

# Service Parts

## Marine Generator Sets



Models:

**13-40EKOZD**  
**11-35EFKOZD**

**KOHLER®**

TP-6954 3/21h

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# Introduction

This manual lists service replacement parts for 11- 40 kW diesel-powered generator sets.

Information in this publication represents data available at the time of print. Kohler Co. reserves the right to change this publication and the products represented without notice and without any obligation or liability whatsoever.

This manual includes the following main sections:

**Table of Contents.** Lists the sections of the manual.

**Introduction (and other information sections).** Contains introductory material about part numbers, illustrations, and hardware.

**Index.** Lists the generator set specs and groups.

**Group Parts Lists.** List the part numbers of parts in the groups.

**Kit Sections.** List modules and accessories and their parts.

**Appendices.** Include Abbreviations, Common Hardware Application Guidelines, General Torque Specifications, Common Hardware Identification, and Common Hardware List.

## Numbering System Significance

This manual uses the following numbering systems:

**Specification Number.** The product identification number located on the generator set nameplate. Spec numbers break down into groups.

**Group Number.** A unique number representing a parts group needed to assemble a generator set function. For example, Group 101 is the Air Intake group.

**Variation or Module Number.** A group might have several variations. Each variation performs the same function with different parts lists. For example, a 50 Hz generator alternator and 60 Hz generator alternator both perform the same function, however, with different parts. Each difference requires a group variation or module number.

**Part Number.** The part number identifies an individual assembly, subassembly, component, or accessory kit.

## Illustrations

Illustrations (or exploded-view drawings) best representing the widest range of variations accompany most groups in this manual. Illustrations do not depict all details and may not show all parts. Do not use illustrations for assembly or disassembly.

## How to Find Part Numbers

Use the following steps to locate a service replacement part.

1. Locate the generator set nameplate to **identify the generator set spec number**.
2. Locate a second generator set nameplate listing accessories to **identify installed modules**. On some models the accessory nameplate is mounted inside the generator junction box.
3. **Turn to the Specification Number Index**. The first column lists the generator set spec numbers. The headings identify the groups of parts that make up the generator set.
4. **Identify the group** most likely to include the service part number.
5. **Find the group variation number** at the intersection of the spec number row and the group column. Note the variation number.
6. **Page forward to locate the group** identified in step 4 or find the appropriate page in the Table of Contents.
7. **Find the part on the illustration** and note the item number of the part or **find the part description in the parts list**.
8. Select **the part number that corresponds to your group variation**. The first column lists the illustration item number. Find the variation identified in the Specification Number Index or the module number found on the generator set nameplate in the appropriate column on the right side of the parts list table. Find the quantity used at the intersection of the item number row and the variation column. A blank space at the intersection means the variation/module does not use that part number.

## Hardware References

Many common hardware items do not appear in parts manuals or will appear as common hardware entries. A common hardware entry lists the size of the hardware. For example, an item that appears as "Hardware, 3/8-16" in the text means that the piece is 3/8-16 size. Obtain common hardware locally or, if contacting the factory, use the Common Hardware List in the appendix to identify the common hardware part number and specifications. See Common Hardware Application Guidelines in the appendix for mating hardware instructions.

Some hardware items require a specific size or some other characteristic. In that case, use the part number listed in the text.

**When replacing hardware, do not substitute inferior grade hardware.** Replacement hardware grade should be equal to or better than the grade of the manufacturer's original hardware. Use the Common Hardware List in the appendix to identify the common hardware hardness.

# Specification Number Index

	Variation			
	Specification Number			
	13EKOZD			
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM89506-GA1	GM89506-GA7	GM89506-GA13	GM89506-GA15
Engine*	GM89222	GM89222	GM89222	GM89222
Air Intake	GM89512- GR1	GM89512- GR1	GM89512- GR1	GM89512- GR1
Cooling System	GM89516- GR1	GM89516- GR1	GM89516- GR1	GM89516- GR1
Engine	GM89507- GR1	GM89507- GR2	GM89507- GR1	GM89507- GR2
Nameplate and Decals	GM89511- GR1	GM89511- GR1	GM89511- GR2	GM89511- GR2
Skid and Mounting	GM89515- GR1	GM89515- GR1	GM89515- GR1	GM89515- GR1
Alternator and Mounting	GM89514- GR4	GM89514- GR4	GM89514- GR1	GM89514- GR1
Controller and Mounting	GM89513- GR1	GM89513- GR1	GM89513- GR1	GM89513- GR1
Literature	701- 197- 7	701- 197- 7	701- 197- 9	701- 197- 9

	Variation			
	Specification Number			
	11EFKOZD			
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM89506-GA3	GM89506-GA9	GM89506-GA14	GM89506-GA16
Engine*	GM89223	GM89223	GM89223	GM89223
Air Intake	GM89512- GR1	GM89512- GR1	GM89512- GR1	GM89512- GR1
Cooling System	GM89516- GR1	GM89516- GR1	GM89516- GR1	GM89516- GR1
Engine	GM89507- GR3	GM89507- GR4	GM89507- GR3	GM89507- GR4
Nameplate and Decals	GM89511- GR1	GM89511- GR1	GM89511- GR2	GM89511- GR2
Skid and Mounting	GM89515- GR1	GM89515- GR1	GM89515- GR1	GM89515- GR1
Alternator and Mounting	GM89514- GR4	GM89514- GR4	GM89514- GR1	GM89514- GR1
Controller and Mounting	GM89513- GR1	GM89513- GR1	GM89513- GR1	GM89513- GR1
Literature	701- 197- 7	701- 197- 7	701- 197- 9	701- 197- 9

	Variation			
	Specification Number			
	15EKOZD			
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM89506-GA2	GM89506-GA8	GM89506-GA5	GM89506-GA11
Engine*	GM89222	GM89222	GM89222	GM89222
Air Intake	GM89512- GR1	GM89512- GR1	GM89512- GR1	GM89512- GR1
Cooling System	GM89516- GR1	GM89516- GR1	GM89516- GR1	GM89516- GR1
Engine	GM89507- GR1	GM89507- GR2	GM89507- GR1	GM89507- GR2
Nameplate and Decals	GM89511- GR1	GM89511- GR1	GM89511- GR2	GM89511- GR2
Skid and Mounting	GM89515- GR4	GM89515- GR4	GM89515- GR4	GM89515- GR4
Alternator and Mounting	GM89514- GR8	GM89514- GR8	GM89514- GR7	GM89514- GR7
Controller and Mounting	GM89513- GR1	GM89513- GR1	GM89513- GR1	GM89513- GR1
Literature	701- 197- 8	701- 197- 8	701- 197- 18	701- 197- 18

	Variation			
	Specification Number			
	13EFKOZD			
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM89506-GA4	GM89506-GA10	GM89506-GA6	GM89506-GA12
Engine*	GM89223	GM89223	GM89223	GM89223
Air Intake	GM89512- GR1	GM89512- GR1	GM89512- GR1	GM89512- GR1
Cooling System	GM89516- GR1	GM89516- GR1	GM89516- GR1	GM89516- GR1
Engine	GM89507- GR3	GM89507- GR4	GM89507- GR3	GM89507- GR4
Nameplate and Decals	GM89511- GR1	GM89511- GR1	GM89511- GR2	GM89511- GR2
Skid and Mounting	GM89515- GR4	GM89515- GR4	GM89515- GR4	GM89515- GR4
Alternator and Mounting	GM89514- GR8	GM89514- GR8	GM89514- GR7	GM89514- GR7
Controller and Mounting	GM89513- GR1	GM89513- GR1	GM89513- GR1	GM89513- GR1
Literature	701- 197- 8	701- 197- 8	701- 197- 18	701- 197- 18

\* See Engine Model Index for Engine variations.



# Specification Number Index

	Variation			
	Specification Number			
	17.5EFKOZD		16.5EFKOZD	
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM89791-GA1	GM89791-GA3	GM89791-GA2	GM89791-GA4
Engine*	GM89225	GM89225	GM89225	GM89225
Air Intake	GM89512-GR2	GM89512-GR2	GM89512-GR2	GM89512-GR2
Cooling System	GM89516-GR1	GM89516-GR1	GM89516-GR1	GM89516-GR1
Engine	GM89792-GR3	GM89792-GR4	GM89792-GR3	GM89792-GR4
Nameplate and Decals	GM89511-GR1	GM89511-GR1	GM89511-GR2	GM89511-GR2
Skid and Mounting	GM89515-GR2	GM89515-GR2	GM89515-GR2	GM89515-GR2
Alternator and Mounting	GM89514-GR5	GM89514-GR5	GM89514-GR2	GM89514-GR2
Controller and Mounting	GM89513-GR1	GM89513-GR1	GM89513-GR1	GM89513-GR1
Literature	701-197-10	701-197-10	701-197-11	701-197-11

	Variation			
	Specification Number			
	20EFKOZD		19.5EFKOZD	
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM89791-GA5	GM89791-GA7	GM89791-GA6	GM89791-GA8
Engine*	GM89225	GM89225	GM89225	GM89225
Air Intake	GM89512-GR3	GM89512-GR3	GM89512-GR3	GM89512-GR3
Cooling System	GM89516-GR1	GM89516-GR1	GM89516-GR1	GM89516-GR1
Engine	GM89792-GR3	GM89792-GR4	GM89792-GR3	GM89792-GR4
Nameplate and Decals	GM89511-GR1	GM89511-GR1	GM89511-GR2	GM89511-GR2
Skid and Mounting	GM89515-GR3	GM89515-GR3	GM89515-GR3	GM89515-GR3
Alternator and Mounting	GM89514-GR6	GM89514-GR6	GM89514-GR3	GM89514-GR3
Controller and Mounting	GM89513-GR1	GM89513-GR1	GM89513-GR1	GM89513-GR1
Literature	701-197-12	701-197-12	701-197-13	701-197-13

	Variation			
	Specification Number			
	20EKOZD			
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM89791-GA9	GM89791-GA10	GM89791-GA11	GM89791-GA12
Engine*	GM95018	GM95018	GM95018	GM95018
Air Intake	GM89512-GR2	GM89512-GR2	GM89512-GR2	GM89512-GR2
Cooling System	GM89516-GR1	GM89516-GR1	GM89516-GR1	GM89516-GR1
Engine	GM89792-GR5	GM89792-GR6	GM89792-GR5	GM89792-GR6
Nameplate and Decals	GM89511-GR1	GM89511-GR1	GM89511-GR2	GM89511-GR2
Skid and Mounting	GM89515-GR2	GM89515-GR2	GM89515-GR2	GM89515-GR2
Alternator and Mounting	GM89514-GR5	GM89514-GR5	GM89514-GR2	GM89514-GR2
Controller and Mounting	GM89513-GR2	GM89513-GR2	GM89513-GR2	GM89513-GR2
Literature	701-197-10	701-197-10	701-197-11	701-197-11

	Variation			
	Specification Number			
	23EKOZD			
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM89791-GA13	GM89791-GA14	GM89791-GA15	GM89791-GA16
Engine*	GM95018	GM95018	GM95018	GM95018
Air Intake	GM89512-GR3	GM89512-GR3	GM89512-GR3	GM89512-GR3
Cooling System	GM89516-GR1	GM89516-GR1	GM89516-GR1	GM89516-GR1
Engine	GM89792-GR5	GM89792-GR6	GM89792-GR5	GM89792-GR6
Nameplate and Decals	GM89511-GR1	GM89511-GR1	GM89511-GR2	GM89511-GR2
Skid and Mounting	GM89515-GR3	GM89515-GR3	GM89515-GR3	GM89515-GR3
Alternator and Mounting	GM89514-GR6	GM89514-GR6	GM89514-GR3	GM89514-GR3
Controller and Mounting	GM89513-GR2	GM89513-GR2	GM89513-GR2	GM89513-GR2
Literature	701-197-12	701-197-12	701-197-13	701-197-13

\* See Engine Model Index for Engine variations.

# Specification Number Index

	Variation			
	Specification Number			
	14EKOZD		12EFKOZD	
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM101242- GA1	GM101242- GA2	GM101242- GA3	GM101242- GA4
Engine*	GM89222	GM89222	GM89223	GM89223
Air Intake	GM100801- MA1	GM100801- MA1	GM100801- MA1	GM100801- MA1
Cooling System	GM104856- MA1	GM104856- MA1	GM104856- MA1	GM104856- MA1
Engine	GM89507- GR1	GM89507- GR2	GM89507- GR3	GM89507- GR4
Nameplate and Decals	GM89511- GR1	GM89511- GR1	GM89511- GR1	GM89511- GR1
Skid and Mounting	GM100755- MA1	GM100755- MA1	GM100755- MA1	GM100755- MA1
Alternator and Mounting, 1 Phase	GM98819- MA5	GM98819- MA5	GM98819- MA5	GM98819- MA5
Alternator and Mounting, 3 Phase	GM98819- MA1	GM98819- MA1	GM98819- MA1	GM98819- MA1
Controller and Mounting	GM102825- MA1	GM102825- MA4	GM102825- MA1	GM102825- MA4
Literature, 1 Phase	701- 197- 19	701- 197- 19	701- 197- 19	701- 197- 19
Literature, 3 Phase	701- 197- 20	701- 197- 20	701- 197- 20	701- 197- 20

	Variation			
	Specification Number			
	16EKOZD		13.5EFKOZD	
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM101242- GA5	GM101242- GA6	GM101242- GA7	GM101242- GA8
Engine*	GM89222	GM89222	GM89223	GM89223
Air Intake	GM100801- MA1	GM100801- MA1	GM100801- MA1	GM100801- MA1
Cooling System	GM104856- MA1	GM104856- MA1	GM104856- MA1	GM104856- MA1
Engine	GM89507- GR1	GM89507- GR2	GM89507- GR3	GM89507- GR4
Nameplate and Decals	GM89511- GR1	GM89511- GR1	GM89511- GR1	GM89511- GR1
Skid and Mounting	GM100755- MA1	GM100755- MA1	GM100755- MA1	GM100755- MA1
Alternator and Mounting, 1 Phase	GM98819- MA6	GM98819- MA6	GM98819- MA6	GM98819- MA6
Alternator and Mounting, 3 Phase	GM98819- MA2	GM98819- MA2	GM98819- MA2	GM98819- MA2
Controller and Mounting	GM102825- MA1	GM102825- MA4	GM102825- MA1	GM102825- MA4
Literature, 1 Phase	701- 197- 21	701- 197- 21	701- 197- 21	701- 197- 21
Literature, 3 Phase	701- 197- 22	701- 197- 22	701- 197- 22	701- 197- 22

\* See Engine Model Index for Engine variations.

# Specification Number Index

	Variation			
	Specification Number			
	21EKOZD		18/17EFKOZD	
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM101242- GA9	GM101242- GA10	GM101242- GA11	GM101242- GA12
Engine*	GM95018	GM95018	GM89225	GM89225
Air Intake	GM100801- MA2	GM100801- MA2	GM100801- MA2	GM100801- MA2
Cooling System	GM104856- MA1	GM104856- MA1	GM104856- MA1	GM104856- MA1
Engine	GM89792- GR5	GM89792- GR6	GM89792- GR3	GM89792- GR4
Nameplate and Decals	GM89511- GR1	GM89511- GR1	GM89511- GR1	GM89511- GR1
Skid and Mounting	GM100755- MA2	GM100755- MA2	GM100755- MA2	GM100755- MA2
Alternator and Mounting, 1 Phase	GM98819- MA7	GM98819- MA7	GM98819- MA7	GM98819- MA7
Alternator and Mounting, 3 Phase	GM98819- MA3	GM98819- MA3	GM98819- MA3	GM98819- MA3
Controller and Mounting	GM102825- MA2	GM102825- MA3	GM102825- MA1	GM102825- MA4
Literature, 1 Phase	701- 197- 23	701- 197- 23	701- 197- 23	701- 197- 23
Literature, 3 Phase	701- 197- 24	701- 197- 24	701- 197- 24	701- 197- 24

	Variation			
	Specification Number			
	24EKOZD		20.5EFKOZD	
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM101242- GA13	GM101242- GA14	GM101242- GA15	GM101242- GA16
Engine*	GM95018	GM95018	GM89225	GM89225
Air Intake	GM100801- MA2	GM100801- MA2	GM100801- MA2	GM100801- MA2
Cooling System	GM104856- MA1	GM104856- MA1	GM104856- MA1	GM104856- MA1
Engine	GM89792- GR5	GM89792- GR6	GM89792- GR3	GM89792- GR4
Nameplate and Decals	GM89511- GR1	GM89511- GR1	GM89511- GR1	GM89511- GR1
Skid and Mounting	GM100755- MA2	GM100755- MA2	GM100755- MA2	GM100755- MA2
Alternator and Mounting, 1 Phase	GM98819- MA8	GM98819- MA8	GM98819- MA8	GM98819- MA8
Alternator and Mounting, 3 Phase	GM98819- MA4	GM98819- MA4	GM98819- MA4	GM98819- MA4
Controller and Mounting	GM102825- MA2	GM102825- MA3	GM102825- MA1	GM102825- MA4
Literature, 1 Phase	701- 197- 25	701- 197- 25	701- 197- 25	701- 197- 25
Literature, 3 Phase	701- 197- 26	701- 197- 26	701- 197- 26	701- 197- 26

\* See Engine Model Index for Engine variations.

# Specification Number Index

	Variation			
	Specification Number			
	32EKOZD		28EFKOZD	
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM101305- GA1	GM101305- GA2	GM101305- GA3	GM101305- GA4
Engine*	GM97084	GM97084	GM97084	GM97084
Air Intake	GM95720- MA1	GM95720- MA1	GM95720- MA1	GM95720- MA1
Cooling System	GM102300- MA1	GM102300- MA1	GM102300- MA1	GM102300- MA1
Engine	GM95722- GR1	GM95722- GR2	GM95722- GR1	GM95722- GR2
Nameplate and Decals, 1 Phase	GM95723- GR1	GM95723- GR1	GM95723- GR1	GM95723- GR1
Nameplate and Decals, 3 Phase	GM95723- GR2	GM95723- GR2	GM95723- GR2	GM95723- GR2
Skid and Mounting	GM100181- MA1, GM100181- MA3	GM100181- MA1, GM100181- MA3	GM100181- MA1, GM100181- MA3	GM100181- MA1, GM100181- MA3
Alternator and Mounting, 1 Phase	GM95725- MA2	GM95725- MA2	GM95725- MA2	GM95725- MA2
Alternator and Mounting, 3 Phase	GM95725- MA1	GM95725- MA1	GM95725- MA1	GM95725- MA1
Controller and Mounting	GM95726- MA1	GM95726- MA3	GM95726- MA1	GM95726- MA3
Literature, 1 Phase	701- 197- 27	701- 197- 27	701- 197- 27	701- 197- 27
Literature, 3 Phase	701- 197- 28	701- 197- 28	701- 197- 28	701- 197- 28

	Variation			
	Specification Number			
	40EKOZD		35EFKOZD	
	12 Volt	24 Volt	12 Volt	24 Volt
Group Description	GM101305- GA5	GM101305- GA6	GM101305- GA7	GM101305- GA8
Engine*	GM97085	GM97085	GM97085	GM97085
Air Intake	GM95720- MA1	GM95720- MA1	GM95720- MA1	GM95720- MA1
Cooling System	GM102300- MA2	GM102300- MA2	GM102300- MA2	GM102300- MA2
Engine	GM95722- GR3	GM95722- GR4	GM95722- GR3	GM95722- GR4
Nameplate and Decals, 1 Phase	GM95723- GR1	GM95723- GR1	GM95723- GR1	GM95723- GR1
Nameplate and Decals, 3 Phase	GM95723- GR2	GM95723- GR2	GM95723- GR2	GM95723- GR2
Skid and Mounting	GM100181- MA2, GM100181- MA4	GM100181- MA2, GM100181- MA4	GM100181- MA2, GM100181- MA4	GM100181- MA2, GM100181- MA4
Alternator and Mounting, 1 Phase	GM101372- MA2	GM101372- MA2	GM101372- MA2	GM101372- MA2
Alternator and Mounting, 3 Phase	GM101372- MA1	GM101372- MA1	GM101372- MA1	GM101372- MA1
Controller and Mounting	GM95726- MA2	GM95726- MA4	GM95726- MA2	GM95726- MA4
Literature, 1 Phase	701- 197- 29	701- 197- 29	701- 197- 29	701- 197- 29
Literature, 3 Phase	701- 197- 30	701- 197- 30	701- 197- 30	701- 197- 30

\* See Engine Model Index for Engine variations.

# Engine Number Index (KDI 1903M)

Group Description	Engine Part Number/Model	
	GM89222 1903M, 60 Hz	GM89223 1903M, 50 Hz
Crankshaft	8010700050	8010700050
Piston/Connecting Rod	8011700190	8011700190
Flywheel	8012700090	8012700090
Pulleys/Belt	8014700140	8014700140
Crankcase	8020700270	8020700270
Cylinder Head	8021700250	8021700250
Head Cover	8022700170	8022700170
Flywheel Side Support	8023700040	8023700040
Engine Mounts	8025700010	8025700010
Timing System Closure Plate	8027700150	8027700150
Injection System	8030700430	8030700450
Camshaft	8035700080	8035700080
Rocker Arms/Valves	8036700120	8036700120
Timing Gear	8038700120	8038700120
Oil Pan	8041700150	8041700150
Oil Filter	8042700010	8042700010
Oil Dipstick	8043700160	8043700160
Breather System	8045700150	8045700150
Oil Filling Kit	8048700030	8048700030
Fuel Filter	8061700110	8061700110
Fuel Piping	8064700040	8064700040
Hoses For Water Cooler	8068700120	8068700120
Water Cooler	8073700060	8073700060
Thermostat Unit	8074700050	8074700050
Water Pump	8077700110	8077700110
Fitting For Cab Heating	8079700010	8079700010
Air Inlet Manifold	8080700190	8080700190
Exhaust Manifold	8085700190	8085700190
ERG Valve	8089700060	8089700060
Starting Motor, 12 Volt	8101700010	8101700010
Oil Pressure Switch	8102700040	8102700040
Temperature Switches	8104700030	8104700030
Hydraulic Pump Adapter	8140700010	8140700010
Phase Sensor	8153700010	8153700010
Engine Bell/Backplate	8160700080	8160700080

## Engine Number Index (KDI 2504M)

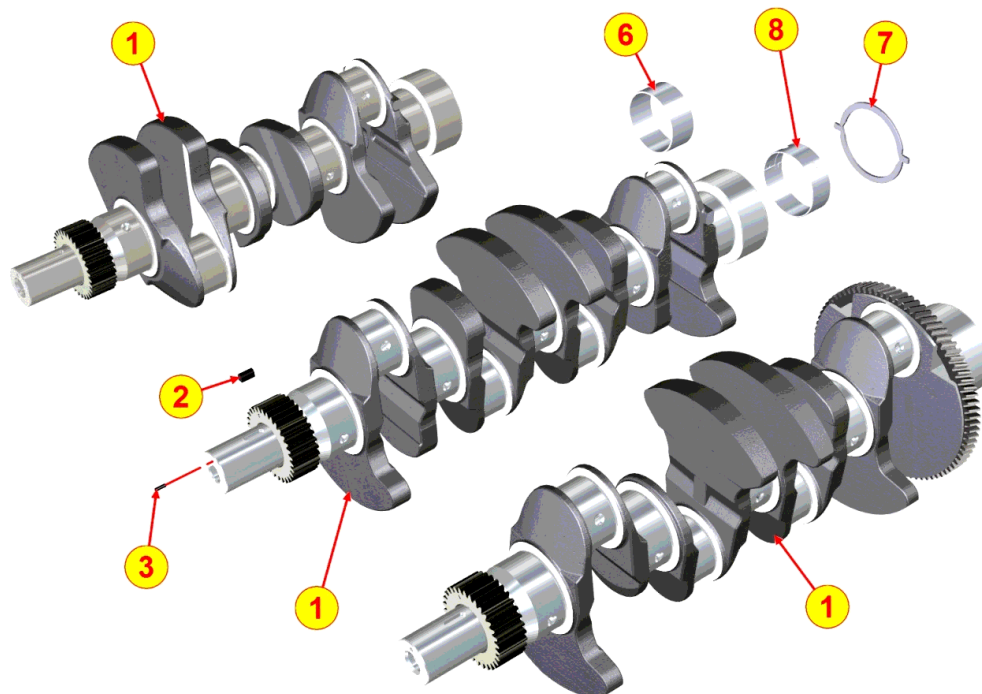
Group Description	Engine Part Number/Model	
	GM89225 2504M, 50 Hz	GM95018 2504M, EGR
Crankshaft	8010700060	8010700060
Piston/Connecting Rod	8011700180	8011700180
Flywheel	8012700090	8012700090
Pulleys/Belt	8014700260	8014700260
Crankcase	8020700280	8020700280
Cylinder Head	8021700330	8021700330
Head Cover	8022700160	8022700160
Flywheel Side Support	8023700040	8023700040
Engine Mounts	8025700010	8025700010
Timing System Closure Plate	8027700150	8027700200
Injection System	8030700480	8030700660
Camshaft	8035700100	8035700160
Rocker Arms/Valves	8036700110	8036700230
Timing Gear	8038700120	8038700120
Oil Pan	8041700140	8041700140
Oil Filter	8042700010	8042700010
Oil Dipstick	8043700160	8043700160
Breather System	8045700150	8045700150
Oil Filling Kit	8048700030	8048700030
Fuel Filter	8061700110	8061700110
Fuel Piping	8064700100	8064700100
Hoses For Water Cooler	8068700110	8068700110
Water Cooler	8073700050	8073700050
Thermostat Unit	8074700050	8074700050
Water Pump	8077700110	8077700240
Fitting For Cab Heating	8079700010	8079700010
Air Inlet Manifold	8080700180	8080700280
Exhaust Manifold	8085700180	8085700180
EGR System	-	8088700130
EGR Valve	8089700040	8089700110
Starting Motor, 12 Volt	8101700010	8101700010
Oil Pressure Switch	8102700040	8102700040
Temperature Switches	8104700030	8104700060
ECU	-	8107701760
Hydraulic Pump Adapter	8140700010	8140700010
Phase Sensor	8153700010	8153700010
Engine Bell/Backplate	8160700080	8160700080

# Engine Number Index (KDI 2504TCR)

Group Description	Engine Part Number/Model	
	GM97084 2504TCR/GW	GM97085 2504TCR/GWAC
Crankshaft	8010700060	8010700060
Piston/Connecting Rod	8011700150	8011700150
Flywheel	8012700090	8012700090
Pulleys/Belt	8014700400	8014700400
Crankcase	8020700260	8020700260
Cylinder Head	8021700620	8021700620
Head Cover	8022700150	8022700150
Flywheel Side Support	8023700040	8023700040
Engine Mounts	8025700010	8025700010
Timing System Closure Plate	8027700190	8027700190
Injection System	8030700810	8030700820
Camshaft	8035700200	8035700140
Rocker Arms/Valves	8036700200	8036700200
Timing Gear	8038700130	8038700130
Oil Pan	8041700140	8041700140
Oil Dipstick	8043700200	8043700200
Breather System	8045700200	8045700200
Oil Cooler	8047700150	8047700150
Oil Filling Kit	8048700030	8048700030
Fuel Filter	8061700170	8061700170
Fuel Feed Pump	8062700220	8062700220
Hoses For Water Cooler	8068700110	8068700110
Water Cooler	8073700180	8073700180
Thermostat Unit	8074700050	8074700050
Water Pump	8077700210	8077700210
Fitting For Cab Heating	8079700010	8079700010
Air Inlet Manifold	8080700350	8080700360
Air Cleaner	8081700490	8081700490
Turbocharger	8083700180	8083700180
EGR System	8088700100	8088700100
EGR Valve	8089700140	8089700140
Starting Motor, 12 Volt	8101700010	8101700010
Oil Pressure Switch	8102700100	8102700100
Electric Dashboard / Engine Wires	8103700570	8103700570
Temperature Switches	8104700010	8104700010
Glow Plugs	8106700050	8106700050
ECU	8107704820	8107704830
Hydraulic Pump Adapter	8140700110	8140700110
Pump Housing	8145700010	8145700010
Phase Sensor	8153700020	8153700020
Injection Pumps Sensor	8154700020	8154700020
T- Map Sensor	8155700010	8155700020
Engine Bell/Backplate	8160700080	8160700080

# Crankshaft

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 801070050

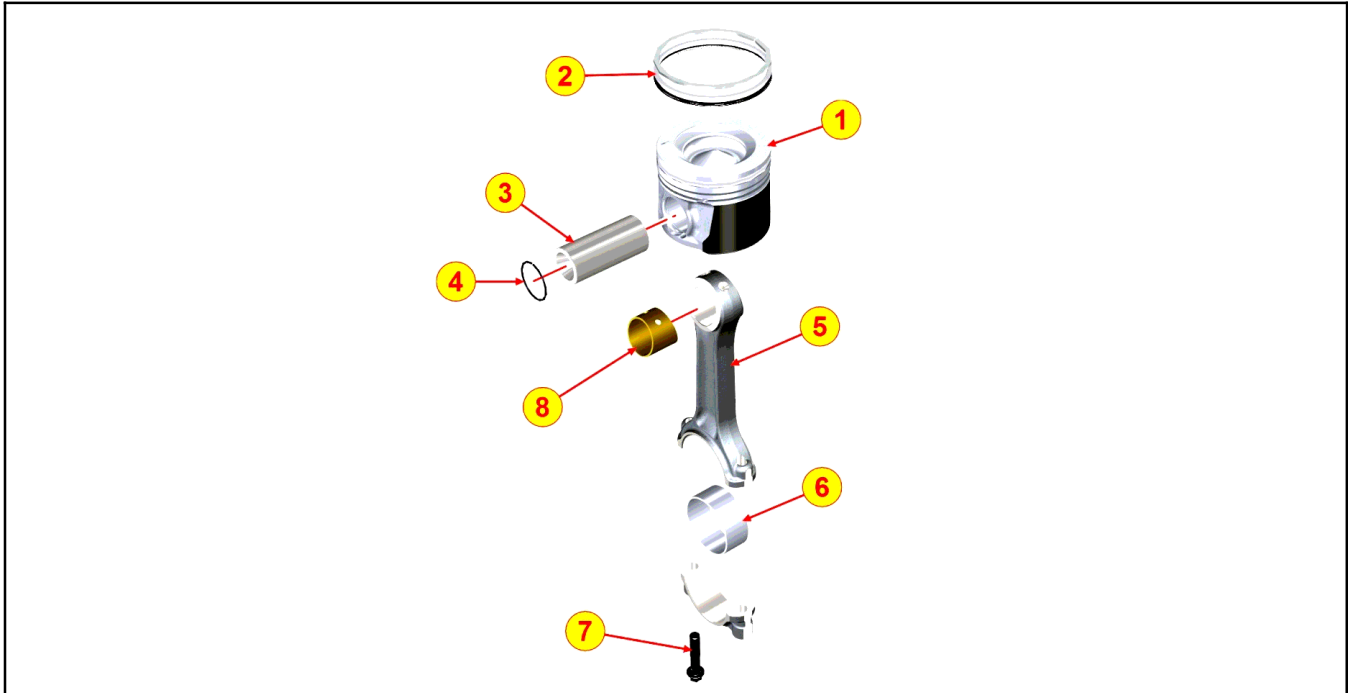
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0010508850-S	Crankshaft KDI1903 S/P Assy.	1	(A)	
2	ED0022801550-S	Key	1		(A)
3	ED0084000480-S	Paral.Pin	1		(A)
6		See Piston/Connecting Rod			(A)
7		See Crankcase			(A)
8		See Crankcase			(A)

## 801070060

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0010508860-S	Crankshaft KDI2504 S/P Assy.	1	(A)	
2	ED0022801550-S	Key	1		(A)
3	ED0084000480-S	Paral.Pin	1		(A)
6		See Piston/Connecting Rod			(A)
7		See Crankcase			(A)
8		See Crankcase			(A)



# Piston/Connecting Rod



## 8011700150

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0065020890-S	Piston Ass.Y Standard KDI "TCR"	4	(A)	
1	ED0065025900-S	Piston Ass. +0.2 mm "R" KDI "TCR"	1	(A)	
2	ED0082112900-S	Rings Set Standard KDI "TCR"	4		(A)
3	ED0084801220-S	Pin Piston	4		(A)
4	ED0011750970-S	Piston Pin Retainer	8		(A)
5	ED0015263150-S	Connecting Rod	4	(B)	
6	ED0016401550-S	Conn. Rod Bearing Std. KDI	4		
7	ED0017801810-S	Screw M10x1x50	8		(B)
8	ED0016300580-S	Conrod Small End Bush	4		(B)

## 8011700180

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0065020880-S	Piston Ass.Y Standard KDI "M"	4	(A)	
2	ED0082112870-S	Rings Set Standard KDI "M"	4		(A)
3	ED0084801220-S	Pin Piston	4		(A)
4	ED0011750970-S	Piston Pin Retainer	8		(A)
5	ED0015263150-S	Connecting Rod	4	(B)	
6	ED0016401550-S	Conn. Rod Bearing Std. KDI	4		
7	ED0017801810-S	Screw M10x1x50	8		(B)
8	ED0016300580-S	Conrod Small End Bush	4		(B)

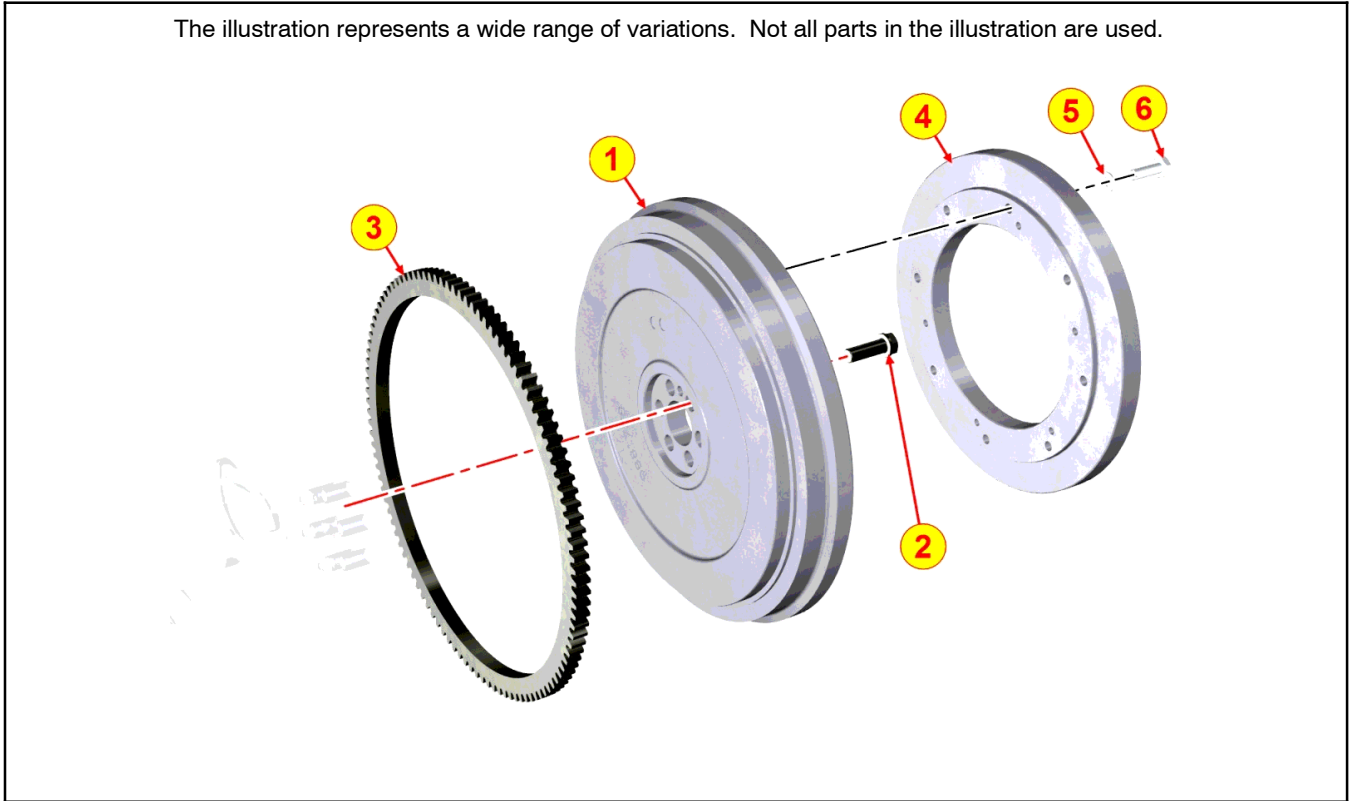
## 8011700190

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0065020880-S	Piston Ass.Y Standard KDI "M"	3	(A)	
2	ED0082112870-S	Rings Set Standard KDI "M"	3		(A)
3	ED0084801220-S	Pin Piston	3		(A)
4	ED0011750970-S	Piston Pin Retainer	6		(A)
5	ED0015263150-S	Connecting Rod	3	(B)	
6	ED0016401550-S	Conn. Rod Bearing Std. KDI	3		
7	ED0017801810-S	Screw M10x1x50	6		(B)
8	ED0016300580-S	Conrod Small End Bush	3		(B)

# Flywheel

801270090

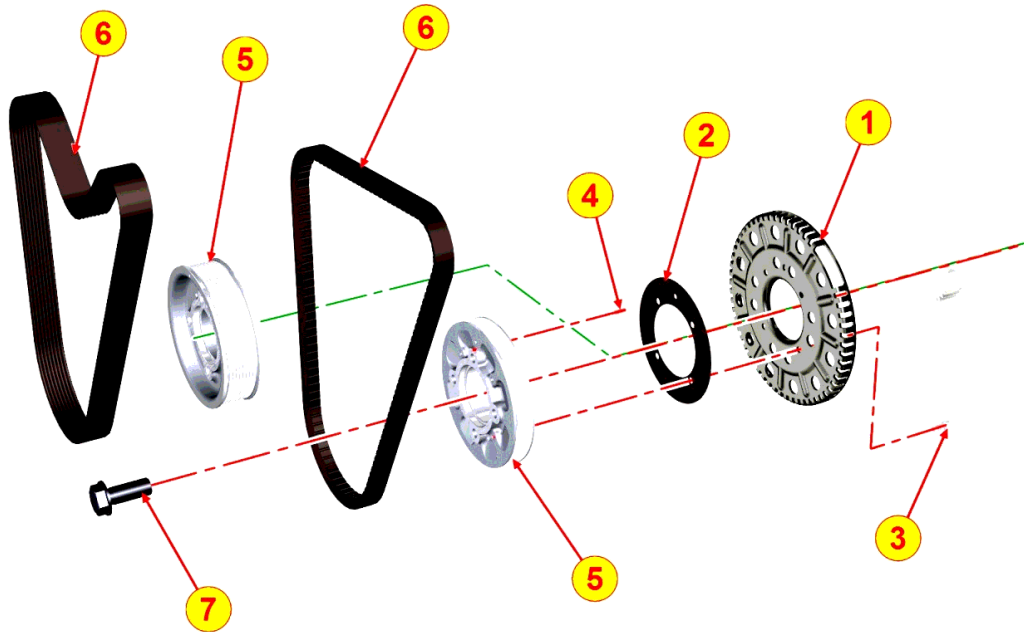
The illustration represents a wide range of variations. Not all parts in the illustration are used.



Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0098817160-S	Flywheel Assy	1	(A)	
2	ED0018620890-S	Bolt	6		
3	ED0028162450-S	Ring Gear	1		(A)

# Pulleys/Belt

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8014700140

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0078151320-S	Speed Wheel	1		
2	ED0034301760-S	Deadening Disk	1		
3	ED0097301070-S	Screw	4		
4	ED0084000480-S	Paral.Pin	1		
5	ED0069754260-S	Engine Pulley Ratio 1:1,3	1		
6	ED0024001170-S	V belt	1		
7	ED0098653190-S	Screw	1		

## 8014700260

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0078151320-S	Speed Wheel	1		
2	ED0034301760-S	Deadening Disk	1		
3	ED0097301070-S	Screw	4		
4	ED0084000480-S	Paral.Pin	1		
5	ED0069754260-S	Engine Pulley Ratio 1:1,3	1		
6	ED0024401620-S	V belt	1		
7	ED0098653190-S	Screw	1		

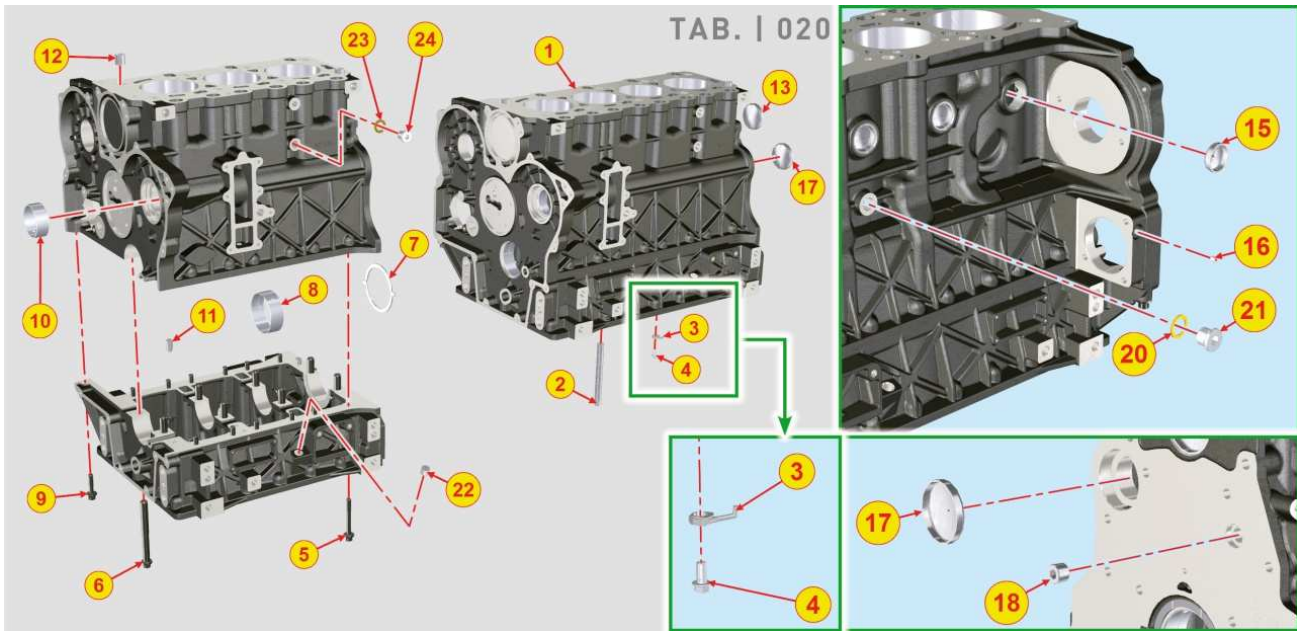
## 8014700400

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0078151320-S	Speed Wheel	1		
2	ED0034301760-S	Deadening Disk	1		
3	ED0097301070-S	Screw	4		
4	ED0084000480-S	Paral.Pin	1		
5	ED0069754540-S	Engine Pulley Ratio 1:1,8	1		
7	ED0098653190-S	Screw	1		

# Crankcase

8020700260

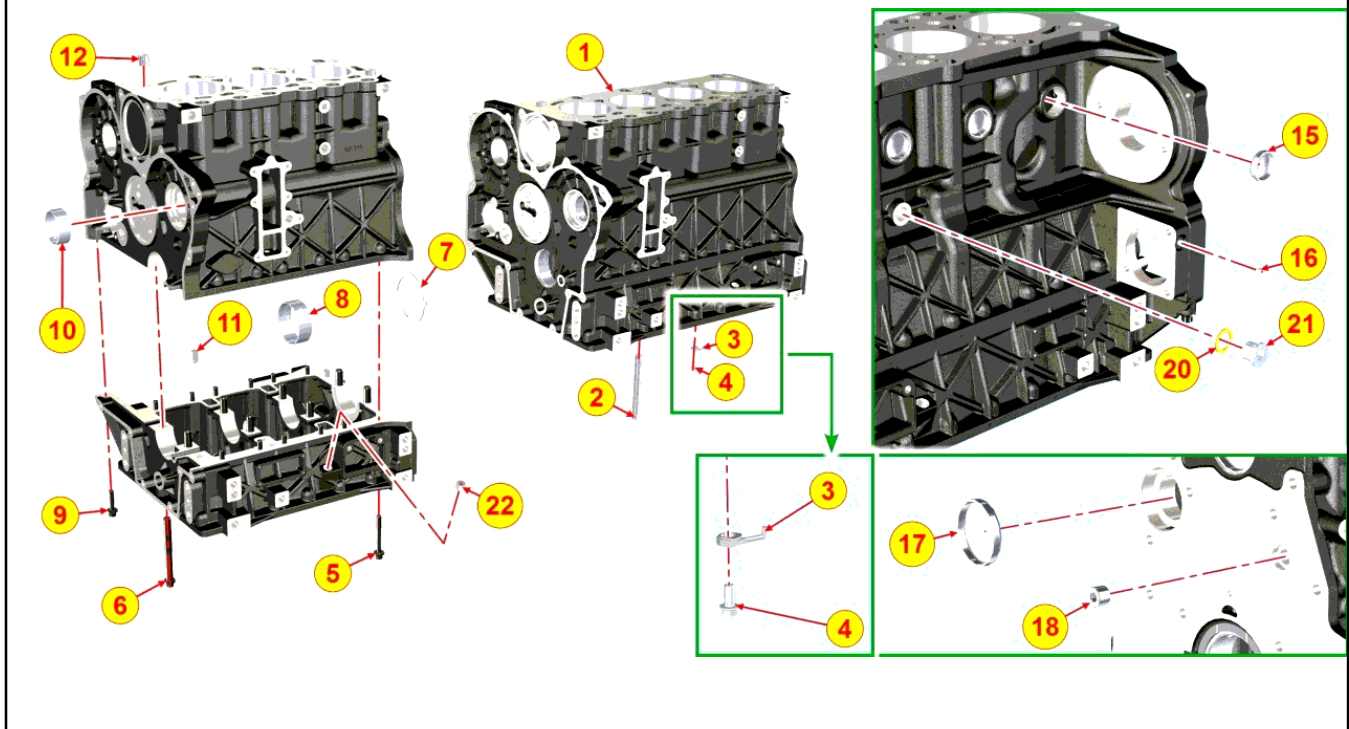
The illustration represents a wide range of variations. Not all parts in the illustration are used.



Item	Part No.	Description	Qty.	Kit	Included in Kit
0	ED0082051330-S	Crankcase Gasket Set KDI	1		
1	ED0015113660-S	Crankcase	1	(A)	
2	ED0095801170-S	Blow By Pipe	2		
3	ED0084850260-S	Piston cooler oil spray	4		
4	ED0015700800-S	Piston cooler oil spray union	4		
5	ED0097660040-S	Crankcase Fixing Torx Screw	16		(A)
6	ED0097660030-S	Crankcase Fixing Torx Screw	10		(A)
7	ED0012572800-S	Thrust Washer Standard KDI	2		
8	ED0016112630-S	Bearing Standard KDI	4/5		
9	ED0097660050-S	Crankcase Fixing Torx Screw	1		(A)
10	ED0015801670-S	Bushing	1		(A)
11	ED0084001560-S	Lockpin	2		(A)
12	ED0019701410-S	Sleeve	2		
15	ED0089900220-S	Cap	4		(A)
16	ED0090801320-S	Cap	2		(A)
17	ED0089900540-S	Plug	2		
18	ED0089650970-S	Cap M14x1.5	1		
19	ED0019704560-S	Sleeve	2		(A)
20	ED0046700190-S	Gasket	1		
21	ED0090400310-S	Hex plug, M16x1.5	1		
21	ED0090150060-S	Cap	1		(A)

# Crankcase

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8020700270

Item	Part No.	Description	Qty.	Kit	Included in Kit
0	ED0082051330-S	Crankcase Gasket Set KDI	1		
1	ED0015113630-S	Crankcase	1	(A)	
2	ED0095801170-S	Blow By Pipe	1		
7	ED0012572800-S	Thrust Washer Standard KDI	1		
8	ED0016112630-S	Bearing Standard KDI	4/5		
10	ED0015801670-S	Bushing	1		(A)
12	ED0019701410-S	Sleeve	2		
15	ED0089900220-S	Cap	3		(A)
16	ED0090801320-S	Cap	2		(A)
17	ED0089900540-S	Plug	1		
18	ED0089650970-S	Cap M14x1,5	1		
20	ED0046700190-S	Gasket	1		(A)
21	ED0090400310-S	Cap	1		(A)

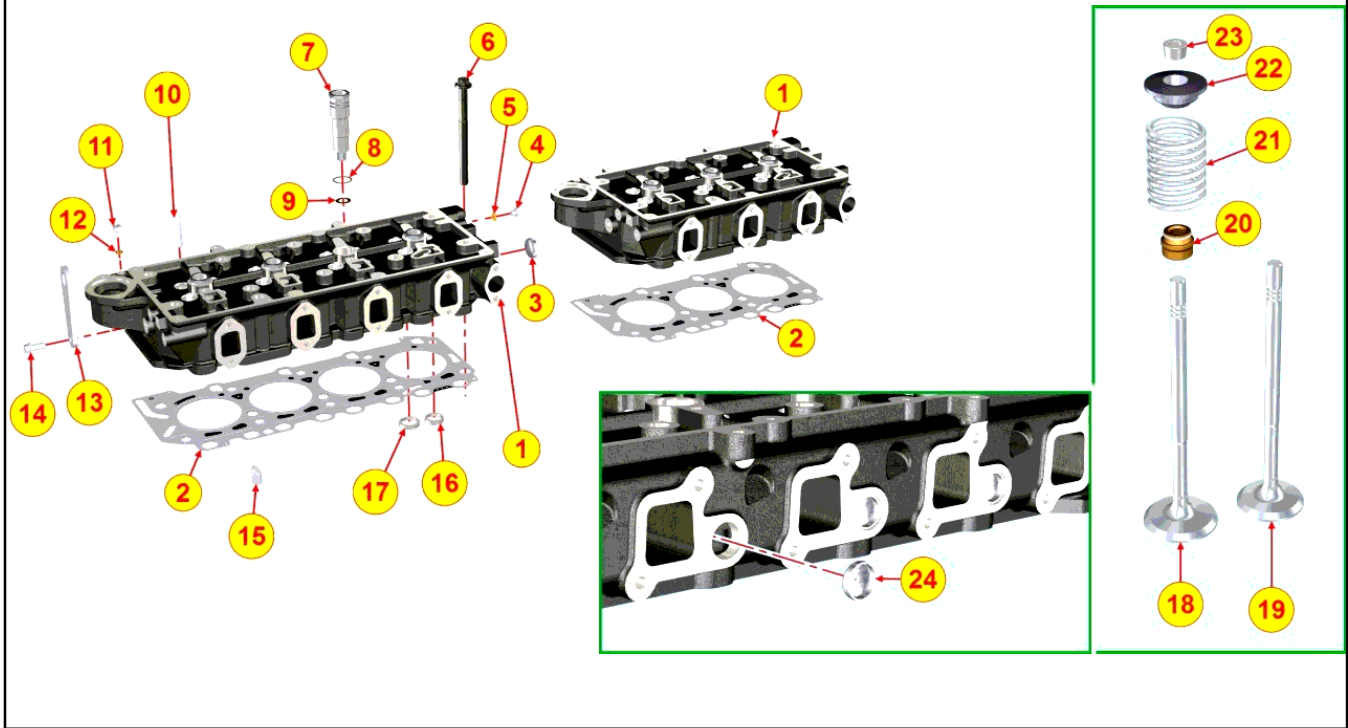
## 8020700280

Item	Part No.	Description	Qty.	Kit	Included in Kit
0	ED0082051330-S	Crankcase Gasket Set KDI	1		
1	ED0015113680-S	Crankcase	1	(A)	
2	ED0095801170-S	Blow By Pipe	1		
5	ED0097660040-S	Crankcase Fixing Torx Screw	16		(A)
6	ED0097660030-S	Crankcase Fixing Torx Screw	10		(A)
7	ED0012572800-S	Thrust Washer Standard KDI	2		
8	ED0016112630-S	Bearing Standard KDI	4/5		
9	ED0097660050-S	Crankcase Fixing Torx Screw	1		(A)
10	ED0015801670-S	Bushing	1		(A)
11	ED0084001560-S	Lockpin	2		
12	ED0019701410-S	Sleeve	2		
15	ED0089900220-S	Cap	4		(A)
16	ED0090801320-S	Cap	2		(A)
17	ED0089900540-S	Plug	1		
18	ED0089650970-S	Cap M14x1,5	1		
20	ED0046700190-S	Gasket	1		
21	ED0090400310-S	Cap	1		

# Cylinder Head

8021700250

The illustration represents a wide range of variations. Not all parts in the illustration are used.



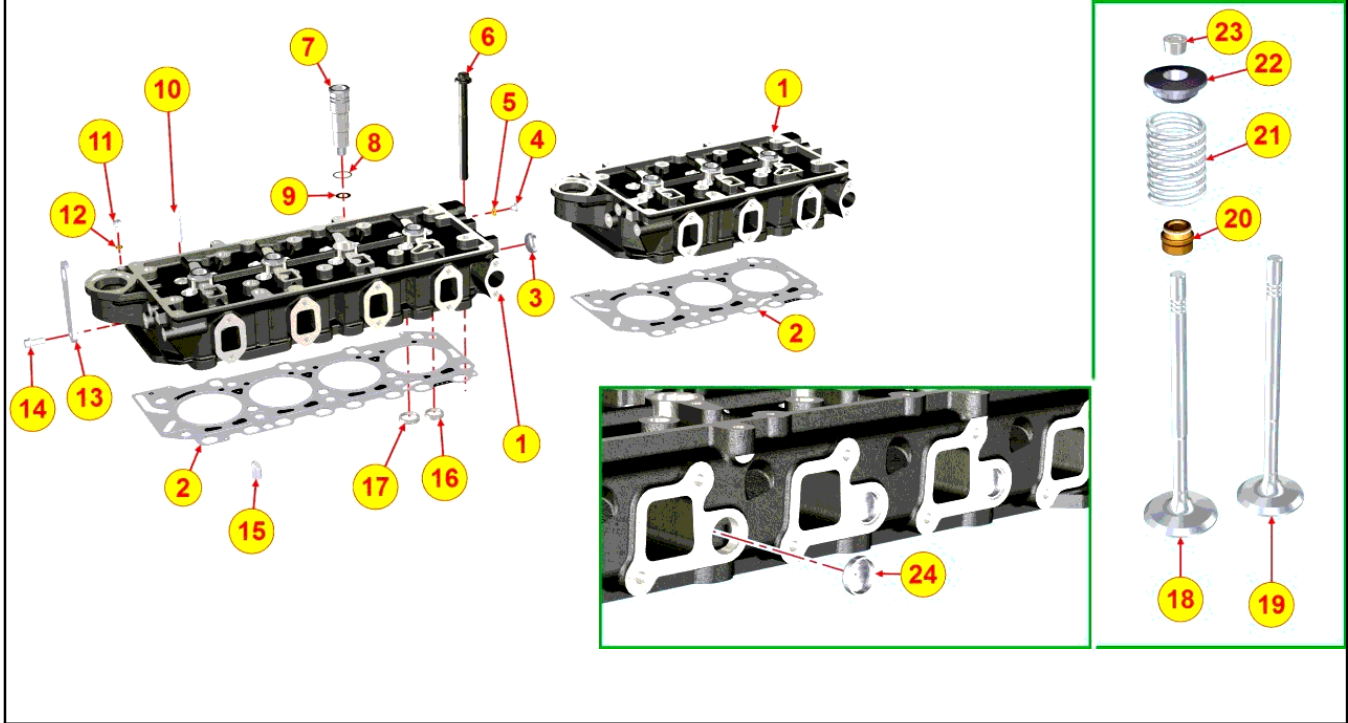
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0092019650-S	Cylinder Head Assy KDI1903	1	(A)	
2	ED0047310010-S	Cylinder Head Gasket	1		
2	ED0047310020-S	Head Gasket Sp 0.95 Hd19	1		
2	ED0047310030-S	Head Gasket Sp 1.05 Hd19	1		
3	ED0089900220-S	Cap	1		(A)
6	ED0098202380-S	Cylinder Head Fixing Screw	8		
7	ED0021101400-S	Injector Sleeve	3		(A)
8	ED0012004090-S	O-Ring Type Orm 0230-15	6		(A)
9	ED0046701470-S	Injector Sleeve Gasket	3		(A)
10	ED0048452830-S	Valve Guide	12		(A)
11	ED0019011710-S	Screw	1		
12	ED0046700010-S	Gasket	1		
13	ED0085464680-S	Bracket	2		
14	ED0017701110-S	Bolt	4		
15	ED0019705140-S	Thimble	2		
16	ED0080003480-S	Exhaust Valve Seat	6		(A)
17	ED0080003470-S	Intake Valve Seat	6		(A)
18		See Rocker Arms/Valves			(A)
19		See Rocker Arms/Valves			(A)
20		See Rocker Arms/Valves			(A)
21		See Rocker Arms/Valves			(A)
22		See Rocker Arms/Valves			(A)
23		See Rocker Arms/Valves			(A)
24	ED0090801080-S	Plug	2		(A)



# Cylinder Head

8021700330

The illustration represents a wide range of variations. Not all parts in the illustration are used.

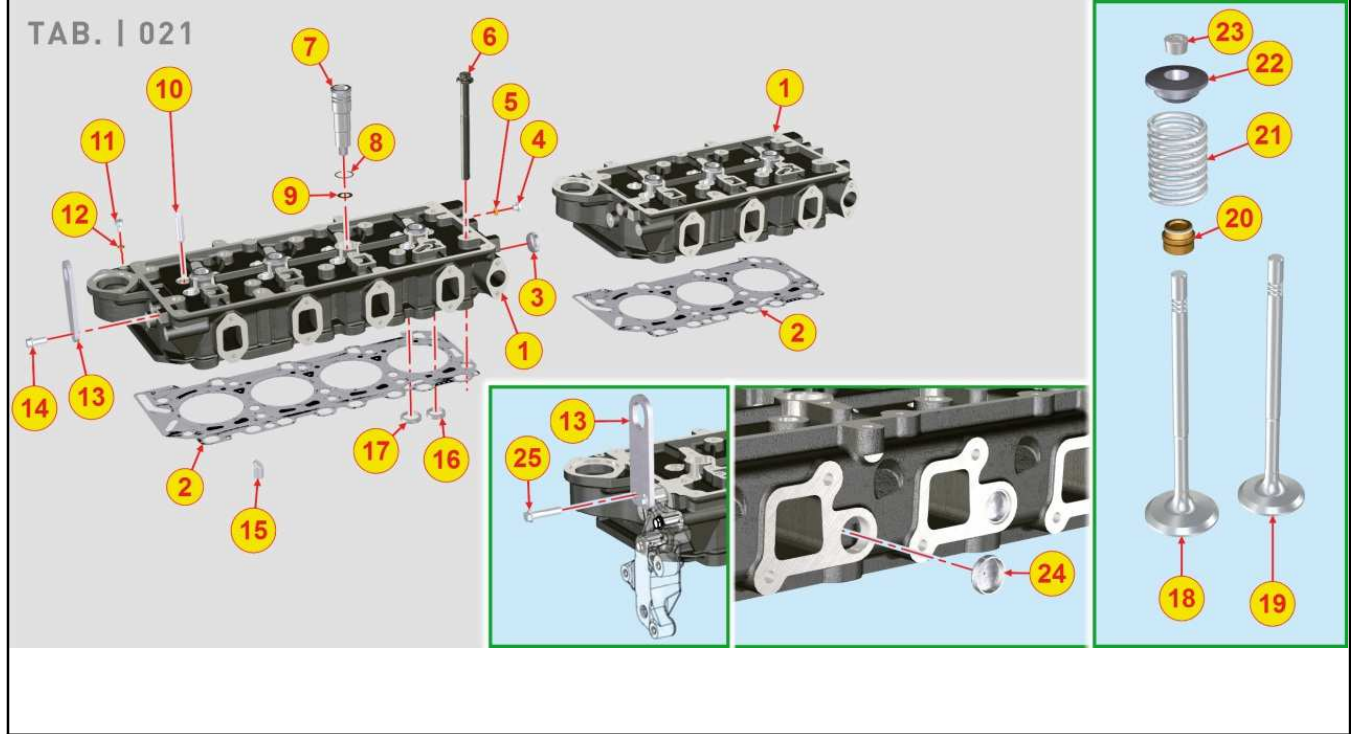


Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0092019660-S	Cylinder Head Assy KDI2504	1	(A)	
2	ED0047309970-S	Cylinder Head Gasket	1		
2	ED0047309980-S	Cylinder Head Gasket	1		
2	ED0047309990-S	Cylinder Head Gasket	1		
3	ED0089900220-S	Cap	1		(A)
6	ED0098202380-S	Cylinder Head Fixing Screw	10		
7	ED0021101400-S	Injector Sleeve	4		(A)
8	ED0012004090-S	O-Ring Type Orm 0230-15	8		(A)
9	ED0046701470-S	Injector Sleeve Gasket	4		(A)
10	ED0048452830-S	Valve Guide	16		(A)
11	ED0019011710-S	Screw	1		
12	ED0046700010-S	Gasket	1		
13	ED0085464680-S	Bracket	2		
14	ED0017701110-S	Bolt	4		
15	ED0019705140-S	Thimble	3		
16	ED0080003480-S	Exhaust Valve Seat	8		(A)
17	ED0080003470-S	Intake Valve Seat	8		(A)
18		See Rocker Arms/Valves			(A)
19		See Rocker Arms/Valves			(A)
20		See Rocker Arms/Valves			(A)
21		See Rocker Arms/Valves			(A)
22		See Rocker Arms/Valves			(A)
23		See Rocker Arms/Valves			(A)
24	ED0090801080-S	Plug	3		(A)

# Cylinder Head

8021700620

The illustration represents a wide range of variations. Not all parts in the illustration are used.



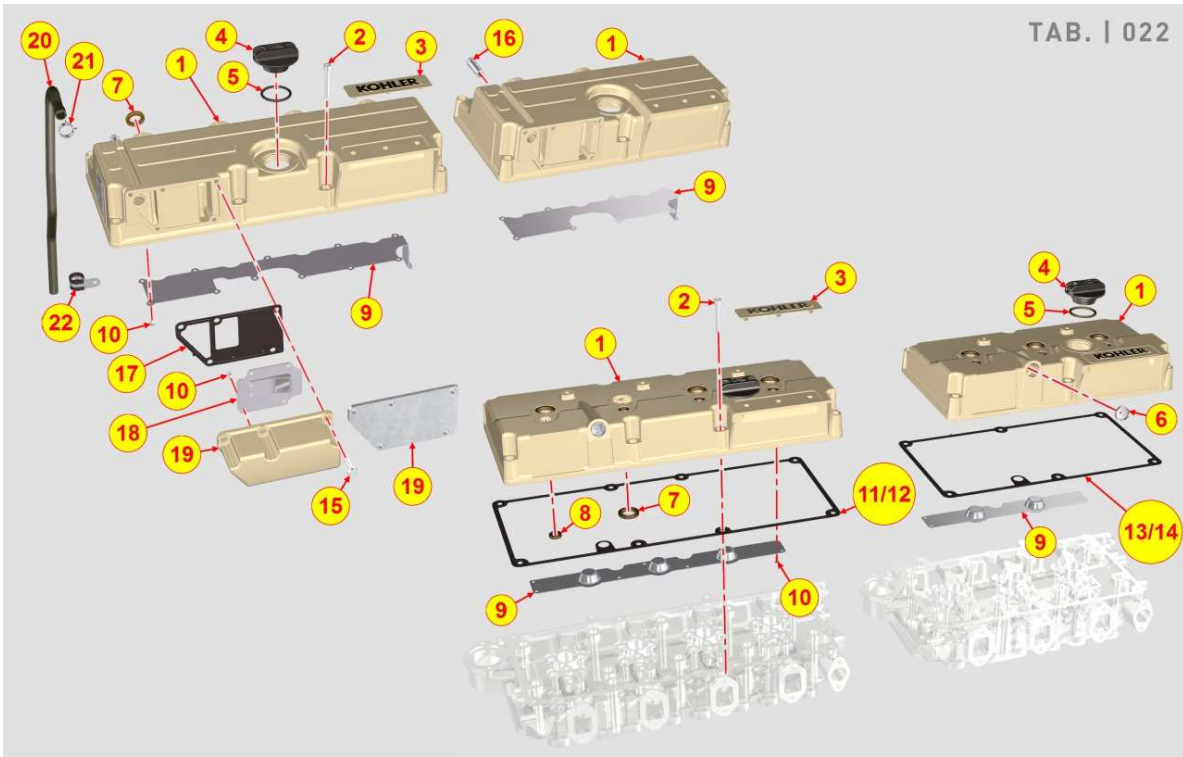
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0092019660-S	Cylinder Head Assy KDI2504	1	(A)	
2	ED0047310630-S	Cylinder Head Gasket 0,85 mm	1		
2	ED0047310640-S	Cylinder Head Gasket 0,95 mm	1		
2	ED0047310650-S	Cylinder Head Gasket 1,05 mm	1		
3	ED0089900220-S	Cap	1		(A)
4	ED0089650370-S	Cap	1		
5	ED0046700580-S	Washer	1		
6	ED0098202660-S	Cylinder Head Fixing Screw	10		
7	ED0021101400-S	Injector Sleeve	4		(A)
8	ED0012004090-S	O-Ring Type Orm 0230-15	8		(A)
9	ED0046701470-S	Injector Sleeve Gasket	4		(A)
10	ED0048452830-S	Valve Guide	16		(A)
11	ED0090800370-S	Screw	1		
12	ED0046700010-S	Gasket	1		
13	ED0085464680-S	Bracket	1		
14	ED0017701110-S	Bolt	2		
15	ED0019705140-S	Thimble	3		
16	ED0080003480-S	Exhaust Valve Seat	8		(A)
17	ED0080003470-S	Intake Valve Seat	8		(A)
18		See Rocker Arms/Valves			(A)
19		See Rocker Arms/Valves			(A)
20		See Rocker Arms/Valves			(A)
21		See Rocker Arms/Valves			(A)
22		See Rocker Arms/Valves			(A)
23		See Rocker Arms/Valves			(A)
24	ED0090801080-S	Plug	3		(A)
25	ED0017701560-S	Bolt	4		



# Head Cover

8022700150

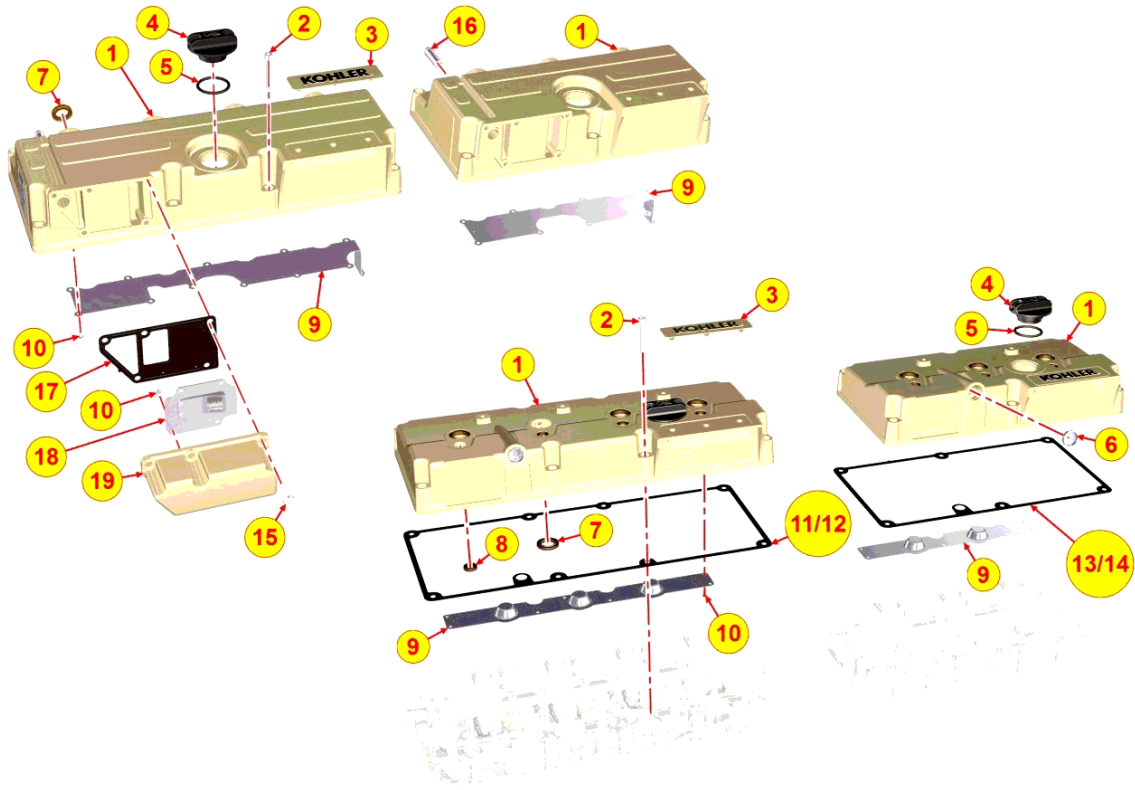
The illustration represents a wide range of variations. Not all parts in the illustration are used.



Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0021258330-S	Complete Rocker Arm Cover	1	(A)	
2	ED0097320160-S	Capscrew	8		
4	ED0090321350-S	Cap	1		(A)
5	ED0012000150-S	O Ring	1		(A)
6	ED0090801080-S	Plug	1		(A)
7	ED0012135700-S	Seal Ring 20.2x30x4/5.5	4		(A) (B)
8	ED0012135710-S	Seal Ring 10x18x4	8		(A) (B)
10	ED0074810640-S	Rivet D.4,37x6,4	7		(A)
11	ED0082051350-S	Cov.Head Gask.-Or Set 2504TCR	1	(B)	
12	ED0082051320-S	Head/Fuel System Gasket Set KDI 2504	1		

# Head Cover

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8022700160

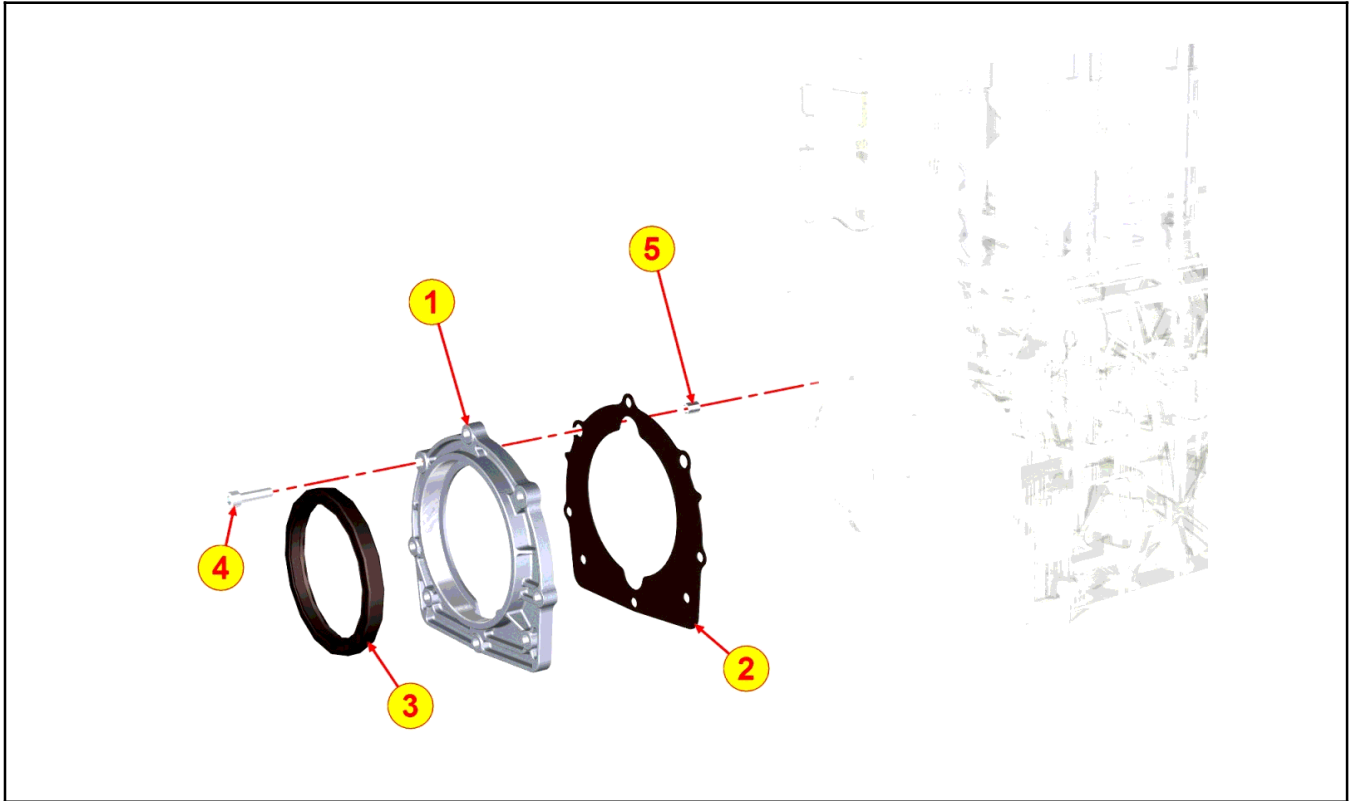
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0021258210-S	Complete Rocker Arm Cover	1	(A)	
2	ED0097320160-S	Capscrew	8		
4	ED0090321350-S	Cap	1		
5	ED0012000150-S	O- Ring	1		
7	ED0012135720-S	Seal Ring 16x26x5	4		(A) (B)
9	ED0050664730-S	Sheet Metal Separator	1		(A)
11	ED0082051370-S	Cov.Head Gask. -Or Set 2504 M	1	(B)	
12	ED0082051320-S	Head/Fuel System Gasket Set KDI 2504	1		
15	ED0097610460-S	Self Tapping Screw M6x20	5		(A)
16	ED0095800640-S	Tube	1		
17	ED0045802540-S	Gasket	1		
18	ED0050664760-S	Complete Breather Sheet Metal	1		
19	ED0026101440-S	Complete Breather Cover	1		

## 8022700170

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0021258190-S	Complete Rocker Arm Cover	1	(A)	
2	ED0097320160-S	Capscrew	6		
4	ED0090321350-S	Cap	1		(A)
5	ED0012000150-S	O Ring	1		(A)
7	ED0012135720-S	Seal Ring 16x26x5	3		(A) (B)
10	ED0074810640-S	Rivet D.4,37x6,4	4		(A)
13	ED0082051360-S	Cov.Head Gask. -Or Set 1903M	1	(B)	
14	ED0082051310-S	Head/Fuel System Gasket Set KDI 1903	1		
15	ED0097610460-S	Self Tapping Screw M6x20	5		(A)
16	ED0095800640-S	Tube	1		(A)
17	ED0045802540-S	Gasket	1		(A)
18	ED0050664760-S	Complete Breather Sheet Metal	1		(A)
19	ED0026101440-S	Complete Breather Cover	1		(A)

# Flywheel Side Support

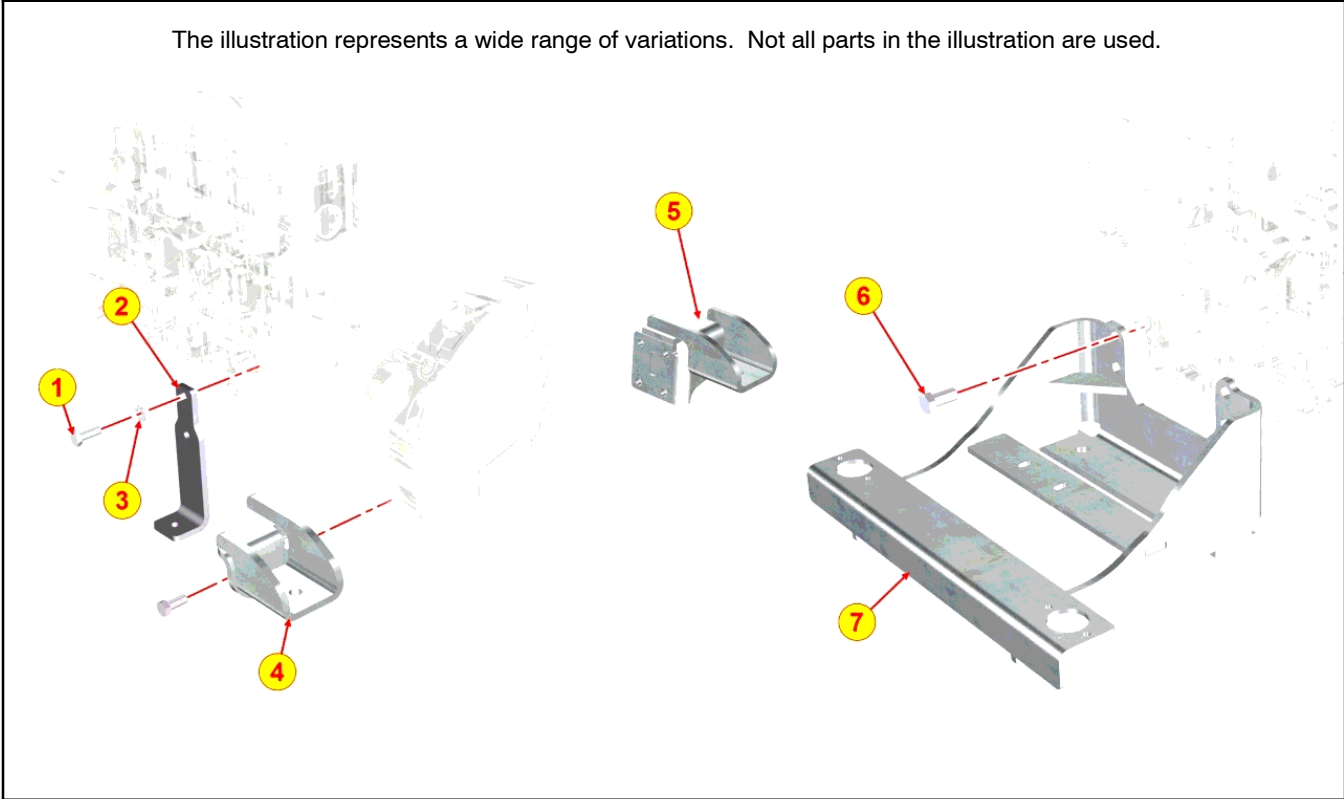
8023700040



Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0037901230-S	Flange Ass. With Gask. KDI	1	(A)	
2	ED0045011690-S	Oil Seal Flange Gasket	1		(A)
3	ED0012135470-S	Oil Seal Cho 83x100x10	1		(A)
4	ED00992R0460-S	Screw	8		
5	ED0019704560-S	Bussola/Sleeve N 10	2		

# Engine Mounts

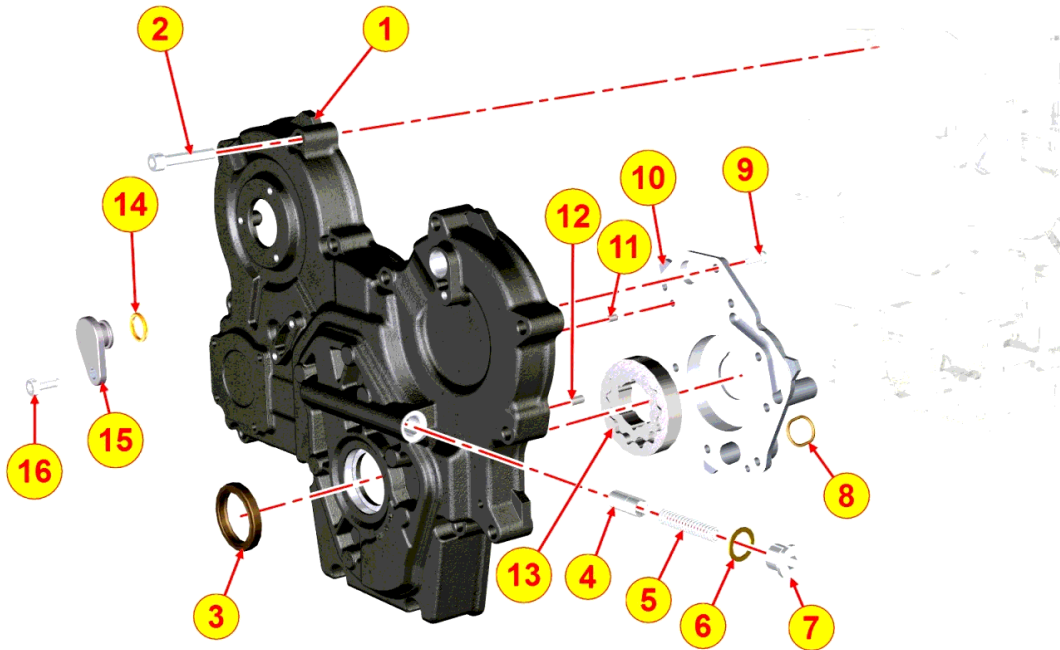
8025700010



Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0017900240-S	Bullone/Bolt 'D 10	8		
2	ED0085464070-S	Engine Support Bracket	4		

# Timing System Closure Plate

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8027700150

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0066580290-S	Oil Pump Carter Assy	1	(A)	
2	ED0097300320-S	Screw	15		
3	ED0012135500-S	Oil Seal Ring38x50x7 Cho	1		
4	ED0064950810-S	Cursor	1		(A)
5	ED0056250300-S	Spring	1		(A)
6	ED0046700190-S	Gasket	1		(A)
7	ED0090150110-S	Cap	1		(A)
8	ED0012000810-S	Ring	1		
9	ED0097610460-S	Self Tapping Screw M6x20	8		(A)
10		Item 1			(A)
11	ED0084301020-S	Spring	2		(A)
12	ED0084000200-S	Paral.Pin	2		
13	ED0077501630-S	Rotor	1		(A)

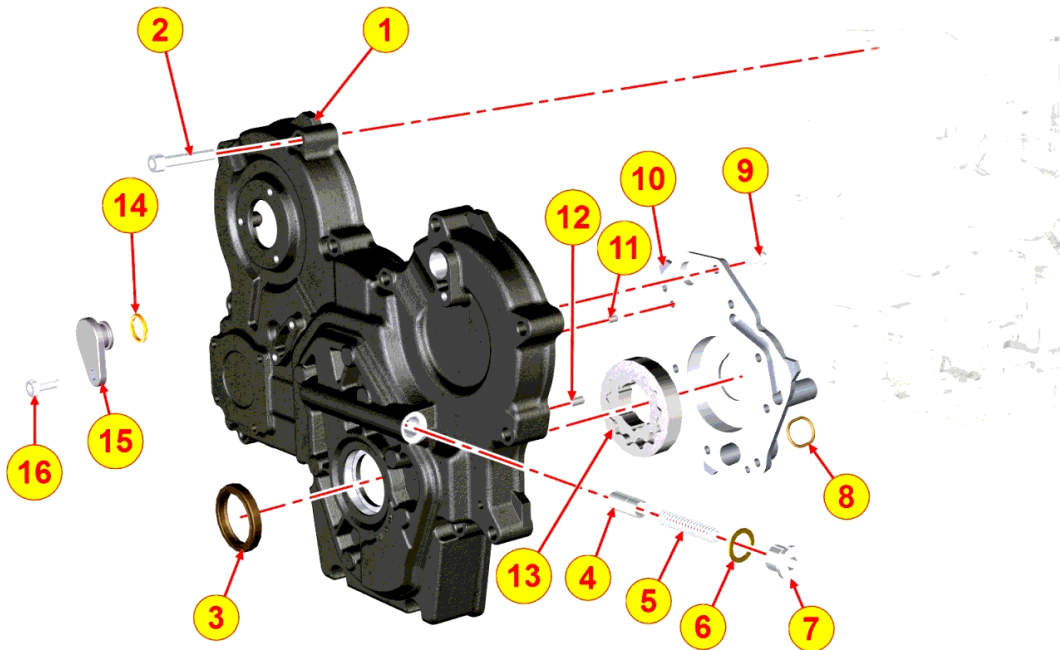
## 8027700190

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0066580400-S	Oil Pump Carter Assy	1	(A)	
2	ED0097300320-S	Screw	15		
3	ED0012135500-S	Oil Seal Ring38x50x7 Cho	1		
4	ED0064950840-S	Cursor	1		(A)
5	ED0056250300-S	Spring	1		(A)
6	ED0046700190-S	Gasket	1		(A)
7	ED0090150110-S	Cap	1		(A)
8	ED0012000810-S	Ring	1		
9		Item 1			(A)
10		Item 1			(A)
11		Item 1			(A)
12	ED0084000200-S	Paral.Pin	2		
13		Item 1			(A)

# Timing System Closure Plate

8027700200

The illustration represents a wide range of variations. Not all parts in the illustration are used.

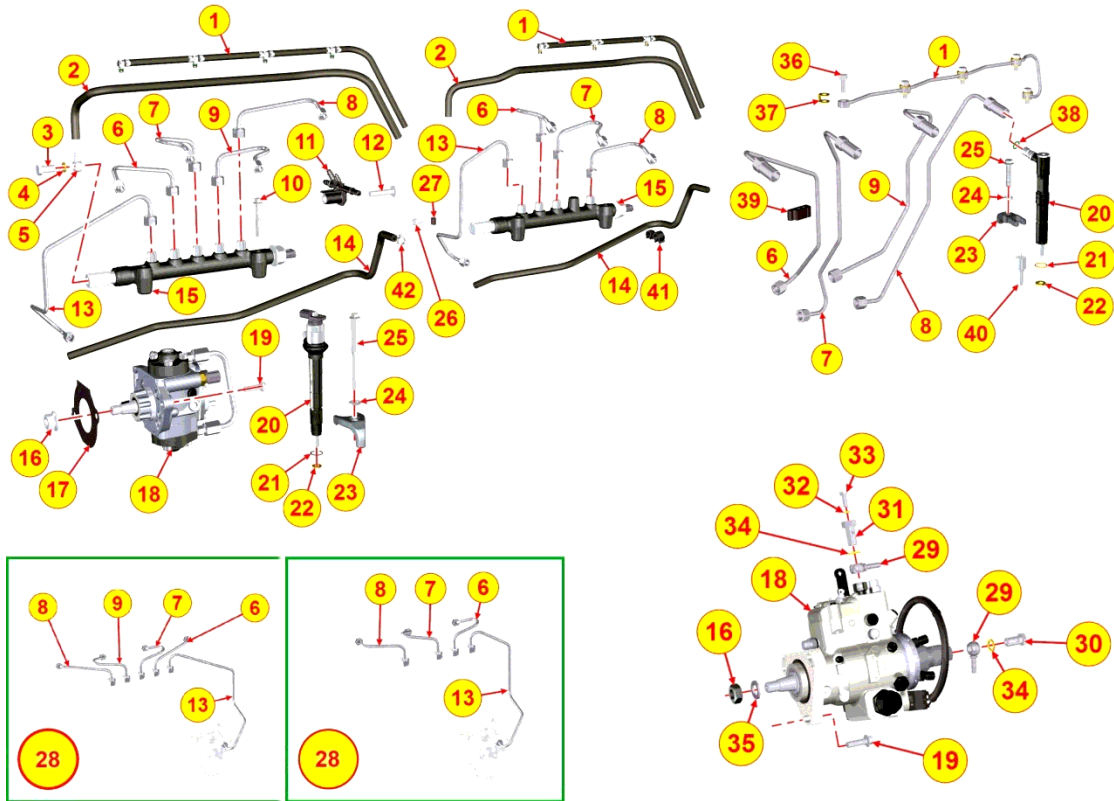


Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0066580390-S	Oil Pump Carter Assy	1	(A)	
2	ED0097300320-S	Screw	15		
3	ED0012135500-S	Oil Seal Ring38x50x7 Cho	1		
4	ED0064950810-S	Cursor	1		(A)
5	ED0056250300-S	Spring	1		(A)
6	ED0046700190-S	Gasket	1		(A)
7	ED0090150110-S	Cap	1		(A)
8	ED0012000810-S	Ring	1		
9		Item 1			(A)
10		Item 1			(A)
11		Item 1			(A)
12	ED0084000200-S	Paral.Pin	2		
13		Item 1			(A)

# Injection System

8030700430

The illustration represents a wide range of variations. Not all parts in the illustration are used.



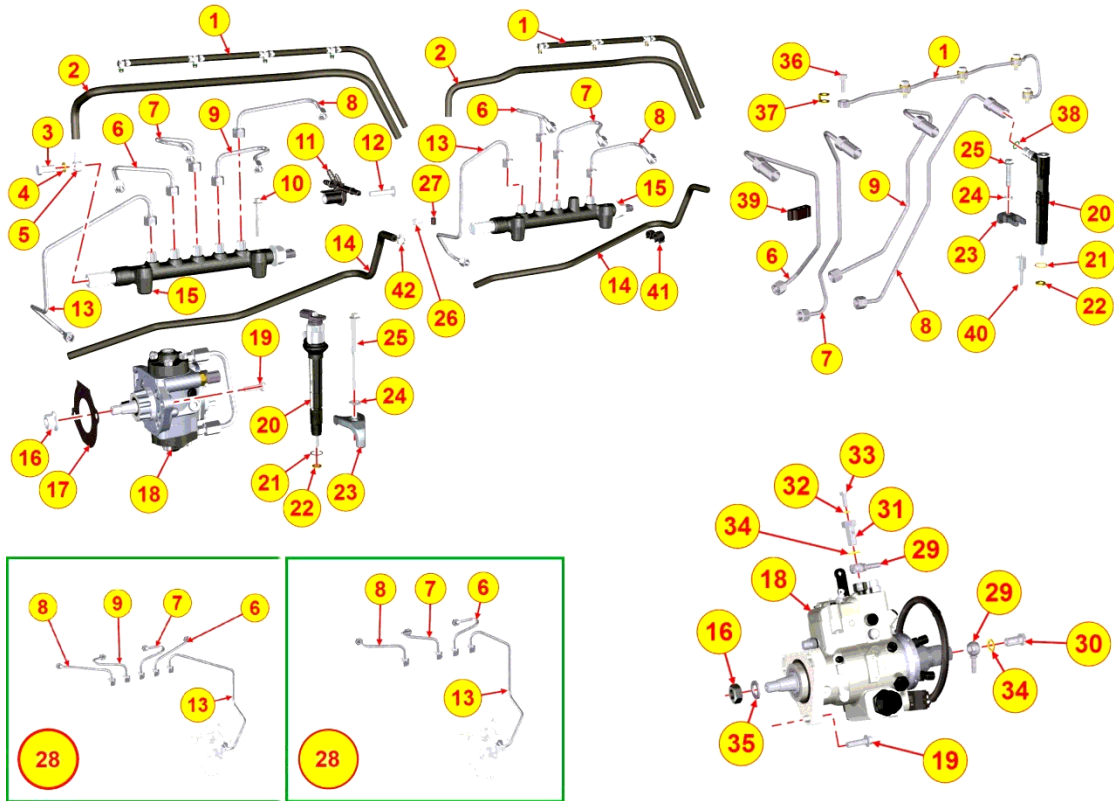
Item	Part No.	Description	Qty.	Kit	Included in Kit
0	ED0019010330-S	Union Bolt	1		
1	ED00095712810-S	Fuel Tube	1	(C)	
6	ED00093763700-S	Hp Fuel Pipe Cyl.1	1		
7	ED00093763690-S	Hp Fuel Pipe Cyl.2	1		
9	ED00093763680-S	Hp Fuel Pipe Cyl.1	1		
16	ED0032402050-S	Hex. Nut M14x1,5 With Flange	1		
18	ED0065905670-S	Injection Pump	1		
19	ED0017702230-S	Hex. Head Screw M8x28 Driloc	3		
20	ED0050107480-S	Stanad.Inj.KDI1903m Tractor	3	(B)	
21	ED0012004100-S	O-Ring Type Orm 0170-15	3		
22	ED0046701430-S	Injectors Gasket	3		
23	ED0085463830-S	Injector Bracket	3		
24	ED0076253780-S	Washer	3		
25	ED0017701780-S	Screw	3		
29	ED0072701090-S	Union	1		
31	ED0019010310-S	Union Bolt	1		
32	ED0046700010-S	Gasket	1		
33	ED0019011710-S	Screw	1		
34	ED0046700600-S	C.Gasket	2		
36	ED0019012020-S	Capscrew M6x1	4		(C)
37	ED0046701750-S	Gasket	4		(C)
38	ED0012002860-S	O-Ring	3		
40	ED0065318600-S	Nozzle	3		(B)



# Injection System

8030700450

The illustration represents a wide range of variations. Not all parts in the illustration are used.



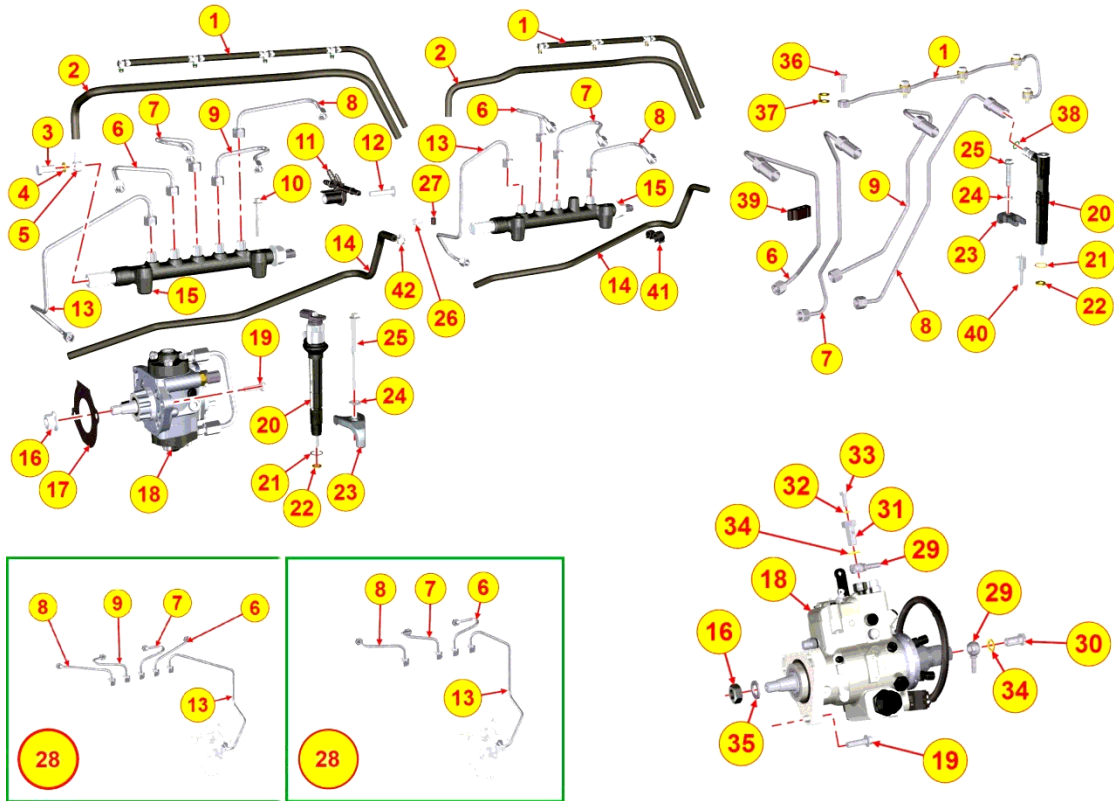
Item	Part No.	Description	Qty.	Kit	Included in Kit
0	ED0019010330-S	Union Bolt	1		
1	ED0095712810-S	Fuel Tube	1	(C)	
6	ED0093763700-S	Hp Fuel Pipe Cyl.1	1		
7	ED0093763690-S	Hp Fuel Pipe Cyl.2	1		
9	ED0093763680-S	Hp Fuel Pipe Cyl.1	1		
16	ED0032402050-S	Hex. Nut M14x1,5 With Flange	1		
18	ED0065905500-S	Injection Pump	1		
19	ED0017702230-S	Hex. Head Screw M8x28 Driloc	3		
20	ED0050101800-S	Stanadyne Injector	3	(B)	
21	ED0012004100-S	O-Ring Type Orm 0170-15	3		
22	ED0046701430-S	Injectors Gasket	3		
23	ED0085463830-S	Injector bracket	3		
24	ED0076253780-S	Washer	3		
25	ED0017701780-S	Screw	3		
29	ED0072701090-S	Union	1		
31	ED0019010310-S	Union Bolt	1		
32	ED0046700010-S	Gasket	1		
33	ED0019011710-S	Screw	1		
34	ED0046700600-S	C.Gasket	2		
36	ED0019012020-S	Capscrew M6x1	4		(C)
37	ED0046701750-S	Gasket	4		(C)
40	ED0065318550-S	Nozzle	3		(B)



# Injection System

8030700480

The illustration represents a wide range of variations. Not all parts in the illustration are used.

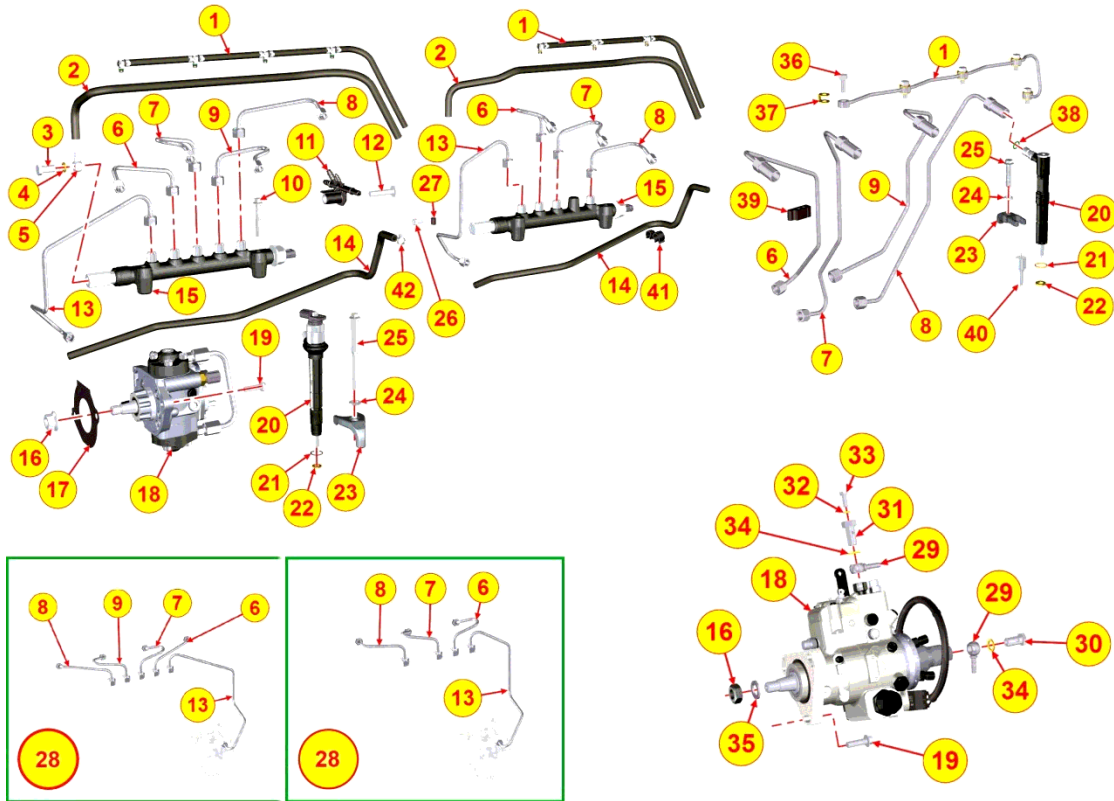


Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0095712820-S	Fuel Tube	1	(C)	
6	ED0093763670-S	Hp Fuel Pipe Cyl.4	1		
7	ED0093763660-S	Hp Fuel Pipe Cyl.3	1		
8	ED0093763640-S	Hp Fuel Pipe Cyl.1	1		
9	ED0093763650-S	Hp Fuel Pipe Cyl.2	1		
16	ED0032402050-S	Hex Nut M14x1,5 With Flange	1		
18	ED0065905510-S	Injection Pump	1		
19	ED0017702230-S	Hex Head Screw M8x28 Driloc	3		
20	ED0050101800-S	Stanadyne Injector	4	(B)	
21	ED0012004100-S	O-Ring Type Orm 0170-15	4		
22	ED0046701430-S	Injectors Gasket	4		
23	ED0085463830-S	Injector bracket	4		
24	ED0076253780-S	Washer	4		
25	ED0017701780-S	Screw	4		
29	ED0072701090-S	Union	1		
31	ED0019010310-S	Union Bolt	1		
32	ED0046700010-S	Gasket	1		
33	ED0019011710-S	Screw	1		
34	ED0046700600-S	C.Gasket	2		
36	ED0019012020-S	Capscrew M6x1	5		(C)
37	ED0046701750-S	Gasket	5		(C)
38	ED0012002860-S	O- ring	4		
40	ED0065318550-S	Nozzle	4		(B)

# Injection System

8030700660

The illustration represents a wide range of variations. Not all parts in the illustration are used.



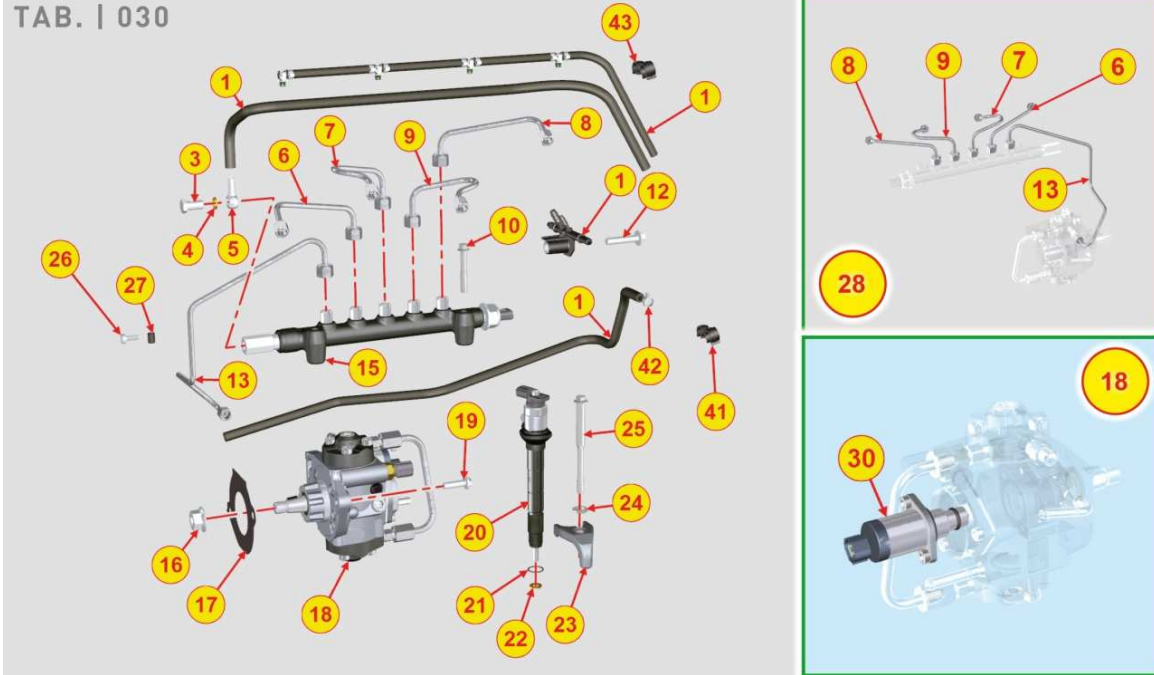
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0095712820-S	Fuel Tube	1	(C)	
6	ED0093763670-S	Hp Fuel Pipe Cyl.4	1		
7	ED0093763660-S	Hp Fuel Pipe Cyl.3	1		
8	ED0093763640-S	Hp Fuel Pipe Cyl.1	1		
9	ED0093763650-S	Hp Fuel Pipe Cyl.2	1		
16	ED0032402050-S	Hex Nut M14x1,5 With Flange	1		
18	ED0065900040-S	Injection Pump	1		
19	ED0017702230-S	Hex Head Screw M8x28 Driloc	3		
20	ED0050101710-S	Stanadyne Injector	4		
21	ED0012004100-S	O-Ring Type Orm 0170-15	4		
22	ED0046701430-S	Injectors Gasket	4		
23	ED0085463830-S	Injector bracket	4		
24	ED0076253780-S	Washer	4		
25	ED0017701780-S	Screw	4		
29	ED0072701090-S	Union	1		
31	ED0019010310-S	Union Bolt	1		
32	ED0046700010-S	Gasket	1		
33	ED0019011710-S	Screw	1		
34	ED0046700600-S	C.Gasket	2		
36	ED0019012020-S	Capscrew M6x1	5		(C)
37	ED0046701750-S	Gasket	5		(C)
38	ED0012002860-S	O-ring	4		

# Injection System

8030700810

The illustration represents a wide range of variations. Not all parts in the illustration are used.

TAB. | 030

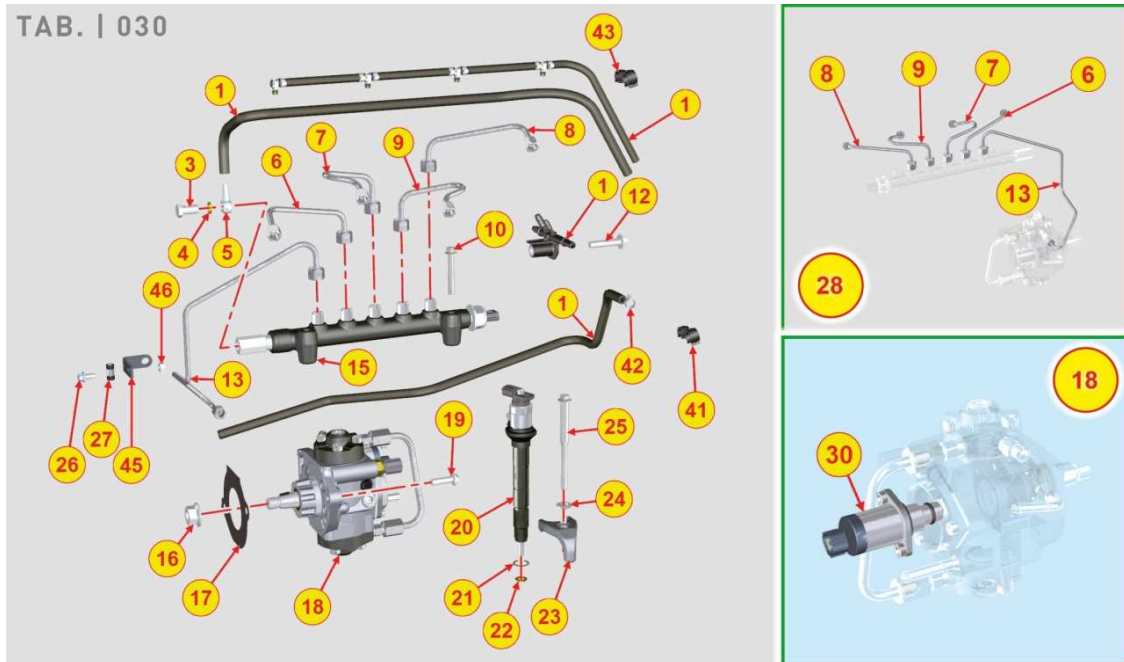


Item	Part No.	Description	Qty.	Kit	Included in Kit
0	ED0097301070-S	VITE TCEI 6x14- 5931	1		
1	ED0035450910-S	Fuel Distrib. Assy.	1		
2	KDISC.		1		
3	ED0019011670-S	Screw 10x13587/159	1		
4	ED0046700590-S	Washer	2		
5	ED0072701380-S	Banjo	1		
6	ED0093763220-S	Injection Pipe	1		(A)
7	ED0093763210-S	Injection Pipe	1		(A)
8	ED0093763190-S	Injection Pipe	1		(A)
9	ED0093763200-S	Injection Pipe	1		(A)
10	ED0017702250-S	Screw M8x50	2		
11	KDISC.		1		
13	ED0093764010-S	Fuel Pipe	1		(A)
14	KDISC.		1		
15	ED0093800330-S	4 Cylinder Engine Rail	1		
16	ED0032402050-S	Nut M14x1.5	1		
17	ED0045802350-S	CRS Injection Pumpm Gasket	1		
18	ED0065905100-S	Injection Pump	1		
19	ED0017702230-S	Screw M8x28	2		
20	ED0050101680-S	Injector Assy.	4		
21	ED0012004100-S	O Ring	4		
22	ED0046701010-S	Washer 0.5mm	3/4		
22	ED0046701330-S	Injector Gasket 1.5 mm	3/4		
22	ED0046701420-S	Injector Gasket 2.5 mm	3/4		
22	ED0046701430-S	Injector Gasket 2 mm	4		
22	ED0046701760-S	Injector Gasket 1 mm	3/4		
23	ED0085463700-S	Injector Fixing Bracket	4		
24	ED0076253790-S	washer	4		
25	ED0098202580-S	Bracket Screw	4		
26	ED0097610450-S	Screw M6x16	1		
27	ED0036172550-S	Clamp	1		
27	ED0036302000-S	Clamp	1		
28	ED0093764170-S	Kit HP Injection Pipes	1	(A)	
30	ED0096610200-S	SCV valve Kit	1		
41	ED0036172530-S	Clamp	2		
42	ED0036300040-S	Clamp	1		
43	ED0036172510-S	Clamp	4		

# Injection System

8030700820

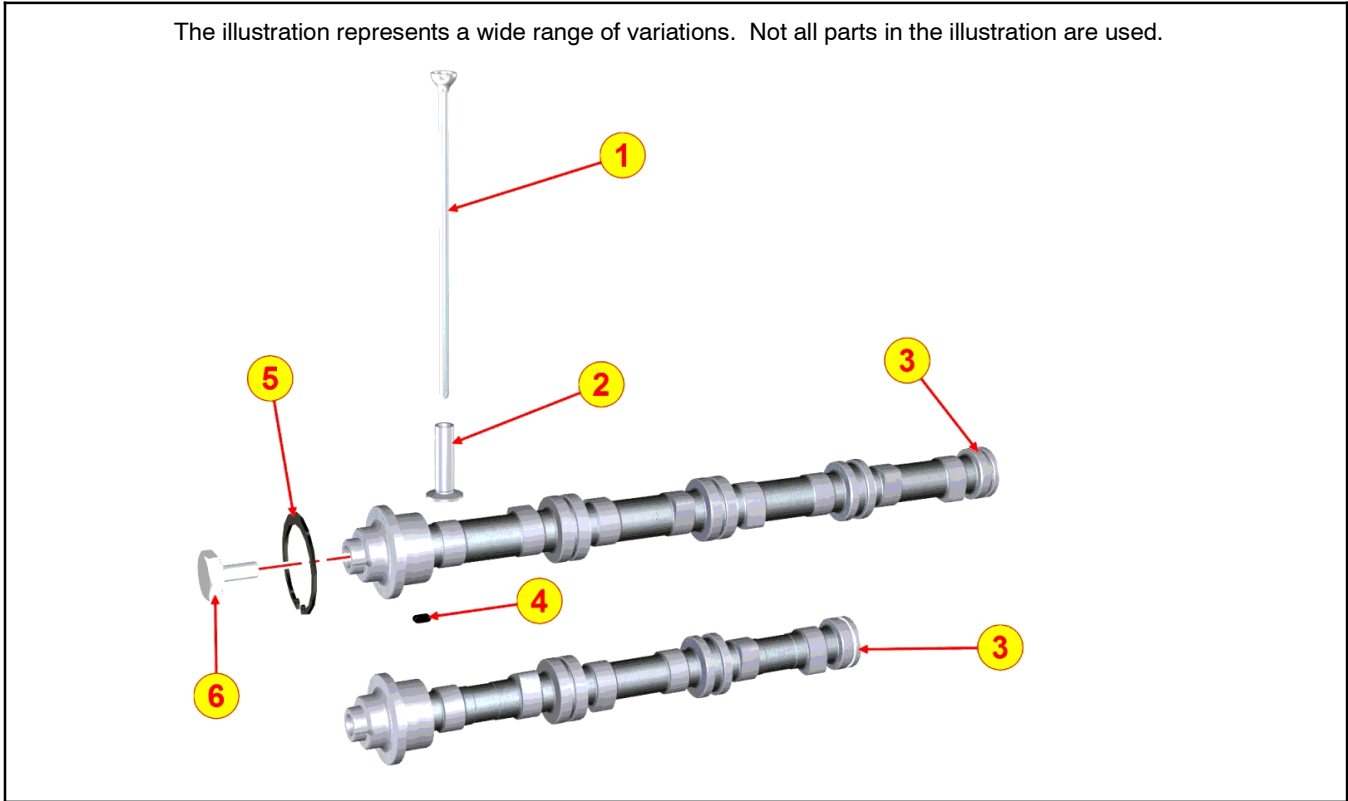
The illustration represents a wide range of variations. Not all parts in the illustration are used.



Item	Part No.	Description	Qty.	Kit	Included in Kit
0	ED0097301070-S	VITE TCEI 6x14- 5931	2		
1	ED0035450910-S	Fuel Distrib. Assy.	1		
2	KDISC.		1		
3	ED0019011670-S	Screw 10x13587/159	1		
4	ED0046700590-S	Washer	2		
5	ED0072701380-S	Banjo	1		
6	ED0093763220-S	Injection Pipe	1		(A)
7	ED0093763210-S	Injection Pipe	1		(A)
8	ED0093763190-S	Injection Pipe	1		(A)
9	ED0093763200-S	Injection Pipe	1		(A)
10	ED0017702250-S	Screw M8x50	2		
11	KDISC.		1		
13	ED0093764010-S	Fuel Pipe	1		(A)
14	KDISC.		1		
15	ED0093800330-S	4 Cylinder Engine Rail	1		
16	ED0032402050-S	Nut M14x1.5	1		
17	ED0045802350-S	CRS Injection Pumpm Gasket	1		
18	ED0065905100-S	Injection Pump	1		
19	ED0017702230-S	Screw M8x28	2		
20	ED0050101680-S	Injector Assy.	4		
21	ED0012004100-S	O Ring	4		
22	ED0046701010-S	Washer 0.5mm	3/4		
22	ED0046701330-S	Injector Gasket 1.5 mm	3/4		
22	ED0046701420-S	Injector Gasket 2.5 mm	3/4		
22	ED0046701430-S	Injector Gasket 2 mm	4		
22	ED0046701760-S	Injector Gasket 1 mm	3/4		
23	ED0085463700-S	Injector Fixing Bracket	4		
24	ED0076253790-S	washer	4		
25	ED0098202580-S	Bracket Screw	4		
26	ED0097610450-S	Screw M6x16	1		
27	ED0036172550-S	Clamp	1		
27	ED0036302000-S	Clamp	1		
28	ED0093764170-S	Kit HP Injection Pipes	1	(A)	
30	ED0096610200-S	SCV valve Kit	1		
41	ED0036172530-S	Clamp	2		
42	ED0036300040-S	Clamp	1		
43	ED0036172510-S	Clamp	3		
45	ED0085465990-S	Bracket	1		
46	ED00323R0070-S	Nut	1		

# Camshaft

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 803570080

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0014101980-S	Pushrod	6		
2	ED0072151780-S	Tappet	6		
3	ED0010110370-S	Camshaft	1		
4	ED0022000020-S	Key	1		
5	ED0012400570-S	Snap Ring	1		
6	ED0017801040-S	Bolt	1		

## 8035700100

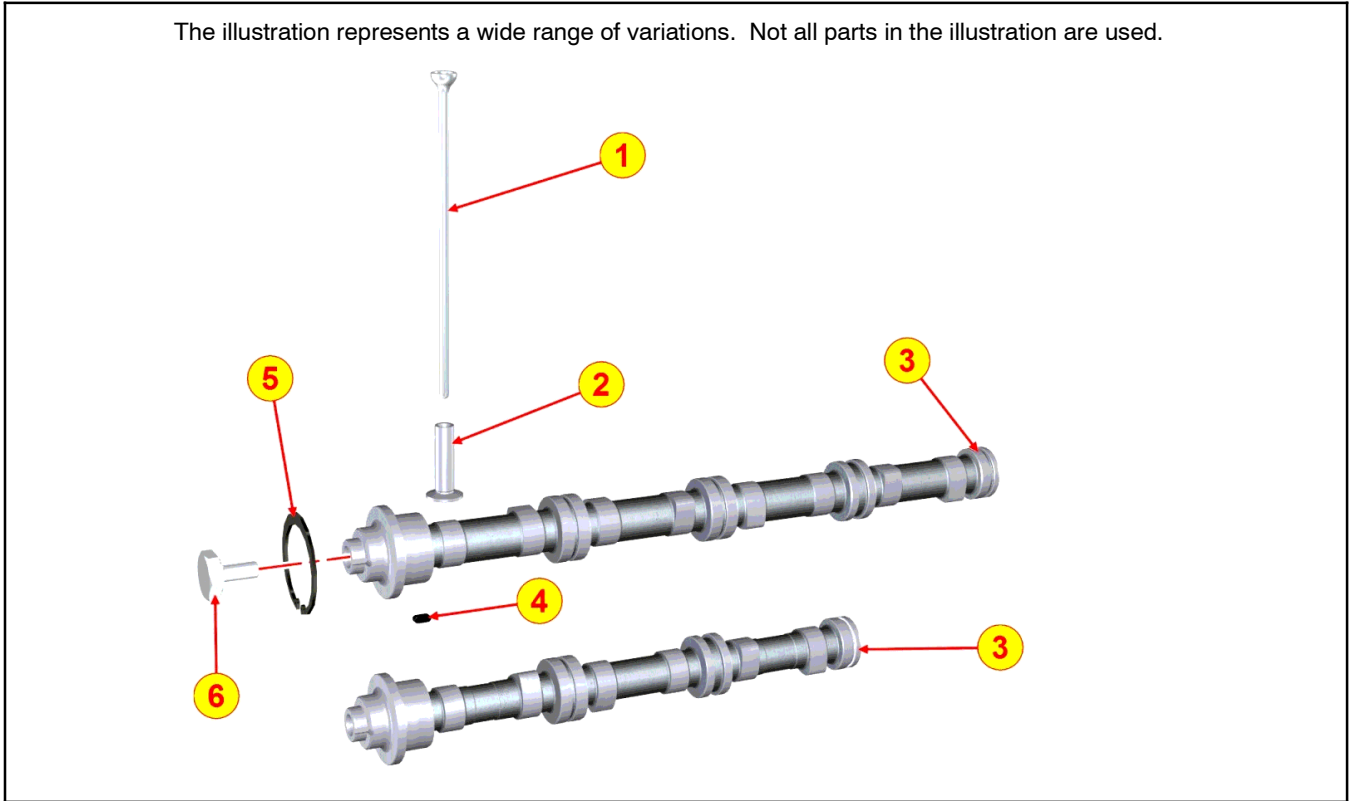
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0014101980-S	Pushrod	8		
2	ED0072151780-S	Tappet	8		
3	ED0010119950-S	Camshaft KDI2504	1		
4	ED0022000020-S	Key	1		
5	ED0012400570-S	Snap Ring	1		
6	ED0017801040-S	Bolt	1		

## 8035700140

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0014100010-S	Pushrod	8		
2	ED0072151820-S	Tappet	8		
3	ED0010101740-S	Camshaft	1		
4	ED0022000020-S	Key	1		
5	ED0012400570-S	Snap Ring	1		
6	ED0017801040-S	Bolt	1		

# Camshaft

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8035700160

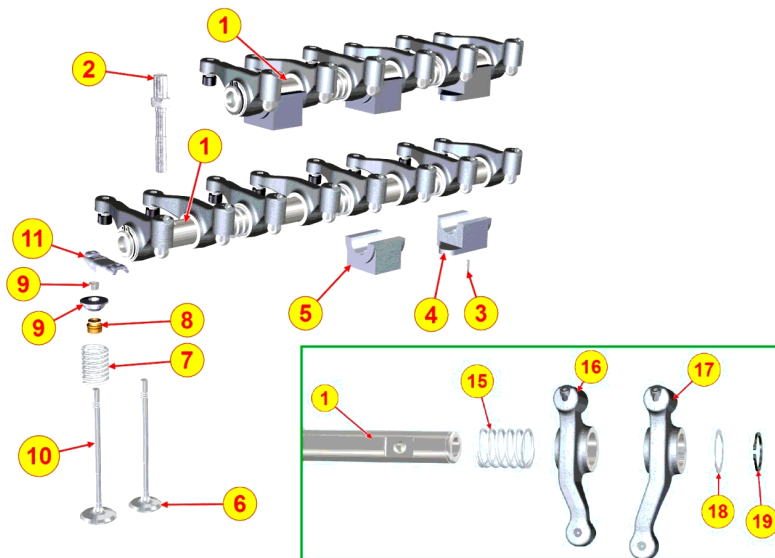
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0014100010-S	Pushrod	8		
2	ED0072151820-S	Tappet	8		
3	ED0010100390-S	Camshaft	1		
4	ED0022000020-S	Key	1		
5	ED0012400570-S	Snap Ring	1		
6	ED0017801040-S	Bolt	1		

## 8035700200

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0014100010-S	Pushrod	8		
2	ED0072151820-S	Tappet	8		
4	ED0022000020-S	Key	1		
5	ED0012400570-S	Snap Ring	1		
6	ED0017801040-S	Bolt	1		

# Rocker Arms/Valves

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8036700110

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0043300700-S	Rocker Arm Assy. KDI 2504	1		
2	ED0017702250-S	Hexagon Head Screw M8x50	4		
6	ED0096851910-S	Exhaust Valve	8		
7	ED0057551810-S	Intake And Exhaust Valve Spring	16		
8	ED0012611180-S	Anello Ten./Grommet D 10	16		
9	ED0064101450-S	Retainer Assy. KDI	4		
10	ED0096521970-S	Inlet Valve	8		
11	ED0021831150-S	Valves Bridge	8		

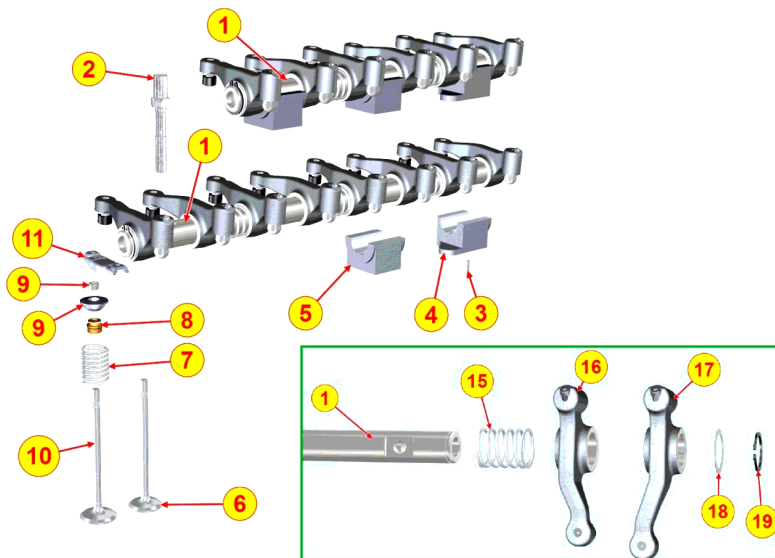
## 8036700120

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0043300690-S	Rocker Arm Assy. KDI 1903	1		
2	ED0017702250-S	Hexagon Head Screw M8x50	3		
6	ED0096851910-S	Exhaust Valve	6		
7	ED0057551810-S	Intake And Exhaust Valve Spring	12		
8	ED0012611180-S	Anello Ten./Grommet D 10	12		
9	ED0064101450-S	Retainer Assy. KDI	3		
10	ED0096521970-S	Inlet Valve	6		
11	ED0021831150-S	Valves Bridge	6		
20	ED0060001270-S	Pastiglia/Exp.Plug N 10	6		
21	ED0072151620-S	Hydraulic Tappet	6		



# Rocker Arms/Valves

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8036700200

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0060452130-S	Rocker Arm Assy. KDI 2504	1	(A)	
2	ED0098202530-S	Screw	4		
3		Item. 1			(A)
4		Item. 1			(A)
5		Item. 1			(A)
6	ED0096851910-S	Exhaust Valve	8		
7	ED0057551850-S	Spring	16		
8	ED0012611300-S	Seal Ring	16		
9	ED0064101450-S	Retainer Assy. KDI	12/ 16		
10	ED0096521970-S	Inlet Valve	8		
11	ED0021831240-S	Valves Bridge	8		
15	ED0056150170-S	Rocker Arm Shaft Spring	3		(A)
16	ED0015413320-S	Exhaust Rocker Arm	4		(A)
17	ED0015413310-S	Intake Rocker Arm	4		(A)
18	ED0077012830-S	Rocker Arm Pin Washer	2		(A)
19	ED0012401020-S	Seeger Pin	2		(A)

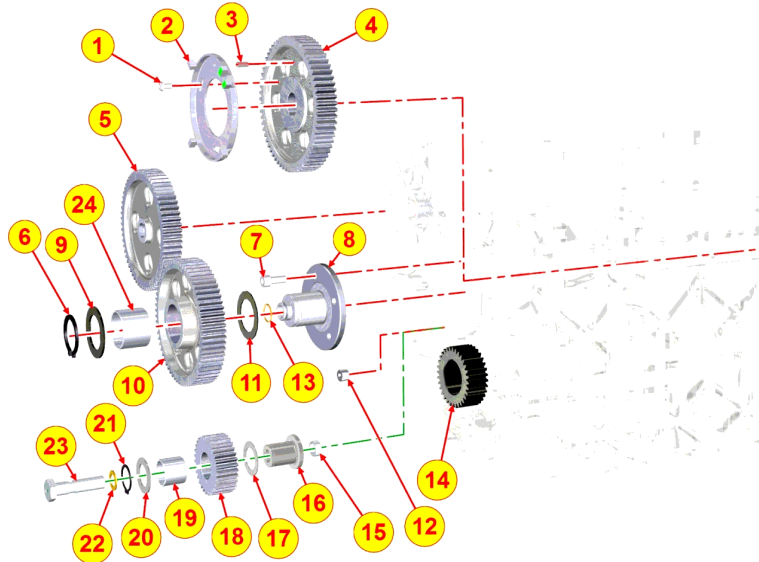
## 8036700230

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0060452050-S	Rocker Arm Assy. KDI 2504	1		
2	ED0017702250-S	Hexagon Head Screw M8x50	4		
6	ED0096851910-S	Exhaust Valve	8		
7	ED0057551850-S	Intake And Exhaust Valve Spring	16		
8	ED0012611300-S	Seal Ring	16		
9	ED0064101450-S	Retainer Assy. KDI	4		
10	ED0096521970-S	Inlet Valve	8		
11	ED0021831210-S	Valves Bridge	8		
16	ED0015413320-S	Exhaust Rocker Arm	4		
17	ED0015413310-S	Intake Rocker Arm	4		



# Timing Gear

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8038700120

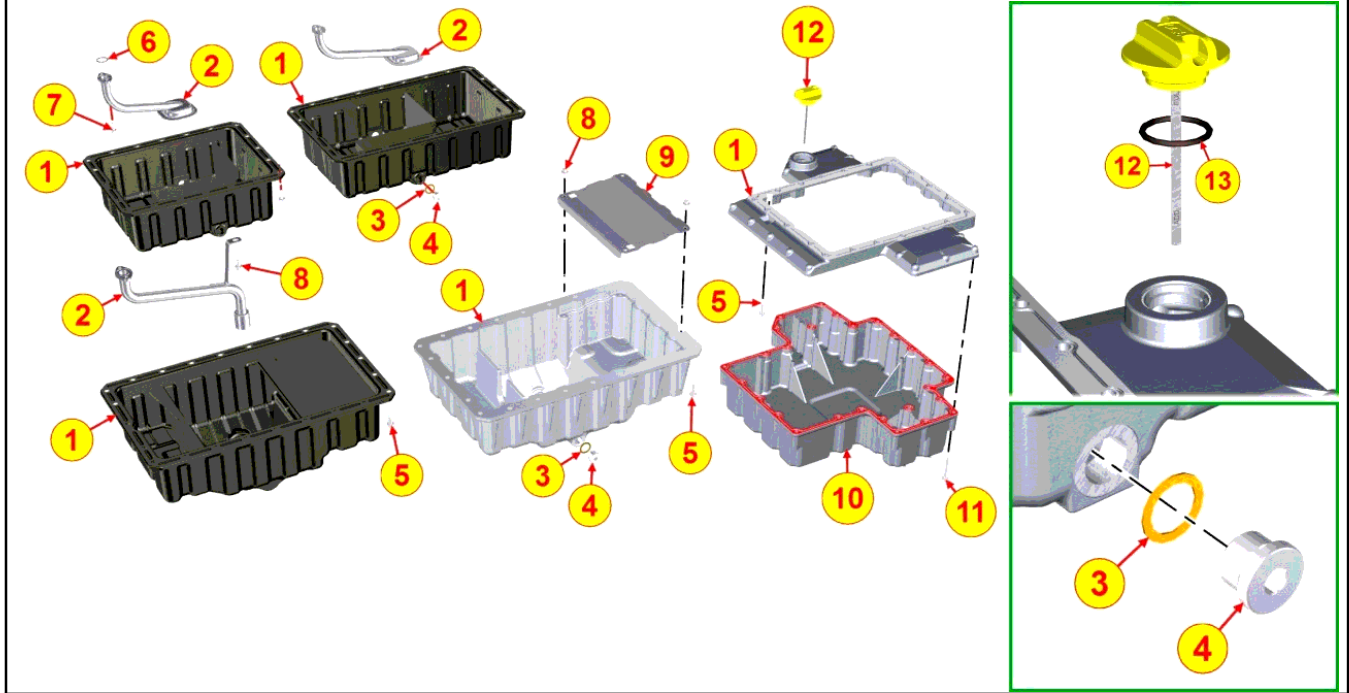
Item	Part No.	Description	Qty.	Kit	Included in Kit
4	ED0049363410-S	Gear	1		
5	ED0049363430-S	Gear	1		
6	ED0012410700-S	Snap Ring D.36	1		
7	ED0097320740-S	Capscrew	4		
8	ED0061301140-S	Intermediate Gear Pin	1		
9	ED0012571810-S	Intermed. Gear Shoulder Ring	1		
10	ED0049363450-S	Gear	1		
11	ED0012571570-S	Thrust Bearing	1		
12	ED0089650970-S	Cap M14x1,5	1		
13	ED0012002190-S	O Ring	1		
14	ED0049363400-S	Gear	1		
24	ED0015801540-S	Bushing	1		(B)

## 8038700130

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0017702270-S	Screw M5x10	3		(A)
2	ED0078151330-S	Camshaft Timing Wheel	1		(A)
3	ED0084000100-S	Pin	1		(A)
4	ED0049363410-S	Gear	1		
5	ED0049363430-S	Gear	1		
6	ED0012410700-S	Snap Ring	1		
7	ED0097320740-S	Screw M8x20	4		
8	ED0061301140-S	Intermediate Gear Pin	1		
9	ED0012571810-S	Intermed. Gear Shoulder Ring	1		
10	ED0049363450-S	Gear	1	(B)	
11	ED0012571570-S	Thrust Bearing	1		
13	ED0012002190-S	O Ring	1		
14	ED0049363400-S	Gear	1		
15	ED0019705160-S	Sleeve	1		
16	ED0061301150-S	Gear Pin	1		
17	ED0012572760-S	Thrust Washer	1		
18	ED0049363530-S	Idler Gear Assembly	1	(C)	
19	ED0015802890-S	Bushing	1		(C)
20	ED0012572750-S	Thrust Washer	1		
21	ED0012400940-S	Snap Ring	1		
22	ED0046700160-S	Gasket	1		
23	ED0019011990-S	Drill Screw M14	1		
24	ED0015801540-S	Bushing	1		(B)

# Oil Pan

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8041700140

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0066458680-S	KDI 2504 Oil Sump Assy	1	(A)	
2	ED0093202280-S	Intake Pipe	1		
3	ED0046700880-S	Gasket	2		(A)
4	ED0090400260-S	Cap	2		(A)
5	ED0097660060-S	Torx Screw	24		
6	ED0012002260-S	O Ring	1		
7	ED0017601510-S	Hex. Bolt Screw M6x16	2		
8	ED0017601960-S	Capscrew M6x12	1		(A)
16	ED0047761000-S	Gasket	1		

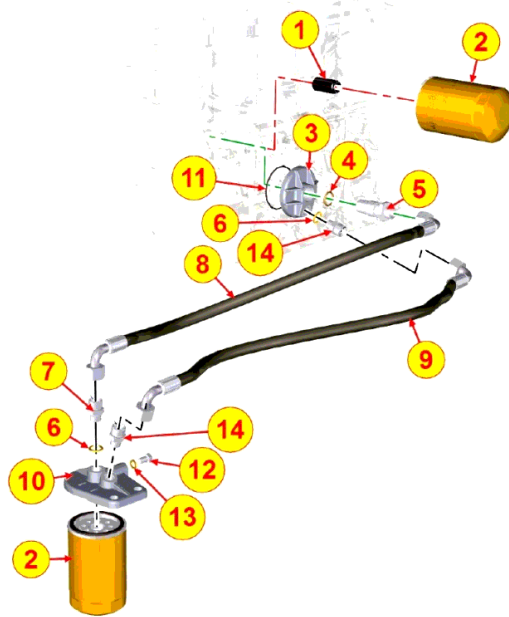
## 8041700150

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0066458300-S	KDI 1903 Oil Sump Assy	1	(A)	
2	ED0093202270-S	Intake Pipe	1		
3	ED0046700880-S	Gasket	2		(A)
4	ED0090400260-S	Cap	2		(A)
5	ED0097660060-S	Torx Screw	20		
6	ED0012002260-S	O Ring	1		
7	ED0017601510-S	Hex. Bolt Screw M6x16	2		
8	ED0017601960-S	Capscrew M6x12	1		(A)

# Oil Filter

8042700010

The illustration represents a wide range of variations. Not all parts in the illustration are used.

