



# Service Repair Manual

## **Models**

345B and 345B L Excavator

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Product: EXCAVATOR  
Model: 345B L EXCAVATOR 9GS  
Configuration: 345B and 345B L Excavators 9GS00001-UP (MACHINE)

## **Disassembly and Assembly 3176C and 3196 Engines for Caterpillar Built Machines**

Media Number -REN1223-15

Publication Date -01/08/2015

Date Updated -03/08/2015

i01604601

## **Rocker Shaft and Pushrod - Remove**

SMCS - 1102-011; 1208-011

### **Removal Procedure**

#### **Start By:**

- A. Remove the valve mechanism cover. Refer to Disassembly and Assembly, "Valve Mechanism Cover - Remove and Install".

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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.**

**Refer to Special Publication, NENG2500, "Caterpillar Tools and Shop Products Guide" for tools and supplies suitable to collect and contain fluids on Caterpillar products.**

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

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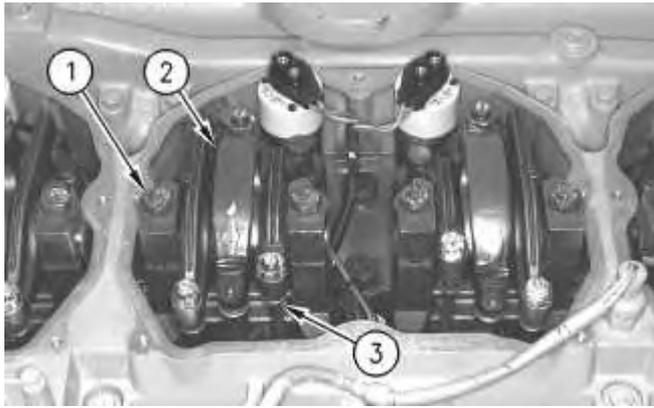


Illustration 1

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1. Place an identification mark on each rocker arm in order to identify the proper location in the engine for installation.
2. Remove bolts (1) and rocker arms (2) .
3. Remove push rods (3). Keep each push rod with the respective rocker arm.



Illustration 2

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4. Remove valve bridges (4) .

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Media Number -REN1223-15

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i07141366

## Rocker Shaft and Pushrod - Install

SMCS - 1102-012; 1208-012

### Installation Procedure

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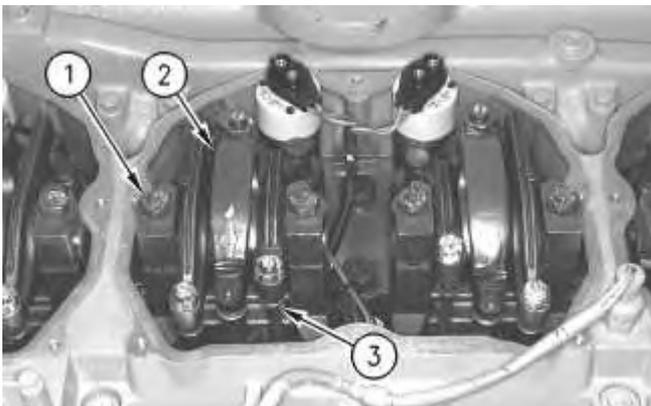
#### NOTICE

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1. Inspect the condition of the following items: rocker arms, valve bridges, and push rods. Replace the parts, if necessary.



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Illustration 1

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2. Install push rods (3) in the correct location in the engine.
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Illustration 2

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3. Install valve bridges (4). Lubricate the top surface of the valve bridges with clean engine oil.
4. Place rocker arms (2) in the correct locations that were marked during removal. Install bolts (1) and tighten to a torque of  $100 \pm 20$  N·m ( $74 \pm 15$  lb ft).

**End By:**

- a. Install the valve mechanism cover. Refer to Disassembly and Assembly, "Valve Mechanism Cover - Remove and Install".

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