			000000000000000000000000000000000000000
	ENGINE (less major assemblies)	5 0000 5. 4000A	COOLING SYSTEM (CONT'D)
1.1000	Cylinder Block	5.4000A 5.4000B	Fan Lan Stroud
1.1000A	Air Box Drains	5 4000B	Lan Shroud Hoot Evolumer or Keel Cooling
1.2000	Cylinder Head	5 500 0 A	Heat Exchanger or Keel Cooling
1.2000A	Engine Lifter Bracket	5 6000A	Raw Water Pump
1.3000	Crankshaft, Oil Seals and Stabilizers	5 700 0 A	Water Filter
1.3000A	Crankshaft Front Cover	6.0000	(VUALICE OVOTEL)
1.3000B	Vibration Damper	6 0000	Exhaust System Enhance Mandald and for Connections
1.3000C	Crankshaft Pulley Crankshaft Pulley Rolt	6 1000A	Exhaust Manifold and/or Connections
1.3000D 1.4000A	Crankshaft Pulley Belt	6 2000A	Exhaust Muffler and/or Connections
1.4000A 1.5000A	Flywheel Flywheel Housing	7.0000	CLECTBION BIOTOURIESTO
1.5000A 1.5000B	Flywheel Housing Flywheel Housing Adaptor	7 0000 7 1000 A	ELECTRICALINSTRUMENTS Rettory Charging Generator
1.5000B 1.6000	Flywheel Housing Adaptor Connecting Rod and Piston	7 1000A 7 2000A	Battery Charging Generator
1.6000	Connecting Hod and Piston Camshaft and Gear Train	7 2000A 7 2000B	Battery Cables Automatic Starting
1.7000 1.7000A	Camsnart and Gear Train Balance Weight Cover	7.2000B 7.2000B	Automatic Starting Automatic Starting (Twin and Ocad)
1.7000A 1.7000B	Accessory Drive	7 2000B 7 3000A	Automatic Starting (Twin and Quad) Starting Motor
1.7000B 1.8000	Valve and Injector Operating Mechanism	7 3000A 7 4000A	Starting Motor
1.8000 1.8000A	Rocker Cover	7.4000A 7.4000A	Instruments Instruments (Twin and Quad)
M		7.4000A 7.4000B	fachometer Drive
. 0000	FUEL SYSTEM	7.4000B 7.4000B	Tachometer Drive (Twin and Quad)
2 1000A	FUEL SYSTEM Fuel Injector	7.4000B 7.4000C	Shutoff, Alarm and O.S. Governor
2 1000A 2 1000B	Injector Controls Electronic	7.4000C	Shutoff, Alarm and O.S. Governor (Twin and Ouad)
2 2000	Fuel Pump	7.5000A	Power Generator
2.2000 2.2000A	Fuel Pump Drain	7.6000A	Control Cabinet
2.2000A 2.3000A	Fuel Filter and Strainer	7.6000A	Control Cabinet (Twin and Quad)
2.3000A	Fuel Filter and Strainer (Twin and Quad)	7.7000A	Wiring Harness
2.4000	Fuel Manifold and/or Connections	7 800 0 A	Air Heater
2.4000A	Dual Fuel System	7 8000A	Air Heater (Twin and Ouad)
2.5000A	Fuel Lines and Fuel Cooler	7 100 0 0A	Hydraulic Governor Solenoid
2.5000A	Fuel Lines and Fuel Cooler (Twin and Ouad)		DOWER 1117
2.6000A	Fuel Tank	8 0000	POWER TAKE-OFF
2.6000B	Electric Governor	8 1000A	Power Take-off and/or Clutch
2.7000A	Mechanical Governor	8 1000A	Power Take-off and/or Clutch (Twin and Quad)
2.8000A	Hydraulic Governor	8 3000A	Torque Converter (Twin, and Ouad)
2.9000	Injector Controls (Twin and Quad)	8.3000A	Torque Converter (Twin and Quad)
2.9000 2.9000A	Injector Controls (Twin and Quad) Throttle Controls	8 3000B	Transmission Lines
2.9000A 2.9000A	Throttle Controls Throttle Controls (Twin and Quad)	0.0000	TRANSMISSIONI AND BRODITI SIONI
e SUUUA	ono oomos (iwa alo odad)	9 0000 9 1000A	TRANSMISSION AND PROPULSION Hydraulic Marine Gear
0000	AIR SYSTEM	9 1000A 9 100 0 A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad)
3 1000A	Air System Air Cleaner and/or Adaptor	9 1000A 9 2000A	Reverse and Reduction Gear (mechanical)
3.1000A 3.2000A		9 2000A	Power Transfer Case
3.2000A 3.3000A	Air Silencer Air Inlet Housing	9 3000A 9 3000A	Power Transfer Case Power Transfer Gear (Twin and Quad)
3.4000 3.4000	Blower and Drive	9 4000	Transmission—Highway
3.4000 3.4000A	Blower Drive Shaft	9 7000	Transmission—Off-highway
3.4000A	Blower End Plate Cover	9.9000	Transmission—Rail Car
3.5000A	Turbocharger, Intercooler, and Aftercooler	- ···········	
*		10 0000	SHEET METAL
1.0000	LUBRICATING SYSTEM	10 1000A	Engine Hood
4.1000A	Oil Pump		
4.1000B	Oil Distribution System	11 0000	ENGINE MOUNTING
4.1000C	Oil Pressure Regulator	11 100 0 A	Engine Mounting and Base
4.2000A	Oil Filter	11 100 0 A	Engine Mounting and Base (Twin and Quad)
4.3000A	Oil Filter Lines		
4.4000A	Oil Cooler and Marine Gear Lines	12 0000	MISCELL ANEOUS
4.5000A	Oil Filler	12 200 0 A	Bilge Purip
4.6000A	Dipstick	12 3000A	Vacuum Pump
4.7000A	Oil Pan Vestilatura, Sustam	12 4000A	Air Compressor
4.8000A	Ventilating System	12 5000A	Hydraulic Punip Cosoline Starter
	oppulse eletti	12 6000A	Gasoline Starter
5.0000	COOLING SYSTEM	12 6000B	Air Starter Cold Weather Starting Aid
5.1000	Fresh Water Pump	12.600 0 C	Cold Weather Starting Aid Hydraulic Starter
5.1000A	Fresh Water Purrip Cover	12 6000D 12 6000E	Hydraulic Starter Hydraulic Starter Accessories
5.2000A	Water Outlet Manifold and/or Elbow	12 600 0 E 12 800 0 A	Hydraulic Starter Accessories Supplies
5.2000B	Thermostat Water Bypass Tube	12 8000A 12 8000B	Supplies Fabrication Material
5.2000C 5.3000A	Water Bypass Tube Radiator	12.8000B	Miscellaneous Service Kits and Sets
5.3000A 5.3000B	Radiator Water Connections	12.8000C 12.8000D	Miscellaneous Service Parts
5.3000B	Trate: Comiections		

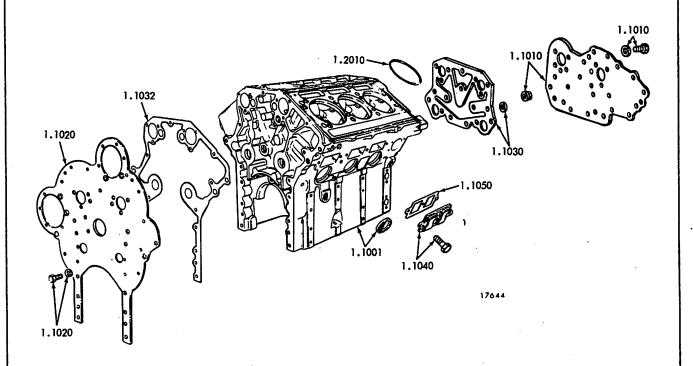


FIG. 1A CYLINDER BLOCK

Fig. 1A of 1.0000

April, 1981

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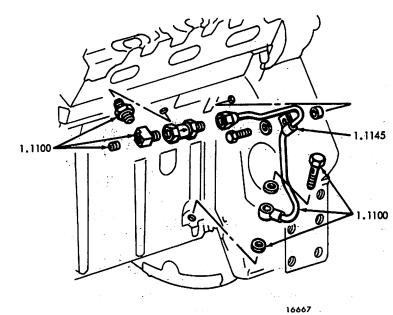


FIG. 1D

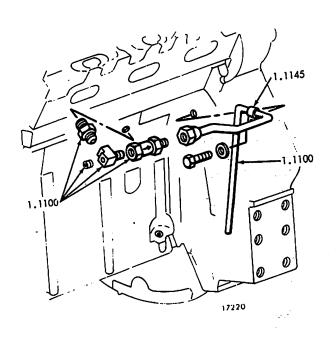


FIG. 1F

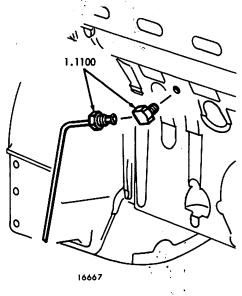


FIG. 1E

AIR BOX DRAINS

Figs. 1D, 1E & 1F of 1.0000

Sept., 1980

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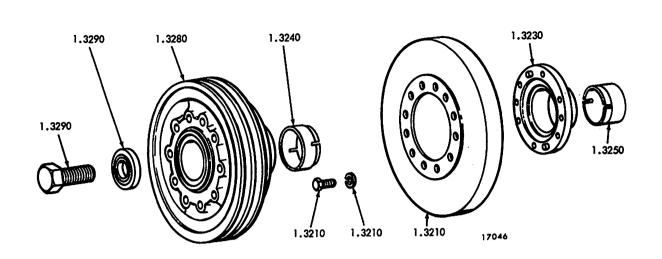


FIG. 3A CRANKSHAFT PULLEY, VIBRATION DAMPER AND HUB

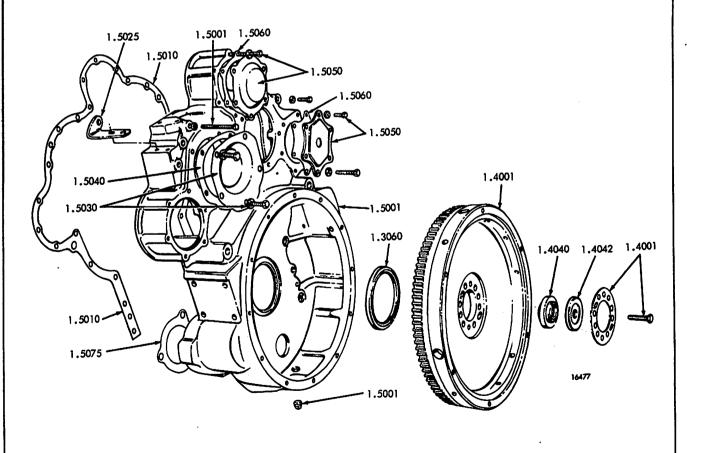


FIG. 3B FLYWHEEL AND FLYWHEEL HOUSING

Figs. 3A & 3B of 1.0000
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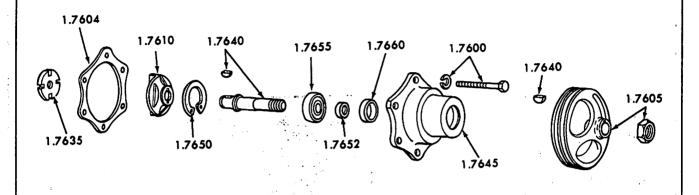


FIG. 7A ACCESSORY DRIVE

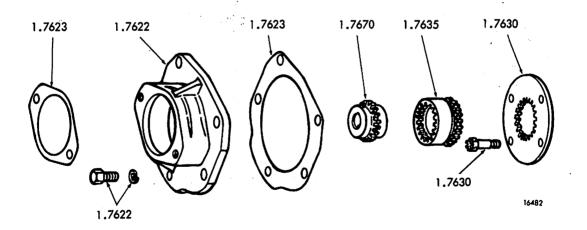


FIG. 7B ACCESSORY DRIVE

Figs. 7A & 7B of 1.0000 ©1990 Detroit Diesel Corp.

