

# mini spares

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## ENG001

### 1380cc BUILT UP SHORT (HALF) ENGINE "A" PLUS ONLY

This engine is packed for storage with a wood cover on block face for protection and is built to the following specifications

Crankshaft reground and fitted with new bearings and thrusts.

Set of remanufactured selected con rods with Powermax 73.5mm pistons fitted.

Block is correctly offset bored to take the larger pistons, refaced, cleaned and then refitted with new core plugs and oil bungs.

New camshaft bearings are fitted. The crankshaft main bearing housings line bore honed.

These engines have a coating of EP90 put on the piston ring packs for storage life and on initial start up and the FIRST FEW MILES THEY WILL SMOKE

DO NOT USE SYNTHETIC BASED OIL WHEN RUNNING IN as the rings will not bed in The Evolution fast road camshaft is dial gauge timed in exactly and fitted with new camshaft followers. This camshaft was selected because during extensive testing and trials it gave the broadest range of full power up to over 6.000 rpm although only 5500rpm was required for fast road use, still giving acceptable economy.

Front plate and timing cover are fitted with a set of new Steel duplex gears and timing chain.

Oil pump is fitted and the engine is painted Leyland green.

Primary gear and all clutch ancillaries/components are NOT supplied

Head studs and water pump are NOT supplied

The front pulley and bolt are NOT supplied

The oil filter assembly is NOT supplied

All the parts not supplied are considered bolt on parts which should make the rest of assembly within the ability of any mini owner who is armed with a technical manual for torque settings and fitting procedures,,

The number on the block just beside where the engine number would be denotes the cc from the top of pistons to block and will usually be 12.5 to 13, which gives a compression ratio of around 9.9 to 10.2 with a standard 21.4 cc head but use the following guide to work out your individual cr.

A) This engine is 1380cc so to find the capacity of one cylinder divide by 4 which=345cc.

B) The head gasket is usually 3.7cc compressed so add this to the figure on the block 12.5 and then add the cylinder head cc of 21.4 which equals=37.6cc volume

Add (A) 345 and (B) 37.6 which equals 382.6 and then divide by (B)37.6 =10.17CR

This gives 10.17cr and anything over 10.5-1 requires 97/98 RON octane fuel as a rule and the higher the ratio the less total ignition will be required.

Ensure the head face is freshly skimmed before fitting and slacken all tappet screws before torquing head down and the set valve clearance to 15 thou.

Super rich fuel mixture during running in will impair piston rings bedding in.

Ensure that camshaft lobes are oiled with EP90 or cam lube and oil in oil filter during build and after build crank engine over without plugs until oil pressure is achieved.

Run engine until correct temperature is obtained and then leave until cold before re-torquing Head and adjusting tappets again