



Large Engine Division



The Hilliard Corporation



Product Excellence Through
Engineering and Research

Since 1905



Eliminate Crankcase Emissions*

DON'T RISK FAILURE!

USE CATERPILLAR® SPECIFIED EQUIPMENT

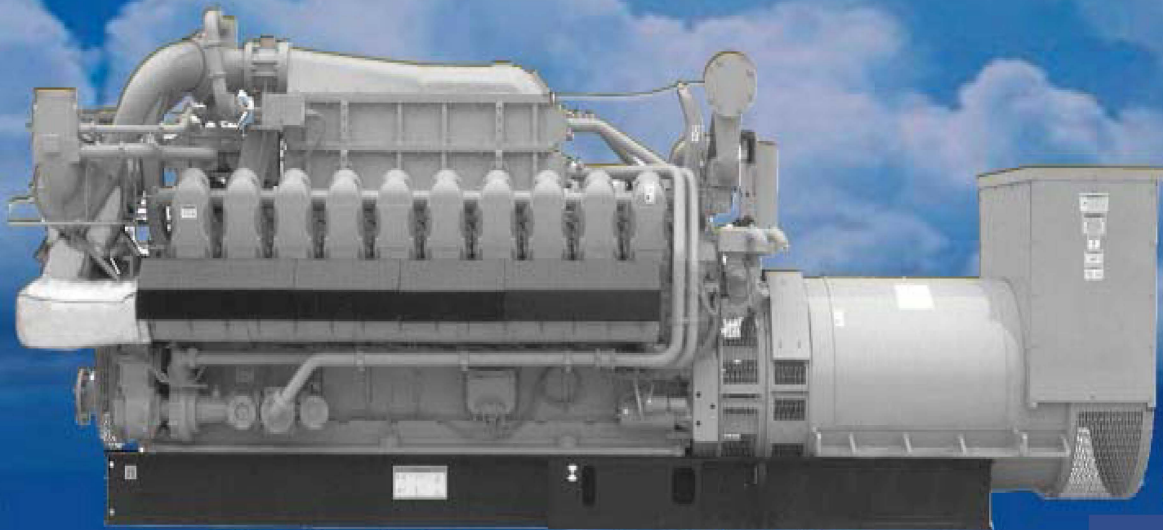
***99.97% EFFICIENT AT 3 µm and BELOW**

4500 + HOUR CARTRIDGE-CHANGE INTERVALS

SPECIFIED ON

CATERPILLAR® 3516 & 3520 ENGINES

Power Modules, Portable Power Units & Tandem Engines



CAT® and Caterpillar® are registered trademarks of Caterpillar Inc.



The Hilliard Corporation

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Elmira, NY 14902

Ph: 607-733-7121 Ext 360

<http://www.hilliardcorp.com>



Hilliard
HILCO® DIVISION

CATERPILLAR Engines Currently Specified Fumes Disposal Systems

- ▲ G3512B/C/E/L
- ▲ C3516B/C/E/L
- ▲ G3516B/C/E/L
- ▲ G3606B/C/E/L
- ▲ G3520C (HE)
- ▲ G3520/C/E
- ▲ G3606C
- ▲ G3608
- ▲ G3612C
- ▲ G3616C
- ▲ Tandem Engines
- ▲ Portable Power Systems
- ▲ Power Modules
- ▲ G16CM34 (MAK)
- ▲ G16CM43 (MAK)
- ▲ G16VM34 (MAK)
- ▲ G16VC43 (MAK)



HILCO[®] Vent Mist Eliminator

- ▲ Specified by Caterpillar Inc.
- ▲ Unmatched efficiency
- ▲ Only Fumes Disposal System Specified for 3500-3600 Engine use.
- ▲ Over 5000 Test hours in Mossville (99.97% Efficient).
- ▲ Approximate 400 units installed on Caterpillar Engines in the field.
- ▲ Gas and Diesel Experience
- ▲ Exceeds 2007 EPA Tier Four Emissions Standard



