

PO BOX 7670, Auburn, CA 95604 USA Telephone 530-613-2150 Fax 530-823-7078 Email sales@dieselcraft.com www.dieselcraft.com

Model OC-25 Oil Centrifuge with Air Assist Oil Return

For Diesel and Gasoline Engines from 50 to 500 Horse Power

Engine oil pressure spins the rotor at 6,000 rpm's. That force separates the solid contaminates from the main oil supply while slinging the solids to the inside walls of the rotor, which is easily cleaned.

Contaminant particles less than 1 micron are removed, eliminating the wear and tear on close tolerance metal parts by at least 50%.

The Dieselcraft Centrifuge removes soot and wear particles from the oil flow altogether and remains constant, whereas filters capture solids and hold them from circulating to the point of not working.

Product	Oil Centrifuge
Model	OC-25
Flow Rate	0.93 GPM
Equipment Type	50 to 500 HP engines: Gensets, Pickup Trucks, Construction, Ag Industry
Engine Size	Engines with 4 to 8 cylinders
Drain Port Minimum	1⁄4 NPT with 3/8" hose air assist
Oil pressure required	Min 30 PSI, Max 80 PSI
Dirt Holding Capacity	7 fl oz









Dieselcraft is a Magnum Group Company PO BOX 7670, Auburn, CA 95604 USA Telephone 530-613-2150 Fax 530-823-7078 Email <u>sales@dieselcraft.com</u> www.dieselcraft.com

Basic Installation Guidelines OC-25 and Model 93 Oil Centrifuge

Aug 2013



We have supplied you with the centrifuge and the basic fitting and hose kit.

The mounting plate allows you to mount the centrifuge on vertical, horizontal or surfaces in between. The angle of the base does not matter. The centrifuge though must not be more than 11 degrees off of perpendicular.

The air pump can be mounted remotely up to 6 feet away if space does not allow. The pump should run for 10,000 hours but excess heat over 150F, excess road dirt, or direct water contact will reduce its life so if possible remote and protected mounting is best. Pumps mounted improperly void the warranty. These pumps can be rebuilt.



First install the check valve with the arrow pointing into the centrifuge body. If this is installed backwards the centrifuge will not work and if this part is omitted the pump life will be shortened greatly.



Cut a1 inch off the 3/16 hose and install the air filter. After you mount the air pump and if you have air hose left over it is a good idea to replace the 1" filter hose with a longer piece and tuck the filter into a place where it is more protected.



The pump AIR inlet is the outermost connection and

the pressure is the inside connection as indicated by the label on the pump box. If you reverse these locations you will pump oil out of your engine.

The oil inlet is the larger ¼ NPT hole in the side of the centrifuge base. The two smaller holes are 1/8 NPT and are for the air inlets. We have given two locations to best suit you installation. Put the check valve, coupling and 45 degree connector and the hose barb in the best location and the steel pipe plug in the other hole to close it off.

The oil outlet is in the bottom of the mounting plate. Install the 90 degree fitting as pictured.

Install the inlet fitting as pictured. The swivel hose connectors are not used until you locate the mounting position for the centrifuge.

Once the fittings are in the centrifuge and in the mounting plate connect the centrifuge to the mounting plate by removing the centrifuge cover, then the rotor. Put the centrifuge on the mounting studs and install the nuts and tighten.

For your installation you will need to locate an oil pressure point on the engine. A "T" at the oil pressure sending units is one. In many cases you will find ports near the oil filter. If in doubt contact the engine or vehicle service people.

You will also need to locate a point to return the oil to the engine. Drilling and tapping the oil filler cap ¼ NPT is sometimes the easiest. Some engines have visible plugs near the oil filter and some diesel engines have inspection plates that can be drilled and tapped. If in doubt contact the engine or vehicle service people.

The return port must be free of any back pressure form oil so do not tap into the pan below the oil level.

Once you have located the mounting position and the pressure and return points you can now determine the hose length needed.

The supplied swivel connectors are called "push lock"

connectors. NO clamps are need. Use a hair dryer or hot water to soften the hose and then push it onto the connector so the hose is fully forward to the yellow stop.





Once the unit is mounted and the hoses are in place locate a power source that is only active when the engine is on and running. The fuse box is the most logical place to access that does not require splicing into the wire harness. The RED WIRE must be the HOT WIRE. And the Grey wire is the ground. DO NOT REVERSE THE WIRES. YOU WILL DAMAGE THE PUMP. Install the supplied Fuse Block between the power source and the motor in the RED WIRE.



Oil pressure point from the top of the oil filter to the centrifuge inlet.



Centrifuge return line via the drilled and tapped 1/4 NPT oil filler cap.



Fuse box indicator of a position that will only have power when engine is on and running.



The fuse to place the RED wire under. In this photo the wire is brown but in your case it is the RED wire.

If you have any questions feel free to contact Dieselcraft Service Dept at 530 613-2150

See Product Videos at: http://www.youtube.com/dieselcraft

Important: In mounting the air pump keep in mind that though industrial strength the air pump can not be exposed to water or any extreme road dirt. We have supplied 6 feet of air hose so if needed put the pump inside the vehicle cab for protection.

