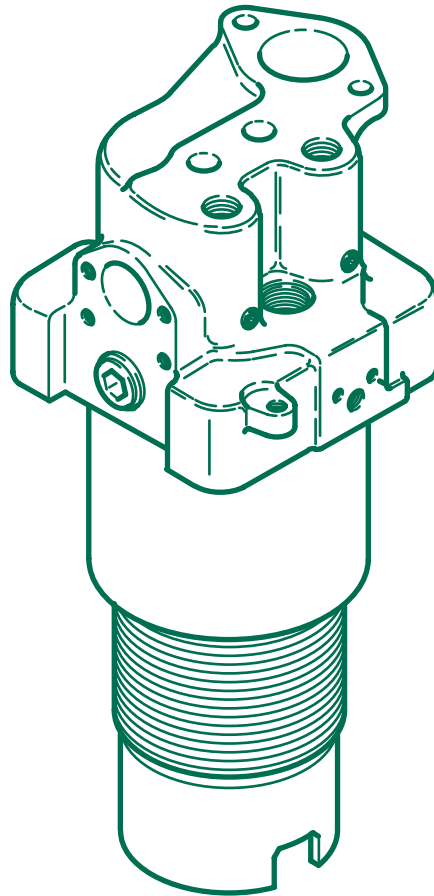




CFR[®] F1/F2 Octane Rating Unit

Parts Catalog



Form 871-4
4th edition

CFR® F1/F2 Octane Rating Unit

Parts Catalog

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Original Instructions (English)

The English version of this manual controls over any error in or conflicting interpretation of any translation.



Form 871-4
4th edition

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**California
Proposition 65 Warning**

The engine exhaust from this product contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

**California
Proposition 65 Warning**

Certain components in this product and its related accessories contain chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.
Wash hands after handling.

**California Perchlorate
Contamination Prevention Act**

Certain components in this product and its related accessories may contain perchlorate materials – special handling may apply. For more information, see: www.dtsc.ca.gov/hazardouswaste/perchlorate

DISCLAIMERS:

All information, illustrations and specifications in this manual are based on the latest information available at the time of publishing. The illustrations used in this manual are intended as representative reference views only. Products are under a continuous improvement policy. Thus, information, illustrations and/or specifications to explain and/or exemplify a product, service or maintenance improvement may be changed at any time without notice.

NOTICE

Review all applicable Service Bulletins and other documentation, and check with your Authorized Distributor for updates that may supersede the contents of this manual.

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DISPOSAL STATEMENT:

Disposal requirements for waste electrical and electronic equipment:

NOTICE

Electrical and electronic equipment can contain harmful substances which can affect the environment and human health.

WEEE symbol (Waste Electrical and Electronic Equipment): The symbol for the separated disposal of electrical and electronic equipment is a crossed-out waste bin on wheels (Directive 2012/19/EU Waste Electrical and Electronic Equipment).

You must not dispose any electrical and electronic equipment marked with this symbol (battery-operated electrical appliances, measurement equipment, light-bulbs, etc.) in the domestic waste but dispose of these separately. Always use the waste return and collection systems locally available and contribute to the reuse, recycling and all other forms of use for waste electrical and electronic equipment.

TABLE OF CONTENTS

Alphabetical Index of Parts	1
Customer Ordering Procedure	3
Return Of Parts Procedure	3
Parts Illustrations and Parts Lists	5 – 81
F1 / F2 Parts Kits	82 – 104
Part Number Index – Appendix A	A-1
Warranty	W-1

ALPHABETICAL INDEX OF PARTS

A	
Adapter Bearing	39
B	
Balancing Shaft	43
Breather	47
C	
Camshaft	43
Carburetor	9
Carburetor Fuel Bowls	13
Carburetor Fuel Tanks	13
Compression Pressure Gauge	73
Compression Ratio Changer	35
Condenser	29
Condenser Water Pipe	27
Connecting Rod	45
Crankcase	37
Crankcase Breather	47
Crankcase Doors	39
Crankshaft	41
Cylinder	23
Cylinder Overhaul Stand	77
Cylinder Sleeve	31
D	
Detonation Meter	69
E	
Exhaust Manifold	7
F	
Flywheel	41
Fuel Bowls	13
Fuel Tanks	13
H	
Heater	39
Humidity Equipment	5
I	
Ice Tower	5
Idler Gear	43

Ignition Coil	51
Ignition Plugs	51
Ignition Timer	49
Ignition Wire	51
Induction Motor	57
Instrument Panel	59
Instrument Panel (Internal)	63
Intake Manifold	17
Intake Manifold Heater	17

M	
Motorized Compression Ratio Changer	35

N	
Natural Gas Warm-up Equipment	79

O	
Oil Filter	55
Oil Pump	53
Oil Relief Valve	53
Oil Screen	53
Overhaul Stand	77

P	
Panel Gauges	59
Piston	45

R	
Resistance Temperature Device	65
Rocker Arm Cover	19
Rocker Arms	21
RTD Display	65

S	
Safety Guards	81
Safety Shutdown System	67
Shutdown System	67
Sleeve	31
Surge Tank	7

T	
Temperature Controller	71

U	
Unit Base	75

V	
Valve Lifter	43
Variable Compression Cylinder	23

W	
Warm-up Equipment	79





CUSTOMER ORDERING PROCEDURE

The instructions that follow apply when ordering CFR parts.

1. CFR genuine parts must be ordered through CFR or an authorized CFR Distributor.
2. Always specify to CFR the engine model designation, specification number, and serial number, as found stamped on the engine nameplate. In the event the nameplate is either lost or defaced, the engine serial number is also stamped under the nameplate.
3. Advise the method of test you are operating.
 - ResearchASTM D2699
 - MotorASTM D2700
 - SuperchargedASTM D909
 - CetaneASTM D613
4. Always include the part number, when known, along with the description of the part. State the quantity of the part you wish to order. Do not use the word "complete" or designate the quantity by sets.
5. When ordering heaters or any electrical equipment, advise the voltage and hertz under which your engine is operating.
6. Advise how parts are to be shipped (freight, express, etc.).
7. Address all mail to:

CFR Manufacturing Inc.
N8 W22577 Johnson Drive
Pewaukee, WI 53186

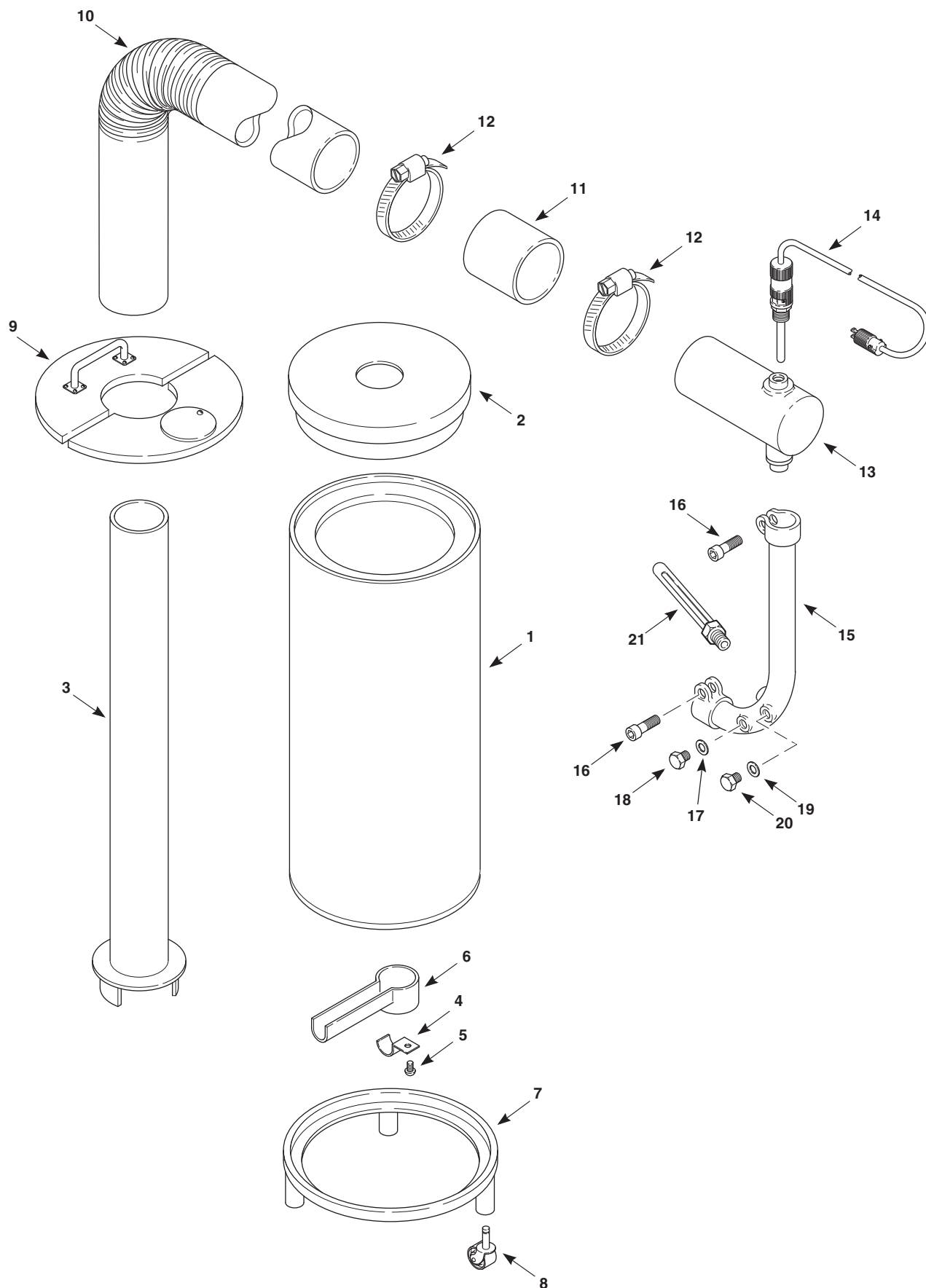
RETURN OF PARTS PROCEDURE

The instructions that follow apply when returning engines or parts to the factory for repairs.

1. Claims of shortage or errors must be made within three days from receipt of goods. Our responsibility for safe delivery of material ceases with its delivery by us to the transportation company. Claims for loss or damage must be filled with delivering carrier.
2. Do not return goods for credit without previous arrangement and agreement. Otherwise shipment will not be accepted from carrier.
3. Advise us why you desire to return material.
4. Providing our reply authorizes the return of parts, box the parts carefully and mark the box with your name and address. Include a packing list of the box content. Transportation charges must be prepaid, otherwise we cannot accept shipment.
5. If material has been used or removed from an engine, show on your packing list, the serial number of the engine from which the parts were removed, the date the engine was put into service, and the approximate number of hours the engine was operating prior to removal of the parts. Also give the reason for removal and the source from which replacement parts were obtained.
6. Advise us when shipment is made to insure our prompt handling and disposition.

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

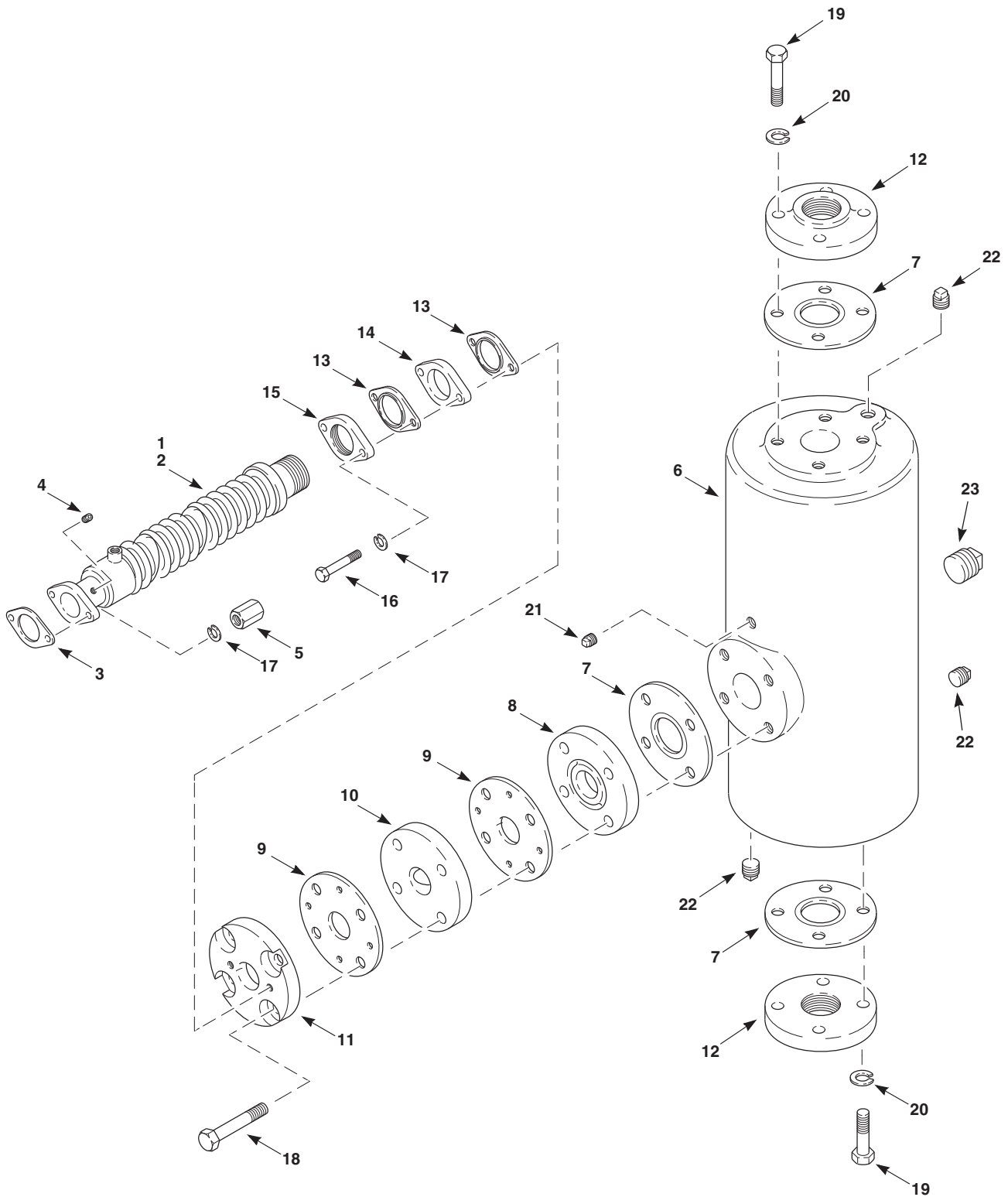


F-1 / F-2
ICE TOWER, HUMIDITY EQUIPMENT
GROUP 404

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	106601A	1	Ice Tower
2	O106608A	1	Ice Tower Screen
3	O109497	1	Ice Tower Tube
4	109198	2	Drain Trap Support
5	21939	4	Round Head Wood Screw, No. 8 x 3/4"
6	109179	1	Drain Trap
7	O106686B	1	Humidifier Support Ring
8	106687A	1	Caster
9	O106606A	1	Humidifier Cover
10	O109495	1	Humidifier Tube
11	109756	2	Humidifier Hose
12	41236F	4	Hose Clamp
13	A110412B	1	High Altitude Surge Tank
14	E106583B	1	Inlet Air Heater
15	D106595A	1	Carburetor Inlet Elbow
16	21545	2	Socket Head Capscrew, 5/16"–18 x 1"
17	B2131	1	Plain Washer, 3/64"
18	21450	1	Hex Head Capscrew, 1/2"–20 x 3/4"
19	BD190	1	Copper Gasket
20	21376	1	Hex Head Capscrew, 3/8"–24 x 1/2"
21	O106317A	1	Thermometer Assembly, 60 – 160° F (16 – 71° C)
	A106317B	1	Thermometer Assembly, 100 – 200° F (37 – 93° C)
ASSEMBLIES			
	AC106601A	1	Ice Tower Assembly (Includes Items 1 – 5)
	AA106601A	1	Ice Tower Assembly (Includes Items 1 – 3)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

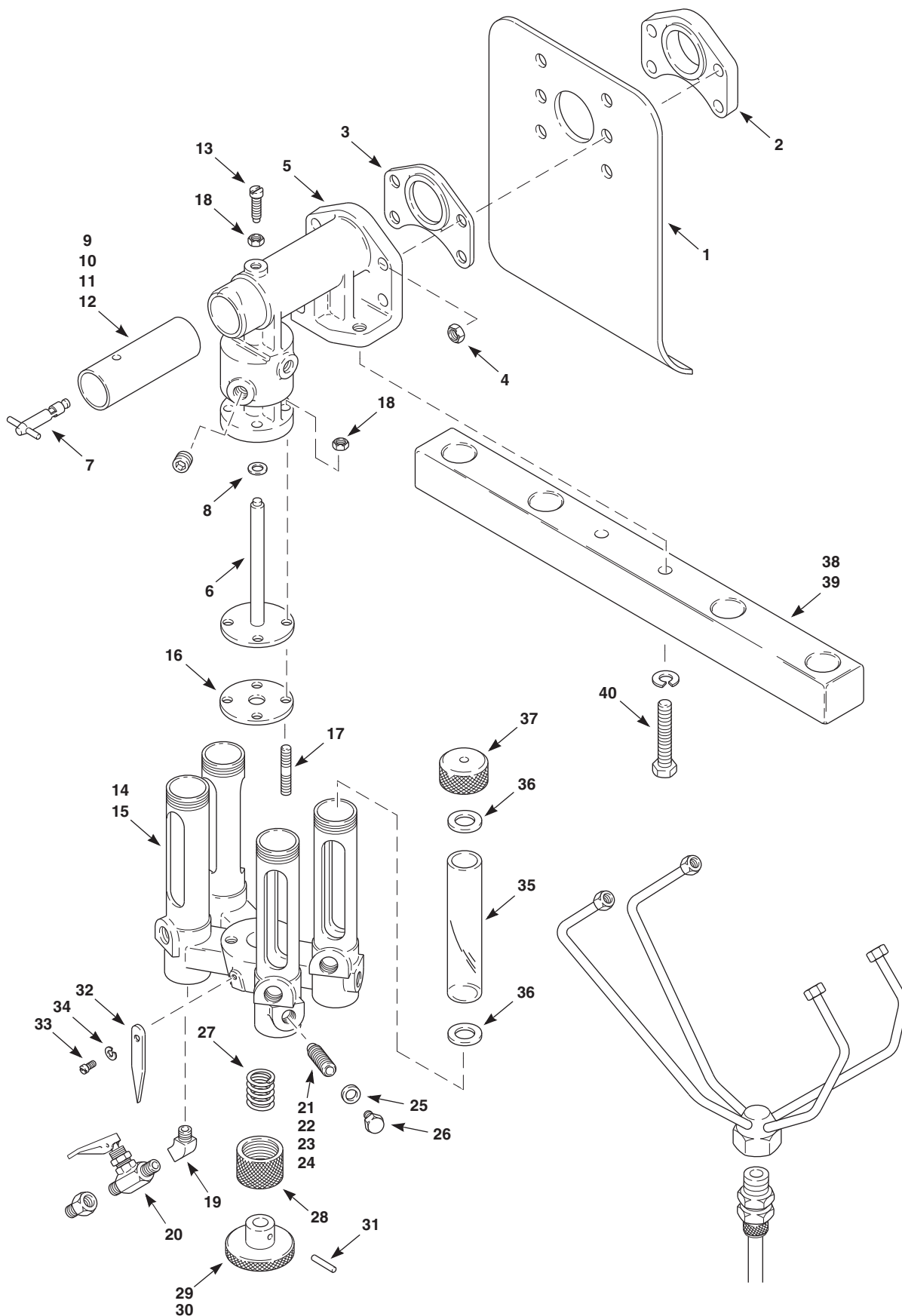


F-1 / F-2
EXHAUST MANIFOLD, SURGE TANK
GROUPS 42, 217

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	O23242A	1	Exhaust Manifold Assembly
2	O110123	1	Water Cooler Exhaust Manifold Assembly
3	B2557	1	Manifold Gasket
4	Y18802	1	Allen Head Pipe Plug, 1/8"
5	110215	2	Exhaust Manifold Nut
6	109887E	1	Surge Tank
7	109350	3	Surge Tank Gasket
8	109277	1	Water Injection Spray
9	109281	2	Injection Spray Gasket
10	109349	1	Water Injection Spray Cover
11	109348	1	Spray Ring Clamp
12	118879K	2	Exhaust Pipe Flange
13	110523	2	Exhaust Pipe Flange Gasket
14	109351	1	Removable Spacer
15	109352	1	Manifold Flange
16	21323	2	Hex Head Capscrew, 5/16"–18 x 2-1/2"
17	21051	4	Lock Washer, 5/16"
18	21474	4	Hex Head Capscrew, 5/8"–11 x 3-1/2"
19	21466	8	Hex Head Capscrew, 5/8"–11 x 1-1/2"
20	21055	8	Lock Washer, 5/8"
21	78282B	1	Square Head Pipe Plug, Galvanized, 1/8"
22	Y6537	3	Square Head Pipe Plug, Galvanized, 3/4"
23	74113	1	Square Head Pipe Plug, 2"
ASSEMBLIES			
	A109887E	1	Surge Tank Assembly (Includes Items 6 – 16, two of Item 17, 18 – 22)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2
CARBURETOR
GROUP 214

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	75738	1	Carburetor Heater Shield
2	109346	1	Carburetor Heater Gasket
3	109345	1	Intake Manifold Gasket
4	21186	4	Hex Nut, 5/16"-24
5	75960G	1	Carburetor Body
6	O75985B	1	Carburetor Vertical Jet
7	75983B	1	Carburetor Air Bleed Tube
8	109778	1	Bleed Tube Gasket
9	75984	1	Carburetor Venturi, 9/16"
10	75984A	1	Carburetor Venturi, 3/4"
11	75984B	1	Carburetor Venturi, 5/8"
12	75984F	1	Carburetor Venturi, 19/32"
13	106515	1	Carburetor Venturi Screw, 1/4"-28 x 1"
14*	OO75961	1	Three Bowl Selector Valve
15**	OO105333	1	Four Bowl Selector Valve Assembly
16	75982A	2	Valve Body Gasket
17	952167	4	Stud
18	28326	5	Stainless Steel Hex Nut, 1/4"-28
19	110228	4	Street Elbow, 45°
20	111305	4	Toggle Valve
21	75988A	4	Carburetor Fuel Jet (Specify Size)
22	75988B	4	Carburetor Fuel Jet Blanks (Not Drilled)
23	75988E	4	Fuel Jet MON Units Only (Sea Level), 68 cc
24	75988F	4	Fuel Jet RON Units Only (Sea Level), 86 cc
25	B3207	4	Fiber Gasket
26	106514	4	Carburetor Jet Plug Screw
27	75990	1	Spring
28	75979	1	Carburetor Spring Nut
29	75980	1	Three Bowl Selector Knob
30	75980A	1	Four Bowl Selector Valve Knob
31	26532	1	Roll Pin, 3/32" x 3/4"
32	75981	1	Fuel Valve Indicator
33	106519	1	Round Head Machine Screw, No. 8-32 x 1/4"
34	26059	1	Lock Washer, No. 8
35	75974	4	Carburetor Float Gauge Sight Glass
36	75976A	8	Carburetor Sight Glass Gasket
37	75977	4	Carburetor Float Gauge Cap
38	105334F	1	Carburetor Bracket (Three Bowl)
39	105334C	1	Carburetor Bracket (Four Bowl)
40	110213	2	Hex Head Capscrew, 5/16"-18 x 1-5/8"

Continued

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



**F-1 / F-2
CARBURETOR
GROUP 214**

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
41	21538	2	Plated Lock Washer, 5/16"
42	105355C	4	Chrome Plated Female Coupling
43	26416	1	Allen Head Pipe Plug, 1/8"
44	A109343D	1	Drain Tube Assembly (Three Bowl)
45	A109343E	1	Drain Tube Assembly (Four Bowl)
46	A109151	1	Nylon Drain Tube
ASSEMBLIES			
	AA75961	1	Three Bowl Selector Valve Assembly (Includes Items 14*, 17, 27 – 29, 31 – 34)
	AD105333	1	Four Bowl Selector Valve Assembly (Includes Items 15**, 17, 27, 28, 30, 31 – 34)

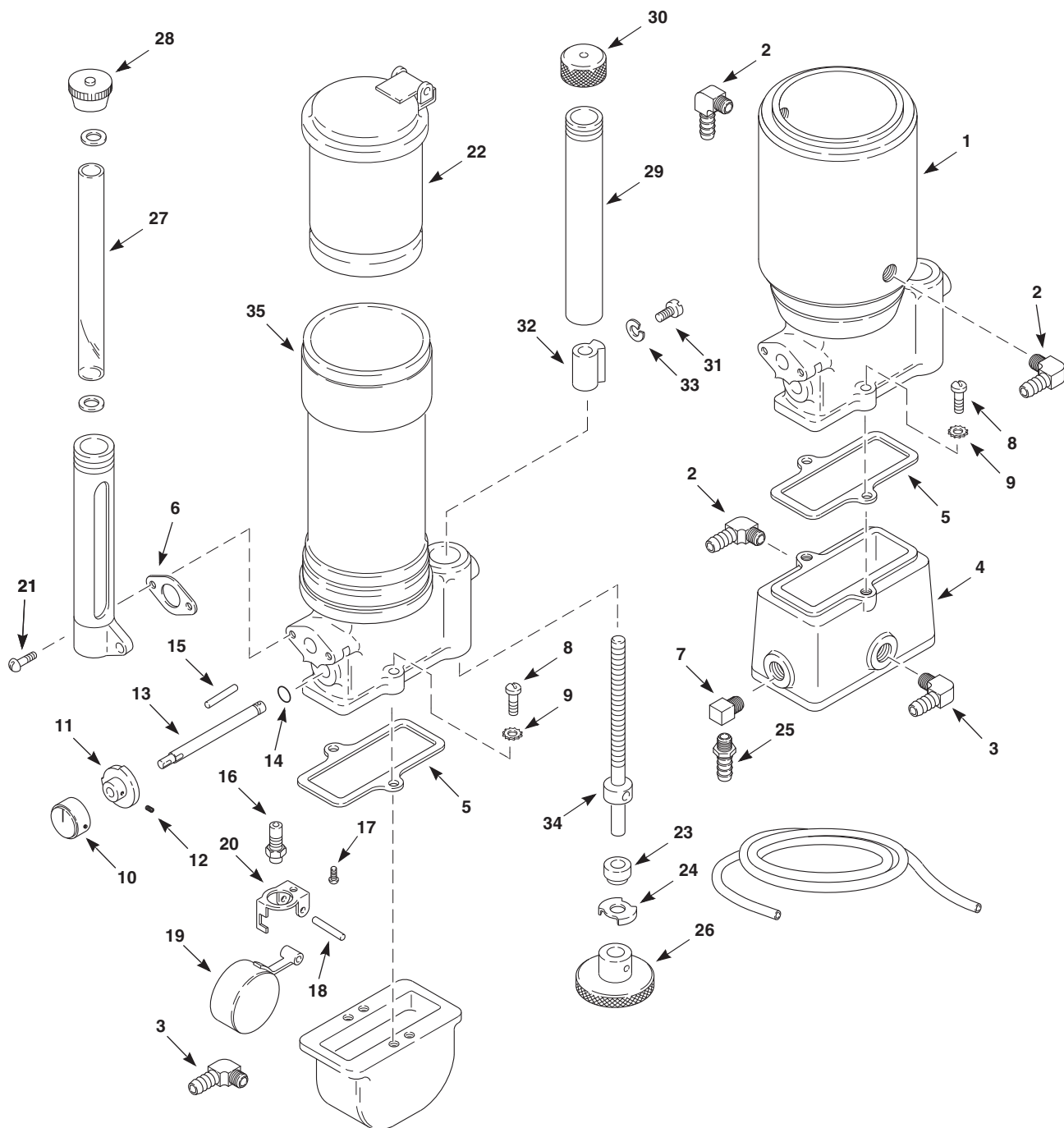
NOTES:

* Item 14 is only sold as a part of the Three Bowl Selector Valve Assembly, P/N AA75961, and not as a single part.

