

1.8000 VALVE AND INJECTOR OPERATING MECHANISM

PART		NAME AND DESCRIPTION	TYPES											
FIG	NUMBER		6 2	6 5	7 2	7 4	7 6	1 2 2	1 2 9	1 4 5	1 6 3	1 6 4	1 6 5	1 6 6
		1.8340 - SPRING, EXHAUST VALVE (CONT'D)												
		* THRU 6D-60776 FOR ENGINES EQUIPPED WITH 5126933 AND 5126934 CAMSHAFTS (STAMPED "V-7") OR 5135902 AND 5135 903 CAMSHAFTS (STAMPED "V").												
		= USE EFFECTIVE WITH 6D-60777 FOR ENGINES EQUIPPED WITH 5199396 AND 5199397 CAMSHAFTS (STAMPED "V7L") REP LACE SPRINGS @ QTY. OF 2 PER BRIDGE.												
		+ USE EFFECTIVE WITH 4D-112278 FOR ENGINES EQUIPPED WITH 5149095 CAMSHAFT (STAMPED "V7L")												
		# 5144019 SPRING MUST BE USED WITH 5126929, 5126930, 5126931 AND 5126932 HI-LIFT CAMSHAFTS ON 4 VALVE ENGIN ES.												
		% 5147424 SPRING MUST BE USED WITH 5149091, 5149093, 5149095 AND 5149097 LO-LIFT CAMSHAFTS ON 4 VALVE ENGIN ES.												
		1.8343 - BRIDGE, EXHAUST VALVE												
9C	5135262	BRIDGE	8	12			6	8	6	6	8	12	12	8
		1.8350 - CAP, EXHAUST VALVE SPRING												
9B	5111338	CAP			6	8								
9C	5123330	CAP	16	24			12	16	12	12	16	24	24	12
		1.8360 - SEAT, EXHAUST VALVE SPRING												
9B	5116243	SEAT (TWO VALVE HEAD)			6	8								
9C	5111467	* SEAT (.060" THICK) * USE WHEN REPLACING SEAT ONLY IN 4 VALVE UNITS THRU 3D-056, 4D-317 AND UNITS EFFECTIVE WITH 3D-160, 4D-614 OR WHENEVER REPLACING VALVES IN ANY 4 VALVE UNIT.	16	24			12	16	12	12	16	24	24	12
		1.8370 - LOCK, EXHAUST VALVE SPRING												
9B	5111337	LOCK (HALVES)			12	16								
9C	5116341	LOCK (HALVES)	32	48			24	32	24	24	32	48	48	24

1.8000 VALVE AND INJECTOR OPERATING MECHANISM

PART			TYPES											
..FIG	NUMBER	NAME AND DESCRIPTION	1 6 7	1 6 8	1 6 9	1 7 0	1 7 1	1 7 2	1 7 3	1 7 4	1 7 5	1 7 6	1 8 0	1 8 1
1.8060 - ARM ASSY., EXHAUST VALVE ROCKER														
INCLUDES ITEMS IN 1.8130, 1.8140, 1.8150 AND 1.8343.														
9A	5135268	ARM ASSY. (RIGHT) (4 VALVE) (ITEM 2)	4		3				3	3	3	4	4	6
9A	5135267	ARM ASSY. (LEFT) (4 VALVE) (ITEM 1)	4		3				3	3	3	4	4	6
9A	5119307	ARM ASSY. (LEFT) (2 VALVE) (ITEM 1)		3		3	4	4						
9A	5119308	ARM ASSY. (RIGHT) (2 VALVE) (ITEM 2)		3		3	4	4						
1.8080 - ARM ASSY., INJECTOR ROCKER														
INCLUDES ITEMS IN 1.8110 THRU 1.8150.														
9A	5179954	ARM ASSY.	4	3	3	3	4	4	3	3	3	4	4	6
1.8110 - BUSHING INJECTOR ROCKER ARM-LARGE														
9A	5150318	BUSHING	4	3	3	3	4	4	3	3	3	4	4	6
9A	8924355	BUSHING, .0015" U.S. I.D.	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
1.8120 - BUSHING, INJECTOR AND EXHAUST VALVE ROCKER ARM-SMALL														
9A	5150311	BUSHING	4	3	3	3	4	4	3	3	3	4	4	6
9A	8924354	BUSHING, .0015" U.S. I.D.	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
1.8130 - CLEVIS, INJECTOR AND EXHAUST VALVE ROCKER ARM														
9A	5150312	CLEVIS	12	9	9	9	12	12	9	9	9	12	12	18
1.8140 - BUSHING, INJECTOR AND EXHAUST VALVE ROCKER ARM CLEVIS														
9A,C	5123700	BUSHING	20	9	15	9	12	12	15	15	15	20	20	30
1.8150 - PIN, INJECTOR AND EXHAUST VALVE ROCKER ARM CLEVIS														
9A	5150314	PIN (CLEVIS END)	12	9	9	9	12	12	9	9	9	12	12	18
9A,C	5123711	PIN (BRIDGE END)	8		6				6	6	6	8	8	12
1.8160 - SHAFT ASSY., ROCKER														
A SHAFT ASSY. INCLUDES PLUG IN 1.8160.														
9A	5116072	SHAFT ASSY.	4	3	3	3	4	4	3	3	3	4	4	6
9A	5151272	PLUG, 11/32" DIA. X 1/4" SPECIAL	4	3	3	3	4	4	3	3	3	4	4	6

1.8000 VALVE AND INJECTOR OPERATING MECHANISM

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	1 6 7	1 6 8	1 6 9	1 7 0	1 7 1	1 7 2	1 7 3	1 7 4	1 7 5	1 7 6	1 8 0	1 8 1
1.8170 - BRACKET, ROCKER SHAFT														
9A	5116128	BRACKET	8	6	6	5	8	7	6	6	6	8	8	12
9A	5141276	BRACKET				1	1	1						
9A	5119198	BOLT, 7/16"-14X3.38"	8	6	6	6	8	8	6	6	6	8	8	12
1.8180 - ROD, PUSH														
9A	5128640	ROD	12	9	9	9	12	12	9	9	9	12	12	18
9A	5151601	LOCKNUT	12	9	9	9	12	12	9	9	9	12	12	18
1.8190 - SPRING, PUSH ROD														
9A	5108918	SPRING (TWO ORANGE STRIPES) (INJECTOR & VALVE)	12	9	9	9	12	12	9	9	9	12	12	18
1.8200 - SEAT, PUSH ROD SPRING-UPPER														
9A	5108919	SEAT (INJECTOR & VALVE)	12	9	9	9	12	12	9	9	9	12	12	18
1.8210 - SEAT, PUSH ROD SPRING-LOWER														
9A	5123250	SEAT	12	9	9	9	12	12	9	9	9	12	12	18
1.8250 - RETAINER, PUSH ROD														
9A	5150303	RETAINER (SNAP RING)	12	9	9	9	12	12	9	9	9	12	12	18
1.8260 - FOLLOWER ASSY., CAM														
9A	8924439	FOLLOWER ASSY. (INCLUDES ROLLER SET)	12	9	9	9	12	12	9	9	9	12	12	18
1.8265 - ROLLER SET, CAM FOLLOWER														
INCLUDES ROLLER WITH BUSHING AND PIN.														
	8923814	ROLLER SET (STANDARD)	12	9	9	9	12	12	9	9	9	12	12	18
1.8300 - GUIDE, CAM FOLLOWER														
9A	5116125	GUIDE	4	3	3	3	4	4	3	3	3	4	4	6
9A	443603	BOLT, 1/4"-20X3/4" (12.9001)	8	6	6	6	8	8	6	6	6	8	8	12
9A	103319	LOCKWASHER, 1/4" (12.9200)	8	6	6	6	8	8	6	6	6	8	8	12
1.8310 - VALVE, EXHAUST														
9C	5199323	VALVE (INCLUDES LOCK) (4 VALVE)	16		12				12	12	12	16		
9B	5195948	VALVE (INCLUDES LOCK) (2 VALVE)		6		6	8	8						
9C	5197176	VALVE (INCLUDES LOCK) (4 VALVE)											16	24

1.8000 VALVE AND INJECTOR OPERATING MECHANISM

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	1 6 7	1 6 8	1 6 9	1 7 0	1 7 1	1 7 2	1 7 3	1 7 4	1 7 5	1 7 6	1 8 0	1 8 1
1.8320 - GUIDE, EXHAUST VALVE														
A VALVE GUIDE KIT INCLUDES 1-5131961 GUIDE AND 1-5131973 SEAL. INSTALLER (PKG) CONSISTS OF 100 PIECES.														
9C	5131961	GUIDE (4 VALVE)	16		12				12	12	12	16	16	24
9B	5129919	GUIDE (2 VALVE)		6		6	8	8						
	5198529	KIT, VALVE GUIDE AND SEAL	16		12				12	12	12	16	16	24
9C	8921741	SEAL, VALVE GUIDE (4 VALVE)	16		12				12	12	12	16	16	24
9B	5129920	SEAL, VALVE GUIDE (2 VALVE)		6		6	8	8						
	5199912	INSTALLER, EXHAUST VALVE SEAL (4 VALVE)	AR		AR				AR	AR	AR	AR	AR	AR
	5199913	INSTALLER, EXHAUST VALVE SEAL (2 VALVE)		AR		AR	AR	AR						
1.8330 - INSERT, EXHAUST VALVE														
9C	5116361	INSERT (STANDARD) (4 VALVE)	16		12				12	12	12	16	16	24
9B	5116196	INSERT (STANDARD) (2 VALVE)		6		6	8	8						
9C	5196752	INSERT (.010" O.S. O.D.) (4 VALVE)	AR		AR				AR	AR	AR	AR	AR	AR
9B	5196751	INSERT (.010" O.S. O.D.) (2 VALVE)		AR		AR	AR	AR						
1.8340 - SPRING, EXHAUST VALVE														
9C	5147424	SPRING (BLUE AND WHITE STRIPE) (4 VALVE)	16		12				12		12	16	16	24
9B	5116140	SPRING (2 VALVE)		6		6	8	8						
9C	5144019	SPRING (RED AND GREEN STRIPE) (4 VALVE)								12				
1.8343 - BRIDGE, EXHAUST VALVE														
9C	5135262	BRIDGE	8		6				6	6	6	8	8	12
1.8350 - CAP, EXHAUST VALVE SPRING														
9C	5123330	CAP (4 VALVE)	16		12				12	12	12	16	16	24
9B	5111338	CAP (2 VALVE)		6		6	8	8						
1.8360 - SEAT, EXHAUST VALVE SPRING														
9C	5111467	SEAT (.063" THICK) (4 VALVE)	16		12				12	12	12	16	16	24
9B	5116243	SEAT (2 VALVE)		6		6	8	8						
1.8370 - LOCK, EXHAUST VALVE SPRING														
9C	5116341	LOCK (HALVES) (4 VALVE)	32		24				24	24	24	32	32	48
9B	5111337	LOCK (HALVES) (2 VALVE)		12		12	16	16						

1.8000 VALVE AND INJECTOR OPERATING MECHANISM

			TYPES											
FIG	PART NUMBER	NAME AND DESCRIPTION	1 8 2	1 8 5	1 8 6	1 8 7	1 8 8	1 9 2	1 9 3	2 0 3	2 0 4	2 7 0	2 8 4	2 8 7
1.8060 - ARM ASSY., EXHAUST VALVE ROCKER														
INCLUDES ITEMS IN 1.8130, 1.8140, 1.8150 AND 1.8343.														
9A	5135268	ARM ASSY. (RIGHT) (4 VALVE) (ITEM 2)	3	3				3		3	6	4	4	6
9A	5135267	ARM ASSY. (LEFT) (4 VALVE) (ITEM 1)	3	3				3		3	6	4	4	6
9A	5119307	ARM ASSY. (LEFT) (2 VALVE) (ITEM 1)			4	4	4		3					
9A	5119308	ARM ASSY. (RIGHT) (2 VALVE) (ITEM 2)			4	4	4		3					
1.8080 - ARM ASSY., INJECTOR ROCKER														
INCLUDES ITEMS IN 1.8110 THRU 1.8150.														
9A	5179954	+ ARM ASSY.	3	3	4	4	4	3	3	3	6		4	6
9A	8923543	ARM ASSY. + NOT SERVICED. USE 8923543.												
1.8110 - BUSHING INJECTOR ROCKER ARM-LARGE														
9A	5150318	BUSHING	3	3	4	4	4	3	3	3	6	4	4	6
9A	8924355	BUSHING, .0015" U.S. I.D.	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
1.8120 - BUSHING, INJECTOR AND EXHAUST VALVE ROCKER ARM-SMALL														
9A	5150311	BUSHING	3	3	4	4	4	3	3	3	6	4	4	6
9A	8924354	BUSHING, .0015" U.S. I.D.	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
1.8130 - CLEVIS, INJECTOR AND EXHAUST VALVE ROCKER ARM														
9A	5150312	CLEVIS	9	9	12	12	12	9	9	9	18	12	12	18
1.8140 - BUSHING, INJECTOR AND EXHAUST VALVE ROCKER ARM CLEVIS														
9A,C	5123700	BUSHING	15	15	12	12	12	15	9	15	30	20	20	30
1.8150 - PIN, INJECTOR AND EXHAUST VALVE ROCKER ARM CLEVIS														
9A	5150314	PIN (CLEVIS END)	9	9	12	12	12	9	9	9	18	12	12	18
9A,C	5123711	PIN (BRIDGE END)	6	6				6		6	12	8	8	12
1.8160 - SHAFT ASSY., ROCKER														
A SHAFT ASSY. INCLUDES PLUG IN 1.8160.														
9A	5116072	SHAFT ASSY.	3	3	4	4	4	3	3	3	6	4	4	6
9A	5151272	PLUG, 11/32" DIA. X 1/4" SPECIAL	3	3	4	4	4	3	3	3	6	4	4	6

1.8000 VALVE AND INJECTOR OPERATING MECHANISM

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	1 8 2	1 8 5	1 8 6	1 8 7	1 8 8	1 9 2	1 9 3	2 0 3	2 0 4	2 7 0	2 8 4	2 8 7
1.8170 - BRACKET, ROCKER SHAFT														
9A	5116128	BRACKET	6	6	8	8	7	6	6	6	12	8	8	12
9A	5141276	BRACKET					1							
9A	5119198	BOLT, 7/16"-14X3.38"	6	6	8	8	8	6	6	6	12	8	8	12
1.8180 - ROD, PUSH														
9A	5128640	ROD	9	9	12	12	12	9	9	9	18	12	12	18
9A	5151601	LOCKNUT	9	9	12	12	12	9	9	9	18	12	12	18
1.8190 - SPRING, PUSH ROD														
9A	5108918	SPRING (INJECTOR & VALVE)	9	9	12	12	12	9	9	9	18	12	12	18
1.8200 - SEAT, PUSH ROD SPRING-UPPER														
9A	5108919	SEAT (INJECTOR & VALVE)	9	9	12	12	12	9	9	9	18	12	12	18
1.8210 - SEAT, PUSH ROD SPRING-LOWER														
9A	5123250	SEAT	9	9	12	12	12	9	9	9	18	12	12	18
1.8250 - RETAINER, PUSH ROD														
9A	5150303	RETAINER (SNAP RING)	9	9	12	12	12	9	9	9	18	12	12	18
1.8260 - FOLLOWER ASSY., CAM														
9A	8924439	FOLLOWER ASSY. (INCLUDES ROLLER SET)	9	9	12	12	12	9	9	9	18	12	12	18
1.8265 - ROLLER SET, CAM FOLLOWER														
INCLUDES ROLLER WITH BUSHING AND PIN.														
	8923814	ROLLER SET (STANDARD)	9	9	12	12	12	9	9	9	18	12	12	18
1.8300 - GUIDE, CAM FOLLOWER														
9A	5116125	GUIDE	3	3	4	4	4	3	3	3	6	4	4	6
9A	443603	BOLT, 1/4"-20X3/4" (12.9001)	6	6	8	8	8	6	6	6	12	8	8	12
9A	103319	LOCKWASHER, 1/4" (12.9200)	6	6	8	8	8	6	6	6	12	8	8	12
1.8310 - VALVE, EXHAUST														
C	5197176	VALVE (INCLUDES LOCK) (4 VALVE)	12					12				16		24
C	5199323	VALVE (INCLUDES LOCK) (4 VALVE)		12						12	24		16	
B	5195948	VALVE (INCLUDES LOCK) (2 VALVE)			8	8	8		6					

1.8000 VALVE AND INJECTOR OPERATING MECHANISM

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	1 8 2	1 8 5	1 8 6	1 8 7	1 8 8	1 9 2	1 9 3	2 0 3	2 0 4	2 7 0	2 8 4	2 8 7
1.8320 - GUIDE, EXHAUST VALVE														
A VALVE GUIDE KIT INCLUDES 1-5131961 GUIDE AND 1-8921741 SEAL. INSTALLER (PKG) CONSISTS OF 100 PIECES.														
9C	5131961	GUIDE (4 VALVE)	12	12				12	8	12	24	16	12	16
9B	5129919	GUIDE (2 VALVE)			8	8	8		8					
	5198529	KIT, VALVE GUIDE AND SEAL (4 VALVE)	12	12				12		12	24	16	12	12
9C	8921741	SEAL, VALVE GUIDE (4 VALVE)	12	12				12		12	24	16	12	12
9B	8921209	SEAL, VALVE GUIDE (2 VALVE)			8	8	8		8					
	5199912	INSTALLER, EXHAUST VALVE SEAL (4 VALVE)	AR	AR				AR		AR	AR	AR	AR	AR
	5199913	INSTALLER, EXHAUST VALVE SEAL (2 VALVE)			AR	AR	AR		AR					
1.8330 - INSERT, EXHAUST VALVE														
9C	8921501	INSERT (STANDARD) (4 VALVE)	12	12				12		12	24		16	12
9B	5116196	INSERT (STANDARD) (2 VALVE)			8	8	8		8					
9C	5196752	INSERT (.010" O.S. O.D.) (4 VALVE)	AR	AR				AR		AR	AR	AR	AR	AR
9B	5196751	INSERT (.010" O.S. O.D.) (2 VALVE)			AR	AR	AR		AR					
9C	8921502	INSERT (MULTIFUEL) (4 VALVE)										16		12
1.8340 - SPRING, EXHAUST VALVE														
9C	5147424	SPRING (SOLID RED COLOR) (4 VALVE)	12	12						12	24	16	16	
9B	5116140	SPRING (2 VALVE)			8	8	8		6					
9C	5144019	% SPRING (RED AND GREEN STRIPE) % 5144019 SPRING MUST BE USED WITH 5126929, 5126930, 5126931 AND 5126932 HI-LIFT CAMSHAFTS ON 4 VALVE ENGINES.						12						24
1.8343 - BRIDGE, EXHAUST VALVE														
9C	5135262	BRIDGE	6	6				6		6	12	8	8	12
1.8350 - CAP, EXHAUST VALVE SPRING														
9C	5123330	CAP (4 VALVE)	12	12				12		12	24	16	16	24
9B	5111338	CAP (2 VALVE)			8	8	8		6					
1.8360 - SEAT, EXHAUST VALVE SPRING														
9C	5111467	SEAT (.063" THICK) (4 VALVE)	12	12				12		12	24	16	16	24
9B	5116243	SEAT (2 VALVE)			8	8	8		6					
1.8370 - LOCK, EXHAUST VALVE SPRING														
9C	5116341	LOCK (HALVES) (4 VALVE)	24	24				24		24	48	32	32	48
9B	5111337	LOCK (HALVES) (2 VALVE)			16	16	16		12					

1.8000 VALVE AND INJECTOR OPERATING MECHANISM

PART			TYPES				
FIG	NUMBER	NAME AND DESCRIPTION	2	2	2	3	
			8	9	9	0	1
			9	3	5	2	7
		1.8060 - ARM ASSY., EXHAUST VALVE ROCKER					
		INCLUDES ITEMS IN 1.8130, 1.8140, 1.8150 AND 1.8343.					
9A	5135268	ARM ASSY. (RIGHT) (4 VALVE) (ITEM 2)	3	6	6	6	3
9A	5135267	ARM ASSY. (LEFT) (4 VALVE) (ITEM 1)	3	6		6	3
	8927905	ARM ASSY. (LEFT) (4 VALVE) (JAC BRK)			6		
		1.8072 - KIT, HOUSINGS AND ATTACHING PARTS (JACOBS BRAKE)					
	8927912	+ KIT (# 3501)			1		
	10517266	+ HOUSING, OIL SUPPLY (#3501)			2		
	10513762	+ HOUSING, DRONE (#3502)			4		
	10513740	+ HOUSING ASSY. (ATTACHING PARTS) (#2885) (INCLUDES PLUGS, NUTS, CONNECTORS AND SEALS SHOWN IN 1. 8072)				1	
	10513739	+ PLUG (#2328)			4		
	10513738	+ NUT, JAM (#2249)			4		
	10513737	+ CONNECTOR (#2235)			4		
	10513141	+ SEAL (#2236)			4		
	10513101	+ BOLT (#2715)			12		
		+ NOT SERVICED BY DETROIT DIESEL ALLISON DIVISION, PROCURE FROM "THE JACOBS MANUFACTURING CO.", WEST HART FORD, CONNECTICUT, FURNISH THEIR PART NUMBER IN PARENTHESES.					
		1.8080 - ARM ASSY., INJECTOR ROCKER					
		INCLUDES ITEMS IN 1.8110 THRU 1.8150.					
9A	8923543	ARM ASSY.	3	6	6	6	3
		1.8110 - BUSHING INJECTOR ROCKER ARM-LARGE					
9A	5150318	BUSHING	3	6	6	6	3
9A	8924355	BUSHING, .0015" U.S. I.D.	AR	AR	AR	AR	AR
		1.8120 - BUSHING, INJECTOR AND EXHAUST VALVE ROCKER ARM-SMALL					
9A	5150311	BUSHING	3	6	6	6	3
9A	8924354	BUSHING, .0015" U.S. I.D.	AR	AR	AR	AR	AR
		1.8130 - CLEVIS, INJECTOR AND EXHAUST VALVE ROCKER ARM					
1A	5150312	CLEVIS	12	18	18	18	12
		1.8140 - BUSHING, INJECTOR AND EXHAUST VALVE ROCKER ARM CLEVIS					
1A,C	5123700	BUSHING	15	30	30	30	15

1.8000 VALVE AND INJECTOR OPERATING MECHANISM

PART		NAME AND DESCRIPTION	TYPES														
FIG	NUMBER		2	2	2	3	3										
			8	2	9	0	1										
			9	9	5	2	7										
				3													
		1.8150 - PIN, INJECTOR AND EXHAUST VALVE ROCKER ARM CLEVIS															
9A	5150314	PIN (CLEVIS END)	9	18	18	18	9										
9A,C	5123711	PIN (BRIDGE END)	6	12	6	12	6										
	10513760	+ PIN (BRIDGE END) (#2872)			6												
		+ NOT SERVICED BY DETROIT DIESEL ALLISON DIVISION, PROCURE FROM "THE JACOBS MANUFACTURING CO.", WEST HART FORD, CONNECTICUT. FURNISH THEIR PART NUMBER IN PARENTHESES.															
		1.8160 - SHAFT ASSY., ROCKER															
		A SHAFT ASSY. INCLUDES PLUG IN 1.8160.															
9A	5116072	SHAFT ASSY.	3	6	6	6	3										
9A	5151272	PLUG, 11/32" DIA. X 1/4" SPECIAL	3	6	6	6	3										
		1.8170 - BRACKET, ROCKER SHAFT															
9A	5116128	BRACKET	6	12	12	12	6										
9A	5119198	BOLT, 7/16"-14X3.38"	6	12	12	12	6										
		1.8180 - ROD, PUSH															
9A	5128640	ROD	9	18	18	18	9										
9A	5151601	LOCKNUT	9	18	18	18	9										
		1.8190 - SPRING, PUSH ROD															
9A	5108918	SPRING (INJECTOR & VALVE)	9	18	18	18	9										
		1.8200 - SEAT, PUSH ROD SPRING-UPPER															
9A	5108919	SEAT (INJECTOR & VALVE)	9	18	18	18	9										
		1.8210 - SEAT, PUSH ROD SPRING-LOWER															
9A	5123250	SEAT	9	18	18	18	9										
		1.8250 - RETAINER, PUSH ROD															
9A	5150303	RETAINER (SNAP RING)	9	18	18	18	9										
		1.8260 - FOLLOWER ASSY., CAM															
9A	8924439	FOLLOWER ASSY. (INCLUDES ROLLER SET)	9	18	18	18	9										

1.8000 VALVE AND INJECTOR OPERATING MECHANISM

PART			TYPES				
FIG	NUMBER	NAME AND DESCRIPTION	289	293	295	302	317
1.8265 - ROLLER SET, CAM FOLLOWER							
INCLUDES ROLLER WITH BUSHING AND PIN.							
	8923814	ROLLER SET (STANDARD)	9	18	18	18	9
1.8300 - GUIDE, CAM FOLLOWER							
9A	5116125	GUIDE	3	6	6	6	3
9A	443603	BOLT, 1/4"-20X3/4" (12.9001)	6	12	12	12	6
9A	103319	LOCKWASHER, 1/4" (12.9200)	6	12	12	12	6
1.8310 - VALVE, EXHAUST							
9C	5197176	VALVE (INCLUDES LOCK) (4 VALVE)			24	24	12
9C	5199323	VALVE (INCLUDES LOCK) (4 VALVE)	12	24			
1.8320 - GUIDE, EXHAUST VALVE							
A VALVE GUIDE KIT INCLUDES 1-5131961 GUIDE AND 1-8921741 SEAL. INSTALLER (PKG) CONSISTS OF 100 PIECES.							
9C	5131961	GUIDE (4 VALVE)	12	12	12	12	12
	5198529	KIT, VALVE GUIDE AND SEAL (4 VALVE)	12	12	12	12	12
9C	8921741	SEAL, VALVE GUIDE (4 VALVE)	12	12	12	12	12
	5199912	INSTALLER, EXHAUST VALVE SEAL (4 VALVE)	AR	AR	AR	AR	AR
1.8330 - INSERT, EXHAUST VALVE							
9C	8921501	INSERT (STANDARD) (4 VALVE)	12	12	12		
9C	8921502	INSERT (MULTIFUEL) (4 VALVE)		12	12	12	12
9C	5196752	INSERT (.010" O.S. O.D.) (4 VALVE)	AR	AR	AR	AR	AR
1.8340 - SPRING, EXHAUST VALVE							
9C	5147424	SPRING (SOLID RED COLOR) (4 VALVE)	12			24	12
9C	5144019	% SPRING (RED AND GREEN STRIPE)		24	24		
% 5144019 SPRING MUST BE USED WITH 5126929, 5126930, 5126931 AND 5126932 HI-LIFT CAMSHAFTS ON 4 VALVE ENGINES.							
1.8343 - BRIDGE, EXHAUST VALVE							
9C	5135262	BRIDGE	6	12	6	12	6
	10513100	+ BRIDGE (#2871)			6		
+ NOT SERVICED BY DETROIT DIESEL ALLISON DIVISION, PROCURE FROM "THE JACOBS MANUFACTURING CO.", WEST HART FORD, CONNECTICUT. FURNISH THEIR PART NUMBER IN PARENTHESES.							

