

# **Service Manual**

## 242B3 SKID STEER LOADER

S/N SRS00001-UP

KENR6941-04 C3.4 Engines for Caterpillar Built Machines	2
SENR5664-27 Air Conditioning and Heating R134a for All Caterpillar	
Machines	341
UENR0248-03 216B3, 226B3, 236B3, 242B3 and 252B3 Skid Steer	
Loaders Engine Supplement	372
UENR0251-06 216B3, 226B3, 236B3, 242B3 and 252B3 Skid Steer	
Loaders Power Train	495
UENR0252-02 216B3, 226B3, 236B3, 242B3 and 252B3 Skid Steer	
Loaders Machine Systems	668
UENR3262-00 Seal Installation	879

Alternator - Remove and Install	
Balancer - Assemble	8
Balancer - Disassemble	12
Balancer - Install	16
Balancer - Remove	20
Bearing Clearance - Check	23
Camshaft - Remove and Install	26
Camshaft Gear - Remove and Install	3′
Connecting Rod Bearings - Remove - Connecting rods in position (2)	34
Connecting Rod Bearings - Remove - Connecting rods in position	37
Coolant Temperature Sensor - Remove and Install	39
Crankcase Breather - Remove and Install - Turbocharged Engines	42
Crankshaft - Install	4
Crankshaft - Remove	5
Crankshaft Front Seal - Remove and Install	60
Crankshaft Gear - Remove and Install	64
Crankshaft Main Bearings - Remove and Install - Crankshaft in position $$	68
Crankshaft Pulley - Remove and Install	80
Crankshaft Rear Seal - Remove and Install	8
Crankshaft Wear Sleeve (Rear) - Remove and Install	90
Cylinder Head - Install	94
Cylinder Head - Remove	10
Electric Starting Motor - Remove and Install	10
Engine Oil Bypass Valve - Remove and Install	11
Engine Oil Cooler - Install	11
Engine Oil Cooler - Remove	118
Engine Oil Filter Base - Remove and Install	12:
Engine Oil Pan - Remove and Install	12
Engine Oil Pressure Sensor - Remove and Install	13
Engine Oil Pump - Install	138

Engine Oil Pump - Remove	_
Engine Oil Relief Valve - Remove and Install	_
Exhaust Manifold - Remove and Install	_
Fan - Remove and Install	_
Flywheel - Install	_
Flywheel - Remove	_
Flywheel Housing - Remove and Install	_
Front Cover - Remove and Install	_
Front Plate - Install	_
Front Plate - Remove	_
Fuel Injection Lines - Remove and Install - Naturally Aspirated Engines	_
Fuel Injection Lines - Remove and Install - Turbocharged Engines	_
Fuel Injection Pump - Install - Fuel Injection Pumps With a Water Heated	
Cold Start Device	_
Fuel Injection Pump - Install	_
Fuel Injection Pump - Remove - Fuel Injection Pumps With a Water Heated	
Cold Start Device	
Fuel Injection Pump - Remove	_
Fuel Injector - Remove and Install - Naturally Aspirated Engines	_
Fuel Injector - Remove and Install - Turbocharged Engines	_
Fuel Priming Pump and Fuel Filter Base - Remove and Install	_
Glow Plugs - Remove and Install	_
Housing (Front) - Remove and Install	_
Idler Gear - Remove and Install	_
Inlet and Exhaust Valve Guides - Remove and Install	_
Inlet and Exhaust Valve Seat Inserts - Remove and Install	_
Inlet and Exhaust Valve Springs - Remove and Install - Alternative Method	_
Inlet and Exhaust Valve Springs - Remove and Install	_
Inlet and Exhaust Valves - Remove and Install	_
Inlet Manifold - Remove and Install	

Lifter Group - Remove and Install	
Pistons and Connecting Rods - Assemble	277
Pistons and Connecting Rods - Disassemble	286
Pistons and Connecting Rods - Install	293
Pistons and Connecting Rods - Remove	297
Rocker Shaft - Assemble	300
Rocker Shaft - Disassemble	303
Rocker Shaft and Pushrod - Install	306
Rocker Shaft and Pushrod - Remove	309
Turbocharger - Install	312
Turbocharger - Remove	316
Valve Mechanism Cover - Remove and Install	321
V-Belts - Remove and Install	326
Water Pump - Remove and Install	330
Water Temperature Regulator Housing - Remove and Install	335



### **Service Information System**

Shutdown SIS

Model: 242B3 SKID STEER LOADER SRS

Configuration: 242B3 Skid Steer Loader SRS00001-UP (MACHINE) POWERED BY C3.4 IND Engine

# **Disassembly and Assembly**

**C3.4 Engines for Caterpillar Built Machines** 

Media Number -KENR6941-04

Publication Date -01/03/2012

Date Updated -01/03/2012

i02639317

# **Alternator - Remove and Install**

**SMCS - 1405-010** 

## **Removal Procedure**

#### **Start By:**

A. Remove the V-Belt. Refer to Disassembly and Assembly, "V-Belts - Remove and Install".

### **NOTICE**

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

- 1. Turn the battery disconnect switch to the OFF position.
- 2. Make temporary identification marks on the connections of the harness assembly.