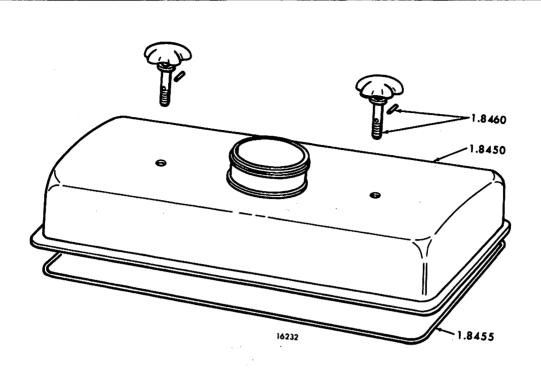


FIG. 9A ROCKER COVER (Stamped)

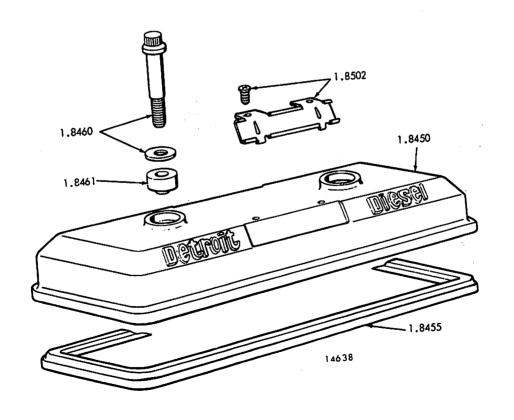
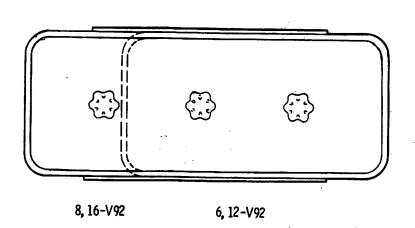


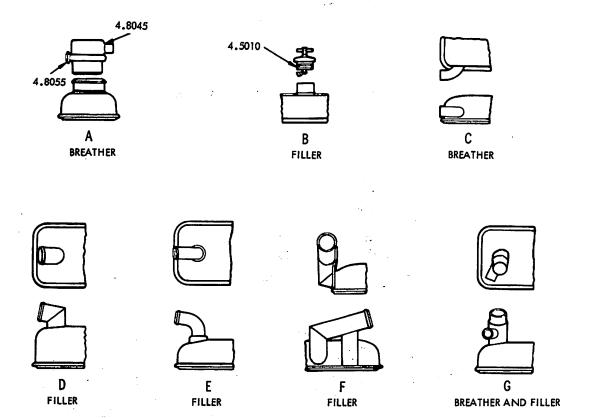
FIG. 10A ROCKER COVER (CAST)

Figs. 9A & 10A of 1.0000

Dec., 1983

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NOTE: OIL FILLER CAPS ARE NOT BRAZED TO ROCKER COVER

ARE SHOWN IN SECTION 4.5000A.

NOTE: BREATHER COMPONENTS ARE SHOWN IN SECTION 4.8000A, EXCEPT FOR TUBES BRAZED TO ROCKER COVERS.

FIG. 10B ROCKER COVER OIL FILLER AND BREATHER LOCATION

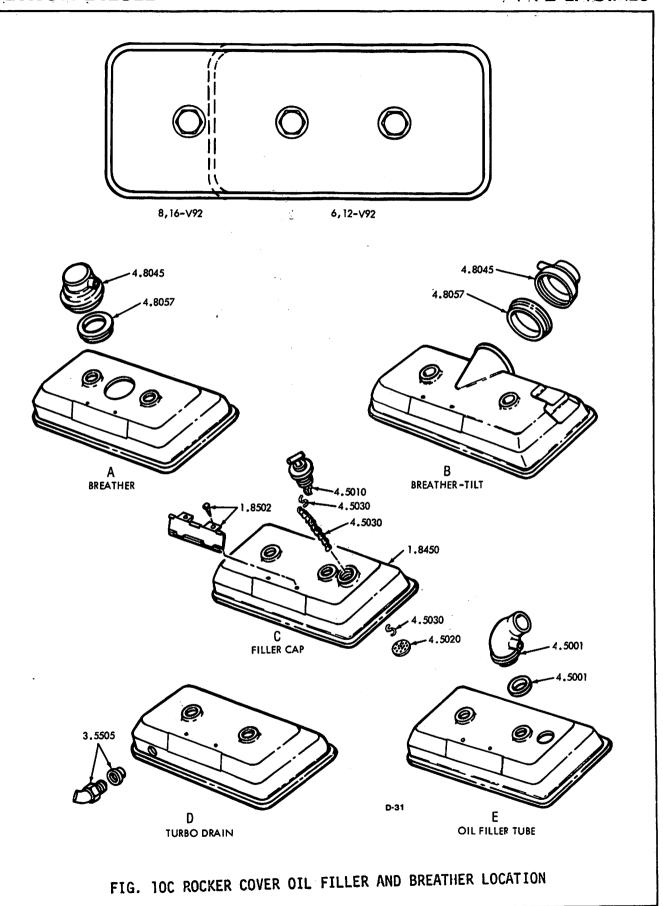


Fig. 10C of 1.0000 May, 1984 @1990 Detroit Diesel Corp.

