

GFS Overview

- **Founded 2007**
- **Privately Held**
 - Owned by Management and Cargill Subsidiary
- **Growing Company**
- **New Factory Q3 2012**
- **Experienced Team - Long History of Natural Gas Conversions of High Horsepower Diesel Engines**



EVO MT[™] Systems



Current Product Line Up



EVO  **MT** Systems

EVO  **SP** Systems



EVO  **LT** Systems

EVO MT Technology & Benefits

- **Total Truck Solution**
- **Integrated On-Board LNG Supply**
- **Safety First Design**
- **No Loss of Truck Performance**
- **Ability to Operate on 100% Diesel**
- **Simple In-Field Retrofit**
- **Rapid ROI**

LNG Fuel Storage

Considerations

- **Lack of Available Real Estate**
- **LNG's Lower Energy Density**
- **Desire to Match the Diesel Refueling Cycle**
- **Tanks Must Be Cylindrical**
- **Auto Switching to 100% Diesel When LNG Is Exhausted**

Pod Design Considerations



Electronic Control Unit - ECU

- Proprietary Controller
- Built to OEM Quality Standards
- Remote GUI (Laptop)
- SAE J-1939 Compatible
- Remote Monitoring Capability
- Real-Time Fuel Rate Monitoring
- Pre-Alarm, Alarm & Gas Shutdown Modes
Will NOT Shut-Down Engine!



Operator Safety

- **Combustible Gas Detection**
- **Flame Detection**
- **Roll-Over Protection**
- **Collision Protection**
- **Driver E-Stop & Remote E-Stop**
- **Excess Gas Flow Protection**
- **Truck Over-Speed Protection**

Engine Protection

- **Flame Detection**
- **Combustible Gas Detection**
- **Exhaust Gas Temperature**
- **Manifold Air Pressure / Temperature**
- **Vibration (Knock) Detection**
- **Engine Over-Speed**
- **Engine Coolant Temperature**
- **Excess Diesel or Gas Flow Rates**

Conclusion

EVO **MT**[™] **Systems**

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LNG

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The Iron Range Mines

Conclusion

- **Significant Fuel Cost Savings for Mines**
- **Large LNG Consumption for Producers**
- **Opportunities for LNG Infrastructure Suppliers**
- **New Opportunities for Transporters**
- **Less Diesel – Better for the Environment**