

**Installation Notes for Caterpillar 3512 Gen Set Package
(Up to 85 Gallon Sump Capacity)**

Part # 19-00304MTS-DL2

Kit # 01-70002MTS-DL2

Caterpillar 3512 Generator Set Package		
Puradyn Part #	Description	Qty
UNIT		
15-70022-2	MTS-DL 240 Main Assembly w/ Supply Line Connection Oil & Gas Services 1-3 US, Top Return, Non-FPS	1
02-02407	Filter, Size 240 SAP XD (Included as part of 15-70022-2)	1
19-00304MTS-DL2	Manual, Installation Notes of H&P App. Kit (01-70002MTS-DL2) for CAT 3512 Genset (85 Gal. Sump)	1
19-00134	Manual, MTS Standard Install Notes (TF)	1
HOSES		
15-70001M	5/8" Return Hose Kit Assembly w/ Crimp Fittings H&P CAT 3512 MTS-DL Application	1
15-80251M	3/16" Supply Hose Kit Assembly w/Crimp Fittings H&P CAT 3512 MTS-DL Application	1
PARTS, HARDWARE NEEDED FOR INSTALLATION		
15-70088	KIT, Return Fitting Assembly -12 ORFS X 3/4 NPT – CAT 3512 MTS-DL 240 1-US	1
15-00427	Kit, Parts Bag - 1US, 2US & 3US MTS-DL 240 App Kits	1

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Customer Care Alert:

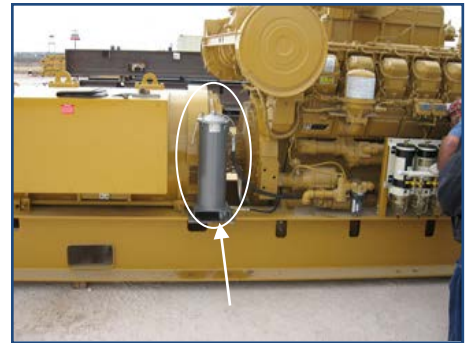
The owner/operator of this equipment is responsible for proper installation, care, maintenance, product registration and usage as outlined in the puraDYN Bypass Oil Filtration System Installation Manual.

The following document is used in conjunction with the puraDYN Bypass Oil Filtration System Installation Manual (part number 19-00134) that is included in the unit box, and as such, should be considered a supplemental source of information. Furthermore, this document covers the installation of an MTS-DL 240 Bypass Oil Filtration System on a Caterpillar 3512 Generator Set Package.

Mounting the Unit: The MTS 240 Bypass Filtration Unit should be mounted to the location similar to as shown in **Picture 2**, for rail-mounted set-ups. Prepare the mounting holes on the frame by using the bolt hole pattern at the unit base and mount MTS 240 Bypass Filtration unit as shown in picture. **Note: Bolt Kit (P/N 15-70120) & Mounting Plate (24-00110) not included with this application kit and can be sourced separately from Puradyn if necessary for mounting purpose.*



Picture1: Before Installation



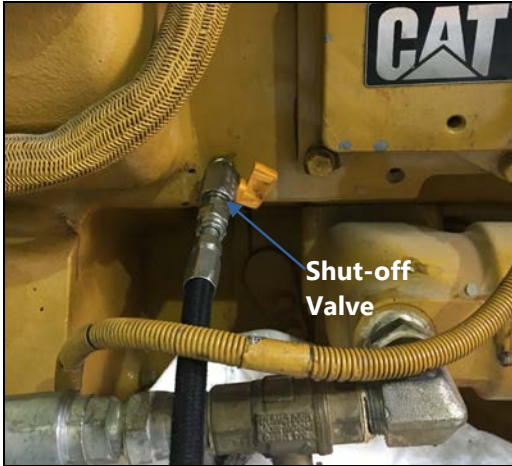
Picture 2: After Installation
Actual Kit Materials not Shown

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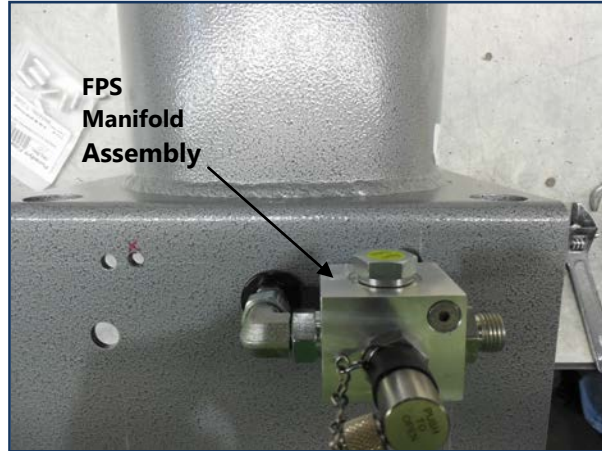
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Installing the pressure fittings: Install the shut-off valve to engine using supplied fittings in parts bag P/N 15-00427 as shown in **Picture 3**, by applying thread sealant or Teflon tape to any NPT threads. Route the Supply Hose Assembly Kit (P/N 15-80251M) provided as part of the application kit to the shut-off valve on the engine. Connect one end of 3/16" ID supply hose assembly kit to -4 Male ORFS fitting end of shut-off valve. Connect other end of supply hose assembly to the **paraDYN** Unit, by fastening hose end fitting to the -4 Male ORFS fitting on the FPS Manifold Assembly (**see Picture 3 & 4**).