1.8000 VALVE AND INJECTOR OPERATING MECHANISM

PART		NAME AND DESCRIPTION	TYPES				
FIG	NUMBER		289	293	295	302	317
1.8350 - CAP, EXHAUST VALVE SPRING							
9C	5123330	CAP (4 VALVE)	12	24	24	24	12
1.8360 - SEAT, EXHAUST VALVE SPRING							
9C	5111467	SEAT (.063" THICK) (4 VALVE)	12	24	24	24	12
1.8370 - LOCK, EXHAUST VALVE SPRING							
9C	5116341	LOCK (HALVES) (4 VALVE)	24	48	48	48	24

1.8000A ROCKER COVER

PART ..FIG .. NUMBER .. NAME AND DESCRIPTION ..			TYPES											
			3 6	3 7	3 8	3 9	4 0	4 1	4 2	4 7	5 3	5 4	5 5	5 8
1.8450 - COVER ASSY., ROCKER														
9D	5125349	+ COVER, 2-53 (PLAIN)	1											
9D	5125348	COVER, 2-53 (ITEM 2)(Y-6")		1										
9D	5125356	COVER, 3,6V53 (PLAIN)			1							2		
9D	5125355	COVER, 3,6V53 (ITEM 2)(Y-6")				1					2			
9D	5125353	COVER, 4,8V53 (PLAIN)					1							
9D	5125352	COVER, 4,8V53 (ITEM 2)(Y-6")						1						
9D	5125350	* COVER, 2-53 (ITEM 1)(X-6")(5125348)							1					
9D	5125354	* COVER, 4,8V53(ITEM 1)(X-6")(5125352)								1				
9D	5125357	* COVER, 3,6V53(ITEM 1)(X-6")(5125355)											1	
9D	5127116	* COVER, 4,8V53 (ITEM 1)(X-16.82") (5145366)												1
* NOT SERVICED, USE PART SHOWN IN PARENTHESES. NOTE: CUSTOMER MUST ALSO INSTALL FLYWHEEL HOUSING BREATHER I F UNIT DOES NOT HAVE ONE.														
+ NOT SERVICED, USE 5125348 COVER ASSY. AND 5108474 CAP ASSY.														
1.8455 - GASKET, ROCKER COVER														
9D	5147993	GASKET, 2-53	1	1					1					
9D	5147994	GASKET, 3,6V53			1	1					2	2	1	
9D	5147506	GASKET, 4,8V53					1	1		1				
1.8460 - BOLT, ROCKER COVER														
9D	5100104	SCREW ASSY.	4	4	4	4	6	6	2	6	8	8	4	6
1.8500 - PLATE, OPTION AND ACCESSORY NAME														
5104203	* PLATE	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
* NOT SERVICED BY DDA. FOR REPLACEMENT PLATE CONTACT YOUR LOCAL DISTRIBUTOR AND PROVIDE ENGINE SERIAL NUMBE R.														
1.8502 - RETAINER, ROCKER COVER NAME PLATE														
5178347	RETAINER, NAME PLATE	1	1	1	1	1	1	1	1	1	2	2	1	1

1.8000A ROCKER COVER

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	6 1	6 2	6 3	6 4	6 5	6 6	6 8	7 0	7 1	7 2	7 3	7 4
1.8450 - COVER ASSY., ROCKER														
9D	5127778	COVER, 3,6V53 (ITEM 4)(Y-8.72",Z-6")	1											
9D	5125356	COVER, 3,6V53 (PLAIN)		1		1								
9D	5127779	COVER, 4, 8V53 (ITEM 4) (Y-8.72", Z-6.02")			1									
9D	5125355	COVER, 3,6V53 (ITEM 2)(Y-6")				1	1							
9D	5127777	COVER, 2-53 (ITEM 4)(Y-3.32",Z-6")					1							
9D	5128373	COVER, 4,8V53 (ITEM 4)(Y-14.12", Z-16.82")							1					
9D	5128372	COVER, 3,6V53 (ITEM 4)(Y-8.72", Z-11.42")					1			1				
9D	5128430	COVER, 3,6V53 (ITEM 3)(Z-11.42")		1							1			
9D	5128429	COVER, 3,6V53 (ITEM 3)(Z-6")										1		
9D	5128432	COVER, 4,8V53 (ITEM 3)(Z-16.82")											1	
9D	5128431	% COVER, 4,8V53 (ITEM 3)(Z-6") % NOT SERVICED. FOR SERVICE USE 5127779 AND 5108474 CAP.												1
1.8455 - GASKET, ROCKER COVER														
9D	5147993	GASKET, 2-53						1						
9D	5147994	GASKET, 3,6V53	1	2		2	2			1	1	1		
9D	5147506	GASKET, 4,8V53			1				1				1	1
1.8460 - BOLT, ROCKER COVER														
9D	5100104	SCREW ASSY.	4	8	6	8	8	4	6	4	4	4	6	6
1.8500 - PLATE, OPTION AND ACCESSORY NAME														
5104203	* PLATE	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
* NOT SERVICED BY DDA. FOR REPLACEMENT PLATE CONTACT YOUR LOCAL DISTRIBUTOR AND PROVIDE ENGINE SERIAL NUMBE R.														
1.8502 - RETAINER, ROCKER COVER NAME PLATE														
5178347	RETAINER, NAME PLATE	1	2	1	2	2	1	1	1	1	1	1	1	1

1.8000A ROCKER COVER

PART FIG . . . NUMBER NAME AND DESCRIPTION			TYPES											
			7 7	7 8	8 0	8 2	8 6	8 7	8 8	9 7	1 0 3	1 0 6	1 0 7	1 0 8
1.8450 - COVER ASSY., ROCKER														
9D	5162981	COVER, 4.8V53 (ITEM 4)(Y-2.46", Z-16.82")	1											
9D	5100526	COVER, 3.6V53 (ITEM 2) (Y-6.02")		1						1				
9D	5132442	+ COVER, 3.6V53 (PLAIN)		1						1				
9D	5128372	COVER, 3.6V53 (ITEM 4)(Y-8.72", Z-11.42")			1									
9D	5125356	COVER, 3.6V53 (PLAIN)			1			1	1					
9D	5170503	COVER, 3.6V53 (ITEM 3, TOP OUTLET) (Z-6")				1								
9D	5125355	COVER, 3.6V53 (ITEM 2)(Y-6")				1		1						
9D	5130408	COVER, 3.6V53 (ITEM 3)(Z-11.42")					1							
9D	5100519	COVER, 3.6V53 (ITEM 4)(Y-8.72", Z-6")							1					
9D	5125352	COVER, 4.8V53 (ITEM 2)(Y-6")									1			
9D	5125353	COVER, 4.8V53 (PLAIN)									1			1
9D	5128373	COVER, 4.8V53 (ITEM 4)(Z-14.12", Z-16.82")										1	1	1
9D	5128432	COVER, 4.8V53 (ITEM 3)(Z-16.82") + NOT SERVICED. USE 5109384 AND 5178347.											1	
1.8455 - GASKET, ROCKER COVER														
9D	5147506	GASKET, 4.8V53	1								2	1	2	2
9D	5147994	GASKET, 3.6V53		2	2	2	2	2	2	2				
1.8460 - BOLT, ROCKER COVER														
9D	5100104	SCREW ASSY.	6	8	8	8	8	8	8	8	12	6	12	12
1.8500 - PLATE, OPTION AND ACCESSORY NAME														
5104203	* PLATE	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
	* NOT SERVICED BY DDA. FOR REPLACEMENT PLATE CONTACT YOUR LOCAL DISTRIBUTOR AND PROVIDE ENGINE SERIAL NUMBER.													
1.8502 - RETAINER, ROCKER COVER NAME PLATE														
5178347	RETAINER, NAME PLATE		1	2	2	1	1	2	2	2	2	1	2	2

1.8000A ROCKER COVER

PART		TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	1	1	1	1	1	1	1	1	1	1	1
			0	1	1	2	3	6	7	8	8	8	8
			9	0	4	0	2	7	1	1	3	5	5
1.8450 - COVER ASSY., ROCKER													
9D	5132442	= COVER, 3,6V53 (PLAIN)	1										
9D	5125356	COVER, 3,6V53 (PLAIN)		1					2				
9D	5125355	COVER, 3,6V53 (ITEM 2)(Y-6")										1	
9D	5125352	COVER, 4,8V53 (ITEM 2)(Y-6")				1							
9D	5125353	COVER, 4,8V53 (PLAIN)						1			1		
9D	5128373	COVER, 4,8V53 (ITEM 4)(Z-14.12", Z-16.82")										1	
9D	5128432	COVER, 4,8V53 (ITEM 3)(Z-16.82")				1	1			1			
9D	5100526	COVER, 3,6V53 (ITEM 2)(Y-6.02")	1										
9D	5136616	# COVER, 3, 6V53 (FILLER ON END)					1						
9D	5127779	COVER, 4, 8V53 (ITEM 4) (Y-8.72", Z-6.02")								1			
9D	5140525	* COVER ASSY., 3, 6V53 (INCLUDES PIN AND OIL FILLER CAP) (ITEM 4) (Y-8.72", Z-11.42")		1									
9D	5134106	@ COVER ASSY., 3,6V53 (INC. PIN AND OIL FILLER CAP)(Y-8.72",Z-16.82")			1								
9D	5145916	& COVER ASSY., 3, 6V53 (INCLUDES PIN AND OIL FILLER CAP) (ITEM 4) (Y-8.72", Z-11.42")											
9D	5145917	% COVER ASSY., 3,6V53											
9D	5140259	CAP (W/CHAIN)(4.5010)		1	1	2							
	108630	PIN, 1/8"x7/8" COTTER (12.9250)		1	1	1							
		# INCLUDES ITEMS IN 4.5000A,TYPE 86. * NOT SERVICED, USE 5135046 COVER PLUS (1) 5140259 CAP. @ NOT SERVICED, USE 5134069 COVER PLUS (1) 5140259 CAP. & OBSOLETE. % NOT SERVICED, USE 5135046 COVER PLUS SIDE 5108474 CAP. = NOT SERVICED, USE 5109384 AND 5178347.											
1.8455 - GASKET, ROCKER COVER													
9D	5147506	GASKET, 4,8V53				1	2	1	1	2	2		
9D	5147994	GASKET, 3,6V53	2	2	1	2		1		2		1	
1.8460 - BOLT, ROCKER COVER													
9D	5100104	SCREW ASSY.	8	8	4	8	6	12	4	6	8	12	4
1.8500 - PLATE, OPTION AND ACCESSORY NAME													
	5104203	* PLATE	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
		* NOT SERVICED BY DDA. FOR REPLACEMENT PLATE CONTACT YOUR LOCAL DISTRIBUTOR AND PROVIDE ENGINE SERIAL NUMBE R.											
1.8502 - RETAINER, ROCKER COVER NAME PLATE													
	5178347	RETAINER, NAME PLATE	2	2	1	2	1	2	1	1	2	2	1

1.8000A ROCKER COVER

PART			TYPES													
FIG	NUMBER	NAME AND DESCRIPTION	207	215	216	224	239	279	281	301	310	311	402	454	472	474
1.8450 - COVER ASSY., ROCKER																
9D	5145366	COVER, 4,8V53 (ITEM 2)(Y-6.02")	1													
9D	5125352	COVER, 4,8V53 (ITEM 2)(Y-6")		1		1										
9D	5128373	COVER, 4,8V53 (ITEM 4)(Y-14.12", Z-16.82")		1												
	5144964	+ COVER, 4,8V53 (BREATHER PLUS FILLER)			1											
	5144961	% COVER, 4,8V53 (BREATHER PLUS FILLER)			1											
9D	5128432	COVER, 4,8V53 (ITEM 3)(Z-16.82")				1						1				
9D	5145882	COVER, 4,8V53 (CENTER BREATHER HOLE) (FILLER 16.82") (ITEM 2) (Y-16.82")					2			1						
9D	5125356	COVER, 3,6V53 (PLAIN)						1								
9D	8921599	COVER, 3, 6V53 (ITEM 3) (Z-8.72") (CENTER BREATHER HOLE)							1				1	1	1	1
9D	5103244	COVER, 6V53 (CENTER BREATHER HOLE) (ITEM 1) (X-8.72")											1		1	1
	5101343	COVER, 6V53 (BREATHER PLUS FILLER)						1	1				1			1
9D	5128430	COVER, 3,6V53 (ITEM 3) (2-11.42")									1					
		+ NOT SERVICED. FOR SERVICE USE 5127779, 1-5131952 SHELL AND 1-5184587 TUBE.														
		% NOT SERVICED. FOR SERVICE USE 5128373, 1-5131952 AND 5184587 TUBE.														
1.8455 - GASKET, ROCKER COVER																
9D	5147506	GASKET, 4,8V53	1	2	2	2	2			1		1				
9D	5147994	GASKET, 3,6V53						2	2		1		2	1	1	2
1.8460 - BOLT, ROCKER COVER																
9D	5100104	SCREW ASSY.	6	12	12	12	12	8	4	6	6	8		4	4	8
1.8500 - PLATE, OPTION AND ACCESSORY NAME																
	5104203	* PLATE	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
		* NOT SERVICED BY DDA. FOR REPLACEMENT PLATE CONTACT YOUR LOCAL DISTRIBUTOR AND PROVIDE ENGINE SERIAL NUMBER.														
1.8502 - RETAINER, ROCKER COVER NAME PLATE																
	5178347	RETAINER, NAME PLATE	1	2	2	2	2	2	2	1	1	1	1	1	1	1

1.8000A ROCKER COVER

PART			TYPES										
FIG	NUMBER	NAME AND DESCRIPTION	4 7 6	4 7 7	4 8 2	4 8 7	4 8 8	4 9 9	5 1 6	5 1 7	5 1 9	5 2 0	5 2 1
1.8450 - COVER ASSY., ROCKER													
	8921467	COVER, 3, 6V53 (CENTER BREATHER HOLE)	1	1									
9D	5106218	COVER, 6V53 (RB) (CENTER BREATHER HOLE) (ITEM 1) (X-8.72")		1	1								
	8922425	COVER, 6V53 (LB) (CENTER BREATHER HOLE)			1								
9D	5125356	COVER, 3-53 (PLAIN)				1							1
9D	5135046	COVER, 3-53 (ITEM 4) (Y-8.72", Z-11.42")				1							
9D	8923510	COVER, 4-53 (ITEM 4) (Y-14.12", Z-6.02")					1						
9D	8924737	COVER, 4-53 (ITEM 2) (Y-20.38")						1					
9E	8925269	COVER, 3, 6V53 (CAST ALUM.; W/BREATHER HOLE)							1		1		
9E	8925270	COVER, 3, 6V53 (CAST ALUM.; W/BREATHER AND OIL FILLER HOLE)								1	1		
9E	8925272	COVER, 4-53 (CAST ALUM.; W/BREATHER AND OIL FILLER TUBE)										1	
	5103244	COVER, 6V53 (W/BREATHER HOLE)											1
1.8455 - GASKET, ROCKER COVER													
9D	5147994	GASKET, 3, 6V53	1	2	2	2							2
9D	5147506	GASKET, 4-53					1	1					
9E	8925273	GASKET, 3-53 (CAST COVER)							1	1	2		
	8925274	GASKET, 4-53 (CAST COVER)										1	
1.8460 - BOLT, ROCKER COVER													
9D	5100104	SCREW ASSY.	4	8	8	8	6	6					8
9E	8925277	BOLT, 3/8"-16X3.060" 12 PT.							2	2	4	2	
9E	5104514	WASHER, SPECIAL							2	2	4	2	
9E	8925275	BRACKET, ROCKER COVER HOLD DOWN (R.H.)							1	1	2	1	
9E	8925276	BRACKET, ROCKER COVER HOLD DOWN (L.H.)							1	1	2	1	
1.8461 - ISOLATOR, ROCKER COVER BOLT													
9E	5104515	ISOLATOR							2	2	4	2	
1.8500 - PLATE, OPTION AND ACCESSORY NAME													
	5104203	* PLATE * NOT SERVICED BY DDA. FOR REPLACEMENT PLATE CONTACT YOUR LOCAL DISTRIBUTOR AND PROVIDE ENGINE SERIAL NUMBE R.	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	
1.8502 - RETAINER, ROCKER COVER NAME PLATE													
	5178347	RETAINER	1	1	1	1	1	1					1
9E	8925426	RETAINER							2	2	2	2	
9E	145382	SCREW, #8X3/8" DRIVE (12.9067)							4	4	4	4	

GROUP NOMENCLATURE

1.0000	ENGINE (less major assemblies)	5.0000	COOLING SYSTEM (CONT'D)
1.1000	Cylinder Block	5.3000B	Water Connections
1.1000A	Air Box Drains	5.4000A	Fan
1.2000	Cylinder Head	5.4000B	Fan Shroud
1.2000A	Engine Lifter Bracket	5.5000A	Heat Exchanger or Keel Cooling
1.3000	Crankshaft, Oil Seals and Stabilizers	5.6000A	Raw Water Pump
1.3000A	Crankshaft Front Cover	5.7000A	Water Filter
1.3000B	Vibration Damper		
1.3000C	Crankshaft Pulley	6.0000	EXHAUST SYSTEM
1.3000D	Crankshaft Pulley Belt	6.1000A	Exhaust Manifold and/or Connections
1.4000A	Flywheel	6.2000A	Exhaust Muffler and/or Connections
1.5000A	Flywheel Housing		
1.5000B	Flywheel Housing Adaptor	7.0000	ELECTRICAL INSTRUMENTS
1.6000	Connecting Rod and Piston	7.1000A	Battery Charging Generator
1.7000	Camshaft and Gear Train	7.2000A	Battery Cables
1.7000A	Balance Weight Cover	7.2000B	Automatic Starting
1.7000B	Accessory Drive	7.2000B	Automatic Starting (Twin and Quad)
1.8000	Valve Injector Operating Mechanism	7.3000A	Starting Motor
1.8000A	Rocker Cover	7.4000A	Instruments
		7.4000A	Instruments (Twin and Quad)
2.0000	FUEL SYSTEM	7.4000B	Tachometer Drive
2.1000A	Fuel Injector	7.4000B	Tachometer Drive (Twin and Quad)
2.1000B	Electronic Injector Controls	7.4000C	Shutoff, Alarm and O.S. Governor
2.2000	Fuel Pump	7.4000C	Shutoff, Alarm and O.S. Governor (Twin and Quad)
2.2000A	Fuel Pump Drain	7.5000A	Power Generator
2.3000A	Fuel Filter and Strainer	7.6000A	Control Cabinet
2.3000A	Fuel Filter and Strainer (Twin and Quad)	7.6000A	Control Cabinet (Twin and Quad)
2.4000	Fuel Manifold and/or Connections	7.7000A	Wiring Harness
2.4000A	Dual Fuel System	7.8000A	Air Heater
2.5000A	Fuel Lines and Fuel Cooler	7.8000A	Air Heater (Twin and Quad)
2.5000A	Fuel Lines and Fuel Cooler (Twin and Quad)	7.10000A	Hydraulic Governor Solenoid
2.6000A	Fuel Tank		
2.6000B	Electric Governor	8.0000	POWER TAKE-OFF
2.7000A	Mechanical Governor	8.1000A	Power Take-off and/or Clutch
2.8000A	Hydraulic Governor	8.1000A	Power Take-off and/or Clutch (Twin and Quad)
2.9000	Injector Controls	8.3000A	Torque Converter
2.9000	Injector Controls (Twin and Quad)	8.3000A	Torque Converter (Twin and Quad)
2.9000A	Throttle Controls	8.3000B	Transmission Lines
2.9000A	Throttle Controls (Twin and Quad)		
3.0000	AIR SYSTEM	9.0000	TRANSMISSION AND PROPULSION
3.1000A	Air Cleaner and/or Adaptor	9.1000A	Hydraulic Marine Gear
3.2000A	Air Silencer	9.1000A	Hydraulic Marine Gear (Twin and Quad)
3.3000A	Air Inlet Housing	9.2000A	Reverse and Reduction Gear (mechanical)
3.3000C	Air Intake Manifold	9.3000A	Power Transfer Gear
3.4000	Blower and Drive	9.3000A	Power Transfer Gear (Twin and Quad)
3.4000A	Blower Drive Shaft	9.4000	Transmission—Highway
3.4000B	Blower End Plate Cover	9.7000	Transmission—Off-highway
3.5000A	Turbocharger, Intercooler, and Aftercooler	9.9000	Transmission—Rail Car
4.0000	LUBRICATING SYSTEM	10.0000	SHEET METAL
4.1000A	Oil Pump	10.1000A	Engine Hood
4.1000B	Oil Distribution System		
4.1000C	Oil Pressure Regulator	11.0000	ENGINE MOUNTING
4.2000A	Oil Filter	11.1000A	Engine Mounting and Base
4.3000A	Oil Filter Lines	11.1000A	Engine Mounting and Base (Twin and Quad)
4.4000A	Oil Cooler and Marine Gear Lines		
4.5000A	Oil Filler	12.0000	MISCELLANEOUS
4.6000A	Dipstick	12.2000A	Bilge Pump
4.7000A	Oil Pan	12.3000A	Vacuum Pump
4.8000A	Ventilating System	12.4000A	Air Compressor
5.0000	COOLING SYSTEM	12.5000A	Hydraulic Pump
5.1000	Fresh Water Pump	12.6000A	Gasoline Starter
5.1000A	Fresh Water Pump Cover	12.6000B	Air Starter
5.2000A	Water Outlet Manifold and/or Elbow	12.6000C	Cold Weather Starting Aid
5.2000B	Thermostat	12.6000D	Hydraulic Starter
5.2000C	Water Bypass Tube	12.6000E	Hydraulic Starter Accessories
5.3000A	Radiator	12.8000A	Supplies
		12.8000B	Fabrication Material
		12.8000C	Miscellaneous Service Kits and Sets
		12.8000D	Miscellaneous Service Parts

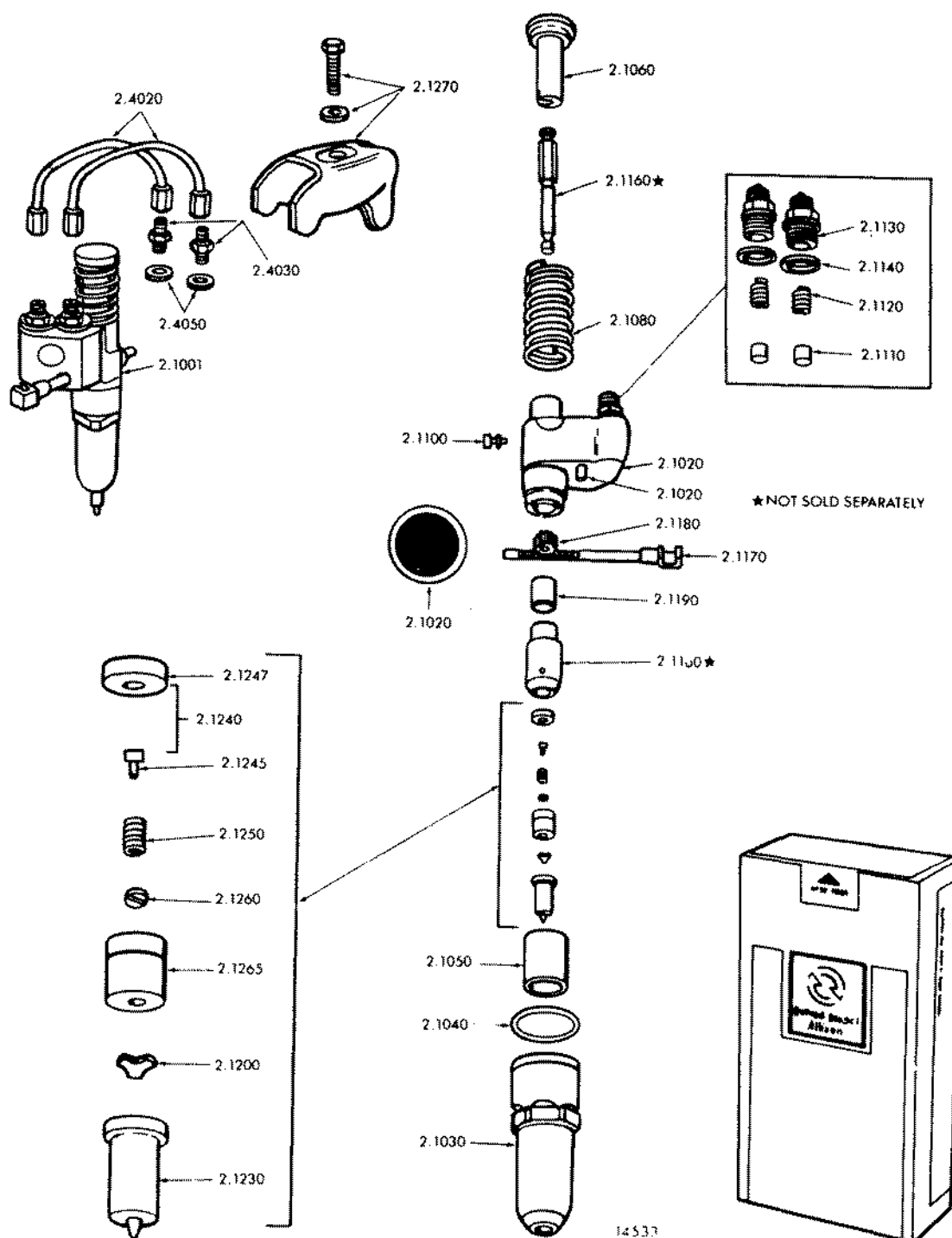


FIG. 1A FUEL INJECTOR

Fig. 1A of 2.0000

OCT., 1978

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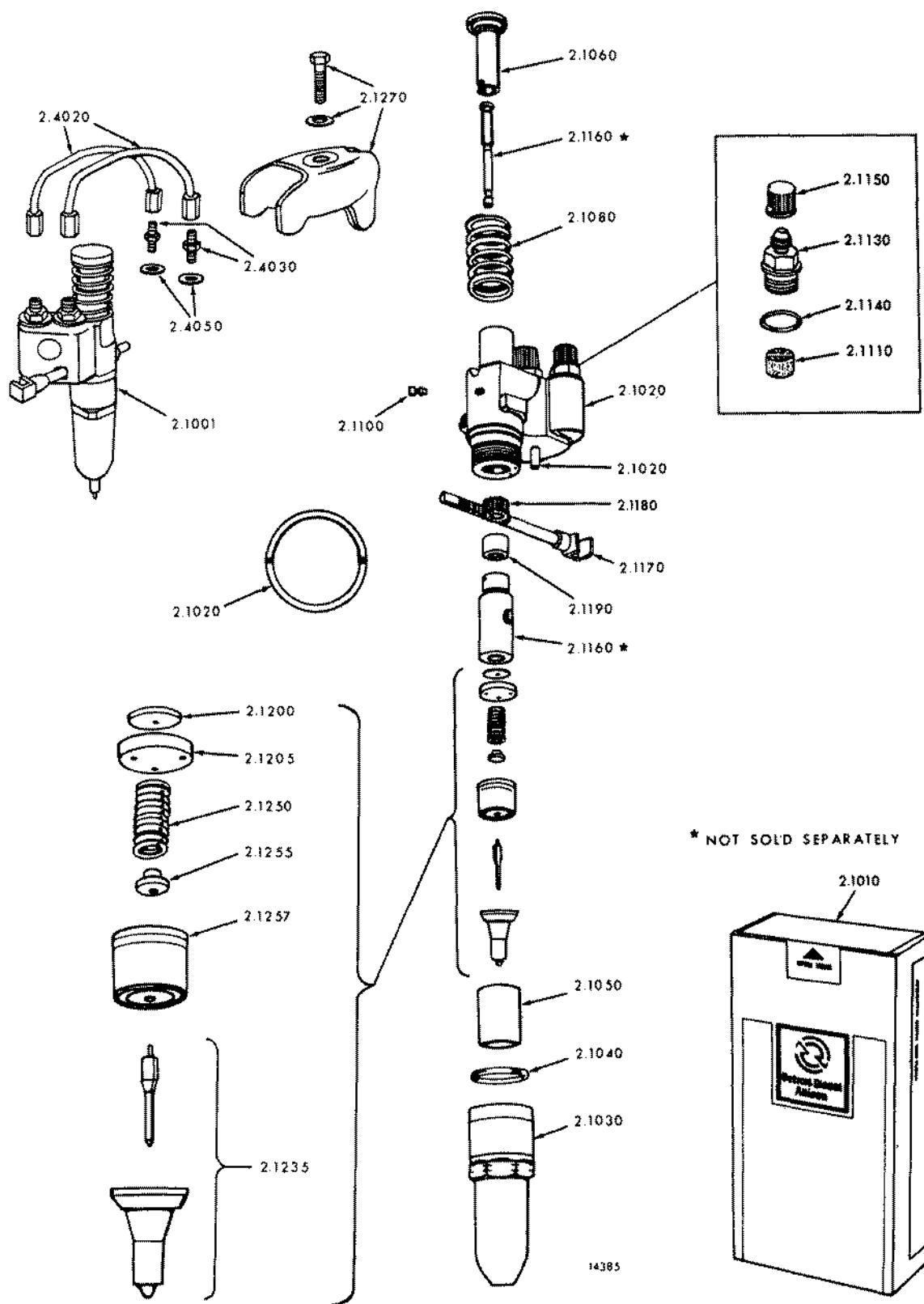


