



## Illustrated Parts List

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### AXIP-0057 - Models Designed BEFORE 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 - Single 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 before this date are shown in this IPL. Models AFTER June 10, 2013 – see AXIP-0057A.



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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

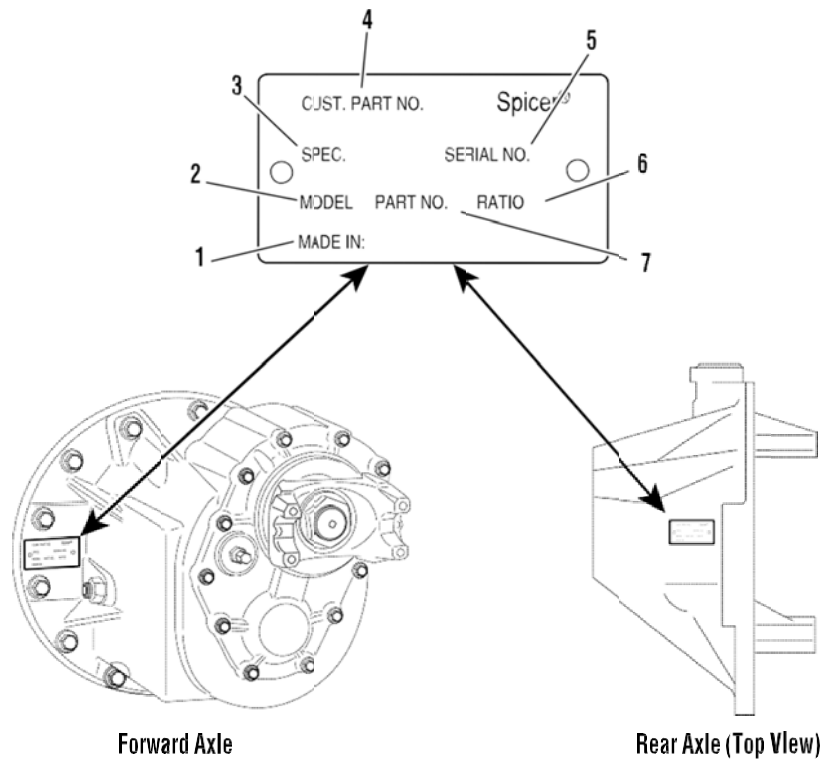
- Parts listings are defined by parts groupings and are broken down by service assemblies.
- Parts Listings identify a part for servicing with the following categories:
  - Item - corresponds with numbers on illustrations for part identification
  - Part Name - specifies part name or description
  - 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.

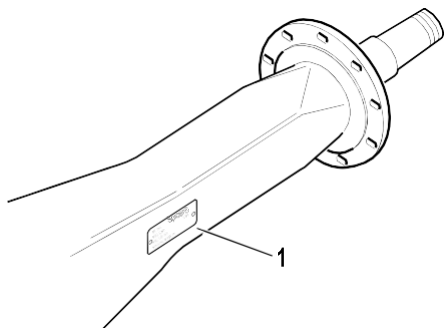
4 - OEM part number assigned to the axle build

5 - Carrier assembly serial number assigned by the manufacturing plant

6 - Axle gear ratio

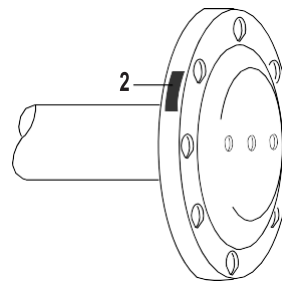
7 - Carrier assembly production or service part number

### Axle Housing



1 - ID Tag

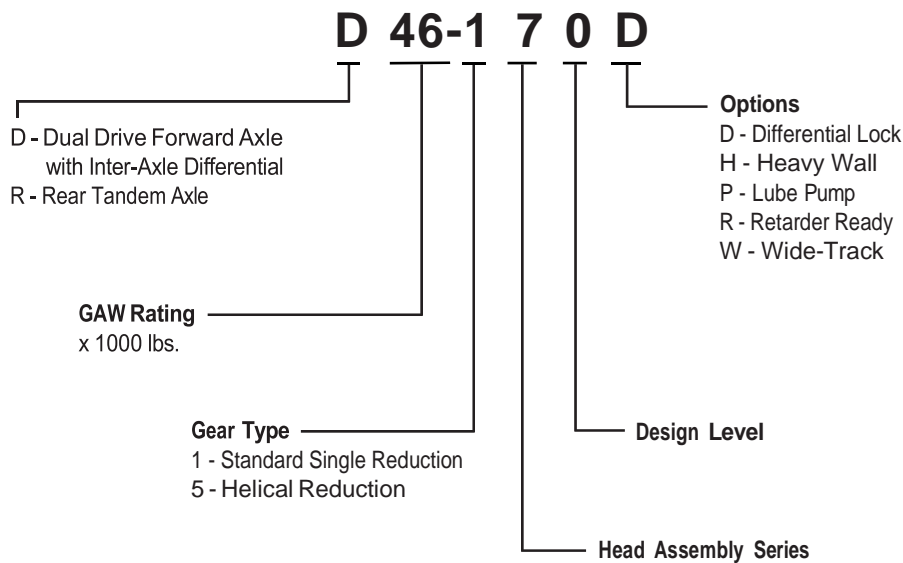
### Axle Shaft



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	xxxxx	xxxxx	See Axle Shaft Chart
2	Flat Washer	4	xxxxx	xxxxx	
<b>Kits and Assemblies</b>					
Item	Part Name	Qty	D170	D190(P)	Notes
Bearing Kits		1	xxxxxx	xxxxxx	Contents Identified with *

## Model Information - Models made BEFORE 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

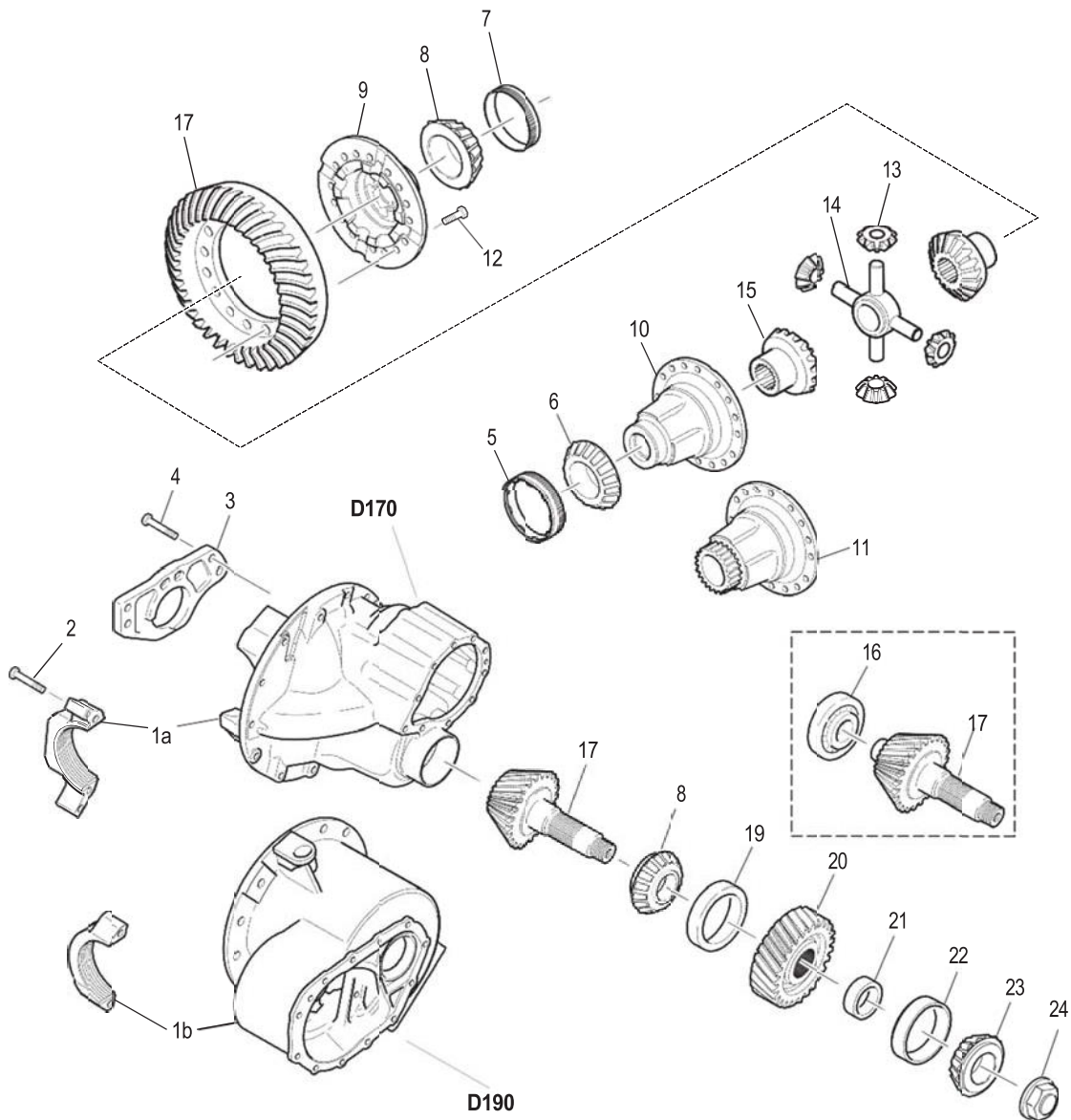
\*Tridem model configuration consist of 3 axles: Two Forward Carriers and a Rear-Rear Carrier. Example would be: (D170>D170>R170) (D190>D190>R190) or (D590>D590>R590).

### 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

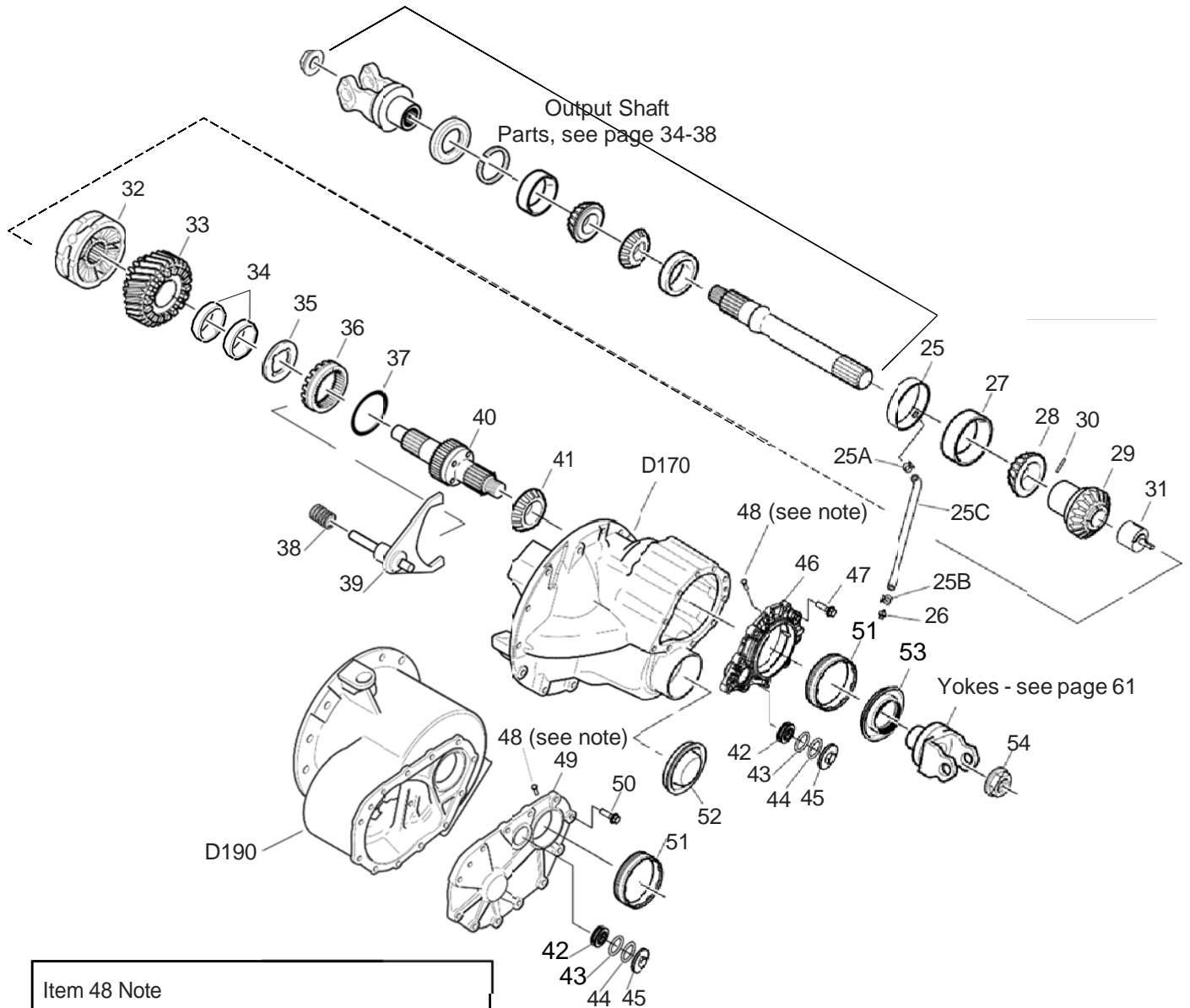
The suffix letter "P" in the model number indicates lube pump. The pump is designed to provide additional lubrication to the inter-axle differential and related parts. The "190" and "590" models come standard with pumps and the suffix letter "P" may not be referenced in all model callouts.

D170 / D190 Heavy Tandem Axle - Models made BEFORE June 10, 2013





D170 / D190 Heavy Tandem Power Divider - Models made BEFORE June 10, 2013



## D170 / D190 Heavy Tandem Axle - Models made BEFORE June 10, 2013

Item	Description	Qty Per Axle	D170 D170D	D190 D190D	Notes
	<b>BEARING KIT</b>	1	514238	514012	
	Contents identified with *	1	514011	-----	D170D Diff Lock Models Only
1a	Diff Carrier & Bearing Caps	1	513997 OBS	-----	D170 models - see chart pg. 10
1a	Diff Carrier & Bearing Caps	1	513998 OBS	-----	D170D Diff Lock models - see chart pg. 10
1b	Diff Carrier & Bearing Caps	1	-----	514001	All D190, D190D models - see chart pg. 10
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	Bearing Cup - Threaded Diff Plain Half	1	131044*	131048*	Standard models
		1	131048*	131048*	Diff Lock models
6	Bearing Cone - Diff Plain Half	1	131041*	131042*	Standard models
		1	131042*	131042*	Diff Lock models
7	Bearing Cup - Threaded Diff Flange Half	1	131044*	131044*	All models
8	Bearing Cone - Diff Flange Half	1	131041*	131041*	All models
9	Diff Case - Flange Half	1	See Kits Page 27-33		All models
10	Diff Case - Plain Half	1	See Kits Page 27-33		Standard models
11	Diff Case - Plain Half - Diff Lock	1	See Kits Page 27-33		Diff Lock models
	<b>RING GEAR BOLT KIT</b>	1	504069	504069	Includes qty 16 of 131473
12	Bolt - Ring Gear	16	131473	131473	
	<b>WHEEL DIFF SIDE GEAR KIT</b>		513868	513868	Includes items 13-15
13	Side Pinion	4	131040	131040	
14	Spider	1	131039	131039	
15	Side Gear - Differential	2	300GD101	300GD101	46 Inv Spline
	<b>NO SPIN ASSEMBLY - 46 Inv</b>	1	131882	-----	46 Inv Spline
16	Bearing - Pinion Pilot	1	129947*	129947*	
17	Ring Gear and Pinion - NSS		See Ring & Pinion Kits Page 59-60		
18	Bearing Cone - Inner Pinion	1	139968*	139968*	Replaces 131050 - Refer to bulletin HAXL-PNI-017
19	Bearing Cup - Inner Pinion	1	139969*	139969*	Replaces 131051 - Refer to bulletin HAXL-PNI-017
20	Pinion Helical Gear	1	10010716	10010716	Replaces 131343 - Refer to bulletin HAXL-PNI-096R2
21	<b>PINION BRG SPACER KIT</b>	A/R	504041	504041	Individual pinion spacers listed on page 26
22	Bearing Cup - Outer Pinion	1	139972*	139972*	Replaces 131203 - Refer to bulletin HAXL-PNI-017
23	Bearing Cone - Outer Pinion	1	139971*	139971*	Replaces 131202 - Refer to bulletin HAXL-PNI-017
	<b>PINION NUT KIT</b>	1	131095K*	131095K*	Kit includes 24 & 55
24	Locknut - Pinion	1	131095	131095	Socket size 69mm
	<b>MANIFOLD PARTS KIT</b>				
	Pump Models	1	513878	513878	Includes items 25-26
	Non-Pump Model	1	513880	-----	Includes 132435-NSS
25	Manifold Assembly - NSS	1	131366 NSS	131366 NSS	Used in Pump models only; Order 513878 kit
25a	Clamp	1	129338	129338	
25b	Collar Lock	1	134010	134010	
25c	Hose	1	131524	131524	
26	Screen Filter Assembly	1	133964	133964	Replaces 131370 & 131525
27	Bearing Cup - Output Side Gear	1	139976*	139976*	Replaces 131209 - Refer to bulletin HAXL-PNI-017
28	Bearing Cone - Output Side Gear	1	139975*	139975*	Replaces 131208 - Refer to bulletin HAXL-PNI-017

