

PARTS & SERVICE NEWS

REF NO.	AT00006B
DATE	Apr. 11, 2001

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This PARTS & SERVICE NEWS supersedes the previous issue No. AT00006A dated Nov. 28, 2000 which should be discarded.

SUBJECT: REPAIR OF DEFECTIVE STARTING MOTOR (SAFETY RELAY) ON PC60/70-7 ETC.

PURPOSE: To introduce modification procedures to remedy malfunctioning of the starting motor (due to defective safety relay) on PC60-7, PC70-7 and other models of hydraulic excavators

APPLICATION: Refer to page 2 thru 5.

FAILURE CODE: D13050

DESCRIPTION:

1-1. Introduction

Although we have previously adopted a vibration-resistant safety relay, in an attempt to improve its wear resistance, for the starting motor on the PC60-7, PC70-7 and other models of hydraulic excavators, the insulation bushing installed inside the safety relay, owing to inappropriate material of the bushing, may adhere to the molded cover to raise the minimum activation voltage of the safety relay and thereby to cause activation failures of the starting motor. When such failures are found to be occurring with these machines, implement the modification designated in this Service News to remedy the failures.

1-2. Revised places:


12 places \triangle	Nov. 28, 2000	Added the applicable machines.
1 place \triangle	Apr. 11, 2001	Supplemented the applicable models.

2. List of parts

Part No.	Part Name	Purpose of part	Q'ty	Remarks
600-815-8940 (203-06-59321)	Switch (Switch)	} Replacement	1 (1)	For CD's and PC's
\triangle 600-815-8930 (203-06-59320)	Switch (Switch)		1 (1)	For WA's


List of models and serial numbers of the applicable machines

Applicable machine models	Serial numbers of the applicable machines	Serial numbers of already improved machines
CD60R-1	#1395 – #1674	#1817 –
PC100N-6	#1217 – #1220	#1221 –
PC128US-1	#1634 – #2245	No production after Feb. '99
PC128US-2	#5001 – #5758	#5759 –
PC128UU-1	#3659 – #4043	No production after Sep. '99
PC128UU-2	#5001 – #5114	#5115 –
PC138US-2	#1001 – #1260	#1261 –
PC60, 70-7	#55824 – #56634	No production after May '99
PC60, 70-7 (m/c)	#58001 – #58418	#58419 –
PC75US-3	#30103 – #30789	No production after May '99
PC75UU-3	#16623 – #17650	No production after May '99
PC75UU-3 (m/c)	#19001 – #19559	#19560 –
PC78US-5	#1001 – #1508 \triangle #1240	#1509 \triangle #1241 –
PW128UU-1		#1241 –
WA80-3		#11101 –
WA100M-3		#11054 –
WA100-3	Refer to pages 3 and 4.	#55187 –
		#64075 –
WA150-3		#64061 –
WA200-3		#64077 –
WA250-3		#66011 –
WA300-3CS		#52112 –
WR11-3		#53117 –
D31A-20	#42945 – #43013	#43014 –
D31AM-20	#42964 – #43021	#43022 –
D31E-20	#42952 – #43026	#43027 –
D31P-20A	#48620 – #49006	#49007 –
D31P-20B	#48650 – #48999	#49000 –
D31PG-20	#48662	#48663 –
D31PL-20	#48714 – #49000	#49001 –
D31PLL-20	#48663 – #49002	#49003 –
D31Q-20	#41226 – #41244	#41245 –
D31S-20	#41229 – #41241	#41242 –
D31SM-20	#41242 – #41243	#41244 –
D37A-5	No production after Feb. '99	
D37E-5	#3958 – #4024	#4025 –
D37P-5	No production after Feb. '99	
D37P-5A	#3905 – #3936	#3937 –
D37PG-5	No production after Feb. '99	
D37PG-5A	No production after Feb. '99	

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Applicable machine models	Serial numbers of the applicable machines	Serial numbers of already improved machines
LC1285-1	#1033 – #1056	#1057 –
PC75UUT-3	#1003 – #1022	#1023 –
LC605-2	#40092 – #40094	#40095 –
PC60SC-7	#1001 – #1018	#1019 –
CD60RT-1	#1660 – #1662	#1663 –

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Applicable machines other than the service campaign machines (Applicable to the "A3".)

Applicable machine models	List of serial numbers		
WA80-3	#10713 #10719 – #10722 #10724 – #10725 #10729 #10732 – #10738 #10740 #10743 #10750 – #10751 #10753 – #10754 #10758 #10760 #10765 #10767 #10771	#10776 #10783 #10785 – #10786 #10791 #10793 #10795 #10798 #10800 – #10801 #10804 #10806 – #10807 #11002 #11005 – #11006 #11019 – #11020 #11028 – #11029	#11031 – #11032 #11048 #11052 #11056 #11061 – #11063 #11065 – #11068 #11070 #11076 #11079 #11081 #11081 #11088 – #11092 #11095 – #11096
WA100-3	#54403 – #54404 #54406 – #54407 #54409 #54415 – #54418 #54425 #54427 #54433 #54437 #54439 #54442 #54445 #54449 #54455 #54460 #54462 #54463 – #54471 #54474 – #54476 #54478 – #54480 #54485 – #54488 #54491 – #54493 #54495 #54500 #54503 #54507 #54511 – #54512 #54514 #54524	#54529 #54533 #54537 #54539 #54542 #54555 – #54556 #54560 #54565 #54568 #54570 – #54571 #55001 #55004 #55006 #55008 #55016 #55018 #55022 #55039 #55041 #55076 – #55077 #55082 #55090 – #55092 #55094 #55103 #55112 #55124 #55133	#55135 #55138 #55141 – #55142 #55152 #55158 #55162 #55165 – #55167 #55170 #55175 – #55178 #55181 – #55185 #63468 #63471 #63476 – #63478 #63482 #63485 #63492 – #63493 #63497 #63503 #64006 #64026 #64045 #64051 #64064 #64066 #64068 #64072 – #64074
WA100M-3	#10078 – #11079 #11082 – #11086 #10088 – #10091 #10093 – #10095 #10101 #10103 – #10106 #10108 – #10111	#10113 #10117 #11001 – #11002 #11008 #11010 #11015 #11025 – #11026	#11028 – #11032 #11035 #11041 #11045 #11047 #11050 – #11052

