

COSWORTH

120 BHP	£ 1825
150 BHP	£ 1920
160 BHP	£ 1985
170 BHP	£ 2035

BDR ENGINE CONVERSION KIT

120, 150, 160 AND 170 BHP

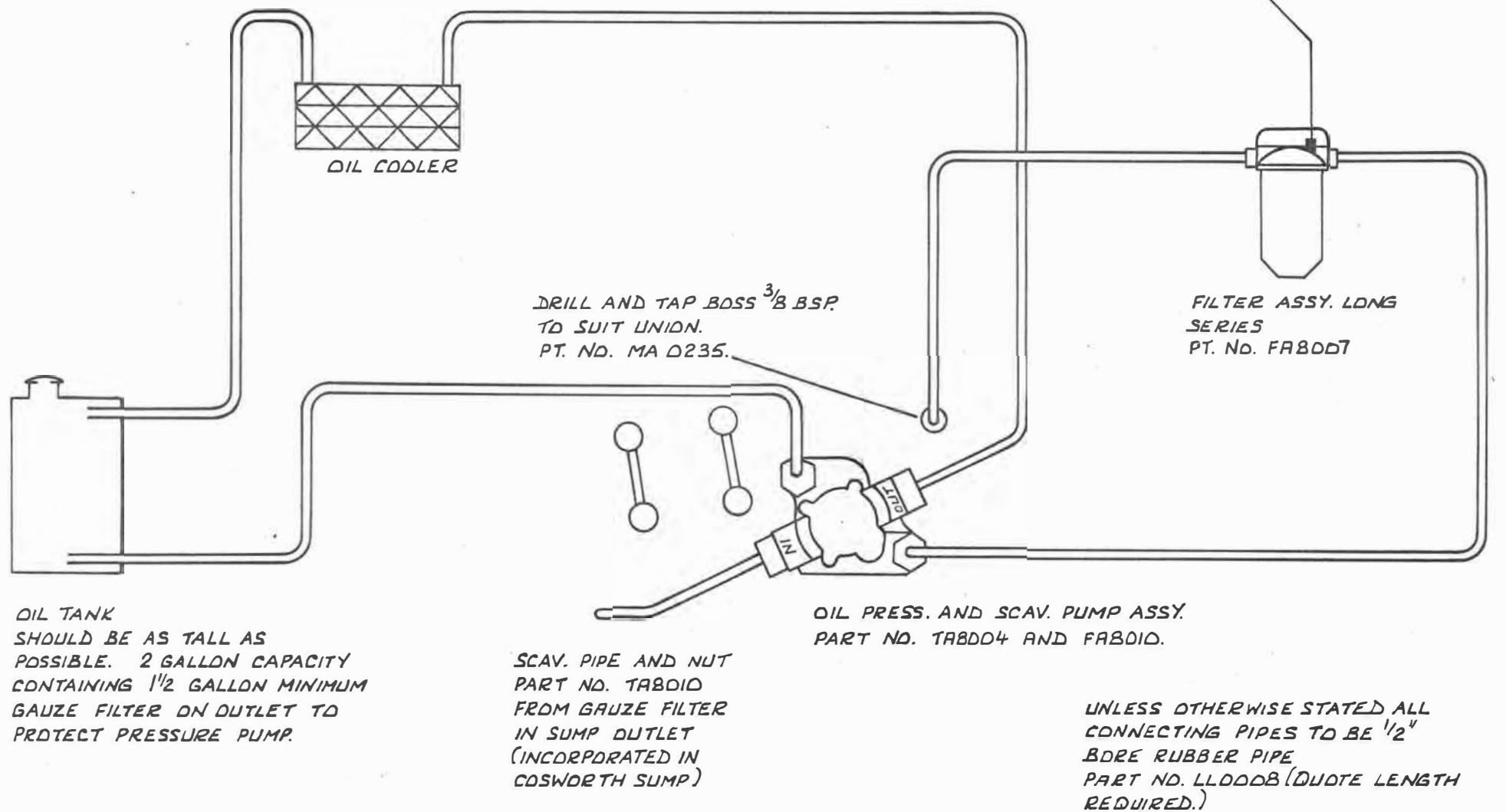
COSWORTH ENGINEERING LTD
ST. JAMES MILL ROAD
NORTHAMPTON,
ENGLAND.

