



# Camshaft Price List and Data Catalogue 2023





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# Company Profile

In 1967 DAVID NEWMAN commenced grinding performance camshafts on a Churchill cam grinder that he modified for non-production camshaft manufacture. One of the first camshafts that he ground was for the Competition Department of the Rootes Motor Company, now Peugeot, grinding Hillman Hunter and Imp competition camshafts.

As a company, we continued to manufacture and grind performance camshafts.

During the early 1980's, there was a substantial increase in the production of overhead camshaft engines, many of which suffered from premature camshaft and cam follower wear.

We received enquiries regarding the manufacture of replacement camshafts, rocker arms, cam followers, and we took a decision to expand into the production of new parts. This increase in production, led to a large expansion of new manufacturing plant and staff, with 70% of our production being exported.

During the late 1980's we saw that the hardenable iron camshafts that had been the normal camshaft material, mainly in use in America and some engines in Europe, was not wear-resistant enough for OHC engines, so we worked with a UK foundry

to develop small batch runs of chilled iron castings, making our own pattern equipment. This enabled us to offer, in some cases, parts that were of better quality than the OE part.

At this time, we had enquiries for out-of-production camshafts for car and motorbike engines, and we developed a range of camshafts for, mainly, sports car engines and motorcycle engines.

In 1986 David Newman's son Ken joined the Company.

By the early 1990's we had increased our manufacturing plant to 5 CNC Turning Centres, 4 CNC Milling Centres, 1 CNC Cylindrical Grinder, 1 x Centreless Grinder, 6 Rocker Arm Grinders, and 6 Camshaft Grinders, together with a fully equipped Inspection Department.

During 1996/7 we were beginning to have enquiries for prototype camshaft work from engine development companies, and we realized that, whilst our camshaft grinding equipment was





suitable for full and semi-production camshaft production, it did not lend itself to prototype work and low volume production work. We decided that the only way to solve this problem was the purchase of a new CNC Cam Grinder. This was delivered in 1997.

From 1998 to 2002 we moved into the production of performance camshafts in steel and chilled iron, manufacturing cams for F1, F3, BTCC, ETCC, DTM, FIA, GT Le Mans, MOTO GP etc.

In 2002 we noticed that we were receiving enquiries for re-entry camshaft profiles, ground by CNC cam grinders. At this time, there were no re-entry CNC camshaft grinders available for prototype work in the UK. We decided to have new re-entry cam software written and an additional small wheel grinding head made for our Landis CNC cam grinder to fulfill this function. This was introduced in 2003.

In 2004 we installed a Camshaft and Rocker arm superfinishing plant together with a cam follower lapping machine.

We then realized that we were running out of capacity for CNC grinding and during 2004, we purchased another Landis CNC cam grinder, together with a CNC Studer cylindrical grinder

that can grind camshaft bearing journals on camshafts up to a metre in length.

During 2008 we, again, ran short of capacity and installed our 3rd Landis CNC Landis Cam Grinder.

Due to the demand for specialized cam followers we installed a new Centreless Grinder at the end of 2010.

In 2018 Newman Cams was asked work with a top Chinese Machine Tool manufacturer to help design the first CNC Camshaft Grinder in China. And in 2019 we took delivery of the 1st Chinese Manufactured CNC Camshaft grinder. In 2021 we added a second machine.

## Please note the following

**Most of our prices are around 25% lower than other performance manufactures this has nothing to do with the quality of our products.**

We are the oldest performance camshaft manufacturer in the UK we own our own Factory and all our plant and equipment. We charge what we think are the correct prices for the products we produce. So you can be confident that because our prices are lower you are not getting an inferior product.



# How to Select A Performance Camshaft

**When selecting a performance camshaft, consider the use for which the vehicle will be required.**

**We all know the claims: 20 BHP extra.  
This sounds great – but think!**

These automotive manufacturers can't be that silly to disregard 20 BHP by changing a camshaft.

Ask yourself! Where is this 20 BHP? Probably not where you will ever use it at 7500 rpm.

Well, probably we will use it, occasionally; it would be nice to have in reserve.

Hold on! In this world there is no such thing as a "free meal". What's the possible trade-off of this 20 BHP? It could be a loss of 10 BHP at 2500 rpm. This means, each time you accelerate through 2500 rpm, you could lose 10 BHP. This to me, doesn't sound too good.

## **SOLUTION**

Be conservative! Don't over-cam your engine. Choose your cam for the correct application. Consider! Fit a milder cam and **increase your power by 10 BHP at 3500 rpm.**

**Remember!** You get this 10 HP every time you accelerate through 3500 rpm. Multiply this by 10 HP each time you drive through 3500 rpm then deduct the times you reach 7500 rpm.

I'm sure you will find **more horsepower on the 3500 rpm side** than the 7500 rpm calculation.



## Camshaft Selection

You will see that each camshaft has a Part No and Phase No. The Part Number designates the make and model/the duration period of the inlet camshaft/the valve lift of the inlet camshaft and whether the camshaft profile is hydraulic.

So if we look at the Ford 1300/1600 CVH RS Turbo XR3i XR2 Camshaft Data Sheet we see the following:-

*FORC/206/420/H PH2*

- FORC** Specifies the make and engine type
- 260** Specifies the duration
- 420** Specifies the lift on the inlet valve
- H** Specifies that the camshaft is designed for hydraulic cam followers
- PH2** Specifies the type of use the camshaft is recommended for





# Selecting your Camshaft



**All the camshafts in this brochure have a Phase Number after the Part Number.  
Phases 1 to 5 will help you to select the camshaft that meets your requirements.**



## **PHASE 1 (PH1) ROAD CAMSHAFT**

This is a camshaft that would be used for road use and will normally run with standard carb or injection system and can be fitted without additional tuning equipment. It is

meant for town use and will have a smooth tick-over and will give its increase in power in the low mid-range. Other modifications to the engine will increase the performance of this cam.



## **PHASE 2 (PH2) FAST ROAD CAMSHAFT**

This is a camshaft for increasing mid-range of the engines and is meant for mild competition use and where the driver requires an increase of

power in the mid-range without suffering too much loss of power in the low-range. The tick-over will be heavier than a standard engine. The fuel system may have to be modified and the cam will work to its optimum with modifications to the cylinder head, inlet/exhaust system and possibly the management system.



## **PHASE 3 (PH3) FAST ROAD RALLY**

This type of camshaft is really the limit for normal road use. It will require fuel system and management modifications. It will have a noticeable loss of low-down power

and the tick-over will be heavy. For competition use, where mid-range power is important and road use where the maximum power is required.



## **PHASE 4 (PH4) TARMAC RALLY SPRINT RACE CAMSHAFT**

This camshaft is for competition use only and can be considered as a race cam. It could be used on the road, but would not be suitable for

use in traffic. It will have a very heavy tick-over and there will be a noticeable loss of power below 3500 rpm. Its main use is for a torque race cam, giving a strong surge of power in the upper range power, yet still having the ability to floor the throttle below 5000 RPM and pull cleanly away. It will require modifications to the carb/injection system, cylinder head and induction exhaust system.



## **PHASE 5 (PH5) FULL RACE CAMSHAFT**

For race use only.

Not suitable for road or rally use. Little power below 5000 RPM.

Will have virtually no idle and will require carb/injection, exhaust/induction. Cylinder head and engine management modifications.



**Need a performance cam for your bike, please get in contact, we provide comprehensive service for motorbikes as well.**

# Material Type (Performance Camshafts)



You will note that we have a material description at the end of the camshaft specification. This informs of the following:



## Billet

This means that the camshaft has been turned from a round steel bar and will normally be nitrided after grinding. We use this method for low volume production and, due to the work involved, they are always more expensive than cast blanks.



## Repro

A regrind on an existing camshaft, only suitable for mild grinds on existing chilled iron camshafts. If you regrind case hardened steel camshafts you will remove the case hardening. We only regrind chilled iron cams, but prefer to supply new units



## Blank

Unless specified, the camshaft is made from a chilled iron casting. This is the best material for camshafts, as it has far superior wear characteristics than any other material.





**Camshaft material, i.e.** What the camshaft is made from, is the most important detail in stopping premature wear of performance camshafts. *There are various materials that camshafts are manufactured from:-*

## 1.HARDENABLE IRON

This is Grade 17 cast iron with an addition of 1% chrome to create 5 to 7% free carbide.

After casting, the material is flame/or induction hardened, to give a Rockwell hardness of 52 to 56 on the C Scale.

This material was developed in the 1930's in America as a low-cost replacement for steel camshafts and is mainly suited in applications where there is an excess of oil, i.e., camshafts that run in the engine block and that are splash-fed from the sump. (This is the material that the Ford OHC camshafts were manufactured from).

It is not the most suitable material for performance camshafts in OHC engines.

As a company, we only use this material for performance camshafts if the camshaft is splash-fed in the sump.

## 2.SPHEROIDAL GRAPHITE CAST IRON KNOWN AS SG IRON

A material giving similar characteristics to hardenable. Its failing as a camshaft material is hardness in its cast form, i.e., Rockwell 5, which tends to scuff bearings in adverse conditions. The material will heat treat to 52 to 58 RockwellC. This material was used by Fiat in the 1980's.

## 3.CHILLED CHROME CAST IRON

Chilled iron is Grade 17 cast iron with 1% chrome. When the camshaft is cast in the foundry, machined steel moulds the shape of the cam lobe are incorporated in the mould. When the iron is poured, it hardens off very quickly (known as chilling), causing the cam lobe material to form a matrix of carbide (this material will cut glass) on the cam lobe.

This material is exceedingly scuff-resistant and is the only material for producing quantity OHC performance camshafts.

## CONCLUSION OF CAST CAMSHAFTS

When purchasing a camshaft, enquire which material the camshafts are produced from. A chilled iron camshaft may be more expensive, but its resistance to wear in all conditions, far exceeds any other type of cast iron.



## Steel Camshafts

### 1. CARBON STEEL – EN8/EN9

Used mainly in the 1930 to 1945 period and is currently used for induction hardened camshafts in conjunction with roller cam followers, due to the through-hardening characteristics of the material.

### 2. ALLOYED STEELS

#### – EN351 AISI 8620 and EN34 etc

Used by British Leyland in the A Series and B Series engine and best when run against a chilled cam follower.

### 3. NITRIDING STEEL – EN40B

The best steel for camshafts. When nitrided it gives a surface hardness and finish similar to chilled iron.

We used this when replacing chilled iron camshafts in competition engines. This material is used on several of the current F1 engines.

### CONCLUSION

In general, steel is a good camshaft material. However, the type of steel has to be matched with the cam follower it runs against, as different grades of steel have different scuff characteristics.

### GENERAL CONCLUSION OF CAMSHAFT MATERIAL

This has been a very simplified explanation of camshaft materials, based on over 48 year's experience. It may assist you to ask the correct questions when purchasing performance camshafts.







## Performance Camshaft fitting instructions

### Basic Information Checks.

1. Check the Cam number is impact marked on the cam and agrees with the cam that you have ordered.
2. Check the cam is identical to the cam you are replacing except for the cam lobe profile.
3. After installing the camshaft check that the Valve springs are not coil binding. They should have a minimum of .75mm clearance between coils. If they do coil bind you will either have to cut the valve springs seals or fit extended valve collars if they are available.
4. If you are fitting springs that are not supplied by Newman Cams check the valve poundage at full lift. As a rough guide the following poundage rates will apply at full life

### Nominal Guide to full lift cam nose poundage rates

#### 4 Cylinder 8 x Valve Push Rod Engines up to 2 Litre Non Hydraulic

Up to 7000 RPM	Full Lift Pressure 160lbs
Up to 10000 RPM	Full Lift Pressure 200 lbs

#### 4 Cylinder 8 x Valve OHC Rod Engines Over 2 Litre Hydraulic

Up to 7000 RPM	Full Lift Pressure 160lbs
Up to 8000 RPM	Full Lift Pressure 180lbs

#### 4 Cylinder 8 x Valve Push Rod Engines up to Over 2 Litre Non Hydraulic

Up to 6000 RPM	Full Lift Pressure 160lbs
Up to 8500 RPM	Full Lift Pressure 200lbs

#### 4 Cylinder 16 x Valve OHC Engines up to 1.6 Litre Non Hydraulic

Up to 8000 RPM	Full Lift Pressure 120lbs
Up to 10000 RPM	Full Lift Pressure 160lbs

#### 4 Cylinder 8 x Valve OHC Engines up to 2 Litre Hydraulic

Up to 7000 RPM	Full Lift Pressure 160lbs
Up to 8000 RPM	Full Lift Pressure 170lbs

#### 4 Cylinder 16 x Valve OHC Engines up to 1.6 to 2 Litre Non Hydraulic

Up to 8000 RPM	Full Lift Pressure 160 lbs
Up to 10000 RPM	Full Lift Pressure 180 lbs

These are only a basic guide as the exact poundage depends on the profile and the weight of the valve gear.

Most standard valve springs fitted by the original manufacturer will work on Ph1/2/3 Cams.

As they are designed with a life of over 200000 miles they are normally overrated by 25%. Also when the cam lift is increased, so the spring rate increases, as the spring is compressed. So what has a full lift pressure of 140 lbs when the lift has been increase by 2 mm, the nose pressure will increase dependent on the spring to around 160 lbs.





## Summary of valve springs.

- A. Use the lightest spring possible
- B. Using heavier springs than required uses up power, hammers valve seats and can lead to premature wear of cam lobes and cam followers/rocker arms.
- C. You will gain more power by using a lighter valve spring than removing a few grams from the valve gear.
- D. Valve bounce can normally be traced to reaching a given RPM and the engine not wanting to rev any more. On an engine with open trumpets this can sometimes show as a blow back of vapour as the engine literally decompresses itself.

## Cam Followers

As a general rule it is essential to fit new cam followers with a new cam.

You can either fit the cam followers that we supply or fit O.E. Cam followers supplied by a main dealer. There are some followers that are being supplied that work on a standard engine but fail in a more highly stressed engine.

**Note:** We will only consider any claim against our camshafts if the cam has been fitted with either cam followers supplied by us or O.E. Cam followers.

## Piston to valve clearance

If no material has been machined off the head or block, PH1/2/3 Cams can normally be fitted without machining the piston crowns. If the head or block has been machined or you are fitting PH4/5/6 cams, you will need 1.5mm/.060 clearance between the valve and piston at TDC. This can be checked by assembling the engine placing blue tack on the valve and turning the engine over by hand and then measuring the compressed thickness.

If you are going to use vernier pulleys, it is advisable to do this check with the exhaust vernier retarded back by 5 degrees and the inlet vernier advanced by 5 degrees. This will then cover any vernier adjustment required.

## General assembly information on fitting

Lubricate the cam and cam follower faces with Hypoid EP80/90 Oil or a cam Lube.

Time the camshaft/s either by the standard timing marks or the full lift at TDC method.

Turn the engine over with the spark plugs out manually with a spanner and ensure there is no valve to piston contact. If there is check the valve timing.

Starting the Engine:-

- A. Remove the spark plugs, turn the engine over on the starter motor until the oil light goes out/or the oil pressure registers pressure. Replace spark plugs.
- B. Start the engine as you would in normal use. **There is no need to run the engine at 3000 RPM for 20 minutes.** Just treat the engine as if it was new for the 100 miles then off you go.
- C. To obtain maximum performance on PH3/4/5 cams a visit down to the rolling road is advisable.





## Timing the camshaft

There are various ways of timing in camshafts. They all require the following:-  
A dial gauge if possible with 12mm lift. A timing disk.

## General notes on Timing Camshafts

On PH1/2/3 cams our cams are ground so you can use the timing marks on the existing sprockets or pulleys as marked by the engine manufacturer. This applies to all pushrod engines.

This method will work on OHC engines providing the cylinder head face has not been machined to increase the compression ratio by machining the head when the timing belt/chain tensioner is adjusted it will move the timing on both of the cam/cams.

If you are fitting PH1/2/3/4/5 cams with the engine in situ and cannot get a timing disk or dial gauge to the engine and you are fitting vernier pulleys, set the engine up with the standard pulleys and take them off and fit the vernier pulleys. This way you are never going to be more than 5 degrees out. You will have a basis for tuning the engine in on the pulleys.

We always recommend before timing in the cams that you set the engine up on the standard timing marks using the standard sprockets/pulleys.

There are 3 methods of setting valve timing not using the existing timing marks:-

- a. **The full lift method**
- b. **Full lift at TDC method**
- c. **Opening and closing method**

## The full lift method

Fit a timing disk (Our timing disks are dual sided with a full lift degrees on one side and timing on the reverse side) on the crank. Find TDC on No 1 piston with a dial gauge from the top of the piston. You will find that there is a period of around 5 degrees where the piston does not seem to move. Take the midway position. Set the timing disk at 0.





## Timing single cam engines

Note the full lift on the inlet from your spec sheet EG 110 degrees.

- A. Turn the crank clockwise 110 degrees
- B. Fit the dial gauge in the valve cap or the cam follower of the No 1 inlet cam lobe. Turn the cam around until you obtain full lift. You will find there is a period of around 3 degrees at full lift where the dial gauge does not move take the midway position now attached the sprocket or pulley and fit the chain or belt. Your cam is now timed correctly but double check the above procedure with the chain or belt attached.

## Timing with twin cam engines

Note the full lift on the inlet and exhaust from your spec sheet E.G. 110 degrees.

- A. Turn the crank clockwise 110 degrees
- B. Fit the dial gauge on the valve cap or the cam follower of the No1 inlet cam lobe turn the cam around until you obtain full lift you will find there is a period of around 3 degrees at full lift where the dial gauge does not move take the midway position. Now attach timing belt /chain to crank and bolt up inlet cam.
- C. Turn the crank anti clockwise 110 degrees
- D. Fit the dial gauge on the valve cap or the cam follower of the No 1 exhaust cam lobe. Turn the cam around until you obtain full lift. You will find there is a period of around 3 degrees at full lift where the dial gauge does not move. Take the midway position. Now attach the timing belt/chain.

After setting the cams you can run a double check by turning the timing disk round and checking the opening and closing periods.

## Full lift at TDC method single cam engines

If your specification sheet has a lift at TDC data available Note the lifts at the TDC on the inlet and exhaust valves.

E.G. Inlet 2mm at TDC

Set the engine at TDC on No 1 cylinder

Set the dial gauge on No 1 inlet cam bucket or valve cap to zero in the middle of the base circle. I.E. 180 degrees opposite the full lift part of the lobe.

Turn the inlet cam clockwise until you reach 2mm on opening side of the cam.

Now attach the timing belt/chain

# Performance Camshaft Fitting Instructions



## Full lift at TDC method twin cam engines

If your specification sheet has a lift at TDC data available Note the lifts at TDC on the inlet and exhaust valves.

E.G. Inlet 2mm at TDC. Exhaust 1.75

Set the engine at TDC on No 1 cylinder

Set the dial gauge on No 1 inlet cam bucket or valve cap to zero in the middle of the base circle. I.E. 180 degrees opposite the full lift part of the lobe.

Turn the inlet cam clockwise until you reach 2mm on opening side of the cam.

Set the dial gauge on No 1 exhaust cam bucket or valve cap to zero in the middle of the base circle.

I.E. 180 degrees opposite the full lift part of the lobe.

Turn the inlet cam clockwise until you reach 2mm on opening side of the cam.

Set the dial gauge on No 1 exhaust cam bucket or valve cap to zero in the middle of the base circle.

I.E. 180 degrees opposite the full lift part of the lobe.

Turn the exhaust cam anti clockwise until you reach 1.75mm on closing side of the cam.

Now attach the timing belt/chain

## Opening and closing method single cam engines

1. Set the engine at TDC
2. Note the opening and closing timings EG 20-60-60-20
3. Wind the crank forward to 20 degrees AFTDC.
4. Set the dial gauge on No 1 inlet cam bucket or valve cap to zero in the middle of the base circle. I.E. 180 degrees opposite the full lift part of the lobe.
5. Turn the cam clockwise until the tappet clearance is taken up and the dial gauge indicates that the inlet valve is opening. Around .01"/.025mm
6. Now attach the belt/chain.
7. After setting the cams you can run a double check on the opening and closing periods.





## Opening and closing method Twin cam engines

1. Set the engine at TDC
2. Note the opening and closing timings EG 20-60-60-20
3. Wind the crank back to 20 degrees BFTDC
4. Set the dial gauge on No 1 inlet cam bucket or valve cap to zero in the middle of the base circle. I.E. 180 degrees opposite the full lift part of the lobe.
5. Turn the cam clockwise until the tappet clearance is taken up and the dial gauge indicates that the inlet valve is opening. Around .001"/.025mm
6. Now attach the belt/chain
7. Wind the crank forward to 20 degrees AFTDC
8. Set the dial gauge on No 1 exhaust cam bucket or valve cap to zero in the middle of the base circle. I.E. 180 degrees opposite the full lift part of the lobe.
9. Turn the cam anti clockwise until the tappet clearance is taken up and the dial gauge indicates that the exhaust valve is closing. Around .001"/.025mm
10. Now attach the belt/chain
11. After setting the cams you can run a double check on the opening and closing periods.

## General observations of Valve Timing

The easiest way to obtain the correct valve timing is by fitting Verniers Pulleys

If you cannot obtain the correct valve timing with existing sprockets or pulleys these are the options:-

Elongate the holes in the sprocket or pulley turning it into a basic vernier adjustment

With a woodruff key the key can be filed where it fits against the sprocket face so the sprocket can be moved round.

## Setting up the engine with vernier pulleys

The settings we supply with our camshafts must be regarded as nominal and are a basis for fine tuning your engine as the camshafts we supply are not going to be fitted to the same spec engine I.E. inlet system, cylinder head, ignition, fuel, exhaust system.

What we are doing when fitting performance camshafts is to get the maximum amount of petrol and air vapour into the combustion chamber without either blowing through the exhaust valve or blowing back up the induction system.

To do this with engines of differing specification you will need to fine tune by adjust the vernier pulleys

By doing this we are trying to balance out the reverse air wave pulses.



## Procedure for adjusting valve timing with vernier pulleys

Experience has shown that most engines at TDC require more lift on the inlet valve a rough ratio is around 10 to 15% so once the engine is initially set up we suggest you try the following procedure.

### Single cam engines

On single cam engines we are limited on the adjustment as we have to move both inlet and exhaust lobes

1. Ensure after the initial valve timing set up is made that you note the vernier position so you can find the initial setting
2. The first adjustment on single cam engines is to advance the pulley in 2 degree stages until the best performance is obtained if after the first 2 degree adjust is made the engine does not improve you can try retarding the cam by 2 degrees.

### Twin cam engines

On twin cams engines we have 4 options for the fine tuning the valve timing.