FIG. 1B FUEL INJECTOR

Fig. 1B of 2.0000

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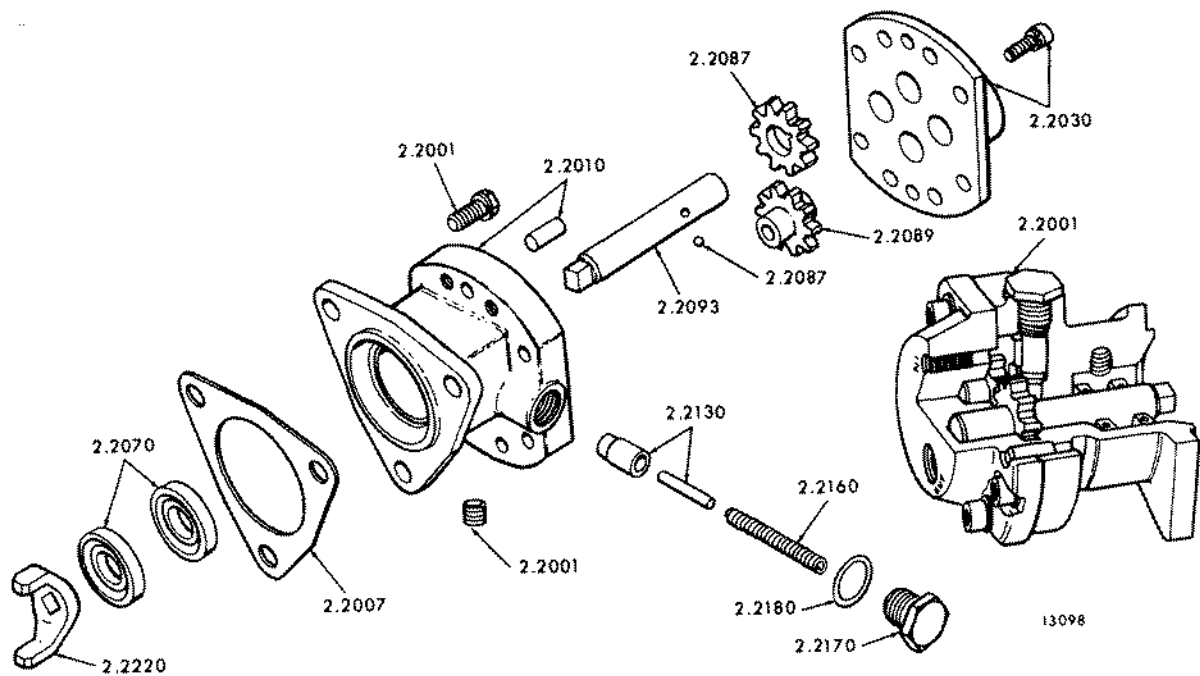


FIG. 2A FUEL PUMP

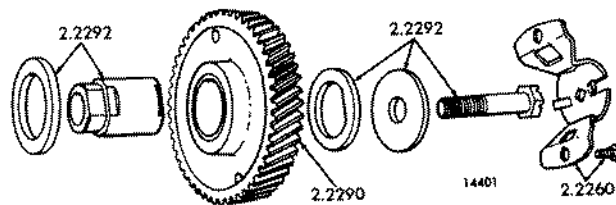


FIG. 2B FUEL PUMP DRIVE

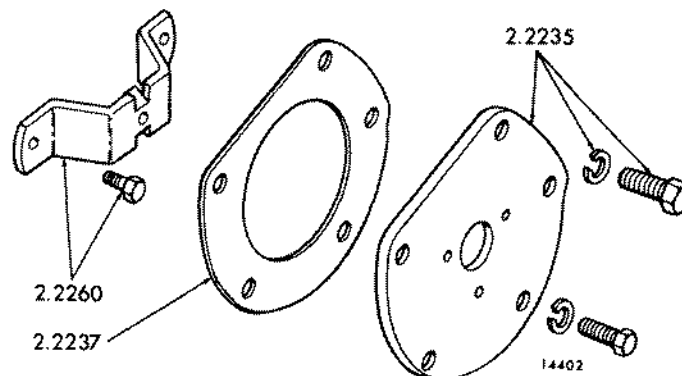


FIG. 2C - FUEL PUMP DRIVE

Figs. 2A, 2B & 2C of 2.0000

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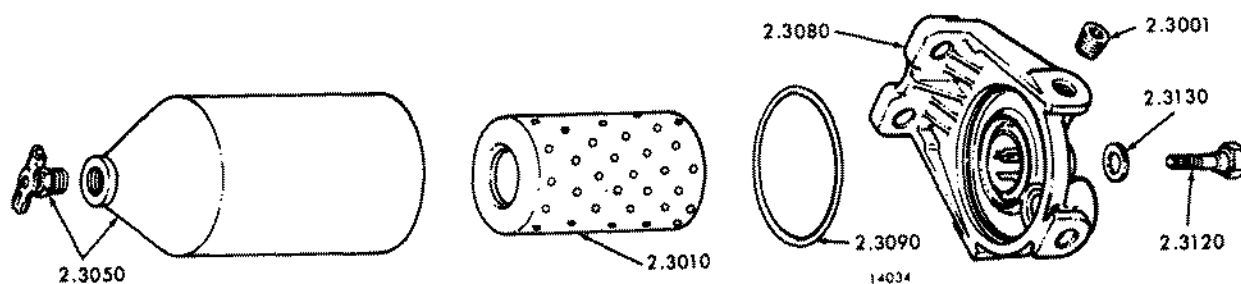


FIG. 3A FUEL STRAINER (COTTON WOUND ELEMENT)

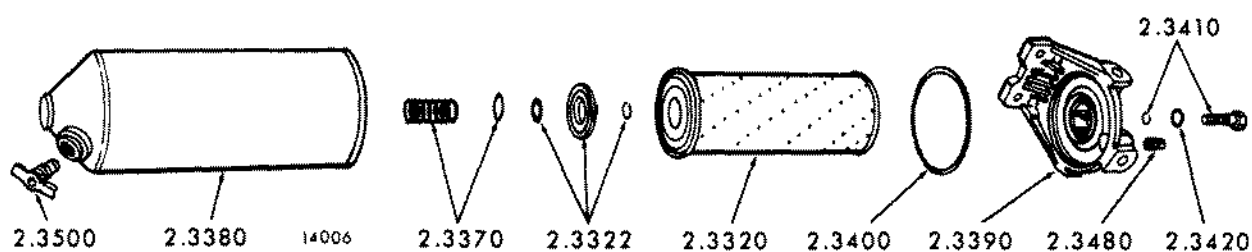


FIG. 3B FUEL FILTER (CANISTER TYPE ELEMENT)

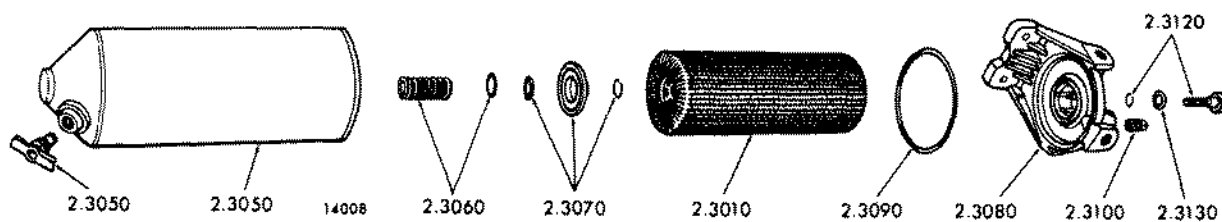


FIG. 3C FUEL STRAINER (STOCK TYPE ELEMENT)

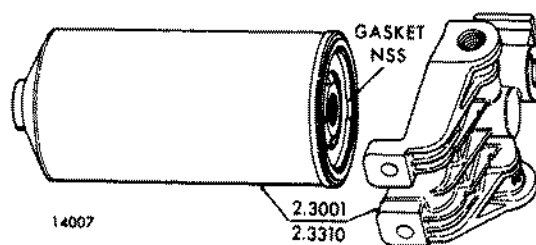


FIG. 3D FUEL STRAINER, FUEL FILTER (SPIN-ON)

Figs. 3A, 3B, 3C & 3D of 2.0000

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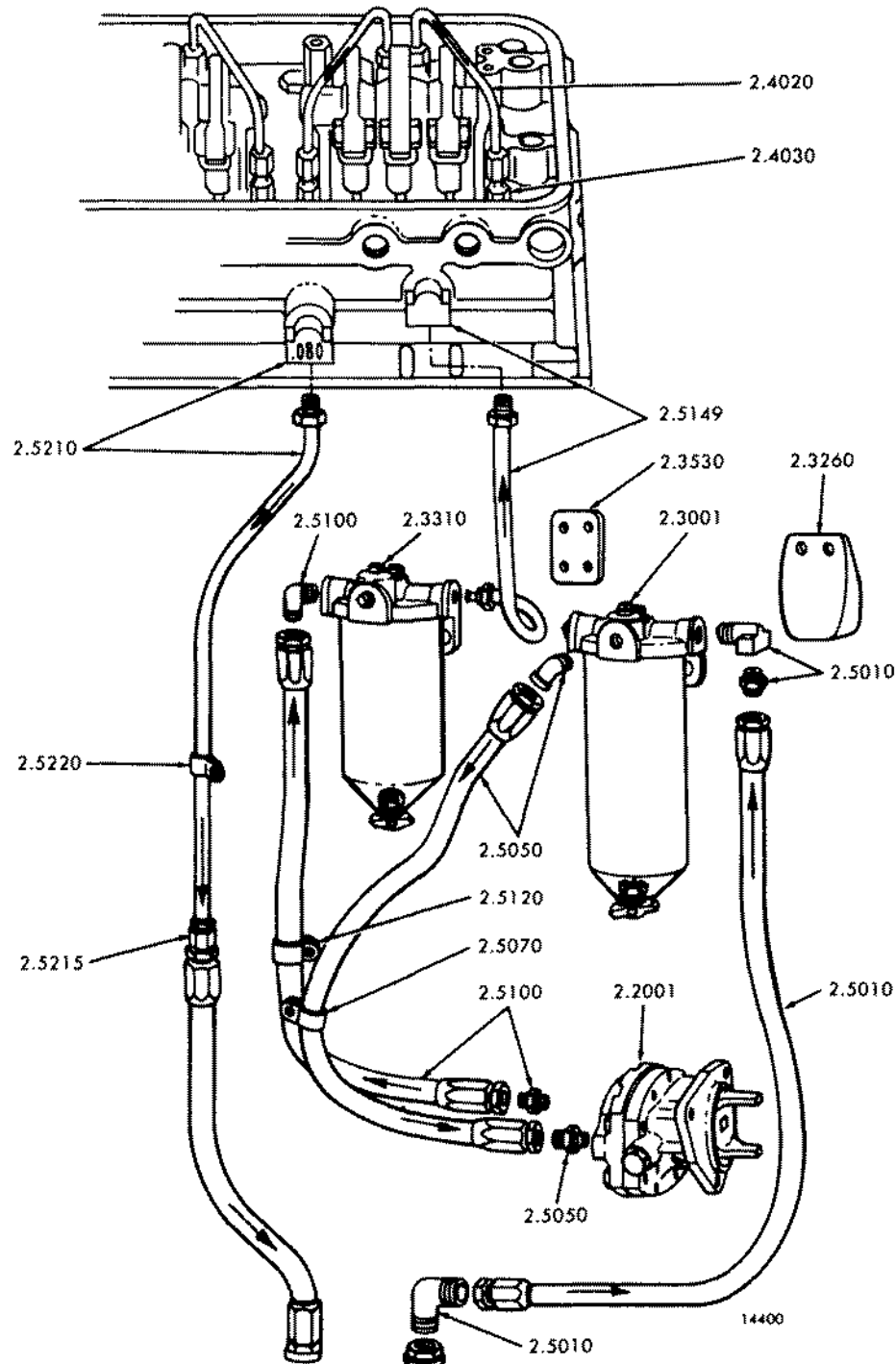


FIG. 4A TYPICAL FUEL SYSTEM (IN-LINE MODELS)

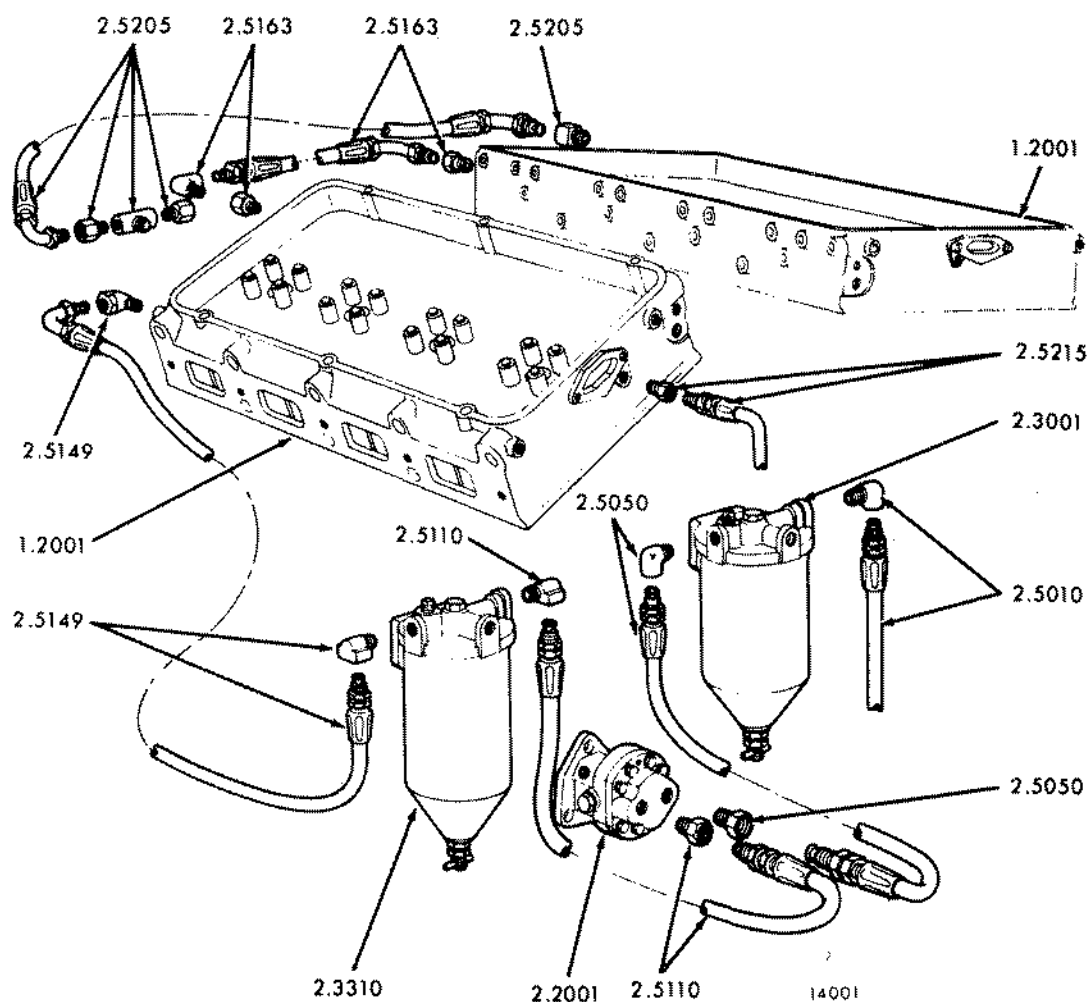


FIG. 4B TYPICAL FUEL SYSTEM (V-MODELS)

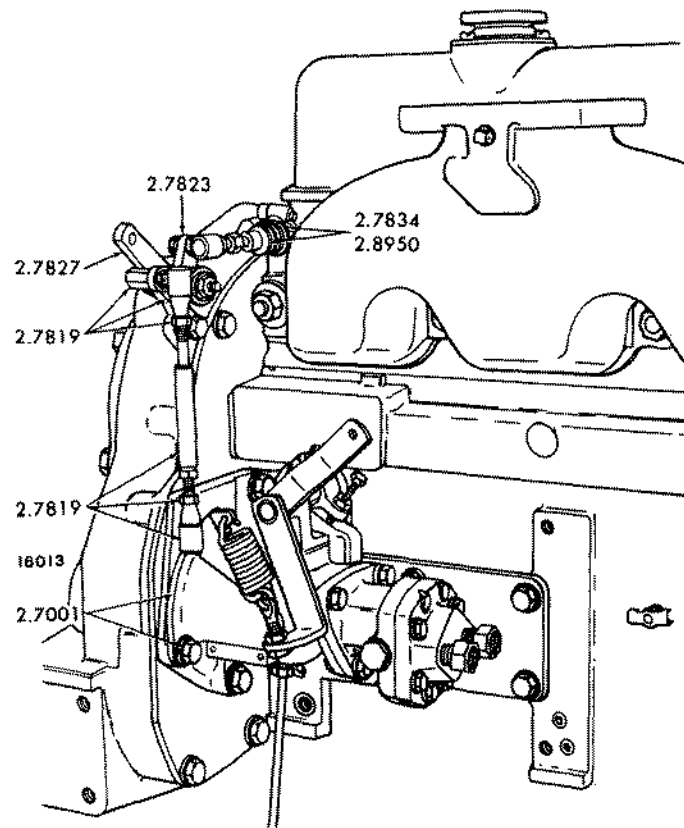


FIG. 5A GOVERNOR (PIERCE)

Fig. 5A of 2.0000

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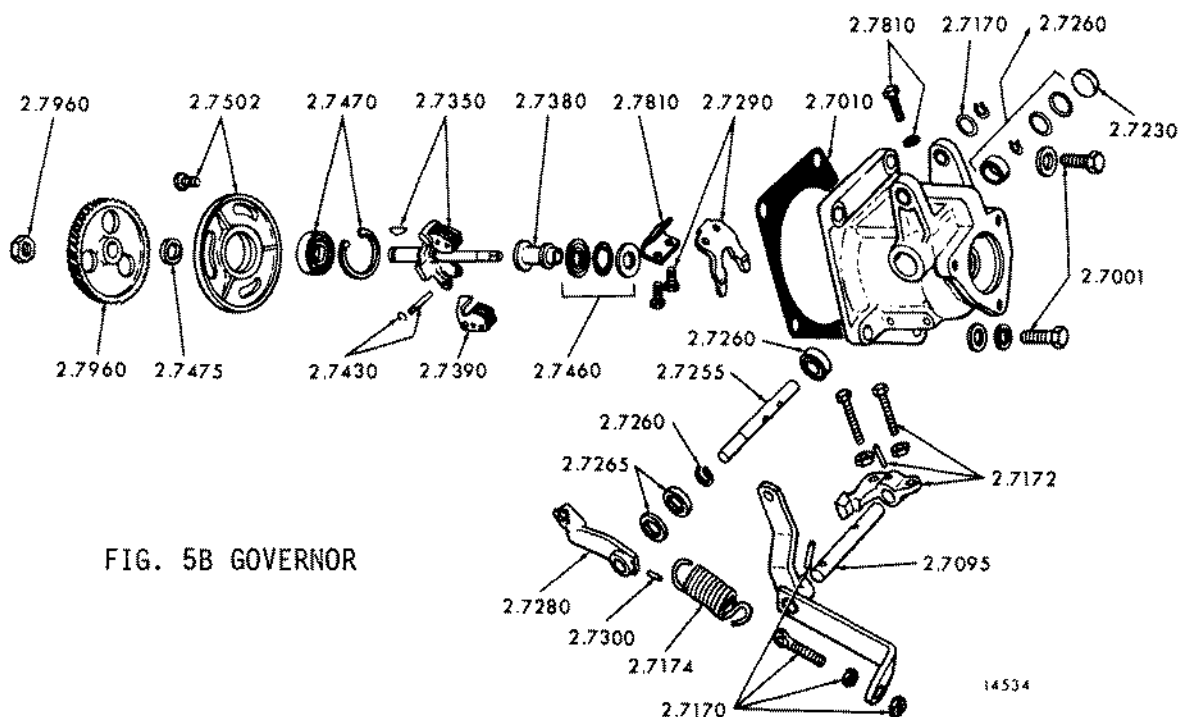


