

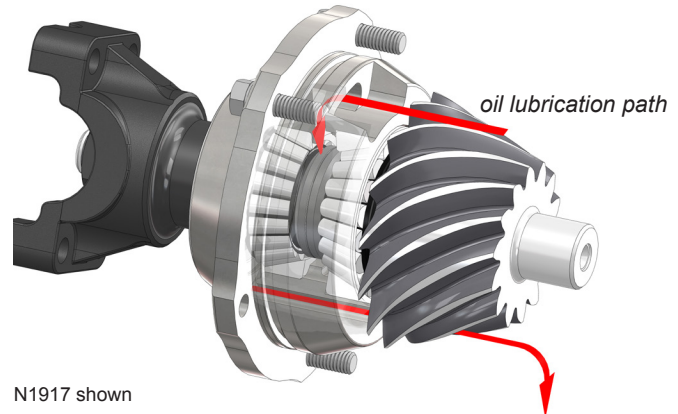
Strange

Kit Summary:

Kit #	N1914, N1915 & N1917
Description	Ford 9" Pinion Supports
Applications	Street cases
Page	1 of 2 total pages
Date Modified	Sep 6, 2018

RaceStrange

- Larger than stock rear tapered pinion bearing
- Oil porting to maximize bearing life
- Ideal for street/strip applications
- Pinion preload is adjusted by shim stack in combination with 2 pre-load spacers
- Significant increase in thrust capacity
- Improved rigidity for pinion shaft



N1917 shown

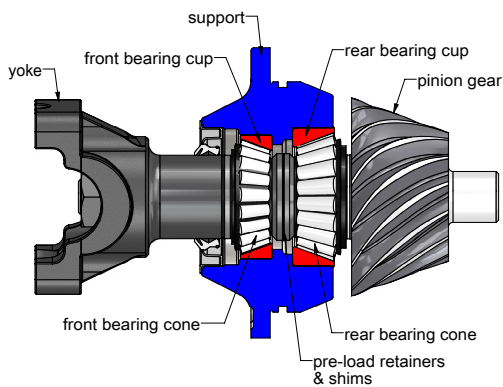
Part #	Description	Application	Weight [lbs] (with cups installed)
N1914	Iron Daytona	street/track	6.45
N1915	Aluminum Daytona	track	3.00
N1917	Strange Forged Aluminum	street/track	4.00

Part #	Description	Dust shield	Notes
U1603	Strange chrome-moly yoke	U1600B	N1918A 0.188" pinion spacer required
U2203	Strange S-series yoke	U2203B	--

Pinion Nut Torque

28-spline pinion: 200 ft-lbs

Pinion Bearing Preload



Bearing preload is the measure of torque [in-lbs] required to rotate the pinion after the nut has been torqued to spec.

Preload using shim stacks:

Pinion bearing preload is adjusted by the thickness of the shim combinations inside the pre-load retainers. As shims are added the total width of the retainer assembly is increased pushing the bearing cones away from the bearing cups therefore, decreasing the drag. Add shims to decrease pre-load.

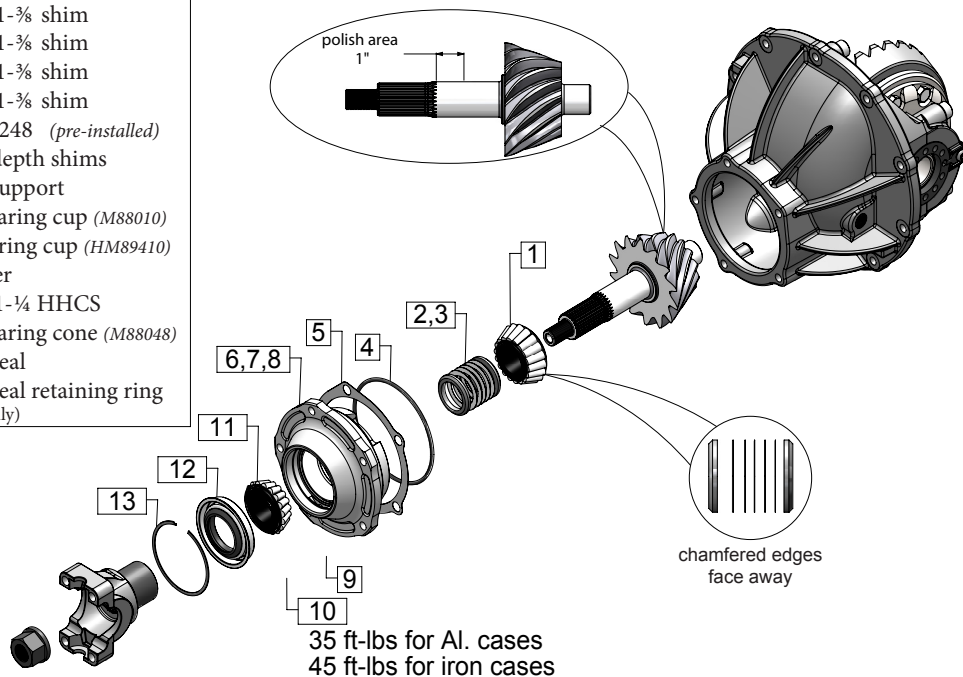
Removing shims decreases the total width of the pre-load retainers. The bearing cones experiences a greater drag against the bearing cups at the same pinion nut torque. Remove shims to increase pre-load.

