NEWMAN CAMS

Camshaft Price List and Data Catalogue 2022

1967 - 2017 · 50 YEAR ANNIVERSARY
EST 50 YEARS 1967-2017

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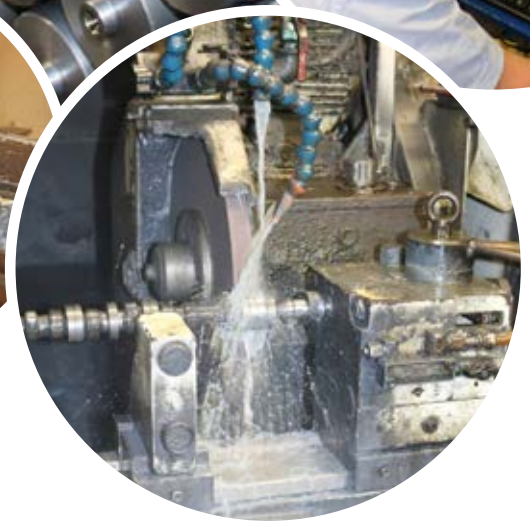

In 1967 DAVID NEWMAN commenced grinding performance camshafts on a Churchill cam grinder that he modified for non-production camshaft manufacture. One of the first camshafts that he ground was for the Competition Department of the Rootes Motor Company, now Peugeot, grinding Hillman Hunter and Imp competition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

Company Profile

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 2021we 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.

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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.

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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 suit-able 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.

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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.

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INFORMATION ON CAMSHAFT MATERIALS

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 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 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 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 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 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.

Performance Camshaft fitting instructions

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 can followers with a new cam.
You can either fit the cams 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.

Performance Camshaft fitting instructions

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.

Performance Camshaft fitting instructions

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 dual 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

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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.

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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 foward 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 the 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.

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Performance Camshaft fitting instructions

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 venier 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 hights 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.

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PROTOTYPE/PRODUCTION/VINTAGE/ SPECIAL CAMS/MOTORCYCLE

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**	

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Alfa Romeo

Alfa Romeo Camshaft Data :- Model 1600cc/2000cc Twin Cam

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC with clearance In	Lift @ TDC with clearance Exh	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
ALFT/280/425	**Touring/Fast Road Cam**	1500	280	280	0.425	0.423	0.425	0.423	30-70	70-30	110	110			0.008	0.010	£600.00	Billet
PH2		6000			10.79	10.74	10.79	10.74							0.203	0.254	Per Pair	EN8
Notes	Excellent Mid Range Power. No Loss of Low Down Power. Smooth Idle																	
ALFT/300/460	**Rally/Race Cam**	3000	300	300	0.460	0.458	0.460	0.458	42-78	82-38	112	108			0.008	0.010	£600.00	Billet
PH4		7500			11.68	11.62	11.68	11.62							0.203	0.254	Per Pair	EN8
Notes	Race/Tarmac Rally Cam Only Suitable for the 2 Litre Engine. Best Suited to Run with 45 or 48 DCOE Carbs																	

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC with clearance In	Lift @ TDC with clearance Exh	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
ALFS/280/380	**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	£120.00	Repro
PH2		7000			9.64	9.59	9.64	9.59							0.203	0.254	£480.00	Billet
Notes	Excellent Low Down Power and Smooth Tickover. On Repro Cams Machine Head/Carrier to Retain Original Shims Size																	
ALFS/300/422	**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
PH4		8000			10.71	10.66	10.71	10.66							0.305	0.305	£480.00	EN40B
Notes	Race/Tarmac Rally Cam. Other Race Profiles Available on Request																	

Alfa Romeo Camshaft Data :- Model GT V6 24 Valve

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing EX Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC with clearance In	Lift @ TDC with clearance Exh	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
ALF6/260/392	**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
PH2		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	**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
PH4		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

Address: Farnborough Way, Farnborough, Kent, BR6 7DH, United Kingdom
Telephone: +44 (0)1689 857 109 **Fax:** +44 (0)1689 855 498 **E-Mail:** info@newman-cams.com **Website:** www.newman-cams.com

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

Rocker Ratio 1 : 1.3

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC with clearance In	Lift @ TDC with clearance Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
BMW4/280/399	**Road Cam**	2000	280	280	0.399	0.397	0.307	0.305	30-70	70-30	110				0.008	0.010	£280.00	Blank
PH1		6500			10.13	10.06	7.79	7.74							0.203	0.254		
Notes	Good Increase of Low Mid Range Power. Smooth Idle																	
BMW4/290/399	**Fast Road/Tarmac Rally**	3000	290	290	0.399	0.397	0.307	0.305	35-75	75-35	110				0.008	0.010	£280.00	Blank
PH4	**Cam**	7000			10.13	10.06	7.79	7.74							0.020	0.254		
Notes	Rally Cam. Plenty of Mid Range Top End Power Use 45 DCOE Carbs																	
BMW4/320/450	**Race Cam**	4500	330	330	0.465	0.465	0.368	0.368	57-93	93-57	108				0.008	0.010	£375.00	Blank
PH5		9000			11.83	11.83	9.35	9.35							0.203	0.254		
Notes	Please Phone for Details as This Cam Requires O/S Bearings																	

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

Rocker Ratio 1 : 1.55

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC with clearance In	Lift @ TDC with clearance Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
BMWS/270/406	**Road Cam**	1500	270	270	0.406	0.403	0.262	0.260	25-65	65-25	110				0.008	0.010	£300.00	Blank
PH1		5500			10.31	10.23	6.65	6.60							0.203	0.254		
Notes	Good Increase of Low Mid Range Power. Smooth Idle																	
BMWS/290/422	**Fast Road/Tarmac Rally**	3000	290	290	0.422	0.419	0.272	0.270	35-75	75-35	110				0.008	0.010	£300.00	Blank
PH4	**Cam**	7000			10.70	10.62	6.90	6.85							0.203	0.254		
Notes	Rally Cam Giving Plenty of Mid Range Power																	
BMWS/300/434	**Full Race Cam**	4000	300	300	0.434	0.434	0.280	0.280	40-80	80-40	110				0.008	0.010	£300.00	Blank
PH5		7500			11.02	11.02	7.11	7.11							0.203	0.254		
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	£6.00

BMW - Mini and Cooper S

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

Rocker Ratio 1 : 1.64 Inlet 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
BMWI/264/396	**Road Cam**	2000	264	262	0.402	0.423	0.245	0.258	18-68	68-18		114			Hyd	Hyd	£200.00	Blank
PH1		6500			10.20	10.74	6.23	6.55										
Notes	Good Increase of Low Mid Range Power. Smooth Idle. For Non Supercharged Engines																	
BMWI/288/410	**Tarmac Rally Sprint Cam**	3500	288	288	0.410	0.410	0.285	0.250	34-74	74-34		110			Hyd	Hyd	£200.00	Blank
PH3		7500			10.42	10.41	7.23	6.35										
Notes	Tarmac Rally Race Cam for Non Supercharged Engines. Will Not Work With Standard Injection.																	
BMWI/300/426	**Race Cam**	4500	300	300	0.472	0.426	0.288	0.260	35-75	75-35		110			Hyd	Hyd	£200.00	Blank
PH4		8250			11.99	10.82	7.33	6.60										
Notes	A Cam Developed for the Track																	
BMWI/246/396	**Road Supercharged Cam**	1500	246	264	0.396	0.396	0.258	0.242	14-52	70-22		114			Hyd	Hyd	£200.00	Blank
PH1/2		6000			10.05	10.05	6.56	6.23										
Notes	A Cam Developed for the Supercharged Cooper S Engine, Giving Good Increased Mid Range Torque, without Affecting the Tickover																	
BMWI/250/400	**Fast Road Supercharged**	2000	250	268	0.400	0.396	0.258	0.242	16-54	72-24		114			Hyd	Hyd	£200.00	Blank
PH2	**Cam**	6500			10.15	10.05	6.56	6.23										
Notes	A Cam Developed for the Supercharged Cooper S Engine. Giving Good Increased Mid Range Torque without Affecting the Tickover																	
BMWI/272/400	**Race Supercharged Cam**	3000	264	272	0.400	0.402	0.244	0.245	18-68	73-25		114			Hyd	Hyd	£200.00	Blank
PH3/4		7000			10.16	10.20	6.23	6.35										
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

Part No	Application	Power	Duration		Valve Lift		Cam Lift		Timing		Full Lift		Lift @ TDC		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
BMWL/280/399	**Road Cam**	2000	280	280	0.399	0.397	0.307	0.305	30-70	70-30	110				0.008	0.010	£315.00	Blank
PH1		6000			10.13	10.06	7.79	7.74							0.203	0.254		
Notes	Good Increase of Low Mid Range Power. Smooth Idle																	
BMWL/290/399	**Fast Road/Tarmac Rally**	3000	290	290	0.399	0.397	0.307	0.305	35-75	75-35	110				0.008	0.010	£315.00	Blank
PH3	**Cam**	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																	
BMWL/300/419	**Race Cam**	4500	300	300	0.419	0.416	0.322	0.320	40-80	80-40	110				0.008	0.010	£315.00	Blank
PH4		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	£6.00

Address: Farnborough Way, Farnborough, Kent, BR6 7DH, United Kingdom
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Citroen - Saxo 1.4 & 1.6 VTR

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	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC with clearance In	Lift @ TDC with clearance Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
CITSNR/256/367	Road Cam	1500	256	256	0.367	0.364	0.262	0.260	18-58	58-18	110				0.008	0.010	£200.00	Blank
PH1		5500			9.31	9.24	6.65	6.60							0.203	0.254		
Notes	Good Increase of Low Mid Range Power. Smooth Idle																	
CITSNR/280/409	Fast Road/Tarmac Rally	3000	280	280	0.409	0.406	0.292	0.290	30-70	70-30	110				0.008	0.010	£200.00	Blank
PH3	Cam	7000			10.38	10.30	7.41	7.36							0.203	0.254		
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	£6.00

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	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
CITSRR/258/406	Road Cam	1500	258	258	0.406	0.403	0.232	0.230	18-58	58-18	110				0.008	0.010	£200.00	Blank
PH1		5500			10.30	10.22	5.89	5.84							0.203	0.254		
Notes	Good Increase of Low Mid Range Power. Smooth Idle																	
CITSRR/270/415	Fast Road/Tarmac Rally	3000	270	270	0.415	0.411	0.237	0.235	25-65	65-25	110				0.008	0.010	£200.00	Blank
PH3	Cam	7000			10.53	10.44	6.02	5.96							0.203	0.254		
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	£6.00

Citroen - Saxo 1.4 & 1.6 VTS 16 Valve

Citroen Camshaft Data :- Saxo 1.4 1.6 VTS 16 Valve

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
CITVTS/256/380	**Road Cam**	2000	256	256	0.380	0.380	0.380	0.380	18-58	58-18	110	110	1.30mm	1.30mm	Hyd	Hyd	£300.00	Blank
PH1		7000			9.64	9.64	9.64	9.64									Per Pair	
Notes	Good Increase of Low Mid Range Power. Smooth Idle																	
CITVTS/264/400	**Fast Road Cam**	3000	264	264	0.400	0.400	0.400	0.400	22-62	62-22	110	110	1.80mm	1.80mm	Hyd	Hyd	£300.00	Blank
PH2/3		7000			10.15	10.15	10.15	10.15									Per Pair	
Notes	Fast Road Cam Giving Plenty of Mid Range Power. Requires ECU Reprogramme																	
CITVTS/280/430	**Sprint/Tarmac Rally Cam**	3500	280	280	0.430	0.430	0.430	0.430	32-68	70-30	108	110	2.30mm	2.10mm	Hyd	Hyd	£300.00	Blank
PH4		7500			10.91	10.91	10.91	10.91									Per Pair	
Notes	Sprint/Tarmac Rally Cam Requires Throttle Bodies																	
CITVTS/290/450	**Fast Road/Tarmac Rally**	4500	290	290	0.450	0.450	0.450	0.450	41-69	71-39	104	106	3.7mm	3.4mm	0.008	0.010	£300.00	Blank
PH5	**Cam**	8500			11.42	11.42	11.42	11.42							0.203	0.254	Per Pair	
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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
CITC2/256/342	**Road Cam**	2000	256	256	0.342	0.342	0.342	0.342	18-58	58-18	110	110	0.87mm	0.87mm	Hyd	Hyd	£300.00	Blank
PH1		7000			8.68	8.68	8.68	8.68									Per Pair	
Notes	Good Increase of Low Mid Range Power. Smooth Idle																	
CITC2/264/355	**Fast Road Cam**	3000	264	264	0.355	0.355	0.355	0.355	22-62	62-22	110	110	1.55mm	1.55mm	Hyd	Hyd	£300.00	Blank
PH3		7000			9.01	9.01	9.01	9.01									Per Pair	
Notes	Fast Road Cam Giving Plenty of Mid Range Power. Requires ECU Reprogramme																	
CITC2/280/400	**Sprint/Tarmac Rally Cam**	3500	280	280	0.400	0.400	0.400	0.400	32-68	70-30	108	110	2.53mm	2.28mm	Hyd	Hyd	£300.00	Blank
PH4		7500			10.15	10.15	10.15	10.15									Per Pair	
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	£170.00
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	£18.00
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	£100.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

