

# Michigan Technological University

## Improvement of the Polaris FST Switchback:

*Staying Flexible for a Greener Tomorrow*

March 18, 2009

Rob Haack, Jake Johnson



# Key Features



Fit and Finish

Marketability

Performance

Noise Control

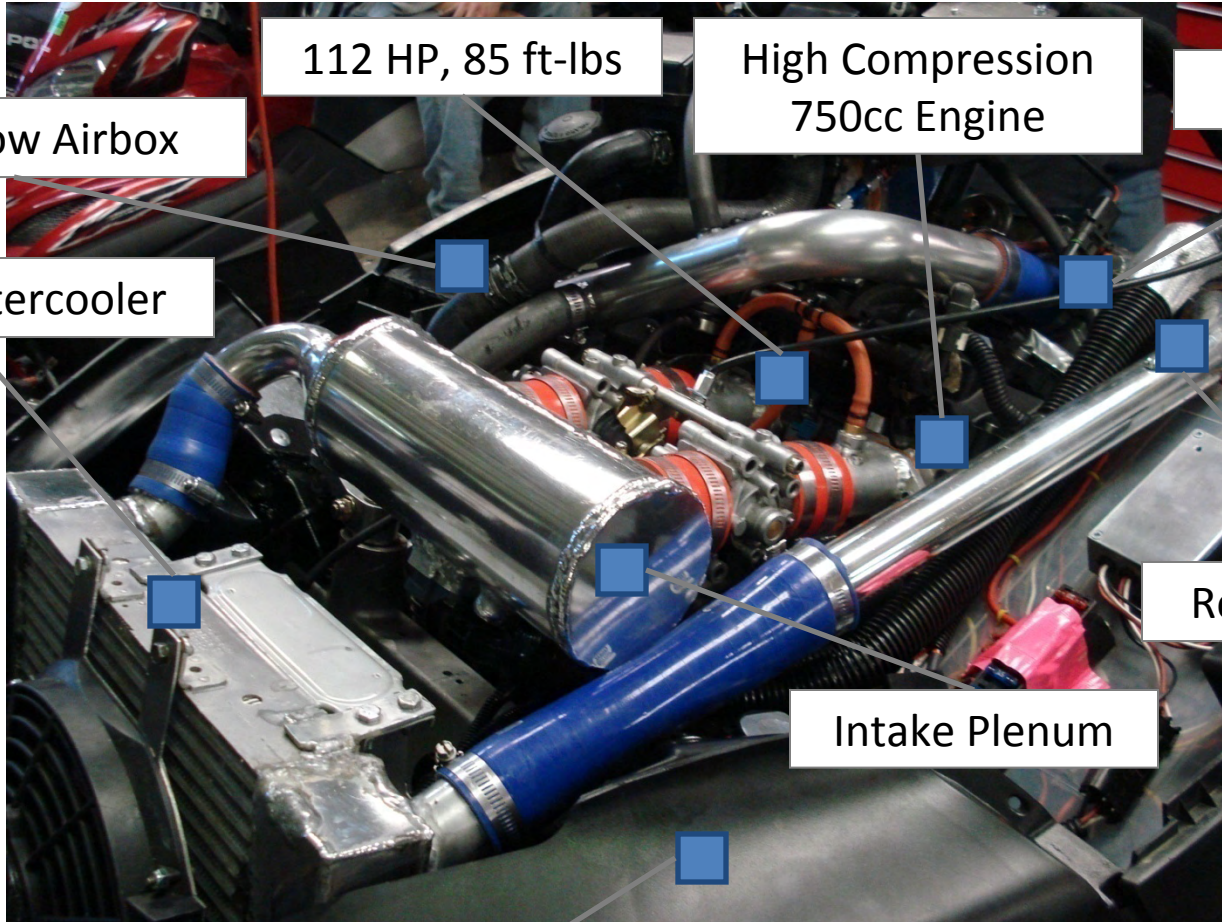
Environmental Impact



*Fueling Performance through Innovation*



# Performance



112 HP, 85 ft-lbs

High Compression  
750cc Engine

IHI-Turbocharger

High Flow Airbox

