Formula Ford racing is still going strong after 35 years and BAT has been there from the beginning. Times have certainly changed from the days of new \$3000.00 race cars and \$150.00 crankshafts. Through the years BAT has focused on what we do best, and that is suppling Formula Ford specific parts to racers and professional engine builders world wide. In that time we have been successful by offering the "right parts at the right price". We specialize in only hard parts (not driver suits and helmets) and stock the parts you need in quantity- not as afterthought. Make the comparison on selection and price- you will find no other parts source even comes close.



# SPECIALS SPECIALS SPECIALS SPECIALS



#### **Electronic Distributors and Conversion Kits**

We are very pleased to announce a new line of performance distributors and electronic conversion kits for existing Ford/Kent (Bosch, Motorcraft, Lucas) type distributors. Ignitor conversion kits are dependable, self contained, maintenance free, electronic ignition systems featuring magnets in place of mechanical points. Simply connect to a 12 volt coil, or use to trigger a separate CD box, and you are ready to go. Taking the Ignitor concept one step further, we also have complete, fully assembled, distributors in either side or top cap configuration. The side entry

cap version is particularly handy for use with side-draft carburetor applications. These new distributors could not have come at a better time as Bosch, Motorcraft and Mallory offerings are no longer available.

Full Distributor - Top Cap F9AP \$259.00 Full Distributor - Side Cap F9APS \$289.00 Cap & Rotor - Top F9BP \$12.50 Cap & Rotor - Side F9BPS \$33.40 Electronic Conversion- Bosch F9EC \$109.00 Electronic Conversion- Lucas F9ECL \$109.00 Electronic Conversion- Motorcraft F9ECM \$139.00

# **Blueprint 1600 Camshafts & Components**

Recent rules changes now permit non-Ford cam blanks which allow the production of more precise "blueprinted" stock cam profiles. We have contracted one of Europe's premier cam manufacturers to produce our FF1600 blueprint grind camshafts. Cams are offered on either a new CWC core or as a Ford core re-grind. New or re-grind, the cams have the same profile, however re-grinds have a slightly reduced base circle and might best used in club or vintage classes where SCCA rules do not apply. Other than cams we have the absolute



best prices on "select" cam followers (.516" uprated size) and chrome silicon wire valve springs. We supply many pro engine builders with these parts so be assured you are getting the same exact quality.

Camshaft FF1600 Blueprint Grind (new core)	F5A	\$339.00
Camshaft FF1600 Blueprint Grind (re-grind)	F5AB	\$275.00
Lifter/Cam Follower .516" (set 8)	F5B	\$99.60
Chrome Silicon Race Valve Spring Set (8)	F3F	\$66.00

## 1600 Timing Gears & Components

Most of the following items are commonly replaced at rebuild time. Some have become difficult to obtain and expensive- especially through other sources. On sprockets (cam & crank) we have purchased a quantity through the original supplier to Ford and have them in good supply, at a reasonable price. We also reproduced a high quality version of the timing chain rubbing block- again at an affordable price. The timing chain we offer is the same high quality link-less true roller we have supplied over the years and is in use on thousands of engines.



Cam Sprocket	F5F	\$63.00	Chain Tensioner	F2J	\$119.00
Crank Sprocket	F5P	\$40.50	Timing Chain	F5G	\$42.00
Pubbing Block	E51	¢26 00	_		



### 2000 OHC Cam Belt & Sprockets

The absolute highest quality cam belt for the 2000 ohc engine is the European Ford version. The belt should be replaced every season and it is also a good idea to carry a spare. We stock the Ford belt, sold elsewhere for up to \$45.00, for only \$35.65. In a recent close out by the manufacturer to Ford, we can now offer a great deal on cam/auxiliary sprockets. These were once quite pricey at \$75.00 each, but now on special for only \$29.00 each, you can afford to replace both on your engine for less than the cost of one at regular price.

2000 Cam Belt (Euro Ford)	S5G	\$35.65
2000 Cam/Aux Sprocket	S5F	\$29.00

#### 05 Spec. Forged 1600 Pistons

There has been discussion with the SCCA regarding allowing a forged piston over the last couple of years and with the supply of existing AE Hepolite's waning the decision was made to permit this very nice forged version. Specification size and weight (with standard pin) is exact. One should expect reduced skirt taper (wear) and better longevity of both pistons and rings. Pistons utilize the standard ring package (1/16", 5/64", 5/32") and wrist pin (which is not included, reuse standard pin). Currently available in standard bore size only.



