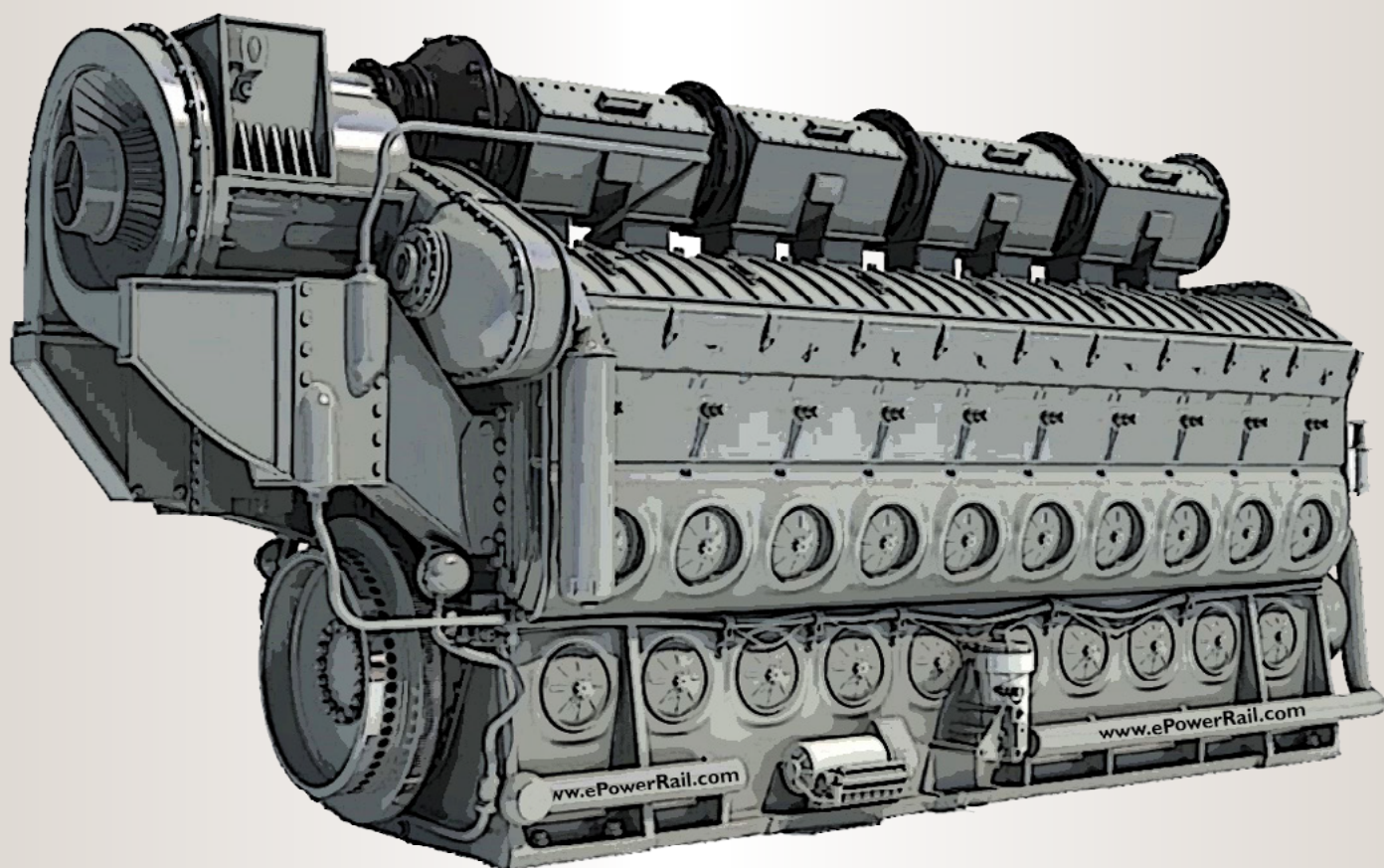


# POWERRAIL ENGINE SYSTEMS

CREATIVE INNOVATIONS...CONTINUING TRADITION



# ENGINES AND ENGINE COMPONENTS

**POWERRAIL**

205 Clark Road, Duryea, PA 18642 USA

Phone: 570.883.7005 • Fax: 570.883.7006

Sales@ePowerRail.com • [www.ePowerRail.com](http://www.ePowerRail.com)

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# MISSION STATEMENT

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*It is the objective of PowerRail, Inc. to provide Products and Services that meet our exemplary standards of Quality, Service, Delivery and Value...which consistently meets or exceeds our customers' expectations.*



## Disclaimer

PowerRail, Inc., together with its affiliates, Vendors/Partners (collectively "PowerRail") offers a wide range of aftermarket replacement parts for EMD and GE brand locomotives. PowerRail does not claim to be an authorized distributor nor does it claim to sell any Genuine OEM factory parts. PowerRail claims no proprietary rights to, or affiliation with, any third party trademarks or logos which may appear in any of PowerRail's marketing materials.