FIG. 5B GOVERNOR

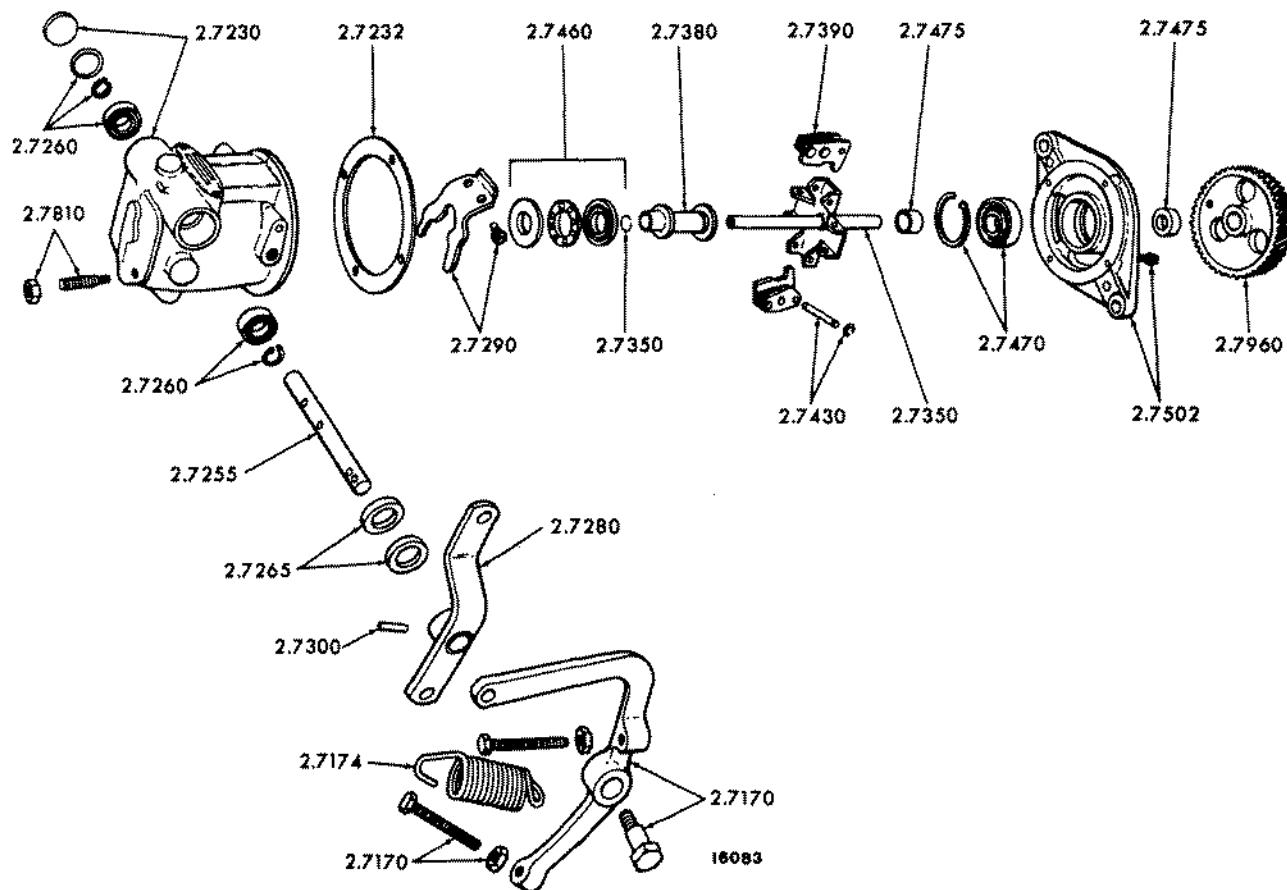


FIG. 5C GOVERNOR

Figs. 5B & 5C of 2.0000

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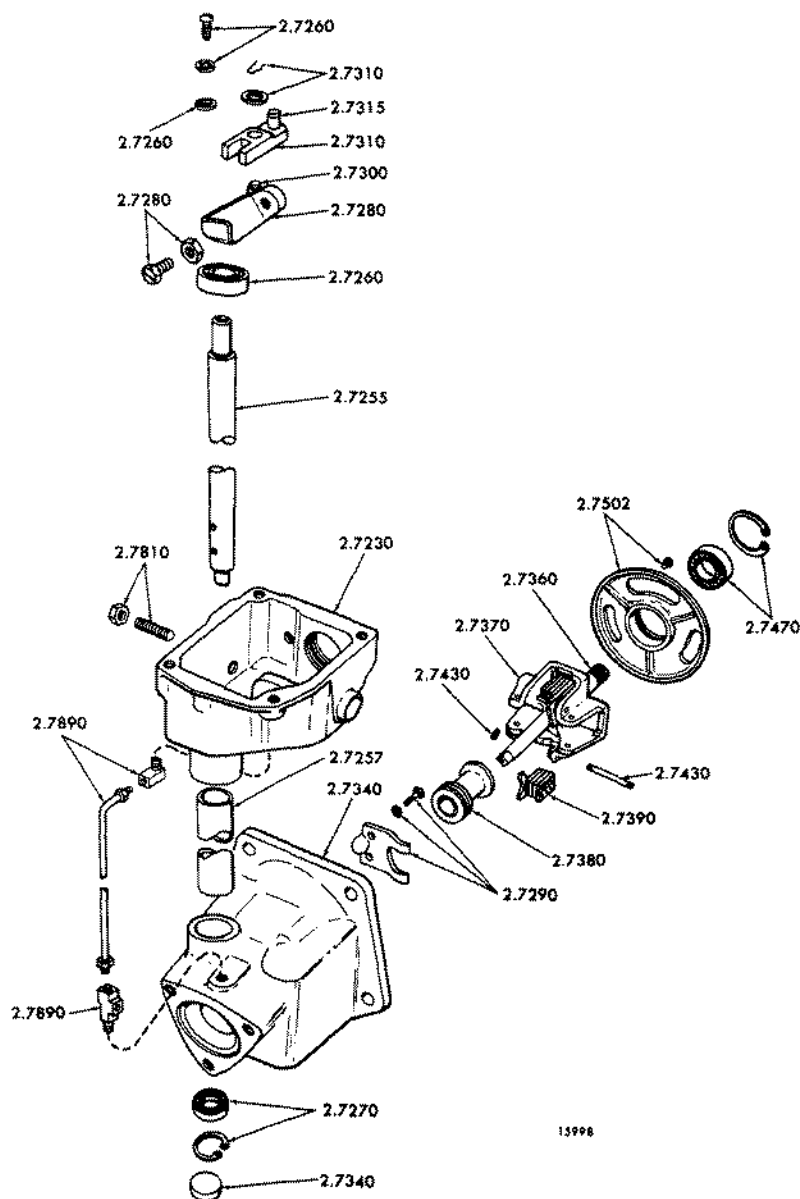


FIG. 5D - MECHANICAL GOVERNOR HOUSING
WEIGHTS AND LEVER
(3, 4 Cylinder Engine)

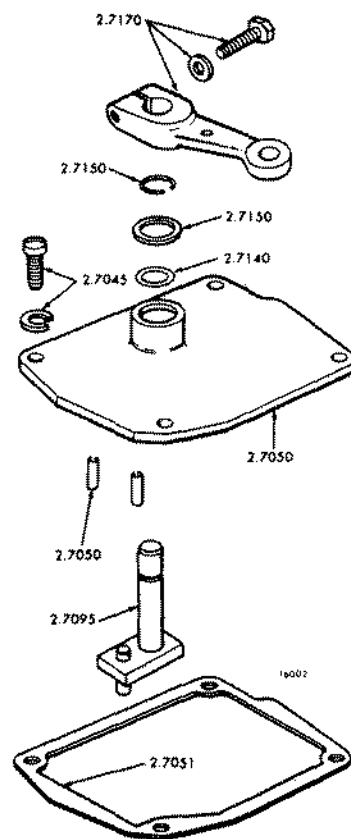


FIG. 5E - MECHANICAL GOVERNOR COVER
(SINGLE LEVER)

Figs. 5D & 5E of 2.0000

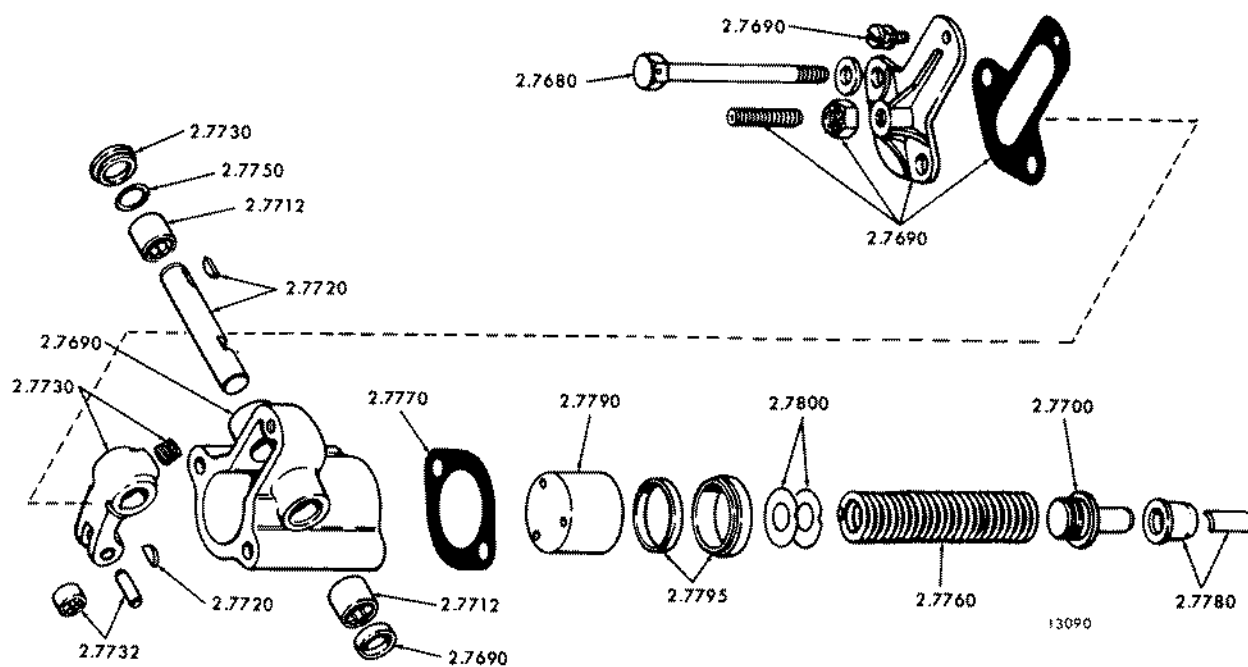


FIG. 5F VARIABLE SPEED GOVERNOR SPRING AND HOUSING

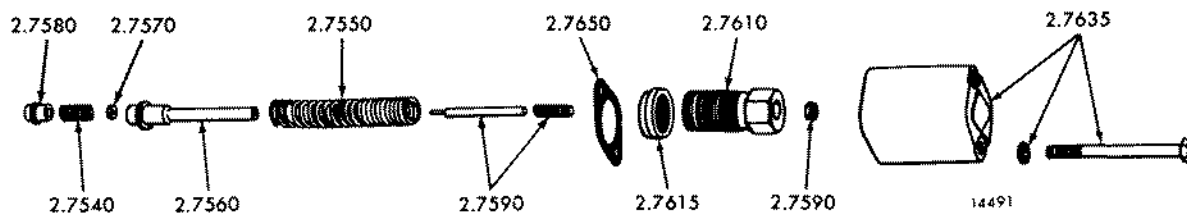


FIG. 5G LIMITING SPEED GOVERNOR SPRING AND HOUSING

Figs. 5F & 5G of 2.0000

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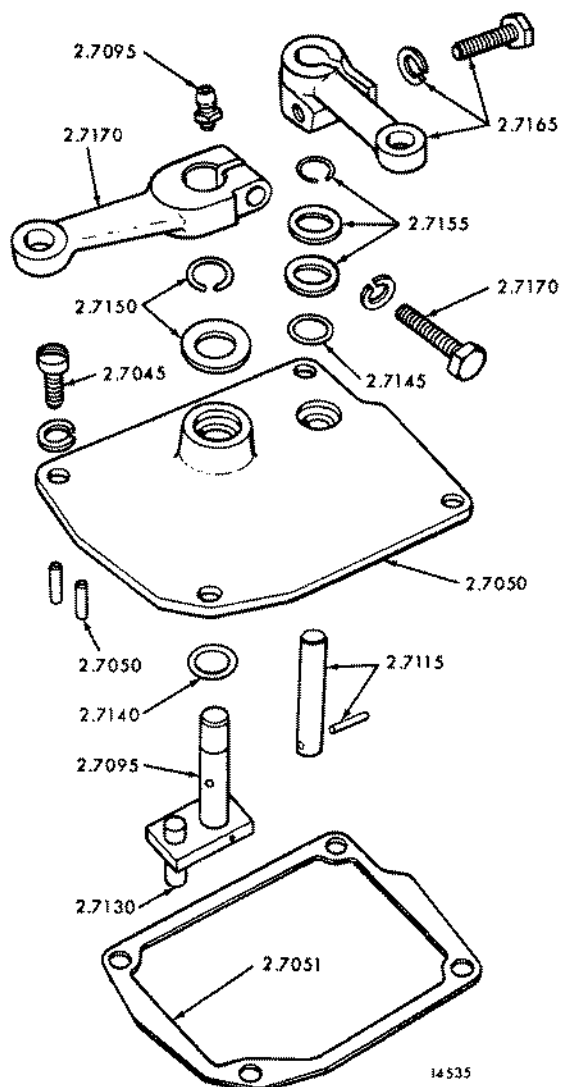


FIG. 5H MECHANICAL GOVERNOR COVER (DOUBLE LEVER)

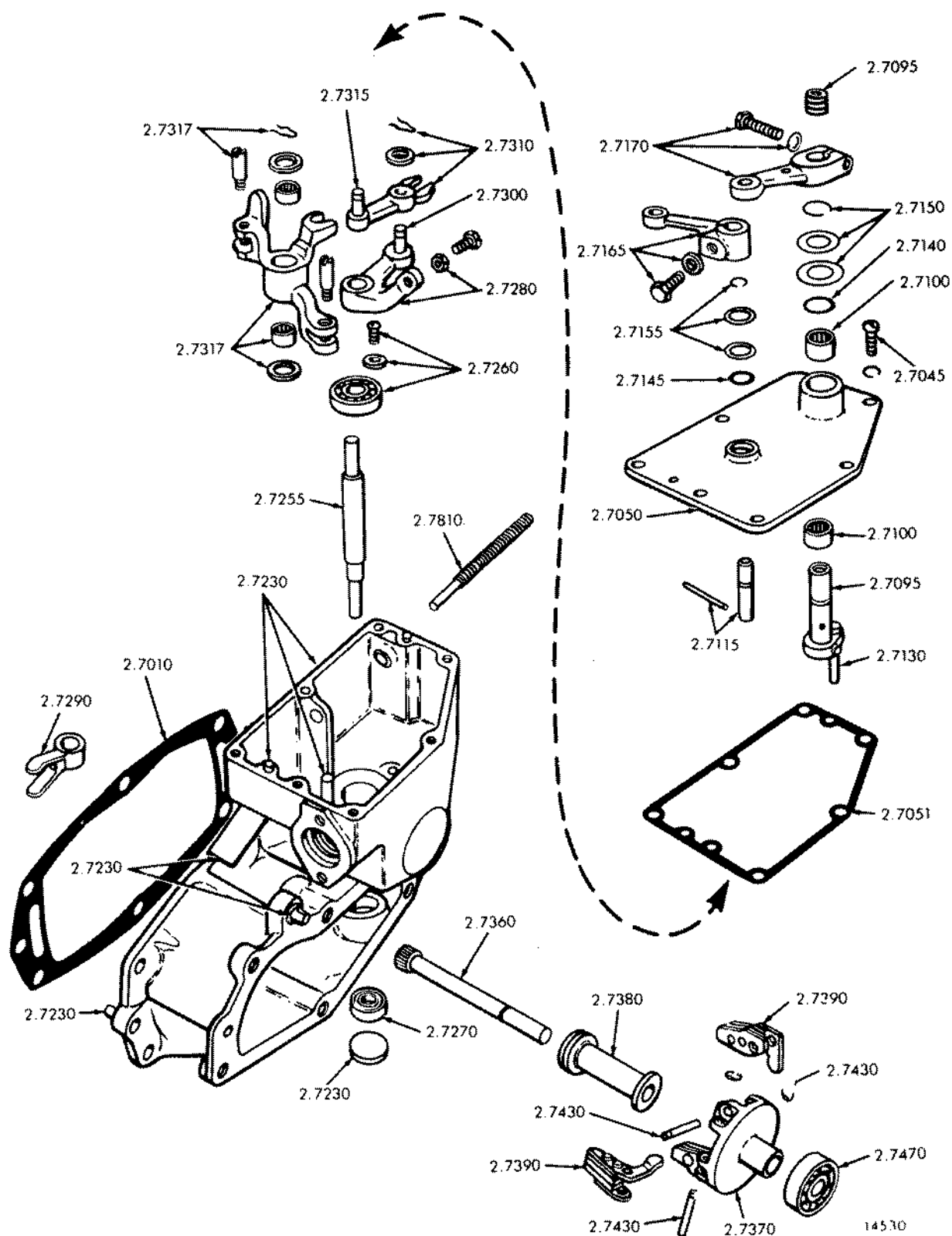


FIG. 5J MECHANICAL GOVERNOR (6V)

Fig. 5J of 2.0000

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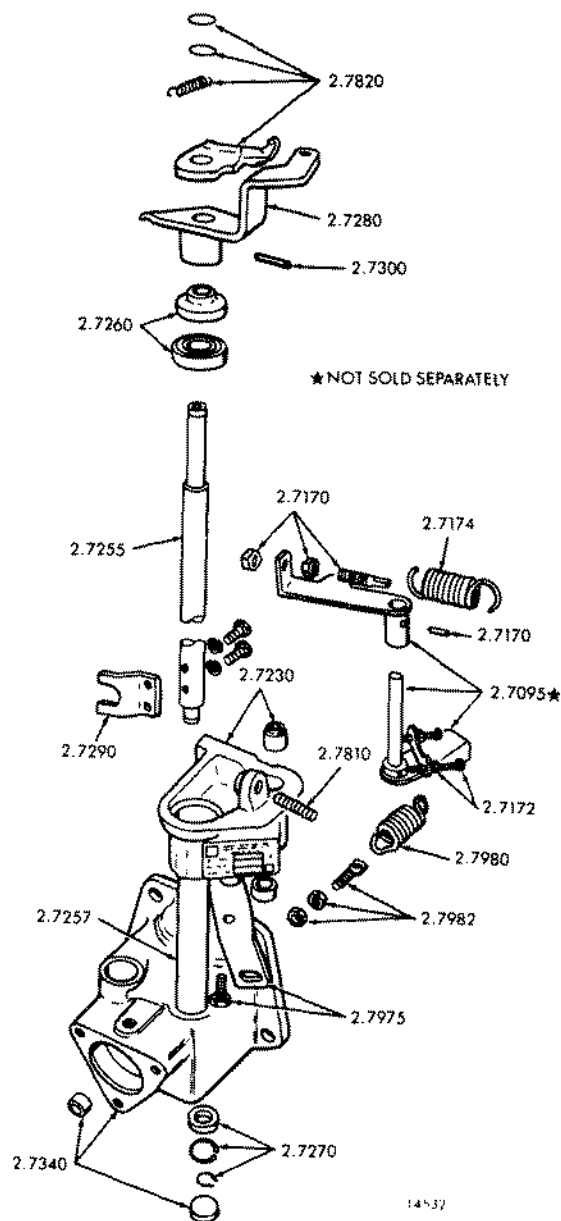


FIG. 5K MECHANICAL GOVERNOR
(Open Linkage)

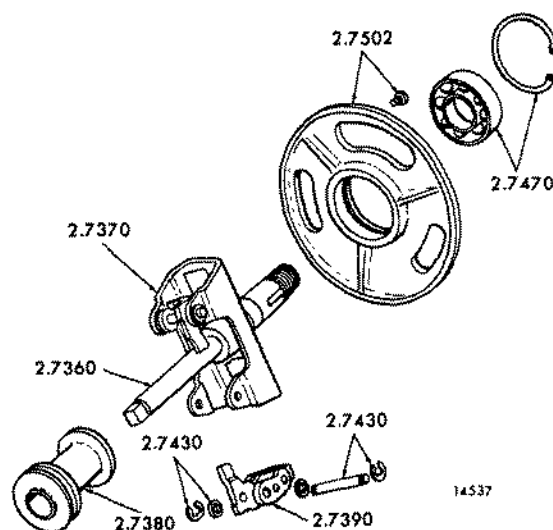


FIG. 5L GOVERNOR WEIGHT
SHAFT AND CARRIER

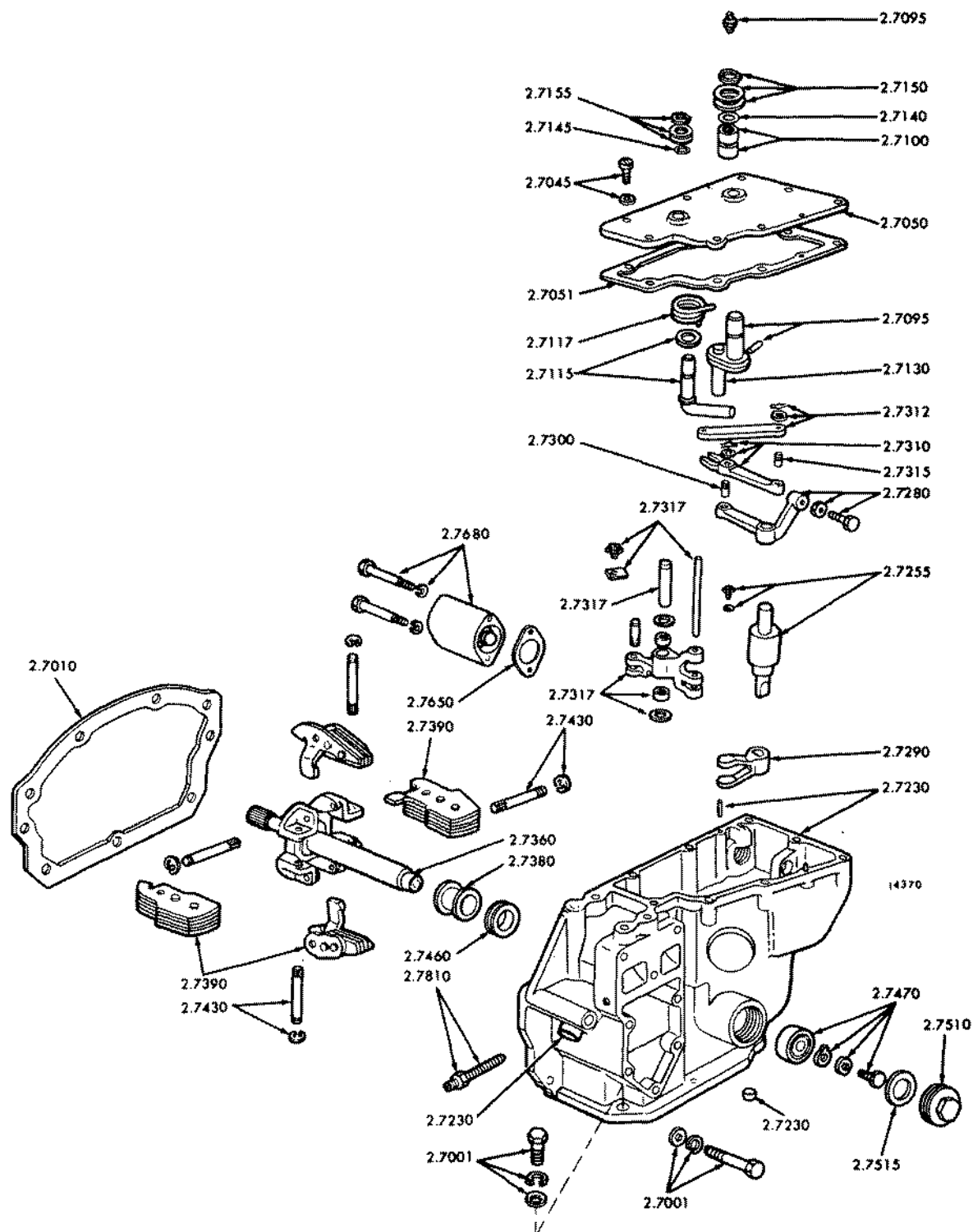
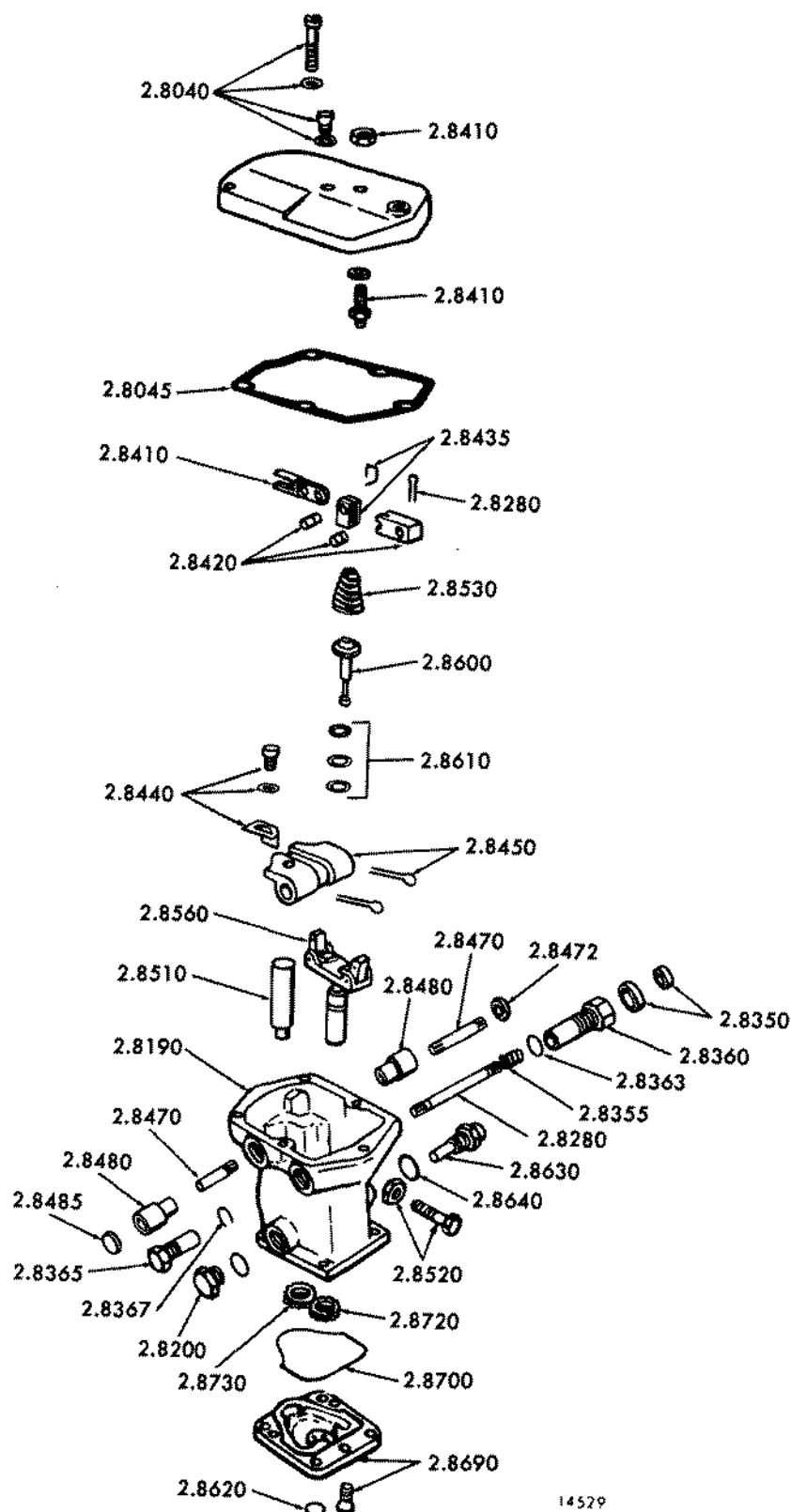


FIG. 5M MECHANICAL GOVERNOR (8V)