1. Ensure after the initial valve timing set up is made that you note the vernier position so you can find the initial setting
2. The first adjustment is to advance the inlet cam by 2 degrees until no further performance is obtained. If after the first adjustment no performance is obtained try retarding the cam by 2 degrees.
3. After find the best running position of the inlet cam retard the exhaust cam by 2 degrees if no further performance increase is obtained try advancing the cam.

If after adjusting the cams you find no improvement the original settings cams were correct.

### Valve timing on OHC rocker arm engines

These engines are the hardest to set up if you look into our spec sheet we do not normally give left at TDC specification this is due to pivot heights of the valve stem, cam base circle, and ball stud being variable from engine to engine, as the angle of the rocker arm increase the rocker ratio changes, so with these engines you may have to accept a compromise of valve timing to cam lift at TDC.

*We hope the information supplied may be useful when setting up your engine.  
If you have any queries regarding any of the above please feel free to contact us.*





We manufacture cams in, either, steel or chilled iron for prototype or one-off, using customers' own data.  
We specialize in out-of-production vintage camshafts.  
We manufacture in batch or single units, camshafts for current motorcycle engines and out of production vintage motorcycle engines.

Over the past 50 years, we have manufactured camshafts, cam followers/rocker arms for the following engines:-

A.C	Citroen	Lamborghini	Riley
Aermacchi	Coventry Climax	Lanchester	Rolls Royce
AJS	Daimler	Lancia	Rover
Alfa Romeo	Darracq	Land Rover	Royal Enfield M/C
Alvis	Delage	Laverda	Rudge M/C
Ariel	Douglas M/C	Lea Francis	Salmson
Armstrong Siddeley	Ducati	Lola	Singer
Arrows	Ferguson	M.V Augusta M/C	Sunbeam M/C
Aston Martin	Ferrari	Maserati	Suzuki
Audi	Fiat	Meadows	Talbot Lago
Austin	Ford	Mercedes Benz	Triumph
Austin Healey	Gilera	MG Wolseley	Triumph M/C
Barre	Hart	Mitsubishi	TVR
Bentley	Herbert	Morris	Vauxhall
BMW	Honda	Mugen	Velocette
Bristol	Howard	N.S.U	Vincent
BSA	J.A.P. M/C	Norton M/C	
Bugatti	Jaguar	O.S.C.A.	
CCM	Lagonda	Panther M/C	



## Alfa Romeo Camshaft Data :- Model Alfa Sud/33 8 Valve Flat 4

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Exh	In	Ex	Ex VAT	Type
ALFS/280/380 PH2	Touring/Fast Road Cam	3000	280	280	0.380	0.378	0.380	0.378	32-69	69-31	109	109			0.008	0.010	£140.00	Repro
		7000			9.64	9.59	9.64	9.59							0.203	0.254	£600.00	Billet
Notes		Excellent Low Down Power and Smooth Tickover. On Repro Cams Machine Head/Carrier to Retain Original Shims Size																
ALFS/300/422 PH4	Race/Tarmac Rally Cam	4000	300	300	0.422	0.420	0.422	0.420	42-78	82-38	112	108			0.012	0.012		Billet
		8000			10.71	10.66	10.71	10.66							0.305	0.305	£600.00	EN40B
Notes		Race/Tarmac Rally Cam. Other Race Profiles Available on Request																

## Alfa Romeo Camshaft Data :- Model GT V6 24 Valve

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing			Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	EX	Close	IN. ATDC	EX BTDC	In	Exh	In	Ex	Ex VAT	Type
ALF6/260/392 PH2	Touring/Fast Road Cam	2000	260	260	0.392	0.370	0.392	0.370	20-60	60-20	110	110			0.012	0.012	£1,200.00	Billet	
		6500			9.95	9.39	9.95	9.39							0.305	0.305	Per Set	EN40B	
Notes		Excellent Low Down Yet Free Revving. Good Tickover																4 Cams	
ALF6/300/452 PH4	Race/Tarmac Rally Cam	3750	300	300	0.452	0.432	0.452	0.432	42-78	82-38	112	108			0.012	0.012	£1,200.00	Billet	
		8000			11.47	10.96	11.47	10.96							0.305	0.305	Per Set	EN40B	
Notes		Race/Tarmac Rally Good Free Revving Cams. Giving Main Power from 4500 RPM																4 Cams	

Audi :- All Models See Volkswagen Section - Pages 58 to 62



### BMW Camshaft Data :- E36 2002/316/318 4 Cyl

Rocker Ratio 1 : 1.3

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
<b>BMW4/280/399 PH1</b>	Road Cam	2000 6500	280	280	0.399 10.13	0.397 10.06	0.307 7.79	0.305 7.74	30-70	70-30	110				0.008 0.203	0.010 0.254	£300.00	Blank
Notes Good Increase of Low Mid Range Power. Smooth Idle																		
<b>BMW4/290/399 PH4</b>	Fast Road/Tarmac Rally Cam	3000 7000	290	290	0.399 10.13	0.397 10.06	0.307 7.79	0.305 7.74	35-75	75-35	110				0.008 0.020	0.010 0.254	£300.00	Blank
Notes Rally Cam. Plenty of Mid Range Top End Power Use 45 DCOE Carbs																		
<b>BMW4/320/450 PH5</b>	Race Cam	4500 9000	330	330	0.465 11.83	0.465 11.83	0.368 9.35	0.368 9.35	57-93	93-57	108				0.008 0.203	0.010 0.254	£375.00	Blank
Notes Please Phone for Details as This Cam Requires O/S Bearings. Cam Lobes are Crossed Drilled																		

### BMW Camshaft Data :- E30 320/323/325 "Small 6 Cam"

Rocker Ratio 1 : 1.55

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
<b>BMWS/270/406 PH1</b>	Road Cam	1500 5500	270	270	0.406 10.31	0.403 10.23	0.262 6.65	0.260 6.60	25-65	65-25	110				0.008 0.203	0.010 0.254	£340.00	Blank
Notes Good Increase of Low Mid Range Power. Smooth Idle																		
<b>BMWS/290/422 PH4</b>	Fast Road/Tarmac Rally Cam	3000 7000	290	290	0.422 10.70	0.419 10.62	0.272 6.90	0.270 6.85	35-75	75-35	110				0.008 0.203	0.010 0.254	£340.00	Blank
Notes Rally Cam Giving Plenty of Mid Range Power																		
<b>BMWS/300/434 PH5</b>	Full Race Cam	4000 7500	300	300	0.434 11.02	0.434 11.02	0.280 7.11	0.280 7.11	40-80	80-40	110				0.008 0.203	0.010 0.254	£340.00	Blank
Notes Full Race																		

### BMW E30320/323/325 "Small 6 Cam" Additional Components

Part No	Description	Price
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



## BMW Camshaft Data :- Mini One, Cooper, and Cooper S 2001-2006

Rocker Ratio 1 : 1.64 Exhaust / 1.44 Inlet

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
BMW/264/396 PH1	Road Cam	2000 6500	264	262	0.402 10.20	0.423 10.74	0.245 6.23	0.258 6.55	18-68	68-18		114			Hyd	Hyd	£225.00	Blank
Notes	Good Increase of Low Mid Range Power. Smooth Idle. For Non Supercharged Engines																	
BMW/288/410 PH3	Tarmac Rally Sprint Cam	3500 7500	288	288	0.410 10.42	0.410 10.41	0.285 7.23	0.250 6.35	34-74	74-34		110			Hyd	Hyd	£225.00	Blank
Notes	Tarmac Rally Race Cam for Non Supercharged Engines. Will Not Work With Standard Injection																	
BMW/300/426 PH4	Race Cam	4500 8250	300	300	0.472 11.99	0.426 10.82	0.288 7.33	0.260 6.60	35-75	75-35		110			Hyd	Hyd	£225.00	Blank
Notes	A Cam Developed for the Track																	
BMW/246/396 PH1/2	Road Supercharged Cam	1500 6000	246	264	0.396 10.05	0.396 10.05	0.258 6.56	0.242 6.23	14-52	70-22		114			Hyd	Hyd	£225.00	Blank
Notes	A Cam Developed for the Supercharged Cooper S Engine, Giving Good Increased Mid Range Torque, without Affecting the Tickover																	
BMW/250/400 PH2	Fast Road Supercharged Cam	2000 6500	250	268	0.400 10.15	0.396 10.05	0.258 6.56	0.242 6.23	16-54	72-24		114			Hyd	Hyd	£225.00	Blank
Notes	A Cam Developed for the Supercharged Cooper S Engine. Giving Good Increased Mid Range Torque without Affecting the Tickover																	
BMW/272/400 PH3/4	Race Supercharged Cam	3000 7000	264	272	0.400 10.16	0.402 10.20	0.244 6.23	0.245 6.35	18-68	73-25		114			Hyd	Hyd	£225.00	Blank
Notes	A Cam Developed for the Supercharged Cooper S Engine for Fast Road Competition Use																	

## BMW Camshaft Data :- 528/530/535 "Large 6 Cam"

Rocker Ratio 1 : 1.3

Rocker Plate 1: 1:1																		
Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
BMW/280/399 PH1	Road Cam	2000	280	280	0.399	0.397	0.307	0.305	30-70	70-30	110				0.008	0.010	£350.00	Blank
		6000			10.13	10.06	7.79	7.74							0.203	0.254		
Notes	Good Increase of Low Mid Range Power. Smooth Idle																	
BMW/290/399 PH3	Fast Road/Tarmac Rally Cam	3000	290	290	0.399	0.397	0.307	0.305	35-75	75-35	110				0.008	0.010	£350.00	Blank
		6500			10.13	10.06	7.79	7.74							0.203	0.254		
Notes	Rally Cam. Plenty of Mid Range Top End Power Use 45 DCOE Carbs																	
BMW/300/419 PH4	Race Cam	4500	300	300	0.419	0.416	0.322	0.320	40-80	80-40	110				0.008	0.010	£350.00	Blank
		7000			10.62	10.56	8.17	8.12							0.203	0.254		
Notes	Full Race																	

Notes : - Specify Front Sprocket Drive End Type Single Lug/Twin Lug/Pin Drive On Large 6 Engines.

### BMW 528/530/535 "Large 6 Cam" Additional Components

Part No	Description	Price
DNCF1204	12 x Ally Rocker Arms Rocker Arms with Chilled Iron Insert Pad	£180.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00





## Citroen Camshaft Data :- Saxo 1.4 and 1.6 VTR Non Roller Rocker Arm (Black Rocker Cover)

Rocker Ratio 1 : 1.4

No 1 Journal Size 1.738/42.44mm

Part No	Application	Power Band	Duration In Ex	Valve Lift In Ex	Cam Lift In Ex	Timing In Open Ex Close	Full Lift IN. ATDC EX BTDC	Lift @ TDC with clearance In Ex	Valve Clear In Ex	Price Ex VAT	Material Type
CITSNR/256/367 PH1	Road Cam	1500 5500	256 256	0.367 0.364 9.31 9.24	0.262 0.260 6.65 6.60	18-58 58-18	110		0.008 0.010 0.203 0.254	£235.00	Blank
Notes Good Increase of Low Mid Range Power. Smooth Idle											
CITSNR/280/409 PH3	Fast Road/Tarmac Rally Cam	3000 7000	280 280	0.409 0.406 10.38 10.30	0.292 0.290 7.41 7.36	30-70 70-30	110		0.008 0.010 0.203 0.254	£235.00	Blank
Notes Rally Cam Giving Plenty of Mid Range Power. Will Not Run on Standard Injection											

## Citroen Saxo 1.4 and 1.6 VTR Non Roller Rocker Arm Additional Components

Part No	Description	Price
TB8101	Cam Belt Size (101mm x 17mm)	£18.00
DNP1006	Vernier Pulley Hard Anodised	£90.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

## Citroen Camshaft Data :- Saxo 1.4 and 1.6 VTR Roller Rocker Arm (Silver Rocker Cover)

Rocker Ratio 1 : 1.75

Part No	Application	Power Band	Duration In Ex	Valve Lift In Ex	Cam Lift In Ex	Timing In Open Ex Close	Full Lift IN. ATDC EX BTDC	Lift @ TDC with clearance In Ex	Valve Clear In Ex	Price Ex VAT	Material Type
CITSRR/258/406 PH1	Road Cam	1500 5500	258 258	0.406 0.403 10.30 10.22	0.232 0.230 5.89 5.84	18-58 58-18	110		0.008 0.010 0.203 0.254	£235.00	Blank
Notes Good Increase of Low Mid Range Power. Smooth Idle											
CITSRR/270/415 PH3	Fast Road/Tarmac Rally Cam	3000 7000	270 270	0.415 0.411 10.53 10.44	0.237 0.235 6.02 5.96	25-65 65-25	110		0.008 0.010 0.203 0.254	£235.00	Blank
Notes Rally Cam Giving Plenty of Mid Range Power. Will Not Run on Standard Injection											

## Citroen Saxo 1.4 and 1.6 VTR Roller Rocker Arm Additional Components

Part No	Description	Price
TB8101	Cam Belt Size (101mm x 17mm)	£20.00
DNP1006	Vernier Pulley Hard Anodised	£90.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



## Citroen Camshaft Data :- Saxo 1.4 1.6 VTS 16 Valve

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
CITVTS/256/380 PH1	Road Cam	2000 7000	256	256	0.380 9.64	0.380 9.64	0.380 9.64	0.380 9.64	18-58	58-18	110	110	1.30mm	1.30mm	Hyd	Hyd	£360.00 Per Pair	Blank
Notes Good Increase of Low Mid Range Power. Smooth Idle																		
CITVTS/264/400 PH2/3	Fast Road Cam	3000 7000	264	264	0.400 10.15	0.400 10.15	0.400 10.15	0.400 10.15	22-62	62-22	110	110	1.80mm	1.80mm	Hyd	Hyd	£360.00 Per Pair	Blank
Notes Fast Road Cam Giving Plenty of Mid Range Power. Requires ECU Reprogramme																		
CITVTS/280/430 PH4	Sprint/Tarmac Rally Cam	3500 7500	280	280	0.430 10.91	0.430 10.91	0.430 10.91	0.430 10.91	32-68	70-30	108	110	2.30mm	2.10mm	Hyd	Hyd	£360.00 Per Pair	Blank
Notes Sprint/Tarmac Rally Cam Requires Throttle Bodies																		
CITVTS/290/450 PH5	Fast Road/Tarmac Rally Cam	4500 8500	290	290	0.450 11.42	0.450 11.42	0.450 11.42	0.450 11.42	41-69	71-39	104	106	3.7mm	3.4mm	0.008 0.203	0.010 0.254	£360.00 Per Pair	Blank
Notes Race Cam Giving a Wide Spread of Power from 4500 RPM																		

Notes:- Later Engines may require a larger M11 Cam Pulley Bolt and Washer Part No 806.18 & 694906.

## Citroen Camshaft Data :- C2 C3 1.4 1.6 VTS 16 Valve

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
CITC2/256/342 PH1	Road Cam	2000 7000	256	256	0.342 8.68	0.342 8.68	0.342 8.68	0.342 8.68	18-58	58-18	110	110	0.87mm	0.87mm	Hyd	Hyd	£360.00 Per Pair	Blank
Notes Good Increase of Low Mid Range Power. Smooth Idle																		
CITC2/264/355 PH3	Fast Road Cam	3000 7000	264	264	0.355 9.01	0.355 9.01	0.355 9.01	0.355 9.01	22-62	62-22	110	110	1.55mm	1.55mm	Hyd	Hyd	£360.00 Per Pair	Blank
Notes Fast Road Cam Giving Plenty of Mid Range Power. Requires ECU Reprogramme																		
CITC2/280/400 PH4	Sprint/Tarmac Rally Cam	3500 7500	280	280	0.400 10.15	0.400 10.15	0.400 10.15	0.400 10.15	32-68	70-30	108	110	2.53mm	2.28mm	Hyd	Hyd	£360.00 Per Pair	Blank
Notes Sprint/Tarmac Rally Cam Requires Throttle Bodies																		

## Citroen Saxo C2, C3 1.4 1.6 VTS 16 Valve Additional Components

Part No	Description	Price
DNP 7000	2 x Hard Anodised Alloy Vernier Pulleys	£180.00
DNCFHL88	16 x Hydraulic INA Cam Followers (28.35mm x 26mm)	£200.00
DNCF6000	16 x Mechanical Easy Adjust EN40B Non Shim Cam Followers (28.35mm x 26mm)	£272.00
K335	Clamping Tool for DNCF6000 Easy Adjust Followers	£20.00
DNCF5125	16 x Mechanical Shim Type EN40B Cam Followers (28.35mm x 26mm)	£272.00
TB8955	Timing Belt (136mm x 25.4mm)	£44.50
DNS2670	16 x Competition Swedish Wire Single Silicone Chrome 160 lbs Valve Springs	£120.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00




**Cosworth Ford :- Ford Escort/Sierra Cosworth 16 YB Valve**

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
COS/268/380 PH1	Road Cam	2000 6000	268	268	0.380 9.64	0.360 9.14	0.380 9.64	0.360 9.14	26-64	64-24	110	110	0.059" 1.5mm	0.059" 1.5mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Cam Suited for Road Use. Good Idle and Little Loss of Low Down Power																		
COS/288/410 PH2/3	Fast Road Cam	2500 7000	288	288	0.410 10.41	0.410 10.41	0.410 10.41	0.408 10.36	34-74	74-34	110	110	0.077" 1.95mm	0.077" 1.95mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Cam Suited for Fast Road Rally Use. Good Idle and Mid Range Power																		
COS/300/440 PH4	Tarmac Rally/Race Cam	3750 7500	300	300	0.440 11.17	0.440 11.17	0.440 11.17	0.440 11.17	40-80	80-40	110	110	0.100" 2.55mm	0.100" 2.55mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes Competition Cam Ideal for Rally, Track, Days and Sprints																		
COS/312/450 PH5	Race Cam	4500 8000	312	300	0.450 11.42	0.450 11.42	0.450 11.42	0.440 11.17	48-84	82-42	108	108	0.132" 3.35mm	0.132" 3.35mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes A Race Cam Only Suited for Circuit Race Use																		

**Cosworth Ford :- Ford Escort/Sierra Cosworth 16 Valve YB (TURBO ENGINES)**

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
COST/256/350	Fast Road Cam	1000 6000	256	256	0.350 8.88	0.350 8.88	0.350 8.88	0.350 8.88	16-60	60-16	112	112	0.014" 0.36mm	0.014" 0.36mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Cam Suited for Road Use. Good Idle and Little Loss of Low Down Power																		
COST/262/350 PH1	Fast Road Cam	1500 6000	262	262	0.350 8.88	0.350 8.88	0.350 8.88	0.350 8.88	19-63	63-19	112	112	0.033" 0.85mm	0.033" 0.85mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Cam Suited for Road Use. Good Idle and Little Loss of Low Down Power																		
COST/264/370 PH2/3	Fast Road Cam	2000 6500	264	264	0.370 9.39	0.350 8.88	0.370 9.39	0.350 8.88	24-56	56-24	108	108	0.035" 0.90mm	0.035" 0.90mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Cam Suited for Fast Road Rally Use. Good Idle and Mid Range Power																		
COST/264/400 PH4	Tarmac Rally/Sprint Cam	3000 7000	264	264	0.400 10.15	0.400 10.15	0.400 10.15	0.400 10.15	24-56	56-24	108	108	0.055" 1.40mm	0.055" 1.40mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes Competition Cam Ideal for Rally, Track, Days and Sprints																		
COST/264/430 PH4	Race Cam	3500 7500	264	264	0.430 10.91	0.430 10.91	0.430 10.91	0.430 10.91	26-54	54-26	106	106	0.079" 2.00mm	0.079" 2.00mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes A Race Cam Only Suited for Circuit Race Use																		

Notes :- If Cams are fitted to 2WD Cylinder Heads 5mm Washers will be required (Part No K579). All the Cosworth Profiles I.E. BD10, B14 are available on request.  
All our Cosworth Blanks are Universal and can be used as an Inlet or Exhaust Cam.

**Ford Escort/Sierra Cosworth 16 Valve Additional Components**

Part No	Description	Price
DNCHL66	16 x Hydraulic Cam Followers	£160.00
DNCF5300	16 x Mechanical EN40B Cam Followers Shim Type	£300.00
DNCF5118	16 x Mechanical EN40B Cam Followers Easy Adjust No Shims	£300.00
K335	Clamping Tool for DNCF5118 Easy Adjust Cam Followers	£20.00
DNCV12	2 x Vernier Pulleys Pair	£180.00
DNS2673	16 x Competition Silicon Chrome Double 190 lbs Valve Springs	£160.00
K579	5 MM Ground Spacer for 2 WD Cylinder Heads	£7.50
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



## Cosworth Ford :- Ford Escort/Sierra Cosworth 16 YB Valve BD Profiles

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
<b>COST/BD8</b>	<b>Group N Spec Cam</b>	1500 6000	241	241	0.335 8.50	0.335 8.50	0.335 8.50	0.335 8.50	6-55	50-11	115	110	0.009" 0.23mm	0.013" 0.33mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Cam Suited for Road Use Good Idle and Little Loss of Low Down Power																		
<b>COST/BD10</b>	<b>Fast Road Cam</b>	1500 6500	264	264	0.337 8.55	0.337 8.55	0.337 8.55	0.337 8.55	17-67	62-22	115	110	0.026" 0.66mm	0.038" 0.96mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Cam Suited for Fast Road Rally Use Good Idle and Mid Range Power																		
<b>COST/BD12</b>	<b>Group N Spec Cam</b>	1500 6000	247	247	0.331 8.40	0.331 8.40	0.331 8.40	0.331 8.40	9-58	53-14	115	110	0.010" 0.25mm	0.017" 0.43mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Cam Suited for Road Use Good Idle and Little Loss of Low Down Power																		
<b>COST/BD14</b>	<b>Fast Road Cam</b>	2000 7000	261	261	0.351 8.91	0.351 8.91	0.351 8.91	0.351 8.91	16-65	60-21	115	110	0.026" 0.66mm	0.046" 1.17mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes																		
<b>COST/BD15</b>	<b>Rally Cam</b>	2500 8000	258	258	0.395 10.03	0.395 10.03	0.395 10.03	0.395 10.03	24-54	57-21	105	108	0.071" 1.80mm	0.054" 1.37mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes																		
<b>COST/BD15+</b>	<b>Rally Cam</b>	2500 8000	258	258	0.417 10.60	0.417 10.60	0.417 10.60	0.417 10.60	24-54	57-21	105	108	0.074" 1.88mm	0.057" 1.46mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes																		
<b>COST/BD16</b>	<b>Race Cam</b>	3500 8500	265	265	0.399 10.13	0.399 10.13	0.399 10.13	0.399 10.13	28-57	60-25	105	108	0.081" 2.06mm	0.062" 1.57mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes																		
<b>COST/BD16+ PH4</b>	<b>Race Cam</b>	3500 8500	265	265	0.413 10.48	0.413 10.48	0.413 10.48	0.413 10.48	28-57	60-25	105	108	0.086" 2.18mm	0.062" 1.57mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes																		

### Notes:-

All our Cosworth Blanks are Universal and can be used as an Inlet or Exhaust Cam.  
On 2 WD Cylinder Heads a 5 MM Spacer will be required (Part No K579).