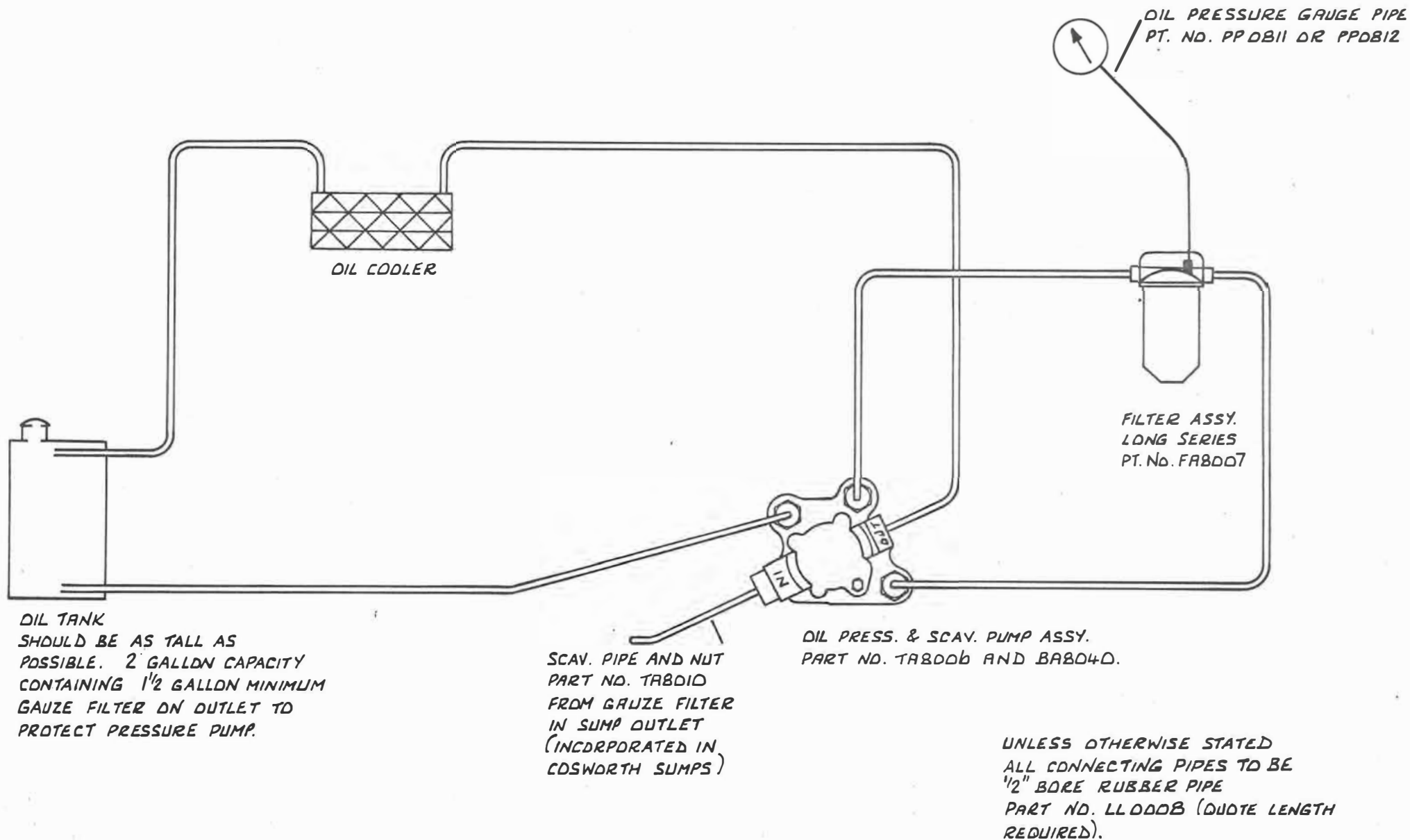
TELEPHONE : NORTHAMPTON 52444

TELEX : 31454 COSWTH G

ISSUE 4 JUNE '87

COSWORTH





COSWORTH

OIL SYSTEM.

OIL PRESSURE WHEN HOT 60 P.S.I. MINIMUM.

60/70 P.S.I. AT NORMAL RUNNING SPEEDS.

BEARING FAILURE CAN OCCUR IF THIS TYPE OF ENGINE IS RUN FAST WITH COOL OIL (BELOW 50°C MIN).

CHASSIS TUBES SHOULD BE NOT USED FOR OIL BETWEEN FILTER AND ENGINE.

MAXIMUM OIL TEMPERATURE 100°C (MEASURED IN TANK).

OIL PUMP ASSEMBLY.

IF THE OIL PUMP ASSEMBLY IS FOR ANY REASON DISMANTLED, IT IS IMPERATIVE THAT WHEN RE-ASSEMBLED THE SHAFT MAY BE TURNED FREELY BY HAND BEFORE THE UNIT IS RE-FITTED TO THE ENGINE. IF THIS IS NOT POSSIBLE THEN THE DRIVING GEARS WILL SUFFER, OWING TO THE LOAD PLACED ON THEM. ANY DIRT WHICH FINDS ITS WAY INTO THE OIL PUMPS WILL HAVE A SIMILAR EFFECT.

PROVIDING THESE INSTRUCTIONS ARE FOLLOWED, THE DRIVING GEARS HAVE PROVED TO GIVE NO TROUBLE AT ALL.

B.D.R.

BDR Conversion of the standard Ford 1600cc crossflow Kent engine 120, 150, 160, and 170 BHP versions.

It is recommended that a "Hayes" manual for the Mexico/RS/1600 engine is purchased.

Performance. The performance figures stated for the four versions of the BDR are achieved with good flexibility. Whilst it is relatively easy to improve the performance beyond 170 BHP this should not be attempted with the standard crankshaft and connecting rods which should be limited to 6250 R.P.M. The braking, road holding and tyres of the car to receive the BDR should be in keeping with the engine performance. Due to a build up of scale the radiator may not be adequate to cool the BDR.

The engine to be converted should be completely stripped, cleaned and inspected. Replace any defective or worn parts. To define right or left had side of engine view from rear of engine forward.

Cylinder Block. The used cylinder block should be thoroughly cleaned after removing plugs. Teapot spout brushes are ideal for scrubbing galleries. Do not use rag wipers which tend to leave behind a residual of fluff.

Drill water transfer holes in top face of block if necessary. (see fig. 1.) The top face of block should be flat, if necessary re-surface, removing minimum material to achieve a flat surface.

