

SMCS - 1160

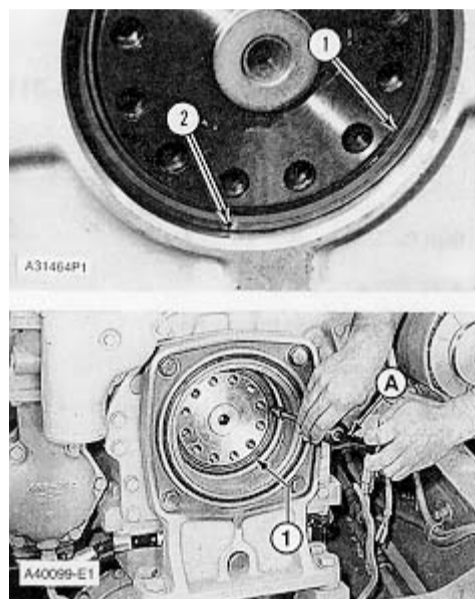
SENR74100029

Remove Crankshaft Front Seal & Wear Sleeve

Tools Needed		A	B	C
1P3075	Lip-Type Seal Puller	1		
5P7312	Distorter		1	
5P7314	Ring			1

Start By:

- a. remove vibration damper and pulley



1. Put holes (2) around seal (1) with a sharp punch as shown. Remove seal (1) with Tool (A).

NOTICE

When a replacement of the earlier type front seal is made, a replacement of the wear sleeve is to be made also. Later type front seals and wear sleeves come as a set and must be replaced as a set.

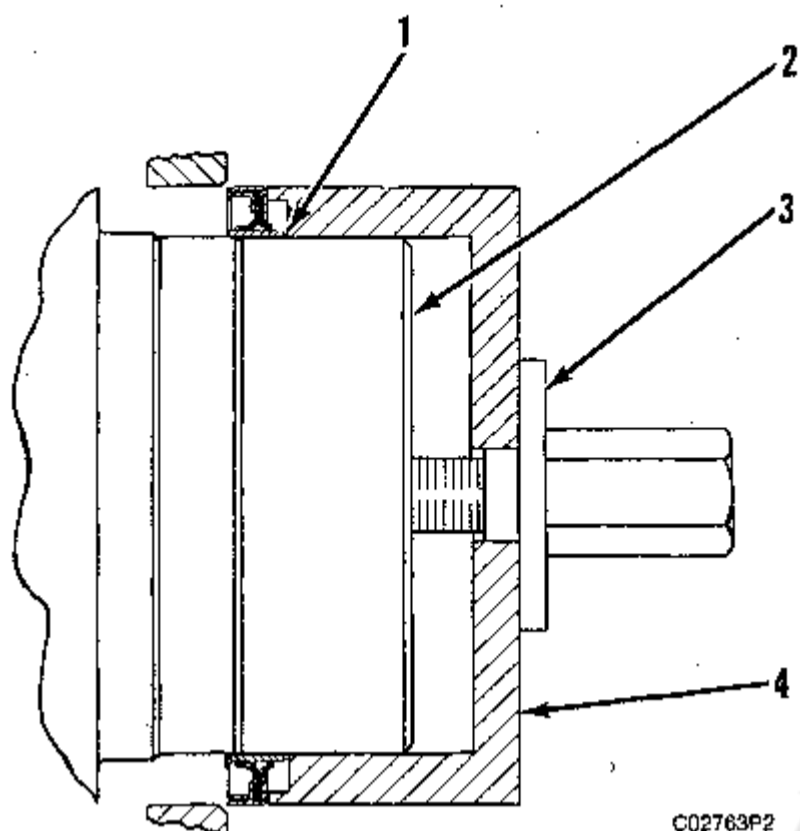
2. Install Tool (C) into the seal bore.

3. Install Tool (B) between tool (C) and the wear sleeve. Turn tool (B) until the edge of the tool makes a flat piece (crease) in the wear sleeve. Do this in two or more places until the wear sleeve is loose.

4. Remove Tool (C) and the wear sleeve by hand.

Install Crankshaft Front Seal & Wear Sleeve

Tools Needed		A	B
5P1733	Locator	1	1
5P1737	Bolt	3	3
6V2086	Installer	1	
9S8858	Nut	1	1
6V6142	Installer		1



C02763P2

1. Install earlier crankshaft front seals and wear sleeves with Tool (A) or later crankshaft front seals and wear sleeves with Tool (B) as follows.

a. Install locator (2) and the bolts on the front of the crankshaft.

b. Clean and prepare the wear sleeve inside diameter and crankshaft outside diameter with **6V1541 Quick Cure Primer**. Apply **9S3265 Retaining Compound** to crankshaft outside diameter and wear sleeve inside diameter before the wear sleeve is installed on the crankshaft.

c. For earlier type seals, put clean engine oil on the seal lip of the seal and on the outside diameter of the wear sleeve. Install the seal on the wear sleeve. Make sure the lip of the seal is toward the inside of the engine and the outside diameter bevel of the wear sleeve is toward the outside of the engine.

NOTICE

Later type seals and wear sleeves cannot be used again, after the seals and wear sleeves are separated.

d. Put the wear sleeve and seal in position on locator (2) as a unit.

e. Put the correct installer (4) in position on locator (2).

f. Put clean engine oil on the face of nut (3) and its contact area of installer (4). Install nut (3) on locator (2).

g. Tighten nut (3) until the inside surface of installer (4) comes in contact with locator (2).

NOTICE

On some early engines with lip-type seals, if the seal goes against the bottom of the bore, a resistance (increase in torque) will be felt on nut (3). Do not tighten nut (3) too tight or the case (body) of the seal will be damaged.

h. Remove Tool (A) or (B).

NOTE: For more information on the crankshaft seal installation, see Special Instruction Form No. SMHS7100 (for earlier lip-type seals) and SMHS8505 (for later seal groups with hydrodynamic grooves).

NOTICE

On later type seals, make sure the seal is installed with the part number and the arrows showing crankshaft rotation toward the outside.

NOTICE

On later type seals, the front and rear seals have different spiral grooves in the seal. Because of this type of design, the front seal group for an engine, oil can actually be taken out of the engine instead of moving the oil back into the engine.

PSP-000890C4

2022/11/30

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