

Service Parts

Engine

Engine Model:

Ford LRG-425
2.5 Liter (153 CID)

Generator Models:

18/20 kW

Introduction

This parts manual provides the user with information for the proper service parts for repairing the generator set engine.

NOTE: The recommendations and suggestions contained in this publication are made to assist the distributor in improving their distributorship parts and/or service department operations. These recommendations and suggestions do not supersede or override the provisions of the Warranty and Policy Manual and in any cases where there may be a conflict, the provisions of the Warranty and Policy Manual shall govern.

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INSTRUCTIONS

READ CAREFULLY BEFORE USING THIS MANUAL

This manual was developed to assist **Ford Power Products** customers in assembling and servicing the **LRG 425** Engine and Parts Groups. It is designed to allow these customers an easy step-by-step procedure in completing their assembly task.

- This manual is designed to be an assembly and a service parts manual.
- Assure this manual is made available to your assembly and parts personnel.
- The illustrations contained in this manual are typical and are intended for installation of Ford supplied Phase II assembly groups only.
- The engineering group worksheet information has been incorporated with the illustration. Components are called out on the illustration using the base part number.
- Parts contained as well as assembly sequences for a particular group are listed in the corresponding chart.
- Observe and employ all critical torque specifications, notes and references.

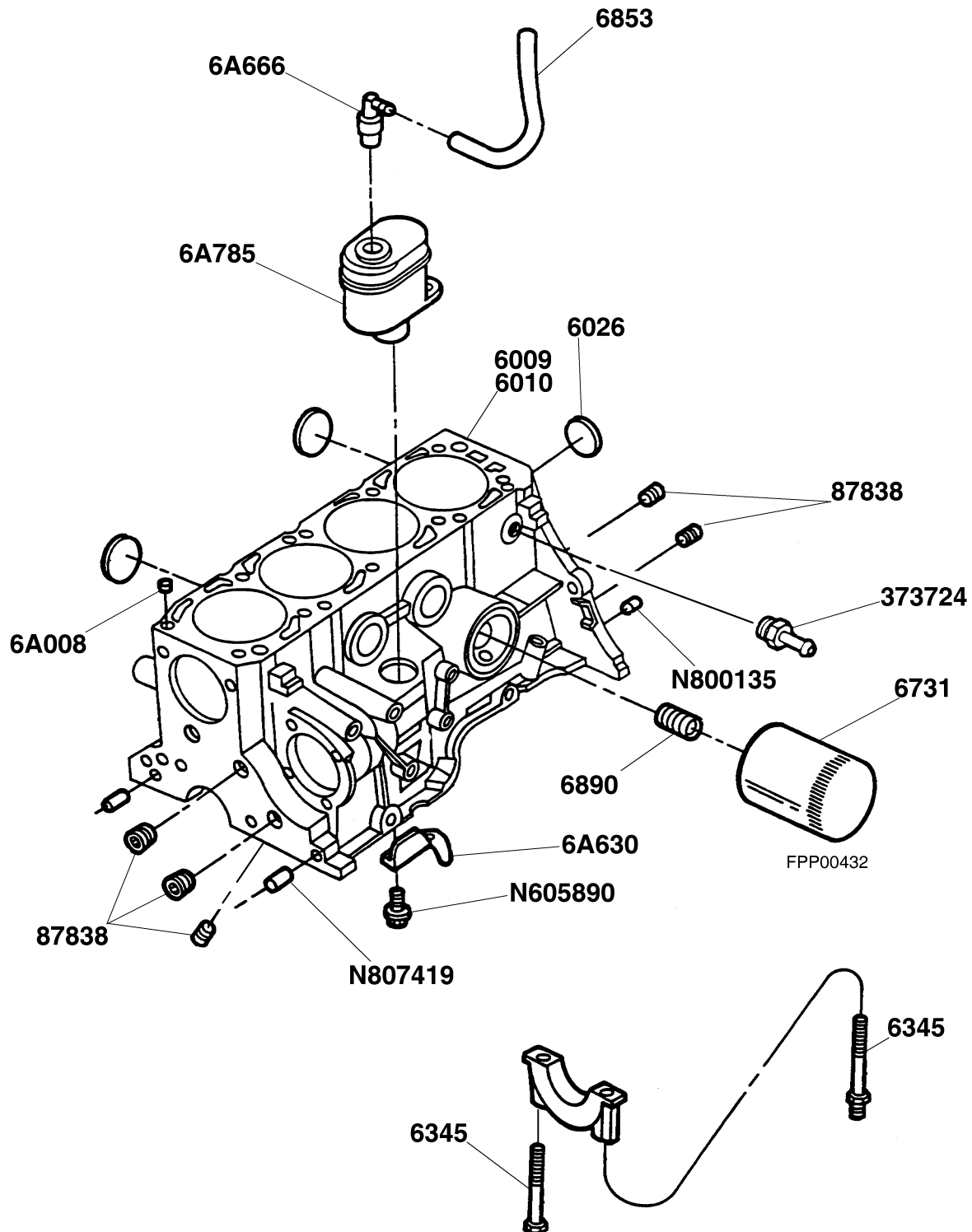
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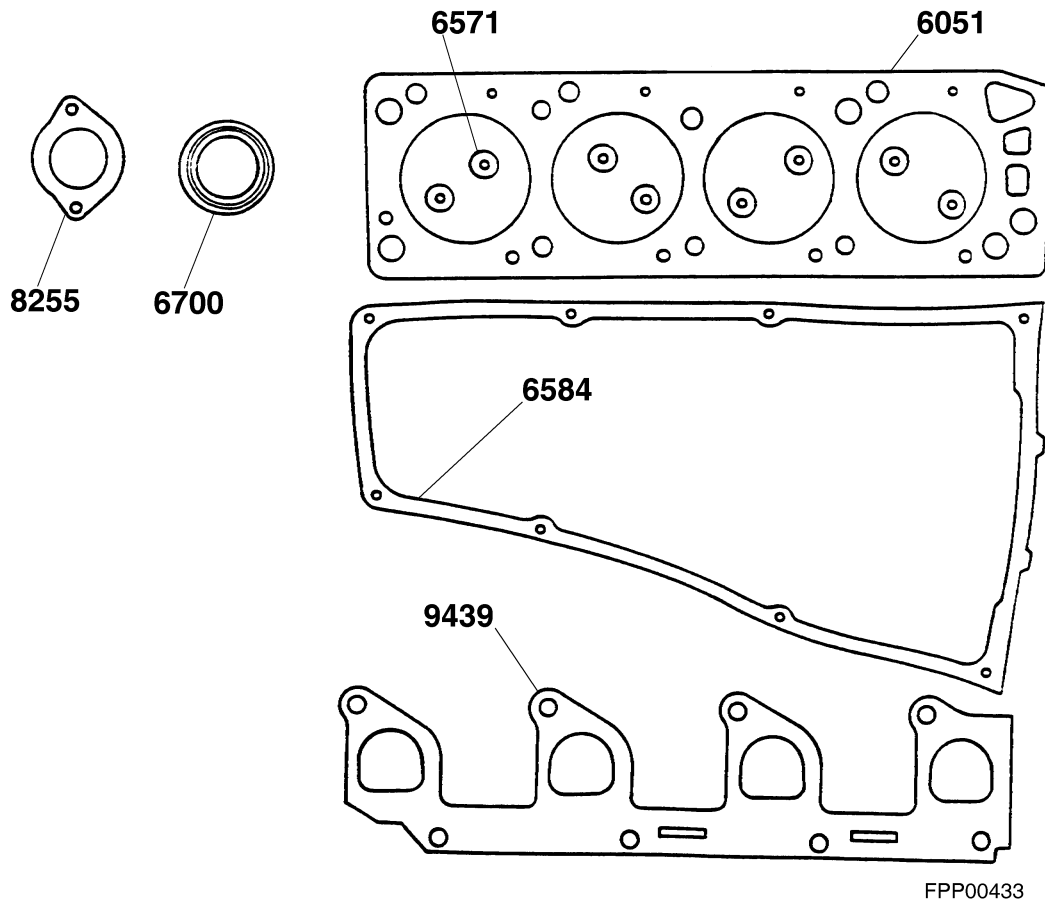
CYLINDER BLOCK & RELATED PARTS



CYLINDER BLOCK & RELATED PARTS

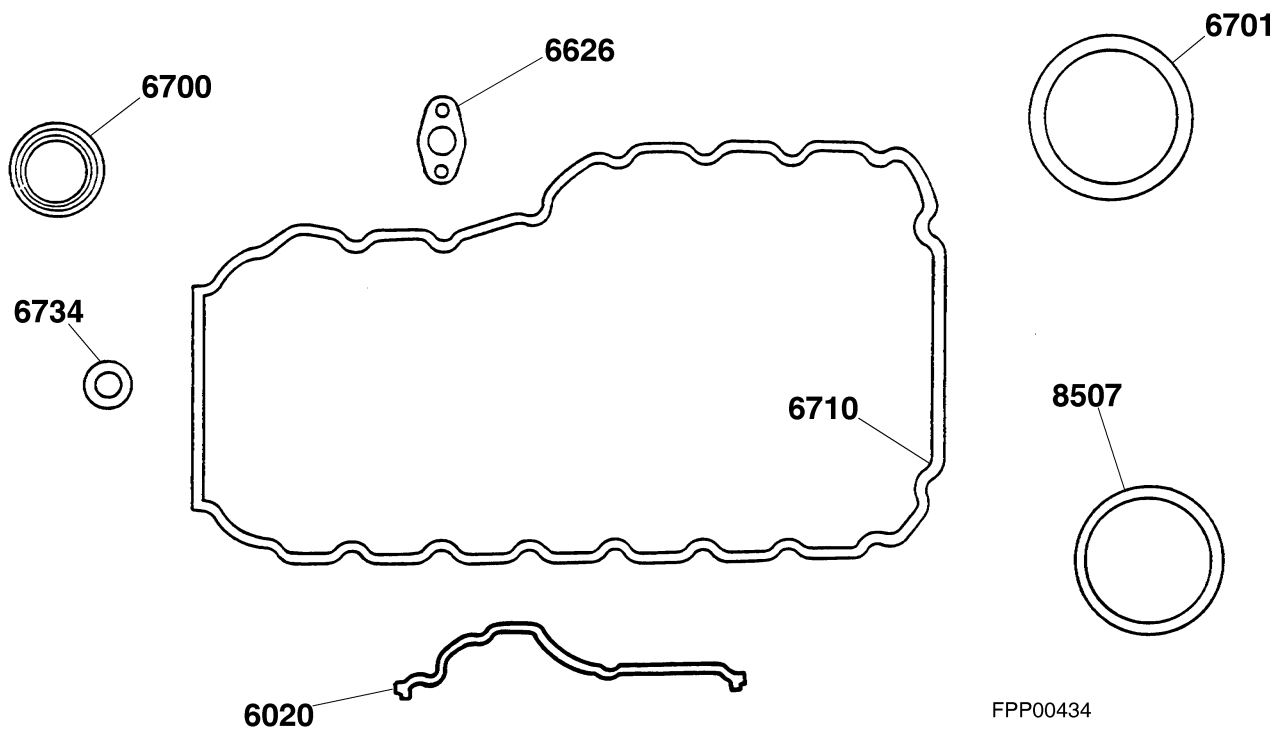
Service Parts NO.	Description	Qty	EFI	CARB
F87Z 6009 BA	Cylinder Block & Crankshaft Assembly. Includes crankshaft, rods, pistons, internal components	1	X	X
F87Z 6010 AA	Cylinder Block. Excludes crankshaft, rods, pistons, internal components	1	X	X
D9AZ 6731 A	Oil Filter – Large size	AR	X	X
E4FZ 6731 AB	Oil Filter – Medium size	AR	X	X
D4ZZ 6731 B	Oil Filter – Small size	AR	X	X
F77Z 6853 BA	Hose - Crankshaft Ventilation	1	X	X
E8ZZ 6890 A	Insert - Oil Filter	1	X	X
87838 S101	Pipe Plug 3/8 -18 Cyl. Block. 2 Front, 2 Rear, 1 Bottom	5	X	X
373724 SA	Connector 1/4 Hose X 3/8 Ex. Pipe	1	X	X
F57Z 6A630 A	Baffle - Crankcase Vent	1	X	X
F5TZ 6A785 A	Oil Separator	1	X	X
F67Z 6A666 A	Valve Asy. – Regulating Crankcase Vent	1	X	X
D4FZ 6A008 A	Dowel - Cyl. Head to Block	2	X	X
N807419 S	Bushing - Front Cover to Block	2	X	X
N800135 S43	Dowel Pin - Flywheel to Block	2	X	X
N605890 S2	Bolt - Baffle Plate to Cyl. Block M6 X 1 X 14	2	X	X
87837 S102	Pipe Plug 1/4-18 x .46 Cyl. Block	1	X	X
87838 S2	Pipe Plug 3/8-18 x .42 socket hex	1	X	X
87838 S101	Pipe Plug 3/8-18 x .42 socket hex	1	X	X
N620482 S2	Nut - Oil Pan Baffle	1	X	X
E5ZZ 6345 A	Stud - Bearing Cap to Oil Pump Screen & Cover M10 x 1.5 / M12 x 1.75 x 108	1	X	X
D4FZ 6345 A	Bolt - Main Bearing Cap M12 x 1.75 x 80 hex head	9	X	X
F6AZ 6026 BA	Plug - Cyl. Block & Cyl. Head 38.3 MM Cup	5	X	X

GASKET KIT - UPPER



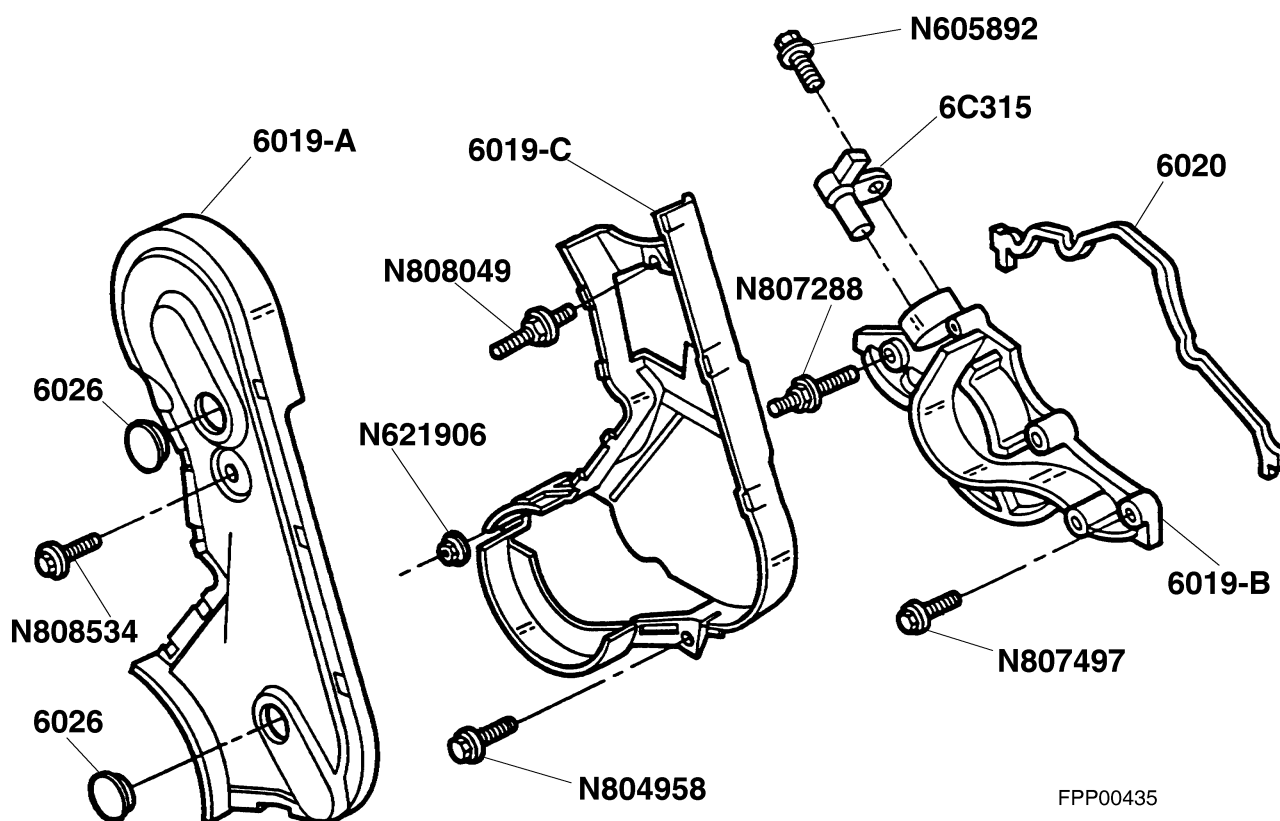
Service Parts NO.	Description	Qty	EFI	CARB
F7JL 6079 AB	Gasket Kit - Upper	1	X	X
	Gasket Kit Upper Consists Of:	1		
E8ZZ 6700 A	Seal - Crankshaft Frt., Camshaft, Oil Pump Shaft	1	X	X
E8ZZ 8255 A	Gasket - Water Outlet Cyl. Head (Paper). Not used on 2.5	1		
F87Z 8255 AA	Gasket - Water Outlet Cyl. Head (Rubber)	1	X	X
F3ZZ 6051 C	Gasket - Cylinder Head	1	X	X
	Insert - Exhaust Valve Seat	4	X	X
F57Z 6571 A	Seal - Valve Stem	8	X	X
F57Z 6584 A	Gasket - Valve/Rocker Arm Cover	1	X	X
F57Z 9439 B	Gasket - Intake Manifold to Cylinder Head	1	X	X

GASKET KIT - LOWER



Service Parts NO.	Description	Qty	EFI	CARB
F87Z 6E078 AA	Gasket Kit - Lower	1	X	X
	Gasket Kit Lower Consists Of:			
E5ZZ 6701 A	Seal - Crankshaft Rear	1	X	X
E8ZZ 6700 A	Seal - Crankshaft Frt., Camshaft, Oil Pump Shaft	3	X	X
F3DZ 6734 A	Gasket - Oil Drain Plug	1	X	X
F57Z 6020 A	Gasket - Front Cover Asy.	1	X	X
F5TZ 6626 A	Gasket - Oil Pickup Tube	1	X	X
F57Z 8507 CC	Gasket - Water Pump	1	X	X
F87Z 6710 AA	Gasket - Oil Pan	1	X	X

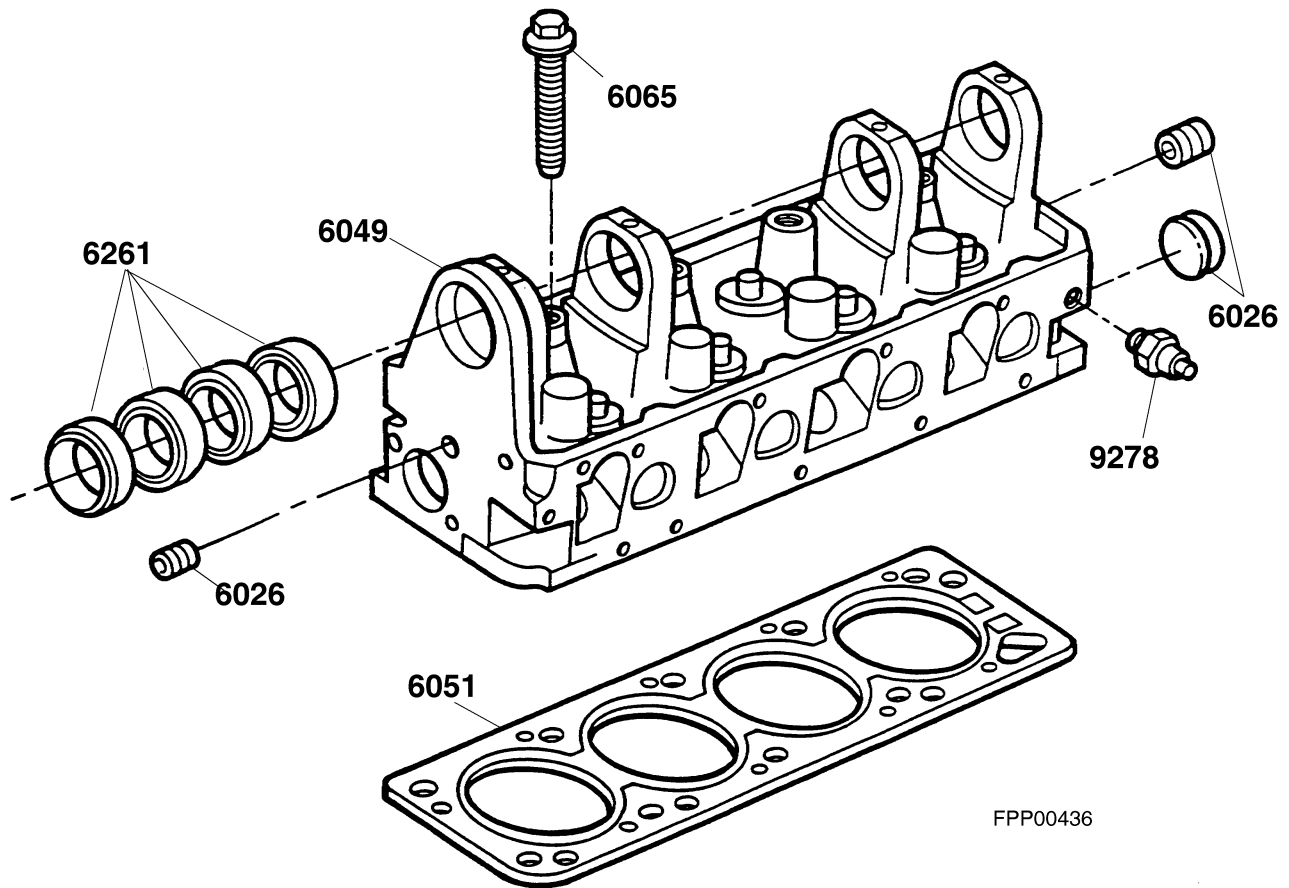
TIMING BELT COVERS



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Service Parts NO.	Description	Qty	EFI	CARB
F57Z 6019 B	Cover Asy. - Engine Front with seal	1	X	X
F57Z 6020 A	Gasket - Front Cover Asy.	1	X	X
F57Z 6019 C	Cover - Timing Belt Inner	1	X	X
F57Z 6019 A	Cover - Timing Belt Outer	1	X	X
F57Z 6C315 A	Sensor Asy. - Crankshaft Timing Front Cover	1	X	X
N605892 S21	Screw - Crankshaft Sensor M6 X 1.0 X 20	1	X	X
N621906 S55	Nut & Washer - Front Cover M6 X 1.0	1	X	X
N804958 S8	Screw & Washer - Inner Cover M6 X 1.0 X 22.5	1	X	X
N807288 S2	Stud - Timing Belt Cover to Front Cover M6 X 1 X 1 X 1 X 61.8	1	X	X
N807497 S2	Bolt - Front Cover M6 X 37.5	3	X	X
N808049 S102	Stud - Inner Cover to Cyl. Head M8 X 1.25 X 51	1	X	X
N808534 S2	Bolt - Timing Belt Cover Outer M6 X 1 X 17	1	X	X
F1ZZ 6026 A	Plug Button - 31.8	2	X	X

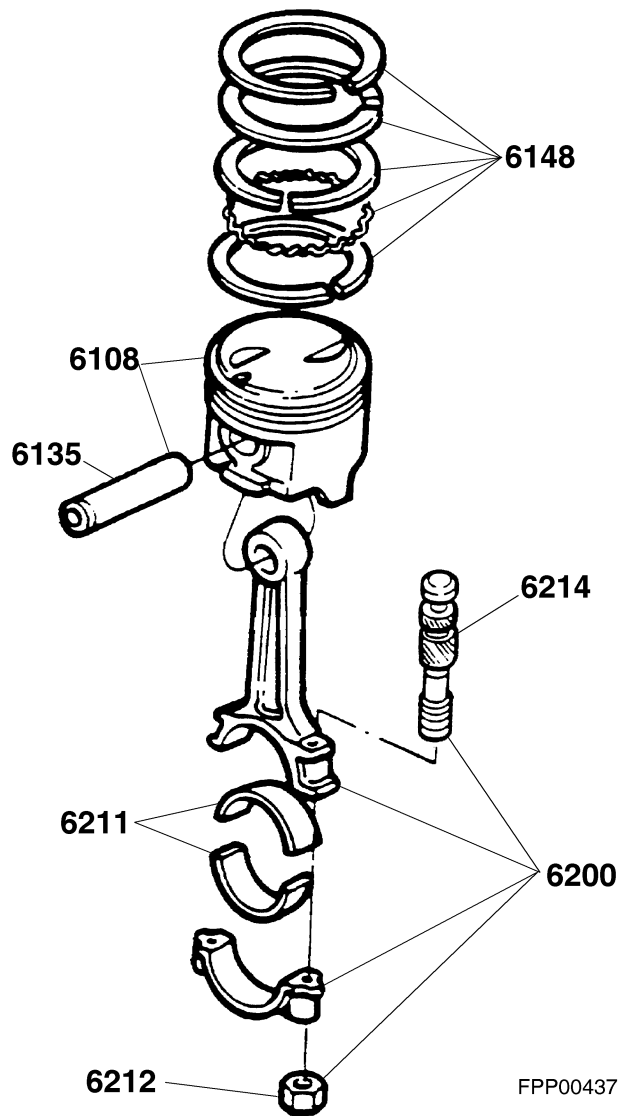
CYLINDER HEAD



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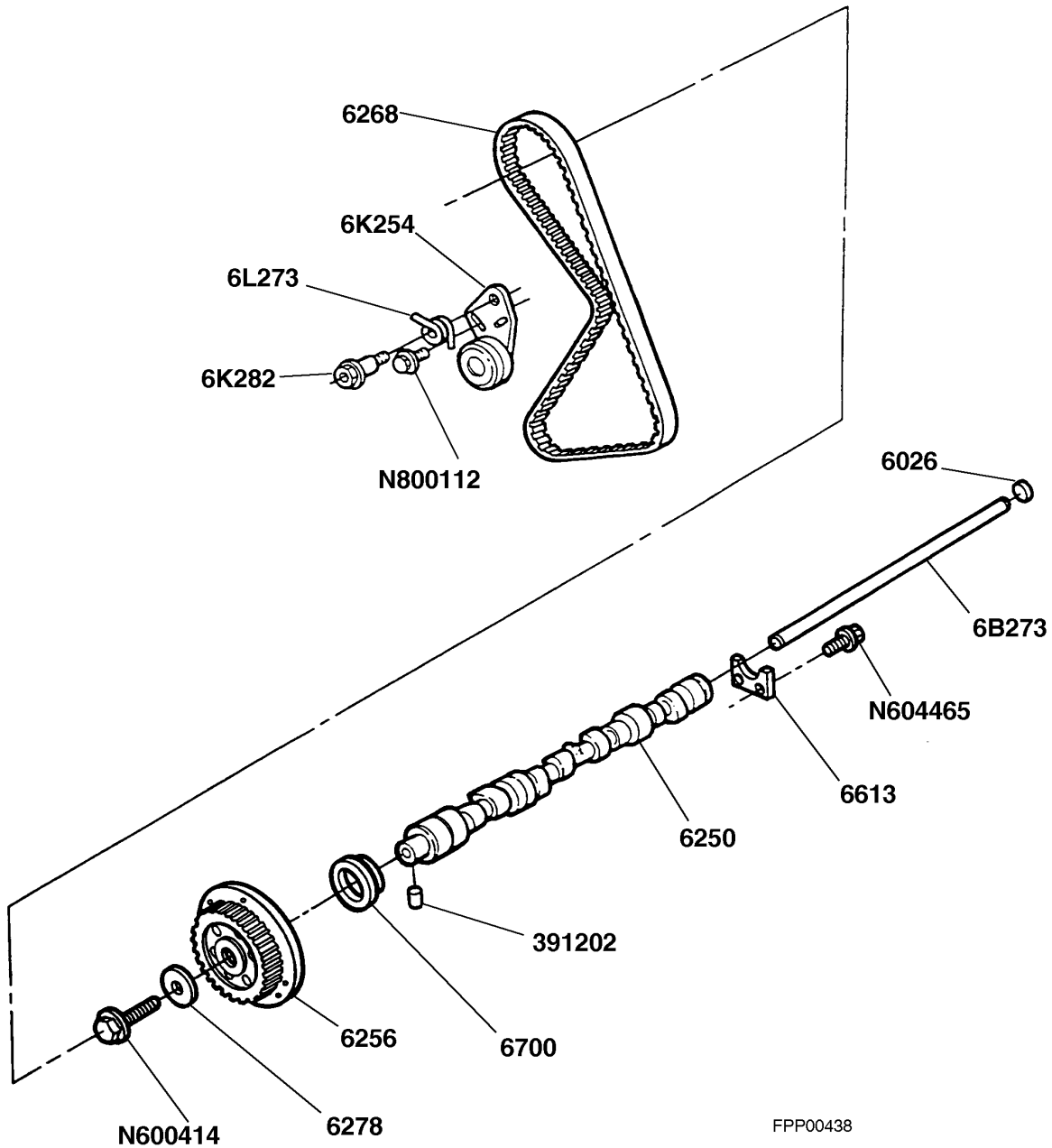
Service Parts NO.	Description	Qty	EFI	CARB
F8JL 6049 AB	Cylinder Head W/Plugs & Cam Brgs. Excludes Camshaft & Valves	1	X	X
F3ZZ 6051 C	Gasket - Cylinder Head	1	X	X
D4FZ 6261 C	Bearing - Camshaft	4	X	X
D4FZ 6261 B	Bearing - Camshaft .015 U/S	AR	X	X
E9SZ 9278 A	Switch Asy. - Oil Pressure (ZAMBONI - SEE "OIL PRESSURE & WATER TEMPERATURE SWITCH).	1	X	X
F1ZZ 6026 B	Pipe Plug 1/4-18 Cyl. Head	3	X	X
F3ZZ 6065 FA	Bolt - Cyl. Head	10	X	X
F6AZ 6026 BA	Plug - Cyl. Block & Cyl. Head 38.3 MM Cup	5	X	X

PISTON ASSEMBLY



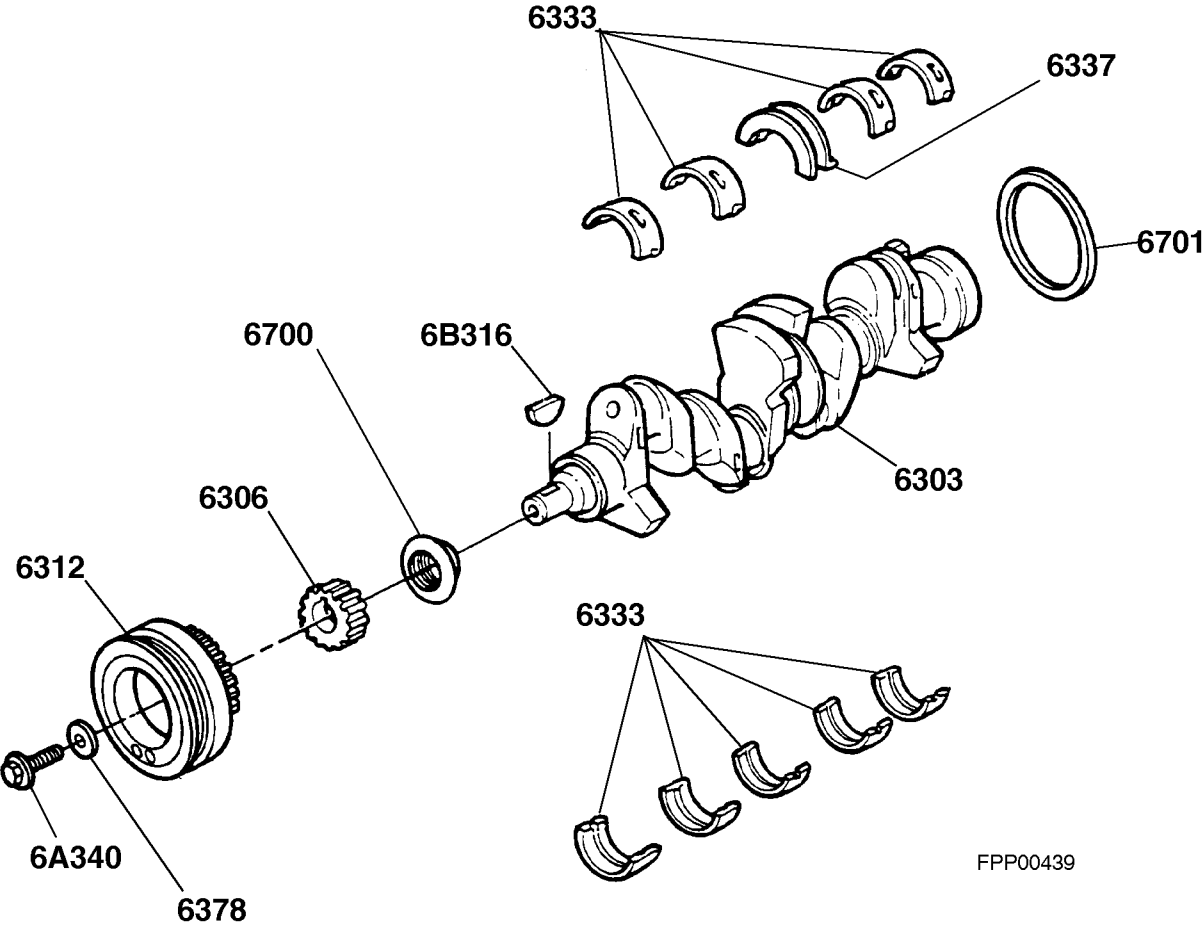
Service Parts NO.	Description	Qty	EFI	CARB
F87Z 6108 JA	Piston & Pin Asy. Std. Piston Grade 1,2 Marked on dome	4	X	X
F87Z 6148 AA	Piston Ring Set Std. Qty. 1 Service part no. will service 2 pistons	2	X	X
F87Z 6200 BA	Rod - Connecting	4	X	X
F87Z 6211 AA	Bearing - Connecting Rod	8	X	X
F2ZZ 6214 A	Bolt - Connecting Rod	8	X	X
D4FZ 6212 A	Nut - Connecting Rod	8	X	X