## D170/ D190 Axle Parts List

Item	Description	Qty Per Axle	D170 D170D	D190 D190D	Notes
	<b>LUBE PUMP KIT</b>	1	504364-1	504364-1	Includes items 29-31 - replaces 513876 & 504065 - Refer to bulletin HAXL-PNI-017
29	Output Side Gear - Non-Pump	1	10026795	-----	Replaces 131467
	Output Side Gear – Pump	1	10005175	10005175	Replaces 131466
30	Pin	1	131541	131541	Replaces 131369
31	Pump - Lube	1	131368	131368	
32	INTER-AXLE DIFFERENTIAL	1	10094015	10094015	Replaces 131339 & 139965
33	Helical Side Gear & Bushing Assy.	1	10011380	10011380	Replaces 131345, Gear ID # 131005 includes item 34
34	Bushing - Helical Gear	2	10016044	10016044	Replaces 131344 - Refer to bulletin HAXL-PNI-096R2
35	Thrust Washer	1	132440*	132440*	Replaces 131354
36	Sliding Clutch	1	131332	131332	
37	V-ring	1	131333*	131333*	
	<b>SHIFT FORK &amp; SPRING KIT</b>	1	510870	514142	Includes items 38-39
38	Compression Spring	1	129859	129859	
39	Shift Fork Assembly - NSS	1	129856 NSS	131330 NSS	Must order kit above
	<b>INPUT SHAFT KIT - NON-PUMP</b>	1	513839	-----	Includes items 40a, 54-55
	<b>INPUT SHAFT KIT - PUMP</b>	1	513840	513840	Includes items 40b, 54-55
40a	Input Shaft - NSS - NON-PUMP	1	131348 NSS	-----	Order kit 513839
40b	Input Shaft - NSS - PUMP	1	131349 NSS	131349 NSS	Order kit 513840
41	Bearing Cone - Input Shaft	1	139973*	139973*	Replaces 131205 - Refer to bulletin HAXL-PNI-017
	<b>AIR LOCKOUT REPAIR KIT</b>	1	512892	512892	Includes items 42-45
	<b>AIR LOCKOUT KIT (Complete w/Shift Fork)</b>	1	512893	N/A	Includes items 38-39, 42-45
42	Piston	1	131232	131232	
43	O-Ring - Piston	1	210180	210180	
44	O-Ring Cover	1	131665	131665	Replaces 131496 & 220HH102
45	Piston Cover	1	131096	131096	
	<b>INPUT COVER KIT - D170</b>	1	504189	-----	Replaces 513881, 504067 & 514357, incl. 41, 46-48b, 50-51a
46	Input Cover - 131221-NSS	1	131686 NSS	-----	Order 504189 kit - Refer to bulletin HAXL-PNI-017
47	Capscrew - Input Cover	10	131374	-----	
48a	Nut - Adjuster Stud - M12 - current design	1	131693	131693	Refer to bulletin ABIB-0608
48b	Stud - Adjuster - M12 - current design	1	131692	131692	Refer to bulletin ABIB-0608
48c	Capscrew - Locking - M8 - early design	1	131373 OBS	131373 OBS	Refer to bulletin ABIB-0608
	<b>INPUT COVER KIT - D190</b>	1	-----	504188	Replaces 513879, 504066 & 514356, incl. 41, 48a-48b, 49-51a
49	Input Cover - 131328-NSS	1	-----	131687 NSS	Order 504188 kit - Refer to bulletin HAXL-PNI-017
50	Capscrew - Input Cover	12	-----	131374	
51	Input Adjuster & Cup Assy.	1	10049231	10049231	Replaces 131685 & 134354. Refer to bulletin ABIB-0608 & HAXL-PNI-017
51a	Bearing Cup - Input Adjuster (Not illustrated)	1	139974*	139974*	Replaces 131206 - part of item# 51 Refer to bulletin HAXL-PNI-017
52	Plug - Carrier	1	10039186	-----	Replaces 131224 & 131544 - Refer to bulletin HAXL-PNI-096R2
	<b>INPUT SEAL &amp; LOCKNUT KIT</b>	1	131008K	131008K	Includes items 53-55
53	Input Seal	1	10032666*	10032666*	Sold in 131008K kit also - replaces old seal# 131008 & 134323 - Refer to bulletin HAXL-PNI-096R2
	<b>INPUT NUT KIT</b>	1	131095K	131095K	Includes item 54-55
54	Input Locknut	1	131095*	131095*	Socket size 69mm
55	Loctite	1	129293*	129293*	Not illustrated
56	RTV Sealant	1	107276S*	107276S*	Not illustrated

Note 1: Refer to Dana bulletin HAXL-PNI-017 for complete bearing change details

Note 2: Refer to Dana bulletin ABIB-0608 for complete Input Cover change details

## Diff Carrier & Bearing Cap Kits

Item	Model	Kit Part No.	Notes
1a	D170	<a href="#">513997 OBS</a>	Includes part 131223-OBS and item 2
1a	D170D	<a href="#">513998 OBS</a>	Includes part 131219-OBS and item 2
1b	D190, D190D	<a href="#">514001</a>	Includes part 131325 and items 2-4

### Carrier/Cap Identification Information:

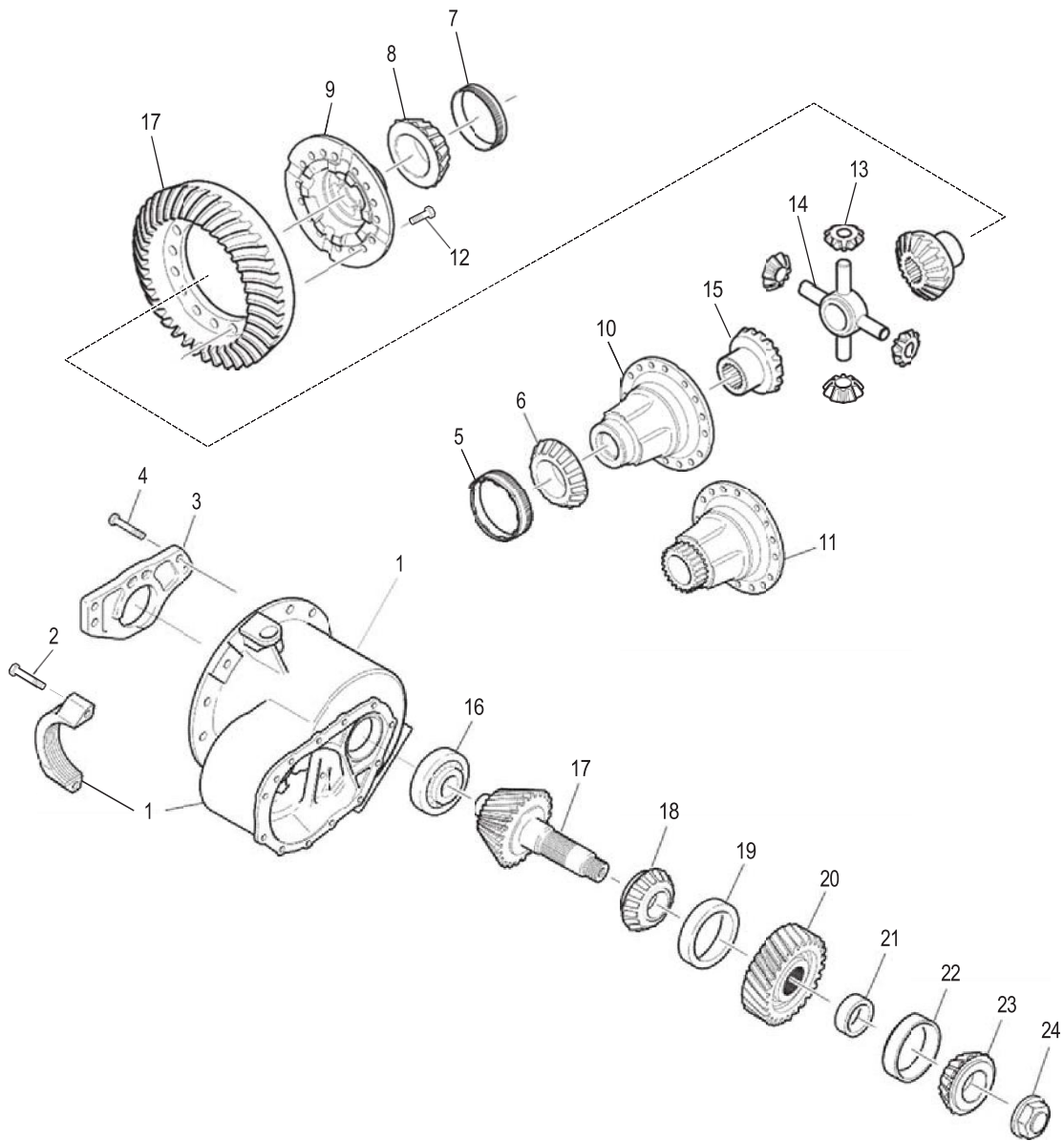
Part No.	Notes	
131223 OBS	No Pilot Web	order 513997-OBS
131219 OBS	No Pilot Web	order 513998-OBS
131325 NSS	Built w/Pilot Web	order 514001

Note A: Dana made changes to the carriers designed AFTER 6.10.13. Only models made before this date are shown in this IPL. Check stock on individual Diff Carrier & Bearing Cap Kits. When stock depleted, these are discontinued. Old and New "Carrier & Bearing Caps Kits" are not interchangeable.

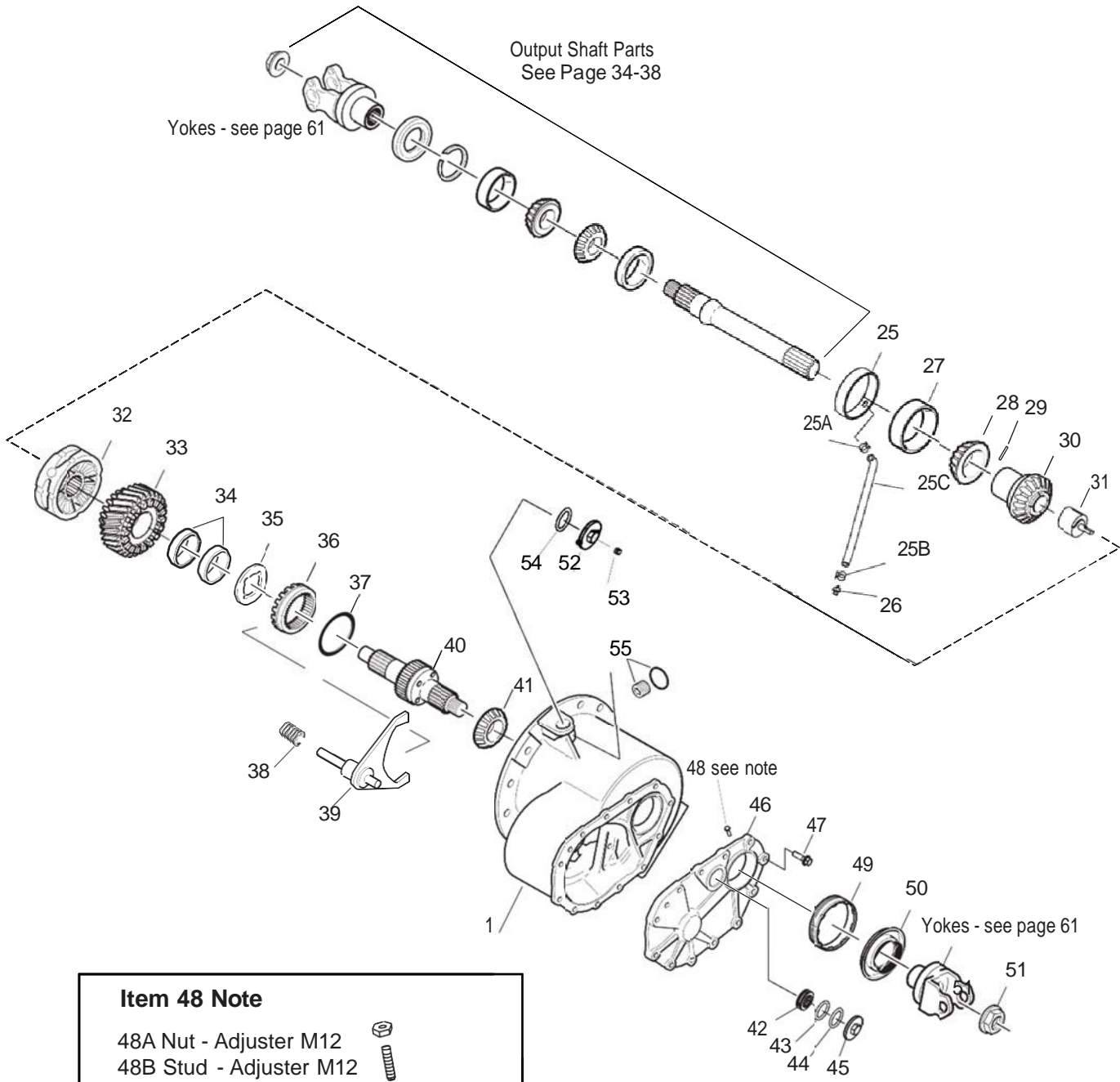
Note B: To convert D170 Non-Pump Models to Pump Option, order:

1 - 513840 I/P Kit 1 – 504364-1 Lube Pump Kit 1 - 513878 Manifold Kit



D590 / D590D Double Reduction Axle - Models made BEFORE June 10, 2013




D590 / D590D Double Reduction Power Divider  
Models made BEFORE June 10, 2013



**Item 48 Note**

48A Nut - Adjuster M12   
48B Stud - Adjuster M12 

48C Capscrew (early models) M8 

## D590 / D590D Double Reduction Axle - Models made BEFORE June 10, 2013

Item	Description	Qty Per Axle	D590 D590D	Notes
<b>BEARING KIT (contents identified with *)</b>		1	504072	
1	Diff Carrier & Bearing Caps 131325-NSS	1	514001	Includes items 1-4
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	Bearing Cup - Threaded Diff Plain Half	1	131048*	
6	Bearing Cone - Diff Plain Half	1	131042*	
7	Bearing Cup - Threaded Diff Flange Half	1	131044*	
8	Bearing Cone - Diff Flange Half	1	131041*	
9	Diff Case - Flange Half	1	See Kits Page 27-33	All models
10	Diff Case - Plain Half	1	See Kits Page 27-33	Standard models
11	Diff Case - Plain Half - Diff Lock	1	See Kits Page 27-33	Diff Lock models
<b>RING GEAR BOLT KIT</b>		1	504069	Includes qty 16 of 131473
12	Bolt - Ring Gear	16	131473	
<b>WHEEL DIFF SIDE GEAR KIT</b>			513868	Includes items 13-15
13	Side Pinion	4	131040	
14	Spider	1	131039	
15	Side Gear - Differential	2	300GD101	46 Inv Spline
16	Bearing - Pinion Pilot	1	129947*	
17	Ring Gear and Pinion - NSS	See Ring & Pinion Kits Page 59-60		
18	Bearing Cone - Inner Pinion	1	139968*	Replaces 131050 - Refer to bulletin HAXL-PNI-017
19	Bearing Cup - Inner Pinion	1	139969*	Replaces 131051 - Refer to bulletin HAXL-PNI-017
20	Pinion Helical Gear 1.39:1	1	10051034	Replaces 131249; 1.39:1 Reduction - Refer to bulletin HAXL-PNI-096R2
<b>21 PINION BRG SPACER KIT</b>		A/R	504041	Individual pinion spacers listed on page 26
22	Bearing Cup - Outer Pinion	1	139972*	Replaces 131203 - Refer to bulletin HAXL-PNI-017
23	Bearing Cone - Outer Pinion	1	139971*	Replaces 131202 - Refer to bulletin HAXL-PNI-017
<b>PINION NUT KIT</b>		1	131095K	Includes 24 & 56
24	Locknut - Pinion	1	131095	Socket size 69mm
<b>MANIFOLD PARTS KIT</b>		Pump Model	513878	Includes items 25-26
25	Manifold Assembly - NSS	1	131366 NSS	Order 513878 kit; Pump models
25a	Clamp	1	129338	
25b	Collar Lock	1	134010	
25c	Hose	1	131524	
26	Screen Filter Assembly	1	133964	Replaces 131370 & 131525
27	Bearing Cup - Output Side Gear	1	139976*	Replaces 131209 - Refer to bulletin HAXL-PNI-017
28	Bearing Cone	1	139975*	Replaces 131208 - Refer to bulletin HAXL-PNI-017
<b>LUBE PUMP KIT</b>		1	504364-1	Includes items 29-31 - replaces 513876 & 504065 - Refer to bulletin HAXL-PNI-017
29	Pin	1	131541	Included in kit was #131369
30	Output Side Gear	1	10005175	Replaces 131466; Pump models
31	Pump - Lube	1	131368	

## D590 / D590D Axle Parts List

Item	Description	Qty Per Axle	D590 D590D	Notes
32	INTER-AXLE DIFFERENTIAL	1	10094015	Replaces 131339 & 139965
33	Helical Side Gear & Bushing Assy. 1.39:1	1	10051032	Replaces 131346; Gear stamp id# 131341, includes item 34 - Refer to bulletin HAXL-PNI-096R2
34	Bushing - Helical Gear	2	10016044	Replaces 131344 - Refer to bulletin HAXL-PNI-096R2
35	Thrust Washer	1	132440*	Replaces 131354
36	Sliding Clutch	1	131332	
37	V-ring	1	131333*	
<b>SHIFT FORK &amp; SPRING KIT</b>		<b>1</b>	<b>514142</b>	<b>Includes items 38-39</b>
38	Compression Spring	1	129859	
39	Shift Fork Assembly - NSS	1	131330 NSS	Must order kit 514142
<b>INPUT SHAFT KIT - PUMP</b>		<b>1</b>	<b>513840</b>	<b>Includes items 40, 51 &amp; 56</b>
40	Input Shaft - NSS - PUMP	1	131349 NSS	Must order kit 513840
41	Bearing Cone - Input Shaft	1	139973*	Replaces 131205 - Refer to bulletin HAXL-PNI-017
<b>AIR LOCKOUT REPAIR KIT</b>		<b>1</b>	<b>512892</b>	<b>Includes items 42-45</b>
42	Piston	1	131232	
43	O-Ring - Piston	1	210180	
44	O-Ring Cover	1	131665	Replaces 131496 & 220HH102
45	Piston Cover	1	131096	
<b>INPUT COVER KIT</b>		<b>1</b>	<b>504188</b>	<b>Replaces 513879, 504066 &amp; 514356, incl. items 41, 46-48b, 49-49a</b>
46	Input Cover - 131328-NSS	1	131687 NSS	Order 504188 kit - Refer to bulletin HAXL-PNI-017
47	Capscrew - Input Cover	12	131374	
48a	Nut - Adjuster Stud - M12 - current design	1	131693	Refer to bulletin ABIB-0608
48b	Stud - Adjuster - M12 - current design	1	131692	Refer to bulletin ABIB-0608
48c	Capscrew - Locking - M8 - early design	1	131373 OBS	Refer to bulletin ABIB-0608
49	Input Adjuster & Cup Assy.	1	10049231	Replaces 131685 & 134354 -Refer to bulletin ABIB-0608 & HAXL-PNI-017
49a	Brg Cup - Input Adjuster (not illustrated)	1	139974*	Replaces 131206 - part of item# 49 -Refer to bulletin HAXL-PNI-017
<b>INPUT SEAL &amp; LOCKNUT KIT</b>		<b>1</b>	<b>131008K</b>	<b>Includes items 50-51 &amp; 56</b>
50	Input Seal	1	10032666*	Sold in 131008K kit also - replaces old seal# 131008 & 134323 - Refer to bulletin HAXL-PNI-096R2
<b>INPUT NUT KIT</b>		<b>1</b>	<b>131095K</b>	<b>Includes item 51 &amp; 56</b>
51	Input Locknut	1	131095	Socket size 69mm
52	Cover - Diff Lock Shift	1	131096	For Non-diff lock mdl's - for diff lock models see page 30
53	Plug - Diff Lock Shift	1	127195	For Non-diff lock mdl's - for diff lock models see page 30
54	O-Ring - Diff Lock Cover	1	131665	For Non-diff lock mdl's - for diff lock models see page 30
55	Plug & O-Ring - Diff Lock Cylinder	1	131487	For Non-diff lock mdl's - for diff lock models see page 30
56	Loctite	1	129293	Not illustrated
57	RTV Sealant	1	107276S*	Not illustrated

