

INFERNO FIRE

PATENTED RACING CLUTCH ** PAT. NUMBERS 6,857,515 AND 7,717,250 **

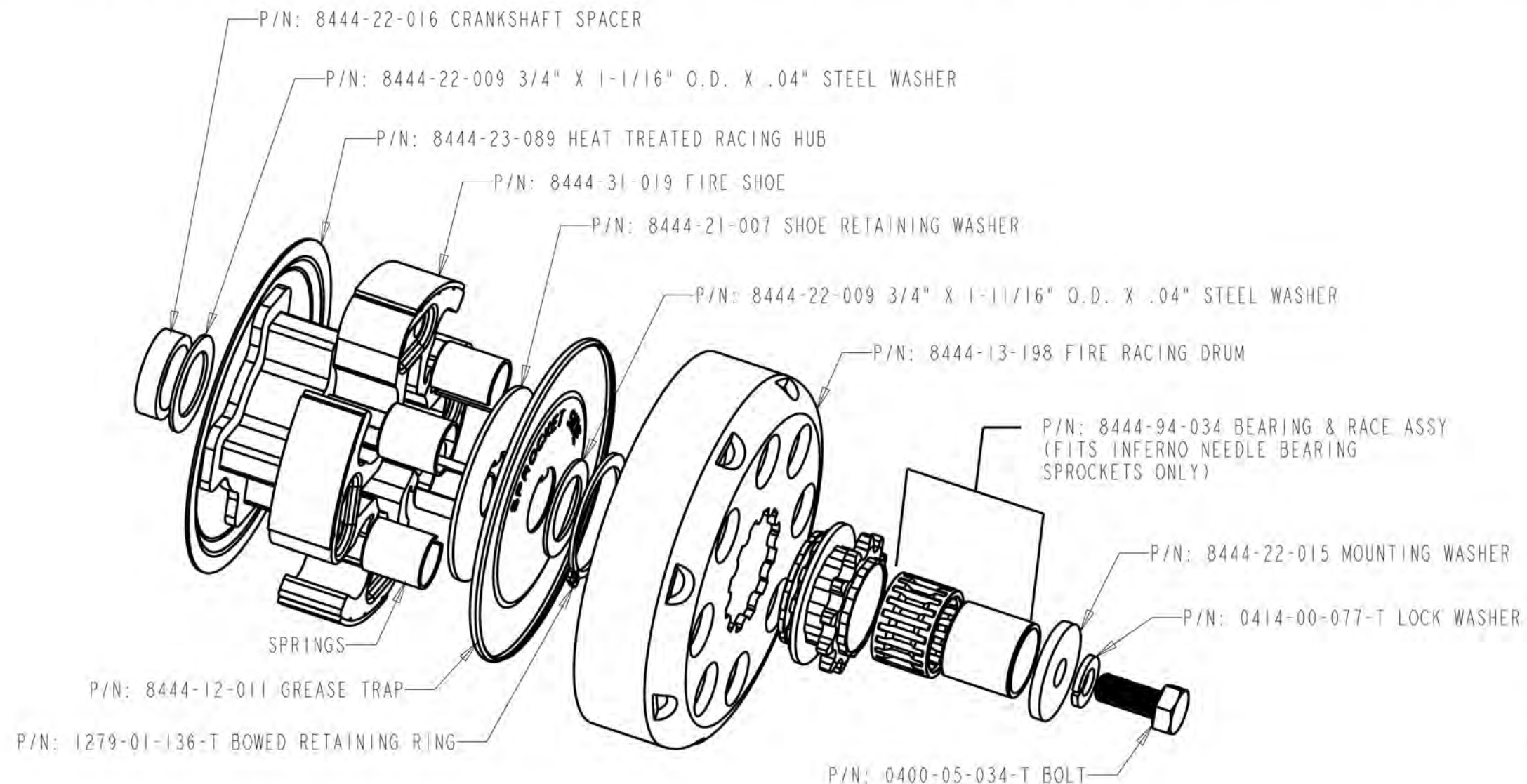
INSTALLATION and MAINTENANCE Instructions for the FIRE clutch with a needle bearing.

This clutch is a two (2) piece mechanism. There is a potential that if the clutch is not assembled or installed properly that serious injury can occur. **⚠WARNING** It is **VERY** important that you follow all the directions for proper clutch installation. If you have any questions, please contact your dealer, visit www.infernoclutch.com or visit us on Facebook at www.facebook.com/infernoclutch for more information. **⚠WARNING** Do not operate without proper guarding/cover.