Blower Assisted Models

- ▲ Required where no back pressure on an oil system is allowable
- ▲ Required where a vacuum on an oil system is desired
- ▲ Can be used as a vapor extractor and mist eliminator in one
- ▲ Explosion proof, and TEFC enclosed motors
- ▲ ATEX Available
- ▲ Guaranteed no visible plume & less than 3 ppm oil carry over.
- ▲ Single and Dual blower arrangements available



CATOME-30821208

- ▲ G3456 B/C/E/L
- ▲ G3512 B/C/E/L
- ▲ G3516 B/C/E/L
- ▲ G3606 B/C/E/L
- ▲ Power Modules
- ▲ Portable Power Systems

CATOME-30821103

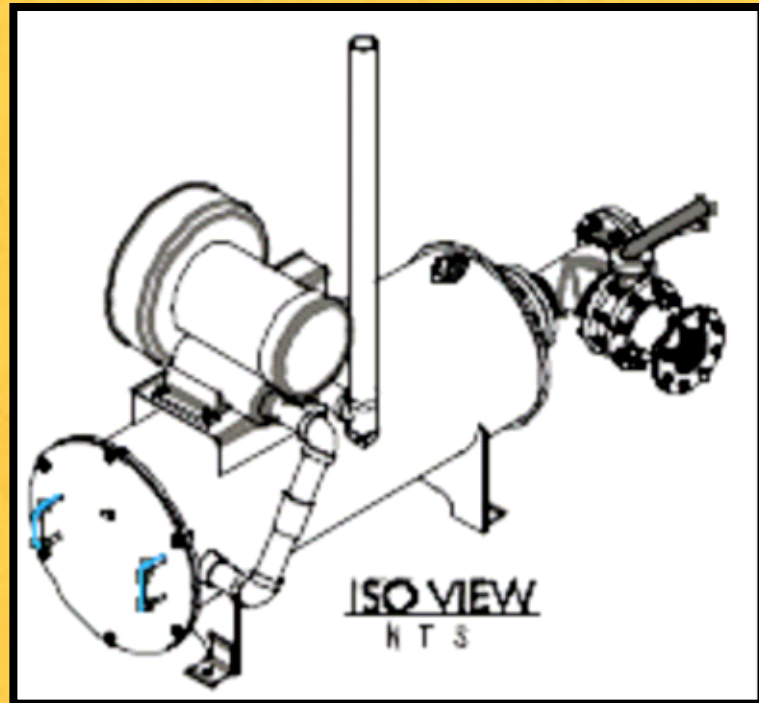
- ▲ G3520 C/E/L
- ▲ Tandem Engines (3516)
- ▲ G3608
- ▲ G3612 C/E
- ▲ G3616 B/C
- ▲ Power Modules (3520C)



CATOME-30821174

MAK Engine Line

- ▲ 16CM43
- ▲ 16CM34
- ▲ 16VM43
- ▲ 16VM34



Demister Cartridge

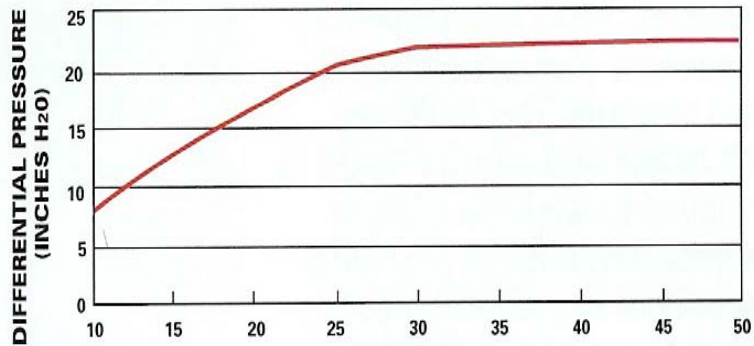
- ▲ **Depth style media**
- ▲ **Polypropylene coalescing media (Fiberglass Core)**
- ▲ ***99.97% efficient at .3 micron and below***
- ▲ **Durable design**
- ▲ **Less than 3 Micron Oil carry-over. Testing indicates less than 1/2PPM after 5000 hr. test.**
- ▲ **Low Pressure Drop.**
- ▲ **Cartridge becomes more efficient over time.**
- ▲ **Returns clean / reusable oil.**
- ▲ **Protect turbo-charger and clean air filters (when installed in a closed loop).**



