



# Illustrated Parts List

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## **AXIP-0057A - Models Designed ON or AFTER June 10, 2013**

### **May 2023**

D170, D170D, R170, R170D - Single Reduction - Tandem Axles

D190, D190D, R190, R190D - Single Reduction - Tandem Axles

S170, S170D, S190, S190D - Single Reduction - Tandem Axles

S170E, S190E, S190DE - High Entry - Single Axles

D590, D590D, R590, R590D, S590, S590D - Double Reduction Axles

**IMPORTANT: Dana made changes to the carriers designed AFTER June 10, 2013. Only models made ON or AFTER this date are shown in this IPL. For models BEFORE June 10, 2013, see AXIP-0057.**



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## General Information

### How To Use Illustrated Parts List

#### Ordering Parts

- This parts book is organized in sections according to parts servicing requirements. Use the Contents or page headings and colored tabs to find information.
- Use this book to order parts for your Dana® Spicer® Axle.
- For convenience, part numbers have been included for all pieces of the carrier assembly. Some of these parts, such as the 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.

#### Kits and Assemblies

- Kits and Assemblies contain groups of individual or assembled parts developed for optimal replacement or repair of a service problem.
- Kits and Assemblies are shown with applicable parts groupings in the parts listing.
- See the Appendix for detailed information concerning kits applicable to this model.

#### 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: brake shoes.
- 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.
- Assy - Assembly
- Brg - Bearing
- Diff - Differential
- Hsg - Housing
- Inv - Involute
- ABS - Antilock Brake System
- N/A - Not Applicable
- Str - Straight

#### Illustrations

- Illustrations show parts in assembly groups.
- Item numbers on illustrations correspond with parts listings on pages that accompany the drawings.
- Notes are included on illustrations where needed.

#### Parts Listings

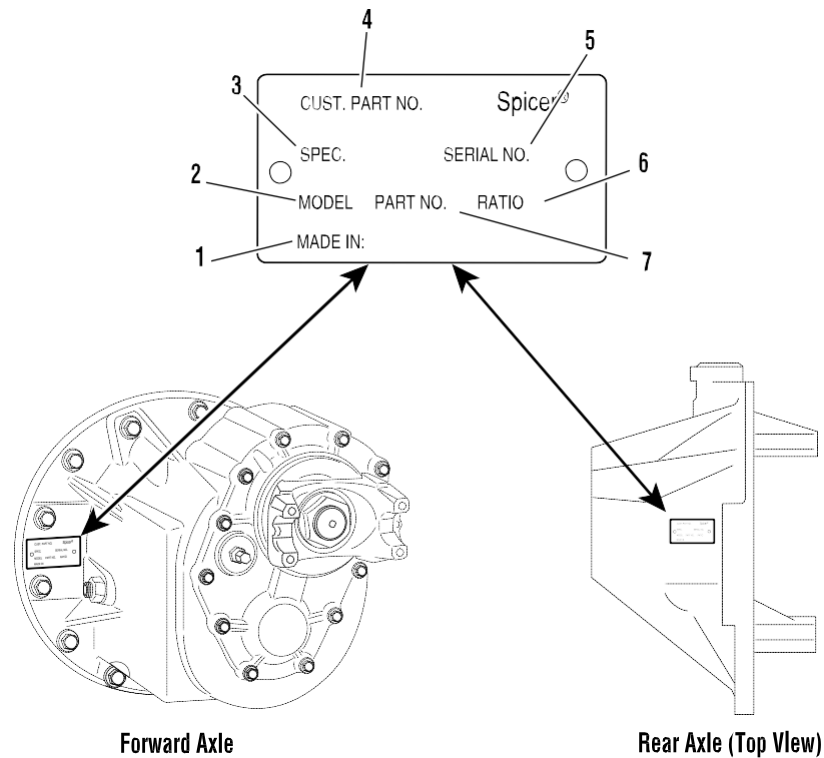
- Parts listings are defined by parts groupings and are broken down by service assemblies.
- Parts Listings identify a part for servicing with the following categories:
  - Item - corresponds with numbers on illustrations for part identification
  - Part Name - specifies part name or description
  - Quantity (Qty) - quantity required for assembly
  - Current Part - service part numbers are broken down by model, type or other applicable information
  - Notes - define unique characteristics or replacement notes
  - Kits / Assy's Where Used - indicates Kits or Assemblies that contain a particular part
- **Other pertinent information is listed in tables or parts listings as required.**

## Model Identification

### Locating Model Designation Information

- Axle Model Identification, Part Number and Serial Number are located on a tag at the axle centerline. This information will help to locate information in this book and to identify the correct parts for servicing.

### Drive Axles



**1 - Country or origin**

**2 - Axle model identification**

**3 - Specification number assigned to the axle built by Spicer. Identifies all component parts of the axle including special OEM requirements such as yokes or flanges.**

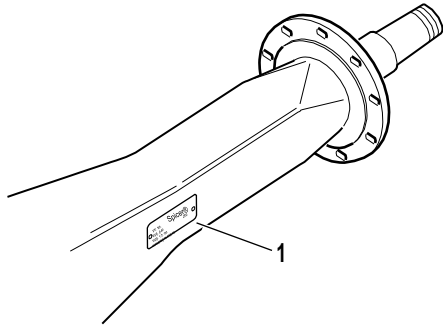
**4 - OEM part number assigned to the axle build**

**5 - Carrier assembly serial number assigned by the manufacturing plant**

**6 - Axle gear ratio**

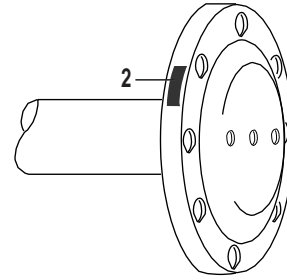
**7 - Carrier assembly production or service part number**

### Axle Housing



1 - ID Tag

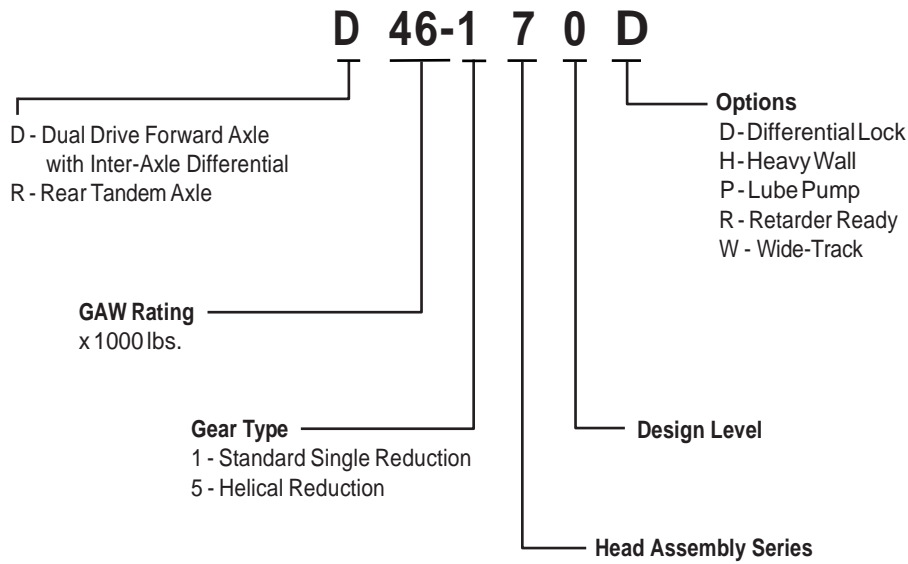
### Axle Shaft



2 - Axle shaft part number

### Using Model Designation to Identify Axle Components

The Axle Model Identification number contains information that is important to understand when purchasing service parts or new components. The Model Identification number provides important vehicle, capacity and application information and model features. Use this guideline to understand your Axle Model Identification. If you need assistance, contact your Dana Aftermarket representative.



### Effectively using a Parts Listing - Example

- Follow the example below to locate and order exactly what is required for servicing.

Match to items on illustration	Use to identify Part	Order this quantity for servicing	Order Part Number		Indicated information important to ordering or use
Item	Part Name	Qty	D170	D190(P)	Notes
1	Axle Shaft	2	xxxxxx	xxxxxx	See Axle Shaft Chart
2	Flat Washer	4	xxxxxx	xxxxxx	

#### Kits and Assemblies

Item	Part Name	Qty	D170	D190(P)	Notes
Bearing Kits		1	xxxxxx	xxxxxx	Contents Identified with *

## Model Information - Models made On or AFTER June 10, 2013

The following models are included in this publication:

### Single Reduction Models

Forward Axle	Rear Axle	Axle Capacity	Gear Size
D40-170	R40-170	40,000 lbs.	17.7" Hypoid Gear
D40-170P	R40-170	40,000 lbs.	17.7" Hypoid Gear
D40-170DP	R40-170	40,000 lbs.	17.7" Hypoid Gear
D46-170	R46-170	46,000 lbs.	17.7" Hypoid Gear
D46-170P	R46-170	46,000 lbs.	17.7" Hypoid Gear
D46-170DP	R46-170	46,000 lbs.	17.7" Hypoid Gear
D52-190P	R52-190	52,000 lbs.	18.5" Hypoid Gear
D52-190DP	R52-190	52,000 lbs.	18.5" Hypoid Gear
D60-190P	R60-190	60,000 lbs.	18.5" Hypoid Gear

### Double Reduction Models

Forward Axle	Rear Axle	Axle Capacity	Gear Size
D46-590P	R46-590	46,000 lbs.	18.5" Hypoid Gear
D52-590P	R52-590	52,000 lbs.	18.5" Hypoid Gear
D60-590P	R60-590	60,000 lbs.	18.5" Hypoid Gear
D70-590P	R70-590	70,000 lbs.	18.5" Hypoid Gear

### Tridem Models

Forward Axle	Forward Axle	Rear Axle	Axle Capacity	Gear Size
T69-170HP	T69-170HP	R69-170H	69,000 lbs.	17.7" Hypoid Gear
T78-190P	T78-190P	R78-190	78,000 lbs.	18.5" Hypoid Gear
T78-590P	T78-590P	R78-590	78,000 lbs.	18.5" Hypoid Gear

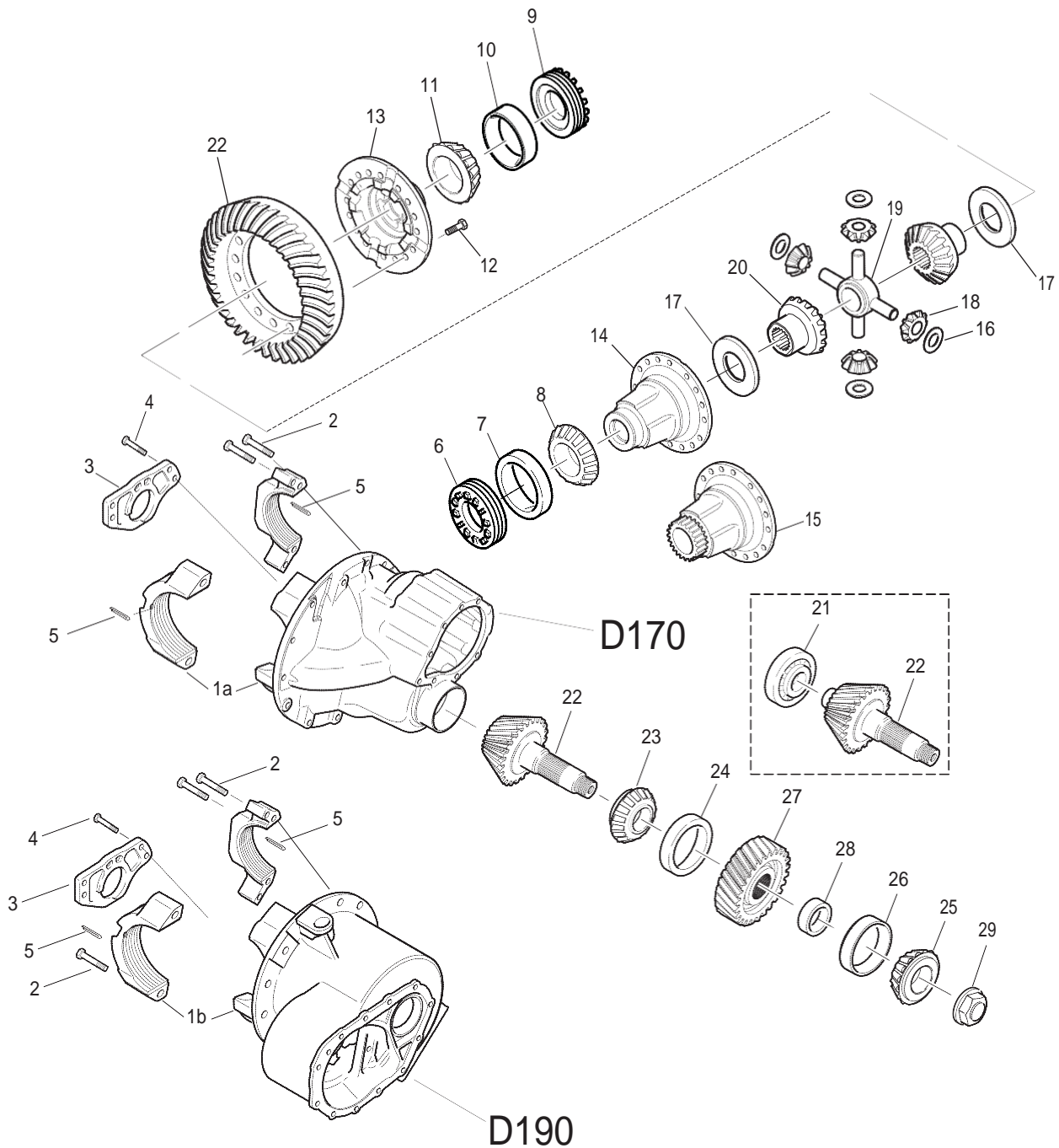
\*Tridem model configuration consist of 3 axles; Two Forward Carriers and a Rear-Rear Carrier. Example would be: (D170>D170>R170) (D190>D190>R190) or (D590>D590>R590).

### High Entry Single Axle Models

Single Axle	Axle Capacity	Gear Size
S21-170E	21,000 lbs.	17.7" Hypoid Gear
S23-170E	23,000 lbs.	17.7" Hypoid Gear
S25-170E	25,000 lbs.	17.7" Hypoid Gear
S23-190E	23,000 lbs.	18.5" Hypoid Gear
S26-190E	26,000 lbs.	18.5" Hypoid Gear
S30-190E	30,000 lbs.	18.5" Hypoid Gear

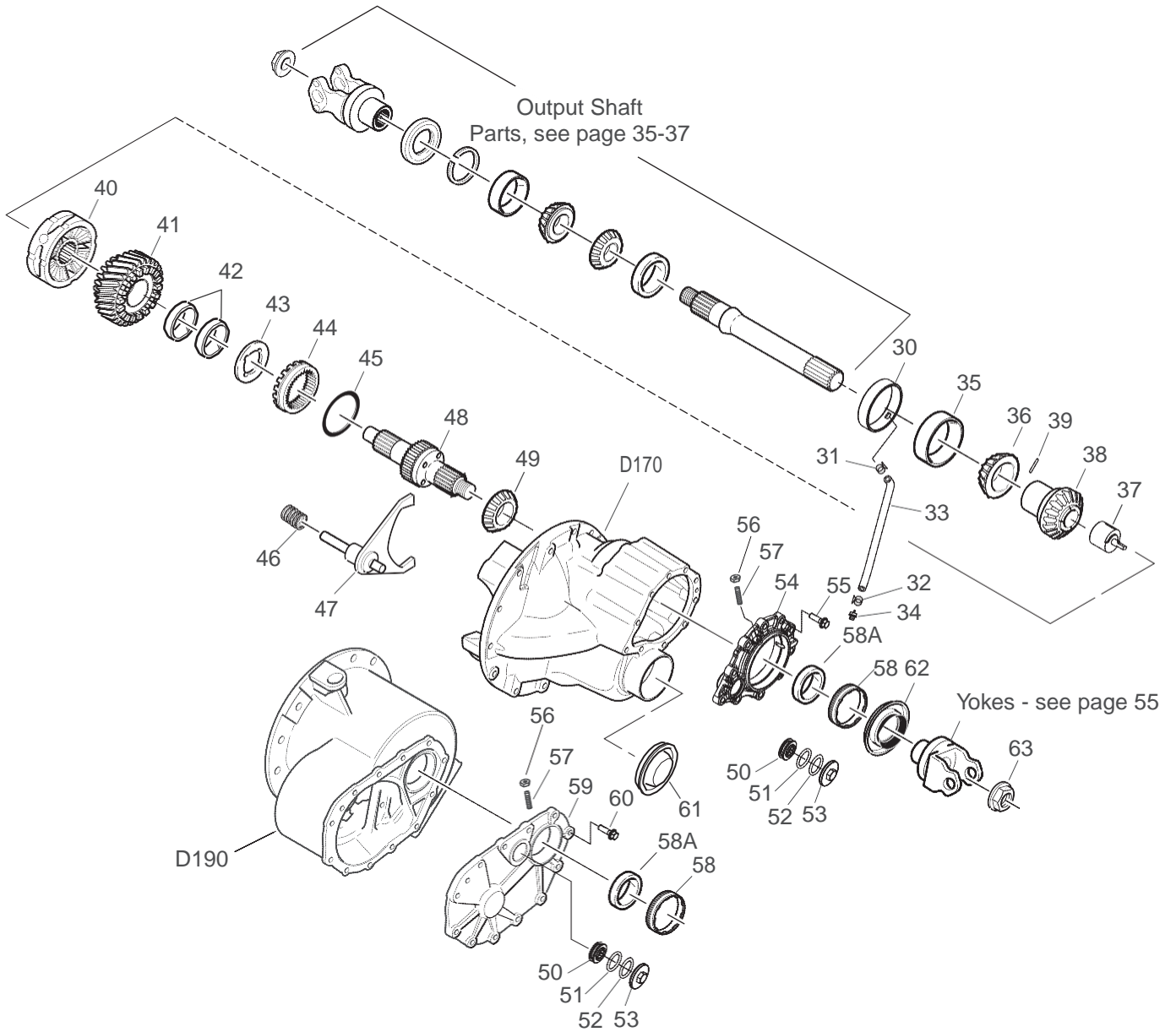
The suffix letter "P" in the model number indicates lube pump. The pump is designed to provide additional lubrication to the inter-axle differential and related parts. The "190" and "590" models come standard with pumps and the suffix letter "P" may not be referenced in all model callouts.