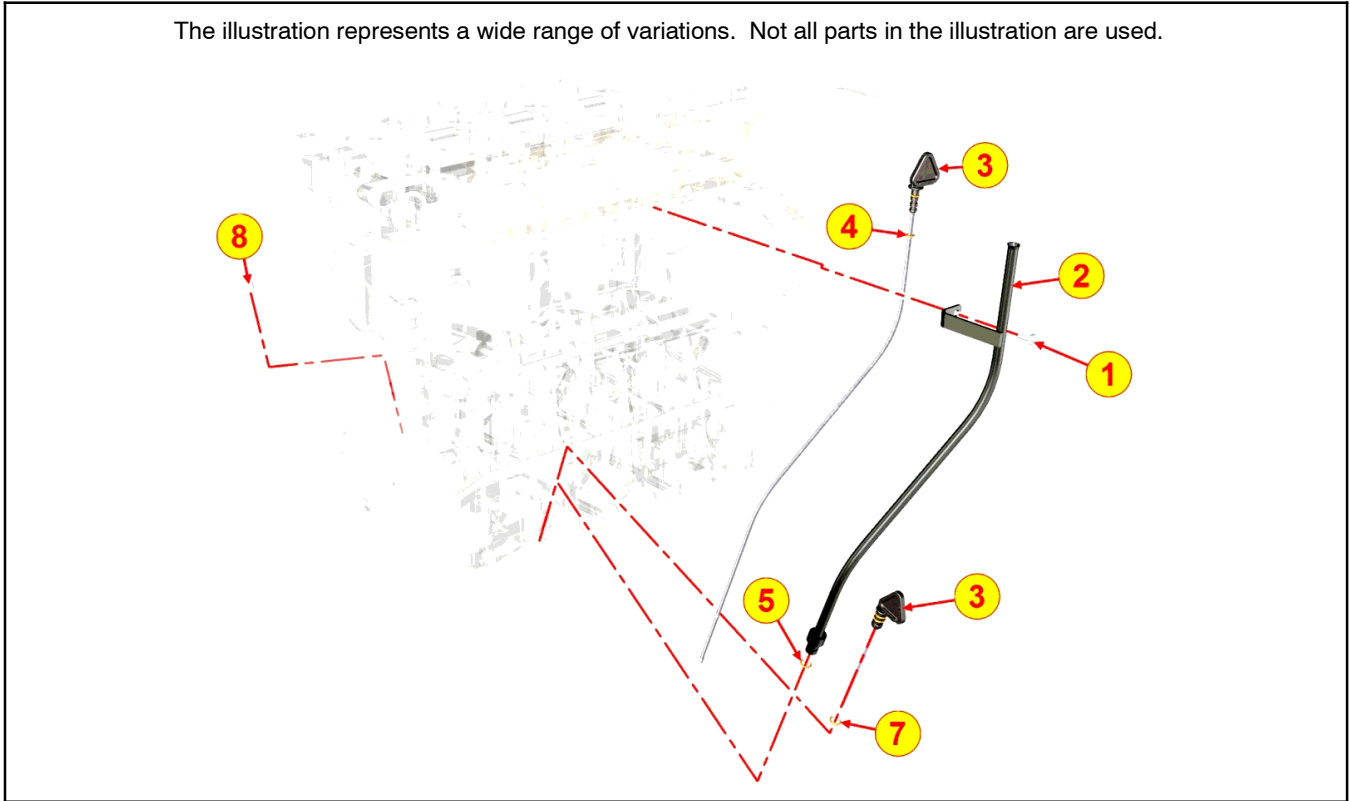


Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0072650210-S	Union	1		
2	ED0021752800-S	Oil Cartridge Kohler	1		
	GM103165	Oil, Synthetic 5W40	1		

# Oil Dipstick

8043700160

The illustration represents a wide range of variations. Not all parts in the illustration are used.



8043700160

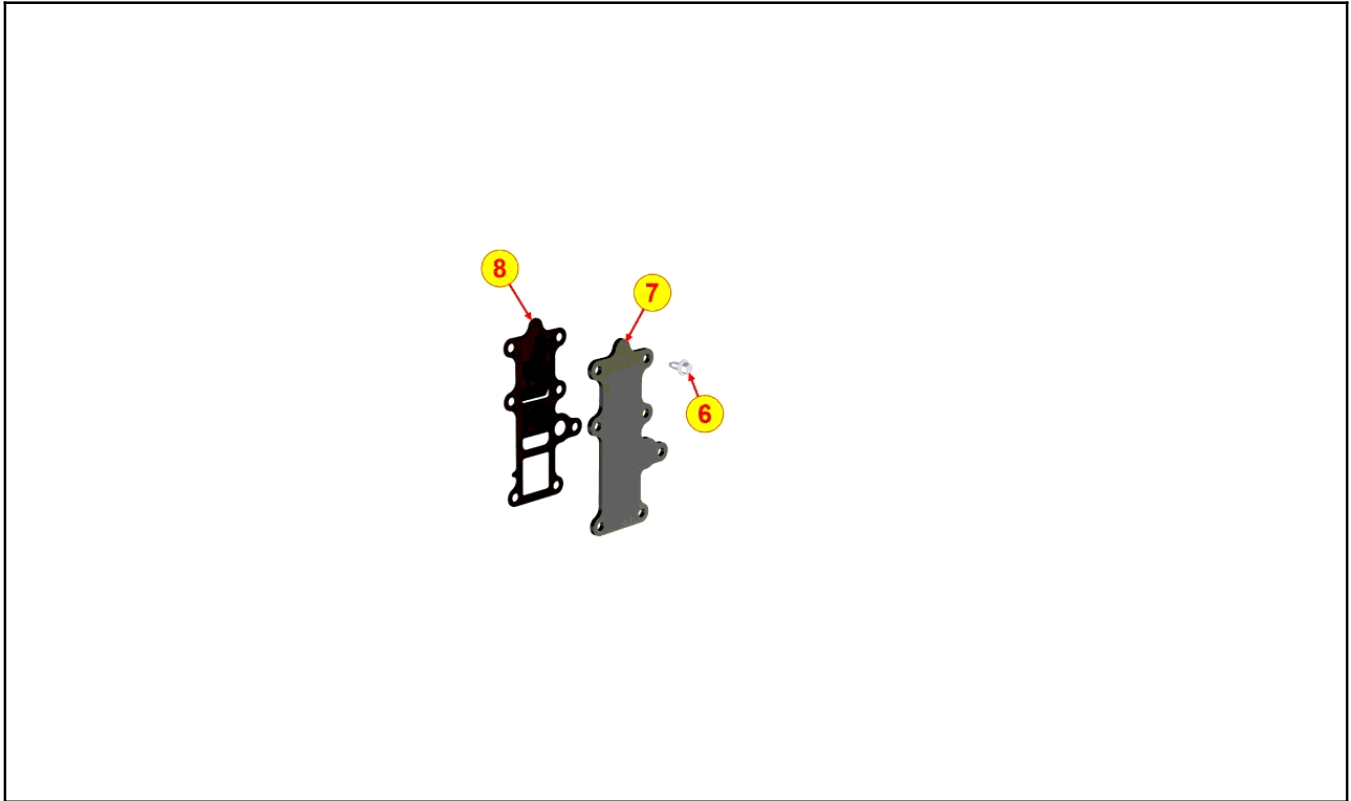
Item	Part No.	Description	Qty.	Kit	Included in Kit
3	ED0014005650-S	Dipstick	1	(A)	
8	ED0090802850-S	Plug Avseal D12 02964-01215	1		

8043700200

Item	Part No.	Description	Qty.	Kit	Included in Kit
3	ED0014005740-S	Dipstick	1	(A)	
7	ED0012003250-S	O ring	3		(A)
8	ED0090802850-S	Plug Avseal D12 02964-01215	1		

# Breather System

8045700150

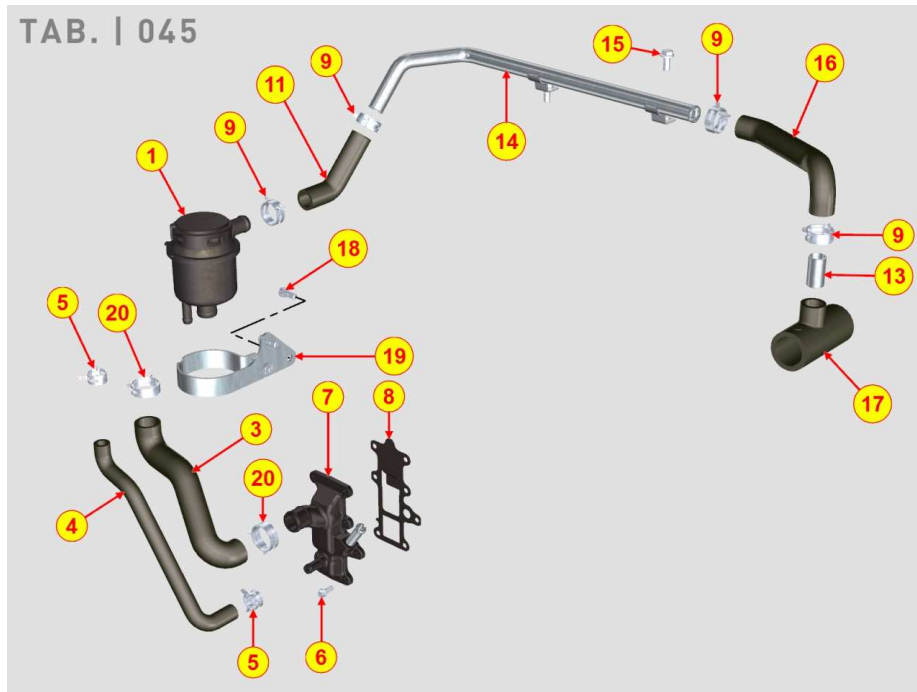


Item	Part No.	Description	Qty.	Kit	Included in Kit
6	ED0017601300-S	Bolt	7		
7	ED0063707640-S	Blow By Closing Flange	1		
8	ED0047757490-S	Blow By Cover Gasket	1		

# Breather System

8045700200

The illustration represents a wide range of variations. Not all parts in the illustration are used.

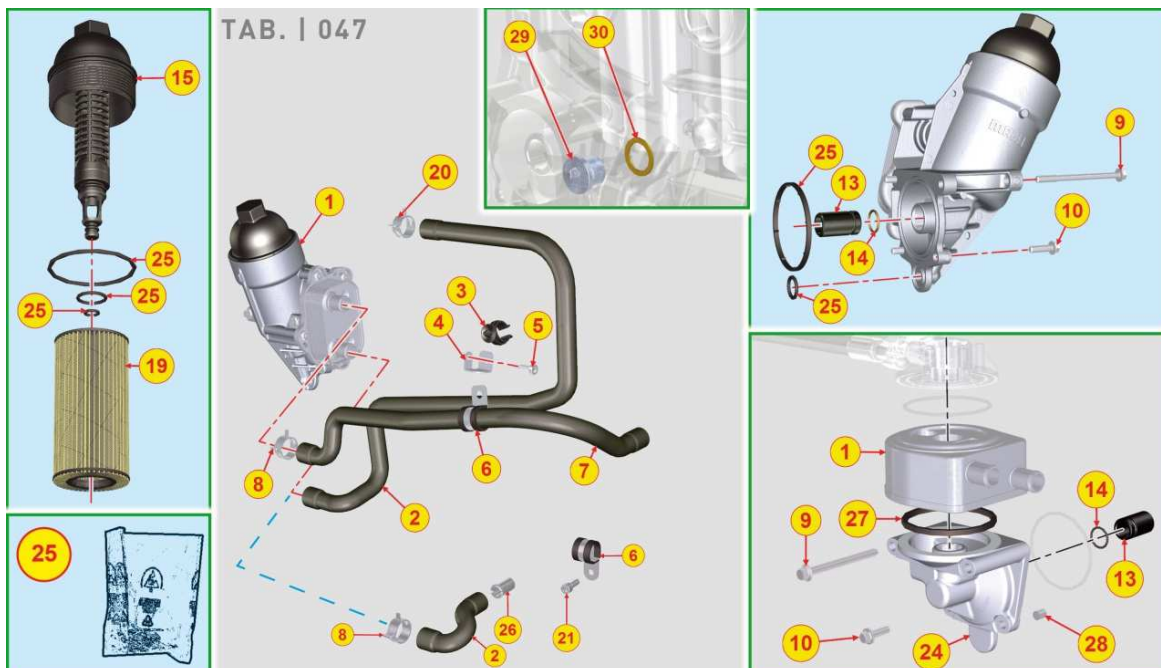


Item	Part No.	Description	Qty.	Kit	Included in Kit
0	ED0036300380-S	Clamp	1		
0	ED0097320630-S	Capscrew, M8x35	1		
1	ED0028713260-S	Oil separator mahle	1		
5	ED0036302440-S	Clamp	2		
6	ED0017601510-S	Screw, M6x16	7		
7	ED0038650020-S	Flange blow by assembly	1		
8	ED0047757490-S	Blow by cover gasket	1		
9	ED0036302480-S	Clamp	2		
11	ED0095801150-S	Drainage blow by pipe	1		
12	ED0036302460-S	Clamp	4		
15	ED0017701110-S	Screw, M8x18	2		

# Oil Cooler

8047700150

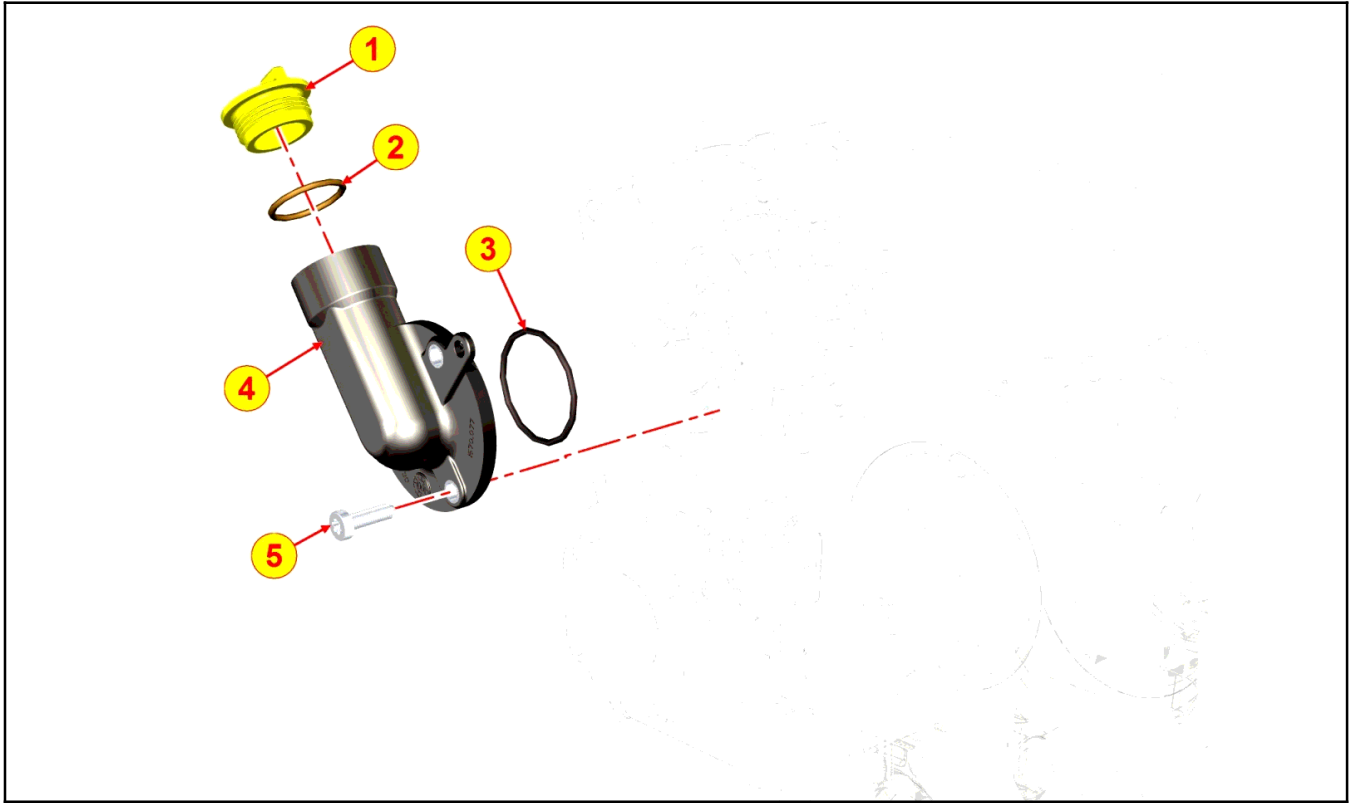
The illustration represents a wide range of variations. Not all parts in the illustration are used.



Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0037401690-S	Oil Cooler	1	(A)	
2	ED0093050050-S	Hose	1		
6	ED0036302060-S	Clamp	2		
6	ED0036172490-S	Clamp	2		
8	ED0036302450-S	Clamp	4		
9	ED0017601930-S	Screw, M6x85	2		
10	ED0017601310-S	Screw	2		
13	ED0072650700-S	Oil cooler Union	1		
14	ED0012004180-S	O Ring	1		
15	ED0027505400-S	Oil Filter Cover	1		(A)
19	ED0021750010-S	Oil Filter Cartridge	1	(B)	(A)
20	ED0036302420-S	Clamp	7		
21	ED0097300100-S	Screw, M6x16	1		
25	ED0081802150-S	Ring	1		(A) (B)
26	ED0072850010-S	Water Connection	2		

# Oil Filling Kit

8048700030



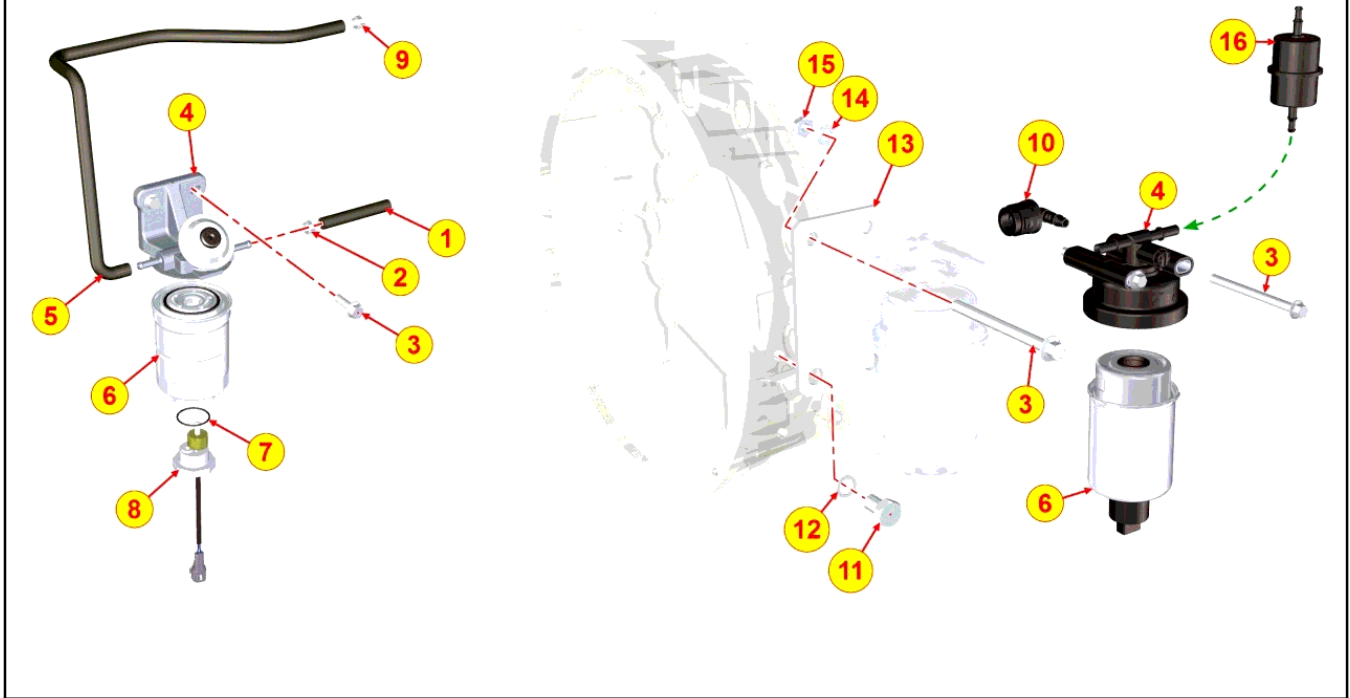
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0090321290-S	Plug	1		
2	ED0012000820-S	O Ring	1		
3	ED0012010980-S	Anello Oring 3168	1		
4	ED0015700770-S	Oil Fill Assy	1		
5	ED0097610460-S	Self Tapping Screw M6x20	3		



# Fuel Filter

8061700110

The illustration represents a wide range of variations. Not all parts in the illustration are used.



Item	Part No.	Description	Qty.	Kit	Included in Kit
3	ED0017702190-S	Hexagon Head M8x100	2		
4	ED0037501270-S	Diesel Fuel Filter	1	(A)	
6	ED0021753200-S	Fuel Filter Element	1		(A)
7		Order Item 4			(A)
8		Order Item 4			(A)
10	ED0050251230-S	Quick Connector 3/8 in.	1		
16	ED0037301210-S	Fuel Filter	1		

# Fuel Filter

8061700170

The illustration represents a wide range of variations. Not all parts in the illustration are used.

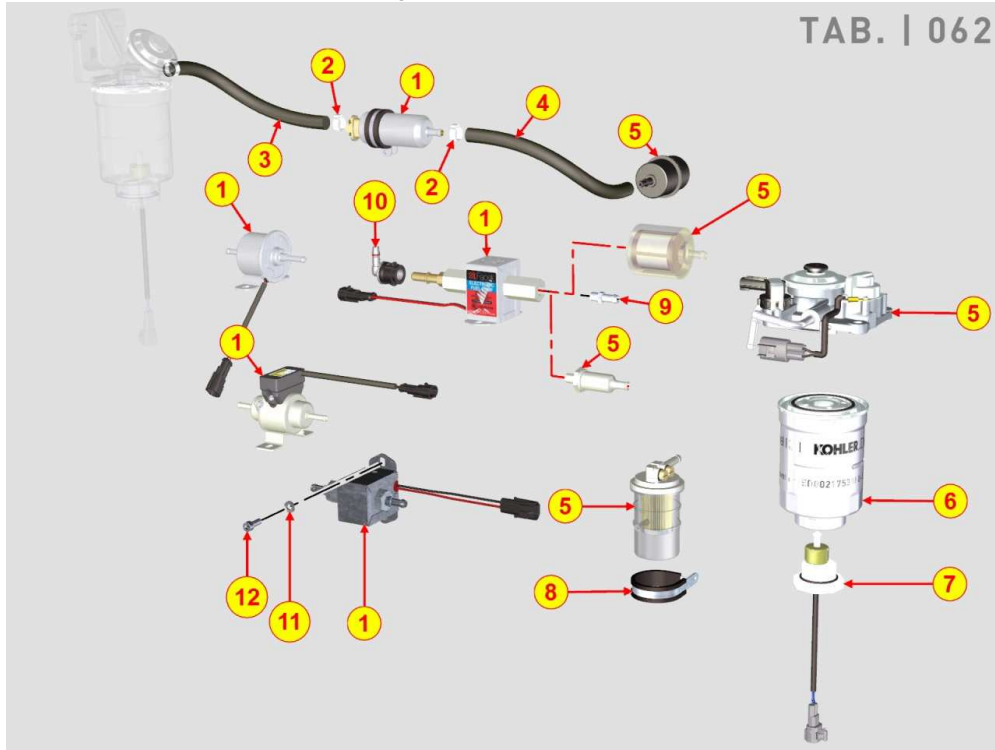


Item	Part No.	Description	Qty.	Kit	Included in Kit
3	ED0017701550-S	Bolt	2		
4	ED0037302160-S	Fuel Filter	1	(A)	
6	ED0021753180-S	Fuel Filter Element	1		(A)
7		> Item. 6			(A)
8		> Item. 4			(A)

# Fuel Feed Pump

8062700220

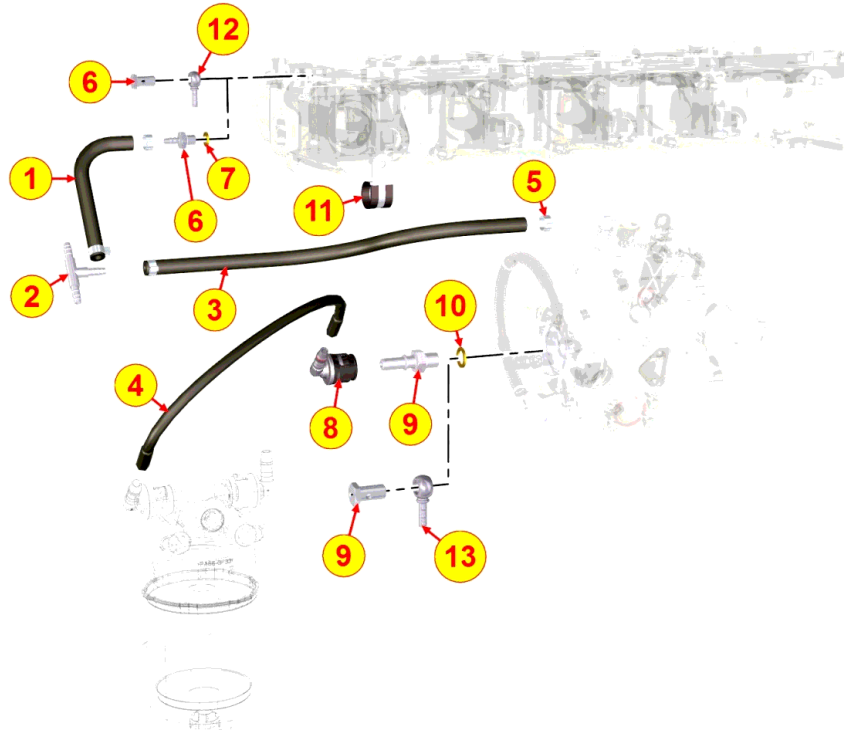
The illustration represents a wide range of variations. Not all parts in the illustration are used.



Item	Part No.	Description	Qty.	Kit	Included in Kit
5	ED0037302290-S	Fuel Filter	1	(B)	
6	ED0021750050-S	Fuel Filter cartridge	1		(B)

# Fuel Piping

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8064700040

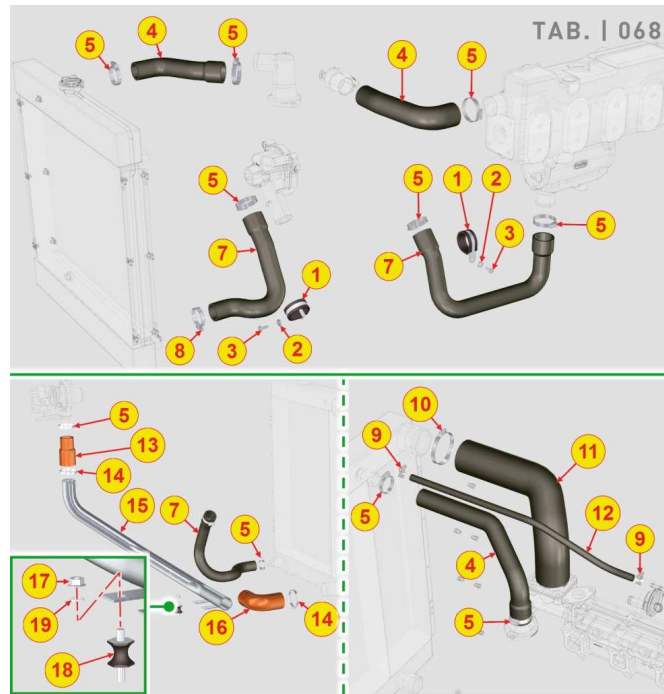
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0095712710-S	Fuel Tube	1		
2	ED0073010520-S	Union	1		
3	ED0095712720-S	Fuel Tube	1		
4	ED0093764430-S	Fuel Pipe	1	(A)	
5	ED0036300040-S	Clamp	4		
6	ED0072702720-S	Banjo Union On Pump Injection	1		
7	ED0046700580-S	Gasket	1		
8	ED0050251150-S	Joint 3/8 in.	2		(A)
9	ED0072702980-S	Union	1		
10	ED0046700600-S	C. Gasket	1		
11	ED0036171580-S	Hose Clamp D 10	1		

## 8064700100

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0095712710-S	Fuel Tube	1		
2	ED0073010520-S	Union	1		
3	ED0095712730-S	Fuel Tube	1		
4	ED0093764430-S	Fuel Pipe	1	(A)	
5	ED0036300040-S	Clamp	4		
6	ED0072702720-S	Banjo Union On Pump Injection	1		
7	ED0046700580-S	Gasket	1		
8	ED0050251230-S	Quick Connector 3/8 in.	2		(A)
9	ED0072702980-S	Union	1		
10	ED0046700600-S	C. Gasket	1		
11	ED0036171580-S	Hose Clamp D 10	1		

# Hoses For Water Cooler

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8068700120

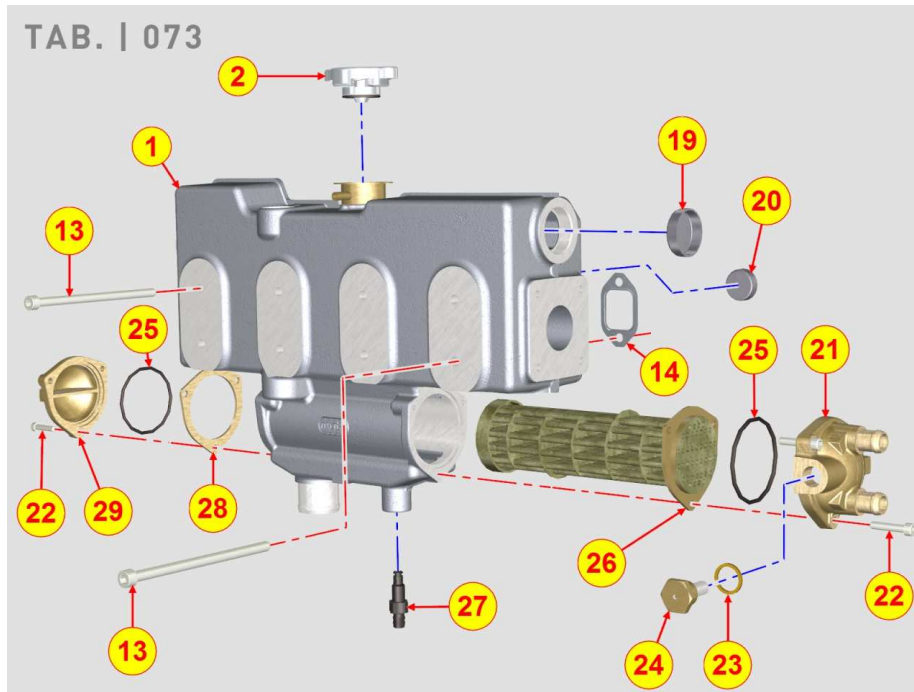
Item	Part No.	Description	Qty.	Kit	Included in Kit
2	ED0076250590-S	Washer	1		
3	ED0097610450-S	Self Tapping Screw M6x16	1		
4	ED0053650020-S	Connecting Hose	1		
5	ED0036300380-S	Hose Clamp	4		
7	ED0053650030-S	Connecting Hose	1		

## 8068700110

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0036171970-S	Clamp	1		
2	ED0076250590-S	Washer	1		
3	ED0097610450-S	Self Tapping Screw M6x16	1		
4	ED0053650020-S	Connecting Hose	1		
5	ED0036301280-S	Hose Clamp	4		
7	ED0053650010-S	Connecting Hose	1		

# Water Cooler

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8073700060

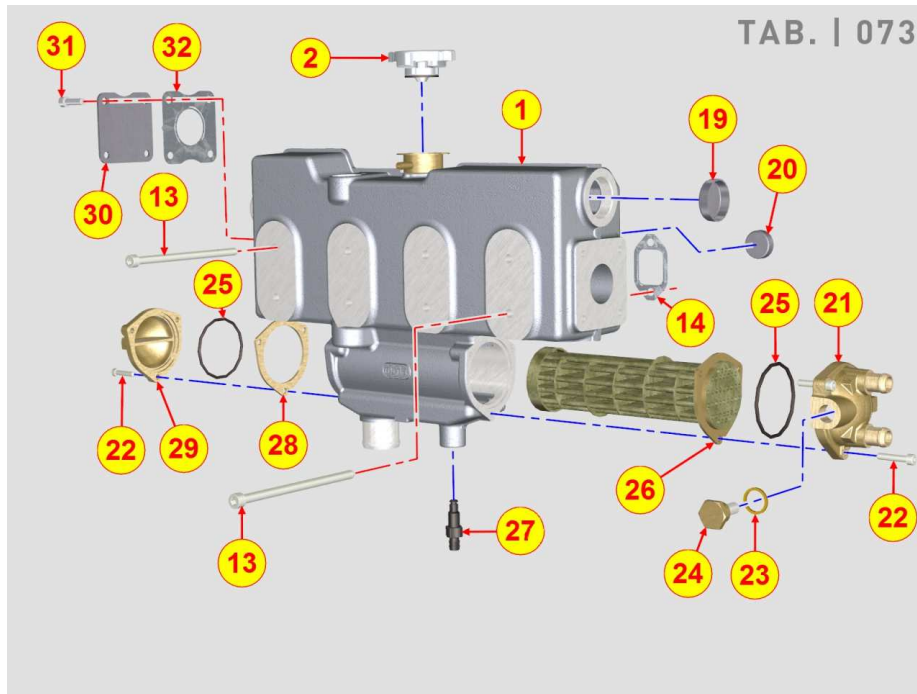
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0073504510-S	Heat Exchanger KDI1903M	1	B	
2	ED0090000010-S	Filler Cap R.Mota 37044	1		(B)
13	ED0097303260-S	Screw	6		
14	ED0044201260-S	Exhaust Manifold Gasket	3		
21	ED0020040020-S	Cover I/O r.mota 102959	1		(B)
22	ED0097300110-S	Screw, M6 x 30	6		(B)
23	ED0046700340-S	Gasket	1		(B)
24	ED0090802840-S	Plug	1		
25	ED0012000230-S	O- ring	4		(B)
26	ED0093400020-S	Mota element (Tubestack)	1		(B)
27	ED0090400010-S	Drain plug	1		(B)
28	ED0035270010-S	Spacer	1		(B)
29	ED0020040010-S	Cover	1		(B)

## 8073700050

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0073504500-S	Heat Exchanger KDI2504M	1	B	
2	ED0090000010-S	Filler Cap R.Mota 37044	1		(B)
13	ED0097303260-S	Screw	8		
14	ED0044201260-S	Exhaust Manifold Gasket	4		
21	ED0020040020-S	Cover I/O r.mota 102959	1		(B)
22	ED0097300110-S	Screw, M6 x 30	6		(B)
23	ED0046700340-S	Gasket	1		(B)
24	ED0090802840-S	Plug	1		(B)
25	ED0012000230-S	O- ring	4		(B)
26	ED0093400010-S	Mota element (Tubestack)	1		(B)
27	ED0090400010-S	Drain plug	1		(B)
28	ED0035270010-S	Spacer	1		(B)
29	ED0020040010-S	Cover	1		(B)

# Water Cooler

The illustration represents a wide range of variations. Not all parts in the illustration are used.



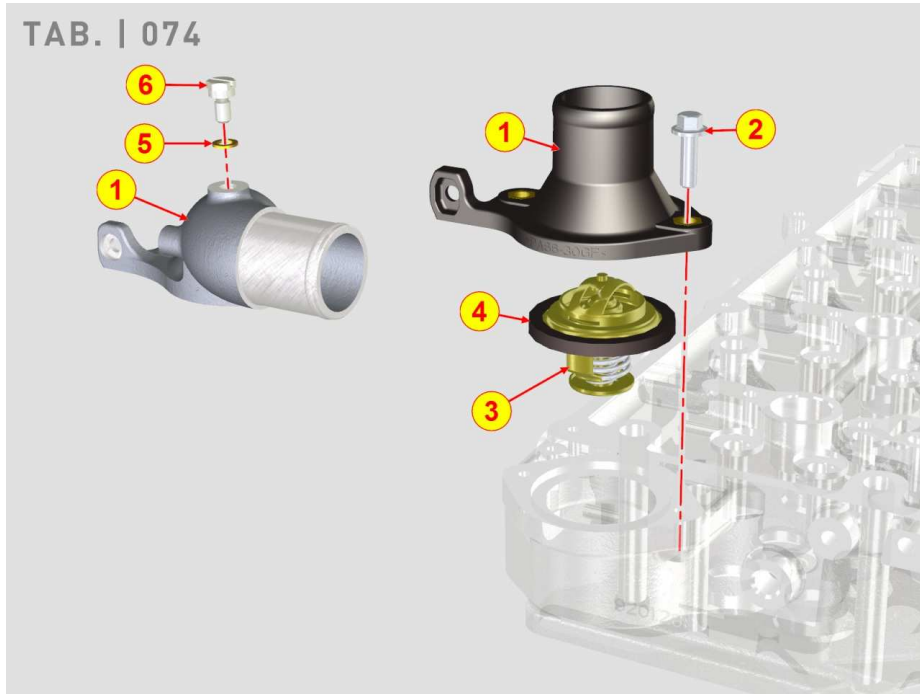
## 8073700180

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0073504710-S	Water exchanger	1	B	
2	ED0090002390-S	Plug	1		(A)
2	ED0090000010-S	Filler cap	1		(B)
13	ED0097303260-S	Screw	8		
14	ED0044201260-S	Exhaust manifold gasket	4		
22	ED0097300110-S	Screw M6 x 30	6		(B)
23	ED0046700340-S	Gasket	1		(B)
24	ED0090802840-S	Plug, M18 x 1.5	1		(B)
25	ED0012000230-S	O ring	4		(B)
27	ED0090400010-S	Drain plug	1		(B)
28	ED0035270010-S	Spacer	1		(B)
30	ED0063000010-S	Plate closure exhaust outlet	1		
31	ED0017701230-S	Screw	4		
32	ED0047600010-S	Gasket, exhaust	1		

# Thermostat Unit

8074700050

The illustration represents a wide range of variations. Not all parts in the illustration are used.

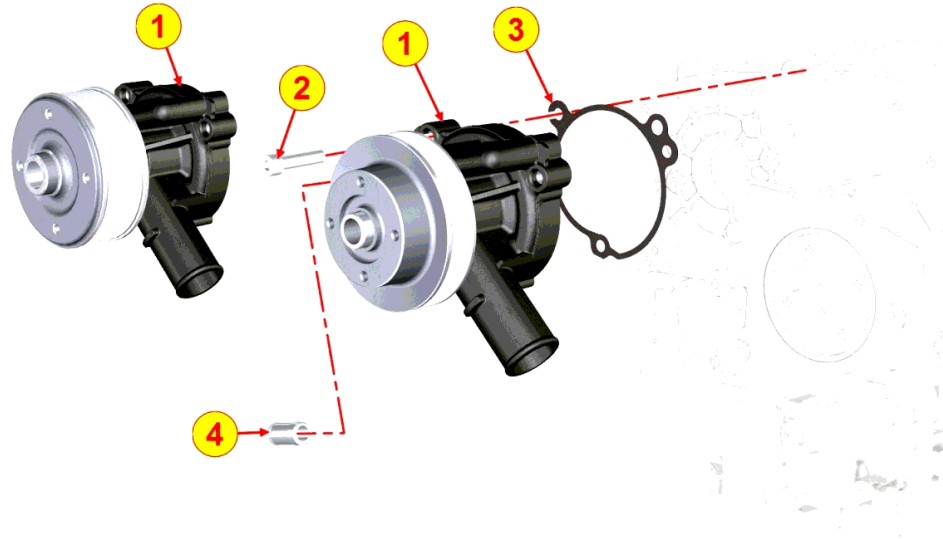


Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0027505770-S	Thermostat Cover	1		
2	ED0017601310-S	Bolt	2		
3	ED0091950030-S	Thermostat Valve Assembly	1	(A)	
4	ED0044201220-S	Gasket For Thermostatics Valve	1		(A)



# Water Pump

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8077700110

Item	Part No.	Description	Qty.	Kit	Included in Kit
2	ED0097320630-S	Capscrew	3		
3	ED0045802460-S	Water Pump Gasket	1		(A)
4	ED0089650960-S	Tapared Plug M16x1,5	1		

## 8077700230

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0065845310-S	Water Pump Assy.	1	A	
2	ED0097320630-S	Capscrew	3		
3	ED0045802460-S	Water Pump Gasket	1		(A)
4	ED0089650960-S	Tapared Plug M16x1,5	1		

## 8077700210

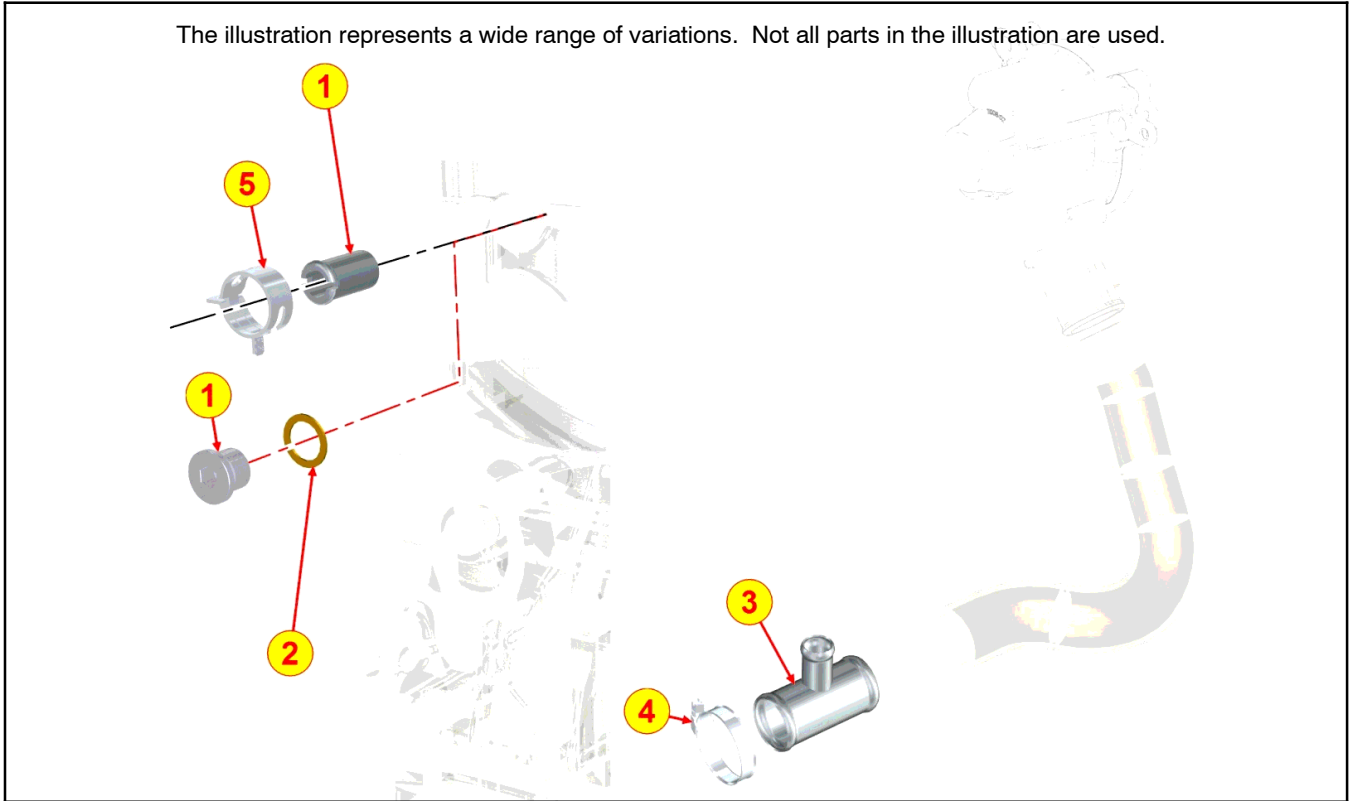
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0065845320-S	Water Pump Assy.	1	A	
2	ED0097320630-S	Capscrew	3		
3	ED0045802460-S	Water Pump Gasket	1		(A)
4	ED0072850010-S	Water Connection	1		

## 8077700240

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0065845310-S	Water Pump Assy.	1	A	
2	ED0097320630-S	Capscrew	3		
3	ED0045802460-S	Water Pump Gasket	1		(A)
4	ED0072850010-S	Water Connection	1		

# Fitting For Cab Heating

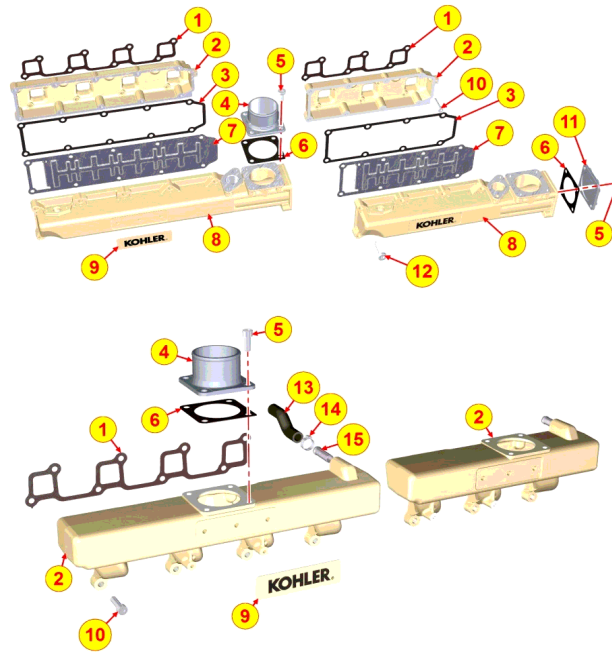
8079700010



Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0090400310-S	Cap	1		
2	ED0046700190-S	Gasket	1		

# Air Inlet Manifold

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8080700180

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0048200870-S	Intake Manifold Gasket	1		
2	ED0024866070-S	Intake Manifold KDI2504M	1	(A)	
5	ED0097320740-S	Capscrew	4		
6	ED0048200920-S	Intake Flange Gasket	1		
10	ED0097320640-S	Screw	8		
11	ED0063707710-S	Plate	1		
13	ED0095801200-S	Oil Breather	1		
14	ED0036301740-S	Fascetta/Clamp	10		
15	ED0095800640-S	Tube	1		(A)

## 8080700190

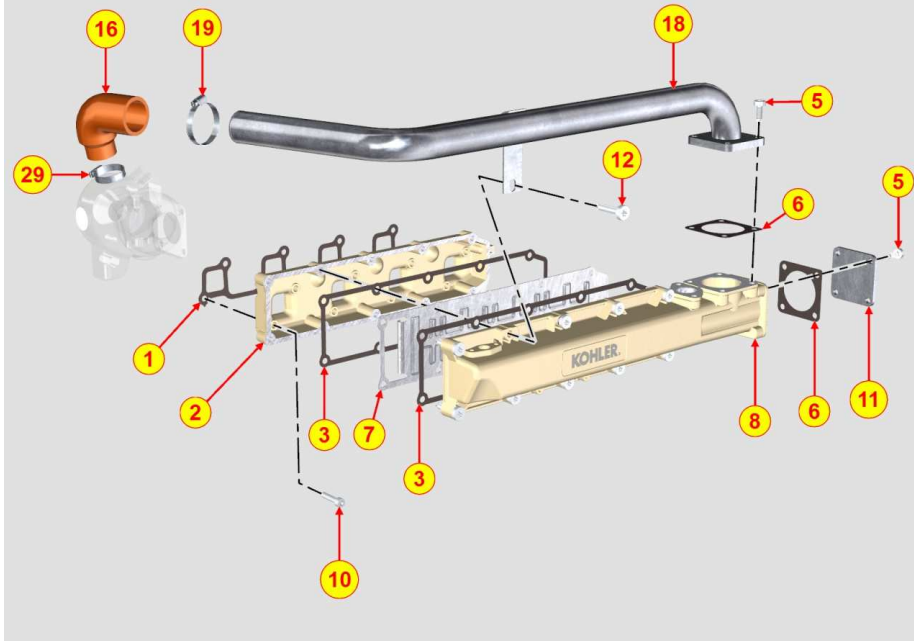
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0048200860-S	Intake Manifold Gasket	1		
2	ED0024866050-S	Intake Manifold KDI1903M	1	(A)	
5	ED0097320740-S	Capscrew	4		
6	ED0048200920-S	Intake Flange Gasket	1		
10	ED0097320640-S	Screw	6		
11	ED0063707710-S	Plate	1		
13	ED0095801200-S	Oil Breather	1		
14	ED0036301740-S	Fascetta/Clamp	10		
15	ED0095800640-S	Tube	1		(A)

## 8080700280

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0048200870-S	Intake Manifold Gasket	1		
2	ED0024866410-S	Intake Manifold KDI2504M	1	(A)	
4	ED0038661490-S	Intake Manifold Flange	1		
5	ED0097320740-S	Capscrew	4		
6	ED0048200920-S	Intake Flange Gasket	1		
10	ED0097320640-S	Screw	8		
13	ED0095801200-S	Oil Breather	1		
14	ED0036301740-S	Fascetta/Clamp	10		

# Air Inlet Manifold

The illustration represents a wide range of variations. Not all parts in the illustration are used.

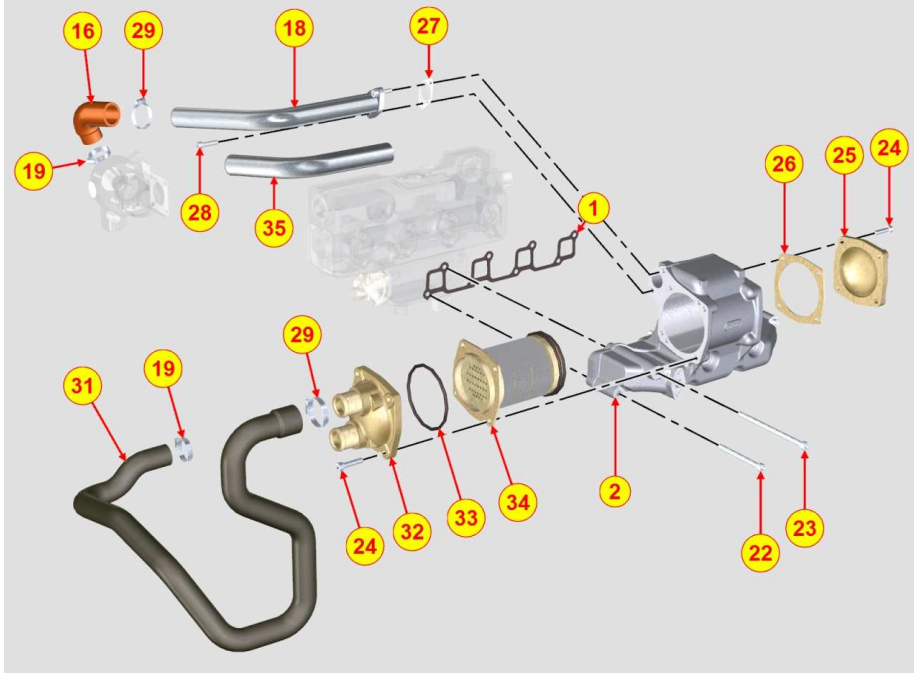


## 8080700350

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0048200870-S	Intake manifold gasket	1		
2	ED0024865960-S	Back intake manifold	1		
3	ED0048200960-S	Interm, intake manifold gasket	2		
5	ED0097610480-S	Screw, M8 x 22	4		
6	ED0048200920-S	Intake flange gasket	2		
7	ED0051111330-S	Intake manifold steel	1		
8	ED0024865970-S	Front intake manifold	1		
10	ED0097320630-S	Screw	8		
11	ED0063707710-S	Plate	1		
12	ED0097610500-S	Screw M8 x 42	10		
19	ED0036300380-S	Clamp d.32-50 SX9C W1	1		
29	ED0036301460-S	Clamp d.25-50 SX9C W1	1		

# Air Inlet Manifold

The illustration represents a wide range of variations. Not all parts in the illustration are used.



8080700360

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0048200870-S	Intake manifold gasket	1		
2	ED0073500020-S	Air water exchanger	1		
16	ED0054010040-S	Hose, turbo pipe connection	1		
18	ED0093462590-S	Pipe, turbo- CAC connection	1		
19	ED0036300380-S	Clamp	2		
22	ED0097302720-S	Screw	5		
23	ED0097303260-S	Screw	3		
27	ED0047600750-S	CAC pipe gasket	1		
28	ED0097302300-S	Screw	2		
29	ED0036301280-S	Clamp	2		
31	ED0093056470-S	Tube	1		
35	ED0069278720-S	Insulation	1		

# Exhaust Manifold

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8085700190

Item	Part No.	Description	Qty.	Kit	Included in Kit
3	ED0044201260-S	Exhaust Manifold Gasket	3		
11	ED0067802170-S	Stud 8x1,25x55	6		

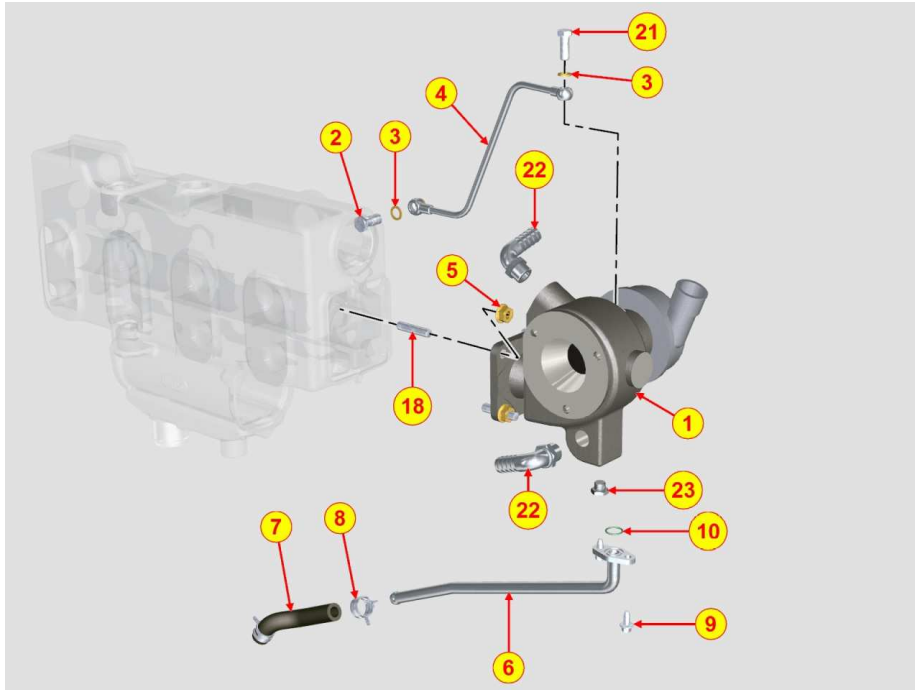
## 8085700180

Item	Part No.	Description	Qty.	Kit	Included in Kit
3	ED0044201260-S	Exhaust Manifold Gasket	4		
11	ED0067802170-S	Stud 8x1,25x55	8		

# Turbocharger

8083700180

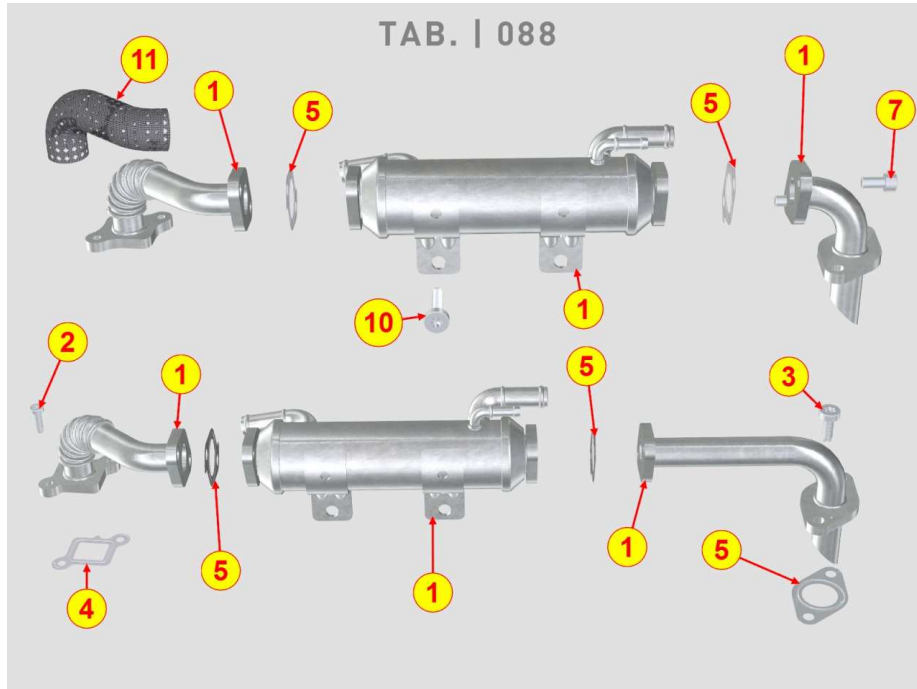
The illustration represents a wide range of variations. Not all parts in the illustration are used.



Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0096101090-S	Turbocharger	1		
2	ED0019010180-S	Bolt M10x22	1		
3	ED0046700580-S	Washer 8,2x12x1,5	2		
3	ED0046700590-S	Washer	2		
4	ED0094650010-S	Pipe, oil feed	1		
5	ED0032401650-S	Nut M8	4		
6	ED0095350040-S	Pipe, oil return	1		
6	ED0094000030-S	Hose, return of connection	1		
9	ED0017601300-S	Screw M6x12	2		
10	ED0012004110-S	O Ring	1		
18	ED0067802150-S	Stud M8x1,25x20	4		
19	ED0067800100-S	Stud M8x22	3		
21	ED0019010500-S	Bolt	1		
22	ED0073303610-S	Union	2		
23	ED0090802200-S	Plug	1		

# EGR System

The illustration represents a wide range of variations. Not all parts in the illustration are used.