Air to Air Intercooler

Rear Exit Exhaust

Intake Plenum

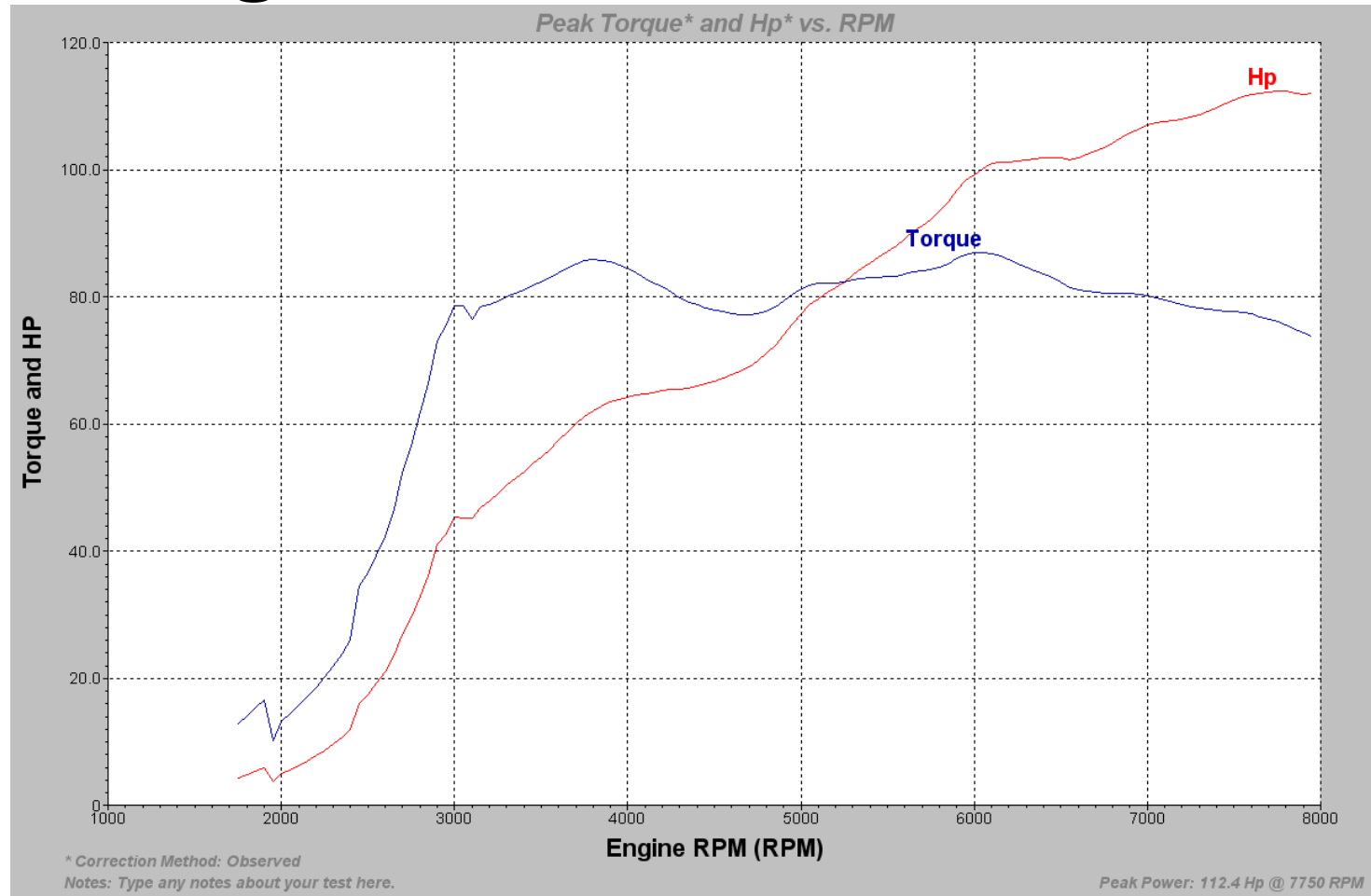
Suspension Systems



*Fueling Performance through Innovation*



# Engine Performance Curve

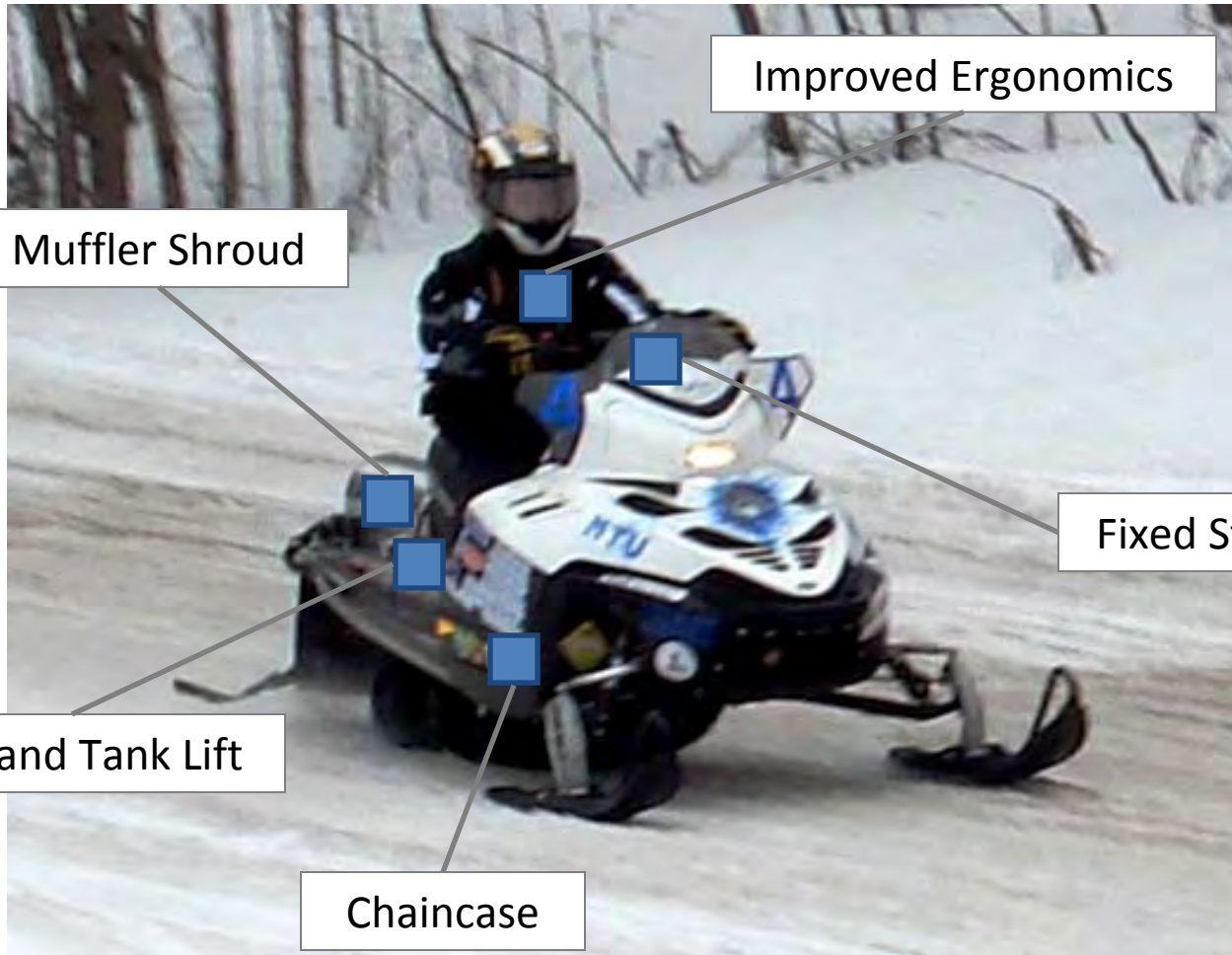