Cosworth Ford - Ford Escort / Sierra Cosworth

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

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
COS/268/380	**Road Cam**	2000	268	268	0.380	0.360	0.380	0.360	26-64	64-24	110	110	0.059"	0.059"	Hyd	Hyd	£400.00	Blank
PH1		6000			9.64	9.14	9.64	9.14					1.5mm	1.5mm			Per Pair	
Notes	Cam Suited for Road Use. Good Idle and Little Loss of Low Down Power																	
COS/288/410	**Fast Road Cam**	2500	288	288	0.410	0.410	0.410	0.408	34-74	74-34	110	110	0.077"	0.077"	Hyd	Hyd	£400.00	Blank
PH2/3		7000			10.41	10.41	10.41	10.36					1.95mm	1.95mm			Per Pair	
Notes	Cam Suited for Fast Road Rally Use. Good Idle and Mid Range Power																	
COS/300/440	**Tarmac Rally/Race Cam**	3750	300	300	0.440	0.440	0.440	0.440	40-80	80-40	110	110	0.100"	0.100"	0.008	0.010	£400.00	Blank
PH4		7500			11.17	11.17	11.17	11.17					2.55mm	2.55mm	0.203	0.254	Per Pair	
Notes	Competition Cam Ideal for Rally, Track, Days and Sprints																	
COS/312/450	**Race Cam**	4500	312	300	0.450	0.450	0.450	0.440	48-84	82-42	108	108	0.132"	0.132"	0.008	0.010	£400.00	Blank
PH5		8000			11.42	11.42	11.42	11.17					3.35mm	3.35mm	0.203	0.254	Per Pair	
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 Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
COST/256/350	**Fast Road Cam**	1000	256	256	0.350	0.350	0.350	0.350	16-60	60-16	112	112	0.014"	0.014"	Hyd	Hyd	£400.00	Blank
		6000			8.88	8.88	8.88	8.88					0.36mm	0.36mm			Per Pair	
Notes	Cam Suited for Road Use. Good Idle and Little Loss of Low Down Power																	
COST/262/350	**Fast Road Cam**	1500	262	262	0.350	0.350	0.350	0.350	19-63	63-19	112	112	0.033"	0.033"	Hyd	Hyd	£400.00	Blank
PH1		6000			8.88	8.88	8.88	8.88					0.85mm	0.85mm			Per Pair	
Notes	Cam Suited for Road Use. Good Idle and Little Loss of Low Down Power																	
COST/264/370	**Fast Road Cam**	2000	264	264	0.370	0.350	0.370	0.350	24-56	56-24	108	108	0.035"	0.035"	Hyd	Hyd	£400.00	Blank
PH2/3		6500			9.39	8.88	9.39	8.88					0.90mm	0.90mm			Per Pair	
Notes	Cam Suited for Fast Road Rally Use. Good Idle and Mid Range Power																	
COST/264/400	**Tarmac Rally/Sprint Cam**	3000	264	264	0.400	0.400	0.400	0.400	24-56	56-24	108	108	0.055"	0.055"	0.008	0.010	£400.00	Blank
PH4		7000			10.15	10.15	10.15	10.15					1.40mm	1.40mm	0.203	0.254	Per Pair	
Notes	Competition Cam Ideal for Rally, Track, Days and Sprints																	
COST/264/430	**Race Cam**	3500	264	264	0.430	0.430	0.430	0.430	26-54	54-26	106	106	0.079"	0.079"	0.008	0.010	£400.00	Blank
PH4		7500			10.91	10.91	10.91	10.91					2.00mm	2.00mm	0.203	0.254	Per Pair	
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	£272.00
DNCF5118	16 x Mechanical EN40B Cam Followers Easy Adjust No Shims	£272.00
K335	Clamping Tool for DNCF5118 Easy Adjust Cam Followers	£18.00
DNCV12	2 x Vernier Pulleys Pair	£160.00
DNS2673	16 x Competition Silicon Chrome Double 190 lbs Valve Springs	£150.00
K579	5 MM Ground Spacer for 2 WD Cylinder Heads	£7.50
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

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Cosworth Ford - Ford Escort / Sierra Cosworth

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

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/BD8	**Group N Spec Cam**	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	£400.00 Per Pair	Blank
Notes	Cam Suited for Road Use Good Idle and Little Loss of Low Down Power																	
COST/BD10	**Fast Road Cam**	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	£400.00 Per Pair	Blank
Notes	Cam Suited for Fast Road Rally Use Good Idle and Mid Range Power																	
COST/BD12	**Group N Spec Cam**	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	£400.00 Per Pair	Blank
Notes	Cam Suited for Road Use Good Idle and Little Loss of Low Down Power																	
COST/BD14	**Fast Road Cam**	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	£400.00 Per Pair	Blank
Notes																		
COST/BD15	**Rally Cam**	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	£400.00 Per Pair	Blank
Notes																		
COST/BD15+	**Rally Cam**	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	£400.00 Per Pair	Blank
Notes																		
COST/BD16	**Race Cam**	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	£400.00 Per Pair	Blank
Notes																		
COST/BD16+ PH4	**Race Cam**	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	£400.00 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
DNCHL66	16 x Hydraulic Cam Followers	£160.00
DNCF5300	16 x Mechanical EN40B Cam Followers Shim Type	£272.00
DNCF5118	16 x Mechanical EN40B Cam Followers Easy Adjust No Shims	£272.00
K335	Clamping Tool for DNCF5118 Easy Adjust Cam Followers	£18.00
DNCV12	2 x Vernier Pulleys Pair	£160.00
DNS2673	16 x Silicon Chrome Double Valve Springs 190 lbs Spring Rate	£150.00
K579	5 mm Ground Spacer for 2 WD Cylinder Heads	£7.50
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FIAF/260/332	Road Cam	1500	260	260	0.332	0.330	0.332	0.330	20-60	60-20	110		0.032"	0.032"	0.008	0.010	£195.00	Blank
PH1		6000			8.43	8.38	8.43	8.38					0.8mm	0.8mm	0.203	0.254		
Notes	Good Increase of Low Mid Range Power. Smooth Idle																	

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FIAU/264/360	Road Cam	1500	264	264	0.360	0.360	0.360	0.360	32/62	62/32	110		0.047"	0.047"	0.008	0.010	£200.00	Blank
PH1		6000			9.14	9.14	9.14	9.14					1.2mm	1.2mm	0.203	0.254		
Notes	Good Increase of Low Mid Range Power. Smooth Idle																	
FIAU/280/380	Fast Road/Tarmac Rally	3000	280	280	0.380	0.380	0.380	0.380	30-70	70-30	110		0.088"	0.088"	0.008	0.010	£200.00	Blank
PH3	Cam	7000			9.64	9.64	9.64	9.64					2.23mm	2.23mm	0.203	0.254		
Notes	Rally Cam Giving Plenty of Mid Range Power. Will Not Run on Standard Injection																	

Fiat Camshaft Data :- TURBO Uno/Punto GT

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FIAUT/240/380	Road Cam	2000	240	238	0.380	0.350	0.380	0.350	15-45	38-10	112		0.011"	0.011"	0.008	0.010	£200.00	Blank
PH2		6000			9.64	8.88	9.64	8.88					0.275mm	0.275mm	0.203	0.254		
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	£6.00

Address: Farnborough Way, Farnborough, Kent, BR6 7DH, United Kingdom
Telephone: +44 (0)1689 857 109 **Fax:** +44 (0)1689 855 498 **E-Mail:** info@newman-cams.com **Website:** www.newman-cams.com

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

Rocker Ratio 1 : 1.514

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Exh	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FORK/264/363	**Road Cam**	1250	264	264	0.363	0.363	0.240	0.240	20-64	64-20	110		0.036"		0.015	0.017	£160.00	Blank
PH1		6000			9.22	9.22	6.09	6.09					0.91mm		0.381	0.432		
Notes	Good Increase of Low Mid Range Power Smooth Idle. Best with Webber 28/36. A Sharp Instant Power Cam																	
FORK/278/379	**Fast Road Cam**	2000	278	278	0.379	0.379	0.250	0.250	29-69	69-29	110		0.056"		0.015	0.017	£160.00	Blank
PH2		6500			9.61	9.61	6.35	6.35					1.44mm		0.381	0.432		
Notes	Good Increase of Mid Range Power. Smooth Tickover. Gives More Power Than the GT116E Cam (See Notes)																	
FORK/290/401	**Fast Road Sprint Cam**	2500	290	290	0.436	0.436	0.288	0.288	35-75	75-35	110		0.077"		0.015	0.017	£160.00	Blank
PH3		7000			11.07	11.07	7.31	7.31					1.97mm		0.381	0.432		
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)																	
FORK/310/436	**Sprint/Tarmac Rally Cam**	4000	310	310	0.454	0.454	0.300	0.300	45-85	85-45	110		0.113"		0.015	0.017	£295.00	Steel
PH4		7500			11.53	11.53	7.61	7.61					2.87mm		0.381	0.432		
Notes	Ideal Short Circuit/Sprint Cam (See Notes)																	
FORK/324/447	**Race Cam**	5000	324	324	0.447	0.447	0.295	0.295	45-100	100-45	110		0.128"		0.016	0.018	£295.00	Steel
PH5		9000			11.34	11.34	7.49	7.49					3.25mm		0.406	0.457		
Notes	A Race Cam with a Solid Power Band from 5000 to 8500. Ideal for the 1500 to 1800cc Engines (See Notes)																	
FORK/A8	**Race Cam F3**	5500	332	332	0.407	0.407	0.269	0.269	66-86	86-66	100		0.176"		0.016	0.018	£295.00	Steel
PH5		11000			10.34	10.34	6.83	6.83					4.47mm		0.406	0.457		
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
DNS1040S	8 x Single Valve Springs 160 Poundage PH1 to PH3	£50.00
DNS1040D	8 x Double Valve Springs 200 Poundage PH4 to PH5	£75.00
DNCF01	8 x Super Finished Chilled Iron Cam Followers Thin Stem Pre 1970 PH1 Cams Only	£32.00
DNCF05	8 x Super Finished Chilled Iron Cam Followers Thick Stem Post 1970 PH1 Cams Only	£32.00
K445	8 x Steel Thick Stem EN40B Nitride Steel Cam Followers Post 1970 Engines PH3/4/5 Cams	£80.00
K444	8 x Steel Thin Stem EN40B Nitride Steel Cam Followers Pre 1970 for F3 Engines PH3/4/5 Cams	£80.00
DNV1040	8 x Chrome Moly Valve Caps with 2mm Extra Fitted Spring Length Either Single or Double Springs	£24.00
DNC1040S	1 x Steel Camshaft any Profile with Dry Sump Oil Pump Slot in End	£295.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

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 avaliable 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	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Exh	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FORP/284/379	**Fast Road Cam**	2000	284	284	0.379	0.379	0.250	0.250	32-72	72-32	110				0.006	0.008	£150.00	Blank
PH2		6000			9.61	9.61	6.35	6.35							0.152	0.203		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																	
FORP/300/416	**Fast Road Sprint Cam**	3000	300	295	0.416	0.413	0.275	0.273	40-80	78-38	110				0.006	0.008	£150.00	Blank
PH3		7000			10.57	10.49	6.98	6.93							0.152	0.203		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																	
FORP/275/474	**Short Circuit/Sprint/Rally**	2000	275	272	0.474	0.471	0.313	0.311	27-68	68-27	110				0.006	0.008	£150.00	Blank
PH4	**Cam**	6000			12.03	11.95	7.94	7.89							0.152	0.203		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																	
FORP/284/474	**Short Circuit/Sprint/Rally**	3000	284	284	0.474	0.471	0.313	0.311	26-78	78-26	110				0.006	0.008	£150.00	Blank
PH4.5	**Cam**	7250			12.03	11.95	7.94	7.89							0.152	0.203		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																	
FORP/286/474	**Short Circuit/Sprint/Rally**	3250	286	286	0.474	0.471	0.313	0.311	30-76	76-30	108				0.006	0.008	£150.00	Blank
PH4.75/117	**Cam**	7500			12.03	11.95	7.94	7.89							0.152	0.203		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																	
FORP/300/477	**Race Cam**	4000	300	300	0.477	0.474	0.315	0.313	33-87	87-33	110				0.006	0.008	£150.00	Blank
PH5		8000			12.10	12.03	7.99	7.94							0.152	0.203		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																	
FORP/310/492	**Race Cam**	4500	310	310	0.492	0.492	0.325	0.325	33-87	87-33	110				0.006	0.008	£150.00	Blank
PH6		8250			12.49	12.49	8.25	8.25							0.152	0.203		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
K494	Aluminium Vernier Pulley with Steel internal Sprocket	£80.00
DNS1017S	8 x Single Valve Springs 160 Poundage PH1 to PH3 Swedish Wire	£50.00
DNS1017/200	8 x Single Valve Springs 190 Poundage PH4 to PH5 Swedish Wire	£60.00
DNS1017D	8 x Double Valve Springs 200 Poundage PH4 to PH5 Swedish Wire	£75.00
DNCF04	8 x Cam Followers	£48.00
DNV5120	8 x Chrome Moly Valve Caps Suits double or Single Springs	£30.00
DNCFP1	Oil Feed Pipe	£14.00
DNC249	8 x Chrome Moly Ball Studs Long Thread 62 RWC	£40.00
TB5001	Timing Belt for 1.6 Engine (119 mm x 19mm)	£15.00
TB5002	Timing Belt for 2.00 Engine (122 mm x 19mm)	£15.00
TD1	Timing Disc Dual Purpose Full Lift and Degrees	£6.00