Note 1: Refer to Dana bulletin HAXL-PNI-017 for complete bearing change details

Note 2: Refer to Dana bulletin ABIB-0608 for complete Input Cover change details

### Diff Carrier & Bearing Cap Kits

Item	Model	Kit Part No.	Notes
1	D590, D590D	514001	Includes items 1, 2-4

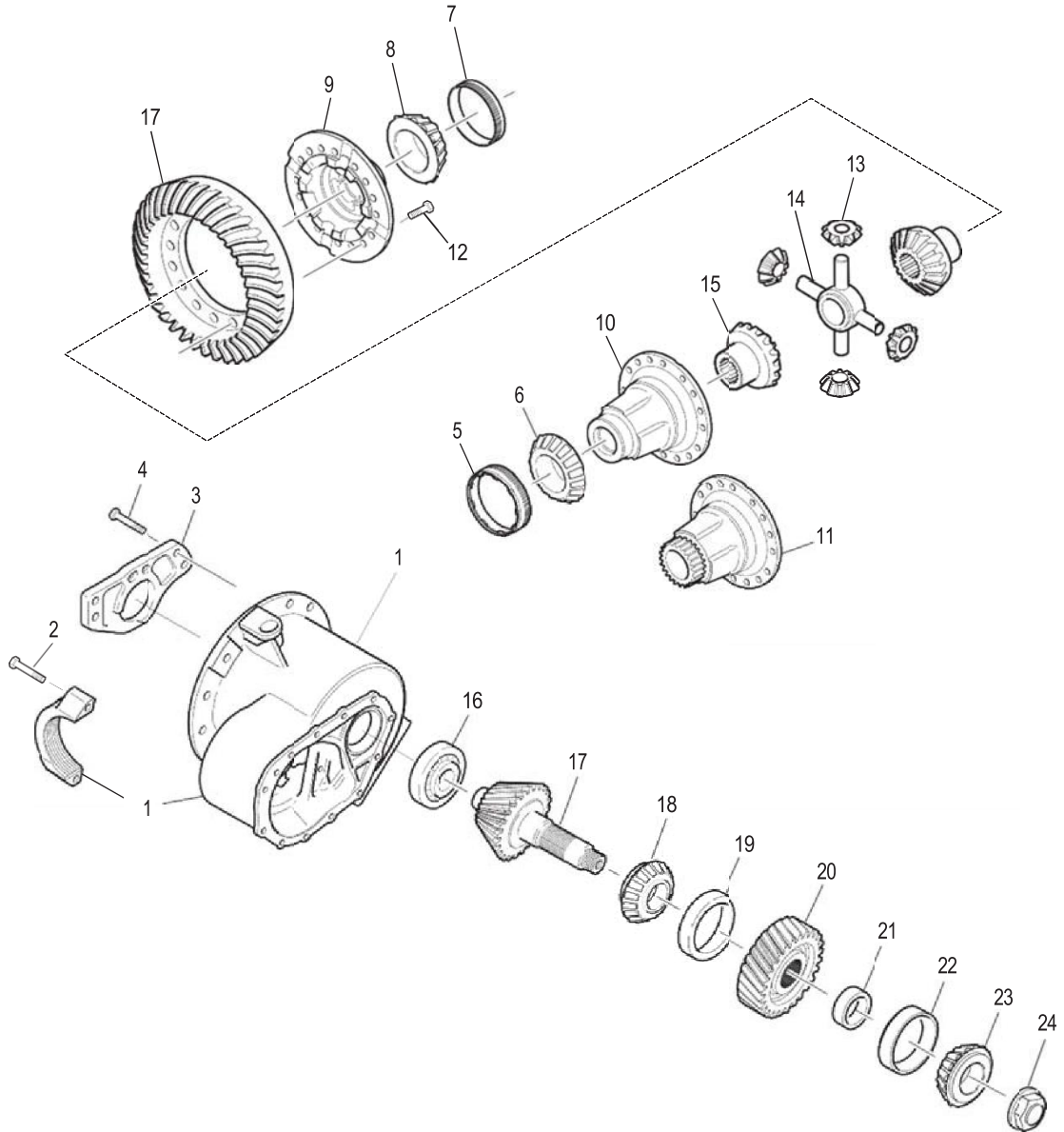
### Carrier/Cap Identification Information:

Part No.	Notes
131325 NSS	Built w/Pilot Web order 514001

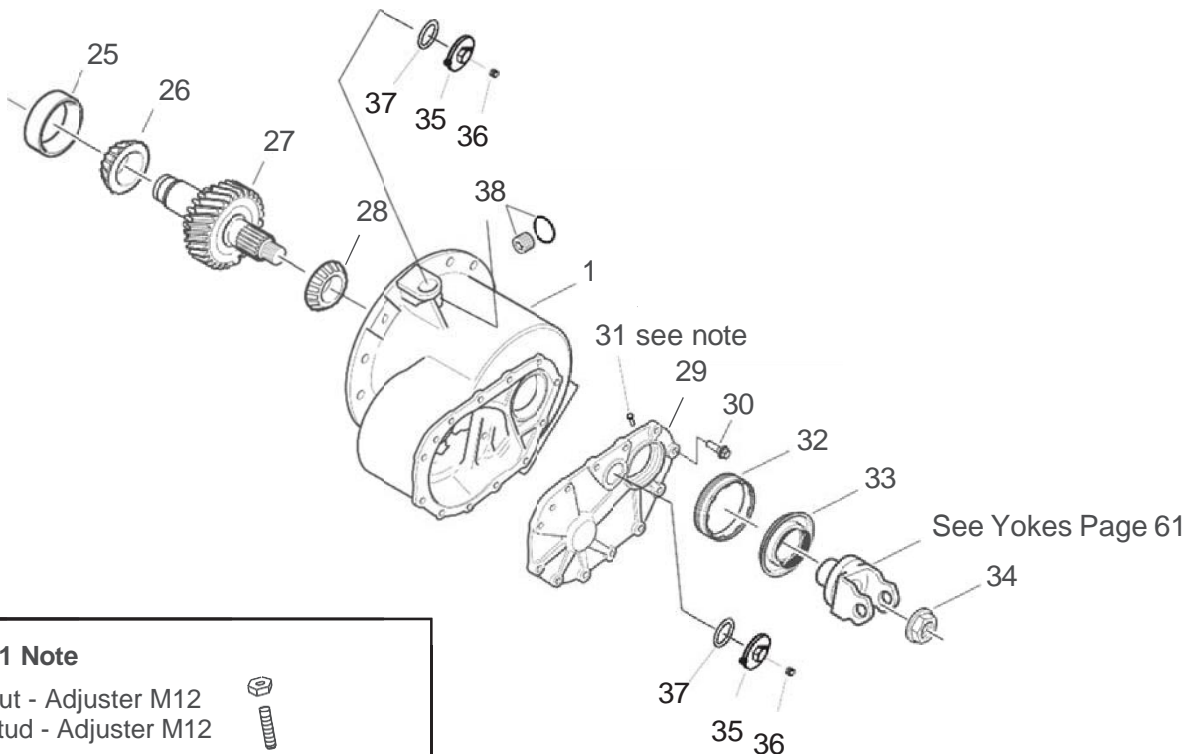
Note A: Dana made changes to the carriers designed AFTER 6.10.13. Only models made before this date are shown in this IPL. Check stock on individual Diff Carrier & Bearing Cap Kits. When stock depleted, these are discontinued. Old and New "Carrier & Bearing Caps Kits" are not interchangeable.



S590 / S590D / R590 / R590D Double Reduction Axle -  
Models made BEFORE June 10, 2013



**S590 / S590D / R590 / R590D Double Reduction Power Divider -  
Models made BEFORE June 10, 2013**



**Item 31 Note**

31A Nut - Adjuster M12



31B Stud - Adjuster M12



31C Capscrew (early models) M8



## S590 / S590D / R590 / R590D Double Reduction Axle - Models made BEFORE June 10, 2013

Item	Description	Qty Per Axle	S590, R590 S590D, R590D	Notes
<b>BEARING KIT (contents identified with *)</b>		<b>1</b>	<b>504073</b>	
1	Diff Carrier & Bearing Caps - 131325-NSS	1	514001	Includes items 1-4
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	Bearing Cup - Threaded Diff Plain Half	1	131048*	
6	Bearing Cone - Diff Plain Half	1	131042*	
7	Bearing Cup - Threaded Diff Flange Half	1	131044*	
8	Bearing Cone - Diff Flange Half	1	131041*	
9	Diff Case - Flange Half	1	See Kits Page 27-33	All models
10	Diff Case - Plain Half	1	See Kits Page 27-33	Standard models
11	Diff Case - Plain Half - Diff Lock	1	See Kits Page 27-33	Diff Lock models
<b>RING GEAR BOLT KIT</b>		<b>1</b>	<b>504069</b>	<b>Includes qty 16 of 131473</b>
12	Bolt - Ring Gear	16	131473	
<b>WHEEL DIFF SIDE GEAR KIT</b>			<b>513868</b>	<b>Includes items 13-15</b>
13	Side Pinion	4	131040	
14	Spider	1	131039	
15	Side Gear - Differential	2	300GD101	46 Inv Spline
16	Bearing - Pinion Pilot	1	129947*	
17	Ring Gear and Pinion - NSS	See Ring & Pinion Kits Page 59-60		
18	Bearing Cone - Inner Pinion	1	139968*	Replaces 131050 - Refer to bulletin HAXL-PNI-017
19	Bearing Cup - Inner Pinion	1	139969*	Replaces 131051 - Refer to bulletin HAXL-PNI-017
20	Pinion Helical Gear 1.39:1	1	10051034	Replaces 131249; 1.39:1 Reduction - Refer to bulletin HAXL-PNI-096R2
<b>21 PINION BRG SPACER KIT</b>		<b>A/R</b>	<b>504041</b>	<b>Individual pinion spacers listed on page 26</b>
22	Bearing Cup - Outer Pinion	1	139972*	Replaces 131203 - Refer to bulletin HAXL-PNI-017
23	Bearing Cone - Outer Pinion	1	139971*	Replaces 131202 - Refer to bulletin HAXL-PNI-017
<b>PINION NUT KIT</b>		<b>1</b>	<b>131095K</b>	<b>Kit includes 24 &amp; 39 Loctite</b>
24	Locknut - Pinion	1	131095	Socket size 69mm
25	Bearing Cup	1	139976*	Replaces 131209 - Refer to bulletin HAXL-PNI-017
26	Bearing Cone	1	139975*	Replaces 131208 - Refer to bulletin HAXL-PNI-017
27	Input Shaft & Helical Gear 1.39:1		131353	
28	Bearing Cone - Input Shaft	1	139973*	Replaces 131205 - Refer to bulletin HAXL-PNI-017
<b>INPUT COVER KIT</b>		<b>1</b>	<b>504188</b>	<b>Replaces 513879, 504066 &amp; 514356, incl. items 28, 29-31b, 32-32a</b>
29	Input Cover - 131328-NSS	1	131687 NSS	Order 504188 kit - Refer to bulletin HAXL-PNI-017
30	Capscrew - Input Cover	12	131374	
31a	Nut - Adjuster Stud - M12 - current design	1	131693	Refer to bulletin ABIB-0608
31b	Stud - Adjuster - M12 - current design	1	131692	Refer to bulletin ABIB-0608
31c	Capscrew - Locking - M8 - early design	1	131373 OBS	Refer to bulletin ABIB-0608
32	Input Adjuster & Cup Assy.	1	10049231	Replaces 131685, 134354 - Refer to bulletin ABIB-0608 & HAXL-PNI-017
32a	Bearing Cup - Input Adjuster (not illustrated)	1	139974*	Replaces 131206 - part of item# 32 - Refer to bulletin HAXL-PNI-017

Item	Description	Qty Per Axle	S590, R590		Notes
			S590D,	R590D	
<b>INPUT SEAL &amp; LOCKNUT KIT</b>		1	131008K		Includes items 33-34, 39
33	Input Seal	1	10032666*		Sold in 131008K kit also - replaces old seal# 131008 & 134323 - Refer to bulletin HAXL-PNI-096R2
<b>INPUT NUT KIT</b>		1	131095K		Includes item 34 & 39
34	Input Locknut	1	131095		Socket size 69mm
35	Cover - Diff Lock Shift	2	131096		See Note 3
36	Plug - Diff Lock Shift	2	127195		See Note 3
37	O-Ring - Diff Lock Cover	2	131665		See Note 3
38	Plug & O-Ring - Diff Lock Cover	1	131487		For Non-diff lock models only
39	Loctite adhesive	1	129293		Not illustrated
40	RTV Sealant	1	107276S*		Not illustrated

Note 1: Refer to Dana bulletin HAXL-PNI-017 for complete bearing change details

Note 2: Refer to Dana bulletin ABIB-0608 for complete Input Cover change details

Note 3: Quantity use is 2 unless you have a Diff Lock model, see page 30 for diff lock shift parts

### Diff Carrier & Bearing Cap Kits

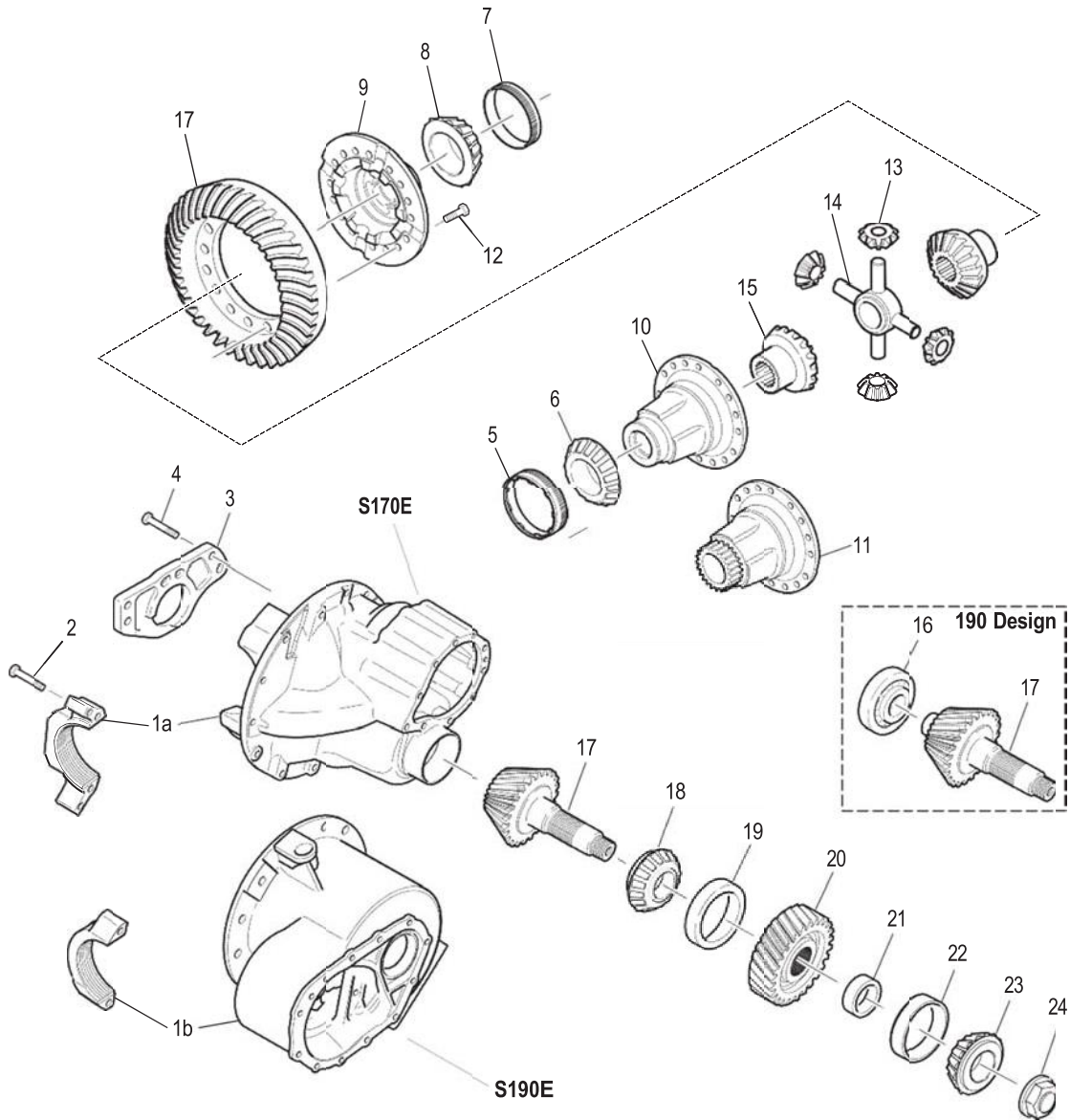
Item	Model	Kit Part No.	Notes
1	S590, S590D, R590, R590D	514001	Includes items 1-4

### Carrier/Cap Identification Information:

Part No.	Notes
131325 NSS	Built w/Pilot Web order 514001

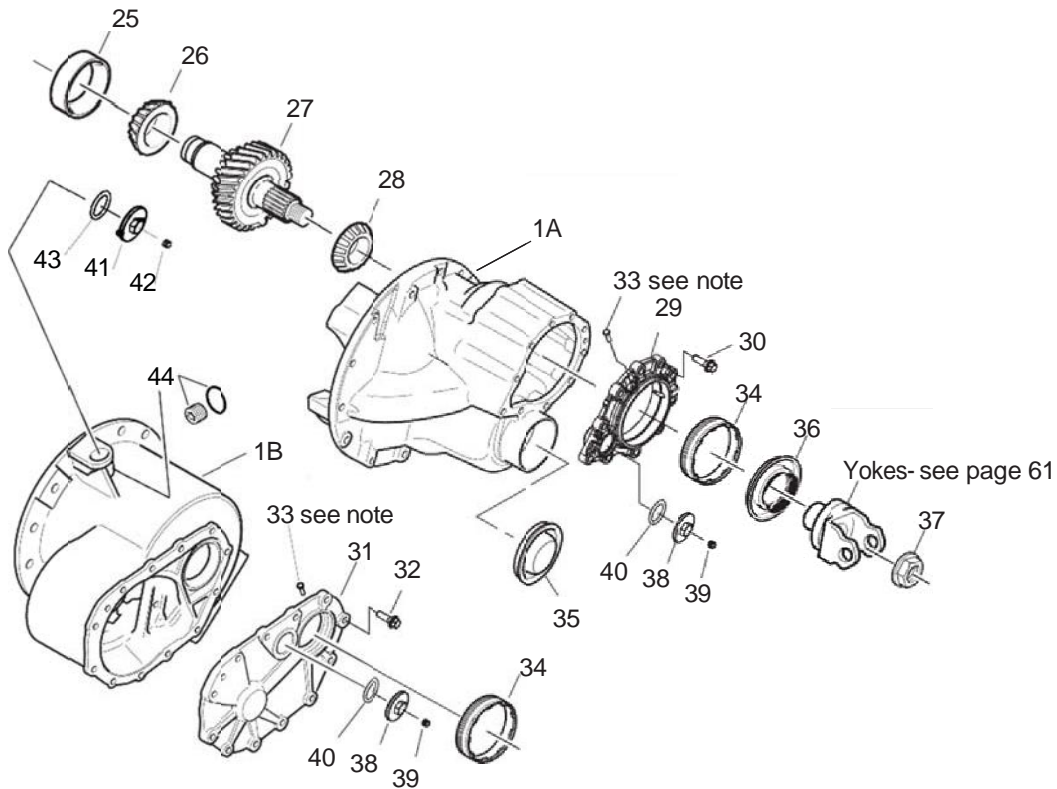
Note A: Dana made changes to the carriers designed AFTER 6.10.13. Only models made before this date are shown in this IPL. Check stock on individual Diff Carrier & Bearing Cap Kits. When stock depleted, these are discontinued. Old and New "Carrier & Bearing Caps Kits" are not interchangeable.

