

Product: MINI HYD EXCAVATOR

Model: 304D CR MINI HYD EXCAVATOR TYK

Configuration: 304D CR Mini Excavator TYK00001-UP (MACHINE) POWERED BY S3Q2 Engine

Disassembly and Assembly S3Q2 and S3Q2-T Engines

Media Number -KENR6786-03

Publication Date -01/08/2015

Date Updated -18/08/2015

i04111938

Timing Gear, Camshaft, and Oil Pan - Disassemble and Inspect

SMCS - 1206-015; 1206-040; 1210-015; 1210-040; 1302-015; 1302-040

Disassembling and inspecting timing gear, camshaft, and oil pan

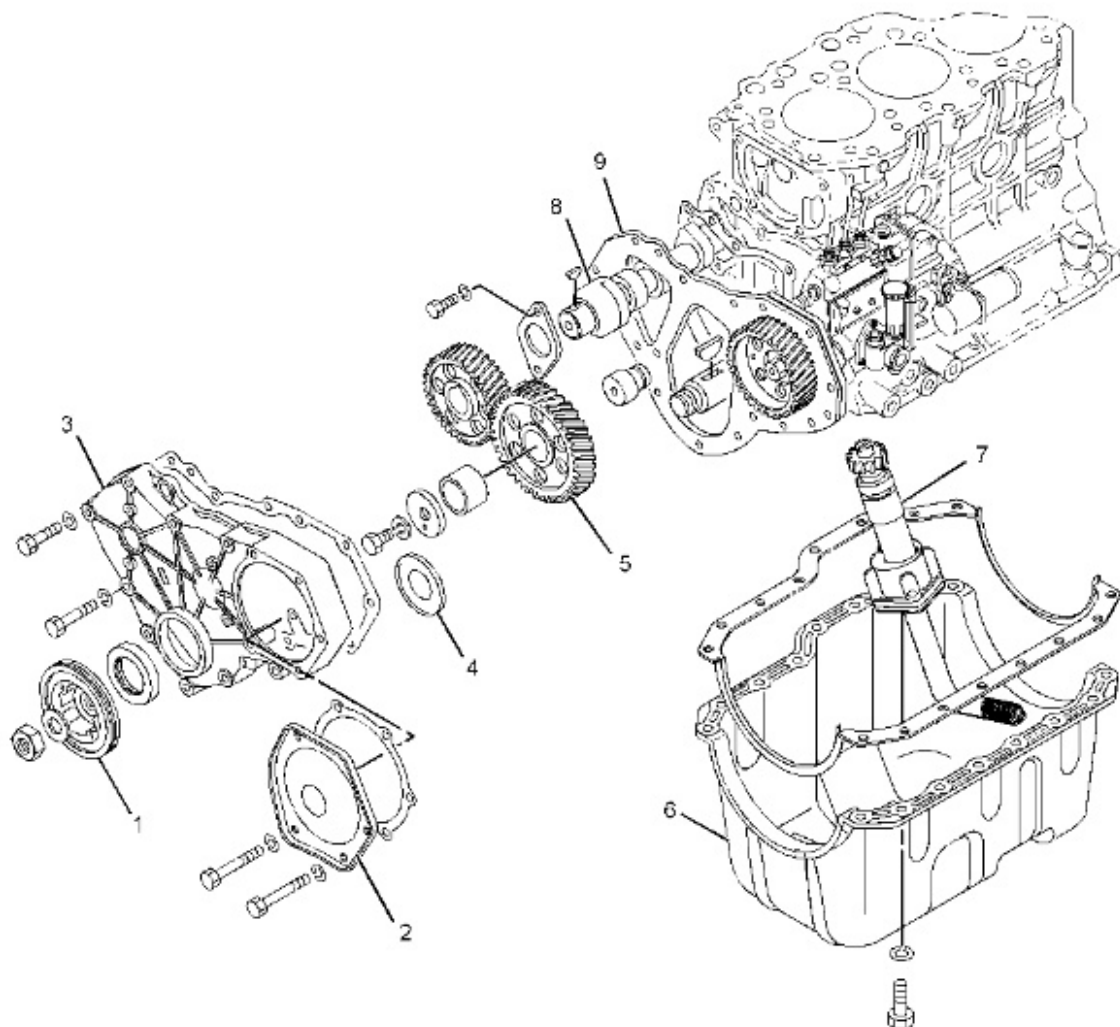


Illustration 1

g02315293

Disassembling sequence

- (1) Crankshaft pulley
- (2) Cover
- (3) Timing gear case
- (4) Baffle plate
- (5) Idler gear
- (6) Oil pan
- (7) Oil pump
- (8) Camshaft
- (9) Front plate

Removing crankshaft pulley

Note: The bar that stops the crankshaft from turning may come off. Pay due attention to safety.

