

**PARTS & SERVICE
NEWS**

REF NO.	AT03080
DATE	Apr. 25, 2003

(C)

Page 1 of 6

SUBJECT: REPAIR PROCEDURE OF HEAD BOLT BROKEN DUE TO THE CORROSION ON ALL 140 SERIES ENGINES

PURPOSE: To introduce the repair procedure of head bolt broken due to the corrosion on all 140 Series Engines

APPLICATION: Refer to pages 4, 5 and 6.

FAILURE CODE: A120FM

DESCRIPTION:**1. Introduction**

As for the machines on which 140 Series Engines are mounted, water may enter from the clearance between the head gasket and the cylinder block. And when the machines work for a long time, the surface of the head bolt may be corroded and the bolt may be damaged. For this reason, when the bolt is checked during the head open or the overhaul, and when the corrosion is found, repair according to this service news.

2. List of parts

Part No.	Part Name	Purpose of part	Q'ty	Remarks
6210-17-1814 (6210-17-1813)	Gasket (Gasket)	Replacement	6 & 12	6D140: 6 pcs 12V140: 12 pcs
6210-17-1814 (6210-11-1870)	Gasket (Gasket)	Replacement	6	
6210-17-1814 (6217-11-1810)	Gasket (Gasket)	Replacement	6	
6210-19-1814	Gasket		6 & 12	Over-size

3. Repair contents

Grommets are added to the bolt holes for the head gasket (five places), and at the portions near the water holes, the silicon beads are added to both sides of the gasket.

4. Repair procedure

Refer to Shop Manual

<https://hespareparts.com/>

Material No. _____ / _____

(Service news, prompt design change execution ser. No.) (Change part No.: Old part No. New part No. → 6210171814)
 (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	@CS360-2		From next time		31	@HV3000-1	~ #30656	From next time	
2	@GC380-1		From next time		32	@HV6000-1	~#30782	#30796 ~ 3/18~	
3	@D135A-2		From next time		33	@KE190-2		From next time	
4	_____	_____	_____		34	@PC650-3		From next time	
5	@GC380F-2	~ #30536	From next time		35	@PC650-5		From next time	
6	_____	_____	_____		36	@PC750-6		From next time	
7	@D135A-GA-2		From next time		37	@PC750-KU-6		From next time	
8	@D155A-2A	~ #30781	#30787 ~	3/18 ~	38	@PC1600-AF		From next time	
9	@D155AX-3	~ #30667	From next time		39	@PC1600-AX		From next time	
10	@D155AX-5	~ #30672	From next time		40	@PC1600-1F		From next time	
11	@D155C-1A	~ #29272	From next time		41	@PC1600-1R		From next time	
12	@D275A-5	~ #30594	#30824 ~	3/31 ~	42	@PC1600SP-1F	~ #30617	From next time	
13	@D355C-DA-3	~ #30706	From next time		43	@PC1600SP-1R		From next time	
14	@D85A-2A		From next time		44	@PC1800-6F		From next time	
15	_____	_____	_____		45	@PC1800-6R		From next time	
16	@D475A-2	~ #13152	From next time		46	@WA500-1		From next time	
17	@D475A-3	~ #13379	From next time		47	@WA500-1L		From next time	
18	@GD805A-1		From next time		48	_____	_____	_____	
19	@GD825A-2	~ #20753	From next time		49	@WA500-3	~ #30705	From next time	
20	@HD325-5		From next time		50	@WA500-DZ-3	~ #30743	From next time	
21	@HD325-5*	~ #30724	From next time		51	@WF550-3		From next time	
22	@HD325-6		From next time		52	@WF600T-1		From next time	
23	@HD785-3	~ #13257	From next time		53	@LW500-1	~ #30344	From next time	
24	@HD785-5	~ #13377	#13382 ~	3/18~	54	@WS16S-3		From next time	
25	@HD785-2*	~ #13373	From next time		55	@WS23-5F		From next time	
26	@HD785-DZ-5	_____	From next time		56	@WS23-2R		From next time	
27	@HD785-JK-5	~ #13301	From next time		57	@WS23S-2		From next time	
28	@HD985-3	~ #11777	From next time		58	@WA800-1	~ #12732	From next time	
29	@HD985-5	~ #13273	From next time		59	@WA800-2	~ #12732	From next time	
30	@HV700-2	~ #10815	From next time		60	@WA800-3	~ #13357	From next time	