Fig. 5M of 2.0000

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FIG. 6A HYDRAULIC GOVERNOR

Fig. 6A of 2.0000

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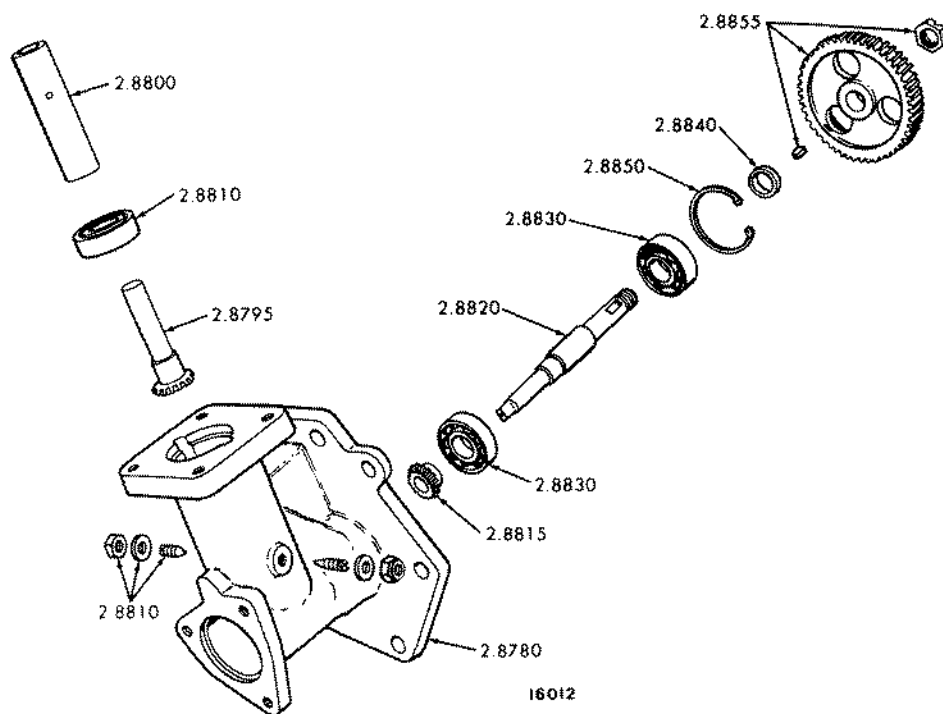
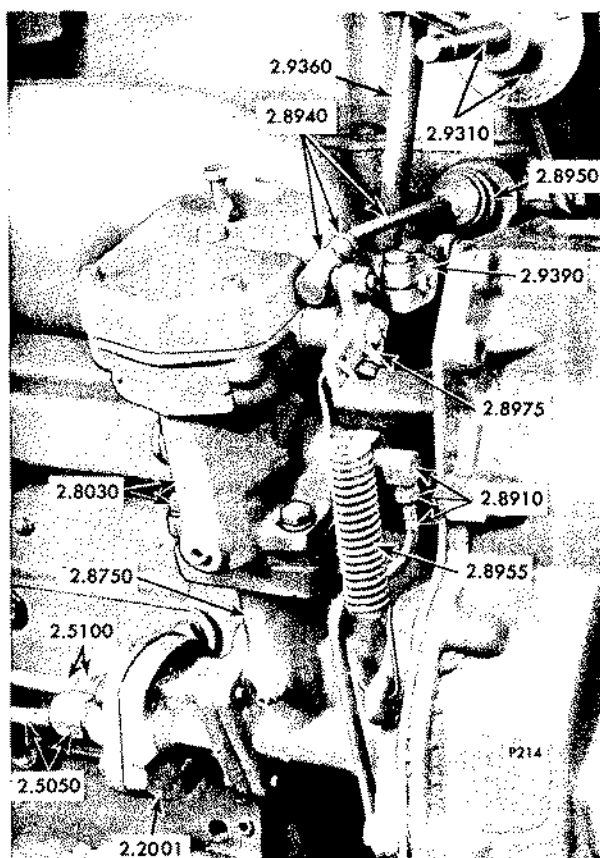
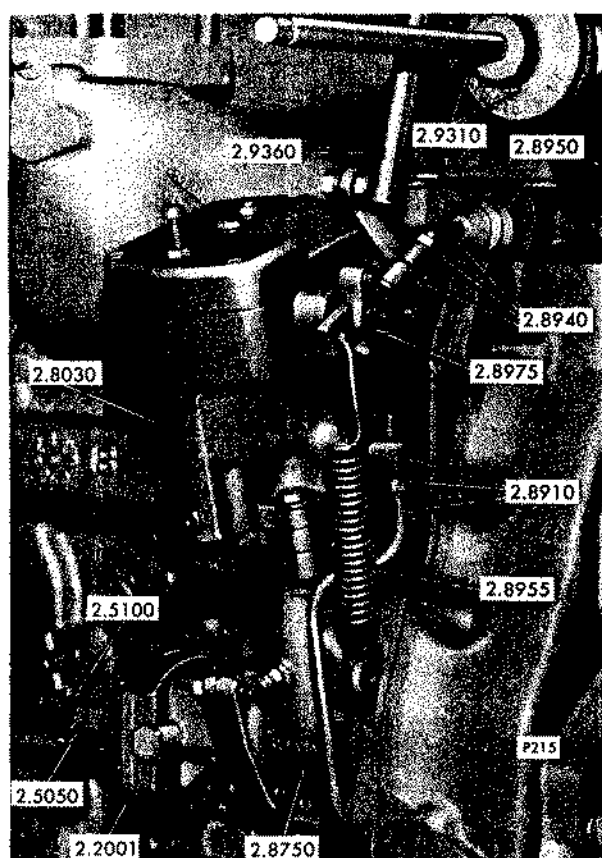


FIG. 6B HYDRAULIC GOVERNOR DRIVE



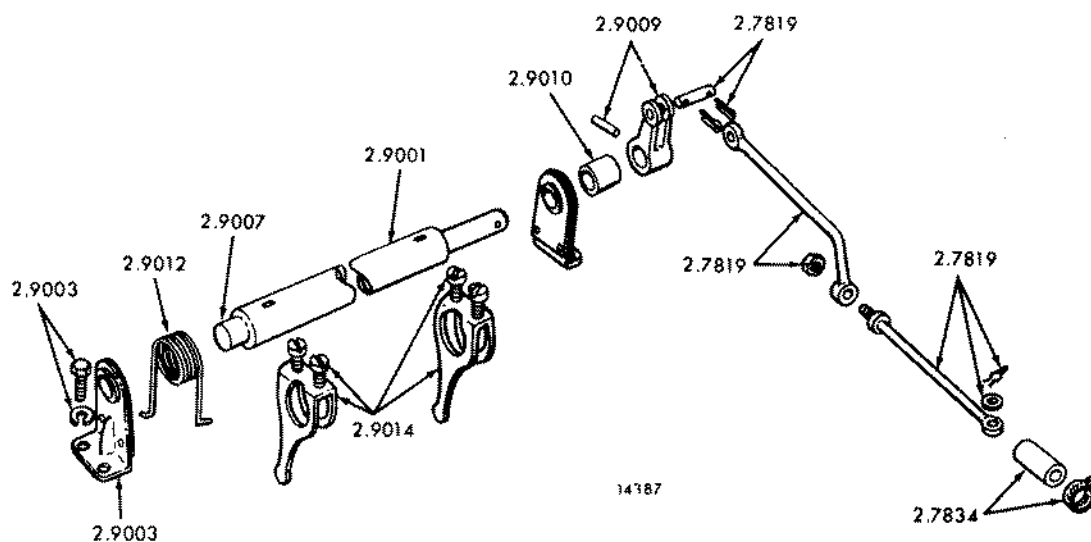
FORMER



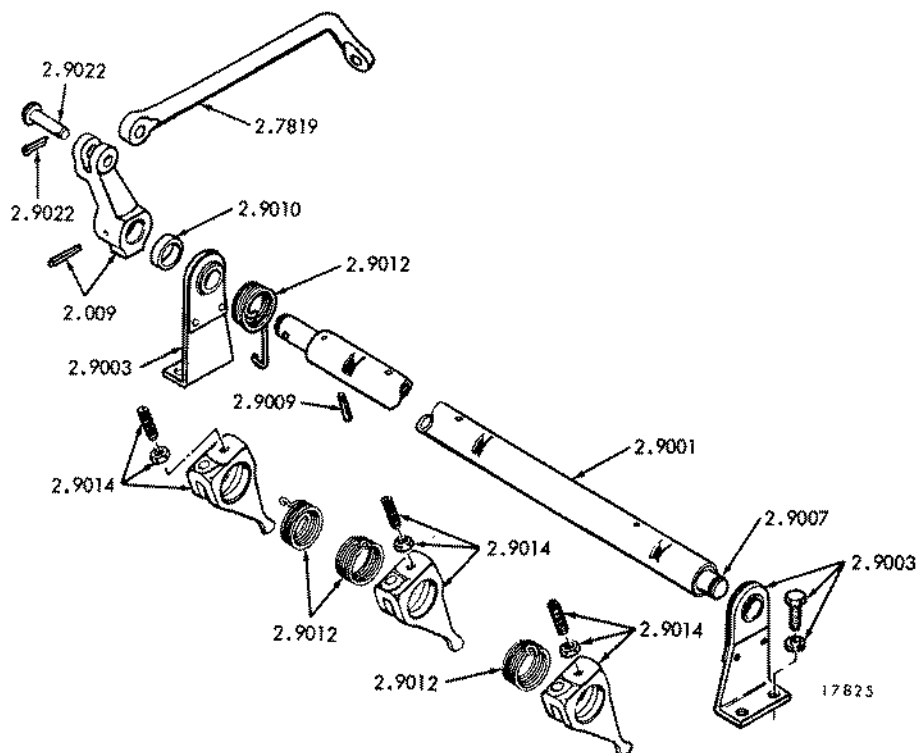
CURRENT

FIG. 6C HYDRAULIC GOVERNOR

Figs. 6B & 6C of 2.0000



(NON-SPRING LOADED)



(SPRING LOADED)

FIG. 7A - INJECTOR CONTROL TUBES

Fig. 7A of 2.0000

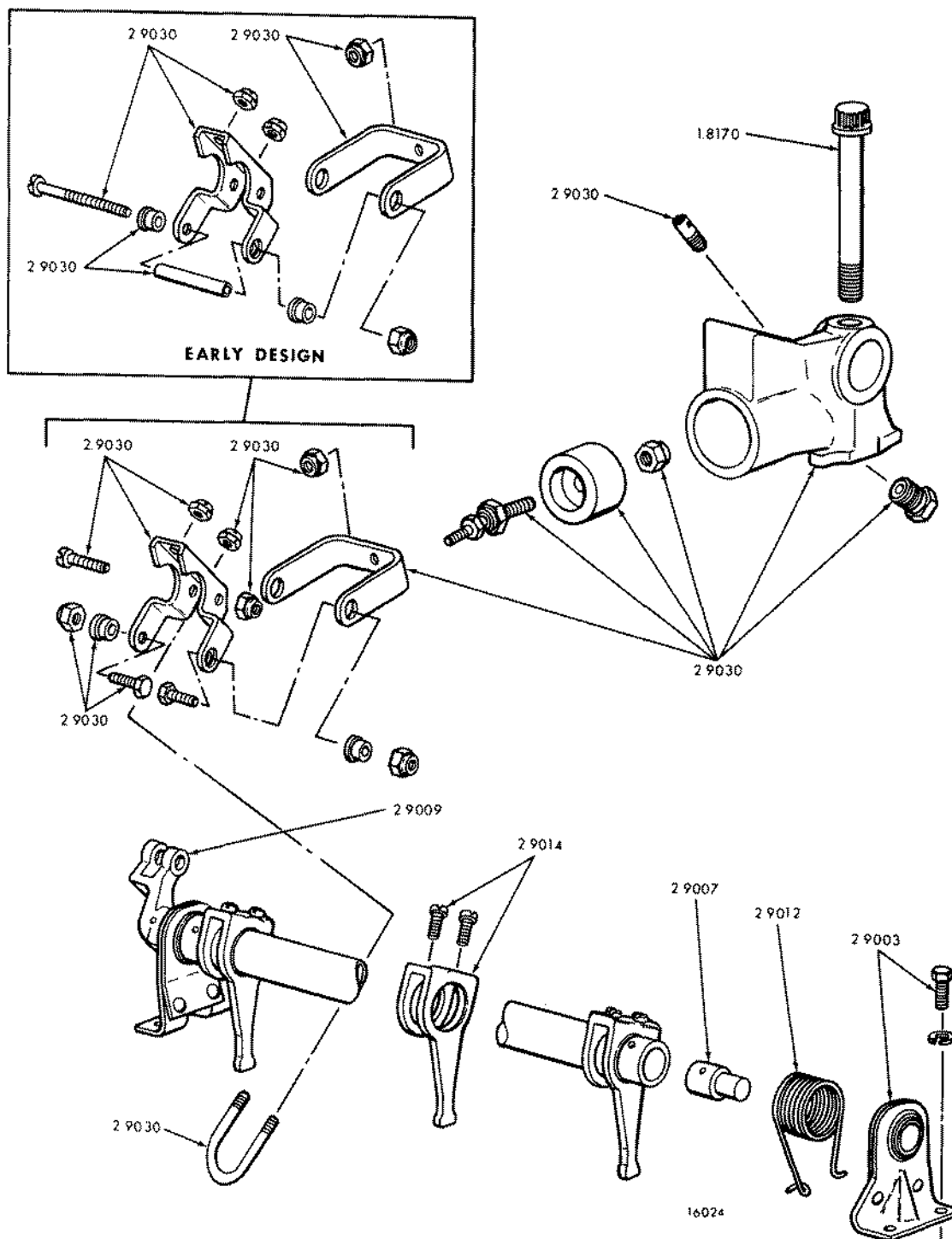


FIG. 7B INJECTOR CONTROL TUBE AND THROTTLE DELAY MECHANISM (8V)

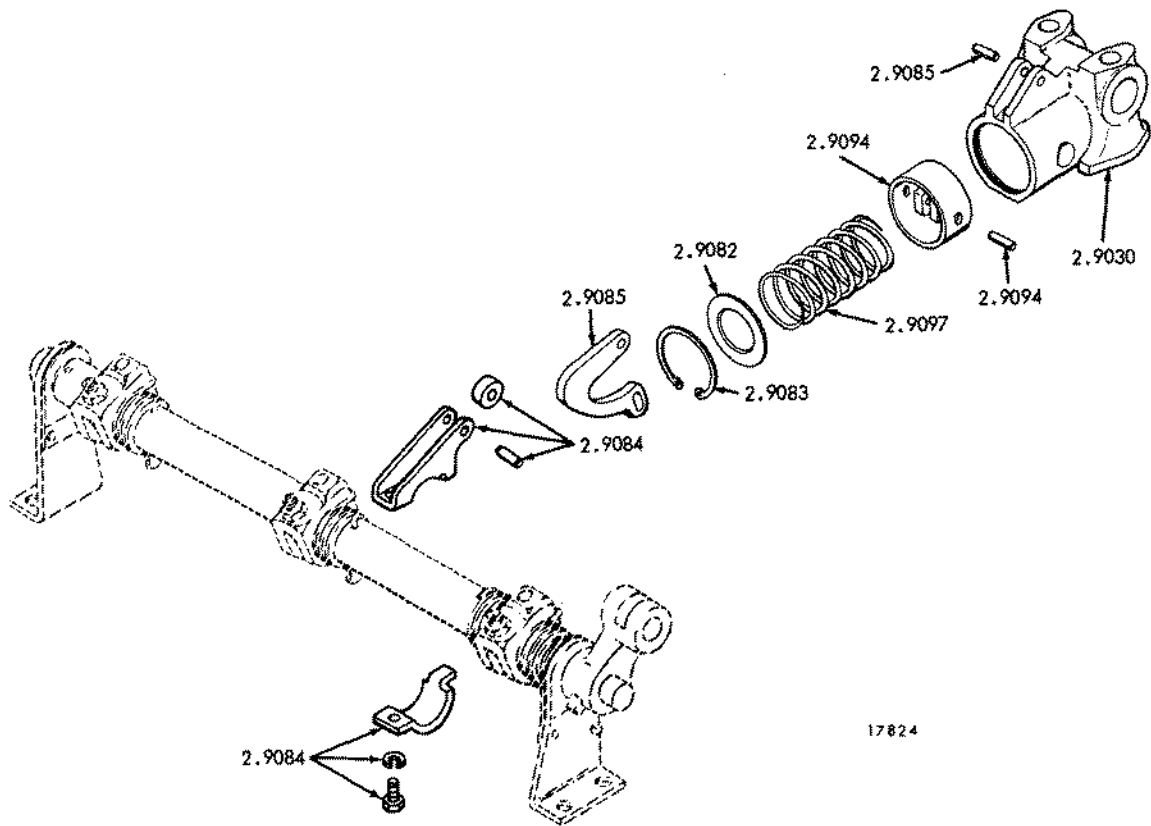


FIG. 7C - MODULATOR ASSEMBLY

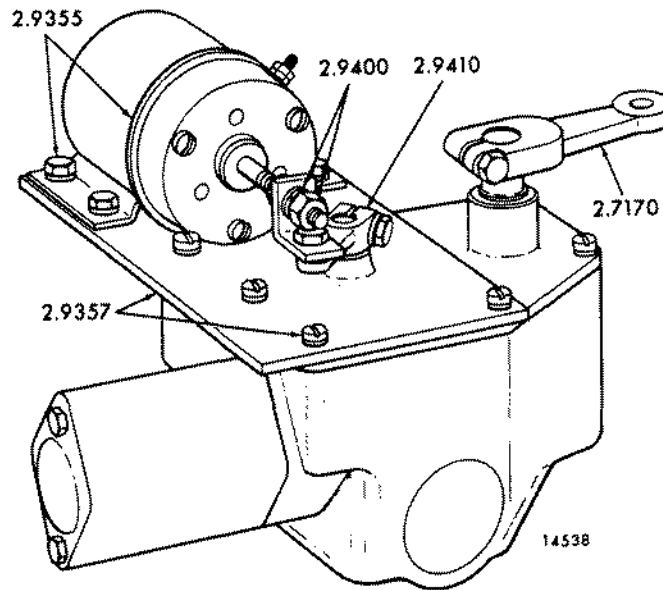


FIG. 7D THROTTLE CONTROLS (Limiting)

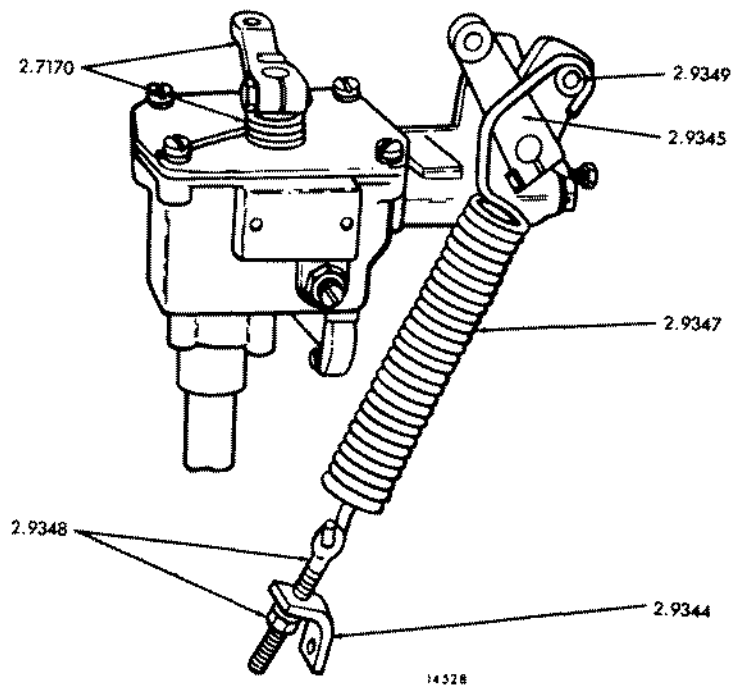


FIG. 7E THROTTLE CONTROLS (Variable)

Figs. 7D & 7E of 2.0000

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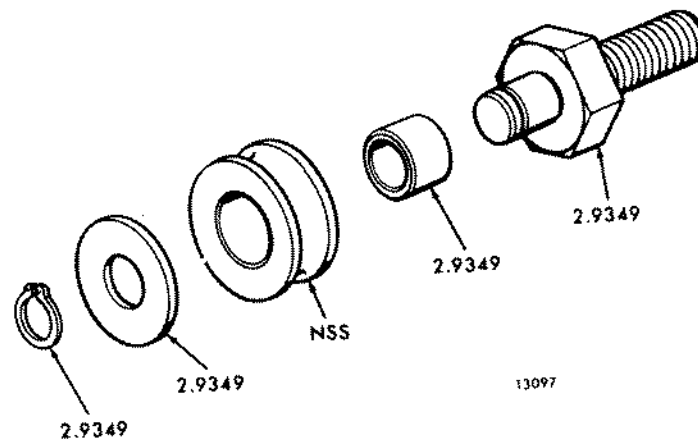


FIG. 7F HANGER ASSEMBLY, THROTTLE BOOSTER SPRING

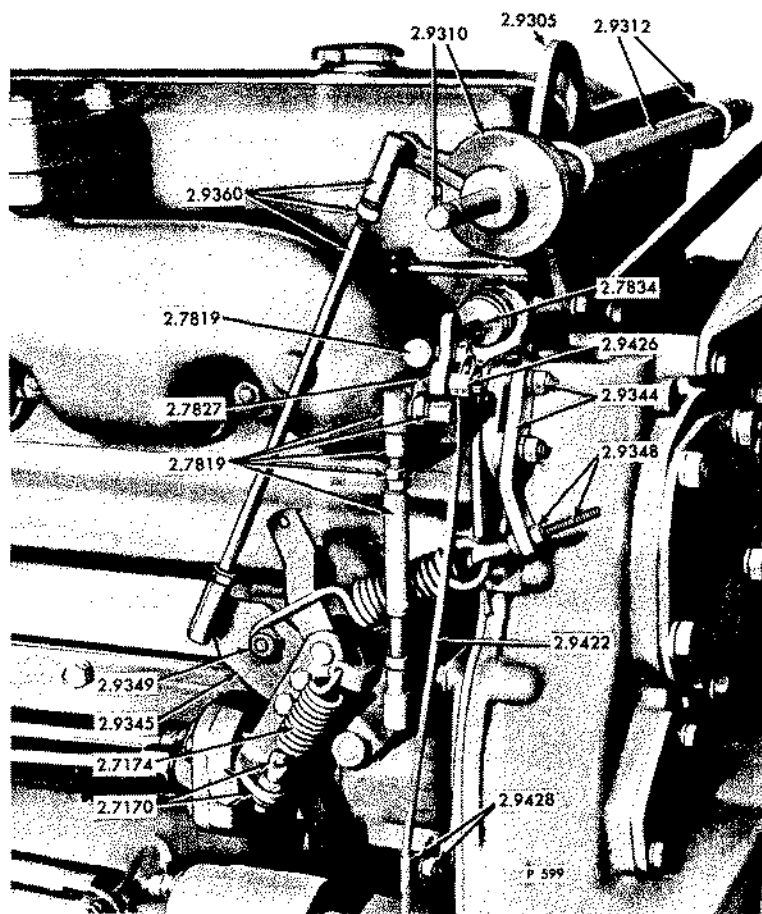


FIG. 8A THROTTLE CONTROL (PIERCE GOVERNOR)

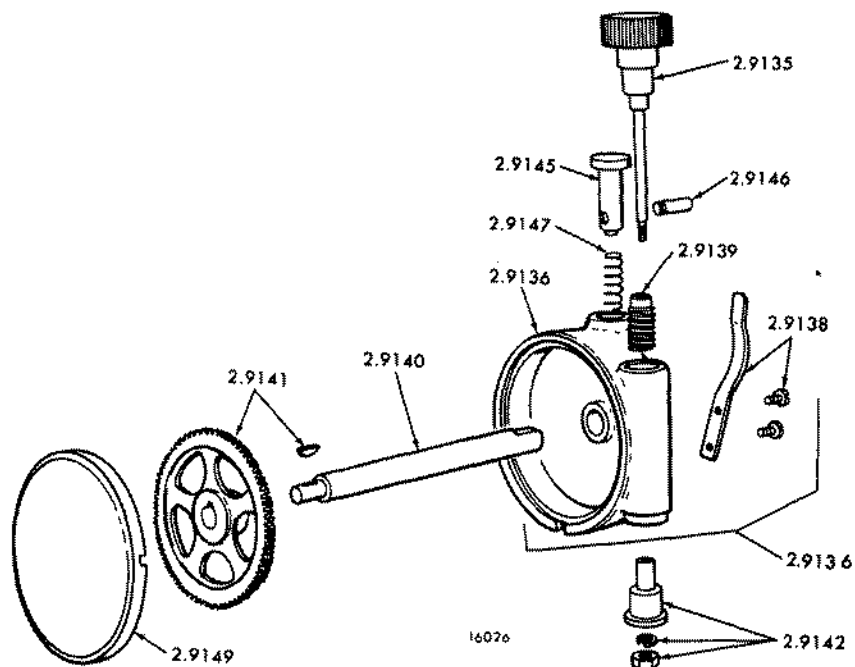


FIG. 8B VERNIER THROTTLE CONTROL

Figs. 8A & 8B of 2.0000

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2.1000A FUEL INJECTOR

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	40	41	47	51	52	56	58	62	66	67	74	75
2.1001 - INJECTOR ASSY.														
FOR TYPE 57 USE TYPE 80. QUANTITIES SHOWN ARE PER CYLINDER. INCLUDES ITEMS IN 2.1020 THRU 2.1265														
1A	5228510	@ INJECTOR ASSY. (45) (USE TYPE 52)	1											
1A	5228535	+ INJECTOR ASSY. (35) (5229595)		1										
1A	5228560	+ INJECTOR ASSY. (40) (5228763)			1									
1A	5228590	+ INJECTOR ASSY. (S40) (5228763)				1								
1A	5228580	+ INJECTOR ASSY. (S45) (5228773)					1							
1A	5228550	+ INJECTOR ASSY. (S50) (5228783)						1						
1B	5228695	@ INJECTOR ASSY. (L40) (USE TYPE 86)							1					
1B	5228645	@ INJECTOR ASSY. (N45) (USE TYPE 76)								1				
1B	5228650	@ INJECTOR ASSY. (N50) (USE TYPE 74)									1			
1B	5228660	@ INJECTOR ASSY. (N40) (USE TYPE 75)										1		
1B	5228783	* INJECTOR ASSY. (N50)											1	
1B	5228763	* INJECTOR ASSY. (N40)												1
@ NOT SERVICED AS AN ASSY.; COMPONENTS AVAILABLE, FOR COMPLETE REPLACEMENT USE TYPE SHOWN.														
* THESE INJECTORS HAVE FILTER ELEMENT AT FUEL INLET SIDE ONLY.														
+ NOT SERVICED, USE PART NUMBER IN PARENTHESES AND CHANGE OUT ALL CYLINDERS.														
2.1002 - SERVICE KIT, INJECTOR														
OVERHAUL KIT CONSISTS OF ONE (1) SEAL RING, TWO (2) FILTER CAP GASKETS, TWO (2) FILTER ELEMENTS AND TWO (2) SHIPPING CAPS.														
	5229649	OVERHAUL KIT	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
2.1010 - CONTAINER, INJECTOR SHIPPING														
1A	5149669	CONTAINER (12.8050)	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
2.1020 - BODY ASSY., INJECTOR														
A BODY ASSY. INCLUDES DOWEL AND PLUG IN 2.1020.														
1A	5228509	BODY ASSY.	1	1	1	1	1	1						
1B	5228583	BODY ASSY.							1	1	1	1	1	1
1A	5226416	DOWEL	1	1	1	1	1	1	1	1	1	1	1	1

2.1000A FUEL INJECTOR

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	4 0	4 1	4 7	5 1	5 2	5 6	5 8	6 2	6 6	6 7	7 4	7 5
2.1020 - BODY ASSY., INJECTOR (CONT'D)														
	5228912	PLUG, BODY	2	2	2	2	2	2	2	2	2	2	2	2
1A	5229191	TAG, NUMBER (BLANK & UNPAINTED)	1		1				1					
1A	5228536	TAG, NUMBER (35)		1										
1A	5228558	TAG, NUMBER (S40)				1								
1A	5228557	TAG, NUMBER (S45)					1							
1A	5228559	TAG, NUMBER (S50)						1						
1B	5228764	TAG, NUMBER (N45)								1				
1B	5228772	TAG, NUMBER (N50)									1		1	
1B	5228762	TAG, NUMBER (N40)										1		1
2.1030 - NUT, INJECTOR VALVE														
1B	5228601	NUT							1	1	1	1	1	1
1A	5228102	NUT	1	1	1	1	1	1						
2.1040 - RING, INJECTOR SEAL														
1A	5229167	RING	1	1	1	1	1	1	1	1	1	1	1	1
2.1050 - DEFLECTOR, INJECTOR SPILL														
1A	5228109	DEFLECTOR	1	1	1	1	1	1	1	1	1	1	1	1
2.1060 - FOLLOWER, INJECTOR														
1A	5228104	FOLLOWER	1	1	1	1	1	1	1	1	1	1	1	1
2.1080 - SPRING, INJECTOR PLUNGER														
1A	5228739	SPRING	1	1	1	1	1	1	1	1	1	1	1	1
2.1100 - PIN, INJECTOR STOP														
1B	5228608	PIN	1	1	1	1	1	1	1	1	1	1	1	1
2.1110 - ELEMENT, INJECTOR FILTER														
1A	5228013	# ELEMENT	2	2	2	2	2	2						
1B	5228587	ELEMENT							2	2	2	2	1	1
		# NOT SERVICED, USE FILTER KIT IN 2.1132.												