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Applicable machines other than the service campaign machines (Applicable to the "A3".)

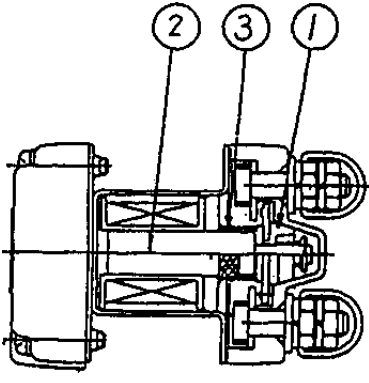
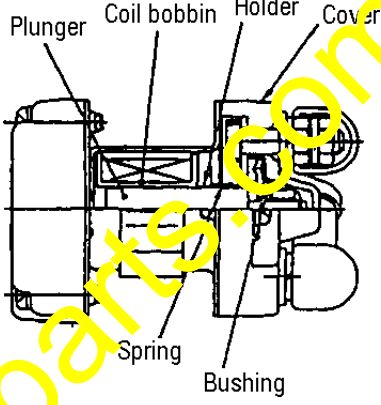
Applicable machine models	List of serial numbers		
WA150-3	#63363 #63365 #63367 #63369 #63372 #63375 – #63379 #63382 – #63383	#63385 – #63386 #63390 #63393 – #63394 #63401 #63403 – #63404 #63408 #63414 – #63415	#64022 #64043 #64047 #64049 #64051 #64056 #64059
WA200-3	#63473 – #63474 #63477 #63479 #63481 – #63484 #63486 #63491 #63496 – #63497 #63500 – #63501 #63503 – #63504 #63511	#63513 – #63514 #63516 – #63518 #63521 #63523 #63528 – #63529 #63533 #64004 #64006 #64009 #64011	#64021 #64040 #64053 #64058 – #64059 #64061 – #64062 #64067 #64070 – #64072 #64074
WA250-3	#65040 – #65041	#66003 – #66005	#66007
WA300-3CS	#52001 – #52004 #52006 #52008	#52010 – #52014 #52016 #52102	#52106 #52108 – #52111
WR11-3	#53002 – #53005 #53008 #53012	#53102 #53104 – #53108 #53110	#53113 #53115 – #53116
PW128UU-1	#1216		

3. Contents of the modification

An internal part of the safety relay may wear to cause the operating voltage of the relay to increase, leading to occurrences of activation failures of the starting motor.

The cause for this failure is that the bushing used inside the safety relay has worn by rubbing against the cover and sliding resistance has increased.

As the improvements to remedy the above failure and, simultaneously, as a means to prevent the spring from entering into inside the holder, following modifications have been implemented.


	New safety relay		Current safety relay	
Structures				
	Changes made	New part	Current part	Purpose of the improvement
①	Material of the bushing	Duracon (M90-44)	Fiberglass reinforced Duracon	To improve the vibration resistance (9G → 20G)
②	Surface treatment for the plunger	Tufftride	Zinc plating	To improve the vibration resistance (9G → 20G)
③	Spring holder	Supplemented an L-shaped washer	None	To prevent damage by the spring

4. Identification method for the improved part

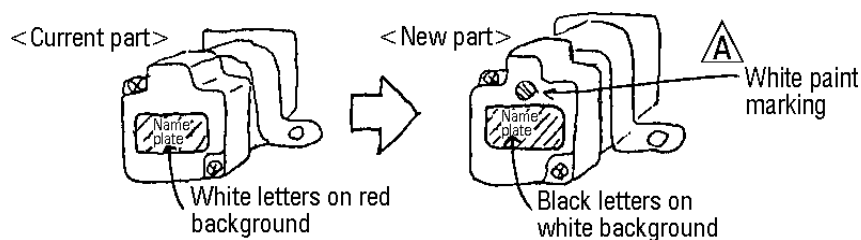
NIKKO ELECTRIC INDUSTRY CO., LTD's part numbers Komatsu's part numbers

<Current part> 0-25000-7960 → <New part> 0-25000-7961 (600-815-8940)

 <Current part> 0-25000-7410 → <New part> 0-25000-7411 (600-815-8930)

 Also, pursuant to the manufacturer's part number change, the color of the nameplate has been changed.

