

891, Crankshaft Assembly Procedures

General Practice

Confirm general suitability of shaft, ring gear and bungs via QA documents, and then specifically measure and record the gear mount diameter against that of the crankshaft, to establish that the interference fit requirement is met. Ascertain that the mass requirement for the bungs is correct.

Ensure that there is satisfactory material to locate the ring longitudinally, and that the ring will navigate the counterweight and journal it must pass over when heated to fit. Once measured and correct, ensure that the parts are not separated.

Dimension Table

Nominal shaft diameter; 129.20mm

Nominal ring inner diameter; 129.0mm

Fit range; (interference) 0.20mm+/- 0.035mm

Assembly

Chill the shaft and heat the ring. When stable at the desired temperatures install the ring into place.

When normalized to hand temperature, thoroughly wash the whole assembly paying particular attention to gallery cleanliness, bearing surface finish, and that the assembly is completely dry. Install the two bungs previously identified, set them into place at the correct torque noting that they do not protrude out from the flanks of the webs.

Once satisfied, remove them, coat the last 50% of the threads of each bung, re-install and torque them into place. If necessary, coat the assembly for storage or transportation.

Assembly table

Torque setting for bungs; 20lb-ft

Sealant for threads of bungs; Loctite 567, or equivalent

Chill temperature for shaft; -80degC

Heat temperature for ring; +200degC

Short term assembly media; SAE 20 oil, no additives.

Long term storage media; Duracoat 307-H