

# Strange

## FLOATER KITS BREAKDOWN

KIT#	BRAKE KIT#	BOLT CIRCLE	HOUSING TUBE SIZE
F2206WC	Carbon	5.50"	3.50" O.D. w/ 0.25" Wall Thickness OR 3.25" O.D. w/ 0.25" Wall Thickness
F2206	Steel	5.50"	
F22065WC	Carbon	5.00"	
F22065	Steel	5.00"	
F22064WC	Carbon	4.75"	3.25" O.D. w/ 0.25" Wall Thickness
F22064	Steel	4.75"	

## NOTES

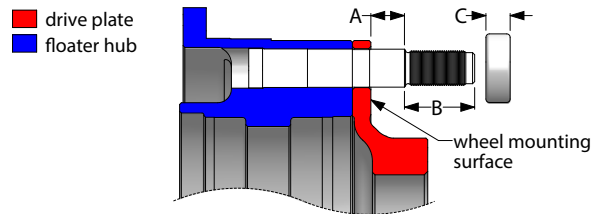
- 5.50" B.C. kits include a quantity of 4 F2056I Timken bearings and F2056J Timken cups.
- 5.00" & 4.75" kits include a quantity of 2 F2056I Timken bearings and F2056J Timken cups.

## COMMON COMPONENTS BETWEEN ALL KITS

ITEM#	PART#	QTY	DESCRIPTION
3	B1301E	4	3/8"-24 press nuts
4	F1237D	12	3/8"-24 x 3/4" FHSCS
5	F2056B	2	spindle ring
6	F2056K	2	SKF 28745 hub seal
7	F2056I	note 1	bearing Timken L610549
11	F2056L	4	1/4"-20 x 3/8" dog point set screw
14	F2200C	4	10-24 x 3/4" FHSCS
15	F2200B	2	o-ring for driveplate cap
16	F2054B	2	driveplate cap
17	A1RS	2	race axle decal
18	A1050D	6	1/4"-28 x 3/4" SHCS
28	C1700D	20	1/4"-20 x 1/2" FHSCS
29	C1700H	2	rotor retainer ring
32	F2056J	note 1	bearing cup Timken L610510

## WHEEL STUD OPTIONS

PART#	A	B	C	LUG NUTS
F2058BSP	0.650	1.250	0.250	Steel
F2058BAP	0.650	1.250	N/A	Aluminum
F2058BLP	1.650	1.000	0.4375	Steel



- "A" must be slightly greater than the thickness of the wheel
- "B" wheel stud thread length
- "C" spacer width

## 5.50" BOLT CIRCLE KIT COMPONENTS

ITEM#	PART#	QTY	DESCRIPTION
1	F2092A	2	FFAA spindle
8	F2056E	2	preload spacer
9	F2056D	2	spindle nut retainer
10	F2056C	2	spindle nut (2 3/4"-16 thread)
12	F1277	2	o-ring for 5.5 B.C. drive plate
13	F2056A	2	5.50" B.C. drive plate
31	F2056P	2	5.50" B.C. floater hub
31	F2056P	2	5.50" B.C. floater hub

## STEEL BRAKE KIT

ITEM#	PART#	QTY	DESCRIPTION
20	F2056O	2	caliper mount
36	F2056NR	1	11.5" slotted steel brake rotor (RH)
--	F2056NL	1	11.5" slotted steel brake rotor (LH)

## CARBON BRAKE KIT

ITEM#	PART#	QTY	DESCRIPTION
2	F2056F	2	caliper mount
30	C1790	2	11" carbon brake rotor
--	B5044	1	ultra brake caliper kit

## 5.00" BOLT CIRCLE KIT COMPONENTS

ITEM#	PART#	QTY	DESCRIPTION
19	F2093A	2	FFAA spindle
21	F2058E	2	preload spacer
22	F1270	2	outboard bearing Timken L507949
23	F2058D	2	spindle nut retainer
24	F2058C	2	spindle nut (2.157-18 thread)
25	F1209C	2	o-ring for 4.75 & 5 B.C. drive plate
26	F2058A	2	5.00" B.C. drive plate
33	F1271	2	bearing cup Timken L507910
34	F2058H	2	5.00" B.C. floater hub

