

Cummins

OPTIONS PARTS BOOK

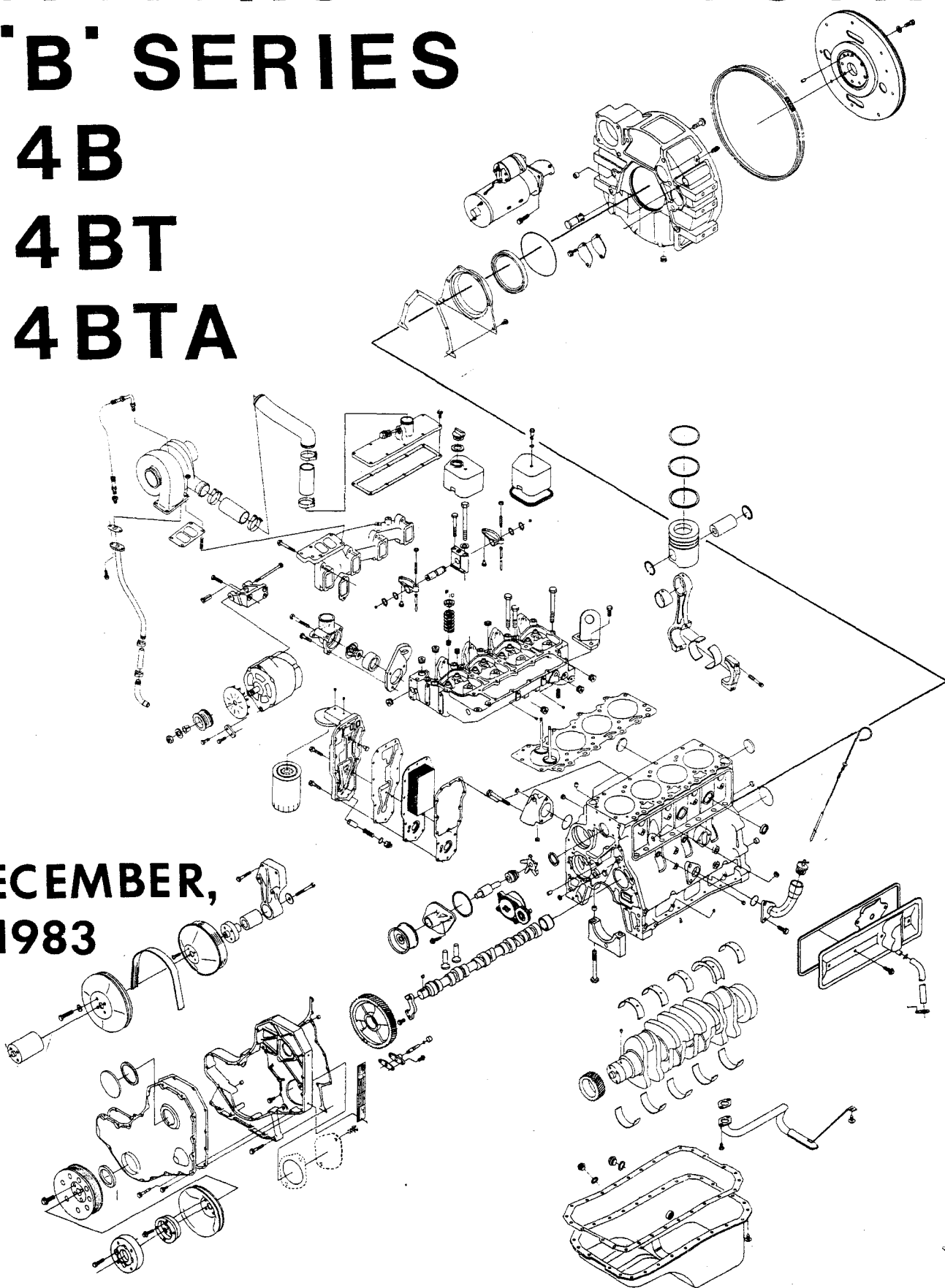
'B' SERIES

4B

4BT

4BTA

DECEMBER,
1983



FOREWORD

This book is intended to show the parts included in all options on prototype 4-cylinder, B Series engines.

This publication is for internal use only. Requests for parts books for external use should be sent to your Marketing or Service Representative.

In order that this parts book may be as useful as possible to the broadest range of users, we encourage readers to communicate any errors or recommendations for changes in future editions to:

D. T. Barnett
Project Engineering - 20775
Small Engine Development Center
Cummins Engine Company, Inc.
Columbus, IN 47202
(812) 377-6794

SECTIONS

- A. BASE ENGINE PARTS
- B. ENGINE RATING/FUEL SYSTEMS
- C. FACTORY OPTIONS
 - . Parts that are normally assembled on the assembly line, plus parts that may be assembled after test which are currently called trim options.
- D. UPFIT OPTIONS
 - . Parts to upfit an engine to a power unit which are not assembled at Rocky Mount
- E. MISCELLANEOUS INFORMATION

Beverly K. Gray

REGISTRATION FORM FOR APPLICATION ENGINEERING'S OPTIONS PARTS BOOK

If you want updates and new issues mail this card to:

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Small Engine Development Center
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20775

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REMARKS: _____

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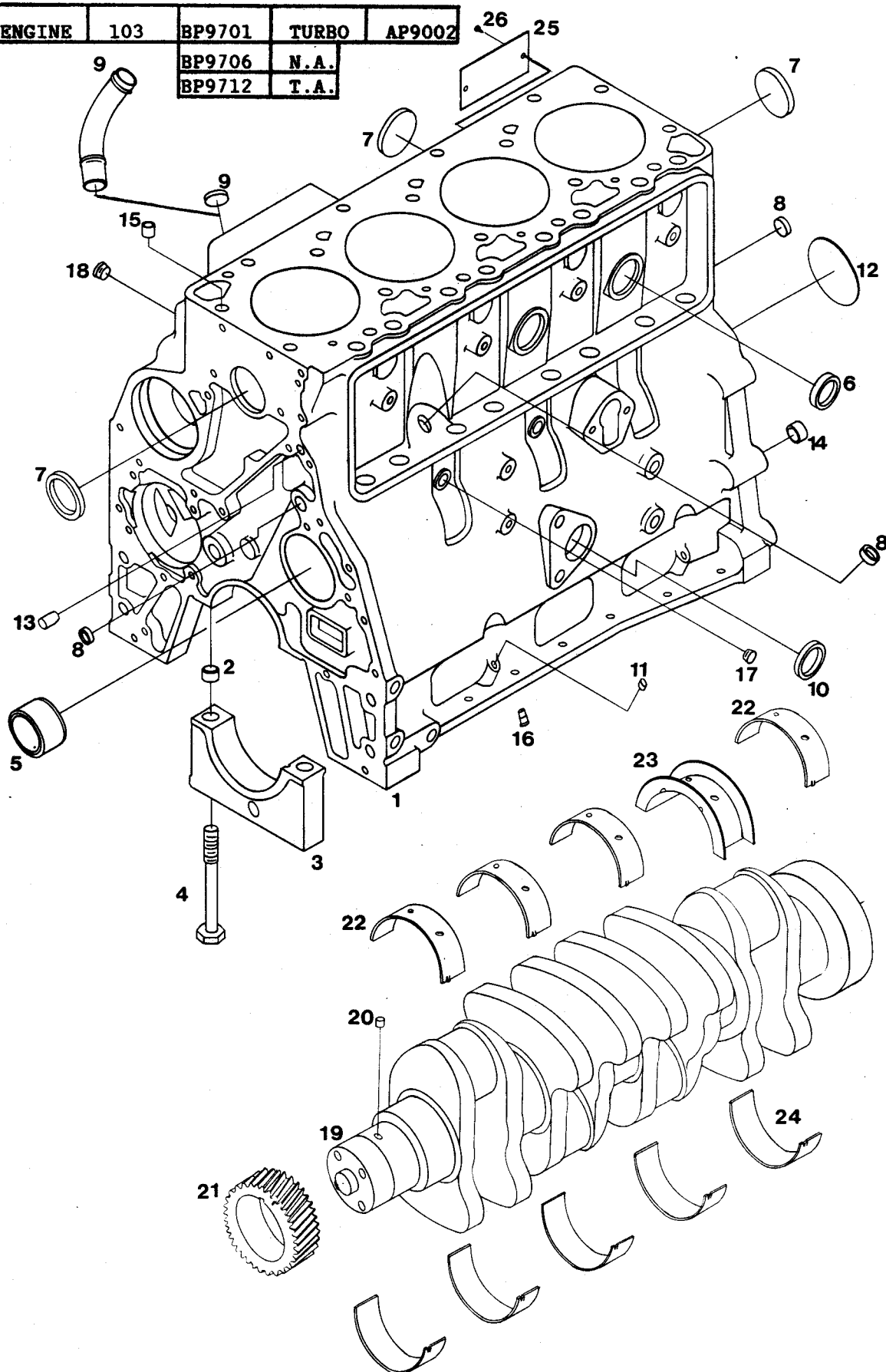
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- A. BASE ENGINE PARTS
- B. RATINGS AND FUEL SYSTEMS
- C. FACTORY OPTIONS (CONSOLIDATED DIESEL)
- D. UPFIT OPTIONS PARTS
OPTIONS REQUIRED FOR UPFITTING BASIC
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- E. MISCELLANEOUS INFORMATION

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BASE ENGINE PARTS

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BLOCK, ENGINE	103	BP9701	TURBO	AP9002
		BP9706	N.A.	
		BP9712	T.A.	



ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
-	Block, Cylinder	1	3901736	16	(See Note #9)	2152
1	Block, Cylinder	1	3901735	10		
2	Dowel, Ring	10	3900068	10	M18 x 10	718
3	Cap, Main Brg.	5	3900967	10		2484
4	Screw, Hex Hed Cap (Main Brg.)	10	3904217	10	M14--2.00 x 119	
5	Bushing, Cam	1	3901306	10	See Note #6	
6	Plug, Expansion	2	3900957	15	25.70 (1.00")	949
7	Plug, Expansion	4	3900965	15	58.06 (2.29")	949
8	Plug, Expansion	3	3900956	15	17.73 (.70")	949
9	Plug, Expansion	2	3027646	15	(22.35 dia) N.A. Only	
9	Tube, Turbo Drain	1	(3903744 - BP9701)		(See Note #7)	
10	Plug, Expansion	1	3900958*	15	32.02 (1.26") (Note #1)	949
11	Plug, Expansion	1	3900955*	15	.375" dipstick boss	949
12	Plug, Expansion	1	3900687	15	60.2 (2.37") (Welch)	2125
13	Dowel, Pin	2	3900257	15	M10 x 16 (Note #3)	1015
14	Dowel, Ring	2	3900068	10	M18 x 10 (Note #4)	718
15	Dowel, Ring	2	3902343	10	M16 x 10 (Note #5)	718
16	Nozzle, Pst Cooling	4	3901020	10	1.5 I.D.	391
17	Plug, Pipe	2	3008465	15	.125" NPTF	3008240
18	Plug, Pipe	1	3008468	15	.50" NPTF (Note #2)	3008240
Note #1 This plug is used in the turbo-oil drain and/or fill holes when bosses are not used for this specific purposes. #2 Item 18 is not used when aftercooling plumbing is required (reference Part Number 3902487). #3 Item #14 is pressed into block prior to gear housing installation. #4 Item #15 is pressed into block prior to flywheel housing installation. #5 Item #16 is pressed into block prior to cylinder head installation. #6 Part #3903242 cam bushing is used for salvage & service for intermediate & rear cam journals. #7 N.A. and turbo assemblies are identical except item #9. #8 The 8 counterweight crank has been replaced by the 4 counterweight crank. Pt. #3903833 is an allowable substitute for #3905880. #9 The turbocharged/aftercooled engineering assembly is 3903796. * These numbers are not structured in BP9701, BP9706 or BP9712.						
-	Crankshaft	1	3904477	21-2		
-	Crankshaft	1	3903833	16	(See Note 8)	1214
19	Crankshaft	1	3903830	10		1062
20	Pin, Dowel	1	3901016	15	M10-- x 060	1015
21	Gear, Crankshaft	1	3901258	10		1255
22	Bearing, Main (Upper)	4	3901090	10	F66 (standard)	5211
23	Bearing, Main (Thrust)	1	3906230	10	Top Half #4 Main F66 (Std.)	6211
24	Bearing, Main (Lower)	5	3901150	10	F66 (standard)	5209
25	Data Plate (JI Case)	1	3903296	10	AP9002	
26	Screw, Drive	2	S-2286	15		