D170/D190 Forward Axle - Parts Exploded View  
Models Made ON or AFTER June 10, 2013





# D170/D190 Forward Axle Power Divider - Parts Exploded View



## D170 / D190 Forward Axle - Parts List

### Models Made ON or AFTER June 10, 2013

Item	Description	Qty Per Axle	D170 D170D	D190 D190D	Notes
	BEARING KIT	1	504126	504128	
	Contents identified with *	1	504127	-----	D170D Diff Lock Models Only
1a	Carrier Sub-Assy - NSS	1	132483 NSS	-----	Must order kit 504197; D170 models- refer Pg10
1a	Carrier Sub-Assy - NSS	1	132484 NSS	-----	Must order kit 504198; D170D Diff Lock models - refer Pg10
1b	Carrier Sub-Assy - NSS	1	-----	132485 NSS	Must order kit 504199; All D190, D190D models - refer Pg10
2	Capscrew - Bearing Cap	6	131016	131016	
3	Pilot Bearing Web Support	1	N/A	N/A	Not a serviceable part - order item 1
4	Capscrew - Pilot Bearing Web	4	N/A	131017	
5	Cotter Pin	2	090311	090311	
6	Bearing Adjuster - Plain Half	1	139993	139993	
7	Bearing Cup - Plain Half Diff	1	10035195*	10035196*	10035195 Replaces 140012; Standard model
		1	10035196*	10035196*	Replaces 140020; Diff Lock model
8	Bearing Cone - Plain Half Diff	1	140014*	140019*	Standard model
		1	140019*	140019*	Diff Lock model
9	Bearing Adjuster - Flange Half	1	139992	139992	
10	Bearing Cup - Diff Flange Half	1	10035195*	10035195*	Replaces 140012
11	Bearing Cone - Diff Flange Half	1	140014*	140014*	
	KIT - RING GEAR BOLT	1	504069	504069	Includes qty 16 of 131473
12	Bolt - Ring Gear	16	131473	131473	
13	Diff Case - Flange Half	1	See Diff Case Kits Pg 30-33		All models
14	Diff Case - Plain Half	1	See Diff Case Kits Pg 30-33		Standard models
15	Diff Case - Plain Half - Diff Lock	1	See Diff Case Kits Pg 30-33		Diff Lock models
	KIT - WHEEL DIFF SIDE GEAR w/WASHERS		504096	504096	Includes items 16-20
16	Thrust Washer - Side Pinion	4	300HS100-1	300HS100-1	
17	Thrust Washer - Side Gear	2	HS108-1	HS108-1	
18	Side Pinion	4	131040	131040	
19	Spider - Differential	1	131039	131039	
20	Side Gear - Differential	2	300GD101	300GD101	46 Involute
	NO SPIN ASSEMBLY - 46 Inv	1	131882	-----	Item not illustrated
21	Bearing - Pinion Pilot	1	-----	129947*	
22	Ring Gear and Pinion - NSS		See Ring & Pinion Kits Page 26-27		
23	Bearing Cone - Inner Pinion	1	139968*	139968*	
24	Bearing Cup - Inner Pinion	1	139969*	139969*	
25	Bearing Cone - Outer Pinion	1	139971*	139971*	
26	Bearing Cup - Outer Pinion	1	139972*	139972*	
27	Helical Gear - Pinion	1	10010716	10010716	Replaces 131343 ; Refer to HAXL-PNI-096R2
28	KIT - PINION BRG SPACER	A/R	504041	504041	Individual pinion spacers listed on Pg 29
	KIT - PINION NUT	1	131095K	131095K	Kit includes 29 & 64
29	Locknut - Pinion	1	131095	131095	Socket size 69mm
	MANIFOLD PARTS KIT				
	Non-Pump Models	1	513880	-----	Includes item 30a
	Pump Model	1	513878	513878	Includes items 30b, 31-34
30a	Manifold Assembly - Non Pump - NSS	1	132435 NSS	-----	Order Kit 513880; Used in Non-Pump models only
30b	Manifold Assembly - Pump Models - NSS	1	131366 NSS	131366 NSS	Order Kit 513878; Used in all Pump models
31	Clamp	1	129338	129338	

## D170 / D190 Axle Parts List

Item	Description	Qty Per Axle	D170 D170D	D190 D190D	Notes
32	Collar Lock	1	134010	134010	
33	Hose	1	131524	131524	
34	Screen Filter Assembly	1	133964	133964	
35	Bearing Cup - Output Side Gear	1	139976*	139976*	
36	Bearing Cone - Output Side Gear	1	139975*	139975*	
	<b>KIT - OUTPUT GEAR &amp; LUBE PUMP</b>	<b>1</b>	<b>504364-1</b>	<b>504364-1</b>	<b>Replaces 504065; Includes items 37, 38a, 39</b>
37	Pump - Lube	1	131368	131368	
38a	Output Side Gear - Pump Models	1	10005175	10005175	Replaces 131466
38b	Output Side Gear - Non Pump	1	10026795	-----	Replaces 131467
39	Pin	1	131541	131541	
	<b>40 INTER-AXLE DIFFERENTIAL</b>	<b>1</b>	<b>10094015</b>	<b>10094015</b>	<b>Replaces 139965</b>
41	Helical Side Gear & Bushing Assy.	1	10011380	10011380	Replaces 131345; Gear ID# 131005 includes item 42
42	Bushing - Helical Gear	2	10016044	10016044	Replaces 131344; Refer to HAXL-PNI-096R2
43	Thrust Washer	1	132440	132440	
44	Sliding Clutch	1	131332	131332	
45	V-Ring	1	131333*	131333*	
	<b>KIT - SHIFT FORK &amp; SPRING</b>	<b>1</b>	<b>510870</b>	<b>514142</b>	<b>Includes items 46-47</b>
46	Compression Spring	1	129859	129859	
47	Shift Fork Assembly - NSS	1	129856 NSS	131330 NSS	Order kit listed above
	<b>KIT - INPUT SHAFT - NON-PUMP</b>	<b>1</b>	<b>513839</b>	<b>-----</b>	<b>Includes items 48a, 63-64</b>
	<b>KIT - INPUT SHAFT - PUMP</b>	<b>1</b>	<b>513840</b>	<b>513840</b>	<b>Includes items 48b, 63-64</b>
48a	Input Shaft - NSS - NON-PUMP	1	131348 NSS	-----	Order kit listed above
48b	Input Shaft - NSS - PUMP	1	131349 NSS	131349 NSS	Order kit listed above
49	Bearing Cone - Input Shaft	1	139973*	139973*	
	<b>KIT - AIRLOCKOUT REPAIR</b>	<b>1</b>	<b>512892</b>	<b>512892</b>	<b>Includes items 50-53</b>
	<b>KIT - AIRLOCKOUT (Complete w/Shift Fork)</b>	<b>1</b>	<b>512893</b>	<b>N/A</b>	<b>Includes items 46-47, 50-53</b>
50	Piston	1	131232	131232	
51	O-Ring - Piston	1	210180	210180	
52	O-Ring Cover	1	131665	131665	Production# 131665, alternate service# is 220HH102
53	Piston Cover	1	131096	131096	
	<b>KIT - INPUT COVER - D170</b>	<b>1</b>	<b>504189</b>	<b>-----</b>	<b>Replaces 504067; Includes items 49, 54-58A</b>
54	Input Cover - 131221-NSS	1	131686 NSS	-----	Order 504189 kit
55	Capscrew - Input Cover	10	131374	-----	
56	Nut - Adjuster Stud	1	131693	131693	M12 thread
57	Stud - Adjuster	1	131692	131692	M12 thread
58	Input Adjuster & Cup Assy.	1	10049231	10049231	Replaces 134354
58A	Bearing Cup - Input Adjuster	1	139974*	139974*	Part of item# 58
	<b>KIT - INPUT COVER - D190</b>	<b>1</b>	<b>-----</b>	<b>504188</b>	<b>Replaces 504066; Includes items 49, 56-58A, 59-60</b>
59	Input Cover - 131328-NSS	1	-----	131687 NSS	Order 504188 kit
60	Capscrew - Input Cover	12	-----	131374	
61	Plug - Carrier	1	10039186	-----	Replaces 131544; Refer to HAXL-PNI-096R2
	<b>KIT - INPUT SEAL &amp; LOCKNUT</b>	<b>1</b>	<b>131008K</b>	<b>131008K</b>	<b>Includes items 62-64</b>
62	Input Seal	1	10032666*	10032666*	Replaces 134323; Sold in 131008K kit also
	<b>KIT - PINION NUT</b>	<b>1</b>	<b>131095K</b>	<b>131095K</b>	<b>Includes item 63-64</b>
63	Input Locknut	1	131095	131095	Socket size 69mm
64	Loctite Adhesive .5ml tube	1	129293	129293	Item not illustrated
65	RTV Sealant - 3oz	1	107276S*	107276S*	Item not illustrated

**Service Diff Carrier Sub-Assembly**

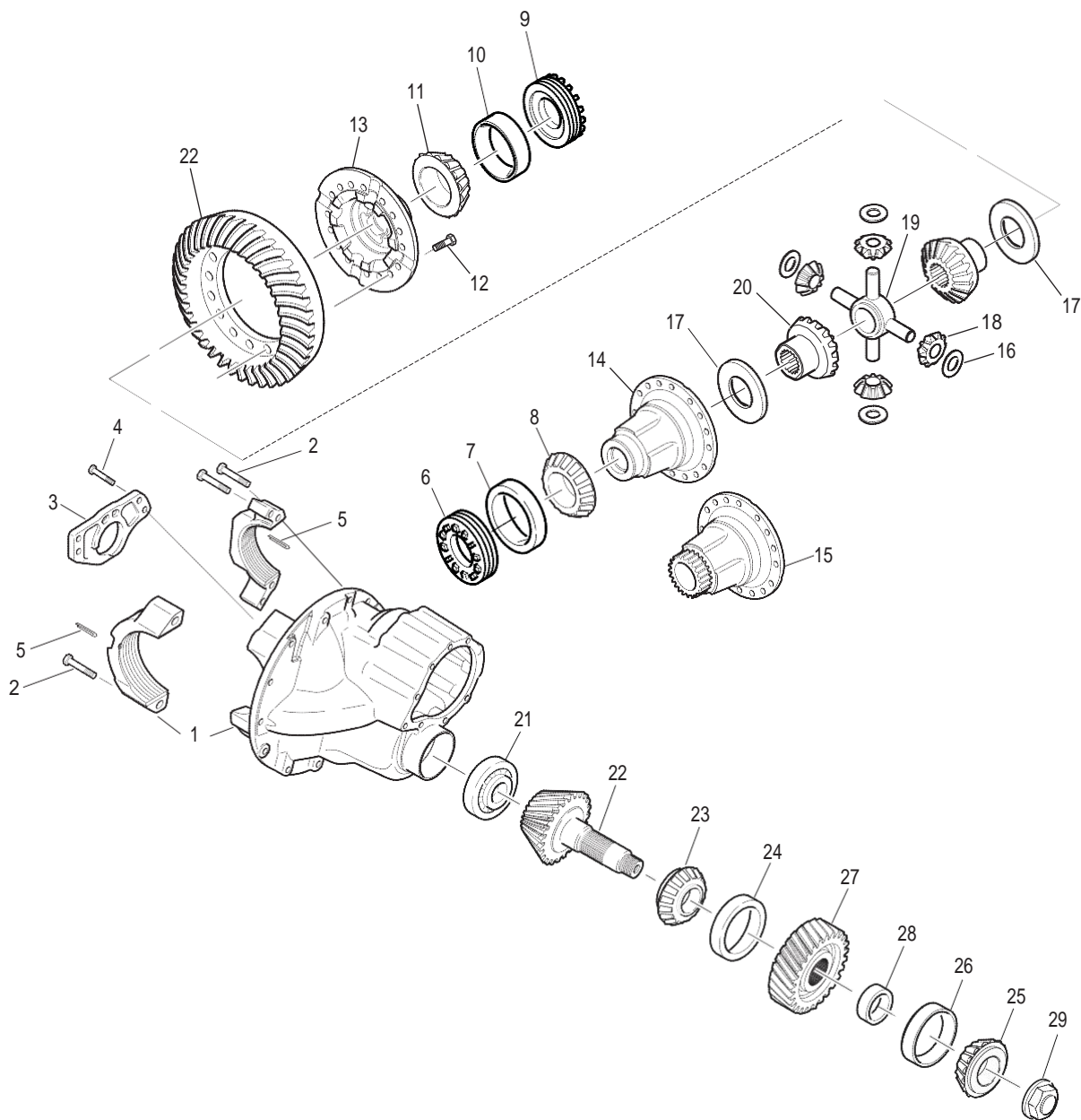
Item	Model	Part No.	Notes
1a	D170	132483 - NSS	Must order kit 504197; Includes items 1-4
1a	D170D	132484 - NSS	Must order kit 504198; Includes items 1-4
1b	D190, D190D	132485 - NSS	Must order kit 504199; Includes items 1-4

**Carrier Sub-Assembly Identification Information:**

Part No.	Casting #	Notes
132483 NSS	131222	Must order kit 504197; No Pilot Web (D170)
132484 NSS	131218	Must order kit 504198; No Pilot Web (D170D)
132485 NSS	131322	Must order kit 504199; Built w/Pilot Web (D190, D190D)

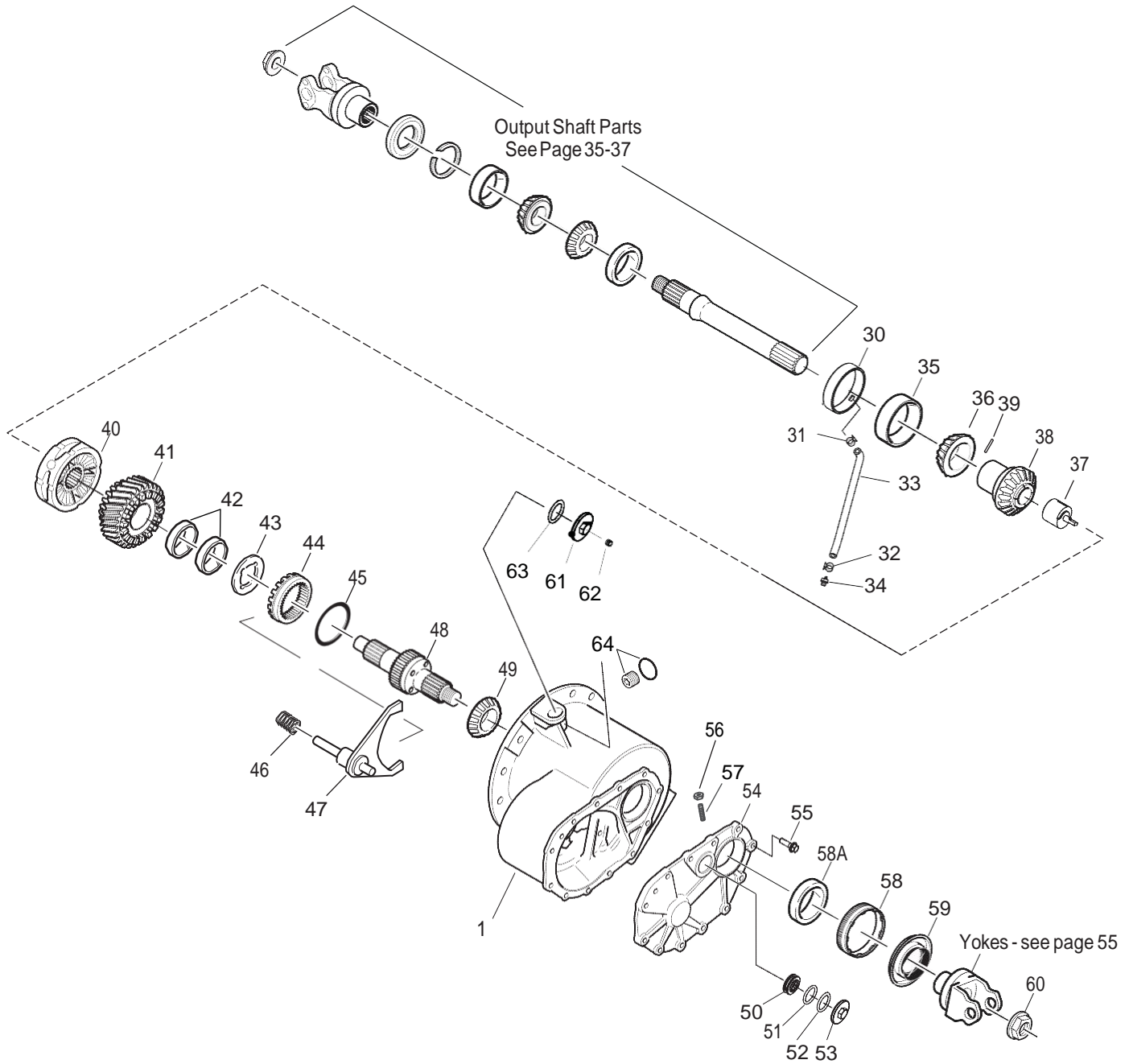
Note 1: The D170 & D170D models are the over-hung design (no pilot web).

### D590/D590D Double Reduction Axle - Parts Exploded View



D590/D590D  
Power Divider Parts Explode

D590/D590D Double Reduction Power Divider - Parts Exploded View



## D590/D590D Double Reduction Axle - Parts List

Item	Description	Qty Per Axle	D590 D590D	Notes
<b>BEARINGKIT</b>		1	504128	Contents identified with*
1	Carrier Sub-Assy - NSS	1	132485 NSS	Must order kit 504199; Includes items 1-4 See chart Pg 14
2	Capscrew - Bearing Cap	6	131016	
3	Pilot Bearing Web Support	1	N/A	Not a serviceable part - order item 1
4	Capscrew - Pilot Bearing Web	4	131017	
5	Cotter Pin	2	090311	
6	Bearing Adjuster - Plain Half	1	139993	
7	Bearing Cup - Plain Half Diff	1	10035196*	Replaces 140020
8	Bearing Cone - Plain Half Diff	1	140019*	
9	Bearing Adjuster - Flange Half	1	139992	
10	Bearing Cup - Diff Flange Half	1	10035195*	Replaces 140012
11	Bearing Cone - Diff Flange Half	1	140014*	
<b>KIT-RING GEAR BOLT</b>		1	504069	Includes qty 16 of 131473
12	Bolt - Ring Gear	16	131473	
13	Diff Case - Flange Half	1	See Kits Pg 30-33	All models
14	Diff Case - Plain Half	1	See Kits Pg 30-33	Standard models
15	Diff Case - Plain Half - Diff Lock	1	See Kits Pg 30-33	Diff Lock models
<b>KIT - WHEEL DIFF SIDE GEAR w/WASHERS</b>		1	504096	Includes items 16-20
16	Thrust Washer - Side Pinion	4	300HS100-1	
17	Thrust Washer - Side Gear	2	HS108-1	
18	Side Pinion	4	131040	
19	Spider - Differential	1	131039	
20	Side Gear - Differential	2	300GD101	46 Involute
21	Bearing - Pinion Pilot	1	129947*	
22	Ring Gear and Pinion - NSS		See Ring & Pinion Kits Pg 26-27	
23	Bearing Cone - Inner Pinion	1	139968*	
24	Bearing Cup - Inner Pinion	1	139969*	
25	Bearing Cone - Outer Pinion	1	139971*	
26	Bearing Cup - Outer Pinion	1	139972*	
27	Pinion Helical Gear 1.39:1	1	10051034	Replaces 131249; 1.39:1 Reduction; Refer to HAXL-PNI-096R2
28	<b>KIT - PINION BRG SPACER</b>	A/R	504041	Individual pinion spacers listed on Pg 29
<b>KIT - PINION NUT</b>		1	131095K	Includes 29 & 65
29	Locknut - Pinion	1	131095	Socket size 69mm
<b>MANIFOLD PARTS KIT</b>		Pump Model	513878	Includes items 30-34
30	Manifold Assembly - NSS	1	131366 NSS	Order Kit 513878; Pump model
31	Clamp	1	129338	
32	Collar Lock	1	134010	
33	Hose	1	131524	
34	Screen Filter Assembly	1	133964	
35	Bearing Cup - Output Side Gear	1	139976*	
36	Bearing Cone	1	139975*	
<b>KIT-LUBE PUMP</b>		1	504364-1	Replaces 504065; Includes items 37-39
37	Pump - Lube	1	131368	
38	Output Side Gear	1	10005175	Replaces 131466; Pump model
39	Pin	1	131541	