1600 Forged Piston Set (4) includes 4 pistons, 8 spiro-locks

F4BF \$695.00



#### New 05 Spec. 1600 Rocker Stand/Post

As a recent rule change, these new billet aluminum rocker posts can be substituted for the standard, and unavailable new, Fomoco versions. This type of rocker post is beneficial at high rpm offering less shaft movement and more precise valve action.

Rocker Post (1) F3P \$42.00 each

# Ignition Parts for 1600 & 2000

We stock the largest selection of ignition parts for the various 1600 & 2000 distributors, and all at the very best prices. Select from the list below for Bosch 1600 & 2000, Motorcraft 1600 and Lucas 1600 distributor applications.

#### **Bosch 2000 Distributor**

<u>description</u>	part#	nrico
<u>description</u>	ран н	price
Cap	F9BB	\$11.25
Drive Gear	S9C	\$37.75
Coil- Bosch Blue Top	F9DA	\$55.00
Coil- Lucas Sport	F9D	\$49.00
Point Set	S9E	\$5.95
Point Set- competition (high tension spring)	S9ER	\$9.75
Electronic Conversion	S9EC	\$99.50
Rotor	F9FB	\$8.75
Condenser	S9G	\$15.40
Hold Down	S9HD	\$9.25
Taylor Wire Set 8mm (over valve cover)	S9HT	\$35.00
Taylor Wire Set 8mm (around rear of engine)	S9HT-R	\$39.00
Coil Wire Kit 24"	F9HTC	\$5.75



#### **Bosch 1 6 Distributor**

Во	osch 1.6 Distributor		
<u>description</u>	part#	price	
Cap	F9BB	\$13.25	
Drive Gear (.4675")	F9C	\$59.00	
Drive Gear (.498")	n/a	a	
Coil- Bosch Blue Top	F9DA	\$55.00	
Coil- Lucas Sport	F9D	\$49.00	
Point Set	F9EB	\$12.75	
Electronic Conversion	F9EC	\$109.00	
Rotor- standard	F9FB	\$10.20	
Rotor- 6700 Rev. Limit	F9FBR	\$39.90	
Condenser	F9GB	\$22.60	
Hold Down	F9HD	\$9.25	
Taylor Wire Set 8mm	F9HT	\$36.95	
(over valve cover)			
Taylor Wire Set 8mm	F9HTF	\$36.95	
(around front of engine)			
Coil Wire Kit 24"	F9HTC	\$5.75	
Shaft O-ring Seal	F9SL	\$2.25	
Wire Separator	F9S	\$4.65	
Spark Plug- NGK BP8ES	F539	\$2.37	

## Motorcraft 1.6 Distributor L

part#	price
F9B	\$15.45
F9C	\$59.00
n/a	
F9DA	\$55.00
F9D	\$49.00
F9E	\$13.50
F9ECM	\$139.00
F9F	6.25
n/a	ı
F9G	\$8.35
F9HD	\$9.25
F9HT	\$36.95
F9HTF	\$36.95
F9HTC	\$5.75
F9SL	\$2.25
F9S	\$4.65
F539	\$2.37

#### **Lucas 1.6 Distributor**

part#	price
F9BL	\$35.50
n/a	ı
F9CL	\$35.00
F9DA	\$55.00
F9D	\$49.00
F9EL	\$13.98
F9ECL	\$109.00
F9FL	\$5.50
n/a	ı
F9GL	\$3.65
F9HD	\$9.25
F9HT	\$36.95
F9HTF	\$36.95
F9HTC	\$5.75
F9SL	\$2.25
F9S	\$4.65
F539	\$2.37

#### Gaskets

Fall 2003 brings about some rules changes relating to 1600 gaskets. There are now two options to the German Ford/Reinz head gasket, one by Payen and the other by Felpro. Both are interchangeable for specification and sell for a similar price. We don't have a preference between the two, as we have used them both successfully for years. When properly assembled FF1600 spec. engines are not known for blowing head gaskets. We also keep a good inventory on the other gaskets, seals, and related items for both the 1600 and 2000 engines. Most gaskets are Ford Motorcraft brand unless otherwise stated.

