

Strange



RaceStrange

- Fully machined lightweight aluminum housing & components
- 16", 17", 18", 19", 20", 21", 22" and 23" center to center 4-link widths
- 3/4" thick and internally ribbed faceplate
- Integral wheelie bar mounts
- Housing and 4-link plates are lugged for greater strength
- Pre-loaded spindle bearings with billet spindle nut and pre-load spacer
- Available for full floating or 2-piece axles
- Steel or carbon brake kits

Instruction packet:	
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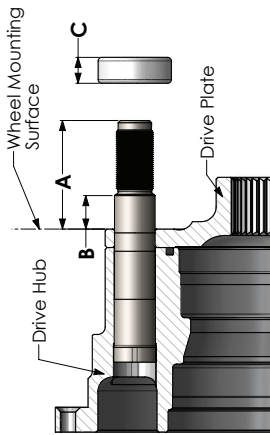
Kit overview

Full Floating Axle Assembly Options

Wheel to wheel widths	4-Link CTC (Center to Center)	4-link plate	Brakes	Bolt circles	Lug nuts
31.75"	16	Standard	11.50" Steel	4.75	Aluminium
32.75"	17	Reinforced	11" Carbon	5.00	Steel
33.25"	16	No plates Adjustable Shock Height Mount	Only available for WTW widths 31.75"-40.75"	5.50	
33.75"	16, 18				
34.25"	17				
34.75"	17, 19				
35.25"	18				
35.75"	18,20				
36.25"	19				
36.75"	19,21				
37.25"	20				
37.75"	20,22				
38.25"	21				
38.75"	21,23				
39.25"	22				
39.75"	22				
40.25"	23				
40.75"	23				
41.00"	16				
42.00"	17				
43.00"	18				
44.00"	19				
45.00"	20				
46.00"	21				
47.00"	22				
48.00"	23				

Note: All WTW widths have the option to be shortened by 1/2" by taking material off from the Endbells

Full Floating Axle Wheel Studs

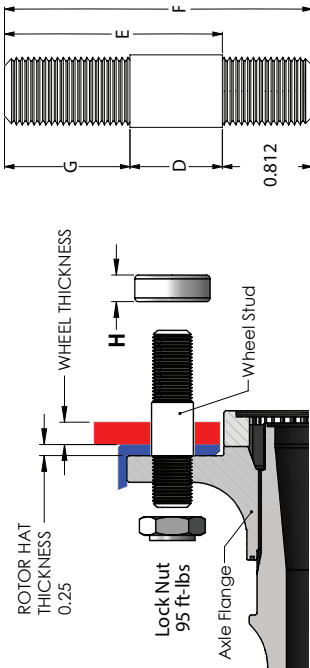


Studs	A	B	C	Lug nuts
F2058BSP	1.90"	0.65"	0.250	steel
F2058BAP	1.90"	0.65"	n/a	aluminium
F2058BLP	2.65"	1.65"	0.4375	steel

For wheel stud replacement please contact Strange Engineering

Steel & aluminium lug nut torque: 130 ft-lbs

2 Piece Axle Wheel Studs



Studs	D	E	F	G	H
A1036	0.775	1.550	2.362	0.775	0.250
A1037	0.875	2.063	2.875	1.188	0.4375
A1037MD	0.875	1.760	2.572	0.885	0.250

Ensure measurement "D" is able to fully engage into the wheel. The "D" dimension needs to be slightly greater than combined thickness of the brake rotor hat and thickness of the wheel

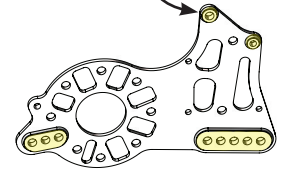
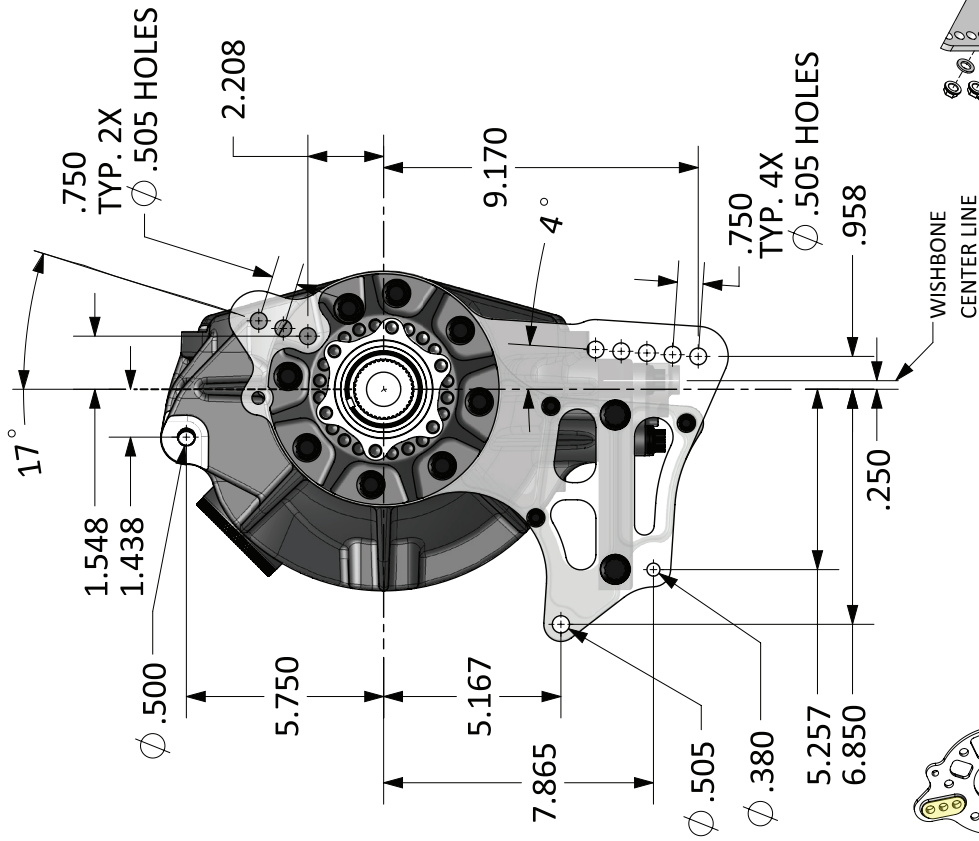
Lug nut torque: 130 ft-lbs
Wheel Stud Torque: 50 ft-lbs
Lock Nut Torque: 95 ft-lbs