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1 1000			
1 1000	ENGINE (less major assemblies)	5 0000	COOLING CVOITIN CONTR
1 1000	Cylinder Block	5 4000A	COOLING SYSTEM (CONT'D)
1.1000A	Air Box Drains	5 4000A	Fan
1 2000	Cylinder Head		Fan Shroud
1.2000A	Engine Lifter Bracket	5 5000A	Heat Exchanger or Keel Cooling
1.3000	Crankshaft, Oil Seals and Stabilizers	5 6000A 5 7000A	Raw Water Pump
1.3000A	Crankshaft Front Cover	5 7000A	Water Filter
1 3000B	Vibration Damper	0.0000	
1 3000C	Crankshaft Pulley	6 0000	EXHAUST SYSTEM
1.3000D	Crankshaft Pulley Belt	6 1000A	Exhaust Manifold and/or Connections
1.4000A	Flywheel	6 2000A	Exhaust Muffler and/or Connections
1.5000A	Flywheel Housing	7 0000	
1 5000B	Flywheel Housing Adaptor	7.0000	ELECTRICAL—INSTRUMENTS
1.6000	Connecting Rod and Piston	7.1000A	Battery Charging Generator
1.7000	Camshaft and Gear Train	7.2000A	Battery Cables
1.7000A	Balance Weight Cover	7.2000B	Automatic Starting
1 7000B	Accessory Drive	7 2000B	Automatic Starting (Twin and Quad)
1.8000	Valve and Injector Operating Mechanism	7 3000A	Starting Motor
1 8000A	Rocker Cover	7.4000A	Instruments
		7.4000A	Instruments (Twin and Quad)
0000	FUEL SYSTEM	7.4000B	Tachometer Drive
2.1000A	Fuel Injector	7.4000B 7.4000C	Tachometer Drive (Twin and Quad)
2.1000B	Injector Controls Electronic	7.4000C	Shutoff, Alarm and O.S. Governor
2.2000	Fuel Pump	7.5000A	Shutoff, Alarm and O.S. Governor (Twin and Quad)
2.2000A	Fuel Pump Drain	7.6000A	Power Generator
2.3000A	Fuel Filter and Strainer	7.6000A	Control Cabinet
2.3000A	Fuel Filter and Strainer (Twin and Quad)	7.7000A	Control Cabinet (Twin and Quad)
2.4000	Fuel Manifold and/or Connections	7.8000A	Wiring Harness Air Heater
2.4000A	Dual Fuel System	7.8000A	Air Heater (Twin and Quad)
2.5000A	Fuel Lines and Fuel Cooler	7.10000A	Hydraulic Governor Solenoid
2.5000A	Fuel Lines and Fuel Cooler (Twin and Quad)	7.10000A	Tydraulic Governor Solehold
2.6000A	Fuel Tank	8 0000	POWER TAKE-OFF
2.6000B	Electric Governor	8.1000A	Power Take-off and/or Clutch
2.7000A	Mechanical Governor	8.1000A	Power Take-Off and/or Clutch
2.8000A	Hydraulic Governor	8.3000A	Power Take-off and/or Clutch (Twin and Quad) Torque Converter
2.9000	Injector Controls	8.3000A	Torque Converter (Twin and Quad)
2.9000	Injector Controls (Twin and Quad)	8 3000B	Transmission Lines
2.9000A	Throttle Controls	0.00000	Transmission Lines
2.9000A	Throttle Controls (Twin and Quad)	9 0000	TRANSMISSION AND BRODINGION
		9.0000 9.1000A	TRANSMISSION AND PROPULSION Hydraulic Marine Geer
	Throttle Controls (Twin and Quad) AIR SYSTEM	9.1000A	Hydraulic Marine Gear
2.9000A	Throttle Controls (Twin and Quad) AIR SYSTEM Air Cleaner and/or Adaptor	9.1000A 9.1000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad)
2.9000A	Throttle Controls (Twin and Quad)	9 1000A 9 1000A 9 2000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical)
2.9000A 000 3.1000A	Throttle Controls (Twin and Quad) AIR SYSTEM Air Cleaner and/or Adaptor	9.1000A 9.1000A 9.2000A 9.3000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case
2.9000A 000 3.1000A 3.2000A	Throttle Controls (Twin and Quad) AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad)
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000 3.4000A	Throttle Controls (Twin and Quad) AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000 3.4000A 3.4000B	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000 3.4000A	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000 3.4000A 3.4000B	Throttle Controls (Twin and Quad) AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000 3.4000A 3.4000B	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000 3.4000A 3.4000B 3.5000A	Throttle Controls (Twin and Quad) AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000 3.4000B 3.5000A	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.0000 10.1000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000A 3.4000B 3.5000A 000 4.1000A 4.1000B 4.1000C	Throttle Controls (Twin and Quad) AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.0000 10.1000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000 3.4000B 3.5000A 000 4.1000A 4.1000B 4.1000C 4.2000A	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.0000 10.1000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000 3.4000B 3.5000A 000 4.1000A 4.1000B 4.1000C 4.2000A 4.3000A	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Lines	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.0000 10.1000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000B 3.4000B 3.5000A 000 4.1000A 4.1000B 4.1000C 4.2000A 4.3000A 4.4000A	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Lines Oil Cooler and Marine Gear Lines	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.1000A 11.1000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base (Twin and Quad)
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000B 3.5000A 000 4.1000A 4.1000B 4.1000C 4.2000A 4.3000A 4.4000A 4.4000A	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Lines Oil Cooler and Marine Gear Lines Oil Filter	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.1000A 11.1000A 11.1000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base (Twin and Quad) MISCELLANEOUS
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000B 3.5000A 000 4.1000B 4.1000B 4.1000C 4.2000A 4.3000A 4.4000A 4.5000A 4.6000A	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Lines Oil Cooler and Marine Gear Lines Oil Filter Dipstick	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.1000A 11.1000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base (Twin and Quad) MISCELLANEOUS Bilge Pump
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000 3.4000B 3.5000A 000 4.1000B	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Oil Cooler and Marine Gear Lines Oil Filler Dipstick Oil Pan	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.1000A 11.1000A 11.1000A 11.1000A 12.0000 12.2000A 12.3000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base (Twin and Quad) MISCELLANEOUS Bilge Pump Vacuum Pump
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000B 3.5000A 000 4.1000B 4.1000B 4.1000C 4.2000A 4.3000A 4.4000A 4.5000A 4.6000A	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Lines Oil Cooler and Marine Gear Lines Oil Filter Dipstick	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.1000A 11.1000A 11.1000A 11.1000A 12.0000 12.2000A 12.3000A 12.4000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base (Twin and Quad) MISCELLANEOUS Bilge Pump Vacuum Pump Air Compressor
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000B 3.5000A 000 4.1000A 4.1000B 4.1000C 4.2000A 4.3000A 4.5000A 4.6000A 4.7000A 4.8000A	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Oil Filter Lines Oil Cooler and Marine Gear Lines Oil Filler Dipstick Oil Pan Ventilating System	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.1000A 11.1000A 11.1000A 11.1000A 12.0000 12.2000A 12.3000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base (Twin and Quad) MISCELLANEOUS Bilge Pump Vacuum Pump
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000 3.4000B 3.5000A 000 4.1000B	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Oil Cooler and Marine Gear Lines Oil Filler Dipstick Oil Pan	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.0000 10.1000A 11.1000A 11.1000A 12.0000 12.2000A 12.3000A 12.4000A 12.5000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base Engine Mounting and Base Union Miscellaneous Bilge Pump Vacuum Pump Air Compressor Hydraulic Pump
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000A 3.4000B 3.5000A 000 4.1000A 4.1000B 4.1000C 4.2000A 4.3000A 4.4000A 4.5000A 4.6000A 4.6000A 4.7000A 4.8000A	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Oil Filter Lines Oil Cooler and Marine Gear Lines Oil Filler Dipstick Oil Pan Ventilating System	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.0000 10.1000A 11.1000A 11.1000A 12.2000A 12.2000A 12.3000A 12.5000A 12.6000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base (Twin and Quad) MISCELLANEOUS Bilge Pump Vacuum Pump Air Compressor Hydraulic Pump Gasoline Starter Air Starter
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000A 3.4000B 3.5000A 000 4.1000A 4.1000B 4.1000C 4.2000A 4.3000A 4.4000A 4.4000A 4.6000A 4.7000A 4.8000A	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Lines Oil Cooler and Marine Gear Lines Oil Filler Dipstick Oil Pan Ventilating System COOLING SYSTEM Fresh Water Pump Fresh Water Pump Fresh Water Pump Cover	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.0000 10.1000A 11.1000A 11.1000A 12.0000 12.2000A 12.3000A 12.4000A 12.6000A 12.6000B	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base (Twin and Quad) MISCELLANEOUS Bilge Pump Vacuum Pump Air Compressor Hydraulic Pump Gasoline Starter Air Starter Cold Weather Starting Aid
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000B 3.5000A 000 4.1000A 4.1000B 4.1000C 4.2000A 4.3000A 4.4000A 4.5000A 4.6000A 4.7000A 4.8000A 000 5.1000 5.1000 5.1000A 5.2000A	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Oil Filter Dipstick Oil Pan Ventilating System COOLING SYSTEM Fresh Water Pump	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.0000 10.1000A 11.1000A 11.1000A 12.0000 12.2000A 12.3000A 12.4000A 12.5000A 12.6000B 12.6000B	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Ouad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base (Twin and Quad) MISCELLANEOUS Bilge Pump Vacuum Pump Air Compressor Hydraulic Pump Gasoline Starter Air Starter Cold Weather Starting Aid Hydraulic Starter
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000B 3.4000B 3.5000A 000 4.1000B 4.1000C 4.2000A 4.3000A 4.5000A 4.5000A 4.6000A 4.7000A 4.8000A 5.1000 5.1000 5.1000 5.2000B	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Lines Oil Cooler and Marine Gear Lines Oil Filler Dipstick Oil Pan Ventilating System COOLING SYSTEM Fresh Water Pump Fresh Water Pump Fresh Water Pump Cover	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.1000A 11.1000A 11.1000A 12.2000A 12.2000A 12.3000A 12.5000A 12.5000A 12.6000B 12.6000B 12.6000D	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base (Twin and Quad) MISCELLANEOUS Bilge Pump Vacuum Pump Air Compressor Hydraulic Pump Gasoline Starter Air Starter Cold Weather Starting Aid
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000B 3.5000A 000 4.1000B 4.1000C 4.2000A 4.3000A 4.4000A 4.5000A 4.6000A 4.6000A 4.7000A 4.6000A 5.1000 5.1000 5.1000 5.1000 5.2000A 5.2000B	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Oil Filter Lines Oil Cooler and Marine Gear Lines Oil Filler Dipstick Oil Pan Ventilating System COOLING SYSTEM Fresh Water Pump Fresh Water Pump Cover Water Outlet Manifold and/or Elbow Thermostat Water Bypass Tube	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.1000A 11.1000A 11.1000A 11.1000A 12.2000A 12.2000A 12.3000A 12.4000A 12.5000A 12.6000B 12.6000B 12.6000D 12.6000D 12.6000D	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base Engine Mounting and Base (Twin and Quad) MISCELLANEOUS Bilge Pump Vacuum Pump Air Compressor Hydraulic Pump Gasoline Starter Air Starter Cold Weather Starting Aid Hydraulic Starter Hydraulic Starter Accessories Supplies Fabrication Material
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000 3.4000B 3.5000A 000 4.1000B 5.1000A 5.1000 5.1000 5.1000 5.1000 5.2000A 5.2000B 5.2000B 5.2000C 5.3000A	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Oil Filter Lines Oil Cooler and Marine Gear Lines Oil Filler Dipstick Oil Pan Ventilating System COOLING SYSTEM Fresh Water Pump Fresh Water Pump Cover Water Outlet Manifold and/or Elbow Thermostat Water Bypass Tube Radiator	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.1000A 11.1000A 11.1000A 11.1000A 12.2000A 12.2000A 12.3000A 12.6000A 12.6000B 12.6000D 12.6000D 12.6000E 12.8000A	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Quad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Quad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base Engine Mounting and Base (Twin and Quad) MISCELLANEOUS Bilge Pump Vacuum Pump Air Compressor Hydraulic Pump Gasoline Starter Air Starter Cold Weather Starting Aid Hydraulic Starter Hydraulic Starter Accessories Supplies
2.9000A 000 3.1000A 3.2000A 3.3000A 3.4000B 3.5000A 000 4.1000B 4.1000C 4.2000A 4.3000A 4.4000A 4.4000A 4.6000A 4.6000A 4.7000A 4.7000A 5.1000 5.1000 5.1000 5.1000 5.2000B 5.2000C	AIR SYSTEM Air Cleaner and/or Adaptor Air Silencer Air Inlet Housing Blower and Drive Blower Drive Shaft Blower End Plate Cover Turbocharger, Intercooler, and Aftercooler LUBRICATING SYSTEM Oil Pump Oil Distribution System Oil Pressure Regulator Oil Filter Oil Filter Oil Filter Lines Oil Cooler and Marine Gear Lines Oil Filler Dipstick Oil Pan Ventilating System COOLING SYSTEM Fresh Water Pump Fresh Water Pump Cover Water Outlet Manifold and/or Elbow Thermostat Water Bypass Tube	9.1000A 9.1000A 9.2000A 9.3000A 9.3000A 9.3000A 9.4000 9.7000 9.9000 10.1000A 11.1000A 11.1000A 12.0000 12.2000A 12.3000A 12.6000A 12.6000B 12.6000D 12.6000D 12.6000D 12.6000D 12.8000A 12.8000B	Hydraulic Marine Gear Hydraulic Marine Gear (Twin and Ouad) Reverse and Reduction Gear (mechanical) Power Transfer Case Power Transfer Gear (Twin and Ouad) Transmission—Highway Transmission—Off-highway Transmission—Rail Car SHEET METAL Engine Hood ENGINE MOUNTING Engine Mounting and Base Engine Mounting and Base (Twin and Ouad) MISCELLANEOUS Bilge Pump Vacuum Pump Air Compressor Hydraulic Pump Gasoline Starter Air Starter Cold Weather Starting Aid Hydraulic Starter Hydraulic Starter Accessories Supplies Fabrication Material

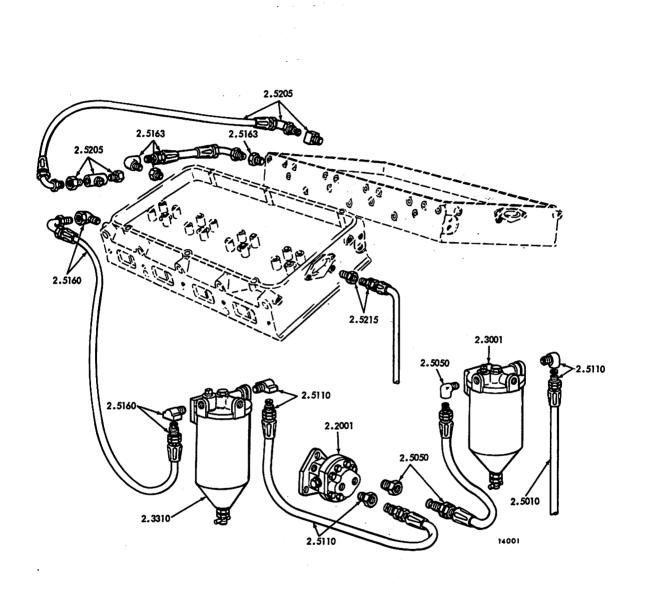


FIG. 4A TYPICAL FUEL SYSTEM

Fig. 4A of 2.0000

Nov., 1980 @1990 Detroit Diesel Corp.