** Item 15 is only sold as a part of the Four Bowl Selector Valve Assembly, P/N AD105333, and not as a single part.

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



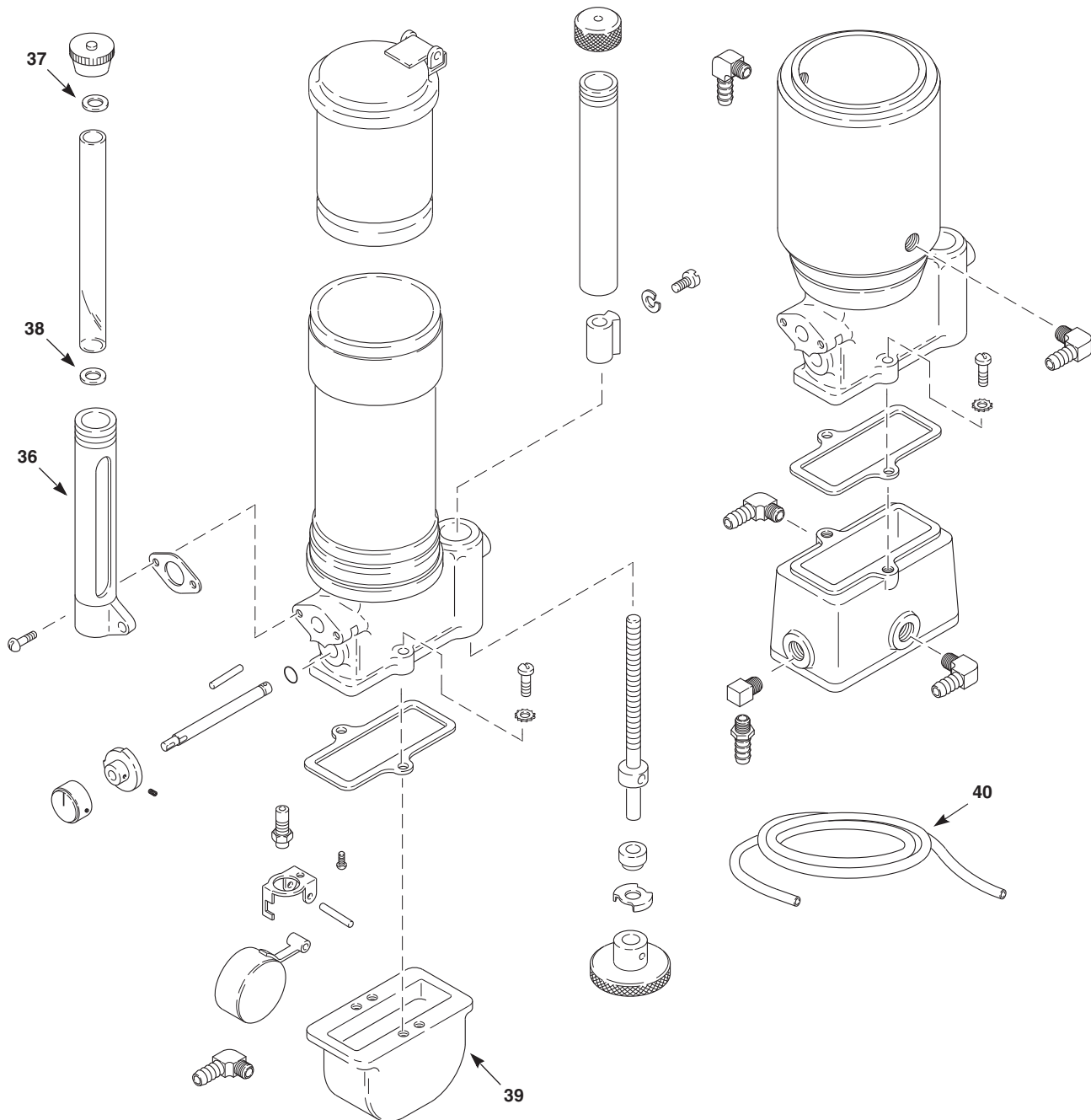
F-1 / F-2
CARBURETOR FUEL BOWLS, FUEL TANKS
GROUP 214

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	C75962H	1	Water-Cooled Bowl
2	111434A	4	Hose Fitting
3	111437A	4	Hose Fitting
4	A75964F	1	Water-Cooled Float Chamber
5	105061	4	Float Chamber Gasket
6	75552A	4	Float Gauge Body Gasket
7	B10168E	2	Street Elbow, 1/8"
8	21834	8	Screw, No. 10-24 x 1"
9	21606	8	Lock Washer, No. 10
10	75980B	4	Carburetor Fuel Valve Knob
11	111785	4	Carburetor Disc
12	26415A	4	Socket Head Set Screw, No. 8-32
13	75966E	4	Fuel Delivery Valve
14	211196C	4	O-Ring
15	48861B	4	Fuel Tank Dowel Pin
16	105058	4	Fuel Valve Assembly
17	106519	5	Screw, No. 8-32 x 1/4"
18	106517A	4	Hinge Pin
19	B3204	4	Carburetor Float
20	105059	4	Carburetor Float Hinge
21	105420	8	Screw, No. 10-24 x 1/2"
22	OO27848	4	Carburetor Fuel Tank Filter
23	75968	5	Carburetor Support Post Plug
24	75991	4	Spring Washer
25	111432A	2	Hose Fitting
26	111629A	4	Adjusting Knob
27	B5094	4	Fuel Gauge Tube
28	B5053A	4	Fuel Gauge Cover
29	75967	4	Carburetor Support Post
30	75973	4	Carburetor Support Post Cap
31	75972	4	Lift Pin
32	75970A	4	Carburetor Adjusting Nut, 5/16"
33	26855	4	Lock Washer, No. 12
34	A75978A	4	Adjusting Screw Assembly
35	A75962H	3	Carburetor Bowl

Continued

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

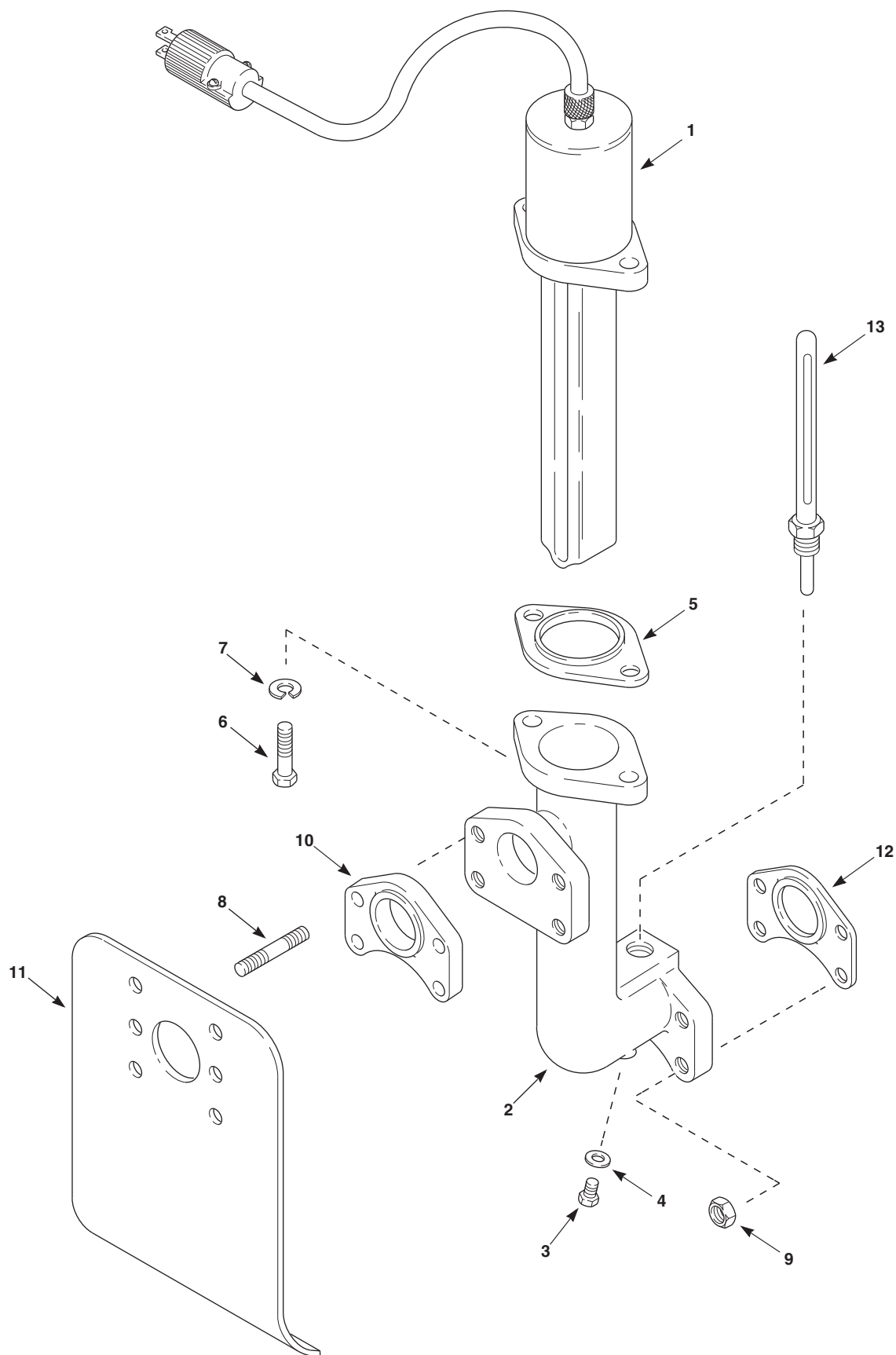


F-1 / F-2
CARBURETOR FUEL BOWLS, FUEL TANKS
GROUP 214

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
36	O75550A	4	Sight Gauge Body Assembly
37	B5068	4	Sight Gauge Tube Upper Gasket
38	B5052B	4	Sight Gauge Tube Lower Gasket
39	75964E	3	Non-Cooled Carburetor Float Chamber
40	441011	1	Bulk Tygon Tubing, 3/8" OD x 1/4" ID
ASSEMBLIES			
	AA75962H	1	Non-Cooled Bowl Assembly (Hose fitting on left side of float chamber) (Includes Items 1, 3, 5, 6, 8 – 19, 21, 22, 27, 28, 36 – 39)
	DA75962H	1	Non-Cooled Bowl Assembly (Hose fitting on right side of float chamber) (Includes all items in P/N AA75962H but Item 39 is mounted 180° from P/N AA75962H orientation with hose fitting on right side)
	CA75962H	1	Water-Cooled Bowl and Chamber Assembly (Hose fitting is located on right side of float chamber) (Includes Items 1, 3 – 6, 8 – 19, 21, 22, 27, 28, 36 – 38)
	OB5051C	1	Carburetor Sight Gauge Assembly (Includes Items 27, 28, 36 – 38)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

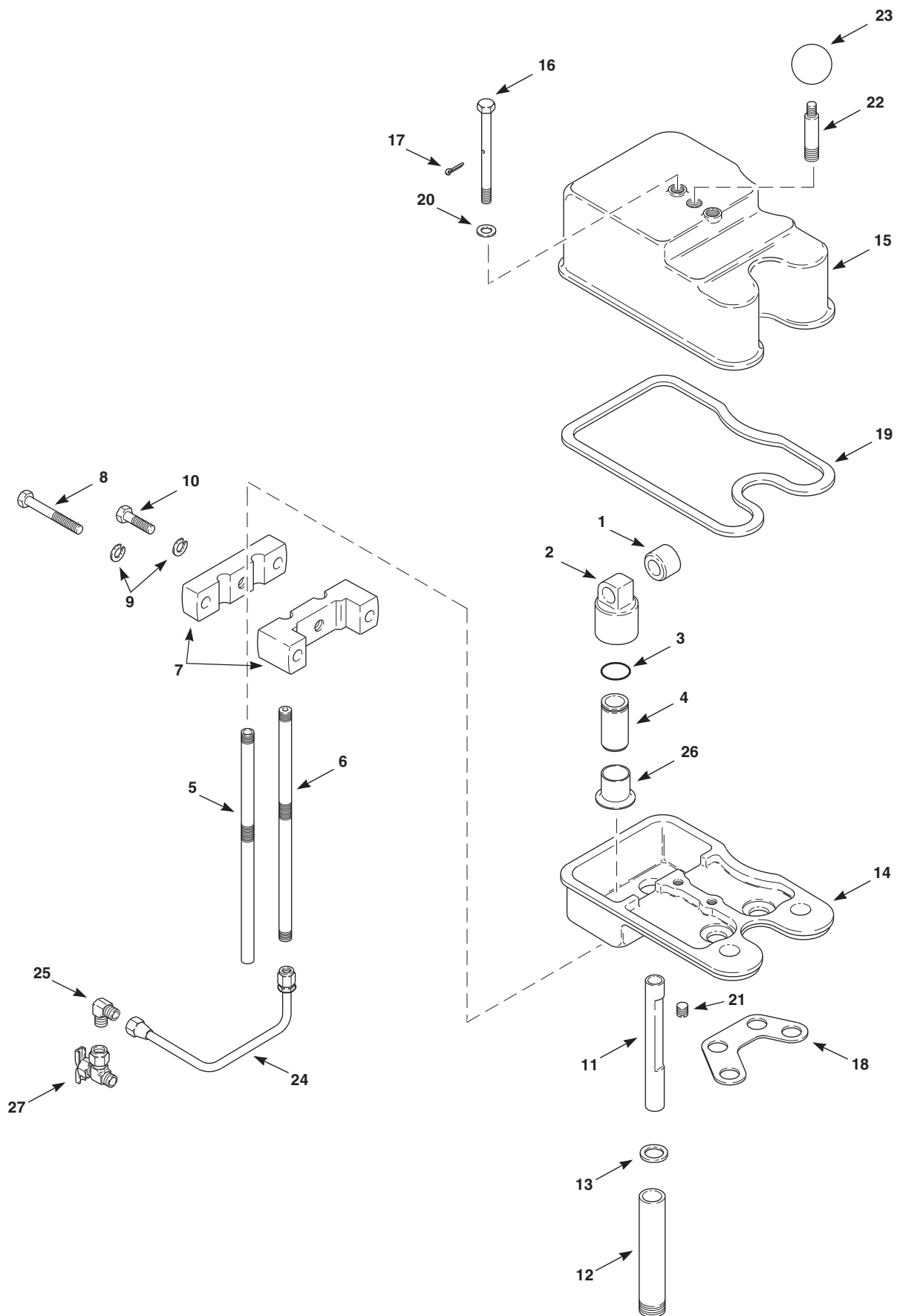


F-1 / F-2
INTAKE MANIFOLD, MANIFOLD HEATER
GROUP 41

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	106748H	1	Mixture Manifold Heater
2	A106747A	1	Intake Manifold
3	21376	1	Hex Head Capscrew, 3/8"–24 x 1/2"
4	BD190	1	Copper Thermistor Gasket
5	105991	1	Manifold Gasket
6	21315	2	Hex Head Capscrew, 5/16"–18 x 1-1/4"
7	21051	2	Lock Washer, 5/16"
8	105208	4	Carburetor Stud
9	21186	4	Hex Nut, 5/16"–24
10	109346	1	Carburetor Heater Gasket
11	75738	1	Carburetor Heater Shield
12	109345	1	Intake Manifold Gasket
13	O110351	1	Thermometer Assembly, 200 – 350° F (93 – 177° C)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



**F-1 / F-2
ROCKER ARM COVER
GROUP 1**

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	106923	1	Spacer
2	106924	2	Oil Seal Container
3	118013P	2	O-Ring
4	106926A	2	Oil Seal Retainer
5	106927	1	Rocker Arm Support
6	106928A	1	Rocker Arm Support
7	106931B	1	Rocker Arm Support Clamp
8	21405	2	Hex Head Capscrew, 7/16"–14 x 3"
9	21053	3	Lock Washer, 7/16"
10	21398	1	Hex Head Capscrew, 7/16"–14 x 1-1/2"
11	106932	2	Push Rod Tube
12	106933	2	Push Rod Adjusting Cover
13	106934	2	Oil Seal
14	106918B	1	Valve Gear Tray
15	106915A	1	Valve Gear Cover
16	109043	2	Rocker Arm Cover Screw
17	21057	2	Cotter Pin, 1/16" x 1/2"
18	106919	1	Gear Tray Gasket
19	106917A	1	Gear Cover Gasket
20	B2135	2	Plain Copper Washer, 5/16"
21	109026	2	Set Screw
22	109483	1	Stud (Handle)
23	109252A	1	Ball Handle
24	A110166A	1	Intermittent Oil Line
25	B3664	1	Union Elbow
26	109461	1	Intake Valve Guide Sleeve
27	73059B	1	Comp-Angle 3 x 2 Valve
ASSEMBLIES			
	O106918B	1	Valve Gear Tray Assembly (Includes Items 14 – 21)
	A106926A	1	Oil Seal Retainer Assembly (Includes Items 3 and 4)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.

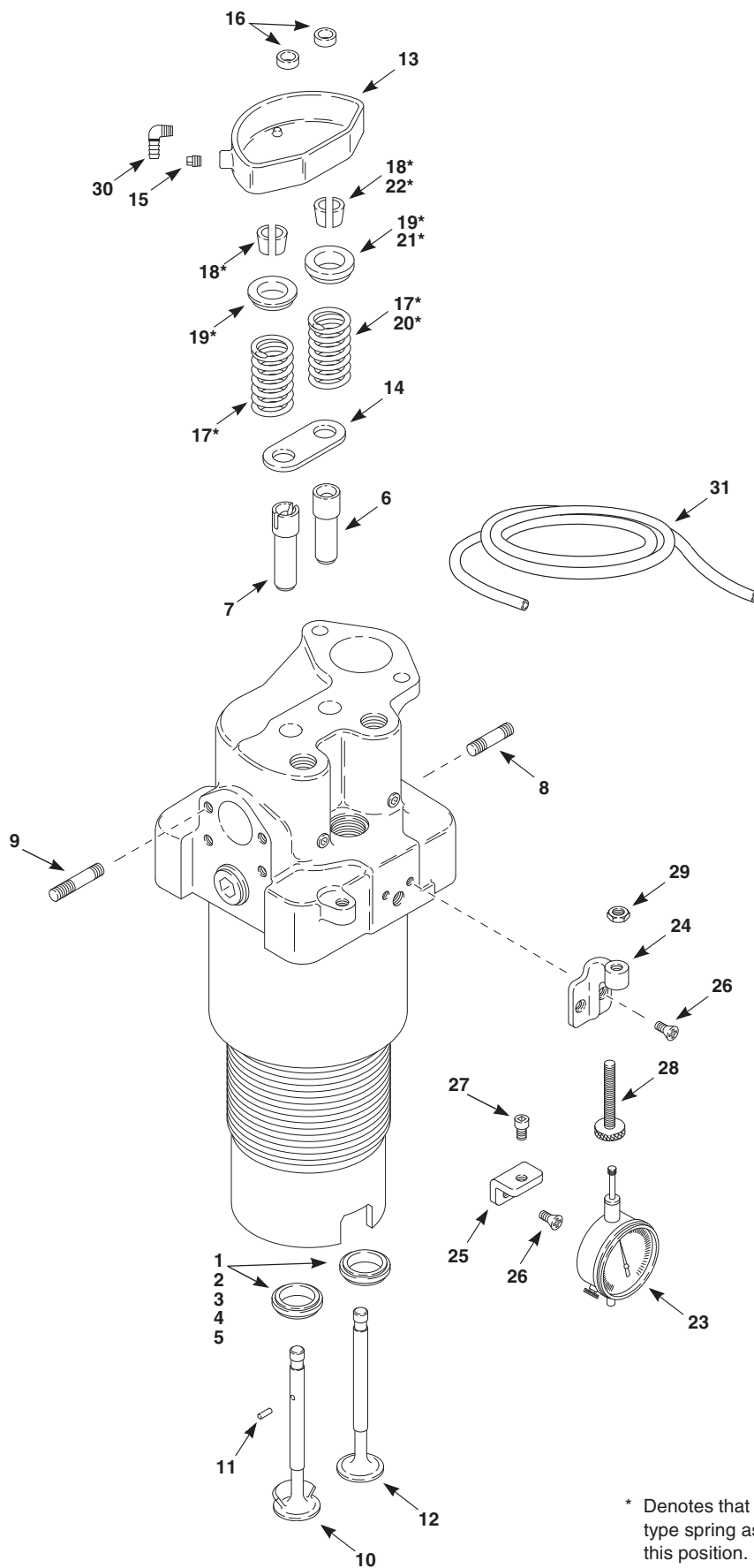


**F-1 / F-2
ROCKER ARMS
GROUP 1**

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	110159	2	Rocker Arm Carrier
2	23133	1	Rocker Arm Support
3	21431	2	Hex Head Capscrew, 1/2"-13 x 1-1/2"
4	21054	2	Lock Washer, 1/2"
5	Y18814K	2	Plain Washer, 1/2"
6	B5265	2	Rocker Arm Carrier Support
7	21227	2	Hex Jam Nut, 5/8"-18
8	23272B	2	Rocker Arm
9	106824	4	Needle Bearing
10	B8199C	2	Valve Adjusting Screw
11	78349B	2	Hex Nut, 5/16"-32
12	23043A	2	Valve Ball Socket
13	23043C	2	Socket Plug
14	23043D	2	Breather Moss
15	23043B	2	Rocker Arm Ball
16	109027	5	Rocker Arm Adjusting Lock Screw, 1/4"-20 x 1/2"
17	B2465	1	Rocker Arm Spring
18	106921	1	Rocker Arm Shaft
19	106922	1	Rocker Arm Shaft
20	Y18802	2	Slotted Pipe Plug, 1/8"
21	B5270A	2	Rocker Arm Support Shaft
22	21175	5	Thin Hex Nut, 1/4"-20
23	B5264	2	Variable Push Rod
24	B2653	2	Variable Push Rod End
25	21185	2	Hex Nut, 5/16"-24
			ASSEMBLIES
	OB5264	1	Push Rod Assembly (Includes Items 23 – 25)
	OO23272B	1	Rocker Arm Assembly (Includes Items 8 – 15)
	O23272B	1	Rocker Arm Assembly (Includes Items 8 and 9)
	O23043A	1	Rocker Arm Button Assembly (Includes Items 12 – 14)
	O23043	1	Rocker Arm Seat Assembly (Includes Items 12 – 15)
	A110159	1	Rocker Arm Carrier Assembly (Includes Items 1,16,18 – 22)
	O110159	1	Rocker Arm Carrier Assembly (Includes Items 1, 8 – 22)
	OO110159	1	Rocker Arm Carrier And Support Arm Assembly (Includes Items 1, 2, 6 – 22)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





* Denotes that either rotator or non-rotator type spring assemblies may be used in this position.

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2
VARIABLE COMPRESSION CYLINDER (GAS)
GROUP 1

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	105987A	2	Valve Seat Insert (Standard)
2	105987B	2	Valve Seat Insert (0.005" Oversize) (Service Only)
3	105987C	2	Valve Seat Insert (0.020" Oversize) (Service Only)
4	105987D	2	Valve Seat Insert (0.015" Oversize) (Service Only)
5	105987F	2	Valve Seat Insert (0.010" Oversize) (Service Only)
6	23109A	1	Exhaust Valve Guide
7	23109B	1	Intake Valve Guide
8	B2575	2	Exhaust Stud
9	105208	4	Intake Stud
10	23436A	1	Intake Valve
11	26800	1	Roll Pin, 1/8" x 5/8"
12	106625	1	Exhaust Valve
13	106420A	1	Valve Spring Cup
14	106424	1	Valve Spring Cup Gasket
15	78282A	1	Square Head Pipe Plug, 1/8"
16	B4680	2	Felt Washer
17	43335C	1	Valve Spring (Non-Rotator Type)
18	106523	2	Valve Spring Taper (Non-Rotator Type)
19	106407	1	Valve Spring Retainer (Non-Rotator Type)
20	109659	1	Valve Spring – Yellow Stripe (For Use With Rotators)
21	110165C	1	Valve Rotator
22	109658	2	Valve Spring Taper (For Use With Rotators)
23	110279	1	Dial Indicator
24	110349B	1	Micrometer Stop Bracket
25	110631A	1	Dual Micrometer Bracket
26	B5833	4	Flat Head Screw, 1/4"–20 x 1/2"
27	26030	1	Socket Head Capscrew, 1/4"–20 x 1/2"
28	111243	1	Adjusting Screw
29	21179	1	Thin Hex Nut, 1/4"–28
30	111434A	1	Hose Fitting
31	110455H	1	Bulk Tygon Tubing, 3/8" OD x 1/4" ID
			ASSEMBLIES
	O109657	1	Valve Rotator (Includes Items 20 – 22)

Continued

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



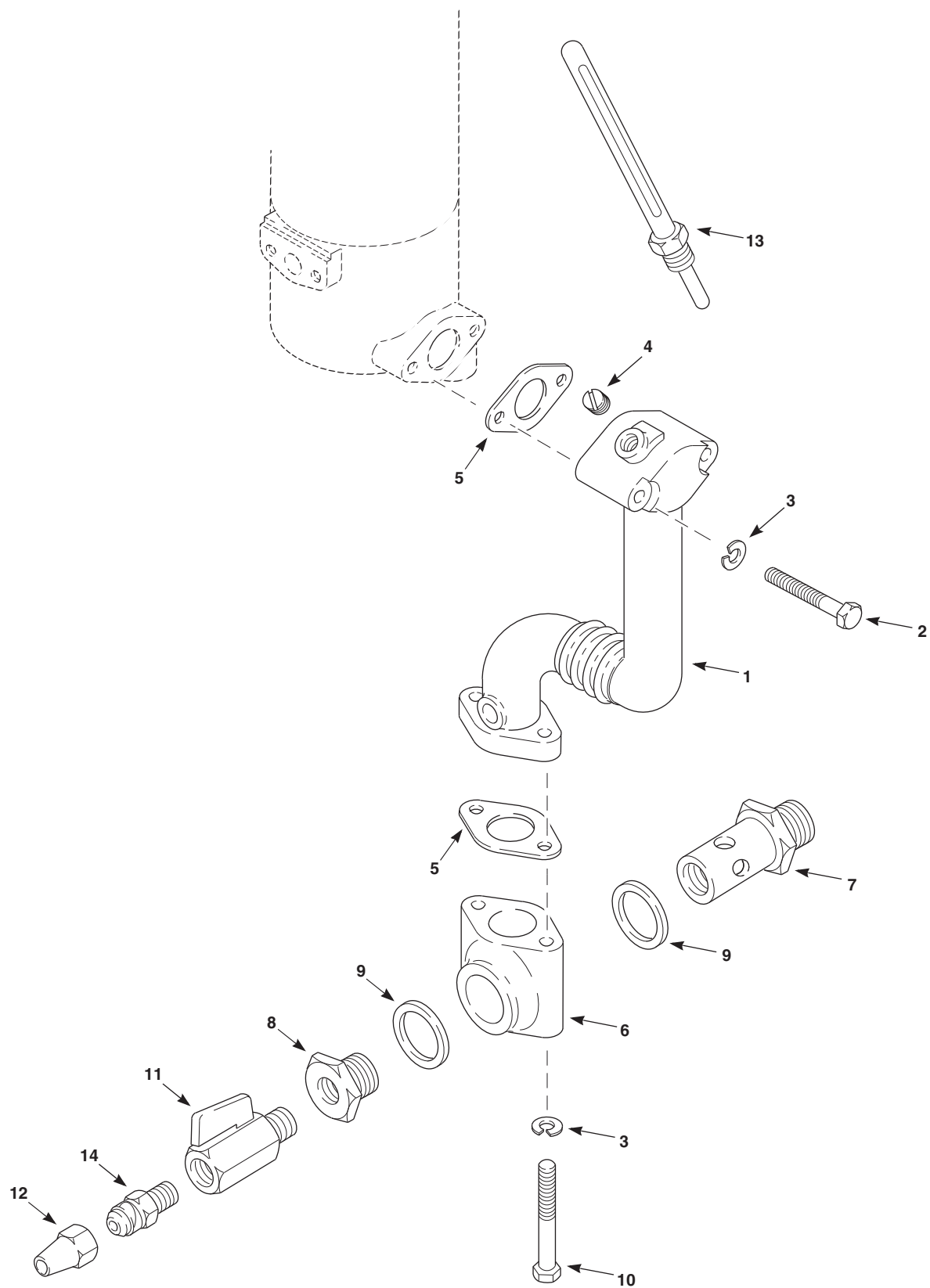


F-1 / F-2
VARIABLE COMPRESSION CYLINDER (GAS)
GROUP 1

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
32	FA109355	1	Cylinder Assembly
	• X109355	1	Cylinder Casting
	• 105987A	2	Standard Seat Insert
	• 23109A	1	Exhaust Valve Guide
	• 23109B	1	Intake Valve Guide
	• B2575	2	Exhaust Stud
	• 105208	4	Carburetor Stud
	• 23436A	1	Intake Valve
	• 26800	1	Roll Pin
	• 106625	1	Exhaust Valve
	• 106420A	1	Valve Spring Cup
	• 106424	1	Cup Gasket
	• 78282A	1	Square Head Pipe Plug
	• B4680	2	Felt Washers
	• 43335C	1	Valve Spring
	• 106523	2	Valve Tapers
	• 106407	1	Valve Spring Retainer
	• O109657	1	Roto-cap / Spring Assembly
	• AA23204G	1	Piston Assembly
	• 106222B	1	Standard Chrome Ring
	• 106222A	3	Standard Compression Ring
	• 23505	1	Standard Oil Ring

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

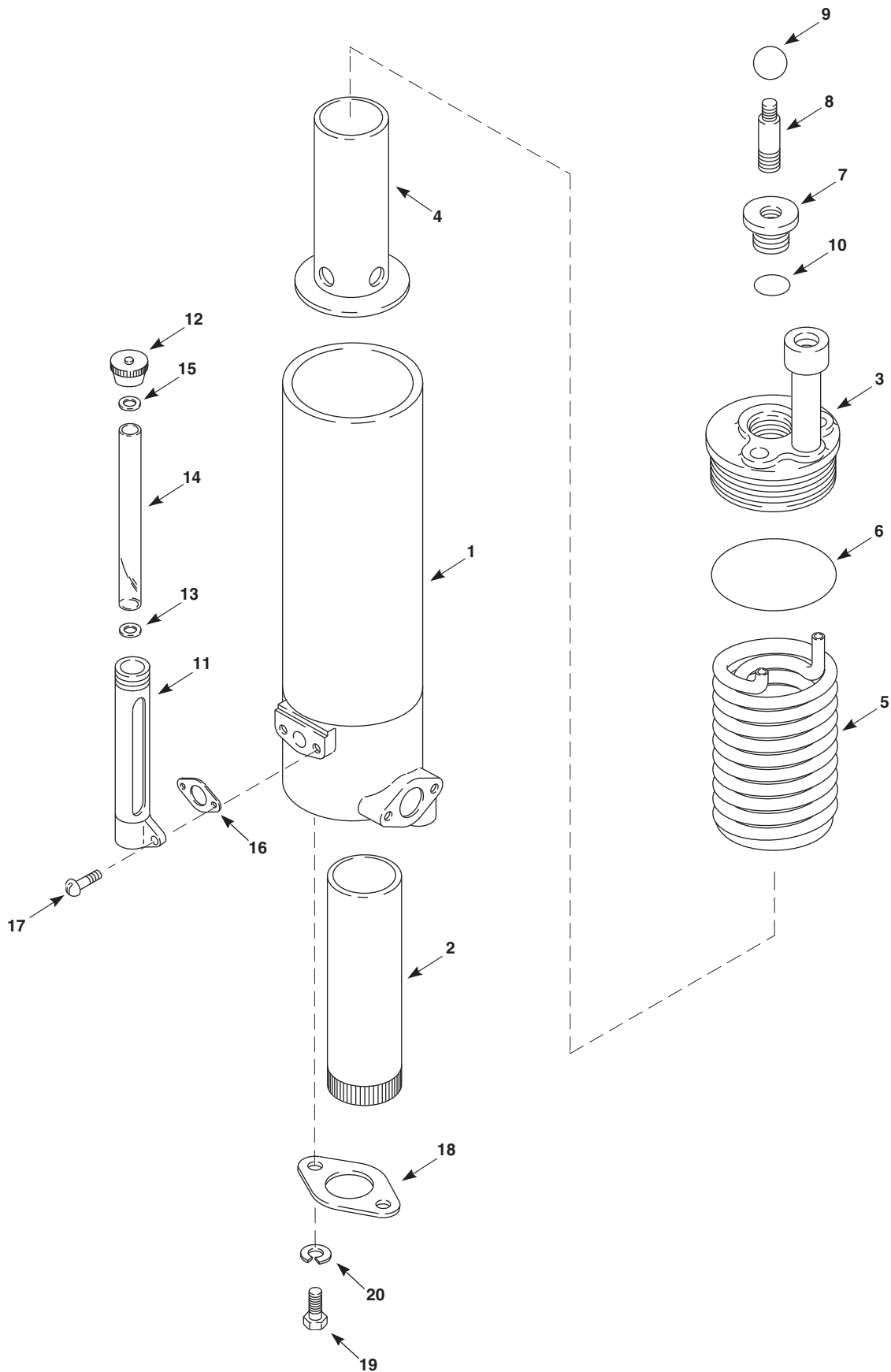


F-1 / F-2
CONDENSER WATER PIPE
GROUP 402

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	O109131B	1	Condenser Pipe Assembly
2	21291	2	Hex Head Steel Capscrew, 1/4"–20 x 2"
3	21050	4	Medium Lock Washer, 1/4"
4	B3104	1	Slotted Head Pipe Plug, Brass, 1/8"
5	B5096A	2	Water Pipe Gasket
6	109418	1	Water Pipe Inlet Body
7	109419	1	Water Inlet Screw
8	109420	1	Water Inlet Body Cap
9	109421	2	Water Inlet Cap Gasket
10	21294	2	Hex Head Capscrew, 1/4"–20 x 2-1/2"
11	211747	1	Ball Valve Drain
12	B5528	1	Union Nut
13	O105180	1	Water Jacket Thermometer Assembly
14	B5526	1	Union Connector
			ASSEMBLIES
	O109418	1	Water Pipe Inlet Assembly (Includes Items 6 – 9)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