# **Engines and Engine Components from PowerRail Engine Systems**

**An overview of our most popular Engines, as  
well as Engine parts and components,  
supporting both EMD and GE-style locomotives.**

PowerRail Engine Systems is a full-service engine company, offering a complete line of new and remanufactured engines and engine components. Comprised of three new PowerRail facilities, PowerRail Engine Systems is proud to offer

- Rebuilt Engines
- Power Assemblies - New and UX
- Turbochargers - New and UX
- Governors - New and UX
- Water, fuel, and oil pumps - New and UX
- Engine-related components
- Tier 0+ Emission Kits

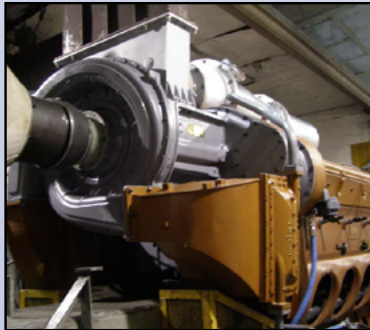
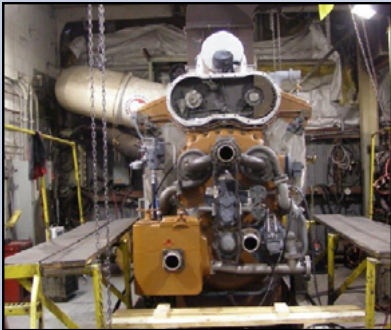
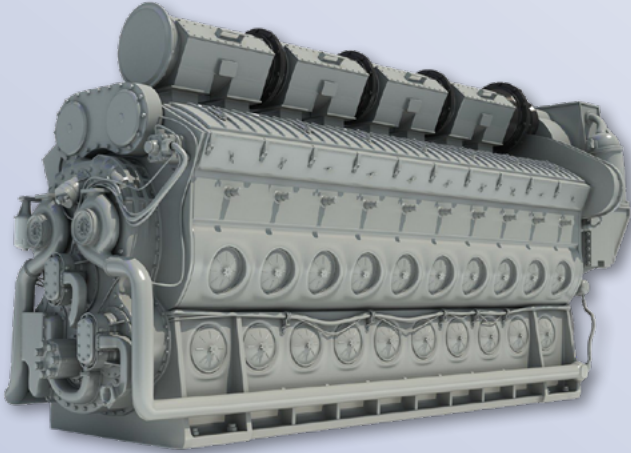


## Engines - Complete line of Quality Remanufactured Engines

PowerRail offers a complete line of Remanufactured Engines and Engine Components for the Rail Industry.

We offer a wide range of 567 - 645 - 710 and 7FDL Type Engines that can support most programs. Options include Unit Exchange, Remanufactured Outright, and Repair/Return.

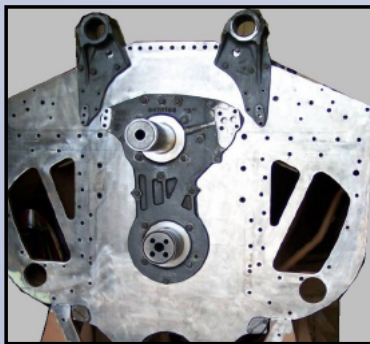
All Engines are mounted on a Dynamometer to ensure quality and reliability. Our shop is AAR M-1003 certified and the Quality and Experience of our staff has earned approvals by most Class I, Class II, Class III, and International Railroads.



All Engines are Dyno Tested in our Newly Upgraded 5,000HP EFI Capable Dynamometer to ensure Quality and Reliability



We also offer FULL Engine Service & Field Support, including Line Boring.



