

MSU – MANKATO CSC 2008

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Introduction

- ❑ 2005 Arctic Cat F5 chassis with Sabercat 500cc engine
- ❑ Converted from carburetion to semi direct injection
- ❑ Use of an alternator for extra power demands
- ❑ Exhaust uses a catalyst with secondary air injection



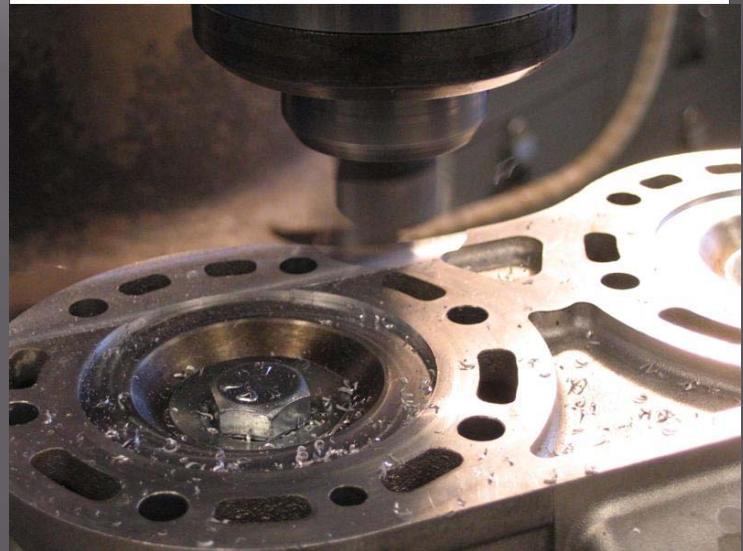
Appeal

- ❑ Stock seat and handle bar risers for comfort and ergonomics
- ❑ Camoplast ripsaw track for improved traction and handling
- ❑ Easy to start in any conditions
- ❑ Adjustable suspension



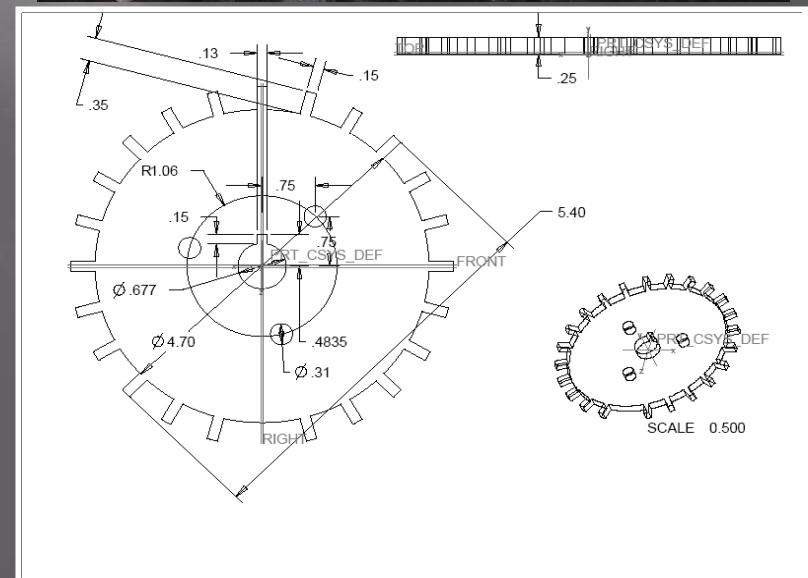
Performance

- ❑ SDI using 2 injectors per cylinder to cover full RPM range
- ❑ Milled cylinder head to raise compression and utilize the higher octane of E85
- ❑ Larger throttle bodies for more air
- ❑ Motec M48 engine controller



