Repair Parts MANUAL

1.0 Liter

DIESELENGINE

GENERAC

P. O. Box 8 PHONE: (414) 544-4811 Waukesha, WI 53187 FAX: (414) 544-4851

Table of Contents

Quick Reference Parts Guide	Page One
Engine Common Parts	Page Two, Three
Cylinder Block	Page Four
Main Moving Parts	Page Five
Camshaft	Page Six
Timing Gear Housing & Governor	Page Seven
Oil Pump Parts	Page Eight
	Page Nine
	Page Ten
Cylinder Head	Page Eleven
	Page Twelve
Top Cover, Oil Pan & Starter Motor	Page Thirteen
Fuel Supply Parts	Page Fourteen
Starter Motor Pasrts	Page Fifteen
DC Alternator Parts	Page Sixteen

QUICK REFERENCE PARTS GUIDE

Tune-Up Parts

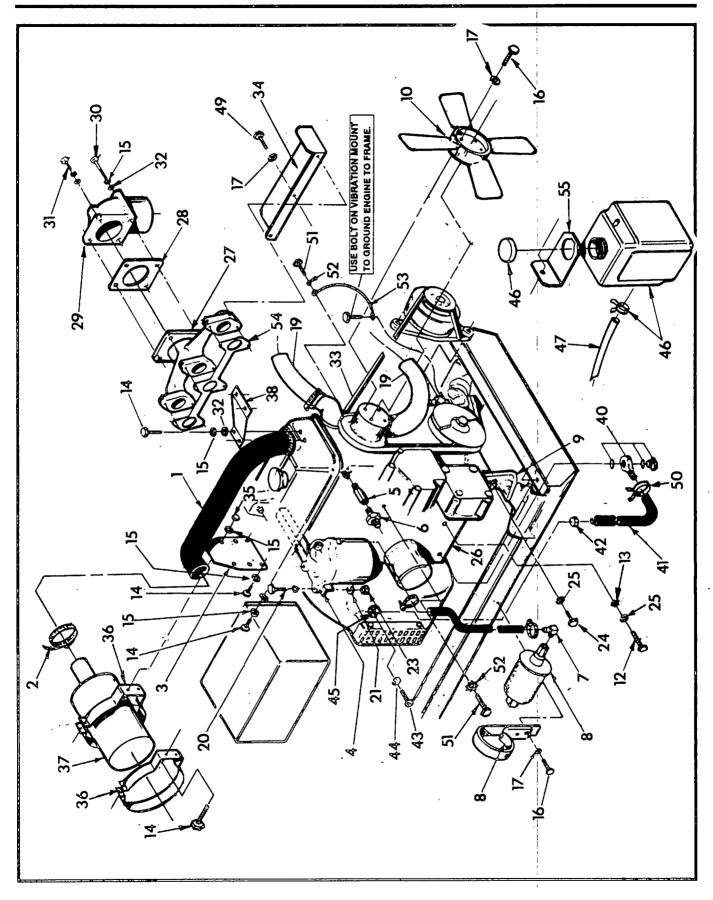
DESCRIPTION	PART NO.	QTY
Oil Filter	126-70939	1
Fuel Filter	69858	1
Air Filter	70941	1 1
V-Belt	46233	1
Glow Plug	332-70939	3
ļ		
		<u> </u>

Engine Parts

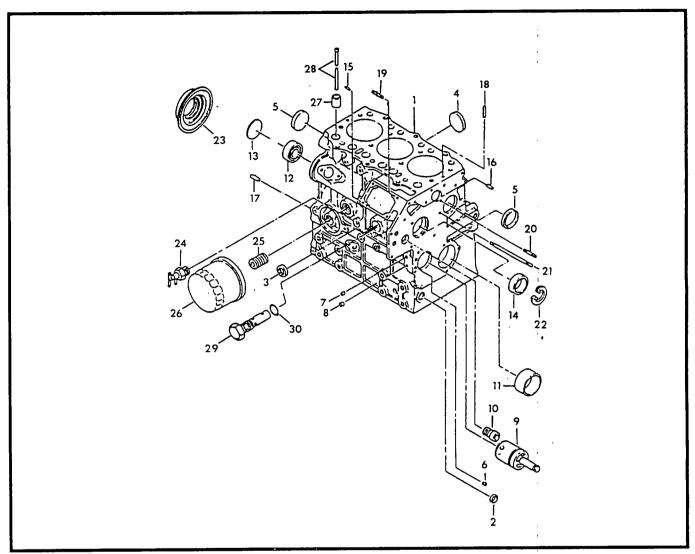
DESCRIPTION	PART NO.	QTY
Fuel Injector	325-70939	3
Piston Assembly- STD	214-70939	3
Piston Ring Set- STD	211-70939	3
Valve Lifter (Tappet)	127-70939	6
Rear Main Seal	123-70939	1
Connecting Rod Bearing- STD	223-70939	6
Lower Main Bearing- STD	202-70939	3
Upper Main Bearing- STD	205-70939	3
Camshaft Assembly	232-70939	1