1.0000	ENGINE (less major assemblies)	5 0000	COOLING SYSTEM (CONT'D)
1 1000	Cylinder Block	5 4000A	Fan
1 1000A	Air Box Drains	5 4000B	Fan Shroud
			Heat Exchanger or Keel Cooling
1 2000	Cylinder Head	5 50 0 0A	-
1 2000A	Engine Lifter Bracket	5.6000A	Raw Water Pump
1 3000	Crankshalt, Oil Seals and Stabilizers	5 7 00 0A	Water Filter
1 3000A	Crankshall Front Cover		
1 3000B	Vibration Daniper	6 0000	EXHAUST SYSTEM
1 3000C	Crankshaft Pulley	6.1000A	Exhaust Manifold and/or Connections
1 3000D	Crankshaft Pulley Belt	6 2000A	Exhaust Muffler and/or Connections
1 4000A	Flywheel	0.2000A	Exhaust Manier and/or Connections
	•		
1.5000A	Flywheel Housing	7.0000	ELECTRICAL—INSTRUMENTS
1 5000B	Flywheel Housing Adaptor	7 1000A	Battery Charging Generator
1 6000	Connecting Rod and Piston	7.2000A	Battery Cables
1 7000	Camshaft and Gear Train	7 2000B	Automatic Starting
1 7000A	Balance Weight Cover	7 2000B	Automatic Starting (Twin and Quad)
1.7000B	Accessory Drive	7 3000A	Starting Motor
1 8000	Valve and Injector Operating Mechanism	7.4000A	Instruments
1 8000A	Rocker Cover		
1 0000071	Hocker Gover	7 4000A	Instruments (Twin and Quad)
		7.4000B	Tachometer Drive
2.0000	FUEL SYSTEM	7.4000B	Tachometer Drive (Twin and Quad)
2 1000A	fuel Injector	7.4000C	Shutoff, Alarm and O.S. Governor
2 1000B	Injector Controls Electronic	7.4000C	Shutoff, Alarm and O.S. Governor (Twin and Quad)
2.2000	Fuel Pump	7.5000A	Power Generator
2 2000A	Fuel Pump Drain	7.6000A	Control Cabinet
2 3000A	Fuel Filter and Strainer	7 6000A	Control Cabinet (Twin and Quad)
2 3000A	Fuel Filter and Strainer (Twin and Ouad)	7.7000A	Wiring Harness
2.4000	Fuel Manifold and/or Connections	7.8000A	Air Heater
2.4000A	Dual Fuel System	7.8000A	Air Heater (Twin and Quad)
2.5000A	Fuel Lines and Fuel Cooler	7 10000A	Hydraulic Governor Solenoid
2.5000A	Fuel Lines and Fuel Cooler (Twin and Quad)		
2 6000A	Fuel Tank	8.0000	POWER TAKE-OFF
2.6000B	Electric Governor	8.1000A	Power Take-off and/or Clutch
2.7000A	Mechanical Governor	8 1000A	Power Take-off and/or Clutch (Twin and Quad)
2.8000A	Hydraulic Governor		
	•	8.3000A	Torque Converter
2.9000	Injector Controls	8.3000A	Torque Converter (Twin and Quad)
2.9000	Injector Controls (Twin and Quad)	8 3000B	Transmission Lines
2 9000A	Throttle Controls		
2 9000A	Throttle Controls (Twin and Quad)	9.0000	TRANSMISSION AND PROPULSION
		9 1000A	Hydraulic Marine Gear
3.0000	AIR SYSTEM	9 1000A	Hydraulic Marine Gear (Twin and Quad)
3.1000A	Air Cleaner and/or Adaptor	9 2000A	Reverse and Reduction Gear (mechanical)
3.2000A	Air Silencer		Power Transfer Case
		9.3000A	
3.3000A	Air Inlet Housing	9.3000A	Power Transfer Gear (Twin and Quad)
3.4000	Blower and Drive	9 4000	Transmission—Highway
3.4000A	Blower Drive Shaft	9.7000	Transmission—Off-highway
3.4000B	Blower End Plate Cover	9 9000	Transmission—Rail Car
3.5000A	Turbocharger, Intercooler, and Aftercooler		
		10.0000	SHEET METAL
4.0000	LUBRICATING SYSTEM	10.1000A	Engine Hood
4.1000A	Oil Pump	10:100071	2119.110
	·	11.0000	ENICINE MOUNTING
4 1000B	Oil Distribution System	11.0000	ENGINE MOUNTING
4 1000C	Oil Pressure Regulator	11.1000A	Engine Mounting and Base
4.2000A	Oil Filter	11.1000A	Engine Mounting and Base (Twin and Quad)
4 3000A	Oil Filter Lines		
4.4000A	Oil Cooler and Marine Gear Lines	12.0000	MISCELLANEOUS
4 5000A	Oil Filler	12 2000A	Bilge Pump
4 6000A	Dipstick	12.3000A	Vacuum Pump
4.7000A	Oil Pan	12.4000A	Air Compressor
4 8000A	Ventilating System	12.4000A 12.5000A	Hydraulic Pump
- 0.0001			
F 13/2/20	0001110 0001111	12 6000A	Gasoline Starter
5.0000	COOLING SYSTEM	12.6000B	Air Starter
5 1000	Fresh Water Pump	12 6000C	Cold Weather Starting Aid
5.1000A	Fresh Water Punip Cover	12 6000D	Hydraulic Starter
5 2000A	Water Outlet Manifold and/or Elbow	12 60 0 0E	Hydraulic Starter Accessories
5 2000B	Thermostat	12 8000A	Supplies
5 2000C	Water Bypass Tube	12 8000B	Fabrication Material
5.3000A	Radiator	12.8000C	Miscellaneous Service Kits and Sets
5 3000B	Water Connections	12 8000D	Miscellaneous Service Parts
		0.000	