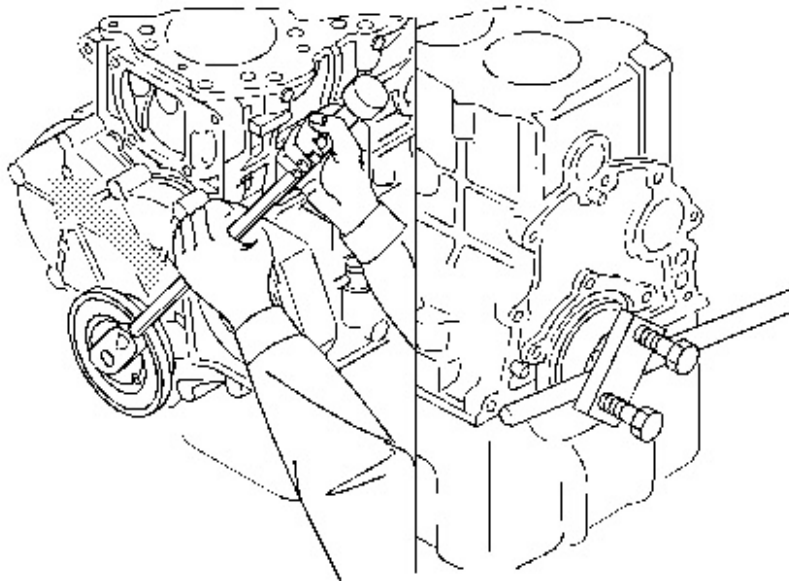


Illustration 2

g02210558

1. Screw two guide bolts into the threaded holes at the rear end of the crankshaft. Stick a bar across the guide bolts to prevent the crankshaft from turning.
2. Remove the crankshaft pulley.
3. Take out the woodruff key of the crankshaft.

Inspect the crankshaft pulley (1) for worn belt groove and worn oil seal contact surface.

Removing timing gear case

Note: The front plate is bolted to the crankcase from inside the gear case. Do not attempt to remove the front plate together with the gear case by tapping.

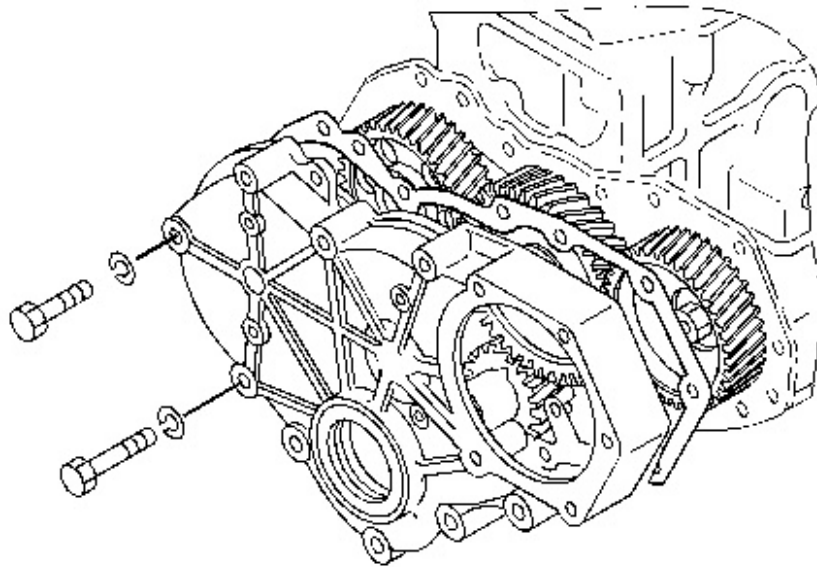


Illustration 3

g02210559

1. Remove bolts from the timing gear case.
2. Remove the timing gear case.

Inspect the timing gear case (3) for Crack and abnormality of knock hole.

