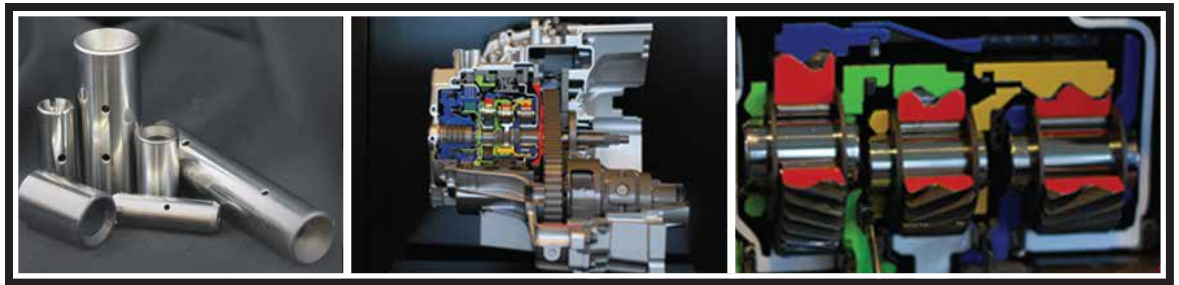


DURACASE™ Planetary Shaft

Today's automatic transmissions are handling more torque and power for their size than ever before. Higher reliability and power dense solutions are becoming typical requirements in the current transmission and planetary market.

DURACASE™ Planetary Shafts help our customers achieve a more robust solution for planetary bearing systems by improving bearing system life through specialized heat treatment and processing. This results in a bearing surface that reduces the opportunity for asperity welding and flaking, commonly known as fine grain spalling and decreases localized subsurface stress that can result in coarse grain spalling.

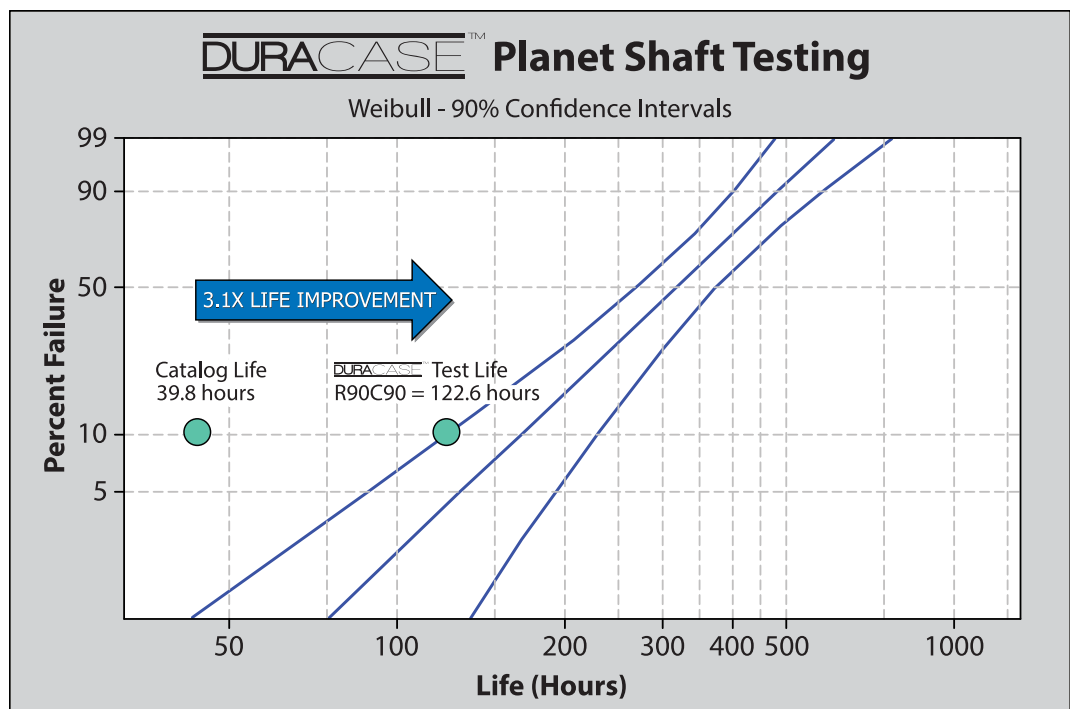


Advantage:

Koyo bench testing has shown that the DURACASE™ enhanced heat treatment significantly extends life under typical planetary type bearing loading and lubrication conditions.

Recommended Applications:

- Highly stressed applications
- Thin lube film conditions
- Contaminated environments



The graph above displays a 3.1 times life improvement compared to industry standard catalog life calculation.