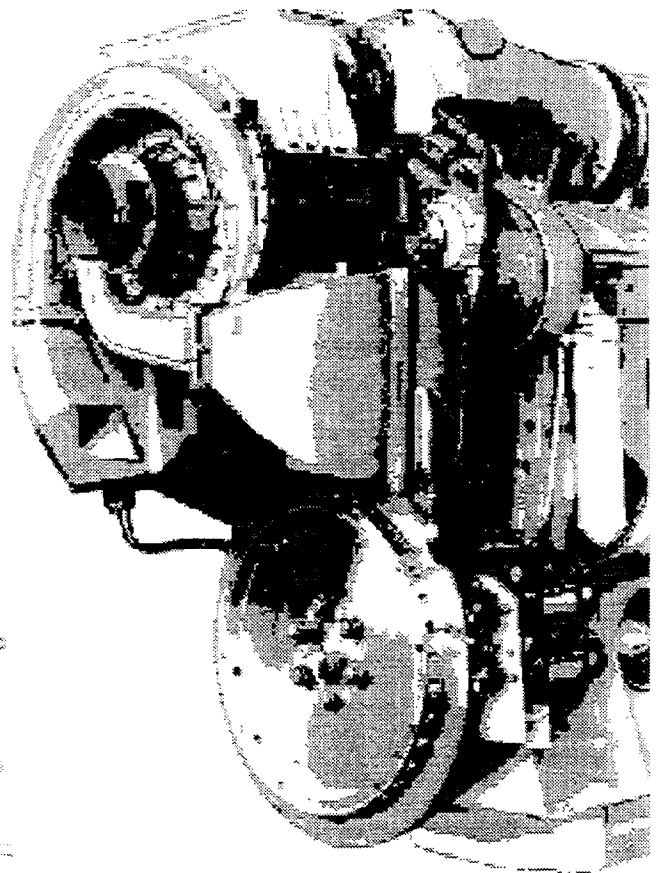
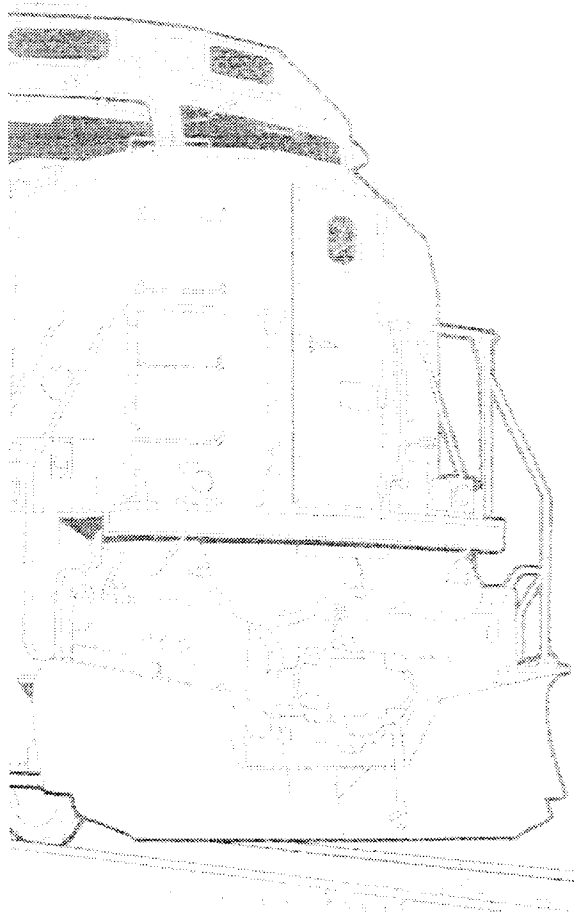


MAINTENANCE INFORMATION

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ELECTRO-MOTIVE

FOREWORD

The M.I. Index is prepared as a reference guide for M.I.'s which have been distributed for applicable EMD equipment.

The Index is made up of three parts.

Part I is a topical list of **Maintenance Instructions** with the M.I. title and number appearing under a heading which applies to the equipment name or function.

Part II lists the **Maintenance Instructions** numerically and denotes the major EMD equipment category to which they apply.

