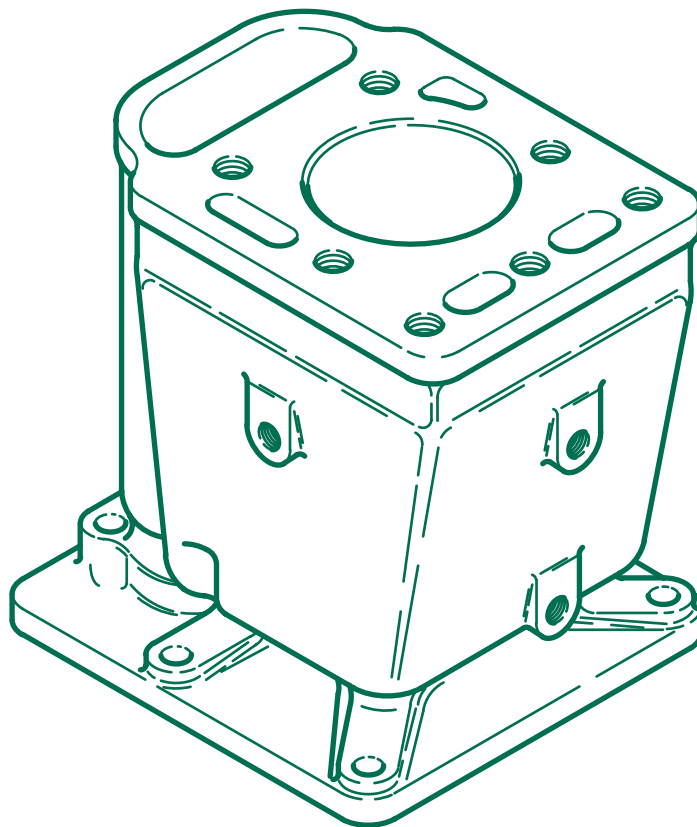




CFR[®] F5 Cetane Rating Unit

Parts Catalog



CFR[®] F5 Cetane Rating Unit

Parts Catalog

This document contains confidential information of CFR Manufacturing Inc. ("CFR"). The receiver of this document accepts it in confidence and agrees that, without the prior expressed written permission of CFR, it will (1) not use the document, its content or any copy thereof for any purpose that may harm CFR in any way; (2) not copy or reproduce the document in whole or in part; and (3) not improperly use or disclose to others either the document or the confidential information contained therein.

All sales and information herein supplied are subject to the current version of CFR's limited warranty and limitations of liability (the "Express Limited Warranty"). The manner in which a copy of the complete Express Limited Warranty can be obtained is contained in Exhibit A hereto.

All non-CFR trademarks, service marks, logos, slogans, and trade names (collectively, the "Marks") are the properties of their respective owners.

Original Instructions (English)

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



Form 869-4
4th edition

© 2015 CFR Manufacturing Inc. All rights reserved.

**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.

ALL RIGHTS RESERVED:

No part of this publication may be reproduced or used in any form by any means – graphic, electronic or mechanical, including photocopying, recording, taping or information storage and retrieval systems – without the written permission of CFR.

DIVERSION CONTROL STATEMENT:

Any technology, including technical data, or software contained herein were originally exported from the United States, or the originating country of this transmission, in accordance with the U.S. Export Administration Regulations and/or originating jurisdiction Export Regulations. Diversion (export, re-export, transfer, sale, review, use, disclosure, or distribution) contrary to such law(s) is prohibited. This prohibition includes no diversion to Cuba, Iran, Myanmar, North Korea, Sudan and Syria; plus any additional sanctioned country of the originating country of this transmission if not originating from the United States.



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	4 – 71
F-5 Parts Kits	72 – 85
Part Number Index – Appendix A	A-1
Warranty	W-1

ALPHABETICAL INDEX OF PARTS

A	
Adapter Bearing	19
Air Cleaner	41
Air Heater	41
Air Silencer	41

B	
Balancing Shaft	21
Breather	35

C	
Camshaft	21
Compression Pressure Gauge	69
Condenser	45
Condenser Water Pipe	47
Connecting Rod	13
Crankcase	17
Crankcase Breather	35
Crankcase Doors	19
Crankshaft	15
Cylinder	5
Cylinder Head	7
Cylinder Overhaul Stand	71

E	
Exhaust Manifold	43

F	
Flywheel	15
Fuel Injection Pump	23
Fuel Injection Pump Micrometer	29
Fuel Injection Pump Mounting	27
Fuel Injector	31
Fuel Pump Shut-Off	33
Fuel Tanks	49

H	
Handwheel	11
Heater	19

I	
Idler Gear	21
Ignition Delay Meter	57
Induction Motor	63
Injection Tubes	31
Instrument Panel	51
Instrument Panel (Internal)	53

O	
Oil Filter	39
Oil Pump	37
Oil Relief Valve	37
Oil Screen	37
Overhaul Stand	71

P	
Panel Gauges	51
Piston	13

R	
Resistance Temperature Device	61
Rocker Arm Cover	9
Rocker Arms	9
RTD Display	61

S	
Safety Guards	67
Safety Shutdown System	55
Surge Tank	43

T	
Temperature Controller	59

U	
Unit Base	65

V	
Valve Lifter	21
Variable Compression Plug	11

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

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

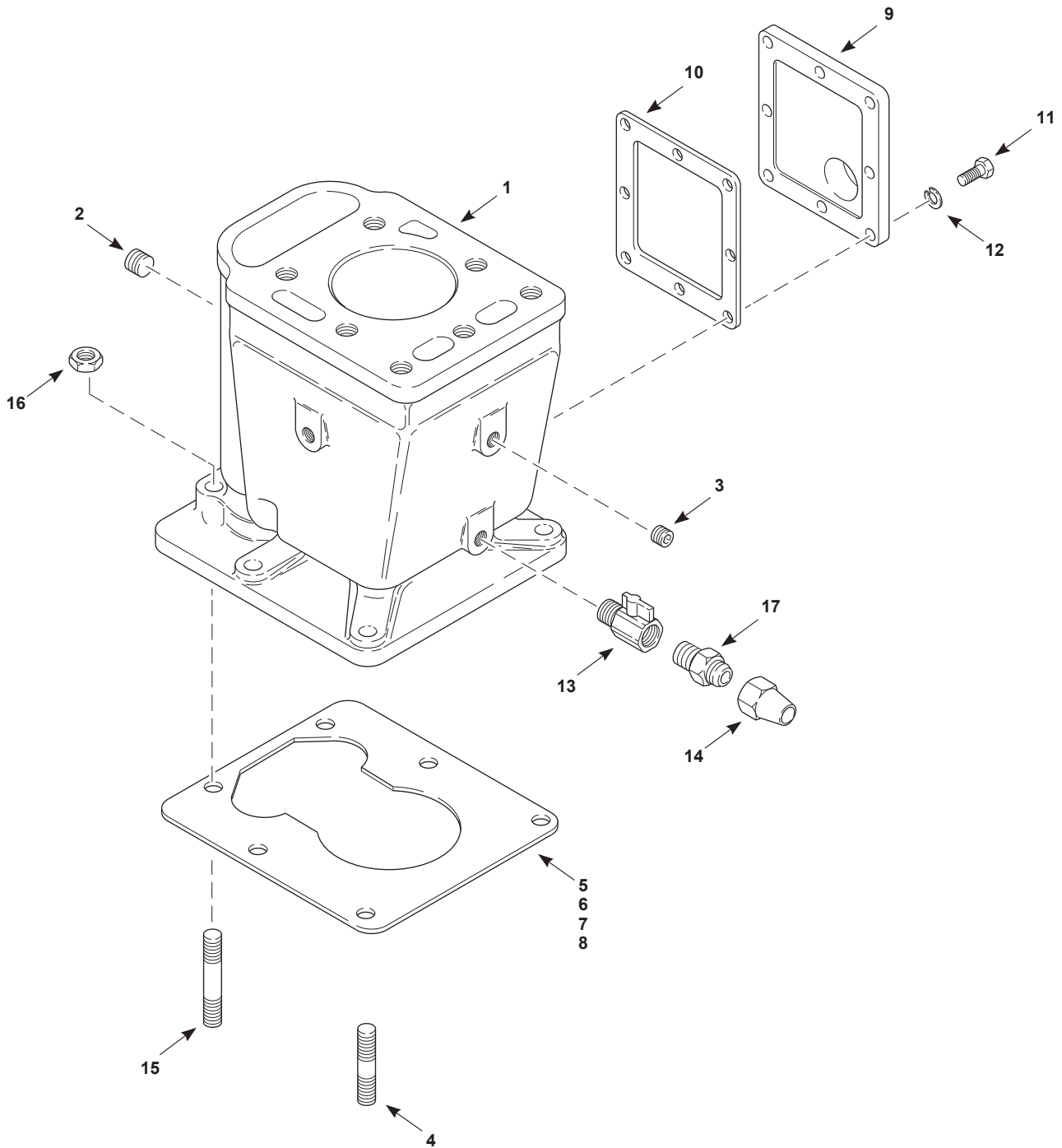
RETURN OF PARTS PROCEDURE

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-5
CYLINDER
GROUPS 1, 20**

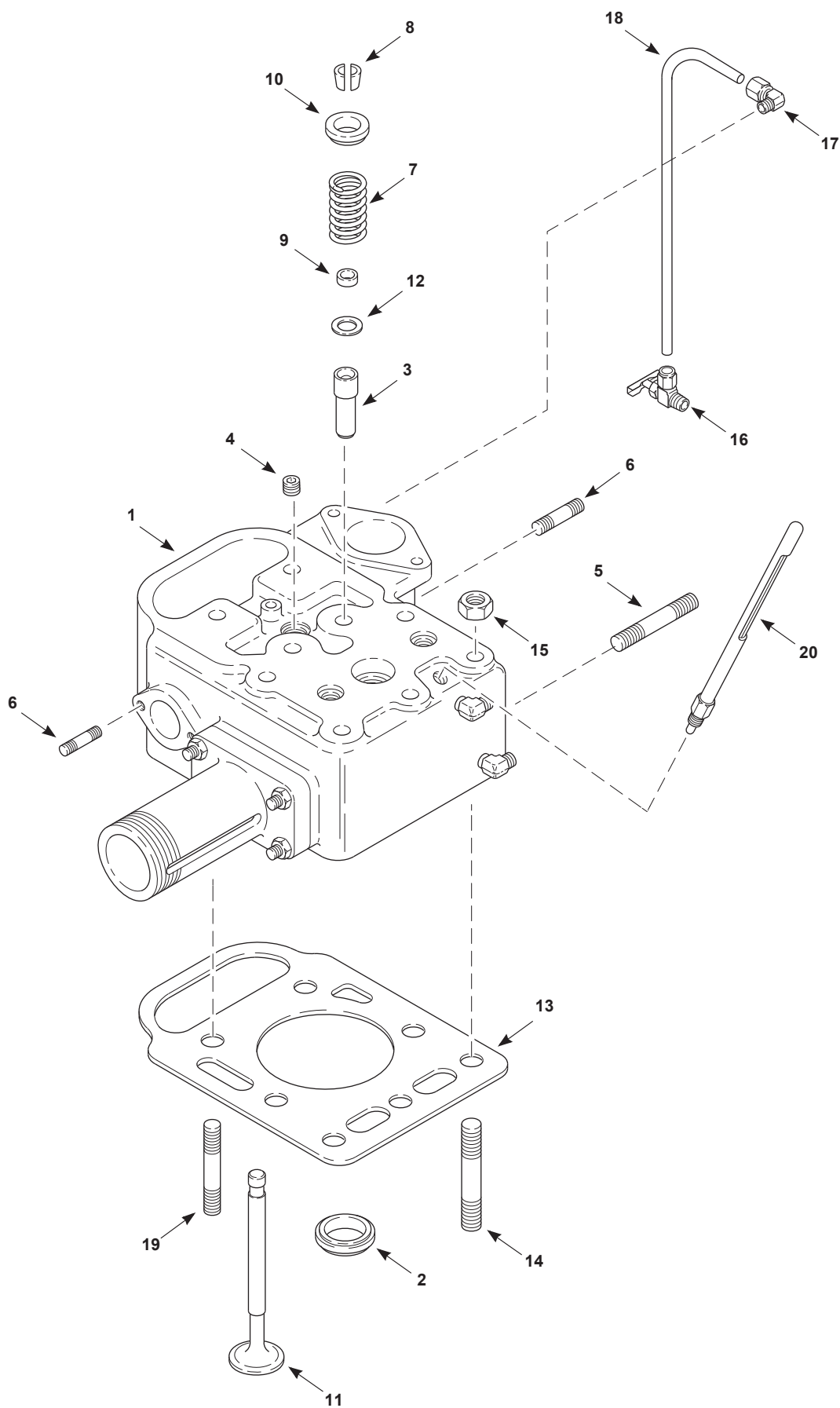
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1 ¹ on page 5	105081	1	Cylinder
2	106343	3	Allen Head Pipe Plug, 1/4"
3	26411	1	Allen Head Pipe Plug, Plated, 3/8"
4	B839	4	Cylinder Head Stud
5	105181	1	Cylinder Base Gasket (0.021")
6	105181A	1	Cylinder Base Gasket (0.015")
7	105181B	2	Cylinder Base Gasket (0.010")
8	105181C	1	Cylinder Base Gasket (0.003")
9	105084	1	Cylinder Door
10	105088	1	Cylinder Door Gasket
11	21273	8	Hex Head Capscrew, 1/4"–20 x 5/8"
12	21050	8	Lock Washer, 1/4"
13	211747	1	Drain Cock
14	B5528	1	Union Nut
15	B5764	2	Cylinder Head Stud
16	105361	6	Cylinder Head Nut
17	B5526	1	Union Connector
ASSEMBLIES			
	O105081	1	Cylinder Assembly (Includes Items 1* and 2)

NOTE:

* Item 1 is sold only as part of the Cylinder Assembly, P/N O105081.

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

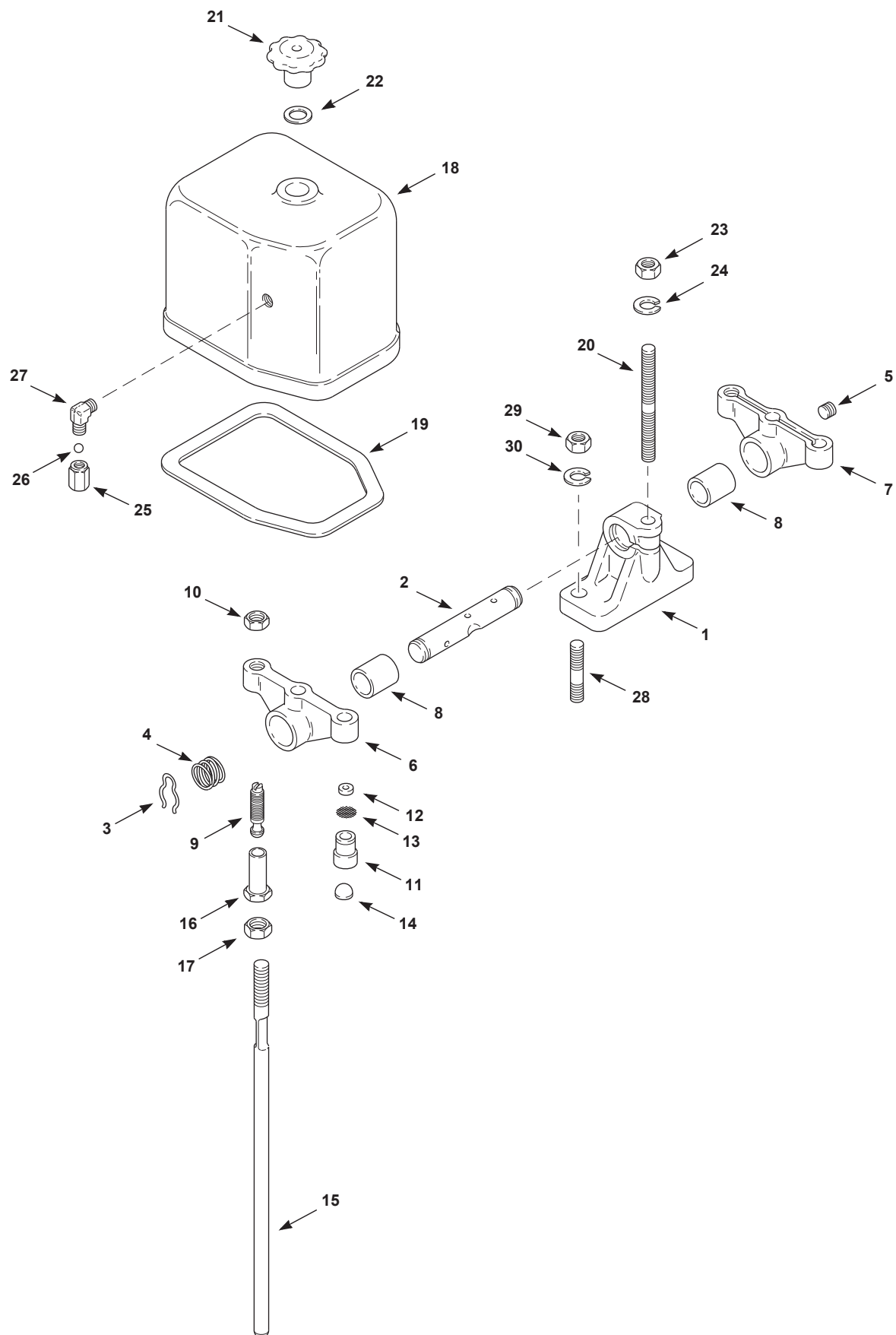


**F-5
CYLINDER HEAD
GROUP 2**

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	105082B	1	Cylinder Head Assembly
2	105987A	2	Valve Seat Inserts
3	23109A	2	Valve Guide
4	78283B	1	Countersunk Head Pipe Plug, 3/4"
5	106218A	2	Injector Stud
6	B2575	4	Stud
7	109659	2	Spring
8	109658	4	Valve Taper
9	B4680	2	Felt Washer
10	110165C	2	Valve Rotator
11	106625	2	Intake And Exhaust Valve
12	110200	2	Valve Spring Spacer
13	105080	1	Cylinder Head Gasket
14	B8200	5	Cylinder Head Stud
15	105361	7	Cylinder Head Nut
16	73059B	1	Shutoff Valve
17	199111	1	Union Elbow
18	110198A	1	Oil Line Assembly
19	B5591	2	Cylinder Head Stud
20	O105180	1	Thermometer Assembly
ASSEMBLIES			
	AF105082B	1	Cylinder Head Assembly (Includes Items 1 – 12 and Handwheel Assembly, P/N A105097)
	F105082B	1	Cylinder Head Assembly (Includes Items 1 – 12)

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

F-5
ROCKER ARMS, ROCKER ARM COVER
GROUPS 2, 39

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	105079	1	Rocker Arm Bracket
2	105086	1	Rocker Arm Shaft
3	110680	2	Rocker Arm Snap Ring
4	105092	2	Rocker Arm Spring
5	Y18802	1	Allen Head Pipe Plug, 1/8"
6*	23272B	1	Intake Rocker Arm Assembly
7**	23272C	1	Exhaust Rocker Arm Assembly
8***	105087	2	Rocker Arm Bushing
9	B8199C	2	Valve Adjusting Screw
10	78349B	2	Valve Adjusting Screw Nut
11	23043A	2	Ball Valve Socket
12	23043C	2	Socket Plug
13	23043D	2	Breather Moss
14	23043B	2	Rocker Arm Ball
15	105177	2	Push Rod
16	B2653	2	Push Rod End
17	21185	2	Hex Nut, 5/16"-24
18	105078A	1	Rocker Arm Cover
19	105085	1	Rocker Arm Cover Gasket
20	105105	1	Stud
21	1634K	1	Rocker Arm Cover Nut
22	BD190	1	Copper Gasket
23	21189	1	Hex Nut, 3/8"-16
24	21052	1	Lock Washer, 3/8"
25	110238	1	Breather Valve Cap
26	110292	1	Ball
27	B1685B	1	Half Union Elbow
28	B5591	2	Stud
29	105361	2	Hex Nut
30	21054	2	Lock Washer, 1/2"
ASSEMBLIES			
	XO23272B	1	Intake Rocker Arm Assembly (Includes Items 6*, 8 – 14)
	XO23272C	1	Exhaust Rocker Arm Assembly (Includes Items 7** – 14)
	X23272B	1	Intake Rocker Arm Assembly (Includes Items 6* and 8***)
	X23272C	1	Exhaust Rocker Arm Assembly (Includes Items 7** and 8***)
	O23043	2	Rocker Arm Ball Assembly (Includes Items 11 – 14)
	O23043A	2	Rocker Arm Button Assembly (Includes Items 11 – 13)

NOTES:

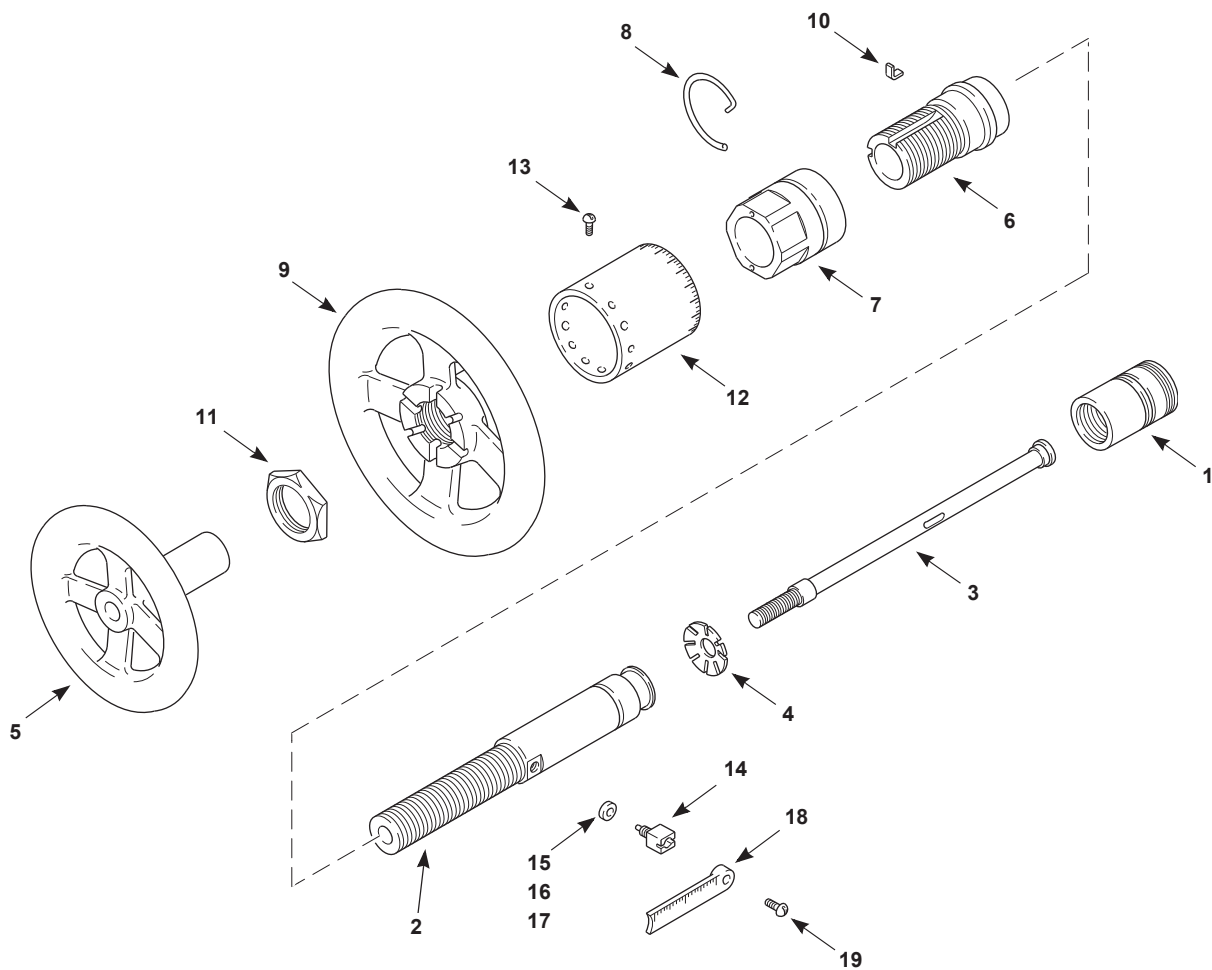
*Item 6 is sold only as part of the Intake Rocker Arm Assemblies, P/N XO23272B and P/N X23272B.