Torque Specifications

Connecting Rod Bearing Cap Foot-Pounds	22-25
m-kg	
•	
Main Bearing Holders Foot-Pounds	18-22
m-kg	
Flywheel Cover Foot-Pounds	34-40
m-kg	
111-x g	7.1-5.0
Flywheel Foot-Pounds	40 54
m-kg	6.0-7.0
Suction Filter	7000
Foot-Pounds	
m-kg	0.9-1.3
Camshaft Plate	
Foot-Pounds	
m-kg	0.9-1.3
Crankshaft Pulley	
Foot-Pounds	
m-kg	10-11
Oil Pipe Eyebolts Foot-Pounds	7- 9
m-kg	
Cylinder Head	
Foot-Pounds	
m-kg	4.5-5.0
Rocker Arm Assembly	
Foot-Pounds	15-18
m-kg	
Cylinder Head Cover Foot-Pounds	6.0
m-kg	
	0.0-1.2
Fuel Injection Pipes	
Foot-Pounds	
m-kg	2.5-3.0
Injection Nozzle Holders	50.01
Foot-Pounds	
m-kg	8.0-8.5



ITEM	PART NO.	QTY	DESCRIPTION
1	74856	1	Engine Air Hose
2	69859	2	. Hose Clamp
3	77058	1	Lifting Bracket
4	72564	1	Fuel Filter Bracket
5	42574	1	Adapter- 1/8" NPTF x 1/8"-28
6	60108	1	Oil Pressure Switch- 15 psi
7	49340	1	Barbed 90º Fitting- 3/8" x 1/4" NPT
8	74024	1	Fuel Pump Assembly
9	72501	2	Engine Mount
10	77910	1	Fan
12	74071	1	Bolt- M12-1.25 x 20mm
13	74080	1	External Lockwasher- M12
14	72580	8	Hex Head Capscrew- M8-1.25 x 20mm
15	72545	13	Lockwasher- M8
16	72513	2	Hex Head Capscrew- M6-1.00 x 16mm
17	70005	8	Lockwasher- M6
19	74855	2	Radiator Hose
20	74069	2	Hex Head Capscrew- M10-1.50 x 40mm
21	74008	2	Lockwasher- M10
23	74009	2	Hex Nut- M10-1.50
24	74070	4	Hex Head Capscrew- M'12-1.25 x 40mm
25	74018	5	Lockwasher- M12
26	70939	1	Engine Assembly- 1.0 Liter Diesei
27	75673	1	Exhaust Manifold
28	75674	1	Exhaust Manifold Gasket
29	62798	1	Exhaust Manifold Elbow
30	72541	2	Hex Head Capscrew- M8-1.25 x 90mm
31	72586	2	Hex Head Capscrew- M8-1.25 x 25mm
32	74013	2	Flatwasher- M8
33	46233	1	V-Belt
34	75692	1	Heat Shield
35	72540	4	Hex Nut- M8-1.25
36	77078-A	2	Air Filter Bracket
37	77078-B	1	Air Filter
38	77707	1	Engine to Radiator Support
40	72573	1	Oil Drain Fitting
41	69860-B	1	Hose
42	69811	1	Сар
43	71912	1	Screw- M5-0.80 x 8mm
44	74042	1	Lockwasher
45	65852	1 1	Spring Clip
46	76749	1 1	Coolant Recovery Bottle
47	29032	1 1	Hose- 5/16" ID x 4' long
49	45757	6	Hex Head Capscrew- M6-1.00 x 25mm
50	70928	1	Clamp
51	74045	2	Hex Head Capscrew- M8-1.25 x 15mm
52	74044	2	External Lockwasher- M8
53	75778	1	Ground Wire Assembly
54	357-70939	1	Exhaust Gasket
55	80712	1	Coolant Recovery Bottle Bracket
			•



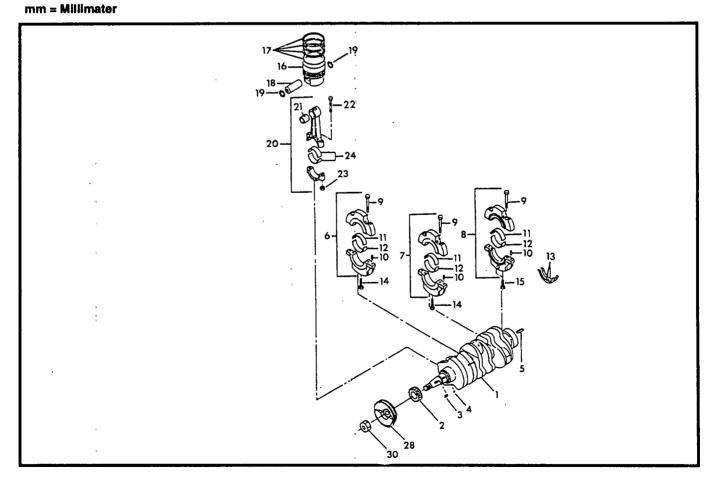
ITEM	PART NO.	QTY	DESCRIPTION	ITE	м	PART NO.	QTY	DESCRIPTION
1	100-70939	1	Cylinder Block	10	3	116-70939	2	Dowel Pin
2	447-70939	1	Expansion Plug	1 1	7	117-70939	2	Dowel Pin
3	101-70939	1 1 I	Expansion Plug	11	3	118-70939	2	Spring Pin
4	102-70939	2	Expansion Plug	19	•	119-70939	2	Stud
5	103-70939	2	Expansion Plug	20)	120-70939	1	Stud
6	104-70939	1 1	Expansion Plug	2	î	121-70939	1	Stud
7	105-70939	4	Plug	2	2	131-70939	1	Snap Ring
8	106-70939	4	Plug	2	3	123-70939	1	Oli Seal
9	107-70939	1	Idler Gear Shaft	2	8	124-70939	1	Drain Cock
10	108-70939	1 1	Bushing	2	5	125-70939	1	Connector
11	109-70939	1 1	Bushing- STD	2	6	126-70939	1	Oil Filter
	110-70939	11	Bushing- 0.25mm US	2	7	127-70939	6	Tappet
	111-70939	1 1	Bushing- 0.50mm US	2	В	128-70939	6	Push Rod
12	112-70939	1	Ball Bearing	2	9	129-70939	1	Relief Valve
13	113-70939	1 1	Expansion Plug	3	0	130-70939	1	: O-Ring
14	114-70939	1	Ball Bearing		Į			·
15	115-70939	2	Dowel Pin					i.
	1127000							,
	<u></u>				٠,		L.,	