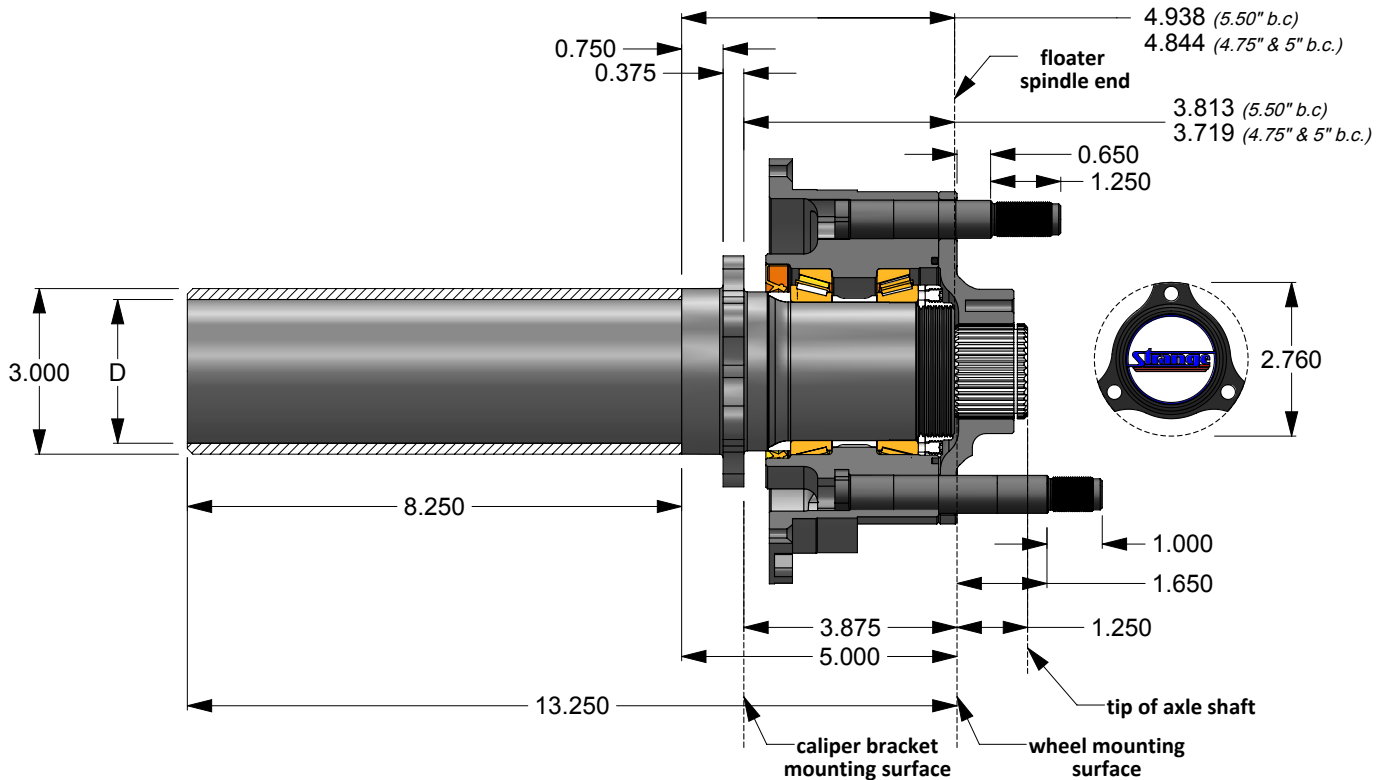
## 4.75" BOLT CIRCLE KIT COMPONENTS

ITEM#	PART#	QTY	DESCRIPTION
19	F2093A	2	FFAA spindle
21	F2058E	2	bearing preload spacer
22	F1270	2	outboard bearing Timken L507949
23	F2058D	2	spindle nut retainer
24	F2058C	2	spindle nut (2.157-18 thread)
25	F1209C	2	o-ring for 4.75 & 5.00 B.C. drive plate
27	F2060A	2	4.75 B.C. drive plate
33	F1271	2	bearing cup Timken L507910
35	F2060H	2	4.75" B.C. floater hub