CAMSHAFT & TIMING BELT



Service Parts NO.	Description	Qty	EFI	CARB
E7HZ 6026 E	Plug - .81 Cup	1	X	X
F57Z 6250 B	Camshaft - Finished (Roller)	1	X	X
F77Z 6256 AG	Sprocket - Camshaft. Also Used As Oil Pump Sprocket	2	X	X
F57Z 6268 A	belt - Timing	1	X	X
D4FZ 6278 A	Washer - Camshaft Sprocket	1	X	X
391202 S	Dowel Pin - Cam Sprocket ¼ Dia. X .32	1	X	X
XL5Z 6613 AA	Retainer - Camshaft	1	X	X
F57Z 6B273 A	Rod - Cam Oil Flow Control	1	X	X
F57Z 6K254 A	Tensioner Asy. - Timing Belt	1	X	X
FOTZ 6K282 B	Bolt - Tensioner to Cyl. Head	1	X	X
F47Z 6L273 A	Spring - Timing Belt	1	X	X
N600414 S100	Bolt - Cam Sprocket M12 X 1.75 X 45	1	X	X
N604465 S	Screw - Camshaft Plate M6 X 1.0 X 12	2	X	X
N800112 S2	Screw & Washer - Tensioner Timing Belt M8 X 1.25 x 20 Hex Head	1	X	X

CRANKSHAFT & BEARINGS

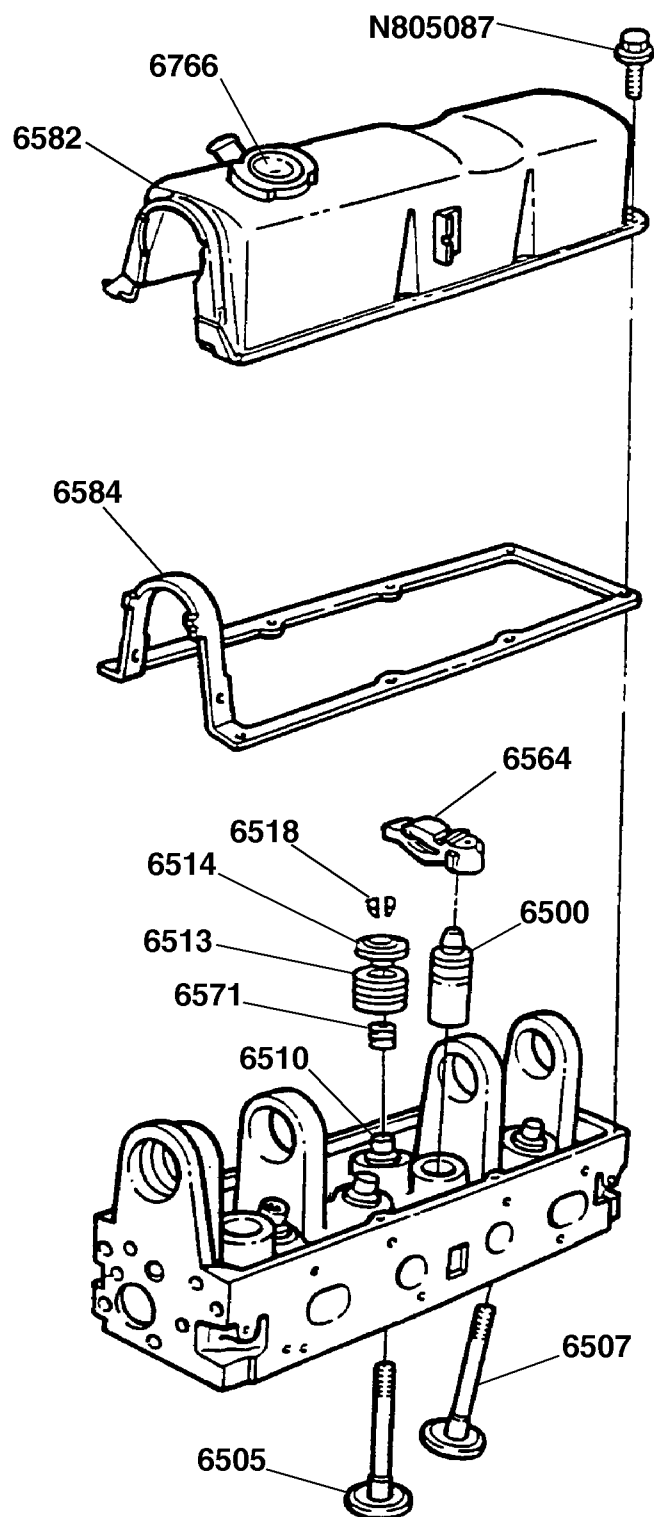


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CRANKSHAFT & BEARINGS

Service Parts NO.	Description	Qty	EFI	CARB
F87Z 6303 AA	Crankshaft - Finished	1	X	X
F1ZZ 6306 A	Sprocket - Crankshaft	1	X	X
F87Z 6312 AA	Damper Asy. - Crankshaft	1	X	X
F87Z 6333 AA	Bearing - Main Crankshaft Upper Std.	4	X	X
F87Z 6333 BB	Bearing - Main Crankshaft Upper .02 MM U/S	AR	X	X
F87Z 6333 CB	Bearing - Main Crankshaft Upper .05 MM U/S	AR	X	X
F87Z 6333 DB	Bearing - Main Crankshaft Upper .25 MM U/S	AR	X	X
F87Z 6333 EB	Bearing - Main Crankshaft Upper .50 MM U/S	AR	X	X
F87Z 6333 FB	Bearing - Main Crankshaft Upper .75 MM U/S	AR	X	X
F87Z 6333 GB	Bearing - Main Crankshaft Upper 1.00 MM U/S	AR	X	X
F87Z 6337 CA	Bearing - Thrust Crankshaft Upper Std.	1	X	X
F87Z 6337 BA	Bearing - Thrust Crankshaft Upper .02 MM U/S	AR	X	X
F87Z 6337 CA	Bearing - Thrust Crankshaft Upper .05 MM U/S	AR	X	X
F87Z 6337 DA	Bearing - Thrust Crankshaft Upper .25 MM U/S	AR	X	X
F87Z 6337 EA	Bearing - Thrust Crankshaft Upper .50 MM U/S	AR	X	X
F87Z 6337 FA	Bearing - Thrust Crankshaft Upper .75 MM U/S	AR	X	X
F87Z 6337 GA	Bearing - Thrust Crankshaft Upper 1.00 MM U/S	AR	X	X
F87Z 6333 HA	Bearing - Crankshaft Main Lwr. Std.	5	X	X
F87Z 6333 JA	Bearing - Crankshaft Main Lwr. .02 MM/US	AR	X	X
F87Z 6333 KA	Bearing - Crankshaft Main Lwr. .05 MM/US	AR	X	X
F87Z 6333 LA	Bearing - Crankshaft Main Lwr. .25 MM/US	AR	X	X
F87Z 6333 MA	Bearing - Crankshaft Main Lwr. .50 MM/US	AR	X	X
F87Z 6333 NA	Bearing - Crankshaft Main Lwr. .75 MM/US	AR	X	X
F87Z 6333 PA	Bearing - Crankshaft Main Lwr. 1.00 MM/US	AR	X	X
D8BZ 6378 A	Washer - Crankshaft Damper	1	X	X
E8ZZ 6700 A	Seal - Crankshaft Frt., Camshaft, Oil Pump Shaft	3	X	X
E5ZZ 6701 A	Seal - Crankshaft Rear	1	X	X
D1FZ 6397 A	Dowel Pin - Flywheel	3	X	X
F1ZZ 6A340 A	Bolt - Crank Pulley	1	X	X
F1ZZ 6B316 A	Key - Crankshaft	1	X	X

VALVE ASSEMBLIES & ROCKER ARM COVER

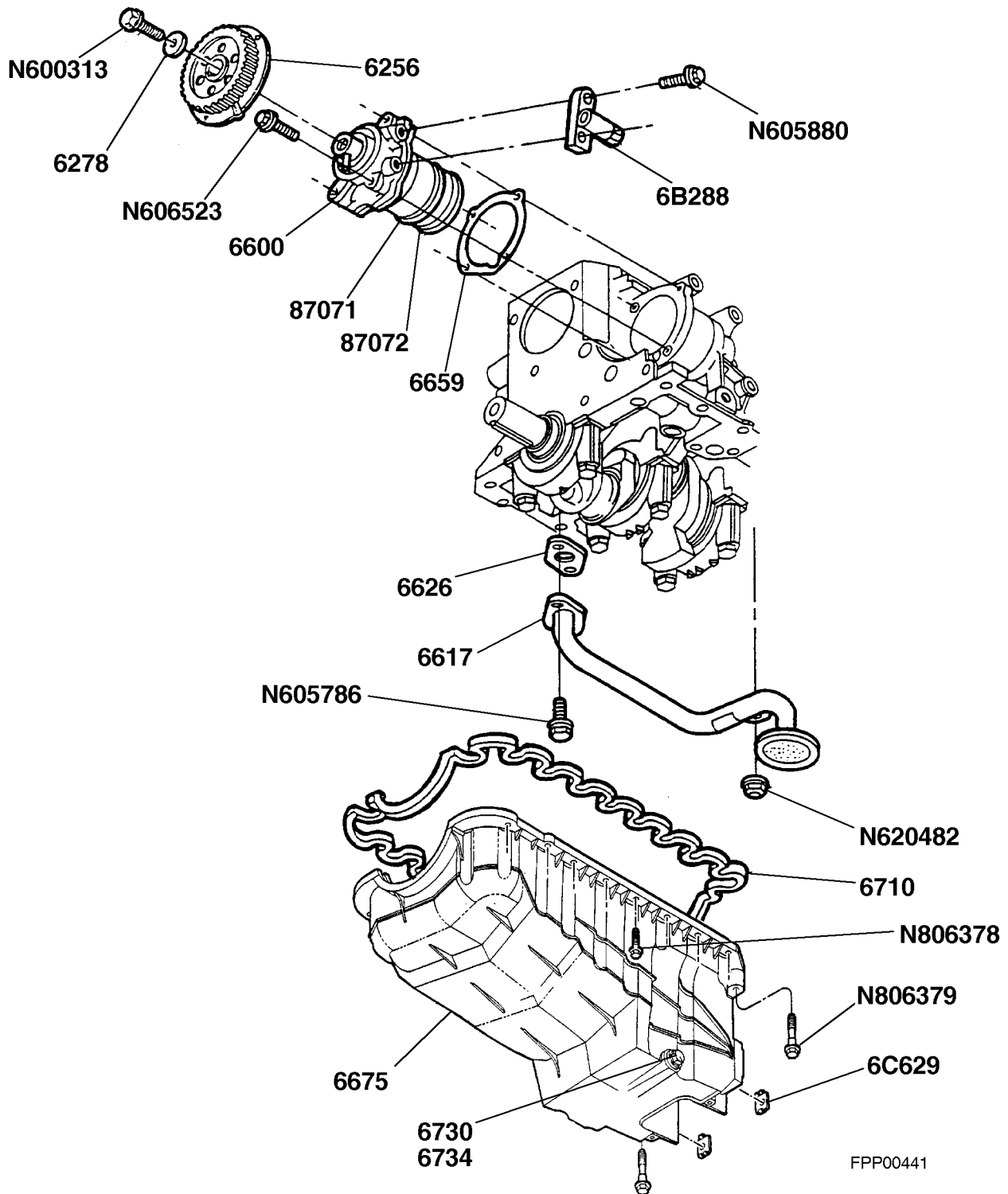


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VALVE ASSEMBLIES & ROCKER ARM COVER

Service Parts NO.	Description	Qty	EFI	CARB
F57Z 6505 AA	Valve - Cyl. Head Exhaust Std.	4	X	X
F57Z 6505 B	Valve - Cyl. Head Exhaust .015 O/S	AR	X	X
F57Z 6505 C	Valve - Cyl. Head Exhaust .030 O/S	AR	X	X
F57Z 6507 A	Valve - Cyl. Head Intake Std.	4	X	X
F57Z 6507 B	Valve - Cyl. Head Intake .015 O/S	AR	X	X
F57Z 6507 C	Valve - Cyl. Head Intake .030 O/S	AR	X	X
F57Z 6510 A	Bushing - Valve Guide	4	X	X
F57Z 6513 A	Spring - Int./Exh. Valve	8	X	X
F57Z 6571 A	Seal - Valve Stem	8	X	X
F67Z 6500 AA	Tappet - Valve Adjuster	8	X	X
F57Z 6514 A	Retainer - Valve Spring	8	X	X
F1AZ 6518 A	Key - Valve Spring Retainer	16	X	X
F57Z 6564 A	Rocker Arm - Cyl. Head	8	X	X
F87Z 6582 CA	Cover Asy. Valve Rocker Arm with Filler Cap	1	X	X
F57Z 6584 A	Gasket - Valve/Rocker Arm Cover	1	X	X
F3AZ 6766 B	Cap - Oil Filler	1	X	X
N805087 S2	Bolt - Rocker Arm Cover M6 X 1.0 X 15	9	X	X
NOTE: EXHAUST VALVE INSERTS (6057) PART OF GASKET KIT UPPER.				

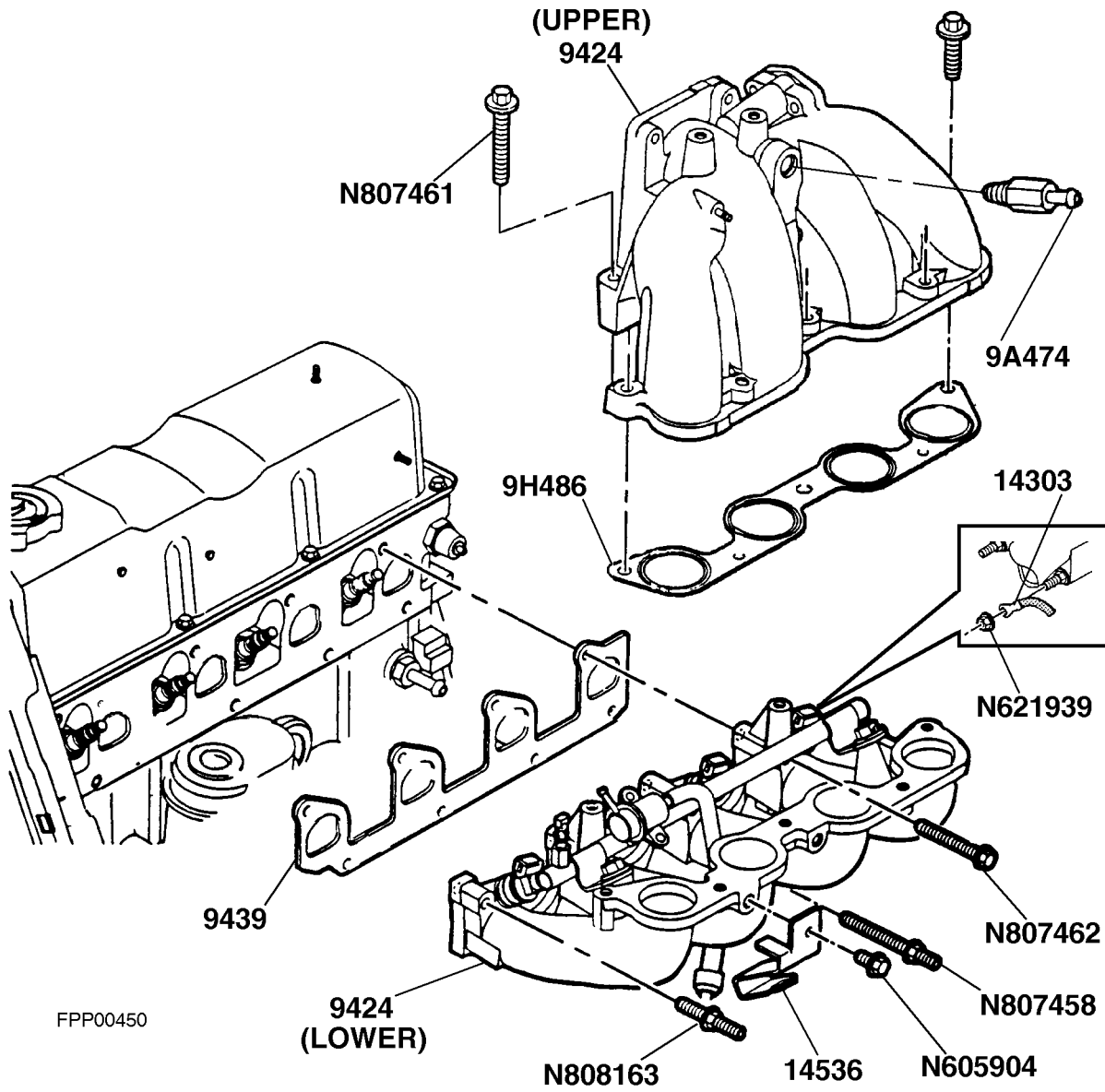
OIL PUMP & OIL PAN



OIL PUMP & OIL PAN

Service Parts NO.	Description	Qty	EFI	CARB
F77Z 6256 AG	Sprocket – Oil Pump	1	X	X
F57Z 6619 A	Gasket - Oil Pump Cover to Timing Housing	1	X	X
F77Z 6600 AB	Pump - Oil (Less Screen)	1	X	X
F87Z 6617 BA	Tube - Oil Pickup with Screen	1	X	X
F5TZ 6626 A	Gasket - Oil Pickup Tube	1	X	X
F57Z 6659 A	Gasket - Oil Pump to Block	1	X	X
F87Z 6675 EA	Pan - Engine Oil	1	X	X
F87Z 6710 AA	Gasket - Oil Pan	1	X	X
87071 S100	Seal 2 1/4x.14 (O-ring) Oil Pump to Block	1	X	X
87072 S100	Seal 2 3/8x14 (O-ring) Oil Pump to Block	1	X	X
D4FZ 6278 B	Washer - Oil Pump	1	X	X
F57Z 6B288 A	Sensor Asy. - Cylinder Identification	1	X	
N600313 S2	Bolt - Oil Pump Sprocket M10 X 1.5 X 40	1	X	X
N605786 S2	Bolt - Oil Pump Screen & Cover M8 X 1.25 X 20	2	X	X
N606523 S309	Bolt M6 X 1 X 47.5 Oil Pump to Cyl. Block	4	X	X
N605880 S100	Bolt - Camshaft Sensor M5 X .8 X 20	2	X	X
N806378 S36	Bolt - Oil Pan to Block M6 X 27.5 Hex Flange Head	16	X	X
N806379 S141	Bolt - Oil Pan to Front Cover M6 X 52.5 Hex Flange Head	2	X	X
F1AZ 6026 C	Plug - 11.4MM Cup Oil Pump	1	X	X
N620482 S2	Nut - Oil Pickup Tube 10 X 1.5	1	X	X
E69Z 6C629 A	Spacer – Oil Pan .009	AR	X	X
E69Z 6C629 B	Spacer – Oil Pan .0185	AR	X	X
E69Z 6C629 C	Spacer – Oil Pan .028	AR	X	X
F5RZ 6730 B	Plug – Oil Pan Drain	1	X	X

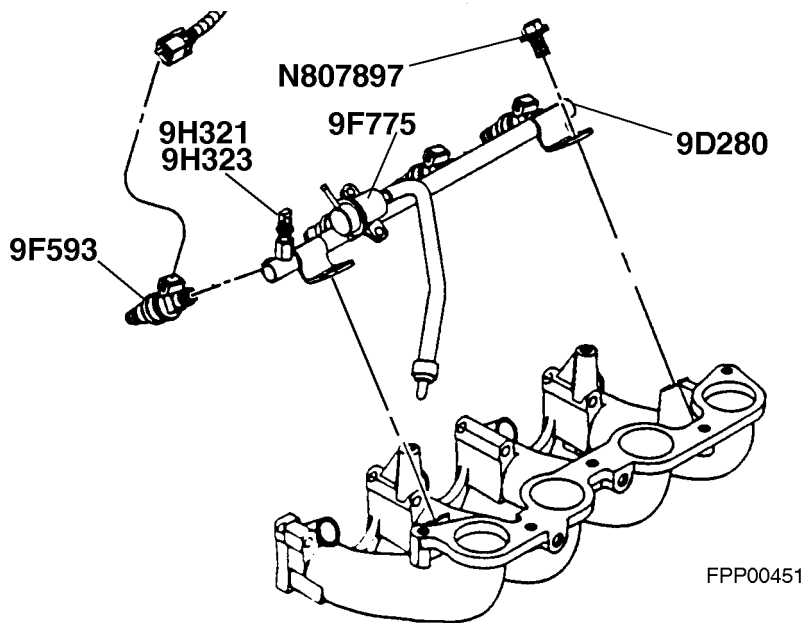
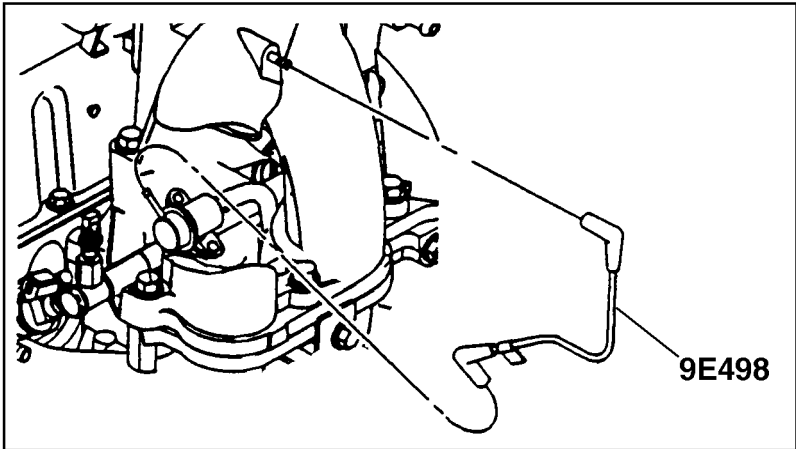
INTAKE MANIFOLD - EFI



INTAKE MANIFOLD - EFI

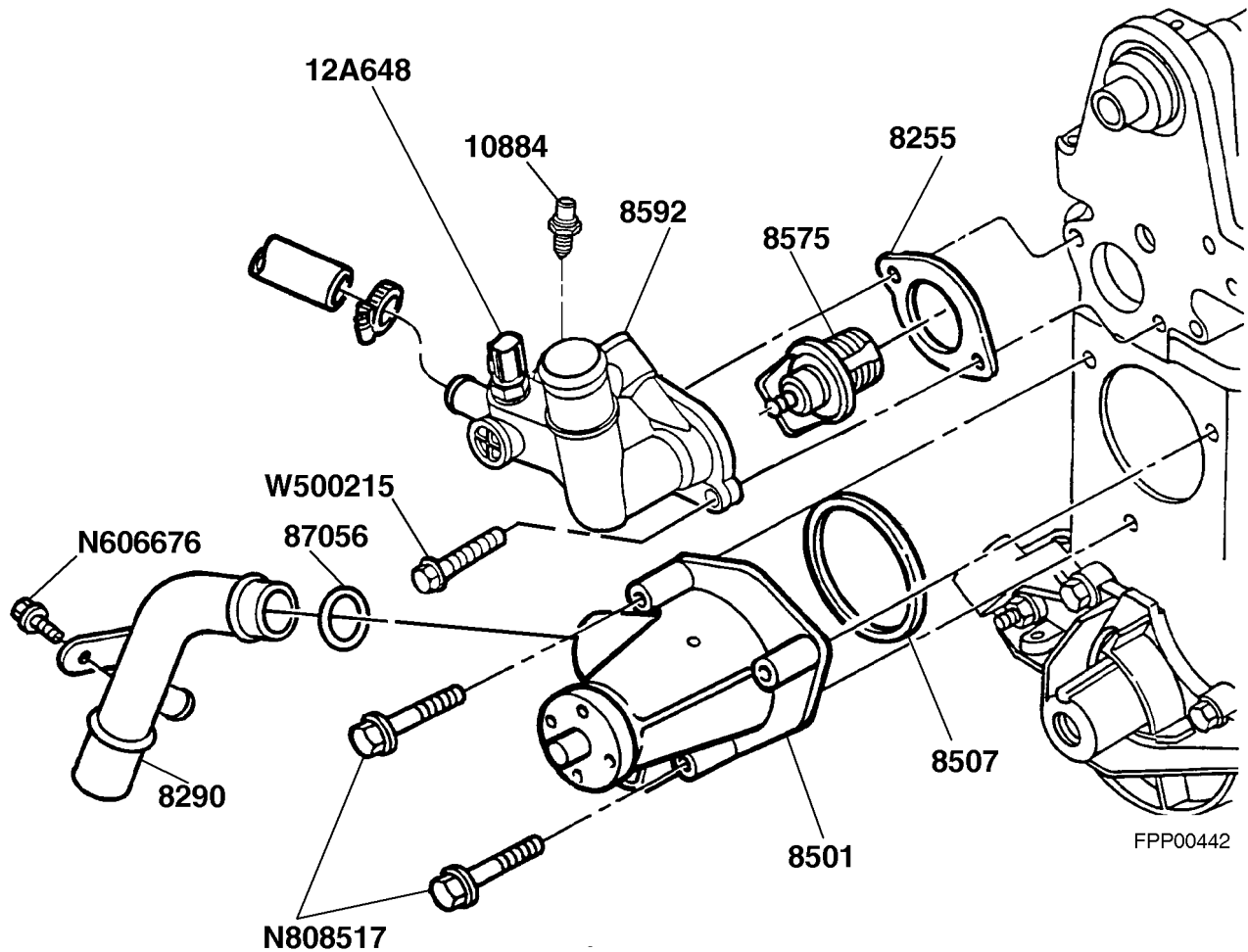
Service Parts NO.	Description	Qty	EFI	CARB
F57Z 9439 B	Gasket - Intake Manifold to Cylinder Head	1	X	
F77Z 14303 AA	Strap - Ground Wire	1	X	X
C9AZ 9C492 A	Cap -Vac. Fitting	2	X	X
F57Z 9A474 D	Fitting - Vacuum Upper Intake	1	X	
F87Z 9424 HA	Manifold - Intake Upper	1	X	
	Also Order As Required: 6B608 BA, 9996			
F5TZ 6B608 BA	Tube Fitting – PCV	AR	X	
D5AE 9996 DA	Nipple – Fuel Pressure Regulator	AR	X	
F57Z 9H486 C	Gasket - Upper to Lower Intake Manifold	1	X	
F57Z 9424 D	Manifold - Intake Lower	1	X	
N605904 SA	Bolt M8 X 1.25 X 16.6. Attaches 42-Pin Connector Bracket to Lower Intake	1	X	X
N621939 SA	Nut - Ground Strap M8 X 1.25	1	X	X
N807458 S101	Stud - Lower Intake to Cyl. Head M8 X 1.25 X 96.2 X 1.25	3	X	X
N807461 S36B	Bolt - Upper / Lower Intake M8 X 1.25 X 45	5	X	
N807462 S101	Bolt - Lower Intake to Cyl. Head M8 X 1.25 X 67.2	6	X	X
N808163 S100	Stud - Lower Intake to Cyl. Head M8 X 1.25 X 63.7	1	X	X
F57Z 14536 CA	Bracket – 42 Pin Connector	1	X	X

FUEL INJECTOR & RAIL - EFI



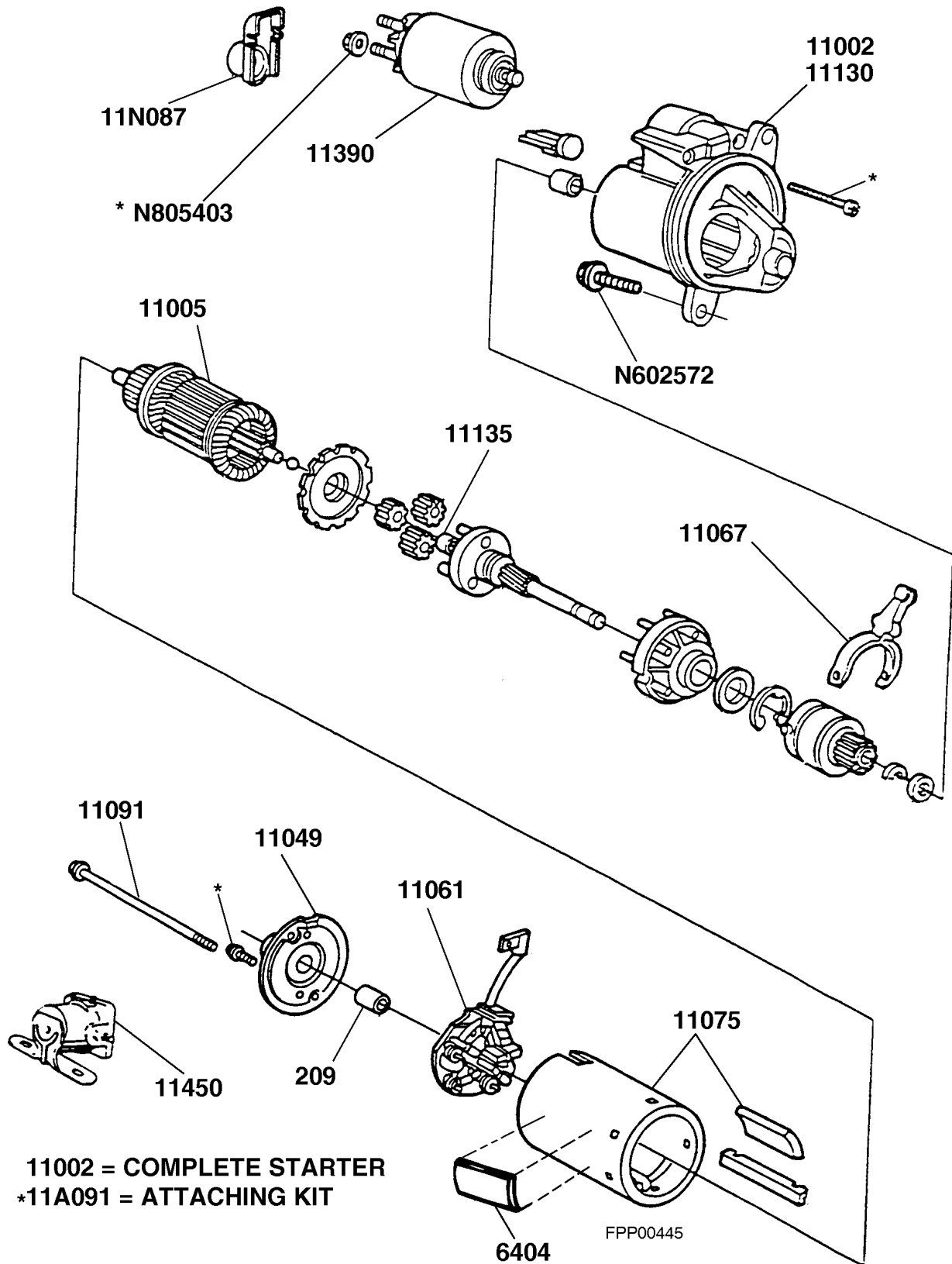
Service Parts NO.	Description	Qty	EFI	CARB
F87Z 9E498 CA	Connector Asy. - Fuel Rail Damper / Upr. Intake	1	X	
F87Z 9F593 DA	Fuel Injector -	4	X	
F87Z 9D280 AA	Fuel Rail	1	X	
N807897 S309	Screw & Washer - Fuel Rail	2	X	X
E0AY 9H321 A	Valve Asy. – Pressure Relief	1	X	
E0VY 9H323 A	Cap – Valve Asy.	1	X	
F87Z 9F775-A	Fuel Damper Asy.	1	X	

WATER PUMP AND THERMOSTAT



Service Parts NO.	Description	Qty	EFI	CARB
F5LY 6026 A	Plug .75 Cup Water Pump	1	X	X
F87Z 8255 A	Gasket - Water Outlet Connection	1	X	X
F87Z 8501 BA	Water Pump Asy.	1	X	X
F57Z 8507 CC	Gasket - Water Pump	1	X	X
F87Z 8592 AD	Connection - Water Outlet Cyl. Head	1	X	X
F7DZ 10884 AA	Sender Asy. - Water Temp.	1	X	X
	Hose - Water 1/4 Dia(13 In.) Cyl. Block to Intake. Procure Locally	1	X	
	Hose - Water 1/4 Dia(19 in) Intake to Htr. Hose. Procure Locally	1	X	
F5AZ 12A648 A	Sensor - Water Temp.	1	X	X
N808517 S100	Bolt - Water Pump to Cyl. Block M8 X 1.25 X 53	3	X	X
W500215 S427	Screw - Water Outlet Cyl. Head M6x25 Hex Flange	2	X	X
F87Z 8575 BA	Thermostat Assembly	1	X	X
F87Z 8290 BB	Inlet Water Tube	1	X	X
N606676 S2	Screw & Washer M6 X 1.0 X 20	1	X	X
87056 S100	Seal 3/16 X .14	1	X	X

STARTER MOTOR

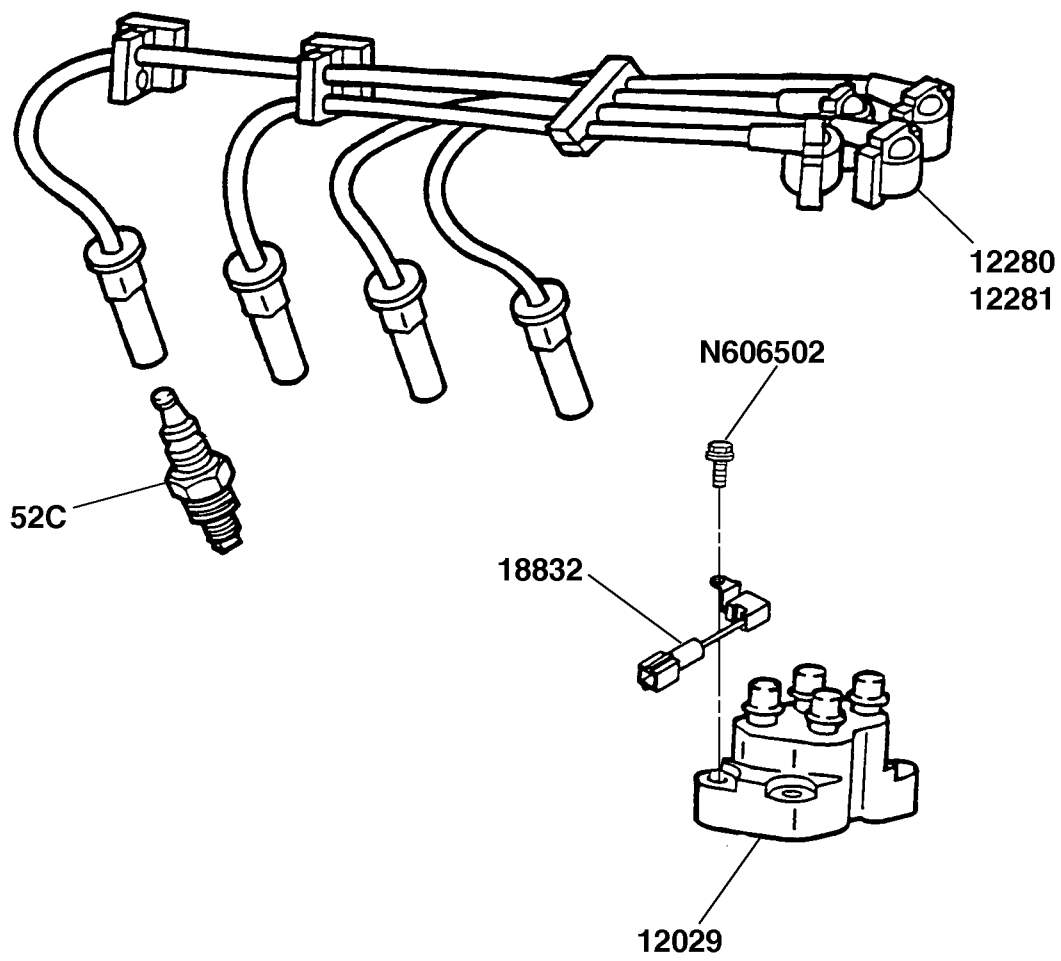


STARTER MOTOR

Service Parts NO.	Description	Qty	EFI	CARB
F1TZ 11002 ARM	Starter Motor & Related Parts	1	X	X
F2TZ 11005 A	Armature	1	X	X
E9OZ 11049 A	Plate & Bearing - Brush End	1	X	X
NOT REPLACED	Holder Asy. With Brushes	1	X	X
E9OZ 11067 A	Lever	1	X	X
E9OZ 11075 A	Fram & Magnet Asy.	1	X	X
E9SZ 11091 A	Bolt - Thru	2	X	X
E9OZ 11A091 A	Kit - Attaching	1	X	X
	Consists Of: *			
* N805403 S100	Nut & Washer - M8	1	X	X
* Kit - Only	Screw - M5 x 10.4mm	2	X	X
* Kit - Only	Screw - M6 x 35.3 mm	2	X	X
F1TZ 11130 A	Housing - Drive End with Bearing	1	X	X
F2TZ 11135 A	Bearing - Drive End	1	X	X
MC 209 A	Bearing - Brush End	1	X	X
F3VY 11390 B	Solenoid	1	X	X
F6VZ 11N087 AA	Cover - Solenoid Terminal	1	X	X
E4JL 11450 AA	Relay - Starter	1	X	X
F6VY 14A411 AA	Kit – Starter Terminal	AR	X	X

