

Manual Part # 19-70401MTS-DL: Puradyn Installation Notes for CAT C18

Note Puradyn model nomenclature change: M25 system (prev. MTS 40) and Application Kit # 01-A1M25X-K2 (01-70401MTS-DL)

Caterpillar C18 Application Kit		
Puradyn Part #	Description	Qty
SYSTEM		
15-00250	Assembly, M25 Main	1
	15- M25 - Assembly, M25Core	
02-M25X1	Filter, Size 25, XD Additive	1
19-70401MTS-DL	Manual, Installation Notes for CAT C18 Application	1
19-00134	Manual, M Series Standard Installation	1
HOSES		
15-70078M	Kit, Hose C18 Application (includes 84" 5/8 ID Return Hose & 60" 3/16 ID Supply Hose)	1
PARTS, HARDWARE NEEDED FOR INSTALLATION		
15-93481	Kit, 3/4 Banjo, 1 1/8-12 Thread Off-Road ORFS	1
15-70122	Kit, Bolt Standard M85 Models	1
15-00426	Kit, Parts Bag- M10 C15 Application	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 that is included in the system box, and as such, should be considered a supplemental source of information. Furthermore, this document covers the installation of a M25Bypass Oil Filtration System on a Caterpillar C18 application.



Picture 1 (Before Installation)



Picture 2 (After Installation)

(Actual Application/Kit Materials not shown)

Mounting the System: The M25 bypass oil filtration system (Assembly Part Number 15-00250) should be mounted to the engine enclosure panel as shown in Picture 3. Use 3/8"-16 bolt hardware from bolt kit part number 15-70122 and secure the M25 system to the mounting location (See Picture 3 below).



Picture 3 (Mounting Method)

(Actual Kit Materials not shown)

<https://www.puradyn.com/complete-application-kits/>

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Installing the pressure fittings: Install the shut-off valve to engine using supplied fittings from parts bag (part number 15-00426) as shown in Picture 4. Assemble (1) 3/16" ID supply hose assembly using supplied hose and field-attachable hose fittings provided with kit part number 15-70078M Hose Kit. Route and connect supply hose assembly to the -4 Male ORFS end of shut-off valve on the engine. Connect other end of supply hose assembly to **puraDYN** System, by fastening hose end fitting to the -4 Male ORFS 90° fitting on the system base.

Note: Optional inline sample valve may be ordered separately for inline plumbing into supply fitting in bypass filter system (base), using part number 15-00245



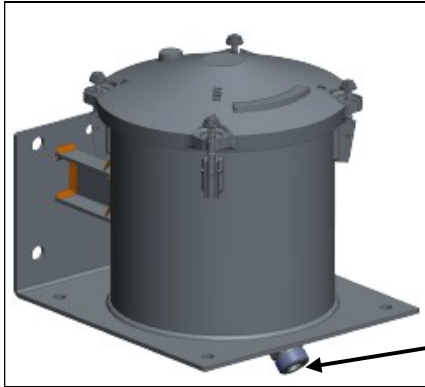
Picture 4 (Oil supply Shut-valve- C32)

Installing the Return Line: Locate and remove the oil drain plug from the engine oil pan and drain engine oil if it hasn't been done prior. Install the Return Banjo Kit Assembly provided in this application kit with Part Number 15-93481, as shown in Picture 6. Assemble (1) 5/8" ID return hose assembly using supplied hose and field-attachable hose fittings provided with part number 15-70078M Hose Kit. Connect one end of the return hose assembly to the return banjo kit assembly and route the other end of the return hose assembly to the bypass filter system's -12 ORFS return fitting and connect. The oil return hose assembly must be routed to ensure it does not come in contact with any sharp edges or moving parts; **make sure the hose is routed in a downward slope, with no kinks or traps, to the oil pan. Oil is returned by gravity (SEE INSTALLATION MANUAL).** Secure in place with clamps if necessary. Ensure engine oil has been drained 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

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Picture 5 (Return fitting assembly)

Connect hose
assembly from
Return Fitting to
Banjo in Oil
Drain Port



Install Return
Banjo Assembly
Kit to Drain Port

Picture 6 (Return Banjo assembly)
(Kit not shown)

Testing the Bypass 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 system 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.