Part III lists the **Modernization Recommendation M.I.'s** numerically, including the latest revision letter, latest issue date, and the title.

This Index will be updated when necessary so that a current listing may be maintained. Copies are available upon request through your service representative.

NOTE

Due to the age, stock is not available for every Modernization Recommendation M.I. listed. Also, the listing does not include every M.I. published by EMD.

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PART II — NUMERICAL LISTING

To derive maximum benefits from the numerical listing of the M.I.'s, carefully read the following.

1. The "REV." column indicates the latest revision to the M.I. A distribution of revised M.I.'s is made *IF* the revised data is applicable to your equipment.
2. In the "APPLICATIONS" columns, the code letters denote the general major equipment category. An "X" in the code column(s) indicates that the M.I. is applicable to that equipment.

NOTE

An "X" in the "L" column means that the M.I. has a general locomotive application,

but it may not be applicable to ALL locomotives. This would also be true of the other codes. Distribution of M.I.'s will be made as applies to your specific units.

The code letters refer to the following applications:

DM -Domestic
 EX -Export
 L -Locomotive
 M -Marine
 S -Stationary Power Unit
 MU -Power Plant (Base Load/Peaking)
 DR -Drilling Rig
 MDR -Marine Drilling Rig
 OHV -Off-Highway Vehicles

NO.	REV.	TITLE	APPLICATION								
			DM	EX	L	M	S	MU	DR	MDR	OHV
100	C	Crankcase Main Bearing Steel Bore Alignment Qualification	X	X	X	X					
259	F	Low Water And Crankcase Pressure Detectors	X	X	X	X	X	X	X	X	X
260	A	Differential Pressure (Delta P) Combination Engine Protector	X	X	X	X	X	X	X	X	X
276	B	Conversion Of Turbochargers For Opposite Engine Rotation	X	X		X					
315	D	Crankcase Lower Deck Repair	X	X	X	X	X	X	X	X	X
316	B	Resurfacing Of Cylinder Head Retainers 567C, D, And All 645 And 710 Engines	X	X	X	X	X	X	X		
317	C	Upper Deck Boring Bar Fixture For 567 And 645 Engines	X	X	X	X	X	X	X		
365	A	Electric Tachometers	X	X		X	X				
435	A	Impingement Type Carbody Air Filters		X	X						
440	C	Panel Type Oil Bath Air Filters	X	X	X	X	X	X	X	X	
442	A	Marine Engine Air Filter	X	X		X					
549	B	Water Cooling Radiators	X	X	X						
550	A	Locomotive Radiator Assembly And Installation	X	X	X						
581	C	Thermostatic Valve	X	X		X	X		X	X	X

NO.	REV.	TITLE	APPLICATION								
			DM	EX	L	M	S	MU	DR	MDR	OHV
582	—	Automatic Drain Valve 9523127	X	X	X						
926	F	Lube Oil Filtration	X	X	X	X	X	X	X	X	X
927	E	Lube Oil Coolers	X	X	X	X	X	X	X	X	X
928	A	Lubricating Oil Cooler Service Limits	X	X	X						
1096	A	Locomotive Air Filter/Dryer System	X		X						
1100	E	Air Compressor-Exhauster Models WXOV, ABOV, ADJV-8100 Series ADJV-8400 Series		X	X						
1144	B	Air Compressor Models WBO And WBG	X	X	X						
1145	—	Air Compressor Clutch	X	X	X						
1203	—	Fan Shaft Bearings	X	X	X						
1207	B	Speed In increaser, Cooling Fan, And Blower Drive Assemblies		X	X						
1216	—	Cooling Fan V-Belt Tension SW1000, SW1001, SW1500	X	X	X						
1250	B	Generator Drive Transmission Assembly 8221394	X	X					X		
1252	A	Head End Power Gear Box 9096722 And 9333500	X		X						
1501	B	Locomotive Swing Hanger And Switcher Truck Assemblies Equipped With Clasp Brakes	X	X	X						
1504	—	GP Truck Assembly With Single Brake Shoe Rigging	X	X	X						
1505	A	GHC Locomotive Truck Assembly		X	X						
1506	B	HT-C Truck Assembly	X	X	X						
1508	A	GLC Locomotive Truck Assembly		X	X						
1509	—	HT-B Truck Assembly	X		X						
1511	—	GP Truck Assembly With Single Shoe Brake Rigging And Inclined Rubber Suspension	X		X						
1512	—	Coil, Elliptic, And Rubber Truck Spring Qualification And Replacement	X	X	X						

