

Roadranger®

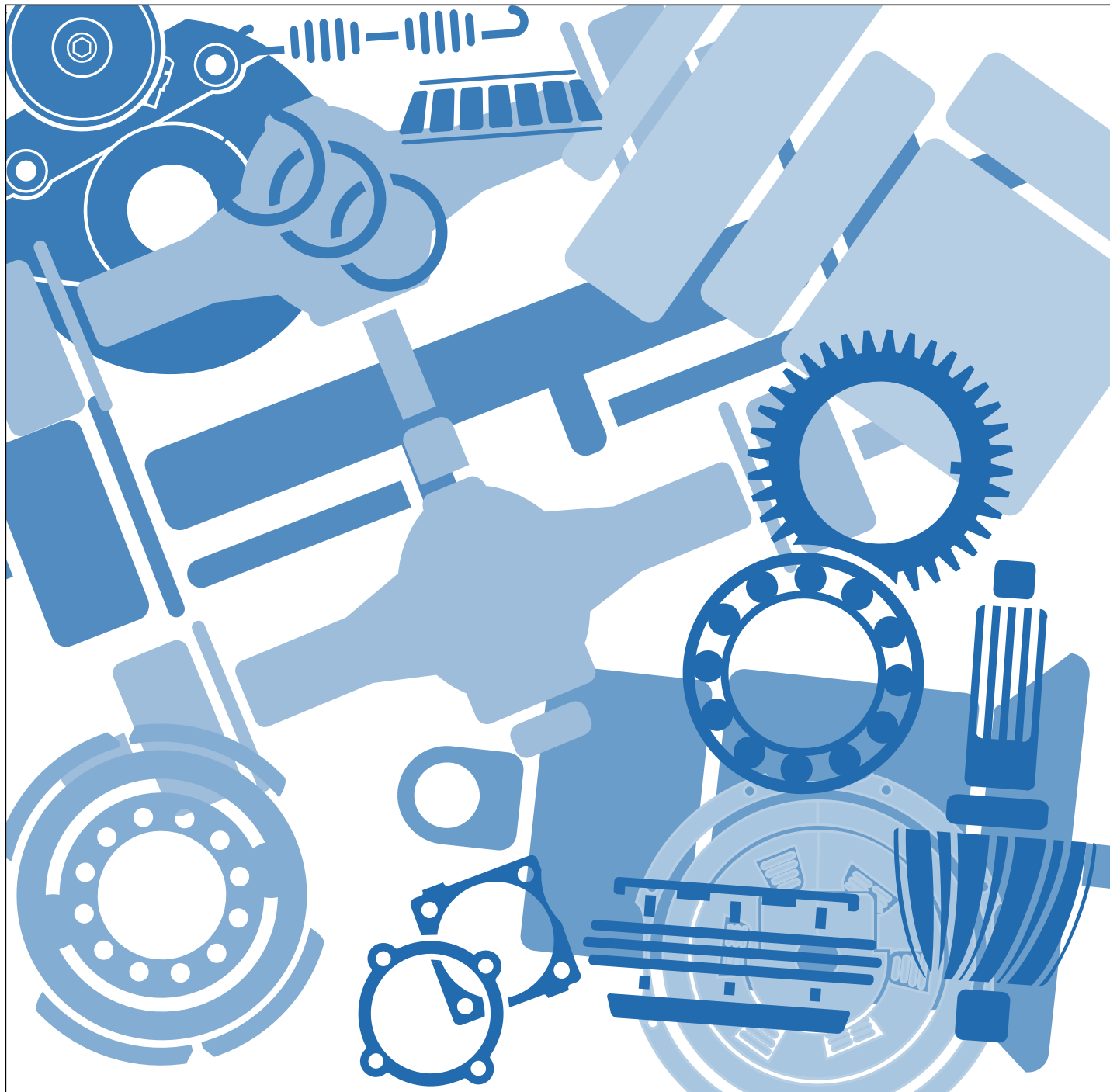
Dana® Spicer® Tandem Axles

Single Reduction
34,000 - 45,000 lbs



One Great Drivetrain from Two Great Companies

Illustrated Parts List AXIP-0089 April 1994



For the most current information, visit the Roadranger web site at www.roadranger.com

Eaton Axle Parts Book

Eaton Corporation, Axle & Brake Division presents this Parts Book as an aid in the identification and procurement of replacement parts for Eaton Axles. The information included covers the differential carrier assembly, axle housing, axle shafts, shift system and special-designed parts kits and assemblies.

Exploded views are used to illustrate the parts and show their relationship to other parts on the carrier. Each part is identified by an item number, which in turn, leads to a list containing part name and part number.

For convenience, part numbers have been included for all pieces of the carrier assembly. However, some of these parts, such as differential carrier and caps, are serviced only in kits or assemblies. Part numbers are for your reference only. Those parts not serviced separately are identified with NSS.

Genuine Eaton Parts.

When you buy genuine Eaton replacement parts, you receive the same high quality and exacting tolerances you find in the original axle components.

Only genuine Eaton parts have the latest Eaton engineering improvements and assure equal or better performance than the original parts.

And Eaton backs you up with a responsive and capable service organization located strategically to provide you with emergency parts and service when you need them.

Insist on Eaton quality. Use genuine Eaton replacement parts.

Abbreviations

AR—As Required: Parts that vary in quantity with each axle.
Example: shims.

NSS—Not Serviced Separately: Items which can only be purchased in sets, kit form or service assemblies. Example: ring gear sets.

RH/LH—Right Hand/Left Hand: Determined as viewed from behind the vehicle looking forward.

“RTV”—Gasket Compound: Formed-in-place gasket sealer. It is recommended for use on all surfaces requiring a gasket.

Eaton Parts Kits

Eaton Parts Kits give you an economical, convenient way to stock Eaton replacement parts. They contain all the parts you need to do a complete professional job of overhauling or repairing your Eaton axle. And you have only one part number in one easily stored package to order, stock, identify, and satisfy your customers' needs.

Symbols:

This symbol is used throughout this book to identify parts included in major kits.

- ★ Carrier Basic Overhaul Kit
- Bearing Kit

Ordering Eaton Axle Parts

Place all your parts orders through your truck dealer or manufacturer (OEM). Do not order parts directly from Eaton Corporation, Axle & Brake Division.

How to use this Parts Book

1. Refer to table of contents on opposite page for axle type, model or series, and page number.
2. Turn to the page that applies to the axle in question.
3. Locate the desired part in the exploded illustration and note Item No. This Item No. will lead you to the part name and number.
4. Refer to the related Parts Listing and locate the same Item No. and the name. If more than one part number is listed, refer to the axle model listings at top of list and select the part number that applies to the axle being serviced.

Axle Model Coverage:

This publication covers single reduction highway tandems (34,000-45,000 lbs.):

Forward Tandem Axle	Rear Tandem Axle
34DS	34RS
38DS	38RS
DS340	RS340
DS380(P)	RS380
DS400-P	RS400
DS341	RS341
DS381(P)	RS381
DS401-P	RS401
DS341	RS341
DS402(P)	RS402
DS451-P	RS451

PLEASE REVIEW THESE NOTES PRIOR TO USING THIS PUBLICATION!

During the 4th Quarter of 1990, Eaton began using new seals and yoke & slingers on models covered in this publication. The new seals and slingers are noticeably different from the current seals and will affect inter-changeability. Before replacing seals or yoke & slingers, please refer to information on the top of page 20.

This publication has been designed to help you service highway tandem models built since 1958. Please note the column heads at the top of each parts list. The current models appear first, followed by earlier models.

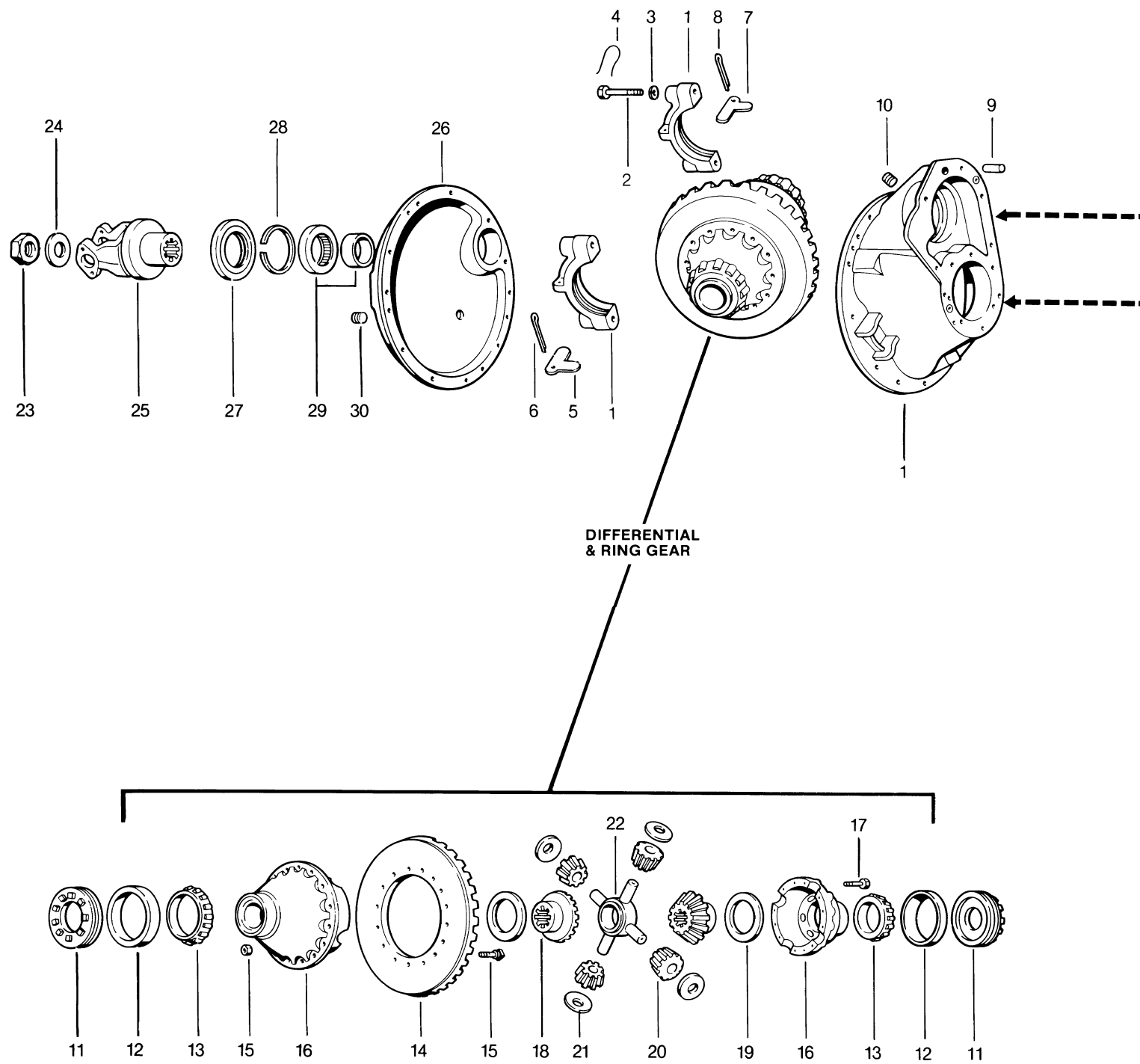
Model changes were made to the current production models effective April 6, 1989 (96th day of 1989). Quick identification can be made by checking the carrier casting number on the rear tandem (127045 or 128109).

