

SAE CSC2004 SNOWMOBILE DESCRIPTION FORM

Please fill out the following form and return it to Lori Witting before you leave the registration area. *Answer all questions about your snowmobile as it is actually competing (not as it was intended to compete).* Please answer all questions accurately, as the responses you supply will be used to summarize your entry in the SAE CSC2004 Summary Technical Paper.

Team Name and Number: University of Wisconsin – Madison #13

Engine

Engine Cycle (2-stroke, 4-stroke, rotary): 4 stroke

Engine Displacement (cc): 784 cc

Engine Manufacturer: Polaris

Engine Modifications: muffler, catalyst, evaporative emissions, hybrid drive

Compression Ratio: ~9:1

Turbocharged? Supercharged? None

Engine Management System: Bosch

Fuel Delivery (Carburetors, EFI, DI): EFI

Emission Control

Air/Fuel Ratio Chosen (lean, stoich?) Stoich

Catalyst? Type? 3-way platinum/rhodium

Secondary Air Injection? Yes, @ idle & full power, warm-up (hybrid computer control)

Exhaust Gas Recirculation? No

Other Stock – closed-loop O₂

Noise Control

Describe Strategy: special track-skirt, sound barrier around clutch & transfer case,

2 stage tuned muffler system, passive sound insulation head

Performance Maintenance

Describe Strategy: Engine oil, transercase oil, engine coolant, drive belt

Other Unique Features of Your Snowmobile

Describe Strategy: 50 volt hybrid-electric powertrain, Etek electric motor, Johnson controls

spiral wound batteries (4) SevCon motor controller

Special Measurements Needed for Acceleration Event

Inside Ski Stance: 37 inches **Outside Ski Stance:** 48 inches **Front Bumper Height:** 18 inches