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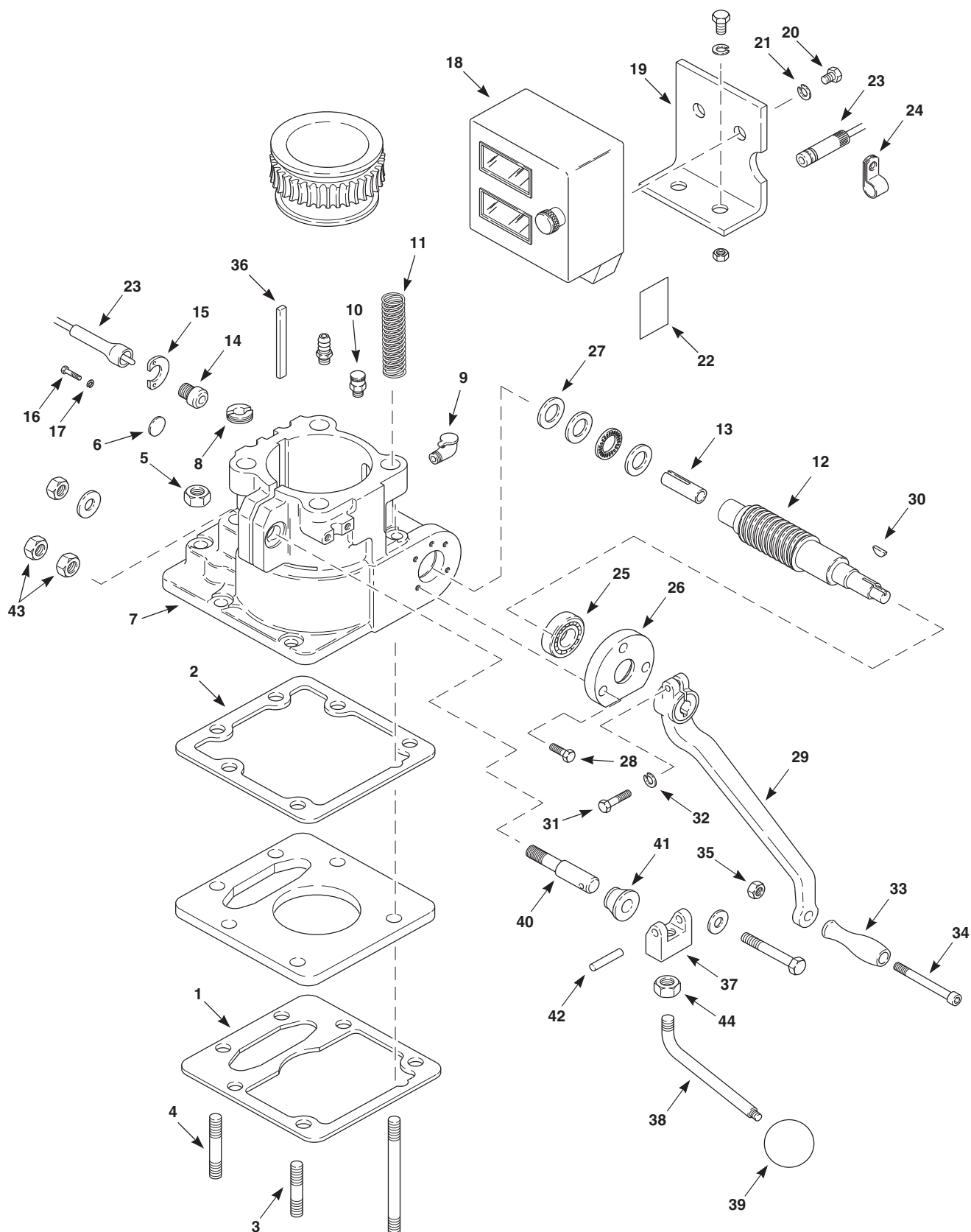


**F-1 / F-2
CONDENSER
GROUP 200**

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	109264A	1	Condenser Body Assembly
2	75680	1	Condenser Baffle Tube
3	109267A	1	Condenser Cover
4	A110414A	1	Baffle Tube
5	109973C	1	Condenser Coil
6	118013E	1	Condenser Cover O-Ring
7	109977	1	Filler Plug
8	109978	1	Filler Plug Stud
9	109979	1	Filler Plug Knob
10	118013M	1	Filler Plug O-Ring
11	O75550	1	Condenser Body Gauge
12	B5053A	1	Condenser Gauge Cover
13	B5052A	1	Condenser Gauge Lower Washer
14	B5094	1	Glass Condenser Gauge Tube
15	B5068	1	Condenser Gauge Upper Washer
16	75552A	1	Condenser Gauge Gasket
17	105420	2	Round Head Screw, No. 10–24 x1/2"
18	75690	1	Condenser Body Gasket
19	21313	2	Hex Head Capscrew, 5/16"–18 x 1"
20	21051	2	Lock Washer, 5/16"
ASSEMBLIES			
	A109264A	1	Condenser Body Assembly (Includes Items 1 and 2)
	A109267C	1	Condenser Coil Assembly (Includes Items 3 – 5)
	O109264C	1	Coolant Condenser Assembly (Includes Items 1 – 17)
	OB5051B	1	Coolant Condenser Gauge Assembly (Includes Items 11 – 17)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



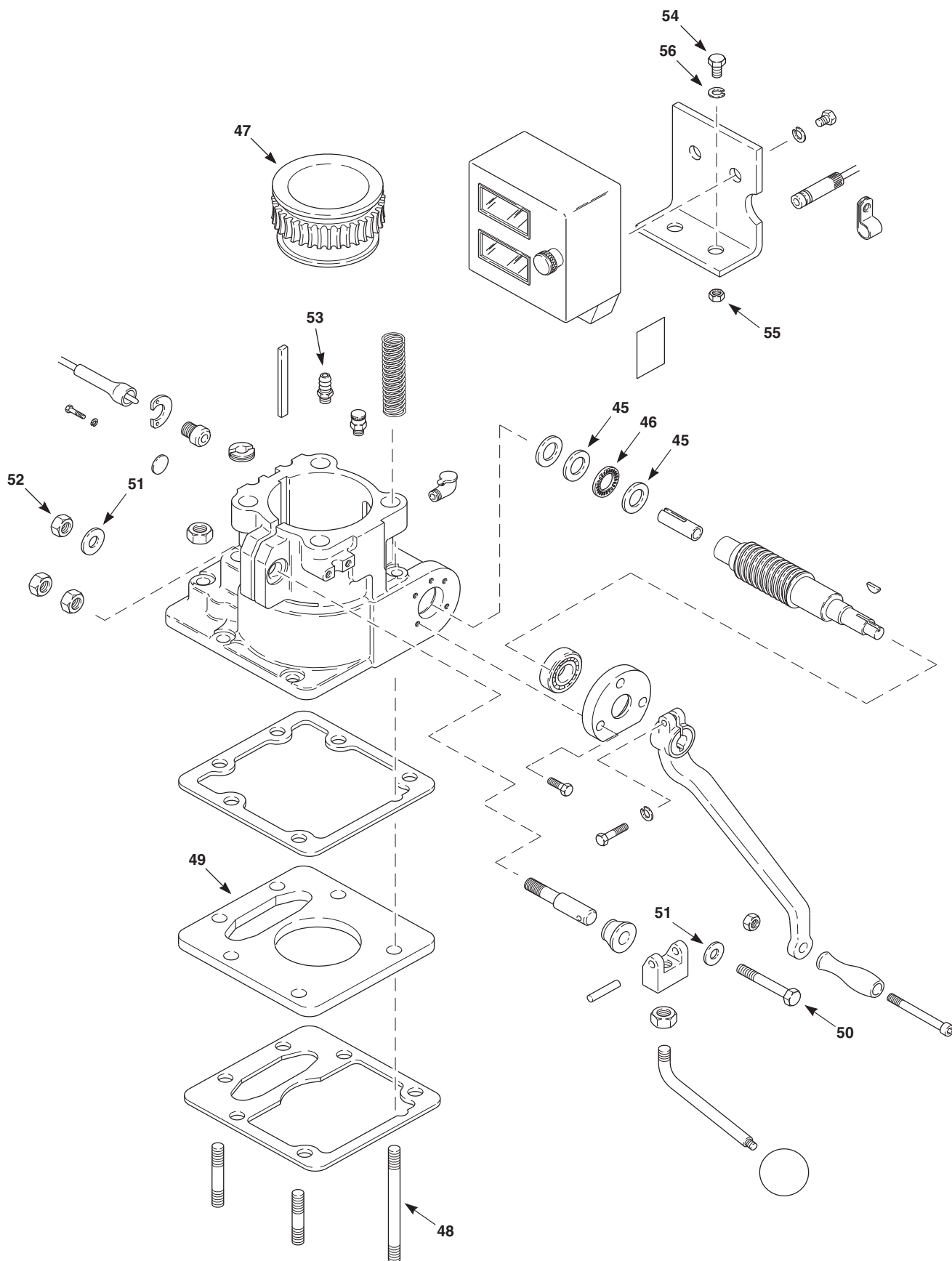
F-1 / F-2
CYLINDER SLEEVE
GROUPS 20, 30, 421

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	106721	1	Lower Cylinder Base Gasket
2	B2544	1	Upper Cylinder Base Gasket
3	B839	2	Cylinder Head Stud, 2-3/16"
4	B5764	2	Cylinder Head Stud, 2-7/8"
5	105361	5	Cylinder Head Nut, 7/16"
6	B432	1	Expansion Plug, 1/2"-20 x 5/8"
7	23192D	1	Cylinder Sleeve
8	109126	2	Cylinder Sleeve Screw Plug
9	B5314	1	Oil Cup
10	B5445	1	Oil Cup
11	B5268	4	Cylinder Sleeve Spring
12	23073A	1	Worm Shaft
13	110510	1	Flexible Drive Adapter
14	110508	1	Drive Housing (For Use With CR Motor)
15	110511	1	Flexible Drive Housing Clamp (For CR Motor)
16	21543	2	Socket Head Capscrew, 1/4"-20 x 1"
17	21050	2	Lock Washer, 1/4"
18	110514A	1	Digital Counter
19	211486	1	Counter Mounting Bracket
20	75556	2	Hex Head Capscrew, 3/8"-16 x 3/4"
21	21729	2	Medium Lock Washer, 3/8"
22	110517	1	Instruction Plate
23	110513A	1	Flexible Drive Shaft
24	953027F	1	Cable Hanger
25	B5431	1	Ball Bearing
26	B5398	1	Worm Shaft Bearing Retainer
27	105041	6	Worm Shaft Shim
28	21414	3	Hex Head Capscrew, 5/16"-18 x 3/4"
29	110529B	1	Crank Lever
30	21009	1	Woodruff Key, No. 11
31	21317	1	Hex Head Capscrew, 5/16"-18 x 1-1/2"
32	21051	1	Lock Washer, 5/16"
33	B2788A	1	Handle
34	B2786A	1	Handle Screw
35	21189	1	Hex Nut, 3/8"-16
36	B2682	1	Cylinder Key
37	109010A	1	Clamping Cam
38	109011C	1	Clamping Cam Handle
39	109252A	1	Clamping Cam Handle Ball
40	109009A	1	Clamp Bolt
41	109383	1	Cam Washer
42	117160	1	Dowel Pin
43	109380	2	Hex Jam Nut, 9/16"-18
44	109384	1	Hex Jam Nut, 1/2"-13

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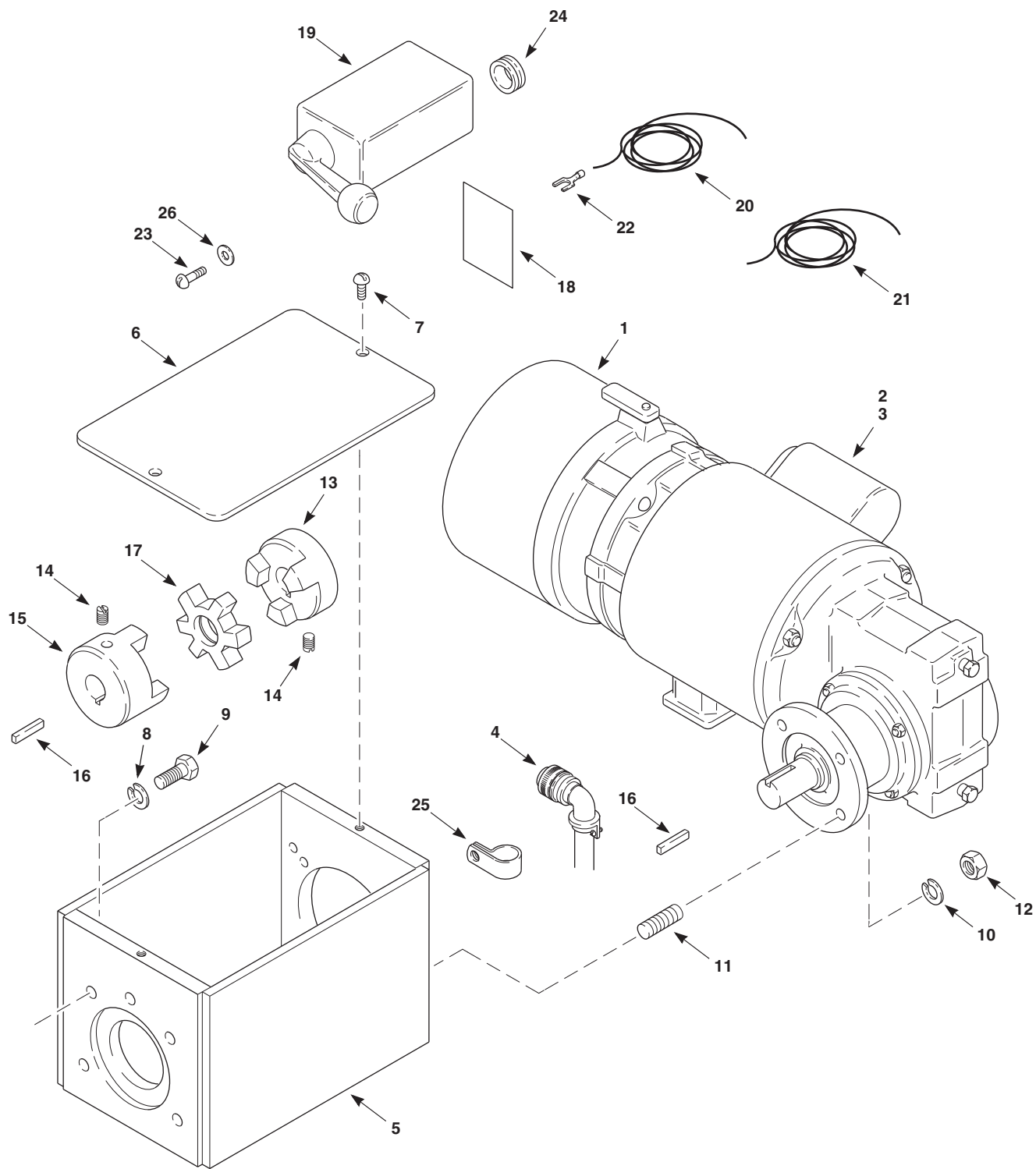


**F-1 / F-2
CYLINDER SLEEVE
GROUPS 20, 30, 421**

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
45	111225	2	Race Thrust Bearing (For Use With CR Motor)
46	111226	1	Needle Bearing (For Use With CR Motor)
47	23059B	1	Cylinder Worm Wheel
48	B364D	1	Cylinder Head Stud, 5-7/16"
49	23065B	1	Cylinder Guide Plate
50	21480	1	Hex Head Capscrew, 5/8"–18 x 2-1/4"
51	152879	2	Plain Washer, 5/8"
52	21225	1	Hex Nut, 5/8"–18
53	111435A	1	Hose Fitting
54	21274	2	Hex Head Capscrew, 1/4"–20 x 5/8"
55	21174	2	Hex Nut, 1/4"–20
56	21536	2	Medium Lock Washer, 1/4"
ASSEMBLIES			
	C23192D	1	Cylinder Sleeve Assembly (Includes Items 6 and 7)
	A23073A	1	Worm Shaft Assembly (Includes Items 12 and 13)
	A110514A	1	Digital Counter Assembly (Includes Items 18 – 22)
	O109010B	1	Clamping Cam Assembly (Includes Items 37 – 44)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

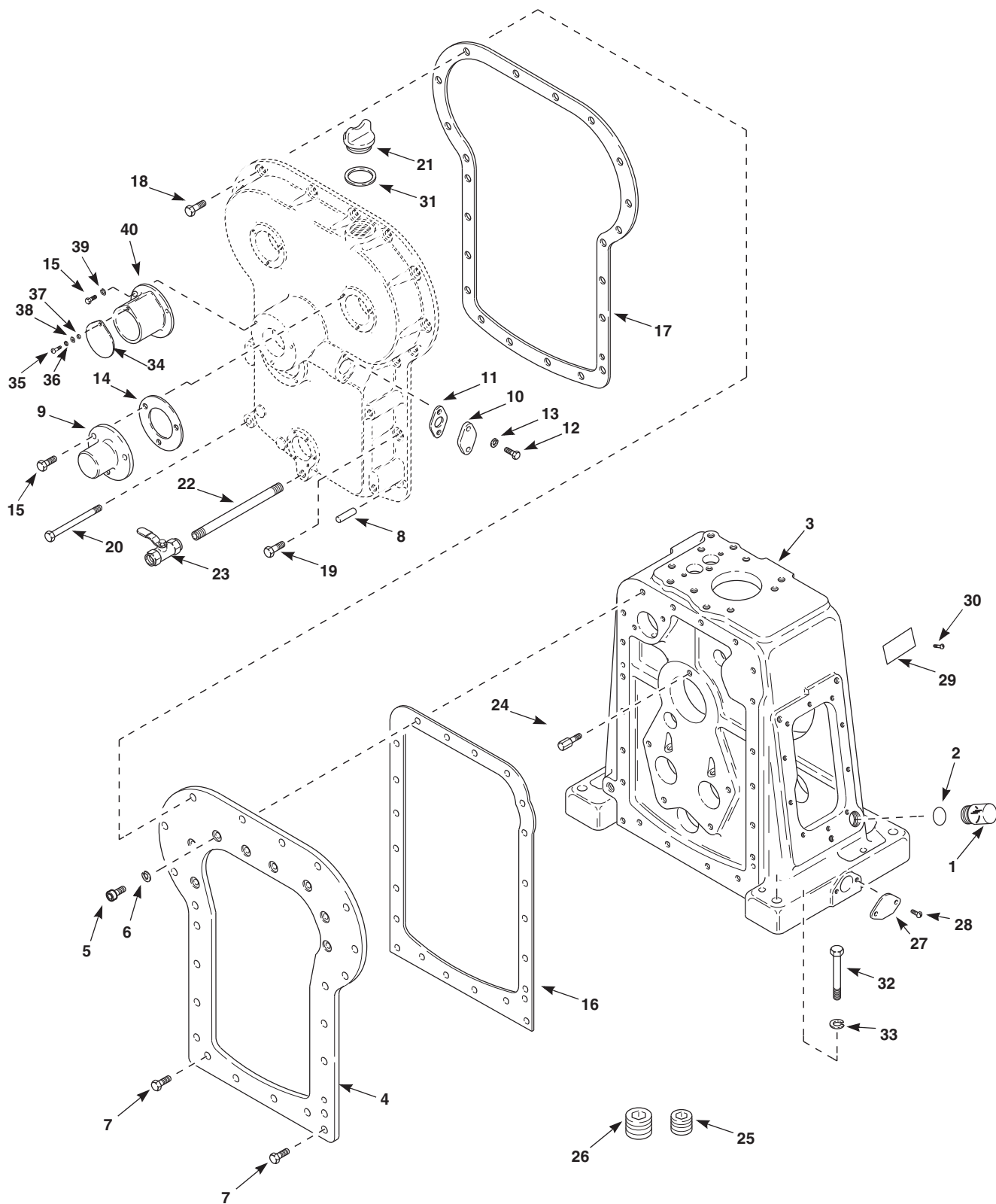


F-1 / F-2
MOTORIZED COMPRESSION RATIO CHANGER
GROUP 421

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A111242D	1	Compression Ratio Motor Changer Assembly
2	56149	2	Capacitor, Reliance Motor (Not Illustrated)
3	56149A	2	Capacitor, Baldor Motor (Not Illustrated)
4	F110122R	1	Compression Ratio Changer Cable
5	111240	1	Compression Ratio Changer Bracket
6	111241	1	Compression Ratio Changer Bracket Cover
7	21087	2	Round Head Screw, No. 8-32 x 1/4"
8	21051	5	Lock Washer, 5/16"
9	21313	5	Hex Head Capscrew, 5/16"-18 x 1"
10	21050	4	Lock Washer, 1/4"
11	39110C	4	Stud
12	21177	4	Hex Nut, 1/4"-28
13	110625A	1	Coupling Hub
14	21692	2	Socket head Set Screw - Cup Point, 1/4"-20 x 3/8"
15	110509	1	Hub Coupling
16	44408D	2	Square Key, 3/16" x 3/4"
17	41162A	1	Spider Coupling
18	110507	1	Instruction Plate
19	110518	1	Drum Reverse Switch
20	151378Q	1	Stranded Copper Wire, No. 14 x 144" (Blue)
21	151377J	1	Stranded Copper Wire, No. 14 x 31" (White)
22	Y19247	16	Wire Terminal, No. 14, 18 AWG
23	21889	2	Round Head Screw, No. 8-32 x 1/2"
24	163164	1	Grommet
25	953027F	1	Nylon Cable Hanger
26	111690A	2	Nylon Washer, No. 8

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





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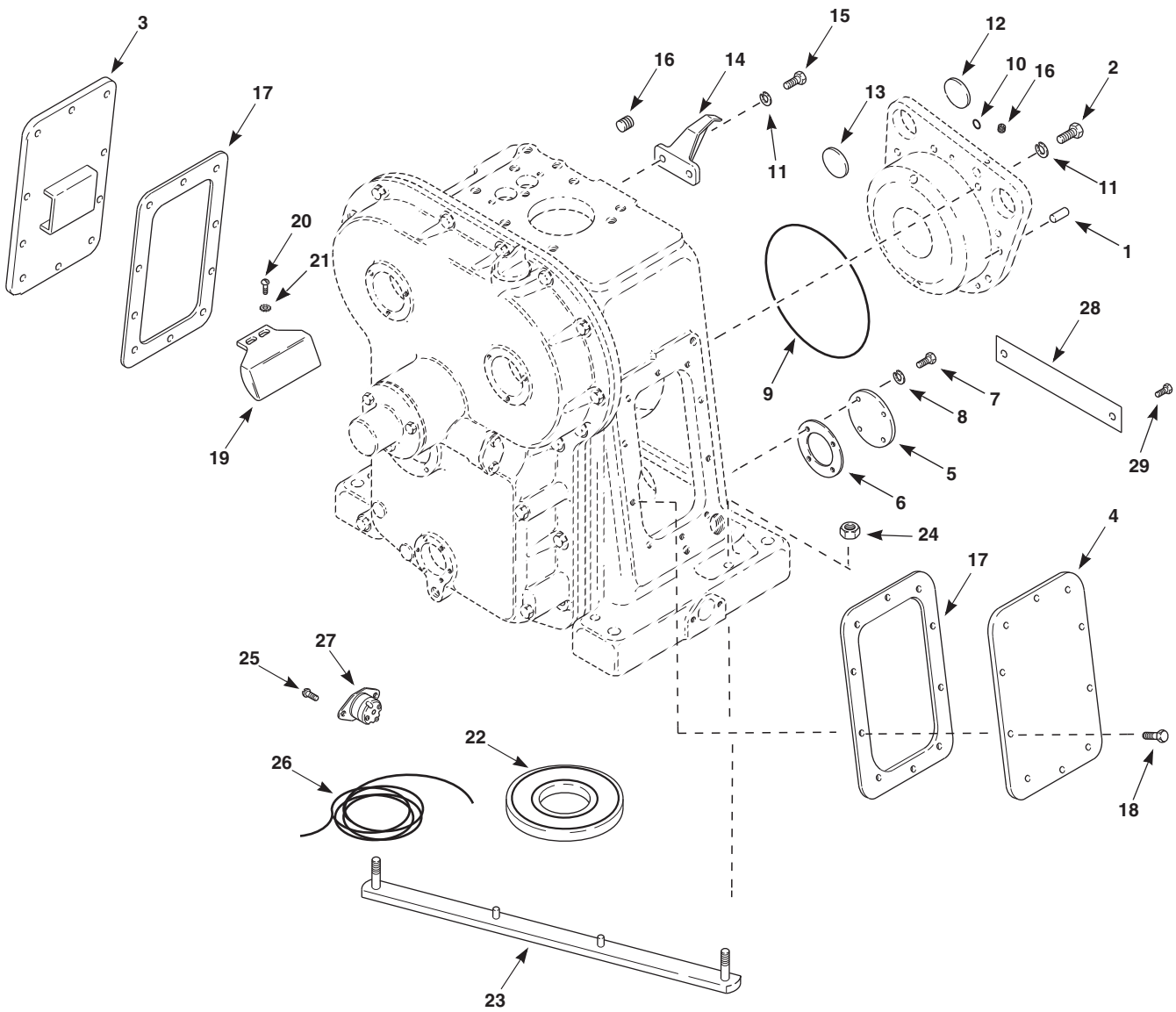


F-1 / F-2
CRANKCASE
GROUPS 3, 20, 212

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	109803	1	Oil Sight Gauge
2	118013M	1	Oil Sight Gauge O-Ring
3	K109520D	1	Crankcase Assembly
4	109513A	1	Front Cover Backing Plate
5	21754	8	Fillister Head Capscrew, 3/8"-16 x 7/8"
6	26144	8	External Countersunk Lock Washer, 3/8"
7	21346	2	Hex Head Capscrew, 3/8"-16 x 7/8"
8	110231	2	Dowel Pin, 3/8" x 1-1/4"
9	109615	1	Camshaft Hole Cover
10	B5436	1	Tachometer Hole Cover
11	B2543	1	Tachometer Hole Gasket
12	B5829	2	Hex Head Capscrew, 5/16"-18 x 3/4"
13	21051	2	Lock Washer, 5/16"
14	109616	1	Camshaft Hole Cover Gasket
15	B5834	6	Hex Head Capscrew, 1/4"-20 x 5/8"
16	109571A	1	Front Plate Gasket
17	109570	1	Front Gear Cover Gasket
18	109410	10	Hex Head Capscrew, 3/8"-24 x 7/8"
19	109323	8	Hex Head Capscrew, 3/8"-16 x 1-3/8"
20	28801	4	Hex Head Capscrew, 3/8"-16 x 3-3/4"
21	B4296A	1	Oil Filler Cap
22	73654S	1	Pipe Nipple, 1/2" x 8"
23	116880C	1	Ball Valve
24	109621	1	Timing Gear Jet
25	Y18802	16	Allen Head Pipe Plug, 1/8"
26	106343	11	Allen Head Pipe Plug, 1/4"
27	109627A	1	Oil Heater Hole Cover
28	26005	2	Round Head Screw, No. 6-32 x 5/16"
29	105001A	1	Engine Nameplate
30	B557B	2	Nameplate Pin
31	176412	1	Oil Filler Gasket
32	21473	4	Hex Head Capscrew, 3/4"-11 x 1-1/2"
33	21055	4	Washer, 5/8"
34	111207A	1	Crankshaft Guard Cover
35	26051	1	Round Head Screw, No. 10-24 x 5/8"
36	26420	1	Lock Washer, No. 10-3/16"
37	152452D	1	Cover Spacer
38	Y18814E	1	Flat Washer, No. 10-3/16"
39	21050	3	Medium Lock Washer, 1/4"
40	110533C	1	Crankshaft Guard

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ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

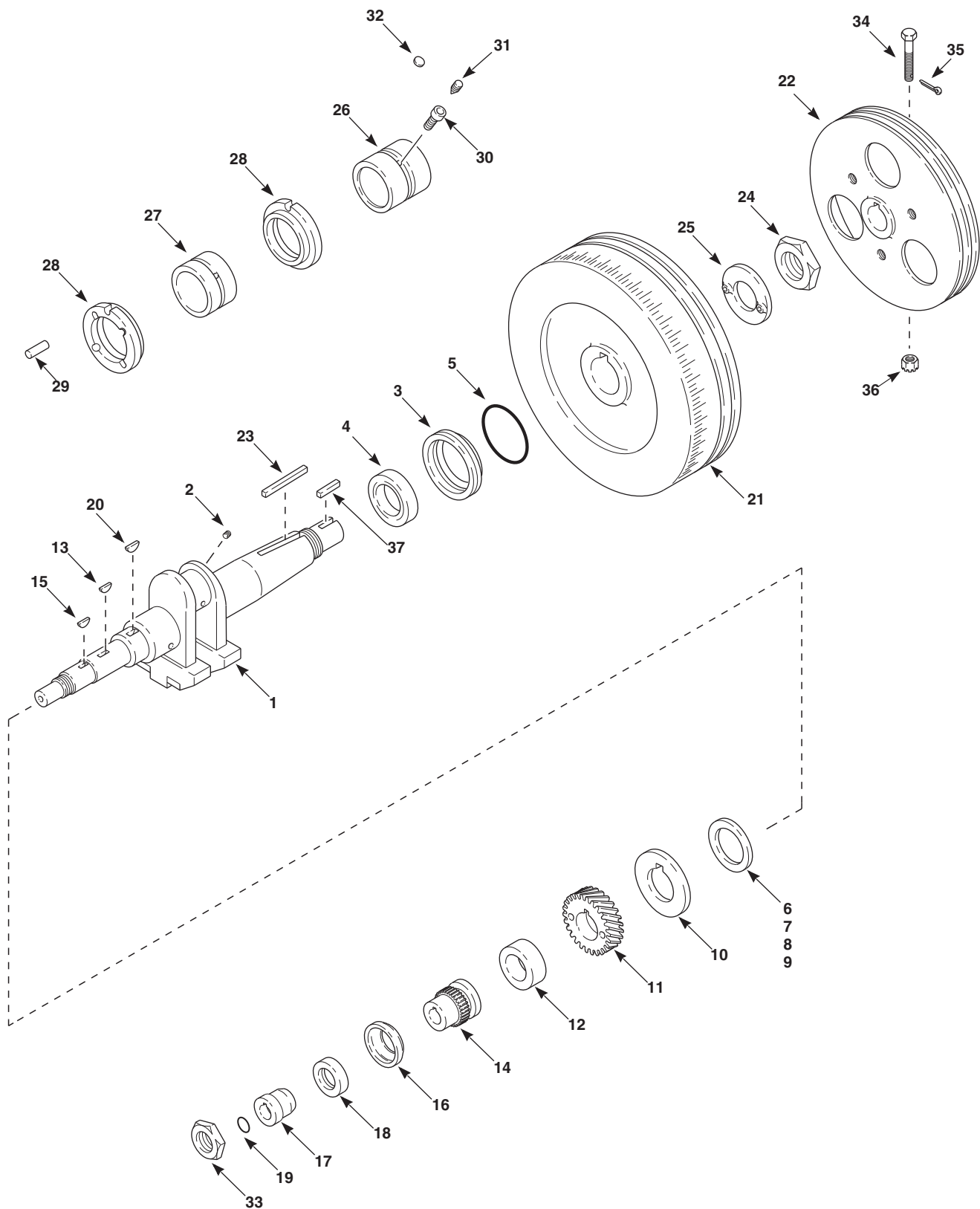


F-1 / F-2
CRANKCASE DOORS, HEATER, ADAPTER BEARING
GROUPS 20, 409

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	44083	2	Dowel Pin, 1/2" x 1-1/8"
2	21354	8	Hex Head Capscrew, 3/8"-16 x 1-3/8"
3	109610	1	Crankcase Door Left (With Breather Baffle)
4	109609	1	Crankcase Door Right
5	109521	2	Balancing Shaft Cover Plate
6	109522	2	Cover Plate Gasket
7	21273	8	Hex Head Capscrew, 1/4"-20 x 5/8"
8	21050	8	Lock Washer, 1/4"
9	168922F	1	Rear Adapter O-Ring
10	109590	1	Oil Pressure Seal
11	21052	10	Lock Washer, 3/8"
12	3337	2	Brass Expansion Plug, 2"
13	B6417	2	Brass Expansion Plug, 1-3/4"
14	109574A	1	Flywheel Indicator
15	21346	2	Hex Head Capscrew, 3/8"-16 x 7/8"
16	Y18802	2	Allen Head Pipe Plug, 1/8"
17	109612	2	Crankcase Door Gasket
18	B5832	20	Hex Head Capscrew, 3/8"-16 x 1"
19	109636	1	Baffle
20	21089	2	Round Head Screw, No. 8-32 x 3/8"
21	21604	2	External Shake-Proof Washer, 3/8"
22	B3109A	1	Dual Element Crankcase Oil Heater
23	A111621	1	Oil Heater Bar Assembly
24	28311	2	Stainless Steel Hex Nut, 3/8"-24
25	21660	2	Round Head Screw, No. 6-32 x 1/4"
26	111623	1	Wire, No. 14, 40"
27	111473	1	Electrical Receptacle
28	111783	1	Crankcase Heater Cover
29	21116	2	Round Head Capscrew, 1/4"-20 x 3/8"