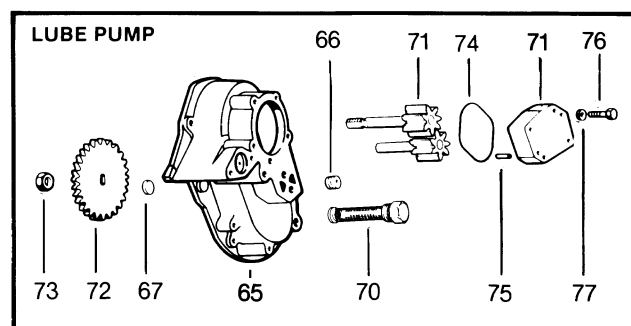
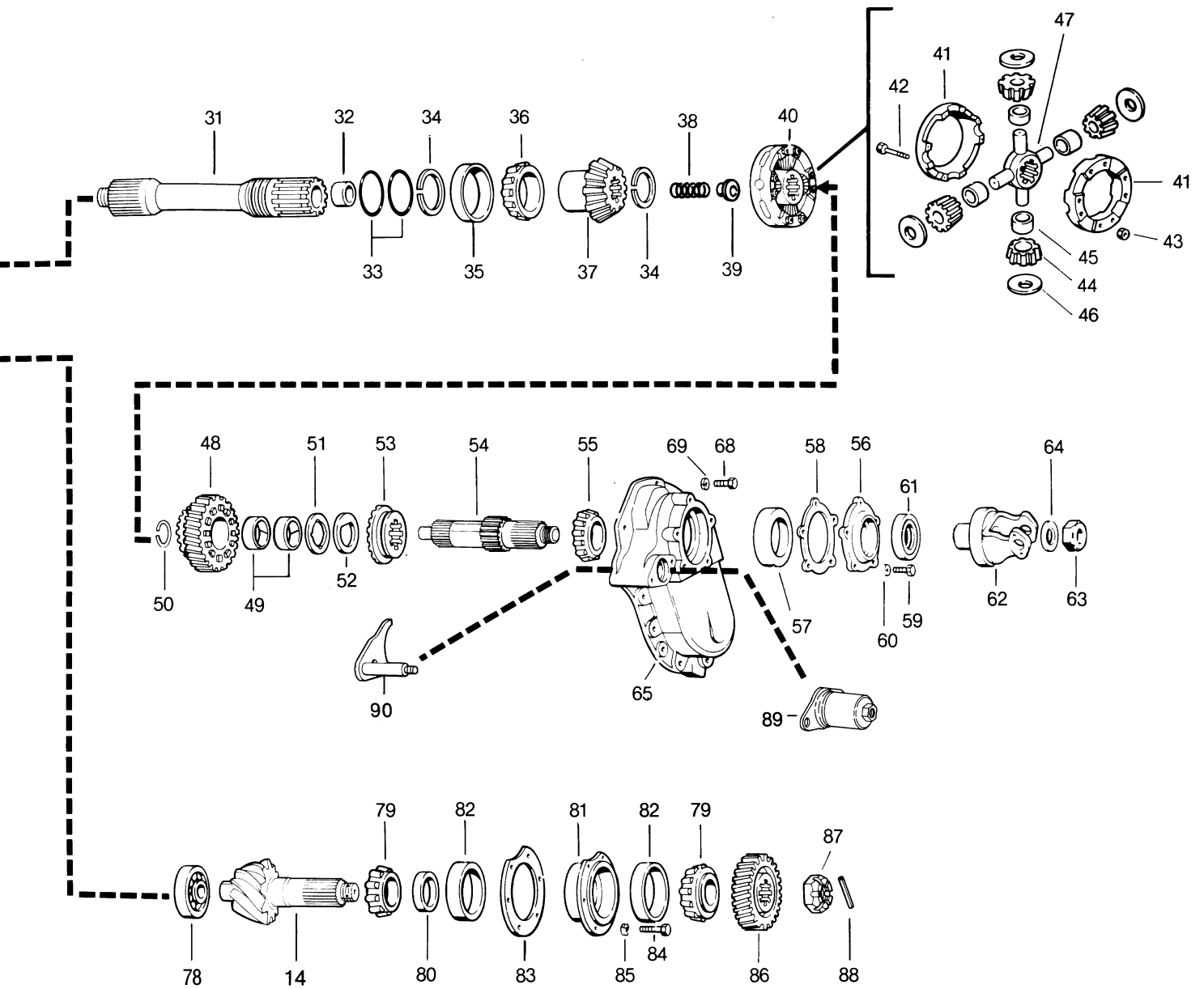
From 1972 until May 1978, DS340 and DS380 tandems were built with 2-Speed differential carriers. Special instructions and parts list for these models can be found on page 10.

Table of Contents

	Page		Page
Differential Carrier Assembly (Exploded View and Parts List)		Differential Lockout	14
*Single Reduction		Axle Housing & Axle Shafts	16
Forward Axle	4	Drive Pinion & Ring Gear Sets	18
Rear Axle	11	Input and Output Yokes	20
*DS340 and DS380 models built with 2-Speed diff. carriers	10	Pinion Bearing Spacers	20
		Power Divider Conversion Kit	21
		Differential Carrier Assemblies	22
		Yoke Selection Guide	23
		Differential Carrier Identification	24
		Service Backup	24

Forward Tandem Axle Differential Carrier
Single Reduction





Item No.	Part Name	Qty Per Axle	DS341, DS402(P), DS451-P Built After 4-6-89	DS381(P), DS402(P), DS401-P, DS451-P, Built Before 4-6-89	DS340, DS380(P), DS400-P NOTE 1	34DS 38DS
	BASIC OVERHAUL KIT (Contents identified with ★)	1	124487★	114399★	110593★	110560★
	BEARING KIT (Contents identified with ●)	1	211222●	114394●	106845●	99044●
1	Diff. Carrier & Bearing Caps Carrier Casting No. (NSS) 115690 includes Items 2-4, 9-10 120923, 120924 include Items 2-4, 9-10, 35-37	1	115690 128107	115690 128107	120924 128107 NOTE 2	120923 128107 NOTE 2
2	Bearing Cap Screw	4	127179	127179	127179	127179
3	Flat Washer	4	26772	26772	26772	26772
4	Lockwire	4	—	—	90538	90538
5	Bearing Adjuster Lock (RH)	1	14275	14275	14275	14275
6	Cotter Pin (RH)	1	90876	90876	90876	90876
7	Bearing Adjuster Lock (LH)	1	13377	13377	13377	13377
8	Cotter Pin (LH)	1	90873	90873	90873	90873
9	Carrier Cover Dowel Pin	2	7641	7641	7641	7641
10	Filler Plug	1	90325	90325	90325	90325
11	Diff. Bearing Adjuster (RH)	1	31562	31562	31562	31562
	Diff. Bearing Adjuster (LH)	1	110243	110243	27842	27842
12	Diff. Bearing Cup (RH)	1	90943★★	90943★★	90943★★	90943★★
	Diff. Bearing Cup (LH)	1	9803★★	9803★★	9803★★	9803★★
13	Diff. Bearing Cone (RH)	1	6082★★	6082★★	6082★★	6082★★
	Diff. Bearing Cone (LH)	1	27813★★	27813★★	27813★★	27813★★
14	RING GEAR & DRIVE PINION SET Includes Item 15		Matched Parts; see separate listing on page 18			
15	RING GEAR BOLT & NUT KIT (5/8")	1	70745	70745	70745	70745
	Bolt	16	67586	67586	67586	67586
	Nut	16	60600	60600	60600	60600
	RING GEAR BOLT & NUT KIT (1/2")	1	—	—	—	69957
	Bolt	16	—	—	—	69117
	Nut	16	—	—	—	67592
	WHEEL DIFF. CASE KIT					
	Ratios 3.08 & 3.25	1	212202	—	—	—
	Ratios 3.36-5.29	1	106397	106397	106397	—
	Ratios 5.57-7.17	1	124374	124374	124374	—
	Includes Items 16, 17 & 110243 adjuster					
	12" O.D. - 1/2" bolt	1	—	—	—	96794
	Flanged Half 91114					
	11-1/2" O.D. - 1/2" bolt	1	—	—	—	96795
	Flanged Half 91116					
	5/8" bolt	1	—	—	—	124374
	Flanged Half 88677					
16	Diff. Case (Plain Half)(NSS)	1	210017	210017	210017	210017
	Diff. Case (Flanged Half)(NSS)	1				
	Ratios 3.08 & 3.25		127823	—	—	—
	Ratios 3.36-5.29		103865	103865	103865	—
	Ratios 5.57-7.17		88677	88677	88677	—
17	Diff. Case Cap Screw	12	96271	96271	96271	96271
	WHEEL DIFF. SIDE GEAR, PINION KIT	1				
	Includes Items 18-22					
	Models: 34, 340, 341		114469	114469	98850	98850
	38, 380, 381, 402		114470	114470	85358	85358
	400, 401, 451		98853	98853	98853	—
	WHEEL DIFF. KIT LESS SIDE GEARS	1	118748	118748	118748	118748
	Includes Items 19-22					