### Ford Escort/Sierra Cosworth 16 Valve Additional Components

Part No	Description	Price
<b>DNCHL66</b>	16 x Hydraulic Cam Followers	£160.00
<b>DNCF5300</b>	16 x Mechanical EN40B Cam Followers Shim Type	£300.00
<b>DNCF5118</b>	16 x Mechanical EN40B Cam Followers Easy Adjust No Shims	£300.00
<b>K335</b>	Clamping Tool for DNCF5118 Easy Adjust Cam Followers	£20.00
<b>DNCV12</b>	2 x Vernier Pulleys Pair	£180.00
<b>DNS2673</b>	16 x Silicon Chrome Double Valve Springs 190 lbs Spring Rate	£160.00
<b>K579</b>	5 mm Ground Spacer for 2 WD Cylinder Heads	£7.50
<b>TD1</b>	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



## Fiat Camshaft Data :- Cinquecento Sporting/Panda/Uno FIRE Engines 769cc-1242cc

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
FIAF/260/332 PH1	Road Cam	1500 6000	260	260	0.332 8.43	0.330 8.38	0.332 8.43	0.330 8.38	20-60	60-20	110		0.032" 0.8mm	0.032" 0.8mm	0.008 0.203	0.010 0.254	£235.00	Blank
Notes Good Increase of Low Mid Range Power. Smooth Idle																		

## Fiat Camshaft Data :- Uno 1.4i/Tipo 1.4i/1.6i X1/9

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
FIAU/264/360 PH1	Road Cam	1500 6000	264	264	0.360 9.14	0.360 9.14	0.360 9.14	0.360 9.14	32/62	62/32	110		0.047" 1.2mm	0.047" 1.2mm	0.008 0.203	0.010 0.254	£235.00	Blank
Notes Good Increase of Low Mid Range Power. Smooth Idle																		
FIAU/280/380 PH3	Fast Road/Tarmac Rally Cam	3000 7000	280	280	0.380 9.64	0.380 9.64	0.380 9.64	0.380 9.64	30-70	70-30	110		0.088" 2.23mm	0.088" 2.23mm	0.008 0.203	0.010 0.254	£235.00	Blank
Notes Rally Cam Giving Plenty of Mid Range Power. Will Not Run on Standard Injection																		

## Fiat Camshaft Data :- TURBO Uno/Punto GT

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
FIAUT/240/380 PH2	Road Cam	2000 6000	240	238	0.380 9.64	0.350 8.88	0.380 9.64	0.350 8.88	15-45	38-10	112		0.011" 0.275mm	0.011" 0.275mm	0.008 0.203	0.010 0.254	£235.00	Blank
Notes A Superb Turbo Cam Giving Masses of Mid Range Power																		

## Fiat Additional Components

Part No	Description	Price
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



### Ford Camshaft Data :- Kent Cross Flow Non Crossflow 109E/116E

Rocker Ratio 1 : 1.514

Part No	Application	Power Band	Duration In Ex	Valve Lift In Ex	Cam Lift In Ex	Timing In Open Ex Close	Full Lift IN. ATDC EX BTDC	Lift @ TDC with clearance In Exh	Valve Clear In Ex	Price Ex VAT	Material Type
<b>FORK/264/363 PH1</b>	Road Cam	1250 6000	264 264	0.363 0.363 9.22 9.22	0.240 0.240 6.09 6.09	20-64 64-20	110	0.036" 0.91mm	0.015 0.017 0.381 0.432	£180.00	Blank
Notes Good Increase of Low Mid Range Power Smooth Idle. Best with Webber 28/36. A Sharp Instant Power Cam											
<b>FORK/278/379 PH2</b>	Fast Road Cam	2000 6500	278 278	0.379 0.379 9.61 9.61	0.250 0.250 6.35 6.35	29-69 69-29	110	0.056" 1.44mm	0.015 0.017 0.381 0.432	£180.00	Blank
Notes Good Increase of Mid Range Power. Smooth Tickover. Gives More Power Than the GT116E Cam (See Notes)											
<b>FORK/290/401 PH3</b>	Fast Road Sprint Cam	2500 7000	290 290	0.436 0.436 11.07 11.07	0.288 0.288 7.31 7.31	35-75 75-35	110	0.077" 1.97mm	0.015 0.017 0.381 0.432	£180.00	Blank
Notes Good Increase of Mid Top End Power. Works with Either 28/36 or Twin DCOE Webber's Ideal Road Kit Car Cam (See Notes)											
<b>FORK/310/436 PH4</b>	Sprint/Tarmac Rally Cam	4000 7500	310 310	0.454 0.454 11.53 11.53	0.300 0.300 7.61 7.61	45-85 85-45	110	0.113" 2.87mm	0.015 0.017 0.381 0.432	£305.00	Steel
Notes Ideal Short Circuit/Sprint Cam (See Notes)											
<b>FORK/324/447 PH5</b>	Race Cam	5000 9000	324 324	0.447 0.447 11.34 11.34	0.295 0.295 7.49 7.49	45-100 100-45	110	0.128" 3.25mm	0.016 0.018 0.406 0.457	£305.00	Steel
Notes A Race Cam with a Solid Power Band from 5000 to 8500. Ideal for the 1500 to 1800cc Engines (See Notes)											
<b>FORK/A8 PH5</b>	Race Cam F3	5500 11000	332 332	0.407 0.407 10.34 10.34	0.269 0.269 6.83 6.83	66-86 86-66	100	0.176" 4.47mm	0.016 0.018 0.406 0.457	£305.00	Steel
Notes Cosworths Screamer F3 Cam for the 997cc Ford Engine, for Classic F3 Racing Slot Milled Flange, for Front Mounted Dry Sump Pump											

### Ford Kent Cross Flow Non Cross flow 109E/116E Additional Components

Part No	Description	Price
<b>DNS1040S</b>	8 x Single Valve Springs 160 Poundage PH1 to PH3	£60.00
<b>DNS1040D</b>	8 x Double Valve Springs 200 Poundage PH4 to PH5	£90.00
<b>DNCF01</b>	8 x Super Finished Chilled Iron Cam Followers Thin Stem Pre 1970 PH1 Cams Only	£36.00
<b>DNCF05</b>	8 x Super Finished Chilled Iron Cam Followers Thick Stem Post 1970 PH1 Cams Only	£36.00
<b>K445</b>	8 x Steel Thick Stem EN40B Nitride Steel Cam Followers Post 1970 Engines PH3/4/5 Cams	£80.00
<b>K444</b>	8 x Steel Thin Stem EN40B Nitride Steel Cam Followers Pre 1970 for F3 Engines PH3/4/5 Cams	£80.00
<b>DNV1040</b>	8 x Chrome Moly Valve Caps with 2mm Extra Fitted Spring Length Either Single or Double Springs	£24.00
<b>DNC1040S</b>	1 x Steel Camshaft any Profile with Dry Sump Oil Pump Slot in End	£305.00
<b>TD1</b>	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

**Notes :-**

The above Cams are made from Chilled Iron, it is not advisable to run a Side Mounted Dry Sump Pump on this engine unless a Steel Cam is Fitted.

The Original Ford Oil Pump gear is Made from Cast Iron. There are replacement pumps on the market with Steel Gears, Steel and Iron do not run well together. Ensure when you replace a pump the gear is of original Ford Manufacture. Failure to fit this gear may lead to a Failure of the Oil Pump.

There are also High Pressure Oil Pumps (A standard pump with an up rated Spring) do not fit this as the Irons Gears are Rated to run at 40 PSI Hot.

Check when fitting Cams with 0.375 Lift and above that the Springs are not Coil Binding if they are either cut the Spring Seats or fit our Valve Caps.

The chilled iron followers that are available now are only suited to the PH1 Cams, we suggest that for all cams that you fit our EN40B Nitrided Cam Followers.



### Ford Camshaft Data :- 1600/1800/2000cc SOHC "Pinto"

Rocker Ratio 1 : 1.58

Part No	Application	Power Band	Duration In Ex	Valve Lift In Ex	Cam Lift In Ex	Timing In Open Ex Close	Full Lift IN. ATDC EX BTDC	Lift @ TDC with clearance In Exh	Valve Clear In Ex	Price Ex VAT	Material Type
<b>FORP/284/379 PH2</b>	<b>Fast Road Cam</b>	2000 6000	284 284	0.379 0.379 9.61 9.61	0.250 0.250 6.35 6.35	32-72 72-32	110		0.006 0.008 0.152 0.203	£168.00	Blank Chill/Iron
Notes Free Revving Cam with Plenty of Mid Range Power. Best with a Twin Choke Carb Ideal for Road Use. Use Carbide Inserted Rocker Arms											
<b>FORP/300/416 PH3</b>	<b>Fast Road Sprint Cam</b>	3000 7000	300 295	0.416 0.413 10.57 10.49	0.275 0.273 6.98 6.93	40-80 78-38	110		0.006 0.008 0.152 0.203	£168.00	Blank Chill/Iron
Notes Road Rally/Short Circuit Cam Runs on a Twin Choke Carb but Best with DCOE Webers. Good Mid Range Power. Use Carbide Inserted Rocker Arms											
<b>FORP/275/474 PH4</b>	<b>Short Circuit/Sprint/Rally Cam</b>	2000 6000	275 272	0.474 0.471 12.03 11.95	0.313 0.311 7.94 7.89	27-68 68-27	110		0.006 0.008 0.152 0.203	£168.00	Blank Chill/Iron
Notes Runs Best with 40 DCOE Carbs for Road Use, But Fine with a Twin Choke for Circuit Use. The Ultimate Torque Cam. Use Carbide Inserted Rocker Arms											
<b>FORP/284/474 PH4.5</b>	<b>Short Circuit/Sprint/Rally Cam</b>	3000 7250	284 284	0.474 0.471 12.03 11.95	0.313 0.311 7.94 7.89	26-78 78-26	110		0.006 0.008 0.152 0.203	£168.00	Blank Chill/Iron
Notes Develop from the Above Cam but Has Another 500 RPM on the Top End Masses of Mid Range Power from 4000 RPM. Use Carbide Inseted Rocker Arms											
<b>FORP/286/474 PH4.75/117</b>	<b>Short Circuit/Sprint/Rally Cam</b>	3250 7500	286 286	0.474 0.471 12.03 11.95	0.313 0.311 7.94 7.89	30-76 76-30	108		0.006 0.008 0.152 0.203	£168.00	Blank Chill/Iron
Notes Develop from the Above Cam but Has Another 200 RPM on the Top End Masses of Mid Range Power from 4000 RPM. Use Carbide Inserted Rocker Arms											
<b>FORP/300/477 PH5</b>	<b>Race Cam</b>	4000 8000	300 300	0.477 0.474 12.10 12.03	0.315 0.313 7.99 7.94	33-87 87-33	110		0.006 0.008 0.152 0.203	£168.00	Blank Chill/Iron
Notes This Cam is the Ultimate for a Carburetted Pinto Race Engine it Give Great Top End Power without Losing Mid Range Pulling Power. Use Carbide Inserted Rocker Arms											
<b>FORP/310/492 PH6</b>	<b>Race Cam</b>	4500 8250	310 310	0.492 0.492 12.49 12.49	0.325 0.325 8.25 8.25	33-87 87-33	110		0.006 0.008 0.152 0.203	£168.00	Blank Chill/Iron
Notes A Race Cam Only Really Suited to Throttle Bodies and Programmable ECU Units. Use Carbide Inserted Rocker Arms											

### Ford Pinto 1600/1800/2000cc Additional Components

Part No	Description	Price
<b>K494</b>	Aluminium Vernier Pulley with Steel internal Sprocket	£85.00
<b>DNS1017S</b>	8 x Single Valve Springs 160 Poundage PH1 to PH3 Swedish Wire	£60.00
<b>DNS1017/200</b>	8 x Single Valve Springs 190 Poundage PH4 to PH5 Swedish Wire	£70.00
<b>DNS1017D</b>	8 x Double Valve Springs 200 Poundage PH4 to PH5 Swedish Wire	£90.00
<b>DNCF04</b>	8 x Cam Followers	£50.00
<b>DNCF5001</b>	8 x Long Pad Cam Followers	£60.00
<b>DNV5120</b>	8 x Chrome Moly Valve Caps Suits double or Single Springs	£30.00
<b>DNCFP1</b>	Oil Feed Pipe	£16.00
<b>DNC249</b>	8 x Chrome Moly Ball Studs Long Thread 62 RWC	£50.00
<b>TB5001</b>	Timing Belt for 1.6 Engine (119 mm x 19mm)	£15.00
<b>TB5002</b>	Timing Belt for 2.00 Engine (122 mm x 19mm)	£15.00
<b>TD1</b>	Timing Disc Dual Purpose Full Lift and Degrees	£8.00



### Ford Camshaft Data :- 1300/1600 CVH RS Turbo XR3i XR2 Mechanical Cam Followers Only

Rocker Ratio 1 : 1.64

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
<b>FORC/256/413 PH1</b>	<b>Mild Road/Carb Models Cam</b>	1500 6000	256	256	0.413 10.49	0.413 10.49	0.252 6.40	0.252 6.40	18-58	58-18	110		0.029" 0.74mm		0.008 0.203	0.010 0.254	£185.00	Blank Chilled
Notes Good Increase of Low Mid Range Power Smooth Idle. A Sharp Instant Power Cam. Essential to Use our Mechanical Cam Followers																		
<b>FORC/260/409 PH2</b>	<b>Fast Road/Carb Models Cam</b>	2000 6000	260	260	0.409 10.38	0.409 10.38	0.270 6.85	0.270 6.85	20-60	60-20	110		0.051" 1.31mm		0.008 0.203	0.010 0.254	£185.00	Blank Chilled
Notes Free Revving Cam with Plenty of Mid Range Power Best with a Twin Choke Carb Ideal for Road Use. Essential to Use our Mechanical Cam Followers																		
<b>FORC/286/416 PH4</b>	<b>Fast Road Sprint Cam</b>	3000 7000	286	286	0.416 10.57	0.413 10.49	0.275 6.98	0.273 6.93	34-74	74-34	110		0.083" 2.1mm		0.008 0.203	0.010 0.254	£185.00	Blank Chilled
Notes For Injection and Carb Models/Good Mid Range Top End Power Ground on a Chilled Iron Blank. Essential to Use Our Mechanical Cam Followers																		
<b>FORC/296/416 PH5</b>	<b>Race Cam</b>	4000 8000	296	296	0.416 10.57	0.412 10.45	0.275 6.98	0.272 6.90	38-78	78-38	110		0.103" 2.62mm		0.008 0.203	0.010 0.254	£185.00	Blank Chilled
Notes Race Cam Giving a Flat Power Curve Ground on a Chilled Iron Blank. Essential to Use Mechanical Cam Followers																		
<b>FORC/276/409T PH4</b>	<b>Turbo Cam</b>	2500 6500	276	276	0.409 10.38	0.409 10.38	0.270 6.85	0.270 6.85	24-72	72-24	114		0.039" 0.98mm		0.008 0.203	0.010 0.254	£185.00	Blank Chilled
Notes The Best Turbo Cam Around. Ground on Chilled Iron Blank. Essential to Use our Mechanical Cam Followers. 167MPH Has Been Obtained on this Cam																		
<b>FORC/280/448T PH4</b>	<b>Turbo Cam</b>	2500 7000	280	280	0.448 12.31	0.448 12.31	0.30 7.51	0.30 7.51	26-74	74-26	114		0.041" 1.05mm		0.008 0.203	0.010 0.254	£185.00	Blank Chilled
Notes Only Suitable for ZVH Turbo Engines. Ground on a Chilled Iron Blank. Essential to Use our Mechanical Cam Followers																		

Notes:- All our CVH Cams are ground on our own chilled iron blank and when used in conjunction with our Cam Followers eradicate the acute cam wear that is associated with this engine.

### Ford CVH 1300/1600 CVH RS Turbo XR3i XR2 Engines Additional Components

Part No	Description	Price
<b>DNPCVH</b>	Vernier Pulley	£90.00
<b>DNS1017S</b>	8 x Single 160 lbs Valve Springs for Non Turbo Phase 1 to 3 Cams	£60.00
<b>DNS1017D</b>	8 x Double Valve Springs 200 Poundage	£90.00
<b>DNS1017/200</b>	8 x Single Valve Springs 190 Poundage	£70.00
<b>K335</b>	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£20.00
<b>DNCF5120</b>	8 x EN40B Induction Nitrided Billet Mechanical Cam Followers Easy Adjustment No Shims	£160.00
<b>DNV5120</b>	8 x Chrome Moly Valve Caps for Double Springs	£30.00
<b>TB5046</b>	Timing Belt (97mm x 21.8mm)	£20.00
<b>TD1</b>	Timing Disc Double Sided for Duration and Full Lift Setting	£8.00



## Ford Camshaft Data :- Zetec 1.8/2.00 Escort Orion Mk5/6/7/8 Mondeo Mk1 and Probe 2 Litre (Silver Top) Hydraulic Cam Follower

### Hydraulic Cam Followers Models

Part No	Application	Power Band	Duration In Ex	Valve Lift In Ex	Cam Lift In Ex	Timing In Open Ex Close	Full Lift IN. ATDC EX BTDC	Lift @ TDC with clearance In Ex	Valve Clear In Ex	Price Ex VAT	Material Type
<b>FORZ/256/340H PH1</b>	<b>Fast Road Cam</b>	1500 6000	256 256	0.340 0.340 8.63 8.63	0.340 0.340 8.63 8.63	18-58 58-18	110 110	0.029" 0.029" 0.74mm 0.74mm	Hyd Hyd	£480.00 Per Pair	Blank
Notes Suitable for the 1.6 Engine or a Very Torquey 1.8/2.00 Litre Engine											
<b>FORZ/260/400H PH2</b>	<b>Fast Road Cam</b>	2000 6000	260 260	0.400 0.380 10.15 9.64	0.400 0.380 10.15 9.64	20-60 60-20	110 110	0.051" 0.051" 1.31mm 1.31mm	Hyd Hyd	£480.00 Per Pair	Blank
Notes Designed for 1.8/2.00 Engines Good Middle Range Power											
<b>FORZ/270/425H PH3</b>	<b>Fast Road Rally Cam</b>	2500 7000	270 270	0.425 0.425 10.79 10.79	0.425 0.425 10.79 10.79	25-65 65-25	110 110	0.059" 0.059" 1.50mm 1.50mm	Hyd Hyd	£480.00 Per Pair	Blank
Notes A Cam Giving Good Mid Range Power Using Hydraulic Cam Followers will Not Run on Standard Injection. ECU Mods Required											
<b>FORZ/280/450H PH4</b>	<b>Tarmac Rally/Sprint Cam</b>	3000 7500	280 270	0.450 0.425 11.42 10.79	0.450 0.425 11.42 10.79	30-70 70-30	110 110	0.081" 0.081" 2.07mm 2.07mm	Hyd Hyd	£480.00 Per Pair	Blank
Notes A Cam Giving Good Mid Range Power Using Hydraulic Cam Followers will Not Run on Standard Injection. Cam Carrier Mods Required to Clear Cam Lobes on Carrier											
<b>FORZ/294/460 PH5</b>	<b>Race Cam</b>	4000 8000	294 284	0.460 0.430 11.68 10.91	0.460 0.430 11.68 10.91	39-75 70-34	108 108	0.128" 0.108" 3.26mm 2.75mm	0.008 0.010 0.203 0.254	£480.00 Per Pair	Blank
Notes Race Cam Giving a Flat Power Curve Ground on a Chilled Iron Blank. Essential to Use Mechanical Cam Followers											

### Ford Zetec 1.8/2.00 Escort Orion Mk5/6/7/8 Mondeo Mk1 and Probe 2 Litre Additional Components

Part No	Description	Price
<b>DNPOPVPZE</b>	2 x Ford Zetec Vernier Pulleys	£180.00
<b>DNCFHL76</b>	16 x Hydraulic Cam Followers (28.4mm x 26.5mm)	£176.00
<b>DNCF6001</b>	16 x Mechanical Race Cam Followers Easy Adjust Non Shim (28.4mm x 26.5mm)	£300.00
<b>TB8131</b>	Timing Belt (131mm x 25mm)	£24.00
<b>DNS2670</b>	16 x 180 Poundage Chrome Vanadium Valve Springs Non Beehive Type	£120.00
<b>DNV400</b>	16 x Chrome Moly Valve Caps to Suit DNS2670 Valve Spring	£50.00
<b>K335</b>	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£20.00
<b>TD1</b>	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



## Ford Camshaft Data :- Zetec 1.8/2.00 Escort Orion Mk5/6/7/8 Mondeo Mk1 and Probe 2 Litre (Black Top) Mechanical Cam Follower

### Mechanical Cam Follower Models

Part No	Application	Power Band	Duration In Ex	Valve Lift In Ex	Cam Lift In Ex	Timing In Open Ex Close	Full Lift IN. ATDC EX BTDC	Lift @ TDC with clearance In Ex	Valve Clear In Ex	Price Ex VAT	Material Type
<b>FORZ/256/340M PH1</b>	<b>Fast Road Cam</b>	1500 6000	256 256	0.340 0.340 8.63 8.63	0.340 0.340 8.63 8.63	18-58 58-18	110 110	0.029" 0.029" 0.73mm 0.73mm	0.008 0.010 0.203 0.254	£480.00 Per Pair	Blank
Notes Suitable for the 1.6 Engine or a Very Torquey 1.8/2.00 Litre Engine											
<b>FORZ/260/400M PH2</b>	<b>Fast Road Cam</b>	2000 6000	260 260	0.400 0.380 10.15 9.64	0.400 0.380 10.15 9.64	20-60 60-20	110 110	0.048" 0.048" 1.22mm 1.22mm	0.008 0.010 0.203 0.254	£480.00 Per Pair	Blank
Notes Designed for 1.8/2.00 Engines. Good Middle Range Power											
<b>FORZ/270/425M PH3</b>	<b>Fast Road Rally Cam</b>	2500 7000	270 270	0.425 0.425 10.79 10.79	0.425 0.425 10.79 10.79	25-65 65-25	110 110	0.051" 0.051" 1.30mm 1.30mm	0.008 0.010 0.203 0.254	£480.00 Per Pair	Blank
Notes A Cam Giving Good Mid Range Power. Will Not Run on Standard Injection. ECU Mods required. Do Not Use top Shim Followers											
<b>FORZ/280/450M PH4</b>	<b>Tarmac Rally/Sprint Cam</b>	3000 7500	280 270	0.450 0.425 11.42 10.79	0.450 0.425 11.42 10.79	30-70 70-30	110 110	0.083" 0.051" 2.10mm 1.30mm	0.008 0.010 0.203 0.254	£480.00 Per Pair	Blank
Notes A Cam Giving Good Mid Range Power. Will Not Run on Standard Injection. Cam Carrier Mods Required. Do Not Use Top Shim Followers											
<b>FORZ/294/460M PH5</b>	<b>Race Cam</b>	4000 8000	294 284	0.460 0.430 11.68 10.91	0.460 0.430 11.68 10.91	39-75 70-34	108 108	0.128" 0.108" 3.26mm 2.75mm	0.008 0.010 0.203 0.254	£480.00 Per Pair	Blank
Notes Race Cam Giving a Flat Power Curve Ground on a Chilled Iron Blank. Do Not Use Top Shim Followers											