## D590 / D590D Axle Parts List

Item	Description	Qty Per Axle	D590 D590D	Notes
40	INTER-AXLE DIFFERENTIAL	1	10094015	Replaces 139965
41	Helical Side Gear & Bushing Assy. 1.39:1	1	10051032	Replaces 131346; Refer to HAXL-PNI-096R2; Gearstamp id# 131341, includes item 42
42	Bushing - Helical Gear	2	10016044	Replaces 131344; Refer to HAXL-PNI-096R2
43	Thrust Washer	1	132440*	
44	Sliding Clutch	1	131332	
45	V-ring	1	131333*	
KIT - SHIFT FORK & SPRING		1	514142	Includes items 46-47
46	Compression Spring	1	129859	
47	Shift Fork Assembly - NSS	1	131330 NSS	Must order kit above
KIT - INPUT SHAFT - PUMP MDL		1	513840	Includes items 48, 60 & 65
48	Input Shaft - NSS - PUMP	1	131349 NSS	Must order kit above
49	Bearing Cone - Input Shaft	1	139973*	
KIT - AIR LOCKOUT REPAIR		1	512892	Includes items 50-53
50	Piston	1	131232	
51	O-Ring - Piston	1	210180	
52	O-Ring Cover	1	131665	Production#131665, alternate service# is 220HH102
53	Piston Cover	1	131096	
KIT - INPUT COVER		1	504188	Replaces 504066; Includes items 49, 54-58A
54	Input Cover - 131328-NSS	1	131687 NSS	Order 504188 kit
55	Capscrew - Input Cover	12	131374	
56	Nut - Adjuster Stud	1	131693	M12 thread
57	Stud - Adjuster	1	131692	M12 thread
58	Input Adjuster & Cup Assy.	1	10049231	Replaces 134354
58A	Brg Cup - Input Adjuster	1	139974*	Part of item# 58
KIT - INPUT SEAL & LOCKNUT		1	131008K	Includes items 59-60 & 65
59	Input Seal	1	10032666*	Replaces 134323; Sold in 131008K kit also; Refer to HAXL-PNI-096R2
KIT - PINION NUT		1	131095K	Includes item 60 & 65
60	Locknut - Input Shaft	1	131095	Socket size 69mm
61	Cover - Diff Lock Shift	1	131096	For Non-diff lock models. For diff lock models see Pg 34
62	Plug - Diff Lock Shift	1	127195	For Non-diff lock models. For diff lock models see Pg 34
63	O-Ring - Diff Lock Cover	1	131665	For Non-diff lock models. For diff lock models see Pg 34
64	Plug & O-Ring - Diff Lock Cylinder	1	131487	For Non-diff lock models. For diff lock models see Pg 34
65	Loctite Adhesive .5ml tube	1	129293	Not illustrated
66	RTV Sealant - 3oz	1	107276S*	Not illustrated

### Service Diff Carrier Sub-Assembly

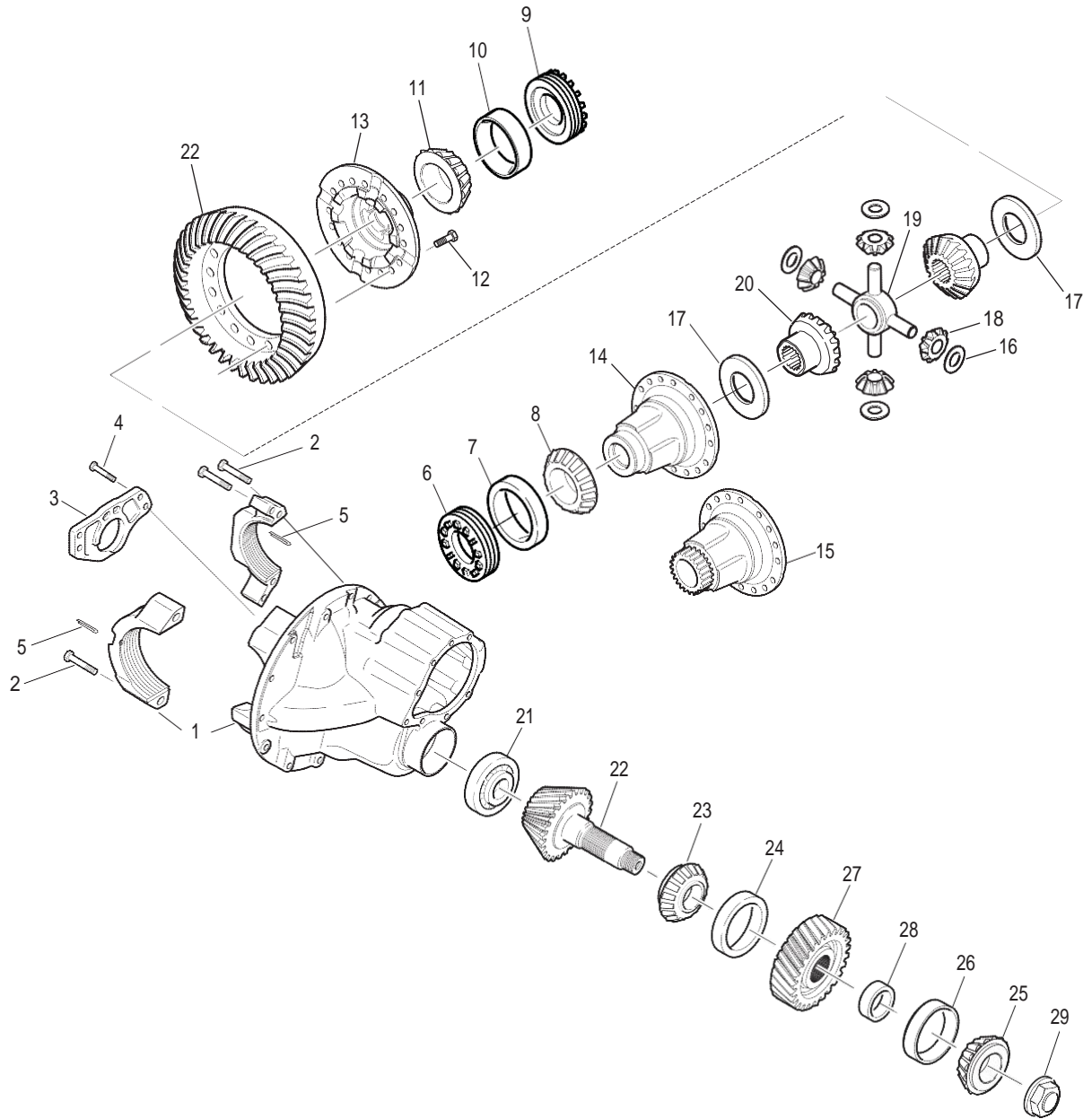
Item	Model	Part No.	Notes
1	D590, D590D	132485 NSS	Must order kit 504199; Includes items 1-4

### Carrier Sub-Assembly Identification Information:

Part No.	Casting #	Notes
132485 NSS	131322	Must order kit 504199; Built w/Pilot Web (D590, D590D)

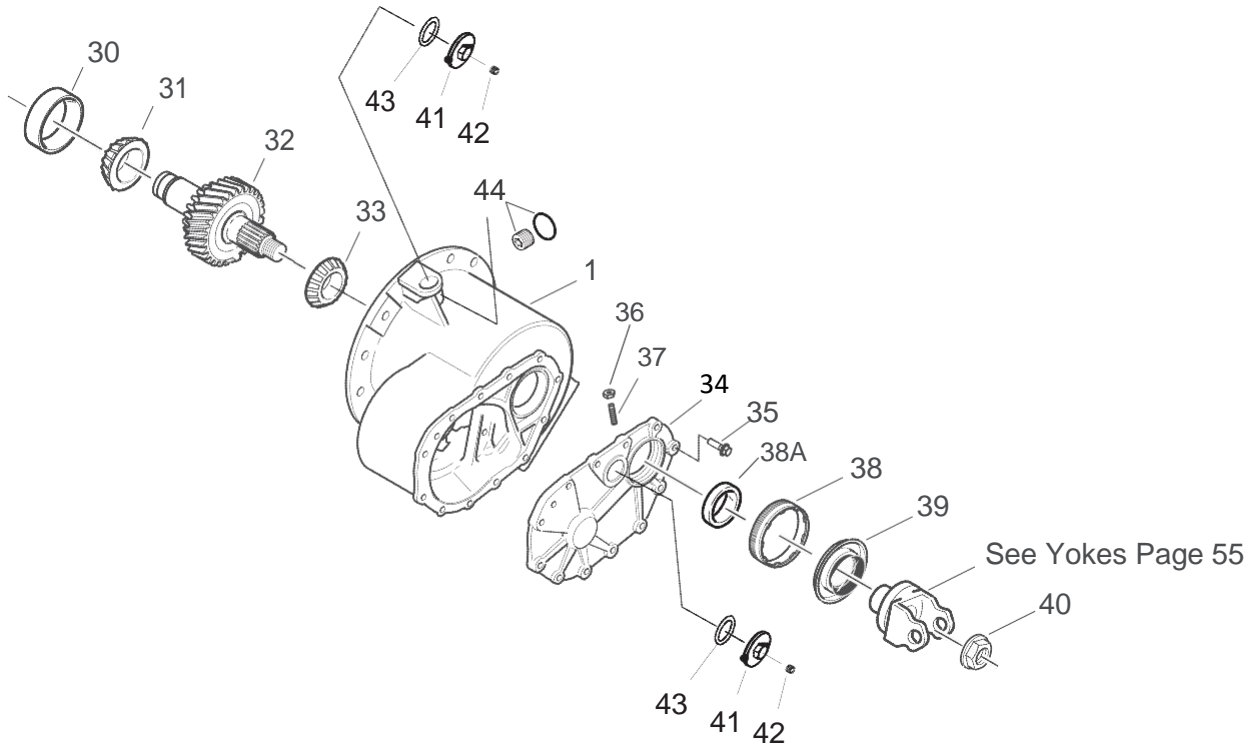


S590 / S590D / R590 / R590D Double Reduction Axle -



### Parts Exploded View

### S590 / S590D / R590 / R590D Double Reduction Power Divider -



## Parts Exploded View

## S590 / S590D / R590 / R590D Double Reduction Axle - Parts List

Item	Description	Qty Per Axle	S590, R590 S590D, R590D	Notes
<b>BEARINGKIT</b>		<b>1</b>	<b>504128</b>	<b>Contents identified with *</b>
1	Carrier Sub-Assy - NSS	1	132485 NSS	Must order kit 504199; Includes items 1-4 See chart Pg 18
2	Capscrew - Bearing Cap	6	131016	
3	Pilot Bearing Web Support	1	N/A	Not a serviceable part - order item 1
4	Capscrew - Pilot Bearing Web	4	131017	
5	Cotter Pin	2	090311	
6	Bearing Adjuster - Plain Half	1	139993	
7	Bearing Cup - Plain Half Diff	1	10035196*	Replaces 140020
8	Bearing Cone - Plain Half Diff	1	140019*	
9	Bearing Adjuster - Flange Half	1	139992	
10	Bearing Cup - Diff Flange Half	1	10035195*	Replaces 140012
11	Bearing Cone - Diff Flange Half	1	140014*	
<b>KIT-RING GEAR BOLT</b>		<b>1</b>	<b>504069</b>	<b>Includes qty 16 of 131473</b>
12	Bolt - Ring Gear	16	131473	
13	Diff Case - Flange Half	1	See Kits Pg 30-33	All models
14	Diff Case - Plain Half	1	See Kits Pg 30-33	Standard models
15	Diff Case - Plain Half - Diff Lock	1	See Kits Pg 30-33	Diff Lock models
<b>KIT - WHEEL DIFF SIDE GEAR w/WASHERS</b>		<b>1</b>	<b>504096</b>	<b>Includes items 16-20</b>
16	Thrust Washer - Side Pinion	4	300HS100-1	
17	Thrust Washer - Side Gear	2	HS108-1	
18	Side Pinion	4	131040	
19	Spider - Differential	1	131039	
20	Side Gear - Differential	2	300GD101	46 Involute
21	Bearing - Pinion Pilot	1	129947*	
22	Ring Gear and Pinion - NSS		See Ring & Pinion Kits Pg 26-27	
23	Bearing Cone - Inner Pinion	1	139968*	
24	Bearing Cup - Inner Pinion	1	139969*	
25	Bearing Cone - Outer Pinion	1	139971*	
26	Bearing Cup - Outer Pinion	1	139972*	
27	Pinion Helical Gear 1.39:1	1	10051034	Replaces 131249; 1.39:1 Reduction; Refer to HAXL-PNI-096R2
28	<b>KIT - PINION BRG SPACER</b>	<b>A/R</b>	<b>504041</b>	<b>Individual pinion spacers listed on Pg 29</b>
<b>KIT - PINION NUT</b>		<b>1</b>	<b>131095K</b>	<b>Includes 29 &amp; 45</b>
29	Locknut - Pinion	1	131095	Socket size 69mm
30	Bearing Cup	1	139976*	
31	Bearing Cone	1	139975*	
32	Input Shaft & Helical Gear 1.39:1		131353	
33	Bearing Cone - Input Shaft	1	139973*	
<b>KIT - INPUT COVER</b>		<b>1</b>	<b>504188</b>	<b>Replaces 504066; Includes items 33-38A</b>
34	Input Cover - 131328-NSS	1	131687 NSS	Order 504188 kit
35	Capscrew - Input Cover	12	131374	
36	Nut - Adjuster Stud	1	131693	M12 thread
37	Stud - Adjuster	1	131692	M12 thread
38	Input Adjuster & Cup Assy.	1	10049231	Replaces 134354
38A	Bearing Cup - Input Adjuster	1	139974*	Part of item # 38

## S590 / S590D / R590/R590D Axle Parts

Item	Description	Qty Per Axle	S590, R590 S590D, R590D	Notes
KIT - INPUT SEAL & LOCKNUT		1	131008K	Includes items 39-40, 45
39	Input Seal	1	10032666*	Replaces 134323; Sold in 131008K kit also. Refer to HAXL-PNI-096R2
KIT - PINION NUT		1	131095K	Includes item 40 & 45
40	Input Locknut	1	131095	Socket size 69mm
41	Cover - Diff Lock Shift	2	131096	See Note 1
42	Plug - Diff Lock Shift	2	127195	See Note 1
43	O-Ring - Diff Lock Cover	2	131665	See Note 1
44	Plug & O-Ring - Diff Lock Cover	1	131487	For Non-diff lock models only
45	Loctite Adhesive .5ml tube	1	129293	Item not illustrated
46	RTV Sealant - 3oz	1	107276S*	Item not illustrated

Note 1: Quantity used is 2 unless you have a Diff Lock model, see page 34 for diff lock shift parts

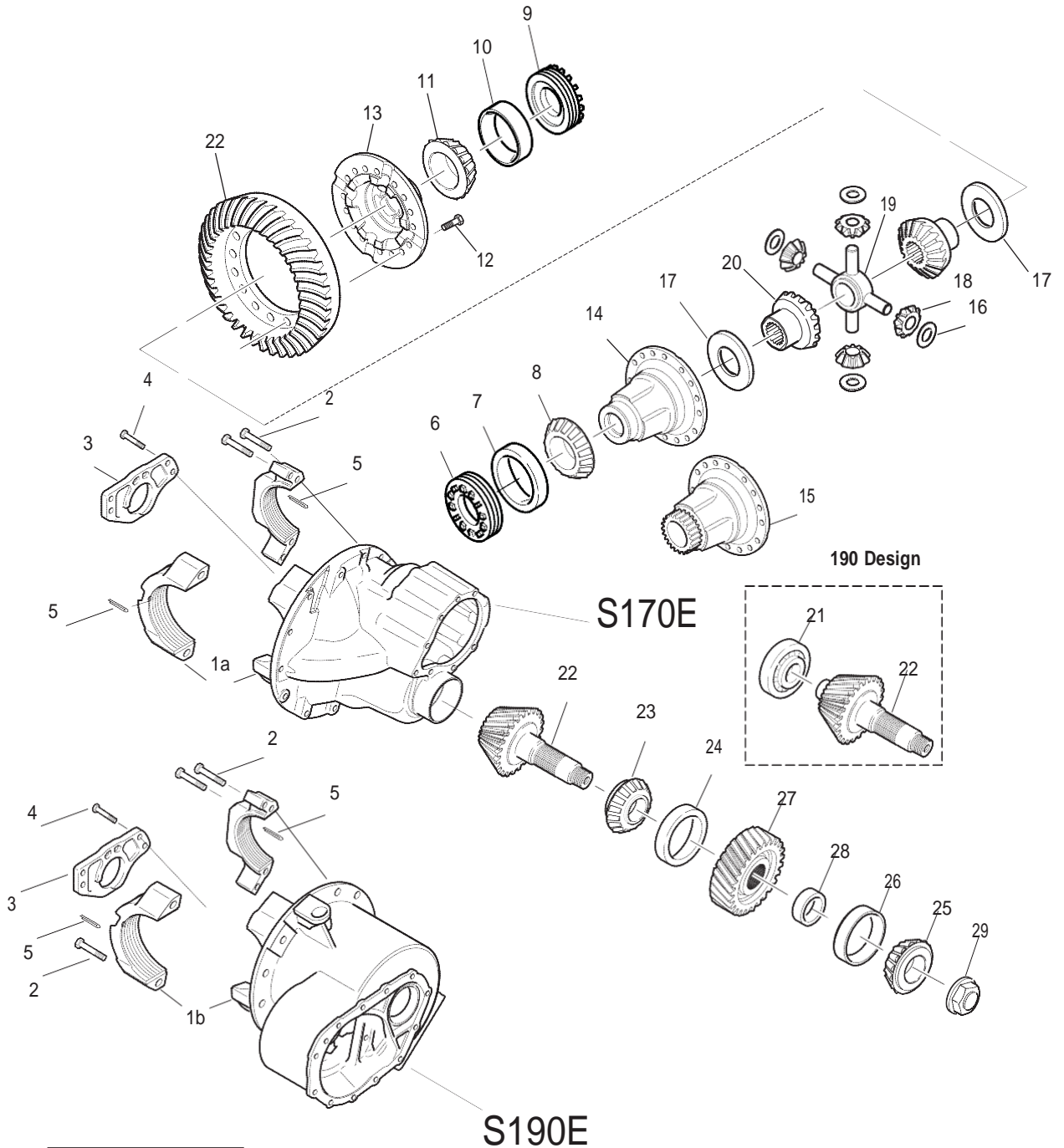
### Diff Carrier Sub-Assembly

Item	Model	Part No.	Notes
1	S590, S590D, R590, R590D	132485 NSS	Must order kit 504199; Includes items 1-4

### Carrier Sub-Assembly Identification Information:

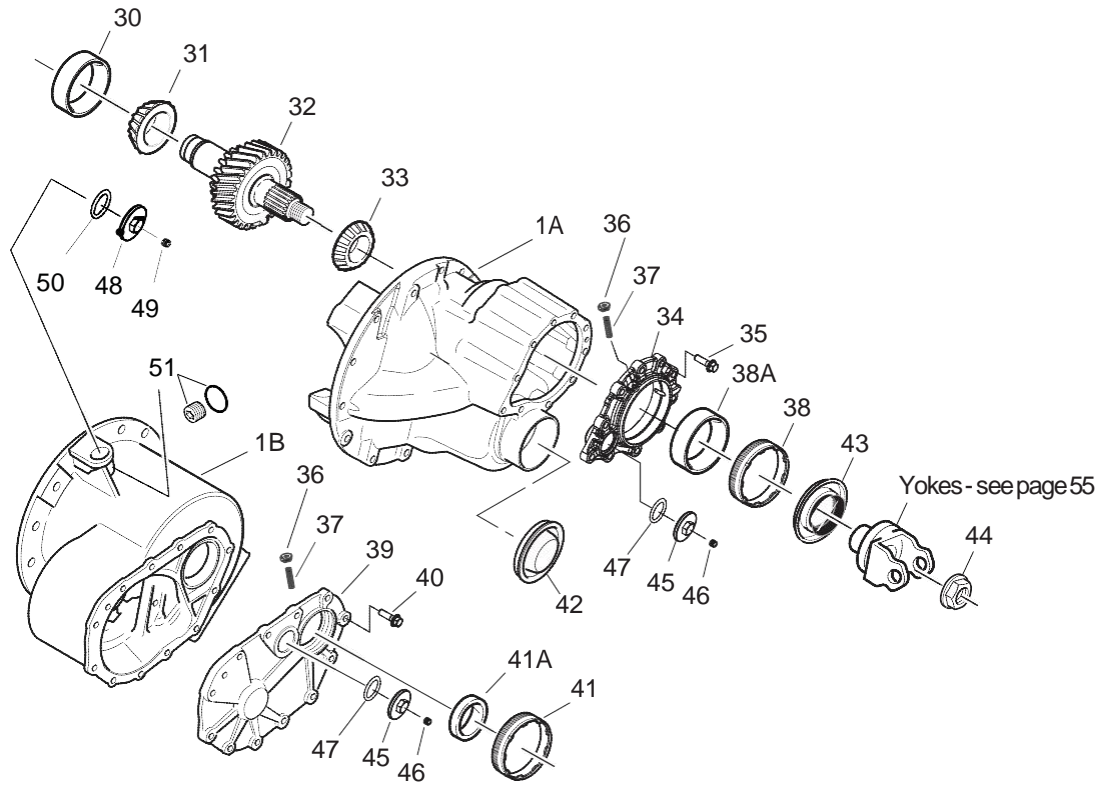
Part No.	Casting #	Notes
132485 NSS	131322	Must order kit 504199; Built w/Pilot Web