Check grades of pistons to be fitted and hone bores accordingly. If the bores are already oversize sleeve back to standard using standard Ford liners or bore and hone to suit the 1700 cc high compression optional pistons.

Fit cylinder head oil feed restrictor in top face of block. (see fig. 1.)

The oil bleed hole for the chain lubrication on the standard engine to be blocked off using 1/16" diameter aluminium wire. This hole is situated just above main bearing housing on front face of block. Blank off cylinder head/block breather holes with PP1123 and BA0390 core plugs.

Front cover. First fit breather and oil drain tubes (7/16" and 3/4" diameter) into respective holes in cover using Araldite. Both tubes should protrude approximately 3/4". Then fit both oil seals flush with casting.

Cover alignment is achieved by pushing jackshaft and crankshaft pulleys into seals on respective shafts before tightening front cover bolts. Bottom joint face of cover should be flush with sump joint face.

BDR conversion of the standard Ford 1600 cc
crossflow Kent engine 120, 150, 160 and
170 BHP versions.

2.

Crankshaft. It is not recommended that a crankshaft which has been reground undersize on journals is re-used. Reject a standard crankshaft which has seen excessive service in its original application. Crack detect before having crankshaft tufftrided. With fine emery paper lightly polish journals and thoroughly clean. We recommend fitting Vandervell lead Indium main and connection rod shells. Some standard cylinder blocks are manufactured with main bearing housings line bored +.015" oversize, check before purchase.

Crank, clutch and flywheel should be balanced.

Connecting rods. Crack detect and check balance, fit new bolts, standard on 120 BHP version, TA0083 on 150, 160 and 170 BHP versions. Fit and torque bolts with engine oil on threads and under bolt head.

Jackshaft. A groove must be machined in the front bearing journal of the standard Ford camshaft as shown on fig. 2. Ignore existing slot. The groove provides a continuous oil feed to the camshafts metered by restrictor shown in fig.1.

Oil pump. Uprate oil pump by fitting pressure relief valve spring provided (PP2712) in place of standard Ford one. Renew oil filter.

Water pump. Re-condition if necessary. Remove standard hub and fit BA0031 hub.

It may be necessary to remove rib on water pump casing to give extra clearance between water pump and main drive belt.

Cylinder head. To achieve the 150, 160 and 170 BHP performance versions. It is necessary, to evenly blend, by fettling, the inlet port from the .850" dia. to the 1.01" dia. seat throat. The exhaust port from the .850" dia. to the .850" dia. seat throat.

Remove any cast port flash or imperfections.

Match inlet manifolds to cylinder head inlet port.

Lap in valves and assemble spring platforms, spring retainers and cotters, make sure cotters are well home in the grooves. Fit water outlet connector from original head.

Camshaft carrier. Take care not to raise any burrs when fitting BA0017 head to camshaft carrier ring dowels.

Camshafts. The inlet camshaft has wider spaced lobes than the exhaust camshaft. Polish all journals with oiled fine emery paper. Remove any snags from the camshaft thrust key grooves. Remove sharp edges on sides of cam lobes.

Timing. Set up camshaft pulleys as in "Hayes" timing diagram (page 52) with timing marks in the centre on a horizontal line through camshaft centrelines. Turn crankshaft until No.1. piston is at top dead centre on the firing stroke. Jackshaft pulley timing mark should now be coincident with a line through jackshaft and crankshaft centrelines. File a new mark on crankshaft pulley along this line next to jackshaft timing mark. Ignore any existing mark on crankshaft pulley.

Timing belt. Always refit belt to run in the same direction. With all the slack on the longest free run adjust tension so that it should just be possible to twist the belt through 90° by hand.

Tappet adjustment. Rotate engine forwards to T.D.C. (camshaft pulley marks lined up). Remove camshaft belt having slacked off eccentric pulley to remove belt tension. Retain tappets up against the camshafts, preferably by inserting 8 EA0153 tappet holding clips between adjacent tappets. Remove surplus oil from tappet chambers with a syringe. Slacken off hexagon head bolts, ensuring cam carrier lifts evenly. Carefully lift carrier assembly vertically until clear of valve stems and shims. Some shims may stick to tappets, some to valve stems, it is therefore advisable to stick the shims to the valve stems with grease whilst carrying out tappet adjustment. It is beneficial to have a set of thin "slave" shims so that the shims in the kit can be finished ground at first attempt. When grinding tappet shims to size the tappet surface should be flat and parallel to the valve stem surface.

Carburettor adjustment. Carburettors should be flexibly mounted and have approximately 10 mm total movement at the trumpet in the vertical plane.

Fuel pressure. In our experience there is a drastic variation in the fuel pressure delivered by pumps of the same type. Maximum fuel pressure of 2½ to 3 p.s.i. can be achieved by fitting fuel pressure regulator KK0271 between pump and carburettors.

Alternator. It will be necessary to mount the alternator forward of its original position. Some bracketry might be available from Cosworth.

Flywheel and clutch. Use either standard RS1600, RS1800 or Lotus Cortina flywheel and clutch with suitable clutch bell housing. 105E Anglia type suits most gearboxes. Lightweight special vehicles like the Lotus and Caterham 7 could make use of the current Escort Sprint flywheel, which will benefit by lightening, with AP driven plate HB2427/1283c and cover 76649/22P/T4782.

Ignition distributor. Check condition, in particular shaft rock. Lucas preferred, side entry cap if possible to find.

