

## **PRODUCT BULLETIN**

PB NO.103 REV. 3

## SUBJECT: 8GTL Conversion Kits for White Superior 8GT-825 Engines

- PROBLEM: Are you experiencing problems with your older 8GT-825 engines such as detonation, piston and liner scuffing, premature wear, and unbalanced due to the control system?
- SOLUTION: If so, we suggest you join our list of satisfied customers by installing an 8GTL Conversion Kit during your next scheduled overhaul to reduce fuel consumption, maintenance costs and downtime.

Major improvements include:

1. Lower Compression Six Ring Pistons

The new 8.20:1 compression ratio reduces peak firing pressures by 20%. This reduces dynamic stresses on the cylinder block, crankshaft, bearings and other internal components.

In addition, the kit provides more stable operation and enhances engine tolerance for variations in fuel composition.

2. Fuel Supply System

The new larger diameter fuel header reduces pulsations and precision orifice plates at each cylinder head improves combustion stability and maintains balance of loading between cylinders.

The fuel metering valve is controlled by the governor to maintain speed regardless of load.

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## 3. Camshaft

The cam profile has been revised and material specifications improved to reduce wear. The timing has been changed to maximize time for fuel mixing to reduce fuel consumption by 6%.

Air flows are greater and the lower average peak firing compression pressure results in lower sensitivity to detonation.

4. Air/Fuel Control System

The new simplified system improves control of the air/fuel ratio throughout various speed and load ranges. Pneumatic or electrical controller positions a single air butterfly valve to maintain air manifold pressure in relationship to gas header pressure at all times.

Items included in the conversion kit are:

- 1. Pistons
- 2. Piston Rings
- 3. Piston Pin Snap Rings
- 4. Cylinder Head Gasket Kits
- 5. Camshaft Assembly or Re-Lobe Existing Camshaft
- 6. Gas manifold Assembly & mounting Elbows
- 7. Gas Orifice Plates
- 8. Gas Metering Valve & Control Shaft Gas Inlet Piping
- 9. Air Butterfly Housing with Fixed Deflectors
- 10. Single Air Butterfly and Air Actuating Cylinder Installed by **EnDyn**

- 11. Turbocharger Nozzle Ring
- 12. Air/Fuel Control Panel-Pneumatic or Electronic
- 13. Starting System with Start and Run Regulators (If Required)
- All Necessary Fittings, Hardware & Gaskets for Mounting
- 15. Assembly Drawing, Initial-Start-up Adjustments and Instructions and Operating Data

5. Upgrade Manual

**EnDyn** provides a user friendly upgrade kit manual to assist customers during the conversion, as well as detailed listings of the kit components.

Prior to your next overhaul, contact **EnDyn** or your local **Power**Parts<sup>®</sup> Distributor for a quotation on the complete kit and assistance in calculating your return on investment.

Company Name:	Plant Location:
Mailing Address:	Mailing Address:
Engine Model:	Serial Number:
Operating Speed Range:	RPM ToRPM
Engine Rating: BHP@RP	M Plant Elevation:
Ambient Temperature Extremes:	°F to°F
Fuel Gas Temperature:°F	Heating Value BTU/SCF
Governor Manufacturer:	Model:
Serial Number:	Designation:
Turbo Manufacturer:	Model:
Part Number:	Designation:
Starting System ( $$ ): Internal	External
Type and Model of Starter:	
Control System ( $$ ): Pneumatic	Electric
Manual Start	Auto Start
Air/Fuel Control Preference ( $$ ) Pnuematic	Electric
Ignition System Manufacturer:	Model
Type ( $$ ): Shielde	d Non-Shielded
Timing Control Pr	eference ( $$ ) Manual Auto
Cylinder Head P/N:	Camshaft P/N-
Intercooler P/N:	Jacket Water Pump P/N:
Oil Cooler Included with ( $$ ): Intercooler Water	System
Jacket Water System	
Air Manifold Temperature Controller $()$	Yes No
	Type & Model
Additional Information:	