

**FOR MORE INFORMATION VISIT OUR WEB SITE AT  
mdmlocomotiveworks.com**



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We supply 1 1/2" scale diesel locomotive models, power trucks, and accessories for the large scale backyard railroad hobby. We model locomotives built by the Electromotive Division of General Motors Corporation. Many of our parts and accessories may be used to model diesel locomotives built by other manufacturers. Our models are built to the scale of 1.6" to the foot and to a track gauge of either 7 1/4" or 7 1/2".

Our product line includes

- individual parts
- complete kits of materials including drawings and instructions
- machined kits for those builders without a machine shop
- semi-finished units with all major construction complete



At MDM Locomotive Works our mission is to produce the highest quality 1.6" scale model available in the 7 1/4" - 7 1/2" gage hobby. MDM locomotives are true scale models constructed entirely of steel and aluminum with details applied separately for enhanced realism and flexibility in prototype modeling. Our power trucks are finely detailed with prototypical traction motor drive and working air brakes.

Included with our locomotive kits is a complete control system for prototypical operation. Features include - 8 run speeds, dynamic brakes, air brakes, roof fans, battery charger, and electronic sound system using actual digital locomotive sounds matched to locomotive type. On the web site we have samples of the actual sound systems available for listening.

Shown in this catalog and on our web site are many close up photos showing the many details and construction features of our scale models.

### **IMPORTANT INFORMATION**

All our kits come with instructions and drawings.

We will replace any defective parts, contact us before returning any merchandise.

Orders will be shipped UPS at the residential rate unless a commercial address is specified.

Please contact us for shipping costs.

Prices in this catalog subject to change, call or visit our web site for the most current pricing.

We accept payment via check, money order, VISA, or MASTERCARD.

All orders to be prepaid before shipment.

Charge cards will be billed upon shipment.

A 10% down payment due when order is placed to hold spot in production schedule, then an additional 40% due when construction begins. Remainder due when order ready for shipment.

Prices do not include packing or shipping.

# Diesel Locomotive General Information

Our locomotives are constructed of steel and aluminum with details applied separately. This method of construction allows the builder to construct a very accurate model of any prototype because the detailing is completely variable. As a result of this method of construction, they have the attribute of being extremely durable and are naturally heavy. Let us assemble a kit to your specifications. We can supply your locomotive in various stages of completion - from a kit of raw materials with everything except paint and assembly labor, to a semi-finished locomotives with all major assembly complete including semi-finished power trucks. In between we offer kits with the lathe and milling work done.

We have tried to provide the most highly detailed locomotive kit possible for **your** locomotive. Locomotives available either powered or un-powered. Variable lead times necessary for machined kits and semi-finished units.

## Powered unit standard features:

24 volt dc traction motors and gear boxes on each axle.

Air compressor with all controls for working air brakes.

Engine sound system with electronic horn and bell.

Hand held control box with these controls:

Forward / Reverse switch

8 Run Notches

Regenerative Dynamic Brakes

Headlight Control ( Bright - Off - Dim )

Horn

Bell

Air Brake

Sound system volume

Four 6 volt deep discharge batteries for propulsion.

Lighted number boards.

Lighted class lights.

115 volt on-board charger - 24 volt / 25 amps.

Powered roof fans.

## Optional features:

Roof details - horns and radio antenna

Snow plow

Winterization hatch

48" fans for late model GP9

GP60M comfort cab (wide cab)

Dynamic brake hatch assembly for GP7/9

Low nose on GP7/9

Exhaust spark arrester

Any special details needed to model a specific prototype locomotive



# Power trucks

Diesel locomotive power trucks are powered with ½ HP, 24 volt traction motors and gearboxes. Available as kits of raw material or kits with milling and lathe work done. Kits come complete with working air brakes and all the hardware needed. Many of the brake rigging parts are laser cut steel requiring no finishing of the shape. The journal boxes on the Blomberg B-B and HTC trucks are steel investment castings requiring minimal machining. Trucks also available unpowered.