Material No. _____ / _____

(Service news, prompt design change execution ser. No.)
(Engine ser. No.)Old part No. _____ New part No. _____
(Change part No.: _____ → 6210171814)
(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	@WA900-1	~ #12721	From next time		31	_____	_____	_____	
2	@WA900-3	~ #13365	From next time		32	SA6D140A-GB-1		From next time	
3	@WD900-3	~ #13337	From next time		33	SAA6D140-G1-1		From next time	
4	SA6D140-W1-1		From next time		34	SAA6D140-G3-1		From next time	
5	SA6D140A-W1-1		From next time		35	SA6D140B-A2-1		From next time	
6	SA6D140B-A1-1		From next time		36	SA6D140B-G1-1		From next time	
7	SA6D140-A2-1		From next time		37	SA6D140-P-1		From next time	
8	SA6D140-C2-1		From next time		38	SA6D140-A1-1		From next time	
9	SA6D140-P-1		From next time		39	S6D140-GT-1		From next time	
10	SA6D140A-1		From next time		40	S6D140G1-1		From next time	
11	SA6D140A-GA-1		From next time		41	SA6D140A-GT-1		From next time	
12	SA6D140A-GB-1		From next time		42	SA6D140-G1-1		From next time	
13	SA6D140A-GD-1		From next time		43	TA6D140-G1-2		From next time	
14	SA6D140A-GH-1		From next time		44	A12V140-G2-1	~ #12961	From next time	
15	SA6D140GJ-1		From next time		45	A12V140-G3-1	~ #13333	From next time	
16	SA6D140A-G2-1		From next time		46	EG750A-L-1	~ #11041	From next time	
17	SA6D140A-G3-1		From next time		47	EG750B-L-1	~ #11041	From next time	
18	SA6D140A-P-1		From next time		48	EPSA12V140-1	~ #10594	From next time	
19	SA6D140B-1		From next time		49	SA12V140-1	_____	_____	
20	SA6D140B-A1-1		From next time		50	SA12V140-A2-1	~ #11132	From next time	
21	SA6D140B-GA-1		From next time		51	SA12V140-C2-1	~ #11823	From next time	
22	SA6D140B-G2-1		From next time		52	SA12V140-GA-1	~ #11041	From next time	
23	SA6D140B-G3-1		From next time		53	SA12V140-GD-1	~ #13364	#13380 ~	3/24~
24	S6D140-1		From next time		54	SA12V140-GH-1	~ #13374	From next time	
25	S6D140-GD-1		From next time		55	SA12V140-GT-1	~ #13139	From next time	
26	S5D140-GH-1		From next time		56	SA12V140-G1-1	~ #12915	From next time	
27	S6D140-G2-1		From next time		57	SA12V140-G2-1	~ #13374	From next time	
28	S6D140-G3-1		From next time		58	SA12V140-G3-1	~ #11256	From next time	
29	S6D140-P-1		From next time		59	SA12V140-P-1	~ #12915	From next time	
30	S6D140-PGA-1		From next time		60	J12V140-GCK-1	_____	_____	

Material No. _____ / _____

Old part No. New part No.

