MARVEL INVERSE OILER
Setting & Servicing Instructions

WHY MARVEL MYSTERY OIL?

The MARVEL INVERSE OILER is built to feed MARVEL MYSTERY OIL and is designed only for this material.

MARVEL MYSTERY OIL is compounded to prevent the development of harmful conditions found in the upper area of every internal combustion engine, such as worn intake valve stems gummed piston rings, sticking of exhaust valves and rapid wear on pistons and cylinder walls. MARVEL MYSTERY OIL will also reduce these conditions and/or their effects when already present in an engine.

MARVEL MYSTERY OIL is not just an oil but contains costly ingredients that act to produce a smooth slow idle without engine stalling - faster engine pick-up, especially in high gear - lower oil consumption - easy starting - and a power pull that is even.

Fuel consumption will naturally be reduced as a result of increased engine efficiency and flexibility.

GENERAL

The MARVEL INVERSE OILER is operated by vacuum in the intake manifold, but inversely to the vacuum. When the vacuum in the manifold is high, such as when engine is running at idle (closed throttle) only a small amount of oil will feed, as engine is given work to do (throttle opened) the manifold vacuum falls and oiler automatically feeds more rapidly, increasing or decreasing oil flow now in strict accordance with the amount of work demanded of the engine.

Accelerating or gunning the engine without load will not show oiler action. Engine must be pulling under load.

Avoid operating oiler with container empty, as this will cause valve and seat to wear excessively.

Use of materials other than MARVEL MYSTERY OIL are apt to gum, corrode or rust the oiler and will VOID OWNER’S GUARANTEE

INSTALLATION

Install the MARVEL INVERSE OILER where convenient. Connect tubing to oiler and to the intake manifold by use of manifold fitting or flange designed for your particular car, truck or stationary engine. If there is a governor between carburator and manifold, insert oiler flange between GOVERNOR and MANIFOLD.

If our fitting is screwed into another fitting, be sure other fitting has no check valve or restriction hole to block oil feed into manifold. If it has, put our fitting into manifold first, or drill and tap. To drill and tap for our "M" or "A-I" fitting, use 21/64" drill and 1/8" pipe tap, and locate feed at a point on manifold where fuel to all cylinders must pass.

NEVER USE VACUUM SPARK ADVANCE FITTING ON CARBURETTOR FOR OILER CONNECTION.
ADJUSTMENT

1. Thoroughly warm up engine AND OILER.

2. Have engine running at idle, making sure the choke is not holding throttle open in fast idle position.

3. Remove Dust Cap (A) on top of oiler.

4. Count the number of drops of oil per minute past Vision Glass (D).

5. If necessary, turn Adjusting Knob (C) slightly to right or left until you see about 8 drops per minute, which is about right for the average passenger car or truck engine.

6. Replace Dust Cap (A).

7. For accuracy, check oil drop count after two or three hundred miles of driving and readjust if necessary.

Screw (B) is for test purposes only, to observe that oil drop count does increase with lowered vacuum. Unscrewing Screw (B) two complete turns with engine idling allows air to enter, lowering the vacuum in the instrument to about what the vacuum would be with engine pulling on the road. BE SURE TO RETIGHTEN SCREW (B).
Marvel Oiler Servicing Instructions

If you know anything about Jodoca Superchargers then you will know what a vital part your Marvel Mystery Oiler plays in the supercharging process. Having said this it is amazing that the oiler is the most neglected part of the system. A little regular attention will pay dividends in keeping your supercharger in good shape. The Oiler should be added to your normal engine service schedule and examined at least once a year.

I'm pleased to say that George Polich is able to provide you with a complete “Marvel Oiler Service Kit” to make the job a lot easier. Contact George at: gpolich@yahoo.com

The method of disassembly is as follows:

1. Remove the feed line, unbolt the retaining bolts from the sides of the Oiler head and place the Oiler unit on a clean worktop.
2. Unscrew the glass (or removing the security clips or retaining wire) and remove the supply pipe accessible from the bottom of the oiler: see fig. 1.
3. Remove the 6 screws that attach the top valve section from the bottom screw assembly and price apart: see fig. 2.
4. Remove the 8 small screws that seal the inner chamber and remove the thin waxed paper gasket: see figs 3-6.
5. Unscrew the top flow adjusting screw and remove the needle valve attachment and spring: see fig. 5.
6. Remove the diaphragm and connecting tube by turning the diaphragm slightly left or right to clear the internal mount: see fig. 6.

Once you are able to examine all the components cleaning is a simple operation. You can use any grease dissolving agent as a cleaner. My preferred method is to use WD40 in an aerosol can as this not only dissolves any gum deposits but also blows any accumulated fluff and muck from the narrow passageways.

First for attention is the supply pipe and sieve (fig. 3) which is a favourite location for an accumulation of fluff and muck. No matter how careful you are when you top up the oiler, minute particles will always get in to contaminate the reservoir of oil.

The condition of the top needle valve is also important: make sure it isn’t bent or damaged.

The diaphragm should be cleaned of any gum residue and the same with the attached connecting tube.

Hold it up to the eye to ensure the tube is clear. You’ll often find this partly blocked with an accumulation of fluff, which can be blown through or extracted carefully with a fine needle (fig. 7). If you are using a needle to clear the connecting tube don’t be too heavy handed as this tube forms part of the regulating valve.

Next you should clean the Bleed Path in the Oiler Head (fig. 9) and the corresponding Bleed Hole in the chamber cover (fig. 10). These two all ways are often overlooked but are very important for the effective operation of the unit. The Bleed Hole is just a plug with in diameter and often blocked. Use a fine needle to open the hole taking care not to damage it. A gentle light clean with WD40 should remove any remaining gum.

The reassembly process is the reverse of disassembly. Pay special attention that the Bleed Path and Bleed Hole are matched together on reassembly and that the paper gasket with the small hole(s) for the Bleed Hole is likewise correctly aligned. Any misalignment of these components and your oiler will not operate properly. Make sure all the gaskets are in place and the securing screws are tightly in place. Any leaks through the gaskets will reduce the efficiency of the oiler.

Reattach your oiler to the mounting brackets and connect to the supercharger barbed fitting. Set the oiler to feed at one drop every six seconds and run the engine until it is warm and reset the flow rate again. With a clean Oiler you should find the oil flow will need little readjustment.