Fueling Performance through Innovation





# Fit and Finish



Muffler Shroud

Improved Ergonomics

Fixed Steering

Seat and Tank Lift

Chaincase



***Fueling Performance through Innovation***



# Market Value

2009 Polaris FST Switchback

Base Snowmobile MSRP

\$9,999

Non-Standard Options

\$1,071

MTU 2009 Estimated MSRP

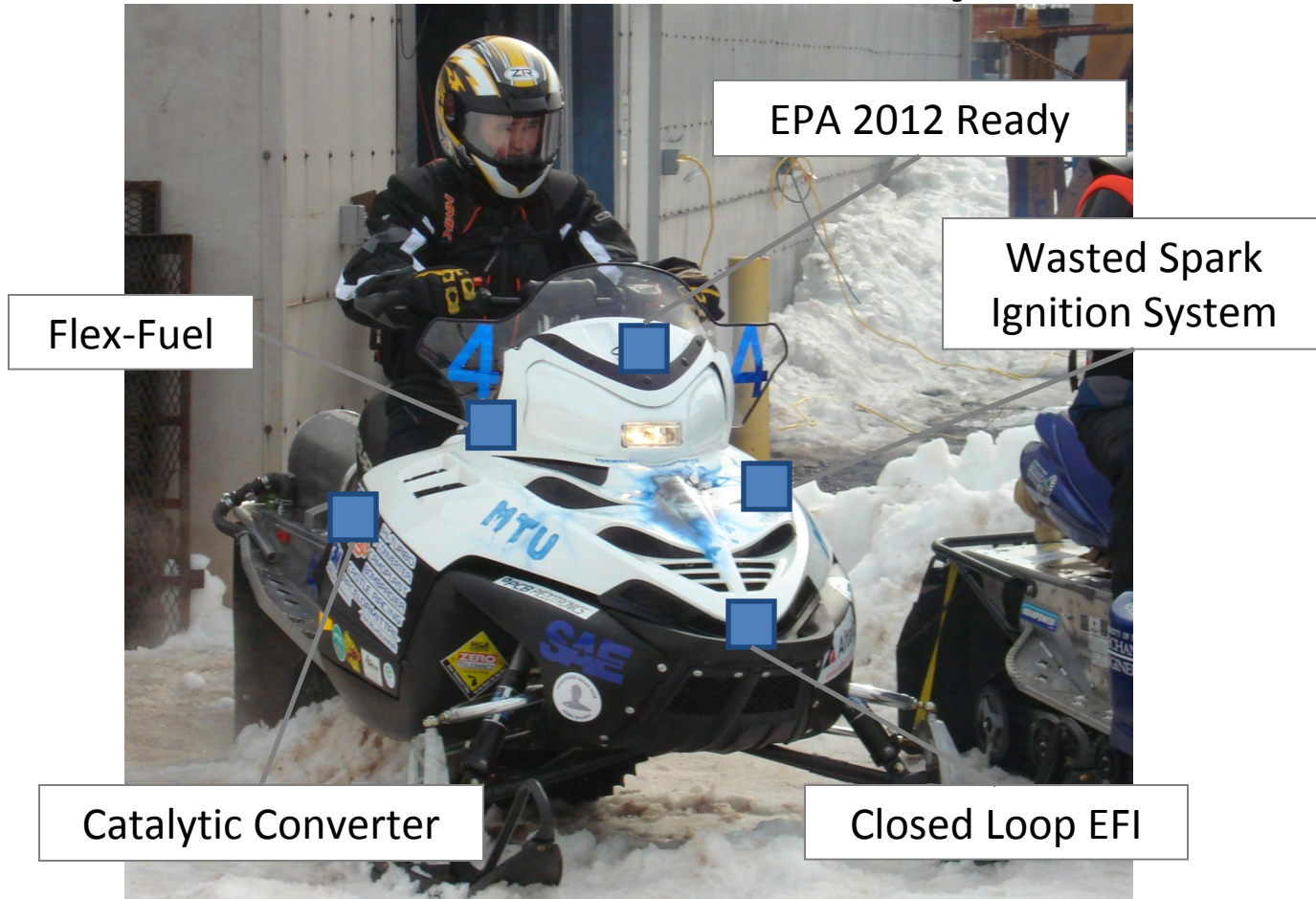
\$11,070



**Fueling Performance through Innovation**



# Environmental Impact

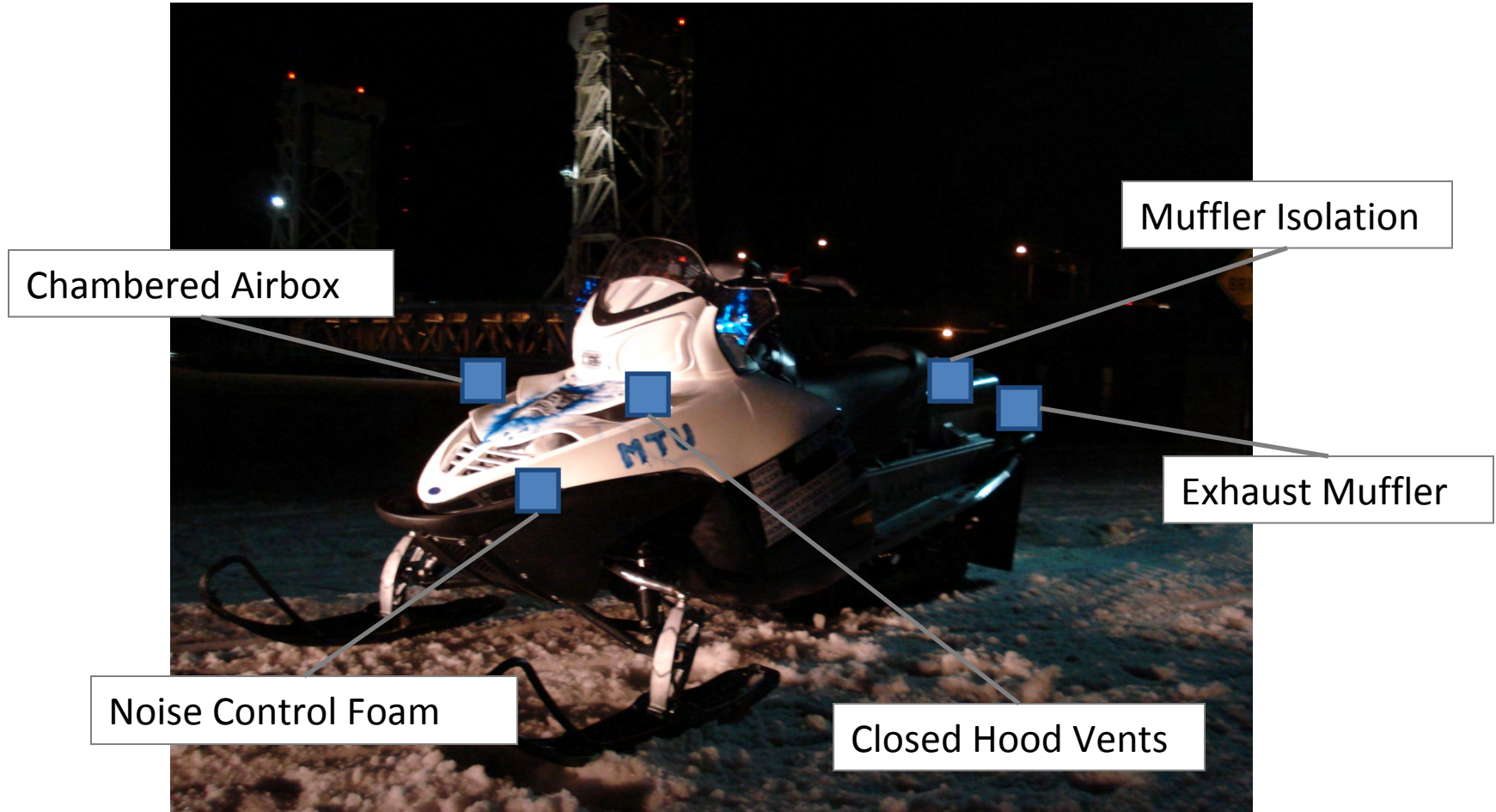