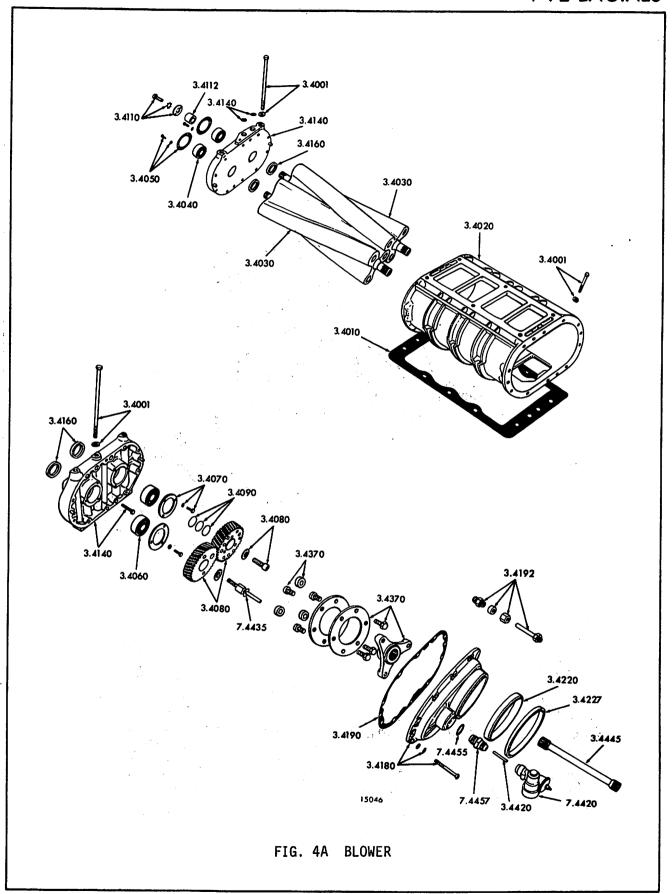


Fig. 4A of 3.0000

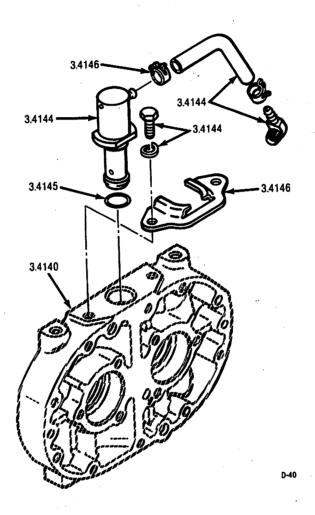


FIG. 4D BLOWER BYPASS VALVE

FIG. 4D of 3.0000

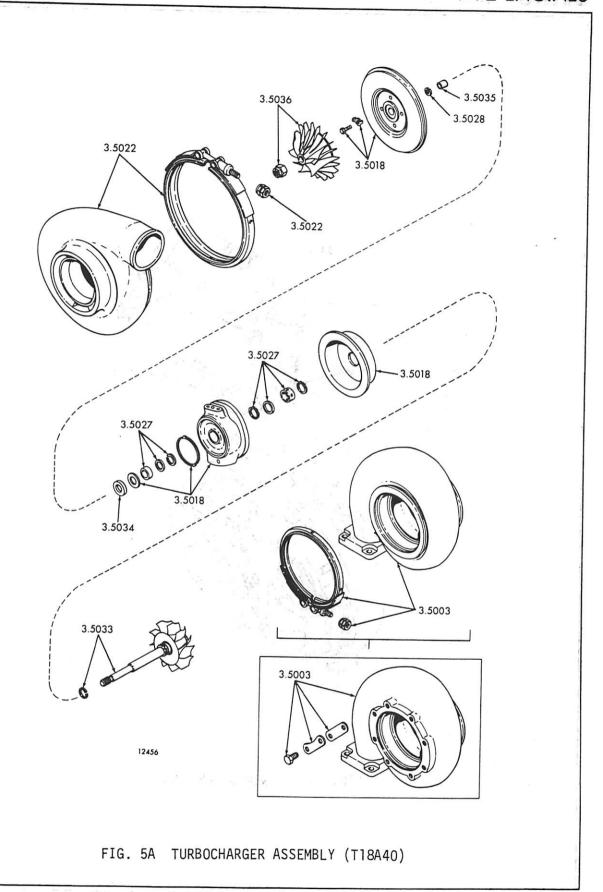


Fig. 5A of 3.0000

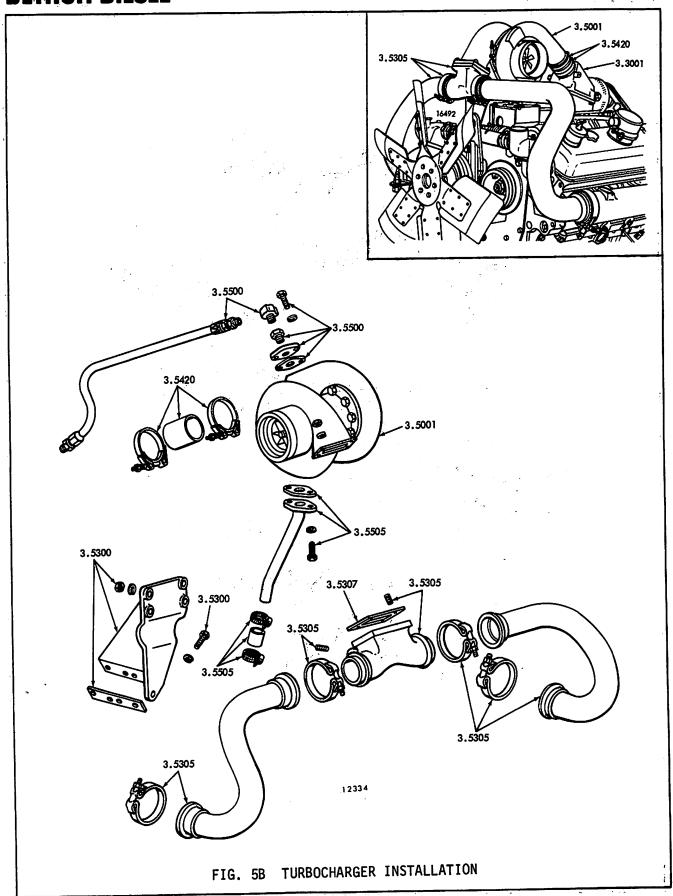


Fig. 5B of 3.0000

March, 1982

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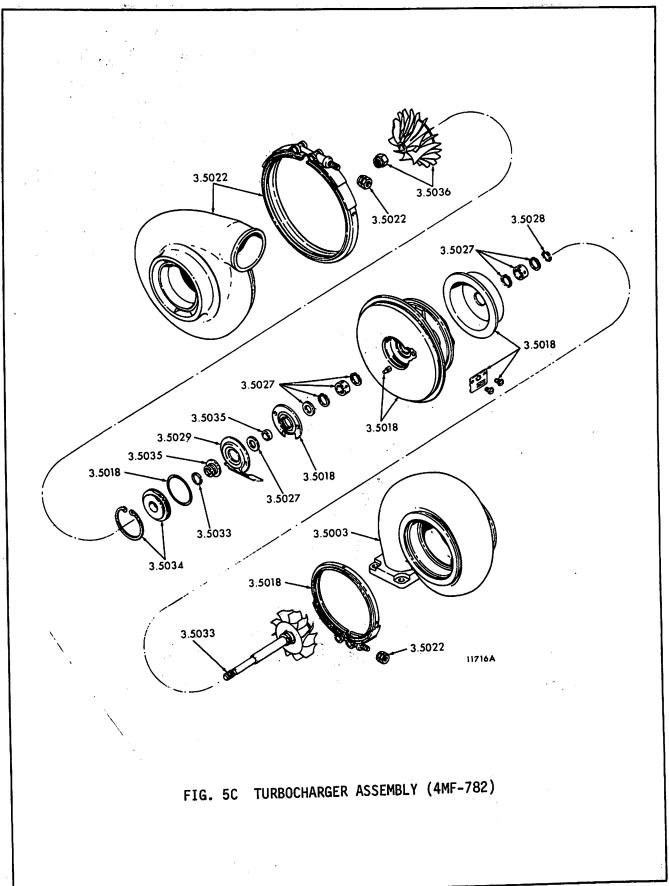


Fig. 5C of 3.0000

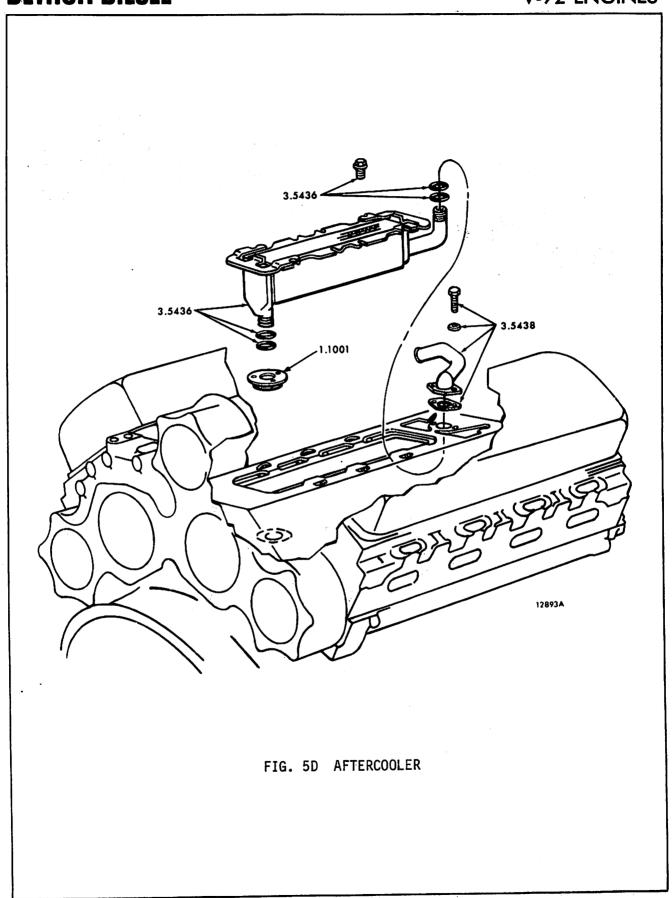
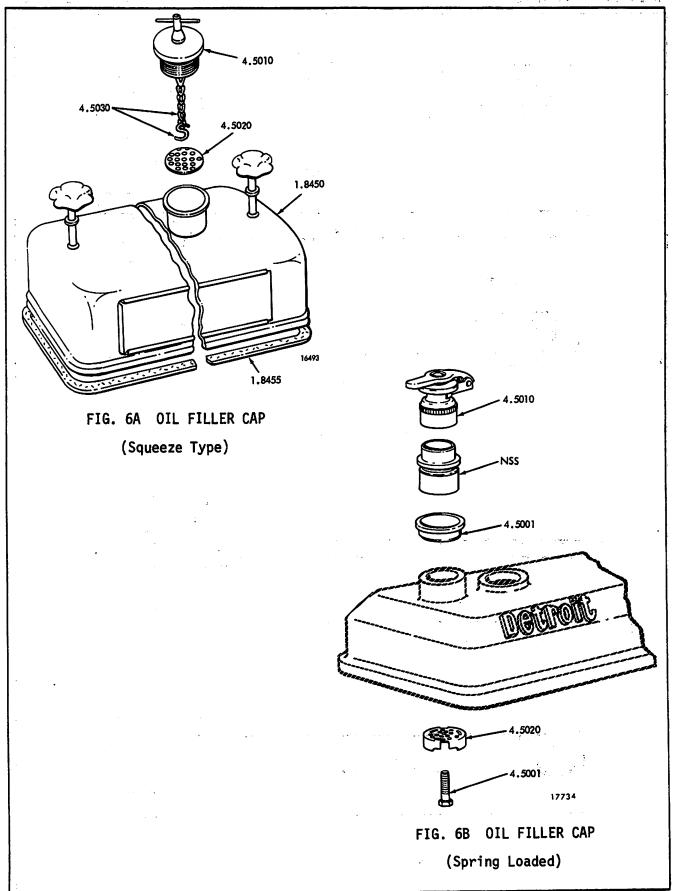