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 In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FORC/256/413	**Mild Road/Carb Models**	1500	256	256	0.413	0.413	0.252	0.252	18-58	58-18	110		0.029"		0.008	0.010	£165.00	Blank
PH1	**Cam**	6000			10.49	10.49	6.40	6.40					0.74mm		0.203	0.254		Chilled
Notes	Good Increase of Low Mid Range Power Smooth Idle. A Sharp Instant Power Cam. Essentual to Use our Mechanical Cam Followers																	
FORC/260/409	**Fast Road/Carb Models**	2000	260	260	0.409	0.409	0.270	0.270	20-60	60-20	110		0.051"		0.008	0.010	£165.00	Blank
PH2	**Cam**	6000			10.38	10.38	6.85	6.85					1.31mm		0.203	0.254		Chilled
Notes	Free Revving Cam with Plenty of Mid Range Power Best with a Twin Choke Carb Ideal for Road Use. Essentual to Use our Mechanical Cam Followers																	
FORC/286/416	**Fast Road Sprint Cam**	3000	286	286	0.416	0.413	0.275	0.273	34-74	74-34	110		0.083"		0.008	0.010	£165.00	Blank
PH4		7000			10.57	10.49	6.98	6.93					2.1mm		0.203	0.254		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																	
FORC/296/416	**Race Cam**	4000	296	296	0.416	0.412	0.275	0.272	38-78	78-38	110		0.103"		0.008	0.010	£165.00	Blank
PH5		8000			10.57	10.45	6.98	6.90					2.62mm		0.203	0.254		Chilled
Notes	Race Cam Giving a Flat Power Curve Ground on a Chilled Iron Blank. Essential to Use Mechanical Cam Followers																	
FORC/276/409T	**Turbo Cam**	2500	276	276	0.409	0.409	0.270	0.270	24-72	72-24	114		0.039"		0.008	0.010	£165.00	Blank
PH4		6500			10.38	10.38	6.85	6.85					0.98mm		0.203	0.254		Chilled
Notes	The Best Turbo Cam Around. Ground on Chilled Iron Blank. Essential to Use our Mechanical Cam Followers. 167MPH Has Been Bbtained on this Cam																	
FORC/280/448T	**Turbo Cam**	2500	280	280	0.448	0.448	0.30	0.30	26-74	74-26	114		0.041"		0.008	0.010	£165.00	Blank
PH4		7000			12.31	12.31	7.51	7.51					1.05mm		0.203	0.254		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
DNPCVH	Vernier Pulley	£85.00
DNS1017S	8 x Single 160 lbs Valve Springs for Non Turbo Phase 1 to 3 Cams	£50.00
DNS1017D	8 x Double Valve Springs 200 Poundage	£75.00
DNS1017/200	8 x Single Valve Springs 190 Poundage	£60.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£18.00
DNCF5120	8 x EN40B Induction Nitrided Billet Mechanical Cam Followers Easy Adjustment No Shims	£140.00
DNV5120	8 x Chrome Moly Valve Caps for Double Springs	£30.00
TB5046	Timing Belt (97mm x 21.8mm)	£16.00
TD1	Timing Disc Double Sided for Duration and Full Lift Setting	£6.00

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

Rocker Ratio 1 : 1 Hydraulic Cam Followers Models

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FORZ/256/340H	**Fast Road Cam**	1500	256	256	0.340	0.340	0.340	0.340	18-58	58-18	110	110	0.029"	0.029"	Hyd	Hyd	£400.00	Blank
PH1		6000			8.63	8.63	8.63	8.63					0.74mm	0.74mm			Per Pair	
Notes	Suitable for the 1.6 Engine or a Very Torquey 1.8/2.00 Litre Engine																	
FORZ/260/400H	**Fast Road Cam**	2000	260	260	0.400	0.380	0.400	0.380	20-60	60-20	110	110	0.051"	0.051"	Hyd	Hyd	£400.00	Blank
PH2		6000			10.15	9.64	10.15	9.64					1.31mm	1.31mm			Per Pair	
Notes	Designed for 1.8/2.00 Engines Good Middle Range Power																	
FORZ/270/425H	**Fast Road Rally Cam**	2500	270	270	0.425	0.425	0.425	0.425	25-65	65-25	110	110	0.059"	0.059"	Hyd	Hyd	£400.00	Blank
PH3		7000			10.79	10.79	10.79	10.79					1.50mm	1.50mm			Per Pair	
Notes	A Cam Giving Good Mid Range Power Using Hydraulic Cam Followers will Not Run on Standard Injection. ECU Mods Required																	
FORZ/280/450H	**Tarmac Rally/Sprint Cam**	3000	280	270	0.450	0.425	0.450	0.425	30-70	70-30	110	110	0.081"	0.081"	Hyd	Hyd	£400.00	Blank
PH4		7500			11.42	10.79	11.42	10.79					2.07mm	2.07mm			Per Pair	
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																	
FORZ/294/460	**Race Cam**	4000	294	284	0.460	0.430	0.460	0.430	39-75	70-34	108	108	0.128"	0.108"	0.008	0.010	£400.00	Blank
PH5		8000			11.68	10.91	11.68	10.91					3.26mm	2.75mm	0.203	0.254	Per Pair	
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
DNPOPVPZE	2 x Ford Zetec Vernier Pulleys	£160.00
DNCFHL76	16 x Hydraulic Cam Followers (28.4mm x 26.5mm)	£176.00
DNCF6001	16 x Mechanical Race Cam Followers Easy Adjust Non Shim (28.4mm x 26.5mm)	£272.00
TB8131	Timing Belt (131mm x 25mm)	£24.00
DNS2670	16 x 180 Poundage Chrome Vanadium Valve Springs Non Beehive Type	£100.00
DNV400	16 x Chrome Moly Valve Caps to Suit DNS2670 Valve Spring	£50.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£18.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

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

Rocker Ratio 1 : 1 Mechanical Cam Follower Models

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FORZ/256/340M	**Fast Road Cam**	1500	256	256	0.340	0.340	0.340	0.340	18-58	58-18	110	110	0.029"	0.029"	0.008	0.010	£400.00	Blank
PH1		6000			8.63	8.63	8.63	8.63					0.73mm	0.73mm	0.203	0.254	Per Pair	
Notes	Suitable for the 1.6 Engine or a Very Torquey 1.8/2.00 Litre Engine																	
FORZ/260/400M	**Fast Road Cam**	2000	260	260	0.400	0.380	0.400	0.380	20-60	60-20	110	110	0.048"	0.048"	0.008	0.010	£400.00	Blank
PH2		6000			10.15	9.64	10.15	9.64					1.22mm	1.22mm	0.203	0.254	Per Pair	
Notes	Designed for 1.8/2.00 Engines. Good Middle Range Power																	
FORZ/270/425M	**Fast Road Rally Cam**	2500	270	270	0.425	0.425	0.425	0.425	25-65	65-25	110	110	0.051"	0.051"	0.008	0.010	£400.00	Blank
PH3		7000			10.79	10.79	10.79	10.79					1.30mm	1.30mm	0.203	0.254	Per Pair	
Notes	A Cam Giving Good Mid Range Power. Will Not Run on Standard Injection. ECU Mods required. Do Not Use top Shim Followers																	
FORZ/280/450M	**Tarmac Rally/Sprint Cam**	3000	280	270	0.450	0.425	0.450	0.425	30-70	70-30	110	110	0.083"	0.051"	0.008	0.010	£400.00	Blank
PH4		7500			11.42	10.79	11.42	10.79					2.10mm	1.30mm	0.203	0.254	Per Pair	
Notes	A Cam Giving Good Mid Range Power. Will Not Run on Standard Injection. Cam Carrier Mods Required. Do Not Use Top Shim Followers																	
FORZ/294/460M	**Race Cam**	4000	294	284	0.460	0.430	0.460	0.430	39-75	70-34	108	108	0.128"	0.108"	0.008	0.010	£400.00	Blank
PH5		8000			11.68	10.91	11.68	10.91					3.26mm	2.75mm	0.203	0.254	Per Pair	
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
DNPOPVPZE	2 x Ford Zetec Vernier Pulleys	£160.00
TB8131	Timing Belt (131mmx 25mm)	£24.00
DNS2674	16 x 180 Poundage Chrome Vanadium Beehive Valve Springs	£110.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FORS/240/280	**Road Cam**	2000	240	240	0.270	0.270	0.280	0.280	10-50	50-10	110	110	0.020"	0.020"	0.008	0.010	£400.00	Blank
PH1		6000			6.85	6.85	7.11	7.11					0.50mm	0.50mm	0.203	0.254	Per Pair	
Notes	Low Mid Range Power. Will Run on Standard Injection																	
FORS/260/300	**Fast Road Cam**	2500	260	260	0.290	0.290	0.300	0.300	20-60	60-20	110	110	0.031"	0.031"	0.008	0.010	£400.00	Blank
PH2		7250			7.36	7.36	7.61	7.61					0.82mm	0.82mm	0.203	0.254	Per Pair	
Notes	Good Mid Range Power will Not Run on Standard Injection. Requires ECU Reprogramme																	
FORS/274/325	**Tarmac Rally/Sprint Cam**	3000	274	274	0.315	0.315	0.325	0.325	29-65	67-27	108	110	0.059"	0.053"	0.008	0.010	£400.00	Blank
PH3		7500			7.99	7.99	8.25	8.25					1.50mm	1.36mm	0.203	0.254	Per Pair	
Notes	A Fast Road Rally Cam Good Mid Upper Range Power																	
FORS/280/350	**Tarmac Rally/Sprint Cam**	3750	280	280	0.340	0.340	0.350	0.350	32-68	70-30	108	110	0.071"	0.063"	0.008	0.010	£400.00	Blank
PH4		7500			8.63	8.63	8.88	8.88					1.80mm	1.60mm	0.203	0.254	Per Pair	
Notes	A Free Revving Cam Suitable for Competition Use Only																	
FORS/294/400	**Race Cam**	4500	294	284	0.390	0.370	0.400	0.380	39-75	70-34	108	108	0.108"	0.088"	0.008	0.010	£400.00	Blank
PH5		8500			9.90	9.39	10.15	9.64					2.75mm	2.25mm	0.203	0.254	Per Pair	
Notes	A Race Cam Giving Power from 4500 to 8500																	

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

Part No	Description	Price
DNS2670	16 x Single Valve Spring 160 Poundage Chrome Vanadium Wire	£90.00
DNV600	16 x Chrome Moly Valve Caps to Suit DNS2670 Valve Spring Non Beehive Type	£48.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FORD/258/372	**Road Cam**	2000	258	258	0.372	0.372	0.372	0.372	19-59	59-19	110	110	0.031"	0.031"	0.008	0.010	£400.00	Blank
PH1		7000			9.44	9.44	9.44	9.44					0.80mm	0.80mm	0.203	0.254	Per Pair	
Notes	Low Mid Range Power. Will Run on Standard Injection																	
FORD/278/375	**Fast Road Cam**	2500	278	278	0.375	0.375	0.375	0.375	29-69	69-29	110	110	0.034"	0.034"	0.008	0.010	£400.00	Blank
PH2		7250			9.52	9.52	9.52	9.52					0.85mm	0.85mm	0.203	0.254	Per Pair	
Notes	Good Mid Range Power. Will Run on Standard Injection																	
FORD/284/396	**Fast Road Cam Rally Cam**	2750	284	284	0.396	0.396	0.396	0.396	30-70	70-30	110	110	0.055"	0.055"	0.008	0.010	£400.00	Blank
PH3		7250			10.05	10.05	10.05	10.05					1.40mm	1.40mm	0.203	0.254	Per Pair	
Notes	Good Mid Upper Range Power. Suitable for Road and Rally Should Work with Standard Pistons if Head Has Not Been Skimmed																	
FORD/284/450	**Tarmac Rally/Sprint Cam**	3750	284	284	0.450	0.450	0.450	0.450	34-70	67-27	108	110	0.085"	0.085"	0.008	0.010	£400.00	Blank
PH4		7500			11.42	11.42	11.42	11.42					2.15mm	2.15mm	0.203	0.254	Per Pair	
Notes	A Free Revving Cam Suitable for Competition Use Only																	
FORD/294/460	**Race Cam**	4500	294	294	0.460	0.460	0.460	0.460	39-75	70-34	108	108	0.130"	0.130"	0.008	0.010	£400.00	Blank
PH5		8500			11.68	11.68	11.68	11.68					3.15mm	3.15mm	0.203	0.254	Per Pair	
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
DNPOPVPD	2 x Ford Duratec Vernier Pulleys	£160.00
DNS2674	16 x Single Beehive Valve Springs 180 Poundage	£110.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