### S170E/S190E/S190DE High Entry Axle - Parts Exploded View



Parts for  
Diff Lock Assembly  
See page 34

## S170E/S190E/S190DE High Entry Power Divider - Parts Exploded View



## S170E/S190E/S190DE High Entry Axle - Parts List

Item	Description	Qty Per Axle	S170E	S190E	S190DE	Notes
	BEARINGKIT	1	504126	504128	504128	Contents identified with*
1a	Carrier Sub-Assy - NSS	1	132483	-----	-----	Must order kit 504197; Includes items 1a&2 See Pg 22
1b	Carrier Sub-Assy - NSS	1	-----	132485	132485	Must order kit 504199; Includes items 1b-4 See Pg 22
2	Capscrew - Bearing Cap	6	131016	131016	131016	
3	Pilot Bearing Web Support	1	-----	N/A	N/A	Not a serviceable part - order item 1
4	Capscrew - Pilot Bearing Web	4	-----	131017	131017	
5	Cotter Pin	2	090311	090311	090311	
6	Bearing Adjuster - Plain Half	1	139993	139993	139993	
7	Bearing Cup - Plain Half Diff	1	10035195*	10035196*	10035196*	10035195 Replaces 140012; Standard model
		1	10035196*	10035196*	10035196*	Replaces 140020; Diff Lock model
8	Bearing Cone - Plain Half Diff	1	140014*	140019*	140019*	Standard model
		1	140019*	140019*	140019*	Diff Lock model
9	Bearing Adjuster - Flange Half	1	139992	139992	139992	
10	Bearing Cup - Diff Flange Half	1	10035195*	10035195*	10035195*	Replaces 140012
11	Bearing Cone - Diff Flange Half	1	140014*	140014*	140014*	
	KIT - RING GEAR BOLT	1	504069	504069	504069	Includes qty 16 of 131473
12	Bolt - Ring Gear	16	131473	131473	131473	
13	Diff Case - Flange Half	1	See Diff Case Kits Pg 30-33			All models
14	Diff Case - Plain Half	1	See Diff Case Kits Pg 30-33			Standard models
15	Diff Case - Plain Half - Diff Lock	1	See Diff Case Kits Pg 30-33			Diff Lock models
	KIT - WHEEL DIFF SIDE GEAR w/WASHERS	1	504096	504096	504096	Includes items 16-20
16	Thrust Washer - Side Pinion	4	300HS100-1	300HS100-1	300HS100-1	
17	Thrust Washer - Side Gear	2	HS108-1	HS108-1	HS108-1	
18	Side Pinion	4	131040	131040	131040	
19	Spider - Differential	1	131039	131039	131039	
20	Side Gear - Differential	2	300GD101	300GD101	300GD101	46 Involute
21	Bearing - Pinion Pilot	1	-----	129947*	129947*	
22	Ring Gear and Pinion - NSS		See Ring & Pinion Kits Pg 26-27			
23	Bearing Cone - Inner Pinion	1	139968*	139968*	139968*	
24	Bearing Cup - Inner Pinion	1	139969*	139969*	139969*	
25	Bearing Cone - Outer Pinion	1	139971*	139971*	139971*	
26	Bearing Cup - Outer Pinion	1	139972*	139972*	139972*	
27	Pinion Helical Gear	1	10010716	10010716	10010716	Replaces 131343 ; Refer to HAXL-PNI-096R2
28	KIT - PINION BRG SPACER	A/R	504041	504041	504041	Individual pinion spacers listed on pg. 29
	KIT - PINION NUT	1	131095K	131095K	131095K	Includes 29&52
29	Locknut - Pinion	1	131095	131095	131095	Socket size 69mm
30	Bearing Cup - Output Side Gear	1	139976*	139976*	139976*	
31	Bearing Cone - Output Side Gear	1	139975*	139975*	139975*	

## S170E/S190E/S190DE Parts List

Item	Description	Qty Per Axle	S170E	S190E	S190DE	Notes
32	INPUT SHAFT & HELICAL - HIGH ENTRY	1	131340	131340	131340	1:1 ratio
33	Bearing Cone - Input Shaft	1	139973*	139973*	139973*	
KIT - INPUT COVER - S170E		1	504189	-----	-----	Replaces 504067; Includes items 33-38A
34	Input Cover - 131221-NSS	1	131686 NSS	-----	-----	Order 504189 kit
35	Capscrew - Input Cover		131374	-----	-----	
36	Nut - Adjuster Stud	1	131693	131693	131693	M12 thread
37	Stud - Adjuster	1	131692	131692	131692	M12 thread
38	Input Adjuster & Cup Assy.	1	10049231	10049231	10049231	Replaces 134354
38A	Bearing Cup - Input Adjuster	1	139974*	139974*	139974*	
KIT - INPUT COVER - S190E/S190DE		1	-----	504188	504188	Replaces 504066; Includes items 33, 36-37, 39-41A
39	Input Cover - 131328-NSS	1	-----	131687 NSS	131687 NSS	Order 504188 kit
40	Capscrew - Input Cover		-----	131374	131374	
41	Input Adjuster & Cup Assy.	1	10049231	10049231	10049231	Replaces 134354
41A	Bearing Cup - Input Adjuster	1	139974*	139974*	139974*	Part of item # 41
42	Plug - Carrier	1	10039186	-----	-----	Replaces 131544; Refer to HAXL-PNI-096R2
KIT - INPUT SEAL & LOCKNUT		1	131008K	131008K	131008K	Includes items 43-44 & 52
43	Input Seal	1	10032666*	10032666*	10032666*	Replaces 134323; Refer to HAXL-PNI-096R2
KIT - PINION NUT		1	131095K	131095K	131095K	Includes item 44 & 52
44	Input Locknut	1	131095	131095	131095	Socket size 69mm
45	Cap - Lockout Cylinder	1	131096	131096	131096	
46	Plug - Cap - Lockout Cylinder	1	127195	127195	127195	
47	O-Ring - Cap - Lockout Cylinder	1	131665	131665	131665	
48	Cap - Diff Lock Shift Cylinder	1	131096	131096	-----	For Non-diff lock models. For diff lock models see Pg 34
49	Plug - Cap - Diff Lock Shift Cylinder	1	127195	127195	-----	For Non-diff lock models. For diff lock models see Pg 34
50	O-Ring - Cap - Diff Lock Shift Cylinder	1	131665	131665	-----	For Non-diff lock models. For diff lock models see Pg 34
51	Plug & O-Ring - Diff Lock Switch Opening	1	131487	131487	-----	For Non-diff lock models. For diff lock models see Pg 34
52	Loctite Adhesive .5ml tube	1	129293	129293	129293	Item not illustrated
53	RTV Sealant - 3oz	1	107276S*	107276S*	107276S*	Item not illustrated

### Service Diff Carrier Sub-Assembly

Item	Model	Part No.	Notes
1a	S170E	132483 NSS	Must order kit 504197; Includes items 1-4
1b	S190E, S190DE	132485 NSS	Must order kit 504199; Includes items 1-4

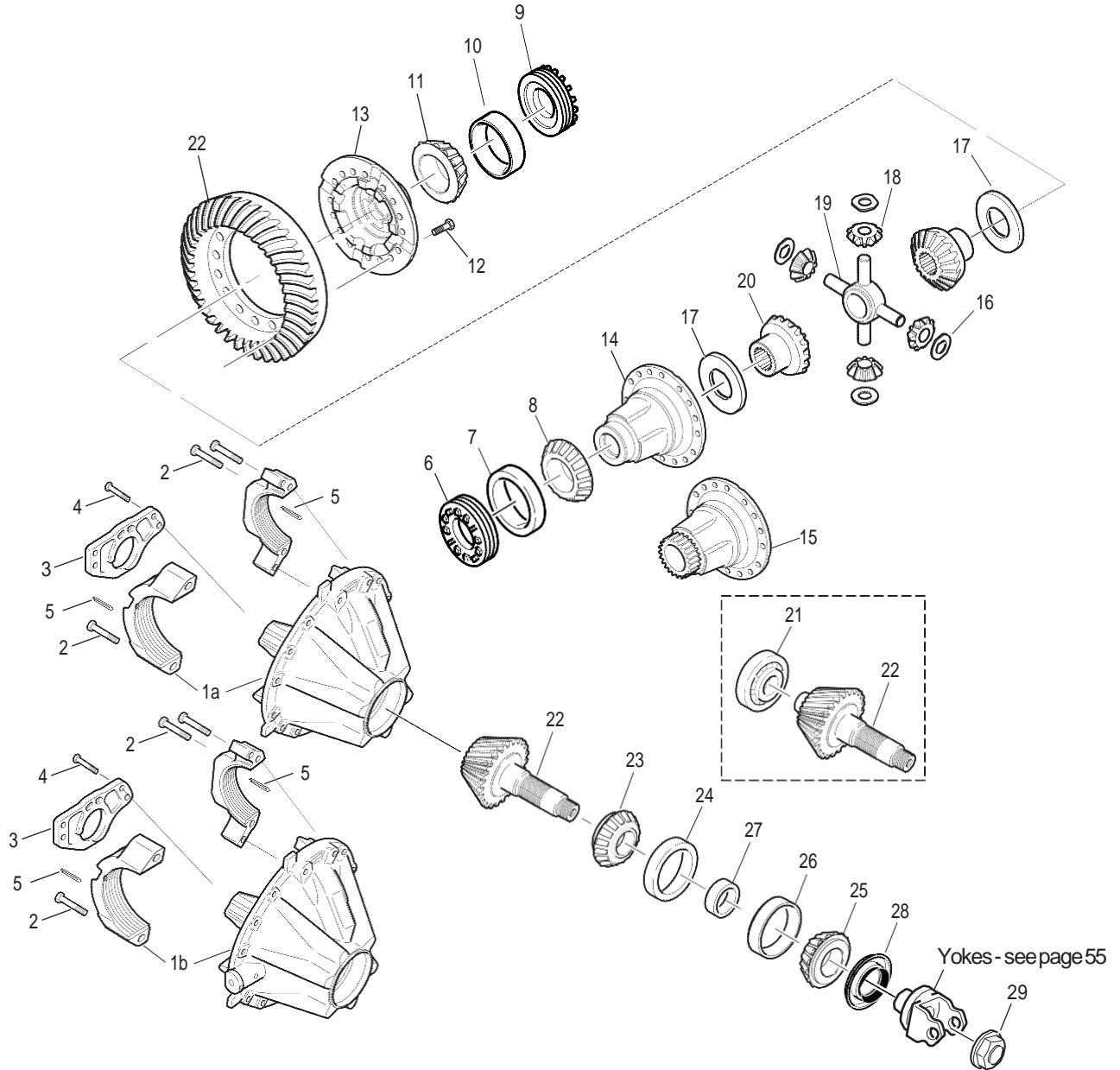
### Carrier Sub-Assembly Identification Information:

Part No.	Casting #	Notes
132483 NSS	131222	Must order kit 504197; No Pilot Web (S170E)
132485 NSS	131322	Must order kit 504199; Built w/Pilot Web (S190E, S190DE)



# R170 / R190, S170 / S190 - Rear Axle Parts Explode

Models Made ON or AFTER June 10, 2013



## R170/R190, S170/S190 - Rear Axle Parts List

### Models Made ON or AFTER June 10, 2013

Item	Description	Qty Per Axle	S170, S170D S170R R170D	S190, S190D S190R R190D	Notes
BEARINGKIT		1	-----	504131	S190 Series - ratios 2.53-4.78
	Contents identified with*	1	-----	504133	S190 Series - ratios 5.25-7.83
		1	504129	-----	S170 Series - ratios 3.07-3.91
		1	504130	-----	S170 Series - ratios 4.10-7.17
		1	504131	-----	S170D - Diff Lock Series - ratios 2.53-4.38
		1	504132	-----	S170D - Diff Lock Series - ratios 4.10-7.17
1a	Carrier Sub-Assy	1	See Chart Pg 25		Standard model - Note 1
1b	Carrier Sub-Assy	1	See Chart Pg 25		Diff Lock model - Note 1
2	Capscrew - Bearing Cap	6	131016	131016	
3	Pilot Bearing Web Support	1	NSS-Note 1	NSS-Note 1	
4	Capscrew - Pilot Bearing Web	4	131017	131017	
5	Cotter Pin	2	090311	090311	
6	Bearing Adjuster - Plain Half	1	139993	139993	
7	Bearing Cup - Plain Half Diff	1	10035195*	10035196*	10035195 Replaces 140012; Standard model
		1	10035196*	10035196*	Replaces 140020; Diff Lock model
8	Bearing Cone - Plain Half Diff	1	140014*	140019*	Standard model
		1	140019*	140019*	Diff Lock model
9	Bearing Adjuster - Flange Half	1	139992	139992	
10	Bearing Cup - Diff Flange Half	1	10035195*	10035195*	Replaces 140012; All models
11	Bearing Cone - Diff Flange Half	1	140014*	140014*	All models
	<b>KIT - RING GEAR BOLT</b>	1	504069	504069	Includes qty 16 of 131473
12	Ring Gear Bolt	16	131473	131473	
13	Diff Case - Flange Half	1	See Diff Case Kits Pg 30-33		All models
14	Diff Case - Plain Half	1	See Diff Case Kits Pg 30-33		Standard models
15	Diff Case - Plain Half - Diff Lock	1	See Diff Case Kits Pg 30-33		Diff Lock models
	<b>KIT - WHEEL DIFF SIDE GEAR w/ WASHERS</b>	1	504096	504096	Includes items 16-20
16	Thrust Washer - Side Pinion	4	300HS100-1	300HS100-1	
17	Thrust Washer - Side Gear	2	HS108-1	HS108-1	
18	Side Pinion	4	131040	131040	
19	Spider - Differential	1	131039	131039	
20	Side Gear - Differential	2	300GD101	300GD101	46 Involute
	<b>NO SPIN ASSEMBLY - 46 Inv Spline</b>	1	131882	-----	Item not illustrated
21	Bearing - Pinion Pilot	Ratios 2.69-3.91	1	129947*	-----
		Ratios 2.53-4.78	1	-----	129947*
		Ratios 5.25-7.83	1	-----	126187*
22	Ring Gear & Drive Pinion Set		See Ring & Pinion Kits Pg 26-27		
23	Bearing Cone - Inner Pinion	1	139968*	139968*	
24	Bearing Cup - Inner Pinion	1	139969*	139969*	
25	Bearing Cone - Outer Pinion	1	139970*	139970*	
26	Bearing Cup - Outer Pinion	1	139969*	139969*	
27	<b>KIT - PINION BRG SPACER</b>	A/R	504042	504042	Individual pinion spacers listed on Pg 29
	<b>KIT - INPUT SEAL &amp; LOCKNUT</b>	1	131008K	131008K	Includes items 28-29, 30
28	Input Seal	1	10032666*	10032666*	Replaces 134323; Also sold in 131008K kit; See Note 2 Pg 25

Item	Description	Qty Per Axle	S170, S170D	S190, S190D	Notes
			S170R R170 R170D	S190R R190 R190D	
	<a href="#">KIT - PINION NUT</a>	1	131095K	131095K	Includes item 29-30
29	Locknut- Pinion	1	131095*	131095*	Socket size 69mm
30	Loctite Adhesive .5ml tube	1	129293*	129293*	Item not illustrated
31	RTV Sealant -3oz	1	107276S*	107276S*	Item not illustrated

## Service Diff Carrier Sub-Assembly

Item	Model	Part No.	Notes
1a	R170, S170 (has pilot web)	132480 – NSS	Must order kit 504190; Includes items 1-4
1b	R190, R190D, S190, S190D	132482 – NSS	Must order kit 504194; Includes items 1-4
1a	S170R (retarder ready)	132486 – NSS	Must order kit 504195; Includes items 1-4
1b	S190R, S190DR (retarder ready)	132487 – NSS	Must order kit 504196; Includes items 1-4

## Carrier Sub-Assembly Identification Information

Part No.	Casting #	Notes
132478 - NSS	131228	No Pilot Web      order 504192
10035416	131020	No Pilot Web      Replaces 132479
132480 - NSS	131228	Built w/Pilot Web      order 504190
132481 - NSS	131020	Built w/Pilot Web      order 504193
132482 - NSS	131024	Built w/Pilot Web      order 504194
132486 - NSS	131020	Built w/Pilot Web      order 504195
132487 - NSS	131024	Built w/Pilot Web      order 504196

Note 1: Some S170, R170 production models utilize the Pilot Web, while others are the over-hung design (no pilot web). All service replacement Carrier Sub-Assemblies are only offered with the pilot webs. Service uses Pilot web design carrier sub-assemblies to replace non pilot web designs.

1a = Non Diff-Lock Design    1b = Diff Lock Design

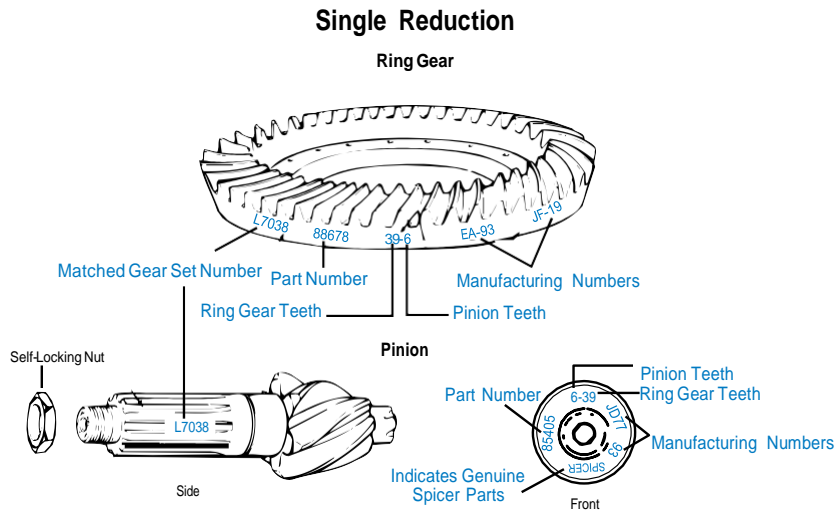
Note 2: Refer to HAXL-PNI-096R2

## Gear & Pinion Kits

### Ring Gear & Pinion Identification

Dana has highly developed primary axle gearing which is only used in matched sets. These sets are identified by the mating parts listed below. Within any Dana production drive axle or genuine Spicer® Gear & Pinion service kits, these mated part numbers will appear. Because they are developed as a set with precision machining, never mix gears and pinions from different mated sets within an axle. Shortened gearing life, noise and failure may occur. Always use genuine Spicer® products.

- Ring Gear and Drive Pinion are matched parts and must be replaced in sets.
- Identification of mated parts are shown on the drawing below.