NO.	REV.	TITLE	DM	EX	L	APPLICATION					
						M	S	MU	DR	MDR	OHV
1514	B	Export Flexicoil Locomotive Truck Assembly		X	X						
1518	E	Wheels, Axles, Axle Gears And Pinions	X	X	X						
1519	A	Wheels, Axles, Axle Gears And Pinions — Export		X	X						
1520	A	Traction Motor Gear Case Inspection And Repair	X	X	X						
1552	D	Cylindrical Roller Oil Lubricated Journal Box	X	X	X						
1553	B	Grease Lubricated Cartridge-Type Journal Bearings	X	X	X						
1577	A	Lever-Type Hand Brake	X	X	X						
1601	—	Dynamic Brake Grid Resistors	X		X						X
1602	B	Radial Dynamic Brake Grid Resistors	X		X						
1705	B	New Export Locomotive Deprocessing, Inspection, And Tightening Program		X	X						
1707	E	New Locomotive Pre-Service	X		X						
1718	F	Scheduled Maintenance Program — Domestic Stationary Power Units With Blower-Type Engines	X					X			
1719	—	Scheduled Maintenance Program — Export Stationary Power Units With Blower-Type Engines		X				X			
1721	H	Scheduled Maintenance Program — Marine Propulsion (GM) And Generating (MG) Units With Blower-Type Engines	X	X		X					
1722	I	Scheduled Maintenance Program — Marine Propulsion (GM) And Generating (MG) Units With Turbocharged Engines	X	X		X					
1724	C	Scheduled Maintenance Program — SW1000, SW1001, SW1500, SW1504, MP15(DC)	X	X	X						
1725	—	Scheduled Maintenance Program — Export Stationary Power Units With Turbocharged Engines		X				X			
1726	B	Locomotive Storage Procedures	X	X	X						

NO.	REV.	TITLE	APPLICATION									
			DM	EX	L	M	S	MU	DR	MDR	OHV	
1728	H	Scheduled Maintenance Program — Domestic Stationary Power Units With Turbocharged Engines	X				X					
1729	B	Scheduled Maintenance Program — Drilling Rig Power Units With Blower-Type Engines	X	X						X		
1730	C	Industrial, Drill Rig, And Marine Power Equipment Storage	X	X		X	X	X	X	X	X	X
1731	A	Scheduled Maintenance Program — Marine Drilling Units With Blower-Type Engines	X	X							X	
1732	A	Scheduled Maintenance Program — Marine Drilling Units With Turbocharged Engines	X	X							X	
1738	E	Scheduled Maintenance Program — Blower-Type GP And SD Model Locomotives (645 Engines)	X	X	X							
1739	—	Scheduled Maintenance Program — MP15AC	X		X							
1740	J	Scheduled Maintenance Program — Turbocharged F, GP & SD Model Locomotives (645E3 Thru 645E3C Engines)	X	X	X							
1743	B	Scheduled Maintenance Program — Turbocharged Export Locomotives (645 Engines)		X	X							
1744	B	Scheduled Maintenance Program — Blower-Type Export Locomotives (645 Engines)		X	X							
1748	E	Engine Coolant	X	X	X	X	X	X	X	X	X	X
1750	H	Diesel Fuel Recommendations All EMD And Former CDED Engines	X	X	X	X	X	X	X	X	X	X
1752	L	Lubricating Oil For Domestic Locomotive Engines	X		X							
1753	F	Alignment Of Locomotive Rotating Equipment	X	X	X							
1756	E	Lubricant Specifications (Excluding Engines & Governors)	X	X	X							
1757	D	Flushing; Diesel Engine Lubricating Oil System	X	X	X	X	X	X	X	X	X	X
1758	B	Piston Phosphate Treatment	X	X	X	X	X	X	X	X	X	X