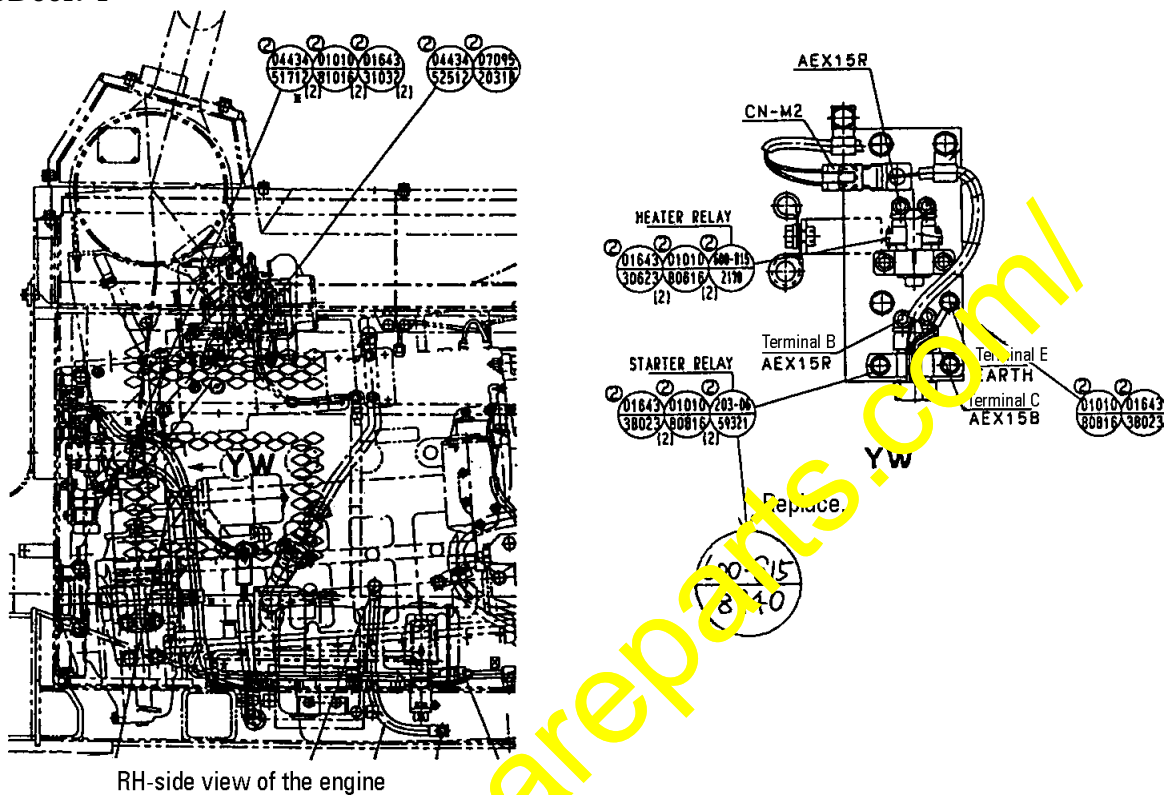
Also, pursuant to the part number change by the manufacturer, the color of the nameplate has been changed and, also, a white paint marking is being provided above the nameplate for the identification purpose.



