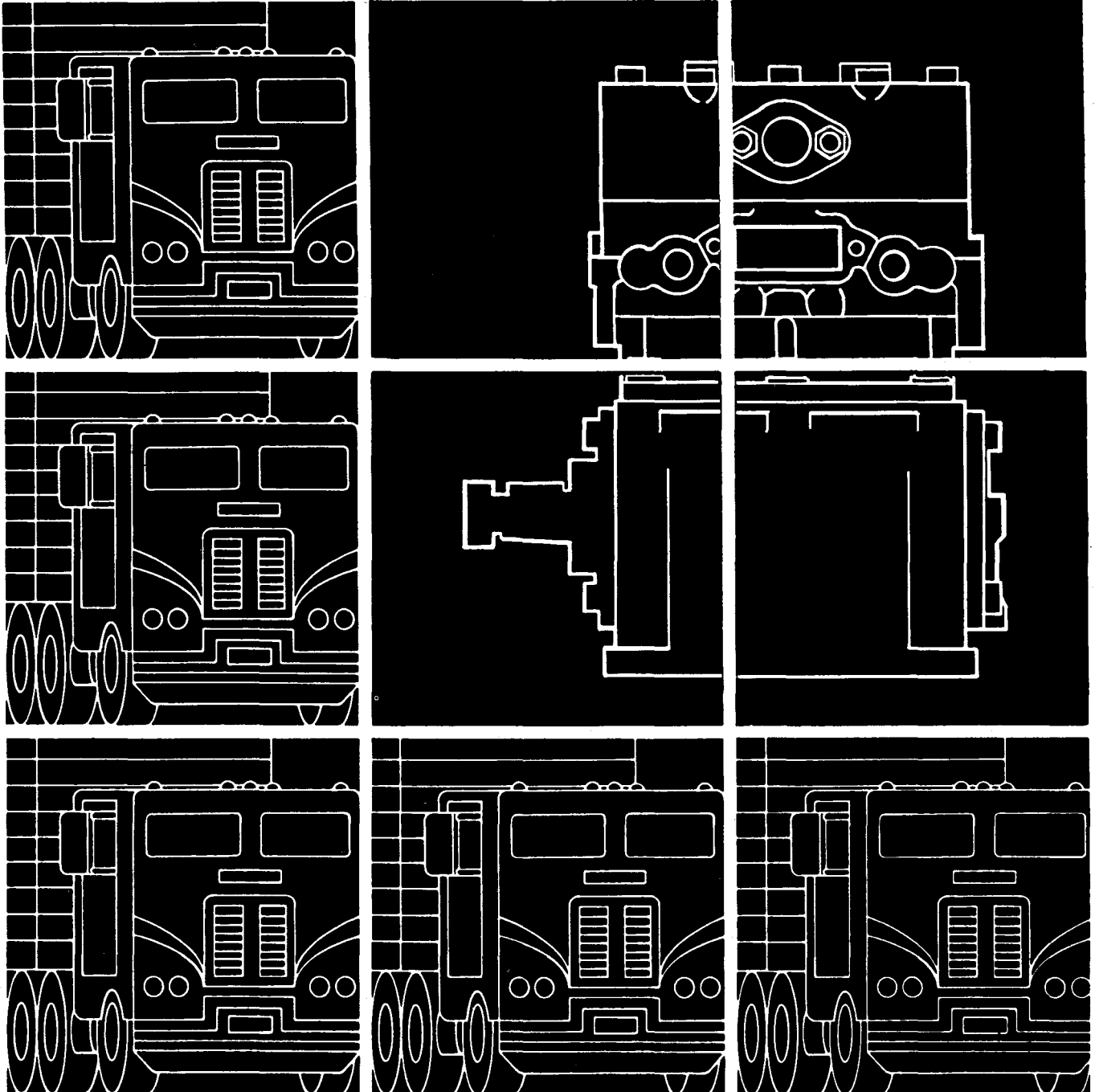


# Tu-Flo 500 Compressor

Service Parts  
Remanufactured Exchange  
Catalog O1-D-1

Revised 2/79



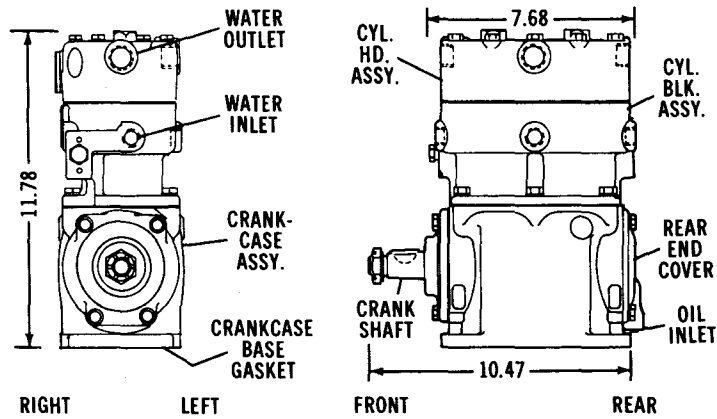
**Heavy Vehicle  
Systems Group**



THIS CATALOG SECTION (PAGES 01-D-1 THRU 01-D-59)  
SUPERSEDES CATALOG BOOKLET 01-D-1 PRINTED 2/76



**VERTICAL MOUNT — ENGINE LUBRICATED  
WATER COOLED — 4 HOLE BASE**



**REMFR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
226086	227320	SUPERSEDED BY 228317	286526	280602	—
226156	228140	SUPERSEDED BY 228303	286528	280605	—
226278	227320	SUPERSEDED BY 228317	286526	280602	—
226279	227322	SUPERSEDED BY 226319	286527	280604	—
226280	227322	SUPERSEDED BY 226523	286527	280604	—
226286	227321	SUPERSEDED BY 228426	286527	280603	—
226339	227321	SUPERSEDED BY 228318	286527	280603	—
226366	227322	SUPERSEDED BY 226319	286527	280604	—
226436	227320	SUPERSEDED BY 228320	—	280618	—
226437	227322	SUPERSEDED BY 228321	286527	280604	—
226445	227322	SUPERSEDED BY 228322	—	280604	—
226523	227322	—	286527	280604	—
226526	227320	SUPERSEDED BY 228302	286526	280602	—
226527	227322	—	286527	280604	—
226528	227322	—	286527	280604	—
226529	227322	SUPERSEDED BY 228304	286527	280604	—
226550	228140	SUPERSEDED BY 228305	286528	280605	—
226664	227322	SUPERSEDED BY 228323	286527	280604	—
226685	227321	SUPERSEDED BY 228306	286527	280603	—
226686	227322	SUPERSEDED BY 228324	286527	280604	—
226687	227324	SUPERSEDED BY 228325	—	280606	—
226711	228140	SUPERSEDED BY 228326	286528	280605	—
226717	227320	SUPERSEDED BY 228307	286526	280602	—
226728	228140	SUPERSEDED BY 228327	286528	280605	—
226766	227322	SUPERSEDED BY 228308	286527	280604	—
226767	227322	—	286527	280604	—
226815	228140	SUPERSEDED BY 228328	286528	280605	—
226816	227321	SUPERSEDED BY 228329	286527	280603	—
226990	228140	SUPERSEDED BY 228309	286528	280605	—
227042	227322	SUPERSEDED BY 228310	280527	280604	—
227049	228140	SUPERSEDED BY 229087	286528	280605	—
227156	227321	SUPERSEDED BY 228311	286527	280603	—
227274	227322	SUPERSEDED BY 228311	286527	280604	—
227320	227320	—	286526	280602	—
227321	227321	—	286527	280603	—

\*REMFR. EXCH. PC. NOS.

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**VERTICAL MOUNT — ENGINE LUBRICATED  
WATER COOLED — 4 HOLE BASE**

**REMFR. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
227322	227322	—	286527	280604	—
227323	228140	279261	286526	280605	—
227324	227324	—	—	280606	—
227450	227321	SUPERSEDED BY 228312	286527	280603	—
227487	227322	SUPERSEDED BY 228313	286527	280604	—
227552	228140	SUPERSEDED BY 229086	—	280612	—
227565	227320	SUPERSEDED BY 228450	286526	280602	—
227585	228140	SUPERSEDED BY 228341	286528	280605	—
227655	227321	SUPERSEDED BY 228314	286527	280603	—
227676	227321	SUPERSEDED BY 228315	286527	280603	—
227724	227321	SUPERSEDED BY 228316	286527	280603	—
227741	228140	SUPERSEDED BY 229062	286528	280605	—
228036	227320	SUPERSEDED BY 228330	286526	280602	—
228102	228140	SUPERSEDED BY 228331	286528	280605	—
228140	228140	227323	—	280613	—
228302	227320	—	286526	280602	—
228303	228140	227323	286528	280605	—
228304	227322	—	286527	280604	—
228305	228140	227323	286528	280605	—
228306	227321	—	286527	280603	—
228307	227320	—	286526	280602	—
228308	227322	—	286527	280604	—
228309	228140	227323	286528	280605	—
228310	227322	—	286527	280604	—
228311	227322	—	286527	280604	—
228312	227321	—	286527	280603	—
228313	227322	—	286527	280604	—
228314	227321	—	286527	280603	—
228315	227321	—	286527	280603	—
228316	227321	—	286527	280603	—
228317	227320	—	286526	280602	—
228318	227321	—	286527	280603	—
228319	227322	—	286527	280604	—
228320	227320	—	286526	280618	—
228321	227322	—	286527	280604	—
228322	227322	—	286527	280604	—
228323	227322	—	286527	280604	—
228324	227322	—	286527	280604	—
228325	227324	—	—	280606	—
228326	228140	227323	286528	280605	—
228327	228140	227323	286528	280605	—
228328	228140	227323	286528	280605	—
228329	227321	—	286527	280603	—
228330	227320	—	286526	280602	—
228331	228140	227323	286528	280605	—
228339	228140	SUPERSEDED BY 229086	286528	280605	—
228340	228140	SUPERSEDED BY 229087	286528	280605	—
228341	228140	SUPERSEDED BY 229088	286528	280605	—
228342	228140	SUPERSEDED BY 229062	286528	280605	—
228426	227321	—	286527	280603	—
228435	228435	—	—	—	—
228450	227320	—	286526	280602	—
228459	228140	—	286528	280605	—
228482	227324	—	—	280606	—
228486	227322	—	286527	280604	—
228645	227320	—	286526	280602	—
228671	227321	—	—	280630	—
228775	227322	—	286527	280604	—
228826	227322	—	286527	280604	—
228828	227320	—	286526	280602	—
228848	227322	—	286527	280603	—

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
228971	227322	—	286527	280604	—
228977	227322	—	286527	280604	—
228999	228140	—	286526	280605	—
229058	227321	—	286521	280630	—
229062	228140	—	286526	280605	—
229086	228140	—	286526	280605	—
229087	228140	—	286526	280605	—
229088	228140	—	286526	280605	—
229144	229144	229754	—	—	—
229439	227321	—	286527	280603	—
229440	228140	—	285861	280613	—
229476	227324	—	286527	280603	—
229541	227320	—	286526	280602	—
229543	227321	—	286527	280603	—
229655	227321	—	286527	280603	—
229668	228140	227323	286528	280605	—
229672	228140	—	—	280614	—
229754	229144	—	—	—	—
229776	227321	—	285948	280630	—
229790	228140	—	286526	280605	—
229843	229843	—	—	—	—
275049	227321	—	286527	280603	—
275050	228140	227323	—	—	—
275070	228140	—	—	280608	—
275109	228140	—	286526	280605	—
275111	227321	—	286527	280603	—
275133	228140	227323	286528	280605	—
275349	227322	—	286527	280604	—
275351	228140	227323	286528	280605	—
275392	228140	227323	286528	280605	—
275415	227322	—	286527	280604	—
275433	227324	—	—	280606	—
275752	228140	227323	286528	280605	—
275786	228140	227323	286528	280605	—
275836	228140	—	286526	280605	—
275886	228140	227323	286526	280605	—
275887	228140	227323	286528	280605	—
275991	227322	—	286527	280604	—
276067	228140	—	286526	280605	—
276089	227322	—	286527	280604	—
276090	227321	—	286527	280603	—
276092	228140	227323	286528	280605	—
276112	227324	—	—	280606	—
276113	227324	—	286527	280603	—
276148	227321	—	286529	280221	—
				280603	—
276309	228140	227323	286528	280605	—
276337	227322	—	286527	280604	—
276378	227322	—	286527	280604	—
276379	227322	—	286527	280604	—
276517	227324	—	286527	280603	—
276786	227322	—	286527	280604	—
276840	228140	227323	286528	280605	—
276879	228140	—	286526	280605	—
276883	227322	—	286527	280604	—
276913	227324	—	286527	280603	—
276969	227322	—	286527	280604	—



**VERTICAL MOUNT — ENGINE LUBRICATED  
WATER COOLED — 4 HOLE BASE**

**REMFR. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
277025	228140	—	286528	280613	—
277057	227320	—	286526	280237 280602	—
277058	227322	—	285932	280604	—
277219	228140	227323	286528	280605	—
277249	227322	—	286527	280604	—
277250	227322	—	286527	280604	—
277255	227321	—	286527	280603	—
277334	227321	—	286527	280603	—
277345	228140	227323	286527	280605	—
277346	228140	—	286526	280605	—
277347	228140	—	286526	280605	—
277348	277324	—	—	280606	—
277386	227320	—	286526	280602	—
277397	227320	—	286526	280602	—
277398	227320	—	286526	280602	—
277399	227320	—	286526	280602	—
277400	227322	—	286526	280602	—
277622	227322	—	286527	280604	—
277637	228140	—	286526	280605	—
277673	227322	—	286527	280604	—
277675	227321	—	286529	280603	—
277693	227321	—	286529	280603	—
277694	277694	284020	286528	280540	289865
277737	227321	—	286527	280603	—
277742	228140	—	286526	280605	—
277743	228140	—	286526	280605	—
277785	228140	227323	286528	280605	—
277802	227321	—	286527	280603	—
277804	227321	—	286526	280605	—
277844	227321	—	286527	280603	—
278405	227320	—	286526	280602	—
281789	227320	282131, 282132, 284298, 284824	286526	280602	—
282005	227321	282139, 282348, 282564, 282711	286527	280603	—
282076	282076	—	—	—	—
282131	227320	282132, 284298, 284824, 285527	286526	280602	—
282132	227320	282131, 284298, 284824, 285587	286526	280602	—
282138	227322	281788, 282140, 282141, 285870	286527	280604	—
282139	227321	282348, 282564, 282711, 282713	285964	280603	—
282140	227322	282138, 282141, 285870, 281788	286527	280604	—
282141	227322	282140, 282138, 285870, 281788	286527	280604	—
282348	227321	282139, 282564, 282711, 282713	286527	280603	—
282447	228140	—	286528	280605	—
282564	227321	—	286529	280603	—
282711	227321	—	286527	280603	—
282713	227321	—	286527	280603	—
282789	228140	227323	285953	280605	—
283031	228140	—	286528	280605	—
283503	228140	—	285954	280605	—
283592	227321	—	286527	280603	—
283689	283690	—	—	—	—
283690	283690	—	—	—	—
284020	282076	286652, 287842, 288952	286018	280540	289865
284148	228140	227323	286528	280605	—
284287	228140	227323	286528	280605	—
284298	227320	—	286134	280602	—
284440	227321	—	286527	280603	—
284797	227321	—	285952	280603	—
284824	227320	—	286526	280602	—
285253	228140	—	285861	—	—
285587	227320	—	286526	280602	—
285870	227322	—	286527	280604	—

**SERVICE PARTS INFORMATION  
SHOWN ON PAGES 01-D-2 AND 3.**

**VERTICAL MOUNT — ENGINE LUBRICATED  
WATER COOLED — 4 HOLE BASE**

**REMFR. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
286442	227321	—	—	—	—
286464	228140	—	—	—	—
286465	228140	—	—	—	—
286481	227321	—	—	—	—
286652	282076	284020, 287842, 288952	—	280540	—
287842	282076	284020, 286652, 288952	—	280515	—
288952	282076	284020, 286652, 287842	287842	280515	—
278429	227321	228306, 228312, 228318, 228329	286527	280603	—
278501	228140	227323, 228459, 229062, 229086	—	—	—
278557	227320	228450, 228645, 277057, 277386	286526	280602	—
278558	227322	276883, 276969, 277058, 277249	285961	280604	—
278806	227321	226286, 226339, 226685, 226816	286527	280603	—
278827	228140	227323, 226323, 226585, 227741	286528	280605	—
279005	277694	279381, 280490	—	280551	—
279046	279046	279225, 279846	—	—	—
279203	228140	227323, 226550, 226711, 226728	286528	280605	—
279225	279046	279846	—	—	—
279261	279261	—	—	—	—
279285	228140	227323	286528	279892	—
279292	227324	226687, 228325, 228482, 229476	285962	280603	—
279311	227321	226286, 226339, 226685, 227156	286529	280603	—
279314	227321	226286, 226339, 226685, 227156	285949	280603	—
279356	279356	—	—	—	—
279367	228140	227323, 283503, 284148, 284287	285959	280605	—
279381	277694	279005, 280490	286514	281743	—
279396	228140	227323, 282140, 282141, 285870	286526	280605	—
279407	227322	282138, 282140, 282141, 285870	286527	280604	—
279702	227324	226687, 228325, 228482, 229476	286527	280603	—
279717	227322	279954, 280706, 280967, 281788	286527	280604	—
279846	279046	279225	—	—	—
279859	228140	227323, 227324	286528	280605	—
279864	227320	281222, 281789, 282131, 282132	286526	280602	—
279954	227322	280706, 280967, 281788, 282138	286133	280604	—
279992	227321	280098, 280644, 280811, 280828	286872	280603	—
279993	227324	228482, 275433, 276112, 277348	286527	280603	—
280098	227321	280098, 280644, 280811, 280828	286527	280603	—
280268	228140	227323, 277637, 277742, 277743	286528	280605	—
280379	280453	280498	—	—	—
280453	280453	—	—	—	—
280490	277694	284020	286528	280540	289865
280498	280458	—	—	—	—
280500	228140	227323	286528	280605	—
280644	227321	280811, 280828, 281059, 282005	286527	280603	—
280706	227322	280967, 281788, 282138, 282140	285962	280604	—
280811	227321	280644, 280828, 281059, 282005	286527	280603	—
280828	227321	280811, 280644, 281059, 282005	286527	280603	—
280967	227322	280706, 281788, 282138, 282140	285958	280604	—
281199	228140	227323, 277637, 277742, 277743	286528	280605	—
281222	227320	281789, 282131, 282132, 284298	285956	280602	—
281401	228140	227323, 277637, 277742, 277743	286528	280605	—
281606	228140	227323, 277637, 277742, 277743	286528	280605	—
281717	228140	227323, 277637, 277742, 277743	286528	280605	—
281788	227322	282138, 282140, 282141, 285870	286527	280604	—



VERTICAL MOUNT — ENGINE LUBRICATED WATER COOLED — 4 HOLE BASE

REFER TO LIST BELOW TO OBTAIN CURRENT STANDARD PC. NO.

Table with 2 columns: TF-500 PC. NO., SUPERSEDED BY. Rows include 226086, 226156, 226278, 226279, 226280, 226286, 226339, 226366, 226436, 226437.

Table with 2 columns: TF-500 PC. NO., SUPERSEDED BY. Rows include 226445, 226526, 226529, 226550, 226664, 226685, 226686, 226687, 226711, 226717.

Table with 2 columns: TF-500 PC. NO., SUPERSEDED BY. Rows include 226728, 226815, 226816, 226990, 227042, 227049, 227274, 227450, 227487, 227544.

Table with 2 columns: TF-500 PC. NO., SUPERSEDED BY. Rows include 227552, 227565, 227585, 227655, 227675, 227676, 227724, 227741, 228036, 228093.

Table with 2 columns: TF-500 PC. NO., SUPERSEDED BY. Rows include 228094, 228339, 228340, 228341, 228342, 227742.

SUB ASSY AND DETAIL REFERENCE

Main table with columns: TF-500 COMP. PC. NO., CYL. HD. ASSY., CYL. BLK. ASSY., CRANK-CASE ASSY., CRANK-CASE BODY, CRANK-SHAFT, REAR END COVER, AIR STR. OR FITTING, GOV.\* (HD), STUD OR CAP (HD), FLANGE GASKET, WATER PORTS (INLET, OUTLET), AIR INLET LOCATION, AIR DISCH. LOCATION, GOV. PORT LOCATION, OIL INLET LOCATION, BEARING TYPES (FRONT, REAR), CONN. ROD MATL.

\*GOVERNORS 226363, 226431, 227087 & 228780 ARE OBS. TYPE "D" SEE CATALOG 01-A-1 FOR CURRENT TYPE D-2.

**VERTICAL MOUNT — ENGINE LUBRICATED  
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**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE ASSY.	CRANK- CASE BODY	CRANK- SHAFT	REAR END COVER	AIR STR. OR FITTING	GOV.	STUD OR CAP SCREW (HD)	FLANGE GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT LOCATION	OIL INLET LOCATION	BEARING TYPES		CONN. ROD MATL.
											INLET 1/2"	OUTLET					FRONT	REAR	
G276067	226098	228238	—	230911	230916	236578	—	276103	235464	—	OPEN	1/2" OPEN	LEFT	LEFT	REAR	REAR	BALL	BALL	ALUM
G276089	226098	220238	227751	237393	230916	230918	226469	276105	230672	211376	OPEN	1/2" OPEN	RIGHT	RIGHT	FRONT	BOTTOM	BALL	BALL	ALUM
G276090	226098	228238	—	230911	230916	236578	—	276107	233798	—	OPEN	1/2" OPEN	RIGHT	RIGHT	FRONT	REAR	BALL	BALL	ALUM
HFL276092	283615	228238	—	230911	244461	275969	—	—	230672	211376	R RR, R	1/2" FT	LEFT	LEFT	L RR	REAR	BALL	SLEEVE	ALUM
276112	283615	228238	—	230911	244457	276114	—	—	230672	—	L RR	1/2" FT	LEFT	LEFT	L RR	REAR	BALL	SLEEVE	ALUM
B276148	283615	228238	—	237120	244461	275577	—	—	—	211376	L FT	3/8" REAR	RIGHT	RIGHT	R FR	REAR	BALL	SLEEVE	ALUM
CG276309	226098	228238	229163	239486	239388	239314	226469	276380	—	—	RT	3/8" REAR	LEFT	LEFT	RR L	REAR	BALL	SLEEVE	ALUM
N276337	226098	228238	227752	237394	244457	276363	—	—	230672	211376	FT L	3/8" FT	RIGHT	RIGHT	RR R	BOTTOM RR	BALL	SLEEVE	ALUM
G276378	283615	228238	227752	237394	244457	276363	226469	276336	230672	211376	L FT	1/2" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM
G0276379	283615	228238	227752	237394	244457	276363	—	276336	230672	211376	L FT	1/2" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM
G276517	226098	228238	—	230911	244457	276114	226469	276558	233798	—	R RR	3/8" FT	RIGHT	RIGHT	R FR	R RR	BALL	SLEEVE	ALUM
G276786	283615	228238	227751	237393	244457	276363	226469	276107	230672	211376	L FT	1/2" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM
276840	283615	228238	—	230911	244457	275969	—	—	230672	—	L FT	1/2" FT	LEFT	LEFT	L RR	REAR	BALL	SLEEVE	ALUM
G276879	226098	228238	—	230911	230916	236578	—	276107	235464	211376	REAR	3/8" REAR	LEFT	LEFT	RR L	REAR	BALL	BALL	ALUM
G276883	226098	228238	227752	237394	230916	230918	—	276103	—	211376	FT R	3/8" FT	RIGHT	RIGHT	RR R	BOTTOM RR	BALL	BALL	ALUM
P276913	226098	228238	—	230911	244461	276114	226469	276106	230672	211376	R RR	3/8" FT	RIGHT	RIGHT	R FR	R RR	BALL	SLEEVE	ALUM
G276969	283615	228238	227752	237394	244461	276363	226469	276103	230672	—	L FT	1/2" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM
I277025	283615	228238	—	230911	244461	275969	—	—	233798	211376	R RR	3/8" REAR	LEFT	LEFT	L RR	REAR	BALL	SLEEVE	ALUM
277057	283615	228238	227751	237393	244461	276363	—	—	230672	—	R RR, R	1/2" FT	LEFT	LEFT	L RR	BOTTOM	BALL	SLEEVE	ALUM
B277058	283615	228238	227752	237394	244461	276363	—	—	230672	—	R L & L	3/8" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM
GUL277219	283615	228238	—	230911	244461	275969	—	276101	235464	211376	R FT	1/2" REAR	LEFT	LEFT	L RR	REAR	BALL	SLEEVE	ALUM
G277249	283615	228238	227752	237394	244461	276363	—	276103	230672	211376	R RR	3/8" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM
GL277250	283615	228238	227752	237394	244461	276363	—	276380	—	211376	R RR	1/2" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM
BF277255	226098	228238	—	230911	240182	275969	—	—	230672	211376	L RR	3/8" FT	RIGHT	RIGHT	R RR	REAR	BALL	SLEEVE	ALUM
GQ277334	283615	228238	—	230911	244461	275969	279900	276101	230672	211376	L FT	1/2" FT	RIGHT	RIGHT	R RR	REAR	BALL	SLEEVE	ALUM
GQ277345	283615	228238	—	230911	244461	275969	279900	276101	235464	211376	R FT	1/2" REAR	LEFT	LEFT	L RR	REAR	BALL	SLEEVE	ALUM
GIQ277346	283615	228238	—	230911	244461	275969	279900	276101	235464	—	R FT	1/2" REAR	LEFT	LEFT	L RR	REAR	BALL	SLEEVE	ALUM
IQ277347	283615	228238	—	230911	244461	275969	279900	—	235464	—	R FT	1/2" REAR	LEFT	LEFT	L RR	REAR	BALL	SLEEVE	ALUM
GQ277348	283615	228238	—	230911	244461	276114	279900	276101	230672	211376	RT	1/2" RT	LEFT	LEFT	L FR	RIGHT	BALL	SLEEVE	ALUM
GH1277386	283615	228238	227752	237394	244461	276363	—	276103	235464	211376	RT	1/2" FT	LEFT	LEFT	L RR	BOTTOM	BALL	SLEEVE	ALUM
Q277397	226098	228238	227751	237393	244461	276363	279900	—	230672	211376	RR	1/2" FT	LEFT	LEFT	L RR	BOTTOM	BALL	SLEEVE	ALUM
GQ277398	283615	228238	227751	237393	244461	276363	279900	276101	233798	211376	R FT	1/2" FT	LEFT	LEFT	L RR	BOTTOM	BALL	SLEEVE	ALUM
Q277399	283615	228238	227751	237393	244461	276363	279900	—	233798	211376	R RR	1/2" FT	LEFT	LEFT	L RR	BOTTOM	BALL	SLEEVE	ALUM
Q277400	226098	228238	227752	237394	244461	276363	279900	—	230672	211376	L RR	3/8" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM
GQ277622	283615	228238	227752	237394	244461	276363	279900	276101	233798	211376	L	1/2" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM
277624	283615	228238	227762	235905	244461	276363	—	—	230672	211376	L & L RR	3/8" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM
IQ277637	283615	228238	—	230911	244461	275969	279900	—	230672	211376	R RR	1/2" REAR	LEFT	LEFT	L RR	REAR	BALL	SLEEVE	ALUM
G277673	283615	228238	227752	237394	240182	230918	226469	277192	233798	211376	L RR	1/2" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	BALL	ALUM
G277675	283615	228238	—	237395	244461	275969	226469	276104	230672	211376	R FT	1/2" REAR	RIGHT	RIGHT	R RR	REAR	BALL	SLEEVE	ALUM
B277693	283615	220238	—	237120	244461	275577	—	—	—	211376	L RR	1/2" L	RIGHT	RIGHT	R FR	REAR	BALL	SLEEVE	ALUM
277694	—	SUPERSEDED BY 284020	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
G277737	283615	220238	—	230911	244461	275969	226469	276101	230672	211376	L FT	1/2" FT	—	RIGHT	R RR	REAR	BALL	SLEEVE	ALUM
277742	—	SUPERSEDED BY 279025	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
I277743	283615	228238	—	230911	244461	275969	—	—	—	—	ALL OPEN	1/2" ALL OPEN	LEFT	LEFT	L FR, L RR	REAR	BALL	SLEEVE	ALUM
277785	226098	228238	—	230911	240182	236578	—	—	230672	—	OPEN	OPEN	LEFT	LEFT	FRONT	BOTTOM	BALL	SLEEVE	ALUM
G5277802	283615	228238	—	230911	244461	275969	226469	276105	230672	211376	L RR	1/2" FT	RIGHT	RIGHT	R RR	REAR	BALL	SLEEVE	ALUM
D277804	226098	228238	—	230911	244461	275969	—	276101	233798	211376	RR	3/8" FT	LEFT	LEFT	R RR	REAR	BALL	SLEEVE	ALUM
277844	226098	228238	—	230911	244461	275969	226469	—	230672	211376	FT	3/8" L FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM
GM1278405	283615	228238	227762	235905	244461	276363	—	—	235464	235907	RT	1/2" RT	LEFT	LEFT	L RR	BOTTOM	BALL	SLEEVE	ALUM
FGQ278429	283615	228238	—	230911	244461	275969	279900	276101	230672	211376	L FT	1/2" FT	RIGHT	RIGHT	R RR	REAR	BALL	SLEEVE	ALUM
S278501	283615	228238	—	230911	244461	275969	—	—	230672	211376	R RR, R	1/2" FT	LEFT	LEFT	L RR	REAR	BALL	SLEEVE	ALUM
Q278557	226098	228238	227751	237393	244461	276363	279900	276101	230672	211376	REAR	3/8" FT	LEFT	LEFT	REAR	BOTTOM	BALL	SLEEVE	ALUM
GQ278558	283615	228238	227752	237394	244461	276363	279900	276380	230672	211376	L FT	1/2" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM
278559	283615	228238	227752	237394	244461	276363	279900	276105	230672	211376	L FT	1/2" FT	RIGHT	RIGHT	R FR	BOTTOM	BALL	SLEEVE	ALUM
278806	226098	228238	—	230911	244461	275969	—	—	235464	—	FT, RR, L	3/8" L & RR	RIGHT	RIGHT	R RR, R FR	BOTTOM	BALL	SLEEVE	ALUM
U278827	283615	228238	—	230911	240182	236578	—	276104	230672	211376	R RR	1/2" FT	LEFT	LEFT	FR	REAR	BALL	BALL	ALUM
279005	283615	228238	—	237120	244461	275577	—	—	—	211376	L RR	1/2" LFT	RIGHT	TOP	R FR	REAR	BALL	SLEEVE	ALUM
CJXY279046	283615	228238	—	230911	244461	276114	—	278814	—	211376	L RR	1/2" FT	RIGHT	RIGHT	R RR	R RR	BALL	SLEEVE	ALUM
Q279203	226098	228238	—	230911	240182	236578	279900	276380	233798	211376	OPEN								