Ford 116E 1500 cc and Lotus Twin cam conversions. The BDR kit, less pistons is suitable for converting the above engines. Given suitable demand Cosworth will manufacture forged pistons to suit 83.5 mm bore (1600cc).

Ford 1300 cc Kent Crossflow engine conversions. Most of the BDR kit is suitable for the above conversion. Shorter timing belts and larger idler pulleys are available to suit the short 1300 cc cylinder block. The distributor body and shaft would require shortening and a side entry distributor cap used to achieve clearance between distributor cap and inlet manifolds.

COSWORTH

BDR conversion of the standard Ford 1600 cc
crossflow Kent engine 120, 150, 160 and
170 BHP versions.

ISSUE 2
1ST MAY '85

4.

Exhaust system. Where it is not possible to use the RS1600 or RS1800 exhaust manifold a special will need to be fabricated.

See exhaust flange drawing No. BA0137 - Three stud fixing
or BA0722,3,4 - Four stud fixing

Spark plugs

120 BHP	Champion N9Y
150/170 BHP	Champion N7Y

For sustained high speed use we recommend a racing plug.

BDR Engine details

Main bearing diameters	2.1260/2.1255
Crankpin diameters	1.9375/1.9370

Valve timing BD1 120 and 150 BHP and BD3 160 and 170 BHP

Inlet valves fully open	$110^{\circ} + 1^{\circ}$ ATDC
Exhaust valves fully open	$110^{\circ} + 1^{\circ}$ BTDC

Valve lift

BD1 120 and 150 BHP	.335"
BD3 160 and 170 BHP	.340"

Tappet clearance measured cold

BD1 120 and 150 BHP	.008/.009 inlet	.011/.012" exhaust
BD3 160 and 170 BHP	.008/.009 inlet	.011/.012" exhaust

Ignition

Firing order	1-3-4-2
Ignition	$18^{\circ} - 20^{\circ}$ fully advanced

Before removing sparking plugs, clear all dirt from recess. Use special pliers to remove H.T. leads - do not pull directly on leads.

Cylinder head bolts. Number bolts 1-5 exhaust side, 6-10 inlet side, then order of tightening is:-

8,3,7,4,9,2,10,1,6,5

Cam carrier. It is recommended that "Silastic" is used to make an oil tight joint between the cylinder head and cam carrier and that the paper gasket is omitted.

Belt tension. Always adjust with a cold engine. When checking timing marks or timings always turn the engine in its normal direction of rotation, with the belt correctly tensioned.

COSWORTH

BDR conversion of the standard Ford 1600 cc
crossflow Kent engine 120, 150, 160 and
170 BHP versions.

ISSUE 2
1ST MAY 85

5.

Cooling system. Add a "Barseal" capsule to the cooling system when the engine is fitted in the chassis. In cold weather the usual precautions should be taken against freezing.

Bolt torques

Flywheel/crank	3/8 UNF	50-55 lb.ft.
Big end (TA0083)	3/8 UNF	41-42 lb.ft. (oil on threads and under head)
Cyl. head	7/16 UNC	62-65 lb.ft. (oil under head)
Main cap	7/16 UNC	65-70 lb.ft.
Cam pulley	3/8 UNF	20-25 lb.ft.
Jackshaft pulley	5/16 UNC	15-20 lb.ft.
Idler pulley nut	7/16 UNC	30-35 lb.ft.
Crank pulley	7/16 UNC	35-40 lb.ft.
Cam carrier/head	1/4 UNC	8-10 lb.ft.
Water pump	5/16 UNC	16-18 lb.ft.
Plugs	14mm	14-16 lb.ft.

Other

1/4 bolts	5-7 lb.ft.
5/16	10-15 lb.ft.
3/8	20-25 lb.ft.

Rev. limit 6250 RPM

Carburettor settings. Engine testing at Cosworth has been carried out using 4 star approx. 97 octane pump gasoline, which has a high lead content compared to many other countries. It will probably be necessary to vary carburettor setting recommendations outside the u.k.

120 BHP 40 DCOE

30	choke
125	main jet
200	air jet
F16	emulsion tube
35	pump jet
45F9	slow run jet
200	needle valve and seat

150 BHP 40 DCOE

32	choke
120	main jet
170	air jet
F11	emulsion tube
40	pump jet
45F9	slow run jet
200	needle valve and seat

COSWORTH

BDR conversion of the standard Ford 1600 cc crossflow Kent engine 120, 150, 160 and 170 BHP versions.

6.

ISSUE 2
1ST MAY '85

160 and 170 BHP 45 DCOE

38	choke
140	main jet
160	air jet
F16	emulsion tube
45	pump jet
45F9	slow run jet
250	needle valve and seat

choke and jet settings may vary from one application to another.

Maximum fuel pressure 3 p.s.i.

It is not necessary to match inlet manifolds to head and manifolds or adaptor plates to carburettors. The manifold to carburettor adaptor plate 'O' ring will swell in use and once unclamped will not fit back in their grooves until a "drying out" period has been allowed, therefore keep spares or do not unnecessarily remove carburettors from manifolds.

A Cosworth air filter to suit most applications can be supplied.

Oil feed to cylinder head at front R.H.S. of block to be reamed $21/64$ " dia. and restrictor BA0356 fitted as shown.

Four water transfer holes in R.H.S. of block top face to be drilled if not already present. Lay gasket on top of block and mark centres for four $5/16$ " dia. holes offset as shown. At .75" depth these will break into water jacket.