## INSTALLATION TOOLS

PART#	DESCRIPTION
F2058W	spindle nut wrench for 4.75" & 5.00" bolt circle kits
F2056M	spindle nut wrench for 5.50" bolt circle kits

## FLOATER KIT WELDING GUIDELINES



**NOTES:** The 3.000" diameter spindle must be turned to a "D" dimension that's depends on the particular housing tube inside diameter. See step # 2 for further instructions.  
 Top wheel stud shown in the figure is included in F2058BSP and F2058BAP kits  
 Bottom wheel stud shown in the figure is included in F2058BLP (see page 1 wheel stud options)

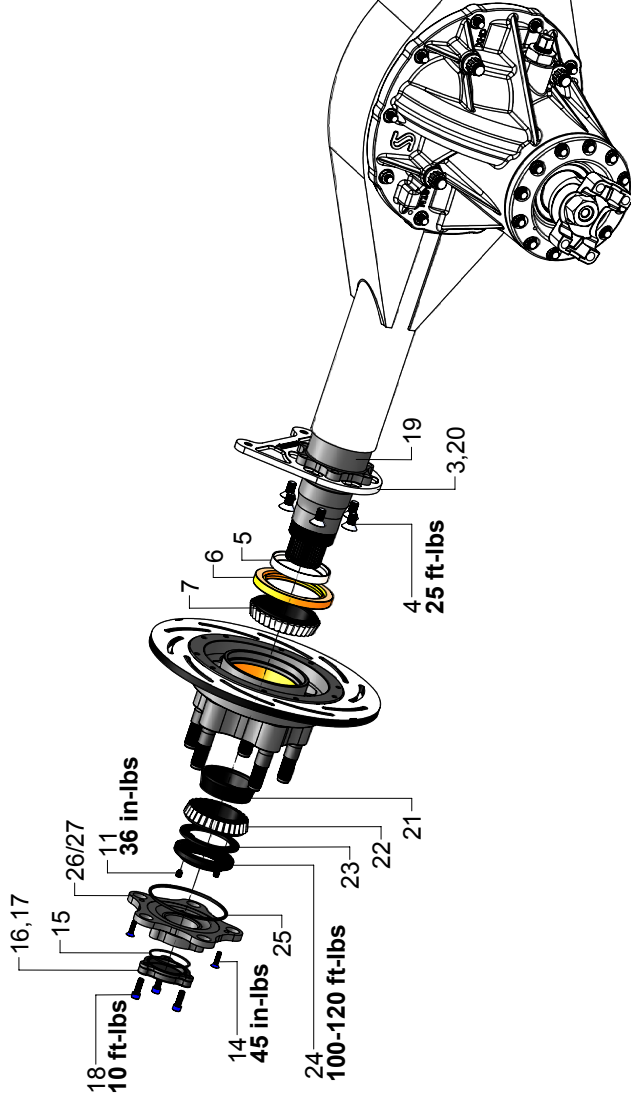
### Welding guidelines:

A professional and qualified chassis shop must perform the welding of the spindles to the housing tubes. This is very important due to the fact that if care is not taken in this crucial step leaks can occur, the axles could bind, and erratic handling could result.