Ford F150 Photos and install data.



Pictured is the 5.4ltr Ford Triton V8 Engine.

This is driver's side on the back of the oil filter housing.





Once you have located the mounting position and the pressure and return points you can now determine the hose length needed.

The supplied swivel connectors are called "push lock" connectors. NO clamps are need. Use a hair dryer or hot water to soften the hose and then push it onto the connector so the hose is fully forward to the yellow stop.

This takes a bit of effort. It may be easier to cut the hoses and then take them to a hydraulic shop to have the parts pushed together.

Important: In mounting the air pump keep in mind that though industrial strength the air pump can not be exposed to water or any extreme road dirt. We have supplied 6 feet of air hose so if needed put the pump inside the vehicle cab for protection.





For the Ford F150 we have mounted the centrifuge and pump as pictured on the driver's side fender.



You will also need to locate a point to return the oil to the engine.

Drilling and tapping the oil filler cap ¼ NPT is sometimes the easiest. Some engines have visible plugs near the oil filter and some diesel engines have inspection plates that can be drilled and tapped. If in doubt contact the engine or vehicle service people.





Once the unit is mounted and the hoses are in place locate a power source that is only active when the engine is on and running. The fuse box is the most logical place to access that does not require splicing into the wire harness. The RED WIRE must be the HOT WIRE. And the Grey wire is the ground. DO NOT REVERSE THE WIRES. YOU WILL DAMAGE THE PUMP. Install the supplied Fuse Block between the power source and the motor in the RED WIRE.

The Ford F150 has a wire loom above the brake fluid reservoir. Open it and locate the GREEN wire. We assume in all cases this will be the wire that will only be hot when the engine is running.

Spice into that wire and connect the RED motor wire. We have in this picture first added a length of wire to then attaché the RED motor wire.





If you have any questions feel free to contact Dieselcraft Service Dept at 530 613 2150



Dieselcraft is a Magnum Group Company PO BOX 7670, Auburn, CA 95604 USA Telephone 530-613-2150 Fax 530-823-7078 Email <u>sales@dieselcraft.com</u> <u>www.dieselcraft.com</u>



Dieselcraft is a Magnum Group Company PO BOX 7670, Auburn, CA 95604 USA Telephone 530-613-2150 Email <u>sales@dieselcraft.com</u> <u>www.dieselcraft.com</u>

OC-25 TESTIMONIAL



Dear Dieselcraft

I have a 2002 Unimog U500NA and it did not come with the EGR - thankfully - but also did not come with the oil centrifuge either.

So I installed one of your Dieselcraft OC25 Oil Cleaning Centrifuge units.

I made myself a T so that I could tie this unit into the oil pressure line. I machined and welded two nuts and bolt together, drilled and tapped an NPT side hole for the oil centrifuge supply and installed the system. I removed my oil filler tube and welded in a barb fitting for the oil return from the centrifuge, and then reinstalled the oil filler. So oil comes out under pressure from the engine oil filter housing goes into the oil centrifuge, gets cleaned, and then goes back into the engine through the oil filler.

I replaced my oil and oil filter at the time of the oil centrifuge installation. I was starting with clean oil and new oil filter. After about 6000 miles, I cleaned this unit and was AMAZED at what I took out. I scraped and peeled out a 1/8" rubbery black goop from the oil centrifuge. See the picture below.



What I have found just by my seat of the pants assessments are as follows; On this last 6000 mile trip out west I averaged about 1 mpg better [at just over 9 mpg] than I ever have before. Usually on long trips I am around 8 mpg on average. This trip, on several tanks I got over 10 mpg

when I had a good tail wind. I have never got this before. My cruising speed stays constant at about 63 mph and about 1750 rpm with the 16R20's I am running.

I have also not used any oil in the last 6000 miles - checked it a few days ago. The oil is actually cleaner too - ordinarily I would have to wash the oil of my hands in order to clean the black soot off. Now I can just wipe my hands with a paper shop rag and that takes the oil and soot off my hand, so my impression is there is far lower soot concentration in the oil - which is good for the engine.

So I think the oil is better because it is cleaner and is is being kept cleaner too. I also think that I am cleaning out all the soot and sludge that have built up in the engine over the last 50K miles. My truck now has about 57K miles on it and it.

When I can actually hear - you can hear this thing spin - see and touch all the soot and gunge stuff that gets cleaned out, I am impressed. Add to that that for some reason my truck averaged about 12% better diesel mileage then I am even more impressed. So even if I had an engine with a centrifuge, after what I have seen, I would install one of these dieselcraft units. Their craftsmanship is excellent, customer service immediate, supported by buckets of independent tests. They make a product that has me convinced.

It took a bit of creative engineering and fabrication to make this work on my Unimog but it is a great addition.

Thank-you!!

Kind Regards, Chris Cole campausa@gmail.com

http://www.truckcampermagazine.com/off-road-expeditions/building-a-unimog-truck-camper-rig