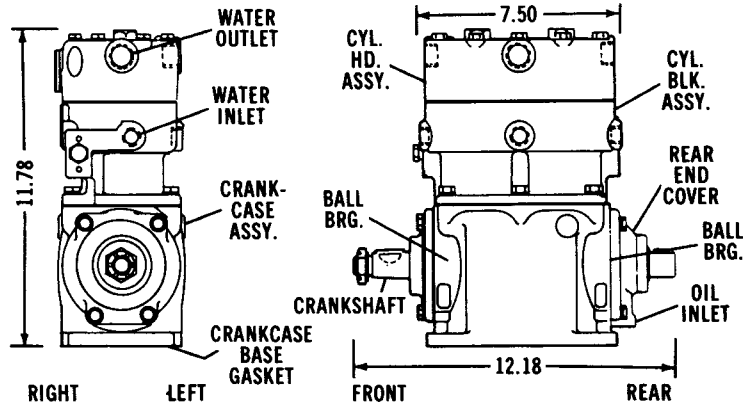
**VERTICAL MOUNT — ENGINE LUBRICATED WATER COOLED — 4 HOLE BASE**  
**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE ASSY.	CRANK- CASE BODY	CRANK- SHAFT	REAR END COVER	AIR STR. OR FITTING	GOV.	STUD OR CAP SCREW (HD)	FLANGE GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT LOCATION	OIL INLET LOCATION	BEARING TYPES		CONN. ROD MATERIAL		
											INLET 3/4"	OUTLET					FRONT	REAR			
																				LOCATION	LOCATION
A-FF-GG-HH-JJ280490	280379	283641	228238	227752	237394	244461	276363	—	—	—	211376	L RR	1/2" FT	RIGHT	TOP	R RR	BOTTOM	BALL	SLEEVE	ALUM	
	B280453	283641	228238	227752	237394	244461	276363	—	—	—	211376	RR & L	1/2" FT	RIGHT	TOP	R RR	BOTTOM	BALL	SLEEVE	ALUM	
	280498	283641	228238	—	230911	244461	275969	—	—	—	211376	L FT	1/2" REAR	RIGHT	TOP	R RR	REAR	BALL	SLEEVE	ALUM	
	G-1-Q-GG-11280500	283615	228238	227752	237394	244461	276363	—	—	—	211376	ALL OPEN	1/2" ALL OPEN	RIGHT	TOP	R RR	REAR	BALL	SLEEVE	ALUM	
Q-W-2-AA280644	280706	283615	228238	227752	237394	244461	276363	—	—	—	230672	L RR	1/2" FT	RIGHT	RIGHT	L RR	REAR	BALL	SLEEVE	ALUM	
	280706	283615	228238	—	230911	244461	275969	279900	276106	233798	211376	R RR	3/4" FT	RIGHT	RIGHT	R RR	REAR	BALL	SLEEVE	ALUM	
	CC-KK280811	283615	228238	—	230911	244461	275969	226469	276104	230672	211376	L RR	1/2" FT	RIGHT	RIGHT	L RR	REAR	BALL	SLEEVE	ALUM	
	B-G280828	283615	228238	—	230911	244461	275969	—	276108	233798	211376	L RR & L	3/4" FT	RIGHT	RIGHT	R RR	REAR	BALL	SLEEVE	ALUM	
G281059	283615	228238	—	230911	244461	275969	—	276101	230672	211376	L FT	1/2" FT	RIGHT	RIGHT	R RR	REAR	BOTTOM	BALL	SLEEVE	ALUM	
	J-C-MM281199	283615	228238	—	230911	244461	275969	—	281137	237315	211376	R FT	3/4" REAR	LEFT	LEFT	L RR	REAR	BOTTOM	BALL	SLEEVE	ALUM
	C-G-S281222	283615	228238	227752	237394	244461	276363	—	—	233798	211376	ALL OPEN	1/2" ALL OPEN	LEFT	LEFT	L RR	BOTTOM	BALL	SLEEVE	ALUM	
	G281401	283615	228238	—	230911	244461	275969	226469	277192	233798	211376	R FT	1/2" FT	LEFT	LEFT	L RR	REAR	BOTTOM	BALL	SLEEVE	ALUM
GQ281606	283615	228238	—	230911	244461	275969	279900	276102	233798	211376	R RR	1/2" FT	LEFT	LEFT	L RR	REAR	BOTTOM	BALL	SLEEVE	ALUM	
	GQ281717	283615	228238	—	230911	244461	275969	279900	276108	233798	211376	R RR	1/2" FT	LEFT	LEFT	L RR	REAR	BOTTOM	BALL	SLEEVE	ALUM
	281788	283615	228238	227752	237394	244461	276363	—	—	—	211376	R RR	1/2" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM	
	281789	283615	228238	227751	237393	244461	276363	—	—	—	211376	R RR	1/2" FT	LEFT	LEFT	L RR	BOTTOM	BALL	SLEEVE	ALUM	
CG-00282005	283615	228238	—	230911	244461	275969	—	276101	233798	211376	L FT	1/2" FT	RIGHT	RIGHT	R RR	REAR	BOTTOM	BALL	SLEEVE	ALUM	
	I282076	283641	228238	—	230911	244461	275969	—	—	—	211376	R RR	1/2" REAR	RIGHT	TOP	R RR	REAR	BOTTOM	BALL	SLEEVE	ALUM
	G282131	283615	228238	227751	237393	244461	276363	226469	276101	233798	211376	RT	1/2" REAR	LEFT	LEFT	L RR	BOTTOM	BALL	SLEEVE	ALUM	
	G282132	283615	228238	227751	237393	244461	276363	226469	276101	233798	211376	R FT	1/2" FT	LEFT	LEFT	L RR	BOTTOM	BALL	SLEEVE	ALUM	
G282138	283615	228238	227752	237394	244461	276363	226469	276101	233798	211376	L FT	1/2" FT	RIGHT	RIGHT	R RR	REAR	BOTTOM	BALL	SLEEVE	ALUM	
	G282139	283615	228238	—	230911	244461	275969	226469	276101	230672	211376	L FT	1/2" FT	RIGHT	RIGHT	R RR	REAR	BOTTOM	BALL	SLEEVE	ALUM
	G282140	283615	228238	227752	237394	244461	276363	226469	276101	230672	211376	ALL OPEN	1/2" ALL OPEN	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM	
	G282141	283615	228238	227751	237393	244461	276363	226469	277192	230672	211376	L RR	1/2" FT	RIGHT	RIGHT	R RR	BOTTOM	BALL	SLEEVE	ALUM	
G282262	283615	228238	227750	237421	244516	276363	226469	276101	230672	235427	—	—	—	—	—	—	—	—	—	—	
	G282348	283615	228238	—	230911	244461	275969	226469	276226	233798	211376	L RR & L	1/2" L FT & L	RIGHT	RIGHT	R RR	REAR	BOTTOM	BALL	SLEEVE	ALUM
	GQ282447	283615	228238	—	230911	244461	275969	279900	276226	—	211376	RT	1/2" REAR	LEFT	LEFT	L RR	REAR	BOTTOM	BALL	SLEEVE	ALUM
	282564	283615	228238	—	230911	244461	275969	226469	276226	230672	211376	L RR	3/4" FT	RIGHT	RIGHT	R RR	REAR	BOTTOM	BALL	SLEEVE	ALUM
CG282711	283615	228238	—	230911	244461	275969	279900	276105	—	—	—	L FT	1/2" L FT	RIGHT	RIGHT	R RR	REAR	BOTTOM	BALL	SLEEVE	ALUM
	KK282713	283615	228238	—	230911	244461	275969	226469	276104	230672	211376	ALL PLGD	1/2" ALL PLGD	RIGHT	RIGHT	R RR	REAR	BOTTOM	BALL	SLEEVE	ALUM
	C-PP286442	283615	228238	—	230911	244461	275969	226469	276103	233798	211376	REAR	1/2" FT	RIGHT	RIGHT	R RR	REAR	BOTTOM	BALL	SLEEVE	ALUM
	GQ286464	283615	228238	—	230911	244461	275969	279900	278846	233798	211376	FT	3/4" REAR	LEFT	LEFT	L RR	REAR	BOTTOM	BALL	SLEEVE	ALUM
C-J-MM286465	283615	228238	—	230911	244461	275969	—	281137	237315	211376	FT	3/4" REAR	LEFT	LEFT	L RR	REAR	BOTTOM	BALL	SLEEVE	ALUM	
	286481	283615	228238	—	230911	244461	275969	226469	276226	230672	211376	—	—	—	—	—	—	—	—	—	
	BCG282789	283615	228238	—	230911	244461	275969	—	276380	233798	211376	L FT	1/2" FT	LEFT	LEFT	L RR	CT RR	BOTTOM	BALL	SLEEVE	ALUM
	H284148	283615	228238	237395	230911	244457	275969	—	—	230672	—	L FT	1/2" FT	LEFT	LEFT	L RR	CT RR	BOTTOM	BALL	SLEEVE	ALUM
G283031	283615	228238	280576	237395	244461	275969	279900	278846	233798	211376	BLK FT	3/4" HD RR	LEFT	LEFT	L RR	CT RR	BOTTOM	BALL	SLEEVE	ALUM	
	283388	283615	228238	—	246253	244461	276363	—	—	—	—	—	—	—	—	—	—	—	—	—	
	BCG283503	283615	228238	—	230911	244461	275969	—	276380	233798	211376	BLK FT	1/2" HD FT	LEFT	LEFT	L RR	CT RR	BOTTOM	BALL	SLEEVE	ALUM
	283592	283615	228238	—	230911	244461	275969	—	—	235464	—	BLK FT	1/2" to 3/4" HD FT	RIGHT	RIGHT	R RR	CT RR	BOTTOM	BALL	SLEEVE	ALUM
B283690	283641	228238	227752	237394	244461	276363	—	—	—	211376	BLK ALL OPEN	1/2" HD ALL OPEN	LEFT	TOP	L RR	BOTTOM RR	BALL	SLEEVE	ALUM		
	B284020	283641	228238	—	237120	244461	275577	—	—	—	211376	BLK RR	1/2" HD FT	LEFT	TOP	L RR	CT RR	BOTTOM RR	BALL	SLEEVE	ALUM
	GJL284287	283615	228238	—	237395	244461	275969	—	276101	233798	—	BLK RR	1/2" to 3/4" HD FT	LEFT	TOP	L RR	CT RR	BOTTOM RR	BALL	SLEEVE	ALUM
	BL284298	283615	228238	227752	237394	244461	276363	—	—	235464	211376	BLK FT	1/2" HD FT	LEFT	LEFT	L RR	CT RR	BOTTOM RR	BALL	SLEEVE	ALUM
CG284404	283615	228244	—	239038	244457	275969	279900	236577	233798	236590	211376	BLK RR	1/2" HD FT	LEFT	LEFT	L RR	CT RR	BOTTOM RR	BALL	SLEEVE	ALUM
	CG204440	283615	228238	—	230911	244461	275969	—	276105	233798	213943	BLK L	3/4" HD FT 2 PORTS	RIGHT	RIGHT	R RR	CT RR	BOTTOM RR	BALL	SLEEVE	ALUM
	C-PP284797	283615	228238	—	230911	244461	276363	226469	276103	233798	211376	BLK RR	1/2" HD FT	RIGHT	RIGHT	R RR	CT RR	BOTTOM RR	BALL	SLEEVE	ALUM
	285253	283615	228238	280576	237395	244461	275969	—	—	235464	—	BLK 3 PORTS	1/2" HD 2 PORTS	LEFT	LEFT	L BOTH PORTS	CT RR	BOTTOM RR	BALL	SLEEVE	STEEL
FG285587	283615	228238	227751	237393	244461	276363	279900	276336	230672	211376	BLK & RR RT	1/2" HD FT	LEFT	LEFT	L RR	CT RR	BOTTOM RR	BALL	SLEEVE	ALUM	
	285870	283615	228238	227751	237393	244461	276363	—	—	235464	—	BLK RR	1/2" to 3/4" HD RR	RIGHT	RIGHT	R RR	BOTTOM RR	BALL	SLEEVE	ALUM	
	G-L-L284824	283615	228238	227752	237394	244461	276363	—	276102	—	211376	BLK R	1/2" HD RT	LEFT	LEFT	L RR	CT RR	BOTTOM RR	BALL	SLEEVE	ALUM
	G228775	226098	228238	227752	237394	230916	230918	—	227087	230672	211376	BLK R RR	3/4" HD FT	RIGHT	RIGHT	R RR	BOTTOM RR	BALL	SLEEVE	ALUM	
G228826	226098	228238	227752	237394	230916	230918	226469	226363	230672	211376	BLK ALL OPEN	3/4" HD ALL OPEN	LEFT	LEFT	L RR	BOTTOM RR	BALL	SLEEVE	ALUM		
	G228828	226098	228238	227751	237393	230916	230918	226469	226363	233798	211376	BLK L	3/4" HD FT	LEFT	LEFT	L RR	BOTTOM RR	BALL	SLEEVE	ALUM	
	G228848	226098	228238	228851	239226	230916	230918	226469	226363	233798	211376	BLK L	3/4" HD L	RIGHT	RIGHT	R RR	CT RR	BOTTOM RR	BALL	SLEEVE	ALUM
	CG228956	226098	228238	—	230911	230916	236578	226469	226363	233798	211376	BLK L	3/4" HD FT	RIGHT	RIGHT	R RR	CT RR	BOTTOM RR	BALL	SLEEVE	

**VERTICAL MOUNT — ENGINE LUBRICATED  
WATER COOLED — 4 HOLE BASE**

- A —ADD GOV. GASKET 236577, TWO (2) CAP SCREW 203847, TWO (2) L.W. 237648.
- B —ADD GOV. GASKET 236577, TWO (2) CAP SCREW 240910, TWO (2) L.W. 237648.
- C —ADD DISCHARGE FITTING 213042 & TWO (2) L.W. 237648.
- D —ADD: STR. PLATE 238948, INL. FITT. 237670, GASKET 236170, CAP SCREW 237315 (2).
- E —ADD: DISCH. FITT. 224631 & TWO (2) L.W. 237648.
- F —ADD DISCH. FITTING 223286 & TWO (2) L.W. 237648.
- G —ADD TWO (2) CAP SCREW 240910, TWO (2) L.W. 237648 & GASKET 236577.
- H —ADD TWO (2) CAP SCREW 237315, GASKET 236170 & STR. PLATE 238948.
- I —ADD TWO (2) CAP SCREW 237936 & TWO (2) WASHER 232850.
- J —ADD STR. PLATE 238948, GASKET 236170 & TWO (2) CAP SCREW 237688.
- K —ADD GOV. ADAPTER 226992, TWO (2) GASKET 236577, TWO (2) CAP SCREW 240910, CAP SCREW 237687, CAP SCREW 237757, FOUR (4) L.W. 237648.
- L —ADD DRAIN COCK 237705.
- M —ADD DISCH. FITTING 216740 & TWO (2) L.W. 237648.
- N —ADD TWO (2) CAP SCREW 232431, GASKET 236170 & STR. PLATE 238948.
- O —ADD GASKET 236170, STR. PLATE 238948, TWO (2) CAP SCREW 237315.
- P —ADD TUBING ELBOW 215709.
- Q —ADD TWO (2) CAP SCREW 243411 & STR. GASKET 243430.
- R —ADD GOV. GASKET 236577.
- S —ADD KEY 240002.
- T —ADD GOV. ADAPTER 226992, TWO (2) GASKET 236577, L.W. 201318, CAP SCREW 237687, THREE (3) L.W. 237648, CAP SCREW 237757, TWO (2) CAP SCREW 240910.
- U —SUBSTITUTE ONE (1) CAP SCREW 238373 & WASHER 204235 FOR ONE (1) CYL. BLK. C.S. & L.W.
- V —ADD TWO (2) EACH CAP SCREW 237315 & 240910, FOUR (4) L.W. 237648.
- W —ADD STR. PLATE 238948, GASKET 236170 & TWO (2) CAP SCREW 237688.
- X —ADD BRKT. 244013, FOUR (4) L.W. 237648, TWO (2) NUT 204214, FOUR (4) CAP SCREW 240910, FITTING 205127, TUBING 244014, ELBOW 224318.
- Y —SUBSTITUTE FOUR (4) STUD 243581 FOR FRT. END COVER CAP SCREWS.
- Z —ADD STREET ELBOW 233569.
- AA —ADD STREET ELBOW 244384.
- BB —ADD DISCH. FITTING 245282, GASKET 204820 & TWO (2) L.W. 237648.
- CC —ADD THREE (3) EACH STUD 243582 & NUT 244722.
- DD —ADD GOV. BRKT. 244881, FOUR (4) CAP SCREW 240910, TWO (2) NUT 204124, FOUR (4) L.W. 237648, TUB. ELBOW 244318, TUB. CONN. 205127, TUBING 244882.
- EE —ADD STR. PLATE 238948, GASKET 236170, TWO (2) CAP SCREW 237315.
- FF —ADD BRKT. 246982, TWO (2) STUD 243581, BRKT. 246983, TWO (2) CAP SCREW 237757 & FOUR (4) L.W. 237648.
- GG —ADD ELBOW 244578.
- HH —ADD RED. BUSHING 248119.
- II —ADD RED. BUSHING 212346.
- JJ —ADD GOV. ADAPTER 245294, TWO (2) CAP SCREW 240910, TWO GASKET 236577, TWO (2) CAP SCREW 243833, FOUR (4) L.W. 237648.
- KK —ADD TWO (2) CAP SCREW 237687, STR. PLATE 238948, GASKET 236170.
- LL —ADD DISCH. FITTING 245282, GASKET 204820, TWO (2) L.W. 237648.
- MM —ADD BRKT. 244013, FOUR (4) L.W. 237648, TWO (2) NUT 204214, FOUR (4) CAP SCREW 240910, TUB. FITTING 205539.
- NN —ADD FOUR (4) CAP SCREW 211100, FOUR (4) L.W. 202984, CAP SCREW 237757, FOUR (4) CAP SCREW 243833, CAP SCREW 237696, SIX (6) L.W. 237648.
- OO —ADD TWO (2) CAP SCREW 232431, STR. PLATE 238948, GASKET 236170.
- PP —ADD OIL BATH AIR CLEANER 221661, GASKET 231862, ADAPTER 236622, TWO (2) CAP SCREW 202979, TWO (2) L.W. 202981, TWO (2) CAP SCREW 211901.

**VERTICAL — ENGINE LUBE — WATER COOLED  
4 HOLE BASE — THRU DRIVE**



**REMFR. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
226287	228353	226726	—	—	—
226656	228370	—	—	—	—
226657	228371	—	—	280621	—
226726	228353	226287	—	—	—
227247	228354	—	—	—	—
227817	228479	ANY 228479 ON THIS SHEET	286662	280286	—
227929	275990	ANY 275990 ON THIS SHEET	286664	281713	—
228353	228353	226287, 226726	—	—	—
228354	228354	227247	—	—	—
228363	228479	ANY 228479 ON THIS SHEET	286662	280286	—
228364	275990	ANY 275990 ON THIS SHEET	286664	281713	—
228370	228370	226656	—	—	—
228479	228479	ANY 228479 ON THIS SHEET	286662	280286	—
229059	229059	—	—	—	—
229861	229861	—	—	—	—
275990	275990	ANY 275990 ON THIS SHEET	286664	281713	—
276478	276478	—	—	—	—
277577	277577	—	—	—	—
278560	275990	ANY 275990 ON THIS SHEET	286664	281713	—
278561	275990	ANY 275990 ON THIS SHEET	286664	281713	—
278955	278955	—	—	—	—
279384	279384	ANY 279384 ON THIS SHEET	286663	280784	—
280781	228479	ANY 228479 ON THIS SHEET	286662	280286	—
282148	228479	ANY 228479 ON THIS SHEET	286662	280286	—
282213	228479	ANY 228479 ON THIS SHEET	286662	280286	—
282428	275990	ANY 275990 ON THIS SHEET	286664	281713	—
282984	228479	ANY 228479 ON THIS SHEET	286662	280286	—
282986	228479	ANY 228479 ON THIS SHEET	286662	280286	—
283663	228479	ANY 228479 ON THIS SHEET	286662	280286	—
283667	228479	ANY 228479 ON THIS SHEET	286662	280286	—
285800	279384	ANY 279384 ON THIS SHEET	286663	280784	—
285802	279384	ANY 279384 ON THIS SHEET	286663	280784	—

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**VERTICAL — ENGINE LUBE — WATER COOLED  
4 HOLE BASE — THRU DRIVE**

SUB ASSY AND DETAIL REFERENCE

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE ASSY.	CRANK- SHAFT	REAR END COVER	AIR STR. OR INL. FITT.	GOV.*	STUD OR CAP SCREW	C.C. BASE GASKET	WATER PORTS		AIR INLET LOC.	AIR DISCH. LOC.	GOV. PORT POS.
										INLET 3/8	OUTLET-SIZE			
226287	— SUPERSEDED BY 226726													
226656	— SUPERSEDED BY 228370													
226657	— SUPERSEDED BY 228371													
226726	— SUPERSEDED BY 228353													
227247	— SUPERSEDED BY 228354													
227817	— SUPERSEDED BY 228363													
227929	226098	228238	227822	238097	236661	226469	226363	—	211376	FRT	RR 1/2	RIGHT	RIGHT	R RR
A228353	283615	228238	227752	234744	234752	226469	—	230672	211376	FRT	RR 1/2	RIGHT	RIGHT	RR
A228354	283615	228238	230911	234744	226670	226469	—	230672	211376	FRT	RR 1/2	RIGHT	RIGHT	RR
BC228363	226098	228238	227822	238097	236661	226469	226363	233798	211376	RR	FRT 3/8	LEFT	LEFT	FRT L
C228364	226098	228238	227822	238097	236661	226469	226363	233798	211376	FRT	FRT 3/8	RIGHT	RIGHT	RR R
228370	226098	228238	227796	234731	234818	226469	—	230672	—	FRT	FRT 3/8	LEFT	LEFT	OPEN
B228479	283615	228238	227822	238097	236661	—	—	230672	211376	RR	FRT 3/8	LEFT	LEFT	RR L
CDE229059	226098	228238	227822	236660	236661	—	226363	233798	211376	L RR	FRT 3/8	RIGHT	RIGHT	R RR
FG229861	226098	228238	229862	240001	236661	237670	—	233798	211376	FRT	LFT 3/8	RIGHT	RIGHT	RR
B275990	283615	228238	227822	238097	236661	226469	—	233798	—	LEFT	FRT 3/8	RIGHT	RIGHT	R RR
DE276478	226098	228238	230911	241510	241511	—	276101	233798	211376	L FRT	FRT 1/2	RIGHT	RIGHT	R RR
BH277577	283615	228238	230911	238097	242319	236676	276104	230672	211376	LEFT	LFT 1/2	RIGHT	RIGHT	L RR
B278560	283615	228238	227822	238097	236661	279900	276101	233798	211376	L FRT	FRT 1/2	RIGHT	RIGHT	R RR
B278561	283615	228238	227822	238097	236661	279900	—	233798	211376	L FRT	FRT 1/2	RIGHT	RIGHT	R RR
FG278955	283615	228238	230911	240001	242319	246691	—	233798	211376	RIGHT	RR 1/2	LEFT	LEFT	L FRT
279384	283641	228238	227822	238097	236661	—	—	—	—	L & RT	FRT 1/2	LEFT	TOP	L RR
280781	283615	228238	227822	238097	236661	—	—	—	—	RR	FRT 1/2	LEFT	LEFT	L RR
I282148	226098	228238	227822	238097	236671	226469	276226	230672	211376	RR	FRT 1/2	LEFT	LEFT	L FRT
282213	283615	228238	227822	238097	236671	226469	276101	233798	211376	RR	FRT 1/2	LEFT	LEFT	L RR
I282428	226098	228238	227822	238097	236661	226469	276104	230672	211376	L FRT	FRT 3/8	RIGHT	RIGHT	R FRT
F282984	283615	228238	227822	238097	236661	277218	—	233798	211376	OPEN	OPEN 1/2	LEFT	LEFT	OPEN
282986	283615	228238	227822	238097	236661	—	—	233798	211376	OPEN	OPEN 1/2	LEFT	LEFT	OPEN
283663	283615	228238	227822	238097	236661	—	—	—	211376	OPEN	OPEN 1/2	LEFT	LEFT	OPEN
283667	283615	228238	227822	238097	236661	—	—	—	211376	OPEN	OPEN 1/2	LEFT	LEFT	PLGD
285800	283641	228238	227822	238097	236671	—	—	—	—	OPEN	OPEN 1/2	LEFT	TOP	OPEN
285802	283641	228238	227822	238097	236671	—	—	—	211376	OPEN	OPEN 1/2	LEFT	TOP	OPEN

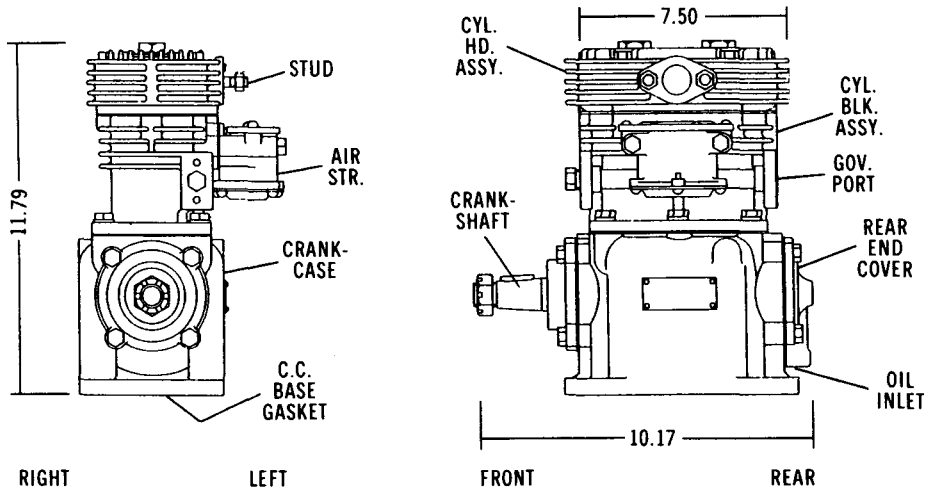
- A—ADD NUT 203571, KEY 211347, OIL SEAL 243053, TWO (2) OIL SEAL RING 203238 (R.E.C.)
- B—ADD TWO (2) OIL SEAL RING 203238, OIL SEAL 236623, KEY 238483.
- C—ADD GASKET 236577, TWO (2) CAP SCREW 203847, TWO (2) L.W. 237648.
- D—ADD OIL SEAL 236623, TWO (2) OIL SEAL RING 203238 (R.E.C.)
- E—ADD DISCH. FITT. 223886.
- F—ADD STR. PLATE 238948.
- G—ADD KEY 240002, OIL SEAL 236623, TWO (2) OIL SEAL RING 203238.
- H—ADD DISCH. FITT. 242252.
- I—ADD GOV. ADAPTER 245294.
- J—ADD DISCH. FITT. 213042.

\*GOV. PC. NO. 226363 IS OBS. TYPE "D" — SEE CATALOG 01-A-1 FOR CURRENT TYPE D-2

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
226098	226315
283615	283618
283641	283638

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228238	228233

**VERTICAL — ENGINE LUBE — AIR COOLED  
4 HOLE BASE**



**REMFR. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600* EQUIV.	TF-700 EQUIV.
226947	228141	ANY 228141 ON THIS SHEET	—	280614	—
227438	228344	— —	—	—	—
227740	228141	ANY 228141 ON THIS SHEET	—	280614	—
227905	228346	ANY 228346 ON THIS SHEET	—	280619	—
228054	228141	ANY 228141 ON THIS SHEET	—	280614	—
228141	228141	ANY 228141 ON THIS SHEET	—	280614	—
228343	228141	ANY 228141 ON THIS SHEET	—	280614	—
228344	228344	227438 —	—	—	—
228345	228141	ANY 228141 ON THIS SHEET	—	280614	—
228346	228346	ANY 228346 ON THIS SHEET	—	280619	—
228347	228141	ANY 228141 ON THIS SHEET	—	280614	—
228348	228141	ANY 228141 ON THIS SHEET	—	280614	—
228417	228141	ANY 228141 ON THIS SHEET	—	280614	—
228766	228141	ANY 228141 ON THIS SHEET	—	280614	—
228768	228141	ANY 228141 ON THIS SHEET	—	280614	—
228954	228141	ANY 228141 ON THIS SHEET	—	280614	—
229089	228141	ANY 228141 ON THIS SHEET	—	280614	—
229090	228141	ANY 228141 ON THIS SHEET	—	280614	—
229091	228141	ANY 228141 ON THIS SHEET	—	280614	—
229671	228141	ANY 228141 ON THIS SHEET	—	280614	—
276110	228346	ANY 228346 ON THIS SHEET	—	280619	—
276834	228141	ANY 228141 ON THIS SHEET	—	280614	—
276835	228346	ANY 228346 ON THIS SHEET	—	280619	—
276836	228346	ANY 228346 ON THIS SHEET	—	280619	—
278969	228141	ANY 228141 ON THIS SHEET	—	280614	—
279047	228346	ANY 228346 ON THIS SHEET	—	280619	—
279651	228141	ANY 228141 ON THIS SHEET	—	280614	—
280267	228141	ANY 228141 ON THIS SHEET	—	280614	—
280462	228141	ANY 228141 ON THIS SHEET	—	280614	—
281415	228141	ANY 228141 ON THIS SHEET	—	280614	—
281420	228141	ANY 228141 ON THIS SHEET	—	280614	—
281443	228141	ANY 228141 ON THIS SHEET	—	280614	—
282137	228141	ANY 228141 ON THIS SHEET	—	280614	—
282555	228346	ANY 228346 ON THIS SHEET	—	280619	—
282623	228141	ANY 228141 ON THIS SHEET	—	280614	—
283686	228141	ANY 228141 ON THIS SHEET	—	280614	—
284984	228141	ANY 228141 ON THIS SHEET	—	280614	—
286387	228141	ANY 228141 ON THIS SHEET	—	280614	—
286439	228141	ANY 228141 ON THIS SHEET	—	280614	—

\*REMFR. EXCH. PC. NOS.

\*WATER COOLED ONLY

SERVICE PARTS INFORMATION  
SHOWN ON PAGES 01-D-2 AND 3.

