

PARTS & SERVICE NEWS

REF NO.	AT03078
DATE	May 16, 2003

SUBJECT: REPAIR PROCEDURE OF ENGINE OIL COOLER ON SA12V140

PURPOSE: To introduce the repair procedure of engine oil cooler on SA12V140

APPLICATION: Refer to pages 5 and 6.

FAILURE CODE: A62AFM

DESCRIPTION:

1. Introduction

As for the above-mentioned engine, if the oil cooler element stud bolt is damaged, repair it according to this service news.

2. List of parts

Part No.	Part Name	Purpose of part	Q'ty	Remarks
6215-61-2113 (6215-61-2112)	Cover (Cover)	Replacement	1 (1)	No. 1 (Number in Fig.)
6215-61-2213 (6215-61-2212)	Cover (Cover)	Replacement	1 (1)	No. 1 (Number in Fig.)
6215-61-2711 (6215-61-2710)	Cover (Cover)	Replacement	1 (1)	No. 1 (Number in Fig.)
6215-61-2911 (6215-61-2910)	Cover (Cover)	Replacement	1 (1)	No. 1 (Number in Fig.)
6215-65-2113 (6215-65-2112)	Cover (Cover)	Replacement	1 (1)	No. 1 (Number in Fig.)
600-651-1610 (6212-61-2112)	Element (Element)	Replacement	1 (1)	No. 2 (Number in Fig.)
07000-A2016 (6150-61-2520)	O-ring (O-ring)	Replacement	4 (4)	No. 4 (Number in Fig.)
6215-61-2580 (6150-61-2580)	Nut (Nut)	Replacement	4 (4)	No. 5 (Number in Fig.)
6215-61-2810	Gasket		1	Consumable part (Gasket for the block installation surface)

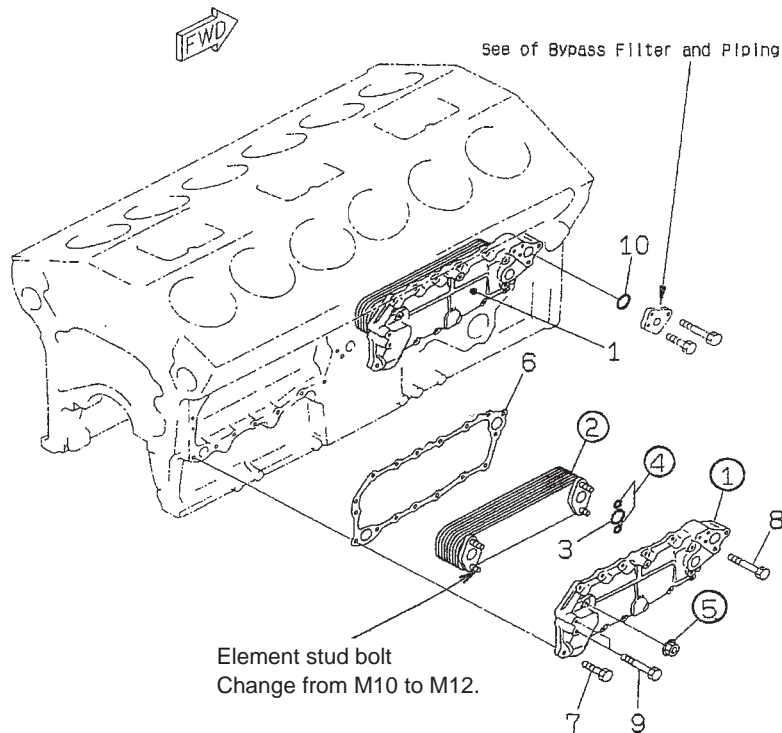
3. Repair contents

- (1) In order to strengthen the oil cooler element stud bolt, the size of bolt is increased from M10 to M12.
- (2) In combination with the above, the nut and the O-ring are changed.
Nut tightening torque; 55 ~ 65 Nm (5.6 ~ 6.6 kgm) ← Previous: 27.4 ~ 37.2 Nm (2.8 ~ 3.8 kgm)
The material of O-ring is changed.; HNBR-1A ← Previous: Silicon rubber
(In order to avoid the erosion of stud bolt, the material of O-ring is changed.)

4. Repair procedure

- (1) Remove the injection pump.
- (2) Remove the oil cooler ass'y, and install the improved one.
Tightening torque for the oil cooler installation bolt; 59 ~ 74 Nm (6 ~ 7.4 kgm)
- (3) As for the detailed procedures of removal and installation, refer to Shop Manual.
In addition, as for the removal and the installation method for the injection pump, refer to Service News "AT00146".

Note: There is no interchangeability as the single part. Therefore, replace as the ass'y.



Four parts marked as ○ are changed.