2-Piece axle assembly options

Wheel to wheel widths	4-Link CTC (Center to Center)	4-link plate	Brakes	Bolt circles	Lug nuts	Bearing
31.50"	16	standard	Steel	4.75	Aluminium	Dual row ball
32.50"	16,17	reinforced	(2 pc. rotor)	5.00	Steel	Spherical
33.50"	17,18	no plates	Carbon	Custom	misalignment	
34.50"	18,19	Adj Shock Height Mount		B.C		
35.50"	19,20			Available		
36.50"	20,21					
37.50"	21,22					
38.50"	22,23					
39.50"	23					

4-Link plate dimensions

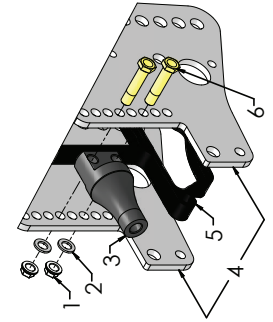
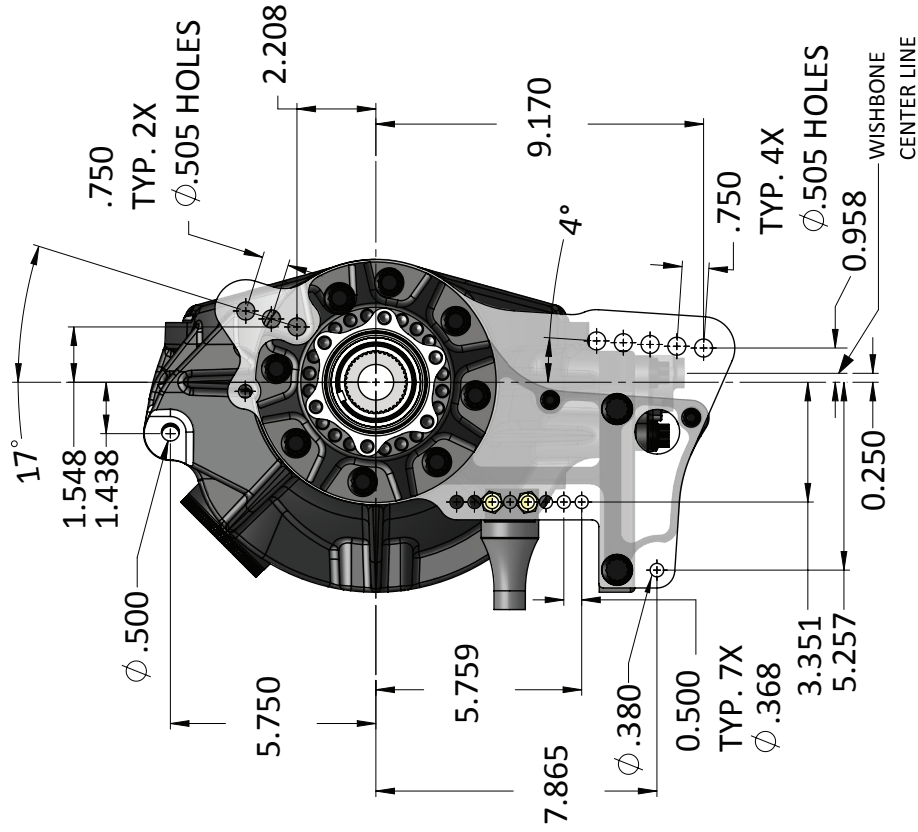
Standard 4 Link Plate



