

KELFORD CAMS

P O W E R U N L E A S H E D

KCGBARRA Assembly instructions



Required Parts and Tools:

- 2 x Ford Barra VCT Cam gears
- 1 x Kelford Cams KCGBARRA adjustable cam gear kits
- 1 x M8*1.25 Tap
- 1 x T-30 5-point Torx drive
- 1 x Impact driver (optional but recommended)

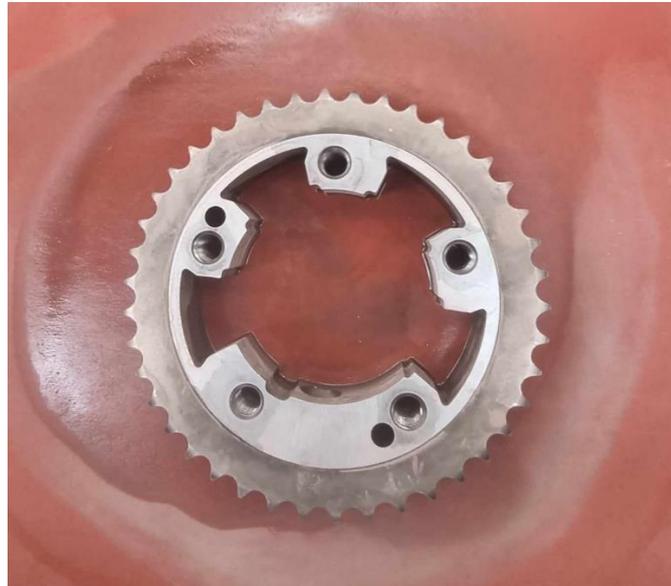
1. Carefully remove the 5 bolts from each of the OEM cam gears using the T-30 5-point Torx drive and impact driver. Be careful when removing the last bolt as the internals of the gears are under spring tension.
2. Dispose of the cam gear internals leaving only the sprockets.
3. Align the gears carefully in a mill to ensure the holes are tapped straight and centred to the existing holes. This can be aligned by putting a 6.5mm drill upside down in the chuck and running it down the hole.



4. Tap the old bolt holes with the M8*1.25 Tap, there will be 5 bolt holes on each gear that require aligning and tapping. The cam gears are made from a very hard material so will need to be tapped slowly with plenty of fluid.



5. Gently lap the cam gear faces with wet 600 grit on a flat surface to remove all burrs. Thoroughly clean the gears so they are ready for assembly.



6. Remove the Kelford Cams KCGBARRA gear inserts from the packaging along with the 10 x M8*1.25 stainless cap screws.
7. Assemble the insert into the outers as shown below. The cam gears are now ready for installation onto the camshaft.



8. The Kelford Cam gears are designed to be installed at the full retarded position. This is to account for Race engines which have had the heads/blocks surfaced which will affect the cam timing. These need to be timed up and dialled in as per the Kelford Cam Timing instructions found on our website.
9. Once the camshaft is timed the cam gear bolts should be torqued to 18Nm. Use anti-seize on the threads and oil under the bolt heads.