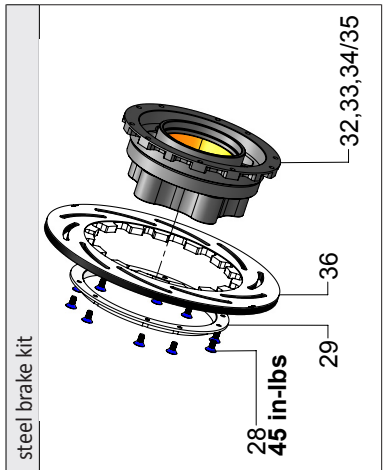
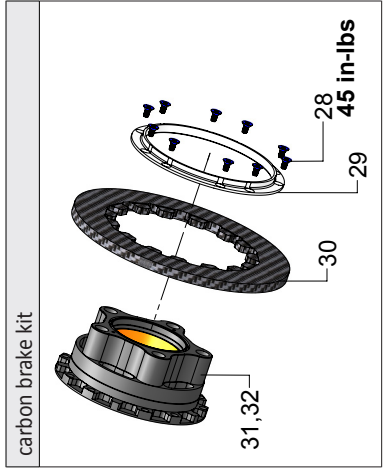
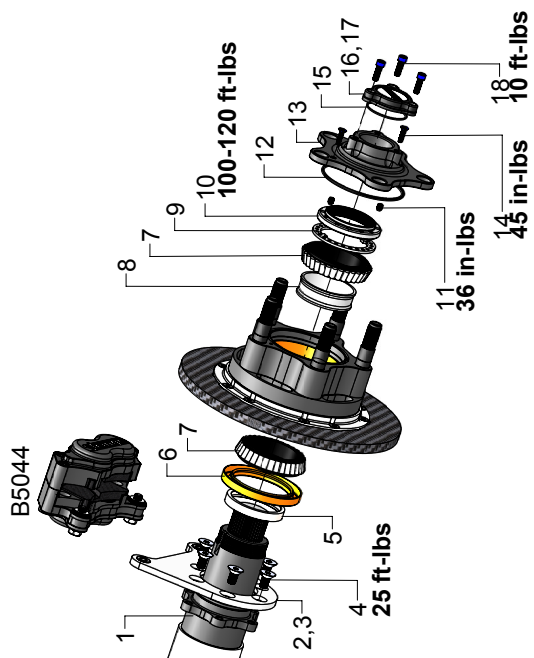
1. All spindles are constructed from normalized aircraft quality 4130 hot rolled steel. The spindles are black oxidized for cosmetic purposes which does not affect the welding process.
2. All floaters spindles have a 3" O.D. on the end that fits into the housing tube as shown above. This end must be turned down in a lathe to fit the particular housing tube I.D. A suggested starting point is to turn the spindle down 0.001" smaller than the housing tube I.D. for a slip fit leaving .750" unmachined from the backside of the flange as shown above. This will provide for a stop against the housing tube and give sufficient clearance to weld the spindle to the housing tube. Once both spindles fit into the housing, a line up bar must be used to verify straightness. If the line up bar does not pass through both spindles, then the O.D. of the spindles must be turned down further and checked again with the line up bar. Do not turn down more than necessary.
3. Drill  $\text{\O}0.375$ " to  $\text{\O}0.500$ " holes in the housing tube only (NOT THE SPINDLE) to facilitate plug welding. Drill two holes 180 degrees to each other in two locations (four holes total per spindle) where feasible. The welds must be leak free.
4. Weld the spindle 360 degrees to the end of the housing tube. The weld must be leak free.

**FLOATER KIT EXPLODED ASSEMBLIES**

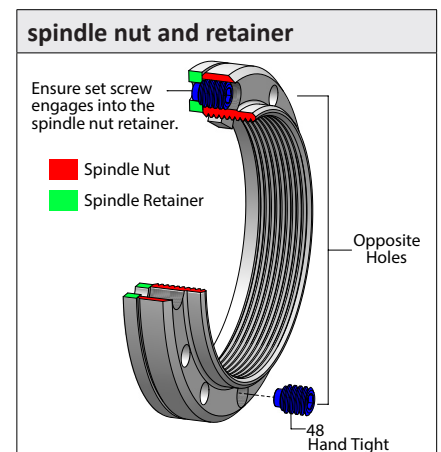
**4.75" / 5.00" bolt circle & steel brake kit**



