



# Service Repair Manual

## **Models**

305E2 CR Mini Hydraulic  
Excavator

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Product: MINI HYD EXCAVATOR

Model: 305E2 CR MINI HYD EXCAVATOR PYR

Configuration: 305E2CR Mini Hydraulic Excavator PYR00001-UP (MACHINE) POWERED BY C2.4 Engine

## Disassembly and Assembly

### C2.4 Tier 4 Final Engines for Caterpillar Built Machines

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i06540930

## Idler Gear - Remove and Install

SMCS - 1206

### Removal Procedure

Table 1

Required Tooling			
Tool	Part Number	Part Description	Qty
A	387-1314	Idler Gear Tool	1

#### Start By:

- a. Remove front housing.

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#### NOTICE

**Keep all parts clean from contaminants.**

**Contaminants may cause rapid wear and shortened component life.**

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#### NOTICE

**Care must be taken to ensure that fluids are contained during performance of inspection, maintenance, testing, adjusting and repair of the product. Be prepared to collect the fluid with suitable containers before opening any compartment or disassembling any component containing fluids.**

**Dispose of all fluids according to local regulations and mandates.**

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Illustration 1

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1. Ensure that Timing Marks (X) on the idler gear and the crankshaft gear are aligned.



Illustration 2

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2. Ensure that Timing Marks (Y) on the idler gear and the camshaft gear are aligned.



Illustration 3

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3. Ensure that Timing Marks (Z) on the idler gear and the fuel injection pump gear are aligned.

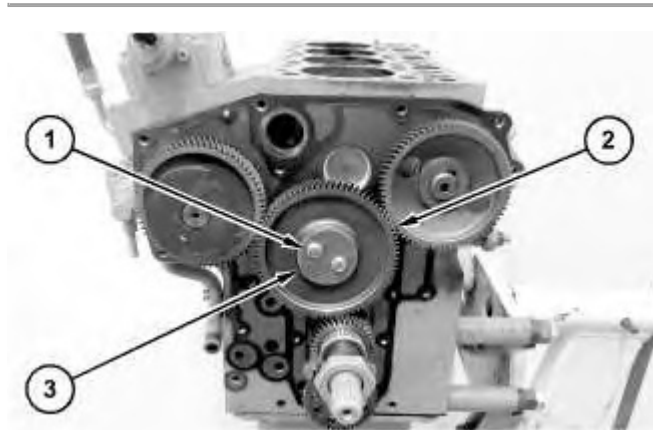


Illustration 4

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4. Remove bolts (1), gear control collar (3), and idler gear (2).



Illustration 5

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5. Use Tooling (A) and a suitable press to remove idler gear bearing (4).



Illustration 6

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**Note:** Make a temporary mark on the cylinder block in order to show the position of the oil hole.

6. Remove bolts (5) and idler shaft (6).

## Installation Procedure

1. Install idler gear (2) in the reverse order of removal.
  - a. Ensure that the gears, cylinder block surface, and idler gear (2) are clean and free from wear or damage. If necessary, replace any components that are worn or damaged
  - b. Lubricate idler shaft (6) with clean engine oil.
  - c. Lubricate idler gear bearing surface (4) with clean engine oil.
  - d. Apply clean engine oil to bolts (5).

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