### Ford Zetec 1.8/2.00 Escort Orion Mk5/6/7/8 Mondeo Mk1 and Probe 2 Litre Additional Components

Part No	Description	Price
<b>DNPOPVPZE</b>	2 x Ford Zetec Vernier Pulleys	£180.00
<b>TB8131</b>	Timing Belt (131mmx 25mm)	£24.00
<b>DNS2674</b>	16 x 180 Poundage Chrome Vanadium Beehive Valve Springs	£130.00
<b>TD1</b>	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



## Ford Camshaft Data :- Sigma, Zetec, Focus, Fiesta, 1.25/1.4/1.6 16 Valve

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
<b>FORS/240/280 PH1</b>	Road Cam	2000 6000	240	240	0.270 6.85	0.270 6.85	0.280 7.11	0.280 7.11	10-50	50-10	110	110	0.020" 0.50mm	0.020" 0.50mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes Low Mid Range Power. Will Run on Standard Injection																		
<b>FORS/260/300 PH2</b>	Fast Road Cam	2500 7250	260	260	0.290 7.36	0.290 7.36	0.300 7.61	0.300 7.61	20-60	60-20	110	110	0.031" 0.82mm	0.031" 0.82mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes Good Mid Range Power will Not Run on Standard Injection. Requires ECU Reprogramme																		
<b>FORS/274/325 PH3</b>	Tarmac Rally/Sprint Cam	3000 7500	274	274	0.315 7.99	0.315 7.99	0.325 8.25	0.325 8.25	29-65	67-27	108	110	0.059" 1.50mm	0.053" 1.36mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes A Fast Road Rally Cam Good Mid Upper Range Power																		
<b>FORS/280/350 PH4</b>	Tarmac Rally/Sprint Cam	3750 7500	280	280	0.340 8.63	0.340 8.63	0.350 8.88	0.350 8.88	32-68	70-30	108	110	0.071" 1.80mm	0.063" 1.60mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes A Free Revving Cam Suitable for Competition Use Only																		
<b>FORS/294/400 PH5</b>	Race Cam	4500 8500	294	284	0.390 9.90	0.370 9.39	0.400 10.15	0.380 9.64	39-75	70-34	108	108	0.108" 2.75mm	0.088" 2.25mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes A Race Cam Giving Power from 4500 to 8500																		

## Ford Sigma, Zetec, Focus, Fiesta, 1.25/1.4/1.6 16 Valve Additional Components

Part No	Description	Price
<b>DNS2670</b>	16 x Single Valve Spring 160 Poundage Chrome Vanadium Wire	£120.00
<b>DNV600</b>	16 x Chrome Moly Valve Caps to Suit DNS2670 Valve Spring Non Beehive Type	£48.00
<b>TD1</b>	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

## Ford Camshaft Data :- Duratec 16 Valve Mondeo Mk3 1.8/2.00/2.3

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
<b>FORD/258/372 PH1</b>	Road Cam	2000 7000	258	258	0.372 9.44	0.372 9.44	0.372 9.44	0.372 9.44	19-59	59-19	110	110	0.031" 0.80mm	0.031" 0.80mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes Low Mid Range Power. Will Run on Standard Injection																		
<b>FORD/278/375 PH2</b>	Fast Road Cam	2500 7250	278	278	0.375 9.52	0.375 9.52	0.375 9.52	0.375 9.52	29-69	69-29	110	110	0.034" 0.85mm	0.034" 0.85mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes Good Mid Range Power. Will Run on Standard Injection																		
<b>FORD/284/396 PH3</b>	Fast Road Cam Rally Cam	2750 7250	284	284	0.396 10.05	0.396 10.05	0.396 10.05	0.396 10.05	30-70	70-30	110	110	0.055" 1.40mm	0.055" 1.40mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes Good Mid Upper Range Power. Suitable for Road and Rally Should Work with Standard Pistons if Head Has Not Been Skimmed																		
<b>FORD/284/450 PH4</b>	Tarmac Rally/Sprint Cam	3750 7500	284	284	0.450 11.42	0.450 11.42	0.450 11.42	0.450 11.42	34-70	67-27	108	110	0.085" 2.15mm	0.085" 2.15mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes A Free Revving Cam Suitable for Competition Use Only																		
<b>FORD/294/460 PH5</b>	Race Cam	4500 8500	294	294	0.460 11.68	0.460 11.68	0.460 11.68	0.460 11.68	39-75	70-34	108	108	0.130" 3.15mm	0.130" 3.15mm	0.008 0.203	0.010 0.254	£480.00 Per Pair	Blank
Notes A Race Cam Giving Power from 4500 to 8500																		

## Ford Duratec 16 Valve Mondeo Mk3 1.8/2.00/2.3 Additional Components

Part No	Description	Price
<b>DNPOPVPD</b>	2 x Ford Duratec Vernier Pulleys	£160.00
<b>DNS2674</b>	16 x Single Beehive Valve Springs 180 Poundage	£130.00
<b>TD1</b>	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00





### Ford Camshaft Data :- Puma 1.7 16 Valve

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
FORP/270/350 PH1	Road Cam	2000 68000	270	260	0.350 8.88	0.320 8.12	0.350 8.88	0.320 8.12	25-65	60-20	110	110	0.032" 0.82mm	0.030" 0.75mm	0.008 0.203	0.010 0.254	£485.00 Per Pair	Blank
Notes Good Bottom Mid Range Power. Will Run on Standard Injection																		
FORP/280/360 PH2	Fast Road Cam	3000 7000	280	260	0.360 9.14	0.320 8.12	0.360 9.14	0.320 8.12	30-70	60-20	110	110	0.047" 1.20mm	.030" 0.75mm	0.008 0.203	0.010 0.254	£485.00 Per Pair	Blank
Notes Good Mid Range Power. Will Run on Standard Injection But Best with Modified System																		
FORP/280/375 PH4	Tarmac Rally/Sprint Cam	3500 7500	280	270	0.375 9.52	0.340 8.63	0.375 9.52	0.340 8.63	35-75	65-25	110	110	0.060" 1.50mm	0.047" 1.20mm	0.008 0.203	0.010 0.254	£485.00 Per Pair	Blank
Notes A Competition Cam Giving Good Mid Range Power. Will Not Run on Standard Injection																		
FORP/300/400 PH5	Race Cam	4000 8000	300	290	0.400 10.15	0.380 9.64	0.400 10.15	0.380 9.64	40-80	75-35	110	110	0.095" 2.40mm	0.082" 2.10mm	0.008 0.203	0.010 0.254	£485.00 Per Pair	Blank
Notes Full Race Cam Circuit Use Only																		

### Ford Puma 1.7 16 Valve Additional Components

Part No	Description	Price
DNCF68	16 x Top Shim Cam Followers (28mm x 22.15mm)	£120.00
DNCF61	16 x Mechanical Cam Followers Bottom Shim Type (28mm x 22.15mm)	£120.00
TB5044	Timing Belt (117mm x 22mm)	£22.45
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

### Ford Camshaft Data :- KA 1.3 HCS Engine

Rocker Ratio 1 : 1.514

This camshaft does NOT fit the later ROCAM Duratec engine!

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
FORKA/264/363 PH1	Fast Road Cam	1500 6000	264	264	0.363 9.22	0.363 9.22	0.240 6.09	0.240 6.09	20-64	64-20	110		0.036" 0.91mm		0.014 0.356	0.016 0.406	£140.00	Blank
Notes Good Bottom End Mid Range Power																		
FORKA/278/379 PH3	Fast Road Cam	2000 6500	278	278	0.379 9.62	0.379 9.62	0.250 6.35	0.250 6.35	29-69	69-29	110		0.056" 1.44mm		0.008 0.203	0.010 0.254	£140.00	Blank
Notes Free Revving Cam Giving Power in the Mid Upper Range																		
FORKA/290/401 PH4	Tarmac Rally/Sprint Cam	3750 7000	290	290	0.401 10.18	0.401 10.18	0.265 6.73	0.265 6.73	35-75	75-35	110		0.077" 1.97mm		0.008 0.203	0.010 0.254	£140.00	Blank
Notes A Race Tarmac Rally Cam																		

### Ford KA 1.3 HCS Engine Additional Components

Part No	Description	Price
DNCF05B	8 x Super Finish Cam Followers	£40.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

### Ford Camshaft Data :- BDA/BDG/BDT COSWORTH 16 Valve

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
FORB/292/380 PH1	Mild Rally Cam	2500 7000	292	292	0.380 9.64	0.380 9.64	0.380 9.64	0.380 9.64	38-78	78-38	110	110	0.111" 2.82mm	0.111" 2.82mm	0.008 0.203	0.010 0.254	£495.00 Per Pair	Blank
Notes Good Bottom Mid Range Power																		
FORB/300/400 PH2	Rally Cam	3000 7000	300	300	0.400 10.15	0.400 10.15	0.400 10.15	0.400 10.15	40-80	80-40	110	110	0.118" 2.99mm	0.118" 2.99mm	0.008 0.203	0.010 0.254	£495.00 Per Pair	Blank
Notes Rally Cam Giving Good Mid Range Power with High Revving Ability																		
FORB/308/420 PH4	Tarmac Rally/Sprint Cam	3500 7500	308	300	0.420 10.66	0.400 10.15	0.420 10.66	0.400 10.15	42-82	80-40	110	110	0.118" 2.99mm	0.118" 2.99mm	0.008 0.203	0.010 0.254	£495.00 Per Pair	Blank
Notes A Competition Cam Giving Good Mid Range Power																		
FORB/320/430 PH5	Race Cam	4000 8000	320	318	0.430 10.91	0.430 10.91	0.430 10.91	0.430 10.91	58-82	82-58	106	106	0.168" 4.26mm	0.168" 4.26mm	0.008 0.203	0.010 0.254	£495.00 Per Pair	Blank
Notes Full Race Cam Circuit Use Only																		

### Ford BDA/BDG/BDT Additional Components

Part No	Description	Price
K456	16 x BDA Cam Followers Long Internal Stem Type	£300.00
K457	16 x BDA Cam Followers	£300.00
K456	1 x Steel Jackshaft	£160.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

### Ford Camshaft Data :- Ford V6 Essex 2.5/3.00

Rocker Ratio 1 : 1.45

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
FORE/260/377 PH1	Road Cam	2000 6000	260	260	0.377 9.57	0.377 9.57	0.260 6.60	0.260 6.60	30-70	70-30	110	110	0.057" 1.45mm		0.014 0.356	0.016 0.406	£250.00	Blank
Notes A Road Cam that will Give a Smooth Idle and Work with Auto Transmission																		
FORE/280/406 PH2	Fast Road Cam	2000 6000	280	280	0.406 10.30	0.406 10.30	0.280 7.11	0.280 7.11	30-70	70-30	110	110	0.068" 1.73mm		0.014 0.356	0.016 0.406	£250.00	Blank
Notes Good Bottom Mid Range Power will Run with Standard Twin Choke Carb																		
FORE/292/450 PH4	Tarmac Rally/Sprint Cam	3500 7500	292	292	0.450 11.41	0.450 11.41	0.310 7.87	0.310 7.87	36-76	76-36	110	110	0.085" 2.16mm		0.016 0.406	0.018 0.457	£250.00	Blank
Notes A 3/4 Race Race Cam Suitable for Drag Racing																		
FORE/320/464 PH5	Race Cam	4000 8000	300	300	0.464 11.78	0.464 11.78	0.320 8.12	0.320 8.12	40-80	80-40	106	106	0.157" 3.98mm		0.016 0.406	0.018 0.457	£250.00	Blank
Notes Full Race Cam Circuit use only																		

### Ford V6 Essex 2.5/3.00 Additional Components

Part No	Description	Price
DNCF06	12 x Chilled Iron Cam Followers	£90.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00





### Ford Focus RS and ST 5 Cylinder Camshaft Data Mechanical Cam Follower

Mechanical Cam Follower Models

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
FOR5/260/370 PH1	Fast Road Cam	1500 6000	260	280	0.356 9.04	0.354 8.98	0.364 9.24	0.364 9.24	22-66	72-28	112	112	0.028" 0.65mm	0.032" 0.85mm	0.016 0.406	0.010 0.254	£610.00 Per Pair	Blank
Notes Suitable for the Standard Engine. Remap May Be Required																		
FOR5/280/400 PH2	Fast Road Cam	2500 7000	272	280	0.400 10.15	0.400 10.15	0.400 10.15	0.400 10.15	24-68	72-28	112	112	0.032" 0.80mm	0.039" 1.00mm	0.008 0.203	0.010 0.254	£610.00 Per Pair	Blank
Notes Suitable Engine with Pocketed Pistons. Remap Required																		
FOR5/284/400 PH3	Race Cam	3000 8000	284	280	0.400 10.15	0.400 10.15	0.400 10.15	0.400 10.15	30-74	72-28	112	112	0.047" 1.20mm	0.039" 1.00mm	0.008 0.203	0.010 0.254	£610.00 Per Pair	Blank
Notes Suitable Engine with Pocketed Pistons. Remap Required 700+BHP Has Been Seen with this Cam!																		

### Ford Ecoboost 1.6/1.8 Camshaft Data Mechanical Cam Follower

Mechanical Cam Follower Models

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
FOREB/240/327 PH1	Stage 1 Fast Road Cam	2000 7000	240	224	0.327 8.30	0.259 6.57	0.337 8.55	0.275 6.98	-8-68	32-12	128	100	0 0.00mm	0.022" 0.55mm	0.010 0.254	0.016 0.406	£500.00 Per Pair	Blank
Notes Suitable for the Standard Engine. Remap May Be Required																		
FOREB/260/352 PH2	Stage 2 Fast Road/Rally Cam	2000 7500	260	244	0.340 8.63	0.288 7.31	0.352 8.93	0.300 7.61	2-78	42-22	128	100	0.003 0.80mm	0.042 1.00mm	0.012 0.305	0.012 0.305	£500.00 Per Pair	Blank
Notes Suitable for the Standard Engine. Remap May Be Required																		

### Ford Focus RS/ST 5 Cylinder and Ecoboost Additional Components

Part No	Description	Price
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

### Jaguar Camshaft Data :- XK Engines 2.4 to 4.2 6 Cyl Chilled Iron Camshafts

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
JAG/260/408 PH1	Road Cam	1500 5500	260	260	0.408 10.36	0.404 10.25	0.408 10.36	0.404 10.25	20-60	60-20	110	110	0.055" 1.40mm	0.055" 1.40mm	0.008 0.203	0.010 0.254	£500.00 Per pair	Blank
Notes Cam Suited for Road Use. Good Idle and Little Loss of Low Down Power. Ideally suited for the Original SU Carbs																		
JAG/270/410 PH2	Fast Road Cam	2000 6000	270	270	0.410 10.41	0.408 10.36	0.410 10.41	0.408 10.36	25-65	65-25	110	110	0.069" 1.75mm	0.069" 1.75mm	0.008 0.203	0.010 0.254	£500.00 Per pair	Blank
Notes Cam Suited for Fast Road Rally Use. Good Idle and Mid Range Power. Not Suited for the 2.4/2.8 Models																		
JAG/280/450 PH4	Tarmac Rally/Race Cam	3000 6500	280	280	0.450 11.42	0.448 11.37	0.450 11.42	0.448 11.37	30-70	70-30	110	110	0.078" 2.00mm	0.078" 2.00mm	0.008 0.203	0.010 0.254	£500.00 Per pair	Blank
Notes Competition Cam for Use with Triple SU or DCOE Carbs. Ideal for Sprint s/Hill Climbs																		
JAG/290/500 PH5	Race Cam	3500 6500	290	290	0.500 12.69	0.452 11.47	0.500 12.69	0.498 12.64	35-75	75-35	110	110	0.118" 3.00mm	0.118" 3.00mm	0.008 0.203	0.010 0.254	£500.00 Per pair	Blank
Notes A Race Cam Only Suited for Circuit Race Use. Best with Triple DCOE Carbs or Injection																		

### Jaguar Camshaft Data :- XK Engines 2.4 to 4.2 6 Cyl EN40B Nitrided Steel Camshafts

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
JAG/280/450 PH4	Tarmac Rally/Race Cam	3000 6500	280	280	0.450 11.42	0.448 11.37	0.450 11.42	0.448 11.37	30-70	70-30	110	110	0.078" 2.00mm	0.078" 2.00mm	0.008 0.203	0.010 0.254	£1,400.00 Per pair	Billet
Notes Competition Cam for Use with Triple SU or DCOE Carbs. Ideal for Sprint s/Hill Climbs																		
JAG/290/500 PH5	Race Cam	3500 6500	290	290	0.500 12.69	0.452 11.47	0.500 12.69	0.498 12.64	35-75	75-35	110	110	0.118" 3.00mm	0.118" 3.00mm	0.008 0.203	0.010 0.254	£1,400.00 Per pair	Billet
Notes A Race Cam Only Suited for Circuit Race Use. Best with Triple DCOE Carbs or Injection																		

Notes:- These cams are ground to order and are suitable for the Large Lobe D Type Head.

### Jaguar Additional Components

Part No	Description	Price
DNCF14	12 x Chilled Iron Std Cam Buckets (1.375" Dia)	£100.00
K482	12 x EN40B Standard Diamter Cam Buckets (1.375" Dia)	£225.00
K521	12 x EN40B O/S Cam Buckets (1.4" Dia)	£225.00
K483	12 x EN40B O/S Cam Buckets (1.5" Dia)	£225.00
DNS1065S	12 x Competition Double Valve Springs	£90.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00





### Lotus Ford Twin Cam Camshaft Data :- Twin Cam 8 Valve

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
LOT/270/352 PH1	Fast Road Cam	1500 6000	270	270	0.352 8.93	0.350 8.88	0.352 8.93	0.350 8.88	25-65	65-25	110	110	0.047" 1.2mm	0.047" 1.2mm	0.008 0.203	0.010 0.254	£450.00 Per pair	Blank
Notes The Original Lotus Special Equipment Cam Profile Superb for Normal Road Use																		
LOT/280/382 PH2	Fast Road Cam	2000 6500	280	280	0.382 9.70	0.382 9.70	0.382 9.70	0.382 9.70	30-70	70-30	110	110	0.080" 2.03mm	0.080" 2.03mm	0.008 0.203	0.010 0.254	£450.00 Per pair	Blank
Notes Cam Suited for Fast Road Rally Use. Should Fit without Cutting the Spring Seats But Check Fitted Spring Length																		
LOT/280/420 PH4	Tarmac Rally/Sprint Cam	3750 7000	280	280	0.420 10.66	0.420 10.66	0.420 10.66	0.420 10.66	32-68	68-32	108	108	0.088" 2.23mm	0.088" 2.23mm	0.008 0.203	0.010 0.254	£450.00 Per pair	Blank
Notes High Torque Rally Camshaft Springs Seats will Need Machining																		
LOT/280/443 PH5	Race Cam	3750 7000	280	280	0.443 11.24	0.443 11.24	0.443 11.24	0.443 11.24	32-68	68-32	108	108	0.108" 2.74mm	0.108" 2.74mm	0.008 0.203	0.010 0.254	£450.00 Per pair	Blank
Notes A High Torque Race Camshaft for Non Steel Engines Spring Seats will Need Machining																		
LOT/306/408 PH4	Tarmac Rally/Sprint Cam	3750 7000	306	306	0.408 10.36	0.408 10.36	0.400 10.15	0.400 10.15	47-79	81-45	106	108	0.130" 3.3mm	0.118" 3.0mm	0.008 0.203	0.010 0.254	£450.00 Per pair	Blank
Notes The Original L1 Race Camshaft. Spring Seats will Need Machining. Ideal for Endurance Racing																		
LOT/320/450 PH5	Race Cam	3750 7000	320	320	0.452 11.47	0.450 11.42	0.452 11.47	0.450 11.42	54-86	84-56	104	106	0.166" 4.21mm	0.146" 3.71mm	0.008 0.203	0.010 0.254	£450.00 Per pair	Blank
Notes A Race Cam for Circuit Use Only Based on the Original BRM Phase 4 Profile																		

### Lotus Ford Twin Cam 8 Valve Additional Components

Part No	Description	Price
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00
DNCF14	8 x Chilled Iron Std Cam Buckets (1.375" Dia)	£100.00

### Mitsubishi Camshaft Data :- EVO4/5/6/7/8

Rocker Ratio 1 : 1.7

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
MIT/264/442 PH2	Mild Rally Cam	2500 7000	264	258	0.442 11.22	0.423 10.74	0.260 6.60	0.249 6.32	22-62	58-18	110	110			Hyd Hyd	Hyd Hyd	£480.00 Per Pair	Blank
Notes Good Bottom Mid Range Power																		
MIT/272/444 PH3	Mild Rally Cam	3000 7500	272	268	0.444 11.26	0.423 10.74	0.261 6.62	0.249 6.32	31-71	64-24	110	110			Hyd Hyd	Hyd Hyd	£480.00 Per Pair	Blank
Notes Powerfull Rally Cam																		

### Nissan Camshafts Data :- Datsun 240Z/260Z

Rocker Ratio 1 : 1.58

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
DAT/275/474 PH1	Fast Road Cam	2000 6000	275	275	0.474 12.03	0.474 12.03	0.313 7.94	0.313 7.94	27-67	67-27	110	110			0.010 0.250	0.012 0.300	£325.00	Blank
Notes Good Bottom & Mid Range Power																		
DAT/284/474 PH2	Rally Cam	2500 7000	284	284	0.474 12.03	0.474 12.03	0.313 7.94	0.313 7.94	33-71	71-33	109	109			0.010 0.250	0.012 0.300	£325.00	Blank
Notes Powerfull Rally Cam																		