Picture 3: Shut-off valve & Supply hose connection



Picture 4: Pre-production hardware shown

Installing the Return Line: Locate and remove the front alternate dipstick cover on the right-hand side of the engine. Replace the cover with the Return Fitting Assembly (includes new gasket) provided in this application kit- P/N 15-70088, as shown in **Picture 5**. Connect one end of the 5/8" ID Return Hose Assembly Kit (15-70011M) provided as part of the application kit to the Return Fitting Assembly on the engine and route other end of return hose assembly to the filter unit's return fitting, and connect (see **Picture 6**). The oil return hose assembly must be routed to assure it does not come in contact with any sharp edges or moving parts; **make sure hose is routed in downward slope, with no kinks or traps, to oil pan. Oil is returned by gravity (SEE INSTALLATION MANUAL)**. Secure in place with clamps if necessary. Drain the engine oil and clean all surfaces.

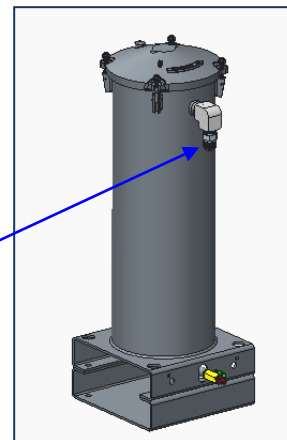
Note: Properly orient the fitting in order to avoid damage from debris.

Note: If necessary, cover the oil return hose with a secondary hose (or equivalent) to better protect it from potential damage.



Picture 5: Return Fitting Assembly & Return hose connection

Connect return hose from Return Fitting Assembly to the return fitting in unit



Picture 6

Actual Kit material not shown

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Testing the By-pass System:

Clean all surfaces and wipe off oil. Check all fittings tightness. Check operation of shut-off and sampling valve. Tie off all lines with tie wraps. Fill engine with oil. Start engine and check all connections for oil leaks. Press FPS Manifold's sample valve and verify that oil flow is present. After five minutes of engine operation, touch the bottom center of the Bypass Oil Filtration unit and verify that it is warm to the touch. Shut engine off and check oil level. Place **puraDYN** Installation Manual in the documentation holder mounted to the equipment.

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TROUBLESHOOTING SECTION

The **puradYN** system has been engineered in a quality system certified to ISO 9001. It is manufactured from the highest quality materials available with superior workmanship. If, however, your **puradYN** unit is not functioning properly, check the following conditions as indicated:

Restricted oil Flow:

- Pressure line may be cloggedblow line out with high air pressure (**do this first**)
- Shutoff valve maybe closedopen valve
- Filter may be dirty and cloggedreplace with new filter
- Metering jet screen maybe clogged..clean screen thoroughly
- If metering jet is clogged.....clean metering jet thoroughly

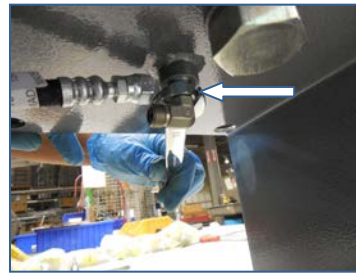
Cleaning the Metering Jet Assembly (MTS-DL Models)



1) Loosen locknut, which secures FPS Manifold Assembly to unit base



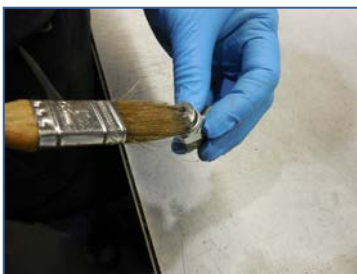
2) Loosen hose fitting, to disconnect 'Inlet Plumbing Hose Assembly'



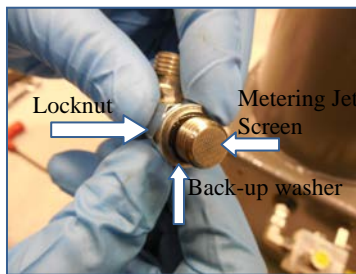
3) Loosen (adjustment) locknut on 90 Degree fitting, then rotate entire fitting CCW to remove- metering jet screen will drop down



4) Clean port internals & metering jet screen with solvent/fine wire brush; use high-pressure air to blow-out port & screen, clearing any debris



5) Back-off locknut/back-up washer on 90 degree fitting and lubricate external o-ring w/system fluid, also applying a dab on face of fitting- for screen adherence



6) Place screen on face of fitting, centered, against dabbed oil; screw this end of fitting into port- by hand, until back-up washer contacts face of port.



7) Slightly unscrew fitting- as required to align with hose assembly, then use (2) wrenches to hold fitting in place while tightening locknut; reconnect hose assembly



8) Check all fittings for tightness, then re-tighten locknut- securing FPS Manifold Assembly to unit base

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Oil Analysis Procedures

The Puradyn Filter Technologies Oil Management Program includes an oil analysis schedule that assists our customers in achieving the benefits of extended oil drain intervals and longer service life for their engines and equipment.

Oil analysis is the key to achieving the benefits that result from optimized oil life (with reasonable safety precautions) and extended drain intervals. In addition, oil analysis is the only economical way to measure wear or contamination in the engine or equipment. Of primary importance is the interpretation of the test data, which is easy to read and self-explanatory.

The Puradyn oil analysis is conducted by an independent laboratory and is reported in an easy to understand format, which includes the following data of the oil:

- **Spectrophotometric Analysis**
- **Wear Metals**
- **TBN & TAN**
- **Oil condition**
- **Contaminant levels**

This analysis should be conducted in order to monitor and evaluate the lubrication system. The oil analysis can present warnings of any existing or potential problems, along with measuring the performance of the **puradYN** system.