reinforced 4-link plate option

- weld-on bosses double plate thickness at mounting points to increase strength

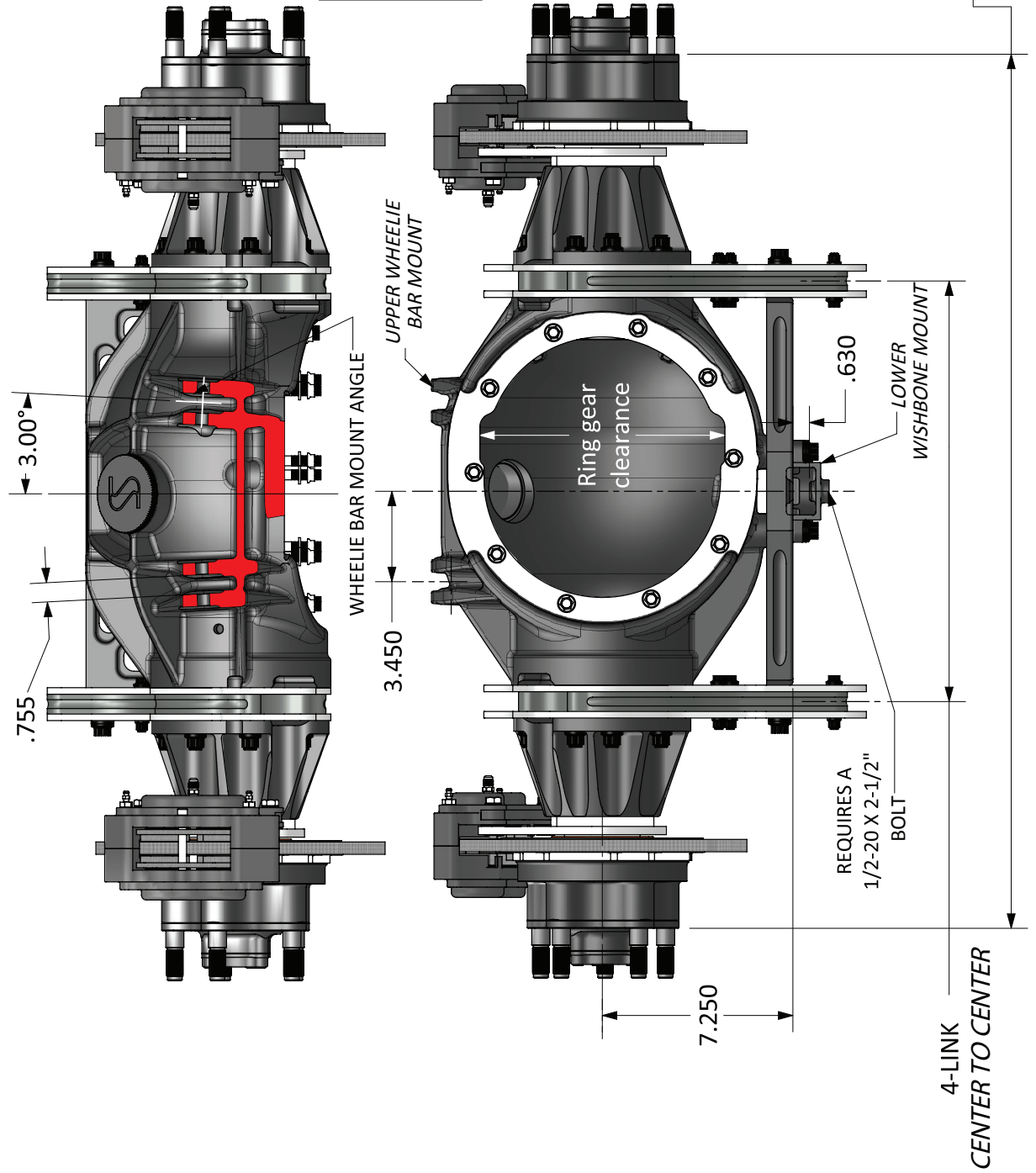
4-Link Plate with Adjustable shock mount



Adjustable shock mount plate parts list

Component	Part #	Qty	Description
1	F1282	4	3/8-24 Jet Nut
2	S3420N	4	3/8 AN Washer
3	H1180V	2	Shock mount 0.750
4	H1180MP1AS	1	HD 4-Link mount plates(4x) -Adj. Shock mount
5	H1180U	2	4-Link spacer plate Adj. Shock mount
6	H1180VA	4	3/8-24 x 1.641" Bolt

Housing dimensions



Ring gear clearance revisions		
Date manufactured	Ring gear clearance	
2/11 - 10/11	9.195	
11/11 - present	9.446	

Notes: SAE 85W-140 nonsynthetic gear oil is recommended H1180 housings require 3 quarts of gear oil.

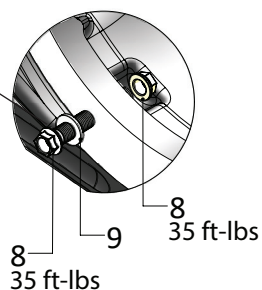
Face plate and endbell stud installation

If the housing end bell studs (1,2) or face plate studs (3,4) have not been pre-installed by Strange Engineering refer to the diagrams below to ensure the proper length studs are installed in corresponding locations. The blue and red colors indicate the variations of stud and bolt lengths.