List of 12V140 oil cooler Changing the element stud bolt from M10 to M12

	1	2	3	4	5	6	7	8
Applicable model	Construction machine, Generator	Construction machine, Generator	SA12V140-P-1	Marine	Marine	Marine	Emulsion	Construction machine
Specification		With heater						With heater
Ass'y	6215-61-2102	6215-61-2202	6215-61-2501	6215-65-2102	6215-65-2202	6215-65-2502	6215-61-2901	6215-61-2701
① Cover	6215-61-2113	6215-61-2213	6215-61-2113	6215-65-2113	←	6215-61-2113	6215-61-2911	6215-61-2711
② Element	600-651-1610	←	←	←	←	←	←	←
⑤ Nut	6215-61-2580	←	←	←	←	←	←	←
④ O-ring	07000-A2016	←	←	←	←	←	←	←
O-ring	6210-61-2520	←	←	←	←	←	←	←

① ~ ⑤ are Nos. in Parts Catalog.

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Material No. _____ / _____

(Service news, prompt design change execution ser. No.) (Change part No.: →) Old part No. New part No.
 (Engine ser. No.) (Engine ser. No.)

No.	Applicable model	Applicable machine serial No.		Execution date	No.	Applicable model	Applicable machine serial No.		Execution date
		Machine already shipped	Machine shipped from plant				Machine already shipped	Machine shipped from plant	
1	@WA800-1	~ #12732	From next time		31	SA12V140-GA-1	~ #11041	From next time	
2	@WA800-2	~ #12732	↓		32	SA12V140-GD-1	~#13364	#13380 ~	3/24~
3	@WA800-3	~ #13357	From next time		33	SA12V140-GH-1	~#13362	#13371 ~	3/10~
4	@WA900-1	~ #12721	↓		34	SA12V140-GT-1	~#13179	From next time	
5	@WA900-3	~ #13365	From next time		35	SA12V140-G1-1	~#12915	↓	
6	@WD900-3	~ #13337	From next time		36	SA12V140-G2-1	~#13362	#13371 ~	3/10~
7	@D475A-2	~ #13152	↓		37	SA12V140-G3-1	#11256	From next time	
8	@D475A-3	~ #13331	#13378 ~	3/12 ~	38	SA12V140-P-1	~#12915	From next time	
9	@HD785-2*	~ #13309	#13368 ~	3/5 ~	39	SA12V140-SE-1	————	————	
10	@HD785-3	~ #13257	From next time		40	SA12V140-W1-1	~#13309	#13368 ~	3/5~
11	@HD785-5	~ #13367	#13375 ~	3/13 ~	41	SA12V140-G1-1	~#70015	From next time	
12	@HD785-DZ-5	————	From next time		42	SA12V140-M-1	~ #10765	↓	
13	@HD785-JK-5	~ #13301	From next time		43	12M140A-1	~ #11081	From next time	
14	@HD985-3	~ #11777	From next time		44				
15	@HD985-5	~ #13273	From next time		45				
16	@HV700-2	~ #10815	From next time		46				
17	A12V140-G1-1	~ #13359	From next time		47				
18	A12V140-G2-1	~ #12561	From next time		48				
19	A12V140-G3-1	~ #13333	From next time		49				
20	EG750A-1	~ #11041	↓		50				
21	EG750B-1	~ #11041	↓		51				
22	FPSA12V140-1	~ #10594	↓		52				
23	J12V140-GCK-1	————	————		53				
24	J12V140-WJK-1	————	————		54				
25	J12V140E-GD-1	~ #12900	From next time		55				
26	J12V140E-GE-1	————	————		56				
27	J12V140E-G1-1	~ #60146	#60147 ~	3/4~	57				
28	SA12V140-1	————	————		58				
29	SA12V140-A2-1	~ #11132	From next time		59				
30	SA12V140-C2-1	~ #11823	↓		60				

AT03078: APPLICATION LIST: S(D)A12V140-1 engines

No	Engine Model	APPLICATION	IMPROVED
1	12V140series-1	-- 13367	13368 --

No	Model (Reference)	APPLICATION (Reference)	IMPROVED (Reference)	ENG model	APPLICATION	IMPROVED	Note
1	WA800-1	10001 -- 10999		SA12V140-1	-- 12732		
2	WA800-2	10501 -- 10999		SA12V140-1	-- 12732		
3	WA800-3	50001 -- 51019	51020 --	SA12V140-1	-- 13357		
4	WA900-1	10001 -- 10999		SA12V140-1	-- 12721		
5	WA900-3	50001 -- 50039	30040 --	SA12V140-1	-- 13365		
6	WD900-3	50001 -- 50007	50008 --	SA12V140-1	-- 13337		
7	D475A-2	10201 -- 10499		SA12V140-1	-- 13152		
8	D475A-3	10601 -- 10769	10770 --	SDA12V140-1	-- 13361	13378 --	
9	HD785-2				-- 13309	13368 --	
10	HD785-3	2001 -- 3999		SA12V140-1	-- 13357		
11	HD785-5	4001 -- 4429	4430 --	SA12V140-1	-- 13367	13375 --	
12	HD985-3	1001 -- 1020		SA12V140-1	-- 11777		
13	HD985-5	1021 -- 1079	1080 --	SA12V140-1	-- 13273		
14	HV700-2	1001 -- 1010	1011 --	SA12V140-1	-- 10815		
1	HD785-JK-5			SA12V140-1	-- 13301		KI

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