

439

Cassette Hub

INSTALLATION AND MAINTENANCE INSTRUCTIONS

WHEEL BUILDING

The Superdupereight is designed to be laced up with 14 gauge or 14/15 butted spokes in a three or two cross configuration.

HUB DIMENSIONS

Spacing	135mm or 130mm
Flange Diameter	52.0mm
Center To Flange	L34.0mm R21.0mm

COG MOUNTING

Alloy cog spacers are available from Ringle. If you are using a seven speed cog stack, it is necessary to place this spacer on the inboard side of the cogs. If you are running an eight or nine shimano speed set up you will not need to use the spacer.

MAINTENANCE

The **439 Cassette Hub** is supplied with high quality double sealed bearings; it is best to leave these alone. The seals and factory lubrication have proven to be very effective against dirt, dust, grime and water spray. However, when cleaning your bike, do not spray solvents or water near the bearing seals. Also, submersion of the bearings during water crossings should be avoided. Splashing through a shallow crossing is OK, but going through axle deep water is a surefire way to contaminate the bearings and reduce their service life.

The **439** cassette hub features three independently sprung pawls that engage simultaneously with a ratchet ring that has 36 teeth. This enables the mechanism to engage at ten degree increments (twice as fast as our previous model). The system is designed to have very low drag when coasting. Periodic cleaning and lubrication is required to insure continued smooth operation and long service life.

The three pawl ratchet mechanism is designed for ease of disassembly and maintenance. Maintenance should be performed on a regular basis at intervals determined by how harsh your riding environment is (extremely dusty or wet conditions will require more frequent maintenance). If you notice that the chain feeds forward while coasting or that it is difficult to back pedal, it is definitely time to clean and lubricate the operating parts of the ratchet mechanism. The ratchet mechanism comes ready to race from the factory and is lubricated with a medium weight oil (PEDRO'S SYNLOBE ATB). Do not use grease to lube the pawls. Grease retards the action of the pawls and may prevent full engagement with the ratchet teeth. The use of grease in the ratchet mechanism will void the factory warranty.

CLEANING & LUBRICATION PROCEDURE

A 5mm hex key and a 16mm flat cone wrench are required for disassembly.

- Step 1 Remove cogs from the cog carrier.
- Step 2 Slide the 5mm hex key into the non-drive side portion of the axle.
- Step 3 Use the 16mm flat wrench to thread off the nut on the drive side. This is standard thread.

- Step 4 The cog carrier will now slide off the axle. In some cases where the assembly is dirty, you may need to use a gear puller to remove the cog carrier - remount the cog lock-ring which will serve as a lip for the gear puller to grab.
- Step 5 To clean and lube, carefully remove the pawls and springs. It is extremely important that the springs do not get bent or stretched. We find it easiest to clean the cog carrier, pawls and ratchet ring with a cotton swab.
- Step 6 For re-assembly, first put springs in place, then put a drop of medium weight oil in each pawl retaining pocket and slip the pawls into place. Make sure the spring is seated in the spring pocket of the pawl.
- Step 7 Put a light coat of oil on the O-ring seal and on the teeth of the ratchet ring.
- Step 8 Slide the cog carrier back onto the axle. The pawls must be compressed so that they will engage with the ratchet ring. Now slide the cog carrier all the way on.
- Step 9 Replace the drive side nut and tighten in back down with the 16mm flat wrench
- Step 10 Make sure the cog carrier ratchets freely.

SUN RINGLE LIMITED WARRANTY: Sun Ringle racing components warrants to the original retail purchaser that all of its products are of the finest quality and are free from manufacturer defects for a period of one year from the date of original retail purchase (so like many items it is a good idea to keep your receipt just in case of a warranty claim). It is at the sole discretion of Sun Ringle racing components to repair or replace any one of its products during the above warranty period. ALL warranties are VOID if product is subject to abuse, crash, damage, neglect or lack of maintenance, improper installation, improper repair, alterations or use unintended by the manufacturer. This warranty is in lieu of all other agreements and warranties, general or special, express or implied and no representative or person is authorized to assume any liability on behalf of Sun Ringle racing components in connection with the sale or use of our products.

IF YOU HAVE A WARRANTY CLAIM: Contact your dealer, who can handle your claim or notify Sun Ringle before returning any merchandise to our factory. Please call to explain your product situation and request a return authorization number. Upon acknowledgment by Sun Ringle of any possible warranty, pack and ship the product to Sun Ringle freight prepaid, with the return authorization number written clearly on the outside of the box, and please include original proof of purchase. Sun Ringle will not accept ANY merchandise returned to us without an R.A. number or returned to us freight collect.

Sun-Ringle Racing Components,
800 W. 4th St., North Manchester, IN 46962
Cust. Service (219) 982-6410 Sales (219)267-3281
Fax: (219) 982-8227