DETROIT DIESEL

SERIES 40

Parts Catalog

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INTRODUCTION

FINDING A PART

When locating a part and the part number is not known, refer to the alphabetical index beginning on page 75. If a part number is known, use the numerical index beginning on page 65 to find the page where the part is listed.

LOCATING A PART

Illustrations, in the form of exploded views, are provided to aid in locating and identifying parts. Parts illustrated are of typical parts and not necessarily detailed drawings. Reference numbers in the illustration represent each simple part, assembly, or group of parts with a list of parts following each illustration. Parts are listed in reference number order. The name of the part with descriptive information identifies the item. Parts not shown in the illustrations appear at the end of the list. Parts listed are for all applications unless otherwise noted.

PARTS LIST PRESENTATION

ASSEMBLIES: The component parts of assemblies are shown in the "exploded views" by use of boxes, brackets, or arrows. Component parts of assemblies are listed by one of the following methods:

1. The listings are fully covered by descriptions for simple assemblies.
2. When four or more parts are contained in the assemblies, the listing of components immediately follows the description with the wording "Includes."
3. Assemblies consisting of many parts show the assembly number at the beginning of the list, followed by the listing of the components.

The quantity of each item is shown in parenthesis following the description of the item. The quantity represents the number of items required per engine, unless otherwise specified. If no quantity is shown, one (1) unit is required.

The complete assembly must be ordered when individual parts of an assembly are not available. These parts are shown with the symbol §.

ENGINE SERIAL NUMBERS

The engine serial number is stamped on a pad located on the upper left hand side of the engine block, left of the fuel filter header.

Only the sequence number of the complete engine serial number will be listed in this catalog to identify parts unless otherwise specified.

DESIGNATIONS OF PARTS

Throughout this catalog, the term "Front" indicates the fan end. Whenever the terms "Right" or "Left" are used, it is from a rear position looking toward the fan end.

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LIST OF HARDWARE ABBREVIATIONS

A period after the abbreviation is used only when the abbreviation form spells a common English word.

AL ..... Aluminum
B/HD ..... Binding Head
B/HDS ..... Binding Head Slotted
BLE ..... Black Enamel
BRS ..... Brass
BRZ ..... Bronze
BUT/HD ..... Button Head
C/HD ..... Countersunk Head
C/PT ..... Cup Point
C/R ..... Cross Recess
C/S ..... Cold Squeezing
CAD ..... Cadmium
CHAMF STR ..... Chamfered Straight
CL ..... Center Line Dimension
CLD ..... Coiled
CO/PT ..... Cone Point
COP ..... Copper
COT ..... Cotter
CRB ..... Chrome Bright
CRG ..... Carriage
CTSK ..... Countersunk
D ..... Degree
D/PT ..... Dog Point
DLD ..... Drilled
EF ..... Extra Fine Thread
ESC ..... Escutcheon
EXT ..... External
F/HD ..... Flat Head
F/HDCR ..... Flat Head Cross Recess
F/HDS ..... Flat Head Slotted
F/PT ..... Flat Point
F/T ..... Full Tubular
FIL/HD ..... Fillister Head
FIL/HDCR ..... Fillister Head Cross Recess
FIL/HDS ..... Fillister Head Slotted
FIN-NK ..... Fin Neck
FLG ..... Flange
FT/HDCR ..... Flat Trim Head Cross Recess
GA ..... Gauge
GR/DR ..... Groove Drive
H/HD ..... Hexagon Head
H/HDS ..... Hexagon Head Slotted
H/SHD ..... Hexagon Socket Head
H/WHD ..... Hexagon Washer Head
HD ..... Head
HDAT ..... Half Dog Point
HDL/HS ..... Headless Hex Socket
HDL/S ..... Headless Slotted
HDN ..... Hardened
HI-CROWN ..... High Crown
HV OR HVY ..... Heavy
INT ..... Internal
LT ..... Light
LHT ..... Left Hand Thread
LHTW ..... Left Hand Twist
L/W ..... Lockwasher
MACH ..... Machine
MED ..... Medium
NIB ..... Nickel Bright
NID ..... Nickel Dull
NF ..... National Fine Thread
NO.OR # ..... Number
N/P ..... Nylon Pellets
O/HD OR OV-HD ..... Oval Head
O/HDCR ..... Oval Head Cross Recess
O/HDS ..... Oval Head Slotted
O/PT ..... Oval Point
O/S ..... Oversized
OT/HDCR ..... Oval Trim Head Cross Recess
P/HD ..... Pan Head
P/HDCR ..... Pan Head Cross Recess
P/HDS ..... Pan Head Slotted
PAT/HD ..... Patent Head
PHC ..... Phosphate Coated
PLN ..... Plain
PT ..... Point
P/T ..... Pre-Torque
PJTN ..... Projection
PRG ..... Prong
R ..... Rolled Thread
R/HD ..... Round Head
R/HDCR ..... Round Head Cross Recess
R/HDS ..... Round Head Slotted
R/P ..... Rustproof
REG ..... Regular
RET ..... Retaining
RIB ..... Ribbed
B/D ..... Self Drilling
S/T ..... Semi-Tubular
SLT ..... Slotted
SLT SPR ..... Slotted Spring
SOL ..... Solid
SPR ..... Spring
SQ END STR ..... Square End Straight
SQ ..... Square
SQ/H ..... Square Hole
SQ/HD DR SQ-HD ..... Square Head
SQ/NK ..... Square Neck
SS OR SST ..... Stainless Steel
STD/HD ..... Standard Head
STL ..... Steel
STR ..... Straight
TAP ..... Tapping
T/HD ..... Truss Head
T/HDCR ..... Truss Head Cross Recess
T/HDS ..... Truss Head Slotted
TUBE ..... Tubular
UNA ..... Unannealed
UHDN ..... Unhardened
U/HD ..... Universal Head
U/S ..... Undersized
W/ ..... With
X.DTY ..... X-Duty
ZNP ..... Zinc Plated

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1 SERVICE ENGINE ASSEMBLIES

1.1 SKELETON SERVICE ENGINE (SHORT BLOCK)

Includes:

- CAMSHAFT
- CAMSHAFT GEAR
- BEARINGS AND IDLER GEAR
- CONNECTING RODS AND BEARINGS
- PUSH RODS AND TAPPETS
- PISTONS AND RINGS
- BLOCK, MAIN BEARING CAPS AND PISTON COOLING JETS
- CRANKCASE FRONT COVERS, GASKETS AND RELIEF VALVE
- CYLINDER LINERS AND O-RINGS
- CRANKSHAFT AND BEARINGS
- CRANKSHAFT GEAR
- OIL PUMP SPLINE
- LUBE OIL PUMP
- INJECTION PUMP DRIVE GEAR AND GEAR COVER

SKELETON SERVICE ENGINE*	PART NO.
7.6L (Below 275 hp; except 250 hp @ 1500 r/min	1 822 449 C91
7.6L (250 hp @ 1500 r/min and 275 hp)	1 822 448 C91
8.7L	1 822 450 C91

* Does not include vibration damper, oil seals and carrier, cylinder head, valves, rocker arms, valve cover, oil pan, oil filter, oil pressure regulator valve, oil cooler and piping, breather tube, or water pump.

1.2 STRIPPED SERVICE ENGINE (TRUCK APPLICATIONS ONLY) (LONG BLOCK)

Includes:

- **SKELETON ENGINE**
- VIBRATION DAMPER
- OIL SEALS AND CARRIER
- CYLINDER HEAD
- VALVES
- ROCKER ARMS
- VALVE COVER
- OIL PAN
- OIL FILTER
- OIL PRESSURE REGULATOR VALVE
- OIL COOLER AND PIPING
- WATER PUMP
- BREATHER TUBE

STRIPPED SERVICE ENGINE ASSEMBLY (Truck Applications Only)	PART NO.
7.6L (195, 210, 230 hp and 250 hp)	1 822 451 C91
7.6L (275 hp)	1 823 387 C91
8.7L	1 822 452 C91

NOTE:
When ordering either a skeleton or stripped Service Engine, give complete serial number (including letters and numerals) shown on crankcase of engine to be replaced.

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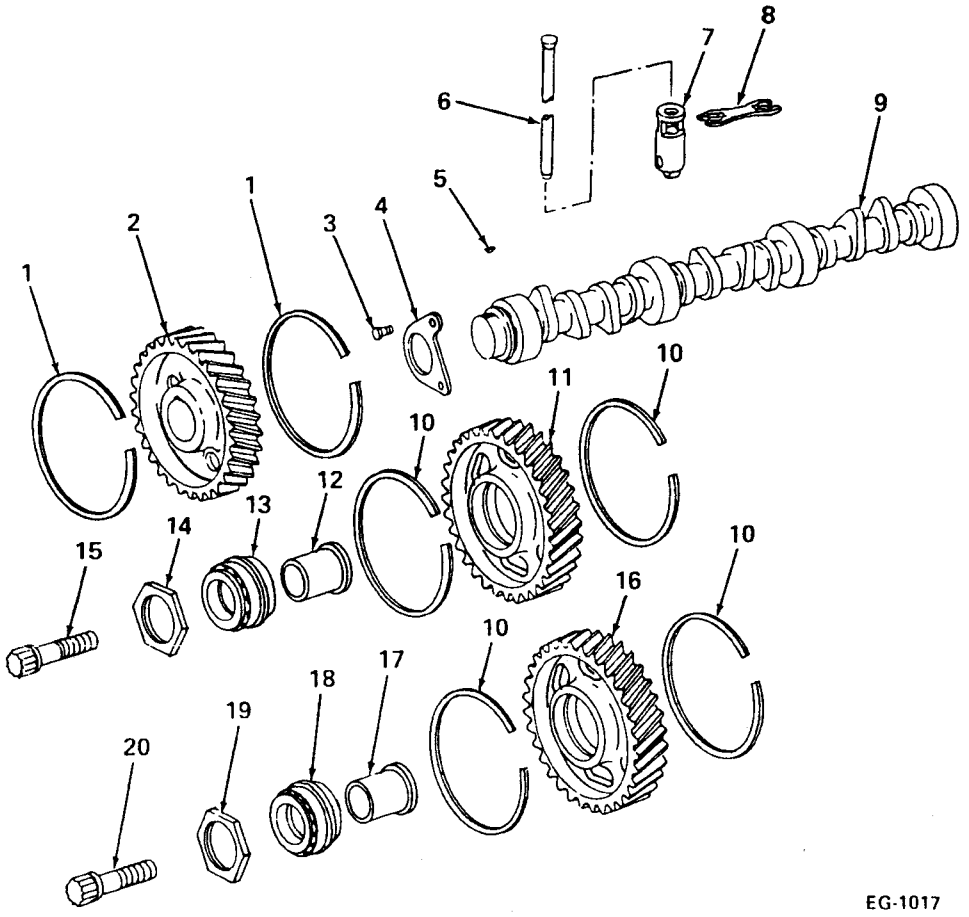
2 CAMSHAFT, IDLER GEARS AND RELATED PARTS



EG-1017

REF. NO.	PART NUMBER		DESCRIPTION
1	1 819 591	C1	RING, camshaft gear retaining (2)
2	1 820 853	C92	GEAR w/two RINGS, camshaft (56 teeth)*
3	1 817 956	C1	BOLT, FLANGE, SPECIAL (2)
4	1 817 545	C1	PLATE, camshaft thrust
5	218 211		KEY, 1/4 x 3/4 woodruff 91
6	1 809 589	C1	ROD, valve push (12)
7	1 809 570	C1	TAPPET, valve roller (12)
8	1 813 892	C1	GUIDE, roller tappet (6)
9	1 820 850	C93	CAMSHAFT Assy (Includes No. 2, 4, 5 & 9)
10	1 819 590	C1	RING, lower/upper idler gear (4)
11	1 820 276	C4	GEAR, upper idler (68 teeth)
12	1 820 277	C1	SHAFT, upper idler gear
13	1 820 383	C91	BEARING, upper idler gear
14	1 820 278	C1	NUT, upper idler shaft
15	1 820 287	C1	BOLT, upper idler gear shaft
16	1 820 298	C3	GEAR, lower idler (68 teeth)
17	1 820 294	C1	SHAFT, lower idler gear
18	1 818 614	C91	BEARING, lower idler
19	1 820 301	C1	NUT, lower idler shaft
20	40 055	R1	BOLT, lower idler gear

* **Engines 250 hp and above:** When replacing camshaft gear, check part number stamped on gear. If Part Number 1 823 345 C1 is being replaced, **order complete Camshaft w/Gear Assy; refer to item 9.**

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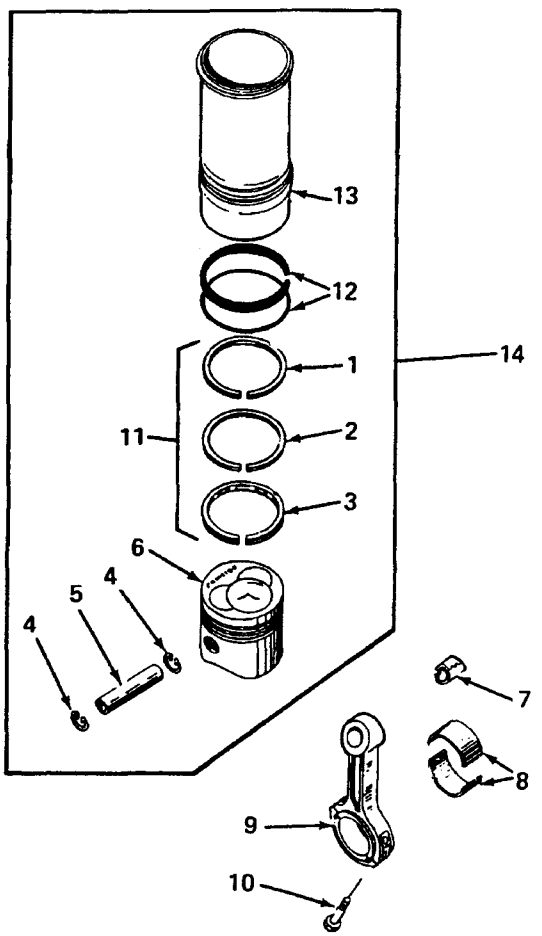
3 CONNECTING ROD, PISTON AND LINER



EG·1026

REF. NO.	PART NUMBER		DESCRIPTION
1			RING, piston (Top compression) (Not furnished separately; refer to items 11 and14.) (6)
2			RING, piston (2nd compression) (Not furnished separately; refer to items 11 and14.) (6)
3			RING, piston (Oil regulating) (Not furnished separately; refer to items 11 and 14.) (6)
4	1 818 702	C1	RETAINER, piston pin (12)
5	1 818 552	C1	PIN, piston (6)
6			PISTON (6)
	1 822 201	C2	**7.6L, below 275 hp; except 250 hp @ 1500 r/min**
	1 822 097	C2	**7.6L, 250 hp @ 1500 r/min, 275 hp**
	1 822 098	C2	**8.7L**
7	1 818 598	C1	BUSHING, piston pin (6)
8			BEARING, connecting rod (2 halves) (6)
	1 822 389	C91	**STANDARD**
	1 822 486	C91	**.010 U/S**
	1 822 487	C91	**.020 U/S**
	1 822 488	C91	**.030 U/S**
9	1 818 597	C91	ROD and CAP w/two BOLTS,1 817 537 C1 and BUSHING, 1 818 598 C1, connecting (6)
10	1 817 537	C1	BOLT, connecting rod (12)
11			PACKAGE, piston ring* (Includes three rings.)
	1 817 247	C91	**7.6L**
	1 822 337	C91	**8.7L**
12	1 822 322	C91	PACKAGE, cylinder liner seal (Includes one SEAL RING and one O-RING.)*
13			LINER, cylinder (6)
	1 815 674	C1	**7.6L**
	1 815 648	C1	**8.7L**
14			PACKAGE, piston, liner and ring (Services one cylinder)*
	1 822 340	C92	**7.6L, below 275 hp; except 250 hp @ 1500 r/min**
	1 822 329	C92	**7.6L, 250 hp @ 1500 r/min; 275 hp**
	1 822 333	C92	**8.7L**

* As required.

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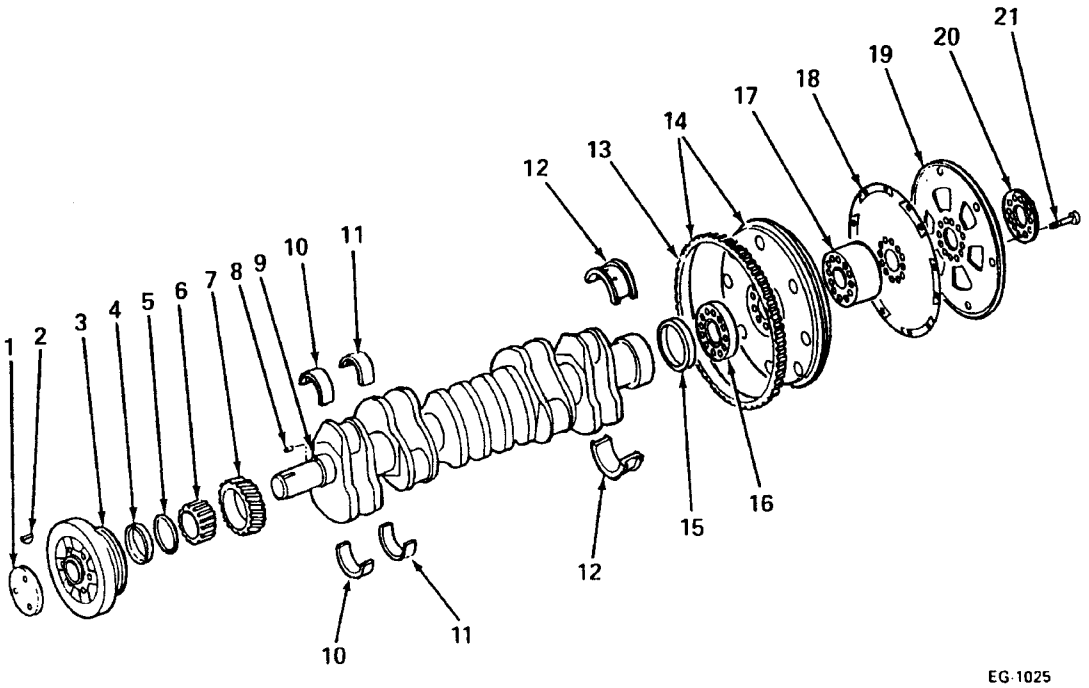
4 CRANKSHAFT, FLYWHEEL AND RELATED PARTS



REF. NO.	PART NUMBER		DESCRIPTION
1	675 412	C1	PLATE, damper retaining
	1 817 846	C1	BOLT, flange, special (3)
2	691 044	C1	KEY, vibration damper
3			DAMPER/PULLEY w/ LINER, vibration
	1 820 855	C91	**Except 8.7L 300 hp @ 2000 r/min**
	1 820 857	C91	**8.7L, 300 hp @ 2000 r/min**
4	675 861	C2	LINER, wear
5	687 024	C1	WASHER, seal
6	675 364	C1	SPLINE, oil pump drive (41 Teeth)
7	1 820 299	C1	GEAR, crankshaft (28 Teeth)
8	17 135	R1	PIN, roll 5/32 x 5/16 slotted
9	1 821 981	C91	CRANKSHAFT, assy **7.6L & 8.7L**
10			PACKAGE, crankshaft frt/inter bearings (Includes 2 halves.) (6)
	1 822 321	C91	**STANDARD**
	1 822 490	C91	**.010 U/S**
	1 822 491	C91	**.020 U/S**
	1 822 492	C91	**.030 U/S**
11			BEARING, connecting rod (Refer to section 3.)
12			PACKAGE, crankshaft rear bearing (Includes 2 halves.) (6)
	1 822 379	C91	**STANDARD**
	1 822 494	C91	**.010 U/S**
	1 822 495	C91	**.020 U/S**
	1 822 496	C91	**.030 U/S**
13			GEAR, flywheel ring
	1 820 983	C1	**SAE No. 1 Flywheel**
	1 815 440	C1	**SAE No. 2 Flywheel**
	1 820 982	C1	**SAE No. 3 Flywheel**

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CRANKSHAFT, FLYWHEEL & RELATED PARTS, Continued

REF. NO.	PART NUMBER	DESCRIPTION
14		FLYWHEEL w/RING GEAR
	1 821 915 C91	**Manual Trans 14 in. Flat Type Clutch**
	1 821 919 C91	**Manual Trans 14 in. Two Plate Pot Type Clutch**
	1 821 917 C91	**Auto Trans AT–545 and MT–640/650†**
	1 822 031 C91	**Manual Trans 16.5 in. Flat Type Clutch** (Must be used w/SAE No. 1 Flywheel Housing 1 821 034 C1.)
	1 822 033 C91	**Industrial Trans 11.5 in. Over Center Drive Ring Clutch** (Must be used w/SAE No. 2 Flywheel Housing 1 820 338 C1.)
	1 822 025 C91	**Industrial Trans 11.5 in. Over Center Drive Ring Clutch** (Must be used w/SAE No. 3 Flywheel Housing 1 821 971 C1.)
	1 822 027 C91	**Industrial Trans 14 in. Over Center Drive Ring Clutch** (Must be used w/SAE No. 1 Flywheel Housing 1 822 195 C1.)
	1 822 029 C91	**Clark Trans** (Must be used w/SAE No. 3 Flywheel Housing 1 821 971 C1.)
15	1 817 867 C91	PACKAGE, crankshaft rear oil seal* (Radial Lip) (Includes Seal, Wear Liner, and Installation Instructions.)
16		ADAPTOR, crankshaft to flexplate
	1 821 921 C1	**Auto Trans MT–654CR**
	1 822 594 C1	**World Trans (Auto)** (Replaces 1 821 959 C1.)
17	1 817 832 C1	ADAPTOR, flywheel **(Auto Trans AT–545)**
18	1 822 596 C1	FLEXPLATE **(World Trans, use w/item 19)** (Replaces 1 820 964 C1.)
19		FLEXPLATE
	1 817 831 C1	**Auto Trans AT–545**
	1 817 834 C1	**Auto Trans MT–640/650**
	1 819 540 C1	**Auto Trans MT–654CR**
	1 822 595 C1	(3 required) **World Trans, use w/item 18** (Replaces 1 820 965 C1.)
20	1 822 597 C1	RING, reinforcing **(Auto Trans)** (Replaces 1 817 833 C1.)
21		BOLT, flywheel (12)
	1 817 846 C1	**Manual Trans and Industrial, except as listed below**
	1 818 500 C1	**Auto Trans MT–640/650**
	1 819 499 C1	**Auto Trans AT–545**
	1 819 853 C1	**Auto Trans MT–654CR**
	1 820 302 C1	**World Trans (Auto)**
	1 823 991 C1	**Industrial Trans 11.5 in. Over Center Drive Ring (SAE No. 2)**

* Refer to Block Illustration for Oil Seal Carrier.

† For Flywheel used w/MT–654CR Auto Trans or World Trans, refer to Truck Parts Catalog.