Ford Camshaft Data :- Puma 1.7 16 Valve

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FORP/270/350	**Road Cam**	2000	270	260	0.350	0.320	0.350	0.320	25-65	60-20	110	110	0.032"	0.030"	0.008	0.010	£400.00	Blank
PH1		68000			8.88	8.12	8.88	8.12					0.82mm	0.75mm	0.203	0.254	Per Pair	
Notes	Good Bottom Mid Range Power. Will Run on Standard Injection																	
FORP/280/360	**Fast Road Cam**	3000	280	260	0.360	0.320	0.360	0.320	30-70	60-20	110	110	0.047"	.030"	0.008	0.010	£400.00	Blank
PH2		7000			9.14	8.12	9.14	8.12					1.20mm	0.75mm	0.203	0.254	Per Pair	
Notes	Good Mid Range Power. Will Run on Standard Injection But Best with Modified System																	
FORP/280/375	**Tarmac Rally/Sprint Cam**	3500	280	270	0.375	0.340	0.375	0.340	35-75	65-25	110	110	0.060"	0.047"	0.008	0.010	£400.00	Blank
PH4		7500			9.52	8.63	9.52	8.63					1.50mm	1.20mm	0.203	0.254	Per Pair	
Notes	A Competition Cam Giving Good Mid Range Power. Will Not Run on Standard Injection																	
FORP/300/400	**Race Cam**	4000	300	290	0.400	0.380	0.400	0.380	40-80	75-35	110	110	0.095"	0.082"	0.008	0.010	£400.00	Blank
PH5		8000			10.15	9.64	10.15	9.64					2.40mm	2.10mm	0.203	0.254	Per Pair	
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)	£96.00
DNCF61	16 x Mechanical Cam Followers Bottom Shim Type (28mm x 22.15mm)	£96.00
TB5044	Timing Belt (117mm x 22mm)	£22.45
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

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 In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FORKA/264/363	**Fast Road Cam**	1500	264	264	0.363	0.363	0.240	0.240	20-64	64-20	110		0.036"		0.014	0.016	£140.00	Blank
PH1		6000			9.22	9.22	6.09	6.09					0.91mm		0.356	0.406		
Notes	Good Bottom End Mid Range Power																	
FORKA/278/379	**Fast Road Cam**	2000	278	278	0.379	0.379	0.250	0.250	29-69	69-29	110		0.056"		0.008	0.010	£140.00	Blank
PH3		6500			9.62	9.62	6.35	6.35					1.44mm		0.203	0.254		
Notes	Free Revving Cam Giving Power in the Mid Upper Range																	
FORKA/290/401	**Tarmac Rally/Sprint Cam**	3750	290	290	0.401	0.401	0.265	0.265	35-75	75-35	110		0.077"		0.008	0.010	£140.00	Blank
PH4		7000			10.18	10.18	6.73	6.73					1.97mm		0.203	0.254		
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	£30.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FORB/292/380	Mild Rally Cam	2500	292	292	0.380	0.380	0.380	0.380	38-78	78-38	110	110	0.111"	0.111"	0.008	0.010	£450.00	Blank
PH1		7000			9.64	9.64	9.64	9.64					2.82mm	2.82mm	0.203	0.254	Per Pair	
Notes	Good Bottom Mid Range Power																	
FORB/300/400	Rally Cam	3000	300	300	0.400	0.400	0.400	0.400	40-80	80-40	110	110	0.118"	0.118"	0.008	0.010	£450.00	Blank
PH2		7000			10.15	10.15	10.15	10.15					2.99mm	2.99mm	0.203	0.254	Per Pair	
Notes	Rally Cam Giving Good Mid Range Power with High Revving Ability																	
FORB/308/420	Tarmac Rally/Sprint Cam	3500	308	300	0.420	0.400	0.420	0.400	42-82	80-40	110	110	0.118"	0.118"	0.008	0.010	£450.00	Blank
PH4		7500			10.66	10.15	10.66	10.15					2.99mm	2.99mm	0.203	0.254	Per Pair	
Notes	A Competition Cam Giving Good Mid Range Power																	
FORB/320/430	Race Cam	4000	320	318	0.430	0.430	0.430	0.430	58-82	82-58	106	106	0.168"	0.168	0.008	0.010	£450.00	Blank
PH5		8000			10.91	10.91	10.91	10.91					4.26mm	4.26mm	0.203	0.254	Per Pair	
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	£272.00
K457	16 x BDA Cam Followers	£272.00
K456	1 x Steel Jackshaft	£160.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

Ford Camshaft Data :- Ford V6 Essex 2.5/3.00

Rocker Ratio 1 : 1.45

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FORE/260/377	Road Cam	2000	260	260	0.377	0.377	0.260	0.260	30-70	70-30	110	110	0.057"		0.014	0.016	£215.00	Blank
PH1		6000			9.57	9.57	6.60	6.60					1.45mm		0.356	0.406		
Notes	A Road Cam that will Give a Smooth Idle and Work with Auto Transmission																	
FORE/280/406	Fast Road Cam	2000	280	280	0.406	0.406	0.280	0.280	30-70	70-30	110	110	0.068"		0.014	0.016	£215.00	Blank
PH2		6000			10.30	10.30	7.11	7.11					1.73mm		0.356	0.406		
Notes	Good Bottom Mid Range Power will Run with Standard Twin Choke Carb																	
FORE/292/450	Tarmac Rally/Sprint Cam	3500	292	292	0.450	0.450	0.310	0.310	36-76	76-36	110	110	0.085"		0.016	0.018	£215.00	Blank
PH4		7500			11.41	11.41	7.87	7.87					2.16mm		0.406	0.457		
Notes	A 3/4 Race Race Cam Suitable for Drag Racing																	
FORE/320/464	Race Cam	4000	300	300	0.464	0.464	0.320	0.320	40-80	80-40	106	106	0.157"		0.016	0.018	£215.00	Blank
PH5		8000			11.78	11.78	8.12	8.12					3.98mm		0.406	0.457		
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	£80.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

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

Rocker Ratio 1 : 1.0 Mechanical Cam Follower Models

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC with clearance In	Lift @ TDC with clearance Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FOR5/260/370	Fast Road Cam	1500	260	280	0.356	0.354	0.364	0.364	22-66	72-28	112	112	0.028"	0.032"	0.016	0.010	£550.00	Blank
PH1		6000			9.04	8.98	9.24	9.24					0.65mm	0.85mm	0.406	0.254	Per Pair	
Notes	Suitable for the Standard Engine. Remap May Be Required																	
FOR5/280/400	Fast Road Cam	2500	272	280	0.400	0.400	0.400	0.400	24-68	72-28	112	112	0.032"	0.039"	0.008	0.010	£550.00	Blank
PH2		7000			10.15	10.15	10.15	10.15					0.80mm	1.00mm	0.203	0.254	Per Pair	
Notes	Suitable Engine with Pocketed Pistons. Remap Required																	
FOR5/284/400	Race Cam	3000	284	280	0.400	0.400	0.400	0.400	30-74	72-28	112	112	0.047"	0.039"	0.008	0.010	£575.00	Blank
PH3		8000			10.15	10.15	10.15	10.15					1.20mm	1.00mm	0.203	0.254	Per Pair	
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

Rocker Ratio 1 : 1.0 Mechanical Cam Follower Models

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
FOREB/240/327	Stage 1 Fast Road Cam	2000	240	224	0.327	0.259	0.337	0.275	-8-68	32-12	128	100	0	0.022"	0.010	0.016	£450.00	Blank
PH1		7000			8.30	6.57	8.55	6.98					0.00mm	0.55mm	0.254	0.406	Per Pair	
Notes	Suitable for the Standard Engine. Remap May Be Required																	
FOREB/260/352	Stage 2 Fast Road/Rally	2000	260	244	0.340	0.288	0.352	0.300	2-78	42-22	128	100	0.003	0.042	0.012	0.012	£450.00	Blank
PH2	Cam	7500			8.63	7.31	8.93	7.61					0.80mm	1.00mm	0.305	0.305	Per Pair	
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	£6.00

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
JAG/260/408	**Road Cam**	1500	260	260	0.408	0.404	0.408	0.404	20-60	60-20	110	110	0.055"	0.055"	0.008	0.010	£440.00	Blank
PH1		5500			10.36	10.25	10.36	10.25					1.40mm	1.40mm	0.203	0.254	Per pair	
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	**Fast Road Cam**	2000	270	270	0.410	0.408	0.410	0.408	25-65	65-25	110	110	0.069"	0.069"	0.008	0.010	£440.00	Blank
PH2		6000			10.41	10.36	10.41	10.36					1.75mm	1.75mm	0.203	0.254	Per pair	
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	**Tarmac Rally/Race Cam**	3000	280	280	0.450	0.448	0.450	0.448	30-70	70-30	110	110	0.078"	0.078"	0.008	0.010	£440.00	Blank
PH4		6500			11.42	11.37	11.42	11.37					2.00mm	2.00mm	0.203	0.254	Per pair	
Notes	Competition Cam for Use with Triple SU or DCOE Carbs. Ideal for Sprint s/Hill Climbs																	
JAG/290/500	**Race Cam**	3500	290	290	0.500	0.452	0.500	0.498	35-75	75-35	110	110	0.118"	0.118"	0.008	0.010	£440.00	Blank
PH5		6500			12.69	11.47	12.69	12.64					3.00mm	3.00mm	0.203	0.254	Per pair	
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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
JAG/280/450	**Tarmac Rally/Race Cam**	3000	280	280	0.450	0.448	0.450	0.448	30-70	70-30	110	110	0.078"	0.078"	0.008	0.010	£1,200.00	Billet
PH4		6500			11.42	11.37	11.42	11.37					2.00mm	2.00mm	0.203	0.254	Per pair	
Notes	Competition Cam for Use with Triple SU or DCOE Carbs. Ideal for Sprint s/Hill Climbs																	
JAG/290/500	**Race Cam**	3500	290	290	0.500	0.452	0.500	0.498	35-75	75-35	110	110	0.118"	0.118"	0.008	0.010	£1,200.00	Billet
PH5		6500			12.69	11.47	12.69	12.64					3.00mm	3.00mm	0.203	0.254	Per pair	
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)	£96.00
K482	12 x EN40B Standard Diamter Cam Buckets (1.375" Dia)	£192.00
K521	12 x EN40B O/S Cam Buckets (1.4" Dia)	£192.00
K483	12 x EN40B O/S Cam Buckets (1.5" Dia)	£192.00
DNS1065S	12 x Competition Double Valve Springs	£80.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

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Lotus / Mitsubishi

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
LOT/270/352	**Fast Road Cam**	1500	270	270	0.352	0.350	0.352	0.350	25-65	65-25	110	110	0.047"	0.047"	0.008	0.010	£400.00	Blank
PH1		6000			8.93	8.88	8.93	8.88					1.2mm	1.2mm	0.203	0.254	Per pair	
Notes	The Original Lotus Special Equipment Cam Profile Superb for Normal Road Use																	
LOT/280/382	**Fast Road Cam**	2000	280	280	0.382	0.382	0.382	0.382	30-70	70-30	110	110	0.080"	0.080"	0.008	0.010	£400.00	Blank
PH2		6500			9.70	9.70	9.70	9.70					2.03mm	2.03mm	0.203	0.254	Per pair	
Notes	Cam Suited for Fast Road Rally Use. Should Fit without Cutting the Spring Seats But Check Fitted Spring Length																	
LOT/280/420	**Tarmac Rally/Sprint Cam**	3750	280	280	0.420	0.420	0.420	0.420	32-68	68-32	108	108	0.088"	0.088"	0.008	0.010	£400.00	Blank
PH4		7000			10.66	10.66	10.66	10.66					2.23mm	2.23mm	0.203	0.254	Per pair	
Notes	High Torque Rally Camshaft Springs Seats will Need Machining																	
LOT/280/443	**Race Cam**	3750	280	280	0.443	0.443	0.443	0.443	32-68	68-32	108	108	0.108"	0.108"	0.008	0.010	£400.00	Blank
PH5		7000			11.24	11.24	11.24	11.24					2.74mm	2.74mm	0.203	0.254	Per pair	
Notes	A High Torque Race Camshaft for Non Steel Engines Spring Seats will Need Machining																	
LOT/306/408	**Tarmac Rally/Sprint Cam**	3750	306	306	0.408	0.408	0.400	0.400	47-79	81-45	106	108	0.130"	0.118"	0.008	0.010	£400.00	Blank
PH4		7000			10.36	10.36	10.15	10.15					3.3mm	3.0mm	0.203	0.254	Per pair	
Notes	The Original L1 Race Camshaft. Spring Seats will Need Machining. Ideal for Endurance Racing																	
LOT/320/450	**Race Cam**	3750	320	320	0.452	0.450	0.452	0.450	54-86	84-56	104	106	0.166"	0.146"	0.008	0.010	£400.00	Blank
PH5		7000			11.47	11.42	11.47	11.42					4.21mm	3.71mm	0.203	0.254	Per pair	
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	£6.00
DNCF14	8 x Chilled Iron Std Cam Buckets (1.375" Dia)	£96.00