### Nissan Camshaft Data :- 200 SX

Rocker Ratio 1 : 1.7

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve In	Clear Ex	Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex				
NIS/264/390 PH2	Mild Rally Cam	2500 6000	258	258	0.396 10.05	0.396 10.05	0.264 6.70	0.264 6.70	19-59	59-19	110	110			Hyd	Hyd	£495.00 Per Pair	Blank
Notes Good Bottom Mid Range Power																		
NIS/272/443 PH3	Fast Road Rally Cam	2500 7000	272	272	0.443 11.23	0.443 11.23	0.295 7.49	0.295 7.49	26-66	66-26	110	110			Hyd	Hyd	£495.00 Per Pair	Blank
Notes Powerfull Mid Range Rally Cam																		

### Nissan Camshaft Data :- Pulsar GTIR

Rocker Ratio 1 : 1.7

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve In	Clear Ex	Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex				
NIP/260/468 PH1	Fast Road Cam	2500 7000	260	260	0.468 11.87	0.468 11.87	0.275 6.98	0.275 6.98	20-60-	60-20	110	110			0.008 0.203	0.010 0.254	£495.00 Per Pair	Blank
Notes Smooth Tickover Ideal Road Cam																		
NIP/268/468 PH2	Mild Rally Cam	2500 7000	268	268	0.468 11.87	0.468 11.87	0.275 6.98	0.275 6.98	24-64	64-24	110	110			0.008 0.203	0.010 0.254	£495.00 Per Pair	Blank
Notes Good Bottom Mid Range Power																		
NIP/272/502 PH3	Fast Road Rally Cam	3000 7500	272	272	0.502 12.73	0.502 12.73	0.295 7.49	0.295 7.49	26-66	66-26	110	110			0.008 0.203	0.010 0.254	£495.00 Per Pair	Blank
Notes Powerfull Rally Cam																		
NIP/280/509 PH4	Race Tarmac Rally Cam	2500 7000	280	280	0.519 13.16	0.519 13.16	0.305 7.74	0.305 7.74	24-64	64-24	110	110			0.008 0.203	0.010 0.254	£495.00 Per Pair	Blank
Notes Competition Tarmac Rally Cam																		
NIP/290/536 PH5	Race Cam	3000 7500	290	290	0.536 13.59	0.536 13.59	0.315 7.99	0.315 7.99	35-75	75-35	110	110			0.008 0.203	0.010 0.254	£495.00 Per Pair	Blank
Notes Race Cam																		



### Peugeot Camshaft Data :- 106/306 8V 1993 Onwards (Iron Block)

Rocker Ratio 1 : 1.4

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
PEUR/260/350 PH1	Road Cam	1500 6500	260	260	0.350 8.88	0.347 8.81	0.250 6.35	0.248 6.29	20-60	60-20	110				0.008 0.200	0.010 0.250	£235.00	Blank
Notes Good Bottom End/Mid Range Power will Run on Standard Injection. Not for 1.3/1.6 Rally Model																		
PEUR/280/392 PH2	Fast Road Cam	2000 7000	280	280	0.392 9.95	0.389 9.88	0.280 7.11	0.278 7.06	30-70	70-30	110				0.008 0.200	0.010 0.250	£235.00	Blank
Notes Suitable for 1.3/1.6 Rally Model																		
PEUR/288/406 PH4	Tarmac Rally Sprint Cam	3000 7500	288	288	0.406 10.30	0.403 10.23	0.290 7.36	0.288 7.31	34-74	74-34	110				0.008 0.200	0.010 0.250	£235.00	Blank
Notes Good Mid Upper Range will Not Run on Std Injection																		
PEUR/308/420 PH5	Race Cam	4000 8000	308	308	0.420 10.66	0.389 9.88	0.300 7.61	0.278 7.06	44-84	84-44	110				0.008 0.200	0.010 0.250	£235.00	Blank
Notes Powerful Mid Range Race Cam																		

### Peugeot 106/306 8V 1993 Onwards (Iron Block) Additional Components

Part No	Description	Price
DNP1006	Vernier Pulley Hard Anodised	£90.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

### Peugeot Camshaft Data :- 205/309 GTI 1600/1900

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
PEUI/268/470 PH1	Road Cam	2000 6500	268	268	0.470 11.93	0.468 11.88	0.470 11.93	0.468 11.88	24-64	64-24	110		0.055" 1.40mm		0.008 0.200	0.010 0.250	£240.00	Blank
Notes Good Bottom End/Mid Range Power will Run on Standard Injection																		
PEUI/280/470 PH3	Fast Road Cam	2000 7000	280	280	0.470 11.93	0.468 11.88	0.470 11.93	0.468 11.88	30-70	70-30	110		0.079" 2.00mm		0.008 0.200	0.010 0.250	£240.00	Blank
Notes Will Not Run on Standard Injection																		
PEUI/300/490 PH4	Tarmac Rally Sprint Cam	3000 7500	300	300	0.490 12.44	0.488 12.39	0.490 12.44	0.488 12.39	42-78	78-42	108		0.125" 3.16mm		0.008 0.200	0.010 0.250	£240.00	Blank
Notes Good Mid Upper Range Power will Not Run on Standard Injection																		
PEUI/312/524 PH5	Race Cam	4000 8000	312	312	0.524 13.30	0.522 13.25	0.524 13.30	0.522 13.25	48-84	84-48	108		0.140" 3.55mm		0.008 0.200	0.010 0.250	£240.00	Blank
Notes Powerful Mid Range Race Camshaft																		

### Peugeot 205/309 GTI 1600/1900 Additional Components

Part No	Description	Price
DNCF5009	8 x 1600/1900 GTI 8 Valve Cam Followers (38mm x 35mm)	£100.00
DNP1006	Vernier Pulley Hard Anodised	£90.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



### Peugeot Camshaft Data :- 205 1360CC Alloy Block

Rocker Ratio 1 : 1.4

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
PEUSR/260/350 PH1	Road Cam	1500 6500	260	260	0.350 8.88	0.347 8.81	0.250 6.35	0.248 6.29	20-60	60-20	110				0.008 0.200	0.010 0.250	£235.00	Blank
Notes		Ideal Road Cam for Town Use. Good Idle																
PEUSR/290/399 PH3	Tarmac Rally Sprint Cam	2000 7000	290	290	0.399 10.13	0.396 10.06	0.285 7.23	0.283 7.18	35-75	75-35	110				0.008 0.200	0.010 0.250	£235.00	Blank
Notes		Mid Top End Power Rally/Sprint Camshaft																
PEUSR/308/406 PH4	Race Cam	4000 8000	308	308	0.406 10.30	0.403 10.23	0.290 7.36	0.288 7.31	44-84	84-44	108				0.008 0.200	0.010 0.250	£235.00	Blank
Notes		Powerful Mid Range Race Cam																

### Peugeot 205 1360CC Alloy Block Additional Components

Part No	Description	Price
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

### Peugeot Camshaft Data :- 106 1.6 16 Valve

Note:- Later engines may require M11 cam pulley bolt and washer Peugeot Pt No 806.18 & 694906.

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
CITVTS/256/380 PH1	Road Cam	2000 7000	256	256	0.380 9.64	0.380 9.64	0.380 9.64	0.380 9.64	18-58	58-18	110	110	1.30mm	1.30mm	Hyd	Hyd	£360.00 Per Pair	Blank
Notes		Good Increase of Low Mid Range Power. Smooth Idle																
CITVTS/264/400 PH3	Fast Road Cam	3000 7000	264	264	0.400 10.15	0.400 10.15	0.400 10.15	0.400 10.15	22-62	62-22	110	110	1.80mm	1.80mm	Hyd	Hyd	£360.00 Per Pair	Blank
Notes		Fast Road Cam Giving Plenty of Mid Range Power. Will Run on Standard Injection with ECU Mods																
CITVTS/280/430 PH4	Sprint/Tarmac Rally	3500 7500	280	280	0.430 10.91	0.430 10.91	0.430 10.91	0.430 10.91	32-68	70-30	108	110	2.30mm	2.10mm	Hyd	Hyd	£360.00 Per Pair	Blank
Notes.		Sprint/Tarmac Rally Cam Requires Throttle Bodies																
CITVTS/290/450 PH5	Race Cam	4500 8500	290	290	0.442 11.22	0.440 11.17	0.442 11.22	0.440 11.17	41-69	71-39	104	106	3.7mm	3.4mm	0.008 0.203	0.010 0.254	£360.00 Per Pair	Blank
Notes		Race Cam Giving a Wide Spread of Power from 4500 RPM																

### Peugeot 106 1.6 16 Valve Additional Components

Part No	Description	Price
DNCHL88	16 x Hydraulic Cam Followers (28.35mm x 26mm)	£220.00
DNCF6000	16 x Easy Adjust Non Shim Cam Followers (28.35mm x 26mm)	£300.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£20.00
DNS2670	16 x Competition Silicon Chrome 180 lbs Valve Springs	£120.00





### Peugeot Camshaft Data :- M1 16 16 Valve

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
PEUM/264/400H PH1	Road Cam	2000 6500	258	258	0.400 10.15	0.400 10.15	0.400 10.15	0.400 10.15	19-59	59-19	110	110	0.071" 1.80mm	0.071" 1.80mm	Hyd	Hyd	£580.00 Per Pair	Billet
Notes Ideal for Road Use. Good Tickover																		
PEUM/280/420H PH3	Road/Rally Cam	2500 7500	280	280	0.420 10.66	0.420 10.66	0.420 10.66	0.420 10.66	30-70	70-30	110	110	0.071" 1.80mm	0.071" 1.80mm	Hyd	Hyd	£580.00 Per Pair	Billet
Notes Will Not Run on Standard Injection																		
PEUM/288/440H PH4	Tarmac Rally Sprint Cam	3000 7500	288	288	0.440 11.17	0.440 11.17	0.440 11.17	0.440 11.17	36-72	72-32	108	108	0.083" 2.10mm	0.083" 2.10mm	Hyd	Hyd	£580.00 Per Pair	Billet
Notes Good Mid Upper Range Power. Will Not Run on Standard Injection																		
PEUM/312/470 PH5	Race Cam	4000 8000	312	312	0.470 11.93	0.468 11.88	0.470 11.93	0.468 11.88	48-84	84-48	108	108	0.142" 3.6mm	0.142" 3.6mm	0.008 0.200	0.010 0.250	£580.00 Per Pair	Billet
Notes Powerful Mid/Top Range Race Camshaft																		

### Peugeot M1 16 16 Valve Additional Components

Part No	Description	Price
DNCHL74	16 x Hydraulic Cam Followers (32mm x 26mm)	£180.00
DNCF5121	16 x GTI Mechanical Cam Followers Easy Adjust Non Shim Type (32mm x 26mm)	£300.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£20.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

### Peugeot Camshaft Data :- 306 S16 16 Valve

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
PEUS/268/390H PH1	Road Cam	2000 6500	258	258	0.390 9.90	0.390 9.90	0.390 9.90	0.390 9.90	19-59	59-19	110	110	0.071" 1.80mm	0.071" 1.80mm	Hyd	Hyd	£580.00 Per Pair	Steel Billet
Notes Ideal for Road Use. Good Tickover																		
PEUS/280/420H PH3	Road/Rally Cam	2500 7500	280	280	0.420 10.66	0.420 10.66	0.420 10.66	0.420 10.66	30-70	70-30	110	110	0.071" 1.80mm	0.071" 1.80mm	Hyd	Hyd	£580.00 Per Pair	Steel Billet
Notes Will Not Run on Standard Injection																		
PEUS/288/440H PH4	Tarmac Rally Sprint Cam	3000 7500	288	288	0.440 11.17	0.440 11.17	0.440 11.17	0.440 11.17	36-72	72-36	108	108	0.083" 2.10mm	0.083" 2.10mm	Hyd	Hyd	£580.00 Per Pair	Steel Billet
Notes Good Mid Upper Range Power. Will Not Run on Standard Injection																		
PEUS/312/470 PH5	Race Cam	4000 8000	312	312	0.470 11.93	0.468 11.88	0.470 11.93	0.468 11.88	48-84	84-48	108	108	0.142" 3.6mm	0.142" 3.6mm	0.008 0.200	0.010 0.250	£580.00 Per Pair	Steel Billet
Notes Powerful Mid/Top Range Camshaft																		

### Peugeot 306 S16 16 Valve Additional Components

Part No	Description	Price
DNCHL74	16 x Hydraulic Cam Followers (32mm x 26mm)	£180.00
DNCF5121	16 x GTI Mechanical Cam Followers Easy Adjust Non Shim Type (32mm x 26mm)	£300.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£20.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



### Peugeot Camshaft Data :- 206/307 2.0 GTI

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
PEUG/258/380 PH1	Road Cam	2000 6500	258	258	0.380 9.64	0.380 9.64	0.380 9.64	0.380 9.64	18-58	54-14	110	110	0.051" 1.3mm	0.051" 1.3mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Ideal for Road Use. Good Tickover																		
PEUG/264/385 PH2	Road/Rally Cam	2500 7500	264	264	0.385 9.77	0.385 9.77	0.385 9.77	0.385 9.77	22-62	62-22	110	110	0.055" 1.40mm	0.055" 1.40mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Will Run on Standard Injection with ECU Mods																		
PEUG/280/440 PH4	Tarmac Rally Sprint Cam	3000 7500	280	280	0.440 11.17	0.440 11.17	0.440 11.17	0.420 10.66	32-68	68-32	108	108	0.108" 2.75mm	0.108" 2.75mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Good Mid Upper Range. Will Not Run on Standard Injection. Cam Carrier Mods Required to Swing 9.77mm Lift																		
PEUG/300/468 PH5	Race Cam	4000 8000	300	300	0.468 11.88	0.430 10.91	0.468 11.88	0.430 10.91	42-78	78-42	108	108	0.154" 3.90mm	0.154" 3.90mm	0.008 0.200	0.010 0.250	£480.00 Per Pair	Blank
Notes Powerful Mid Range Race Camshaft. Cam Carrier Mods Required to Swing 11.88mm Lift																		

### Peugeot 206/307 2.0 GTI Additional Components

Part No	Description	Price
DNCHL88	16 x Hydraulic Cam Followers (28.35mm x 26mm)	£200.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£20.00
DNCF6000	16 x GTI Mechanical Cam Followers Easy Adjust Non Shim Type (28.35mm x 26mm)	£300.00

### Peugeot Camshaft Data :- 306 GTI 6

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
PEUT/258/380 PH1	Road Cam	2000 6500	258	258	0.380 9.64	0.380 9.64	0.380 9.64	0.380 9.64	18-58	54-14	110	110	0.051" 1.3mm	0.051" 1.3mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Ideal for Road Use. Good Tickover																		
PEUT/264/420 PH2	Road/Rally Cam	2500 7500	264	264	0.420 10.66	0.420 10.66	0.420 10.66	0.420 10.66	22-62	62-22	110	110	0.055" 1.40mm	0.055" 1.40mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Will Not Run on Standard Injection																		
PEUT/280/440 PH4	Tarmac Rally Sprint Cam	3000 7500	280	280	0.440 11.17	0.440 11.17	0.440 11.17	0.440 11.17	32-68	68-32	108	108	0.108" 2.75mm	0.108" 2.75mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Good Mid Upper Range Power. Will Not Run on Standard Injection																		
PEUT/300/468 PH5	Race Cam	4000 8000	300	300	0.468 11.88	0.430 10.91	0.468 11.88	0.430 10.91	42-78	78-42	108	108	0.154" 3.90mm	0.154" 3.90mm	0.008 0.200	0.010 0.250	£480.00 Per Pair	Blank
Notes Powerful Mid Range Range Camshaft																		

### Peugeot 306 GTI 6 Additional Components

Part No	Description	Price
DNCHL74	16 x Hydraulic Cam Followers (32mm x 26mm)	£190.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£20.00
DNCF5121	16 x GTI Solid Cam Followers (32mm x 26mm)	£300.00





### Porsche Camshaft Data :- 911 6 cyl 2 Valve

Rocker Ratio 1 : 1.5

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
POR/292/525H PH1 HYD	Road Cam	2000 6000	292	292	0.488 12.37	0.488 12.37	0.325 8.25	0.325 8.25	32-80	76-28		114			Hyd	Hyd	£550.00 Per Pair	Blank
Notes Cam Suited for 993 Road Use. Good Idle and Little Loss of Low Down Power																		
POR/300/480/40 PH1	Fast Road Cam	2000 6000	300	276	0.479 12.14	0.443 11.23	0.319 8.10	0.295 7.49	48-72	60-36		102	4.35mm		0.008 0.203	0.008 0.203	£550.00 Per Pair	Blank
Notes Cam Suited for Fast Road Rally Use. Good Idle and Mid Range Power																		
POR/304/497/62 PH4	Tarmac Rally/Race Cam	3000 7500	304	286	0.497 12.60	0.488 12.37	0.331 8.40	0.325 8.25	50-74	65-41		102	5.00mm		0.008 0.203	0.010 0.254	£550.00 Per Pair	Blank
Notes Competition Cam Ideal for Rally, Track, Days and Sprints																		
POR/336/519/RS PH5	Race Cam	4500 8000	336	332	0.519 13.17	0.519 13.17	0.346 8.78	0.346 8.78	66-90	83-59		102			0.008 0.203	0.010 0.254	£550.00 Per Pair	Blank
Notes A Race Cam Only Suited for Circuit Race Use																		

Notes:- State Bearing Size also confirm the drive end dimensions on the rear end of camshaft.

### Porsche 911 6 cyl 2 Valve Additional Components

Part No	Description	Price
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00
911R/ARM REGRIND	Porsche 911 Rocker Arms Re grind. Customers' Own Rocker Arms Ground and Superfinished	£17.50

### Porsche Camshaft Data :- 924 Water Cooled 4 Cyl

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
POW/280/480 PH1	Fast Road Cam	1500 6000	280	280	0.480 12.18	0.480 12.18	0.480 12.18	0.480 12.18	30-70	70-30	110	110	0.088" 2.23mm		0.008 0.203	0.010 0.254	£250.00	Blank
Notes Cam Suited for Road Use Good Idle and Little Loss of Low Down Power																		
POW/280/480T PH1	Fast Road Cam For 924 Turbo	1500 6000	280	280	0.480 12.18	0.480 12.18	0.480 12.18	0.480 12.18	28-72	72-28	112	112	0.077" 1.95mm		0.008 0.203	0.010 0.254	£250.00	Blank
Notes Cam Suited for Road Use Good Idle and Little Loss of Low Down Power																		

### Porsche 924 Water Cooled 4 Cyl Additional Components

Part No	Description	Price
DNCF5008	8 x Porsche 924 Cam Followers O.E Spec Set	£220.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

## Renault Camshaft Data :- Clio 19 16V F7P Engine Type Cam Bucket Model

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
RENC/258/380H PH1	Road Cam	2000 6500	258	248	0.380 9.64	0.360 9.14	0.380 9.64	0.360 9.14	18.-58	58-18	110	110	0.035" 0.90mm	0.035" 0.90mm	Hyd	Hyd	£500.00 Per Pair	Blank
Notes Ideal for Road Use. Good Tickover and Low Down Power																		
RENC/264/420H PH3	Road/Rally Cam	2500 7500	264	264	0.420 10.66	0.420 10.66	0.420 10.66	0.420 10.66	22-62	62-22	110	110	0.045" 1.15mm	0.045" 1.15mm	Hyd	Hyd	£500.00 Per Pair	Blank
Notes Mid Range Cam Free Revving. Will Not Run on Standard Injection																		
RENC/280/440H PH4	Tarmac Rally Sprint Cam	3000 7500	280	280	0.440 11.17	0.440 11.17	0.440 11.17	0.440 11.17	32-68	68-32	108	108	0.108" 2.75mm	0.108" 2.75mm	Hyd	Hyd	£500.00 Per Pair	Blank
Notes Good Mid Upper Range Power. Will Not Run on Standard Injection																		
RENC/300/468 PH4	Race Cam	4000 8000	300	300	0.468 11.88	0.430 10.91	0.468 11.88	0.430 10.91	42-78	78-42	108	108	0.153" 3.88mm	0.153" 3.88mm	0.008 0.200	0.010 0.250	£500.00 Per Pair	Blank
Notes Powerful Mid Range Race Camshaft																		

### Renault Clio /19 16V F7P Engine Type Cam Bucket Model Additional Components

Part No	Description	Price
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

## Renault Camshaft Data :- Clio II 16V F4R 730 Engine Type

Rocker Ratio 1 : 1.98

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
RENF4R/272/445 PH1	Fast Road Cam	2000 6500	272	256	0.445 11.30	0.404 10.25	0.225 5.70	0.205 5.20	12-82	56-20	124	108	0.022" 0.55mm	0.045" 1.15mm	Hyd	Hyd	£525.00 Per Pair	Blank
Notes Runs with Standard ECU, but well need to get a remap to grt the best out of these cams worth an extra 12+ BHP.																		