2.1000A FUEL INJECTOR

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	4 0	4 1	4 7	5 1	5 2	5 6	5 8	6 2	6 6	6 7	7 4	7 5
2.1120 - SPRING, INJECTOR FILTER														
1A	5226415	SPRING	2	2	2	2	2	2						
2.1130 - CAP, INJECTOR FILTER														
1A	5226413	# CAP	2	2	2	2	2	2						
1B	5228588	CAP							2	2	2	2	2	2
		# NOT SERVICED, USE FILTER KIT IN 2.1132.												
2.1132 - FILTER KIT, CONVERSION														
		CONSISTS OF (1) 5228588 INJECTOR FILTER CAP, (1) 5228587 FILTER, (1) 5226186 FILTER CAP GASKET.												
	5228882	FILTER KIT	AR	AR	AR	AR	AR	AR						
2.1140 - GASKET, INJECTOR FILTER CAP														
1A	5226186	GASKET	2	2	2	2	2	2	2	2	2	2	2	2
2.1150 - CAP, INJECTOR SHIPPING														
1B	5226414	CAP	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
2.1160 - PLUNGER AND BUSHING ASSY., INJECTOR														
		PLUNGERS AND BUSHINGS ARE NOT SOLD SEPARATELY. AN ASSY. INCLUDES PIN IN 2.1165.												
1A	5228495	PLUNGER AND BUSHING ASSY. (45)	1				1							
1A	5228530	PLUNGER AND BUSHING ASSY. (35)		1										
1A	5228552	PLUNGER AND BUSHING ASSY. (40)			1	1								
1A	5228126	PLUNGER AND BUSHING ASSY. (50)						1						
1B	5228679	PLUNGER AND BUSHING ASSY. (L40)							1					
1B	5228684	PLUNGER AND BUSHING ASSY. (N45)								1				
1B	5228749	PLUNGER AND BUSHING ASSY. (N50)(M60)									1		1	

2.1000A FUEL INJECTOR

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	4 0	4 1	4 7	5 1	5 2	5 6	5 8	6 2	6 6	6 7	7 4	7 5
		2.1160 - PLUNGER AND BUSHING ASSY., INJECTOR (CONT'D)												
1B	5228691	PLUNGER AND BUSHING ASSY. (N40)										1		1
		2.1165 - PIN, BUSHING GUIDE												
	5226393	PIN	1	1	1	1	1	1	1	1	1	1	1	1
		2.1170 - RACK, INJECTOR												
1A	5226719	RACK	1	1	1	1	1	1	1	1	1	1	1	1
		2.1180 - GEAR, INJECTOR												
1A	5226400	GEAR	1	1	1	1	1	1	1	1	1	1	1	1
		2.1190 - RETAINER, INJECTOR GEAR												
1A	5226567	RETAINER	1	1	1	1	1	1						
1B	5228586	RETAINER							1	1	1	1	1	1
		2.1200 - VALVE, INJECTOR CHECK												
1A	5226411	VALVE	1	1	1	1	1	1						
1B	5228663	* VALVE							1	1	1	1		
1B	5228694	VALVE											1	1
		* NOT SERVICED, REPLACE WITH 1-5228694 VALVE AND 1-5228696 CAGE.												
		2.1205 - CAGE, INJECTOR CHECK VALVE												
1B	5228664	* CAGE							1	1	1	1		
1B	5228696	CAGE											1	1
		* NOT SERVICED, REPLACE WITH 1-5228694 VALVE AND 1-5228696 CAGE.												
		2.1220 - TIP KIT, INJECTOR SPRAY												
		A TIP KIT INCLUDES ITEMS IN 2.1230 THRU 2.1260.												
	5228491	TIP KIT				AR	AR	AR						

2.1000A FUEL INJECTOR

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	40	41	47	51	52	56	58	62	66	67	74	75
2.1230 - TIP, INJECTOR SPRAY														
1A	5228436	TIP	1	1	1									
1A	5228473	TIP				1	1	1						
2.1235 - TIP ASSY., INJECTOR SPRAY														
COMPONENTS OF TIP ASSY. ARE NOT SOLD SEPARATELY.														
1B	5228591	@ TIP ASSY.							1	1	1	1		
1B	5229034	TIP ASSY. (M65, N40, N45, N50)											1	1
@ NOT SERVICED, USE 5229034 OR 5228768 TIP ASSY. AND INCLUDE 5228766 SEAT.														
2.1238 - VALVE KIT, INJECTOR														
INCLUDES ITEMS IN 2.1250 AND 2.1255.														
	5228313	VALVE KIT (INCLUDES ITEMS IN 2.1240)	AR	AR	AR	AR	AR	AR						
	5228711	+ VALVE KIT							AR					
	5228706	+ VALVE KIT (LONG QUILL NEEDLE)								AR	AR	AR		
	5228769	VALVE KIT (SHORT QUILL NEEDLE)											AR	AR
+ OBSOLETE.														
2.1240 - VALVE ASSY., INJECTOR														
INCLUDES ITEMS IN 2.1245 AND 2.1247.														
1A	5228316	VALVE ASSY.	1	1	1	1	1	1						
2.1245 - VALVE, INJECTOR														
1A	5228308	VALVE	1	1	1	1	1	1						
2.1247 - SEAT, INJECTOR VALVE														
1A	5228106	SEAT	1	1	1	1	1	1						
2.1250 - SPRING, INJECTOR VALVE														
1A	5227210	SPRING	1	1	1	1	1	1						
1B	5228676	SPRING							1					
1B	5228596	SPRING								1	1	1	1	1

DETROIT DIESEL

53 MPC ENGINES

2.1000A FUEL INJECTOR

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	40	41	47	51	52	56	58	62	66	67	74	75
2.1255 - SEAT, INJECTOR VALVE SPRING														
1B	5228597	% SEAT							1	1	1	1		
1B	5228766	SEAT											1	1
		% OBSOLETE.												
2.1257 - CAGE, INJECTOR VALVE SPRING														
1B	5228594	CAGE							1	1	1	1	1	1
2.1260 - STOP, INJECTOR VALVE														
1A	5227318	STOP	1	1	1	1	1	1						
2.1265 - CAGE, INJECTOR VALVE														
1A	5228294	CAGE	1	1	1	1	1	1						
2.1270 - CLAMP, INJECTOR														
1A	5121259	CLAMP	1	1	1	1	1	1	1	1	1	1	1	1
1A	5150250	WASHER	1	1	1	1	1	1	1	1	1	1	1	1
1A	179847	BOLT, 3/8"-16X2" (12.9001)	1	1	1	1	1	1	1	1	1	1	1	1

2.1000A FUEL INJECTOR

PART		TYPES														
FIG	NUMBER	NAME AND DESCRIPTION	7 6	8 0	8 1	8 4	8 6	8 7	8 8	8 9	9 3	9 4	9 7	1 0 2	1 3 4	1 3 8
2.1001 - INJECTOR ASSY.																
● FOR TYPE 104 USE TYPE 93.																
● FOR TYPE 140 USE TYPE 161.																
QUANTITIES SHOWN ARE PER CYLINDER.																
INCLUDES ITEMS IN 2.1020 THRU 2.1265.																
1B	5228773	* INJECTOR ASSY. (N45)	1													
1B	5228770	INJECTOR ASSY. (N70)		1					1							
1B	5228777	INJECTOR ASSY. (N75)			1											
1B	5228783	* @ INJECTOR ASSY. (M50) (USE TYPE 74)				1										
1B	5228793	% * INJECTOR ASSY. (L40)					1									
1B	5228814	+ * INJECTOR ASSY. (M65)						1				1				
1B	5228824	* # INJECTOR ASSY. (M60)								1						
1B	5228834	* INJECTOR ASSY. (M55)									1					
1B	5229185	+ * INJECTOR ASSY. (M70)												1		
1B	5229610	+ INJECTOR ASSY. (M40)													1	
1B	5229595	+ INJECTOR ASSY. (N35)														1
1B	5228900	= INJECTOR ASSY. (N65)											1			
* THESE INJECTORS HAVE FILTER ELEMENT AT FUEL INLET SIDE ONLY.																
% NOT SERVICED, USE 5228763 INJECTOR (N40) AND CHANGE OUT ALL CYLINDERS.																
+ NOT SERVICED, FOR SERVICE, USE COMPONENTS.																
= NOT SERVICED, USE 5226440 INJECTOR (7N65) AND CHANGE OUT ALL CYLINDERS.																
@ NOT SERVICED AS AN ASSY. COMPONENTS AVAILABLE, FOR COMPLETE REPLACEMENT USE TYPE SHOWN.																
# NOT SERVICED AS AN ASSY. USE COMPONENTS.																
2.1002 - SERVICE KIT, INJECTOR																
OVERHAUL KIT CONSISTS OF ONE (1) SEAL RING, TWO (2) FILTER CAP GASKETS, TWO (2) FILTER ELEMENTS AND TWO (2) SHIPPING CAPS.																
	5229649	OVERHAUL KIT	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
2.1010 - CONTAINER, INJECTOR SHIPPING																
1A	5149669	CONTAINER (12.8050)	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
2.1020 - BODY ASSY., INJECTOR																
A BODY ASSY. INCLUDES DOWEL AND PLUG IN 2.1020.																
1B	5228583	BODY ASSY.	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1A	5226416	DOWEL	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5226912	PLUG, BODY	2	2	2	2	2	2	2	2	2	2	2	2	2	2

2.1000A FUEL INJECTOR

PART			TYPES													
FIG	NUMBER	NAME AND DESCRIPTION	7 6	8 0	8 1	8 4	8 6	8 7	8 8	8 9	9 3	9 4	9 7	1 0 2	1 3 4	1 3 8
2.1020 - BODY ASSY., INJECTOR (CONT'D)																
1A	5229191	TAG, NUMBER (BLANK & UNPAINTED)				1	1	1		1	1	1				
1B	5228764	TAG, NUMBER (N45)	1													
1B	5228782	TAG, NUMBER (M70)		1					1							
1B	5229600	TAG, NUMBER (N35)														1
1B	5228848	TAG, NUMBER (N65)											1			
1B	5228786	TAG, NUMBER (N75)			1											
2.1030 - NUT, INJECTOR VALVE																
1B	5228601	NUT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1040 - RING, INJECTOR SEAL																
1A	5229167	RING	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1050 - DEFLECTOR, INJECTOR SPILL																
1A	5228109	DEFLECTOR	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1060 - FOLLOWER, INJECTOR																
1A	5228104	FOLLOWER	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1080 - SPRING, INJECTOR PLUNGER																
1A	5228739	SPRING	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1100 - PIN, INJECTOR STOP																
1B	5228608	PIN	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1110 - ELEMENT, INJECTOR FILTER																
1B	5228587	ELEMENT	1	2	1	1	1	1	2	1	1	1	1	1	1	1
2.1130 - CAP, INJECTOR FILTER																
1B	5228588	CAP	2	2	2	2	2	2	2	2	2	2	2	2	2	2

2.1000A FUEL INJECTOR

PART			TYPES													
FIG	NUMBER	NAME AND DESCRIPTION	7 6	8 0	8 1	8 4	8 6	8 7	8 8	8 9	9 3	9 4	9 7	1 0 2	1 3 4	1 3 8
2.1140 - GASKET, INJECTOR FILTER CAP																
1A	5226186	GASKET	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2.1150 - CAP, INJECTOR SHIPPING																
1B	5226414	CAP	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
2.1160 - PLUNGER AND BUSHING ASSY., INJECTOR																
PLUNGERS AND BUSHINGS ARE NOT SOLD SEPARATELY. AN ASSY. INCLUDES PIN IN 2.1165.																
1B	5228679	PLUNGER AND BUSHING ASSY. (L40)					1									
1B	5228684	PLUNGER AND BUSHING ASSY. (N45)	1													
1B	5228749	PLUNGER AND BUSHING ASSY. (N50) (M60) (5A55)				1				1						
1B	5229632	PLUNGER AND BUSHING ASSY. (N70) (M70)		1					1					1		
1B	5228661	PLUNGER AND BUSHING ASSY. (M65)						1				1				
1B	5228841	PLUNGER AND BUSHING ASSY. (M55)									1					
	5229608	PLUNGER AND BUSHING ASSY. (M40)													1	
	5229598	PLUNGER AND BUSHING ASSY. (N35)														1
	5228928	PLUNGER AND BUSHING ASSY. (N65)											1			
	5228658	PLUNGER AND BUSHING ASSY. (N75)			1											
2.1165 - PIN, BUSHING GUIDE																
	5226393	PIN	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1170 - RACK ASSY., INJECTOR																
1A	5226719	RACK	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1180 - GEAR, INJECTOR																
1A	5226400	GEAR	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1190 - RETAINER, INJECTOR GEAR																
1B	5228586	RETAINER	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1200 - VALVE, INJECTOR CHECK																
1B	5228694	VALVE	1	1	1	1	1	1	1	1	1	1	1	1	1	1

2.1000A FUEL INJECTOR

PART			TYPES													
FIG	NUMBER	NAME AND DESCRIPTION	7 6	8 0	8 1	8 4	8 6	8 7	8 8	8 9	9 3	9 4	9 7	1 0 2	1 3 4	1 3 8
2.1205 - CAGE, INJECTOR CHECK VALVE																
1B	5228696	CAGE	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1235 - TIP ASSY., INJECTOR SPRAY																
COMPONENTS OF TIP ASSY. ARE NOT SOLD SEPARATELY.																
1B	5229034	TIP ASSY. (M60, M65, M70, N40, N45, N50, N35, M40, M55)	1			1		1			1	1			1	1
1B	5229192	TIP ASSY. (N70, N75)		1	1				1							
1B	5229026	TIP ASSY. (L40)					1									
1B	5229192	TIP ASSY. (M60, M70)				1				1				1		
1B	5229030	TIP ASSY. (5A55, N65)											1			
2.1238 - VALVE KIT, INJECTOR																
INCLUDES ITEMS IN 2.1250 AND 2.1255.																
	5228769	VALVE KIT (SHORT QUILL NEEDLE)	AR	AR	AR	AR		AR	AR	AR	AR	AR	AR	AR	AR	AR
	5228690	VALVE KIT					AR									
2.1250 - SPRING, INJECTOR VALVE																
1B	5228676	SPRING					1									
1B	5228596	SPRING	1	1	1	1		1	1	1	1	1	1	1	1	1
2.1255 - SEAT, INJECTOR VALVE SPRING																
1B	5228766	SEAT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1257 - CAGE, INJECTOR VALVE SPRING																
1B	5228594	CAGE	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1270 - CLAMP, INJECTOR																
1A	5121259	CLAMP	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1A	5150250	WASHER	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1A	179847	BOLT, 3/8"-16X2" (12.9001)	1	1	1	1	1	1	1	1	1	1	1	1	1	1

2.1000A FUEL INJECTOR

PART			TYPES													
FIG	NUMBER	NAME AND DESCRIPTION	1 5 7	1 6 0	1 6 1	1 6 2	1 7 0	1 7 9	1 9 1	2 1 3	2 2 6	2 2 7	2 2 8	2 2 9	2 3 0	2 3 1
2.1001 - INJECTOR ASSY.																
QUANTITIES SHOWN ARE PER CYLINDER. INCLUDES ITEMS IN 2.1020 THRU 2.1265.																
1B	5228834	* INJECTOR ASSY. (M55)				1										
1B	5229666	INJECTOR ASSY. (5A60)			1											
1B	5226440	INJECTOR ASSY. (N65)		1												
1B	5229825	% INJECTOR ASSY. (5N65)					1									
1B	5228763	* INJECTOR ASSY. (N40)						1								
1B	5226075	+ INJECTOR ASSY. (5N45)								1						
	5226235	INJECTOR ASSY. (5E60)									1					
	5226245	INJECTOR ASSY. (5E55)										1				
	5226280	INJECTOR ASSY. (5E50)											1			
	5226240	INJECTOR ASSY. (5C55)												1		
	5226250	INJECTOR ASSY. (5C50)													1	
	5226230	INJECTOR ASSY. (5C60)														1
	5229920	INJECTOR ASSY. (5A50)							1							
	5229676	INJECTOR ASSY. (5A55)	1													
* THESE INJECTORS HAVE FILTER ELEMENT AT FUEL INLET SIDE ONLY.																
+ NOT SERVICED. USE 5228773 INJECTOR (N45) AND CHANGE OUT ALL CYLINDERS.																
% NOT SERVICED. FOR SERVICE USE COMPONENTS.																
2.1002 - SERVICE KIT, INJECTOR																
OVERHAUL KIT CONSISTS OF ONE (1) SEAL RING, TWO (2) FILTER CAP GASKETS, TWO (2) FILTER ELEMENTS AND TWO (2) SHIPPING CAPS.																
	5229649	OVERHAUL KIT	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
2.1010 - CONTAINER, INJECTOR SHIPPING																
1B	5149669	CONTAINER (12.8050)	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
2.1020 - BODY ASSY., INJECTOR																
A BODY ASSY. INCLUDES DOWEL AND PLUG IN 2.1020.																
1B	5228583	BODY ASSY.	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1B	5226416	DOWEL	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5226912	PLUG, BODY	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1B	5229191	TAG, NUMBER (BLANK & UNPAINED)				1										
1B	5229654	TAG, NUMBER (5A60)			1											
1B	5228848	TAG, NUMBER (N65)		1												
1B	5229803	TAG, NUMBER (5N65)					1									
1B	5226067	TAG, NUMBER (5N45)								1						
	5226458	TAG, NUMBER (5E60)									1					
	5226480	TAG, NUMBER (5E55)										1				
	5226462	TAG, NUMBER (5E50)											1			
	5226459	TAG, NUMBER (5C55)												1		
	5226461	TAG, NUMBER (5C50)													1	
	5226457	TAG, NUMBER (5C60)														1
	5229924	TAG, NUMBER (5A50)							1							
	5229652	TAG, NUMBER (5A55)	1													

2.1000A FUEL INJECTOR

PART			TYPES													
FIG	NUMBER	NAME AND DESCRIPTION	1 5 7	1 6 0	1 6 1	1 6 2	1 7 0	1 7 9	1 9 1	2 1 3	2 2 6	2 2 7	2 2 8	2 2 9	2 3 0	2 3 1
		2.1030 - NUT, INJECTOR VALVE														
1B	5228601	NUT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		2.1040 - RING, INJECTOR SEAL														
1B	5229167	RING	1	1	1	1	1	1	1	1	1	1	1	1	1	1

2.1000A FUEL INJECTOR

PART			TYPES													
..FIG ..	NUMBER ..	NAME AND DESCRIPTION ..	1 5 7	1 6 0	1 6 1	1 6 2	1 7 0	1 7 9	1 9 1	2 1 3	2 2 6	2 2 7	2 2 8	2 2 9	2 3 0	2 3 1
		2.1050 - DEFLECTOR, INJECTOR SPILL														
1B	5228109	DEFLECTOR	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		2.1060 - FOLLOWER, INJECTOR														
1B	5228104	FOLLOWER	1	1	1	1	1	1	1	1		1	1	1	1	1
		2.1080 - SPRING, INJECTOR PLUNGER														
1B	5228739	SPRING	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		2.1100 - PIN, INJECTOR STOP														
1B	5228608	PIN	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		2.1110 - ELEMENT, INJECTOR FILTER														
1B	5228587	ELEMENT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		2.1130 - CAP, INJECTOR FILTER														
1B	5228588	CAP	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		2.1140 - GASKET, INJECTOR FILTER CAP														
1B	5226186	GASKET	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		2.1150 - CAP, INJECTOR SHIPPING														
1B	5226414	CAP	AR		AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
		2.1160 - PLUNGER AND BUSHING ASSY., INJECTOR														
1B	5228841	PLUNGER AND BUSHING ASSY. (M55)				1										
1B	5228656	PLUNGER AND BUSHING ASSY. (5A60)			1											
1B	5228928	PLUNGER AND BUSHING ASSY. (N65)		1												
1B	5228668	PLUNGER AND BUSHING ASSY. (5N65)					1									
1B	5228679	PLUNGER AND BUSHING ASSY. (L40)						1								
1B	5228684	PLUNGER AND BUSHING ASSY. (5N45)								1						
1B	5226392	PLUNGER AND BUSHING ASSY. (5C60, 5E60)										1				1
1B	5226422	PLUNGER AND BUSHING ASSY. (5C55, 5E55)											1		1	
1B	5226428	PLUNGER AND BUSHING ASSY. (5C50, 5E50)												1		1
	5229921	PLUNGER AND BUSHING ASSY. (5A50)							1							
	5228749	PLUNGER AND BUSHING ASSY. (5A55)	1													
		2.1165 - PIN, BUSHING GUIDE														
	5226393	PIN	1	1	1	1	1	1	1	1	1	1	1	1	1	1

2.1000A FUEL INJECTOR

PART			TYPES													
FIG	NUMBER	NAME AND DESCRIPTION	1 5 7	1 6 0	1 6 1	1 6 2	1 7 0	1 7 9	1 9 1	2 1 3	2 2 6	2 2 7	2 2 8	2 2 9	2 3 0	2 3 1
2.1170 - RACK ASSY., INJECTOR																
1B	5226719	RACK	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1180 - GEAR, INJECTOR																
1B	5226400	GEAR	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1190 - RETAINER, INJECTOR GEAR																
1B	5228586	RETAINER	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1200 - VALVE, INJECTOR CHECK																
1B	5228694	VALVE	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1205 - CAGE, INJECTOR CHECK VALVE																
1B	5228696	CAGE	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.1235 - TIP ASSY., INJECTOR SPRAY																
COMPONENTS OF TIP ASSY. ARE NOT SOLD SEPARATELY.																
1B	5229034	TIP ASSY. (M60, M65, M70, N40, N45, N50, N35, M40, M55)				1										
1B	5229030	TIP ASSY. (N65, 5A50, 5A55, 5A60, 5A65, 5E50, 5E55, 5E60)	1	1	1				1		1	1	1			
1B	5229192	TIP ASSY. (5N65)					1									
1B	5229026	TIP ASSY. (L40, 5N45)						1		1						
1B	5226404	TIP ASSY. (5C50, 5C55, 5C60)													1	1
2.1238 - VALVE KIT, INJECTOR																
INCLUDES ITEMS IN 2.1250 AND 2.1255.																
	5228769	VALVE KIT (SHORT QUILL NEEDLE)	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
2.1250 - SPRING, INJECTOR VALVE																
1B	5228596	SPRING	1	1	1	1	1	1	1	1			1		1	
1B	5226359	SPRING (HIGH OUTPUT)									1	1		1		1
2.1255 - SEAT, INJECTOR VALVE SPRING																
1B	5228766	SEAT	1	1	1	1	1	1	1	1			1		1	
1B	5226246	SEAT (HIGH OUTPUT)									1	1		1		1
2.1257 - CAGE, INJECTOR VALVE SPRING																
1B	5228594	CAGE	1	1	1	1	1	1	1	1	1	1	1	1	1	1

2.1000A FUEL INJECTOR

PART			TYPES													
FIG	NUMBER	NAME AND DESCRIPTION	1 5 7	1 6 0	1 6 1	1 6 2	1 7 0	1 7 9	1 9 1	2 1 3	2 2 6	2 2 7	2 2 8	2 2 9	2 3 0	2 3 1
2.1270 - CLAMP, INJECTOR																
1B	5121259	CLAMP	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1B	5150250	WASHER	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1B	179847	BOLT, 3/8"-16X2" (12.9001)	1	1	1	1	1	1	1	1	1	1	1	1	1	1