**Item 7 is sold only as part of the Exhaust Rocker Arm Assemblies, P/N XO23272C and P/N X23272C.

***Item 8 is sold only as part of the Rocker Arm Assemblies, P/N XO23272B, P/N XO23272C, P/N X23272B and P/N X23272C.

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

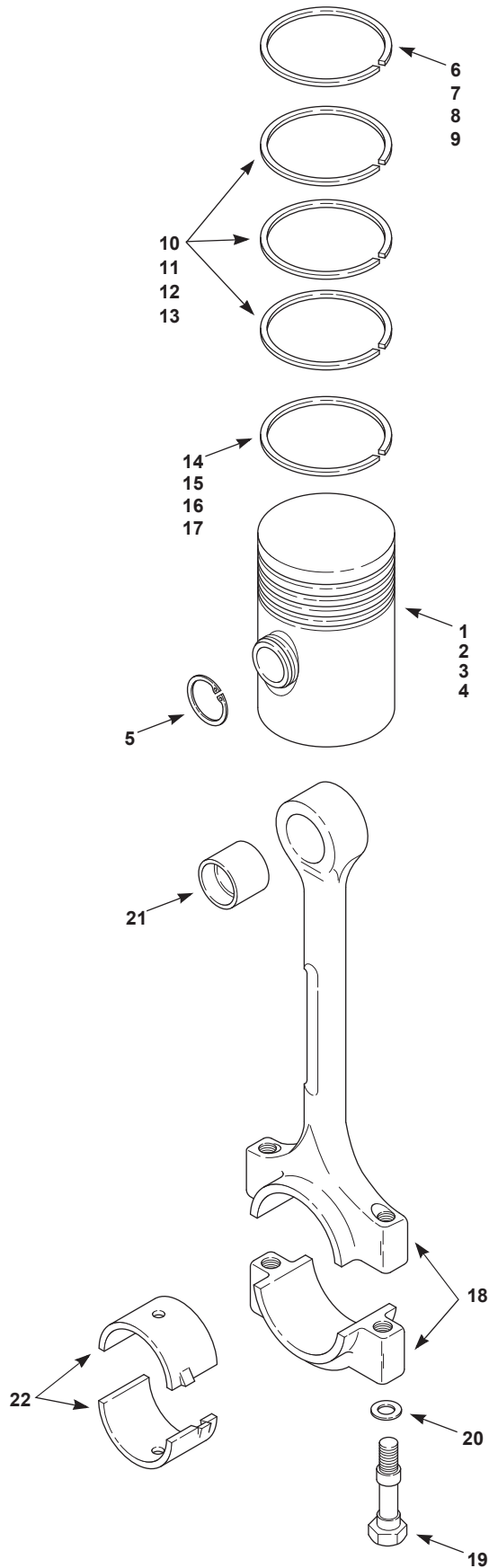


F-5
VARIABLE COMPRESSION PLUG HANDWHEEL
GROUP 2

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	105100A	1	Variable Compression Plug
2	105099A	1	Variable Compression Plug Body
3	105103	1	Variable Compression Draw Bolt
4	105104B	1	Variable Compression Plug Locking Washer
5	105098	1	Variable Compression Plug Locking Wheel
6	105101	1	Variable Compression Plug Sleeve
7	105102	1	Variable Compression Plug Housing Nut
8	105107	1	Housing Nut Lock Wire
9	105097	1	Variable Compression Plug Handwheel
10	105109	1	Variable Compression Handle Key
11	105108	1	Variable Compression Handwheel Lock Nut
12	105111	1	Variable Compression Seal Sleeve
13	26012	1	Round Head Machine Screw, No.10–32 x 1/2"
14	105106	1	Variable Compression Scale Post
15	109333	1	Scale Post Shim (0.001")
16	109333A	1	Scale Post Shim (0.003")
17	109333B	1	Scale Post Shim (0.005")
18	105110	1	Variable Compression Scale Arm
19	21880	1	Round Head Machine Screw, 1/4"–20 x 1/2"
			ASSEMBLIES
	A105097	1	Variable Compression Plug Handwheel Assembly (Includes Items 1 – 19)

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-5
PISTON, CONNECTING ROD
GROUPS 4, 7

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1*	AA23204G	1	Piston Assembly (Standard) (Cast Iron)
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

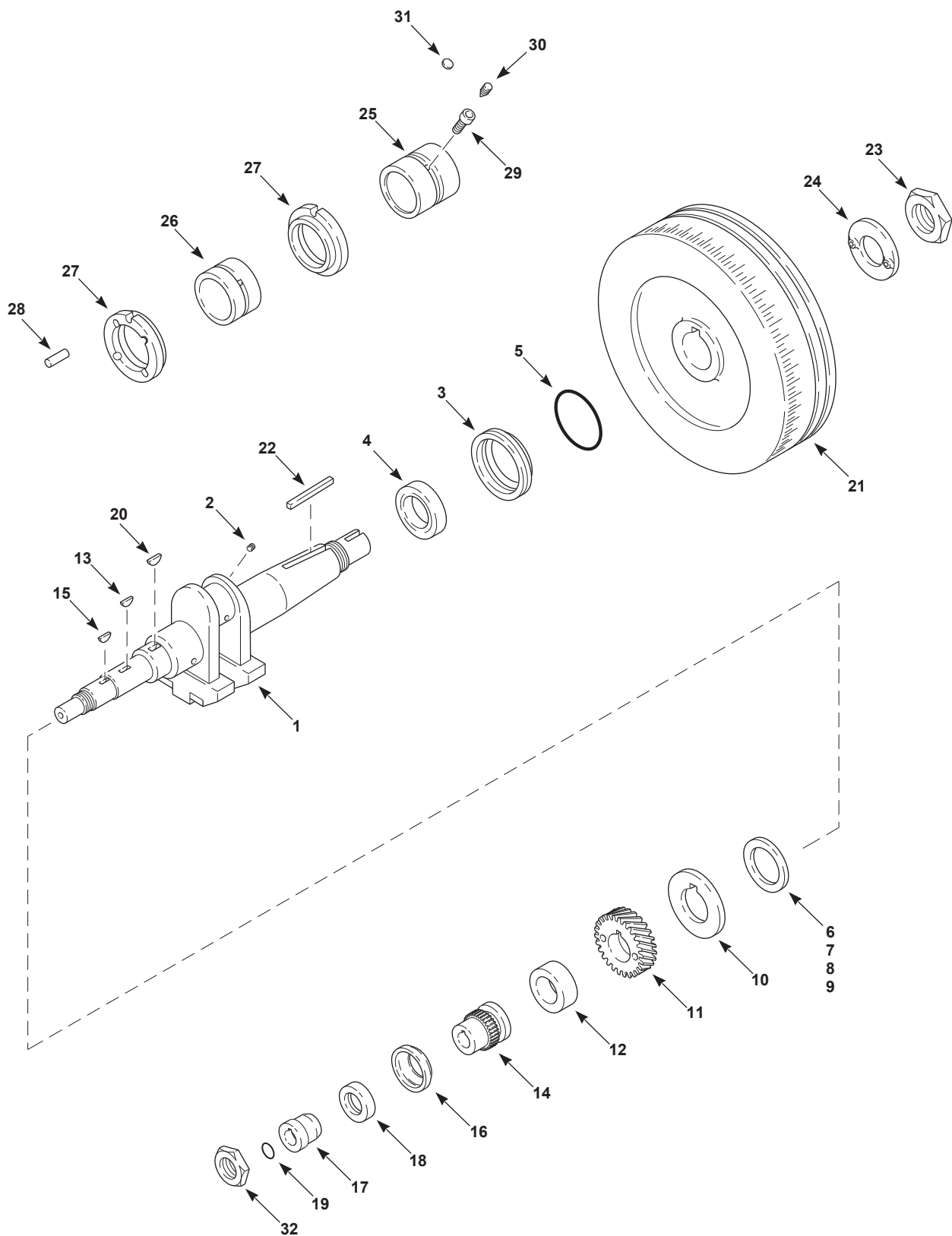
NOTES:

* 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

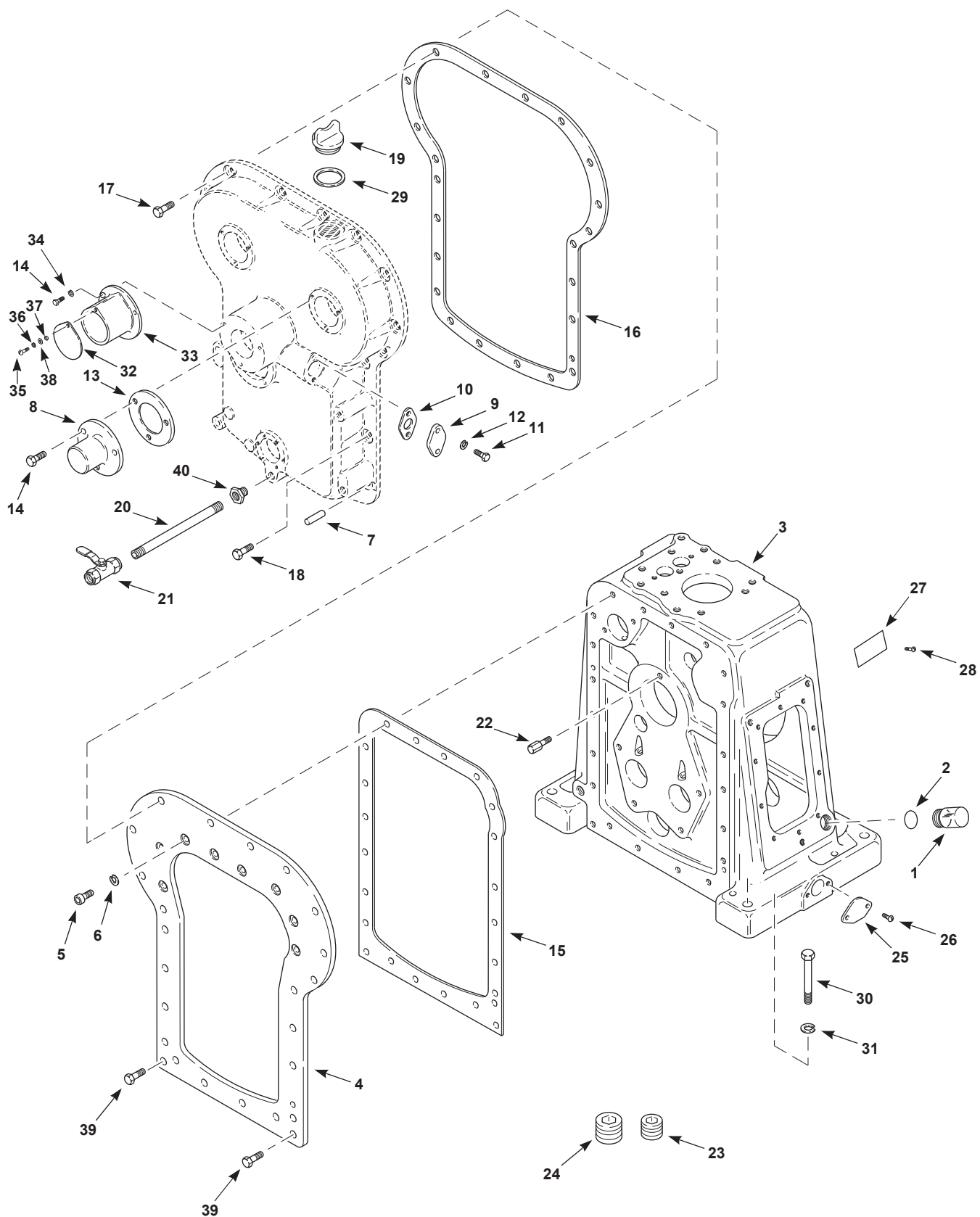


F-5
CRANKSHAFT, FLYWHEEL
GROUPS 11, 13, 20

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
22	109575	1	Flywheel Key
23	109576	1	Flywheel Nut
24	109577	1	Flywheel Nut Lock
25	109618	1	Rear Main Bearing
26	109542	1	Front Main Bearing
27	109541	2	Thrust Plate
28	B350	2	Dowel Pin, 3/16" x 5/8"
29	109625A	2	Bushing Lock Screw
30	21720	2	Socket Head Set Screw Cup Point, 1/4"-20 x 1/4"
31	109633	2	Lock Screw Gasket
32	B2674	1	Front Crankshaft 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-5
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	110231	2	Dowel Pin, 3/8" x 1-1/4"
8	109615	1	Camshaft Hole Cover
9	B5436	1	Tachometer Hole Cover
10	B2543	1	Tachometer Hole Gasket
11	B5829	2	Hex Head Capscrew, 5/16"-18 x 3/4"
12	21051	2	Lock Washer, 5/16"
13	109616	1	Camshaft Hole Cover Gasket
14	B5834	6	Hex Head Capscrew, 1/4"-20 x 5/8"
15	109571A	1	Front Plate Gasket
16	109570	1	Front Gear Cover Gasket
17	109410	10	Hex Head Capscrew, 3/8"-24 x 7/8"
18	21355	8	Hex Head Capscrew, 3/8"-16 x 1-3/8"
19	B4296A	1	Oil Filler Cap
20	73654S	1	Pipe Nipple, 1/2" x 8"
21	116880C	1	Ball Valve
22	109621	1	Timing Gear Jet
23	Y18802	16	Allen Head Pipe Plug, 1/8"
24	106343	11	Allen Head Pipe Plug, 1/4"
25	109627A	1	Oil Heater Hole Cover
26	26005	2	Round Head Screw, No. 6-32 x 5/16"
27	105001A	1	Engine Nameplate
28	B557B	2	Nameplate Pin
29	176412	1	Oil Filler Gasket
30	21473	4	Hex Head Capscrew, 3/4"-11 x 1-1/2"
31	21055	4	Washer, 5/8"
32	111207A	1	Crankshaft Guard Cover
33	110533C	1	Crankshaft Guard
34	21050	3	Medium Lock Washer, 1/4"
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	21346	2	Hex Head Capscrew, 3/8"-16 x 7/8"
40	78212G	1	Reducing Bushing

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





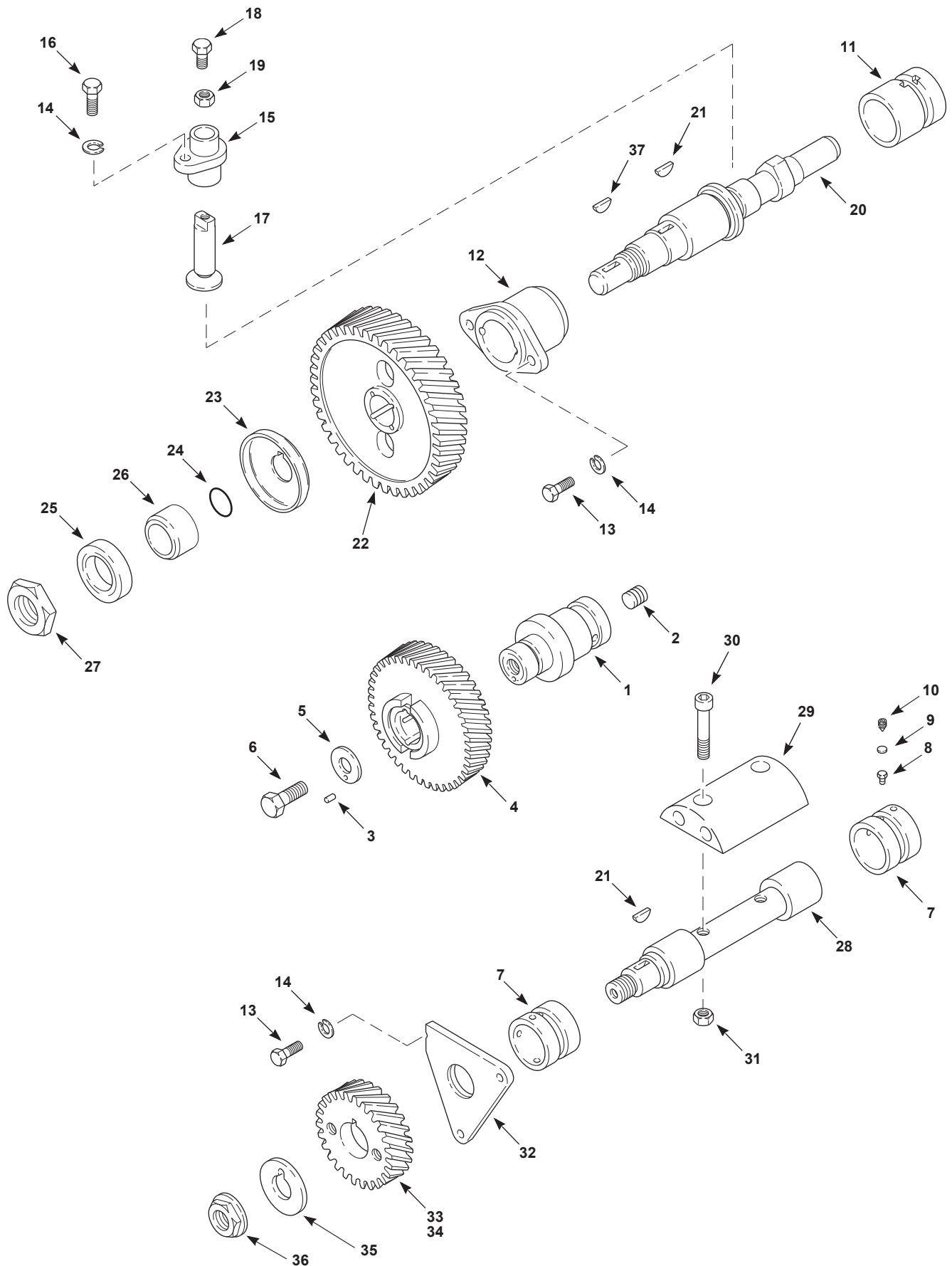
FORM 869-4
© 04/2016

F-5
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 (With Breather Baffle)
4	109609	1	Crankcase Door
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	26969	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



