

85. INTRODUCTION

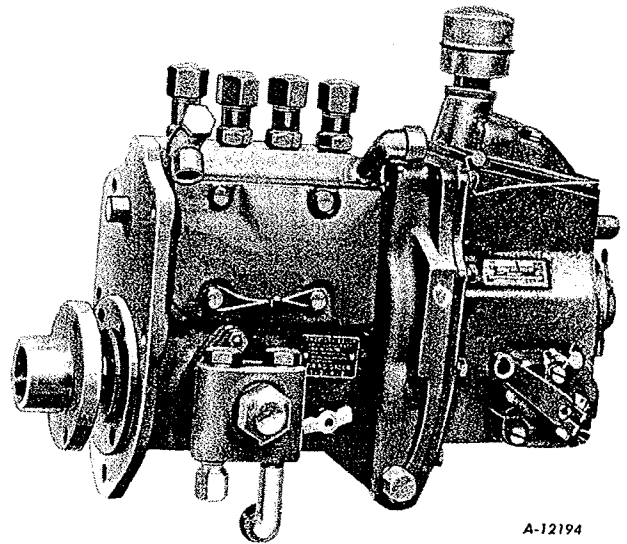
The fuel injection pump on a Diesel engine may well be likened to the heart in the human body in that it supplies the life blood which makes functioning of the engine possible.

Just as the successful operation of the human body depends upon the predetermined pulsations, timing and operating pressure of the heart, so does the Diesel engine depend upon the pulsations, timing and operating pressure of the injection pump to furnish its life blood, or fuel, for successful operation.

Unlike the human heart, the injection pump may be removed, dismantled and reconditioned to restore it to its original condition.

Precision workmanship and the best materials have been built into the fuel injection equipment to assure trouble-free operation over a long period. When it becomes necessary to adjust or dismantle the fuel injection equipment, it is of utmost importance that cleanliness be practiced. Should any dirt, grit, water, etc., reach the working parts of the injection pump, serious damage will result. Only after the fuel injection equipment and its accessories have been washed thoroughly with clean fuel oil to eliminate entirely any dirt or dust, should dismantling of the equipment be attempted.

A definite, triple routine of cleaning should be established while adjusting or dismantling the injection pump, before dismantling, while repairing and before reassembly. The impor-

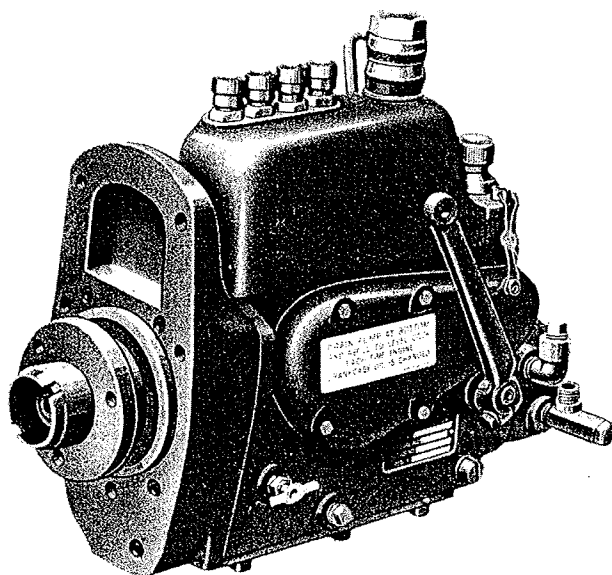


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ILLUST. 36 - SIDE VIEW OF THE MODEL "K" BOSCH FUEL INJECTION PUMP.

