

Crankcase - Removal

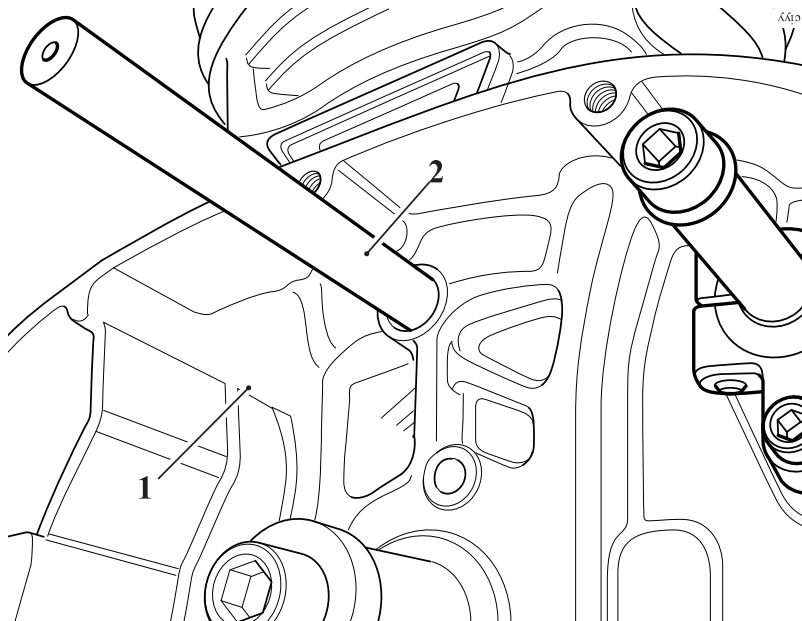
WARNING

Before starting work, ensure the motorcycle is stabilised and adequately supported. This will help prevent it from falling and causing injury to the operator or damage to the motorcycle.

- Remove the engine (see [Engine - Removal](#)).
- Remove the camshaft cover (see [Camshaft Cover - Removal](#)).
- Remove the sump (see [Sump - Removal](#)).
- Remove the clutch (see [Clutch - Removal](#)).
- Remove the alternator rotor (see [Alternator Rotor - Removal](#)).

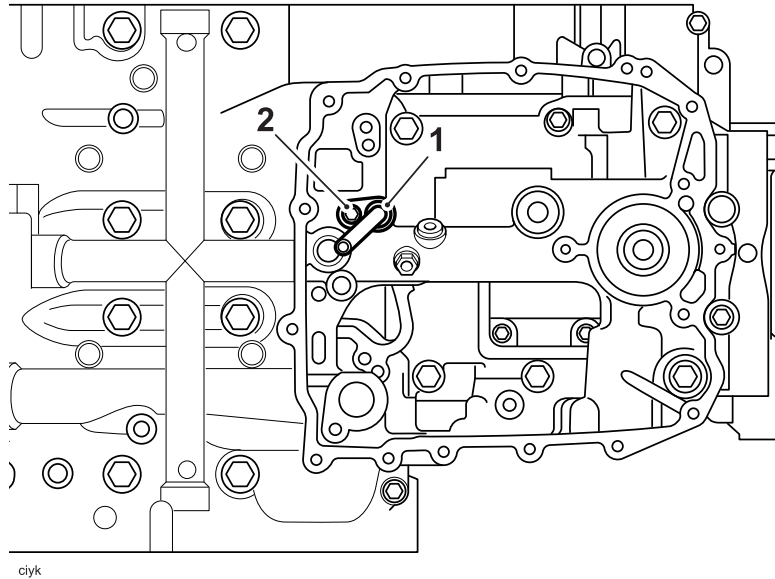
Note

- **To allow correct fitment of T3880039 - Idler Gear Timing Pin the engine may require rotating up to seven times.**
1. Align the timing holes in the crankcase and camshaft idler gear. Lock in position using T3880039 - Idler Gear Timing Pin.