Item No.	Part Name	Qty Per Axle	DS341, DS402(P), DS451-P Built After 4-6-89	DS381(P), DS402(P), DS401-P, DS451-P, Built Before 4-6-89	DS340, DS380(P), DS400-P NOTE 1	34DS 38DS
18	Diff, Side Gear Models: 34, 340, 341 38, 380, 381, 402 400, 401, 451	2	110525 110527 85486	110525 110527 85486	37072 37069 85486	37072 37069 —
19	Side Gear Thrust Washer	2	27827★	27827★	27827★	27827★
20	Side Pinion 104139 replaces 37071	4	104139	104139	104139	104139
21	Side Pinion Thrust Washer	4	27810★	27810★	27810★	27810★
22	Spider	1	38289	38289	38289	38289
23	Output Shaft Nut	1	95205	95205	95205	95205
24	Flat Washer	1	4327★	4327★	4327★	4327★
25	Output Yoke	1	SEE INFORMATION AND CHART ON PAGE 20.			
26	Axle Housing Cover Assy Includes Items 27-30 (Casting# 127708) Cover (127781 NSS) 3/4" (Cover 127874) 1" (Cover 77749 NSS)	1	107320	107320	75336	75336 77750
	Rear Bearing Retaining Washer Not illustrated	1	—	—	46583★	46583★
27	Output Shaft Oil Seal	NOTE 9 1	127720★★	127720★★	127720★★	127720★★
28	Bearing Snap Ring	1	45516★	45516★	45516★	45516★
29	Output Shaft Bearing & Sleeve Assy		46584	46584	46584	46584
	Inner Bearing Race	1	118789★★	118789★★	118789★★	118789★★
	Outer Bearing Race	1	118790★★	118790★★	118790★★	118790★★
30	Magnetic Filler Plug					
	3/4"	1	—	—	54254	54254
	1"	1	75130	75130	—	75130
	1" Optional		77944	77944	—	—
	Hole Plug	1	90898	90898	—	—
31	OUTPUT SHAFT, NUT & BUSHING KIT Includes Items 23, 32-33; 115123 also includes Items 38-39 Shaft (NSS) 34 splines, 1.750" dia. Shaft (NSS) 10 splines, 1.750" dia.	1	115123 110818	115123 110818	98603 NOTE 3 85441	98603 NOTE 3 85441
32	Output Shaft Bushing	1	48922★	48922★	48922★	48922★
33	Output Shaft "O" Ring	2	46526★	46526★	46526★	46526★
34	Side Gear Snap Ring	2	85994★	85994★	85994★	85994★ NOTE 4
35	Output Shaft Bearing Cup (Inner)	1	110811★★	110811★★	51232★★	51232★★
36	Output Shaft Bearing Cone (Inner)	1	110812★★	110812★★	51233★★	51233★★
37	Output Shaft Side Gear	1	110810	110810	85436	85909
38	Output Shaft Spring	1	51238	—	—	—
39	Output Shaft Spring Thrust Bearing	1	51228	—	—	—
40	Inter-axle Diff. Assy w/o Lube Pump w/Lube Pump Includes Items 41-47 NOTE 10	1	104509 213608	104509 104509	104509 104509	95213 —
41	DIFF CASE KIT w/o Lube Pump w/Lube Pump Case Half (NSS) w/o Lube Pump w/Lube Pump	1 2	94810 Order #40 102621 127784	94810 94810 102621 102621	94810 94810 102621 102621	91850 — 88029 —
42	Bolt	8	85438	85438	85438	85438
43	NUT	8	57637	57637	57637	57637

Item No.	Part Name	Qty Per Axle	DS341, DS402(P), DS451-P Built After 4-6-89	DS381(P), DS402(P), DS401-P, DS451-P, Built Before 4-6-89	DS340, DS380(P), DS400-P NOTE 1	34DS 38DS
	DIFF SIDE PINION & SPIDER KIT (Includes Items 44-47) w/o Lube Pump w/Lube Pump	1	96381 —	96381 96381	96381 96381	96380 —
44	Side Pinion w/o Lube Pump w/Lube Pump	4	95214 95214	95214 95414	95214 95214	95210 —
45	Side Pinion Bushing w/o Lube Pump w/Lube Pump	4	95215★ —	95215★ 95215★	95215★ 95215★	95211★ —
46	Side Pinion Thrust Washer w/o Lube Pump w/Lube Pump	4	85437★ 127785	85437★ 85437★	85437★ 85437★	25968★ —
47	Spider w/o Lube Pump w/Lube Pump	1	95216 127783	95216 95216	95216 95216	95212 —
48	Helical Side Gear & Bushing Assy Includes Item 49 Side Gear (NSS)	1	128042 128018	128042 128018	85432 NOTE 5 85431	45476 45474
49	Helical Side Gear Bushing	2	85991★	85991★	85991★	48921★
50	Helical Side Gear Snap Ring	1	85997★	85997★	85997★	46983★
51	Helical Side Gear Thrust Washer	1	85429★	85429★	85429★	45477★
52	Helical Side Gear "D" Washer	1	45478★	45478★	45478★	45478★
53	Lockout Sliding Clutch	1	128016	128016	128016	128016
54	INPUT SHAFT,WASHER & NUT KIT Includes Item 52 & 63 Models w/o Lube Pump Shaft (NSS) 44 splines, 2.250" dia. Shaft (NSS) 16 splines, 2.125" dia. Shaft (NSS) 10 splines, 1.969" dia. Models w/Lube Pump Shaft (NSS) 44 splines, 2.250" dia. Shaft (NSS) 16 splines, 2.125" dia.	1 1	115122 110823 115126 110805	115122 110823 115126 110805	NOTE 6 103289 103283 106709 102608	NOTE 7 98693 88285 — —
55	Input Shaft Bearing Cone	1	91136★●	91136★●	85425★	83469★
56	Input Bearing Cover,Cup & Seal Assy Includes Items 57 & 61 Models w/o Lube Pump Cover (NSS) Models w/Lube Pump Cover (NSS)	1 1	211634 110824 211888 110807	110826 110824 110808 110807	85423 85421 102629 102614	NOTE 7 86813 86811 —
57	Input Bearing Cup	1	98388★●	98388★●	85424★●	83462★●
58	Input Bearing Cover Shim .003" .005" .010" .020	AR	45498★ 70709★ 45499★ 85406★	45498★ 70709★ 45499★ 85406★	45498★ 70709★ 45499★ 85406★	45498★ 70709★ 45499★ 85406★
59	Bearing Cover Cap Screw	5	113324	113324	113324	113324
60	Lockwasher	5	90414	90414	—	—
	OIL SEAL & SHIM KIT Includes Items 27,58,61,83 & RTV	1	114465	114465	114465	114465
61	Oil Seal Input Bearing Spacer Not illustrated	1 1	127719★● —	127719★● —	127719★● 85427	127720★● —
62	Input Yoke		SEE INFORMATION AND CHART ON PAGE 20.			
63	Input Shaft Nut	1	95207	95207	95207	95206
64	Flat Washer	1	85404★	85404★	85404★	56864★
65	Diff. Carrier Cover Assy Models w/o Lube Pump	1	45481	45481	45481	45481

Item No.	Part Name	Qty Per Axle	DS341, DS402(P), DS451-P Built After 4-6-89	DS381(P), DS402(P), DS401-P, DS451-P, Built Before 4-6-89	DS340, DS380(P), DS400-P NOTE 1	34DS 38DS
	Models w/Lube Pump Includes Items 66-67 Cover (NSS)	1	102627	102627	102627	—
			102606	102606	102606	—
66	Pipe Plug 1" Models w/Lube Pump	1	90325	90325	90325	—
67	Expansion Plug Models w/Lube Pump	1	9797	9797	9797	—
68	Carrier Cover Cap Screw Models w/o Lube Pump (long)	5	12063	12063	12063	12063
	(short)	4	90069	90069	90069	90069
	Models w/Lube Pump (long)	4	12063	12063	12063	—
	(short)	4	90069	90069	90069	—
	(12 pt)	1	81855	81855	102605	—
69	Lockwasher	9	90417	90417	90417	90417
70	Magnetic Filter Screen Models w/Lube Pump	1	102611	102611	102611	—
71	LUBE PUMP REPLACEMENT KIT Models w/Lube Pump Includes Items 72-77	1	106368	106368	106368	—
72	Pump Drive Gear	1	111448	111448	102609	—
73	Drive Gear Locknut	1	111451	111451	63028	—
	Drive Gear Woodruff Key Not Illustrated	1	—	—	81471	—
74	Cover "O" Ring	1	102620★	102620★	102620★	—
75	Cover Dowel Pin	2	102617	102617	102617	—
76	Cover Cap Screw	4	102618	102618	102618	—
77	Lockwasher	4	90419	90419	90419	—
78	Pinion Pilot Bearing	1	127051★★	15828★★	15828★★	15828★★
79	Pinion Bearing Cone (Inner)	1	85439★★	85439★★	85439★★	45460★★
	Pinion Bearing Cone (Outer)	1	110846★★	110846★★	45460★★	45460★★
80	Pinion Bearing Spacer	AR	See chart on page 20			
81	Pinion Bearing Cage & Cup Assy Includes Item 82 Ratios 3.55 & 3.70 Cage (NSS) Ratios 3.08, 3.25, 3.36, 3.90-7.17 Cage (NSS)	1	110731 110730 110733 110732	110731 110730 110733 110732	107322 107321 107324 107323	107322 107321 107324 107323
82	Pinion Bearing Cup (Inner)	1	14217★★	14217★★	14217★★	14217★★
	Pinion Bearing Cup (Outer)	1	35502★★	35502★★	14217★★	14217★★
83	Pinion Bearing Cage Shim .003" .005" .010" .020" .030"	AR	45461★ 62829★ 45462★ 62830★ 45463★	45461★ 62829★ 45462★ 62830★ 45463★	45461★ 62829★ 45462★ 61830★ 45463★	45461★ 62829★ 45462★ 62830★ 45463★
84	Bearing Cage Cap Screw	6	62158	62158	62158	62158
85	Lockwasher	6	37207	37207	37207	37207
86	Pinion Helical Gear Ratios 3.70 Other Ratios 34/38DSB,C 34/38DSD,E	1	110845 — — — —	110845 — — — —	46977 74991 — —	— — 46977 74991
87	Slotted Pinion Nut	1	118806	118806	—	—
88	Roll Pin Slotted Nut	1 1	118807 —	118807 NOTE 8	— 95206	— 95206
89	Air-Operated Lockout Assy Models w/Lube Pump Models w/o Lube Pump	1 1	SEE PAGE 14-15 SEE PAGE 14-15			

Item No.	Part Name	Qty Per Axle	DS341, DS402(P), DS451-P Built After 4-6-89	DS381(P), DS402(P), DS401-P, DS451-P, Built Before 4-6-89	DS340, DS380(P), DS400-P NOTE 1	34DS 38DS
90	Shift Fork & Push Rod Assy					
	Models w/Lube Pump	1	102613	102613	102613	—
	Models w/o Lube Pump	1	45859	45859	45859	45859
	Gasket Compound	AR	107276★•	107276★•	107276★•	107276★•

NSS — Not Sold Separately

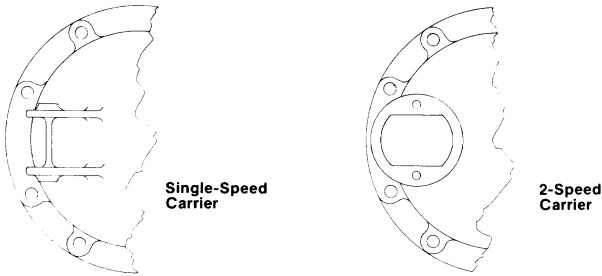
- NOTE 1: Early model axles are equipped with 2-Speed differential carrier produced prior to May 1, 1978 (date code 1218). A parts listing for these models can be found on page 10.
- NOTE 2: 120924 is supplied with 110811/110812 Output Shaft Bearing Cup & Cones as well as 110810 Output Shaft Side Gear. Power Divider must also be converted to DS341/381/401. 120923 is supplied with 110811/110812 Output Shaft Bearing Cup & Cones as well as 119896 Output Shaft Side Gear. Power Divider must also be converted to DS340/380/400 or DS341/381/401.
- NOTE 3: 98603 is interchangeable with 115123 by also using a new Input Yoke.
- NOTE 4: For earlier style output shafts 46647 and 98603, use 44178 snap ring.