S170E / S190E / S190DE High Entry Axle - Models made BEFORE June 10, 2013





Parts for  
Diff Lock Assembly  
See page 30


S170E / S190E / S190DE High Entry Power Divider -  
 Models made BEFORE June 10, 2013



**Item 33 Note**

33A Nut - Adjuster M12 

33B Stud - Adjuster M12 

33C Capscrew (early models) M8 

## S170E / S190E / S190DE High Entry Axle - Models made BEFORE June 10, 2013

Item	Description	Qty Per Axle	S170E	S190E	S190DE	
<b>BEARING KIT</b>		1	504074	504073	504073	Contents identified with *
1a	Diff Carrier & Bearing Caps -131223-OBS	1	513997OBS	-----	-----	Includes items 1a & 2
1b	Diff Carrier & Bearing Caps - 131325-NSS	1	-----	514001	514001	Includes items 1b-4
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	Bearing Cup - Threaded Diff Plain Half	1	131044*	131048*	131048*	
6	Bearing Cone - Diff Plain Half	1	131041*	131042*	131042*	
7	Bearing Cup - Threaded Diff Flange Half	1	131044*	131044*	131044*	
8	Bearing Cone - Diff Flange Half	1	131041*	131041*	131041*	
9	Diff Case - Flange Half	1	See Kits Page 27-33			All models
10	Diff Case - Plain Half	1	See Kits Page 27-33			Standard models
11	Diff Case - Plain Half - Diff Lock	1	See Kits Page 27-33			Diff Lock models
<b>RING GEAR BOLT KIT</b>		1	504069	504069	504069	Includes qty 16 of 131473
12	Bolt - Ring Gear	16	131473	131473	131473	
<b>WHEEL DIFF SIDE GEAR KIT</b>			513868	513868	513868	Includes items 13-15
13	Side Pinion	4	131040	131040	131040	
14	Spider	1	131039	131039	131039	
15	Side Gear - Differential	2	300GD101	300GD101	300GD101	46 Inv Spline
<b>NO SPIN ASSEMBLY - 46 Inv</b>		1	131882	-----	-----	46 Inv Spline (not illustrated)
16	Bearing - Pinion Pilot	1	-----	129947*	129947*	
17	Ring Gear and Pinion - NSS	See Ring & Pinion Kits Page 59-60				
18	Bearing Cone - Inner Pinion	1	139968*	139968*	139968*	Replaces 131050 - See Note 1
19	Bearing Cup - Inner Pinion	1	139969*	139969*	139969*	Replaces 131051 - See Note 1
20	Pinion Helical Gear	1	10010716	10010716	10010716	Replaces 131343 - Refer to bulletin HAXL-PNI-096R2
<b>21 PINION BRG SPACER KIT</b>		A/R	504041	504041	504041	Individual pinion spacers listed on pg. 26
22	Bearing Cup - Outer Pinion	1	139972*	139972*	139972*	Replaces 131203 - See Note 1
23	Bearing Cone - Outer Pinion	1	139971*	139971*	139971*	Replaces 131202 - See Note 1
<b>PINION NUT KIT</b>		1	131095K	131095K	131095K	Includes 24 & 45
24	Locknut - Pinion	1	131095	131095	131095	Socket size 69mm
25	Bearing Cup - Output Side Gear	1	139976*	139976*	139976*	Replaces 131209 - See Note 1
26	Bearing Cone - Output Side Gear	1	139975*	139975*	139975*	Replaces 131208 - See Note 1

Note 1: Refer to Dana bulletin HAXL-PNI-017 for complete bearing change details

## S170E/S190E/S190DE Parts List

Item	Description	Qty Per Axle	S170E	S190E	S190DE	Notes
27	INPUT SHAFT & HELICAL - HIGH ENTRY	1	131340	131340	131340	1:1 ratio
28	Bearing Cone - Input Shaft	1	139973*	139973*	139973*	Replaces 131205 - See Note 1
	INPUT COVER KIT - S170E	1	504189	-----	-----	Replaces 513881, 504067 & 514357. Includes 26, 29-30, 33a-b, 34-34a
29	Input Cover - 131221-NSS	1	131686 NSS	-----	-----	Order 504189 kit - See Note 1
30	Cap screw - Input Cover	10	131374	-----	-----	
	INPUT COVER KIT - S190E/S190DE	1	-----	504188	504188	Replaces 513879, 504066 & 514356 Includes items 26, 31-33b, 34-34a
31	Input Cover - 131328-NSS	1	-----	131687 NSS	131687 NSS	Order 504188 kit - See Note 1
32	Cap screw - Input Cover	12	-----	131374	131374	
33a	Nut - Adjuster Stud - M12 - current design	1	131693	131693	131693	See Note 2
33b	Stud - Adjuster - M12 - current design	1	131692	131692	131692	See Note 2
33c	Cap screw - Locking - M8 - early design	1	131373 OBS	131373 OBS	131373 OBS	See Note 2
34	Input Adjuster & Cup Assy.	1	10049231	10049231	10049231	Replaces 131685 & 134354 - See Notes 1 & 2
34a	Bearing Cup - Input Adjuster (Not illustrated)	1	139974*	139974*	139974*	Replaces 131206 - part of item# 34 See Note 1
35	Plug - Carrier	1	10039186	-----	-----	Replaces 131224 & 131544 - Refer to bulletin HAXL-PNI-096R2
	INPUT SEAL & LOCKNUT KIT	1	131008K	131008K	131008K	Includes items 36-37 & 45
36	Input Seal	1	10032666*	10032666*	10032666*	Replaces 131008 & 134323 - Refer to bulletin HAXL-PNI-096R2
	INPUT NUT KIT	1	131095K	131095K	131095K	Includes item 37 & 45
37	Input Locknut	1	131095	131095	131095	Socket size 69mm
38	Cap - Lockout Cylinder	1	131096	131096	131096	
39	Plug - Cap - Lockout Cylinder	1	127195	127195	127195	
40	O-Ring - Cap - Lockout Cylinder	1	131665	131665	131665	
41	Cap - Diff Lock Shift Cylinder	1	131096	131096	-----	Non-diff lock mdl's-for diff lockout see pg. 30
42	Plug - Cap - Diff Lock Shift Cylinder	1	127195	127195	-----	Non-diff lock mdl's-for diff lockout see pg. 30
43	O-Ring - Cap - Diff Lock Shift Cylinder	1	131665	131665	-----	Non-diff lock mdl's-for diff lockout see pg. 30
44	Plug & O-Ring - Diff Lock Switch Opening	1	131487	131487	-----	Non-diff lock mdl's-for diff lockout see pg. 30
45	Loctite	1	129293	129293	129293	Not illustrated
46	RTV Sealant	1	107276S*	107276S*	107276S*	Not illustrated

Note 1: Refer to Dana bulletin HAXL-PNI-017 for complete bearing change details

Note 2: Refer to Dana bulletin ABIB-0608 for complete Input Cover change details

### Diff Carrier & Bearing Cap Kits

Item	Model	Kit Part No.	Notes
1a	S170E	513997 OBS	Includes part 131223-OBS and item 2
1b	S190E, S190DE	514001	Includes part 131325 and items 2-4

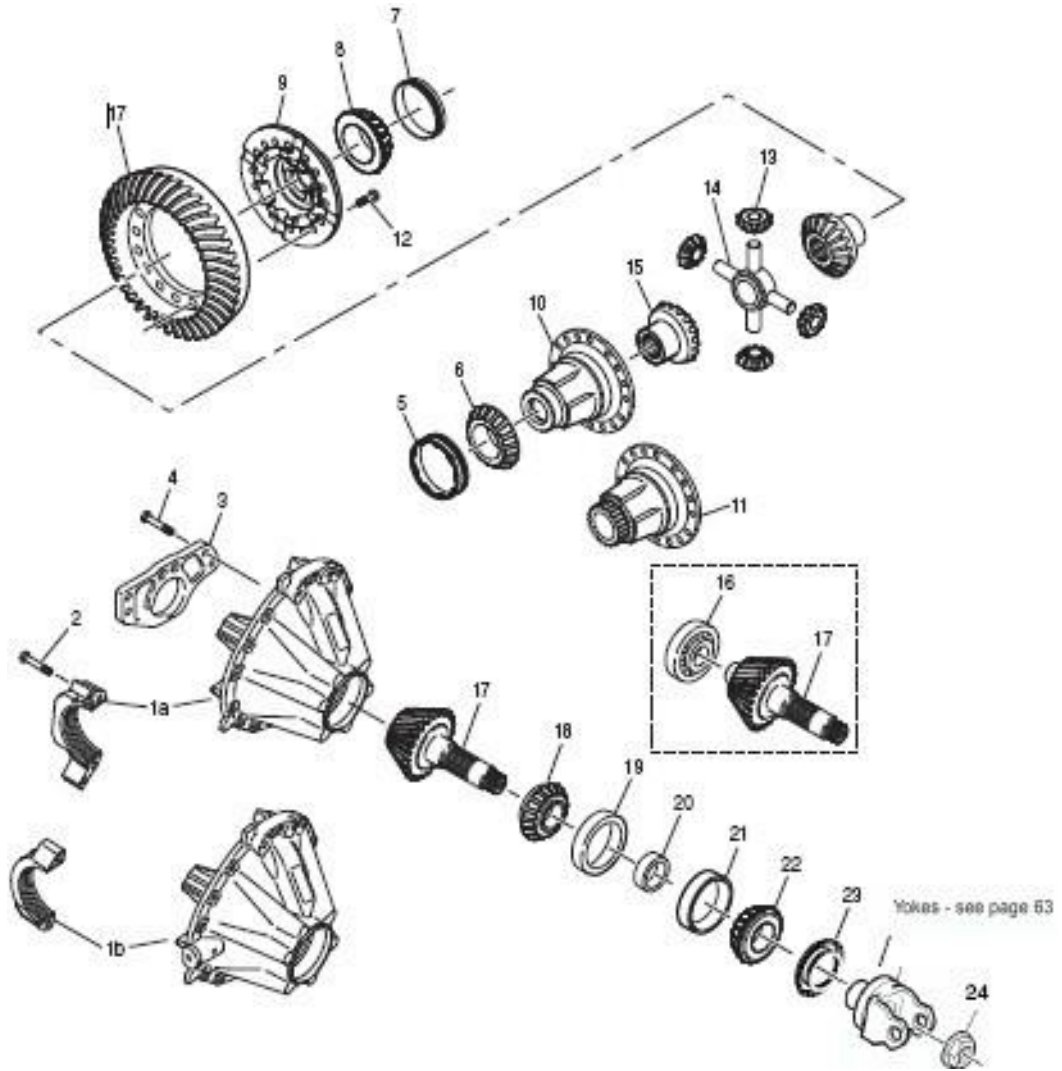
### Carrier/Cap Identification Information:

Part No.	Notes
131223 OBS	No Pilot Web      order 513997-OBS
131325 NSS	Built w/Pilot Web      order 514001

Note A: Dana made changes to the carriers designed AFTER 6.10.13. Only models made before this date are shown in this IPL. Check stock on individual Diff Carrier & Bearing Cap Kits. When stock depleted, these are discontinued. Old and New "Carrier & Bearing Caps Kits" are not interchangeable.



R170 / R190, S170 / S190 Heavy Tandem Axle -  
Models made BEFORE June 10,2013



## R170 / R190, S170 / S190 Heavy Tandem Axle - Models made BEFORE June 10, 2013

Item	Description	Qty Per Axle	S170	S190	Notes
			S170D R170 R170D	S190D R190 R190D	
BEARING KIT		1	-----	514015	190 Series - ratios 2.53-4.78
Contents Identified with *		1	-----	514016	190 Series - ratios 5.25-7.83
		1	514013	-----	S170S Series - ratios 2.69-3.91
		1	514014	-----	S170S Series - ratios 4.10-7.17
		1	514015	-----	Replaces 514239; S170D - Diff Lock Series - ratios 2.69-3.91
		1	514240	-----	S170D - Diff Lock Series - ratios 4.10-7.17
1a	Diff Carrier & Bearing Caps	1	513999 OBS	-----	R170, S170 models - see content below
1b	Diff Carrier & Bearing Caps	1	514000 OBS	-----	R170D, S170D diff lock mdl's - see content below
1c	Diff Carrier & Bearing Caps	1	-----	514002	All R190, S190, R190D, S190D - see content below
2	Capscrew - Bearing Cap	6	131016	131016	
3	Pilot Bearing Web Support	1	NSS - Note 3	NSS	Not a serviceable part - see Note 3 next page
4	Capscrew - Pilot Bearing Web	4	131017	131017	See note 3 next page
5	Bearing Cup - Threaded Diff Plain Half	1	131044*	131048*	Standard Model
		1	131048*	131048*	Diff Lock Model
6	Diff Bearing Cone - Flange Half	1	131041*	131042*	Standard Model
		1	131042*	131042*	Diff Lock Model
7	Bearing Cup - Threaded Diff Flange Half	1	131044*	131044*	All Models
8	Bearing Cone - Diff Flange Half	1	131041*	131041*	All Models
9	Diff Case - Flange Half	1	See Kits Page 27-33		All models
10	Diff Case - Plain Half	1	See Kits Page 27-33		Standard models
11	Diff Case - Plain Half - Diff Lock	1	See Kits Page 27-33		Diff Lock models
RING GEAR BOLT KIT		1	504069	504069	Includes qty 16 of 131473
12	Ring Gear Bolt	16	131473	131473	
WHEEL DIFF SIDE GEAR KIT			513868	513868	Includes items 13-15
13	Side Pinion	4	131040	131040	
14	Spider	1	131039	131039	
15	Side Gear - Differential	2	300GD101	300GD101	46 Involute
NO SPIN ASSEMBLY - 46 Inv		1	131882	-----	46 Inv Spline
16	Bearing - Pinion Pilot	Ratios 2.69 - 3.91	129947*	N/A	
		Ratios 2.53 - 4.78	-----	129947*	
		Ratios 5.25 - 7.83	-----	126187*	
17	Ring Gear & Drive Pinion Set		See Ring & Pinion Kits Page 59-60		
18	Bearing Cone - Inner Pinion	1	139968*	139968*	Replaces 131050 - Refer to bulletin HAXL-PNI-017
19	Bearing Cup - Inner Pinion	1	139969*	139969*	Replaces 131051 - Refer to bulletin HAXL-PNI-017
20	PINION BRG SPACER KIT	A/R	504042	504042	Individual pinion spacers listed on page 26
21	Bearing Cup - Outer Pinion	1	139969*	139969*	Replaces 131051 - Refer to bulletin HAXL-PNI-017
22	Bearing Cone - Outer Pinion	1	139970*	139970*	Replaces 131052 - Refer to bulletin HAXL-PNI-017
INPUT SEAL & LOCKNUT KIT		1	131008K	131008K	Includes items 23-25
23	Input Seal	1	10032666*	10032666*	Also sold in 131008K kit also -replaces seal# 131008 & 134323 - Refer to bulletin HAXL-PNI-096R2
INPUT NUT KIT		1	131095K	131095K	Includes item 24-25
24	Locknut - Pinion	1	131095*	131095*	Socket size 69mm
25	Loctite	1	129293*	129293*	Not illustrated
26	RTV Sealant	1	107276S*	107276S*	Not illustrated

\* Note 1: Refer to Dana bulletin HAXL-PNI-017 for complete bearing change details

\* Note 2: Refer to Dana bulletin ABIB-0608 for complete Input Cover change details

## Diff Carrier & Bearing Cap Kits

Note 3: Some 170 Series models utilize the Pilot Web, while others are the overhung design (no Pilot Web). All service replacement carrier/cap kits include the Pilot Web design.

Item	Model	Kit Part No.	Notes
1a	R170, S170	<a href="#">513999 OBS</a>	Includes part 131019-OBS and items 2-4
1b	R170D, S170D	<a href="#">514000 OBS</a>	Includes part 131021-OBS and items 2-4
1c	R190, S190, R190D, S190D	<a href="#">514002</a>	Includes part 131025 and items 2-4

## Carrier/Cap Identification Information

Part No.	Notes
131019-OBS	Built w/Pilot Web    order 513999-OBS
131021-OBS	Built w/Pilot Web    order 514000-OBS
131025-NSS	Built w/Pilot Web    order 514002
131229-OBS	No Pilot Web          order 513999-OBS
131231-OBS	No Pilot Web          order 514000-OBS

Note A: Dana made changes to the carriers designed AFTER 6.10.13. Only models made before this date are shown in this IPL. Check stock on individual Diff Carrier & Bearing Cap Kits. When stock depleted, these are discontinued. Old and New "Carrier & Bearing Caps Kits" are not interchangeable.

## 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 AXSM0057. Spicer Pinion Bearing Spacer kits are available as shown below.