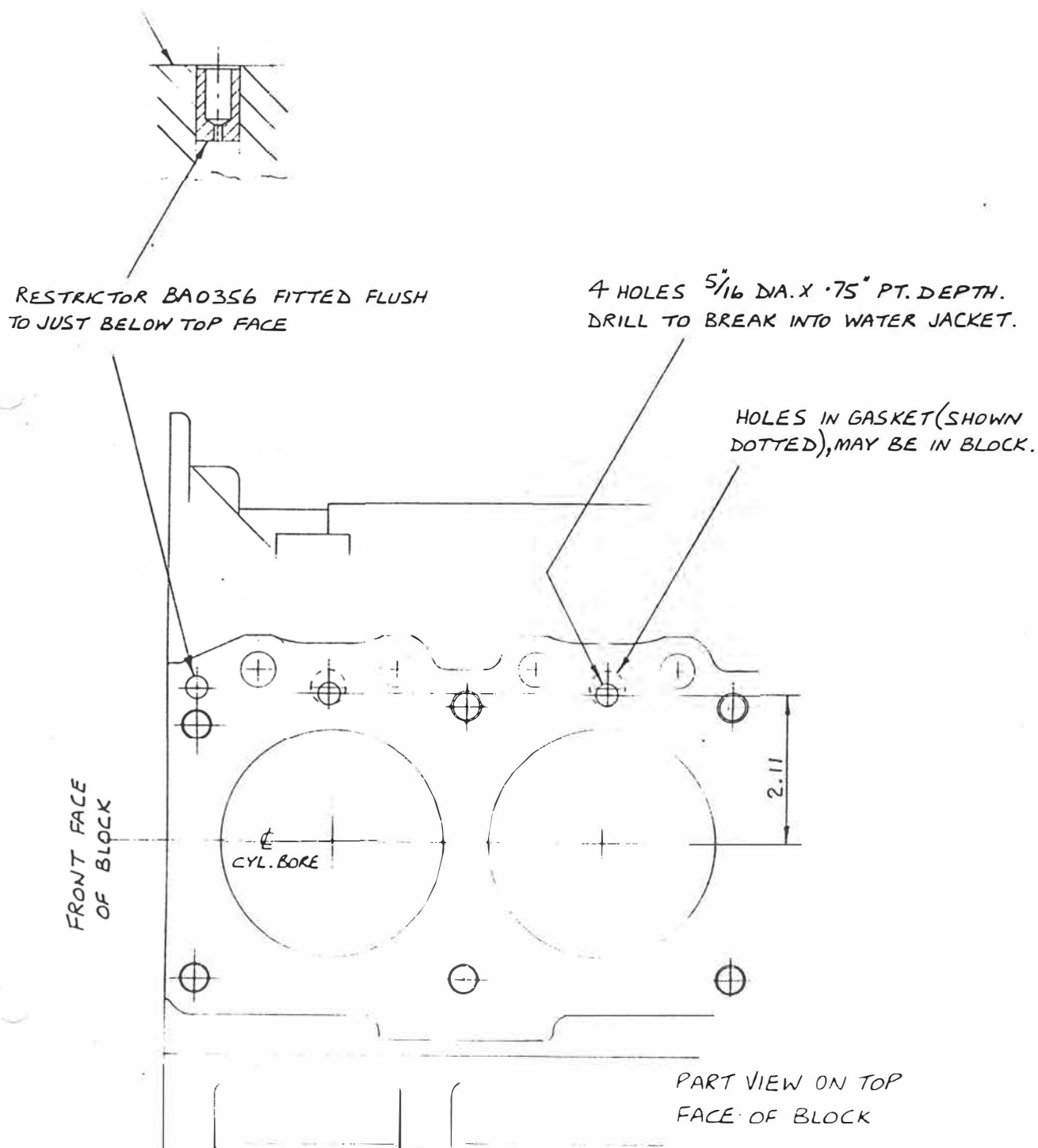
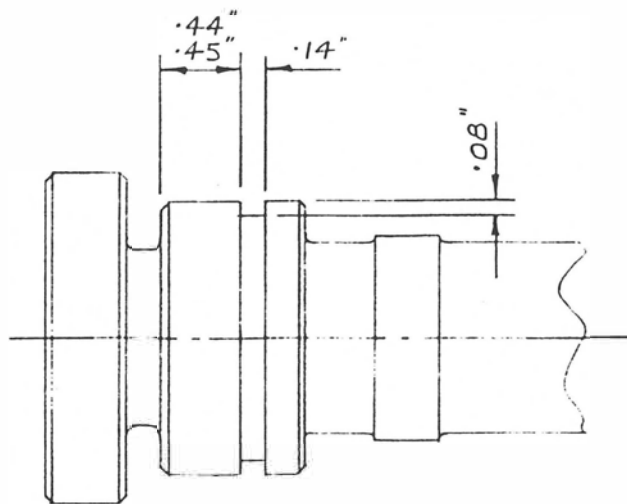
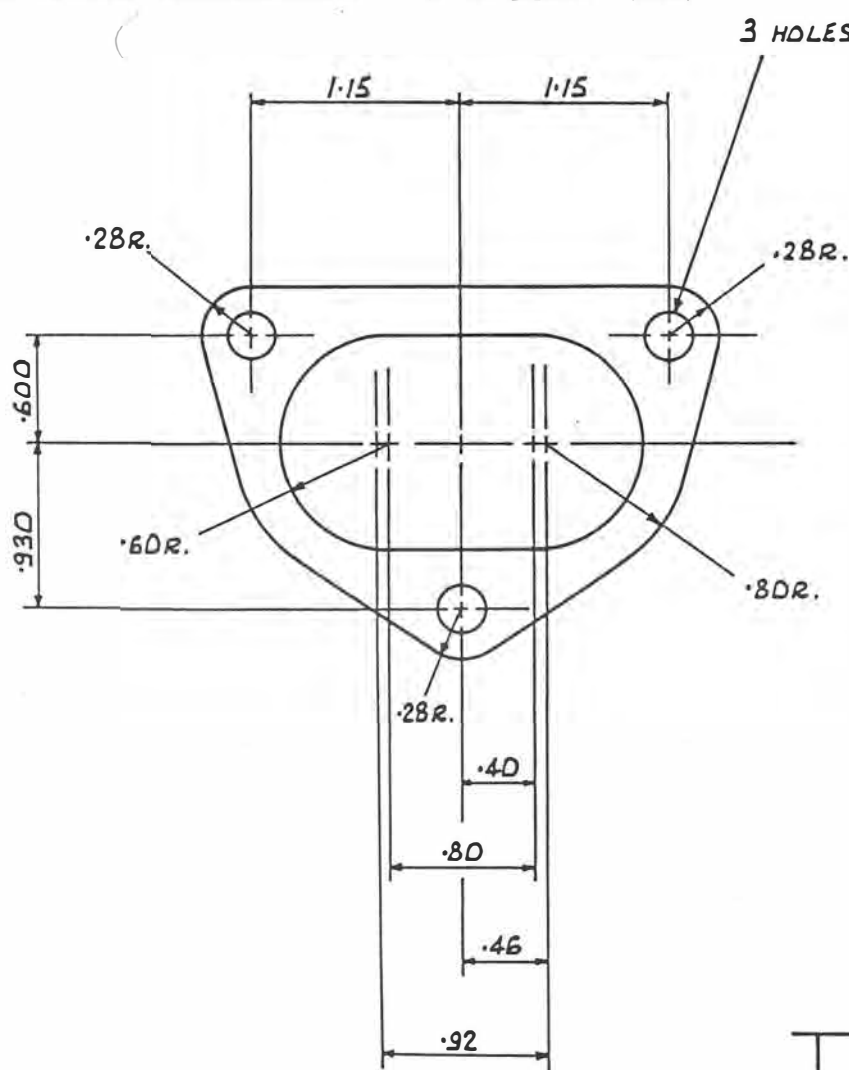


