

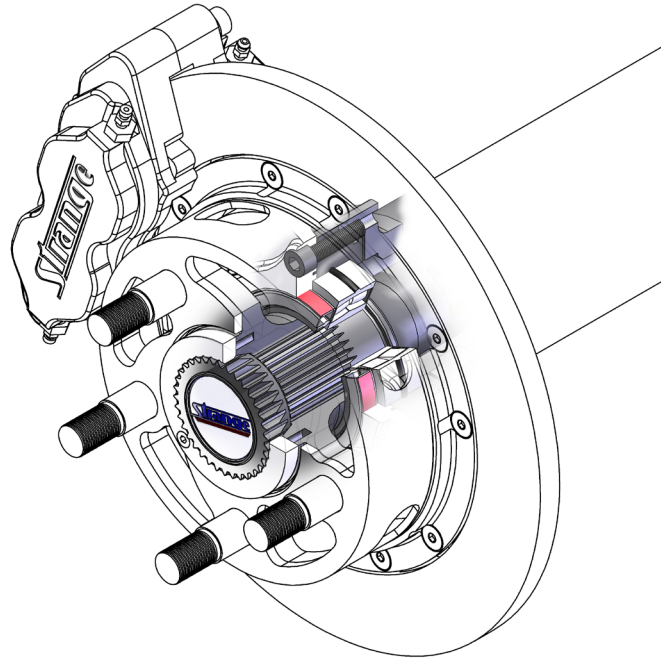
Strange

Kit Summary:

| | |
|---------------|------------------------------|
| Kit # | P1020 |
| Description | Strange two piece axle kits |
| Applications | Strange L5500SBB housing end |
| Page | 1 of 4 total pages |
| Date Modified | Jul 7, 2014 |

RaceStrange

- High-misalignment double row spherical bearing and aluminum cartridge resists binding and prevents HP loss
- Gun-drilled 2-piece axle is lighter and stronger than traditional one piece axle
- Axle step captivates the axle bearing eliminating the need for a wedding ring
- Reduced wheel deflection



2-Piece axle kits

| Kit | Brakes | Bolt circle |
|-------|--------|-------------|
| WJF4C | carbon | 4-3/4" |
| WJF4S | steel | 4-3/4" |
| WJF5C | carbon | 5" |
| WJF5S | steel | 5" |

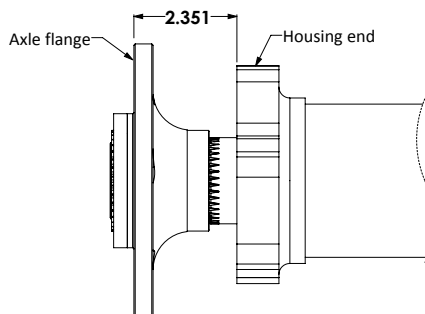
Bearing options

| Kit | Brakes |
|------|--|
| WJMG | McGill spherical double row roller bearing |
| WJBB | Low friction ball bearing |

Installation tools

| Kit | Brakes |
|------|----------------------------|
| WJ11 | Axle nut wrench |
| WJ13 | 40 spline axle vice holder |

Break gap



2-Piece axle kits

| Kit | Brakes | Bolt circle |
|-------|---------------------------|-------------|
| VZ123 | 40/45 Spline 2-Piece Axle | 12.30" |
| VZ126 | 40/45 Spline 2-Piece Axle | 12.72" |
| VZ132 | 40/45 Spline 2-Piece Axle | 13.15" |
| VZ133 | 40/45 Spline 2-Piece Axle | 13.41" |
| VZ135 | 40/45 Spline 2-Piece Axle | 13.67" |
| VZ138 | 40/45 Spline 2-Piece Axle | 13.90" |
| VZ142 | 40/45 Spline 2-Piece Axle | 14.25" |
| VZ146 | 40/45 Spline 2-Piece Axle | 14.75" |
| VZ150 | 40/45 Spline 2-Piece Axle | 14.97" |
| VZ153 | 40/45 Spline 2-Piece Axle | 15.30" |
| VZ155 | 40/45 Spline 2-Piece Axle | 15.67" |
| VZ162 | 40/45 Spline 2-Piece Axle | 16.10" |
| VZ163 | 40/45 Spline 2-Piece Axle | 16.35" |
| VZ165 | 40/45 Spline 2-Piece Axle | 16.62" |
| VZ168 | 40/45 Spline 2-Piece Axle | 16.85" |
| VZ172 | 40/45 Spline 2-Piece Axle | 17.25" |
| VZ176 | 40/45 Spline 2-Piece Axle | 17.70" |
| VZ180 | 40/45 Spline 2-Piece Axle | 17.91" |
| VZ203 | 40/45 Spline 2-Piece Axle | 20.38" |