**VERTICAL — ENGINE LUBE — AIR COOLED  
4 HOLE BASE**

SUB ASSY AND DETAIL REFERENCE

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE OR C.C. BODY ASSY.	CRANK- SHAFT	REAR END COVER	AIR STR. OR INLET FITTING	GOV.*	STUD OR CAP SCREW	CRANK- CASE BASE GASKET	AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT LOCATION	BEARING TYPES	
													FRONT	REAR
226947	—	—	—	SUPERSEDED BY 228344			—	—	—	—	—	—	—	—
227438	—	—	—	SUPERSEDED BY 228344			—	—	—	—	—	—	—	—
227740	—	—	—	SUPERSEDED BY 228345			—	—	—	—	—	—	—	—
227905	—	—	—	SUPERSEDED BY 228346			—	—	—	—	—	—	—	—
227936	—	—	—	SUPERSEDED BY 228348			—	—	—	—	—	—	—	—
228054	—	—	—	SUPERSEDED BY 228347			—	—	—	—	—	—	—	—
228141	275017	228239	237120	230916	236578	—	—	230672	211376	LEFT	LEFT	L FR, L RR	BALL	BALL
228343	—	—	—	SUPERSEDED BY 229089			—	—	—	—	—	—	—	—
A228344	275017	228239	227753	230916	230918	226469	—	233798	211376	LEFT	LEFT	L RR	BALL	BALL
228345	275017	228239	237120	230916	236578	—	—	235464	—	LEFT	LEFT	L RR	BALL	BALL
228346	275017	228239	237120	230916	236578	226469	226363	230672	—	RIGHT	RIGHT	R RR	BALL	BALL
228347	275017	228239	237120	230916	236578	226469	226363	230672	211376	LEFT	LEFT	L RR	BALL	BALL
BC228348	275017	228239	237120	230916	236578	226469	227540	230672	—	LEFT	LEFT	L RR	BALL	BALL
228417	275017	228239	237120	230916	236578	226469	226431	233798	211376	LEFT	LEFT	L RR	BALL	BALL
228954	275017	228239	237120	230916	236578	—	—	235464	—	LEFT	LEFT	L FRT & RR	BALL	BALL
229671	275017	228239	237120	230916	236578	—	—	235464	211376	LEFT	LEFT	L RR	BALL	BALL
276110	275017	228239	279989	244457	275969	279900	276102	—	211376	RIGHT	RIGHT	R RR	BALL	SLEEVE
276834	275017	228239	230911	244457	275969	226469	276102	233798	211376	LEFT	LEFT	L RR	BALL	SLEEVE
D276835	275017	228239	230911	244457	275969	226469	276103	—	211376	RIGHT	RIGHT	L RR	BALL	SLEEVE
276836	275017	228239	230911	244457	275969	226469	276104	230672	211376	RIGHT	RIGHT	R RR	BALL	SLEEVE
228766	—	SUPERSEDED BY 229090			—	—	—	—	—	—	—	—	—	—
278969	275017	228239	230911	244457	275969	226469	276101	235464	211376	LEFT	LEFT	L RR	BALL	SLEEVE
EF279047	275017	228239	230911	244461	275969	279900	278814	237315	211376	RIGHT	RIGHT	R RR	BALL	SLEEVE
G279651	275017	228239	230911	244461	275969	279900	276105	244340	211376	LEFT	LEFT	L RR	BALL	SLEEVE
H280267	275017	228239	230911	244461	275969	279900	279870	244340	211376	LEFT	LEFT	L RR	BALL	SLEEVE
IJ280462	275017	228239	230911	244461	275969	279900	276226	233798	211376	LEFT	LEFT	L RR	BALL	SLEEVE
K281415	275017	228239	237395	244461	275969	279900	276104	233798	211376	LEFT	LEFT	L RR	BALL	SLEEVE
LK281420	275017	228239	230911	244461	275969	279900	276100	233798	211376	LEFT	LEFT	L RR	BALL	SLEEVE
282137	275017	228239	230911	244461	275969	—	276101	230672	211376	LEFT	LEFT	L RR	BALL	SLEEVE
L282555	275017	228239	280576	244461	275969	226469	276104	230672	211376	RIGHT	RIGHT	R FT	BALL	SLEEVE
H282623	275017	228239	230911	244461	275969	279900	281137	—	211376	LEFT	LEFT	L RR	BALL	SLEEVE
L283686	275017	228239	230911	244461	275969	279900	283596	—	211376	LEFT	LEFT	L RR	BALL	SLEEVE
M284984	275017	228239	230911	244457	275969	279900	—	233798	211376	LEFT	LEFT	L RR	BALL	SLEEVE
K286387	275017	228239	237395	244461	275969	279900	276104	233798	211376	LEFT	LEFT	L RR	BALL	SLEEVE
L286439	275017	228239	237395	244461	275969	279900	278846	—	211376	LEFT	LEFT	L RR	BALL	SLEEVE
228768	—	SUPERSEDED BY 229091			—	—	—	—	—	—	—	—	—	—
229089	275017	228239	237120	230916	236578	—	226363	235464	—	LEFT	LEFT	L RR	BALL	BALL
229090	275017	228239	237120	230916	236578	226469	226363	235464	—	LEFT	LEFT	L RR	BALL	BALL
229091	275017	228239	237120	230916	236578	226469	226363	235464	—	LEFT	LEFT	L FT	BALL	BALL
281443	275017	228239	237395	244457	275969	—	—	233798	211376	LEFT	LEFT	L RR	BALL	SLEEVE

- A—ADD TWO (2) CAP SCREW 240175 & TWO (2) L.W. 237648
- B—ADD STR. ADAPT. 236701
- C—ADD DISCH. FITT. 212864
- D—ADD GOV. ADAPT. 227319 & TWO (2) GSKT 236577
- E—ADD DISCH. FITT. 213042
- F—ADD BRKT. 244013, FITTING 205127, TUBING 244014, ELBOW 244318
- G—ADD TWO (2) STUD 244340 & WASHER 245825

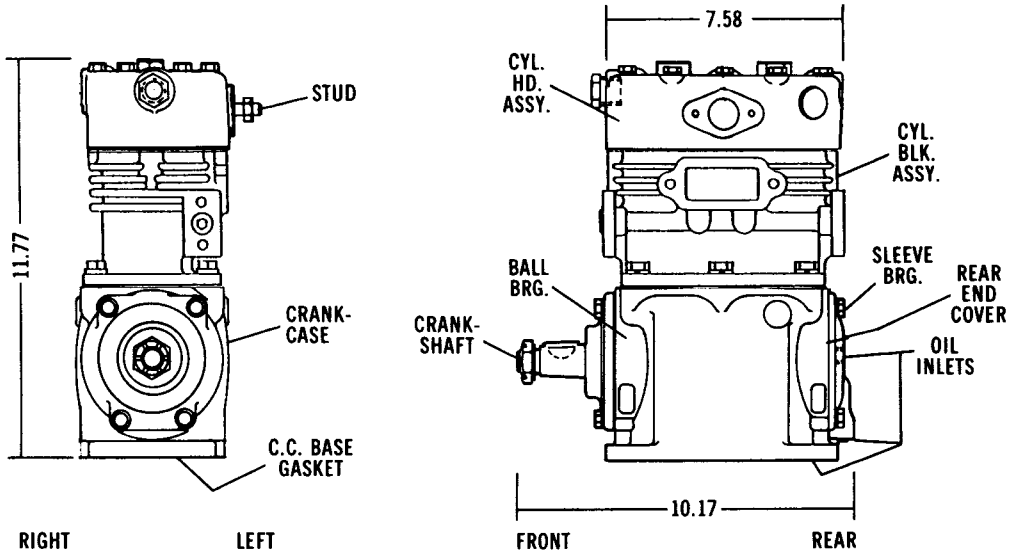
- H—ADD GOV. BRKT. 244881, ELBOW 224318, CONN. 205127, TUBING 244882
- I—ADD DISCH. FITT. 213041
- J—ADD BRKTS. 246982 & 246983, TWO (2) STUD 243581
- K—ADD DISCH. FITT. 213042
- L—ADD GOV. ADAPT. 245294
- M—ADD DISCH. FITT. 220054

\*GOVS. 226363, 226431 & 227540 ARE OBS. TYPE "D" — SEE CATALOG 01-A-1 FOR CURRENT TYPE D-2.

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
275017	275018

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228239	228240

**VERTICAL — ENGINE LUBE — WATER COOLED HEAD  
AIR COOLED BLOCK — 4 HOLE BASE**



**REMRFR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMRFR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
275318	275514	— —	—	—	—
275514	275514	275318 —	—	—	—
278452	278452	283794 283795	—	—	—
279073	279073	281732 281940	—	—	—
279074	279074	— —	—	—	—
279580	279580	— —	286560	281990	—
281430	281430	282622 286462	285960	281990	—
281732	279073	281940 —	—	—	—
281940	279073	281732 —	—	—	—
282622	281430	286462 286463	285960	281990	—
283437	283438	— —	—	—	—
283438	283438	283437 —	—	—	—
283440	283441	— —	—	—	—
283441	283441	283440 —	—	—	—
283794	278452	283795 —	—	—	—
283795	278452	283794 —	—	—	—
286462	281430	282622 286463	285960	281990	—
286463	281430	282622 286462	285960	281990	—

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**VERTICAL — ENGINE LUBE — WATER COOLED HEAD  
AIR COOLED BLOCK — 4 HOLE BASE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRKCASE ASSY. OR BODY	CRANK- SHAFT	REAR END COVER	AIR STR. OR INLET FITTING	GOV.*	STUD	CRKCASE BASE GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT LOCATION	BEARING TYPES	
										INLET-SIZE	OUTLET-SIZE				FRONT	REAR
275318	275337	228239	229163	239388	239314	226469	226363	237315	213943	3/8 FRT	3/8 REAR	LEFT	LEFT	L RR	BALL	SLEEVE
275514	283616	228239	229163	239388	239314	226469	276101	237315	213943	1/2 FRT	1/2 REAR	LEFT	LEFT	L RR	BALL	SLEEVE
278452	—	—	—	—	—	—	—	SUPERSEDED BY 283795		—	—	—	—	—	—	—
279073	283616	228239	227752	244461	276363	—	—	230672	211376	1/2 OPEN	1/2 OPEN	RIGHT	RIGHT	R RR	BALL	SLEEVE
279074	275337	228239	227751	244461	276363	—	—	230672	211376	1/2 OPEN	1/2 OPEN	LEFT	LEFT	L RR	BALL	SLEEVE
279580	283616	228239	230911	244461	275969	279900	276105	233798	211376	1/2 FRT	1/2 REAR	LEFT	LEFT	L RR	BALL	SLEEVE
281430	283616	228239	237395	244461	275969	279900	276100	233798	211376	3/8 FRT	3/8 REAR	LEFT	LEFT	L RR	BALL	SLEEVE
281732	283616	228239	227752	244461	276363	—	—	230672	211376	1/2 OPEN	1/2 OPEN	RIGHT	RIGHT	R RR	BALL	SLEEVE
281940	283616	228239	227752	244461	276363	279900	—	230672	211376	1/2 OPEN	1/2 OPEN	RIGHT	RIGHT	R RR	BALL	SLEEVE
282622	283616	228239	237395	244461	275969	279900	276104	233798	211376	3/8 FRT	3/8 REAR	LEFT	LEFT	L RR	BALL	SLEEVE
283438	283616	283471	237120	244461	281161	—	—	—	245584	1/2 OPEN	1/2 OPEN	LEFT	LEFT	OPEN	BALL	SLEEVE
283441	283616	283471	247634	244461	281161	—	—	—	245584	1/2 OPEN	1/2 OPEN	RIGHT	RIGHT	OPEN	BALL	SLEEVE
283795	283616	228239	229163	239388	239314	—	—	—	213943	1/2 FRT	1/2 REAR	RIGHT	RIGHT	R RR	BALL	SLEEVE
286462	283616	228239	237395	244461	275969	279900	276104	233798	211376	3/8 FRT	3/8 REAR	LEFT	LEFT	L RR	BALL	SLEEVE
286463	283616	228239	237395	244461	275969	279900	276100	233798	211376	3/8 FRT	3/8 REAR	LEFT	LEFT	L RR	BALL	SLEEVE
283437	283616	283471	237120	244461	281161	—	—	—	245584	1/2 OPEN	1/2 OPEN	LEFT	LEFT	OPEN	BALL	SLEEVE
283440	283616	283471	237120	244461	281161	—	—	—	245584	1/2 OPEN	1/2 OPEN	RIGHT	RIGHT	OPEN	BALL	SLEEVE
283794	283616	228239	229163	239388	239314	—	—	—	213943	1/2 FRT	3/8 REAR	LEFT	LEFT	L RR	BALL	SLEEVE

A—ADD DISCH. FITT. 213042

B—ADD DISCH. FITT. 213041

C—ADD BRKTS 246982 & 246983, TWO (2) STUD 243581, TWO (2) CAP SCREW 237757

D—ADD ELBOW 244578

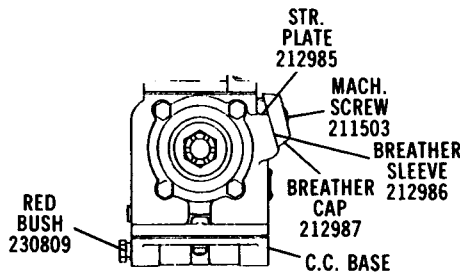
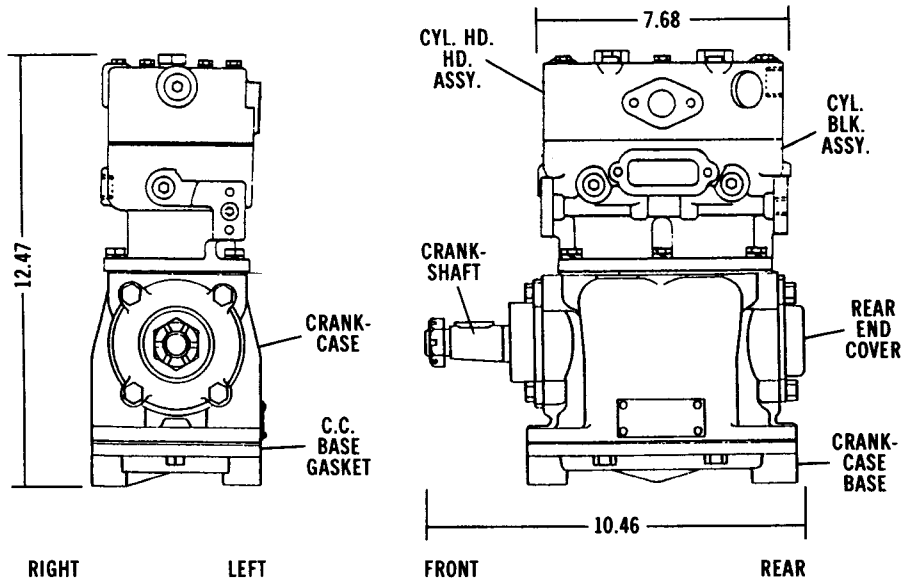
\*GOV. 226363 IS OBS. TYPE "D" — SEE CATALOG 01-A-1 FOR CURRENT D-2.

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
275337	275338
283616	283619

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228239	228240
283471	283472



**VERTICAL — ENGINE LUBE — WATER COOLED WITH CRANKCASE BASE**



PARTIAL VIEW FOR COMPRS. 228269, 228300 & 284015 WITH EJECTOR OIL PUMP

CYL. HD. ASSY.	CYL. BLK. BODY ASSY.
226098	226315
283615	283618

CYL. BLK. ASSY.	CYL. BODY ASSY.
228238	228233
228244	228245

**REMFR. EXCH. AND CHANGEVER SELECTIONS**

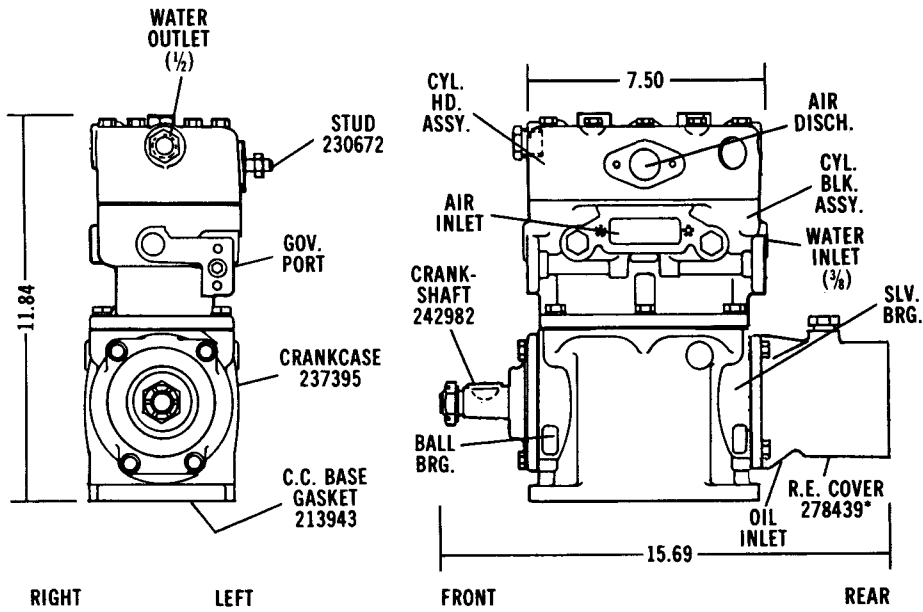
TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
226536	228269	ANY 228269 ON THIS SHEET	—	—	—
227094	228269	ANY 228269 ON THIS SHEET	—	—	—
227250	228661	ANY 228661 ON THIS SHEET	—	—	—
227799	228269	ANY 228269 ON THIS SHEET	—	—	—
228269	228269	ANY 228269 ON THIS SHEET	—	—	—
228300	228661	ANY 228661 ON THIS SHEET	—	—	—
228661	228661	ANY 228661 ON THIS SHEET	—	—	—
275316	228661	ANY 228661 ON THIS SHEET	—	—	—
275807	228661	ANY 228661 ON THIS SHEET	—	—	—
276475	228661	ANY 228661 ON THIS SHEET	—	—	—
279204	228661	ANY 228661 ON THIS SHEET	—	—	—
281593	281593	—	—	—	—
282260	228661	ANY 228661 ON THIS SHEET	—	—	—
284015	228269	ANY 228269 ON THIS SHEET	—	—	—
284404	228661	ANY 228661 ON THIS SHEET	—	—	—
284968	228661	ANY 228661 ON THIS SHEET	—	—	—
288890	288890	—	—	—	—

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TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK-CASE	CRANK-SHAFT	REAR END COVER	AIR STRAINER	STUD	CRKCASE BASE GASKET	CRANK-CASE BASE	OIL PUMP ROD	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES		CONN. ROD MATL	GOV.
											INLET ¼	OUTLET-SIZE				FRONT	REAR		
226536	SUPERSEDED BY 228269			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
227094	SUPERSEDED BY 227799			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
227250	SUPERSEDED BY 228300			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
227799	SUPERSEDED BY 228269			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
A228269	283615	228244	237304	237305	238677	—	230672	236590	226488	227096	R RR	FRT ½	LEFT	LEFT	L RR	BALL	BALL	ALUM	—
228300	226098	228244	237664	237305	238675	226469	—	236590	226488	227096	OPEN	OPEN ¾	LEFT	LEFT	L RR	BALL	BALL	ALUM	226431
228661	226098	228244	239038	230916	230918	226469	235464	236590	239012	—	R RR	FRT ¾	LEFT	LEFT	L RR	BALL	BALL	ALUM	226431
B275316	226098	228244	231644	230916	238675	226469	235464	236590	239012	—	RR	FRT ¾	LEFT	LEFT	L RR	BALL	BALL	ALUM	226431
275807	283615	228244	239038	244457	275969	226469	235464	236590	239012	—	R RR	FRT ½	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM	277192
276475	283615	228244	231644	244457	275969	226469	235464	236590	239012	—	R RR	FRT ½	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM	—
C279204	283615	220244	231644	244461	275969	279900	233798	236590	239012	—	OPEN	FRT ½	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM	276380
281593	283615	228238	246074	244461	275969	226469	233798	238431	243832	—	R RR	RT ½	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM	276104
282260	283615	228244	231644	244461	275969	226469	235464	236590	239012	—	R RR	FRT ½	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM	276100
A284015	283615	228244	237304	237305	238677	—	230672	236590	226488	227096	RR	FRT ½	LEFT	LEFT	L RR	BALL	BALL	STEEL	—
C284404	283615	228244	239038	244457	275969	279900	233798	236590	239012	—	RR	FRT ½	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM	—
C284968	283615	228244	239038	240182	236578	279900	233798	236590	239012	—	L RR	FRT ½	LEFT	LEFT	L RR	BALL	BALL	ALUM	276101
288890	283615	228238	239038	244457	275969	279900	233798	236590	239012	—	L RR	FRT ½	RIGHT	RIGHT	R RR	BALL	SLEEVE	ALUM	283277

A—ADD STR. PLATE 238498.  
 B—ADD GOV. ADAPTER 227319.  
 C—ADD DISCH. FITT. 213042.

**VERTICAL — WATER COOLED — ENGINE LUBRICATED WITH SPECIAL REAR END COVER**



**REMFR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
278433	278433	278799	—	—	—
278799	278433	—	—	—	—

**SUB ASSY AND DETAIL REFERENCE**

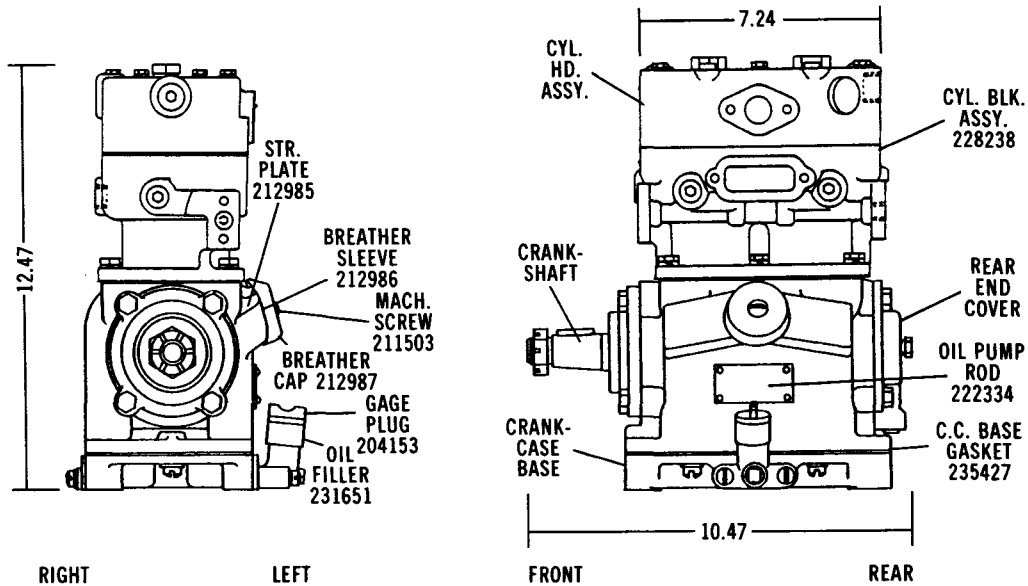
TF-500 COMPR. PC. NO.	CYL. HEAD ASSY.	CYL. HD. BODY ASSY.	CYL. BLOCK ASSY.	CYL. BLK. BODY ASSY.	GOV.
278433	283615	283618	228238	228233	276104
278799	283615	283618	228238	228233	278846

A—ADD GOV. ADAPTER 226992. ADD C.S. KEY 240002 (REAR)

**\*STANDARD & REPAIR SIZES FOR END COVER 278439**

END COVER PC. NO.	CRANK- SHAFT BEARING I.D.	REMARKS
278439	1.25"	STD.
281635	1.24"	REPAIR
281636	1.23"	REPAIR
281637	1.22"	REPAIR

**VERTICAL — SELF LUBRICATED — WATER COOLED**



**REMR. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
226282	228139	ANY 228139 ON THIS SHEET	—	280612	—
226978	227440	ANY 227440 ON THIS SHEET	—	—	—
227044	227440	ANY 227440 ON THIS SHEET	—	—	—
227440*	227440	ANY 227440 ON THIS SHEET	—	—	—
227544	228139	ANY 228139 ON THIS SHEET	—	280612	—
227675	228139	ANY 228139 ON THIS SHEET	—	280612	—
228139*	228139	ANY 228139 ON THIS SHEET	—	280612	—
228357	227440	ANY 227440 ON THIS SHEET	—	—	—
228358	227440	ANY 227440 ON THIS SHEET	—	—	—
228359	228139	ANY 228139 ON THIS SHEET	—	280612	—
228360	228139	ANY 228139 ON THIS SHEET	—	280612	—
228369	228139	ANY 228139 ON THIS SHEET	—	280612	—
229164	228139	ANY 228139 ON THIS SHEET	—	280612	—
279193	227440	ANY 227440 ON THIS SHEET	—	—	—
282262	227440	ANY 227440 ON THIS SHEET	—	—	—
282824	228139	ANY 228139 ON THIS SHEET	—	280612	—

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
226098	226315
283615	283618

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228238	228233

\*REMR. EXCH. PC. NOS.

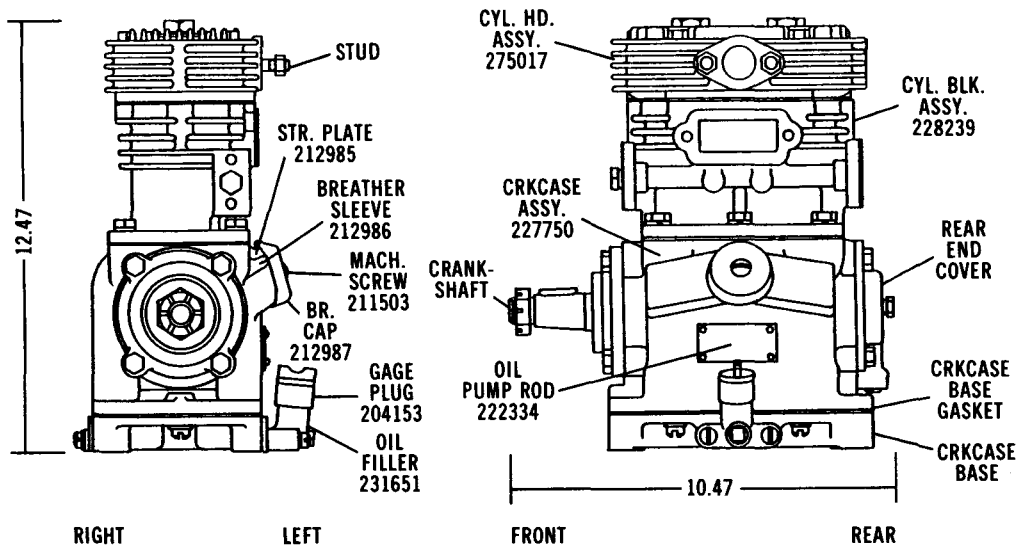
**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CRANK- CASE ASSY.	CRANK- SHAFT	REAR END COVER	AIR STRAINER	GOV.*	STUD (HD.)	CRANK- CASE BASE	C.C. BASE GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES	
										INLET-SIZE	OUTLET-SIZE				FRONT	REAR
226282	SUPERSEDED BY 228369														—	—
226978	SUPERSEDED BY 228357														—	—
227044	SUPERSEDED BY 228358														—	—
227440*	—	—	—	—	—	—	—	—	—	OPEN 1/2	OPEN 1/2	RIGHT	RIGHT	OPEN	—	—
227544	SUPERSEDED BY 228359														—	—
227675	SUPERSEDED BY 228360														—	—
228139*	—	—	—	—	—	—	—	—	—	OPEN 1/2	OPEN 1/2	LEFT	LEFT	OPEN	—	—
228357	226098	227750	231645	230918	226469	226363	230672	222336	235427	R RR 3/8	FRT 3/8	RIGHT	RIGHT	R RR	BALL	BALL
228358	283615	227750	231645	230918	—	—	230672	222336	235427	OPEN 1/2	OPEN 1/2	RIGHT	RIGHT	R RR	BALL	BALL
228359	283615	227750	231645	230918	226469	—	230672	222336	235427	OPEN 1/2	OPEN 1/2	LEFT	LEFT	L RR	BALL	BALL
228360	226098	227750	231645	230918	226469	226363	230672	222336	235427	RR 3/8	FRT 3/8	LEFT	LEFT	L RR	BALL	BALL
228369	226098	227831	231645	230918	—	—	230672	225072	235456	OPEN 3/8	OPEN 3/8	LEFT	LEFT	L FRT	BALL	BALL
229164	226098	227750	231645	230918	—	—	—	222336	235427	RT 3/8	RT 3/8	LEFT	LEFT	R RR	BALL	BALL
279193	226098	227750	244516	276363	279900	277509	233798	222336	235427	R RR 3/8	FRT 3/8	RIGHT	RIGHT	R FRT	BALL	SLEEVE
282262	283615	227750	244516	276363	226469	276101	230672	222336	235427	OPEN 1/2	OPEN 1/2	LEFT	LEFT	R RR	BALL	SLEEVE
282824	283615	227750	244516	276363	279900	276101	233798	222336	235427	RR 1/2	FRT 1/2	LEFT	RIGHT	RIGHT	BALL	SLEEVE

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\*GOV. 226363 IS OBS. TYPE "D" — SEE CATALOG 01-A-1 FOR CURRENT D-2.

**VERTICAL — SELF LUBRICATED — AIR COOLED**



**REMF. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMF. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600* EQUIV.	TF-700 EQUIV.
228228	228228	ANY 228228 ON THIS SHEET	—	280615	—
228287	228287	ANY 228287 ON THIS SHEET	—	280617	—
275817	228287	ANY 228287 ON THIS SHEET	—	280617	—
277462	228228	ANY 228228 ON THIS SHEET	—	280615	—
277647	228287	ANY 228287 ON THIS SHEET	—	280617	—
278968	228287	ANY 228287 ON THIS SHEET	—	280617	—
282155	228228	ANY 228228 ON THIS SHEET	—	280615	—
283089	228287	ANY 228287 ON THIS SHEET	—	280617	—
287315	228287	ANY 228287 ON THIS SHEET	—	280617	—

\*WATER COOLING

**SUB ASSY AND DETAIL REFERENCE**

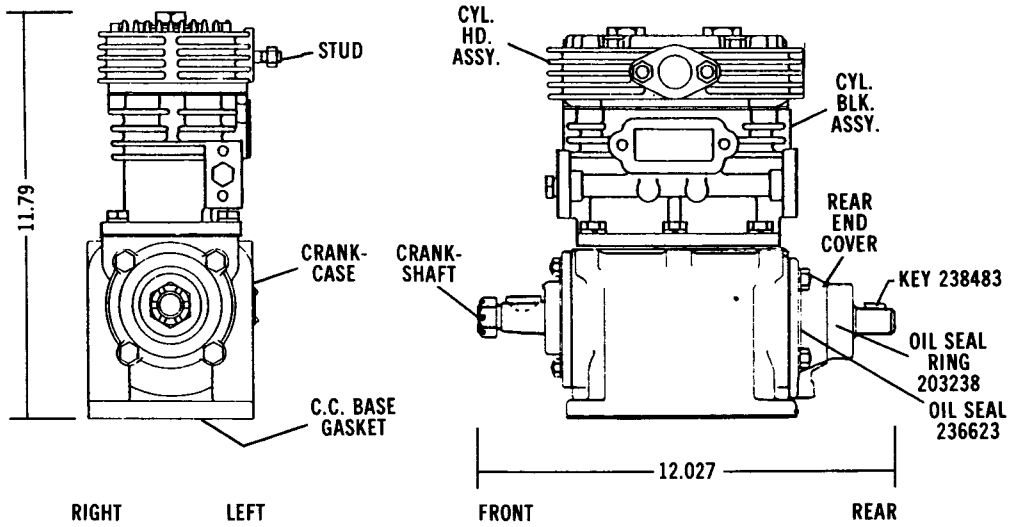
TF-500 COMPR. PC. NO.	CRANK- SHAFT	REAR END COVER	AIR STRAINER	GOV.*	STUD	CRANK- CASE BASE	C.C. BASE BASE GASKET	AIR INLET LOCATION	AIR DISCH. LOCATION	BEARING TYPE		GOV. PORT POSITION
										FRONT	REAR	
228228	231645	230918	226469	226363	230672	222336	235427	REAR	RIGHT	BALL	BALL	R RR
228287	231645	230918	—	—	230672	222336	235427	LEFT	LEFT	BALL	BALL	L RR
275817	231645	230918	226469	226363	230672	222336	235427	LEFT	LEFT	BALL	BALL	L RR
277462	242223	230918	226469	226363	233798	222336	235427	RIGHT	RIGHT	BALL	BALL	R RR
277647	244516	276363	226469	277648	230672	222336	235427	LEFT	LEFT	BALL	SLEEVE	L RR
278968	244516	276363	226469	276101	235464	222336	235427	LEFT	LEFT	BALL	SLEEVE	L RR
282155	244516	276363	226469	276101	230672	222336	235427	RIGHT	RIGHT	BALL	BALL	R RR
283089	244516	276363	226469	276101	230672	222336	235427	LEFT	LEFT	BALL	SLEEVE	L RR
287315	231645	230918	226469	—	230672	222336	235427	LEFT	LEFT	BALL	BALL	L RR

\*GOV. 226363 IS OBS. TYPE "D" — SEE CATALOG 01-A-1 FOR CURRENT D-2.

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
275017	275018

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228239	228240

**VERTICAL — AIR & WATER COOLED HEADS  
AIR COOLED BLOCK — ENGINE LUBE — THRU DRIVE**



**REMFR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
281731	281731	283443, 283444	—	284272	—
283443	281731	283444 —	—	284272	—
283444	281731	283443 —	—	284272	—

**REMFR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
282904	282904	283282	—	—	—
283282	282904	—	—	—	—
285813	285813	—	—	—	—

NOTE: CONN. ROD MATL AND TYPE BEARINGS USED IN REMFR. EXCH. COMPRS. WILL BE AT BENDIX OPTION.

