

Clarkson University Winter Knights

2008 Clean Snowmobile Challenge



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Goals

- ◎ Main Goal:

- E85 Winter Blend Conversion

- ◎ Secondary Goals:

- Improve Emissions
 - Maintain Power
 - Cost Effective
 - Maintain Comfort and Handling

E85 Conversion

- Venom Adjustable Fuel Pressure Regulator
- Fuel line (Buna-N Hydraulic Line)
- Stainless steel & nickel coated brass fuel fittings
- Fuel Pump (Mallory 110FI)
- Fuel Filter



Emissions Reduction

- Clean integration of a catalytic converter into the muffler



Comfort Performance and Handling

- ◎ Selection of the Polaris FST Classic Snowmobile
 - Designed for comfort over long trail days
 - 750cc 4-stroke turbocharged Weber engine – 135 hp
- ◎ Implementation of E85 conversion and emission reduction without compromising stock comfort and performance
- ◎ Studs added to improve both performance and handling

Cost Effectiveness

- **Stock Snowmobile: \$9,199.00**
- **E85 Conversion Price: \$271.32**
- **Catalytic Converter Modification: \$100.99**
- **Miscellaneous: \$274.91**
- **Total: \$9856.94**

*Note: See MSRP for
specific calculations*

Conclusion

- A cost effective design that allows for E85 Winter Blend compatibility while maintaining comfort, performance, and handling, as well as reducing emissions.