



All the Might
Right on Site!

AIR
80 CFM

ELECTRIC
6,000 Watts

HYDRAULIC
10gpm circuit

CRANE
All Hydraulic



Compressed Natural Gas (CNG)
Sewer Treatment Truck / Large Meter Truck
for the City of Kansas City, MO



One Truck that does EVERYTHING
with one of the
Cleanest Engines on the PLANET!

- ◆ International 4300 Chassis
- ◆ enviroMECH CNG Tank Package
- ◆ ESI engine software & firmware
- ◆ Dakota Stainless Steel Body
- ◆ Auto Crane 5005H Crane
- ◆ HIPPO 5544P Multi Power Unit

International
enviroMECH
ESI
Dakota
Auto Crane
HIPPO
KCMO

www.diamondtrucks.com
www.emifuel.com/
www.emissionsolutionsinc.com
www.dakotabodies.com
www.autocrane.com
www.hippopower.us
www.kcmo.org





The City of Kansas City, MO has taken an innovative lead its effort to save money and "Go Green"!



By partnering with McKinney, TX based Emission Solutions, Inc (ESI), Fleet Administrator Sam Swearngin has placed the City of Kansas City, MO (KCMO) at the very forefront of the growing National effort to reduce both greenhouse emissions & petroleum consumption, a decision which has been good for the environment *and* for the pocketbook!

**All the Might
Right on Site!**

"These CNG engines are among the cleanest "On Road" engines of this class, on the planet", said Mr. Swearngin.

CNG, for the uninitiated, is short for **Compressed Natural Gas**. It's clean, it's cheap, and there's a whole bunch of it, right here in the USA!

The City of KCMO bought the trucks from Diamond International of Kansas City. The trucks rolled off the Navistar assembly line in Garland, TX (about 25-miles South of McKinney), and were shipped to Southwest International Trucks (SWIT), the local International dealer, also in McKinney.

The SWIT technicians, working with technicians from ESI, accomplished all of the "in-frame" work, which involved modifying the engine "under-hood" by removing all of the diesel components not needed on the CNG engine. This includes all the diesel particulate traps & filters, oxidation catalysts, exhaust gas recirculation, diesel engine ECU and wiring harnesses, head, and diesel exhaust system. These components were replaced with new pistons and rings, ECU, electronic throttle body, head, spark plugs and wires, wiring harness, fuel injectors and regulators, most of which is ESI's proprietary design.

The extensive diesel exhaust system is replaced with a simple 3-way catalytic converter for the CNG engine. Additionally, all of the internal engine components are cryogenically processed (cold-soaked for 12hrs at -320F in liquid Nitrogen) to improve engine durability.

The end result is a **4-valve/cylinder, CNG engine** that is **EPA 2010 certified**, and is very quiet and driver-friendly, with **diesel-like performance: 300HP, 900ft-lb torque!** The emission data are impressive as well: .18g/bhp-hr NOx and .01g/bhp-hr PM

Combined with the flexibility offered to them by the HIPPO 5544P, 4-in-1 multipower system, this truck is not just environmentally friendly, it's operationally efficient as well. **Crews have plenty of power to run ANY type of tool from the 5544P**, whether it's an air tool, an electric tool, or hydraulic tool, or they can run all three at once, and still run the crane too; a true 4-function unit!

Finally, this truck is built to last! It has to be, due to the severe nature where it will be deployed. This truck is one of (5) being delivered to the Sewer Treatment Dept, where, due to the nature of their job, there is an abundance of Hydrogen Sulfide (H₂S) gas. H₂S is very corrosive, and will turn a new body, regardless of protective coatings, into junk in about 5-years. That's why this entire body (manufactured by Dakota Bodies), from the understructure to the door panels, is made of **stainless steel!** The expectations are that this truck will last the City anywhere from 10-15 years, making this a great investment for the City by every measure!

HIPPO Multipower Systems

Manufactured & Installed by Mobile Hydraulic Equipment Co
1544 Howell Street — North Kansas City, MO 64116
Toll Free# (800) 844-0624
www.hippopower.us