## Engine Kits - EPA Compliant Engine Kits

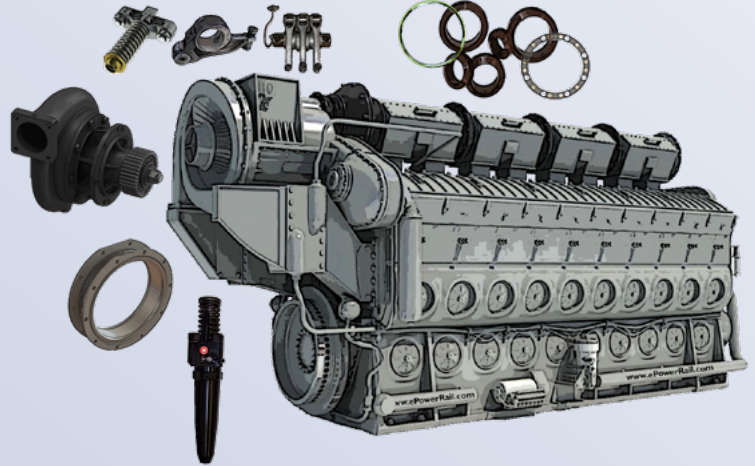
PowerRail proudly offers a complete line of EPA compliant Engine Kits, including:

- Level 2, Tier 0+ (1033 or 1042)
- Level 2, Tier 0+ (1033) 645E 12 Cylinder
- Level 2, Tier 0+ (1033) 645E 16 Cylinder

Level 2 Kits include everything needed for a Tier 0+ Engine Kit, (pumps, blowers, fuel injectors, gaskets, bearings, turbos, test valves, etc.)

Other Available Engine Kits include:

- Top Deck Overhaul Kits
- Main Engine Bearing Kits
- Engine Rebuild Gasket Kits



## Custom Inspection Kits

PowerRail proudly offers cost-efficient and time-saving custom Inspection Kits. Provide us with your maintenance schedule (92-day, 180-day, 360-day) and we'll have the Kits ready to ship when you need them.

- Assembled and tagged by customer's Road Number... easy ordering for you!
- Reduced inventory on your shelves
- No more picking and sorting to assemble kits onsite
- Reduced downtime with a more streamlined and efficient ordering process



Inspection Kits can include various consumables, such as:

- Carbon Brushes
- Filters
- Light Bulbs
- Wiper Blades
- Fuses (just to mention a few)

Your kit...your way!



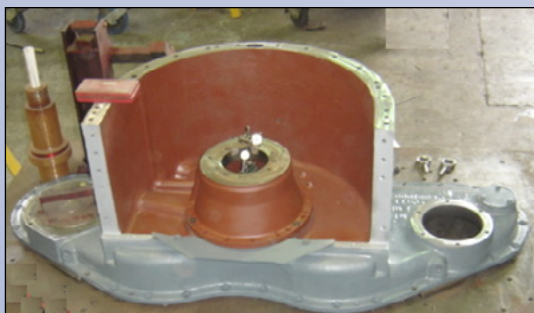
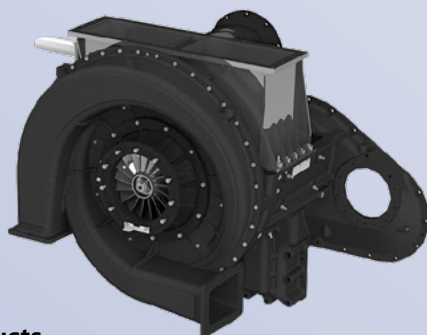
WWW.ePowerRail.Com™

**Turbochargers** - Complete line of New and UX EMD and GE Turbochargers, as well as EPA emission equivalent replacements.

PowerRail #	Description
E8296440 / E8333500	16cyl 567D3
E8358500 / E8368596	16cyl 645E3
E8410283 / E8413707	12cyl 645E3
E9338194 / E9339283	16cyl 645E3
E9511706 / E9524135	12cyl 645E3B
E9525597 / E40057108	16cyl 645E3B
E9543498 / E9576551	16cyl 645F3B
E9568355 / E40111762	16cyl 710G3
E40029631 / E40031530	16cyl 710G3A/B
E40053534 / E9568355	16cyl 710G3C
E40059071 / E40108870	16cyl 710G3C
G126X1869	Dash 9 Special Upgraded EFI
G126X1842	12cyl GE1412
G126X1691	16cyl 7S1616
G126X1716	16cyl 7S1616
G126X1819	16cyl 7S1616