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

Rocker Ratio 1 : 1.7

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
MIT/264/442	**Mild Rally Cam**	2500	264	258	0.442	0.423	0.260	0.249	22-62	58-18	110	110			Hyd	Hyd	£440.00	Blank
PH2		7000			11.22	10.74	6.60	6.32							Hyd	Hyd	Per Pair	
Notes	Good Bottom Mid Range Power																	
MIT/272/444	**Mild Rally Cam**	3000	272	268	0.444	0.423	0.261	0.249	31-71	64-24	110	110			Hyd	Hyd	£440.00	Blank
PH3		7500			11.26	10.74	6.62	6.32							Hyd	Hyd	Per Pair	
Notes	Powerfull Rally Cam																	

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Nissan Camshafts Data :- Datsun 240Z/260Z

Rocker Ratio 1 : 1.58

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
DAT/275/474	**Fast Road Cam**	2000	275	275	0.474	0.474	0.313	0.313	27-67	67-27	110	110			0.010	0.012	£295.00	Blank
PH1		6000			12.03	12.03	7.94	7.94							0.250	0.300		
Notes	Good Bottom & Mid Range Power																	
DAT/284/474	**Rally Cam**	2500	284	284	0.474	0.474	0.313	0.313	33-71	71-33	109	109			0.010	0.012	£295.00	Blank
PH2		7000			12.03	12.03	7.94	7.94							0.250	0.300		
Notes	Powerfull Rally Cam																	

Nissan Camshaft Data :- 200 SX

Rocker Ratio 1 : 1.7

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve In	Clear Ex	Price Ex VAT	Material Type
NIS/264/390	**Mild Rally Cam**	2500	258	258	0.396	0.396	0.264	0.264	19-59	59-19	110	110			Hyd	Hyd	£440.00	Blank
PH2		6000			10.05	10.05	6.70	6.70							Hyd	Hyd	Per Pair	
Notes	Good Bottom Mid Range Power																	
NIS/272/443	**Fast Road Rally Cam**	2500	272	272	0.443	0.443	0.295	0.295	26-66	66-26	110	110			Hyd	Hyd	£440.00	Blank
PH3		7000			11.23	11.23	7.49	7.49							Hyd	Hyd	Per Pair	
Notes	Powerfull Mid Range Rally Cam																	

Nissan Camshaft Data :- Pulsar GTIR

Rocker Ratio 1 : 1.7

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve In	Clear Ex	Price Ex VAT	Material Type
NIP/260/468	**Fast Road Cam**	2500	260	260	0.468	0.468	0.275	0.275	20-60-	60-20	110	110			0.008	0.010	£440.00	Blank
PH1		7000			11.87	11.87	6.98	6.98							0.203	0.254	Per Pair	
Notes	Smooth Tickover Ideal Road Cam																	
NIP/268/468	**Mild Rally Cam**	2500	268	268	0.468	0.468	0.275	0.275	24-64	64-24	110	110			0.008	0.010	£440.00	Blank
PH2		7000			11.87	11.87	6.98	6.98							0.203	0.254	Per Pair	
Notes	Good Bottom Mid Range Power																	
NIP/272/502	**Fast Road Rally Cam**	3000	272	272	0.502	0.502	0.295	0.295	26-66	66-26	110	110			0.008	0.010	£440.00	Blank
PH3		7500			12.73	12.73	7.49	7.49							0.203	0.254	Per Pair	
Notes	Powerfull Rally Cam																	
NIP/280/509	**Race Tarmac Rally Cam**	2500	280	280	0.519	0.519	0.305	0.305	24-64	64-24	110	110			0.008	0.010	£440.00	Blank
PH4		7000			13.16	13.16	7.74	7.74							0.203	0.254	Per Pair	
Notes	Competition Tarmac Rally Cam																	
NIP/290/536	**Race Cam**	3000	290	290	0.536	0.536	0.315	0.315	35-75	75-35	110	110			0.008	0.010	£440.00	Blank
PH5		7500			13.59	13.59	7.99	7.99							0.203	0.254	Per Pair	
Notes	Race Cam																	

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

Rocker Ratio 1 : 1.4

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
PEUR/260/350	**Road Cam**	1500	260	260	0.350	0.347	0.250	0.248	20-60	60-20	110				0.008	0.010	£200.00	Blank
PH1		6500			8.88	8.81	6.35	6.29							0.200	0.250		
Notes	Good Bottom End/Mid Range Power will Run on Standard Injection. Not for 1.3/1.6 Rally Model																	
PEUR/280/392	**Fast Road Cam**	2000	280	280	0.392	0.389	0.280	0.278	30-70	70-30	110				0.008	0.010	£200.00	Blank
PH2		7000			9.95	9.88	7.11	7.06							0.200	0.250		
Notes	Suitable for 1.3/1.6 Rally Model																	
PEUR/288/406	**Tarmac Rally Sprint Cam**	3000	288	288	0.406	0.403	0.290	0.288	34-74	74-34	110				0.008	0.010	£200.00	Blank
PH4		7500			10.30	10.23	7.36	7.31							0.200	0.250		
Notes	Good Mid Upper Range will Not Run on Std Injection																	
PEUR/308/420	**Race Cam**	4000	308	308	0.420	0.389	0.300	0.278	44-84	84-44	110				0.008	0.010	£200.00	Blank
PH5		8000			10.66	9.88	7.61	7.06							0.200	0.250		
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	£6.00

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

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
PEUI/268/470	**Road Cam**	2000	268	268	0.470	0.468	0.470	0.468	24-64	64-24	110		0.055"		0.008	0.010	£215.00	Blank
PH1		6500			11.93	11.88	11.93	11.88					1.40mm		0.200	0.250		
Notes	Good Bottom End/Mid Range Power will Run on Standard Injection																	
PEUI/280/470	**Fast Road Cam**	2000	280	280	0.470	0.468	0.470	0.468	30-70	70-30	110		0.079"		0.008	0.010	£215.00	Blank
PH3		7000			11.93	11.88	11.93	11.88					2.00mm		0.200	0.250		
Notes	Will Not Run on Standard Injection																	
PEUI/300/490	**Tarmac Rally Sprint Cam**	3000	300	300	0.490	0.488	0.490	0.488	42-78	78-42	108		0.125"		0.008	0.010	£215.00	Blank
PH4		7500			12.44	12.39	12.44	12.39					3.16mm		0.200	0.250		
Notes	Good Mid Upper Range Power will Not Run on Standard Injection																	
PEUI/312/524	**Race Cam**	4000	312	312	0.524	0.522	0.524	0.522	48-84	84-48	108		0.140"		0.008	0.010	£215.00	Blank
PH5		8000			13.30	13.25	13.30	13.25					3.55mm		0.200	0.250		
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)	£90.00
DNP1006	Vernier Pulley Hard Anodised	£90.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

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Peugeot

Peugeot Camshaft Data :- 205 1360CC Alloy Block

Rocker Ratio 1 : 1.4

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
PEUSR/260/350	**Road Cam**	1500	260	260	0.350	0.347	0.250	0.248	20-60	60-20	110				0.008	0.010	£200.00	Blank
PH1		6500			8.88	8.81	6.35	6.29							0.200	0.250		
Notes	Ideal Road Cam for Town Use. Good Idle																	
PEUSR/290/399	**Tarmac Rally Sprint Cam**	2000	290	290	0.399	0.396	0.285	0.283	35-75	75-35	110				0.008	0.010	£200.00	Blank
PH3		7000			10.13	10.06	7.23	7.18							0.200	0.250		
Notes	Mid Top End Power Rally/Sprint Camshaft																	
PEUSR/308/406	**Race Cam**	4000	308	308	0.406	0.403	0.290	0.288	44-84	84-44	108				0.008	0.010	£200.00	Blank
PH4		8000			10.30	10.23	7.36	7.31							0.200	0.250		
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	£6.00

Peugeot Camshaft Data :- 106 1.6 16 Valve

Rocker Ratio 1 : 1

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

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
CITVTS/256/380	**Road Cam**	2000	256	256	0.380	0.380	0.380	0.380	18-58	58-18	110	110	1.30mm	1.30mm	Hyd	Hyd	£300.00	Blank
PH1		7000			9.64	9.64	9.64	9.64									Per Pair	
Notes	Good Increase of Low Mid Range Power. Smooth Idle																	
CITVTS/264/400	**Fast Road Cam**	3000	264	264	0.400	0.400	0.400	0.400	22-62	62-22	110	110	1.80mm	1.80mm	Hyd	Hyd	£300.00	Blank
PH3		7000			10.15	10.15	10.15	10.15									Per Pair	
Notes	Fast Road Cam Giving Plenty of Mid Range Power. Will Run on Standard Injection with ECU Mods																	
CITVTS/280/430	**Sprint/Tarmac Rally**	3500	280	280	0.430	0.430	0.430	0.430	32-68	70-30	108	110	2.30mm	2.10mm	Hyd	Hyd	£300.00	Blank
PH4		7500			10.91	10.91	10.91	10.91									Per Pair	
Notes.	Sprint/Tarmac Rally Cam Requires Throttle Bodies																	
CITVTS/290/450	**Race Cam**	4500	290	290	0.442	0.440	0.442	0.440	41-69	71-39	104	106	3.7mm	3.4mm	0.008	0.010	£300.00	Blank
PH5		8500			11.22	11.17	11.22	11.17							0.203	0.254	Per Pair	
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 Hydrualic Cam Followers (28.35mm x 26mm)	£200.00
DNCF6000	16 x Easy Adjust Non Shim Cam Followers (28.35mm x 26mm)	£272.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£18.00
DNS2670	16 x Competion Silicon Chrome 180 lbs Valve Springs	£100.00

Peugeot

Peugeot Camshaft Data :- M1 16 16 Valve

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
PEUM/264/400H	**Road Cam**	2000	258	258	0.400	0.400	0.400	0.400	19-59	59-19	110	110	0.071"	0.071"	Hyd	Hyd	£550.00	Billet
PH1		6500			10.15	10.15	10.15	10.15					1.80mm	1.80mm			Per Pair	
Notes	Ideal for Road Use. Good Tickover																	
PEUM/280/420H	**Road/Rally Cam**	2500	280	280	0.420	0.420	0.420	0.420	30-70	70-30	110	110	0.071"	0.071"	Hyd	Hyd	£550.00	Billet
PH3		7500			10.66	10.66	10.66	10.66					1.80mm	1.80mm			Per Pair	
Notes	Will Not Run on Standard Injection																	
PEUM/288/440H	**Tarmac Rally Sprint Cam**	3000	288	288	0.440	0.440	0.440	0.440	36-72	72-32	108	108	0.083"	0.083"	Hyd	Hyd	£550.00	Billet
PH4		7500			11.17	11.17	11.17	11.17					2.10mm	2.10mm			Per Pair	
Notes	Good Mid Upper Range Power. Will Not Run on Standard Injection																	
PEUM/312/470	**Race Cam**	4000	312	312	0.470	0.468	0.470	0.468	48-84	84-48	108	108	0.142"	0.142"	0.008	0.010	£550.00	Billet
PH5		8000			11.93	11.88	11.93	11.88					3.6mm	3.6mm	0.200	0.250	Per Pair	
Notes	Powerful Mid/Top Range Race Camshaft																	

Peugeot M1 16 16 Valve Additional Components

Part No	Description	Price
DNCHL74	16 x Hydrualic Cam Followers (32mm x 26mm)	£160.00
DNCF5121	16 x GTI Mechanical Cam Followers Easy Adjust Non Shim Type (32mm x 26mm)	£272.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£18.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

Peugeot Camshaft Data :- 306 S16 16 Valve

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
PEUS/268/390H	**Road Cam**	2000	258	258	0.390	0.390	0.390	0.390	19-59	59-19	110	110	0.071"	0.071"	Hyd	Hyd	£550.00	Steel
PH1		6500			9.90	9.90	9.90	9.90					1.80mm	1.80mm			Per Pair	Billet
Notes	Ideal for Road Use. Good Tickover																	
PEUS/280/420H	**Road/Rally Cam**	2500	280	280	0.420	0.420	0.420	0.420	30-70	70-30	110	110	0.071"	0.071"	Hyd	Hyd	£550.00	Steel
PH3		7500			10.66	10.66	10.66	10.66					1.80mm	1.80mm			Per Pair	Billet
Notes	Will Not Run on Standard Injection																	
PEUS/288/440H	**Tarmac Rally Sprint Cam**	3000	288	288	0.440	0.440	0.440	0.440	36-72	72-36	108	108	0.083"	0.083"	Hyd	Hyd	£550.00	Steel
PH4		7500			11.17	11.17	11.17	11.17					2.10mm	2.10mm			Per Pair	Billet
Notes	Good Mid Upper Range Power. Will Not Run on Standard Injection																	
PEUS/312/470	**Race Cam**	4000	312	312	0.470	0.468	0.470	0.468	48-84	84-48	108	108	0.142"	0.142"	0.008	0.010	£550.00	Steel
PH5		8000			11.93	11.88	11.93	11.88					3.6mm	3.6mm	0.200	0.250	Per Pair	Billet
Notes	Powerful Mid/Top Range Camshaft																	

Peugeot 306 S16 16 Valve Additional Components

Part No	Description	Price
DNCHL74	16 x Hydrualic Cam Followers (32mm x 26mm)	£168.00
DNCF5121	16 x GTI Mechanical Cam Followers Easy Adjust Non Shim Type (32mm x 26mm)	£272.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£18.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