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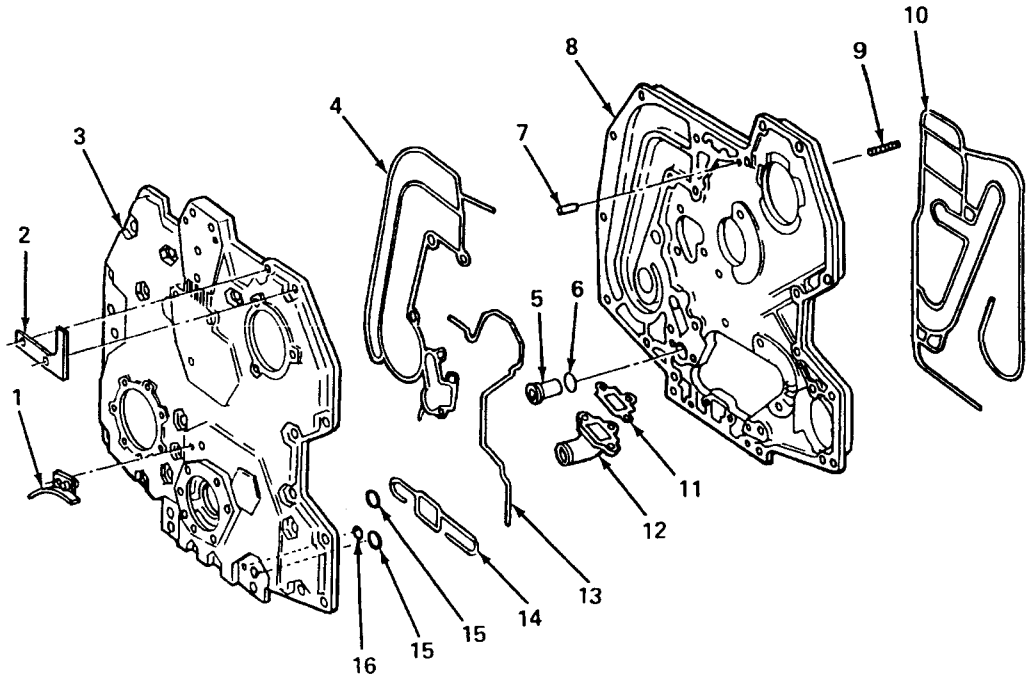
5 CRANKCASE FRONT COVER, WATER INLET AND RELATED PARTS



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REF. NO.	PART NUMBER		DESCRIPTION
1	1 820 446	C1	INDICATOR w/PIN, timing
	31 045	R1	BOLT, M6 x 16 mm hex flange
2	2 004 618	C1	BRACKET, charge air cooler pipe support (Mounted w/65 mm bolts listed w/item 3.)
3	1 817 482	C2	COVER, crankcase front (front half) (Also refer to section 6, hdw. listed w/Alternator Bracket.)
	1 818 230	C1	BOLT, flange, special (65 mm) (2)
	1 817 960	C1	BOLT, flange, special (M8 x45 mm) (6; except 7 used w/o Alternator Bracket.)
	1 821 646	C1	BOLT, flange, special (M10 x 45 mm)*
	1 817 959	C1	BOLT, flange, special (40 mm) (4)
	1 817 958	C1	BOLT, flange, special (30 mm) (6)
	1 817 957	C1	BOLT, flange, special (25 mm)
3	1 817 961	C1	BOLT, flange, special (90 mm)*
	1 822 476	C1	BOLT, flange, special (50 mm) (2)*
	40 050	R1	NUT, M8 hex flange (8; except 9 used w/o Alt Brkt.)
	31 083	R1	NUT, M10 hex flange (3)*
4	1 818 717	C2	GASKET, front cover (oil pressure)
5	1 818 419	C3	VALVE ASSY, relief Includes:
			§1 Housing
			§1 Ring
			§1 Spring
			§1 Valve
			§1 Washer
6	1 820 907	C1	O–RING, relief valve
7	1 820 813	C1	DOWEL, front cover (rear half) (4)

* For use w/o Alternator Bracket.

§ Not furnished separately.

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CRANKCASE FRONT COVER, WATER INLET AND RELATED PARTS, Continued

REF. NO.	PART NUMBER		DESCRIPTION
8	1 817 611	C93	COVER, crankcase front (rear half) (Includes items 7 and 9.)
	1 822 121	C2	BOLT, flange, special (9)
9	1 818 601	C1	STUD, front cover (rear half) (for mounting injection pump) (4)
10	1 820 416	C2	GASKET, front cover to crankcase
11	1 817 974	C1	GASKET, water inlet elbow
12			INLET, water
	2 003 467	C1	**Except FC Bus**
	2 200 049	C1	**FC Bus**
	1 817 958	C1	BOLT, flange, special (3)
	444 636		PLUG, 3/4 – 14 NPT (for use w/inlet 2 200 049 C1)
13	1 820 438	C1	O–RING, front cover (Cut to fit; refer to Engine Service Manual.)
14	1 818 716	C2	GASKET, front cover (oil suction)
15	1 820 877	C1	O–RING, front cover (2) (1.068 in. O.D.)
16	1 820 878	C1	O–RING front cover (.630 in. O. D.)
	446 839	C1	GASKET, liquid
			GASKET SET, front cover (Refer to the Alphabetical Index.)

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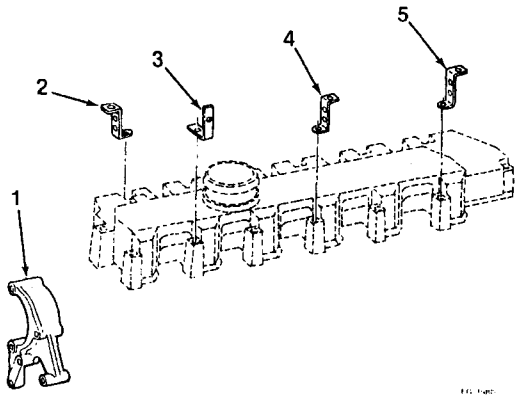
6 ALTERNATOR BRACKET AND ENGINE WIRING HARNESS CLIPS ‡



REF. NO.	PART NUMBER		DESCRIPTION
1			BRACKET, alternator
	1 822 041	C1	**For use w/Delco 21–SI Alternator**
	1 822 040	C1	**For use w/Delco CS–130 Alternator**
	1 822 039	C1	**For use w/Leece Neville Alternator**
	1 822 252	C1	**For use w/Lucas Alternator**
	1 820 916	C1	BOLT, flange, special (70 mm) (2)†
	1 817 993	C1	BOLT, flange, special (80 mm)*
	1 822 018	C1	BOLT, flange, special (90 mm)*
	1 817 962	C1	BOLT, flange, special (M8 x 100 mm)†
1	1 818 712	C1	BOLT, flange, special (M10 x 100 mm)†
	1 818 693	C1	BOLT, flange, special (110 mm)*
	1 820 590	C1	BOLT, flange, special (120 mm)*
	31 083	R1	NUT, M10 hex flange (3)
	40 050	R1	NUT, M8 hex flange
2	2 002 176	C1	CLIP, extension
	27 326	R1	WASHER, 5/16 hardened
	40 050	R1	NUT, M8 hex flange
3	275 182	C1	CLIP, extension§ (Mounted w/valve cover hardware; refer to section 14.)
4	2 002 176	C1	CLIP, extension§ (Mounted w/valve cover hardware; refer to section 14.)
5			CLIP, extension§
	2 002 176	C1	**Except Reverse Rotation Inj Pump applications**
	1 822 168	C1	**Reverse Rotation Inj Pump applications** (Mounted w/valve cover hardware; refer to section 14.)

* Not Used w/Lucas Alternator.

† Used w/Lucas Alternator.

§ Applications using Lucas Alternator, refer to OEM Parts Catalog for Harness Clips.

‡ Refer to Truck or OEM Parts Catalog for Engine Wiring Harness and Alternator.

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7 ALTERNATOR, PULLEY, CRANKING MOTOR AND MAIN DRIVE BELTS

REF. NO.	PART NUMBER		DESCRIPTION
			ALTERNATORS*
1	677 974	C92	**21 SI 12V 100A** (Delco Part No. 1117950)
1	516 002	C91	**21 SI 24V 70A** (Delco Part No. 1117900)
			PULLEY, alternator
1	821 923	C1	**Lucas** (Refer to OEM Parts Catalog for hardware.)
1	815 421	C1	**Except Lucas**
	25 296	R1	BOLT, 1/2–13 x 6–1/2
	25 526	R1	NUT, 1/2–13
	26 273	R1	WASHER, 1/2 hardened
	24 868	R1	BOLT, 1/2–13 x 4
			CRANKING MOTORS*
			Standard
1	654 386	C91	**12V 37MT** (Delco Part No. 1993874)
1	822 094	C91	**24V 37MT** (Delco Part No. 1993920)
			Heavy Duty
1	614 303	C91	**12V 42MT** (Delco Part No. 1990406)
	573 484	C91	**24V 42MT** (Delco Part No. 1990344)
	24 863	R1	BOLT, 1/2 NC x 1–3/4 hex–hd (3)
	120 384		WASHER, 1/2 lock (3)

REF. NO.	PART NUMBER		DESCRIPTION
			BELTS (V–Ribbed, 8 Groove)
1	819 392	C1	71.4 in. (1814 mm)
1	682 692	C1	71.9 in. (1827 mm)
1	822 503	C1	72.5 in. (1842 mm)
1	819 391	C1	72.9 in. (1852 mm)
1	682 696	C1	73.7 in. (1872 mm)
1	822 500	C1	74.0 in. (1880 mm)
1	819 988	C2	74.7 in. (1897 mm)
1	682 697	C1	76.0 in. (1930 mm)
1	820 547	C2	77.4 in. (1966 mm)

* Refer to Delco for Component Service Parts.

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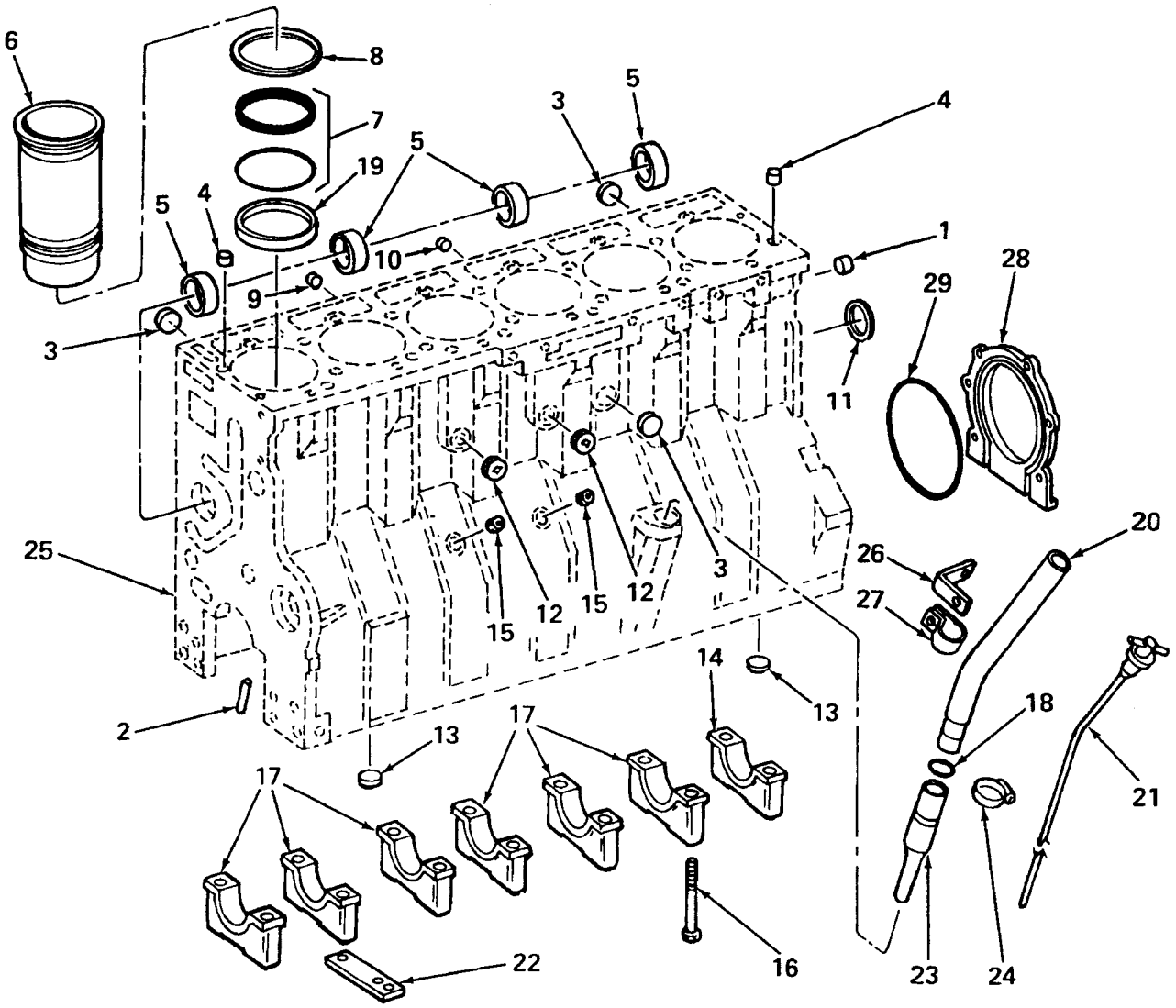
8 CYLINDER BLOCK, OIL LEVEL GAUGE AND RELATED PARTS



EG-1024

REF. NO.	PART NUMBER		DESCRIPTION
1	327 412	R1	PLUG, cup 13/16
	or		
1	373 553	R1	PLUG, cup 7/8 O/S*
2	343 464	R1	TUBE, oil jet cooling (12)
3	23 623	R1	PLUG, cup 1–1/4 (3)
4	684 902	C1	DOWEL, bushing (2)
5	680 117	C2	BEARING SET, camshaft
6			LINER (Refer to Connecting Rod and Piston, section 3.)
7			PACKAGE, cylinder liner seal ring (Refer to Connecting Rod and Piston section 3.)

* As required.

CYLINDER BLOCK, OIL LEVEL GAUGE AND RELATED PARTS, Continued

REF. NO.	PART NUMBER		DESCRIPTION
8	1 823 356	C91	PACKAGE, cylinder liner shim* Includes: §1 Shim (.010) §1 Shim (.020) §2 Shim (.002) §2 Shim (.004) §2 Shim (.032)
9	444 691		PLUG, 1/4 NPT hex socket pipe
10	50 410	DA	PLUG, 1/8 NPT hex socket pipe (7)
11	682 444	C1	RING, camshaft seal (rear)
12	445 751		PLUG, 1/2 NPTF sq–socket pipe (2)
13	327 411	R1	PLUG, cup 5/8 (2)
14			CAP, main bearing rear (Not furnished separately; part of Block Assembly.)
15	444 687		PLUG, 1/8 NPT hex–socket pipe (2)
16	1 817 356	C1	BOLT, flange, main bearing cap (14)
17			CAP, main bearing front and inter. (6) (Not furnished separately; part of Cylinder Block Assembly.)
18	1 812 559	C1	SEAL, oil level gauge tube
19			INSERT, block* (Part No. not yet available)
20			TUBE, oil filler **(Not for Gensets or Industrial Applications; use item 23.)**
	691 848	C1	**Except Amtran Bus**
	1 822 087	C1	**Amtran Bus**
21			GAUGE, oil level
	1 820 953	C2	**Rear Sump Pan except Amtran Bus, Gensets and Industrial Applications**
	1 821 907	C2	**Rear Sump Pan Amtran Bus**
	1 820 396	C2	**Front Sump Pan except Gensets and Industrial Applications**
	1 823 260	C1	**Front, Rear and Center Pans Gensets and Industrial**
22	673 761	C2	BRACKET, oil inlet tube support (For use w/front or center sump oil pan.)
23	691 846	C1	TUBE, oil level gauge
24	690 835	C1	CLAMP, tube
25	1 820 852	C91	CYLINDER BLOCK ASSEMBLY (Includes items 1 – 5, 9,10 and 12 – 17) **(Also order RING, Camshaft Rear Seal, 682 444 C1)**
26	1 822 134	C1	BRACKET, oil filler tube **(Amtran Bus; all other applications, refer to Truck Parts Catalog.)**
27	27 902	R1	CLAMP, oil filler tube **(Amtran Bus; all other applications, refer to Truck Parts Catalog.)**
	1 817 956	C1	BOLT, flange, special
	40 050	R1	NUT, M8 hex flange
28	1 815 699	C2	CARRIER, rear oil seal †
	1 817 958	C1	BOLT, flange, special (6)
29	1 819 234	C1	O–RING, rear oil seal carrier
			GASKET SET,‡ cylinder block (Refer to the Alphabetical Index.)

* As required.

† Refer to section 4 for rear oil seal.

§ Not furnished separately.

‡ Parts not illustrated.

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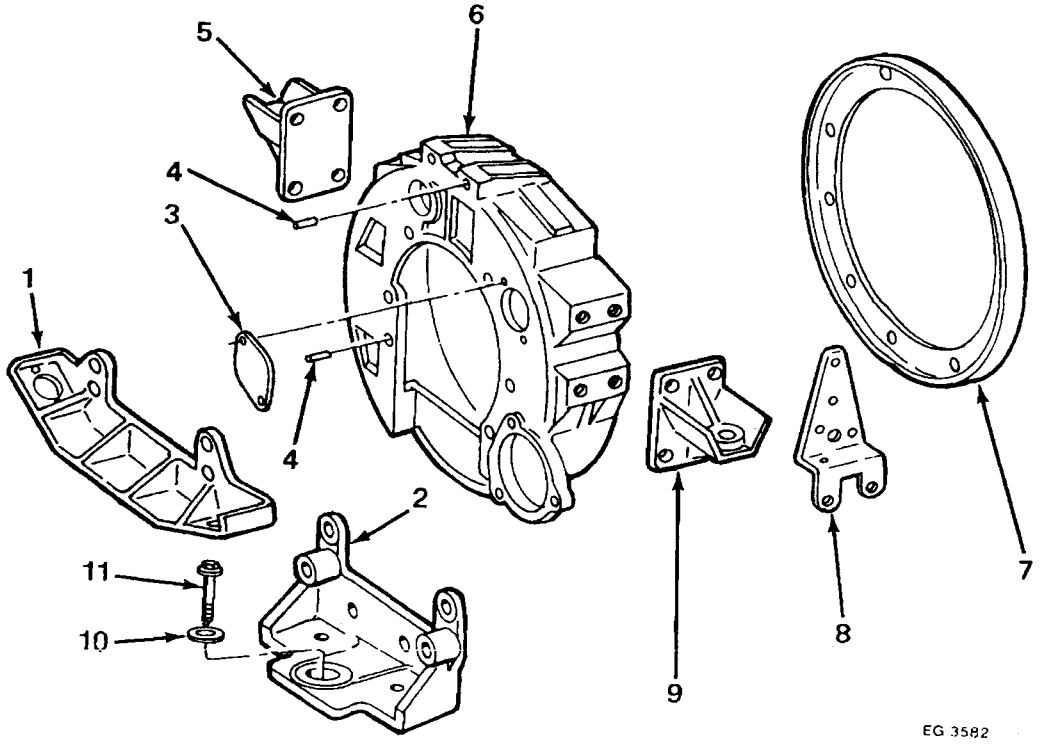
9 FLYWHEEL HOUSING AND ENGINE MOUNTING



REF. NO.	PART NUMBER	DESCRIPTION
1	1 678 077 C1	BRACKET, engine mounting front **(Truck except FC BUS)**
	1 817 860 C1	BOLT, flange, special (Upper Hole) (2)
	1 820 392 C1	BOLT, flange, special (Lower Hole) (2)
2		BRACKET, engine mounting front
	2 200 135 C1	**FC Bus** (Replaces 2 006 355 C1)
	1 822 183 C1	**Industrial*** (Single Point Mount)
	1 817 860 C1	BOLT, flange, special (Upper Hole) (2)
	1 820 392 C	BOLT, flange, special (Lower Hole) (2)
3		PLATE, housing cover
	686 702 C1	**Except SAE No. 2 housing for MT–654 CR Trans**
	1 815 597 C1	**SAE No. 2 housing for MT–654 CR Trans**
	1 817 953 C1	BOLT, flange, special (2)
4	1 822 086 C1	DOWEL, hollow (2)
5		BRACKET, engine mounting rear (RH side)
	1 664 750 C2	**Truck except SAE No. 2A housing for FC Bus**
	1 680 023 C1	**SAE No. 2A housing for FC Bus**
	1 817 852 C1	BOLT, flange, special (4)

* FC Bus Bracket illustrated. Industrial Bracket similar.

FLYWHEEL HOUSING AND ENGINE MOUNTING, Continued

REF. NO.	PART NUMBER	DESCRIPTION
6		Housing, flywheel
	1 820 341 C3	**SAE No. 1 (Truck)**
	1 821 034 C1	**SAE No. 1 (Industrial, for use w/Flywheel 1 822 031 C91)**
	1 822 195 C1	**SAE No. 1 (Industrial, for use w/Flywheel 1 822 027 C91)**
	1 820 338 C1	**SAE No. 2 (except MT 654–CR Trans)**
	1 819 957 C1	**SAE No. 2 (MT 654–CR Trans)**
	1 817 951 C1	**SAE No. 2A (FC Bus)**
	1 821 971 C1	**SAE No. 3 (Industrial and Clark Trans for use w/Flywheel 1 822 025 C91 or 1 822 029 C91)**
	1 820 606 C1	BOLT, flywheel housing (8)
7	1 814 818 C1	ADAPTOR, flywheel housing (**SAE No. 2 housing for MT–654 CR Trans)**
	21 327 R1	SCREW 5/16 NC x 1–1/4H/SHD ZNP (2)
8		BRACKET,tube/pipe support
	2 024 990 C1	**Truck, SAE No. 1 housing for Air Pipe** (Replaces 2 006 807 C1)
	2 024 992 C1	**Truck, SAE No. 1 housing for trans fill tube** (Replaces 2 006 808 C1)
9		BRACKET, engine mounting rear (LH side)
	1 664 749 C2	**Truck, except SAE No. 2 housing for FC Bus**
	1 680 023 C1	**SAE No. 2A housing for FC Bus**
	1 817 852 C1	BOLT, flange, special (4)
10	1 664 726 C2	INSULATOR, snubber **(FC Bus)**
11	414 084 C1	BOLT, insulator **(FC Bus)**

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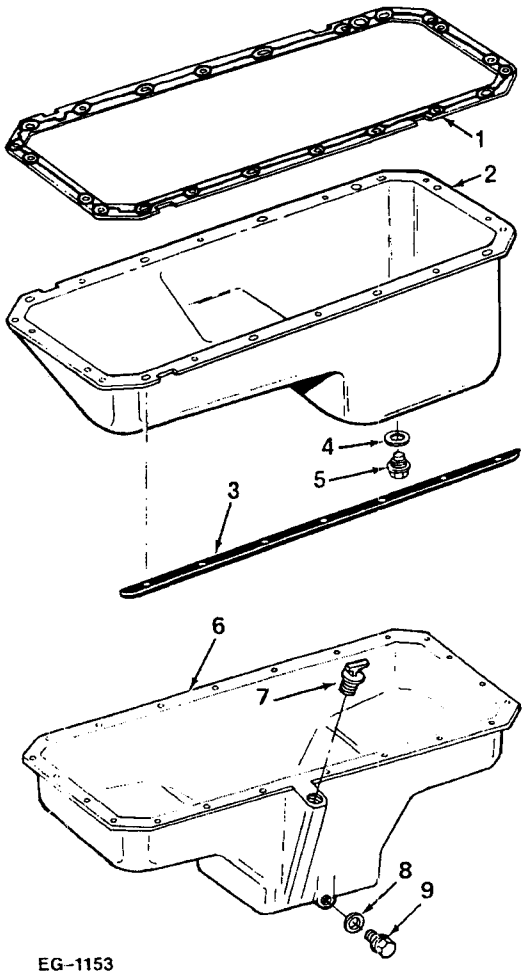
10 OIL PAN



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REF. NO.	PART NUMBER		DESCRIPTION
1			GASKET, oil pan
	1 822 049	C1	**For pan using mounting bars**
	1 816 593	C1	TUBE, liquid 1.5 oz. (Order as required.) **For pan not using mounting bars**
2			PAN ASSY, oil* (Includes items 4 & 5.) **Replaces Pan Assy 1 819 018 C93; Engine SN 875522 and below; order the following parts:†**
	1 823 278	C91	1 PAN
	1 823 281	C1	8 BOLT
	1 823 275	C1	14 BOLT
	1 822 523	C1	2 BAR
	1 822 049	C1	1 GASKET
	1 823 281	C1	BOLT, flange, special (8, front/rear mtg.) **For pan using mounting bars**
	1 823 275	C1	BOLT, flange, special (14, side mtg.) **For pan not using mounting bars**
	1 817 812	C1	BOLT, flange, special (22) **For pan not using mounting bars**
3	1 822 523	C1	BAR, oil pan mounting (2) **Eng. SN 875523 and above**
4	1 822 054	C1	GASKET, drain plug
5	1 822 053	C1	PLUG, magnetic, drain
6	1 821 978	C1	PAN, oil **(Center Sump–High Gradeability)** (Order drain plug and gasket separately.)
	1 817 957	C1	BOLT, flange, special (25 mm) (14)
	1 817 959	C1	BOLT, flange, special (40 mm) (8)
7	1 822 021	C1	PLUG, oil level gauge sealing
8	59 658	D	GASKET, drain plug (2)
9	113 933	H	PLUG, magnetic, drain (2)

* Oil pan is used for **either front or rear Sump**. Refer to Engine Service Manual for positioning.

† If rear oil seal carrier is removed also, order new **Carrier 1 815 699 C2** and refer to Engine Service Manual for instructions.