**5.50" bolt circle & carbon brake kit**



1. Press nuts (3), wheel studs, and bearing cups (32,33) are pre-installed. All carbon and steel rotors are pre-installed onto the floater hubs using the FHSCS (28) and torqued to 45 in-lbs. The drive plates and caps are also installed for shipping purposes.
2. Begin by attaching the caliper mount (2 or 20) to the spindle using the six FHSCS (4). Torque to 35 ft-lbs.  
The caliper mount can be clocked at multiple positions.
3. Ensure the spindle ring (5) is installed and pressed onto the spindle.
4. Pack the inboard and outboard bearings with a high quality wheel bearing grease (NLGI #1 or #2)  
**Note:** A bearing packer is recommended. Otherwise, work as much grease as possible by hand around the rollers.
5. Place the inboard hub bearing (7) into the inboard side of the floater hub.
6. Press the hub seal (6) into the hub. Ensure the face stamped with the part number faces outside the hub.
7. Slide the floater hub assembly onto the spindle. Then slide the preload spacer (8 or 21) onto the spindle followed by the outboard wheel bearing (7 or 22).  
**Note:** Steel rotors are directional. The arrow on the rotor must face the normal rotation of the rotor/wheel.
8. Slide the spindle nut retainer (9 or 23) onto the spindle ensuring the notches on the retainer and slots on the spindle are oriented properly.
9. The spindle nut (10 or 24) must now be installed using the spindle nut wrench. (see top of page 1 for tool part #)  
Spindle nuts are torqued to 100-120 ft-lbs.  
**Note:** Ensure to align two opposite holes on the spindle nut and retainer for installation of set screws.
10. Thread the two set screws (11) opposite one another into the spindle nut. Ensure the set screws engage into the spindle nut retainer. See side figure.  
Torque set screws to 36 in-lbs
11. Rotate the hub several times to ensure everything is seated.
12. Install the drive plate (13,26 or 27) with the o-ring.
13. The spirolox on the axle fits flush on the drive plate. Secure the drive plate to the hub using the two FHSCS (14) and torque to 45 in-lbs
14. Install the drive plate cap (16) with the o-ring (15) using the three SHCS (18).  
Torque to 10 ft-lbs.
15. Consult Strange Four Piston Directional Caliper kits instructions for steel brakes.  
Consult Strange Ultra Four Piston Brake Caliper kits instructions for carbon brakes.
16. Install wheel, washers and lug nuts. Consult wheel manufacturer for lug nut torque.
17. After the initial installation of this kit, ensure that there is adequate clearance between all braking and chassis components by moving the suspension all the way up and down throughout its travel. Additionally, ensure that the brake lines are not subject to binding or kinking.  
Operate the vehicle in a cautious manner until you determine that the brakes are functioning properly.  
Check and re-torque all bolts before every event.



#### Minimal thickness

- L4050HS Carbon brake pads have **0.200"** minimum thickness.
- C1790 Carbon brake rotors have **0.300"** minimum thickness.
- F2056NL/R Steel rotors have **0.312"** minimal thickness

#### Steel brake rotors

A proper break in procedure is required for steel brakes to avoid brake fade and uneven rotor deposits from the pads. It consists of 8-10 brake applications increasing in harshness while allowing the brakes to cool slightly in between; do not keep the brakes applied between stops. After the last stop the brakes should be allowed to cool completely.

#### Carbon brake notes:

- The hotter the rotors becomes the more effective braking becomes
- Carbon brakes will stop your vehicle far better at the "top end" and will not "hold" as well at the starting line compared to steel brakes. We recommend that when you first drive or "tow" the vehicle to the starting line, you apply the brakes several times to get the "feel" of carbon at low speeds. After you become comfortable with the vehicle at the pit area, you may want to "drag" the brakes to create rotor and pad head to better hold the vehicle at the starting line. We recommend a few ½ or ¾ passes, so as to become aware of how your carbon brakes perform at higher M.P.H. Remember carbon works better at higher temperatures. The longer the brakes are applied the more aggressive braking will become.