Note: Bolts have different lengths. Pay attention to the positions of bolts to ensure correct reassembling.

Measuring timing gear backlash

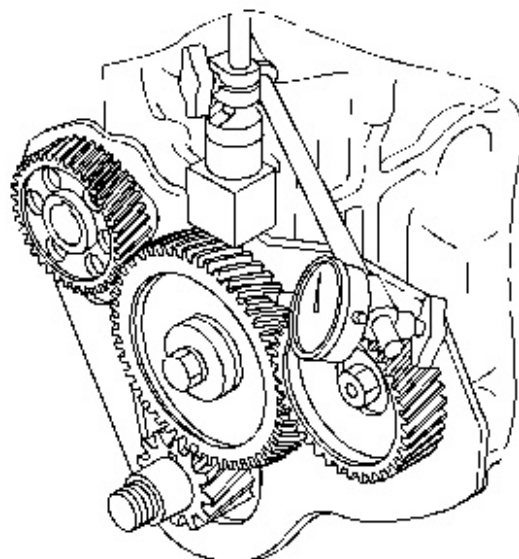


Illustration 4

g02210560

Use anyone of the following procedure to measure the backlash of the gear :

- Apply a dial gauge to the circumference of gear shaft at the right angle to the shaft.
- Insert feeler gauges into the meshing between two gears.

Replace the gear if the limit is exceeded.

Table 1

Item		Standard	Limit
Timing gear backlash	Between crankshaft gear and idler gear	0.030 to 0.160 mm (0.0012 to 0.0063 inch)	0.250 mm (0.0098 inch)
	Between idler gear and valve camshaft gear	0.040 to 0.170 mm (0.0016 to 0.0067 inch)	
	Between idler gear and pump camshaft gear	0.030 to 0.180 mm (0.0012 to 0.0071 inch)	

Measuring idler gear end play

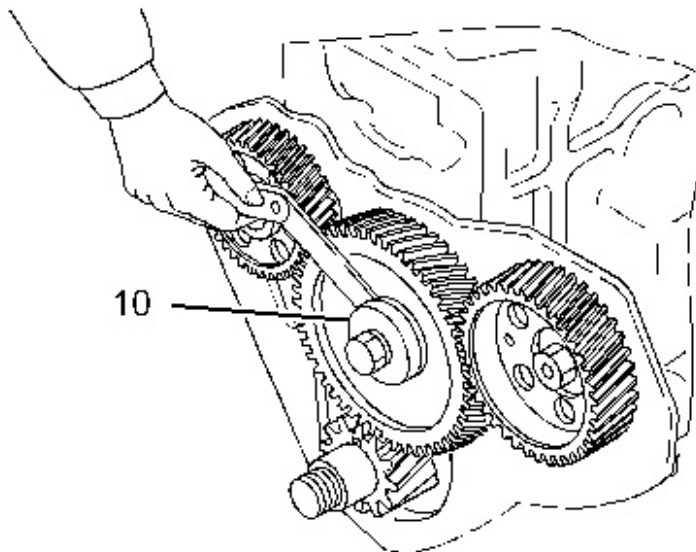


Illustration 5

g02210573

(10) Thrust plate

Using a feeler gauge or dial gauge, measure the end play of idler gear. If the measured value exceeds the limit, replace the idler gear with the new gear.

Table 2

Item	Standard	Limit

Thank you so much for reading.
Please click the “Buy Now!”
button below to download the
complete manual.



After you pay.

You can download the most
perfect and complete manual in
the world immediately.

Our support email:

ebooklibonline@outlook.com