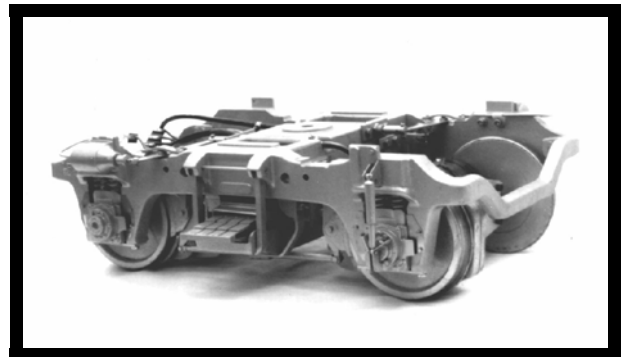
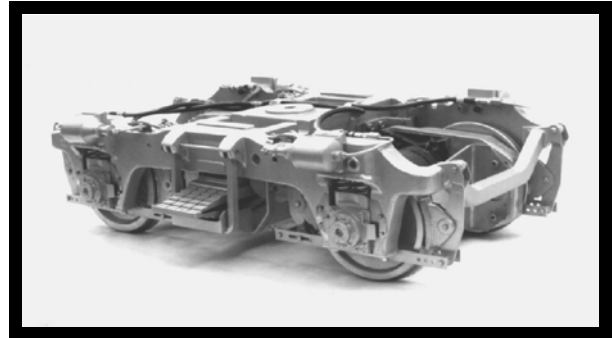
The traction motors are 4" dia. permanent magnet low speed - high torque motors. Nominally ½ HP with a short time rating of 1 HP each. Fabricated steel gearbox with a 3 / 1 gear ratio insure maximum durability. A typical locomotive weighing around 700 lb. and equipped with 4 traction motor / gearbox assemblies should be able to haul a train of 10 to 20 cars depending upon car weights and track grades

Working air brake systems and other fine details separate these trucks from the competition. Brake shoes have brake lining to increase stopping power.

## Blomberg Clasp Brake and Type M Trucks

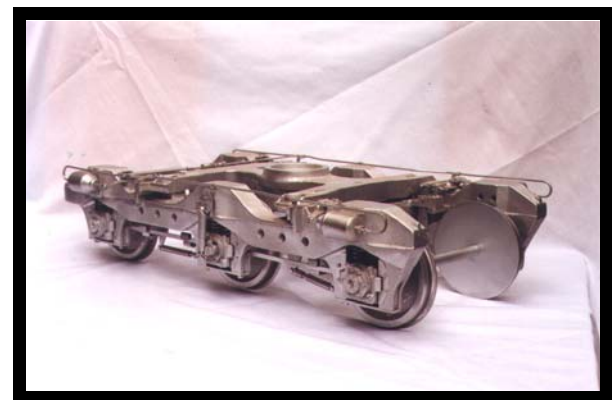
The old style Blomberg clasp brake truck is used on all EMD freight locomotives from the FT cab units to the GP40. The newer Type-M truck is used on the EMD dash 2 and later Geeps. The Type-M truck has low profile elliptical leaf springs, two instead of four brake cylinders, a single brake shoe on each wheel, and two shock absorber assemblies per truck. Wheelbase of both trucks is 14", wheel diameter 5" and axles are 5/8" diameter with ball bearing journals.

Both styles of Blomberg trucks are available as kits or machined kits, either powered with our prototype axle hung DC motor/gearbox assembly or un-powered.



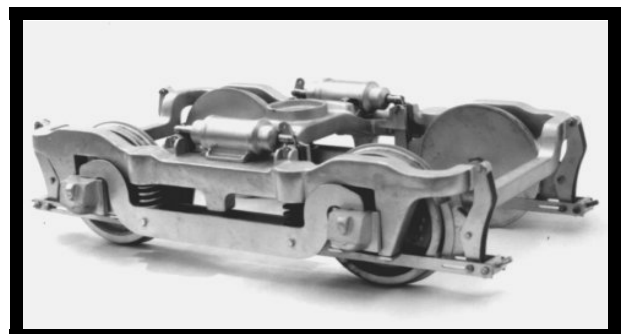
## HTC / Special Duty Trucks

The HTC truck was introduced by EMD on the dash 2 locomotive line. This truck can be modified to look like the earlier Blomberg Flexicoil truck used on earlier SD locomotives. Available as a kit or machined kit, either powered with our prototype axle hung DC motor/gearbox assembly or un-powered. The truck is a single piece casting with a separate span bolster. Original patterns constructed by Lee Wright of Normal, Illinois. Truck wheelbase 20 3/8", wheel diameter 5" and axles are 5/8" diameter with ball bearing journals.