### Renault Clio II F4R Engine Type Additional Components

Part No	Description	Price
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00





### Austin Rover Camshaft Data :- Model A Series/Mini/Metro/Midget 850cc to 1275CC

Rocker Ratio 1.275 : 1

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
ARA/260/344 PH1	Mild Road/Turbo Cam	1500 6000	260	260	0.344 8.74	0.344 8.74	0.270 6.85	0.270 6.85	20-60	60-20	110		0.033" 0.83mm		0.012 0.305	0.012 0.305	£100.00 £200.00	Repro Billet
Notes Ideal for Road Use. Good Tickover. Works Well in the Supercharged Engine																		
ARA/270/367 PH2	Fast Road Cam	2000 6500	270	270	0.367 9.31	0.367 9.31	0.300 7.61	0.300 7.61	28-62	62-28	107		0.057" 1.46mm		0.012 0.305	0.012 0.305	£100.00 £200.00	Repro Billet
Notes Superb Fast Road Cam for Use with Twin Carb Set Up or Single 1 1/2 SU Excellent Power Increase Smooth Tickover																		
ARA/290/383 PH3	Rally Fast Road Cam	3000 7500	290	290	0.383 9.71	0.383 9.71	0.300 7.61	0.300 7.61	38-72	72-38	107		0.88" 2.23mm		0.012 0.305	0.012 0.305	£100.00 £200.00	Repro Billet
Notes Fast Road Rally Cam Good Mid/Top End Power But with a Good Idle																		
ARA/300/414 PH4	Tarmac Rally/Sprint Cam	3750 8000	300	300	0.414 10.52	0.414 10.52	0.325 8.25	0.325 8.25	43-77	77-43	107		0.102" 2.60mm		0.008 0.200	0.010 0.250	£100.00 £200.00	Repro Billet
Notes Tarmac Rally/Torque Race Cam for Rally Use Best in 1275cc Engines, Cross Drilled Cam Lobes																		
ARA/320/421 PH5	Full Race Cam	4000 8000	320	320	0.434 11.00	0.434 11.00	0.340 8.63	0.340 8.63	53-87	87-53	107		0.148" 3.76mm		0.008 0.200	0.010 0.250	£200.00	Billet
Notes Race Cam Giving a Good Spread of Power Requires O/S Cam Followers To Be Fitted Only for 1275cc Engines, Cross Drilled Cam Lobes																		

### Austin Rover Camshaft Data :- Model A Series/Injection Engines

Rocker Ratio 1.1275 : 1

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATTIC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
ARA/250/322I PH1	Mild Road/Turbo Cam Single Point Injection	2000 6000	250	260	0.332 8.41	0.332 8.41	0.260 6.60	0.260 6.60	13-57	62-18	112		0.015" 0.38mm		0.012 0.305	0.012 0.305	£100.00	Repro
Notes Excellent Low Down Power and Smooth Tickover																		
ARA/250/344I PH1	Fast Road Cam Multi Point Injection	2000 6500	250	260	0.344 8.74	0.344 8.74	0.270 6.85	0.270 6.85	13-57	62-18	112		0.020" 0.51mm		0.012 0.305	0.012 0.305	£100.00	Repro
Notes Excellent Low Down Power and Smooth Tickover																		

### Austin Rover Camshaft Data :- Model A Series/Additional Profiles

Rocker Ratio 1.1275 : 1

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	EX Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
BMC731 PH3	Road/Rally Cam	3000 7000	268	268	0.385 9.77	0.385 9.77	0.302 7.66	0.302 7.66	39-59	59-39	107		0.100" 2.55mm		0.012 0.305	0.012 0.305	£200.00	Billet
Notes Original Rally Developed by the BMC Works Engine Department																		

Notes:- All Billet BMC A Series Cams are supplied cross drilled with Oil feed through the Lobes.



### Austin Rover Camshaft Data :- Model A Series/Mini/Metro/Midget 850cc to 1275CC

Rocker Ratio 1 : 1.275

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
BMC 649 PH5	Race Cam	4000 8000	300	300	0.427 10.84	0.427 10.84	0.335 8.50	0.335 8.50	50-70	70-50	100		0.136mm 3.45mm		0.012 0.305	0.012 0.305	£200.00	Billet

Notes The Original Race Camshaft Developed by the Factory. Crossed drilled Cam Lobes

Notes : - Oil Pump Drives Differ in this Engine. Please advise Type of Drive Spider/Pin/Woodruff Slot.  
All our Billet Cams are cross drilled through the Lobes.

### Austin Rover A Series / Mini Injection Models Additional Components

Part No	Description	Price
DNCF010	8 x A Series Cam Followers Standard Size	£36.00
DNCF3006	8 x BMC A Series Inductioned Hardenend Nitrided EN40B Competition Cam Followers	£88.00
DNCF02	8 x A Series Oversize O/D 0.875" for Cams Having More Than 0.325" Lift on the Cam Lobe	£48.00
DNS1040S	A Series Single Valve Springs 160 Poundage Rate	£60.00
DNS1040D	A Series Double Valve Springs 200 Poundage Rate	£90.00
OP134	Oil Pump Spade Drive High Capacity Recommended for Cross Drilled Camshafts	£55.00

### Austin Rover Camshaft Data :- Model B Series MGA/MGB

Rocker Ratio 1 : 1.420

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
ARB/280/383 PH1	Road Cam	1500 6000	280	280	0.383 9.73	0.381 9.66	0.270 6.85	0.268 6.80	30-70	70-30	110		0.056" 1.42mm		0.012 0.305	0.014 0.356	£100.00 £210.00	Repro Billet
Notes An Excellent Cam for the Standard MGB for Road Use. Good Low Down and Mid Range Power. Good Idle																		
ARB/290/426 PH3	Fast Road/Rally Cam	3000 6500	290	290	0.426 10.81	0.426 10.81	0.300 7.61	0.300 7.61	35-75	75-35	110		0.084" 2.13mm		0.012 0.305	0.014 0.356	£100.00 £210.00	Repro Billet
Notes Competition Cam Suitable for Long Distance Events Good Mid Range Power. Reasonable Idle																		
ARB/300/454 PH4	Tarmac Rally/Race Cam	4000 7000	300	300	0.454 11.53	0.454 11.53	0.320 8.12	0.320 8.12	48-72	72-48	102		0.123" 3.12mm		0.012 0.305	0.014 0.356	£210.00	Billet
Notes A Good Race/Rally Cam Not Suitable for Road Use Giving Similar Power to the BMC 770 Cam. Requires O/S Cam Followers																		
ARB/320/520 PH5	Full Race Cam	4500 8000	320	320	0.520 13.19	0.517 13.12	0.366 9.29	0.364 9.24	53-87	87-53	107		0.151" 3.83mm		0.012 0.305	0.014 0.356	£210.00	Billet
Notes A Race Cam for Circuit Racing Only. Recommended O/S Cam Followers Are Fitted																		

### Austin Rover B Series MGA/MGB Additional Components

Part No	Description	Price
DNCF010	8 x B Series Cam Followers Standard Size Post 1971	£36.00
DNCF013	8 x B Series Cam Followers Standard Size Pre 1971	£48.00
DNCF3006	8 x BMC A Series Inductioned Hardenend Nitrided EN40B Competition Cam Followers Post 971	£88.00
DNCF02	8 x A Series Oversize O/D 0.875" for Cams Having More Than 0.325" Lift on the Cam Lobe	£48.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00





## Austin Rover Camshaft Data :- K Series 16 Valve

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
ARK/252/400H PH1	Road Cam	2000 6000	252	252	0.400 10.15	0.400 10.15	0.400 10.15	0.400 10.15	16-56	56-16	110	110	0.039" 1.00mm	0.039" 1.00mm	Hyd	Hyd	£460.00 Per Pair	Blank
Notes Road Cam Designed for Hydraulic Cam Followers and Standard Engine Management System. Good Increase of Low Mid Range Power Add £30 For VVC Soild Cam																		
ARK/260/400H PH2	Fast Road	2000 7000	260	260	0.400 10.15	0.400 10.15	0.400 10.15	0.400 10.15	20-60	60-20	110	110	0.044" 1.12mm	0.044" 1.12mm	Hyd	Hyd	£460.00 Per Pair	Blank
Notes Fast Road Cam Designed for Hydraulic Cam Followers and Standard Engine Management System. Good Increase of Mid Range Power Add £30 For VVC Soild Cam																		
ARK/268/410H PH3	Tarmac Rally/Fast Road Cam	3000 7000	268	268	0.410 10.41	0.410 10.41	0.410 10.41	0.410 10.41	26-62	64-24	108	110	0.075" 1.90mm	0.063" 1.60mm	Hyd	Hyd	£460.00 Per Pair	Blank
Notes Cams Designed for Competition Use. They will Not Run on the Standard Management System Good Mid Range Top End Power. Heavy Tickover Add £30 For VVC Soild Cam																		
ARK/276/412 PH4	Tarmac Rally/Sprint Cams	3500 8000	276	276	0.412 10.46	0.410 10.41	0.412 10.46	0.410 10.41	30-66	68-28	108	110	0.075" 1.90mm	0.067" 1.70mm	0.008 0.203	0.010 0.254	£460.00 Per Pair	Blank
Notes Cams Designed for Sprints and Tarmac Rally. Good Mid/Top End Power. Heavy Tickover Add £30 For VVC Soild Cam																		
ARK/290/465 PH5	Full Race Cam	5000 8500	290	290	0.465 11.80	0.445 11.29	0.465 11.80	0.445 11.29	41-69	71-39	104	106	0.124" 3.15mm	0.115" 2.92mm	0.008 0.203	0.010 0.254	£460.00 Per Pair	Blank
Notes Full Race Cam Requiring Modified Management System and O/S Injector Bodies Add £30 For VVC Soild Cam																		
ARK/310/480 PH5	Full Race Cam	5000 8500	310	310	0.480 12.18	0.465 11.80	0.480 12.18	0.465 11.80	49-81	78-42	106	106	0.169" 4.30mm	0.169" 4.30mm	0.008 0.203	0.010 0.254	£460.00 Per Pair	Blank
Notes Full Race Cam Requiring Modified Management System and O/S Injector Bodies Designed for Engine 1800cc and Over Add £30 For VVC Soild Cam																		

## Austin Rover K Series 16 Valve Additional Components

Part No	Description	Price
DNS2670	16 x Single Competition Valve Springs	£120.00
DNCF5114	16 x Mechanical Billet EN40 B Cam Followers Screw Adjustment No Shimming Required (33mm x 24mm)	£300.00
K335	1 x Mechanical Cam Followers Adjuster Tool	£20.00
DNCFHL17	16 x Hydraulic Cam Followers (33mm x 24mm)	£160.00
TB8974	Timing Belt (145mm x 26mm)	£28.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



### Austin Rover Camshaft Data :- Rover V8 3.5 to 4.6

Rocker Ratio 1 : 1.6

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
ARR/260/416H PH1	Fast Road Cam	1250 5500	260	260	0.416 10.56	0.416 10.56	0.260 6.60	0.260 6.60	20-60	60-20	110		0.041" 1.04mm		Hyd	Hyd	£245.00	Blank
Notes A Cam Designed for Engines with Auto Transmission and Engines Requiring a Smooth Tickover with Low Down Power																		
ARR/270/424H PH2	Fast Road Cam	2000 6000	270	270	0.424 10.76	0.424 10.76	0.265 6.73	0.265 6.73	25-65	65-25	110		0.050" 1.28mm		Hyd	Hyd	£245.00	Blank
Notes Good Low Down Power for Carb and Injection Engines. Management Sytem May Have To be Adjusted in Some Engines to Smooth Tickover																		
ARR/280/448H PH4	Tarmac Rally/Sprint Cam	3000 6500	280	280	0.448 11.37	0.448 11.37	0.280 7.11	0.280 7.11	30-70	70-30	110		0.098" 2.48mm		Hyd	Hyd	£245.00	Blank
Notes This Cam will Not Run on Standard Injection Engine. Works Well with 4 Barrel Holley Carb Good Mid Range Top End Power																		
ARR/310/480 PH5	Race Cam	3750 8000	310	310	0.480 12.18	0.480 12.18	0.300 7.61	0.300 7.61	45-85	85-45	110		0.142" 3.60mm		0.018 0.457	0.020 0.508	£245.00	Blank
Notes A Race Cam Only Suited for Circuit Race Use Solid Cam Followers																		

### Austin Rover V8 3.5 to 4.6 Additonal Components

Part No	Description	Price
DNCF56	16 x Hydraulic Chilled Iron Cam Followers	£140.00
DNCF56/MECH	16 x Mechanical Chilled Iron Cam Followers Adustable Push Rods or Rocker Arms Required	£240.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

### Austin Rover Camshaft Data :- Austin Healey 3000

Rocker Ratio 1 : 1.42

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
ARR/284/355 PH1	Road Cam	1600 5500	284	284	0.355 9.01	0.355 9.01	0.250 6.35	0.250 6.35	35-69	69-35	107		0.0612" 1.56mm		0.015 0.381	0.015 0.381	£460.00	Billet
Notes The Factory BJ8 Profile Used as an Early Competition Cam But Now Makes a Fine Road Cam																		
ARR/280/383 PH2	Fast Road Cam	2000 6000	280	280	0.383 9.73	0.383 9.73	0.270 6.85	0.270 6.85	30-70	70-30	110		0.056" 1.42mm		0.015 0.381	0.015 0.381	£460.00	Billet
Notes Rally Fast Road Cam Suitable for Long Distance Events Smooth Tickover Good Mid Range Power																		
ARR/300/454 PH4	Race/Tarmac Rally/Sprint Cam	3000 6500	300	300	0.454 11.53	0.454 11.53	0.320 8.12	0.320 8.12	48-72	72-48	102		0.148" 3.76mm		0.015 0.381	0.015 0.381	£460.00	Billet
Notes Factory 1622 Cam as Used in the Factory Rally Team Cars																		
ARR/320/554 PH5	Race Cam	4000 7500	320	320	0.554 14.06	0.554 14.06	0.390 9.90	0.390 9.90	58-82	82-58	102		0.212" 5.40mm		0.016 0.406	0.018 0.457	£460.00	Billet
Notes The Ultimate Factory Race Cam for Circuit Racing Only in Conjunction with C/R Gear Box																		

### Austin Rover Austin Healey 3000 Additonal Components

Part No	Description	Price
DNCF670	12 x Chilled Iron Cam Followers	£108.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

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## Austin Rover Camshaft Data :- MGC

Rocker Ratio 1 : 1.42

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
ARC/284/355 PH1	Road Cam	1600 5500	284	284	0.355 9.01	0.355 9.01	0.250 6.35	0.250 6.35	35-69	69-35	107				0.015 0.381	0.015 0.381	£160.00 £500.00	Repro Billet
Notes The Factory BJ8 Profile Used as an Early Competition Cam But now Makes a Fine Road Cam																		
ARC/280/383 PH2	Fast Road Cam	2000 6000	280	280	0.383 9.73	0.383 9.73	0.270 6.85	0.270 6.85	30-70	70-30	110				0.015 0.381	0.015 0.381	£500.00	Billet
Notes Rally Fast Road Cam Suitable for Long Distance Events. Smooth Tickover. Good Mid Range Power																		

## Austin Rover Camshaft Data :- Austin Healey 100/4

Rocker Ratio 1 : 1.42

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	In Open	Ex Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
HEA/260/260 PH1	Road Cam	1600 5500	260	260	0.433 10.99	0.433 10.99	0.315 7.99	0.315 7.99	25-65	65-25	110				0.015 0.381	0.015 0.381	£415.00	Billet
Notes Touring Cam Designed for Torque.																		
HEA/266/369 PH1	Road Cam Le Mans M Spec	1600 5500	284	284	0.369 9.37	0.369 9.37	0.260 6.60	0.260 6.60	35-69	69-35	107				0.015 0.381	0.015 0.381	£150.00 £415.00	Repro Billet
Notes The Factory M Profile Used as an Early Competition Cam But Now Makes a Fine Road Cam																		
HEA/280/383 PH2	Race Rally Sprint Cam	2500 6000	290	280	0.426 10.81	0.426 10.81	0.300 7.61	0.300 7.61	35-75	75-35	110				0.015 0.381	0.015 0.381	£415.00	Billet
Notes Rally Fast Road Cam Suitable for Long Distance Events. Smooth Tickover. Good Mid Range Power																		

## MG C Austin Healey 100/4 Additonal Components

Part No	Description	Price
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



### Toyota Camshaft Data :- MR2 Mk 1 4AGE 16 Valve

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
TOYA/252/310 PH1	Road Cam	2000 6500	252	252	0.310 7.87	0.308 7.82	0.310 7.87	0.308 7.82	16-56	56-16	110	110	0.030" 0.76mm	0.030" 0.76mm	0.008 0.200	0.010 0.250	£480.00 Per Pair	Blank
Notes Ideal for Road Use. Good Tickover and Low Down Power																		
TOYA/272/338 PH3	Road/Rally Cam	2500 7500	272	272	0.338 8.58	0.334 8.48	0.338 8.58	0.334 8.48	26-66	66-26	110	110	0.040" 1.02mm	0.040" 1.02mm	0.008 0.200	0.010 0.250	£480.00 Per Pair	Blank
Notes Good Mid Range Power. Will Not Run on Standard Injection																		
TOYA/288/338 PH4	Tarmac Rally Sprint Cam	3000 7500	288	288	0.338 8.58	0.336 8.53	0.338 8.58	0.336 8.53	36-72	72-36	108	108	0.080" 2.03mm	0.080" 2.03mm	0.008 0.200	0.010 0.250	£480.00 Per Pair	Blank
Notes Good Mid Upper Range Power. Will Not Run on Standard Injection																		
TOYA/300/342 PH5	Race Cam	4000 8000	300	300	0.342 8.68	0.338 8.58	0.342 8.68	0.340 8.63	42-78	78-42	108	108	0.120" 3.05mm	0.120" 3.05mm	0.008 0.200	0.010 0.250	£480.00 Per Pair	Blank
Notes Powerful Upper Range Camshaft																		

### Toyota Camshaft Data :- MR2 3SGTE

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
TOYS/272/335 PH1	Fast Road Cam	2000 7000	272	272	0.328 8.31	0.325 8.25	0.335 8.50	0.335 8.50	26-66	64-24	110	110	0.040" 1.00mm	0.0038" 0.96mm	0.008 0.200	0.010 0.250	£480.00 Per Pair	Blank
Notes Ideal for Road Use. Good Tickover and Low Down Power																		
TOYS/272/396T PH4	Turbo Fast Road Cam	2500 8000	272	268	0.384 9.75	0.364 9.24	0.394 10.00	0.374 9.50	26-66	64-24	110	110	0.051" 1.30mm	0.043" 1.10mm	0.008 0.200	0.010 0.250	£480.00 Per Pair	Blank
Notes For Turbo Engines Wanting More Than 400BHP																		

### Toyota Camshaft Data :- Celica VVT/Lotus Elise

Rocker Ratio 1 : 1.645

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
TOYVT/288/480 PH1	Road Cam	2000 7000	288	284	0.480 12.18	0.445 11.29	0.290 7.36	0.270 6.85	22-62	62-22	110	110	0.147" 3.73mm	0.134" 3.43mm	0.008 0.200	0.010 0.250	£525.00 Per Pair	Blank
Notes Ideal for Track Day Use																		

### Toyota Additional Components

Part No	Description	Price
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00





### Triumph Camshaft Data :- 1300cc to 1500cc Large Bearing 4 Cylinder. Small Bearing Available On Request

Rocker Ratio 1 : 1.5

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
TRIS/260/375 PH1	Road Cam	1500 6000	260	260	0.375 9.52	0.375 9.52	0.250 6.35	0.250 6.35	20-60	60-20	110		0.030" 0.075mm		0.014 0.300	0.016 0.350	£185.00	Blank
Notes Ideal Road Cam for Town Use. Good Idle																		
TRIS/280/405 PH2	Fast Road/Rally Cam	2000 6500	280	280	0.405 10.28	0.405 10.28	0.270 6.85	0.270 6.85	30-70	70-30	110		0.060" 1.50mm		0.014 0.300	0.016 0.350	£185.00	Blank
Notes Good Mid Range Power																		
TRIS/300/435 PH5	Race Cam	4000 8000	300	300	0.435 11.04	0.435 11.04	0.290 7.36	0.290 7.36	40-80	80-40	110		0.077" 1.95mm		0.014 0.300	0.016 0.350	£185.00	Blank
Notes Powerful Mid Range Race Cam																		

### Triumph 1300cc to 1500cc Large Bearing 4 Cylinder Additional Components / Triumph Spitfire Additional Components

Part No	Description	Price
DNCF3000	8 x Spitfire 1300cc 1500cc Competition Induction Hardened EN40 Nitrided Steel Cam Followers (20.3mm x 44.5mm)	£88.00
DNCF53	8 x Spitfire 1300cc 1500cc Chilled Iron Cam Followers (20.3mm x 44.5mm) PH1 Cam Only	£50.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00
DNS1040S	8 x Single Springs 160 Poundage PH1 to PH3 Cams	£60.00
DNS1040D	8 x Double Springs 200 Poundage PH5 Race Cams	£90.00

### Triumph Camshaft Data :- TR2/3/4 4 Cyl

Rocker Ratio 1 : 1.5

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
TRI4/280/405 PH1	Road Cam	1500 5500	280	280	0.405 10.28	0.405 10.28	0.270 6.85	0.270 6.85	30-70	70-30	110		0.060" 1.50mm		0.014 0.300	0.016 0.350	£195.00	Blank
Notes Giving Excellent Low Down Power with Smooth Idle and a Free Revving Ability																		
TRI4/300/435 PH3	Fast Road Rally Cam	2500 6000	300	300	0.435 11.04	0.435 11.04	0.290 7.36	0.290 7.36	40-80	80-40	110		0.077" 1.95mm		0.014 0.300	0.016 0.350	£195.00	Blank
Notes Powerful Fast Road Rally Cam																		
TRI4/330/525 PH5	Race Cam	4000 7000	330	330	0.525 13.32	0.525 13.32	0.350 8.88	0.350 8.88	50-90	90-50	110		0.168" 4.26mm		0.014 0.300	0.016 0.350	£195.00	Blank
Notes A Race Cam for Circuit Racing Only. Best with 45 or 48 DCOE Carbs																		

### Triumph TR2/3/4 4 Cyl Additional Components

Part No	Description	Price
DNCF3001	8 x TR2/3/4 Competition Induction Hardened EN40B Nitrided Steel Cam Followers	£88.00
DNCF993	8 x TR2/3/4 Chilled Iron Cam Followers PH1 Cams Only	£50.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00
DNS9974K	8 x Competition Double Valve Springs PH1 to PH4 Cams	£80.00

### Triumph Camshaft Data :- TR6 6 Cylinder 2.5

Rocker Ratio 1 : 1.5

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
TRI6/260/375 PH1	Road Cam	1500 5500	260	260	0.375 9.52	0.375 9.52	0.250 6.35	0.250 6.35	20-60	60-20	110		0.030" 0.75mm		0.014 0.350	0.016 0.400	£230.00	Blank
Notes		Ideal Road Cam for Town Use. Good Idle. Not For 150BHP Injection Engines																
TRI6/280/405 PH2	Fast Road/Rally Cam	2500 6000	280	280	0.405 10.28	0.405 10.28	0.270 6.85	0.270 6.85	30-70	70-30	110		0.060" 1.50mm		0.014 0.300	0.016 0.350	£230.00	Blank
Notes		Good Mid Range Power																
TRI6/300/435 PH3	Tarmac Rally Sprint Cam	3000 6500	300	300	0.435 11.04	0.435 11.04	0.290 7.36	0.290 7.36	40-80	80-40	110		0.077" 1.95mm		0.014 0.350	0.016 0.400	£230.00	Blank
Notes		Fine All Round Fast Road Sprint Cam for Injection Models or Engines Fitted with DCOE Carbs																
TRI6/310/480 PH5	Race Cam	3500 7500	310	310	0.480 12.18	0.480 12.18	0.320 8.12	0.320 8.12	45-85	85-45	110		0.110" 2.80mm		0.014 0.350	0.016 0.400	£230.00	Blank
Notes		A Circuit Race Cam																

### Triumph TR6 6 Cylinder 2.5 Additional Components

Part No	Description	Price
DNCF53	12 x TR6 Chilled Iron Cam Followers Only for PH1 Cams	£75.00
DNCF3000	12 x Induction Hardend EN40 B Nitrided EN40 B Steel Cam Followers Cam Followers	£132.00
DNS2673	12 x Silicon Chrome Double Valve Springs	£132.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00
DNS1040S	12 x Single Springs 160 Poundage PH1 to PH3 Cams	£90.00
DNS1040D	12 x Double Springs 200 Poundage PH5 Race Cams	£132.00

### Triumph Camshaft Data :- Dolomite Sprint

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
TRID/260/390 PH1	Road Cam	1500 6500	260	260	0.380 9.64	0.380 9.64	0.390 9.90	0.390 9.90	20-60	60-20	110		0.035" 0.90mm		0.010 0.025	0.012 0.300	£275.00	Blank
Notes	Ideal Road Cam for Town Use. Good Idle. Will Run on SU Carbs Ground on New Chilled Iron Blank																	
TRID/290/400 PH3	Tarmac Rally Sprint Cam	3000 7000	290	290	0.390 9.90	0.388 9.85	0.400 10.15	0.400 10.15	35-75	75-35	110		0.069" 1.75mm		0.010 0.250	0.012 0.300	£275.00	Blank
Notes	Fine All Round Fast Road Sprint Cam Will Run on SU Carbs But Best with Twin 40 DCOE Carbs Ground on New Chilled Iron Blank																	
TRID/312/426 PH5	Race Cam	3500 8000	312	312	0.416 10.56	0.414 10.51	0.426 10.80	0.426 10.80	48-84	84-48	108		0.138" 3.50mm		0.010 0.250	0.012 0.300	£275.00	Blank
Notes	The Original Factory Race Cam STR 0139 for Race Use Only with Twin DCOE Carbs Ground on New Chilled Iron Blank The camshaft base circle is about 29mm diameter due to the casting. If you require 30mm base circle, we can manufacture a EN40B camshaft for £595.00.																	



