

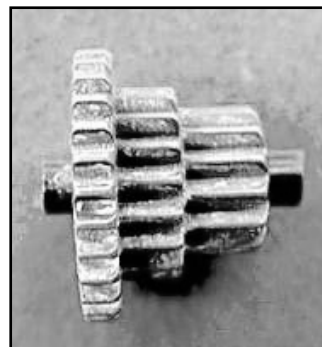
Troubleshooting Gear by Gear

The information on the preceding pages can be used to determine where your problem lies inside the hub, speeding up the troubleshooting process and eliminating replacement of parts that aren't damaged. Here are some examples:

It is possible for the large bearing retainer to get damaged when installing the internal assembly back into the hub shell after service. If a bearing gets wedged under ring gear 1 and it is not able to freewheel then the bike will not pedal in 5th–8th gear. There will also likely be noise in 1st–4th gear.



A squeaking noise only in 2nd–4th gears and 6th–8th gears indicates that the pins holding the planetary gears in Planetary Gear Set 2 are dried out. Be sure to grease these gears well when lubricating the hub. ***Do not disassemble the hub to the point of separating the planetary gears from the carrier.***



Any time the hub makes a noise in only certain gears it is possible to trace the source of the noise to only one or two locations. The number one problem that arises with internally geared hubs is contamination from dirt, water or rust. The solution is almost always to simply clean and re-grease the affected areas. Knowing exactly where the problem area is tells you what exactly needs to be cleaned and greased inside the hub. Keep in mind that ratcheting noises are normal in many gears. The silent roller clutch version of the 8 speed hub was used for these illustrations but just like the 3 speed hub, there will be a ratcheting noise any time a gear is moving faster than the pawls that drive it.