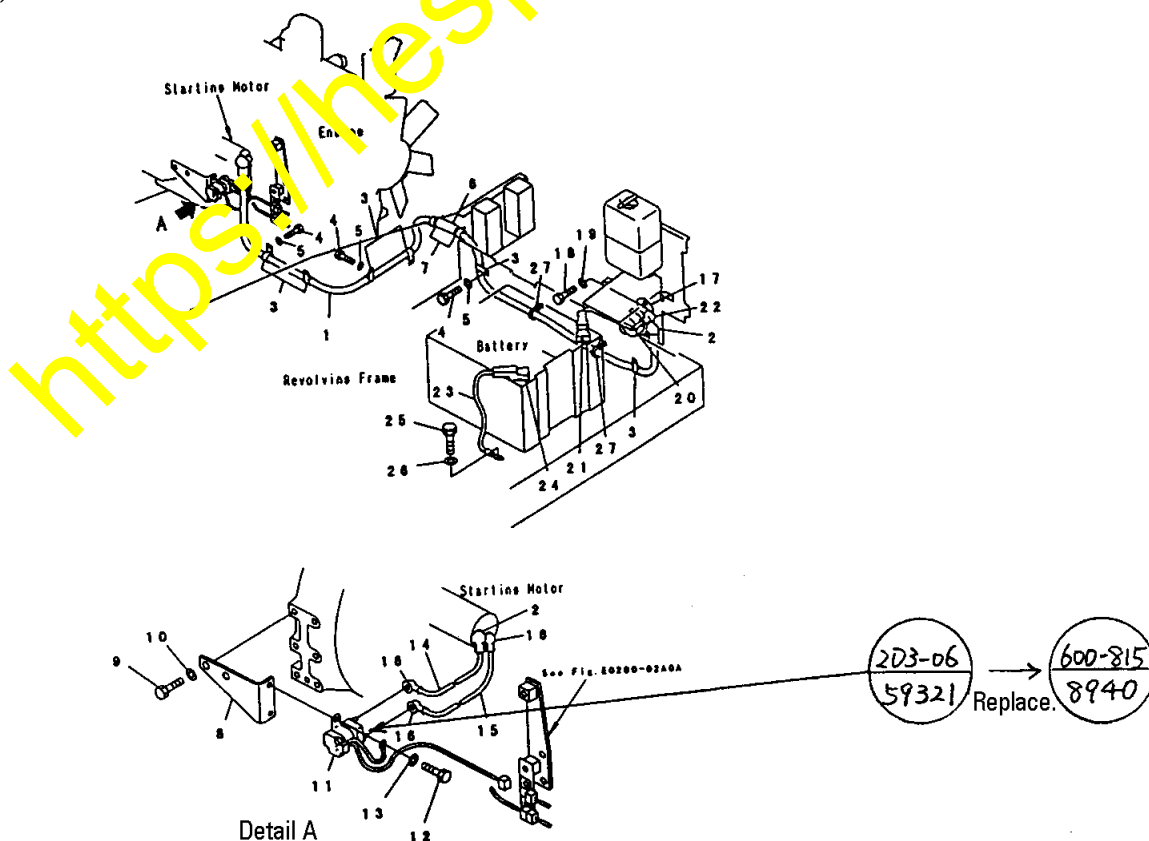
5. Modification procedures

When the aforesaid failure has occurred, replace the safety relay with the improved part. Shown below are the location of the safety relay with respective models.