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-008-001					
1	C6JZ 6404 A	C6JZ 6404 A	1	A	DECAL - 12V ELEC. SYS. APPLY TO STARTING MOTOR
1	N805403 S100	N805403 S100	2	C	NUT AND WASHER M8 - 1.25 TORQUE: 8-10 LB-FT
1	E9OZ 11N087 A	E90F 11N087 AA	3		COVER - STARTER MOTOR SOL STUD
1	F1TZ 11002 ARM	F17U 11000 AB	4		STARTER MOTOR/2.5L
3	N602572 S36	N602572 S36	5	B	SCREW & WASHER - M10 - 1.5 X 35 TORQUE: 28-40 LB-FT

IGNITION SYSTEM

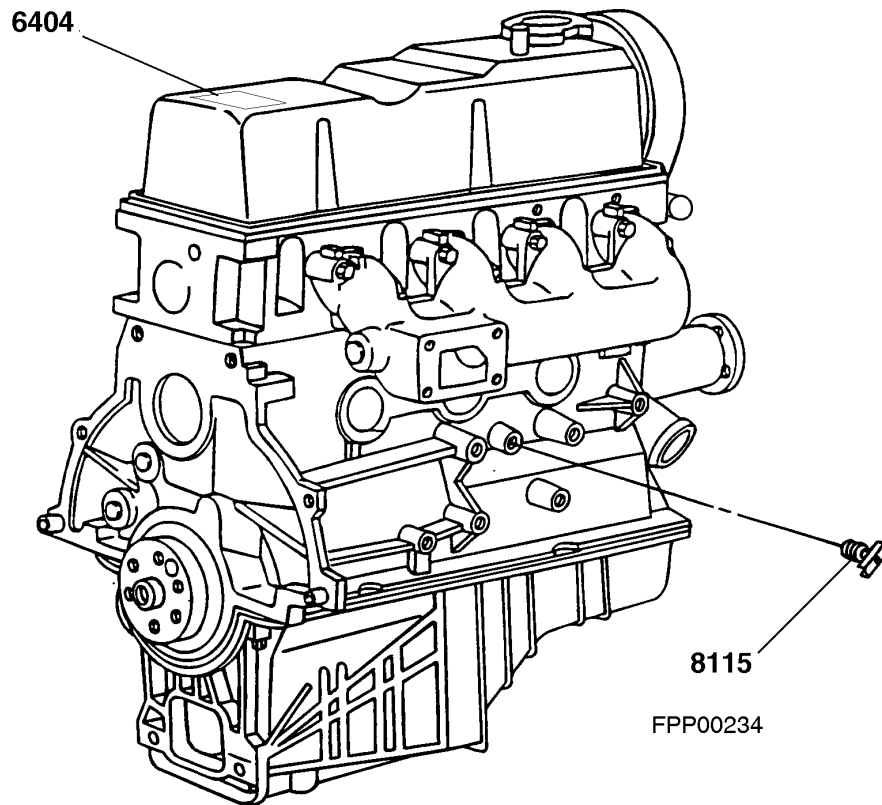


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IGNITION SYSTEM

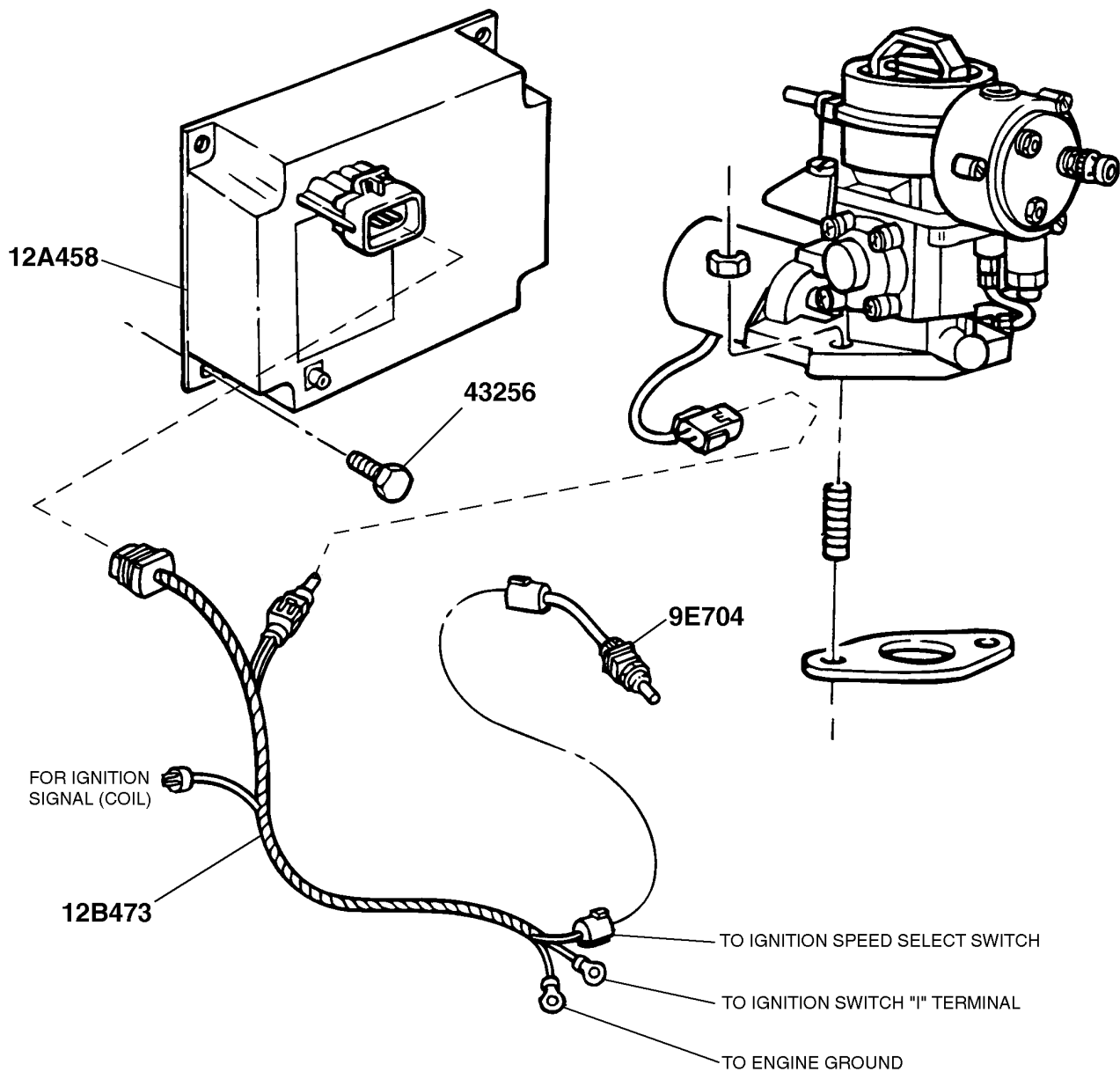
Service Parts NO.	Description	Qty	EFI	CARB
F37Z 12029 A	Coil Asy. - Ignition	1	X	X
F57E 12280 BC	Wire Set & Bracket Asy. Spark Plugs RH	1		X
F57E 12281 CD	Wire Set & Bracket Asy. Spark Plugs LH	1	X	
AWSF 52C	Spark Plug - Industrial	4	X	X
F67Z 18832 AA	Capacitor Asy. - Ignition	1	X	
N606502 S	Bolt M5 X .8 X 37	8	X	

DECALS & DRAIN COCK



QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-001-001					
1	C3JZ 6404 E	C3JZ 6404 E	1	B	DECAL - SERVICE INFORMATION INSTALL ON ROCKER ARM COVER TOP SIDE, REAR
1	8A 8115 A	8A 8115	2		PETCOCK
ZB-001-002					
1	PPO 194 106	PPO 194 106	1		WARNING TAG
1	8A 8115 A	8A 8115	2		PETCOCK

GOVERNOR, ELECTRONIC - CARB.



FPP00245

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-020-001					
1	F4JL 12A458 BB	F4JL 12A458 BB	1		CONTROLLER - ELEC GOV (4 SPD)
4	43256 S8	43256 S8	2		SCR & WASH #10-32 X .625 FIL HD
ZB-020-002					
1	F4JL 12A458 BB	F4JL 12A458 BB	1		CONTROLLER - ELEC GOV (4 SPD)
4	43256 S8	43256 S8	2		SCR & WASH #10-32 X .625 FIL HD
1	F4JL 9E704 AA	F4JL 9E704 AA	3		SWITCH ASSY - ENGINE SPD CONT
1	F4JL 12B473 BA	F4JL 12B473 BA	4		WIRING ASSY - ENGINE GOVERNOR

This diagram illustrates the assembly of a mechanical component, likely a pump or actuator, onto a larger engine or motor unit. The components are labeled with part numbers:

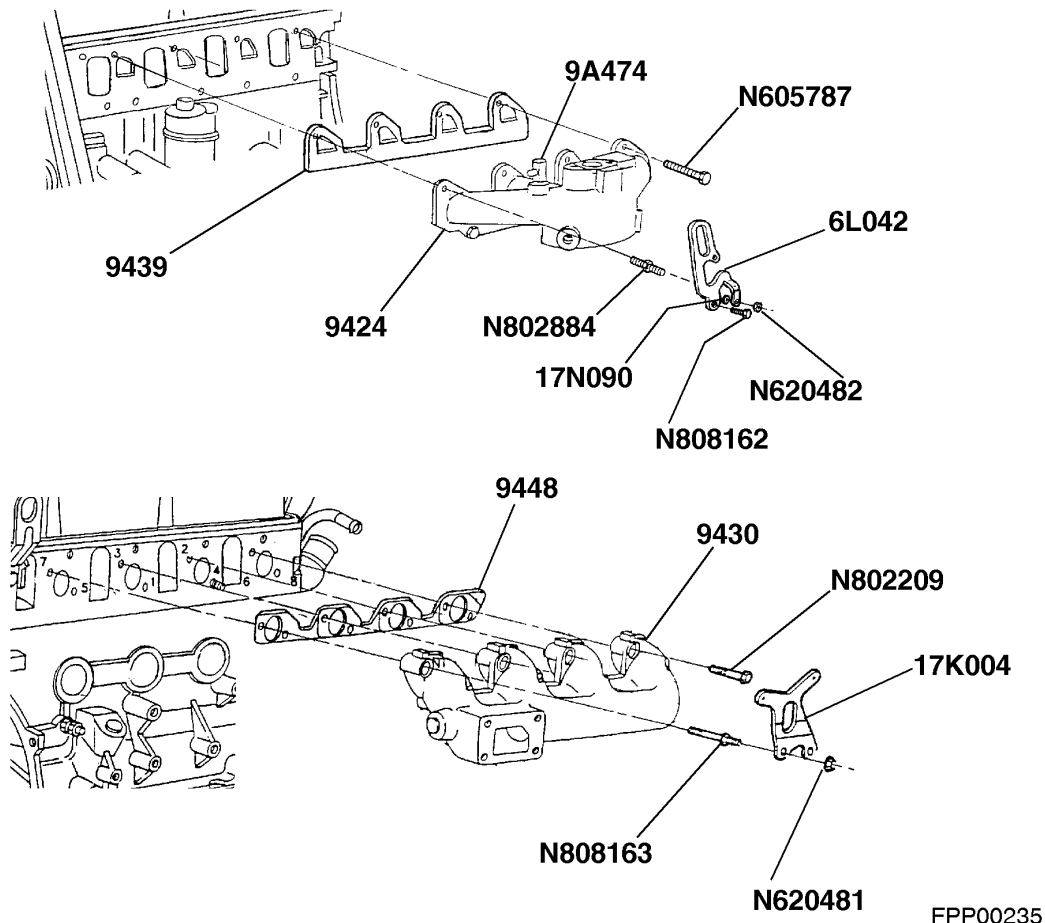
- 34805**: Two small circular fasteners or washers at the top left.
- 99810**: A long, thin rod or pin extending from the top left towards the center.
- 33796**: A small circular component on the rod.
- 99819**: A long, curved rod or pin extending from the top right towards the center.
- 9740**: A small circular component on the curved rod.
- 57620**: A small circular component near the center.
- 57032**: A small circular component near the center.
- 9N748**: A small circular component near the center.
- 99792**: A small circular component near the center.
- 9P733**: A small circular component near the center.
- 33769**: A small circular component near the center.
- 12450**: A large, complex component on the left, possibly a pump or actuator.
- E800152**: A small circular component near the bottom left.
- 8620**: A large, rectangular component at the bottom left.
- 12A479**: A large, complex component in the center, possibly a pump or actuator.
- 8610**: A small circular component near the center.
- 12454**: A large, complex component on the right, possibly a pump or actuator.
- N606572**: A small circular component near the bottom right.
- N605919**: A small circular component near the bottom right.

The diagram shows the assembly of these components onto a larger engine or motor unit, which is partially visible on the right side of the image.

GOVERNOR, MECHANICAL

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-020-003					
1	F8JL 12454 AA	F8JL 12454 AA	1		BRACKET - GOVERNOR
1	F5JL 12A479 AA	F5JL 12A479 AA	2		SPACER-GOVERNOR BRACKET
1	N606572 S2	N606572 S2	3	I	BOLT M10-1.5 X 120.0 (UBS) TORQUE TO 47-54 NM (35-40 LB FT)
2	N605919 S2	N605919 S2	4	G	BOLT M10-1.50 X 28.5 (UBS) TORQUE TO 47-54 NM (35-40 LB FT)
1	F5JL 8610 BA	F5JL 8610 BA	5		PULLEY-VEE GOVERNOR DRIVE
1	F8JL 12450 AA	F8JL 12450 AA	6		GOVERNOR-HOOF MECH. (VAR SPEED)
3	E800152 S72	E800152 S72	7	B	BOLT M10-1.5 X 30 GOV. TO MTG. BRKT. 3 REQ'D
1	D6PZ 8620 K	D6PZ 8620 K	8		BELT DRIVE 1/2" X 38 1/4"
1	F5JL 99819 AA	F5JL 99819 AA	9		THROTTLE ROD-GOVERNOR
1	34805 S8	34805 S8	10		LOCKWASHER 1/4
3	33796 S36	33796 S36	11		NUT - 1/4-28 (GRADE-5)
1	D6JL 99810 B	D6JL 99810 B	12		BALL JOINT ASSY
1	E3JL 9740 AA	E3JL 9740 AA	13		ROD END-THROTTLE CONTROL GOV
1	E7JL 9N748 AA	E7JL 9N748 AA	14		PIVOT ASSY - THROTTLE CONTROL
1	F5JL 99792 AA	F5JL 99792 AA	15		BRACKET-THROTTLE CABLE
1	57032 S2	57032 S2	16	D	SCR & WASH 1/4-20 X 0.75 HEX
1	33769 S2	33769 S2	17	D	NUT 1/4-20 (UBS) ATT THROTTLE CABLE TO 99792
2	57620 S2	57620 S2	18	C	SCR & WASH 1/4-20 X 0.50 HEX ATT 99792 TO 12450
1	E7JL 9N861 AA	E7JL 9N861 AA	19	F	STOP ASSY - THROTTLE CONTROL SECURE 9N861 ON TO THROTTLE CABLE WIRE
1	E7JL 9P733 AA	E7JL 9P733 AA	20	E	RETAINER - THROTTLE PIVOT SECURE 9N748 TO GOV. ARM
ZB-020-011					
1	F5JL 12A479 BA	F5JL 12A479 BA	1	A	SPACER-ENG. MECH. GOVERNOR INSTALL SPACER BETWEEN MECH. GOVERNOR BRACKET & ENG. BLOCK
ZB-020-014					
1	F5JL 12454 BA	F5JL 12454 BA	1		BRACKET-GOVERNOR
1	F5JL 12A479 AA	F5JL 12A479 AA	2		SPACER - GOVERNOR BRACKET
1	N606572 S2	N606572 S2	3		BOLT M10-1.5 X 120.0 (UBS)
2	N605919 S2	N605919 S2	4		BOLT M10-1.50 X 28.5 (UBS)
1	F5JL 8610 BA	F5JL 8610 BA	5		PULLEY-VEE GOVERNOR DRIVE
1	F5JL 12450 CA	F5JL 12450 CA	6		GOVERNOR-MECH-VAR-3000-3800RPM
3	E800152 S72	E800152 S72	7	B	BOLT M10-1.5 X 30 GOV. TO MTG. BRKT. - 3 REQ'D
1	E3AZ 8620 E	E3AZ 8620 E	8		BELT-JB390LA 15/32X 38.31 NL
1	F5JL 99819 AA	F5JL 99819 AA	9		THROTTLE ROD-GOVERNOR
1	34805 S8	34805 S8	10		LOCKWASHER 1/4
3	33796 S36	33796 S36	11		NUT - 1/4-28 (GRADE-5)
1	D6JL 99810 B	D6JL 99810 B	12		BALL JOINT ASSY
1	E3JL 9740 AA	E3JL 9740 AA	13		ROD END-THROTTLE CONTROL GOV
1	E7JL 9N748 AA	E7JL 9N748 AA	14		PIVOT ASSY - THROTTLE CONTROL
1	F5JL 99792 AA	F5JL 99792 AA	15		BRACKET-THROTTLE CABLE
1	57032 S2	57032 S2	16		SCR & WASH 1/4-20 X 0.75 HEX
1	33769 S2	33769 S2	17	D	NUT 1/4-20 (UBS) ATT. THROTTLE CABLE TO 99792
2	57620 S2	57620 S2	18	C	SCR & WASH 1/4-20 X 0.50 HEX ATT 99792 TO 12450
1	E7JL 9N861 AA	E7JL 9N861 AA	19	F	STOP ASSY - THROTTLE CONTROL SECURE 9N861 ON TO THROTTLE CABLE WIRE
1	E7JL 9P733 AA	E7JL 9P733 AA	20	E	RETAINER - THROTTLE PIVOT SECURE 9N748 TO GOV. ARM

MANIFOLDS & LIFTING EYES (CARB.)

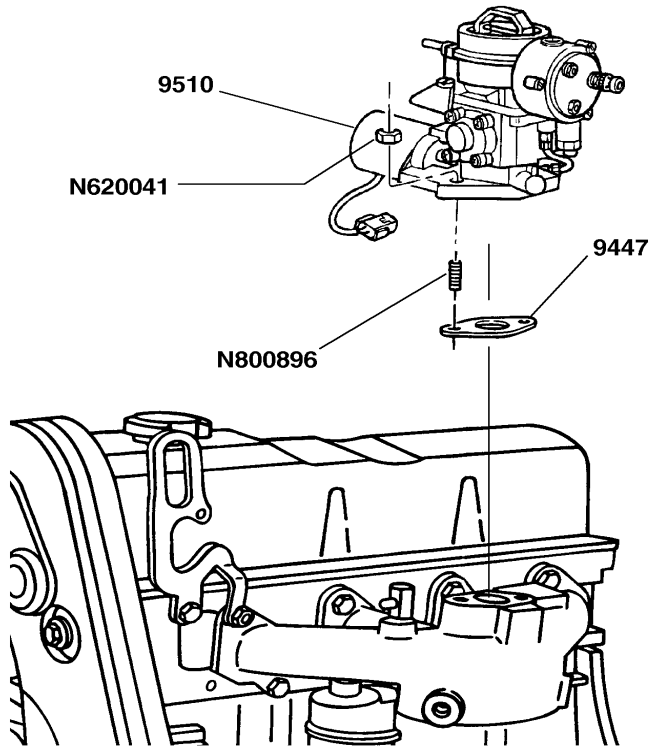


QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-002-001					
1	F57Z 9439 B	F57E 9439 BA	1		GASKET - INTAKE MANIFOLD
1	F5JL 9424 BA	F5JL 9424 BA	2		MANIFOLD - INTAKE
8	N605787 S52	N605787 S52	3	A	BOLT M8X1.25 X 25 HEX FLG HD ATTACH 9424 TO HEAD TORQUE TO 15-22 FT-LBS.
1	N802884 S 100	N802884 S 100	4		STUD - M10 X 1.5/1.5 X 84 NX SHD
1	F57Z 6L042 AB	F57E 17A094 BC	5		LIFTING EYE- LEFT SIDE
1	F5JL 17N090 CA	F5JL 17N090 CA	6		SPACER - LIFT EYE LEFT SIDE
1	N808162 S2	N808162 S2	7		BOLT - M8X1.25X33
1	N620482 S2	N620482 S2	8		NUT M10 - 1.5 UBS)
1	E77A 9A474 CA	E77A 9D446 CA	9		FIT & CAP ASSY INT MAN VAC CNT
1	F37Z 9448 A	F37E 9448 AB	10		GASKET - EXHAUST MANIFOLD
1	E3ZZ 9430 A	E6SE 9430 AA	11		MNFLD. EXH.
7	N802209 S 100	N802209 S 100	12	B	BOLT M10 - 1.5 X 55 HEX FLNG HD ATTACH 9430 TO HEAD TORQUE TO 35-50 FT-LBS.
2	N806948 S100	N806948 S 100	13		STUD - M10X1.50/M8X1.25
1	N808163 S100	N808163 S100	14		STUD M8X1.25/1.25X63.7
1	F5JL 17N090 DA	F5JL 17N090 DA	15		SPACER - LIFT EYE RIGHT SIDE
1	F5JL 17N090 EA	F5JL 17N090 EA	16		SPACER - LIFT EYE RIGHT SIDE
1	F87E 17K004 AA	F87E 17K004 AA	17		LIFTING EYE - RIGHT SIDE

MANIFOLDS & LIFTING EYES (CARB.)

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-002-001 (cont.)					
3	N620481 S2	N620481 S2	18		NUT - M8 - 1.25 (UBS)
1	87839 S	87839 S	19		PIPE PLUG 1/2-14 SOCKET HEAD
ZB-002-003					
1	F57Z 9439 B	F57E 9439 BA	1		GASKET - INTAKE MANIFOLD
1	F5JL 9424 BA	F5JL 9424 BA	2		MANIFOLD - INTAKE
8	N605787 S52	N605787 S52	3	A	BOLT M8X1.25 X 25 NEX FLG HD ATTACH 9424 TO HEAD TORQUE TO 15-22 LB-FT.
1	E77A 9A474 CA	E77A 9D446 CA	4		FIT & CAP ASSY INT MAN VAC CNT
ZB-002-004					
1	N802884 S100	N802884 S100	1		STUD-M10 X 1.5/1.5 X 84 NX SHD
1	F5JL 17N090 CA	F5JL 17N090 CA	2		SPACER - LIFT EYE LEFT SIDE
1	F57Z 6L042 AB	F57E 17A084 BC	3		LIFTING EYE - LEFT SIDE
1	N620482 S2	N620482 S2	4		NUT M10-1.5 (UBS)
1	N808 162 S2	N808162 S2	5		BOLT - M8X1.25X33
1	N808 163 S100	N808163 S100	6		STUD M8X1.25/1.25X63.7
2	N806948 S100	N806948 S100	7		STUD - M10X1.50/M8X1.25
1	F5JL 17N090 EA	F5JL 17N090 EA	8		SPACER - LIFT EYE RIGHT SIDE
1	F5JL 17N090 DA	F5JL 17N090 DA	9		SPACER - LIFT EYE RIGHT SIDE
1	F87E 17K004 AA	F87E 17K004 AA	10		LIFTING EYE - RIGHT SIDE
3	N620481 S2	N620481 S2	11		NUT - M8 - 1.25 (UBS)
ZB-002-005					
1	F37Z 9448 A	F37E 9448 AB	1		GASKET - EXHAUST MANIFOLD
1	F87Z 9430 CA	F87E 9428 CB	2		MANF ASY EXH RH
6	N811569 S100	N811569 S100	3		BOLD M10X1.5X33.5HEXFLNGPIL
2	N811569 S100	N811568 S100	4		STUD M10X33.5+M8X18.9 HEX FLNG
2	N620481 S2	N620481 S2	5		NUT - M8-1.25 (UBS)
1	N807040 S2	N807040 S2	6	A	CAP-M22X1-5 HEX INSTALL ON EGR BOSS
1	D9ZZ 9G458 A	D9ZE 9G458 AA	7		PLUG
ZB-002-006					
1	F37Z 9448 A	F37E 9448 AB	1		GASKET - EXHAUST MANIFOLD
1	E3ZZ 9430 A	E6SE 9430 AA	2		MNFLD. EXH. TURBO
6	N802209 S100	N802209 S100	3	A	BOLT - M10 - 1.5 X 55 HEX FLNG HD ATTACH 9430 TO CYLINDER HEAD TORQUE 35-50 FT LBS. 47-68 NM
2	N806948 S100	N806948 S100	4	A	STUD-M10X1.50/M8X1.25
1	F5JL 17N090 EA	F5JL 17N090 EA	5		SPACER - LIFT EYE RIGHT SIDE
1	F5JL 17N090 DA	F5JL 17N090 DA	6		SPACER - LIFT EYE RIGHT SIDE
1	F57Z 6L042 BB	F57E 17K004 BB	7		LIFTING EYE - RIGHT SIDE
2	N620481 S2	N620481 S2	8		NUT - M8 - 1.25 (UBS) ATTACH 17K004 TO MANIFOLD TORQUE (20-30 NM) 15-22 FT LBS
1	87839 S	87839 S	9		PIPE PLUG 1/2-14 SOCKET HEAD
ZB-038-002					
2	E8DZ 18599 B	F1DE 18599 BA	1	D	90 DEG ELB 3/8 NTPF X 5/8 TUBE INSTALL IN SIDE HOLES OF WATER CHAMBER IN INTAKE MANIFOLD.
2	87838 S2	87838 S2	2	C	PIPE PLUG 3/8-18 SOCKET HEX HD INSTALL IN BOTTOM HOLES OF WATER CHMBER IN INTAKE MANIFOLD.
1	381200 S540A	381200 S540A	3	B	HOSE-HEATER 5/8 I.D. X 54.0 REAR ELBOW ON INTAKE MANIFOLD TO UPPER OUTLET TUBE.
1	381200 S400A	381200 S400A	4	A	HOSE-HEATER 5/8 I.D. X 40.0 FORWARD ELBOW ON INTAKE MANIFOLD TO LOWER INLET TUBE
4	E6TZ 9171 C	383522 S	5		HOSE CLAMP 1.12 ROUND WORM SCR.
1	F67B 13A506 CA	F67B 13A506 CA	6		RETAINER RR LAMP WIRING
1	N605770 S2	N605770 S2	7		BOLT M6 X 1.0 X 12 HEX FLNG HD.
1	N630067 S39	N630067 S39	8		FLAT WASHER
2	95873 S101	95873 S101	9		STRAP 1.75 BUNDLING.

CARBURETOR & ATTACHING PARTS



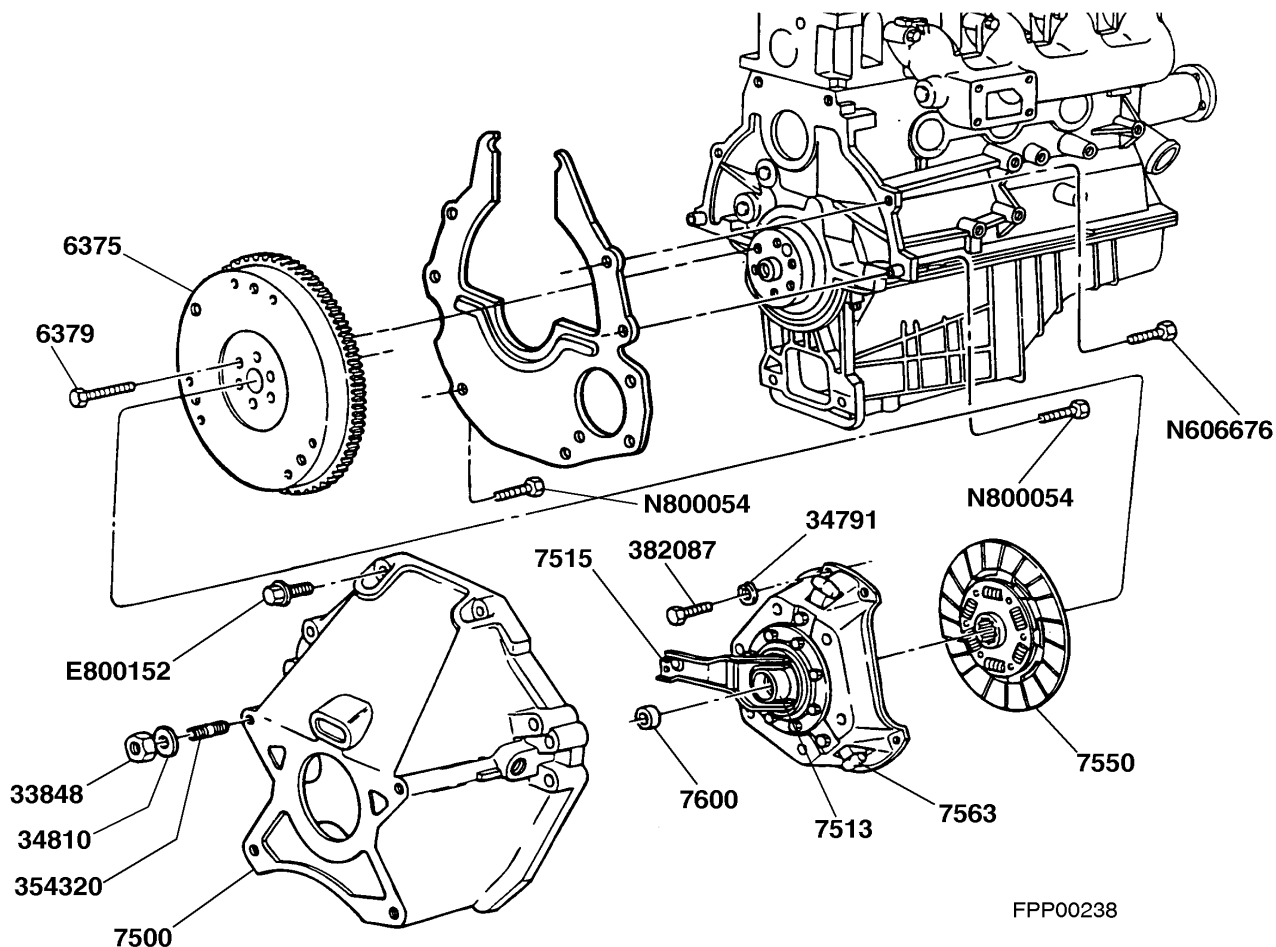
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QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-003-002					
2	N800896 S2	N800896 S2	1	A	STUD - M8 X 1.25 X 1.25 X 38MM ATTACH CARB. TO MANIFOLD
1	E5JL 9447 BB	E5JL 9447 BB	2		GASKET-CARB
1	F8JL 9510 BB	F8JL 9510 BB	3		CARB ZENITH & ATTACHING PARTS
2	N620041 S51	N620041 S51	4	B	NUT - M8X1.25 HEX ATTACH CARB. TO MANIFOLD
1	F8JL 6853 BA	F8JL 6853 BA	5		HOSE CRANKCASE VENT. CARB
ZB-003-002-A – AMERICAN LINCOLN					
1	F8JL 9510 RA				CARBURETOR – ZENITH (E1236)
ZB-003-004					
2	N800896 S2	N800896 S2	1	A	STUD-M8 X 1.25 X 1.25 X 38MM ATTACH CARB. TO MANIFOLD
1	E5JL 9447 BB	E5JL 9447 BB	2		GASKET-CARB
1	F8JL 9510 EB	F8JL 9510 EB	3		CARB ZENITH W/ROT GOV & MAN CH
2	N620041 S51	N620041 S51	4	B	NUT - M8X1.25 HEX ATTACH CARB. TO MANIFOLD
1	F8JL 6853 BA	F8JL 6853 BA	5		HOSE CRANKCASE VENT. CARB
ZB-003-003					
2	N800896 S2	N800896 S2	1	A	STUD-M8 X 1.25 X 1.25 X 38MM ATTACH CARB. TO MANIFOLD
1	E5JL 9447 BB	E5JL 9447 BB	2		GASKET-CARB
1	F8JL 9510 FB	F8JL 9510 FB	3		CARB ZENITH W/ROT GOV & AUTO
2	N620041 S51	N620041 S51	4	B	NUT - M8X1.25 HEX ATTACH CARB. TO MANIFOLD
1	F8JL 6853 BA	F8JL 6853 BA	5		HOSE CRANKCASE VENT. CARB