2.1000A FUEL INJECTOR

PART		NAME AND DESCRIPTION		TYPES											
FIG	NUMBER			2	4	2	2	7	7						
		2.1001 - INJECTOR ASSY.													
		QUANTITIES SHOWN ARE PER CYLINDER.													
	5226440	INJECTOR ASSY. (7N65)	.....	1											
	5226790	INJECTOR ASSY. (5A68)	.....				1								
		2.1002 - SERVICE KIT, INJECTOR													
		OVERHAUL KIT CONSISTS OF ONE (1) SEAL RING, TWO (2) FILTER CAP GASKETS, TWO (2) FILTER ELEMENTS AND TWO (2) SHIPPING CAPS.													
	5229649	OVERHAUL KIT	.....	AR			AR								
		2.1010 - CONTAINER, INJECTOR SHIPPING													
	5149669	CONTAINER (12.8050)	.....	AR			AR								
		2.1020 - BODY ASSY., INJECTOR													
1B	5228583	BODY ASSY.	.....	1											
1B	5228584	BODY ASSY.	.....				1								
1B	5226416	DOWEL	.....	1			1								
	5226912	PLUG, BODY	.....	2			2								
1B	5226241	TAG, NUMBER (7N65)	.....	1											
1B	5226664	TAG, NUMBER (5A88)	.....				1								
		2.1030 - NUT, INJECTOR VALVE													
1B	5228601	NUT	.....	1			1								
		2.1040 - RING, INJECTOR SEAL													
1B	5229167	RING	.....	1			1								
		2.1050 - DEFLECTOR, INJECTOR SPILL													
1B	5228109	DEFLECTOR	.....	1			1								
		2.1060 - FOLLOWER, INJECTOR													
1B	5228104	FOLLOWER	.....	1			1								
		2.1080 - SPRING, INJECTOR PLUNGER													
1B	5228739	SPRING	.....	1			1								
		2.1100 - PIN, INJECTOR STOP													
1B	5228608	PIN	.....	1			1								

2.1000A FUEL INJECTOR

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	2	4	2	7	7							
		2.1110 - ELEMENT, INJECTOR FILTER												
1B	5228587	ELEMENT	1	1										
		2.1130 - CAP, INJECTOR FILTER												
1B	5228588	CAP	2	2										
		2.1140 - GASKET, INJECTOR FILTER CAP												
1B	5226186	GASKET	2	2										
		2.1150 - CAP, INJECTOR SHIPPING												
1B	5226414	CAP	AR	AR										
		2.1160 - PLUNGER AND BUSHING ASSY., INJECTOR												
1B	5226298	PLUNGER AND BUSHING ASSY. (7N65)	1											
1B	5228682	PLUNGER AND BUSHING ASSY. (5A68)		1										
		2.1165 - PIN, BUSHING GUIDE												
	5226393	PIN	1	1										
		2.1170 - RACK ASSY., INJECTOR												
1B	5226719	RACK	1	1										
		2.1180 - GEAR, INJECTOR												
1B	5226400	GEAR	1	1										
		2.1190 - RETAINER, INJECTOR GEAR												
1B	5228586	RETAINER	1	1										
		2.1200 - VALVE, INJECTOR CHECK												
1B	5228694	VALVE	1	1										
		2.1205 - CAGE, INJECTOR CHECK VALVE												
1B	5228696	CAGE	1	1										
		2.1235 - TIP ASSY., INJECTOR SPRAY												
		COMPONENTS OF TIP ASSY. ARE NOT SOLD SEPARATELY.												
	5229192	TIP ASSY. (7N65, 5A68)	1	1										

TYPES

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2.2000 FUEL PUMP

PART		TYPES													
FIG	NUMBER	NAME AND DESCRIPTION	3 3	3 4	3 6	3 9	4 1	4 2	4 3	4 6	4 7	5 0	5 4	5 8	6 0
2.2001 - PUMP ASSY., FUEL															
SEE ASSEMBLY BREAKDOWN AS INDICATED BELOW. A FUEL PUMP KIT INCLUDES A 3/8" INLET PUMP, GASKET IN 2.2007 AND REDUCING BUSHING IN 2.2030.															
2A	5184531	# PUMP ASSY., 2,3,4-53 (C,D ENG.) (GEAR TYPE) (1/4" INLET) (PAGE A1)	1		1					1					
2A	5134705	# PUMP ASSY., 2,3,4-53 (C,D ENG.) (GEAR TYPE) (3/8" INLET) (PAGE A1)	1		1					1					
	5198318	& PUMP KIT, FUEL 2,3,4-53 (C,D ENG.) (PAGE D1) (5199560)	1		1					1					
2A	5184532	# PUMP ASSY., 2,3,4-53 (A,B ENG.) (GEAR TYPE) (1/4" INLET) (PAGE A1)		1											
2A	5134706	# PUMP ASSY., 2,3,4-53 (A,B ENG.) (GEAR TYPE) (3/8" INLET) (PAGE A1)		1											
	5198876	& PUMP KIT, FUEL 2,3,4-53 (A,B ENG.) (PAGE D1) (5199561)		1											
2A	5109017	# PUMP ASSY., 3,4,6,8V53 (R.H.) (1/4" INLET) (PAGE A1)					1				1				
	5197769	% PUMP KIT, FUEL 3,4,6,8V53 (R.H.) (PAGE D1) (5199561) (O)					1				1				
2A	5126529	# PUMP ASSY., 6,8V53 (L.H.) (1/4" INLET) (PAGE A1)						1	1						
	5198729	# PUMP KIT, FUEL 6,8V53 (L.H.) (PAGE D1) (5199560)						1	1						
2A	5111367	# + PUMP ASSY., 2,3,4-53 (A,B ENG.) (GEAR TYPE) (1/4" INLET) (PAGE A1)													1
2A	5134714	# + PUMP ASSY., 2,3,4-53 (A,B ENG.) (GEAR TYPE) (3/8" INLET) (PAGE A1)													1
	5198875	& + PUMP KIT, FUEL 2, 3, 4-53 (A, B ENG.) (PAGE D1) (5199561)													1
2A	5128212	% PUMP ASSY., 6V53 (R.H.) (3/8" INLET) (PAGE B1)				1									
2A	5108519	# PUMP ASSY., 6V53 (R.H.) (1/4" INLET) HIGH CAPACITY (PAGE B1)										1			
	5199734	PUMP KIT, 6, 8V53 (PAGE D1)										1			
	5172926	@ PUMP ASSY., 6V53 (AUX.) (TUTHILL #00L1, C. C. W.)											1		
	5172938	* PUMP ASSY., 2,3,4-53 (PRIMER) (DEMING #RR 3801 1/2)											1		
	5101092	= PUMP ASSY., 2,3,6V53 (TUTHILL #00LA, CW1CCW)											1		
	5131476	? PUMP ASSY., 4, 6V53 (TITAN #4101-B-63C) (C.W.)													1
	C0384	MOTOR, ELECTRIC FUEL BOOSTER PUMP DRIVE, 24V.													1
	8924166	BUSHING, 3/4"X1/4" RED. (12.9570)													1
	8924159	BUSHING, 3/4"X3/8" RED. (12.9570)													1
	8924380	PLUG, 3/8" PIPE (12.9550)	1	1	1	1				1		1			1
	189929	ELBOW, 3/8"-90 DEG. X 1/4" NPT. (12.9480)					1								
	179816	BOLT, 5/16"-18X3/4" (12.9001)			3										
	5131685	BOLT, 5/16"-18X3/4" (WITH NYLON INSERT (5.1031)	3	3		3	3	3	3	3	3	3			3
	181374	BOLT, 3/8"-24X1 1/2" (12.9001)											2		
	180147	BOLT, 7/16"-14X1 1/4" (12.9001)											2		
	103320	LOCKWASHER, 5/16" (12.9200)			3										
	103321	LOCKWASHER, 3/8" (12.9200)											2		
	103322	LOCKWASHER, 7/16" (12.9200)											2		
	442826	NUT, 5/16"-24 LOCK (12.9140)												4	
	117049	NUT, 3/8"-24 (12.9120)											2		

2.2000 FUEL PUMP

PART		TYPES												
FIG	NUMBER	NAME AND DESCRIPTION												
		3 3	3 4	3 6	3 9	4 1	4 2	4 3	4 6	4 7	5 0	5 4	5 8	6 0
	2.2001 - PUMP ASSY., FUEL (CONT'D)													
	# NOT SERVICED; COMPONENTS ARE AVAILABLE. FOR COMPLETE REPLACEMENT USE PUMP KIT SHOWN IN SAME TYPE.													
	& NOT SERVICED; COMPONENTS ARE AVAILABLE. FOR COMPLETE REPLACEMENT USE PART NUMBER SHOWN IN PARENTHESES.													
	% NOT SERVICED; COMPONENTS ARE AVAILABLE. FOR COMPLETE REPLACEMENT USE PUMP ASSEMBLY AND QUANTITY OF 892438 0 SHOWN IN PARENTHESES.													
	+ USE WHEN FUEL TANK IS MOUNTED HIGHER THAN FUEL PUMP.													
	= SERVICED AS ASSEMBLY ONLY. FOR REPLACEMENT PARTS, CONTACT TUTHILL PUMP CO., CHICAGO, ILLINOIS. FURNISHING THEIR PART NUMBER SHOWN IN PARENTHESES.													
	*SERVICED AS ASSEMBLY ONLY. FOR REPLACEMENT PARTS, CONTACT DEMING CO., SALEM, OHIO. FURNISHING THEIR PART NUMBER SHOWN IN PARENTHESES.													
	@ NOT SERVICED. USE 5101092 PLUS (2) 5146393 BUSHING IN 2.2001.													
	% NOT SERVICED, USE COMPONENTS.													
	? ASSEMBLY SERVICED ONLY. FOR REPLACEMENT PARTS CONTACT TITAN PUMP & ENG. CORP., 43600 GRAND RIVER, NOVI, MICHIGAN.													
	2.2004 - OVERHAUL KIT, FUEL PUMP													
	5195078 * OVERHAUL KIT, 2,3,4,6,8V53 (1/4" DRIVEN GEAR)	AR	AR	AR		AR	AR	AR	AR	AR				AR
	5149599 * OVERHAUL KIT, 6,8V53 (3/8" DRIVEN GEAR)										AR			
	* INCLUDES ITEMS IN 2.2007, 2.2070, 2.2089, 2.2093, 2.2130, 2.2160 AND 2.2180.													
	2.2007 - GASKET, FUEL PUMP TO ENGINE													
2A	5150193 GASKET, 2,3,4,6,8V53 (5.1010)	1	1	1	1	1	1	1	1	1	1			1
	5172915 GASKET, 2,3,4,6V53											1		
	2.2220 - FORK, FUEL PUMP COUPLING													
2A	5121398 FORK, 2,3-53			1										
2A	5102257 FORK, 3,4,6,8V53				1	1	1	1	1	1	1			
	2.2228 - DISC, FUEL PUMP DRIVE													
	5153449 # & DISC, 2,3,4,6V53 (23 TEETH) (1.7630)												1	
	5131627 # DISC, 2,3,4,6V53 (21 TEETH) (1.7630)												1	
	5177026 SPACER (1.7630)												1	
	5140814 SPACER (12.5015)								1					
	5122922 RETAINER (1.7207)								2	2				

2.2000 FUEL PUMP

PART		TYPES													
FIG	NUMBER	NAME AND DESCRIPTION	3 3	3 4	3 6	3 9	4 1	4 2	4 3	4 6	4 7	5 0	5 4	5 8	6 0
		2.2228 - DISC, FUEL PUMP DRIVE (CONT'D)													
	5122923	STUD, 3/8"-24X1.50" (1.7633)											1		
	5176474	BOLT, 3/8"-24 X 1.125" (1.7630)											3		
	124925	NUT, 3/8"-24 (12.9120)											1		
	9413533	NUT, 3/8"-24 SELF-LOCKING (12.9120)											1		
		# THRU 2D-16248, 3D-14315, 4D-17425, 6D-7991.													
		& NOT SERVICED, SUPERSEDED BY 5131627 PLUS (1) 5143616 COUPLING FOR ALL USAGE EXCEPT GENERATOR DRIVES USING MATING SHAFT 5168697. USE 5131627 PLATE AND 5122876 SHAFT FOR GENERATOR DRIVES.													
		2.2230 - COUPLING, FUEL PUMP DRIVE													
	5143616	COUPLING, 2,3,4,6V53 (EXTERNAL GEAR, 21 TEETH)											1		
2A	5154216	COUPLING, 2,3,4-53	1	1											1
	3292492	# COUPLING, 2,3,4,6V53 (EXTERNAL GEAR, 23 TEETH) (1.7635)											1		
		# THRU 2D-16248, 3D-14315, 4D-17425, 6D-7991.													
		2.2235 - PLATE, FUEL PUMP MOUNTING													
2C	5121050	PLATE, 3,4,6,8V53				1				1	1	1			
2C	5125179	ADAPTOR, 2,3,4,6V53 (2.2260)											1		
2C	179857	BOLT, 7/16"-14X7/8" (12.9001)				1				1	1	1			
2C	179858	BOLT, 7/16"-14X1" (12.9001)											1		
2C	179882	BOLT, 1/2"-13X1 1/8" (12.9001)				4				4	4	4	4		
	5150568	WASHER, 7/16" COPPER (2.4050)				1				1	1	1	1		
2C	103323	LOCKWASHER, 1/2" (12.9200)				4				4	4	4	4		
		2.2237 - GASKET, FUEL PUMP MOUNTING PLATE													
2C	5104506	GASKET (1.5040)				1				1	1	1	1		
		2.2260 - ADAPTOR, FUEL PUMP DRIVE													
2C	5127266	ADAPTOR, 3,4,6,8V53				1				1	1	1			
2B	5125775	ADAPTOR, 6,8V53					1	1	1						
2B	9409073	BOLT, 1/4"-20X5/8" (12.9001)				2	2	2	2						
2C	9409131	BOLT, 3/8"-24X3/4" (12.9001)				2						2			
2C	9409035	BOLT, 3/8"-24X1" LOCK (12.9001)								2	2				
		2.2290 - GEAR, FUEL PUMP DRIVE													
		A GEAR ASSY. INCLUDES BUSHING.													
2B	5125768	GEAR ASSY., 6,8V53 (L.H. HELIX)					1	1							
2B	5125767	GEAR ASSY., 6,8V53 (R.H. HELIX)							1						
	5172916	GEAR, 2,3,4,6V53											1		
2B	5196842	BUSHING (FINISHED)					1	1	1						
	106958	KEY, 1/16"X1/2" WOODRUFF (12.9350)												1	
	140881	SCREW, #10-32X5/16" SET (12.9076)										1	1		

2.2000 FUEL PUMP

PART			TYPES												
..FIG ..	NUMBER	NAME AND DESCRIPTION	3 3	3 4	3 6	3 9	4 1	4 2	4 3	4 6	4 7	5 0	5 4	5 8	6 0
2.2292 - HUB, FUEL PUMP DRIVE GEAR															
2B	5125774	HUB, 6.8V53					1	1	1						
2B	9409203	BOLT, 1/2"-13X2 3/4" (12.9001)					1	1	1						
2B	5125771	WASHER, THRUST (INNER)					2	2	2						
2B	5126672	WASHER, RETAINER					1	1	1						

2.2000 FUEL PUMP

PART		TYPES												
FIG	NUMBER	NAME AND DESCRIPTION	6 2	6 6	6 7	6 8	7 0	7 2	7 3	7 4	7 8	7 9	8 0	8 2
		2.2001 - PUMP ASSY., FUEL												
		SEE ASSEMBLY BREAKDOWN AS INDICATED BELOW. A FUEL PUMP KIT INCLUDES A 3/8" INLET PUMP, GASKET IN 2.2007 AND REDUCING BUSHING IN 2.2030.												
	5198318	@ PUMP KIT, FUEL 2,3,4-53 (C,D ENG.) (PAGE D1) (5199560)					1							
2A	5184532	# PUMP ASSY., 2,3,4-53 (A,B ENG.) (GEAR TYPE) (1/4" INLET) (PAGE A1)		1										
	5198876	@ PUMP KIT, FUEL 2,3,4-53 (A,B ENG.) (PAGE D1) (5199561)		1										
2A	5134716	# PUMP ASSY., 3,4,6,8V53 (R.H.) (3/8" INLET) (PAGE A1)								1				
	5197769	& PUMP KIT, FUEL 3,4,6,8V53 (R.H.) (PAGE D1) (5199561) (O)								1				
2A	5134717	# PUMP ASSY., 6,8V53 (L.H.) (3/8" INLET) (PAGE A1)						1				1	1	
	5198729	@ PUMP KIT, FUEL 6,8V53 (L.H.) (PAGE D1) (5199560)						1				1	1	
2A	5111366	# % PUMP ASSY., 2,3,4-53 (C, D ENG.) (GEAR TYPE) (1/4" INLET) (PAGE B1)	1											
2A	5134715	# % PUMP ASSY., 2,3,4-53 (C,D ENG.) (GEAR TYPE) (3/8" INLET) (PAGE B1)	1											
	5198874	% @ PUMP KIT, FUEL 2, 3, 4-53 (C, D ENG.) (5199560) (PAGE D1)	1											
2A	5134703	# PUMP ASSY., 6,8V53 (R.H.) (3/8 INLET) HIGH CAPACITY (PAGE B1)							1		1			
2A	5136276	@ PUMP ASSY., 8V53 (L.H.) (3/8" INLET) (PAGE B1) (5199560)												1
	5172926	+ PUMP ASSY., 6V53 (AUX.) (TUTHILL #00L1, C. C. W.)				1								
	5172938	* PUMP ASSY., 2,3,4-53 (PRIMER) (DEMING #RR 3801 1/2)			1									
	5174731	+ PUMP ASSY., 2,3-53 (AUX.) (TUTHILL #00L1, C. W.)			1									
	5101092	= PUMP ASSY., 2,3,6V53 (TUTHILL #00LA, CW/CCW)			1	1								
	8924380	PLUG, 3/8" PIPE (12.9550)	1											
	5131685	BOLT, 5/16"-18X3/4" (WITH NYLON INSERT)	3	3			3	3	3	3	3	3	3	3
	181374	BOLT, 3/8"-24X1 1/2" (12.9001)			2									
	180147	BOLT, 7/16"-14X1 1/4" (12.9001)			2	2								
	103321	LOCKWASHER, 3/8" (12.9200)			2									
	103322	LOCKWASHER, 7/16" (12.9200)			2	2								
	117049	NUT, 3/8"-24 (12.9120)			2									
		@ ASSEMBLY NOT SERVICED; USE PUMP KIT SHOWN IN PARENTHESES.												
		# NOT SERVICED; COMPONENTS ARE AVAILABLE. FOR COMPLETE REPLACEMENT USE PUMP KIT SHOWN IN SAME TYPE.												
		& NOT SERVICED; COMPONENTS ARE AVAILABLE. FOR COMPLETE REPLACEMENT USE PUMP ASSY. AND QUANTITY OF 8924380 S HOWN IN PARENTHESES.												
		% USE WHEN FUEL TANK IS MOUNTED HIGHER THAN FUEL PUMP.												
		= SERVICED AS ASSEMBLY ONLY. FOR REPLACEMENT PARTS, CONTACT TUTHILL PUMP CO., CHICAGO, ILLINOIS. FURNISHING THEIR PART NUMBER SHOWN IN PARENTHESES.												

2.2000 FUEL PUMP

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	6 2	6 6	6 7	6 8	7 0	7 2	7 3	7 4	7 8	7 9	8 0	8 2
	2.2001 - PUMP ASSY., FUEL (CONT'D)													
		* SERVICED AS ASSEMBLY ONLY. FOR REPLACEMENT PART, CONTACT DEMING CO., SALEM, OHIO. FURNISHING THEIR PART NUMBER SHOWN IN PARENTHESES.												
		+ NOT SERVICED. USE 5101092 PLUS (2) 5146393 BUSHING IN 2.2001.												
	2.2004 - OVERHAUL KIT, FUEL PUMP													
		INCLUDES ITEMS IN 2.2007, 2.2070, 2.2089, 2.2093, 2.2130, 2.2160 AND 2.2180.												
	5195078	OVERHAUL KIT, 2,3,4,6,8V53 (3/8" DRIVEN GEAR)	AR	AR			AR	AR		AR		AR	AR	
	5149599	OVERHAUL KIT, 6,8V53 (1/4" DRIVEN GEAR)							AR		AR			
	2.2007 - GASKET, FUEL PUMP TO ENGINE													
2A	5150193	GASKET, 2,3,4,6,8V53 (5.1010)	1	1			1	1	1	1	1	1	1	1
	5172915	GASKET, 2,3,4,6V53			1	1								
	2.2220 - FORK, FUEL PUMP COUPLING													
2A	5121398	FORK, 2,3-53					1							
2A	5102257	FORK, 3,4,6,8V53		1			1	1	1	1	1	1	1	1
	2.2228 - DISC, FUEL PUMP DRIVE													
	5153449	# & DISC, 2,3,4,6V53 (23 TEETH) (1.7630)			1	1								
	5131627	# DISC, 2, 3, 4, 6V53 (21 TEETH) (1.7630)			1	1								
	5177026	SPACER (1.7630)			1	1								
	5122922	RETAINER (1.7207)												
	5176474	BOLT, 3/8"-24 X 1.125" (1.7630)			3	4								
	5145091	BOLT, 3/8"-24X1.31" (12.5015)			4									
		# THRU 2D-16248, 3D-14315, 4D-17425, 6D-7991.												
		& NOT SERVICED, SUPERSEDED BY 5131627 PLUS (1) 5143616 COUPLING FOR ALL USAGE EXCEPT GENERATOR DRIVES USING MATING SHAFT 5168697. USE 5131627 PLATE AND 5122876 SHAFT FOR GENERATOR DRIVES.												
	2.2230 - COUPLING, FUEL PUMP DRIVE													
	5135843	+ COUPLING, 6V53 (FOR BLOWER DRIVEN PUMP)										1		
	5143616	COUPLING, 2,3,4,6V53 (EXTERNAL GEAR, 21 TEETH)			1	1								
2A	5154216	COUPLING, 2,3,4-53	1											
	3292492	# COUPLING, 2,3,4,6V53 (EXTERNAL GEAR, 23 TEETH) (1.7635)			1	1								
		+ OBSOLETE.												

2.2000 FUEL PUMP

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	6 2	6 6	6 7	6 8	7 0	7 2	7 3	7 4	7 8	7 9	8 0	8 2
2.2230 - COUPLING, FUEL PUMP DRIVE (CONT'D)														
# THRU 2D-16248, 3D-14315, 4D-17425, 6D-7991.														
2.2235 - PLATE, FUEL PUMP MOUNTING														
2C	5121050	PLATE, 3,4,6,8V53							1					
2C	5139332	PLATE ASSY., 8V53									1			
2C	5125179	ADAPTOR, 2,3,4,6V53 (2.2260)			1	1								
2C	5135844	* ADAPTOR, 6V53 (2.2260)										1		
	116399	BOLT, 3/8"-16X6 1/4" (12.9001)										4		
2C	179857	BOLT, 7/16"-14X7/8" (12.9001)							1					
2C	179858	BOLT, 7/16"-14X1" (12.9001)		1	1									
2C	179882	BOLT, 1/2"-13X1 1/8" (12.9001)			4	4			4					
	5150568	WASHER, 7/16" COPPER (2.4050)			1	1			1					
	103321	LOCKWASHER, 3/8" (12.9200)										4		
2C	103323	LOCKWASHER, 1/2" (12.9200)			4	4			4					
		* OBSOLETE												
2.2237 - GASKET, FUEL PUMP MOUNTING PLATE														
2C	5104506	GASKET, 2,3,4,6,8V53 (1.5040)			1	1			1					
2C	5121344	GASKET, 6V53 (3.4360)										1		
2.2260 - ADAPTOR, FUEL PUMP DRIVE														
2C	5127266	ADAPTOR, 3,4,6,8V53							1		1			
2B	5125775	ADAPTOR, 6,8V53		1				1		1			1	1
2B	9409073	BOLT, 1/4"-20X5/8" (12.9001)		2				2		2			2	2
2C	9409131	BOLT, 3/8"-24X3/4" (12.9001)							2		2			
2.2290 - GEAR, FUEL PUMP DRIVE														
A GEAR ASSY. INCLUDES BUSHING.														
2B	5125768	GEAR ASSY., 6,8V53 (L.H. HELIX)		1						1			1	
2B	5125767	GEAR ASSY., 6,8V53 (R.H. HELIX)						1						1
	5172916	GEAR, 2,3,4,6V53			1	1								
2B	5196842	BUSHING (FINISHED)		1				1		1			1	1
	106958	KEY, 1/16"X1/2" WOODRUFF (12.9350)												
	140881	SCREW, #10-32X5/16" SET (12.9076)			1	1								
					1	1								
2.2292 - HUB, FUEL PUMP DRIVE GEAR														
2B	5125774	HUB, 6,8V53		1				1		1			1	1
2B	9409203	BOLT, 1/2"-13X2 3/4" (12.9001)		1				1		1			1	1
2B	5125771	WASHER, THRUST (INNER)		2				2		2			2	2
2B	5126672	WASHER, RETAINER		1				1		1			1	1

2.2000 FUEL PUMP

PART		TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	8 6	8 9	9 0	9 8	1 0 1	1 0 2	1 0 7	1 1 6	1 1 7	1 1 8	1 1 9
2.2001 - PUMP ASSY., FUEL													
SEE ASSEMBLY BREAKDOWN AS INDICATED BELOW. A FUEL PUMP KIT INCLUDES A 3/8" INLET PUMP, GASKET IN 2.2007 AND REDUCING BUSHING IN 2.2030.													
	NPN	PUMP ASSY. (CUSTOMER FURNISHED)		1						1			
2A	5134703	# PUMP ASSY., 8V53 (R.H.) (3/8" INLET) (HIGH CAPACITY) (PAGE B1)	1										
2A	5134717	# PUMP ASSY., 6V53 (L.H.) (3/8" INLET) (PAGE A1)			1								
2A	5134702	& % PUMP ASSY., 3, 6V53 (R.H.) (3/8" INLET) (PAGE B1) (5199734)				1			1				
	5131476	+ PUMP ASSY., 3,4-53 (TITAN #4101-B-63C)					1						
	5140102	& % PUMP ASSY., 6V53 (R.H.) (3/8" INLET) (PAGE B1) (5199734)					1						
2A	5134701	& % PUMP ASSY., 6V53 (L.H.) (3/8" INLET) (PAGE B1) (5108065)						1					
	5174731	* PUMP ASSY., 2,3,4-53 (AUX.) (TUTHILL #00L1- C.W.)									1		1
	5172938	@ PUMP ASSY., 2,3,4-53 (PRIMER)(DEMING #RR 3801 1/2)									1		1
	5134715	# PUMP ASSY., 4-53 (L.H.) (3/8" INLET) (PAGE B1)										1	
	5199734	PUMP KIT, FUEL 6,8V53 (R.H.) (3/8" INLET) (PAGE D1)	1										
	5198729	% PUMP KIT, FUEL 6V53 (L.H.) (PAGE D1) (5199560)			1								
	5198874	& % PUMP KIT, FUEL 4-53 (L.H.) (PAGE D1) (5199560)										1	
	5101092	= PUMP ASSY., AUX. 2,3,4-53 (TUTHILL #00LA, CW/CCW)									1		1
	5146393	BUSHING, 3/8" X 1/2" RED. (INLET AND OUTLET)									2		2
	5152716	COVER (3.4223)								1			
	8924380	PLUG, 1/8" PIPE (12.9550)		2									
	5131685	BOLT, 5/16 -18X7/8 (WITH NYLOC INSERT) (5.1031)	3	3	3		3	3	3	3		3	
	181374	BOLT, 3/8"-24X1 1/2" (12.9001)									2		2
	193221	BOLT, 7/16"-14X1 1/4" (12.9001)									2		2
	103321	LOCKWASHER, 3/8" (12.9200)									2		2
	103322	LOCKWASHER, 7/16" (12.9200)									2		2
	117049	NUT, 3/8"-24 (12.9120)									2		2
		# NOT SERVICED; COMPONENTS ARE AVAILABLE. FOR COMPLETE REPLACEMENT USE PUMP KIT SHOWN IN SAME TYPE.											
		& USE WHEN FUEL TANK IS MOUNTED HIGHER THAN FUEL PUMP.											
		% NOT SERVICED; COMPONENTS ARE AVAILABLE. FOR COMPLETE REPLACEMENT USE PUMP ASSY. OR KIT SHOWN IN PARENTHESES PLUS QUANTITY OF 8924380 PLUG SHOWN.											
		+ SERVICED AS ASSEMBLY ONLY. FOR COMPONENTS CONTACT TITAN PUMP AND ENGINE CORP., 43600 GRAND RIVER, NOVI, MICHIGAN.											