EPA emission compliant equivalents available

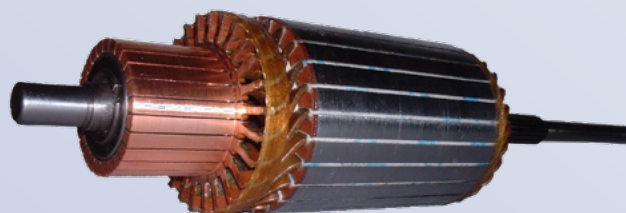
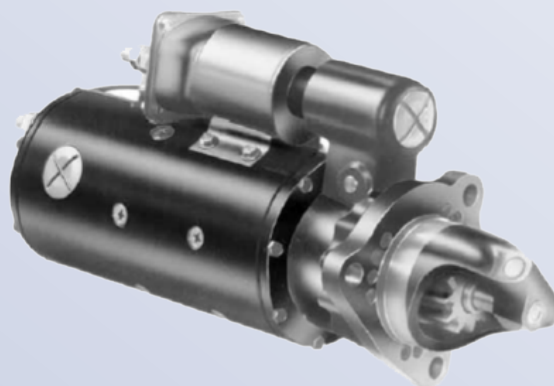
- Manufactured in-house
- Class I Approved
- AAR Quality Parts
- Experienced Staff
- Technical Support
- Competitive Price
- Full Line of Support Products



**Starter Motors** - Complete line of New and UX Starter Motors, including our Heavy Duty Auto Engine Start & Stop Starter

PowerRail #	Description
E8384834/E1990333	32 Volt Starter
E8384834/E1990333AESS	32 Volt AESS*
E8428605/E1993740	64 Volt Starter
E8428605/E1993740AESS	64 Volt AESS*
E10478827/E40069492AESS	32 Volt AESS SD70 Series
	*Also available as Unit Exchange

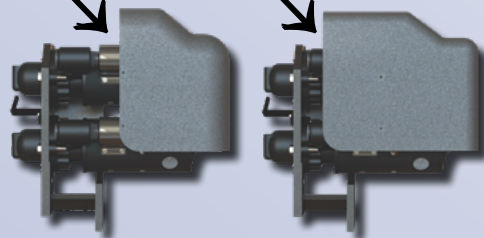
- Modified Single Brushholder Design
- Special Oversized Heavy Duty Brush replaces OEM 2 brush per box design
- Modified Heavy Duty Solenoid
- Modified Armature with increased Amperage Capacity and Heat Transfer



#### Enhanced PowerRail Designed Starter Shield

**E8387359**  
Original OEM design leaves Solenoid & Solenoid Boot exposed to oil, water, etc.

**E8387359PRD**  
NEW PRD design fully covers Solenoid and Solenoid Boot, restricting contamination.

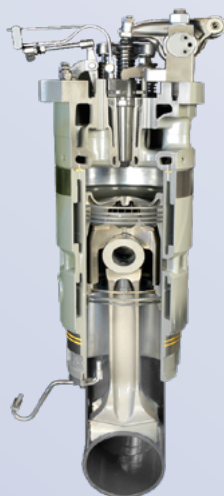


[www.ePowerRail.Com](http://www.ePowerRail.Com)<sup>TM</sup>



## Power Assemblies - Complete line of New and UX Power Assemblies & Related Components

Type	New	UX
567B	No	Yes
567BC	No	Yes
567C	Yes	Yes
567CE	Yes	Yes
645E	Yes	Yes
645E3	Yes	Yes
645E3B	Yes	Yes
645E3C	Yes	Yes
710	Yes	Yes



GE Style - 7FDL
G121X1240
G121X1244
G121X1250
G121X1254
G121X1260
G121X1264
G122X2601
G122X2610
G122X2611
G122X2650
G122X2651
G142X1070

- Machined & Assembled in USA
- Raw materials meet or exceed current OEM Specifications
- Proven Field Approvals with multiple OEM Builders, Class I, Regionals, Short Lines & Internationally
- Water jackets are thoroughly inspected via bore scope to ensure no debris or casting sand remains
- Over 39 checkpoints are measured and documented to ensure quality conformance
- State of the art casting techniques reduce porosity and maintain adequate coolant flow
- EPA emission compliant equivalents available

PowerRail P/N	Description	New	UX
E8415993	Liner Cast Iron 645	Yes	Yes
E9318833	Liner HUB 645	Yes	Yes
E9090233	Liner Chrome 645	Yes	Yes
E9546509/ E40014531	Liner HUB 710	Yes	Yes
E40060841	Fork Rod	Yes	Yes
E9544257	Blade Rod	Yes	Yes
E8367800	Carrier 645	Yes	Yes
E40006129	Piston Tin Plated HURG Roots	Yes	No
E40006130	Piston Tin Plated HURG 645E3	Yes	No
E40006131	Piston Tin Plated HURG 645E3B	Yes	No
E40033365	Ring Set CI Liner 645	Yes	No
E9323296	Ring Set Chrome 645	Yes	No
E8269842	Piston Pin 645E	Yes	Yes
E40078951	Piston Pin 645E3B	Yes	Yes
E8268641	Lower Liner Insert 645	Yes	No
E9316139	Lower Liner Insert Hi HP	Yes	No
E9583686	Power Assy Gasket Install Kit	Yes	No
G121X1306	Rotator Valve Cylinder	Yes	No
G142X1050	Piston	Yes	No
G142X1052	Piston Pin	Yes	No
G7FDL Style	Short Packs and Full	No	Yes