(Service news, prompt design change execution ser. No.)
(Engine ser. No.)(Change part No.: → 6210171814)
(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	12V140-CKEC-1	_____	_____		31	A12V140-G1-1	~ #13339	From next time	
2	EG300-5		From next time		32	SA6D140A-GN-1		From next time	
3	EG300-L-5		From next time		33	SA6D140B-GN-1		From next time	
4	EG300B-5		From next time		34	S6D140-GN-1		From next time	
5	EG300BS-5		From next time		35	@BR1000JG-1	~ #111280	From next time	
6	EG350A-L-1		From next time		36	@CS360-2E	~ #111661	From next time	
7	EG350B-L-1		From next time		37	@D155AX-5A	~ #111813	From next time	
8	EG400-2		From next time		38	@D275AX-5	~ #111815	#111870 ~	3/31~
9	EG400B-2		From next time		39	@GS500-	~ #111770	From next time	
10	EG400B-L-2		From next time		40	@HF325-5E	~ #111851	#111852 ~	
11	EG400BS-2		From next time		41	@HM350-1	~ #111793	From next time	
12	6M140A-1		From next time		42	@HM400-1	~ #110742	#111891 ~	
13	6M132A-1		From next time		43	@PC1800E-6F	~ #111705	#111853 ~	
14	6M137B-1		From next time		44	@PC1800E-6R	~ #111706	#111854 ~	
15	6M140A-2		From next time		45	@PC600-6	~ #111802	#111849 ~	
16	6M132A-2		From next time		46	@PC600-KU-6	~ #111821	#111846 ~	
17	EM665A-2		From next time		47	@PC750-6E	~ #111834	#111855 ~	
18	EM665A-00		From next time		48	@PC750-KU-6E	~ #111827	#111862 ~	
19	SA6D140-M-1		From next time		49	@WA500-3E	~ #111826	#111861 ~	
20	SA12V140-M-1	#10775	From next time		50	@WA500-AC-3	~ #111693	#111874 ~	
21	12M140A-1	~ #11081	From next time		51	@WA500-HH-3	~ #111842	#111843 ~	
22	BE-GD825A-1	_____	_____		52	_____	_____	_____	
23	BE-PC550-3	_____	_____		53	@WZ4000-1	~ #111400	From next time	
24	ID-WA500-1	_____	_____		54	J6D140E-GD-3		From next time	
25	BE-B35-1	_____	_____		55	J6D140E-KC-3		From next time	
26	BE-SA140AG-1	_____	_____		56				
27	S6D140-GJP-1	_____	_____		57				
28	J12V140E-GD-1	~ #12900	From next time		58				
29	TA12V140-G1-1	~ #70015	From next time		59				
30	S6D140-PGA-1		From next time		60				

AT03080: APPLICATION LIST: ALL 140 series engines

No	Engine Model	APPLICATION	IMPROVED
1	140series-1/-2	-- 30786	30787 --
2	140series-3	-- 111851	111852 --
3	12V140series-1	-- 13381	13382 --

