



METPELA
EXHAUST SYSTEMS



We care for air.



December 28, 2011

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Dear David,

This is Diesel Particulate Filter quote for your front wheel loader used for by the City of Columbus (see figure 1) for composting. As requested, I have provided the dual filter option based on the desired regeneration interval of ten hours, see table 1.

Based upon the engine specification engine provided in table 2, we anticipated the 1999 Volvo engine has an EPA family # XVSXL09.6CE1 and a corresponding particulate matter emission rate of 0.13 g/kw-hr. Depending upon engine condition and duty cycle the run time between regenerations is approximately 10 hours for the MK400 system. The MK400 is a dual filter system, see figure 2.

The MK DPF system, see figure 3, is a non-catalyzed Silicon Carbide (SiC) filter that is CARB verified Level 3 device (+85% pm reduction). DPF regeneration is performed when the engine is turned off and the operator pushes a start button on the system controller. A burner (on the filter) creates the necessary heat to turn the soot to ash. Typically, the filter needs burner cleaning and de-ashing between 500-1000 hrs of engine operation depending on fuel type and operating conditions. The typical annual maintenance cost is \$500-\$600.

In regards to installation and servicing; HUSS will install the system with assistance from the City with tooling and equipment. During the installation timeframe, HUSS will provide on-site training for preventive maintenance and troubleshooting to City maintenance personnel. This will allow the City to facilitate minimum downtime. HUSS will support the City with warranty parts and provide the ability to purchase maintenance parts as needed.

Best regards,

Dan Chadd

HUSS Technologies
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e-mail: dan.chadd@hussfilters.com

cc D. Chadd
S. Revek
C. Bayer

Sitz: Nürnberg (HRB 20701)

Geschäftsführer:
Dr. Thomas Rahn,
Dr. Hans-Jörg Rembor,
Claus Holdschuh



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DPF system ⁽¹⁾	Interval	System Price	Installation
MK 400 (dual filters)	10 hrs	\$30,000	\$2,000
1. 24 volt electrical system, EPA family XVSSL09.6CE1, 9.6L, 251 hp, pm 0.13 g/kw-hr 2. Approximate time interval between DPF regenerations 3. Includes DPF system with controller, electrical harness, standard mounting brackets 4. MK 400 dual filter, approximately 2-3 days to install, includes travel and lodging. 5. The City agrees to supply tooling and equipment assistance to facilitate installation			

Table 1 – DPF Pricing

Category	Information
Manufacturer	Volvo
Model	L150
Engine make	Volvo
Engine model	TD103KCE
Horse power	251 hp
part number	8188141
serial number	311330
Fuel type	B20

Table 2 – Volvo Front Wheel Loader Specifications

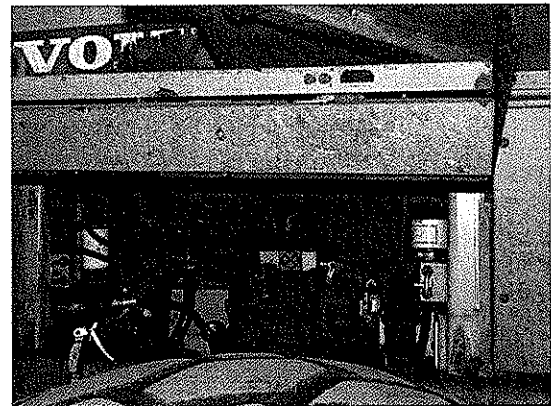
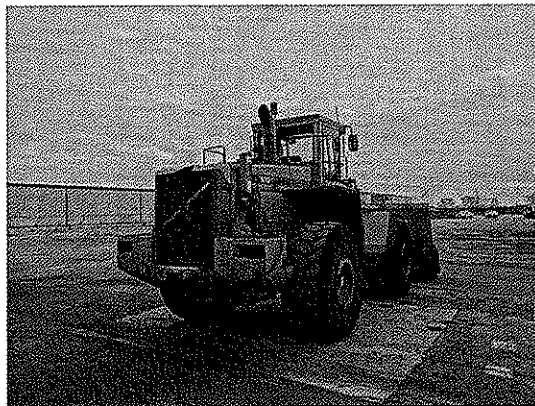


Figure 1 – Volvo Front Wheel Loader at City of Columbus

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Figure 2 – Similar Volvo Application (shown with an MK400 DPF)

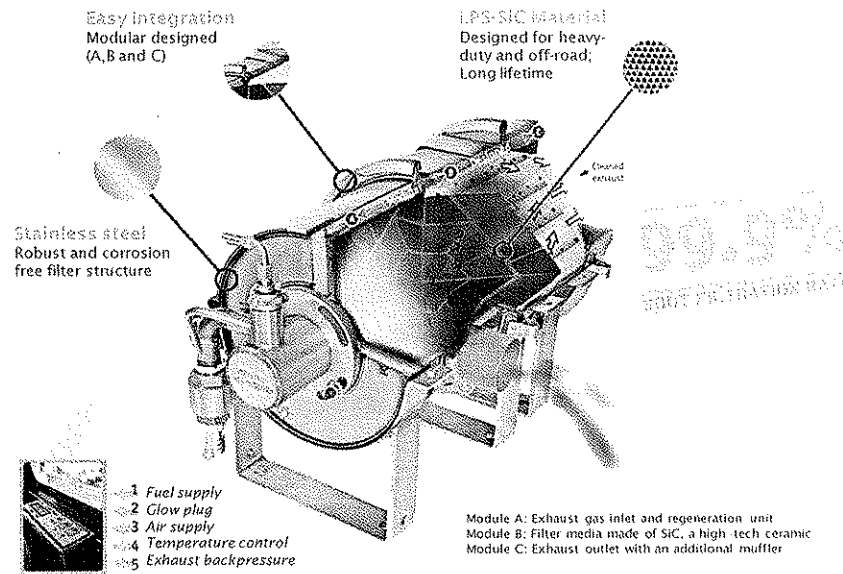


Figure 3 - Similar MK Filter System

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