NO.	REV.	TITLE	APPLICATION									
			DM	EX	L	M	S	MU	DR	MDR	OHV	
1759	D	Removal Of Undercrown Deposits From Engine Pistons	X	X	X	X	X	X	X	X	X	X
1760	G	Lubricating Oil For EMD Engines — Marine, Power, And Drilling Rig	X	X		X	X	X	X	X	X	X
1761	F	Lubricating Oil For Export Locomotive Engines		X	X							
1764	A	Governor Oil Specification	X	X	X	X	X	X	X	X	X	X
1765	C	Alignment Of Rotating Equipment	X	X			X	X		X	X	
1766	A	Alignment Of Drill Rig Rotating Equipment	X	X						X		
1775	A	Scheduled Maintenance Program — Land Drilling Units With Turbocharged Engines	X	X						X		
1776	—	Scheduled Maintenance Program — Turbocharged GP And SD Model Locomotives (645F3, F3A, & F3B Engines)	X	X	X							
1777	—	Scheduled Maintenance Program — Turbocharged GP And SD Model Locomotives (710G3 Engine)	X		X							
1803	B	Weatherproofing And Sealing	X	X	X							
1805	—	Cold Weather Maintenance Recommendations	X	X	X							
2138	—	Hasler-Bern Speed Measuring Device - Model RT9		X	X							
2703	D	Draft Gear Assemblies	X	X	X							
3302	D	Main Generators - Types D32, D22, D12	X	X	X							
3304	B	D15 And D25 Main Generators	X	X	X							
3306	B	D14 Alternator	X	X	X							
3307	—	D18 Alternator	X	X	X							
3308	—	CA5 Alternator	X	X	X							
3317-1	E	AR-Type Traction Alternators	X	X	X							
3317-2	D	AR10, AR12, AR15, AR16-D14 Or D18 Traction Generator Rectifier Bank Assemblies And Suppression Circuits	X	X	X							

NO.	REV.	TITLE	APPLICATION									
			DM	EX	L	M	S	MU	DR	MDR	OHV	
3317-3	—	AR11 Traction Generator Rectifier Bank Assemblies And Suppression Circuit	X	X	X							
3318-1	B	AR5 Type Generator	X	X								X
3318-2	—	AR5 Traction Generator Rectifier Bank Assembly And Suppression Circuit	X	X								X
3321	A	A10, A10A, A20EL And A20ER Thru-Shaft Generators	X	X		X						
3323-1	—	AR6-D14 Traction Generator Maintenance And Disassembly		X	X							
3323-2	—	AR6-D14 Traction Generator Bearing Component Maintenance And Inspection		X	X							
3323-3	—	AR6-D14 Traction Generator Stator Inspection, Reconditioning, And Test		X	X							
3323-4	—	AR6-14 Traction Generator Rotor Inspection, Reconditioning, And Test		X	X							
3323-5	—	AR6-D14 Traction Generator Rectifier Bank Assemblies And Suppression Circuits		X	X							
3323-6	—	AR6-D14 Traction Generator Assembly And Test		X	X							
3328	A	AC Synchronous Generators With Brushless Exciters - Models A33, AB20, AB21 And AB22	X	X			X	X			X	
3612	A	Auxiliary Generator And Blower Assemblies	X	X	X			X				X
3614	A	Inertial Air Discharge (Filter Blower And Motor) Hatch Assembly	X		X							
3705	A	AC Auxiliary Generators (Brush Type) Models A-8140 And A-8140-M1	X	X		X						X
3706	C	DC Auxiliary Generators And Exciters 0, 10, 15.5, 18, And 24 kW	X	X	X		X	X			X	
3707	B	AC Auxiliary Generators (Brushless Type) Models A-8146, A-8147, A-8147-M1 And 2A-8147	X	X	X							X