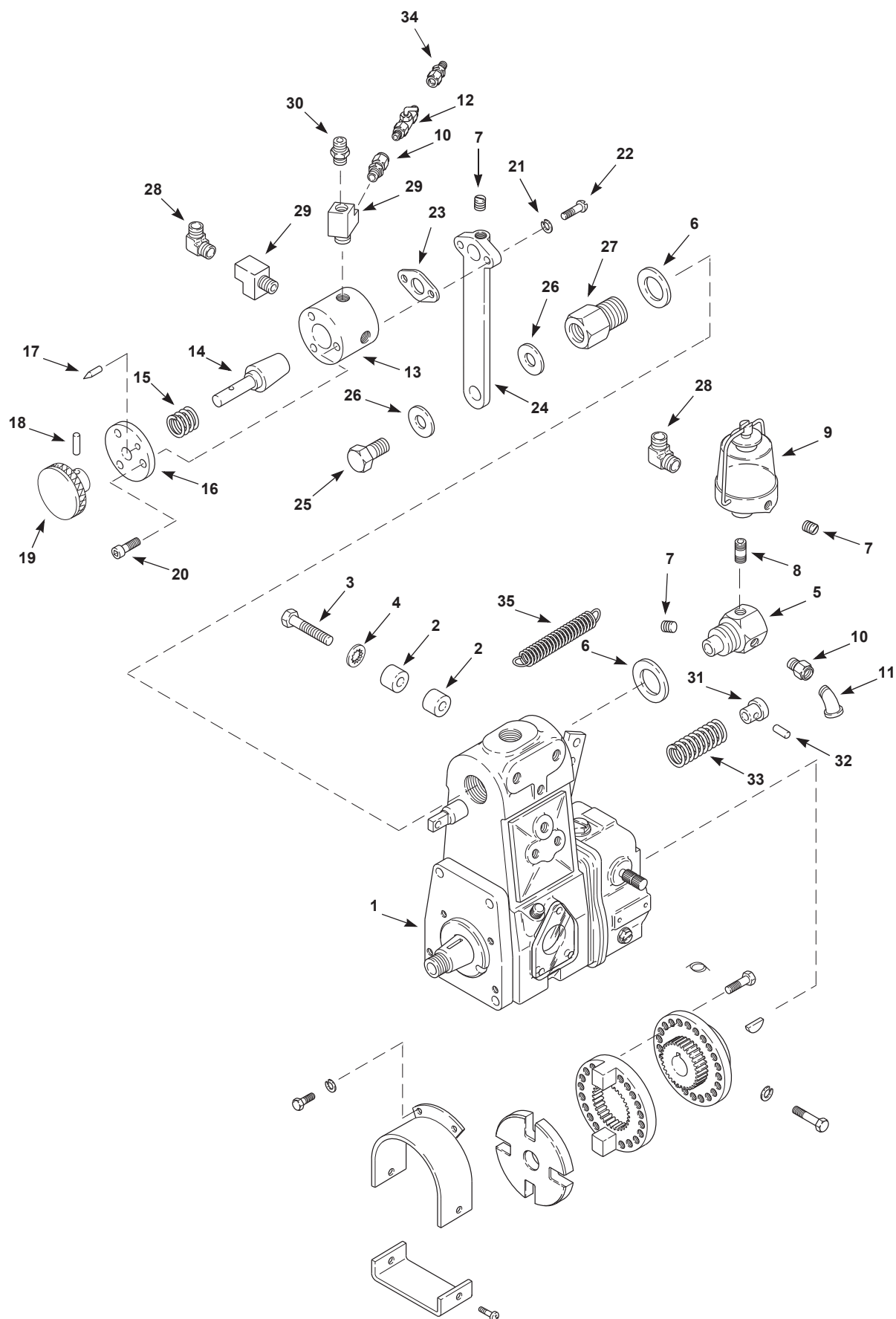
F-5

**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"
37	21012	1	Woodruff Key, No. 15

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-5
FUEL INJECTION PUMP
GROUP 8

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A106941G	1	Fuel Injection Pump Assembly
2	109769	2	Arm Advance Button
3	21381	1	Hex Head Capscrew, 3/8"–24 x 1-1/2"
4	21632	1	Internal Shakeproof Washer, 3/8"
5	105302	1	Fuel Pump Drive Fitting
6	B8230	2	Copper Gasket
7	28438	3	Slotted Head Pipe Plug, Brass, 1/8"
8	65110Y	1	Pipe Nipple, 1/8" x 1"
9	106725	1	Fuel Line Air Trap
10	B7106	2	Adapter
11	78206A	1	Street Ell
12	111305	4	Toggle Valve
13*	111388	1	Fuel Valve Body Assembly
14*	75966B	1	Fuel Valve
15	75990	1	Spring
16	111384	1	Fuel Valve Cover
17	116242	1	Flywheel Timing Pin
18	26532	1	Roll Pin, 3/32" x 3/4"
19	75980C	1	Fuel Valve Knob
20	28563	3	Socket Head Machine Screw, No. 10–24 x 1/2"
21	21049	2	Lock Washer, No. 10
22	105420	2	Machine Screw, No. 10–24 x 1/2"
23	106132	1	Fuel Valve Body Gasket
24	106130B	1	Fuel Valve Support
25	B10063	1	Tube Connection Bolt
26	B10065	2	Plain Washer, 9/16"
27	105303A	1	Fuel Pump Inlet Fitting
28	B1685A	3	Union Elbow
29	44803	3	Service Tee, Brass, 1/8"
30	B6723	1	Union Connector
31	B5976A	1	Spring Seat
32	B5977A	1	Straight Pin, 1/4" x 5/8"
33	B5978	1	Spring
34	105355C	4	Female Coupling
35	B6426	1	Spring
			ASSEMBLIES
	A111388	1	Fuel Selector Valve Assembly (Includes Items 13 – 30)

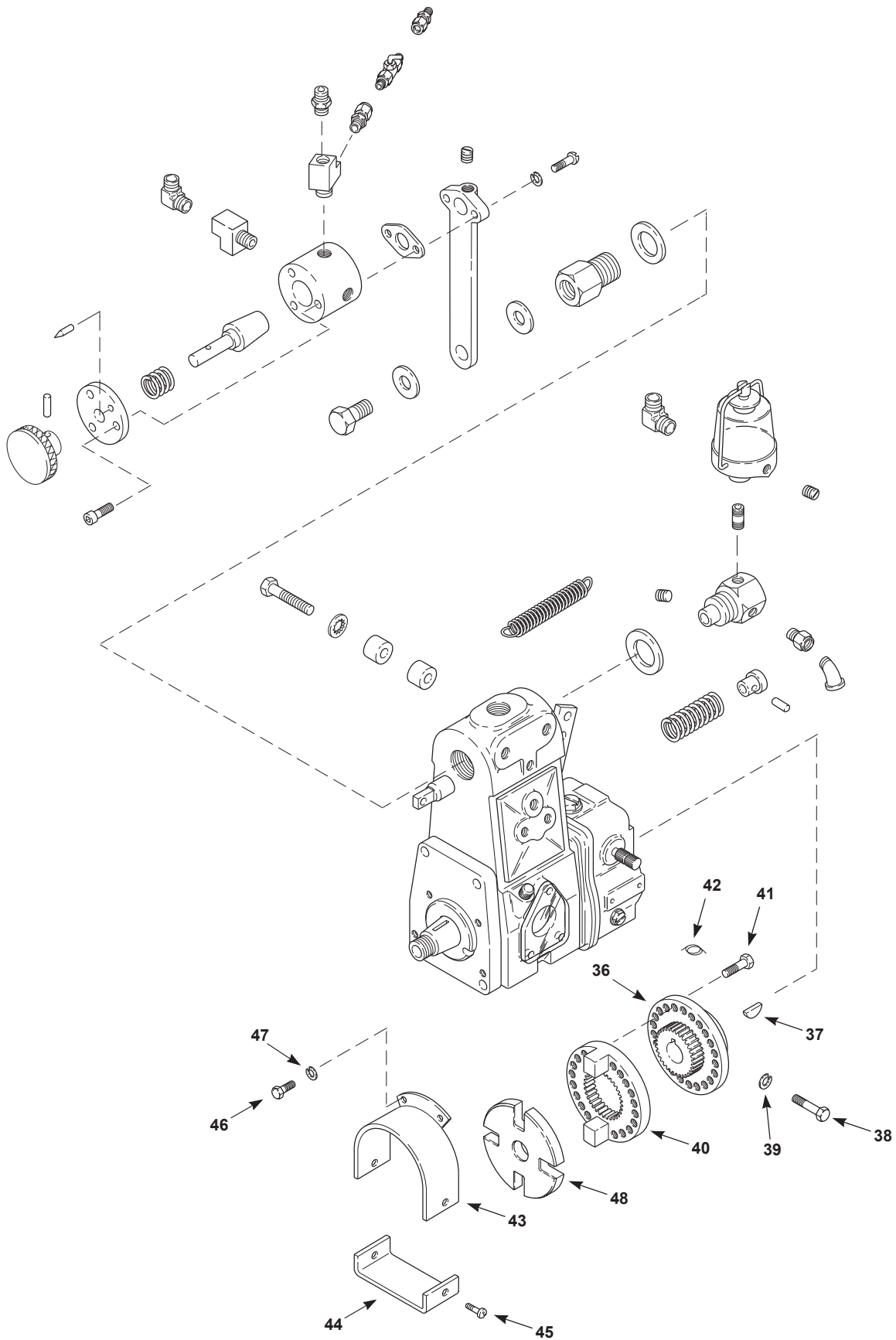
NOTES:

**Items 13 and 14 can only be sold as part of the A111388 Assembly*

Continued

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

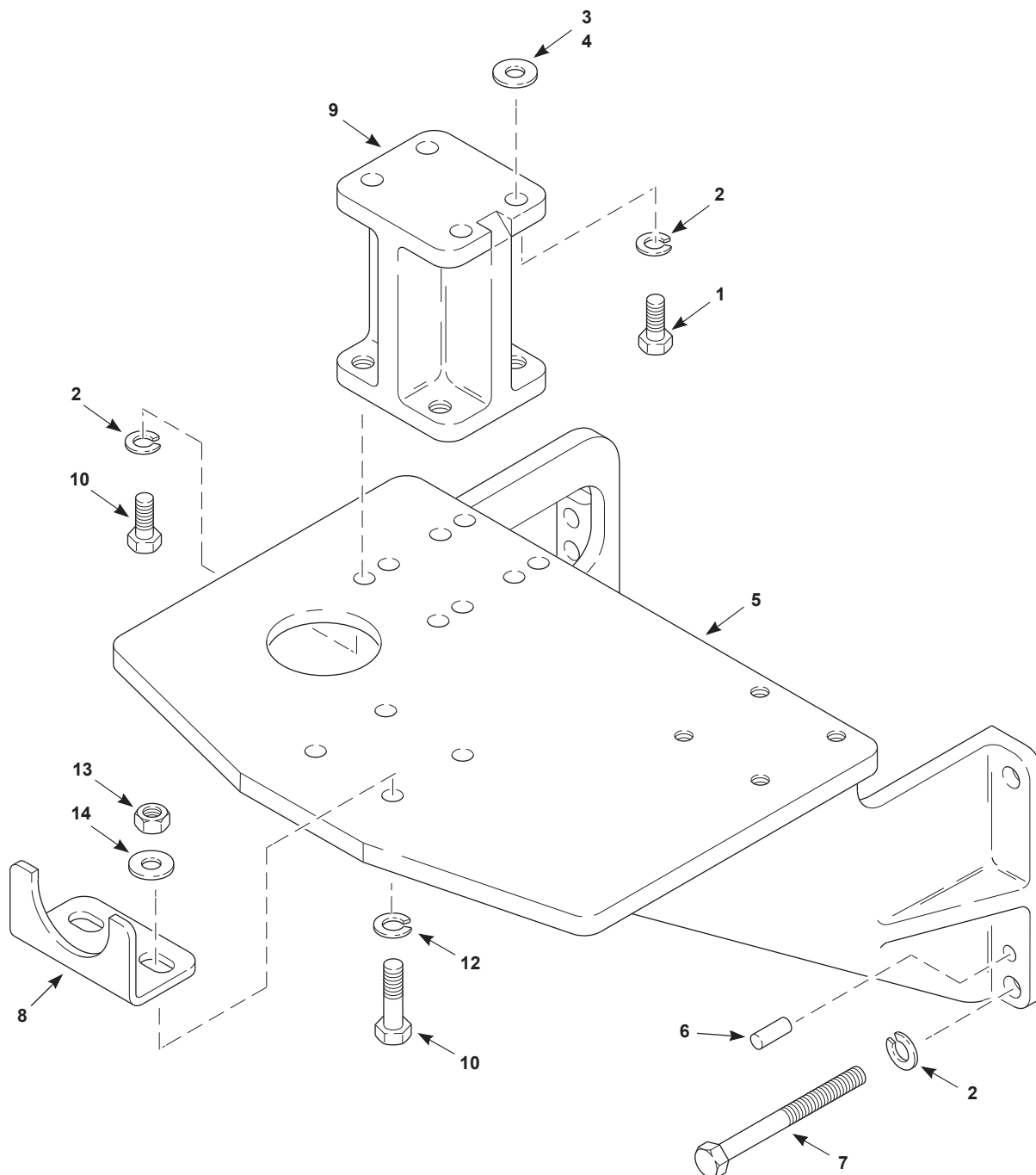


F-5
FUEL INJECTION PUMP
GROUP 8

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
36	106437	1	Pump Coupling Drive Member
37	21012	1	Woodruff Key, No. 15
38	21332	1	Hex Head Capscrew, 5/16"-24 x 1-1/8"
39	21051	1	Lock Washer, 5/16"
40	B9951A	1	Adjusting Ring
41	B10508	2	Special Capscrew
42	116064G	1	Lock Wire, No. 18 x 10"
43	110548B	1	Coupling Guard
44	111421	1	Coupling Guard Cover
45	26097	2	Machine Screw, No. 10-24 x 3/8"
46	111101	2	Hex Head Capscrew, 1/4"-20 x 1/2"
47	21050	2	Lock Washer, 1/4"
48	B9496	1	Coupling Disc

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

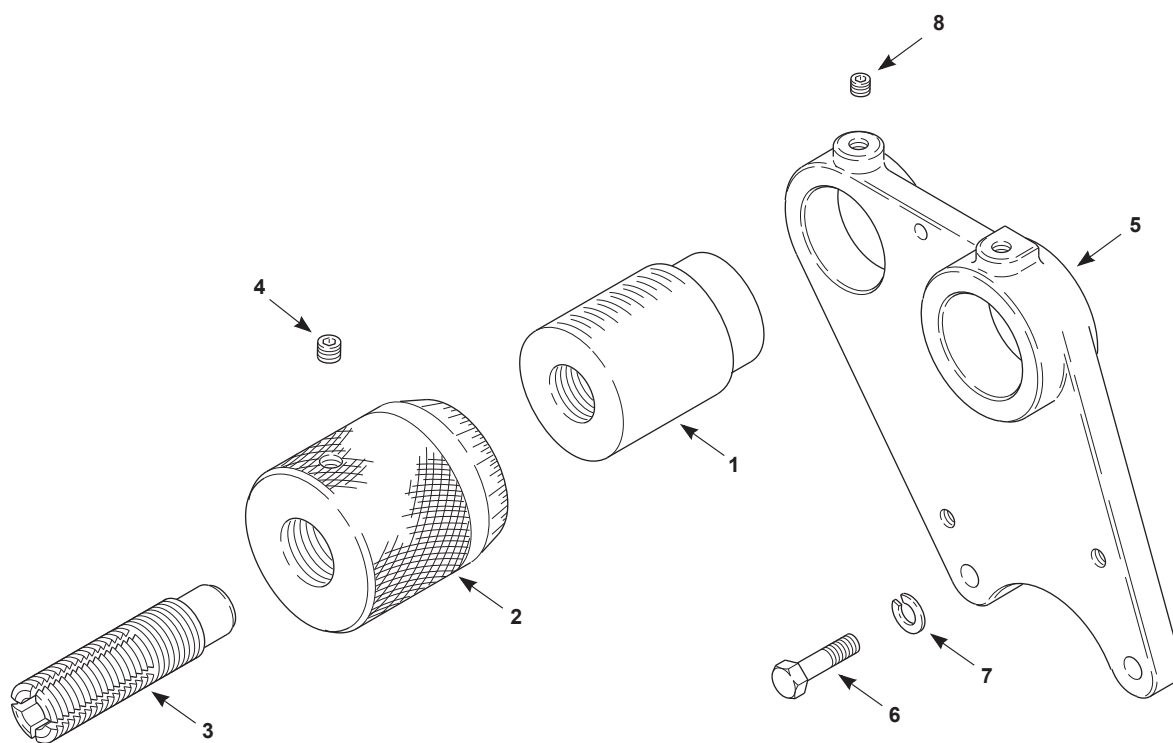


F-5
FUEL INJECTION PUMP MOUNTING
GROUPS 8, 67

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	21348	4	Hex Head Capscrew, 3/8"–16 x 1"
2	21052	12	Lock Washer, 3/8"
3	B5655A	4	Shim (0.003")
4	B5655B	4	Shim (0.005")
5	109515C	1	Accessory Bracket
6	21043	2	Taper Pin, No. 6 x 1"
7	109414	4	Hex Head Capscrew, 3/8"–16 x 4-1/4"
8	111699A	1	Turn Over Tool Bracket
9	109597	1	Injection Pump Spacer Support
10	21350	4	Hex Head Capscrew, 3/8"–16 x 1-1/8"
11	21353	2	Hex Head Capscrew
12	21279	2	Medium Lock Washer, 3/8"
13	21190	2	Hex Nut
14	Y18814H	2	Plain Washer

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

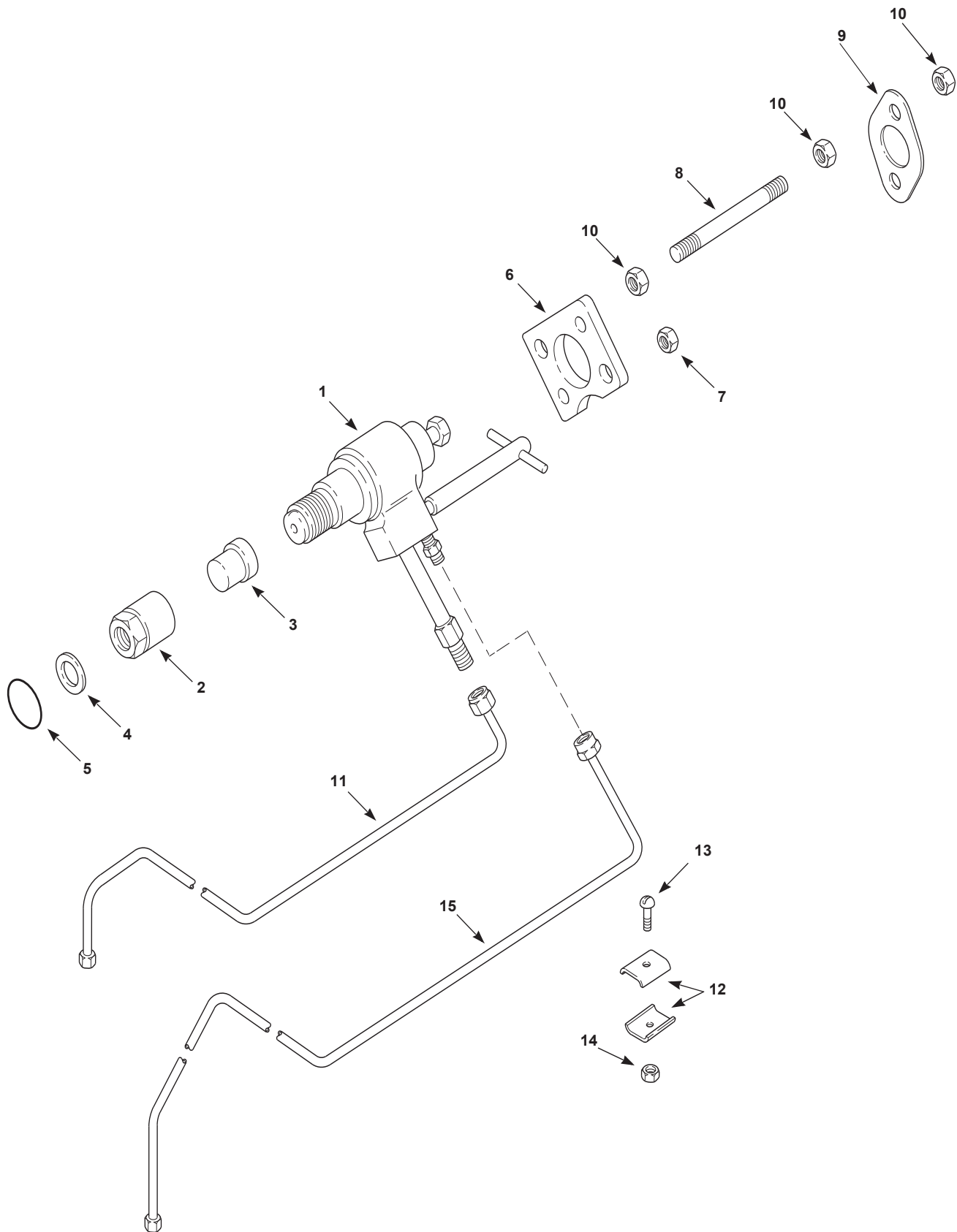


F-5
FUEL INJECTION PUMP MICROMETER
GROUP 203

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A109427	2	Micrometer Barrel Assembly
2	109426	2	Micrometer Thimble
3	109428	2	Micrometer Screw
4	21719	4	Socket Head Set Screw, No. 10–32 x 1/4"
5	110208	1	Micrometer Support
6	21278	2	Hex Head Capscrew, 1/4"–20 x 7/8"
7	21050	2	Lock Washer, 1/4"
8	21858	2	Socket Head Set Screw, No. 10–32 x 3/8"
ASSEMBLIES			
	O109427	2	Micrometer Assembly (Includes Items 1 – 4)