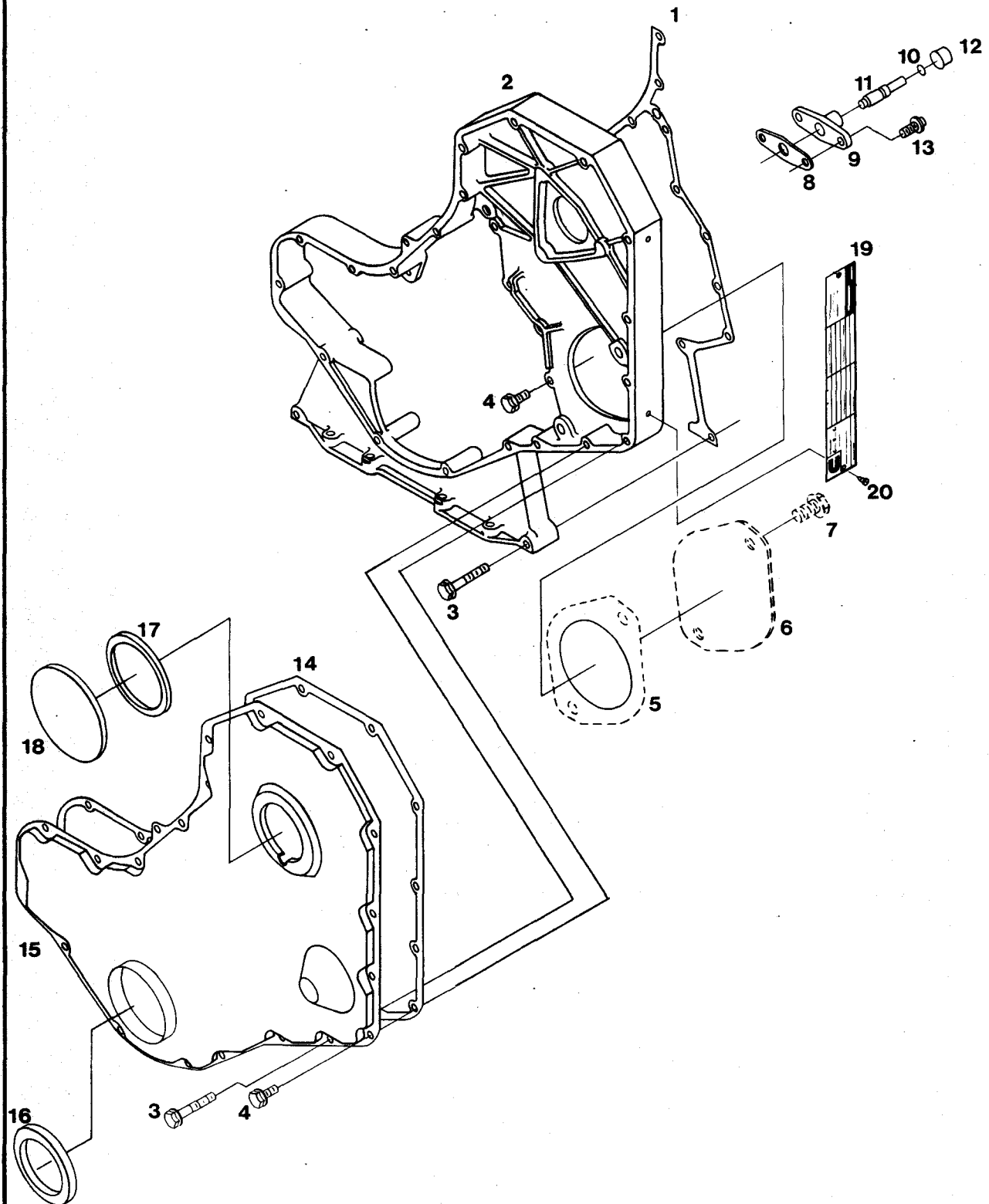
COVER, FRONT GEAR

104

BP9702

AP9001 AND AP9009

BP9703

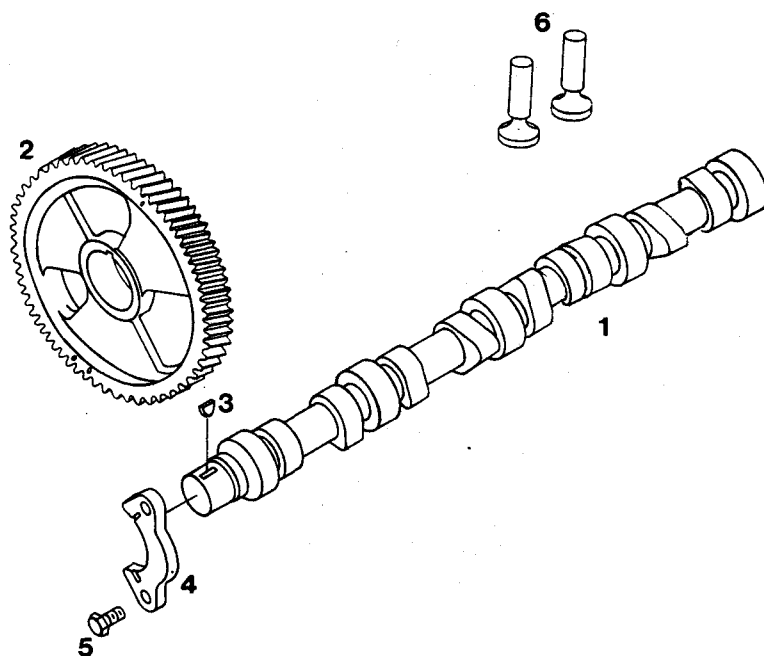


SECTION A

10-10-83

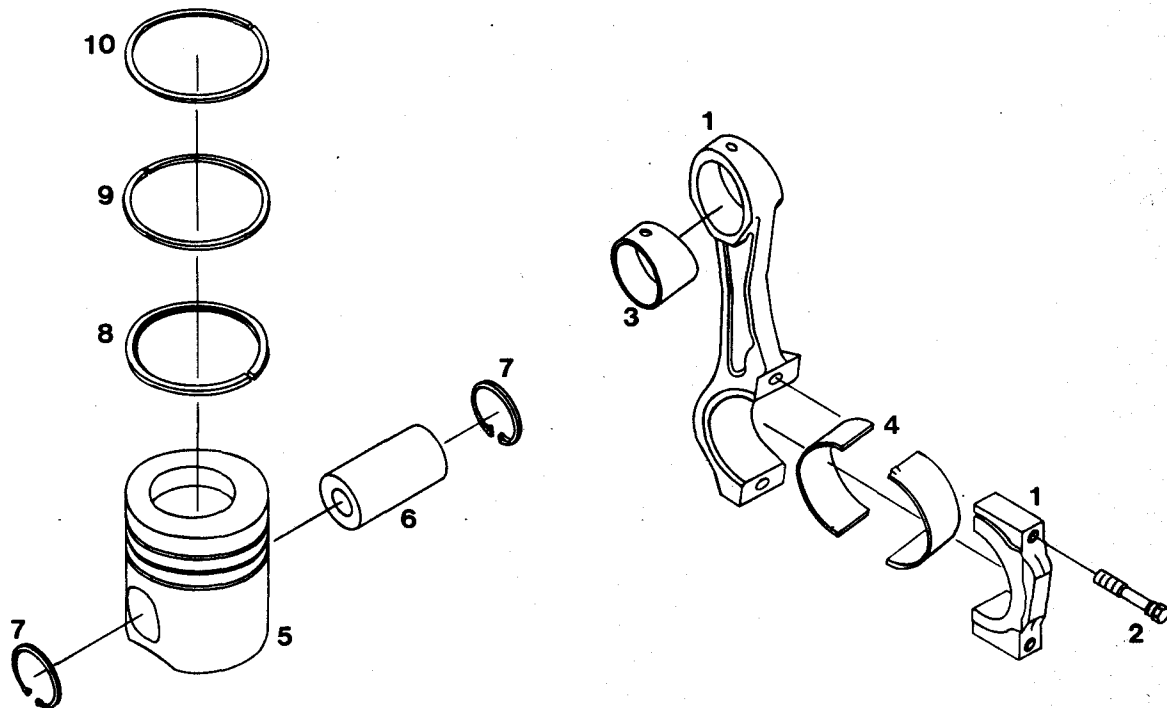
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
1	Gasket, Gear Hsg.	1	3902364	10	.80 thk (24003 or 24069)	
2	Housing, Gear	1	3905731	10	(3902370 sand cast version)	
3	Screw, Hex Hed Cap	11	3900633	15	M8-1.25 x 50 (Flanged)	638
4	Screw, Hex Hed Cap	16	3900629	15	M8-1.25 x 16 (Flanged)	638
5	Gasket, PTO Drv Cov	)	See Note 1			
6	Plate, PTO Dry Cov	)	See Note 1			
7	Screw, Hex Hed Cap	)	See Note 1		(Flanged)	
8	Gasket, Timing Pin Hsg.	1	3905595	10		
-	Housing, Timing Pin	1	3905934	16		
9	Housing, Timing Pin	1	3905933	10		
10	"O" Ring	1	3903927	15		830
11	Pin Timing	1	3903924	10		
12	Ring, Retaining	1	3904849	10		
13	Screw, Round Hed Cap	2	3902630	15	M5- .8 x 17 (Torx) (Flanged)	
14	Gasket, Gear Hsg. Cover	1	3905143	10	.80 thk(24003 or 24069)See Note #3	
-	Cover, Gear	1	3903663	16		1285
15	Cover, Gear	1	3903794	10	(1.5 thk mat'l)	
16	Seal, Front Crank	1	3900709	15		3299
17	Seal, Rectangular Cap	1	3903475	15	69.44 +0.61 dia. (Note #2)	
18	Cap, Front Cover	1	3903463	10	See Note #2	
<u>DATAPLATE AP9001</u>						
19	Plate, Data (Cummins)	1	3905931	10	Non-Certified (See Note #4)	
20	Screw, Drive	2	S-2286	15		
NOTE: #1 Structured in DF9000. #2 Omitted on BP9701 (See DF9010). #3 Pt. No. 3905588, gear housing gasket has been released at development status. #4 A dataplate for certified E.P.A. engines has been released in Option No. AP9009.						

CAMSHAFT	101	PP591	NATURALLY ASPIRATED
	101	PP592	TURBOCHARGED
	101	PP593	AUTOMOTIVE
	101	PP594	TURBO/AFTERCOOLED
FOLLOWER, CAM	109	BP9705	



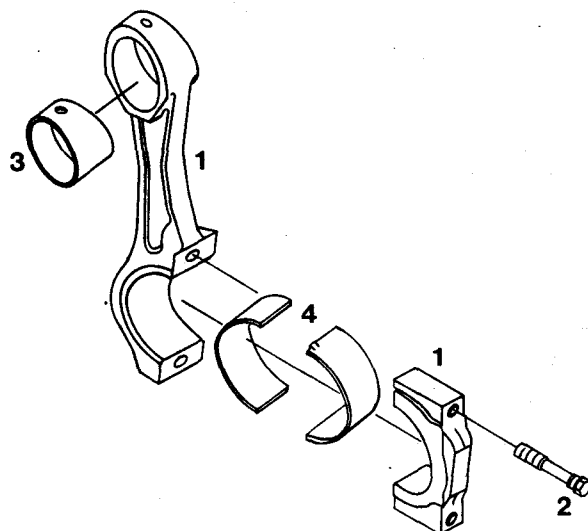
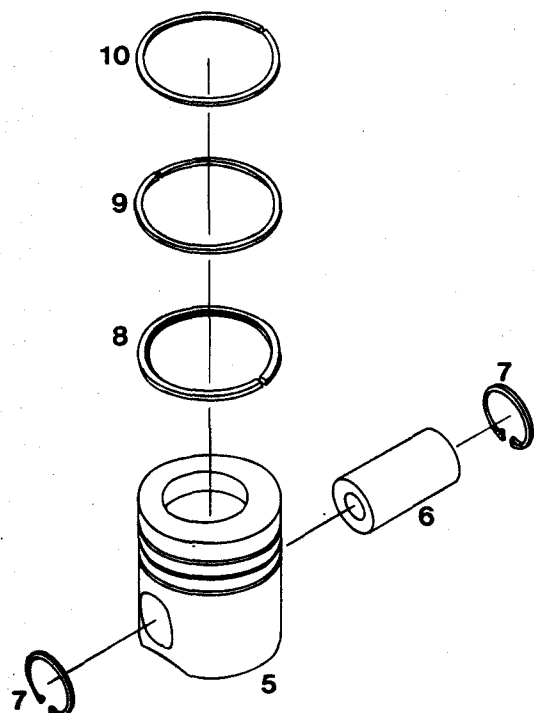
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
	CAMSHAFT					
	Camshaft	1	3903773	21-2		
1	Camshaft	1	3904220	10		4219
2	Gear, Camshaft	1	3902235	10		2240
3	Key, Plain Woodruff	1	3902332	15	4.0	1269
4	Support, Cam Thrust	1	3901761	10		1760
5	Screw, Hex Head Cap	2	3900620	15	M8-1.25 x 20	272
	FOLLOWER, CAM					
6	Tappet	8	3901787	10	See Note	1778
Note: A new chilled iron tappet drawing has been released at development status.						

PISTON, ENGINE	102	PP591
INDUSTRIAL	N.A.	



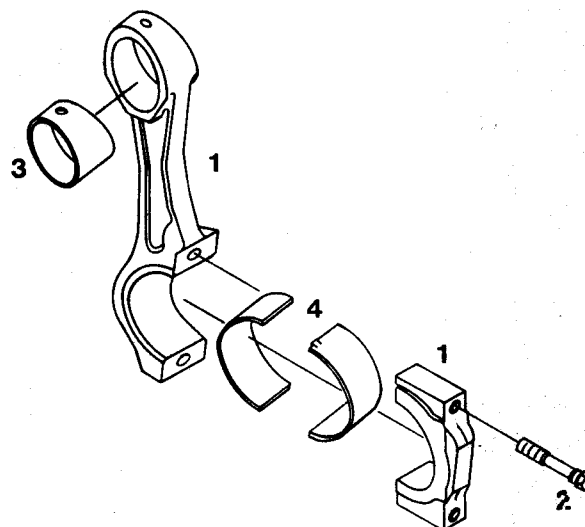
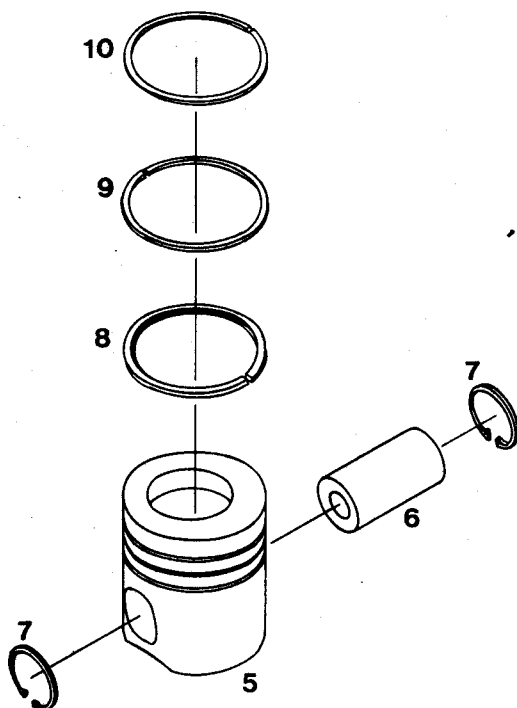
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
-	Piston, Engine		3903771	21-2		
-	Rod, Engine Connecting	4	3901569	16		1573
	Rod, Engine Connecting	4	3901568	16		1574
1	Rod, Engine Connecting	4	3901567	10		1572
2	Screw, Con Rod Cap	8	3900919	10	MJ11-1.25 x 59	
3	Bushing	4	3901085	10		
4	Bearing, Rod Half	8	3901230	10	F66 & AS15 (standard)	405
5	Piston, Engine (N.A.)	4	3903802	10	71.635 bore to top (See Note)	3581
6	Pin, Piston	4	3901793	10		
7	Ring, Retaining	8	3901706	15		1792
8	Ring, Piston (Oil)	4	3903384	15		
9	Ring, Piston (Mid)	4	3902286	15		
10	Ring, Piston (Top)	4	3902400	15		
NOTE: Part No's 3904683, 3904684, & 3904685 have been released for development purposes. They are like 3903802 except bowl configurations.						

PISTON, ENGINE	102	PP592
INDUSTRIAL	TURBO	



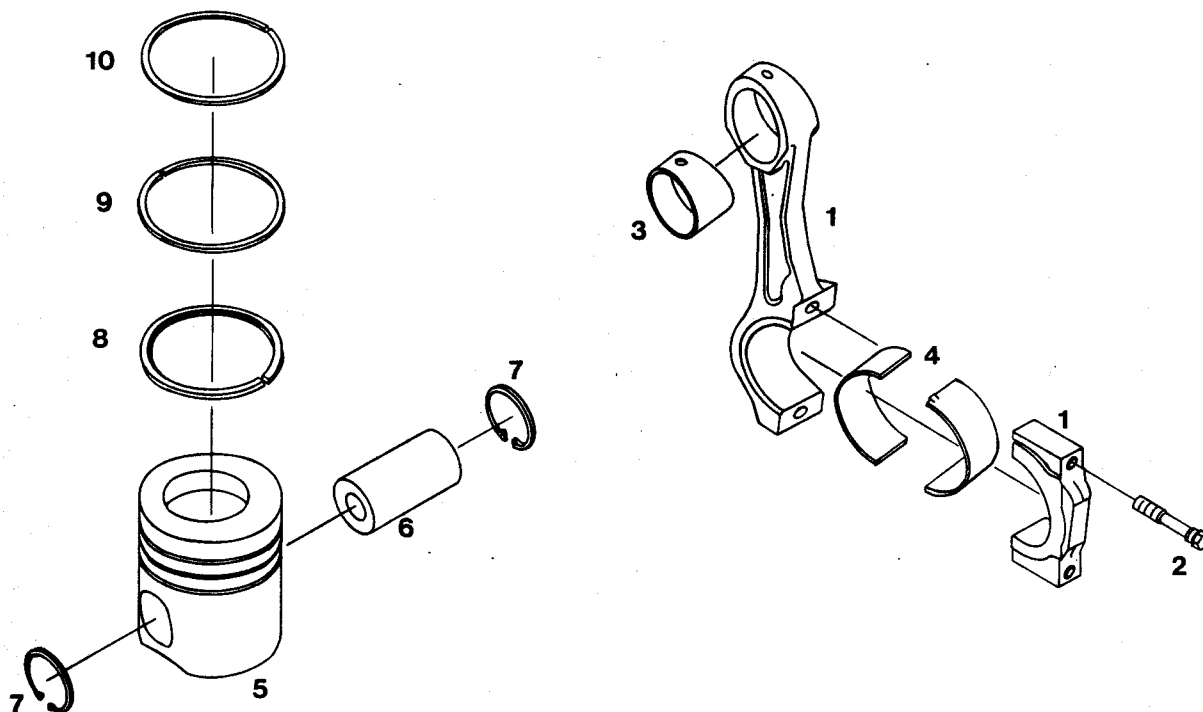
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
-	Piston, Engine		3903772	21-2		
-	Rod, Engine Connecting	4	3901569	16		1573
	Rod, Engine Connecting	4	3901568	16		1574
1	Rod, Engine Connecting	4	3901567	10		1572
2	Screw, Con Rod Cap	8	3900919	10	MJ11-1.25 x 59	
3	Bushing	4	3901085	10		
4	Bearing, Connecting Rod	8	3901170	10	AS78 & F77 (standard)	405
5	Piston, Engine (Turbo)	4	3903579	13	Industrial (ni-resist) w/Keystone	1792
6	Pin, Piston	4	3901793	10		
7	Ring, Retaining	8	3901706	15		
8	Ring, Piston (Oil)	4	3903384	15		
9	Ring, Piston (Mid)	4	3902286	15		
10	Ring, Piston (Top)	4	3902401	15		