- NOTE 5: Helical Gear Conversion Kit 113561.
- NOTE 6: 103289 and 106709 interchangeable with 115122 by also using 211634 Cover, Cup & Seal Assy, 91136 Bearing Cone and new Input Yoke.
- NOTE 7: Early model axles use a ball bearing on input shaft. To convert ball bearing to taper bearing, use Kit 86967 which contains items 53, 54 & 56.
- NOTE 8: Axles built prior to May 1, 1982 use 95207 self-locking nut. Later models use 118806 slotted nut plus 118807 roll pin.
- NOTE 9: **PLEASE REVIEW INFORMATION ON TOP OF PAGE 20 BEFORE ORDERING OIL SEALS.**
- NOTE 10: 213608 replaces P/N 104509 in models with lube pump only. Sold only as complete assembly.

DS340 & DS380 Models w/2-Speed Differential Carriers

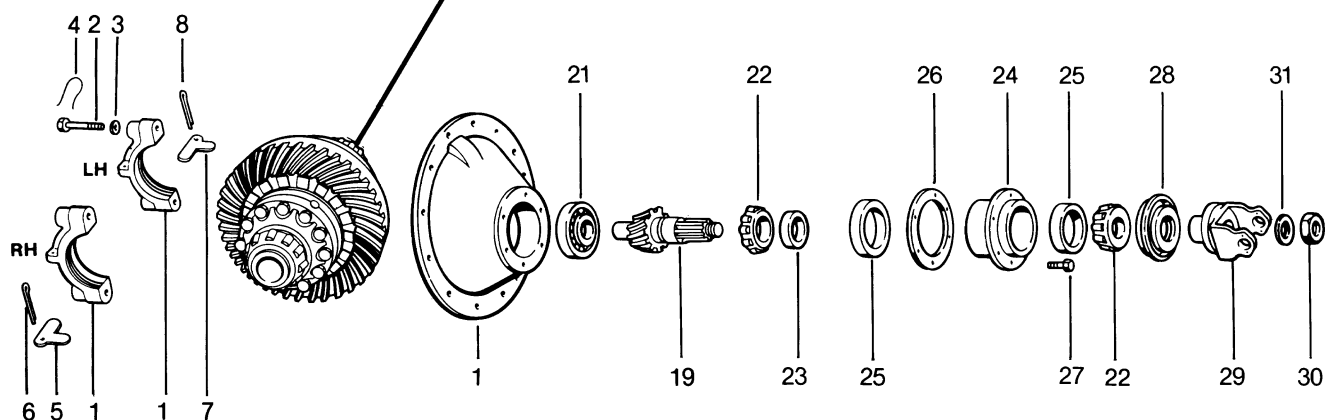
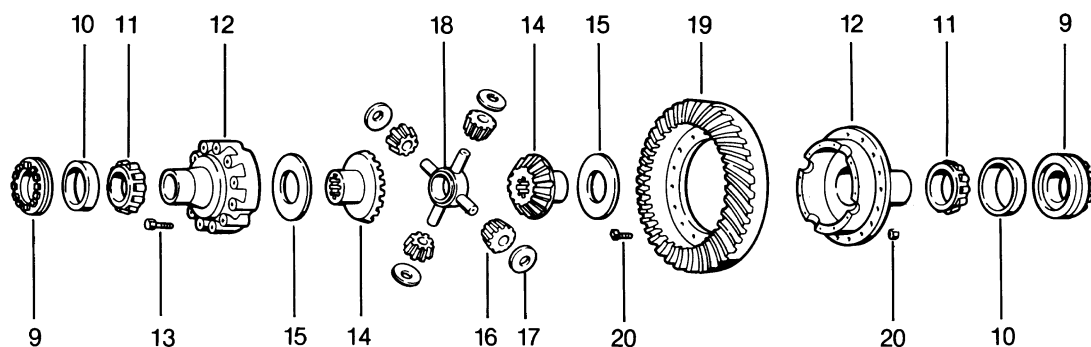
From 1972 until May 1, 1978 (date code 1218) DS340 and DS380 (forward and rear) tandems were built with 2-Speed differential carriers. The listing below shows part number variation between tandems built with single-speed and 2-Speed differential carriers. Those parts identified with an * are the same as D340/D380 dual range tandems.

Carrier design variations are shown in the adjacent illustrations.



Part Name (Qty. per Axle)	Forward Axle		Rear Axle	
	Single-Speed Carrier	2-Speed Carrier	Single-Speed Carrier	2-Speed Carrier
Differential Carrier & Bearing Caps				
Diff. Carrier & Bearing Cap Assy. (1)	120924	120926	67804	67759*
Bearing Cap Screw (4)	127179	32732*	127179	32732*
Flat Washer (4)	26772	32912*	26772	32912*
Bearing Adjuster Lock (1) (Forward RH; Rear LH)	14275	45448	14275	45448
Lockwire (2)	—	12563*	—	—
Adjuster Lock Cap Screw (2)	—	12562	—	12562
Oil Trough (1)	—	67857	—	82440
Oil Trough Screw (Forward 1; Rear 2)	—	67815	—	67815
Upper Expansion Plug (1)	—	30703*	—	30703*
Lower Expansion Plug (1)	—	9797*	—	9797*
Shift Unit Opening Cover (1)	—	45521*	—	45521*
Cap Screw (2)	—	20807*	—	20807*
Lockwasher (2)	—	90415*	—	90415*
Ring Gear & Wheel Differential (Forward RH; Rear LH)				
Diff. Bearing Adjuster (1)	31562	111022	31562	111022
Diff. Bearing Cup (1)	90943	27816*	90943	27816*
Diff. Bearing Cone (1)	6082	27817*	6082	27817*
Wheel Diff. Case Kit 3.70-5.29	106397	106974	106397	106974
5.57-7.17	94799	106975	94799	106975
Drive Pinion & Pinion Bearing Cage				
Lockwasher (6)	—	—	37207	37207
Basic Overhaul Kit				
	110593	110578	110555	110579

Rear Tandem Axle Differential Carrier Single Reduction



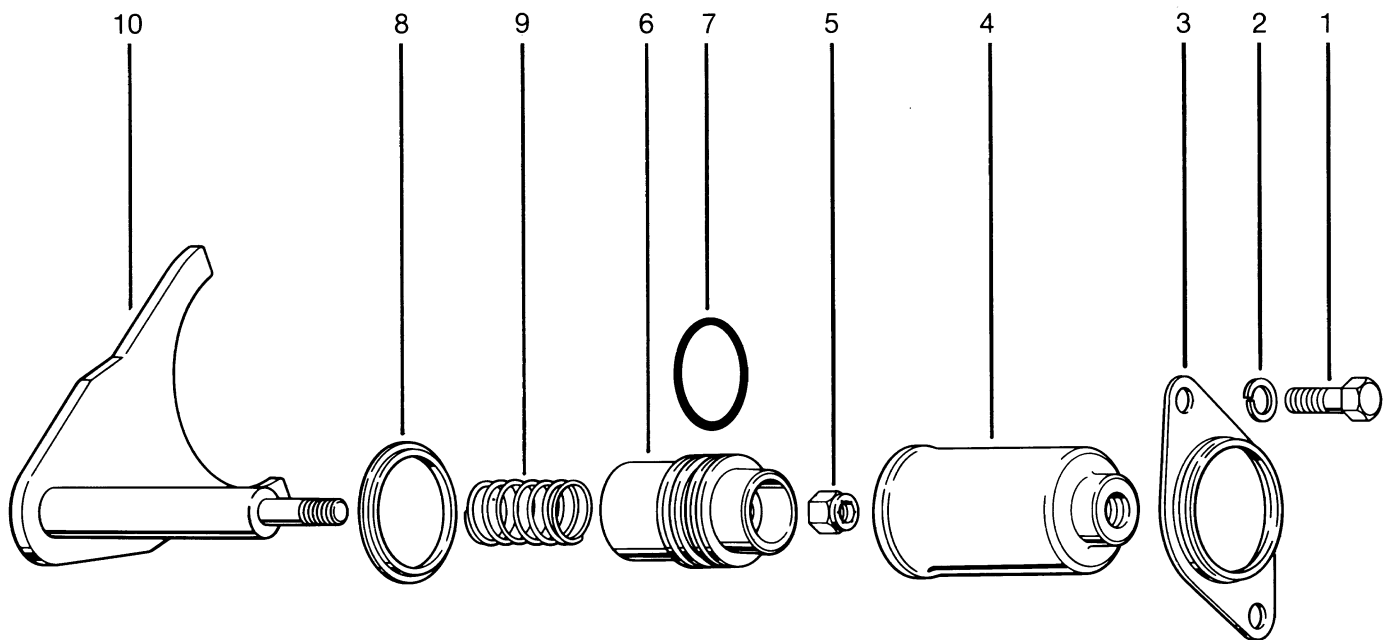
Item No.	Part Name	Qty Per Axle	RS341, RS402, RS451 Built After 4-6-89	RS341, RS381, RS401, RS402, RS451 Built Before 4-6-89	RS340, RS380, RS400	34RS 38RS
	BASIC OVERHAUL KIT (Contents identified with ★)	1	211218★	110555★	110555★	110555★
	BEARING KIT (Contents identified with ●)	1	211223●	99041●	99041●	99041●
1	Diff. Carrier & Bearing Caps Carrier Casting No.(NSS) Includes Items 1-4	1	211219 128109	67804 106402	67804 106402	67804 106402
2	Bearing Cap Screw	4	127179	127179	127179	127179
3	Flat Washer	4	26772	26772	26772	26772
4	Lockwire	4	—	—	90538	90538
5	Bearing Cap Adjuster Lock (RH)	1	13377	13377	13377	13377
6	Cotter Pin (RH)	1	90873	90873	90873	90873
7	Bearing Cap Adjuster Lock (LH)	1	14275	14275	14275	14275
8	Cotter Pin (LH)	1	90876	90876	90876	90876
9	Diff. Bearing Adjuster (RH) Diff. Bearing Adjuster (LH)	1 1	110243 31562	110243 31562	27842 31562	27842 31562
10	Diff. Bearing Cup (RH) Diff. Bearing Cup (LH)	1 1	9803★★ 90943★★	9803★★ 90943★★	9803★★ 90943★★	9803★★ 90943★★
11	Diff. Bearing Cone (RH) Diff. Bearing Cone (LH)	1 1	27813★★ 6082★★	27813★★ 6082★★	27813★★ 6082★★	27813★★ 6082★★
	WHEEL DIFF. CASE KIT Ratios 3.08 & 3.25 Ratios 3.36-5.29 Ratios 5.57-7.17 Includes Items 12-13 & 110243 adjuster 12" O.D. - 1/2" bolt Flanged Half 91114 11-1/2" O.D. - 1/2" bolt Flanged Half 91116 5/8" bolt Flanged Half 88677	1 1 1 1 1 1	212202 106397 124374 — — —	— 106397 124374 — — —	— 106397 124374 — — —	— — — 96794 96795 124374
12	Diff. Case (Plain Half)(NSS) Diff. Case (Flanged Half)(NSS) Ratios 3.08 & 3.25 Ratios 3.36-5.29 Ratios 5.57-7.17	1 1	210017 127823 103865 88677	210017 — 103865 88677	210017 — 103865 88677	210017 — — —
13	Diff Case Cap Screw	12	96271	96271	96271	96271
	WHEEL DIFF. SIDE GEAR & PINION KIT Includes Items 14-18 Models: 34, 340, 341 38, 380, 381, 402 400, 401, 451	1 1 1	114469 114470 98853	114469 114470 98853	98850 85358 98853	98850 85358 —
	WHEEL DIFF. KIT LESS SIDE GEARS Includes Items 15-18	1	118748	118748	118748	118748
14	Side Gear Models: 34, 340, 341 38, 380, 381, 402 400, 401, 451	2	110525 110527 85486	110525 110527 85486	37072 37069 85486	37072 37069 —
15	Side Gear Thrust Washer (RH)	2	27827	27827	27827	27827
16	Side Pinion 104139 replaces 37071	4	104139	104139	104139	104139
17	Side Pinion Thrust Washer	4	27810★	27810★	27810★	27810★
18	Spider	1	38289	38289	38289	38289
19	RING GEAR & DRIVE PINION SET Includes Item 20	1	Matched Parts; see separate listing on page 18			