| ITEM# | PART# | QTY | DESCRIPTION |
|-----------|-----------------------|-----|---|
| 1 | WJ08 | 2 | Lock Collar |
| 2 | WJ04 | 2 | 2-Piece Axle Nut |
| 3 | WJ10 | 4 | 10-32 x 1/2" SHCS Bolt |
| 4 | - | 2 | 40/45 Spline Gun-Drilled Axle (length to depend on application) |
| 5 | WJ02 | 2 | 1" Freeze Plug |
| 6 | A1RS | 2 | Strange Engineering Aluminum Decal |
| 7 | WJ12 | 4 | 10-24 x 5/8" SHCS Bolt |
| 8 | WJ01 | 2 | Oil Seal |
| 9 | WJ00 | 2 | McGill® High-Misalignment Bearing |
| Not Shown | WHBB | 2 | Low Friction Ball Bearing |
| 10 | WJ027 | 2 | Bearing Cartridge |
| 11 | WJ028 | 2 | -154 O-Ring (installed in WJ027) |
| 12 | B1301E | 4 | 3/8"-20 Press Nut |
| 13 | WJ09 | 10 | 5/16"-24 x 1-1/4" SHCS Bolt |
| 14 | L5500SBB | 2 | Strange Housing End |
| 15 | Z0206D01 ² | 2 | Strange Housing End w/ added offset |
| Not Shown | A1027D | 10 | 5/8"-18 Lug Nut |
| Not Shown | A1027F | 10 | 0.250" Aluminum Anti-Marring Spacer |
| 16 | A1037AM | 10 | 5/8"-18 x 2.575" Wheel Stud |
| 17 | A1037D | 10 | 5/8"-18 Thin Stover Jam Nut |
| 18 | WJ023 | 1 | L.H. Axle Flange for 4-3/4" B.C. (WJF4C & WJF4S) |
| Not Shown | WJ029 | 1 | L.H. Axle Flange for 5" B.C. (WJF5C & WJF5S) |
| Not Shown | WJ024 | 1 | R.H. Axle Flange for 4-3/4" B.C. (WJF4C & WJF4S) |
| Not Shown | WJ030 | 1 | R.H. Axle Flange for a 5" B.C. (WJF5C & WJF5S) |
| 19 | WJ036 | 2 | -153 O-Ring (installed in caliper bracket) |
| 20 | S5000O | 2 | -033 O-Ring |
| 21 | WJ026 | 2 | Ultra Carbon Caliper Bracket for 2-Piece Axle (WJF4C & WJF5C) |
| Not Shown | WJ032 | 2 | Steel brake mounting caliper (WJF4S & WJF5S) |