Drawing No. 75676

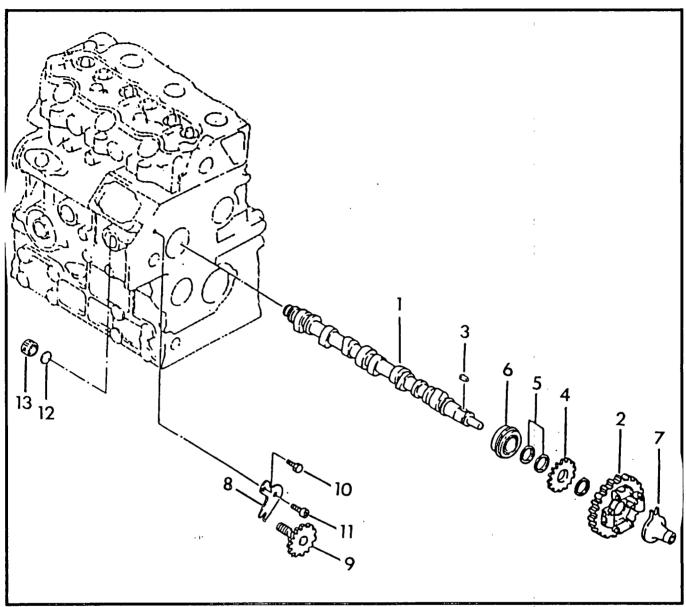
MAIN MOVING PARTS

ITEM	PART NO.	QTY	DESCRIPTION		ITEM	PART NO.	QTY	DESCRIPTION
1	143-70939	1	Crankshaft Assembly]	15	210-70939	2	Bolt
2	194-70939	1	Crankshaft Gear		16	214-70939	3	Piston- STD
3	195-70939	i	Key			215-70939	3	Piston- 0.50mm OS
4	196-70939	i	Dowel Pin	1		216-70939	3	Piston- 1.00mm OS
5	226-70939	1	Spring Pin	1 1	17	211-70939	AR	Piston Rin Set- STD
6	197-70939	1 1	Bearing Holder			212-70939	AR	Piston Ring Set-
7	200-70939	1 1	Bearing Holder					0.5mm OS
8	664-70939	1 1	Bearing Holder			213-70939	AR	Piston Ring Set
9	198-70939	6	Bolt					1.00mm OS
10	199-70939	6	Dowel Pin		18	217-70939	3	Piston Pln
11	202-70939	3	Bearing- STD		19	218-70939	6	Snap Ring
	203-70939	AR	Bearing- 0.25mm US	1 1	20	219-70939	3	Connecting Rod
	204-70939	AR	Bearing- 0.50mm US		21	220-70939	3	Bushing
12	205-70939	3	Bearing- STD	1 1	22	221-70939	6	Connecting Rod Bolt
	206-70939	AR	Bearing- 0.25mm US		23	222-70939	6	Nut for Rod Bolt
	207-70939	AR	Bearing- 0.50mm US		24	223-70939	6	Bearing- STD
13	208-70939	2	Thrust Washer			224-70939	AR	Bearing- 0.25mm US
14	204-70939	2	Bolt			225-70939	AR	Bearing- 0.50mm US
	,	j			28	230-70939	1	Pulley
					30	231-70939	1	Nut

