ISSUE
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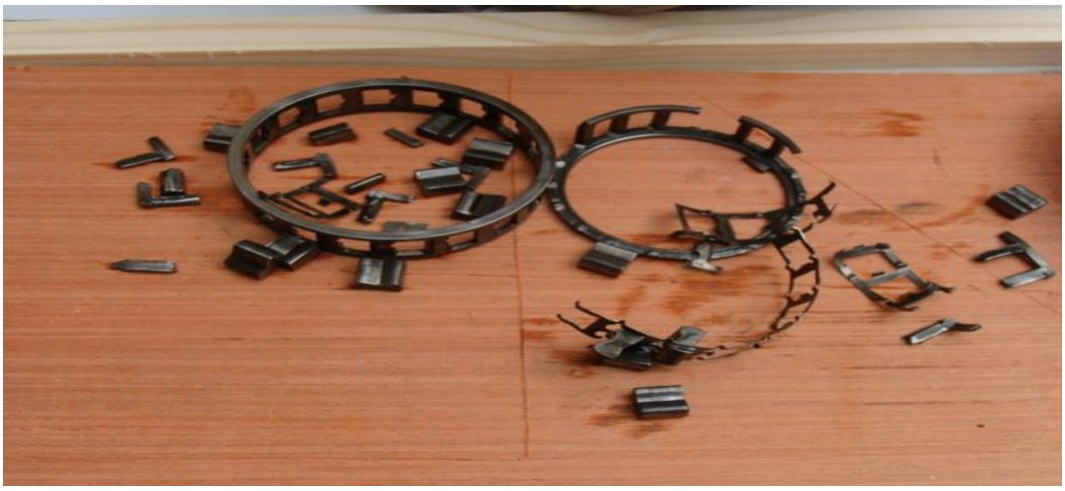
YEAR
2019

BulletBulletin

Sprag Clutch (Starter Gear) Failure



Models Effected

(C5) U5S5F0AH007497

(E5) U5S5F0AH007497

(G5) U5S5F0BA007612

Modification Date

November,2010

Original Part

571053

New Part

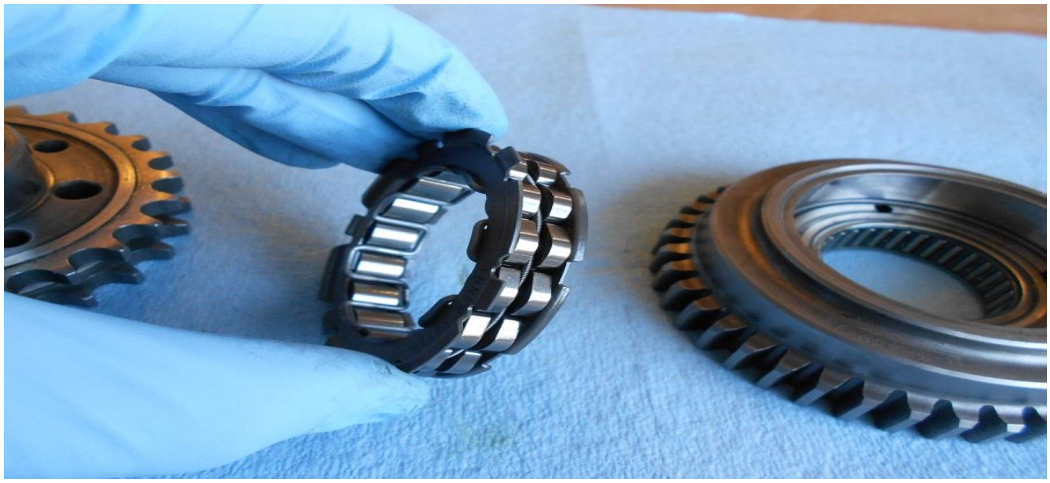
592593

Exploring the problem

The way in which the 1st generation sprag bearing held the individual sprags in place, was with metal tabs on top of them, in a caged assembly. So, if there was a kick back or anytime the crankshaft was to be rotated back words (counterclockwise) from the right side of the motor. The individual sprags would push out and away from center and bend these retaining metal tabs out. This bending out of the metal tabs would loosen the individual sprags in the cage that they are housed in, rendering the sprag bearing useless.

How often or how hard the counter clockwise rotation happened, would determine how long the sprag would last. Once the tabs were bent out, it was done for. When taking the gear assembly out and separating it most would find the sprags falling out of their cage.

“A kick back can happen from: a miss fire when one goes to kick start the motor, if the battery is weak, if there is a charging issue , if the motor has an ignition problem or is in a poor state of tune, or if the bike gets stalled out on the road in first gear.”



Exploring the solution

The way in which the 2nd generation sprag bearing holds the individual sprag in place, is with a spring instead of those metal tabs. In the event of a kick back, the spring will allow the sprags to move out a little and move them back in place. It’s much better design.

The 1st generation sprag bearing will only fit into the 1st generation gear assembly. And the 2nd generation sprag bearing will only fit into the 2nd generation gear assembly, they are not interchangeable. If you have an older UCE (manufactured before November of 2010) that has the 1st generation sprag/gear, and your sprag bearing goes bad, you must buy the whole 2nd generation sprag/gear assembly (Part number 592593).

Intellectual Credit: Dan Palumbo

Photo Credit:
https://forum.classicmotorworks.com/index.php?topic=19246.0