Pressure vs Air Curves

PRESSURE VS AIR FLOW

DM620-00-C



AIR FLOW (ACFM)

@ 110 F

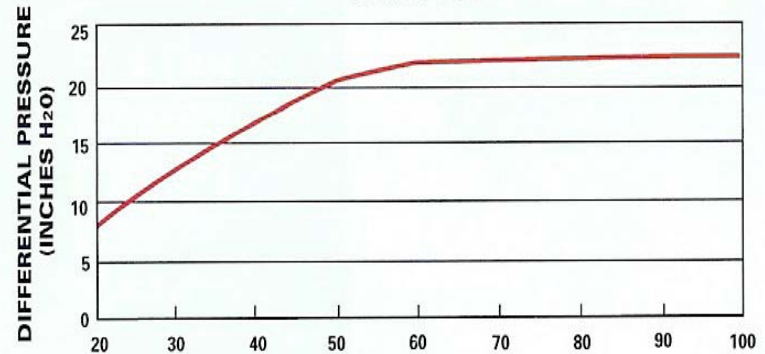
Efficiency > 99.9%

Avg. influent oil content = 5,130 MG/M³

Guaranteed effluent oil content < 5 PPM

PRESSURE VS AIR FLOW

DM639-00-C



AIR FLOW (ACFM)

@ 110 F

Efficiency > 99.9%

Avg. influent oil content = 5,130 MG/M³

Guaranteed effluent oil content < 5 PPM



Demister Housing

- ▲ **Carbon Steel Construction**
- ▲ **Epoxy Coat Paint with rust preventative undercoat (Caterpillar Component GREY)**
- ▲ **Mounting Bracket**
- ▲ **Removable Cover for change out**
- ▲ **Small, Compact design**
- ▲ **Drain Line Connection to crankcase return**
- ▲ **Threaded or Flanged Connections available**
- ▲ **Regulating Valve available**
- ▲ **15 psi Design Pressure**
- ▲ **185 Degrees Design Temperature**