Item No.	Part Name	Qty Per Axle	RS341, RS402, RS451 Built After 4-6-89	RS341, RS381, RS401, RS402, RS451 Built Before 4-6-89	RS340, RS380, RS400	34RS 38RS
20	RING GEAR NUT & BOLT KIT (5/8")	1	70745	70745	70745	70745
	Bolt	16	67586	67586	67586	67586
	Nut	16	60600	60600	60600	60600
	RING GEAR NUT & BOLT KIT (1/2")	1	—	—	—	69957
	Bolt	16	—	—	—	69117
	Nut	16	—	—	—	67592
21	Pinion Pilot Bearing	1	127051★●	15828★●	15828★●	15828★●
22	Pinion Bearing Cone (Inner)	1	45460★●	12496★●	12496★●	12496★●
	Pinion Bearine Cone (Outer)	1	12496★●	12496★●	12496★●	12496★●
23	Pinion Bearing Spacer	AR	See chart on page 20			
24	Pinion Bearing Cage & Cup Assy Includes Item 25					
	Ratios 3.55 & 3.70	1	127039	75108	75108	—
	Cage (NSS)		127038	75107	75107	—
	Ratios 3.08, 3.25, 3.36, 3.90-7.17	1	107496	75110	75110	—
	Cage (NSS)		107495	75109	75109	—
	34/38RSB,C	1	—	—	—	75108
	34/38RRD,E		—	—	—	75110
25	Pinion Bearing Cup (Inner)	1	14217★●	12495★●	12495★●	12495★●
	Pinion Bearing Cup (Outer)	1	12495★●	12495★●	12495★●	12495★●
	OIL SEAL & SHIM KIT Includes Items 26,28 & RTV NOTE 1	1	213763	213764	213764	213764
26	Pinion Bearing Cage Shim	AR				
	.003"		107567★	43588★	43588★	43588★
	.005"		107568★	107568★	107568★	107568★
	.010"		107569★	43589★	43589★	43589★
	.020"		107570★	107570★	107570★	107570★
	.030"		—	43590★	43590★	43590★
27	Bearing Cage Cap Screw	6	113325	113325	113325	113325
28	Oil Seal NOTE 1	1	127721★●	127721★●	127721★●	127721★●
29	Input Yoke	1	SEE INFORMATION AND CHART ON PAGE 20.			
30	Pinion Nut	1	95206	95206	95206	—
	Ratio 3.70-4.33 (1-31/32" spline)	1	—	—	—	95206
	4.33-7.17 (1-3/4" spline)	1	—	—	—	95205
31	Flat Washer	1	56864★	56864★●	56864★●	4327★●
	Gasket Compound	AR	107276★●	107276★●	107276★●	107276★●

NSS — Not Sold Separately

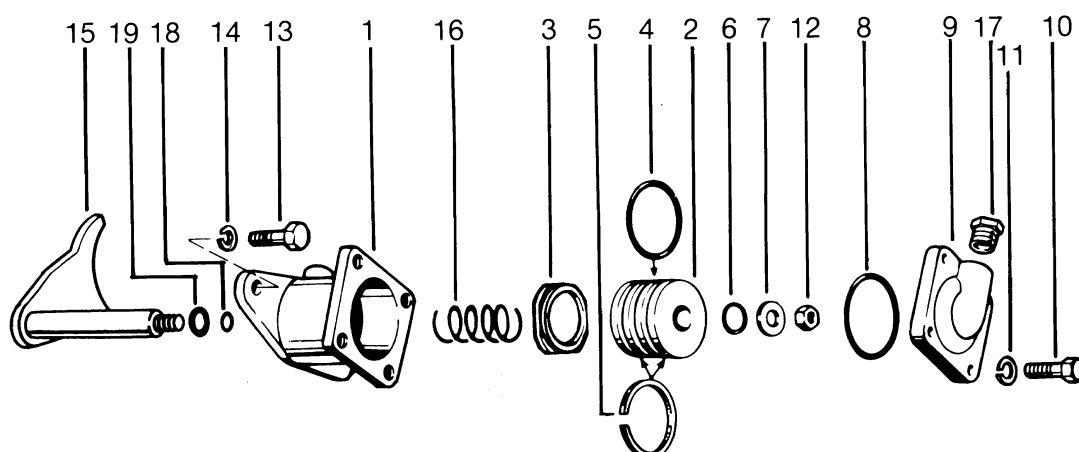
NOTE 1: **PLEASE REVIEW INFORMATION ON TOP OF PAGE 20 BEFORE ORDERING OIL SEALS.**

Differential Lockout (Forward Axle) Current Production Model



Item No.	Part Name	Axle	Eaton Part No.	Remarks
	Air-Operated Lockout Assy.	1	123216	w/lube pump
	Includes Items 1-10	1	123217	w/o lube pump
	REPAIR KIT			
	Includes Items 5-9	1	211197	w/lube pump
			211198	w/o lube pump
1	Cap Screw	2	210381	
2	Lockwasher	2	90415	
	PISTON KIT			
	Includes Items 3-8	1	121332	w/lube pump
		1	121333	w/o lube pump
3	Mounting Bracket	1	127675	
4	Piston Housing	1	119923	
5	Locknut	1	128160	
6	Piston	1	119913	Models w/lube pump
		1	119912	Models w/o lube pump
7	Piston "O" Ring	1	210180	
8	Shoulder Washer	1	210452	
9	Compression Spring	1	31038	
10	Shift Fork & Push Rod Assy.	1	102613	Models w/lube pump
		1	45859	w/o lube pump

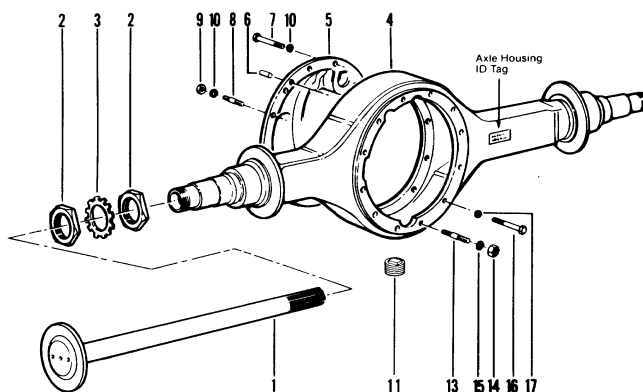
Differential Lockout (Forward Axle) Non-Current Production Model



Item No.	Part Name	Qty. per Axle	Standard Part No.	Navistar Reversed-Air Part No.	Remarks
	Air-Operated Lockout Assy	NSS (Note 1) 1	58421	96919	Models w/o lube pump
	Includes Items 1-19 unless noted	NSS (Note 1) 1	104600	107621	Models w/lube pump
	DIFFERENTIAL AIR LOCKOUT RETROFIT KIT (Note 1)	1	211200	—	Models w/o lube pump
		1	211199	—	Models w/lube pump
	LOCKOUT BODY KIT	1	34779	—	Models w/o lube pump
	Includes Items 1-9	1	104599	—	Models w/lube pump
	AIR LOCKOUT SERVICE KIT	1	211201	211202	Models w/o lube pump
	Includes Items 3-8, 12, 16, 18-20				
1	Shift Cylinder Body	1	32828	96913	
2	Shift Cylinder Piston	1	32834	96915	
3	Piston Stop	1	102616	—	Models w/lube pump
4	Piston Grommet	1	32832	32832	
5	Piston Felt Oilier	2	96916	96916	
6	Push-Rod Grommet	1	32826	—	
7	Push-Rod Flat Washer	1	111406	111406	
8	Cover Grommet	1	60817	60817	
9	Body Cover	1	32831	32831	Models w/o lube pump
	Body Cover	1	32831	32831	Models w/lube pump
10	Cover Cap Screw	4	79363	79363	
11	Lockwasher	4	90419	90419	
12	Push-Rod Nut	1	90206	90206	
13	Body Cap Screw	2	90031	90031	
14	Lockwasher	2	90415	90415	
15	Shift Fork Assy	1	45859	96715	Models w/o lube pump
	Shift Fork Assy	1	102613	107620	Models w/lube pump
16	Compression Spring	1	31038	126705	
17	Cover Reducer Bushing	1	—	108223	Models w/lube pump
18	Push-Rod to Piston Seal Ring	1	—	96912	
19	Push-Rod to Body "O" Ring	1	—	96911	
20	Gasket Compound	AR	107276	107276	

NOTE 1: Air-Operated Lockout Assembly 58421 and 104600 are no longer available. If it is necessary to repair complete unit, use Differential Air Lockout Retrofit Kits 211200 or 211199.

Axle Housing & Axle Shafts



Item No.	Part Name	Qty. per Axle	Eaton Part No.	Remarks		
1	Axle Shaft 34D, D340 16 splines, 1.980 O.D.	2	56980 62165	Length 40-29/32" 41-5/16"	Flange Holes 12 (.783") taper holes 12 (.750") taper holes	OEMs*
	D341 39 splines, 2.000" O.D.		110882 110886	40-29/32" 41-5/16"	12 (.783") taper holes 12 (.745") taper holes	1 3
	38D, D380 (P) 16 splines, 2.125" O.D.		56981 80929 62166 76917 81216	40-1/8" 40-5/8" 41-5/16" 41-5/16" 41-19/32"	8 (.760") thru holes 6 (.843") taper holes 8 (.948") taper holes 6 (.635") thru holes 8 (.948") taper holes	
	D381 (P), D402 (P) 41 splines, 2.100" O.D.		110887 126877 110883 110888 110884 127008	40-1/8" 40-5/8" 41-5/16" 41-5/16" 41-19/32" 44-3/8"	8 (.760") thru holes 8 (.948") taper holes 8 (.640") taper holes 6 (.635") thru holes 8 (.948") taper holes 8 (.635") thru hole	1 3, 7 2, 5, 6 1 5, 6
	D400-P, D401-P 33 splines, 2.125" O.D.		88192 91133 94224 99407	41-3/8" 41-3/8" 40-13/32" 41-7/32"	8 (.640") taper holes 8 (.635") thru holes 8 (.750") thru holes 8 (.635") thru holes	1 6 2, 5, 6
2	Hub Bearing Adjuster Nut (see Note 1) (Forward and Rear Axles) (varies by OEM)	4	19186** 78944 95372 11249**	(0.47" thick) D341, 34D (3/8" thick) D381, 381-P, 402, 402-P, 38D (0.562" thick) D381, 381-P, 402, 402-P, 38D (17/32" thick) all except D341		
		2	119881	(outer) all except D341		
		2	119882	(inner) all except D341		
3	Bearing Adjuster Lockwasher (see Note 1) (Forward and Rear Axles) (*varies by OEM)	2	30714 11245 119883	all except D341		
4	Axle Housing Assy (forward & rear)	1		See OEM Catalog		
5	Axle Housing Cover (forward axle only)	1				
6	Axle Housing Cover Locating Dowel	2	7641			
7	Axle Housing Cover Cap Screw	1	119784			
8	Axle Housing Cover Stud	11	47500			
9	Nut	11	42364			
10	Lockwasher	11	90415			
11	Magnetic Drain Plug		54254			
12	Magnetic Filler Plug (rear axle) (not illustrated)		54254 75130	3/4" 1"		

