E1257X Breather Kit

For Yanmar L70N Engines

Kit of parts for sealing the existing crankcase breather and venting via the EO3F or EO3FM air intake valve.



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About Wyndham Page Ltd

Based in the UK Wyndham Page specialise in the design and manufacture of safety equipment for diesel engines.

Our product range of Air Intake Shutdown Valves includes our E Series Automatic Valves and our F Series Butterfly Valves with solenoid, pneumatic or manual actuation options. We offer Speedswitch kits for the F Series valves, a range of G Series Mechanical Engine Safety Products and a range of Spark Arresters designed to prevent the emission of high energy sparks from diesel exhaust systems.

Wyndham Page is headed by Freddy Page-Roberts who brings over 20 years' experience in the diesel safety industry and was previously managing director of Chalwyn Ltd.

All members of the senior management team have considerable experience in organisations specialising in the design and manufacture of hazardous area equipment for diesel engines.

Quality Assurance

Wyndham Page Valves are manufactured and tested under our EN ISO 9001: 2015 quality management system.

Wyndham Page Ltd are certified to supply ATEX equipment under Quality assurance Certificate CML 21UKQAN14186 in the UK and CML ATEXQ13649 in the EU.

- Equipment supplied with an EC Type Examination Certificate is CE marked and meets the provision of the ATEX directive 2014/34/EU.
- Self-certified equipment supplied with an EU Type Examination Certificate is CE marked and meets the provision of the ATEX directive 2014/34/EU.

Application

When installing a diesel engine shutdown valve, such as the Wyndham Page EO3F/FM, it is a requirement that any engine crankcase breather arrangement venting directly into the intake ports or into the air intake system downstream of the shutdown valve must be sealed and replaced by an external breather system vented either to atmosphere [if permitted at the site the equipment is to operate] or connected to the intake system upstream of the valve.

The E1257X Breather Kit is designed to seal the internal Yanmar L70N engine crankcase breather and facilitate an external connection into the air filter cover of the Wyndham Page E03F/FM engine shutdown valve.

This kit is not suitable for canopy versions of the L70N engine; please contact Wyndham Page sales for details of alternative kits for this type of engine.

Description

The Kit includes all parts required to convert a Yanmar L70N engine for mounting a Wyndham Page E03F/FM Valve and for replacing the breather arrangement as described above. The E03F/FM valve is not included in the kit and should be ordered separately.

Principle of Operation

The internal crankcase breather arrangement is sealed and re-routed by bonding of a single Elbow fitting into the Rocker Cover. The Rocker Cover must be drilled by the customer prior to fitting the Elbow. The standard Air Filter Cover and Housing are replaced with alternative kit parts to enable mounting of the E03F/FM valve with integrated air filter. This is connected to the Rocker Cover Elbow using the other the kit parts.

Order Coding



If requested when placing order the EO3F/FM Valve Filter Cover will be modified and fitted with the Elbow E1216X at the factory.

Refer to separate E03F-E03FM Handbook for full details on selection and installation of the E03F/FM Valve.

Parts List

Part No	Description	Qty	
E1146L055	Intake Adaptor Yanmar L48N/L70N	1	
E1258	Cover Support Bracket: Yanmar L70	1	
E1322X	Yanmar L700 Elbow Assembly	1	
E1216X	Filter Cover Breather Elbow Assembly	1	
E1321	Breather Plug	1	
P1114	Fibre Washer M12	1	
P1119	M12 X 1.5 Thin Nut	1	
P1115L050	Silicone Vacuum Hose: 10mm ID X 3mm Wall	0.5M	
P1120	Jubilee Clip - 20mm	2	
P1145	Yanmar L70N Intake Manifold: 114210-12050	1	
P1146	Yanmar Gasket: Air Cleaner - 114210-12210	1	

Part No	Description	Qty	
P1132	Yanmar Gasket: Cleaner - 114299-12210	2	
P1151	Yanmar Gasket: Rocker Cover - 114210-11310	1	
P1149	Yanmar Stud M6 x 50: 26226-060502	1	
P1147	Yanmar Stud M6 x 14: 26226-060142	2	
P1148	Yanmar Stud M6 x 30: 26226-060302	2	
P1129	Yanmar Nut M6: 114299-12300	2	