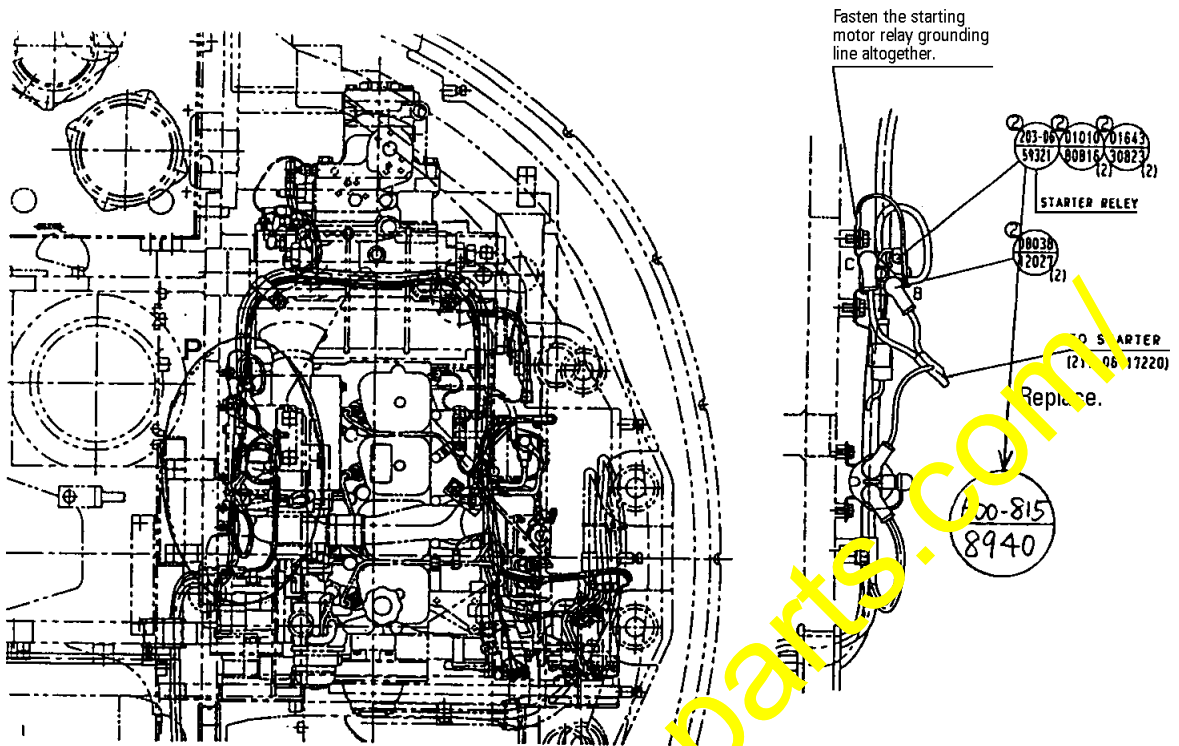
1) CD60R-1



2) PC100N-6

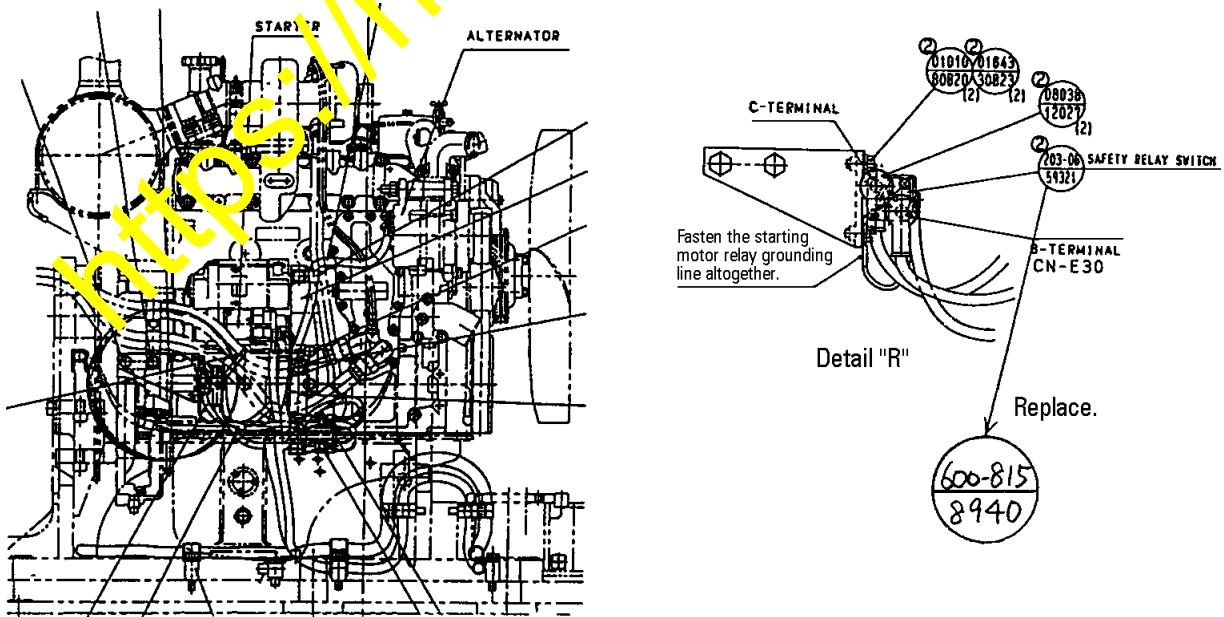


3) PC128UU/US-1



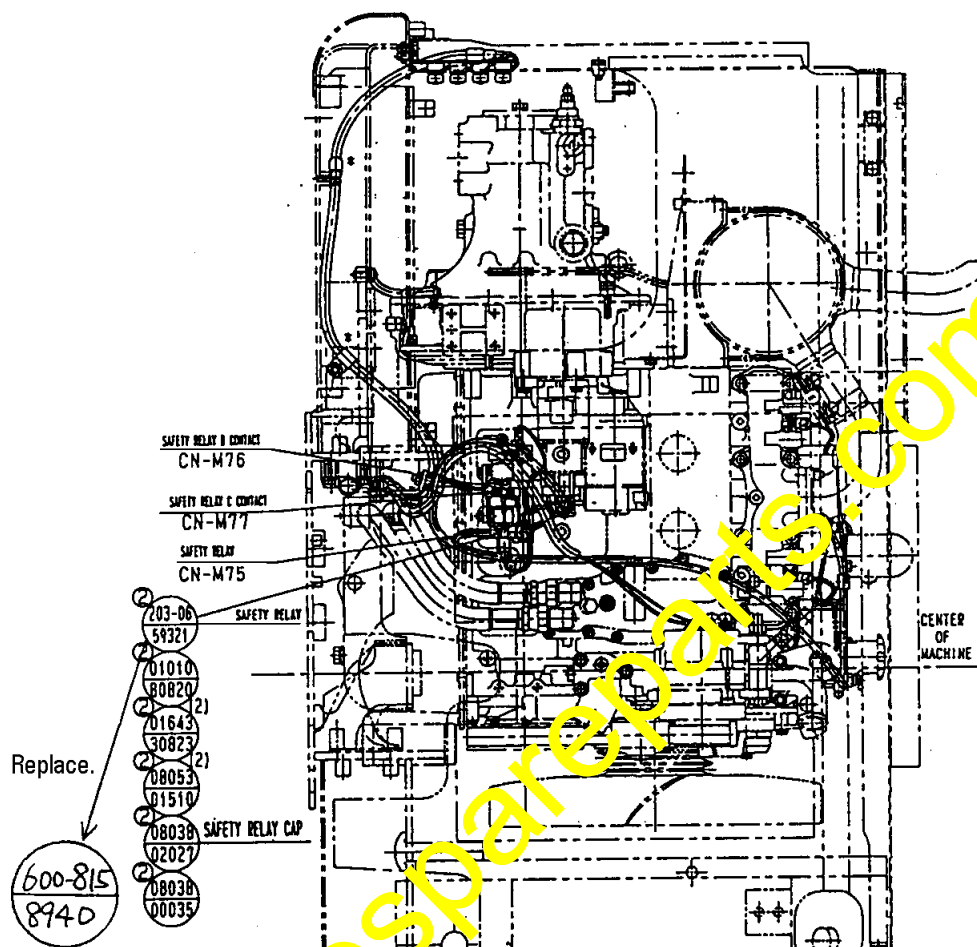
Detail "P" (Detail drawing of the relay section)