NO.	REV.	TITLE	APPLICATION									
			DM	EX	L	M	S	MU	DR	MDR	OHV	
3900	G	General Maintenance — Model D37, D47, D57, D67, D75, D77, And D87 Traction Motors	X	X	X							
3902	—	Traction Motor Mounting Assembly Build-Up — D77 And D87	X	X	X							
3903	D	General Maintenance Industrial Motors And Generators D39, D49, D59, D69, D79, M79, G79, M89, G89	X	X						X	X	X
3904	B	General Maintenance — Traction Motor Models D19, D29, D29CC, D29CC-7, D31, D36		X	X							
3912	A	Traction Motor Roller Support Bearing — D77BTR, D87BTR	X	X	X							
4101	B	Fractional Horsepower Motors	X	X	X	X				X		
4102	C	48" AC Motor Driven Cooling Fan	X	X	X							
4104	D	Dynamic Brake Grid Fan And Motor	X	X	X							
4105	A	48" AC Motor Driven Quiet ("Q") Cooling Fan Single And Two Speed	X	X	X							
4110	C	Fuel And Soak Back Pumps	X	X	X	X	X	X	X	X	X	X
4119	A	AC Blower Motor — Models I-4459, I-4496, I-4717, B-6023M1, 1B-6023M1, 1B-5810ZA, 1B-5810ZB	X	X		X				X	X	
4122	—	Locomotive Cab Air Conditioner 8471474 And 9088139	X	X	X							
4334	B	Locomotive Controller — AAR — Roller Switch Type (9091052-9091067-9093629-9325903)	X	X	X							
4504	A	Locomotive Load Control And Commutator-Type Load Regulators	X	X	X							
4506	—	Linear Load Regulators	X	X	X							
4522	A	EMD Static Voltage Regulator	X	X	X							
4707	B	Solenoid (Magnet) Valves	X	X	X							
5300	D	Engine Starting And Generators Field Decay Contactors	X	X	X							X
5352	C	Time Delay Relays — Square D	X	X	X		X	X	X			X
5353	C	Through Cable Relays	X	X	X				X			X

NO.	REV.	TITLE	APPLICATION								
			DM	EX	L	M	S	MU	DR	MDR	OHV
5355	B	Auxiliary Relays	X	X	X						
5364	B	AC Cooling Fan, Generator, And Battery Field Auxiliary Contactors	X	X	X			X			
5384	B	Remote Reset Relay — Type GJS (Ground Relay)	X	X	X						X
5386	B	Auxiliary Relays — Form C	X	X	X	X	X	X	X	X	X
5387	B	Auxiliary Relays — 8, 12, And 14 Pole	X	X	X				X		X
5389	B	Auxiliary Relays — 6 Pole	X	X	X						
5394	B	Wheel Or Sprocket Slip Relays	X	X	X				X		
5398	A	Two-Pole AC Contactor — 8247364, 8272487, 8302169, 8330937, 8332661	X	X	X					X	
5400	—	9332148, 9332149, 9510676 Head End Power AC Contactor	X		X						
5402	—	AC Magnetic Contactors	X	X	X			X			
5406	B	Dynamic Brake Grid Shorting Contactors — 8416136, 8436326, 8459697, And 9521384	X	X	X						X
5408	B	Field Shunting And Load Test Transfer Contactors	X	X	X						
5409	—	Motor Field Current Reversing Switch	X		X						
5410	—	AC Fan Contactor (Two-Speed Fan)	X	X	X						
5411	A	Series Generator Contactor SGC	X	X	X						
5413	—	40007849, 40007850, 40009090 Head End Power AC Contactors	X		X						
5421-1	A	Motor Operated Transfer Switch Switch Module	X	X	X						X
5421-2	A	Motor Operated Transfer Switch Motor Module	X	X	X						X
5422	B	Power Contactor — 8458534	X	X	X						X
5424	B	Power Contactors	X	X	X				X		X
5426	A	Transfer Switches — 8464113, 8464114, 8464116, 8464117, 8464118	X	X	X						
5497	D	Type VE-9T Relay — 8230326, 8235328, 8245903, 8267987, And 8411512	X	X	X						
5498	—	Type VE-9 And VE-9S Relays — 8277235 And 8291023	X	X	X						