Filter Change and Oil Analysis

Replace the **paraDYN** filter element and perform oil analysis at the oil change intervals recommended by your equipment's Original Engine Manufacturer (OEM). **As long as the oil analysis confirms that the oil is suitable for continued use, the oil does not need to be changed.**

	Before paraDYN Installation	Midpoint of First OEM Interval	Each OEM interval
Take Oil Analysis Sample	✓	✓	✓
Change paraDYN filter and change/clean full flow filter		✓	✓
Change Oil	✓	If analysis requires	If analysis requires

Oil analysis is a fast, non-invasive way to monitor the condition of your engine or hydraulic oil and is key to evaluating the benefits that result from optimized oil life and extended oil drain intervals. In addition, oil analysis is the only economical way to measure wear or contamination in the engine or equipment and often serves as an indicator of potentially costly problems.

Samples are easily taken from the oil sample valve provided with each system. Sampling the oil before it enters the **paraDYN** system enables an accurate assessment of the condition of the equipment. The oil analysis is conducted by an independent laboratory and is reported in a three-tier test that includes: spectrographic metals, wear metals, and contaminant metals (these metals must be monitored to fully evaluate the lubrication)

For extended oil drain practices relative to over-the-road trucks, Puradyn follows the Technology & Maintenance Council's (TMC) stringent requirements.

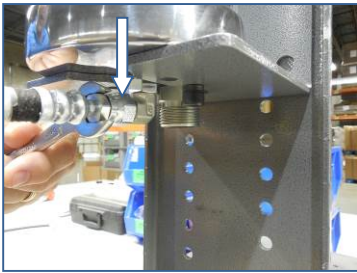
TROUBLESHOOTING SECTION

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** system is not functioning properly, check the following conditions as indicated:

1) Restricted oil Flow:

- Pressure line may be clogged..... blow line out with high air pressure (**do this first**)
- Shutoff valve maybe closed open valve
- Filter may be dirty and clogged replace 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 (Example-01-A1M10X App Kit)



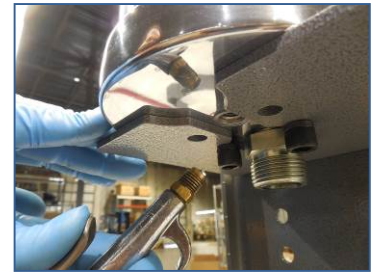
1) Loosen hose fitting, for disconnection of Supply Hose Assembly



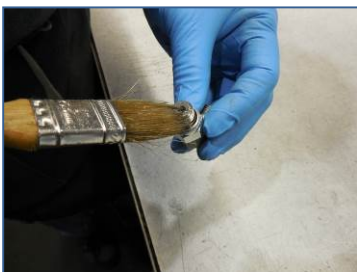
2) Loosen (adjustment) locknut on 90 Degree fitting- allowing rotation of fitting



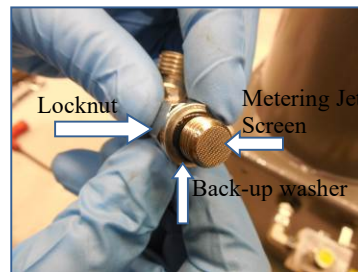
3) Rotate fitting CCW, to remove- metering jet screen will drop down- if screen does not drop, use probe tool to gently dislodge



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



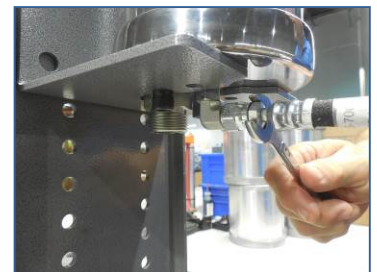
5) Back-off locknut/back-up washer on 90 degree fitting and lubricate external o-ring w/system fluid, also applying a dab on face of fitting- for screen adherence



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 orient fitting facing forward (or in direction required for install), then use (2) wrenches to hold fitting in place while tightening locknut



8) Reconnect hose assembly, and check all fittings for tightness