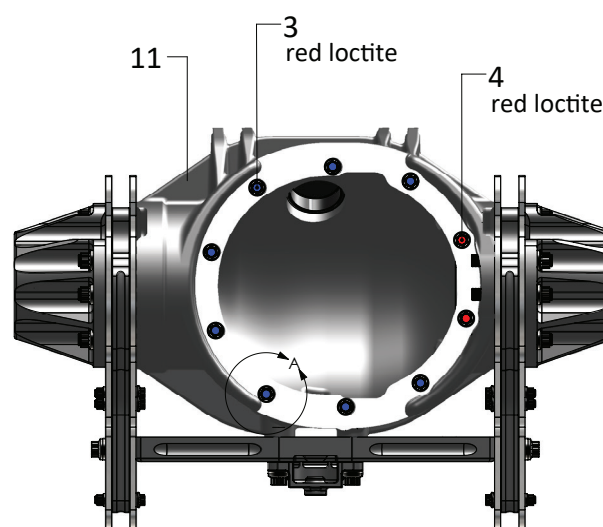
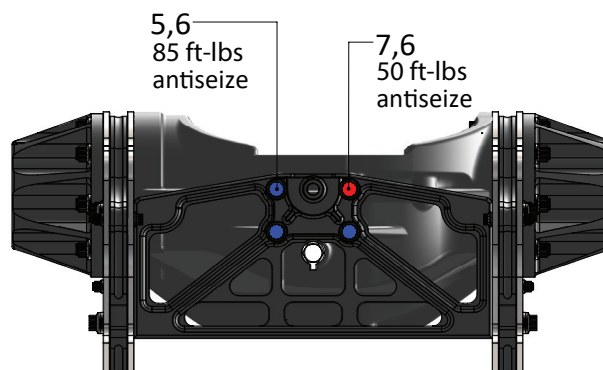
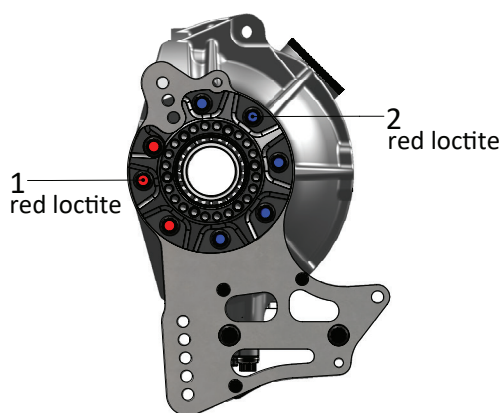
- red Loctite must be used on the studs (not nuts)

⚠ note:
face plate studs must
be hand tightened
DO NOT torque them

DETAIL A

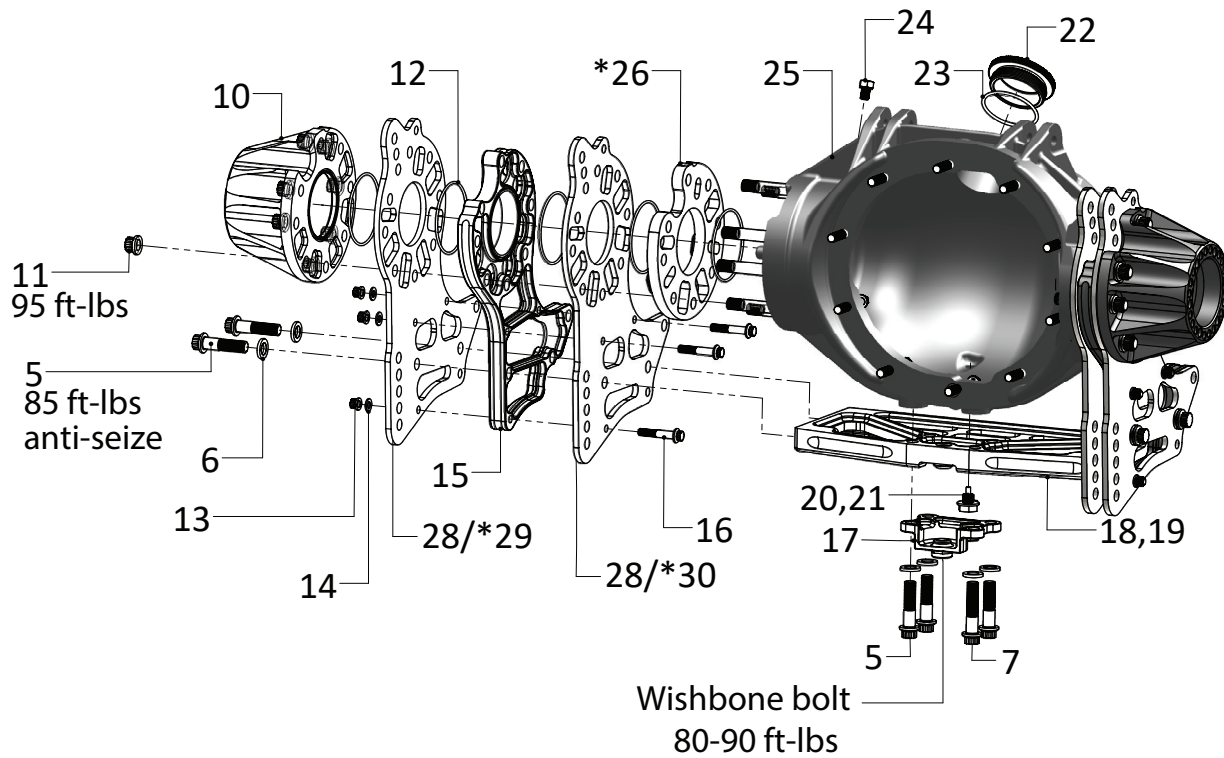


⚠ note: jets nuts are not installed from the inside of the flange in locations of L4000B (4)



Component	Part #	Quantity	Description
1a	H1180D	3	Housing Tube Stud 2.906" Long
1b	H1180D1	3	Housing Tube Stud 3.781" Long (34.75" WTW)
2a	H1180C	13	Housing Tube Stud 3.312" Long
2b	H1180C1	13	Housing Tube Stud 4.187" Long (34.75" WTW)
3	L4000B1	8	Face Plate Stud 3/8-24 x 2.125"
4	L4000B	2	Face Plate Stud 3/8-24 x 1.50"
5	H1180J	7	1/2-13 x 2.25" 12 Point Screw
6	A1026B	8	1/2" Flat Washer
7	H1180K	1	1/2-13 x 2" 12 Point Screw
8	F1282	18	3/8-24 Jet Nut
9	S3402N	10	3/8" Washer