Peugeot Camshaft Data :- 206/307 2.0 GTI

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
PEUG/258/380	**Road Cam**	2000	258	258	0.380	0.380	0.380	0.380	18.-58	54-14	110	110	0.051"	0.051"	Hyd	Hyd	£420.00	Blank
PH1		6500			9.64	9.64	9.64	9.64					1.3mm	1.3mm			Per Pair	
Notes	Ideal for Road Use. Good Tickover																	
PEUG/264/385	**Road/Rally Cam**	2500	264	264	0.385	0.385	0.385	0.385	22-62	62-22	110	110	0.055"	0.055"	Hyd	Hyd	£420.00	Blank
PH2		7500			9.77	9.77	9.77	9.77					1.40mm	1.40mm			Per Pair	
Notes	Will Run on Standard Injection with ECU Mods																	
PEUG/280/440	**Tarmac Rally Sprint Cam**	3000	280	280	0.440	0.440	0.440	0.420	32-68	68-32	108	108	0.108"	0.108"	Hyd	Hyd	£420.00	Blank
PH4		7500			11.17	11.17	11.17	10.66					2.75mm	2.75mm			Per Pair	
Notes	Good Mid Upper Range. Will Not Run on Standard Injection. Cam Carrier Mods Required to Swing 9.77mm Lift																	
PEUG/300/468	**Race Cam**	4000	300	300	0.468	0.430	0.468	0.430	42-78	78-42	108	108	0.154"	0.154"	0.008	0.010	£420.00	Blank
PH5		8000			11.88	10.91	11.88	10.91					3.90mm	3.90mm	0.200	0.250	Per Pair	
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	£18.00
DNCF6000	16 x GTI Mechanical Cam Followers Easy Adjust Non Shim Type (28.35mm x 26mm)	£272.00

Peugeot Camshaft Data :- 306 GTI 6

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
PEUT/258/380	**Road Cam**	2000	258	258	0.380	0.380	0.380	0.380	18.-58	54-14	110	110	0.051"	0.051"	Hyd	Hyd	£420.00	Blank
PH1		6500			9.64	9.64	9.64	9.64					1.3mm	1.3mm			Per Pair	
Notes	Ideal for Road Use. Good Tickover																	
PEUT/264/420	**Road/Rally Cam**	2500	264	264	0.420	0.420	0.420	0.420	22-62	62-22	110	110	0.055"	0.055"	Hyd	Hyd	£420.00	Blank
PH2		7500			10.66	10.66	10.66	10.66					1.40mm	1.40mm			Per Pair	
Notes	Will Not Run on Standard Injection																	
PEUT/280/440	**Tarmac Rally Sprint Cam**	3000	280	280	0.440	0.440	0.440	0.440	32-68	68-32	108	108	0.108"	0.108"	Hyd	Hyd	£420.00	Blank
PH4		7500			11.17	11.17	11.17	11.17					2.75mm	2.75mm			Per Pair	
Notes	Good Mid Upper Range Power. Will Not Run on Standard Injection																	
PEUT/300/468	**Race Cam**	4000	300	300	0.468	0.430	0.468	0.430	42-78	78-42	108	108	0.154"	0.154"	0.008	0.010	£420.00	Blank
PH5		8000			11.88	10.91	11.88	10.91					3.90mm	3.90mm	0.200	0.250	Per Pair	
Notes	Powerful Mid Range Range Camshaft																	

Peugeot 306 GTI 6 Additonal 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	£18.00
DNCF5121	16 x GTI Solid Cam Followers (32mm x 26mm)	£272.00

Porsche Camshaft Data :- 911 6cyl 2 Valve

Rocker Ratio 1 : 1.5

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
POR/292/525H	Road Cam	2000	292	292	0.488	0.488	0.325	0.325	32-80	76-28		114			Hyd	Hyd	£510.00	Blank
PH1 HYD		6000			12.37	12.37	8.25	8.25									Per Pair	
Notes	Cam Suited for 993 Road Use. Good Idle and Little Loss of Low Down Power																	
POR/300/480/40	Fast Road Cam	2000	300	276	0.479	0.443	0.319	0.295	48-72	60-36		102	4.35mm		0.008	0.008	£510.00	Blank
PH1		6000			12.14	11.23	8.10	7.49							0.203	0.203	Per Pair	
Notes	Cam Suited for Fast Road Rally Use. Good Idle and Mid Range Power																	
POR/304/497/62	Tarmac Rally/Race Cam	3000	304	286	0.497	0.488	0.331	0.325	50-74	65-41		102	5.00mm		0.008	0.010	£510.00	Blank
PH4		7500			12.60	12.37	8.40	8.25							0.203	0.254	Per Pair	
Notes	Competition Cam Ideal for Rally, Track, Days and Sprints																	
POR/336/519/RSI	Race Cam	4500	336	332	0.519	0.519	0.346	0.346	66-90	83-59		102			0.008	0.010	£510.00	Blank
PH5		8000			13.17	13.17	8.78	8.78							0.203	0.254	Per Pair	
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 Addional Components

Part No	Description	Price
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00
911R/ARM REGRIND	Porsche 911 Rocker Arms Regrind. Customers' Own Rocker Arms Ground and Superfinished	£15.00

Porsche Camshaft Data :- 924 Water Cooled 4 Cyl

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
POW/280/480	Fast Road Cam	1500	280	280	0.480	0.480	0.480	0.480	30-70	70-30	110	110	0.088"		0.008	0.010	£210.00	Blank
PH1		6000			12.18	12.18	12.18	12.18					2.23mm		0.203	0.254		
Notes	Cam Suited for Road Use Good Idle and Little Loss of Low Down Power																	
POW/280/480T	Fast Road Cam	1500	280	280	0.480	0.480	0.480	0.480	28-72	72-28	112	112	0.077"		0.008	0.010	£210.00	Blank
PH1	For 924 Turbo	6000			12.18	12.18	12.18	12.18					1.95mm		0.203	0.254		
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	£200.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

Renault

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
RENC/258/380H	**Road Cam**	2000	258	248	0.380	0.360	0.380	0.360	18.-58	58-18	110	110	0.035"	0.035"	Hyd	Hyd	£420.00	Blank
PH1		6500			9.64	9.14	9.64	9.14					0.90mm	0.90mm			Per Pair	
Notes	Ideal for Road Use. Good Tickover and Low Down Power																	
RENC/264/420H	**Road/Rally Cam**	2500	264	264	0.420	0.420	0.420	0.420	22-62	62-22	110	110	0.045"	0.045"	Hyd	Hyd	£420.00	Blank
PH3		7500			10.66	10.66	10.66	10.66					1.15mm	1.15mm			Per Pair	
Notes	Mid Range Cam Free Revving. Will Not Run on Standard Injection																	
RENC/280/440H	**Tarmac Rally Sprint Cam**	3000	280	280	0.440	0.440	0.440	0.440	32-68	68-32	108	108	0.108"	0.108"	Hyd	Hyd	£420.00	Blank
PH4		7500			11.17	11.17	11.17	11.17					2.75mm	2.75mm			Per Pair	
Notes	Good Mid Upper Range Power. Will Not Run on Standard Injection																	
RENC/300/468	**Race Cam**	4000	300	300	0.468	0.430	0.468	0.430	42-78	78-42	108	108	0.153"	0.153"	0.008	0.010	£420.00	Blank
PH4		8000			11.88	10.91	11.88	10.91					3.88mm	3.88mm	0.200	0.250	Per Pair	
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	£6.00

Austin Rover / MG

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

Rocker Ratio 1.275 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
ARA/260/344	**Mild Road/Turbo Cam**	1500	260	260	0.344	0.344	0.270	0.270	20-60	60-20	110		0.033"		0.012	0.012	£80.00	Repro
PH1		6000			8.74	8.74	6.85	6.85					0.83mm		0.305	0.305	£170.00	Billet
Notes	Ideal for Road Use. Good Tickover. Works Well in the Supercharged Engine																	
ARA/270/367	**Fast Road Cam**	2000	270	270	0.367	0.367	0.288	0.288	28-62	62-28	107		0.057"		0.012	0.012	£80.00	Repro
PH2		6500			9.32	9.32	7.31	7.31					1.46mm		0.305	0.305	£170.00	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	**Rally Fast Road Cam**	3000	290	290	0.383	0.383	0.300	0.300	38-72	72-38	107		0.88"		0.012	0.012	£80.00	Repro
PH3		7500			9.71	9.71	7.61	7.61					2.23mm		0.305	0.305	£170.00	Billet
Notes	Fast Road Rally Cam Good Mid/Top End Power But with a Good Idle																	
ARA/300/414	**Tarmac Rally/Sprint Cam**	3750	300	300	0.414	0.414	0.325	0.325	43-77	77-43	107		0.102"		0.008	0.010	£80.00	Repro
PH4		8000			10.52	10.52	8.25	8.25					2.60mm		0.200	0.250	£170.00	Billet
Notes	Tarmac Rally/Torque Race Cam for Rally Use Best in 1275cc Engines, Cross Drilled Cam Lobes																	
ARA/320/421	**Full Race Cam**	4000	320	320	0.434	0.434	0.340	0.340	53-87	87-53	107		0.148"		0.008	0.010	£170.00	Billet
PH5		8000			11.00	11.00	8.63	8.63					3.76mm		0.200	0.250		
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 Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATTIC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
ARA/250/322I	**Mild Road/Turbo Cam**	2000	250	260	0.332	0.332	0.260	0.260	13-57	62-18	112		0.015"		0.012	0.012	£80.00	Repro
PH1	Single Point Injection	6000			8.41	8.41	6.60	6.60					0.38mm		0.305	0.305		
Notes	Excellent Low Down Power and Smooth Tickover																	
ARA/250/344I	**Fast Road Cam**	2000	250	260	0.344	0.344	0.270	0.270	13-57	62-18	112		0.020"		0.012	0.012	£80.00	Repro
PH1	Multi Point Injection	6500			8.74	8.74	6.85	6.85					0.51mm		0.305	0.305		
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 Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing EX Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
BMC731	**Road/Rally Cam**	3000	268	268	0.385	0.385	0.302	0.302	39-59	59-39	107		0.100"		0.012	0.012	£170.00	Billet
PH3		7000			9.77	9.77	7.66	7.66					2.55mm		0.305	0.305		
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.**

Address: Farnborough Way, Farnborough, Kent, BR6 7DH, United Kingdom
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Austin Rover / MG

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

Rocker Ratio 1 : 1.275

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
BMC 649	**Race Cam**	4000	300	300	0.427	0.427	0.335	0.335	50-70	70-50	100		0.136mm		0.012	0.012	£170.00	Billet
PH5		8000			10.84	10.84	8.50	8.50					3.45mm		0.305	0.305		
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	£32.00
DNCF3006	8 x BMC A Series Inductioned Hardenend Nitrided EN40B Competition Cam Followers	£80.00
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	£50.00
DNS1040D	A Series Double Valve Springs 200 Poundage Rate	£75.00
OP134	Oil Pump Spade Drive High Capacity Recomended for Cross Drilled Camshafts	£55.00

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

Rocker Ratio 1 : 1.420

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
ARB/280/383	**Road Cam**	1500	280	280	0.383	0.381	0.270	0.268	30-70	70-30	110		0.056"		0.012	0.014	£80.00	Repro
PH1		6000			9.73	9.66	6.85	6.80					1.42mm		0.305	0.356	£180.00	Billet
Notes	An Excellent Cam for the Standard MGB for Road Use. Good Low Down and Mid Range Power. Good Idle																	
ARB/290/426	**Fast Road/Rally Cam**	3000	290	290	0.426	0.426	0.300	0.300	35-75	75-35	110		0.084"		0.012	0.014	£80.00	Repro
PH3		6500			10.81	10.81	7.61	7.61					2.13mm		0.305	0.356	£180.00	Billet
Notes	Competition Cam Suitable for Long Distance Events Good Mid Range Power. Reasonable Idle																	
ARB/300/454	**Tarmac Rally/Race Cam**	4000	300	300	0.454	0.454	0.320	0.320	48-72	72-48	102		0.123"		0.012	0.014	£180.00	Billet
PH4		7000			11.53	11.53	8.12	8.12					3.12mm		0.305	0.356		
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	**Full Race Cam**	4500	320	320	0.520	0.517	0.366	0.364	53-87	87-53	107		0.151"		0.012	0.014	£180.00	Billet
PH5		8000			13.19	13.12	9.29	9.24					3.83mm		0.305	0.356		
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	£32.00
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	£80.00
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	£6.00