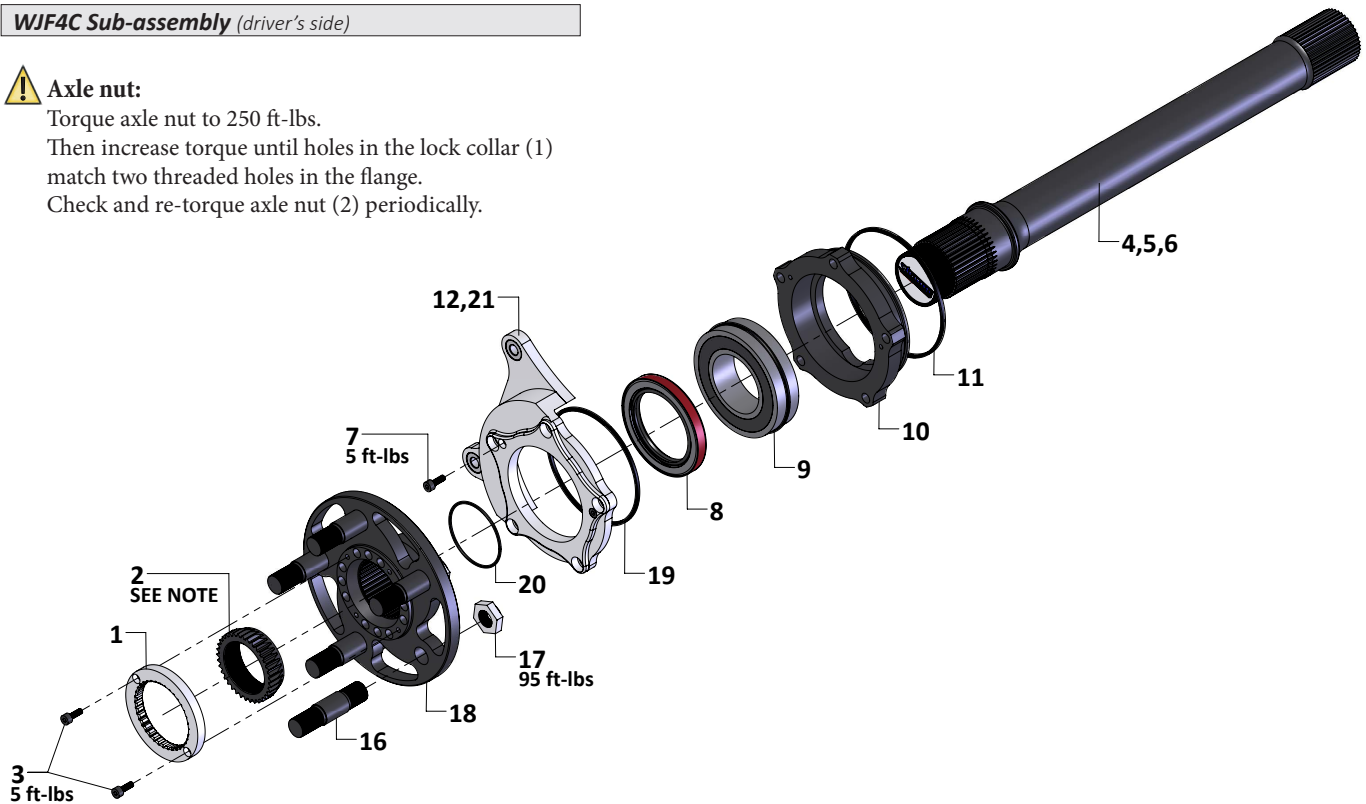
² To be used when replacing an existing housing end. To take the place of L5500SBB and to be determined when ordering

WJF4C Sub-assembly (driver's side)



Axle nut:

Torque axle nut to 250 ft-lbs.
Then increase torque until holes in the lock collar (1) match two threaded holes in the flange.
Check and re-torque axle nut (2) periodically.



