

© 2010 Mazda Motor of America, Inc.

Subject: FRONT OIL SEAL REMOVAL / INSTALLATION PROCEDURE UPDATE	Bulletin No: 01-025/10
	Last Issued: 04/21/2010

APPLICABLE MODEL(S)/VINS

2004-2010 RX-8

DESCRIPTION

The removal / installation procedure and suggested repair time for the engine front oil seal have been updated. When removing / installing the engine front oil seal to repair an oil leak or for any other reason, follow this updated procedure.

REPAIR TIME

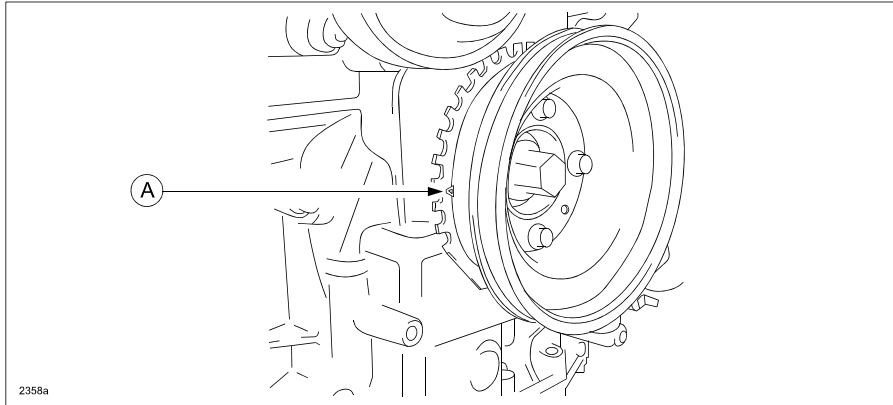
Operation Number	C0203X-R-X
Labor Hours	1.1 Hrs.

REPAIR PROCEDURE

1. Record the customer's radio station presets and place the vehicle in neutral with the parking brake set.
2. Remove the engine cover. Refer to MS3 online instructions or Workshop Manual section 01-10 ENGINE COVER REMOVAL/INSTALLATION [13B-MSP].
3. Remove the front suspension tower bar. Refer to MS3 online instructions or Workshop Manual section 02-13 FRONT SUSPENSION TOWER BAR REMOVAL/INSTALLATION [M/T] or FRONT SUSPENSION TOWER BAR REMOVAL/INSTALLATION [A/T].
4. Remove the battery cover, battery, battery box, and battery tray. Refer to MS3 online instructions or Workshop Manual section 01-17 BATTERY REMOVAL/INSTALLATION [13B-MSP].
5. Remove the air cleaner component, air hose, and air cleaner insulator. Refer to MS3 online instructions or Workshop Manual section 01-13 INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [13B-MSP].
6. Remove the A/C drive belt and generator drive belt. Refer to MS3 online instructions or Workshop Manual section 01-10 DRIVE BELT REPLACEMENT[13B-MSP].

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical---including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.

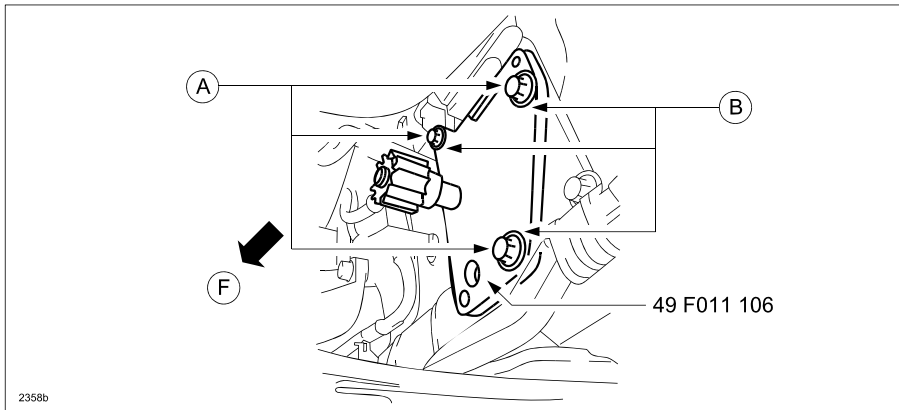
7. Rotate the eccentric shaft clockwise and align the eccentric shaft position plate alignment mark (A) to the 9 o'clock position.



