

## Speedwell Competition Oil Pump Kit CYP. 101 for 848 to 1098 cc BMC engines.

FITTING INSTRUCTIONS

No. 8

30.10.68

Fits BMC "A" series engine from 1957 Morris Minor through to current models including Austin-Healey Sprites Mark 1, 2 and 3, MG Midgets Mark 1 and 2, MG 1100, Mini and Mini Cooper Mark 1 and 2.

Does not fit 1275 cc engines or Cooper-S models of any size.

The Speedwell pump is the largest available for this series of engines, with 25% greater capacity than the original pump and a specially strengthened drive-shaft.

It is possible to fit the Speedwell kit to an assembled engine (not in car) with the minimum amount of work, provided these instructions are carefully followed. It is necessary to have available a 7/32" (5.5mm) drill and 1/4" UNF tap.

1. Remove flywheel etc.
2. Remove rear engine plate or flywheel housing
3. Remove existing oil pump.
4. **Carefully plug oil gallery holes** with small pieces of rag (not to protrude).
5. Smear clean grease around lip of rear camshaft bearing, to prevent swarf entering.
6. Temporarily fit SPC oil pump, less gasket, using existing lower mounting bolts to secure. Make sure that the bolts are central in pump mounting holes, and the pump shaft locates correctly in the end of the camshaft.
7. Drill into cylinder block, using 7/32" (5.5mm) drill, to a depth of 3/4" (19mm). Use the pump upper mounting holes, with drill bushes in place, as a guide.

### METHOD:—

Measure 1 1/4" (48mm) on drill shank, and mark using adhesive paper or tape etc., drill until mark reaches pump mounting bosses.

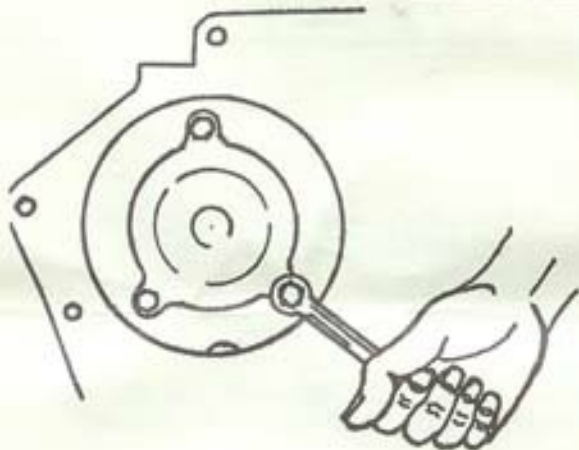
8. Remove pump and push out drill bushes.
9. Tap drilled holes 1/4" UNF.
10. Clean away swarf and remove grease and rag, using tweezers or wire etc.
11. Refit pump, using new gasket (supplied). Make sure pump shaft is located in end of camshaft before securing with four bolts and new lockwashers.
12. Reverse procedures 1 and 2.

NOTE:—Fitting a larger pump does not greatly increase oil pressure as this is controlled by the relief-valve. For higher pressure, shim up relief-valve spring or replace with a stronger one. Best pressure-range is 60-90 pounds per square inch (4.2-6.3 kg/cm<sup>2</sup>) measured at 4000 rpm or over. Safe minimum is 50 P.S.I. (3.5 kg/cm<sup>2</sup>). Pressure may drop to 15 P.S.I. (1 kg/cm<sup>2</sup>) on idle. Oil Temperature should be kept below 220°F. (105°C.).