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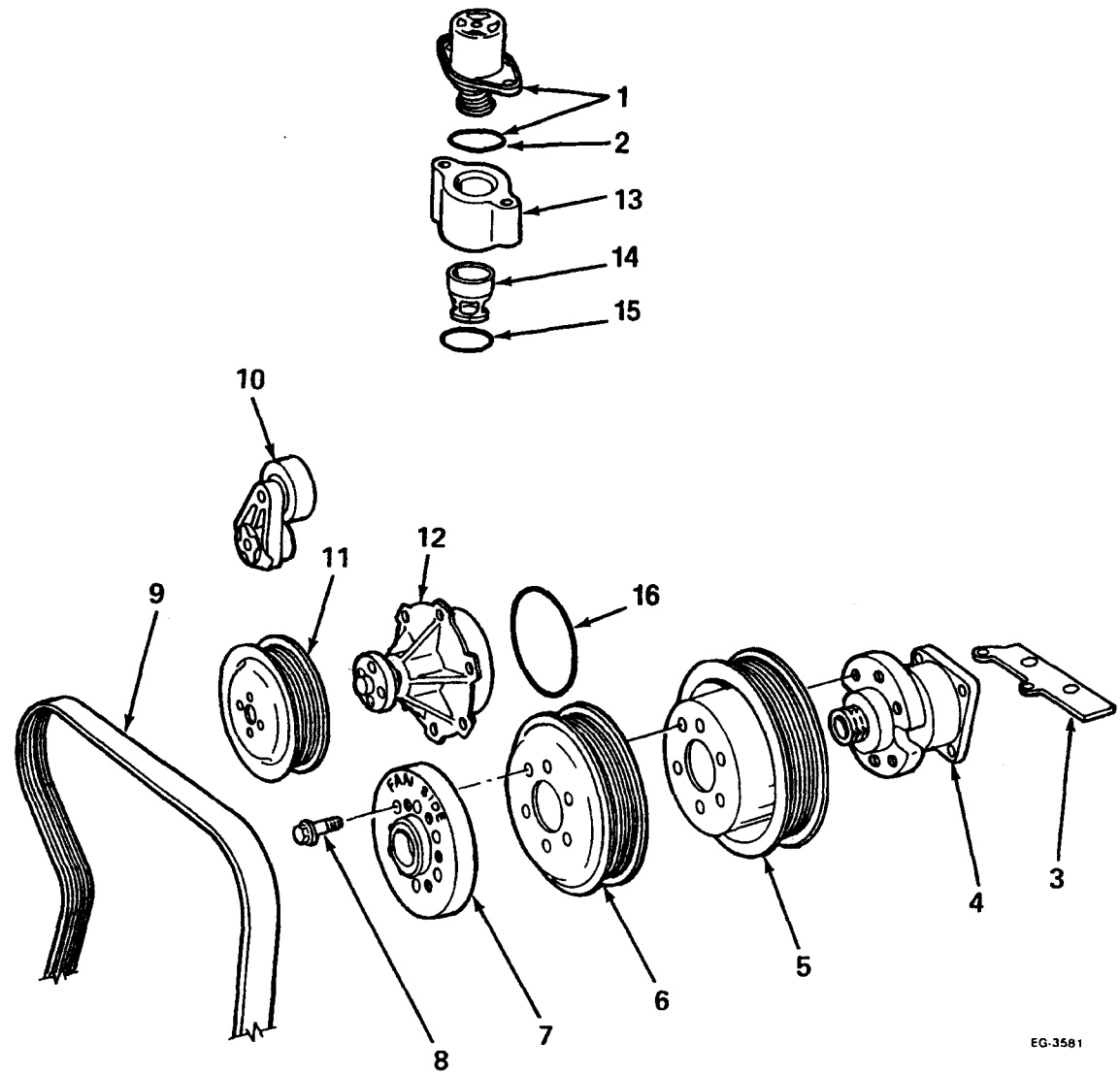
11 FAN DRIVE, THERMOSTAT AND WATER PUMP



REF. NO.	PART NUMBER	DESCRIPTION
1	1 822 575 C91	PACKAGE, thermostat and O–ring, water inlet 177°–182° F(80.6° – 83.3° C); Start to Open
		BOLT, flange, special (2)
	1 817 812 C1	**For use w/o bypass housing**
	1 817 962 C1	**For use w/bypass hsg.**
2	1 820 951 C1	O–RING, special, thermostat
3	1 822 016 C1	BRACKET, fan mounting support **(For use w/18.3 in. Fan Center)**
	1 817 956 C1	BOLT, flange, special (20 mm) (2)
	1 818 236 C1	BOLT, flange, special (30 mm) (2)

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FAN DRIVE, THERMOSTAT AND WATER PUMP, Continued

REF. NO.	PART NUMBER	DESCRIPTION
4		BRACKET w/HUB, fan mounting Includes:
		§1 BEARING
		§1 HOUSING
		§1 BOLT
		§1 HUB
		§1 RETAINER
	1 822 005 C91	**15.1 in. Fan Center (Fan Dia. up to 26 in.)**
	1 822 050 C91	**15.1 in. Fan Center (Fan Dia. greater than 26 in.)**
	1 822 051 C91	**18.3 in. Fan Center***
	1 817 958 C1	BOLT, flange, special (2, Upper Bolts) **15.1 in. Fan Center**
	1 818 230 C1	(2, Lower Bolts) **15.1 in. Fan Center**
	1 817 978 C1	(3) **18.3 in. Fan Center**
5		PULLEY, fan (Refer to item 8 for mounting harware.)
	1 820 308 C1	**1.08:1 Fan Ratio**
	1 818 607 C1	**1.2:1 Fan Ratio**
	1 820 309 C1	**1.3:1 Fan Ratio**
6	1 820 224 C1	PULLEY, freon drive (Refer to item 8 for mounting hardware.)
7	1 820 823 C1	SPACER, fan **(Bolt On Fan Drive)** (refer to item 8 for mounting hardware.)
8		BOLT, flange, special (6)
	1 817 956 C1	**Spin–on Fan Drive**
	1 817 978 C1	**Bolt–On Fan Drive**
9		BELT, fan drive (Truck applications, refer to Truck Parts Catalog.)
10	1 814 719 C1	TENSIONER (Adjuster), auto
	1 817 993 C1	BOLT, flange, special
11		PULLEY, water pump (8 Groove Pulley)
	1 817 629 C1	**4.970 in. Diameter**
	1 817 891 C1	**5.930 in. Diameter**
	1 817 892 C1	**6.880 in. Diameter**
	1 817 810 C1	BOLT, flange, special (4)
12	1 817 687 C92	PUMP ASSY with O–RING, water (Component parts are not serviced separately except O–RING; refer to item 16.)
	1 817 810 C1	BOLT, flange, special (6)
	1 817 811 C1	BOLT, flange, special
	40 050 R1	NUT, M8 x 1.50
13.	1 822 111 C91	HOUSING ASSY, thermostat bypass (Includes items 14 and 15) **(For Retarder equipped auto trans.)** (Mounting hardware listed w/item 1.)
14	1 822 109 C1	INSERT, coolant passage **(For use w/bypass housing)**
15	1 820 951 C1	O–RING, special, thermostat bypass housing
16	1 819 099 C1	O–RING, water pump

* 15.1 in. fan center bracket illustrated; 18.3 in. fan center bracket similar.

§ Not furnished separately.

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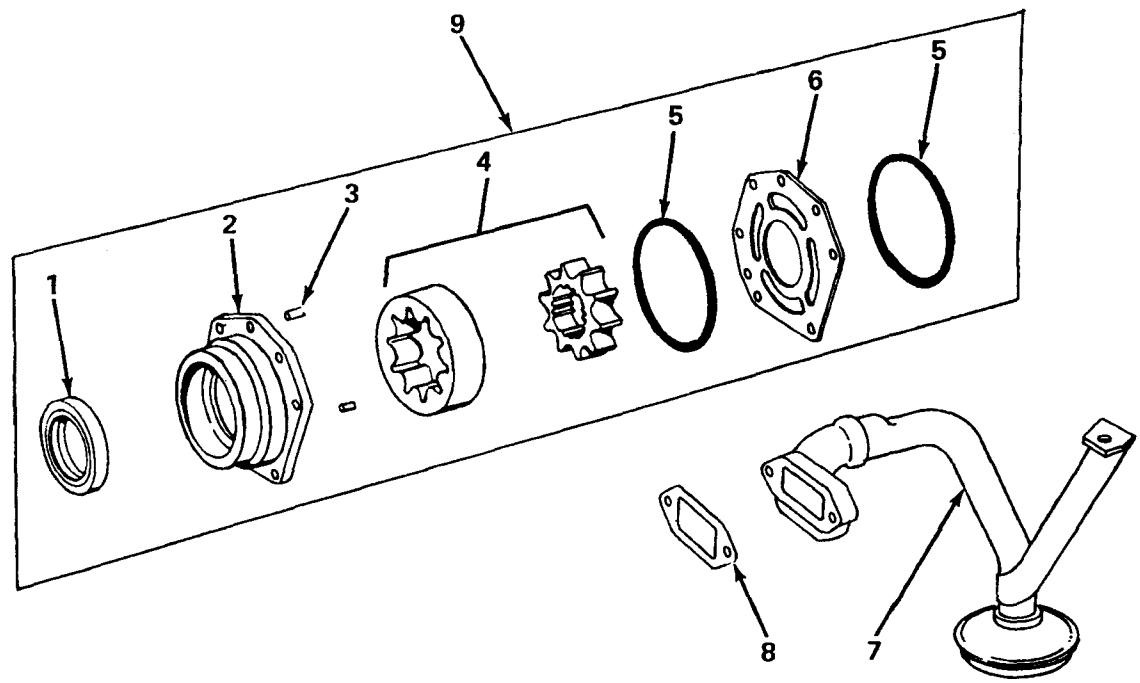
12 OIL PUMP, FRONT OIL SEAL AND INLET TUBE



EG-1020

REF. NO.	PART NUMBER	DESCRIPTION
1	690 437 C94	PACKAGE, front oil seal (Includes oil seal and wear sleeve.)
2		HOUSING, oil pump (Order Oil Pump Package; refer to item 9.)
	1 817 859 C1	BOLT, flange, special (4) (60 mm)
	1 817 957 C1	BOLT, flange, special (2) (25 mm)
3	680 482 C1	PIN, dowel (2)
4		ROTOR ASSY, oil pump (Order Oil Pump package; refer to item 9.)
5	1 817 862 C1	SEAL, oil pump housing (2)
6	1 817 847 C1	PLATE, oil pump housing
7		TUBE, oil pump inlet (pick–up)
	1 820 225 C92	**Rear Sump***
	1 820 311 C2	**Front Sump**
	1 821 974 C1	**Center Sump–High Gradeability***
	1 817 960 C1	BOLT, flange special (2)
	1 817 957 C1	BOLT, flange special (Used w/support bracket.)
	31 082 R1	NUT, M8 hex flange (Used w/support bracket.)
8	1 816 722 C1	GASKET, oil inlet tube
9		PACKAGE, oil pump (Includes Items 1 – 6.)
	1 822 326 C91	**7.6L**
	1 822 390 C91	**8.7L**

* Front sump inlet tube illustrated; rear and center sump tube similar.

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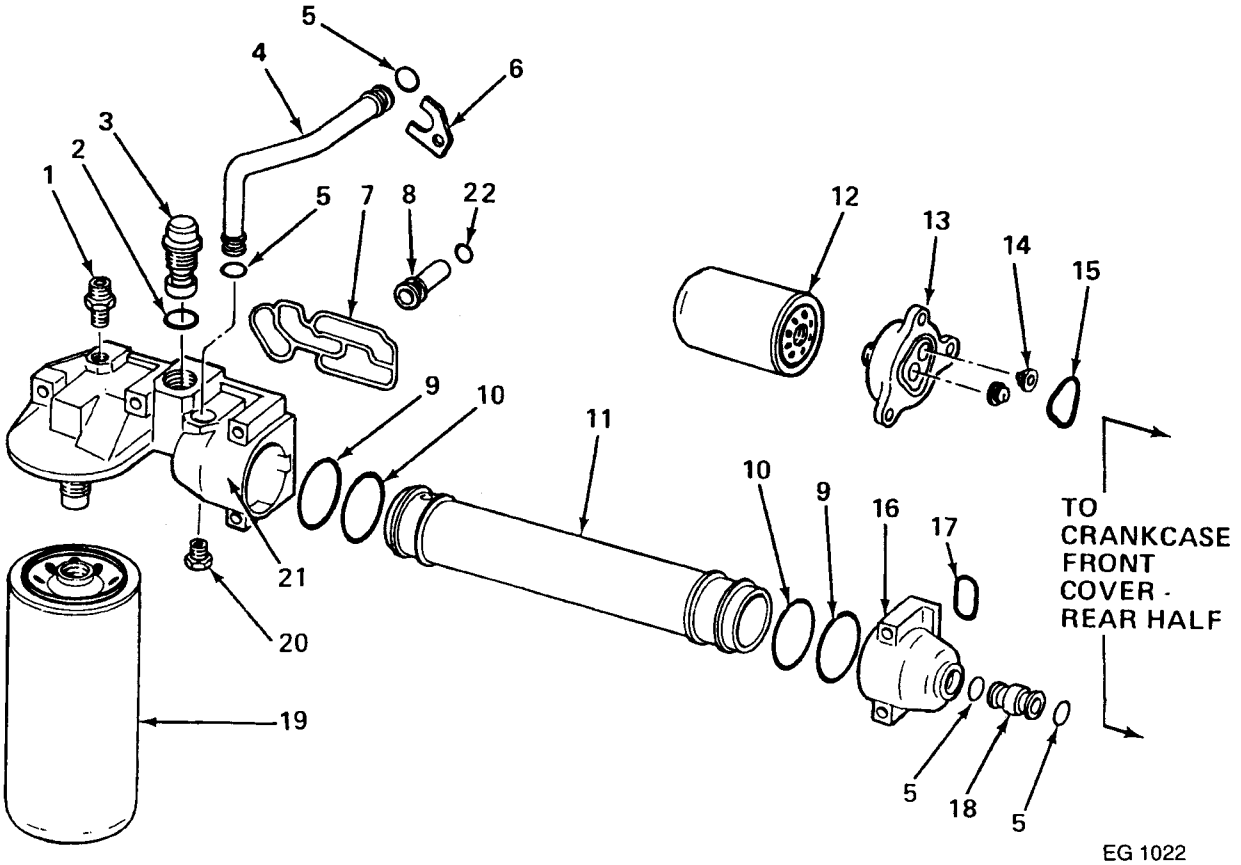
13 COOLANT FILTER, OIL COOLER, OIL FILTER AND CONNECTIONS



REF. NO.	PART NUMBER	DESCRIPTION
1	606 819 C1	CONNECTOR
2	1 818 400 C1	O–RING, oil temp control valve
3	1 819 418 C2	VALVE, oil temp control
4	1 817 669 C1	TUBE, oil cooler water inlet
5	1 821 098 C1	O–RING, oil cooler header to front cover tube and water inlet tube (4)
6	1 817 671 C1	BRACKET, oil cooler water inlet tube
	1 817 812 C1	BOLT, flange, special
7	1 817 849 C1	GASKET, oil filter/cooler header to block
8	1 815 239 C3	VALVE ASSY, pressure regulator; includes: §1 Housing §1 Ring §1 Spring §1 Valve §1 Washer
9	1 807 563 C1	O–RING, oil cooler (2)
10	1 804 414 C1	O–RING, oil cooler (innermost) (2)

§ Not furnished separately.

COOLANT FILTER, OIL COOLER, OIL FILTER AND CONNECTIONS, Continued

REF. NO.	PART NUMBER	DESCRIPTION
11	1 815 904 C1	**COOLER**
		Cooler, Oil
	606 819 C1	1 Connector
	1 817 574 C1	1 Header
	1 817 855 C1	1 Header
	1 804 414 C1	2 O–Ring
	1 807 563 C1	2 O–Ring
	1 818 400 C1	1 O–Ring
	444 618	1 Plug
	1 819 418 C2	1 Valve
12		FILTER w/Seal, coolant
	1 820 361 C1	DCA–4 **(15.0 Units)***
	1 822 313 C1	DCA–4 **(4.0 Units)***
	1 820 358 C1	DCA–4 **(0.0 Units, Special Application)***
13	1 820 381 C92	HEADER, coolant filter (Includes item 14.)
	1 817 957 C1	BOLT, flange, special (3)
14	1 820 380 C2	VALVE, coolant filter header check (2)
15	1 820 353 C1	O–RING, coolant filter header
16	1 817 855 C1	HEADER, oil cooler front
	1 819 931 C1	STUD–BOLT, special
	1 817 962 C1	BOLT, flange, special
17	1 818 401 C2	SEAL, front header to crankcase
18	1 815 302 C1	TUBE, front header to crankcase front cover
19	1 819 452 C1	FILTER w/GASKET, oil
20	444 618	PLUG, 1/4–18 drain
21	1 817 574 C1	HEADER, lube filter and oil cooler (Includes Filter Adapter.)
	1 819 931 C1	STUD–BOLT, special (127 mm)
	1 820 921 C1	STUD–BOLT, special (57 mm)
	1 817 958 C1	BOLT, flange special (30 mm)
	1 817 962 C1	BOLT, flange, special (100 mm) (2)
22	1 820 907 C1	O–RING, pressure regulator valve
	1 823 182 C91	PACKAGE, oil cooler mounting and piping gasket† (Includes items 5, 7, 9, 10, 17, 22, and turbo oil inlet tube sleeve and flange gasket.)

* Refer to Operator's Manual for application.

† As required.

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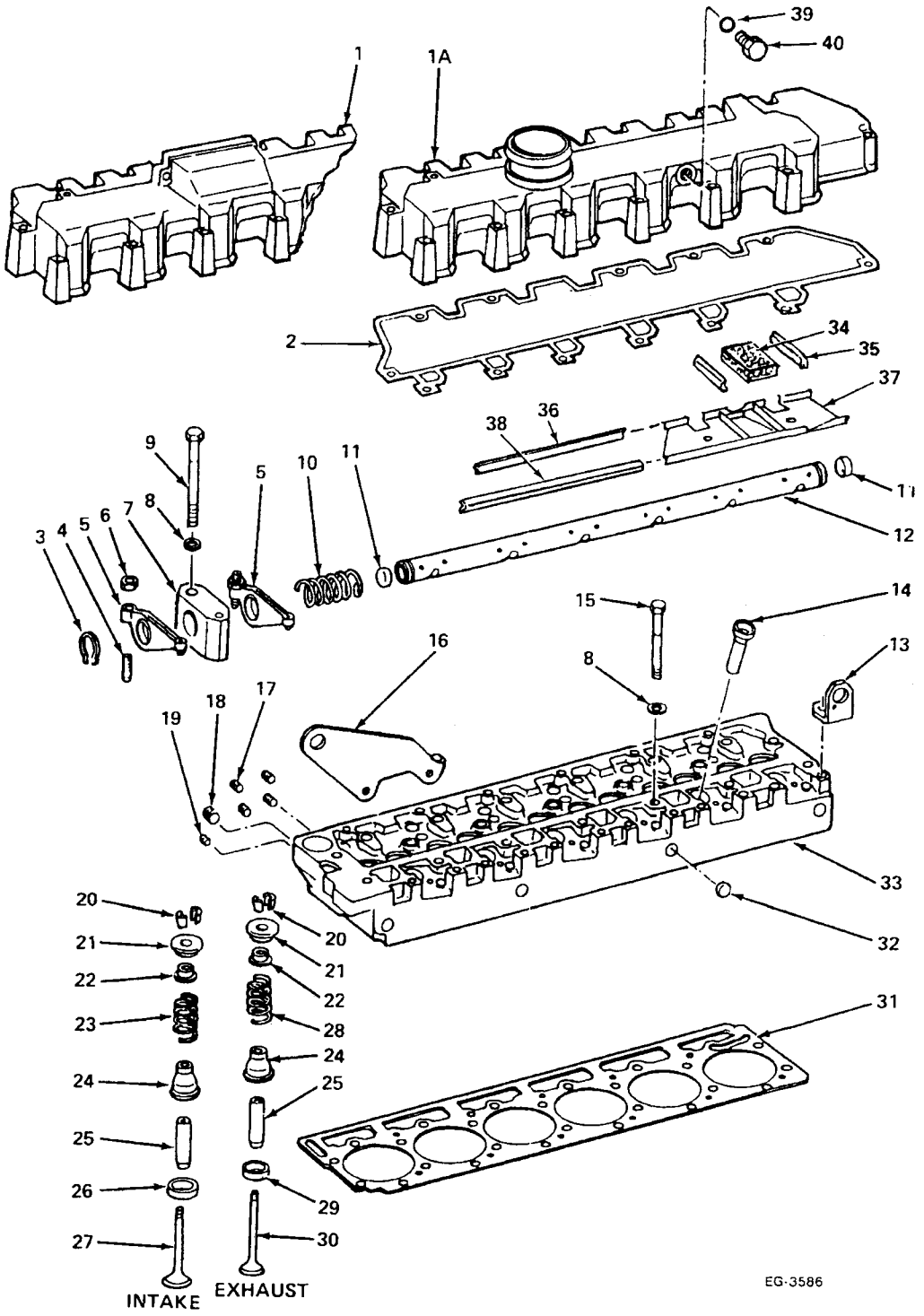
14 CYLINDER HEAD, INTAKE MANIFOLD/VALVE COVER AND RELATED PARTS



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CYLINDER HEAD, INTAKE MANIFOLD/VALVE COVER AND RELATED PARTS, Continued

REF. NO.	PART NUMBER	DESCRIPTION
1	1 821 948 C1	COVER, intake manifold/valve **(Side, Flanged, Inlet)**
	1 817 961 C1	BOLT, flange, special (11)
	1 819 245 C1	STUD BOLT, special (2)
1A	1 822 089 C1	COVER, intake manifold/valve **(Top, Hose, Inlet)**
	1 817 961 C1	BOLT, flange, special (11)
	1 819 245 C1	STUD BOLT, special (2)
2	1 817 510 C1	GASKET, intake manifold/valve cover
3	24 577 R1	RING, retainer (2) (Size No. 84)
4	16 067 DA	SCREW, valve adjusting (12)
5	1 820 830 C91	LEVER ASSY, valve (rocker arm) (12) (Includes items 4–6.)
6	1 820 923 C1	NUT, valve adjusting screw (12)
7	1 822 199 C1	BRACKET, rocker shaft (6)
8	1 814 757 C1	WASHER, cylinder head bolt (26)
9	1 817 355 C1	BOLT, cylinder head (6)
10	675 105 C1	SPRING, rocker arm shaft (5)
11	291 171 C1	PLUG, cup 9/16 (2)
12	675 660 C92	SHAFT w/two plugs, rocker arm
13	1 820 215 C1	EYE, rear lifting
	1 820 235 C1	BOLT, flange, special
14	675 442 C1	TUBE, injector (6)
15	1 817 352 C1	BOLT, cylinder head (20)
16	1 817 560 C2	EYE, front lifting
	1 817 967 C1	BOLT, flange, special (2)
17	445 751	PLUG, pipe 1/2 NPT (4)
18	9 409 949	PLUG, 3/4 NPT pipe
19	444 650	PLUG, 1/8 NPT pipe
20	1 810 944 C1	KEY, valve stem (24)
21	1 822 245 C1	ROTATOR w/Seal, valve (12)
22	1 819 380 C1	SEAL, valve rotator (12)
23	677 349 C1	SPRING, intake valve (6)
24	1 820 827 C1	SEAL w/Retainer, valve stem (12)
25	1 820 264 C1	GUIDE, valve (12)
26	675 043 C1	INSERT, intake valve (6)
27	1 818 580 C1	VALVE, intake (6)
28	1 820 824 C1	SPRING, exhaust valve (6)
29	675 450 C1	INSERT, exhaust valve (6)
30	1 818 579 C1	VALVE, exhaust (6)
31	1 817 562 C2	GASKET, cylinder head
32	23 623 R1	PLUG, cup 1-1/4 in. (14)
33		HEAD ASSY **w/VALVES**, cylinder (Includes items 14, 17–30 and 32.)
	1 822 368 C91	**7.6L and 8.7L**
34	1 822 556 C1	ELEMENT, breather
35	1 822 555 C1	DEFLECTOR, (2-3/16 in.) breather baffle (2)
36	1 822 560 C1	DEFLECTOR, (8-17/64 in.) breather baffle
37	1 822 170 C92	BAFFLE, w/deflectors, breather
	1 817 812 C1	BOLT, flange, special (2)
	557 950 R1	WASHER, 13/32 x 1.0 x 11/64 in. (2)
38	1 822 256 C1	DEFLECTOR, (10 in.) breather baffle
39	933 697 R1	GASKET, copper (For use when Inj. Pump is not equipped w/aneroid)
40	1 821 011 C1	PLUG, screw, aneroid opening (For use when Inj. Pump is not equipped w/aneroid)
		GASKET SET, cylinder head (Refer to Alphabetical Index.)