Endbell and mounting brackets assembly



Component	Part #	Quantity	Description	Component	Part #	Quantity	Description
10a	F2094CR3175	1	3.00" End Bell (RH)	21	H1180IW	1	Drain Plug Gasket
10b	F2094CR	1	3.75" End Bell (RH)	22	H1180F	1	Fill Plug
10c	F2094CR3375	1	4.00" End Bell (RH)	23	H1180H	1	Fill Plug O-Ring
11	H1180Q	16	1/2-20 12 Point Nut	24	H1180P	1	1/8" NPT Breather
12	H1180O	8	-151 O-Ring End Bell	25a	H1180A	1	14.75" Modular Housing
13	H1180M	6	5/16-24 12 Point Nut	25b	H1180T	1	16.75" Modular Housing
14	S3800W	6	5/16" Washer 1/16" Thick	26	H1180RR	1	Housing Extension Spacer (RH)
15	H1180B	2	Four Link Spacer Plate	27	H1180RL	1	Housing Extension Spacer (LH)
16	H1180L	6	5/16-24 x 1.75 12 Point Screw	28	H1180MP1A	4	4-Link Mount Plate
17	H1180G	1	Wishbone Retainer	29	H1180MP1HDRO	1	HD 4-Link Mount Plate (RH outside)
18a	H1180E	1	Bottom Brace for 16" CTC	30	H1180MP1HDRI	1	HD 4-Link Mount Plate (RH inside)
18b	H1180E1	1	Bottom Brace for 17" CTC	31	H1180MP1HDLO	1	HD 4-Link Mount Plate (LH outside)
18c	H1180E18	1	Bottom Brace for 18" CTC	32	H1180MP1HDLI	1	HD 4-Link Mount Plate (LH inside)
18d	H1180E19	1	Bottom Brace for 19" CTC	33a	F2094CL3175	1	3.00" End Bell (LH)
18e	H1180E20	1	Bottom Brace for 20" CTC	33b	F2094CL	1	3.75" End Bell (LH)
18f	H1180E21	1	Bottom Brace for 21" CTC	33c	F2094CL3375	1	4.00" End Bell (LH)
18g	H1180E22	1	Bottom Brace for 22" CTC				
18h	H1180E23	1	Bottom Brace for 23" CTC				
19	H1180N	1	1/2-20 X 0.650" Big Sert				
20	H1180I	1	Drain Plug				

Full floating axle assembly

1 Spindle Retainer Nut Installation

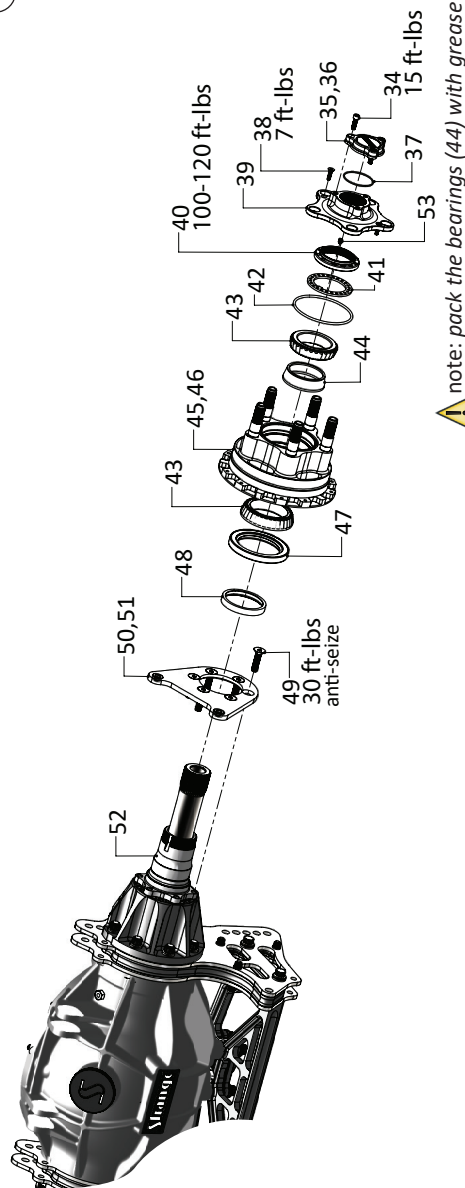
Tools (included with all kits)

H1180X - Spindle Retainer Nut Wrench

F2058W - Spindle Nut Wrench for 4-3/4" & 5" B.C.

F2056M - Spindle Nut Wrench for 5-1/2" B.C.

1. Press the spindle (53) into the endbell and align the threaded holes. Then slide the caliper bracket (50) on.
2. Align the threaded holes in the endbell with the holes in the caliper bracket and spindle flange.
3. Install the six flat head screws (49) and torque to 40 ft.-lbs.
4. The spindle retainer nut (54) is installed using the provided H1180X wrench. Apply anti-seize on the threads of the spindle retainer nut.
5. Torque spindle retainer nut to 150 ft.-lbs and align two opposing holes in the retainer nut to mate with the threaded holes in the housing.
6. Apply loctite to a set screw (53) and hand tighten to secure assembly.