Austin Rover / MG

Austin Rover Camshaft Data :- K Series 16 Valve

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
ARK/252/400H	**Road Cam**	2000	252	252	0.400	0.400	0.400	0.400	16-56	56-16	110	110	0.039"	0.039"	Hyd	Hyd	£380.00	Blank
PH1		6000			10.15	10.15	10.15	10.15					1.00mm	1.00mm			Per Pair	
Notes	Road Cam Designed for Hydraulic Cam Followers and Standard Engine Management System. Good Increase of Low Mid Range Power																	
ARK/260/400H	**Fast Road**	2000	260	260	0.400	0.400	0.400	0.400	20-60	60-20	110	110	0.044"	0.044"	Hyd	Hyd	£380.00	Blank
PH2		7000			10.15	10.15	10.15	10.15					1.12mm	1.12mm			Per Pair	
Notes	Fast Road Cam Designed for Hydraulic Cam Followers and Standard Engine Management System. Good Increase of Mid Range Power																	
ARK/268/410H	**Tarmac Rally/Fast Road**	3000	268	268	0.410	0.410	0.410	0.410	26-62	64-24	108	110	0.075"	0.063"	Hyd	Hyd	£380.00	Blank
PH3	**Cam**	7000			10.41	10.41	10.41	10.41					1.90mm	1.60mm			Per Pair	
Notes	Cams Designed for Competition Use. They will Not Run on the Standard Management System Good Mid Range Top End Power. Heavy Tickover																	
ARK/276/412	**Tarmac Rally/Sprint Cams**	3500	276	276	0.412	0.410	0.412	0.410	30-66	68-28	108	110	0.075"	0.067"	0.008	0.010	£380.00	Blank
PH4		8000			10.46	10.41	10.46	10.41					1.90mm	1.70mm	0.203	0.254	Per Pair	
Notes	Cams Designed for Sprints and Tarmac Rally. Good Mid/Top End Power. Heavy Tickover																	
ARK/290/465	**Full Race Cam**	5000	290	290	0.465	0.445	0.465	0.445	41-69	71-39	104	106	0.124"	0.115"	0.008	0.010	£380.00	Blank
PH5		8500			11.80	11.29	11.80	11.29					3.15mm	2.92mm	0.203	0.254	Per Pair	
Notes	Full Race Cam Requiring Modified Management System and O/S Injector Bodies																	
ARK/310/480	**Full Race Cam**	5000	310	310	0.480	0.465	0.480	0.465	49-81	78-42	106	106	0.169"	0.169"	0.008	0.010	£380.00	Blank
PH5		8500			12.18	11.80	12.18	11.80					4.30mm	4.30mm	0.203	0.254	Per Pair	
Notes	Full Race Cam Requiring Modified Management System and O/S Injector Bodies Designed for Engine 1800cc and Over																	

Austin Rover K Series 16 Valve Additional Components

Part No	Description	Price
DNS2670	16 x Single Competition Valve Springs	£100.00
DNCF5114	16 x Mechanical Billet EN40 B Cam Followers Screw Adjustment No Shimming Required (33mm x 24mm)	£272.00
K335	1 x Mechanical Cam Followers Adjuster Tool	£18.00
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	£6.00

Address: Farnborough Way, Farnborough, Kent, BR6 7DH, United Kingdom
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Austin Rover / MG

Austin Rover Camshaft Data :- Rover V8 3.5 to 4.6

Rocker Ratio 1 : 1.6

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
ARR/260/416H	**Fast Road Cam**	1250	260	260	0.416	0.416	0.260	0.260	20-60	60-20	110		0.041"		Hyd	Hyd	£225.00	Blank
PH1		5500			10.56	10.56	6.60	6.60					1.04mm					
Notes	A Cam Designed for Engines with Auto Transmission and Engines Requiring a Smooth Tickover with Low Down Power																	
ARR/270/424H	**Fast Road Cam**	2000	270	270	0.424	0.424	0.265	0.265	25-65	65-25	110		0.050"		Hyd	Hyd	£225.00	Blank
PH2		6000			10.76	10.76	6.73	6.73					1.28mm					
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	**Tarmac Rally/Sprint Cam**	3000	280	280	0.448	0.448	0.280	0.280	30-70	70-30	110		0.098"		Hyd	Hyd	£225.00	Blank
PH4		6500			11.37	11.37	7.11	7.11					2.48mm					
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	**Race Cam**	3750	310	310	0.480	0.480	0.300	0.300	45-85	85-45	110		0.142"		0.018	0.020	£225.00	Blank
PH5		8000			12.18	12.18	7.61	7.61					3.60mm		0.457	0.508		
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	£120.00
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	£6.00

Austin Rover Camshaft Data :- C Series Austin Healey 3000

Rocker Ratio 1 : 1.42

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
ARH/284/355	**Road Cam**	1600	284	284	0.355	0.355	0.250	0.250	35-69	69-35	107		0.0612"		0.015	0.015	£120.00	Repro
PH1		5500			9.01	9.01	6.35	6.35					1.56mm		0.381	0.381	£400.00	Billet
Notes	The Factory BJ8 Profile Used as an Early Competition Cam But Now Makes a Fine Road Cam																	
ARH/280/383	**Fast Road Cam**	2000	280	280	0.383	0.383	0.270	0.270	30-70	70-30	110		0.056"		0.015	0.015		
PH2		6000			9.73	9.73	6.85	6.85					1.42mm		0.381	0.381	£420.00	Billet
Notes	Rally Fast Road Cam Suitable for Long Distance Events Smooth Tickover Good Mid Range Power																	
ARH/300/454	**Race/Tarmac Rally/Sprint**	3000	300	300	0.454	0.454	0.320	0.320	48-72	72-48	102		0.148"		0.015	0.015		
PH4	**Cam**	6500			11.53	11.53	8.12	8.12					3.76mm		0.381	0.381	£420.00	Billet
Notes	Factory 1622 Cam as Used in the Factory Rally Team Cars																	
ARR/320/554	**Race Cam**	4000	320	320	0.554	0.554	0.390	0.390	58-82	82-58	102		0.212"		0.016	0.018		
PH5		7500			14.06	14.06	9.90	9.90					5.40mm		0.406	0.457	£420.00	Billet
Notes	The Ultimate Factory Race Cam for Circuit Racing Only in Conjunction with C/R Gear Box																	

Austin Rover C Series 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	£6.00

Austin Rover / MG

Austin Rover Camshaft Data :- MGC

Rocker Ratio 1 : 1.42

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
ARC/284/355	**Road Cam**	1600	284	284	0.355	0.355	0.250	0.250	35-69	69-35	107				0.015	0.015	£120.00	Repro
PH1		5500			9.01	9.01	6.35	6.35							0.381	0.381	£450.00	Billet
Notes	The Factory BJ8 Profile Used as an Early Competition Cam But now Makes a Fine Road Cam																	
ARC/280/383	**Fast Road Cam**	2000	280	280	0.383	0.383	0.270	0.270	30-70	70-30	110				0.015	0.015		
PH2		6000			9.73	9.73	6.85	6.85							0.381	0.381	£450.00	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 Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing In Open	Timing Ex Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
HEA/260/260	**Road Cam**	1600	260	260	0.433	0.433	0.315	0.315	25-65	65-25	110				0.015	0.015		
PH1		5500			10.99	10.99	7.99	7.99							0.381	0.381	£395.00	Billet
Notes	Touring Cam Designed for Torque.																	
HEA/266/369	**Road Cam**	1600	284	284	0.369	0.369	0.260	0.260	35-69	69-35	107				0.015	0.015	£100.00	Repro
PH1	Le Mans M Spec	5500			9.37	9.37	6.60	6.60							0.381	0.381	£395.00	Billet
Notes	The Factory M Profile Used as an Early Competition Cam But Now Makes a Fine Road Cam																	
HEA/280/383	**Race Rally Sprint Cam**	2500	290	280	0.426	0.426	0.300	0.300	35-75	75-35	110				0.015	0.015		
PH2		6000			10.81	10.81	7.61	7.61							0.381	0.381	£395.00	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	£6.00

Address: Farnborough Way, Farnborough, Kent, BR6 7DH, United Kingdom
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Toyota

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
TOYA/252/310	**Road Cam**	2000	252	252	0.310	0.308	0.310	0.308	16-56	56-16	110	110	0.030"	0.030"	0.008	0.010	£400.00	Blank
PH1		6500			7.87	7.82	7.87	7.82					0.76mm	0.76mm	0.200	0.250	Per Pair	
Notes	Ideal for Road Use. Good Tickover and Low Down Power																	
TOYA/272/338	**Road/Rally Cam**	2500	272	272	0.338	0.334	0.338	0.334	26-66	66-26	110	110	0.040"	0.040"	0.008	0.010	£400.00	Blank
PH3		7500			8.58	8.48	8.58	8.48					1.02mm	1.02mm	0.200	0.250	Per Pair	
Notes	Good Mid Range Power. Will Not Run on Standard Injection																	
TOYA/288/338	**Tarmac Rally Sprint Cam**	3000	288	288	0.338	0.336	0.338	0.336	36-72	72-36	108	108	0.080"	0.080"	0.008	0.010	£400.00	Blank
PH4		7500			8.58	8.53	8.58	8.53					2.03mm	2.03mm	0.200	0.250	Per Pair	
Notes	Good Mid Upper Range Power. Will Not Run on Standard Injection																	
TOYA/300/342	**Race Cam**	4000	300	300	0.342	0.338	0.342	0.340	42-78	78-42	108	108	0.120"	0.120"	0.008	0.010	£400.00	Blank
PH5		8000			8.68	8.58	8.68	8.63					3.05mm	3.05mm	0.200	0.250	Per Pair	
Notes	Powerful Upper Range Camshaft																	

Toyota Camshaft Data :- MR2 3SGTE

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
TOYS/272/335	**Fast Road Cam**	2000	272	272	0.328	0.325	0.335	0.335	26-66	64-24	110	110	0.040"	0.0038"	0.008	0.010	£400.00	Blank
PH1		7000			8.31	8.25	8.50	8.50					1.00mm	0.96mm	0.200	0.250	Per Pair	
Notes	Ideal for Road Use. Good Tickover and Low Down Power																	
TOYS/272/396T	**Turbo Fast Road Cam**	2500	272	268	0.384	0.364	0.394	0.374	26-66	64-24	110	110	0.051"	0.043"	0.008	0.010	£400.00	Blank
PH4		8000			9.75	9.24	10.00	9.50					1.30mm	1.10mm	0.200	0.250	Per Pair	
Notes	For Turbo Engines Wanting More Than 400BHP																	

Toyota Camshaft Data :- Celica VVT/Lotus Elise

Rocker Ratio 1 : 1.645

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
TOYVT/288/480	**Road Cam**	2000	288	284	0.480	0.445	0.290	0.270	22-62	62-22	110	110	0.147"	0.134"	0.008	0.010	£460.00	Blank
PH1		7000			12.18	11.29	7.36	6.85					3.73mm	3.43mm	0.200	0.250	Per Pair	
Notes	Ideal for Track Day Use																	

Toyota Additional Components

Part No	Description	Price
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

Triumph

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

Rocker Ratio 1 : 1.5

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
TRIS/260/375	**Road Cam**	1500	260	260	0.375	0.375	0.250	0.250	20-60	60-20	110		0.030"		0.014	0.016	£170.00	Blank
PH1		6000			9.52	9.52	6.35	6.35					0.075mm		0.300	0.350		
Notes	Ideal Road Cam for Town Use. Good Idle																	
TRIS/280/405	**Fast Road/Rally Cam**	2000	280	280	0.405	0.405	0.270	0.270	30-70	70-30	110		0.060"		0.014	0.016	£170.00	Blank
PH2		6500			10.28	10.28	6.85	6.85					1.50mm		0.300	0.350		
Notes	Good Mid Range Power																	
TRIS/300/435	**Race Cam**	4000	300	300	0.435	0.435	0.290	0.290	40-80	80-40	110		0.077"		0.014	0.016	£170.00	Blank
PH5		8000			11.04	11.04	7.36	7.36					1.95mm		0.300	0.350		
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	£40.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00
DNS1040S	8 x Single Springs 160 Poundage PH1 to PH3 Cams	£50.00
DNS1040D	8 x Double Springs 200 Poundage PH5 Race Cams	£75.00

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

Rocker Ratio 1 : 1.5

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
TRI4/280/405	**Road Cam**	1500	280	280	0.405	0.405	0.270	0.270	30-70	70-30	110		0.060"		0.014	0.016	£185.00	Blank
PH1		5500			10.28	10.28	6.85	6.85					1.50mm		0.300	0.350		
Notes	Giving Excellent Low Down Power with Smooth Idle and a Free Revving Ability																	
TRI4/300/435	**Fast Road Rally Cam**	2500	300	300	0.435	0.435	0.290	0.290	40-80	80-40	110		0.077"		0.014	0.016	£185.00	Blank
PH3		6000			11.04	11.04	7.36	7.36					1.95mm		0.300	0.350		
Notes	Powerful Fast Road Rally Cam																	
TRI4/330/525	**Race Cam**	4000	330	330	0.525	0.525	0.350	0.350	50-90	90-50	110		0.168"		0.014	0.016	£185.00	Blank
PH5		7000			13.32	13.32	8.88	8.88					4.26mm		0.300	0.350		
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 Hardend EN40B Nitrided Steel Cam Followers	£88.00
DNCF993	8 x TR2/3/4 Chilled Iron Cam Followers PH1 Cams Only	£40.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00
DNS9974K	8 x Competition Double Valve Springs PH1 to PH4 Cams	£75.00

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Triumph Camshaft Data :- TR6 6 Cylinder 2.5