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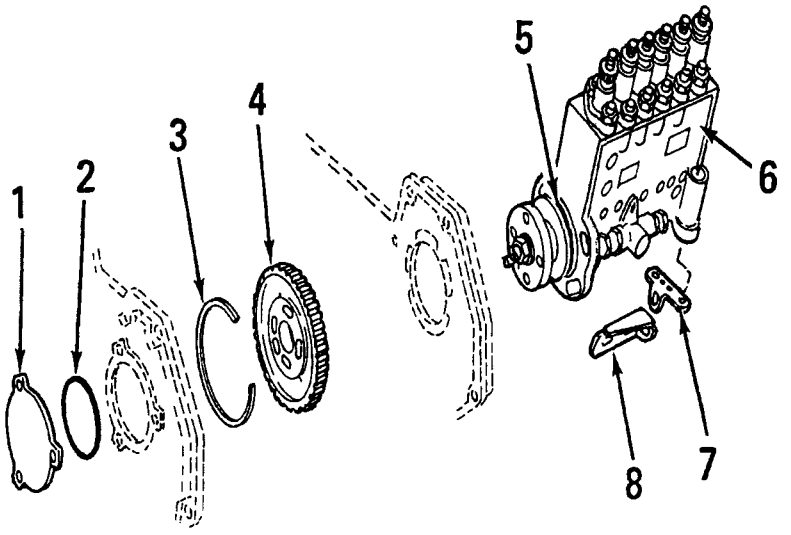
15 INJECTION PUMP ACCESS COVER, DRIVE GEAR AND MOUNTING



EG-1030

REF. NO.	PART NUMBER	DESCRIPTION
1	1 817 888 C1	COVER, injection pump drive gear
	1 822 430 C1	BOLT, w/Sealant, flange, special (3)
2	1 819 250 C2	SEAL, injection pump drive gear cover
3	1 819 591 C1	RING, drive gear retaining
4	1 820 854 C93	GEAR w/retaining ring, injection pump drive (56 teeth)
	1 817 965 C1	BOLT, flange, special (4)
5	680 161 C1	O–RING, injection pump mounting
6		PUMP, fuel injection, refer to section 20.
	31 083 R1	NUT, M10 hex flange (4) (Note: Mounting studs are part of crankcase front cover–rear half, refer to section 5.)
7		BRACKET, injection pump support ✳
	1 822 057 C1	**For use w/Model P injection pump†**
	1 822 335 C1	**For export w/Model A injection pump§**
	1 818 236 C1	BOLT, flange, special (30 mm) (Joins items 7 and 8 together.)
	31 084 R1	NUT, M12 hex flange
8	1 822 060 C1	SUPPORT (Weldment), injection pump (mounts to block)
	1 817 967 C1	BOLT, flange, special (25 mm) (2)

✳ Mounts to bottom of injection pump; refer to injection pump linkage, section 25, for mounting bolts.

† Except pumps w/RSV Governor, refer to Electric Shut – Off Solenoid, section 24.

§ Model P Injection Pump bracket illustrated; Model A bracket similar.

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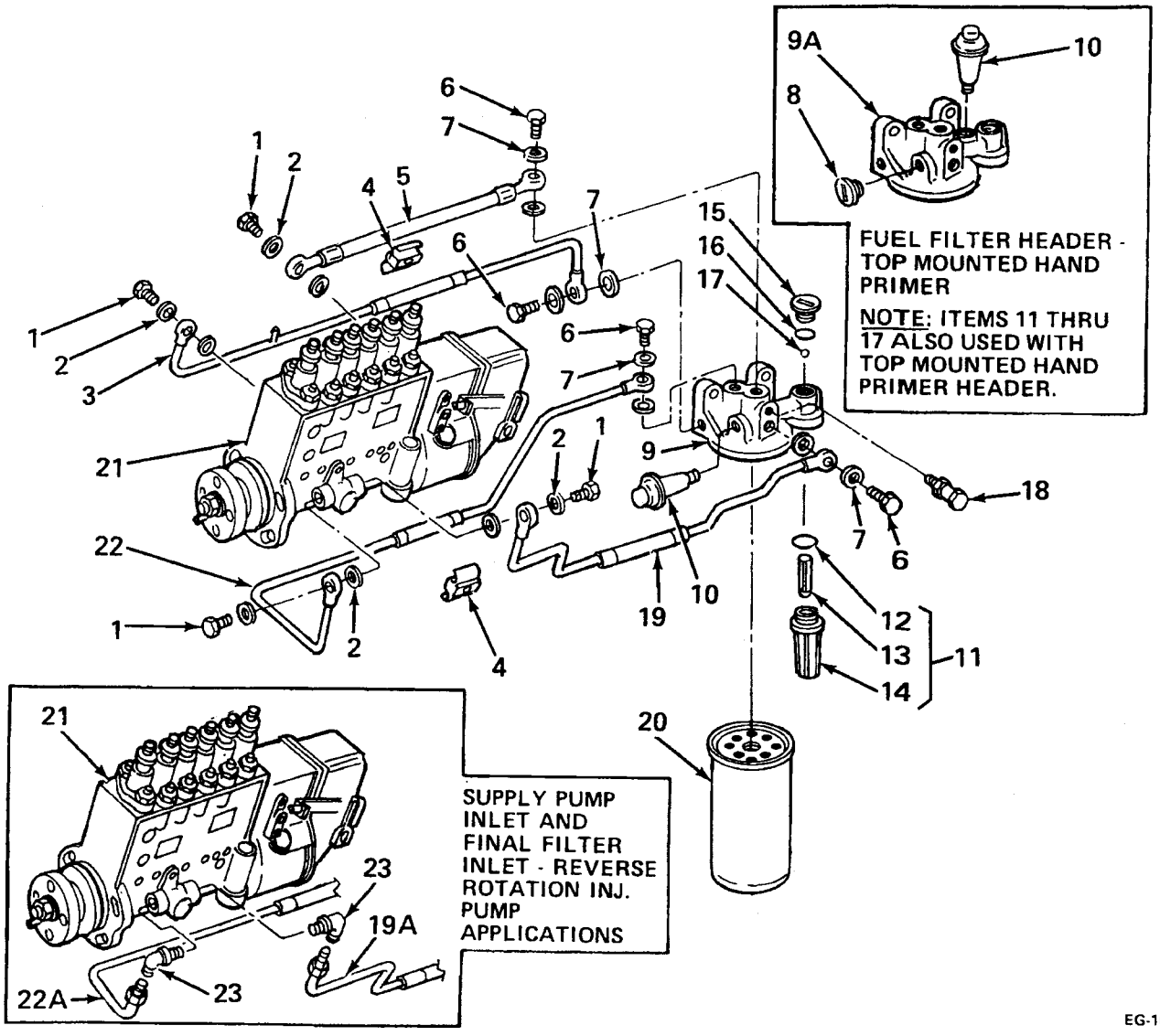
16 FUEL FILTER AND PIPING

FOR USE W/MODEL P INJECTION PUMP
(Not For Remote, Chassis, Mounted Fuel Filter System or DAVCO Fuel System)



REF. NO.	PART NUMBER	DESCRIPTION
1	1 810 491 C1	SCREW, hollow, fuel line (4)*
2	691 273 C1	GASKET, fuel line (8)*
3	1 820 327 C3	TUBE and HOSE w/BANJO FITTINGS, fuel return
4	1 820 330 C1	T–CLIP, fuel line (2)
5	1 820 326 C1	HOSE w/FITTINGS, filter to injection pump (Inlet)
6	1 810 491 C1	SCREW, hollow, fuel line (4)
7	691 273 C1	GASKET, fuel line (8)
8	1 820 482 C1	PLUG, fuel filter header; top mounted hand primer

* Part of injection pump.

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FUEL FILTER AND PIPING – FOR USE W/MODEL P INJECTION PUMP (Not For Remote, Chassis, Mounted Fuel Filter System or DAVCO Fuel System), Continued

REF. NO.	PART NUMBER	DESCRIPTION
9	1 820 259 C1	HEADER, filter **(for side mount, forward facing, hand primer)**
9A	1 820 481 C1	HEADER, filter **(for vertical, top mount, hand primer)**
	1 817 978 C1	BOLT, flange, special (2)
10	1 820 261 C1	HAND PRIMER,* fuel header **(top or side mount)**
11	1 817 677 C91	FILTER ASSY, pre–strainer (Includes items12–14.)
12		O–RING, filter strainer (Not furnished separately; refer to item 11.)
13	1 817 674 C1	STRAINER, fuel filter
14		COVER, plastic, filter pre–strainer (Not furnished separately; refer to item 11.)
15	1 820 919 C1	PLUG, check valve
16	379 181 R1	O–RING, check valve plug
17	1 820 478 C1	BALL, check valve
18	39 677 DA	VALVE, fuel filter bleed
19	1 820 324 C2	TUBE and HOSE w/BANJO FITTINGS, fuel filter to injection pump supply pump **(Except Reverse Rotation Inj Pump Applications)**
19A	1 820 884 C92	TUBE and HOSE w/BANJO FITTING, NUT & SLEEVE, fuel filter to injection pump supply pump **(Reverse Rotation Inj Pump Applications)**
	265 205 R1	NUT, tube
	265 204 R1	SLEEVE, tube
20		FILTER, final fuel
	1 809 789 C1	8 in.
	1 820 479 C1	6 in. **(NOT FOR GENSETS)**
21		PUMP ASSY, Fuel injection (Refer to section 27.)
22	1 820 325 C2	TUBE and HOSE w/BANJO FITTINGS, injection pump supply pump to final filter **(Except Reverse Rotation Inj Pump Applications)**
22A	1 820 885 C91	TUBE and HOSE w/BANJO FITTING, NUT and SLEEVE, injection pump supply pump to final filter **(Reverse Rotation Inj Pump Applications)**
	265 205 R1	NUT, tube
	265 204 R1	SLEEVE, tube
23	606 845 C1	ELBOW, 90 degrees (2) (At injection pump supply pump) **(Reverse Rotation Inj Pump Applications)**

* Component parts are not serviced separately.

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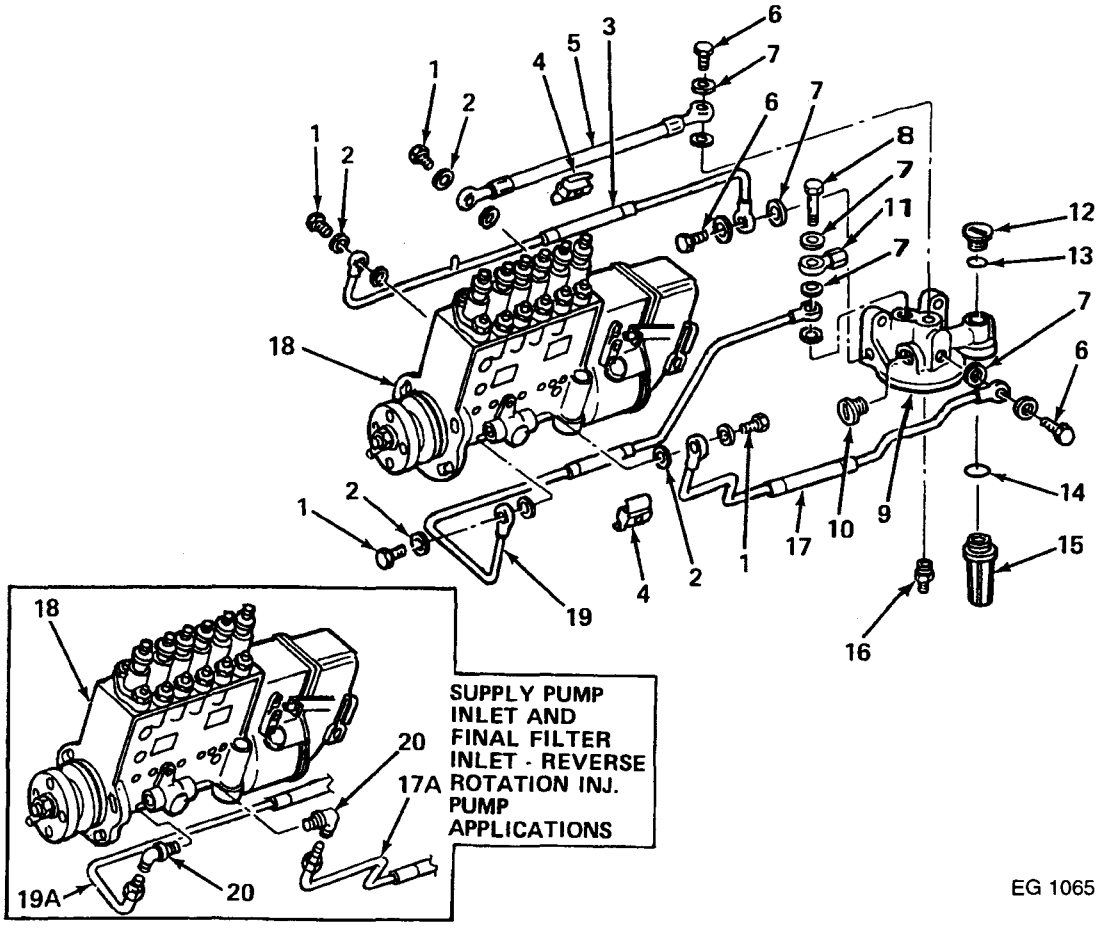
17 FUEL FILTER PIPING

(FOR USE W/MODEL P INJECTION PUMP)

(REMOTE, CHASSIS MOUNTED FUEL FILTER SYSTEM)†



REF. NO.	PART NUMBER	DESCRIPTION
1	1 810 491 C1	SCREW, hollow, fuel line (4)*
2	691 273 C1	GASKET, fuel line (8)*
3	1 820 327 C3	TUBE and HOSE w/BANJO FITTINGS, fuel return
4	1 820 330 C1	T–CLIP, fuel line (2)
5	1 820 326 C1	HOSE w/FITTINGS, junction block to injection pump (Inlet)
6	1 810 491 C1	SCREW, hollow, fuel line (4)
7	691 273 C1	GASKET, fuel line (9)
8	1 820 457 C1	SCREW, hollow, fuel line
9	1 820 460 C91	JUNCTION BLOCK ASSY, fuel (Includes items 10, 12–16.)
	1 817 978 C1	BOLT, flange, special (2)

* Part of injection pump.

† Refer to Truck or OEM Catalog for filter and related parts.

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FUEL FILTER PIPING (FOR USE W/MODEL P INJECTION PUMP) (REMOTE, CHASSIS, MOUNTED FUEL FILTER SYSTEM)†, Continued

REF. NO.	PART NUMBER	DESCRIPTION
10	1 820 482 C1	PLUG, side, Junction Block
11	1 809 797 C1	FITTING, banjo
12	1 820 919 C1	PLUG, top, Junction Blk
13	379 181 R1	O–RING, top plug
14	1 818 518 C1	O–RING, pre–strainer
15	1 818 516 C1	COVER, plastic, pre–strainer
16	1 820 456 C1	ADAPTOR, outlet (Junction block to remote chassis, mounted filter)
17	1 820 324 C2	TUBE and HOSE w/BANJO FITTINGS, junction block to injection pump supply pump **(Except Reverse Rotation Inj. Pump Applications)**
17A	1 820 884 C92	TUBE and HOSE w/BANJO FITTING, NUT and SLEEVE, fuel filter to injection pump supply pump **(Reverse Rotation Inj Pump Applications)**
	265 205 R1	NUT, tube
	265 204 R1	SLEEVE, tube
18		PUMP ASSY, fuel injection (Refer to section 27.)
19	1 820 325 C2	TUBE and HOSE w/BANJO FITTINGS, injection pump supply pump to junction block **(Except Reverse Rotation Inj. Pump Applications)**
19A	1 820 885 C91	TUBE and HOSE w/BANJO FITTING, NUT and SLEEVE, injection pump supply pump to final filter **(Reverse Rotation Inj Pump Applications)**
	265 205 R1	NUT, tube
	265 204 R1	SLEEVE, tube
23	606 845 C1	ELBOW, 90 degrees (2) (At injection pump supply pump) **(Reverse Rotation Inj Pump Applications)**

† Refer to Truck or OEM Catalog for filter and related parts.

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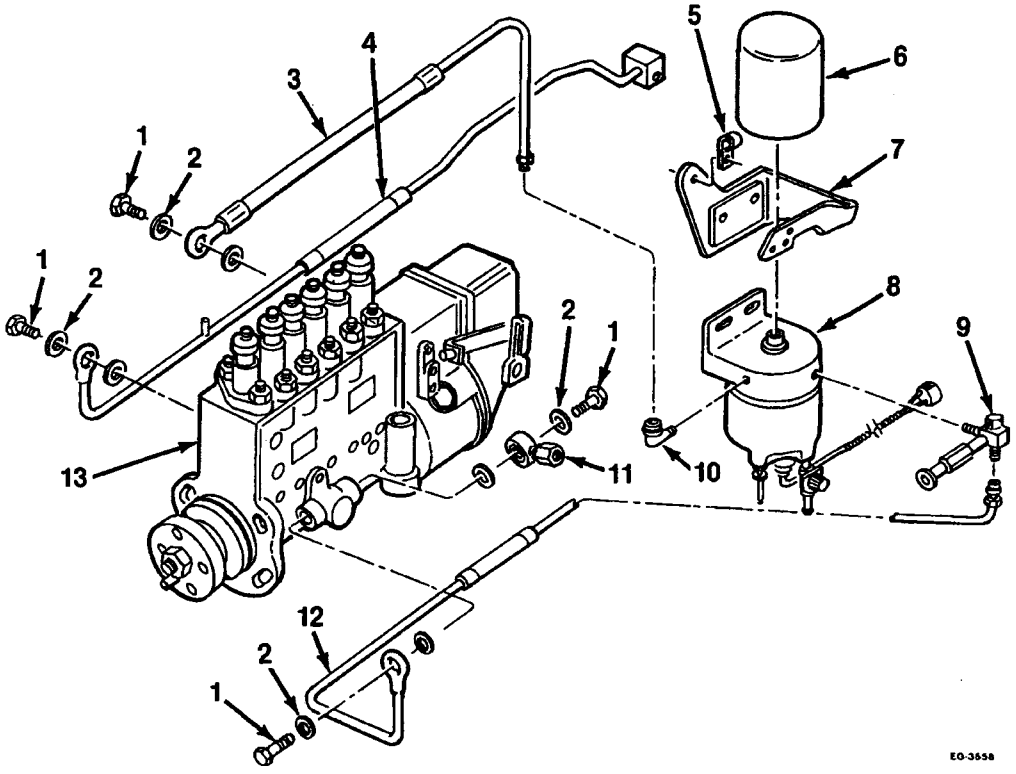
18 FUEL FILTER PIPING

(FOR USE W/MODEL P INJECTION PUMP) (DAVCO FUEL FILTER SYSTEM)



REF. NO.	PART NUMBER	DESCRIPTION
1	1 810 491 C1	SCREW, hollow, fuel line (4)*
2	691 273 C1	GASKET, fuel line (8)*
3	1 822 186 C1	TUBE and HOSE w/FITTINGS, filter header to injection pump (Inlet)
4	1 822 187 C2	TUBE and HOSE w/FITTINGS, fuel return
	1 817 811 C1	BOLT, flange, special
5	299 403 C1	CLAMP, fuel line
	40 049 R1	NUT, M6 x 1.0 hex flange
6	1 822 529 C1	FILTER, fuel
7	1 822 517 C2	BRACKET, spring perch and fuel filter processor (Mounted w/item 8 hardware.)
8	1 822 190 C92	HEADER/PROCESSOR† fuel filter
	1 817 958 C1	BOLT, flange, special (2)
9	1 822 191 C92	HAND PRIMER†, fuel header
10	606 845 C1	ELBOW, 90° (at header)
11	1 809 797 C1	FITTING, banjo (at supply pump)
12	1 822 185 C2	TUBE and HOSE w/FITTINGS, injection pump supply pump to fuel filter inlet
13		PUMP ASSY, Fuel injection (Refer to section 27.)

* Part of injection pump.

† Component parts are not serviced separately.

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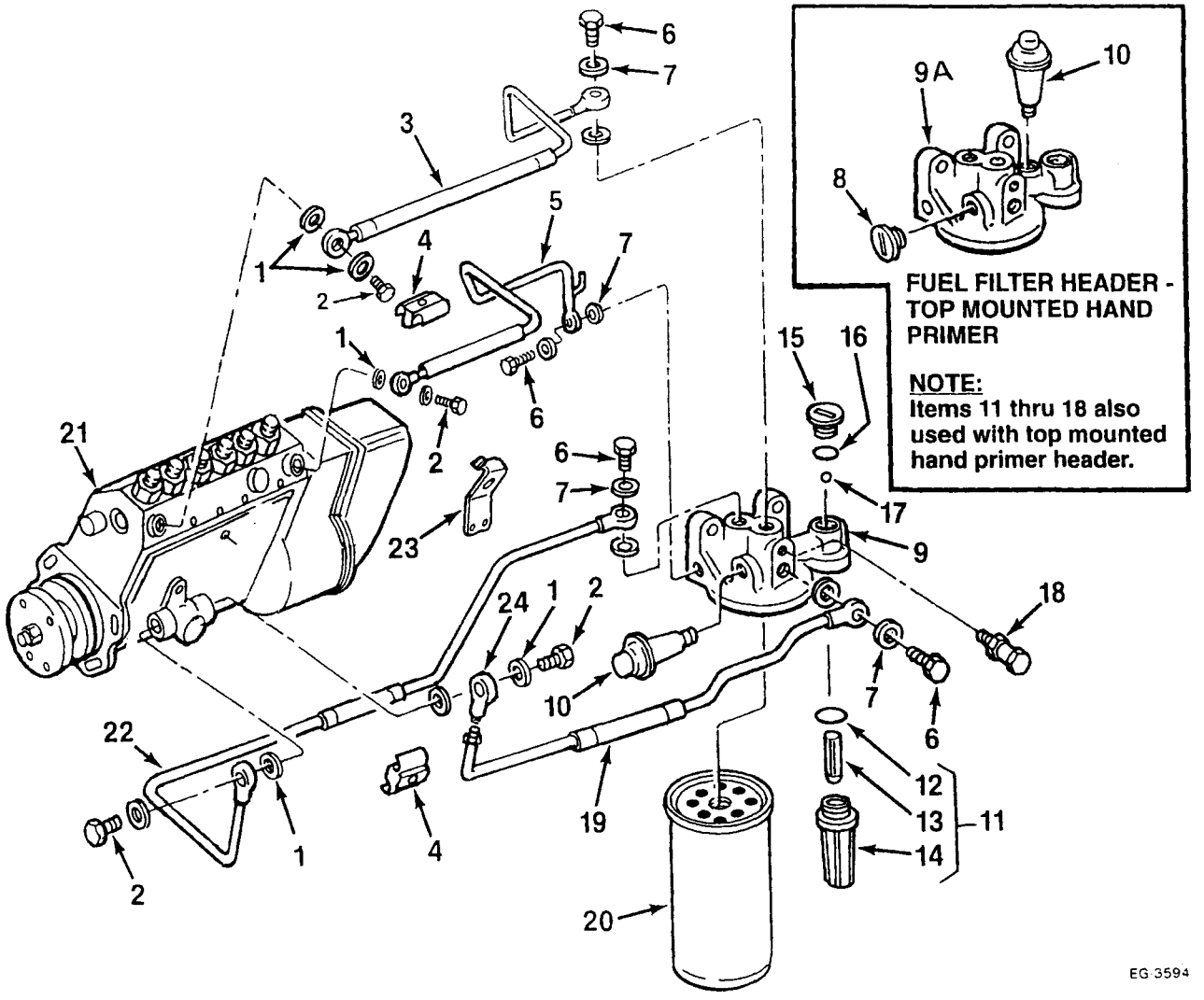
19 FUEL FILTER AND PIPING
(FOR EXPORT W/MODEL A INJECTION PUMP)



REF. NO.	PART NUMBER	DESCRIPTION
1		GASKET, fuel line (8)*
2		SCREW, hollow, fuel line (4)*
3	1 822 426 C2	TUBE and HOSE w/BANJO FITTINGS, filter to injection pump (inlet)
4	1 820 330 C1	T–CLIP, fuel line (2)
	40 065 R1	SCREW, M5 x 0.8 x 30 mm (used w/upper T–Clip)

* Part of injection pump.