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

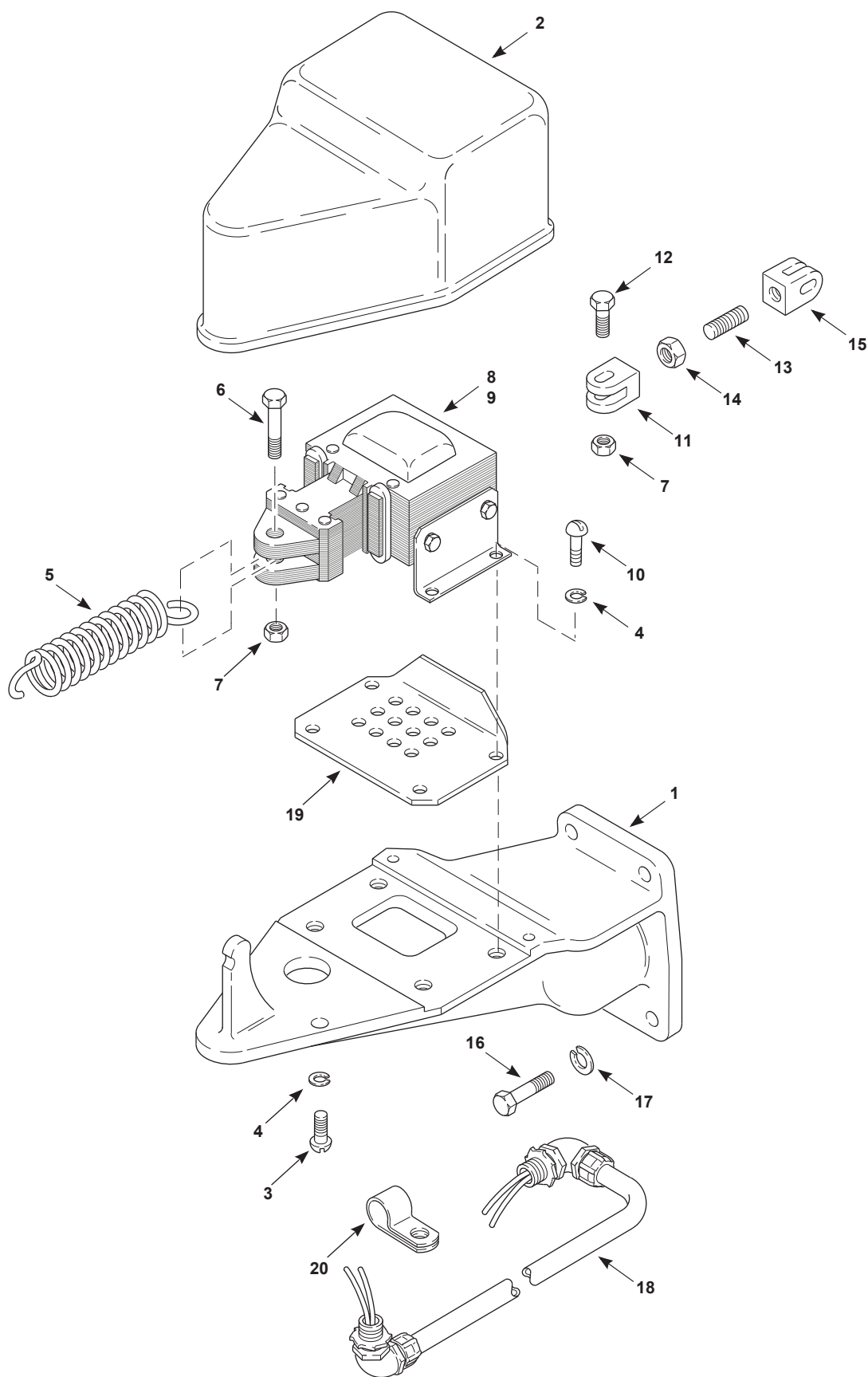


F-5
FUEL INJECTOR, INJECTION TUBES
GROUPS 9, 10

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A75067E	1	Fuel Injector Assembly
2	110806	1	Nozzle Cap Nut
3	110700	1	Injector Nozzle
4	B10065	1	Copper Washer, 9/16"
5	B7707	1	Rubber Ring (Inserts Into Injector Port On Cylinder Head)
6	106217B	1	Injector Hold Down Plate
7	B5828	2	Hex Nut, 5/16"–24
8	110521	2	Pick-up Flange Stud
9	110520	1	Pick-up Mount Flange
10	21188	6	Hex Jam Nut, 5/16"–24
11	A106318E	1	Fuel Injection Tube Assembly
12	105358	2	Oil Gauge Cable Clip
13	21889	1	Machine Screw, No. 8–32 x 1/2"
14	21260	1	Hex Nut, No. 8–32
15	O110286	1	Injector Drain Line Assembly

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

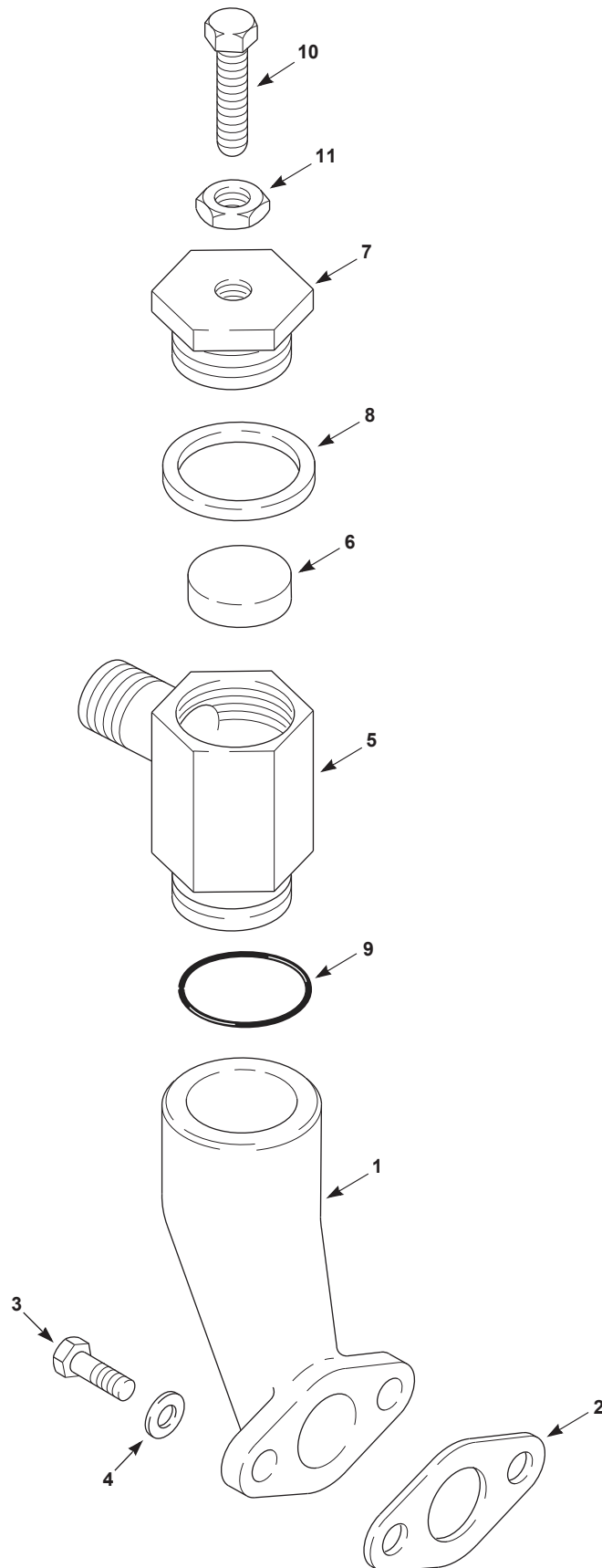


F-5
FUEL PUMP SHUT-OFF
GROUPS 213, 408

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	109331K	1	Fuel Shut-off Support
2	109332	1	Support Cover
3	26051	4	Round Head Machine Screw, No. 10–24 x 5/8"
4	26420	8	Lock Washer, No. 10
5	27277E	1	Governor Spring
6	21284	1	Hex Head Capscrew, 1/4"–20 x 1-1/4"
7	B6849A	3	Elastic Stop Lock Nut, No. 10–24 x 3/8"
8	A109334L	1	Solenoid Assembly (60 Hz)
9	A109334N	1	Solenoid Assembly (50 Hz)
10	21098	4	Round Head Machine Screw, No. 10–24 x 3/8"
11	109033A	1	Control Yoke
12	21278	2	Hex Head Capscrew, 1/4"–20 x 7/8"
13	B9734	1	Governor Rod Stud
14	21179	1	Thin Hex Nut, 1/4"–28
15	109033	1	Control Yoke
16	78302	4	Capscrew
17	21050	4	Lock Washer, 1/4"
18	A110122E	1	Safety Control Cable Assembly
19	111546B	1	Solenoid Guard
20	B1426	1	Tubing Clamp
ASSEMBLIES			
	A109331K	1	Fuel Shut-Off Support Assembly (Includes Items 1 – 7, 8 or 9, 10 – 17, 19)

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

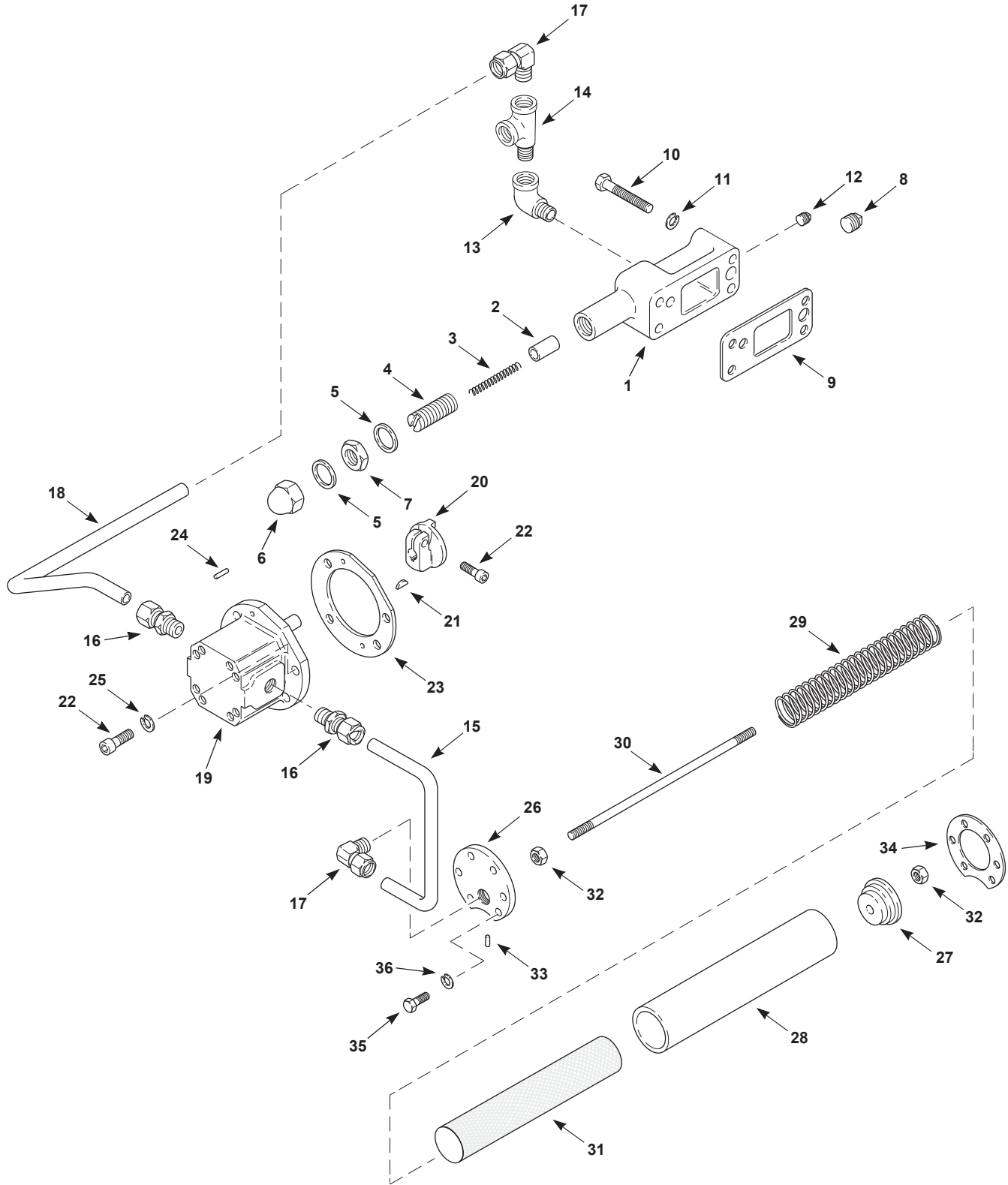


F-5
CRANKCASE BREATHER
GROUP 70

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

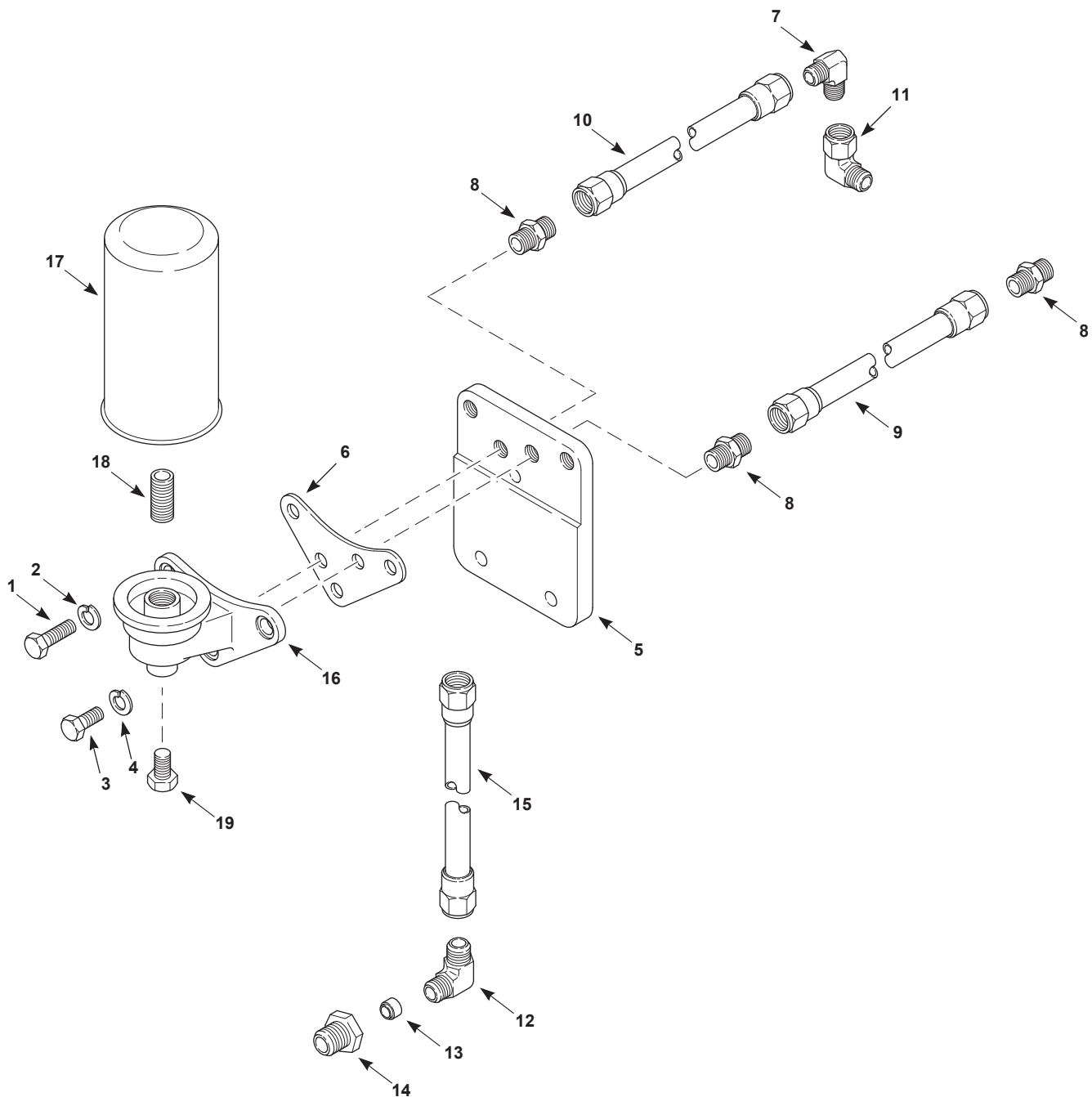


F-5
OIL PUMP, OIL SCREEN, OIL RELIEF VALVE
GROUPS 20, 66, 80, 413

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

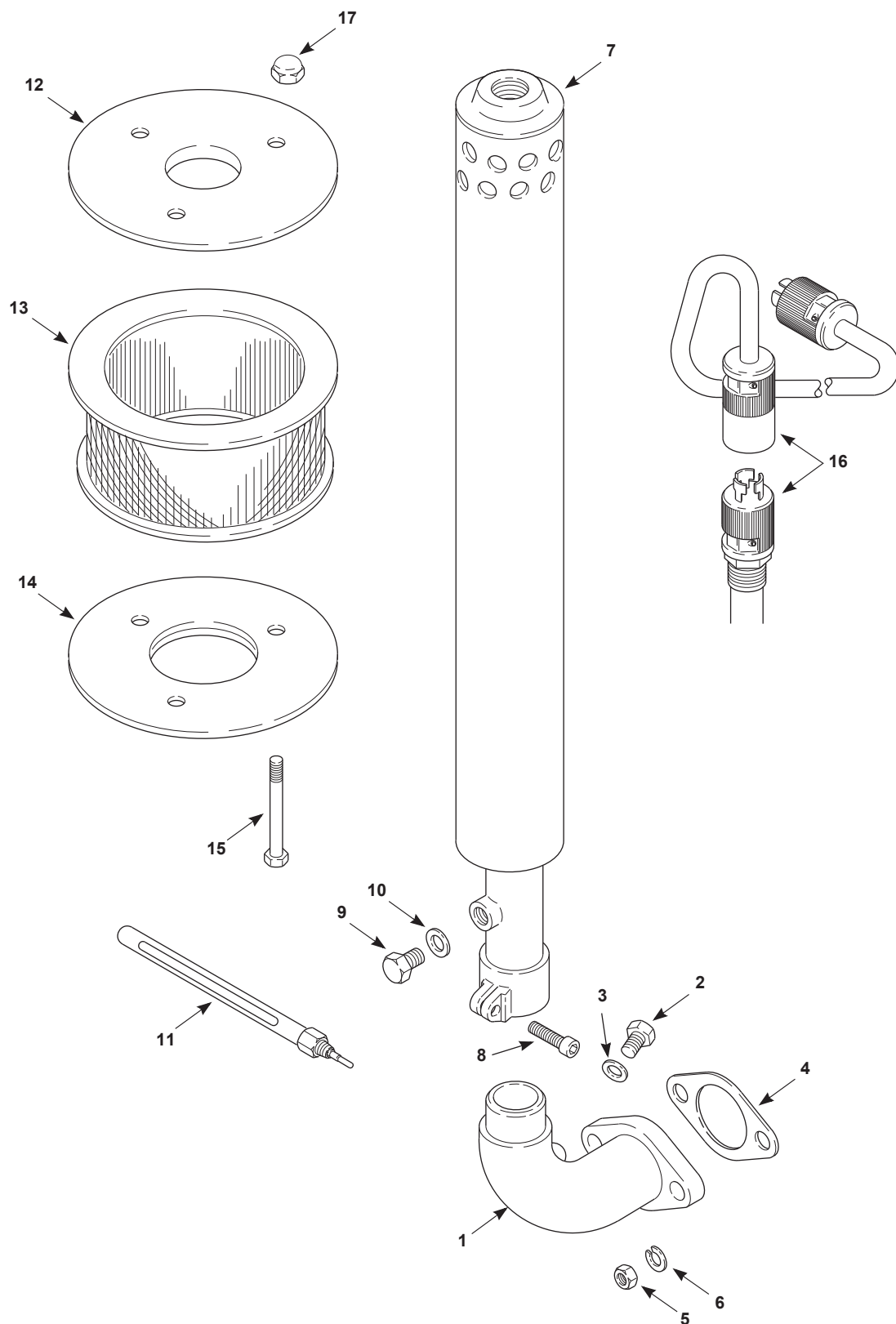


F-5
OIL FILTER
GROUP 55

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-5
AIR HEATER, AIR SILENCER, AIR CLEANER
GROUPS 41, 208

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	105188	1	Air Silencer Elbow
2	21376	1	Hex Head Capscrew, 3/8"-24 x 1/2"
3	BD190	1	Copper Gasket
4	B2557	1	Manifold Gasket
5	B5828	2	Hex Nut, 5/16"-24
6	21051	2	Lock Washer, 5/16"
7	AA110468	1	Air Heater Silencer Assembly
8	21545	1	Socket Head Capscrew, 5/16"-24
9	106514	1	Carburetor Jet Hole Screw
10	B3207	1	Fiber Gasket
11	O106317A	1	Thermometer Assembly
12	A111551	1	Top Plate Assembly
13	110675	1	Air Cleaner Element
14	A111550	1	Bottom Plate Assembly
15	26896	3	Hex Head Capscrew, 1/4"-20 x 3-1/2"
16	A106583E	1	Inlet Air Heater Assembly
17	B6849A	3	Stop Nut, 1/4"-20 x 9/32"
			ASSEMBLIES
	C110675	1	Air Cleaner Assembly (Includes Items 12 – 15, 17)