## Rocker Arms & Valve Bridges - Complete line of New and UX Rocker Arms & Valve Bridges for 567, 645, and 710 Engines



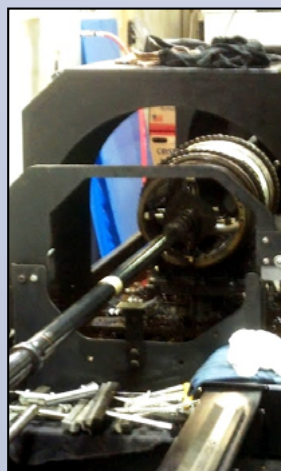
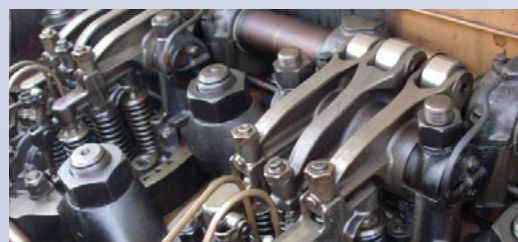
PowerRail #	Description
E9546230	Rocker Arm Assembly 710 Injector
E9546232	Rocker Arm Assembly 710 Exhaust
E9319504/ E9319504HH	Rocker Arm Assembly 645 Injector
E9319505/ E9319505HH	Rocker Arm Assembly 645 Exhaust
E40052184HH	Rocker Arm Assembly 645 Complete Set, Heavy



**Replacement Parts**  
E9571921 Bushing  
E9571597 Roller  
E8031925 Button Retaining Spring  
E8328695 Body only

E8085260	Valve Bridge Old Style
E40126370 / 40145929	Valve Bridge New Style

**Replacement Parts**  
E8054088 Bridge  
E8068791 Spring  
E8028126 Seat  
E8028136 Ring  
E8052307 Button  
E8085254 Lash Adjuster



Honing and  
Requalifying Liners



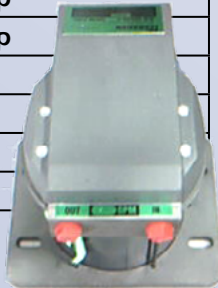
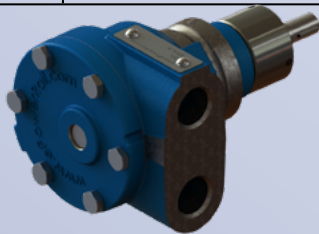
Machining and Requalifying  
Cylinder Heads



## Pumps - Complete line of New and UX Fuel, Oil and Water Pumps Utilizing Premium Parts and Components

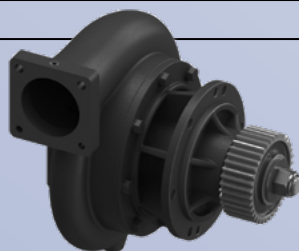
### FUEL PUMPS

PowerRail #	Description
E5540387	¼ HP DC Fuel Pump Motor
E4947308	¾ HP DC Fuel Pump Motor
E8296428	¼ HP DC Fuel Pump & Motor
E40042770	¾ HP DC Fuel Pump & Motor
E8498154	Soak Back Pump 1.7 GPM
E8152343	Soak Back Pump 1.7 GPM Assy w/ Motor
E8498155	Soak Back Pump 1.7 GPM
E8411403	Soak Back Pump 1.7 GPM with Motor
E8498156	Soak Back Pump 3 GPM
E8492180	Soak Back Pump 3 GPM Assy w/ Motor
E40009239	Soak Back Assembly ¾ HP 3 GPM
E8080284	Fuel Pump 4 GPM
E8422951	Fuel Pump 6 GPM
E8425609	Fuel Pump & Motor ¾ HP 6 GPM
E40042770	Fuel Pump & Motor ¾ HP 6 GPM
E40122943	AC 4GPM Transfer Pump
E40095692	AC 4GPM Transfer Pump
G132X1750	AC Transfer Pump
G123X1645	Fuel Pump
G132X1535	Fuel Pump
G149X1014	Fuel Pump



### WATER PUMPS

PowerRail #	Description
E9516925	Water Pump Left Hand Small
E9516924	Water Pump Right Hand Small
E9503461	Water Pump Left Hand Small
E8296348	Water Pump Right Hand Small
E9503461	Water Pump Left Hand Small
E9332825	Water Pump Left Hand Large
E9510677	Water Pump Right Hand Large
E40059826	Water Pump Right Hand
E40054890	Water Pump Left Hand
G125X1111	Water Pump