PISTON, ENGINE	102	PP593
AUTOMOTIVE TURBOCHARGED		



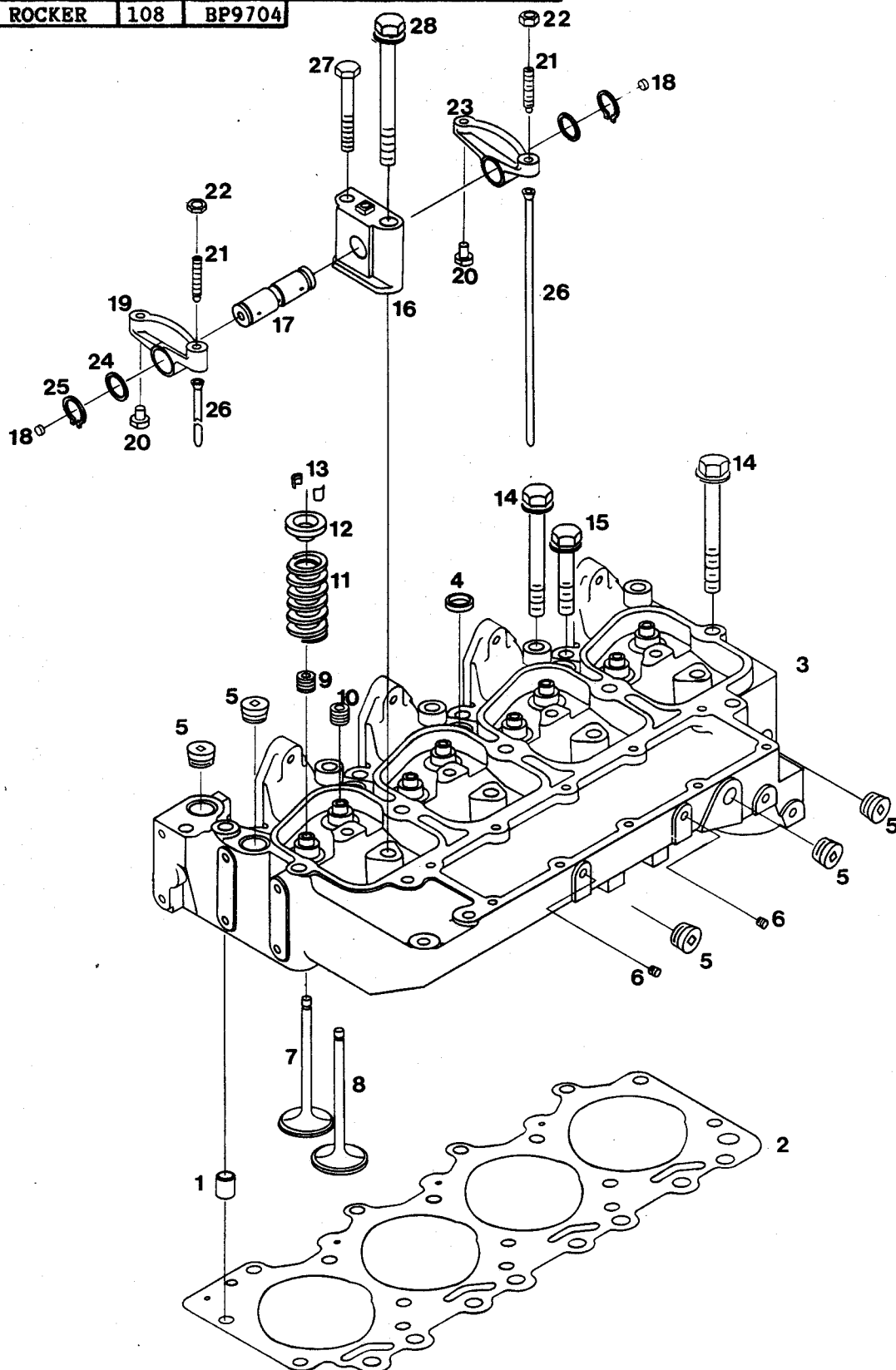
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
-	Piston, Engine		3905347	21-2		
-	Rod, Engine Connecting	4	3901569	16		1573
	Rod, Engine Connecting	4	3901568	16		1574
1	Rod, Engine Connecting	4	3901567	10		1572
2	Screw, Con Rod Cap	8	3900919	10	MJ11-1.25 x 59	
3	Bushing	4	3901085	10		
4	Bearing, Connecting Rod	8	3901170	10	AS78 & F77 (standard)	405
5	Piston, Engine (Auto)	4	3903582	13		
6	Pin, Piston	4	3901793	10		1792
7	Ring, Retaining	8	3901706	15		
8	Ring, Piston (Oil)	4	3903384	15		
9	Ring, Piston (Mid)	4	3902286	15		
10	Ring, Piston (Top)	4	3902401	15		

PISTON, ENGINE	102	PP594
INDUSTRIAL	TURBO/AFTERCOOLED	

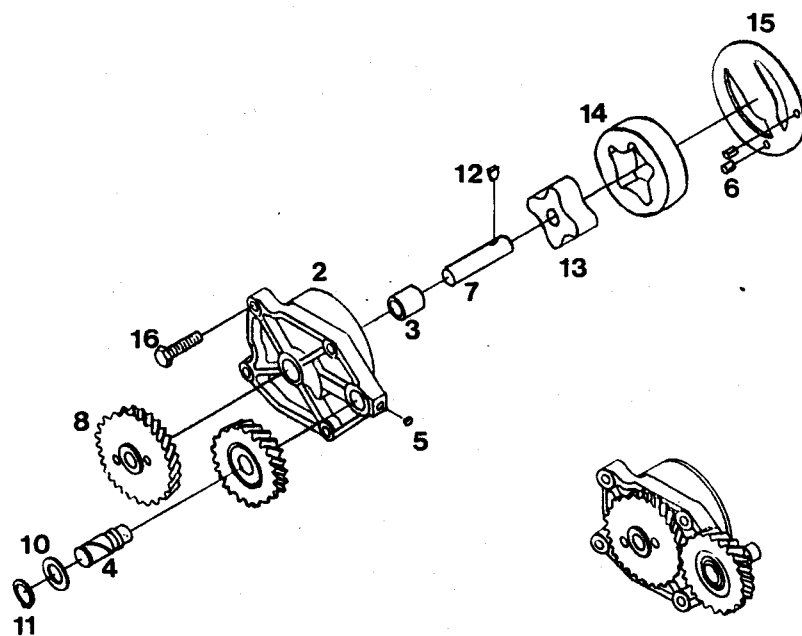


ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
-	Piston, Engine		3904371	21-2		
-	Rod, Engine Connecting	4	3901569	16		1573
	Rod, Engine Connecting	4	3901568	16		1574
1	Rod, Engine Connecting	4	3901567	10		1572
2	Screw, Con Rod Cap	8	3900919	10	MJ11-1.25 x 59	
3	Bushing	4	3901085	10		
4	Bearing, Connecting Rod	8	3901170	10	AS78 & F77 (standard)	405
5	Piston, Engine (T.A.)	4	3902608	13	Industrial	
6	Pin, Piston	4	3901793	10		1792
7	Ring, Retaining	8	3901706	15		
8	Ring, Piston (Oil)	4	3903384	15		
9	Ring, Piston (Mid)	4	3902286	15		
10	Ring, Piston (Top)	4	3902401	15		

HEAD, CYLINDER	107	PP591	NATURALLY ASPIRATED
	107	PP592	TURBOCHARGED
	107	PP593	AUTOMOTIVE
	107	PP594	TURBO/AFTERCOOLED
LEVER, ROCKER	108	BP9704	



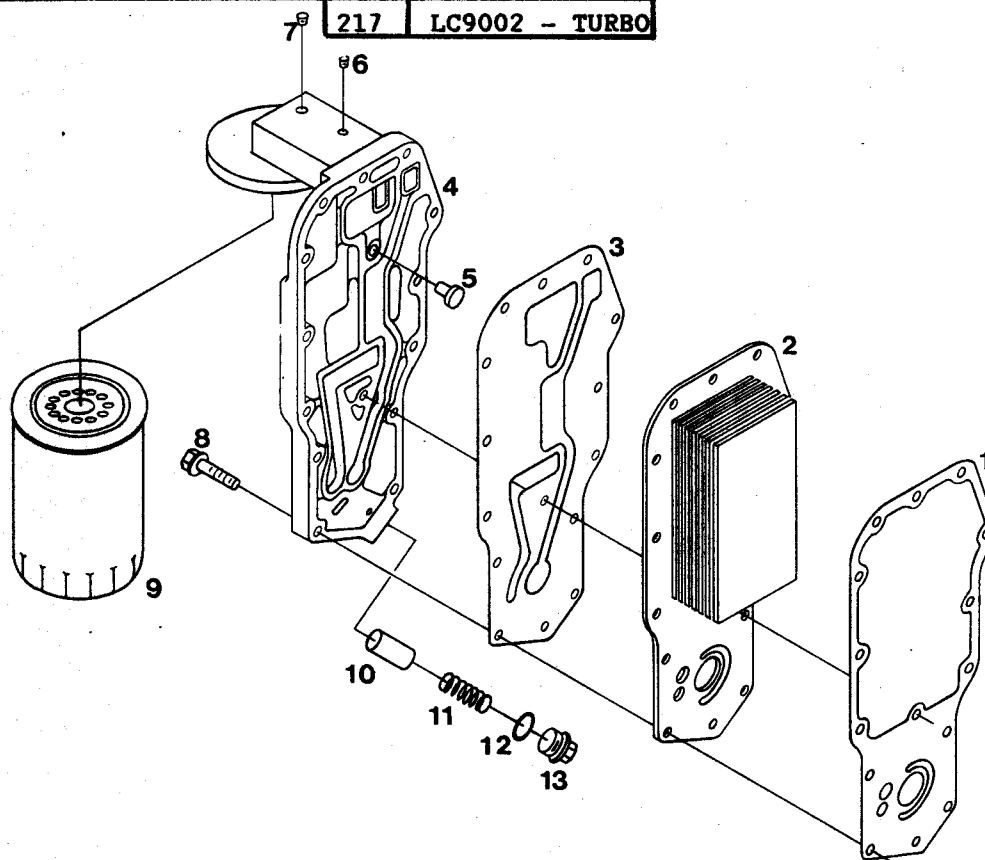
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
	<u>HEAD CYLINDER PP591, PP592, PP593 & PP594</u>					
1	Dowel, Ring	2			(Note #1)	
-	Ass'y, Cylinder Head	1	3905863	21-1		
2	Gasket, Cylinder Head	1	3905025	10	1.5 thick	3499
3	Head, Cylinder	1	3904572	16		2696
-	Head, Cylinder	1	3904571	10	(3904573 is casting #)	
4	Plug, Expansion	3	3902606	15	20.64 (.81")	949
5	Plug, Pipe	5	3008468	15	.50"NPTF	3008340
6	Plug, Pipe	2	3008465	15	.125" NPTF	3008240
7	Valve, Intake	4	3901117	10		1427
8	Valve, Exhaust	4	3901607	10		1609
9	Seal, Valve Stem	See #13				
10	Seal, Valve Stem	8	3901097	15	(released for exh.)	
11	Spring, Valve	8	3900276	10		
12	Retainer, Valve Spring	8	3900299	10		
13	Collet, Valve Half	16	3900250	15		1176
14	Screw, Hex Head Cap	10	3903939	15	M12 - 1.75 x 120 (flg.)	3937
15	Screw, Hex Head Cap	4	3903938	15	M12 - 1.75 x 70 (flg)	3937
	<u>LEVER, ROCKER BP9704</u>					
-	Support, Rocker Lever	4	3902582	21		
-	Support, Rk Lever	4	3902583	16		
16	Support, Rk Lvr	4	3902607	10		
17	Shaft, Rk Lvr	4	3900537	10		
18	Plug, Expansion	8	203933	15	25" dia.	
-	Lever Rocker	4	3900540	16		
19	Lever, Rkr.	4	3900517	10		
20	Insert, Rkr. Arm	4	3900705	15		
21	Screw, Slotted Set	4	3900706	15	3/8 -24 UNF-2A	
22	Nut, Regular Hex Jam	4	S-276	15		
-	Lever, Rocker	6	3900539	16		
23	Lever, Rkr.	6	3900518	10		
20	Insert, Arm	6	3900705	10		
21	Screw, Slotted Set	6	3900706	15	3/8 - 24 UNF-2A	
22	Nut, Regular Hex Jam	6	S-276	15		
24	Washer, Thrust	8	3900245	10		1625
25	Ring, Retaining	8	3900242	15		995
26	Rod, Push	8	3904679	15		4413
27	Screw, Hex Head Cap	4	3901221	15	M8-1.25 x 75	272
28	Screw, Hex Head Cap	4	3903940	15	M12 - 1.75 x 180 (flg)	3937
Note #1: Item # 1 is pressed into cylinder block prior to installation of head to block. See cylinder block parts list for part # and description.						



ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
1	Pump, Lube	1	3906413	15		1738
-	Body, Lube Pump	1	N/A			
2	Body, Lube Pump	1	N/A			
3	Bearing, Sleeve	1	N/A			
4	Shaft, L.P. Idler	1	N/A			
5	Plug, Oil Rifle	1	N/A			
6	Dowel, Spring	2	N/A			
-	Shaft, Lube Pump	1	390????			
7	Shaft, Lube Pump	1	N/A		(See Note # 1)	
8	Gear, L.P. Drive	1	N/A			
9	Gear, L.P. Idler	1	N/A			
10	Washer, Flat	1	N/A			
11	Ring, Retainer	1	N/A			
12	Key, Woodruff	1	N/A			
13	Gerotor, Driver	1	N/A			
14	Gerotor, Planetary	1	N/A			
15	Plate, L.P. Back	1	N/A			
16	Screw, Hex Head Cap	4	3900677	15	M8 - 1.25 x 30	272

Note # 1: Item #1 is available as an assembly only. Exploded view is shown for information purposes.