CARBURETOR & ATTACHING PARTS

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-003-006					
2	N800896 S2	N800896 S2	1	B	STUD-M8 X 1.25 X 1.25 X 38MM ATTACH CARB TO INTAKE MANIFOLD TORQUE TO 15 LB-FT
1	E5JL 9447 BB	E5JL 9447 BB	2		GASKET-CARB
2	N620041 S51	N620041 S51	3	C	NUT - M8X1.25 HEX ATTACH CARB TO INTAKE MANIFOLD TORQUE TO 15 LB-FT
ZB-003-007 (A01) - ZAMBONI					
1	E5JL 9447 AB	E5JL 9447 AB	1		GASKET – CARB. (HOLLEY)
2	N800 896 S2	N800 896 S2	2		STUD
2	N620 041 S51	N620 041 S51	3		NUT
ZB-003-009					
2	N800896 S2	N800896 S2	1	B	STUD-M8 X 1.25 X 1.25 X 38MM ATTACH CARB TO INTAKE MANIFOLD
1	E5JL 9447 BB	E5JL 9447 BB	2		GASKET-CARB
1	F8JL 9510 CB	F8JL 9510 CB	3		CARBURETOR ASSY WITH AUTO CHOKE
2	N620041 S51	N620041 S51	4	C	NUT - M8X1.25 HEX ATTACH CARB TO INTAKE MANIFOLD
1	N621903 S2	N621903 S2	5	E	NUT & WASHER M5-.8 INSTALL ON FUEL SOLENOID
ZB-003-010					
2	N800896 S2	N800896 S2	1	B	STUD-M8 X 1.25 X 1.25 X 38MM ATTACH CARB TO INTAKE MANIFOLD
1	E5JL 9447 BB	E5JL 9447 BB	2		GASKET-CARB
1	F8JL 9510 DB	F8JL 9510 DB	3		CARB ZENITH W/AUTO CHOKE
2	N620041 S51	N620041 S51	4	C	NUT - M8X1.25 HEX ATTACH CARB TO INTAKE MANIFOLD
1	F8JL 6853 BA	F8JL 6853 BA	5		HOSE CRANKCASE VENT. CARB
ZB-003-012					
2	N800896 S2	N800896 S2	1	C	STUD-M8 X 1.25 X 1.25 X 38MM ATTACH CARB. TO ADAPTER
1	E5JL 9447 BB	E5JL 9447 BB	2		GASKET-CARB CARB. TO ADAPTER
1	F8JL 9510 GB	F8JL 9510 GB	3		CARB ZENITH ADAPTER
2	N620041 S51	N620041 S51	4	D	NUT - M8X1.25 HEX ATTACH CARB. TO ADAPTER
1	F8JL 6853 BA	F8JL 6853 BA	5		HOSE CRANKCASE VENT. CARB
ZB-060-022					
1	F8JL 9510 NA	F8JL 9510 NA	1		CARBURETOR – ZENITH – GROVE W/ROT GOV. AND AUTO CHOKE

FLYWHEEL, HOUSING, BEARING AND CLUTCH - TRUCK TYPE

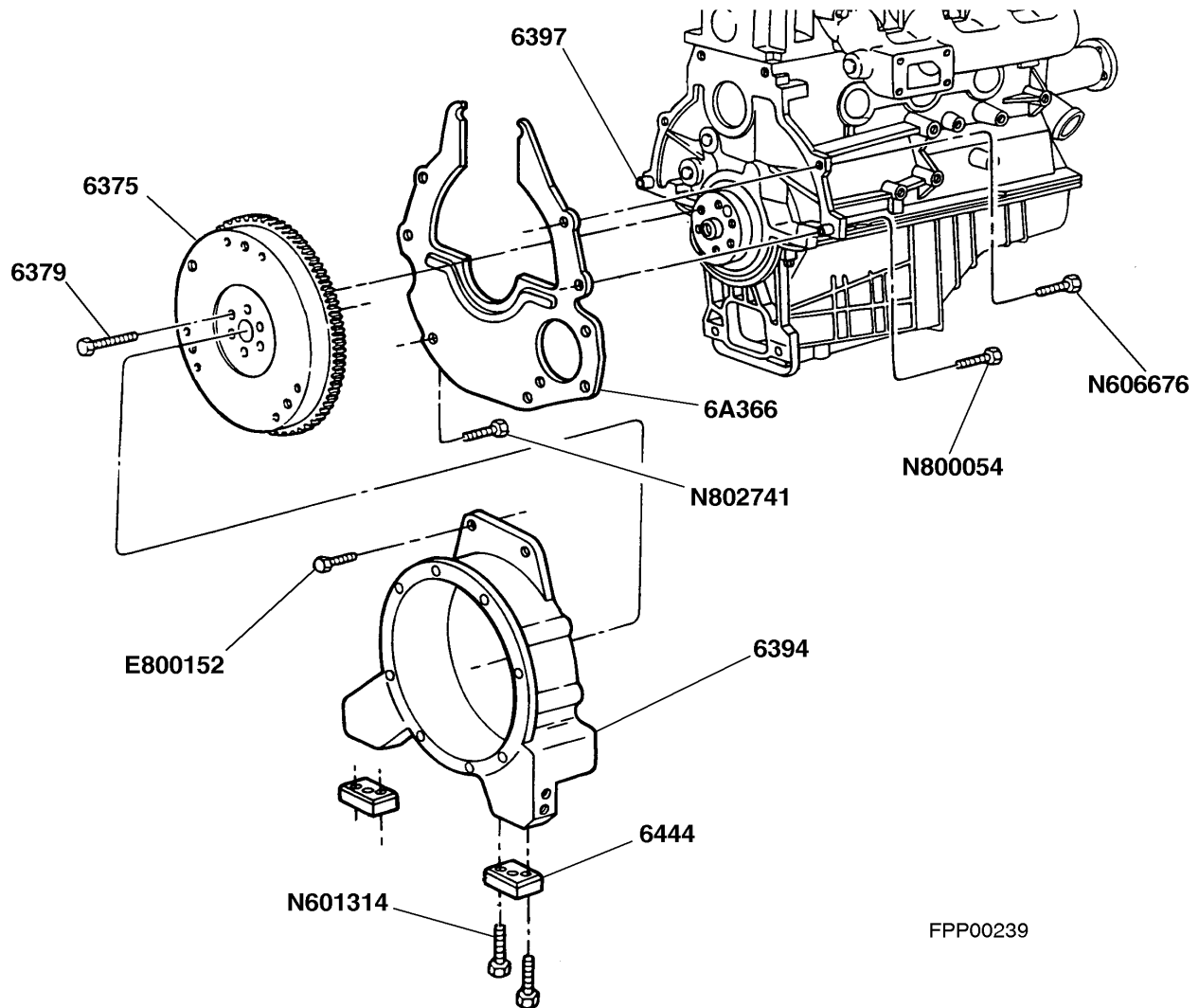


QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-006-001					
1	C5TZ 7600 B	C5TA 7600 B	1	F	BEARING - CLUTCH PILOT 1.85 O.D.X.47 WIDE X.98 I.D.
1	D9JL 6375 B	D9JL 6375 B	2		FLYWHEEL ASSY.
6	D9JL 6379 AB	D9JL 6379 AB	3	E	BOLT - FLYWHEEL TO CRANKSHAFT F/W ATT. TORQUE 54-64 FT/LB.
1	D9JL 7550 A	D9JL 7550 A	4		DISC ASSY. - CLUTCH 9 INCH
1	D9JL 7563 A	D9JL 7563 A	5		PRESSURE PLATE ASSY - CLUTCH
6	34791 S36	34791 S36	6	G	LOCKWASHER 5/16 USE WITH 382087-S2
6	382087 S2	382087 S2	7	H	BOLT 5/16-18 X .92 ATTACH 7563 TO 6375 6 REQ'D
1	C4TZ 7513 C	C3TA 7513 B	8		SHIELD - CLUTCH RELEASE DUST
1	C7TZ 7515 B	C7TA 7515 A	9		LEVER
1	F5JL 7500 AA	F5JL 7500 AA	10		HOUSING - CLUTCH
3	E800152 S72	E800152 S72	11	B	BOLT M10-1.5 X 30 HSG. TO BLK. 2 REQ'D PLATE TO HSG. 1 REQ'D

FLYWHEEL, HOUSING, BEARING AND CLUTCH - TRUCK TYPE

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-006-001 (cont.)					
2	N800054 S309M	N800054 S309M	12	A	BOLT M10 X 1.5 X 50 (UBS) BLK. TO HSG. THRU DOWELS
2	N800057 S2	N800057 S2	13	C	SCREW BLK. TO HSG. 2 REQ'D TORQUE M10 X 1.5 BOLTS TO 30-41 LB-FT
2	354320 S8	354320 S8	14	D	STUD 9/16 - 12-18 X 2.56 LG.
2	34810 S8	34810 S8	15	D	LOCKWASHER 9/16
2	33848 S8	33848 S8	16	D	NUT 9/16 - 18 (GRADE 5) ATT. TRANS. TO 7500 2 EACH REQUIRED

FLYWHEEL, HOUSING & REAR ENGINE PLATE



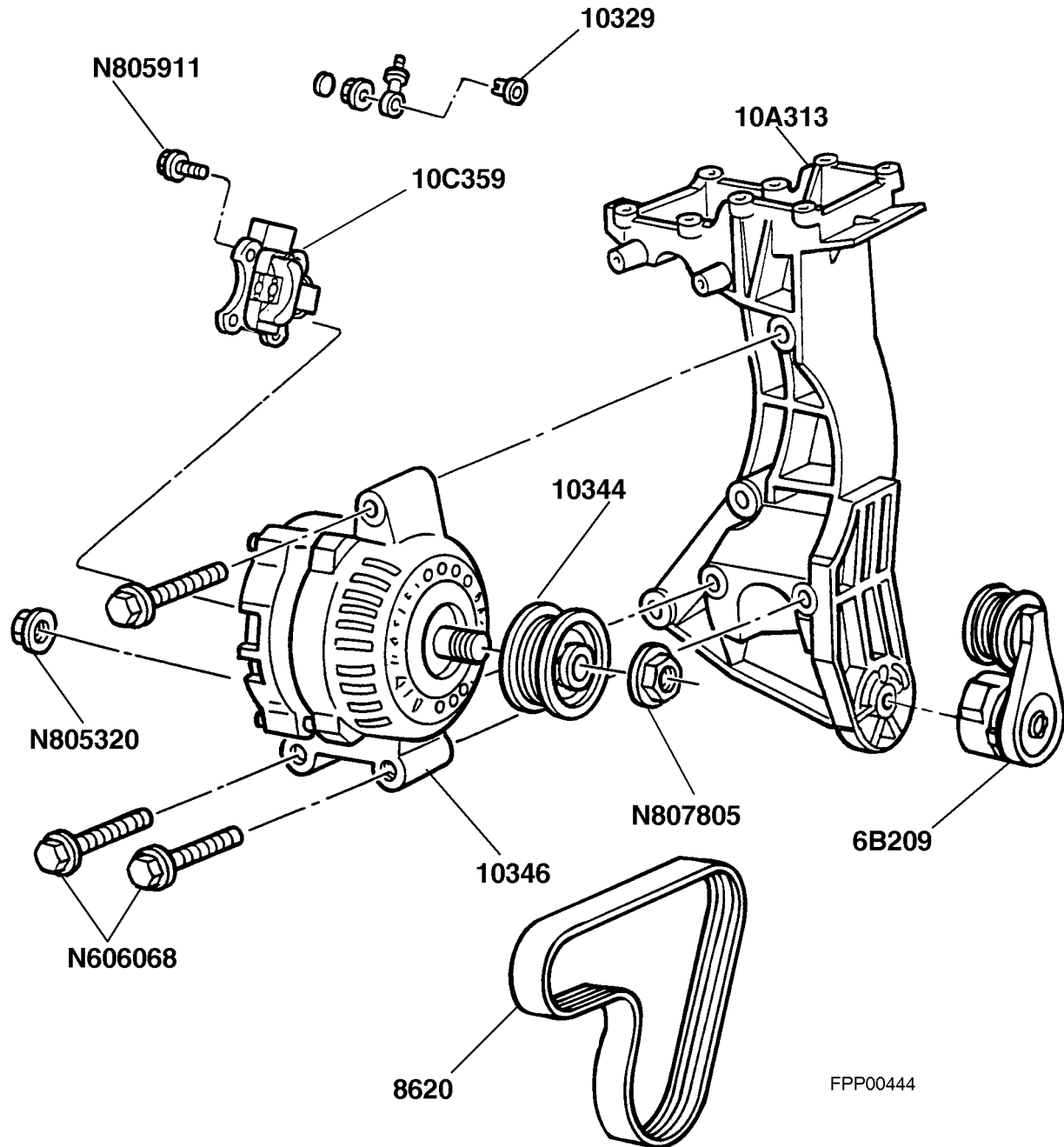
FPP00239

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-006-002					
1	F5JL 6394 EA	F5JL 6394 EA	1	D	HOUSING - REAR ENGINE SAE #5 WITH FEET
2	N80054 S51M	N80054 S51M	2	A	BOLT M10 X 1.5 X 50 (UBS) BLK. TO HSG. THRU DOWELS
2	E800152 S72	E800152 S72	3	B	BOLT M10-1.5 X 30 /2/ HSG. TO BLK. /1/ PLATE TO HSG.
2	N800057 S2	N800057 S2	4	C	SCREW LENGTH 35 mm /2/ BLK. TO HSG. TORQUE M10 X 1.5 BOLTS TO 30-41 LB-FT

FLYWHEEL, HOUSING & REAR ENGINE PLATE

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-006-003					
1	F5JL 6394 GA	F5JL 6394 GA	1		HOUSING - REAR ENGINE SAE #4
2	N80054 S51M	N80054 S51M	2	A	BOLT M10 X 1.5 X 50 (UBS) BLK. TO HSG. THRU DOWELS
3	E800152 S72	E800152 S72	3	B	BOLT M10-1.5 X 30 /2/ HSG. TO BLK. /1/ PLATE TO HSG.
2	N800057 S2	N800057 S2	4	C	SCREW /2/ BLK. TO HSG. TORQUE M10 X 1.5 BOLTS TO 30-41 LB-FT
ZB-006-004					
2	F5JL 6444 AA	F5JL 6444	1		SPACER-FLYWHEEL HOUSING
4	N601314 S2	N601314 S2	2	A	BOLT /2/ SPACER TO HOUSING FEET EACH SIDE
ZB-007-001					
1	D9JL 6375 A	D9JL 6375 A	1		FLYWHEEL ASSY. 8" O/C CLUTCH
6	D9JL 6379 AB	D9JL 6379 AB	2	A	BOLT - FLYWHEEL TO CRANKSHAFT TORQUE 54-64 LB-FT
ZB-007-002					
1	D9JL 6375 G	D9JL 6375 G	1		FLYWHEEL ASSY. 9" S/L CLUTCH
6	D9JL 6379 B	D9JL 6379 B	2	A	BOLT - M10 X 58 MM TORQUE 54-64 FT/LB.
ZB-007-005					
1	E5TZ 6375 D	E57P 6375 AB	1		FLYWHEEL-A4LD AUTOMATIC TRANS
1	E1FZ 6A366	E1EP 6A366 AA	2		PLATE - FLYWHEEL REINFORCING
6	E3FZ 6379 A	N802741 S101	3		BOLT - M10 - 1.0 X 20
ZB-007-006					
1	F57Z 6375 A	F5TR 6375 AA	1		FLYWHEEL ASSY. 8.5" S/L CLUTCH
3	D1FZ 6397 B	D4ZA 7K578 AA	2		DOWELS
6	64FZ 6379 A	N800028 S	3	A	BOLT - M10 X 30 MM TORQUE 54-64 FT/LB.
ZB-031-001					
1	E69Z 7007 A	E57E 6A373 AB	1		PLATE-REAR ENGINE COVER

ALTERNATOR

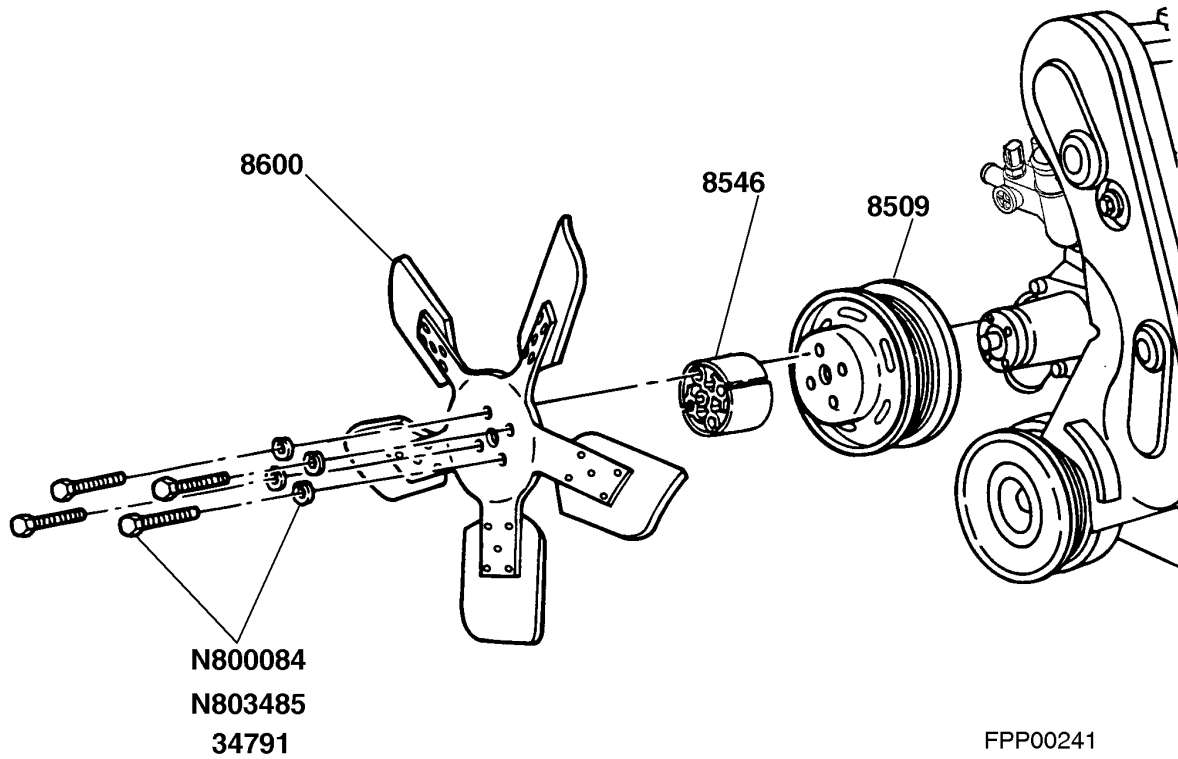


ALTERNATOR

Service Parts NO.	Description	Qty	EFI	CARB
FOCZ 10344 AA	Pulley	1	X	X
F1DZ 10329 A	Insulator – Alternator Terminal	1	X	X
F1DZ 10C359 A	Regulator & Brush Asy.	1	X	X
F87E 10A313 DA	Bracket – Alternator Support	1	X	X
N807805 S36B	Nut – Pulley M16 x 1.5 Hex Washer	1	X	X
F77U 10300 BA	Alternator – 95 amp less pulley and regulator (not part of base engine)	1	X	X
N606068 S100	Bolt – Alternator Mounting M10 x 80	3	X	X
N805911 S100	Screw – Regulator & Brush Mtg.	4	X	X

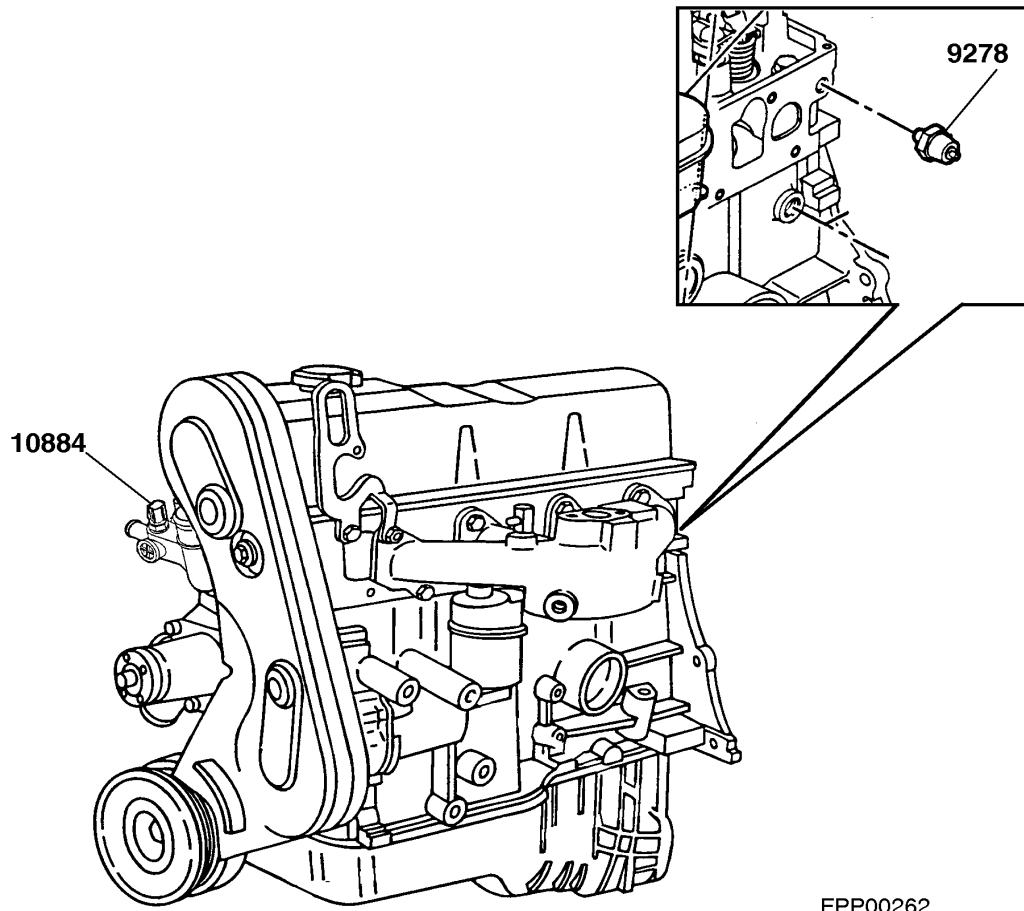
QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-011-001					
1	F77U 10300 BA	F77U 10300 BA	1		ALTERNATOR ASSY. 95 AMP
3	N606068 S100	N606068 S100	2	B	BOLT M 10-1.5 X 80 ATTACH ALT TO ALT BRACKET TORQUE TO 30-40 FT LB IN FOLLOWING SEQUENCE: HAND START TOP BOLT, TORQUE BOTTOM FRONT BOLT TO SPEC, TORQUE BOTTOM REAR BOLT TO SPEC & TORQUE TOP BOLT TO SPEC
1	N805320 S36	N805320 S36	3	A	NUT & WASHER M6-1.00 INSTALL ON BATTERY TERMINAL
1	F87Z 6B209 CA	F87E 6B209 CA	4	C	TENSIONER ASSY ATTACH TO ALT BRACKET TORQUE TO 30-40 FT LB
1	E4EE 8620 NA	E4EE 8620 NA	5		FEAD BELT
ZB-025-006					
1	F5JL 10C307 AA	F5JL 10C307 AA	1		WIRE ASSEMBLY - ALTERNATOR
ZB-050-017					
1	F8JL 10K330 AA	F8JL 10K330 AA	1		KIT - ALT. HARNESS

FAN BLADE & PULLEYS



QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-009-001					
1	F5JL 8546 DA	F5JL 8546 DA	1		FAN SPACER - 1.75" THICK
1	D8BZ 8600 E	D8BE 8600 EA	2		FAN - 16.50" 4 BLD. SUCT 1.82"PW
4	N800084 S2	N800084 S2	3		SCREW & WASHER - M8 X 70
ZB-009-002					
1	F5JL 8546 CA	F5JL 8546 CA	1		FAN SPACER - 1.40" THICK
1	D2JL 8600 C	D2JL 8600 C	2		FAN - 16.00" 5 BLD. PUSH 2.25"PW
4	34791 S36	34791 S36	3		LOCKWASHER 5/16
4	N803485 S2	N803485 S2	4		BOLT - M8-1.25 X 62MM
ZB-009-004					
1	F5JL 8546 DA	F5JL 8546 DA	1		FAN SPACER - 1.75" THICK
4	N800084 S2	N800084 S2	2		SCREW & WASHER - M8 X 70
ZB-009-005					
1	F5JL 8546 CA	F5JL 8546 CA	1		FAN SPACER - 1.40" THICK
4	34791 S36	34791 S36	2		LOCKWASHER 5/16
4	N803485 S2	N803485 S2	3		BOLT - M8-1.25 X 62MM
ZB-009-006					
1	D8BZ 8600 E	D8BE 8600 EA	1		FAN - 16.50" 4 BLD. SUCT 1.82"PW
ZB-030-002					
1	F8JL 6A359 AC	F8JL 6A359 AC	1		PULLEY - CRANKSHAFT
ZB-035-001					
1	F87Z 8509 AB	F87Z 8509 AB	1		PULLEY - WATER PUMP (POLY "V")

OIL PRESSURE & WATER TEMPERATURE SWITCH

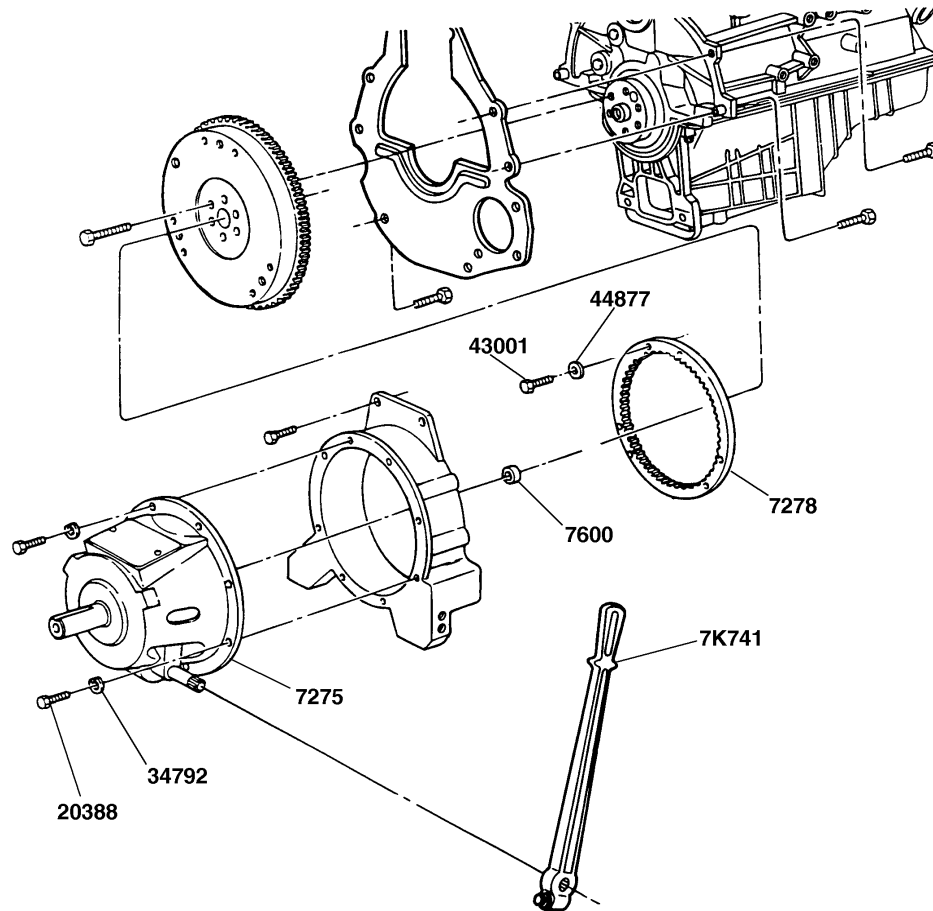


QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-013-001					
1	C8GY 10884 A	D3AF 10B843 AB	1		SWITCH ASS'Y. - WATER TEMP. (ZAMBONI ONLY) REMOVE TEMP. SWITCH FROM ENGINE & INSTALL NEW ONE.
ZB-014-001					
1	E9HZ 9278 B	E9HT 9278 BA	1		SWITCH ASSY - OIL PRESSURE

TRANSMISSION (AUTOMATIC) & WATER PUMP INLET TUBE

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-018-001 TRANSMISSION					
1	87034 S94	87034 S94	1		SEAL 9/16 X 0.103 "O" RING
1	E7SZ 7A228 A	E7SP 7A228 AB	2		TUBE-OIL LEVEL IND & FILLER
1	E7SZ 7A020 A	F0ZP 7A020 AA	3		INDICATOR ASSY-TRANS
1	96GT 7000 TAA	96GT 7000 TAA	4		AUTOMATIC TRANSMISSION ASSY.
8	N606062 S2	N606062 S2	5		BOLT M10-1.50 X 50.0 (UBS)
4	E820222 S72	E820222 S72	6		NUT - 3/8
1	381377 S18OA	381377 S18OA	7		HOSE-VACUUM 1/4 ID X 18.0
1	381335 S36OY	381335 S36OY	8		HOSE-VACUUM 5/32 I.D. X 36.0"
1	E7SC 7B095 AA	E7SC 7B095 AA	9		TUBE-ENG TO TRANS VAC-REAR
1	N803496 S36	N803496 S36	10		CLIP - VACUUM TUBE FRONT
1	C9AZ 9C492 A	386800 S	11		CAP
1	E7ZZ 7D307 A	F1ZB 7C078 AA	12		WIRING ASSY - TRANS CONTROL
ZB-018-002 TRANSMISSION					
1	87034 S94	87034 S94	1		SEAL 9/16 X 0.103 "O" RING
1	F2TZ 7A228 C	F27P 7A228 DA	2		TUBE ASSY - TRANS OIL FILLER
1	E7TZ 7A020 C	F07P 7A020 AA	3		INDICATOR ASSY-TRANS
1	96GT 7000 TAA	96GT 7000 TAA	4		AUTOMATIC TRANSMISSION ASSY.
8	N606062 S2	N606062 S2	5		BOLT M10-1.50 X 50.0 (UBS)
4	E820222 S72	E820222 S72	6		NUT - 3/8
1	381335 S36OY	381335 S36OY	7		HOSE-VACUUM 5/32 I.D. X 36.0"
1	381377 S18OA	381377 S18OA	8		HOSE-VACUUM 1/4 ID X 18.0
1	N803496 S36	N803496 S36	9		CLIP - VACUUM TUBE FRONT
1	C9AZ 9C492 A	386800 S	10		CAP
1	E7SC 7B095 AA	E7SC 7B095 AA	11		TUBE-ENG TO TRANS VAC-REAR
1	FOJL 9A474 AA	FOJL 9A474 AA	12		FITTING ASSY - VAC
1	E1SZ 7D307 A	E1SB 7C078 AC	13		WIRING ASSY. - NEUTRAL SW (C3)
ZB-038-001 WATER PUMP INLET TUBE					
1	87056 S100	87056 S100	1		O-RING
1	F87Z 8290 BB	F87E 8274 BC	2		INLET WATER TUBE
2	N606678 S36	N606678 S36	3		SCR & WASH M6 X 1.0 X 32.5

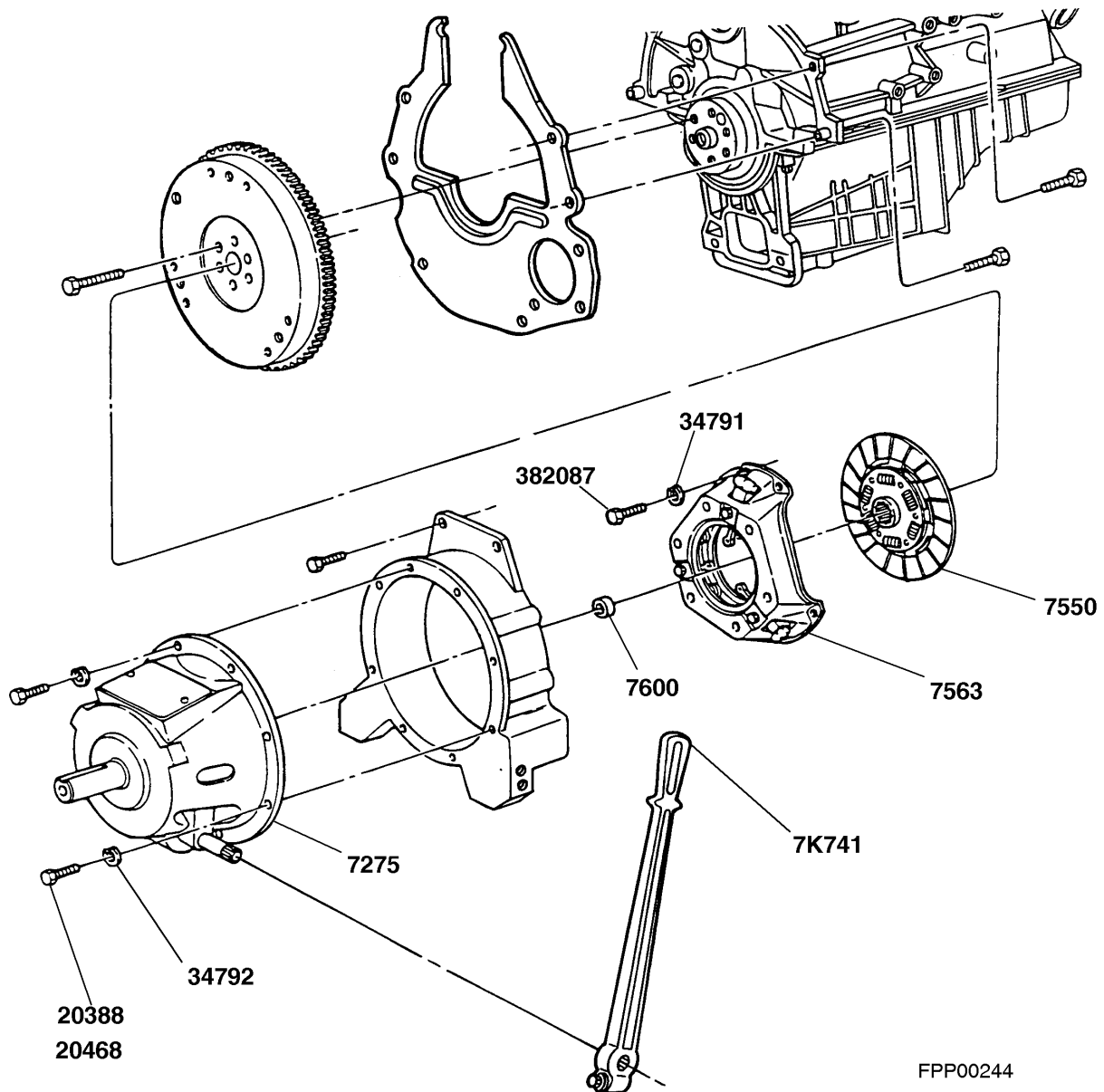
POWER TAKE OFF - 8" OVER-CENTER CLUTCH



FPP00243

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-019-001					
1	D9JL 7600 B	D9JL 7600 B	1		BRG. PILOT
1	D9JL 7278 A	D9JL 7278 A	2		DRIVE RING - 8.0" O/C CLUTCH
6	44877 S2	44877 S2	3	A	FLAT WASHER 3/8 (HARDENED) ATTACH 7278 TO 6375 TORQUE BOLTS TO 40-50 LB-FT BREAK-AWAY INSPECTION TORQUE IN TIGHTENING DIRECTION TO BE 35-60 LB-FT
6	43001 S2	43001 S2	4	A	BOLT - 3/8 - 16 X1.375 HEX LOCK
1	D9JL 7275 A	D9JL 7275 A	5		PTO - 8 IN. O/C CLUTCH
8	34792 S36	34792 S36	6	B	LOCKWASHER 3/8 ATTACH 7275 TO 6392 8 EACH REQUIRED
8	20388 S8	20388 S8	7	B	BOLT 3/8-16 X 1.00
1	D7JL 7K741 A	D7JL 7K741 A	8	C	HANDLE- PTO ASSEMBLE ON RIGHT SIDE OF PTO ON ENGINES & OPEN P.U. AND ASSEMBLE ON LEFT SIDE OF PTO ON CLOSED P.U.