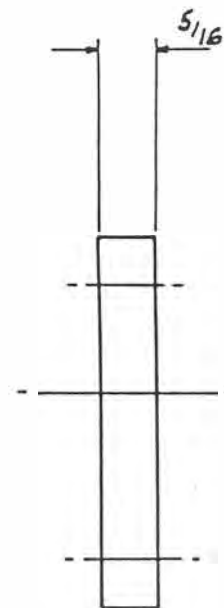
FIG. 2.



THIRD ANGLE PROJECTION. IF IN DOUBT ASK.



3 HOLES DIA. $\frac{17}{64}$ DIA. (.266) THRD.



NOTE:- REMOVE SHARP EDGES.

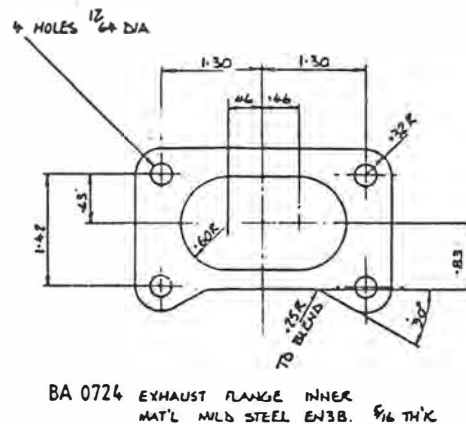
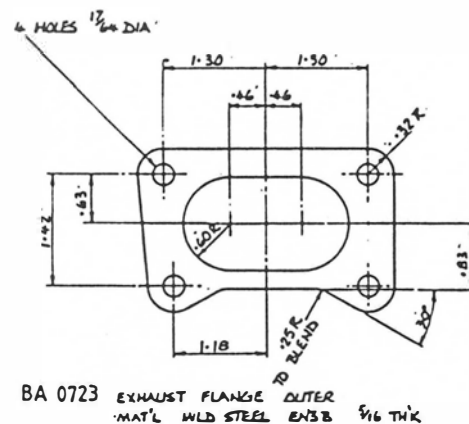
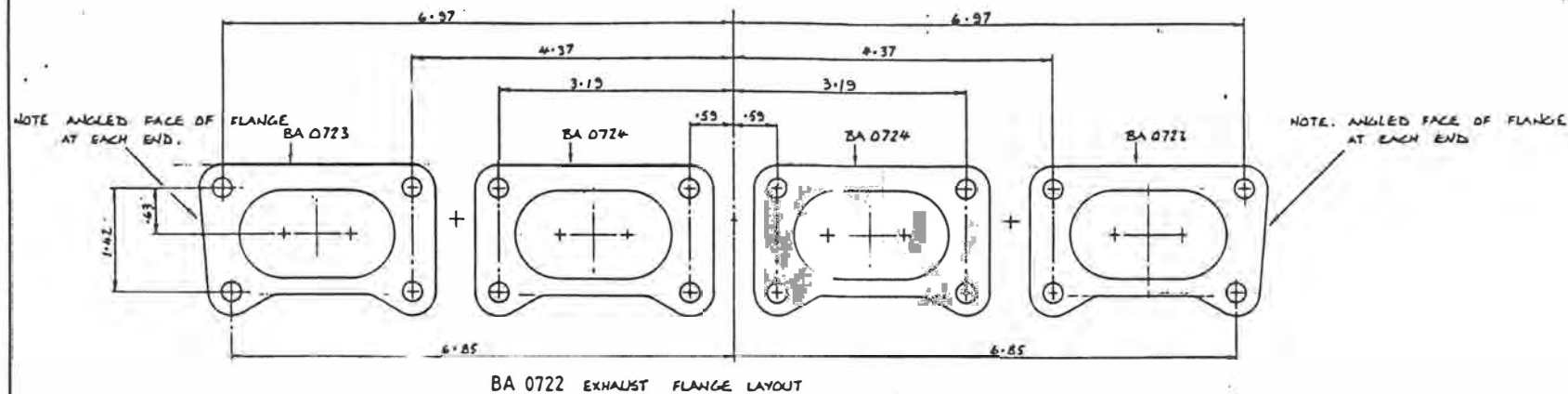
NUMBER BAO137