US = UNDERSIZE
OS = OVERSIZE
AR = AS REQUIRED

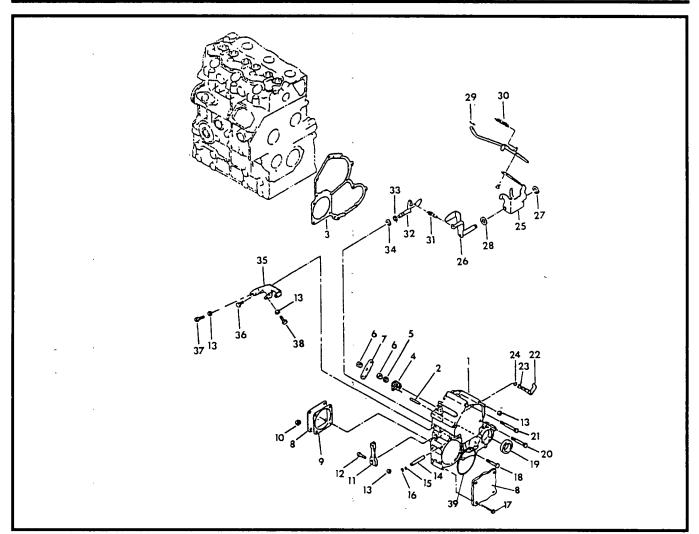


Drawing No. 75679 Page Five



ITEM	PART NO.	QTY	DESCRIPTION
1	232-70939	1	Camshaft Assembly
2	233-70939	1	Camshaft Gear
3	195-70939	1	Key
4	234-70939	1	Gear
5	235-70939	3	Spacer
6	236-70939	1	Ball Bearing
7	237-70939	1	. Slider
8	238-70939	1	Plate
9	239-70939	1 1	Tachometer Shaft
10	240-70939	1	Bolt
11	241-70939	1	Bolt
12	242-70939	1	Gasket
13	243-70939	1	Nut

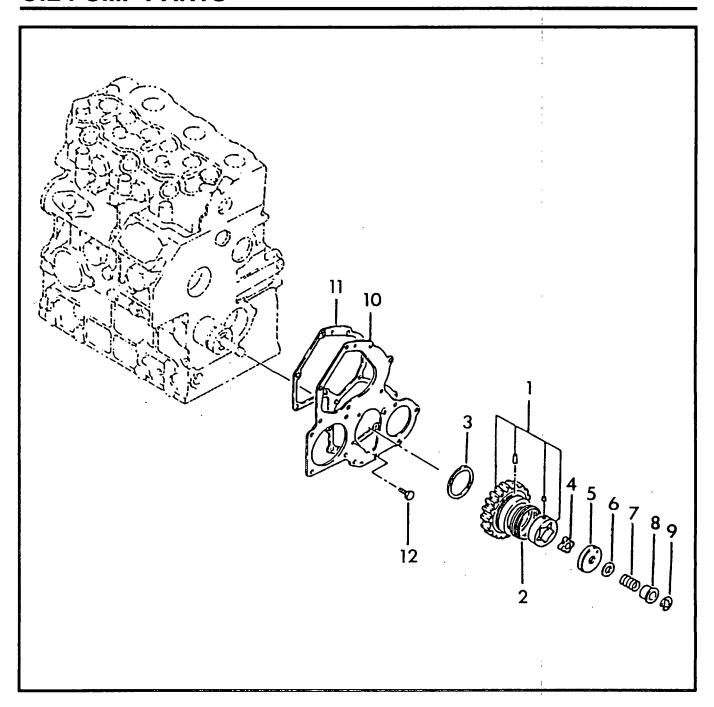
TIMING GEAR HOUSING & GOVERNOR



				Ţ				
ITEM	PART NO.	QTY	DESCRIPTION		ITEM	PART NO.	QTY	DESCRIPTION
1	285-70939	1	Timing Gear Housing		21	311-70939	5	Bolt
2	286-70939	1	Spring Pin		22	304-70939	1 1	Arm
3	287-70939	1	Gasket		23	305-70939	1	Snap Ring
4	307-70939	1	Spring		24	306-70939	1	O-Ring
5	308-70939	1	Washer		25	289-70939	1 1	Governor Lever Assy.
6	309-70939	2	Nut		26	290-70939	1	Tension Lever
7	310-70939	1	Stop Lever		27	291-7093 9	1	Snap Ring
8	314-70939	2	Cover		28	136-70939	1	Washer
9	315-70939	1	Gasket		29	292-70939	1	Cotter Pin
10	180-70939	4	Nut		30	313-70939	1	Spring
11	296-70939	1	Governor Lever		31	293-70939	1	Spring
12	297-70939	1	Bolt		32	294-70939	1	Arm
13	298-70939	4	Nut		33	295-70939	1	O-Ring
14	299-70939	1	Shaft	v	34	291-70939	1	Snap Ring
15	300-70939	1	O-Ring		35	302-70939	1	Bracket
16	301-70939	1	Snap Ring		36	271-70939	3	Bolt
17	312-70939	4	Bolt		37	303-70939	2	Bolt
18	282-70939	5	Bolt		38	71944	1	Screw
19	288-70939	1	Oil Seal		39	660-70939	1	O-Ring
20	274-70939	4	Bolt					