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





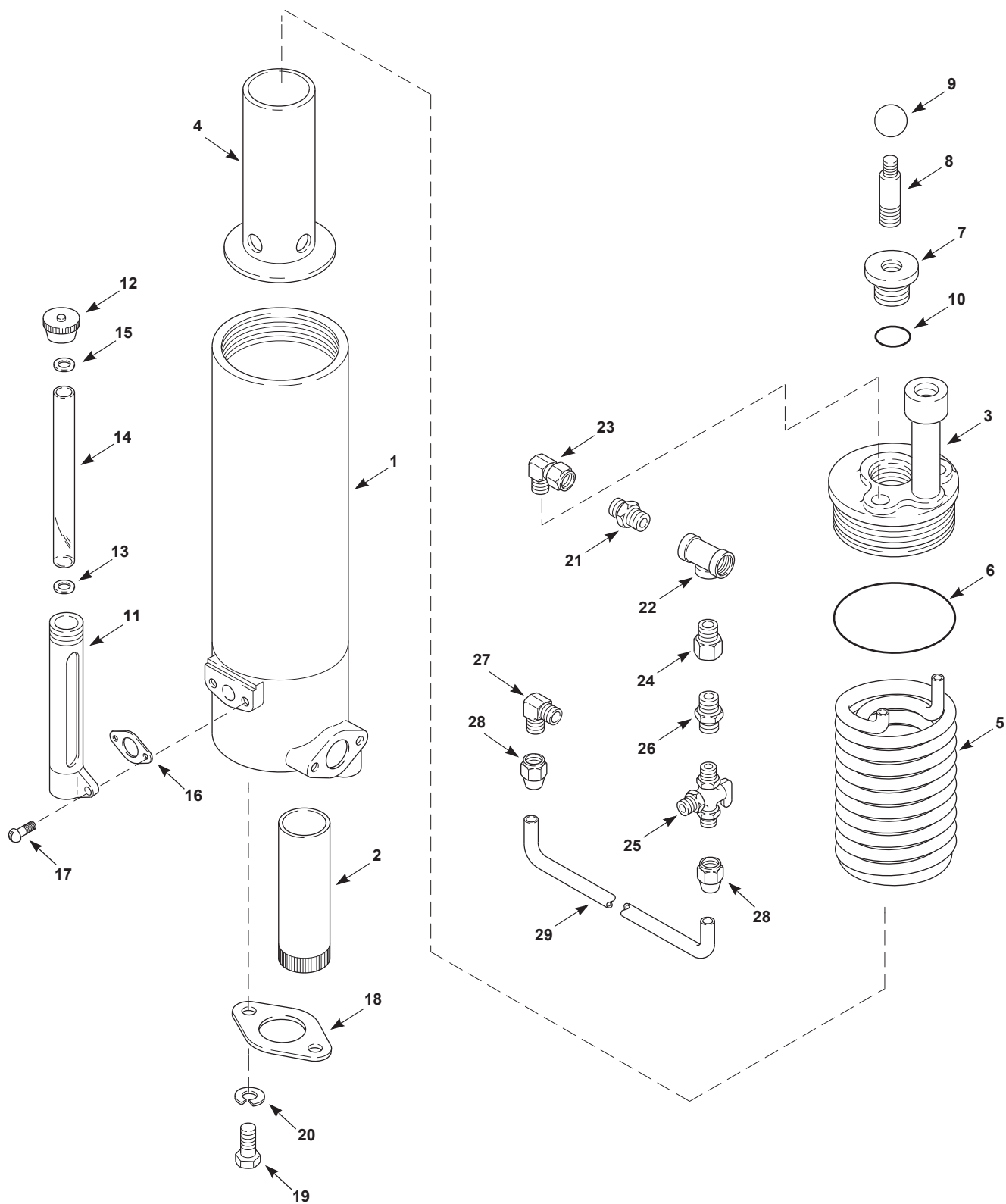
FORM 869-4
© 04/2016

F-5
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	Y18802	1	Allen Head Pipe Plug, 1/8"
4	B2557	1	Manifold Gasket
5	110215	2	Exhaust Manifold Nut
6	21051	4	Lock Washer, 5/16"
7	109887E	1	Surge Tank
8	109350	3	Surge Tank Gasket
9	109277	1	Water Injection Spray
10	109281	2	Injection Spray Gasket
11	109349	1	Water Injection Spray Cover
12	109348	1	Spray Ring Clamp
13	118879K	2	Exhaust Pipe Flange
14	110523	2	Exhaust Pipe Flange Gasket
15	109351	1	Removable Spacer
16	109352	1	Manifold Flange
17	21323	2	Hex Head Capscrew, 5/16"—18 x 2-1/2"
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 – 23)

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

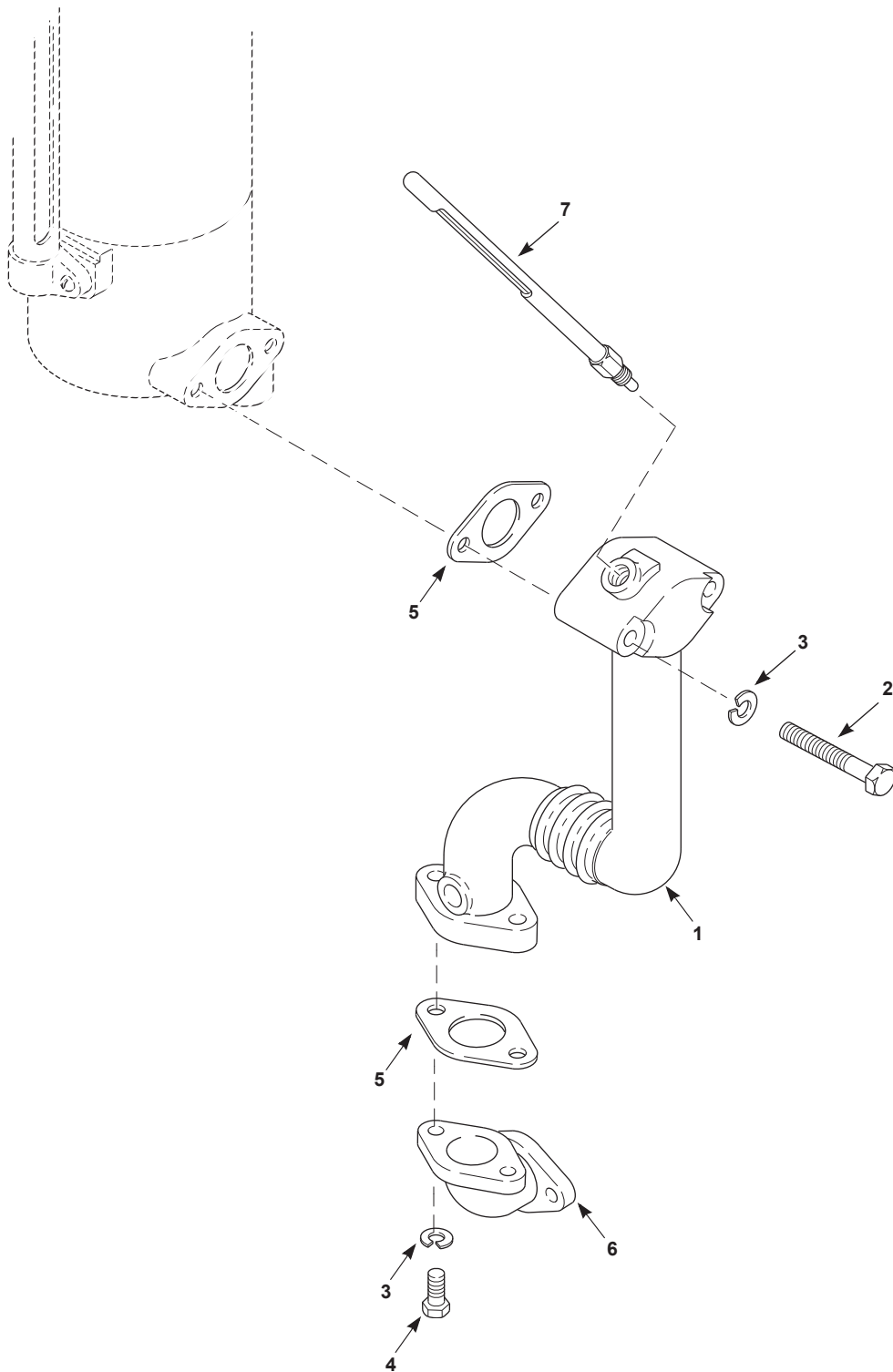


F-5
CONDENSER
GROUP 200

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	109264A	1	Condenser Body
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 x 1/2"
18	75690	1	Condenser Body Gasket
19	21313	2	Hex Head Capscrew, 5/16"–18 x 1"
20	21051	2	Lock Washer, 5/16"
21	B2659	2	Condenser Nipple
22	952419	2	Pipe Tee, Brass, 1/4"
23	B10168B	2	Street Ell, 1/4" x 90°
24	75745	2	Reducing Bushing, 1/4" – 1/8"
25	B5906B	1	Shutoff Valve
26	B4094	1	Union Connector
27	B1686	2	Half Union Elbow
28	B4092	4	Union Nut
29	B7948M	1	Copper Tube (Cut To Size)
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

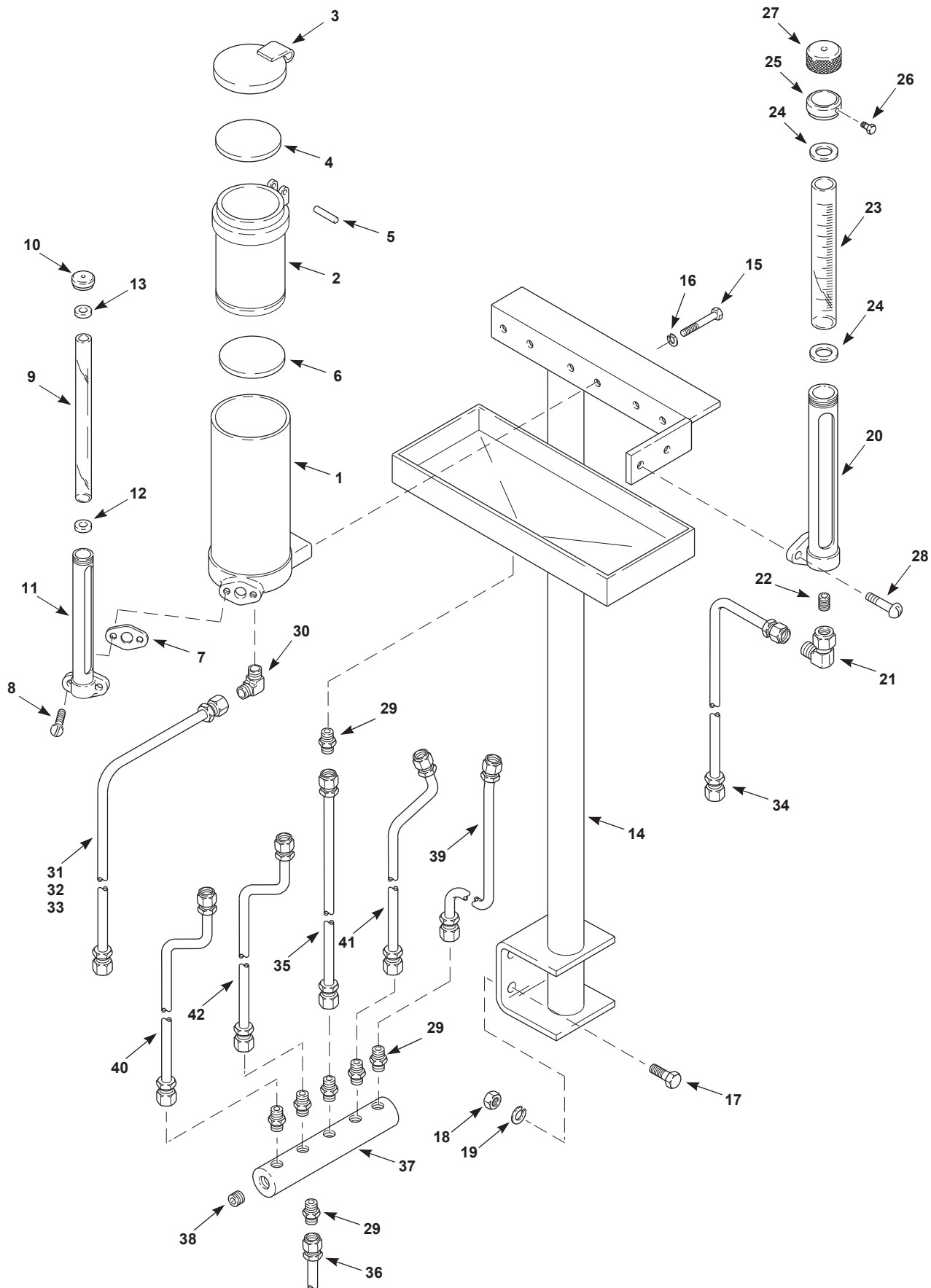


F-5
CONDENSER WATER PIPE
GROUP 402

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	21275	2	Hex Head Capscrew, 1/4"-20 x 3/4"
5	B5096A	2	Water Pipe Gasket
6	105083	1	Water Pipe Inlet
7	O105180	1	Water Jacket Thermometer Assembly

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

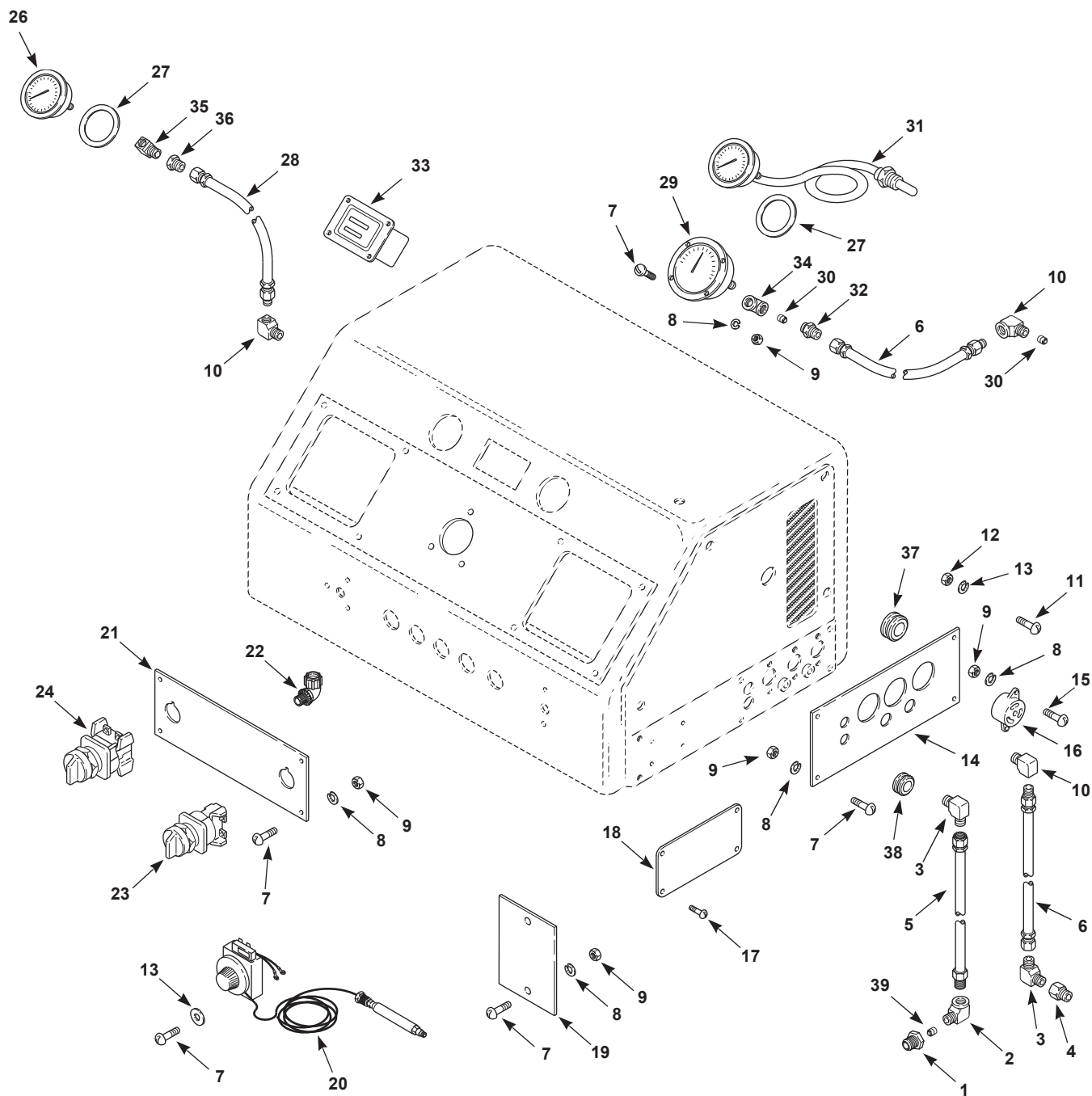


F-5
FUEL TANKS
GROUPS 216, 400

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A27849A	3	Fuel Tank Base Assembly
2	O27848A	3	Fuel Tank Assembly
3	O27852	3	Fuel Tank Cover Assembly
4	27974	3	Cover Pad
5	B1425	3	Retainer Pin
6	75612A	3	Tank Screen
7	75552A	3	Gauge Gasket
8	105420	6	Round Head Machine Screw, No. 10–24 x 1/2"
9	B5094	3	Gauge Tube
10	B5053A	3	Gauge Cover
11	O75550A	3	Gauge Body Assembly
12	B5052B	3	Gauge Tube Lower Gasket
13	B5068	3	Gauge Tube Upper Gasket
14	O110164	1	Fuel Tank Bracket Assembly
15	21273	6	Hex Head Capscrew, 1/4"–20 x 5/8"
16	21050	6	Lock Washer, 1/4"
17	21312	4	Hex Head Capscrew, 5/16"–18 x 7/8"
18	21181	4	Hex Nut, 5/16"–18
19	21051	4	Lock Washer, 5/16"
20	A106336B	1	Burette & Base Shield
21	209738	1	Union Elbow
22	75806D	1	Oil Line Restriction Jet
23	106334	1	Burette Glass
24	75976A	2	Burette Gasket
25	106337	2	Burette Indicator
26	106338	2	Burette Indicator Screw
27	75977	1	Burette Screw Cap
28	21713	2	Round Head Machine Screw, No. 10–32 x 3/8"
29	B4094	8	Union Connector
30	B1685A	3	Union Elbow
31	110216B	1	No. 1 Fuel Tank Line
32	110217B	1	No. 2 Fuel Tank Line
33	110218B	1	No. 3 Fuel Tank Line
34	110219B	1	Burette Line
35	O110285	1	Tank Drain Line
36	A109151	1	Drain Tube Assembly
37	110287	1	Drain Line Manifold
38	106343	2	Allen Head Pipe Plug, 1/4"
39	A110284A	1	Drain Tube
40	A110281A	1	No. 1 Drain Tube
41	A110282A	1	No. 2 Drain Tube
42	A110283A	1	No. 3 Drain Tube
ASSEMBLIES			
	OB5051C	1	Sight Gauge Assembly (Includes Items 9 – 13)
	O106539A	1	Diesel Fuel Tank Assembly (Includes Items 1 – 13)

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

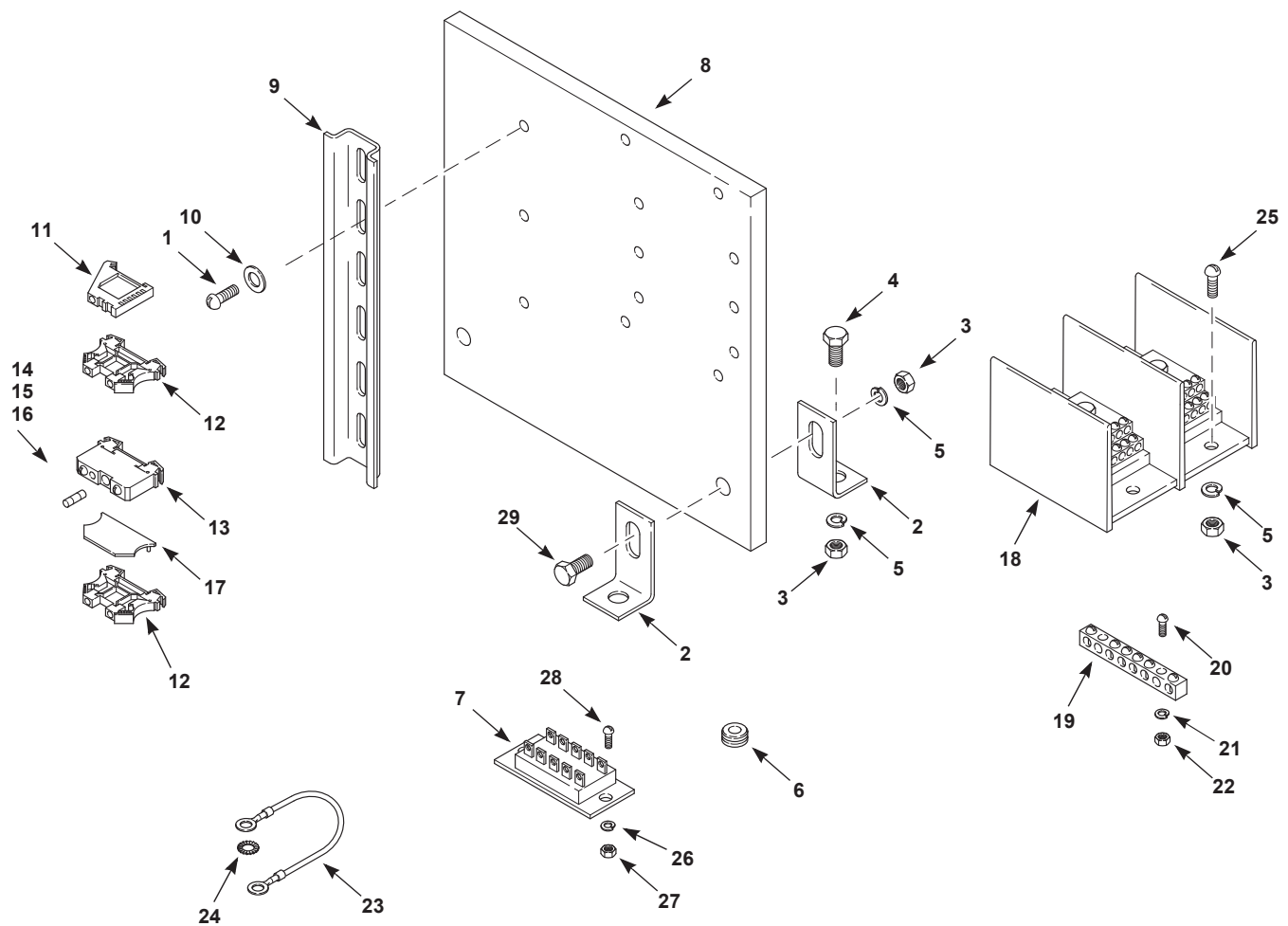


F-5
INSTRUMENT PANEL ASSEMBLY
GROUP 202

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	75745	1	Reducing Bushing
2	B567A	2	Street Elbow
3	B1686	2	Half Union Elbow
4	B7106	1	Rest Fitting
5	A166182U	1	Flexible Hose (Oil Pressure)
6	A166182L	2	Flexible Hose (Vacuum)
7	26671	26	Round Head Machine Screw, No. 6-32 x 1/2"
8	21679	21	Lock Washer, No. 6
9	21258	21	Hex Nut, No. 6-32
10	B10168	2	Street Elbow
11	26693	1	Round Head Screw, No. 6-32 x 5/8"
12	48482	6	Elastic Stop Hex Nut, No. 6-32
13	111690	4	Nylon Washer
14	109855C	1	Connection Nameplate
15	26748	2	Flat Head Screw, No. 6-32 x 1/2"
16	111471	1	Twist Lock Receptacle
17	21766	4	Round Head Screw, No. 4 x 3/16"
18	105022A	1	Unit Nameplate
19	111802A	1	Nameplate
20	111545	1	Oil Heater Switch
21	109839T	1	Switch Plate
22	Y9017	1	Flex Conduit Connector, 3/8"
23	111611	1	Heater Switch
24	A111610	1	Starter Switch
25	26688	3	Round Head Screw, No. 10-32 x 3/8"
26	105335A	1	Oil Pressure Gauge
27	111670	2	Gasket
28	A166182W	2	Flexible Hose
29	109929A	1	Vacuum Gauge
30	75806	2	Restrictor Jet
31	105321D	1	Oil Temperature Gauge
32	B4094B	1	Straight Fitting
33	111543B	1	Hour Meter, 50 Hz
	111543C	1	Hour Meter, 60 Hz
	111543D	1	Reset Hour Meter, 50 Hz
	111543E	1	Reset Hour Meter, 60 Hz
34	78210A	1	Street Elbow
35	110228A	1	Elbow Adapter
36	105355A	1	Female Coupling
37	Y7141	1	Rubber Grommet
38	Y6819	1	Rubber Grommet
39	75806G	1	Restrictor Oil Jet