4) PC128US/UU-2 and PC138US-2



The engine, viewed from the center of chassis

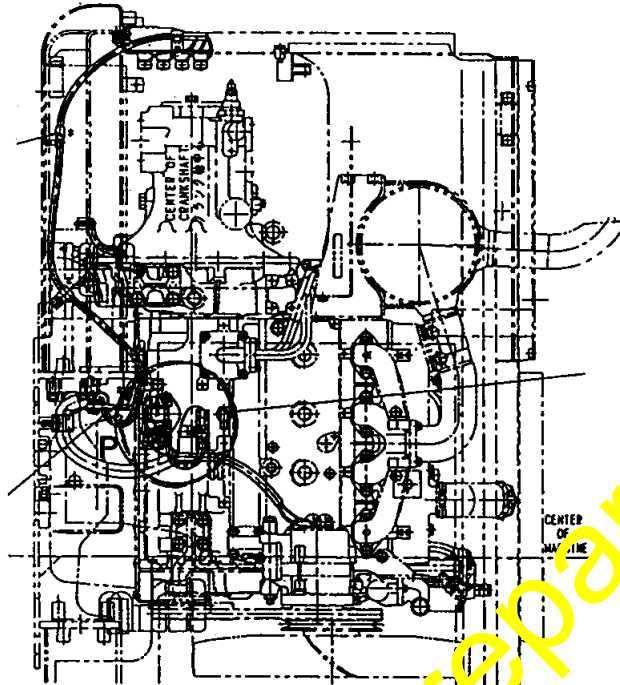
5) PC60/70-7



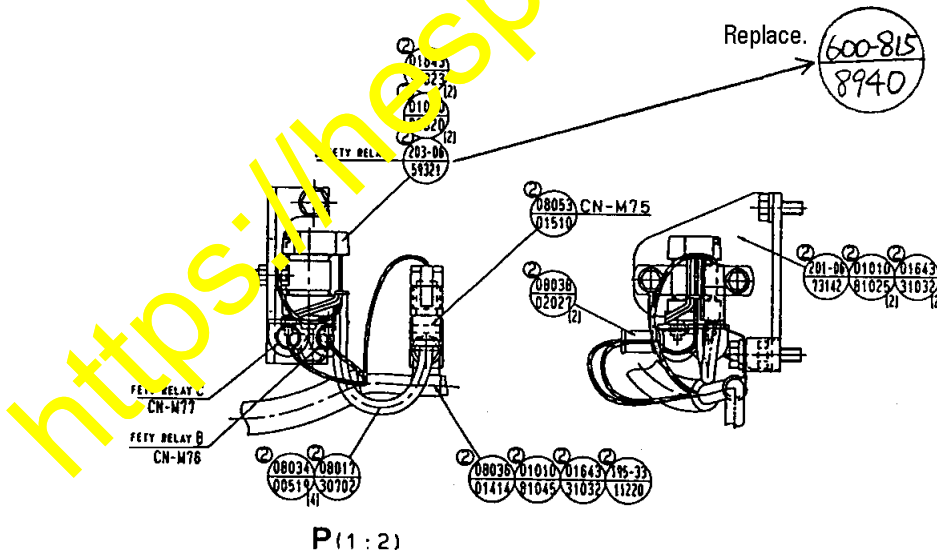
the engine, viewed from the center of chassis

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6) PC60/70-7 (#58001 -)