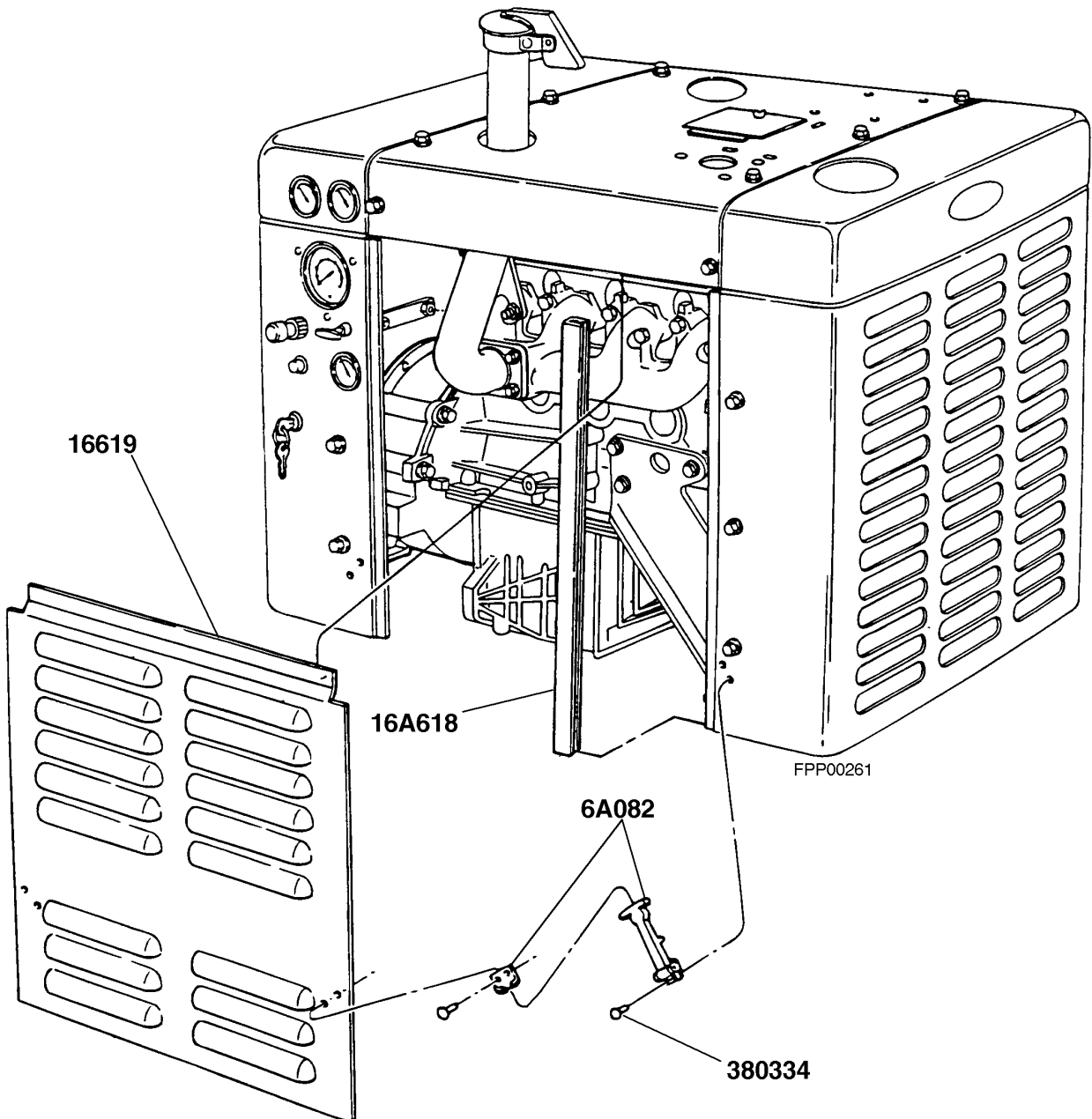
POWER TAKE OFF - 9" SPRING LOADED CLUTCH



FPP00244

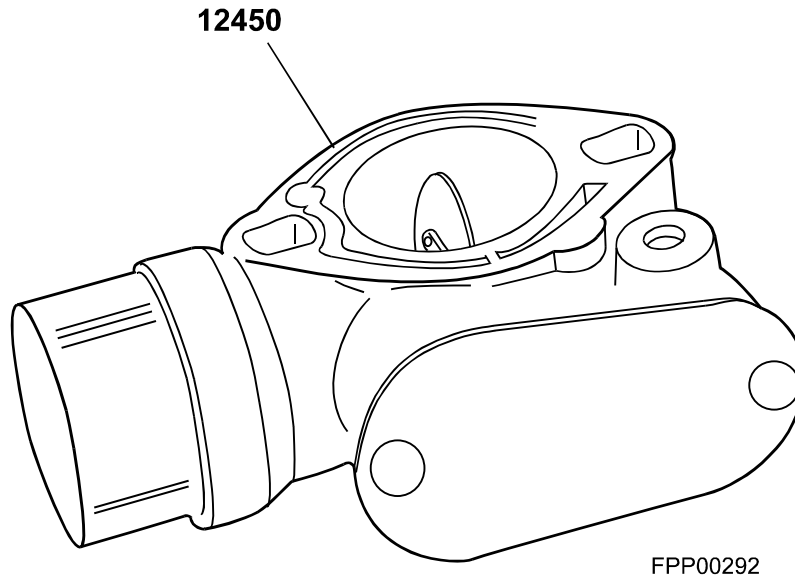
QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-019-002					
1	D9JL 7600 B	D9JL 7600 B	1	D	BRG. PILOT 1.57 O.D. X .69 WIDE X .669 I.D
1	D9JL 7550 A	D9JL 7550 A	2	E	DISC ASSY. - CLUTCH 9 INCH
1	D9JL 7563 A	D9JL 7563 A	3	E	PRESSURE PLATE ASSY - CLUTCH
6	34791 S36	34791 S36	4	E	LOCKWASHER 5/16
6	382087 S2	382087 S2	5	E	BOLT 5/16 - 18 X .92 ATTACH 7563 TO 6375 6 REQ'D
1	D9JL 7275 E	D9JL 7275 E	6		PTO - 9 IN. S/L CLUTCH
8	34792 S36	34792 S36	7	A	LOCKWASHER 3/8 ATTACH 7275 TO 6392 8 REQ'D
6	20388 S8	20388 S8	8	B	BOLT 3/8-16 X 1.00 ATTACH 7275 TO 6392 6 REQ'D
2	20468 S8	20468 s8	9	C	BOLT 3/8 -16 X 1.50 ATTACH 7275 TO 6392 2 REQ'D
1	D7JL 7K741 A	D7JL 7K741 A	10		HANDLE- PTO

HOOD SIDE PANEL



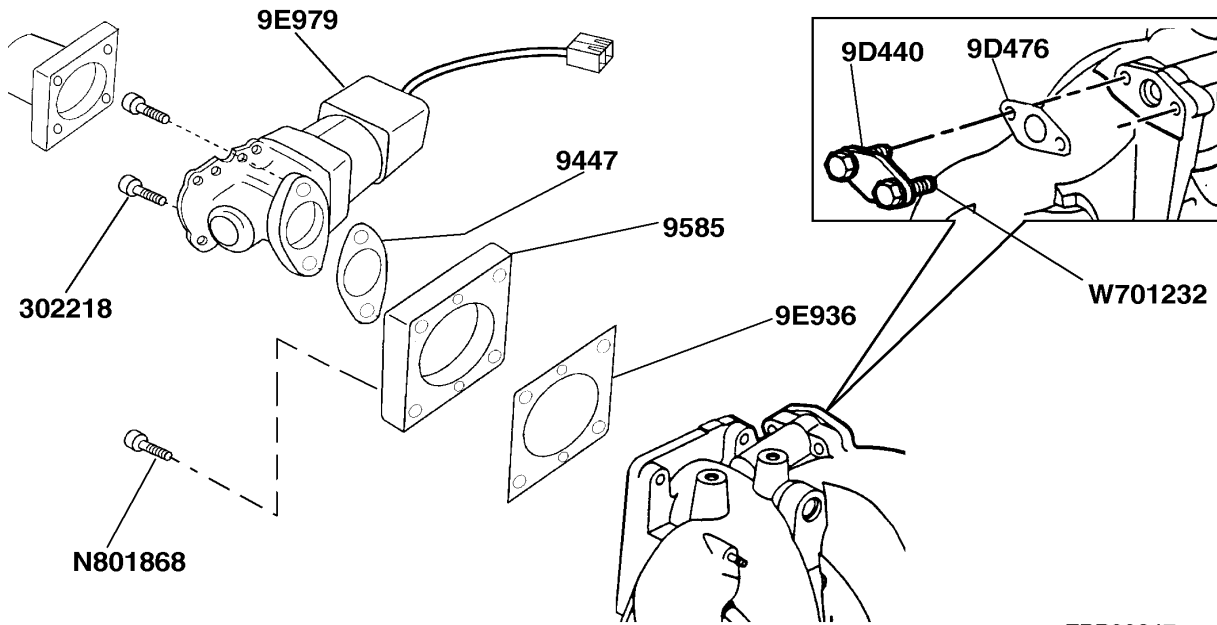
QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-119-001					
4	F0JL 16A618 AA	F0JL 16A618 AA	1	B	DAMPER-SIDE PANEL INSTALL ON FRONT & REAR SHELL
16	380334 S	380334 S	2	A	RIVET ATT. 6A082 TO FRONT & REAR SHELLS
4	E9JL 6A082 AB	E9JL 6A082 AB	3		LATCH - SIDE PANEL
2	F5JL 16619 AA	F5JL 16619 AA	4		SIDE PANEL

GOVERNOR, VELOCITY



QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-020-007					
2	E1JL 9G532 AA	E1JL 9G532 AA	1		STUD - M8X1.25X1.25X90
2	B9AZ 9447 A	B9AE 12A450 A	2	A	GASKET - CARB. CARB. TO SPACER (9P677)
1	D7JL 9P677 A	D7JL 9P677 A	3		SPACER - CARB. 0.338 THICK
1	E2JL 12450 BA	E2JL 12450 BA	4		GOVERNOR - VELOCITY
2	N620041 S51	N620041 S51	5	C	NUT - M8X1.25 HEX ATT. CARB

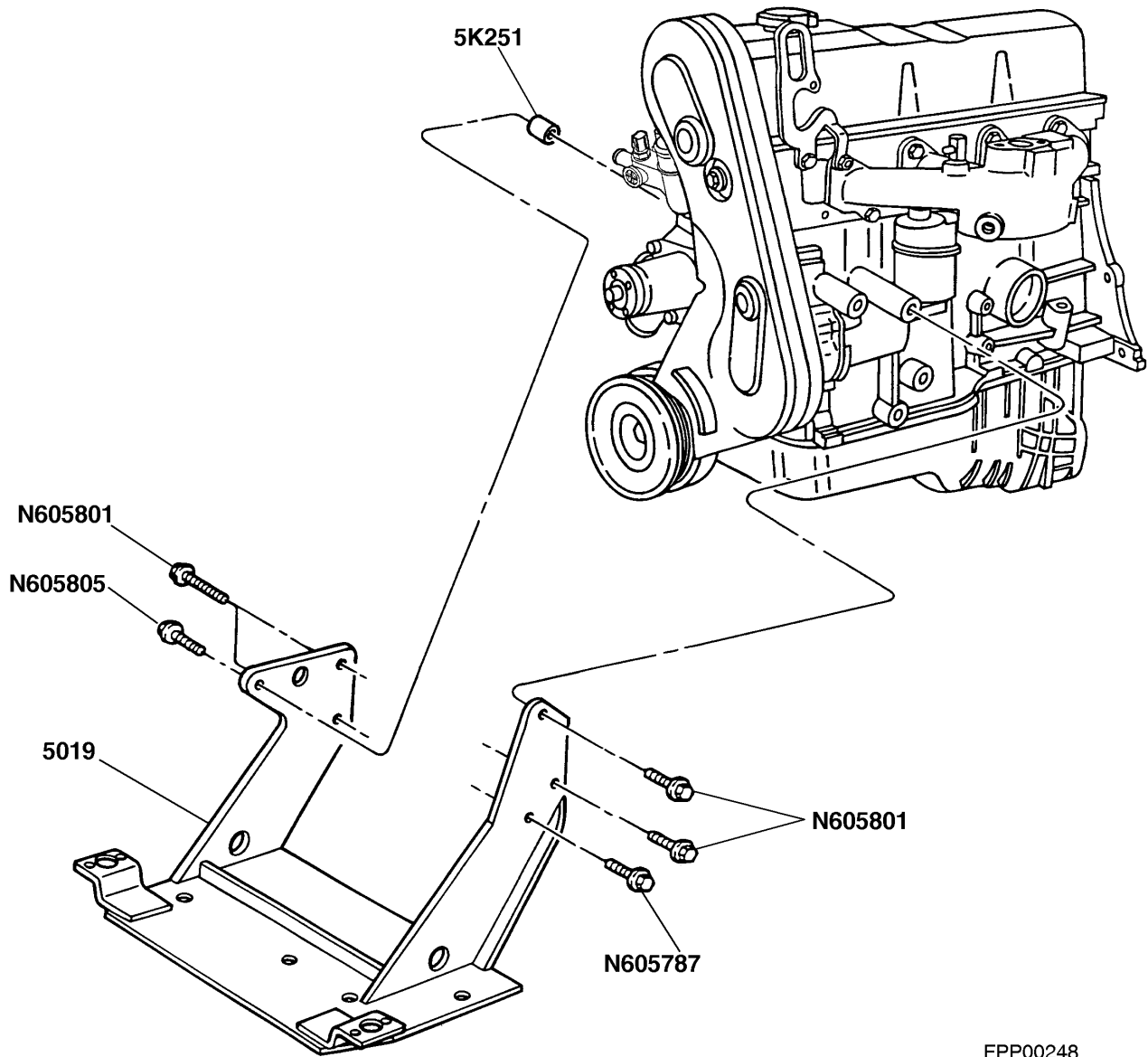
GOVERNOR, ELECTRONIC - EFI



FPP00247

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-020-012					
1	E5TZ 9E936 B	E59E 9E936 AA	1		GASKET - UP. MAN. THROTTLE
1	F8JL 9585 BA	F8JL 9585 BA	2		ADAPTER PLATE
4	N801868 S36	N801868 S36	3	A	BOLT - M8 X 1.25 X 20 ATTACH 9585 TO INTAKE MANIFOLD TORQUE 15-22 FT. LBS. 20-30 NM
1	E5JL 9447 AB	E5JL 9447 AB	4		GASKET-CARB
1	F8JL 9E979 BA	F8JL 9E979 BA	5	B	ACTUATOR, THROTTLE
2	302218 S36	302218 S36	6	B	BOLT, 3/8 - 16 X 1" ATTACH 9E979 TO ADAPTER TORQUE 15-22 FT. LBS. 20-30 NM
1	E6AZ 9D476 B	E6AE 9D476 BB	7		GASKET - EGR
1	E69Z 9D440 A	E69E 9D440 AB	8		PLATE - EGR PORT, COVER
2	W701232 S	W701232 S	9	C	SCW/WSHR ASY M8 X 1.25 X 35 ATTACH 9D440 TO INTAKE MANIFOLD TORQUE 15-22 FT. LBS. 20-30 NM
1	F8JL 12K452 AA	F8JL 12K452 AA	10		WIRE ASSY GOVE CONR VLVE
ZB-020-013					
1	F8JL 9E704 BA	F8JL 9E704 BA	1		SWITCH ASY - ENGINE SPEED CONT

FRONT SUPPORT - ENGINE



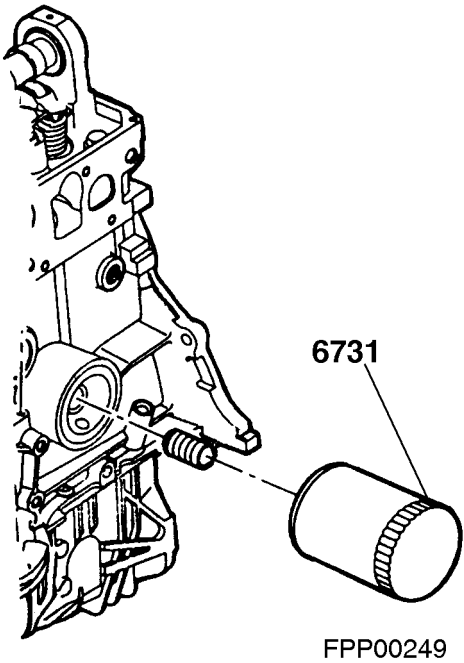
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QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-021-001					
1	F8JL 5019 BA	F8JL 5019 BA	1		FRNT SUPPORT-PWR UNIT (CLOSED)
1	E8JL 5K251 AA	E8JL 5K251 AA	2		SPACER
4	N605801 S2	N605801 S2	3		BOLT M10-1.50 X 30.0 (UBS)
1	N605787 S2	N605787 S2	4		BOLT M8x1.25 X 25 HEX FLG HD
1	N605805 S2	N605805 S2	5		BOLT M10-1.50 X 50 HEX
1	N605921 S2	N605921 S2	6		BOLT - M10X1.50X35MM

FRONT SUPPORT - ENGINE

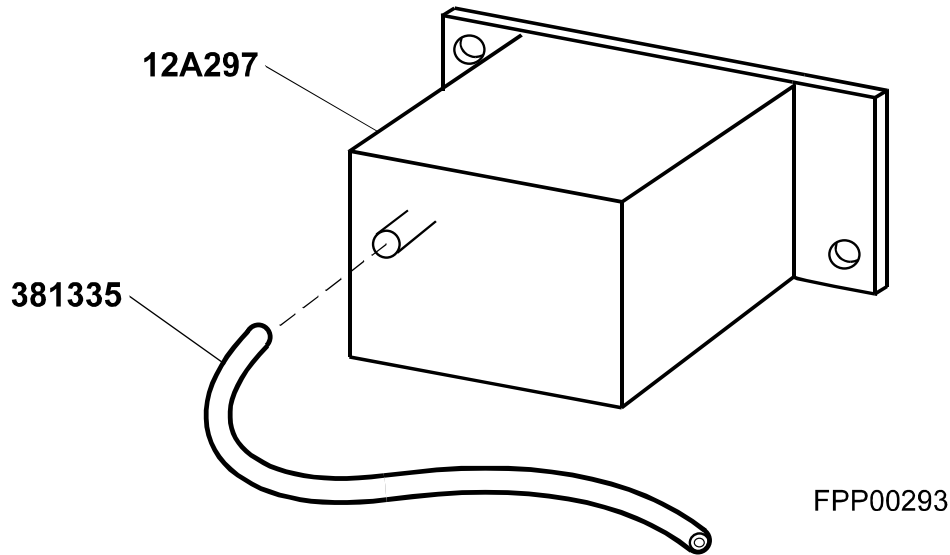
QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-021-002					
1	F8JL 5019 AA	F8JL 5019 AA	1		FRT SUPPORT-PWR UNIT (OPEN)
1	E8JL 5K251 AA	E8JL 5K251 AA	2		SPACER
4	N605801 S2	N605801 S2	3		BOLT M10-1.50 X 30.0 (UBS) ATT. 5019 TO LEFT SIDE
1	N605787 S52	N605787 S52	4		BOLT M8X1.25 X 25 HEX FLG HD
2	N605805 S2	N605805 S2	5		BOLT M10-1.50 X 50 HEX ATT. 5019 & 5K251 TO BLK RIGHT SIDE (UPPER)
1	N605921 S2	N605921 S2	6		BOLT - M10X1.50X35MM
ZB-021-006					
2	F47Z 6038 A	F47A 6038 GA	1		INSULATOR ASSY
1	E5TZ 6029 B	E57A 6061 EA	2		BRKT. ASSY - ENG FRT SUPT (LH)
1	E5TZ 6028 D	E57A 6028 EB	3		BRKT. ASSY - ENG FRT SUPT (RH)
2	N801995 S2	N801995 S2	4	A	NUT & WASHER M12-1.75 ATTACH 6038 TO 6061 & 6028 TORQUE TO 76 LB FT
2	N807479 S100	N807479 S100	5	C	NUT M12-1.75 HEX FLNG ATTACH 6038 TO 6046 & 6B033 TORQUE TO 76 LB FT
1	F09Z 6031 A	E87A 6B033 AA	6		BRACKET-UPPER LH ENGINE MOUNT
1	F57Z 6030 A	F57A 6046 EB	7		BRKT-ENG FRT SUPT INSUL (RH)
6	N802653 S100	N802653 S100	8	B	BOLT & WASHER M10-1.50 X 22.0 ATTACH 6B033 & 6046 TO ENG TORQUE TO 76 LB FT

OIL FILTER - SHORT



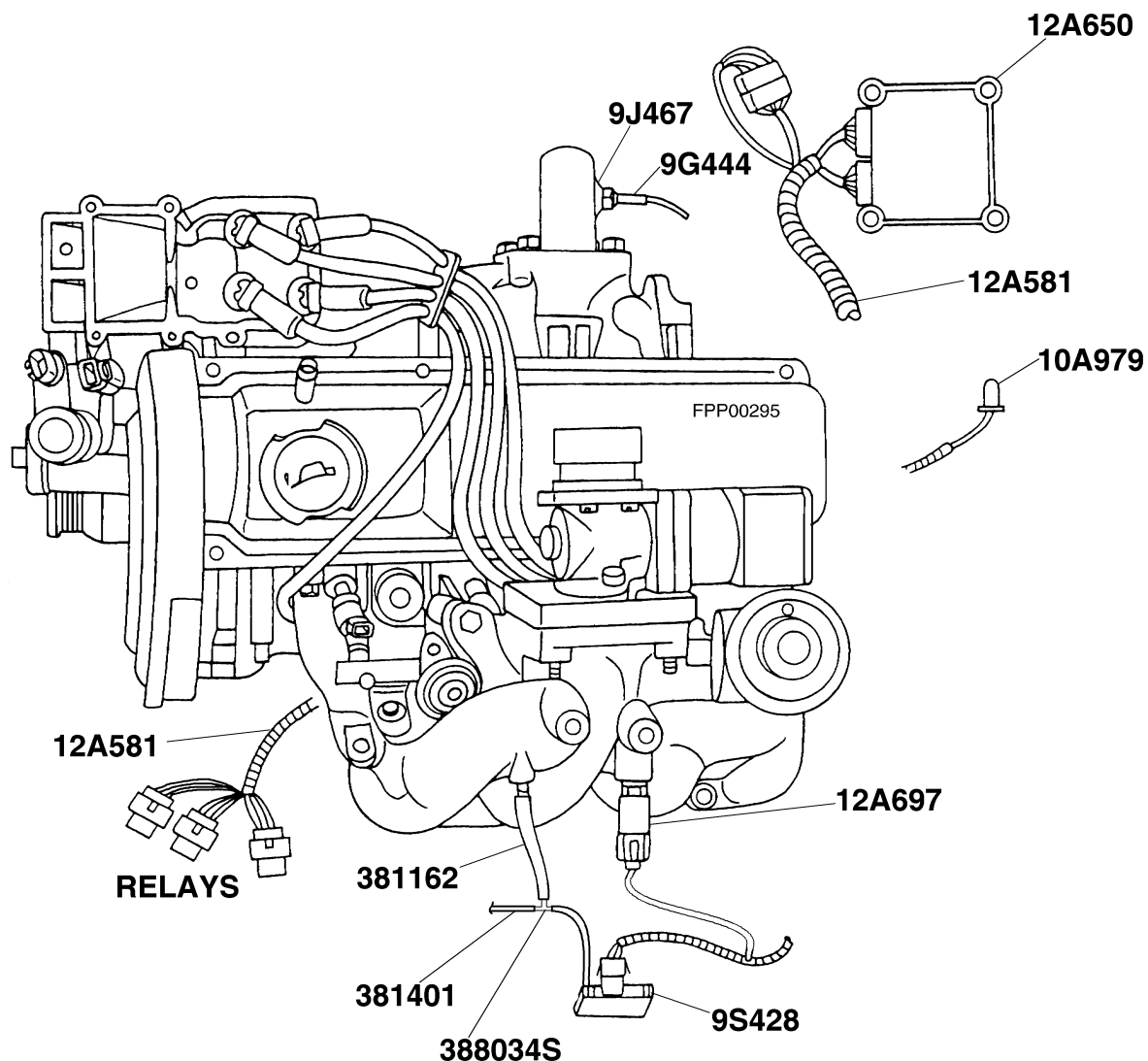
QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-024-001					
1	D4ZZ 6731 B	E3ZE 6714 DA	1		OIL FILTER

IGNITION HARNESS, MODULE & VACUUM HOSE - CARB.



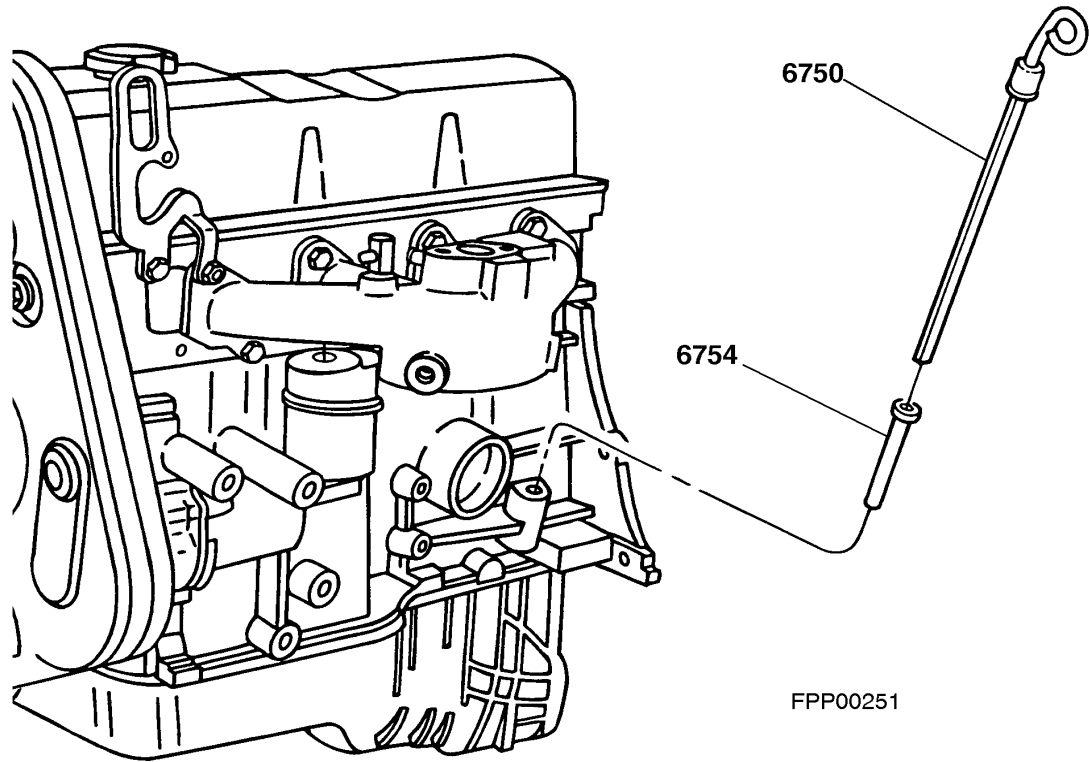
QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-025-001					
1	F8JL 12A297 FA	F8JL 12A297 FA	1		MODULE IGNITION (North Coast – Pitt Auto)
1	W500004 S309	W500004 S309	2	A	BOLT-HEX FLANGE HEAD ATTACH 12A200 TO TOP OF ALTERNATOR BRACKET
1	381335 S360Y	381335 S360Y	3		HOSE-VACUUM 5/32 I.D. X 36.0"
1	F8JL 12A200 AC	F8JL 12A200 AC	4		WIRE ASSY DIS IGN SYS
ZB-025-003					
1	F8JL 12A297 EA	F8JL 12A297 EA	1		MODULE IGNITION (DIS)
ZB-060-33					
	F8JL 12A297 CA	F8JL 12A297 CA			MODULE IGNITION (Onan)

EFI CONTROL



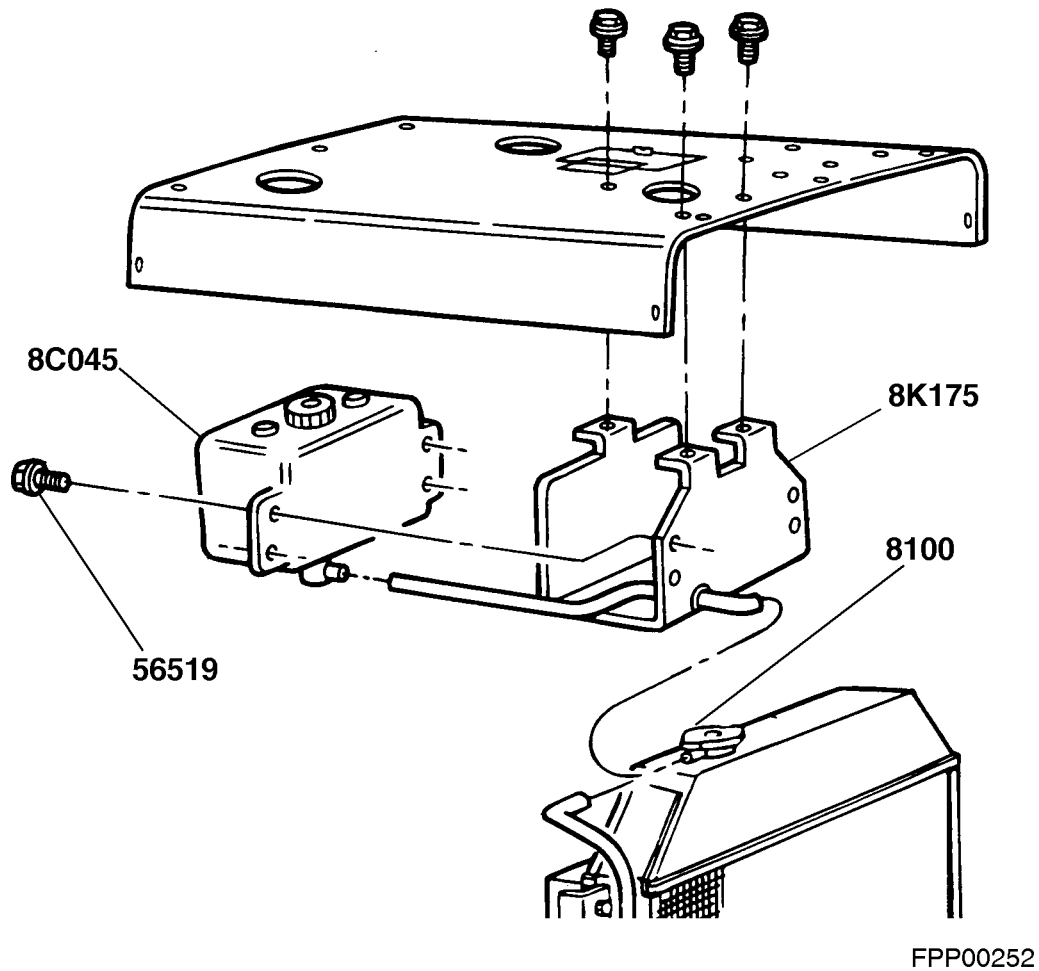
QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-025-004					
A/4	F5AC 9J467 CA	F5AC 9J467 CA	1		INSERT
1	F57Z 9G444 C	F5AF 9G444 CB	2		SENSOR ASY - EXH GAS OXY (HEATED)
1	F8JL 12A650 AB	F8JL 12A650 AB	3		PROCESSOR ASSY - ENG ELEC CTRL
1	F8JL 10A979 AA	F8JL 10A979 AA	4		LIGHT - MALFUNCTION INDICATOR
1	F6SZ 12A697 A	F6SF 12A697 AA	5		SENSOR ASY - AIR CHANGE TEMP 13-16 Nm
1	F8JL 9S428 AB	F8JL 9S428 AB	6		MAP SENSOR - BLD# 3350-S
1	381401 S076A	381401 S076A	7		HOSE - VACUUM 7/32ID X 76" LONG
1	388034 S	388034 S	8		TEE
1	381162 S220A	381162 S220A	9		HOSE - 3/16ID X 22" LONG
1	F8JL 12A581 AC	F8JL 12A581 AC	10		WIRE ASSY ENGINE CONTROL
1	F8JL 14324 AC	F8JL 14324 AC	11		WIRE ASSY ENGINE TO FRAME