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

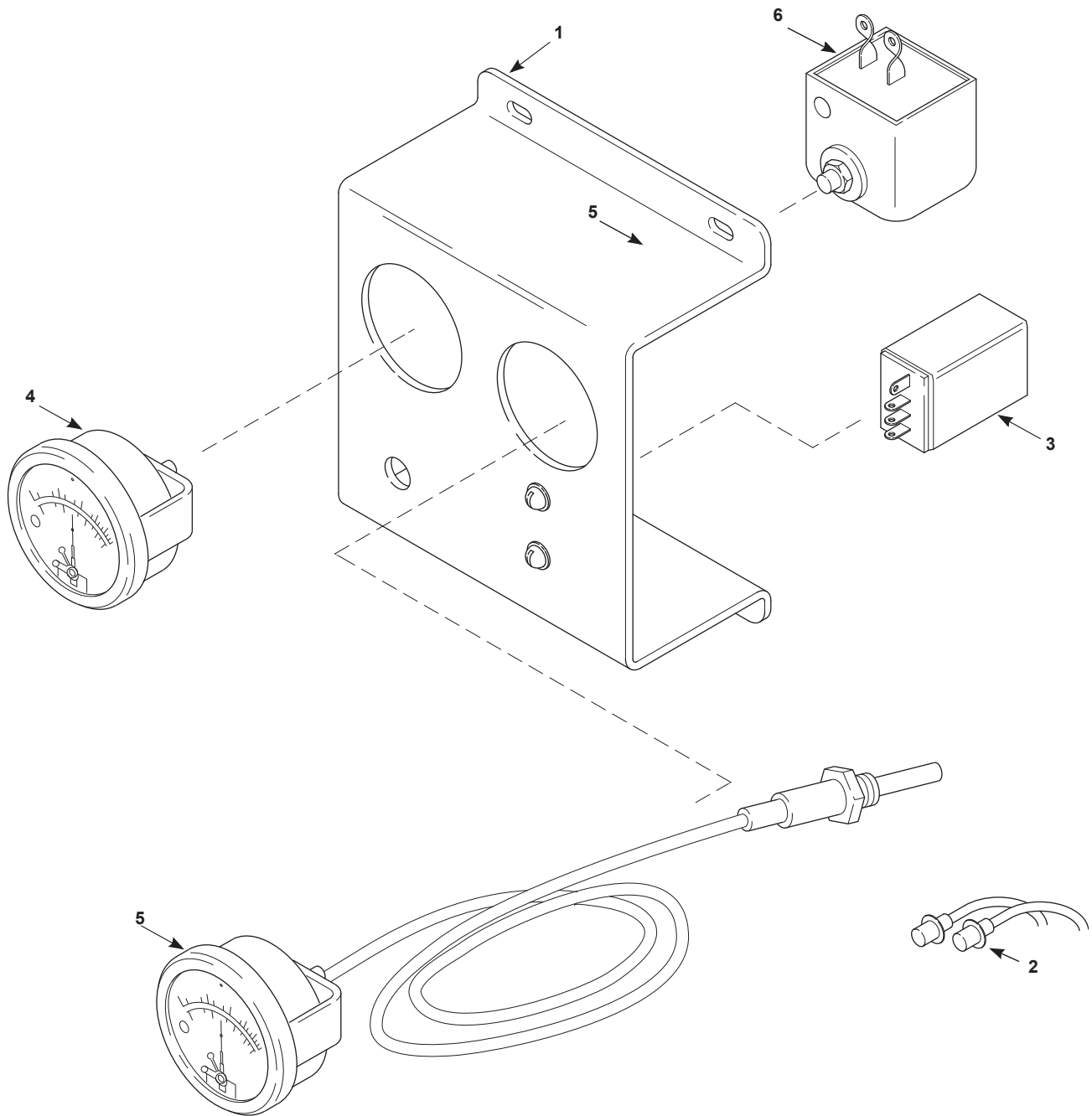


F-5
INSTRUMENT PANEL (INTERNAL)
GROUP 202

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

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-5
SAFETY SHUTDOWN SYSTEM
GROUPS 202, 813

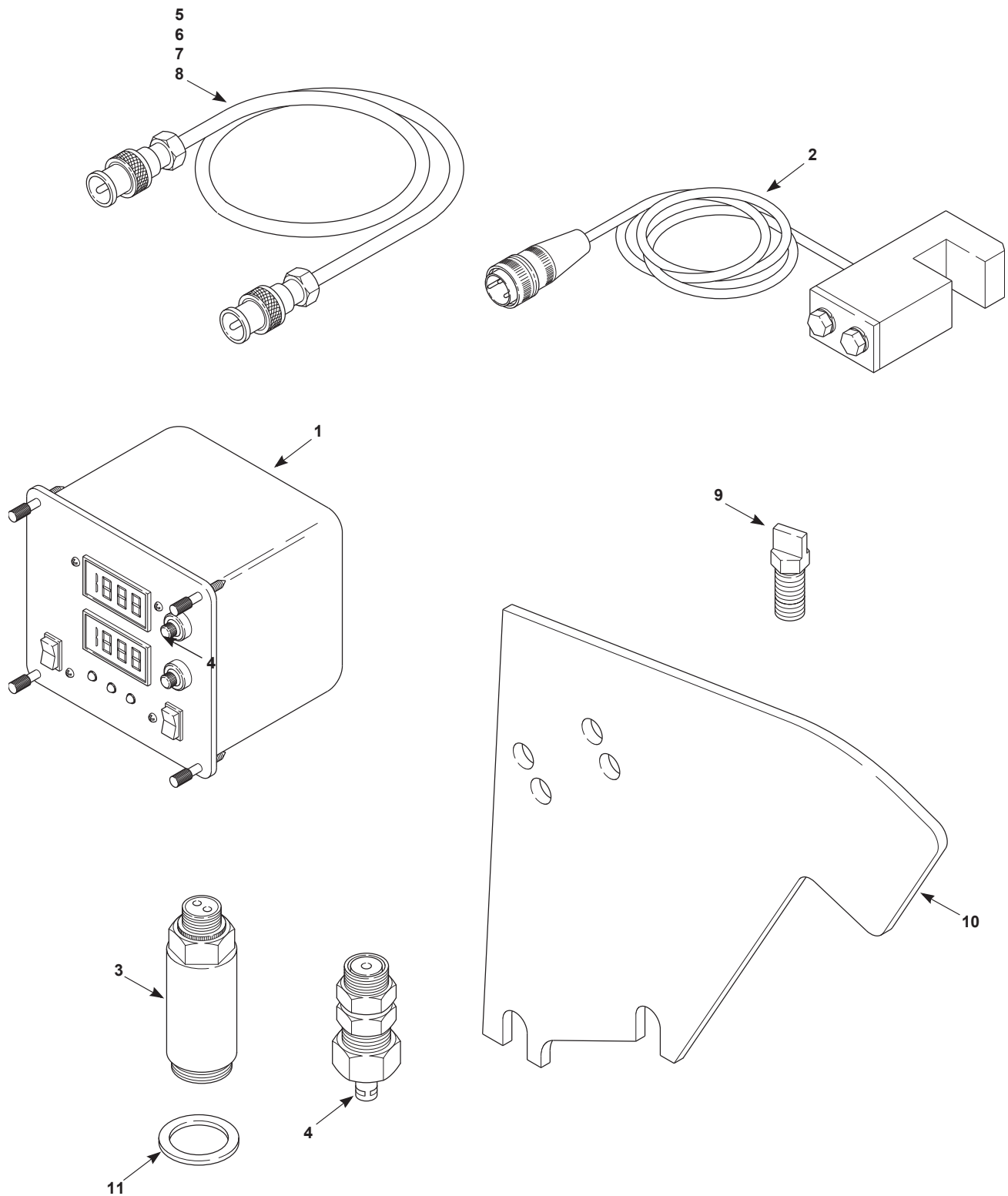
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1*	A111787	1	Switch Panel
2	211413B	2	Red Indicator Light
3	69910	1	Socket Mount Relay
4	111786A	1	Oil Pressure Switch Gauge
5	111786	1	Water Temperature Switch Gauge
6	69913	1	Magnetic Switch

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

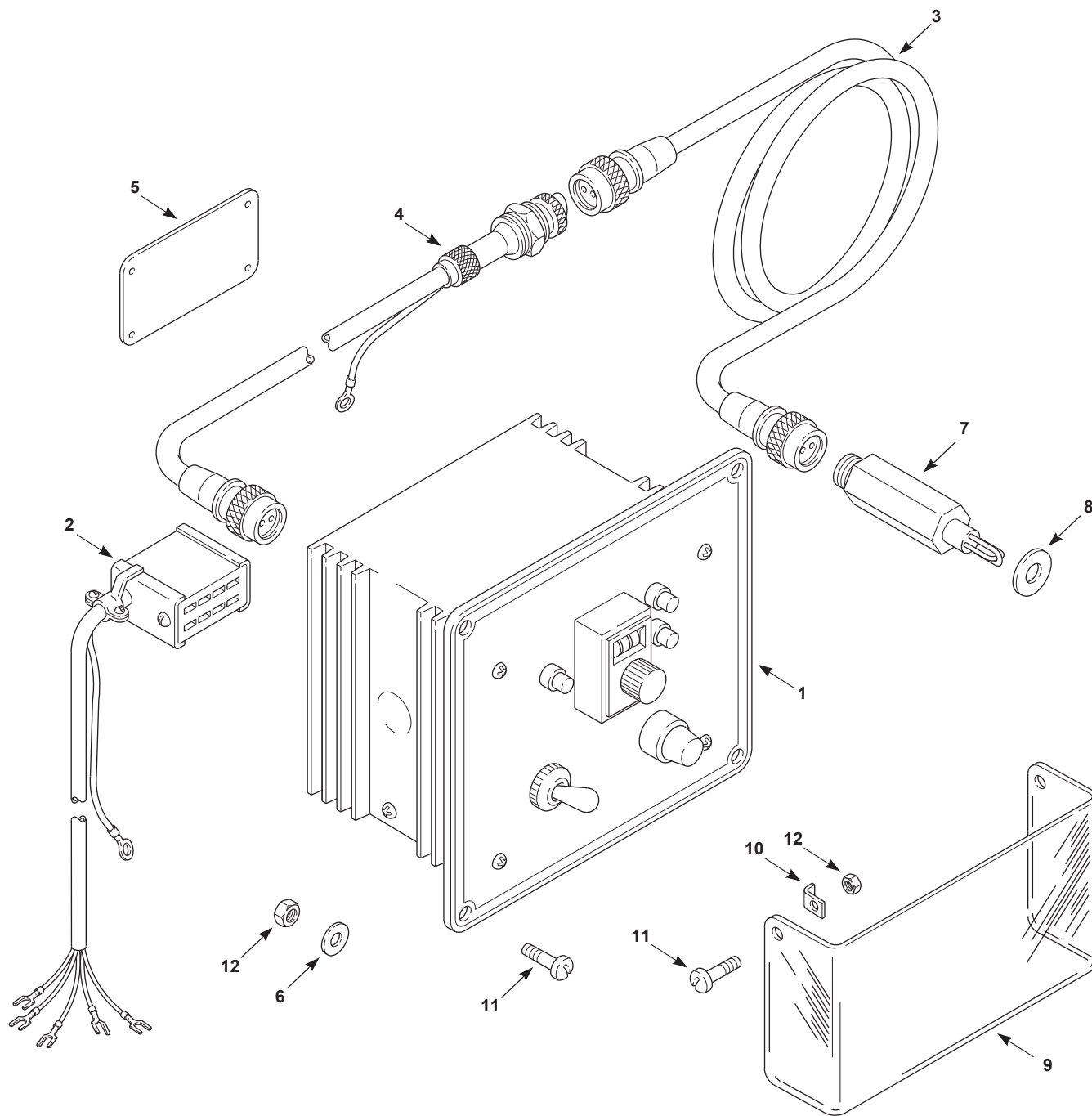


F-5
IGNITION DELAY METER
GROUP 202

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A111462B	1	Ignition Delay Meter Assembly
2	111464C	2	Cetane Meter Pickup
3	111463A	1	Combustion Pickup
4	111465A	1	Injection Pickup
5	111466	1	Combustion Pickup Cable (Red)
6	111467	1	Meter Input Cable (White)
7	111468	1	Meter Input Cable (Black)
8	111469	1	Meter Input Cable (Green)
9	109574B	1	Indicator Pin
10	210539D	1	Pickup Bracket
11	111342	1	Pickup Gasket

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-5
TEMPERATURE CONTROLLER
GROUP 202

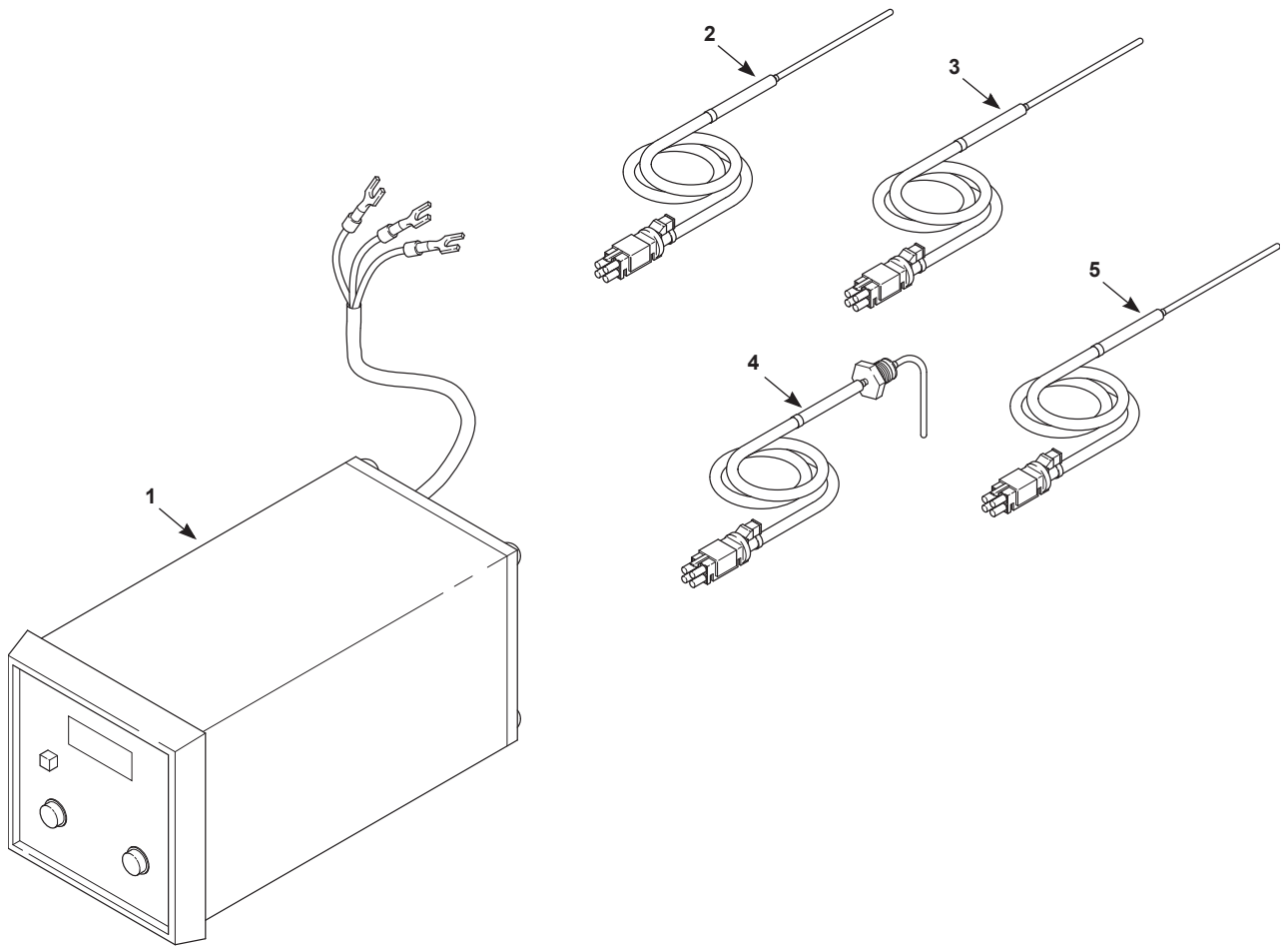
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1*	111412B	1	Temperature Controller
2	111415	1	Heater Power Cable
3	A210635	1	Thermistor Cable
4	111444	1	Console Cable
5	110854	1	Nameplate
6	111690	2	Nylon Washer
7	110387	1	Thermistor Probe, 150° F (66° C)
8	BD190	1	Copper Gasket
9	110501	1	Meter Knob Cover
10	110502	2	Knob Cover Bracket
11	26671	6	Round Head Machine Screw, No. 6–32 x 1/2"
12	48482	6	Elastic Stop Hex Nut, No. 6–32
			ASSEMBLIES
	AA111412B	1	Temperature Controller Assembly (Includes Items 1* – 5)

NOTE:

* Item 1 is sold only as part of the Temperature Controller Assembly, P/N AA111412B.