### D170, D170D, S170E High Entry Models

Ring Gear Size: 17.7"

Pinion Nut Part No. 131095

Ratio	Spicer Service Kit Part No.	Gear Part No.	Pinion P/N Part No.	Tooth
3.07	513882	131281	131250	43-14
3.21	513883	131282	131261	45-14
3.42	513885	131283	131253	41-12
3.58	513886	131284	131254	43-12
3.73	513887	131283	131255	41-11
3.91	513888	131284	131256	43-11
4.10	513889	131283	131257	41-10
4.30	513890	131284	131258	43-10
4.56	513891	131285	131259	41-9
4.78	513892	131286	131260	43-9
5.25	513893	131287	131261	42-8
5.38	513894	131288	131262	43-8
5.57	513895	131289	131263	39-7
6.14	513896	131288	131264	43-7
6.83	513897	131290	131265	41-6
7.17	513898	131288	131266	43-6

### R170, R170D, S170, S170D

Ring Gear Size: 17.7"

Pinion Nut Part No. 131095

Ratio	Spicer Service Kit Part No.	Gear Part No.	Pinion P/N Part No.	Tooth
3.07	513917	131183	131150	43-14
3.21	513918	131185	131151	45-14
3.42	513920	131186	131153	41-12
3.58	513921	131187	131154	43-12
3.73	513922	131186	131155	41-11
3.91	513923	131187	131156	43-11
4.10	513924	131186	131157	41-10
4.30	513925	131187	131158	43-10
4.30BC	504024	131596	133800	43-10
4.56	513926	131188	131159	41-9
4.78	513927	131189	131160	43-9
5.25	513928	131190	131161	42-8
5.38	513929	131460	131456	43-8
5.57	513930	131461	131457	39-7
6.14	513931	131460	131458	43-7
6.83	513932	131462	131459	41-6
7.17	513933	131463	131475	43-6

**D190, D190D, D/R590, D/R590D, S590, S590D, S190E High Entry Models**

Ring Gear Size: 18.5"

Pinion Nut Part No. 131095

Ratio (note 1)	Spicer Service Kit Part No.	Gear Part No.	Pinion P/N Part No.	Tooth
3.42 (4.75)	<b>513899</b>	131283	131267	41-12
3.58 (4.99)	<b>513900</b>	131284	131268	43-12
3.73 (5.19)	<b>513901</b>	131283	131269	41-11
3.91 (5.44)	<b>513902</b>	131284	131270	43-11
4.10 (5.70)	<b>513903</b>	131283	131271	41-10
4.30 (5.98)	<b>513904</b>	131284	131272	43-10
4.56 (6.34)	<b>513905</b>	131285	131273	41-9
4.78 (6.65)	<b>513906</b>	131286	131274	43-9
5.25 (7.30)	<b>513907</b>	131287	131275	42-8
5.38 (7.48)	<b>513908</b>	131288	131276	43-8
5.57 (7.75)	<b>513909</b>	131289	131277	39-7
6.14 (8.55)	<b>513910</b>	131288	131278	43-7
6.83 (9.51)	<b>513911</b>	131290	131279	41-6
7.17 (9.97)	<b>513912</b>	131288	131280	43-6
7.83 (10.90)	<b>513913</b>	131522	131521	47-6

Note 1: Ratios shown in parentheses are ratio callouts for "Double Reduction 590 models" which use a 1:39-1 helical reduction gearing.

Spicer Service Kit 513934 is replaced by 504164.

**R190S, R190D, S190S, S190D**

Ring Gear Size: 18.5"

Pinion Nut Part No. 131095

Ratio	Spicer Service Kit Part No.	Gear Part No.	Pinion P/N Part No.	Tooth
2.53	<b>504164</b>	131506	131505	43-17
2.69	<b>513935</b>	131191	131162	43-16
2.87	<b>513936</b>	131191	131163	43-15
2.93	<b>513937</b>	131192	131164	41-14
3.07	<b>513938</b>	131191	131165	43-14
3.21	<b>513939</b>	131193	131166	45-14
3.42	<b>513941</b>	131194	131168	41-12
3.58	<b>513942</b>	131195	131169	43-12
3.73	<b>513943</b>	131194	131170	41-11
3.91	<b>513944</b>	131195	131171	43-11
4.10	<b>513945</b>	131194	131172	41-10
4.30	<b>513946</b>	131195	131176	43-10
4.56	<b>513947</b>	131194	131174	41-9
4.78	<b>513948</b>	131195	131175	43-9
5.25	<b>513949</b>	131196	131176	42-8
5.38	<b>513950</b>	131197	131177	43-8
5.57	<b>513951</b>	131198	131178	39-7
6.14	<b>513952</b>	131197	131179	43-7
6.83	<b>513953</b>	131198	131180	41-6
7.17	<b>513954</b>	131197	131181	43-6
7.83	<b>513955</b>	131200	131182	47-6

## Bearing Kits

### Forward Carrier Models

Part Description	Qty	504126	504127	504128	
		D170 S170E	D170D	All D190, D590, S590, R590 All S190E & S190DE	
Brg Cup - Diff Plain Half	1	10035195	10035196	10035196	
Bearing Cone - Diff Plain Half	1	140014	140019	140019	
Brg Cup - Diff Flange Half	1	10035195	10035195	10035195	
Brg Cone - Diff Flange Half	1	140014	140014	140014	
Bearing - Pinion Pilot	1	-----	-----	129947	
Brg Cup - Inner Pinion	1	139969	139969	139969	
Brg Cone - Inner Pinion	1	139968	139968	139968	
Brg Cup - Outer Pinion	1	139972	139972	139972	
Brg Cone - Outer Pinion	1	139971	139971	139971	
Brg Cup - O/P Side Gear	1	139976	139976	139976	
Brg Cone - O/P Side Gear	1	139975	139975	139975	
Brg Cup - Input Adjuster	1	139974	139974	139974	
Brg Cone - Input Shaft	1	139973	139973	139973	
V-Ring	1	131333*	131333	131333*	* See Note 1
Oil Seal - Input Location	1	10032666	10032666	10032666	
Gasket Compound - RTV	1	107276S	107276S	107276S	

Note 1 - The S590 & R590 models and High Entry "E" models do not use the V-Ring - simply discard it.

### Single & Rear-Rear Carrier Models

Part Description	Qty	504129	504130	504131	504132	504131	504133
		R170S S170S 2.69-3.91	R170S S170S 4.10-7.17	R170D S170D 2.69-3.91	R170D S170D 4.10-7.17	R190 S190 2.53-4.78	R190 S190 5.25-7.83
Brg Cup - Diff Plain Half	1	10035195	10035195	10035196	10035196	10035196	10035196
Bearing Cone - Diff Plain Half	1	140014	140014	140019	140019	140019	140019
Brg Cup - Diff Flg Half	1	10035195	10035195	10035195	10035195	10035195	10035195
Brg Cone - Diff Flg Half	1	140014	140014	140014	140014	140014	140014
Bearing - Pinion Pilot	1	129947	-----	129947	-----	129947	126187
Brg Cup - Inner Pinion	1	139969	139969	139969	139969	139969	139969
Brg Cone - Inner Pinion	1	139968	139968	139968	139968	139968	139968
Brg Cup - Outer Pinion	1	139969	139969	139969	139969	139969	139969
Brg Cone - Outer Pinion	1	139970	139970	139970	139970	139970	139970
Oil Seal - R-Pinion	1	10032666	10032666	10032666	10032666	10032666	10032666
Gasket Compound - RTV	1	107276S	107276S	107276S	107276S	107276S	107276S

## Bearing Spacers

Select a variable pinion bearing spacer from the list below to attain the correct pinion bearing preload. All procedures on "Pinion Bearing Preload" remain the same and the proper steps should be followed according to your Dana Spicer Service Manual AXSM-0057. Spicer Pinion Bearing Spacer kits are available as shown below.

### PINION BRG SPACER KIT: 504041

Models: ALL D170, D190, D/R590, S590, D170E/D190E

Dana P/N	Spacer Thickness (mm)
131376	21.760
*131408	22.360
131377	21.790
*131409	22.375
*131378	21.820
131410	22.390
131379	21.850
131411	22.405
131380	21.880
131412	22.420
131381	21.910
*131413	22.435
131382	21.940
131414	22.450
131383	21.970
131415	22.465
131384	22.000
131416	22.495
131385	22.015
131417	22.525
131386	22.030
131418	22.555
131387	22.045
131419	22.585
131388	22.060
131420	22.615
131389	22.075
*131421	22.645
131390	22.090
131422 OBS	22.675
*131391	22.105
131423	22.705

Dana P/N	Spacer Thickness (mm)
131392 OBS	22.120
132838	21.775
*131393	22.135
132839	21.805
131394	22.150
132840	21.835
131395	22.165
132841	21.865
131396	22.180
132842	21.895
131397	22.195
132843	21.925
131398 OBS	22.210
*132844	21.955
*131399	22.225
132845	21.985
*131400	22.240
132846	22.470
131401	22.255
132847	22.510
131402	22.270
132848	22.540
131403	22.285
132849	22.570
131404	22.300
132850	22.600
131405	22.315
132851	22.630
131406	22.330
132852	22.660
131407	22.345
132853	22.680

### PINION BRG SPACER KIT: 504042

Models: ALL R170, S170, R190, S190

Dana P/N	Spacer Thickness (mm)
131053	7.750
131074	8.140
132825	7.765
131075	8.155
131054	7.780
131076	8.170
132826	7.795
*131077	8.185
131055	7.810
131078	8.200
132827	7.825
*131079	8.215
131056	7.840
131080	8.230
132828	7.855
131081	8.245
131057	7.870
131082	8.260
*132829	7.885
*132830	8.275
131058	7.900
131083	8.290
131059	7.915
*132831	8.305
*131060	7.930
131084	8.320

Dana P/N	Spacer Thickness(mm)
131061	7.945
132832	8.335
131062	7.960
131085	8.350
131063	7.975
132833	8.365
131064	7.990
*132834	8.395
*131065	8.005
131086	8.380
131066	8.020
131087	8.410
131067	8.035
132835	8.425
131068	8.050
131088	8.440
*131069	8.065
132836 NSS	8.455
*131070	8.080
132837	8.485
131071	8.095
131089	8.470
131072	8.110
131090	8.500
131073	8.125

\*These represent the most popular used spacers, and each Bearing Spacer Kit contains qty 1 each.

Dana P/N 132836 is replaced by 131088.

## Spicer Wheel Differential Case Kits

### Wheel Differential Case Kit Reference Chart:

Kit Part-NO	Flange Half (A)	Plain Half (B)	(B) Plain Half Case Design	Ring Gear Bolts (C)
504134	139996	140004		
504135	139997	140003		131473
504136	139998	140002		(Qty-16)
504137	139996	140003		Note - 504069
504138	139997	140002		Bolt Kit Contains
504139	139997	139999	DL	qty 16 of
504140	139997	140000	DL	131473 bolts.
504141	139998	139999	DL	
504142	139996	140001	DL	
504143	139996	140000	DL	

DL=Diff Lock Splined Diff Case

All new designed Plain Half diff cases now have "Lubrication Holes"

## Wheel Differential Case Kits

Dana Wheel Differential Cases are sold individually and in kit form. When doing ratio changes or replacing original diff cases from the field, check the individual part numbers you are replacing to ensure you are installing or ordering the correct parts. Be sure to know which model design is being worked on. Refer to the Model & Ratio chart matrix for case & kit part numbers.

Dana Model	Ratio	SERVICE KIT	Flange Half Case	Plain Half Case
D170 D170P S170E	3.07	504134	139996	140004
	3.21			
	3.42	504135	139997	140003
	3.58			
	3.73			
	3.91	504136	139998	140002
	4.10			
	4.30			
	4.56			
	4.78			
	5.25	504135	139997	140003
	5.38			
	5.57			
	6.14	504136	139998	140002
	6.83			
	7.17			

Each Dana Diff Case Service Kit contains 16 bolts, part number 131473



## Wheel Differential Case

Dana Model	Ratio	SERVICE KIT	Flange Half Case	Plain Half Case
S170S R170S	3.07	504137	139996	140003
	3.21			
	3.42	504135	139997	140003
	3.58			
	3.73	504137	139996	140003
	3.91	504136	139998	140002
	4.10			
	4.30			
	4.56			
	4.78			
	5.25			
	5.38			
	5.57			
	6.14	504138	139997	140002
	6.83	504136	139998	140002
7.17				
D170D D170DP S170DE	3.07	504142	139996	140001
	3.21			
	3.42	504140	139997	140000
	3.58			
	3.73	504139	139997	139999
	3.91	504141	139998	139999
	4.10	504136	139998	140002
	4.30			
	4.56			
	4.78			
	5.25	504140	139997	140000
	5.38			
	5.57			
	6.14	504141	139998	139999
	6.83	504136	139998	140002
7.17				

Each Dana Diff Case Service Kit contains 16 bolts, part number 131473

## Wheel Differential Case

Dana Model	Ratio	SERVICE KIT	Flange Half Case	Plain Half Case
S170D R170D S170DR	3.07	504143	139996	140000
	3.21	504140	139997	140000
	3.42			
	3.58			
	3.73	504143	139996	140000
	3.91	504141	139998	139999
	4.10	504136	139998	140002
	4.30			
	4.56			
	4.78			
	5.25			
	5.38			
	5.57	504139	139997	139999
	6.14			
	6.83			
7.17	504136	139998	140002	
D190 D190D S190E S190DE	3.42	504140	139997	140000
	3.58			
	3.73	504139	139997	139999
	3.91	504141	139998	139999
	4.10	504136	139998	140002
	4.30			
	4.56			
	4.78			
	5.25	504140	139997	140000
	5.38			
	5.57			
	6.14	504141	139998	139999
	6.83	504136	139998	140002
7.17				
7.83				

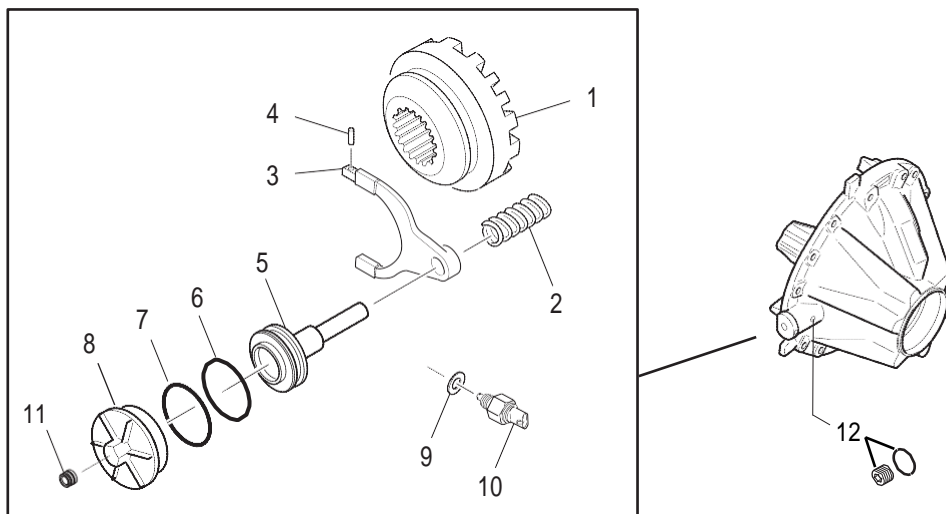
Each Dana Diff Case Service Kit contains 16 bolts, part number 131473

## Wheel Differential Case

Dana Model	Ratio	SERVICE KIT	Flange Half Case	Plain Half Case	
R190 R190D S190 S190D S190R S190DR S190NS	2.53	504142	139996	140001	
	2.69				
	2.87				
	2.93				
	3.07				
	3.21	504143	139996	140000	
	3.42				
	3.58	504140	139997	140000	
	3.73				
	3.91				
	S190D	4.10	504139	139997	139999
	S190R	4.30	504141	139998	139999
	S190DR	4.56	504136	139998	140002
	S190NS	4.78			
		5.25			
		5.38			
		5.57	504139	139997	139999
	6.14				
	6.83	504136	139998	140002	
	7.17				
	7.83				
D590 D590D R590 S590 S590D	4.75	504140	139997	140000	
	4.99				
		5.19	504139	139997	139999
		5.44	504141	139998	139999
		5.70	504136	139998	140002
	D590	5.98			
	D590D	6.34			
	R590	6.65	504140	139997	140000
	S590	7.30			
	S590D	7.48	504140	139997	140000
		7.75			
		8.55	504141	139998	139999
		9.51	504136	139998	140002
	9.97				
	10.90				

Each Dana Diff Case Service Kit contains 16 bolts, part number 131473

## Differential Lock Shift Parts - All Models Made ON or AFTER June 10, 2013



WHEEL DIFFERENTIAL LOCK ASSEMBLY

Item	Description	Qty	All Diff-Lock Models	Notes
Kit - Diff Lock Parts Conversion-190 Series (note 1)			504097	Includes items 1-10
Kit - Diff Lock Cylinder Repair			512895	Includes items 2, 5-8
1	Sliding Clutch	1	140024	
2	Spring-Compression	1	131102	
Kit - Shift Fork & Pin			504095	Includes items 3-4
3	Shift Fork-NSS	1	140008	Order kit 504095
4	Pin	1	210020	
5	Piston & Rod Assembly	1	134482	Will replace 131237 - note 2
6	O-Ring - Piston	1	210180	
7	O-Ring - Cap Cover	1	131665	Will replace 220HH102 - note 3
8	Piston Cover (Diff Lock Cap)	1	131096	
9	Washer	1	129034	
10	Switch	1	129035	
11	Plug - Carrier	1	127195	Use for Non-Diff Lock Models
12	O-Ring & Plug Assy	1	131487	Use for Non-Diff Lock Models

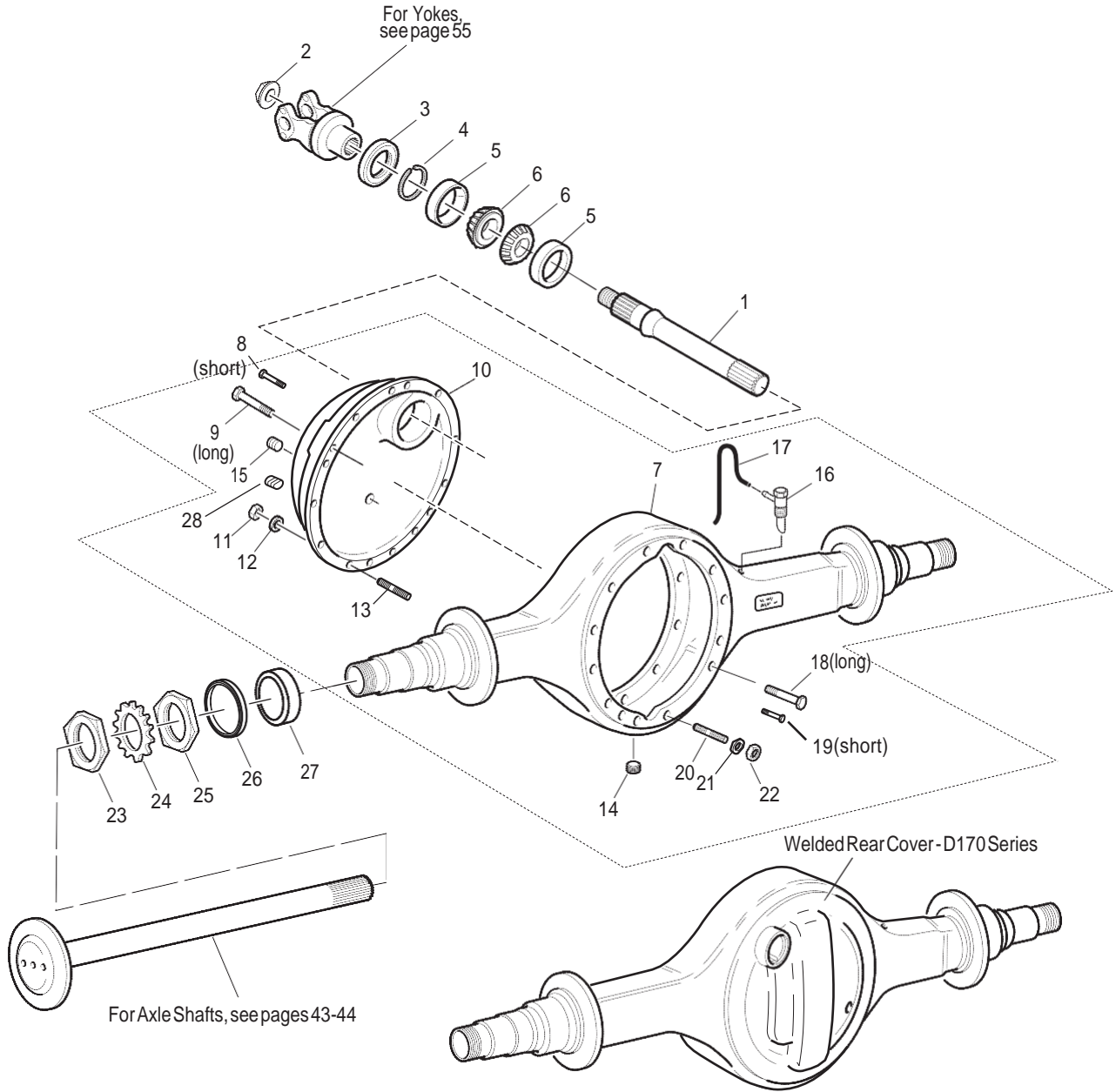
Note 1: The "170" Series carriers cannot be converted to Diff Lock. You must have the unique base carrier sub-assy that has the Diff Lock shift cylinder. You would need to purchase a replacement carrier. All "190" Series have the shift cylinder as part of the standard design.

