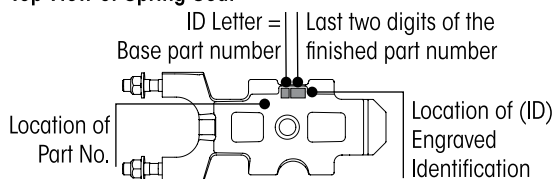
KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.	KEY NO.	PART NO.	DESCRIPTION	VEHICLE QTY.
41		Shock Absorber	2	52	58994-XXX	Linkage Assembly, Specify Length, Contact Hendrickson for Part Number, Includes Key Nos. 53-59	1
	60670-005L	19K • 21K • 23K Standard		53		**Linkage Rod, Specify Length	1
	60675-003L	Hi-Torque, <i>Replaces 57905-001</i>		54		**5/16"-18 UNC Jam Nut	2
	60670-010L	12K Low Profile		55		**5/16"-18 UNC Locknut	2
	60670-003L	15K Low Profile		56		**5/16" Flat Hardened Washer	2
	60670-008L	19K Low Profile • 21K Low Profile • 23K Low Profile		57		**5/16"-18 UNC Stud	2
42	57322-001	Upper Shock Bracket Assembly, Includes Key Nos. 43-46	2	58		**Linkage Rod Clamp	1
43		**Upper Shock Bracket	2	59		**Adjustable Linkage Rod Mount	1
44	50368-000	1/2"-13 UNC x 3 3/4" Serrated Shank Bolt	2	60		****Transverse Torque Rod, Includes Bushings	2
45	22962-031	1/2" Flat Hardened Washer	2	a	8240-0000-XXX	*****TRAAX ROD	
46	49846-000	1/2"-13 UNC Locknut	2	b	62000-XXX	ULTRA ROD	
	57430-000	Lower Linkage Bracket Kit, Includes Key Nos. 47-50		c	60218-000	ULTRA ROD Two-Piece Kit	
47	56789-000	Lower Linkage Bracket	1	61	22186-000	Transverse Torque Rod Frame Bracket	1
48	56935-001	1/4"-20 UNC x 1" Bolt, <i>Replaces 56935-002</i>	2	62	45045-010	Backup Plate, <i>Replaces 45045-003</i>	1
49	22962-028	1/4" Flat Hardened Washer	4	63		*Transverse Torque Rod Axle Bracket	1
50	49983-000	1/4"-20 UNC Locknut	2	64	49689-000L	Torque Rod Shim 1.52 mm	As Req.
51	57977-000	Height Control Valve	1	Not Shown	70867-001	P-80 Lubricant - 10 ml	Per Bushing

■ Spring Seat Selection Guide | HAS 12K•15K•19K•21K•23K

Bottom View of Spring Seat



Top View of Spring Seat



Equipped with Drum Brakes

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

Key No. 9 •
Page 18

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

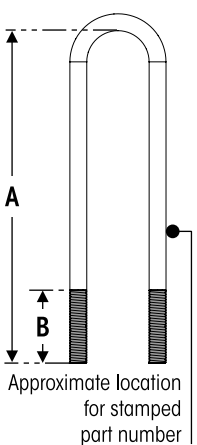
Corresponding axle:

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

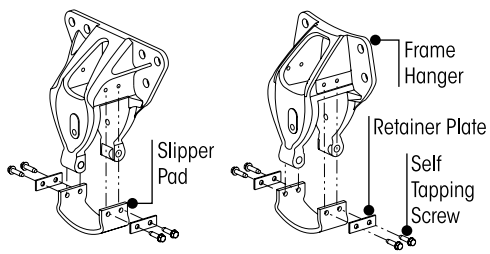
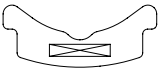
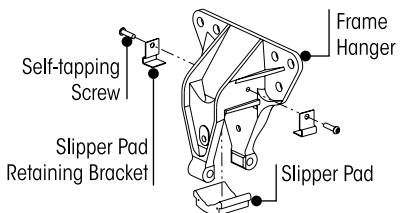
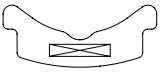
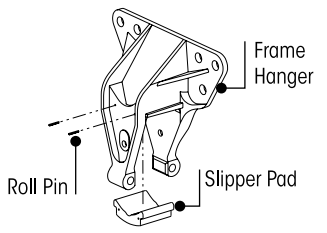
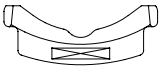
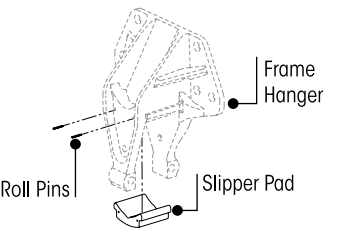
② Dana: DS-461, 23105



U-bolt and Slipper Pad Selection Guide

U-BOLT		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
		47417-001	16¼"	4"	48718-157 or 48718-502	49684-001	14"	4"	48718-158
		47417-002	13"			49684-002	15"		
		47417-003	17½"			49684-003	15½"		
		47417-004	17¼"			49684-008	18"		
		47417-005	16¾"			49684-011	12½"		
		47417-006	14"			49684-012	12"		
		47417-007	15"			49684-013	13"		
		47417-008	15½"			49684-014	16"		
		47417-009	18"	4½"		49684-015	17"		
		47417-010	19"	4"		49684-016	19"		

* 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.

FRAME HANGER SLIPPER PAD	SLIPPER PAD SERVICE KITS			FRAME HANGERS	
				Casting No.	Part No.
	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

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

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 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

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SP-149 Rev L 10-22

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