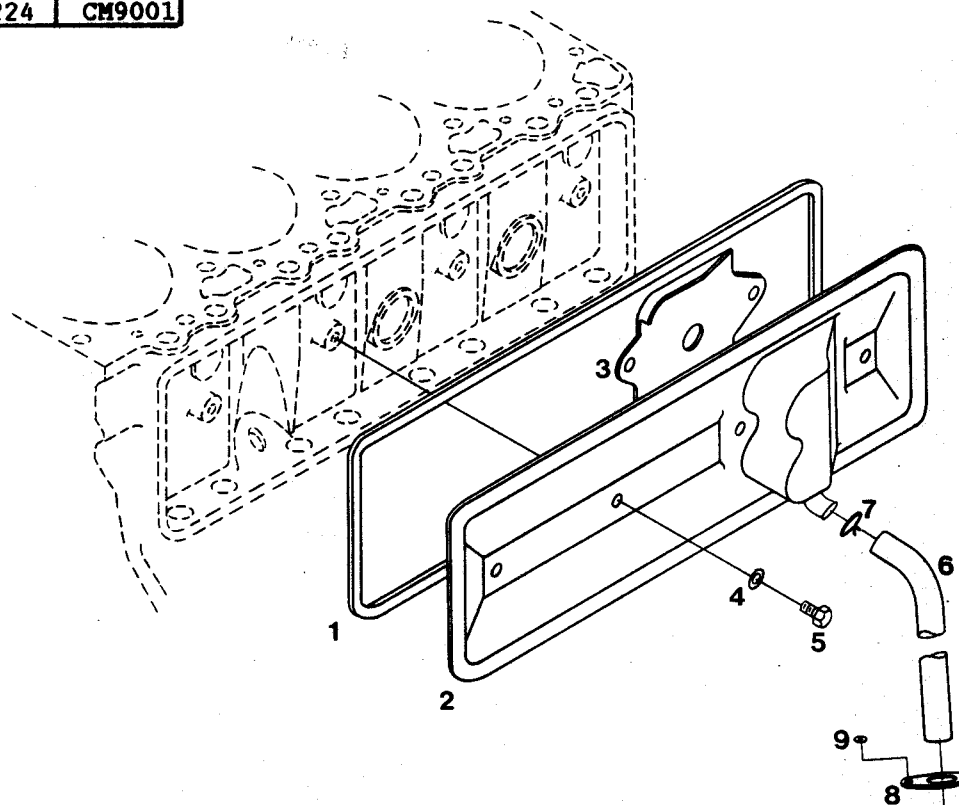
COOLER, ENGINE OIL	217	LC9001 - N.A.
	217	LC9002 - TURBO



ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
1	Gasket, Oil Cooler Core	1	3904427	10	.8 thk (See Note #4)	4321
2	Core, Cooler	1	3904320	15	4.76 thk plate	
3	Gasket, Filter Head	1	3904426	10	.8 thick	
4	Head, Lub Oil Filter	1	3902295	13	(die cast) (notes #1 & #2)	
5	Valve, Pressure Relief	1	3902338	15		
6	Plug, Pipe	1	3008466	15	.25"NPTF(coated) (note 3)	3008240
7	Plug, Pipe	1	3008465	15	.125"NPTF (coated)	3008240
8	Screw, Hex Hed Flg Cap	14	3900632	15	M8-1.25 x 35	638
9	Cartridge, Lube Oil Filt	1	3903224	15	(FX 8277) 175 long	2622
10	Plunger, Prs Regulator	1	3904385	10		
11	Spring, Compression	1	3903261	10		
12	Washer, Sealing	1	3902425	15	1.5 thk x 22.2 I.D.	2436
13	Plug, Threaded	1	3904386	15	M22 x 1.5 x 14	2435
Note #1: P/N 3903778 is the sand cast version. As of 9/1/82 3903314 sand cast filter has a 1/4 NPTF thread for turbo oil supply and is plugged with (1) 3008466 pipe plug when not used as supply. Note #2: A filter head insert is not shown -- it is cast in place. Note #3: This plug is removed when engine is turbocharged. (LC9004) Note #4: Pt. No. 3905605, oil cooler core gasket has been released at development status.						

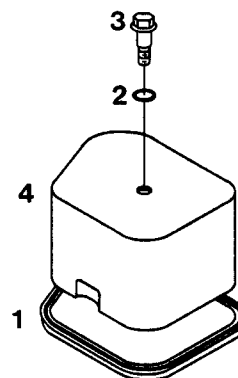
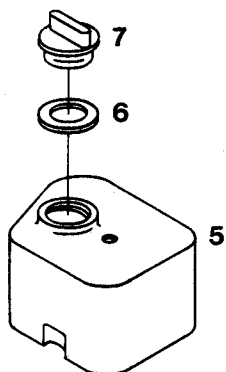
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COVER, TAPPET	224	CM9001
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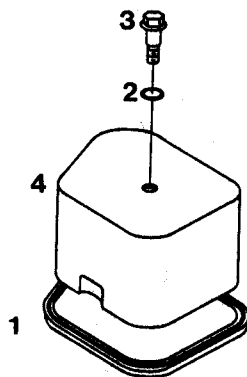
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
1	Gasket, Push Rod Cover	1	3903837	10	3.00 $\pm$.13 (See Note #1)	543
2	Cover, Push Rod	1	3905023	13	Integral Vent(See Note)	
3	Baffle, Breather	1	3902403	10		
4	Seal, Grommet	4	3900267	15	Rubber/Steel 6.45 thick	371
5	Screw, Hex Head Cap	2	3900629	15	M8-1.25 x 20 (flanged)	638
6	Hose, Plain	1	3904229	15	300.0 long	3865
7	Clamp, Spring Hose	1	3904230	15		
8	Clip	1	3904231	10		
9	Nut, Spring	1	3905479	15		
Note: 1 Pt. # 3904056, push rod cover gasket has been released at "L" status 2 Crankcase Breather, engineering structure code 220, is part of the tappet cover.						

COVER, VALVE	227	VC9001
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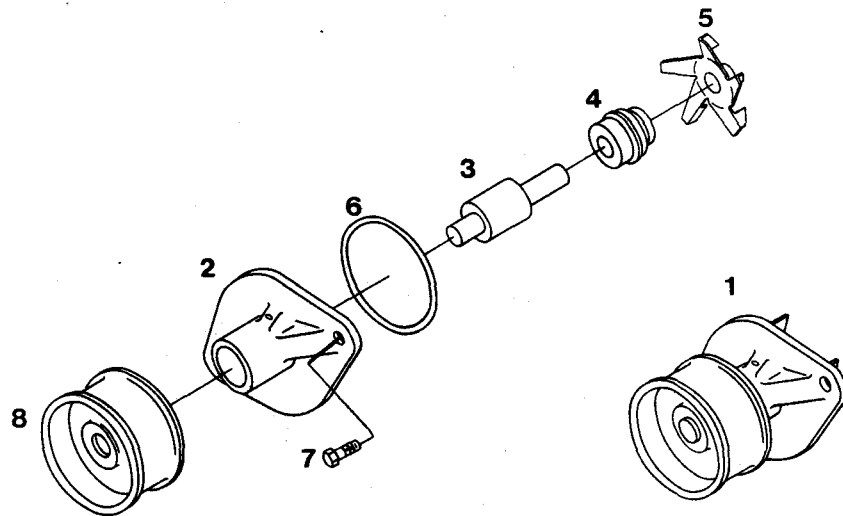
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
1	Gasket, Valve Cover	4	3902666	10		2493
2	"O" Ring	4	3901837	15	9.25 dia. x 1.78 thick	830
3	Screw, Hex Hed Cap	4	3902375	15	M8-1.25 x 25.5 (Note 1)(flg)	2374
4	Cover, Valve	3	3902604	10		1731
5	Cover, Valve (Fill)	1	3902605	10		1731
6	Ring, Rectangular Seal	1	3902363	15	3.00 thick	
7	Cap, Oil Fill	1	3901895	10		
Note #1: 25.5 total length; 13.5 from shoulder to head shoulder.						

COVER, VALVE	227	VC9008
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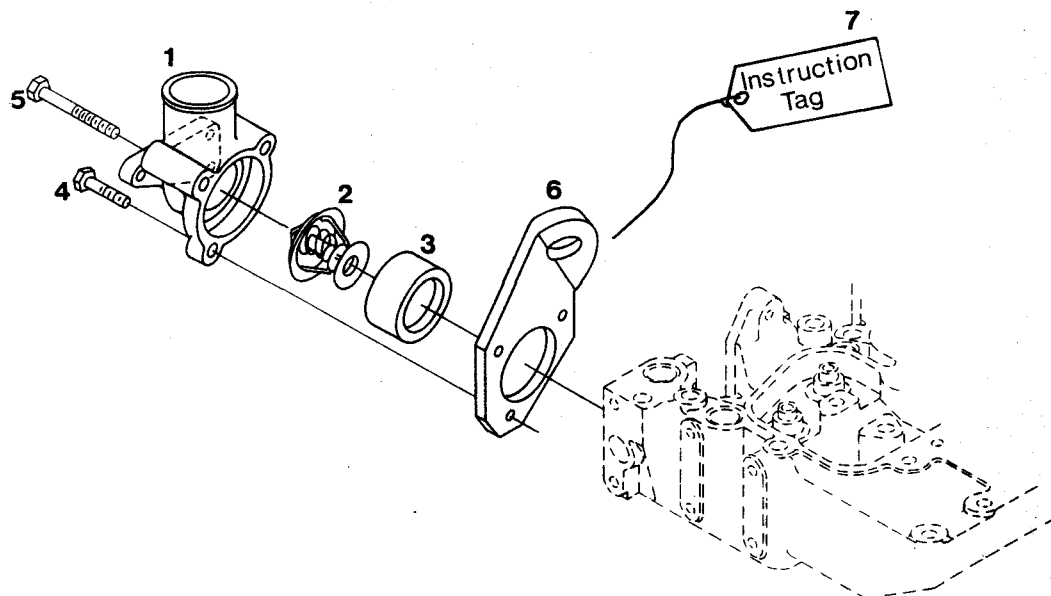
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
1	Gasket, Valve Cover	4	3902666	10		2493
2	"O" Ring Seal	4	3901837	15	9.25 dia. x 1.78 thick	830
3	Screw, Hex Head Cap	4	3902375	15	(flanged) M8-1.25 x 25.5	2374
4	Cover, Valve	4	3902604	10		1731
NOTE: For valve cover arrangement without full provision.						

PUMP, WATER	229	WP9001
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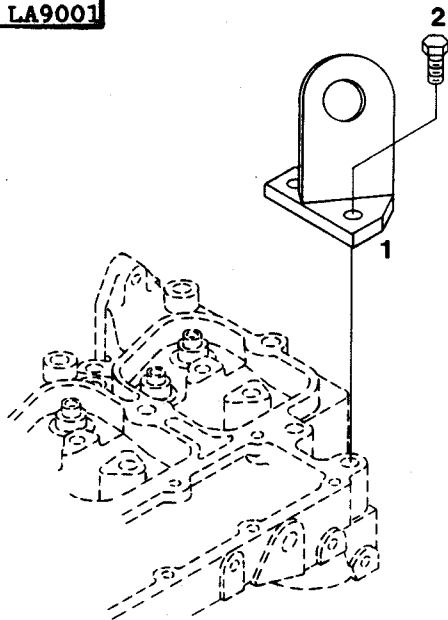
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
1	Pump, Water	1	3903749	16		
2	Body, Water Pump		3903731	10		
3	Bearing, Water Pump	1	3903747	15		441
4	Seal, Water Pump	1	3029099	15		
5	Impeller, Water Pump	1	3902329	10	Steel stamped	
8	Pulley, Water Pump	1	3903657	10	88 dia. cast iron	3555
6	"O" Ring	1	3903297	15	81.92 ID x 5.33	830
7	Screw, Hex Head Cap	2	3900227	15	M8 - 1.25 x 22	272

HOUSING, THERMOSTAT	234	TH9001
THERMOSTAT	233	EC9001



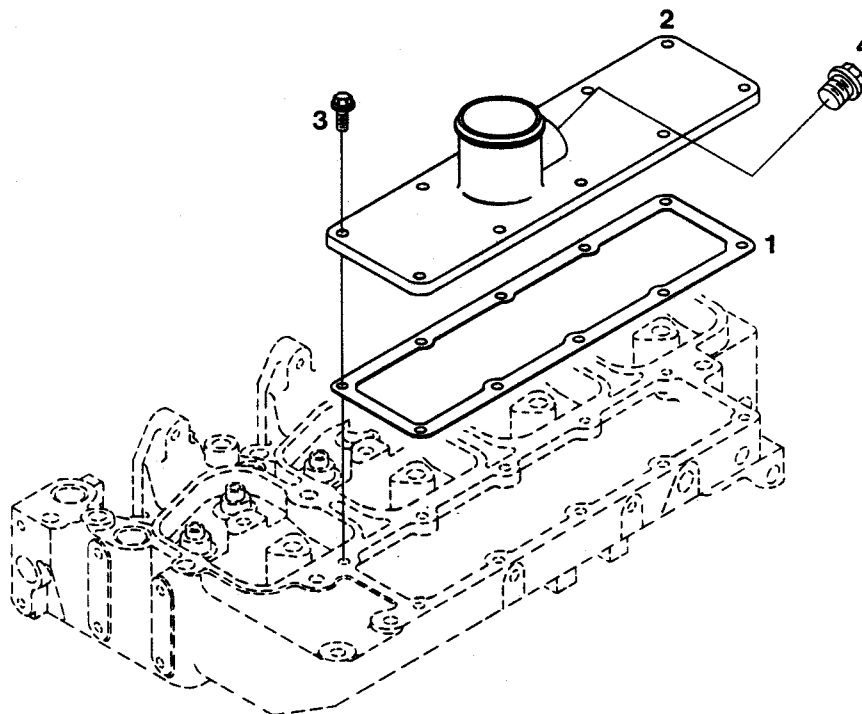
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
	THERMOSTAT EC9001					
2	Thermostat, Coolant	1	3902465	15		
	HOUSING, THERMOSTAT TH9001					
1	Housing, Thermostat	1	3903756	10		
3	Gasket, Thermostat Hsg	1	3903301	10		2526
4	Screw, Hex Head Cap	1	3900632	15	M8-1.25 x 35	638
5	Screw, Hex Head Cap	2	3903096	15	M8 - 1.25 x 70	638
6	Bracket, Lifting	1	3903757	10	.250" thick stock (Note # 1)	
7	Tag, Instruction	1	3905879	15	(See Note #2)	
Note #1: 3903756 thermostat housing supersedes 3903085. 3903757 lifting bracket supersedes 3903176. Note #2: This tag warns the end user that he must provide fan attaching cap screws with appropriate thread engagement and that the engine is shipped less water and oil. It is attached to the lifting bracket prior to shipping.						

BRACKET, LIFTING	350	LA9001
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I T E M	PART NAME	Q T Y	PART NUMBER	ID CODE	REMARKS	TAB SHT
1	Bracket, Lifting	1	3903170	13	Rear M12 - 1.75 x 25	272
2	Screw, Hex Hed Cap	2	3903200	15		

CONNECTION, AIR INTAKE 312 IC9001



ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
1	Gasket, Intake Manifold	1	3901999	10	.80 thick	2005
2	Cover, Intake Manifold	1	3903909	10	3" O.D. Inlet	
3	Screw, Hex Head Cap	8	3904341	15	M8 - 1.25 x 26 (flanged)	3332
4	Plug, Threaded With Washer	1	3904319	15	7/8"-14UNF	