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

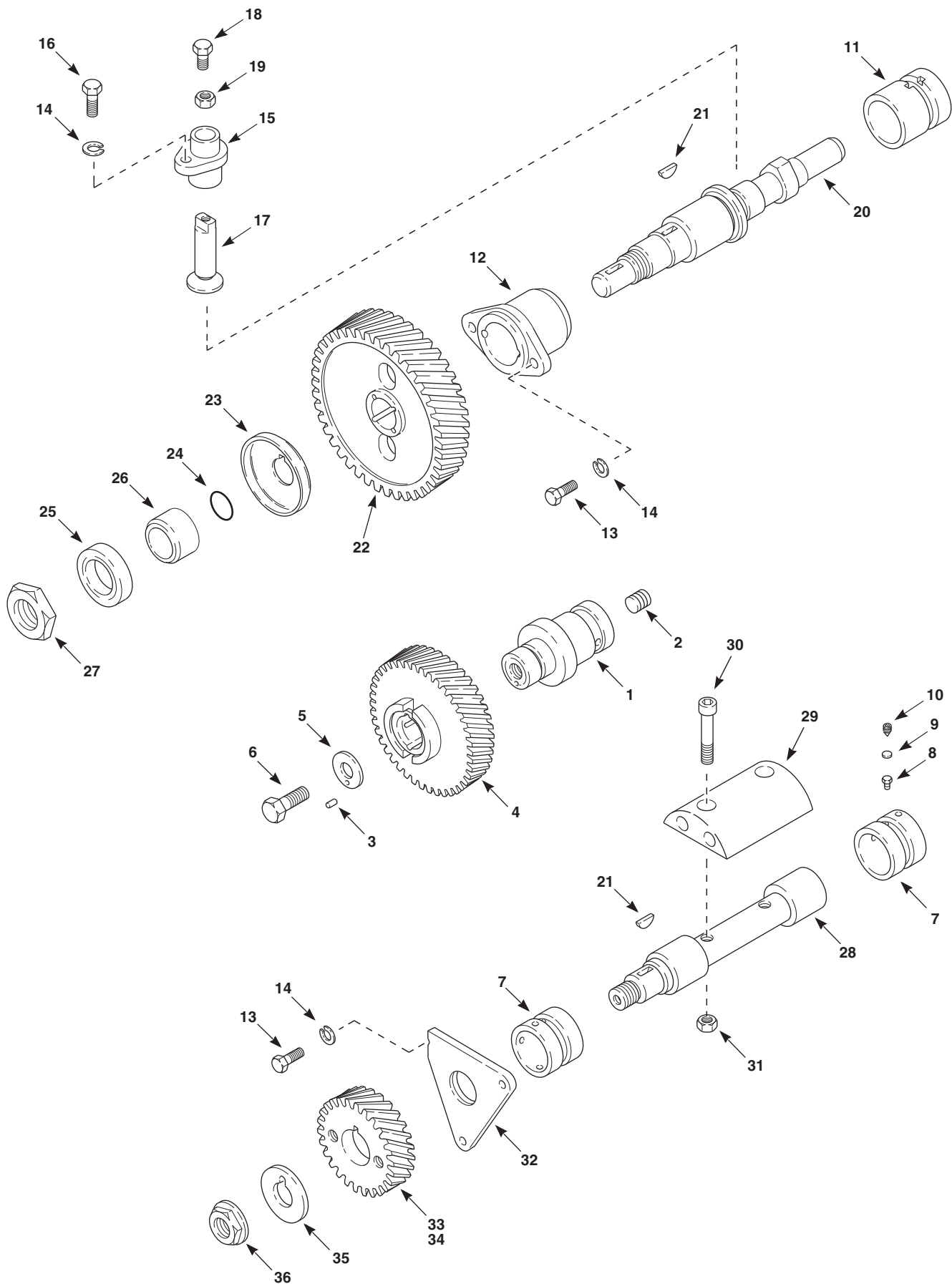


F-1 / F-2
CRANKSHAFT, FLYWHEEL
GROUPS 11, 13, 20

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A109511H	1	Crankshaft Assembly
2	Y18802	1	Allen Head Pipe Plug, 1/8"
3	110149	1	Oil Seal Retainer
4	110148	1	Oil Seal
5	118013F	2	Seal Carrier O-Ring
6	109546	1	Shim, Crankshaft Thrust (0.050")
7	109546A	6	Shim, Crankshaft Thrust (0.010")
8	109546B	3	Shim, Crankshaft Thrust (0.003")
9	109546C	2	Shim, Crankshaft Thrust (0.002")
10	109543	1	Crankshaft Thrust Washer
11	109512	1	Crankshaft Gear
12	109555	1	Vertical Drive Gear Spacer
13	21014	1	Woodruff Key, No. 18
14	23039	1	Tachometer Drive Gear
15	21006	1	Woodruff Key, No. 8
16	110248	1	Oil Thrower
17	110177A	1	Oil Seal Spacer
18	110158	1	Front Cover Oil Seal
19	211196	1	Oil Seal Spacer O-Ring
20	110669	1	Crank Gear Key
21	109501H	1	Flywheel (For Applications Below 1800 rpm)
22	110133	1	Flywheel Pulley (For 60 Hz Combination Unit)
	110151	1	Flywheel Pulley (For 50 Hz Combination Unit)
23	109575	1	Flywheel Key
24	109576	1	Flywheel Nut
25	109577	1	Flywheel Nut Lock
26	109618	1	Rear Main Bearing
27	109542	1	Front Main Bearing
28	109541	2	Thrust Plate
29	26737	2	Dowel Pin, 3/16" x 5/8"
30	109625A	2	Bushing Lock Screw
31	21720	2	Socket Head Set Screw Cup Point, 1/4"-20 x 1/4"
32	109633	2	Lock Screw Gasket
33	B2674	1	Front Crankshaft Nut, 1"-20 x 3/8"
34	21433	2	Hex Head Capscrew, 1/2"-13 x 3-1/4" (For Use With Item 22)
35	21503	2	Cotter Pin (For Use With Item 22)
36	21600	2	Castle Nut, 1/2"-20 (For Use With Item 22)
37	B9433	1	Key, 3/8" x 1-3/4" (For Use With Item 22)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



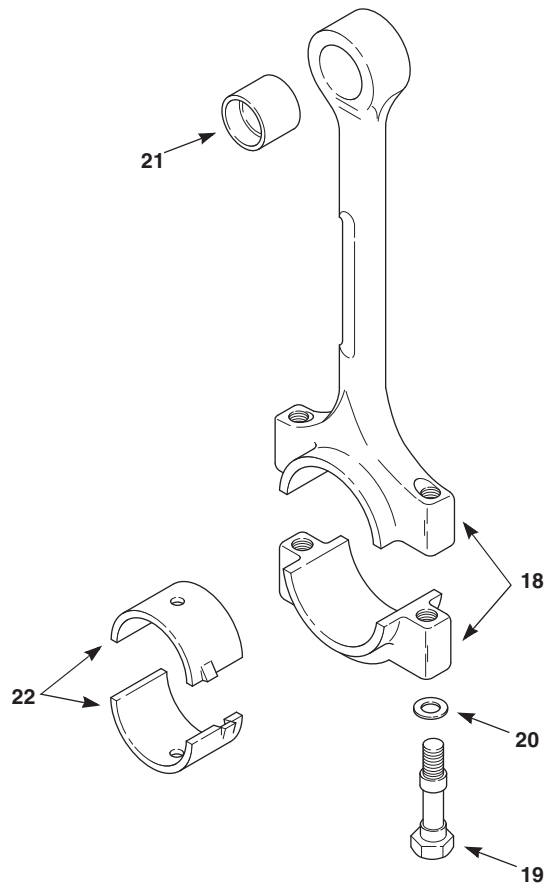
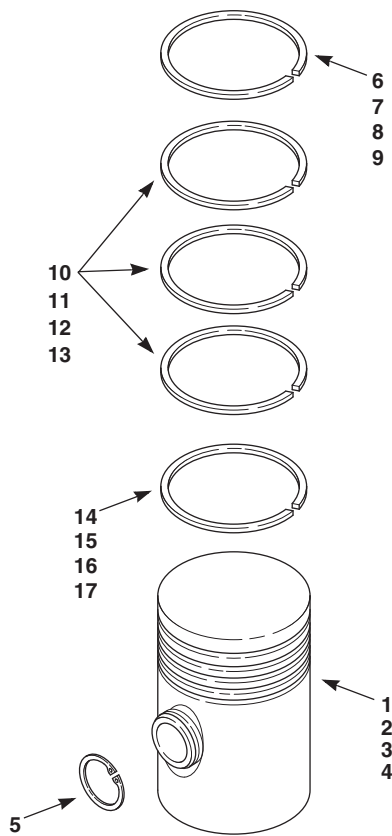
F-1 / F-2

**CAMSHAFT, VALVE LIFTER, IDLER GEAR, BALANCING SHAFT
GROUPS 15, 20, 23, 412**

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	109530A	1	Idler Gear Shaft
2	Y18802	1	Allen Head Pipe Plug, 1/8"
3	B3884	1	Pin
4	O109531X	1	Idler Gear Assembly
5	109535A	1	Idler Gear Thrust Washer
6	111251	1	Self Locking Capscrew
7	109624	4	Balancing Shaft Bushing
8	109626A	6	Bushing Lock Screw, 1/4"-20 x 1/2"
9	109633	5	Lock Screw Gasket
10	21720	6	Socket Head Set Screw Cup Point, 1/4"-20 x 1/4"
11	109619	1	Rear Camshaft Bushing
12	109608	1	Front Camshaft Bushing
13	21309	7	Hex Head Capscrew, 5/16"-18 x 3/4"
14	21051	9	Lock Washer, 5/16"
15	109518	2	Valve Lifter Guide
16	21312	2	Hex Head Capscrew, 5/16"-18 x 7/8"
17	O109519	2	Valve Lifter Assembly
18	B4681	2	Valve Lifter Adjusting Screw
19	7721B	2	Adjusting Screw Nut
20	109583B	1	Camshaft
21	21006	3	Woodruff Key, No. 8
22	109526	1	Camshaft Gear
23	110248	1	Oil Thrower
24	211196	1	Oil Sleeve O-Ring
25	110158	1	Oil Seal
26	110174	1	Oil Seal Sleeve
27	111372	1	Camshaft Nut
28	109510A	2	Balancing Shaft
29	109565A	2	Counterweight Balancing Shaft
30	109566	4	Counterweight Screw, 1/2"-20 x 2-7/16"
31	177382A	4	High Tensile Elastic Stop Lock Nut, 1/2"-20
32	109503A	2	Thrust Plate
33	109622	1	Balancing Drive Gear – LH (Facing Front Cover)
34	109514Z	1	Balancing Drive Gear – RH (Facing Front Cover)
35	109579	2	Balancing Shaft Lock Washer
36	B2674	2	Hex Nut, 1"-20 x 3/8"

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2
PISTON, CONNECTING ROD
GROUPS 4, 7

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1*	AA23204G	1	Piston Assembly (Standard)
2*	AA23204G1	1	Piston Assembly (0.010" Oversized)
3*	AA23204G2	1	Piston Assembly (0.020" Oversized)
4*	AA23204G3	1	Piston Assembly (0.030" Oversized)
5	44999J	2	Piston Pin Retainer
6	106222B	1	Chrome Ring (Standard)
7	106222B1	1	Chrome Ring (0.010" Oversized)
8	106222B2	1	Chrome Ring (0.020" Oversized)
9	106222B3	1	Chrome Ring (0.030" Oversized)
10	106222A	3	Compression Ring (Standard)
11	106222A1	3	Compression Ring (0.010" Oversized)
12	106222A2	3	Compression Ring (0.020" Oversized)
13	106222A3	3	Compression Ring (0.030" Oversized)
14	23505	1	Oil Ring (Standard)
15	23505-1	1	Oil Ring (0.010" Oversized)
16	23505-2	1	Oil Ring (0.020" Oversized)
17	23505-3	1	Oil Ring (0.030" Oversized)
18	BA111666	1	Connecting Rod Assembly
19**	105681B	2	Connecting Rod Bolt
20	111406A	2	Connecting Rod Bolt Washer
21	23308D	1	Piston Pin Bushing
22	106137A	2	Connecting Rod Bearing

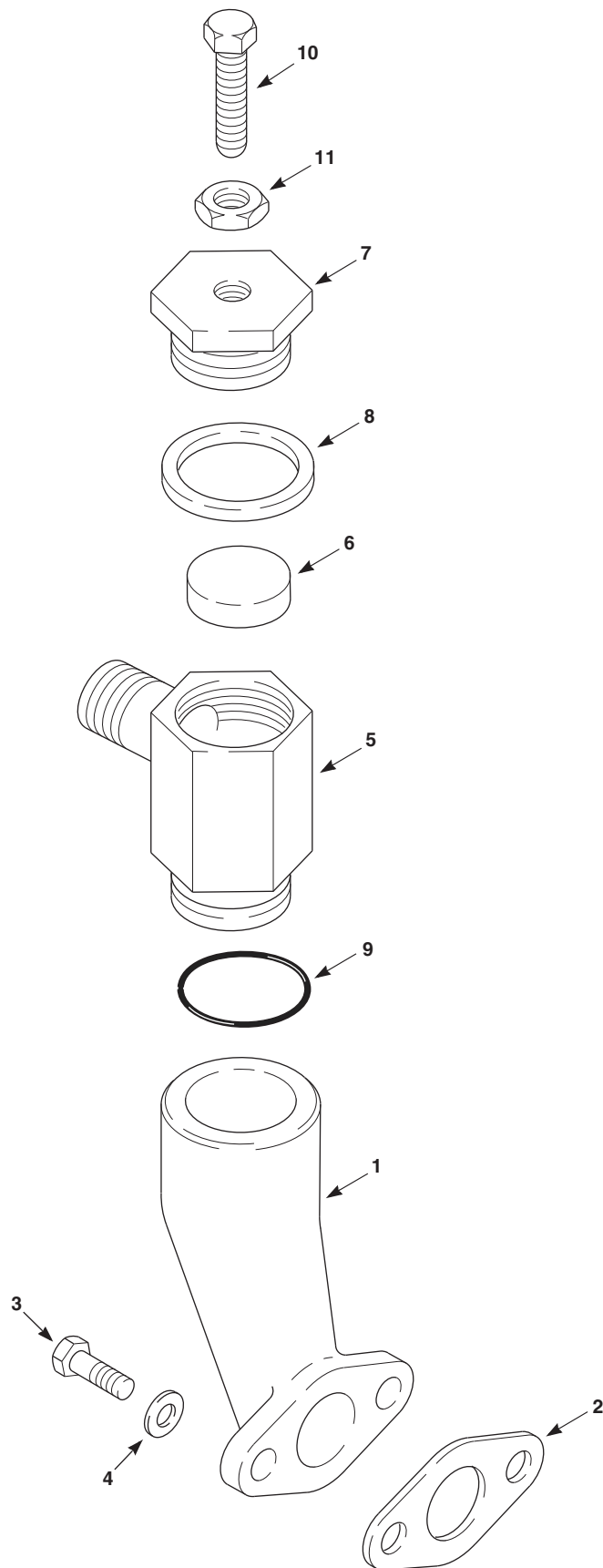
NOTES:

* Piston Assemblies (Items 1– 4) contain the piston, piston pin, and two Piston Pin Retainers (Item 5).

** Connecting Rod Bolt (Item 19) is not interchangeable with old cast-style rod.

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

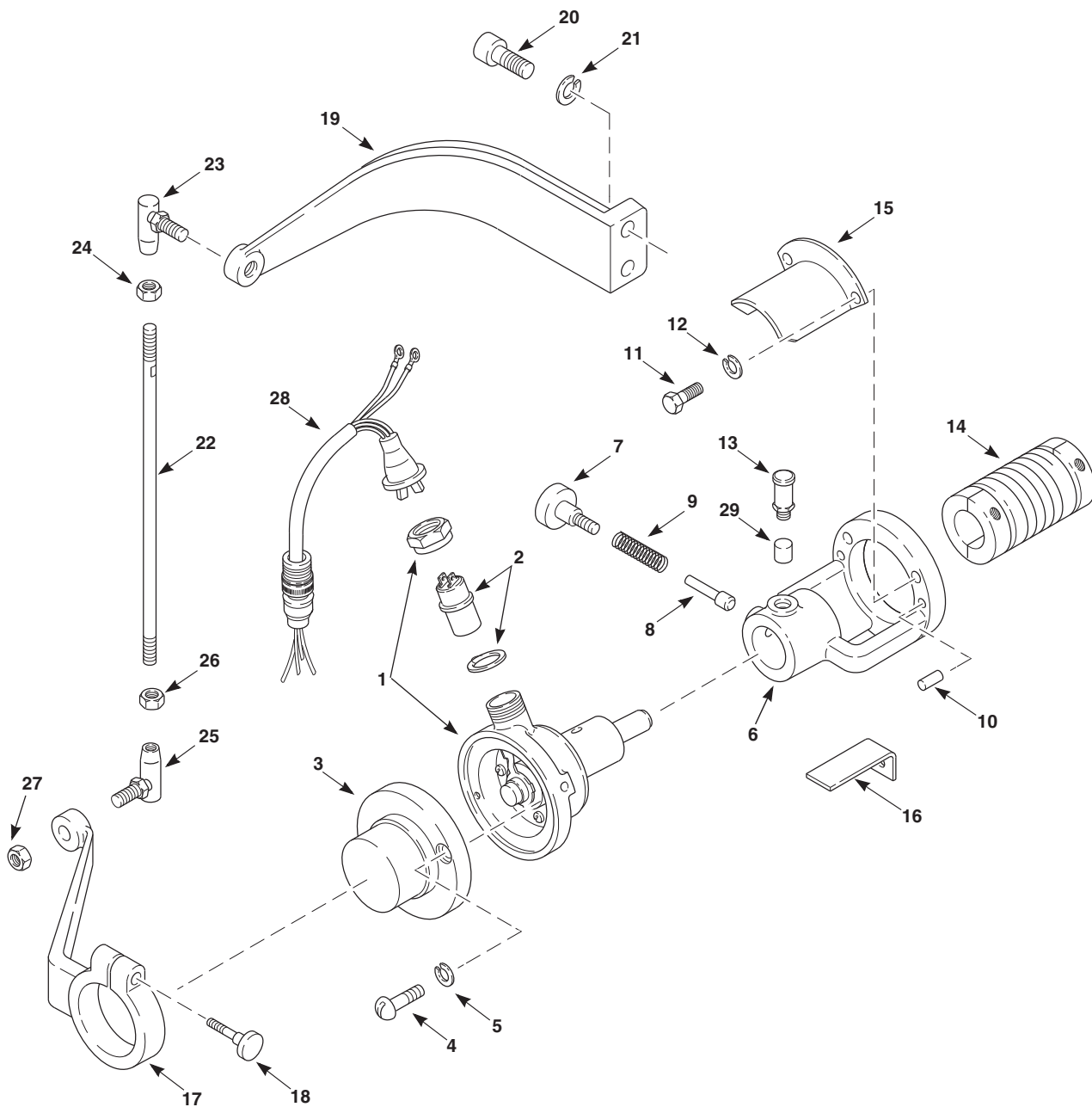


F-1 / F-2
CRANKCASE BREATHER
GROUP 70

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	109611	1	Breather Body
2	B1956A	1	Breather Body Gasket
3	21983	2	Hex Head Capscrew, 3/8"–16 x 3/4"
4	B2747	2	Plain Copper Washer, 3/8"
5	A110475	1	Breather Valve Assembly
6	110670A	1	Breather Valve
7	110476A	1	Breather Valve Cap
8	110477	1	Breather Cap Gasket
9	211196	1	O-Ring
10	48934A	1	Capscrew, 3/8"–24 x 2-3/4"
11	21195	1	Hex Jam Nut, 3/8"–24 UNF
ASSEMBLIES			
	FA110475	1	Breather Valve Assembly (Includes Items 5 – 11)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

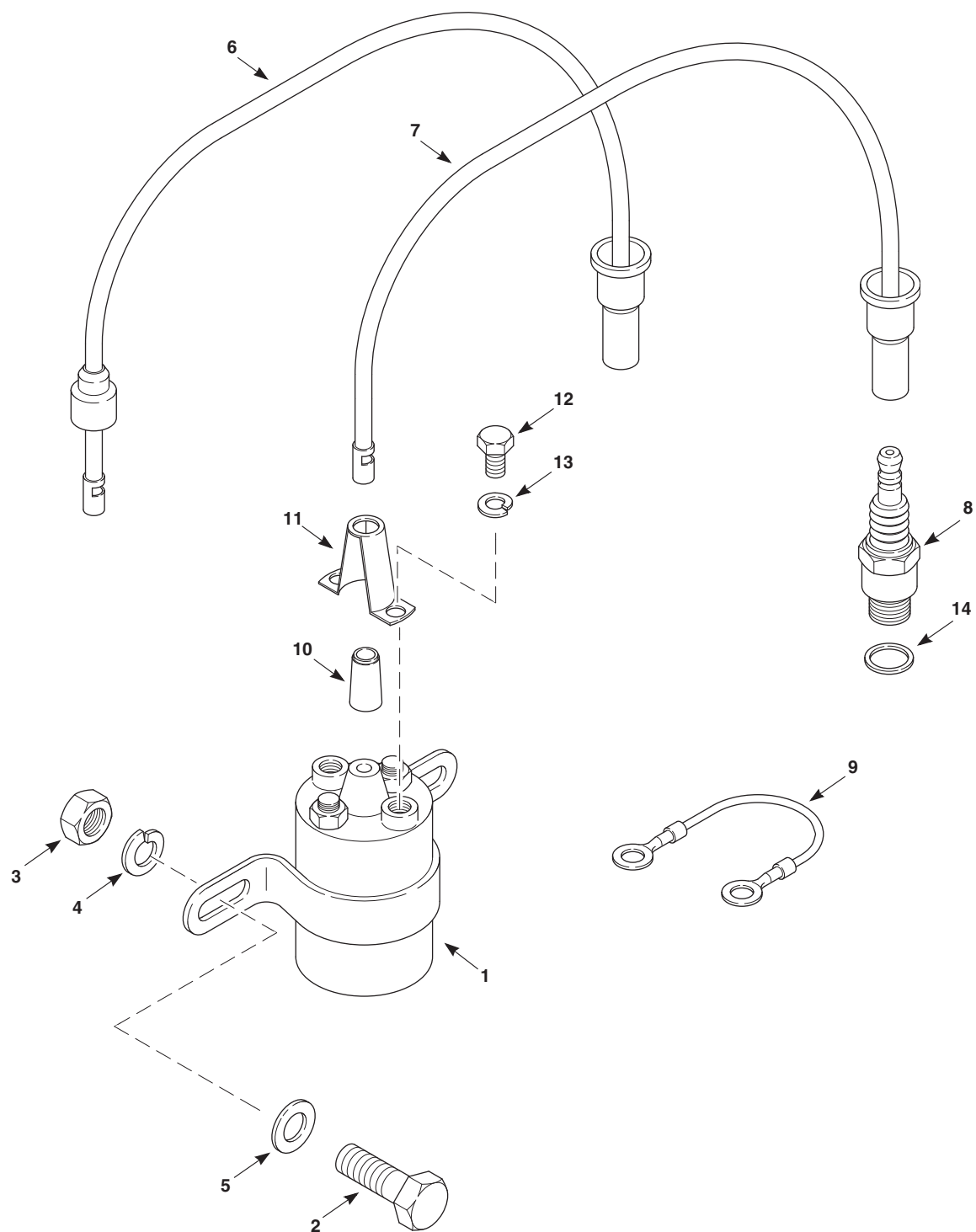


F-1 / F-2
IGNITION TIMER
GROUP 22

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	111417	1	Ignition Timer
2	111417P	1	Trigger Coil
3	111420	1	Ignition Timer Cover
4	21094	2	Round Head Machine Screw, No. 8–32 x 3/4"
5	26059	2	Medium Lock Washer, No. 8
6	109606	1	Ignition Timer Adapter
7	109177	1	Friction Screw
8	A109178	1	Friction Plug
9	109179	1	Spring Screw
10	26890	2	Dowel Pin
11	106058	3	Hex Head Capscrew, 1/4"–20 x 7/8"
12	21050	3	Lock Washer, 1/4"
13	B5445	1	Oil Cup
14	109791C	1	Flexible Coupling
15	110545	1	Upper Ignition Timer Coupling Guard
16	111422	1	Lower Ignition Timer Coupling Guard
17	109605B	1	Ignition Timer Control Arm
18	106212	1	Ignition Timer Clamp Screw
19	109847B	1	Ignition Control Bracket
20	21980	2	Socket Head Capscrew, 3/8"–16 x 3/4"
21	21052	2	Lock Washer, 3/8"
22	75509	1	Ignition Control Rod Assembly
23	199358A	1	Left Hand Ball Joint
24	21967	1	Hex Nut, 1/4"–28
25	199358	1	Right Hand Ball Joint
26	21177	1	Hex Nut, 1/4"–28
27	26981	2	Thin Hex Nut, 1/4"–28
28	D111475	1	Primary Ignition Cable Assembly (Pre 1995 Instrument Panels)
	A111475	1	Primary Ignition Cable Assembly (Post 1995 Instrument Panels)
29	111563	1	Felt Plug
ASSEMBLIES			
	A111417	1	Ignition Timer Assembly (Includes Items 1 – 5)
	A75509A	1	Ignition Control Rod Assembly (Includes Items 22 – 26)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

F-1 / F-2
IGNITION COIL, WIRE, AND PLUGS
GROUP 22

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A111418A	1	Ignition Coil
2	21273	2	Hex Head Capscrew, 1/4"-20 x 5/8"
3	21173	2	Hex Nut, 1/4"-20
4	21050	2	Lock Washer, 1/4"
5	Y18813G	2	Plain Washer, 1/4"
6*	O118263	1	Ignition Cable (Metallic Core), 35-1/2"
7**	166942F	1	Ignition Cable (Carbon Core), 22"
8	111460	1	Spark Plug
9	C110382	1	Ground Strap
10	111418D	1	Coil Insulator
11	111418C	1	Ignition Coil Strap
12	26083	2	Capscrew, 1/4"-28 x 1/2"
13	21536	2	Lock Washer, 1/4"
14	110381	1	Steel Gasket
			ASSEMBLIES
	A166942F**	1	Ignition Cable Assembly (Includes Items 7, 10, 11)

NOTES:

* For use with neon tubes/spark quadrants only.