2.2000 FUEL PUMP

PART			TYPES											
..FIG ..	NUMBER	NAME AND DESCRIPTION	8 6	8 9	9 0	9 6	9 8	1 0 1	1 0 2	1 0 7	1 1 6	1 1 7	1 1 8	1 1 9
		2.2001 - PUMP ASSY., FUEL (CONT'D)												
		= SERVICED AS COMPLETE ASSEMBLY ONLY. FOR REPLACEMENT PARTS CONTACT TUTHILL PUMP CO., CHICAGO, ILLINOIS. FURNISHING THEIR PART NUMBER SHOWN IN PARENTHESES.												
		* REPLACED BY 5101092 PLUS (2) 5146393 BUSHING IN 2.2001.												
		@ SERVICED AS COMPLETE ASSEMBLY ONLY. FOR REPLACEMENT PARTS CONTACT DEMING CO., SALEM OHIO. FURNISHING THEIR PART NUMBER SHOWN IN PARENTHESES.												
		2.2004 - OVERHAUL KIT, FUEL PUMP												
		INCLUDES ITEMS IN 2.2007, 2.2070, 2.2089, 2.2093, 2.2130, 2.2160 AND 2.2180.												
	5149599	OVERHAUL KIT, 6.8V53 (3/8" DRIVEN GEAR)	AR		AR	AR		AR	AR	AR				
	5195078	OVERHAUL KIT, 2.3,4,6,8V53 (1/4" DRIVEN GEAR)											AR	
		2.2007 - GASKET, FUEL PUMP TO ENGINE												
2A	5150193	GASKET, 2,3,4,6,8V53 (5.1010)	1		1	1		1	1	1	1		1	
	5172915	GASKET, 2,4-53										1		1
		2.2220 - FORK, FUEL PUMP COUPLING												
2A	5102257	FORK	1		1			1	1	1	1			
		2.2228 - DISC, FUEL PUMP DRIVE												
	5131627	DISC, 4-53 (21 TEETH) (1.7630)										1		
	5170450	DISC, 2,3,4-53 (21 TEETH) (1.7630)												1
	5122923	STUD, 3/8"-24X1.50" (12.9117)										1		
	5108836	STUD, 3/8"X1 3/4" (12.9117)												1
	5177026	SPACER (12.5015)										1		
	5140814	SPACER (12.5015)												1
	5176474	BOLT, 3/8"-24 X 1.125" (1.7630)										3		
	5145091	BOLT, 3/8"-24X1.38" (12.5015)												4
	9413533	NUT, 3/8"-24 SELF-LOCKING (12.9120)										1		1
	5145431	NUT, 3/8"-24 (12.9120)										1		1
		2.2230 - COUPLING, FUEL PUMP DRIVE												
	5109676	COUPLING, 3,4-53				1							1	
	5143616	COUPLING, 2,3,4-53 (12.5010)										1		1
		2.2235 - PLATE, FUEL PUMP MOUNTING												
2C	5121050	PLATE, 4,6,8V53						1		1				
2C	5125179	ADAPTOR, 2,3,4-53 (2.2260)										1		1
2C	179858	BOLT, 7/16"-14X1" (12.9001)										1		1

2.2000 FUEL PUMP

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	86	89	90	96	98	101	102	107	116	117	118	119
		2.2235 - PLATE, FUEL PUMP MOUNTING (CONT'D)												
2C	454990	BOLT, 1/2"-13X1 1/8" (12.9001)										4		4
		2.2260 - ADAPTOR, FUEL PUMP DRIVE												
2C	5125775	ADAPTOR, 6,8V53		1	1				1		1			
2C	5127266	ADAPTOR, 4,6,8V53						1		1				
2C	9409073	BOLT, 1/4"-20X5/8" (12.9001)		2	2				2		2			
2C	9409131	BOLT, 3/8"-24X3/4" (12.9001)						2						
2C	9409034	BOLT, 3/8"-24X7/8" (12.9001)								2				
		2.2290 - GEAR, FUEL PUMP DRIVE												
		A GEAR ASSY. INCLUDES BUSHING.												
2B	5125767	GEAR ASSY., 6,8V53		1	1				1		1			
	5172916	GEAR, 2,3,4-53										1		1
	106958	KEY, 1/16"X1/2" WOODRUFF (12.9350)										1		1
	140881	SCREW, #10-32X5/16" SET (12.9076)										1		1
	5196842	BUSHING (FINISHED)		1	1				1		1			
		2.2292 - HUB, FUEL PUMP DRIVE GEAR												
2B	5125774	HUB, 6,8V53		1	1				1		1			
2B	9409203	BOLT, 1/2"-13X2 3/4" (12.9001)		1	1				1		1			
2B	5125771	WASHER, THRUST (INNER)		2	2				2		2			
2B	5126672	SPACER, RETAINER		1	1				1		1			

2.2000 FUEL PUMP

PART		TYPES												
FIG	NUMBER	NAME AND DESCRIPTION	1 2 0	1 2 7	1 2 8	1 3 1	1 3 2	1 3 4	1 3 6	1 3 7	1 3 8	1 3 9	1 4 0	1 4 3
		2.2001 - PUMP ASSY., FUEL												
		SEE ASSEMBLY BREAKDOWN AS INDICATED BELOW. A FUEL PUMP KIT INCLUDES A 3/8" INLET PUMP, GASKET IN 2.2007 AND REDUCING BUSHING IN 2.2030.												
	5131476	* PUMP ASSY., 3.4-53 (TITAN #4101-B-63C)	1											
2A	5146341	# PUMP ASSY., 4.6V53 (L.H.) (3/8 INLET) (PAGE B1)		1		1	1							1
2A	5146340	# PUMP ASSY., 2.3,4.6V53 (R.H.) (3/8 INLET) (PAGE C1)			1				1	1				
2A	5146697	# PUMP ASSY., 6V53 (R.H.) (3/8" INLET) (PAGE C1)						1						
2A	5146342	# PUMP ASSY., 6V53 (R.H.) (3/8" INLET) (PAGE C1)												
	5199734	PUMP KIT, FUEL 6.8V53 (R.H.) (3/8" INLET) (PAGE D1)									1	1	1	
2A	5199560	PUMP KIT, FUEL 6V53 (L.H.) (PAGE D1)		1		1	1		1		1	1	1	
	5199561	PUMP KIT, FUEL 6V53 (R.H.) (PAGE D1)			1				1					
	C-384	MOTOR, ELECTRIC FUEL BOOSTER												
		PUMP DRIVE 3-53 (24 VOLT)	1											
	8924166	BUSHING, 3/4"X1/4" RED. (12.9570)	1											
	8924159	BUSHING, 3/4"X3/8" RED. (12.9570)	1											
	8924380	PLUG, 1/8" PIPE (12.9550)			2	2	3	2	2	3	2	2	2	2
	8924749	PLUG, 1/8" PIPE (12.9550)		2										
	5131685	BOLT, 5/16-18X3/4 (WITH NYLOC INSERT) (5.1031)		3	3	3	3	3	3	3	3	3	3	3
	442826	NUT, 5/16"-24 CAD. (12.9120)	4											
		* SERVICED AS ASSEMBLY ONLY. FOR COMPONENTS CONTACT TITAN PUMP AND ENGINE CORP., 43600 GRAND RIVER, NOVI, MICHIGAN.												
		# NOT SERVICED; COMPONENTS ARE AVAILABLE. FOR COMPLETE REPLACEMENT USE PUMP KIT SHOWN IN SAME TYPE.												
		2.2004 - OVERHAUL KIT, FUEL PUMP												
		INCLUDES ITEMS IN 2.2007, 2.2070, 2.2089, 2.2093, 2.2130, 2.2160 AND 2.2180.												
	5149599	OVERHAUL KIT, 6.8V53 (3/8" DRIVEN GEAR)						AR			AR	AR	AR	
	5195078	OVERHAUL KIT, 2.3,4.6,8V53 (1/4" DRIVEN GEAR)		AR	AR	AR	AR		AR	AR				AR
		2.2007 - GASKET, FUEL PUMP TO ENGINE												
2A	5150193	GASKET, 2.3,4.6,8V53 (5.1010)		1	1	1	1	1	1	1	1	1	1	1
		2.2220 - FORK, FUEL PUMP COUPLING												
2A	5102257	FORK, 6.8V53			1	1	1	1		1	1	1	1	1

2.2000 FUEL PUMP

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	1 2 0	1 2 7	1 2 8	1 3 1	1 3 2	1 3 4	1 3 6	1 3 7	1 3 8	1 3 9	1 4 0	1 4 3
		2.2230 - COUPLING, FUEL PUMP DRIVE												
	5154216	COUPLING, 2,3,4-53		1					1					
		2.2235 - PLATE, FUEL PUMP MOUNTING												
2C	5121050	PLATE, 4, 6, 8V53 (4.5020)						1		1	1			1
2C	5139332	PLATE, 8V53											1	
	8924380	PLUG, 1/8" PIPE (12.9550)									2			
	5120274	NUT, 5/16"-18 PLUG (5.3015)									3			
		2.2260 - ADAPTOR, FUEL PUMP DRIVE												
2C	5125775	ADAPTOR, 6,8V53			1	1	1							
2C	5127266	ADAPTOR, 4,6,8V53						1		1	1	1	1	1
2C	9409073	BOLT, 1/4"-20X5/8" (12.9001)		2	2	2								
2C	9409035	BOLT, 3/8"-24X1" (12.9001)								2				2
2C	9409034	BOLT, 3/8"-24X7/8" (12.9001)						2			2	2	2	
		2.2290 - GEAR, FUEL PUMP DRIVE												
		A GEAR ASSY. INCLUDES BUSHING.												
2B	5125767	GEAR ASSY., 6,8V53				1	1							
2B	5125768	GEAR ASSY., 6V53		1										
	5196842	BUSHING (FINISHED)		1	1	1								
		2.2292 - HUB, FUEL PUMP DRIVE GEAR												
2B	5125774	HUB, 6,8V53			1	1	1							
2B	9409203	BOLT, 1/2"-13X2 3/4" (12.9001)			1	1	1							
2B	5125771	WASHER, THRUST (INNER)			2	2	2							
2B	5126672	WASHER, RETAINER			1	1	1							

2.2000 FUEL PUMP

PART		TYPES														
FIG	NUMBER	NAME AND DESCRIPTION	1 4 4	1 4 5	1 4 7	1 4 8	1 5 1	1 5 2	1 5 5	1 5 6	1 5 8	1 5 9	1 6 0	1 6 2	1 6 4	
2.2001 - PUMP ASSY., FUEL																
SEE ASSEMBLY BREAKDOWN AS INDICATED BELOW. A PUMP KIT INCLUDES A 3/8" INLET PUMP, GASKET IN 2.2007, AND RED UCING BUSHING IN 2.2030.																
2A	5146341	# PUMP ASSY., 3,6V53 (L.H.) (3/8" INLET) (PAGE B1)	1	1												
2A	5134714	# PUMP ASSY., 4,6V53 (R.H.) (3/8" INLET) (PAGE A1)			1	1										
2A	5146344	# PUMP ASSY., 4,6,8V53 (L.H.) (3/8" INLET) (PAGE C1)					1	1								
2A	5146698	# PUMP ASSY., 3,6V53 (R.H.) (3/8" INLET) (PAGE C1)							1	1						
2A	5146699	% PUMP ASSY., 3, 4, 8V53 (L.H.) (3/8" INLET) (PAGE C1) (5108065)									1	1				
	5172926	* PUMP ASSY., 2-53 (AUXILIARY) (TUTHILL #00L1, C. C. W.)													1	
	5101092	@ PUMP ASSY., 2-53 (AUXILIARY) (TUTHILL #00LA, C. C./C. C. W.)												1	1	
2A	5199560	PUMP KIT, FUEL 6V53 (L.H.) (PAGE D1)	1	1												
2A	5198875	% PUMP KIT, FUEL 4, 6V53 (R.H.) (PAGE D1) (5199561)			1	1										
2A	5199562	% PUMP KIT, FUEL 8V53 (L.H.) (PAGE D1) (5199560)					1	1								
	5199561	PUMP KIT, FUEL 6V53 (R.H.) (PAGE D1)											1			
	5199734	PUMP KIT, FUEL 3,6V53 (R.H.) (PAGE D1)							1	1						
	5146393	BUSHING, 3/8"X1/2" RED. (INLET & OUTLET)												2	2	
	8924380	PLUG, 1/8" PIPE (12.9550)	2	2	2	2	2	2	1		1	1	2			
	5131685	BOLT, 5/16 -18X7/8 (WITH NYLOC INSERT) (5.1031)	3	3	3	3	3	3	3	3	3	3	3			
	193221	BOLT, 7/16"-14X1 1/4" (12.9001)												2	2	
	103322	LOCKWASHER, 7/16" (12.9200)												2	2	
# NOT SERVICED, COMPONENTS ARE AVAILABLE. FOR COMPLETE REPLACEMENT USE PUMP KIT SHOWN IN SAME TYPE.																
* REPLACED BY 5101092 PLUS (2) 5146393 BUSHINGS IN 2.2001.																
@ SERVICE AS AN ASSY. ONLY. FOR COMPONENTS CONTACT TUTHILL PUMP CO., CHICAGO, ILLINOIS. FURNISH THEIR PART NUMBER.																
% NOT SERVICED, USE PART NUMBER SHOWN IN PARENTHESES.																
2.2004 - OVERHAUL KIT, FUEL PUMP																
	5195078	OVERHAUL KIT, 2,3,4,6,8V53 (1/4" DRIVEN GEAR)	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	
2.2007 - GASKET, FUEL PUMP TO ENGINE																
	5150193	GASKET, 3,4,6,8V53 (5.1010)	1	1	1	1	1	1	1	1	1	1	1			
	5172915	GASKET, 4-53												1	1	

2.2000 FUEL PUMP

PART			TYPES												
..FIG ..	NUMBER ..	NAME AND DESCRIPTION ..	1 4 4	1 4 5	1 4 7	1 4 8	1 5 1	1 5 2	1 5 5	1 5 6	1 5 8	1 5 9	1 6 0	1 6 2	1 6 4
2.2220 - FORK, FUEL PUMP COUPLING															
2A	5102257	FORK, 6,8V53	1			1	1		1			1	1		
2A	5121398	FORK, 3-53		1											
2.2228 - DISC, FUEL PUMP DRIVE															
	5170450	PLATE, 2-53 (1.7630)												1	1
	5140814	SPACER, .20" THLS. (12.5015)												1	1
	5108836	STUD, 3/8"X1 3/4" (12.9117)												1	4
	5145091	BOLT, 3/8"-24X1.38" (12.5015)												3	
	9413533	NUT, 3/8"-24 SELF-LOCKING (12.9120)												1	
	5145431	NUT, 3/8"-24 (12.9120)												1	
2.2230 - COUPLING, FUEL PUMP DRIVE															
2A	5154216	COUPLING, 3,4-53			1			1							
2A	5109676	COUPLING, 3,4-53								1	1				
2A	5143616	COUPLING, 3-53												1	1
2.2235 - PLATE, FUEL PUMP MOUNTING															
2C	5121050	PLATE, 6V53							1						
2.2260 - ADAPTOR, FUEL PUMP DRIVE															
2C	5125775	ADAPTOR, 6,8V53	1			1	1					1	1		
2C	5127266	ADAPTOR, 6V53							1						
	5125179	ADAPTOR, 2-53												1	1
2C	9409073	BOLT, 1/4"-20X5/8" (12.9001)	2			2	2					2	2		
2C	9409034	BOLT, 3/8"-24X7/8" (12.9001)							2						
	179858	BOLT, 7/16"-14X1" (12.9001)												1	1
	179882	BOLT, 1/2"-13X1 1/8" (12.9001)												4	4
2.2290 - GEAR, FUEL PUMP DRIVE															
A GEAR ASSY. INCLUDES BUSHING.															
2B	5125768	GEAR ASSY., 6V53	1			1									
2B	5125767	GEAR ASSY., 8V53					1					1	1		
	5172916	GEAR, 2-53												1	1
2B	5196842	BUSHING (FINISHED)	1			1	1					1	1		
	106958	KEY, 1/16"X1/2"L. WOODRUFF (12.9350)												1	1
	140881	SCREW, #10-32X5/16" (12.9076)												1	1
2.2292 - HUB, FUEL PUMP DRIVE GEAR															
2B	5125774	HUB, 6,8V53	1			1	1					1	1		
2B	9409203	BOLT, 1/2"-13X2 3/4" (12.9001)	1			1	1					1	1		
2B	5125771	WASHER, THRUST (INNER)	2			2	2					2	2		
2B	5126672	WASHER, RETAINER	1			1	1					1	1		

2.2000 FUEL PUMP

PART		TYPES										
FIG	NUMBER	NAME AND DESCRIPTION										
		1 6 6	1 6 7	1 7 8	1 7 9	1 8 0	1 8 1	1 8 2	1 8 3	1 8 4	1 8 5	1 8 6
	2.2001 - PUMP ASSY., FUEL											
	SEE ASSEMBLY BREAKDOWN AS INDICATED BELOW. A PUMP KIT INCLUDES A 3/8" INLET PUMP, GASKET IN 2.2007, AND RED UCING BUSHING IN 2.2030.											
	5146697 # PUMP ASSY., 6V53 (R.H.) (3/8" INLET) (PAGE C1)	1										
	5134714 # PUMP ASSY., 4-53 (R.H.) (3/8" INLET) (PAGE A1)		1									
	5108063 # PUMP ASSY., 3,4,6V53 (R.H.) (3/8" INLET) (PAGE C1)			1	1							
	5108064 # PUMP ASSY., 3,4,6V53 (L.H.) (3/8" INLET) (PAGE C1)					1	1		1	1	1	
	5108066 # PUMP ASSY., 6V53 (R.H.) (HI-CAP) (PAGE C1)							1				1
	5199561 PUMP KIT, FUEL 3,4,6V53 (PAGE D1)		1	1	1							
	5199560 PUMP KIT, FUEL 3,4,6V53 (PAGE D1)					1	1		1	1		
	5199734 PUMP KIT, FUEL 6V53 (PAGE D1)	1						1				1
	8924380 PLUG, 1/8" PIPE (12.9550)	2	2	2	2	2	2	2	2	3	2	2
	5131685 BOLT, 5/16"-18 X 3/4" (WITH NYLOC INSERT) (5.1031)	3	3	3	3	3	3	3	3	3	3	3
	# NOT SERVICED, COMPONENTS ARE AVAILABLE. FOR COMPLETE REPLACEMENT USE PUMP KIT SHOWN IN SAME TYPE.											
	2.2004 - OVERHAUL KIT, FUEL PUMP											
	INCLUDES ITEMS IN 2.2007, 2.2070, 2.2089, 2.2093, 2.2130, 2.2160 AND 2.2180.											
	5195078 OVERHAUL KIT, 2, 3, 4, 6, 8V53 (1/4" DRIVEN GEAR)	AR	AR	AR	AR	AR	AR		AR	AR	AR	
	5149599 OVERHAUL KIT, 6, 8V53 (3/8" DRIVEN GEAR)							AR				AR
	2.2007 - GASKET, FUEL PUMP TO ENGINE											
	5150193 GASKET, 3, 4, 6, 8V53 (5.1010)	1	1	1	1	1	1	1	1	1	1	1
	2.2220 - FORK, FUEL PUMP COUPLING											
2A	5102257 FORK, 6, 8V53	1			1		1	1	1	1	1	
2A	5121398 FORK, 3-53										1	
	2.2230 - COUPLING, FUEL PUMP DRIVE											
	5154216 COUPLING, 4-53		1	1		1						
	2.2235 - PLATE, FUEL PUMP MOUNTING											
2C	5121050 PLATE, 6V53 (4.5020)							1				
	8924380 PLUG, 1/8" PIPE (12.9550)							1				

2.2000 FUEL PUMP

PART		NAME AND DESCRIPTION	TYPES											
..FIG ..	NUMBER		1 6 6	1 6 7	1 7 8	1 7 9	1 8 0	1 8 1	1 8 2	1 8 3	1 8 4	1 8 5	1 8 6	
2.2260 - ADAPTOR, FUEL PUMP DRIVE														
2C	5125775	ADAPTOR, 6, 8V53	1			1		1		1	1		1	
2C	5127266	ADAPTOR, 6V53						1						
2C	9409073	BOLT, 1/4"-20 X 5/8" (12.9001)	2			2		2		2	2		2	
2C	9409034	BOLT, 3/8"-24 X 7/8" (2.1235)						2						
2.2290 - GEAR, FUEL PUMP DRIVE														
A GEAR ASSY. INCLUDES BUSHING.														
2B	5125768	GEAR ASSY., 6V53	1			1							1	
	5125767	GEAR ASSY., 6,8V53						1		1	1			
2.2292 - HUB, FUEL PUMP DRIVE GEAR														
2B	5125774	HUB, 6, 8V53	1			1		1		1	1		1	
2B	9409203	BOLT, 1/2"-13 X 2 3/4" (12.9001)	1			1		1		1	1		1	
2B	5125771	WASHER, THRUST (INNER)	2			2		2		2	2		2	
2B	5126672	WASHER, RETAINER	1			1		1		1	1		1	

2.2000 FUEL PUMP

PART		TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	1 9 0	1 9 1	1 9 2	1 9 3	1 9 4	1 9 5	1 9 6	1 9 9	2 0 2	2 1 9	2 2 4
		2.2001 - PUMP ASSY., FUEL											
		SEE ASSEMBLY BREAKDOWN AS INDICATED BELOW. A PUMP KIT INCLUDES A 3/8" INLET PUMP, GASKET IN 2.2007, AND RED UCING BUSHING IN 2.2030.											
	NPN	PUMP ASSY., CUSTOMER FURNISHED						1					
	5108063	# PUMP ASSY., 3, 4, 6V53 (R.H.) (3/8" INLET) (PAGE C1)	1									1	
	5108064	# PUMP ASSY., 3, 4, 6V53 (L.H.) (3/8" INLET) (PAGE C1)		1	1	1							
	5108066	# PUMP ASSY., 6V53 (R.H.) (HI-CAP) (PAGE C1)					1						
	5107676	PUMP ASSY., 6V53 (L.H.) (PAGE A1)									1		1
	5199561	PUMP KIT, FUEL 3, 4, 6V53 (PAGE D1)	1						1			1	
	5199560	PUMP KIT, FUEL 3, 4, 6V53 (PAGE D1)		1	1	1				1			
	5199734	PUMP KIT, FUEL 6V53 (PAGE D1)					1						
	5152716	COVER (3.4223)						1				1	
	8924749	PLUG, 1/8" PIPE (12.9550)	2	2	2	3	2		2	2	2	2	2
	5131685	BOLT, 5/16"-18 X 3/4" (5.1031)	3	3	3	3	3		3	3			
	8925603	BOLT, 5/16"-18X3/4" W/SEALANT (12.9001)									3	3	3
	186625	BOLT, 5/16"-18X7/8" (12.9001)										3	
	103320	LOCKWASHER, 5/16" (12.9200)										3	
		# NOT SERVICED. COMPONENTS ARE AVAILABLE. FOR COMPLETE REPLACEMENT USE PUMP KIT SHOWN IN SAME TYPE.											
	5118219	BOLT ASSY., 5/16"-18X7/8"						3					
		2.2004 - OVERHAUL KIT, FUEL PUMP											
		INCLUDES ITEMS IN 2.2007, 2.2070, 2.2089, 2.2093, 2.2130, 2.2160 AND 2.2180.											
	5149599	OVERHAUL KIT, 6, 8V53 (3/8" DRIVEN GEAR)					AR				AR		AR
	5195078	OVERHAUL KIT, 2, 3, 4, 6, 8V53 (1/4" DRIVEN GEAR)	AR	AR	AR	AR			AR	AR		AR	
		2.2007 - GASKET, FUEL PUMP TO ENGINE											
	5150193	GASKET (5.1010)	1	1	1	1	1	1	1	1	1	2	1
		2.2220 - FORK, FUEL PUMP COUPLING											
2A	5102257	FORK	1	1	1	1	1	1	1	1	1	1	1
		2.2235 - PLATE, FUEL PUMP MOUNTING											
2C	5121050	PLATE, 3-53 (4.5020)								1		1	1
	8924380	PLUG, 1/8" PIPE (12.9550)								1			
	5120274	NUT, 5/16"-18 PLUG (5.3015)										3	3