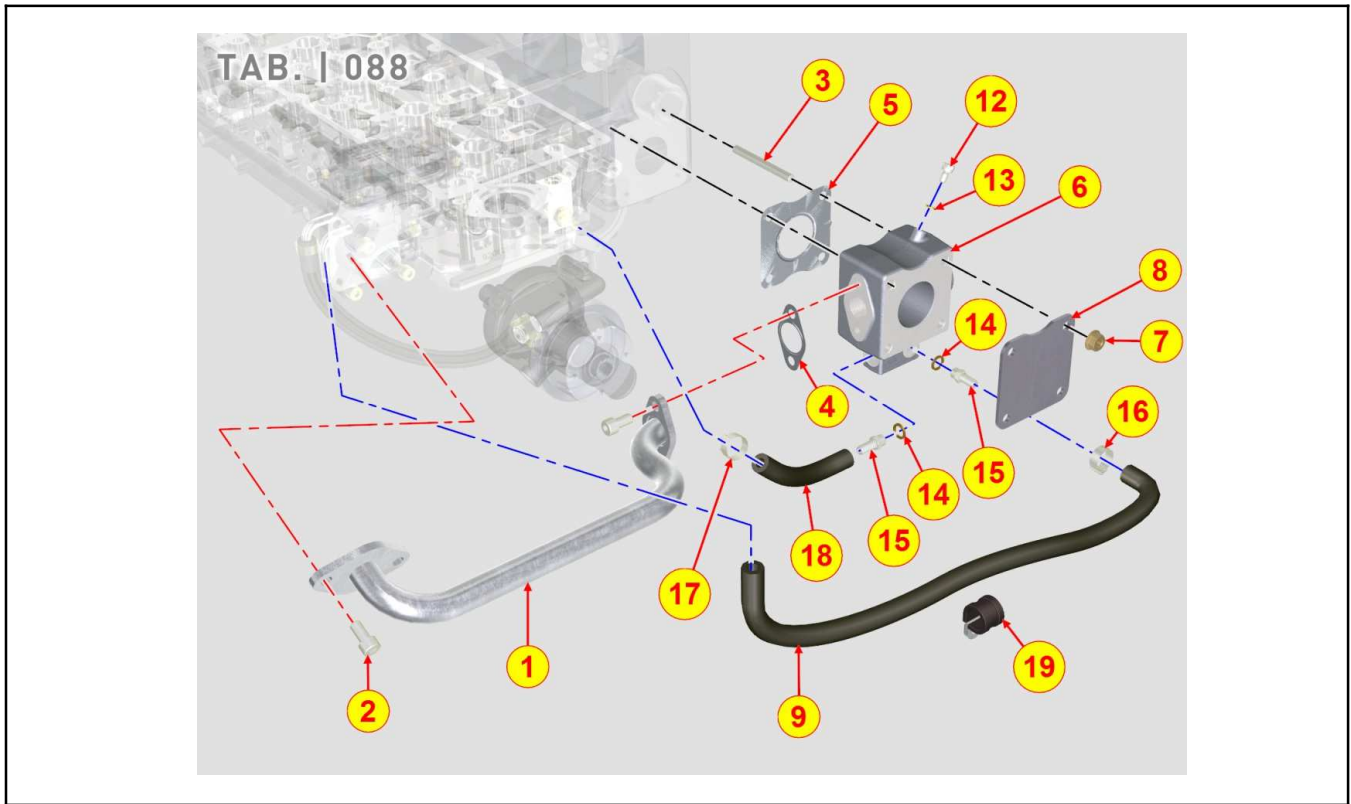


## 8088700100

Item	Part No.	Description	Qty.	Kit	Included in Kit
0	ED0076250610-S	Washer, plain	2		
0	ED0063707840-S	Plate	1		
3	ED0097610480-S	Screw M8 x 22	2		
5	ED0048200980-S	Gasket, inlet manifold	1		



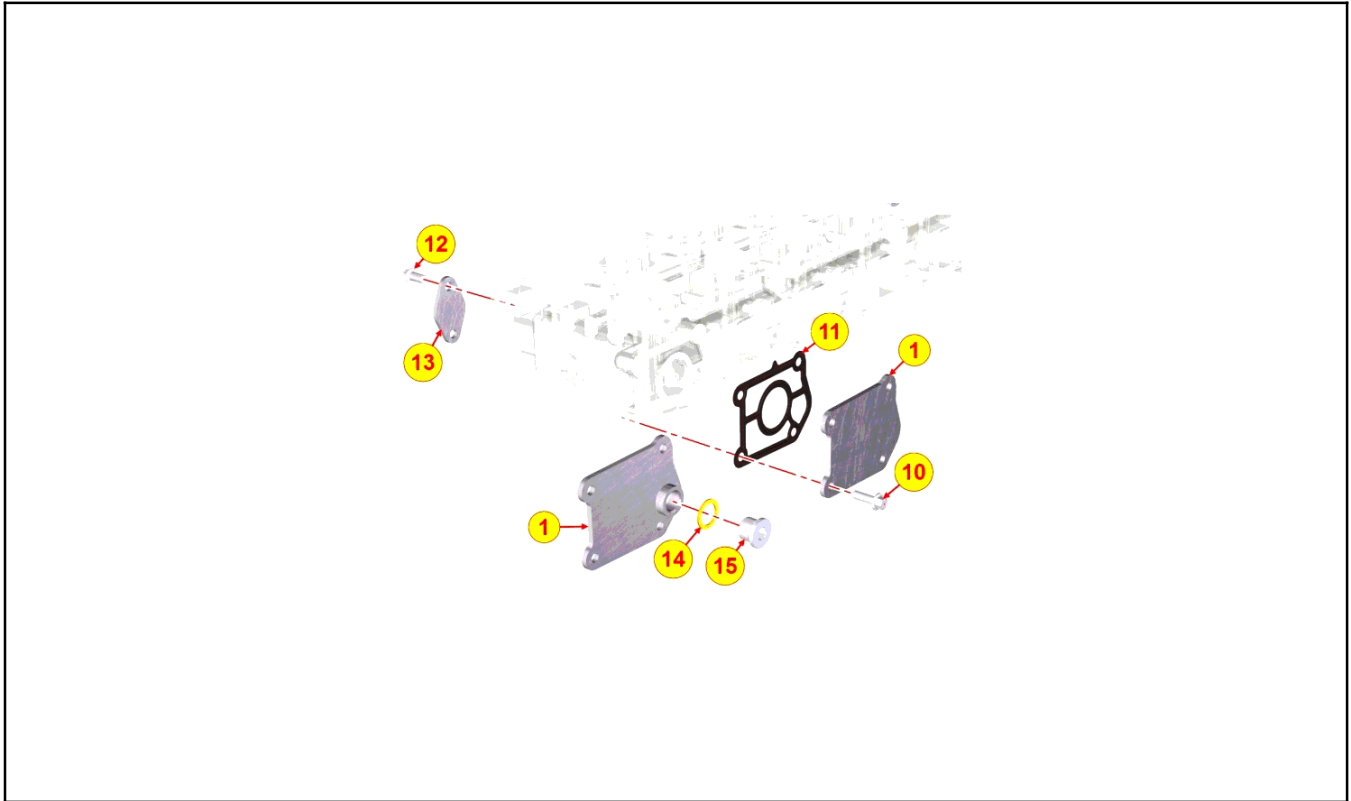
# EGR System



8088700130

Item	Part No.	Description	Qty.	Kit	Included in Kit
0	ED0069275760-S	Guard	1		
1	ED0093462550-S	Pipe, Connection EGR Assy	1		
2	ED0017701230-S	Screw	4		
3	ED0067800300-S	Stud	4		
4	ED0044201480-S	Gasket, Double Layer EGR Flg	1		
5	ED0044201230-S	Exhaust Gasket Man. EGR Side	2		
5	ED0047600010-S	Gasket, Exhaust	2		
6	ED0038250940-S	Flange, Assy Exha. Water Cool	1	B	
7	ED0032402100-S	Flanged Nut, M8x1.25	4		
8	ED0063000010-S	Plate Closure Exhaust Outlet	1		
9	ED0093056190-S	Pipe, Water 8x16	1		
12	ED0019011710-S	Screw	1		
13	ED0046700010-S	Gasket	1		
15	ED0073302870-S	Hose Connector	2		B
16	ED0036301200-S	Clamp	3		
17	ED0036300080-S	Clamp	1		
18	ED0093056180-S	Pipe, Water 8 X 16	1		
19	ED0036150090-S	Clamp	1		

# EGR Valve



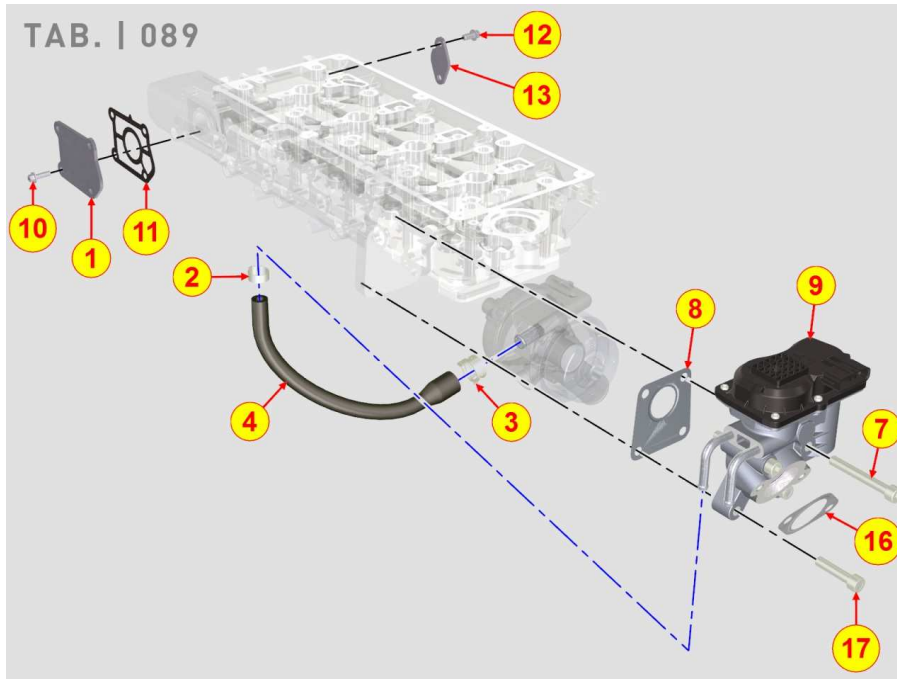
## 808970060

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0063700020-S	Plate	1		
10	ED0017601310-S	Bolt	4		
11	ED0047600660-S	Gasket	1		
12	ED0017701600-S	Bolt	2		
13	ED0063707690-S	EGR Lockup Flange Exhaust Side	1		
14	ED0046700190-S	Gasket	1		
15	ED0090400310-S	Cap	1		

## 808970040

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0063707620-S	EGR Lockup Flange Intake Side	1		
10	ED0017601310-S	Bolt	4		
11	ED0047600660-S	Gasket	1		
12	ED0017701600-S	Bolt	2		
13	ED0063707690-S	EGR Lockup Flange Exhaust Side	1		

# EGR Valve



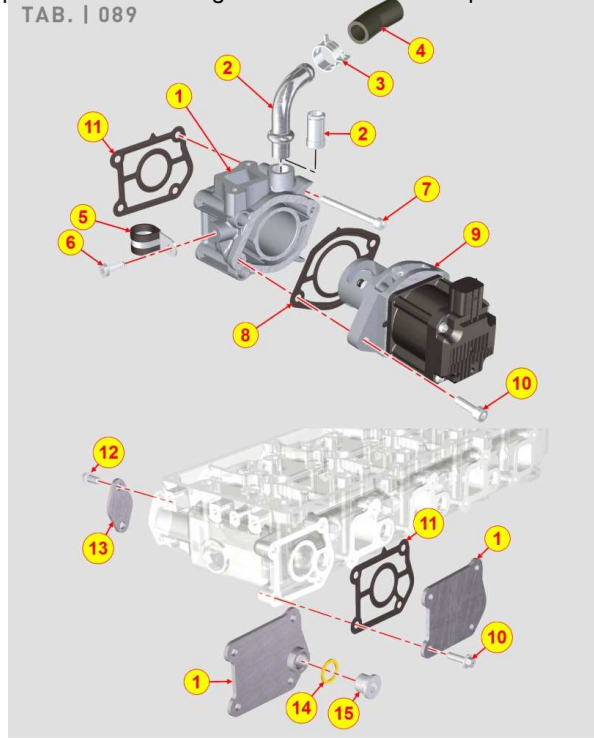
8089700110

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0063707620-S	ERG Lockup Flange Intake Side	1		
2	ED0036301200-S	Clamp	1		
3	ED0036302450-S	Spring Clamp	1		
4	ED0093056200-S	Pipe, Water 8 x 16	1		
7	ED0097301950-S	Screw	2		
8	ED0044200040-S	Gasket, EGR Valve	1		
9	ED0097002110-S	Valve, Electric EGR	1		
10	ED0017601310-S	Bolt	4		
11	ED0047600670-S	Gasket	1		
12	ED0017701600-S	Bolt	2		
13	ED0063707690-S	EGR Lockup Flange Ex. Side	1		
16	ED0044200030-S	Gasket, EGR Pipe Valve Side	1		
16	ED0044201470-S	Gasket, Double Layer EGR Valv	1		
17	ED0097302350-S	Screw	2		

# EGR Valve

The illustration represents a wide range of variations. Not all parts in the illustration are used.

TAB. | 089

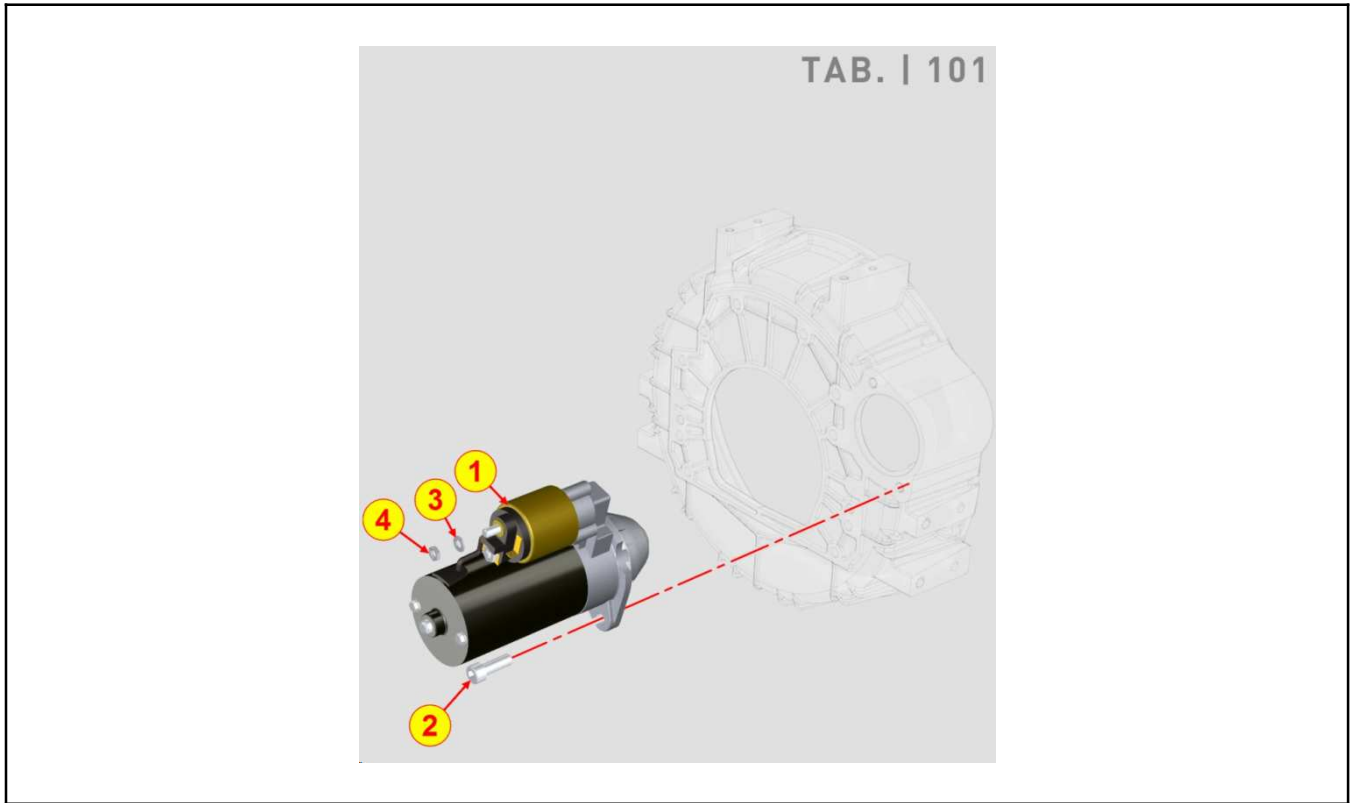


## 8089700140

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0063700020-S	Plate	1		
2		Item. 1		(A)	
10	ED0017601310-S	Bolt	4		
11	ED0047600670-S	Gasket	1		
12	ED0017701600-S	Bolt	2		
13	ED0063707690-S	EGR Lockup Flange Ex. Side	1		
14	ED0046700190-S	Gasket, EGR Pipe Valve Side	1		
15	ED0090400310-S	Plug	1		

# Starting Motor, 12 Volt

8101700010

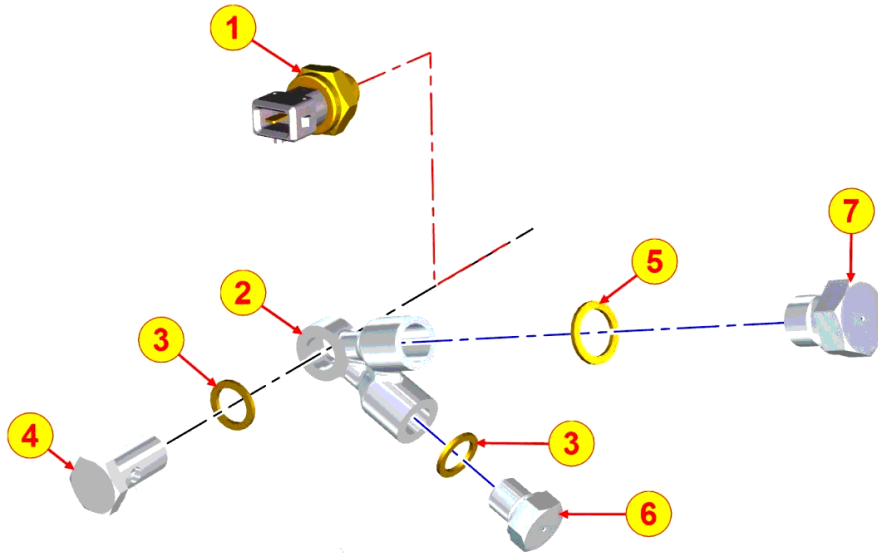


Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0058402810-S	Starter Motor	1		
2	ED0097300450-S	Allen Screw	2		
3	ED0075650070-S	Sp.Washer	1		
4	ED0032400180-S	Hex.Nut	1		

# Oil Pressure Switch

810270040

The illustration represents a wide range of variations. Not all parts in the illustration are used.

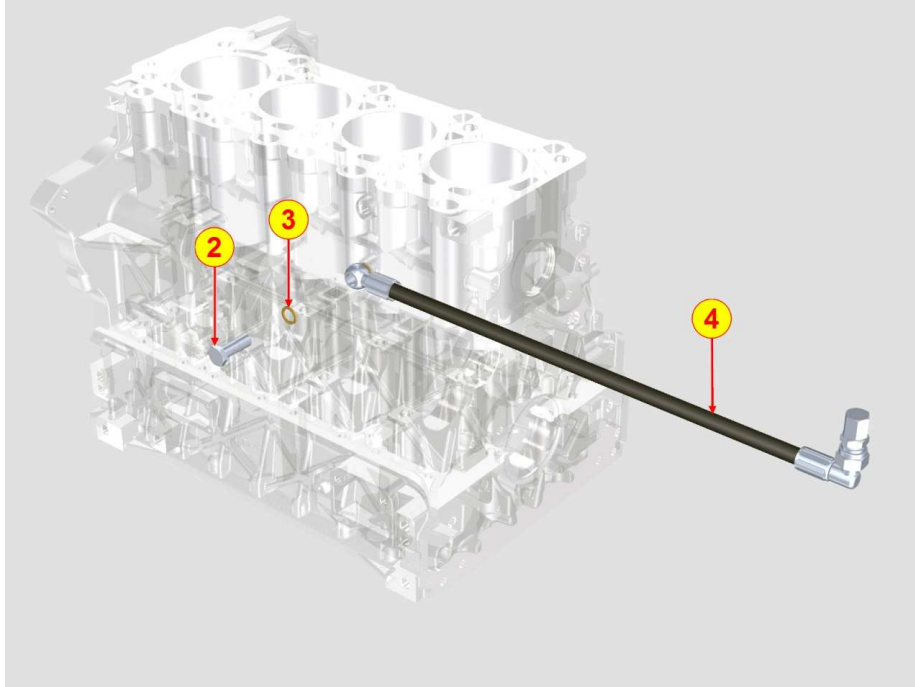


Item	Part No.	Description	Qty.	Kit	Included in Kit
2	ED0073302710-S	Raccordo/Union	1		
4	ED0019010400-S	Bolt	1		
5	ED0046700610-S	C.Gasket	1		
6	ED0089650030-S	Cap	1		
7	ED0089650050-S	Cap	1		

# Oil Pressure Switch

8102700100

The illustration represents a wide range of variations. Not all parts in the illustration are used.



Item	Part No.	Description	Qty.	Kit	Included in Kit
4	ED0019011750-S	Bolt	1		

# Electric Dashboard/Engine Wires

8103700570

The illustration represents a wide range of variations. Not all parts in the illustration are used.

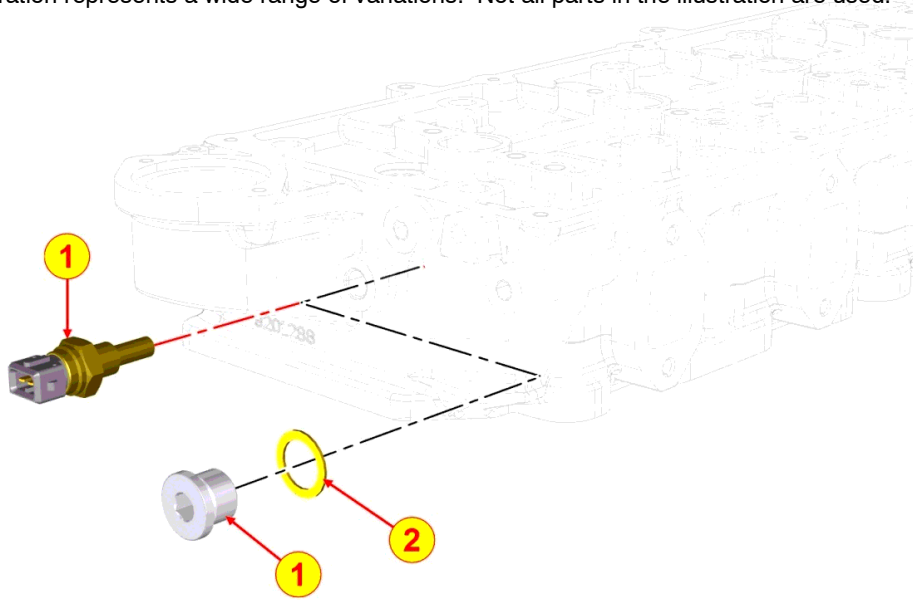


Item	Part No.	Description	Qty.	Kit	Included in Kit
1	-	Harness (See control & Harness)	1		
2	ED0097610450-S	Screw, M6x16	3		
5	-	Not used			
6	-	Not used			
24	-	Not used			
28	-	Not used			
39	-	Not used			



# Temperature Switches

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8104700010

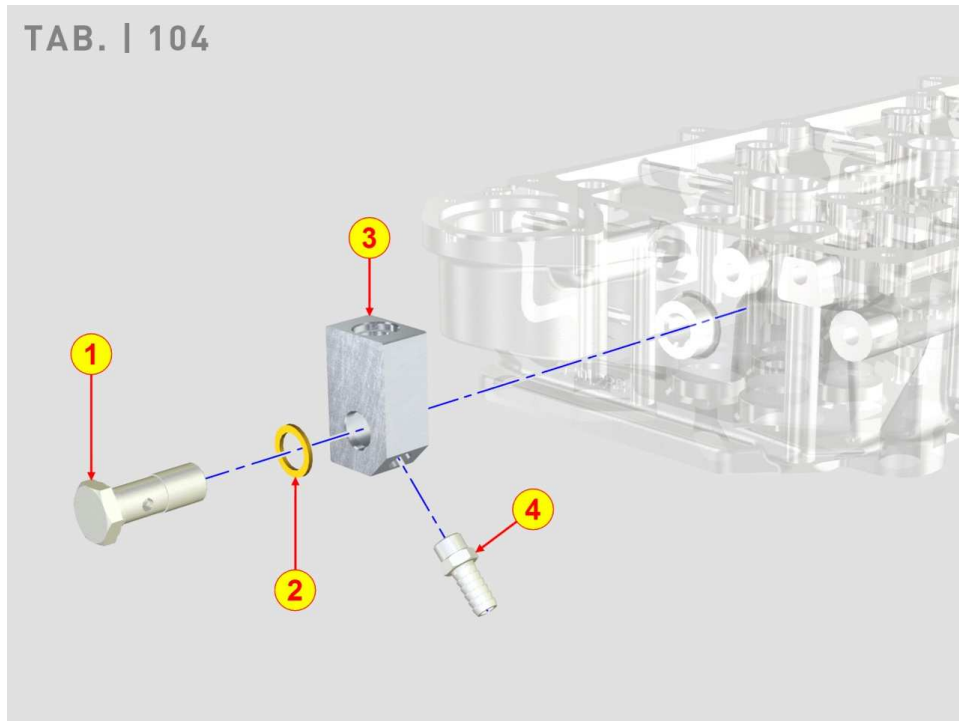
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0080891700-S	Water Temperature Sensor	1		

## 8104700030

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0090150050-S	Cap	1		
2	ED0046700600-S	Gasket	1		

# Temperature Switches

8104700060



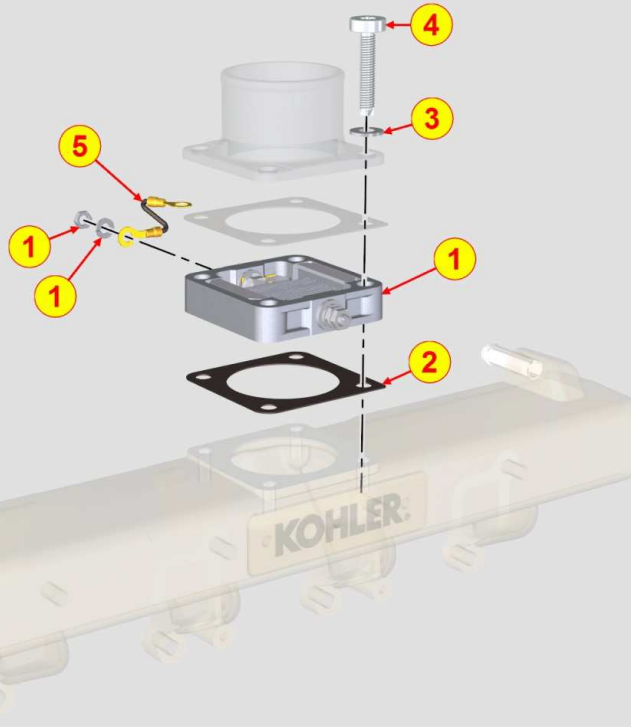
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0019011750-S	Bolt	1		
2	ED0046700600-S	Gasket	3		
3	ED0015572140-S	Block, Water Sender	1		
4	ED0073302870-S	Hose Connector	1		

# Glow Plugs/Control Unit

810670050

The illustration represents a wide range of variations. Not all parts in the illustration are used.

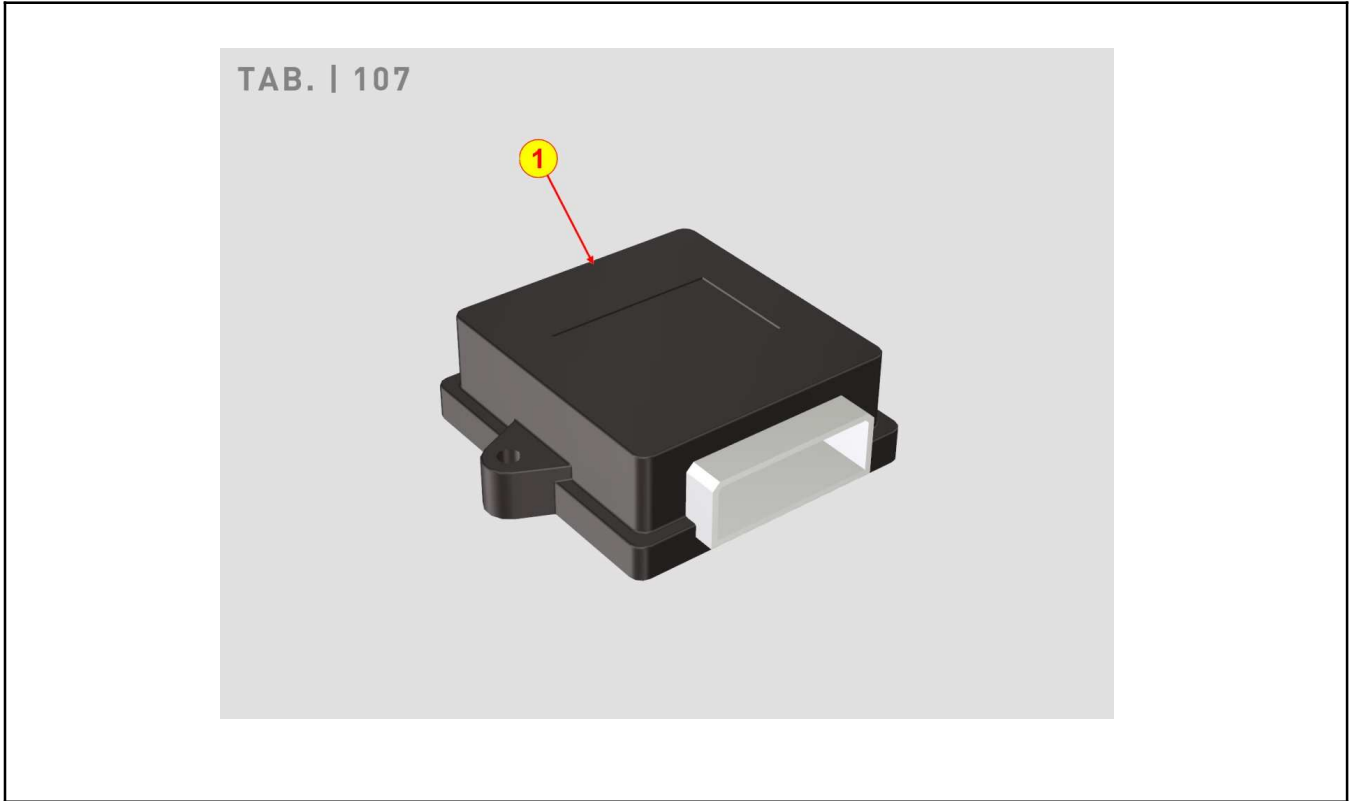
TAB. | 106



Item	Part No.	Description	Qty.	Kit	Included in Kit
4	ED0097610480-S	Screw M8x22	4		

# ECU

8107701760



Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0021935380-S	Control Unit, EGR Valve	1		

# ECU



## 8107704820

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0021934380-S	Control Unit	1		

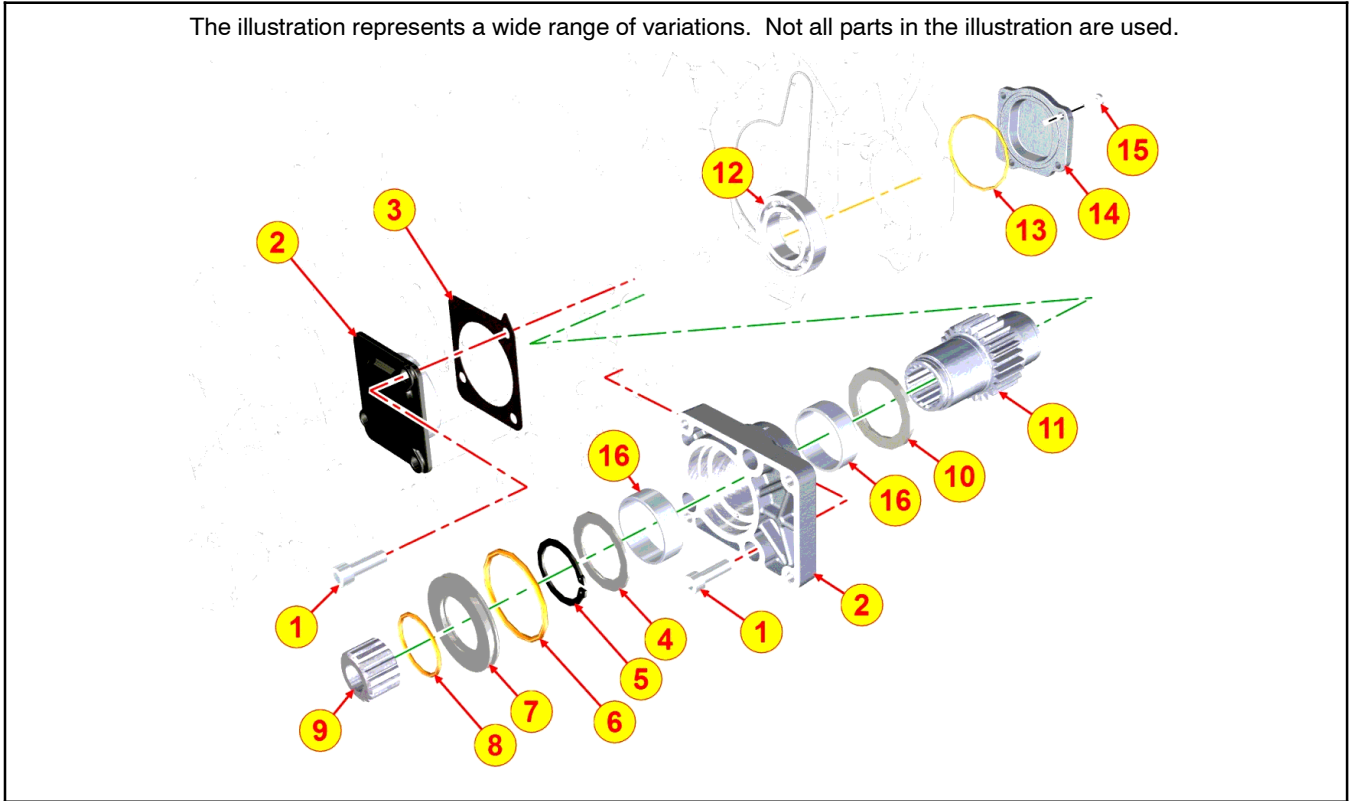
## 8107704830

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0021934380-S	Control Unit	1		

# Hydraulic Pump Adapter

8140700010

The illustration represents a wide range of variations. Not all parts in the illustration are used.

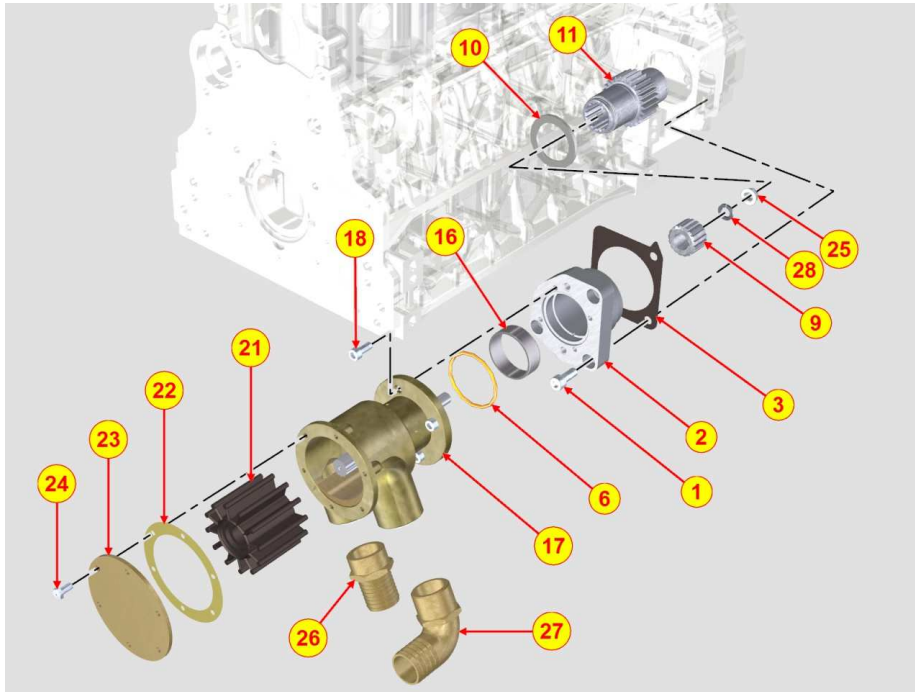


Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0097304550-S	Screw M8x25	3		
2	ED0026500670-S	Machined 3PTO Cover	1	(A)	
3	ED0045802550-S	3rd PTP Gasket	1		

# Hydraulic Pump Adapter

8140700110

The illustration represents a wide range of variations. Not all parts in the illustration are used.

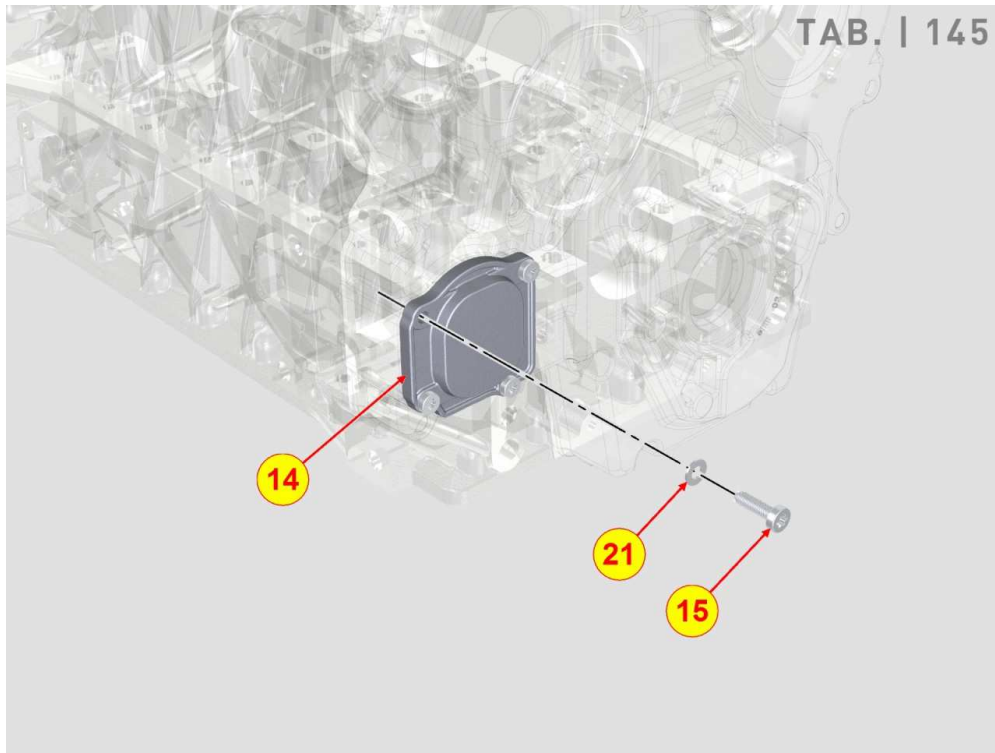


Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0097304670-S	Screw M8x25	3		
2	ED0038101160-S	Flange assy for Seawater Pump	1		
3	ED0045802550-S	3rd PTO Gasket	1		
6	ED0012010920-S	O- ring	1		
9	ED0054012060-S	Sleeve	1		
10	ED0012570320-S	Plate, wear	1		
11	ED0049363550-S	Gear	1		
17	ED0065845590-S	Seawater pump	1		
18	ED0097302110-S	Screw	4		
21	GM50644	Kit, impellar	1		
25	ED0032401420-S	Nut	1		
26	ED0073302900-S	Union pipe	1		
27	ED0073302850-S	Union tube 90°	1		
28	ED0075650500-S	Washer	1		

# Pump Housing

8145700010

The illustration represents a wide range of variations. Not all parts in the illustration are used.

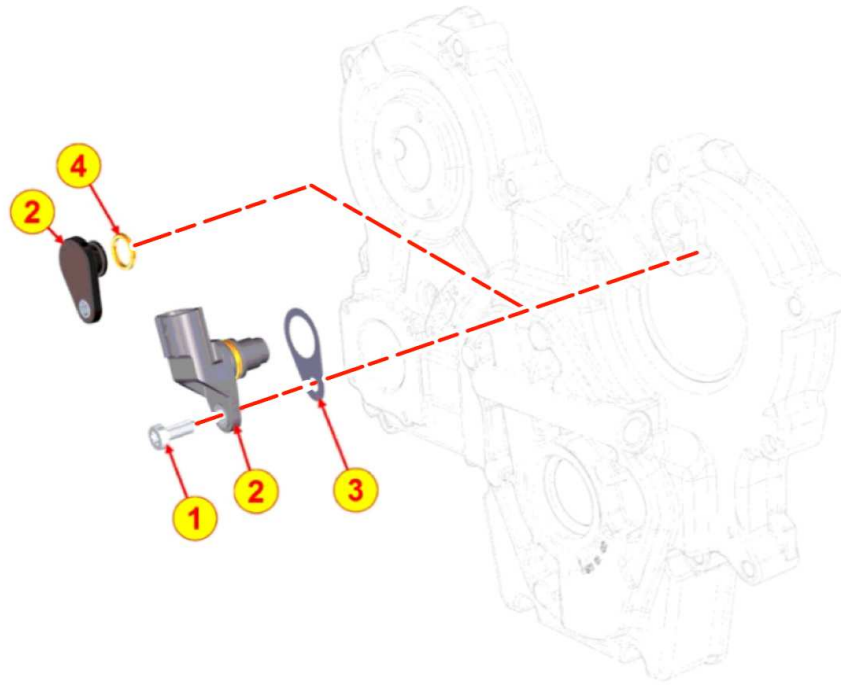


Item	Part No.	Description	Qty.	Kit	Included in Kit
13	ED0045802580-S	Gasket	1		
14	ED0026600100-S	Bearing Cover	1		
15	ED0097610450-S	Screw M6x16	4		
21	ED0076250070-S	washer	4		



# Phase Sensor

The illustration represents a wide range of variations. Not all parts in the illustration are used.



## 8153700010

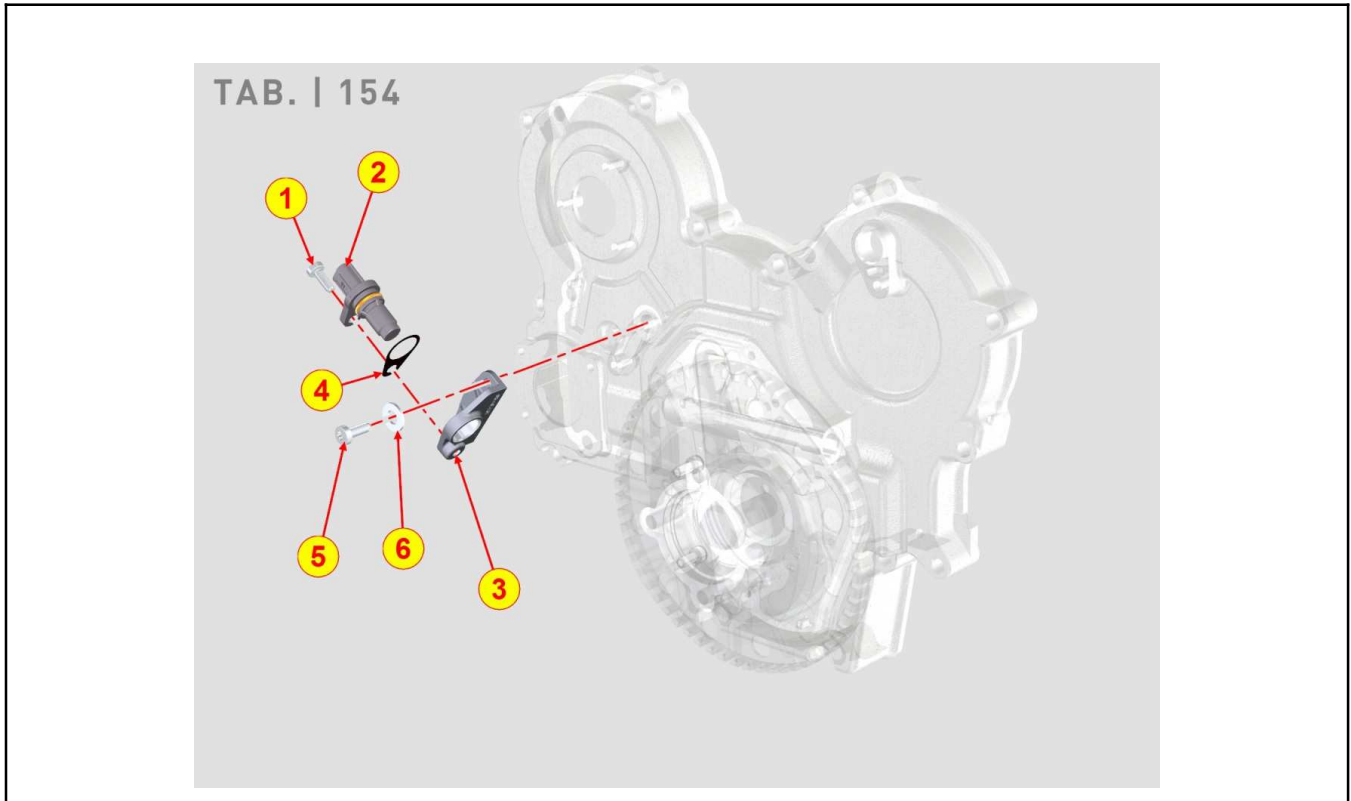
Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0097610460-S	Self Tapping Screw M6x20	1		
2	ED0038000740-S	Plug Closing Sensor Hole Assy	1	(A)	

## 8153700020

Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0097610460-S	Self Tapping Screw M6x20	1		
2	ED0080891610-S	CAM Sensor	1		
3	ED0051511380-S	Camshaft gear sensor sheet met	1		

# Injection Pump Sensor

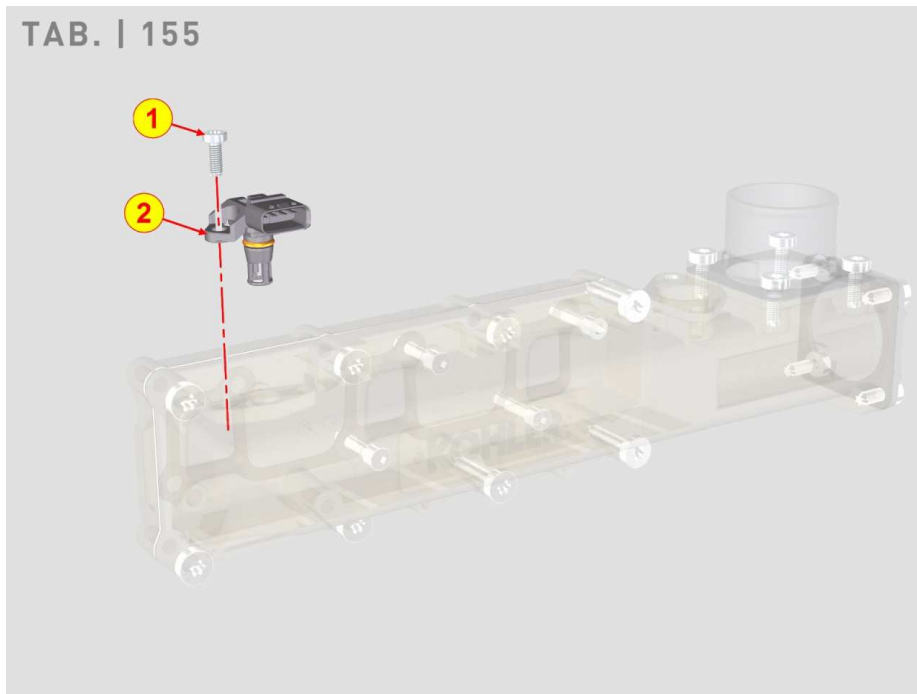
815470020



Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0097300100-S	Screw M6x16	1		
2	ED0080891600-S	Crank Sensor	1		
3	ED0085464310-S	Speed Sensor Bracket	1		
4	ED0051511460-S	Speed Sensor Sheet Metal Spac.	1		
5	ED0097610460-S	Screw M6x20	2		
6	ED0076252130-S	Washer	2		

# T-Map Sensor

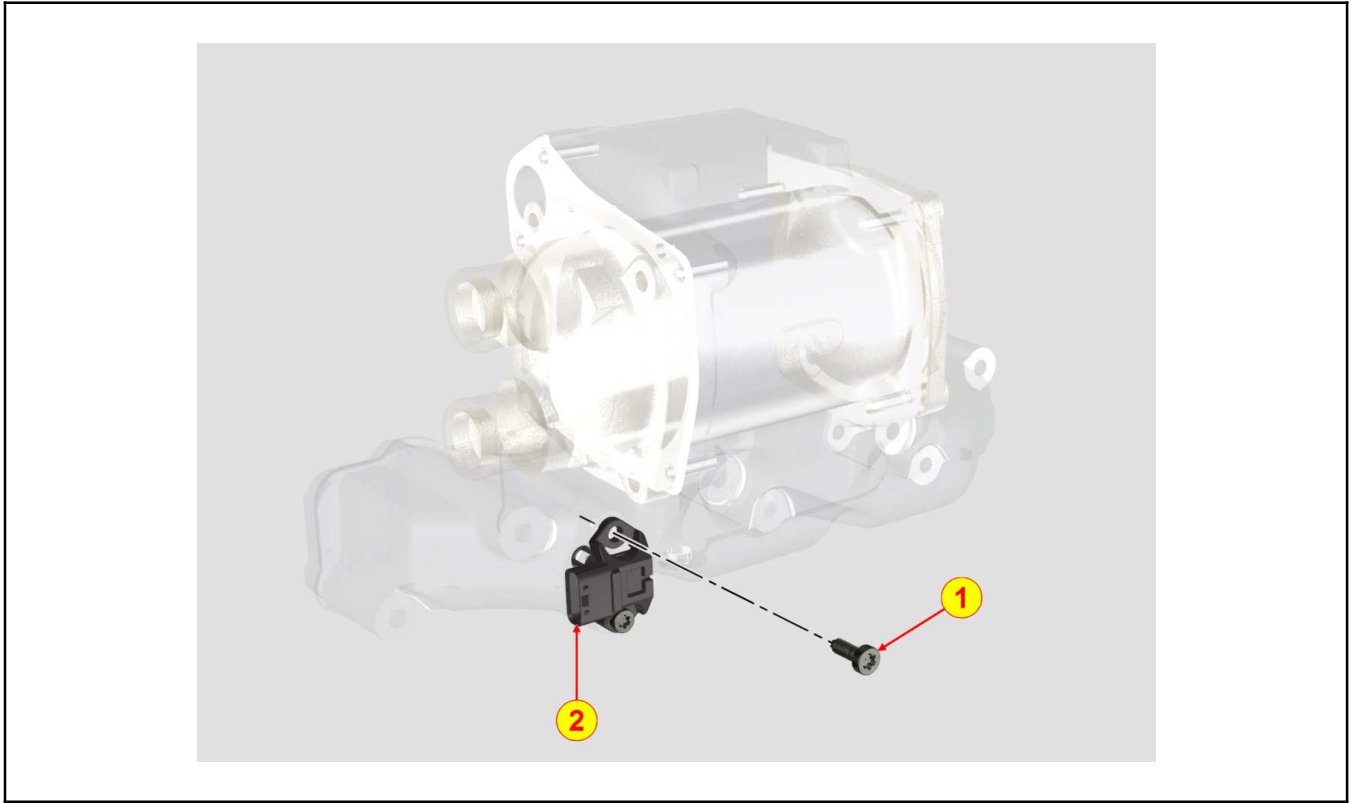
8155700010



Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0097610450-S	Screw M6x16	2		
2	ED0080891620-S	T-Map Sensor	1		

# T-Map Sensor

8155700020

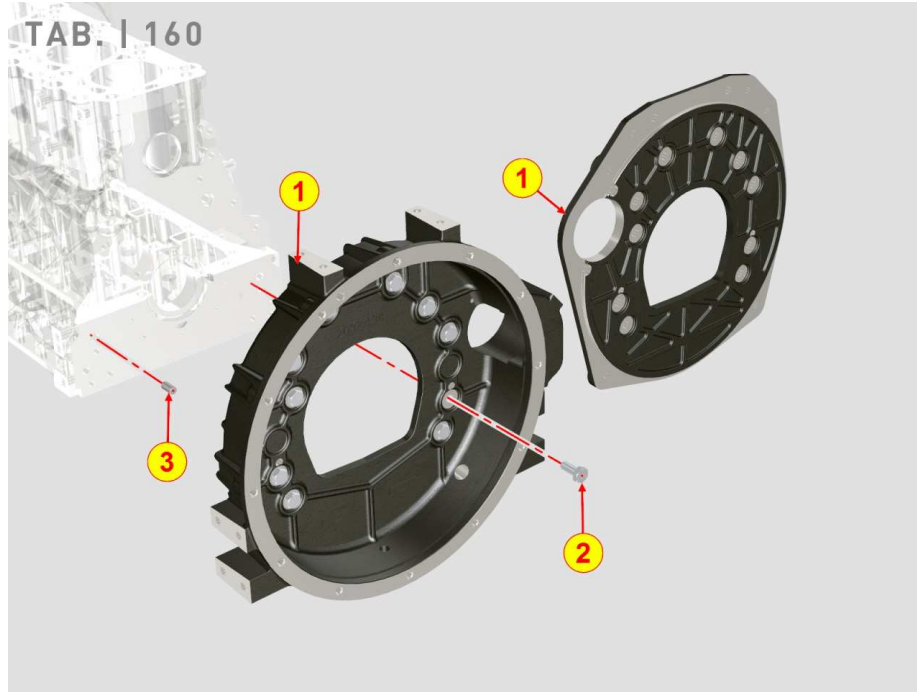


Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0017601960-S	Screw M6x12	2		
2	ED0080891620-S	T-Map Sensor	1		

# Engine Bell/Backplate

816070080

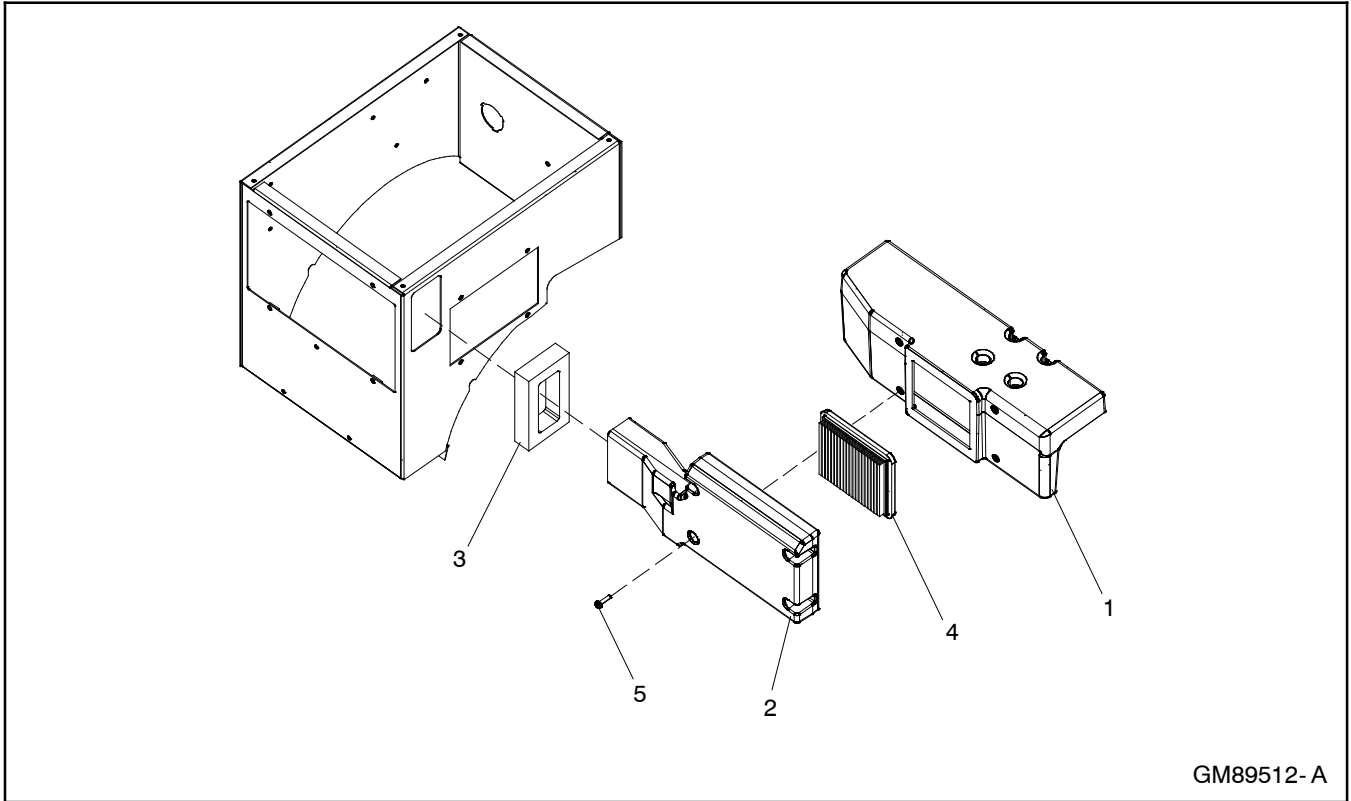
The illustration represents a wide range of variations. Not all parts in the illustration are used.



Item	Part No.	Description	Qty.	Kit	Included in Kit
1	ED0031555060-S	Alternator backplate	1		
2	ED0017800310-S	Hex Bolt M10 x 1.5 x 25 mm	12		
3	ED0084001080-S	Paral. Pin	2		

# Air Intake

GM89512-



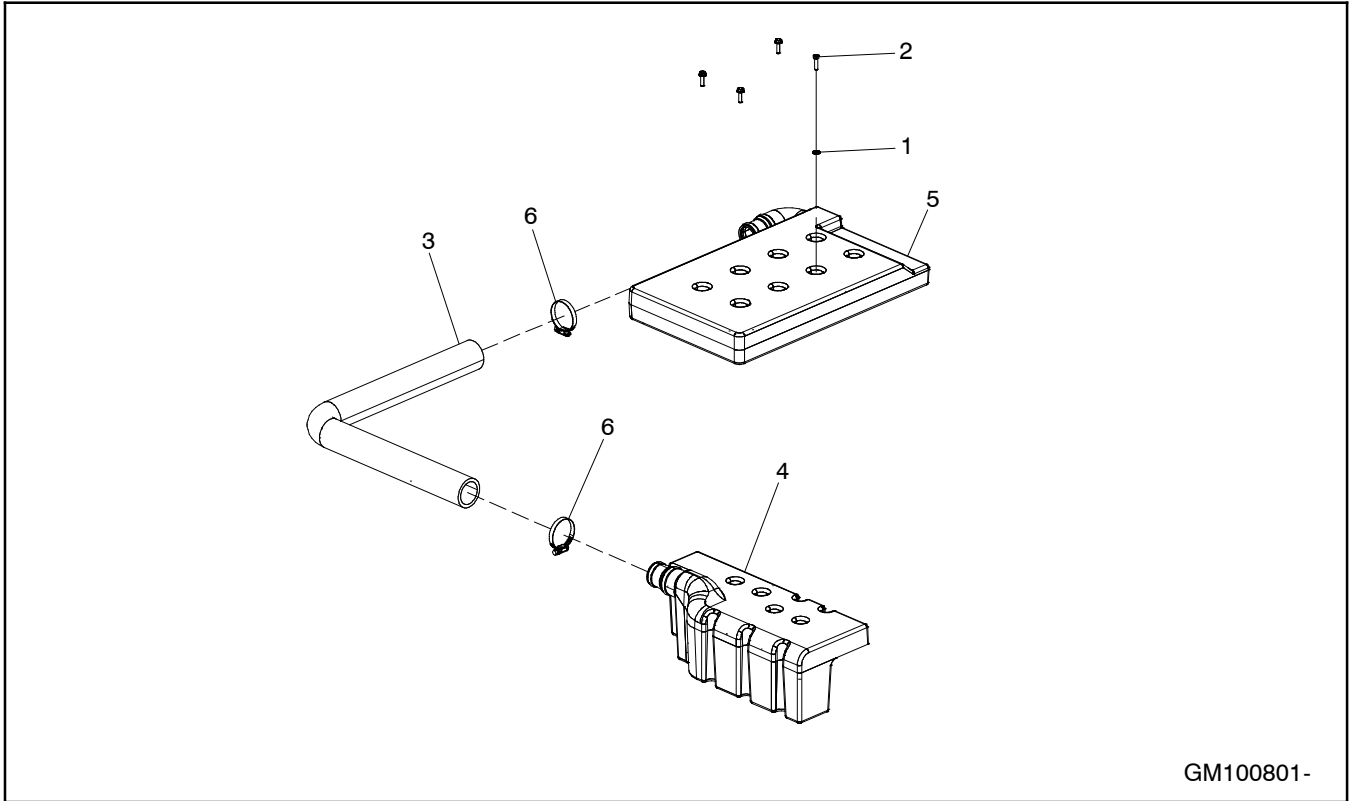
GM89512- A

Item	Part No.	Description	Qty.
1	GM90697	Box, Air Intake	1
2	See Chart	Cover, Air Intake	1
3	GM91527	Insulation, Acoustic Foam	1
4	GM91570	Filter, Air	1
5	M7985A-05016-20	Screw, Pan Head Machine	4

Variation No.	Item 2, Cover
GM89512-GR1	GM91458-1
GM89512-GR2	GM91458-2
GM89512-GR3	GM91458-3

# Air Intake

GM100801-



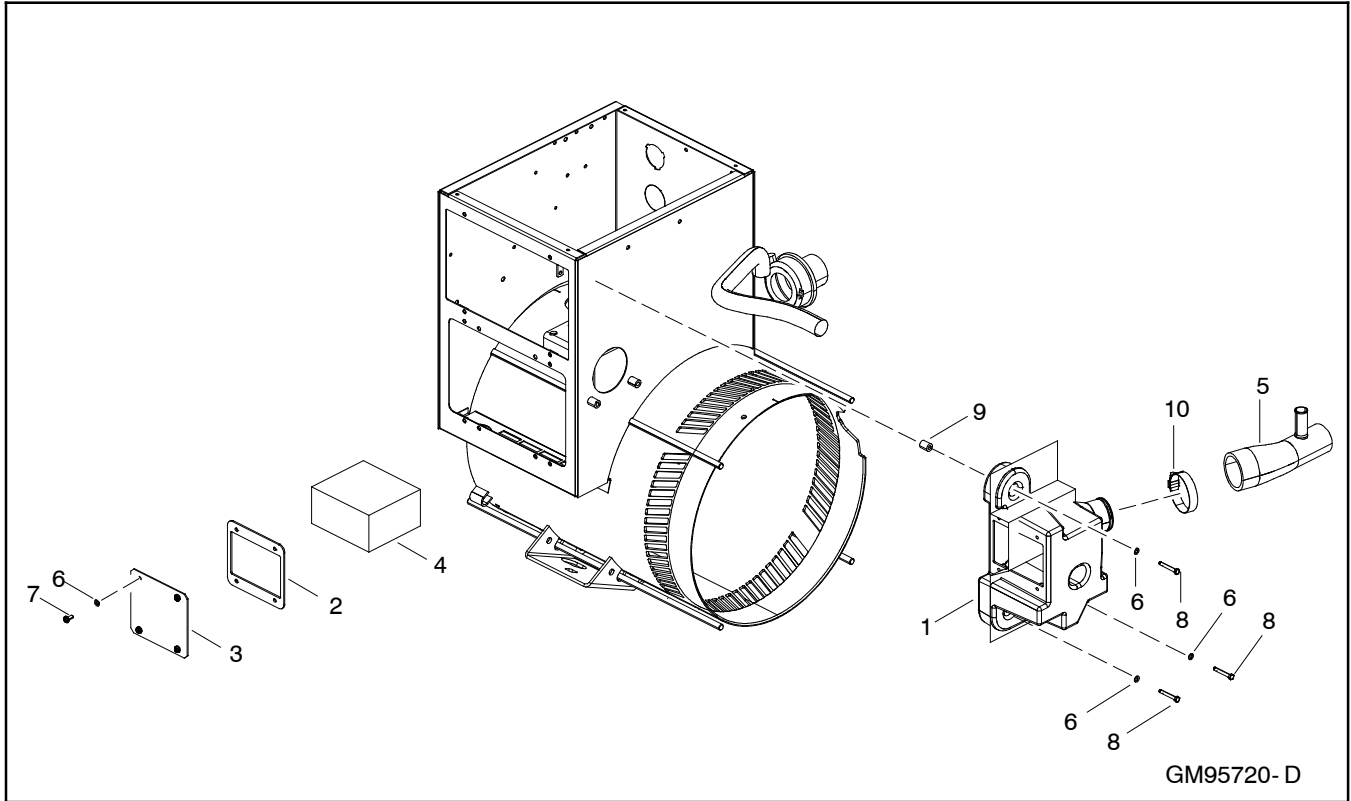
GM100801-

Item	Part No.	Description	Qty.
1	M125A-05-80	Washer, Plain	4
2	M933-05020-60	Screw, Hex Cap	4
3	See Chart	Hose, Molded Air Intake	1
4	See Chart	Cover, Air Intake	1
5	See Chart	Resonator, Intake	1
6	See Chart	Clamp, hose	2

Variation No.	Item 3, Hose	Item 4, Cover	Item 5, Resonator	Item 6, Clamp
GM100801-MA1	GM100078	GM100839-1	GM99609-1	X-426-19
GM100801-MA2	GM100079	GM100839-2	GM99609-2	X-426-16

# Air Intake

GM95720- MA1



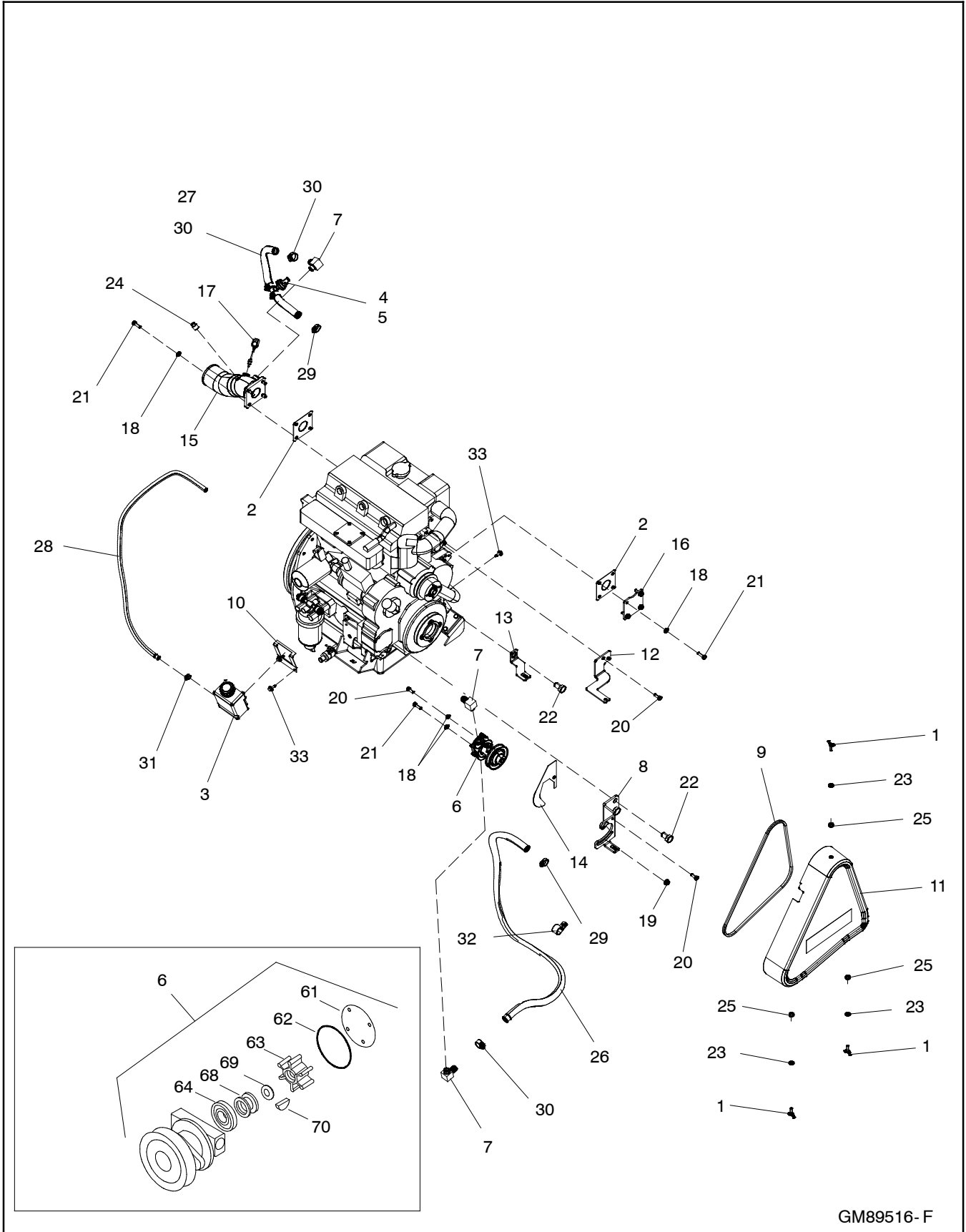
Item	Part No.	Description	Qty.
1	GM101180	Box, air intake	1
2	GM101200	Gasket, air intake box	1
3	GM101201	Plate, air intake box	1
4	GM101994	Filter, air intake	1
5	GM102652	Hose, molded air intake	1
6	M125A-05-80	Washer, plain	7
7	M7985A-05012-20	Screw, pan head mach.	4
8	M933-05035-60	Screw, hex cap	3
9	X-400-234	Spacer	3
10	X-426-16	Clamp, hose, 1.81/2.75 in.	1