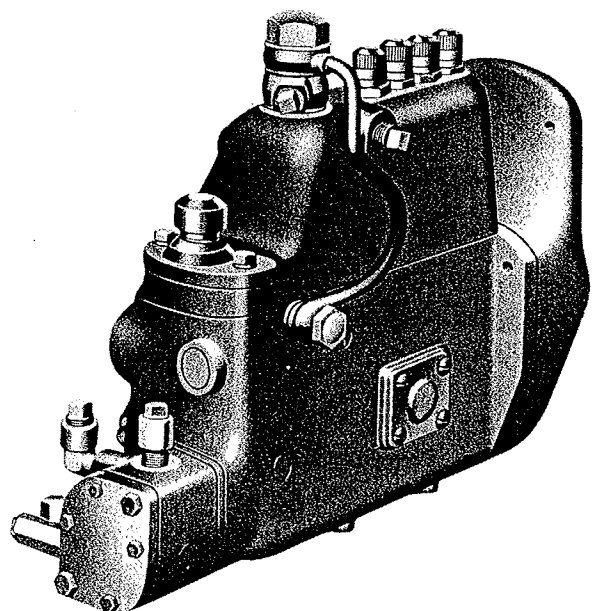
tance of cleanliness at all times cannot be overemphasized.

Complete instructions and information regarding the dismantling, assembling, adjusting and functioning of the fuel injection pump are contained in this section of the manual.



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ILLUST. 35 - FRONT AND SIDE VIEW OF THE IH SINGLE-PLUNGER PUMP.



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ILLUST. 37 - REAR AND SIDE VIEW OF THE IH SINGLE-PLUNGER PUMP.

IH FUEL INJECTION PUMPS



86. INJECTION PUMP REPLACEMENT

Injection pumps to be sent out for replacement on the IH 6, 9, 14, 14A, 16, 18, 18A and

24 series engines should be as follows, depending upon the engine serial number:

Engine Model	Engine Number Prefix	Engine Numbers Originally Equipped With:		
		Bosch Pumps	IH Single-Plunger	IH Twin-Plunger
TD-6	TDBKM	501 to 5873, incl.	5874 and up	501 and up
UD-6	UDEKM	501 to 2592, incl.	2593 and up	
UD-9	UDCEM	501 to 2610, incl.	2611 and up	
UD-14	UDFM	501 to 4718, incl.	4719 to 20,000, incl.	
TD-9	TDCEM	501 to 5254, incl.	5255 to 5754, incl.	
TD-9	TDCEM	5755 and up		
TD-14	TDFM	501 to 5267, incl.	5268 to 6031, incl.	
TD-14	TDFM	6034 to 7914, incl.	7915 to 8414, incl.	
TD-14	TDFM	8415 and up		
UD-16	UDCM			
UD-9	UDCB	501 to 3100, incl.	3100 to 4500, incl.	
UD-9	UDCB	4501 to 4800, incl.	4801 and up	
UD-14	UDF	501 to 4600, incl.	4601 to 20,000, incl.	
UD-14A	UDF	*	20,001 and up	
PD-80	PD	501 and up		
TD-18	TDRM	501 and up		
UD-18	UDRM	501 and up		
UD-18A	UDRM	20,001 and up		
UD-6	UDEK	501 to 2500, incl.	2501 and up	
TD-24	TDE			
UD-24	UDE			