## Vauxhall/Opel Camshaft Data :- Astra/Cavalier/Calibra/Vectra/1.6/1.8/2.00 J Series

Rocker Ratio 1 : 1.69

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATTIC	EX BAD	In	Ex	In	Ex		
<b>VAUX/272/456H PH2</b>	Road/Rally Cam	2500 6500	272	272	0.456 11.58	0.456 11.58	0.270 6.85	0.270 6.85	26-66	66-26	110				Hyd	Hyd	£235.00	Blank
Notes Ideal for Road Use. Good Tickover. To Be used in Injection Engines																		
<b>VAUX/280/473H PH2</b>	Road/Rally Cam	2500 6500	280	280	0.473 12.01	0.473 12.01	0.280 7.11	0.280 7.11	30.70	70.30	110				Hyd	Hyd	£235.00	Blank
Notes Will Not Run on Standard Injection. For Use with Twin DCOE Carbs or Throttle Bodies																		
<b>VAUX/288/507H PH4</b>	Tarmac Rally Sprint Cam	3000 7500	288	288	0.507 12.87	0.507 12.87	0.300 7.61	0.300 7.61	36-72	72-36	108				Hyd	Hyd	£235.00	Blank
Notes Good Mid Upper Range Power. Will Not Run on Standard Injection																		
<b>VAUX/300/541/M PH5</b>	Race Cam	4000 8000	300	300	0.541 13.73	0.541 13.73	0.320 8.12	0.320 8.12	42-78	78-42	108				0.008 0.200	0.010 0.250	£235.00	Blank
Notes Powerful Upper Range Camshaft																		

## Vauxhall/Opel Astra/Cavalier/Calibra/Vectra/1.6/1.8/2.00 J Series Additional Components

Part No	Description	Price
<b>DNCF63A</b>	8 x Steel Competition J Series Cam Followers	£60.00
<b>DNS1040</b>	8 x Single Valve Springs 160 Poundage	£60.00
<b>TB0720</b>	Timing Belt (111mm x 20mm)	£18.00
<b>DNHL63</b>	8 x Hydraulic Ball Studs	£56.00
<b>DNCBS1</b>	8 x Mechanical Ball Stud Internal Adjustment	£100.00
<b>TD1</b>	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



## Vauxhall/Opel Camshaft Data :- Corsa/Tigra Z16XE Z18XE 16 Valve

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
VUXT/264/380H PH1	Road Cam	2000 6500	264	264	0.380 9.64	0.380 9.64	0.380 9.64	0.380 9.64	22-62	62-22	110	110	0.063" 1.60mm	0.063" 1.60mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Ideal for Road Use. Good Tickover. To Be Used in Engines with Standard Injection																		
VUXT/270/405H PH2	Road/Rally Cam	2500 7000	270	270	0.405 10.28	0.405 10.28	0.405 10.28	0.405 10.28	25-65	65-25	110	110	0.051" 1.30mm	0.051" 1.30mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Will Not Run on Standard Injection. For Use with Twin DCOE Carbs																		
VUXT/288/420H PH3	Rally Cam	3000 7500	288	288	0.420 10.66	0.420 10.66	0.420 10.66	0.420 10.66	36-72	72-36	108	108	0.086" 2.20mm	0.086" 2.20mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Good Mid Upper Range Power. Will Not Run on Standard Injection																		
VUXT/300/440 PH5	Race Cam	4000 8000	300	300	0.440 11.17	0.440 11.17	0.440 11.17	0.320 8.12	42-78	78-42	108	108	0.141" 3.60mm	0.141" 3.60mm	0.008	0.010	£480.00 Per Pair	Blank
Notes Powerful Upper Range Camshaft																		

## Vauxhall/Opel Corsa/Tigra 16 Valve Additional Components

Part No	Description	Price
DNCHL70	16 x Hydraulic Cam Followers (32mm x 26mm)	£160.00
DNCF5121	16 x Mechanical Cam Followers Easy Fit Non Shim Type (32mm x 26mm)	£300.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£20.00
TB5052	Timing Belt (111mm x 17mm)	£20.00

## Vauxhall/Opel Camshaft Data :- 1.8/2.0/2.2 Ecotec 16 Valve

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
VAXE/264/380H PH1	Road Cam	2000 6500	264	264	0.380 9.64	0.380 9.64	0.380 9.64	0.380 9.64	22-62	62-22	110	110	0.063" 1.60mm	0.063" 1.60mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Ideal for Road Use. Good Tickover. To Be Used in Engines with Standard Injection																		
VAXE/270/405H PH2	Road/Rally Cam	2500 7000	270	270	0.405 10.28	0.405 10.28	0.405 10.28	0.405 10.28	25-65	65-25	110	110	0.051" 1.30mm	0.051" 1.30mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Will Not Run on Standard Injection. For Use with Twin DCOE Carbs																		
VAXE/288/420H PH3	Tarmac Rally Sprint Cam	3000 7500	288	288	0.420 10.66	0.420 10.66	0.420 10.66	0.420 10.66	36-72	72-36	108	108	0.086" 2.20mm	0.086" 2.20mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Good Mid Upper Range Power. Will Not Run on Standard Injection																		

## Vauxhall/Opel 1.8 /2.0/2.2 Ecotec 16 Valve Additional Components

Part No	Description	Price
HL70	16 x Hydraulic Cam Followers (32mm x 26mm)	£160.00
DNCF5121	16 x Mechanical Cam Followers Easy Fit Non Shim Type (32mm x 26mm)	£300.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£20.00
TB5051	Timing Belt (176mm x 24mm)	£21.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



## Vauxhall/Opel Camshaft Data :- Astra/Cavalier/Calibra 16 Valve C20XE Engine

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
<b>VAXC/264/400H PH1</b>	Road Cam	2000 6500	264	264	0.400 10.15	0.400 10.15	0.400 10.15	0.400 10.15	22-62	62-22	110	110	0.038" 0.98mm	0.038" 0.98mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Ideal for Road Use. Good Tickover. To Be Used in Engines with Standard Injection and in Turbo Engines																		
<b>VAXC/270/420H PH2</b>	Road/Rally Cam	2500 7000	270	270	0.420 10.66	0.420 10.66	0.420 10.66	0.420 10.66	25-65	65-25	110	110	0.063" 1.60mm	0.063" 1.60mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Will Not Run on Standard Injection. For Use with Twin DCOE Carbs or Modified Injection																		
<b>VAXC/288/440H PH4</b>	Tarmac Rally Sprint Cam	3000 7500	288	288	0.440 11.17	0.440 11.17	0.440 11.17	0.440 11.17	36-72	72-36	108	108	0.079" 2.00mm	0.079" 2.00mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Good Mid Upper Range Power. Will Not Run on Standard Injection																		
<b>VAXC/296/465 PH5</b>	Race Cam	4000 8000	296	296	0.455 11.55	0.455 11.55	0.465 11.80	0.465 11.80	40-76	76-40	108	108	0.132" 3.35mm	0.132" 3.35mm	0.008 0.200	0.010 0.250	£480.00 Per Pair	Blank
Notes Powerful Upper Range Camshaft																		

## Vauxhall/Opel Astra/ Cavalier /Calibra 16 Valve C20XE Engine Additional Components

Part No	Description	Price
<b>DNPOVP20XET</b>	2 x Vernier Pulleys Early Type Round Belt Form	£170.00
<b>DNPOPV20XE</b>	2 x Vernier Pulleys Late Type Square Tooth Form	£170.00
<b>DNCF5121</b>	16 x Mechanical Cam Followers Easy Fit Non Shim (32mm x 26mm) EN40 B Nitrided	£300.00
<b>K335</b>	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£20.00
<b>DNCF5121A</b>	16 x Mechanical Cam Followers Shim Type (32mm x 26mm) EN40 B Nitrided	£300.00
<b>DNCHL70</b>	16 x Hydraulic Cam Followers (32mm x 26mm)	£160.00
<b>TB5051</b>	Timing Belt Post 92 (176mm x 24mm)	£30.00
<b>TB8141</b>	Timing Belt Pre 92 (141mm x 24mm)	£30.00
<b>TD1</b>	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

## Vauxhall/Opel Camshaft Data :- Astra/Nova 1.2/1.3/1.4/1.6GTE J SERIES

Rocker Ratio 1 : 1.69

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
<b>VUXA/264/439H PH1</b>	Road Cam	2000 5750	264	264	0.439 11.15	0.439 11.15	0.260 6.60	0.260 6.60	22-62	62-22	110				Hyd	Hyd	£235.00	Blank
Notes Ideal for Road Use. Good Tickover. To Be Used in 1.4 Injection Engine																		
<b>VAXA/272/473H PH2</b>	Road/Rally Cam	2500 6500	272	272	0.473 12.01	0.473 12.01	0.280 7.11	0.280 7.11	26-66	66-26	110				Hyd	Hyd	£235.00	Blank
Notes Will Not Run on Standard Injection. For Use with Town DCOE Carbs																		
<b>VAXA/288/507 PH3</b>	Tarmac Rally Sprint Cam Stock Rod Cam	3000 7500	288	288	0.498 12.64	0.498 12.64	0.303 7.69	0.303 7.69	42-78	78-42	108				0.008 0.200	0.010 0.250	£235.00	Blank
Notes Good Mid Upper Range Power. Will Not Run on Standard Injection																		
<b>VAXA/300/541 PH4</b>	Race Cam	4000 8000	300	300	0.541 13.73	0.541 13.73	0.320 8.12	0.320 8.12	42-78	78-42	108				0.008 0.200	0.010 0.250	£235.00	Blank
Notes Powerful Upper Range Camshaft																		

## Vauxhall/Opel Astra/Nova 1.2/1.3/1.4/1.6GTE J SERIES Additional Components

Part No	Description	Price
<b>K498</b>	Aluminium Vernier Pulley with Steel Internal Sprocket	£90.00
<b>DNCF63A</b>	8 x Steel Competition J Series Cam Followers	£50.00
<b>TB5030</b>	Timing Belt 1.3 Post 80 (104mm x 15mm)	£18.00
<b>TB5083</b>	Timing Belt 1.4/1.6 Post 91 (104mm x 17mm)	£18.00
<b>TB5054</b>	Timing Belt 1.6 Post 91 (111mm x 17mm)	£18.00
<b>TD1</b>	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00
<b>DNHL63</b>	8 x Hydraulic Ball Studs	£56.00
<b>DNCBS1</b>	8 x Mechanical Ball Stud Internal Adjustment	£100.00
<b>DNS2670</b>	8 x Single Valve Springs 160 Poundage	£60.00



## Volkswagen Camshaft Data :- Golf Polo 1.4 and G40 Engines

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
<b>VOLP/264/400H PH1</b>	Road Cam	2000 6500	264	264	0.400 10.15	0.400 10.15	0.400 10.15	0.400 10.15	22-62	62-22	110		0.039" 0.98mm		Hyd	Hyd	£235.00	Blank
Notes Ideal for Road Use. Good Tickover																		
<b>VOLP/270/410H PH2</b>	Road/Rally Cam	2500 7000	270	270	0.410 10.41	0.410 10.41	0.410 10.41	0.410 10.41	25-65	65-25	110		0.051" 1.30mm		Hyd	Hyd	£235.00	Blank
Notes A Free Revving Camshaft with Little Loss of Low Down Power																		
<b>VOLP/272/420H PH3</b>	Tarmac Rally Sprint Cam	3000 7500	272	272	0.420 10.66	0.420 10.66	0.420 10.66	0.420 10.66	26-66	66-26	110		0.063" 1.60mm		Hyd	Hyd	£235.00	Blank
Notes Good Mid Upper Range Power. Will Not Run on Standard Injection																		
<b>VOLP/296/440 PH5</b>	Race Cam	4000 8000	296	296	0.440 11.17	0.440 11.17	0.440 11.17	0.440 11.17	40-76	76-40	108		0.102" 2.60mm		0.008 0.200	0.010 0.250	£235.00	Blank
Notes Powerful Upper Range Camshaft. For Use with Solid Cam Followers																		
<b>VOLP/268/400H PH2</b>	G40 Fast Road Cam	2000 7000	264	268	0.400 10.15	0.413 10.48	0.400 10.15	0.413 10.48	20-64	66-22	112		0.032" 0.80mm		Hyd	Hyd	£235.00	Blank
Notes Designed for the Supercharged Engine																		

## Volkswagen Golf Polo 1.4 G40 Hydraulic additional components

Part No	Description	Price
<b>DNCFHL66</b>	8 x Hydraulic Cam Followers (35mm x 26mm)	£80.00
<b>DNCF5118</b>	8 x Mechanical Easy Adjust Cam Followers Non Shim Type (35mm x 26mm)	£150.00
<b>TB5352</b>	Timing Belt (135mm x 19mm)	£20.00
<b>K335</b>	Clamping Tool for Adjusting Mechanical Cam Followers	£20.00
<b>TD1</b>	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00



## Volkswagen Camshaft Data :- Golf GTI Mk 1 Mechanical

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
VOLM/264/396 PH1	Road Cam	2000 6500	264	264	0.396 10.05	0.394 10.00	0.396 10.05	0.394 10.00	22-62	66-22	110		0.047" 1.20mm		0.008 0.200	0.010 0.250	£235.00	Blank
Notes Ideal for Road Use. Excellent Low Down Power																		
VOLM/280/432 PH2	Road/Rally Cam	2500 7000	280	280	0.432 10.96	0.430 10.91	0.432 10.96	0.430 10.91	30-70	70-30	110		0.062" 1.58mm		0.008 0.200	0.010 0.250	£235.00	Blank
Notes A Free Revving Camshaft with Little Loss of Low Down Power																		
VOLM/288/442 PH3	Tarmac Rally Sprint Cam	3000 7500	288	288	0.442 11.22	0.440 11.17	0.442 11.22	0.440 11.17	36-72	72-36	108		0.090" 2.30mm		0.008 0.200	0.010 0.250	£235.00	Blank
Notes Good Mid Upper Range Power Fit Non Top Shim Cam Followers																		
VOLM/296/492 PH4	Race Cam	4000 8000	296	296	0.492 12.49	0.490 12.44	0.492 12.49	0.490 12.44	40-76	76-40	108		0.143" 3.65mm		0.008 0.200	0.010 0.250	£235.00	Blank
Notes Powerful Upper Range Camshaft Fit Non Top Shim Cam Followers																		

## Volkswagen Golf GTI Mk 1 Mechanical Additional Components

Part No	Description	Price
K561	8 x Cam Followers Non Top Shim Type Shim Type (35mmx28.2mm)	£140.00
TB5320	Timing Belt (121mm x 18mm)	£20.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

## Volkswagen Camshaft Data :- Golf 1.9 PDF Diesel Pumpa Duse

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
VOLD/276/367 PH1	Road Cam	2000 6000	276	276	0.367 9.31	0.367 9.31	0.367 9.31	0.367 9.31	26-76	76-26	112		0.020" 0.51mm	0.020" 0.51mm	Hyd Hyd	Hyd Hyd	£240.00	Blank
Notes A Road Competition Diesel Camshaft Giving Good Mid Range Power Advantageous To Re Programme ECU To Obtain Full Power (Essential To Use DNCFHL65 Cam Follower)																		
VOLD/276/375 PH1	Road Cam	2000 6000	276	276	0.375 9.52	0.375 9.52	0.375 9.52	0.375 9.52	26-76	76-26	112		0.020" 0.51mm	0.020" 0.51mm	Hyd Hyd	Hyd Hyd	£240.00	Blank
Notes A Road Competition Diesel Camshaft Giving Good Mid Range Power Advantageous To Re Programme ECU To Obtain Full Power (Essential To Use DNCFHL65 Cam Follower)																		

## Volkswagen Golf 1.9 PDF Diesel Pumpa Duse Additional Components

Part No	Description	Price
DNCFHL65	8 x Cam Followers (To be used only with VOLD/276/367 as cam material is different from OE Spec.)	£96.00





## Volkswagen Camshaft Data :- Golf GTI 8 Valve Hydraulic

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
<b>VOLG/256/396H PH1</b>	Road Cam	2000 6500	256	256	0.396 10.05	0.396 10.05	0.396 10.05	0.396 10.05	18-58	58-18	110		0.037" 0.95mm		Hyd	Hyd	£235.00	Blank
Notes Ideal for Road Use. Smooth Tickover																		
<b>VOLG/268/420H PH2</b>	Road/Rally Cam	2500 7000	268	268	0.420 10.66	0.420 10.66	0.420 10.66	0.420 10.66	24-64	64-24	110		0.057" 1.45mm		Hyd	Hyd	£235.00	Blank
Notes A Free Revving Camshaft with Little Loss of Low Down Power																		
<b>VOLG/272/448H PH3</b>	Tarmac Rally Sprint Cam	3000 7500	272	272	0.448 11.37	0.448 11.37	0.448 11.37	0.448 11.37	26-66	66-26	110		0.063" 1.60mm		Hyd	Hyd	£235.00	Blank
Notes Good Mid Range Power																		
<b>VOLG/276/452H PH4</b>	Tarmac Rally Sprint Cam	3500 7500	276	276	0.452 11.47	0.452 11.47	0.452 11.47	0.452 11.47	28-68	68-28	110		0.082" 2.10mm		Hyd	Hyd	£235.00	Blank
Notes Good Mid Upper Range Power. The Limit off Hydraulic Cam Followers																		
<b>VOLG/296/490 PH5</b>	Race Cam	4000 8000	296	296	0.490 12.44	0.488 12.39	0.490 12.44	0.488 12.39	40-76	76-40	108		0.130" 3.30mm		0.008 0.200	0.010 0.250	£235.00	Blank
Notes Powerful Upper Range Camshaft. For Use with Solid Cam Followers																		
<b>VOLGS/264/463 PH3</b>	Supercharged G60 Cam	2500 7000	264	278	0.463 11.75	0.390 10.99	0.463 11.75	0.390 10.99	20-64	76-32	112		0.047" 1.20mm		Hyd	Hyd	£235.00	Blank
Notes A Fast Road Rally Cam Developed for the Supercharged Engine. Giving Good Mid Range with a Steady Tickover																		

## Volkswagen Golf GTI 8 Valve Hydraulic additional Components

Part No	Description	Price
<b>DNVP1800</b>	1 x Vernier Pulley	£95.00
<b>DNCFHL66</b>	8 x Hydraulic Cam Followers	£80.00
<b>DNCF5118</b>	8 x Mechanical Easy Adjust Cam Followers Non Shim Type (35mm x 26mm)	£150.00
<b>TN8124</b>	Timing Belt (124mm x 18mm)	£20.00
<b>K335</b>	Clamping Tool for Adjusting Mechanical Cam Followers	£20.00
<b>TD1</b>	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

## Volkswagen Camshaft Data :- Golf TDI 8 Valve Diesel Taper Pulley

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
<b>VOLT/256/396H PH1</b>	Road Cam	2000 6500	250	250	0.390 9.90	0.390 9.90	0.390 9.90	0.390 9.90	60-12	60-12	112		0.021" 0.54mm		Hyd	Hyd	£300.00	Blank
Notes Road Rally Cam. Giving Increased Mid Range Performance																		



## Volkswagen Camshaft Data :- Golf GTI 1.8 2.0 16 Valve

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
<b>VOLV/264/410H PH1</b>	Road Cam	2000 6500	264	264	0.410 10.41	0.410 10.41	0.410 10.41	0.410 10.41	22-62	66-22	110	110	0.033" 0.85mm	0.033" 0.85mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Ideal for Road Use. Excellent Low Down Power. Works with Standard Injection																		
<b>VOLV/272/420H PH2</b>	Road/Rally Cam	2500 7000	272	272	0.420 10.66	0.420 10.66	0.420 10.66	0.420 10.66	26-66	66-26	110	110	0.63" 1.60mm	0.63" 1.60mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes A Free Revving Camshaft with Little Loss of Low Down Power. Works Well with Standard Injection																		
<b>VOLV/288/442H PH3</b>	Tarmac Rally Sprint Cam	3000 7500	288	288	0.442 11.22	0.442 11.22	0.442 11.22	0.442 11.22	36-72	72-36	108	108	0.079" 2.00mm	0.079" 2.00mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes Good Mid Upper Range Power. Will Not Run on Standard Injection																		
<b>VOLV/296/492 PH4</b>	Race Cam	4000 8000	296	296	0.492 12.49	0.490 12.44	0.492 12.49	0.490 12.44	40-76	76-40	108	108	0.144" 3.65mm	0.144" 3.65mm	0.008 0.200	0.010 0.250	£480.00 Per Pair	Blank
Notes Powerful Upper Range Camshaft																		
<b>MK216V2</b>	MK2 Control Cam	2500 7000	272	272	0.414 10.50	0.414 10.50	0.414 10.50	0.414 10.50	26-66	66-26	110	110	0.040" 1.00mm	0.040" 1.00mm	Hyd	Hyd	£480.00 Per Pair	Blank
Notes																		