PAINT

SS

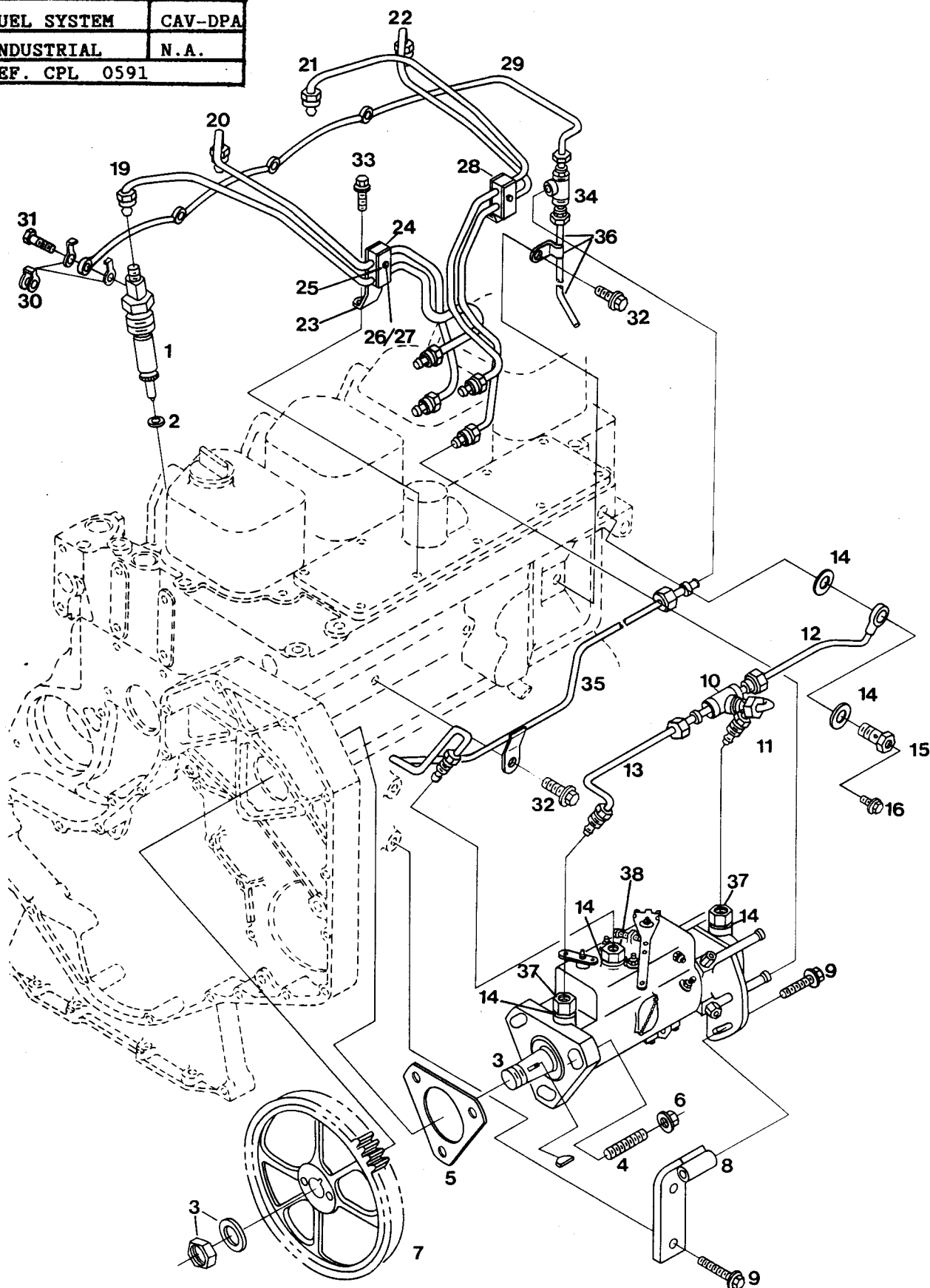
SS9001	Cummins Beige Paint
SS9002	Tan Paint
SS9003	Black Paint
SS9004	Charcoal Gray Paint
SS9005	Red Paint
SS9008	Marine Gray Paint

SECTION B

FUEL SYSTEMS

	<u>PAGE</u>
CAV.....	2-4
BOSCH.....	5-7
BOSCH/BOOST CONTROL.....	8-10
PUMP, FUEL LIFT.....	11-12
FILTER, FUEL.....	13-15

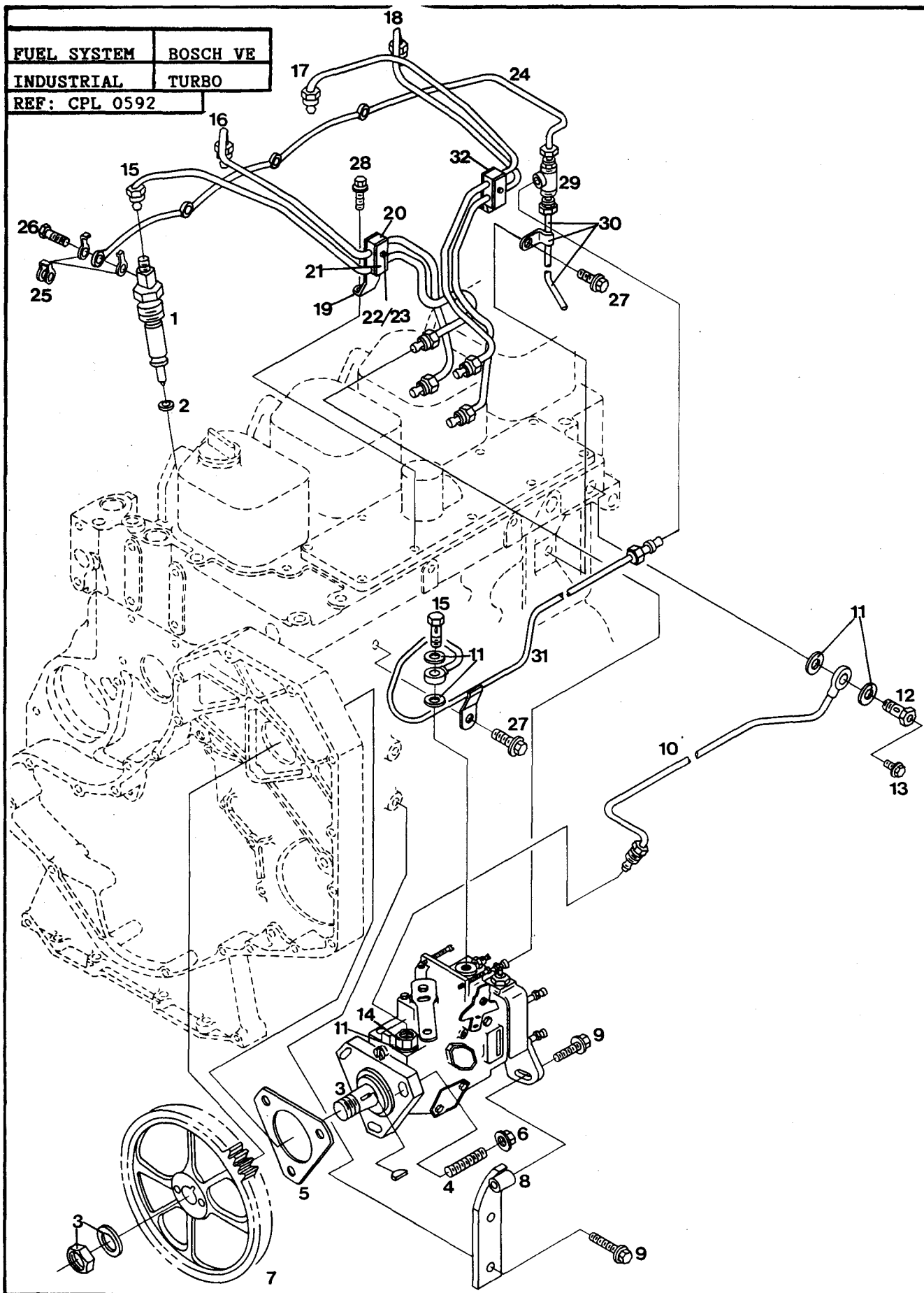
FUEL SYSTEM	CAV-DPA
INDUSTRIAL	N.A.
REF. CPL	0591



ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
-	<u>INJECTOR PP591</u>					
-	Injector Assembly		3905815	21-2		
1	Injector	4	3903383	15		5132
2	Seal, Injector	4	3900808	10	1.62 thick	
	<u>PUMP, BASE FUEL FP97??</u>					
3	Pump, Fuel	1	3902499	79		
	<u>COUPLING, FUEL PUMP FP9701</u>				<u>WITHOUT AIR COMPRESSOR (SEE NOTE #3)</u>	
4	Stud	3	3902501	10	M8-1.25 x 48.0	715
5	Gasket, Fuel Pump	1	3905685	10	.79 Thick	
6	Nut, Hex	4	3900589	15	M8-1.25 (flanged)	734
7	Gear, Fuel Pump	1	3902236	10	72 teeth	
8	Brace, Fuel Inj. Pump	1	3905387	13		
9	Screw, Hex Head Cap	3	3900630	15	M8-1.25 x 20 (flanged)	638
	<u>PLUMBING, FUEL FT9720</u>					
-	Tubes, Fuel Supply	1	3903521	21-1	1.8 I.D. High Pressure	
-	Tubes, Fuel Supply	1	3903720	16		4378
19	Tube, Fuel Supply	1	3903522	13	No. 1 Cylinder	3942
20	Tube, Fuel Supply	1	3903523	13	No. 2 Cylinder	3943
23	Brace, Tube	1	3904344	10		
24	Isolator, Vibration	2	3904712	10		
25	Brace, Tube	1	3904711	10		
26	Washer	1	3903723	15		
27	Screw, Hex Head	1	3903609	15	M5-.8 x 20	3558
-	Tubes, Fuel Supply	1	3903721	16		4379
21	Tube, Fuel Supply	1	3903524	13	No. 3 Cylinder	3944
22	Tube, Fuel Supply	1	3903525	13	No. 4 Cylinder	3945
28	Brace, Tube	1	3904345	10		
24	Isolator, Vibration	2	3904712	10		
25	Brace, Tube	1	3904711	10		
26	Washer	1	3903723	15		
27	Screw, Hex Head	1	3903609	15	M5-.8 x 20	3558
29	Manifold, Fuel Drain	1	3905690	13		6510
30	Seal, Banjo Connector	4	3903380	10	Siamese	
31	Screw, Banjo Connector	4	3905307	15	M6-1.00 x 14.30	3823
32	Screw, Hex Head Cap	2	3900629	15	M8-1.25 x 16	638
33	Screw, Hex Head Cap	2	3904341	15	M8-1.25 x 26	3332
34	Tee, Male Union	1	3905388	15		
35	Tube, Fuel Drain	1	3905703	13		
36	Tube, Fuel Drain	1	3905692	13		

ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
	<u>PLUMBING, FUEL (REF: FF9701 AND FF9703) SEE NOTE #2)</u>					5464
	Tube, Fuel Supply	1	3905432	16		
10	Tee, Male Union	1	3905353	15		
11	Tube, Fuel Supply	1	3905375	13		
12	Tube, Fuel Supply	1	3905364	13	Has banjo fitting	
13	Tube, Fuel Supply	1	3905363	13		
14	Washer, Plain	2	S-2329	10	1/2 I.D. x .062" thickness	
	Screw, Banjo Connector	1	3905860	21-1		
15	Screw, Hex Hd Banjo Cap	1	3905405	15		
16	Screw, Hex Hed Vent Cap	1	3905403	15		
Item *14	S-2329 Washer, Plain				Come with pump intitally but are available for service	
Item *37	3903382 Connector, Special					
Item *38	3903598 Connector, Special					
NOTE: #1 External parts needed to service the CAV fuel pumps have been released at production status for "B" Series engine - Pt. #3904656.						
#2 These parts are structured in the FF9701 (dual element - CAV fuel pump) and FF9703 (single element - CAV fuel pump)						
#3 When using an air compressor use fuel pump coupling option FP9768 which is the same as FP9701 except for the number of 3900630 capscrews (reduce from 3 to 1) and add (2) 3902114 capscrews (MB-1.25 x 30).						

FUEL SYSTEM	BOSCH VE
INDUSTRIAL	TURBO
REF: CPL 0592	

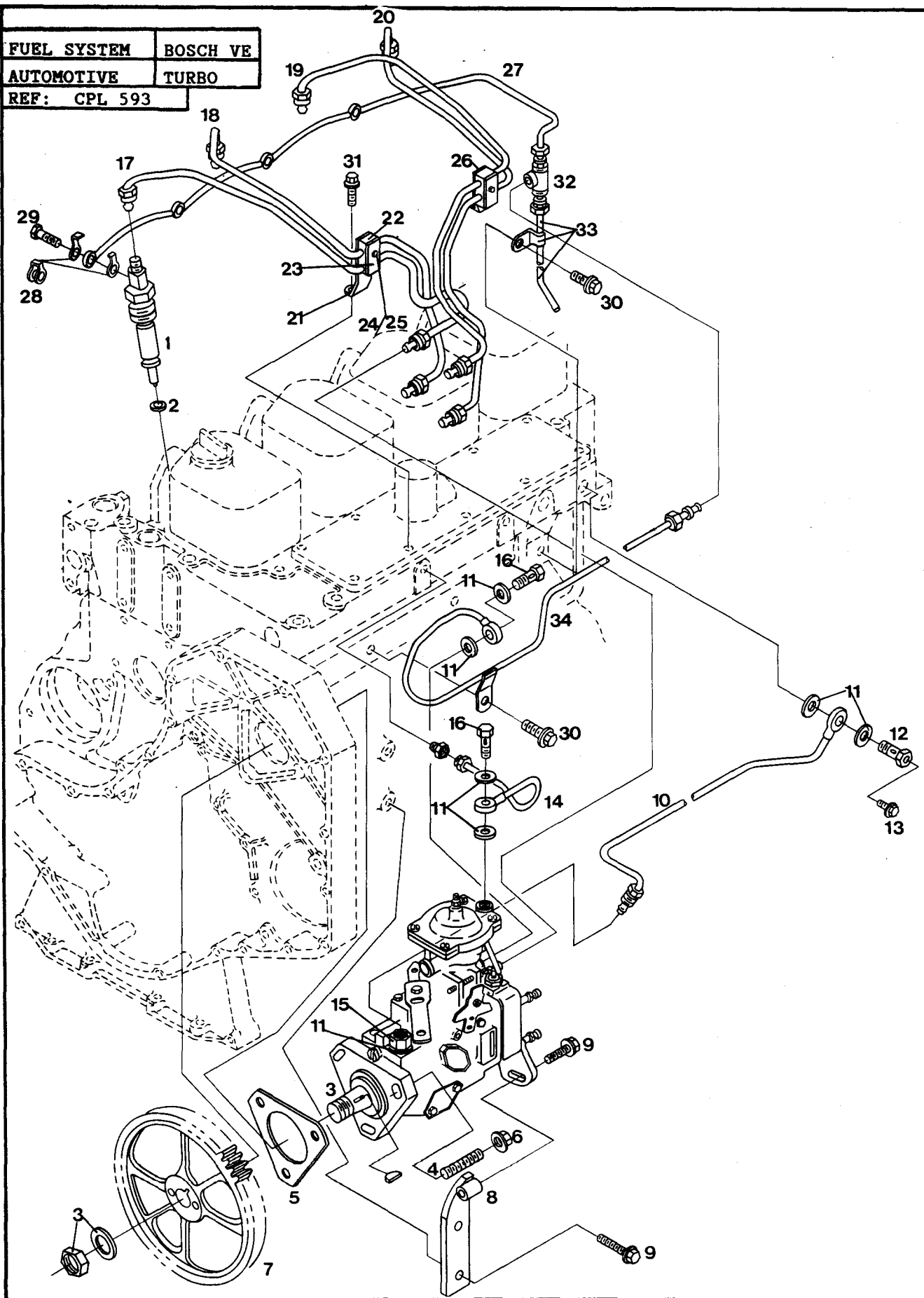


ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
-	INJECTOR PP592					
1	Injector Assembly		3903769	21-2		5132
	Injector, Fuel	4	3902969	15		
2	Seal, Injector	4	3900808	10	1.62 thick	
	PUMP, BASE FUEL FP97??					
3	Pump, Fuel	1	3903517	79		
	COUPLING, FUEL PUMP FP9702					
4	Stud	3	3902501	10	WITHOUT AIR COMPRESSOR (SEE NOTE #3) M8-1.25 x 48.0	715
5	Gasket, Fuel Pump	1	3905685	10	.79 thick	
6	Nut, Hex	4	3900589	15	M8-1.25 (flanged)	734
7	Gear, Fuel Pump	1	3902236	10	72 teeth	
8	Brace, Fuel Inj. Pump	1	3905313	13		
9	Screw, Hex Hed Cap	3	3900630	15	M8-1.25 x 20	638
	PLUMBING, FUEL FT9715					
-	Tubes, Fuel Supply	1	3903484	21-1	2.0 Bosch	
-	Tubes, Fuel Supply	1	3903716	16		4380
15	Tube, Fuel Supply	1	3903480	13	No. 1 Cylinder	4080
16	Tube, Fuel Supply	1	3903481	13	No. 2 Cylinder	4081
19	Brace, Tube	1	3904344	10		
20	Isolator, Vibration	2	3904712	15		
21	Brace, Tube	1	3904711	10		
22	Washer	1	3903723	15		
23	Screw, Hex Head Cap	1	3903609	15	M5-.8 x 20	3558
-	Tubes, Fuel Supply	1	3903717	16		4281
17	Tube, Fuel Supply	1	3903482	13	No. 3 Cylinder	4082
18	Tube, Fuel Supply	1	3903483	13	No. 4 Cylinder	4083
32	Brace, Tube	1	3904345	10		
20	Isolator, Vibration	2	3904712	15		
21	Brace, Tube	1	3904711	10		
22	Washer	1	3903723	15		
23	Screw, Hex Head Cap	1	3903609	15	M5-.8 x 20	3558
24	Manifold, Fuel Drain	1	3905690	13		
25	Washer, Sealing	4	3903380	10	Siamese	
26	Screw, Banjo Connector	4	3905307	15	M6-1.00 x 14.30	3823
27	Screw, Hex Head Cap	2	3900629	15	M8-1.25 x 16	638
28	Screw, Hex Head Cap	2	3904341	15	M8-1.25 x 26	3332
29	Tee, Male Union	1	3905388	15		
30	Tube, Fuel Drain	1	3905692	13		
31	Tube, Fuel Drain	1	3905699	13		