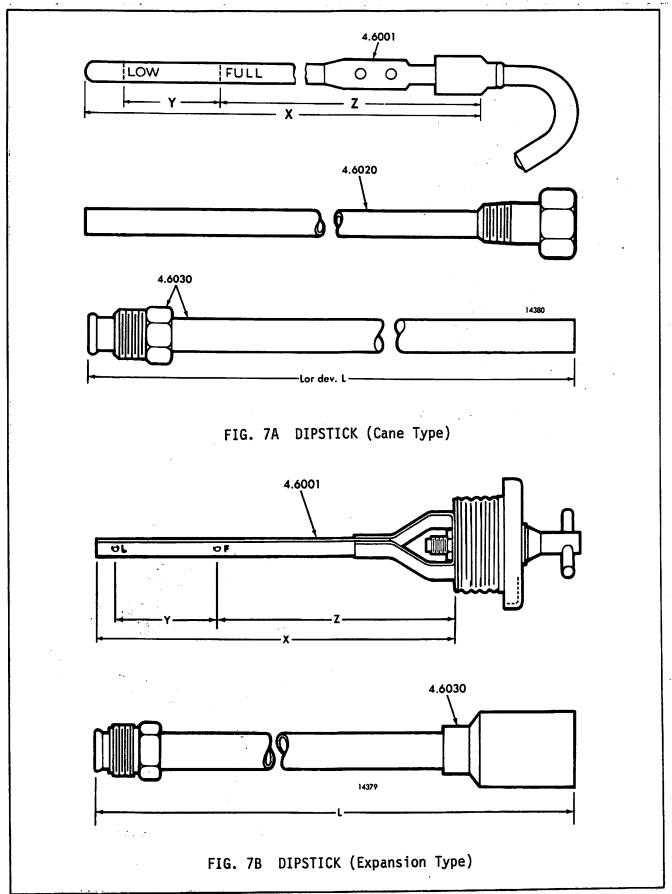
Fig. 5D of 3.0000

4

2000	ENGINE (less major assemblies)	5 0000	COOLING SYSTEM (CONT'D)
1 1000	Cylinder Block	5 4000A	Fan
1 1000A	Air Box Drains	5.4000B	Fan Shroud
1 2000	Cylinder Head	5 5000A	Heat Exchanger or Keel Cooling
1 2000A	Engine Lifter Bracket	5 6000A	Raw Water Pump
1.3000	Crankshaft, Oil Seals and Stabilizers	5 7000A	Water Filter
1 3000A	Crankshaft Front Cover		
1 3000B	Vibration Damper	6.0000	EXHAUST SYSTEM
1 3000C	Crankshaft Pulley	6.1000A	Exhaust Manifold and/or Connections
1 3000D	Crankshaft Pulley Belt	6.2000A	Exhaust Muffler and/or Connections
1 4000A	Flywheel		
1 5000A	Flywheel Housing	7.0000	ELECTRICAL—INSTRUMENTS
1.5000B	Flywheel Housing Adaptor	7.1000A	Battery Charging Generator
1 6000	Connecting Rod and Piston	7.2000A	Battery Cables
1 7000	Camshaft and Gear Train	7.2000B	Automatic Starting
1 7000A 1 7000B	Balance Weight Cover	7.2000B	Automatic Starting (Twin and Quad)
1.8000	Accessory Drive Valve and Injector Operating Mechanism	7.3000A	Starting Motor
1 8000A	Rocker Cover	7.4000A	Instruments
7 00000	Hocker Cover	7.4000A	Instruments (Twin and Quad)
2,0000	THE CYCTEM	7.4000B	Tachometer Drive
2 1000A	FUEL SYSTEM	7.4000B	Tachometer Drive (Twin and Quad)
2 1000A	Fuel Injector Injector Controls Electronic	7.4000C	Shutoff, Alarm and O.S. Governor
2.2000	Fuel Pump	7.4000C	Shutoff, Alarm and O.S. Governor (Twin and Quad)
2.2000A	Fuel Pump Drain	7.5000A 7.6000A	Power Generator
2.3000A	Fuel Filter and Strainer	7.6000A	Control Cabinet Control Cabinet (Twin and Quad)
2.3000A	Fuel Filter and Strainer (Twin and Quad)	7.7000A	Wiring Harness
2.4000	Fuel Manifold and/or Connections	7.8000A	Air Heater
2.4000A	Dual Fuel System	7.8000A	Air Heater (Twin and Quad)
2 5000A	Fuel Lines and Fuel Cooler	7.10000A	Hydraulic Governor Solenoid
2.5000A	Fuel Lines and Fuel Cooler (Twin and Quad)		Typicality developed
2.6000A	Fuel Tank	8.0000	POWER TAKE-OFF
2 6000B	Electric Governor	8.1000A	Power Take-off and/or Clutch
2.7000A	Mechanical Governor	8.1000A	Power Take-off and/or Clutch (Twin and Quad)
2 8000A	Hydraulic Governor	8.3000A	Torque Converter
2.9000	Injector Controls	8.3000A	Torque Converter (Twin and Quad)
2 9000	Injector Controls (Twin and Ouad)	8.3000B	Transmission Lines
2.9000A	Throttle Controls		
2 9000A	Throttle Controls (Twin and Quad)	9.0000	TRANSMISSION AND PROPULSION
		9.1000A	Hydraulic Marine Gear
3 0000	AIR SYSTEM	9.1000A	Hydraulic Marine Gear (Twin and Quad)
3 1000A	Air Cleaner and/or Adaptor	9.2000A	Reverse and Reduction Gear (mechanical)
3 2000A	Air Silencer	9.3000A	Power Transfer Case
3.3000A	Air Inlet Housing Blower and Drive	9.3000A	Power Transfer Gear (Twin and Quad)
3.4000 3.4000A	Blower Drive Shaft	9.4000	Transmission—Highway
3.4000A	Blower End Plate Cover	9.7000	Transmission—Off-highway
3 5000A	Turbocharger, Intercooler, and Aftercooler	9.9000	Transmission—Rail Car
3.0007	rarbocharger, intercooler, and Artercooler	10.0000	CUEET METAL
1.0000	LUBRICATING SYSTEM	10.0000 10.1000A	SHEET METAL
4.1000A	Oil Pump	10.1000A	Engine Hood
4.1000B	Oil Distribution System	11 0000	ENGINE MOUNTING
4.1000C	Oil Pressure Regulator	11.0000 11.1000A	Engine Mounting and Base
4.2000A	Oil Filter	11.1000A	Engine Mounting and Base (Twin and Quad)
4.3000A	Oil Filter Lines	11.100071	Engine Modifing and base (1901) and Odad)
4.4000A	Oil Cooler and Marine Gear Lines	12.0000	MISCELLANEOUS
4.5000A	Oil Filler	12.2000A	Bilge Pump
4.6000A	Dipstick	12.3000A	Vacuum Pump
4.7000A	Oil Pan	12.4000A	Air Compressor
4.8000A	Ventilating System	12.5000A	Hydraulic Pump
		12.6000A	Gasoline Starter
0000	COOLING SYSTEM	12.6000B	Air Starter
5 1000	Fresh Water Pump	12 6000C	Cold Weather Starting Aid
5.1000A	Fresh Water Pump Cover	12 6000D	Hydraulic Starter
5.2000A	Water Outlet Manifold and/or Flbow	12.6000E	Hydraulic Starter Accessories
5 2000B	Thermostat	12.8000A	Supplies
5 2000C	Water Bypass Tube	12.8000B	Fabrication Material
5.3000A	Radiator	12.8000C	Miscellaneous Service Kits and Sets
5 3000B	Water Connections	12.8000D	Miscellaneous Service Parts



Figs. 6A & 6B of 4.0000



Figs. 7A & 7B of 4.0000

June, 1980 @1990 Detroit Diesel Corp.

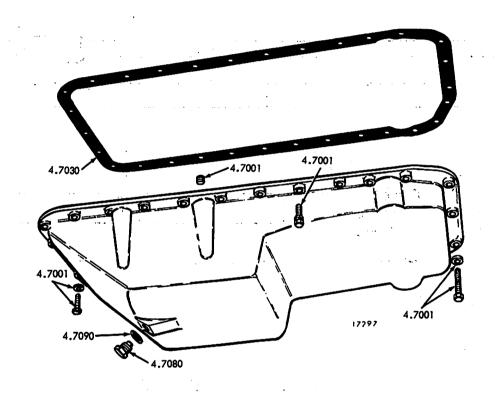
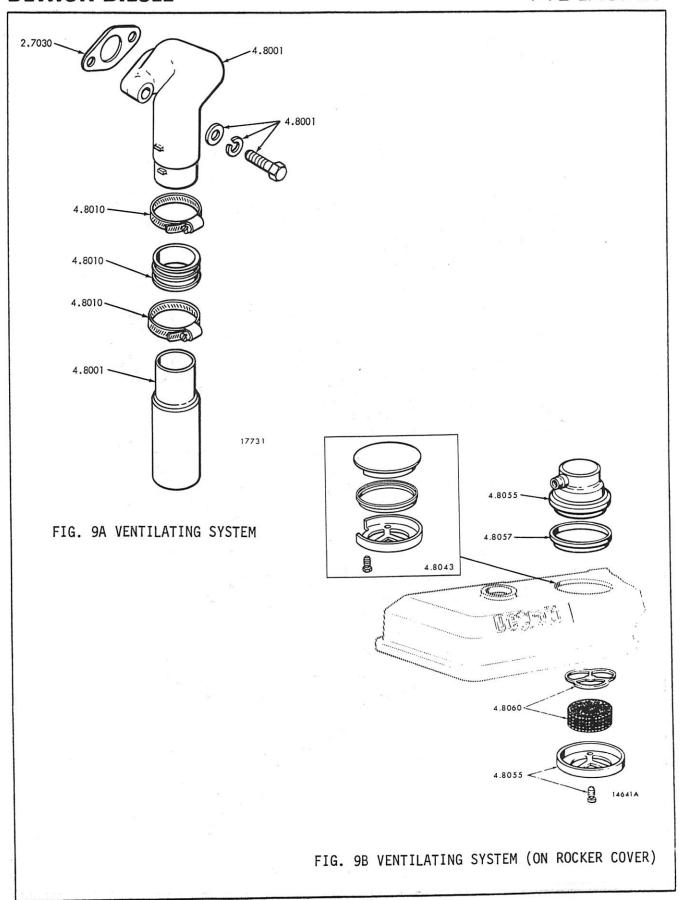


FIG. 8A OIL PAN (6V & 8V)

Fig. 8A of 4.0000

June, 1980 91990 Detroit Diesel Corp.



Figs. 9A & 9B of 4.0000

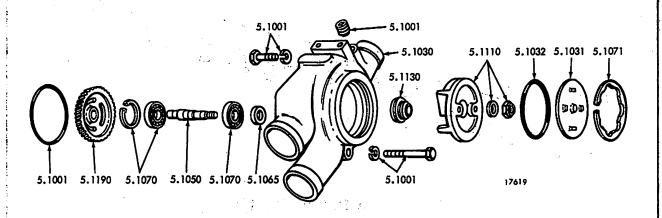


FIG. 1A FRESH WATER PUMP (6 and 8V)

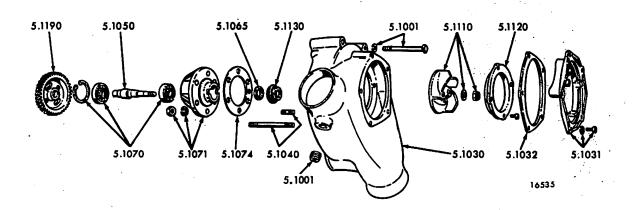


FIG. 1B FRESH WATER PUMP (12 and 16V)

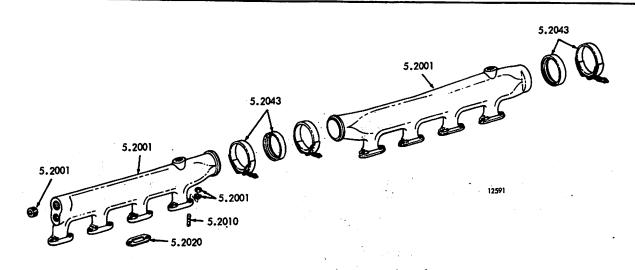


FIG. 2A WATER MANIFOLD (16V)