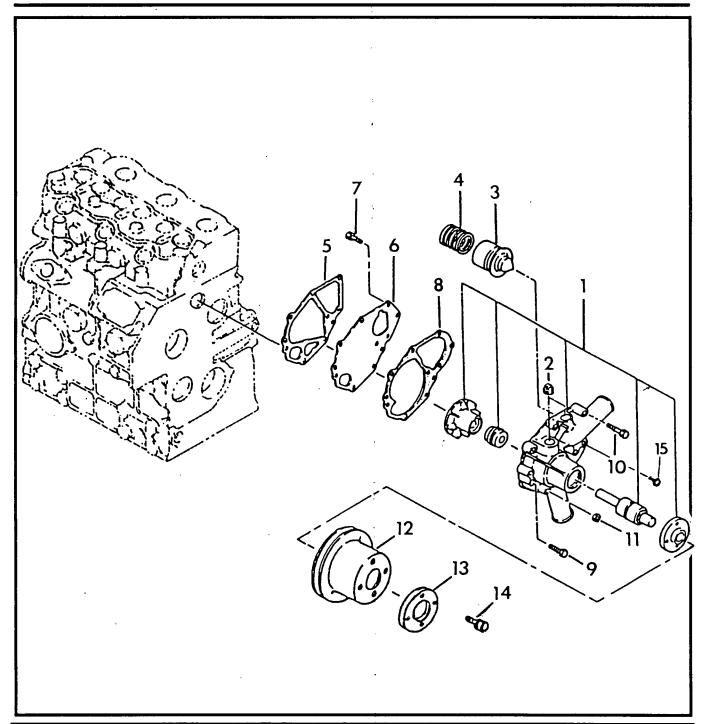
Drawing No. 75687

OIL PUMP PARTS



ITEM	PART NO.	QTY	DESCRIPTION	ITEM	PART NO.	QTY	DESCRIPTION	
1	250-70939	1	idler Gear Assembly	7	259-70939	1	Spring	
2	252-70939	1	Spring .	8	260-70939	1	Collar	
3	251-70939	1 1	Thrust Washer	9	261-70939	1	Snap Ring	
4	253-70939	1	Rotor	10	262-70939	1	Front Plate	
5	254-70939	1	Oil Pump Cover	11	263-70939	1	Gasket	
6	255-70939	AR	Shim- 0.1mm	12	264-70939	3	Bolt	
	531-70939	AR	Shim- 0.15mm			,		
	532-70939	AR	Shim- 0.20mm	AR = As Required				
	258-70939	AR	Shim- 0.50mm		mm	= millim	eter	

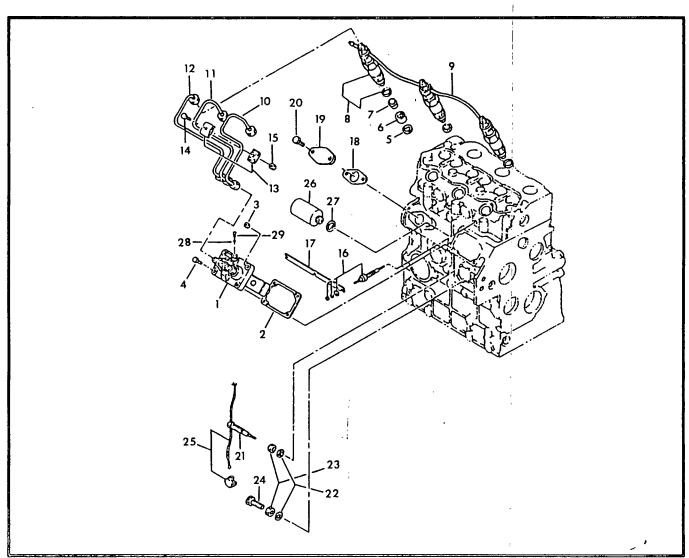
Page Eight



ITEM	PART NO.	QTY	DESCRIPTION	ITEM	PART NO.	QTY	DESCRIPTION
1	265-70939	1	Water Pump Assembly	9	273-70939	4	Bolt
2	266-70939	2	Plug	10	274-70939	1	Bolt
3 ·	267-70939	1	Thermostat	11	275-70939	1 1	Nut
4	268-70939	1	Spring	.12	247-70939	1	Pulley
5	26 9 -70939	1	Gasket	13	248-70939	1	Plate
6	270-70939	1	Set Plate	14	249-70939	4	Bolt
7	271-70939	1	Bolt	15	284-70939	2	Bolt
8	272-70939	1	Gasket				