2 Spindle Nut Installation

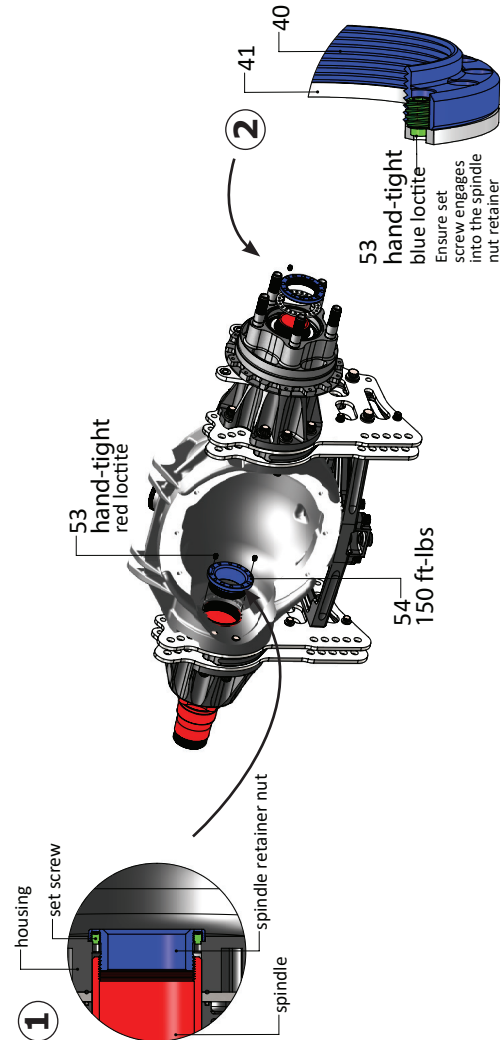
Tools (included with all kits)

H1180X - Spindle Retainer Nut Wrench

F2058W - Spindle Nut Wrench for 4-3/4" & 5" B.C.

F2056M - Spindle Nut Wrench for 5-1/2" B.C.

1. Slide the spindle nut retainer (41) onto the spindle ensuring the notches on the retainer and slots on the spindle are oriented properly.
2. Install the spindle nut (40) using the provided F2058W/F2056M wrench. Spindle nuts are torqued to 100-120 ft.-lbs.
3. Ensure to align two opposite holes on the spindle nut and retainer for installation of set screws.
4. Thread the set screws opposite one another into the spindle nut. Ensure screws engage into spindle nut retainer.
5. Rotate hub several times to ensure everything is seated.