Item. No.	Part Name	Qty. per Axle	Eaton Part No.	Remarks
DIFF. CARRIER ATTACHING PARTS				
FORWARD AXLE				
13	Stud	10	36435	
14	Nut	10	90208	
15	Lockwasher	10	90422	
16	Cap Screw	2	38589	
17	Lockwasher	2	90422	
REAR AXLE				
13	Stud	12	36435	
14	Nut	12	90208	
15	Lockwasher	12	90422	

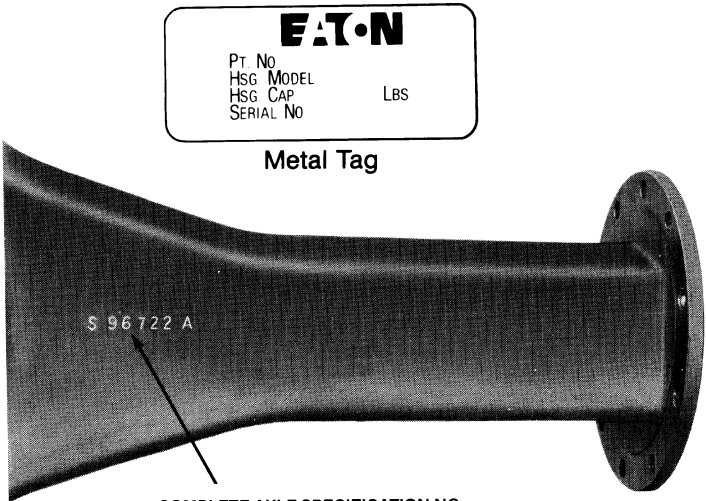
*OEMs — 1-Ford, 2-Freightliner, 3-GMC, 4-Navistar, 5-Kenworth, 6-Peterbilt, 7-White.
 **Hub Bearing Adjuster Nut Wrench is available, nut 19186, use wrench 15751; nut 11249, use wrench 24042.

Note 1: Wheel Nut & Lock Kit #121343 contains 2 each 119881 outer nut, 119882 inner nut, 119883 nut lock and instruction sheet. This kit is recommended when servicing all D381 thru D451 axles. However, the individual parts are not interchangeable with existing parts.

Axle Housings (forward and rear)

All drive axles are mounted in Eaton® fabricated steel axle housings. These housings are developed to meet specific OEM requirements for dimensions, suspension mounting and brakes. If housing replacement is necessary, provide the truck dealer with the following information:

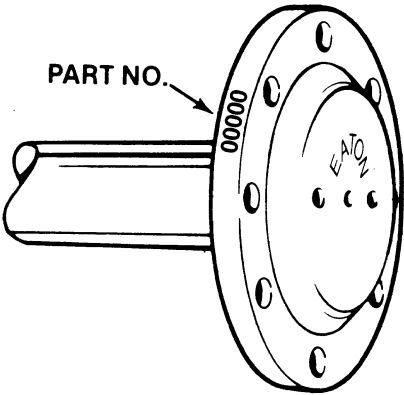
- Year, make and model of the truck.
- Axle model and ground loading capacity.
- Axle specification number.
- Type of brakes used.



Note: Facing rear of truck, axle specification number will be on right side.

Axle Shafts (forward and rear)

These axles will be found with a number of different axle shafts, on the basis of OEM specification. When ordering replacement axle shafts, note the part number stamped into the flange.



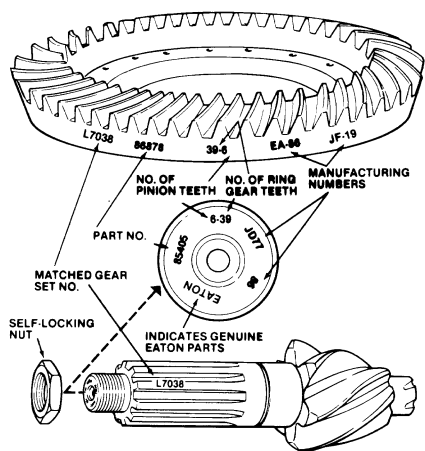
Ring Gear and Pinion Identification

Ring Gear and Drive Pinion are matched parts and must be replaced in sets.

Complete identification is stamped on both parts shown in the adjacent drawing.

Order by Eaton "Set No." which includes drive pinion nut.

Typical Gear Sets



Single Reduction

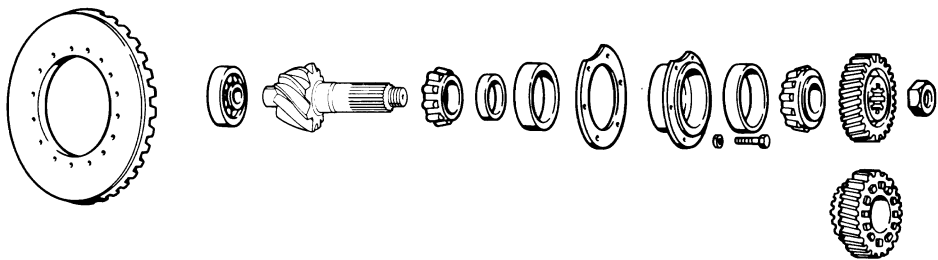
Drive Pinion and Ring Gear Set

Single Reduction				Single Reduction			
Ratios	Gear Set	Gear (NSS)	Pinion (NSS)	Ratios	Gear Set	Gear (NSS)	Pinion (NSS)
Forward Axles DS341, 402, 402-P, 451-P Units Built After 4-6-89				Rear Axles RS341, 402, 451			
3.08*	212901	128023 (37T)	128024 (12T)	3.08*	212902	128025 (37T)	128026 (12T)
3.25*	212145	127884 (39T)	127885 (12T)	3.25*	212146	127886 (39T)	127887 (12T)
3.36*	127265	120042 (37T)	127065 (11T)	3.36*	127252	120045 (37T)	127052 (11T)
3.55*	127266	109867 (39T)	127066 (11T)	3.55*	127253	109862 (39T)	127053 (11T)
3.70*	127267	88000 (37T)	127067 (10T)	3.70*	127254	88013 (37T)	127054 (10T)
3.90	127268	99742 (39T)	127068 (10T)	3.90	127255	99746 (39T)	127055 (10T)
4.11	127269	86356 (37T)	127069 (9T)	4.11	127256	86372 (37T)	127056 (9T)
4.33	127270	86358 (39T)	127070 (9T)	4.33	127257	86374 (39T)	127057 (9T)
4.56	127271	86360 (41T)	127071 (9T)	4.56	127258	86376 (41T)	127058 (9T)
4.88	127272	86362 (39T)	127072 (8T)	4.88	127259	86378 (39T)	127059 (8T)
5.29	127273	86364 (37T)	127073 (7T)	5.29	127260	86380 (37T)	127060 (7T)
5.57	127274	86366 (39T)	127074 (7T)	5.57	127261	86880 (39T)	127061 (7T)
6.14	127275	86877 (43T)	127075 (7T)	6.14	127262	86881 (43T)	127062 (7T)
6.50	127276	86878 (39T)	127076 (6T)	6.50	127263	86882 (39T)	127063 (6T)
7.17	127277	86879 (43T)	127077 (6T)	7.17	127264	119237 (43T)	127064 (6T)
Forward Axles DS341, 381, 381-P, 401-P, 402, 402-P, 451-P Units Built Before 4-6-89				Rear Axles RS341, 381, 401, 402, 451			
3.36*	120761	120042 (37T)	120041 (11T)	3.36*	120763	120045 (37T)	120044 (11T)
3.55*	111174	109867 (39T)	111139 (11T)	3.55*	111501	109862 (39T)	111466 (11T)
3.70*	111175	88000 (37T)	111140 (10T)	3.70*	111502	88013 (37T)	111467 (10T)
3.90	111176	99742 (39T)	111141 (10T)	3.90	111503	99746 (39T)	111468 (10T)
4.11	111177	86356 (37T)	111142 (9T)	4.11	111504	86372 (37T)	111469 (9T)
4.33	111178	86358 (39T)	111143 (9T)	4.33	111505	86374 (39T)	111470 (9T)
4.56	111179	86360 (41T)	111144 (9T)	4.56	111506	86376 (41T)	111471 (9T)
4.88	111180	86362 (39T)	111145 (8T)	4.88	111507	86378 (39T)	111472 (8T)
5.29	111181	86364 (37T)	111146 (7T)	5.29	111508	86380 (37T)	111473 (7T)
5.57	111182	86366 (39T)	111147 (7T)	5.57	111509	86880 (39T)	111474 (7T)
6.14	111183	86877 (43T)	111148 (7T)	6.14	111510	86881 (43T)	111475 (7T)
6.50	111184	86878 (39T)	111149 (6T)	6.50	111511	86882 (39T)	111476 (6T)
7.17	111185	86879 (43T)	111150 (6T)	7.17	111512	86883 (43T)	111477 (6T)

*16" gearing

Gear Sets

The charts on these pages indicate how many axle models can be serviced using the new high-torque gear sets when slight modifications are made. In all cases, the “replace with” column is upgraded gear sets.



Forward Axle Models: DS340, DS380, DS380-P, DS400-P (Single Reduction)

Ratio	Current Part No.	Replace with	Pinion Splines: 41, 2.100" dia.
3.55	110862	111174	Plus items listed below and 110731 cage & cup
3.70	95557	111175	
3.90	99745	111176	Plus items listed below and 110733 cage & cup
4.11	95558	111177	
4.33	95559	111178	
4.56	95560	111179	
4.88	95561	111180	
5.29	95562	111181	
5.57	95563	111182	
6.14	95564	111183	
6.50	95565	111184	
7.17	95566	111185	

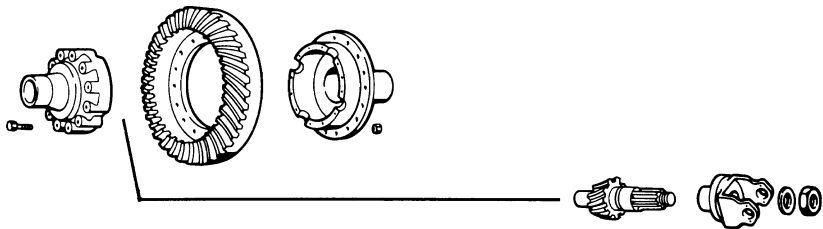
Plus 110844 Helical & Bushing, 110845 Pinion Helical, 110736 thru 110803 Pinion Bearing Spacer (as req'd), 110846 Outer Pinion Bearing Cone (118806 slotted nut and 118807 roll pin are included w/gear set).