# Notes

# Cooling System

GM89516-GR1



GM89516-F

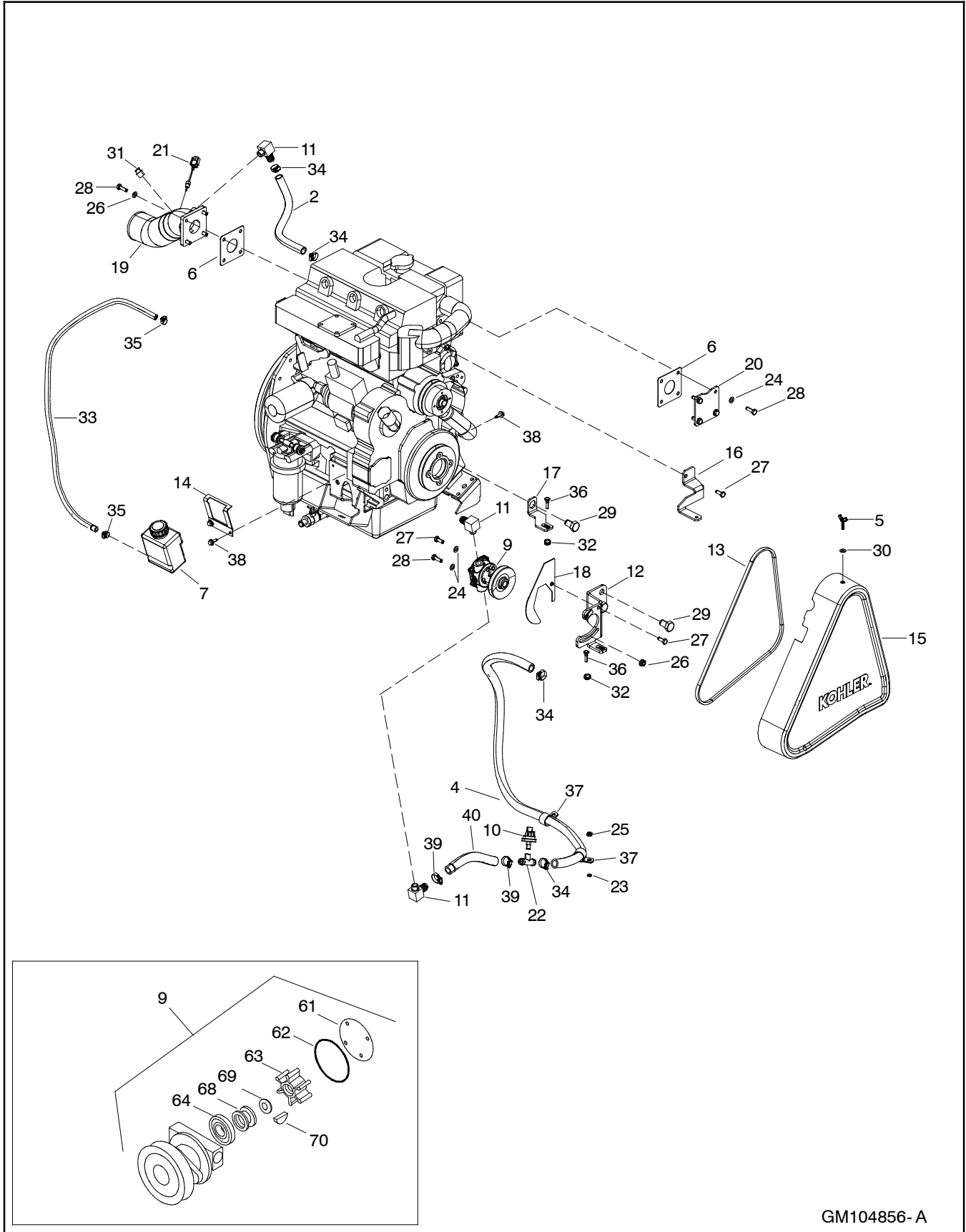
# Cooling System

## GM89516- GR1

Item	Part No.	Description	Qty.
1	229330	Screw, wing	3
2	249905	Gasket, exhaust	2
3	359037	Bottle, overflow	1
4	GM30263	Switch, Pressure Assembly	1
5	GM97327	Tube, Seawater	1
6	GM46936	Pump, Sea Water	1
7	GM81619	Connector, Hose 5/8 in. x 1/2 in. NPT Nickel P	3
8	GM90143	Bracket, Seawater Pump	1
9	GM90645	Belt, Engine	1
10	GM90687	Bracket, water bottle	1
11	GM90698	Guard, Belt	1
12	GM90701	Bracket, Belt Guard	1
13	GM90702	Bracket, Belt Guard	1
14	GM90741	Guard, Belt	1
15	GM92557-1	Tube, Rear Mixing	1
16	GM93079	Plate, Cover	1
17	GM93708	Sender, Temperature	1
18	M125A-08-80	Washer, Plain 8.4 ID x 16.0 OD	10
19	M6923-08-80	Nut, Hex 8mm	1
20	M933-08020-60	Screw, Hex cap	3
21	M933-08025-60	Screw, hex cap	9
22	M961-16025-60	Screw, H.C.	3
23	X-25-40	Washer, plain, .281 ID x .625 in. OD	3
24	X-75-53	Plug, pipe ( 3/8 in. )	1
25	X-284-39	Grommet, Round	3
26	X-312-37	Hose, .63 ID	1
27	X-312-23	Hose, .63 in. ID	1
28	X-386-132	Line, Flex Fuel	1
29	X-426-10	Clamp, hose, .5/1 in.	2
30	X-426-12	Clamp, hose, .69/1.25 in.	4
31	X-426-9	Clamp, hose, .25/.70 in.	1
32	X-672-32	Clamp, insulated, 1.06 in.	1
33	X-794-4	Screw, hex wshr hd, drill 1/4-14 x 7/8	3
61	344306	Plate, Cover	1
62	344584	Gasket	1
63	229826	Kit, Impeller (Includes Gasket)	1
64	344043	Bearing, Ball	1
68	GM16865	Seal	1
69	GM22995	Seat, Ceramic	1
70	GM17702	Key	1

# Cooling System, continued

GM104856-MA1



GM104856-A

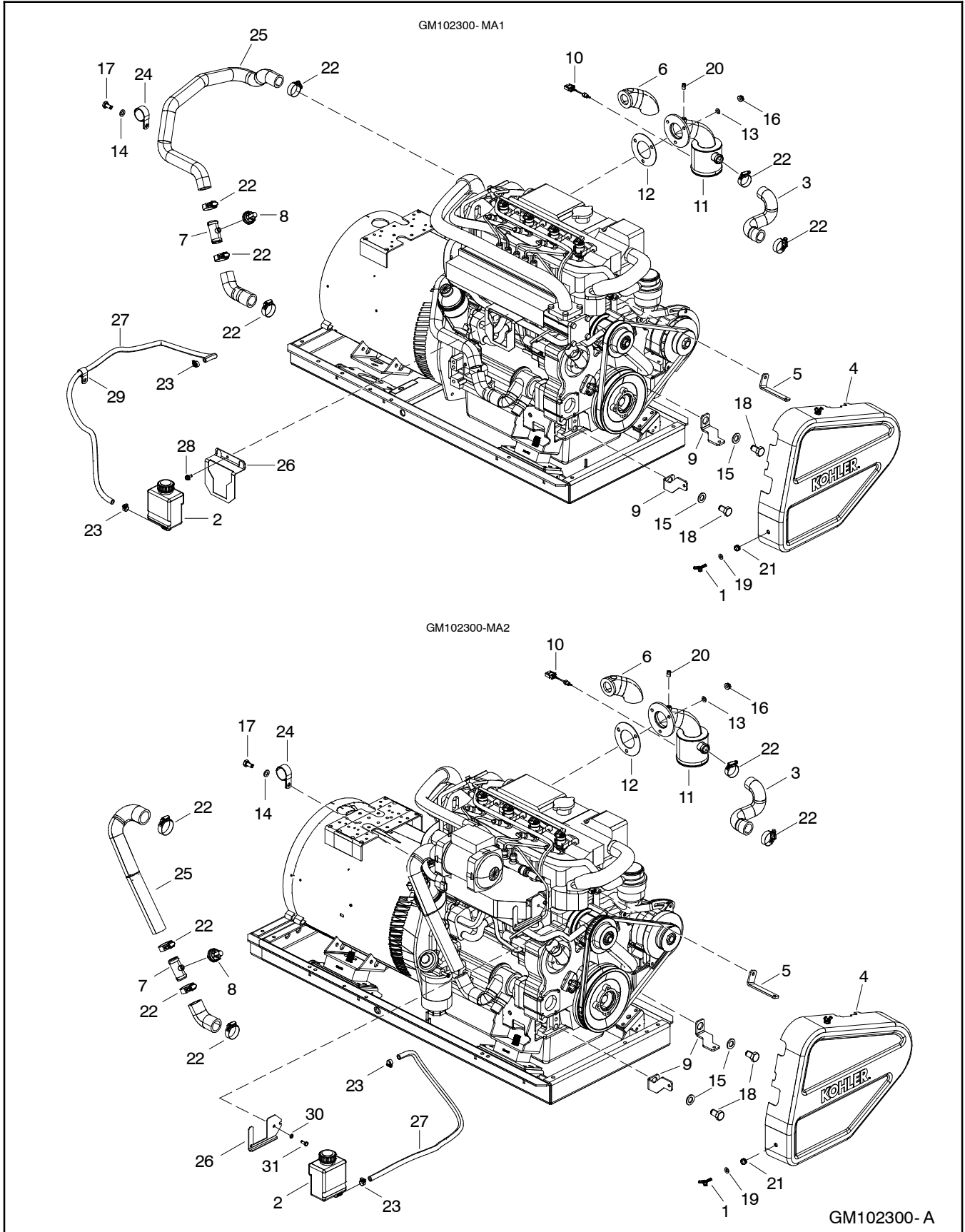
# Cooling System, continued

GM104856- MA1

Item	Part No.	Description	Qty.
2	X-312-52	Hose, .63 ID, 10 in.	1
4	X-312-13	Hose, .63 in. ID, 40 in.	1
5	229330	Screw, wing	1
6	249905	Gasket, exhaust	2
7	359037	Bottle, overflow	1
9	GM104684	Pump, sea water	1
10	GM30263	Switch, pressure assembly	1
11	GM81619	Connector, 90° (5/8 in. ID hose)	1
12	GM90143	Bracket, seawater pump	1
13	GM90645	Belt, engine	1
14	GM90687	Bracket, water bottle	1
15	GM90698	Guard, belt	1
16	GM90701	Bracket, belt guard	1
17	GM90702	Bracket, belt guard	1
18	GM90741	Guard, belt	1
19	GM92557-1	Tube, rear mixing	1
20	GM93079	Plate, cover	1
21	GM93708	Sender, temperature	1
22	GM106618	Tube, seawater	1
23	M125A-06-80	Washer, plain	1
24	M125A-08-80	Washer, plain 8.4 ID x 16.0 OD	10
25	M6923-06-80	Nut, hex 6 mm	1
26	M6923-08-80	Nut, hex 8 mm	1
27	M933-08020-60	Screw, hex cap M8 x 20	3
28	M933-08025-60	Screw, hex cap M8 x 25	9
29	M961-16025-60	Screw, hex cap	3
30	X-25-40	Washer, plain, .281 ID x .625 in. OD	1
31	X-75-53	Plug, pipe ( 3/8 in. nptf)	1
32	X-284-39	Grommet, round	2
33	X-386-132	Line, flex fuel	1
34	X-426-10	Clamp, hose, .5/1 in.	4
35	X-426-9	Clamp, hose, .25/.70 in.	2
36	X-465-7	Bolt, hex cap	2
37	X-672-32	Clamp, insulated, 1.06 in.	2
38	X-794-4	Screw, hex wshr hd, drill 1/4- 14 x 7/8	3
39	X-426-12	Clamp, hose, .69/1.25 in.	2
40	X-691-24	Hose	1
61	344306	Plate, cover	1
62	344584	Gasket	1
63	229826	Kit, impeller (includes gasket)	1
64	344043	Bearing, ball	1
68	GM16865	Seal	1
69	GM22995	Seat, ceramic	1
70	GM17702	Key	1

# Cooling System, continued

GM102300-



# Cooling System, continued

**GM102300-**

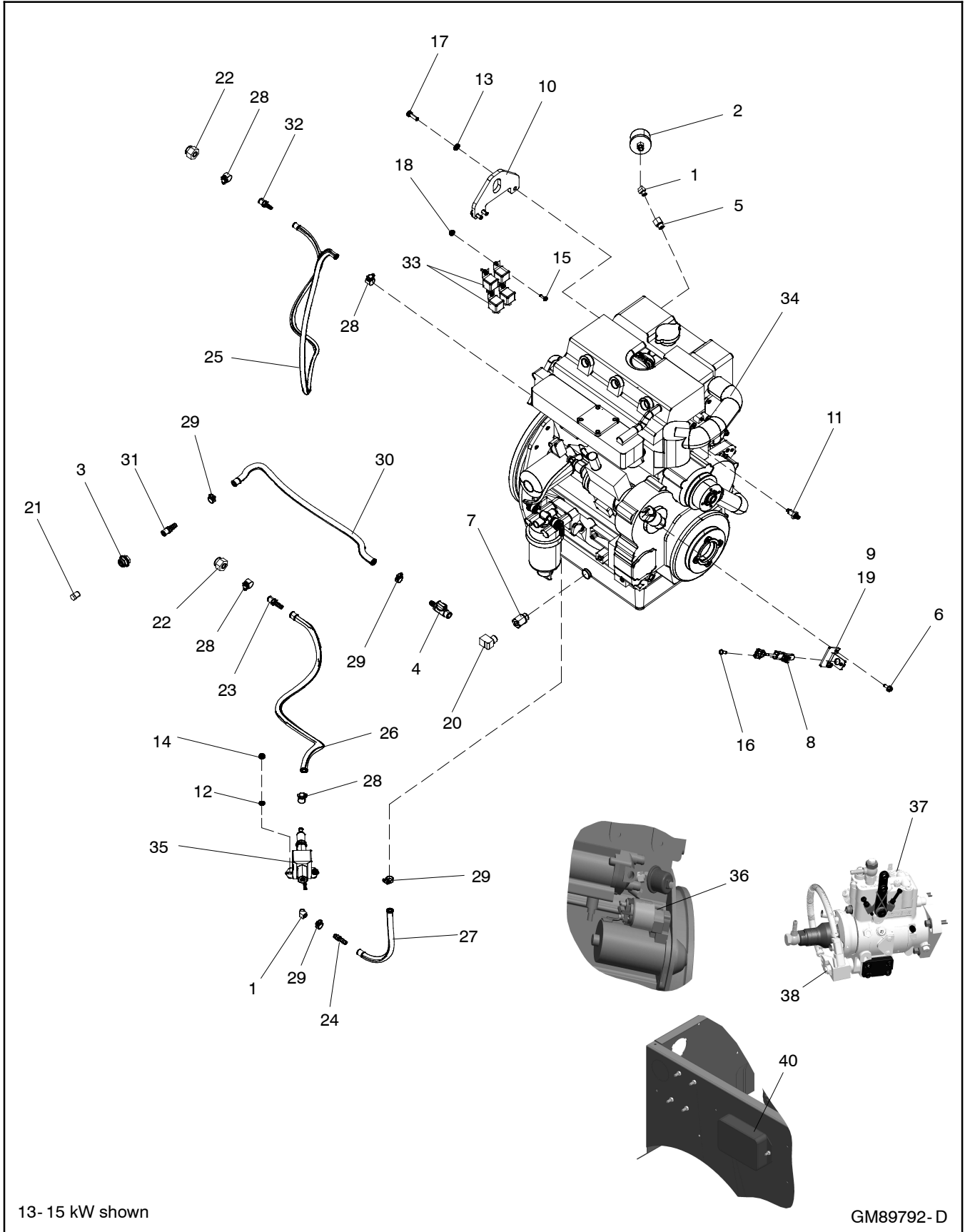
Item	Part No.	Description	Qty.
1	229330	Screw, wing	3
2	359037	Bottle, overflow	1
3	GM101237	Hose, molded seawater	1
4	GM101249	Guard, belt	1
5	GM101254	Bracket, belt guard (top)	1
6	GM102650	Wrap, exhaust	1
7	GM103714	Tube, seawater	1
8	GM30263	Switch, pressure assembly	1
9	GM90702	Bracket, belt guard	2
10	GM93708	Sender, temperature	1
11	GM99339	Elbow, wet exhaust	1
12	GM99340	Gasket, wet exhaust elbow	1
13	M125A-08-80	Washer, plain 8.4 ID x 16.0 OD	3
14	M125A-10-80	Washer, plain 10.5 ID x 20.0 OD	1
15	M125A-16-80	Washer, plain	2
16	M6923-08-80	Nut, hex 8 mm	3
17	M933-10020-60	Screw, hex cap	1
18	M961-16025-60	Screw, hex cap	2
19	X-25-40	Washer, plain, .281 ID x .625 in. OD	3
20	X-75-4	Plug, pipe (1/8 in. nptf)	1
21	X-284-39	Grommet, round	3
22	X-426-21	Clamp, hose, .81/1.75 in.	6
23	X-426-9	Clamp, hose, .25/.70 in.	2
24	X-672-39	Clamp	1
25	See chart	Hose, molded seawater	1
26	See chart	Bracket, water bottle	1
27	See chart	Line, flex fuel	1
28	See chart	Screw, sheet metal M6 x 1.0 x 16mm	1
29	See chart	Clamp, insulated, .75 in.	1
30	See chart	Washer, plain 6.4 ID x 12.0 OD	1
31	See chart	Screw, hex cap	1

Variation No.	Item 25	Item 26	Item 27	Item 28	Item 29
GM102300-MA1	GM102339	GM102437	X-386-90	GM78761-1	X-672-31
GM102300-MA2	GM102340	GM102438	X-386-70	-	-

Variation No.	Item 30	Item 31
GM102300-MA1	-	-
GM102300-MA2	M125A-06-80	M933-06016-60

# Engine

GM89507-



13- 15 kW shown

GM89792 - D



# Engine

**GM89507-  
GM89792-**

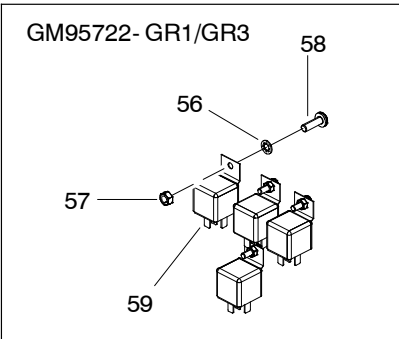
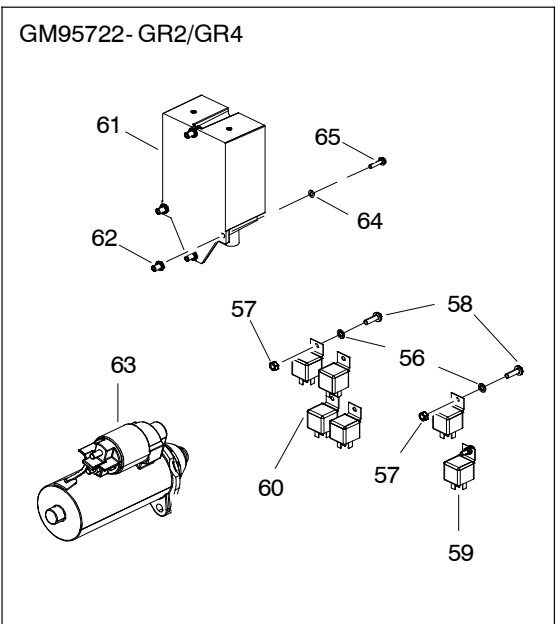
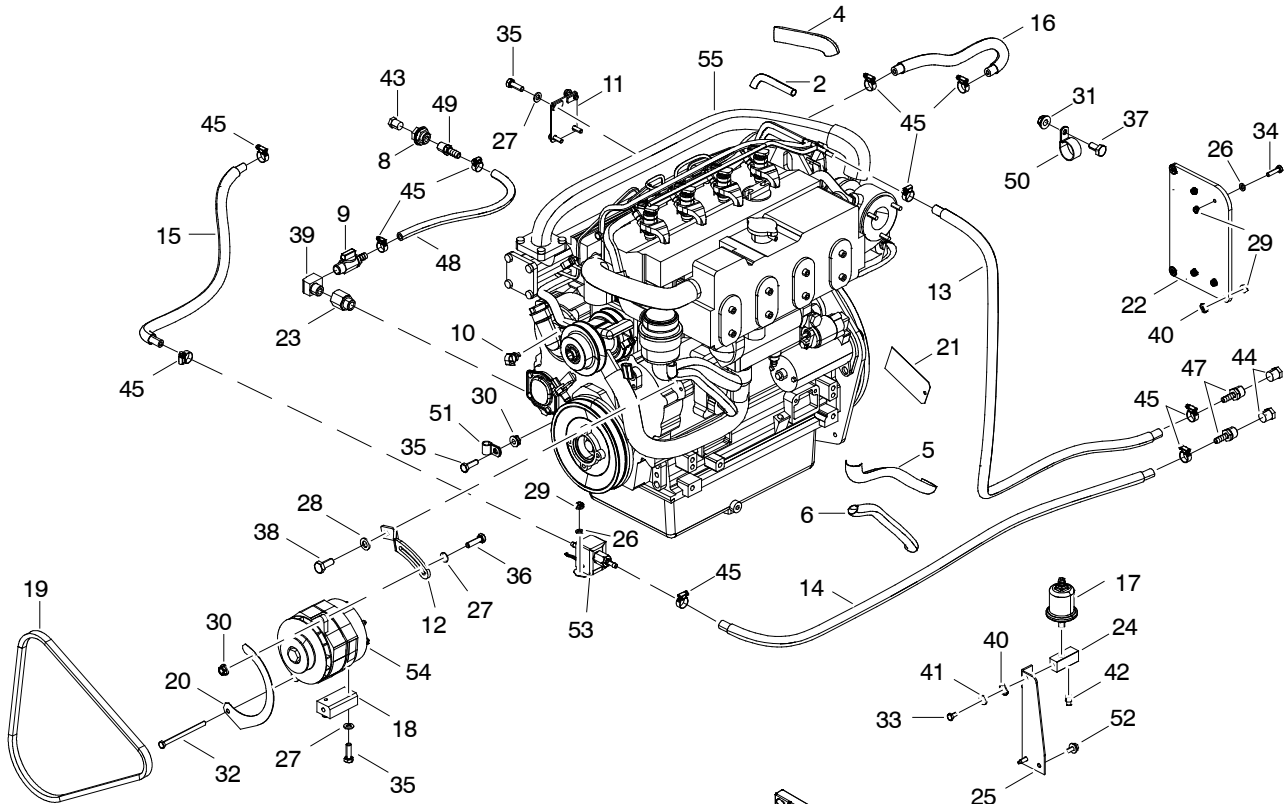
Item	Part No.	Description	Qty.
1	267428	Fitting, 45° Street Elbow	2
2	GM107196	Sender, oil pressure	1
3	344519	Coupling, Bulkhead Pipe	1
4	359653	Valve, oil drain (3/8-18 NPT)	1
5	365220	Adapter, Bushing	1
6	GM78761-1	Screw, Sheetmetal	2
7	GM91115	Bushing, Adapter	1
8	GM92350	Sensor, Magnetic Pickup	1
9	GM96797	Brkt, Mtg. Magnetic Pickup	1
10	GM93256	Bracket, Lifting	1
11	GM94527	Sender, Temperature	1
12	M125A-06-80	Washer, Plain	2
13	M125A-08-80	Washer, Plain 8.4 ID x 16.0 OD	3
14	M6923-06-80	Nut, Hex 6 mm	2
15	M7985A-05016-20	Screw, Pan Head Machine	4
16	M933-06016-60	Screw, hex cap, M6x16mm, js500 full thrd	1
17	M933-08025-82	Screw, Hex Cap (Metric)	3
18	M934-05-50	Nut, Hex 5 mm	4
19	M934-06-60	Nut, Hex 6 mm	1
20	S-404	Elbow, street (90° x 3/8 in. nptf)+Vibra	1
21	X-75-52	Plug, pipe ( 1/4 in. nptf)	1
22	X-268-3	Cap, pipe (1/4 in. npt)	2
23	X-380-4	Connector, hose + Vibra Seal	1
24	X-380-5	Connector, hose + Vibra Seal	1
25	GM97568	Fuel Line, Flexible	1
26	GM97569	Fuel line, flexible	1
27	X-6251-24	Fuel line, flexible	1
28	X-426-12	Clamp, hose, .69/.1.25 in.	2
29	X-426-9	Clamp, hose, .25/.70 in.	6
30	X-651-28	Hose, rubber, straight, .375 in. ID	1
31	X-652-1	Connector, hose + Vibra Seal	1
32	X-582-41	Fitting, Hose Connector	1
33	See Chart	Relay	4
34	See Chart	Engine, KDI	1
35	See Chart	Pump, Electric Fuel Feed	1
36	See Chart	Motor, 24V Starter	1
37	See Chart	ESO, Conversion 12V to 24V	1
38	See Chart	Coil, Conversion 12V to 24V	1
40	See Chart	PCB ASSY,Weather Tight Voltage Converter	1

Variation No.	Item 33, Relay	Item 34, Engine	Item 35, Pump
GM89507-GR1	GM49746	GM89222	GM90305-1
GM89507-GR2	GM49747	GM89222	GM90305-2
GM89507-GR3	GM49746	GM89223	GM90305-1
GM89507-GR4	GM49747	GM89223	GM90305-2
GM89792-GR1	GM49746	GM89224	GM90305-1
GM89792-GR2	GM49747	GM89224	GM90305-2
GM89792-GR3	GM49746	GM89225	GM90305-1
GM89792-GR4	GM49747	GM89225	GM90305-2
GM89792-GR5	GM49746	GM95018	GM90305-1
GM89792-GR6	GM49747	GM95018	GM90305-2

Variation No.	Item 36, Motor	Item 37, ESO	Item 38, Coil	Item 40, Converter
GM89507-GR1	-	-	-	-
GM89507-GR2	GM91877	GM91878	GM91879	-
GM89507-GR3	-	-	-	-
GM89507-GR4	GM91877	GM91878	GM91879	-
GM89792-GR1	-	-	-	-
GM89792-GR2	GM91877	GM91878	GM91879	-
GM89792-GR3	-	-	-	-
GM89792-GR4	GM91877	GM91878	GM91879	-
GM89792-GR5	-	-	-	-
GM89792-GR6	GM91877	GM91878	GM91879	GM97121

# Engine

GM95722-



ITEMS NOT SHOWN: 1, 3, 46

32- 40 kW shown

GM95722- D

# Engine

Item	Part No.	Description	Qty.
1	29808-00500	Sleeve, split wrap braided, 1/2 in. dia	0.5 ft
2	29808-00500	Sleeve, split wrap braided, 1/2 in. dia	1
3	29808-00750	Sleeve, split wrap braided, 3/4 in. dia	2 ft
4	29808-00750	Sleeve, split wrap braided, 3/4 in. dia	1
5	29808-00750	Sleeve, split wrap braided, 3/4 in. dia	1
6	29808-00750	Sleeve, split wrap braided, 3/4 in. dia	1
7	GM41013	Assembly, fuel/water separator filter	1
7.1	GM41014	Element, filter	1
8	344519	Coupling, bulkhead pipe	1
9	359653	Valve, oil drain (3/8-18 NPT)	1
10	11613000201	Clip, locking	3
11	GM100697	Bracket, fuel filter	1
12	GM101246	Arm, alternator adjusting	1
13	GM101290	Fuel line subassy	1
14	GM101290	Fuel line subassy	1
15	GM101291	Fuel line subassy	1
16	GM102397	Fuel line subassy	1
17	GM107196	Sender, oil pressure	1
18	GM102577	Block, bca mounting	1
19	GM102586	Belt, V	1
20	GM102605	Guard, battery charging alternator fan	1
21	GM104250	Tag, instruction	1
22	GM104475	Plate, ecu	1
23	GM91115	Bushing, adapter	1
24	GM94380	Block, sender	1
25	GM94381	Bracket, sender block	1
26	M125A-06-80	Washer, plain 6.4 ID x 12.0 OD	6
27	M125A-08-80	Washer, plain 8.4 IDx 16.0 OD	7
28	M125A-10-80	Washer, plain 10.5 ID x 20.0 OD	1
29	M6923-06-80	Nut, hex 6 mm	9
30	M6923-08-80	Nut, hex 8 mm	3
31	M6923-10-80	Nut, hex 10 mm	1
32	M931-08120-60	Screw, hex cap (M8 x 120 mm)	1
33	M933-06012-60	Screw, hex cap (M6 x 12 mm)	1
34	M933-06025-60	Screw, hex cap (M6 x 25 mm)	4
35	M933-08025-60	Screw, hex cap (M8 x 25 mm)	7
36	M933-08030-60	Screw, hex cap (M8 x 30 mm)	1
37	M933-10020-60	Screw, hex cap (M10 x 20 mm)	1
38	M933-10025-60	Screw, hex cap (M10 x 25 mm)	1
39	S-404	Elbow, street (90° x 3/8 in. nptf)	1
40	X-22-12	Washer, lock	4
41	X-25-40	Washer, plain, .281 ID x .625 in. OD	1
42	X-75-4	Plug, pipe ( 1/8 in. nptf)	1
43	X-75-52	Plug, pipe ( 1/4 in. nptf)	1
44	X-75-55	Plug, pipe ( 3/8 in. nptf) white nylon	2
45	X-426-9	Clamp, hose, .25/.70 in.	10
46	X-468-1	Tie, cable	8
47	X-582-47	Connector, hose	2
48	X-651-16	Hose, rubber	1
49	X-652-1	Connector, hose + vibra seal	1
50	X-672-39	Clamp	1
51	X-672-7	Clamp, insulated, .44 in.	1
52	X-794-4	Screw, drill	2
53	See chart	Pump, electric fuel feed	-
54	See chart	Alternator, battery charging	-
55	See chart	Engine, KDI 2504TCR, marine	-
56	See chart	Screw, pan head machine	-
57	See chart	Nut, hex 5mm	-
58	See chart	Washer, lock	-
59	See chart	Relay, 12 VDC	-
60	See chart	Relay, 24V DC	-
61	See chart	Converter, 24-12V 400W	-
62	See chart	Insert, threaded M5-0.8	-
63	See chart	Motor, 24V starter	-
64	See chart	Washer, plain	-
65	See chart	Screw, pan head machine	-

Variation No.	Item 53 (qty)	Item 54 (qty)	Item 55 (qty)	Item 56 (qty)	Item 57 (qty)	Item 58 (qty)	Item 59 (qty)
GM95722-GR1	GM101287-1 (1)	GM102575-1 (1)	GM97084 (1)	M7985A-05016-20 (4)	M934-05-50 (4)	X-22-9 (4)	GM49746 (4)
GM95722-GR2	GM101287-2 (1)	GM102575-2 (1)	GM97084 (1)	M7985A-05016-20 (6)	M934-05-50 (6)	X-22-9 (6)	GM49746 (2)
GM95722-GR3	GM101287-1 (1)	GM102575-1 (1)	GM97085 (1)	M7985A-05016-20 (3)	M934-05-50 (3)	X-22-9 (3)	GM49746 (3)
GM95722-GR4	GM101287-2 (1)	GM102575-2 (1)	GM97085 (1)	M7985A-05016-20 (5)	M934-05-50 (5)	X-22-9 (5)	GM49746 (1)

Variation No.	Item 60 (qty)	Item 61 (qty)	Item 62 (qty)	Item 63 (qty)	Item 64 (qty)	Item 65 (qty)
GM95722-GR1	-	-	-	-	-	-
GM95722-GR2	GM49747 (4)	GM102384 (1)	GM11040-6 (4)	GM91877 (1)	M125A-05-80 (4)	M7985A-05020-20 (4)
GM95722-GR3	-	-	-	-	-	-
GM95722-GR4	GM49747 (4)	GM102384 (1)	GM11040-6 (4)	GM91877 (1)	M125A-05-80 (4)	M7985A-05020-20 (4)

# Nameplate and Decals

## GM89511-GR1

Item	Part No.	Description	Qty.
1	GM35838	Decal, 4 Wire Reconnection	1
2	224233	Decal, 1-800 number	1
3	226917	Decal, negative battery conn	1
4	238162	Decal, pos. battery connection	1
5	249808	Decal, warning rotating parts	1
6	249809	Decal, Caution Hot Engine	1
7	249810	Decal, warning hot coolant	1
8	294520	Decal, danger, high voltage	1
9	344295	Decal, equipment grd	1
10	344486	Decal, CE	1
11	GM62794	Decal, Drain	1
12	GM93648	Decal, Caution	1

## GM89511-GR2

Item	Part No.	Description	Qty.
1	GM90356	Decal, Reconnection Diagram	1
2	224233	Decal, 1-800 number	1
3	226917	Decal, negative battery conn	1
4	238162	Decal, pos. battery connection	1
5	249808	Decal, warning rotating parts	1
6	249809	Decal, Caution Hot Engine	1
7	249810	Decal, warning hot coolant	1
8	294520	Decal, danger, high voltage	1
9	344295	Decal, equipment grd	1
10	344486	Decal, CE	1
11	GM62794	Decal, Drain	1
12	GM93648	Decal, Caution	1

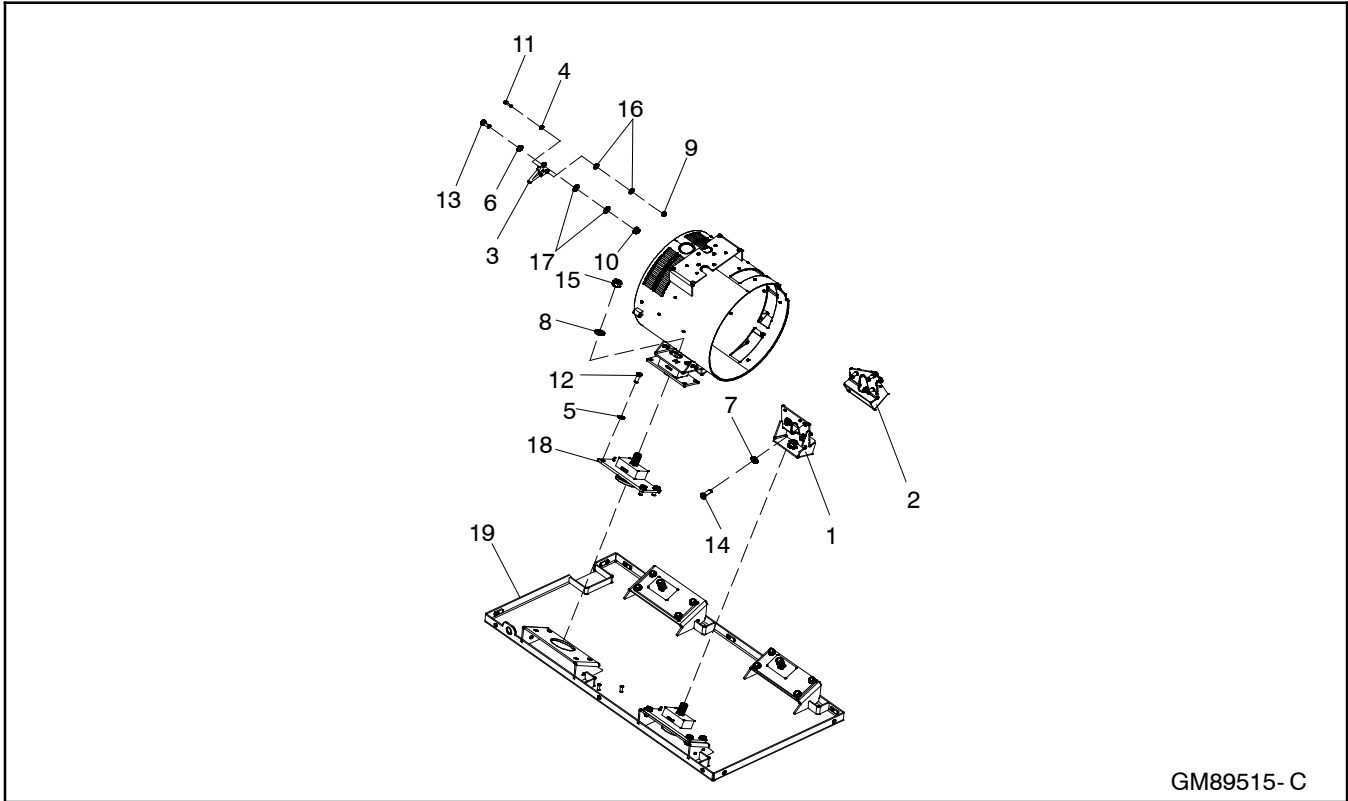
## GM95723-

Item	Part No.	Description	Qty.
1	See chart	Decal, 4 wire reconnection	1
2	See chart	Decal, reconnection	1
3	224233	Decal, 1-800 number	1
4	226917	Decal, negative battery conn	1
5	238162	Decal, pos. battery connection	1
6	249808	Decal, warning rotating parts	1
7	249809	Decal, Caution Hot Engine	1
8	249810	Decal, warning hot coolant	1
9	294520	Decal, danger, high voltage	1
10	344295	Decal, equipment grd	1
11	344486	Decal, CE	1
12	359278	Decal, fuel inlet	1
13	359279	Decal, fuel return	1
14	GM62794	Decal, Drain	1
15	GM93648	Decal, Caution	1

Variation No.	Item 1	Item 2
GM95723-GR1	GM35838	-
GM95723-GR2	-	GM90356

# Skid and Mounting

GM89515-



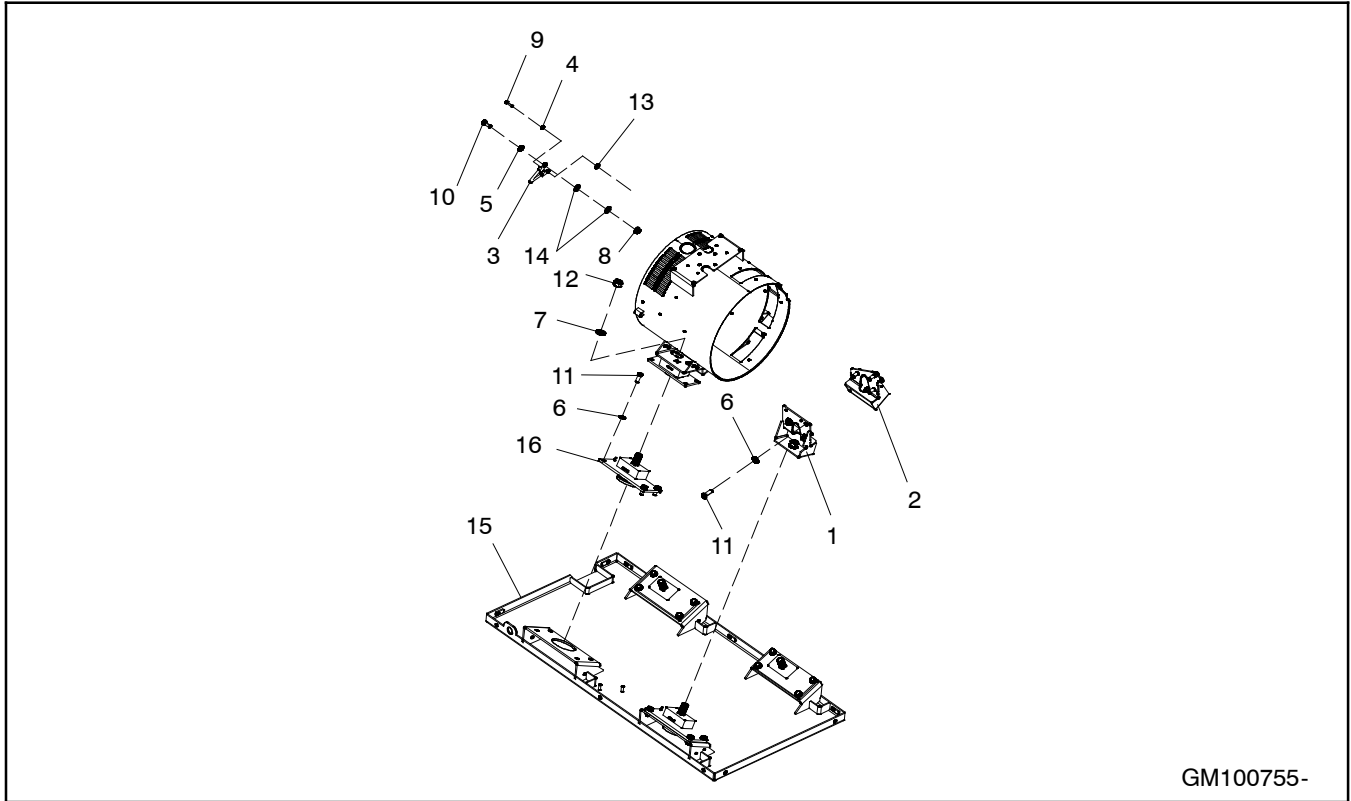
GM89515- C

Item	Part No.	Description	Qty.
1	GM89775	Foot, Engine (RH)	1
2	GM89776	Foot, Engine (LH)	1
3	LK-0607-1517	Lead	1
4	M125A-06-80	Washer, Plain	1
5	M125A-08-80	Washer, Plain 8.4 ID x 16.0 OD	16
6	M125A-10-80	Washer, Plain 10.5 ID x 20.0 OD	1
7	M125A-12-80	Washer, Plain	6
8	M125A-16-80	Washer, Plain	4
9	M6923-06-80	Nut, Hex 6mm	1
10	M6923-10-80	Nut, Hex 10mm	1
11	M933-06025-60	Screw, Hex Cap	1
12	M933-08020-60	Screw, Hex cap	16
13	M933-10025-60	Screw, hex cap, fully thrd M10 x 25mm	1
14	M933-12030-60	Screw, Hex Cap	6
15	M982-16-80	Nut, Hex Elastic Stop	4
16	X-22-12	Washer, lock, .262 ID x .743 in. OD	2
17	X-22-14	Washer, lock, .391 ID x .975 in. OD	2
18	See Chart	Mount, Fail-Safe Plate	2
19	See Chart	Tray, Drip	1

Variation No.	Item 18, Mount	Item 19, Drip Tray
GM89515-GR1	GM84777	GM89759
GM89515-GR2	GM84778	GM89760
GM89515-GR3	GM84778	GM89761
GM89515-GR4	GM84777	GM93628
GM89515-GR5	GM84778	GM95709

# Skid and Mounting, continued

GM100755-



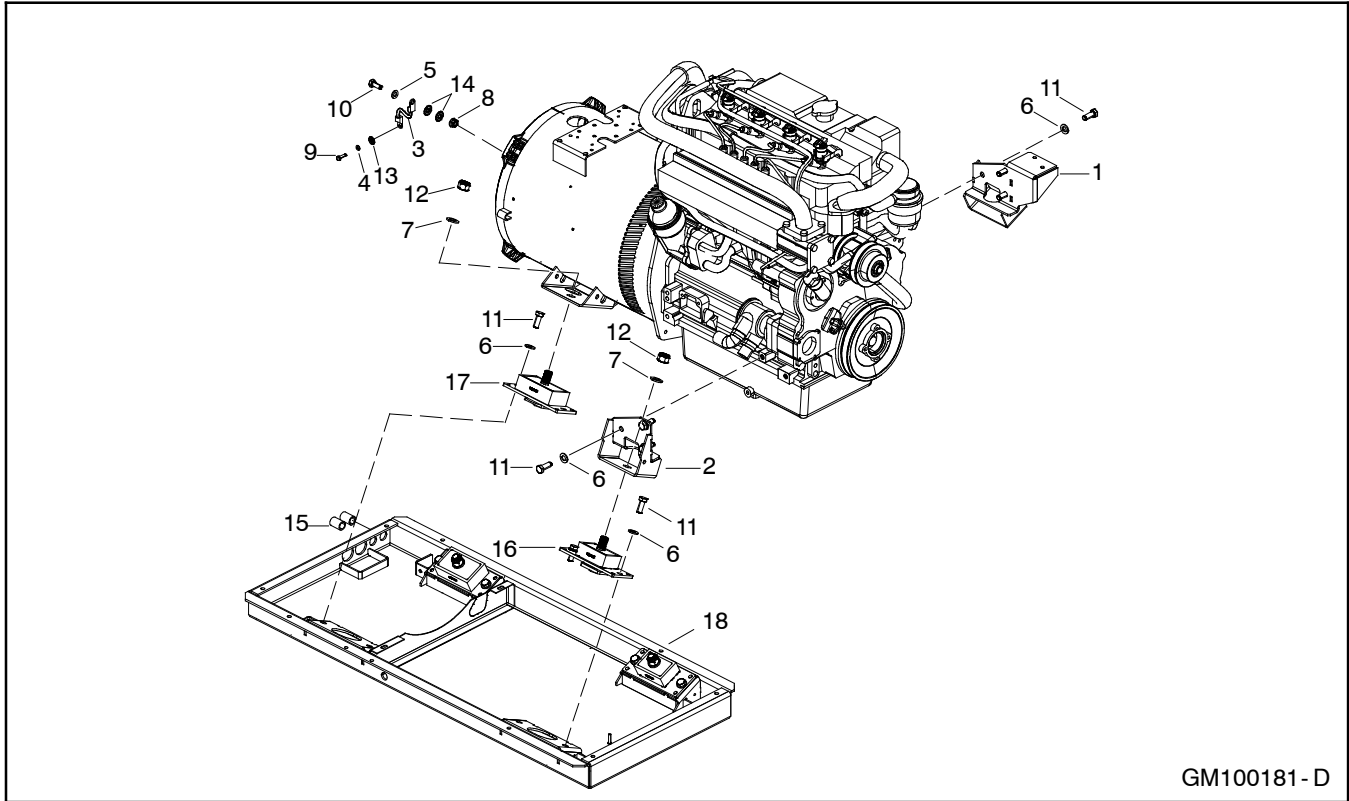
GM100755-

Item	Part No.	Description	Qty.
1	GM100810	Support, Engine (RH)	1
2	GM100811	Support, Engine (LH)	1
3	LK-0607-1517	Lead	1
4	M125A-06-80	Washer, Plain	1
5	M125A-10-80	Washer, Plain 10.5 ID x 20.0 OD	1
6	M125A-12-80	Washer, Plain	14
7	M125A-16-80	Washer, Plain	4
8	M6923-10-80	Nut, Hex 10mm	1
9	M933-06025-60	Screw, Hex Cap	1
10	M933-10025-60	Screw, hex cap, fully thrd M10 x 25mm	1
11	M933-12030-60	Screw, Hex Cap	14
12	M982-16-80	Nut, Hex Elastic Stop	4
13	X-22-12	Washer, lock, .262 ID x .743 in. OD	1
14	X-22-14	Washer, lock, .391 ID x .975 in. OD	2
15	See Chart	Tray, Drip	1
16	See Chart	Mount, Fail-Safe Plate	4

Variation No.	Item 15, Drip Tray	Item 16, Mount
GM100755-MA1	GM100643	GM84777
GM100755-MA2	GM100644	GM84778
GM100755-MA3	GM100749	GM84777
GM100755-MA4	GM100750	GM84778

# Skid and Mounting, continued

GM100181-



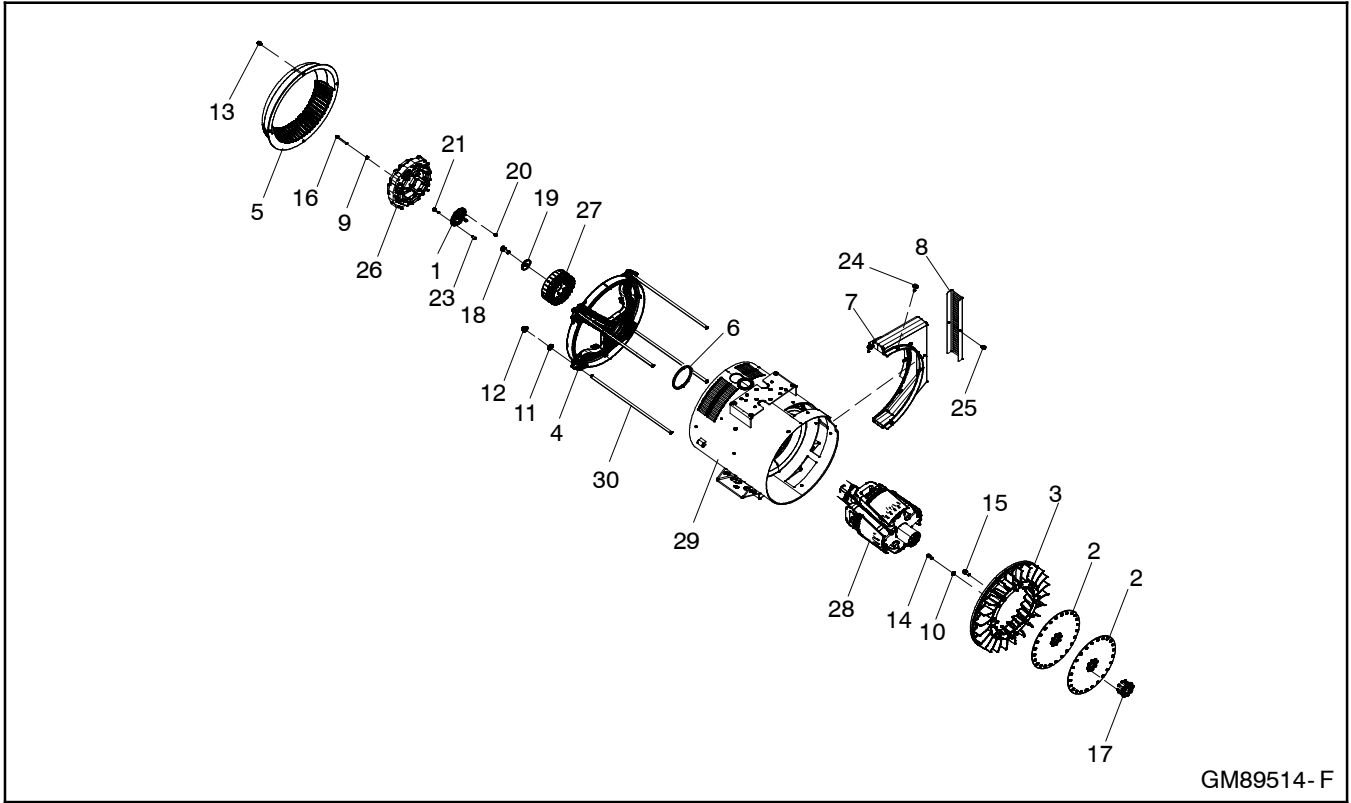
GM100181-D

Item	Part No.	Description	Qty.
1	GM101157	Support, engine (LH)	1
2	GM102362	Support, engine (RH)	1
3	LK-0607-1517	Lead, ground	1
4	M125A-06-80	Washer, plain 6.4 ID x 12.0 OD	1
5	M125A-10-80	Washer, plain 10.5 ID x 20.0 OD	1
6	M125A-12-80	Washer, plain	14
7	M125A-16-80	Washer, plain	4
8	M6923-10-80	Nut, hex 10mm	1
9	M933-06020-60	Screw, hex cap (M6 x 20 mm)	1
10	M933-10025-60	Screw, hex cap (M10 x 25 mm)	1
11	M933-12030-60	Screw, hex cap (M12 x 30 mm)	14
12	M982-16-80	Nut, hex elastic stop	4
13	X-22-12	Washer, lock	1
14	X-22-14	Washer, lock	2
15	X-216-45	Coupling, pipe ( 3/8 in. nps)	2
16	See chart	Mount, fail-safe plate	2
17	See chart	Mount, fail-safe plate	2
18	See chart	Tray, drip	1
19	See chart	Tray, stainless steel drip	1

Variation No.	Item 16	Item 17	Item 18	Item 19
GM100181-MA1	GM84778	GM84779	GM95709	-
GM100181-MA2	GM84778	GM84780	GM101542	-
GM100181-MA3	GM84778	GM84779	-	GM100306
GM100181-MA4	GM84778	GM84780	-	GM102125

# Alternator and Mounting

GM89514-



GM89514- F



# Alternator and Mounting

## GM89514-

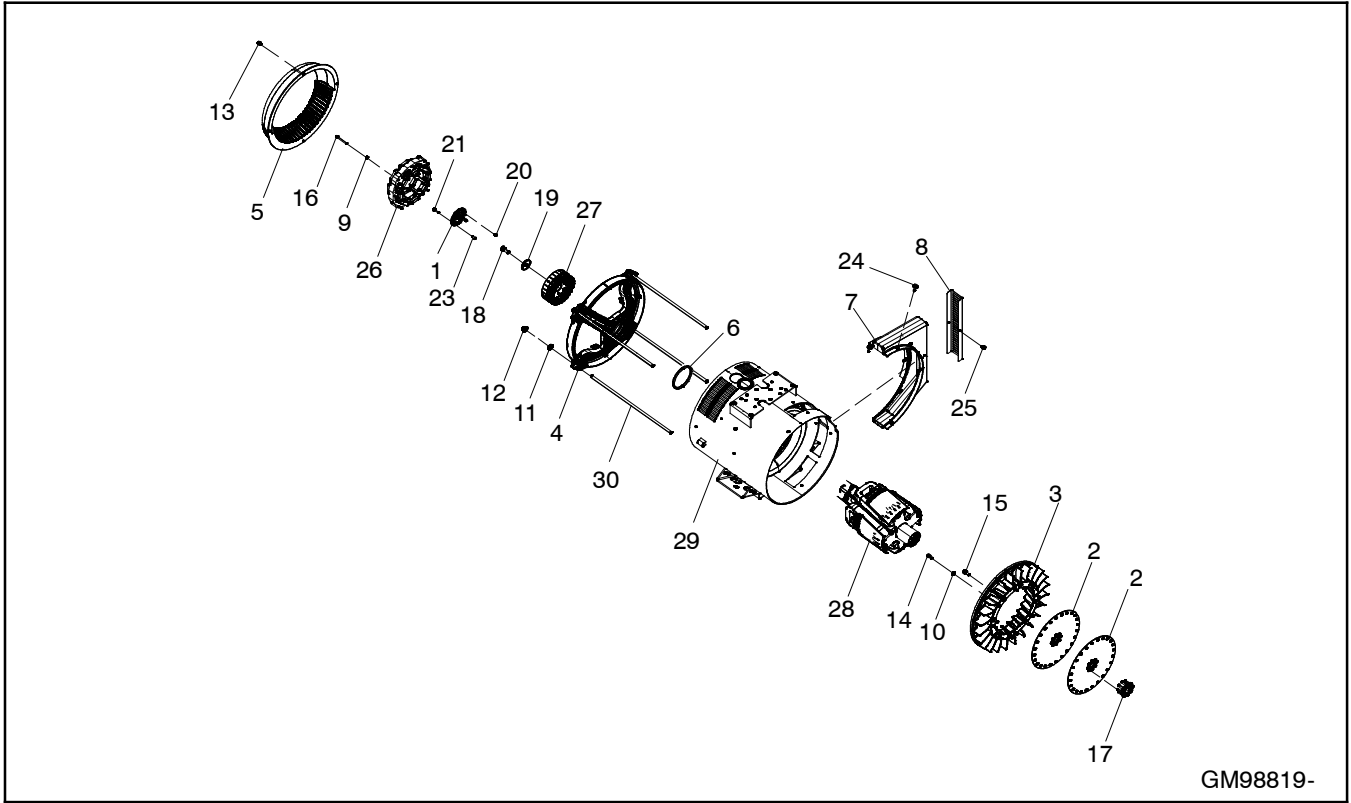
Item	Part No.	Description	Qty.
1	A-229152	PCB assembly	1
2	GM87122	Disc, Drive (4D backplate)	2
3	GM87123	Fan, Alternator (4D/4E Lombardini)	1
4	GM87126	Bracket, End (4D/4E)	1
5	GM87127	Cover, End Bracket (4D/4E)	1
6	GM87132	O-Ring	1
7	GM90103	Duct, Alternator Air Exhaust	1
8	GM90786	Guard, End Bracket Air Exhaust	1
9	M125A-05-80	Washer, Plain	4
10	M125A-06-80	Washer, Plain	8
11	M125A-10-80	Washer, Plain 10.5 ID x 20.0 OD	4
12	M6923-10-80	Nut, Hex 10mm	4
13	M7500D-05010-85	Screw, Metric Thread Forming	4
14	M912-06016-60	Screw, Socket Head Cap	8
15	M912-08020-92	Screw, Socket Head Cap	8
16	M933-05050-60	Screw, h.c. M5 x 50	4
17	M933-08025-82	Screw, Hex Cap (Metric)	8
18	M933-10025-82	Screw, Hex Cap	1
19	X-25-129	Washer,plain, .384 ID x 1.628 in. OD	1
20	X-51-8	Screw, Machine	5
21	X-67-135	Screw, hex washer, thread-forming	3
23	X-712-17	Spacer, .312 OD, .56 in.	3
24	X-794-4	Screw, hex wshr hd, drill 1/4-14 x 7/8	5
25	X-6216-1	Screw, Phillips hex crimpbite	2
26	See Chart	Exciter, Field Assembly	1
27	See Chart	Exciter, Armature	1
28	See Chart	Rotor Assy	1
29	See Chart	Stator Assy	1
30	See Chart	Stud	4

## GM89514-

Variation No.	Description	Item 26, Field Assy.	Item 27, Armature	Item 28, Rotor	Item 29, Stator	Item 30, Stud
GM89514-GR1	4D3.1	GC31594	GC344568	GC87121-1	GC90150-1	GM87134-1
GM89514-GR2	4D4.2	GC31594	GC344568	GC87121-6	GC90150-6	GM87134-6
GM89514-GR3	4D5.0	GC31594	GC87128	GC87121-3	GC90150-3	GM87134-3
GM89514-GR4	4E3.1	GC31594	GC344568	GC87121-1	GC90376-1	GM87134-1
GM89514-GR5	4E4.2	GC31594	GC344568	GC87121-6	GC90376-6	GM87134-6
GM89514-GR6	4E5.0	GC31594	GC87128	GC87121-3	GC90376-3	GM87134-3
GM89514-GR7	4D3.8	GC31594	GC344568	GC87121-2	GC90150-2	GM87134-2
GM89514-GR8	4E3.8	GC31594	GC344568	GC87121-2	GC90376-2	GM87134-2

# Alternator and Mounting, continued

GM98819-



GM98819-

# Alternator and Mounting, continued

**GM98819-**

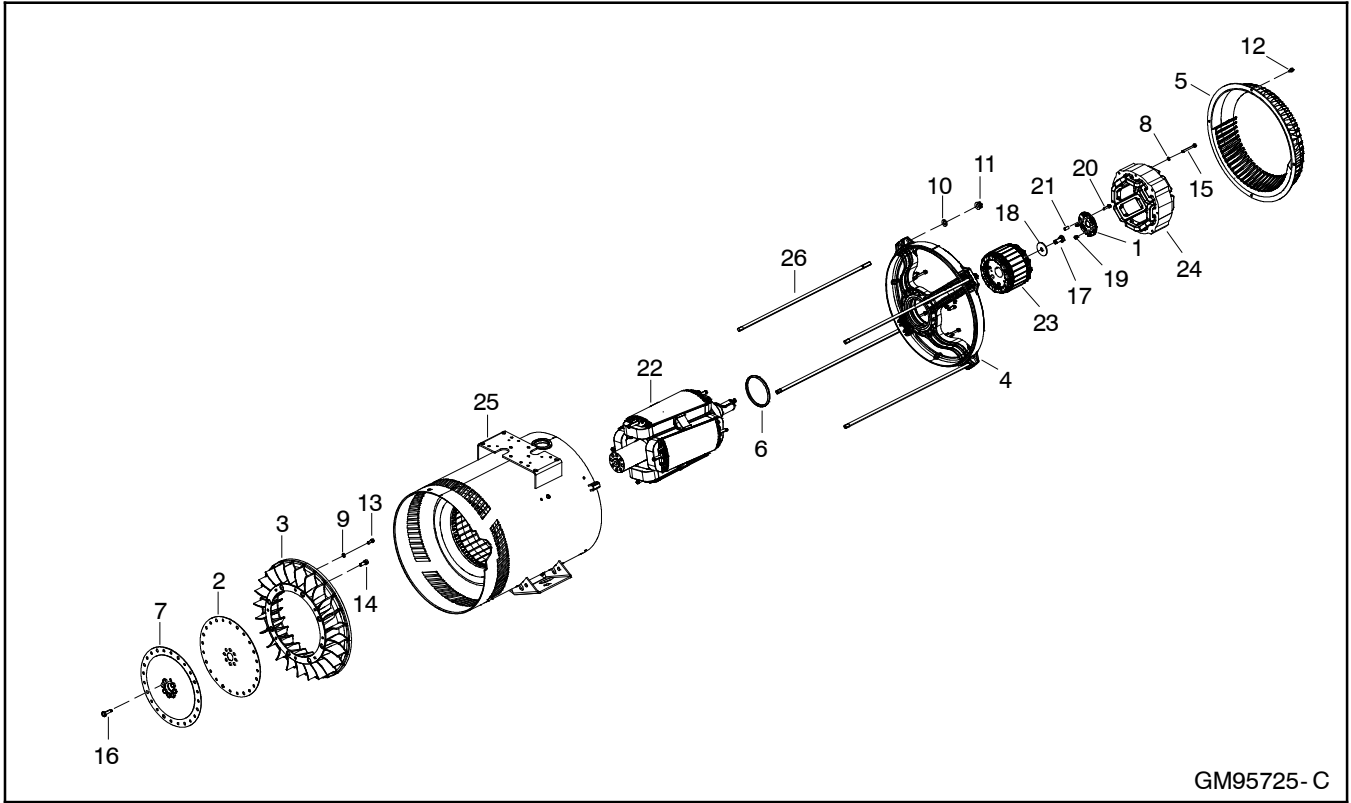
Item	Part No.	Description	Qty.
1	A-229152	PCB assembly	1
2	GM87122	Disc, Drive (4D backplate)	2
3	GM87123-1	Fan, Alternator (4D/4E Lombardini)	1
4	GM87126	Bracket, End (4D/4E)	1
5	GM87127-1	Cover, End Bracket (4D/4E)	1
6	GM87132	O-Ring	1
7	GM98660	Duct, Alternator Air Exhaust	1
8	GM100812	Guard, End Bracket Air Exhaust	1
9	M125A-05-80	Washer, Plain	4
10	M125A-06-80	Washer, Plain	8
11	M125A-10-80	Washer, Plain 10.5 ID x 20.0 OD	4
12	M6923-10-80	Nut, Hex 10mm	4
13	M7500D-05010-85	Screw, Metric Thread Forming	4
14	M912-06016-60	Screw, Socket Head Cap	8
15	M912-08020-92	Screw, Socket Head Cap	8
16	M933-05050-60	Screw, h.c. M5 x 50	4
17	M933-08025-82	Screw, Hex Cap (Metric)	8
18	M933-10025-82	Screw, Hex Cap	1
19	X-25-129	Washer,plain, .384 ID x 1.628 in. OD	1
20	X-51-8	Screw, Machine	5
21	X-67-135	Screw, hex washer, thread-forming	3
23	X-712-17	Spacer, .312 OD, .56 in.	3
24	X-794-4	Screw, hex wshr hd, drill 1/4-14 x 7/8	5
25	X-6216-1	Screw, Phillips hex crimpbite	2
26	See Chart	Exciter, Field Assembly	1
27	See Chart	Exciter, Armature	1
28	See Chart	Rotor Assy	1
29	See Chart	Stator Assy	1
30	See Chart	Stud	4

**GM98819-**

Variation No.	Description	Item 26, Field Assy.	Item 27, Armature	Item 28, Rotor	Item 29, Stator	Item 30, Stud
GM98819-MA1	3 PH, 4D3.1	GC31594	GC344568	GC87121-1	GC98659-1	GM87134-1
GM98819-MA2	3 PH, 4D3.8	GC31594	GC344568	GC87121-2	GC98659-2	GM87134-2
GM98819-MA3	3 PH, 4D4.2	GC31594	GC344568	GC87121-6	GC98659-3	GM87134-6
GM98819-MA4	3 PH, 4D5.0	GC31594	GC87128	GC87121-3	GC98659-4	GM87134-3
GM98819-MA5	1 PH, 4E3.1	GC31594	GC344568	GC87121-1	GC98829-1	GM87134-1
GM98819-MA6	1 PH, 4E3.8	GC31594	GC344568	GC87121-2	GC98829-2	GM87134-2
GM98819-MA7	1 PH, 4E4.2	GC31594	GC344568	GC87121-6	GC98829-3	GM87134-6
GM98819-MA8	1 PH, 4E5.0	GC31594	GC87128	GC87121-3	GC98829-4	GM87134-3