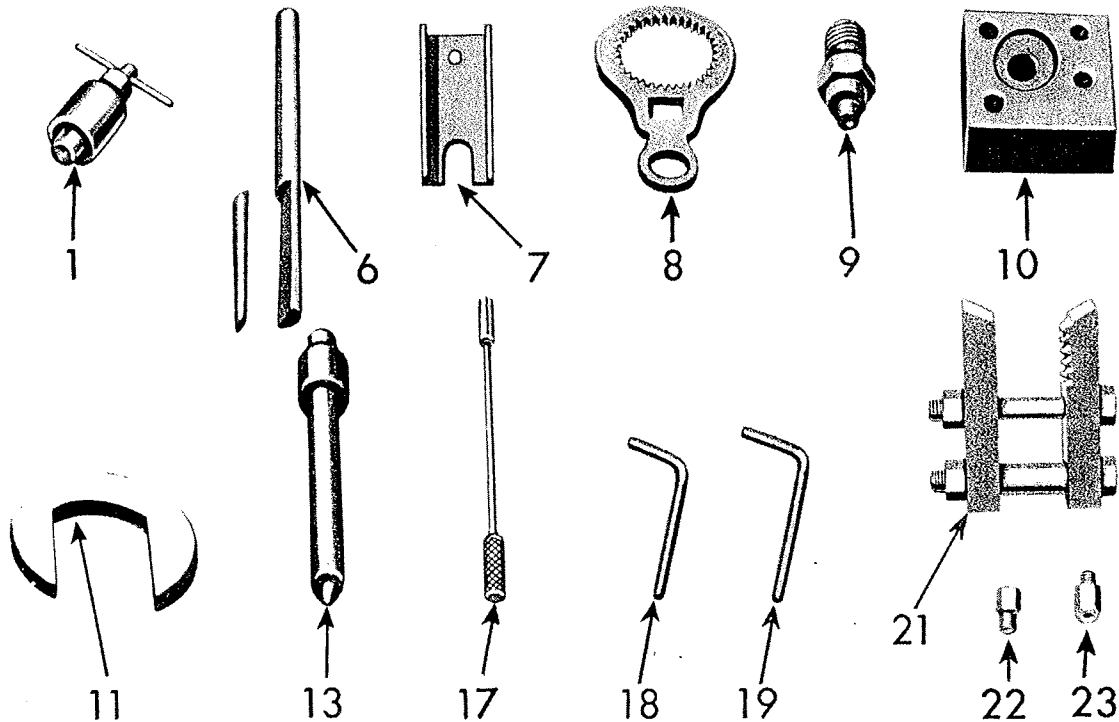
* Bosch pumps are furnished on special request only.

IH four-plunger injection pumps to be sent out for replacement on 35 and 40 series engine should be as follows:

Engine Model	Serial Number Prefix	Serial Number	Originally Equipped With Pump Number
TD-40	TDC	501 to 6039	25320 DX
TD-40	TDC	6201 to 6307	25320 DAX
TD-40	TDC	6318 and up	43683 DX
TD-35	TDB	501 to 4523	25320 DX
TD-35	TDB	4701 to 4798	25320 DAX
TD-35	TDB	4799 and up	43683 DX
PD-40	PDC	501 to 3620	25320 DX
PD-40	PDC	3801 to 3903	25320 DAX
PD-40	PDC	3904 and up	43683 DX
WD-40	WDC	501 to 3806	25320 DX
WD-40	WDC	4001 (Just 1 engine)	45320 DAX
WD-40	WDC	4002 and up	43683 DX