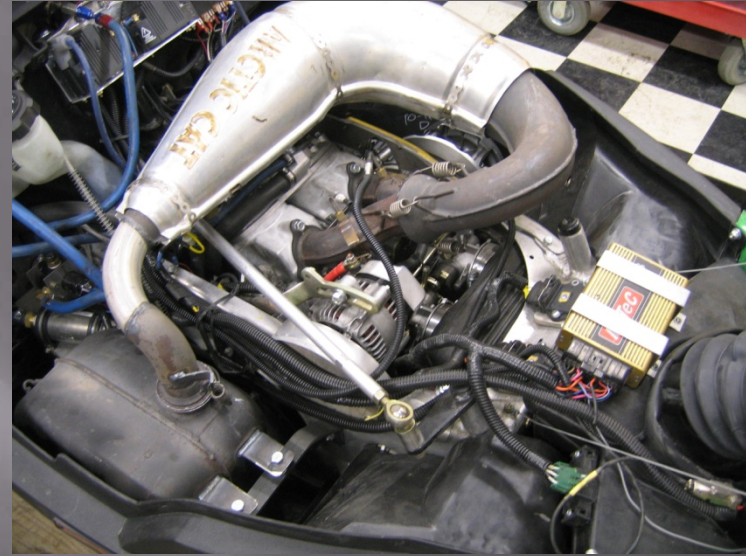
Performance

- ▣ Motec M48 engine controller
- ▣ 24 tooth crank trigger wheel used for crank speed & sync



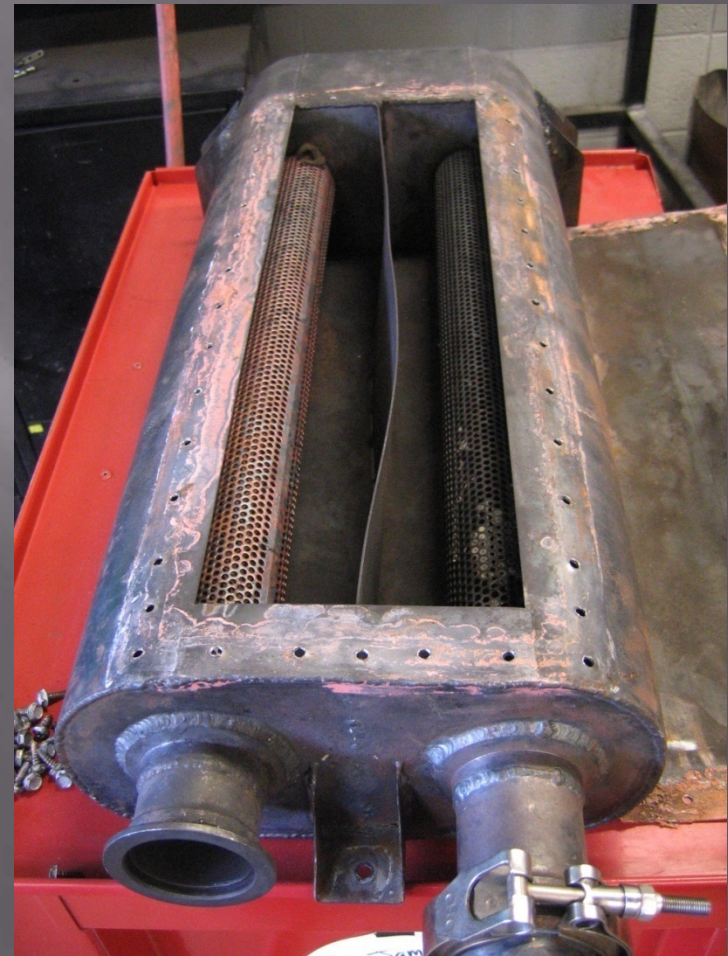
Electrical

- ▣ Denso 45 amp alternator to support power demands
- ▣ Odyssey dry cell battery
- ▣ Custom wiring harness for ease of install and diagnostics



Environmental

- ▣ Three way catalyst from heraeus
- ▣ Secondary air injection to help efficiency of catalyst
- ▣ Sound testing to determine best muffler design
- ▣ Secondary straight through absorption muffler



Cost

- ▣ Modifications added \$1500 to the cost of the stock sled
- ▣ Fuel economy numbers TBD

Durability/Maintenance

- ▣ Maintenance would be similar to other two-stroke sleds
- ▣ Alternator v-belt will require periodic replacement
- ▣ Other items are long-term wear and require only periodic inspection
- ▣ 2-stroke Arctic Cat APV full synthetic oil
- ▣ Alternator belt
- ▣ Drive belt
- ▣ Spark plugs
- ▣ Fuel filter
- ▣ Ski carbides
- ▣ Track (inspection)

Questions?