**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	AIR STRAINER	GOV.	STUD (HD.)	CRKCASE BASE GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION
										INLET 1/2	OUTLET 1/2			
281731	283616	228239	227822	238097	236661	—	—	230672	211376	OPEN	OPEN	LEFT	LEFT	L FRT
ABCD282904	283095	228239	227822	238097	236661	—	276380	233798	211376	—	—	RIGHT	RIGHT	R RR
ABCD283282	283095	228239	227822	238097	236661	226469	276380	233798	211376	—	—	RIGHT	RIGHT	R RR
283443	283616	228239	247633	238097	236661	—	—	—	211376	OPEN	OPEN	LEFT	LEFT	L FRT
283444	283616	228239	247633	238097	236661	—	—	—	211376	OPEN	OPEN	LEFT	LEFT	L FRT
BCD285813	275017	228239	249863	249864	249866	—	—	233798	211376	—	—	RIGHT	RIGHT	R RR

- A—ADD GOV. ADAPTER 226992
- B—ADD DISCH. FITT. 213042
- C—ADD ELBOW 247321
- D—ADD INLET FITT. 229662 & STR. PLATE 238948

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CYL. HD. ASSY.	CYL. HD. BODY ASSY.
275017*	275018
283095*	283094
283616**	283619

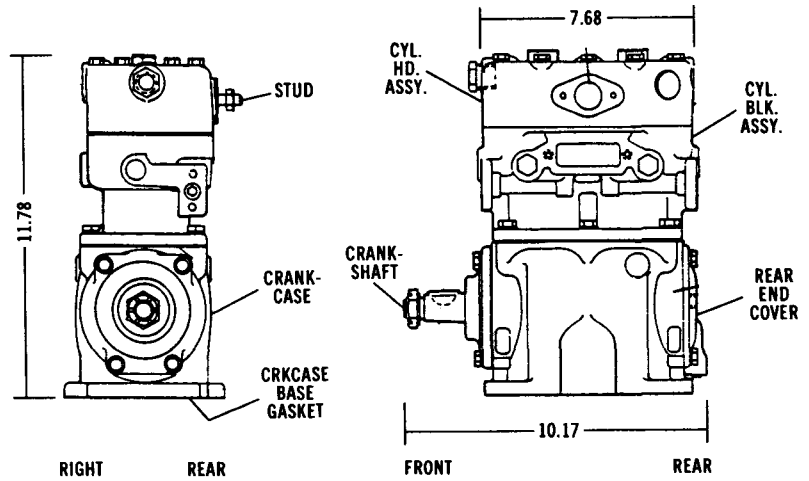
CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228239	228240

\*AIR COOLED  
\*\*WATER COOLED

**VERTICAL — ENGINE LUBE — WATER COOLED  
6 HOLE BASE**

**REMFR. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
226517	227332	ANY 227332 ON THIS SHEET	286531	280611	289847
227029	227331	ANY 227331 ON THIS SHEET	286578	280610	—
227207	227331	ANY 227331 ON THIS SHEET	286578	280610	—
227208	227332	ANY 227332 ON THIS SHEET	286531	280611	289847
227331*	227331	ANY 227331 ON THIS SHEET	286578	280610	—
227332*	227332	ANY 227332 ON THIS SHEET	286531	280611	289847
227791	227332	ANY 227332 ON THIS SHEET	286531	280611	289847
228093	228350	—	—	—	—
228094	228351	—	—	—	—
228267	227332	ANY 227332 ON THIS SHEET	286531	280611	289847
228270	227331	ANY 227331 ON THIS SHEET	286578	280610	—
228271	227208	—	286535	280611	289847
228350	228350	228093	—	—	—
228351	228351	228094	—	—	—
228917	229544	ANY 229544 ON THIS SHEET	286531	280611	289847
229031	227331	ANY 227331 ON THIS SHEET	286578	280610	—
229032	227332	ANY 227332 ON THIS SHEET	285969	280611	289847
229544	229544	ANY 229544 ON THIS SHEET	286531	280611	289847
276308	229544	ANY 229544 ON THIS SHEET	286531	280611	289847
276361	227332	—	—	280604	—
276597	229544	ANY 229544 ON THIS SHEET	286535	280589	—
276985	229544	ANY 229544 ON THIS SHEET	286535	280611	289847
277181	277181	—	286578	280610	—
277624	227332	ANY 227332 ON THIS SHEET	286535	280611	289847
277890	227331	ANY 227331 ON THIS SHEET	286578	280610	—
278342	227331	ANY 227331 ON THIS SHEET	286578	280610	—
278396	227332	ANY 227332 ON THIS SHEET	286535	280611	289847
278659	227331	ANY 227331 ON THIS SHEET	286578	280610	—
278790	227332	ANY 227332 ON THIS SHEET	286535	280611	289847
281085	229544	ANY 229544 ON THIS SHEET	286535	280611	289847
281909	227332	ANY 227332 ON THIS SHEET	286535	280611	289847
281975	227331	ANY 227331 ON THIS SHEET	285941	280610	—
283388	227331	ANY 227331 ON THIS SHEET	285928	280610	—
283391	229544	ANY 229544 ON THIS SHEET	286535	280611	289847
283644	283644	283646	285929	—	—
283646	283644	—	285925	—	—
284267	227332	ANY 227332 ON THIS SHEET	286535	280611	289847
285510	227332	ANY 227332 ON THIS SHEET	286535	280611	289847



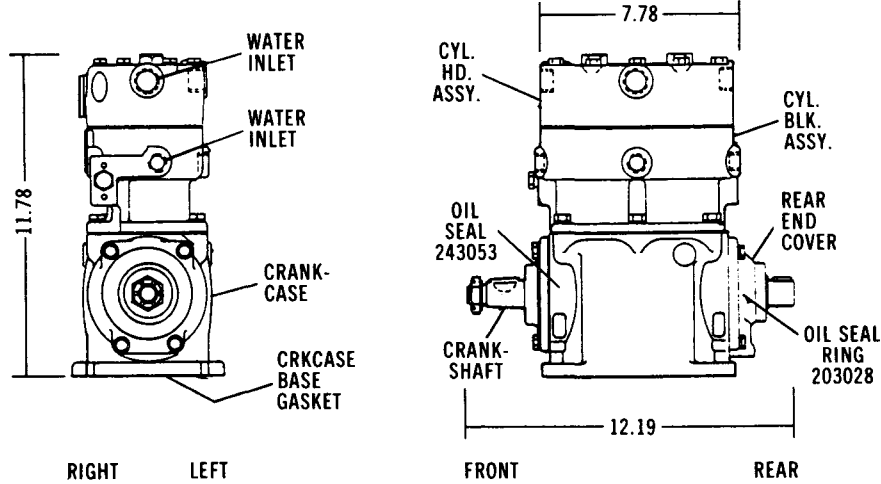
CYL. HD. ASSY.	CYL. BODY ASSY.	CYL. BLK. ASSY.	CYL. BODY ASSY.
226098	226315	226539	—
283615	283618	228238	228233
283641	283638		

NOTE: CONN. ROD MATL AND TYPE BEARINGS USED IN REMFR. EXCH. COMPRS. WILL BE AT BENDIX OPTION.  
\*REMFR. EXCH. PC. NOS.

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	AIR STR. OR INLET FIT.	STUD (HD.)	CRKCASE BASE GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES		CONN. ROD MATL	GOV.
									INLET ¼	OUTLET-SIZE				FRONT	REAR		
226517	283615	228238	227762	230916	230918	—	230672	235907	OPEN ½	RIGHT	RIGHT	RIGHT	R RR	BALL	BALL	ALUM	—
A227029	226098	226539	225887	230916	230918	—	212292	—	R FRT	FRT ¾	RIGHT	RIGHT	R RR	BALL	SLEEVE	ALUM	—
227207	SUPERSEDED BY 228271		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
227208	SUPERSEDED BY 228271		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
227331*	—	—	—	—	—	—	—	235907	—	—	—	—	—	—	—	—	—
227332*	—	—	—	—	—	—	—	235907	—	—	—	—	—	—	—	—	—
227791	SUPERSEDED BY 228267		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
228093	SUPERSEDED BY 228271		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
228094	SUPERSEDED BY 228351		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B228267	283615	228238	227762	230916	230918	—	230672	—	FRT & RR	RR ½	RIGHT	RIGHT	R RR	BALL	BALL	ALUM	—
228270	283615	228238	227762	230916	230918	—	235552	235907	OPEN	RR ½	LEFT	LEFT	L FRT	BALL	BALL	ALUM	—
228271	283615	228238	227762	230916	230918	—	235552	235907	OPEN	FRT & RR ½	RIGHT	RIGHT	R FRT	BALL	BALL	ALUM	—
C228350	283615	228238	235905	238453	236578	226469	230672	—	R RR	RR ½	LEFT	LEFT	L FRT	BALL	BALL	ALUM	—
228351	226098	228238	235905	238453	236578	226469	230672	—	OPEN	OPEN ½	LEFT	LEFT	R RR	BALL	BALL	ALUM	—
228917	283615	228238	235905	230916	231852	—	235552	—	OPEN	FRT & RR ¾	RIGHT	RIGHT	R FRT	BALL	BALL	ALUM	—
229031	226098	228238	229069	239388	239776	—	235552	235907	OPEN	RR ½	LEFT	LEFT	OPEN	BALL	SLEEVE	ALUM	—
229032	283615	228238	229070	239388	239776	—	235552	235907	OPEN	FRT & RR ½	RIGHT	RIGHT	OPEN	BALL	SLEEVE	ALUM	—
229544	226098	228238	235905	230916	236578	—	233798	235907	OPEN	OPEN ¾	RIGHT	RIGHT	OPEN	BALL	BALL	ALUM	—
276308	226098	228238	235905	230916	236578	—	230672	235907	OPEN	OPEN ¼	RIGHT	RIGHT	OPEN	BALL	BALL	ALUM	—
276361	226098	228238	227751	244461	276363	—	235464	—	OPEN	OPEN ¾	LEFT	LEFT	OPEN	BALL	BALL	ALUM	—
DE276597	226098	228238	235905	244461	275969	237670	233798	235907	LEFT	LEFT ½	RIGHT	RIGHT	R RR	BALL	SLEEVE	ALUM	—
EF276985	226098	228238	235905	230916	236578	—	233798	235907	LEFT	LEFT ¾	RIGHT	RIGHT	L RR	BALL	BALL	ALUM	—
EF277181	226098	228238	235905	244461	275969	—	233798	235907	RIGHT	RR ¾	LEFT	LEFT	R RR	BALL	SLEEVE	ALUM	—
277624	283615	228238	227762	244461	276363	—	230672	235907	L & L RR	FRT ¾	RIGHT	RIGHT	R RR	BALL	SLEEVE	ALUM	—
277890	283615	228238	227762	244461	276363	—	235464	235907	RIGHT	RR ½	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM	—
278342	283615	228238	227762	244461	276363	—	235552	235907	OPEN	RR ½	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM	276107
DE278396	226098	228238	227762	244461	276363	—	233798	235907	LEFT	LEFT ¾	RIGHT	RIGHT	R RR	BALL	SLEEVE	ALUM	—
278659	283615	228238	227762	244461	276363	—	230672	235907	RIGHT	RR ½	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM	—
G278790	283615	228238	227762	244461	276363	—	235464	—	L RR	RR ½	RIGHT	RIGHT	R FRT	BALL	SLEEVE	ALUM	—
G281085	283615	228238	235905	244461	275969	—	235464	235907	L RR	RR ½	RIGHT	RIGHT	R FRT	BALL	SLEEVE	ALUM	—
281909	283615	228238	246253	244461	276363	—	235552	235907	OPEN	FRT & RR ½	RIGHT	RIGHT	OPEN	BALL	SLEEVE	ALUM	—
281975	283615	228238	227762	244461	276363	—	235464	235907	R RR	RR ½	LEFT	LEFT	L FRT	BALL	SLEEVE	ALUM	—
283388	283615	228238	246253	244461	276363	—	—	—	OPEN	OPEN ¾	LEFT	LEFT	PLUGGED	BALL	SLEEVE	ALUM	—
283391	283615	228238	246253	244461	276363	—	—	235907	OPEN	OPEN ½	RIGHT	RIGHT	PLUGGED	BALL	SLEEVE	ALUM	—
283644	283641	228238	227762	244461	276363	—	—	—	OPEN	OPEN ½	RIGHT	TOP	PLUGGED	BALL	SLEEVE	ALUM	—
283646	283641	228238	227762	244461	276363	—	—	—	OPEN	OPEN ½	RIGHT	TOP	PLUGGED	BALL	SLEEVE	ALUM	—
284267	283615	228238	227762	244461	241356	—	230672	—	L & L RR	FRT ¾	RIGHT	RIGHT	R RR	BALL	SLEEVE	STEEL	—
F285510	283615	228238	235905	244461	276363	279900	233798	—	OPEN	OPEN ½	RIGHT	RIGHT	R RR	BALL	SLEEVE	ALUM	283277

- A—ADD COVER ADAPTER 237326
- B—ADD DRAIN COCK 237705
- C—ADD STR. ADAPTER 236701
- D—ADD DISCH. FITT. 224631
- E—ADD STR. PLATE 238948
- F—ADD DISCH. FITT. 213042
- G—ADD SPACER 204773

**VERTICAL—ENGINE LUBE—WATER COOLED  
6 HOLE BASE—THRU DRIVE**



TF-500 COMPR. PC. NO.	STD REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
226535	226535	—	—	280600	—
226654	228268	227792	—	280616	—
227792	228268	226654	—	280616	—
228268	228268	226654	—	280616	—
275700	275700	—	—	—	—
283664	283664	283666	285929	—	—
283666	283664	—	285929	—	—
285312	275700	—	—	—	—

NOTE: CONN. ROD MATL. AND TYPE BEARINGS USED IN REMFR. EXCH. COMPR. WILL BE AT BENDIX OPTION.

**SUB ASSY. AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD ASSY.	CYL. BLK. ASSY.	CRANK- CASE	CRANK SHAFT	REAR END COVER	AIR STR. OR INLET FIT.	GOV.	STUD (HD)	CRANK- CASE BASE GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH LOCATION	GOV. PORT POSITION
										INLET 3/8	OUTLET-SIZE			
226535	226098	227465	226572	236660	236661	226469	—	230672	—	R FRT	FRT 3/8	LEFT	LEFT	REAR
226654	226098	228238	225887	234493	234492	—	—	—	—	OPEN	OPEN 3/8	LEFT	LEFT	PLGD
227792	SUPERSEDED BY 228268													
A228268	283615	228238	227763	234493	234492	—	—	233798	—	R FRT	FRT 1/2	LEFT	LEFT	L RR
275700	226098	228238	235905	234744	236670	226469	226431	230672	235907	L RR	FRT 3/8	LEFT	LEFT	L RR
283664	283615	228238	227822	238097	236661	—	—	—	235907	OPEN	OPEN 1/2	RIGHT	RIGHT	PLGD
283666	283615	228238	227822	238097	236661	—	—	—	235907	OPEN	OPEN 1/2	RIGHT	RIGHT	PLGD
285312	283615	228238	235905	234744	236670	226469	276100	230672	235907	L RR	FRT 3/8	LEFT	LEFT	L RR

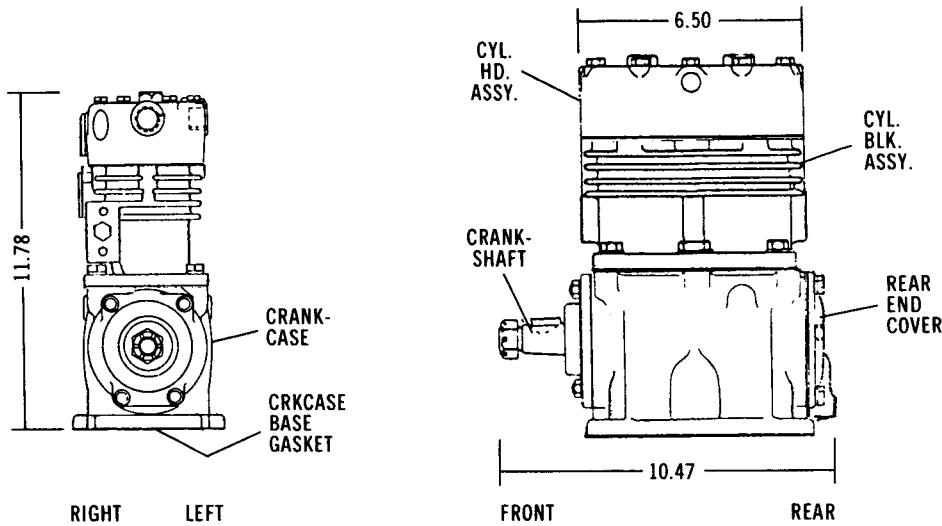
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A—ADD DRAIN COCK 237705. ADD STR. PLATE 238948

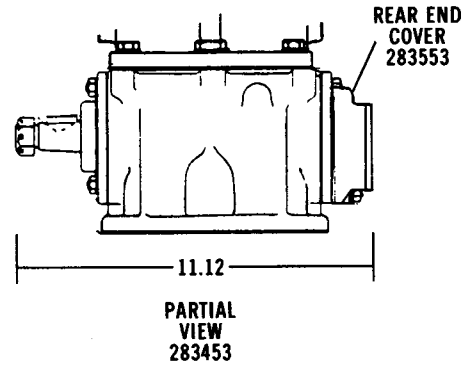
CYL. HD. ASSY.	CYL. HD. BODY ASSY.
226098	226315
283615	283618

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
227645	—
228238	228233

**VERTICAL—ENGINE LUBE—WATER COOLED HD.  
AIR COOLED BLK.—6 HOLE BASE**



TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
279072	279072	283449, 283450	—	280283	—
280280	280280	283446, 283447	—	280284	—
283446	280280	283447	—	280284	—
283447	280280	283446	—	280284	—
283449	279072	283450	—	280283	—
283450	279072	283449	—	280283	—
283453	283453	—	—	—	—



**SUB ASSY. AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	STUD (HD)	CRANK- CASE BASE GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION
								INLET-SIZE	OUTLET-SIZE			
279072	275337	228239	227762	244461	276363	230672	235907	OPEN 3/8	OPEN 3/8	RIGHT	RIGHT	R FRT
280280	275337	228239	227762	244461	276363	230672	235907	OPEN 3/8	OPEN 3/8	LEFT	LEFT	L RR
283446	283616	228239	247711	244461	281161	—	235907	OPEN 1/2	OPEN 1/2	LEFT	LEFT	L FRT
283447	283616	228239	247711	244461	281161	—	235907	OPEN 1/2	OPEN 1/2	LEFT	LEFT	L FRT
283449	283616	228239	247711	244461	281161	—	235907	OPEN 1/2	OPEN 1/2	RIGHT	RIGHT	R FRT
283450	283616	228239	247711	244461	281161	—	235907	OPEN 1/2	OPEN 1/2	RIGHT	RIGHT	R FRT
A283453	283616	228239	247712	245462	283553	—	235907	OPEN 1/2	OPEN 1/2	RIGHT	RIGHT	OPEN

A—TACH DRIVE (REAR) — SEE PARTIAL VIEW — ADD 245463 TACH. COVER, 245461 HELIX DRIVE GEAR, 244440 RETAINING RING, 214901 KEY AND 281087 HELIX DRIVEN GEAR.

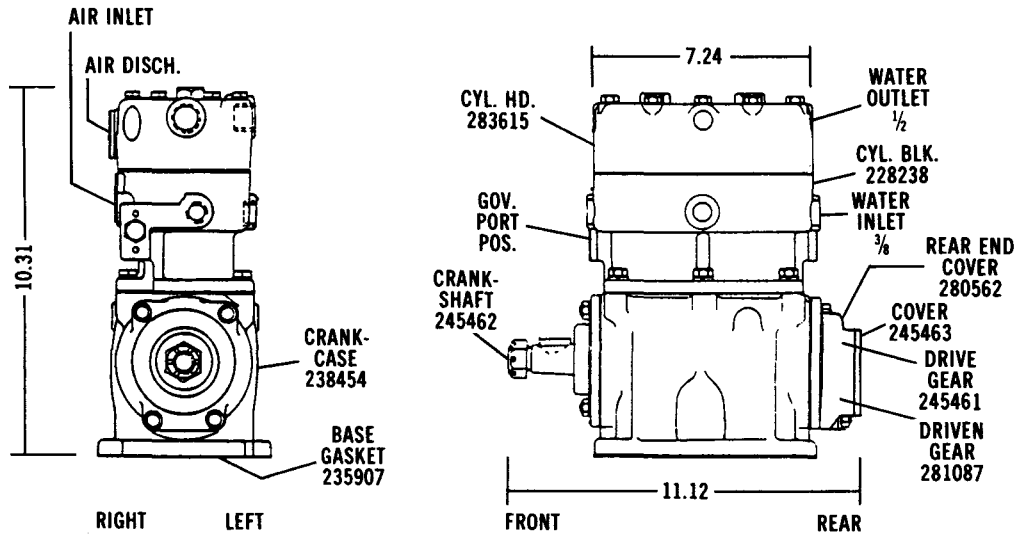
CYL. HD. ASSY.	CYL. HD. BODY ASSY.
275337	275338
283616	283619

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228239	228240





VERTICAL—ENGINE LUBE—WATER COOLED  
6 HOLE BASE & TACH DRIVE

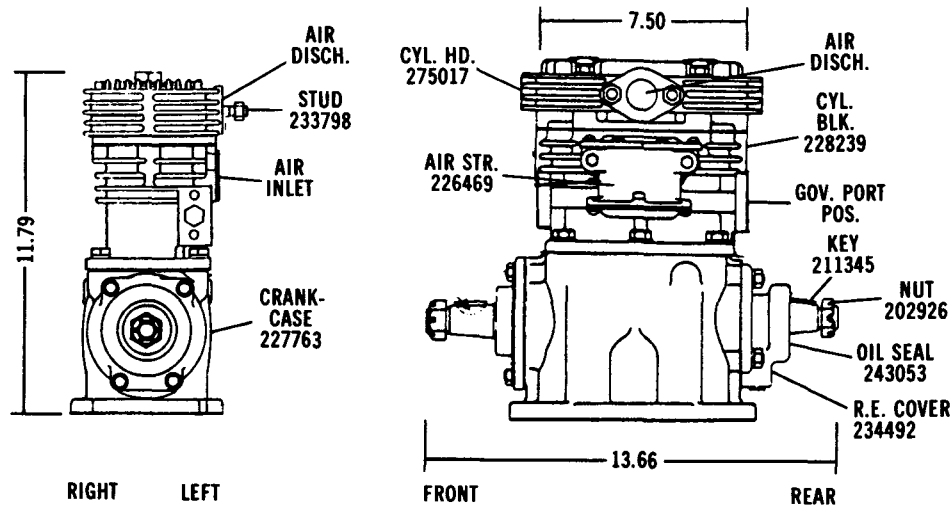


REMFR. EXCH. AND CHANGEOVER SELECTIONS

PC. NO. 281086

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
281086	281086	—	285943	281533	—
285157	285157	—	—	—	—

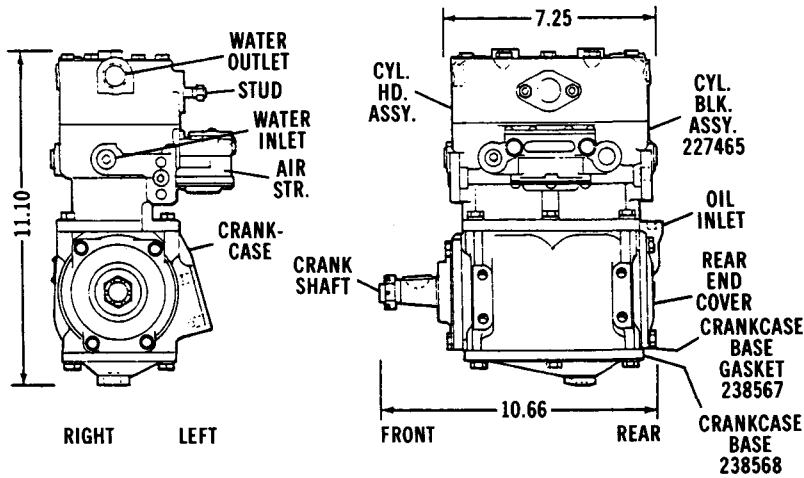
VERTICAL — ENGINE LUBE — AIR COOLED  
6 HOLE BASE — THRU DRIVE



PC. NO. 285157

PRINTED IN U.S.A.

**FORD SIDE MOUNT—ENGINE LUBE—WATER COOLED**



**REMFR. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
228153	228366	ANY 228366 ON THIS SHEET	286556	280620	—
228366	228366	ANY 228366 ON THIS SHEET	286556	280620	—
275804	228366	ANY 228366 ON THIS SHEET	286556	283662	—
277128	228366	ANY 228366 ON THIS SHEET	286556	283662	—
279252	279252	—	—	280446	—
280388	228366	ANY 228366 ON THIS SHEET	286556	283662	—
281146	228366	ANY 228366 ON THIS SHEET	286556	283662	—
281469	283585	ANY 283585 ON THIS SHEET	286016	282853	—
281603	283585	ANY 283585 ON THIS SHEET	286012	283662	—
283047	283514	ANY 283514 ON THIS SHEET	286009	—	—
283064	283585	ANY 283585 ON THIS SHEET	286008	283662	—
283514	283514	ANY 283514 ON THIS SHEET	286010	—	—
283585	283585	ANY 283585 ON THIS SHEET	285868	283662	—
284072	283585	ANY 283585 ON THIS SHEET	286556	283662	—
284138	283585	ANY 283585 ON THIS SHEET	286556	283662	—
284761	283585	ANY 283585 ON THIS SHEET	286011	283662	—
284762	283585	ANY 283585 ON THIS SHEET	286012	283662	—
285601	285601	—	286014	—	—
285736	283585	ANY 283585 ON THIS SHEET	286015	283662	—
285737	283585	ANY 283585 ON THIS SHEET	286016	283662	—

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
226098	226315
283615	283618
283641	283638

**SUB ASSY. AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	AIR STR. OR INLET FITTING	GOV.*	STUD (HD)	CRANK- CASE COVER	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES	
									INLET ¾	OUTLET-SIZE				FRONT	REAR
228153	SUPERSEDED BY 228366													—	—
AB228366	226098	238565	238566	240466	226469	226431	233798	238568	R RR	FRT ¾	RIGHT	RIGHT	R FRT	BALL	BALL
AB275804	283615	238565	244494	275979	226469	277192	233798	238568	R RR	FRT ½	RIGHT	RIGHT	R FRT	BALL	SLEEVE
277128	226098	238565	244494	277571	226469	276102	233798	243336	LEFT	FRT ½	RIGHT	RIGHT	R FRT	BALL	SLEEVE
279252	283615	238565	244494	277571	226469	—	233798	243336	L RR	FRT ½	LEFT	LEFT	L RR	BALL	SLEEVE
280388	226098	238565	244494	277571	226469	276336	233798	243336	LEFT	FRT ½	RIGHT	RIGHT	R RR	BALL	SLEEVE
B241146	283615	238565	244494	277571	226469	276336	233798	243336	LEFT	FRT ½	RIGHT	RIGHT	R RR	BALL	SLEEVE
A281469	283615	238565	244499	277571	226469	276380	233798	246101	LEFT	FRT ½	RIGHT	RIGHT	R FRT	BALL	SLEEVE
281603	283615	242241	244494	277571	226469	276336	233798	246101	LEFT	FRT ¾	RIGHT	RIGHT	R RR	BALL	SLEEVE
C283047	283615	242241	244494	284041	—	276336	233798	243336	L RR	FRT ¾	LEFT	LEFT	L RR	BALL	SLEEVE
ADE283064	283615	242241	244494	277571	—	276380	233798	246101	L FRT	FRT ¾	RIGHT	RIGHT	R FRT	BALL	SLEEVE
C283514	283615	242241	244494	284041	—	276336	233798	243336	L RR	FRT ¾	LEFT	LEFT	R RR	BALL	SLEEVE
ADE283585	283615	242241	244494	277571	—	276380	233798	246101	L FRT	FRT ¾	RIGHT	RIGHT	R FRT	BALL	SLEEVE
A284072	283615	242241	244494	277571	226469	276380	233798	246101	LEFT	FRT ½	RIGHT	RIGHT	R FRT	BALL	SLEEVE
A284138	283615	242241	244494	277571	226469	276380	233798	246101	LEFT	FRT ½	RIGHT	RIGHT	R FRT	BALL	SLEEVE
284761	283615	242241	244494	277571	226469	276336	233798	246101	LEFT	FRT ½	RIGHT	RIGHT	R RR	BALL	SLEEVE
284762	283615	242241	244494	277571	226469	276336	233798	246101	LEFT	FRT ½	RIGHT	TOP	R RR	BALL	SLEEVE
285601	283641	242241	244494	277571	226469	276336	—	246101	LEFT	FRT ½	RIGHT	TOP	R RR	BALL	SLEEVE
DE285736	283615	242241	244494	277571	—	—	233798	246101	L RR	FRT ½	RIGHT	RIGHT	R RR	BALL	SLEEVE
DE285737	283615	242241	244494	277571	—	—	233798	246101	L RR	FRT ½	RIGHT	RIGHT	R RR	BALL	SLEEVE

A—ADD GOVERNOR ADAPTER 228154

D—ADD DISCH. FITT. 213042

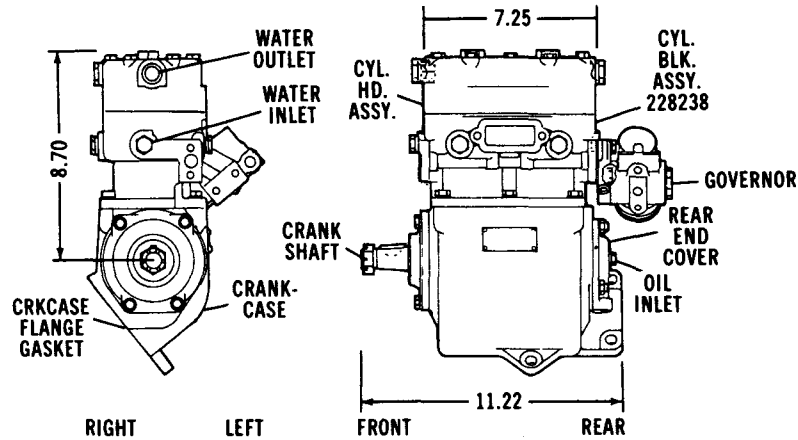
\*GOV. 226431 IS OBS. TYPE "D" — SEE CATALOG 01-A-1 FOR CURRENT TYPE D-2.