*Fueling Performance through Innovation*





# Noise Control

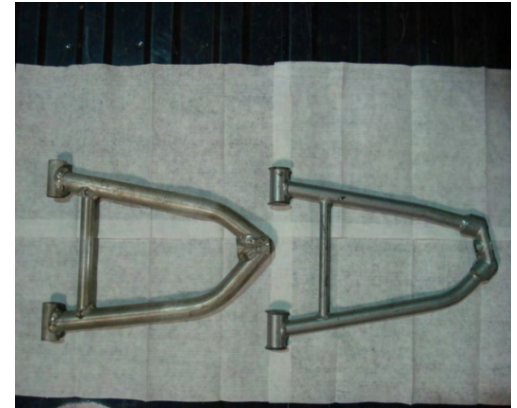
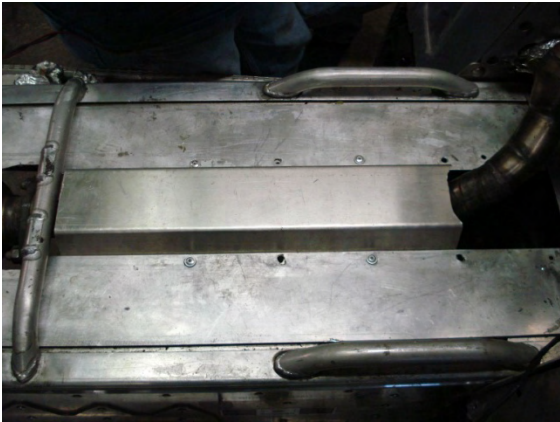
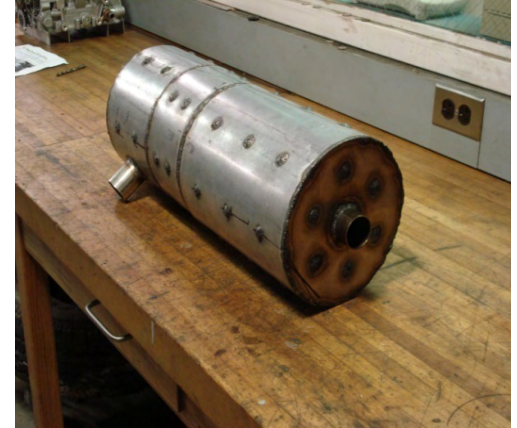
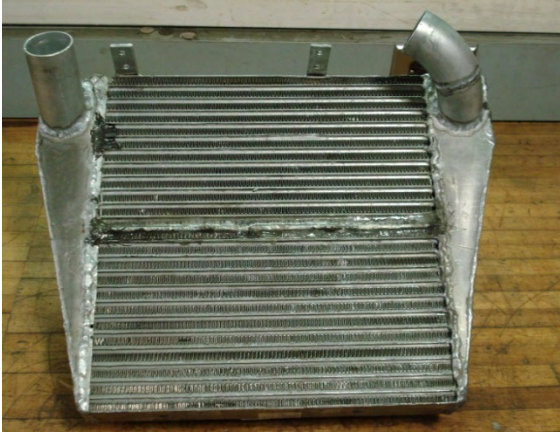