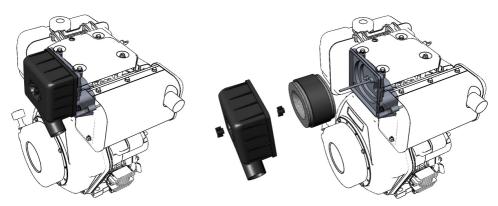
Suggested Tools & Sundries (Not included in kit)

SUGGESTED TOOLS AND SUNDRIES (NOT INCLUDED IN KIT)				
Description	Qty			
Adhesive: Loctite 638 Retaining Compound	1			
Activator: Loctite SF764	1			
8.5mm Drill	1			
10mm Drill	1			
30mm Sheet Metal Hole Cutter	1			
10mm AF Combination Spanners	2			
10mm AF Socket	1			
10mm AF Long Socket	1			
Swivel Drive	1			
10cm Extension Drive Bar	1			
20cm Extension Drive Bar	1			

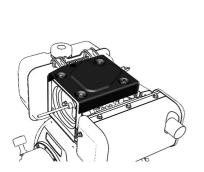
Breather Kit Installation

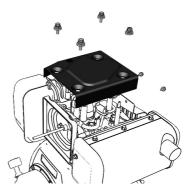
Notes:

- The appearance of some engine components shown below may vary depending on exact specification of the engine package.
- Retain all parts and fasteners for reuse unless stated.
- All Torque settings as per Yanmar standard torque values table.

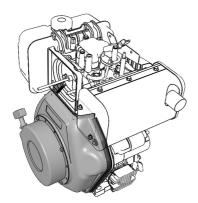


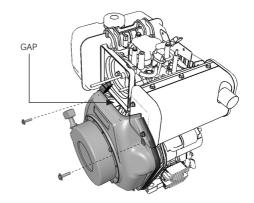
- 1. Remove M6 plastic wing nut from filter cover, and remove cover (discard parts).
- 2. Remove M6 filter retaining wing nut, and remove air filter (discard parts).



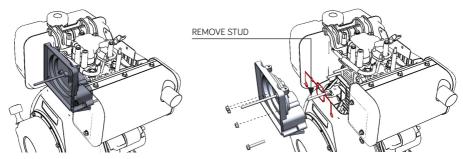


- 3. Remove 3 off M6 x 20 bolts and 1 x M6 nut from the top of rocker cover hood and 2 off M6 x 8 bolts from the back of rocker cover hood.
- 4. Remove the Rocker Cover Hood.



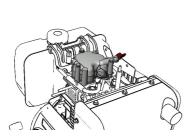


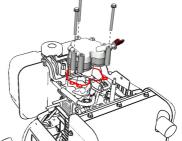
5. Remove 2 off M6 x 25 bolts from top of flywheel cover. Loosen 2 off M6 x 25 bolts at bottom of flywheel cover at least 12 turns (do not remove these 2 bolts). This allows the flywheel cover to pull forward at the top to allow the removal of the filter housing.



- 6. Remove 3 off M6 nuts from interior of filter housing, and 1 off M6 x 20 bolt from right hand side of filter housing.
- 7. Remove the Filter Housing and Gasket (discard parts).

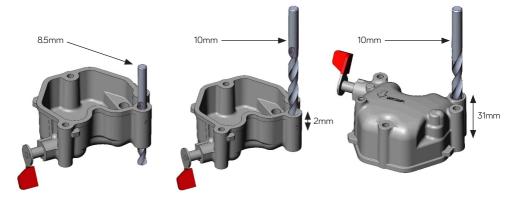
8. Using 2 off M6 nuts locked together, remove the M6 x 30 stud from the right hand side of the square air intake hole.



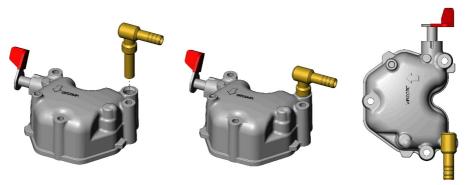


9. Identify the Air Vent Stack then remove 3 off M6 x 65 bolts from top of rocker cover & remove Rocker Cover and Gasket.