FUEL FILTER AND PIPING (For Export W/Model A Injection Pump), Continued

REF. NO.	PART NUMBER	DESCRIPTION
5	1 822 427 C2	TUBE and HOSE w/BANJO FITTINGS, fuel return
6	1 810 491 C1	SCREW, hollow, fuel line (4)
7	691 273 C1	GASKET, fuel line (8)
8	1 820 482 C1	PLUG, fuel filter header top–mounted hand primer
9	1 820 260 C91	HEADER ASSY w/FILTERS, fuel **(with side mount forward facing, hand primer)** (Includes items 9–18 and 20.)
9A	1 821 989 C91	HEADER ASSY w/FILTERS, fuel **(with vertical, top mount, hand primer)** (Includes items 8–18 and 20.)
	1 817 978 C1	BOLT, flange, special (2)
10	1 820 261 C1	HAND PRIMER†, fuel header **(top or side mount)**
11	1 817 677 C91	FILTER ASSY, pre–strainer (Includes items 12–14.)
12		O–RING, filter strainer (Not furnished separately; refer to item 11.)
13	1 817 674 C1	STRAINER, fuel filter
14		COVER, plastic, filter pre–strainer (Not furnished separately; refer to item 11.)
15	1 820 919 C1	PLUG, check valve
16	379 181 R1	O–RING, check valve plug
17	1 820 478 C1	BALL, check valve
18	39 677 DA	VALVE, fuel filter bleed
19	1 822 424 C91	TUBE and HOSE w/BANJO FITTING, NUT and SLEEVE, fuel filter to injection pump supply pump
	265 205 R1	NUT, tube
	265 204 R1	SLEEVE, tube
20	1 809 789 C1	FILTER, final fuel
21		PUMP ASSY, fuel injection (Refer to section 27.)
22	1 822 425 C1	TUBE and HOSE w/BANJO FITTINGS, injection pump supply pump to final filter
23		BRACKET, fuel line
	1 822 506 C1	**For use w/RQV Governor**
	1 823 236 C1	**For use w/RSV Governor**
	1 818 227 C1	BOLT, flange, special (2)
24		FITTING, banjo, supply pump inlet*

* Part of injection pump.

† Component parts are not serviced separately.

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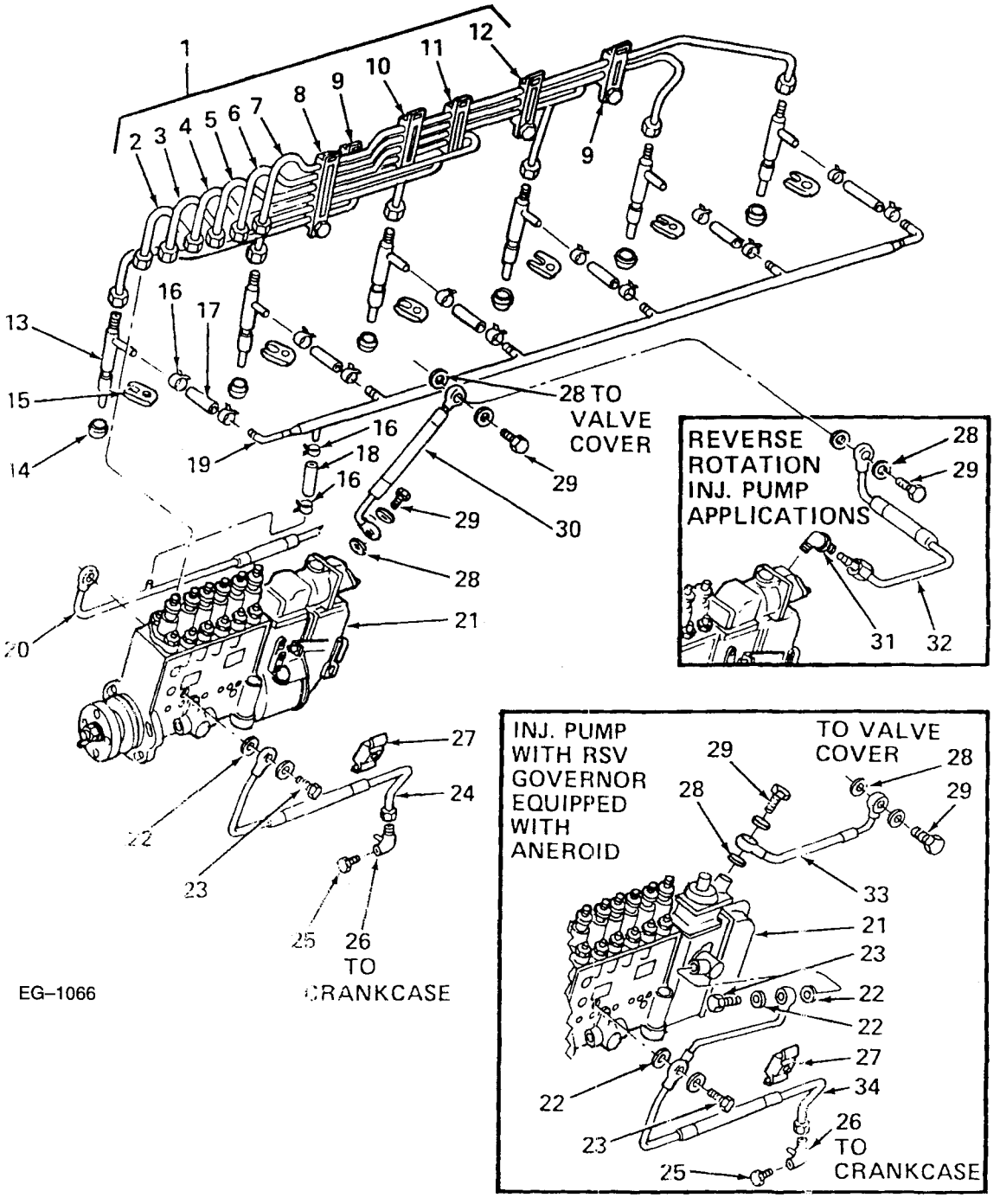
20 INJECTION PUMP, INJECTOR PIPING, AND RELATED PARTS

(FOR USE W/MODEL P INJECTION PUMP)



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INJECTION PUMP, INJECTOR PIPING, AND RELATED PARTS (For use w/Model P Injection Pump), Continued

REF. NO.	PART NUMBER	DESCRIPTION
1		PIPE ASSY, fuel injection (Includes six pipes; also, clamps items 8 thru 12.)
	1 817 930 C94	**7.6L**
	1 817 940 C92	**8.7L (Except Reverse Rotation Inj Pump Applications)**
1		PIPE ASSY, fuel injection (Includes six pipes; also, clamps items 8 thru 12.)
	1 820 860 C92	**8.7L (Reverse Rotation Inj Pump Applications)**
2		PIPE w/NUTS and SLEEVES, injection (Cylinder No. 1)
	1 817 931 C4	**7.6L**
	1 817 941 C2	**8.7L (Except Reverse Rotation Inj Pump Applications)**
	1 820 861 C2	**8.7L (Reverse Rotation Inj Pump Applications)**
3		PIPE w/NUTS and SLEEVES, injection (Cylinder No. 2)
	1 817 932 C4	**7.6L**
	1 817 942 C2	**8.7L (Except Reverse Rotation Inj Pump Applications)**
	1 820 862 C2	**8.7L (Reverse Rotation Inj Pump Applications)**
4		PIPE w/NUTS and SLEEVES, injection (Cylinder No. 3)
	1 817 933 C4	**7.6L**
	1 817 943 C2	**8.7L (Except Reverse Rotation Inj Pump Applications)**
	1 820 863 C2	**8.7L (Reverse Rotation Inj Pump Applications)**
5		PIPE w/NUTS and SLEEVES, injection (Cylinder No. 4)
	1 817 934 C4	**7.6L**
	1 817 944 C2	**8.7L (Except Reverse Rotation Inj Pump Applications)**
	1 820 864 C2	**8.7L (Reverse Rotation Inj Pump Applications)**
6		PIPE w/NUTS and SLEEVES, injection (Cylinder No. 5)
	1 817 935 C4	**7.6L**
	1 817 945 C2	**8.7L (Except Reverse Rotation Inj Pump Applications)**
	1 820 865 C2	**8.7L (Reverse Rotation Inj Pump Applications)**
7		PIPE w/NUTS and SLEEVES, injection (Cylinder No. 6)
	1 817 936 C4	**7.6L**
	1 817 946 C2	**8.7L (Except Reverse Rotation Inj Pump Applications)**
	1 820 866 C2	**8.7L (Reverse Rotation Inj Pump Applications)**
8	1 820 366 C91	CLAMP ASSY with HARDWARE, injection pipe (6 pipes)
9	1 820 362 C91	CLAMP ASSY with HARDWARE, injection pipe (2 pipe clamp) **(2 clamps req'd., except 1 for Reverse Rotation Inj Pump Applications.)**
10	1 820 365 C91	CLAMP ASSY with HARDWARE, injection pipe (5 pipes)
11	1 820 364 C91	CLAMP ASSY with HARDWARE, injection pipe (4 pipes)
12	1 820 363 C91	CLAMP ASSY with HARDWARE, injection pipe (3 pipes)

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INJECTION PUMP, INJECTOR PIPING, AND RELATED PARTS (For use w/Model P Injection Pump), Continued

REF. NO.	PART NUMBER	DESCRIPTION
13		NOZZLE and NOZZLE HOLDER ASSY, fuel injection (6) (Refer to section 22.)
14	682 810 C1	GROMMET, injector dust seal (6)
15	675 479 C2	CRAB, injector nozzle (6)
	1 817 837 C1	BOLT, injector crab (6)
16	1 811 085 C1	CLIP, leak off hose (14)
17		HOSE, jumper, fuel return (injector to connecting tee) (6) (3/16 in. ID x 1–1/2 in., cut from bulk HOSE, 680 246 C1)
18		HOSE, jumper, injector leak off manifold to fuel return tube (spud) (HOSE 3/16 in. ID x 1–1/2 in.) (Cut from bulk HOSE, 680 246 C1)
19	1 820 898 C2	MANIFOLD, fuel injection leak off
20		TUBE, fuel return (refer to section 16)
21		PUMP ASSY, fuel injection (refer to section 27) (For mounting hardware see Drive Gear and Mounting illustration.)
22	933 697 R1	GASKET, hollow screw (2)*
23	1 810 819 C1	SCREW, hollow* **(Not used w/aneroid tube for Reverse Rotation Inj Pump Applications; refer to item 32.)**
24	1 820 328 C92	TUBE and HOSE w/SLEEVE, NUT and BANJO FITTING, injection pump lube oil **(For use w/RQV or RQVK –Governors)**
	685 158 C1	SLEEVE, tube
25	444 612	PLUG, 1/8–27 NPTF pipe **(For use w/o air compressor)**
26	1 819 530 C1	ELBOW, inj pump/air compressor lube oil (at crankcase)
27	1 820 331 C1	T–CLIP, lube oil line
28	933 697 R1	GASKET, hollow screw (4)
29	1 810 819 C1	SCREW, hollow, (at aneroid and valve cover (2)
30	1 820 329 C2	TUBE and HOSE w/BANJO FITTINGS, aneroid **(For use w/RQV or RQVK Governors)** (Top or rear mounted aneroid) **(Except Reverse Rotation Inj Pump Applications; refer to item 32.)**
31	319 615 R1	ELBOW, aneroid tube **(Reverse Rotation Inj Pump Applications)**
32	1 820 889 C92	TUBE and HOSE w/SLEEVE, NUT and BANJO FITTING, aneroid **(Reverse Rotation Inj Pump Applications)**
33	1 821 027 C2	TUBE and HOSE w/BANJO FITTINGS, aneroid **(For use w/RSV – Governors)**
34	1 819 382 C92	TUBE and HOSE w/SLEEVE, NUT and BANJO FITTINGS, injection pump lube oil **(For use w/RSV – Governors)**
	685 158 C1	SLEEVE, tube
	915 499 R1	NUT, tube
	680 246 C1	HOSE, 3/16 in. ID x 120 in. bulk†

* Part of injection pump.

† As required.

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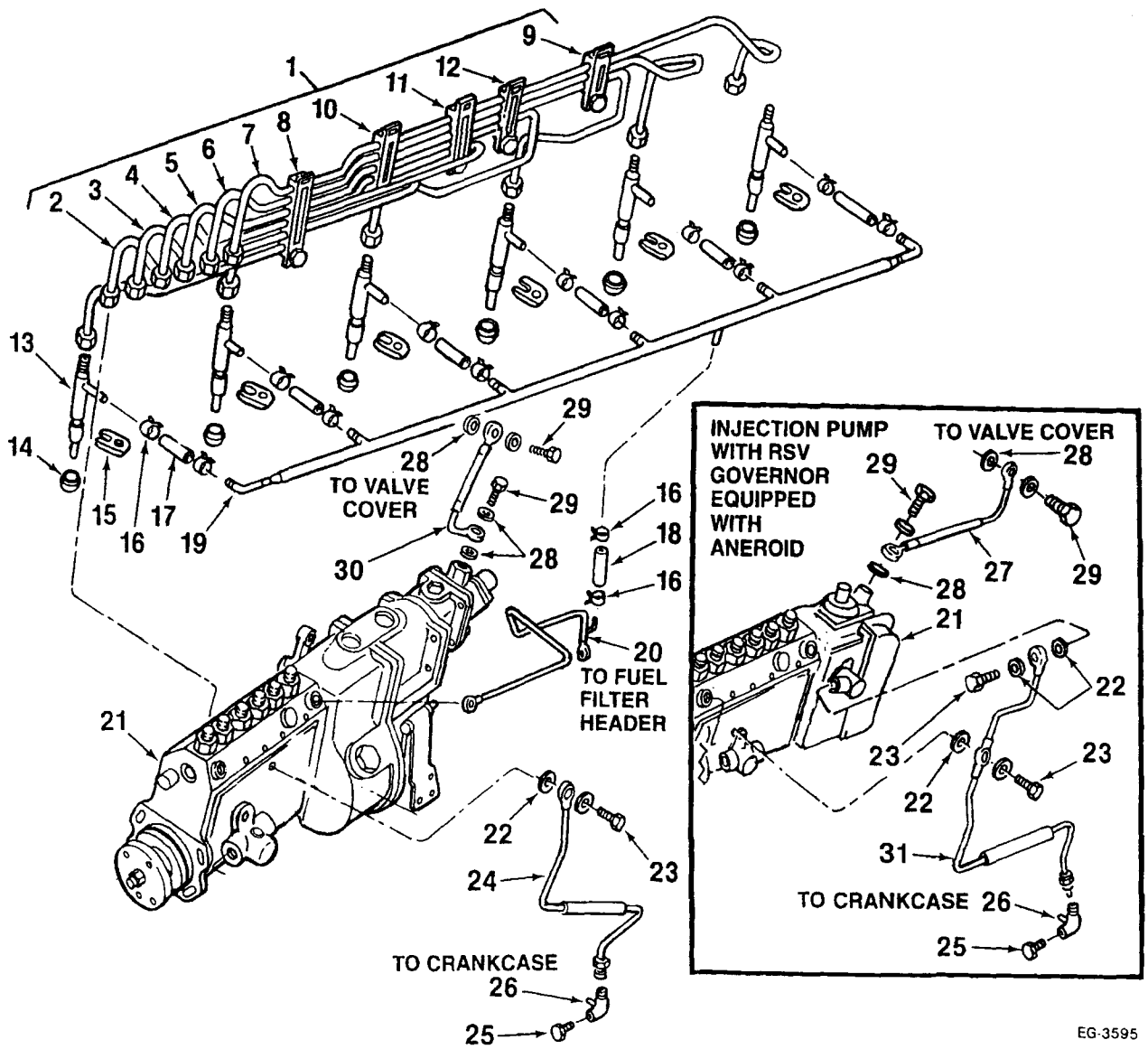
21 INJECTION PUMP, INJECTOR PIPING, AND RELATED PARTS

(For Export w/Model A Injection Pump)



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
1	1 822 410 C91	PIPE ASSY, fuel injection (Includes six pipes; also, clamps items 8 thru 12.)	4	1 822 413 C1	PIPE w/NUTS and SLEEVES, injection (Cylinder No. 3)
2	1 822 411 C1	PIPE w/NUTS and SLEEVES, injection (Cylinder No. 1)	5	1 822 414 C1	PIPE w/NUTS and SLEEVES, injection (Cylinder No. 4)
3	1 822 412 C1	PIPE w/NUTS and SLEEVES, injection (Cylinder No. 2)	6	1 822 415 C1	PIPE w/NUTS and SLEEVES, injection (Cylinder No. 5)

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INJECTION PUMP, INJECTOR PIPING, AND RELATED PARTS (FOR EXPORT W/MODEL A INJECTION PUMP), Continued

REF. NO.	PART NUMBER	DESCRIPTION
7	1 822 416 C1	PIPE w/NUTS and SLEEVES, injection (Cylinder No. 6)
8	1 820 366 C91	CLAMP ASSY w/HARDWARE, injection pipe (6 pipes)
9	1 820 363 C91	CLAMP ASSY w/HARDWARE, injection pipe (3 pipes)
10	1 820 366 C91	CLAMP ASSY w/HARDWARE, injection pipe (6 pipes)
11	1 820 365 C91	CLAMP ASSY w/HARDWARE, injection pipe (5 pipes)
12	1 820 364 C91	CLAMP ASSY w/HARDWARE, injection pipe (4 pipes)
13		NOZZLE and NOZZLE HOLDER ASSY, fuel injection (6) (Refer to section 22.)
14	682 810 C1	GROMMET, injector dust seal (6)
15	675 479 C2	CRAB, injector nozzle (6)
	1 817 837 C1	BOLT, injector crab (6)
16	1 811 085 C1	CLIP, leak off hose (14)
17		HOSE, jumper, fuel return (injector to connecting tee) (6) (3/16 in. ID x 1–1/2 in.) (cut from bulk HOSE, 680 246 C1)
18		HOSE, jumper, injector leak off manifold to fuel return tube (spud) (HOSE 3/16 in. ID x 2–1/2 in.) (cut from bulk HOSE, 680 246 C1)
19	1 822 420 C1	MANIFOLD, fuel injection leak off
20		TUBE, fuel return (Refer to section 16.)
21		PUMP ASSY, fuel injection (refer to section 27) (For mounting hdw, refer to Drive Gear & Mounting illustration.)
22	933 697 R1	GASKET, hollow screw (2)*
23	1 810 819 C1	SCREW, hollow*
24	1 822 428 C91	TUBE and HOSE w/SLEEVE, NUT and BANJO FITTING, injection pump lube oil **(For use w/RQV Governor)**
	685 158 C1	SLEEVE, tube
25	444 612	PLUG, 1/8–27 NPTF pipe **(For use w/o air compressor)**
26	1 819 530 C1	ELBOW, inj pump/air compressor lube oil (at crankcase)
27	1 823 267 C1	TUBE and HOSE w/BANJO FITTINGS, aneroid **(For use w/RSV Governor)**
28	933 697 R1	GASKET, hollow screw (4)
29	1 810 819 C1	SCREW, hollow (at aneroid and valve cover) (2)
30	1 823 139 C1	TUBE and HOSE w/BANJO FITTINGS, aneroid **(For use w/RQV Governor)**
31	1 822 409 C91	TUBE and HOSE w/SLEEVE, NUT and BANJO FITTING, injection pump lube oil **(For use w/RSV Governor)**
	915 499 R1	NUT, coupling
	685 158 C1	SLEEVE, tube
	680 246 C1	HOSE, 3/16 in. ID x 120 in. bulk†

* Part of injection pump.
† As required.

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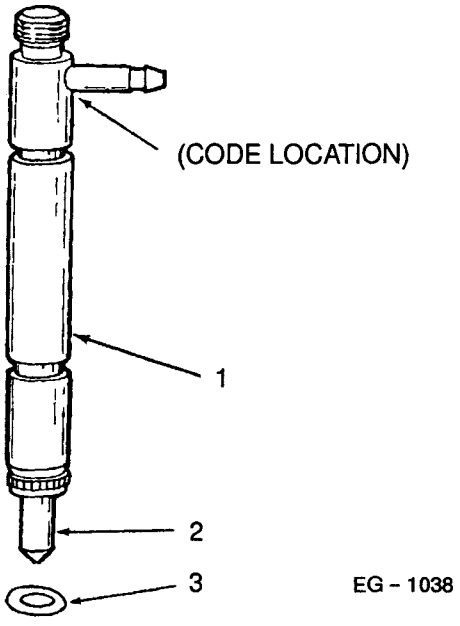
22 FUEL INJECTION NOZZLE AND NOZZLE HOLDER



REF. NO.	PART NUMBER	DESCRIPTION
1		**NOZZLE and HOLDER ASSY w/BODY, fuel injection (Includes items 1-3.)§**
	1 820 834 C91	**Letter Code Mark B*** (7.6L, 195 hp, engine SN 874582 and below) (7.6L, 210 hp, engine SN 874583 and below)
	1 820 838 C91	**Letter Code Mark D*** (7.6L, 155 & 170 hp) (7.6L, export 160, 170 and 190 hp) (7.6L, 230 hp, engine SN 885580 and below)
	1 820 842 C91	**Letter Code Mark F*** (7.6L, Truck 250 hp engine SN 885580 and below)
	1 820 844 C91	**Letter Code Mark G*** (7.6L, Export 195 hp) (7.6L, Industrial 275 hp) (7.6L, Genset 250 hp) (7.6L, Truck 275 hp, engine SN 864414 to †)
	1 820 846 C91	**Letter Code Mark H*** (8.7L, 195 and 217 hp @ 2200 r/min and 275 hp @ 2000 r/min)
	1 820 848 C91	**Letter Code Mark J*** (7.6L, Truck 275 hp eng SN 864413 and below) (8.7L, 250 hp engine SN 864414 and above)
	1 820 890 C91	**Letter Code Mark K*** (8.7L, 250 hp engine SN 864413 and below) (8.7L, 300 hp @ 2000 r/min and 275 hp @ 2200 r/min engine SN 864414 and above)
	1 820 892 C91	**Letter Code Mark L*** (8.7L, 300 hp @ 2000 r/min and 275 hp @ 2200 r/min engine SN 864413 and below) (8.7L, 300 hp @ 2200 r/min engine SN 864414 and above)
	1 820 894 C91	**Letter Code Mark M*** (8.7L, 285 hp @ 2100 r/min) (8.7L, Truck, 300 hp @ 2200 r/min engine SN 864413 and below) (8.7L, Industrial, 300 hp @ 2200 r/min
	1 822 141 C91	**Letter Code Mark N*** (8.7L, 310 hp @ 1500 r/min)
	1 822 527 C91	**Letter Code Mark U*** (8.7L, 275 hp @ 2000 r/min engine SN 864414 and above))

* Letter code marked below fuel return tube on nozzle holder body; refer to illustration for location.

† Serial No. not yet available.

§ Service Parts not yet available except nozzle tips and gaskets listed on the next page.

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FUEL INJECTION NOZZLE AND NOZZLE HOLDER, Continued

REF. NO.	PART NUMBER	DESCRIPTION
1		**NOZZLE and HOLDER ASSY w/BODY, fuel injection (Includes items 1–3.)§**
	1 823 282 C91	**Letter Code Mark V*** (7.6L, 195 and 210 hp engine SN 874584 to 886963)
	1 823 761 C91	**Letter Code Mark AD*** (7.6L, 195 and 210 hp engine SN 886964 and above)
	1 823 763 C91	**Letter Code Mark AE*** (7.6L, 230 and 250 hp engine SN 885581 and above)
	1 823 765 C91	**Letter Code Mark AF*** (7.6L, 275 hp engine SN† and above)
2		**NOZZLE (TIP), injector**
	1 820 835 C1	Nozzle & Holder Assy 1 820 834 C91, 1 822 349 C91, and 1 823 757 C91
	1 820 837 C1	Nozzle & Holder Assy 1 820 836 C92, 1 823 282 C91 1 823 761 C91
	1 820 839 C1	Nozzle & Holder Assy 1 820 838 C91 1 822 351 C91
	1 820 841 C1	Nozzle & Holder Assy 1 823 763 C91
	1 820 843 C1	Nozzle & Holder Assy 1 820 842 C91 and 1 822 352 C91
	1 820 845 C1	Nozzle & Holder Assy 1 820 844 C91 and 1 823 765 C91
	1 820 847 C1	Nozzle & Holder Assy 1 820 846 C91
	1 820 849 C1	Nozzle & Holder Assy 1 820 848 C91
	1 820 891 C1	Nozzle & Holder Assy 1 820 890 C91
	1 820 893 C1	Nozzle & Holder Assy 1 820 892 C91
	1 820 895 C1	Nozzle & Holder Assy 1 820 894 C91
	1 822 142 C1	Nozzle & Holder Assy 1 822 141 C91
	1 822 144 C1	Nozzle & Holder Assy 1 822 143 C92 and 1 823 148 C91
	1 822 526 C1	Nozzle & Holder Assy 1 822 527 C91
3		**GASKET, injector nozzle**
	675 477 C1	**.060 in. thick,** *copper color* (All nozzle and holder assemblies except as listed below.)
	1 822 350 C1	**.098 in. thick,** *blue color* (Nozzle and Holder Assy 1 820 836 C92 and 1 822 143 C92 thru 1 822 352 C91)

* Letter code marked below fuel return tube on nozzle holder body; refer to illustration for location.