# Alternator and Mounting, continued

GM95725-



GM95725-C

# Alternator and Mounting, continued

**GM95725-**

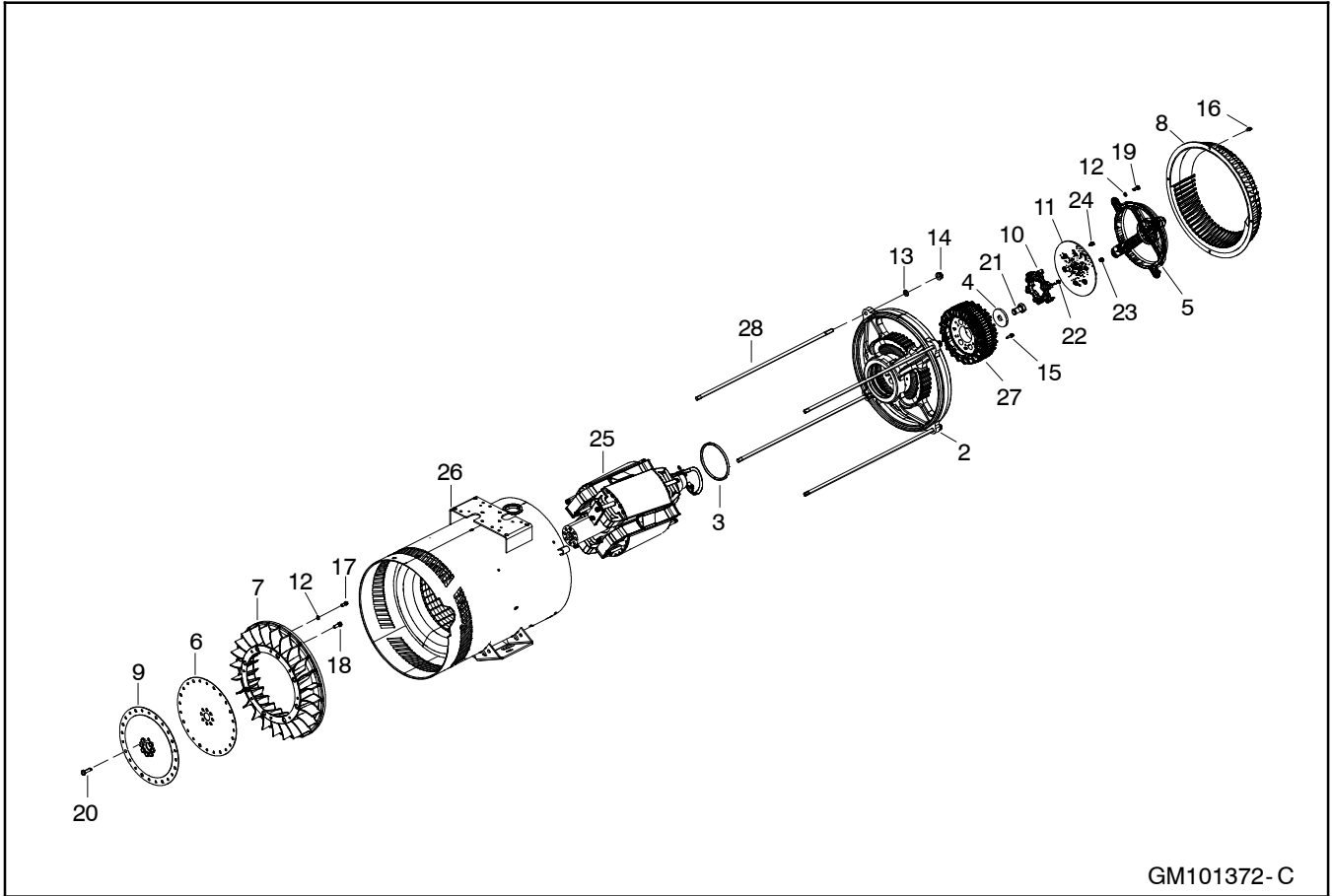
Item	Part No.	Description	Qty.
1	B-229152	PCB assembly, rotating diode board	1
2	GM87122	Disc, drive (4D backplate)	1
3	GM87123-1	Fan, alternator (4D/4E kohler diesel)	1
4	GM87126	Bracket, end (4D/4E)	1
5	GM87127-1	Cover, 4D end bracket (ip23)	1
6	GM87132	O-ring	1
7	GM89972	Disc, drive (lomb backplate)	1
8	M125A-05-80	Washer, plain	4
9	M125A-06-80	Washer, plain 6.4 ID x 12.0 OD	8
10	M125A-10-80	Washer, plain 10.5 ID x 20.0 OD	4
11	M6923-10-80	Nut, hex 10mm	4
12	M7500D-05010-85	Screw, metric thread forming	4
13	M912-06016-60	Screw, socket head cap	8
14	M912-08020-92	Screw, socket head cap	8
15	M933-05050-60	Screw, hex cap	4
16	M933-08025-82	Screw, hex cap	8
17	M933-10025-82	Screw, hex cap	1
18	X-25-129	Washer, plain, .384 ID x 1.628 in. OD	1
19	X-51-8	Screw, machine	5
20	X-67-135	Screw, hex washer, thread-forming	3
21	X-712-17	Spacer, .312 OD, .56 in.	3
22	GC87121-5	Rotor assy, 4D8.3 backplate	1
23	GC87129	Exciter armature assy (57mm)	1
24	GC87131	Exciter field assembly (57mm)	1
25	See Chart	Stator assy, backplate	1
26	GM87134-5	Stud, M10-1.5 x 560mm	4

**GM95725-**

Variation No.	Description	Item 25
GM95725-MA1	4D8.3 KDI	GC99293-1
GM95725-MA2	4E8.3B KDI	GC99322-1

# Alternator and Mounting, continued

GM101372-



GM101372-C

# Alternator and Mounting, continued

**GM101372-**

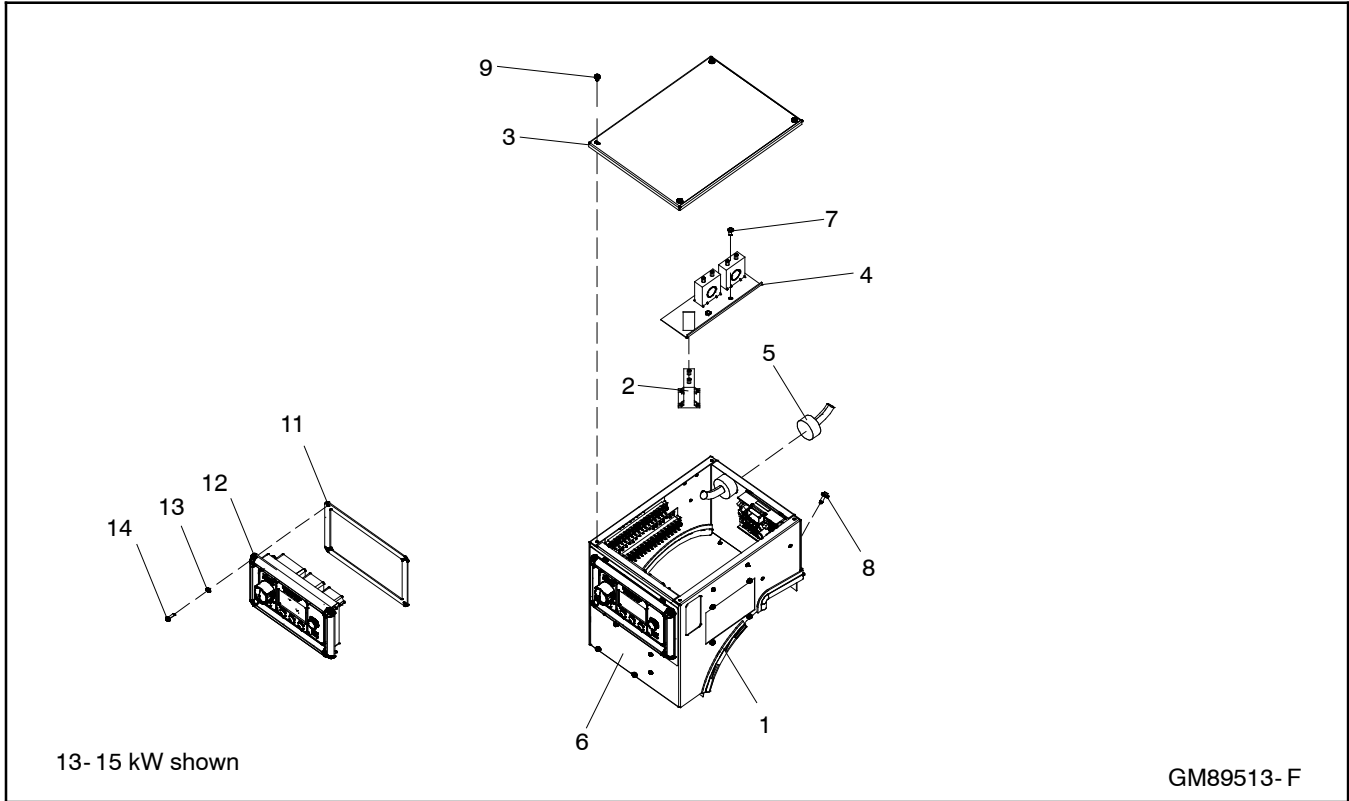
Item	Part No.	Description	Qty.
2	GM101367-1	Bracket assy, end (47X-4P10X)	1
3	GM103201	O-ring 110.49 x 5.33 buna-n 70	1
4	GM70070	Washer, frx exciter mtg	1
5	GM74218	Holder assy, led optic board	1
6	GM87122	Disc, drive (4D backplate)	1
7	GM87123-1	Fan, alternator (4D/4E kohler diesel)	1
8	GM87127-1	Cover, 4D end bracket (ip23)	1
9	GM89972	Disc, drive (lomb backplate)	1
10	GM98936	Spacer, enhanced frx activator	1
11	GM98939-1	Pcb assy, frx actuator	1
12	M125A-06-80	Washer, plain 6.4 ID x 12.0 OD	12
13	M125A-10-80	Washer, plain 10.5 ID x 20.0 OD	4
14	M6923-10-80	Nut, hex 10mm	4
15	M7500CE-05020-85	Screw, metric thread forming_inst	6
16	M7500D-05010-85	Screw, metric thread forming	4
17	M912-06016-60	Screw, socket head cap	8
18	M912-08020-92	Screw, socket head cap	8
19	M933-06016-60	Screw, hex cap	4
20	M933-08025-82	Screw, hex cap	8
21	M933-16030-82	Screw, hex cap	1
22	M934-04-SS	Nut, hex	5
23	M985-04-SS	Nut, hex elastic stop	5
24	X-6071-8	Screw, hex washer head	1
25	See chart	Rotor assy, MAR 4P7BX/4Q7BX backplate	1
26	See chart	Stator assy	1
27	See chart	Exciter armature, scr (25mm)	1
28	See chart	Stud, M10-1.5 x 590mm	4

**GM101372-**

Variation No.	Description	Item 25	Item 26	Item 27	Item 28
GM101372-MA1	4P7BX (3PH)	GC101369-1	GC101370-1	GC70064-2	GM87134-8
GM101372-MA2	4Q7BX (1PH)	GC101369-1	GC101371-1	GC70064-2	GM87134-8

# Controller and Mounting

GM89513-



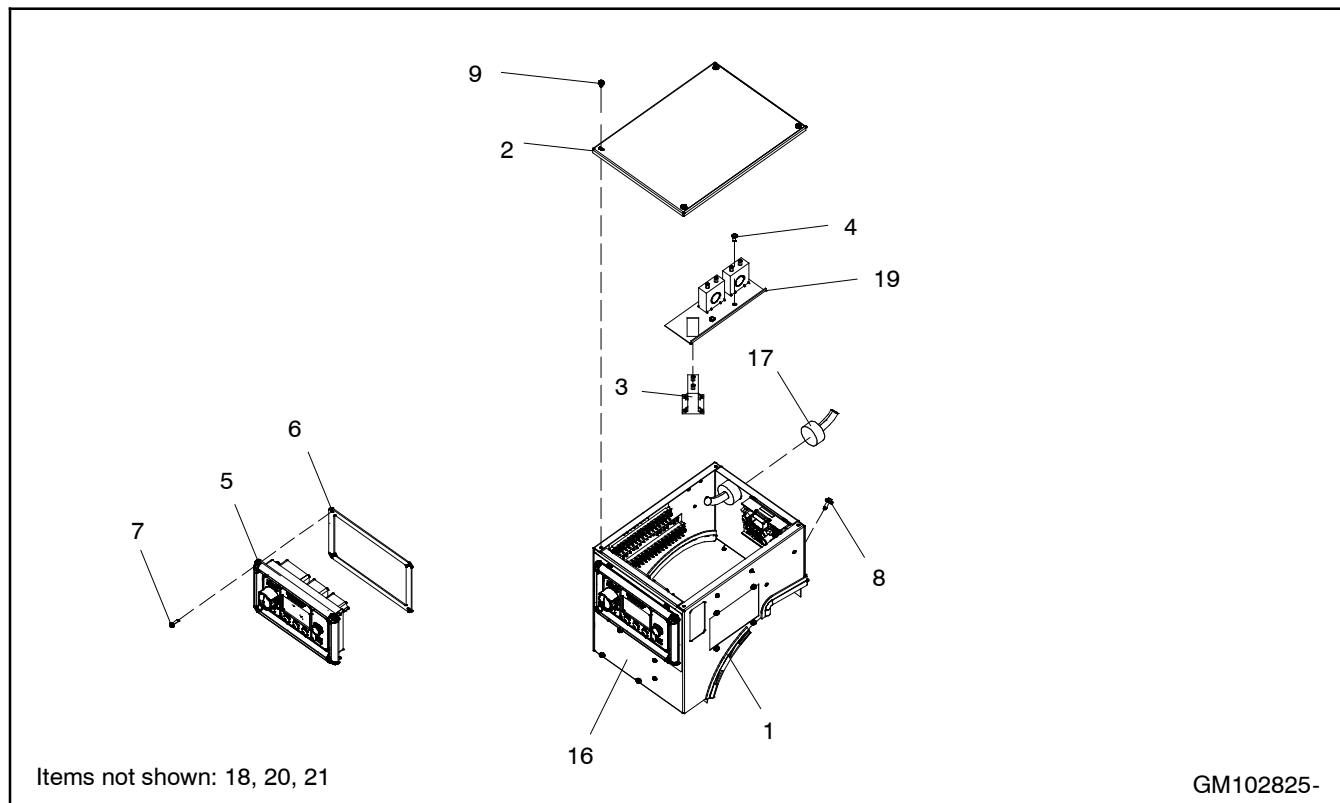
Item	Part No.	Description	Qty.
1	32200 00198	Sealant, Dow RTV 732	0.5
2	GM16252	Transformer, Current 200A:3 VAC	3
3	GM89921	Cover, Junction Box	1
4	See Chart	Bracket, CT	1
5	See Chart	Harness, Engine	1
6	See Chart	J-Box Subassy, Control & Harness	1
7	GM78761-1	Screw	2
8	X-794-4	Screw, hex wshr hd, drill 1/4-14 x 7/8	4
9	X-6216-1	Screw, Phillips hex crimp tite	4
11	GM88990	Gasket, Controller Cover	1
12	GM92086	Controller Assy, DEC3500 (service)	1
13	M125A-05-80	Washer, Plain	4
14	M7985A-05020-20	Screw, Pan Head Machine	4

Variation No.	Item 4, Bracket	Item 5, Harness	Item 6, J-Box Subassy
GM89513-GR1	GM89923	GM91088	GM93090
GM89513-GR2	GM96799	GM96794	GM96802
GM89513-GR3	GM96799	GM99445	GM94322



# Controller and Mounting

GM102825-



GM102825-

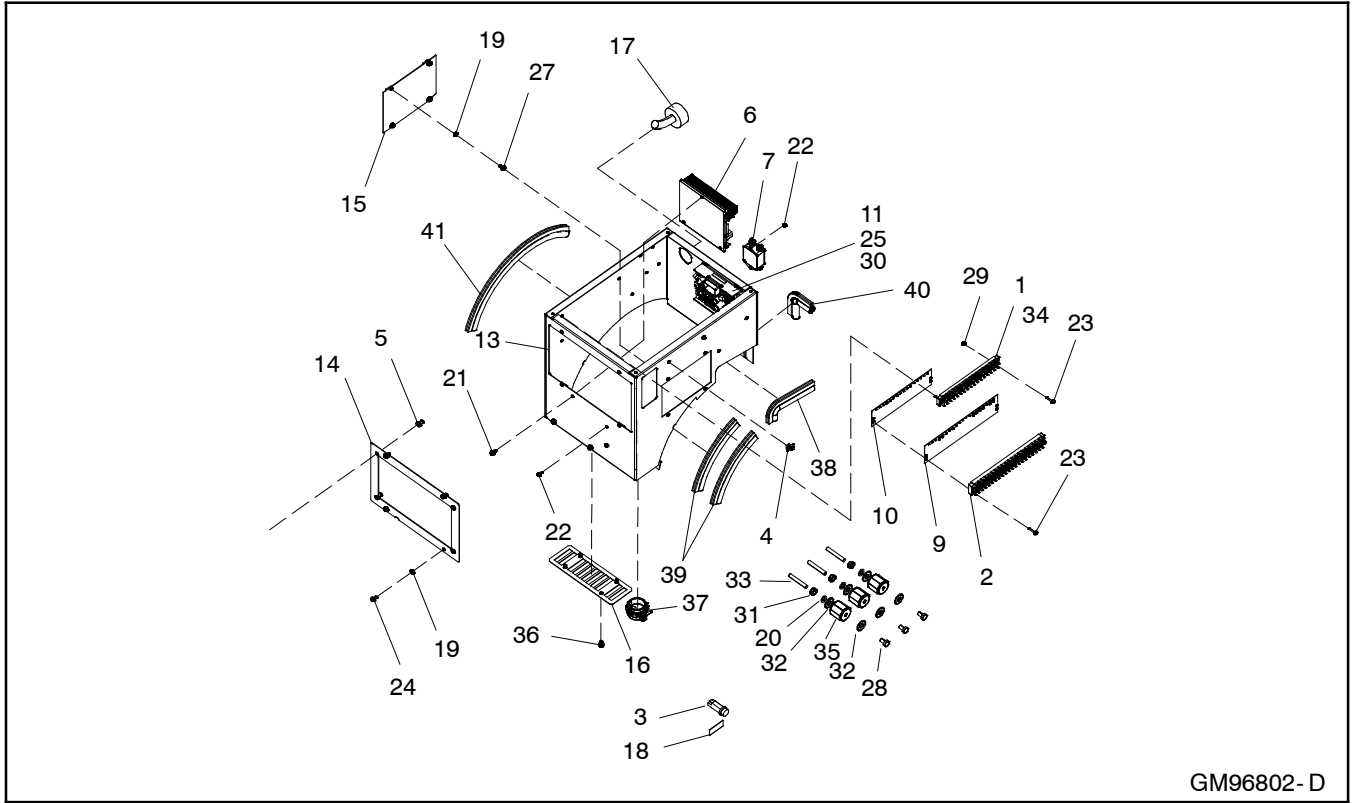
Item	Part No.	Description	Qty.
1	32200 00198	Sealant, Dow RTV 732	0.5
2	GM100077	Cover, Junction Box	1
3	GM16252	Transformer, Current 200A:3 VAC	3
4	GM78761-1	Screw	2
5	GM86809-1	Controller Assy, DEC3500	1
6	GM88990	Gasket, Controller Cover	1
7	M7985A-05025-20	Screw, Pan Head Machine	4
8	X-794-4	Screw, hex wshr hd, drill 1/4-14 x 7/8	4
9	X-6216-1	Screw, Phillips hex crimp tite	4
16	See Chart	J-Box Subassy, Control & Harness	1
17	See Chart	Harness, Engine	1
18	See Chart	Digram, Wiring	1
19	See Chart	Bracket, CT	1
20	See Chart	Screw pan head machine	2
21	See Chart	Nut, hex 5 mm	2

Variation No.	Item 16	Item 17	Item 18	Item 19
GM102825-MA1	See page 112	GM102819	GM92288	GM89923
GM102825-MA2		GM102820	GM96796	GM96799
GM102825-MA3		GM102821	GM99447	GM96799
GM102825-MA4		GM102819	GM92288	GM89923

Variation No.	Item 20	Item 21
GM102825-MA1	-	-
GM102825-MA2	M7985A-05025-20	M934-05-50
GM102825-MA3	M7985A-05025-20	M934-05-50
GM102825-MA4	-	-

# Controller and Mounting, continued

## J-Box Subassy



GM96802-D

# Controller and Mounting, continued

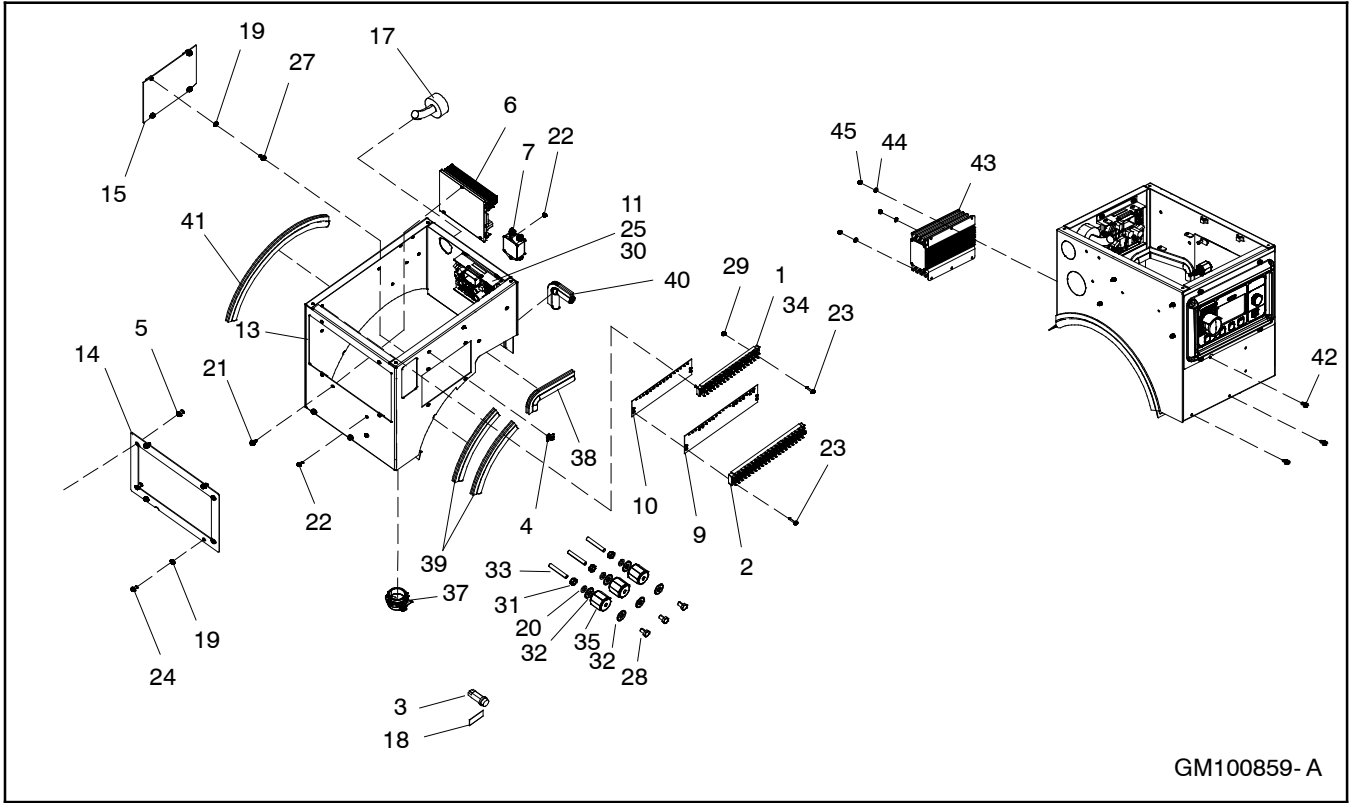
Item	Part No.	Description	Qty.
1	241621	Strip, terminal	1
2	273769	Terminal block	1
3	See chart	Lamp assy 28VDC yel/amb led	1
4	361567	Base, tie wrap snapin	2
5	GM11040-6	Insert, Threaded, M5-0.8	4
6	See Chart	Assembly, Battery Charger	1
7	GM84713	Filter, RFI Power Line	1
9	GM87761	Marker, Strip	1
10	GM87762	Marker, Strip	1
11	GM109411	Board, Assembly 4D Activator	1
13	GM89922	Box, Junction	1
14	GM90155	Panel, Controller	1
15	GM91082	Cover, Circuit Breaker	1
16	GM91271	Guard, J-Box Air Inlet	1
17	See chart	Harness, J Box	1
18	See chart	Decal, EGR Lamp	1
19	M125A-05-80	Washer, Plain	8
20	M125A-06-80	Washer, Plain	6
21	M7500D-05010-85	Screw, Metric Thread Forming	3
22	M7985A-04010-20	Screw, Pan Head Machined	2
23	M7985A-04020-20	Screw, pan head mach.	4
24	M7985A-05010-20	Screw, Pan Head M5x10	4
25	M7985A-05016-20	Screw, Pan Head Machine	4
27	M933-05020-60	Screw, Hex Cap	4
28	M933-06010-60	Screw, Hex Cap	3
29	M934-04-50	Nut, Hex 4 mm	6
30	M934-05-50	Nut, Hex 5 mm	4
31	M934-06-60	Nut, Hex 6 mm	3
32	X-22-12	Washer, lock, .262 IDx.743 in. OD	6
33	X-6054-22	Stud, Metric	3
34	X-6073-2	JUMPER	1
35	X-6128-35	Insulator , Standoff	3
36	X-6216-1	Screw, Phillips hex crimpitite	4
37	X-6266-1	Connector, cable	1
38	X-6422-26	Seal, Push-On Trim	1
39	X-6422-29	Seal, Push-On Trim	2
40	X-6422-40	Seal, Push-On Trim	1
41	X-6422-41	Seal, Push-On Trim	1

J- Box Assy.	Item 3, Lamp	Item 6, Battery Charger	Item 17, Harness	Item 18, Decal
GM93090	-	*	GM91087	-
GM96802 (12V)	343684	GM106433- S	GM96795	GM98486
GM94322 (24V)	343684	GM106434- S	GM99446	GM98486

\* GM106433- S (12V) or GM106434- S (24V). Refer to parts bulletin PB- 160 for selection.

# Controller and Mounting, continued

## J-Box Subassy



# Controller and Mounting, continued

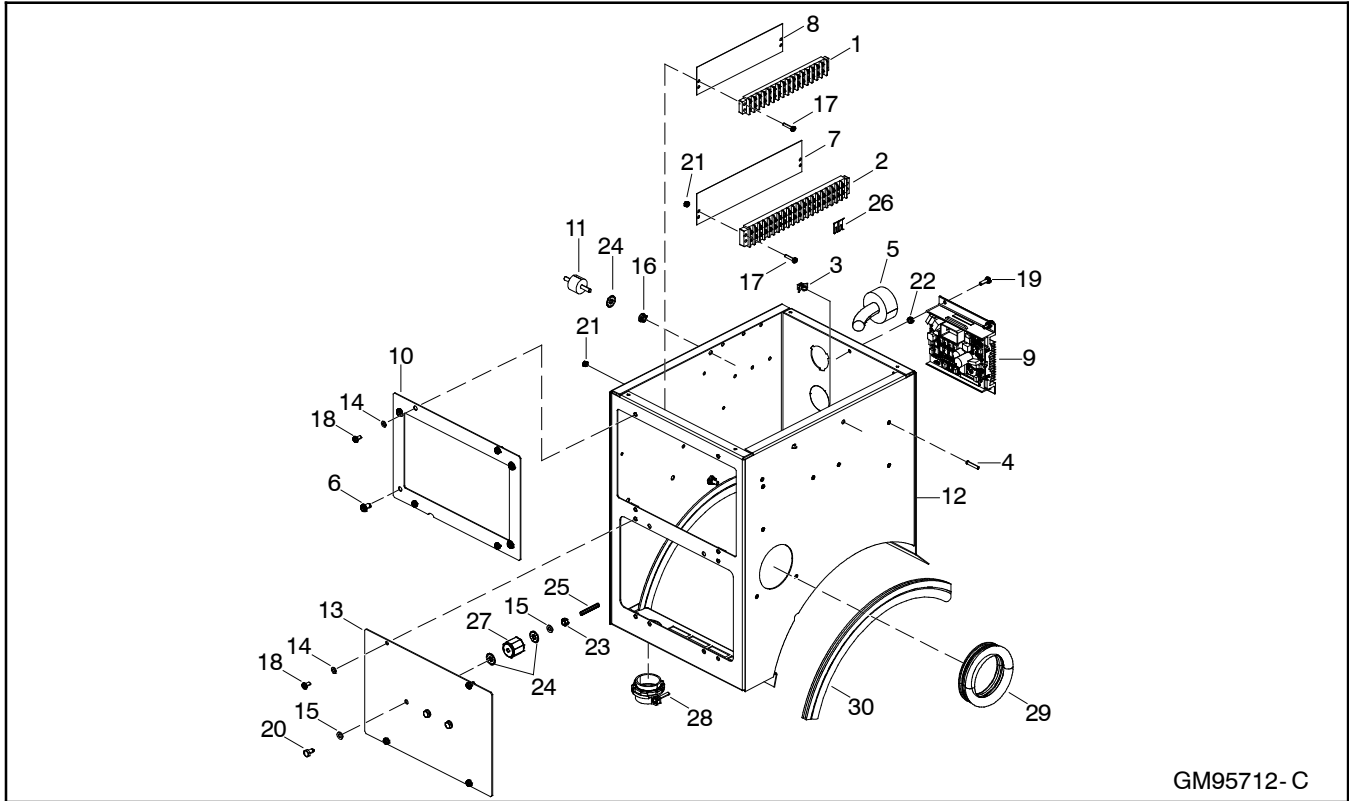
Item	Part No.	Description	Qty.
1	241621	Strip, terminal	1
2	273769	Terminal block	1
3	See chart	Lamp assy 28VDC yel/amb led	1
4	361567	Base, tie wrap snapin	2
5	GM11040-6	Insert, Threaded, M5-0.8	4
6	See Chart	Assembly, Battery Charger	1
7	GM84713	Filter, RFI Power Line	1
9	GM87761	Marker, Strip	1
10	GM87762	Marker, Strip	1
11	GM109411	Board, Assembly 4D Activator	1
13	See Chart	Box, Junction	1
14	GM90155	Panel, Controller	1
15	GM91082	Cover, Circuit Breaker	1
17	See chart	Harness, J Box	1
18	See chart	Decal, EGR Lamp	1
19	M125A-05-80	Washer, Plain	8
20	M125A-06-80	Washer, Plain	6
21	M7500D-05010-85	Screw, Metric Thread Forming	3
22	M7985A-04010-20	Screw, Pan Head Machined	2
23	M7985A-04020-20	Screw, pan head mach.	4
24	M7985A-05010-20	Screw, Pan Head M5x10	4
25	M7985A-05016-20	Screw, Pan Head Machine	4
27	M933-05020-60	Screw, Hex Cap	4
28	M933-06010-60	Screw, Hex Cap	3
29	M934-04-50	Nut, Hex 4 mm	6
30	M934-05-50	Nut, Hex 5 mm	4
31	M934-06-60	Nut, Hex 6 mm	3
32	X-22-12	Washer, lock, .262 ID x.743 in. OD	6
33	X-6054-22	Stud, Metric	3
34	X-6073-2	JUMPER	1
35	X-6128-35	Insulator , Standoff	3
37	X-6266-1	Connector, cable	1
38	X-6422-26	Seal, Push-On Trim	1
39	X-6422-29	Seal, Push-On Trim	2
40	X-6422-40	Seal, Push-On Trim	1
41	X-6422-41	Seal, Push-On Trim	1
42	X-6216-1	Screws	3
43	GM105398	Battery charger	1
44	X-22-20	Lock washer	3
45	M934-04-50	Nut	3

Variation No.	With Serial Numbers Before	J- Box Assy.	Item 3, Lamp	Item 6, Battery Charger	Item 13, Junction Box	Item 17, Harness	Item 18, Decal
GM102825- MA1	336KGMGG0006	GM100858 (12V)	-	GM106433- S	GM100853	GM91087	-
GM102825- MA2	337PGMGG0015	GM100859 (12V)	343684	GM106433- S	GM100853	GM96795	GM98486
GM102825- MA3	337XGMGG0018	GM100860 (24V)	343684	GM106434- S	GM100853	GM99446	GM98486

Variation No.	With Serial Numbers Shown Below and Later	J- Box Assy.	Item 3, Lamp	Item 6, Battery Charger	Item 13, Junction Box	Item 17, Harness	Item 18, Decal
GM102825- MA1	336KGMGG0006	GM105912 (12V)	-	GM105398	GM105916	GM91087	-
GM102825- MA2	337PGMGG0015	GM105913 (12V)	343684	GM105398	GM105916	GM96795	GM98486
GM102825- MA3	337XGMGG0018	GM105914 (24V)	343684	GM105399	GM105916	GM99446	GM98486
GM102825- MA4	337XGMGG0009	GM107923 (24V)	-	GM105399	GM105916	GM91087	-

# Controller and Mounting, continued

## J-Box Subassy

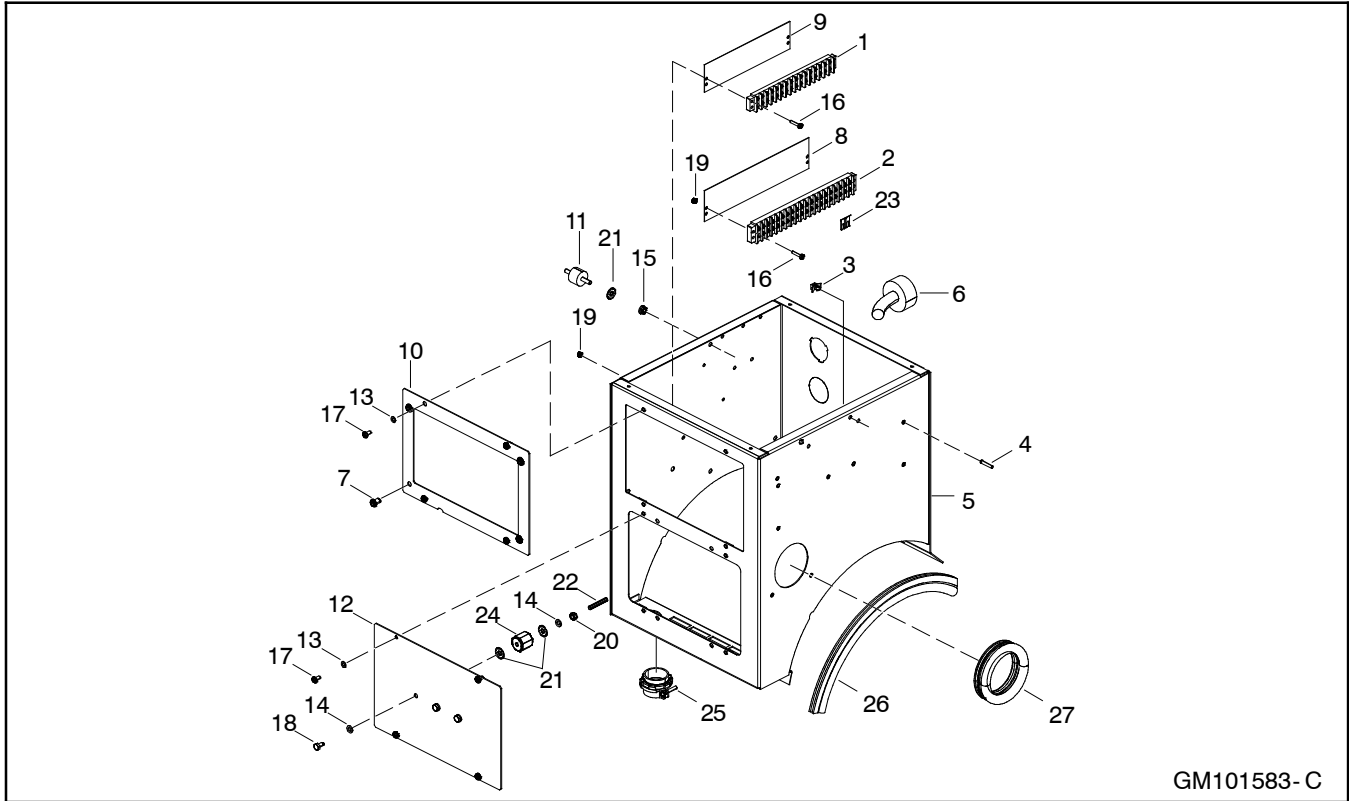


GM95712- C

Item	Part No.	Description	Qty.
1	241621	Strip, terminal	1
2	273769	Terminal block	1
3	361567	Base, tie wrap snapin	2
4	362323	Cap, masking	6
5	GM101931	Harness, junction box 32kw marine	1
6	GM11040-6	Insert, threaded M5-0.8	4
7	GM87761	Strip, marker	1
8	GM87762	Strip, marker	1
9	GM109411	Assy, 4D activator board	1
10	GM90155	Panel, controller	1
11	GM91610	Vibromount, controller	3
12	GM95710	Box, junction	1
13	GM99089	Panel, junction box (RH)	1
14	M125A-05-80	Washer, plain	8
15	M125A-06-80	Washer, plain 6.4 ID x 12.0 OD	6
16	M6923-06-80	Nut, hex 6 mm	3
17	M7985A-04020-20	Screw, pan head mach.	4
18	M7985A-05010-20	Screw, pan head M5x10	8
19	M7985A-05016-20	Screw, pan head machine	4
20	M933-06010-60	Screw, hex cap	3
21	M934-04-50	Nut, hex 4 mm	4
22	M934-05-50	Nut, hex 5 mm	4
23	M934-06-60	Nut, hex 6 mm	3
24	X-22-12	Washer, lock	9
25	X-6054-22	Stud, metric	3
26	X-6073-2	Jumper	1
27	X-6128-35	Insulator, standoff	3
28	X-6266-1	Connector, cable	1
29	X-6422-41	Seal, push-on trim	2
30	X-6423-27	Seal, push-on trim	1

# Controller and Mounting, continued

## J-Box Subassy

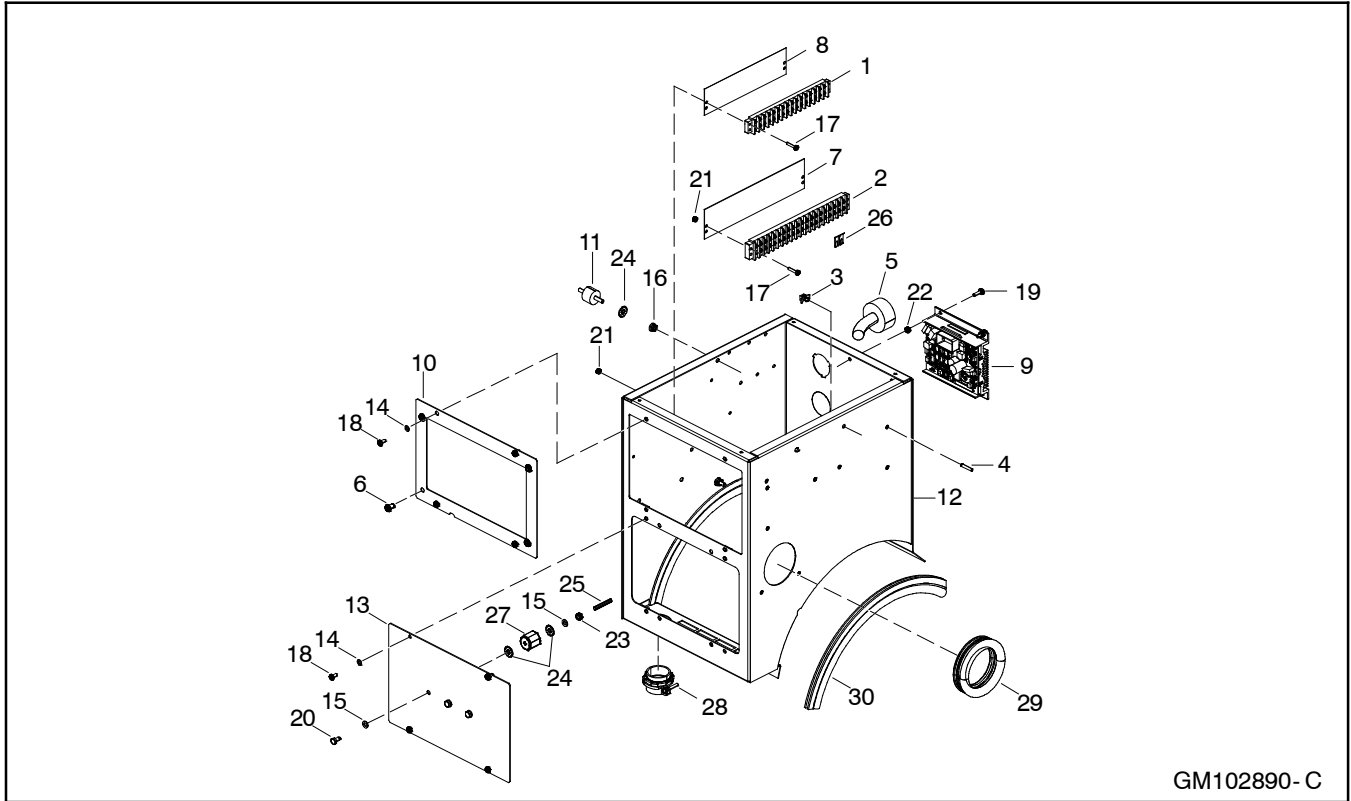


GM101583-C

Item	Part No.	Description	Qty.
1	241621	Strip, terminal	1
2	273769	Terminal block	1
3	361567	Base, tie wrap snapin	2
4	362323	Cap, masking	6
5	GM101581	Box, junction	1
6	GM102269	Harness, junction box 40kw marine	1
7	GM11040-6	Insert, threaded M5-0.8	4
8	GM87761	Strip, marker	1
9	GM87762	Strip, marker	1
10	GM90155	Panel, controller	1
11	GM91610	Vibromount, controller	3
12	GM99089	Panel, junction box (RH)	1
13	M125A-05-80	Washer, plain	8
14	M125A-06-80	Washer, plain 6.4 ID x 12.0 OD	6
15	M6923-06-80	Nut, hex 6 mm	3
16	M7985A-04020-20	Screw, pan head mach.	4
17	M7985A-05010-20	Screw, pan head M5x10	8
18	M933-06010-60	Screw, hex cap	3
19	M934-04-50	Nut, hex 4 mm	4
20	M934-06-60	Nut, hex 6 mm	3
21	X-22-12	Washer, lock	9
22	X-6054-22	Stud, metric	3
23	X-6073-2	Jumper	1
24	X-6128-35	Insulator, standoff	3
25	X-6266-1	Connector, cable	1
26	X-6422-41	Seal, push-on trim	2
27	X-6423-27	Seal, push-on trim	1

# Controller and Mounting, continued

## J-Box Subassy



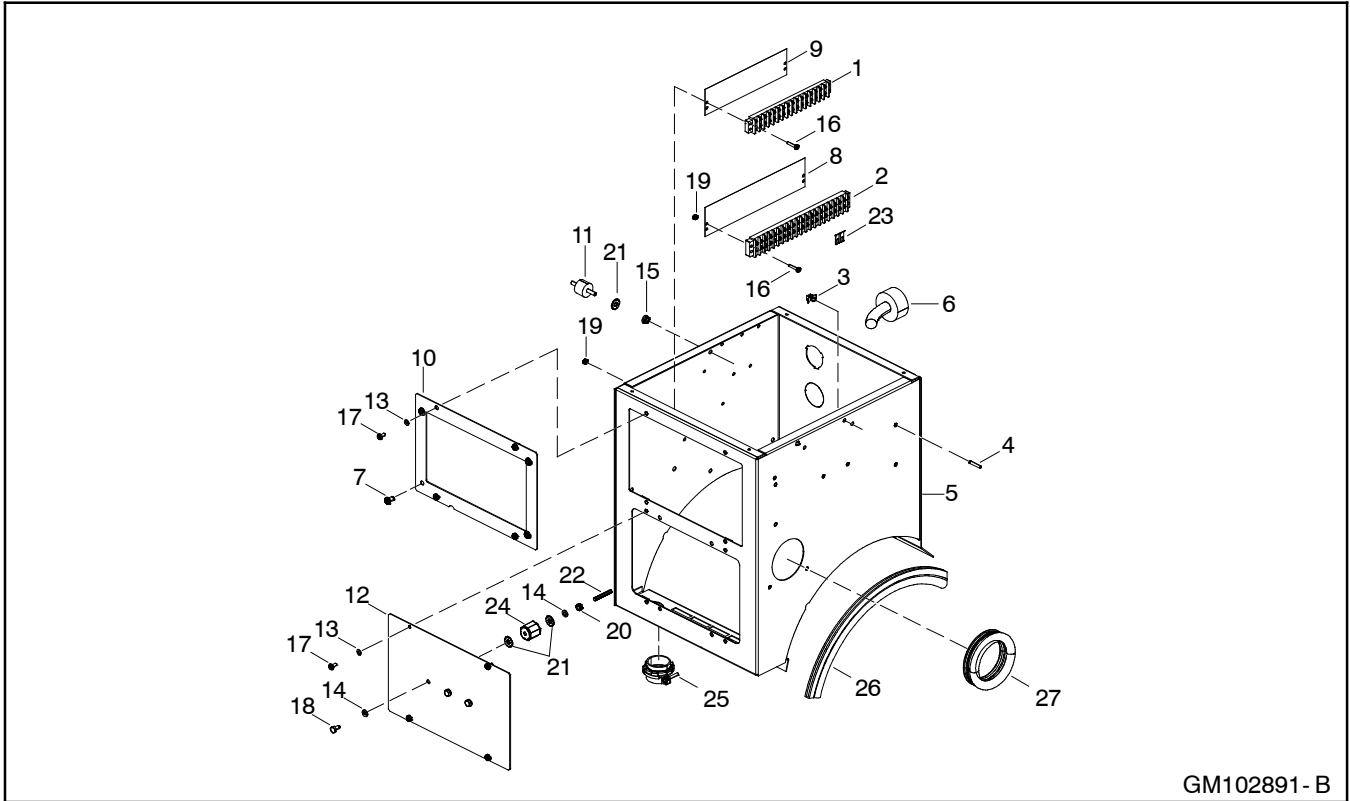
GM102890-C

Item	Part No.	Description	Qty.
1	241621	Strip, terminal	1
2	273769	Terminal block	1
3	361567	Base, tie wrap snapin	2
4	362323	Cap, masking	6
5	GM102336	Harness, j-box 32kW 24V	1
6	GM11040-6	Insert, threaded M5-0.8	4
7	GM87761	Strip, marker	1
8	GM87762	Strip, marker	1
9	GM109411	Assy, 4D activator board	1
10	GM90155	Panel, controller	1
11	GM91610	Vibromount, controller	3
12	GM95710	Box, junction	1
13	GM99089	Panel, junction box (RH)	1
14	M125A-05-80	Washer, plain	8
15	M125A-06-80	Washer, plain 6.4 ID x 12.0 OD	6
16	M6923-06-80	Nut, hex 6mm	3
17	M7985A-04020-20	Screw, pan head mach.	4
18	M7985A-05010-20	Screw, pan head M5x10	8
19	M7985A-05016-20	Screw, pan head machine	4
20	M933-06010-60	Screw, hex cap	3
21	M934-04-50	Nut, hex 4 mm	4
22	M934-05-50	Nut, hex 5 mm	4
23	M934-06-60	Nut, hex 6 mm	3
24	X-22-12	Washer, lock	9
25	X-6054-22	Stud, metric	3
26	X-6073-2	Jumper	1
27	X-6128-35	Insulator, standoff	3
28	X-6266-1	Connector, cable	1
29	X-6422-41	Seal, push-on trim	2
30	X-6423-27	Seal, push-on trim	1



# Controller and Mounting, continued

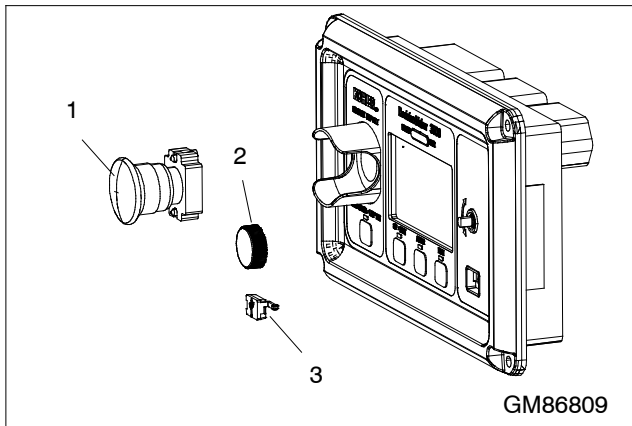
## J-Box Subassy



GM102891 - B

Item	Part No.	Description	Qty.
1	241621	Strip, terminal	1
2	273769	Terminal block	1
3	361567	Base, tie wrap snapin	2
4	362323	Cap, masking	6
5	GM101581	Box, junction	1
6	GM102337	Harness, j-box 40kW 24V	1
7	GM11040-6	Insert, threaded M5-0.8	4
8	GM87761	Strip, marker	1
9	GM87762	Strip, marker	1
10	GM90155	Panel, controller	1
11	GM91610	Vibromount, controller	3
12	GM99089	Panel, junction box (RH)	1
13	M125A-05-80	Washer, plain	8
14	M125A-06-80	Washer, plain 6.4 ID x 12.0 OD	6
15	M6923-06-80	Nut, hex 6 mm	3
16	M7985A-04020-20	Screw, pan head mach.	4
17	M7985A-05010-20	Screw, pan head M5x10	8
18	M933-06010-60	Screw, hex cap	3
19	M934-04-50	Nut, hex 4 mm	4
20	M934-06-60	Nut, hex 6 mm	3
21	X-22-12	Washer, lock	9
22	X-6054-22	Stud, metric	3
23	X-6073-2	Jumper	1
24	X-6128-35	Insulator, standoff	3
25	X-6266-1	Connector, cable	1
26	X-6422-41	Seal, push-on trim	2
27	X-6423-27	Seal, push-on trim	1

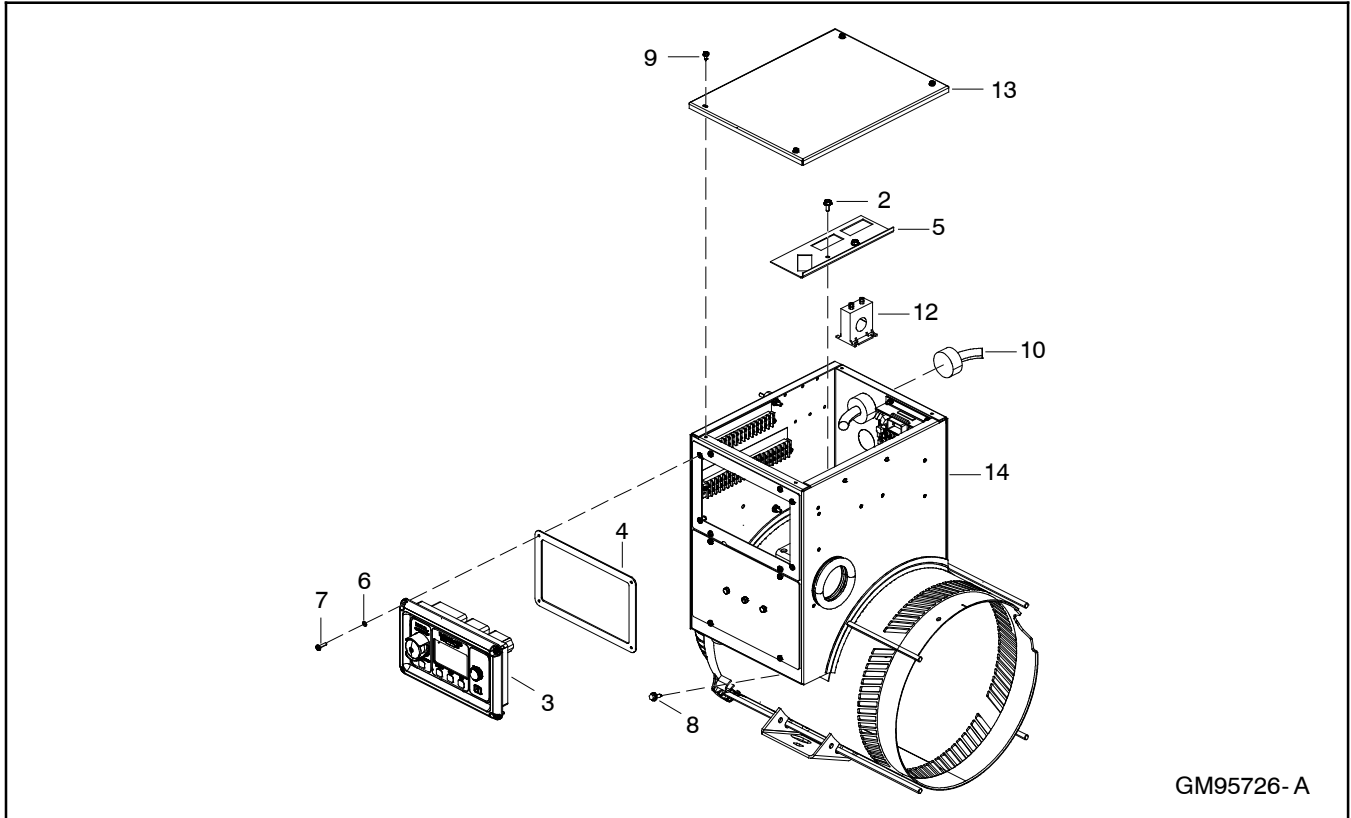
## Controller and Mounting, continued



Item	Part Number	Description	Qty
			Var All
1	GM86812	Switch, Push Button	1
2	GM58147	Knob, Adjustment	1
3	GM60403	Plug, USB	1

# Control and Harness

GM95726-



Item	Part No.	Description	Qty.
2	GM78761-1	Screw, sheet metal M6 x 1.0 x 16mm	2
3	GM86809-1	DEC3500 controller assy	1
4	GM88990	Gasket, controller cover	1
5	GM89923	Bracket, ct	1
6	M125A-05-80	Washer, plain	4
7	M7985A-05020-20	Screw, pan head machine	4
8	X-794-4	Screw, drill	4
9	X-6216-1	Screw, phillips hex crimpite	4
10	See chart	Harness, engine 32-40kw marine 12V/24V	1
12	See chart	Transformer, current	3
13	See chart	Cover, junction box	1
14	See chart	Junction box subassy	1

Variation No.	Item 10	Item 11	Item 12	Item 13	Item 14
GM95726-MA1	GM101897	GM101901	GM16252	GM95711	GM95712
GM95726-MA2	GM101897	GM102540	GM16252	GM101582	GM101583
GM95726-MA3	GM101899	GM101903	GM16252	GM95711	GM102890
GM95726-MA4	GM101899	GM102542	GM16252	GM101582	GM102891

# Literature

701-197-7, 701-197-10  
 701-197-8, 701-197-11  
 701-197-9, 701-197-12  
 701-197-18, 701-197-13

Item	Part No.	Description	Qty.
1	TP-5620	Safety Precautions, Marine	1
2	TP-6691	Warranty, Marine (32 kW & Below)	1
3	TP-6938	O/M Kohler KDI 1903 & 2504 M	1
4	TP-6939	S/M Kohler KDI 1903 & 2504 M	1
5	TP-6951	O/M 13-24EKOZD/11-20EFKOZD	1
6	TP-6952	I/M 13-24EKOZD/11-20EFKOZD	1
7	TP-6953	S/M 13-24EKOZD/11-20EFKOZD	1
8	TP-6954	P/C 13-24EKOZD/11-20EFKOZD	1
9	TP-6701	O/M SiteTech Software	1

701-197-19, 701-197-20  
 701-197-21, 701-197-22  
 701-197-23, 701-197-24  
 701-197-25, 701-197-26

Item	Part No.	Description	Qty.
1	TP-5620	Safety Precautions, Marine	1
2	TP-6691	Warranty, Marine (32 kW & Below)	1
3	TP-6701	O/M SiteTech Software	1
4	TP-6938	O/M Kohler KDI 1903 & 2504 M	1
5	TP-6939	S/M Kohler KDI 1903 & 2504 M	1
6	TP-6953	S/M 13-24EKOZD/11-20EFKOZD	1
7	TP-6954	P/C 13-24EKOZD/11-20EFKOZD	1
8	TP-7044	O/M 14-40EKOZD/12-35EFKOZD	1
9	TP-7045	I/M 14-40EKOZD/12-35EFKOZD	1

701-197-27, 701-197-28

Item	Part No.	Description	Qty.
1	TP-5620	Safety Precautions, Marine	1
2	TP-6691	Warranty, Marine (32 kW & Below)	1
3	TP-6701	O/M SiteTech Software	1
4	TP-6916	S/M Workshop, KDI 1903 TCR/2504TCR	1
5	TP-6953	S/M 13-24EKOZD/11-20EFKOZD	1
6	TP-6954	P/C 13-24EKOZD/11-20EFKOZD	1
7	TP-7044	O/M 14-40EKOZD/12-35EFKOZD	1
8	TP-7045	I/M 14-40EKOZD/12-35EFKOZD	1
9	TP-7109	O/M KDI 2504 TCR MGW	1

701-197-29, 701-197-30

Item	Part No.	Description	Qty.
1	TP-5620	Safety Precautions, Marine	1
2	TP-6692	Warranty, Marine (33 kW & Below)	1
3	TP-6701	O/M SiteTech Software	1
4	TP-6916	S/M Workshop, KDI 1903 TCR/2504TCR	1
5	TP-6953	S/M 13-24EKOZD/11-20EFKOZD	1
6	TP-6954	P/C 13-24EKOZD/11-20EFKOZD	1
7	TP-7044	O/M 14-40EKOZD/12-35EFKOZD	1
8	TP-7045	I/M 14-40EKOZD/12-35EFKOZD	1
9	TP-7110	O/M KDI 2504 TCR MGMI	1

## Paint and Miscellaneous Parts

Item	Part Number	Description
1	GM48126	White paint, spray can (Matterhorn White)

# Notes

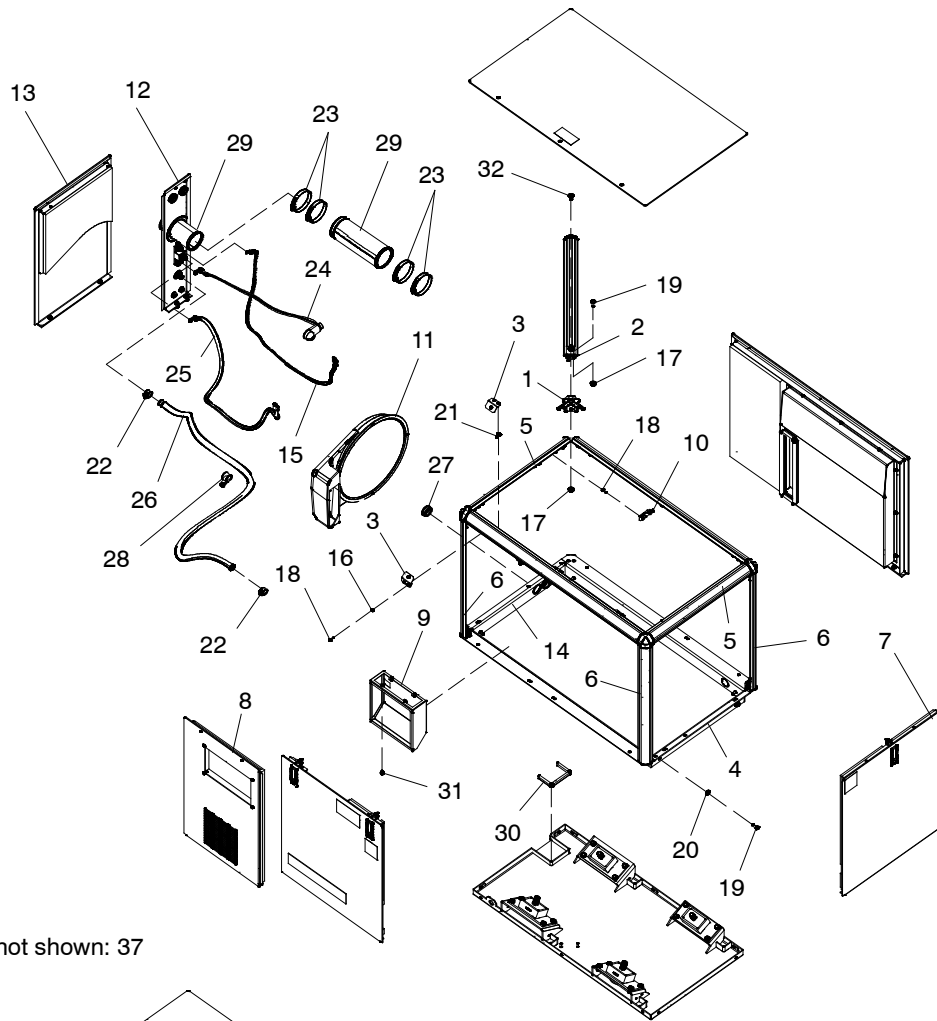


# Sound Shield

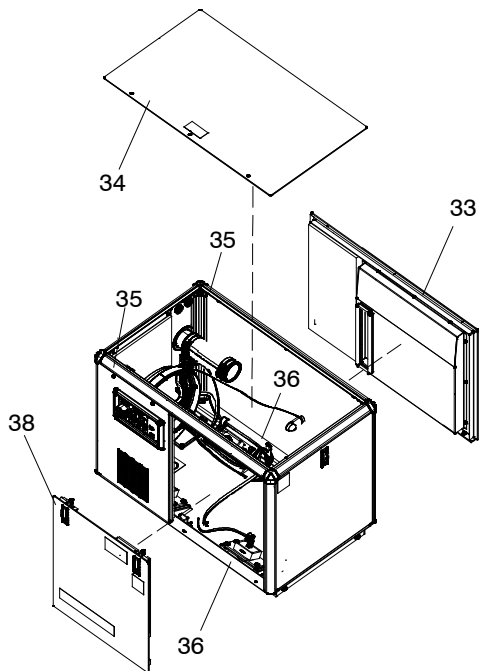
Item	Part No.	Description	Qty.
1	GM74137	Corner, Sound Shield	4
2	GM74790	Bracket, Sound Shield Corner	4
3	GM77222	Bracket, Sound Shield Panel Mtg.	10
4	See Chart	Bracket, Sound Shield Mounting	1
5	GM89784-1	Rail, Sound Shield	2
6	GM89784-2	Rail, Sound Shield	4
7	See Chart	Door Subassy, Sound Shield (Front)	1
8	GM89881	Panel Subassy, Sound Shield (RH)	1
9	GM89976	Duct, Alternator Air Intake	1
10	See Chart	Bracket, Terminal Block Panel Mtg.	1
11	GM90676	Duct, Alt. Air Intake	1
12	See Chart	Panel, Subassy, Customer Connection	1
13	See Chart	Door Subassy, Sound Shield (Rear)	1
14	See Chart	Bracket, SS Mounting	1
15	LK-0616-1715	Lead	1
16	M125A-05-80	Washer, Plain	9
17	M6923-08-80	Nut, Hex 8mm	8
18	M7985A-05016-20	Screw, Pan Head Machine	9
19	M933-08020-SS	Screw, Hex Cap (Metric)	18
20	X-25-139	Washer, plain, .344 ID x .75 in. OD	10
21	X-276-9	Nut, wing, 1/4-20	3
22	X-426-12	Clamp, hose, .69/1.25 in.	2
23	X-426-1	Clamp, hose, 1.81/2.75 in.	4
24	X-545-259	Cable, Battery +	1
25	See Chart	Cable, Battery -	1
26	X-373-30	Hose, Fuel/Oil, 1447.8 (57 in.)	1
27	X-634-28	Bushing	2
28	X-672-32	Clamp, insulated, 1.06 in.	1
29	See Chart	Exhaust Hose/Tube	1
30	X-6047-14	Channel, U	1
31	X-6216-1	Screw, Phillips hex crimplite	4
32	X-6224-20	Bolt, Carriage	27
33	See Chart	Door Subassy, Sound Shield (LH)	1
34	See Chart	Roof Subassy, Sound Shield (Rear)	1
35	See Chart	Rail, Sound Shield	2
36	See Chart	Bracket, Sound Shield Mounting R.H.	2
37	See Chart	Foam, 13EKOD Sound Shield Kit	1
38	See Chart	Door Subassy, Sound Shield (RH)	1
40	GM93648	Decal, Caution (not shown)	1
41	See Chart	Harness, Extension (not shown)	1

# Sound Shield, continued

GM89517-, GM93548-, GM95106-



Item not shown: 37



Rear Connection Panel Shown

GM89517- H

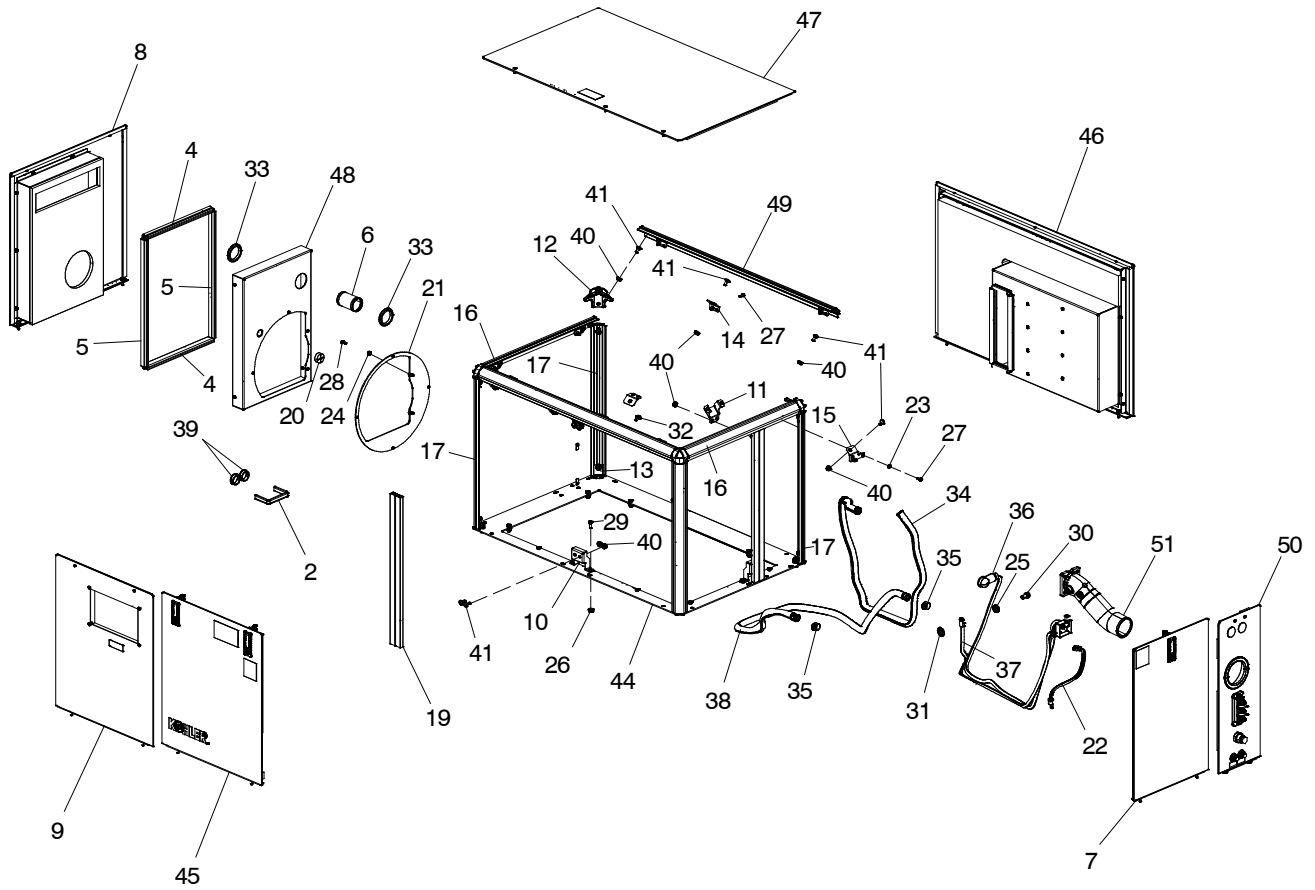


## Sound Shield, continued

Variation No.	Item 4, Bracket	Item 7, Door (Front)	Item 10, Bracket	Item 12, Panel	Item 13, Door (Rear)	Item 14, Bracket
GM89517-KA1	GM89783	GM89874	GM90474	GM93273	GM93275	GM93411
GM89517-KA2	GM89783	GM89874	GM90474	GM93273	GM93275	GM93411
GM89517-KA3	GM89783	GM89874	GM90474	GM93273	GM93275	GM93411
GM89517-KA4	GM89783	GM89874	GM90474	GM93273	GM93275	GM93411
GM93548-KA1	GM93411	GM93562	GM82181	GM93558	GM93560	GM93616
GM93548-KA2	GM93411	GM93562	GM82181	GM93558	GM93560	GM93616
GM93548-KA3	GM93411	GM93562	GM82181	GM93558	GM93560	GM93616
GM93548-KA4	GM93411	GM93562	GM82181	GM93558	GM93560	GM93616
GM95106-KA1	GM93411	GM93562	GM82181	GM95124	GM93560	GM93616
GM95106-KA2	GM93411	GM93562	GM82181	GM95124	GM93560	GM93616
Variation No.	Item 25, Cable	Item 29, Hose	Item 29, Mixing Tube	Item 29, Hose (.63 ID)	Item 33, Door (LH)	
GM89517-KA1	X-545-241	X-6014-143	-	-	GM89877	
GM89517-KA2	X-545-241	X-6014-143	-	-	GM90507	
GM89517-KA3	X-545-241	X-6014-143	-	-	GM90516	
GM89517-KA4	X-545-241	X-6014-143	-	-	GM93640	
GM93548-KA1	X-545-241	-	GM92557-2	X-312-49	GM89877	
GM93548-KA2	X-545-241	-	GM92557-2	X-312-49	GM90507	
GM93548-KA3	X-545-241	-	GM92557-2	X-312-49	GM90516	
GM93548-KA4	X-545-241	-	GM92557-2	X-312-49	GM93640	
GM95106-KA1	X-545-176	-	GM95109	X-312-49	GM90507	
GM95106-KA2	X-545-176	-	GM95109	X-312-49	GM90516	
Variation No.	Item 34, Roof	Item 35, Rail	Item 36, Bracket	Item 37, Foam Kit	Item 38, Door (RH)	Item 41, Harness
GM89517-KA1	GM89898	GM89784-3	GM89786	GM90501	GM89867	-
GM89517-KA2	GM90510	GM89784-4	GM90529	GM90502	GM90504	-
GM89517-KA3	GM90519	GM89784-5	GM90530	GM90503	GM90513	-
GM89517-KA4	GM93642	GM89784-9	GM93637	GM93653	GM93638	-
GM93548-KA1	GM89898	GM89784-3	GM89786	GM93956	GM89867	-
GM93548-KA2	GM90510	GM89784-4	GM90529	GM93957	GM90504	-
GM93548-KA3	GM90519	GM89784-5	GM90530	GM93958	GM90513	-
GM93548-KA4	GM93642	GM89784-9	GM93637	GM93959	GM93638	-
GM95106-KA1	GM90510	GM89784-4	GM90529	GM93957	GM90504	GM96427
GM95106-KA2	GM90519	GM89784-5	GM90530	GM93958	GM90513	GM96427