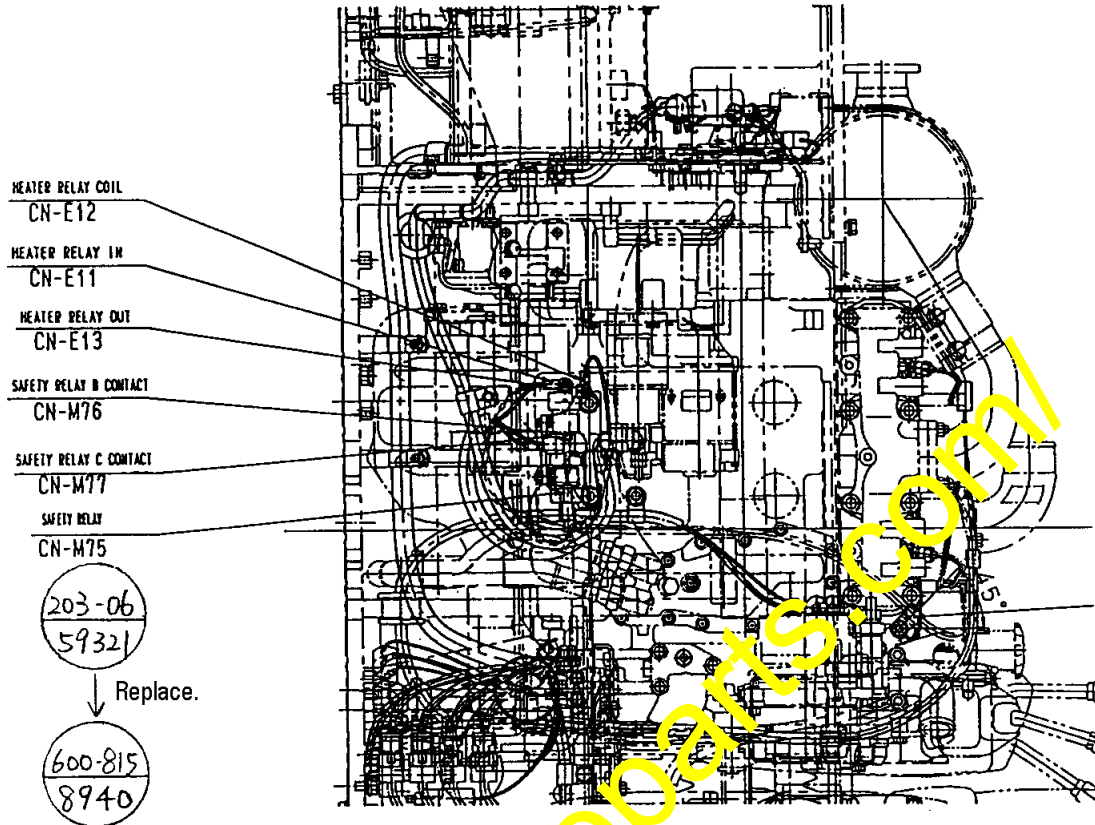


The engine, viewed from the center of chassis



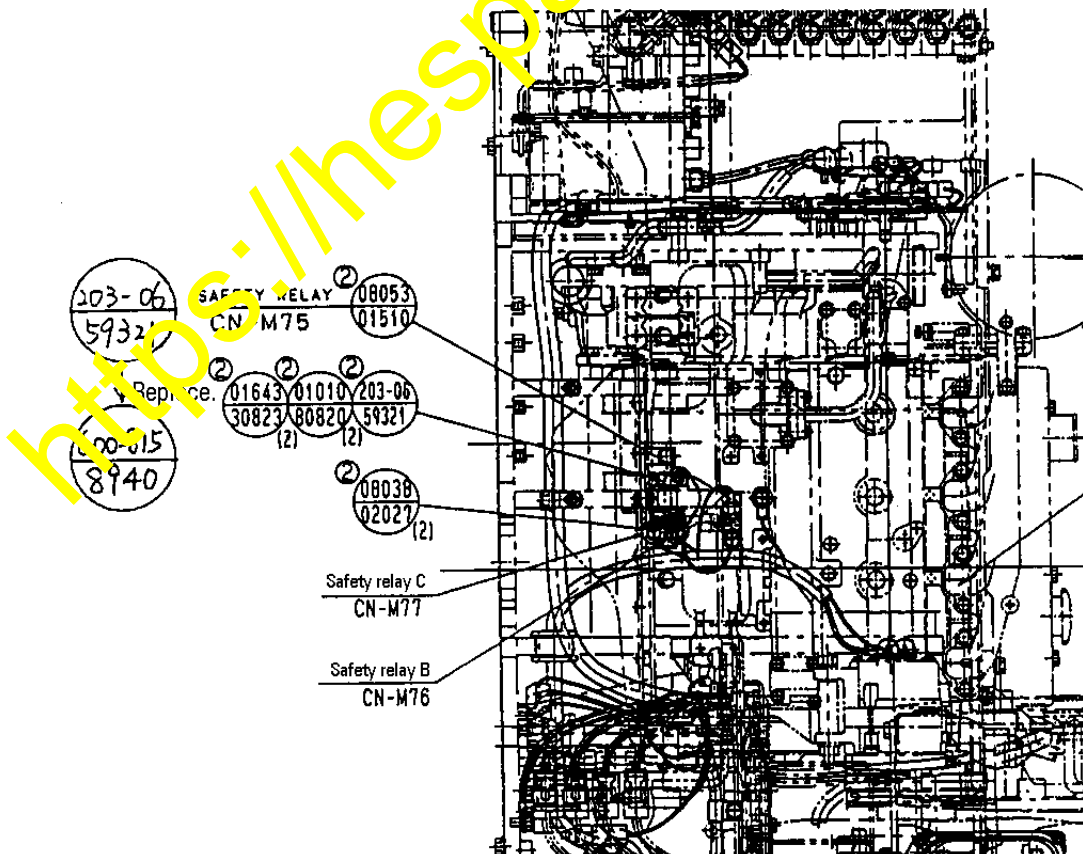
P (1:2)

7) PC75UU/US-3




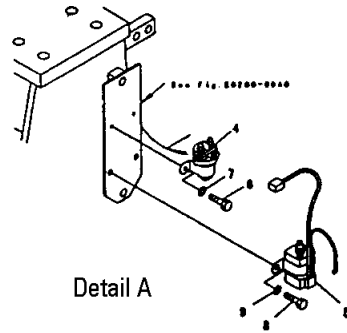
The engine, viewed from the center of chassis

8) PC75UU-3 (#19001 -) and PC78US-

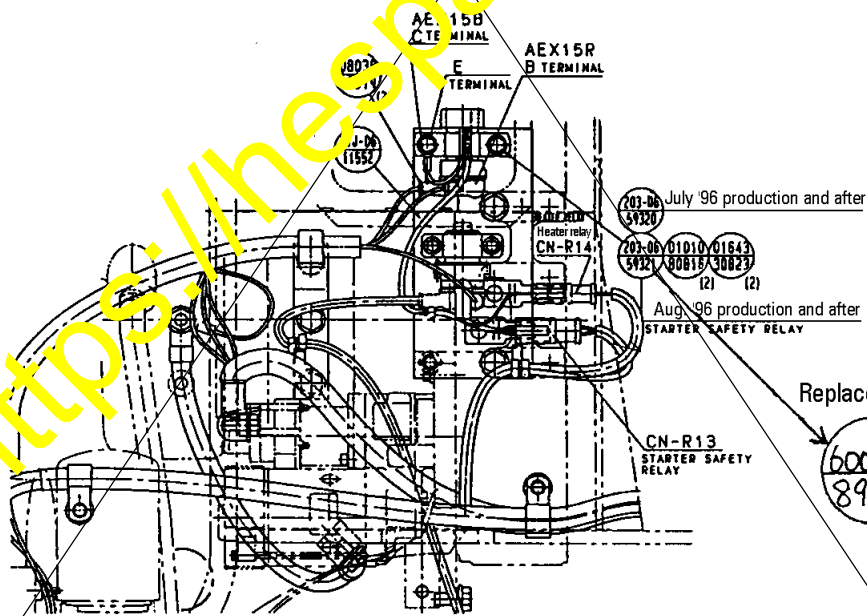
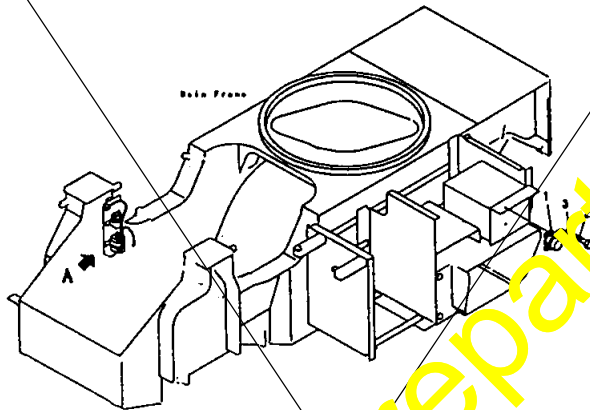