† Serial No. not yet available.

§ Service Parts not yet available except nozzle tips and gaskets listed on the next page.

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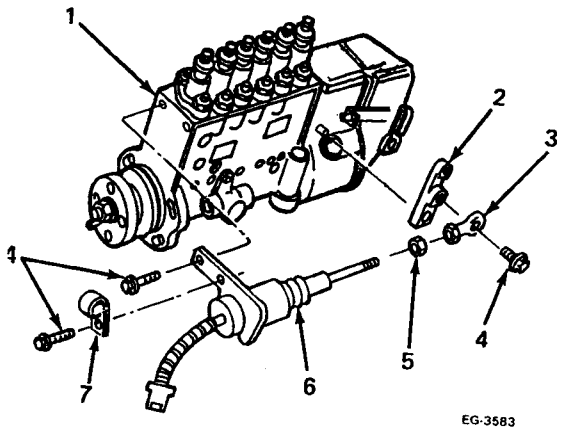
23 ELECTRIC SHUT–OFF SOLENOID MANUAL SHUT–OFF CABLE CONNECTIONS

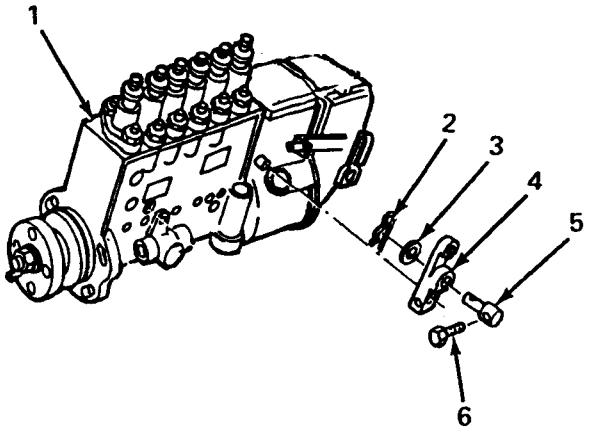
ELECTRIC SHUT–OFF SOLENOID
(For Pumps w/RQV or RQV–K Governor)
(Not Part of Injection Pump Assembly, except as noted)



REF. NO.	PART NUMBER	DESCRIPTION
1		PUMP, injection (Refer to section 27.)
2		LEVER, shut–off (Part of Injection Pump)
3	1 803 254 C1	ROD, end–female
4	1 817 817 C1	BOLT, flange, special (3)
5	25 930 R1	NUT, 1/4–28 hex jam
6		SOLENOID and BRACKET ASSY, electric shut–off
	1 820 453 C91	**Packard Connector**
	1 821 017 C91	**Stripped Leads (12 Volt)***
	1 821 018 C91	**Stripped Leads (24 Volt)***
7	98 959 R1	CLAMP, coated (for applications w/Packard Connector ESO)

* Packard connector illustrated,stripped leads similar.

MANUAL SHUT–OFF CABLE CONNECTIONS†
(Not Part of Injection Pump Assembly, except as noted)



REF. NO.	PART NUMBER	DESCRIPTION
1		PUMP, injection (Refer to section 27.)
2	449 787 C1	PIN, cotter
3	120 385	WASHER, 1/4 x 9/16 x .036 plain znp stl.
4		LEVER, shut–off (Part of Injection Pump)
5	109 420 R2	SWIVEL, arm lever
6	18 269 R1	SCREW, #10–32 x 5/16 hex–hd machine zn. stl.

† Refer to Truck Parts Catalog for cable.

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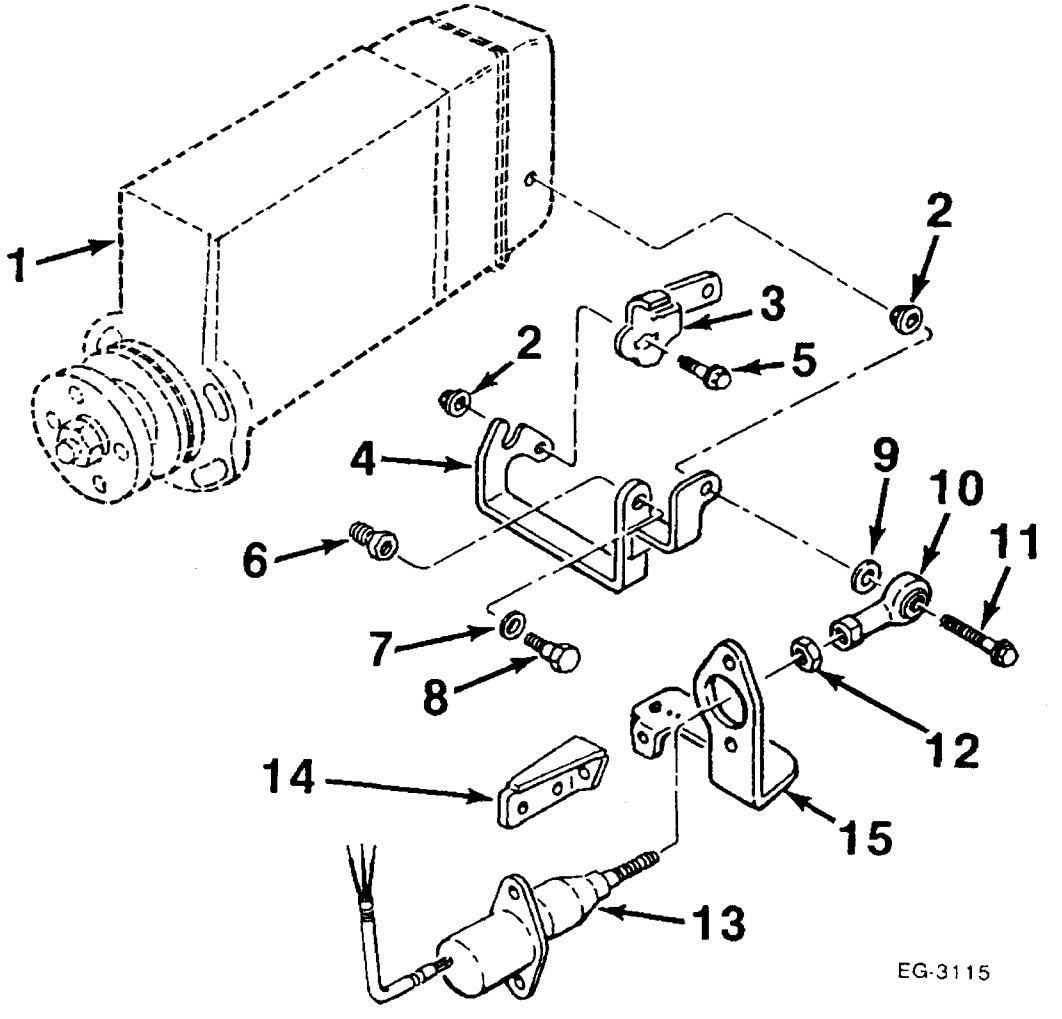
24 ELECTRIC SHUT–OFF SOLENOID

(FOR PUMPS W/RSV GOVERNOR)

(Not part of Injection Pump Assembly, except as noted)



REF. NO.	PART NUMBER	DESCRIPTION
1		PUMP, injection (Refer to section 27.)
2	40 049 R1	NUT, M6 x 1.0 hex flange (2)
3		LEVER, shut–off, stop (part of injection pump)
4	1 821 124 C1	LEVER, elect shut–off adaptor
5	1 817 810 C1	BOLT, flange, special
6		BUSHING, adaptor lever, governor (part of injection pump)
7	3 053 133 R1	GASKET, copper (Replaces 1 820 999 C1
8		BOLT, shoulder (part of injection pump)
9	27 616 R1	WASHER, 1/4 hardened

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ELECTRIC SHUT–OFF SOLENOID (FOR PUMPS W/RSV GOVERNOR) (Not part of Injection Pump Assembly, except as noted), Continued

REF. NO.	PART NUMBER	DESCRIPTION
10	1 803 254 C1	ROD, end–female
11	1 821 643 C1	BOLT, flange, special
12	25 930 R1	NUT, 1/4–28 hex jam
13		SOLENOID and BRACKET ASSY, electric shut–off **For use w/Model P Injection Pump:**
	1 821 019 C91	Stripped Leads (12 Volt)
	1 821 020 C91	Stripped Leads (24 Volt)
	1 823 161 C91	Packard Connector*
	1 817 812 C1	BOLT, flange, special (2) **For export w/Model A Injection Pump:**
	1 823 368 C91	Packard Connector*
	1 817 965 C1	BOLT, flange, special (2)
14		SUPPORT (Weldment), inj pump (Refer to section 27.)
15	1 822 078 C1	SUPPORT, inj pump and elect shut–off **(For use w/Model P Inj Pump)** (Mounts to bottom of pump; refer to section 25 for mounting bolts)
	1 818 236 C1	BOLT, flange, special (Joins items 14 and 15 together.)
	31 084 R1	NUT, M10 hex (Joins items 14 and 15 together.)
	1 823 163 C91	**KIT**, elec. shut–off boot† (Includes Silicone Boot and Cable Tie.)

* Stripped leads illustrated; Packard connectors similar.

† As required.

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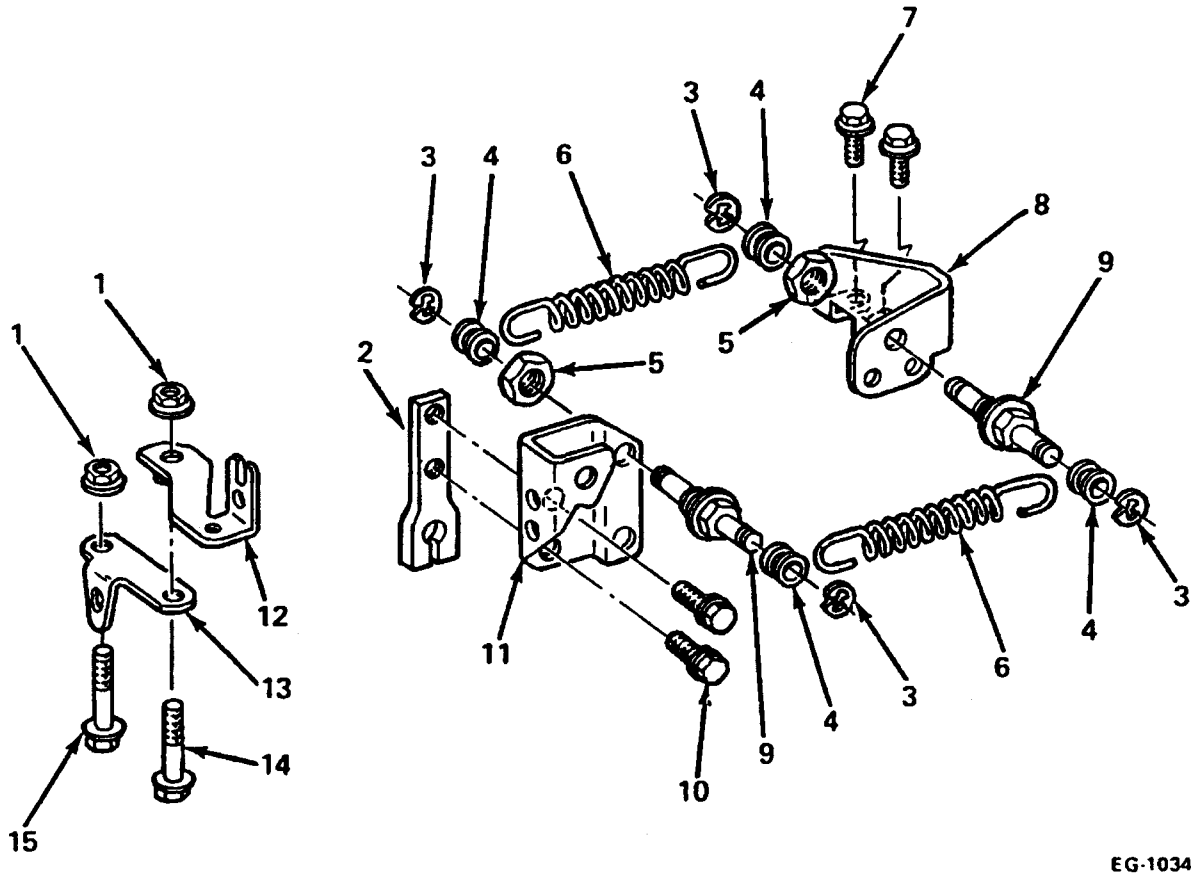
25 FUEL INJECTION PUMP LINKAGE

(For use w/Model P Injection Pump and RQV Governor)



EG-1034

REF. NO.	PART NUMBER	DESCRIPTION
1	31 083 R1	NUT, M10 hex flange (2)
2		LEVER, injection pump throttle (Part of Injection Pump)
3	1 806 388 C1	RING, retaining (4)
4	1 806 281 C1	ROLLER, spring (4)
5	31 082 R1	NUT, M8 hex flange (2)
6	1 806 793 C1	SPRING, throttle control lever (2)
7	1 817 953 C1	BOLT, flange, special (2)*
8	1 820 450 C2	BRACKET, return spring* (Mounts to fuel filter header.)
9	1 819 579 C1	BOLT, roller (double) (2)
10	1 817 810 C1	BOLT, flange, special (2)
11		LEVER, throttle
	1 820 431 C2	**Except Reverse Rotation Inj Pump Applications**
	1 820 859 C1	**Reverse Rotation Inj Pump Applications**
12	1 819 574 C3	BRACKET, throttle cable†
13		BRACKET, injection pump support (Mounts to bottom of inj pump; refer to Inj Pump Mounting illustration for both bracket and support.)
14	1 819 559 C1	BOLT, flange, special (110 mm)
15	1 818 712 C1	BOLT, flange, special (100 mm)

* Not for engines w/Davco Fuel System; refer to fuel filter piping.

† For cable and cable hardware, refer to Truck or OEM Parts Catalog.

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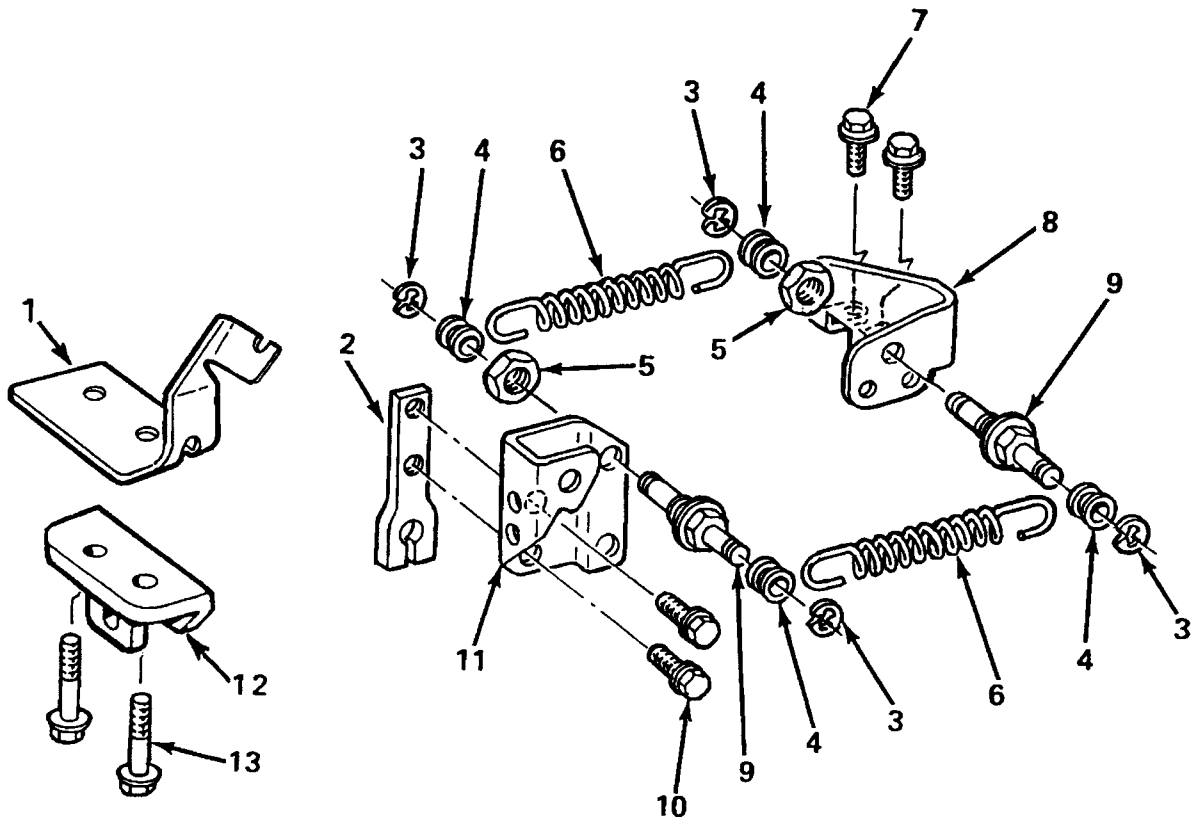
26 FUEL INJECTION PUMP LINKAGE

(For Export w/Model A Injection Pump and RQV Governor)



REF. NO.	PART NUMBER	DESCRIPTION
1		BRACKET, throttle cable†
2		LEVER, injection pump throttle (Part of Injection Pump)
3	1 806 388 C1	RING, retaining (4)
4	1 806 281 C1	ROLLER, spring (4)
5	31 082 R1	NUT, M8 hex flange (2)
6	1 806 793 C1	SPRING, throttle control lever (2)
7	1 817 953 C1	BOLT, flange, special (2)*
8	1 820 450 C2	BRACKET, return spring* (Mounts to fuel filter header.)
9	1 819 579 C1	BOLT, roller (double) (2)
10	1 817 810 C1	BOLT, flange, special (2)
11	1 820 431 C2	LEVER, throttle
12		BRACKET, injection pump support (Mounts to bottom of inj pump; refer to Inj Pump Mounting illustration for both bracket and support.)
13	1 818 233 C1	BOLT, flange, special (2)

* Not for engines w/Davco Fuel System. Refer to section 19.

† For cable and cable hardware, refer to OEM Parts Catalog.

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27 FUEL INJECTION PUMP

REF. NO.	PART NUMBER		DESCRIPTION
			PUMP ASSY, fuel injection (Service parts not yet available.)
			ROBERT BOSCH MODEL P-3000:
			7.6L *Industrial Applications;*
1	822 011	C91	**155 hp @ 2200 r/min**
1	822 012	C91	**170 hp @ 2200 r/min**
1	820 269	C91C*	**195 hp @ 2400 r/min**
1	820 269	C91B*	**210 hp @ 2400 r/min**
			7.6L *Gensets;*
1	820 271	C91D*	**170 hp @ 1500 r/min** (w/o aneroid)
1	820 271	C91E*	**195 hp @ 1800 r/min** (w/o aneroid)
			7.6L *Industrial Applications;*
1	820 269	C91D*	**210 hp @ 2500 r/min**
1	820 269	C91A*	**250 hp @ 2400 r/min** (w/o aneroid)
1	820 269	C91	**275 hp @ 2400 r/min**
			7.6L *Gensets;*
1	820 271	C91B*	**230 hp @ 1500 r/min** (w/o aneroid)
1	820 271	C91	**250 hp @ 1500 r/min** (w/o aneroid)
1	820 271	C91C*	**250 hp @ 1800 r/min** (w/o aneroid)
			7.6L *Industrial Applications;*
1	820 271	C91A*	**270 hp @ 1800 r/min** (w/o aneroid)
			7.6L *Truck Applications;*
			195 hp @ 2400 r/min
1	819 920	C91	Engine SN 874582 and below
1	823 109	C91A*	Engine SN 874583 and above
			210 hp @ 2400 r/min
1	819 919	C91	Engine SN 874583 and below
1	823 135	C91A*	Engine SN 874584 and above
			230 hp @ 2400 r/min
1	819 914	C91	Engine SN 885580 and below
1	823 136	C91A*	Engine SN 885581 and above
			250 hp @ 2400 r/min
1	819 913	C91	Engine SN 885580 and below
1	823 137	C91A*	Engine SN 885581 and above
			275 hp @ 2400 r/min
1	819 924	C91	Engine SN 885580 and below
1	823 138	C91A*	Engine SN 885581 and above
			8.7L *Gensets;*
1	820 271	C91P*	**175 hp @ 1500 r/min** (w/o aneroid)
1	820 271	C91M*	**200 hp @ 1500 r/min** (w/o aneroid)
1	820 271	C91Q*	**205 hp @ 1800 r/min** (w/o aneroid)
1	820 271	C91L*	**215 hp @ 1500 r/min** (w/o aneroid)
1	820 271	C91N*	**230 hp @ 1800 r/min** (w/o aneroid)
			8.7L *Gensets;*
1	820 271	C91J*	**275 hp @ 1500 r/min** (w/o aneroid)
1	820 271	C91G*	**300 hp @ 1500 r/min** (w/o aneroid)

* Part Number listed is for identification purposes only. Order Base Pump, w/o Alpha Letter shown at the end of the Part Number suffix. Refer to your authorized dealer for pump settings.

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FUEL INJECTION PUMP, Continued

REF. NO.	PART NUMBER	DESCRIPTION
		PUMP ASSY, fuel injection (Service Parts Not Yet Available.)
		ROBERT BOSCH MODEL P–3000, Continued
		8.7L *Gensets, cont.*
1	820 271 C91K*	**305 hp @ 1800 r/min** (w/o aneroid)
1	820 271 C91F*	**310 hp @ 1500 r/min** (w/o aneroid) (Replaces Pump Assy, 1 820 275 C91, Model P–7100.)
1	820 271 C91H*	**325 hp @ 1800 r/min** (w/o aneroid)
		ROBERT BOSCH MODEL P–7100:
		8.7L *Industrial Applications;*
1	818 694 C91	**195 hp @ 2200 r/min**
1	817 593 C91	**217 hp @ 2200 r/min**
1	822 140 C91	**230 hp @ 2400 r/min**
		8.7L *Industrial Applications;*
1	821 048 C91B*	**250 hp @ 2000 r/min**
1	821 048 C91A*	**275 hp @ 2000 r/min**
1	822 169 C91	**285 hp @ 2100 r/min** (Will be furnished until stock is depleted.)
		(Reverse Rotation Inj Pump, Claas Combine)
1	821 048 C91C*	**285 hp @ 2100 r/min (Claas Combine)**
1	821 048 C91	**300 hp @ 2000 r/min**
		8.7L *Truck Applications;*
1	819 921 C91	**250 hp @ 2200 r/min**
1	819 916 C91	**275 hp @ 2000 r/min**
1	820 266 C91	**275 hp @ 2200 r/min**
1	819 915 C91	**300 hp @ 2000 r/min**
1	820 267 C91	**300 hp @ 2200 r/min (Except Reverse Rotation Inj Pump applications)**
1	820 904 C91	**300 hp @ 2200 r/min** (Will be furnished until stock is depleted.)
		(Reverse Rotation Inj Pump Applications)
		ROBERT BOSCH MODEL A: FOR EXPORT
		7.6L Export *Industrial Applications*
1	823 309 C91A*	**170 hp @ 2500 r/min**
1	823 309 C91	**190 hp @ 2500 r/min**
		7.6L Export *AGCO Tractor Applications*
1	823 369 C91	**160 hp @ 2200 r/min**
		7.6L Export *On–Highway Applications*
1	822 370 C91	**195 hp @ 2300 r/min**

* Part Number listed is for identification purposes only. Order Base Pump, w/o Alpha Letter shown at the end of the Part Number suffix. Refer to your authorized dealer for pump settings.

