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Fitting an automatic drive chain oiler

The drive chain oiler operates off engine vacuum to dispense a measured amount of oil onto the drive chain whilst the engine is running. There are a number of automatic drive chain oiler kits available, all of which are relatively easy to fit. The following procedure illustrates the fitting of a Scottoiler kit.



- There are a few important points to note before you start:
- ◆ Remove all parts from the box and check that everything has been supplied.
 - ◆ Read the fitting instructions thoroughly. Familiarise yourself with the various parts, how they connect to each other and in what order you want to fit them. There is no 'hard and fast' rule as to which is the correct order, as this will depend on the system you have purchased and your make and model of machine.
 - ◆ Have a few extra cable-ties to hand.

1 The oil reservoir can be mounted in any position, but aim to position it as vertical as possible.

Mount the unit away from sources of heat such as the engine, exhaust, radiator etc; typical locations are behind a body panel, under the seat, to the main frame or rear sub-frame tubing, or even behind the licence plate bracket. Make certain that the filler hole is uppermost (allows the unit to breathe) and that the adjuster knob is accessible. Most kits contain several mounting attachments for the oil reservoir.

There is often space under the rear bodywork for the reservoir. Here a right-angled bracket is used to mount the reservoir . . .



. . . and here the reservoir is secured by adhesive pads and a cable-tie.



On this small capacity machine, the kit's mounting cradle is positioned in place of the tool roll and the rubber strap used to hold the reservoir securely.

2 There are various ways to connect the dispenser assembly. Ensure that the installation is as neat, durable and safe as you can make it with the parts supplied.

The dispenser tube can be secured to the swingarm or chainguard with cable-ties or the fixing strips/adhesive provided. Here the tube is fixed to the underside of the swingarm and cable-ties used for extra security – trim the ends of the ties to prevent them contacting the chain.



Use a hairdryer or paint gun to heat the dispenser tube sufficiently to bend it so that its cut end is a few millimetres from the chain sideplate and with its open facing outwards. The tip of the dispenser should be in the 6 or 7 o'clock position relative to the sprocket and there should be no contact with the sprocket mounting nuts.



Here the bracket (arrowed) supplied in the kit is mounted to the wheel spindle and enables the end of the dispenser to be held in the correct position.



When routing the delivery tube to the reservoir, be sure to avoid contact with the chain and the exhaust and check that the tube doesn't interfere with suspension components that could fatigue to wear through it. Try to follow the route of existing wiring or cables and use cable-ties to keep the delivery tube in place, taking care that it doesn't become pinched or trapped at any point. A little slack in the tube at the swinging arm pivot will allow for suspension movement.

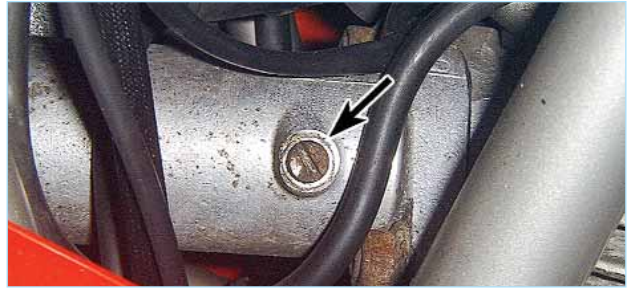
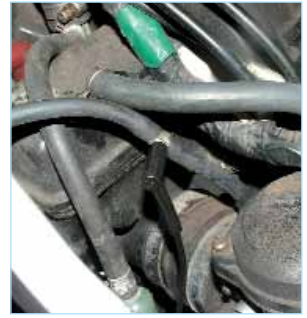


3 Connect the delivery tube to the stub on the base of the oil reservoir and the small-bore vacuum pipe to the top of the reservoir.

4 The kit is supplied with a variety of vacuum connectors. Select a vacuum source appropriate to the fittings on your machine.



◆ The 'T' piece (A) is used when a vacuum operated fuel tap is fitted. Locate the vacuum pipe which runs from the fuel tap to the inlet tract and cut it. Fit the 'T' piece between the two cut ends. Note that on many fuel injected models, the vacuum pipes link each inlet tract or throttle body.



◆ Vacuum take-off point adaptors B (5 mm) or C (6 mm) fit where there are vacuum take-off points provided in the inlet tracts (arrow). If you use this type, ensure that you fit a sealing washer under the adaptor.



◆ Adaptor D can be used where there is no facility to use the types described above. Remove a rubber inlet tract and drill a 3 mm hole in it. Apply a sealant to the threads (Silicon RTV or similar), fit the adaptor through the hole, with a washer on each side, and tighten the nut.

◆ This vacuum take-off stub has a rubber cap fitted over it in normal use. It provides an ideal take-off point for the vacuum pipe, although check that the stub diameter is the correct size for the vacuum pipe.



Whichever vacuum source has been selected, connect the vacuum pipe elbow to the adaptor. Route the vacuum pipe to the top fitment of the reservoir and cable-tie it in place. When cutting the pipe to length, make sure that the cut end is open and not squashed. The pipe should be routed as neatly and safely as possible, away from the throttle linkage and components which might crush, damage or melt the pipe.

Caution: It is essential that vacuum pipe connections are air-tight. This is particularly important if using the T-piece joint in the fuel tap vacuum pipe.



5 Fit the oil bottle to the reservoir filler hole using the connector and hose provided, and squeeze the bottle to fill the reservoir to a level just below the filler hole.

6 It is now necessary to prime the system. Connect the oil bottle to the filler plug and fit the filler plug to the reservoir.

Set the adjuster to the prime position (maximum opening). Hold the oil bottle upright, then squeeze it (pump it) to pressurize the system until the delivery tube is completely full. You should be able to see the diaphragm in the reservoir lift and the oil travel down the delivery tube.

When the delivery tube is full, oil will appear from the dispenser and drop onto the chain. Place a rag under the dispenser to catch the oil and continue priming the system until no more air bubbles are visible in the tube.



At this point, disconnect the oil bottle and connect the breather hose to the filler plug; position the open end of the hose in a position which allows air to enter but not water or dirt.

7 Start the engine and allow it to idle. Hold the dispenser nib away from the sprocket face and carefully time the drops of oil per minute. Rotate the adjuster ring slowly anti-clockwise (away from the prime position) until the rate is as specified in the kit instructions (approximately 1 drop every 40 seconds in this case). Reposition the nib so that the oil drops onto the chain and turn off the engine.

HINT



We found that the dispenser could be held more securely in the delivery tube by applying a piece of heat-shrink over the joint between the two.

8 Before you take the machine for a test ride:

- ◆ Refit any parts that were removed.
- ◆ Tighten any nuts/bolts such as the rear wheel spindle that have been loosened/removed.
- ◆ Start the engine and once again check the operation of the chain oiler.



Warning: High oil flow rates will increase the risk of oil getting on the tyre. It is essential that the tyre is monitored for oil contamination; turn the adjuster further anti-clockwise to reduce the oil flow rate if necessary.