## AAR Type A Switcher

This truck is used on almost all EMD switchers; on all Alco switchers after 1950; all Fairbanks-Morse and Lima switchers; all Baldwin switchers after 1940. It is double equalized with laser cut drop equalizers. Our truck features a one piece casting, working air brakes and precision laser cut brake rigging parts. Wheelbase is 12 3/8", wheel diameter 5" and axles are 5/8" diameter with ball bearing journals.





# F UNIT LOCOMOTIVE

The F diesel locomotive line includes both "A" and "B" type locomotives. The F 7 is our standard model but virtually any prototype F unit from the 1939 FT 103 demonstrator to the last FP 9 built in 1959 can be made with our parts. These locomotives equipped with old style clasp brake Blomberg power trucks.



Many parts in our kits are supplied partially machined. We do those operations which require elaborate tooling or industrial quality tools and processes. For instance the cab castings are welded, rough ground, and some machining is complete such as headlight holes, pilot mounting surface and bumper block mounting surface. Also semi-finished are the radiator grills which are cut to size and are bent, requiring only mounting holes to be drilled. The steel pilot is assembled and ready for mounting.

## Details

To provide the highest detail quality possible many of the detail parts are die castings, or lost wax castings such as roof fans, door handles and sand hatches. The door frames and side battens have embossed screw heads, the portholes are assembled and come with rubber gaskets, side louvers are punched, ladder frames bent, and we supply perforated material for the body steps. The fuel tank and battery box come assembled. The roof and roof hatches are pre-formed, lift rings assembled. The kit includes 2 kinds of adhesives and silver bearing solder. Complete instructions and drawings included in each kit.

## F "A" unit specifications

## Major variations available

Length 84" ( over couplers )		Un-powered	Powered
Width 16"	Kit	23405	23406
Height 22 ½"	Machined kit	23410	23411
Weight 450 - 650 lb.	Semi-finished locomotive	33405	33406
Trucks - clasp brake			



## NEW FP MODEL AVAILABLE

### Kit

Complete set of parts and drawings.  
battery box assembled.

Cab partially machined, pilot assembled.

All castings, metal stock, hardware, etc.

Roof and roof hatches formed.

Fuel tank and

### Machined kit

As above with all lathe and milling work done.

## Semi-finished locomotive



All below the floor parts assembled except for steps.

Power trucks are furnished as a machined kit.

Cab and body assembled and mounted on chassis.

Hatches mounted on roof.

Major holes cut - louvers, port holes, fan grills, sand hatches.

Number board housings, anti-climber, head light housings,

along with "B" end details are finished but not permanently mounted because finish body work still to be done.

## GP 7/9 Locomotives

Our GEEP line of locomotives are for those modelers who want a first generation diesel locomotive which will be right at home with live steam locos. With our kits you can build an accurate model of the first GP7 to roll off the EMD assembly line in 1949, a GP9, or the last GP18 built in 1963. Each kit or ready to run unit can have the appropriate details for the specific prototype you wish to model. These locomotives equipped with old style clasp brake Blomberg power trucks.

As with our other locomotive lines, many parts will be supplied partially machined or partially assembled. The fuel tank is assembled, stairwells formed and the cab and hoods are partially assembled. Complete instructions and drawings included in each kit.

### DETAILS

Stanchions stamped from steel.

Door louvers punched as appropriate.

Radiator grills assembled.

Lift rings assembled.

Door hinges stamped.

Door latch holes punched, laser cut door latches.

Molded number board housings, lenses and number backing.

Sand hatches and headlight housings investment castings.

Cab door windows have simulated rubber moldings.

We include adhesives and silver bearing solder.