B—ADD BRACKET 281141 & THREE (3) SPACER 245535

E—ADD INLET FITT. 241340 & STR. PLATE 238948

C—ADD STRAINER PLATE 238948

**FORD OFFSET — ENGINE LUBE — WATER COOLED**



**REMF. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMF. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
227451	229078	228192, 228367, 228368	286007	280950	—
228192	229078	227451, 228367, 228368	286007	280950	—
228367	229078	227451, 228192, 228368	286007	280950	—
228368	229078	227451, 228192, 228367	286007	290950	—
229078	229078	227451, 228192, 228367	286007	280950	—
275260	229078	275806, 280387, 282044	286007	280950	—
275806	229078	275260, 280387, 282044	286007	280950	—
280387	229078	275260, 275806, 282044	286007	280950	—
282044	229078	275260, 275806, 280387	286007	280950	—
282597	283513	— —	285927	—	—
283513	283513	— —	285876	—	—

**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	AIR STR.	GOV.*	CRKCASE FLANGE GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES	
								INLET 3/8	OUTLET-SIZE				FRONT	REAR
227451	SUPERSEDED BY 228367		—	—	—	—	—	—	—	—	—	—	—	—
228192	SUPERSEDED BY 228368		—	—	—	—	—	—	—	—	—	—	—	—
A228367	227453	237694	237704	237873	226469	—	238571	FRT	R RR 3/8	LEFT	TOP	L RR	BALL	BALL
228368	227453	237694	237704	237873	226469	—	238571	FRT	R RR 3/8	LEFT	TOP	L RR	BALL	BALL
229078	227453	237694	237704	237873	—	—	245298	FRT	R RR 3/8	LEFT	TOP	L RR	BALL	BALL
B275260	227453	237694	237704	237873	—	226363	245298	FRT	R RR 3/8	LEFT	TOP	L RR	BALL	BALL
B275806	283641	237694	241072	275955	—	276103	245298	R RR	FRT 1/2	LEFT	TOP	L RR	BALL	SLEEVE
B280387	283641	241071	241072	275955	—	276380	245298	R RR	FRT 1/2	LEFT	TOP	L RR	BALL	SLEEVE
B282044	283641	241071	241072	275955	—	287790	245298	R RR	FRT 1/2	LEFT	TOP	L RR	BALL	SLEEVE
B282597	283641	241071	241072	275955	—	—	245298	R RR	FRT 1/2	LEFT	TOP	L RR	BALL	SLEEVE
B283513	283641	241071	241072	275955	—	276108	245298	R RR	FRT 1/2	LEFT	TOP	L RR	BALL	SLEEVE

A—ADD STRAINER ADAPTER 237698  
 B—ADD GOVERNOR ADAPTER 275191

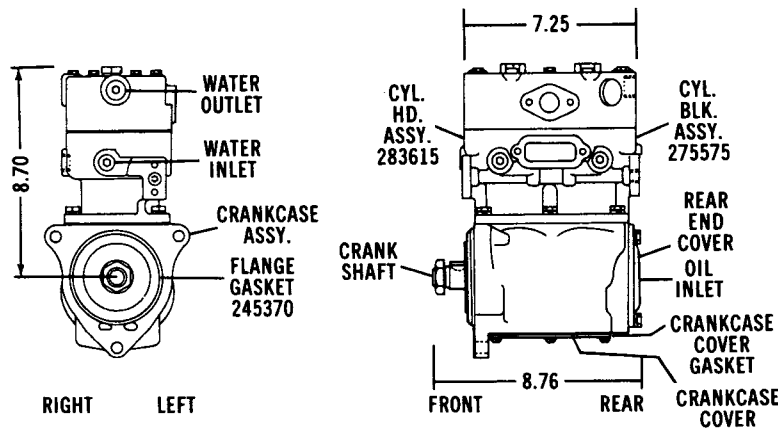
\*GOV. 226363 IS OBS. TYPE "D" —  
 SEE 01-A-1 FOR CURRENT  
 TYPE D-2.

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
227453	227454
283641	283638

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228238	228233

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**MACK STANDARD FLANGE — ENGINE LUBE WATER COOLED**



**REMFR. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
277122	277122	ANY 277122 ON THIS SHEET	286574	280860	289348
283577	283577	— —	—	—	—
283692	283692	— —	—	—	—
283784	277122	ANY 277122 ON THIS SHEET	286574	280860	289348
283785	277122	ANY 277122 ON THIS SHEET	286574	280860	289348
284405	277122	ANY 277122 ON THIS SHEET	286574	280860	289348
284406	277122	ANY 277122 ON THIS SHEET	286574	280860	289348
285128	277122	ANY 277122 ON THIS SHEET	286574	280860	289348
285129	277122	ANY 277122 ON THIS SHEET	286574	280860	289348
285717	277122	ANY 277122 ON THIS SHEET	286574	280860	289348
285718	277122	ANY 277122 ON THIS SHEET	286574	280860	289348

**SUB ASSY AND DETAIL REFERENCE**

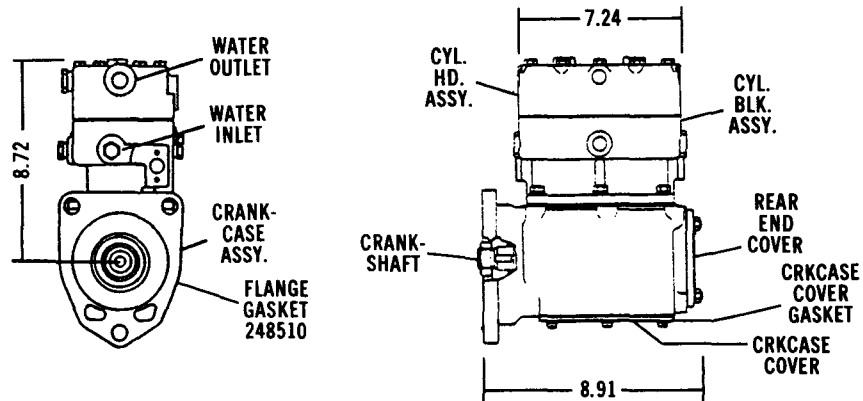
TF-500 COMPR. PC. NO.	CRANK-CASE	CRANK-SHAFT	REAR END COVER	AIR STR. OR INLET FITT.(F)	GOV.	STUD (HD.)	CRANK-CASE COVER	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	BEARING TYPES		CONN. ROD MATL	GOV. PORT POSITION
									INLET 3/4	OUTLET 1/2			FRONT	REAR		
277122	240737	240739	275577	—	—	—	243324	243323	RIGHT	RIGHT	LEFT	LEFT	BALL	SLEEVE	ALUM	L RR
283577	240737	240739	275577	246691(F)	276101	—	283609	243323	FRONT	LEFT	RIGHT	RIGHT	BALL	SLEEVE	ALUM	R FRT
283692	240737	240739	275577	279900	—	230672	283921	292366	FRONT	FRONT	RIGHT	RIGHT	BALL	SLEEVE	ALUM	R RR
283784	240737	240739	275577	—	—	—	243324	292366	RIGHT	REAR	LEFT	LEFT	BALL	SLEEVE	ALUM	L RR
283785	240737	240739	275577	—	—	—	243324	292366	RIGHT	REAR	LEFT	LEFT	BALL	SLEEVE	ALUM	L RR
284405	248580	240739	275969	—	—	—	243324	243323	RIGHT	RIGHT	LEFT	LEFT	BALL	SLEEVE	ALUM	L RR
284406	248580	240739	275969	—	—	—	243324	243323	RIGHT	RIGHT	LEFT	LEFT	BALL	SLEEVE	ALUM	L RR
285128	285109	240739	275969	—	—	—	243324	243323	RIGHT	REAR	LEFT	LEFT	BALL	SLEEVE	STEEL	L RR
285129	285109	240739	275969	—	—	—	243324	243323	RIGHT	REAR	LEFT	LEFT	BALL	SLEEVE	STEEL	L RR
285717	248580	249826	236578	—	—	—	243324	243323	R FRT	REAR	LEFT	LEFT	BALL	SLEEVE	STEEL	L RR
285718	248580	249826	236578	—	—	—	243324	243323	R FRT	REAR	LEFT	LEFT	BALL	SLEEVE	STEEL	L RR

A—ADD STRAINER PLATE 238948  
B—ADD DISCHARGE FITT. 220071

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
283615	283618

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
275575	275576

**MACK/CAT FLANGE — ENGINE LUBE — WATER COOLED**



**REMFR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
226090	227326	SUPERSEDED BY 226466	286526	280602	—
226466	227326	SUPERSEDED BY 228355	—	280608	—
226467	227326	—	—	280608	—
226468	227326	—	—	280608	—
226576	227326	—	—	280608	—
226777	227327	SUPERSEDED BY 228349	—	—	—
227326*	227326	—	—	280608	—
227327*	227327	—	—	—	—
228117	228352	SUPERSEDED BY 228352	—	—	—
228349	227327	—	—	—	—
228352	228352	—	—	—	—
228355	227326	—	—	280608	—
228988	227326	—	—	280608	—
229458	227326	—	—	280608	—
229768	227326	—	—	280608	—
275059	227326	—	286528	280605	—
276257	227326	—	—	280608	—
276306	227327	—	—	—	—
276765	227326	279995	—	280608	—
277738	227327	—	—	280774	—
277739	277739	—	—	280522	—
279995	279995	279996, 279997, 283332, 285335	286550	280556	—
279996	279995	279995, 279997, 285324, 285335	286550	280556	—
279997	279995	279996, 283332, 285334, 285335	286550	280556	—
281021	281021	284008, 284009	—	281051	—
282023	282023	282217, 282263	286551	281157	—
282217	282023	282263	286551	281157	—
282263	282023	282217	286551	281157	—
283332	279995	279995, 279996, 279997, 284023	286550	280556	—
283404	283996	283405, 283995	—	—	—
283405	283996	283404, 283995	286020	—	—
283791	227326	—	—	280608	—
283792	227326	—	—	280608	—
283815	227326	—	—	—	—
283816	227326	—	—	—	—
283995	283996	283404, 283405	286019	—	—
283996	283996	283404, 283405	286020	—	—
284008	281021	284009	—	281051	—
284009	281021	284008	—	281051	—
284023	279995	279996, 279997, 284024	286025	280556	—
284024	279995	279996, 279997, 284024	286550	284022	—
284179	284260	284309, 284310, 285332, 285333	—	—	—
284260	284260	284309, 284310, 285332, 285333	—	—	—
284309	284260	284179, 284309, 284310	286027	—	—
284310	284260	284179, 284309	286028	—	—
284324	227326	—	—	280608	—
284325	227326	—	—	280608	—
284937	279995	279996, 285331, 285334, 285335	286550	280556	—
285331	279995	279996, 285331, 285334, 285335	—	—	—
285332	284260	285333, 286653, 286654	286027	—	—
285333	284260	284309, 284310, 285333, 286653	286027	—	—
285334	279995	279996, 279997, 285335, 286492	286025	—	—
285335	279995	279996, 279997, 285334, 286492	286026	—	—
286492	279995	279996, 279997, 285335	—	—	—
286653	284260	284654 ONLY	286030	—	—
286654	284260	284653 ONLY	286031	—	—

TF-500 PC. NO.	SUPERSEDED BY
226090	226466
226466	228355
228117	228352
228949	229562
276777	228349
281021	284009
283405	283996
283606	284003

\*REMFR. EXCH. PC. NOS.

SERVICE PARTS INFORMATION  
SHOWN ON PAGES 01-D-2 AND 3.

**MACK/CAT FLANGE — ENGINE LUBE — WATER COOLED**

**SUB ASSY AND DETAIL REFERENCE**

TF-500 PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE ASSY.	CRANK- SHAFT	REAR END COVER	AIR STR. OR FITTING	GOV.*	DISCH. STUD OR CAP SCREW	CRANK- CASE COVER	C.C. COVER GASKET	CONN. ROD MATERIAL	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT LOCATION	OIL INLET LOCATION	BEARING TYPES	
												INLET 1/2	OUTLET					FRONT	REAR
226467	226098	228238	237422	231262	231265	—	—	—	214789	235418	ALUM	FRT & RR	FRT & RR 3/8	RIGHT	RIGHT	REAR	REAR	BALL	BALL
226468	226098	228238	237422	231262	231265	—	—	D	214789	235418	ALUM	FRT & RR	FRT & RR 3/8	RIGHT	RIGHT	REAR	REAR	BALL	BALL
226576	226098	228238	237422	231262	231265	—	226363	—	214789	235418	ALUM	OPEN	OPEN 3/8	RIGHT	RIGHT	FRONT	REAR	BALL	BALL
227326*	—	—	—	—	—	—	—	—	—	—	—	OPEN	OPEN	RIGHT	RIGHT	OPEN	REAR	—	—
227327*	—	—	—	—	—	—	—	—	—	—	—	OPEN	OPEN	LEFT	LEFT	OPEN	REAR	—	—
A228349	226098	228238	237422	231262	231265	—	226363	—	214789	235418	ALUM	REAR	FRT 3/8	LEFT	LEFT	L RR	REAR	BALL	BALL
A228352	226098	228238	237422	238484	231265	—	226363	—	214789	235418	ALUM	REAR	FRT 3/8	LEFT	LEFT	REAR	REAR	BALL	BALL
B228355	226098	228238	237422	231262	231265	226469	—	—	214789	235418	STEEL	FRT & RR	FRT & RR 3/8	RIGHT	RIGHT	REAR	REAR	BALL	BALL
228988	226098	228238	237422	231262	231265	226469	—	—	214789	235418	ALUM	RR & FRT	FRT & RR 3/8	RIGHT	RIGHT	REAR	REAR	BALL	BALL
229458	226098	228238	237422	231262	231265	—	—	—	214789	235418	ALUM	RR & FRT	FRT & RR 3/8	RIGHT	RIGHT	REAR	REAR	BALL	BALL
B229768	226098	228238	237422	231262	231265	—	—	—	214789	235418	STEEL	FRT & RR	FRT & RR 3/8	RIGHT	RIGHT	REAR	REAR	BALL	BALL
275059	226098	228238	227749	231262	231265	—	—	—	214789	235418	ALUM	FRT & RR	FRT & RR 3/8	RIGHT	RIGHT	REAR	REAR	BALL	BALL
276257	226098	228238	275431	240578	275969	—	—	—	214789	235418	ALUM	FRT & RR	FRT & RR 3/8	RIGHT	RIGHT	REAR	REAR	SLEEVE	SLEEVE
276306	283615	228238	275431	244091	241054	—	—	—	214789	235418	ALUM	OPEN	OPEN 1/2	LEFT	LEFT	REAR	REAR	SLEEVE	SLEEVE
276765	226098	228244	275431	240578	275969	—	—	—	214789	235418	ALUM	FRT & RR	FRT & RR 3/8	RIGHT	RIGHT	R FRT	REAR	SLEEVE	SLEEVE
277738	283615	228238	275431	244091	275969	—	—	—	214789	292332	ALUM	OPEN	OPEN 3/8	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
277739	283641	228238	275431	244091	275969	—	—	—	214789	235418	ALUM	OPEN	OPEN 1/2	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
279995	283615	228238	275431	244723	276127	—	—	—	243598	235418	ALUM	OPEN	OPEN 3/8	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
279996	283615	228238	275431	244723	276127	—	—	—	243598	235418	ALUM	OPEN	OPEN 3/8	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
279997	283615	228238	275431	244723	276127	—	—	—	243598	235418	ALUM	OPEN	OPEN 3/8	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
282023	283615	228238	275431	244723	276127	—	—	—	243598	292332	ALUM	OPEN	OPEN 1/2	RIGHT	RIGHT	R RR	REAR	SLEEVE	SLEEVE
282217	283615	228238	275431	244723	276127	—	—	—	243598	235418	ALUM	OPEN	OPEN 1/2	RIGHT	RIGHT	R RR	REAR	SLEEVE	SLEEVE
282263	283615	228238	275431	244723	276127	—	—	—	243598	235418	ALUM	OPEN	OPEN 1/2	RIGHT	RIGHT	RIGHT	REAR	SLEEVE	SLEEVE
283332	283615	228238	284026	244723	276127	279900	—	—	243598	235418	ALUM	OPEN	OPEN 1/2	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
283404	226098	228238	231268	247550	275969	—	—	230992	243598	235418	ALUM	LEFT	FRT 1/2	RIGHT	RIGHT	R FRT	REAR	SLEEVE	SLEEVE
283791	283615	228238	275431	240578	275969	—	—	—	214789	292332	ALUM	FRT & RR	FRT & RR 1/2	RIGHT	RIGHT	R RR	REAR	SLEEVE	SLEEVE
283792	283615	228238	275431	240578	275969	—	—	—	214789	292332	ALUM	FRT & RR	FRT & RR 1/2	RIGHT	RIGHT	R RR	REAR	SLEEVE	SLEEVE
283815	283615	228238	231268	231262	231265	—	—	—	214789	235418	ALUM	REAR	FRT 3/8	RIGHT	RIGHT	R RR	REAR	BALL	BALL
283816	283615	228238	231268	231262	231265	—	—	—	214789	235418	ALUM	REAR	FRT 3/8	RIGHT	RIGHT	R RR	REAR	BALL	BALL
C283995	283615	228238	231268	247550	275969	—	—	230992	243598	292332	ALUM	LEFT	FRT 1/2	RIGHT	RIGHT	R FRT	REAR	BALL	SLEEVE
C283996	283615	228238	231268	247550	275969	—	—	230992	243598	292332	ALUM	LEFT	FRT 1/2	RIGHT	RIGHT	R FRT	REAR	BALL	SLEEVE
284008	283641	228238	275431	244091	275969	279900	—	—	243598	292332	ALUM	OPEN	OPEN 1/2	RIGHT	TOP	R RR	REAR	SLEEVE	SLEEVE
284009	283641	228238	275431	244091	275969	279900	—	—	243598	292332	ALUM	OPEN	OPEN 1/2	RIGHT	TOP	R RR	REAR	SLEEVE	SLEEVE
284023	283615	228238	284026	244723	276127	—	—	—	243598	292332	ALUM	OPEN	OPEN 1/2	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
284024	283615	228238	284026	244723	276127	—	—	—	243598	292332	ALUM	OPEN	OPEN 1/2	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
EF284179	283641	228238	275431	244723	276114	279900	276108	—	243598	235418	ALUM	REAR	REAR 1/2	RIGHT	TOP	R FRT	REAR	SLEEVE	SLEEVE
EF284260	283641	228238	275431	244723	276114	279900	276108	—	243598	235418	ALUM	REAR	REAR 1/2	RIGHT	TOP	R FRT	REAR	SLEEVE	SLEEVE
284309	283641	228238	275431	244723	275969	—	—	—	243598	292332	ALUM	FRT	REAR 1/2	RIGHT	TOP	R RR	REAR	SLEEVE	SLEEVE
284310	283641	228238	275431	244723	275969	—	—	—	243598	292332	ALUM	FRT	REAR 1/2	RIGHT	TOP	R RR	REAR	SLEEVE	SLEEVE
284324	283615	228238	231468	231262	231265	226469	—	—	214789	292332	ALUM	REAR	FRT 1/2	RIGHT	RIGHT	R RR	REAR	BALL	BALL
284325	283615	228238	231468	231262	231265	226469	—	—	214789	292332	ALUM	REAR	FRT 1/2	RIGHT	RIGHT	R RR	REAR	BALL	BALL
G284937	283615	228238	284026	244723	276127	276091	—	—	243598	235418	ALUM	OPEN	OPEN 1/2	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
285331	283615	228238	284026	244723	276127	279900	—	—	243598	235418	ALUM	OPEN	OPEN 1/2	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
285332	283641	228238	275431	244723	275969	—	—	—	243598	235418	ALUM	OPEN	OPEN 1/2	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
285333	283641	228238	275431	244723	275969	—	—	—	243798	235418	STEEL	OPEN	RR 1/2	RIGHT	RIGHT	R RR	REAR	SLEEVE	SLEEVE
285334	283615	228238	284026	244723	276127	—	—	—	243598	235418	STEEL	OPEN	OPEN 1/2	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
285335	283615	228238	284026	244723	276127	—	—	—	243598	235418	STEEL	OPEN	OPEN 1/2	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
286492	283615	228238	284026	244723	276127	—	—	—	243598	292332	STEEL	L FRT	REAR 1/2	LEFT	LEFT	L RR	REAR	SLEEVE	SLEEVE
286653	283641	228238	275431	244723	275969	—	—	—	—	—	ALUM	FRT	REAR 1/2	RIGHT	TOP	R RR	REAR	SLEEVE	SLEEVE
286654	283641	228238	275431	244732	275969	—	—	—	—	—	ALUM	FRT	REAR 1/2	RIGHT	TOP	R RR	REAR	SLEEVE	SLEEVE

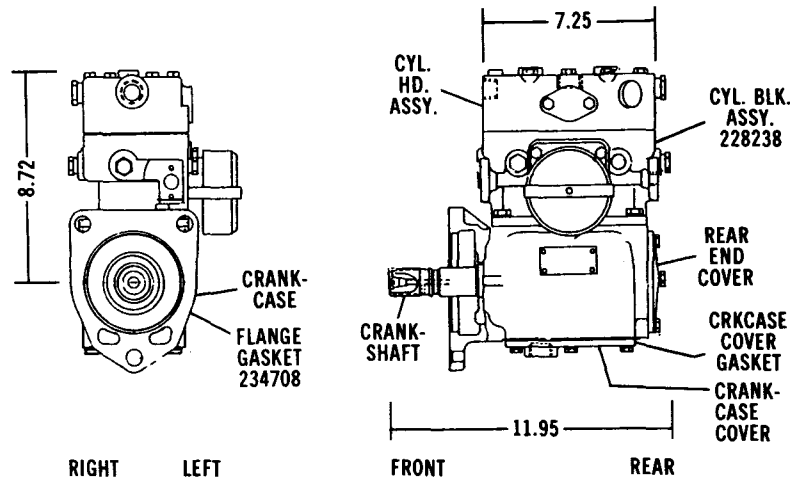
A—ADD GOV. GASKET 236577, TWO (2) C.S. 203847, TWO (2) L.W. 237648.  
 B—ADD OIL SEAL 230425.  
 C—ADD DISCH. FITTING 237438 & TWO (2) L.W. 237648.  
 D—ADD TWO (2) C.S. 243411 & STR. GASKET 243430.  
 E—ADD GOV. ADAPTER 283072, ONE (1) C. SCREW 237315, ONE (1) C. SCREW 237687, TWO (2) C.S. 240910 & TWO (2) GASKET 236577.  
 F—ADD ONE (1) GASKET 236170, ONE (1) STR. PLATE 238948 & TWO (2) C.S. 240730.

\*GOV. 226363 IS OBS. TYPE "D" — SEE CATALOG 01-A-1 FOR CURRENT D-2.

CYL. HD. ASSY.	CYL. BLK. BODY ASSY.
226098	236318
283615	283618
283641	233638

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228238	228233
228244	228245

**MACK/CAT FLANGE — ENGINE LUBE — WATER COOLED**



**REMFR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
276236	277730	ANY 277730 ON THIS SHEET	286549	—	—
276584	277731	ANY 277731 ON THIS SHEET	286029	282025	—
277730	277730	ANY 277730 ON THIS SHEET	286549	—	—
277731	277731	ANY 277731 ON THIS SHEET	286029	282025	—
278810	277730	ANY 277730 ON THIS SHEET	286549	—	—
278811	277731	ANY 277731 ON THIS SHEET	286029	282025	—
281488	277730	ANY 277730 ON THIS SHEET	286549	—	—
284005	277730	ANY 277730 ON THIS SHEET	286023	—	—
284006	277730	ANY 277730 ON THIS SHEET	286024	—	—
284012	277731	ANY 277731 ON THIS SHEET	286029	282025	—
285130	285131	ANY 277731 ON THIS SHEET	286029	282025	—
285131	285131	ANY 277731 ON THIS SHEET	286029	282025	—

**SUB ASSY AND DETAIL REFERENCE**

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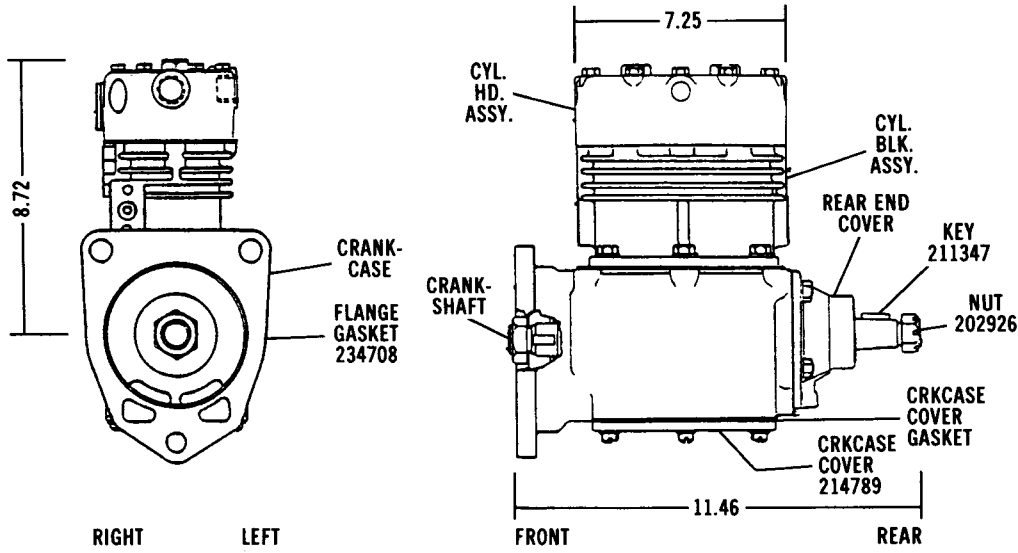
TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	GOV.	STUD (HD.)	CRANK- CASE COVER	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES	
									INLET ½	OUTLET-SIZE				FRONT	REAR
276236	283615	231268	241339	231265	276336	230992	214789	235418	REAR	FRT ½	RIGHT	RIGHT	R RR	BALL	BALL
276584	283615	237422	241339	231265	277192	230992	214789	235418	REAR	FRT ½	LEFT	LEFT	L RR	BALL	BALL
277730	283615	231268	241339	231265	—	230992	214789	235418	OPEN	OPEN ½	RIGHT	RIGHT	R RR	BALL	BALL
277731	283615	231268	241339	231265	277192	230992	214789	292332	REAR	FRT ½	LEFT	LEFT	L RR	BALL	BALL
278810	283615	231268	244502	275969	276336	—	243598	235418	L & RR	OPEN ½	RIGHT	RIGHT	OPEN	SLEEVE	SLEEVE
278811	283615	231268	245843	275969	277192	230992	243598	235418	L & RR	OPEN ½	LEFT	LEFT	R FRT	SLEEVE	SLEEVE
281488	283615	231268	245843	275969	276336	230992	243598	235418	OPEN	OPEN ½	RIGHT	RIGHT	R RR	BALL	SLEEVE
284005	283615	231268	245843	275969	276336	230992	243598	292332	OPEN	OPEN ½	RIGHT	RIGHT	R RR	BALL	SLEEVE
284006	283615	231268	245843	275969	276336	230992	243598	292332	OPEN	OPEN ½	RIGHT	RIGHT	R RR	BALL	SLEEVE
284012	283615	231268	245843	275969	277192	230992	243598	292332	OPEN	OPEN ½	RIGHT	RIGHT	R RR	BALL	SLEEVE
285130	283641	284026	249273	275969	—	230992	249272	235418	L RR	OPEN ½	LEFT	TOP	R RR	SLEEVE	SLEEVE
285131	283641	284026	249273	275969	—	230992	249272	235418	L RR	FRT ½	LEFT	TOP	R RR	SLEEVE	SLEEVE

A—ADD INLET FITT. 241340 & STR. PLATE 238948.  
B—ADD DISCH. FITT. 237438.

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
283615	283618
283641	283638

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228238	228233

**MACK FLANGE — WATER COOLED HEAD  
AIR COOLED BLOCK — THRU DRIVE**



**REMFR. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS		CHANGEOVER TO/FROM		
				TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
278606	278606	278610	279966	—	281471	—
278610	278606	279966	—	—	281471	—
279483	279483	—	—	—	—	—
279966	278606	278610	—	—	281471	—
280298	280298	284082	—	—	281471	—
280501	280501	283809	283810	286032	—	—
283809	280501	283810	—	286032	—	—
283810	280501	283809	—	286033	—	—
284082	280298	—	—	—	281471	—

**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES	
							INLET-SIZE	OUTLET-SIZE				FRONT	REAR
278606	278612	228239	275431	240578	275969	235418	RR 3/8"	R FRT 3/8"	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE
278610	278612	228239	275431	240578	275969	235418	RR 3/8"	R FRT 3/8"	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE
279483	277948	228239	240301	244194	242319	235418	RR 3/8"	FRT 3/8"	RIGHT	TOP	R RR	BALL	BALL
279966	278612	228239	275431	244683	230920	235418	RR 3/8"	R FRT 3/8"	RIGHT	RIGHT	R RR	SLEEVE	BALL
280298	278612	278616	275431	244683	230920	235418	RR 3/8"	R FRT 3/8"	RIGHT	RIGHT	R FRT	SLEEVE	BALL
280501	283617	228239	240301	240950	NONE	235418	RR 1/2"	R FRT 1/2"	RIGHT	RIGHT	R FRT	BALL	BALL
283809	283617	228239	231268	240950	NONE	292332	RR 1/2"	R FRT 1/2"	RIGHT	RIGHT	R FRT	BALL	BALL
283810	283617	228239	231268	240950	NONE	292332	RR 1/2"	R FRT 1/2"	RIGHT	RIGHT	R FRT	BALL	BALL
284082	283617	278616	275431	244683	230920	235418	RR 1/2"	R FRT 1/2"	RIGHT	RIGHT	R RR	BALL	SLEEVE

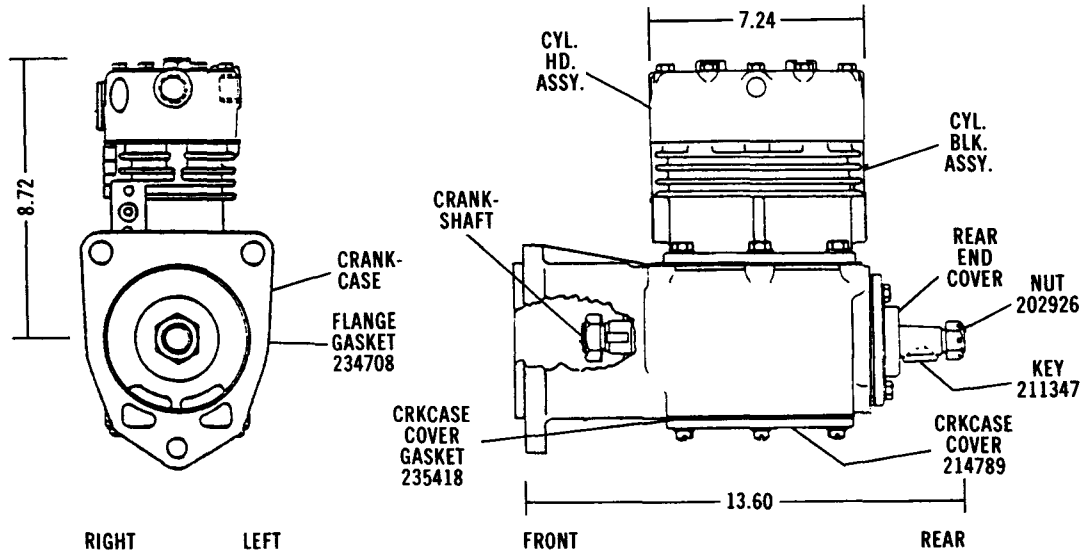
CYL. HD. ASSY.	CYL. HD. BODY ASSY.
277948	277949
278612	278613
283617	283620

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228239	228240
278616	278617





**MACK EXTENDED FLANGE — WATER COOLED HEAD  
AIR COOLED BLOCK — THRU DRIVE**



**REMFR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
282618	282620	283802, 283803	286545	282801	—
282620	282620	282618, 283802	286545	282801	—
283647	283813	283648	—	—	—
283648	283813	283647	—	—	—
283802	282620	282618, 282620	286545	282801	—
283803	282620	282618, 283802	286545	282801	—
283813	283813	283647, 283648	—	—	—