OIL LEVEL INDICATOR & TUBE ASSEMBLY



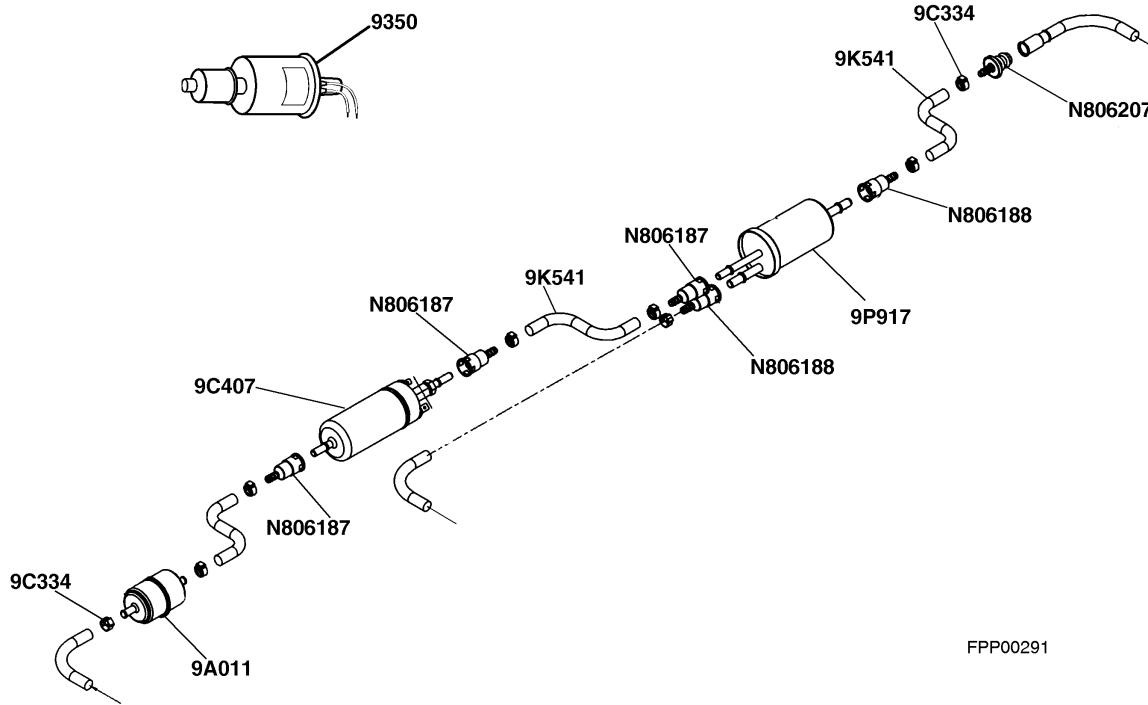
QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-026-001 (LEVEL INSTALLATION)					
1	E4JL 6754 AA	E4JL 6754 AA	1		TUBE - OIL LEVEL
1	F8JL 6750 AA	F8JL 6750 AA	2		INDICATOR OIL LEVEL
ZB-026-002 (5° INSTALLATION)					
1	F8JL 6754 BA	F8JL 6754 BA	1		TUBE OIL LEVEL INDICATOR
1	F8JL 6750 AA	F8JL 6750 AA	2		INDICATOR OIL LEVEL
ZB-026-003					
1	E6JL 6754 AB	E6JL 6754 AB	1		TUBE ASSY - OIL LEVEL INDICATOR
1	PPD-N801424 S36	PPD-N801424 S36	2		STUD - M8-M6 X 47.1
1	N620480 S2	N620480 S2	3		NUT M6 - 1.00 (UBS)
1	F8JL 6750 BA	F8JL 6750 BA	4		INDICATOR OIL LEVEL
ZB-026-004 (5° INSTALLATION - EFI)					
1	F87Z 6754 DA	F57E 6754 CG	1		TUBE OIL LEVEL INDICATOR
1	N605904 S2	N605904 S100	2	B	BOLT HEX FLNG HD M8X1.25 X 16M
1	F87Z 6750 AA	F87E 6750 AD	3		INDICATOR ASY - OIL LEVEL
ZB-026-005 (LEVEL INSTALLATION - EFI)					
1	F87Z 6754 DA	F57E 6754 CG	1		TUBE OIL LEVEL INDICATOR
1	N605904 SA	N605904 S36	2	B	BOLT M8X1.25 X 16.0 (UBS)
1	F8JL 6750 CA	F8JL 6750 CA	3		INDICATOR ASY - OIL LEVEL

COOLANT RECOVERY SYSTEM



QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-102-004					
1	F5JL 8C045 AA	F5JL 8C045 AA	1		RESERVOIR ASSY - RADIATOR
1	F5JL 8K175 BA	F5JL 8K175 BA	2		BRKT ASY
7	56519 S2	56519 S2	3	A	BOLT 5/16-18 X 0.62 (UBS) USE 3 TO ATTACH 8K175 TO HOOD TOP 4 TO ATTACH 8C045 TO 8K175
2	383520 S	383520 S	4		HOSE CLAMP 0.59 ROUND WORM SCR
1	E6HZ 8100D	E8HT 8100 BA	5		CAP/RADIATOR/7 LB DUAL SEAL

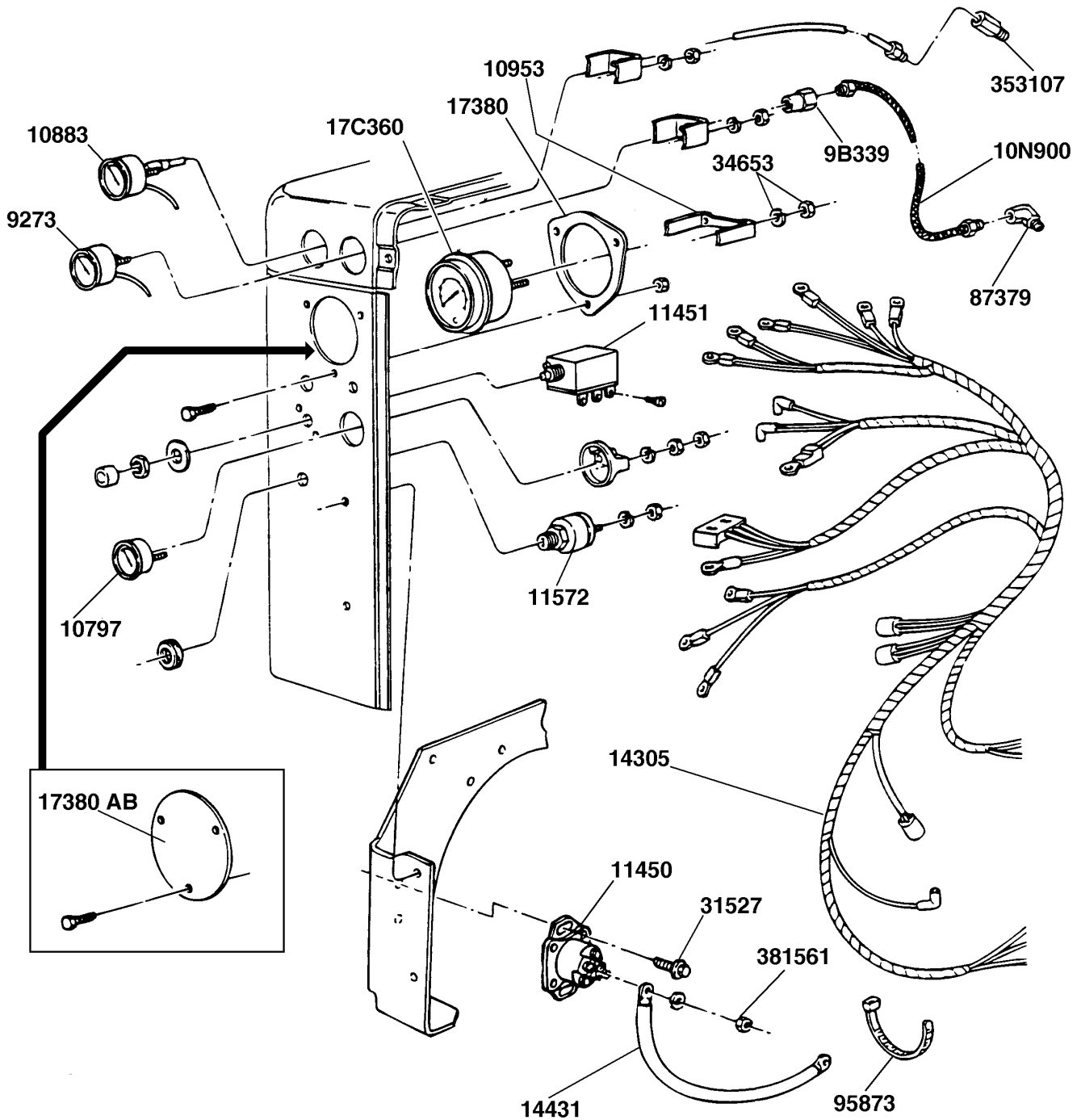
ELECTRIC FUEL PUMP



FPP00291

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-005-004 (CARB.)					
	F8JL 9350 AA	F8JL 9350 AA			PUMP & FILTER (AIRTEX)
1	E0AZ 9278 A	E0AF 9278 AA	3		SWITCH - OIL PRESSURE
1	F5JL 14582 AA	F5JL 14582 AA	4		WIRE ASSEMBLY - SWITCH TO PUMP
ZB-015-003					
1	E3FZ 9155 F	E3EE 9155 F4A	1		FILTER ASSY - FUEL
ZB-005-003 (EFI)					
1	E7UZ 9C407 A	E7UF 9C407 BA	1		PUMP & ISOLATOR ASSY
1	F8JL 9P917 AA	F8JL 9P917 AA	2		PRESSURE- REGULATOR & FILTER
1	F8JL 9A011 AA	F8JL 9A011 AA	3		FILTER - FUEL TANK
1	F8JL 9K541 AA	F8JL 9K541 AA	4		TUBE - FUEL SUPPLY (cut to required length)
1	N806207 S190	N806207 S190	5		CONNECTOR BODY 6.35HOSE X 14.1
2	N806188 S190	N806188 S190	6		CONNECTOR ASY 9.52TUBEXB.35HOSE
3	N806187 S190	N806187 S190	7		CONNECTOR ASY 7.9TUBEX6.35HOSE
AR	N806190 S190	N806190 S190			RETAINER (BLACK) USE WITH N806188
AR	N806191 S190	N806191 S190			RETAINER (WHITE) USE WITH N806187
6	F8JL 9C334 AA	F8JL 9C334 AA	8		CLAMP - FUEL TUBE
1	F8JL 9180 AA	F8JL 9180 AA	9		BRACKET - FUEL FILTER
1	F8JL 9A350 AB	F8JL 9A350 AB	10		WIRING HARNESS

INSTRUMENTS & WIRING



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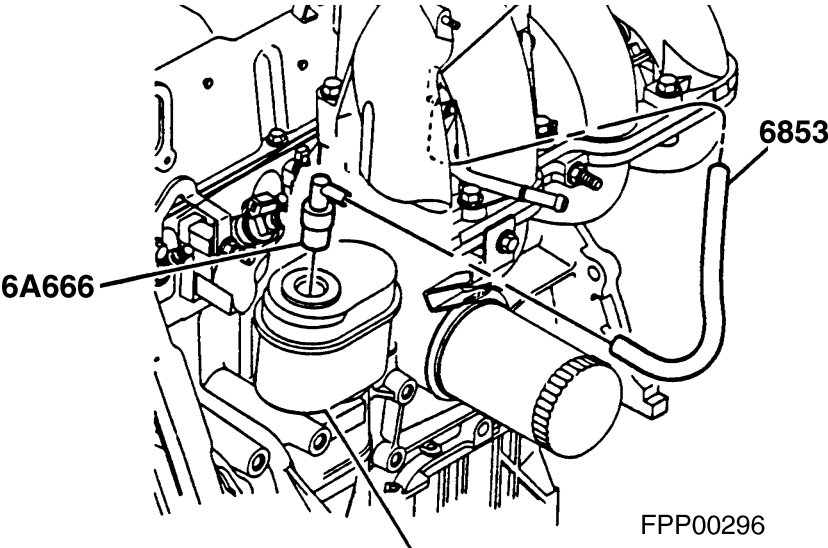
INSTRUMENTS & WIRING

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-101-001					
1	D3JL 9G272 B	D3JL 9G272 B	1		OIL PRESSURE GAUGE 0-100 PSI
1	E5JL 10883 AA	E5JL 10883 AA	2		GAUGE - WATER TEMPERATURE
1	D8JL 10797 A	D8JL 10797 A	3		VOLTMETER
1	C3JZ 11451 A	C3JZ 11451 A	4	B	SWITCH - MAGNETIC SAFETY ATT EYE OF BLACK WIRE W/FUSE TO "IGN" 11572
1	D9JL 11572 A	D9JL 11572 A	5		SWITCH - IGNITION & START
1	E4JL 11450 AA	E4JL 11450 AA	6		RELAY - STARTING MOTOR
2	31527 S36	31527 S36	7	D	SCR 1/4-14X.50 HEX WASH HD TAP ATT. 11450 TO REAR PANEL BRKT
1	E9JL 17380 AB	E9JL 17380 AB	8		COVER - TACHOMETER OPENING
3	57014 S2	57014 S2	9	G	SCREW #8-32 X .50 HEX HEAD
3	34653 S36	34653 S36	10	G	NUT & WASHER #8-32 HEX ATT 17C380 TO OUTSIDE OF REAR SHELL
1	353107 S101	353107 S101	11		REDUCER BUSHING 1/8-27:1/4-18
1	87379S	87379S	12		ELBOW 90 DEG. 1/8 TUBE TO 1/8
1	F6JL 9B339 AA	F6JL 9B339 AA	13		1/8 FEMALE PIPE ADAPTER
1	F5JL 10N900 AA	F5JL 10N900 AA	14		HOSE-OIL PRESSURE
1	5FJL 14305 AC	F5JL 14305 AC	15		WIRING HARNESS
1	34079 S36	34079 S36	16	C	NUT - #10-32 HEX ATT WIRE 11451 TO "IGN" 11572
1	FDY 14431 A	FDY 14431 A	17		CABLE - STARTER TO RELAY
2	381561 S36	381561 S36	18	E	NUT & WASHER ASSY. 5/16-18 ATT. 14431 TO 11450 ATT. 14305 TO 11450
2	95873 S101	95873 S101	19	F	STRAP 1.75 BUNDLING ATT. 14305 TO REAR PANEL BRKT ATT INTAKE MANIFOLD
ZB-101-002					
1	D3JL 9G272 B	D3JL 9G272 B	1		OIL PRESSURE GAUGE 0-100 PSI
1	E5JL 10883 AA	E5JL 10883 AA	2		GAUGE - WATER TEMPERATURE
1	D8JL 10797 A	D8JL 10797 A	3		VOLTMETER
1	E8JL 17380 AC	E8JL 17380 AC	4		ADAPTER PLATE - TACHOMETER
1	F5JL 17C360 AA	F5JL 17C360 AA	5		TACHOMETER & HOURMETER ASSY
3	34653 S36	34653 S36	6	B	NUT & WASHER #8-32 HEX ATT 17C360 & 17380 TO 16924 REAR SHELL
3	51764 S40	51764 S40	7	B	SCREW - PAN HD SELF TAP
1	C3JZ 11451 A	C3JZ 11451 A	8	C	SWITCH - MAGNETIC SAFETY ATT EYE OF BLACK WIRE W/FUSE TO "IGN" 11572
1	D9JL 11572 A	D9JL 11572 A	9		SWITCH - IGNITION & START
1	F6JL 9B339 AA	F6JL 9B339 AA	10		1/8 FEMALE PIPE ADAPTER
1	87379S	87379S	11		ELBOW 90 DEG. 1/8 TUBE TO 1/8
1	353107 S101	353107 S101	12		REDUCER BUSHING 1/8-27:1/4-18
1	F5JL 10N900 AA	F5JL 10N900 AA	13		HOSE-OIL PRESSURE
1	5FJL 14305 AC	F5JL 14305 AC	14		WIRING HARNESS
1	34079 S36	34079 S36	15	D	NUT - #10-32 HEX ATT WIRE 11451 TO "IGN" 11572
1	E4JL 11450 AA	E4JL 11450 AA	16		RELAY - STARTING MOTOR
2	31527 S36	31527 S36	17	E	SCR 1/4-14X.50 HEX WASH HD TAP ATT. 11450 TO REAR PANEL BRKT
1	FDY 14431 A	FDY 14431 A	18		CABLE - STARTER TO RELAY
2	381561 S36	381561 S36	19	F	NUT & WASHER ASSY. 5/16-18 ATT. 14431 TO 11450 ATT. 14305 TO 11450
2	95873 S101	95873 S101	20	G	STRAP 1.75 BUNDLING ATT. 14305 TO REAR PANEL BRKT ATT INTAKE MANIFOLD

INSTRUMENTS & WIRING

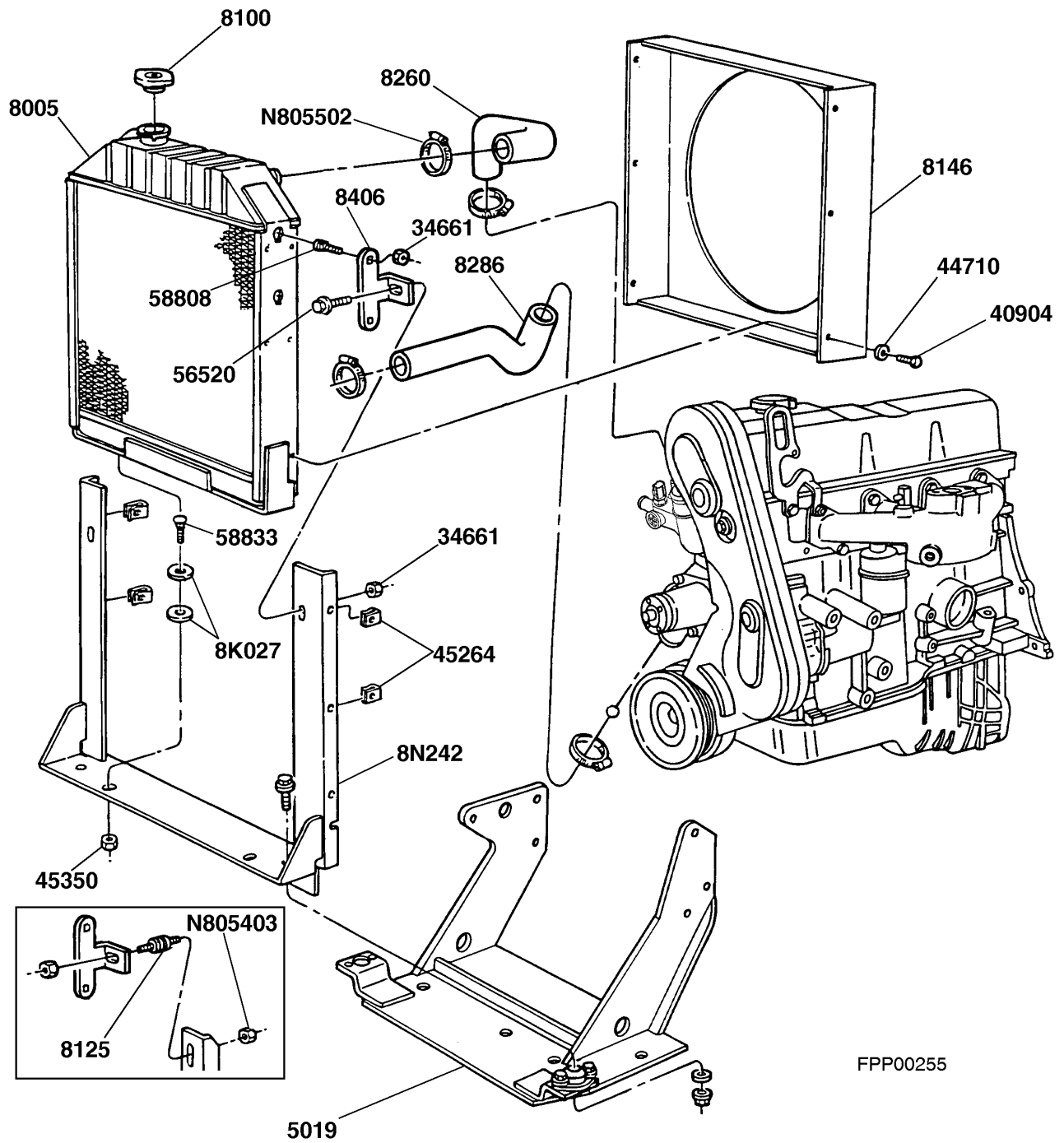
QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-101-003					
1	E6JL 9273 AA	E6JL 9273 AA	1		GAUGE-OIL PRESSURE
1	E6JL 10883 AA	E6JL 10883 AA	2		GAUGE & ADAPTER COOL TEMP.
1	D8JL 10797 A	D8JL 10797 A	3		VOLTMETER
1	D9JL 11572 A	D9JL 11572 A	4		SWITCH - IGNITION & START
1	353107 S101	353107 S101	5		REDUCER BUSHING 1/8-27:1/4-18
1	87379S	87379S	6		ELBOW 90 DEG. 1/8 TUBE TO 1/8
1	F6JL 9B339 AA	F6JL 9B339 AA	7		1/8 FEMALE PIPE ADAPTER
1	F5JL 10N900 AA	F5JL 10N900 AA	8		HOSE-OIL PRESSURE
1	F5JL 14305 AC	F5JL 14305 AC	9		WIRING HARNESS
1	E4JL 11450 AA	E4JL 11450 AA	10		RELAY - STARTING MOTOR
2	31527 S36	31527 S36	11	A	SCR 1/4-14X.50 HEX WASH HD TAP ATT. 11450 TO REAR PANEL BRACKET
1	FDY 14431 A	FDY 14431 A	12		CABLE - STARTER TO RELAY
2	381561 S36	381561 S36	13	D	NUT & WASHER ASSY. 5/16-18 ATT. 14431 TO 11450 ATT. 14305 TO 11450
4	95873 S101	95873 S101	14	E	STRAP 1.75 BUNDLING 1-ATT. 14305 TO REAR PANEL BRKT., 1-INTAKE MFLD., 2-FRONT SUPPORT
ZB-101-004					
1	D3JL 9G272 B	D3JL 9G272 B	1		OIL PRESSURE GAUGE 0-100 PSI
1	E5JL 10883 AA	E5JL 10883 AA	2		GAUGE - WATER TEMPERATURE
1	D8JL 10797 A	D8JL 10797 A	3		VOLTMETER
1	F5JL 17C360 AA	F5JL 17C360 AA	4		TACHOMETER & HOURMETER ASSY
1	E8JL 17380 AC	E8JL 17380 AC	5		ADAPTER PLATE - TACHOMETER
3	F0JL 10953 AA	F0JL 10953 AA	6		DAMPER - METER VIBRATION
6	34653 S36	34653 S36	7	B	NUT & WASHER #8-32 HEX ATT 10953 TO 17300 AND TO 16924 REAR SHELL
1	C3JZ 11451 A	C3JZ 11451 A	8	C	SWITCH - MAGNETIC SAFETY ATT EYE OF BLACK WIRE W/FUSE TO "IGN" 11572
1	353107 S101	353107 S101	9		REDUCER BUSHING 1/8-27:1/4-18
1	87379S	87379S	10		ELBOW 90 DEG. 1/8 TUBE TO 1/8
1	F6JL 9B339 AA	F6JL 9B339 AA	11		1/8 FEMALE PIPE ADAPTER
1	F5JL 10N900 AA	F5JL 10N900 AA	12		HOSE-OIL PRESSURE
1	D9JL 11572 A	D9JL 11572 A	13		SWITCH - IGNITION & START
1	5FJL 14305 AC	F5JL 14305 AC	14		WIRING HARNESS
1	34079 S36	34079 S36	15	D	NUT - #10-32 HEX ATT WIRE 11451 TO "IGN" 11572
1	E4JL 11450 AA	E4JL 11450 AA	16		RELAY - STARTING MOTOR
2	31527 S36	31527 S36	17	E	SCR 1/4-14X.50 HEX WASH HD TAP ATT. 11450 TO REAR PANEL BRKT
1	FDY 14431 A	FDY 14431 A	18		CABLE - STARTER TO RELAY
2	381561 S36	381561 S36	19	F	NUT & WASHER ASSY. 5/16-18 ATT. 14431 TO 11450 ATT. 14305 TO 11450
2	95873 S101	95873 S101	20	G	STRAP 1.75 BUNDLING ATT. 14305 TO REAR PANEL BRKT ATT INTAKE MANIFOLD
ZB-101-005					
1	F5JL 14305 AC	F5JL 14305 AC	1		WIRING HARNESS
ZB-114-001					
1	E4JL 11450 AA	E4JL 11450 AA	1		RELAY - STARTING MOTOR

PCV VALVE & HOSE



QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-034-001					
1	E97E 6A666 A2A	E97E 6A666 A2A	1		VALVE ASSY - PCV
1	F5JL 6853 AA	F5JL 6853 AA	2		HOSE - CRANKCASE VENT

RADIATOR, HOSES & SHROUD



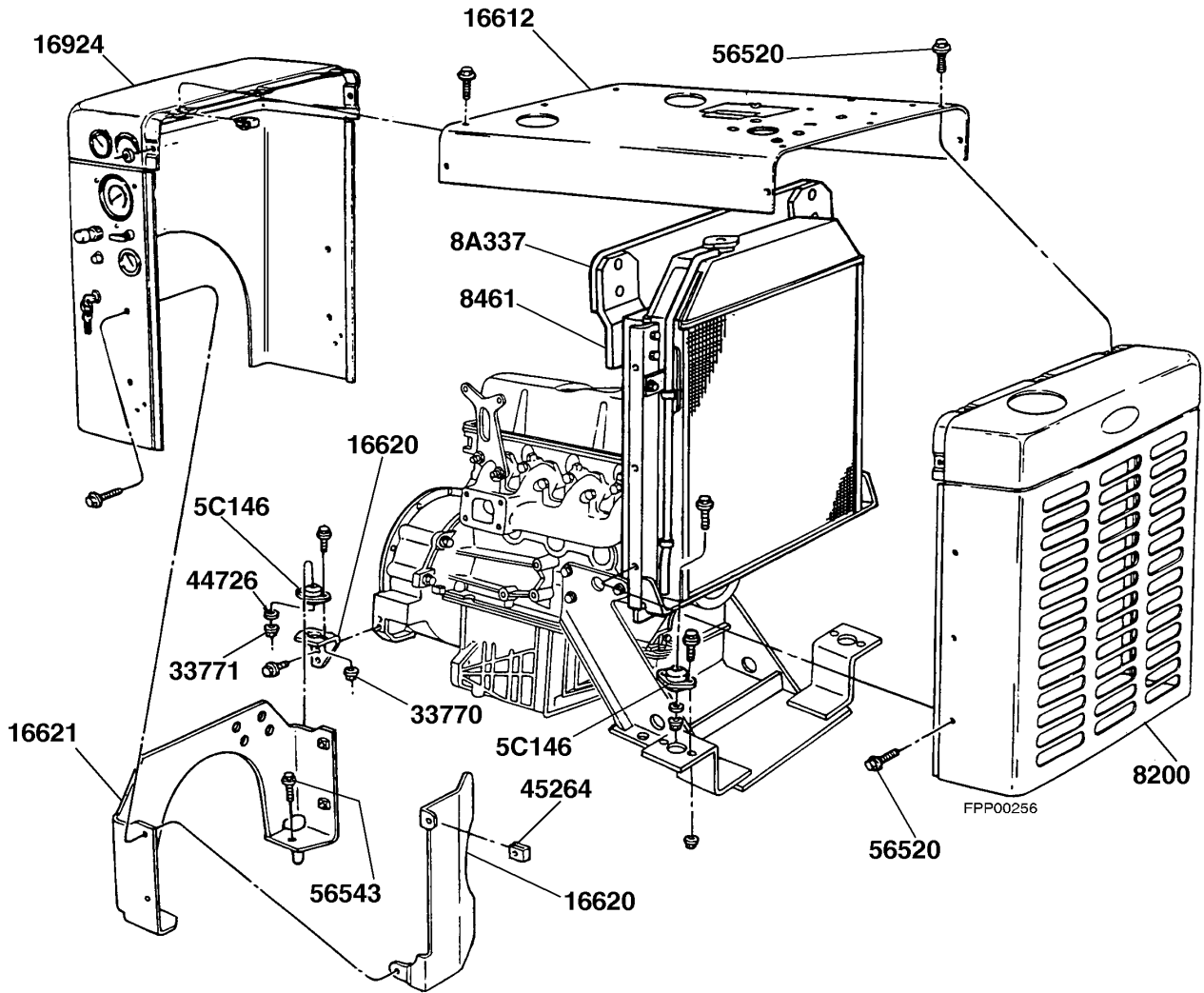
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RADIATOR, HOSES & SHROUD

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-102-001					
2	F1JL 8A058 AA	F1JL 8A058 AA	1	A	SUPPORT PIN - RAD LOWER
2	E80Y 8125	E80H 8B204 AC	2	B	INSULATOR RAD. SUPPORT LOWER
2	F1JL 8K027 AA	F1JL 8K027 AA	3	A	WASHER - RAD SUPPT - .75X2.0X.12
1	F1JL 8005 BA	F1JL 8005 BA	4	A	RADIATOR 10 FPI/LSG423
2	58833 S2	58833 S2	5	A	BOLT - 7/16-14 X 1.0 CARRIAGE
2	F13Z 8125 A	F13H 8C307 AA	6	D	INSULATOR RAD. SUPPORT UPPER
2	F1JL 8406 BA	F1JL 8406 BA	7	C	BRACKET-RAD SUPPORT (UPPER)
4	58808 S36	588078 S36	8	C	CARRIAGE BOLT
4	34661 S2	34661 S2	9	C	NUT & WASHER 5/16-18 HEX
1	E9JL 8146 AC	E9JL 8146 AC	10	E	SHROUD - RADIATOR
6	44710 S8	44710 S8	11	E	FLAT WASHER #8
6	40904 S36	40904 S36	12	E	SCREW & WASHER #8-32X0.375 TAP
4	N805403 S100	N805403 S100	13	D	NUT AND WASHER M8-1.25
1	F5JL 8286 BA	F5JL 8286 BA	14	F	HOSE-RADIATOR/LOWER
1	F5JL 8260 AA	F5JL 8260 AA	15		HOSE - RADIATOR/UPPER
4	N805502 S	N805502 S	16		CLAMP - HOSE
1	E2NN 8100 AA	E2NN 8100 AA	17		CAP-RADIATOR 7LB.
ZB-102-002					
1	F5JL 8N242 AA	F5JL 8N242 AA	1	A	SUPT. -RADIATOR & FRT SHELL
4	F1JL 8K027 AA	F1JL 8K027 AA	2	A	WASHER - RAD SUPPT.- .75X2.0X.12
1	F1JL 8005 BA	F1JL 8005 BA	3	A	RADIATOR 10 FPI/LSG423
2	58833 S2	5883 S2	4	A	BOLT - 7/16-14 X 1.0 CARRIAGE
2	45350 S2	45350 S2	5	A	NUT & WASH 7/16-14 ATT 8005 TO 8N242
2	F5JL 8406 AA	F5JL 8406 AA	6	C	BRACKET-RAD SUPT. UP CENTER
2	56520 S2	56520 S2	7	B	BOLT 5/16-18 X 0.75 (UBS) ATT 8406 TO 8N242
4	58808 S36	58808 S36	8	C	CARRIAGE BOLT
6	34661 S2	34661 S2	9	C	NUT & WASHER 5/16-18 HEX ATT 8406 TO 8005 4 REQ'D ATT 8406 TO 87N242 2 REQ'D
1	E9JL 8146 AC	E9JL 8146 AC	10	D	SHROUD - RADIATOR
6	44710 S8	44710 S8	11	D	FLAT WASHER #8
6	40904 S36	40904 S36	12	D	SCREW & WASHER #8-32X0.375 TAP ATT 8146 TO 8005
1	F5JL 8286 BA	F5JL 8286 BA	13	E	HOSE-RADIATOR/LOWER PLACE IN LOWER RADIATOR HOSE BEFORE SECURING TO WATER PUMP
1	F5JL 8260 AA	F5JL 8260 AA	14		HOSE - RADIATOR/UPPER
4	N805502 S	N805502 S	15		CLAMP-HOSE
4	45264 S101	45264 S101	16	F	NUT 5/16-18 "U" TYPE
1	E2NN 8100 AA	E2NN 8100 AA	17		CAP-RADIATOR 7LB.
ZB-102-003					
1	F1JL 8005 BA	F1JL 8005 BA	1		RADIATOR 10 FPI/LSG423
2	F7JL 8125 AA	F7JL 8125 AA	2		ISOLATOR RADIATOR
1	E4JL 8146 BB	E4JL 8146 BB	3		SHROUD - FAN
6	44710 S8	44710 S8	4		FLAT WASHER #8
6	40904 S36	40904 S36	5		SCREW & WASHER #8-32X0.375 TAP
1	E2NN 8100 AA	E2NN 8100 AA	6		CAP-RADIATOR 7 LB.