### GP7/9 Specifications

### Major variations available

Length 90" ( over couplers )		Un-powered	Powered
Width 16"	Kit	23703	23704
Height 25"	Machined kit	23706	23707
Weight 550 - 650 lb.	Semi-finished locomotive	33703	33704
Trucks clasp brake style			



## Kit

Complete set of parts and drawings.  
metal stock, hardware, etc.  
stairwells formed.  
Cab and hoods partially assembled.

All castings,  
Fuel tank assembled and



## Machined kit

As above with all necessary lathe and milling work done.

## Semi-finished locomotive

Chassis assembled.

Power trucks are furnished as a machined kit.

Cab and hoods framed and mated to chassis.

Roof hatches mounted on roof, fan holes cut.

Cab and short hood assembled together.

Some finish body work done, major holes cut.

Cab window openings cut, side window frame installed.



# GP60/GP60M Locomotives

These locomotives are our largest which use the B-B Blomberg power trucks, and may be the last high horsepower GP locomotive produced by EMD division of General Motors Corp. Our model uses the latest style Type M Blomberg power truck with low profile elliptical springs. An available option is a wide cab as used on the Santa Fe GP60M Super Series locomotives in the War Bonnet paint scheme.

Most of the 326 flat steel parts in the kit are laser cut to shape and have the holes cut out or marked for drilling.

As with our other locomotive lines, many parts will be supplied partially machined or partially assembled. The fuel tank is assembled, stairwells formed and the hoods are partially assembled. Complete instructions and drawings included in each kit.

## DETAILS

Stanchions stamped from steel. Lift rings assembled.

Door latch holes punched. Sand hatch lids open.

Cab doors on GP60M have punched louvers.

Laser cut door latches. Stamped door

Cab front & door windows have simulated rubber moldings.

Molded number board housings, lenses and white number

We include 2 kinds of adhesive and silver bearing solder.



hinges.

backing.

available

**GP 60 Specifications**

**Major variations**

Length 95" ( over couplers )		Un-powered	Powered
Width 16"	Kit	23303	23304
Height 25"	Machined kit	23305	23306
Weight 600 - 700 lb.	Semi-finished locomotive	33303	33304
Trucks Type M Style			

### Kit

Complete set of parts and drawings.

All castings, metal stock, hardware, etc.

Fuel tank assembled and stairwells formed.

Cab and hoods partially assembled.

### Machined kit

As above with all necessary lathe and milling work done.

### Semi-finished locomotive

Chassis assembled.

Power trucks are furnished as a machined kit.

Cab and hoods framed and mated to chassis.

Roof hatches mounted on roof, fan holes cut.

Cab and short hood assembled together.

Some finish body work done, major holes cut.

Window openings cut, side window frame installed.

## Locomotive Components & Accessories

### Power control system Part No. 33900

Many system features make it a complete power control system.

Battery equalizer to supply 12 volt power for the auxiliary systems from the 24 volt traction batteries and to insure that all batteries supply power at an even rate.

Fuse block with ground terminals to supply 12 volts to switches for controlling auxiliary systems.

Circuit breaker to protect main batteries along with fuse links

to  
protect  
motors



Battery power meter so you can monitor battery condition.

All necessary wiring components, wire, terminal blocks, fuses, wiring terminals, switches, mounting plates, control cables with plugs, hardware and other needed items.

Controller has a nominal 200 amp capacity with maximum rating of 230 amps and a 4 minute current rating of 150 amps. Power MOSFET design provides high efficiency (for reduced motor and battery losses) and silent operation.

Built in thermal protection as well as under voltage cutback protects controller. Pot fault circuit shuts off controller if pot wires open. Reversing and regenerative dynamic braking are built into controller providing for simplifying wiring. Hand held control box has 3 foot cable with connector and the following controls

**Forward / reverse - Power control with 8 run notches - Headlight control - Horn, Bell, and Brake switches.**



## **Air compressor system Part No. 23500**

Kit contains all components necessary to construct a complete system. 100% duty cycle air compressor - Tank with pressure control - High pressure limit - Pressure output control with gauge - On /off output valve.