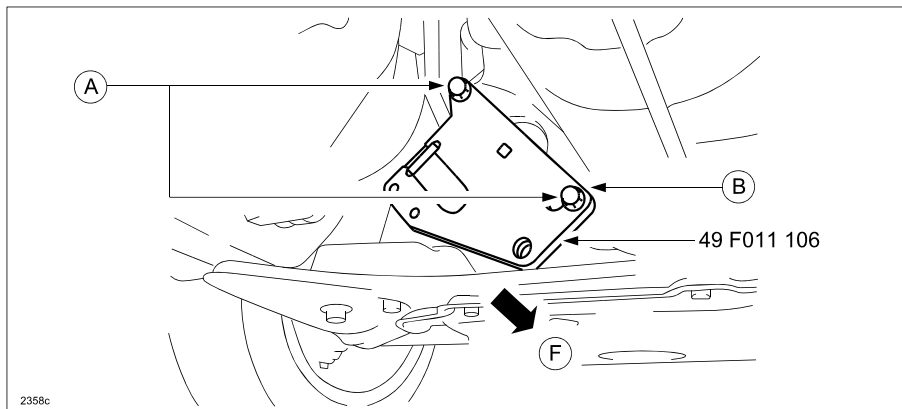
8. Remove the starter. Refer to MS3 online instructions or Workshop Manual section 01-19 STARTER REMOVAL/INSTALLATION [13B-MSP].
9. Install the SST.

CAUTION: To prevent incorrect installation of the bolts, insert 2 or 3 suitably sized washers between the SST and the bolts, then tighten the bolts.

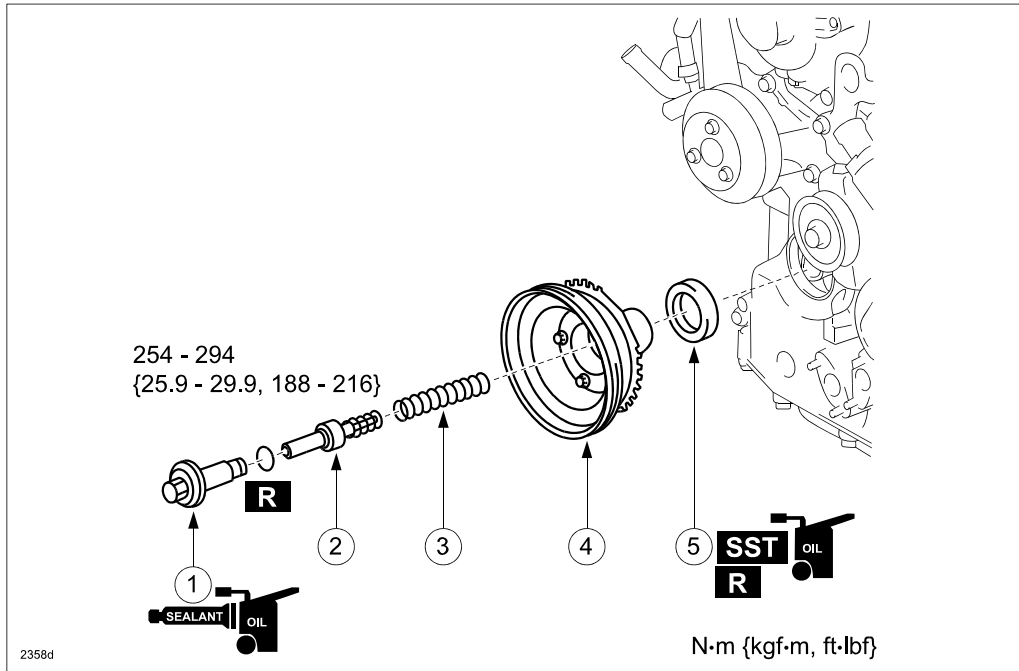
- A/T - Install the SST using the starter installation bolts (A) and washers (B).



- M/T - Install the SST using the starter installation bolt and nut (A) and washers (B).



10. Remove in the order shown.



1	Pulley lockbolt (See Pulley Lockbolt Installation Note). A breaker bar and possibly an extension may be needed due to high bolt torque.
2	Eccentric shaft bypass valve
3	Spring
4	Pulley component (See Pulley Component Removal Note).
5	Front oil seal (See Front Oil Seal Removal Note and Front Oil Seal Installation Note).