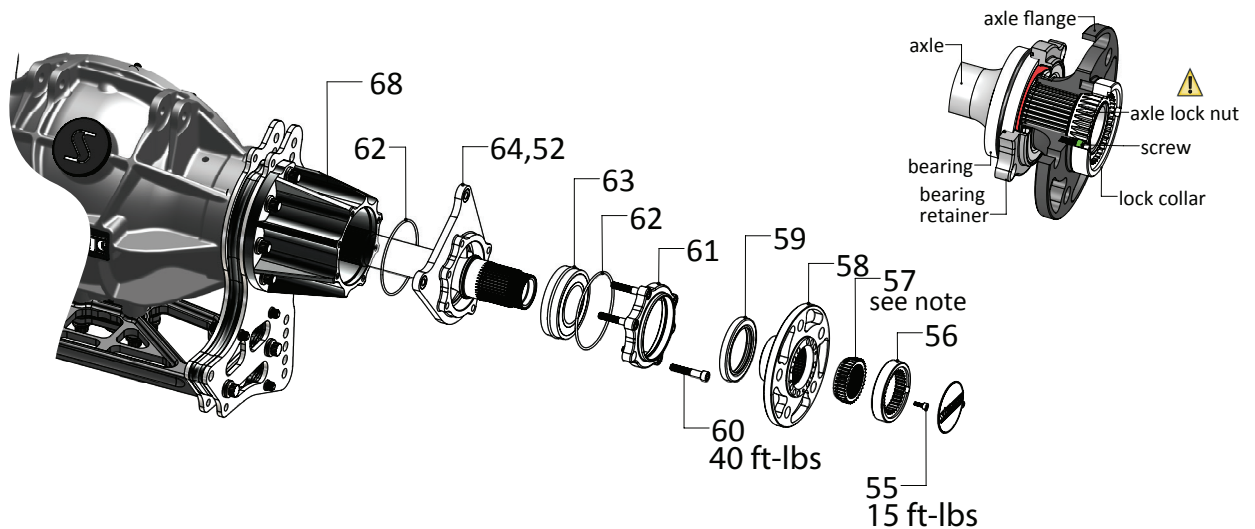
Full floating axle assembly

Component	Part #	Quantity	Description
34	A1050D	6	1/4-28 x 3/4 SHCS
35	A1RS	2	Race Decal
36	F2054B	2	40 Spline Floater Cap
37	F2200B	2	Drive Cap O-Ring #032
38	F2200C	4	10-24 x 3/4" FHSCS
39a	F2060A	2	4.75" B.C. Scalloped Driveplate
39b	F2058A	2	5.00" B.C. Scalloped Driveplate
39c	F2056A	2	5.50" B.C. Scalloped Driveplate
40a	F2058C	2	4.75" & 5.00" B.C. Spindle Nut
40b	F2056C	2	5.50" B.C. Spindle Nut
41a	F2058D	2	4.75" & 5.00" B.C. Spindle Nut Retainer
41b	F2056D	2	5.50" B.C. Spindle Nut Retainer
42a	F1209C	2	4.75" & 5.00" B.C. Hub O-Ring
42b	F1277	2	5.50" B.C. Hub O-Ring
43a	F1270	see note	4.75" & 5.00" B.C. Outer Bearing Cone L507949
43b	F2056I	see note	5.50" B.C. Inner & Outer Bearing Cone L610549
44a	F2058E	2	4.75" & 5.00" B.C. Preload Spacer
44b	F2056E	2	5.50" B.C. Preload Spacer
45a	F2060H	2	4.75" B.C. Floater Drive Hub
45b	F2058H	2	5.00" B.C. Floater Drive Hub
45c	F2056P	2	5.50" B.C. Floater Drive Hub
46a	F1271	see note	4.75" & 5.00" B.C. Outer Bearing Cup L507910
46b	F2056J	see note	5.50" B.C. Inner & Outer Bearing Cup L610510
47	F2056K	2	Hub Seal SKF 28745
48	F2056B	2	Spindle Ring
49	F2058G	12	3/8-16 x 1-1/2 FHSCS
50a	F2056O	2	Caliper Mounting Bracket (<i>Steel Brakes</i>)
50b	F2056F	2	Caliper Mounting Bracket (<i>Carbon Brakes</i>)
51	B1301E	4	3/8-24 Press Nut
52a	F2094A3175	2	9.25" Spindle
52b	F2094A3275	2	9.75" Spindle
52c	F2094A	2	10.00" Spindle
52d	F2094A3375	2	10.25" Spindle
52e	F2092A3425	2	10.50" Spindle
52f	F2094A3475	2	10.75" Spindle
52g	F2092A3175	2	9-11/32" Spindle
52h	F2092A3275	2	9-27/32" Spindle
52i	F2092A3325	2	10-3/32" Spindle
52j	F2092A3375	2	10-11/32" Spindle
52k	F2092A3425	2	10-19/32" Spindle
52l	F2092A3475	2	10-27/32" Spindle
53	F2056L	8	1/4-20 x 5/16" Dog Pt. Set Screw
54	F2094B	2	Spindle Retainer

Note: 5.50" B.C. Kits include a quantity of 4 F2056I & F2056J

4.75" & 5.00" B.C. Kits include a quantity of 2 F2056I, F2056J, F1270 & F1271

2-Piece axle assembly



⚠ Axle lock nut (57) should be torqued to 250 ft-lbs. Then add additional torque until holes in the lock collar match either pair of threaded holes in the flange. Check and retorqued axle lock nut periodically!

Tools:

WJ11 - Axle lock nut tool (included with kit)

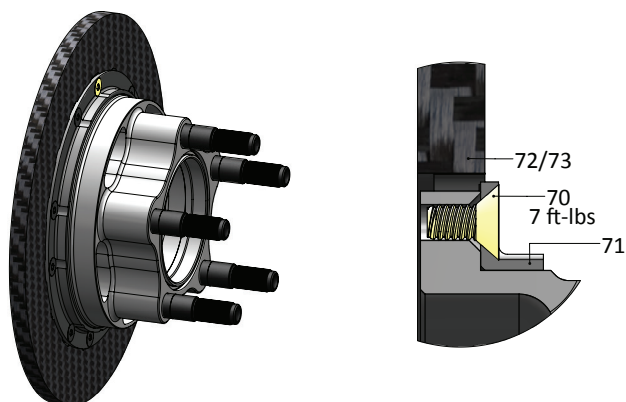
WJ13 - Axle holder (optional)

If the optional WJ13 tool is not being used install the axle in the spool and then torque the axle nut.

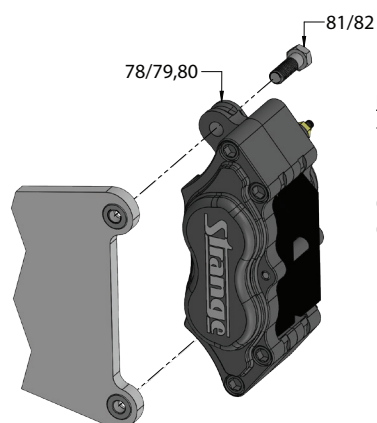
Component	Part #	Quantity	Description
55	WJ10	4	10-32 x 1/2" SHCS
56	WJ08	2	Lock Collar
57	WJ04	2	Axle Lock Nut
58a	WJ024	1	4.75" B.C. Axle Flange Passenger Side
58b	WJ030	1	5.00" B.C. Axle Flange Passenger Side
59	WJ01	2	Seal National #411394
60	WJ100D	12	5/16-18 x 1-3/4 SHCS
61	WJ100AR	1	Passenger Side Bearing Retainer
62	WJ036	4	O-Ring #153
63a	WJ00	2	Spherical Misalignment Bearing
63b	WJBB	2	Ball Bearing
64a	WJ02BR	1	Passenger Side Caliper Mounting Bracket (Steel Brakes)
64b	WJ100BR	1	Passenger Side Caliper Mounting Bracket (Carbon Brakes)
65a	WJ02BL	1	Driver Side Caliper Mounting Bracket (Steel Brakes)
65b	WJ100BR	1	Driver Side Caliper Mounting Bracket (Carbon Brakes)
66	WJ100AL	1	Driver Side Bearing Retainer
67a	WJ023	1	4.75" B.C. Axle Flange Driver Side
67b	WJ029	1	5.00" B.C. Axle Flange Driver Side
68a	WJ100CR	1	5.00" 2pc. Axle End Bell Passenger Side
68b	WJ102CR	1	4.50" 2pc. Axle End Bell Passenger Side
69a	WJ100CL	1	5.00" 2pc. Axle End Bell Driver Side
69b	WJ102CL	1	4.50" 2pc. Axle End Bell Driver Side