The engine, viewed from the center of chassis


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9) PW128UU-1



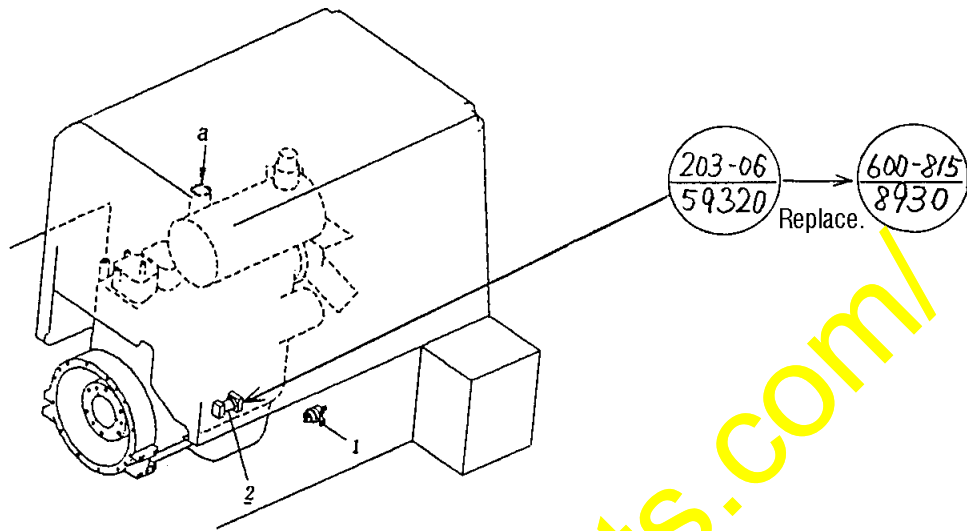
Detail A



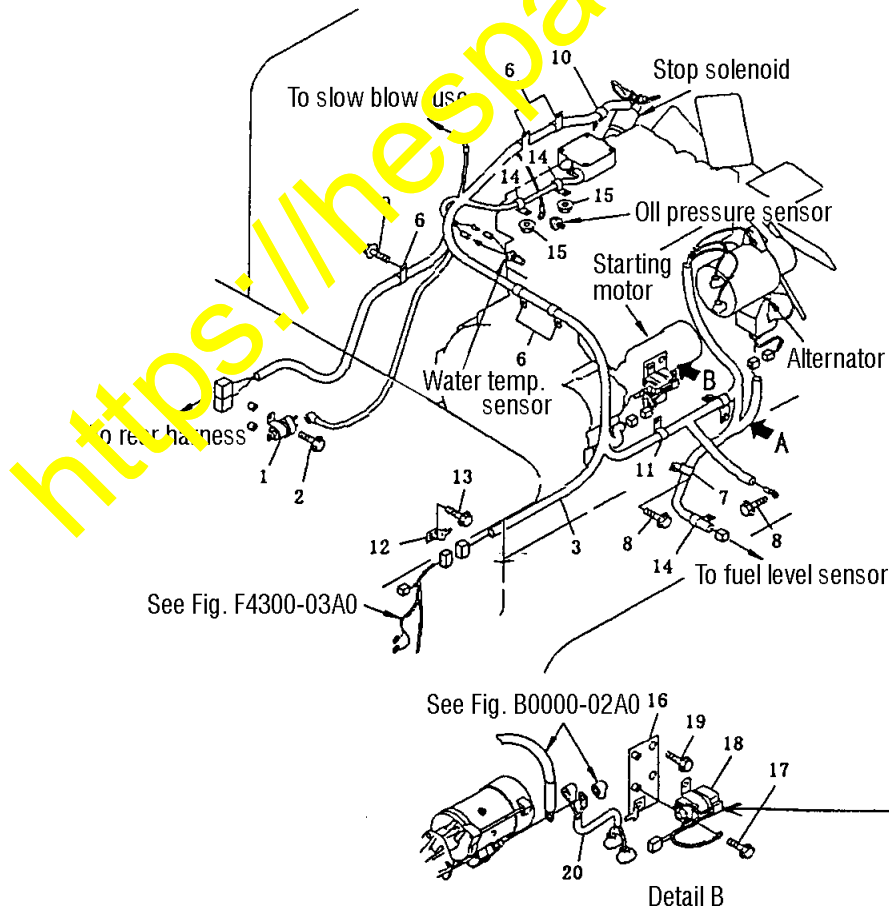
Details of the safety relay mounting section


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10) WA80-3, WA100M-3

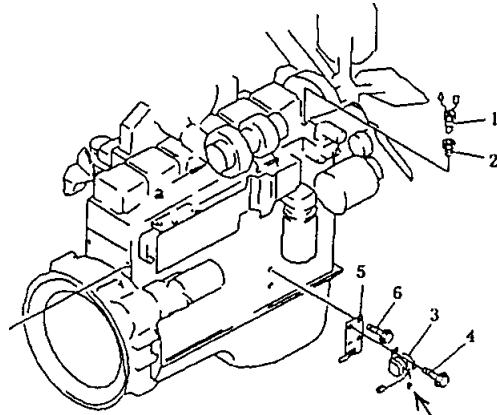


11) WA100-3, WA150-3, WA200-3, WA250-3, WR11-3



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12) WA300-3CS



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