No	Model (Reference)	APPLICATION (Reference)	IMPROVED (Reference)	ENG model	APPLICATION	IMPROVED	Note
1	BR1000JG-1	10001 -- 10001	10002 --		-- 111280		
2	CS360-2	11001 -- 11086		S6D140-1			
3	CS360-2	11087 -- 11091	11092 --	SA6D140E-3	-- 111661		
4	D135A-2	10301 -- 10999		S6D140-1			
5	D155A/AX-3	60001 -- 61999		S6D140-1 SA6D140E-2	-- 30667		
6	D155A-2A	57001 -- 57569	57570 --	SA6D140E-2	-- 30781	30787 --	
7	D155A-5	65001 -- 65099	65100 --	SA6D140E-2	-- 30672		
8	D155AX-5	70001 -- 70999		SA6D140E-2	-- 30672		
9	D155AX-5	75001 -- 75259	75260 --	SA6D140E-3	-- 111803		
10	D155C-1	15686 -- 15999		SA6D140-2	-- 29272		
11	D275A-5	25001 -- 25039	25040 --	SDA6D140E-3	-- 111815		
12	D275A-5D (-50deg)	25001 -- 25029	25030 --	SDA6D140E-2	-- 30594		
13	D275AX-5	20001 -- 20089	20090 --	SDA6D140E-3	-- 111815	111870 --	
14	D355C-3	14263 -- 14529	14530 --	SA6D140-2	-- 30706		
15	D475A-2	10201 -- 10499		SA12V140-1	-- 13152		
16	D475A-3	10601 -- 10779	10780 --	SDA12V140-1	-- 13379		
17	D85A-21A	35001 -- 36579		6D140-1			
18	D85P-21A	3001 -- 3688		6D140-1			
19	GC380-1	10001 -- 11099		S6D140-1			
20	GC380F-2	12001 -- 12099	12100 --	SA6D140-1	-- 30536		
21	GD805A-1	10001 -- 10099		S6D140-1			
22	GD825A-2	11001 -- 12139	12140 --	S6D140-1 S6D140E-2	-- 30753		
23	GS500-1	1001 -- 1001	1002 --	SAA6D140E-3	-- 11177		
24	HD325-5	2001 -- 4999		SA6D140-1	-- 30724		
25	HD325-6	5001 -- 5999		SA6D140-1 SAA6D140E-2			
26	HD325-6	6001 -- 6199	6200 --	SAA6D140E-3	111871	111852 --	
27	HD405-6	1001 -- 1999		SAA6D140E-2			
28	HD405-6	2001 -- 2099	2100 --	SAA6D140E-3	-- 111851		
29	HD785-3	2001 -- 3999		SA12V140-1	13257		
30	HD785-5	4001 -- 4429	4430 --	SA12V140-1	-- 13377	13382 --	
31	HD985-3	1001 -- 1020		SA12V140-1	-- 11777		
32	HD985-5	1021 -- 1079	1080 --	SA12V140-1	-- 13273		
33	HM350-1	1001 -- 1059	1060 --	SAA6D140E-3	-- 111793		
34	HM400-1	1001 -- 1099	1100 --	SAA6D140E-3	-- 110742	111891 --	
35	HV3000-1	1001 -- 1010	1011 --	SA6D140E-2	-- 30656		
36	HV6000-1	1001 -- 1010	1011 --	SA6D140E-2	-- 30782	30796 --	
37	HV700-2	1001 -- 1010	1011 --	SA12V140-1	-- 10815		
38	KE190-2			S6D140-1			
39	LW500-1H LW500-1X	10001 -- 10054 11001 -- 11034	10055 -- 11035 --	S6D140E-2	-- 30344		
40	PC1600/SP-1	10001 -- 10199		SA6D140-1 SA6D140-2	-- 30617		
41	PC1800-6	10001 -- 10199		SAA6D140E-2			
42	PC1800-6	11001 -- 11019	11020 --	SAA6D140E-3	-- 111706	111853 --	
43	PC600-6	11001 -- 11139	11140 --	SA6D140E-3	-- 111802	111849 --	
44	PC650-3	10501 -- 10999		SA6D140-1			
45	PC650-5	20001 -- 29999		SA6D140-1			
46	PC650-6	31001 -- 31069	31070 --	SA6D140E-3			
47	PC710-5	10001 -- 10299		SA6D140-1			
48	PC750-6	10001 -- 10999		SAA6D140E-2			
49	PC750-6	11001 -- 11089	11090 --	SAA6D140E-3	-- 111834	111855 --	
50	PC800-6	10001 -- 30999		SAA6D140E-2	-- 111834	111855 --	
51	PC800-6	31001 -- 31099	31100 --	SAA6D140E-3			
52	WA500-1	10001 -- 21999		S6D140-1			
53	WA500-1	50001 -- 51999		S6D140E-2	-- 30705		
54	WA500-3	52001 -- 52169	52170 --	SA6D140E-3	-- 111826	111861 --	
55	WA500-3-J	54001 -- 54029	54030 --	SA6D140E-3	-- 111826	111861 --	
56	WA800-1	10001 -- 10999		SA12V140-1	-- 12732		
57	WA800-2	10501 -- 10999		SA12V140-1	-- 12732		
58	WA800-3	50001 -- 51019	51020 --	SA12V140-1	-- 13357		
59	WA900-1	10001 -- 10999		SA12V140-1	-- 12721		
60	WA900-3	50001 -- 50039	30040 --	SA12V140-1	-- 13365		
61	WD900-3	50001 -- 50007	50008 --	SA12V140-1	-- 13337		
62	WF550-3	50001 -- 50009		S6D140E-2			
63	WF600T-1	10001 -- 10010		S6D140-1			
64	WS16S-3			S6D140-1			
65	WS23-2			S6D140-1			
66	WS23-5						
67	WS23S-2			SA6D140-1			
68	WZ4000-1	1001 -- 1006	1007 --	SAA6D140E-3	-- 111400		
1	WA500-AC-3			SA6D140E-3	-- 111693	111874 --	CMO
2	WA500-DZ-3			S6D140E-2	-- 30743		KCCM
3	HD785-JK-5			SA12V140-1	-- 13301		KI
4	WA500-HH-3			SA6D140E-3	-- 111842	111843 --	KOHAG
5	PC600-KU-6			SA6D140E-3	-- 111821	111846 --	KUK
6	PC750-KU-6			SAA6D140E-2			KUK
7	PC750-KU-6			SAA6D140E-3	-- 111821	111862 --	KUK