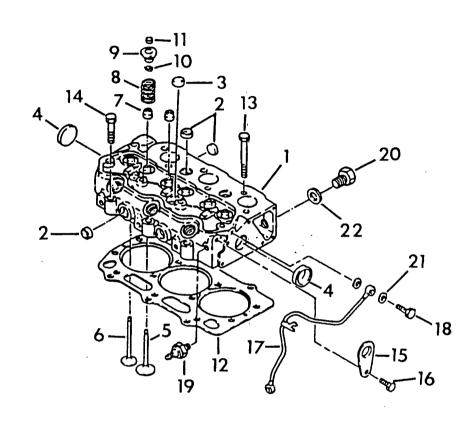
Drawing No. 75684 Page Nine

FUEL INJECTION PUMP



CONTRACTOR ASSESSMENT	<u> Kentron - Arthur Gra</u>	4'A. s 3.5	The second secon	120.0		ACC. NO SERVICE	<u> تعالی ا</u>	
ITEM	PART NO.	QTY	DESCRIPTION	1	ITEM	PART NO.	QTY	DESCRIPTION
1	316-70939	1	Injection Pump Assembly		16	332-70939	3	Glo₩ Plug
2	317-70939	AR	Shim- 0.2mm		17	333-70939	1	Connector
	318-70939	AR	Shim- 0.3mm		18	334-70939	1	Gasket
	319-70939	AR	Shim- 0.5mm		19	335-70939	11	Cover
	320-70939	AR	Shim- 1.0mm		20	264-70939	2	Bok [
3	298-70939	2	Nut		21	336-70939	1:	Sensor
4	321-70939	2	Bok		22	337-70939	2	₩asher
5	322-70939	3	Gasket		23	338-70939	2	Nut
6	323-70939	3	Insert		24	339-70939	1	Bolt
7	324-70939	3	Cap	Ì	25	240-70939	1	Lockwire
8	325-70939	3	injector .		26	341-70939	1 1	Solenoid
9	326-70939	1	Tubing		27	342-70939	1:	Washer
10	327-70939	1	Tubing		28	343-70939	1	Washer
11	328-70939	1	Tubing		29	343-70939	1	₩asher
12	329-70939	1	Tubing			<u>I</u>	, ,	
13	330-70939	4	Clamp			AR =	As Req	uired
14	331-70939	2	Bolt					
15	298-70939	2	Nut			mm	= Millin	neter

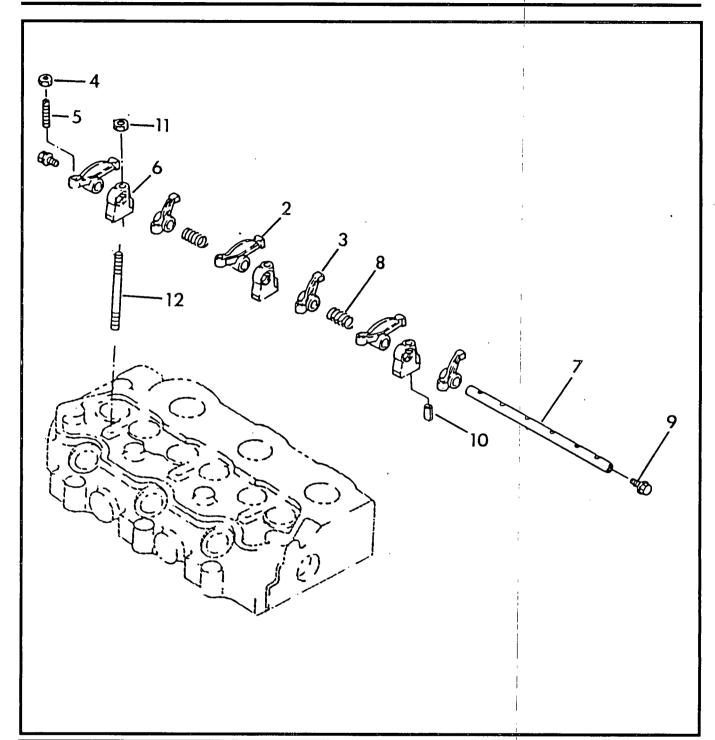
Page Ten



ITEM	PART NO.	QTY	DESCRIPTION	ITEM	PART NO.	QTY	DESCRIPTION
1	147-70939	1	Cylinder Head Assy.	12	158-70939	1	Head Gasket- 1.2mm*
2	148-70939	6	Expansion Plug	,	159-70939	1	Head Gasket- 1.3mm*
3	447-70939	3	Expansion Plug	13	160-70939	11	Bolt
4	149-70939	2	Expansion Plug	14	161-70939	3	Bolt
5	150-70939	3	Intake Valve	15	162-70939	2	Lifting Eye
6	151-70939	3	Exhaust Valve	16	163-70939	2	Bolt
7	152-70939	3	Valve Guide Seal	17	164-70939	1 1	Tubing
			(Exhaust)	18	165-70939	2	Bolt
• .	153-70939	3	Valve Guide Seal	19	60108	1	Oil Pressure Switch
			(Intake)	20	167-70939	1	Temperature Switch
8	154-70939	6	Spring	21	168-70939	4	Gasket
9	155-70939	6	Retainer	22	169-70939	l 1	Washer
10	156-70939	12	Key	* Ind	icates thicknes	ss of ga	sket in millimeters.
11	157-70939	6	Сар	,			