Components included in C18104NBUC & C18105NBUC carbon brake kits

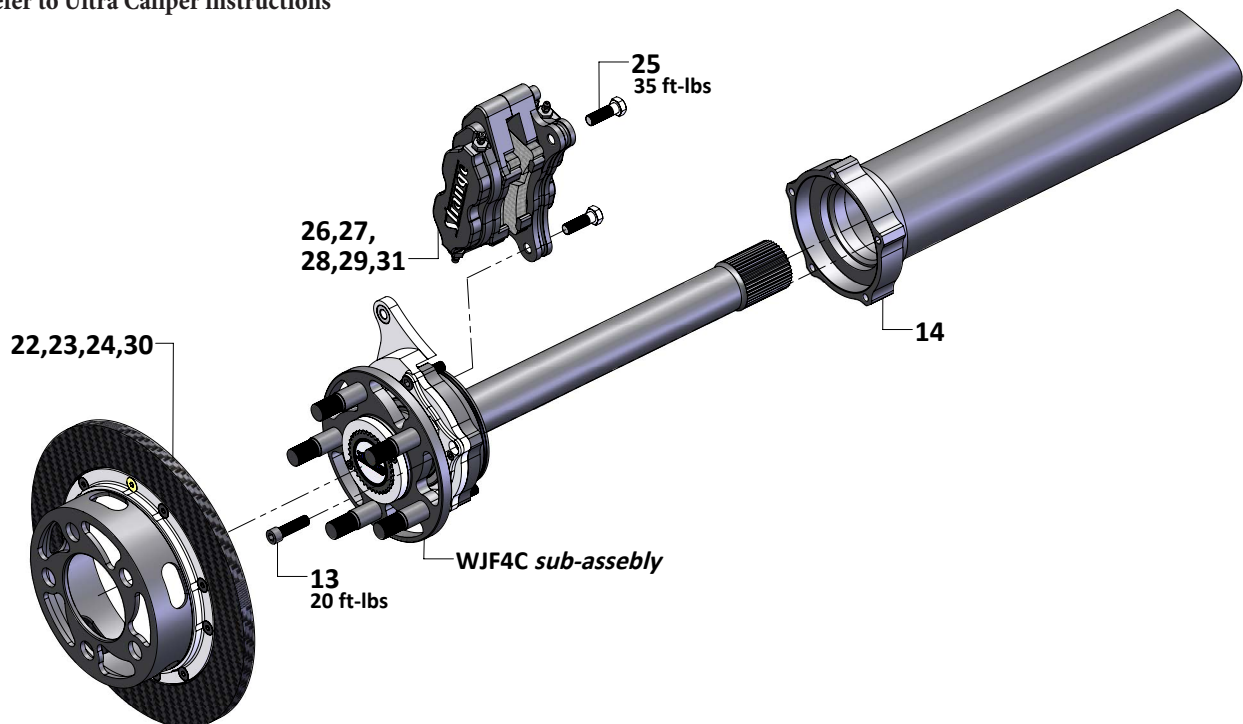
| ITEM# | PART# | QTY | DESCRIPTION |
|-----------|---------|-----|---|
| 22 | C1700D | 20 | ¼-20 x ½" FHSCS |
| 23 | C1700H | 2 | 11" Carbon Rotor Retaining Ring |
| 24 | C1790 | 2 | 11" Carbon Rotor |
| 25 | B5000Z | 4 | ¾-24 x 1.187" Caliper Mounting Bolt |
| 26 | B5042 | 2 | 4 Piston Brake Caliper (w/ 2 pc. insulated pistons) |
| 27 | L4050H1 | 2 | Slotted (directional) 4-Piston Carbon Pad |
| 28 | L4050H2 | 2 | Slotted (directional) 4-Piston Carbon Pad |
| 29 | P2316 | 2 | ⅛" NPT x #3 AN Fitting |
| Not Shown | C1700B | 1 | R.H. carbon rotor adapter for use with 4-¾" B.C. (C18104NBUC) |
| Not Shown | C1700F | 1 | R.H. carbon rotor adapter for use with 5" B.C. (C18105NBUC) |
| 30 | C1700C | 1 | L.H. carbon rotor adapter for use with 4-¾" B.C. (C18104NBUC) |
| Not Shown | C1700G | 1 | L.H. carbon rotor adapter for use with 5" B.C. (C18105NBUC) |
| 31 | S3402L | 4 | Flanged bushing |