*****For best results, perform the following weekly maintenance*****

The FIRE clutch is engineered with friction lining to maintain a coefficient of friction that is more consistent from a dynamic to static state. For best performance the clutch should be cleaned with brake cleaner. The needle bearing should be lubricated with a small amount of high temperature bearing grease. Do not over lubricate the bearing. Do not spray chain lube on the chain next to the drum to minimize the chance of chain lube getting inside the drum.

Recommended Initial Setup: The FIRE clutch has a wide range of tuning. Initial setup is to put the shoes in a leading orientation and install (2) white springs & (2) black springs. This setup will be a good starting point for the majority of racers. Each spring color needs to be installed opposite of each other to maintain balance. This setup will start to engage around 3400 rpm. After you test your setup you then can adjust the clutch to your specific needs. Add or remove weight, change the springs, or change shoe orientation. Adding optional weights to each shoe will adjust your engaging speed down approximately 100-200 rpm per set of weights. Tuning information is available from our website. www.INFERNOCLUTCH.com



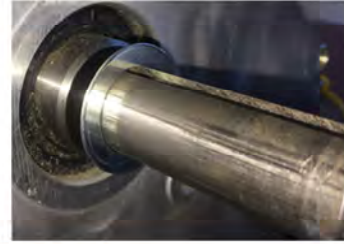
"INBOARD" MOUNTING OF THE SPROCKET



STEP 1
Slide the chamfered crankshaft spacer on the engine. The large chamfer on the inside is designed to give clearance over the radius on the crankshaft.



STEP 2
Install a 3/4" x 1 1/16" O.D. x .04" thick steel washer against the crankshaft spacer.



STEP 3
Install the bearing race.



STEP 4
Lubricate the needle bearing with a small amount of high temperature bearing grease and install the bearing.



STEP 5
Assemble the sprocket and drum, install the retaining ring bowed side up. The snap ring is bowed and acts like a spring to keep the sprocket tight in the drum.



STEP 6
Install the drum/sprocket assembly. The sprocket will slide over the needle bearing easier if you rotate the drum while installing.



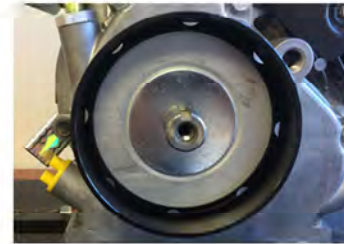
STEP 7
Install a 3/4" x 1 1/16" O.D. x .04" thick steel washer against the race.



STEP 8
Install the grease trap with the sprocket side facing the sprocket. The sprocket side is stamped "SPROCKET SIDE".



STEP 9
Install the 3/4" x 2 1/4" O.D. x 1/16" thick spring/shoe retaining washer.



STEP 10 CLUTCH ORIENTATION



STEP 11
Clutch assembled according to your preferred engaging speed and orientation on the clutch hub. Install the shoe/hub assembly.



STEP 12
Properly spaced clutch. The clutch will be clamped tight on the crankshaft to minimize fretting of keyway and potential damage to the integral key in the clutch hub.



STEP 13
Install bolt, lock washer, and mounting washer. Properly torque to engine manufacturers specification.



"OUTBOARD" MOUNTING OF THE SPROCKET



STEP 1
Slide the chamfered crankshaft spacer on the engine. The large chamfer on the inside is designed to give clearance over the radius on the crankshaft.



STEP 2
Install a 3/4" x 1 1/16" O.D. x .04" thick steel washer against the crankshaft spacer.



STEP 3 CLUTCH ORIENTATION



STEP 4
Clutch assembled according to your preferred engaging speed and orientation on the clutch hub. Install the shoe/hub assembly.



STEP 5
Install the 3/4" x 2 1/4" O.D. x 1/16" thick spring/shoe retaining washer.



STEP 6
Install the grease trap with the sprocket side facing the sprocket. The sprocket side is stamped "SPROCKET SIDE".



STEP 7
Install a 3/4" x 1 1/16" O.D. x .04" thick steel washer against the race.



STEP 8
Install the bearing race.



STEP 9
Assemble the sprocket and drum, install the retaining ring bowed side up. The snap ring is bowed and acts like a spring to keep the sprocket tight in the drum.



STEP 10
Lubricate the needle bearing with a small amount of high temperature bearing grease and install in the sprocket.



STEP 11
Install the drum assembly. Rotate the assembly while inserting over the race.



STEP 12
Properly spaced clutch. The clutch will be clamped tight on the crankshaft to minimize fretting of keyway and potential damage to the integral key in the clutch hub.



STEP 13
Install bolt, lock washer, and mounting washer. Properly torque to engine manufacturers specification.