Note: These changes can be applied to 34DS and 38DS, if power divider conversion is also used.

When changing ratios:

3.55-5.29 to 5.57-7.17 use Case Kit 94799 & 110733 Cage & Cup Assembly.

5.57-7.17 to 3.55-5.29 use Case Kit 106397 & 110731 Cage & Cup Assembly.



Rear Tandem Axles: 34RS, 38RS, RS340, RS380, RS400 (Single Reduction)
Single Drive Axles: 17100-1, 17120-1, 18100-1, 18120-1 (Single Reduction)

Bolt Hole	1/2"	1/2"	5/8"	5/8"		
Gear Dia.	16"	16-1/2"	16"	16-1/2"		
Models	17-18100-1 34/38RSB,C	17-18120-1 34/38RSD,E	17-18100-1 34/38RSB,C	17-18120-1 34/38RSD,E	RS340, 380,400	
Ratio:	Current Part Numbers				Replace with	Pinion Splines: 39, 2.000" dia.
3.55	—	—	—	—	110864 111501	17, 18, 34, 38 Series Only Plus 106397 Case Kit & New Input Yoke
3.70	96619	—	96619	—	96641 111502	
3.90	—	—	—	—	99749 111503	340, 380, 400 Series Only Plus new Input Yoke
4.11	96620	—	96620	—	96642 111504	
4.33	96621/99930	—	96621/99930	—	96643 111505	
4.56	96622	—	96622	—	96644 111506	
4.88	96623	—	96623	—	96645 111507	17, 18, 34, 38 Series Only (w/1/2" bolt holes) Plus 94799 Case Kit & New Input Yoke & 120780 Nut & Bolt Conversion Kit
5.29	96624	—	96624	—	96646 111508	
5.57	96625	96626	96625	96626	96647 111509	340, 380, 400 Series Only Plus New Input Yoke
6.14	—	96627	—	96627	96648 111510	
6.50	—	96628	—	96628	96649 111511	
7.17	—	96629	—	96629	96650 111512	

When changing ratios:

3.55-3.70 to 3.90-7.17 use 75110 Cage & Cup Assembly

3.90-7.17 to 3.55-3.70 use 75108 Cage & Cup Assembly

Input and Output Yokes

During the 4th Quarter of 1990, Eaton began using new seals and yoke & slingers on the models in this publication. The new seals and slingers are noticeably different from the current seals and will affect interchangeability.

- The upgraded seals can be used on axles originally equipped with the old seals.
- Eaton recommends the replacement of old yoke & slinger assemblies when the new seals are installed; however, the old yokes and slingers will work with the new seals.
- New yoke and slinger assemblies **cannot** be used with the old seal design on the forward tandem axles.
- New yoke and slinger assemblies **can** be used with the old seal on the tandem rear pinions.
- Yoke Assembly & Oil Seal Kits contain oil seal, yoke & slinger and instructions.
- Most non-Eaton aftermarket seals **will not** be compatible with the new Eaton yoke and slinger assemblies.
- Eaton recommends the use of special installation tools conveniently packaged in the single kit (listed below).

Forward Axle Models

New Input (Yoke & Mudslinger Assy.) 44 Involute – 2.25" Spline					
Yoke Series	Joint Angle	Style	Yoke & Slinger	Oil Seal	Yoke Assy. & Oil Seal Kit
1610	(22°)	B	127750	127719	213172
1710	(27.5°)	C	127754	127719	213169
1710	(27.5°)	B	127752	127719	213174
1760	(30°)	C	127755	127719	213170
1760	(30°)	B	127751	127719	213173
1810	(30°)	C	127753	127719	213169
1810	(30°)	B	127749	127719	213171

New Output Yoke (Yoke & Mudslinger Assy.) 34 Involute – 1.75" Spline					
Yoke Series	Joint Angle	Style	Yoke & Slinger	Oil Seal	Yoke Assy. & Oil Seal Kit
1610	(29.5°)	C	127741	127720	213178
1610	(45°)	C	127738	127720	213175
1710	(45°)	C	127740	127720	213177
1710	(33.5°)	C	127739	127720	213176

Rear Axle Models

New Pinion Yoke New Input (Yoke & Mudslinger Assy.) 39 Involute – 1.95" Spline					
Yoke Series	Joint Angle	Style	Yoke & Slinger	Oil Seal	Yoke Assy. & Oil Seal Kit
1610	(23°)	C	127746	127721	213183
1610	(35.5°)	C	127745	127721	213182
1610	(45°)	C	127743	127721	213180
1710	(33.5°)	C	127744	127721	213181
1710	(45°)	C	127742	127721	213179

B – Half Round (Brg. Strap – Tapped Holes)
C – Full Round

For more information, see
Technical Service Bulletin 90-06

Pinion Bearing Spacers

34DS, 38DS, DS340, DS380(P), DS400-P, 34RS, 38RS, RS340, RS380, RS400, RS341, RS381, RS401, RS402

.623"-91552	.634"-91564	.645"-91602
.624"-91553	.635"-91566	.646"-91604
.625"-91554	.636"-91568	.647"-91606
.626"-91555	.637"-91572	.648"-91608
.627"-91556	.638"-91576	.649"-91610
.628"-91557	.639"-91580	.650"-91611
.629"-91558	.640"-91584	.651"-91612
.630"-91559	.641"-91588	.652"-91613
.631"-91560	.642"-91592	.653"-91614
.632"-91561	.643"-91596	.654"-91615
.633"-91562	.644"-91600	

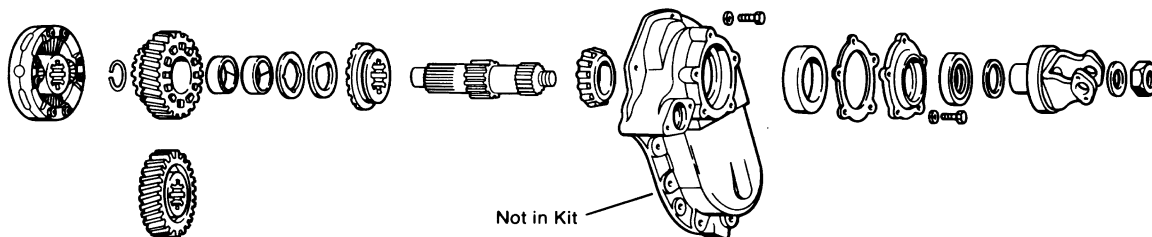
DSS341, DS381(P), DS401-P, DS402(P)

.472"-110736	.484"-110748	.496"-110784
.473"-110737	.485"-110749	.497"-110788
.474"-110738	.486"-110750	.498"-110790
.475"-110739	.487"-110752	.499"-110792
.476"-110740	.488"-110754	.500"-110794
.477"-110741	.489"-110756	.501"-110796
.478"-110742	.490"-110760	.502"-110798
.479"-110743	.491"-110764	.503"-110799
.480"-110744	.492"-110768	.504"-110800
.481"-110745	.493"-110772	.505"-110801
.482"-110746	.494"-110776	.506"-110802
.483"-110747	.495"-110780	.507"-110803

Oil Seal Driver Installation Kit 212139 Includes:

- Instruction Sheet
- 126917 Driver Seal (Forward Input & Rear Pinion)
- 127787 Driver Seal Adapter (Forward Input)
- 127786 Driver Seal (Forward Output)

Power Divider Conversion Kit



Axle Models:

34D, 38D, 42D, D340, D380

(all gearing - models w/o pump)

(use Swing Unit for pump conversion)

Current Part No.	Replace with
87103	118764 Power Divider Conversion Kit or
45478	45478 "D" Washer, and
45498	45498 0.003" shim, and
45499	45499 0.005" shim, and
70709	70709 0.005" shim, and
85404	85404 Flat Washer, and
85406	85406 0.020" shim, and
85423	211634 Cover, Cup & Seal Assembly, and
85425	91136 Bearing Cone, and
85427	Not Used
85429	85429 Thrust Washer
85432	128042 Helical Side Gear & Bushing, and
85436	85436 Output Shaft Side Gear, and
85994	85994 Output Shaft Snap Ring, and
85997	85997 Helical Gear Snap Ring, and
87104	See chart (available yoke tag)
95207	95207 Nut, and
103283	110823 Input Shaft, and
104509	104509 Inter-axle Differential, and
107276	107276 RTV Sealant, and
109069	109069 Torque Tag, and
	113556 Pinion Helical Gear (10 Spline)

Axle Models:

**D380-P, D400-P to High Torque
w/Lube Pump**

Current Part No.	Replace with
106709	115126 Input Shaft Kit, and
102629	211888 Cover, Cup & Seal Assembly, and
46977 or 74991	113556 Pinion Helical Gear (10 splines), and
85432	128042 Helical Side Gear & Bushing, and
85425	91136 Bearing Cone, and Input Yoke A

Available Yoke Tag

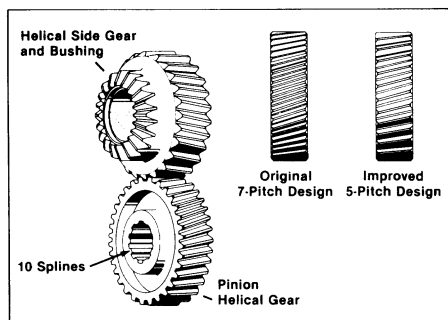
Eaton Yoke Part No.	Yoke Series
127753	1810 (30°)
127754	1710 (27.5°)
127755	1760 (30°)

PLEASE REVIEW INFORMATION ON TOP OF PAGE 20 BEFORE ORDERING YOKE & SLINGERS.

Helical Gear Conversion Kit #113561

This kit was designed to upgrade D340/D380 helical gears with the same product improvements that were incorporated into the high-torque tandems. The helical gears in this kit are a 5-pitch design, versus the original 7-pitch design, which makes them approximately 39 percent stronger. This improvement is particularly desirable for axles used with high-torque engines and fast ratios.

The pinion helical gear in this kit has 10 splines to accommodate all D340/D380 pinions, regardless of ratio. The helical side gear and bushing assembly is identical to the D341/D381 helical gear and is compatible with the sliding clutch, inter-axle differential, input shaft and output shaft side gears. Because the pitch is different, these gears will have to be replaced as a set, but once installed can later be serviced with individual parts.



For Axle Models D340, D380, D380-P, D400-P, when using original pinion and ring gear set. All ratios. All gearing types.

If new pinion and ring gear set is used during rebuild, use instructions for helical gears in gear set section (pg. 19).

113561 Kit includes:

128042 Helical Side Gear & Bushing
113556 Pinion Helical Gear (10 splines)

Note: Kit must be used if changing either current helical gear.

Replaces Current Part No.

85432
46977 or 74991

Differential Carrier Assembly

These carrier assemblies are complete, less input yoke.