Note 2: The 134482 and 131237 are completely interchangeable parts. Dana service will continue to use up the 131237 in kits until further notice.

Note 3: The 220HH102 is replaced by 131665. Parts are completely interchangeable and Dana service will continue to use up the 220HH102 in kits until further notice.

# Housing and Output Shaft Assembly

Models Made ON or AFTER June 10, 2013



## Housing and Output Shaft Assembly Models Made ON or AFTER June 10, 2013

Item	Description	Qty	All Models	Notes
<b>KIT - OUTPUT SHAFT</b>		<b>1</b>	<b>512894</b>	<b>Includes items 1-2</b>
1	Output Shaft -NSS	1	131536 NSS	Order Kit 512894
2	Output Shaft Nut	1	128049	
3	Output Seal	1	210737	
<b>KIT - OUTPUT SHAFT BEARING</b>		<b>1</b>	<b>504060</b>	<b>Includes items 4-6</b>
4	Snap Ring	1	134322	.109" x 4.22"
5	Bearing Cup	2	139978	
6	Bearing Cone	2	139977	
7	Axle Housing - Forward	1	See Axle Hsg	Listing pg. 39-42 - Refer to assy bill of material
7	Axle Housing - Rear-Rear	1	See Axle Hsg	Listing pg. 39-42 - Refer to assy bill of material
8	Rear Cover Capscrew - Short	4	131105	55 mm - D190 only (see kit chart pg. 37)
9	Rear Cover Capscrew - Long	8	131375	70 mm - D190 only (see kit chart pg. 37)
10a	<b>KIT-D190 HOUSING COVER</b>	<b>1</b>	<b>504061</b>	<b>Cover#134324-NSS- 12hole(seechartpg-38)</b>
10b	<b>KIT-S190 HOUSING COVER</b>	<b>1</b>	<b>514322</b>	<b>Cover#302704-NSS- 14hole(seechartpg-38)</b>
10c	<b>KIT-S590 HOUSING COVER</b>	<b>1</b>	<b>504025</b>	<b>Cover#302622-NSS- 12hole(seechartpg-38)</b>
11	Rear CoverNut	2	127567	D190 only
12	Washer - Rear Cover	2	130877	D190 only
13	Stud - Double Ended	2	132927	D190 only - 80mm length
14	Drain Plug	1	054254	3/4" magnetic
15	Fill Plug	1	129492	3/4" magnetic - All Models
<b>KIT - U-TUBE BREATHER</b>			<b>507162</b>	<b>Includes items 16-17</b>
16	Breather Assy-NSS	1	302706 NSS	Order kit 507162
17	Breather Hose & Clamp	1	129340	
18	Carrier Capscrew - Long	A/R	131106	Carrier to housing (see kit chart pg. 37) - 85mm
19	Carrier Capscrew - Short	A/R	131105	Carrier to housing (see kit chart pg. 37) - 55mm
20	Stud - double ended	2	132927	Carrier to housing - 80mm length
21	Washer	2	130877	Carrier to housing
22	Nut	2	127567	Carrier to housing
23	Spindle Nut - Outer	2	119881	
24	Locking Ring	2	119883	
25	Spindle Nut - Inner	2	119882	
26	Oil Seal	1	304446	190 & 590 models only
27	Spindle Sleeve	1	304447	190 & 590 models only
28	Temperature Sensor Plug	1	090898	1/2" magnetic - All Models
29	Loctite Adhesive .5ml tube	1	129293	Item not illustrated
30	RTV Sealant - 3oz	1	107276S	Item not illustrated

## Summary of Axle Housing Related Service Kits

Description	Kit Part-No.	Notes
Output Shaft Bearing Kit-Current Builds	504060	Includes items 4-6
Output Shaft Kit	512894	Includes items 1 and 2
D-Housing Cover Hardware Kit	513351	Includes items 8-9, 11-12
Axle Housing Hardware Kit - Forward	512896	Includes items 18-22, 26-27
Axle Housing Hardware Kit - Rear	512897	Includes items 18-19, 26-27
U-Tube Breather Kit	507162	Includes items 16 and 17

## Axle Housing Fastener Hardware Kits

### D-Housing Cover or Bolt-On Cover Fastener Kit

**Model: D190, S190, D590, S590, R590**

**Dana#513351**

Qty	P/N	Description
4	131105	Capscrew - 55mm
8	131375	Capscrew - 70mm
2	132927	Stud - dblended
2	127567	Nut
2	130877	Washer
1	129293	Loctite Adhesive .5ml tube
1	107276S	RTV Sealant - 3oz

### Carrier-To-Housing Fastener Kit

**Models: D170, D190, S190DE, S590, R590**

**Dana#512896**

Qty	P/N	Description
9	131105	Capscrew - 55mm
3	131106	Capscrew - 85mm
2	132927	Stud - dblended
2	127567	Nut
2	130877	Washer
1	129293	Loctite Adhesive .5ml tube
1	107276S	RTV Sealant - 3oz

### Carrier-To-Housing Fastener Kit

**Models: R170, R190, S170, S190**

**Dana#512897**

Qty	P/N	Description
10	131105	Capscrew - 55mm
4	131106	Capscrew - 85mm
1	129293	Loctite Adhesive .5ml tube

## AXLE HOUSING COVER KITS

The D190, S190 & S590 models have a bolt on axle housing covers, shown below are the kit contents. The original cover 302576 is now replaced by new cover part number 134324.

### D190 - AXLE HSG COVER & BRG PARTS KIT: 504061

Item	Description	Qty Per Axle	Part-No.	Notes
1	COVER - AXLE HOUSING	1	134324	
2	PLUG - COVER	1	090898	1/2"
3	PLUG - LUBE FILL	1	129492	3/4" nonmagnetic
4	BEARING CONE	2	139977	
5	SNAPRING .109"	1	134322	
6	BEARING CUP	2	139978	

### S190 - AXLE HSG COVER KIT: 514322

Item	Description	Qty Per Axle	Part-No.	Notes
1	COVER - AXLE HOUSING	1	302704	(Cover not illustrated) S190 models only
2	PLUG - COVER	1	090898	1/2"
3	PLUG - LUBE FILL	1	129492	3/4" nonmagnetic
7	CAPSCREW - LONG	8	131375	70mm
8	CAPSCREW - SHORT	6	131105	55mm
9	WASHER	14	130877	

### S590 - AXLE HSG COVER KIT: 504025

Item	Description	Qty Per Axle	Part-No.	Notes
1	COVER - AXLE HOUSING	1	302622	(cover not illustrated) S590 models only
2	PLUG - COVER	1	090898	1/2"
3	PLUG - LUBE FILL	1	129492	3/4" non magnetic



**AXLE HOUSING REPLACEMENT CHART**

Production Part Number	Model	Wall Thickness (mm)	Service Number - Bare	Service Number - with Brackets	Production Part Number	Model	Wall Thickness (mm)	Service Number - Bare	Service Number with Brackets
10003697	D170	11			324433	D40-170	11		
10003698	R170	11			324434	D170	11		
10005132	S23-170	11			324462	R170	11		
10033087	D40-170	11			324506	D40-170	11		
10033088	R170	11			324507	R170	11		
10033089	R170	11			324546	D170	11		
10037122	R170	11			324586	S23-170	11		
10044255	D170	11			324600	S170	11		
10044984	S23-170	11			324604	R170	11		
10076685	R170	11			324432	D40-170	11		
10092285	R170	11			10004400	R170	12.5		
10096238	R170	11			10009672	S23-190	12.5		
10121954	S23-170	11			10019736	R170	12.5		
10178030	D170/D172	11			10029892	S190	12.5		
10183361	D170	11			10029893	S190	12.5		
322752	R170	11	322703		10033090	D46-170	12.5		
323112	R170	11	322703		10033091	R170	12.5		
323116	R170	11	322703	322959	10033092	R170	12.5		
323120	R170	11	322703	322963	10033409	D46-170	12.5		
323182	S23-170	11	322703		10033452	D46-170	12.5		
323357	R170	11	322703		10033460	D46-170	12.5		
323409	R170	11	322703		10033478	R170	12.5		
323412	R170	11	322703		10033487	R170	12.5		
323429	R170	11	322703	502059	10033628	R170	12.5		
323460	R170	11	322703		10033636	R170	12.5		
323498	R170	11	322703		10033637	R170	12.5		
323518	R170	11	322703		10033638	R170	12.5		
323571	R170	11			10033639	S23-170	12.5		
323572	R170	11			10033640	R170	12.5		
323573	R170	11			10035215	R170	12.5		
323575	R170	11			10042508	R46-170	12.5		
323581	R170	11			10043564	S190	12.5		
323583	R170	11			10044256	D46-170	12.5		
323584	R170	11			10044985	R170	12.5		
323585	R170	11			10071560	D46-170	12.5		
323586	R170	11			10076682	R170	12.5		
323688	R170	11			10076683	R170	12.5		
323760	R170	11			10144893	D46-170	12.5		
323978	R170	11	322703	322757	10144894	D46-170	12.5		
323982	R170	11			10144895	D46-170	12.5		
323989	R170	11			10144896	D46-170	12.5		
323993	R170	11	322703	322757	10144902	D46-170	12.5		
324014	R170	11			10144903	D46-170	12.5		
324015	R170	11			10161234	S23-190	12.5		
324132	R170	11			10163824	D46-170	12.5		
324133	R170	11			10163826	D46-170	12.5		
324225	R170	11			10178037	D170/D172	12.5		
324226	S23-170	11			10200686	S23-170	12.5		

## AXLEHOUSINGREPLACEMENTCHART

Production Part Number	Model	Wall Thickness (mm)	Service Number - Bare	Service Number - with Brackets	Production Part Number	Model	Wall Thickness (mm)	Service Number - Bare	Service Number - with Brackets
10263214	S170	12.5			324579	R190	16		
321982	R170	12.5	322703	321983	10105317	R190	16		
322648	R170	12.5	322703	322649	10003706	R50-170	16		
322698	R46-170	12.5	322703		10004006	R170	16		
322718	R170	12.5	322703		10004961	D170	16		
322744	R170	12.5	322703		10005133	S26-190	16		
322748	R170	12.5	322703		10005134	S26-190	16		
322884	R170	12.5	322703		10012794	R170	16		
322942	R170	12.5	322703		10014915	D170	16		
322954	R170	12.5	322703		10014916	R170	16		
323048	R170	12.5	322703	323049	10023313	S26-190	16		324410
323054	R170	12.5	322703		10023569	R170	16		
323056	R170	12.5	323057		10025165	S26-190	16		
323062	R170	12.5	322703		10033093	D46-170	16		
323184	S23-190	12.5	322703		10033094	R170	16		
323339	R170	12.5			10033095	R170	16		
323348	R170	12.5	322703		10033097	R190	16		
323359	R170	12.5	322703		10033098	R190	16		
323377	R170	12.5			10047596	D190	16		
323379	R170	12.5			10047599	R190	16		
323391	R170	12.5			10047602	D190	16		
323410	R170	12.5	322703	322649	10047603	R190	16		
323440	R170	12.5		502017	10052672	R50-170	16		
323458	R170	12.5			10063227	R170	16		
323466	R170	12.5			10076684	R170	16		
323467	R170	12.5			10076686	R170	16		
323471	R170	12.5		502059	10083917	D170	16		
323531	R170	12.5			10083918	R170	16		
323577	R170	12.5			10098424	R190	16		
323579	R170	12.5			10098425	R190	16		
323664	R170	12.5	322703		10105283	D190	16		
323790	R170	12.5			10105287	R190	16		
323887	D170	12.5		323887	10105288	D190	16		
323919	R170	12.5			10105290	D190	16		
323920	R170	12.5			10105292	R190	16		
323974	R170	12.5	322703		10105293	D190	16		
324016	R170	12.5			10105294	D190	16		
324017	R170	12.5			10105299	D52-190	16		
324134	R170	12.5			10105300	D52-190	16		
324135	R170	12.5			10105302	D190	16		
324216	R170	12.5		502017	10105308	R52-190	16		
324421	R170	12.5		324421	10105311	R52-190	16		
324435	D170	12.5		324435	10105315	R190	16		
324473	D170	12.5			10105316	R190	16		
324474	R170	12.5			10105336	R190	16		
324490	R170	12.5			10105337	R190	16		
324554	R170	12.5			10105338	R190	16		
324603	R170	12.5			10105339	R190	16		
324634	D170	12.5			10105340	R190	16		
324635	R170	12.5			10105341	R190	16		
10000594	D170	12.5			10105342	R190	16		
10105321	R190	16			10115829	R170	16		
10105328	R190	16			10126491	D60-190	16		
10105329	R190	16			10130618	S26-190	16		
10105330	S30-190	16			10130993	S30-590	16		
10105332	R190	16			10145340	D190	16		

## AXLE HOUSING REPLACEMENT CHART

Production Part Number	Model	Wall Thickness (mm)	Service Number - Bare	Service Number - with Brackets	Production Part Number	Model	Wall Thickness (mm)	Service Number - Bare	Service Number with Brackets
322908	R170	16	322897		323636	D190	16		
322976	R170	16	322969	322977	323637	R190	16	502011	
322996	R170	16	322969	322997	323754	D190	16		
323030	R170	16	322897	323031	323756	R190	16		
323052	R170	16	322969		323757	R190	16		
323170	R52-190	16	322277	323371	323778	R170	16		
323172	D52-190	16			323802	R170	16		
323174	R52-190	16	323175		323805	R190	16	502011	
323176	D190	16		323177	323875	R190	16	502011	
323178	R190	16		323179	323893	R190	16	502011	
323202	S30-190	16	323067		10145341	R190	16		
323240	R170	16	322969		10147479	R170	16		
323290	D60-190	16			10149756	D190	16		
323292	R60-190	16			10149757	R190	16		
323320	R170	16	322897		10149893	R190	16		
323345	R170	16	322969		10150447	D190	16		
323352	R170	16	322969		10154661	S30-190	16		
323363	R190	16			10154662	S30-190	16		
323381	R170	16			10154663	D190	16		
323383	R170	16			10154664	S30-190	16		
323385	R170	16			10154665	D190	16		
323387	R170	16			10154666	S30-190	16		
323392	R170	16			10154667	D190	16		
323411	R170	16	322969	502054	10163825	D46-170	16		
323431	R170	16			10163827	D46-170	16		
323450	D190	16			10182840	D190	16		
323451	R190	16	322277		10182841	R190	16		
323489	D190	16		502001	10202553	R190	16		
323490	R190	16	322277	502002	10202554	R190	16		
323500	R170	16			10202771	D190	16		
323506	R170	16			10209862	D190	16		
323516	D190	16	502056		10209863	D190	16		
323520	R170	16			10214370	D190	16		
323525	R190	16			10225784	R190	16		
323533	R170	16			10253910	D190	16		
323537	D190	16			10259876	D190	16		
323538	R190	16	502011		10263763	D46-170H	16		
323543	D190	16			10322592	D190	16		
323562	R170	16		502021	10323652	D52-190	16		
323564	D190	16			10323653	R190	16		
323565	R170	16			10323654	R190	16		
323608	R190	16	323067		10345712	R190	16		
323609	R170	16			322396	D60-190	16	502056	
323610	R170	16			322398	R60-190	16	323067	
323615	R170	16			322646	R190	16	323067	
323617	D190	16			322650	R170	16	322969	322905
323618	R190	16	502011		322784	R170	16	322969	
					322900	R170	16	322897	322901

## AXLE HOUSING REPLACEMENT CHART

Production Part Number	Model	Wall Thickness (mm)	Service Number - Bare	Service Number - with Brackets
323914	R170	16		502021
323924	D60-190	16		
323925	R60-190	16		
323957	R170	16		
323968	R170	16		
323970	R170	16		502059
323977	R170	16		
323984	R190	16		502040
323985	R170	16		
324001	R170	16		
324018	R170	16		
324019	R170	16		
324021	R170	16		
324136	R170	16		
324137	R170	16		
324138	R170	16		
324139	R170	16		
324146	R170	16		
324218	S30-190DE	16		
324251	D190	16		
324400	R170	16		
324404	D190	16		
324405	R190	16		
324410	S26-190	16		324410
324526	S23-190W	16		
324537	R52-190	16		
324564	D52-190	16		
324575	D190	16		
324576	D190	16		
324578	R190	16		
324470	R70-590P	Cast		
323523	D70-590	Cast		
323524	D70-590	Cast		
324452	R70-590P	Cast		
324453	D70-590P	Cast		
324454	R70-590P	Cast		
324455	D70-590P	Cast		
324469	D70-590P	Cast		

## Axle Shafts

Dana 170/190 series axle shafts are used in “sets,” and are shown as sets in the chart below. They have unequal shaft lengths and are “location specific” and/or “Wheel Equipment specific.” When replacing the axle shafts, locate the axle shaft part number in the chart or select the correct axle shaft using the dimensional information. Always verify part numbers before placing your order.

DO NOT MISPLACE AXLE SHAFTS FROM THEIR INTENDED LOCATION.

### Axle Shafts - For Standard Models

Part No.	Qty	Spline	Body O.D.	Shaft Length	Spline Length	BC Dim.	Flange O.D.	Flange Holes
<b>Models: D/R170, S170</b>								
131428	1	46	2.06	37.000	3.70	7.000	8.500	.948-TPR
131429	1	46	2.06	46.000	3.70	7.000	8.500	.948-TPR
131804	1	46	2.06	45.150	3.70	7.000	8.500	.773-STR
131805	1	46	2.06	36.150	3.70	7.000	8.500	.773-STR
<b>Models: D/R190, S190, D/S590, S170E, S190E</b>								
131246	1	46	2.25	37.000	3.70	7.000	8.500	.948-TPR
131247	1	46	2.25	46.000	3.70	7.000	8.500	.948-TPR
131516	1	46	2.25	45.150	3.70	7.000	8.500	.948-TPR
131517	1	46	2.25	37.716	3.70	7.000	8.500	.948-TPR

Note 1: In some Dana approved S21-190 and S23-190 single axle applications, 2.06" body diameter axle shafts are used. Always check the part number on the axle shaft or OEM axle BOM before ordering replacement parts. Always use Dana Genuine OE approved parts for the applications they were intended.