*NOTE: FOR INFORMATION ON HEATER HOSES REFER TO "WATER BY-PASS SYSTEM"

REAR PANEL, HOOD TOP & RADIATOR SHELL

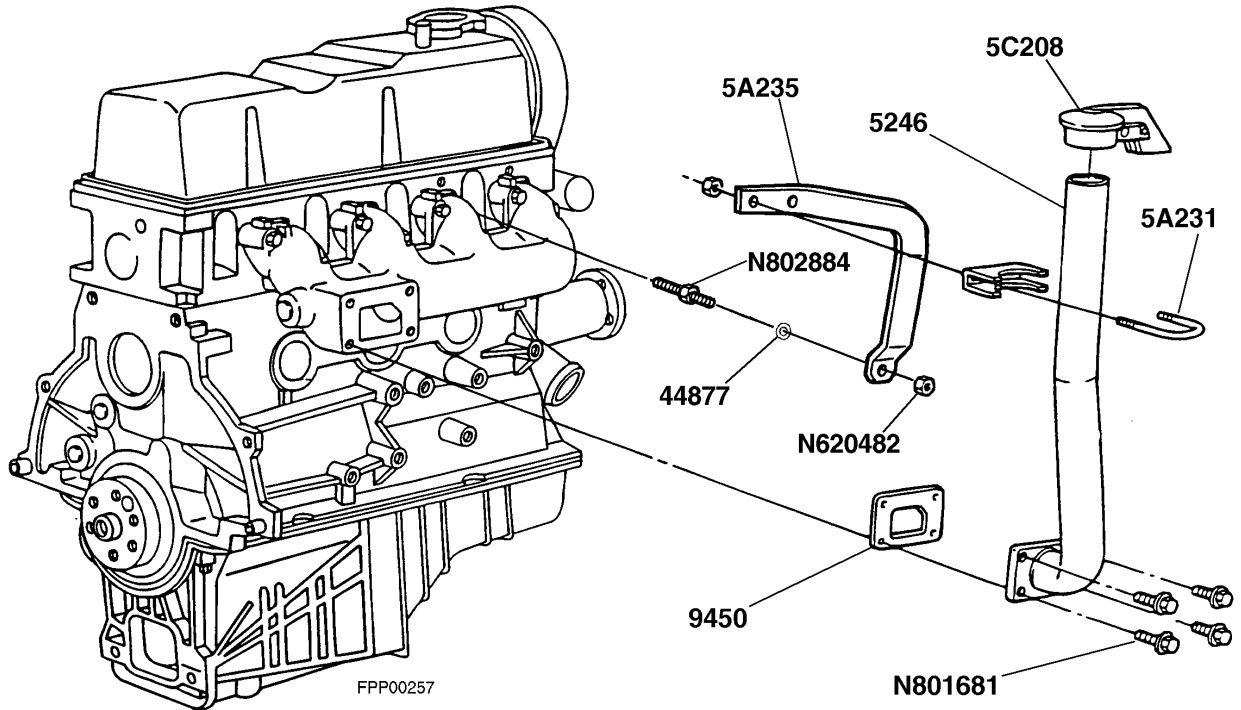


QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-103-001					
1	F5JL 16620 DA	F5JL 16620 DA	1		BRKT. ENG TO REAR PANEL - LH/LWR
1	F5JL 16620 CA	F5JL 16620 CA	2		BRKT. ENG TO REAR PANEL - RH/LWR
4	N605799 S2	N605799 S2	3	E	BOLT M10-1.50 X 20.0 (UBS) ATT 16620 TO F/W HSG
4	F2JL 5C146 AA	F2JL 5C146 AA	4	F	INSULATOR ASSY
28	56520 S2	56520 S2	5	B	BOLT 5/16-18 X 0.75 (UBS) 6-ATT 8200 TO FRT SUPPORT 4-ATT 16924 TO REAR SUPPORT 5-ATT 16612 TO FRT SHELL 5-ATT 16612 TO RR SHELL AND 9A462 8-ATT 5C146 TO 16620 AND FRONT SUPPORT
8	33770 S2	33770 S2	6	F	NUT 5/16-18 (UBS) ATT 5C146 TO 16620 & FRONT SUPPORT
1	F5JL 16621 AA	F5JL 16621 AA	7		BRKT - REAR SHELL
4	56543 S2	56543 S2	8	C	BOLT - 3/8-16 X 1.75 (UBS)
4	FPP-44726 S2	FPP-44726 S2	9	C	FLAT WASHER 3/8
4	33771 S2	33771 S2	10	C	NUT 3/8-16 (UBS)
2	F5JL 8461 AA	F5JL 8461 AA	11		BRACKET-RADIATOR BAFFLE
1	F5JL 8A337 AA	F5JL 8A337 AA	12		BAFFLE-RADIATOR AIR RECIR
4	44719 S8	44719 S8	13	H	FLATWASHER 1/4 ATT 8A337 TO 8461

REAR PANEL, HOOD TOP & RADIATOR SHELL

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-103-001 (cont.)					
4	56503 S2	56503 S2	14	H	BOLT 1/4-20 X 0.75 (UBS)
1	E9JL 16924 AE	E9JL 16924 AE	15		PANEL - REAR - (RR MTD INSTS.)
1	E9JL 8200 AD	E9JL 8200 AD	16		SHELL ASSY - RADIATOR
1	F5JL 16612 AB	F5JL 16612 AB	17		HOOD TOP
10	45264 S101	45264 S101	18	A	NUT 5/16-18 "U" TYPE INSTALL ON 8200 INSTALL ON 16924
3	N605891 S2	N605891 S2	19	F	BOLT M6-1.00 X 18.5 (UBS) ATT
	N620480 S2	N620480 S2	20		NUT M6 ATTACH IGN MODULE TO SHELL
ZB-103-002					
1	F5JL 16620 DA	F5JL 16620 DA	1		BRKT. ENG TO REAR PANEL - LH/LWR
1	F5JL 16620 CA	F5JL 16620 CA	2		BRKT. ENG TO REAR PANEL - RH/LWR
4	N605799 S2	N605799 S2	3	F	BOLT M10-1.50 X 20.0 (UBS) ATT 16620 TO F/W HSG
4	F2JL 5C146 AA	F2JL 5C146 AA	4	F	INSULATOR ASSY
32	56520 S2	56520 S2	5	B	BOLT 5/16-18 X 0.75 (UBS) 6-ATT 8200 TO FRT SUPPORT 4-ATT 16924 TO REAR SUPPORT 5-ATT 16612 TO FRT SHELL 5-ATT 16612 TO REAR SHELL 8-ATT 5C146 TO 16620 AND FRONT SUPPORT ATT (4) 8461 TO RAD. SUPPORT
8	33770 S2	33770 S2	6	F	NUT 5/16-18 (UBS) ATT 5C146 TO 16620 & FRT SUPPORT
1	F5JL 16621 AA	F5JL 16621 AA	7		BRKT - REAR SHELL
4	56544 S36	56544 S36	8	D	BOLT - 3/8-16 X 2.00 (UBS)
4		FPP-44726 S2	9	D	FLAT WASHER 3/8
4	33771 S2	33771 S2	10	D	NUT 3/8-16 (UBS) ATT 16621 TO 16620 & 8N242 TO FRT SUPPORT
2	F5JL 8461 AA	F5JL 8461 AA	11		BRACKET-RADIATOR BAFFLE
1	F5JL 8A337 AA	F5JL 8A337 AA	12		BAFFLE-RADIATOR AIR RECIR
4	44719 S8	44719 S8	13	I	FLATWASHER 1/4 ATT 8A337 TO 8461
4	56503 S2	56503 S2	14	I	BOLT 1/4-20 X 0.75 (UBS)
1	E9JL 16924 BD	E9JL 16924 BD	15		PANEL - REAR (SIDE MTD INSTS)
1	44723 S36	44723 S36	16	E	WASHER - 5/16 FLAT INSTALL BETWEEN 16924 & 16612 BEFORE ATT 9A462
1	E9JL 8200 AD	E9JL 8200 AD	17		SHELL ASSY - RADIATOR
1	F5JL 16612 AB	F5JL 16612 AB	18		HOOD TOP
10	45264 S101	45264 S101	19	A	NUT 5/16-18 "U" TYPE INSTALL ON 8200 INSTALL ON 16924
2	N606502 S	N606502 S36	20	H	BOLT M5-.80 X 35 HEX FLANGE ATT IGN. MODULE TO 12A216 (REF. GROUP ZA-025-001)
1	F2JL 9A462 AB	F2JL 9A462 AB	21		HEAT SHIELD - EXHAUST PIPE

EXHAUST PIPE & RAIN CAP

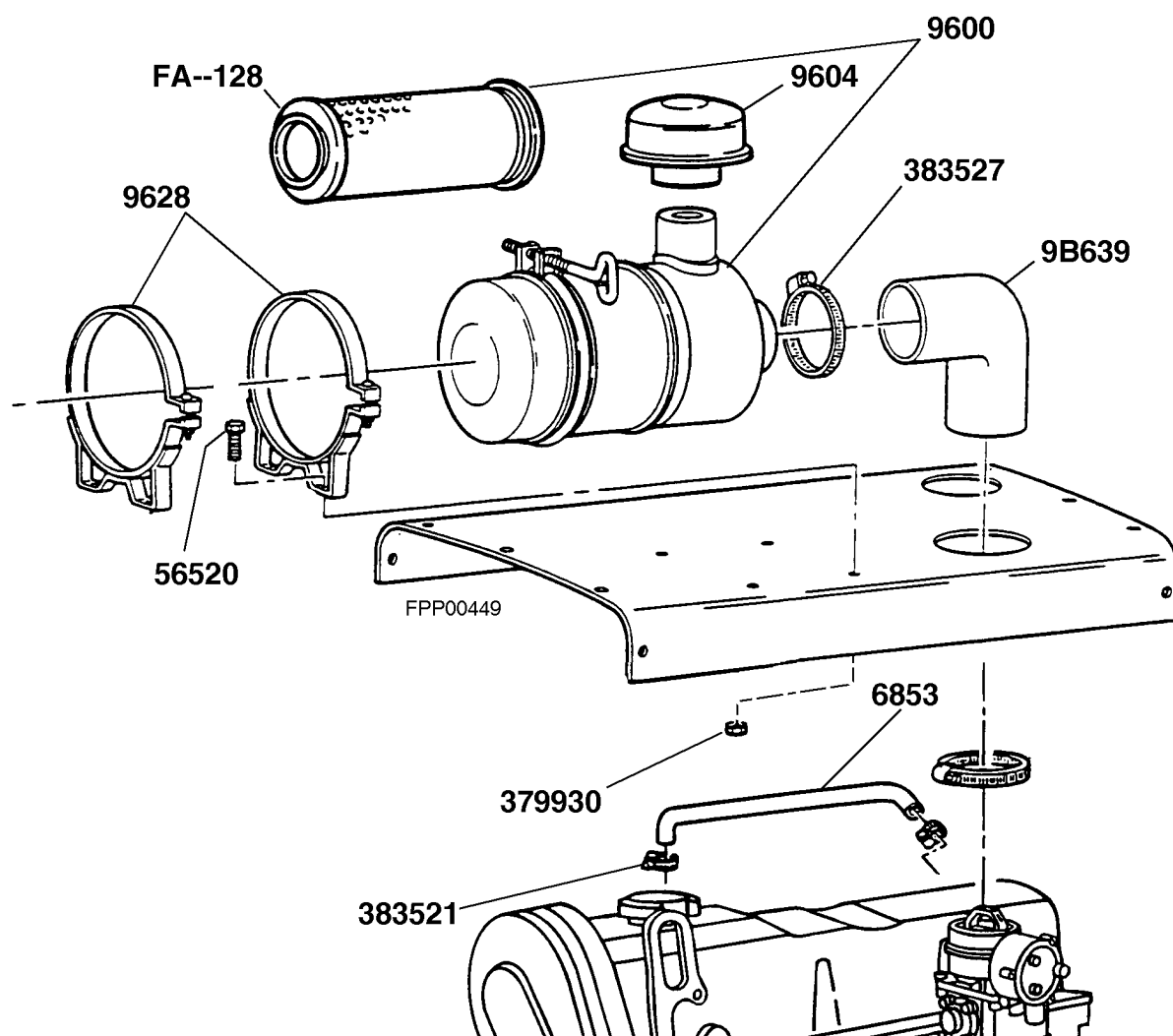


QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-104-001					
1	E3ZZ 9450 A	E3Z3 9L461 AA	1		GASKET - SIDE OUTLET VERTICAL EXHAUST
1	E8JL 5246 BA	E8JL 5246 BA	2		EXHAUST PIPE
4	N801681 S100	N801681 S100	3	A	BOLT M10-1.50 X 25.0 (UBS) ATT. 5246 TO 9430
1	C7NN 5C208 EKG	C7NN 5C208 EKG	4		RAIN CAP
1	N802884 S100	N802884 S100	6	E	STUD-M10 X 1.5/1.5 X 84 HX SHD INSTALL IN HOLE #3 ON EXHAUST MANIFOLD. REMOVE EXISTING BOLT AND SCRAP
1	F5JL 5A235 AA	F5JL 5A235 AA	7		BRACKET-EXHAUST PIPE
2	N800054 S309M	N800054 S309M	8	D	NUT 5/16-18 (UBS)
1	D1AZ 5A231 C	D2AJ 5A231 CA	9	D	CLAMP-EXHAUST PIPE (2.00 DIA)
1	N620482 S2	N620482 S2			NUT M10-1.5 UBS
1	44877 S2	44877 S2			FLAT WASHER 3/8

EXHAUST PIPE & RAIN CAP

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-104-003					
1	E3ZZ 9450 A	E3ZE 9L461 AA	1		GASKET - SIDE OUTLET ANGLED EXHAUST
1	E2JL 5246 BA	E2JL 5246 BA	2		EXHAUST PIPE
4	N801681 S100	N801681 S100	3	A	BOLT M10-1.50 X 25.0 (UBS) ATT. 5246 TO 9430 4 REQ'D
1	D3JL 5C208 F	D3JL 5C208 F	4		RAIN CAP ASSY.
1	N802884 S100	N802884 S100	5	E	STUD-M10 X 1.5/1.5 X 84 HX SHD INSTALL IN HOLE #3 ON EXHAUST MANIFOLD. REMOVE EXISTING BOLT AND SCRAP.
1	44877 S2	44877 S2	6	B	FLAT WASHER 3/8 (HARDENED) INSTALL ON ATTH STUD N802884 BEFORE INSTALLING -5A235
1	E4JL 5A235 AB	E4JL 5A235 AB	7		BRACKET-EXHAUST SUPPORT
1	N620482 S2	N620482 S2	8	C	NUT M10-1.5 (UBS) ATTH -5A235 TO STUD IN HOLE NO. 3 ON -9430-
1	D1AZ 5A231 C	D2AJ 5A231 CA	9	D	CLAMP-EXHAUST PIPE (2.00 DIA) ATTH. 5246 TO 5A235
ZB-104-004					
1	E3ZZ 9450 A	E3ZE 9L461 AA	1		GASKET - SIDE OUTLET EXHAUST
ZB-104-005					
1	D8BC 5269 AA	D8BC 5269 AA	1		FLANGE - EXHAUST PIPE 1.75"
2	N800064 S2	N800064 S2	2		STUD M12-1.75X7/16-14X2.53 LG
2	382400 S2	382400 S2	3		NUT 7/16 - 14 (UBS)

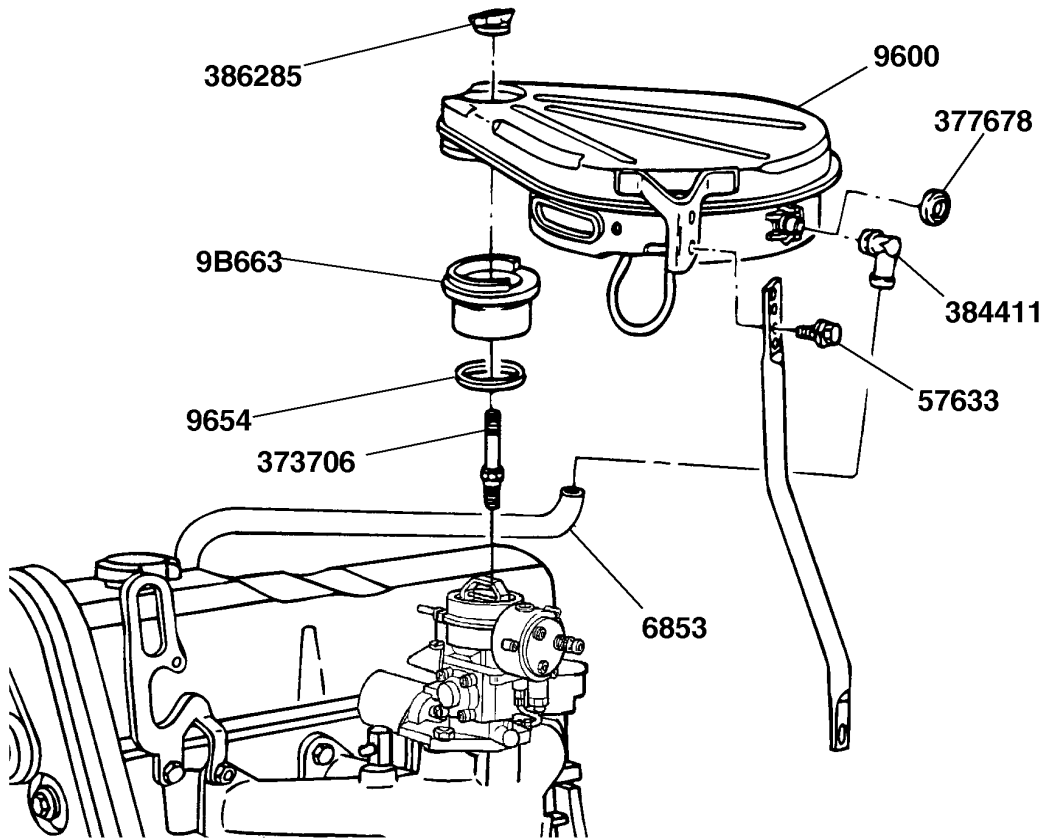
AIR CLEANER - REMOTE DRY



AIR CLEANER - REMOTE DRY

QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
1	FA-128				Element – Air Cleaner
ZB-105-004					
1	F5JL 9B639 AA	F5JL 9B639 AA	1		HOSE-AIR CLEANER
2	383527 S	383527 S	2	B	HOSE CLAMP 3.25 ROUND WORM SCR ATT. 9B639 TO 9510 & 9600
1	C6JZ 9600 A	C6JZ 9600 A	3		AIR CLEANER - REMOTE
2	B8P 9628 A	B8P 9628 A	4		BAND ASSEMBLY - AIR CLEANER
4	56520 S2	56520 S2	5	A	BOLT 5/16-18 X 0.75 (UBS) ATT. 9628 TO HOOD TOP
4	379930 S36	379930 S36	6		NUT-5/16-18 HEX FLANGE
2	383521 S	383521 S	7	C	CLAMP-HOSE 0.88 ROUND WORM SCR ATT. 6853 TO 9510 & R/A COVER
1	E8JL 9604 AA	E8JL 9604 AA	8		CAP - AIR STACK
ZB-105-005					
1	C5JZ 9654 AB	C5JZ 9654 AB	1		CARB GASKET
1	373706 S8	373706 S8	2		STUD 1/4-20-20 X 3.50
1	D9JL 9520 A	D9JL 9520 A	3		AIR HORN
1	386285 S	386285 S	4		NUT 1/4-20 WING
1	D9JL 6853 C	D9JL 6853 C	5	D	HOSE-C/C VENT CUT OFF 5/8" I.D. END OF HOSE
1	383521 S	383521 S	6	C	CLAMP-HOSE 0.88 ROUND WORM SCR ATT. -6853- TO 9520-
1	D9JL 9B639 A	D9JL 9B639 A	7		HOSE - AIR CLEANER OUTLET
2	383527 S	383527 S	8	B	HOSE CLAMP 3.25 ROUND WORM SCR ATT. -9B639- TO -9520- & -9600
1	C6JZ 9600 A	C6JZ 9600 A	9		AIR CLEANER REMOTE
2	D9JL 9628 A	D9JL 9628 A	10		BAND ASSY. - AIR CLEANER
4	56520 S2	56520 S2	11	A	BOLT 5/16-18 X 0.75 (UBS) /ATT. D9JL-9628-A TO REAR SHELL/
4	45338 S2	45338 S2	12		NUT & WASHER 5/16-18 HEX
ZB-105-010 (EFI)					
1	F8JL 9D634 AA	F8JL 9D634 AA	1		GASKET
1	F8JL 9K620 CA	F8JL 9K620 CA	2		PIPE ASY - AIR CLNR
4	W700005 S309	W700005 S309	3	C	SCREWS - M6-1X22 HX FLNG ATT. 6853 TO 9510 & R/A COVER
1	F77Z 6853 BA	F77E 6853 BD	4		HOSE - VALVE COVER TO PIPE ASY
2	383521 S	383521 S	5	D	CLAMP-HOSE 0.88 ROUND WORM SCR
1	F8JL 9B640 AA	F8JL 9B640 AA	6		HOSE - INTAKE TO A/C
2	383527 S	383527 S	7	B	HOSE CLAMP 3.25 ROUND WORM SCR ATT. 9B639 TO 9510 & 9600
1	C6JZ 9600 A	C6JZ 9600 A	8		AIR CLEANER - REMOTE
2	B8P 9628 A	B8P 9628 A	9		BAND ASSEMBLY - AIR CLEANER
4	56520 S2	56520 S2	10	A	BOLT 5/16-18 X 0.75 (UBS)
4	379930 S36	379930 S36	11	A	NUT-5/16-18 HEX FLANGE ATT. 9628 TO HOOD TOP
1	E8JL 9604 AA	E8JL 9604 AA	12		CAP - AIR STACK

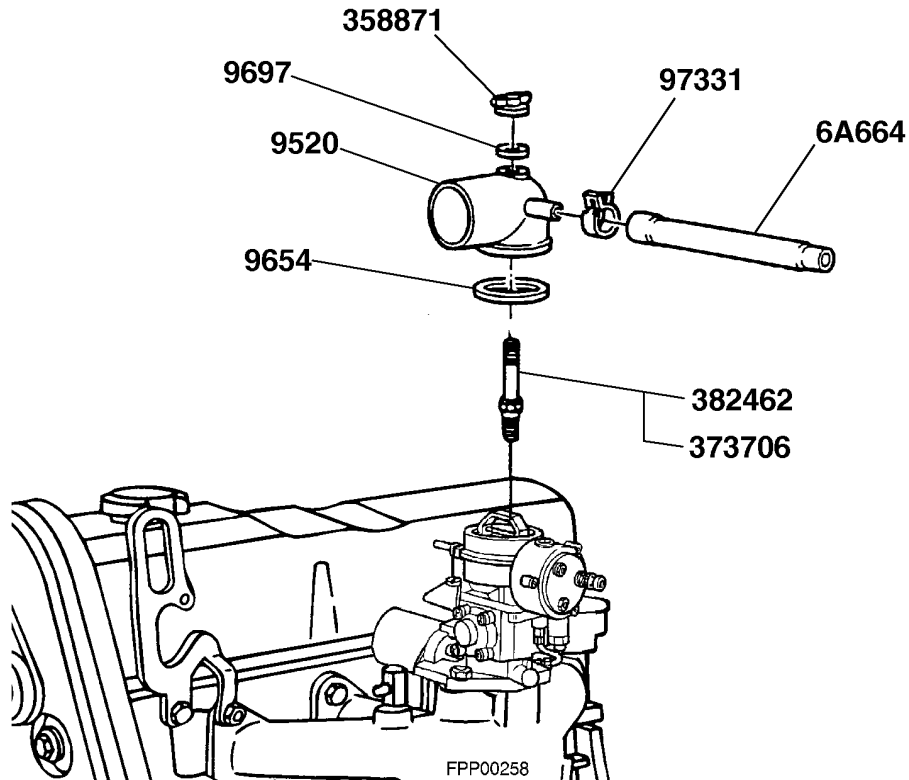
AIR CLEANER - OFFSET DRY



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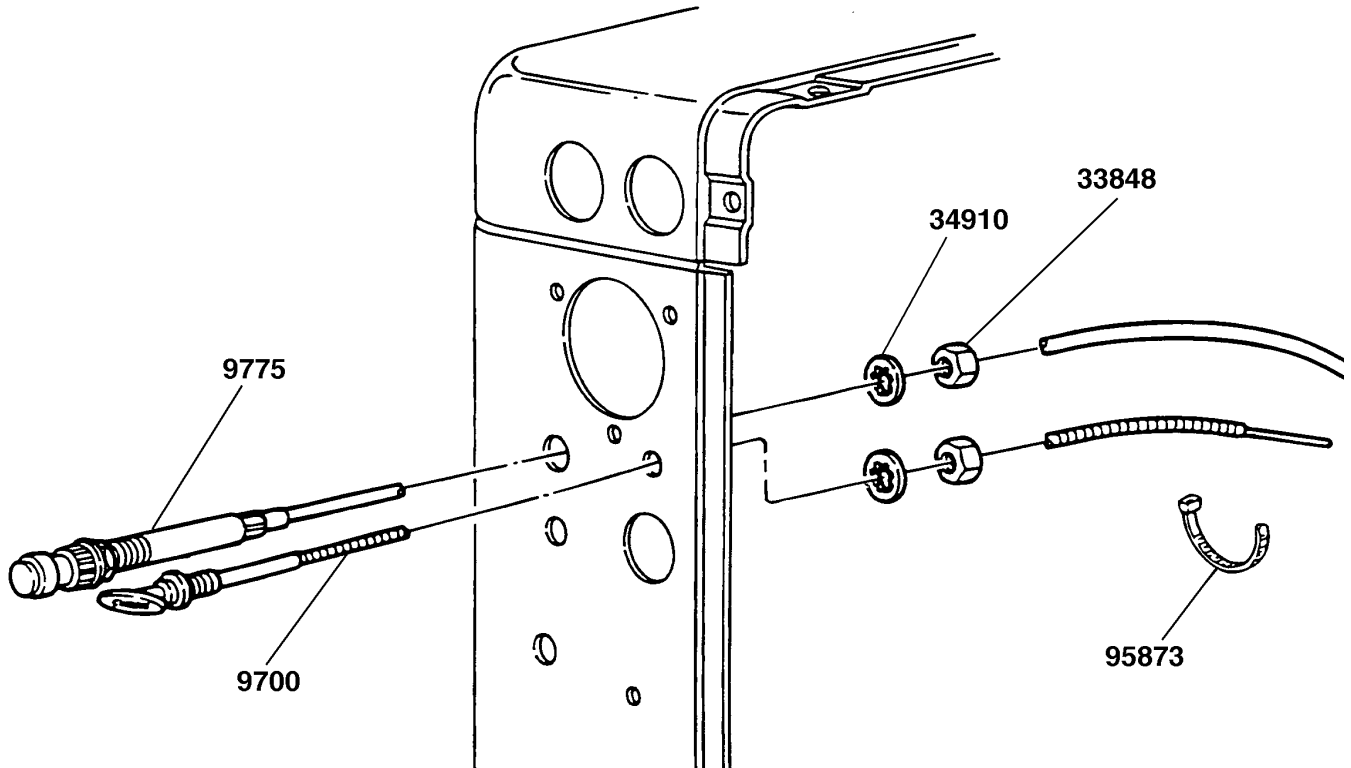
QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
1	C2OZ 9601 AR				Element – Air Cleaner
ZB-003-005					
1	F3JL 9654 AA	F3JL 9654 AA	1		GASKET-CARB INTAKE MANIFOLD
1	F4JL 9B663 AA	F4JL 9B663 AA	2		ADAPTER-CARB TO AIR CLEANER
ZB-105-009					
1	373706 S8	373706 S8	1		STUD 1/4-20-20 X 3.50
1	C3AZ 9654 D	C3AF 9654 A	2		GASKET - ADAPTER TO CARB.
1	E0TZ 9600 H	E0TE 9600 TA	3		AIR CLEANER-OFFSET DRY TYPE
1	386285 S	386285 S	4		NUT 1/4-20 WING
2	57633 S2	57633 S2	5	A	SCR & WASH 5/16-18 X 0.75 HEX ATT. 9B611 TO 9600
1	384411 S	384411 S	6		ELBOW - C/CASE HOSE 5/8
1	377678 S	377678 S	7		PLUG-BUTTON 1.00 DIA
1	D9JL 6853 C	D9JL 6853 C	8		HOSE-C/C VENT

AIR HORN



QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-105-003					
1	382462 S100	382462 S100	1		STUD - 1/4- 20-20 X 2.375
1	7RT 9654	7RT 9654	2		GASKET - CARB. TO AIR HORN
1	D5JL 9520 A	D5JL 9520 A	3	A	AIR HORN - CARBURETOR 2" AIR HORN TO R/CVR. BREATHER CAP
1	358871 S36B	358871 S36B	4		NUT 1/4-20 WING
1	C7TZ 6A664 B	D2TE 6853 ALA	5		HOSE - CRANKCASE VENT
1	C6TZ 9697 A	E4EE 9697 AA	6		GROMMET
2	97331 S35	97331 S35	7		HOSE CLAMP 0.812 SPRING TYPE
ZB-105-006					
1	373706 S8	373706 S8	1		STUD 1/4-20-20 X 3.50
1	C5JZ 9654 AB	C5JZ 9654 AB	2		CARB GASKET
1	D9JL 9520 A	D9JL 9520 A	3		AIR HORN 2.5" TO ADAPTER AIR HORN TO R/CVR. BREATHER CAP
1	358871 S36B	358871 S36B	4		NUT 1/4-20 WING
1	E8JL 9A621 BA	E8JL 9A621 BA	5		ADAPTER-AIR CLEANER
1	C6TZ 9697 A	E4EE 9697 AA	6		GROMMET
1	E9JL 6853 AA	E9JL 6853 AA	7		HOSE-CARB TO ROCKER CVR VACUUM
2	97331 S35	97331 S35	8		HOSE CLAMP 0.812 SPRING TYPE
ZB-105-011 (EFI)					
1	F8JL 9D634 AA	F8JL 9D634 AA	1		GASKET
1	F8JL 9K620 DA	F8JL 9K620 DA	2		PIPE ASSY - A/C HOSE TO MFLD
4	W700005 S309	W700005 S309	3		SCREWS - M6-1X22 HX FLNG
1	383521 S	383521 S	4		CLAMP - HOSE 0.88 ROUND WORM SCR
1	F77Z 6853 BA	F77E 6853 BD	5		HOSE - VALVE COVER TO PIPE ASSY

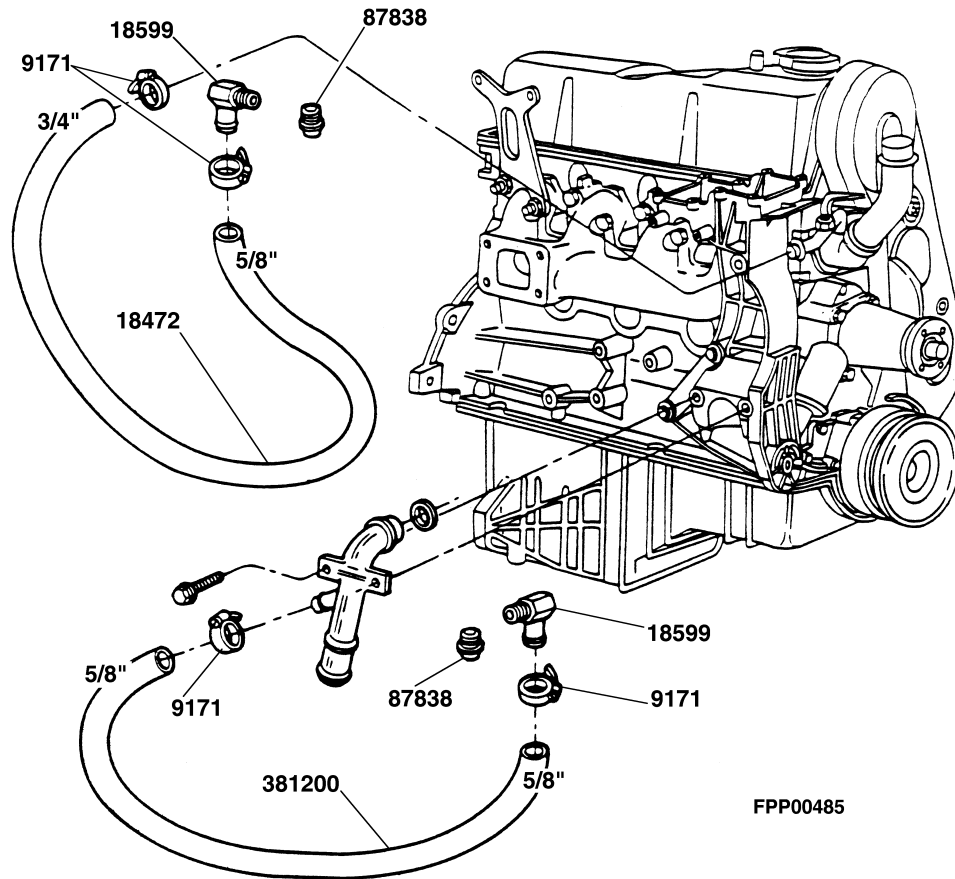
CHOKE & THROTTLE CONTROL CABLE



FPP00260

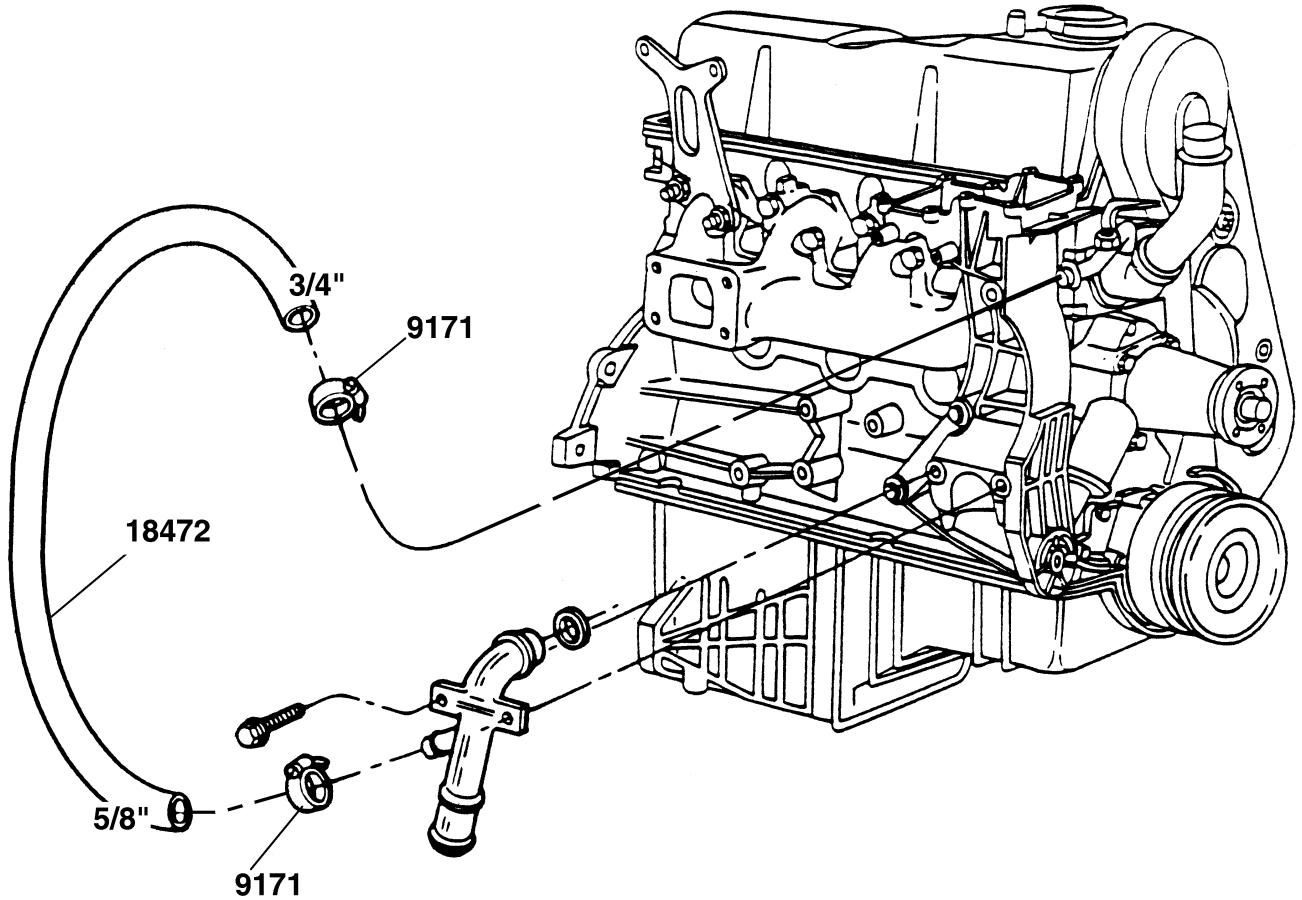
QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-109-001					
1	E8JL 9775 BA	E8JL 9775 BA	1		CONTROL ASSY - THROTTLE
ZB-109-002					
1	E8JL 9775 AA	E8JL 9775 AA	1		CONTROL ASSY - THROTTLE
1	95873 S101	95873 S101	2		STRAP 1.75 BUNDLING
ZB-117-001					
1	C1JZ 9700 A	C1JZ 9700 A	1		CABLE - CHOKE CONTROL
1	34910 S8	34910 S8	2		LOCKWASHER 9/16 INTERNAL TOOTH
1	33848 S8	33848 S8	3		NUT 9/16-18 (GRADE 5)

WATER BYPASS SYSTEM – CARB.



QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-038-005-A01					
1	381200 S400A	381200 S400A	1		HOSE – HEATER 5/8 I.D. X 40.0 FORWARD ELBOW ON INTAKE MANIFOLD TO LOWER INLET TUBE
1	F8JL 18472 AA	F8JL 18472 AA	2		HOSE – HEATER 5/8 X 3/4 X 61 REAR ELBOW ON INTAKE MANIFOLD TO UPPER OUTLET TUBE
2	87838 S2	87838 S2	3		PIPE PLUG 3/8-18 SOCKET HEX HD INSTALL IN EITHER BOTTOM OR SIDE HOLES OF WATER CHAMBER IN INTAKE MANIFOLD
2	E8DZ 18599 B	F1DE 18599 BA	4		90 DEG ELB 3/8 NTPF X 5/8 TUBE INSTALL IN EITHER SIDE OR BOTTOM HOLES OF WATER CHAMBER IN INTAKE MANIFOLD
4	E6TZ 9171 C	383522 S	5		HOSE CLAMP 1.12 ROUND WARM SCR
1	F67B 13A506 CA	F67B 13A506 CA	6		RETAINER RR LAMP WIRING
1	N605770 S2	N605770 S2	7		BOLT M6 X 1.0 X 12 HEX FLNG HD
1	N630067 S39	N630067 S39	8		FLAT WASHER
2	95873 S101	95873 S101	9		STRAP 1.75 BUNDLING

WATER BYPASS SYSTEM – EFI

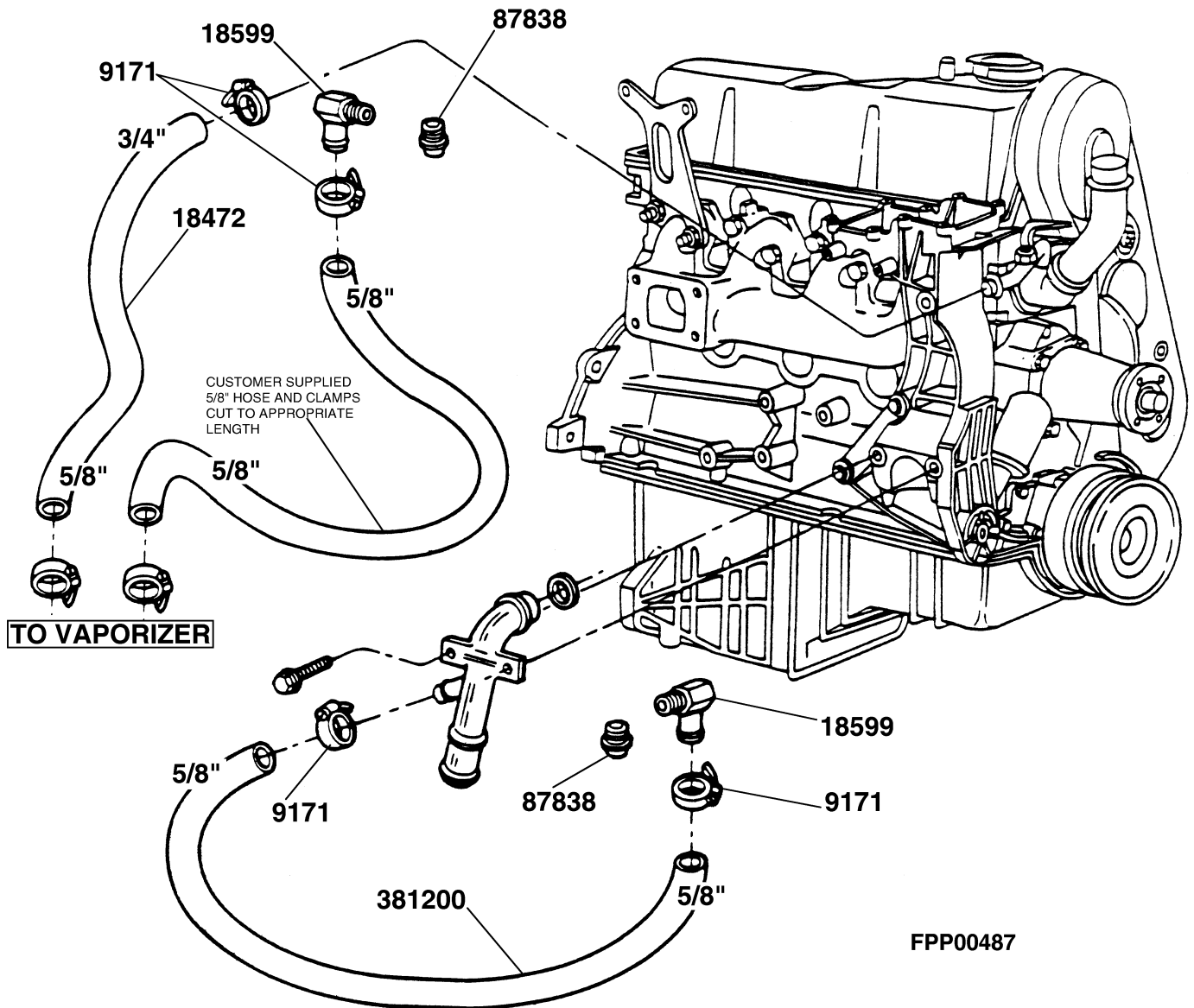


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QTY	P&A NUMBER	ENG NUMBER	BUILD SEQ	BUILD CODE	PART NAME
ZB-038-004-A01					
1	F8JL 18472 AA	F8JL 18472 AA	1		HOSE – HEATER 5/8 X 3/4 X 61
2	E6TZ 9171 C	383522 S	2		HOSE CLAMP 1.12 ROUND WORM SCR
1	F67B 13A506 CA	F67B 13A506 CA	3		RETAINER RR LAMP WIRING
1	N605770 S2	N605770 S2	4		BOLT M6 X 1.0 X 12 HEX FLNG HD
1	N630067 S39	N630067 S39	5		FLAT WASHER
2	95873 S101	95873 S101	6		STRAP 1.75 BUNDLING

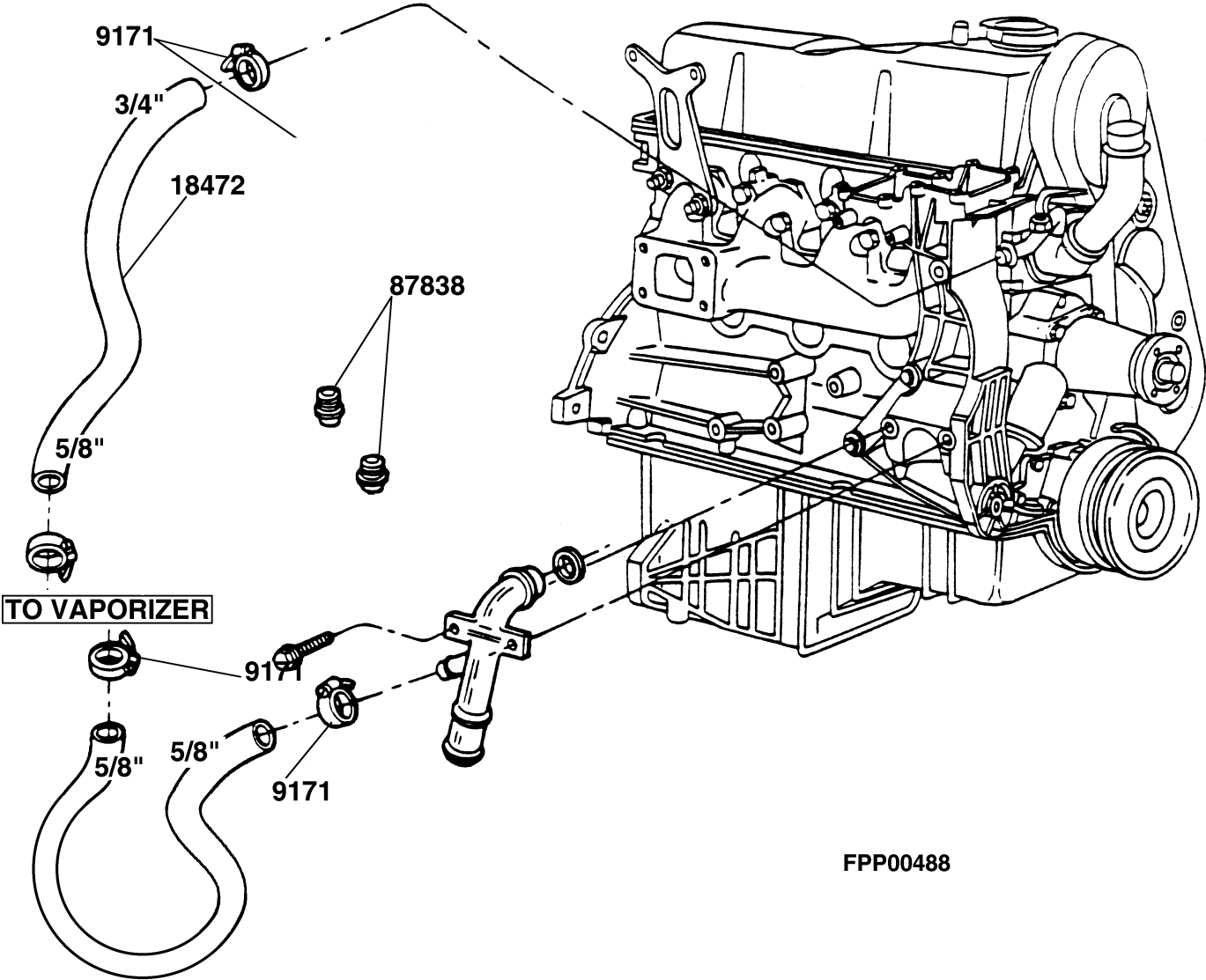
WATER BYPASS SYSTEM – LPG/CARB.

Routing Reference



FPP00487

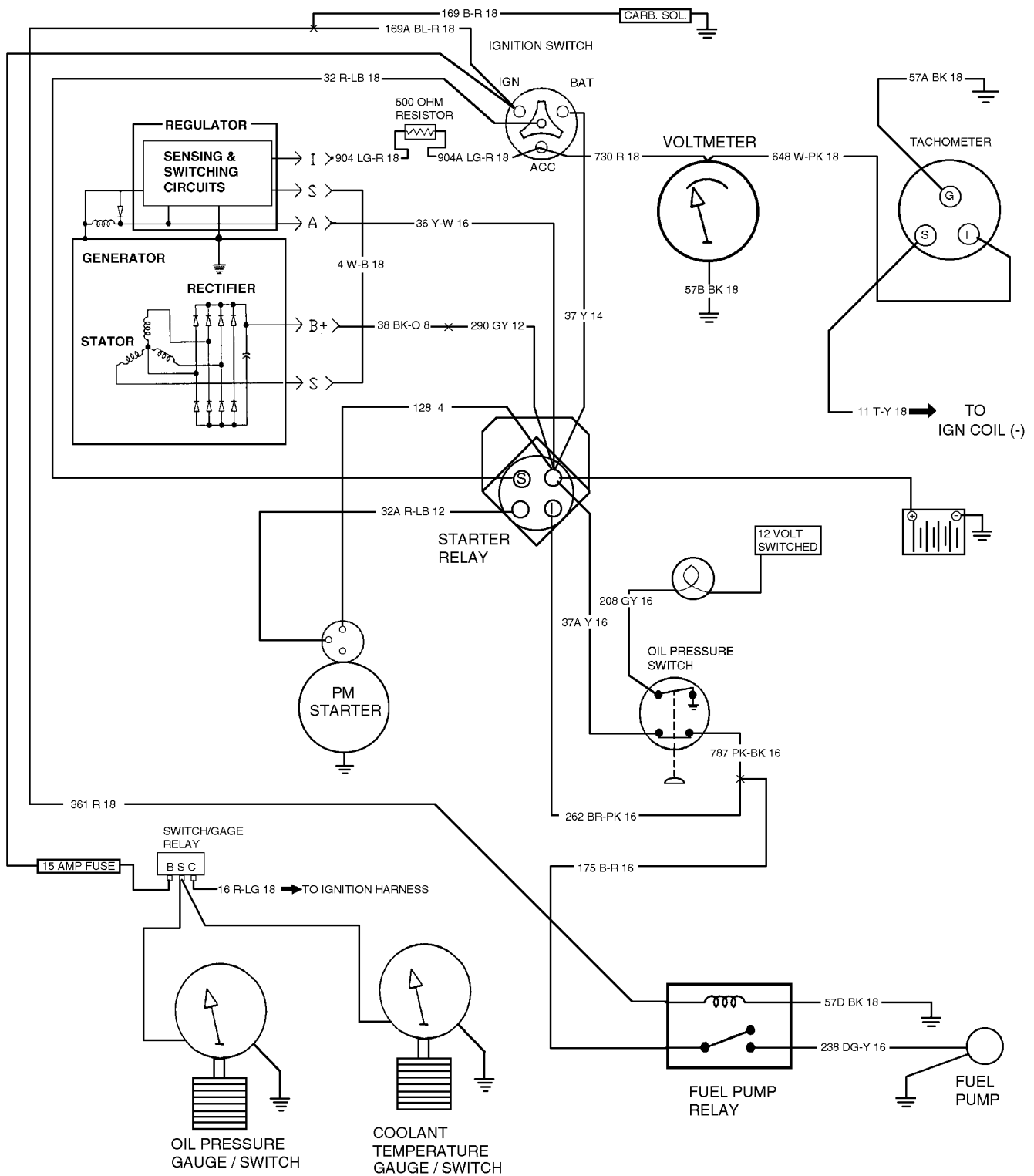
WATER BYPASS SYSTEM – LPG
Routing Reference



FPP00488

WIRING DIAGRAMS – CARB.

14305 HARNESS (MAIN) LRG-425

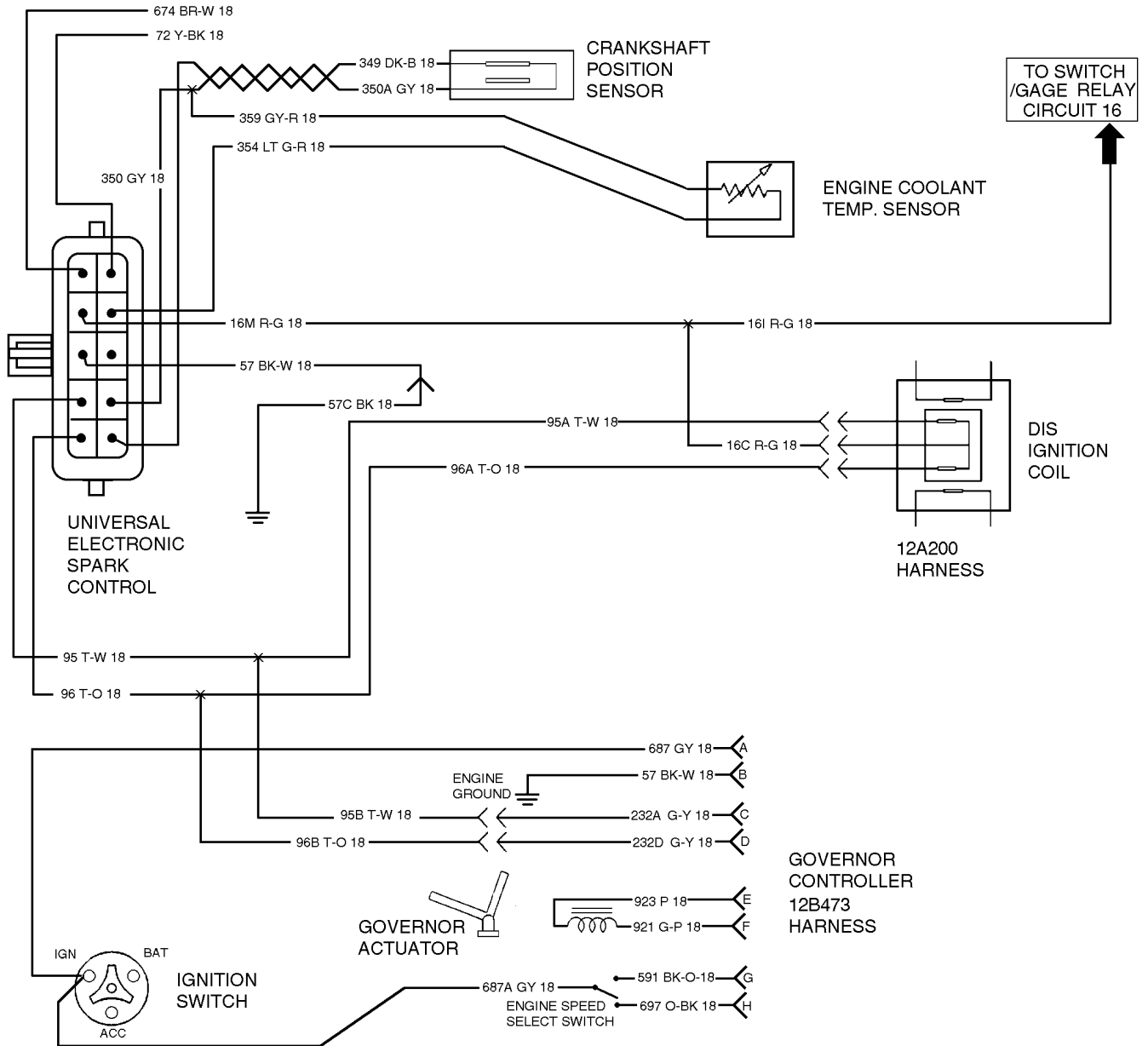


WIRING DIAGRAMS – CARB.

12A200 HARNESS (CARB.)

12B473 HARNESS

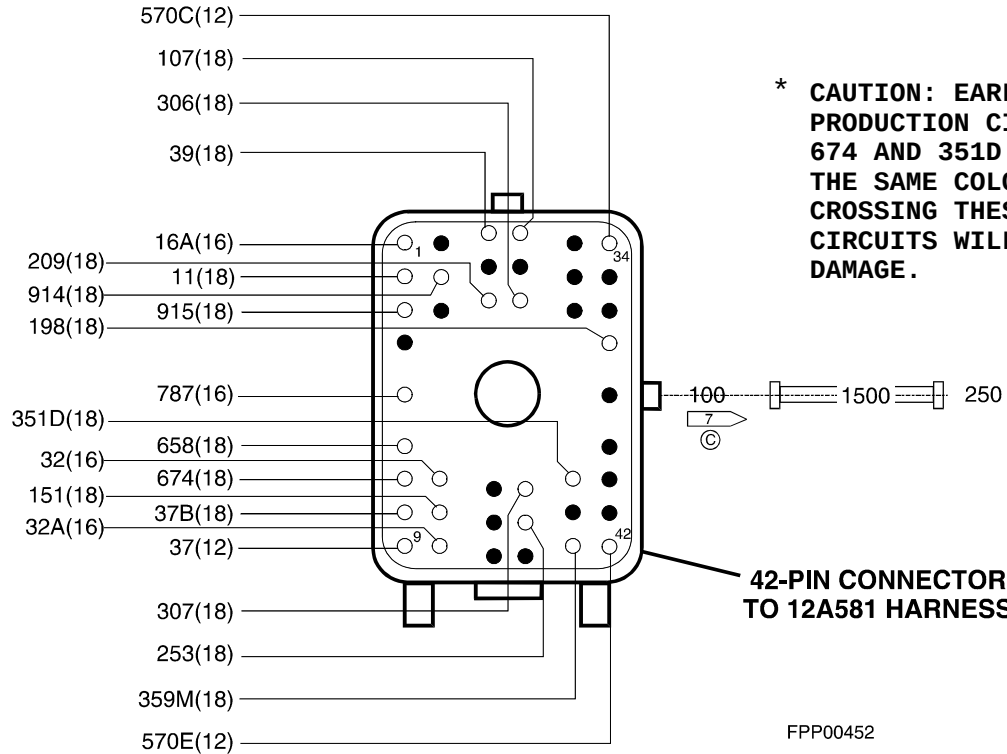
LRG-425



FPP00279

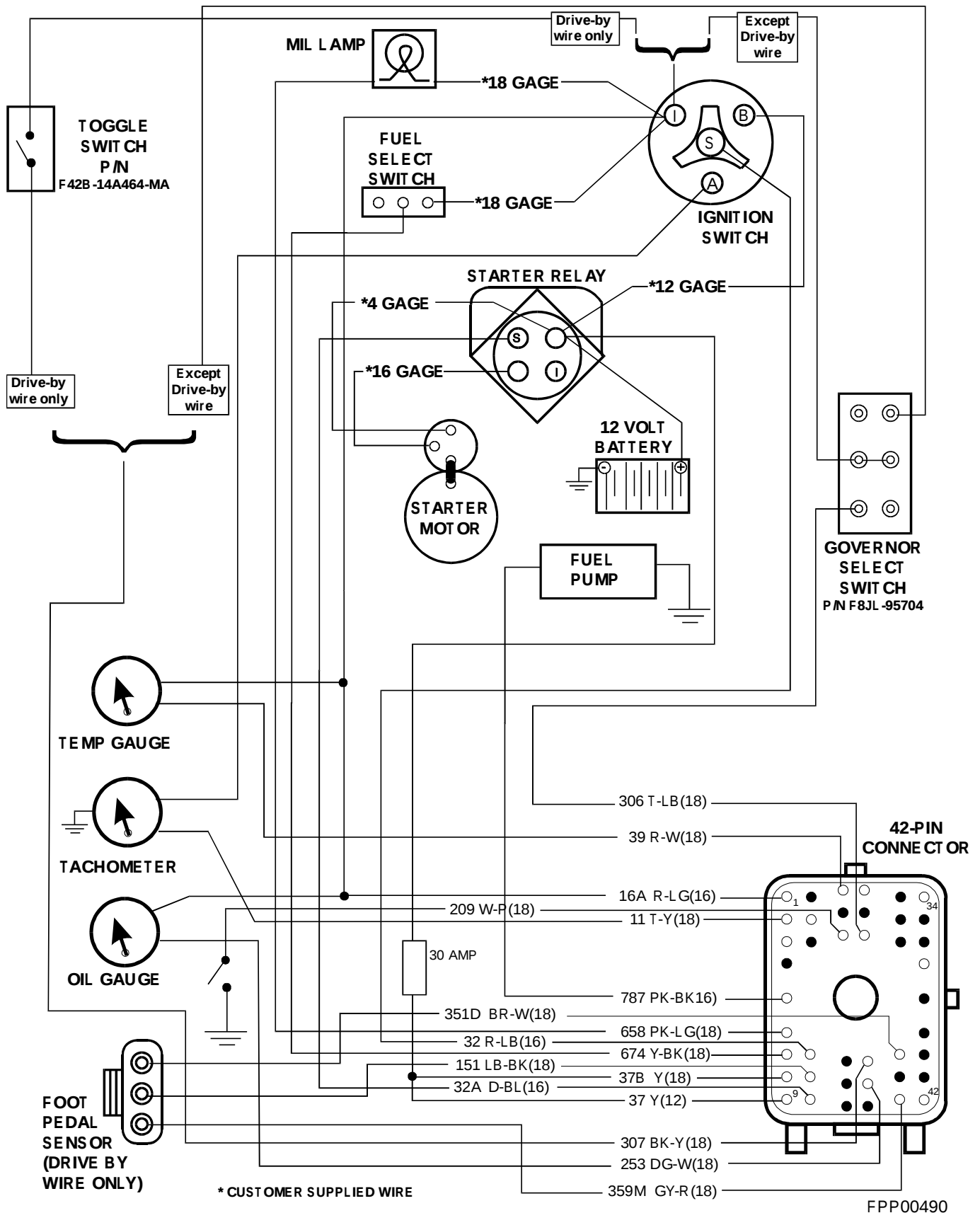
WIRING DIAGRAMS - EFI

14324 HARNESS ENGINE TO FRAME LRG-425



CIRCUIT #	CIRCUIT DESCRIPTION	COLOR	GAUGE	42 PIN
915	DATA LINK CONNECTOR – RS485 (NEGATIVE)	PK-LB	18	3
914	DATA LINK CONNECTOR – RS485 (POSITIVE)	T-O	18	11
787	TO FUEL PUMP	PK-BK	16	5
* 674	FUEL SELECT (OPEN CIRCUIT = PRIMARY FUEL; 12V = SECONDARY FUEL)	Y-BK	18	7
658	MALFUNCTION INDICATOR LAMP (OPEN COLLECTOR OUTPUT – 500 mA MAX.)	PK-LG	18	6
570E	POWER GROUND – BATTERY (NEGATIVE)	BK-W	12	42
570C	POWER GROUND – BATTERY (NEGATIVE)	BK-W	12	34
359M	DRIVE BY WIRE – SIGNAL RETURN (SIGNAL RETURN FOR DRIVE BY WIRE POT)	GY-R	18	33
* 351D	DRIVE BY WIRE – VREF (5V REF VOLT FOR DRIVE BY WIRE POT)	BR-W	18	31
307	GOVERNOR SPEED SELECT #2 (GVS2) – SEE BELOW DESCRIPTION FOR GVS1	BK-Y	18	25
306	GOVERNOR SPEED SELECT #1 (GVS1) NOTE: (USE TRUTH TABLE – INPUT FROM GVS1 & GVS2) 0 = OPEN CIRCUIT 1 = 12V SIGNAL GVS1 GVS2	T-LB	18	24
253	OIL PRESSURE – FOR INDICATOR LIGHT (OPEN = LOW PRESSURE; CLOSED = NORMAL PRESSURE)	DG-W	18	26
209	SELF TEST INPUT (SHORT TO GROUND TO ACCESS TROUBLE CODES)	W-P	18	18
198	AUXILLIARY INPUT	DG-O	18	37
151	DRIVE BY WIRE – SIGNAL INPUT (0-5V SIGNAL)	LB-BK	18	14
107	DATA LINK CONNECTOR – RS485 (GROUND)	P	18	22
39	WATER TEMPERATURE INDICATOR SENDER TO GAUGE	R-W	18	16
37B	KEEP ALIVE POWER – BATTERY	Y	18	8
37	VPWR – POWER RELAY “SWITCHED SIDE” – 12V (BATT+)	Y	12	9
32A	TO STARTER SOLENOID “S” TERMINAL	DB	16	15
32	FROM IGNITION SWITCH “START MODE” TERMINAL	R-LB	16	13
16A	SWITCHED IGNITION – 12V	R-LG	16	1
11	TO TACHOMETER	T-Y	18	2

WIRING DIAGRAMS – EFI



SAE J1701M (Issued 7/96)

Torque – Tension Relationships for Metric Property Classes

Diameter x Pitch	Stress Area mm ²	Class 4.6			Class 4.8			Class 5.8		
		Clamp load kN	Torque Dry k = 0.2 Nm	Torque Lub k = 0.15 Nm	Clamp load kN	Torque Dry k = 0.2 Nm	Torque Lub k = 0.15 Nm	Clamp load kN	Torque Dry k = 0.2 Nm	Torque Lub k = 0.15 Nm
3.0 x 0.5	5.03	0.85	0.50	0.40	1.17	0.70	0.50			
3.5 x 0.6	6.78	1.14	0.80	0.60	1.58	1.10	0.80			
4.0 x 0.7	8.78	1.48	1.20	0.90	2.04	1.60	1.20			
5.0 x 0.8	14.20	2.40	2.40	1.80	3.30	3.30	2.50	4.05	4.00	3.00
6.0 x 1.0	20.10	3.40	4.00	3.00	4.67	5.66	4.20	5.73	6.90	5.20
8.0 x 1.25	36.6	6.18	9.90	7.40	8.51	13.60	10.20	10.40	16.70	12.50
10.0 x 1.50	58.0	9.79	19.60	14.70	13.48	27.00	20.00	16.50	33.10	24.80
12.0 x 1.75	84.3	14.22	34.10	25.60	19.60	47.00	35.00	24.00	58.00	43.00
14.0 x 2.00	115.0	19.41	54.30	40.80	26.74	75.00	56.00	32.80	92.00	69.00
16.0 x 2.00	157.0									
20.0 x 2.50	245.0									
24.0 x 3.00	353.0									
30.0 x 3.50	561.0									
36.0 x 4.00	817.0									
Tensile Strength		400 MPa			420 MPa			520 MPa		
Proof Load Stress		225 MPa			310 MPa			380 MPa		

Diameter x Pitch	Stress Area mm ²	Class 8.8			Class 9.8			Class 10.9		
		Clamp load kN	Torque Dry k = 0.2 Nm	Torque Lub k = 0.15 Nm	Clamp load kN	Torque Dry k = 0.2 Nm	Torque Lub k = 0.15 Nm	Clamp load kN	Torque Dry k = 0.2 Nm	Torque Lub k = 0.15 Nm
3.0 x 0.5	5.03									
3.5 x 0.6	6.78									
4.0 x 0.7	8.78									
5.0 x 0.8	14.20									
6.0 x 1.0	20.10									
8.0 x 1.25	36.6	16.50	26.40	19.80	17.80	28.50	21.40	22.80	36.50	27.30
10.0 x 1.50	58.0	26.10	52.20	39.20	28.30	56.60	42.40	36.10	72.20	54.20
12.0 x 1.75	84.3	37.90	91.00	68.00	41.10	99.00	74.00	52.50	126.00	94.00
14.0 x 2.00	115.0	51.80	145.00	109.00	56.10	157.00	118.00	71.60	200.00	150.00
16.0 x 2.00	157.0	70.60	226.00	170.00	76.50	245.00	184.00	97.70	313.00	235.00
20.0 x 2.50	245.0	110.20	441.00	331.00	119.40	478.00	358.00	152.50	610.00	458.00
24.0 x 3.00	353.0	158.90	762.00	572.00	172.10	826.00	620.00	220.00	1055.00	791.00
30.0 x 3.50	561.0	252.40	1515.00	1136.00	273.50	1641.00	1231.00	349.00	2095.00	1572.00
36.0 x 4.00	817.0	367.60	2647.00	1985.00	398.30	2868.00	2151.00	509.00	3662.00	2746.00
Tensile Strength		830 MPa			900 MPa			1040 MPa		
Proof Load Stress		600 MPa			650 MPa			830 MPa		

CAUTION: The previously listed torque and resulting tension are provided as an advisory guide. Individual application discretion is recommended. The content has been presented as accurately as possible but responsibility for its application lies with the user.

NOTE: The stress area of threaded series not included may be computed from the equation $A_s = 0.7854 (D - 0.9382 P)^2$

Where: A_s = Stress area in mm²

D = Diameter in mm

P = Pitch in mm

SAE J1701 (Issued 7/96)

Torque – Tension Relationships for SAE Grades 2,5 and 8

Diameter x Threads/in.	Stress Area in ²	Grade 2			Grade 5			Grade 8		
		Clamp load lb	Torque Dry k = 0.2	Torque Lub k = 0.15	Clamp load lb	Torque Dry k = 0.2	Torque Lub k = 0.15	Clamp load lb	Torque Dry k = 0.2	Torque Lub k = 0.15
1/4-28	0.03637	1500	75 in-lb	56 in-lb	2319	116 in-lb	87 in-lb	3273	164 in-lb	123 in-lb
1/4-20	0.03182	1313	66 in-lb	49 in-lb	2029	101 in-lb	76 in-lb	2864	143 in-lb	107 in-lb
5/16-24	0.05806	2395	150 in-lb	112 in-lb	3700	230 in-lb	173 in-lb	5225	327 in-lb	245 in-lb
5/16-18	0.05243	2163	135 in-lb	101 in-lb	3342	209 in-lb	157 in-lb	4719	295 in-lb	221 in-lb
3/8-24	0.08783	3623	272 in-lb	204 in-lb	5600	420 in-lb	315 in-lb	7905	593 in-lb	445 in-lb
3/8-16	0.07749	3196	240 in-lb	180 in-lb	4940	370 in-lb	278 in-lb	6974	523 in-lb	392 in-lb
7/16-20	0.11870	4896	428 in-lb	321 in-lb	7567	662 in-lb	496 in-lb	10683	935 in-lb	700 in-lb
7/16-14	0.10630	4385	384 in-lb	288 in-lb	6777	593 in-lb	445 in-lb	9567	837 in-lb	628 in-lb
1/2-20	0.15995	6598	660 in-lb	495 in-lb	10197	1020 in-lb	764 in-lb	14396	1440 in-lb	1080 in-lb
1/2-13	0.14190	5853	585 in-lb	439 in-lb	9046	904 in-lb	678 in-lb	12771	1277 in-lb	958 in-lb
9/16-18	0.20298	8373	78 ft-lb	59 ft-lb	12940	121 ft-lb	91 ft-lb	18268	171 ft-lb	128 ft-lb
9/16-12	0.18195	7505	70 ft-lb	53 ft-lb	11600	109 ft-lb	82 ft-lb	16376	154 ft-lb	115 ft-lb
5/8-18	0.25595	10558	110 ft-lb	82 ft-lb	16317	170 ft-lb	127 ft-lb	23036	240 ft-lb	180 ft-lb
5/8-11	0.22600	9322	97 ft-lb	73 ft-lb	14407	150 ft-lb	113 ft-lb	20340	212 ft-lb	159 ft-lb
3/4-16	0.37296	15385	192 ft-lb	144 ft-lb	23776	297 ft-lb	223 ft-lb	33566	420 ft-lb	315 ft-lb
3/4-10	0.33446	13796	172 ft-lb	129 ft-lb	21532	269 ft-lb	201 ft-lb	30101	376 ft-lb	282 ft-lb
1-12	0.66304				42289	704 ft-lb	528 ft-lb	59674	995 ft-lb	746 ft-lb
1-8	0.60574				38616	644 ft-lb	483 ft-lb	54517	909 ft-lb	681 ft-lb
Tensile Strength		74,000 psi			12,000 psi			150,000 psi		
Proof Load Stress		55,000 psi			85,000 psi			120,000 psi		
CAUTION: The previously listed torque and resulting tension are provided as an advisory guide. Individual application discretion is recommended. The content has been presented as accurately as possible but responsibility for its application lies with the user.										
NOTE: The stress area of threaded series not included may be computed from the equation $A_s=0.7854 (D-0.9743/n)^2$										
Where: A_s =Stress area in inches ²										
D=Diameter in inches										
P=Threads per inch										