NO.	REV.	TITLE	APPLICATION								
			DM	EX	L	M	S	MU	DR	MDR	OHV
5511	B	Temperature Sensitive Switches	X	X	X	X	X	X	X	X	
5512	B	Pressure Control Switch — Type 9012	X	X	X	X	X	X	X	X	X
5514	—	Pressure Switch — Type 9013	X	X	X						
5524	C	Temperature Sensitive Switch — Type 9025	X	X	X	X	X	X	X		X
5525	A	Vacuum Switches — Type 9016	X				X	X	X		
6845	B	Testing And Setting The Power Control System — SR11, SR12, And SR16 Drilling Rig Power Units	X	X					X		
6850	E	Application Of Cyprina-RA Grease To Motor Armature Bearings	X	X	X				X	X	X
6852	—	Checking And Setting Transition SW1000 And SW1001	X		X						
6905	—	SCR Assembly 8451653	X	X	X						X
9107	—	Battery Field SCR Assembly — 9316438	X	X	X						
9108	—	Rectifier Assemblies Used With AC Auxiliary Generators	X	X	X						
9109	C	Battery Charging Rectifier Used With DC Auxiliary Generator	X	X	X						

PART III — MODERNIZATION RECOMMENDATION M.I.'s

Periodically, EMD has distributed publications offering information for use in upgrading equipment and achieving cost savings through improved performance and increased service life. A list of Modernization Recommendations that have been published and distributed in the last 10 years is provided below.

The code letters under "APPLICATION" refer to the following:

- D -Domestic
- E -Export
- L -Locomotive
- M -Marine
- MDR -Marine Drilling Rig
- P -Stationary Power Unit
- Power Plant (Base Load/Peaking)
- R -Drilling Rig

M.I. No.	Rev.	Application	Date	Title
9544	C	DE-L	Oct. 1987	Application Of Low Water And Crankcase Pressure Detector
9631	A	DE-L	Mar. 1984	Starting Motor Thermal Overload Protection
9645	A	DE-L	Jan. 1991	Timken GG Bearing Retrofit
9656	A	DE-L	July 1985	Gear Case Modification And Application Of Plastic Gear Case Seals
9661	—	D-L	Feb. 1984	Retrofit Of Two-Speed Dynamic Brake Pre-Dash-2 Locomotives
9663	—	DE-L	Dec. 1984	HT-C Truck Shimming And Bolster Clearance Standardization
9664		DE-MPR	Feb. 1985	Single Air Starter Application
9665	—	DE-R	Aug. 1984	Replacement Of Selenium Rectifiers On SR Drilling Rigs
9666	A	DE-L	Oct. 1987	Turbocharged Engine Upgrade Conversions — Locomotive Engines
9667	—	DE-L	Oct. 1984	Brake Rigging Conversion From Low Hung Brake Cylinder To High Brake Cylinder At Handbrake Position Only

M.I. No.	Rev.	Application	Date	Title
9668	—	DE-L	Dec. 1984	VR13 Module Improvements
9669	A	DE-MPR	Oct. 1987	Turbocharged Engine Upgrade Conversions — Marine, Power, & Drilling Rig
9670	—	DE-L	Jan. 1985	Ambient Air Temperature Sensing Switch (ATS) For Engine Idle Speed-Up
9671	—	DE-L	Jan. 1985	F-Series Engine Governor
9672	A	D-L	Dec. 1987	GP Truck — Conversion To New Improved Single Shoe Brake Rigging
9673	—	DE-L	May 1985	Injector 5226210 For 645F3B Engines
9674	—	D-L	May 1985	Improving Ride Quality Of Locomotives Equipped With GP Single Shoe Trucks
9675	—	D-L	June 1985	HT-C Truck - Conversion From Clasp To Single Shoe Brake Arrangement
9676	—	E-L	Nov. 1986	Gear Case Modification & Application Of Plastic Gear Case Seals — D29, D31, And D29CC Motors —
9677	—	E-L	July 1989	Replacement Radiator Cores For G8 And G18 Type Locomotives
9678	—	DE-L	Feb. 1990	Spaced Wedge Of Traction Motor Armatures
9679	A	DE-L	Nov. 1990	Replacement of “Trico” Windshield Wiper Motors
9680	—	DE-L	Jan. 1991	Yaw Damper Application For GP And F40PH Locomotives With Single Shoe Brake Rigging
9681	—	DE-L	Aug. 1992	Internal Load Regulator (ILR) Governor Upgrade — 710G and GA Engines
9682	—	DE-L	Jan. 1993	Replacement of “Jumbo” Windshield Wiper Motors
9683	—	DE-L	Apr. 1994	Resistors — SCR Exciter Bridge Assembly