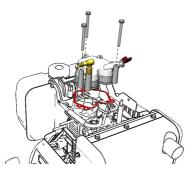
10. Identify the 5mm breather hole in the cylinder head under the air vent stack, apply gasket compound or suitable high temp adhesive then fit the breather plug E1321 into the breather hole.

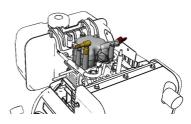


- 11. From the underside of the rocker cover, drill a 8.5mm dia hole through the air vent stack.
- 12. From the underside of the rocker cover, drill a 10mm dia C'BORE hole 2mm deep to clear the Breather Plug head.
- 13. Drill down from the top of the air vent stack, 10mm dia x 31mm deep. CLEAN OUT SWARF.

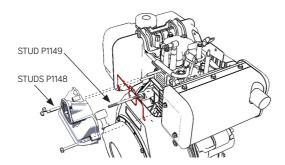


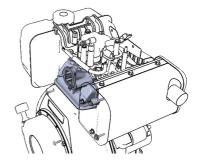
14. Bond Elbow E1322X into the air vent stack. (Loctite, 638 retaining Compound, SF764 Activator and SF7063 cleaner recommended). Align so that the hose tail is pointing directly forwards, towards the air intake filter.



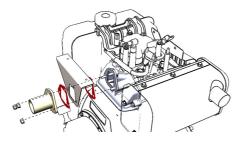


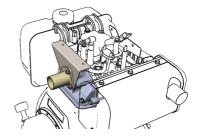
15. Refit the Rocker Cover & Gasket P1151. Modify the gasket locally to fit around the head of the Breather Plug.



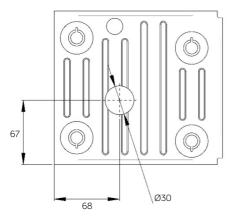


- 16. Fit a replacment stud P1149 (M6 x 50) to the right hand side of the air intake manifold
- 17. Slide new Gasket P1146 & Intake Manifold P1145 onto the new and existing studs, secure with 2 off M6 nuts on the 2 left hand studs, and 1 off M6 x 20 bolt at the right hand side.
- 18. Fit 2 Studs P1147 (M6 x 14) into the top and left hand threaded holes in the Intake Manifold flange.
- 19. Refit the Flywheel Cover as reverse of step 5.

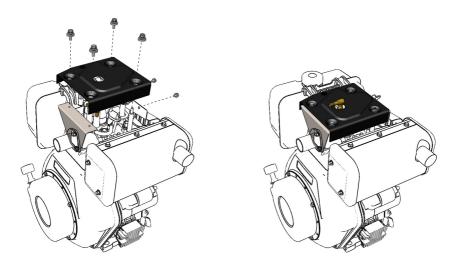




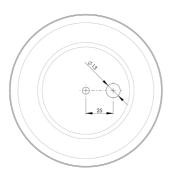
- 20. Slide a Gasket P1132 & the Hood Support Bracket E1258 over the 3 x Intake Manifold studs.
- 21. Slide the a 2nd Gasket P1132 then the Intake Adaptor E1146L055 over the 3 \times Intake Manifold studs and secure using 3 \times M6 nuts P1129.



22. Drill hole in the Rocker cover Hood as shown above or make similar square aperture.

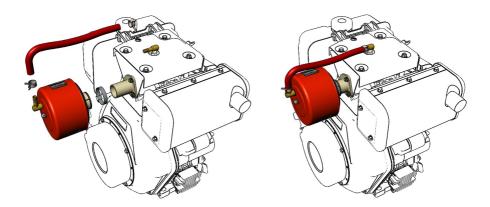


23. Manipulate hood over elbow then refit rocker cover hood using retained fasteners in reverse of step three.





- 24. Remove the filter cover from the EO3F/FM valve as per the assosiated handbook and drill hole as shown above.
- 25. Fit Elbow E1216 & Fibre Washer P1114 then secure with Nut P1119. Refit Filter cover to Valve.



- 26. Slide the EO3F/FM valve onto the Stub Pipe and clamp using the supplied Jubillee Clip
- 27. Cut the Breather Hose P1115L050 to suitable length, fit between the elbows and secure using the Jubilee Clips P1120.
- 28. Set up and test the EO3F/FM valve as per instructions in the associated handbook.

Notes:

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