Piping

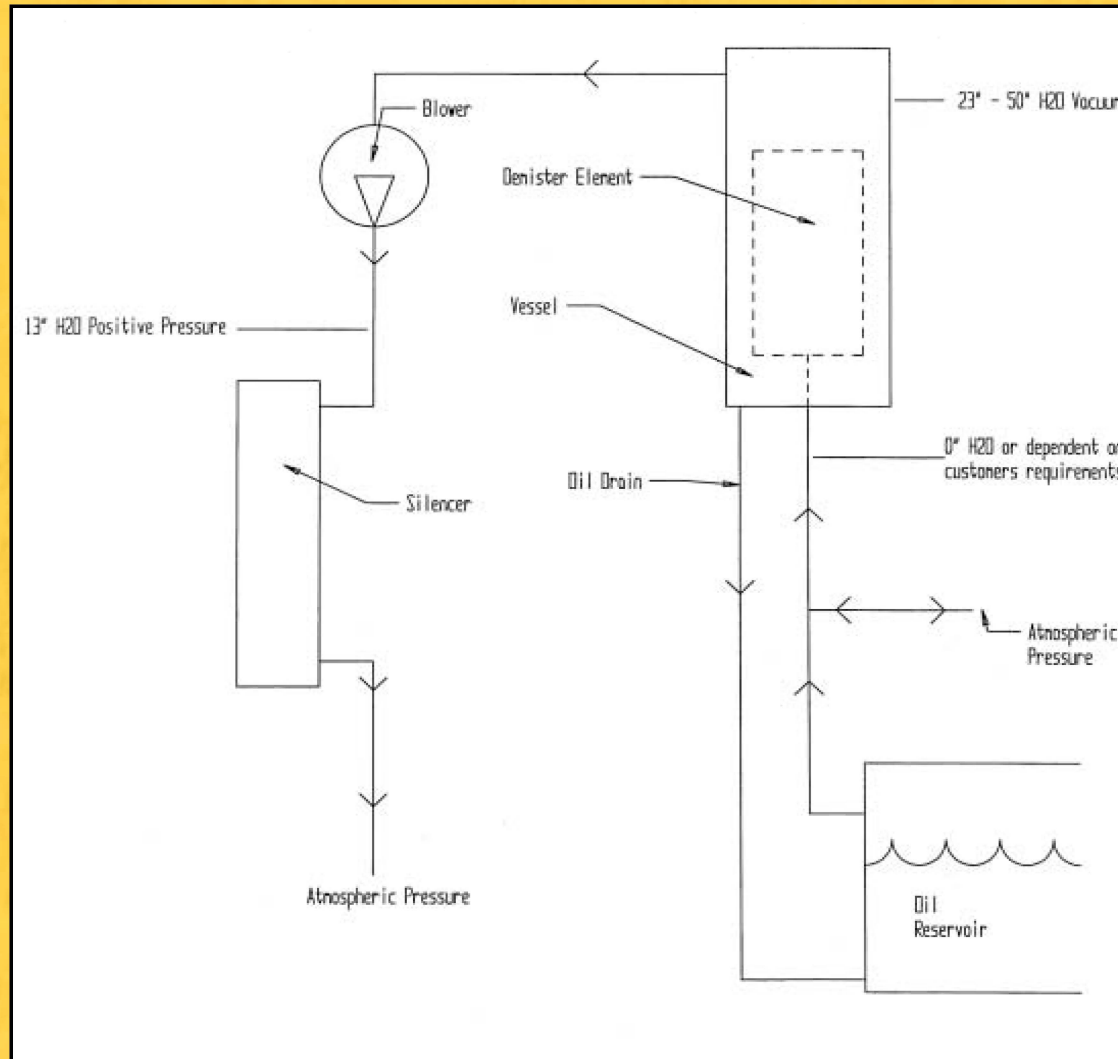
Configurations/Installation

▲ **Closed Loop-** This is the most common method of piping the Fumes Disposal System, as the outlet pipe is returned back to suction side or inlet to the turbo-charger clean air filters. Caterpillar suggested method. OEM applied.

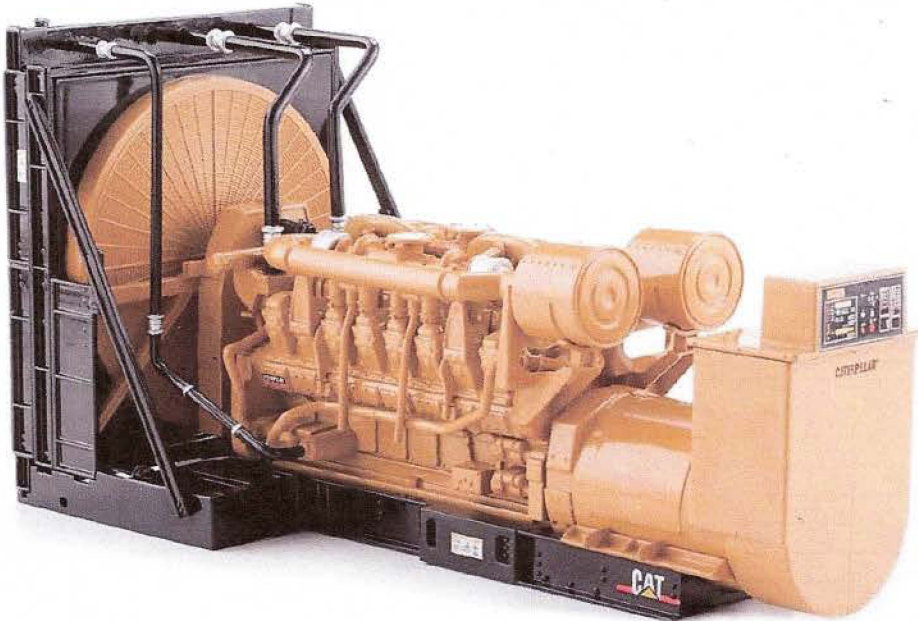
▲ **Open Loop-** This method for the outlet pipe of the Fumes Disposal System to be open to atmosphere or piped outside of the engine enclosure. A popular method for engines operating from Methane or Landfill Gas.