### PINION BRG SPACER KIT: 504041

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

### PINION BRG SPACER KIT: 504042

Models: ALL R170, S170, R190, S190

Dana P/N	Spacer Thickness (mm)	Dana P/N	Spacer Thickness (mm)	Dana P/N	Spacer Thickness (mm)	Dana P/N	Spacer Thickness (mm)
131376	21.760	131392 OBS	22.120	131053	7.750	131061	7.945
*131408	22.360	132838	21.775	131074	8.140	132832	8.335
131377	21.790	*131393	22.135	132825	7.765	131062	7.960
*131409	22.375	132839	21.805	131075	8.155	131085	8.350
*131378	21.820	131394	22.150	131054	7.780	131063	7.975
131410	22.390	132840	21.835	131076	8.170	132833	8.365
131379	21.850	131395	22.165	132826	7.795	131064	7.990
131411	22.405	132841	21.865	*131077	8.185	*132834	8.395
131380	21.880	131396	22.180	131055	7.810	*131065	8.005
131412	22.420	132842	21.895	131078	8.200	131086	8.380
131381	21.910	131397	22.195	132827	7.825	131066	8.020
*131413	22.435	132843	21.925	*131079	8.215	131087	8.410
131382	21.940	131398 OBS	22.210	131056	7.840	131067	8.035
131414	22.450	*132844	21.955	131080	8.230	132835	8.425
131383	21.970	*131399	22.225	132828	7.855	131068	8.050
131415	22.465	132845	21.985	131081	8.245	131088	8.440
131384	22.000	*131400	22.240	131057	7.870	*131069	8.065
131416	22.495	132846	22.470	131082	8.260	132836 OBS	8.455
131385	22.015	131401	22.255	*132829	7.885	*131070	8.080
131417	22.525	132847	22.510	*132830	8.275	132837	8.485
131386	22.030	131402	22.270	131058	7.900	131071	8.095
131418	22.555	132848	22.540	131083	8.290	131089	8.470
131387	22.045	131403	22.285	131059	7.915	131072	8.110
131419	22.585	132849	22.570	*132831	8.305	131090	8.500
131388	22.060	131404	22.300	*131060	7.930	131073	8.125
131420	22.615	132850	22.600	131084	8.320		
131389	22.075	131405	22.315				
*131421	22.645	132851	22.630				
131390	22.090	131406	22.330				
131422 OBS	22.675	132852	22.660				
*131391	22.105	131407	22.345				
131423	22.705	132853	22.680				

\*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

Dana introduced new style wheel differential cases beginning in mid-Dec 2008. The new design differential cases have 4 extra "lube passage" holes that can be used in place of the original standard differential cases. Kits for these have not been released yet. When doing ratio changes or replacing original diff cases in the field, check the part numbers you are replacing to ensure you are installing or ordering the correct parts. See the chart below of what is "currently" being used for each model and ratio. A complete kit chart is shown on page 29.

Dana Model	Ratio	Flange Half Case	Plain Half Case	SERVICE KIT
D170 S170E Single Speed	3.07	131027 OBS	131479 OBS	513986 OBS
	3.21			
	3.42	131029 OBS	131478 OBS	513988 OBS
	3.58			
	3.73			
	3.91			
	4.10			
	4.30			
	4.56			
	4.78			
	5.25			
	5.38			
	5.57			
	6.14			
	6.83			
7.17				
S170S R170S Single Speed	3.07	131027 OBS	131479 OBS	513986 OBS
	3.21		131478 OBS	513987 OBS
	3.42	131029 OBS	131478 OBS	513988 OBS
	3.58			
	3.73			
	3.91			
	4.10			
	4.30			
	4.56			
	4.78			
	5.25			
	5.38			
	5.57			
	6.14			
	6.83			
7.17				

## Wheel Differential Case

Dana Model	Ratio	Flange Half Case	Plain Half Case	SERVICE KIT
D190 Single Speed	3.42	131027 OBS	131476 OBS	513990 OBS
	3.58	131029 OBS	131476 OBS	513990 OBS
	3.73			
	3.91	131029 OBS	131752 OBS	504123 OBS
	4.10			
	4.30			
	4.56			
	4.78			
	5.25			
	5.38			
	5.57			
	6.14			
	6.83			
	7.17			
R190 S190 Single Speed	2.53	131027 OBS	131477 OBS	513989 OBS
	2.69			
	2.87			
	2.93			
	3.07			
	3.21			
	3.42	131027 OBS	131760 OBS	504125 OBS
	3.58			
	3.73	131029 OBS	131760 OBS	504124 OBS
	3.91			
	4.10	131029 OBS	131759 OBS	504123 OBS
	4.30			
	4.56			
	4.78			
	5.25			
	5.38			
	5.57			
	6.14			
6.83				
7.17				
7.83	131759 OBS	504123 OBS		

\*The 131759-OBS diff case with Lube Holes is used to service the production part 131752-OBS.

## Wheel Differential Case

Dana Model	Ratio	Flange Half Case	Plain Half Case	SERVICE KIT		
D590 Double Reduction	4.75	131027 OBS	131476 OBS	513990 OBS		
	4.99	131029 OBS		131476 OBS	513991 OBS	
	5.19				131029 OBS	504123 OBS
	5.44	131752 OBS	504123 OBS			
	5.70					
	5.98					
	6.34					
	6.65					
	7.30			131476 OBS		513991 OBS
	7.48			131752 OBS		504123 OBS
	7.75					
	8.55					
	9.51					
	9.97	131760 OBS	504125 OBS			
10.90						
4.75	131029 OBS			131759 OBS	504123 OBS	
4.99						
5.19						
5.44						
5.70		131760 OBS	504125 OBS			
5.98						
6.34						
6.65						
7.30		131759 OBS	504123 OBS			
7.48						
7.75						
8.55						
9.51		131760 OBS	504125 OBS			
9.97						
10.90						

\*The 131759-OBS diff case with Lube Holes is used to service the production part 131752-OBS.

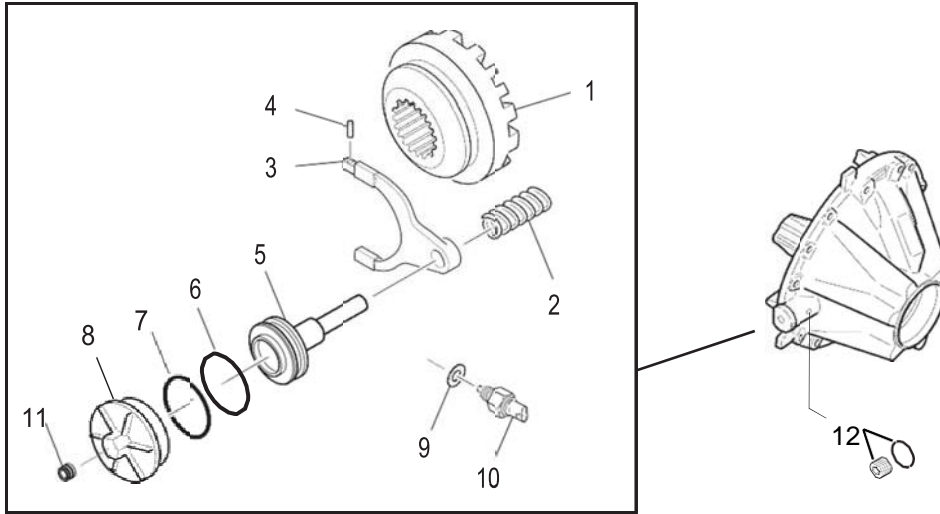
### Wheel Differential Case Kit Contents:

Kit Part-NO	Flange Half (A)	Plain Half (B)	(B) Case Design Notes	Ring Gear Bolts (C)
513986 OBS	131027 OBS	131479 OBS		131473 (Qty-16) Note - 504069 Bolt Kit Contains qty 16 of 131473 bolts
513987 OBS	131027 OBS	131478 OBS		
513988 OBS	131029 OBS	131478 OBS		
513989 OBS	131027 OBS	131477 OBS	DL	
513990 OBS	131027 OBS	131476 OBS	DL	
513991 OBS	131029 OBS	131476 OBS	DL	
serviced by using 131759* OBS		131752* OBS	DL	
504123 OBS	131029 OBS	131759 OBS	DL / LHD	
504124 OBS	131029 OBS	131760 OBS	DL / LHD	
504125 OBS	131027 OBS	131760 OBS	DL / LHD	

DL = Diff Lock Splined Diff Case - LHD = Lube Hole Design Diff Case

\*The 131759-OBS diff case with Lube Holes is used to service the production part 131752-OBS.

## Differential Lock Shift Parts - All Models Made BEFORE June 10, 2013



WHEEL DIFFERENTIAL LOCK ASSEMBLY

Item	Description	Qty	All Diff-Lock Models	Notes
Diff Lock Parts Conversion Kit - 190 Series only				See Note 1
Kit w/ 131099 Shift Fork (refer to chart next page)			512946	Includes items 1-10 and 512944 (131099-NSS)
Kit w/ 131101 Shift Fork (refer to chart next page)			512947	Includes items 1-10 and 512945 (131101-NSS)
Diff Lock Repair Kit			512895	Includes items 2, 5-8
1	Sliding Clutch	1	131104	
2	Spring	1	131102	
3	Shift Fork & Pin Kit	1	See chart next page	
			512944	Shift Fork 131099 NSS; includes item 4
			512945	Shift Fork 131101 NSS; includes item 4
4	Pin	1	210020	
5	Piston & Rod Assembly	1	134482	Replaces 131237
6	O-Ring - Piston	1	210180	
7	O-Ring - Cap Cover	1	131665	Replaces 220HH102, 131496
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 Mdl's
12	O-Ring & Plug Assy	1	131487	Use for Non Diff Lock Mdl's

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



## Differential Lock Shift Fork & Diff Case Chart - All Models

Differential Lock Shift Forks vary by ratio and model. Dana made an assembly configuration change beginning in mid-Dec 2008. It involved optimizing the best assembly combination of Splined Wheel Diff Cases and Shift Forks. When doing ratio changes, check the Shift Fork part number and diff cases part numbers you are replacing to help ensure you are installing or ordering the correct mated part(s). See the chart of "Matching Components" by "Model" below.

Dana Model	Ratio	Diff Lock Shift Fork ID#	Shift Fork Kit	Flange Half Case	Plain Half Splined Case	SERVICE KIT	
D170D D170DP Single Speed	3.07	131101 NSS	512945	131027 OBS	131477 OBS	513989 OBS	
	3.21				131476 OBS	513990 OBS	
	3.42			131029 OBS	131476 OBS	513991 OBS	
	3.58				131752 OBS	504123 OBS	
	3.73			131476 OBS			513991 OBS
	3.91				131476 OBS	513991 OBS	
	4.10			131752 OBS			504123 OBS
	4.30				131476 OBS	513991 OBS	
	4.56			131752 OBS			504123 OBS
	4.78				131476 OBS	513991 OBS	
	5.25			131752 OBS			504123 OBS
	5.38				131476 OBS	513991 OBS	
	5.57			131752 OBS			504123 OBS
	6.14				131029 OBS	512945	
6.83	131752 OBS	504123 OBS					
7.17			131027 OBS	512945			
R170D S170D Single Speed	3.07	131101 NSS			512945	131027 OBS	131476 OBS
	3.21		131029 OBS	513991 OBS			
	3.42					131027 OBS	
	3.58		131029 OBS	504123 OBS			
	3.73					131752 OBS	504123 OBS
	3.91		131029 OBS	504123 OBS			
	4.10					131752 OBS	504123 OBS
	4.30		131752 OBS	504123 OBS			
	4.56					131752 OBS	504123 OBS
	4.78		131752 OBS	504123 OBS			
	5.25					131752 OBS	504123 OBS
	5.38		131752 OBS	504123 OBS			
	5.57					131099 NSS	512944
	6.14		131101 NSS	512945		131752 OBS	504123 OBS
6.83							
7.17							

\*The 131759-OBS diff case with Lube Holes is used to service the production part 131752-OBS.

## Wheel Differential Case and Shift Fork Chart

Dana Model	Ratio	Diff Lock Shift Fork ID#	Shift Fork Kit	Flange Half Case	Plain Half Splined Case	SERVICE KIT		
D190D Single Speed	3.42	131101 NSS	512945	131027 OBS	131476 OBS	513990 OBS		
	3.58			131029 OBS	131476 OBS	513991 OBS		
	3.73				131752 OBS	504123 OBS		
	3.91							
	4.10							
	4.30							
	4.56							
	4.78							
	5.25							
	5.38							
	5.57							
	6.14							
	6.83							
7.17								
R190D S190D Single Speed	2.53	131101 NSS	512945	131027 OBS	131477 OBS	513989 OBS		
	2.69							
	2.87	131099 NSS	512944					
	2.93							
	3.07	131101 NSS	512945				131760 OBS	504125 OBS
	3.21							
	3.31							
	3.42							
	3.58							
	3.73							
	3.91							
	4.10			131099 NSS	512944	131760 OBS	504124 OBS	
	4.30	131101 NSS	512945					
	4.56							
	4.78							
	5.25							
	5.38							
	5.57							
	6.14			131099 NSS	512944			
	6.83			131101 NSS	512945	131759 OBS	504123 OBS	
7.17								
7.83								

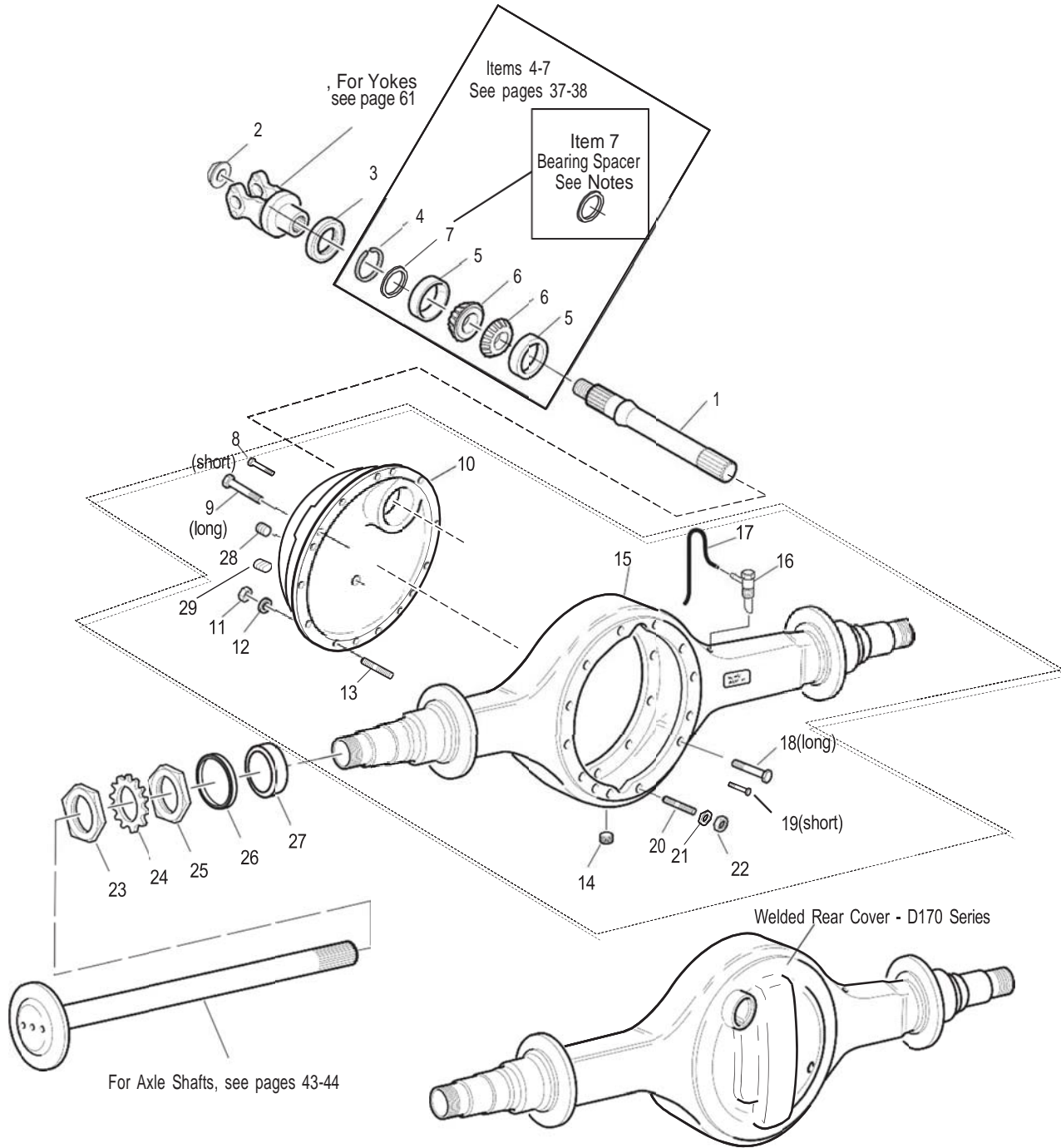
\*The 131759-OBS diff case with Lube Holes is used to service the production part 131752- OBS.

## Wheel Differential Case and Shift Fork Chart

Dana Model	Ratio	Diff Lock Shift Fork ID#	Shift Fork Kit	Flange Half Case	Plain Half Splined Case	SERVICE KIT				
D590D Double Reduction	4.75	131101 NSS	512945	131027 OBS	131476 OBS	513990 OBS				
	4.99			131029 OBS		513991 OBS				
	5.19				131752 OBS	504123 OBS				
	5.44					131476 OBS	513991 OBS			
	5.70						131752 OBS	504123 OBS		
	5.98							131476 OBS	513991 OBS	
	6.34								131752 OBS	504123 OBS
	6.65									513991 OBS
	7.30				131752 OBS	504123 OBS				
	7.48					504123 OBS				
	7.75				504123 OBS					
	8.55				504123 OBS					
	9.51				504123 OBS					
	9.97				504123 OBS					
10.90	504123 OBS									
R590D S590D Double Reduction	4.75	131101 NSS	512945	131029 OBS	131760 OBS	504124 OBS				
	4.99				131752 OBS	504123 OBS				
	5.19					131759 OBS	504123 OBS			
	5.44						131752 OBS	504123 OBS		
	5.70					131759 OBS		504123 OBS		
	5.98						131752 OBS	504123 OBS		
	6.34					131759 OBS		504123 OBS		
	6.65						131752 OBS	504123 OBS		
	7.30					131759 OBS		504123 OBS		
	7.48						131752 OBS	504123 OBS		
	7.75					131759 OBS		504123 OBS		
	8.55						131752 OBS	504123 OBS		
	9.51					131759 OBS		504123 OBS		
	9.97						131752 OBS	504123 OBS		
10.90	131759 OBS	504123 OBS								
S190DE High Entry	3.42	131101 NSS	512945	131029 OBS	131760 OBS	504124 OBS				
	3.58				131759 OBS	504123 OBS				
	3.73					131760 OBS	504124 OBS			
	3.91						131759 OBS	504123 OBS		
	4.10					131760 OBS		504124 OBS		
	4.30						131759 OBS	504123 OBS		
	4.56					131760 OBS		504124 OBS		
	4.78						131759 OBS	504123 OBS		
	5.25					131760 OBS		504124 OBS		
	5.38						131759 OBS	504123 OBS		
	5.57					131760 OBS		504124 OBS		
	6.14						131759 OBS	504123 OBS		
	6.83					131760 OBS		504124 OBS		
	7.17						131759 OBS	504123 OBS		

\*The 131759-OBS diff case with Lube Holes is used to service the production part 131752-OBS.