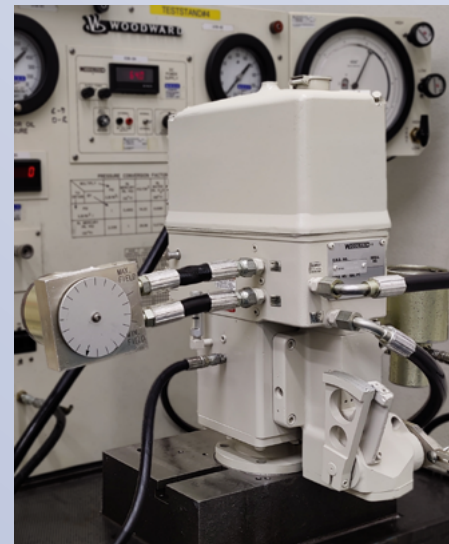
### OIL PUMPS

PowerRail #	Description
E8176033	Piston Cooling Pump
E8122947	Lube Oil / Piston Pressure
E8122949	Lube Oil / Piston Pressure
E8296366	Lube Oil / Piston Pressure
E40055149	Scavenging Oil Pump



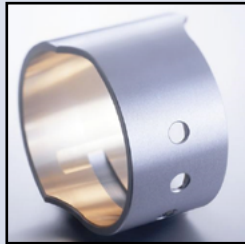
## Governors - Complete Line of New and UX Woodward Certified Governors

PowerRail #	Application
E40003898-UX	710G3, GP60/SD60
E40011851-UX	710G3, G3A, GP59, F59 (12-710G3A)
E40035516-UX	16-710 G3A (SD60)
E40043302-UX	16-645F3B
E8122755-UX	567B
E8122846-96-UX	567C
E9335713-UX	645E3, F40PH
E9551458-UX	645E3B, F40PH
E8424301-UX	12-645E, SW1000, SW1001
E8453388-UX	SW100, SW1001, SW1002, 12-645E
E8466183-UX	16-645E, GP38, SD38, SD38AC, SD38M, SD38-2, G18, G18B, GA18, G22
E8482396	8/12/16-645E Engines, SW1001, GP15-1, GP38, GP38AC, GP38-2, SD38, SD38AC, SD38-2
E8482413-UX	8/12/16-645, 8/12/16-645E, SW1001, GP15-1, GP38, GP38AC, GP38-2, SD38, SD38AC, SD38-2E
E8483536-UX	12/16/20-645E3, 16-645E3A, 8/12/16/20-645E3B, 8/12/16-645E3C, 12/16-645F3, and 8/12/16-645F3B, GP39, GP40, GP40-2, SD40, SD40-2
E9318853-UX	SW1500, MP15, 645E





## Bearings - Complete line of Engine Bearings



PowerRail #	Description
E8071176	Cam Bearing
E8136114	Connecting Rod Bearing Lower
E8354118	Connecting Rod Bearing Upper
E8452186	16 Cylinder Upper Main Kit
E8452210	16 Cylinder Lower Main Kit
E8455081	12 Cylinder Upper Main Kit
E8455083	12 Cylinder Lower Main Kit
E8455665	Rear Lower Main
E8455666	Front & Int. Lower Main
E8455667	Center Lower Main
E8455668	Center Lower Main
E8455844	Rear Upper Main
E8455850	Center Upper Main
E8455856	Center Upper Main
E8455862	Front & Int. Upper Main
G114X1150	Lower Grooveless
G114X1103-1	Upper Grooved Main
G116X1184EFI	Large Cam
G117X1045-2	Upper & Lower Connecting Rod
G117X1050-1	Grooveless Connecting Rod
G117X1070	Upper Grooveless Connecting Rod
G117X1075	Lower Grooveless Connecting Rod

## Cylinder Test Valves

PowerRail #	Description
E8048880PRD	Cylinder Test Valve
E40036607PRD	Cylinder Test Valve
E40017341	Cylinder Test Cock Seal
E8048880HANDLE	Cylinder Test Valve w/ T-Handle Design



- Class 1 Approved Design
- Solid One Piece Machined Nut in lieu of Welded Nut
- Designed for 567, 645 and 710 Series Engines
- Utilizes Standard 5/8" Socket, 6 or 12 Point



## Crankshafts, Camshafts, Stubshafts and Spacers

New and Reconditioned Crankshafts, Camshafts, Stubshafts and Spacers:

8 Cylinder 645 and 710 Series

12 Cylinder 645 and 710 Series

16 Cylinder 645 and 710 Series

20 Cylinder 645 and 710 Series

CRANKSHAFTS	
PowerRail #	Description
E9323404	8 Cyl. 645 Series Crankshaft
E9546459	8 Cyl. 645 Series Crankshaft
E9547357	12 Cyl. 645 Series Crankshaft
E8440167	12 Cyl. ABS 645 Series Crankshaft
E8034708	16 Cyl. 645 Series Crankshaft
E8482822	16 Cyl. 645 Series Crankshaft
E8440023	16 Cyl. ABS 645 Series Crankshaft
E8360783	20 Cyl. 645 Series Crankshaft
E40048625	12 Cyl. 710 Series Crankshaft
E40109969	16 Cyl. 710 Series Crankshaft
E9569292	16 Cyl. ABS 710 Series Crankshaft



CAMSHAFTS	
PowerRail #	Description
E8261194/E8419849/E40082058	16 Cyl. 645 Series Segment
E8419910/E8274790/E9502033	16 Cyl. 645 Series Assembly
E8419911/E8274791/E9502034	16 Cyl. 645 Series Assembly
E8433603/E40035571	20 Cyl. 645 Series Assembly
E8491992/E8274792	8 Cyl. 645 Series Assembly
E9318994/E9502035	12 Cyl. 645 Series Segment
E8261443/E9318995	12 Cyl. 645 Series Segment
E9318996/E8274797	12 Cyl. 645 Series Assembly
E9318997/E8274796	12 Cyl. 645 Series Assembly
E9319320	16 Cyl. 645 Series Segment





## Exhaust Products - Complete line of Exhaust Chambers and Expansion Joints



Chamber Assembly 16-645

- E9316231 Exhaust Front
- E9316232 Exhaust Intermediate Front
- E9316233 Exhaust Intermediate Rear
- E9316234 Exhaust Rear



- |             |                             |               |
|-------------|-----------------------------|---------------|
| E8408987    | Expansion Joint             | 10 Inch       |
| E8408985    | Expansion Joint             | 14 Inch       |
| E40026936   | High Heat ThermaSeal Gasket | 10 Inch       |
| E40026937   | High Heat ThermaSeal Gasket | 14 Inch       |
| E40055466   | High Heat ThermaSeal Gasket | Exhaust Stack |
| E8287827    | Bolt                        | Exhaust Stack |
| E8287827B14 | Bolt High Heat - 710 Engine | Exhaust Stack |
| E9338626    | Nut                         | Exhaust Stack |

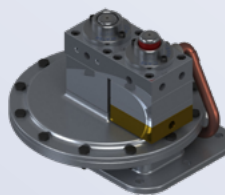


**THERMASEAL**

- Increased Thickness for INCREASED Bolt Retention
- Special Ceramic filled with proprietary material to increase working temperatures of approx. 2,000° F.



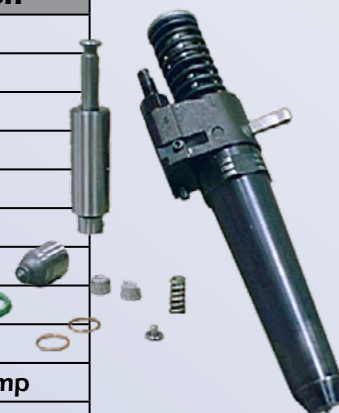
## Engine Protectors - Complete line of New and Remanufactured Engine Protectors



PowerRail #	Description
E9332828UX	Turbo Delta P
E8446372UX	Turbo Type P
E8474255UX	Roots Type P
E9506013UX	Roots Delta P
E8362040UX	Crankcase Monitor
E8370362UX	Crankcase Monitor

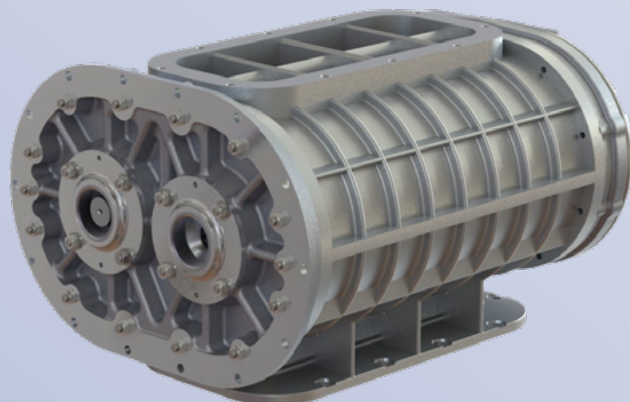
## Fuel Injectors - Complete line of New and Remanufactured Fuel Injectors