**SUB ASSY AND DETAIL REFERENCE**

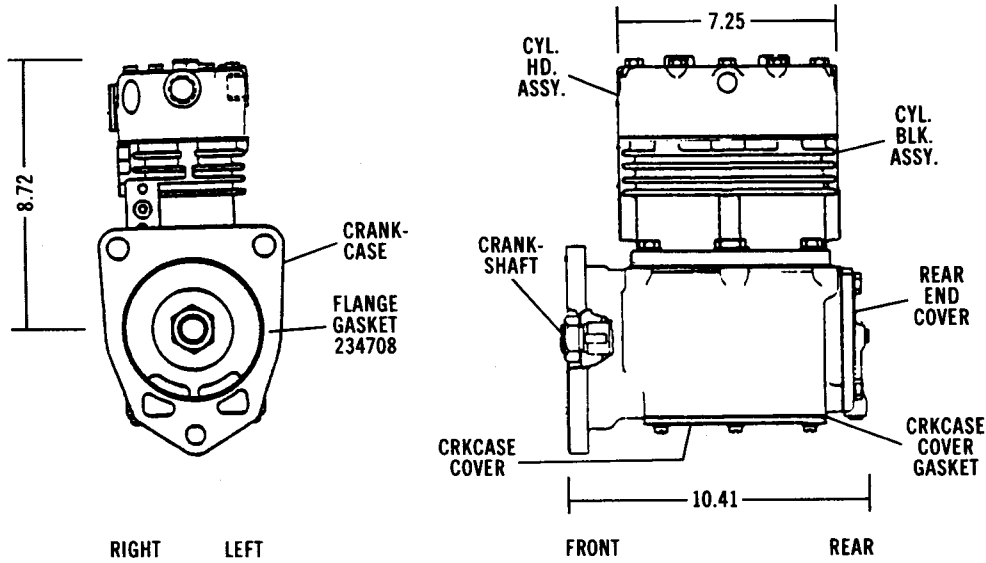
TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES	
						INLET-SIZE	OUTLET-SIZE				FRONT	REAR
282618	278612	228239	282585	244683	230920	RR 3/8	R FRT 3/8	RIGHT	RIGHT	R RR	SLEEVE	BALL
282620	278612	228239	282585	244683	230920	RR 3/8	R FRT 3/8	RIGHT	RIGHT	R RR	SLEEVE	BALL
283647	278612	228239	282585	247887	NONE	RR 3/8	R FRT 3/8	RIGHT	RIGHT	R RR	SLEEVE	BALL
283648	278612	228239	282585	247887	NONE	RR 3/8	R FRT 3/8	RIGHT	RIGHT	R RR	SLEEVE	BALL
283802	283617	228239	282585	244683	230920	RR 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	SLEEVE	BALL
283803	283617	228239	282585	244683	230920	RR 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	SLEEVE	BALL
283813	283617	228239	284359	247887	NONE	RR 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	SLEEVE	BALL

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CYL. HD. ASSY.	CYL. HD. BODY ASSY.
278612	278613
283617	283620

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228239	228240

**MACK FLANGE — WATER COOLED HEAD  
AIR COOLED BLOCK**



**REMR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
275166	277901	ANY 277901 ON THIS SHEET	286572	280779	—
277901	277901	ANY 277901 ON THIS SHEET	286572	280779	—
278600	278604	ANY 278604 ON THIS SHEET	—	280780	—
278603	278607	ANY 278607 ON THIS SHEET	286572	283821	—
278604	278604	ANY 278604 ON THIS SHEET	286572	283821	—
278605	278605	—	—	—	—
278607	278607	ANY 278607 ON THIS SHEET	286572	283821	—
278608	278604	ANY 278604 ON THIS SHEET	286572	283821	—
278611	278607	ANY 278607 ON THIS SHEET	286572	283821	—
279556	279556	ANY 279556 ON THIS SHEET	—	281078	—
282371	279556	ANY 279556 ON THIS SHEET	—	281078	—
282373	279556	ANY 279556 ON THIS SHEET	—	281078	—
283782	278604	ANY 278604 ON THIS SHEET	286572	283821	—
283783	278604	ANY 278604 ON THIS SHEET	286572	283821	—
283788	277901	ANY 277901 ON THIS SHEET	286105	280779	—
283789	277901	ANY 277901 ON THIS SHEET	286119	280779	—
283796	278607	ANY 278607 ON THIS SHEET	286572	283821	—
283797	278607	ANY 278607 ON THIS SHEET	286572	283821	—
284710	284711	—	286106	—	—
284711	284711	284710	286121	—	—

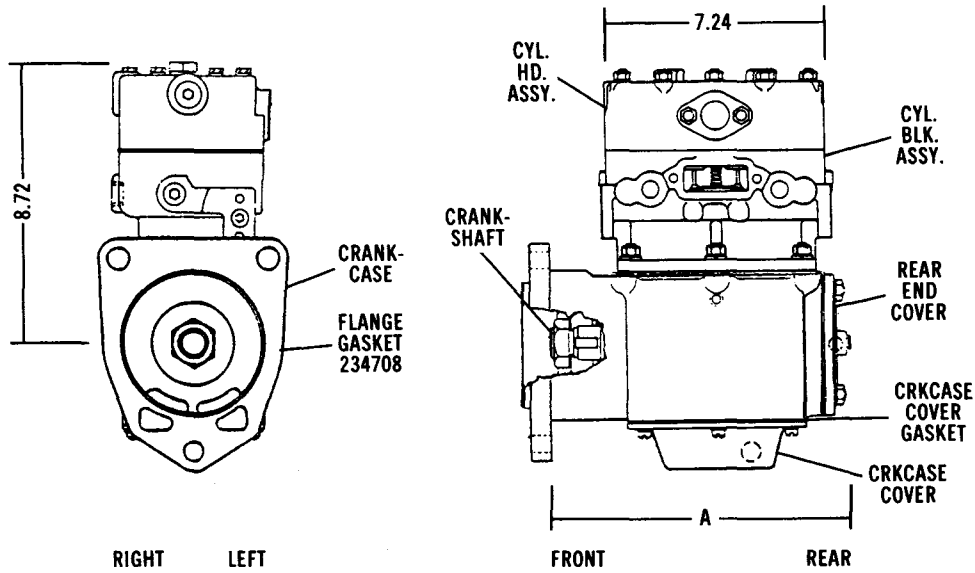
CYL. HD. ASSY.	CYL. HD. BODY ASSY.
277948	277949
278612	278613
283617	283620
283642	283639

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228239	228240
278616	278617

**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	STUD (HD.)	CRANK- CASE COVER	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES	
									INLET-SIZE	OUTLET-SIZE				FRONT	REAR
275166	277948	228239	240301	244498	275969	—	214789	235418	RR 3/8	FRT 3/8	RIGHT	TOP	R RR	BALL	SLEEVE
277901	277948	228239	240301	244498	275969	—	214789	235418	RR 3/8	FRT 3/8	RIGHT	TOP	R RR	BALL	SLEEVE
278600	278612	228239	275431	240578	275969	—	214789	235418	RR 1/2	R FRT 3/8	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE
278603	278612	278616	275431	240578	275969	230992	214789	235418	RR 1/2	R FRT 3/8	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE
278604	278612	228239	275431	240578	275969	—	214789	235418	RR 1/2	R FRT 3/8	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE
278605	278612	228239	275431	240578	275969	—	233843	235418	RR 3/8	R FRT 3/8	RIGHT	RIGHT	REAR	SLEEVE	SLEEVE
278607	278612	278616	275431	240578	275969	230992	214789	235418	RR 1/2	R FRT 3/8	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE
278608	278612	228239	275431	240578	275969	—	214789	235418	RR 1/2	R FRT 3/8	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE
278611	278612	278616	275431	240578	275969	230992	214789	235418	RR 1/2	R FRT 3/8	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE
279556	278612	228239	275431	240578	275969	—	214789	235418	R 3/8	FRT 3/8	LEFT	LEFT	L RR	SLEEVE	SLEEVE
282371	278612	228239	275431	240578	275969	—	214789	235418	R 3/8	L RR 3/8	LEFT	LEFT	L RR	SLEEVE	SLEEVE
282373	278612	228239	275431	240578	275969	—	214789	235418	R 3/8	L RR 3/8	LEFT	LEFT	L RR	SLEEVE	SLEEVE
283782	283617	228239	275431	240578	275969	—	214789	292332	RR 1/2	R FRT 3/8	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE
283783	283617	228239	275431	240578	275969	—	214789	292332	RR 1/2	R FRT 3/8	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE
283788	283642	228239	240301	244498	275969	—	214789	292332	RR 1/2	FRT 1/2	RIGHT	TOP	R RR	BALL	SLEEVE
283789	283642	228239	240301	244498	275969	—	214789	292332	RR 1/2	FRT 1/2	RIGHT	TOP	R RR	BALL	SLEEVE
283796	283617	278616	275431	240578	275969	—	214789	235418	RR 1/2	R FRT 3/8	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE
283797	283617	278616	275431	240578	275969	—	214789	235418	RR 1/2	R FRT 3/8	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE
284710	283642	228239	240301	278794	275969	—	214789	292332	RR 1/2	FRT 1/2	RIGHT	TOP	R RR	BALL	SLEEVE
284711	283642	228239	240301	248794	275969	—	214789	240301	RR 1/2	FRT 1/2	RIGHT	TOP	R RR	BALL	SLEEVE

**MACK FLANGE — ENGINE LUBE — WATER COOLED**



**REMFR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEVER TO/FROM			A DIMN
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.	
227194	228448	—	—	—	—	9.25
227216	227328	ANY 227328 ON THIS SHEET	—	—	—	9.25
227328*	227328	ANY 227328 ON THIS SHEET	—	—	—	9.25
228356	227328	ANY 227328 ON THIS SHEET	—	—	—	9.25
228448	228448	227194	—	—	—	9.25
228989	227328	ANY 227328 ON THIS SHEET	—	—	—	9.25
276258	227328	ANY 227328 ON THIS SHEET	—	—	—	8.91
285208	285209	—	—	—	—	10.68
285209	285209	285208	—	—	—	10.68

**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	AIR STR. OR INL. FITTING	GOV.	CRANK- CASE COVER	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES	
										INLET- $\frac{3}{8}$	OUTLET-SIZE				FRONT	REAR
227194	226098	227465	231850	231262	231852	226469	226431	221934	235418	FRT & RR	FRT & RR $\frac{3}{8}$	LEFT	LEFT	OPEN	BALL	BALL
227216	226098	227465	231268	231262	231265	—	—	233843	235418	OPEN	FRT & RR $\frac{3}{8}$	RIGHT	RIGHT	OPEN	BALL	BALL
227328*	—	—	—	—	—	—	—	—	—	OPEN	OPEN	RIGHT	RIGHT	OPEN	—	—
228356	226098	228238	231268	231262	231265	—	—	233843	235418	OPEN	FRT & RR $\frac{3}{8}$	RIGHT	RIGHT	OPEN	BALL	BALL
228448	226098	228238	231850	231262	231852	226469	226431	221934	235418	FRT & RR	FRT & RR $\frac{3}{8}$	LEFT	LEFT	OPEN	BALL	BALL
228989	226098	228238	231268	231262	231265	—	—	233843	235418	OPEN	OPEN $\frac{3}{8}$	RIGHT	RIGHT	OPEN	BALL	BALL
276258	226098	228238	275431	240578	275969	—	—	233843	235418	FRT & RR	FRT & RR $\frac{3}{8}$	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE
A285208	283615	228238	284026	244723	276127	—	—	233843	235418	OPEN	OPEN $\frac{1}{2}$	LEFT	LEFT	L RR	SLEEVE	SLEEVE
A285209	283615	228238	284026	244723	276127	—	—	233843	235418	OPEN	OPEN $\frac{1}{2}$	LEFT	LEFT	L RR	SLEEVE	SLEEVE

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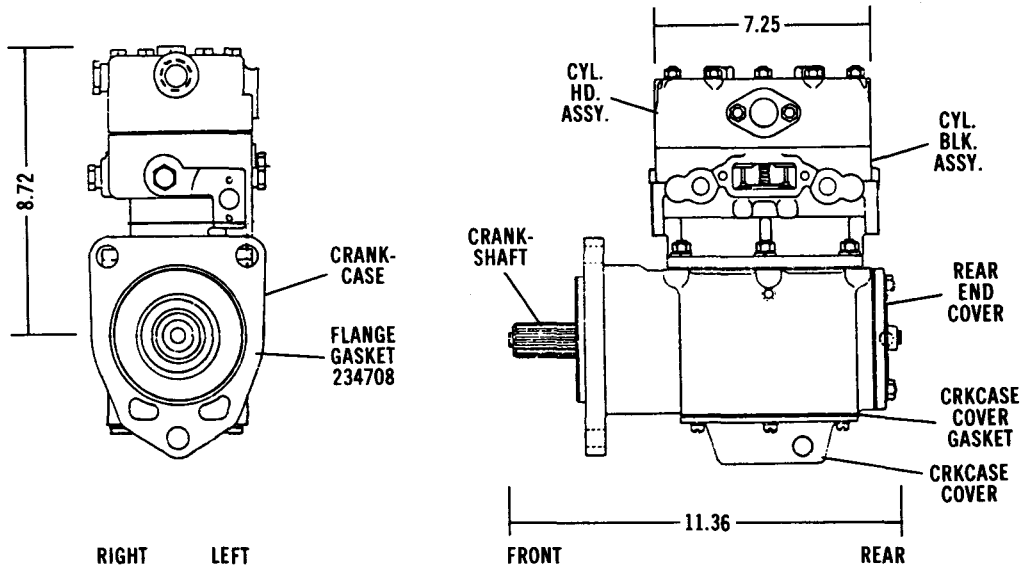
A—ADD STRAINER PLATE 238948

\*GOV. 226431 IS OBS. TYPE "D" — SEE CATALOG 01-A-1 FOR CURRENT D-2.

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
226098	226315
283615	283618

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
227465	—
228238	228233

**MACK/CAT FLANGE — ENGINE LUBE — WATER COOLED  
SPLINED CRANKSHAFT**



**REMF. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMF. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
227557	228449	—	—	—	—
227789	228447	—	—	—	—
228447	228447	227789	—	—	—
228449	228449	227557	—	—	—
283605	284003	ANY 284003 ON THIS SHEET	286022	—	—
283606	284003	ANY 284003 ON THIS SHEET	286022	—	—
284002	284003	ANY 284003 ON THIS SHEET	286021	—	—
284003	284003	ANY 284003 ON THIS SHEET	286022	—	—

**SUB ASSY AND DETAIL REFERENCE**

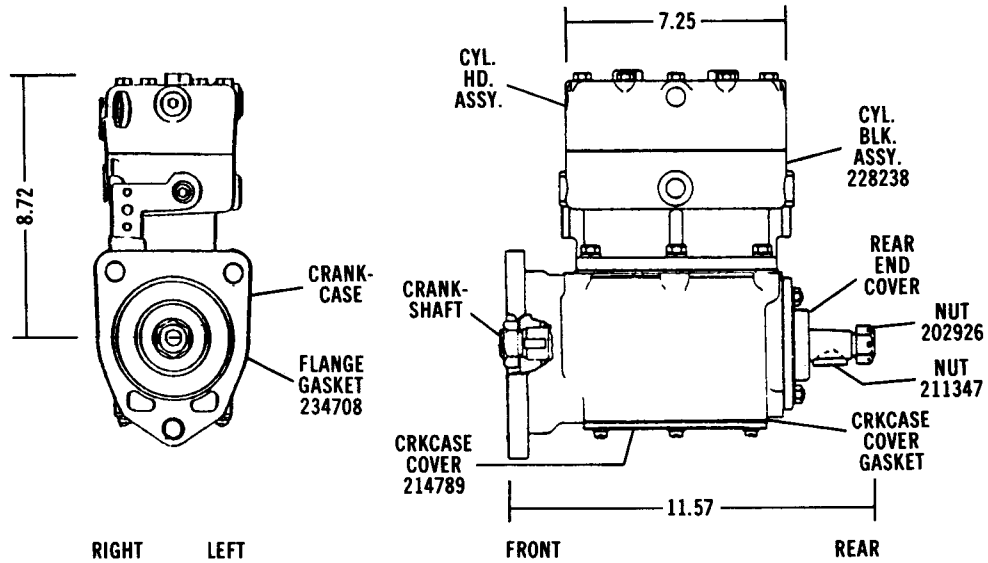
TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE ASSY.	CRANK- SHAFT	REAR END COVER	AIR STR. OR INLET FITTING	STUD (HD.)	CRANK- CASE COVER	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES		CONN. ROD MATL
										INLET 3/4	OUTLET-SIZE				FRONT	REAR	
227557	226098	227465	231850	231851	231852	226469	—	221934	235418	FRT & RR	FRT & RR 3/4	LEFT	LEFT	L RR	BALL	BALL	ALUM
227789	226098	228238	231850	231851	231852	226469	—	221934	235418	RR	RR 3/4	RIGHT	RIGHT	L RR	BALL	BALL	ALUM
228447	226098	228238	231850	231851	231852	226469	—	221934	235418	RR	RR 3/4	RIGHT	RIGHT	L RR	BALL	BALL	STEEL
228449	226098	228238	231850	231851	231852	226469	—	221934	235418	FRT & RR	FRT & RR 3/4	LEFT	LEFT	L RR	BALL	BALL	STEEL
A283605	283615	228238	231268	245843	275969	241340	—	233843	292332	FRT & RR	OPEN 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM
A283606	283615	228238	231268	245843	275969	241340	—	233843	292332	FRT & RR	OPEN 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM
284002	283615	228238	231268	245843	275969	—	230992	233843	292332	FRT & RR	OPEN 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM
284003	283615	228238	231268	245843	275969	—	230992	233843	292332	FRT & RR	OPEN 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM

A—ADD DISCH. FITT. 237438

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
226098	226315
283615	283618

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
227465	—
228238	228233

**MACK FLANGE — ENGINE LUBE — WATER COOLED THRU DRIVE**



**REMFR. EXCH. AND CHANGEVER SELECTIONS**

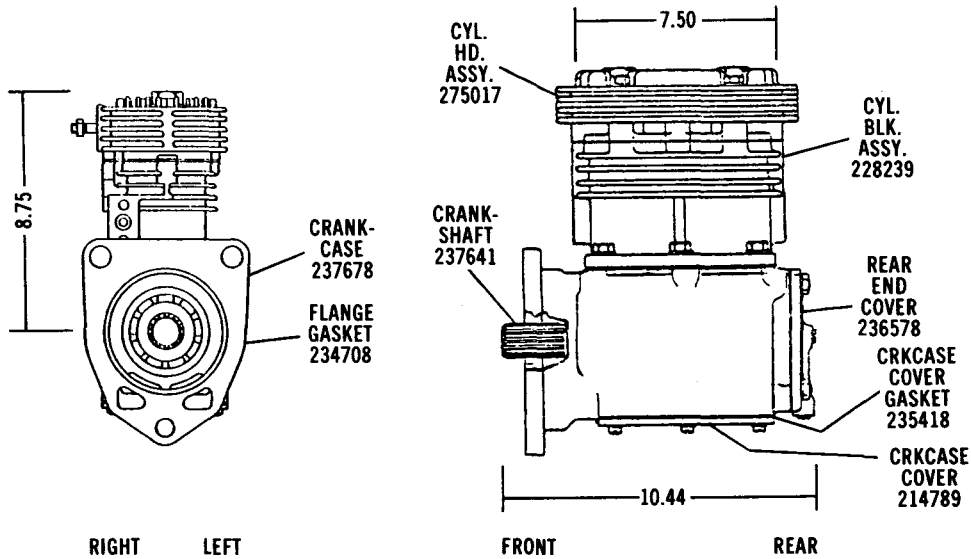
TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
228949	229562	ANY 229562 ON THIS SHEET	—	—	—
229562	229562	ANY 229562 ON THIS SHEET	—	—	—
275409	229562	ANY 229562 ON THIS SHEET	—	—	—
275834	275834	ANY 275834 ON THIS SHEET	—	—	—
276259	229562	ANY 229562 ON THIS SHEET	—	—	—
279815	275834	ANY 275834 ON THIS SHEET	—	—	—
279816	275834	ANY 275834 ON THIS SHEET	—	—	—
284365	229562	ANY 229562 ON THIS SHEET	—	—	—
284366	229562	ANY 229562 ON THIS SHEET	—	—	—
284380	275834	ANY 275834 ON THIS SHEET	—	—	—
284381	275834	ANY 275834 ON THIS SHEET	—	—	—

**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	AIR STR.	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES	
							INLET 3/8	OUTLET-SIZE				FRONT	REAR
228949	226098	237422	239332	230920	226079	235418	FRT & RR	FRT & RR 3/8	RIGHT	RIGHT	RR-RT	SLEEVE	SLEEVE
229562	226098	231268	239332	230920	226469	235418	FRT & RR	FRT & RR 3/8	RIGHT	RIGHT	RR & FRT	BALL	BALL
275409	226098	275431	240564	275418	—	235418	FRT	FRT & RR 3/8	RIGHT	RIGHT	RR-RT	SLEEVE	SLEEVE
275834	226098	240574	240950	—	—	235418	FRT & RR	FRT & RR 3/8	RIGHT	RIGHT	RR-RT	BALL	BALL
276259	226098	275431	240564	275418	—	235418	FRT & RR	FRT & RR 3/8	RIGHT	RIGHT	RR-RT	SLEEVE	SLEEVE
279815	226098	237422	240950	—	—	235418	OPEN	OPEN 1/2	RIGHT	RIGHT	OPEN	BALL	BALL
279816	226098	237422	240950	—	—	235418	OPEN	OPEN 1/2	RIGHT	RIGHT	OPEN	BALL	BALL
284365	283615	231268	239332	230920	226469	235418	FRT	FRT & RR 1/2	RIGHT	RIGHT	RR-RT	BALL	BALL
284366	283615	231268	239332	230920	226469	235418	FRT	FRT & RR 1/2	RIGHT	RIGHT	RR-RT	BALL	BALL
284380	283615	231268	240950	—	—	239332	FRT & RR	FRT & RR 1/2	RIGHT	RIGHT	RT-RR	BALL	BALL
284381	283615	231268	240950	—	—	239332	FRT & RR	FRT & RR 1/2	RIGHT	RIGHT	RT-RR	BALL	BALL

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**MACK FLANGE — ENGINE LUBE — AIR COOLED  
SPLINED CRANKSHAFT**



**REMF. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMF. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
227422	228361	ANY 228361 ON THIS SHEET	—	—	—
227428	228362	ANY 228362 ON THIS SHEET	—	—	—
228080	228362	ANY 228362 ON THIS SHEET	—	—	—
228361	228361	ANY 228361 ON THIS SHEET	—	—	—
228362	228362	ANY 228362 ON THIS SHEET	—	—	—
228365	228362	ANY 228362 ON THIS SHEET	—	—	—

**SUB ASSY AND DETAIL REFERENCE**

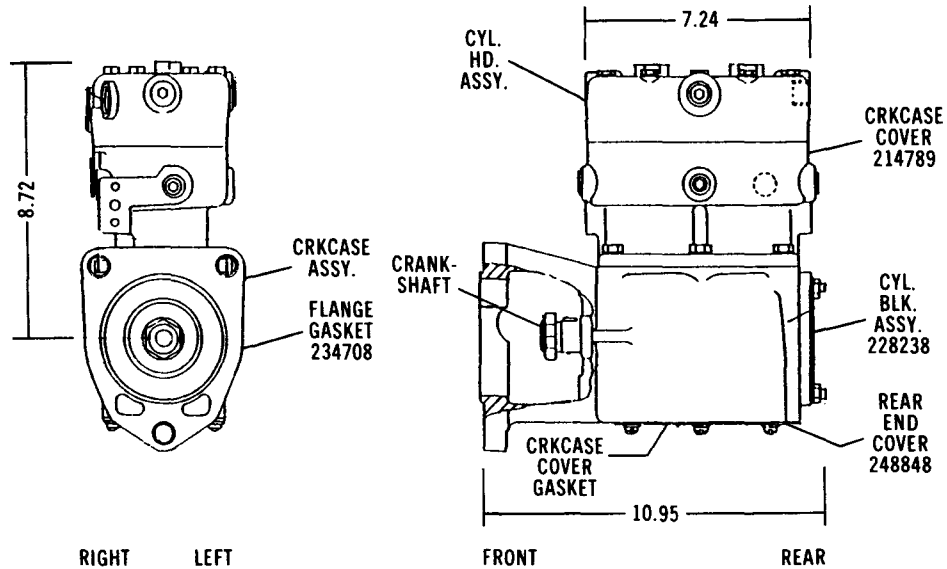
TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE	CRANK- SHAFT	AIR STRAINER	GOV.*	STUD (HD.)	AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION
227422	SUPERSEDED BY 228361		—	—	—	—	—	—	—	—
227428	SUPERSEDED BY 228362		—	—	—	—	—	—	—	—
228080	SUPERSEDED BY 228365		—	—	—	—	—	—	—	—
228361	275017	228239	237678	237641	—	—	233798	RIGHT	RIGHT	R FRT
228362	275017	228239	237678	237641	—	—	233798	LEFT	LEFT	L RR
228365	275017	228239	237678	237641	226469	227450	230672	LEFT	LEFT	L RR

\*GOV. 237450 IS OBS. TYPE "D" — SEE CATALOG 01-A-1 FOR CURRENT D-2.

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
275017	275018

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228239	228240

**MACK EXTENDED FLANGE — ENGINE LUBE WATER COOLED**



**REMR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
285274	285275	ANY 285275 ON THIS SHEET	286004	—	—
285275	285275	ANY 285275 ON THIS SHEET	286004	—	—
285283	285275	ANY 285275 ON THIS SHEET	286004	—	—
285284	285275	ANY 285275 ON THIS SHEET	286004	—	—
285826	285827	—	286004	—	—
285827	285827	285826	286004	—	—

**SUB ASSY AND DETAIL REFERENCE**

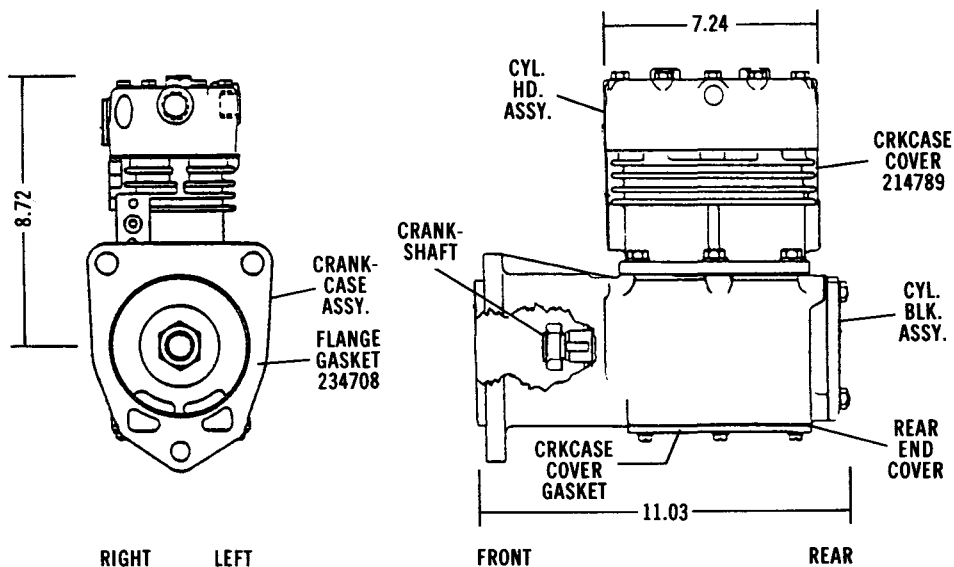
TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CRANK- CASE ASSY.	CRANK- SHAFT	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES		CONN. ROD MATL
					INLET ¾	OUTLET-SIZE				FRONT	REAR	
285274	283615	284359	248839	235418	OPEN	R FRT ½	RIGHT	RIGHT	R FRT	SLEEVE	BALL	STEEL
285275	283615	284359	248839	235418	OPEN	R FRT ½	RIGHT	RIGHT	R FRT	SLEEVE	BALL	STEEL
285283	283615	285286	249443	292332	OPEN	OPEN ½	RIGHT	RIGHT	R FRT	BALL	BALL	ALUM
285284	283615	285286	249443	292332	OPEN	OPEN ½	RIGHT	RIGHT	R FRT	BALL	BALL	ALUM
285286	285831	285286	249443	292332	FRT	R FRT ¾	RIGHT	RIGHT	R FRT	BALL	BALL	STEEL
285827	285831	285286	249443	292332	FRT	R FRT ¾	RIGHT	RIGHT	R FRT	BALL	BALL	STEEL

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CYL. HD. ASSY.	CYL. HD. BODY ASSY.
283615	283618
285831	

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228238	228233

**MACK EXTENDED FLANGE — WATER COOLED HEAD  
AIR COOLED BLOCK**



**REMF. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMF. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
282586	282586	ANY 282586 ON THIS SHEET	286003	283825	—
282590	282586	ANY 282586 ON THIS SHEET	286003	283825	—
282619	282621	ANY 282621 ON THIS SHEET	286003	283825	—
282621	282621	ANY 282621 ON THIS SHEET	286003	283825	—
283273	284662	ANY 284662 ON THIS SHEET	286004	—	—
283274	284662	ANY 284662 ON THIS SHEET	286004	—	—
283748	282586	ANY 282586 ON THIS SHEET	286003	283825	—
283787	282621	ANY 282621 ON THIS SHEET	286003	283825	—
284581	284662	ANY 284662 ON THIS SHEET	286004	—	—
284662	284662	ANY 284662 ON THIS SHEET	286005	—	—
284663	284662	ANY 284662 ON THIS SHEET	286005	—	—
284865	282586	ANY 282586 ON THIS SHEET	286003	283825	—
284866	282586	ANY 282586 ON THIS SHEET	282114	283825	—
285204	284662	ANY 284662 ON THIS SHEET	286004	—	—
285205	284662	ANY 284662 ON THIS SHEET	286004	—	—
285799	284662	ANY 284662 ON THIS SHEET	286004	—	—
285815	284662	ANY 284662 ON THIS SHEET	286004	—	—

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
278612	278613
283617	283620

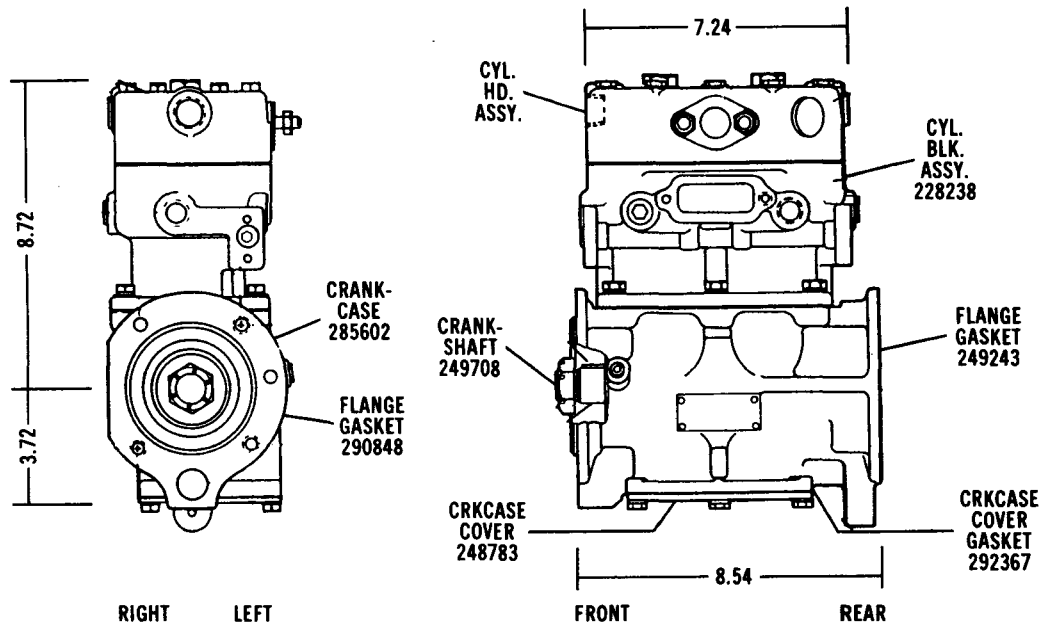
CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228239	228240
278612	