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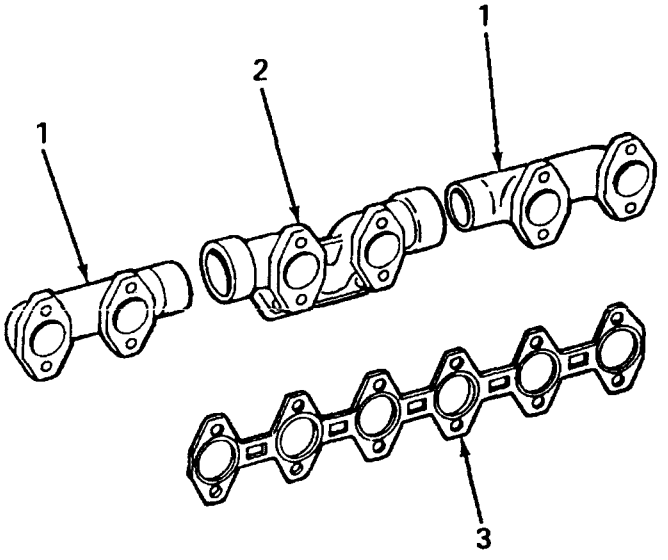
28 EXHAUST MANIFOLDS



EG-1037

REF. NO.	PART NUMBER	DESCRIPTION
1	1 814 149 C2	MANIFOLD, exhaust* (Front or Rear) (2)
	1 817 830 C1	BOLT, exhaust manifold (8)
2		MANIFOLD, exhaust (Center)
	1 818 561 C2	**Down Mounted Turbo Front Inlet**
	1 821 977 C1	**Down Mounted (Reverse) Turbo Rear Inlet**
	1 905 446 R91	**Down Mounted (Reverse) Turbo Rear Inlet Package** (3-piece: front, center and rear)
	1 817 830 C1	BOLT, exhaust manifold (4)
	1 821 642 C3	STUD, (4) **(For Mounting Turbo Assy)**
	445 684	PLUG, 1/8 NPT sq-hd (Used w/center manifold, 1 821 977 C1.)
3	1 814 752 C1	GASKET, exhaust manifold

* For intake manifold/valve cover, refer to section 14.

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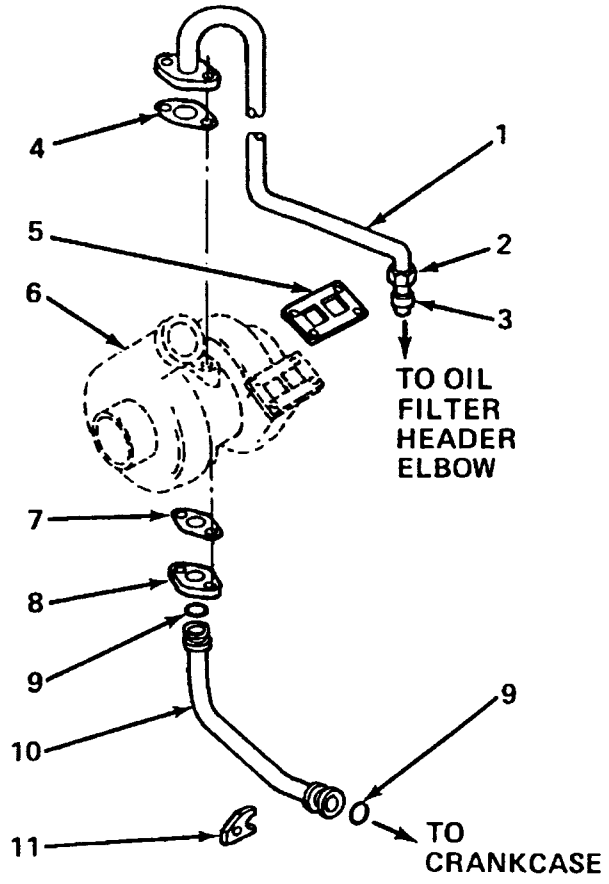
29 TURBOCHARGER PIPING*

(Not for Reverse Mounted Turbochargers)



EG-1039

REF. NO.	PART NUMBER	DESCRIPTION
1	1 818 732 C94	TUBE w/SLEEVE, NUT and FLANGE, turbo oil inlet
	1 817 956 C1	BOLT, flange, special (2)
2	265 205 R1	NUT, tube mounting
3	265 204 R1	SLEEVE, tube mounting
4	253 660 R2	GASKET, oil inlet flange
5	1 822 120 C1	GASKET, turbocharger mounting (Replaces 670 073 C2. **DO NOT USE former gasket 670 073 C2 on Exhaust Manifold w/Turbo Mounting Flange Surface measuring 3.55 in. ± .03 in. x 4.05 in. ± .03 in.**†
6		TURBOCHARGER ASSY, (Refer to section 33.)
	1 821 648 C1	NUT, hex flange, special (4) Mounting studs are listed w/exhaust manifold; refer to section 28.
7	1 820 936 C1	GASKET, turbo oil drain tube
8	1 819 271 C1	FLANGE, turbo oil drain tube
	1 817 958 C1	BOLT, flange special (2)
9	1 818 402 C1	O-RING, turbo oil drain (2)
10	1 818 735 C1	TUBE w/FLANGE, turbo oil drain
11	1 817 671 C1	BRACKET, turbo oil drain
	1 817 812 C1	BOLT, flange special (Replaces Stud-Bolt 1 822 547 C1.)
	1 823 181 C91	PACKAGE, turbo mounting and piping gasket§ (Includes items 3,4,7, 9 and Turbo Mounting Gasket **670 073 C2.**†)

* Air piping to turbo for DT engines, refer to section 14. For DTA engines, refer to Chassis or OEM Catalog.

† **DO NOT USE** former gasket 670 073 C2 on Exhaust Manifold w/Turbo Mounting Flange Surface measuring 3.55 in. ± .03 in. x 4.05 in. ± .03 in. **GASKET 1 822 120 C1 MUST BE USED**; order separately (item 5).

§ As required.

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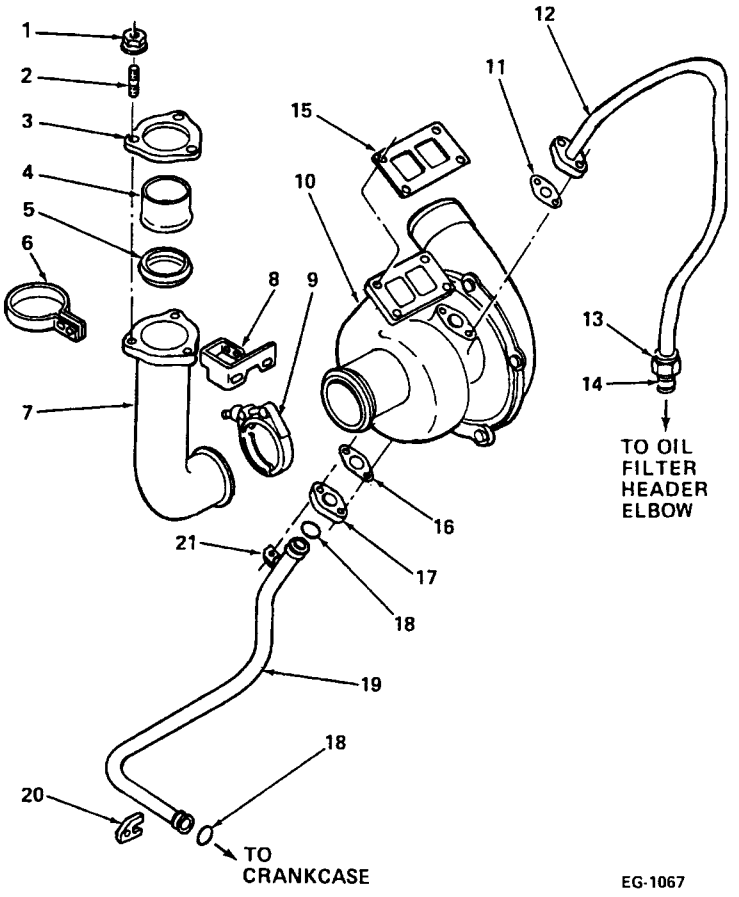
30 TURBOCHARGER PIPING*
(Reverse Mounted Turbochargers)



REF. NO.	PART NUMBER	DESCRIPTION
1	31 083 R1	NUT, M10 hex flange (3)
2	1 822 295 C1	STUD, exhaust elbow (3)
3	1 822 181 C1	FLANGE, exhaust outlet
4	1 822 180 C1	ADAPTOR, exhaust pipe
5	1 822 182 C1	RING, sealing, exhaust
6	1 822 151 C1	CLAMP, turbo exhaust elbow
	1 817 957 C1	BOLT, flange, special (2)
7	1 822 149 C1	ELBOW W/Flange **ONLY,** outlet
	1 822 312 C91	ELBOW **ASSY,** exhaust outlet (Includes items 1 – 5 and 7.)
8	1 822 156 C1	BRACKET, exhaust outlet elbow (Mounts to engine front Lifting Eye.)
	1 818 236 C1	BOLT, flange, special (2)
9	893 944 R92	CLAMP, exhaust pipe

* For Air Piping to Turbo, refer to Chassis or OEM Catalog.

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TURBOCHARGER PIPING* – (Reverse Mounted Turbochargers), Continued

REF. NO.	PART NUMBER	DESCRIPTION
10		TURBOCHARGER ASSY, (Refer to section 34.)
	1 821 648 C1	NUT, hex flange, special (4) (Mounting studs are listed w/Exhaust Manifold; refer to section 28.)
11	253 660 R2	GASKET, oil inlet flange
12	1 822 599 C91	TUBE w/SLEEVE, NUT and FLANGE, turbo oil inlet
	1 817 956 C1	BOLT, flange, special (2)
13	265 205 R1	NUT, tube mounting
14	265 204 R1	SLEEVE, tube mounting
15	1 822 120 C1	GASKET, turbocharger (Replaces 670 073 C2.)
16	1 820 936 C1	GASKET, turbo oil drain tube
17	1 819 271 C1	FLANGE, turbo oil drain tube
	1 817 958 C1	BOLT, flange special (30 mm)
	1 817 978 C1	BOLT, flange special (35 mm) (Use w/items 17 and 21.)
18	1 818 402 C1	O–RING, turbo oil drain (2)
19	1 822 131 C1	TUBE w/FLANGE, turbo oil drain
20	1 817 671 C1	BRACKET, turbo oil drain
	1 817 812 C1	BOLT, flange special (Replaces Stud–Bolt 1 822 547 C1.)
21	1 817 671 C1	BRACKET, turbo oil drain (Hardware listed w/item 17.)

* For Air Piping to Turbo, refer to Chassis or OEM Catalog.

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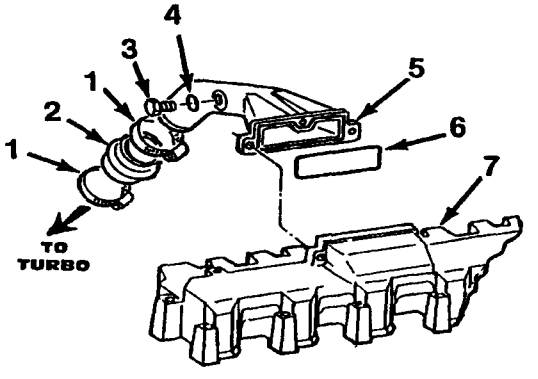
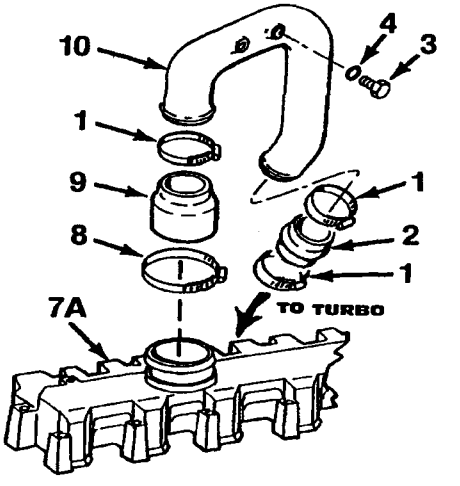
31 TURBOCHARGER AIR CROSSOVER PIPING*

(DT Engines, Reverse and Non–Reverse Mounted Turbochargers)



SIDE INLET
INTAKE MANIFOLD



TOP INLET
INTAKE MANIFOLD

EG-3587

REF. NO.	PART NUMBER	DESCRIPTION
1	1 821 949 C1	CLAMP, turbo air crossover hose **(2, Side Inlet) (3, Top Inlet)**
2	1 821 946 C1	HOSE, turbo air crossover
3	1 821 011 C1	PLUG, screw
4	933 697 R1	GASKET, copper (as required)
5	1 821 945 C1	TUBE, turbo air crossover **(Side Inlet)**
	1 817 959 C1	BOLT, flange, special (3)
6	1 822 247 C2	O–RING, turbo air crossover tube to valve cover **(Side Inlet)**
7		COVER, intake manifold/valve (Refer to section 14.) **(Side Inlet)**
7A		COVER, intake manifold/valve (Refer to section 14.) **(Top Inlet)**
8	687 457 C1	CLAMP, turbo air crossover tube **(Top Inlet)**
9	2 024 703 C1	HOSE, step, turbo air crossover tube (at valve cover) **(Top Inlet)**
10		TUBE, turbo air crossover†
	1 823 234 C91	**Top Inlet Manifold for Reverse Mounted Turbo** (Includes 2 each of items 3 and 4.)
	1 823 331 C92	**Top Inlet Manifold except Reverse Mounted Turbo** (Includes 3 each of items 3 and 4.)

* For DTA engines, refer to Chassis or OEM Parts Catalog.

† Non–Reverse Mounted Turbo Air Crossover Tube illustrated; Reverse Mounted Tube similar.

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32 TURBOCHARGER (REVERSE MOUNTED)

REF. NO.	PART NUMBER	DESCRIPTION
		TURBOCHARGER ASSY (Service parts not yet available.)
	1 822 317 C91	**A/R***, 15° Orientation **GENSETS:** 7.6L, 250 hp @ 1500 r/min and 270 hp @ 1800 r/min 8.7L 300 and 310 hp @ 1500 r/min and 325 hp @ 1800 r/min **INDUSTRIAL:** 7.6L, 275 hp @ 2400 r/min 8.7L, 275 and 300 hp @ 2000 r/min
	1 822 318 C91	**A/R***, Orientation† **GENSETS:** 7.6L, 250 hp @ 1500 r/min
	1 822 356 C91	**A/R***, 165° Orientation **GENSETS:** 7.6L, 170 hp @ 1500 r/min and 195 hp @ 1800 r/min 8.7L, 175 hp @ 1500 r/min and 205 hp @ 1800 r/min
	1 822 357 C91	**A/R***, 15° Orientation **GENSETS:** 7.6L, 230 hp @ 1500 r/min and 250 hp @ 1800 r/min 8.7L, 275 hp @ 1500 r/min and 305 hp @ 1800 r/min **INDUSTRIAL:** 7.6L, 250 hp @ 2400 r/min 8.7L, 250 hp @ 2000 r/min
	1 822 557 C91	**A/R***, 165° Orientation **GENSETS:** 7.6L, 250 hp @ 1500 r/min and 270 hp @ 1800 r/min; 8.7L 300 and 310 hp @ 1500 r/min and 325 hp @ 1800 r/min **INDUSTRIAL:** 7.6L, 210 hp @ 2400 r/min 210 hp @ 2500 r/min 275 hp @ 2400 r/min 8.7L, 230 hp @ 2400 r/min, 275 and 300 hp @ 2000 r/min.
	1 822 558 C91	**A/R***, 165° Orientation **GENSETS:** 7.6L, 230 hp @ 1500 r/min and 250 hp @ 1800 r/min 8.7L 200, 215 and 275 hp @ 1500 r/min and 230 and 305 hp @ 1800 r/min **INDUSTRIAL:** 7.6L, 195 and 250 hp @ 2400 r/min 8.7L, 250 hp @ 2000 r/min
	1 822 559 C91	**A/R***, 165° Orientation **INDUSTRIAL:** 7.6L, EXPORT, 190 hp @ 2500 r/min

* Air Ratio not yet available.

† Orientation not yet available.

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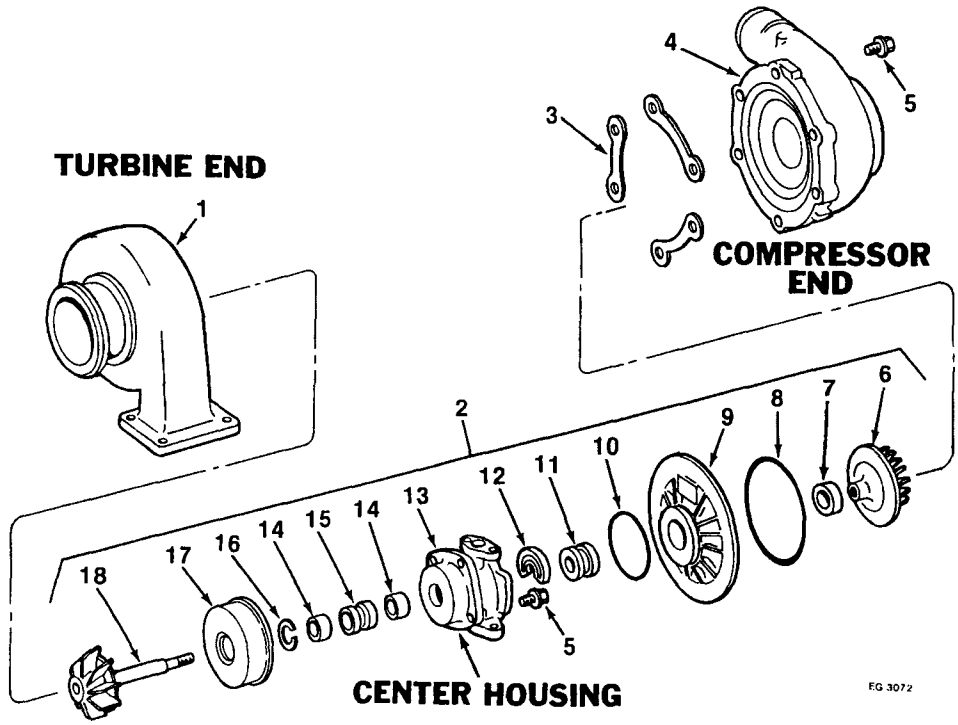
33 TURBOCHARGER (MODEL GT40)

(Not For Wastegate Or Reverse Mounted Turbos)*



REF. NO.	PART NUMBER	DESCRIPTION
		TURBOCHARGER ASSY.
	1 820 943 C92	**A/R .85** 270° Orientation **TRUCK:** 7.6L, 195 hp @ 2400 r/min **INDUSTRIAL:** 7.6L, 155 and 170 hp @ 2200 r/min
	1 820 944 C92	**A/R .95** **TRUCK:** 270° Orientation 7.6L, 210 hp @ 2400 r/min engine SN† and below **GENSETS:** (Side Inlet Intake Manifold) 7.6L, 170 hp @ 1500 r/min and 195 hp @ 1800 r/min 8.7L, 175 hp @ 1500 r/min and 205 hp @ 1800 r/min
	1 820 944 C92	**INDUSTRIAL:** 270° Orientation 7.6L, **EXPORT,** 170 hp @ 2500 r/min **FARM EQUIP: AGCO** Top Inlet Intake Manifold: 7.6L, **EXPORT,** 160 hp @ 2200 r/min
	1 820 945 C92	**A/R 1.06** **TRUCK:** 270° Orientation 7.6L, 195 hp @ 2400 r/min 8.7L, 250 hp @ 2200 r/min, engine SN† and below

* Refer to section 34 for Wastegate Turbo components. Service parts for Reverse Mounted Turbo Assembly not yet available.

† Serial Number not yet available.

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TURBOCHARGER (Model GT40)– (Not For Wastegate Or Reverse Mounted Turbos)*

REF. NO.	PART NUMBER	DESCRIPTION
		TURBOCHARGER ASSY.
	1 820 945 C92	**INDUSTRIAL:** Top Inlet Intake Manifold, 7.6L **EXPORT,** 190 hp @ 2500 r/min **FARM EQUIP: AGCO** Side Inlet Intake Manifold: 7.6L, 155 and 170 hp @ 2200 r/min
	1 821 114 C91	**A/R 1.06,** 310° Orientation (Order Wastegate Turbo Assy 1 820 941 C92.) **TRUCK:** 8.7L, 250 hp @ 2200 r/min, engine SN† and below
	1 820 946 C92	**A/R 1.19** **TRUCK:** 270° Orientation 7.6L, 210 hp @ 2400 r/min, engine SN† and above 7.6L **EXPORT,** 195 hp @ 2300 r/min, (230 hp @ 2400 r/min order Wastegate Turbo Assy, 1 820 939 C92) **GENSETS:** 270° Orientation 7.6L, 230 hp @ 1500 r/min, 250 hp @ 1800 r/min 8.7L, 275 hp @ 1500 r/min and 305 hp @ 1800 r/min **GENSETS:** Side Inlet Intake Manifold; 8.7L 200 and 215 hp @ 1500 r/min and 230 hp @ 1800 r/min **INDUSTRIAL:** 270° Orientation; 8.7L, 250 hp @ 2000 r/min **INDUSTRIAL:** Side Inlet Intake Manifold, 7.6L, 195 hp @ 2400 r/min
	1 822 253 C91	**A/R 1.19** 310° Orientation (No longer available, order Wastegate Turbo Assy 1 820 941 C92.) **TRUCK:** 7.6L, 230 hp @ 2400 r/min
	1 820 958 C91	**A/R 1.34** **GENSETS:** 270° Orientation 7.6L, 250 hp @ 1500 r/min, 270 hp @ 1800 r/min 8.7L, 300 and 310 hp @ 1500 r/min and 325 hp @ 1800 r/min **INDUSTRIAL:** 270° Orientation; 7.6L, 275 hp @ 2400 r/min 8.7L, 275 and 300 hp @ 2000 r/min **INDUSTRIAL:** Side Inlet Intake Manifold, 7.6L, 210 hp @ 2500 r/min, 210 hp @ 2400 r/min, 8.7L, 230 hp @ 2400 r/min **FARM EQUIP:** Side Inlet Intake Manifold: **AGCO** 8.7L, 195 and 217 hp @ 2200 r/min **Claas** 8.7L, 285 hp @ 2100 r/min

* Refer to section 34 for Wastegate Turbo components. Service parts for Reverse Mounted Turbo Assembly not yet available.

† Serial Number not yet available.

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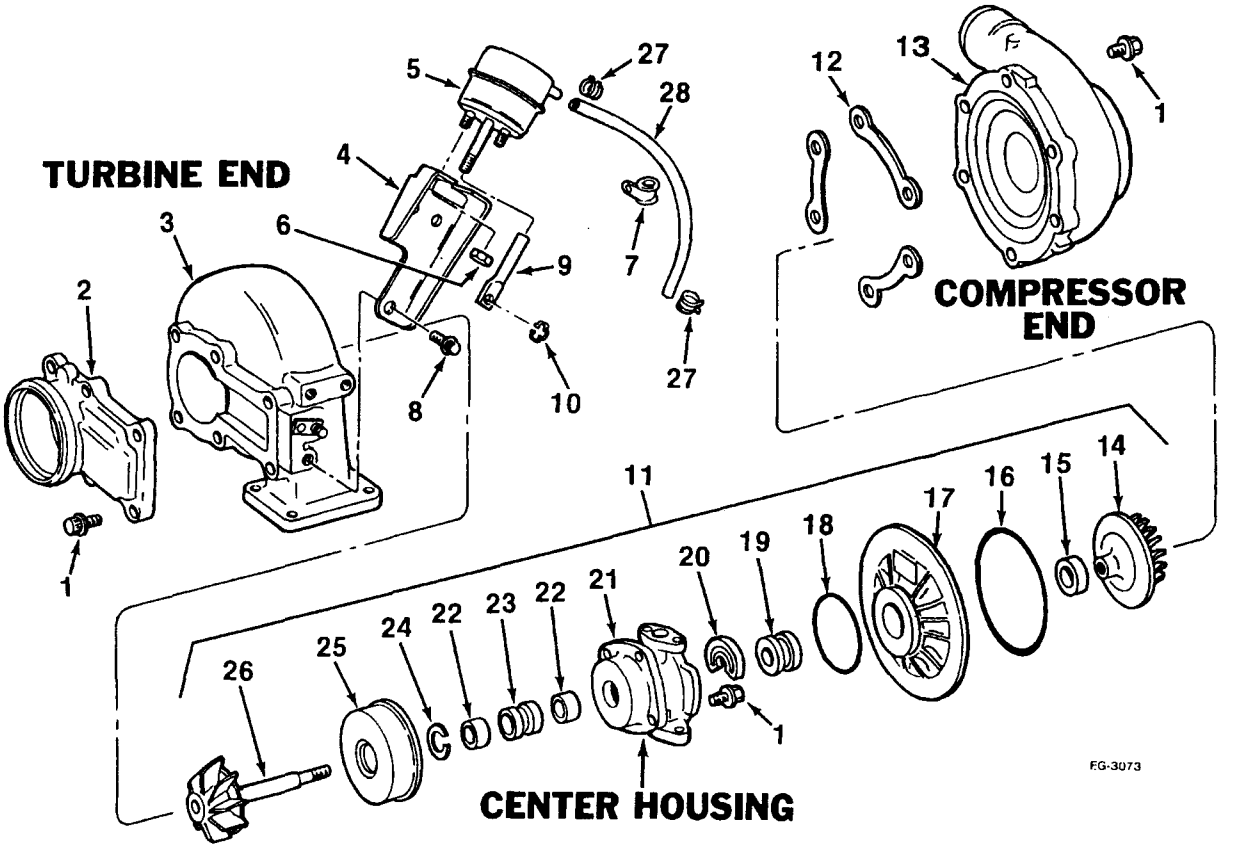
TURBOCHARGER (Model GT40)– (Not For Wastegate Or Reverse Mounted Turbos)*

REF. NO.	PART NUMBER	DESCRIPTION
		TURBOCHARGER mounting hardware
	1 821 648 C1	NUT, hex flange, special (4) (Mounting studs are listed w/Exhaust Manifold; refer to section 28.)
		Turbo Assy includes
		NOTE: The following Service Parts are for Turbo Assy part numbers with **C91** suffixes **ONLY.**
1		HOUSING, turbine
	1 822 285 C1	**.85 A/R** (Turbo Assy, 1 820 943 C91)
	1 822 286 C1	**.95 A/R** (Turbo Assy, 1 820 944 C91)
	1 822 287 C1	**1.06 A/R** (Turbo Assy, 1 820 945 C91 and 1 821 114 C91)
	1 822 288 C1	**1.19 A/R** (Turbo Assy, 1 820 946 C91 and 1 822 253 C91)
	1 822 289 C1	**1.34 A/R** (Turbo Assy, 1 820 958 C91)
2	1 822 291 C91	CENTER HOUSING and ROTATING ASSY
3	1 822 268 C1	CLAMP, turbo compressor housing plate (3)
4	1 822 282 C1	HOUSING, compressor
5	1 821 349 C1	BOLT, flange, special (23)
6	1 822 283 C1	WHEEL, impeller
7	1 822 271 C1	SEAL, carbon
8	1 822 280 C1	O–RING, backplate
9	1 822 274 C1	BACKPLATE, compressor housing
10	691 466 C1	RING, center housing seal
11	1 822 273 C1	COLLAR, thrust
12	1 822 292 C1	BEARING, thrust
13	1 822 266 C1	HOUSING, center
14	1 822 275 C1	BEARING, journal (2)
15	1 822 276 C1	SPACER, bearing
16	1 822 279 C1	RING, turbo turbine housing piston
17	1 822 277 C1	SHROUD, turbine wheel
18	1 822 290 C1	WHEEL and SHAFT, turbine

* Refer to section 34 For Wastegate Turbo Components. Service Parts For Reverse Mounted Turbo Assembly not yet available.