## **Locomotive sound system kit Part No. 33924**

### **Enhanced sound system**

We now have a new sound system utilizing a Phoenix Sound Systems "Big Sound " sound board which stores sounds as 16 bit sound samples giving more fidelity and realism. The new sound systems incorporate the following features:

Engine sound specific to particular locomotive:

F7 and GP7s with 1500 HP 567B engines

F9 and GP9s with 1750 HP 567C engines

Medium HP units with 645 engines such as GP38 or GP40s

High horsepower locomotives with turbo chargers like our GP60 locomotive line.

Alco's or GE U-boat engine sounds available by special request.

### **Sound system characteristics:**

At initial system turn on there is engine start up sound and periodic air releases while locomotive is at idle. Engine sound increases in volume as locomotive is notched up then fades so the gear and turbo charger whine is more prominent when the engine is coasting or slowing. Brake squeal is heard when engine speed is reduced.

Bell and multi chime horns standard with optional single chime available for F units or GP9 locomotives.

Automatic sound system ( as supplied with our powered locomotives) senses motor voltage changes and notches the engine sound up or down as appropriate. Also includes a volume control on the control box.

Manual version is supplied with a hand held control box incorporating the following: potentiometer to increase engine speed, horn button, bell switch, volume control, power switch. Also included are cabling with plug and socket for disconnecting unit from locomotive.

Both models come complete with amplifier, speaker, necessary wiring components, complete instructions, drawings, and construction photos.



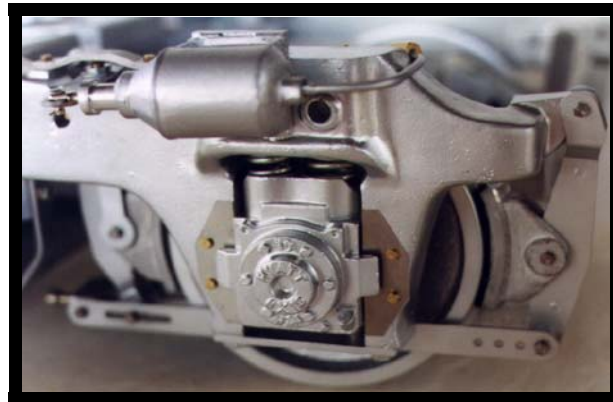
Photo page showing some detail parts used on our locomotives, also available separately.



**"F" step**



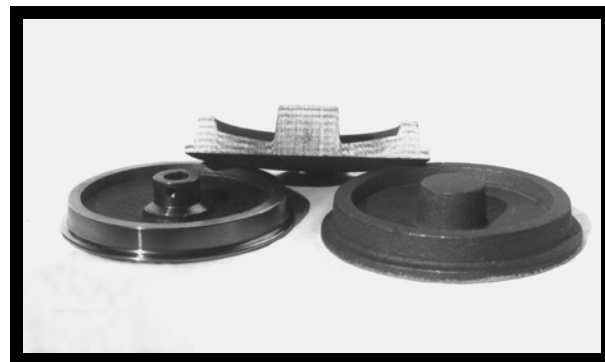
**24 Volt motor and gear box**



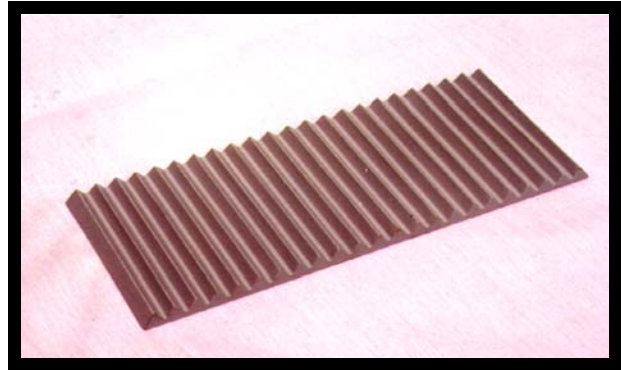
**Journal box assy / Brake cyl. / Brake shoe**



**Stanchion and Door details**



**Wheel - machined and raw casting**



**GP shutter casting**



**Sound System**



**Air brake & MU hoses**