# Sound Shield, continued

GM100184-  
GM100185-



Item Not Shown: 18

Front Connection Panel Shown

GM100185- A

# Sound Shield, continued

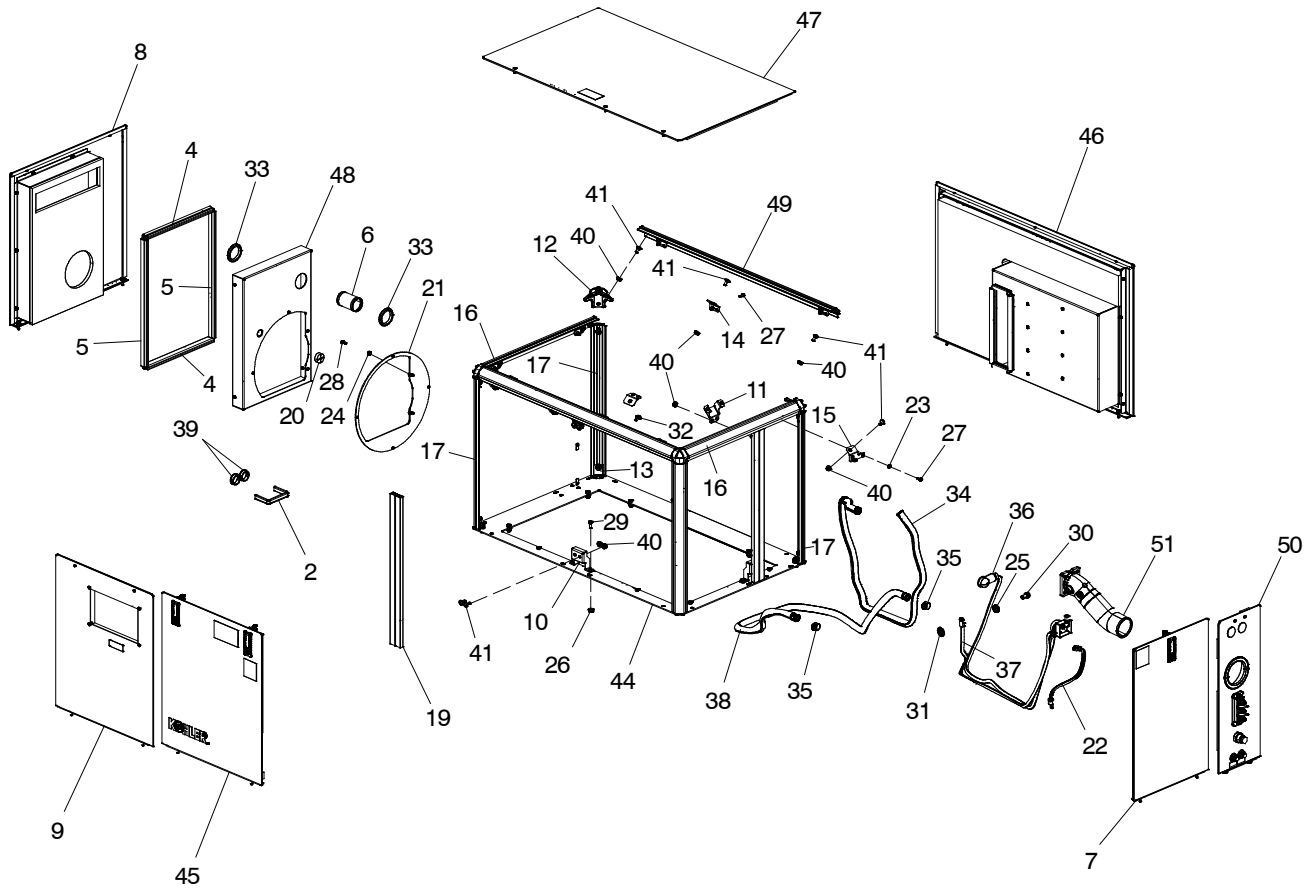
GM100184-

GM100185-

Item	Part No.	Description	Qty.
2	X-6047-14	Channel, U	1
4	X-6422-8	SEAL, PUSH-ON TRIM	2
5	X-6422-45	Seal, Push-On Trim	2
6	GM100297	Tube, Air Intake	1
7	See Chart	Door Subassy, Sound Shield (Front)	1
8	See Chart	Door Subassy, Sound Shield (Rear)	1
9	GM100696	Panel Subassy, Sound Shield (RH)	1
10	GM100705	Bracket, Extrusion Mounting	2
11	GM100848	Bracket, Sound Shield Rail	2
12	GM74137	Corner, Sound Shield	4
13	GM74790	Bracket, Sound Shield Corner	4
14	GM77222	Bracket, Sound Shield Panel Mtg.	10
15	See Chart	Bracket Assy, Terminal Block Panel Mtg	1
16	GM89784-15	Rail, Sound Shield	2
17	GM89784-16	Rail, Sound Shield	4
18	See Chart	Harness, Extension	1
19	GM99456	Rail, Internal Sound Shield	2
20	GM99546-16	Insulation, Acoustic Foam	1
21	GM99575	Plate, End Bracket	1
22	LK-0616-1715	Lead	1
23	M125A-05-80	Washer, Plain	9
24	M125A-06-80	Washer, Plain	2
25	M125A-12-80	Washer, Plain	1
26	M6923-08-80	Nut, Hex 8 mm	20
27	M7985A-05016-20	Screw, Pan Head Machine	9
28	M933-06012-60	Screw	2
29	M933-08020-SS	Screw, Hex Cap (Metric)	20
30	M933-12020-60	Screw, Hex Cap	1
31	X-22-26	Washer, Lock .521 ID x 1.24 in. OD	1
32	X-276-9	Nut, wing, 1/4-20	3
33	X-284-26	Grommet, Round	2
34	See Chart	Hose, .63 ID, 56 in.	1
35	X-426-12	Clamp, hose, .69/1.25 in.	2
36	X-545-272	Cable, Battery	1
37	X-545-273	Cable, Battery	1
38	X-373-30	Hose, Rubber, Straight, 0.62 in. ID	1
39	X-634-28	Bushing	2
40	X-6210-7	Nut, flange spirallock, 5/16-18	39
41	X-6224-20	Bolt, Carriage	39
44	See Chart	Plate, Sound Shield Mounting	1
45	See Chart	Door Subassy, Sound Shield (RH)	1
46	See Chart	Door Subassy, Sound Shield (LH)	1
47	See Chart	Roof Subassy, Sound Shield	1
48	See Chart	Duct, End Bracket Air Inlet	1
49	See Chart	Rail, Sound Shield	2
50	See Chart	Panel Subassy, Customer Connection	1
51	See Chart	Tube, Front Mixing	1
51	See Chart	Tube, Exhaust	1

# Sound Shield, continued

GM100184-  
GM100185-



Item Not Shown: 18

Front Connection Panel Shown

GM100185- A

# Sound Shield, continued

**GM100184-  
GM100185-**

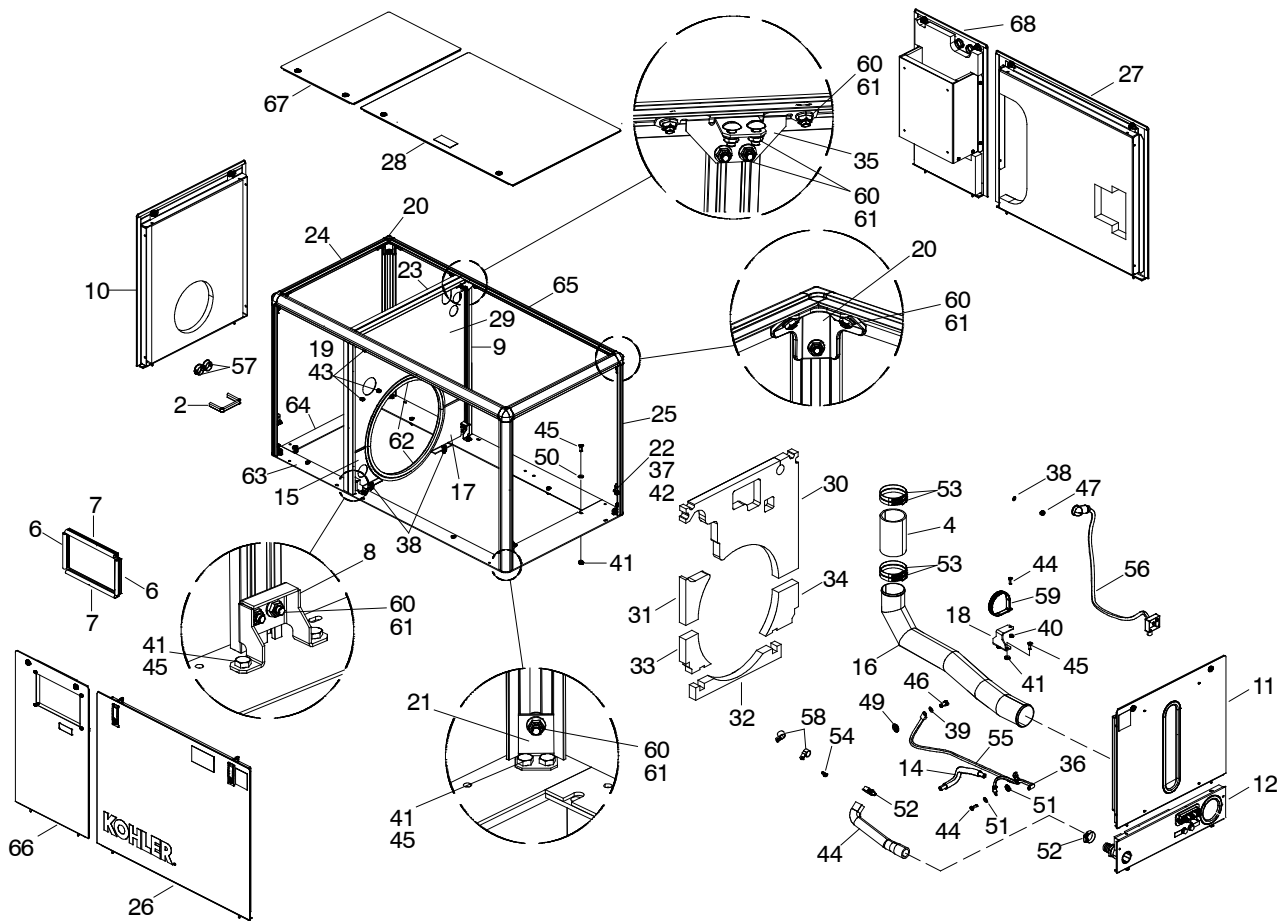
Variation No.	Item 7, Door (Front)	Item 8, Door (Rear)	Item 15, Bracket Assy.	Item 18, Harness	Item 34, Hose	Item 44, Plate
GM100185-KA1	GM100689	GM100695	GM82181	GM96427	X-312-49	GM100645
GM100185-KA2	GM100689	GM100695	GM82181	GM96427	X-312-49	GM100645
GM100185-KA3	GM100689	GM100695	GM82181	GM96427	X-312-49	GM100646
GM100185-KA4	GM100689	GM100695	GM82181	GM96427	X-312-49	GM100646
GM100185-KA5	GM100689	GM100695	GM82181	GM96427	X-312-49	GM100646
GM100185-KA6	GM100689	GM100695	GM82181	GM96427	X-312-49	GM100646
GM100184-KA1	GM100688	GM100694	GM90474	-	-	GM100645
GM100184-KA2	GM100688	GM100694	GM90474	-	-	GM100645
GM100184-KA3	GM100688	GM100694	GM90474	-	-	GM100646
GM100184-KA4	GM100688	GM100694	GM90474	-	-	GM100646

Variation No.	Item 45, Door (RH)	Item 46, Door (LH)	Item 47, Roof	Item 48, Duct	Item 49, Rail	Item 50, Panel Assy.
GM100185-KA1	GM100686	GM100691	GM100700	GM100850	GM98784-17	GM100693
GM100185-KA2	GM100686	GM100691	GM100700	GM99576	GM98784-17	GM100693
GM100185-KA3	GM100687	GM100692	GM100701	GM100850	GM98784-18	GM100693
GM100185-KA4	GM100687	GM100692	GM100701	GM99576	GM98784-18	GM100693
GM100185-KA5	GM100687	GM100692	GM100701	GM100850	GM98784-18	GM101187
GM100185-KA6	GM100687	GM100692	GM100701	GM99576	GM98784-18	GM101187
GM100184-KA1	GM100686	GM100691	GM100700	GM100850	GM98784-17	GM100690
GM100184-KA2	GM100686	GM100691	GM100700	GM99576	GM98784-17	GM100690
GM100184-KA3	GM100687	GM100692	GM100701	GM100850	GM98784-18	GM100690
GM100184-KA4	GM100687	GM100692	GM100701	GM99576	GM98784-18	GM100690

Variation No.	Item 51, Tube, mixing	Item 51, Tube, exhaust	Item 51, Hose, exhaust	Item 51, Clamp, hose
GM100185-KA1	-	-	-	-
GM100185-KA2	GM92557-2	-	-	-
GM100185-KA3	GM92557-2	-	-	-
GM100185-KA4	GM92557-2	-	-	-
GM100185-KA5	GM95109	-	-	-
GM100185-KA6	GM95109	-	-	-
GM100184-KA1	-	GM100852	X-6014-53	X-426-1 (4)
GM100184-KA2	-	GM100852	X-6014-53	X-426-1 (4)
GM100184-KA3	-	GM100852	X-6014-53	X-426-1 (4)
GM100184-KA4	-	GM100852	X-6014-53	X-426-1 (4)

# Sound Shield, continued

GM102026-



Items not shown: 1, 3, 5

GM102026- KA1

# Sound Shield, continued

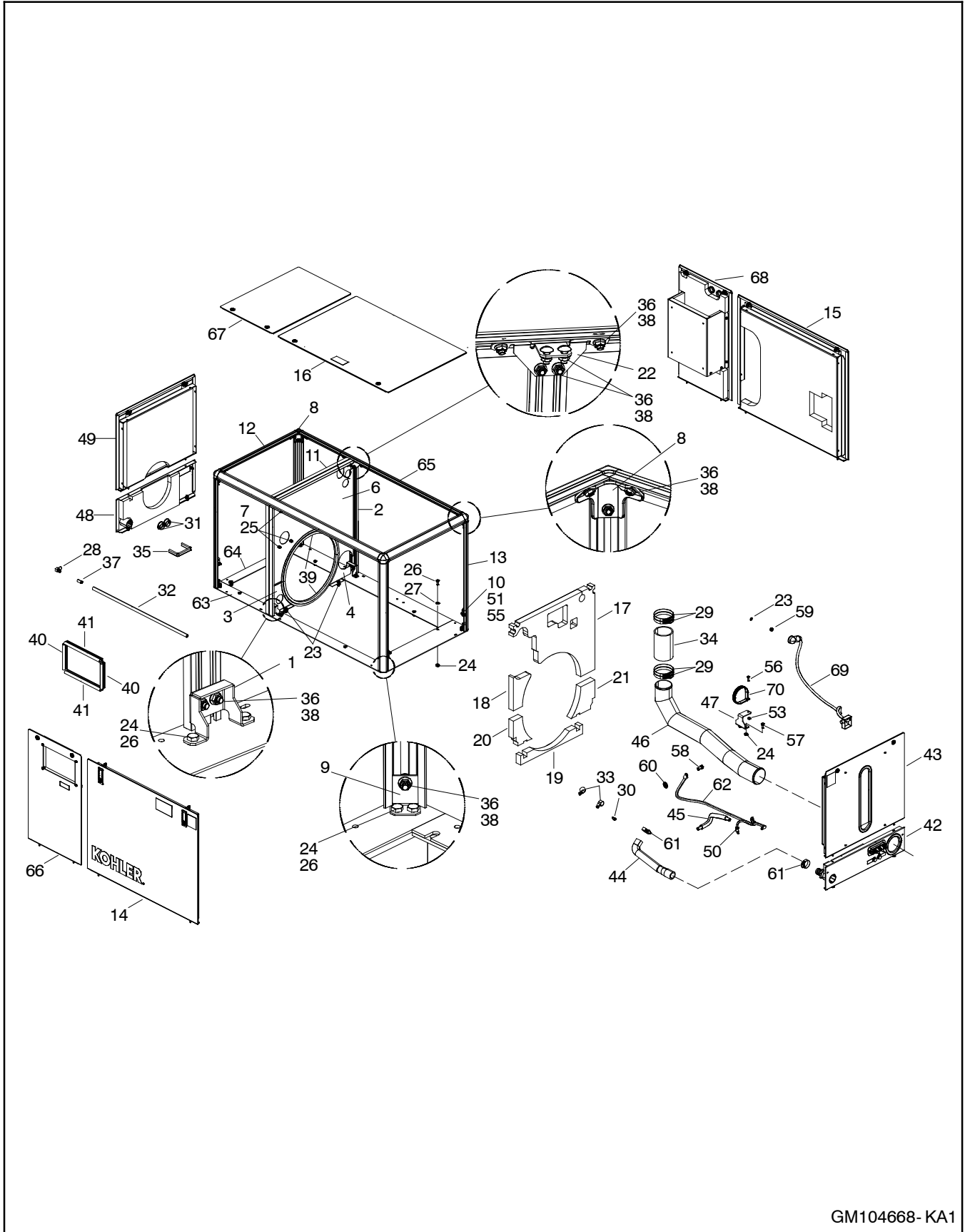
GM102026-

Item	Part No.	Description	Qty.
1	23370-00102	U-channel	0.58ft
2	X-6047-14	U-channel	1
3	25455-00350	Hose, radiator wire inset 3.50 ID	0.5
4	X-6014-70	Hose, radiator wire inset 3.50 ID	1
5	25493-00002	Seal, push-on trim	2.75ft
6	X-6423-16	Seal, push-on trim	2
7	X-6423-26	Seal, push-on trim	2
8	GM100705	Bracket, extrusion mounting	2
9	GM101340	Rail, internal sound shield	2
10	GM102029	Door subassy, sound shield (rear)	1
11	GM102033	Panel subassy, customer connection	1
12	GM102067	Door subassy, sound shield (front)	1
13	GM102079	Hose, molded seawater	1
14	GM102225	Fuel line subassy	1
15	GM103058	Bulkhead, sound shield (lower RH)	1
16	GM103695	Tube, marine exhaust	1
17	GM103713	Bulkhead, sound shield (lower LH)	1
18	GM103719	Bracket, tube support	1
19	GM11040-6	Insert, threaded M5-0.8	3
20	GM74137	Corner, sound shield	4
21	GM74790	Bracket, sound shield corner	4
22	GM77222	Bracket assy, sound shield panel mtg	2
23	GM89772	Rail, internal sound shield	1
24	GM89784-19	Rail, sound shield	2
25	GM89784-20	Rail, sound shield	4
26	GM95738	Door subassy, sound shield (RH)	1
27	GM95739	Door subassy, sound shield (LH)	1
28	GM95740	Roof subassy, sound shield	1
29	GM98845	Bulkhead, sound shield (upper)	1
30	GM99277-8	Insulation, acoustic foam	1
31	GM99277-22	Insulation, acoustic foam	1
32	GM99277-32	Insulation, acoustic foam	1
33	GM99277-33	Insulation, acoustic foam	1
34	GM99277-36	Insulation, acoustic foam	1
35	GM99290	Bracket, sound shield rail mounting	2
36	LK-0616-1715	Lead, ground	1
37	M125A-05-80	Washer, plain	2
38	M125A-08-80	Washer, plain 8.4 ID x 16.0 OD	3
39	M125A-12-80	Washer, plain	1
40	M6923-06-80	Nut, hex 6 mm	1
41	M6923-08-80	Nut, hex 8 mm	26
42	M7985A-05016-20	Screw, pan head machine	2
43	M7985A-05020-20	Screw, pan head machine	3
44	M933-06020-60	Screw, hex cap	2
45	M933-08020-SS	Screw, hex cap	26
46	M933-12025-60	Screw, hex cap	1
47	M934-08-60	Nut, hex	1
48	X-22-12	Washer, lock	1
49	X-22-26	Washer, lock	1
50	X-25-37	Washer, plain, .406 ID x .812 in. OD	4
51	X-25-40	Washer, plain, .281 ID x .625 in. OD	1
52	X-426-21	Clamp, hose, .81/1.75 in.	2
53	X-426-5	Clamp, hose, 3.56/4.5 in.	4
54	X-465-16	Bolt, hex cap	1
55	X-545-276	Cable, battery	1
56	X-545-277	Cable, battery	1
57	X-634-31	Bushing	2
58	X-672-13	Clamp, insulated, .88 in.	2
59	X-672-42	Clamp, insulated	1
60	X-6210-7	Nut, flange spirallock, 5/16-18	39
61	X-6224-20	Bolt, carriage	39
62	X-6422-46	Seal, push-on trim	2
63	See chart	Plate, sound shield mounting (RH)	1
64	See chart	Plate, sound shield mounting (LH)	1
65	See chart	Rail, sound shield	2
66	See chart	Panel subassy, sound shield (RH)	1
67	See chart	Roof subassy, sound shield (ALT)	1
68	See chart	Door subassy, sound shield (LH)	1

Variation No.	Item 63	Item 64	Item 65	Item 66	Item 67	Item 68
GM102026-KA1	GM102886	GM102887	GM89784-21	GM98853	GM99015	GM99030
GM102026-KA2	GM102888	GM102889	GM89784-22	GM101605	GM101609	GM101607

# Sound Shield, continued

GM104668-



GM104668- KA1



# Sound Shield, continued

GM104668-

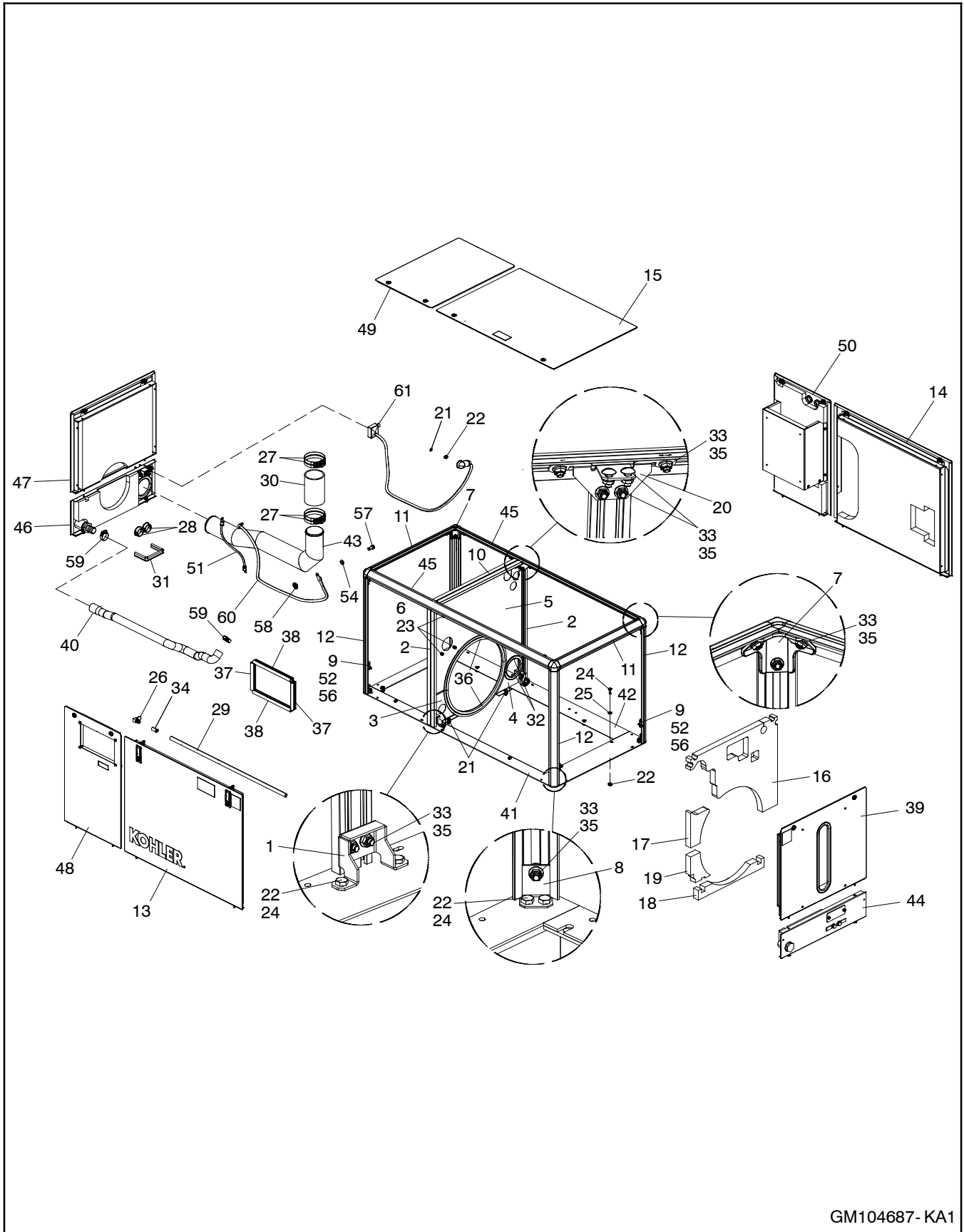
Item	Part No.	Description	Qty.
1	GM100705	Bracket, extrusion mounting	2
2	GM101340	Rail, internal sound shield	2
3	GM103058	Bulkhead, sound shield (lower RH)	1
4	GM103059	Bulkhead, sound shield (lower LH)	1
6	GM104262	Bulkhead, sound shield (upper)	1
7	GM11040-6	Insert, threaded M5-0.8	3
8	GM74137	Corner, sound shield	4
9	GM74790	Bracket, sound shield corner	4
10	GM77222	Bracket assy, sound shield panel mtg	4
11	GM89772	Rail, internal sound shield	1
12	GM89784-19	Rail, sound shield	2
13	GM89784-20	Rail, sound shield	4
14	GM95738	Door subassy, sound shield (RH)	1
15	GM95739	Door subassy, sound shield (LH)	1
16	GM95740	Roof subassy, sound shield	1
17	GM99277-8	Insulation, acoustic foam	1
18	GM99277-22	Insulation, acoustic foam	1
19	GM99277-32	Insulation, acoustic foam	1
20	GM99277-33	Insulation, acoustic foam	1
21	GM99277-36	Insulation, acoustic foam	1
22	GM99290	Bracket, sound shield rail mounting	2
23	M125A-08-80	Washer, plain 8.4 ID x 16.0 OD	3
24	M6923-08-80	Nut, hex 8 mm	25
25	M7985A-05020-20	Screw, pan head machine	3
26	M933-08020-SS	Screw, hex cap	23
27	X-25-37	Washer, plain, .406 ID x.812 in. OD	4
28	X-391-16	Connector, 90° (3/8 in. ID hose)	1
29	X-426-5	Clamp, hose, 3.56/4.5 in.	4
30	X-465-16	Bolt, hex cap	1
31	X-634-31	Bushing	2
32	X-651-28	Hose, rubber, straight, .375 in. ID	1
33	X-672-13	Clamp, insulated, .88 in.	2
34	X-6014-70	Hose, radiator wire inset 3.50 ID	1
35	X-6047-14	U-channel	1
36	X-6210-7	Nut, flange spirallock, 5/16-18	40
37	X-6214-4	Cap	1
38	X-6224-20	Bolt, carriage	40
39	X-6422-46	Seal, push-on trim	2
40	X-6423-16	Seal, push-on trim	2
41	X-6423-26	Seal, push-on trim	2
42	GM102033	Panel subassy, customer connection	1
43	GM102067	Door subassy, sound shield (front)	1
44	GM102079	Hose, molded seawater	1
45	GM102225	Fuel line subassy	1
46	GM103695	Tube, marine exhaust	1
47	GM103719	Bracket, tube support	1
48	GM104736	Panel, rear configurable	1
49	GM98835	Door subassy, sound shield (rear)	1
50	LK-0616-1715	Lead, ground	1
51	M125A-05-80	Washer, plain	4
53	M6923-06-80	Nut, hex 6 mm	1
55	M7985A-05016-20	Screw, pan head machine	4
56	M933-06020-60	Screw, hex cap	1
57	See Chart	Screw, hex cap	2
58	M933-12025-60	Screw, hex cap	1
59	M934-08-60	Nut, hex	1
60	X-22-26	Washer, lock	1
61	X-426-21	Clamp, hose, .81/1.75 in.	2
62	X-545-274	Cable, battery	1
63	See Chart	Plate, sound shield mounting (RH)	1
64	See Chart	Plate, sound shield mounting (LH)	1
65	See Chart	Rail, sound shield	2
66	See Chart	Panel subassy, sound shield (RH)	1
67	See Chart	Roof subassy, sound shield (ALT)	1
68	See Chart	Door subassy, sound shield (LH)	1
69	X-545-275	Cable, battery	1
70	X-672-42	Clamp, insulated	1

Variation No.	Item 57	Item 63	Item 64	Item 65	Item 66	Item 67
GM104668-KA1	M933-08020-SS	GM102886	GM102887	GM89784-21	GM98853	GM99015
GM104668-KA2	M933-08020-60	GM102888	GM102889	GM89784-22	GM101605	GM101609

Variation No.	Item 68
GM104668-KA1	GM99030
GM104668-KA2	GM101607

# Sound Shield, continued

GM104687-



GM104687- KA1

# Sound Shield, continued

GM104687-

Item	Part No.	Description	Qty.
1	GM100705	Bracket, extrusion mounting	2
2	GM101340	Rail, internal sound shield	2
3	GM103058	Bulkhead, sound shield (lower RH)	1
4	GM103059	Bulkhead, sound shield (lower LH)	1
5	GM104262	Bulkhead, sound shield (upper)	1
6	GM11040-6	Insert, threaded m5-0.8	3
7	GM74137	Corner, sound shield	4
8	GM74790	Bracket, sound shield corner	4
9	GM77222	Bracket assy, sound shield panel mtg	4
10	GM89772	Rail, internal sound shield	1
11	GM89784-19	Rail, sound shield	2
12	GM89784-20	Rail, sound shield	4
13	GM95738	Door subassy, sound shield (RH)	1
14	GM95739	Door subassy, sound shield (LH)	1
15	GM95740	Roof subassy, sound shield	1
16	GM99277-8	Insulation, acoustic foam	1
17	GM99277-22	Insulation, acoustic foam	1
18	GM99277-32	Insulation, acoustic foam	1
19	GM99277-33	Insulation, acoustic foam	1
20	GM99290	Bracket, sound shield rail mounting	2
21	M125A-08-80	Washer, plain 8.4 ID x 16.0 OD	3
22	M6923-08-80	Nut, hex 8 mm	24
23	M7985A-05020-20	Screw, pan head machine	3
24	M933-08020-SS	Screw, hex cap	23
25	X-25-37	Washer, plain, .406 ID x.812 in. OD	4
26	X-391-16	Connector, 90° (3/8 in. ID hose)	1
27	X-426-5	Clamp, hose, 3.56/4.5 in.	4
28	X-634-31	Bushing	2
29	X-651-28	Hose, rubber, straight, .375 in. ID	1
30	X-6014-70	Hose, radiator wire inset 3.50 ID	1
31	X-6047-14	U-channel	1
32	X-6047-48	U-channel	2
33	X-6210-7	Nut, flange spirallock, 5/16-18	40
34	X-6214-4	Cap	1
35	X-6224-20	Bolt, carriage	40
36	X-6422-46	Seal, push-on trim	2
37	X-6423-16	Seal, push-on trim	2
38	X-6423-26	Seal, push-on trim	2
39	GM102067	Door subassy, sound shield (front)	1
40	GM102453	Hose, molded seawater	1
41	See chart	Plate, sound shield mounting (RH)	1
42	See chart	Plate, sound shield mounting (LH)	1
43	GM103612	Tube, marine exhaust	1
44	GM104707	Panel subassy, customer connection	1
45	See chart	Rail, sound shield	2
46	GM95759	Panel subassy, customer connection	1
47	GM98835	Door subassy, sound shield (rear)	1
48	See chart	Panel subassy, sound shield (RH)	1
49	See chart	Roof subassy, sound shield (ALT)	1
50	See chart	Door subassy, sound shield (LH)	1
51	LK-0616-1715	Lead, ground	1
52	M125A-05-80	Washer, plain	4
54	M125A-12-80	Washer, plain	1
56	M7985A-05016-20	Screw, pan head machine	4
57	M933-12025-60	Screw, hex cap	1
58	X-22-26	Washer, lock	1
59	X-426-21	Clamp, hose, .81/1.75 in.	2
60	X-545-274	Cable, battery	1
61	X-545-275	Cable, battery	1

Variation No.	Item 41	Item 42	Item 45	Item 48	Item 49	Item 50
GM104687-KA1	GM102886	GM102887	GM89784-21	GM98853	GM99015	GM99030
GM104687-KA2	GM102888	GM102889	GM89784-22	GM101605	GM101609	GM101607



# Sound Shield, continued

GM95718-

Item	Part No.	Description	Qty.
1	23370-00102	U-channel	1.78 ft
2	X-6047-14	U-channel	1
3	X-6047-48	U-channel	2
4	25455-00350	Hose, radiator wire insert 3.50 ID	0.5
5	X-6014-70	Hose, radiator wire inset 3.50 ID	1
6	25493-00002	Seal, push-on trim	2.75 ft
7	X-6423-16	Seal, push-on trim	2
8	X-6423-26	Seal, push-on trim	2
9	GM100705	Bracket, extrusion mounting	2
10	GM101340	Rail, internal sound shield	2
11	GM102453	Hose, molded seawater	1
12	GM103058	Bulkhead, sound shield (lower RH)	1
13	GM103059	Bulkhead, sound shield (lower LH)	1
14	GM103612	Tube, marine exhaust	1
15	GM104262	Bulkhead, sound shield (upper)	1
16	GM11040-6	Insert, threaded M5-0.8	3
17	GM74137	Corner, sound shield	4
18	GM74790	Bracket, sound shield corner	4
19	GM77222	Bracket assy, sound shield panel mtg	2
20	GM89772	Rail, internal sound shield	1
21	GM89784-19	Rail, sound shield	2
22	GM89784-20	Rail, sound shield	4
23	GM95738	Door subassy, sound shield (RH)	1
24	GM95739	Door subassy, sound shield (LH)	1
25	GM95740	Roof subassy, sound shield	1
26	GM95759	Panel subassy, customer connection	1
27	GM98835	Door subassy, sound shield (rear)	1
28	GM98857	Door subassy, sound shield (front)	1
29	GM99277-8	Insulation, acoustic foam	1
30	GM99277-22	Insulation, acoustic foam	1
31	GM99277-32	Insulation, acoustic foam	1
32	GM99277-33	Insulation, acoustic foam	1
33	GM99290	Bracket, sound shield rail mounting	2
34	LK-0616-1715	Lead, ground	1
35	M125A-05-80	Washer, plain	2
36	M125A-08-80	Washer, plain 8.4 ID x 16.0 OD	3
37	M125A-12-80	Washer, plain	1
38	M6923-08-80	Nut, hex 8mm	23
39	M7985A-05016-20	Screw, pan head machine	2
40	M7985A-05020-20	Screw, pan head machine	3
41	M933-08020-SS	Screw, hex cap	23
42	M933-12025-60	Screw, hex cap	1
43	M934-08-60	Nut, hex	1
44	X-22-26	Washer, lock	1
45	X-25-37	Washer, plain, .406 ID x.812 in. OD	4
46	X-426-21	Clamp, hose, .81/1.75 in.	2
47	X-426-5	Clamp, hose, 3.56/4.5 in.	4
48	X-545-274	Cable, battery	1
49	X-545-275	Cable, battery	1
50	X-634-31	Bushing	2
51	X-6210-7	Nut, flange spirallock, 5/16-18	38
52	X-6224-20	Bolt, carriage	38
53	X-6422-46	Seal, push-on trim	2
54	See Chart	Plate, sound shield mounting (RH)	1
55	See Chart	Plate, sound shield mounting (LH)	1
56	See Chart	Rail, sound shield	2
57	See Chart	Panel subassy, sound shield (RH)	1
58	See Chart	Roof subassy, sound shield (ALT)	1
59	See Chart	Door subassy, sound shield (LH)	1

Variation No.	Item 54	Item 55	Item 56	Item 57	Item 58	Item 59
GM95718-KA1	GM102886	GM102887	GM89784-21	GM98853	GM99015	GM99030
GM95718-KA2	GM102888	GM102889	GM89784-22	GM101605	GM101609	GM101607

# Accessories

Qty.	Description	Part No.
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## Circuit Breaker Kits

### LCB, 30A, 3P

### GM90749- KP1

1	Breaker, Circuit 30A HDP	GM47475- 24
1	Panel, Circuit Breaker Mtg.	GM90207
1	Cover, Breaker Connection	GM90303
1	Dwg, Assy Marine Circuit Breakers	GM90749
2	Connector, H- frame Short Rear	GM91473- 1
1	Connector, H- frame Long Rear	GM91473- 2
1	Cover, H- Frame Terminal	GM91474
1	Bracket, Support	GM93356
7	WASHER, PLAIN	M125A- 05- 80
5	Screw, Pan Head M5X10	M7985A- 05010- 20
2	Screw, pan head machine	M7985A- 05100- 20
2	Nut, Hex 5mm (NRP)	M934- 05- 50
1	Bolt, Hex Cap (NRP) 5/16- 18 x 1/2"	X- 125- 33
2	Bolt, Hex Cap (NRP)	X- 125- 5
5	Washer, plain, .344 ID x .687 in.OD(NRP)	X- 25- 85
1	Stud, 5/16- 18 x 1.5 in.	X- 352- 65
2	Spacer, .209 ID x .375 OD x 1.062 IN.	X- 400- 247
1	Spacer, .344 ID x .75 OD x .375 in.	X- 400- 41
1	Insulator, Standoff	X- 6128- 34
3	Nut, hex, 5/16- 18	X- 82- 6

### LCB, 40A, 3P

### GM90749- KP2

1	Breaker, Circuit 40A HDP	GM47475- 29
1	Panel, Circuit Breaker Mtg.	GM90207
1	Cover, Breaker Connection	GM90303
1	Dwg, Assy Marine Circuit Breakers	GM90749
2	Connector, H- frame Short Rear	GM91473- 1
1	Connector, H- frame Long Rear	GM91473- 2
1	Cover, H- Frame Terminal	GM91474
1	Bracket, Support	GM93356
7	WASHER, PLAIN	M125A- 05- 80
5	Screw, Pan Head M5X10	M7985A- 05010- 20
2	Screw, pan head machine	M7985A- 05100- 20
2	Nut, Hex 5mm (NRP)	M934- 05- 50
1	Bolt, Hex Cap (NRP) 5/16- 18 x 1/2"	X- 125- 33
2	Bolt, Hex Cap (NRP)	X- 125- 5
5	Washer, plain, .344 ID x .687 in.OD(NRP)	X- 25- 85
1	Stud, 5/16- 18 x 1.5 in.	X- 352- 65
2	Spacer, .209 ID x .375 OD x 1.062 IN.	X- 400- 247
1	Spacer, .344 ID x .75 OD x .375 in.	X- 400- 41
1	Insulator, Standoff	X- 6128- 34
3	Nut, hex, 5/16- 18	X- 82- 6

Qty.	Description	Part No.
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### LCB,50A,3P

### GM90749- KP3

1	Breaker, Circuit 50A HDP	GM47475- 33
1	Panel, Circuit Breaker Mtg.	GM90207
1	Cover, Breaker Connection	GM90303
1	Dwg, Assy Marine Circuit Breakers	GM90749
2	Connector, H- frame Short Rear	GM91473- 1
1	Connector, H- frame Long Rear	GM91473- 2
1	Cover, H- Frame Terminal	GM91474
1	Bracket, Support	GM93356
7	WASHER, PLAIN	M125A- 05- 80
5	Screw, Pan Head M5X10	M7985A- 05010- 20
2	Screw, pan head machine	M7985A- 05100- 20
2	Nut, Hex 5mm (NRP)	M934- 05- 50
1	Bolt, Hex Cap (NRP) 5/16- 18 x 1/2"	X- 125- 33
2	Bolt, Hex Cap (NRP)	X- 125- 5
5	Washer, plain, .344 ID x .687 in.OD(NRP)	X- 25- 85
1	Stud, 5/16- 18 x 1.5 in.	X- 352- 65
2	Spacer, .209 ID x .375 OD x 1.062 IN.	X- 400- 247
1	Spacer, .344 ID x .75 OD x .375 in.	X- 400- 41
1	Insulator, Standoff	X- 6128- 34
3	Nut, hex, 5/16- 18	X- 82- 6

### LCB,60A,3P

### GM90749- KP4

1	Breaker, Circuit 60A HDP	GM47475- 36
1	Panel, Circuit Breaker Mtg.	GM90207
1	Cover, Breaker Connection	GM90303
1	Dwg, Assy Marine Circuit Breakers	GM90749
2	Connector, H- frame Short Rear	GM91473- 1
1	Connector, H- frame Long Rear	GM91473- 2
1	Cover, H- Frame Terminal	GM91474
1	Bracket, Support	GM93356
7	WASHER, PLAIN	M125A- 05- 80
5	Screw, Pan Head M5X10	M7985A- 05010- 20
2	Screw, pan head machine	M7985A- 05100- 20
2	Nut, Hex 5mm (NRP)	M934- 05- 50
1	Bolt, Hex Cap (NRP) 5/16- 18 x 1/2"	X- 125- 33
2	Bolt, Hex Cap (NRP)	X- 125- 5
5	Washer, plain, .344 ID x .687 in.OD(NRP)	X- 25- 85
1	Stud, 5/16- 18 x 1.5 in.	X- 352- 65
2	Spacer, .209 ID x .375 OD x 1.062 IN.	X- 400- 247
1	Spacer, .344 ID x .75 OD x .375 in.	X- 400- 41
1	Insulator, Standoff	X- 6128- 34
3	Nut, hex, 5/16- 18	X- 82- 6

# Accessories

Qty.	Description	Part No.
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<b>LCB,70A,3P</b>		<b>GM90749- KP5</b>
1	Breaker, Circuit 70A HDP	GM47475- 38
1	Panel, Circuit Breaker Mtg.	GM90207
1	Cover, Breaker Connection	GM90303
1	Dwg, Assy Marine Circuit Breakers	GM90749
2	Connector, H- frame Short Rear	GM91473- 1
1	Connector, H- frame Long Rear	GM91473- 2
1	Cover, H- Frame Terminal	GM91474
1	Bracket, Support	GM93356
7	WASHER, PLAIN	M125A- 05- 80
5	Screw, Pan Head M5X10	M7985A- 05010- 20
2	Screw, pan head machine	M7985A- 05100- 20
2	Nut, Hex 5mm (NRP)	M934- 05- 50
1	Bolt, Hex Cap (NRP) 5/16- 18 x 1/2"	X- 125- 33
2	Bolt, Hex Cap (NRP)	X- 125- 5
5	Washer, plain, .344 ID x .687 in.OD(NRP)	X- 25- 85
1	Stud, 5/16- 18 x 1.5 in.	X- 352- 65
2	Spacer, .209 ID x .375 OD x 1.062 IN.	X- 400- 247
1	Spacer, .344 ID x .75 OD x .375 in.	X- 400- 41
1	Insulator, Standoff	X- 6128- 34
3	Nut, hex, 5/16- 18	X- 82- 6

<b>LCB,80A,3P</b>		<b>GM90749- KP6</b>
1	Breaker, Circuit 80A HDP	GM47475- 40
1	Panel, Circuit Breaker Mtg.	GM90207
1	Cover, Breaker Connection	GM90303
1	Dwg, Assy Marine Circuit Breakers	GM90749
2	Connector, H- frame Short Rear	GM91473- 1
1	Connector, H- frame Long Rear	GM91473- 2
1	Cover, H- Frame Terminal	GM91474
1	Bracket, Support	GM93356
7	WASHER, PLAIN	M125A- 05- 80
5	Screw, Pan Head M5X10	M7985A- 05010- 20
2	Screw, pan head machine	M7985A- 05100- 20
2	Nut, Hex 5mm (NRP)	M934- 05- 50
1	Bolt, Hex Cap (NRP) 5/16- 18 x 1/2"	X- 125- 33
2	Bolt, Hex Cap (NRP)	X- 125- 5
5	Washer, plain, .344 ID x .687 in.OD(NRP)	X- 25- 85
1	Stud, 5/16- 18 x 1.5 in.	X- 352- 65
2	Spacer, .209 ID x .375 OD x 1.062 IN.	X- 400- 247
1	Spacer, .344 ID x .75 OD x .375 in.	X- 400- 41
1	Insulator, Standoff	X- 6128- 34
3	Nut, hex, 5/16- 18	X- 82- 6

Qty.	Description	Part No.
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<b>LCB,90A,3P</b>		<b>GM90749- KP7</b>
1	Breaker, Circuit 90A HDP	GM47475- 42
1	Panel, Circuit Breaker Mtg.	GM90207
1	Cover, Breaker Connection	GM90303
1	Dwg, Assy Marine Circuit Breakers	GM90749
2	Connector, H- frame Short Rear	GM91473- 1
1	Connector, H- frame Long Rear	GM91473- 2
1	Cover, H- Frame Terminal	GM91474
1	Bracket, Support	GM93356
7	WASHER, PLAIN	M125A- 05- 80
5	Screw, Pan Head M5X10	M7985A- 05010- 20
2	Screw, pan head machine	M7985A- 05100- 20
2	Nut, Hex 5mm (NRP)	M934- 05- 50
1	Bolt, Hex Cap (NRP) 5/16- 18 x 1/2"	X- 125- 33
2	Bolt, Hex Cap (NRP)	X- 125- 5
5	Washer, plain, .344 ID x .687 in.OD(NRP)	X- 25- 85
1	Stud, 5/16- 18 x 1.5 in.	X- 352- 65
2	Spacer, .209 ID x .375 OD x 1.062 IN.	X- 400- 247
1	Spacer, .344 ID x .75 OD x .375 in.	X- 400- 41
1	Insulator, Standoff	X- 6128- 34
3	Nut, hex, 5/16- 18	X- 82- 6

<b>LCB,100A,3P</b>		<b>GM90749- KP8</b>
1	Breaker, Circuit 100A HJP	GM47475- 45
1	Panel, Circuit Breaker Mtg.	GM90207
1	Cover, Breaker Connection	GM90303
1	Dwg, Assy Marine Circuit Breakers	GM90749
2	Connector, H- frame Short Rear	GM91473- 1
1	Connector, H- frame Long Rear	GM91473- 2
1	Cover, H- Frame Terminal	GM91474
1	Bracket, Support	GM93356
7	WASHER, PLAIN	M125A- 05- 80
5	Screw, Pan Head M5X10	M7985A- 05010- 20
2	Screw, pan head machine	M7985A- 05100- 20
2	Nut, Hex 5mm (NRP)	M934- 05- 50
1	Bolt, Hex Cap (NRP) 5/16- 18 x 1/2"	X- 125- 33
2	Bolt, Hex Cap (NRP)	X- 125- 5
5	Washer, plain, .344 ID x .687 in.OD(NRP)	X- 25- 85
1	Stud, 5/16- 18 x 1.5 in.	X- 352- 65
2	Spacer, .209 ID x .375 OD x 1.062 IN.	X- 400- 247
1	Spacer, .344 ID x .75 OD x .375 in.	X- 400- 41
1	Insulator, Standoff	X- 6128- 34
3	Nut, hex, 5/16- 18	X- 82- 6

<b>LCB, 50 AMP, 240V, 1 POLE</b>		<b>GM91718- KP1</b>
1	Circuit breaker, 50 A, 240 VAC, 1 pole	229917
1	Panel, 1P Circuit Breaker Mtg.	GM92101
2	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
2	Screw, Machine (NRP)	X- 49- 2

<b>LCB, 60 AMP, 240V, 1 POLE</b>		<b>GM91718- KP2</b>
1	Circuit breaker, 60 A, 240 VAC, 1 pole	359367
1	Panel, 1P Circuit Breaker Mtg.	GM92101
2	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
2	Screw, Machine (NRP)	X- 49- 2

<b>LCB, 80 AMP, 240V, 1 POLE</b>		<b>GM91718- KP3</b>
1	Circuit breaker, 80 A, 240 VAC, 1 pole	229919
1	Panel, 1P Circuit Breaker Mtg.	GM92101
2	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
2	Screw, Machine (NRP)	X- 49- 2

# Accessories, continued

Qty.	Description	Part No.
<b>LCB, 90 AMP, 240V, 1 POLE GM91718- KP4</b>		
1	Circuit breaker 90 amp	359560
1	Panel, 1P Circuit Breaker Mtg.	GM92101
2	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
2	Screw, Machine (NRP)	X- 49- 2
<b>LCB, 50 AMP, 240V, 2 POLE GM91718- KP5</b>		
1	Circuit breaker, 50 A, 240 VAC, 2 pole	249479
1	Panel, 2P Circuit Breaker Mtg.	GM91725
4	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
4	Screw, Machine (NRP)	X- 49- 2
<b>LCB, 60 AMP, 240V, 2 POLE GM91718- KP6</b>		
1	Circuit breaker, 60 A, 240 VAC, 2 pole	229205
1	Panel, 2P Circuit Breaker Mtg.	GM91725
4	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
4	Screw, Machine (NRP)	X- 49- 2
<b>LCB, 70 AMP, 240V, 2 POLE GM91718- KP7</b>		
1	Circuit breaker, 70 A, 240 VAC, 2 pole	229397
1	Panel, 2P Circuit Breaker Mtg.	GM91725
4	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
4	Screw, Machine (NRP)	X- 49- 2
<b>LCB, 80 AMP, 240V, 2 POLE GM91718- KP8</b>		
1	Circuit breaker, 80 A, 240 VAC, 2 pole	229206
1	Panel, 2P Circuit Breaker Mtg.	GM91725
4	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
4	Screw, Machine (NRP)	X- 49- 2
<b>LCB, 90 AMP, 240V, 2 POLE GM91718- KP9</b>		
1	Circuit breaker, 90 A, 240 VAC, 2 pole	229207
1	Panel, 2P Circuit Breaker Mtg.	GM91725
4	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
4	Screw, Machine (NRP)	X- 49- 2
<b>LCB, 100 AMP, 240V, 2 POLE GM91718- KP10</b>		
1	Circuit breaker, 100 A, 240 VAC, 2 pole	359133
1	Panel, 2P Circuit Breaker Mtg.	GM91725
4	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
4	Screw, Machine (NRP)	X- 49- 2
<b>LCB, 30 AMP, 600V, 3 POLE GM91718- KP11</b>		
1	Circuit breaker, 30 A, 600 V, 3 pole	269250
1	Panel, 3P Circuit Breaker Mtg.	GM91717
6	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
6	Screw, Machine (NRP)	X- 49- 2
<b>LCB, 40 AMP, 600V, 3 POLE GM91718- KP12</b>		
1	Circuit breaker, 40 A, 600 V, 3 pole	269252
1	Panel, 3P Circuit Breaker Mtg.	GM91717
6	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
6	Screw, Machine (NRP)	X- 49- 2
<b>LCB, 50 AMP, 480V, 3 POLE GM91718- KP13</b>		
1	Circuit breaker, 50 A, 480 V, 3 pole	269249
1	Panel, 3P Circuit Breaker Mtg.	GM91717
6	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
6	Screw, Machine (NRP)	X- 49- 2

Qty.	Description	Part No.
<b>LCB, 60 AMP, 600V, 3 POLE GM91718- KP14</b>		
1	Circuit breaker, 60 A, 600 V, 3 pole	253224
1	Panel, 3P Circuit Breaker Mtg.	GM91717
6	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
6	Screw, Machine (NRP)	X- 49- 2
<b>LCB, 70 AMP, 600V, 3 POLE GM91718- KP15</b>		
1	Circuit breaker, 70 A, 600 V, 3 pole	258381
1	Panel, 3P Circuit Breaker Mtg.	GM91717
6	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
6	Screw, Machine (NRP)	X- 49- 2
<b>LCB, 80 AMP, 480V, 3 POLE GM91718- KP16</b>		
1	Circuit breaker, 80 A, 480 V, 3 pole	253225
1	Panel, 3P Circuit Breaker Mtg.	GM91717
6	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
6	Screw, Machine (NRP)	X- 49- 2
<b>LCB, 90 AMP, 480V, 3 POLE GM91718- KP17</b>		
1	Circuit breaker, 90 A, 480 V, 3 pole	344905
1	Panel, 3P Circuit Breaker Mtg.	GM91717
6	Washer, Lock.146 ID x .285 in.OD	X- 22- 6
6	Screw, Machine (NRP)	X- 49- 2
<b>LCB, 150 AMP, 2 POLE GM99430-KP1</b>		
1	Circuit breaker, 125A HDP	GM47475-16
1	Panel, Circuit Breaker	GM99090
1	Dwg, Assy Marine Circuit Breaker	GM99099
1	Extension, Circuit Breaker Toggle	GM104513
2	Lug, H- Frame M6 Terminal Insert	GM25991-17
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
1	Bus, Load	GM87581
1	Bracket, Circuit Breaker Mounting	GM99201
3	Washer, Plain	M125A-06-80
2	Screw	M7985A-05080-20
4	Screw	M933-06012-60
3	Screw, Hex Cap	M933-06025-60
2	Nut, Hex 5 mm	M934-05-50
2	Nut, Hex 6 mm	M934-06-60
3	Washer, Flat .312 ID x.75 OD	X-25-20
4	Washer, Plain, .281 ID x .625 in.OD	X-25-40
3	Washer, Spring	X-6086-24
1	Marker, Wire	X-750-14
1	Marker, Wire	X-750-15
1	Marker, Wire	X-750-16



## Accessories, continued

Qty.	Description	Part No.
<b>LCB, 150 AMP, 2 POLE</b>		
		<b>GM99430-KP2</b>
1	Circuit breaker, 150A HDP	GM47475-89
1	Panel, Circuit Breaker	GM99090
1	Dwg, Assy Marine Circuit Breaker	GM99099
1	Extension, Circuit Breaker Toggle	GM104513
2	Lug, H- Frame M6 Terminal Insert	GM25991-17
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
1	Bus, Load	GM87581
1	Bracket, Circuit Breaker Mounting	GM99201
3	Washer, Plain	M125A-06-80
2	Screw	M7985A-05080-20
4	Screw	M933-06012-60
3	Screw, Hex Cap	M933-06025-60
2	Nut, Hex 5 mm	M934-05-50
3	Nut, Hex 6 mm	M934-06-60
3	Washer, Flat .312 ID x.75 OD	X-25-20
4	Washer, Plain, .281 ID x .625 in.OD	X-25-40
3	Washer, Spring	X-6086-24
1	Marker, Wire	X-750-14
1	Marker, Wire	X-750-15
1	Marker, Wire	X-750-16

Qty.	Description	Part No.
<b>LCB, 50 AMP, 3 POLE</b>		
		<b>GM99099-KP1</b>
1	Circuit breaker, 50A HDP	GM47475-33
1	Panel, Circuit Breaker	GM99090
1	Dwg, Assy Marine Circuit Breaker	GM99099
1	Extension, Circuit Breaker Toggle	GM104513
2	Lug, H- Frame M6 Terminal Insert	GM25991-17
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
1	Bus, Load	GM87581
1	Bracket, Circuit Breaker Mounting	GM99201
3	Washer, Plain	M125A-06-80
2	Screw	M7985A-05080-20
4	Screw	M933-06012-60
3	Screw, Hex Cap	M933-06025-60
2	Nut, Hex 5 mm	M934-05-50
3	Nut, Hex 6 mm	M934-06-60
3	Washer, Flat .312 ID x.75 OD	X-25-20
4	Washer, Plain, .281 ID x .625 in.OD	X-25-40
3	Washer, Spring	X-6086-24
1	Marker, Wire	X-750-14
1	Marker, Wire	X-750-15
1	Marker, Wire	X-750-16

Qty.	Description	Part No.
<b>LCB, 60 AMP, 3 POLE</b>		
		<b>GM99099-KP2</b>
1	Circuit breaker, 60A HDP	GM47475-36
1	Panel, Circuit Breaker	GM99090
1	Dwg, Assy Marine Circuit Breaker	GM99099
1	Extension, Circuit Breaker Toggle	GM104513
2	Lug, H- Frame M6 Terminal Insert	GM25991-17
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
1	Bus, Load	GM87581
1	Bracket, Circuit Breaker Mounting	GM99201
3	Washer, Plain	M125A-06-80
2	Screw	M7985A-05080-20
4	Screw	M933-06012-60
3	Screw, Hex Cap	M933-06025-60
2	Nut, Hex 5 mm	M934-05-50
3	Nut, Hex 6 mm	M934-06-60
3	Washer, Flat .312 ID x.75 OD	X-25-20
4	Washer, Plain, .281 ID x .625 in.OD	X-25-40
3	Washer, Spring	X-6086-24
1	Marker, Wire	X-750-14
1	Marker, Wire	X-750-15
1	Marker, Wire	X-750-16

Qty.	Description	Part No.
<b>LCB, 100 AMP, 3 POLE</b>		
		<b>GM99099-KP5</b>
1	Circuit breaker, 100A HDP	GM47475-44
1	Panel, Circuit Breaker	GM99090
1	Dwg, Assy Marine Circuit Breaker	GM99099
1	Extension, Circuit Breaker Toggle	GM104513
2	Lug, H- Frame M6 Terminal Insert	GM25991-17
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
1	Bus, Load	GM87581
1	Bracket, Circuit Breaker Mounting	GM99201
3	Washer, Plain	M125A-06-80
2	Screw	M7985A-05080-20
4	Screw	M933-06012-60
3	Screw, Hex Cap	M933-06025-60
2	Nut, Hex 5 mm	M934-05-50
3	Nut, Hex 6 mm	M934-06-60
3	Washer, Flat .312 ID x.75 OD	X-25-20
4	Washer, Plain, .281 ID x .625 in.OD	X-25-40
3	Washer, Spring	X-6086-24
1	Marker, Wire	X-750-14
1	Marker, Wire	X-750-15
1	Marker, Wire	X-750-16

# Accessories, continued

Qty.	Description	Part No.
<b>LCB, 125 AMP, 3 POLE GM99099-KP6</b>		
1	Circuit breaker, 125A HDP	GM47475-47
1	Panel, Circuit Breaker	GM99090
1	Dwg, Assy Marine Circuit Breaker	GM99099
1	Extension, Circuit Breaker Toggle	GM104513
2	Lug, H- Frame M6 Terminal Insert	GM25991-17
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
1	Bus, Load	GM87581
1	Bracket, Circuit Breaker Mounting	GM99201
3	Washer, Plain	M125A-06-80
2	Screw	M7985A-05080-20
4	Screw	M933-06012-60
3	Screw, Hex Cap	M933-06025-60
2	Nut, Hex 5 mm	M934-05-50
3	Nut, Hex 6 mm	M934-06-60
3	Washer, Flat .312 ID x.75 OD	X-25-20
4	Washer, Plain, .281 ID x .625 in.OD	X-25-40
3	Washer, Spring	X-6086-24
1	Marker, Wire	X-750-14
1	Marker, Wire	X-750-15
1	Marker, Wire	X-750-16

Qty.	Description	Part No.
<b>LCB, 70 AMP, 3 POLE GM99099-KP7</b>		
1	Circuit breaker, 70A HDP	GM47475-38
1	Panel, Circuit Breaker	GM99090
1	Dwg, Assy Marine Circuit Breaker	GM99099
1	Extension, Circuit Breaker Toggle	GM104513
2	Lug, H- Frame M6 Terminal Insert	GM25991-17
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
1	Bus, Load	GM87581
1	Bracket, Circuit Breaker Mounting	GM99201
3	Washer, Plain	M125A-06-80
2	Screw	M7985A-05080-20
4	Screw	M933-06012-60
3	Screw, Hex Cap	M933-06025-60
2	Nut, Hex 5 mm	M934-05-50
3	Nut, Hex 6 mm	M934-06-60
3	Washer, Flat .312 ID x.75 OD	X-25-20
4	Washer, Plain, .281 ID x .625 in.OD	X-25-40
3	Washer, Spring	X-6086-24
1	Marker, Wire	X-750-14
1	Marker, Wire	X-750-15
1	Marker, Wire	X-750-16

Qty.	Description	Part No.
<b>LCB, 150 AMP, 3 POLE GM99099-KP8</b>		
1	Circuit breaker, 150A HDP	GM47475-49
1	Panel, Circuit Breaker	GM99090
1	Dwg, Assy Marine Circuit Breaker	GM99099
1	Extension, Circuit Breaker Toggle	GM104513
2	Lug, H- Frame M6 Terminal Insert	GM25991-17
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
1	Bus, Load	GM87581
1	Bracket, Circuit Breaker Mounting	GM99201
3	Washer, Plain	M125A-06-80
2	Screw	M7985A-05080-20
4	Screw	M933-06012-60
3	Screw, Hex Cap	M933-06025-60
2	Nut, Hex 5 mm	M934-05-50
3	Nut, Hex 6 mm	M934-06-60
3	Washer, Flat .312 ID x.75 OD	X-25-20
4	Washer, Plain, .281 ID x .625 in.OD	X-25-40
3	Washer, Spring	X-6086-24
1	Marker, Wire	X-750-14
1	Marker, Wire	X-750-15
1	Marker, Wire	X-750-16

Qty.	Description	Part No.
<b>LCB, 175 AMP, 3 POLE GM101622-KP1</b>		
1	Circuit breaker, 175A JDP	GM47476-7
1	Panel, Circuit Breaker	GM99090
1	Dwg, Assy Marine Circuit Breaker	GM99099
1	Extension, Circuit Breaker Toggle	GM104513
2	Lug, J- Frame M8 Terminal Insert	GM25991-18
1	Bus, Load	GM87576
2	Bus, Load	GM87577
1	Bus, Load	GM87582
1	Bus, Load	GM87583
1	Bus, Load	GM87586
1	Bracket, Circuit Breaker Mounting	GM99201
3	Washer, Plain	M125A-06-80
3	Nut, Hex 6 mm	M6923-06-80
2	Screw	M7985A-05080-20
6	Screw, Socket Head Cap	M912-08025-60
4	Screw	M933-06012-60
3	Screw, Hex Cap (EXP)	M933-06030-60
2	Nut, Hex 5 mm	M934-05-50
3	Washer, Flat .312 ID x.75 OD	X-25-20
4	Washer, Plain, .281 ID x .625 in.OD	X-25-40
3	Washer, Spring	X-6086-24
1	Marker, Wire	X-750-14
1	Marker, Wire	X-750-15