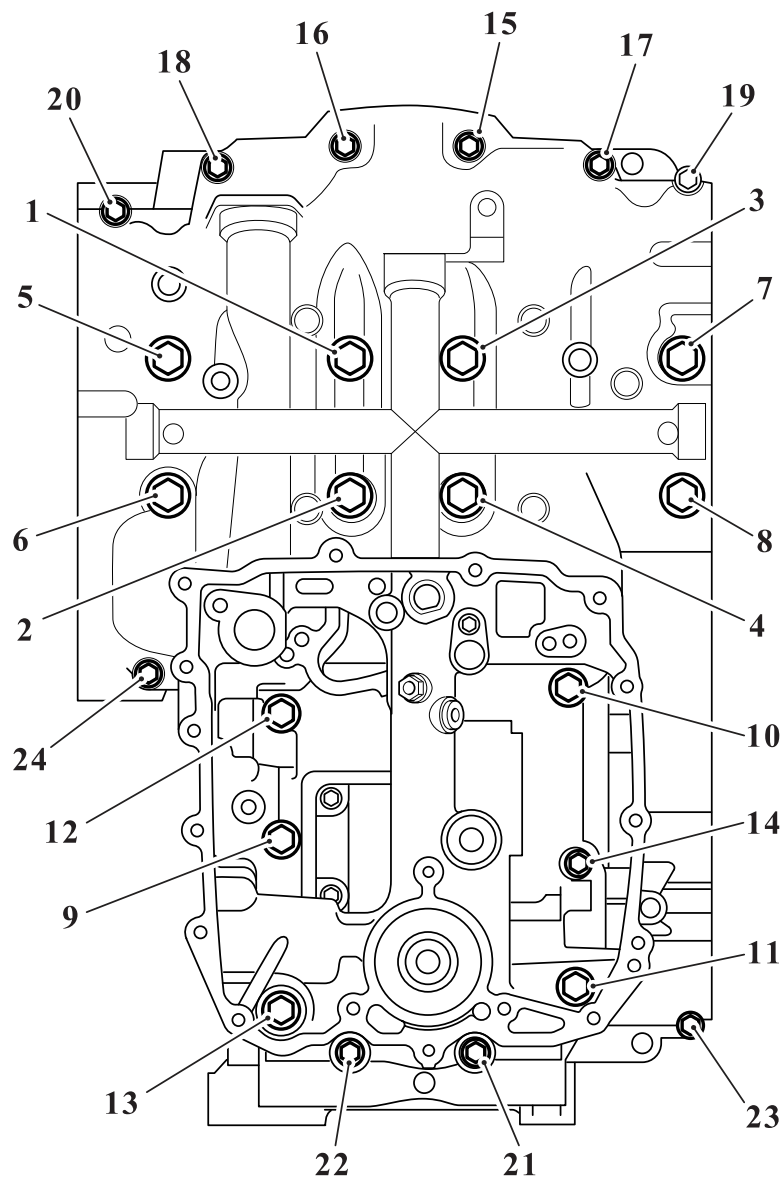
1. Crankcase
2. T3880039 - Idler Gear Timing Pin

2. Remove the oil and water pump (see [Oil and Water Pump - Removal](#)).
3. Release the fixing and remove the coolant drain tube, discard the fixing and the O-ring.



- 1. Coolant drain tube**
- 2. Fixing**

4. Release the lower crankcase fixings noting their positions in the sequence shown below.



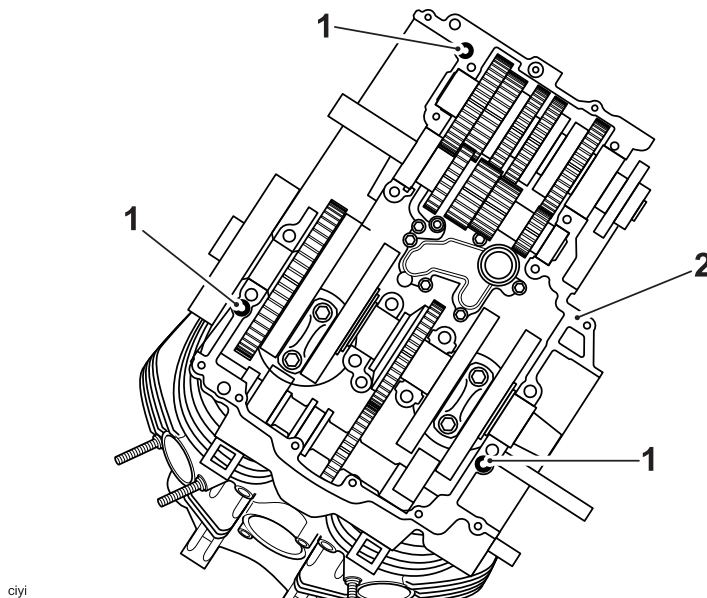
Crankcase Fixing Release Sequence

CAUTION

Do not use levers to separate the upper and lower sections of the crankcase as damage to the crankcases could result.

Note

- **Always check that all fixings have been released before attempting to separate the crankcases.**
5. Separate the lower crankcase from the upper crankcases noting the position of the three location dowels.



1. Dowels
2. Upper crankcase

6. For removal of the:

- Front balancer shaft, (see [Front Balancer Shaft - Removal](#)),
- Rear balancer shaft, (see [Rear Balancer Shaft - Removal](#)),
- Crankshaft, (see [Crankshaft - Removal](#)).
- Selector forks and drum (see [Selector Forks and Drum - Removal](#)).
- Coolant manifold, (see [Coolant Manifold - Removal](#)).
- Breather plate, (see [Breather Plate - Removal](#)).