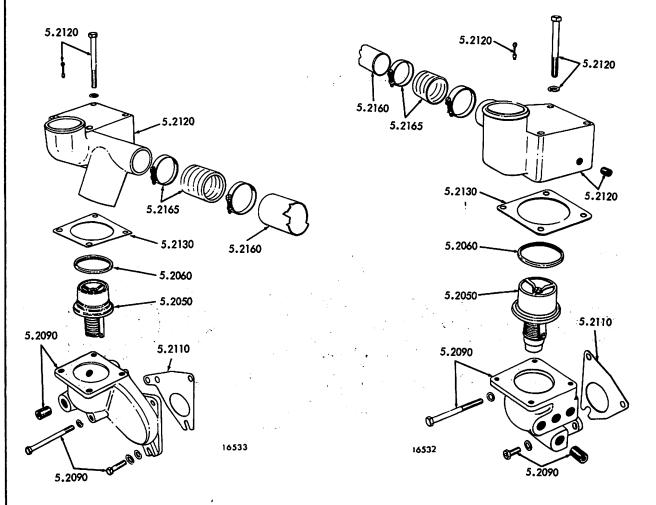


FIG. 3A RIGHT BANK

FIG. 3B LEFT BANK

THERMOSTAT AND WATER BY PASS TUBE

Figs. 2A, 3A & 3B of 5.0000

4.0000	ENONE //	5 0000	COOLING OVERTEN CONTINU
1 0000	ENGINE (less major assemblies)	5.0000	COOLING SYSTEM (CONT'D)
1.1000	Cylinder Block	5.4000A	Fan
1 1000A	Air Box Drains	5 4000B	Fan Shroud
1 2000	Cylinder Head	5.5000A	Heat Exchanger or Keel Cooling
1 2000A	Engine Litter Bracket	5 6000A	Raw Water Pump
1.3000	Crankshaft, Oil Seals and Stabilizers	5 7000A	Water Filter
1 3000A	Crankshaft Front Cover		
1.3000P	Vibration Damper	6.0000	EXHAUST SYSTEM
1.3000C	Crankshaft Pulley	6.1000A	Exhaust Manifold and/or Connections
1.3000D	Crankshaft Pulley Belt	6.2000A	Exhaust Muffler and/or Connections
1.4000A	Flywheel		
1.5000A	Flywheel Housing	7.0000	ELECTRICALINSTRUMENTS
1.5000B	Flywheel Housing Adaptor	7.1000A	Battery Charging Generator
1.6000	Connecting Rod and Piston	7.2000A	Battery Cables
1 7000	Camshaft and Gear Train	7.2000B	Automatic Starting
1 7000A	Balance Weight Cover	7.2000B	Automatic Starting (Twin and Quad)
1.7000B	Accessory Drive	7.3000A	Starting Motor
1.8000	Valve and Injector Operating Mechanism	7.4000A	Instruments
1.8000A	Rocker Cover	7.4000A	Instruments (Twin and Quad)
		7.4000B	Tachometer Drive
2 0000	FUEL SYSTEM	7.4000B	Tachometer Drive (Twin and Quad)
2 1000A	Fuel Injector	7.4000C	Shutoff, Alarm and O.S. Governor
2.1000A 2.1000B	Injector Controls Electronic	7.4000C	Shutoff, Alarm and O.S. Governor (Twin and Quad)
	Fuel Pump	7.5000A	Power Generator
2.2000	Fuel Pump Drain	7.6000A	Control Cabinet
2.2000A	Fuel Filter and Strainer	7.6000A	Control Cabinet (Twin and Quad)
2.3000A	Fuel Filter and Strainer (Twin and Quad)	7.7000A	Wiring Harness
2.3000A	Fuel Manifold and/or Connections	7.8000A	Air Heater
2.4000		7.8000A	Air Heater (Twin and Quad)
2.4000A	Dual Fuel System		
2.5000A	Fuel Lines and Fuel Cooler	7.10000A	Hydraulic Governor Solenoid
2.5000A	Fuel Lines and Fuel Cooler (Twin and Quad)		DOWER THE OFF
2.6000A	Fuel Tank	8.0000	POWER TAKE-OFF
2.6000B	Electric Governor	8.1000A	Power Take-off and/or Clutch
2.7000A	Mechanical Governor	8.1000A	Power Take-off and/or Clutch (Twin and Quad)
2.8000A	Hydraulic Governor	8.3000A	Torque Converter
2.9000	Injector Controls	8.3000A	Torque Converter (Twin and Quad)
2.9000	Injector Controls (Twin and Quad)	8.3000B	Transmission Lines
2 9000A	Throttle Controls		
2.9000A	Throttle Controls (Twin and Quad)	9.0000	TRANSMISSION AND PROPULSION
		9.1000A	Hydraulic Marine Gear
3.0000	AIR SYSTEM	9.1000A	Hydraulic Marine Gear (Twin and Quad)
3.1000A	Air Cleaner and/or Adaptor	9.2000A	Reverse and Reduction Gear (mechanical)
3.2000A	Air Silericer	9.3000A	Power Transfer Case
3.3000A	Air Inlet Housing	9.3000A	Power Transfer Gear (Twin and Quad)
3.4000	Blower and Drive	9.4000	Transmission—Highway
3.4000A	Blower Drive Shall	9.7000	Transmission—Off-highway
3.4000A	Blower End Plate Cover	9 9000	TransmissionRail Car
	Turbocharger, Intercooler, and Aftercooler	0 0000	
3.5000A	Toloocharger, intercooler, tare the society	10 0000	SHEET METAL
	DOIGHTING OVOTELL	10.1000A	Engine Hood
4.0000	LUBRICATING SYSTEM	10.1000A	Engine Flood
4.1000A	Oil Pump	44.0000	ENGINE MOUNTING
4.1000B	Oil Distribution System	11.0000	Engine Mounting and Base
4.1000C	Oil Pressure Regulator	11.1000A	Engine Mounting and Base (Twin and Quad)
4 2000A	Oil Filter	11.1000A	Engine Mounting and base (1 will and doad)
4.3000A	Oil Filter Lines		
4.4000A	Oil Cooler and Marine Gear Lines	12.0000	MISCELLANEOUS
4.5000A	Oil Filler	12.2000A	Bilge Pump
4.6000A	Dipstick	12.3000A	Vacuum Pump
4.7000A	Oil Pan	12.4000A	Air Compressor
4.8000A	Ventilating System	12 5000A	Hydraulic Pump
		12.6000A	Gasoline Starter
5.0000	COOLING SYSTEM	12.6000B	Air Starter
5.1000	Fresh Water Pump	12.6000C	Cold Weather Starting Aid
5.1000A	Fresh Water Pump Cover	12.6000D	Hydraulic Starter
5.2000A	Water Outlet Manifold and/or Elbow	12.6000E	Hydraulic Starter Accessories
5.2000A	Thermostat	12.8000A	Supplies
5.2000C	Water Bypass Tube	12.8000B	Fabrication Material
5.3000A	Radiator	12.8000C	Miscellaneous Service Kits and Sets
5.3000B	Water Connections	12 8000D	Miscellaneous Service Parts

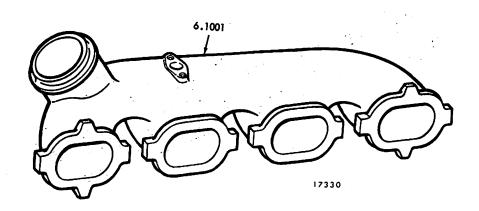


FIG. 1A EXHAUST MANIFOLD (VERTICAL END OUTLET, MARMON)

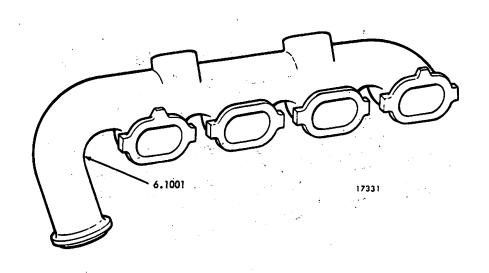


FIG. 2A EXHAUST MANIFOLD (TURBO END OUTLET, MARMON)

Figs. 1A & 2A of 6.0000

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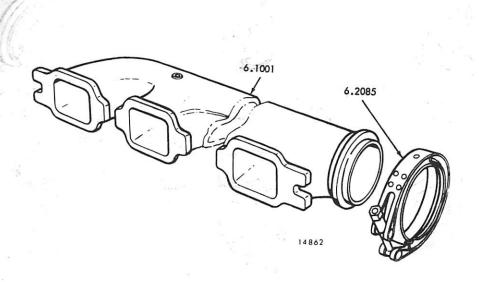


FIG. 11A EXHAUST MANIFOLD (HORIZONTAL END OUTLET, MARMON)

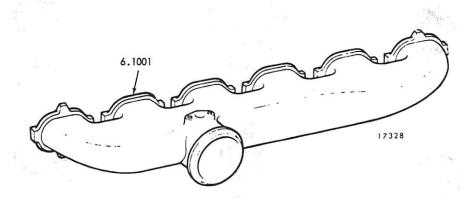


FIG. 12A EXHAUST MANIFOLD (SIDE OUTLET, OFFSET, MARMON)

Figs. 11A & 12A of 6.0000

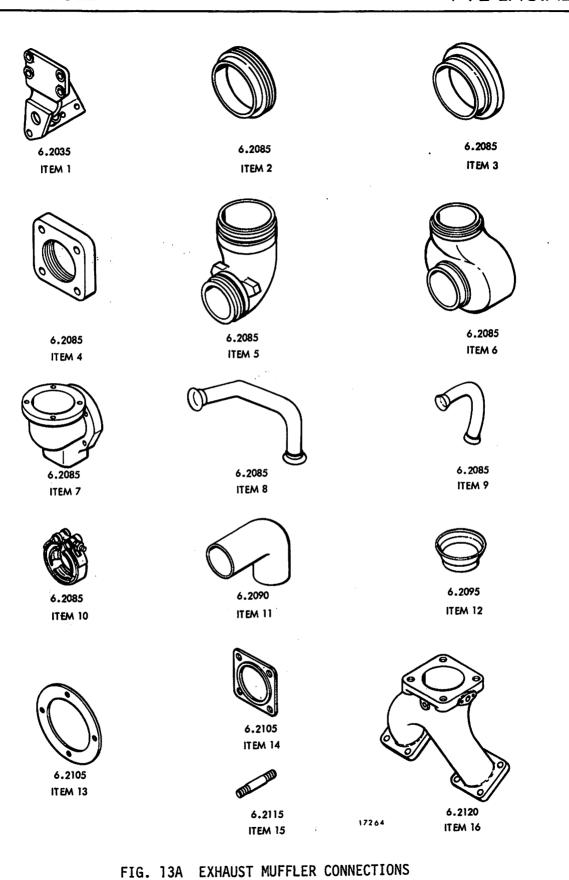
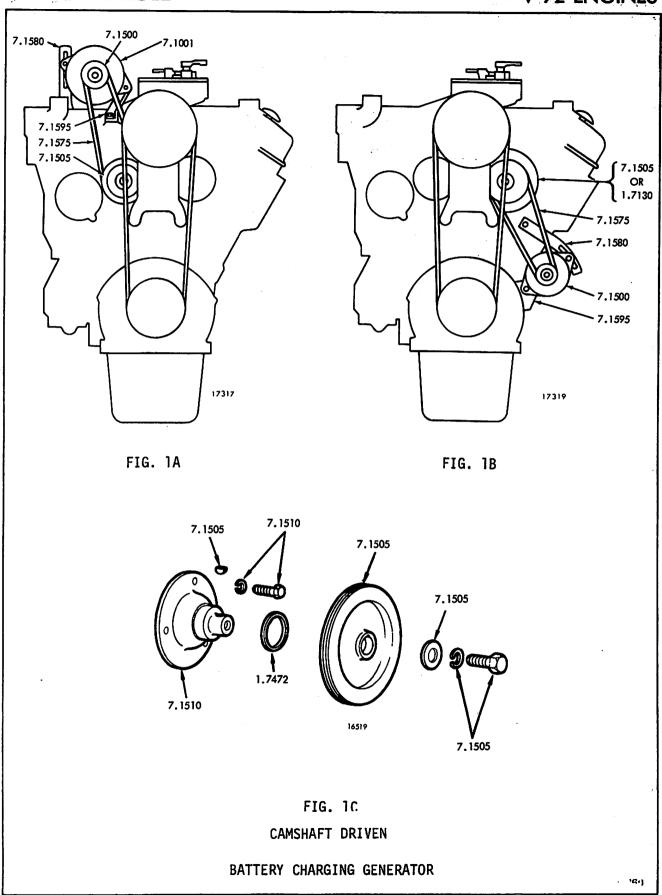