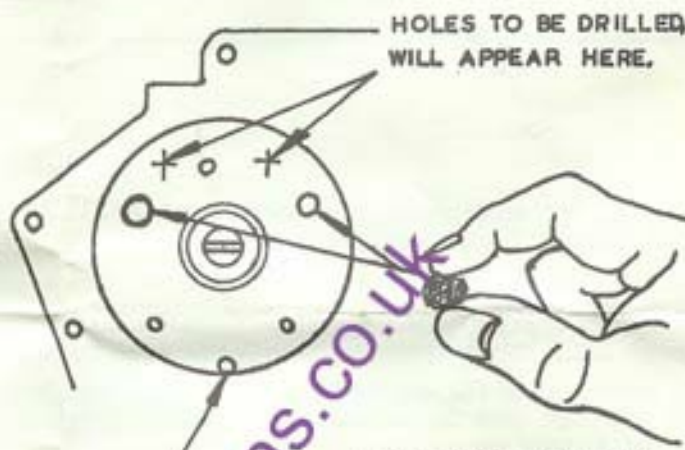
### PARTS LIST

Item	Description	Part No.	Qty.
1	Oil Pump	CYP.102	1
2	Drill Bushes	CYP.103	2
3	Gasket	CYP.104	1
4	Lockwashers	CYP.105	4
5	Bolt 1 1/4" x 1/4" UNF		1
6	Fitting instructions	8	1

VIEW AT REAR OF ENGINE



REMOVE ORIGINAL OIL PUMP



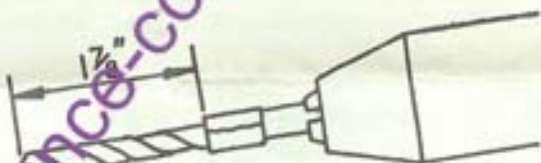
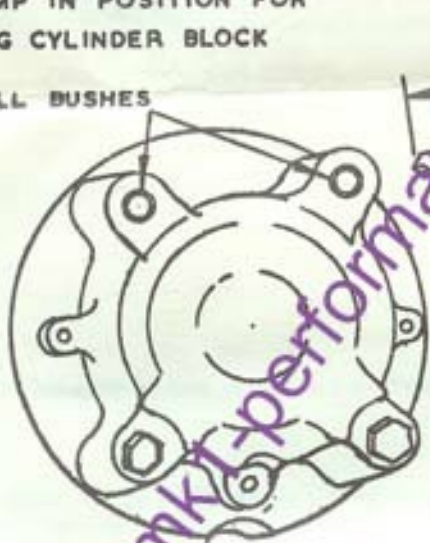
HOLES TO BE DRILLED  
WILL APPEAR HERE.

ALSO PLUG  
DRAIN HOLE

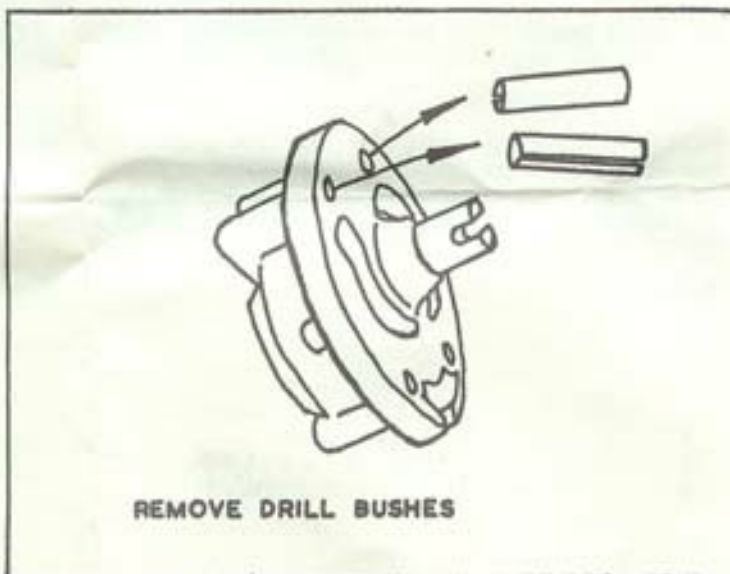
ROLL PIECES OF RAG,  
AND PLUG OIL GALLERIES.

FIT PUMP IN POSITION FOR  
DRILLING CYLINDER BLOCK

FIT DRILL BUSHES



MARK PREDETERMINED DEPTH ON DRILL SHANK,  
USING ADHESIVE PAPER OR TAPE ETC.,  
BEFORE DRILLING CYLINDER BLOCK.



REMOVE DRILL BUSHES