

# INSTALLATION MANUAL

REF NO.	<b>BT02067</b>
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**SUBJECT:** INTRODUCTION OF MATERIAL CHANGED PISTON RING ON 140 ENGINES

**PURPOSE:** To introduce a material change for the top ring (piston ring) for use with the SA12V140-1, SA6D140-1, 6M140A-3 and 6M140A-5 engines

**APPLICATION:** Refer to page 4.

**FAILURE CODE:** A361CA

**DESCRIPTION:**

1. Introduction

This Service News will introduce a material change for the top ring (piston ring) for use with the SA12V140-1, SA6D140-1, 6M140A-3 and 6M140A-5 engines for the purpose of increasing the durability.

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2. Contents of the modification

	New top ring	Current top ring		
1) Part No.	6212-32-2210	6211-31-2211 6212-31-2210		
	6212-35-2340	6212-35-2310		
2) Material	Steel	Cast iron		
3) Identification marking				
	Symbol	Part No.	Symbol	Part No.
	1RX	6212-32-2210	1R, A	6211-31-2211
			1RNB	6212-31-2210
1RXM	6212-35-2340	1RNBM	6212-35-2310	

- ※1 By the above material change, the durability of the top ring will be increased.
- ※2 Identify the new and current top ring by the identification marking being stamped on the upper surface of the closer gap area.

3. Interchangeability

The new and current top rings are interchangeable as follows.

	New top ring	Interchangeability	Current top ring
①	6212-32-2210 (6211-31-2050)		6211-31-2211 (6211-31-2033)
②	6212-32-2210 (6211-31-2050)		6212-31-2210 (6212-31-2030)
③	6212-35-2340 (6212-31-2041)		6212-35-2310 (6212-31-2040)

The numbers of the upper line are the part numbers of the top ring and the numbers of the lower line in ( ) are the ring ass'y numbers.

## 3. List of parts

Part No.	Part Name	Q'ty	Remarks
6211-31-2050 (6211-31-2033) (6212-31-2030)	Ring Ass'y (Ring Ass'y) (Ring Ass'y)	6 (6) (6)	For the 12 V type: 12 sets/engine
6212-31-2041 (6212-31-2040)	Ring Ass'y (Ring Ass'y)	6 (6)	

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4. Applicable machine and engine models and serial numbers of already modified factory shipment engines

(1) Part No. of the top ring: 6212-32-2210

Applicable model	Serial No. of applicable engines	Serial No. of already modified engines
D475-A-2	– #12546	From the next shipment
HD785-3	– #12454	From the next shipment
HD785-5	– #13082	#13083 –
HD785-2*	– #12993	From the next shipment
HD785-DZ-5	—	From the next shipment
HD785-JK-5	—	#13101 –
HD985-3	– #12454	From the next shipment
HD985-5	– #13082	#13083 –
HV700-2	– #10815	From the next shipment
J12V140-WJK-1	– #12646	From the next shipment
SA12V140-C2-1	– #11739	From the next shipment
SA12V140-W1-1	– #12993	From the next shipment
WA800-1	– #12732	From the next shipment
WA800-2	– #12732	From the next shipment
WA800-3	– #12921	#13108 –
WA900-1	– #12721	From the next shipment
WA900-3	– #13052	#13090 –
WD900-3	– #13052	#13090 –
HD325-6	– #29919	From the next shipment
SA6D140-W1-1	– #23024	From the next shipment
SA6D140A-W1-1	– #28954	From the next shipment
HD325-6	– #29919	From the next shipment
HV3000-1	– #29840	From the next shipment
LW500	– #29871	#29955 –
D475A-2	– #12746	#13081 – (10726 –)
6M140A-1	– #23374	From the next shipment
6M140A-2	– #22286	#22289 –
6M140B-2	– #22271	From the next shipment

(2) Part No. of the top ring: 6212-35-2340

Applicable model	Serial No. of applicable engines	Serial No. of already modified engines
6M140A-3	– #23374	From the next shipment
6M140A-5	– #10035	From the next shipment