

## OIL PUMPS



ing the heart of the engine, it is obviously essential that the pump is in prime condition when fitted. Due to robotised manufacture of the commercially produced pumps, tolerances have been opened up to facilitate rapid production and assembly. This has brought about a decline in the effectiveness of the pumps, especially in arduous environments such as racing and fast road work. Oil pressure in some cases has all but disappeared! Of course long term results are disastrous, not to mention expensive. Basically some pumps are effectively worn out when new.

The precision range of oil pumps from Mini Spares are all hand selected, component matched to exacting tolerances, then hand assembled. This ensures minimum end float and rotor clearance, maximizing pump efficiency. The rotor type is a 4 into 5 configuration as per the standard steel backed pump. This supplies more than enough oil for the Mini engine - some 40% of which is dumped straight back into the sump via the pressure relief valve. A greater oil supply would only create a loss in power.

**C-AEG410**  
3 bolt, long pin-drive pump, big bore

**C-AEG411**  
Spider-drive pump.

**C-AEG412**  
Slot-drive pump, big bore

**C-AEG413**  
998cc slot-drive pump.

**C-AEG414**  
Pin-drive small bore pump.

**CAM6614**  
Turbo Metro oil pump. Highest flow available.

If necessary, the star drive pump can be used on the small bore engine without the necessity for drilling and tapping the block. The pumps all have the standard 3 bolt facility. However, an oil pump spacer (12G1127) would still be required.

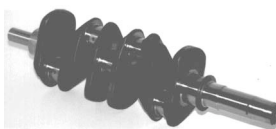
**GPS**  
Low pressure oil warning light switch is available to help protect the engine. The standard one comes on at 7lb - much too late a warning to avoid any damage. The high pressure one comes on at 22lb, and is a direct replacement for the standard one.



**C-GPS101**  
Low pressure oil warning light switch. Adjustable from 22 to 50psi

**GFE101**  
Super oil filter It is recommended that a more efficient oil filter is used. The Unipart replacement has a special micro fine filter with a magnetic trap in the bottom. On performance engines it is recommended to change the filter every 3,000 miles.

## CRANKSHAFTS



Forged EN40B steel nitrided cranks are considered the ultimate in specification, even over the billet type. This is mainly because the grain pattern of a forging follows the shape of the webs and bearings where as the billet type is machined across the grain. We hold stocks of all the forged type cranks, as well as re-stocked standard material cranks and new cranks. All are cross drilled, except AEG602, and heat treated for maximum strength and durability. All are machined to fit 1300 'N's' center main except C-AEG479 which is 'S'.

**C-AEG479** (81.33mm) EN40B  
1275cc Cooper S.

**C-AEG170**  
1071cc 'S'. Available from billet only

**C-AEG329**  
970cc 'S'. Available from billet only

**C-STR931** (81.33mm) EN40B  
Nitrided, 1300 Big end journal for 1300/A-Plus block

**C-AEG476** (76mm) EN40B  
Short Stroke Nitrided, 1.625" 'S' Big end journal. For 1300/A-Plus Block

**C-AEG497** (84mm) EN40B  
Long stroke Nitrided, 1.625" 'S' Big end journal. For 1300/A-Plus block

**C-AEG478** (86 mm) EN40B  
Long Stroke Nitrided, 1.625" 'S' B/end journal  
For 1300/A-Plus block

'S' big end journal diameter = 1.625"  
1300 big end journal diameter = 1.75"

## BORE/STROKE CAPACITY COMBINATIONS IN CC

	.020	.040	73.5mm	74mm
76mm	1209	1226	1290	1308
79mm	1256	1274	1341	1359
81.33mm	1293	1330	1379	1399
84mm	1336	1355	1425	1445
86mm	1368	1387	1459	1480

When fitting 'S' main bearing width cranks in to non 'S' blocks, or vice-versa special thrust washers are needed.

**TW4**  
Thin thrust washers necessary to fit 'S' type cranks into non 'S' blocks.

**TW5**  
Thick thrust washers necessary to fit non 'S' cranks into 'S' blocks.

**VPW41/30**  
+030 thrust washers (set)

## CONNECTING RODS

As the Cooper 'S' con rod has not been produced by BL for many years, we have had them reproduced, faithful to the ORIGINAL specifications - including material type, EN24V. These are the strongest production 'A-Series' con rods produced.

**AEG624**  
1071cc and 1275 'S' rod 5.75" centers.

**AEG309**  
970cc 'S' rod 5.875" centers.

**CARRILLO**  
Carrillo rods are undoubtedly the finest in the world, and come equipped with bolts that NEVER need to be replaced. Standard 5.75 inch length

**CARRILLO6**  
Also available in 6" length.  
Requires special build procedures.