Housing and Output Shaft Assembly - Explode



## Housing and Output Shaft Assembly - Parts List

Item	Description	Qty	All Models	Notes
<b>OUTPUT SHAFT KIT</b>			<b>512894</b>	<b>Includes items 1-2 - See Note 2</b>
1	Output Shaft - 131536-NSS	1	Order Kit	Replaces 131468 - See Note 2
2	Output Shaft Nut	1	128049	
3	Output Seal	1	210737*	
4	Snap Ring	1	078937	
5	Bearing Cup	2	NOTE-3	see chart pages 37-38
6	Bearing Cone	2	NOTE-3	see chart pages 37-38
7	Bearing Spacer	1	139979	See Note 3; see chart pages 37-38
8	Rear Cover Capscrew - Short	4	131105	55 mm - D190 only
9	Rear Cover Capscrew - Long	8	131375	70 mm - D190 only
10a	D190 Housing Cover Kit	1	504061	Cover # 302576-n/a - 12 hole (see chart pg-38)
10b	S190 Housing Cover Kit	1	514322	Cover # 302704-NSS - 14 hole (see chart pg-38)
10c	S590 Housing Cover Kit	1	504025	Cover # 302622-NSS - 12 hole (see chart pg-38)
11	Rear Cover Nut	2	127567	D190 only
12	Washer - Rear Cover	2	130877	D190 only
13	Stud - Double Ended	2	132927	D190 only - 80mm
14	Drain Plug	1	054254	3/4" magnetic
15	Axle Housing - Forward	1	NOTE-3	See listing pg. 39-42 - Refer to assy bill of material
15	Axle Housing - Rear-Rear	1		See listing pg. 39-42 - Refer to assy bill of material
<b>U-TUBE BREATHER KIT</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. 36) - 85mm
19	Carrier Capscrew - Short	A/R	131105	Carrier to housing (see kit chart pg. 36) - 55 mm
20	Stud - double ended	2	132927	Carrier to housing - 80mm
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	Fill Plug	1	129492	3/4" magnetic - All Models
29	Temperature Sensor Plug	1	090898	1/2" magnetic - All Models
30	Loctite	1	129293	Part not illustrated
31	RTV Sealant	1	107276S	Part not illustrated

Note 1: Refer to Dana bulletin HAXL-PNI-017 for complete bearing change details

Note 2: The 131468 output shaft included a 131355 output shaft washer. This washer is N/A and replaced by none. Shaft p/n 131536 does not use a washer, do not use 131355 with shaft p/n 131536.

Note 3: A permanent change to the output shaft bearing configuration began late Oct 2011. A 139979 housing spacer was used on some interim builds from June 2010 thru October 2011. See reference charts on page 37-38 for details. Dana bulletin HAXL-TEC-11.1 also contains complete details.

## Summary of Kits & Assemblies

Description	Kit Part #	Notes
Output Shaft Bearing Kit-Original Builds	513877	Contents shown on next page (Note 1)
Output Shaft Bearing Kit-Interim Builds	504054	Contents shown on next page (Note 1)
Output Shaft Bearing Kit-New Builds	504060	Contents shown on next page (Note 1)
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

Note 1: Refer to Supplemental Information on Output Shaft Parts Change and Bearing Cone & Cup Change on pages 36-38 and 46-48

## 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 - dbl ended
2	127567	Nut
2	130877	Washer
1	129293	Loctite .8ml tube
1	107276S	RTV tube

### 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 - dbl ended
2	127567	Nut
2	130877	Washer
1	129293	Loctite .8ml tube
1	107276S	RTV tube

### 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 .8ml tube

## D170 / D190 Output Shaft Bearing Race Parts Change Information

Dana made significant design change to the output shaft bearing components Oct 24, 2011. Details are shown below and in bulletin HAXL-TEC-11.1 Exact implementation dates for product changes can vary by OE. Additionally, replacement of original product in the field by customers from previous repairs could be possible. Replacement parts should always be confirmed by identifying the original removed parts before parts are ordered or installed.

- WARNING: DO NOT MIX Parts! Mixing of parts could cause pre-mature failure to the output shaft bearings and associated parts. Check compatibility of parts before final assembly!

### Chart-N

New Axle Housings w/ New Brg Cups and Snap Ring Groove Location Change:

Use kit 504060 when replacing the bearing parts from new build configurations or when ordering any of the new design axle housings with the relocated snap ring groove. New design housings are made AFTER October 24th, 2011. Refer to the D170 Axle Housing Replacement Chart on pages 39-42.

#### Output Shaft Bearing Kit: 504060

Item	Qty Per Description	Axle	Part-No.	Notes
1	Snap Ring .109"	1	134322	New Design Dim: .109" x 4.22"
2/3	Bearing Cup	2	139978	Was P/N 139980 Cup ID# NP910345
4	Bearing Cone	2	139977	Was P/N 131211 Cone ID# NP197868

### Chart-O

Original Design Axle Housings w/ Original Brg Cup and Original Snap Ring Groove Location:

Use kit 513877 when replacing the bearing parts from any original design axle housing or bolt on cover. Original production housings and covers made from Jan 2003 thru June 2010.

#### Output Shaft Bearing Kit: 513877

Item	Qty Per Description	Axle	Part-No.	Notes
1	Snap Ring	1	078937	Original Design Dim: .093" x 4.14"
2/3	Bearing Cup	2	131212	Cup ID# NP802507
4	Bearing Cone	2	131211	Cone ID# NP197868

### Chart-I

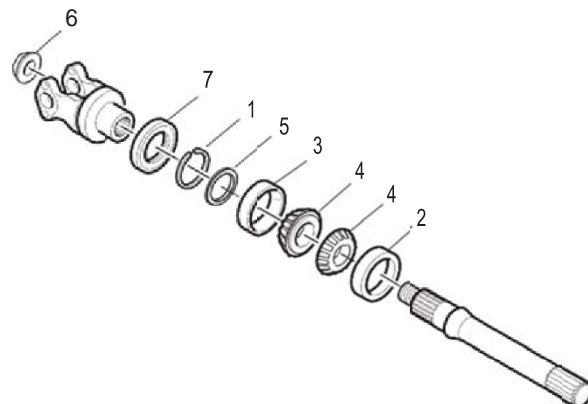
Interim Build Configuration – Original Axle Housing w/ Repositioned Snap Ring Groove and use of an Axle Housing Spacer:

The 504054 kit shown below was released and used when replacing the bearing parts from axles built with parts used on an interim basis. From June 2010 thru Oct 24th, 2011, axle assemblies used a bearing spacer in addition to the bearing cup combination of 139980/131212. The snap ring groove location change was introduced but required the use of the spacer too. Check individual component identification or confirm vehicle build or serial number information if available. This kit contains a replacement output nut and oil seal.

NOTE: The new 504060 kit can be used as an alternate replacement for the 504054 parts kit, but the housing spacer 139979, inner bearing cup 131212 and original snap ring 078937 MUST NOT be used. Use only the parts supplied in the 504060 kit.

#### Output Shaft Bearing Kit: 504054

Item	Qty Per Description	Axle	Part-No.	Notes
1	Snap Ring	1	078937	Dim: .093" x 4.14"
2	Bearing Cup	1	131212	Inner Cup ID# NP802507
3	Bearing Cup	1	139980	Outer Cup ID# NP910345
4	Bearing Cone	2	131211	Cone ID# NP197868
5	Housing Spacer	1	139979	Interim Housing Spacer (.172")
6	Output Nut	1	128049	Output Nut
7	Oil Seal	1	210737	Thru-Shaft Seal



## D190 AXLE HOUSING COVER CHANGE

The D190 models have a bolt on axle housing cover which is now replaced by new cover part number 134324 which has the new relocated snap ring groove. The original cover 302576 and kit part number 513581 are n/a and superseded to kit 504061. The 504061 kit contains the items listed in the chart below

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

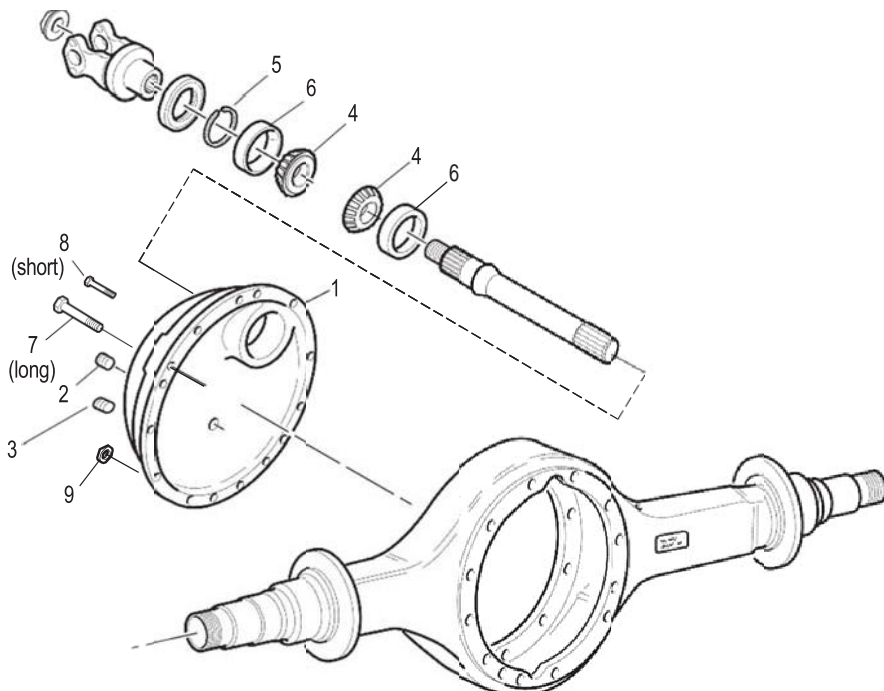
Item	Description	Qty Per Axle	Part-No.	Notes
1	COVER - AXLE HOUSING	1	134324	Cover with relocated snap ring groove D190 mdl's
2	PLUG - COVER	1	090898	1/2"
3	PLUG - LUBE FILL	1	129492	3/4" non magnetic
4	BEARING CONE	2	139977	Was p/n 131211
5	SNAP RING .109"	1	134322	Use with new design cover 134324
6	BEARING CUP	2	139978	Was p/n 139980

### S190 - AXLE HSG COVER KIT: 514322

Item	Description	Qty Per Axle	Part-No.	Notes
1	COVER - AXLE HOUSING	1	302704	(Cover not illustrated) S190 mdl's only
2	PLUG - COVER	1	090898	1/2"
3	PLUG - LUBE FILL	1	129492	3/4" non magnetic
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 mdl's 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
10003697	D170	11		
10003698	R170	11		
10005132	S23-170	11		
10033087	D40-170	11		
10033088	R170	11		
10033089	R170	11		
10037122	R170	11		
10044255	D170	11		
10044984	S23-170	11		
10076685	R170	11		
10092285	R170	11		
10096238	R170	11		
10121954	S23-170	11		
10178030	D170/D172	11		
10183361	D170	11		
322752	R170	11	322703	
323112	R170	11	322703	
323116	R170	11	322703	322959
323120	R170	11	322703	322963
323182	S23-170	11	322703	
323357	R170	11	322703	
323409	R170	11	322703	
323412	R170	11	322703	
323429	R170	11	322703	502059
323460	R170	11	322703	
323498	R170	11	322703	
323518	R170	11	322703	
323571	R170	11		
323572	R170	11		
323573	R170	11		
323575	R170	11		
323581	R170	11		
323583	R170	11		
323584	R170	11		
323585	R170	11		
323586	R170	11		
323688	R170	11		
323760	R170	11		
323978	R170	11	322703	322757
323982	R170	11		
323989	R170	11		
323993	R170	11	322703	322757
324014	R170	11		
324015	R170	11		
324132	R170	11		
324133	R170	11		
324225	R170	11		
324226	S23-170	11		

Production Part Number	Model	Wall Thickness (mm)	Service Number - Bare	Service Number with Brackets
324433	D40-170	11		
324434	D170	11		
324462	R170	11		
324506	D40-170	11		
324507	R170	11		
324546	D170	11		
324586	S23-170	11		
324600	S170	11		
324604	R170	11		
324432	D40-170	11		
10004400	R170	12.5		
10009672	S23-190	12.5		
10019736	R170	12.5		
10029892	S190	12.5		
10029893	S190	12.5		
10033090	D46-170	12.5		
10033091	R170	12.5		
10033092	R170	12.5		
10033409	D46-170	12.5		
10033452	D46-170	12.5		
10033460	D46-170	12.5		
10033478	R170	12.5		
10033487	R170	12.5		
10033628	R170	12.5		
10033636	R170	12.5		
10033637	R170	12.5		
10033638	R170	12.5		
10033639	S23-170	12.5		
10033640	R170	12.5		
10035215	R170	12.5		
10042508	R46-170	12.5		
10043564	S190	12.5		
10044256	D46-170	12.5		
10044985	R170	12.5		
10071560	D46-170	12.5		
10076682	R170	12.5		
10076683	R170	12.5		
10144893	D46-170	12.5		
10144894	D46-170	12.5		
10144895	D46-170	12.5		
10144896	D46-170	12.5		
10144902	D46-170	12.5		
10144903	D46-170	12.5		
10161234	S23-190	12.5		
10163824	D46-170	12.5		
10163826	D46-170	12.5		
10178037	D170/D172	12.5		
10200686	S23-170	12.5		

**AXLE HOUSING REPLACEMENT CHART**

Production Part Number	Model	Wall Thickness (mm)	Service Number - Bare	Service Number - with Brackets
10263214	S170	12.5		
321982	R170	12.5	322703	321983
322648	R170	12.5	322703	322649
322698	R46-170	12.5	322703	
322718	R170	12.5	322703	
322744	R170	12.5	322703	
322748	R170	12.5	322703	
322884	R170	12.5	322703	
322942	R170	12.5	322703	
322954	R170	12.5	322703	
323048	R170	12.5	322703	323049
323054	R170	12.5	322703	
323056	R170	12.5	323057	
323062	R170	12.5	322703	
323184	S23-190	12.5	322703	
323339	R170	12.5		
323348	R170	12.5	322703	
323359	R170	12.5	322703	
323377	R170	12.5		
323379	R170	12.5		
323391	R170	12.5		
323410	R170	12.5	322703	322649
323440	R170	12.5		502017
323458	R170	12.5		
323466	R170	12.5		
323467	R170	12.5		
323471	R170	12.5		502059
323531	R170	12.5		
323577	R170	12.5		
323579	R170	12.5		
323664	R170	12.5	322703	
323790	R170	12.5		
323887	D170	12.5		323887
323919	R170	12.5		
323920	R170	12.5		
323974	R170	12.5	322703	
324016	R170	12.5		
324017	R170	12.5		
324134	R170	12.5		
324135	R170	12.5		
324216	R170	12.5		502017
324421	R170	12.5		324421
324435	D170	12.5		324435
324473	D170	12.5		
324474	R170	12.5		
324490	R170	12.5		
324554	R170	12.5		
324603	R170	12.5		
324634	D170	12.5		
324635	R170	12.5		
10000594	D170	12.5		
10105321	R190	16		
10105328	R190	16		
10105329	R190	16		
10105330	S30-190	16		
10105332	R190	16		

Production Part Number	Model	Wall Thickness (mm)	Service Number - Bare	Service Number - with Brackets
324579	R190	16		
10105317	R190	16		
10003706	R50-170	16		
10004006	R170	16		
10004961	D170	16		
10005133	S26-190	16		
10005134	S26-190	16		
10012794	R170	16		
10014915	D170	16		
10014916	R170	16		
10023313	S26-190	16		324410
10023569	R170	16		
10025165	S26-190	16		
10033093	D46-170	16		
10033094	R170	16		
10033095	R170	16		
10033097	R190	16		
10033098	R190	16		
10047596	D190	16		
10047599	R190	16		
10047602	D190	16		
10047603	R190	16		
10052672	R50-170	16		
10063227	R170	16		
10076684	R170	16		
10076686	R170	16		
10083917	D170	16		
10083918	R170	16		
10098424	R190	16		
10098425	R190	16		
10105283	D190	16		
10105287	R190	16		
10105288	D190	16		
10105290	D190	16		
10105292	R190	16		
10105293	D190	16		
10105294	D190	16		
10105299	D52-190	16		
10105300	D52-190	16		
10105302	D190	16		
10105308	R52-190	16		
10105311	R52-190	16		
10105315	R190	16		
10105316	R190	16		
10105336	R190	16		
10105337	R190	16		
10105338	R190	16		
10105339	R190	16		
10105340	R190	16		
10105341	R190	16		
10105342	R190	16		
10115829	R170	16		
10126491	D60-190	16		
10130618	S26-190	16		
10130993	S30-590	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		322636	DR0970	116		
322976	R170	16	322969	322977	322637	DR170	116	502011	
322996	R170	16	322969	322997	322634	DR170	116		
323030	R170	16	322897	323031	322666	DR0970	116		
323052	R170	16	322969		322657	RR170	116		
323170	R52-190	16	322277	323371	322678	DR170	116		
323172	D52-190	16			322802	S237070	116		
323174	R52-190	16	323175		322805	SR170	116	502011	
323176	D190	16		323177	322875	RR170	116	502011	
323178	R190	16		323179	1000004	DR170	125	502011	
323202	S30-190	16	323067		10004001	RR170	125		
323240	R170	16	322969		10006729	S237090	125		
323290	D60-190	16			10019786	RR170	125		
323292	R60-190	16			10019857	SR190	125		
323320	R170	16	322897		10019893	SR190	125		
323345	R170	16	322969		10035007	DR0970	125		
323352	R170	16	322969		10035091	R530-190	125		
323363	R190	16			10035092	R530-190	125		
323381	R170	16			10035466	D46-170	125		
323383	R170	16			10035464	D30-190	125		
323385	R170	16			10035465	D46-170	125		
323387	R170	16			10035466	R530-190	125		
323392	R170	16			10035487	R170	125		
323411	R170	16	322969	502054	10035835	R46-170	125		
323431	R170	16			10035837	R46-170	125		
323450	D190	16			10182840	D190	125		
323451	R190	16	322277		10182841	R190	125		
323489	D190	16		502001	10202553	R190	125		
323490	R190	16	322277	502002	10202554	R170	125		
323500	R170	16			10202711	D190	125		
323506	R170	16			10202715	R170	125		
323516	D190	16	502056		10209882	D190	125		
323520	R170	16			10209883	D190	16		
323525	R190	16			10043564	S190	125		
323533	R170	16			10214370	D190	16		
323537	D190	16			10211256	D46-170	125		
323538	R190	16	502011		10225784	R190	16		
323543	D190	16			10241985	R170	125		
323562	R170	16		502021	10253910	D190	16		
323564	D190	16			10271560	D46-170	125		
323565	R170	16			10259876	D190	16		
323608	R190	16	323067		10076682	R170	125		
323609	R170	16			10263763	D46-170H	16		
323610	R170	16			10076683	R170	125		
323615	R170	16			10322592	D190	16		
323617	D190	16			40144893	D46-170	125		
323618	R190	16	502011		10323652	D52-190	16		
					40144894	D46-170	125		
					10323653	R190	16		
					40144895	D46-170	125		
					10323654	R190	16		
					40144896	D46-170	125		
					10342972	R190	16		
					10341802	D46-170	125		
					10344382	D60-190	16	502056	
					10444993	D46-170	125		
					322398	R60-190	16	323067	
					10161234	S23-190	125		
					322646	R190	16	323067	
					10163824	D46-170	125		
					322650	R170	16	322969	322905
					10163826	D46-170	125	322969	
					322784	R170	16	322969	
					10178037	D170/D172	125		
					322800	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 D170 and D190 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

### 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 (See Note 2)

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>								
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
131721	1	46	2.25	48.425	11.50	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 1: 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.