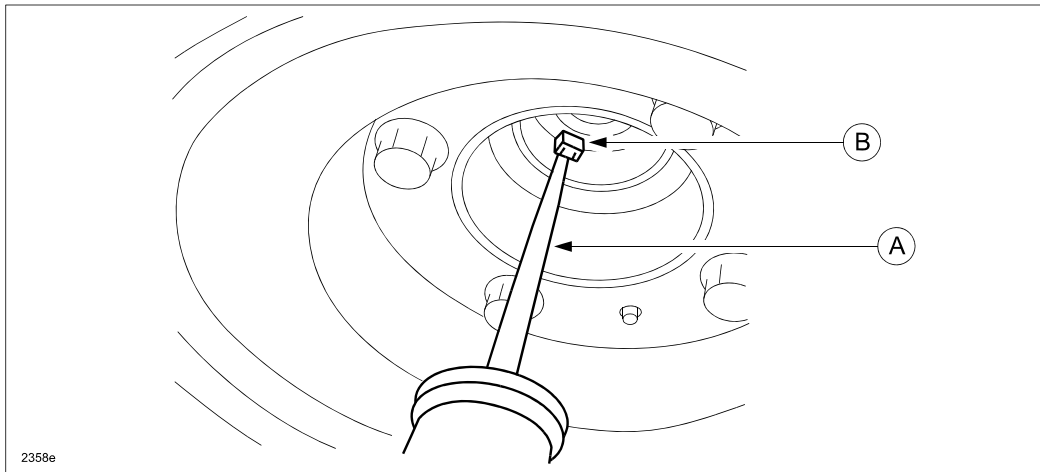
11. Install in the reverse order of removal.

Pulley Component Removal Note

1. Remove the pulley component using a flathead screwdriver (A) to hold the key (B) in place.

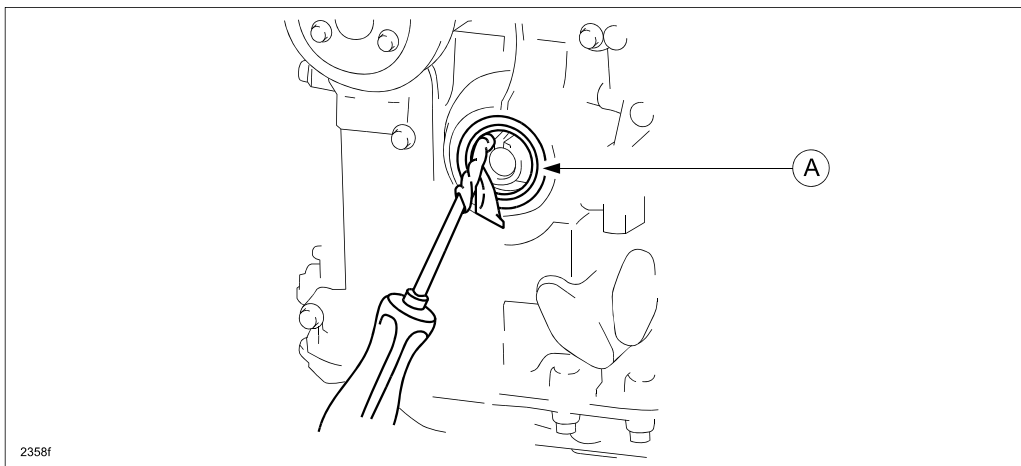
CAUTION: The key must be held in place while removing the pulley. Failure to secure key in place will cause severe engine damage.

NOTE: If the key has moved, return it to its original position. If it has not been returned to its original position, remove the front cover and align the component parts, then install the key.