ISSUE 1	COSWORTH
RELEASED FOR MANUFACTURE.	EXHAUST FLANGE BDB-C-D-H
	MATL. MILD STEEL
	SCALE. FULL SIZE
	REF. NO. PER ENGINE
	DRAWN. B. Smith 9 Nov. 73. ADD'N

9 Nov. 73

THIRD ANGLE PROJECTION. IF IN DOUBT ASK. DIMENSIONS IN INCHES

THIS DRAWING IS CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT SHALL NOT BE LOANED, COPIED OR REPRODUCED TO ANY OTHER PERSON OR USED FOR ANY PURPOSE WITHOUT THE WRITTEN CONSENT OF COSWORTH.



INNER
OUTER
LAYOUT

BA 0724
BA 0723
BA .0722

ISSUE 1	COSWORTH
RELEASED FOR REPRODUCTION AND MANUFACTURE	EXHAUST FLANGES & LAYOUT
MAT'L AS STATED	
SCALE FULL SIZE	
REF.	NO PER ENG 2 OFF ENCL 6
10 MAY 80.	DRAWN L. JONES - R. JONES - APP'D.

CO WORTH

ASSY. No.	PART No.	DESCRIPTION BDR KIT 1.	No.	OFF PRICE	REMARKS
	BA0390	CORE PLUG CYL. BLOCK BREATHER	1		
	BA0356	RESTRICTOR CAM OIL FEED	1		
	PP1353	FRONT COVER	1		
	BA0041	BREATHER TUBE	1		
	BA0641	OIL DRAIN TUBE	1		
	PP0920	OIL SEAL, CRANKSHAFT, FRONT	1		
	PP0916	OIL SEAL JACKSHAFT	1		
	PP0047	BOLT $\frac{1}{4}$ UNC X $\frac{3}{4}$	2		
	PP0918	BOLT $\frac{1}{4}$ UNC X $\frac{3}{4}$	3		
	PP0919	BOLT $\frac{1}{4}$ UNC X $\frac{7}{8}$	1		
	PP0037	LOCKWASHER $\frac{1}{4}$ FLAT SPRING	6		
	BA0092	PULLEY, FIXED IDLER	1		
	BA0093	SPACER	1		
	BA0094	HUB	1		
	PP0954	BEARING	2		
	BA0100	STUD	1		
	PP0917	NUT $\frac{7}{16}$ UNF	1		
	LL0012	HOSE, BREATHER	7"		
	PP0288	CLIP, HOSE	2		
	LL0041	HOSE, OIL DRAIN	7"		
	PP1104	CLIP, HOSE	2		
	PP2712	SPRING	1		
	PP3336	PULLEY, CRANKSHAFT	1		
	PP0923	KEY, PULLEY TO CRANKSHAFT	1		
	PP0924	WASHER, CRANK BOLT	1		
	PP0033	BOLT, PULLEY TO CRANK	1		
	BA0022	PULLEY, VEE BELT, W/P & ALT. DRIVE	1		
	PP0047	BOLT, VEE PULLEY TO CRANK PULLEY	3		
	BA0025	PULLEY, CRANKSHAFT	1		
	PP0267	BOLT, PULLEY TO JACKSHAFT	2		
	PP0060	WASHER	2		
	BA0031	HUB, WATER PUMP	1		
	BA0032	PULLEY, VEE BELT, WATER PUMP	1		
	PP0047	BOLT, PULLEY TO W/P HUB	4		
	BA8162	CYLINDER HEAD ASSEMBLY	1		
	PP1120	PLUG	1		
	PP1123	PLUG CYL. HEAD BREATHER	1		
	BA0034	STUD, INLET AND EXHAUST MANIFOLDS	26		
	PP0185	NUT, BRASS EXHAUST MANIFOLD	16		
	PP0184	NUT	10		
	PP0043	WASHER	10		
	BA8106	IDLER PULLEY ASSEMBLY	1		
	BA0029	SPACER	1		
	BA0100	STUD	1		

CO WORTH

BDR KIT 2.