### Axle Shaft - For Diff Lock Models

Part No.	Qty	Spline	Body O.D.	Shaft Length	Spline Length	BC Dim.	Flange O.D.	Flange Holes
<b>Models: D/R170D, S170D, D/R190D, S190D, D590D, S590D, S190DE</b>								
131245	1	46	2.25	46.000	11.50	7.000	8.500	.948-TPR
131246	1	46	2.25	37.000	3.70	7.000	8.500	.948-TPR
131740	1	46	2.25	45.150	11.50	7.000	8.500	.948-TPR
131741 OBS	1	46	2.25	36.150	3.70	7.000	8.500	.948-TPR
131719	1	46	2.25	47.150	11.50	7.244	8.500	.948-TPR
131720	1	46	2.25	38.425	3.70	7.244	8.500	.948-TPR
131806	1	46	2.25	45.150	11.50	7.000	8.500	.773-STR
131807	1	46	2.25	36.150	3.70	7.000	8.500	.773-STR

## Axle Shaft - Wide Track Models

Part No.	Qty	Spline	Body O.D.	Shaft Length	Spline Length	BCDim.	Flange O.D.	Flange Holes
<b>Models: D/R170D, S170D, D/R190D, S190D, D590D, S590D, S190DE</b>								
131503	1	46	2.25	48.835	11.50	7.000	8.500	.948-TPR
131504	1	46	2.25	39.835	3.70	7.000	8.500	.948-TPR
131717	1	46	2.25	46.949	11.50	7.244	8.500	.948-TPR
131718	1	46	2.25	38.898	3.70	7.244	8.500	.948-TPR
131721	1	46	2.25	48.425	11.50	7.244	8.500	.948-TPR
131722	1	46	2.25	39.331	3.70	7.244	8.500	.948-TPR
131723	1	46	2.25	40.394	3.70	7.244	8.500	.948-TPR
131724	1	46	2.25	50.945	11.50	7.244	8.500	.948-TPR
131725	1	46	2.25	42.894	3.70	7.244	8.500	.948-TPR
131726	1	46	2.25	53.445	11.50	7.244	8.500	.948-TPR
131727	1	46	2.25	45.394	3.70	7.244	8.500	.948-TPR
131750	1	46	2.25	49.291	11.50	7.244	8.500	.948-TPR
131751	1	46	2.25	40.196	3.70	7.244	8.500	.948-TPR
134052	1	46	2.25	50.154	11.50	7.000	8.500	.948-TPR
134054 OBS	1	46	2.25	41.154	3.70	7.000	8.500	.948-TPR

Note 2: When doing "Upgrades" from Non-Diff Lock applications to "Diff Lock" in the 170 series, both axle shafts must be replaced by the 2.25" body diameter design, refer to the chart to select the correct axle shafts.

## Service Carrier Part Numbers - All Models

### D170(P) - Standard Carrier

17.7" Ring Gear Diameter  
Side Gear # 300GD101

These new carrier units directly replace tandem forward models D40-170(P), D46-170(P), and D46-170H(P) with no modifications.

Ratio	Side Gear Splin	Non-Pump New Carrier	Pump New Carrier	Notes
3.07	46 Inv	D170307CF D170307EX	D170P307CF D170P307EX	
3.21	46 Inv	D170321CF D170321EX	D170P321CF D170P321EX	
3.42	46 Inv	D170342CF D170342EX	D170P342CF D170P342EX	
3.58	46 Inv	D170358CF D170358EX	D170P358CF D170P358EX	
3.73	46 Inv	D170373CF D170373EX	D170P373CF D170P373EX	
3.91	46 Inv	D170391CF D170391EX	D170P391CF D170P391EX	
4.10	46 Inv	D170410CF D170410EX	D170P410CF D170P410EX	
4.30	46 Inv	D170430CF D170430EX	D170P430CF D170P430EX	
4.56	46 Inv	D170456CF D170456EX	D170P456CF D170P456EX	
4.78	46 Inv	D170478CF D170478EX	D170P478CF D170P478EX	
5.25	46 Inv	D170525CF D170525EX	D170P525CF D170P525EX	
5.38	46 Inv	D170538CF D170538EX	D170P538CF D170P538EX	
5.57	46 Inv	D170557CF D170557EX	D170P557CF D170P557EX	
6.14	46 Inv	D170614CF D170614EX	D170P614CF D170P614EX	
6.83	46 Inv	D170683CF D170683EX	D170P683CF D170P683EX	
7.17	46 Inv	D170717CF D170717EX	D170P717CF D170P717EX	

### R170 - Standard Carrier and No Spin Carrier

17.7" Ring Gear Diameter  
Side Gear # 300GD101  
No Spin # 131882

Note: Drive Axle Tag may read R46-170, S23-170

These new carrier units directly replace tandem rear-rear models R40-170, R46-170, and single axle models S21-170, S23-170, and S26-170 with no modifications.

Ratio	Side Gear Splin	New Service Carrier	No Spin Service Carrier	Notes
3.07	46 Inv	S170307CF S170307EX	S170N307CF S170N307EX	
3.21	46 Inv	S170321CF S170321EX	S170N321CF S170N321EX	
3.42	46 Inv	S170342CF S170342EX	S170N342CF S170N342EX	
3.58	46 Inv	S170358CF S170358EX	S170N358CF S170N358EX	
3.73	46 Inv	S170373CF S170373EX	S170N373CF S170N373EX	
3.91	46 Inv	S170391CF S170391EX	S170N391CF S170N391EX	
4.10	46 Inv	S170410CF S170410EX	S170N410CF S170N410EX	
4.30	46 Inv	S170430CF S170430EX	S170N430CF S170N430EX	
4.56	46 Inv	S170456CF S170456EX	S170N456CF S170N456EX	
4.78	46 Inv	S170478CF S170478EX	S170N478CF S170N478EX	
5.25	46 Inv	S170525CF S170525EX	S170N525CF S170N525EX	
5.38	46 Inv	S170538CF S170538EX	S170N538CF S170N538EX	
5.57	46 Inv	S170557CF S170557EX	S170N557CF S170N557EX	
6.14	46 Inv	S170614CF S170614EX	S170N614CF S170N614EX	
6.83	46 Inv	S170683CF S170683EX	S170N683CF S170N683EX	
7.17	46 Inv	S170717CF S170717EX	S170N717CF S170N717EX	

### D170D(P) - Diff Lock Carrier

17.7" Ring Gear Diameter  
Side Gear # 300GD101

These new carrier units will directly replace tandem forward models D40-170D(P), D46-170D(P), and D46-170DH(P) with no modifications.

Ratio	Side Gear Spline	Non-Pump New Carrier	Pump New Carrier	Notes
3.07	46Inv	D170D307CF D170D307EX	D170DP307CF D170DP307EX	
3.21	46Inv	D170D321CF D170D321EX	D170DP321CF D170DP321EX	
3.42	46Inv	D170D342CF D170D342EX	D170DP342CF D170DP342EX	
3.58	46Inv	D170D358CF D170D358EX	D170DP358CF D170DP358EX	
3.73	46Inv	D170D373CF D170D373EX	D170DP373CF D170DP373EX	
3.91	46Inv	D170D391CF D170D391EX	D170DP391CF D170DP391EX	
4.10	46Inv	D170D410CF D170D410EX	D170DP410CF D170DP410EX	
4.30	46Inv	D170D430CF D170D430EX	D170DP430CF D170DP430EX	
4.56	46Inv	D170D456CF D170D456EX	D170DP456CF D170DP456EX	
4.78	46Inv	D170D478CF D170D478EX	D170DP478CF D170DP478EX	
5.25	46Inv	D170D525CF D170D525EX	D170DP525CF D170DP525EX	
5.38	46Inv	D170D538CF D170D538EX	D170DP538CF D170DP538EX	
5.57	46Inv	D170D557CF D170D557EX	D170DP557CF D170DP557EX	
6.14	46Inv	D170D614CF D170D614EX	D170DP614CF D170DP614EX	
6.83	46Inv	D170D683CF D170D683EX	D170DP683CF D170DP683EX	
7.17	46Inv	D170D717CF D170D717EX	D170DP717CF D170DP717EX	

### R170D - Diff Lock Carrier

17.7" Ring Gear Diameter  
Side Gear # 300GD101

Note: Drive Axle Tag may read R46-170D or S23-170D

These new carrier units directly replace tandem rear-rear models R40-170D, R46-170D, and single axle models S21-170D and S23-170D with no modifications.

Ratio	Side Gear Spline	New Service Carrier	Notes
3.07	46Inv	S170D307CF S170D307EX	
3.21	46Inv	S170D321CF S170D321EX	
3.42	46Inv	S170D342CF S170D342EX	
3.58	46Inv	S170D358CF S170D358EX	
3.73	46Inv	S170D373CF S170D373EX	
3.91	46Inv	S170D391CF S170D391EX	
4.10	46Inv	S170D410CF S170D410EX	
4.30	46Inv	S170D430EX S170D430CF	
4.56	46Inv	S170D456CF S170D456EX	
4.78	46Inv	S170D478CF S170D478EX	
5.25	46Inv	S170D525CF S170D525EX	
5.38	46Inv	S170D538CF S170D538EX	
5.57	46Inv	S170D557CF S170D557EX	
6.14	46Inv	S170D614EX S170D614CF	
6.83	46Inv	S170D683CF S170D683EX	
7.17	46Inv	S170D717CF S170D717EX	



### D190- Standard Carrier

18.50" Ring Gear Diameter  
Side Gear # 300GD101

These new carrier units will directly replace tandem forward models D52-190, and D60-190 with no modifications. See Note 2.

Ratio	Side Gear Spline	New Service Carrier	Notes
3.42	46 Inv	D190342CF D190342EX	
3.58	46 Inv	D190358CF D190358EX	
3.73	46 Inv	D190373CF D190373EX	
3.91	46 Inv	D190391CF D190391EX	
4.10	46 Inv	D190410CF D190410EX	
4.30	46 Inv	D190430CF D190430EX	
4.56	46 Inv	D190456CF D190456EX	
4.78	46 Inv	D190478CF D190478EX	
5.25	46 Inv	D190525EX D190525CF	
5.38	46 Inv	D190538CF D190538EX	
5.57	46 Inv	D190557CF D190557EX	
6.14	46 Inv	D190614CF D190614EX	
6.83	46 Inv	D190683CF D190683EX	
7.17	46 Inv	D190717CF D190717EX	

Note: Dana D190 Forward models come standard with lube pump. Serial tags for production axles may not carry the traditional "P" designation in the model identifier

### R190- Standard Carrier and No Spin Carrier

18.50" Ring Gear Diameter  
Side Gear # 300GD101

Note: Drive Axle Tag may read R46-190 or S23-190

These new carrier units will directly replace tandem rear rear models R46-190, R52-190, and single axle models S23-190, S26-190, and S30-190 with no modifications.

Ratio	Side Gear Spline	New Service Carrier	No Spin Service Carrier
2.53	46 Inv	S190253CF OBS S190253EX OBS	NA
2.69	46 Inv	S190269CF S190269EX	S190N269CF S190N269EX
2.87	46 Inv	S190287CF S190287EX	S190N287CF S190N287EX
2.93	46 Inv	S190293CF S190293EX	S190N293CF S190N293EX
3.07	46 Inv	S190307CF S190307EX	S190N307CF S190N307EX
3.21	46 Inv	S190321CF S190321EX	S190N321CF S190N321EX
3.42	46 Inv	S190342CF S190342EX	S190N342CF S190N342EX
3.58	46 Inv	S190358CF S190358EX	S190N358CF S190N358EX
3.73	46 Inv	S190373CF S190373EX	S190N373CF S190N373EX
3.91	46 Inv	S190391CF S190391EX	S190N391CF S190N391EX
4.10	46 Inv	S190410CF S190410EX	S190N410CF S190N410EX
4.30	46 Inv	S190430EX S190430CF	S190N430EX S190N430CF
4.56	46 Inv	S190456CF S190456EX	S190N456CF S190N456EX
4.78	46 Inv	S190478CF S190478EX	S190N478CF S190N478EX
5.25	46 Inv	S190525CF S190525EX	S190N525CF S190N525EX
5.38	46 Inv	S190538CF S190538EX	S190N538CF S190N538EX
5.57	46 Inv	S190557CF S190557EX	S190N557CF S190N557EX
6.14	46 Inv	S190614CF S190614EX	S190N614CF S190N614EX
6.83	46 Inv	S190683CF S190683EX	S190N683CF S190N683EX
7.17	46 Inv	S190717CF S190717EX	S190N717CF S190N717EX
7.83	46 Inv	S190783CF S190783EX	S190N783CF S190N783EX

### D190D - Diff Lock Carrier

18.50" Ring Gear Diameter  
Side Gear #300GD101

These new carrier units will directly replace tandem forward models D52-190D with no modifications.

Ratio	Side Gear Spline	New Service Carrier	Notes
3.42	46 Inv	D190D342CF D190D342EX	
3.58	46 Inv	D190D358CF D190D358EX	
3.73	46 Inv	D190D373CF D190D373EX	
3.91	46 Inv	D190D391CF D190D391EX	
4.10	46 Inv	D190D410CF D190D410EX	
4.30	46 Inv	D190D430CF D190D430EX	
4.56	46 Inv	D190D456CF D190D456EX	
4.78	46 Inv	D190D478CF D190D478EX	
5.25	46 Inv	D190D525CF D190D525EX	
5.38	46 Inv	D190D538CF D190D538EX	
5.57	46 Inv	D190D557CF D190D557EX	
6.14	46 Inv	D190D614CF D190D614EX	
6.83	46 Inv	D190D683CF D190D683EX	
7.17	46 Inv	D190D717CF D190D717EX	

Note: Dana D190D Forward models with Diff Lock come standard with lube pump. Serial tags for production axles may not carry the traditional "P" designation in the model identifier

### R190D - Rear Rear w/ Diff Lock

18.50" Ring Gear Diameter  
Side Gear #300GD101

Note: Drive Axle Tag may read R46-190D or S23-190D

These new carrier units will directly replace tandem forward models R46-190D, R52-190D, and single axle models S23-190D, S26-190D, and S30-190D with no modifications.

Ratio	Side Gear Spline	New Service Carrier	Notes
2.53	46 Inv	S190D253CF S190D253EX	
2.69	46 Inv	S190D269CF S190D269EX	
2.87	46 Inv	S190D287CF S190D287EX	
2.93	46 Inv	S190D293CF S190D293EX	
3.07	46 Inv	S190D307CF S190D307EX	
3.21	46 Inv	S190D321CF S190D321EX	
3.31	46 Inv	683236 OBS	
3.42	46 Inv	S190D342CF S190D342EX	
3.58	46 Inv	S190D358CF S190D358EX	
3.73	46 Inv	S190D373CF S190D373EX	
3.91	46 Inv	S190D391CF S190D391EX	
4.10	46 Inv	S190D410CF S190D410EX	
4.30	46 Inv	S190D430CF S190D430EX	
4.56	46 Inv	S190D456CF S190D456EX	
4.78	46 Inv	S190D478CF S190D478EX	
5.25	46 Inv	S190D525CF S190D525EX	
5.38	46 Inv	S190D538CF S190D538EX	
5.57	46 Inv	S190D557CF S190D557EX	
6.14	46 Inv	S190D614CF S190D614EX	
6.83	46 Inv	S190D683CF S190D683EX	
7.17	46 Inv	S190D717CF S190D717EX	
7.83	46 Inv	S190D783CF S190D783EX	

### S170R - Retarder Ready Carrier

17.7" Ring Gear Diameter  
Side Gear # 300GD101

These new carrier units directly replace single axle models S23-170R, S26-170R and S30-170R with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
5.25	46 Inv	S170R525CF S170R525EX	

### S170DBC - Diff lock w/GenTech™ Quiet Gearing

17.7" Ring Gear Diameter  
Side Gear # 300GD101

These new carrier units directly replace single axle models S21-170DBC, S23-170DBC, S25-170DBC with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
4.30	46 Inv	S170DBC430CF S170DBC430EX	
4.78	46 Inv	S170DBC478CF S170DBC478EX	

### S170BC - GenTech™ Quiet Gearing

17.7" Ring Gear Diameter  
Side Gear # 300GD101

These new carrier units directly replace single axle models S21-170BC, S23-170BC, S25-170BC with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
4.30	46 Inv	S170BC430CF S170BC430EX	
4.78	46 Inv	S170BC478CF S170BC478EX	

### S170DR - Diff Lock w/Retarder Ready Option Carrier

17.7" Ring Gear Diameter  
Side Gear # 300GD101

These new carrier units directly replace single axle models S23-170DR, S26-170DR and S30-170DR with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
5.25	46 Inv	S170DR525CF S170DR525EX	

### S190R - Retarder Ready Option Carrier

18.50" Ring Gear Diameter  
Side Gear #300GD101

These new carrier units will directly replace single axle models S30-190R with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
3.07	46Inv	S190R307CF S190R307EX	
3.21	46Inv	S190R321CF S190R321EX	
3.42	46Inv	S190R342CF S190R342EX	
3.58	46Inv	S190R358CF S190R358EX	
3.73	46Inv	S190R373CF S190R373EX	
3.91	46Inv	S190R391CF S190R391EX	
4.10	46Inv	S190R410CF S190R410EX	
4.30	46Inv	S190R430CF S190R430EX	
4.56	46Inv	S190R456CF S190R456EX	
4.78	46Inv	S190R478CF S190R478EX	
5.25	46Inv	S190R525CF S190R525EX	
5.38	46Inv	S190R538CF S190R538EX	
5.57	46Inv	S190R557CF S190R557EX	
6.14	46Inv	S190E342CF S190E342EX	

### S190DR - Diff Lockw/Retarder Ready Option Carrier

18.50" Ring Gear Diameter  
Side Gear #300GD101

These new carrier units will directly replace single axle models S30-190DR with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
3.07	46Inv	S190DR307CF S190DR307EX	
3.21	46Inv	S190DR321CF S190DR321EX	
3.42	46Inv	S190DR342CF S190DR342EX	
3.58	46Inv	S190DR358CF S190DR358EX	
3.73	46Inv	S190DR373CF S190DR373EX	
3.91	46Inv	S190DR391CF S190DR391EX	
4.10	46Inv	S190DR410CF S190DR410EX	
4.30	46Inv	S190DR430CF S190DR430EX	
4.56	46Inv	S190DR456CF S190DR456EX	
4.78	46Inv	S190DR478CF S190DR478EX	
5.25	46Inv	S190DR525CF S190DR525EX	
5.38	46Inv	S190DR538CF S190DR538EX	
5.57	46Inv	S190DR557CF S190DR557EX	
6.14	46Inv	S190DR614CF S190DR614EX	

### D590 - Double Reduction Carrier

18.50" Ring Gear Diameter  
Side Gear # 300GD101

These new carrier units will directly replace forward models D46-590, D52-590, D60-590, D70-590 with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
4.75	46 Inv	D590475CF D590475EX	
4.99	46 Inv	D590499CF D590499EX	
5.19	46 Inv	D590519CF D590519EX	
5.44	46 Inv	D590544CF D590544EX	
5.70	46 Inv	D590570CF D590570EX	
5.98	46 Inv	D590598CF D590598EX	
6.34	46 Inv	D590634CF D590634EX	
6.65	46 Inv	D590665CF D590665EX	
7.30	46 Inv	D590730CF D590730EX	
7.48	46 Inv	D590748CF D590748EX	
7.75	46 Inv	D590775CF D590775EX	
8.55	46 Inv	D590855CF D590855EX	
9.51	46 Inv	D590951CF D590951EX	
9.97	46 Inv	D590997CF D590997EX	
10.90	46 Inv	D5901090CF D5901090EX	

### D590D - Double Reduction w/Diff Lock Carrier

18.50" Ring Gear Diameter  
Side Gear # 300GD101

These new carrier units will directly replace forward models D52-590D, D60-590D and D70-590D with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
4.75	46 Inv	D590D475CF D590D475EX	
4.99	46 Inv	D590D499CF D590D499EX	
5.19	46 Inv	D590D519CF D590D519EX	
5.44	46 Inv	D590D544CF D590D544EX	
5.70	46 Inv	D590D570CF D590D570EX	
5.98	46 Inv	D590D598CF D590D598EX	
6.34	46 Inv	D590D634CF D590D634EX	
6.65	46 Inv	D590D665CF D590D665EX	
7.30	46 Inv	D590D730CF D590D730EX	
7.48	46 Inv	D590D748CF D590D748EX	
7.75	46 Inv	D590D775CF D590D775EX	
8.55	46 Inv	D590D855CF D590D855EX	
9.51	46 Inv	D590D951CF D590D951EX	
9.97	46 Inv	D590D997CF D590D997EX	
10.90	46 Inv	D590D1090CF D590D1090EX	