Note 2: Original axle shaft part numbers 132813 & 132814 were discontinued in 2007 and replaced by new axle shafts. For detailed information on that change refer to dana bulletin ABIB-0703.

## Bearing Kits - Models made BEFORE June 10, 2013

### Forward Carrier Models

Part Description	Qty	514238	514011	504074	514012	504072	504073
		D170S	D170D	S170E	D190S D190D	D190 D590D	S590, R590 S590D, R590D S190E, S190DE
Brg Cup - Threaded - Plain Half	1	131044	131048	131044	131048	131048	131048
Bearing Cone - Diff Plain Half	1	131041	131042	131041	131042	131042	131042
Brg Cup - Threaded - Flg Half	1	131044	131044	131044	131044	131044	131044
Brg Cone - Diff Flg Half	1	131041	131041	131041	131041	131041	131041
Bearing - Pinion Pilot	1	-----	-----	-----	129947	129947	129947
Brg Cone - Inner Pinion	1	139968	139968	139968	139968	139968	139968
Brg Cup - Inner Pinion	1	139969	139969	139969	139969	139969	139969
Brg Cup - Outer Pinion	1	139972	139972	139972	139972	139972	139972
Brg Cone - Outer Pinion	1	139971	139971	139971	139971	139971	139971
Brg Cup - O/P Side Gear	1	139976	139976	139976	139976	139976	139976
Brg Cone - O/P Side Gear	1	139975	139975	139975	139975	139975	139975
Brg Cone - Input Shaft	1	139973	139973	139973	139973	139973	139973
Brg Cup - Input Adjuster	1	139974	139974	139974	139974	139974	139974
Input Shaft Washer	1	132440	132440	-----	132440	132440	-----
V-Ring	1	131333	131333	-----	131333	131333	-----
Oil Seal - Output	1	210737	210737	-----	210737	-----	-----
Oil Seal - Input Location	1	10032666	10032666	10032666	10032666	10032666	10032666
Nut - Input Shaft	1	131095	131095	-----	131095	-----	-----
Loctite Tube	1	129293	129293	-----	129293	-----	-----
Gasket Compound - RTV	1	107276S	107276S	107276S	107276S	107276S	107276S

### Single & Rear-Rear Carrier Models

Part Description	Qty	514013	514014	514015	514240	514015	514016
		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 - Threaded - Plain Half	1	131044	131044	131048	131048	131048	131048
Brg Cone - Diff Plain Half	1	131041	131041	131042	131042	131042	131042
Brg Cup - Threaded - Flg Half	1	131044	131044	131044	131044	131044	131044
Brg Cone - Diff Flg Half	1	131041	131041	131041	131041	131041	131041
Bearing - Pinion Pilot	1	129947	-----	129947	-----	129947	126187
Brg Cone - Inner Pinion	1	139968	139968	139968	139968	139968	139968
Brg Cup - Inner Pinion	1	139969	139969	139969	139969	139969	139969
Brg Cup - Outer Pinion	1	139969	139969	139969	139969	139969	139969
Brg Cone - Outer Pinion	1	139970	139970	139970	139970	139970	139970
Loctite Tube	1	129293	129293	129293	129293	129293	129293
Nut - R-Pinion	1	131095	131095	131095	131095	131095	131095
Oil Seal - R-Pinion	1	10032666	10032666	10032666	10032666	10032666	10032666
Gasket Compound - RTV	1	107276S	107276S	107276S	107276S	107276S	107276S

Note 1: Important bearing changes began in February 2012, refer to Dana bulletin HAXL-PNI-017 for complete details. See [www.spicerparts.com/literature](http://www.spicerparts.com/literature)

## Carrier Bearing Cup and Cone Product Change

Beginning February 2012 Dana began implementing the use of new design bearing cups and cones in production carriers. Refer to Dana published bulletin# HAXL-PNI-017. The changes outlines in that bulletin are summarized below. "BEARING NOTE" references are shown thru out this parts catalogue and are done to help customers understand the impact of all parts involved and to minimize any potential mixing of bearing parts from different suppliers.

### Dana Bearing Guidelines:

- Bearings are manufactured and used in sets to maximize full life of the product
- NOT using SPECIFIED bearings in Dana carriers can create potential noise issues or lead to premature bearing failures and affect the warranty of product
- Mixing of bearing cups and cones can create potential noise issues or lead to premature bearing failures
- New and Old bearing cones and cups are manufactured by different suppliers
- Superseding OLD individual part numbers directly to the NEW individual part numbers could lead to mixing of parts that could lead to potential failures. DO NOT MIX CONES AND CUPS MANUFACTURED BY DIFFERENT SUPPLIERS
- Spicer® service kit contents will always contain mating cones and cups

### Individual Bearing Supersession List

Individual bearings cones and cups are sold separately thru service. Always use and install as matched sets.

When stock of individual original bearing parts are exhausted, be sure to use the new parts in SETS!

Original Part-No.	Description	Replaced By	Bearing Parts Matched by Location
131050-n/a	Bearing Cone	139968	Pinion Bearing - Inner
131051-n/a	Bearing Cup	139969	Pinion Bearing - Inner/Outer
131052-n/a	Bearing Cone	139970	Pinion Bearing - Outer
131202-n/a	Bearing Cone	139971	Pinion Bearing - Outer
131203-n/a	Bearing Cup	139972	Pinion Bearing - Outer
131205-n/a	Bearing Cone	139973	Input Shaft Cone
131206-n/a	Bearing Cup	139974	Input Shaft Cup
131208-n/a	Bearing Cone	139975	Output Side Gear Cone
131209-n/a	Bearing Cup	139976	Output Side Gear Cup
131211*	Bearing Cone	139977	Output Shaft Cone
139980*	Bearing Cup	139978	Output Shaft Cup

\*131211 and 139980 are matched sets and are being replaced by new matched bearing parts 139977 & 139978. The 131211 & 139980 will remain active otherwise.

### Bearing Kit Information

- For the service kits below - the bill of material changes will be done on a running basis beginning in May 2012.

Dana Part-No.	Description	Model	Ratios
514011	Bearing Kit	D170D	all ratios
514012	Bearing Kit	D190, D190D, D590, D590D	all ratios
514238	Bearing Kit	D170	all ratios
514013	Bearing Kit	R170, S170	2.69-3.91
514014	Bearing Kit	R170, S170	4.10-7.17
514015	Bearing Kit	R170D, S170D	2.53-3.91
514015	Bearing Kit	R190, R190D, S190, S190D	2.53-4.78
514016	Bearing Kit	R190, R190D, S190, S190D	5.25-7.83
514240	Bearing Kit	R170D, S170D	4.10-7.17



## Input Adjuster & Cup Assemblies

### INPUT ADJUSTER & CUP ASSY:

Kits 514356 and 504066 both have been superseded by new service kit part number 504188. Kits 514357 and 504067 have been superseded by new service kit part number 504189. Kits 504188 and 504189 contain the Input Adjuster & Cup Assy.

The new replacement kits will now contain the new Input Adjuster & Cup Assy's and the matching Input Bearing Cone.

Dana Part-No.	Description	Replacement Information
131205-n/a	Bearing Cone	Replaced by new 139973
131685, 134354-n/a	Input Adjuster & Cup Assy	Replaced by new 10049231
514356, 504066-n/a	Kit – Input Adjuster & Cover D190	Replaced by new 504188
514357, 504067-n/a	Kit – Input Adjuster & Cover D170	Replaced by new 504189

Part-No Desc	514356-n/a now Kit - D190 Piloted I/P Cover	Part-No.	Description	Qty
		131687	cover - diff carrier - NSS	1
		131692	stud	1
		131374	capscrew - hex	12
		131693	nut - hex	1
		131685 OBS	input adjuster & cup assy	1

Part-No Desc	514357-n/a now Kit - D170 Piloted I/P Cover	Part-No.	Description	Qty
		131686	cover - diff carrier - NSS	1
		131692	stud	1
		131374	capscrew - hex	10
		131693	nut - hex	1
		131685 OBS	input adjuster & cup assy	1

Part-No Desc	504066-n/a now Kit - Cover and Input Adjuster D190	Part-No.	Description	Qty
		131687	cover - diff carrier - NSS	1
		131692	stud	1
		131374	capscrew - hex	12
		131693	nut - hex	1
		134354 OBS	input adjuster & cup assy	1
		139973	brg cone	1

Part-No Desc	504067-n/a now Kit - Cover and Input Adjuster D170	Part-No.	Description	Qty
		131686	cover - diff carrier - NSS	1
		131692	stud	1
		131374	capscrew - hex	10
		131693	nut - hex	1
		134354 OBS	input adjuster & cup assy	1
		139973	brg cone	1

Part-No Desc	504188 Kit - Cover and Input Adjuster D190	Part-No.	Description	Qty
		131687	cover - diff carrier - NSS	1
		131692	stud	1
		131374	capscrew - hex	12
		131693	nut - hex	1
		10049231	input adjuster & cup assy	1
		139973	brg cone	1

Part-No Desc	504189 Kit - Cover and Input Adjuster D170	Part-No.	Description	Qty
		131686	cover - diff carrier - NSS	1
		131692	stud	1
		131374	capscrew - hex	10
		131693	nut - hex	1
		10049231	input adjuster & cup assy	1
		139973	brg cone	1

131685 and 134354 replaced by 10049231 in kit 504188 and 504189.

## Output Side Gear & Lube Pump Kit Changes

The 513876 and 504065 Lube Pump Parts Kit shown below were discontinued and replaced by the new 504364-1 kit, but this kit will not include a "bearing cone". The bearing cones are in bearing kits and or can be purchased as a separate item.

The bearing cone # 131208 and the mating cup # 131209 are being discontinued and are replaced by 139975 bearing cone and matching 139976 cup.

**IMPORTANT:** When a replacement output shaft side gear bearing cone and its matching cup are required make sure they are used in sets. Using a bearing kit is always recommended, but customers can purchase individually, as needed. Be sure to use matching parts.

Dana Part-No.	Description	Replacement Information
513876, 504065-n/a	Kit-Lube Pump Parts	Replaced by new 504364-1*
131208-n/a	Bearing Cone	Replaced by new 139975
131209-n/a	Bearing Cup	Replaced by new 139976

**Part-No**      **513876 Kit - Lube Pump Parts -n/a now**  
**Desc**        **504065 Kit - OP Gear and Lube Pump- n/a now**

**Part-No**      **504364-1**  
**Desc**        **Kit - Lube Pump Parts**

Part-No.	Description	Qty
131208-in	bearing cone	1
513876 only-n/a now		
131368	lube pump	1
131466 OBS	output side gear	1
131541	spring pin	1

Part-No.	Description	Qty
131368	lube pump	1
10005175	output side gear	1
131541	spring pin	1

\*The New 504364-1 kit does not come with output shaft side gear bearing cone. Purchase separately. 131466 replaced by 10005175.

## Output Shaft Bearings and Kits

Individual output shaft bearing cones and cups are being replaced in sets only, see below for details

Service kit bill of material changes will simply be changed on a running basis. See \*notes below.

Dana Part-No.	Description	Replacement Information
131211	Bearing Cone	Replaced by new 139977*
139980	Bearing Cup	Replaced by new 139978*
504054**	Kit – D Hsg Repair (Interim Design Only)	D170 models
504060*	Kit – Output Shaft Bearing (New Designs after 10.24.11)	D170, D190 models AFTER Nov 2011
504061*	Kit – Hsg Cover and Brg Parts	D190 models
513877**	Kit – Output Shaft Bearing (Original Design Only)	D170, D190 models BEFORE Nov 2011

\*Note: Matched bearing parts 131211 and 139980 are being replaced by new matched parts 139977 & 139978 and must be used in sets.

\*\*Note: Kits for Original & Interim design models - the individual 131211 and 139980 remain available.

Note: Important Axle housing and output shaft bearing part changes were made October 24, 2011. Refer to Dana bulletin HAXL-TEC-11.1 for details regarding those parts and kits.

## Carrier Part Number Change

Beginning June 10, 2013, Dana implemented design changes to all of the 170-190-590 models shown in this IPL. (Refer to Dana bulletin# HAXL-PNI-039). The changes were internal to the carrier and will be detailed in a NEW IPL. See AXIP-0057A for models produced AFTER 6-10-13. Dana changed the SERVICE CARRIER part numbers as part of the design change. New unique 683xxx numbers represent new carriers produced to the new design and those are now referenced in this Carrier section of the IPL. If working on any of these carrier models produced after 6.10.13 see the AXIP-0057A IPL for internal parts and repair kits unique to those build designs.

### 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 Spline	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 Spline	New Service Carrier	No Spin Service Carrier
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	S170430EX S170430CF	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	S170614EX S170614CF	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	46 Inv	D170D307CF D170D307EX	D170DP307CF D170DP307EX	
3.21	46 Inv	D170D321CF D170D321EX	D170DP321CF D170DP321EX	
3.42	46 Inv	D170D342CF D170D342EX	D170DP342CF D170DP342EX	
3.58	46 Inv	D170D358CF D170D358EX	D170DP358CF D170DP358EX	
3.73	46 Inv	D170D373CF D170D373EX	D170DP373CF D170DP373EX	
3.91	46 Inv	D170D391CF D170D391EX	D170DP391CF D170DP391EX	
4.10	46 Inv	D170D410CF D170D410EX	D170DP410CF D170DP410EX	
4.30	46 Inv	D170D430CF D170D430EX	D170DP430CF D170DP430EX	
4.56	46 Inv	D170D456CF D170D456EX	D170DP456CF D170DP456EX	
4.78	46 Inv	D170D478CF D170D478EX	D170DP478CF D170DP478EX	
5.25	46 Inv	D170D525CF D170D525EX	D170DP525EX D170DP525CF	
5.38	46 Inv	D170D538CF D170D538EX	D170DP538CF D170DP538EX	
5.57	46 Inv	D170D557CF D170D557EX	D170DP557CF D170DP557EX	
6.14	46 Inv	D170D614CF D170D614EX	D170DP614CF D170DP614EX	
6.83	46 Inv	D170D683CF D170D683EX	D170DP683CF D170DP683EX	
7.17	46 Inv	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	46 Inv	S170D307CF S170D307EX	
3.21	46 Inv	S170D321CF S170D321EX	
3.42	46 Inv	S170D342CF S170D342EX	
3.58	46 Inv	S170D358CF S170D358EX	
3.73	46 Inv	S170D373CF S170D373EX	
3.91	46 Inv	S170D391CF S170D391EX	
4.10	46 Inv	S170D410CF S170D410EX	
4.30	46 Inv	S170D430EX S170D430CF	
4.56	46 Inv	S170D456CF S170D456EX	
4.78	46 Inv	S170D478CF S170D478EX	
5.25	46 Inv	S170D525CF S170D525EX	
5.38	46 Inv	S170D538CF S170D538EX	
5.57	46 Inv	S170D557CF S170D557EX	
6.14	46 Inv	S170D614EX S170D614CF	
6.83	46 Inv	S170D683CF S170D683EX	
7.17	46 Inv	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	46 Inv	S190R307CF S190R307EX	
3.21	46 Inv	S190R321CF S190R321EX	
3.42	46 Inv	S190R342CF S190R342EX	
3.58	46 Inv	S190R358CF S190R358EX	
3.73	46 Inv	S190R373CF S190R373EX	
3.91	46 Inv	S190R391CF S190R391EX	
4.10	46 Inv	S190R410CF S190R410EX	
4.30	46 Inv	S190R430CF S190R430EX	
4.56	46 Inv	S190R456CF S190R456EX	
4.78	46 Inv	S190R478CF S190R478EX	
5.25	46 Inv	S190R525CF S190R525EX	
5.38	46 Inv	S190R538CF S190R538EX	
5.57	46 Inv	S190R557CF S190R557EX	
6.14	46 Inv	S190E342CF S190E342EX	