*Fueling Performance through Innovation*





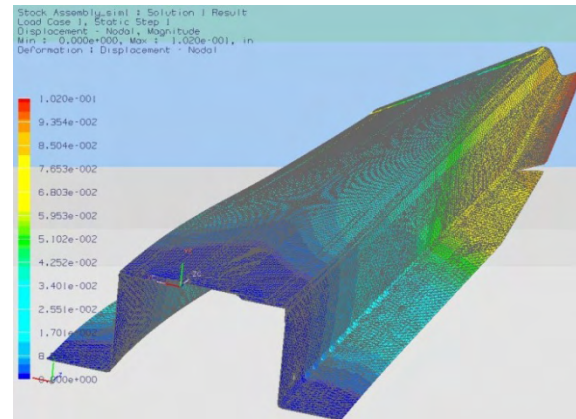
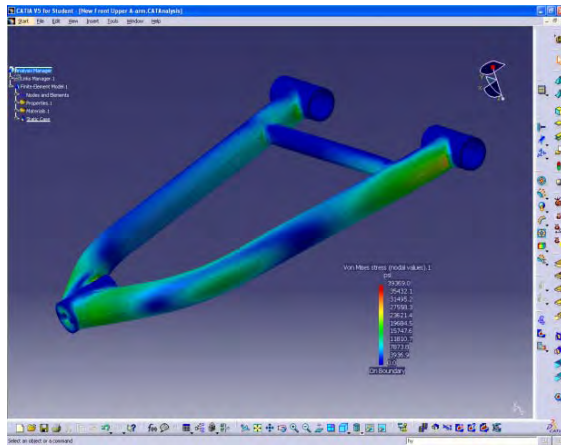
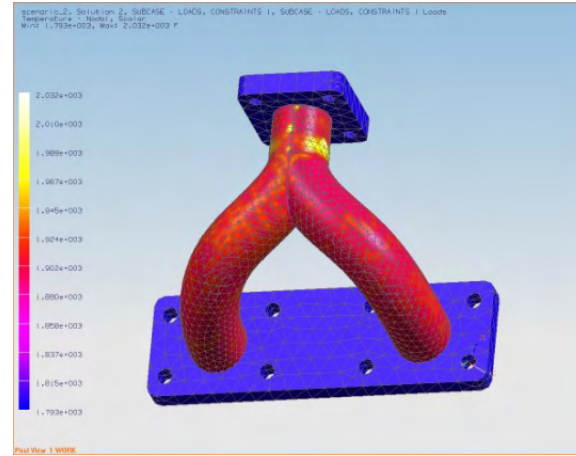
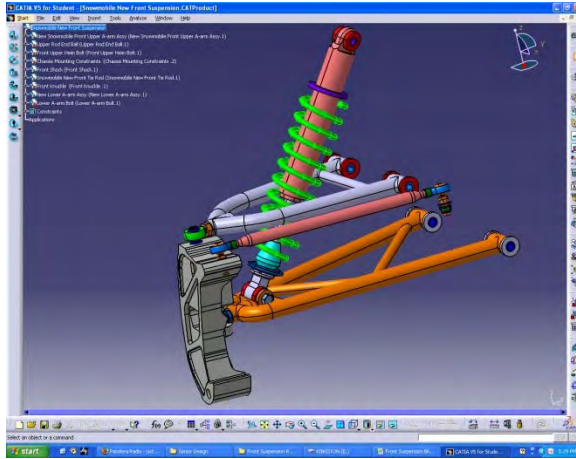
# Pictures



**Fueling Performance through Innovation**



# FEA



Fueling Performance through Innovation





# Conclusion

- Enhanced Performance
- Improved Fit and Finish
- Competitive Price
- Environmentally Friendly



*Fueling Performance through Innovation*





# -Questions-



*Michigan Tech*  
*Clean Snowmobile Team*