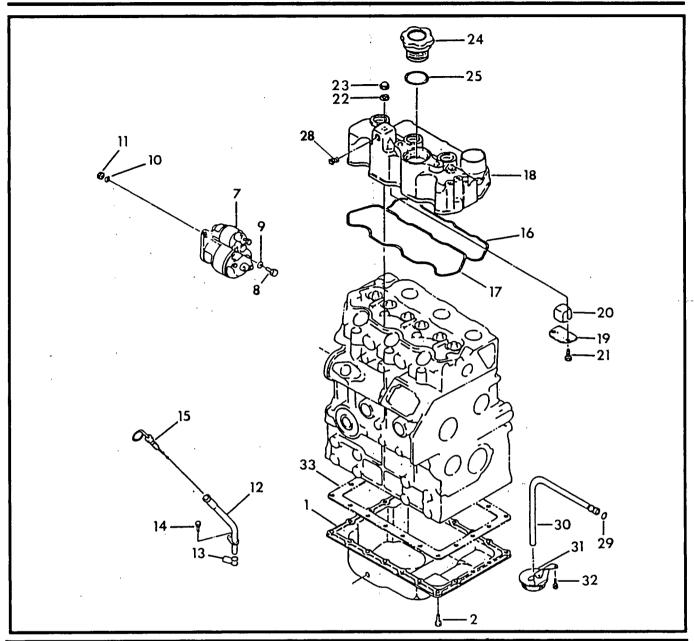
Drawing No. 75678 Page Eleven

ROCKER ARM ASSEMBLY



ITEM	PART NO.	QTY	DESCRIPTION	ITEM	PART NO.	QTY	DESCRIPTION
1	170-70939	1	Rocker Arm Assy.	7	176-70939	1]	Rocker Arm Shaft
2	171-70939	3	Rocker Arm (Intake)	8	177-70939	2	Spring
3	172-70939	3	Rocker Arm (Exhaust)	9	644-70939	2	Holder
4	174-70939	6	Nut	10	179-70939	i i	Spring Pin
5	173-70939	6	Stud	11	180-70939	3	Nut
6	175-70939	3	Rocker Arm Bracket	12	181-70939	3	Stud

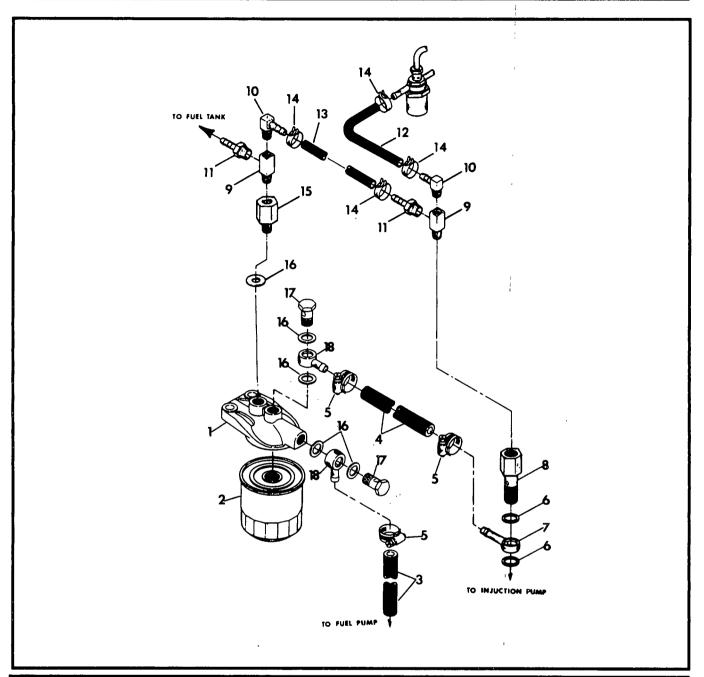
TOP COVER, OIL PAN & STARTER MOTOR



ITEM	PART NO.	QTY	DESCRIPTION		ITEM	PART NO.	QTY	DESCRIPTION
1	139-70939	1	Oil Pan	ŀ	19	184-70939	1	Rocker Cover
2	140-70939	20	Bolt		20	186-70939	1	Screen
7	134-70939	1	Starter Motor Assy.		21	145-70939	2	Bolt
8	135-70939	2	Bolt		22	168-70939	1	Gasket
9	136-70939	2	Washer		23	187-70939	3	Nut
10	137-70939	2	Lockwasher		24	188-70939	1	Сар
11	138-70939	2	Nut		25	189-70939	1	O-Ring
12	143-70939	1	Dipstick Tube		28	26073-A	1	Pipe Plug- 1/4"
13	144-70939	2	O-Ring	ĺ	29	244-70939	1	O-Ring
14	145-70939	1 1	Bolt	l	30	245-70939	1	Tubing
15	146-70939	1 1	Dipstick		31	246-70939	1	Suction Filter
16	182-70939	1	Rocker Cover Gasket	l	32	145-70939	2	Bolt
17	183-70939	1	Rocker Cover Gasket		33	122-70939	1	Gasket
	<u> </u>	<u></u>		•				<u> </u>