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

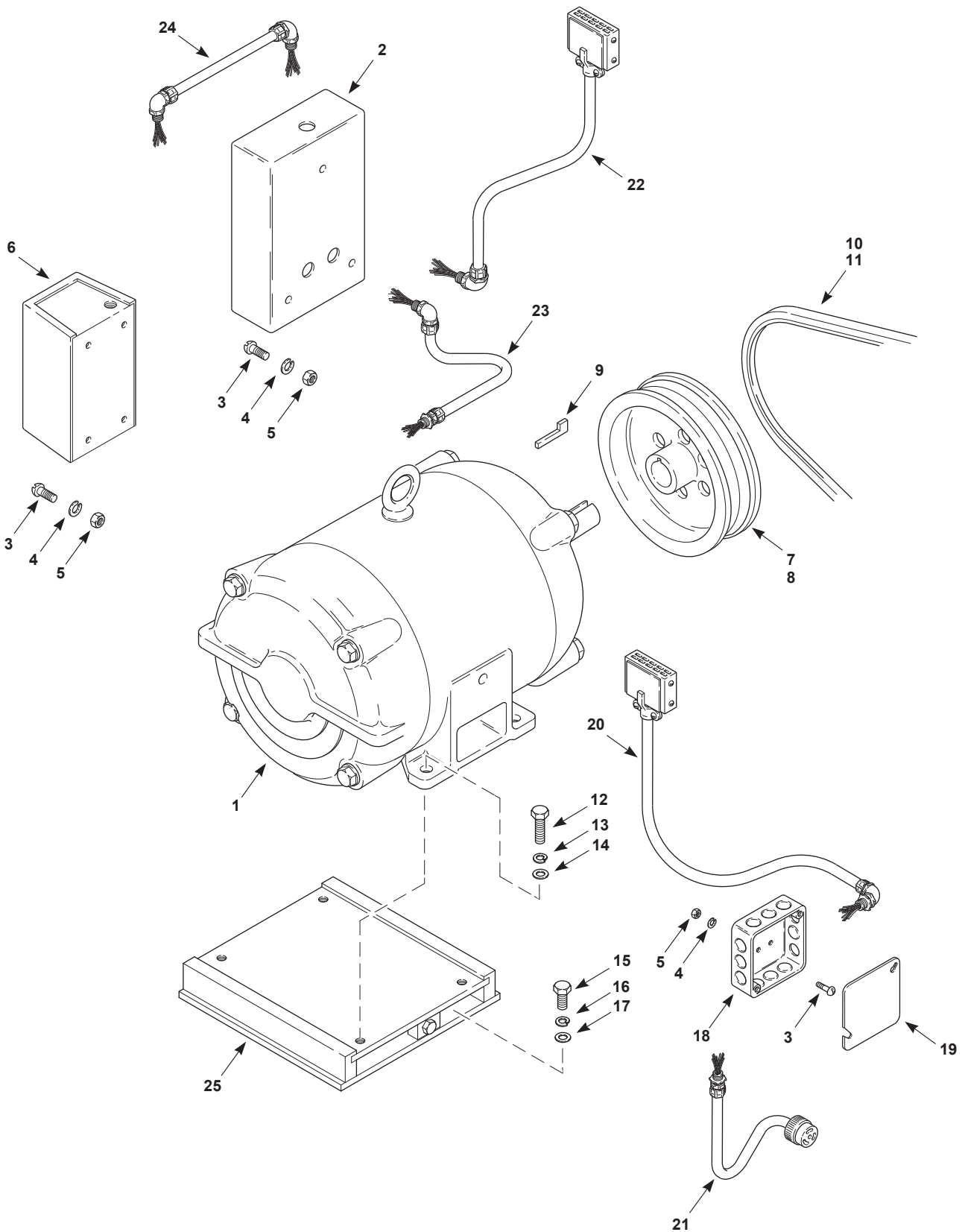


F-5
RESISTANCE TEMPERATURE DEVICE AND DISPLAY
GROUPS 202, 802

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

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-5
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	27928F	1	Induction Motor Pulley (60 Hz)
8	75713G	1	Induction Motor Pulley (50 Hz)
9	27732C	1	Induction Motor Pulley Key
10	OB5500	1	Belt (Sold as a set of two belts) (For use on 50 Hz Units)
11	O27970	1	Belt (Sold as a set of two belts) (For use on 60 Hz Units)
12	21433	4	Capscrew, 1/2"–13 x 1-3/4"
13	21054	4	Lock Washer, 1/2"
14	Y18814K	4	Plain Washer, 1/2"
15	21466	4	Capscrew, 5/8"–11 x 1-1/2"
16	21055	4	Lock Washer, 5/8"
17	Y18814M	4	Plain Washer, 5/8"
18	111472	1	Electrical Box Outlet
19	954842	1	Blank Electrical Box Cover
20	F110141E	1	Cable Assembly
21	T110122H	1	Cable Assembly
22	D110141B	1	Cable Assembly
23	D110141C	1	Cable Assembly
24	C110141D	1	Cable Assembly
25	A111707D	1	Quick Slide Base

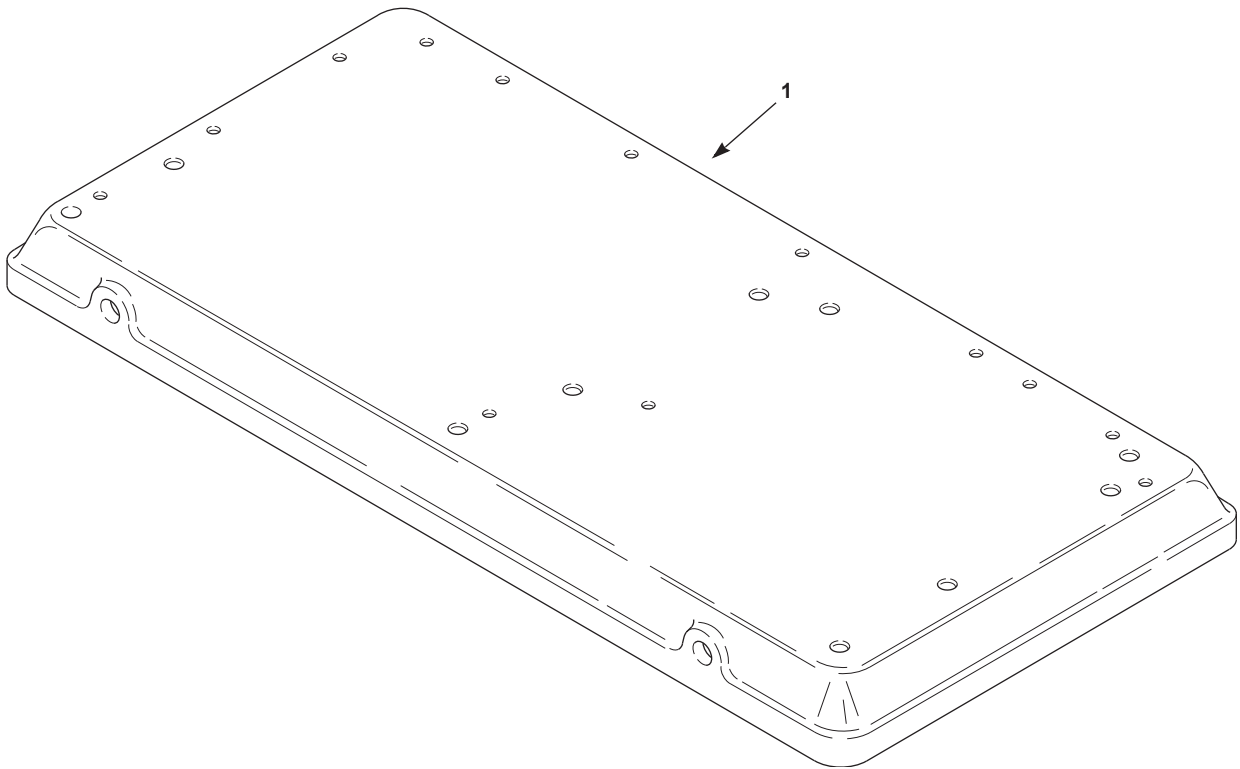
NOTES:

* 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.

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

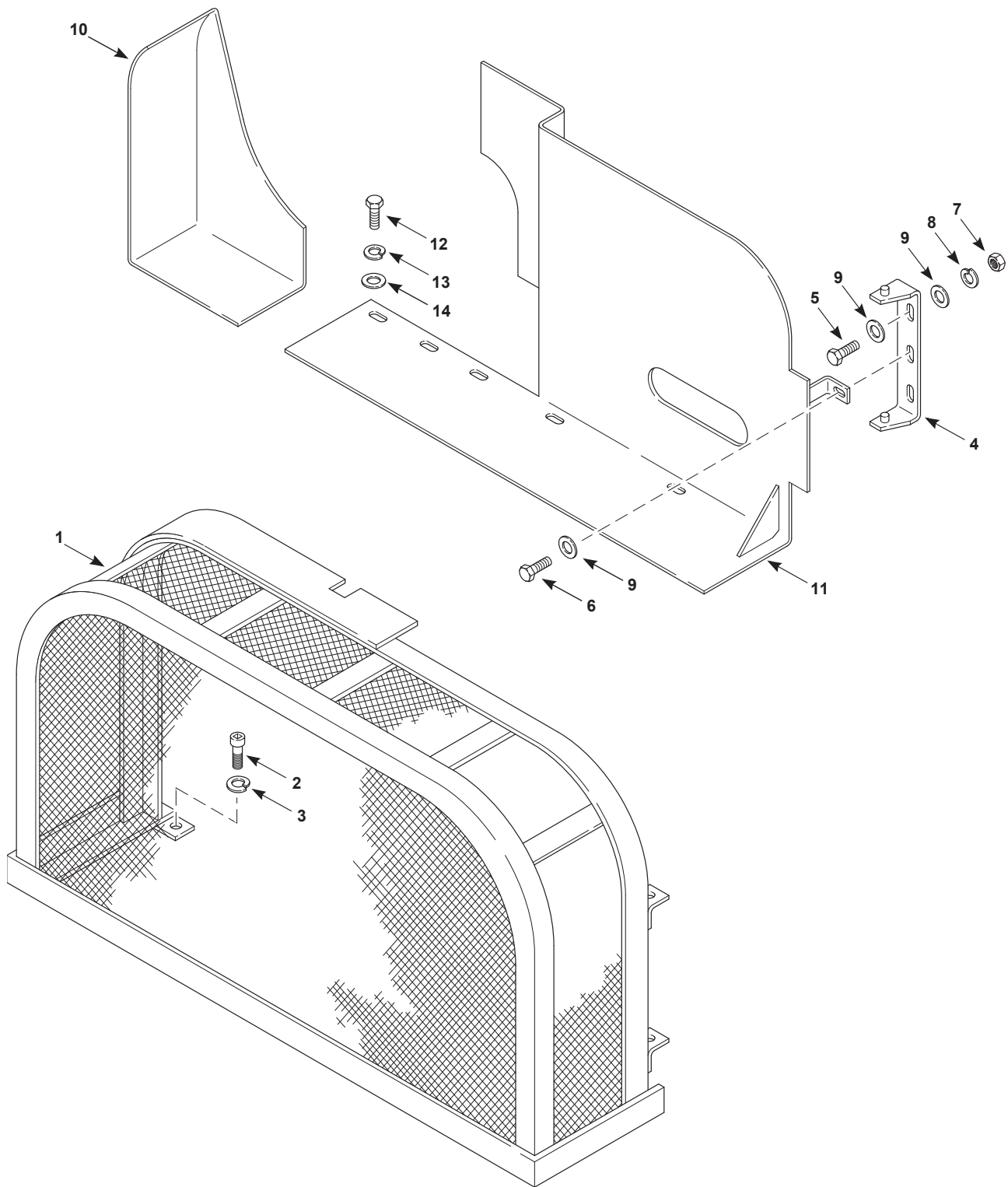


**F-5
UNIT BASE
GROUP 212**

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

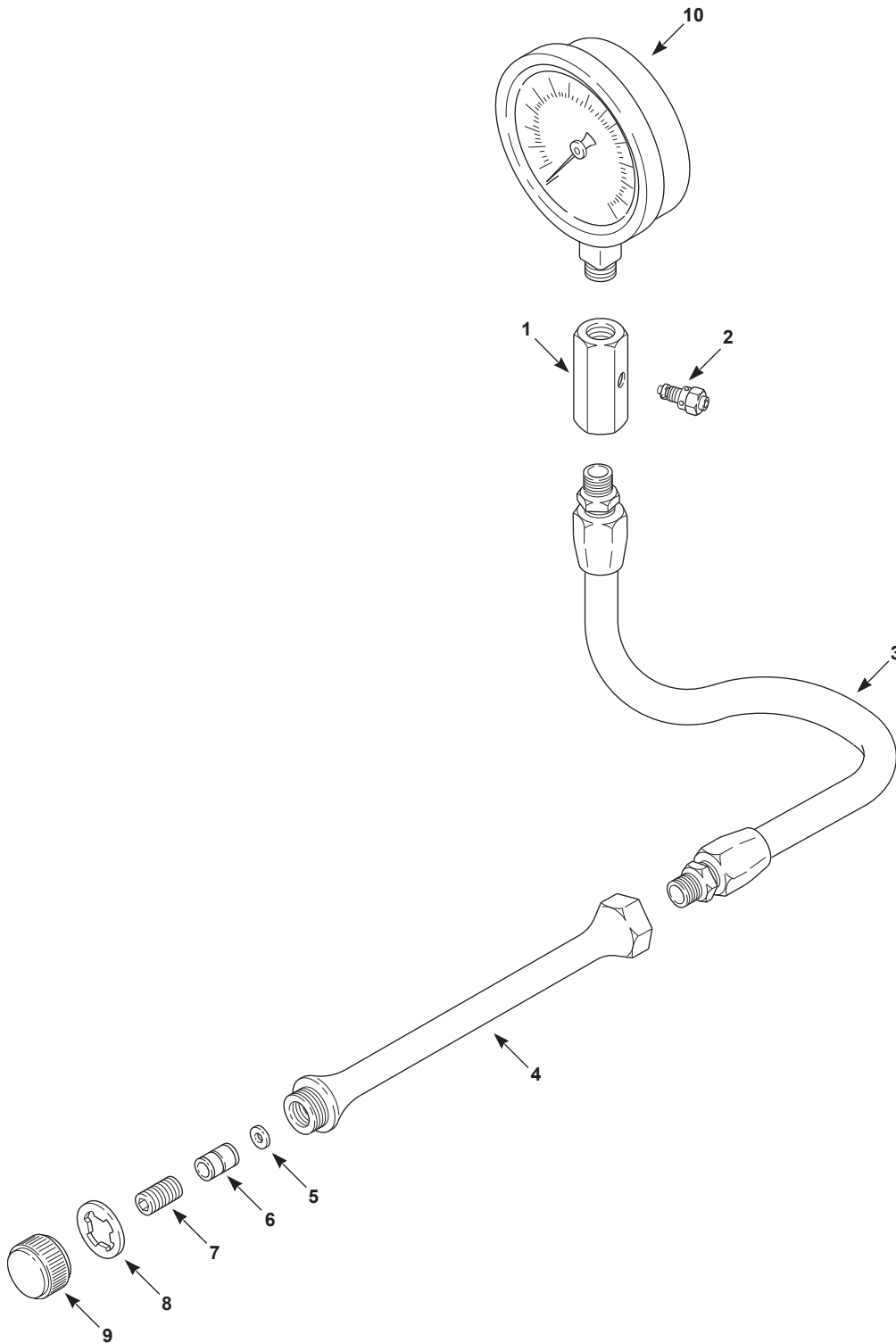


F-5
SAFETY GUARDS
GROUP 223

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"

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

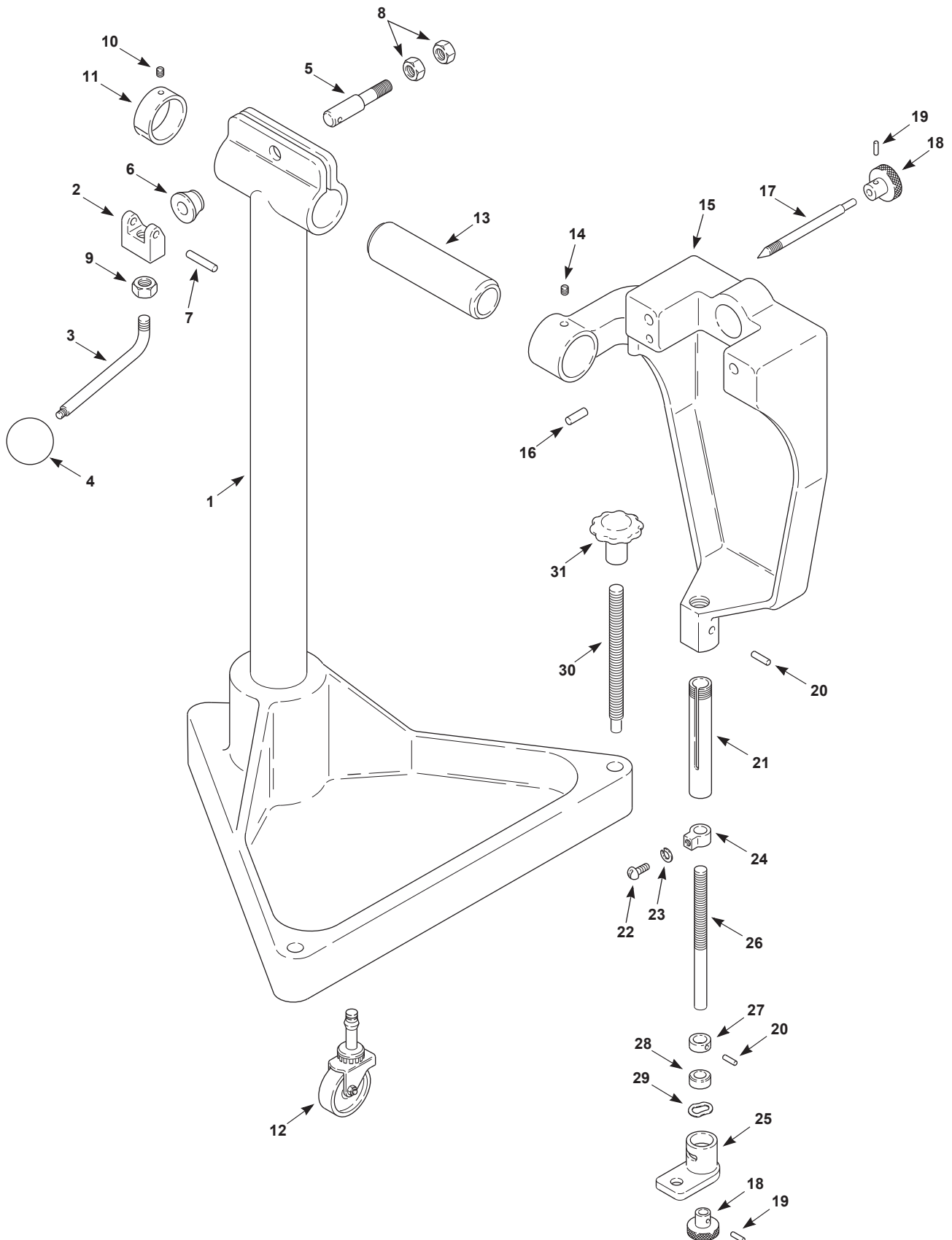


F-5
COMPRESSION PRESSURE GAUGE
GROUP 403

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	110376	1	Compression Head Gauge Assembly
			ASSEMBLIES
	A110376	1	Compression Gauge Assembly (Includes Items 1 – 10)

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-5
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.



F-5 PARTS KITS

CETANE INSTRUMENT PANEL – G-802-36

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	CC109956K	1	Instrument Panel Assembly
2	111472	1	Outlet Box
3	954842	1	Outlet Box Cover
4	F110141E	1	Cable Assembly
5	T110122H	1	Crankcase Heater Cable Assembly
6	26975	7	Flat Head Screw, 1/4"–20 x 1/2"
7	21050	7	Lock Washer, 1/4"
8	21173	7	Hex Nut, 1/4"–20
9	D110141B	1	Cable Assembly
10	D110141C	1	Induction Motor Cable Assembly
11	C110141D	1	Start Relay Cable Assembly
12	A110122E	1	Safety Control Cable Assembly
13	110135B	1	Junction Box With Start Relay
14	S-06186-110	1	F-5 Wiring Schematic
15	211900	1	Label, "Danger Electric Source"
16	211900A	1	Label, "Danger Electric Source"
17	211930B	1	Fuel Safety Label
18	111543C	1	Hour Meter, 60 Hz
19	111543E	1	Hour Meter With Reset, 60 Hz
20	109716	1	Desk
21	21352	6	Hex Head Capscrew, 3/8"–16 x 1-1/4"
22	21346	4	Hex Head Capscrew, 3/8"–16 x 7/8"
23	21189	11	Hex Nut, 3/8"–16
24	110362	1	Rear Panel Support
25	21343	5	Hex Head Capscrew, 3/8"–16 x 3/4"
26	109323	2	Hex Head Capscrew, 3/8"–16 x 1-3/8"
27	109714D	1	Control Panel Leg
28	109715	1	Control Panel Leg
29	21052	30	Lock Washer, 3/8"
30	111464C	2	Cetane Meter Pickup
31	109574B	1	Indicator Pin
32	210539D	1	Pickup Bracket
33	Y18813H	11	Plain Washer, 3/8"
34	111466	1	Input Cable
35	111469	1	Meter Input Cable
36	21348	1	Hex Head Capscrew, 3/8"–16 x 1"
37	21820	1	Hex Jam Nut, 1/4"–20
38	75745	1	Reducing Bushing

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-5 PARTS KITS
F-5 PANEL AND INSTRUMENT KIT – G-802-44

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	111464C	2	Cetane Meter Pickup
2	109574B	1	Indicator Pin
3	210539D	1	Pickup Bracket
4	S-06684-62	1	Operating Instructions For Cetane Meter

DUAL DIGITAL CETANE METER KIT – G-802-47

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	A111462B	1	Ignition Delay Meter Assembly
2	G-802-44	1	Panel And Instrument

NOTE: This kit includes the Dual Digital Meter, two optical pickups, pickup mounting hardware, and flywheel pointer.