34 TURBOCHARGER (MODEL GT40)

(Wastegate Turbo)



REF. NO.	PART NUMBER	DESCRIPTION
		TURBOCHARGER ASSY.
	1 820 939 C93	**A/R .95,** 270° Orientation WASTEGATE TURBO **TRUCK:** 7.6L, 230 hp @ 2400 r/min (Replaces Non–Wastegate Turbo 1 820 946 C91) 250 and 275 hp @ 2400 r/min) (8.7L, 275 and 300 hp @ 2000 or 2200 r/min, 250 @ 2200 r/min engine SN† and above
	1 820 941 C93	**A/R .95,** 310° Orientation WASTEGATE TURBO **TRUCK:** 7.6L, 230 hp @ 2400 r/min (Replaces Non–Wastegate Turbo 1 822 253 C91) 7.6L, 250 & 275 hp @ 2400 r/min 8.7L, 275 and 300 hp @ 2000 or 2200 r/min; 250 hp @ 2200 r/min engine SN† and above **FARM EQUIP: Claas** 8.7L, 285 hp @ 2100 r/min

† SN not available.

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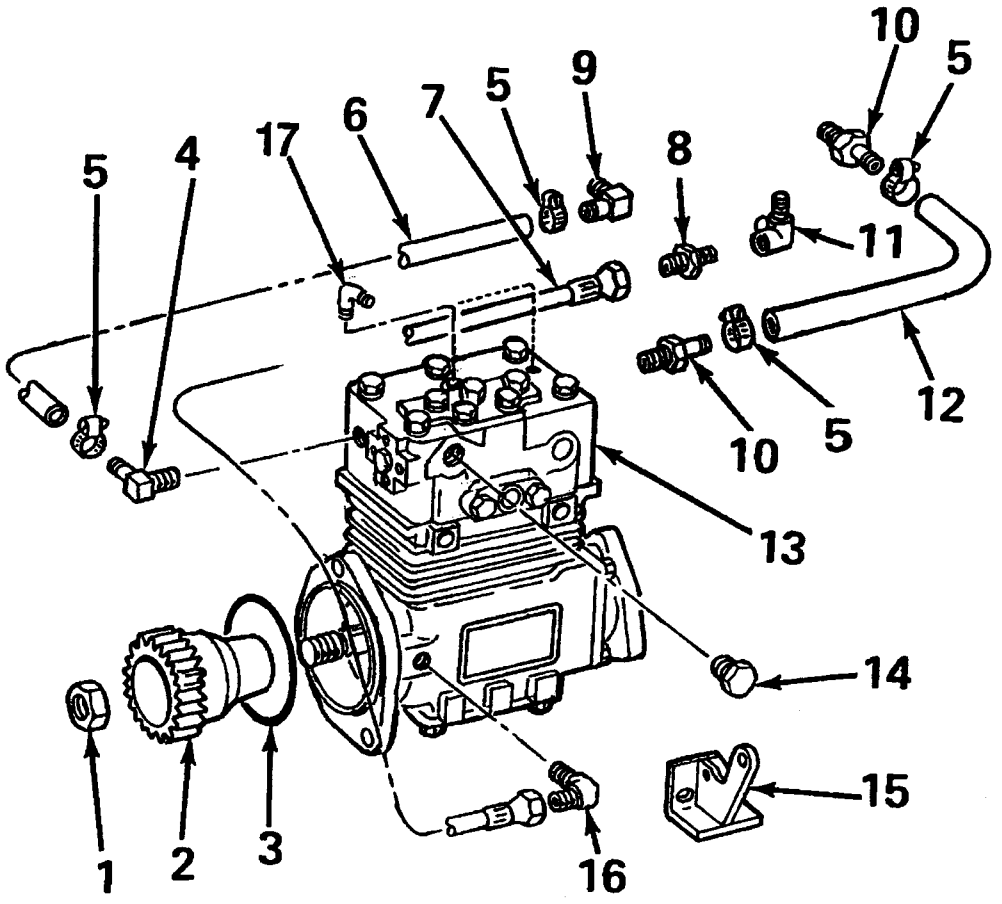
TURBOCHARGER (Model GT40)–(Wastegate Turbo), Continued

REF. NO.	PART NUMBER	DESCRIPTION
		TURBOCHARGER mounting hardware
	1 821 648 C1	NUT, hex flange, special (4) (Mounting studs are listed w/Exhaust Manifold; refer to section 28.)
		Turbo Assy includes:
		NOTE: The following Service Parts are for Turbo Assy Part No. 1 820 939 **C91** or **C92**, 1 820 941 **C91** or **C92** and 1 822 233 **C91 ONLY.**
1	1 821 349 C1	BOLT, flange, special (23)
2	1 822 293 C1	ELBOW, turbine housing
3		HOUSING, turbine
	1 822 284 C1	**.95 A/R** except Turbo Assy 1 822 233 C91
	_ _ _ _ _ _ _	**.76 A/R**∗ Turbo Assy, 1 822 233 C91
4	1 822 465 C1	BRACKET, wastegate actuator
5	1 822 396 C1	ACTUATOR, turbo wastegate
6	1 822 464 C1	NUT, wastegate actuator mounting (2)
7	1 822 459 C1	CLAMP, hose (At Compressor housing)
8	1 822 461 C1	BOLT, wastegate actuator bracket mounting (3)
9	1 822 466 C1	ROD END, wastegate actuator
	1 822 469 C1	NUT, jam
10	1 822 467 C1	RING, retaining, rod end
11	1 822 291 C91	CENTER HOUSING and ROTATING ASSY
12	1 822 268 C1	CLAMP, turbo compressor housing plate (3)
13	1 822 281 C1	HOUSING, compressor
	1 822 468 C1	FITTING, 45°, actuator hose
14	1 822 283 C1	WHEEL, impeller
15	1 822 271 C1	SEAL, carbon
16	1 822 280 C1	O–RING, backplate
17	1 822 274 C1	BACKPLATE, compressor housing
18	691 466 C1	RING, center housing seal
19	1 822 273 C1	COLLAR, thrust
20	1 822 292 C1	BEARING, thrust
21	1 822 266 C1	HOUSING, center
22	1 822 275 C1	BEARING, journal (2)
23	1 822 276 C1	SPACER, bearing
24	1 822 279 C1	RING, turbo turbine housing piston
25	1 822 277 C1	SHROUD, turbine wheel
26	1 822 290 C1	WHEEL and SHAFT, turbine
27	1 822 460 C1	CLAMP, hose (2) (At compressor housing and actuator elbow)
28		HOSE, actuator to compressor housing elbow
	1 822 457 C1	Turbo Assy, 1 820 939 C92 and 1 822 233 C91
	1 822 458 C1	Turbo Assy, 1 820 941 C92

∗ Part No. not yet available.

35 AIR COMPRESSOR, MOUNTING, AND PIPING



REF. NO.	PART NUMBER	DESCRIPTION
1		NUT, air compressor crankshaft (Part of Air Compressor Assy)
2	1 820 296 C2	GEAR, air compressor drive (26 Teeth)
3	1 818 727 C1	GASKET, air compressor mounting
4	864 457 R1	ELBOW, hose
5	576 166 C1	CLAMP, hose (4) (Replaces 27 861 R1)
6		HOSE, coolant inlet (1/2 in. I.D. X 13.5 in.) **Premium Hose (cut from bulk hose, 2 643 505 R1) Silicone Hose (cut from bulk hose, 512 346 C1)**
7	1 821 023 C1	HOSE W/Fittings, air compressor lube oil
8	118 748	CONNECTOR, brass 1/4 in. X 45° flared tube
9	864 457 R1	ELBOW, hose (At Block)

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AIR COMPRESSOR, MOUNTING, AND PIPING, Continued

REF. NO.	PART NUMBER	DESCRIPTION
10	864 439 R1	NIPPLE, hose connector (2) (At Crankcase and Air Compr coolant outlet)
11		ELBOW, air compr/inj pump lube oil (At Crankcase) (Refer to Injection Pump Piping illustration.)
12		HOSE, coolant outlet (1/2 in. I.D. X 11 in., except 13 in. for Model BX–2150 Compressor) **Premium Hose (cut from bulk hose, 2 643 505 R1)** **Silicone Hose (cut from bulk hose, 512 346 C1)**
13		COMPRESSOR ASSY, air (Service Parts not yet available.)
	2 003 252 C94	**MODEL TF–550**
	2 003 253 C94	**MODEL TF–750**
	2 003 254 C95	**MODEL BX–2150**
	1 817 969 C1	BOLT, flange, special (2) (At Front Cover)
14	444 751	PLUG,1/2–14 NPTF auto sq–soc pipe (Not for use w/Model BX–2150 compressor.)
15		BRACKET, air compressor mounting
	1 822 067 C1	**For Air Compr Models TF–550 & TF–750**
	1 822 068 C1	**For Air Compr Model BX–2150**
	1 817 967 C1	BOLT, flange, special (2) (At Block)
	1 817 965 C1	BOLT, flange, special (2) (at compressor)
	966 788 R1	**L–CLIP**, extension
	1 818 281 C1	BOLT, flange, special
	31 083 R1	NUT, M10 hex flange
16	118 753	ELBOW, brass 1/4 X 45° flared tube ext pipe thread
17	55 916 R1	ELBOW, 90° spherical sleeve
	2 643 505 R1	HOSE, **premium**, bulk (Part No. covers one foot of bulk hose, order as required.)
	2 643 505 R1	HOSE, **silicone**, bulk (Part No. covers one foot of bulk hose, order as required.)

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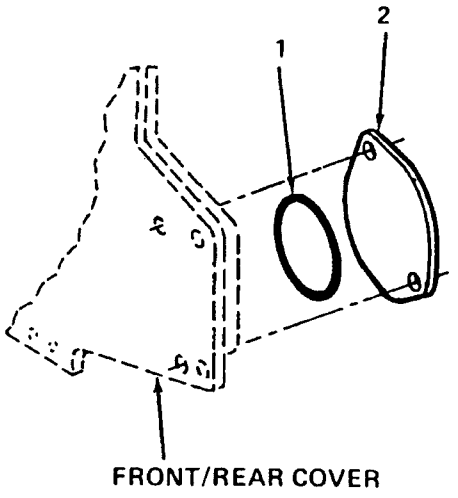
36 ACCESSORY COVER

(For Use w/o Air Compressor and w/o Hydraulic Pump)



EG-1040

REF. NO.	PART NUMBER	DESCRIPTION
1	1 818 727 C1	GASKET, cover plate
2	1 818 432 C1	PLATE, cover (Air Compressor Mounting Opening)
	1 817 969 C1	BOLT, flange, special (2)
	31 084 R1	NUT, M12 hex flange (2)

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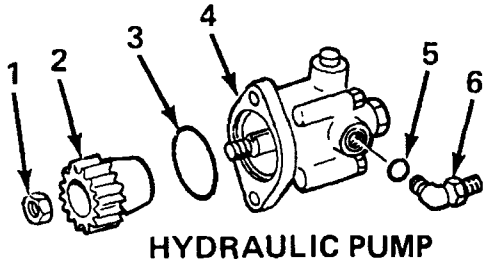
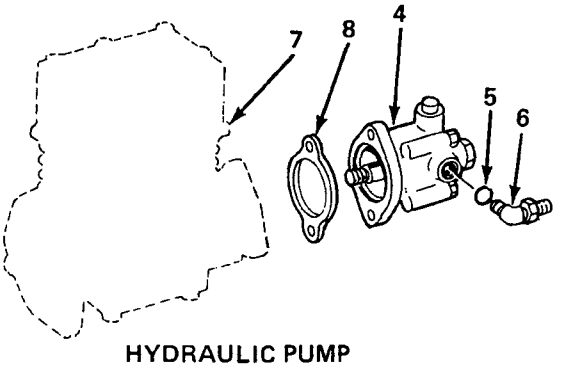
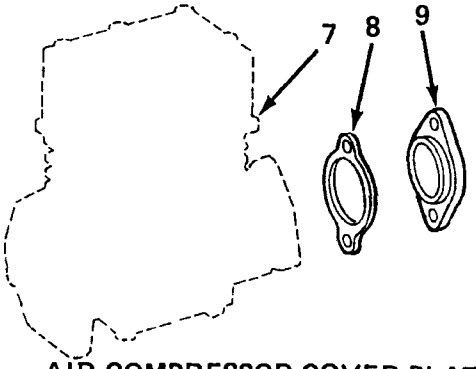
37 HYDRAULIC (POWER STEERING) PUMP AND AIR COMPRESSOR COVER PLATE



HYDRAULIC PUMP
(FOR USE W/O AIR COMPRESSOR)



HYDRAULIC PUMP
(FOR USE W/AIR COMPRESSOR)



AIR COMPRESSOR COVER PLATE
(FOR USE W/O HYDRAULIC PUMP)

REF. NO.	PART NUMBER	DESCRIPTION
1		NUT, power steering drive shaft (part of Power Steering Assy.)
2	1 820 286 C2	GEAR, power steering (21 teeth)
3	1 818 727 C1	GASKET, power steering pump mounting
4		PUMP ASSY, power steering
		(Service parts not yet available.)
	2 008 180 C92	**MODEL LUK VT-73-Z**
	2 005 337 C91	**MODEL LUK VT-73-C**
	2 008 179 C91	**MODEL LUK LF-93-25**
	2 005 338 C91	**MODEL LUK LF-93-28**
	1 818 281 C1	BOLT, flange, special (2 for **use w/air compr.**)
	1 822 372 C1	BOLT, flange, special (2 for **use w/o air compr.**)
	31 084 R1	NUT, M12 hex flange (2 for **use w/o air compr.**)
5	1 815 980 C1	O-RING (at outlet elbow) (Replaces 876 106 C1)
6	9 410 977	ELBOW, 90° w/washer and locknut
7		AIR COMPRESSOR ASSY (Refer to section 35.)
8	591 597 C2	GASKET, power steering pump mounting
9	2 005 722 C1	COVER air compressor adaptor
	1 818 281 C1	BOLT, flange, special (2)

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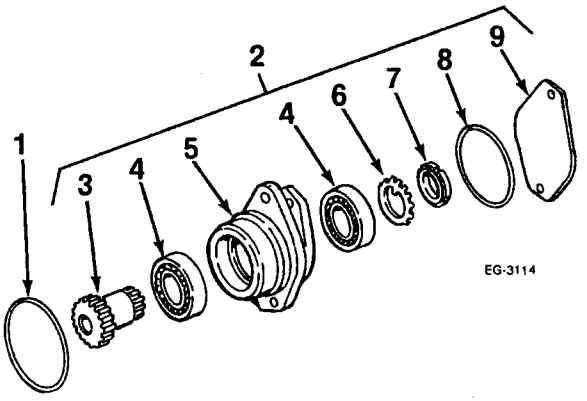
38 HYDRAULIC PUMP ADAPTOR
(INDUSTRIAL APPLICATIONS)



REF. NO.	PART NUMBER	DESCRIPTION
1	1 818 727 C1	GASKET, hydraulic pump adaptor
2		ADAPTOR ASSY, hydraulic pump (Includes items 3 – 9.)
	1 822 152 C91	**11 Tooth Spline**
	1 822 152 C91	**11 Tooth Spline**
	1 822 153 C91	**13 Tooth Spline**

REF. NO.	PART NUMBER	DESCRIPTION
3		GEAR, hydraulic pump
	1 821 987 C1	**11 Tooth Spline**
	1 821 972 C1	**13 Tooth Spline**
4	1 822 082 C1	BEARING, hydraulic pump adaptor
5	1 821 973 C1	ADAPTOR, body, hydraulic pump drive
6	1 822 081 C1	WASHER, serrated
7	1 822 080 C1	LOCKNUT, hydraulic pump gear
8	1 822 083 C1	O–RING, hydraulic pump adaptor
9	1 822 084 C1	PLATE, transport
	1 817 967 C1	BOLT, flange, special (2)

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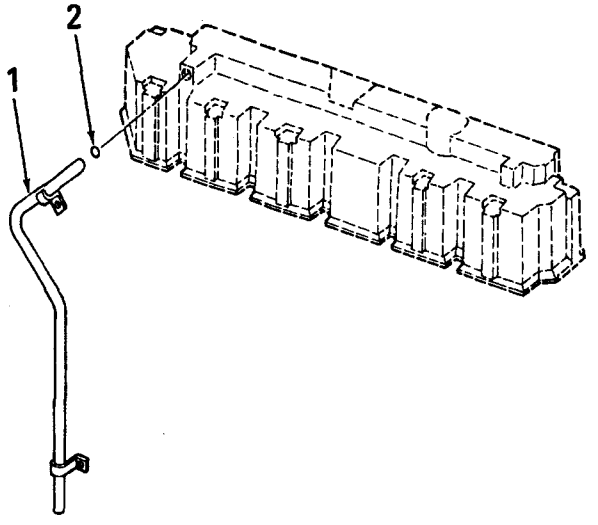
39 ENGINE VENTILATION (BREATHER)*



EG 1063

REF. NO.	PART NUMBER	DESCRIPTION
1	1 822 174 C2	TUBE w/Clamps (Brackets), breather
	1 817 967 C1	Bolt, flange, special (Upper Bolt)
	1 818 233 C1	Bolt, flange, special (Lower Bolt)
2	1 822 135 C1	O–RING, breather tube

* Refer to section 14 for breather baffle and deflectors.

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40 GASKET SERVICE PACKAGES*

REF. NO.	PART NUMBER	DESCRIPTION
1	822 366 C91	**PACKAGE**, block gasket includes:
1	822 054 C1	GASKET, oil pan drain plug
1	817 849 C1	GASKET, lubrication oil filter header
1	818 401 C2	SEAL, oil cooler front header
1	818 402 C1	O–RING, turbo oil drain tube (2)
1	819 234 C1	O–RING, rear oil seal carrier
	682 444 C1	RING, camshaft seal rear
1	822 365 C91	PACKAGE, front cover gasket
1	822 328 C91	**PACKAGE**, cylinder head gasket includes:
1	814 752 C1	GASKET, exhaust manifold
1	822 120 C1	GASKET, turbocharger
	253 660 R2	GASKET, turbo oil inlet tube flange
1	820 936 C1	GASKET, turbo oil drain tube
1	817 562 C2	GASKET, cylinder head
1	817 510 C1	GASKET, intake manifold/ valve cover
1	820 951 C1	O–RING, thermostat
	682 810 C1	GROMMET, injector dust seal (6)

REF. NO.	PART NUMBER	DESCRIPTION
1	822 365 C91	**PACKAGE**, front cover gasket includes:
1	820 416 C2	GASKET, front cover to crankcase
1	818 717 C2	GASKET, front cover oil pressure
1	818 716 C2	GASKET, front cover oil suction
		GASKET, liquid (Part No. not yet available.)
1	820 438 C1	O–RING, front cover
1	820 907 C1	O–RING, relief valve
1	819 250 C2	SEAL, injection pump drive gear cover
1	817 862 C1	SEAL, oil pump housing (2)
1	817 974 C1	GASKET, water inlet
1	819 099 C1	O–RING, water pump
1	818 716 C2	GASKET, front cover oil suction
1	816 722 C1	GASKET, oil pump inlet tube

* Additional service packages are listed with Related Parts in this catalog.

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41 ENGINE OVERHAUL PACKAGES

REF. NO.	PART NUMBER	DESCRIPTION
1	822 347 C92	**PACKAGE**, engine overhaul "In Chassis" **(Engine Codes† 12NEE, 12NEG, 12NEH, and 12NEJ, 7.6L Below 275 hp)** Includes:
1	822 389 C91	BEARING, connecting rod (6)
1	822 321 C91	PACKAGE, crankshaft front/inter bearing (6)
1	822 379 C91	PACKAGE, crankshaft rear bearing
1	809 789 C1	FILTER, final fuel
1	819 452 C1	FILTER, lube oil
1	816 722 C1	GASKET, oil pump inlet tube
1	822 328 C91	PACKAGE, cylinder head gasket
1	822 340 C92	PACKAGE, piston, sleeve and ring (6)
		GASKET, liquid (Part No. not yet available.)
		§PACKING LIST
1	822 346 C92	**PACKAGE**, engine overhaul "In Chassis" **(Engine Code† 12NEK, 7.6L 275 hp)** Includes:
1	822 389 C91	BEARING, connecting rod (6)
1	822 321 C91	PACKAGE, crankshaft front/inter bearing (6)
1	822 379 C91	PACKAGE, crankshaft rear bearing
1	809 789 C1	FILTER, final fuel
1	819 452 C1	FILTER, lube oil
1	816 722 C1	GASKET, oil pump inlet tube
1	822 328 C91	PACKAGE, cylinder head gasket
1	822 329 C92	PACKAGE, piston, sleeve & ring (6)
		GASKET, liquid (Part No. not yet available.)
		§PACKING LIST
1	822 348 C92	**PACKAGE**, engine overhaul "In Chassis" **(Engine Codes† 12NEL thru 12NER, 8.7L)** Includes:
1	822 389 C91	BEARING, connecting rod (6)
1	822 321 C91	PACKAGE, crankshaft front/inter bearing (6)
1	822 379 C91	PACKAGE, crankshaft rear bearing
1	809 789 C1	FILTER, final fuel
1	819 452 C1	FILTER, lube oil
1	816 722 C1	GASKET, oil pump inlet tube
1	822 328 C91	PACKAGE, cylinder head gasket
1	822 333 C92	PACKAGE, piston, sleeve & ring (6)
		GASKET, liquid (Part No. not yet available.)
		§PACKING LIST

†Codes	Engine Description
12NEE	7.6L, 195 hp @ 2400 r/min
12NEG	7.6L, 210 hp @ 2400 r/min
12NEH	7.6L, 230 hp @ 2400 r/min
12NEJ	7.6L, 250 hp @ 2400 r/min
12NEK	7.6L, 275 hp @ 2400 r/min
12NEL	8.7L, 250 hp @ 2200 r/min
12NEM	8.7L, 275 hp @ 2000 r/min
12NEN	8.7L, 275 hp @ 2200 r/min
12NEP	8.7L, 300 hp @ 2000 r/min
12NER	8.7L, 300 hp @ 2200 r/min

§ Not Furnished Separately

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1 664 749 C2	14
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