**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE ASSY.	CRANK- SHAFT	REAR END COVER	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES		CONN. ROD MATL.
							INLET-SIZE	OUTLET-SIZE				FRONT	REAR	
282586	278612	228239	282585	240578	275969	235418	R FRT 3/8	RR 3/8	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE	ALUM
282590	278612	228239	282585	240578	275969	235418	R FRT 3/8	RR 3/8	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE	ALUM
282619	278612	278616	282585	240578	275969	235418	RR 3/8	R FRT 3/8	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE	ALUM
282621	278612	278616	282585	240578	275969	235418	RR 3/8	R FRT 3/8	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE	ALUM
283273	283617	228239	285286	249443	248848	292332	RR 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	BALL	BALL	STEEL
283274	283617	228239	285286	249943	248848	292332	RR 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	BALL	BALL	STEEL
283748	283617	228239	282585	240578	275969	235418	RR 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE	ALUM
283787	283617	278616	282585	240578	275969	235418	RR 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE	STEEL
284581	283617	228239	284359	248839	248848	235418	L RR 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	SLEEVE	BALL	ALUM
284662	283617	228239	284359	248839	248848	235418	L RR 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	SLEEVE	BALL	ALUM
284663	283617	228239	284359	248839	248848	235418	OPEN 1/2	OPEN 1/2	RIGHT	RIGHT	R FRT	SLEEVE	BALL	ALUM
284865	283617	228239	282585	240578	275969	235418	RR 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE	STEEL
284866	283617	228239	282585	240578	275969	235418	RR 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE	STEEL
285204	283617	228239	284359	248839	248848	235418	RR 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	SLEEVE	BALL	STEEL
285205	283617	228239	284359	248839	248848	235418	RR 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	SLEEVE	BALL	STEEL
285799	283617	228239	285286	249443	248848	292332	RR & L 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	BALL	BALL	ALUM
285815	283617	228239	285286	249443	248848	292332	RR & L 1/2	R FRT 1/2	RIGHT	RIGHT	R FRT	BALL	BALL	ALUM



**CUMMINS DBL FLANGE — WATER COOLED  
8.54" OVER FLANGES**



**REMF. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMF. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
284699	284699	ANY 284699 ON THIS SHEET	286037	284714	289300
284717	284718	ANY 284718 ON THIS SHEET	286555	284720	289301
284718	284718	ANY 284718 ON THIS SHEET	286555	284720	289301
284908	284699	ANY 284699 ON THIS SHEET	286037	284714	289300
284909	284699	ANY 284699 ON THIS SHEET	286037	284714	289300
284910	284718	ANY 284718 ON THIS SHEET	286555	284720	289301
284911	284718	ANY 284718 ON THIS SHEET	286555	284720	289301
284933	284699	ANY 284699 ON THIS SHEET	286037	284714	289300
285478	284699	ANY 284699 ON THIS SHEET	286037	284714	289300

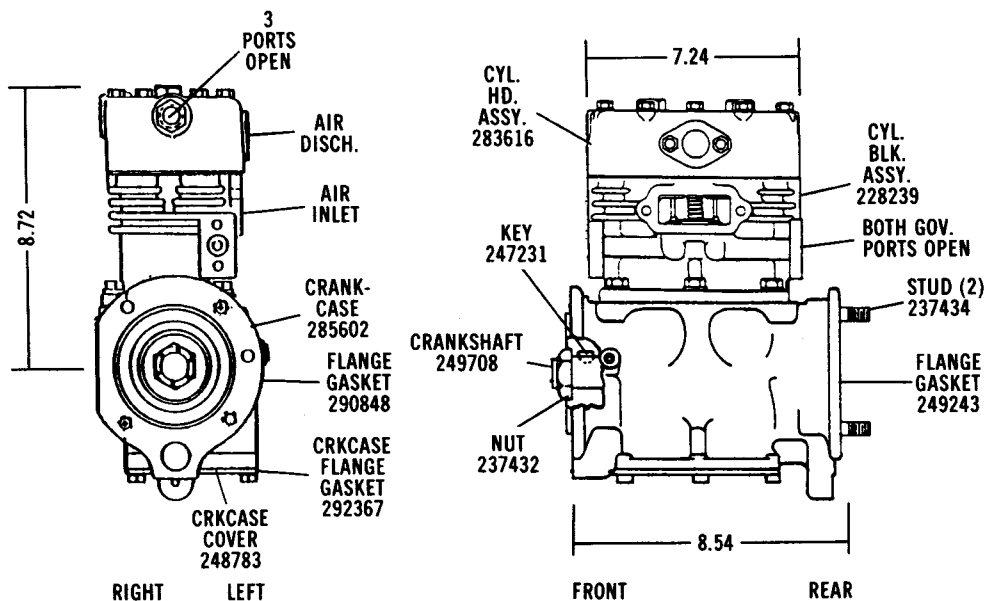
**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	STUD (HD.)	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	CONN. ROD MATL.
			INLET- $\frac{3}{8}$	OUTLET- $\frac{1}{2}$			
284699	283615	235464	R FRT	FRONT	LEFT	LEFT	ALUM
A284717	283641	—	R FRT	FRONT	LEFT	TOP	ALUM
A284718	283641	—	R FRT	FRONT	LEFT	TOP	ALUM
284908	283615	230672	R FRT	FRONT	LEFT	LEFT	ALUM
284909	283615	—	R FRT	FRONT	LEFT	LEFT	ALUM
A284910	283641	—	R FRT	FRONT	LEFT	TOP	ALUM
A284911	283641	—	R FRT	FRONT	LEFT	TOP	ALUM
284933	283615	235464	R FRT	FRONT	LEFT	LEFT	ALUM
285478	283615	235464	FRONT	FRONT	LEFT	LEFT	STEEL

A—ADD DRAIN COCK 237705

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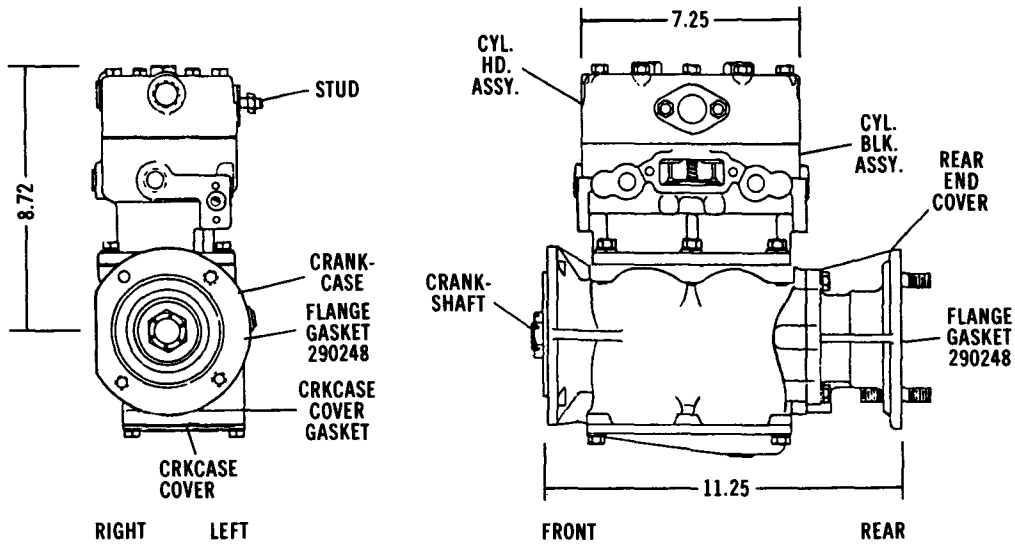
**CUMMINS DBL FLANGE — WATER COOLED HEAD  
AIR COOLED BLOCK — 8.54" OVER FLANGES**



**REMF. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMF. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
284864	284959	ANY 284959 ON THIS SHEET	—	—	—
284959	284959	ANY 284959 ON THIS SHEET	—	—	—
285806	284959	ANY 284959 ON THIS SHEET	—	—	—

**CUMMINS DBL FLANGE — ENGINE LUBE WATER COOLED**



**REMFR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
227195	228443	ANY 228443 ON THIS SHEET	—	280622	—
227790	228443	ANY 228443 ON THIS SHEET	—	280622	—
228266	228443	ANY 228443 ON THIS SHEET	—	280622	—
228443*	228443	ANY 228443 ON THIS SHEET	—	280622	—
228789	228443	ANY 228443 ON THIS SHEET	—	280622	—
228835	229525	275169, 277111, 283991, 283992	—	280629	—
229525	229525	275169, 277111, 283991, 283992	—	280589	—
229570	228443	ANY 228443 ON THIS SHEET	—	280622	—
229895	276974	284017	—	281079	—
275169	229525	228335, 277111, 283991, 283992	—	280529	—
275578	228443	ANY 228443 ON THIS SHEET	—	280622	—
275729	228443	ANY 228443 ON THIS SHEET	286103	280622	—
275830	276476	—	—	—	—
276476	276476	—	—	—	—
276951	228443	ANY 228443 ON THIS SHEET	—	280622	—
276952	228443	ANY 228443 ON THIS SHEET	—	280622	—
276974	276974	229895, 284017	—	281079	—
276978	276978	—	—	280392	—
277016	228443	ANY 228443 ON THIS SHEET	—	280222	—
277111	229525	228835, 275169, 283991, 283992	—	280589	—
277198	277198	—	—	280393	—
279707	279707	280597, 283963	286037	280238	—
279838	279838	285480	—	280428	—
279839	279839	—	—	280429	—
280597	279707	283963	—	280238	—
283711	283711	—	—	—	—
283963	279707	280597	—	—	—
283991	229525	228335, 275169, 277111, 283992	—	283994	—
283992	229525	228335, 275169, 277111, 283991	—	283994	—
284016	228443	ANY 228443 ON THIS SHEET	—	280622	—
284017	276974	229895	—	—	—
284140	284160	284819, 284820	—	—	—
284160	284160	284140, 284819	—	—	—
284819	284160	284140, 284820	—	—	—
284820	284160	284140, 284819	—	—	—
285480	279838	—	—	—	—
285707	228443	ANY 228443 ON THIS SHEET	286103	280622	—

CYL. HD. ASSY.	CYL. HD. BODY ASSY.
226098	226315
283615	283618

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228238	228233

PRINTED IN U.S.A.

\*REMFR. EXCH. PC. NO.

**CUMMINS DBL FLANGE — ENGINE LUBE WATER COOLED**

**SUB ASSY AND DETAIL REFERENCE**

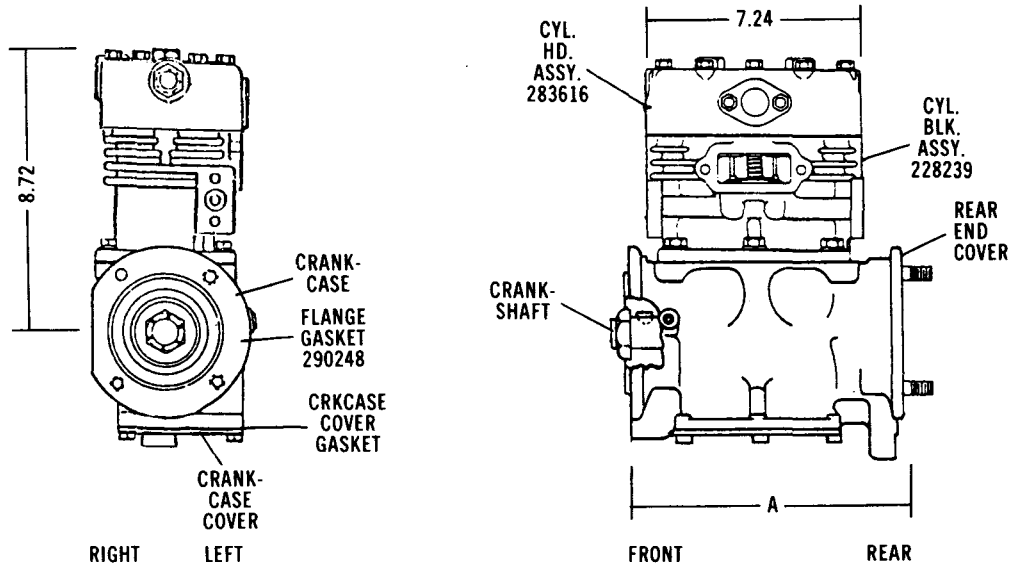
TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	GOV.	STUD (HD.)	CRANK- CASE COVER	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES		CONN. ROD MATT
										INLET-SIZE	OUTLET-SIZE				FRONT	REAR	
227195	SUPERSEDED BY 227790																
227790	SUPERSEDED BY 228266																
ABC228266	283615	228238	237426	237427	237429	—	230672	237469	237468	R FRT 3/8	FRT 1/2	LEFT	LEFT	R RR	BALL	BALL	ALUM
228443*	—	—	—	—	—	—	—	—	—	OPEN 3/8	OPEN 1/2	LEFT	LEFT	OPEN	—	—	—
ABD228789	283615	228238	237426	246728	228822	—	230672	237469	237468	OPEN 3/8	OPEN 1/2	LEFT	LEFT	R RR	BALL	SLEEVE	ALUM
ABC228835	283641	228238	237426	237427	237429	—	—	237469	237468	R FRT 3/8	FRT 1/2	LEFT	TOP	R RR	BALL	BALL	ALUM
BD229525	283641	228238	239677	246728	229526	—	230672	237469	237468	OPEN 3/8	OPEN 1/2	LEFT	TOP	L RR	BALL	SLEEVE	ALUM
ABDEF229570	283615	228238	237426	246728	228822	—	230672	237469	237468	RR 3/8	RR 1/2	LEFT	LEFT	R RR	BALL	SLEEVE	ALUM
ABG229895	283615	228238	237426	240031	240032	—	230672	237469	237468	R FRT 3/8	FRT 1/2	LEFT	LEFT	FRT L	BALL	BALL	ALUM
ABD275169	283641	228238	237426	246728	228822	—	—	237469	237468	OPEN 3/8	OPEN 1/2	LEFT	TOP	R RR	BALL	SLEEVE	ALUM
ABH275578	226098	228238	237426	246728	228822	276336	230672	237469	237468	R FRT 3/8	FRT 3/8	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM
ABDE275729	283615	228238	237426	246728	228822	—	235464	237469	237468	R FRT 3/8	FRT 1/2	LEFT	LEFT	R RR	BALL	SLEEVE	ALUM
ABDE275830	283641	228238	237426	246728	228822	—	—	237469	237468	L RR 3/8	RR 1/2	LEFT	TOP	L FRT	BALL	SLEEVE	ALUM
ABDE276476	283641	228238	239677	246728	229526	—	—	237469	237468	L RR 3/8	RR 1/2	RIGHT	TOP	R RR	BALL	SLEEVE	ALUM
BI276951	283615	228238	239677	246728	229526	—	230672	237469	237468	OPEN 3/8	OPEN 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM
ABDE276952	283615	228238	239677	246728	229526	—	235464	237469	237468	R FRT 3/8	FRT 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM
BG276974	283615	228238	239677	240031	240032	—	230672	237469	237468	R FRT 3/8	FRT 1/2	LEFT	LEFT	L RR	BALL	BALL	ALUM
B276978	283641	276981	276980	241749	276983	—	—	—	—	RT 3/8	FRT 1/2	LEFT	TOP	L RR	SLEEVE	SLEEVE	ALUM
ABDF277016	283615	228238	239677	246728	229526	—	230672	237469	237468	R RR 3/8	RR 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM
ADEH277111	227453	228238	239677	246728	229526	276336	—	237469	237468	R FRT 3/8	FRT 3/8	LEFT	TOP	L RR	BALL	SLEEVE	ALUM
BI277198	283641	228238	276980	241945	276983	—	—	240741	240740	L FRT 3/8	FRT 1/2	LEFT	TOP	L RR	SLEEVE	SLEEVE	ALUM
279707	283615	228238	279708	244386	—	—	235464	244301	244300	FRT 3/8	FRT 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM
BI279838	283641	276981	279840	241945	276983	—	—	240741	240740	RR 3/8	FRT 1/2	LEFT	TOP	L RR	SLEEVE	SLEEVE	ALUM
BI279839	283641	276981	279840	241749	276983	—	—	240741	240740	RR 3/8	FRT 1/2	LEFT	TOP	L RR	SLEEVE	SLEEVE	ALUM
280597	283615	228238	279708	244386	—	—	—	244301	244300	FRT 3/8	FRT 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM
BI283711	283641	276981	283712	247983	276983	—	—	240741	240740	RR 3/8	FRT 1/2	LEFT	TOP	L RR	SLEEVE	SLEEVE	ALUM
A283963	283615	228238	279708	244386	—	—	235464	244301	244300	FRT 3/8	FRT 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	STEEL
AB283991	283641	228238	280854	246728	229526	—	—	237469	237468	OPEN 3/8	OPEN 1/2	LEFT	TOP	L RR	BALL	SLEEVE	STEEL
AB283992	283641	228238	280854	246728	229526	—	—	237469	237468	OPEN 3/8	OPEN 1/2	LEFT	TOP	L RR	BALL	SLEEVE	STEEL
AB284016	283615	228238	280854	246728	229526	—	230672	237469	237468	OPEN 3/8	OPEN 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	STEEL
AB284017	283615	228238	280513	240031	240032	—	230672	237469	237468	FRT 3/8	FRT 1/2	LEFT	LEFT	L RR	BALL	BALL	STEEL
A284140	283641	228238	279708	244386	—	—	—	244301	244300	FRT 3/8	FRT 1/2	LEFT	TOP	L RR	BALL	SLEEVE	ALUM
A284160	283641	228238	279708	244386	—	—	—	244301	244300	FRT 3/8	FRT 1/2	LEFT	TOP	L RR	BALL	SLEEVE	ALUM
A284819	283641	228238	279708	244386	—	—	—	244301	244300	FRT 3/8	FRT 1/2	LEFT	TOP	L RR	BALL	SLEEVE	STEEL
A284820	283641	228238	279708	244386	—	—	—	244301	244300	FRT 3/8	FRT 1/2	LEFT	TOP	L RR	BALL	SLEEVE	STEEL
BI285480	283641	276981	280547	241925	276983	—	—	240741	240740	R FRT 3/8	FRT 3/8	LEFT	TOP	L RR	SLEEVE	SLEEVE	STEEL
B285707	283615	228238	280471	246728	228822	—	235464	237469	237468	FRT 3/8	FRT 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	STEEL

- A—ADD DRAIN COCK 237705
- B—ADD STR. PLATE 238948
- C—ADD TWO EA. (2) STUD 240551 & 237434, TWO (2) OIL SEAL RING, OIL SEAL 230429
- D—ADD TWO (2) STUD 240551
- E—ADD TWO (2) STUD 237434
- F—ADD OIL SEAL 230425
- G—ADD TWO (2) O.S. RING 203238, KEY 237431 & LOCKNUT 237432
- H—ADD INLET ELBOW 236676
- I—ADD INLET FITT. 242070

CYL. HD. ASSY.	CYL. BLK. BODY ASSY.
226098	226315
227453	
283615	283618
283641	283638

CYL. BLK. ASSY.	CYL. BLK. BODY ASSY.
228238	228233
276981	

**CUMMINS DBL FLANGE — WATER COOLED HEAD  
AIR COOLED BLOCK**



**REMF. EXCH. AND CHANGEOVER SELECTIONS**

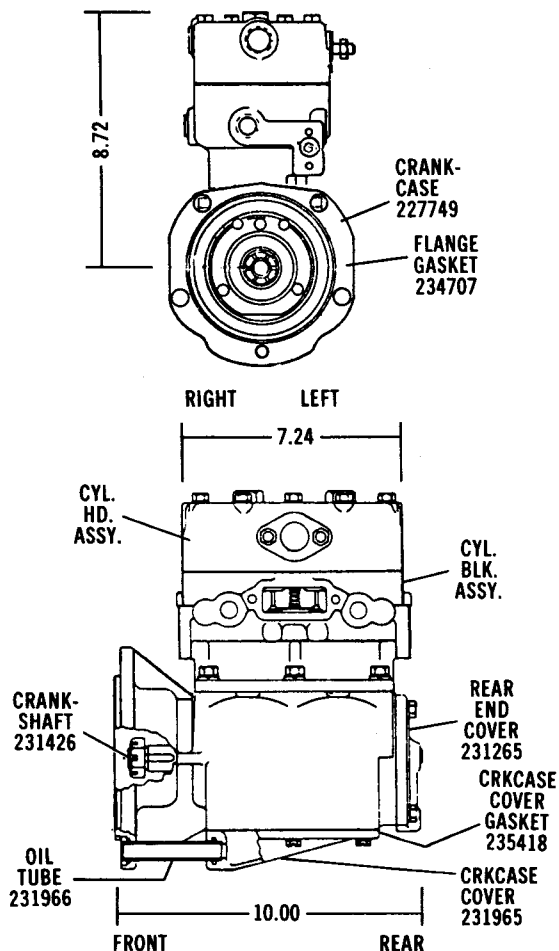
TF-500 COMPR. PC. NO.	STD. REMF. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
283455	283456	—	—	—	—
283456	283456	283455	—	—	—
284402	284402	—	—	—	—

**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	STUD (HD.)	CRANK- CASE COVER	CRKCASE COVER GASKET	A FLANGE DIMN.	STUD (REC.)	WATER PORTS		GOV. PORT POSITION
									INLET 1/2	OUTLET 1/2	
283455	247714	244386	—	—	244301	244300	8.54	244430	OPEN	OPEN	OPEN
283456	247714	244386	—	—	244301	244300	8.54	244430	OPEN	OPEN	OPEN
284402	239677	246728	229526	230672	237469	237468	11.25	240551	OPEN	OPEN	L RR

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**DETROIT DIESEL FLANGE — 0° TILT  
WATER COOLED — WITH OIL DRAIN TUBE**



**REMFR. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
226288	276961	ANY 276961 ON THIS SHEET	285982	280525	289265
226499	276962	ANY 276962 ON THIS SHEET	285988	280891	289267
226862	276961	ANY 276961 ON THIS SHEET	285982	280525	289265
227329*	276962	ANY 276962 ON THIS SHEET	285988	280891	289267
227330*	276961	ANY 276961 ON THIS SHEET	285982	280525	289265
227579	276961	ANY 276961 ON THIS SHEET	285982	280525	289265
227928	276962	ANY 276962 ON THIS SHEET	285988	280891	289267
228058	276962	ANY 276962 ON THIS SHEET	285988	280891	289267
228301	276962	ANY 276962 ON THIS SHEET	285988	280891	289267
228332	276962	ANY 276962 ON THIS SHEET	285988	280891	289267
228333	276961	ANY 276961 ON THIS SHEET	285982	280525	289265
228334	276961	ANY 276961 ON THIS SHEET	285982	280525	289265
228335	276962	ANY 276962 ON THIS SHEET	285988	280891	289267
228373	276961	ANY 276961 ON THIS SHEET	285982	280525	289265
228421	276961	ANY 276961 ON THIS SHEET	285982	280525	289265
228446	276961	ANY 276961 ON THIS SHEET	285982	280525	289265
228879	276962	ANY 276962 ON THIS SHEET	285988	280891	289267
228880	276962	ANY 276962 ON THIS SHEET	285988	280891	289267
229222	276962	ANY 276962 ON THIS SHEET	285988	280891	289267
229470	276961	ANY 276961 ON THIS SHEET	285982	280525	289265
229563	276961	ANY 276961 ON THIS SHEET	285982	280525	289265
275039	276961	ANY 276961 ON THIS SHEET	285982	280525	289265

\*REMFR. EXCH. PC. NOS.

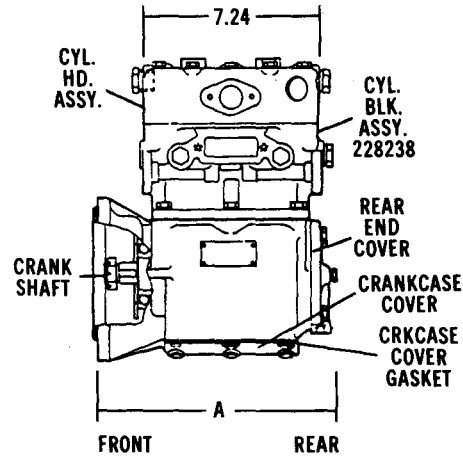
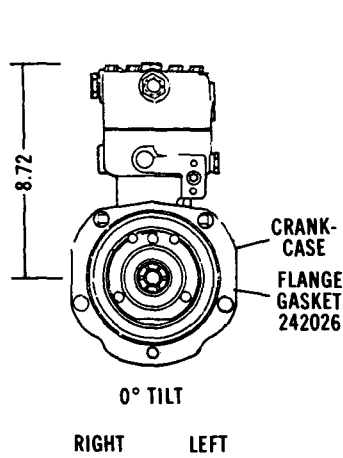
**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	AIR STR. OR INLET FITTING	GOV.	STUD (HD.)	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	CONN. ROD MATL
						INLET- $\frac{3}{8}$	OUTLET-SIZE				
226288	SUPERSEDED BY 228446			—	—	—	—	—	—	—	—
226499	SUPERSEDED BY 228332			—	—	—	—	—	—	—	—
226862	SUPERSEDED BY 228333			—	—	—	—	—	—	—	—
227329*	—	—	—	—	—	OPEN $\frac{3}{8}$	OPEN $\frac{1}{2}$	RIGHT	RIGHT	OPEN	—
227330*	—	—	—	—	—	OPEN $\frac{3}{8}$	OPEN $\frac{3}{8}$	RIGHT	RIGHT	OPEN	—
227579	SUPERSEDED BY 228334			—	—	—	—	—	—	—	—
227928	SUPERSEDED BY 228335			—	—	—	—	—	—	—	—
A228058	SUPERSEDED BY 228301			—	—	—	—	—	—	—	—
A228301	226098	228238	—	226363	230672	FRONT	RR $\frac{3}{8}$	RIGHT	RIGHT	R RR	ALUM
A228332	226098	228238	—	226363	230672	FRONT	RR $\frac{3}{8}$	RIGHT	RIGHT	R RR	ALUM
BC228333	226098	228238	—	226363	233798	FRONT	RR $\frac{3}{8}$	LEFT	LEFT	L RR	ALUM
228334	226098	228238	226469	226363	230672	REAR	FRT $\frac{3}{8}$	LEFT	LEFT	L RR	ALUM
A228335	226098	228238	—	227540	230672	FRONT	RR $\frac{3}{8}$	RIGHT	RIGHT	R RR	ALUM
D228373	226098	228238	—	226363	230672	FRONT	RR $\frac{3}{8}$	LEFT	LEFT	L RR	ALUM
228421	226098	228238	—	226363	230672	FRONT	RR $\frac{3}{8}$	LEFT	LEFT	L RR	ALUM
E228446	226098	228238	226469	—	230672	FRONT	RR $\frac{3}{8}$	LEFT	LEFT	L RR	ALUM
228879	226098	228238	—	—	230672	L & RR	FRT $\frac{3}{8}$	RIGHT	RIGHT	R RR	ALUM
A228880	226098	228238	—	—	230672	FRONT	RR $\frac{3}{8}$	RIGHT	RIGHT	R RR	ALUM
A229222	226098	228238	226469	—	230672	FRONT	RR $\frac{3}{8}$	RIGHT	RIGHT	R RR	ALUM
229470	226098	228238	—	—	230672	FRT & RR	FRT $\frac{3}{8}$	LEFT	LEFT	L RR	ALUM
229563	226098	228238	—	—	—	FRONT	R & FRT $\frac{3}{8}$	LEFT	LEFT	L RR	ALUM
F275039	283615	228238	—	—	230672	FRONT	RR $\frac{1}{2}$	LEFT	LEFT	L RR	ALUM

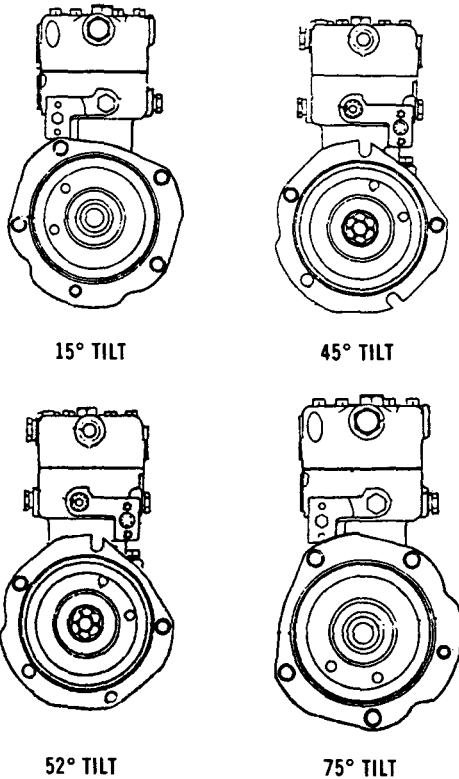
A—ADD DISCH. FITT. 233621  
B—ADD DISCH. FITT. 223392  
C—ADD STR. ADAPTER 236419

D—ADD DISCH. FITT. 233675  
E—ADD DISCH. FITT. 233622  
F—ADD DISCH. FITT. 223286

**DETROIT DIESEL FLANGE — WATER COOLED**  
**0°-15°-45°-52°-75° TILT**



**REMFR. EXCH. AND CHANGEOVER SELECTIONS**



TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
226438	227325	226695, 228337, 227140, 228336	286527	280604	—
226695	227325	226438, 228337, 227140, 228336	—	280607	—
227140	227325	228336, 228337, 226438, 226695	—	280607	—
228336	227325	226695, 226438, 228338	—	280607	—
228337	227325	226438, 226695, 227140, 228336	—	280607	—
228338	227325	226438, 226695, 228337, 227140	—	280607	—
229694	276961	275857, 276111, 276167, 276843	—	279762	—
229695	276962	275007, 276915, 277242, 279921	—	280607	—
275007	276962	229695, 276915, 277242, 279921	—	280627	—
275231	275231	277645, 281619	—	280422	289264
275777	275777	280573, 278681	285966	280578	—
275857	276961	276111, 276167, 276961, 277241	285971	279762	289262
276111	276961	275857, 276111, 276843, 276961	286538	279662	—
276167	276961	275857, 276111, 276843, 276961	285989	280897	—
276843	276961	275857, 276111, 276167, 276961	—	280897	—
276915	276962	279921, 286418, 229695, 275007	286217	280570	289863
276961	276961	275857, 276111, 276167, 276843	285982	280525	289265
276962	276962	276915, 277242, 279921, 286418	285988	280891	289267
277241	276961	275857, 276111, 276167, 276843	286216	—	—
277242	276962	276915, 276962, 279921, 286418	286217	280570	—
277463	276961	275857, 276111, 276167, 276843	285982	280525	289265
277560	275777	278681, 280573, 284268	—	280798	—
277645	275231	281619	—	280422	—
277686	276961	275857, 276111, 276167, 276843	—	281527	—
278445	278445	—	—	280369	289263
278681	275777	277560, 280573, 284268	—	280798	—
279008	276961	275857, 276111, 276167, 276843	285987	280525	—
279009	279009	—	—	281007	—
279045	276962	280365, 282398, 282626, 282745	—	280526	—
279312	276961	275857, 276111, 276167, 276843	285982	280525	289265
279890	278445	—	—	280369	289263
279921	276962	276915, 276962, 277242, 286418	286217	280570	289863

"A" DIM'N  
 0° TILT — 10.00"  
 15° TILT — 9.73"  
 45° TILT — 8.98"  
 52° TILT — 8.98"  
 75° TILT — 9.73"

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**DETROIT DIESEL FLANGE — WATER COOLED**  
**0°-15°-45°-52°-75° TILT**