## Volkswagen Golf GTI 1.8 2.0 16 Valve Additional Components

Part No	Description	Price
<b>DNCFHL66A</b>	16 x Hydraulic Cam Followers (35mm x 26mm)	£160.00
<b>DNCF5118</b>	16 x Mechanical Easy Adjust Non Shim Cam Followers (35mm x 26mm)	£300.00
<b>TB3460</b>	Timing Belt 1.8 Model (147mm x 25mm)	£30.00
<b>TB5351</b>	Timing Belt 2.00 Model (151mm x 25mm)	£30.00
<b>K335</b>	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£20.00
<b>DNPVW16</b>	1 x Vernier Pulley (Front of Engine)	£100.00
<b>DNP 58.004</b>	1 x Vernier Chain Adjuster for Inlet Cam	£60.00
<b>DNS2673</b>	16 x Competition Silicon Chrome Double Valve Springs 190 lbs	£160.00
<b>DNV5118</b>	16 x Chrome Moly Valve Cap to Suit DNS2673	£48.00
<b>TD1</b>	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

## Volkswagen Camshaft Data :- Golf Audi TT Turbo 20 Valve

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price	Material
		Band	In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex	Ex VAT	Type
<b>VA/256/315/T PH3</b>	Fast Road/Rally Cam	2500 6500	256	264	0.315 7.99	0.410 10.41	0.315 7.99	0.410 10.41	40-76	76-40	112	112	0.016" 0.40mm	0.027" 0.68mm	Hyd	Hyd	£525.00 Per Pair	Blank
Notes Powerfull Mid Range Turbo Cam That Works Well as a Road and Competition Cam																		



## Volkswagen Camshaft Data :- Golf/Ventro VR6 12 Valve

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
VR6/264/420H PH1	Road Cam	2000 6500	264	264	0.420 10.66	0.420 10.66	0.420 10.66	0.420 10.66	18.-58	58-18	110	110			Hyd	Hyd	£460.00 Per Pair	Blank
Notes Ideal for Road Use. Good Tickover. To Be Used in Engines with Standard Injection																		
VR6/270/430H PH2	Road/Rally Cam	2500 7000	270	270	0.430 10.91	0.430 10.91	0.430 10.91	0.430 10.91	25-65	65-25	110	110			Hyd	Hyd	£460.00 Per Pair	Blank
Notes Will Not Run on Standard Injection. For Use with Modified Injection																		
VR6/288/440H PH3	Tarmac Rally Sprint Cam	3000 7500	288	288	0.440 11.17	0.440 11.17	0.440 11.17	0.440 11.17	34-74	74-34	108	108			Hyd	Hyd	£460.00 Per Pair	Blank
Notes Good Mid Upper Range Power. Will Not Run on Standard Injection																		

## Volkswagen Golf/Ventro VR6 12 Valve Additional Components

Part No	Description	Price
DNCF5118	12 x Solid Cam Followers Non Shim Adjustable (35mm x 26mm)	£225.00
DNCFH66	12 x Hydraulic Cam Followers (35mm x 26mm)	£120.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£8.00

## Volkswagen Camshaft Data :- Air Cooled Flat 4

Rocker Ratio 1 : 1.2

Part No	Application	Power Band	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC with clearance		Valve Clear		Price Ex VAT	Material Type
			In	Ex	In	Ex	In	Ex	Open	Close	IN. ATDC	EX BTDC	In	Ex	In	Ex		
VOB/264/358 PH1	Road Cam	2000 5000	264	264	0.358 9.10	0.358 9.10	0.320 8.12	0.320 8.12	18.-58	58-18	110				0.008 0.203	0.010 0.254	£115.00	Blank
Notes Ideal for Road Use. Good Tickover																		
VOB/270/392 PH3	Road/Rally Cam	2500 6000	270	270	0.392 9.95	0.392 9.95	0.350 8.88	0.350 8.88	25-65	65-25	110				0.008 0.203	0.010 0.254	£115.00	Blank
Notes Fast Road Competition Cam. For Use with Twin Carb Set Up																		
VOB/300/440 PH5	Formuale V Race Cam	4500 7500	300	300	0.493 12.51	0.493 12.51	0.440 11.17	0.440 11.17	44-76	76-44	104				0.008 0.203	0.010 0.254	£125.00	Blank
Notes Race Cam Only for Circuit Racing (Chilled Iron and Tuftrided)																		



## VINTAGE CARS SECTION

### MG TB/TF XPAG 1250cc to 1500cc

Part No	Aplication	Power Band	Duration In Ex	Valve In Ex	Lift In Ex	Timing Open Close	Full Lift IN atdc Ex btdc	Valve Clear In Ex	Price Ex VAT	Material Type
MGX/240/300	Standard Cam	1250 4750	240 240	0.300 0.300	10/50 50/10	110		0.012 0.014	£260.00	Blank
Notes Standard camshaft as fitted to 1250 engines and Y Type Saloon										
MGX/264/360 PH2	Fast Road Cam	1500 5500	264 264	0.360 0.360	22/62 62/22	110		0.012 0.014	£260.00	Blank
Notes A Superb Road Cam must be used in conjunction with Twin S.U Carbs, has a smooth tickover. Use DNCF/X100 Follower										
MGX/280/330 PH3	Fast Road Cam	1750 6000	280 280	0.330 0.330	30/70 70/30	110		0.012 0.014	£260.00	Blank
Notes A Cam based on the AEG 122 Profile with 0.025" Increase in cam lift. Twin SU Carbs must be used. Use DNCF/X100 Follower										
MGX/320/434 PH5	Full Race Cam	4000 8000	320 320	0.434 0.434	45/85 85/45	108		0.012 0.014	£260.00	Blank
Notes Full Race Cam Use DNCF/X100 Follower										
MGX/294/366 PH2	Supercharged Cam	1500 6000	294 294	0.366 0.366	34/80 80/34	110		0.012 0.014	£260.00	Blank
Notes A Supercharged Cam based on the Original Bibby Profile. Use DNCF/X100 Follower										

**Notes:-** All our Steel Cams manufactured from AISI 820 Steel have the cam lobe off set width increased by 0.125" to ensure rotation of the cam follower. There are some problems with the Standard Chilled Iron cam followers, these are OK for the Standard Profile but for the PH2/3 and Race Cams we recommend our Steel Nitrided Cam Followers.

### MG TB/TF XPAG 1250cc to 1500cc Additional Components

Part No	Description	Price
DNCF127	8 x Chilled Iron Cam Followers for Standard Profile Cam Only	£72.00
DNCF/X100	8 x Billet Steel EN19 Induction Hardend Nitride Steel Competition Cam Followers	£144.00
DNS/X120	8 x Valve Double Valve Springs 120 lbs that will rev to 5000 RPM with PH1 to PH3 Cams	£64.00
DNS/X150	8 x Valve Double Valve Springs 150 lbs that will rev to 6500 RPM with PH2 to PH3 Cams	£70.00





## Riley 9

Part No	Aplication	Power Band	Duration In Ex	Cam In Ex	Lift Ex	Timing Open Close	Full Lift IN atdc Ex btdc	Valve Clear In Ex	Price Ex VAT	Material Type
RIL9/240/230	Standard Cam	1250 4750	240 240	0.230 0.230		50/10 50/10	110	0.012 0.014	£450.00 Per Pair	Blank
Notes Standard Profile except with quietning ramps										
RIL9/260/240 PH2	Fast Road Cam	1500 5000	260 260	0.240 0.240		20/60 60/20	110	0.012 0.014	£450.00 Per Pair	Blank
Notes A Superb Road Cam based on the Sprite Profile, must be used in conjunction with Twin S.U Carbs, has a smooth tickover										
RIL9/280/260 PH5	Race Competition Cam	3000 6000	280 280	0.330 0.330		30/70 70/30	110	0.012 0.014	£450.00 Per Pair	Blank
Notes A Race Cam only suitable for competition use										

### Notes:-

Note when ordering you must specify the length of cam required, there are 3 lengths of Cams:

1. Short Cam Length 14"
2. Medium Cam Length 15.5"
3. Long Cam Length 17"

### Riley 9 Additional Components

Part No	Description	Price
K102	8 x Through Hardend Cam Followers	£144.00
K104	2 x Lag Tappets	£36.00

## Riley 12/4

Part No	Aplication	Power Band	Duration In Ex	Cam In Ex	Lift Ex	Timing Open Close	Full Lift IN atdc Ex btdc	Valve Clear In Ex	Price Ex VAT	Material Type
RIL12/240/230 Std	Standard Cam	1250 4750	240 240	0.230 0.230		10/50 50/10	110	0.012 0.014	£510.00 Per Pair	Blank
Notes Standard Profile except with quietning ramps										
RIL12/260/240 PH2	Fast Road Cam	1500 5000	260 260	0.240 0.240		20/60 60/20	110	0.012 0.014	£510.00 Per Pair	Blank
Notes A Superb Road Cam based on the Sprite Profile										
RIL12/280/260 PH4	Competition Cam	3000 6000	280 280	0.260 0.260		30/70 70/30	110	0.012 0.014	£510.00 Per Pair	Blank
Notes A cam sutable for Sprints Hillclimbs and road use. Requires twin S.U Carbs										
RIL12/296/270 PH5	Race Cam	3500 7000	296 296	0.270 0.270		38/78 78/38	110	0.012 0.014	£510.00 Per Pair	Blank
Notes A Race Cam only suited to circuit race use										

### Riley 12/4 Additional Components

Part No	Description	Price
K105	8 x Through Hardend Cam Followers	£144.00

## Riley 6 Cylinder 12/6 15/6

Part No	Aplication	Power Band	Duration In Ex	Cam In Ex	Lift Ex	Timing Open Close	Full Lift IN atdc Ex btdc	Valve Clear In Ex	Price Ex VAT	Material Type
RIL6/240/230	Standard Cam	1250 4750	240 240	0.230 0.230		10/50 50/10	110	0.012 0.014	£675.00 Per Pair	Blank
Notes Standard Profile except with quietning ramps										
RIL6/260/240 PH2	Fast Road Cam	1500 5000	260 260	0.240 0.240		20/60 60/20	110	0.012 0.014	£675.00 Per Pair	Blank
Notes A Superb Road Cam based on the Sprite Profile										
RIL6/280/260 PH4	Competition Cam	3000 6000	280 280	0.260 0.260		30/70 70/30	110	0.012 0.014	£675.00 Per Pair	Blank
Notes A cam suitable for Sprints Hillclimbs and road use. Requires twin S.U Carbs										

**Notes:-** The 12/6 cam has a gear in one of the cams, when ordering please specify gear and non gear cams required.

## Riley 6 Cylinder 12/6 15/6 Additional Components

Part No	Description	Price
K103	12 x Through Hardend Cam Followers	£216.00





## VINTAGE MOTORCYCLES SECTION - PRE 1970

### BSA Twin Cylinder Camshafts A6/A7/A10/A65

Part No	Aplication	O.E. Part No	Duration In Ex	Cam In Ex	Lift Ex	Timing Open Close	Lift at TDC	Valve Clear In Ex	Price Ex VAT	Material Type
<b>BSA A6</b>	<b>Standard Cam</b>		TBA TBA	0.265 0.265				0.012 0.014	£75.00 £165.00	Repro Billet
Notes Billet New Cams Manufactured from AISI 8620 Case Hardening Steel (Regrind Max Wear on top of cam lobe 0.010 Thou)										
<b>BSA A7</b>	<b>Standard Cam</b>		TBA TBA	0.265 0.265				0.012 0.014	£75.00 £165.00	Repro Billet
Notes Billet New Cams Manufactured from AOISI 8620 Case Hardening Steel (Regrind Max Wear on top of cam lobe 0.010 Thou)										
<b>BSA A10</b>	<b>Super Rocket Standard Cam</b>	356	328 328	0.301 301		61/86 86/61	0.088"	0.012 0.014	£75.00 £165.00	Repro Billet
Notes New Billet Cams Manuafctured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)										
<b>BSA A10</b>	<b>Spitfire Standard Cam</b>	357	320 320	0.338 0.338		57/83 83/57	0.121"	0.012 0.014	£75.00 £165.00	Repro Billet
Notes New Billet Cams Manuafctured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)										
<b>BSA A10</b>	<b>Race Cam</b>		330 330	0.350 0.35		58/84 84/58	0.141"	0.012 0.012	£165.00	Billet
Notes New Billet Cams Manuafctured from EN40 B Nitriding Steel										
<b>BSA A65</b>	<b>Super Rocket Standard Cam</b>	356	328 328	0.301 0.301		57/83 83/57	0.088"	0.012 0.014	£75.00 £165.00	Repro Billet
Notes New Billet Cams Manuafctured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)										
<b>BSA A65</b>	<b>Spitfire Standard Cam</b>	357	320 320	0.338 0.338			0.121"	0.012 0.014	£75.00 £165.00	Repro Billet
Notes New Billet Cams Manuafctured from EN40 B Nitriding Steel (Re Grind max wear on top of cam lobe 0.010 Thou)										
<b>BSA A65</b>	<b>Race Cam</b>		290 290	0.445 0.445 11.12 11.12		58/84 84/58	0.141"	0.012 0.014	£165.00	Billet
Notes New Billet Cams Manuafctured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)										

**Notes:-** The Camshafts are Manuafctured from either AISI8620 Case Hardening Steel or EN40B Nitriding Steel in the UK.  
We can grind to any profile required also cams for offset cranks.

Cam Followers No Exchange Service we only work on customers own parts.

## BSA Single Cylinder Gold Star

Part No	Application	O.E. Part No	Duration In Ex	Cam In	Lift Ex	Timing Open Close	Lift at TDC	Valve Clear In Ex	Price Ex VAT	Material Type
<b>BSA/42IN</b>	<b>Inlet Cam</b>	42	336 336	0.440	0.440	50/106 106/50	0.161"	0.014 0.014	£105.00	Billet
Notes Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)										
<b>BSA/42EX</b>	<b>Exhaust Cam</b>	42	336 336	0.440	0.440	50/106 106/50	0.161"	0.014 0.014	£105.00	Billet
Notes Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)										
<b>BSA/44IN</b>	<b>Inlet Cam</b>	44	330 330	0.450	0.450	55/100 100/55	0.160"	0.020 0.020	£105.00	Billet
Notes Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)										
<b>BSA/44EX</b>	<b>Exhaust Cam</b>	44	330 330	0.450	0.450	55/100 100/55	0.160"	0.020 0.020	£105.00	Billet
Notes Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)										
<b>BSA/46IN</b>	<b>Inlet Cam</b>	46	344 344	0.397	0.397	62/102 102/62	0.124"	0.014 0.014	£50.00 £105.00	Repro Billet
Notes Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)										
<b>BSA/46IN</b>	<b>Exhaust Cam</b>	46	344 344	0.397	0.397	62/102 102/62	0.124"	0.014 0.014	£50.00 £105.00	Repro Billet
Notes Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)										
<b>BSA/48IN</b>	<b>Inlet Cam</b>	48	334 334	0.375	0.375	56/98 98/56	0.106"	0.014 0.014	£50.00 £105.00	Repro Billet
Notes Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)										
<b>BSA/48EX</b>	<b>Exhaust Cam</b>	48	334 334	0.375	0.375	56/98 98/56	0.106"	0.014 0.014	£50.00 £105.00	Repro Billet
Notes Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)										
<b>BSA/50IN</b>	<b>Inlet Cam</b>	50	296 296	0.365	0.365	38/78 78/38	0.101"	0.012 0.012	£50.00 £105.00	Repro Billet
Notes Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)										

**Notes:-** Camshafts are manufactured in the UK from AISI8620 Case Hardening Steel Min RWC Hardness 60.  
Reground cams are on grinding customers own cams and can only be ground to existing profile max wear on top of lobe 0.010"

## Norton Commando

Part No	Application	O.E. Part No	Duration In Ex	Valve In Ex	Lift In Ex	Timing Open Close	Lift at TDC	Valve Clear In Ex	Price Ex VAT	Material Type
COM/STD	Standard Cam Commando	COM/STD	316 316	0.326 0.326	0.326 0.326	57/79 79/57	0.111" 0.111"	0.016 0.016	£195.00 £235.00	Chilled Billet
Notes Billet New Cams Manufactured from EN40B Nitriding Steel/Chilled Cams From Chilled Iron										
COM/2S	2S Cam Commando	2S	320 300	0.388 0.351	0.351 0.388	56/84 84/56	0.168" 0.152"	0.016 0.016	£195.00 £235.00	Chilled Billet
Notes Billet New Cams Manufactured from EN40B Nitriding Steel/Chilled Cams From Chilled Iron										
COM/4S	4S Cam Commando	4S	332 300	0.388 0.351	0.351 0.388	60/92 92/60	0.168" 0.145"	0.016 0.016	£195.00 £235.00	Chilled Billet
Notes Billet New Cams Manufactured from EN40B Nitriding Steel/Chilled Cams From Chilled Iron										
COM/324/380	Race Cam Commando	Race	324 324	0.380 0.380	0.380 0.380	55/89 89/55	0.132" 0.132"	0.012 0.014	£195.00 £235.00	Chilled Billet
Notes Billet New Cams Manufactured from EN40B Nitriding Steel/Chilled Cams From Chilled Iron										

**Notes:-**

WE DO NOT offer an exchange service, we only grind customers own cam followers.

Materials: We can offer the above camshafts in either Nitriding Steel or Chilled Iron.

For cams manufactured to 270 or 90 degree crankshafts add £40.00.

### Norton Commando Additional Components

Part No	Description	Price
Followers	4 x Reground Cam Followers Radiused or Flat Lapped and Polished	£60.00





## Norton Dominator

Part No	Application	O.E. Part No	Duration In Ex	Valve In Ex	Lift In Ex	Timing Open Close	Lift at TDC	Valve Clear In Ex	Price Ex VAT	Material Type
DOM/QR	Standard Cam Dominator	DOM/QR	292 292	0.306 0.306		42/70 70/42	0.086" 0.086"	0.016 0.016	£185.00 £225.00	Chilled Billet
Notes Billet New Cams Manufactured from EN40B Nitriding Steel/Chilled Cams From Chilled Iron										
DOM/316/326	Dominator Cam with Commado Profile	2S	320 300	0.388 0.351		56/84 84/56	0.168" 0.152"	0.008 0.010	£185.00 £225.00	Chilled Billet
Notes Billet New Cams Manufactured from EN40B Nitriding Steel/Chilled Cams From Chilled Iron										
DOM/2S	2S Cam Dominator	2S	320 300	0.388 0.351		56/84 84/56	0.168" 0.152"	0.016 0.016	£185.00 £225.00	Chilled Billet
Notes Billet New Cams Manufactured from EN40B Nitriding Steel/Chilled Cams From Chilled Iron										
DOM/4S	4S Cam Dominator	4S	332 300	0.388 0.351		60/92 92/60	0.168" 0.145"	0.016 0.016	£185.00 £225.00	Chilled Billet
Notes Billet New Cams Manufactured from EN40B Nitriding Steel/Chilled Cams From Chilled Iron										
DOM/324/380	Race Cam Dominator	Race	324 324	0.380 0.380		55/89 89/55	0.132" 0.132"	0.012 0.014	£185.00 £225.00	Chilled Billet
Notes Billet New Cams Manufactured from EN40B Nitriding Steel/Chilled Cams From Chilled Iron										

### Notes:-

WE DO NOT offer an exchange service, we only grind customers own cam followers.

Materials: We can offer the above camshafts in either Nitriding Steel or Chilled Iron.

For cams manufactured to 270 or 90 degree crankshafts add £40.00.

### Norton Dominator Additional Components

Part No	Description	Price
Followers	4 x Reground Cam Followers Radiused or Flat Lapped and Polished	£60.00

## Triumph T120/T140 Twin Cylinder Camshaft

Part No	Application	O.E. Part No	Duration In	Ex	Cam In	Lift Ex	Timing Open	Close	Lift at TDC	Valve In	Clear Ex	Price Ex VAT	Material Type
TRI/295/IN	T120 IN Standard Cam Thunderbird Profile		TBA	TBA	0.295	0.295				0.010	0.012	£105.00 £50.00	Billet Repro
Notes New Billet Cams Manufactured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)													
TRI/295/EX	T120 EX Standard Cam Thunderbird Profile		TBA	TBA	0.295	0.295				0.010	0.012	£105.00 £50.00	Billet Repro
Notes New Billet Cams Manufactured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)													
TRI/3134/IN	T120 IN Standard Cam 3134 Profile	3134	312	312	0.315	0.315	46/86	86/46	TBA	0.010	0.012	£105.00 £50.00	Billet Repro
Notes New Billet Cams Manufactured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)													
TRI/3134/EX	T120 EX Standard Cam 3134 Profile	3134	312	312	0.315	0.315	46/86	86/46	TBA	0.010	0.012	£105.00 £50.00	Billet Repro
Notes New Billet Cams Manufactured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)													
TRI/300/348IN	T120 IN Race Cam		300	300	0.348	0.348	48/72	70/50	0.116	0.010	0.012	£105.00 £50.00	Billet Repro
Notes New Billet Cams Manufactured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)													
TRI/300/348/EX	T120 EX Race Cam		300	300	0.348	0.348	48/72	70/50	0.109	0.010	0.012	£105.00 £50.00	Billet Repro
Notes New Billet Cams Manufactured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)													

## Triumph T150/T160 Triple Cylinder Inlet/Exhaust Universal Camshaft

Part No	Application	O.E. Part No	Duration In	Ex	Cam In	Lift Ex	Timing Open	Close	Full Lift IN atdc	Valve In	Clear Ex	Price Ex VAT	Material Type
T150/T160	T150/T160 Standard Cam	T140			0.315	0.315	46/86	86/46		0.010	0.012	£205.00 £100.00	Billet Repro
Notes New Billet Cams Manufactured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)													

**Notes:-** Reground Camshafts customers own cams ground and heat treated Case Harden Early Cams, Nitride Late.  
Only grinding existing profiles on the cams Max wear on cam 0.010"  
Cam Follower Reclamation Service. We regrind and Lap and Polish T100/T140 Cam Followers.  
Working on customer own cam followers This is not an exchange service.

## Triumph Additional Components


Part No	Description	Price
TRI/T120/40	4 x Cam Followers ground lapped and polished	£60.00
TRI/T120/40 NEW	4 x New Cam Followers	£100.00



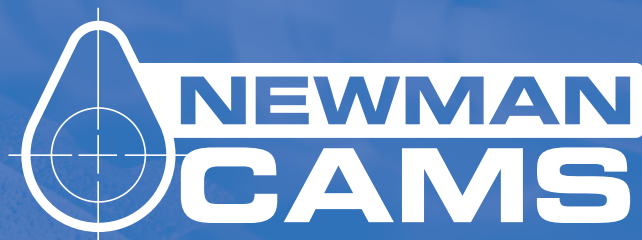
**PRICE LIST 2023**



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Please phone for details or request our current Production List:

## CONTACTS

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