Flow/Pressure Schematic



Mist Eliminator For Caterpillar 3516 Diesel Portable Power Modules



Caterpillar 3516B Diesel Generator

Caterpillar's Griffin, Georgia location is dedicated entirely to packaging gas and diesel engine driven generators into enclosures creating "power modules". Often, diesel generators are packaged into trailer trucks for portable rental units. As a result of the space constraint, Caterpillar was seeking a compact, low pressure loss, high efficiency mist eliminator which could handle crankcase blow by from their 3516 diesel generator. The HILCO CATOME mist eliminator was designed according to these specific criteria.

HILCO CATOME-30820032

- Approved by Caterpillar on March 3, 2008
- Recovers approximately 3 quarts of oil/day
(That otherwise would be released to atmosphere)



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CATERPILLAR ENGINES CURRENTLY SPECIFIED

- G3512B/C/E/L
- C3516B/C/E/L
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- G16VC43 (MAK)



Installation / Operation Manual

HILCO GP-Fumes Disposal Systems

MODEL: CATOME-30821208/1103

▲ INSTALLATION:

- ▲ 1-1 Install mist eliminator with the cover facing up.
- ▲ 1-2 Remove the cover and install the coalescing element.
- ▲ 1-3 Replace the cover and tighten securely.
- ▲ 1-4 Inlet of mist eliminator to crankcase vent line from crankcase.
- ▲ 1-5 Outlet of mist eliminator to suction side of turbo-charger.
- ▲ 1-6 Drain line to crankcase, below consistent oil level.

▲ SERVICING:

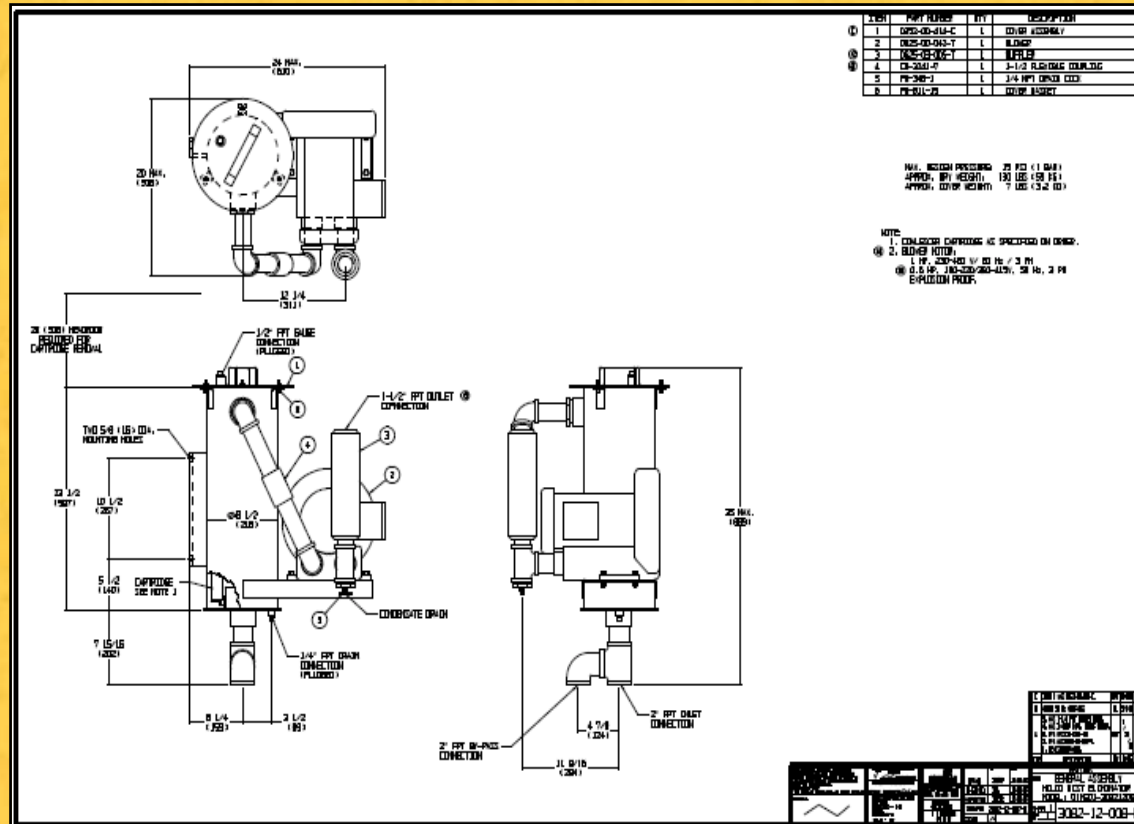
- ▲ 2-1 Replace the demister element when a differential pressure of thirty five inches of water is obtained or every year, whichever occurs first.



HILCO GP-Fumes Disposal CATOME-30821208 Caterpillar Part #191-2303

Efficiency :
99.97% Removal

Less than 3PPM
Oil Carry-Over



CATOME-30821208

PARTS

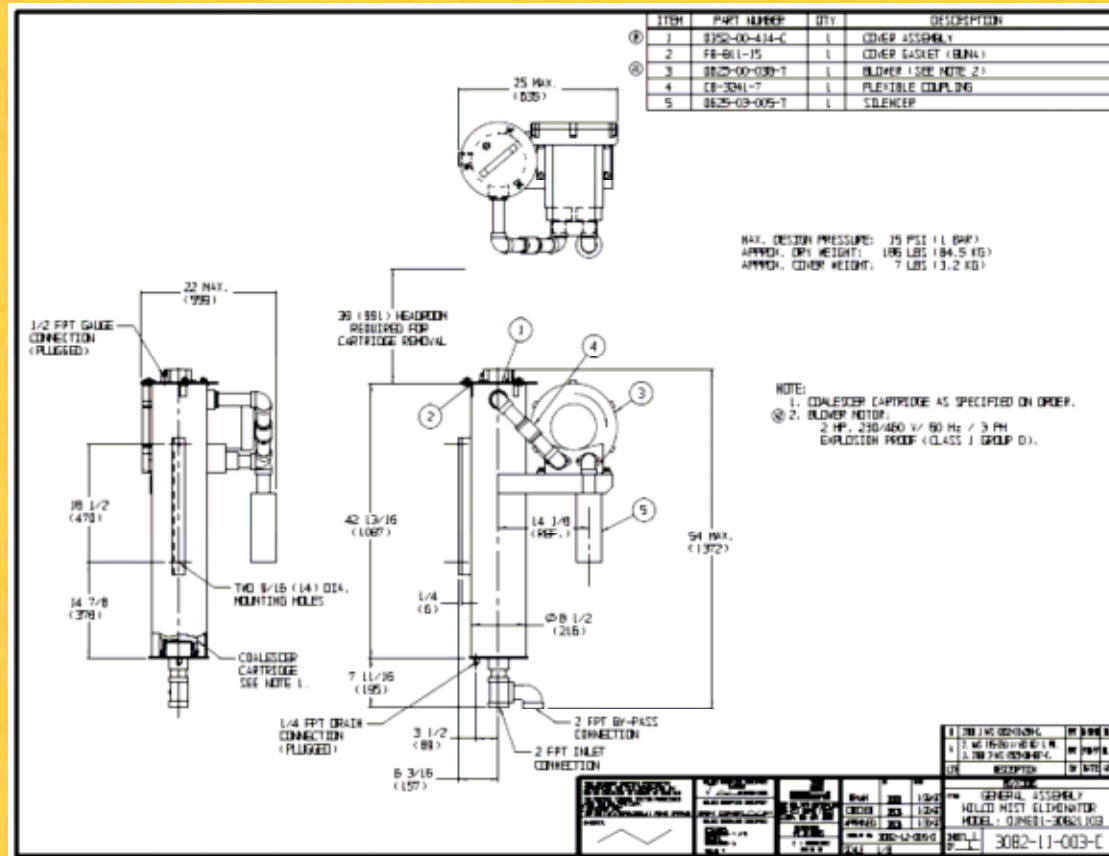
- ▲ **(Base Unit-38CFM)**
- ▲ **DM620-00-CAT: (Demister Cartridge)**
- ▲ **045-00-046-T: (Vacuum Gauge)**