RTD KIT – G-802-49

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	A111805C	1	Injector Passage Temperature RTD
5	210836	1	RTD Display
6	S-06186-124	1	Wiring Schematic
7	S-06684-117	1	Operating Instructions For RTD Indicator

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



F-5 PARTS KITS

CRANKCASE GASKET SET – 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

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

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-5 PARTS KITS
ONE-YEAR SUPPLY SPARE PARTS KIT – G-807-21

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	B2557	6	Manifold Gasket
2	B4680	2	Felt Washer
3	B5052B	6	Gauge Tube Lower Gasket
4	B5068	6	Gasket
5	B5096A	6	Water Pipe Gasket
6	B7707	2	Thrust Washer Ring
7	O23043A	2	Ball Valve Socket Assembly
8	23043B	2	Ball
9	AA23204G	1	Piston Assembly
10	23505	2	Piston Oil Ring
11	44999J	2	Intake Retainer Ring
12	75690	6	Condenser Body Gasket
13	105080	1	Cylinder Head Gasket
14	105085	2	Rocker Arm Cover Gasket
15	105088	1	Cylinder Door Gasket
16	105100A	1	Variable Compression Plug
17	105104B	1	Variable Compression Plug Locking Washer
18	O105180	1	Thermometer Assembly
19	105181	1	Cylinder Base Gasket
20	105181A	1	Cylinder Head Gasket
21	105181B	2	Cylinder Head Gasket
22	105181C	1	Cylinder Base Gasket
23	106222A	6	Piston Ring
24	O106317A	1	Thermometer Assembly
25	A106583E	1	Heater and Cord Assembly
26	106625	6	Three-Piece Set of Valves
27	109612	2	Crankcase Door Gasket
28	109658	4	Valve Spring Keeper
29	109659	2	Valve Spring Rotocap
30	110165C	2	Valve Rotator
31	69850C	1	Ceramic Fuse, 15 Amp
32	110250D	6	O-Ring
33	111346	12	Oil Filter
34	111463A	1	Combustion Pickup
35	111465A	1	Injector Pickup
36	176412	2	Gasket
37	BD190	3	Copper Gasket
38	B3207	1	Fiber Gasket
39	B10065	2	Washer
40	106222A	6	Piston Ring
41	110700	1	Nozzle
42	111342	2	Pickup Gasket
43	106222B	4	Piston Ring
44	69850B	1	Ceramic Fuse, 10 Amp – 250 Volt
45	69850A	1	Ceramic Fuse, 5 Amp – 250 Volt

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



F-5 PARTS KITS
FOUR-YEAR SUPPLY SPARE PARTS KIT – G-807-22

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	B2557	10	Manifold Gasket
2	B4680	6	Felt Washer
3	B5068	30	Gasket
4	B5096A	20	Water Pipe Gasket
5	B7707	7	Thrust Washer Ring
6	O23043A	4	Ball Valve Socket Assembly
7	23043B	4	Ball
8	AA23204G	2	Piston Assembly
9	23505	32	Piston Oil Ring
10	44999J	4	Intake Retainer Ring
11	A75067E	1	Fuel Injection Valve Assembly
12	75690	8	Condenser Body Gasket
13	105080	4	Cylinder Head Gasket
14	105085	6	Rocker Arm Cover Gasket
15	105088	3	Cylinder Door Gasket
16	105100A	1	Variable Compression Plug
17	105104B	1	Variable Compression Plug Locking Washer
18	O105180	2	Thermometer Assembly
19	105181	2	Cylinder Base Gasket
20	105181A	2	Cylinder Head Gasket
21	105181B	2	Cylinder Head Gasket
22	105181C	2	Cylinder Base Gasket
23	106222A	18	Piston Ring
24	O106317A	2	Thermometer Assembly
25	A106583E	1	Heater and Cord Assembly
26	106625	10	Three-Piece Set of Valves
27	109552	1	Oil Screen
28	109612	6	Crankcase Door Gasket
29	109658	12	Valve Spring Keeper
30	109659	2	Valve Spring Rotocap
31	110165C	4	Valve Rotator
32	69850C	4	Ceramic Fuse, 15 Amp
33	110250D	18	O-Ring
34	111346	48	Oil Filter
35	111463A	1	Combustion Pickup
36	111465A	1	Injector Pickup
37	176412	1	Gasket
38	B1956A	1	Breather Gasket
39	B2543	1	Gasket
40	B4094	2	Half Union Connector

Continued

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-5 PARTS KITS
FOUR-YEAR SUPPLY SPARE PARTS KIT – G-807-22

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
41	B5094	1	Condenser Gauge Tube
42	23308D	2	Piston Pin Bushing
43	27732C	1	Induction Motor Pulley Key
44	27974	2	Pad
45	A166182U	1	Flexible Hose Assembly
46	75552A	2	Gauge Body Gasket
47	75612A	2	Screen
48	106137A	4	Connecting Rod Bearing
49	109334N	1	Fuel Pump Solenoid
50	109542	1	Front Crankshaft Bearing
51	109546	1	Crankshaft Thrust Shim
52	109570	1	Gear Cover Gasket
53	109571A	1	Front Plate Gasket
54	109616	1	Hole Cover Gasket
55	109618	1	Rear Crankshaft Bearing
56	109633	6	Lock Screw Gasket
57	110158	1	Oil Seal
58	110288	1	Injector Drain Line Nut
59	110700	4	Nozzle
60	110754	1	Plunger And Barrel
61	110772	1	Fuel Inlet Stud
62	110796	2	Spring Retaining Cap (Bosch)
63	110803	2	Inlet Stud Gasket
64	110804	1	Gasket
65	110806	1	Nozzle Cap Nut
66	110809	1	Delivery Valve Gasket
67	A111352A	1	Oil Line Assembly
68	117926C	4	Oil Filter Gasket
69	168922F	1	O-Ring
70	211196	2	O-Ring
71	116880H	1	Ball Valve
72	B3207	4	Fiber Gasket
73	B5052A	12	Gasket
74	B9496	1	Intermediate Disc
75	110758	1	Valve and Seat Assembly
76	106222B	6	Piston Ring
77	69850B	4	Ceramic Fuse, 10 Amp – 250 Volt
78	69850A	4	Ceramic Fuse, 5 Amp – 250 Volt

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



F-5 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	Wire, No. 8, 14 – 18 AWG
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

Continued

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-5 PARTS KITS
CRANKCASE OVERHAUL KIT – G-807-24

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
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
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"

Continued

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



F-5 PARTS KITS

CRANKCASE OVERHAUL KIT – G-807-24

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
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"
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-5 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

INJECTION PUMP KIT – G-808-1

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	AA106941G	1	Fuel injection Pump Assembly
2	B6426	1	Spring
3	B5655A	1	Shim (0.003")
4	B5655B	1	Shim (0.005")
5	21350	4	Hex Head Capscrew, 3/8"–16 x 1-1/8"
6	21052	4	Lock Washer, 3/8"

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

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



F-5 PARTS KITS

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

SPECIAL CETANE TOOLS KIT – G-818-5

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	AA24088U	1	Tube Wrench Assembly
2	O75644	1	Valve Grind Tool Assembly
3	106893	1	Ring Expander
4	106950	1	Ring Groove Cleaner
5	O106965	1	Piston Ring Compressor
6	109023	1	Piston Pin Remover
7	109284	1	Feeler Gauge
8	109885	1	Snap Ring Pliers
9	A110376	1	Diesel Compression Pressure Gauge
10	110905	1	Tap For Pickup
11	111262	1	Adjustable Spanner Wrench
12	111684	1	Cylinder Diameter Gauge
13	109291B	1	Injection Probe Wrench

CETANE NOZZLE TESTER ASSEMBLY KIT – G-818-7

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	489161	1	Nozzle Tester
2	489157	1	Nut, 14 x 1.5 mm
3	489158	1	Connector Tube
4	489159	1	Tube Adapter
5	489160	1	Nut

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-5 PARTS KITS
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"

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

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



F-5 PARTS KITS

WATER PIPE KIT – G-832-2

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	O109131B	1	Condenser Pipe Assembly
2	105083	1	Water Pipe Inlet
3	B5096A	2	Water Pipe Gasket
4	B3104	1	Slotted Head Pipe Plug, Brass, 1/8"
5	21291	2	Hex Head Steel Capscrew, 1/4"–20 x 2"
6	21050	4	Lock Washer, 1/4"
7	21275	2	Hex Head Capscrew, 1/4"–20 x 3/4"
8	O105180	1	Thermometer Assembly

OIL FILTER 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"

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



F-5 PARTS KITS
FUEL PUMP ACCESSORY BRACKET KIT – G-867-1

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	109515C	1	Accessory Bracket
2	21043	2	Taper Pin, No. 6 x 1"
3	109414	4	Hex Head Capscrew, 3/8"–16 x 4-1/4"
4	21052	8	Lock Washer, 3/8"
5	109597	1	Injection Pump Spacer Support
6	21350	4	Hex Head Capscrew, 3/8"–16 x 1-1/8"
7	111699A	1	Turn Over Tool Bracket
8	21353	2	Hex Head Capscrew
9	21729	2	Lock Washer, 3/8"
10	21190	2	Hex Nut
11	Y18814H	2	Plain Washer

TURN OVER TOOL BRACKET KIT – G-867-4

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	111699A	1	Turn Over Tool Bracket
2	21353	2	Hex Head Capscrew
3	Y18814H	2	Plain Washer
4	21190	2	Hex Nut
5	21729	2	Lock Washer, 3/8"

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





ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS

CFR F-5 PART NUMBER INDEX

NUMBER	GROUP #	ITEM	NUMBER	GROUP #	ITEM	NUMBER	GROUP #	ITEM
ASSEMBLIES			- 1 -					
O 105081		5	B 10063	23	25	105595	37	6
AF 105082	B	7	B 10065	23	26	105681	B	13
F 105082	B	7		31	4	105987	A	7
A 105097		11	B 10168	51	10	105996	M	71
O 106539	A	49	B 10168	B	45	106130	B	23
A 109010	B	71	B 10410		37	106132		23
A 109226	B	71	105001	A	17	106137	A	13
A 109264	A	45	105022	A	51	106217	B	31
O 109264	C	45	O 105033		69	106218	A	7
A 109267	C	45	105078	A	9	106222	A	13
A 109331	K	33	105079		9	106222	B	13
O 109427		29	B 10508		25	106222	A1	13
A 109538	A	37	105080		7	106222	B1	13
O 109552		37	105081		5	106222	A2	13
A 109887	E	43	105082	B	7	106222	B2	13
A 110376		69	105083		47	106222	A3	13
FA 110475		35	105084		5	106222	B3	13
C 110675		41	105085		9	O 106317	A	41
A 111345		39	105086		9	A 106318	E	31
AA 111345		39	105087		9	106334		49
AA 111412	B	59	105088		5	A 106336	B	49
O 23043		9	105092		9	106337		49
O 23043	A	9	105097		11	106338		49
AA 23204	G	13	105098		11	106343		5
X 23272	B	9	105099	A	11			17
X 23272	C	9	105100	A	11			49
XO 23272	B	9	105101		11	106437		25
XO 23272	C	9	105102		11	106514		41
OB 5051	B	45	105103		11	A 106583	E	41
OB 5051	C	49	105104	B	11	106625		7
PARTS KITS			105105		9	106687	A	71
G-802-36		72	105106		11	106725		23
G-802-44		73	105107		11	106827		37
G-802-47		73	105108		11	A 106941	G	23
G-802-49		73	105109		11	109009	A	71
G-805-3		74	105110		11	109010	A	71
G-806-3		74	105111		11	109011	C	71
G-807-21		75	105177		9	109033		33
G-807-22		76	O 105180		7	109033	A	33
G-807-24		78			47	O 109131	B	47
G-807-25		81	105181		5	109135		69
G-808-1		81	105181	A	5	A 109151		49
G-812-2		81	105181	B	5	A 109219	A	71
G-813-2		82	105181	C	5	109226	B	71
G-818-5		82	105188		41	109227		71
G-818-7		82	105302		23	109228		71
G-823-4		83	105303	A	23	A 109229	A	71
G-823-9		83	105321	D	51	109231	A	71
G-832-2		84	105335	A	51	109252	A	71
G-855-3		84	105355	A	51	O 109253		71
G-867-1		85	105355	C	23	109258		71
G-867-4		85	105358		31	109264	A	45
			105361		5	109267	A	45
					7	109277		43
					9	109281		43
					23	109331	K	33
					45	109332		33
					49	109333		11
					37	109333	A	11
					37	109333	B	11
					7	A 109334	L	33

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



CFR F-5 PART NUMBER INDEX

NUMBER			GROUP #	ITEM	NUMBER			GROUP #	ITEM	NUMBER			GROUP #	ITEM
A	109334	N	33	9	109590		19		10	110218	B	49		33
	109348		43	12	109597		27		9	110219	B	49		34
	109349		43	11	109608		21		12	110228	A	51		35
	109350		43	8	109609		19		4	110231		17		7
	109351		43	15	109610		19		3	110238		9		25
	109352		43	16	109611		35		1	110248		15		16
	109380		71	8	109612		19		17			21		23
	109383		71	6	109615		17		8	A 110281	A	49		40
	109384		71	9	109616		17		13	A 110282	A	49		41
	109410		17	17	109618		15		25	A 110283	A	49		42
109414		27	7	109619		21		11	A 110284	A	49		39	
109426		29	2	109621		17		22	O 110285		49		35	
A	109427		29	1	109622		21		33	O 110286		31		15
	109428		29	3	109624		21		7	110287		49		37
109501	H	15	21	109625	A	15		29	110292		9		26	
109503	A	21	32	109626	A	21		8	110304		69		1	
109510	A	21	28	109627	A	17		25	110305		69		2	
A	109511	H	15	1	109633		15		31	110376		69		10
	109512		15	11			21		9	C 110382		53		23
109513	A	17	4	109636		19		19	110387		59		7	
109514	Z	21	34	109658		7		8	A 110414	A	45		4	
109515	C	27	5	109659		7		7	AA 110468		41		7	
109518		21	15	109703	F	53		8	A 110475		35		5	
O	109519		21	17	109707		53		2	110476	A	35		7
K	109520	D	17	3	109712		53		7	110477		35		8
	109521		19	5	109769		23		2	110501		59		9
109522		19	6	109801	G	67		1	110502		59		10	
109526		21	22	109803		17		1	110520		31		9	
109530	A	21	1	109839	T	51		21	110521		31		8	
O	109531	X	21	4	109855	C	51		14	110523		43		14
	109534	A	37	20	109887	E	43		7	110528		67		4
109535	A	21	5	109929	A	51		29	110533	C	17		33	
109538	A	37	1	109973	C	45		5	110548	B	25		43	
109541		15	27	109977		45		7	110561		63		1	
109542		15	26	109978		45		8	110562		63		1	
109543		15	10	109979		45		9	A 110641		69		3	
109546		15	6	A 110122	E	33		18	110669		15		20	
109546	A	15	7	T 110122	H	63		21	110670	A	35		6	
109546	B	15	8	O 110123		43		2	110675		41		13	
109546	C	15	9	110135	B	63		6	110680		9		3	
109547		37	26	C 110141	D	63		24	110700		31		3	
109548		37	27	D 110141	B	63		22	110806		31		2	
109549		37	28	D 110141	C	63		23	110854		59		5	
109550		37	29	F 110141	E	63		20	111207	A	17		32	
109551		37	30	110148		15		4	111251		21		6	
109552		37	31	110149		15		3	111305		23		12	
109553		37	34	110150	A	37		19	111342		57		11	
109555		15	12	110158		15		18			69		8	
109559	B	37	23			21		25	111345		39		16	
109561	A	37	9	O 110164		49		14	111346		39		17	
109565	A	21	29	110165	C	7		10	111347		39		18	
109566		21	30	110174		21		26	A 111352		39		9	
109570		17	16	110177	A	15		17	A 111352	A	39		10	
109571	A	17	15	110184	A	37		18	111372		21		27	
109574	A	19	14	110186	B	37		15	111384		23		16	
109574	B	57	9	110198	A	7		18	111388		23		13	
109575		15	22	110200		7		12	111396		39		5	
109576		15	23	110208		29		5	111406	A	13		20	
109577		15	24	110215		43		5	111409	B	67		10	
109579		21	35	110216	B	49		31	111410	A	67		11	
109583	B	21	20	110217	B	49		32	111412	B	59		1	

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



CFR F-5 PART NUMBER INDEX

NUMBER			GROUP #			ITEM			NUMBER			GROUP #			ITEM		
A	111415	59	2	B	1685	A	23	28	21052		9		24				
	111444	59	4				49	30			19		11				
	111462	B	57	1	B	1685	B	9			27		2				
	111463	A	57	3	B	1686		45			39		4				
	111464	C	57	2			51	3			67		8				
	111465	A	57	4		168922	F	19	9	210539	D	57	10				
	111466		57	5		176412		17	29	21054		9	30				
	111467		57	6		177382	A	21	31		39		2				
	111468		57	7	Y	18802		9	5		63		13				
	111469		57	8				15	2	21055		17	31				
111471		51	16				17	23		43		20					
111472		63	18				19	16		63		16					
111473		19	27				21	2	A	210635		59	3				
111543	B	51	33				37	12		210798		53	19				
111543	C	51	33				43	3		210836		61	1				
111543	D	51	33	Y	18813	G	67	14		21089		19	20				
111543	E	51	33	Y	18813	H	67	9		21098		33	10				
111545		51	20	Y	18814	D	53	10		21116		19	29				
111546	B	33	19	Y	18814	E	17	38		211196		15	19				
A	111550		41	Y	18814	H	27	14			21		24				
A	111551		41	Y	18814	K	63	14			35		9				
A	111610		51	Y	18814	M	63	17		211413	B	55	2				
	111611		51	BD	190		9	22		21174		53	3				
A	111621		19				41	3			63		5				
	111623		19				59	8		211747		5	13				
BA	111666		13		194769	G	37	16		21179		33	14				
	111670		51	B	1956	A	35	2		21181		49	18				
	111675		63		199111		7	17		21185		9	17				
A	111675		63		199111	D	37	17		21188		31	10				
	111690		51							21189		9	23				
			59								67		7				
	111699	A	27							21190		27	13				
	111706		53		209738		49	21		21195		35	11				
A	111707	D	63		21002		37	21		21258		51	9				
	111783		19		21006		15	15			53		27				
	111786		55				21	21			31		14				
	111786	A	55		21012		21	37		21260		53	22				
A	111787		55				25	37			53		12				
	111802	A	51		21014		15	13		21271		67	4				
A	111805	B	61		21043		27	6		21272		53	11				
A	111805	C	61		21049		23	21		21273		5	7				
			61		21050		5	12			19		15				
C	111805	B	61				17	34			49		4				
	116064	G	25				19	8		21275		47	6				
	116242		23				29	7		21278		29	12				
	116880	C	17				33	17			33		12				
	117160		71				37	36		21279		27	12				
	117926	C	39				47	3		21283		53	29				
	118013	E	45				49	16		21284		33	6				
	118013	F	15				63	4		21291		47	2				
	118013	M	17				67	13		21309		21	13				
			45		21051		17	12		21312		21	16				
	118879	K	43				21	14			49		17				
B	1425		49				25	39		21313		45	19				
B	1426		33				37	11		21322		37	10				
	152452	D	17				41	6		21323		43	17				
	1634	K	9				43	6		21332		25	38				
A	166182	L	51				45	20		21346		17	39				
A	166182	U	39				49	19			19		15				
			51								67		5				
A	166182	W	51							21348		27	1				
			28								67		6				

- 2 -

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



CFR F-5 PART NUMBER INDEX

NUMBER		GROUP #	ITEM	NUMBER		GROUP #	ITEM	NUMBER		GROUP #	ITEM		
	21350	27	10		26051	17	35		44803		23	29	
	21352	39	3			33	3		44999	J	13	5	
	21353	27	11		26059	53	21	B	4680		7	9	
	21354	19	2		26144	17	6	B	4681		21	18	
	21355	17	18		26279	53	25		48482		51	12	
	21376	41	2		26411	5	3				59	12	
	21381	23	3			37	8		48934	A	35	10	
	21428	39	1		26420	17	36						
	21433	63	12			33	4				- 5 -		
	21466	43	19		26515	53	20	B	5052	A	45	13	
		63	15	B	2653	9	16	B	5052	B	49	12	
	21473	17	30		26531	71	20	B	5053	A	45	12	
	21474	43	18		26532	23	18				49	10	
	21536	53	5			71	19	B	5068		45	15	
	21545	37	22	B	2659	45	21				49	13	
		41	8		26671	51	7	B	5094		45	14	
	21575	37	24			53	28				49	9	
	21604	19	21			59	11	B	5096	A	47	5	
	21621	53	24		26688	51	25	B	5436		17	9	
	21632	23	4		26693	51	11	OB	5500		63	10	
	21660	19	25	B	2674	15	32	B	5526		5	17	
	21679	51	8			21	36	B	5528		5	14	
		53	26		26743	39	19	B	557	B	17	28	
	21692	71	14		26748	51	15	B	5591		7	19	
	21713	49	28		26855	71	23				9	28	
	21719	29	4		26896	41	15	B	5655	A	27	3	
	21720	15	30		26969	19	18	B	5655	B	27	4	
		21	10		26975	63	3	B	567	A	39	12	
		71	10		27277	E	33				51	2	
	21754	17	5	B	2747		35						
	21766	51	17		27671	W	65		B	5764		5	15
	21791	53	1		27732	C	63		B	5828		31	7
	21858	29	8	O	27848	A	49				41	5	
	21880	11	19	A	27849	A	49		B	5829		17	11
	21889	31	13	O	27852		49		B	5834		17	14
	21980	67	2		27928	F	63				37	35	
	21983	35	3	O	27970		63		B	5906	B	45	25
	23039	15	14		27974		49		B	5976	A	23	31
	23043	A	9		28311		19		B	5977	A	23	32
	23043	B	9		28438		23		B	5978		23	33
	23043	C	9		28563		23						
	23043	D	9								- 6 -		
	23109	A	7						B	6417		19	13
			3						B	6426		23	35
										65110	Y	23	8
AA	23204	G1	13	B	3109	A	19						
AA	23204	G2	13	B	3165		71	18	Y	6537		43	22
AA	23204	G3	13	B	3207		41	10	B	6723		23	30
O	23242	A	43		3337		19	12	Y	6819		51	38
	23272	B	9	B	350		15	28	B	6849	A	33	7
	23272	C	9	B	3884		21	3				41	17
	23308	D	13		39023		39	8		69811	E	53	9
	23505		13		39112		39	7		69818		53	12
	23505-1		13		39149		37	25		69846		53	13
	23505-2		13		39150		67	3		69850	A	53	15
	23505-3		13							69850	B	53	14
B	2543		17							69850	C	53	16
B	2557		41							69851		53	17
			43	B	4092		45	28		69910		55	3
			4	B	4094		45	26		69913		55	6
B	2575		7				49	29		69921		53	11
	26005		17	B	4094	B	51	32					
	26012		11	B	4296	A	17	19					
					44083		19	1					

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



CFR F-5 PART NUMBER INDEX

NUMBER	GROUP #	ITEM	NUMBER	GROUP #	ITEM	NUMBER	GROUP #	ITEM
- 7 -			- 9 -					
B 7106		23	10	Y 9017	51	22		
		51	4	B 9107 A	37	3		
Y 7141		51	37	B 9496	25	48		
		53	6	952419	45	22		
73059 B		7	16	954842	63	19		
73654 S		17	20	B 9734	33	13		
Y 7408 C		37	32	B 9951 A	25	40		
74113		43	23					
A 75067 E		31	1					
O 75550		45	11					
O 75550 A		49	11					
75552 A		45	16					
		49	7					
75612 A		49	6					
75680		45	2					
75690		45	18					
75713 G		63	8					
75745		39	14					
		45	24					
		51	1					
75777 B		69	4					
75806		39	13					
		51	30					
75806 D		49	22					
75806 G		51	39					
75941		69	5					
75966 B		23	14					
75967		71	21					
75968		71	28					
75970 A		71	24					
75971		71	27					
75972		71	22					
75976 A		49	24					
75977		49	27					
75978 A		71	26					
75980 C		23	19					
A 75988 D		69	7					
75990		23	15					
75991		71	29					
B 7707		31	5					
7721 B		21	19					
78202 D		37	13					
		39	11					
78206 A		23	11					
78210 A		51	34					
78212 G		17	40					
78282 B		43	21					
78283 B		7	4					
78302		33	16					
78349 B		9	10					
78920		37	14					
B 7948 M		45	29					
- 8 -								
B 8199 C		9	9					
B 8200		7	14					
B 8230		23	6					
B 839		5	4					
85041		37	33					

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



NOTES

ALWAYS GIVE YOUR MODEL AND SERIAL NUMBER WHEN ORDERING PARTS



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
www.cfengines.com