** For use with electronic equipment (computers, digital tachometers, and RTD display) only.

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





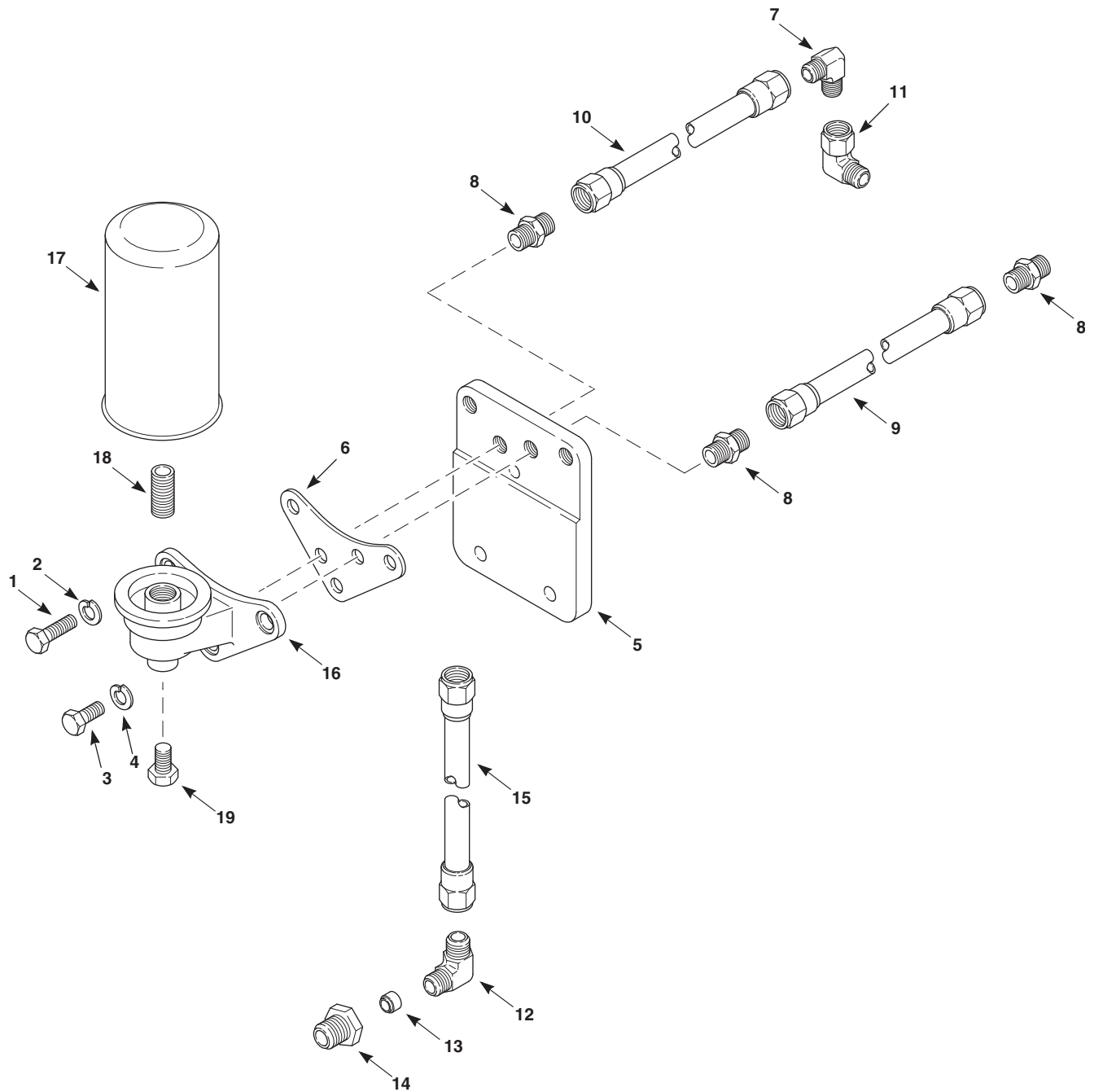
FORM 871-4
© 04/2016

F-1 / F-2
OIL PUMP, OIL SCREEN, OIL RELIEF VALVE
GROUPS 20, 66, 80, 413

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	109538A	1	Oil Relief Valve Housing
2	106827	1	Relief Valve Plunger
3	B9107A	1	Oil Valve Spring
4	105593	1	Relief Valve Adjusting Screw
5	B10410	2	Oil Relief Valve Copper Gasket
6	105595	1	Oil Relief Valve Acorn Nut
7	105594	1	Oil Relief Valve Lock Nut
8	26411	2	Allen Head Pipe Plug, Plated, 3/8"
9	109561A	1	Relief Valve Gasket
10	21322	4	Hex Head Capscrew, 5/16"–18 x 2-1/4"
11	21051	4	Lock Washer, 5/16"
12	Y18802	1	Allen Head Pipe Plug, 1/8"
13	78202D	2	Pipe Elbow, 3/8" x 90°
14	78920	1	Service Tee, 3/8"
15	110186B	1	Oil Suction Tube
16	194769G	2	Male Connector
17	199111D	2	Male Elbow
18	110184A	1	Oil Pressure Tube
19	110150A	1	Oil Pump Assembly
20	109534A	1	Oil Pump Coupling Drive
21	21002	1	Woodruff Key, No. 3
22	21545	5	Socket Head Capscrew, 5/16"–18 x 1"
23	109559B	1	Oil Pump Body Gasket
24	21575	2	Taper Pin, No. 2 x 3/4"
25	39149	4	High Collar Lock Washer, 5/16"
26	109547	1	Oil Screen Support Plate
27	109548	1	Oil Screen Support Cap
28	109549	1	Oil Tube
29	109550	1	Oil Screen Support Spring
30	109551	1	Oil Screen Clamping Bolt
31	109552	1	Oil Screen
32	Y7408C	2	Hex Nut, 1/4"–28
33	85041	1	Locating Pin
34	109553	1	Support Plate Gasket
35	B5834	6	Hex Head Capscrew, 1/4"–20 x 5/8"
36	21050	6	Lock Washer, 1/4"
			ASSEMBLIES
	A109538A	1	Oil Relief Housing Assembly (Includes Items 1 – 8)
	O109552	1	Oil Screen Assembly (Includes Items 26 – 33)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

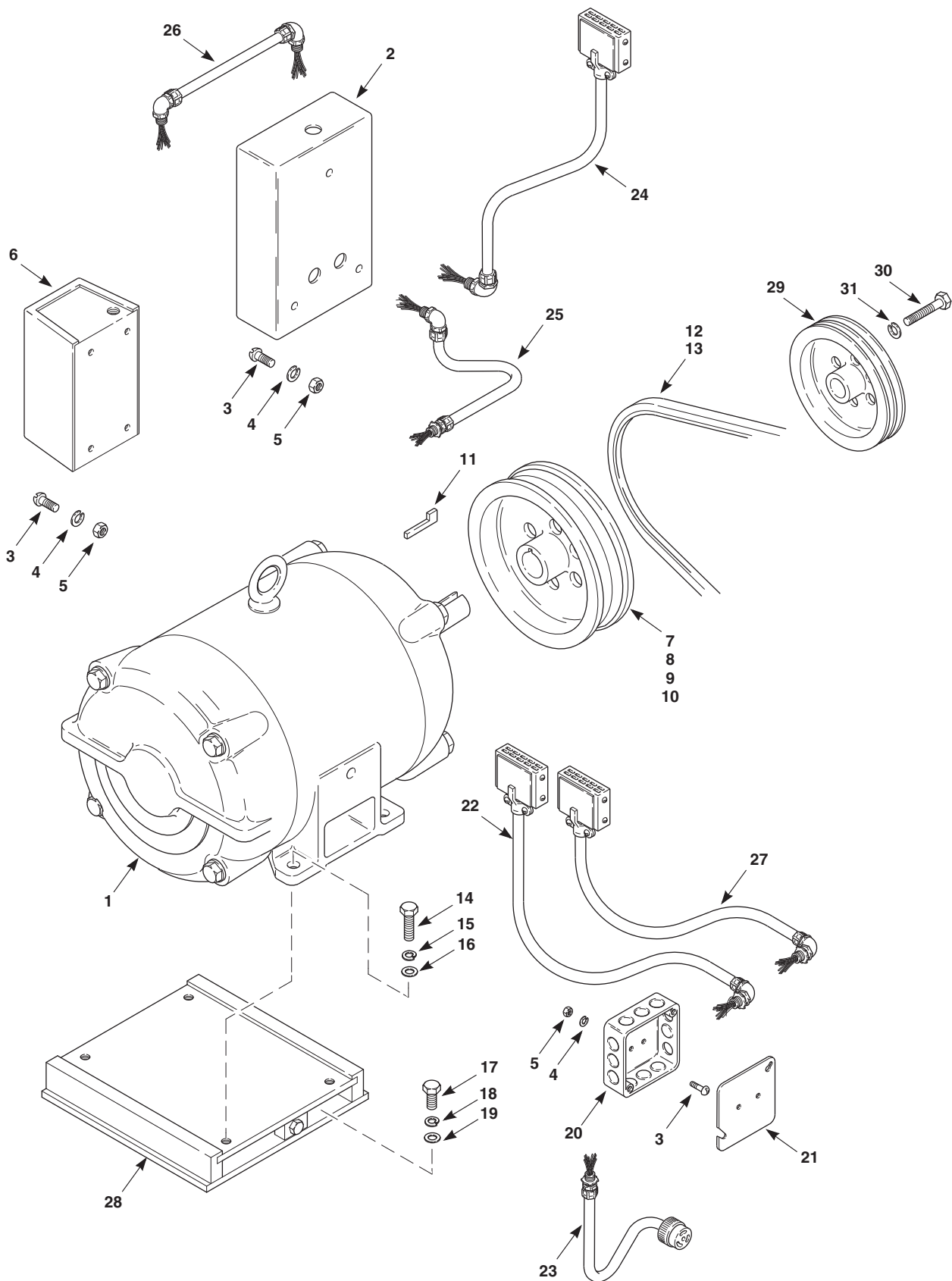


**F-1 / F-2
OIL FILTER
GROUP 55**

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	21428	4	Hex Head Capscrew, 1/2"–13 x 1-1/4"
2	21054	4	Lock Washer, 1/2"
3	21352	1	Hex Head Capscrew, 3/8"–16 x 1-1/4"
4	21052	1	Lock Washer, 3/8"
5	111396	1	Oil Filter Bracket
6	117926C	1	Oil Filter Gasket
7	39112	1	Male Half Elbow
8	39023	1	Male Half Union
9	A111352	1	Oil Line Assembly
10	A111352A	1	Oil Line Assembly
11	78202D	1	Pipe Elbow, 3/8" x 90°
12	B567A	1	Street Elbow
13	75806	1	Restrictor Orifice
14	75745	1	Reducing Bushing
15	A166182U	1	Oil Pressure Line
16	111345	1	Oil Filter Base
17	111346	1	Oil Filter
18	111347	1	Stud
19	26743	1	Hex Head Pipe Plug, Steel, 1/8"
ASSEMBLIES			
	A111345	1	Oil Filter Assembly (Includes Items 16 – 19)
	AA111345	1	Oil Filter Assembly (Includes Items 1 – 6, 16 – 19)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

F-1 / F-2
INDUCTION MOTOR
GROUPS 204, 212, 408

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1*	110561	1	Synchronous Motor (220/380), 50 Hz
	110562	1	Synchronous Motor (220/440), 60 Hz
2**	111675	1	Induction Motor 3 Pole Switch (440 V), 60 Hz
	A111675	1	Induction Motor 3 Pole Switch (380 V), 50 Hz
3	26975	9	Round Head Capscrew, 1/4"-20 x 1/2"
4	21050	9	Lock Washer, 1/4"
5	21174	9	Hex Nut, 1/4"-20
6	110135B	1	Starting Relay
7	27679F	1	Induction Motor Pulley (60 Hz), Research
8	75698G	1	Induction Motor Pulley (50 Hz), Research
9	27928F	1	Induction Motor Pulley (60 Hz), Motor (Also for use on 60 Hz Combination Unit with Belts P/N O27970)
10	75713G	1	Induction Motor Pulley (50 Hz) Motor (Also for use on 50 Hz Combination Unit with Belts P/N OB5500)
11	27732C	1	Induction Motor Pulley Key
12	OB5500	1	Belt (Sold as a set of two belts) (For use on 50 and 60 Hz Research Units and 50 Hz Combination and Motor Units)
13	O27970	1	Belt (Sold as a set of two belts) (For use on 60 Hz Motor and 60 Hz Combination Units)
14	21433	4	Capscrew, 1/2"-13 x 1-3/4"
15	21054	4	Lock Washer, 1/2"
16	Y18814K	4	Plain Washer, 1/2"
17	21466	4	Capscrew, 5/8"-11 x 1-1/2"
18	21055	4	Lock Washer, 5/8"
19	Y18814M	4	Plain Washer, 5/8"
20	111472	1	Electrical Box Outlet
21	954842	1	Blank Electrical Box Cover
22	F110141E	1	Cable Assembly
23	T110122H	1	Cable Assembly
24	D110141B	1	Cable Assembly
25	D110141C	1	Cable Assembly
26	C110141D	1	Cable Assembly
27	C110141H	1	Cable Assembly
28***	A111707D	1	Quick Slide Base
29	106232	1	Flywheel Pulley (50Hz Combination Unit), Research
	106206	1	Flywheel Pulley (60Hz Combination Unit), Research
30	21370	6	Hex Head Capscrew, 3/8"-16 x 3-1/4" (For Use With Item 29)
31	21632	1	Lock Washer, 3/8" (For Use With Item 29)

NOTES:

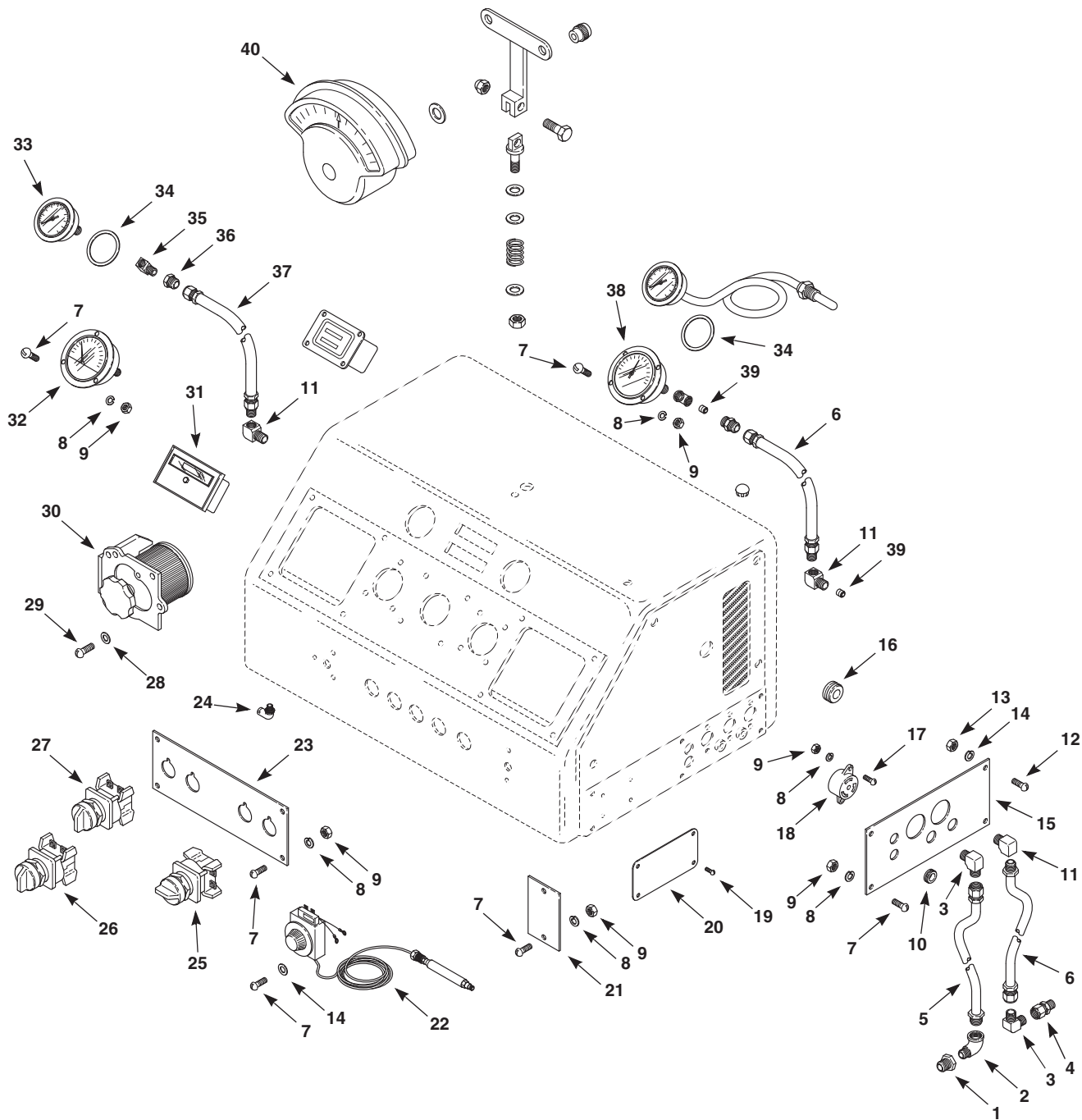
* The part numbers for the two most common induction motor voltages are provided. Please call for part numbers for induction motors requiring different voltages other than those listed above.

** The part numbers for the two most common induction motor switches are provided. Please call for part numbers for switches with different voltage requirements than those listed above.

*** Quick slide base assembly is sold only as part of kit G-812-2 which includes items 14-19, and 28.

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



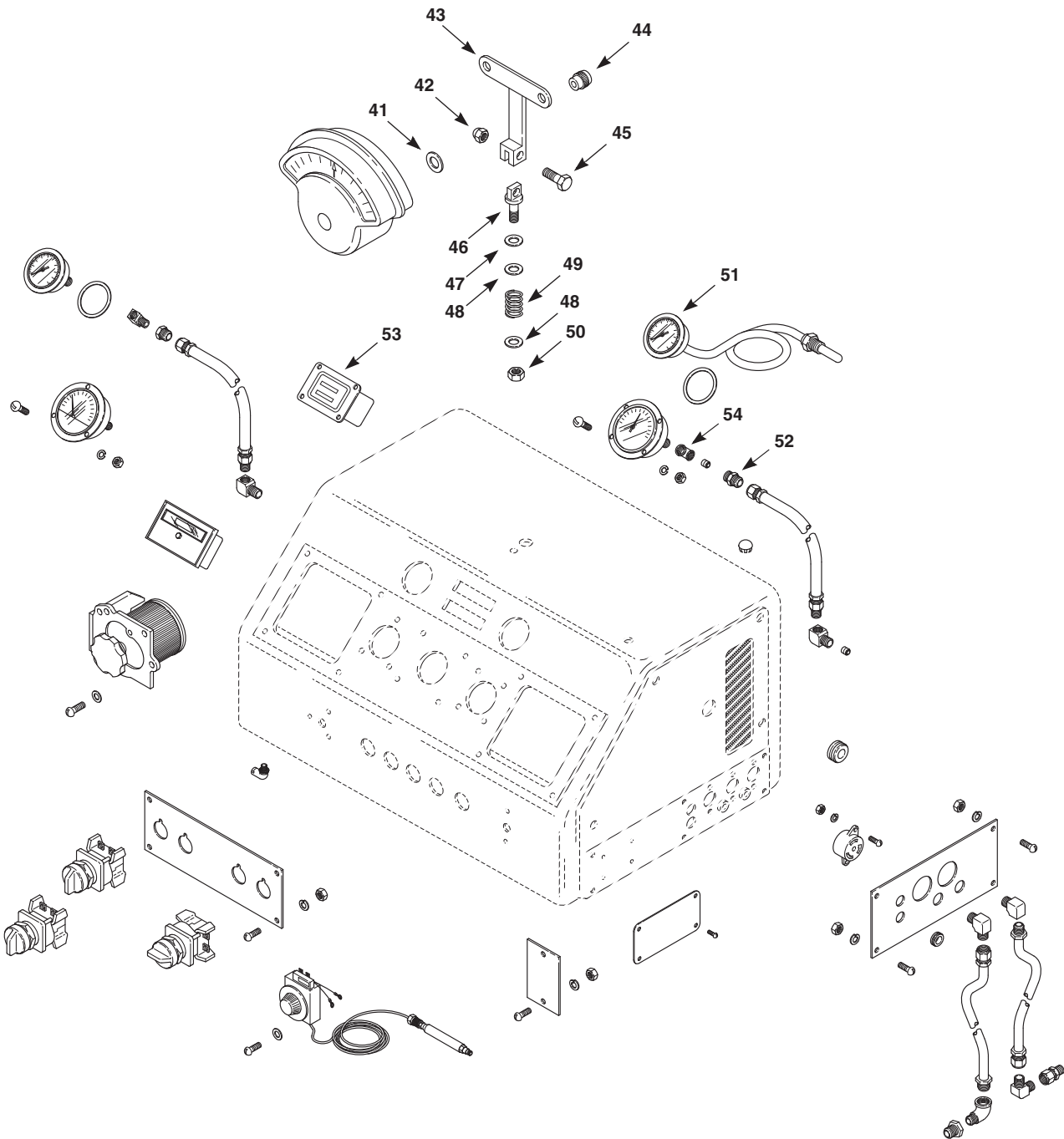
F-1 / F-2
INSTRUMENT PANEL ASSEMBLY
GROUP 202

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	75745	1	Reducing Bushing, 1/4" – 1/8"
2	B567A	1	Street Elbow
3	B1686	2	Half Union Elbow
4	B7106	1	Adapter
5	A166182U	1	Flexible Hose (Oil Pressure)
6	A166182L	2	Flexible Hose (Vacuum)
7	26671	28	Round Head Machine Screw, No. 6–32 x 1/2"
8	21679	28	Lock Washer, No. 6
9	21258	32	Hex Nut, No. 6–32
10	Y6819	1	Rubber Grommet
11	B10168	3	Street Elbow
12	26693	2	Round Head Screw, No. 6–32 x 5/8"
13	48482	4	Elastic Stop Hex Nut, No. 6–32
14	111690	6	Nylon Washer, No. 6
15	109855C	1	Connection Nameplate
16	Y7141	2	Rubber Grommet
17	26748	4	Flat Head Screw, No. 6–32 x 1/2"
18	111471	2	Twist Lock Receptacle
19	21766	4	Round Head Screw, No. 4 x 3/16"
20	105002A	1	Unit Nameplate
21	111802A	1	Nameplate
22	111545	1	Oil Heater Switch
23	109839P	1	Switch Plate
24	Y9017	1	Flex Conduit Connector, 3/8"
25	111611	2	Heater Switch
26	111612	1	Ignition Switch
27	A111610	1	Starter Switch
28	111690B	3	Washer, No. 10
29	26688	3	Round Head Screw, No. 10–32 x 3/8"
30	110495A	1	Transformer
31	111697	1	RPM Indicator
32	109708	1	Ammeter
33	105335A	1	Oil Pressure Gauge
34	111670	2	Gasket
35	110228A	1	Elbow Adapter
36	105355A	1	Coupling Female
37	A166182W	2	Flexible Hose
38	109929A	1	Vacuum Gauge
39	75806	2	Restrictor Jet
40	109980	1	Knockmeter

Continued

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





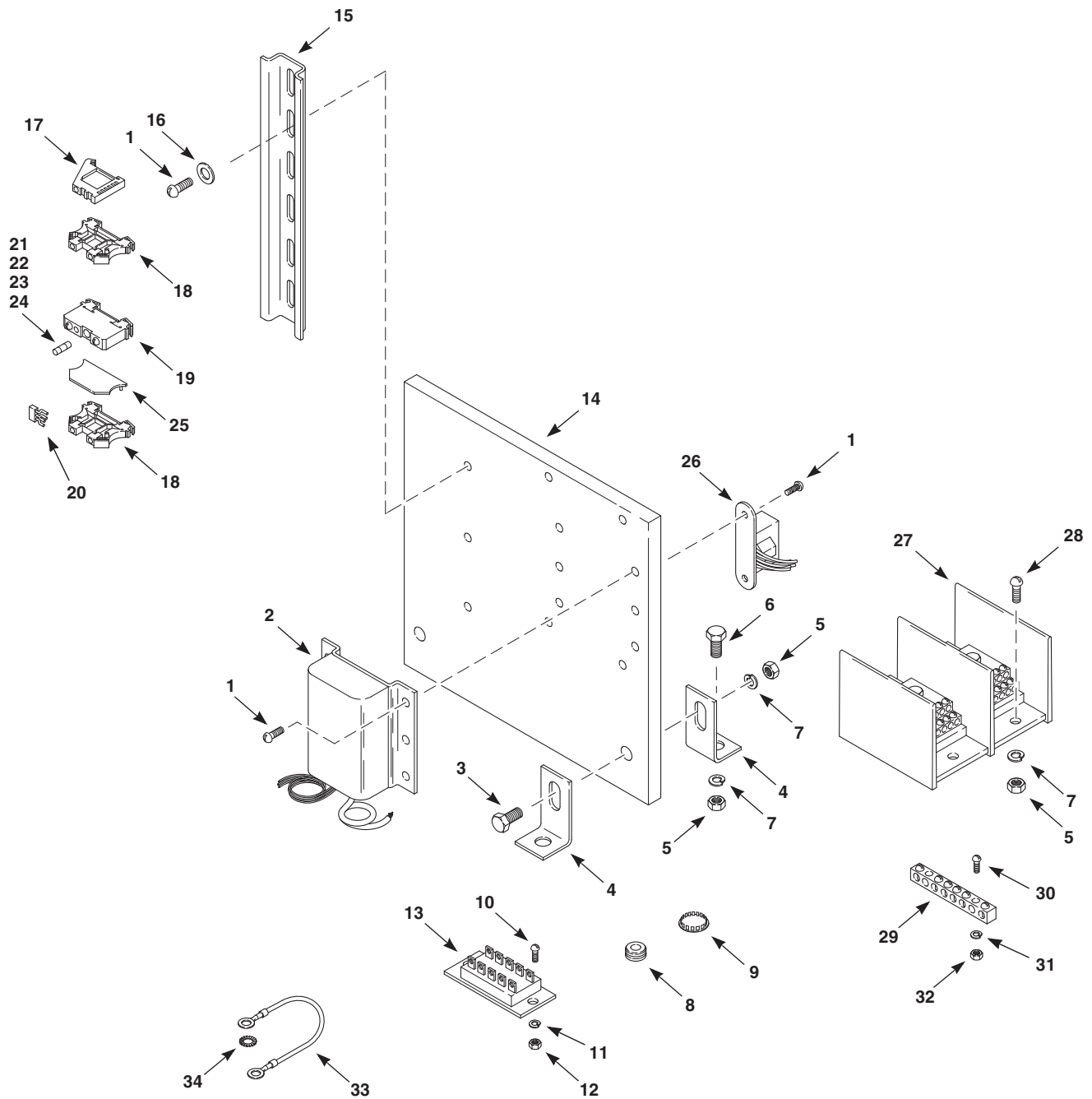
ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

F-1 / F-2
INSTRUMENT PANEL ASSEMBLY
GROUP 202

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
41	75976A	2	Cork Gasket
42	26159	1	Hex Nut Boot Type, 1/4"-28
43	109709	1	Knockmeter Hinge
44	110660	2	Terminal Nut
45	26891	1	Screw, 1/4"-28 x 1-1/8"
46	109710	1	Meter Support Post
47	153098B	1	Special Nylon Washer, 1/2"
48	Y18814K	2	Plain Plated Washer, 1/2"
49	109719	1	Meter Support Spring
50	157635	1	Elastic Stop Lock Nut, 1/2"-20
51	105321D	1	Oil Temperature Gauge
52	B4094B	1	Straight Fitting
53	111543B	1	Hour Meter, 50 Hz
	111543C	1	Hour Meter, 60 Hz
	111543D	1	Reset Hour Meter, 50Hz
	111543E	1	Reset Hour Meter, 60Hz
54	78210A	1	Street Elbow

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

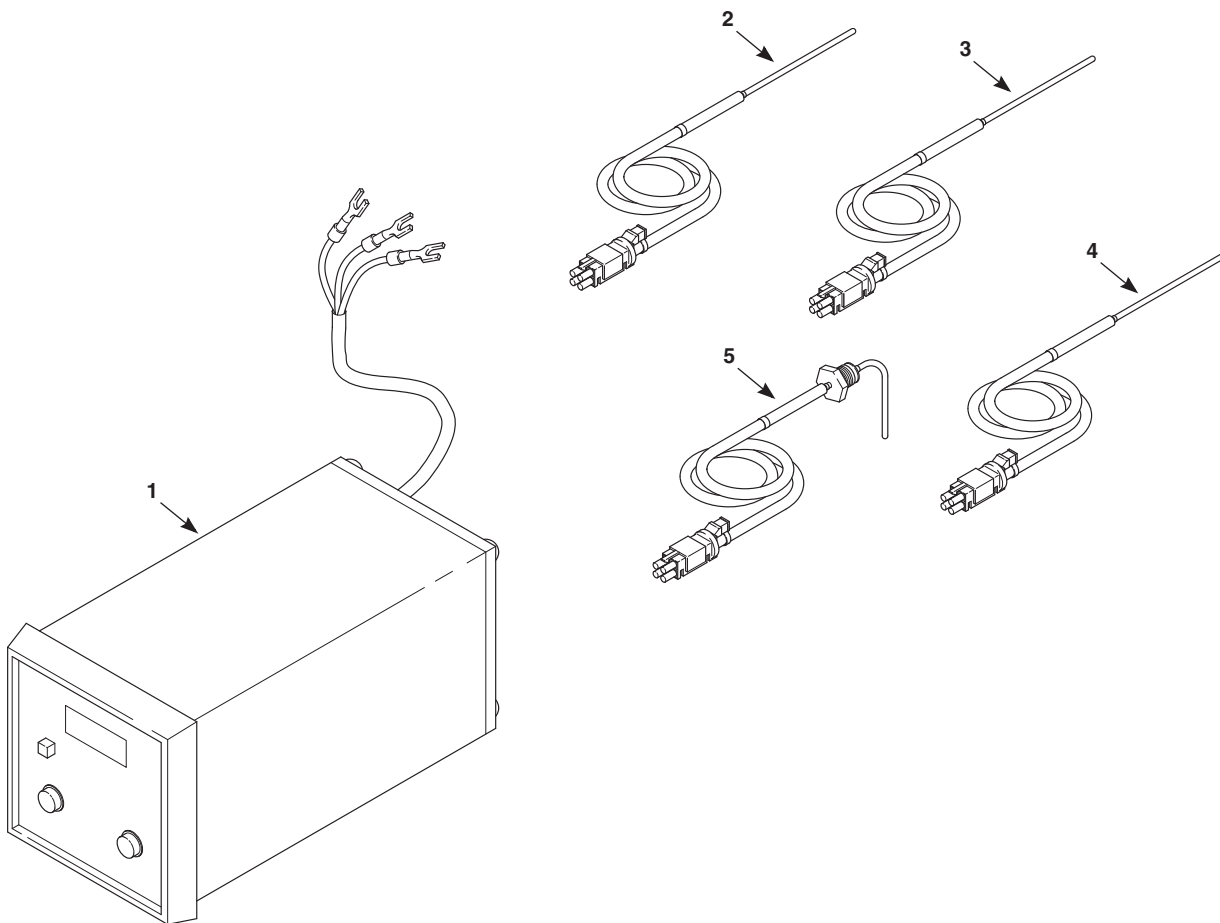


F-1 / F-2
INSTRUMENT PANEL (INTERNAL)
GROUP 202

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	21791	16	Round Head Screw, No. 8 x 3/8"
2	A111419	1	Ignition Control Unit
3	21283	2	Hex Head Capscrew, 1/4"-20 x 1-1/8"
4	109707	4	Accessory Panel Support
5	21174	8	Hex Nut, 1/4"-20
6	21272	4	Hex Head Capscrew, 1/4"-20 x 1/2"
7	21536	8	Lock Washer, 1/4"
8	Y7141	2	Rubber Grommet
9	951379	1	Button Plug, 1-1/8"
10	26671	6	Round Head Screw, No. 6-32 x 1/2"
11	21679	6	Lock Washer, No. 6
12	21258	6	Hex Nut, No. 6-32
13	109712	3	Jones Plug
14	109703F	1	Accessory Panel
15	69811E	1	Mounting Track
16	Y18814D	10	Washer, No. 8
17	69921	2	End Mount Bracket
18	69818	18	Single Terminal Block
19	69846	6	Fused Terminal Block
20	A211427	1	Bridge Rectifier
21	69907	1	Fuse, 0.5 Amp
22	69850B	1	Fuse, 10 Amp
23	69850A	2	Fuse, 5 Amp
24	69850C	1	Fuse, 15 Amp
25	69851	1	End Section Fuse
26	111426	1	Isolation Transformer
27	111706	1	Power Distribution Block
28	26279	4	Filister Head Screw, 1/4"-20 x 3/4"
29	210798	1	Neutral Bar
30	26515	6	Round Head Machine Screw, No. 8-32 x 7/8"
31	26059	6	Lock Washer, No. 8
32	21260	10	Hex Nut, No. 8-32
33	C110382	1	Ground Strap
34	21621	2	Shake-Proof Washer, No. 6