Components included in B1711NBM Pro Race steel brake kit:

| ITEM# | PART# | QTY | DESCRIPTION |
|-----------|--------|-----|--|
| Not Shown | B2792 | 1 | HD/MD R.H. Steel Rotor |
| Not Shown | B2793 | 1 | HD/MD L.H. Steel Rotor |
| Not Shown | B5000Y | 4 | ¾"-24 x 1.125" HHCS Caliper Bolt |
| Not Shown | B1301J | 4 | ¾" I.D. Flat Caliper Washer |
| Not Shown | B1301H | 16 | ¾" I.D. x 0.025" Thick Caliper Shim |
| Not Shown | B5020 | 4 | 4-Piston Metallic Pad |
| Not Shown | B5002 | 1 | R.H. 4-Piston Caliper |
| Not Shown | B5004 | 1 | L.H. 4-Piston Caliper |
| Not Shown | P2316 | 2 | ⅛" NPT x #3AN Fitting (installed in B5002/B5004) |

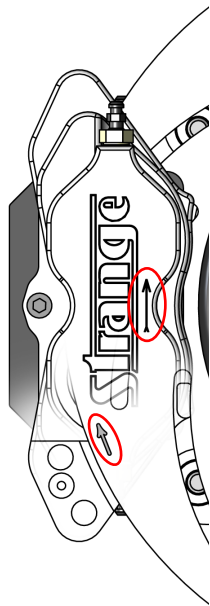
WJF4C with C18104NBUC (driver's side)

refer to Ultra Caliper instructions



Installation instructions

- Instructions apply to all 2-piece axle kits, however, figures shown specifically cover WJF4C kit with C18104NBUC (ultra carbon brakes)
 - All two piece axle kits are shipped fully assembled as shown in figure 3. Refer to figure 2 for sub-assembly if service is required.
- 1 Slide the sub-assembly into the axle housing, ensuring that the bearing cartridge (10) lines up with the housing end.
 - 2 Turn the axle flange to allow for the five $\frac{3}{16}$ -24" x 1.25" bolts (13) to be threaded through the sub-assembly and into the housing end. Torque to 20ft-lbs.



Steel brakes

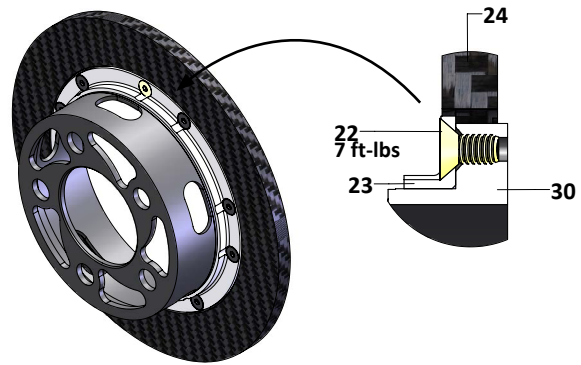
- brake rotors and calipers mount with the arrow pointing in the direction of normal rotation
- refer to B1855 instructions for complete caliper installation

Break-in procedure

A proper break in procedure is required 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 brakes

- counter-bore on the brake rotor (24) must face outboard for the retainer (23) to seat properly
- refer to B5046 instructions for complete brake caliper installation



Axle sub-assembly removal from housing

- 1 Remove the $\frac{3}{16}$ -24 x 1- $\frac{1}{4}$ bolts (13)
- 2 Rotate the bearing cartridge (10) to misalign the points of the housing end (14)
- 3 Evenly tap on all five points of the bearing cartridge (10) as it's removed

Axle nut torque using optional tools

- 1 Securely locate the axle holder (WJ13) in a vice and insert 2-piece axle sub assembly
- 2 Using a $\frac{3}{4}$ " drive ratchet and 36 spline $\frac{3}{4}$ " wrench head (WJ11), tighten the axle nut
Torque to 250 ft-lbs
(Torque the axle nut past 250 ft-lbs, until the two sets of holes in the local collar line up with either pair of threaded holes in the axle flange)
- 3 Secure the lock collar using 10-32 x $\frac{1}{2}$ " bolts (3)
Torque to 5 ft-lbs