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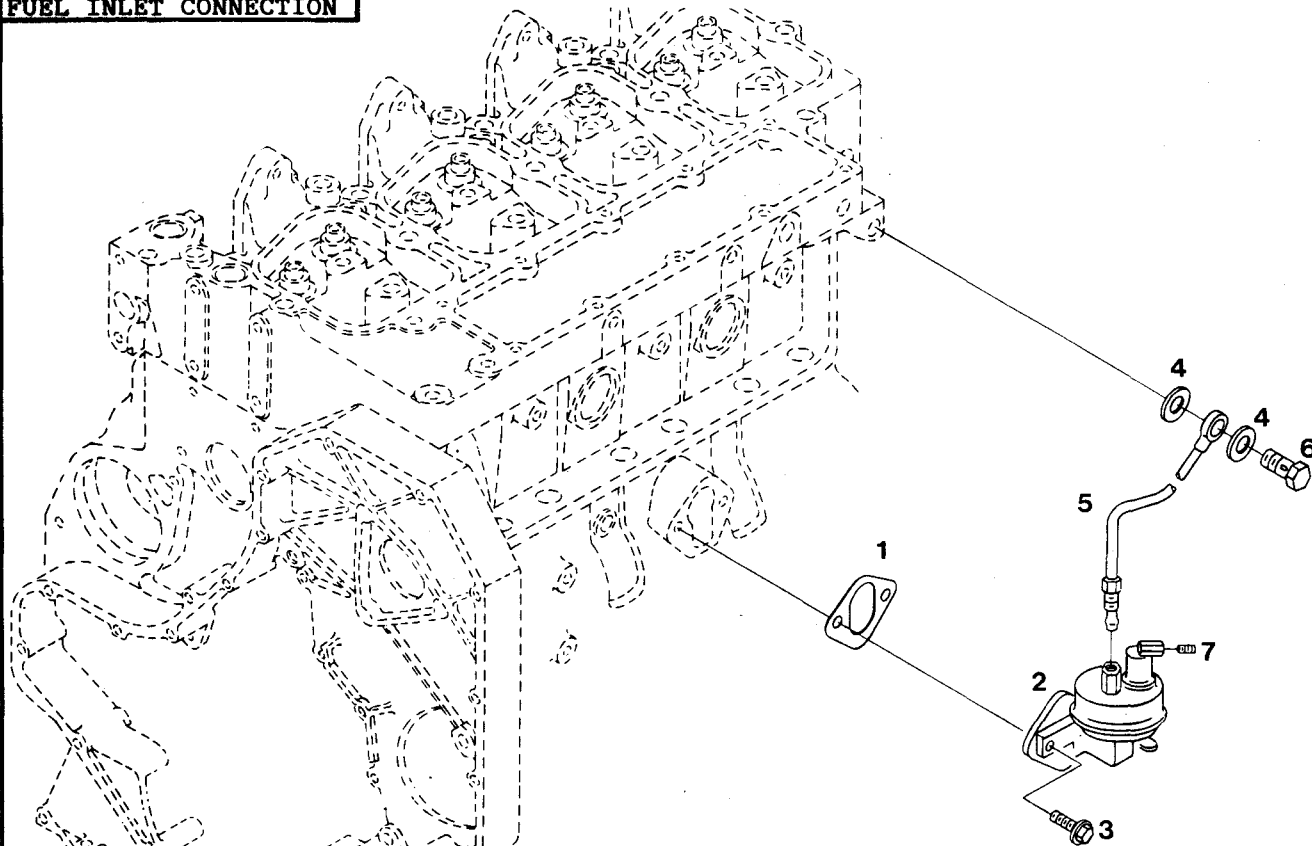
I T E M	PART NAME	Q T Y	PART NUMBER	ID CODE	REMARKS	TAB SHT
	<u>PLUMBING, FUEL (REF: FF9702 AND FF9704) SEE NOTE #2</u>					
10	Tube, Fuel Supply	1	3905433	13		
11	Washer, Plain	2	S-2329	10	1/2 I.D. x .062" thickness	
-	Screw, Banjo Connector	1	3905860	21-1		
12	Screw, Hex Hd Banjo Cap	1	3905405	15		
13	Screw, Hex Hed Vent Cap	1	3905403	15		
Item *11	S-2329 Washer, Plain				Come with pump intitally but are available for service	
Item *14	3903382 Connector Special					
Item *15	390???? Capscrew, Banjo					
NOTE: #1 External service parts have been released at production status - Pt. No. 3904629.						
#2 These parts are structured in the FF9702 (dual element - Bosch fuel pumps) and FF9704 (single element - Bosch fuel pumps)						
#3 When using an air compressor use fuel pump coupling option FP9764 which is the same as FF9702 except for the number of 3900630 capscrews (reduce from 3 to 1) and add (2) 3902114 capscrews (M8-1.25 x 30).						

FUEL SYSTEM	BOSCH VE
AUTOMOTIVE	TURBO
REF: CPL 593	



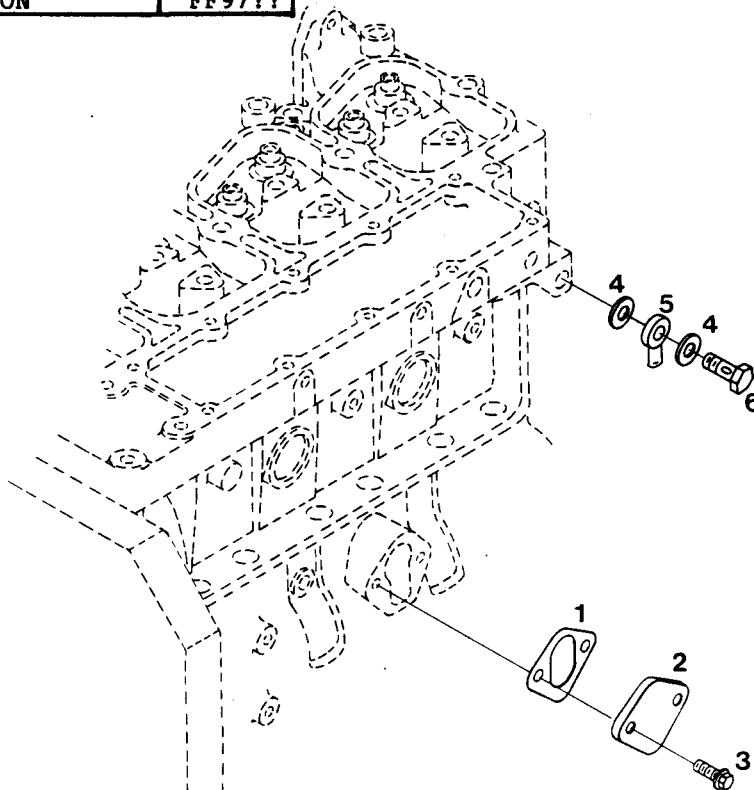
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
-	INJECTOR PP593					
1	Injector Assembly	1	3906083	21-2		
2	Injector, Fuel	4	3905438	15		
2	Seal, Injector	4	3900808	10	1.62 thick	
3	PUMP, BASE FUEL FP97??					
3	Pump, Fuel	1	3903517	79		
4	COUPLING, FUEL PUMP FP9702					
4	Stud	3	3902501	10	M8-1.25 x 48.0	715
5	Gasket, Fuel Pump	1	3905685	10	.79 thick	
6	Nut, Hex	4	3900589	15	M8-1.25 (flanged)	734
7	Gear, Fuel Pump	1	3902236	10	72 teeth	
8	Brace, Fuel Inj Pump	1	3905313	13		
9	Screw, Hex Hed Cap	3	3900630	15	M8-1.25 x 20	638
-	PLUMBING, FUEL FT9711					
-	Tubes, Fuel Supply	1	390????	21-1	Bosch with Boost	
-	Tube, Inj. Fuel Supply	1	3903716	16		4380
17	Tube, Fuel Supply	1	3903480	13	No. 1 Cylinder	4080
18	Tube, Fuel Supply	1	3903481	13	No. 2 Cylinder	4081
21	Brace, Tube	1	3904344	10		
22	Isolator, Vibration	2	3904712	15		
23	Brace, Tube	1	3904711	10		
24	Washer	1	3903723	15		
25	Screw, Hex Head Cap	1	3903609	15	M5-.8 x 20	3558
-	Tubes, Fuel Supply	1	3903717	16		4281
19	Tube, Fuel Supply	1	3903482	13	No. 3 Cylinder	4082
20	Tube, Fuel Supply	1	3903483	13	No. 4 Cylinder	4083
26	Brace, Tube	1	3904345	10		
22	Isolator, Vibration	2	3904712	15		
23	Brace, Tube	1	3904711	10		
24	Washer	1	3903723	15		
25	Screw, Hex Head Cap	1	3903609	15	M5-.8 x 20	3558
27	Manifold, Fuel Drain	1	3905690	13		
28	Washer, Sealing	4	3903380	10	Siamese	
29	Screw, Banjo Connector	4	3905307	15	M6-1.00 x 14.30	3823
30	Screw, Hex Head Cap	2	3900629	15	M8-1.25 x 16	638
31	Screw, Hex Head Cap	2	3904341	15	M8-1.25 x 26	3332
32	Tee, Male Union	1	3905388	15		
33	Tube, Fuel Drain	1	3905692	13		
34	Tube, Fuel Drain	1	3905701	13		

ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
	<u>PLUMBING, FUEL (REF: FF9702 AND FF9704) NOTE #2</u>					
10	Tube, Fuel Supply	1	3905433	13		
11	Washer, Plain	2	S-2329	10	1/2 I.D. x .062" thickness	
-	Screw, Banjo Connector	1	3905860	21-1		
12	Screw, Hex Hd Banjo Cap	1	3905405	15		
13	Screw, Hex Hed Vent Cap	1	3905403	15		
	<u>PLUMBING, AIR FUEL CONTROL FE9001</u>					
14	Tube, Air Fuel Control	1	3905648	13		
	Item *11 S-2329 Washer, Plain				Come with pump initially	
	Item *15 3903382 Connector, Special				but are available for service.	
	Item *16 390???? Capscrew, Banjo					
	NOTE: #1 External service parts have been released at production status - Pt. No. 3904629.					
	#2 These parts are structured in the FF9702 (dual element - Bosch fuel pump) and FF9704 (single element - Bosch fuel pump)					

ACCESSORY. FUEL SYSTEM
334
FS9002
FUEL INLET CONNECTION


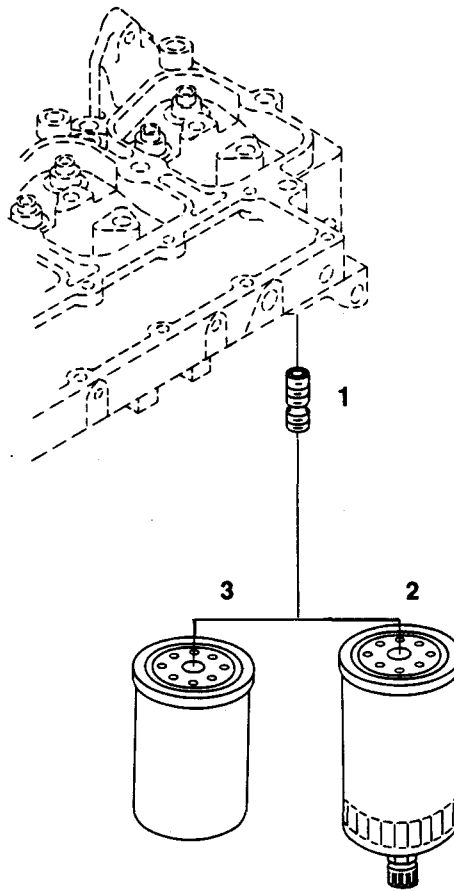
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
1	Gasket, Cover Plate	1	3904044	10	.8" thick	
2	Pump, Lift	1	3904374	15	1/4" NPTF In / M14-1.5 Out	
3	Screw, Hex Head Cap	2	3900631	15	M8-1.25 x 20 (flanged)	638
4	Washer, Plain	2	S-2329*	10	1/2" I.D. x .062 thick - See Note	
5	Tube, Fuel Supply	1	3905649	13		
6	Screw, Hex Hd Banjo Cap	1	3903035*	15	M12-1.25 x 24 - See Note	3722
7	Plug, Pipe	1	S-910-B	15	1/4"NPTF	
NOTE: These parts are structured in FR97?? options.						

ACCESSORY, FUEL SYSTEM	334	FS9000
FUEL INLET CONNECTION		FF97??



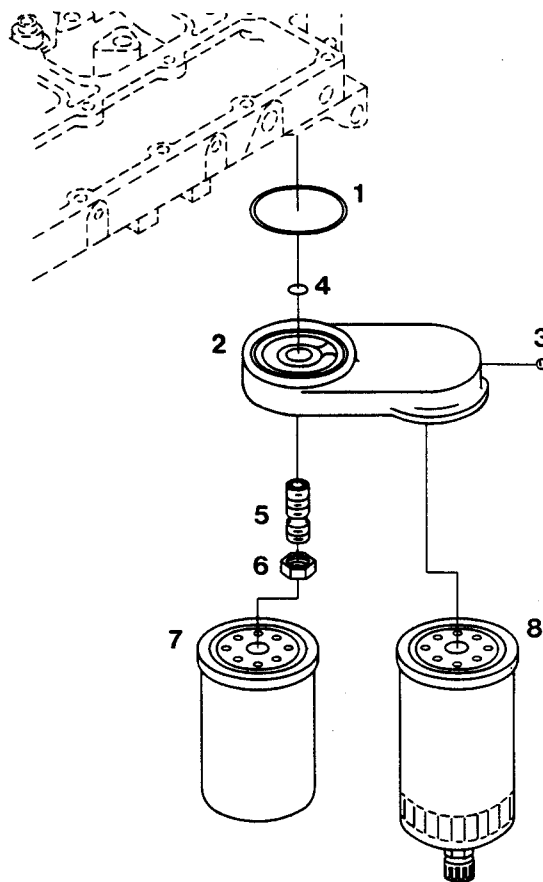
ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
	FS9000					
1	Gasket, Cover Plate	1	3904044	10	.8" thick (See Note)	
2	Plate, Cover	1	3904046	10	6.35 thick	
3	Screw, Hex Head Cap	2	3900630	15	M8-1.25 x 20 (flanged)	638
	FF97??					
4	Washer, Plain	2	S2329	15		
5	Connector, Banjo	1	3903315	15	(See Note)	
6	Screw, Banjo Connector	1	3903035	15		
	NOTE: For no lift pump.					
	Items #4, 5, & 6 will be replaced by a 1/4" NPTF adapter.					

