# EMD GP7 & GP9 Replacement Parts List

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NO.</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R22-101</td>
<td>FRONT DIESEL HORN</td>
<td>$2.50</td>
</tr>
<tr>
<td>2</td>
<td>R22-102</td>
<td>VENT PIPE (specify color)</td>
<td>$2.25</td>
</tr>
<tr>
<td>3</td>
<td>R22-103</td>
<td>SUNSHADE (specify color)</td>
<td>$2.50</td>
</tr>
<tr>
<td>4</td>
<td>R22-104</td>
<td>WINDSHIELD WIPERS (4)</td>
<td>$2.50</td>
</tr>
<tr>
<td>5</td>
<td>R22-105</td>
<td>REAR DIESEL HORN</td>
<td>$2.50</td>
</tr>
<tr>
<td>6</td>
<td>R22-106</td>
<td>DYNAMIC BRAKE (specify color)</td>
<td>$18.95</td>
</tr>
<tr>
<td>7</td>
<td>R22-107</td>
<td>BRAKE CYLINDER (specify color)</td>
<td>$12.95</td>
</tr>
<tr>
<td>8</td>
<td>R22-454</td>
<td>SMOKE UNIT (fan driven)</td>
<td>$24.95</td>
</tr>
<tr>
<td>9</td>
<td>R22-109</td>
<td>LENS COVER (1)</td>
<td>$2.50</td>
</tr>
<tr>
<td>10</td>
<td>R22-110</td>
<td>LIGHT BULB AND WIRE (Headlight)</td>
<td>$3.50</td>
</tr>
<tr>
<td>11</td>
<td>R22-111</td>
<td>FRONT/REAR HANDRAILS (2) (specify color)</td>
<td>$14.95</td>
</tr>
<tr>
<td>12</td>
<td>R22-112</td>
<td>COUPLER MOUNTING BLOCK &amp; PIVOT (no coupler)</td>
<td>$6.95</td>
</tr>
<tr>
<td>13</td>
<td>R22-113</td>
<td>COUPLER SPRING &amp; MOUNTING PLATE</td>
<td>$2.50</td>
</tr>
<tr>
<td>14</td>
<td>R22-114</td>
<td>TRUCK SIDEFRAME SPRINGS (8)</td>
<td>$2.50</td>
</tr>
<tr>
<td>15</td>
<td>R22-115</td>
<td>REPLACEMENT MOTOR TRUCK (1)</td>
<td>$32.95</td>
</tr>
<tr>
<td>16</td>
<td>R22-116</td>
<td>REPLACEMENT MOTOR ONLY (1)</td>
<td>$22.95</td>
</tr>
<tr>
<td>17</td>
<td>R22-117</td>
<td>TRUCK SIDEFRAME (2)</td>
<td>$8.95</td>
</tr>
<tr>
<td>18</td>
<td>R22-118</td>
<td>TRUCK MOUNTING BLOCK (1)</td>
<td>$3.50</td>
</tr>
<tr>
<td>19</td>
<td>R22-119</td>
<td>CYLINDERS (2)</td>
<td>$3.50</td>
</tr>
<tr>
<td>20</td>
<td>R22-120</td>
<td>FUEL TANK (specify color)</td>
<td>$8.95</td>
</tr>
<tr>
<td>21</td>
<td>R22-121</td>
<td>SIDE HANDRAILS (4) (specify color or undecorated)</td>
<td>$14.95</td>
</tr>
<tr>
<td>22</td>
<td>R22-122</td>
<td>SLIDE SHOES &amp; SPRINGS (4)</td>
<td>$4.50</td>
</tr>
<tr>
<td>23</td>
<td>R22-123</td>
<td>END STEPS (specify color) (2)</td>
<td>$4.50</td>
</tr>
</tbody>
</table>

### Additional Parts:

- AIR HOSES (6) $8.95
- FOLD DOWN END STEP (2) $3.95
- COUPLER LIFT BAR WITH 4 HOLDERS (1) $1.95
- LIGHT BULB AND WIRE (Number Board) $3.50
- LIGHT BULB AND WIRE (Cab) $3.50
- ROOF FAN w/ ROTATING FAN BLADE (specify color) $3.95
- BRASS LIFT RINGS (14) $6.95
- SMOKE STACKS - PLASTIC (2) $2.95
- SMOKE STACKS - METAL (2) $2.95
- NUMBER PLATE - 1 END (specify number) $2.95
- STIRRUP FOR SIDE FRAME (4) (specify color) $5.95
- METAL WHEELS WITH GEARS (2) $9.95
- TRACTION WHEELS WITH GEARS (2) (for rubber tires) $9.95
- RUBBER TIRES (4) $4.95
- M.U. CONNECTOR (2) $2.9
- SNOW PLOW $16.95
- USA TRAINS SMOKE FLUID $7.95
- USA TRAINS CONDUCTIVE LUBRICANT $10.95
- MAIN CIRCUIT BOARD W/ SWITCH PANEL (upgrade) $32.95
- SMOKE GENERATOR CIRCUIT BOARD (1) (fan driven) $22.95
- FRONT HEADLIGHT CIRCUIT BOARD $21.95
- REAR HEADLIGHT CIRCUIT BOARD $21.95

Prices shown are prices in effect at time of printing. Prices are subject to change without notice.
NOTE: Special care should be taken while handling your new USA Engine. USA Trains are manufactured and assembled with great care to ensure detail. Miss handling or improper cleaning may cause damage to the paint finish and assembled parts.