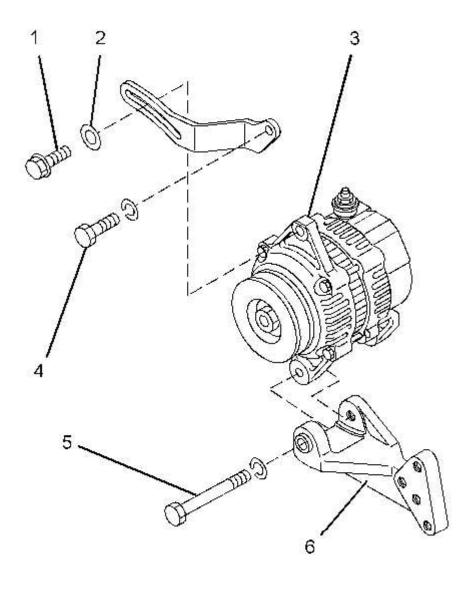


Illustration 1 g01343570

Typical Example

- 3. Disconnect the harness assembly from alternator (3).
- 4. Loosen bolt (4). Remove bolt (1) and washer (2) from alternator (3).
- 5. Remove bolt (5) from alternator (3). Remove the alternator from alternator bracket (6).

# **Installation Procedure**

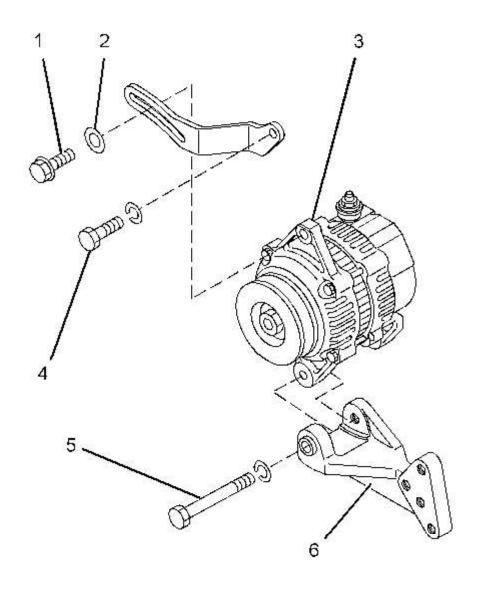


Illustration 2 g01343570

Typical example

- 1. Position alternator (3) on bracket (6) and install bolt (5) finger tight.
- 2. Install bolt (1) and washer (2) finger tight.
- 3. Install the V-belt. Refer to Disassembly and assembly, "V-belts Remove and Install" for the correct procedure.
- 4. Tighten bolts (1) and (4) to a torque of 11 N·m (97 lb in). Tighten bolt (5) to a torque of 35 N·m (26 lb ft).
- 5. Connect the harness assembly to alternator (3).

# 6. Turn the battery disconnect switch to the ON position.

Copyright 1993 - 2020 Caterpillar Inc. All Rights Reserved. Private Network For SIS Licensees.

Wed Jun 24 13:53:55 UTC+0530 2020



### Service Information System

Shutdown SIS

Previous Screen

Model: 242B3 SKID STEER LOADER SRS

Configuration: 242B3 Skid Steer Loader SRS00001-UP (MACHINE) POWERED BY C3.4 IND Engine

## **Disassembly and Assembly**

**C3.4 Engines for Caterpillar Built Machines** 

Media Number -KENR6941-04

Publication Date -01/03/2012

Date Updated -01/03/2012

i02744463

# **Balancer - Assemble**

**SMCS - 1220-016** 

# **Assembly Procedure**

Table 1

Required Tools					
Tool	Part Number	Part Description	Qty		
В	1P-1857	Retaining Ring Pliers	1		
С	1P-0510	Driver Gp	1		
D	9S-3263	Thread Lock Compound	1		

#### **NOTICE**

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

1. Ensure that all components of the balancer are clean and free from damage.