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

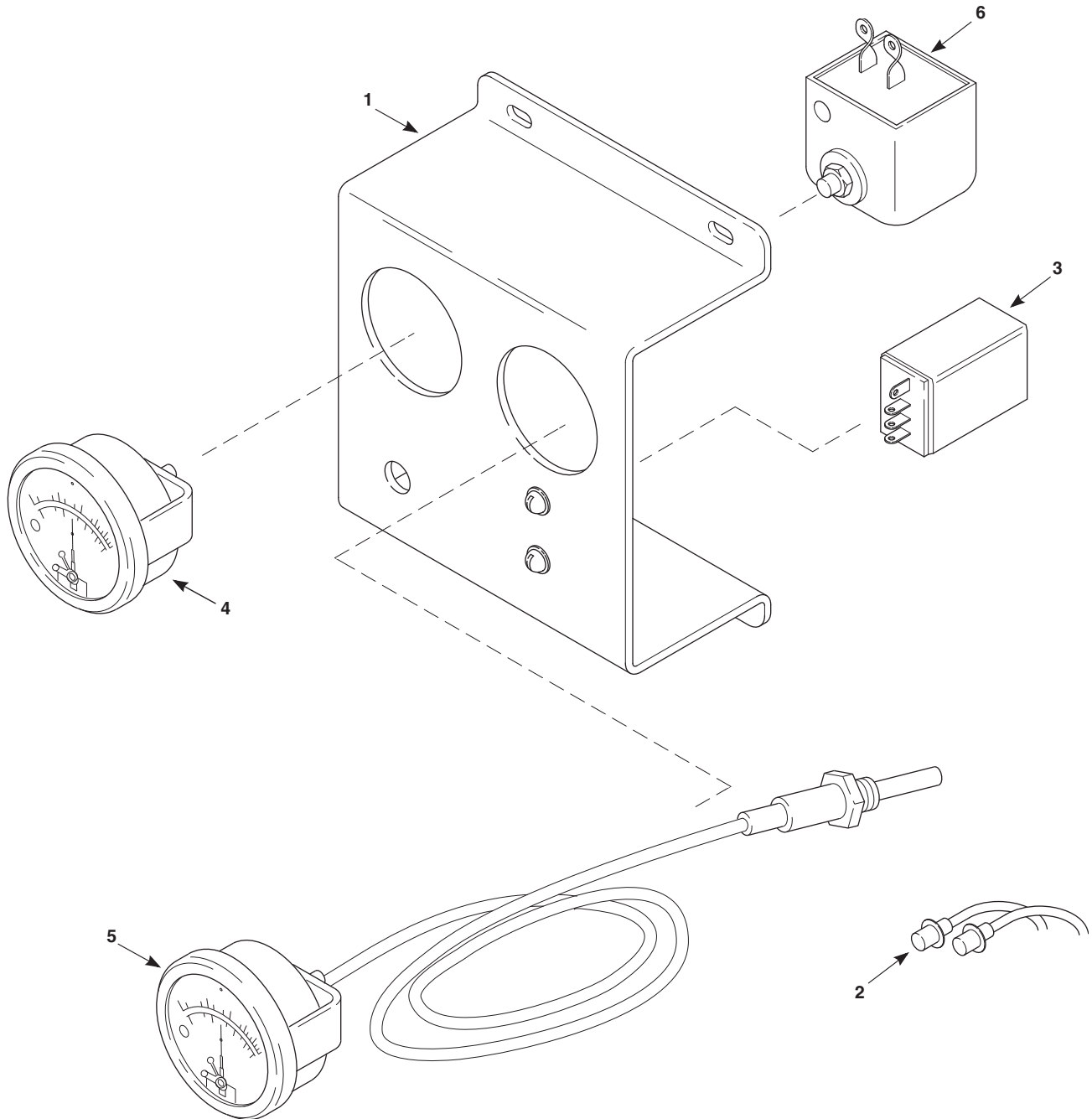


F-1 / F-2
RESISTANCE TEMPERATURE DEVICE AND DISPLAY
GROUPS 202, 802

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	210836	1	Display
2	C111805B	1	Intake Air RTD
3	A111805C	1	Coolant RTD
4	A111805B	1	Crankcase Oil RTD
5	111805	1	Mixture RTD

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2
SAFETY SHUTDOWN SYSTEM
GROUPS 202, 813

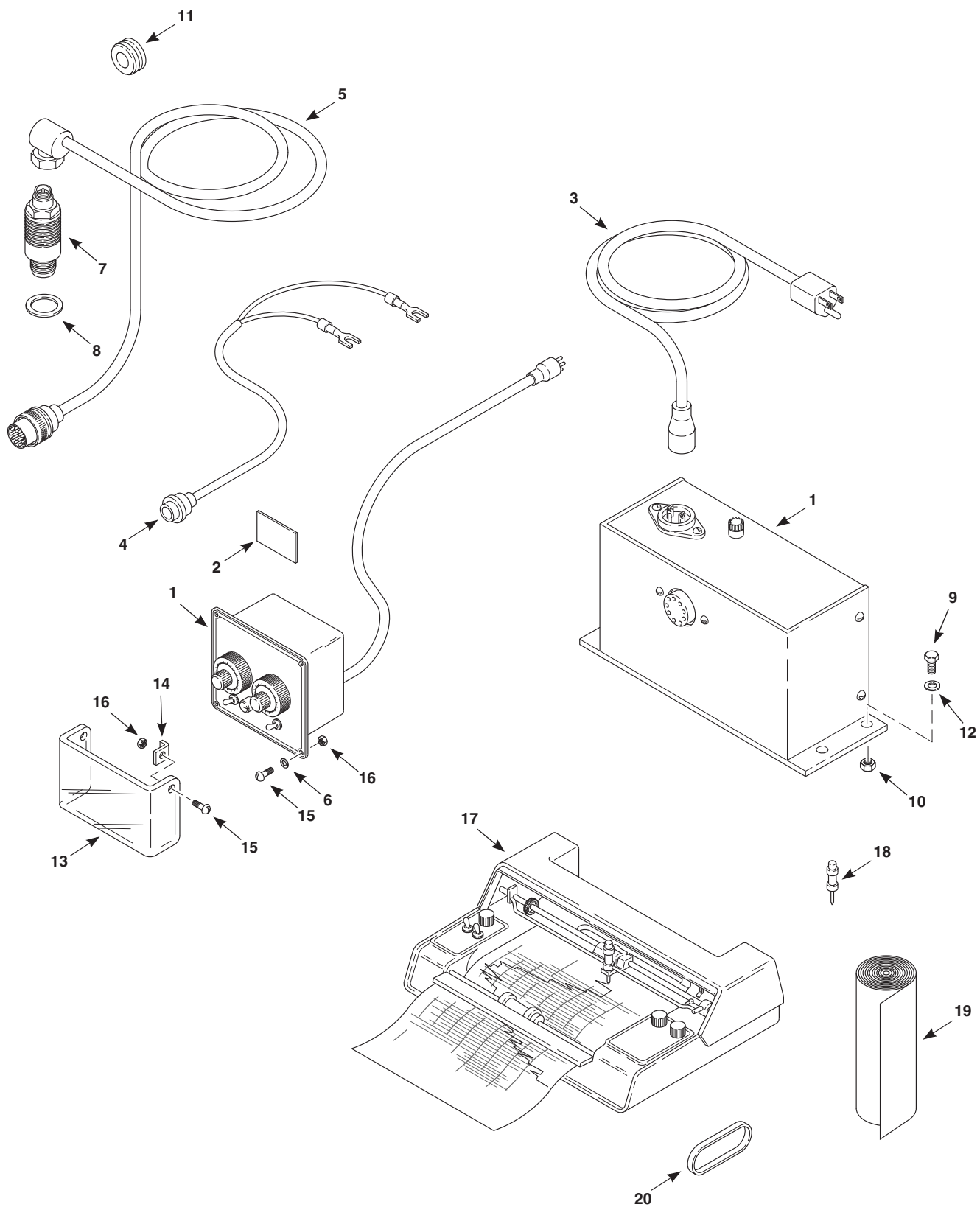
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1*	A111787	1	Switch Panel
2	211413B	2	Red Indicator Light
3	69910	1	Socket Mount Relay
4	111786A	1	Oil Pressure Switch Gauge
5	111786	1	Water Temperature Switch Gauge
6	69913	1	Magnetic Switch

NOTE:

** Item 1 is sold only as part of the Safety Shutdown System Kit (G-813-1) and not as a single part.*

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



**F-1 / F-2
DETONATION METER
GROUP 202**

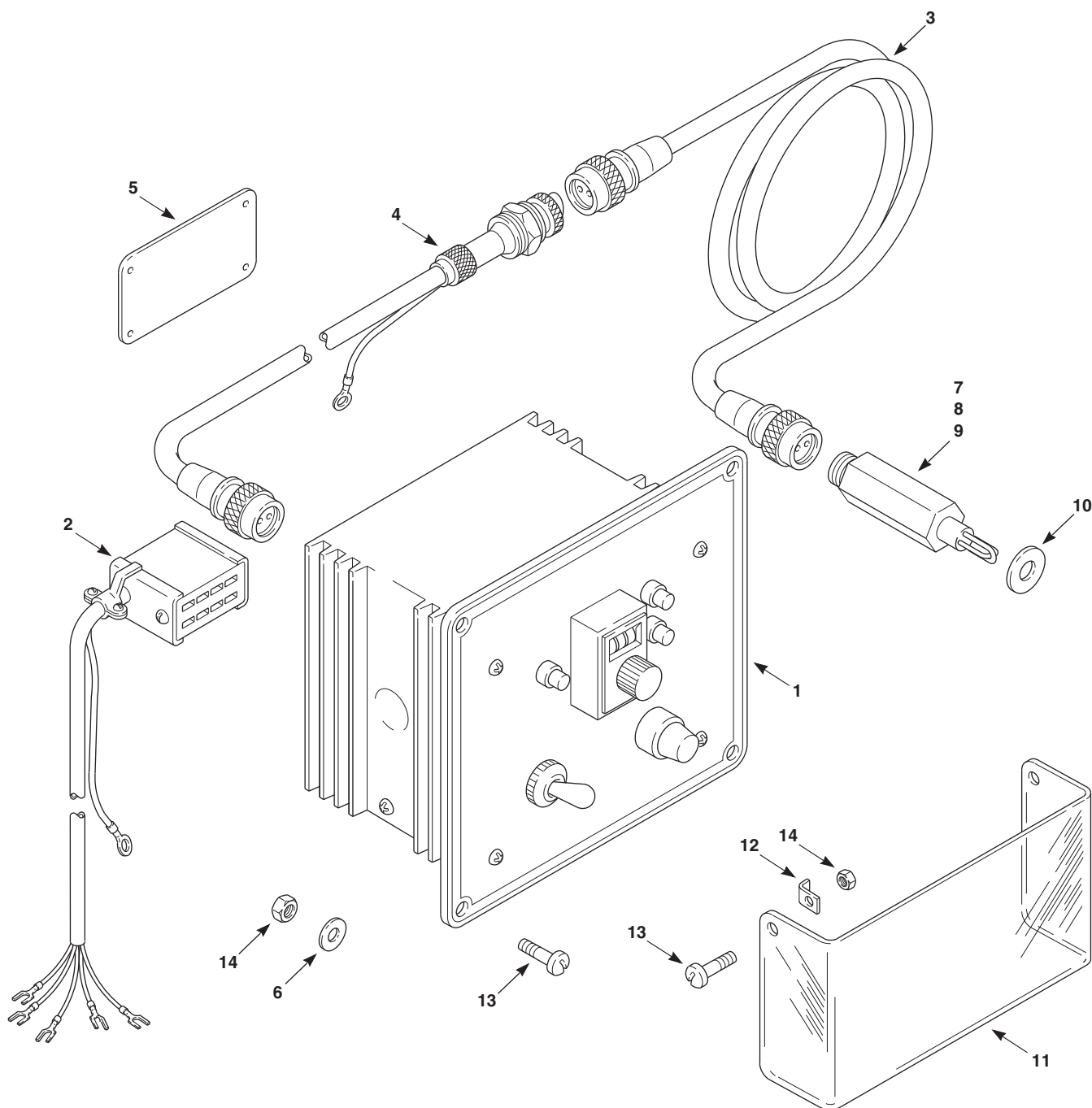
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1*	A111263B	1	Detonation Meter (501C)
2	110854	1	Nameplate
3	111280	1	Power Cable
4	111279	1	Output Cable
5	AC210109A	1	Pickup Cable
6	111690	4	Nylon Washer
7	W109927	1	Detonation Pickup
8	111342	1	Pickup Gasket
9	21274	4	Hex Head Capscrew, 1/4"-20 x 5/8"
10	28102	4	Flex Loc Nut, 1/4"-20
11	Y6819	1	Rubber Grommet
12	Y18814G	4	Plated Plain Washer, 1/4"
13	110501	1	Meter Knob Cover
14	110502	2	Knob Cover Bracket
15	26671	6	Round Head Machine Screw, No. 6-32 x 1/2"
16	48482	6	Elastic Stop Hex Nut, No. 6-32
17	A111485	1	Strip Chart Recorder
18	56371	1	Red Recorder Pen
19	111486	1	Strip Chart Paper (Roll)
20	56371A	1	Belt Drive
ASSEMBLIES			
	A110501	1	Meter Cover Assembly (Includes Items 13 – 16)

NOTE:

* Item 1 comes complete with items 2 – 5.

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2
TEMPERATURE CONTROLLER
GROUP 202

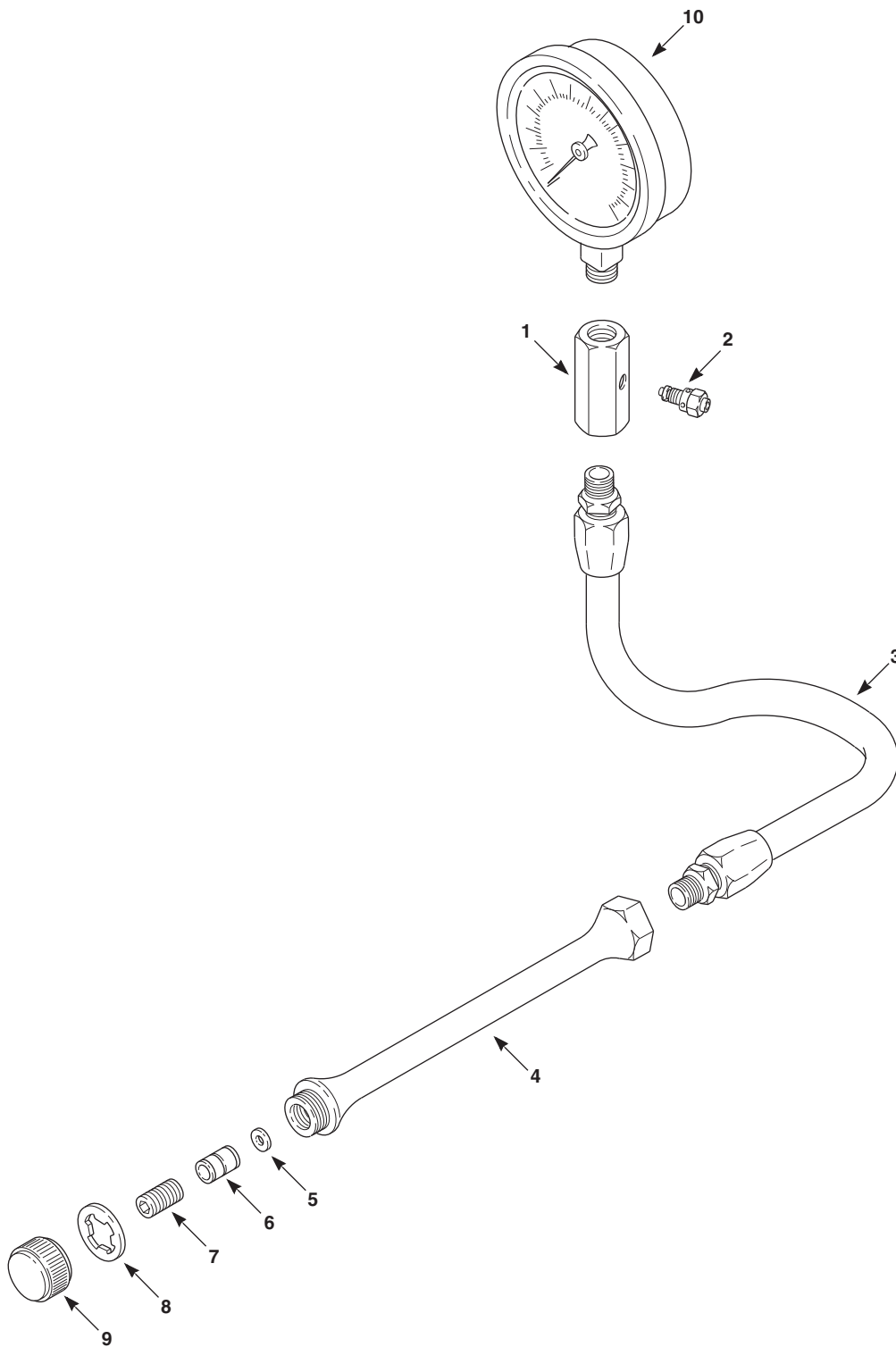
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1*	111412	1	Temperature Controller
2	111415	1	Heater Power Cable
3	A210635	1	Thermistor Cable
4	111444	1	Console Cable
5	110854	1	Nameplate
6	111690	2	Nylon Washer
7	110395	1	Thermistor Probe, 75° F (24° C)
8	110386	1	Thermistor Probe, 125° F (52° C)
9	110389	1	Thermistor Probe, 300° F (149° C)
10	BD190	1	Copper Gasket
11	110501	1	Meter Knob Cover
12	110502	2	Knob Cover Bracket
13	26671	6	Round Head Machine Screw, No. 6–32 x 1/2"
14	48482	6	Elastic Stop Hex Nut, No. 6–32
ASSEMBLIES			
	AA111412B	1	Temperature Controller Assembly (Includes Items 1 – 5)

NOTE:

* Temperature Controller is only sold as assembly P/N AA111412B.

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

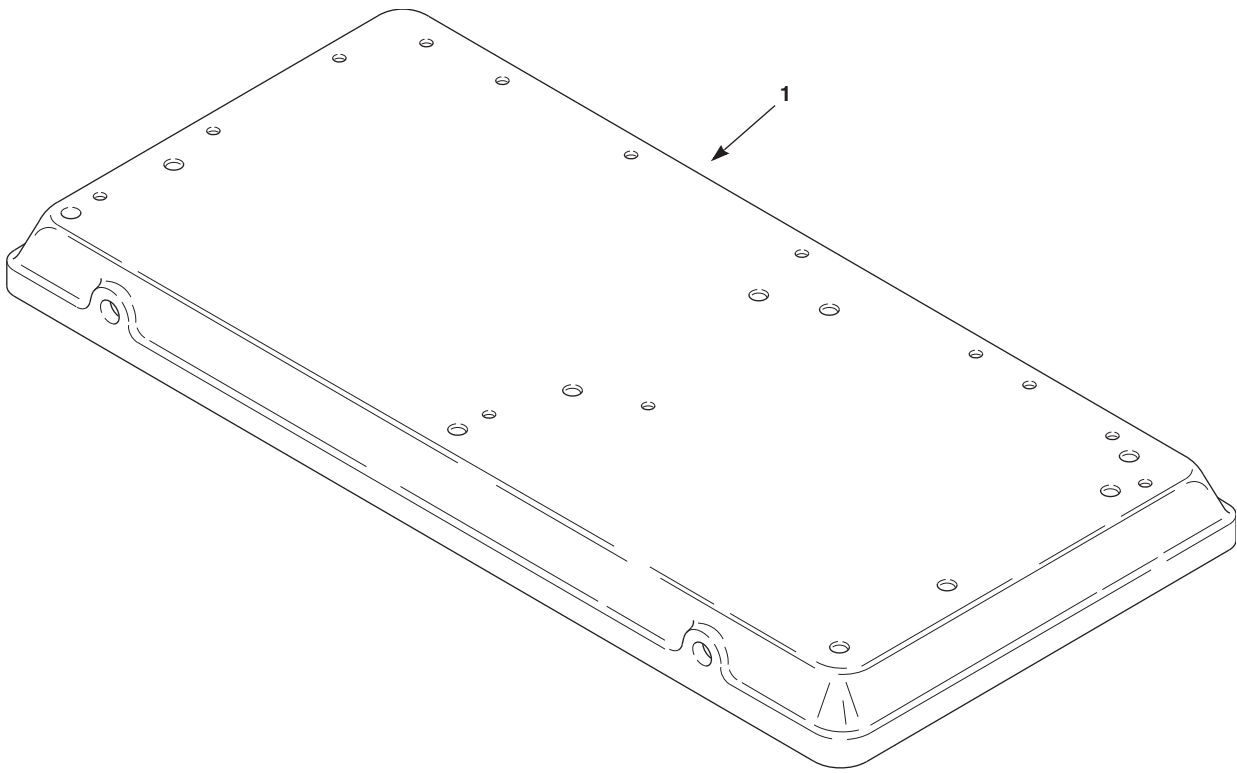


F-1 / F-2
COMPRESSION PRESSURE GAUGE
GROUP 403

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	110304	1	Body Release Valve
2	110305	1	Deflator Unit
3	A110641	1	Flexible Hose Assembly
4	75777B	1	Compression Pressure Gauge Barrel
5	75941	1	Compression Gauge Check Valve Washer
6	O105033	1	Check Valve Assembly
7	A75988D	1	Screen Plug Assembly
8	111342	1	Compression Gauge Gasket
9	109135	1	Shipping Cap
10	A105028A	1	Compression Gauge Head Assembly
			ASSEMBLIES
	C110304	1	Compression Gauge Assembly (Includes Items 1 – 10)

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





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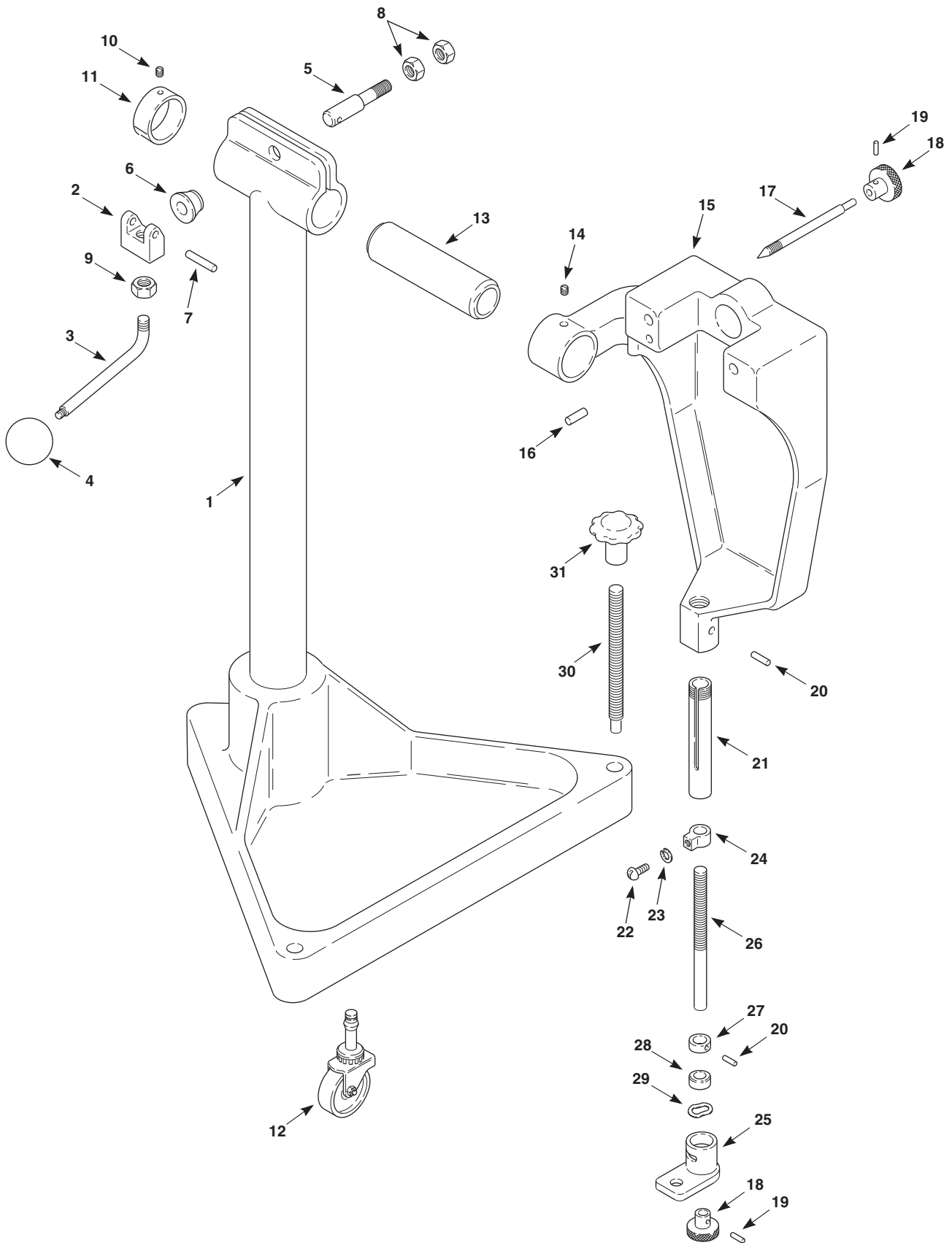


**F-1 / F-2
UNIT BASE
GROUP 212**

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	27671W	1	Unit Base

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2
CYLINDER OVERHAUL STAND
GROUP 818

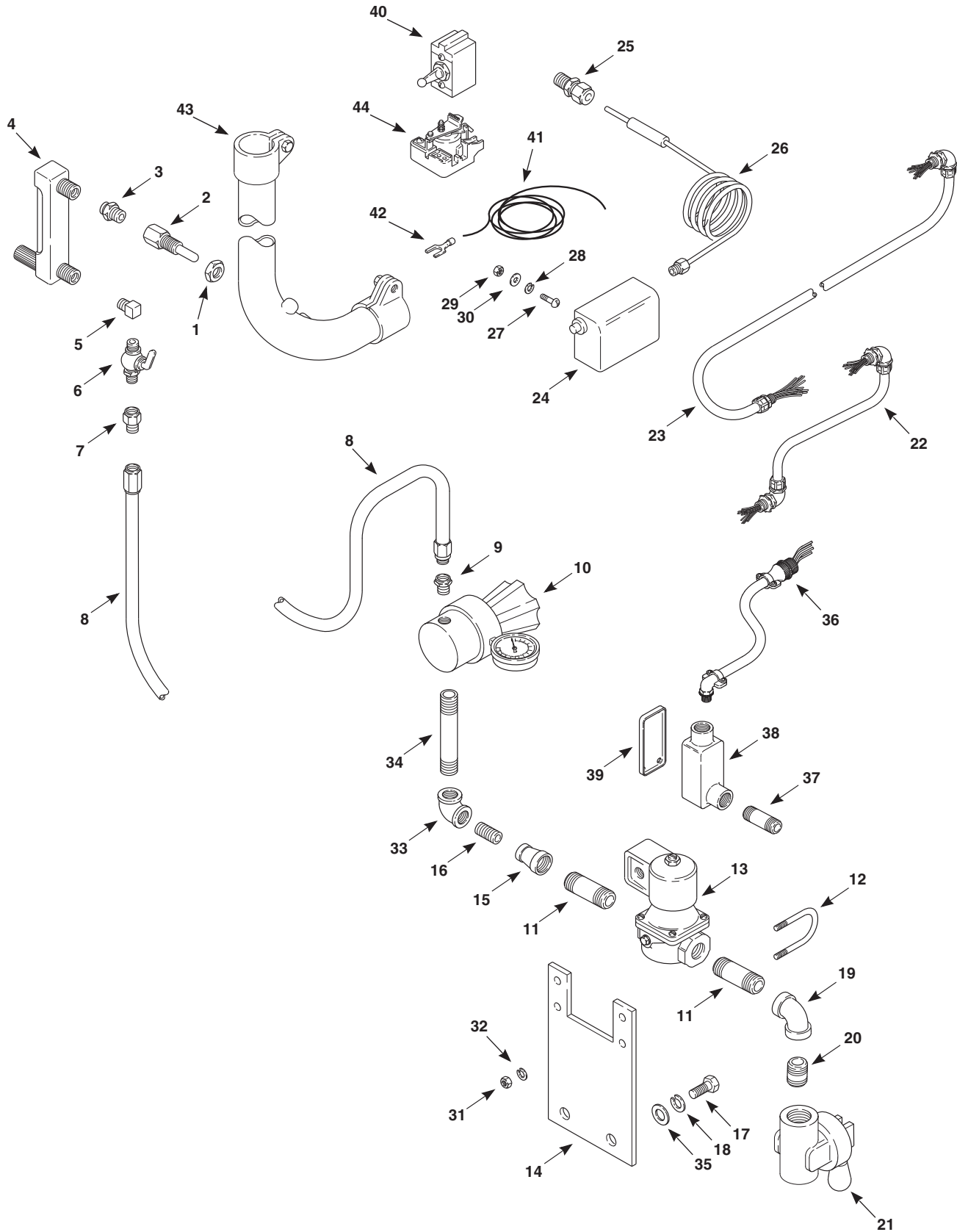
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1*	A109219A	1	Cylinder Overhaul Stand
2	109010A	1	Clamping Cam
3	109011C	1	Clamping Cam Handle
4	109252A	1	Clamping Cam Handle Ball
5	109009A	1	Clamp Bolt
6	109383	1	Clamping Cam Washer
7	117160	1	Straight Pin
8	109380	2	Hex Jam Nut, 9/16"–18
9	109384	1	Hex Jam Nut, 1/2"–13
10	21720	1	Socket Head Set Screw, 1/4"–20 x 1/4"
11	109228	1	Collar
12	106687A	3	Caster
13	109227	1	Pivot Bracket Tube
14	21692	2	Socket Head Set Screw, 1/4"–20 x 3/8"
15*	109226B	1	Cylinder Overhaul Bracket
16	109258	1	Cylinder Locating Dowel Pin
17	O109253	2	Attaching Screw
18	B3165	3	Knob
19	26532	3	Roll Pin, 3/32" x 3/4"
20	26531	2	Roll Pin, 3/32" x 5/8"
21	75967	1	Support Post
22	75972	1	Adjusting Pin
23	26855	1	Washer
24	75970A	1	Adjusting Nut
25*	A109229A	1	Elevating Bracket
26	75978A	1	Adjusting Screw
27	75971	1	Collar
28	75968	1	Plug
29	75991	1	Spring Washer
30	109231A	2	Floor Stand Support Screw
31	105996M	2	Knob
ASSEMBLIES			
	A109226B	1	Cylinder Overhaul Stand (Includes Items 1 – 31)
	A109010B	1	Cylinder Clamping Cam (Includes Items 2 – 9)

NOTE:

* Denotes that part is only sold as part of the Cylinder Overhaul Stand Assembly, P/N A109226B.