Body screws are #4 Phillips head screws 1/2 inch long. Component screws are #2 Phillips head screws 1/4 inch long. Use a #1 Phillips screwdriver and a #0 Phillips screwdriver for smaller screws, do not over tighten.

ATTACHING DETAIL PARTS
Some assembled parts are permanently attached and some are not. Front and rear handrails, side handrails, cab handrails are press fit. Coupler lift bar eyebolts front and rear must be glued. Put eye bolts on lift bar before gluing. Air hoses front and rear press fit or glue. All metal handrails and all metal detail parts are not glued.

REMINDING ENGINE SHELL
Several wires are attached from the engine shell to the engine components mounted to the frame. Remove fourteen #4 1/2 inch long screws located under your engine frame/chassis holding the engine shell. They are located under the front and rear truck assembly and fuel tank. See details 2, 3, 4, and 5. You will have to place your long shaft screwdriver between the truck frame and motor housing to remove these screws a total of 14 screws. After removing the 14 engine shell screws, the engine shell and cab will lift off together. Pull upward on the engine shell front and rear assembly. The cab and steps are held with four outer body screws. See detail 6A.

NOTE: The cab slides over the engine shell. Leave this assembly together. See details 6B and 7.
REMOVING CAB
Remove Cab and two 1/4 inch cab light bracket screws from the Cab shell with a #0 screwdriver.
NOTE: Do not remove the step and frame assembly from the cab, the door springs will break (see detail 7 below). To replace cab light remove the cab rear wall. Carefully slide the wall out; you will have to break the small hot glue joint first. This will allow you to get to the light bracket. The bulb and wires are held in place by the bracket and screws.
REMOVING HEADLIGHTS
To replace bulbs or circuit boards for marker lights, front and rear headlight, remove two #2 screws and carefully lift out circuit board assembly. The lighting circuit boards are not the same. Refer to item part numbers on the parts list on page 2 of this booklet.

SMOKE UNITS
Fan generated smoke units, circuit boards and main switch-board assembly are assembled as a complete unit and are not interchangeable with non fan driven smoke units. Refer to detail 9 for fan driven smoke units. For engine with basic smoke unit refer to detail 10.

FAN Driven SMOKE UNIT DIAGRAM
SMOKE UNITS
Smoke Unit # 672-X008R1, smoke regulator circuit board # 676-X001 may have to be replaced at the same time. See detail 10 non-fan smoke units. Engine switch panel circuit board 672-X007R1. Remove two screws and carefully slide circuit board and circuit board holder out, please mark all wire connectors. Circuit boards are clearly marked for connectors. We recommend that you label all wires for their locations. This will help you when re-attaching them later. All wires are color-coded and have different lengths.
NOTE: One smoke unit circuit board is mounted to the engine shell and the other to the engine chassis.

NOTE: Some of the following steps may not be required. Carefully consider what steps are needed before you make your repairs. Several wires are attached from the engine shell to the engine frame and other components. Tag all wires and label them for easy re-assembly. It is recommended not to disconnect all wires, only disconnect the ones required.

REMOVING FRONT AND REAR TRUCK ASSEMBLY
Remove truck mounting 1/2 inch # 4 screw and flat washer. See detail 6A. Disconnect wire connectors, label each pair for proper replacement. Note their location as wire length and connectors may not be identical. See detail 12B.
PICK-UP SHOES
Pickup shoes and wires press against wheel axles for additional contact surface. To replace these wires, you will have to remove the truck bottom plate. Remove 6 screws from bottom plate. See detail 12A. NOTE: If doing this step you may take time to lubricate the motor gears and axles ends. You may consider replacing traction tires at this time also. See detail # 11.

Before replacing motor bottom plate make sure bearings are seated flat in bearing slots so plate will seat properly and flush with motor block. See detail # 11. Remove side frame stirrup first (press fit only not glued), then remove truck sideframes mounted with 3 screws on each side. See details 12B.
ASSEMBLY AND DISASSEMBLY INSTRUCTIONS

SERVICING

This Diesel locomotive is built with pride by USA Trains and is covered by a limited warranty. (See limited warranty terms). Please follow these instructions carefully before sending your locomotive for service:

1. All main handrails must be removed and kept by the customer.

2. The locomotive must be packed in the original blue/red box with the original styrofoam inserts and then packed in the original proper shipping carton so it is well protected in shipment. The package must be fully insured and prepaid. USA Trains is not responsible for damage or loss during shipment.

3. Include a note explaining the problem and servicing you need performed. Be sure to include your name, street address, (NO P.O. BOXES PLEASE) City, State, Country (if outside U.S.A) and zip code along with a daytime phone number including area code. If the locomotive service is not covered by warranty, a reasonable service fee will be charged. For any locomotives to be returned outside the continental U.S.A., please include $25.00 U.S. currency to cover return postage. Any locomotives returned in the continental U.S.A. will be pre-paid by USA Trains.

4. Ship your item to:

USA TRAINS
662 CROSS STREET
MALDEN, MA. 02148

LIMITED ONE YEAR WARRANTY

This USA Trains locomotive is warranted for one year from the date of purchase against defects in material or workmanship. We will repair or replace (at our option) the defective part without charge for parts or labor within one year of the original date of purchase provided the warranty registration card has been received by USA Trains. This warranty does not cover items that have been abused or damaged by careless handling or improper operation such as a train derailment, modification or repair by non-factory technicians. Parts that “wear out” due to excessive use are also not covered under warranty. USA Trains reserves the right to determine “excessive use”. Transportation costs incurred by the customer are not covered under this warranty.