### S190DR - Diff Lock w/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	46 Inv	S190DR307CF S190DR307EX	
3.21	46 Inv	S190DR321CF S190DR321EX	
3.42	46 Inv	S190DR342CF S190DR342EX	
3.58	46 Inv	S190DR358CF S190DR358EX	
3.73	46 Inv	S190DR373CF S190DR373EX	
3.91	46 Inv	S190DR391CF S190DR391EX	
4.10	46 Inv	S190DR410CF S190DR410EX	
4.30	46 Inv	S190DR430CF S190DR430EX	
4.56	46 Inv	S190DR456CF S190DR456EX	
4.78	46 Inv	S190DR478CF S190DR478EX	
5.25	46 Inv	S190DR525CF S190DR525EX	
5.38	46 Inv	S190DR538CF S190DR538EX	
5.57	46 Inv	S190DR557CF S190DR557EX	
6.14	46 Inv	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	46 Inv	S590475CF S590475EX	
4.99	46 Inv	S590499CF S590499EX	
5.19	46 Inv	S590519CF S590519EX	
5.44	46 Inv	S590544CF S590544EX	
5.70	46 Inv	S590570CF S590570EX	
5.98	46 Inv	S590598CF S590598EX	
6.34	46 Inv	S590634CF S590634EX	
6.65	46 Inv	S590665CF S590665EX	
7.30	46 Inv	S590730CF S590730EX	
7.48	46 Inv	S590748CF S590748EX	
7.75	46 Inv	S590775CF S590775EX	
8.55	46 Inv	S590855CF S590855EX	
9.51	46 Inv	S590951CF S590951EX	
9.97	46 Inv	S590997CF S590997EX	
10.90	46 Inv	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	46 Inv	S590D475CF S590D475EX	
4.99	46 Inv	S590D499CF S590D499EX	
5.19	46 Inv	S590D519CF S590D519EX	
5.44	46 Inv	S590D544CF S590D544EX	
5.70	46 Inv	S590D570CF S590D570EX	
5.98	46 Inv	S590D598CF S590D598EX	
6.34	46 Inv	S590D634CF S590D634EX	
6.65	46 Inv	S590D665CF S590D665EX	
7.30	46 Inv	S590D730CF S590D730EX	
7.48	46 Inv	S590D748CF S590D748EX	
7.75	46 Inv	S590D775CF S590D775EX	
8.55	46 Inv	S590D855CF S590D855EX	
9.51	46 Inv	S590D951CF S590D951EX	
9.97	46 Inv	S590D997CF S590D997EX	
10.90	46 Inv	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	46 Inv	S170E307CF S170E307EX	
3.21	46 Inv	S170E321CF S170E321EX	
3.42	46 Inv	S170E342CF S170E342EX	
3.58	46 Inv	S170E358CF S170E358EX	
3.73	46 Inv	S170E373CF S170E373EX	
3.91	46 Inv	S170E391CF S170E391EX	
4.10	46 Inv	S170E410CF S170E410EX	
4.30	46 Inv	S170E430CF S170E430EX	
4.56	46 Inv	S170E456CF S170E456EX	
4.78	46 Inv	S170E478CF S170E478EX	
5.25	46 Inv	S170E525CF S170E525EX	
5.38	46 Inv	S170E538CF S170E538EX	
5.57	46 Inv	S170E557CF S170E557EX	
6.14	46 Inv	S170E614CF S170E614EX	
6.83	46 Inv	S170E683CF S170E683EX	
7.17	46 Inv	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	46 Inv	S170DE307CF S170DE307EX	
3.21	46 Inv	S170DE321CF S170DE321EX	
3.42	46 Inv	S170DE342CF S170DE342EX	
3.58	46 Inv	S170DE358CF S170DE358EX	
3.73	46 Inv	S170DE373CF S170DE373EX	
3.91	46 Inv	S170DE391CF S170DE391EX	
4.10	46 Inv	S170DE410CF S170DE410EX	
4.30	46 Inv	S170DE430CF S170DE430EX	
4.56	46 Inv	S170DE456CF S170DE456EX	
4.78	46 Inv	S170DE478CF S170DE478EX	
5.25	46 Inv	S170DE525CF S170DE525EX	
5.38	46 Inv	S170DE538CF S170DE538EX	
5.57	46 Inv	S170DE557CF S170DE557EX	
6.14	46 Inv	S170DE614CF S170DE614EX	
6.83	46 Inv	S170DE683CF S170DE683EX	
7.17	46 Inv	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	46 Inv	S190E342CF S190E342EX	
3.58	46 Inv	S190E358CF S190E358EX	
3.73	46 Inv	S190E373CF S190E373EX	
3.91	46 Inv	S190E391CF S190E391EX	
4.10	46 Inv	S190E410CF S190E410EX	
4.30	46 Inv	S190E430CF S190E430EX	
4.56	46 Inv	S190E456CF S190E456EX	
4.78	46 Inv	S190E478CF S190E478EX	
5.25	46 Inv	S190E525CF S190E525EX	
5.38	46 Inv	S190E538CF S190E538EX	
5.57	46 Inv	S190E557CF S190E557EX	
6.14	46 Inv	S190E614CF S190E614EX	
7.17	46 Inv	S190E717CF S190E717EX	
7.83	46 Inv	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	46 Inv	S190DE342CF S190DE342EX	
3.58	46 Inv	S190DE358CF S190DE358EX	
3.73*	46 Inv	S190DE373CF S190DE373EX	
3.91*	46 Inv	S190DE391CF S190DE391EX	
4.10	46 Inv	S190DE410CF S190DE410EX	
4.30	46 Inv	S190DE430CF S190DE430EX	
4.56	46 Inv	S190DE456CF S190DE456EX	
4.78	46 Inv	S190DE478CF S190DE478EX	
5.25	46 Inv	S190DE525CF S190DE525EX	
5.38	46 Inv	S190DE538CF S190DE538EX	
5.57	46 Inv	S190DE557CF S190DE557EX	
6.14*	46 Inv	S190DE614CF S190DE614EX	
6.83	46 Inv	S190DE683CF S190DE683EX	
7.17	46 Inv	S190DE717CF S190DE717EX	

## Gear and Pinion Kits

### 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
2.87	513915 OBS	131183	131148	43-15
3.07	513917	131183	131150	43-14
3.21	513918	131185	131151	45-14
3.31	513919 OBS	131183	131152	43-13
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
4.30 BC	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

## Gear and Pinion Kits

### 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)	513899	131283	131267	41-12
3.58 (4.99)	513900	131284	131268	43-12
3.73 (5.19)	513901	131283	131269	41-11
3.91 (5.44)	513902	131284	131270	43-11
4.10 (5.70)	513903	131283	131271	41-10
4.30 (5.98)	513904	131284	131272	43-10
4.56 (6.34)	513905	131285	131273	41-9
4.78 (6.65)	513906	131286	131274	43-9
5.25 (7.30)	513907	131287	131275	42-8
5.38 (7.48)	513908	131288	131276	43-8
5.57 (7.75)	513909	131289	131277	39-7
6.14 (8.55)	513910	131288	131278	43-7
6.83 (9.51)	513911	131290	131279	41-6
7.17 (9.97)	513912	131288	131280	43-6
7.83 (10.90)	513913	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 Kit 504164.

### R190S, R190D, S190S, S190D

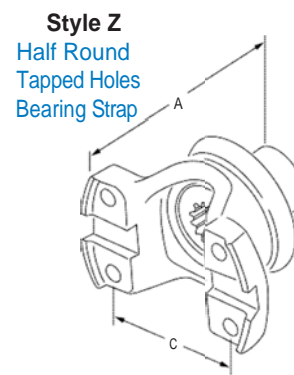
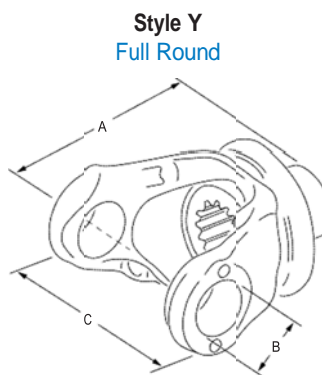
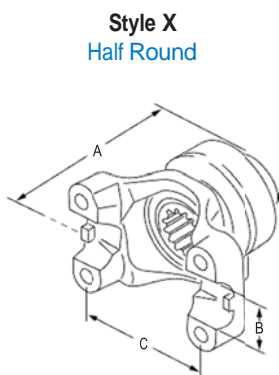
Ring Gear Size: 18.5"

#### Pinion Nut Part No. 131095

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

## Yokes & Flanges

To replace the driveline yoke on any of the Dana D170/190, 170/190 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 Flg	---	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

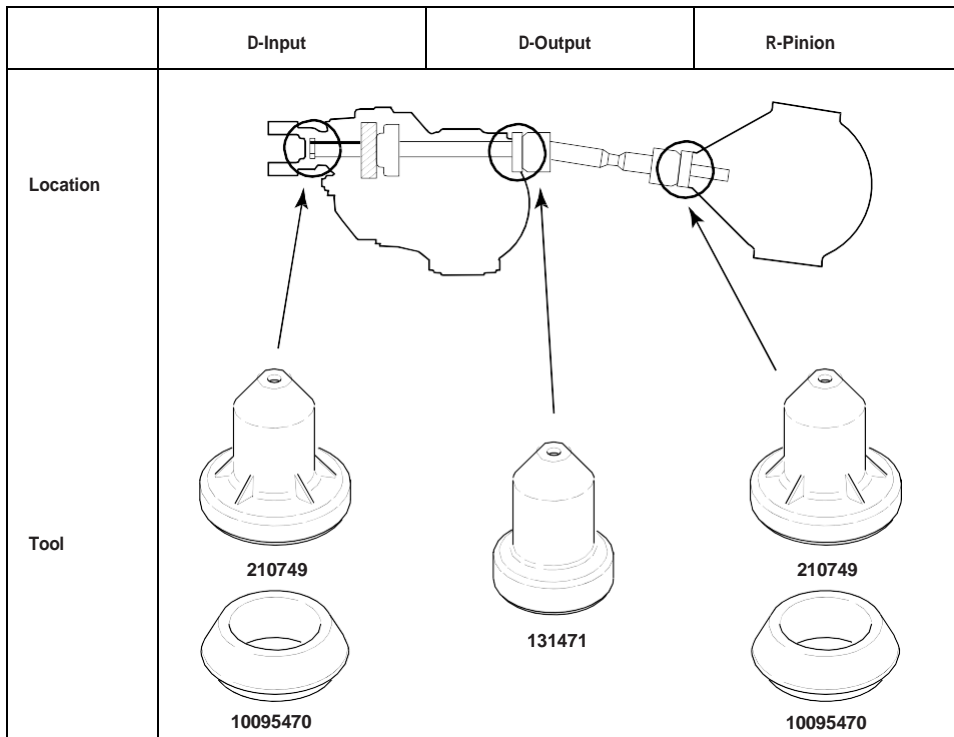
\* Most popular - Spicer recommends keeping these in stock

## Service Kits

### Pinion Seal Driver Kit

Part Number 513349-1

Kit includes: 131471, 10095470, 210749

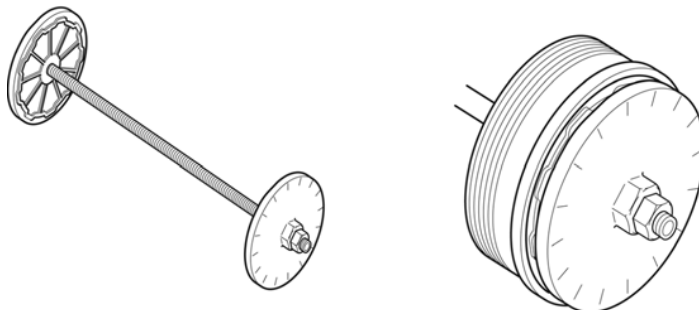


### Wheel Differential Bearing Adjustment Kit

Part Number 513061

Dana Part-No	Description	Qty
130971 OBS	Adjusting Tool End	2
130997 OBS	Threaded Rod	1
130998 OBS	Nut	2
HN115	Flat Washer	2
SHAIS150	Information Sheet	1

Note: Spicer information and Instruction sheets can be found at: [spicerparts.com/Literature](http://spicerparts.com/Literature)





## Service Kits - Quick Reference List - Models made BEFORE June 10, 2013

(Listed by "Part Description" alpha order)

Dana P/N	Description	Notes
512892	Air Lockout Repair Kit	All D170, 190 Models
512893	Air Lockout Repair Kit - Complete w/ Fork	Only D170 Models
504061	Axle Housing Cover & Brg Pts Kit	All D190 Models (has cover 134324 inside)
514322	Axle Housing Cover Kit	All S190 Models (has cover 302704 inside)
504025	Axle Housing Cover Kit	All S590 Models (has cover 302622 inside)
512896	Axle Hsg Hardware Kit - Forward Axle (carrier to hsg)	All D170, 190 Models
512897	Axle Hsg Hardware Kit - Rear Axle (carrier to hsg)	All R170/R190, S170, S190
513351	Axle Hsg Fastener Kit - (for D-Hsg bolt on covers)	All D190, S190, D/R590, S590 Models
514011	Bearing Kit - D170D	For D170D Diff Lock Models
514238	Bearing Kit - D170S	All Ratios
514012	Bearing Kit - D190S, D190D	All Ratios
504072	Bearing Kit - D590, D590D	All Ratios
504073	Bearing Kit - S/R590, S/R590D, S190E, S190DE	All Ratios
504074	Bearing Kit - S170E	All Ratios
514240	Bearing Kit - R170D, S170D	4.10-7.17 Ratios
514015	Bearing Kit - R170D, S170D, R190, S190S/D	2.69-3.91 (R170D/S170D) & 2.53-4.78 (R190/S190)
514013	Bearing Kit - R170S, S170S	2.69-3.91 Ratios
514014	Bearing Kit - R170S, S170S	4.10-7.17 Ratios
514016	Bearing Kit - R190, R190D, S190, S190D	5.25-7.83 Ratios
513997 OBS	Carrier and Cap Kit - D170	D170
513998 OBS	Carrier and Cap Kit - D170D	D170D - Diff Lock Models
514001	Carrier and Cap Kit - D190/D190D	D190, D190D Diff Lock Models
513999 OBS	Carrier and Cap Kit - R170/S170	R170, S170
514000 OBS	Carrier and Cap Kit - R170D/S170D	R170D, S170D Diff Lock Models
514002	Carrier and Cap Kit - R190/R190D/S190D	R190, R190D, S190D Diff Lock Models
512947	Diff Lock Conversion Parts Kit (shift fork# 131101)	All Diff Lock Models (shift fork design varies by ratio)
512946	Diff Lock Conversion Parts Kit (shift fork# 131099)	All Diff Lock Models (shift fork design varies by ratio)
512945	Diff Lock Shift Fork & Pin Kit (fork# 131101)	All Diff Lock Models (shift fork design varies by ratio)
512944	Diff Lock Shift Fork & Pin Kit (fork# 131099)	All Diff Lock Models (shift fork design varies by ratio)
512895	Diff Lock Shift Parts Repair Kit	All Diff Lock Models
10011380	Helical Gear & Bushing Assy	Replaces 131345; All D170, D190 Models
10010716	Helical Gear - Pinion	Replaces 131343; All D170, D190 Models
10094015	IAD Assembly	All Models (replaces 131339 & 139965)
504189	Input Cover & Adjuster Kit - D170	All D170 Models (replaces 504067, 513881 & 514357)
504188	Input Cover & Adjuster Kit - D190	Only D190 Models (replaces 513879, 504066 & 514356)

## Service Kits - Quick Reference List - Models made BEFORE June 10, 2013

Dana P/N	Description	Notes
513839	Input Shaft Kit - Non Pump Models	Only D170 Non-Pump Models
513840	Input Shaft Kit - Pump Models	All D170P and All D190 Models
131340	Input Shaft & Helical Gear	High Entry S170E & S190E Models
504364-1	Lube Pump & Output Side Gear Kit	All D170P and D190 Pump Models (replaces 513876 & 504065)
513880	Manifold Parts Kit - Non Pump Models	Only D170 Non-Pump Models
513878	Manifold Parts Kit - Pump Models	All D170P and All D190 Pump Models
131882	No Spin Diff Assy 46 Inv	All Approved D/R170, D/R190 Models
513877	Output Shaft Brg Kit	All D170, 190 Models - Original Builds Only
504054	Output Shaft Brg Kit	All D170, 190 Models - Interim Build Models Only
504060	Output Shaft Brg Kit	All D170, 190 Models - Current (NEW) Builds After Oct 2011
512894	Output Shaft Kit (shaft# 131536)	All D170, 190 Models
131095K	Pinion Nut Kit	Only D-Input & Rear-Pinion Models
504041	Pinion Bearing Spacer Kit	All D170, D190 and D/R590
504042	Pinion Bearing Spacer Kit	All R170, R190, S170, S190
504069	Ring Gear Bolt Kit	All Models
131008K	Seal & Nut Kit	Only D-Input & Rear-Pinion Models (contains the 134323 seal)
10032666	Seal - Oil	Replaces 134323; Input Location
210737	Seal - Oil	Output Location
10032666	Seal - Oil	Replaces 134323; R-Pinion
510870	Shift Fork & Spring Kit	All D170 Models
514142	Shift Fork & Spring Kit	All D190 Models
513349-1	Tool - Pinion Seal Driver Tool Kit	Replaces 513349; All Models
513061	Tool - Diff Bearing Adjustment Tool Kit	All Models
507162	U-Tube Breather Kit	All Models
513986 OBS	Wheel Diff Case Kit (131027 OBS/131479 OBS)	see application chart pg. 27-33
513987 OBS	Wheel Diff Case Kit (131027 OBS/131478 OBS)	see application chart pg. 27-33
513988 OBS	Wheel Diff Case Kit (131029 OBS/131478 OBS)	see application chart pg. 27-33
513989 OBS	Wheel Diff Case Kit (131029 OBS/131477 OBS) diff lock	see application chart pg. 27-33
513990 OBS	Wheel Diff Case Kit (131027 OBS/131476 OBS) diff lock	see application chart pg. 27-33
513991 OBS	Wheel Diff Case Kit (131029 OBS/131476 OBS) diff lock	see application chart pg. 27-33
504123 OBS	Wheel Diff Case Kit (131029 OBS/131759 OBS) diff lock	see application chart pg. 27-33
504124 OBS	Wheel Diff Case Kit (131029 OBS/131760 OBS) diff lock	see application chart pg. 27-33
504125 OBS	Wheel Diff Case Kit (131027 OBS/131760 OBS) diff lock	see application chart pg. 27-33
513868	Wheel Diff Side Gear Kit - 46 Inv	All Models





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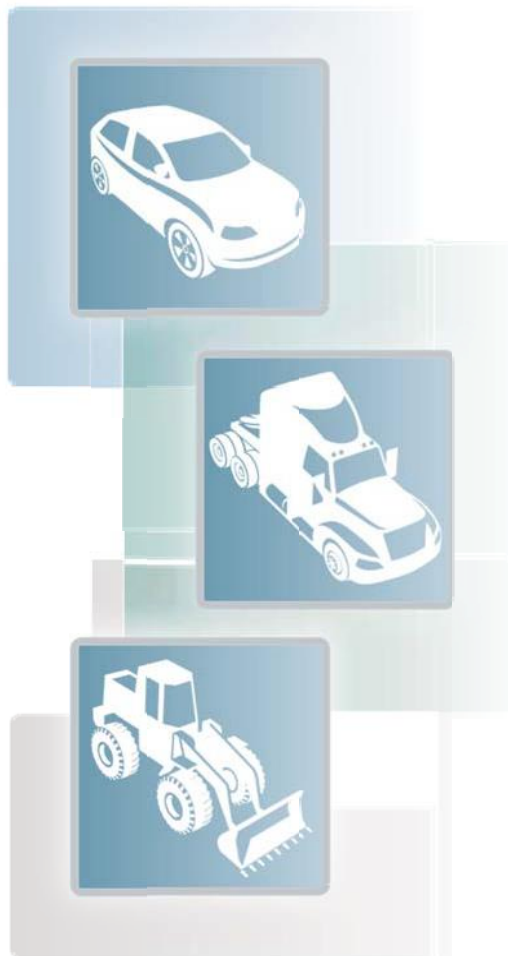
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