HILCO GP-Fumes Disposal CATOME-30821103 Caterpillar Part #191-2304

Efficiency :
99.97% Removal

Less than 3PPM
Oil Carry-Over



CATOME-30821103

PARTS

- ▲ (Base System-80CFM)
- ▲ DM639-00-CAT:(Demister Cartridge)
- ▲ 045-00-046-T: (Vacuum Gauge)



Caterpillar Part Numbers

▲ CATOME-30821208 (191-2303)

▲ CATOME-30821103 (191-2304)

▲ DM620-00-CAT (191-2301)

▲ DM639-00-CAT (191-2373)

▲ 045-00-046-T (191-2302)

▲ 045-00-046-T (191-2302)



Current Dealer/Packager Customers

HAWTHORNE



EMPIRE
— Since 1950



CATERPILLAR[®]



PON 

JOHNSON 

 **Barclay Engineering**

TOROMONT



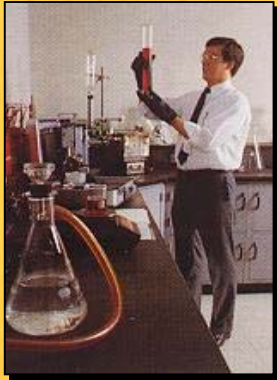
ZIEGLER 

Wheeler 


Hilford
HILCO DIVISION

HILCO®

One Source for All Your Filtration Needs



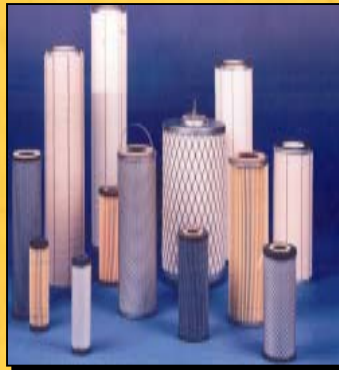
Laboratory Services

- Oil Tanks
- Air Filters
- Oil Filters
- Coalescers

- Dry Seal Gas Filters
- Vent Mist Eliminators
- 3-Port & 6-Port Transfer Valves



Oil Reclamation



Filter Elements



State of the Art Fabrication



Portable Filters

- Water Filters
- Duplex Filters
- Seal Oil Filters
- Oil Reclaimers
- Filter Housings
- Fuel Gas Filters
- Oil Conditioners
- Liquid Fuel Filters





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