IH FUEL INJECTION PUMPS

TOOL SET NO. SE-1330A

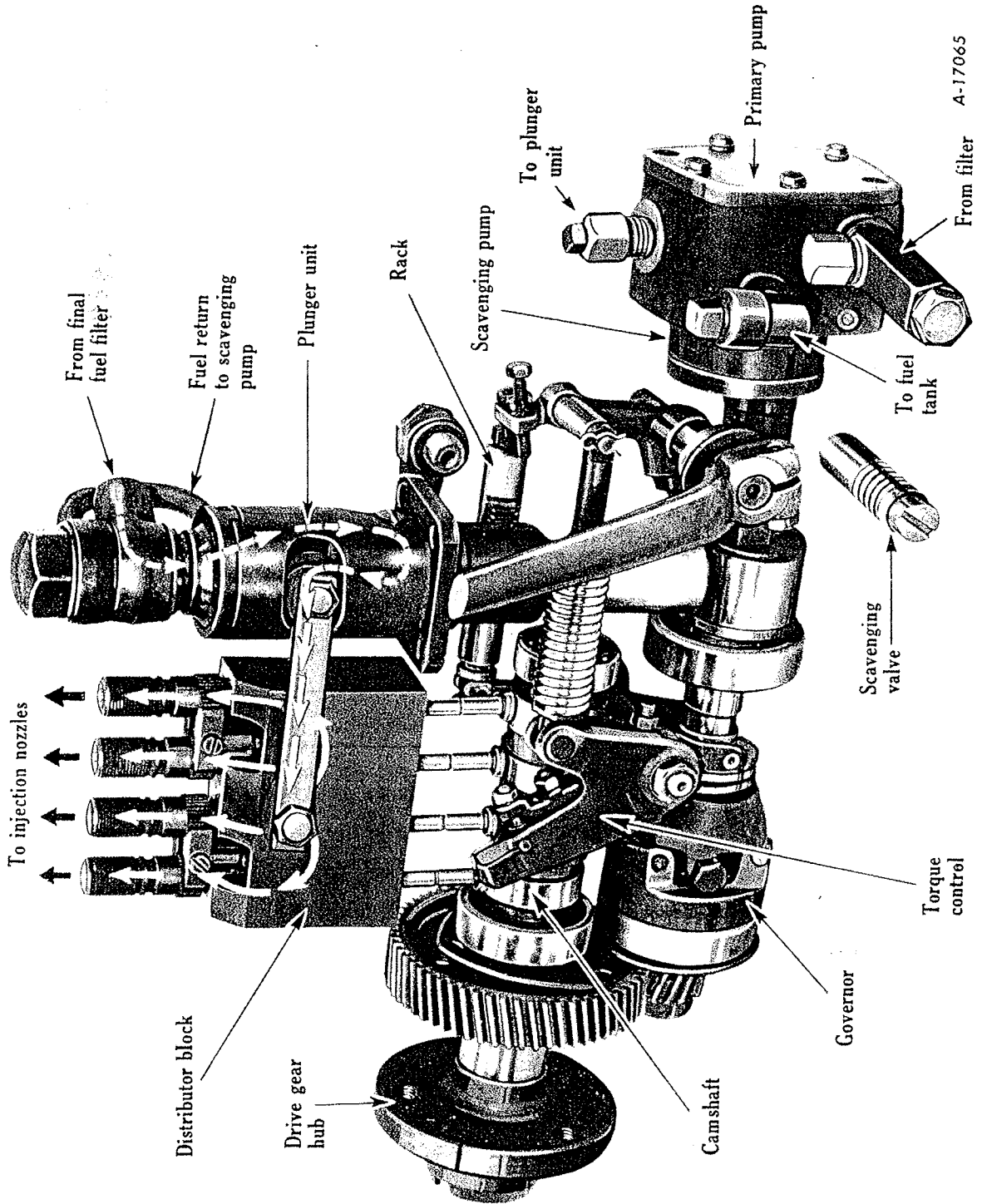


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ILLUST. 38 - TOOLS FOR SERVICING INTERNATIONAL DIESEL SINGLE-PLUNGER INJECTION PUMPS.

Ref. No.	IH Part Number	Description	Units in Set
1	SE-1330-1	Scavenging valve body puller complete (consists of SE-1330-2 to 5, inc.)	1
6	SE-1330-6	Scavenging valve tappet guide tool	1
7	SE-1330-7	Plunger spring compressing tool.	1
8	SE-1330-8A	Plunger and discharge fitting wrench	1
9	SE-1330-9A	Test fixture adapter	1
10	SE-1330-10A	Stud block and governor shaft fixture.	1
11	SE-1330-11	Governor weight carrier holder	1
13	SE-1330-13	Needle bearing tool	1
17	SE-1330-17A	Socket head screw wrench, 3/32 inch.	1
18	SE-1330-18	Allen type wrench, 3/16 inch	1
19	SE-1330-19	Allen type wrench, 7/32 inch	1
21	SE-1608	Camshaft clamping tool	1
22	SE-1330-22A	Distributor valve bushing clamp socket	1
23	SE-1330-23	Distributor valve bushing puller	1

IH FUEL INJECTION PUMPS



ILLUSTR. 39 - SKELETON VIEW OF IH SINGLE-PLUNGER PUMP MECHANISM.

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