### S590 - Double Reduction Carrier

**18.50" Ring Gear Diameter  
Side Gear # 300GD101**

These are "Forward" carrier units by design. These carriers will directly replace single axle models called out as; S23-590, S26-590, S30-590, S35-590 and replace tandem models called out as; R46-590, R52-590, R60-590, R70-590 with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
4.75	46Inv	S590475CF S590475EX	
4.99	46Inv	S590499CF S590499EX	
5.19	46Inv	S590519CF S590519EX	
5.44	46Inv	S590544CF S590544EX	
5.70	46Inv	S590570CF S590570EX	
5.98	46Inv	S590598CF S590598EX	
6.34	46Inv	S590634CF S590634EX	
6.65	46Inv	S590665CF S590665EX	
7.30	46Inv	S590730CF S590730EX	
7.48	46Inv	S590748CF S590748EX	
7.75	46Inv	S590775CF S590775EX	
8.55	46Inv	S590855CF S590855EX	
9.51	46Inv	S590951CF S590951EX	
9.97	46Inv	S590997CF S590997EX	
10.90	46Inv	S5901090CF S5901090EX	

### S590D - Double Reduction with Diff Lock Carrier

**18.50" Ring Gear Diameter  
Side Gear # 300GD101**

These are "Forward" carrier units by design. These carrier units will directly replace single axle models called out as; S23-590D, S26-590D, S30-590D and S35-590D and replace models called out as; R52-590D, R60-590D, R70-590D with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
4.75	46Inv	S590D475CF S590D475EX	
4.99	46Inv	S590D499CF S590D499EX	
5.19	46Inv	S590D519CF S590D519EX	
5.44	46Inv	S590D544CF S590D544EX	
5.70	46Inv	S590D570CF S590D570EX	
5.98	46Inv	S590D598CF S590D598EX	
6.34	46Inv	S590D634CF S590D634EX	
6.65	46Inv	S590D665CF S590D665EX	
7.30	46Inv	S590D730CF S590D730EX	
7.48	46Inv	S590D748CF S590D748EX	
7.75	46Inv	S590D775CF S590D775EX	
8.55	46Inv	S590D855CF S590D855EX	
9.51	46Inv	S590D951CF S590D951EX	
9.97	46Inv	S590D997CF S590D997EX	
10.90	46Inv	S590D1090CF S590D1090EX	

## Single Axle - High Entry Carriers

### S170E - High Entry Carrier

17.7" Ring Gear Diameter  
Side Gear # 300GD101

These are "Forward" carrier units by design. These carrier units directly replace single axle models called out as; S21-170E, S23-170E with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
3.07	46Inv	S170E307CF S170E307EX	
3.21	46Inv	S170E321CF S170E321EX	
3.42	46Inv	S170E342CF S170E342EX	
3.58	46Inv	S170E358CF S170E358EX	
3.73	46Inv	S170E373CF S170E373EX	
3.91	46Inv	S170E391CF S170E391EX	
4.10	46Inv	S170E410CF S170E410EX	
4.30	46Inv	S170E430CF S170E430EX	
4.56	46Inv	S170E456CF S170E456EX	
4.78	46Inv	S170E478CF S170E478EX	
5.25	46Inv	S170E525CF S170E525EX	
5.38	46Inv	S170E538CF S170E538EX	
5.57	46Inv	S170E557CF S170E557EX	
6.14	46Inv	S170E614CF S170E614EX	
6.83	46Inv	S170E683CF S170E683EX	
7.17	46Inv	S170E717CF S170E717EX	

### S170DE - High Entry with Diff lock Carrier

17.7" Ring Gear Diameter  
Side Gear # 300GD101

These are "Forward" carrier units by design. These carrier units directly replace single axle models called out as; S21-170DE, S23-170DE with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
3.07	46Inv	S170DE307CF S170DE307EX	
3.21	46Inv	S170DE321CF S170DE321EX	
3.42	46Inv	S170DE342CF S170DE342EX	
3.58	46Inv	S170DE358CF S170DE358EX	
3.73	46Inv	S170DE373CF S170DE373EX	
3.91	46Inv	S170DE391CF S170DE391EX	
4.10	46Inv	S170DE410CF S170DE410EX	
4.30	46Inv	S170DE430CF S170DE430EX	
4.56	46Inv	S170DE456CF S170DE456EX	
4.78	46Inv	S170DE478CF S170DE478EX	
5.25	46Inv	S170DE525CF S170DE525EX	
5.38	46Inv	S170DE538CF S170DE538EX	
5.57	46Inv	S170DE557CF S170DE557EX	
6.14	46Inv	S170DE614CF S170DE614EX	
6.83	46Inv	S170DE683CF S170DE683EX	
7.17	46Inv	S170DE717CF S170DE717EX	

### S190E - High Entry Carrier

18.50" Ring Gear Diameter  
Side Gear # 300GD101

These are "Forward" units by design. These carrier units will directly replace single axle models called out as; S23-190E, S26-190E and S30-190E with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
3.42	46Inv	S190E342CF S190E342EX	
3.58	46Inv	S190E358CF S190E358EX	
3.73	46Inv	S190E373CF S190E373EX	
3.91	46Inv	S190E391CF S190E391EX	
4.10	46Inv	S190E410CF S190E410EX	
4.30	46Inv	S190E430CF S190E430EX	
4.56	46Inv	S190E456CF S190E456EX	
4.78	46Inv	S190E478CF S190E478EX	
5.25	46Inv	S190E525CF S190E525EX	
5.38	46Inv	S190E538CF S190E538EX	
5.57	46Inv	S190E557CF S190E557EX	
6.14	46Inv	S190E614CF S190E614EX	
7.17	46Inv	S190E717CF S190E717EX	
7.83	46Inv	S190E783CF S190E783EX	

### S190DE - High Entry with Diff Lock Carrier

18.50" Ring Gear Diameter  
Side Gear # 300GD101

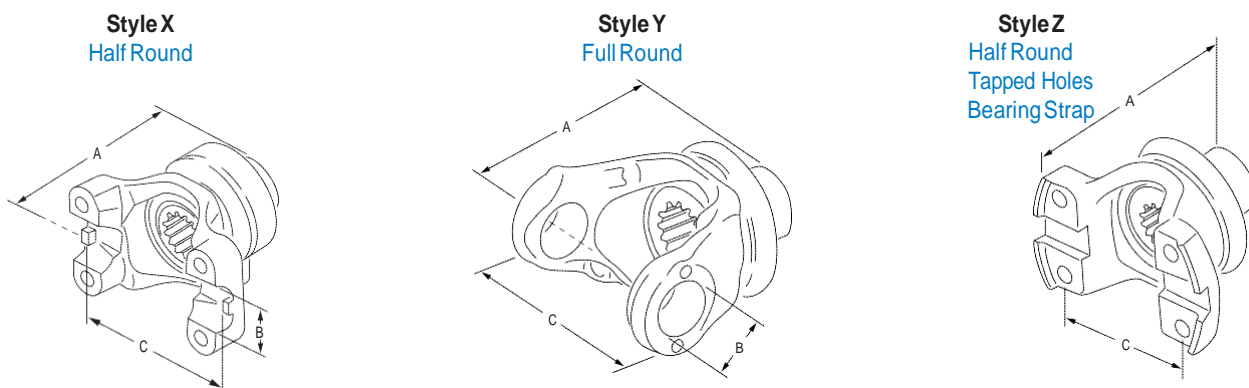
These are "Forward" units by design. These carrier units directly replace single axle models called out as: S23-190DE, S26-190DE and S30-190DE with no modifications.

Ratio	Side Gear Spline	New Carrier	Notes
3.42	46Inv	S190DE342CF S190DE342EX	
3.58	46Inv	S190DE358CF S190DE358EX	
3.73	46Inv	S190DE373CF S190DE373EX	
3.91	46Inv	S190DE391CF S190DE391EX	
4.10	46Inv	S190DE410CF S190DE410EX	
4.30	46Inv	S190DE430CF S190DE430EX	
4.56	46Inv	S190DE456CF S190DE456EX	
4.78	46Inv	S190DE478CF S190DE478EX	
5.25	46Inv	S190DE525CF S190DE525EX	
5.38	46Inv	S190DE538CF S190DE538EX	
5.57	46Inv	S190DE557CF S190DE557EX	
6.14	46Inv	S190DE614CF S190DE614EX	
6.83	46Inv	S190DE683CF S190DE683EX	
7.17	46Inv	S190DE717CF S190DE717EX	



## Yokes & Flanges

To replace the driveline yoke on any of the Dana D170/190, R170/190 or S190 series choose from the chart below. Each Yoke Replacement kit below includes a new pinion nut along with very important installation instructions and torque figures.



### Input Yoke and Slinger Assembly - 49 Inv Spline

Driveshaft Part Number	Pinion Nut	Series	Joint Angle	Type	Production Reference Numbers
131447K*	131095	1810	30°	Half Rd.	6.5-4-5101-1
131448K*	131095	1810	30°	Full Rd.	6.5-4-5101
131446K*	131095	SPL250	25°	Half Rd.	250-4-1031-1
131520K	131095	1760	30°	Half Rd.	5005582
131530K	131095	1710	30°	Full Rd.	5008438
131519K	131095	1710	30°	Half Rd.	5008439
132863K	131095	SPL170	26.5°	Half Rd.	5008444, 5005217
132931K	131095	SPL170	42°	Half Rd.	5008461

### Output Yoke and Slinger Assembly - 41 Inv Spline

Driveshaft Part Number	Pinion Nut	Series	Joint Angle	Type	Production Reference Numbers
131449K*	128049	1710	38°	Full Rd.	6-4-10301
131450K*	128049	1710	39°	Full Rd.	6-4-10301-1
131451K*	128049	SPL170	45°	Half Rd.	170-4-1901-1

### Rear Pinion Yoke and Slinger Assembly - 49 Inv Spline

Driveshaft Part Number	Pinion Nut	Series	Joint Angle	Type	Production Reference Numbers
131442K*	131095	1710	30°	Full Rd.	6-4-10291
131439K	131095	1710	45°	Full Rd.	6-4-10311
131437K*	131095	1710	30°	Half Rd.	6-4-10291-1
131438K*	131095	1710	45°	Half Rd.	6-4-10311-1
131441K	131095	1760	30°	Full Rd.	6-3-4-1861
131440K	131095	1760	30°	Half Rd.	6-3-4-1861-1
131444K	131095	1810	30°	Full Rd.	6-5-4-5091
131443K	131095	1810	30°	Half Rd.	6-5-4-5091-1
131436K OBS	131095	Comp Flange	---	Comp Flg	6-1-6281
131433K*	131095	SPL170	25°	Half Rd.	170-4-1891-1
131434K*	131095	SPL170	45°	Half Rd.	170-4-1911-1
131435K	131095	SPL250	25°	Half Rd.	250-4-1021-1

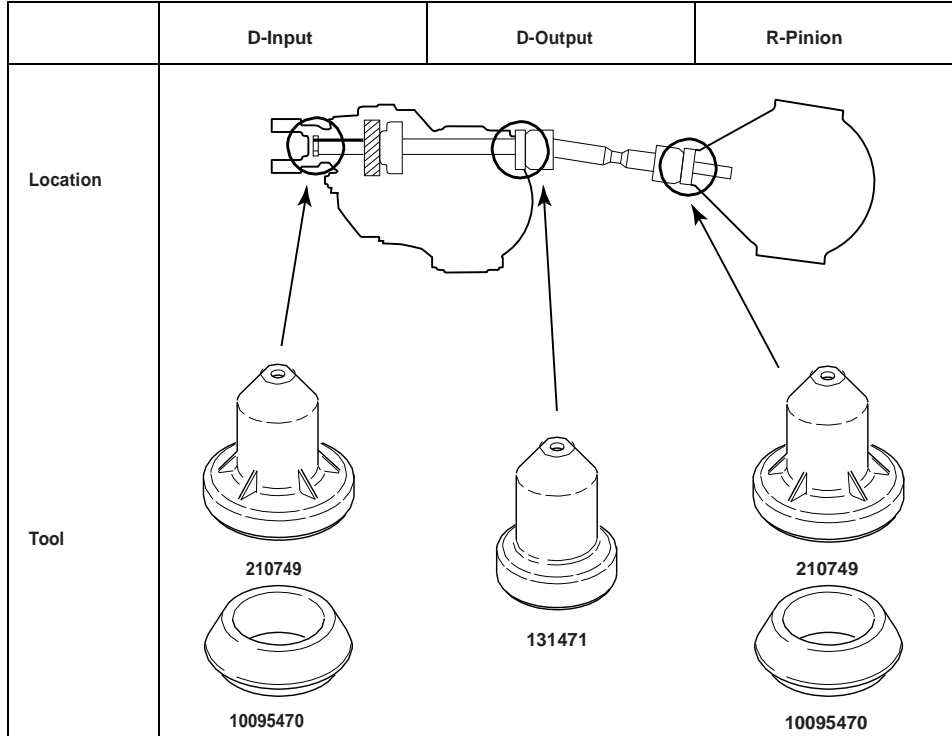
\*Most popular - Spicer recommends keeping these in stock

## Service Kits

### Pinion Seal Driver Kit

Part Number 513349-1

Kit includes: 131471, 10095470, 210749



## Service Kits - Quick Reference List - Models made ON or AFTER June 10, 2013

(Listed by "Part Description" alpha order)

Note\* - Parts & Kits Identified with a \* asterisk is used to service both "BEFORE & AFTER" design models.

Dana P/N	Description	*Note	Model Information
512892	Air Lockout Repair Kit	x	All D170, 190 Models
512893	Air Lockout Repair Kit - Complete w/ Fork	x	Only D170 Models
504061	Axle Housing Cover & Brg Pts Kit	x	All D190 Models (has cover 134324 inside)
514322	Axle Housing Cover Kit	x	All S190 Models (has cover 302704 inside)
504025	Axle Housing Cover Kit	x	All S590 Models (has cover 302622 inside)
512896	Axle Hsg Hardware Kit - Forward Axle (carrier to hsg)	x	All D170, 190 Models
512897	Axle Hsg Hardware Kit - Rear Axle (carrier to hsg)	x	All R170/R190, S170, S190
513351	Axle Hsg Fastener Kit - (for D-Hsg bolt on covers)	x	All D190, S190, D/R590, S590 Models
504126	Bearing Kit - D170S, S170E		All Ratios
504127	Bearing Kit - D170D		All Ratios
504128	Bearing Kit - D190S, D190D, D590, D590D, S590D, S590, S190E, S190DE		All Ratios
504129	Bearing Kit - R170S, S170S		Ratios 2.69-3.91
504130	Bearing Kit - R170S, S170S		Ratios 4.10-7.17
504131	Bearing Kit - R170D, S170D		Ratios 2.69-3.91
504132	Bearing Kit - R170D, S170D		Ratios 4.10-7.17
504131	Bearing Kit - R190S, R190D, S190S, S190D		Ratios 2.53-4.78
504133	Bearing Kit - R190S, R190D, S190S, S190D		Ratios 5.25-7.83
132480	Carrier Sub-Assy – NSS		Must order kit 504190; R170, S170
132481	Carrier Sub-Assy – NSS		Must order kit 504193; R170D, S170D Diff Lock Design
132482	Carrier Sub-Assy – NSS		Must order kit 504194; R190, R190D, S190, S190D Diff Lock
132483	Carrier Sub-Assy – NSS		Must order kit 504197; D170, S170E
132484	Carrier Sub-Assy – NSS		Must order kit 504198; D170D Diff Lock Design
132485	Carrier Sub-Assy – NSS		Must order kit 504199; All D190, 590 and S190E, S190DE
132486	Carrier Sub-Assy – NSS		Must order kit 504195; S170R Retarder Ready
132487	Carrier Sub-Assy – NSS		Must order kit 504196; S190R Retarder Ready
504097	Diff Lock Conversion Parts Kit		All Diff Lock Models
504095	Diff Lock Shift Fork & Pin Kit (fork# 140008)		All Diff Lock Models
512895	Diff Lock Shift Parts Repair Kit	x	All Diff Lock Models
140024	Diff Lock Sliding Clutch		All Diff Lock Models
10011380	Helical Gear & Bushing Assy		Replaces 131345; All D170, 190 Models
10010716	Helical Gear - Pinion	x	Replaces 131343; All D170, 190 Models
10094015	IAD Assembly	x	Replaces 139965; All Models
504189	Input Cover & Adjuster Kit - D170	x	Replaces 504067; All D170 Models
504188	Input Cover & Adjuster Kit - D190	x	Replaces 504066; Only D190 Models

## Service Kits - Quick Reference List - Models made ON or AFTER June 10, 2013

Note\* - Parts & Kits Identified with a \* asterisks are used to service both "BEFORE & AFTER" design models.

Dana P/N	Description	*Note	Model Information
513839	Input Shaft Kit - Non-Pump Models	x	Only D170 Non-Pump Models
513840	Input Shaft Kit - Pump Models	x	All D170P and All D190 Models
131340	Input Shaft & Helical Gear	x	All S170E and S190E, S190DE High Entry Models
504364-1	Lube Pump & Output Side Gear Kit	x	Replaces 504065: All D170P and D190 Pump Models
513880	Manifold Parts Kit - Non-Pump Models	x	Only D170 Non-Pump Models
513878	Manifold Parts Kit - Pump Models	x	All D170P and All D190 Pump Models
131882	No Spin Diff Assy 46 Inv	x	All Approved D/R170, D/R190 Models
504060	Output Shaft Brg Kit	x	All D170, 190 Models
512894	Output Shaft Kit (shaft# 131536)	x	All D170, 190 Models
131095K	Pinion Nut Kit	x	Only D-Input & Rear-Pinion Models
504041	Pinion Bearing Spacer Kit	x	All D170, D190 and D/R590
504042	Pinion Bearing Spacer Kit	x	All R170, R190, S170, S190
504069	Ring Gear Bolt Kit	x	All Models
131008K	Seal & Nut Kit	x	Only D-Input & Rear-Pinion Models (contains 134323 seal)
10032666	Seal - Oil	x	Replaces 134323: Input Location
210737	Seal - Oil	x	Output Location
10032666	Seal - Oil	x	Replaces 134323: R-Pinion
510870	Shift Fork & Spring Kit - IAD	x	All D170 Models
514142	Shift Fork & Spring Kit - IAD	x	All D190 Models
513349-1	Tool - Pinion Seal Driver Tool Kit	x	Replaces 513349: All Models
507162	U-Tube Breather Kit	x	All Models
504134	Wheel Diff Case Kit (139996/140004)		Refer to specific model and ratio in charts
504135	Wheel Diff Case Kit (139997/140003)		Refer to specific model and ratio in charts
504136	Wheel Diff Case Kit (139998/140002)		Refer to specific model and ratio in charts
504137	Wheel Diff Case Kit (139996/140003)		Refer to specific model and ratio in charts
504138	Wheel Diff Case Kit (139997/140002)		Refer to specific model and ratio in charts
504139	Wheel Diff Case Kit (139997/139999)		Refer to specific model and ratio in charts
504140	Wheel Diff Case Kit (139997/140000)		Refer to specific model and ratio in charts
504141	Wheel Diff Case Kit (139998/139999)		Refer to specific model and ratio in charts
504142	Wheel Diff Case Kit (139996/140001)		Refer to specific model and ratio in charts
504143	Wheel Diff Case Kit (139996/140000)		Refer to specific model and ratio in charts
504096	Wheel Diff Side Gear Kit w/ Washers - 46 Inv		All Models Built After June 10th, 2013
300GD101	Wheel Diff Side Gears 46 Inv	x	All Models
HS108-1	Wheel Diff Side Gear Thrust Washers		All Models Built After June 10th, 2013
300HS100-1	Wheel Diff Side Pinion Thrust Washers		All Models Built After June 10th, 2013





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