#### Gaskets 1600 Engine

Full Gasket Set	F15A	\$124.50
all gaskets- excluding C150	3 & F15H	
Top End Set -Payen	F15B	\$83.25
head, inlet, v. cover, water ne	eck, v.sten	n seals
Lower End Set -Payen		\$47.70
pan rails, pan seals, oil pum	ıp, crank s	eals, f/r
cover		
Pan Set	F15C	\$27.45
pan rails, f/r pan seal, oil pu	•	
Pan Set- Cork	F15CC	\$26.50
pan rails, f/r pan seals in co	rk	
Head Gasket- Ford/Reinz	F15D	\$51.50
Head Gasket- Payen	F15DP	\$47.50
Head Gasket- Felpro	C15D	\$39.75
Valve Cover Gasket	F15E	\$6.95
Intake Mfld. Gasket	F15F	\$14.90
Exhaust Header Gasket	C15G	\$9.45

#### Carb to Mfld. Spacer/Gasket F15H \$22.75 plastic with paper gasket surfaces .205" thick Paper Gasket for F15H F15HP \$1.98 **Front Cover Gasket** \$5.50 F15J Rear Cover Gasket F15K \$4.95 Oil Pump Gasket F15L \$4.45 **Fuel Pump Block F15M** \$11.50 **Water Pump Gasket F15N** \$2.75 Water Neck Gasket **F15P** \$3.40 Rear Crank Seal F15Q \$39.25 **Front Crank Seal** \$17.45 F15R **Rear Pan Seal F15S** \$7.35 **Front Pan Seal F15T** \$14.50

#### Gaskets 2000 Engine

Full Gasket Set	S15A	\$149.00
Top End Set -Ford	S15B	\$95.00
head gasket, inlet, v. cover,	water neck & s	stem seals
Top End Set -Payen		
head gasket, inlet, v. cover,	water neck & s	stem seals
Lower End Set -Ford		
pan rails & seals, crank/alt/ca	m seals,front/a	ux covers
Lower End Set -Payen		
pan rails & seals, crank/alt/ca		
Pan Set	S15C	\$26.25
pan rails, front & rear pan		
Pan Set- Cork		•
pan rails, front & rear pan	seals in cork	
Head Gasket- Ford		\$39.85
Head Gasket- Ferrea	S15DA	\$29.50
Head Gasket- Felpro	S15DF	\$28.50
Valve Cover Narrow	S15E	\$6.95
Valve Cover Wide	S15EL	\$10.75
Intake Mfld. Gasket	S15F	\$12.90
<b>Exhaust Header Gasket</b>	S15G	\$8.45
Carb to Mfld. Spacer/Gasket	: F15H	\$21.50
plastic with paper gasket s		
Front Cover Gasket	S15J	\$6.75
Fuel Pump Block/Gasket	: S15M	\$14.40
Front Cover Gasket Fuel Pump Block/Gasket Water Neck Gasket	S15N	\$1.90
Water Pump Gasket	S15P	\$2.95
Rear Crank Seal	F15Q	\$22.50
Crank/Aux/Cam Seal	S15R	\$15.45
Front/Rear Pan Seal	S15S	\$6.95

#### 1600 Pistons

We currently supply "uprated" Ford 1600 pistons in two styles, standard and high compression. Both are based on the AE/Hepolite 20552 series piston, but differ on bowl configuration (shape, location, volume). The standard compression version (which is Formula Ford legal in standard bore size) has valve reliefs with a uniform bowl shape. High compression version also includes valve reliefs, but has an offset bowl with less volume. Both standard and high compression versions are available in sizes: STD, .020", .030", .040". The standard compression piston yields +/- 10.0:1 and the high compression 11.0:1 (both quoted with optimized deck height and flat "uprated" type head). In hopes of prolonging engine block life, oversized pistons (.020" & .030"), are now legal with a number of club, and vintage, classes across the country. We are happy to see this trend, as it increases the number of rebuilds before expensive bore sleeving is required. Pistons for Cortina configuration engines, that use the "chambered" head, are no longer available. Rebuild options for these engines would be, use the "uprated" type pistons with matching flat (non-chambered) head, or more simply, use the "uprated" high compression piston. This



high comp standard comp



combination yields roughly 1 point <u>less</u> compression due to the volume of the chamber in the Cortina head. Another advantage to using this piston combination is the addition of valve reliefs which need to be cut in Cortina pistons when using a higher lift cam. *Pistons include rings\*, wristpin and circlips. \*race ready rings sold seperately- see below.* 