FILTER, FUEL	237	FF
SINGLE ELEMENT		



ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
	FILTER, FUEL FF9003					
1	Adapter, Fuel Filter	1	3903845	15	M16-1.5 x 31.0	3280
2	Filter, Fuel	1	3903202	15	With wtr. Separator FS1221	3204
	FILTER, FUEL FF9002					
1	Adapter, Fuel Filter	1	3903845	15	M16-1.5 x 31.0	3280
3	Filter, Fuel	1	3903640	15	No Drain	

FILTER, FUEL	237	FF
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ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
	<u>FILTER, FUEL FF9001</u>				NOTE: DUAL ELEMENT ORIENTATED 30° FROM CENTERLINE OF CRANK REARWARD	
1	"O" Ring	1	3903546	15	69.6 I.D. x 1.8	830
2	Head, Dual Fuel Filter	1	3904362	16	(Die Cast)	
-	Head, Dual Fuel Filter	1	3905491	13		
3	Plug, Expansion	1	203933	15	.25 diameter	142627
4	"O" Ring	1	3903846	15	13.94 I.D. x 2.6	830
5	Adapter, Fuel Filter	1	3903845	10	M16-1.5 x 52.25	3280
6	Nut, Hex	1	3903293	15	M16 x 8.0 thick 24.0 across flats	1298
7	Filter, Fuel	1	3903640	15	FF-5018	
8	Filter, Fuel	1	3903410	15	FF-5038-1	
	<u>FILTER, FUEL FF9004</u>				LINE FF9001 EXCEPT: DUAL ELEMENT ORIENTED 10° FROM CENTERLINE OF CRANK REARWARD. (DO NOT USE WITH SAE #2 FLY. HSG.)	

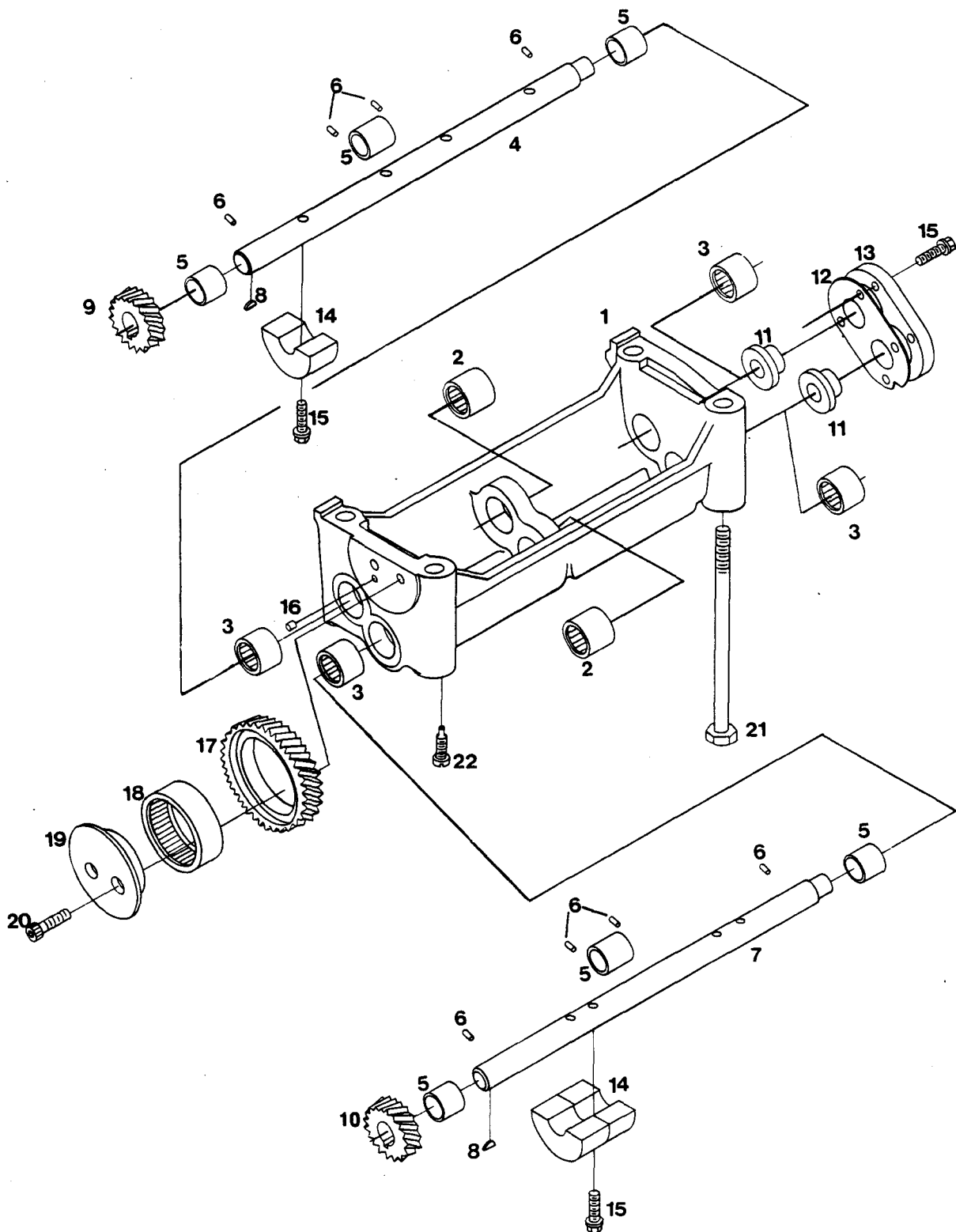
SECTION C
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(CONSOLIDATED DIESEL)

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BALANCER

110

BA9001

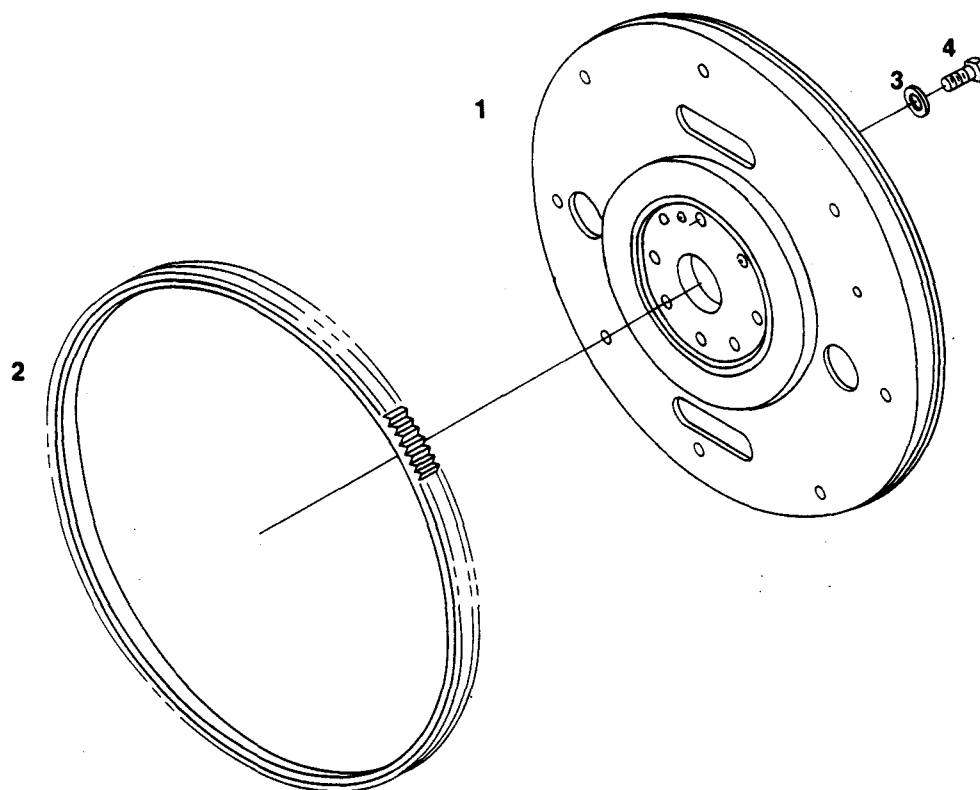


ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
	BALANCER BA9001					
	Assembly, Eng. Balancer	1	3906375	16		
1	Housing, Balancer	1	3906379	10		
2	Bearing, Needle	2	3906378	10	(Torrington BH2020 OH) Pressed into housing center holes	
3	Bearing	4	3904702	10	(Torrington JH 2016) Pressed into housing front & rear holes	
-	Shaft, Upper Assembly	1	3906376	16		
4	Shaft, Upper	1	3906373	10		
5	Race, Inner Bearing	3	3906069	15	(Torrington IR162020)	
6	Pin, Spiral	4	3906072	15	3/16" x 3/8"	
11	Collar, Thrust	1	3906068	10		
8	Key, Woodruff	1	3902332	10		
9	Gear, Balancer Shaft	1	3906064	10		
-	Shaft, Lower Assembly	1	3906377	16		
7	Shaft, Lower	1	3906374	10		
5	Race, Inner Bearing	3	3906069	15	(Torrington IR162020)	
6	Pin, Spiral	4	3906072	15	3/16" x 3/8"	
11	Collar, Thrust	1	3906068	10		
8	Key, Woodruff	1	3902332	10		
10	Gear, Lower	1	3906065	10		
12	Plate, Thrust Bearing	1	3906066	10		
13	Plate, Thrust Bearing	1	3906067	10		
14	Weight, Bal. Counter	8	3906073	10		
15	Screw, Hex Head Cap	12	3902114	15	M8-1.25 x30 (flanged)	638
16	Pin, Roll	1	3904701	15	Diameter 6 x 7	
17	Gear, Idler	1	3904708	10		
18	Bearing, Needle	1	3901352	15		
19	Retainer, Idler Gear	1	3906367	10		
20	Screw, Socket Hd Cap	2	3901350	15	M10-1.50 x 30	1349
21	Screw, Hex Head Cap	4	3904218	15	M14-2.0 x 231 (Ref. Only)	
22	Screw, Transit	1	See Note		For proper orientation of the balancer and for transit. <u>REMOVE AT ASSEMBLY.</u>	

FLYWHEEL

203

FW



ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
-	Flywheel/Ring Gear	1	3902216	16	Used with SAE #3 Hsg.	4159
1	Flywheel <u>FW9003</u>	1	3901698	10	For 13.5" BC Drv. Plate (Clark 18000 TC)	
2	Ring Gear	1	3901774	10	10/12 Pitch (159 teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	3901395	15	M12-1.25 x 32 (12.9)	3782
-	Flywheel/Ring Gear	1	3905830	16	For Clark 18000 TC	
	Flywheel <u>FW9042</u>	1	3901698	10	Use With SAE #3	
	Gear, Ring	1	3905427	10	8/10 pitch (127 teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap		3901395	15	M12-1.25 x 32 (12.9)	
-	Flywheel/Ring Gear	1	3902218	16	Used with SAE #3 Hsg.	4159
1	Flywheel	1	3901699	10	(Clark 28000 TC)	
2	Gear, Ring <u>FW9004</u>	1	3901774	10	10/12 pitch (159 teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	3901395	15	M12-1.25 x 32 (12.9)	3782
-	Flywheel/Ring Gear	1	3905843	16	For Clark 28000 TC	
1	Flywheel <u>FW90??</u>	1	3901699	10	For Use With SAE #3	
2	Gear, Ring	1	3905427	10	8/10 pitch (127 teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	39001395	15	M12-1.25 x 32 (12.9)	

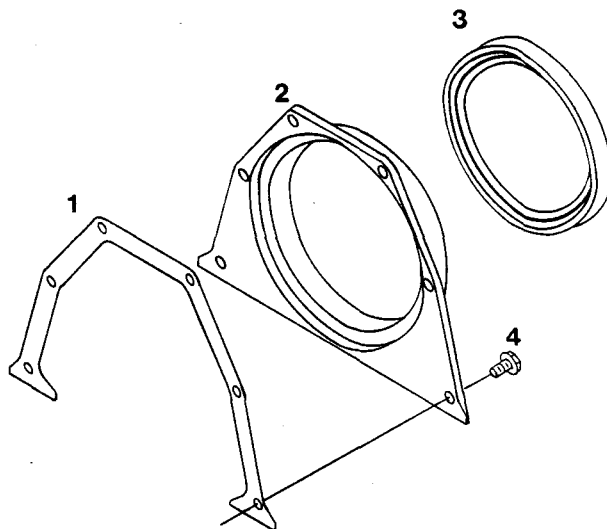
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ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
-	Flywheel/Ring Gear	1	3902217	16	Used with SAE #3 Hsg.	4159
1	Flywheel	1	3901773	10	For 11" TC Drv. Plate (Borg Beck)	
	<u>FW9005</u>					
2	Gear, Ring	1	3901774	10	10/12 Pitch (159 teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	3901395	15	M12-1.25 x 32 (12.9)	3782
-	Flywheel/Ring Gear	1	3902728	16	Used with SAE #3 Hsg.	4159
1	Flywheel	1	3902727	10	For 12"/13" auto clutch	
2	Gear, Ring	1	3901774	10	10/12 pitch (159 teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	3901395	15	M12-1.25 x 32 (12.9)	3782
-	Flywheel/Ring Gear	1	3905587	16	#3 Hsg. SAE 60 for Use with Allison TT2000	4159
	<u>FW9008</u>					
1	Flywheel	1	3905586	10		
2	Gear, Ring	1	3901774	10	10/12 pitch (159 teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	3901395	15	M12-1.25 x 32 (12.9)	3782
5	Flexplate	1	390????	10	Not shown	
6	Screw, Hex Head Cap	?	390????	15	?	
7	Washer	?	390????	15	?	
8	Nut	?	390????	15	?	
1	Flexplate	1	3904359		SAE #3	
2	Adapter, Crankshaft	1	3902573			
3	Adapter, Trq Adapter	1	3904360			
4	Ring Clamping	1	3904361			
5	Screw, Hex Head Cap	8	3901395	15	12-1.25 x 32 (12.9)	3782
6	Bolt, Special	6	3901727	15		
-	Flywheel/Ring Gear	1	3903306	16	Used with SAE #3 Hsg.	4159
1	Flywheel	1	3903305	10	For 13 1/8" Dia. BC Drv. Plate (For TD6-1300 & TD6-1100 Case CE Special, SAE Mod. 80)	
	<u>FW9015</u>					
2	Gear, Ring	1	3901774	10	10/12 pitch (159 teeth)	
3	Washer	8	3900269	16	1.65 thick	
4	Screw, Hex Head Cap	8	3901395	15	M12-1.25 x 32 (Note #1)	3782
-	Flywheel/Ring Gear	1	3905430	16	Modified SAE 80	
1	Flywheel	1	3903305	10	For Use With SAE #3	
2	Gear, Ring	1	3905427	10	8/10 pitch (127 teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	39001395	15	M12-1.25 x 32 (12.9)	
-	Flywheel/Ring Gear	1	3903308	16	Used with SAE #2 Hsg.	
1	Flywheel	1	3903307	10	13"/14" auto clutch	
2	Gear, Ring	1	3903309	10	10/12 pitch (173 teeth)	
3	Washer	8	3900269	15	1.65 thick (Note #2)	
4	Screw, Hex Head Cap	8	3901395	15	M12-1.25 x 32 (12.9)	3782
-	Flywheel/Ring Gear	1	3905842	16	13 & 14" SP Clutches	
1	Flywheel	1	3903307	10	SAE #2	
2	Gear, Ring	1	3902127	10	8/10 pitch (128 teeth)	
3	Washer	8	3900269	15	1.65 thick	
	Screw, Hex Head Cap	8	3901395	15	M12-1.25 x 32 (12.9)	
-	Flywheel/Ring Gear	1	3904719	16	Used with SAE #2 Hsg.	4159
1	Flywheel	1	3904718	10	11 1/2" O.C. Clutch	
2	Gear, Ring	1	3903309	10	10/12 pitch (173 teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	39001395	15	M12-1.25 x 32 (12.9)	3782

ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
-	Flywheel/Ring Gear	1	3903994	16	11.5" O.C. clutch SAE #2	
1	Flywheel <u>FW90??</u>	1	3904718	10		
2	Gear, Ring	1	3902127	10	8/10 pitch (138 Teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Cap Screw	8	39001395	15	M12-1.25 x 32	
-	Flywheel/Ring Gear	1	3905831	16	Used with SAE #3 Hsg.	4159
1	Flywheel	1	3905616	10	For 10" & 11 1/2" O.C. Clutch	
2	Gear, Ring <u>FW9017</u>	1	3901774	10	10/12 pitch (159 teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	3901395	15	M12-1.25 x 32 (12.9)	3782
-	Flywheel/Ring Gear	1	3905829	16	10/11.5 O.C. clutches	
1	Flywheel <u>FW90??</u>	1	3905616	10	For Use With SAE #3	
2	Gear, Ring	1	3905427	10	8/10 pitch (127 teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	3901395	15	M12-1.25 x 32 (12.9)	
-	Flywheel/Ring Gear	1	3902569	16	Used with SAE #3 Hsg.	
1	Flywheel	1	3902566	10	For ZF 280/300 TC	
2	Gear, Ring <u>FW9033</u>	1	3901774	10	10/12 pitch (159 teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	3901395	15	M12-1.25 x 32 (12.9)	3782
-	Flywheel/Ring Gear <u>FW9034</u>	1	390????	16	For Ford C-6 Auto transmission	
1	Flywheel	1	390????	10		
2	Gear, Ring	1	390????	10	10/12 pitch (143 teeth)	
3	Washer	8	3900269	15	1.65 thick (Note #2)	
4	Screw, Hex Head Cap	8	3901395	15	M12-1.25 x 32 (12.9)	3782
-	Flywheel/Ring Gear <u>FW9035</u>	1	3905927	16	Used for 10" O.C. Ind. clutch & Funk transmission (11.75")	4159
1	Flywheel	1	3905925	10	SAE #3	
2	Gear, Ring	1	3901774	10	10/12 pitch (159 teeth)	
3	Washer	8	3900269	15	1.65 thick (Note #2)	
4	Screw, Hex Head Cap	8	3901395	15	M12-1.25 x 32 (12.9)	3782
-	Flywheel/Ring Gear	1	3905898	16	10" O.C., Funk 11.75" TC	
1	Flywheel <u>FW9041</u>	1	3905925	10	For Use With SAE #3	
2	Gear, Ring	1	3905427	10	8/10 pitch (127 Teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	39001395	15	M12-1.26 x 32 (12.9)	
-	Flywheel/Ring Gear	1	3905032	16	Case 12 SP 4 Wheel Drive	
1	Flywheel <u>FW9036</u>	1	3905030	10	C Series	
2	Gear, Ring	1	3905031	10	8/10 pitch special (137 Teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	39001395	15	M12-1.25 x 32 (12.9)	
-	Flywheel/Ring Gear	1	3904393	16		4159
1	Flywheel <u>FW9040</u>	1	3904992	10	For Case 12 SP 2 Whl Drv. Ag tractor B/C Engines	
2	Gear, Ring	1	3905031	10	8/10 pitch Spl. (137 teeth)	
3	Washer	8	3900269	15	1.65 thick	
4	Screw, Hex Head Cap	8	3901395	15	M12-1.35 x 32 (12.9)	3782
NOTES: 1. Flywheel 3903305 is identical to 3902317 except the web thickness 2. Flywheel 3903307 is identical to 3902126 except the ring gear land and shoulder are moved -- 3902126 requires a starter spacer. 3903307 does not						

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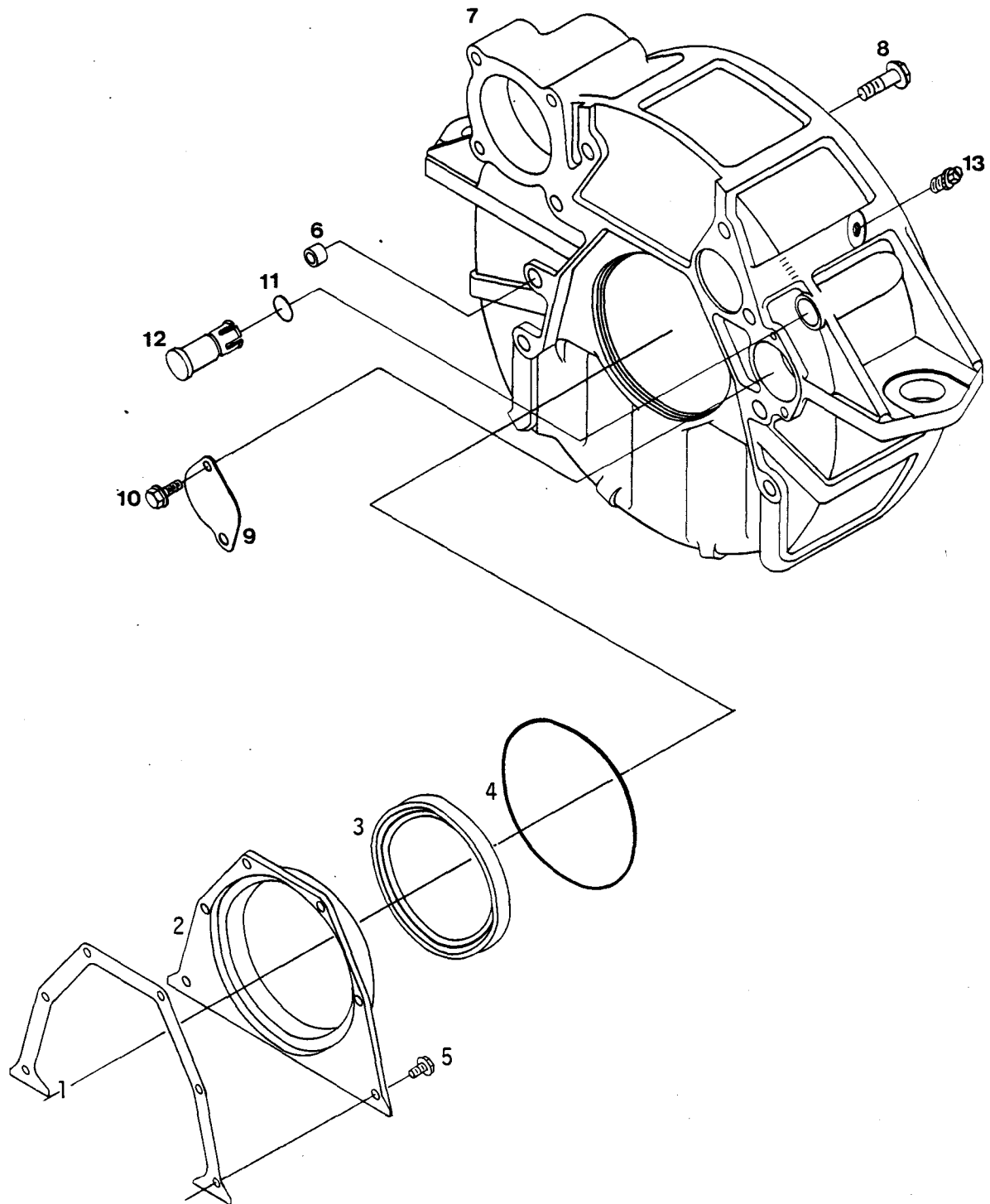
HOUSING, FLYWHEEL	202	FH
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ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
FH9000 DRY						
1	Gasket, Rear Cover	1	3901019	10	(.8 thick)	
-	Seal, Rear Crank	1	3906410	16		
2	Cover, Rear	1	3902674	10	(Die Cast) (Note #1)	2675
3	Seal, Rear Crank	1	3904089	15	150 dia. (Note #2 & #3)	4173
4	Screw, Hex Head Cap	6	3900627	15	M8-1.00 x 14 (flg)	638
FH9025 WET						
1	Gasket, Rear Cover	1	3901019	10	(.8 thick)	
-	Seal, Rear Crank	1	3906416	16		
2	Cover, Rear	1	3902674	10	(Die Cast) (Note #1)	2675
3	Seal, Rear Crank	1	3904090	10	150.0 dia. (Note #2 & #4)	4178
4	Screw, Hex Head Cap	6	3900627	15	M8-1.00 x 14 (flg)	638
NOTE #1: Sand cast version of rear cover is 3901018. #2: 3904087 is the development P/N for aluminum rear crank seal. #3: For the dry service kit see 3904323 #4: For the wet service kit see 3904354						

HOUSING, FLYWHEEL	SAE #3	202	FH9001
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DRY



ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
1	Gasket, Rear Cover	1	3901019	10	(.8 thick)	
-	Seal, Rear Crank	1	3906410	16		
2	Cover, Rear	1	3902674	10	Die Cast (Note #3)	
3	Seal, Rear Crank	1	3904089	15	150 dia. Notes 6 & 7	253
4	"O" Ring	1	3901397	15	158.12 dia x 533	830
5	Screw, Hex Head Cap	6	3900627	15	M6-1.0 x 14 (flg)	638
6	Dowel, Ring	1			See Note #1	
7	Housing, Flywheel	1	3903287	10	Arm Mount (Notes 2 & 5)	
8	Screw, Hex Head Cap	8	3901408	15	M12-1.75 x 40 (flg)	638
9	Plate, Cover	1	3901399	10	3.18 thick	
10	Screw, Self Tap Metal	2	3902735	15	M8-1.25 x 21	
11	Seal, "O" Ring	1	3904469	10		830
12	Plug, "O" Ring	1	3904470	10	See Note #4	
13	Plug, Threaded (Plastic)	1	3904181	15	3/4-16UNF	
Note #1: Item #6 is listed for reference only (see Page 2, Sec. A for part number. Dowel is pressed into cylinder block prior to hsg. installation. #2: The hsg. bore diameter is 409.58 with (12) M10-1.5 x 25 tapped holes on a 428.62 dia. bolt circle. The starter mtg. tapped holes are M10-1.50 x 30. The arm mtg. holes are 38.29 ± .19 diameter. #3: Sand cast version of rear cover is 3901018. #4: This plug is used to seal the access hole for Eng. Barring Gear 3904682. #5: 3903287 is the permanent mold P/N. It supersedes 3902431. #6: 3904087 is the development P/N for aluminum rear crank seal. #7: For service kit see 3904323.						

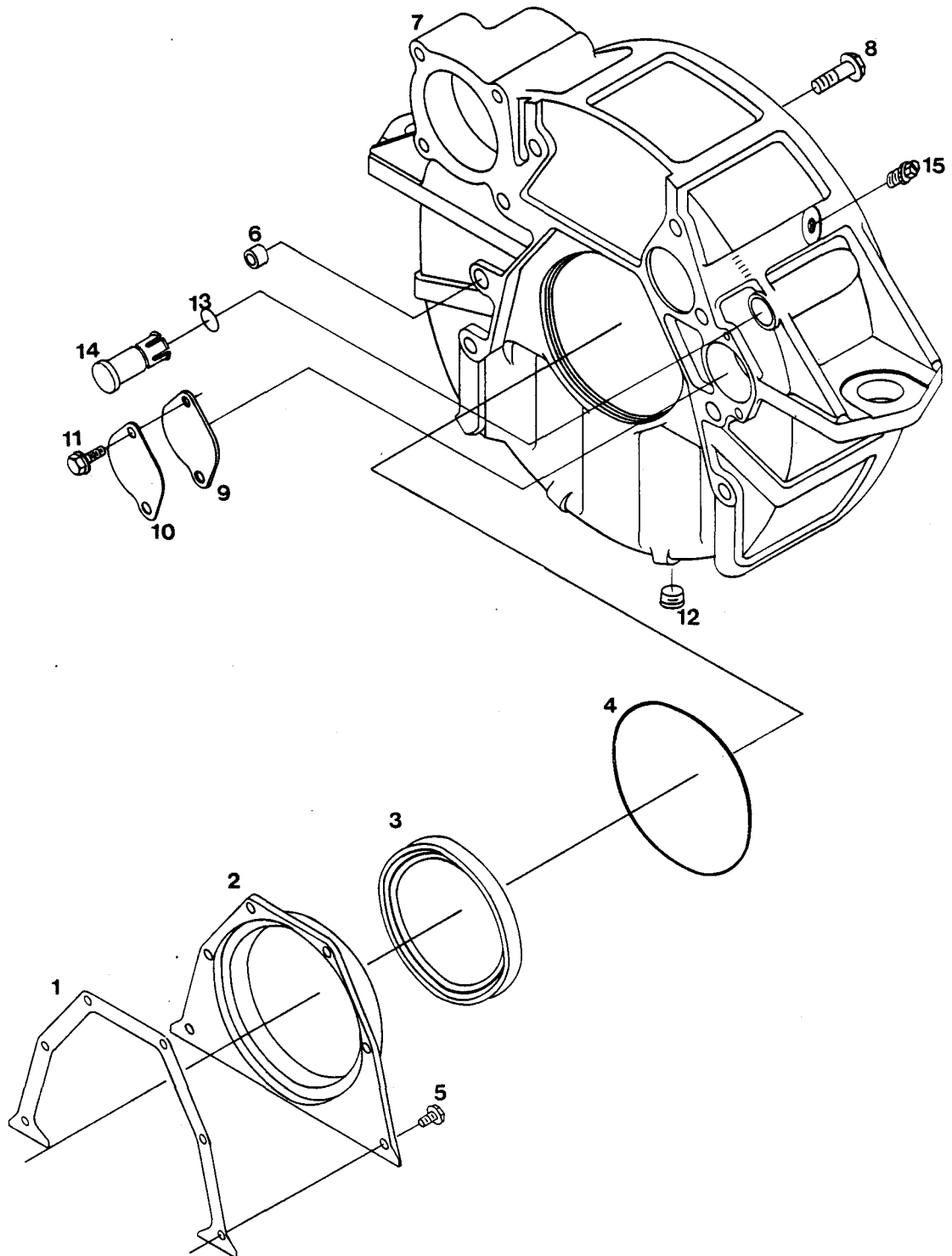
HOUSING, FLYWHEEL

S.A.E. 3

202

FH9009

WET



ITEM	PART NAME	QTY	PART NUMBER	ID CODE	REMARKS	TAB SHT
1	Gasket, Rear Cover	1	3901019	10	(.8 thick)	
1	Seal, Rear Crank	1	3906416	16		
2	Cover, Rear	1	3902674	10	(Die Cast)(Note #4)	2675
3	Seal, Rear Crank	1	3904090	15	(See Notes 7 & 8)	4173
4	"O" Ring	1	3901397	15	158.12 dia. x 533	830
5	Screw, Hex Head Cap	6	3900627	15	M6-1.00 x 14 (flg)	638
6	Dowel, Ring				(See Note #1)	
7	Housing, Flywheel	1	3903287	10	Arm Mount (Notes 2 & 6)	
8	Screw, Hex Head Cap	8	3901408	15	M12-1.75 x 40 (flg).	638
9	Gasket, Cover Plate	1	3902734	10	2.40 thk(24060)(Note #3)	
10	Plate, Cover	1	3901399	10	3.18 thick	
11	Screw, Self Tap Metal	2	3902735	15	M8-1.25 x 21.0	
12	Plug, Pipe	1	3008469	15	.75" NPTF	3008240
13	Seal, "O" Ring	1	3904469	10		830
14	Plug, "O" Ring	1	3904470	10	See Note #5	
15	Plug, Threaded (Plastic)	1	3904181	15	3/4-16UNF	
Note 1: Item #6 is listed for reference only (see Page 2, Sec. A for part number. Dowel is pressed into cylinder block prior to hsg. installation. #2: The hsg. bore diameter is 409.58 with (12) M10-1.5 x 25 tapped holes on a 428.62 diameter bolt circle. The starter mtg. tapped holes are M10-1.50 x 30. The arm mtg. holes are 38.29 ± .19 diameter. #3: Apply liquid gasket at the block to flywheel housing and starter to flywheel housing mating surfaces in assembly. #4: Sand cast version of rear cover is 3901018. #5: This plug is used to seal the access hole for Eng. Barring Gear 3904682. #6: 3903287 is the permanent mold P/N. It supersedes 3902431. #7: 3904087 is the development P/N for aluminum rear crank seal. #8: For service kit see 3904354						

