

Supplemental Information & Instructions for 235-940 Spin-On Oil Filter Adapter MGA and MGBs through 1967 (18G, GA, GB engines)

Contents of the 235-940 Kit

- 1A NPN Adapter housing
- 1B NPN Adapter bolt, with $\frac{3}{4}$ UNF fitting for oil filter
- 1C NPN Extension, adapter bolt
with female threads on unthreaded end
- 1D 435-335 O-ring seal
- 1E NPN Washer, lock tab

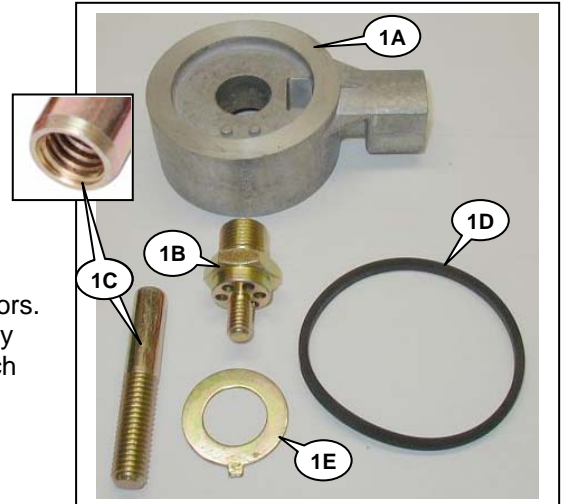
This spin-on adapter was designed and is produced by Moss Motors. It replaces the canister type oil filter common to the MGA and early MGB. Moss offers three filters for use with this adapter, all of which have the essential bypass valves and anti-drain back valves:

235-880 Spin-on Oil Filter

235-830 Spin-on Oil Filter, WIX (*Better*)

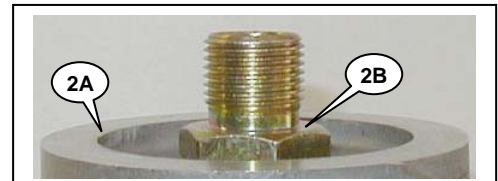
235-855 Spin-on Oil Filter, K & N Gold Performance (**Best**)

Of the three, we suggest the WIX or K & N.



235-940_Instruction Fig 1

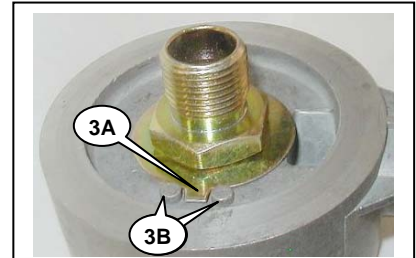
Please note that the relationship between the threaded fitting in the oil filter and the rubber seal on the filter is not the same for all filters. In the filters we offer, the lip of the threaded hole is between 0.113" and 0.125" (about 1/8") *below* the surface of the rubber seal. If the lip of the threaded hole sits too high, it will bottom out against the shoulder of the adapter bolt (2B) before the rubber seal contacts the surface of the adapter itself (2A).



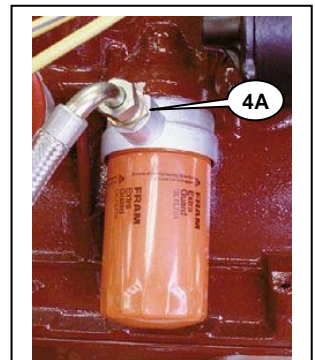
235-940_Instruction Fig 2

Installation (*Read through the instructions completely before you begin*)

1. Remove the old canister type oil filter assembly.
2. Remove the old o-ring seal from the groove in the block.
3. *It may be necessary to use a small screwdriver to get an old seal out, and it may come out in pieces. Get a flashlight and look in the groove carefully-there is frequently a totally squashed and petrified o-ring in the bottom of the groove under the o-ring you took out. If you do not get it all out, the result will be a large puddle of oil on the floor when you start the engine.*
4. Thread the adapter bolt with fitting for oil filter (1B) into the adaptor bolt extension (1C)
5. Slip the lock tab washer (1E) over the adapter bolt extension, and feed the bolt through the hole in the adapter housing. Make sure the locating tab (3A) rests between the locating pins cast into the adapter housing (3B). *You may find it useful to bend up the edge of the tab washer very slightly to make it easier to get a screwdriver up under the edge of the washer later.*
6. Smear a little grease on the o-ring and fit the new o-ring seal (1A) into the groove in the block. *The grease will hold the o-ring in place while you fit the adapter housing*
7. Hold the adapter housing up to the block and start the bolt. Tighten the bolt enough to pull the lip on the adapter housing into the groove in the block, but leave it loose enough to rotate the adapter housing so you can line up the oil pipe fitting on the adapter housing (4A) with the solid oil line or oil hose on your engine.