**SUB ASSY AND DETAIL REFERENCE**

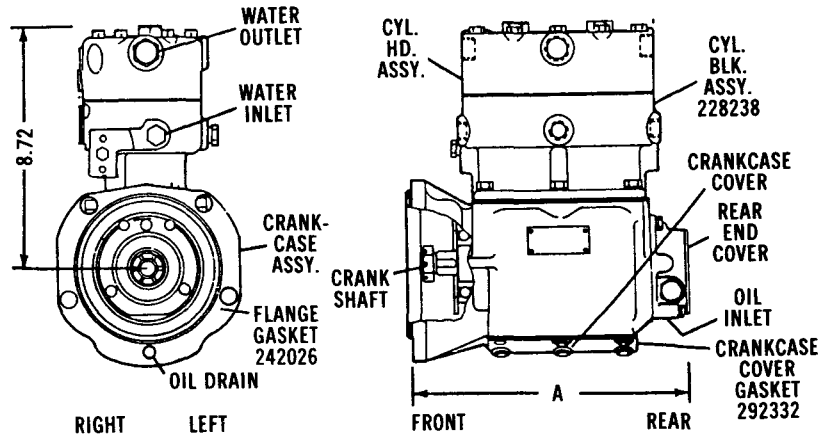
TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	AIR STR. OR INLET FITTING	GOV.	STUD (HD.)	CRANK- CASE COVER	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES		CONN. ROD MATL	DEGREES TILT
										INLET-½	OUTLET-SIZE				FRONT	REAR		
282397	283615	276450	241142	276127	—	—	—	241280	235418	OPEN	OPEN ½	RIGHT	RIGHT	PLGD	SLEEVE	SLEEVE	ALUM	0
282398	283615	276450	241142	276127	—	—	—	241280	235418	OPEN	OPEN ½	RIGHT	RIGHT	PLGD	SLEEVE	SLEEVE	ALUM	0
282626	283615	276450	241142	276127	—	283593	—	241280	235418	R RR	FRT ½	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE	ALUM	0
I282745	283615	276450	241142	276127	—	283595	—	241280	235418	R RR	FRT ½	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE	ALUM	0
C282928	283643	282982	241142	276127	—	283593	—	241280	235418	R RR	R FRT ½	RIGHT	TOP	R RR	SLEEVE	SLEEVE	ALUM	0
ABJ283048	283615	276450	241142	276114	—	277192	233798	241280	235418	R RR	FRT ½	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE	ALUM	0
C283299	283643	282982	241142	276127	—	283595	—	241280	235418	R RR	R FRT ½	RIGHT	TOP	R RR	SLEEVE	SLEEVE	STEEL	0
AB283339	283615	276450	247389	276127	229662	276101	233798	241280	235418	REAR	FRT ½	LEFT	LEFT	L RR	SLEEVE	SLEEVE	ALUM	0
B283424	283615	276338	241142	275969	241340	276108	233798	241280	235418	L RR	FRT ½	LEFT	LEFT	L RR	SLEEVE	SLEEVE	ALUM	0
A283468	283641	281044	241142	276127	—	—	—	245403	235418	REAR	FRT ½	LEFT	TOP	L RR	SLEEVE	SLEEVE	ALUM	45
283495	283615	276450	247662	247664	—	—	—	241280	235418	R & FRT	R & FRT ½	LEFT	LEFT	L RR	SLEEVE	SLEEVE	ALUM	0
ABJ283515	283615	276450	241142	276114	—	277192	233798	241280	235418	R RR	FRT ½	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE	ALUM	0
B283950	283615	276338	241142	275969	241340	276108	233798	241280	235418	L RR	FRT ½	LEFT	LEFT	L RR	SLEEVE	SLEEVE	ALUM	0
284055	283641	245402	241142	276127	—	—	—	245403	235418	REAR	FRT ½	LEFT	TOP	L RR	SLEEVE	SLEEVE	ALUM	45
B284078	283615	276338	241142	276127	279900	276102	233798	241280	235418	LEFT	RR ½	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE	ALUM	0
284106	283615	248394	244512	276127	—	—	—	214789	235418	OPEN	OPEN ½	LEFT	LEFT	L RR	BALL	SLEEVE	ALUM	45
284184	283641	245402	248471	276114	279900	276336	—	245403	235418	OPEN	OPEN ½	LEFT	TOP	L RR	SLEEVE	SLEEVE	ALUM	45
284262	283641	245402	248471	276114	279900	276336	—	245403	235418	OPEN	OPEN ½	LEFT	TOP	L RR	SLEEVE	SLEEVE	ALUM	45
284265	283615	276450	241142	276127	—	—	230672	241280	235418	R RR	RR ½	LEFT	LEFT	L RR	SLEEVE	SLEEVE	STEEL	0
284266	283615	276450	241142	276127	—	—	230672	241280	235418	L & RR	FRT ½	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE	STEEL	0
284268	283615	240375	244512	276127	279900	—	230672	214789	235418	R & L	RR ½	RIGHT	RIGHT	R RR	BALL	SLEEVE	STEEL	75
A284288	283641	281044	241142	276127	244039	283594	—	245403	235418	REAR	FRT ½	LEFT	TOP	L RR	SLEEVE	SLEEVE	STEEL	45
284682	283641	281044	241142	276127	277218	—	—	245403	235418	OPEN	OPEN ½	LEFT	TOP	L RR	SLEEVE	SLEEVE	STEEL	45
284693	283641	281044	241142	276127	277218	—	—	245403	235418	OPEN	OPEN ½	LEFT	TOP	L RR	SLEEVE	SLEEVE	STEEL	45
284696	283615	248299	244512	276127	—	—	—	241280	235418	OPEN	OPEN ½	LEFT	LEFT	OPEN	BALL	SLEEVE	ALUM	0
284973	283641	248394	249192	275969	—	276380	—	249231	235418	OPEN	OPEN ½	LEFT	TOP	L RR	BALL	SLEEVE	ALUM	45
284974	283641	248394	249192	275969	—	276380	—	249231	235418	OPEN	OPEN ½	LEFT	TOP	L RR	BALL	SLEEVE	ALUM	45
285200	283641	281044	241142	276127	—	—	—	245403	235418	OPEN	FRT ½	RIGHT	TOP	R RR	SLEEVE	SLEEVE	ALUM	45
285252	283641	281044	241142	276127	—	—	—	245403	235418	OPEN	FRT ½	RIGHT	TOP	R RR	SLEEVE	SLEEVE	ALUM	45
285458	283615	248394	244512	276127	—	—	—	214789	235418	OPEN	OPEN ½	RIGHT	RIGHT	OPEN	BALL	SLEEVE	ALUM	45
A285590	283641	281044	241142	276127	—	—	—	245403	235418	REAR	FRT ½	LEFT	TOP	R RR	SLEEVE	SLEEVE	ALUM	45
B285866	283615	276450	241142	276114	—	—	233798	241280	235418	LEFT	FRT ½	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE	ALUM	0
285898	283641	285968	241142	276127	—	—	—	245403	235418	OPEN	OPEN ½	RIGHT	TOP	OPEN	SLEEVE	SLEEVE	ALUM	52
286161	283643	282982	241142	276127	—	—	—	241280	235418	R & RR	R FRT ½	RIGHT	TOP	R RR	SLEEVE	SLEEVE	ALUM	0
286297	283615	280097	241142	276127	226469	277115	—	241280	235418	R FRT	FRT ½	LEFT	LEFT	L RR	SLEEVE	SLEEVE	ALUM	0
286382	283615	276338	241142	276127	279900	277240	233798	241280	235418	R FRT	FRT ½	LEFT	LEFT	L RR	SLEEVE	SLEEVE	ALUM	0
286383	283615	248299	231426	231265	—	—	—	241280	235418	R FRT	R & FRT ½	LEFT	LEFT	L RR	BALL	BALL	ALUM	0
286406	283615	276450	241142	276127	—	—	—	241280	235418	R & FRT	R & FRT ½	LEFT	LEFT	L RR	SLEEVE	SLEEVE	ALUM	0
286418	283615	276450	241142	276127	—	—	—	241280	235418	FRONT	FRT ½	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE	ALUM	0
A286441	283641	281044	241142	276127	244039	283594	—	245403	235418	REAR	FRT ½	LEFT	TOP	L RR	SLEEVE	SLEEVE	STEEL	45
286455	283641	276338	241142	276127	279900	277240	233798	241280	235418	REAR	FRT ½	LEFT	TOP	L RR	SLEEVE	SLEEVE	ALUM	0
A286456	283641	281044	241142	276127	244039	283594	—	245403	292332	REAR	FRT ½	LEFT	TOP	L RR	SLEEVE	SLEEVE	ALUM	45
A286457	283641	281044	241142	276127	244039	283594	—	245403	292332	REAR	FRT ½	LEFT	TOP	L RR	SLEEVE	SLEEVE	ALUM	45
C286461	283643	282982	241142	276127	—	283595	—	241280	292332	REAR	FRT ½	RIGHT	TOP	R RR	SLEEVE	SLEEVE	ALUM	0
I286483	283615	276450	241142	276127	—	283595	—	241280	292332	REAR	FRT ½	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE	ALUM	0
286484	283615	276450	241142	276127	—	282423	—	241280	292332	REAR	FRT ½	RIGHT	RIGHT	R FRT	SLEEVE	SLEEVE	ALUM	0
286485	283643	282982	241142	276127	—	—	—	241280	292332	FRONT	R RR ½	RIGHT	TOP	R RR	SLEEVE	SLEEVE	ALUM	0

A—ADD STR. PLATE 238948  
 B—ADD DISCH. FITTING 213042  
 C—ADD GOV. BRKT. 248487  
 D—ADD DISCH. FITTING 223286  
 E—ADD GOV. BRKT. 245105, TUB. CONN. 205127, TUBING 245106, ELBOW 242318

F—ADD GOV. BRKT. 244833  
 G—ADD DISCH. FITTING 211333  
 H—ADD DISCH. FITTING 233621  
 I—ADD GOV. BRKT. 204105  
 J—ADD GOV. ADAPTER 283338



**DETROIT DIESEL FLANGE — WATER COOLED WITH TACH DRIVE**



**REMFR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
281128	281128	—	285950	281532	289965
281718	281718	—	—	—	—
282554	282749	—	—	—	—
282749	282749	282554	—	—	—
283025	283026	—	—	—	—
283026	283026	—	—	—	—
283922	283967	284163	—	—	—
283967	283967	283922, 284163	—	—	—
284163	283967	283922	—	—	—

**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	CRANK- CASE COVER	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES		DEGREES TILT	A DIMN
						INLET- <sup>3</sup> / <sub>8</sub>	OUTLET-SIZE				FRONT	REAR		
AB281128	283641	276338	245526	245096	241280	OPEN	OPEN 1/2	RIGHT	TOP	R RR	SLEEVE	SLEEVE	0	10.39
C281718	283641	276338	245526	245096	241280	OPEN	OPEN 1/2	RIGHT	TOP	R RR	SLEEVE	SLEEVE	0	10.39
AD282554	283615	276338	245526	245096	241280	OPEN	OPEN 1/2	LEFT	LEFT	L RR	SLEEVE	SLEEVE	0	10.39
AD282749	283615	276338	245526	245096	241280	OPEN	OPEN 1/2	LEFT	LEFT	L RR	SLEEVE	SLEEVE	0	10.39
AC283025	283641	281044	245526	280563	245403	OPEN	OPEN 1/2	LEFT	TOP	L RR	SLEEVE	SLEEVE	45	9.64
AC283026	283641	281044	245526	280563	245403	OPEN	OPEN 1/2	LEFT	TOP	L RR	SLEEVE	SLEEVE	45	9.64
AD283922	283615	248299	248300	245096	241280	OPEN	OPEN 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	0	10.39
AD283967	283615	248299	248300	245096	241280	OPEN	OPEN 1/2	LEFT	LEFT	L RR	BALL	SLEEVE	0	10.39
AB284163	283615	276338	245526	245096	241280	OPEN	OPEN 1/2	LEFT	LEFT	L RR	SLEEVE	SLEEVE	0	10.39

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A—ADD INLET FITTING 277218 & STR. PLATE 238948

B— ADD:

QTY.	PC. NO.	DESCRIPTION	QTY.	PC. NO.	DESCRIPTION
1	245463	TACHOMETER COVER	1	281087	HELIX DRIVEN GEAR
1	245087	GASKET	4	239588	CAP SCREW
4	245464	FH MACH SCREW	1	245091	CAP NUT
1	245085	OIL SEAL RING	1	280561	SLEEVE ASSY
1	244440	RETAINING RING	1	214091	WOODRUFF KEY
1	245461	HELIX DRIVE GEAR			

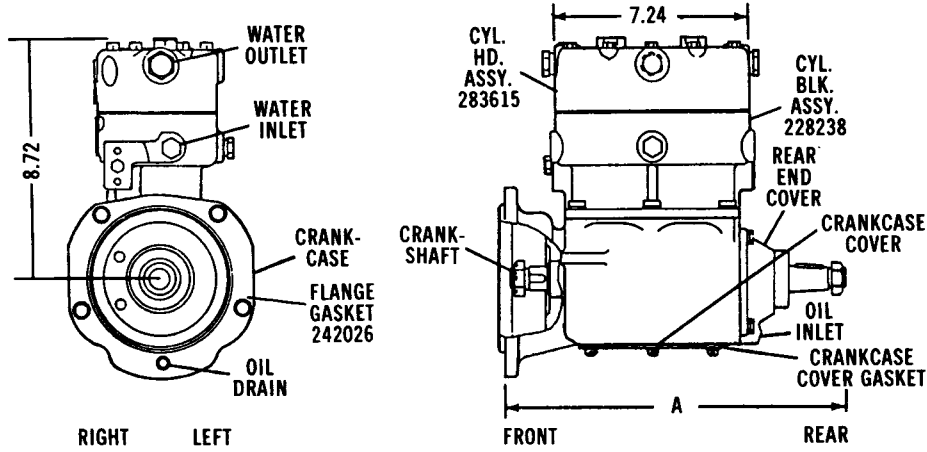
C—SAME AS B EXCEPT USE 281721 HELIX DRIVEN GEAR

D—SAME AS B EXCEPT USE 246125 HELIX DRIVE GEAR

FEB. 1979

SERVICE PARTS INFORMATION  
SHOWN ON PAGES 01-D-2 AND 3.

**DETROIT DIESEL FLANGE — WATER COOLED THRU DRIVE**



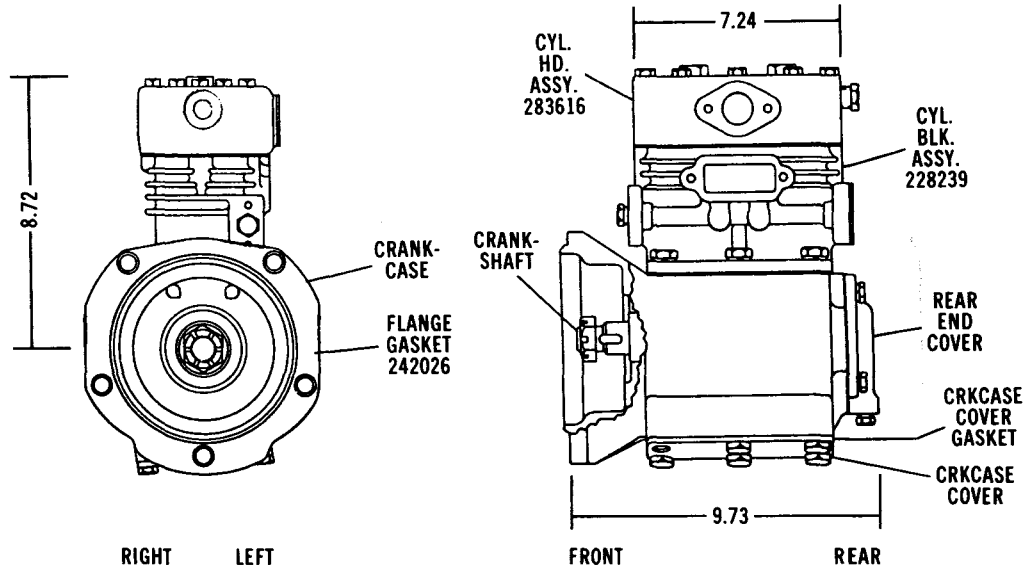
TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
276946	276946	—	—	281963	—
276971	276971	—	286527	—	—
279802	279802	—	—	—	—
284934	284934	—	—	—	—

**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	STUD (HD.)	CRANK- CASE COVER	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES		DEGREES TILT	A DIMN
							INLET- <sup>3</sup> / <sub>8</sub>	OUTLET- <sup>1</sup> / <sub>2</sub>				FRONT	REAR		
A276946	276450	241795	236670	—	241280	235418	R & RR	R & RR	LEFT	LEFT	L RR	SLEEVE	BALL	0	13.11
A276971	276450	241795	236670	—	241280	235418	REAR	REAR	RIGHT	RIGHT	R RR	SLEEVE	BALL	0	13.11
A279802	279803	244523	244528	230672	241280	292332	L & L RR	FRONT	RIGHT	RIGHT	R RR	SLEEVE	BALL	0	11.44
A284934	248394	249106	236670	—	214789	235418	OPEN	OPEN	RIGHT	RIGHT	R RR	BALL	BALL	45	13.11

A—ADD TWO (2) OIL SEAL RING 203238, OIL SEAL 236623, CRKSHAFT KEY 238483 (REAR)

**DETROIT DIESEL FLANGE — WATER COOLED HEAD  
AIR COOLED BLOCK**



**REMFR. EXCH. AND CHANGEOVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
279067	279068	281730, 283458, 283459	—	280281	—
279068	279068	281730, 283458, 283459	—	280281	—
279069	279069	283461, 283462, 284269	285988	280282	—
281730	279068	279067, 283458, 283459	—	280281	—
281733	281733	—	—	—	—
283458	279068	279067, 283459	—	280281	—
283459	279068	279069, 281730	—	280281	—
283461	279069	283462, 284269	285988	280282	—
283462	279069	283461, 284269	285988	280282	—
284269	279069	283461, 283462	285988	280282	—

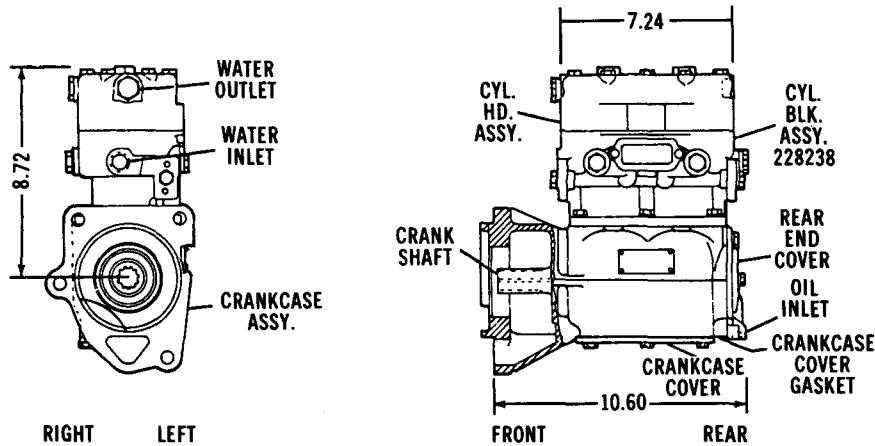
**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	STUD (HD.)	CRANK- CASE COVER	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES		DEGREES TILT
							INLET-½	OUTLET-½				FRONT	REAR	
A279067	276338	241142	276127	—	241280	235418	FRONT	REAR	LEFT	LEFT	L RR	SLEEVE	SLEEVE	0
279068	276450	241142	276127	230672	241280	235418	FRONT	REAR	LEFT	LEFT	L RR	SLEEVE	SLEEVE	0
279069	276450	241142	276127	230672	241280	235418	FRONT	REAR	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE	0
281730	276338	241142	276127	233798	241280	235418	FRONT	REAR	LEFT	LEFT	L RR	SLEEVE	SLEEVE	0
B281733	240375	244512	276127	230672	214789	235418	FRONT	REAR	RIGHT	RIGHT	R RR	BALL	SLEEVE	75
283458	283549	241142	275969	—	241280	235418	OPEN	OPEN	LEFT	LEFT	OPEN	SLEEVE	SLEEVE	0
283459	283549	241142	275969	—	241280	235418	OPEN	OPEN	LEFT	LEFT	OPEN	SLEEVE	SLEEVE	0
283461	283545	241142	275969	—	241280	235418	OPEN	OPEN	RIGHT	RIGHT	OPEN	SLEEVE	SLEEVE	0
283462	283545	241142	275969	—	241280	235418	OPEN	OPEN	RIGHT	RIGHT	OPEN	SLEEVE	SLEEVE	0
284269	276450	241142	276127	230672	241280	235418	FRONT	REAR	RIGHT	RIGHT	R RR	SLEEVE	SLEEVE	0

A—ADD GOV. ADAPTER 226992, GOVERNOR 277240, AIR STR. 226469  
B—ADD AIR STR. 279900

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**CAT FLANGE — WATER COOLED  
SPLINED CRANKSHAFT**



**REMR. EXCH. AND CHANGEVER SELECTIONS**

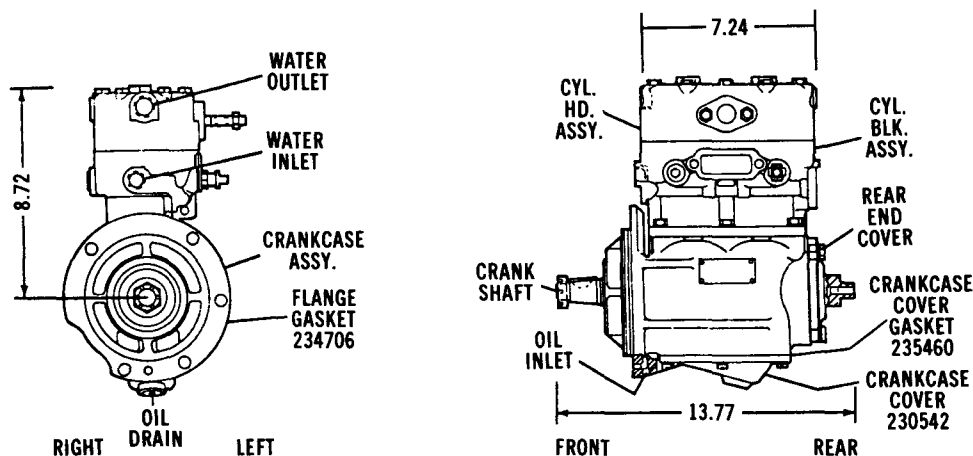
TF-500 COMPR. PC. NO.	STD. REMR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
281540	284068	ANY 284068 ON THIS SHEET	—	—	—
281541	284068	ANY 284068 ON THIS SHEET	—	—	—
283334	284068	ANY 284068 ON THIS SHEET	—	—	—
284068	284068	ANY 284068 ON THIS SHEET	—	—	—
284789	284790	287599	286815	—	289337
284790	284790	284789, 287599	286815	—	289159
287599	284790	284789	286815	—	—
288734	288734	—	—	—	—

**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	STUD (HD.)	CRANK- CASE COVER	CRKCASE COVER GASKET	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES	
								INLET- $\frac{3}{8}$	OUTLET-SIZE				FRONT	REAR
281450	283641	284901	245889	276127	—	243598	235418	L FRT	RR $\frac{1}{2}$	LEFT	TOP	PLGD	SLEEVE	SLEEVE
281541	SUPERSEDED BY 284068		—	—	—	—	—	—	—	—	—	—	—	—
283334	283641	281543	245889	276127	—	243598	235418	FRT	RR $\frac{1}{2}$	LEFT	TOP	PLGD	SLEEVE	SLEEVE
A284069	283641	284116	245889	276127	—	243598	235418	L FRT	RR $\frac{1}{2}$	LEFT	TOP	PLGD	SLEEVE	SLEEVE
284789	283641	284901	248964	276127	—	243598	235418	FRONT	RR $\frac{1}{2}$	LEFT	TOP	L RR	SLEEVE	SLEEVE
284790	283641	284901	248964	276127	—	243598	235418	FRONT	RR $\frac{1}{2}$	LEFT	TOP	L RR	SLEEVE	SLEEVE
287599	283641	284901	248964	276127	—	243598	292332	R FRT	RR $\frac{1}{2}$	LEFT	TOP	L RR	SLEEVE	SLEEVE
288734	283615	288730	249225	283418	235464	214789	292332	L RR	FRT $\frac{1}{2}$	LEFT	LEFT	L RR	SLEEVE	SLEEVE

A—ADD STR. PLATE 238948

**FLANGE — WATER COOLED — THRU DRIVE**



**REMFR. EXCH. AND CHANGEVER SELECTIONS**

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
226538	226538	—	—	280601	—
226657	228371	226855	—	280621	—
226855	228371	226657	—	280621	—
228371	228371	226657, 226855	—	280621	—

**SUB ASSY AND DETAIL REFERENCE**

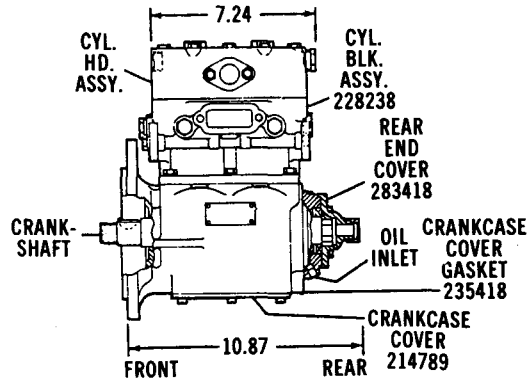
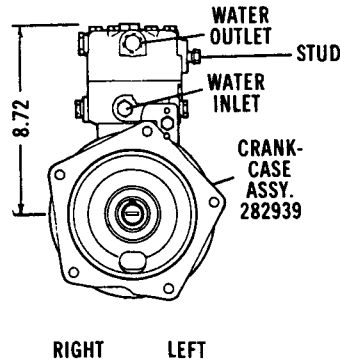
TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CYL. BLK. ASSY.	CRANK- CASE	CRANK- SHAFT	REAR END COVER	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION
						INLET- $\frac{3}{8}$	OUTLET-SIZE			
AB226538	283615	228249	227202	236612	236620	R FRT	FRT $\frac{1}{2}$	LEFT	LEFT	REAR
B226657	226098	226539	227203	231258	231260	OPEN	OPEN $\frac{3}{8}$	LEFT	LEFT	PLGD
B226855	SUPERSEDED BY 228371			—	—	—	—	—	—	—
B228371	226098	228249	227202	231258	231260	OPEN	OPEN	LEFT	LEFT	OPEN

A—ADD STR. PLATE 238948, DRAIN COCK 237705

B—ADD OIL SEAL 236623 (REAR)

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**FLANGE — WATER COOLED — THRU DRIVE**



**REMF. EXCH. AND CHANGEVER SELECTIONS**

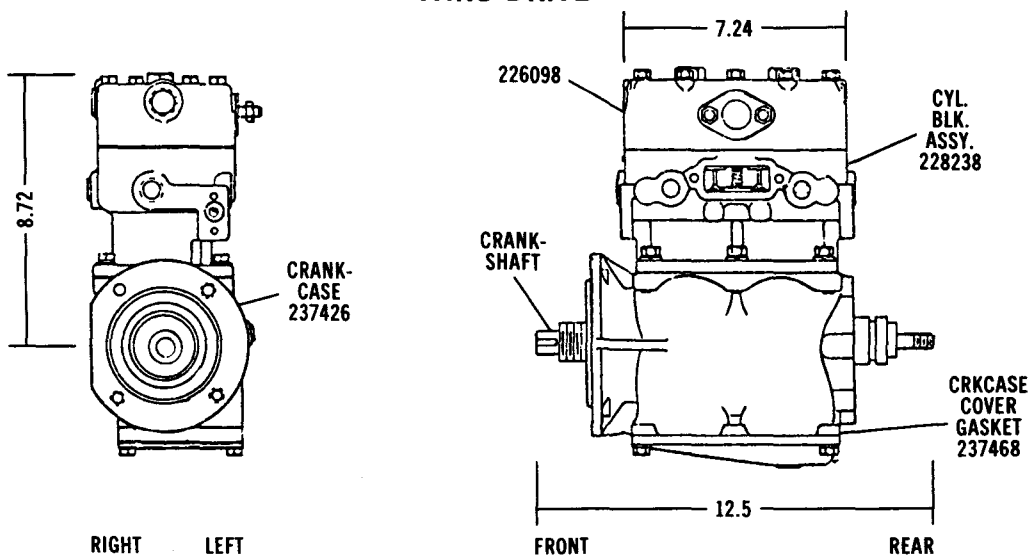
TF-500 COMPR. PC. NO.	STD. REMF. EXCH.	OPTIONS	CHANGEVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
282938	284037	—	—	283989	—
284037	284037	282938	—	283989	—
284938	284988	—	—	—	—

**SUB ASSY AND DETAIL REFERENCE**

TF-500 COMPR. PC. NO.	CYL. HD. ASSY.	CRANK- SHAFT	STUD (HD.)	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES	
				INLET-3/8	OUTLET-SIZE				FRONT	REAR
282938	226098	246976	—	REAR	FRT 3/8	LEFT	LEFT	L RR	SLEEVE	SLEEVE
284037	283615	246976	235464	REAR	FRT 1/2	LEFT	LEFT	L RR	SLEEVE	SLEEVE
284988	283615	249225	235464	REAR	FRT 1/2	LEFT	LEFT	L RR	SLEEVE	SLEEVE



### COMMINS FLANGE — WATER COOLED THRU DRIVE



#### REMFR. EXCH. AND CHANGEOVER SELECTIONS

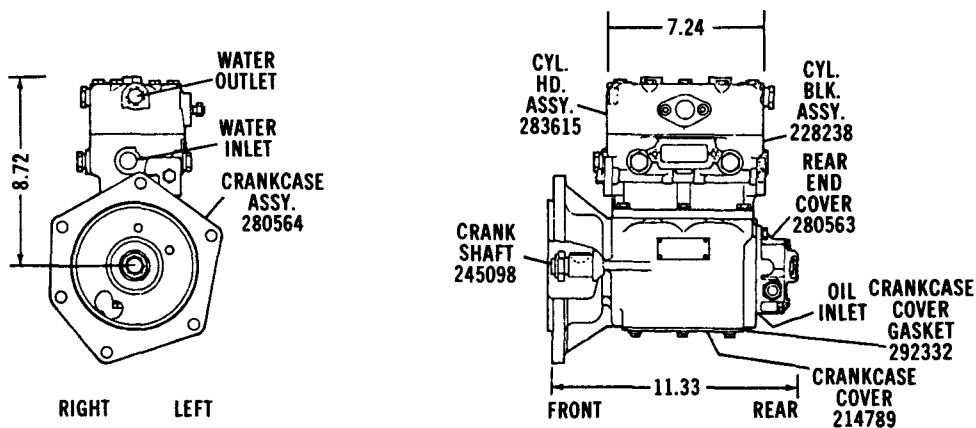
TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
229681	229681	—	—	—	—
275271	275271	—	—	—	—

#### SUB ASSY AND DETAIL REFERENCE

TF-500 COMPR. PC. NO.	CRANK- SHAFT	AIR STR.	GOV.*	WATER PORTS		AIR INLET LOCATION	AIR DISCH. LOCATION	GOV. PORT POSITION	BEARING TYPES	
				INLET-3/8	OUTLET-3/8				FRONT	REAR
229681	239810	226469	—	L RR	FRONT	LEFT	LEFT	L FRT	BALL	BALL
275271	240420	226469	227540	REAR	REAR	LEFT	LEFT	L FRT	BALL	BALL

\*GOV. 227540 IS OBS. TYPE "D" — SEE CATALOG 01-A-1 FOR CURRENT D-2.

### IH FLANGE — WATER COOLED — TACH DRIVE



#### REMFR. EXCH. AND CHANGEOVER SELECTIONS

TF-500 COMPR. PC. NO.	STD. REMFR. EXCH.	OPTIONS	CHANGEOVER TO/FROM		
			TF-501 EQUIV.	TF-600 EQUIV.	TF-700 EQUIV.
280565	280565	—	—	281531	—

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