Fig. 13A of 6.0000

GROUP NOMENCLATURE

1.0000	ENGINE (less major assemblies)	5 0000	COOLING SYSTEM (CONT'D)
1 1000	Cylinder Block	5.4000A	Fan
1 1000A	Air Box Drains	5 4000B	Fan Shroud
1 2000	Cylinder Head	5.5000A	Heat Exchanger or Keel Cooling
1 2000A	Engine Litter Bracket	5 6000A	Raw Water Pump
1 3000 1 3000A	Crankshaft, Oil Seals and Stabilizers Crankshaft Front Cover	5.7000A	Water Filter
1 3000A	Vibration Damper		
1 3000E	Crankshaft Pulley	6.0000	EXHAUST SYSTEM
1 30000	Crankshaft Pulley Belt	6.1000A	Exhaust Manifold and/or Connections
1.4000A	Flywheel	6.2000A	Exhaust Muffler and/or Connections
1 5000A	Flywheel Housing	7.0000	5: 50=0.0 A
1.5000B	Flywheel Housing Adaptor	7.0000	ELECTRICAL—INSTRUMENTS
1 6000	Connecting Rod and Piston	7.1000A	Battery Charging Generator
1.7000	Camshaft and Gear Train	7.2000A 7.2000B	Battery Cables
1.7000A	Balance Weight Cover	7.2000B	Automatic Starting Automatic Starting (Twin and Quad)
1.7000B	Accessory Drive	7.3000A	Starting Motor
1 8000	Valve and Injector Operating Mechanism	7.4000A	Instruments
1 8000A	Rocker Cover	7.4000A	Instruments (Twin and Quad)
		7.4000B	Tachometer Drive
2 0000	FUEL SYSTEM	7.4000B	Tachometer Drive (Twin and Quad)
2 1000A	Fuel Injector	7.4000C	Shutoff, Alarm and O.S. Governor
2 1000B	Injector Controls Electronic	7.4000C	Shutoff, Alarm and O.S. Governor (Twin and Quad)
2 2000	Fuel Pump	7.5000A	Power Generator
2 2000A	Fuel Pump Drain	7.6000A	Control Cabinet
2 3000A	Fuel Filter and Strainer	7.6000A	Control Cabinet (Twin and Quad)
2 3000A	Fuel Filter and Strainer (Twin and Quad)	7.7000A	Wiring Harness
2 4000	Fuel Manifold and/or Connections	7.8000A	Air Heater
2 4000A	Dual Fuel System	7.8000A	Air Heater (Twin and Quad)
2 5000A	Fuel Lines and Fuel Cooler	7.10000A	
2 5000A	Fuel Lines and Fuel Cooler (Twin and Quad)		
2 6000/4	Fuel Tank	8.0000	POWER TAKE-OFF
2 6000B	Electric Governor	8.1000A	Power Take-off and/or Clutch
2 7000A	Mechanical Governor	8.1000A	Power Take-off and/or Clutch (Twin and Quad)
2 8000A	Hydraulic Governor	8.3000A	Torque Converter
2.9000	Injector Controls	8.3000A	Torque Converter (Twin and Quad)
2 9000	Injector Controls (Twin and Quad)	8.3000B	Transmission Lines
2 9000A 2 9000A	Throttle Controls Throttle Controls (Twin and Quad)		
2 30000	mone comos (rem and odad)	9 0000	TRANSMISSION AND PROPULSION
2.42000	AID CVCTI M	9.1000A	Hydraulic Marine Gear
3 0000 3 1000A	AIR SYSTEM	9.1000A	Hydraulic Marine Gear (Twin and Quad)
3 2000A	Air Cleaner and/or Adaptor Air Silencer	9.2000A	Reverse and Reduction Gear (mechanical)
3 3000A	Air Inlet Housing	9.3000A	Power Transfer Case
3 4000	Blower and Drive	9 3000A	Power Transfer Gear (Twin and Quad)
3 4000A	Blower Drive Shatt	9 4000 9.7000	Transmission—Highway TransmissionOII-highway
3 4000B	Blower End Plate Cover	9.9000	TransmissionRail Car
3 5000A	Turbocharger, Intercooler, and Altercooler	\$ 3000	Tansmission—Tan Ga
	,,,,,,,,	10 0000	SHEET METAL
1 ()()()()	LUBRICATING SYSTEM	10 1000A	Engine Hood
4 1000∆	Oil Pump	10 1000/	rigino riocci
4 1000B	Oil Distribution System	11 0000	ENGINE MOUNTING
4 1000C	Oil Pressure Regulator	11.100 0 A	Engine Mounting and Base
4.2000A	* Oil Filter	11.1000A	Engine Mounting and Base (Twin and Quad)
4/30007	Oil Filter Lines		and the second s
4.4000%	Oil Cooler and Marine Gear Lines	12 0000	MISCELL ANEOUS
4 5000%	Oil Filler	12 2000A	Bilge Pump
4 (6000)	Dipstick	12 3000A	Vacuum Pump
4 7000%	Oil Pan	12 4000A	Air Compressor
4.80094	Ventilating System	12 500 0 A	Hydraulic Pump
		12 6000A	Gasoline Starter
. O(R)()	COOMING SYSTEM	12 G000B	Air Starter
5 1000	Fresh Water Pump	12 60000	Cold Weather Starting Aid
5/1000/-	Tresh Water Pump Coyer	12 GOOOD	Hydraulic Starter
5.2000%	Water Outlet Manifold and or How	12 GOOOL	Hydraulic Starter Accessories
5 200015	Thermostat	12 800 0 A	Supplies
5.2000C	Water Byjann Tube Radiator	12 8000B	Labrication Material Miscellaneous Service Kits and Sets
5 3000A 5 3000B	Radiator Water Connections	12 8000C 12 8000D	Miscellaneous Service Rits and Sets Miscellaneous Service Parts
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Figs. 1A, 1B & 1C of 7.0000

June, 1980

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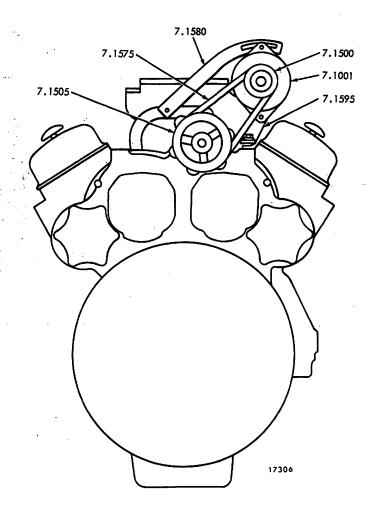


FIG. 1D

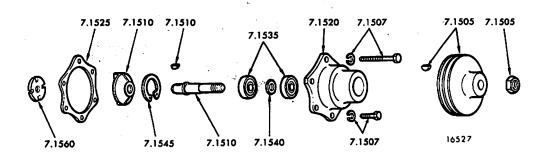


FIG. 1E

BLOWER DRIVE SHAFT DRIVEN BATTERY CHARGING GENERATOR

Figs. 1D & 1E of 7.0000

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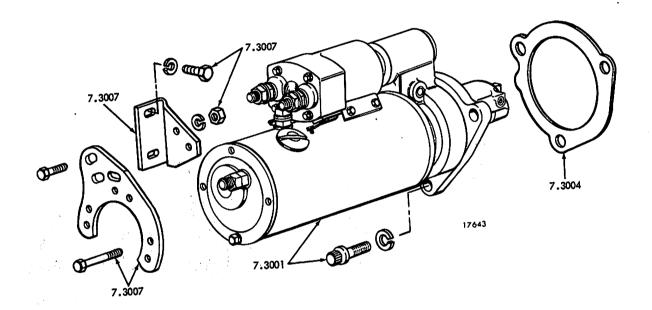


FIG. 3A STARTING MOTOR

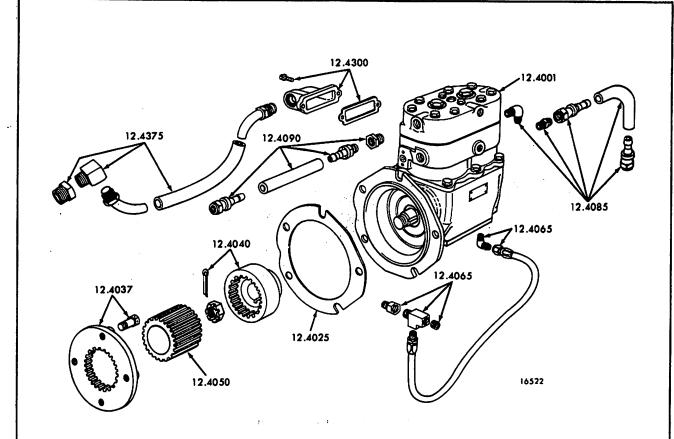


FIG. 1A AIR COMPRESSOR (Flange Mounted)

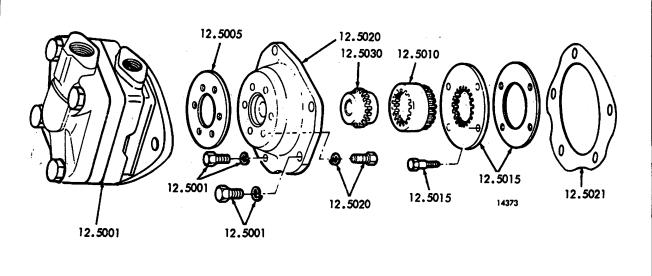


FIG. 1B HYDRAULIC PUMP AND DRIVE

Figs. 1A & 1B of 12.0000