Side Gear Ratio (Involute Splines)	DS341 39	DS341-P 39	DS402 DS381 41	DS402-P DS381-P 41	DS451-P DS401-P 33	RS341 39	RS402 RS381 41	RS451 RS401 33
3.08*			674686	674628			674629	
3.25*			674687	952126			674692	
3.36*	951907	951908	674456	674462	951913	951909	674468	951914
3.55*	951150	951174	674457	674463	674574	951320	674469	674575
3.70*	951151	951175	674458	674464	674474	951321	674470	674479
3.90	951152	951176	674459	674465	674475	951322	674471	674480
4.11	951153	951177	674460	674466	674476	951323	674472	674481
4.33	951154	951178	674461	674467	674477	951324	674473	674482
4.56	951155	951179	674633	674635	674478	951325	674634	674483
4.88	951156	951180	674688	674703	674566	951326	674693	674567
5.29	951157	951181	674689	674704	951205	951327	674694	951351
5.57	951158	951182	674690	951194	951206	951328	674695	951352
6.14	951159	951183	674691	951195	951207	951329	674696	951353
6.50	951160	951184	951172	951196	951208	951330	674697	951354
7.17	951161	951185	951173	951197	951209	951331	951343	951355

These hybrid diff. carrier assemblies were introduced in 1985. Because of Eaton's unique interchangeability, one hybrid tandem replaces several generations tandems in the same ratio and gearing type. These new carriers contain old straight spline gears (except 400 and 401 series which use the same side gears). New yokes are required to use the new carrier (see instructions on page 23).

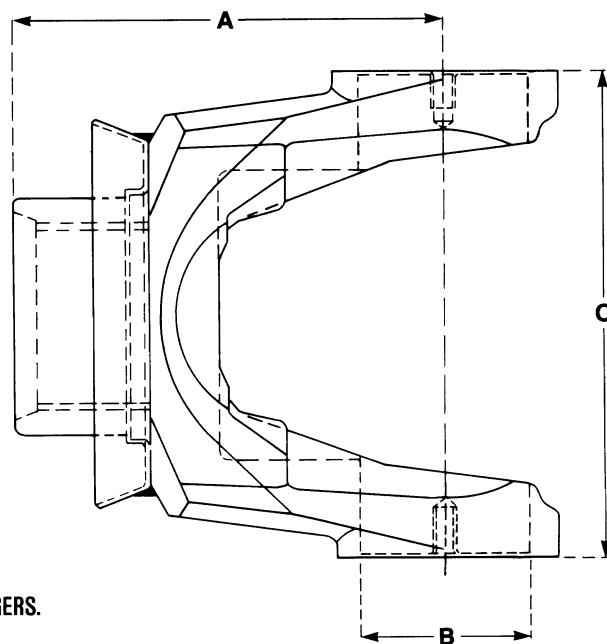
Replaces: Side Gear Ratio (Straight Splines)	Hybrid DS341 34DS DS340 16	Hybrid DS341-P DS340-P 16	Hybrid DS381 38DS DS380 16	Hybrid DS381-P DS380-P 16	Hybrid RS341 34RS RS340 16	Hybrid RS381 38RS RS380 16
3.36*						
3.55*	951693	951705	674551	951807	951717	674573
3.70*	951694	951706	674448	951808	951718	674451
3.90	951695	951707	674552	951809	951719	674553
4.11	951696	951708	674449	951810	951720	674452
4.33	951697	951709	674450	951811	951721	674453
4.56	951698	951710	951800	951812	951722	951824
4.88	951699	951711	951801	951813	951723	951825
5.29	674512	951712	674576	951814	674513	674577
5.57	951701	951713	951803	951815	951725	211991
6.14	951702	951714	951804	951816	951726	951828
6.50	951703	951715	951805	951817	951727	951829
7.17	951704	951716	951806	951818	951728	951830

*16" gearing

Yoke Selection Guide (when using Hybrid Diff. Carrier)

34D/D380 and D340/380/400 carrier assemblies can be replaced by new D341/381/401/402 carrier assemblies. These new carriers contain old straight spline side gears (except 400 and 401 series which use the same side gears).

New yokes (shown below) are required to use the new carrier. With your old yokes removed, measure the dimensions shown and choose new yokes to match your old yoke dimensions.



PLEASE REVIEW INFORMATION ON TOP OF PAGE 20 BEFORE ORDERING YOKE & SLINGERS.

FORWARD AXLE

	Old A Dim.	A Dim.	B Dim.	C Dim.	Part Number
Input w/mudslinger - 44 involute splines					
1710		5.190"	1.939"	6.093"	127754
1760		5.250"	1.939"	7.001"	127755
1810		5.250"	1.939"	7.551"	127753
Output w/mudslinger - 34 involute splines					
1610	4.748"	4.938"	1.876"	5.312"	127741
1610	6.000"	6.190"	1.876"	5.312"	127738
1710	5.250"	5.440"	1.939"	6.093"	127739
1710	6.123"	6.313"	1.939"	6.093"	127740

REAR AXLE

	A Dim.	B Dim.	C Dim.	Part Number
Input w/mudslinger - 39 involute splines				
1610	4.718"	1.876"	5.312"	127746
1610	5.310"	1.876"	5.312"	127745
1610	6.000"	1.876"	5.312"	127743
1710	5.250"	1.939"	6.093"	127744
1710	6.125"	1.939"	6.093"	127742

NOTE: The "A" Dimension on old-style output yokes will be .190" shorter because of the elimination of the rear bearing retaining washer on the new family of axles.

Wheel Differential Kits

NEW!

Wheel Diff. Side Pinion Kit which contains spider, side pinions, side gear thrust washers, and side pinion thrust washers.

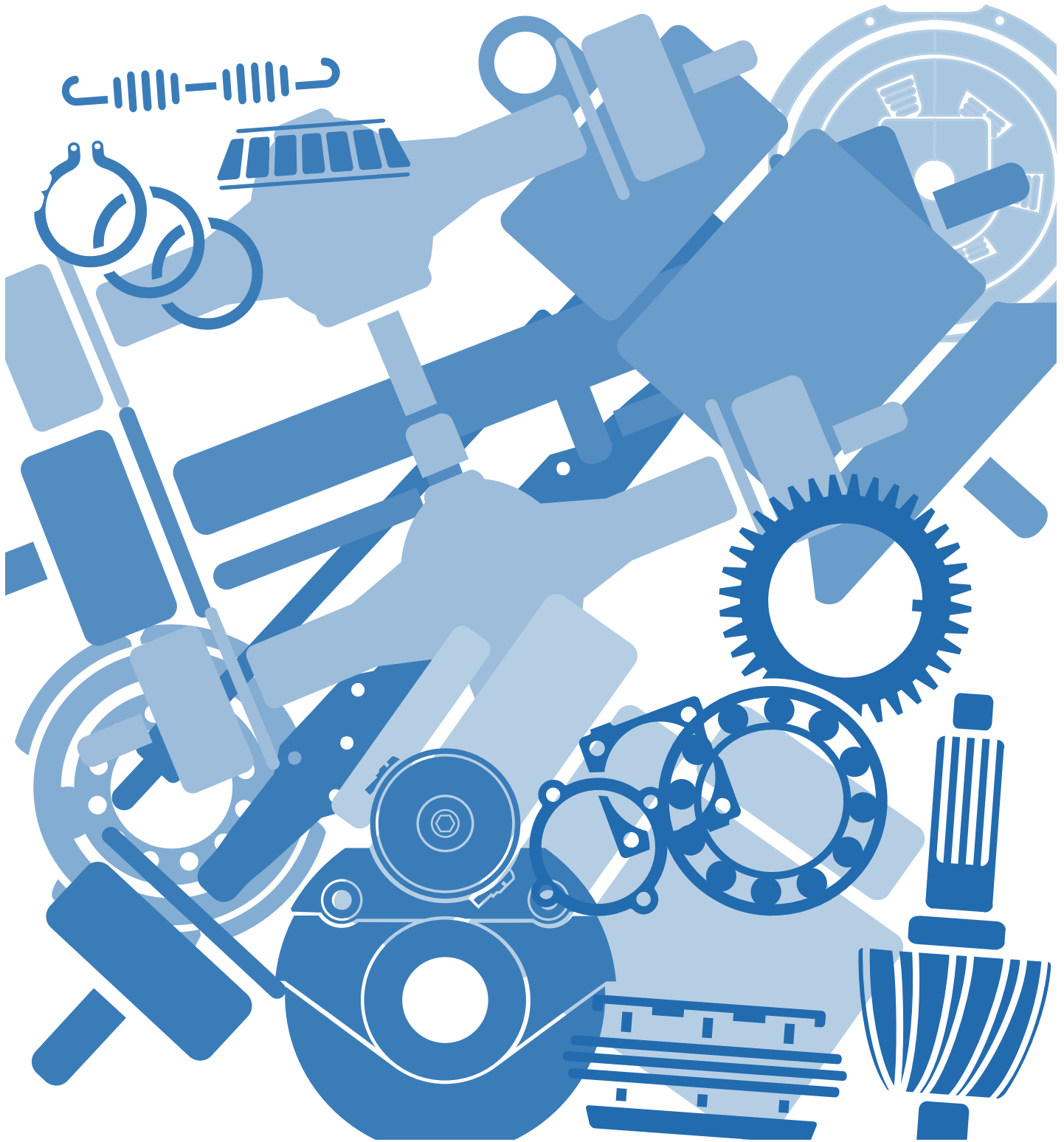
With this one kit — 118748 — and loose side gears, you can service all three generations of highway tandems.

Wheel Diff. Side Pinion Kit

NEW! Kit No.	Axle Model	Side Gear	Spline Info.
118748	34, 340 Series	37072	16 Str.
(contains:	341 Series	110525	39 Inv.
side pinion 104139,	38, 380 Series	37069	16 Str.
spider 38289,	381 Series	110527	41 Inv.
and thrust washers	400, 401 Series	85486	33 Inv.
27810 and 27827)			

Wheel Diff. Kits (Includes Side Gear, Side Pinions, Thrust Washers & Spider)

98850
114469
85358
114470
98853



Copyright Eaton and Dana Corporation, 2002. EATON AND DANA CORPORATION hereby grants its customers, vendors, or distributors permission to freely copy, reproduce and/or distribute this document in printed format. THIS INFORMATION IS NOT INTENDED FOR SALE OR RE-SALE, AND THIS NOTICE MUST REMAIN ON ALL COPIES.



National Institute for
**AUTOMOTIVE
SERVICE
EXCELLENCE**

Roadranger[®]

MORE TIME ON THE ROAD

The Roadranger System is an unbeatable combination of the best products from Eaton and Dana: partnering to provide you the most advanced, most trouble-free drivetrain in the industry. And it's backed by the Roadrangers: the most experienced, most expert, most accessible drivetrain consultants in the business.

For specifying or service assistance, call 1-800-826-HELP (4357) 24 hours a day, 7 days a week, (Mexico: 001-800-826-HELP (4357)) for more time on the road. Or visit our web site at www.roadranger.com.



EAT•N

One Great Drivetrain from Two Great Companies

AXIP-0089
4/94 POD
Printed in USA