Application	Preload [in-lbs] (without seal)
new bearings	20-25

Pinion Depth

Pinion depth on 9" rear ends is adjusted by shims between the pinion support and center case. Adding shims moves the pinion gear further away from the center-line of the ring gear.

ITEM#	PART#	QTY	DESCRIPTION
1	N1925J	1	rear bearing cone (HM89443)
2	N1925A	2	pinion preload retainer
3a	N1925B	2	0.004 x 1- $\frac{3}{8}$ shim
3b	N1925C	2	0.005 x 1- $\frac{3}{8}$ shim
3c	N1925D	2	0.006 x 1- $\frac{3}{8}$ shim
3d	N1925E	2	0.007 x 1- $\frac{3}{8}$ shim
3e	N1925F	2	0.008 x 1- $\frac{3}{8}$ shim
4	N1958	1	o-ring #248 (pre-installed)
5	N1962	1	pinion depth shims
6	--	1	pinion support
7	N1914C	1	front bearing cup (M88010)
8	N1914B	1	rear bearing cup (HM89410)
9	S3402N	5	$\frac{3}{8}$ washer
10	B1757B	5	$\frac{3}{8}$ -16 x 1- $\frac{1}{4}$ HHCS
11	N1925H	1	front bearing cone (M88048)
12	N1960	1	pinion seal
13	N2300DS	1	pinion seal retaining ring (N1917 only)



Installation:

- Polish the pinion gear with an emry cloth or sand paper to achieve a slip fit with the front bearing cone (11).
- Press the rear bearing cone (1) over the pinion gear shaft. Ensure correct orientation of bearing.
- Slide the pinion preload retainer (2) and shims (3) over the pinion gear assembly. Ensure correct orientation of preload retainers. Start with 0.030" total shim thickness.
- Place the pinion support body (6) onto the pinion shaft.
- Slide the front bearing cone (11) over the pinion shaft and the pinion yoke. Torque the pinion nut. Do not install the seal (12). Refer to the first page for pinion nut torque. Slightly lubricate the pinion gear threads to read the correct torque.
- Apply a small amount of lightweight gear oil to both bearings and check for bearing drag. This indicates an existent preload condition. Refer to the first page for preload specification and instructions.
- Once the correct preload has been established, remove the pinion nut and yoke.
- Press the pinion seal (12) into the pinion support body (6) flush with the outside face of the body. Ensure the front bearing cone is still inside the body before the seal is pressed on.

Note: After the seal (12) is pressed in install the provided seal retaining ring (13). (only for N1917)
- Apply a small coating of lightweight gear oil to the inside diameter of the seal (12).
- Clean and dry the threads on the pinion gear and reinstall yoke.
- Clean and dry the threads of the pinion nut before applying red loctite. Install the nut and torque to spec listed on first page.
- Following you gear manufacture's instructions, install the completed assembly into your Strange Engineering 9" Ford case with the o-ring (4) in the groove machined in the support. The proper amount of depth shims (5) must be determined. Lubricate the o-ring (11) and pinion support bore prior to assembly. Secure with five pinion support bolts (9) and torque to 35 ft-lbs for aluminum cases and 45 ft-lbs for iron cases.