ASSY. No.	PART No.	DESCRIPTION	No.	OFF PRICE	REMARKS
	PP0917	NUT	1		
	BA0609	VALVE, INLET	8		
	BA0610	VALVE, EXHAUST	8		
	BA0611	RETAINER, VALVE SPRING	16		
	FP0205	SPRING, VALVE	16		
	PP0232	SEAL, OIL VALVE STEM	16		
	FA0192	COMPRESSION RING, VALVE STEM SEAL	16		
	BA0251	PLATFORM, VALVE SPRING	16		
	PP0672	COTTER RETAINER TO VALVE	32		
	BA0311	BOLT, CYLINDER HEAD	9		
	BA0235	BOLT, CYLINDER HEAD	1		
	BA0055	WASHER, CYL. HEAD BOLT	10		
	BA0017	RING DOWEL	2		
	BA8033	CAMSHAFT CARRIER	1		
	PP0909	PLUG, CAMSHAFT	2		
	PP1120	PLUG, CAMSHAFT	2		
	BA0018	KEY, CAM THRUST	2		
	BA0019	PLUG, REAR, CAM CARRIER	2		
	PP0473	'O' RING	2		
	BA0020	PIN, PLUG, RETAINING	2		
	PP1281	SEAL, CAMSHAFT	2		
	BA0026	PULLEY, CAMSHAFT	2		
	PP0245	KEY, PULLEY TO CAMSHAFT	2		
	PP0932	BOLT	2		
	BA0056	WASHER	2		
	PP0126	BOLT	5		
	PP0934	BOLT	10		
	BA0276	TAPPET	16		
	SA0047	SHIM	16		
	PP0950	BELT	1		
	PP1352	CAMSHAFT COVER	1		
	BA0045	TUBE	1		
	PP0765	CAP, OIL FILLER	1		
	PP0766	GASKET, OIL FILLER CAP	1		
	PP0934	BOLT	10		
	LL0008	HOSE, BREATHER, COVER TO CLEANER	8"		
	BA0033	MANIFOLD, REAR	1		
	BA0075	MANIFOLD FRONT	1		
	ZA0054	STUD, CARB FIXING	8		
	PP0090	NUT, NYLOC	8		
	BA0085	BRACKET, THROTTLE SPRING	1		
	BA0084	SPRING, THROTTLE RETURN	1		
	BA0623	EX GASKET INNER	2		
	BA0633	EX GASKET OUTER	2		

COSWORTH

ASSY No.	Part No.	DESCRIPTION..... BDR KIT 3.	No	OFF PRICE	REMARKS
1	BA0608	GASKET, CAM CARRIER TO COVER	1		
2	BA0051	GASKET INLET MANIFOLD	2		
3	PP1721	COVER, PLUG RECESS	1		
4	PP3334	PLUG LEAD	4		
5	PP3335	COIL LEAD	1		
6	PP3161	PISTON, PIN, CLIPS & RINGS 120 BHP ONLY	4		
7	PP0772	40 DCOE WEBER CARBURRETOR	2		
8	BA0003	INLET CAMSHAFT, BD1 PROFILE	1		
9	BA0004	EXHAUST CAMSHAFT BD1, PROFILE	1		
10	BA0036	GASKET, HEAD TO BLOCK	1		
11	KK0407	CARB, SPACER KIT 40 DCOE	1		
12		BDR 150 BHP SPECIFICATION USE			
13					
14	BA8011	BALANCED SET FORGED PISTONS	1		
15		TO SUIT STANDARD BORE			
16	TA0083	BOLT CONN ROD	8		
17					
18		BDR 160 BHP SPECIFICATION USE			
19	BA8011	SET PISTONS	1		
20	BA0283	INLET CAMSHAFT, BD3 PROFILE	1		
21	BA0239	EXHAUST CAMSHAFT BD3 PROFILE	1		
22	PP0962	45 DCOE WEBER CARBURRETORS	2		
23	TA0083	BOLT, CONN ROD	8		
24	KK0408	CARB, SPACER KIT 45 DCOE	1		
25					
26		BDR 170 BHP SPECIFICATION USE			
27	BA8018	SET PISTONS, 1700 cc	1		
28	BA0283	INLET CAMSHAFT BD3 PROFILE	1		
29	BA0239	EXHAUST CAMSHAFT BD3 PROFILE	1		
30	PP0962	45 DCOE WEBER CARBURETTORS	2		
31	TA0083	BOLT, CONN ROD	8		
32	BA0202	HEAD GASKET	1		
33	KK0408	CARB, SPACER KIT 45 DCOE	1		
34					
35	PP0911	BELT	1		
36	PP0062	PLUG	1		
37	PP0053	BOLT	2		
38	PP0933	WASHER	2		
39	BA0044	RIVET	2		
40					
41					
42					
43					
44					

COSWORTH

ASSY No.	PART No.	DESCRIPTION BDR PARTS MENTIONED IN DATA	No.	OFF PRICE	REMARKS
1	PP1379	TEAPOT SPOUT BRUSH			
2	PP0014	STD. CONN ROD SHELLS, VANDERVELL			
3		LEAD INDIUM	8		
4	PP0013	STD. MAIN SHELL, SUITS STD. HOUSINGS			
5		VANDERVELL LEAD INDIUM	10		
6	PP0012	STD. MAINSHELL, SUITS HOUSINGS			
7		.015" O/S, VANDERVELL LEAD INDIUM	10		
8	EA0153	TAPPET HOLDING CLIPS	8		
9	KK0271	FUEL PRESSURE REGULATOR	1		
0		PLUG LEAD PLIERS	1		
1		AIR FILTER ASSEMBLY	1		
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
0					</