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





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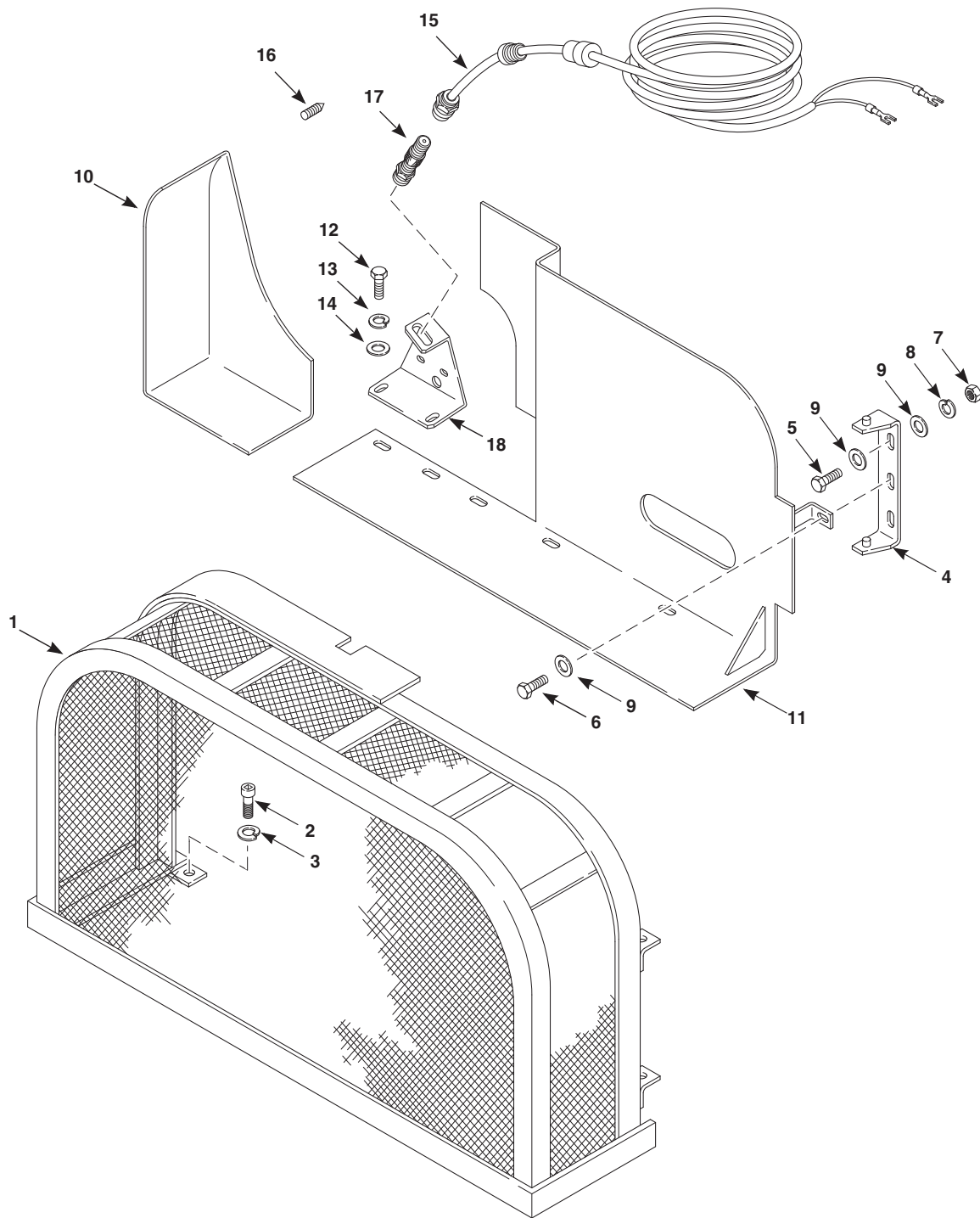


F-1 / F-2
NATURAL GAS WARM-UP EQUIPMENT
GROUP 826

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	21212	1	Hex Jam Nut, 1/2"-20
2	110614	1	Nozzle
3	B1993	1	Reducing Bushing, 1/4" to 1/8"
4	110618A	1	Flow Gauge
5	B10168	1	Street Elbow, 90°, 1/8"
6	111305	1	Toggle Switch
7	105355A	1	Female Half Union
8	A166182U	1	Flex Hose
9	75745	1	Reducing Bushing, 1/4" to 1/8"
10	110617A	1	Pressure Regulator
11	100831B	2	Pipe Nipple, 1/2" x 2"
12	167208	2	U-Bolt
13	111271A	1	Magnetic Gas Valve
14	111333A	1	Solenoid Bracket
15	78211B	1	Reducing Coupling
16	154981B	1	Pipe Nipple, 1/4" x 7/8"
17	21428	2	Hex Head Capscrew, 1/2"-13 x 1-1/4"
18	21054	2	Lock Washer, 1/2"
19	78204C	1	Pipe Elbow, 90°, 1/2"
20	119434W	1	Pipe Nipple, 1/2" x 1-1/8"
21	111479	1	Gas Valve
22	C111366	1	Cable Assembly
23	G110122H	1	Cable Assembly
24	111364	1	Safety Switch
25	194929A	1	Thermocouple Connector, 3" x 2"
26	111363	1	Thermocouple
27	21093	2	Round Head Machine Screw, No. 8-32 x 3/4"
28	21656	2	Lock Washer, No. 8
29	21259	2	Hex Nut, No. 8-32
30	Y18813D	2	Plain Washer, No. 8
31	21173	4	Hex Nut, 1/4"-20
32	21050	4	Lock Washer, 1/4"
33	78204A	1	Pipe Elbow, 1/4"
34	154981C	1	Pipe Tube, 1/4" x 3-1/2"
35	Y18814K	2	Washer, 1/2"
36	A111366A	1	Junction Box To Console Cable Assembly
37	Y6249	1	Nipple Chase
38	162117	1	Junction Box
39	162118	1	Junction Box Cover
40	111611	1	Toggle Switch
41	151378Y	1	Stranded Copper Wire (Blue), No. 14 x 58"
42	Y19247	10	Wire Terminal
43	D106595A	1	Carburetor Inlet Elbow
44	111488A	1	Relay

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2
SAFETY GUARDS
GROUP 223

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	109801G	1	Belt Guard
2	21980	1	Socket Head Capscrew, 3/8"–16 x 3/4"
3	39150	1	Hi-Collar Lock Washer, 3/8"
4	110528	1	Belt Guard Bracket
5	21346	2	Hex Head Capscrew, 3/8"–16 x 7/8"
6	21348	1	Hex Head Capscrew, 3/8"–16 x 1"
7	21189	3	Hex Nut, 3/8"–16
8	21052	3	Lock Washer, 3/8"
9	Y18813H	6	Plain Washer, 3/8"
10	111409B	1	Left Rear Guard
11	111410A	1	Right Rear Guard
12	21271	4	Hex Head Capscrew, 1/4"–20 x 1/2"
13	21050	6	Lock Washer, 1/4"
14	Y18813G	6	Plain Washer, 1/4"
15	A209378D	1	Pickup Cable
16	210538	1	Flywheel Pin
17	168273	1	Magnetic Pickup
18	210539A	1	Pickup Bracket

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



F-1 / F-2 PARTS KITS

STANDARD SIZE CYLINDER REPAIR KIT – G-801-5

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	105208	4	Carburetor Stud
2	PP26	1	Intake Valve
3	PP45	1	Exhaust Valve
4	26800	1	Roll Pin
5	106420A	1	Valve Spring Cup
6	106424	1	Valve Spring Cup Gasket
7	B4680	2	Felt Washer
8	43335C	1	Valve Spring
9	106523	2	Valve Taper
10	106407	1	Valve Spring Retainer
11	O109657	1	Rotocap Assembly
12	105987A	2	Valve Seat Insert
13	109658	2	Valve Spring Keeper
14	B2575	2	Exhaust Manifold Stud
15	23109A	1	Exhaust Valve Guide
16	23109B	1	Intake Valve Guide
17	AA23204G	1	Piston Assembly
18	23505	1	Piston Oil Ring
19	106222A	3	Piston Ring
20	106222B	1	Chrome Piston Ring
21	78282A	1	Square Head Pipe Plug, 1/8"

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2 PARTS KITS
0.010" OVERSIZE CYLINDER REPAIR KIT – G-801-6

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	105208	4	Carburetor Stud
2	PP26	1	Intake Valve
3	PP45	1	Exhaust Valve
4	26800	1	Roll Pin
5	106420A	1	Valve Spring Cup
6	106424	1	Valve Spring Cup Gasket
7	B4680	2	Felt Washer
8	43335C	1	Valve Spring
9	106523	2	Valve Taper
10	106407	1	Valve Spring Retainer
11	O109657	1	Rotocap Assembly
12	105987A	2	Valve Seat Insert
13	109658	2	Valve Spring Keeper
14	B2575	2	Exhaust Manifold Stud
15	23109A	1	Exhaust Valve Guide
16	23109B	1	Intake Valve Guide
17	AA23204G1	1	Piston Assembly (0.010" Oversize)
18	23505_1	1	Piston Oil Ring (0.010" Oversize)
19	106222A1	3	Piston Ring (0.010" Oversize)
20	106222B1	1	Chrome Piston Ring (0.010" Oversize)
21	78282A	1	Square Head Pipe Plug, 1/8"

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



F-1 / F-2 PARTS KITS**0.020" OVERSIZE CYLINDER REPAIR KIT – G-801-7**

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	105208	4	Carburetor Stud
2	PP26	1	Intake Valve
3	PP45	1	Exhaust Valve
4	26800	1	Roll Pin
5	106420A	1	Valve Spring Cup
6	106424	1	Valve Spring Cup Gasket
7	B4680	2	Felt Washer
8	43335C	1	Valve Spring
9	106523	2	Valve Taper
10	106407	1	Valve Spring Retainer
11	O109657	1	Rotocap Assembly
12	105987A	2	Valve Seat Insert
13	109658	2	Valve Spring Keeper
14	B2575	2	Exhaust Manifold Stud
15	23109A	1	Exhaust Valve Guide
16	23109B	1	Intake Valve Guide
17	AA23204G2	1	Piston Assembly (0.020" Oversize)
18	23505_2	1	Piston Oil Ring (0.020" Oversize)
19	106222A2	3	Piston Ring (0.020" Oversize)
20	106222B2	1	Chrome Piston Ring (0.020" Oversize)
21	78282A	1	Square Head Pipe Plug, 1/8"

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2 PARTS KITS
0.030" OVERSIZE CYLINDER REPAIR KIT – G-801-8

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	105208	4	Carburetor Stud
2	PP26	1	Intake Valve
3	PP45	1	Exhaust Valve
4	26800	1	Roll Pin
5	106420A	1	Valve Spring Cup
6	106424	1	Valve Spring Cup Gasket
7	B4680	2	Felt Washer
8	43335C	1	Valve Spring
9	106523	2	Valve Taper
10	106407	1	Valve Spring Retainer
11	O109657	1	Rotocap Assembly
12	105987A	2	Valve Seat Insert
13	109658	2	Valve Spring Keeper
14	B2575	2	Exhaust Manifold Stud
15	23109A	1	Exhaust Valve Guide
16	23109B	1	Intake Valve Guide
17	AA23204G3	1	Piston Assembly (0.030" Oversize)
18	23505_3	1	Piston Oil Ring (0.030" Oversize)
19	106222A3	3	Piston Ring (0.030" Oversize)
20	106222B3	1	Chrome Piston Ring (0.030" Oversize)
21	78282A	1	Square Head Pipe Plug, 1/8"

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



F-1 / F-2 PARTS KITS**OCTANE INSTRUMENT PANEL KIT – G-802-30**

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	AA109956K	1	Instrument Panel Assembly
2	105002A	1	Unit Nameplate
3	111543E	1	Hour Meter with Reset
4	105321D	1	Oil Temperature Gauge
5	111543C	1	Hour Meter
6	109714D	1	Instrument Panel Leg
7	109715	1	Instrument Panel Leg
8	21343	5	Hex Head Capscrew, 3/8" - 16 x 3/4"
9	Y18814H	7	Flat Washer, 3/8"
10	21052	18	Medium Lock Washer, 3/8"
11	21189	11	Hex Nut, 3/8" - 16
12	110362	1	Rear Panel Support
13	21729	2	Medium Lock Washer, 3/8"
14	109323	2	Hex Head Capscrew, 3/8" - 16 x 1-3/8"
15	21355	2	Hex Head Capscrew, 3/8" - 16 x 1-3/8"
16	109716	1	Desk
17	21352	6	Hex Head Capscrew, 3/8" - 16 x 1-1/4"
18	21346	5	Hex Head Capscrew, 3/8" - 16 x 7/8"
19	111472	1	Electrical Outlet Box, 4x4x1-1/2"
20	954842	1	Electrical Outlet Box Cover, 4x4
21	F110141E	1	Cable Assembly
22	D111475	1	Primary Ignition Cable Assembly
23	T110122H	1	Cable Assembly
24	110135B	1	Starting Relay
25	D110141B	1	Cable Assembly
26	D110141C	1	Cable Assembly
27	C110141D	1	Cable Assembly
28	C110141H	1	Cable Assembly
29	109847B	1	Ignition Bracket
30	A111418A	1	Ignition Coil Assembly
31	111473	1	Electrical Receptacle
32	E106583B	1	Intake Air Heater Assembly
33	210539A	1	Magnetic Pickup Bracket
34	Y18813G	2	Flat Washer, 1/4"
35	21050	6	Medium Lock Washer, 1/4"
36	21275	2	Hex Head Capscrew, 1/4" - 20 x 3/4"
37	168273	1	Magnetic Pickup
38	Y18813M	2	Flat Washer, 5/8"
39	210538	1	Flywheel Pointer
40	21820	1	Hex Jam Nut, 1/4" - 20

Continued

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2 PARTS KITS
OCTANE INSTRUMENT PANEL KIT – G-802-30

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
41	21310	2	Hex Head Capscrew, 5/16" - 18 x 3/4"
42	B277A	2	Washer
43	26005	2	Round Head Screw, 6 - 32 x 5/16"
44	26975	4	Flat Head Screw, 1/4" - 20 x 1/2"
45	21173	4	Hex Nut, 1/4" - 20
46	A209378D	1	Tachometer Cable Assembly
47	A166942F	1	Spark Plug Wire Assembly
48	21980	2	Socket Head Screw, 3/8" - 16 x 3/4"

Notes:

* Item 1 Instrument Panel Assembly Comes With the Switches, Internal Wiring and Associated Instruments. Instrument Panel Kit Also Includes Wiring Schematics, Labels and Installation Instructions.

F-1 / F-2 PARTS KITS
DIGITAL TIMING / TACH INDICATOR KIT – G-802-39

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	S-06186-85	1	Wiring Schematic
2	S-06684-42	1	Instructions for Digital Timing / Tach Indicator
3	A211427	1	Bridge Rectifier Assembly
4	21791	2	Round Head Screw, No. 8 x 3/8"
5	111697A	1	Digital Timing / Tach Indicator
6	208527A	6	Wire Terminal
7	Y18984	4	Wire Terminal
8	A209378D	1	Tachometer Cable Assembly
9	119574C	3	14 Gauge Wire
10	199066C	2	Wire Clip
11	210539A	1	Magnetic Pickup Bracket
12	Y18813G	2	Flat Washer, 1/4"
13	21050	2	Medium Lock Washer, 1/4"
14	21275	2	Hex Head Capscrew, 1/4" - 20 x 3/4"
15	168273	1	Magnetic Pickup
16	Y18813M	2	Flat Washer, 5/8"
17	B5004	1	Nut, 5/8" - 18 x 1/4"
18	210538	1	Pointer
19	21820	1	Hex Jam Nut, 1/4" - 20
20	109686A	1	Fuse Base
21	21945	2	Flat Head Wood Screw, No. 5 x 1/2"
22	109687	2	Fuse
23	69856A	1	Fast-Acting Fuse, .5 amp - 600V

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



F-1 / F-2 PARTS KITS

RTD KIT – G-802-45

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	C111805B	1	Intake Air Temperature RTD
2	A111805C	1	Coolant Temperature RTD
3	A111805B	1	Crankcase Oil Temperature RTD
4	111805	1	Mixture Manifold Temperature RTD
5	210836	1	RTD Display
6	S-06186-122	1	Wiring Schematic
7	S-06684-117	1	Operating Instructions for RTD Indicator
8	A166942F	1	Spark Plug Wire Assembly (Carbon Core)

CRANKCASE GASKET KIT – G-805-3

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	109633	5	Lock Screw Gasket
2	109616	1	Hole Cover Gasket
3	109522	2	Cover Plate Gasket
4	168922F	1	O-Ring
5	109571A	1	Front Plate Gasket
6	109570	1	Gar Cover Gasket
7	109590	1	Oil Pressure Seal
8	176412	1	Gasket
9	B5559	1	Washer
10	109612	2	Crankcase Door Gasket
11	B10410	2	Washer
12	109561A	1	Valve Relief Gasket
13	106721	1	Cylinder Base Gasket
14	B2544	1	Cylinder Base Gasket
15	118013F	2	O-Ring (Nitrile)
16	211196	3	O-Ring
17	109559B	1	Oil Pump Body Gasket
18	118013M	1	O-Ring (Nitrile)
19	B1956A	1	Breather Gasket
20	109553	1	Support Plate Gasket
21	B2543	1	Gasket

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F-1 / F-2 PARTS KITS
VALVE SPRING ROTATOR KIT – G-806-3

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	109659	2	Valve Rotocap Spring
2	109658	4	Valve Spring Keeper
3	B4680	2	Felt Washer
4	110165C	2	Valve Rotator
5	110200	2	Valve Spring Spacer

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



F-1 / F-2 PARTS KITS
1YR SUPPLY SPARE PARTS KIT – G-807-17

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	B2557	6	Manifold Gasket
2	B1956A	1	Breather Gasket
3	B2544	6	Cylinder Base Gasket
4	B3207	3	Fiber Gasket
5	B4044	1	Cable Terminal
6	B4680	4	Felt Washer
7	B5052A	12	Condenser Gauge Lower Washer
8	B5068	12	Condenser Gauge Upper Washer
9	B5096A	6	Condenser Water Pipe Gasket
10	AA23204G	1	Piston Assembly (Standard Size)
11	23043B	4	Ball
12	PP26	1	Intake Valve
13	PP45	2	3 Piece Set of Valves
14	23505	5	Piston Oil Ring
15	106222A	15	Piston Ring
16	106222B	5	Chrome Piston Ring
17	43335C	1	Valve Spring
18	44999J	2	Intake Retainer Ring
19	73905	1	Spark Plug Terminal
20	75552A	3	Gauge Body Gasket
21	75690	6	Condenser Body Gasket
22	75976A	3	Carburetor Float Gasket
23	O105180	1	Water Jacket Thermometer Assembly
24	O106317A	1	Intake Air Thermometer Assembly
25	O110351	1	Mixture Thermometer Assembly
26	106523	2	Valve Spring Taper (Non rotator type)
27	106721	6	Cylinder Base Gasket
28	109345	1	Intake Manifold Gasket
29	109346	1	Carburetor Heater Gasket
30	110389	1	Thermister Probe, 300°F (149°C)
31	109553	1	Support Plate Gasket
32	109561A	1	Oil Relief Valve Gasket
33	109570	1	Gear Cover Gasket
34	109612	2	Crankcase Door Gasket
35	109658	4	Valve Spring Keeper
36	109659	1	Valve Spring - Yellow Stripe (For Use with Rotators)
37	69850C	1	Ceramic Fuse, 15 amp
38	69850B	1	Ceramic Fuse, 10 amp - 250V
39	69850A	2	Ceramic Fuse, 5 amp - 250V
40	69907	1	Fast Acting Fuse, .5 amp

Continued

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2 PARTS KITS
1YR SUPPLY SPARE PARTS KIT – G-807-17

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
41	PP150	1	Detonation Pickup Assembly
42	111342	5	Detonation Pickup Gasket
43	111346	12	Oil Filter
44	A111418A	1	Ignition Coil Assembly
45	111460	4	Spark Plug
46	118013M	2	O-Ring
47	A166942F	1	Spark Plug Wire Assembly
48	176412	2	Oil Filler Gasket
49	BD190	2	Copper Gasket
50	105991	2	Manifold Gasket
51	106424	2	Valve Spring Cup Gasket
52	110477	2	Breather Cap Gasket
53	441011	5	Tygon Tube, 3/8"OD x 1/4"ID

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



F-1 / F-2 PARTS KITS
4YR SUPPLY SPARE PARTS KIT – G-807-18

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	B2557	18	Manifold Gasket
2	B1956A	6	Breather Gasket
3	B2544	10	Cylinder Base Gasket
4	B3207	10	Fiber Gasket
5	B4044	3	Cable Terminal
6	B4680	15	Felt Washer
7	B5052A	30	Condenser Gauge Lower Washer
8	B5068	30	Condenser Gauge Upper Washer
9	B5096A	20	Condenser Water Pipe Gasket
10	AA23204G	2	Piston Assembly (Standard Size)
11	23043B	4	Ball
12	PP26	4	Intake Valve
13	PP45	5	3 Piece Set of Valves
14	23505	4	Piston Oil Ring
15	106222A	12	Piston Ring
16	106222B	4	Chrome Piston Ring
17	43335C	3	Valve Spring
18	44999J	8	Intake Retainer Ring
19	73905	3	Spark Plug Terminal
20	75552A	9	Gauge Body Gasket
21	75690	6	Condenser Body Gasket
22	75976A	5	Carburetor Float Gasket
23	O105180	2	Water Jacket Thermometer Assembly
24	O106317A	2	Intake Air Thermometer Assembly
25	O110351	3	Mixture Thermometer Assembly
26	106523	12	Valve Spring Taper (Non rotator type)
27	106721	18	Cylinder Base Gasket
28	109345	4	Intake Manifold Gasket
29	109346	4	Carburetor Heater Gasket
30	110389	3	Thermister Probe, 300°F (149°C)
31	109522	2	Cover Plate Gasket
32	109552	1	Oil Screen
33	109559B	1	Oil Pump Body Gasket
34	109561A	4	Oil Relief Valve Gasket
35	109570	1	Gear Cover Gasket
36	109571A	1	Front Plate Gasket
37	109590	1	Oil Pressure Seal
38	109612	6	Crankcase Door Gasket
39	109616	6	Camshaft Hole Cover Gasket
40	109633	15	Lock Screw Gasket
41	109658	12	Valve Spring Keeper
42	109659	2	Valve Spring - Yellow Stripe (For Use with Rotators)
43	110165C	2	Valve Rotator
44	69850C	4	Ceramic Fuse, 15 amp
45	69850B	4	Ceramic Fuse, 10 amp - 250V
46	69850A	8	Ceramic Fuse, 5 amp - 250V

Continued

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F-1 / F-2 PARTS KITS
4YR SUPPLY SPARE PARTS KIT – G-807-18

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
47	69907	4	Fast Acting Fuse, .5 amp
48	PP150	2	Detonation Pickup Assembly
49	111342	18	Detonation Pickup Gasket
50	111346	48	Oil Filter
51	A111418A	2	Ignition Coil Assembly
52	111460	8	Spark Plug
53	118013M	8	O-Ring
54	A166942F	3	Spark Plug Wire Assembly
55	176412	4	Oil Filler Gasket
56	B5094	1	Condenser Gauge Tube
57	B5431	1	Ball Bearing
58	21094	2	Round Head Screw, 8 - 32 x 3/4"
59	23308D	2	Piston Pin Bushing
60	26059	2	Medium Lock Washer, No.8
61	27732C	1	Induction Motor Pulley Key
62	27974	2	Pad
63	A166182U	1	Flexible Hose Assembly
64	75612A	2	Screen
65	105061	2	Float Chamber Gasket
66	105987B	2	Valve Insert (.005" Oversize)
67	105991	4	Manifold Gasket
68	106748H	1	Mixture Manifold Heater
69	109421	2	Water Inlet Cap Gasket
70	109542	2	Front Crankshaft Bearing
71	109546	2	Crankshaft Thrust Shim
72	109618	1	Crankshaft Rear Bearing
73	111225	2	Race Thrust Bearing
74	111226	1	Needle Bearing
75	111305	1	Toggle Valve
76	A111352	1	Oil Line Assembly
77	A111352A	1	Oil Line Assembly
78	117926C	2	Oil Filter Gasket
79	106424	6	Valve Spring Cup Gasket
80	75974A	4	Carburetor Level Glass
81	441011	10	Tygon Tube, 3/8"OD x 1/4"ID
82	109542	1	Front Crankshaft Bearing
83	109546	1	Crankshaft Thrust Shim
84	109570	1	Gear Cover Gasket
85	109571A	1	Front Plate Gasket
86	109616	1	Hole Cover Gasket
87	109618	1	Rear Crankshaft Bearing
88	109633	6	Lock Screw Gasket
89	110158	1	Oil Seal
90	117926C	2	Oil Filter Gasket
91	168922F	1	O-Ring
92	211196	2	O-Ring

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



F-1 / F-2 PARTS KITS

CRANKCASE OVERHAUL KIT – G-807-24

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	G-805-3	1	Gasket Set
2	3337	2	Brass Expansion Plug
3	PP109	1	Oil Heater
4	B6417	2	Brass Expansion Plug
5	Y19247	3	#8 14-18AWG Wire
6	21002	1	Woodruff Key
7	21006	4	Woodruff Key
8	21014	2	Woodruff Key
9	21196	3	O-Ring
10	21720	7	Set Screw - Cup Point, 1/4"-20 x 1/4"
11	106137A	2	Connecting Rod Bearing
12	109503A	2	Thrust Plate
13	109512	1	Crankshaft Gear
14	109514Z	1	Balancing Drive Gear
15	109526	1	Camshaft Gear
16	O109531X	1	Idler Gear
17	109535A	1	Idler Gear Thrust Washer
18	109541	2	Crankshaft Thrust Plate
19	109542	1	Front Crankshaft Bearing
20	109546	1	Crankshaft Thrust Shim
21	109546A	2	Crankshaft Thrust Shim
22	109546B	2	Crankshaft Thrust Shim
23	109546C	2	Crankshaft Thrust Shim
24	109575	1	Flywheel Key
25	109577	1	Flywheel Lock Nut
26	109579	2	Balancing Shaft Locking Nut
27	109608	1	Front Camshaft Bushing
28	109618	1	Rear Crankshaft Bearing
29	109619	1	Rear Camshaft Bushing
30	109622	1	Right Hand Balancing Shaft Gear
31	109624	4	Balancing Shaft Bushing
32	109625A	2	Locking Screw
33	109626A	6	Bushing Lock Screw
34	109633	5	Gasket Lock Screw
35	109803	1	Plastic Sight Gauge
36	110148	1	Oil Seal
37	110149	1	Crankshaft Oil Seal Retainer
38	110150A	1	Oil Pump Assembly
39	110158	2	Oil Seal
40	110669	1	Special Woodruff Key
41	110174	1	Camshaft Oil Seal Sleeve
42	111251	1	Self Lock Capscrew
43	111372	1	Jam Nut
44	111623	2	Motor Lead Wire
45	118013F	2	O-Ring (Nitrile)
46	152917	6	Flex Sleeve
47	A111352	1	Oil Line Assembly

Continued

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2 PARTS KITS
CRANKCASE OVERHAUL KIT – G-807-24

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
48	A111352A	1	Oil Line Assembly
49	A166182U	1	Flexible Hose Assembly
50	B1686	1	Half Union Elbow
51	B567A	1	Street Elbow
52	B7106	1	Rest Fitting
53	110177A	1	Crankshaft Seal Spacer
54	50864	1	Flexible Hose
55	75745	1	Reducing Bushing
56	75806	1	Orifice Restrictor
57	Y18802	16	Allen Head Pipe Plug, 1/8"
58	106343	11	Allen Head Pipe Plug 1/4"
59	110186B	1	Oil Suction Tube
60	199111D	2	Male Elbow
61	194769G	2	Male Connector
62	110184A	1	Oil Pressure Tube
63	B5834	12	Hex Head Capscrew, 1/4"-20 x 5/8"
64	21545	5	Socket Head Capscrew, 5/16"-24
65	39149	4	High Collar Lock Washer, 5/16"
66	78202D	2	Street Ell
67	78920	1	Service Tee
68	39112	1	Male Half Elbow
69	39023	3	Male Half Union
70	109566	4	SCC/WGT
71	177382A	4	Stop Nut
72	B2674	2	Spark Indicator Nut
73	21309	2	Hex Head Capscrew, 5/16"-18 x 3/4"
74	21051	15	Lock Washer, 5/16"
75	21312	2	Hex Head Capscrew, 5/16"-18 x 7/8"
76	B5832	20	Hex Head Capscrew, 3/8"-16 x 1"
77	21273	8	Hex Head Capscrew 1/4"- 20 x 5/8"
78	21050	21	Lock Washer 1/4"
79	21354	8	Hex Head Capscrew, 3/8"-16 x 1-3/8"
80	21052	13	Lock Washer, 3/8"
81	21346	2	Hex Head Capscrew, 3/8"-16 x 7/8"
82	21090	2	Round Head Screw
83	21604	2	External Lock Washer No.8
84	11473	1	Electrical Connection
85	21660	2	Round Head Screw
86	B5829	2	Hex Head Capscrew, 5/16"-18 x 3/4"
87	109323	8	Hex Head Capscrew, 3/8"-16 x 1-3/8"
88	109422	4	Capscrew
89	21754	8	Fillister Head Capscrew
90	26144	8	Lock Washer - External Countersunk
91	109410	10	Hex Head Capscrew, 3/8"-24 x 7/8"
92	109576	1	Flywheel Nut
93	75556	2	Hex Head Capscrew
94	B2747	2	Plain Copper Washer, 3/8"

Continued

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



F-1 / F-2 PARTS KITS
CRANKCASE OVERHAUL KIT – G-807-24

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
95	26005	2	Round Head Screw, No. 6-32 x 5/16"
96	109518	2	Valve Lifter Guide
97	O109519	2	Valve Lifter Assembly
98	B4681	2	Valve Lifter Adjusting Screw
99	7721B	2	Adjusting Screw Nut
100	106827	1	Valve Relief Plunger
101	B9107A	1	Oil Valve Spring
102	105595	1	Oil Relief Valve Acorn Nut
103	26411	2	Allen Head Pipe Plug - Plated, 3/8"
104	21322	4	Hex Head Capscrew, 5/16"-18 x 2-1/4"
105	21094	2	Round Head Screw
106	21656	2	Medium Lock Washer, No.8
107	109791B	1	Flexible Coupling
108	110248	2	Oil Thrower
109	21177	2	Hex Nut
110	110533C	1	Crankshaft Guard
111	111207A	1	Crankshaft Guard Cover
112	26051	1	Round Head Screw, No. 10-24 x 5/8"
113	26420	1	Medium Lock Washer
114	152452D	1	Cover Spacer
115	Y18814E	1	Flat Washer, No.10-3/16"
116	26128	1	Hex Head Pipe Plug
117	FA110475	1	Breather Valve Assembly
118	78212G	1	Bushing
119	B5559	1	Washer
120	109543	1	Crankshaft Thrust Washer
121	B4296A	1	Oil Filler Cap
122	73654S	1	Pipe

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2 PARTS KITS
CRANKCASE SHAFT KIT – G-807-25

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A109511H	1	Crankshaft Assembly
2	109530A	1	Idler Shaft
3	109583B	1	Camshaft
4	109510A	2	Balancing Shaft

QUICK SLIDE BASE KIT – G-812-2

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A111707D	1	Motor Base Assembly
2	21466	4	Hex Head Capscrew, 5/8"-11 x 3-1/4"
3	21055	4	Lock Washer, 5/8"
4	Y18814M	4	Plain Washer, 5/8"
5	21539	4	Lock Washer, 1/2"
6	Y18814K	4	Plain Washer, 1/2"
7	21433	4	Capscrew, 1/2"-13 x 1-3/4"
8	S-06684-45	1	Rework Diagram
9	S-06684-77	1	Slide Base Set-Up Diagram

SAFETY SHUTDOWN SYSTEM KIT – G-813-1

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A111787	1	Safety Switch Bracket Assembly
2	211413B	2	Indicator Light, (Red)
3	110507A	1	Safety Switch Label
4	489340	1	Service Bulletin #013-009
5	B4094	1	Union Connector
6	26515	1	Round Head Screw, 8-32 x .88"
7	21818	1	Lock Washer, No. 8
8	155241B	1	Brass Pipe Elbow, 1/8"
9	21260	1	Hex Nut, No. 8 - 32
10	Y18814D	1	Washer

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



F-1 / F-2 PARTS KITS
SPECIAL OCTANE TOOLS KIT – G-818-4

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	24088S	1	Spark Plug 7/8" Socket
2	AA24088U	1	Turnover Wrench Assembly
3	56372	1	Torque Wrench Adapter
4	A75644A	1	Valve Lapping Tool Assembly
5	106821C	1	Valve Retainer Block
6	106893	1	Ring Expander
7	106950	1	Ring Groove Cleaner
8	O106965	1	Piston Ring Compressor
9	109023	1	Piston Pin Remover
10	109284	1	Feeler Gauge
11	A109802A	1	Allen Head Screwdriver
12	109885	1	Snap Ring Pliers
13	C110304	1	Compression Pressure Gauge Assembly
14	110904	1	Spark Plug Hole Tap
15	110905	1	Detonation Pickup Hole Tap
16	111367	1	Venturi Remover
17	111684	1	Cylinder Diameter Gauge
18	109291A	1	Pickup Cable Wrench

TORQUE WRENCH AND ADAPTER KIT – G-818-8

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	111680	1	Torque Wrench
2	489281	1	Adapter

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F-1 / F-2 PARTS KITS
COMPRESSION RATIO CHANGE MOTOR KIT – G-821-7

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A111242D	1	Compression Ratio Change Motor Assembly
2	E110122R	1	Cable Assembly
3	111240	1	Compression Ratio Change Motor Bracket
4	111241	1	Bracket Cover
5	21087	2	Round Head Screw, No.8 - 32 x 1/4"
6	21051	5	Lock Washer, 5/16"
7	21313	5	Hex Head Capscrew, 5/16" - 18 x 1"
8	21050	4	Medium Lock Washer, 1/4"
9	39110C	4	Stud, 1/4" x 1-1/4"
10	21177	4	Hex Nut, 1/4" x 28
11	A23073A	1	Worm Shaft Assembly
12	110625A	1	Coupling Hub
13	110509	1	Coupling Hub
14	44408D	2	Square Key, 3/16" x 3/4"
15	41162A	1	Spider Coupling
16	110508	1	Drive Housing
17	110511	1	Flex Drive Housing Clamp
18	21543	2	Socket Head Screw, 1/4" - 20 x 1"
19	21050	3	Medium Lock Washer, 1/4"
20	A110514A	1	Digital Counter Assembly
21	106058	2	Screw Cap
22	21279	2	Hex Head Capscrew, 1/4" - 20 x 7/8"
23	21174	2	Hex Nut, 1/4" - 20
24	21536	2	Medium Lock Washer, 1/4"
25	110513A	1	Flexible Shaft Assembly
26	110518	1	Drum Switch
27	953027F	1	Nylon Cable Hanger
28	21889	2	Round Head Screw, No.8 - 32 x 1/2"
29	163164	1	Grommet
30	111225	2	Race Thrust Bearing
31	111226	1	Needle Bearing
32	21480	1	Hex Head Capscrew, 5/8" - 18 x 2-1/4"
33	152879	2	Washer, 5/8"
34	21225	1	Hex Nut, 5/8"
35	105041	6	Worm Shaft Shim

NOTE:

Compression Ratio Change Motor Kit Also Includes Wiring Schematics, Labels and Installation Instructions.