# Accessories, continued

Qty.	Description	Part No.
<b>LCB, 175 AMP, 2 POLE GM101623-KP1</b>		
1	Circuit breaker, 175A JDP	GM47476-27
1	Panel, Circuit Breaker	GM99090
1	Dwg, Assy Marine Circuit Breaker	GM99099
3	Bus, Load	GM102757
3	Bus, Load	GM102758
1	Extension, Circuit Breaker Toggle	GM104513
1	Lug, J- Frame M8 Terminal Insert	GM25991-18
1	Bus, Load	GM87576
1	Bus, Load	GM87582
1	Bracket, Circuit Breaker Mounting	GM99201
2	Washer, Plain	M125A-06-80
2	Nut, Hex 6 mm	M6923-06-80
2	Screw	M7985A-05080-20
4	Screw, Socket Head Cap	M912-08025-60
4	Screw	M933-06012-60
2	Screw, Hex Cap	M933-06030-60
2	Nut, Hex 5 mm	M934-05-50
2	Washer, Flat .312 ID x.75 OD	X-25-20
4	Washer, Plain, .281 ID x .625 in.OD	X-25-40
2	Washer, Spring	X-6086-24
1	Marker, Wire	X-750-14
1	Marker, Wire	X-750-15

<b>Paralleling Circuit Breaker, 24V, 30A GM99338-KP1</b>		
1	Breaker, Circuit 30A HDP	GM47475-24
1	Auxiliary Contact	GM25990
2	Lug, H- Frame M6 Terminal Insert	GM25991- 17
1	Breaker, Circuit 200 JDP	GM47476- 9
2	Relay, 24V DC	GM49747
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
3	Bus, Load	GM87581
1	Operator, Motor, 15- 150A	GM89929
1	Harness, Wiring Paralleling Kit	GM95868

<b>Paralleling Circuit Breaker, 24V, 40A GM99338-KP2</b>		
1	Breaker, Circuit 40A HDP	GM47475- 29
1	Auxiliary Contact	GM25990
2	Lug, H- Frame M6 Terminal Insert	GM25991- 17
1	Breaker, Circuit 200 JDP	GM47476- 9
2	Relay, 24V DC	GM49747
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
3	Bus, Load	GM87581
1	Operator, Motor, 15- 150A	GM89929
1	Harness, Wiring Paralleling Kit	GM95868

Qty.	Description	Part No.
<b>Paralleling Circuit Breaker, 24V, 50A GM99338- KP3</b>		
1	Breaker, Circuit 50A HDP	GM47475- 33
1	Auxiliary Contact	GM25990
2	Lug, H- Frame M6 Terminal Insert	GM25991- 17
1	Breaker, Circuit 200 JDP	GM47476- 9
2	Relay, 24V DC	GM49747
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
3	Bus, Load	GM87581
1	Operator, Motor, 15- 150A	GM89929
1	Harness, Wiring Paralleling Kit	GM95868

<b>Paralleling Circuit Breaker, 24V, 60A GM99338- KP4</b>		
1	Breaker, Circuit 60A HDP	GM47475- 36
1	Auxiliary Contact	GM25990
2	Lug, H- Frame M6 Terminal Insert	GM25991- 17
1	Breaker, Circuit 200 JDP	GM47476- 9
2	Relay, 24V DC	GM49747
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
3	Bus, Load	GM87581
1	Operator, Motor, 15- 150A	GM89929
1	Harness, Wiring Paralleling Kit	GM95868

<b>Paralleling Circuit Breaker, 24V, 70A GM99338- KP5</b>		
1	Breaker, Circuit 70A HDP	GM47475- 38
1	Auxiliary Contact	GM25990
2	Lug, H- Frame M6 Terminal Insert	GM25991- 17
1	Breaker, Circuit 200 JDP	GM47476- 9
2	Relay, 24V DC	GM49747
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
3	Bus, Load	GM87581
1	Operator, Motor, 15- 150A	GM89929
1	Harness, Wiring Paralleling Kit	GM95868

<b>Paralleling Circuit Breaker, 24V, 80A GM99338- KP6</b>		
1	Breaker, Circuit 80A HDP	GM47475- 40
1	Auxiliary Contact	GM25990
2	Lug, H- Frame M6 Terminal Insert	GM25991- 17
1	Breaker, Circuit 200 JDP	GM47476- 9
2	Relay, 24V DC	GM49747
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
3	Bus, Load	GM87581
1	Operator, Motor, 15- 150A	GM89929
1	Harness, Wiring Paralleling Kit	GM95868

# Accessories, continued

Qty.	Description	Part No.
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## Paralleling Circuit Breaker, 24V, 90A GM99338-KP7

1	Breaker, Circuit 90A HDP	GM47475- 42
1	Auxiliary Contact	GM25990
2	Lug, H- Frame M6 Terminal Insert	GM25991- 17
1	Breaker, Circuit 200 JDP	GM47476- 9
2	Relay, 24V DC	GM49747
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
3	Bus, Load	GM87581
1	Operator, Motor, 15- 150A	GM89929
1	Harness, Wiring Paralleling Kit	GM95868

## Paralleling Circuit Breaker, 24V, 100A GM99338-KP8

1	Breaker, Circuit 100A HDP	GM47475- 44
1	Auxiliary Contact	GM25990
2	Lug, H- Frame M6 Terminal Insert	GM25991- 17
1	Breaker, Circuit 200 JDP	GM47476- 9
2	Relay, 24V DC	GM49747
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
3	Bus, Load	GM87581
1	Operator, Motor, 15- 150A	GM89929
1	Harness, Wiring Paralleling Kit	GM95868

## Paralleling Circuit Breaker, 24V, 125A GM99338-KP9

1	Breaker, Circuit 125A HDP	GM47475- 47
1	Auxiliary Contact	GM25990
2	Lug, H- Frame M6 Terminal Insert	GM25991- 17
1	Breaker, Circuit 200 JDP	GM47476- 9
2	Relay, 24V DC	GM49747
1	Bus, Load	GM87578
1	Bus, Load	GM87579
1	Bus, Load	GM87580
3	Bus, Load	GM87581
1	Operator, Motor, 15- 150A	GM89929
1	Harness, Wiring Paralleling Kit	GM95868

## Paralleling Circuit Breaker

### 50- 150A, 24V GM99204-KP1

2	Relay, 24V DC	GM49747
1	Operator, Motor, 15- 150A	GM89929
1	Auxiliary Contact	GM25990
1	Harness, Breaker	GM90140
2	Screw, Pan Head Machine	M7985A- 05016- 20
2	Nut, Hex 5 mm	M934- 05- 50
2	Washer, lock.20 ID x.373 in.OD	X- 22- 9

## Paralleling Circuit Breaker

### 175- 250A, 24V GM99204-KP2

2	Relay, 24V DC	GM49747
1	Operator, Motor, 150- 250A	GM89930
1	Auxiliary Contact	GM25990
1	Harness, Breaker	GM90140
2	Screw, Pan Head Machine	M7985A- 05016- 20
2	Nut, Hex 5 mm	M934- 05- 50
2	Washer, lock.20 ID x.373 in.OD	X- 22- 9

Qty.	Description	Part No.
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## Electrical System Kits

### Remote Digital Gauge

### GM32337-KP1

1	Decal, warning	249494
1	Gauge, digital	GM30565
1	Harness, remote	GM32325
1	Installation Instructions ADC 2100 Controller Replacement	TT-1364
1	Installation Instructions, Remote Digital Gauge	TT-1379

### Remote Digital Gauge

### GM100956-KP1

1	Decal, warning	249494
1	Digital Gauge	GM100649
1	Harness, 3" Gauge Adapter	GM100955
1	Diagram, Accessory Interconnection	GM33846
1	Diagram, Interconnect Dec3500	GM88254
1	Diagram, System Remote Display	GM92060
1	Installation Instructions, Remote Digital Gauge	TT-1379

### Standard Panel, 12V

### GM88292- KP1

1	Decal, warning	249494
1	Panel Assy, Control 12V	GM62337

### Standard Panel, 24V

### GM88292- KP2

1	Decal, warning	249494
1	Panel Assy, Control 24V	GM62338

### Display, Remote Digital

### GM88293- KP1

1	Display, Remote Digital	GM91770
1	Remote Digital Gauge Marine	TT- 1641
1	Cable tie, nylon (NRP)	X- 468- 3

### Harness,25',Remote Std. Panel

### GM88294- KP1

1	Harness, Extension	GM90442
1	Strap	X- 526- 3

### Harness,50',Remote Std. Panel

### GM88294- KP2

1	Harness, Extension	GM90443
1	Strap	X- 526- 3

### Harness,100',Remote Std. Panel

### GM88294- KP3

1	Harness, Extension	GM90444
1	Strap	X- 526- 3

# Accessories, continued

Qty.	Description	Part No.
<b>Isolated Standoff GM90750- KA1</b>		
2	Washer, Plain	M125A- 06- 80
1	Screw (NRP)	M933- 06012- 60
1	Nut, Hex 6mm	M934- 06- 60
1	Washer, lock.262 IDx.743 in.OD	X- 22- 12
1	Stud (Metric)	X- 6054- 23
1	Insulator , Standoff	X- 6128- 35
<b>Ship to Shore Switch, 3 Wire PAA-246617</b>		
1	Switch, transfer, 3 pole	A-246617
1	Instructions, installation	TT-535
<b>Harness, 25' Digital Display Ext. GM92053- KP1</b>		
1	HARNES, EXTENSION	GM92055
1	Strap	X- 526- 3
<b>Harness, 50' Digital Display Ext. GM92053- KP2</b>		
1	HARNES, EXTENSION	GM92056
1	Strap	X- 526- 3
<b>Harness, 100' Digital Display Ext. GM92053- KP3</b>		
1	HARNES, EXTENSION	GM92057
1	Strap	X- 526- 3
<b>Harness, Digital Display Y GM92054- KP1</b>		
1	HARNES, ADAPTER	GM92058
<b>Isolated Ground, 12V GM92486- KA1</b>		
1	Relay, Cranking, 12V	GM52584
1	Bracket, Isolated Ground	GM92471
1	Harness, Relay	GM93707
2	Washer, Plain	M125A- 06- 80
2	Washer, Plain	M125A- 12- 80
2	Nut, Hex 6mm	M6923- 06- 80
1	Screw (NRP)	M933- 06012- 60
2	Screw, hex cap	M933- 06020- 60
2	Screw, Hex Cap	M933- 12020- 60
1	Nut, Hex 6mm	M934- 06- 60
3	Washer, lock.262 IDx.743 in.OD	X- 22- 12
2	Cable, Battery	X- 545- 249
1	Stud (Metric)	X- 6054- 23
1	Standoff insulator, 1/2- 13 x 2 in.	X- 6128- 1
1	Insulator , Standoff	X- 6128- 35
2	Screw, hex wshr hd, drill 1/4- 14 x 7/8	X- 794- 4
<b>Isolated Ground, 24V GM92486- KA2</b>		
1	Relay	268371
1	Bracket, Isolated Ground	GM92471
1	Harness, Relay	GM93707
2	Washer, Plain	M125A- 06- 80
2	Washer, Plain	M125A- 12- 80
2	Nut, Hex 6mm	M6923- 06- 80
1	Screw (NRP)	M933- 06012- 60
2	Screw, hex cap	M933- 06020- 60
2	Screw, Hex Cap	M933- 12020- 60
1	Nut, Hex 6mm	M934- 06- 60
3	Washer, lock.262 IDx.743 in.OD	X- 22- 12
2	Cable, Battery	X- 545- 249
1	Stud (Metric)	X- 6054- 23
1	Standoff insulator, 1/2- 13 x 2 in.	X- 6128- 1
1	Insulator , Standoff	X- 6128- 35
2	Screw, hex wshr hd, drill 1/4- 14 x 7/8	X- 794- 4

Qty.	Description	Part No.
<b>Isolated Ground, 12V, SS (Front Exh) GM92486- KA3</b>		
1	Relay, Cranking, 12V	GM52584
1	Cable, Battery	X- 545- 258
1	Bracket, Isolated Ground	GM92471
1	Harness, Relay	GM93707
2	Washer, Plain	M125A- 06- 80
2	Washer, Plain	M125A- 12- 80
2	Nut, Hex 6mm	M6923- 06- 80
1	Screw (NRP)	M933- 06012- 60
2	Screw, hex cap	M933- 06020- 60
2	Screw, Hex Cap	M933- 12020- 60
1	Nut, Hex 6mm	M934- 06- 60
3	Washer, lock.262 IDx.743 in.OD	X- 22- 12
2	Cable, Battery	X- 545- 249
1	Stud (Metric)	X- 6054- 23
1	Standoff insulator, 1/2- 13 x 2 in.	X- 6128- 1
1	Insulator , Standoff	X- 6128- 35
2	Screw, hex wshr hd, drill 1/4- 14 x 7/8	X- 794- 4
<b>Isolated Ground, 24V, SS (Front Exh) GM92486- KA4</b>		
1	Relay	268371
1	Cable, Battery	X- 545- 258
1	Bracket, Isolated Ground	GM92471
1	Harness, Relay	GM93707
2	Washer, Plain	M125A- 06- 80
2	Washer, Plain	M125A- 12- 80
2	Nut, Hex 6mm	M6923- 06- 80
1	Screw (NRP)	M933- 06012- 60
2	Screw, hex cap	M933- 06020- 60
2	Screw, Hex Cap	M933- 12020- 60
1	Nut, Hex 6mm	M934- 06- 60
3	Washer, lock.262 IDx.743 in.OD	X- 22- 12
2	Cable, Battery	X- 545- 249
1	Stud (Metric)	X- 6054- 23
1	Standoff insulator, 1/2- 13 x 2 in.	X- 6128- 1
1	Insulator , Standoff	X- 6128- 35
2	Screw, hex wshr hd, drill 1/4- 14 x 7/8	X- 794- 4
<b>Isolated Ground, 12V, SS (Rear Exh) GM92486- KA5</b>		
1	Relay, Cranking, 12V	GM52584
1	Cable, Battery	X- 545- 174
1	Bracket, Isolated Ground	GM92471
1	Harness, Relay	GM93707
2	Washer, Plain	M125A- 06- 80
2	Washer, Plain	M125A- 12- 80
2	Nut, Hex 6mm	M6923- 06- 80
1	Screw (NRP)	M933- 06012- 60
2	Screw, hex cap	M933- 06020- 60
2	Screw, Hex Cap	M933- 12020- 60
1	Nut, Hex 6mm	M934- 06- 60
3	Washer, lock.262 IDx.743 in.OD	X- 22- 12
2	Cable, Battery	X- 545- 249
1	Stud (Metric)	X- 6054- 23
1	Standoff insulator, 1/2- 13 x 2 in.	X- 6128- 1
1	Insulator , Standoff	X- 6128- 35
2	Screw, hex wshr hd, drill 1/4- 14 x 7/8	X- 794- 4

# Accessories, continued

Qty.	Description	Part No.
<b>Isolated Ground, 24V, SS (Rear Exh) GM92486- KA6</b>		
1	Relay	268371
1	Cable, Battery	X- 545- 174
1	Bracket, Isolated Ground	GM92471
1	Harness, Relay	GM93707
2	Washer, Plain	M125A- 06- 80
2	Washer, Plain	M125A- 12- 80
2	Nut, Hex 6mm	M6923- 06- 80
1	Screw (NRP)	M933- 06012- 60
2	Screw, hex cap	M933- 06020- 60
2	Screw, Hex Cap	M933- 12020- 60
1	Nut, Hex 6mm	M934- 06- 60
3	Washer, lock.262 IDx.743 in.OD	X- 22- 12
2	Cable, Battery	X- 545- 249
1	Stud (Metric)	X- 6054- 23
1	Standoff insulator, 1/2- 13 x 2 in.	X- 6128- 1
1	Insulator , Standoff	X- 6128- 35
2	Screw, hex wshr hd, drill 1/4- 14 x 7/8	X- 794- 4

Qty.	Description	Part No.
<b>Isolated Ground GM102528- KP1</b>		
1	Tag, Hang Battery Negative	GM35413
1	Relay, Cranking 12V	GM52584
1	Bracket, Isolated Ground	GM92471
1	Harness, Relay	GM93707
2	Washer, Plain	M125A- 06- 80
2	Washer, Plain	M125A- 12- 80
2	Nut, Hex 6mm	M6923- 06- 80
1	Screw	M933- 06012- 60
1	Nut, Hex 6 mm	M934- 06- 60
2	Bolt, Hex Cap	X- 129- 15
3	Washer, lock.262 IDx.743 in.OD	X- 22- 12
1	Cable, Battery	X- 545- 252
1	Cable, Battery	X- 545- 278
1	Stud, Metric	X- 6054- 22
1	Standoff insulator, 1/2- 13 x 2 in.	X- 6128- 1
1	Insulator, Standoff	X- 6128- 35

Qty.	Description	Part No.
<b>Isolated Ground, Sound Shield GM102528- KP2</b>		
1	Relay, Cranking 12V	GM52584
1	Bracket, Isolated Ground	GM92471
1	Harness, Relay	GM93707
2	Washer, Plain	M125A- 06- 80
2	Washer, Plain	M125A- 12- 80
2	Nut, Hex 6mm	M6923- 06- 80
1	Screw	M933- 06012- 60
1	Nut, Hex 6 mm	M934- 06- 60
2	Bolt, Hex Cap	X- 129- 15
3	Washer, lock.262 IDx.743 in.OD	X- 22- 12
1	Cable, Battery	X- 545- 252
1	Cable, Battery	X- 545- 278
1	Stud, Metric	X- 6054- 22
1	Standoff insulator, 1/2- 13 x 2 in.	X- 6128- 1
1	Insulator, Standoff	X- 6128- 35

Qty.	Description	Part No.
<b>Harness, Remote Display 25' GM91774- KP1</b>		
1	Harness, Remote Gauge 25'	GM91771
1	Strap	X- 526- 3
<b>Harness, Remote Display 50' GM91774- KP2</b>		
1	Harness, Remote Gauge 50'	GM91772
1	Strap	X- 526- 3
<b>Harness, Remote Display 100' GM91774- KP3</b>		
1	Harness, Remote Gauge 100'	GM91773
1	Strap	X- 526- 3
<b>Governor, Paralleling, 12V GM93416- KP1</b>		
1	Actuator, governor	324516
1	Governor, Electronic, KDI	GM90652
2	Washer, Plain	M125A- 06- 80
2	Nut, Hex 6mm	M6923- 06- 80
2	Screw, hex cap	M933- 06040- 60
1	Spacer, .282 ID x .5 OD x .531 in.	X- 400- 28

Qty.	Description	Part No.
<b>Governor, Paralleling, 24V GM93416- KP2</b>		
1	Actuator, governor	324703
1	Governor, Electronic, KDI	GM90652
2	Washer, Plain	M125A- 06- 80
2	Nut, Hex 6mm	M6923- 06- 80
2	Screw, hex cap	M933- 06040- 60
1	Spacer, .282 ID x .5 OD x .531 in.	X- 400- 28

Qty.	Description	Part No.
<b>12V- To- 24V Conversion Kit GM98899- KP1</b>		
4	Relay, 24V DC	GM49747
1	Pump, Electric Fuel Feed 24V	GM90305- 2
1	Motor, 24V Starter	GM91877
1	ESO, Conversion 12V to 24V	GM91878
1	Coil, Conversion 12V to 24V	GM91879
1	12 to 24V Conver Kit, 11- 23kW, Marine	TT- 1690

Qty.	Description	Part No.
<b>Dry Contact, 15 Relay, Dec3500 GM93966- KP2</b>		
1	PCB Assy, 15 Relay Dry Contact w/ Com	GM92483
1	Diagram, Wiring Interconnect DEC3500	GM93793
6	Nut, Hex Machine Screw, 8- 32	X- 70- 12
6	Spacer, .25 OD, .5 in.	X- 712- 9

Qty.	Description	Part No.
<b>Remote Controller Mounting, Dec3500 GM96985- KP1- WHT</b>		
1	Gasket, Controller Cover	GM88990
1	Panel, Remote PCB Mounting	GM96382
1	PCB Assy, DEC3500 Remote Interconnect	GM96419
1	Harness, Remote Controller	GM96428
8	Nut, hex	X-70-12
16	Spacer	X-712-13

# Accessories, continued

Qty.	Description	Part No.
<b>12V- To- 24V Conversion Kit GM98899- KP2</b>		
4	Relay, 24V DC	GM49747
1	Pump, Electric Fuel Feed 24V	GM90305- 2
1	Motor, 24V Starter	GM91877
1	ESO, Conversion 12V to 24V	GM91878
1	Coil, Conversion 12V to 24V	GM91879
1	PCB ASSY,Weather Tight Volt. Converter	GM97121
2	Washer, Plain	M125A- 04- 80
2	Screw, Pan Head Machine	M7985A- 04016- 20
2	Nut, Hex 4mm (NRP)	M934- 04- 50
1	12 to 24V Conver Kit, 11- 23kW, Marine	TT- 1690

## Miscellaneous Kits

<b>Cooling, Keel GM92072- KP1</b>		
1	Flange, exhaust outlet	254692
2	Cap, Rubber	GM79490
1	Pulley, Tension	GM92148
1	Bracket, Pully	GM92156
2	Washer, Plain 10.5 ID x 20.0 OD	M125A- 10- 80
1	Nut, Hex 10mm	M6923- 10- 80
1	Screw, Hex Cap	M933- 10030- 60
1	Washer, lock	X- 22- 1
1	Bolt, Hex Cap	X- 6238- 3

<b>Cooling, Keel GM102146- KP1</b>		
2	Cap, Heat Exchanger	GM101323
1	Tag, Instruction	GM101817
1	Flange, Exhaust Outlet	GM102145
1	Plate, PTO Cover	GM102856
1	Gasket, PTO Cover	GM103936
6	Screw, Socket Head Cap	M912- 06016- 60

<b>Cooling, Keel GM102146- KP2</b>		
2	Cap, Heat Exchanger	GM101323
1	Tag, Instruction	GM101817
1	Flange, Exhaust Outlet	GM102145
1	Dwg, Assy Keel Cooling	GM102146
6	Screw, Socket Head Cap	M912- 06016- 60

<b>Kelron Base Board GM101335- KP3</b>		
1	Base, Sound Shield	GM102131
4	Washer, Plain, .406 ID X.812 in. OD	X- 25- 37
4	Bolt, Hex Cap	X- 6238- 3

<b>Kelron Base Board GM101335- KP4</b>		
1	Base, Sound Shield	GM102132
4	Washer, Plain, .406 ID X.812 in. OD	X- 25- 37
4	Bolt, Hex Cap	X- 6238- 3

<b>Fuel Lines, 1903 KDI Double Wall GM99264- KA1</b>		
1	Fuel lines, 1904 Eng. Double Wall	GM94619
1	Bracket, Leak Sensor	GM102595
2	Screw, Pan Head Machine	M7985A- 05045- 20
2	Screw, hex cap	M933- 12025- 60
2	Washer, Lock .521 ID x 1.24 in.	X- 22- 26
2	Washer, lock .20 ID x .373 in.OD	X- 22- 9

Qty.	Description	Part No.
<b>Fuel Lines, 2504M KDI Double Wall GM99264- KA2</b>		
1	Fuel lines, 2504 Eng. Double Wall	GM94620
1	Bracket, Leak Sensor	GM102595
2	Screw, Pan Head Machine	M7985A- 05045- 20
2	Screw, hex cap	M933- 12025- 60
2	Washer, Lock .521 ID x 1.24 in.	X- 22- 26
2	Washer, lock .20 ID x .373 in.OD	X- 22- 9

<b>Fuel Lines, 2504TCR KDI Double Wall GM99264- KP3</b>		
1	Fuel lines, 2504 TCR Eng. Double Wall	GM102140
1	Bracket, Leak Sensor	GM102595
2	Screw, Pan Head Machine	M7985A- 05045- 20
2	Screw, hex cap	M933- 12025- 60
2	Washer, Lock .521 ID x 1.24 in.	X- 22- 26
2	Washer, lock .20 ID x.373 in.OD	X- 22- 9

<b>Circuit Breaker Adapter Panel GM102275- KP1</b>		
1	Panel subassy, Sound Shield Alt (RH)	GM102273

<b>Motor Operator Adapter Panel GM99572- KP1</b>		
1	Panel subassy, Sound Shield Alt (RH)	GM99571

<b>Tray, Stainless Steel Drip GM92447- KP1</b>		
1	Tray, Stainless Steel Drip	GM92448

<b>Tray, Stainless Steel Drip GM92447- KP2</b>		
1	Tray, Stainless Steel Drip	GM92449

<b>Tray, Stainless Steel Drip GM92447- KP3</b>		
1	Tray, Stainless Steel Drip	GM92450

<b>Tray, Stainless Steel Drip GM92447- KP4</b>		
1	Tray, Stainless Steel Drip	GM93819

## Sound Shield Kits

<b>Kit, Siphon Break GM91613- KP1</b>		
2	Coupling, hose	344934
1	Valve, Siphon Break Assy (.63 in. Hose)	GM32985
1	Tubing, Clear Flexible Plastic	GM34883
2	Grommet, round	X- 284- 42
1	Hose,.63 in. ID	X- 312- 24
1	Hose,.63 in. ID	X- 312- 34
2	Clamp, hose, .69/1.25 in. (NRP)	X- 426- 12
1	Clamp, hose, .25/.70 in. (KM)	X- 426- 9

<b>Siphon Break GM94002- KP1</b>		
2	Hose, molded (.62 in. id)	276206
2	Coupling, hose	344934
1	Valve, Siphon Break Assy (.63" Hose)	GM32985
1	Tubing, Clear Flexible Plastic	GM34883
2	Grommet, round	X- 284- 42
1	Hose,.63 ID	X- 312- 51
2	Clamp, hose, .69/1.25 in. (NRP)	X- 426- 12
1	Clamp, hose, .25/.70 in. (KM)	X- 426- 9

# Accessories, continued

Qty.	Description	Part No.
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## Siphon Break

### GM101360- KP1

2	Connector, hose (90° elbow) (PVC)	344999
1	Hose, Molded Seawater	GM101361
1	Hose, Molded Seawater	GM101362
1	Valve, Siphon Break Assy (1 in. Hose)	GM34688
1	Tubing, Clear Flexible Plastic	GM34883
2	Grommet, round	X- 284- 3
2	Grommet, round	X- 284- 4
2	Clamp	X- 426- 21

## Sound Shield Rear to Front Conversion

### GM93982- KP1

1	Bracket, Terminal Block Panel Mtg	GM82181
1	Tube, Front Mixing	GM92557- 2
1	Panel Subassy, Customer Connect	GM93558
1	Door Subassy, Sound Shield (REAR)	GM93560
1	Door Subassy, Sound Shield (FRONT)	GM93562
1	Bracket, Sound Shield Mounting	GM93616
1	Lead	LK- 0860- 1818
1	Hose,.63 ID	X- 312- 49
2	Clamp, hose, .69/1.25 in. (NRP)	X- 426- 12
1	Cable, Battery	X- 545- 176
1	Hose, Fuel/Oil, 1447.8 (57 in.)	X- 373- 30

## Sound Shield Rear to Front Conversion


### GM93982- KP2

1	Bracket, Terminal Block Panel Mtg	GM82181
1	Door Subassy, Sound Shield (REAR)	GM93560
1	Door Subassy, Sound Shield (FRONT)	GM93562
1	Bracket, Sound Shield Mounting	GM93616
1	Tube, Mixing	GM95109
1	Panel Subassy, Customer Connect	GM95124
1	Harness, Extension	GM96427
1	Hose,.63 ID	X- 312- 49
2	Clamp, hose, .69/1.25 in. (NRP)	X- 426- 12
1	Cable, Battery	X- 545- 176
1	Hose, Fuel/Oil, 1447.8 (57 in.)	X- 373- 30



# Appendix A Abbreviations

The following list contains abbreviations that may appear in this publication.

A, amp	ampere	cfm	cubic feet per minute	ext.	external
ABDC	after bottom dead center	CG	center of gravity	F	Fahrenheit, female
AC	alternating current	CID	cubic inch displacement	fglass.	fiberglass
A/D	analog to digital	CL	centerline	FHM	flat head machine (screw)
ADC	analog to digital converter	cm	centimeter	fl. oz.	fluid ounce
adj.	adjust, adjustment	CMOS	complementary metal oxide substrate (semiconductor)	flex.	flexible
ADV	advertising dimensional drawing	cogen.	cogeneration	freq.	frequency
AHWT	anticipatory high water temperature	com	communications (port)	FS	full scale
AISI	American Iron and Steel Institute	coml	commercial	ft.	foot, feet
ALOP	anticipatory low oil pressure	Coml/Rec	Commercial/Recreational	ft. lb.	foot pounds (torque)
alt.	alternator	conn.	connection	ft./min.	feet per minute
Al	aluminum	cont.	continued	g	gram
ANSI	American National Standards Institute (formerly American Standards Association, ASA)	CPVC	chlorinated polyvinyl chloride	ga.	gauge (meters, wire size)
AO	anticipatory only	crit.	critical	gal.	gallon
API	American Petroleum Institute	CRT	cathode ray tube	gen.	generator
approx.	approximate, approximately	CSA	Canadian Standards Association	genset	generator set
AR	as required, as requested	CT	current transformer	GFI	ground fault interrupter
AS	as supplied, as stated, as suggested	Cu	copper	GND, 	ground
ASE	American Society of Engineers	cu. in.	cubic inch	gov.	governor
ASME	American Society of Mechanical Engineers	cw.	clockwise	gph	gallons per hour
assy.	assembly	CWC	city water-cooled	gpm	gallons per minute
ASTM	American Society for Testing Materials	cyl.	cylinder	gr.	grade, gross
ATDC	after top dead center	D/A	digital to analog	GRD	equipment ground
ATS	automatic transfer switch	DAC	digital to analog converter	gr. wt.	gross weight
auto.	automatic	dB	decibel	H x W x D	height by width by depth
aux.	auxiliary	dBA	decibel (A weighted)	HC	hex cap
A/V	audiovisual	DC	direct current	HCHT	high cylinder head temperature
AVR	automatic voltage regulator	DCR	direct current resistance	HD	heavy duty
AWG	American Wire Gauge	deg., °	degree	HET	high exhaust temperature, high engine temperature
AWM	appliance wiring material	dept.	department	hex	hexagon
bat.	battery	dia.	diameter	Hg	mercury (element)
BBDC	before bottom dead center	DI/EO	dual inlet/end outlet	HH	hex head
BC	battery charger, battery charging	DIN	Deutsches Institut für Normung e. V. (also Deutsche Industrie Normenausschuss)	HHC	hex head cap
BCA	battery charging alternator	DIP	dual inline package	HP	horsepower
BCI	Battery Council International	DPDT	double-pole, double-throw	hr.	hour
BDC	before dead center	DPST	double-pole, single-throw	HS	heat shrink
BHP	brake horsepower	DS	disconnect switch	hsg.	housing
blk.	black (paint color), block (engine)	DVR	digital voltage regulator	HVAC	heating, ventilation, and air conditioning
blk. htr.	block heater	E, emer.	emergency (power source)	HWT	high water temperature
BMEP	brake mean effective pressure	EDI	electronic data interchange	Hz	hertz (cycles per second)
bps	bits per second	EFR	emergency frequency relay for example ( <i>exempli gratia</i> )	IC	integrated circuit
br.	brass	e.g.	for example ( <i>exempli gratia</i> )	ID	inside diameter, identification
BTDC	before top dead center	EG	electronic governor	IEC	International Electrotechnical Commission
Btu	British thermal unit	EGSA	Electrical Generating Systems Association	IEEE	Institute of Electrical and Electronics Engineers
Btu/min.	British thermal units per minute	EIA	Electronic Industries Association	IMS	improved motor starting
C	Celsius, centigrade	EI/EO	end inlet/end outlet	in.	inch
cal.	calorie	EMI	electromagnetic interference	in. H <sub>2</sub> O	inches of water
CARB	California Air Resources Board	emiss.	emission	in. Hg	inches of mercury
CB	circuit breaker	eng.	engine	in. lb.	inch pounds
cc	cubic centimeter	EPA	Environmental Protection Agency	Inc.	incorporated
CCA	cold cranking amps	EPS	emergency power system	ind.	industrial
ccw.	counterclockwise	ER	emergency relay	int.	internal
CEC	Canadian Electrical Code	ES	engineering special, engineered special	int./ext.	internal/external
cert.	certificate, certification, certified	ESD	electrostatic discharge	I/O	input/output
cfh	cubic feet per hour	est.	estimated	IP	iron pipe
		E-Stop	emergency stop	ISO	International Organization for Standardization
		etc.	et cetera (and so forth)	J	joule
		exh.	exhaust	JIS	Japanese Industry Standard
				k	kilo (1000)
				K	kelvin

kA	kiloampere	MTBO	mean time between overhauls	rly.	relay
KB	kilobyte (2 <sup>10</sup> bytes)	mtg.	mounting	rms	root mean square
kg	kilogram	MW	megawatt	rnd.	round
kg/cm <sup>2</sup>	kilograms per square centimeter	mW	milliwatt	ROM	read only memory
kgm	kilogram-meter	μF	microfarad	rot.	rotate, rotating
kg/m <sup>3</sup>	kilograms per cubic meter	N, norm.	normal (power source)	rpm	revolutions per minute
kHz	kilohertz	NA	not available, not applicable	RS	right side
kJ	kilojoule	nat. gas	natural gas	RTV	room temperature vulcanization
km	kilometer	NBS	National Bureau of Standards	SAE	Society of Automotive Engineers
kOhm, kΩ	kilo-ohm	NC	normally closed	scfm	standard cubic feet per minute
kPa	kilopascal	NEC	National Electrical Code	SCR	silicon controlled rectifier
kph	kilometers per hour	NEMA	National Electrical Manufacturers Association	s, sec.	second
kV	kilovolt	NFPA	National Fire Protection Association	SI	<i>Systeme international d'unites</i> , International System of Units
kVA	kilovolt ampere	Nm	newton meter	SI/EO	side in/end out
kVAR	kilovolt ampere reactive	NO	normally open	sil.	silencer
kW	kilowatt	no., nos.	number, numbers	SN	serial number
kWh	kilowatt-hour	NPS	National Pipe, Straight	SPDT	single-pole, double-throw
kWm	kilowatt mechanical	NPSC	National Pipe, Straight-coupling	SPST	single-pole, single-throw
L	liter	NPT	National Standard taper pipe thread per general use	spec, specs	specification(s)
LAN	local area network	NPTF	National Pipe, Taper-Fine	sq.	square
L x W x H	length by width by height	NR	not required, normal relay	sq. cm	square centimeter
lb.	pound, pounds	ns	nanosecond	sq. in.	square inch
lbm/ft <sup>3</sup>	pounds mass per cubic feet	OC	overcrank	SS	stainless steel
LCB	line circuit breaker	OD	outside diameter	std.	standard
LCD	liquid crystal display	OEM	original equipment manufacturer	stl.	steel
ld. shd.	load shed	OF	overfrequency	tach.	tachometer
LED	light emitting diode	opt.	option, optional	TD	time delay
Lph	liters per hour	OS	oversize, overspeed	TDC	top dead center
Lpm	liters per minute	OSHA	Occupational Safety and Health Administration	TDEC	time delay engine cooldown
LOP	low oil pressure	OV	overvoltage	TDEN	time delay emergency to normal
LP	liquefied petroleum	oz.	ounce	TDES	time delay engine start
LPG	liquefied petroleum gas	p., pp.	page, pages	TDNE	time delay normal to emergency
LS	left side	PC	personal computer	TDOE	time delay off to emergency
L <sub>wa</sub>	sound power level, A weighted	PCB	printed circuit board	TDON	time delay off to normal
LWL	low water level	pF	picofarad	temp.	temperature
LWT	low water temperature	PF	power factor	term.	terminal
m	meter, milli (1/1000)	ph., ∅	phase	TIF	telephone influence factor
M	mega (10 <sup>6</sup> when used with SI units), male	PHC	Phillips head crimp (screw)	TIR	total indicator reading
m <sup>3</sup>	cubic meter	PHH	Phillips hex head (screw)	tol.	tolerance
m <sup>3</sup> /min.	cubic meters per minute	PHM	pan head machine (screw)	turbo.	turbocharger
mA	milliampere	PLC	programmable logic control	typ.	typical (same in multiple locations)
man.	manual	PMG	permanent-magnet generator	UF	underfrequency
max.	maximum	pot	potentiometer, potential	UHF	ultrahigh frequency
MB	megabyte (2 <sup>20</sup> bytes)	ppm	parts per million	UL	Underwriter's Laboratories, Inc.
MCM	one thousand circular mils	PROM	programmable read-only memory	UNC	unified coarse thread (was NC)
MCCB	molded-case circuit breaker	psi	pounds per square inch	UNF	unified fine thread (was NF)
meggarr	megohmmeter	pt.	pint	univ.	universal
MHz	megahertz	PTC	positive temperature coefficient	US	undersize, underspeed
mi.	mile	PTO	power takeoff	UV	ultraviolet, undervoltage
mil	one one-thousandth of an inch	PVC	polyvinyl chloride	V	volt
min.	minimum, minute	qt.	quart, quarts	VAC	volts alternating current
misc.	miscellaneous	qty.	quantity	VAR	voltampere reactive
MJ	megajoule	R	replacement (emergency) power source	VDC	volts direct current
mJ	millijoule	rad.	radiator, radius	VFD	vacuum fluorescent display
mm	millimeter	RAM	random access memory	VGA	video graphics adapter
mOhm, mΩ	milliohm	RDO	relay driver output	VHF	very high frequency
MOhm, MΩ	megohm	ref.	reference	W	watt
MOV	metal oxide varistor	rem.	remote	WCR	withstand and closing rating
MPa	megapascal	Res/Coml	Residential/Commercial	w/	with
mpg	miles per gallon	RFI	radio frequency interference	w/o	without
mpg	miles per gallon	RH	round head	wt.	weight
mph	miles per hour	RHM	round head machine (screw)	xfmr	transformer
MS	military standard				
m/sec.	meters per second				
MTBF	mean time between failure				

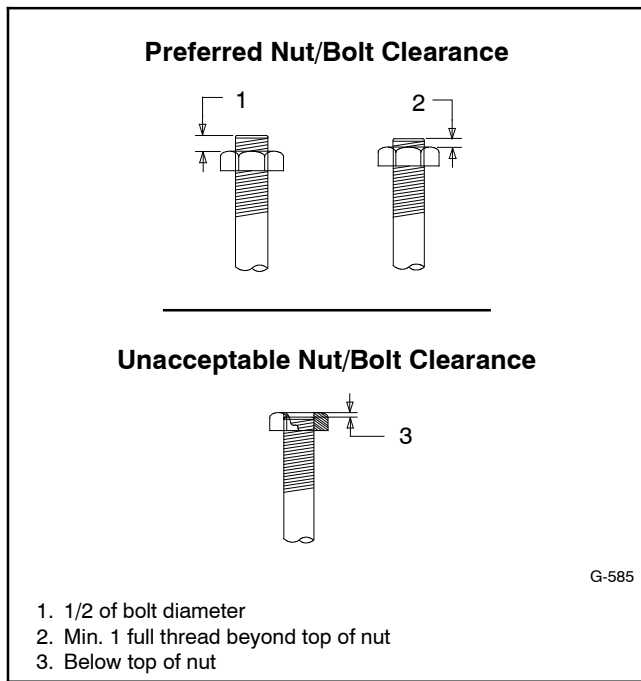
# Appendix B Common Hardware Application Guidelines

Use the information below and on the following pages to identify proper fastening techniques when no specific reference for reassembly is made.

**Bolt/Screw Length:** When bolt/screw length is not given, use Figure 1 as a guide. As a general rule, a minimum length of one thread beyond the nut and a maximum length of 1/2 the bolt/screw diameter beyond the nut is the preferred method.

**Washers and Nuts:** Use split lock washers as a bolt locking device where specified. Use SAE flat washers with whiz nuts, spirallock nuts, or standard nuts and preloading (torque) of the bolt in all other applications.

See Appendix C, General Torque Specifications, and other torque specifications in the service literature.



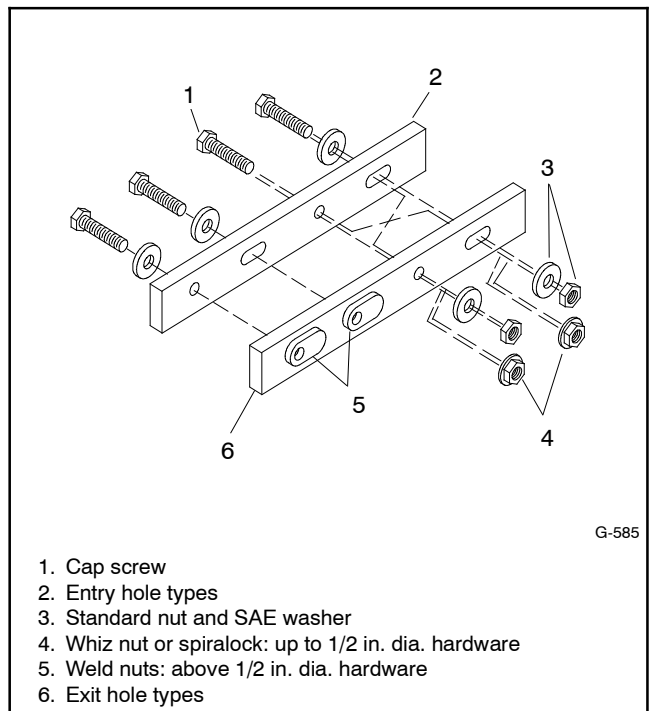
**Figure 1** Acceptable Bolt Lengths

Steps for common hardware application:

1. Determine entry hole type: round or slotted.
2. Determine exit hole type: fixed female thread (weld nut), round, or slotted.

For round and slotted exit holes, determine if hardware is greater than 1/2 inch in diameter, or 1/2 inch in diameter or less. Hardware that is *greater than 1/2 inch* in diameter takes a standard nut and SAE washer. Hardware *1/2 inch or less* in diameter can take a properly torqued whiz nut or spirallock nut. See Figure 2.

3. Follow these SAE washer rules after determining exit hole type:
  - a. Always use a washer between hardware and a slot.
  - b. Always use a washer under a nut (see 2 above for exception).
  - c. Use a washer under a bolt when the female thread is fixed (weld nut).
4. Refer to Figure 2, which depicts the preceding hardware configuration possibilities.



**Figure 2** Acceptable Hardware Combinations

# Appendix C General Torque Specifications















American Standard Fasteners Torque Specifications							
Size	Assembled into Cast Iron or Steel					Assembled into Aluminum	
	Grade 2		Grade 5		Grade 8		
8-32	2.0 Nm	(18 in. lb.)	3.1 Nm	(27 in. lb.)	-	See Note 3	
10-24	3.2 Nm	(28 in. lb.)	4.9 Nm	(43 in. lb.)	-		
10-32	3.6 Nm	(32 in. lb.)	5.5 Nm	(49 in. lb.)	-		
12-24	5.0 Nm	(44 in. lb.)	7.7 Nm	(68 in. lb.)	-		
1/4-20	7.6 Nm	(67 in. lb.)	11.6 Nm	(103 in. lb.)	16.5 Nm		(146 in. lb.)
1/4-28	8.6 Nm	(76 in. lb.)	13.2 Nm	(117 in. lb.)	18.8 Nm		(166 in. lb.)
5/16-18	15.5 Nm	(137 in. lb.)	24.0 Nm	(212 in. lb.)	33.9 Nm		(300 in. lb.)
5/16-24	17.1 Nm	(151 in. lb.)	26.4 Nm	(234 in. lb.)	40 Nm		(28 ft. lb.)
3/8-16	27 Nm	(243 in. lb.)	42 Nm	(31 ft. lb.)	60 Nm		(44 ft. lb.)
3/8-24	31 Nm	(274 in. lb.)	47 Nm	(35 ft. lb.)	68 Nm		(50 ft. lb.)
7/16-14	43 Nm	(32 ft. lb.)	68 Nm	(50 ft. lb.)	96 Nm		(71 ft. lb.)
7/16-20	49 Nm	(36 ft. lb.)	76 Nm	(56 ft. lb.)	107 Nm		(79 ft. lb.)
1/2-13	66 Nm	(49 ft. lb.)	103 Nm	(76 ft. lb.)	146 Nm		(108 ft. lb.)
1/2-20	75 Nm	(55 ft. lb.)	117 Nm	(86 ft. lb.)	164 Nm		(121 ft. lb.)
9/16-12	96 Nm	(71 ft. lb.)	149 Nm	(110 ft. lb.)	210 Nm		(155 ft. lb.)
9/16-18	107 Nm	(79 ft. lb.)	165 Nm	(122 ft. lb.)	235 Nm		(173 ft. lb.)
5/8-11	133 Nm	(98 ft. lb.)	206 Nm	(152 ft. lb.)	290 Nm		(214 ft. lb.)
5/8-18	150 Nm	(111 ft. lb.)	232 Nm	(171 ft. lb.)	328 Nm		(242 ft. lb.)
3/4-10	-	-	365 Nm	(269 ft. lb.)	515 Nm		(380 ft. lb.)
3/4-16	-	-	405 Nm	(299 ft. lb.)	572 Nm		(422 ft. lb.)
1-8	-	-	881 Nm	(650 ft. lb.)	1245 Nm	(918 ft. lb.)	
1-12	-	-	961 Nm	(709 ft. lb.)	1357 Nm	(1001 ft. lb.)	












Metric Fasteners Torque Specifications, Measured in Nm (ft. lb.)							
Size (mm)	Assembled into Cast Iron or Steel					Assembled into Aluminum	
	Grade 5.8		Grade 8.8		Grade 10.9		Grade 12.9
Mxxx-04xxx-xx	1.9	(1.4)	2.9	(2.1)	4.3	(3.2)	See Note 3
Mxxx-05xxx-xx	3.8	(2.8)	5.8	(4.3)	8.5	(6.3)	
Mxxx-06xxx-xx	6.5	(4.8)	10.4	(7.7)	14.7	(11)	
Mxxx-08xxx-xx	16	(12)	25	(17)	36	(26)	
Mxxx-08xxx-xxF	17	(13)	27	(20)	38	(28)	
Mxxx-10xxx-xx	31	(23)	50	(37)	70	(52)	
Mxxx-10xxx-xxF	33	(24)	53	(39)	74	(55)	
Mxxx-12xxx-xx	55	(40)	87	(64)	123	(91)	
Mxxx-12xxx-xxF	60	(44)	95	(70)	134	(99)	
Mxxx-14xxx-xx	87	(64)	135	(103)	196	(145)	
Mxxx-14xxx-xxF	94	(69)	151	(111)	212	(156)	
Mxxx-16xxx-xx	135	(100)	217	(160)	305	(225)	
Mxxx-16xxx-xxF	145	(107)	231	(171)	325	(240)	
Mxxx-18xxx-xx	187	(138)	299	(221)	421	(310)	
Mxxx-18xxx-xxF	210	(155)	336	(248)	473	(349)	
Mxxx-20xxx-xx	264	(195)	423	(312)	595	(439)	
Mxxx-20xxx-xxF	293	(216)	469	(346)	660	(487)	
Mxxx-22xxx-xx	360	(266)	576	(425)	811	(598)	
Mxxx-22xxx-xxF	396	(292)	633	(467)	890	(657)	
Mxxx-24xxx-xx	457	(337)	731	(539)	1028	(758)	
Mxxx-24xxx-xxF	498	(367)	797	(588)	1121	(827)	
Mxxx-27xxx-xx	-	-	1072	(790)	1507	(1112)	
Mxxx-27xxx-xxF	-	-	1156	(853)	1626	(1199)	
Mxxx-30xxx-xx	-	-	1453	(1072)	2043	(1507)	






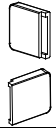
**Notes:**

1. The torque values above are general guidelines. Always use the torque values specified in the service manuals and/or assembly drawings when they differ from the above torque values.
2. The torque values above are based on new plated threads. Increase torque values by 15% if non-plated threads are used.
3. At minimum, hardware threaded into aluminum must have two diameters of thread engagement. Hardware threaded into steel and cast iron must have 1.25 diameters of thread.
4. Torque values are calculated as equivalent stress loading on American hardware with an approximate preload of 75% of proof strength and a friction coefficient of 0.2.

# Appendix D Common Hardware Identification

Screw/Bolts/Studs	
Head Styles	
Hex Head or Machine Head	
Hex Head or Machine Head with Washer	
Flat Head (FHM)	
Round Head (RHM)	
Pan Head	
Hex Socket Head Cap or Allen™ Head Cap	
Hex Socket Head or Allen™ Head Shoulder Bolt	
Sheet Metal Screw	
Stud	
Drive Styles	
Hex	
Hex and Slotted	
Phillips®	
Slotted	
Hex Socket	

Nuts	
Nut Styles	
Hex Head	
Lock or Elastic	
Square	
Cap or Acorn	
Wing	
Washers	
Washer Styles	
Plain	
Split Lock or Spring	
Spring or Wave	
External Tooth Lock	
Internal Tooth Lock	
Internal-External Tooth Lock	

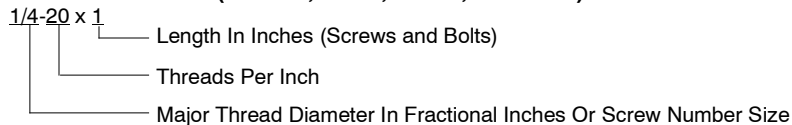
Hardness Grades	
American Standard	
Grade 2	
Grade 5	
Grade 8	
Grade 8/9 (Hex Socket Head)	
Metric	
Number stamped on hardware; 5.8 shown	
Hose Clamp Covers	
Black, EPDM rubber used on worm gear clamps	

Allen™ head screw is a trademark of Holo-Krome Co.

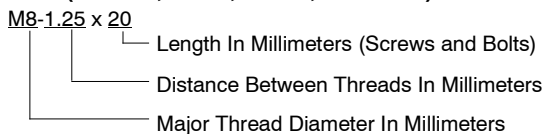
Phillips® screw is a registered trademark of Phillips Screw Company.

## Sample Dimensions

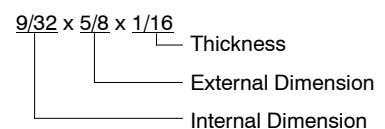
### American Standard (Screws, Bolts, Studs, and Nuts)



### Metric (Screws, Bolts, Studs, and Nuts)



### Plain Washers



### Lock Washers



# Appendix E Common Hardware List

The Common Hardware List lists part numbers and dimensions for common hardware items.

## American Standard

### Part No. Dimensions Hex Head Bolts (Grade 5)

X-465-17	1/4-20 x .38
X-465-6	1/4-20 x .50
X-465-2	1/4-20 x .62
X-465-16	1/4-20 x .75
X-465-18	1/4-20 x .88
X-465-7	1/4-20 x 1.00
X-465-8	1/4-20 x 1.25
X-465-9	1/4-20 x 1.50
X-465-10	1/4-20 x 1.75
X-465-11	1/4-20 x 2.00
X-465-12	1/4-20 x 2.25
X-465-14	1/4-20 x 2.75
X-465-21	1/4-20 x 5.00
X-465-25	1/4-28 x .38
X-465-20	1/4-28 x 1.00
X-125-33	5/16-18 x .50
X-125-23	5/16-18 x .62
X-125-3	5/16-18 x .75
X-125-31	5/16-18 x .88
X-125-5	5/16-18 x 1.00
X-125-24	5/16-18 x 1.25
X-125-34	5/16-18 x 1.50
X-125-25	5/16-18 x 1.75
X-125-26	5/16-18 x 2.00
230578	5/16-18 x 2.25
X-125-29	5/16-18 x 2.50
X-125-27	5/16-18 x 2.75
X-125-28	5/16-18 x 3.00
X-125-22	5/16-18 x 4.50
X-125-32	5/16-18 x 5.00
X-125-35	5/16-18 x 5.50
X-125-36	5/16-18 x 6.00
X-125-40	5/16-18 x 6.50
X-125-43	5/16-24 x 1.75
X-125-44	5/16-24 x 2.50
X-125-30	5/16-24 x .75
X-125-39	5/16-24 x 2.00
X-125-38	5/16-24 x 2.75
X-6238-2	3/8-16 x .62
X-6238-10	3/8-16 x .75
X-6238-3	3/8-16 x .88
X-6238-11	3/8-16 x 1.00
X-6238-4	3/8-16 x 1.25
X-6238-5	3/8-16 x 1.50
X-6238-1	3/8-16 x 1.75
X-6238-6	3/8-16 x 2.00
X-6238-17	3/8-16 x 2.25
X-6238-7	3/8-16 x 2.50
X-6238-8	3/8-16 x 2.75
X-6238-9	3/8-16 x 3.00
X-6238-19	3/8-16 x 3.25
X-6238-12	3/8-16 x 3.50
X-6238-20	3/8-16 x 3.75
X-6238-13	3/8-16 x 4.50
X-6238-18	3/8-16 x 5.50
X-6238-25	3/8-16 x 6.50

### Part No. Dimensions Hex Head Bolts, cont.

X-6238-14	3/8-24 x .75
X-6238-16	3/8-24 x 1.25
X-6238-21	3/8-24 x 4.00
X-6238-22	3/8-24 x 4.50
X-6024-5	7/16-14 x .75
X-6024-2	7/16-14 x 1.00
X-6024-8	7/16-14 x 1.25
X-6024-3	7/16-14 x 1.50
X-6024-4	7/16-14 x 2.00
X-6024-11	7/16-14 x 2.75
X-6024-12	7/16-14 x 6.50
X-129-15	1/2-13 x .75
X-129-17	1/2-13 x 1.00
X-129-18	1/2-13 x 1.25
X-129-19	1/2-13 x 1.50
X-129-20	1/2-13 x 1.75
X-129-21	1/2-13 x 2.00
X-129-22	1/2-13 x 2.25
X-129-23	1/2-13 x 2.50
X-129-24	1/2-13 x 2.75
X-129-25	1/2-13 x 3.00
X-129-27	1/2-13 x 3.50
X-129-29	1/2-13 x 4.00
X-129-30	1/2-13 x 4.50
X-463-9	1/2-13 x 5.50
X-129-44	1/2-13 x 6.00
X-129-51	1/2-20 x .75
X-129-45	1/2-20 x 1.25
X-129-52	1/2-20 x 1.50
X-6021-3	5/8-11 x 1.00
X-6021-4	5/8-11 x 1.25
X-6021-2	5/8-11 x 1.50
X-6021-1	5/8-11 x 1.75
273049	5/8-11 x 2.00
X-6021-5	5/8-11 x 2.25
X-6021-6	5/8-11 x 2.50
X-6021-7	5/8-11 x 2.75
X-6021-12	5/8-11 x 3.75
X-6021-11	5/8-11 x 4.50
X-6021-10	5/8-11 x 6.00
X-6021-9	5/8-18 x 2.50
X-6239-1	3/4-10 x 1.00
X-6239-8	3/4-10 x 1.25
X-6239-2	3/4-10 x 1.50
X-6239-3	3/4-10 x 2.00
X-6239-4	3/4-10 x 2.50
X-6239-5	3/4-10 x 3.00
X-6239-6	3/4-10 x 3.50
X-792-1	1-8 x 2.25
X-792-5	1-8 x 3.00
X-792-8	1-8 x 5.00

### Part No. Dimensions Type

#### Hex Nuts

X-6009-1	1-8	Standard
X-6210-3	6-32	Whiz
X-6210-4	8-32	Whiz
X-6210-5	10-24	Whiz
X-6210-1	10-32	Whiz
X-6210-2	1/4-20	Spiralock
X-6210-6	1/4-28	Spiralock
X-6210-7	5/16-18	Spiralock
X-6210-8	5/16-24	Spiralock
X-6210-9	3/8-16	Spiralock
X-6210-10	3/8-24	Spiralock
X-6210-11	7/16-14	Spiralock
X-6210-12	1/2-13	Spiralock
X-6210-15	7/16-20	Spiralock
X-6210-14	1/2-20	Spiralock
X-85-3	5/8-11	Standard
X-88-12	3/4-10	Standard
X-89-2	1/2-20	Standard

#### Washers

Part No.	ID	OD	Thick.	Bolt/ Screw
X-25-46	.125	.250	.022	#4
X-25-9	.156	.375	.049	#6
X-25-48	.188	.438	.049	#8
X-25-36	.219	.500	.049	#10
X-25-40	.281	.625	.065	1/4
X-25-85	.344	.687	.065	5/16
X-25-37	.406	.812	.065	3/8
X-25-34	.469	.922	.065	7/16
X-25-26	.531	1.062	.095	1/2
X-25-15	.656	1.312	.095	5/8
X-25-29	.812	1.469	.134	3/4
X-25-127	1.062	2.000	.134	1

#### Hose Clamp Covers

Part No.	Clamp Size
GM102674-1	13 mm (1/2 in.)
GM102674-2	8 mm (5/16 in.)

## Metric

Hex head bolts are hardness grade 8.8 unless noted.

Part No.	Dimensions	Part No.	Dimensions	Part No.	Dimensions
<b>Hex Head Bolts (Partial Thread)</b>					
M931-05055-60	M5-0.80 x 55				
M931-06040-60	M6-1.00 x 40				
M931-06055-60	M6-1.00 x 55				
M931-06060-60	M6-1.00 x 60				
M931-06060-SS	M6-1.00 x 60				
M931-06070-60	M6-1.00 x 70				
M931-06070-SS	M6-1.00 x 70				
M931-06075-60	M6-1.00 x 75				
M931-06090-60	M6-1.00 x 90				
M931-06145-60	M6-1.00 x 145				
M931-06150-60	M6-1.00 x 150				
<b>Hex Head Bolts (Full Thread)</b>					
M931-08035-60	M8-1.25 x 35				
M931-08040-60	M8-1.25 x 40				
M931-08045-60	M8-1.25 x 45				
M931-08050-60	M8-1.25 x 50				
M931-08055-60	M8-1.25 x 55				
M931-08055-82	M8-1.25 x 55*				
M931-08060-60	M8-1.25 x 60				
M931-08070-60	M8-1.25 x 70				
M931-08070-82	M8-1.25 x 70*				
M931-08075-60	M8-1.25 x 75				
M931-08080-60	M8-1.25 x 80				
M931-08090-60	M8-1.25 x 90				
M931-08095-60	M8-1.25 x 95				
M931-08100-60	M8-1.25 x 100				
M931-08110-60	M8-1.25 x 110				
M931-08120-60	M8-1.25 x 120				
M931-08130-60	M8-1.25 x 130				
M931-08140-60	M8-1.25 x 140				
M931-08150-60	M8-1.25 x 150				
M931-08200-60	M8-1.25 x 200				
M931-10040-82	M10-1.25 x 40*				
M931-10040-60	M10-1.50 x 40				
M931-10045-60	M10-1.50 x 45				
M931-10050-60	M10-1.50 x 50				
M931-10050-82	M10-1.25 x 50*				
M931-10055-60	M10-1.50 x 55				
M931-10060-60	M10-1.50 x 60				
M931-10065-60	M10-1.50 x 65				
M931-10070-60	M10-1.50 x 70				
M931-10080-60	M10-1.50 x 80				
M931-10080-82	M10-1.25 x 80*				
M931-10090-60	M10-1.50 x 90				
M931-10090-82	M10-1.50 x 90*				
M931-10100-60	M10-1.50 x 100				
M931-10110-60	M10-1.50 x 110				
M931-10120-60	M10-1.50 x 120				
M931-10130-60	M10-1.50 x 130				
M931-10140-60	M10-1.50 x 140				
M931-10180-60	M10-1.50 x 180				
M931-10235-60	M10-1.50 x 235				
M931-10260-60	M10-1.50 x 260				
M960-10330-60	M10-1.25 x 330				
M931-12045-60	M12-1.75 x 45				
M960-12050-60	M12-1.25 x 50				
M960-12050-82	M12-1.25 x 50*				
M931-12050-60	M12-1.75 x 50				
M931-12050-82	M12-1.75 x 50*				
M931-12055-60	M12-1.75 x 55				
M931-12060-60	M12-1.75 x 60				
M931-12060-82	M12-1.75 x 60*				
M931-12065-60	M12-1.75 x 65				
M931-12075-60	M12-1.75 x 75				
M931-12080-60	M12-1.75 x 80				
M931-12090-60	M12-1.75 x 90				
M931-12100-60	M12-1.75 x 100				
M931-12110-60	M12-1.75 x 110				
<b>Hex Head Bolts (Partial Thread), continued</b>					
M960-16090-60	M16-1.50 x 90				
M931-16090-60	M16-2.00 x 90				
M931-16100-60	M16-2.00 x 100				
M931-16100-82	M16-2.00 x 100*				
M931-16120-60	M16-2.00 x 120				
M931-16150-60	M16-2.00 x 150				
M931-20065-60	M20-2.50 x 65				
M931-20090-60	M20-2.50 x 90				
M931-20100-60	M20-2.50 x 100				
M931-20120-60	M20-2.50 x 120				
M931-20140-60	M20-2.50 x 140				
M931-20160-60	M20-2.50 x 160				
M931-22090-60	M22-2.50 x 90				
M931-22120-60	M22-2.50 x 120				
M931-22160-60	M22-2.50 x 160				
M931-24090-60	M24-3.00 x 90				
M931-24120-60	M24-3.00 x 120				
M931-24160-60	M24-3.00 x 160				
M931-24200-60	M24-3.00 x 200				
<b>Hex Head Bolts (Full Thread), continued</b>					
M933-04006-60	M4-0.70 x 6				
M933-05030-60	M5-0.80 x 30				
M933-05035-60	M5-0.80 x 35				
M933-05050-60	M5-0.80 x 50				
M933-06010-60	M6-1.00 x 10				
M933-06012-60	M6-1.00 x 12				
M933-06014-60	M6-1.00 x 14				
M933-06016-60	M6-1.00 x 16				
M933-06020-60	M6-1.00 x 20				
M933-06025-60	M6-1.00 x 25				
M933-06030-60	M6-1.00 x 30				
M933-06040-60	M6-1.00 x 40				
M933-06050-60	M6-1.00 x 50				
M933-07025-60	M7-1.00 x 25				
M933-08010-60	M8-1.25 x 10				
M933-08012-60	M8-1.25 x 12				
M933-08016-60	M8-1.25 x 16				
M933-08020-60	M8-1.25 x 20				
M933-08025-60	M8-1.25 x 25				
M933-08030-60	M8-1.25 x 30				
M933-08030-82	M8-1.25 x 30*				
M933-10012-60	M10-1.50 x 12				
M961-10020-60	M10-1.25 x 20				
M933-10020-60	M10-1.50 x 20				
M933-10025-60	M10-1.50 x 25				
M961-10025-60	M10-1.25 x 25				
M933-10025-82	M10-1.50 x 25*				
M961-10030-60	M10-1.25 x 30				
M933-10030-60	M10-1.50 x 30				
M933-10030-82	M10-1.50 x 30*				
M961-10035-60	M10-1.25 x 35				
M933-10035-60	M10-1.50 x 35				
M933-10035-82	M10-1.50 x 35*				
M961-10040-60	M10-1.25 x 40				
<b>Pan Head Machine Screws</b>					
M7985A-03010-20	M3-0.50 x 10				
M7985A-03012-20	M3-0.50 x 12				
M7985A-04010-20	M4-0.70 x 10				
M7985A-04016-20	M4-0.70 x 16				
M7985A-04020-20	M4-0.70 x 20				
M7985A-04050-20	M4-0.70 x 50				
M7985A-04100-20	M4-0.70 x 100				
M7985A-05010-20	M5-0.80 x 10				
M7985A-05012-20	M5-0.80 x 12				
M7985A-05016-20	M5-0.80 x 16				
M7985A-05020-20	M5-0.80 x 20				
M7985A-05025-20	M5-0.80 x 25				
M7985A-05030-20	M5-0.80 x 30				
M7985A-05080-20	M5-0.80 x 80				
M7985A-05100-20	M5-0.80 x 100				
M7985A-06100-20	M6-1.00 x 100				
<b>Flat Head Machine Screws</b>					
M965A-04012-SS	M4-0.70 x 12				
M965A-05012-SS	M5-0.80 x 12				
M965A-05016-20	M5-0.80 x 16				
M965A-06012-20	M6-1.00 x 12				

\* This metric hex bolt's hardness is grade 10.9.

## Metric, continued

Part No.	Dimensions	Type
<b>Hex Nuts</b>		
M934-03-50	M3-0.50	Standard
M934-04-50	M4-0.70	Standard
M934-04-B	M4-0.70	Brass
M934-05-50	M5-0.80	Standard
M934-06-60	M6-1.00	Standard
M934-06-64	M6-1.00	Std. (green)
M6923-06-80	M6-1.00	Spirallock
M982-06-80	M6-1.00	Elastic Stop
M934-08-60	M8-1.25	Standard
M6923-08-80	M8-1.25	Spirallock
M982-08-80	M8-1.25	Elastic Stop
M934-10-60	M10-1.50	Standard
M934-10-60F	M10-1.25	Standard
M6923-10-80	M10-1.50	Spirallock
M6923-10-62	M10-1.50	Spirallock†
M982-10-80	M10-1.50	Elastic Stop
M934-12-60	M12-1.75	Standard
M934-12-60F	M12-1.25	Standard
M6923-12-80	M12-1.75	Spirallock
M982-12-80	M12-1.75	Elastic Stop
M982-14-60	M14-2.00	Elastic Stop
M6923-16-80	M16-2.00	Spirallock
M982-16-80	M16-2.00	Elastic Stop
M934-18-80	M18-2.5	Standard
M982-18-60	M18-2.50	Elastic Stop
M934-20-80	M20-2.50	Standard
M982-20-80	M20-2.50	Elastic Stop
M934-22-60	M22-2.50	Standard
M934-24-80	M24-3.00	Standard
M982-24-60	M24-3.00	Elastic Stop
M934-30-80	M30-3.50	Standard

## Washers

Part No.	ID	OD	Thick.	Bolt/ Screw
M125A-03-80	3.2	7.0	0.5	M3
M125A-04-80	4.3	9.0	0.8	M4
M125A-05-80	5.3	10.0	1.0	M5
M125A-06-80	6.4	12.0	1.6	M6
M125A-08-80	8.4	16.0	1.6	M8
M125A-10-80	10.5	20.0	2.0	M10
M125A-12-80	13.0	24.0	2.5	M12
M125A-14-80	15.0	28.0	2.5	M14
M125A-16-80	17.0	30.0	3.0	M16
M125A-18-80	19.0	34.0	3.0	M18
M125A-20-80	21.0	37.0	3.0	M20
M125A-24-80	25.0	44.0	4.0	M24

† This metric hex nut's hardness is grade 8.



# Notes

# Notes

# Notes

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