### Formula Ford Piston (standard bore)

Piston each	F4BB	\$85.10
Piston Sets (4) (o	versize vers	sion of above)
Piston Set .020"	C50920	\$389.50
Piston Set .030"	C50930	\$389.50
Piston Set .040"	C50940	\$389.50

## Piston Set (4) (high compression)

Piston Set .020"	C51020	\$389.50
Piston Set .030"	C51030	\$389.50
Piston Set .040"	C51040	\$389.50

## 1600 Race Ring Sets

As supplied, pistons (above) include basic cast iron type rings designed for general (longevity) use. We can also supply race ready ring sets for uprated (1/16", 5/64", 5/32" land) pistons in standard bore, and some oversizes. Race ring sets feature ductile iron, file fit (+.005") top rings with moly coating. Second rings are either, ductile/moly (+.005"). Oil control rings are 3-piece low tension design. *Priced for 4 pistons*.

Race Ring Set STD Bore (+.005 file fit) F4ABH \$139.65 Top Ring Set STD Bore (+.005 file fit) F4AcH \$69.00

#### Engine Fasteners 1600 & 2000

We stock a variety of fasteners by ARP, Cosworth and Ford for the 1600 & 2000 engines. Stock rod and flywheel fasteners should always be upgraded with heavy duty versions. For the 1600 engine, we have heavy duty ARP (170,000 psi) individual replacement head and main cap bolts. For extreme duty we offer ARP (200,000 psi) 8740 chrome molly head and main stud kits to assure proper cylinder head sealing and increased bottom end reliability. ARP Head and main stud sets are supplied complete with aerospace quality precision threaded nuts and parallel-ground washers.



### 1600 Engine Fasteners

Head Bolt Long (ARP) each	F2D	\$4.95
Head Bolt Short (ARP) each	F2E	\$4.45
Head Bolt Set* (ARP)	F2DS	\$64.00
*includes 200,000 psi bolts & w	ashers	
Main Cap Bolt (ARP) each	F2K	\$4.95
Main Cap Stud Set (ARP)	F2KS	\$79.00
*includes 200,000 psi studs, nu	ts & was	shers
Rod Bolt Stock (Ford)	F4F	\$5.25
Rod Bolt H.D. (6-point*)	F4FA	\$9.75
*Lotus Twin Cam Type		
Rod Bolt H.D. (12-point*)	F4FB	\$15.45
*Cosworth Type		
Flywheel Bolt (Ford) each	F5T	DISC
Flywheel Bolt H.D. (ARP)	F5TA	\$6.95

### 2000 Engine Fasteners

<u> 2000                                 </u>			
Head Bolt 12pt Star each	S2D	\$6.45	
Head Bolt 6pt Torx each	S2DT	\$6.45	
Head Stud Set* (ARP)	S2DS	\$129.00	
*includes 200,000 psi studs, nuts & washers			
Main Cap Bolt- each	S2K	\$4.95	
Main Cap Stud Set (ARP)	S2KS	\$134.50	
*includes 200,000 psi studs, nuts & washers			
Rod Bolt Stock (Ford)	S4F	\$3.49	
Rod Nut Stock (Ford)	S4FN	\$1.75	
Rod Bolt/Nut Set H.D. (ARP)	S4FS	\$59.50	
Flywheel Bolt (Ford) each	S5T	\$5.00	
Flywheel Bolt Set H.D. (ARP)	S5TS	\$47.40	





Recent issues with ITG (as a supplier) has left us without a proper Weber 32/36 base plate for their popular JC20 series filters. Realizing this, we have designed a new base plate that permits filter installation with mounting (tab) either inboard or outboard regardless of which side of the engine the intake is located. At one time two different base plates were offered, fortunately we simplified it to one. Filters are available in 25, 40, 65, 100 and 150mm heights.

BAT Base Plate- Weber 32/36	F22PB1	\$21.50
ITG JC20 Filter 25mm	F22E25	\$77.50
ITG JC20 Filter 40mm	F22E40	\$77.50
ITG JC20 Filter 65mm	F22E65	\$79.25
ITG JC20 Filter 100mm	F22E10	\$79.25
ITG JC20 Filter 150mm	F22E15	\$89.50