PowerRail #	Application
E9081163	567B/567BC
E8478048	567C
E9081164	567D
E8478045	645E
E8478046	645E3
E8478053	645E3B
E8478055	645E3B Eco
E9561950	645F3B
G123X1110-2	7FDL-Style
G132X1710	Bryce Single Pump
G132X1645	Bryce Double Pump
G132X1715	Bendix Single Pump
G132X1535	Bendix Double Pump



## Roots Blowers - Complete line of New and Remanufactured Roots Blowers

PowerRail #	Description
E8379666	NEW Roots - Right Hand
E8379667	NEW Roots - Left Hand
E8379666UX	UX Roots - Right Hand
E8379667UX	UX Roots - Left Hand



## Gaskets & Seals - Complete line of New Engine Gaskets and Seals

A complete line of High Performance premium OEM -style Gaskets and Seals. Our PS1 Line, our PS2 C-Swell™ Line for more demanding applications, and our our newest addition... The B-SureSeal™.

O-Rings, Marman Seals and related Engine Seals that offer exceptional reliability and STOP LEAKS!

PowerRail #	Description
E8479836PS1	Head to Liner Gasket
E8479836PS2	Head to Liner Gasket
E8291349	Inspection Cover Gasket
E8291349PRD	Inspection Cover Gasket - High Heat
E9087073PS1	Top Deck Cover Seal - 8 & 16 Cylinder
E9087074PS1	Top Deck Cover Seal - 12 Cylinder
E9581924PRD	Head Seat Ring
E8479542	Marman ½ Inch
E8479543	Marman ¾ Inch
E8479544	Marman 1 Inch
E8479598	Marman 1 ¼ In
E8479599	Marman 1 ½ In
E8479600	Marman 2 Inch
E8479601	Marman 2 ½ In
E8479602	Marman 3 Inch
E8479603	Marman 3 ½ In
E8479604	Marman 4 Inch
E8406231	Marman 6 Inch

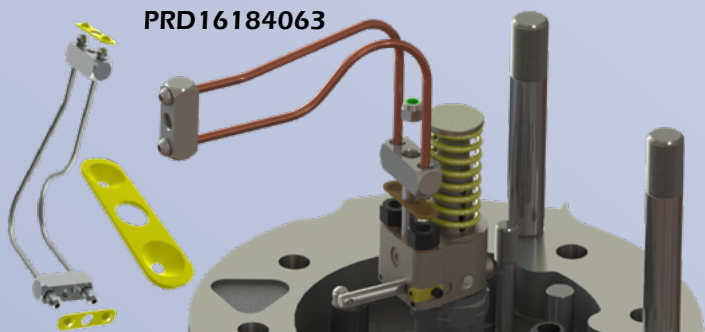


E8479836PS1 /  
E8479836PS2

Cylinder Head to Liner Gasket for  
567, 645 and 710 Engine Styles.

### B-SureSeal™ - Fuel Line Gasket

PRD16184063



- B-SureSeal™ material for both oil & fuel contamination
- Stop fuel leaks at the injector and manifold connections

## Gears - Complete line of New Engine Gears and Spring Drive Gears

PowerRail #	Description
E8483944	Drive Gear 58T
E8543203	Drive Gear 58T
E8483945	Drive Gear 58T
E8069019	Drive Gear 79T
E8360843	Drive Gear 79T
E8069014	Drive Gear 79T
E8360839 / E8141909	122 Accessory Drive Gear
E8416930	Starter Ring Gear 265T
E40051536	Starter Ring 265T
E8416930-PRD3PC	Starter Ring 265T 3 Piece



645 & 710 Spring Drives



PowerRail #	Description
E9515331	Spring Drive Gear High Capacity 16:8 to 1
E9515338	Spring Drive Gear Standard 18:1 ratio
E9538148	Spring Drive Gear Standard 18:1 ratio
E9538149	Spring Drive Gear High Capacity 16:8 to 1
E40001044	16cyl 710 Clutch UX
E40013863	16cyl 710 Clutch UX
E40028648	12cyl 710 Clutch
E40052862	20cyl 710 Clutch

This represents only a sampling of our most commonly sold Engine parts and components. If you require something not listed here, please contact your Sales Rep for more information or visit our website at [WWW.ePowerRail.Com](http://WWW.ePowerRail.Com)™



SCAN ME

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205 Clark Road  
Duryea, PA 18642  
Phone: 570-883-7005

Email: [Sales@ePowerRail.com](mailto:Sales@ePowerRail.com)



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