Front Oil Seal Removal Note

1. Remove the front oil seal (A) using a flathead screwdriver with the tip wrapped in a clean rag.

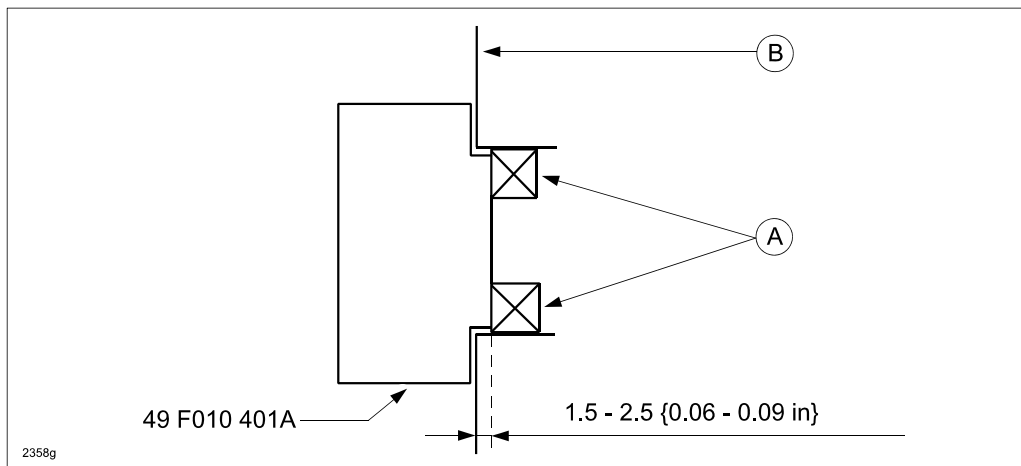


Front Oil Seal Installation Note

1. Apply engine oil to the lip of a new front oil seal.
2. Tap the front oil seal in using the SST and a hammer, making sure the notched part of the tool is up.

NOTE: The SST should bottom out on all sides of the front cover. Confirm the seal is equally installed all the way around.

Pressing distance for the front oil seal (A) from edge of front cover (B): 1.5-2.5 mm {0.06-0.09 in}.



Pulley Lockbolt Installation Note

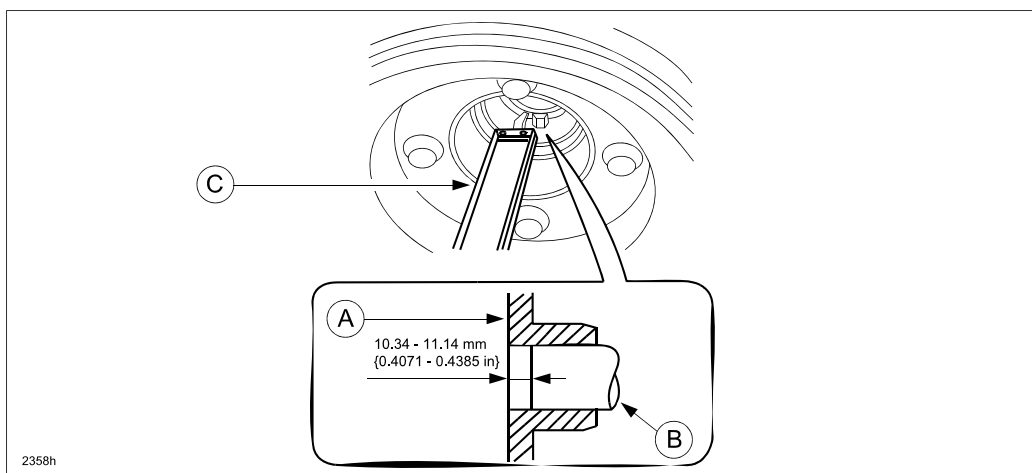
1. Temporarily tighten the pulley lockbolt.

NOTE: Press in the pulley component by temporarily tightening the pulley lock bolt, and press the part on the eccentric shaft to the normal position.

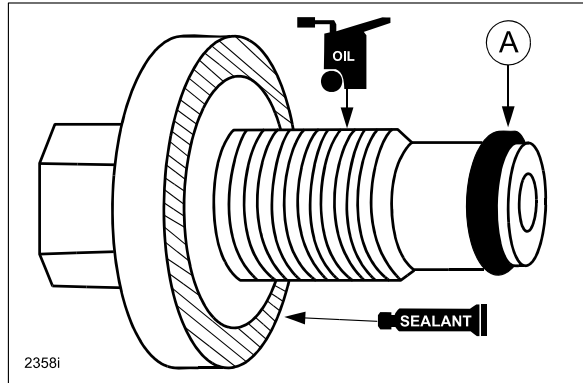
2. Remove the pulley lockbolt.
3. Measure the position shown between the pulley component (A) and eccentric shaft (B) using Vernier calipers (C).

Standard: 10.34-11.14 mm {0.4071-0.4385 in}

- If not within the specification, perform overhaul service.



4. Apply engine oil to the pulley lockbolt threads.
5. Assemble a new O-ring (A).



6. Apply silicone sealant to the seating face.
7. Tighten the pulley lockbolt.
Tightening torque: 254-294 N•m{25.9-29.9 kgf•m, 188-216 ft•lbf}