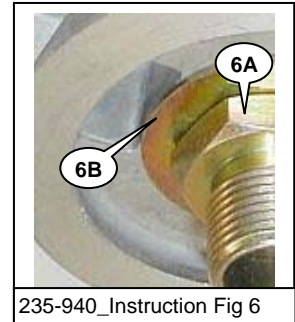


235-940_Instruction Fig 3

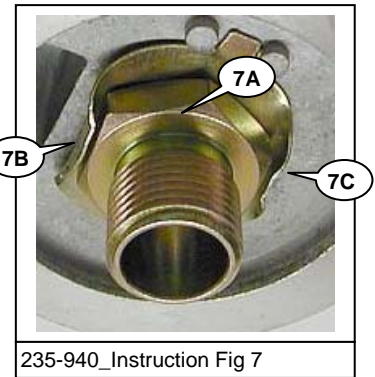


235-940_Instruction Fig 4

8. Once the adapter housing is in position and the oil hose or oil pipe has been attached, tighten the adapter bolt (5A) to the torque spec of 11 to 12 lbs-ft. **DO NOT EXCEED 12 lbs-ft. Tightening the adapter bolt beyond the recommended torque spec will cause stress fractures in the material (5B) connecting the center stud to the body of the adapter bolt. These fractures can result in the loss of the oil filter (and engine oil) while the vehicle is in use.**
9. There are several ways to use the lock tab washer to lock the bolt in place- we'll show you two. Part of the lock tab washer hangs over the opening in the housing (5B) and you can bend that section of the lock tab washer up against the flat on the adapter bolt using a screw driver and/or channel lock pliers. Flatten the washer up against the flat on the adapter bolt (6B). Alternately, a small flat bladed screw driver can be used to pry up the section of the lock tab washer away from the hole (4D). Once the edge of the washer has been bent up, you can clamp it against the flat on the adapter bolt with the channel lock pliers. *Although this step is necessary, it is not necessary to do it in both places. We only show both here to clarify (hopefully) this step. If you do not bend the lock tab washer up, the bolt may back out over time, resulting in an oil leak at best. This is hard to accomplish while lying on your back, especially on an MGA.*
10. Fitting the Filter. Smear a few drops of engine oil on the rubber seal on the filter and spin the filter on until the seal just contacts the surface of the adapter housing. Tighten the filter $\frac{3}{4}$ to 1 turn more. *There is no point in over-tightening the filter; it just makes it a real chore to remove later.*
11. Start up. Leave the hood up. Have someone watch the area of the oil filter carefully as the engine is started. At the first hint of a leak, shut it down and correct the problem.



235-940_Instruction Fig 6



235-940_Instruction Fig 7

A word about oil changes. One of the nice things about this conversion is it make changing the oil easier. Plan on changing the oil and the filter every 3,000 miles, even though the workshop manual for the B (for example) says 6,000 miles. It is beyond the scope of this document to discuss the advantages and disadvantages of the various kinds of oil available to day. We recommend that you use a premium brand multi10W-40 for colder temperatures and 20W-50 for warmer temperatures. Using a premium oil with appropriate levels of ZDDP and changing the oil and filter every 3,000 miles will keep the engine cleaner and extend the life of the engine. It is one of the best things you can do for your car. Please dispose of the oil and filter properly.

Although every effort has been made to ensure the accuracy and clarity of this information, errors and/or omissions on our part are almost inevitable. Any suggestions that you may have that will improve the information (especially detailed installation notes) are welcome. Please use the simple email form on the "Contact Us" page on the Moss website:

<http://www.mossmotors.com/AboutMoss/ContactUs.aspx>

If you prefer, you may call our Technical Services Department at 805-681-3411. So many people call us for help that we are often not able to answer the calls as fast as we'd like, and you may be asked to leave a message. We apologize in advance for the inconvenience. We will get back to you within 2 business days.



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