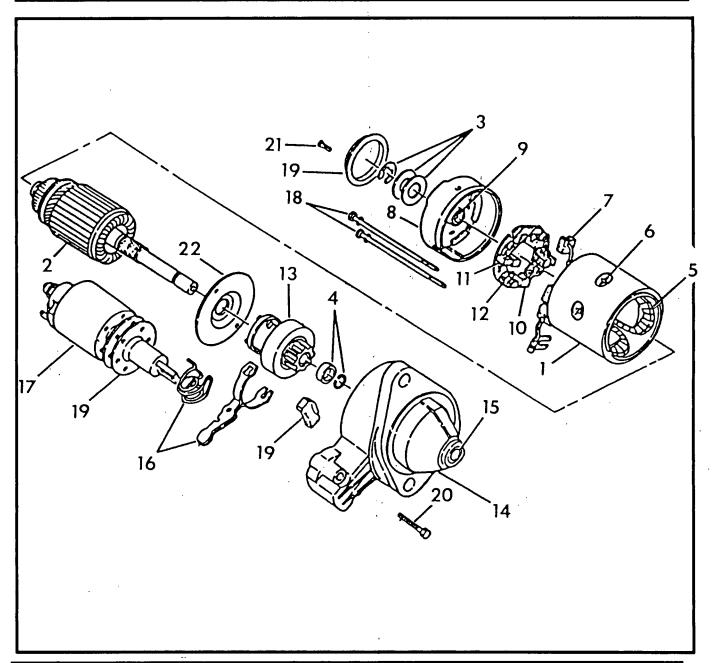
Drawing No. 75680 Page Thirteen

FUEL SUPPLY PARTS



ITEM	PART NO.	QTY	DESCRIPTION	ITEM	PART NO.	QTY	DESCRIPTION
1	661-70939	1	Fuel Filter Support	10	39450	2	Barbed 90° Fitting
2	69858	1	Fuel Filter				1/8" NPT x 3/16"
3	47290	1	Hose- 3/8" ID x 12.5"	11	30096	2	Barbed Straight Fitting
4	52221	1 1	Hose- 5/16" ID x 6.5"				1/8" x 3/16"
5	40173	4	Hose Clamp	12	68736	1 1	Hose- 3/16" ID x 12"
6	378-70939	2	Gasket	13	68736	1	Hose- 3/16" ID x 7.75"
7	379-70939	1 1	Banjo Fitting	14	48031-B	4	Clamp
8	74808	1	Fuel Bleed Fitting	15	74819	1	Fuel Bleed Fitting
9	52233	2	Brass Tee- 1/8" NPT	16	651-70939	5	Fuel Bleed Gasket
				17	662-70939	2	Hollow Bolt
				18	663-70939	2	Banjo Fitting
7 8 9	74808	1 1 2	Fuel Bleed Fitting	15 16 17	74819 651-70939 662-70939	2	Fuel Bleed Fitti Fuel Bleed Gasi Hollow Bolt

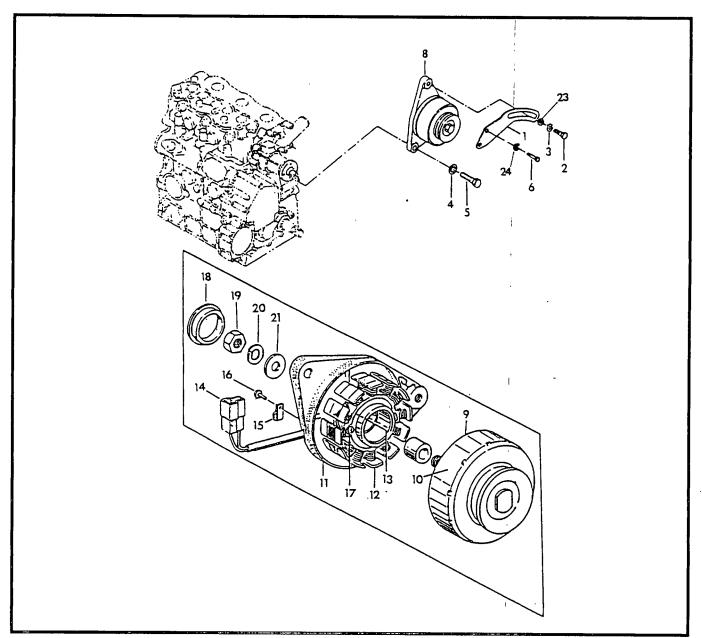
STARTER MOTOR PARTS



ITEM	PART NO.	QTY	DESCRIPTION	ITEM	PART NO.	QTY	DESCRIPTION
1	134-70939	1	Starter Motor Assembly	12	521-70939	4	Brush Spring
2	511-70939	1	Armature	13	522-70939	1	Pinion
3	512-70939	1	Thrust Washer Kit	14	523-70939	1 1 1	Gear Case Assy.
4	513-70939	1	Pinion Stopper Set	15	524-70939	1 1	Bushing
5	514-70939	1	Field Coll Assy.	16	525-70939	1 1	Shift Lever Kit
6	515-70939	4	Pole Core Set Screw	17	526-70939	1 1	Switch
7	516-70939	2	Brush	18	527-70939	2	Thru-Bolt
8	517-70939	1 1	Rear Cover	19	528-70939	1	Dust Cover Kit
9	518-70939	1	Bushing	20	529-70939	2	Bolt
10	519-70939	1	Brush Holder	21	530-70939	2	Screw
11	520-70939	2	Brush	22	531-70939	1 1	Center Plate

Drawing No. 75681 Page Fifteen

DC ALTERNATOR PARTS



ITEM	PART NO.	QTY	DESCRIPTION	ITEM	PART NO.	QTY	DESCRIPTION
1	77909	1	Adjustment Bracket	13	349-70939	1	Bearing
2	74829	1	Bolt- M8-1.25 x 30mm	14	352-70939	1 1	Coupler
3	72545	1	Lockwasher	15	353-70939	1	Clamp
4	74007	1 1	Flatwasher- M10	16	354-70939	1 1	Screw
5	74069	1 1	Bolt- M10-1.50 x 40mm	17	355-70939	2	Screw
6	51753	2	Bolt- M6-1.00 x 40mm	18	350-70939	1	Cap
8	277-70939	1	Alternator Assembly	19	351-70939	1	Nut
9	345-70939	1 1	Flywheel	20	137-70939	1 h	Lockwasher
10	349-70939] 1]	Bearing	21	280-70939	111	Washer
11	346-70939	1 1	Alternator Plate Assy.	22	356-70939	14	Collar
12	348-70939	111	Stator	23	74827		Flatwasher- M8
		1 1		24	70005	2	Lockwasher- M6