Brake kit options

Full Floating Axle Steel & Carbon Brake Assembly

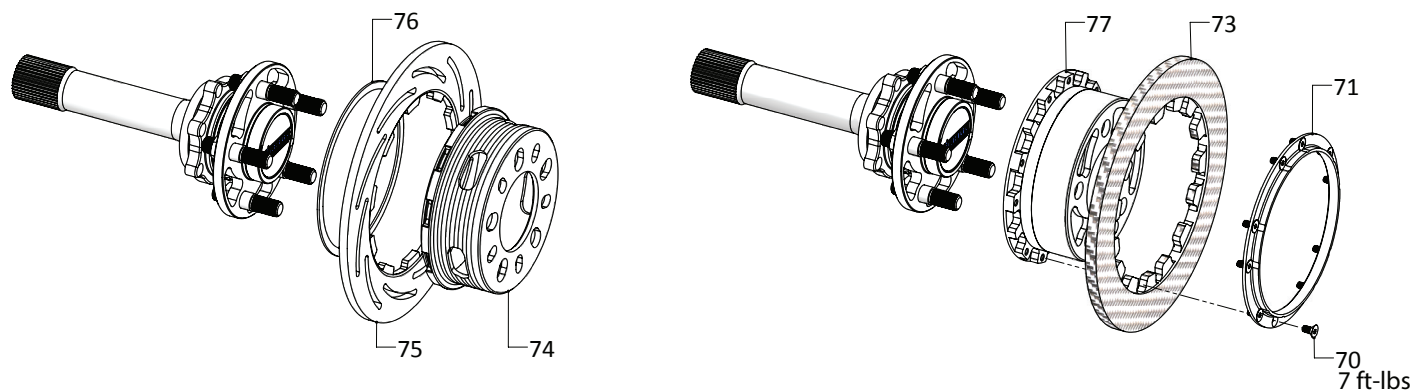


Brake Caliper



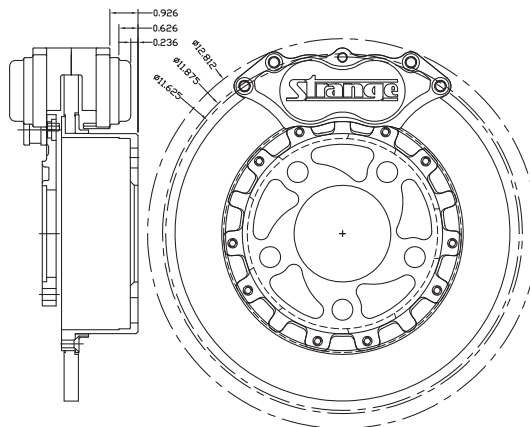
Notes:
- Consult B1950 B1955 Strange Four Piston Directional Caliper and Ultra Caliper (Black Calipers) B5044, B5045, B5046, B5040, B5042 instructions

2-Piece Axle Steel & Carbon Brake Assembly

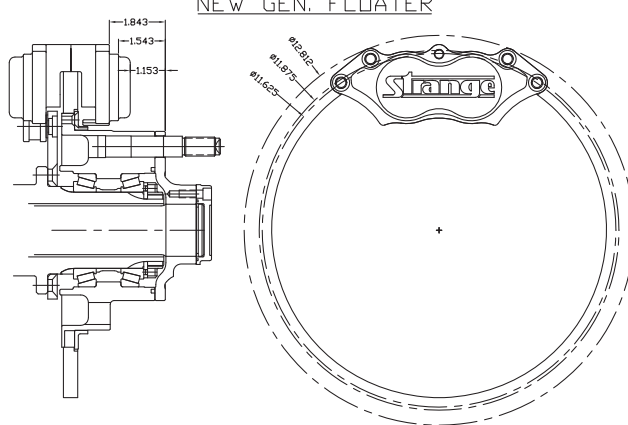


Component	Part #	Quantity	Description
70	C1700D	20	1/4-20 x 1/2" FHSCS
71	C1700H	2	Retainer Ring
72a	F2056NR	1	11.5" Rear Rotor RH
72b	F2056NL	1	11.5" Rear Rotor LH
73	C1790	2	11" Carbon Rotor
74	B2794B	2	Rotor Adapter
75	B2794A	2	Brake Rotor
76	B2794D	2	Spirolock
77a	C1700B	1	4.75 B.C. Carbon Adapter RH
77b	C1700C	1	4.75 B.C. Carbon Adapter LH
77c	C1700F	1	5.00 B.C. Carbon Adapter RH
77d	C1700G	1	5.00 B.C. Carbon Adapter LH
78	B1955	1	Four Piston Caliper w/ Hard Metallic Pads
79	B5040	2	Four Piston Carbon Caliper
80	L4050HS	4	Carbon Soft Pad
81	B5000Y	4	3/8-24 x 1.125" HHSC (included in B1855 kit)
82	B5000X	4	3/8-24 x 1.27" Bolt

B5040,B5042 CALIPER, 11 DIA. CARBON



B5040 CALIPER, 11 DIA. CARBON
NEW GEN. FLOATER



NOTE: FOR 2 PIECE ROTOR ADD 0.125 TO ALL "X" DIMENSIONS