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



F-1 / F-2 PARTS KITS**CONVERSION FROM BREAKER POINTS TO BREAKERLESS IGNITION KIT – G-822-13**

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	111417	1	Ignition Timer
2	111420	1	Ignition Timer Cover
3	21094	2	Round Head Screw, No.8 - 32 x 3/4"
4	26059	2	Medium Lock Washer, No.8
5	109177	1	Friction Screw
6	A109178	1	Friction Plug Assembly
7	109179	1	Spring Screw
8	109605B	1	Ignition Control Arm
9	106212	1	Control Arm Clamp Screw
10	A111418A	1	Ignition Coil Assembly
11	109704	1	Switch
12	951031F	1	Terminal Block
13	111548	1	Bendix Spacer
14	26746	1	Roll Pin, 1/8" x 1"
15	A111419	1	Ignition Control Unit Assembly
16	111426	1	Isolation Transformer
17	21791	10	Round Head Screw, No.8 x 3/8"
18	A111475A	1	Primary Ignition Cable Assembly
19	A110382A	1	Ground Strap
20	111563	1	Felt Plug
21	109686A	1	Fuse Base
22	21945	2	Flat Head Wood Screw, No. 5 x 1/2"
23	109687	2	Fuse
24	69856A	1	Fast-Acting Fuse, .5 amp - 600V

SAFETY GUARD KIT – G-823-4

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	109801G	1	Belt Guard
2	21980	1	Socket Head Capscrew, 3/8"-16 x 3/4"
3	39150	1	Hi-Collar Lock Washer, 3/8"
4	110528	1	Belt Guard Bracket
5	21346	2	Hex Head Capscrew, 3/8"-16 x 7/8"
6	21348	1	Hex Head Capscrew, 3/8"-16 x 1"
7	21189	3	Hex Nut, 3/8" - 16
8	21052	3	Lock Washer, 3/8"
9	Y18813H	6	Plain Washer, 3/8"
10	111409B	1	Left Rear Guard
11	111410A	1	Right Rear Guard
12	21271	6	Hex Head Capscrew, 1/4"-20 x 1/2"
13	Y18813G	6	Plain Washer, 1/4"
14	21050	6	Lock Washer 1/4"

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F-1 / F-2 PARTS KITS
CRANKSHAFT GUARD ASSEMBLY KIT – G-823-9

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	152452D	1	Cover Spacer
2	26051	1	Round Head Screw, No. 10-24 x 5/8"
3	26420	1	Lock Washer, No.10-3/16"
4	B5834	3	Hex Head Capscrew, 1/4"-20 x 5/8"
5	21050	3	Lock Washer 1/4"
6	110533C	1	Crankshaft Guard
7	Y18814E	1	Flat Washer, No.10-3/16"
8	111207A	1	Crankshaft Guard Cover
9	110177A	1	Crankshaft Seal Spacer
10	211196	1	O-Ring

BULK SPARK PLUG KIT – G-824-6

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	111460	12	Spark Plug

BULK OIL FILTER KIT – G-824-7

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	111346	12	Oil Filter

NATURAL GAS WARMUP KIT – G-826-2

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A110617A	1	LPG Regulator Assembly
2	111611	1	Natural Gas Panel Switch
3	111488	1	Relay

NOTE:

* A110617A Assembly Includes all hardware, piping and associated wiring as listed on page 80 and 81.
 Kit also includes wiring schematic and installation instructions.

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



F-1 / F-2 PARTS KITS

CYLINDER CLAMPING SLEEVE KIT – G-830-5

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	23192D	1	Cylinder Clamping Sleeve
2	21480	1	Hex Head Capscrew, 5/8" - 18 x 2-1/4"
3	152879	2	Plain Washer, 5/8
4	21225	1	Hex Nut, 5/8" - 18
5	109126	2	Cylinder Sleeve Screw Plug
6	B5314	1	Oil Cup
7	B5445	1	Oil Cup
8	B5431	1	Ball Bearing
9	105041	6	Worm Shaft Shim
10	B2682	1	Cylinder Key
11	23059B	1	Cylinder Worm Wheel
12	B5268	4	Cylinder Sleeve Spring
13	B364D	1	Cylinder Head Stud, 5-7/16"
14	23065B	1	Cylinder Guide Plate
15	111225	2	Race Thrust Bearing
16	111226	1	Needle Bearing

WATER PIPE KIT – G-832-1

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	O109131B	1	Condenser Pipe Assembly
2	O109418	1	Water Pipe Inlet Assembly
3	B5096A	2	Water Pipe Gasket
4	B3104	1	Slotted Head Pipe Plug - Brass, 1/8"
5	21294	2	Hex Head Capscrew, 1/4" - 20 x 2-1/2"
6	21291	2	Hex Head Steel Capscrew, 1/4"-20 x 2"
7	21050	4	Lock Washer 1/4"
8	21275	2	Hex Head Capscrew, 1/4"-20 x 3/4"
9	211747	1	Ball Valve
10	B5528	1	Union Nut
11	B5526	1	Connector Union

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-1 / F-2 PARTS KITS
OIL FILTER ASSEMBLY KIT – G-855-3

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	AA111345	1	Oil Filter Assembly
2	A111352	1	Oil Line Assembly
3	A111352A	1	Oil Line Assembly
4	39023	3	Male Half Union
5	39112	1	Male Half Elbow
6	78202D	1	Pipe Elbow, 3/8" x 90°
7	B567A	1	Street Elbow
8	50864D	1	Flexible Hose, 24"
9	75806	1	Restrictor Orifice
10	75745	1	Reducing Bushing
11	Y18802	2	Allen Head Pipe Plug, 1/8"

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



F-1 / F-2 PARTS KITS

CONVERSION FROM RESEARCH TO COMBINATION KIT – G-862-11

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	BD190	1	Copper Gasket
2	21186	4	Hex Nut, 5/16"
3	B9433	1	Key, 3/8" x 1-3/4"
4	21051	6	Lock Washer, 5/16"
5	21052	2	Medium Lock Washer, 3/8"
6	21315	2	Hex Head Capscrew, 5/16" - 18 x 1-1/4"
7	21370	6	Hex Head Capscrew, 3/8" - 16 x 3-1/4"
8	21376	1	Hex Head Capscrew, 3/8" - 24 x 1/2"
9	21503	2	Cotter Pin
10	21600	2	Castle Nut, 1/2" - 20
11	21632	6	Lock Washer, 3/8"
12	21980	2	Socket Head Screw, 3/8" - 16 x 3/4"
13	27732C	1	Induction Motor Key
14	27928F	1	Induction Motor Pulley
15	106206	1	Induction Motor Pulley
16	O27970	1	Belt Set
17	A75509A	1	Ignition Control Rod
18	75988E	4	#68 Carburetor Fuel Jet
19	105991	1	Manifold Gasket
20	106212	1	Control Arm Clamp Screw
21	21433	2	Hex Head Capscrew, 1/2" - 13 x 3-1/4"
22	A106747A	1	Air Heater Assembly Housing
23	106748H	1	Mixture Manifold Heater
24	109345	2	Intake Manifold Gasket
25	109346	1	Carburetor Heater Gasket
26	109605B	1	Ignition Control Rod
27	109847B	1	Ignition Bracket
28	110133	1	Flywheel Pulley
29	O110351	1	Mixture Thermometer
30	110389	1	Thermistor Probe 300°F (149°C)
31	27732B	1	Induction Motor Pulley Key
32	26981	3	Flex-Loc Nut, 1/4" - 18

TURNOVER TOOL BRACKET KIT – G-867-3

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	111699	1	Turnover Bracket
2	21429	2	Hex Head Capscrew, 1/2" - 13 x 1-1/4"
3	Y18814K	2	Washer, 1/2"
4	21539	2	Lock Washer, 1/2"
5	S-06844-75	1	Installation Instructions for Turnover Bracket

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CFR F-1 / F-2 PARTS NUMBER INDEX

NUMBER	GROUP #	ITEM	NUMBER	GROUP #	ITEM	NUMBER	GROUP #	ITEM
ASSEMBLIES			G-813-1	97		106222	A1	45 11
AD 105333		11	G-818-4	98		106222	B1	45 7
AA 106601	A	5	G-818-8	98		106222	A2	45 12
AC 106601	A	5	G-821-7	99		106222	B2	45 8
O 106918	B	19	G-822-13	100		106222	A3	45 13
A 106926	A	19	G-823-4	100		106222	B3	45 9
A 109010	B	77	G-823-9	101		106232		57 29
O 109010	B	33	G-824-6	101		A 106317	B	5 21
A 109226	B	77	G-824-7	101		O 106317	A	5 21
A 109264	A	29	G-826-2	101		106343		37 26
O 109264	C	29	G-830-5	102		106407		23 19
A 109267	C	29	G-832-1	102		106420	A	23 13
FA 109355		25	G-855-3	103		106424		23 14
O 109418		27	G-862-11	104		106514		9 26
A 109538	A	53	G-867-3	104		106515		9 13
O 109552		53				106517	A	13 18
O 109657		23				106519		9 33
A 109887	E	7						13 17
A 110159		21	100831	B	79 11	106523		23 18
O 110159		21	B 10168		59 11	E 106583	B	5 14
OO 110159		21			79 5	D 106595	A	5 15
C 110304		73	B 10168	E	13 7			79 43
FA 110475		47	B 10410		53 5	106601	A	5 1
A 110501		69	105001	A	37 29	O 106606	A	5 9
A 110514	A	33	105002	A	59 20	O 106608	A	5 2
AA 111345		55	A 105028	A	73 10	106625		23 12
AA 111345		55	O 105033		73 6	O 106686	B	5 7
AA 111412	B	71	105041		31 27	106687	A	5 8
A 111417		49	105058		13 16			77 12
A 166942	F	51	105059		13 20	106721		31 1
O 23043		21	105061		13 5	A 106747	A	17 2
O 23043	A	21	O 105180		27 13	106748	H	17 1
A 23073	A	33	105208		17 8	106824		21 9
C 23192	D	33			23 9	106827		53 2
O 23272	B	21	105321	D	61 51	106915	A	19 15
OO 23272	B	21	OO 105333		9 15	106917	A	19 19
OB 5051	B	29	105334	C	9 39	106918	B	19 14
OB 5051	C	15	105334	F	9 38	106919		19 18
OB 5264		21	105335	A	59 33	106921		21 18
A 75509	A	49	105355	A	59 36	106922		21 19
AA 75961		11			79 7	106923		19 1
AA 75962	H	15	105355	C	11 42	106924		19 2
CA 75962	H	15	105361		31 5	106926	A	19 4
DA 75962	H	15	105420		13 21	106927		19 5
					29 17	106928	A	19 6
			105593		53 4	106931	B	19 7
			105594		53 7	106932		19 11
			105595		53 6	106933		19 12
			105681	B	45 19	106934		19 13
			105987	A	23 1	109009	A	31 40
			105987	B	23 2			77 5
			105987	C	23 3	109010	A	31 37
			105987	D	23 4			77 2
			105987	F	23 5	109011	C	31 38
			105991		17 5			77 3
			105996	M	77 31	109026		19 21
			106058		49 11	109027		21 16
			106137	A	45 22	109043		19 16
			106206		57 29	109126		31 8
			106212		49 18	O 109131	B	27 1
			106222	A	45 10	109135		73 9
			106222	B	45 6			
PARTS KITS								
G-801-5		82						
G-801-6		83						
G-801-7		84						
G-801-8		85						
G-802-30		86						
G-802-45		88						
G-805-3		88						
G-806-3		89						
G-807-17		90						
G-807-18		92						
G-807-22		87						
G-807-24		94						
G-807-25		97						
G-812-2		97						

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



CFR F-1 / F-2 PARTS NUMBER INDEX

NUMBER	GROUP #	ITEM	NUMBER	GROUP #	ITEM	NUMBER	GROUP #	ITEM
A 109151	11	46	109526	43	22	109712	63	13
109177	49	7	109530	A 43	1	109719	61	49
A 109178	49	8	O 109531	X 43	4	109756	5	11
109179	5	6	109534	A 53	20	109778	9	8
	49	9	109535	A 43	5	109791	C 49	14
109198	5	4	109538	A 53	1	109801	G 81	1
A 109219	A 77	1	109541	41	28	109803	37	1
109226	B 77	15	109542	41	27	109839	P 59	23
109227	77	13	109543	41	10	109847	B 49	19
109228	77	11	109546	41	6	109855	C 59	15
A 109229	A 77	25	109546	A 41	7	109887	E 7	6
109231	A 77	30	109546	B 41	8	W 109927	69	7
109252	A 19	23	109546	C 41	9	109929	A 59	38
	31	39	109547	53	26	109973	C 29	5
	77	4	109548	53	27	109977	29	7
O 109253	77	17	109549	53	28	109978	29	8
109258	77	16	109550	53	29	109979	29	9
109264	A 29	1	109551	53	30	109980	59	40
109267	A 29	3	109552	53	31	F 110122	R 35	4
109277	7	8	109553	53	34	G 110122	H 79	23
109281	7	9	109555	41	12	T 110122	H 57	23
109323	37	19	109559	B 53	23	O 110123	7	2
A 109343	D 11	44	109561	A 53	9	110133	41	22
A 109343	E 11	45	109565	A 43	29	110135	B 57	6
109345	9	3	109566	43	30	C 110141	D 57	26
	17	12	109570	37	17	C 110141	H 57	27
109346	9	2	109571	A 37	16	D 110141	B 57	24
	17	10	109574	A 39	14	D 110141	C 57	25
109348	7	11	109575	41	23	F 110141	E 57	22
109349	7	10	109576	41	24	110148	41	4
109350	7	7	109577	41	25	110149	41	3
109351	7	14	109579	43	35	110150	A 53	19
109352	7	15	109583	B 43	20	110151	41	22
109380	31	43	109590	39	10	110158	41	18
	77	8	109605	B 49	17		43	25
109383	31	41	109606	49	6	110159	21	1
	77	6	109608	43	12	110165	C 23	21
109384	31	44	109609	39	4	A 110166	A 19	24
	77	9	109610	39	3	110174	43	26
109410	37	18	109611	47	1	110177	A 41	17
109418	27	6	109612	39	17	110184	A 53	18
109419	27	7	109615	37	9	110186	B 53	15
109420	27	8	109616	37	14	110213	9	40
109421	27	9	109618	41	26	110215	7	5
109461	19	26	109619	43	11	110228	9	19
109483	19	22	109621	37	24	110228	A 59	35
O 109495	5	10	109622	43	33	110231	37	8
O 109497	5	3	109624	43	7	110248	41	16
109501	A 41	21	109625	A 41	30		43	23
109501	H 41	21	109626	A 43	8	110279	23	23
109503	A 43	32	109627	A 37	27	110304	73	1
109510	A 43	28	109633	41	32	110305	73	2
A 109511	H 41	1		43	9	110349	B 23	24
109512	41	11	109636	39	19	O 110351	17	13
109513	A 37	4	109658	23	22	110381	51	14
109514	Z 43	34	109659	23	20	C 110382	51	9
109518	43	15	109703	F 63	14		63	33
O 109519	43	17	109707	63	4	110386	71	8
K 109520	D 37	3	109708	59	32	110389	71	9
109521	39	5	109709	61	43	110395	71	7
109522	39	6	109710	61	46	A 110412	B 5	13

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



CFR F-1 / F-2 PARTS NUMBER INDEX

NUMBER			GROUP #	ITEM	NUMBER			GROUP #	ITEM	NUMBER			GROUP #	ITEM
A	110414	A	29	4	A	111366	A	79	36		111786		67	5
	110455	H	23	31	C	111366		79	22		111786	A	67	4
A	110475		47	5		111372		43	27	A	111787		67	1
	110476	A	47	7		111396		55	5		111802	A	59	21
	110477		47	8		111406	A	45	20		111805		65	5
	110495	A	59	30		111409	B	81	10	A	111805	B	65	4
	110501		69	13		111410	A	81	11	A	111805	C	65	3
			71	11		111412		71	1	C	111805	B	65	2
	110502		69	14		111415		71	2		116880	C	37	23
			71	12		111417		49	1		117160		31	42
	110507		35	18		111417	P	49	2				77	7
	110508		31	14		111418	C	51	11		117926	C	55	6
	110509		35	15		111418	D	51	10		118013	E	29	6
	110510		31	13	A	111418	A	51	1		118013	F	41	5
	110511		31	15	A	111419		63	2		118013	M	29	10
	110513	A	31	23		111420		49	3				37	2
	110514	A	31	18		111422		49	16		118013	P	19	3
	110517		31	22		111426		63	26	O	118263		51	6
	110518		35	19		111432	A	13	25		118879	K	7	12
	110523		7	13		111434	A	13	2		119434	W	79	20
	110528		81	4				23	30		151377	J	35	21
	110529	B	31	29		111435	A	33	53		151378	Q	35	20
	110533	C	37	40		111437	A	13	3		151378	Y	79	41
	110545		49	15		111444		71	4		152452	D	37	37
	110561		57	1		111460		51	8		152879		33	51
	110562		57	1		111471		59	18		153098	B	61	47
	110614		79	2		111472		57	20		154981	B	79	16
	110617	A	79	10		111473		39	27		154981	C	79	34
	110618	A	79	4	A	111475		49	28		157635		61	50
	110625	A	35	13	D	111475		49	28		162117		79	38
	110631	A	23	25		111479		79	21		162118		79	39
A	110641		73	3	A	111485		69	17		163164		35	24
	110660		61	44		111486		69	19	A	166182	L	59	6
	110669		41	20		111488	A	79	44	A	166182	U	55	15
	110670	A	47	6		111543	B	61	53				59	5
	110854		69	2		111543	C	61	53				79	8
			71	5		111543	D	61	53	A	166182	W	59	37
	111207	A	37	34		111543	E	61	53		166942	F	51	7
	111225		33	45		111545		59	22		167208		79	12
	111226		33	46		111563		49	29		168273		81	17
	111240		35	5	A	111610		59	27	B	1686		59	3
	111241		35	6		111611		59	25		168922	F	39	9
A	111242	D	35	1				79	40		176412		37	31
	111243		23	28		111612		59	26		177382	A	43	31
	111251		43	6	A	111621		39	23	Y	18802		7	4
A	111263	B	69	1		111623		39	26				21	20
	111271	A	79	13		111629	A	13	26				37	25
	111279		69	4	BA	111666		45	18				39	16
	111280		69	3		111670		59	34				41	2
	111305		9	20		111675		57	2				43	2
			79	6	A	111675		57	2				53	12
	111333	A	79	14		111690		59	14	Y	18813	D	79	30
	111342		69	8				69	6	Y	18813	G	51	5
			73	8				71	6				81	14
	111345		55	16		111690	A	35	26	Y	18813	H	81	9
	111346		55	17		111690	B	59	28	Y	18814	D	63	16
	111347		55	18		111697		59	31	Y	18814	E	37	38
A	111352		55	9		111706		63	27	Y	18814	G	69	12
A	111352	A	55	10	A	111707	D	57	28					
	111363		79	26		111783		39	28					
	111364		79	24		111785		13	11					

PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO ENGINE SPECIFICATION.



CFR F-1 / F-2 PARTS NUMBER INDEX

NUMBER	GROUP #	ITEM	NUMBER	GROUP #	ITEM	NUMBER	GROUP #	ITEM
Y 18814 K	21	5	210798	63	29	21354	39	2
	57	16	210836	65	1	21370	57	30
	61	48	21087	35	7	21376	5	20
	79	35	21089	39	20		17	3
Y 18814 M	57	19	21093	79	27	21398	19	10
BD 190	5	19	21094	49	4	21405	19	8
	17	4	21116	39	29	21414	31	28
	71	10	211196	41	19	21428	55	1
Y 19247	35	22		43	24		79	17
	79	42		47	9	21431	21	3
194769 G	53	16	211196 C	13	14	21433	57	14
194929 A	79	25	211413 B	67	2		41	34
B 1956 A	47	2	A 211427	63	20	21450	5	18
199111 D	53	17	211486	31	19	21466	7	19
B 1993	79	3	21173	51	3		57	17
199358	49	25		79	31	21473	37	32
199358 A	49	23	21174	33	55	21474	7	18
				57	5	21480	33	50
				63	5	21503	41	35
				27	11	21536	33	56
A 209378 D	81	15	211747	21	22		51	13
21002	53	21	21175	35	12		63	7
21006	41	15	21177	49	26	21538	11	41
	43	21		23	29	21543	31	16
21009	31	30	21179	21	25	21545	5	16
AC 210109 A	69	5	21185	9	4		53	22
21014	41	13	21186	17	9	21575	53	24
21050	27	3		31	35	21600	41	36
	29	20	21189	81	7	21604	39	21
	31	17		47	11	21606	13	9
	35	10	21195	79	1	21621	63	34
	37	39	21212	33	52	21632	57	31
	39	8	21225	21	7	21656	79	28
	49	12	21227	59	9	21660	39	25
	51	4	21258	63	12	21679	59	8
	53	36		79	29		63	11
	57	4	21259	63	32	21692	35	14
	79	32	21260	81	12		77	14
	81	13	21271	63	6	21720	41	31
21051	7	17	21272	39	7		43	10
	17	7	21273	51	2		77	10
	31	32		33	54	21729	31	21
	35	8	21274	69	9	21754	37	5
	37	13		63	3	21766	59	19
	43	14	21283	27	2	21791	63	1
21052	53	11	21291	27	10	21834	13	8
	39	11	21294	43	13	21889	35	23
	49	21	21309	5	17	21939	5	5
	55	4	B 2131	43	16	21967	49	24
	81	8	21312	29	19	21980	49	20
21053	19	9	21313	35	9		81	2
210538	81	16		17	6	21983	47	3
210539 A	81	18	21315	31	31	23039	41	14
21054	21	4	21317	53	10	23043 A	21	12
	55	2	21322	7	16	23043 B	21	15
	57	15	21323	37	7	23043 C	21	13
	79	18	21346	39	15	23043 D	21	14
21055	7	20		81	5	23059 B	33	47
	37	33		81	6	23065 B	33	49
	57	18	21348	19	20	23073 A	31	12
21057	19	17	B 2135	55	3	23109 A	23	6
A 210635	71	3	21352					

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NUMBER		GROUP #	ITEM	NUMBER		GROUP #	ITEM	NUMBER		GROUP #	ITEM			
AA	23109	B	23	7	27732	C	57	11	B 5314		9			
	23133		21	2	OO 27848		13	22	B 5398		26			
	23192	D	31	7	B 2786	A	31	34	B 5431		25			
	23204	G	45	1	B 2788	A	31	33	B 5436		10			
	23204	G1	45	2		27928	F	57	9	B 5445		10		
	23204	G2	45	3	O 27970		57	13			49	13		
	23204	G3	45	4		28102		69	10	OB 5500		12		
	23242	A	7	1		28311		39	24	B 5526		14		
	23272	B	21	8		28326		9	18	B 5528		12		
	23308	D	45	21		28801		37	20	B 557	B	37	30	
23436	A	23	10							56149		35	2	
23505		45	14							56149	A	35	3	
23505-1		45	15							56371		69	18	
23505-2		45	16	B 3104		27		4		56371	A	69	20	
23505-3		45	17	B 3109	A	39		22		56371	A	69	20	
B	2465		21	17	B 3165		77	18		B 567	A	55	12	
	2543		37	11	B 3204		13	19				59	2	
	2544		31	2	B 3207		9	25	B 5764		31	4		
	2557		7	3		3337		39	12	B 5829		37	12	
	2575		23	8	B 364	D	33	48	B 5832		39	18		
	26005		37	28	B 3664		19	25	B 5833		23	26		
	26030		23	27	B 3884		43	3	B 5834		37	15		
	26051		37	35		39023		55	8			53	35	
	26059		9	34		39110	C	35	11					
			49	5		39112		55	7					
			63	31		39149		53	25					
			51	12		39150		81	3					
	26083		37	6										
	26144		61	42										
	26159		63	28	B 4094	B	61		52					
	26279		53	8		41162	A	35	17		69811	E	63	15
	26411		13	12		41236	F	5	12		69818		63	18
	26415	A	11	43	B 4296	A	37	21		69846		63	19	
	26416		37	36	B 432		31	6		69850	A	63	23	
	26420		63	30		43335	C	23	17	69850	B	63	22	
B	26515		21	24		44083		39	1	69850	C	63	24	
	2653		77	20		441011		15	40	69851		63	25	
	26531		9	31		44408	D	35	16	69907		63	21	
	26532		77	19		44999	J	45	5	69910		67	3	
			59	7	B 4680		23	16		69913		67	6	
	26671		63	10	B 4681		43	18		69921		63	17	
			69	15		48482		59	13					
			71	13				69	16					
	26688		59	29				71	14	B 7106		59		4
	26693		59	12		48861	B	13	15	Y 7141		59		16
B	2674		41	33		48934	A	47	10			63		8
			43	36		</								



CFR F-1 / F-2 PARTS NUMBER INDEX

NUMBER	GROUP #	ITEM	NUMBER	GROUP #	ITEM	NUMBER	GROUP #	ITEM
75745		55	14					
		59	1					
		79	9					
75777	B	73	4					
75806		55	13					
		59	39					
75941		73	5					
75960	G	9	5					
OO 75961		9	14					
A 5962	H	13	35					
C 75962	H	13	1					
75964	E	15	39					
A 75964	F	13	4					
75966	E	13	13					
75967		13	29					
		77	21					
75968		13	23					
		77	28					
75970	A	13	32					
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75971		77	27					
75972		13	31					
		77	22					
75973		13	30					
75974		9	35					
75976		9	36					
		61	41					
75977		9	37					
75978	A	77	26					
A 75978	A	13	34					
75979		9	28					
75980		9	29					
75980	A	9	30					
75980	B	13	10					
75981		9	32					
75982	A	9	16					
75983	B	9	7					
75984		9	9					
75984	A	9	10					
75984	B	9	11					
75984	F	9	12					
O 75985	B	9	6					
75988	A	9	21					
75988	B	9	22					
75988	E	9	23					
75988	F	9	24					
A 75988	D	73	7					
75990		9	27					
75991		13	24					
		77	29					
7721	B	43	19					
78202	D	53	13					
		55	11					
78204	A	79	33					
78204	C	79	19					
78210	A	61	54					
78211	B	79	15					
78282	A	23	15					
78282	B	7	21					
78349	B	21	11					
78920		53	14					

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APPENDIX A – WARRANTY

The CFR Express Limited Warranty is available by:

- Requesting a copy from: CFR Manufacturing Inc.
N8 W22577 Johnson Drive
Pewaukee, WI 53186

Or

- Visiting the following link: <http://www.cfengines.com/tandc>



NOTES





N8 W22577 Johnson Drive
Pewaukee, WI 53186
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