Rocker Ratio 1 : 1.5

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
TRI6/260/375	**Road Cam**	1500	260	260	0.375	0.375	0.250	0.250	20-60	60-20	110		0.030"		0.014	0.016	£200.00	Blank
PH1		5500			9.52	9.52	6.35	6.35					0.75mm		0.350	0.400		
Notes	Ideal Road Cam for Town Use. Good Idle. Not For 150BHP Injection Engines																	
TRI6/280/405	**Fast Road/Rally Cam**	2500	280	280	0.405	0.405	0.270	0.270	30-70	70-30	110		0.060"		0.014	0.016	£200.00	Blank
PH2		6000			10.28	10.28	6.85	6.85					1.50mm		0.300	0.350		
Notes	Good Mid Range Power																	
TRI6/300/435	**Tarmac Rally Sprint Cam**	3000	300	300	0.435	0.435	0.290	0.290	40-80	80-40	110		0.077"		0.014	0.016	£200.00	Blank
PH3		6500			11.04	11.04	7.36	7.36					1.95mm		0.350	0.400		
Notes	Fine All Round Fast Road Sprint Cam for Injection Models or Engines Fitted with DCOE Carbs																	
TRI6/310/480	**Race Cam**	3500	310	310	0.480	0.480	0.320	0.320	45-85	85-45	110		0.110"		0.014	0.016	£200.00	Blank
PH5		7500			12.18	12.18	8.12	8.12					2.80mm		0.350	0.400		
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	£60.00
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	£120.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00
DNS1040S	12 x Single Springs 160 Poundage PH1 to PH3 Cams	£75.00
DNS1040D	12 x Double Springs 200 Poundage PH5 Race Cams	£112.50

Triumph Camshaft Data :- Dolomite Sprint

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
TRID/260/390	**Road Cam**	1500	260	260	0.380	0.380	0.390	0.390	20-60	60-20	110		0.035"		0.010	0.012	£245.00	Blank
PH1		6500			9.64	9.64	9.90	9.90					0.90mm		0.025	0.300		
Notes	Ideal Road Cam for Town Use. Good Idle. Will Run on SU Carbs Ground on New Chilled Iron Blank																	
TRID/290/400	**Tarmac Rally Sprint Cam**	3000	290	290	0.390	0.388	0.400	0.400	35-75	75-35	110		0.069"		0.010	0.012	£245.00	Blank
PH3		7000			9.90	9.85	10.15	10.15					1.75mm		0.250	0.300		
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	**Race Cam**	3500	312	312	0.416	0.414	0.426	0.426	48-84	84-48	108		0.138"		0.010	0.012	£245.00	Blank
PH5		8000			10.56	10.51	10.80	10.80					3.50mm		0.250	0.300		
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

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 In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATTIC	Full Lift EX BAD	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VAUX/272/456H	**Road/Rally Cam**	2500	272	272	0.456	0.456	0.270	0.270	26-66	66-26	110				Hyd	Hyd	£200.00	Blank
PH2		6500			11.58	11.58	6.85	6.85										
Notes	Ideal for Road Use. Good Tickover. To Be used in Injection Engines																	
VAUX/280/473H	**Road/Rally Cam**	2500	280	280	0.473	0.473	0.280	0.280	30.70	70.30	110				Hyd	Hyd	£200.00	Blank
PH2		6500			12.01	12.01	7.11	7.11										
Notes	Will Not Run on Standard Injection. For Use with Twin DCOE Carbs or Throttle Bodies																	
VAUX/288/507H	**Tarmac Rally Sprint Cam**	3000	288	288	0.507	0.507	0.300	0.300	36-72	72-36	108				Hyd	Hyd	£200.00	Blank
PH4		7500			12.87	12.87	7.61	7.61										
Notes	Good Mid Upper Range Power. Will Not Run on Standard Injection																	
VAUX/300/541/M	**Race Cam**	4000	300	300	0.541	0.541	0.320	0.320	42-78	78-42	108				0.008	0.010	£200.00	Blank
PH5		8000			13.73	13.73	8.12	8.12							0.200	0.250		
Notes	Powerful Upper Range Camshaft																	

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

Part No	Description	Price
DNCF63A	8 x Steel Competition J Series Cam Followers	£48.00
DNS1040	8 x Single Valve Springs 160 Poundage	£46.00
TB0720	Timing Belt (111mm x 20mm)	£15.00
DNHL63	8 x Hydrualic Ball Studs	£48.00
DNCBS1	8 x Mechanical Ball Stud Internal Adjustment	£80.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

Vauxhall / Opel

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VUXT/264/380H	**Road Cam**	2000	264	264	0.380	0.380	0.380	0.380	22-62	62-22	110	110	0.063"	0.063"	Hyd	Hyd	£400.00	Blank
PH1		6500			9.64	9.64	9.64	9.64					1.60mm	1.60mm			Per Pair	
Notes	Ideal for Road Use. Good Tickover. To Be Used in Engines with Standard Injection																	
VUXT/270/405H	**Road/Rally Cam**	2500	270	270	0.405	0.405	0.405	0.405	25-65	65-25	110	110	0.051"	0.051"	Hyd	Hyd	£400.00	Blank
PH2		7000			10.28	10.28	10.28	10.28					1.30mm	1.30mm			Per Pair	
Notes	Will Not Run on Standard Injection. For Use with Twin DCOE Carbs																	
VUXT/288/420H	**Rally Cam**	3000	288	288	0.420	0.420	0.420	0.420	36-72	72-36	108	108	0.086"	0.086"	Hyd	Hyd	£400.00	Blank
PH3		7500			10.66	10.66	10.66	10.66					2.20mm	2.20mm			Per Pair	
Notes	Good Mid Upper Range Power. Will Not Run on Standard Injection																	
VUXT/300/440	**Race Cam**	4000	300	300	0.440	0.440	0.440	0.320	42-78	78-42	108	108	0.141"	0.141"	0.008	0.010	£400.00	Blank
PH5		8000			11.17	11.17	11.17	8.12					3.60mm	3.60mm	0.200	0.250	Per Pair	
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)	£272.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£18.00
TB5052	Timing Belt (111mm x 17mm)	£15.00

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VAXE/264/380H	**Road Cam**	2000	264	264	0.380	0.380	0.380	0.380	22-62	62-22	110	110	0.063"	0.063"	Hyd	Hyd	£400.00	Blank
PH1		6500			9.64	9.64	9.64	9.64					1.60mm	1.60mm			Per Pair	
Notes	Ideal for Road Use. Good Tickover. To Be Used in Engines with Standard Injection																	
VAXE/270/405H	**Road/Rally Cam**	2500	270	270	0.405	0.405	0.405	0.405	25-65	65-25	110	110	0.051"	0.051"	Hyd	Hyd	£400.00	Blank
PH2		7000			10.28	10.28	10.28	10.28					1.30mm	1.30mm			Per Pair	
Notes	Will Not Run on Standard Injection. For Use with Twin DCOE Carbs																	
VAXE/288/420H	**Tarmac Rally Sprint Cam**	3000	288	288	0.420	0.420	0.420	0.420	36-72	72-36	108	108	0.086"	0.086"	Hyd	Hyd	£400.00	Blank
PH3		7500			10.66	10.66	10.66	10.66					2.20mm	2.20mm			Per Pair	
Notes	Good Mid Upper Range Power. Will Not Run on Standard Injection																	

Vauxhall/Opel1.8 /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)	£272.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£18.00
TB5051	Timing Belt (176mm x 24mm)	£21.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

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Vauxhall / Opel

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VAXC/264/400H	**Road Cam**	2000	264	264	0.400	0.400	0.400	0.400	22-62	62-22	110	110	0.038"	0.038"	Hyd	Hyd	£420.00	Blank
PH1		6500			10.15	10.15	10.15	10.15					0.98mm	0.98mm			Per Pair	
Notes	Ideal for Road Use. Good Tickover. To Be Used in Engines with Standard Injection and in Turbo Engines																	
VAXC/270/420H	**Road/Rally Cam**	2500	270	270	0.420	0.420	0.420	0.420	25-65	65-25	110	110	0.063"	0.063"	Hyd	Hyd	£420.00	Blank
PH2		7000			10.66	10.66	10.66	10.66					1.60mm	1.60mm			Per Pair	
Notes	Will Not Run on Standard Injection. For Use with Twin DCOE Carbs or Modified Injection																	
VAXC/288/440H	**Tarmac Rally Sprint Cam**	3000	288	288	0.440	0.440	0.440	0.440	36-72	72-36	108	108	0.079"	0.079"	Hyd	Hyd	£420.00	Blank
PH4		7500			11.17	11.17	11.17	11.17					2.00mm	2.00mm			Per Pair	
Notes	Good Mid Upper Range Power. Will Not Run on Standard Injection																	
VAXC/296/465	**Race Cam**	4000	296	296	0.455	0.455	0.465	0.465	40-76	76-40	108	108	0.132"	0.132"	0.008	0.010	£420.00	Blank
PH5		8000			11.55	11.55	11.80	11.80					3.35mm	3.35mm	0.200	0.250	Per Pair	
Notes	Powerful Upper Range Camshaft																	

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

Part No	Description	Price
DNPOVP20XET	2 x Vernier Pulleys Early Type Round Belt Form	£160.00
DNPOPV20XE	2 x Vernier Pulleys Late Type Square Tooth Form	£160.00
DNCF5121	16 x Mechanical Cam Followers Easy Fit Non Shim (32mm x26mm) EN40 B Nitrided	£272.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£18.00
DNCF5121A	16 x Mechanical Cam Followers Shim Type (32mm x 26mm) EN40 B Nitrided	£272.00
DNCHL70	16 x Hydraulic Cam Followers (32mm x 26mm)	£160.00
TB5051	Timing Belt Post 92 (176mm x 24mm)	£28.00
TB8141	Timing Belt Pre 92 (141mm x 24mm)	£28.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

Vauxhall / Opel

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 In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VUXA/264/439H	**Road Cam**	2000	264	264	0.439	0.439	0.260	0.260	22-62	62-22	110				Hyd	Hyd	£200.00	Blank
PH1		5750			11.15	11.15	6.60	6.60										
Notes	Ideal for Road Use. Good Tickover. To Be Used in 1.4 Injection Engine																	
VAXA/272/473H	**Road/Rally Cam**	2500	272	272	0.473	0.473	0.280	0.280	26-66	66-26	110				Hyd	Hyd	£200.00	Blank
PH2		6500			12.01	12.01	7.11	7.11										
Notes	Will Not Run on Standard Injection. For Use with Town DCOE Carbs																	
VAXA/288/507	**Tarmac Rally Sprint Cam**	3000	288	288	0.498	0.498	0.303	0.303	42-78	78-42	108				0.008	0.010	£200.00	Blank
PH3	**Stock Rod Cam**	7500			12.64	12.64	7.69	7.69							0.200	0.250		
Notes	Good Mid Upper Range Power. Will Not Run on Standard Injection																	
VAXA/300/541	**Race Cam**	4000	300	300	0.541	0.541	0.320	0.320	42-78	78-42	108				0.008	0.010	£200.00	Blank
PH4		8000			13.73	13.73	8.12	8.12							0.200	0.250		
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
K498	Aluminium Vernier Pulley with Steel Internal Sprocket	£85.00
DNCF63A	8 x Steel Competition J Series Cam Followers	£48.00
TB5030	Timing Belt 1.3 Post 80 (104mm x 15mm)	£13.00
TB5083	Timing Belt 1.4/1.6 Post 91 (104mm x 17mm)	£13.00
TB5054	Timing Belt 1.6 Post 91 (111mm x 17mm)	£16.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00
DNHL63	8 x Hydrualic Ball Studs	£48.00
DNCBS1	8 x Mechanical Ball Stud Internal Adjustment	£80.00
DNS2670	8 x Single Valve Springs 160 Poundage	£50.00

Volkswagen / Audi

Volkswagen Camshaft Data :- Golf Polo 1.4 and G40 Engines

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VOLP/264/400H	**Road Cam**	2000	264	264	0.400	0.400	0.400	0.400	22-62	62-22	110		0.039"		Hyd	Hyd	£200.00	Blank
PH1		6500			10.15	10.15	10.15	10.15					0.98mm					
Notes	Ideal for Road Use. Good Tickover																	
VOLP/270/410H	**Road/Rally Cam**	2500	270	270	0.410	0.410	0.410	0.410	25-65	65-25	110		0.051"		Hyd	Hyd	£200.00	Blank
PH2		7000			10.41	10.41	10.41	10.41					1.30mm					
Notes	A Free Revving Camshaft with Little Loss of Low Down Power																	
VOLP/272/420H	**Tarmac Rally Sprint Cam**	3000	272	272	0.420	0.420	0.420	0.420	26-66	66-26	110		0.063"		Hyd	Hyd	£200.00	Blank
PH3		7500			10.66	10.66	10.66	10.66					1.60mm					
Notes	Good Mid Upper Range Power. Will Not Run on Standard Injection																	
VOLP/296/440	**Race Cam**	4000	296	296	0.440	0.440	0.440	0.440	40-76	76-40	108		0.102"		0.008	0.010	£200.00	Blank
PH5		8000			11.17	11.17	11.17	11.17					2.60mm		0.200	0.250		
Notes	Powerful Upper Range Camshaft. For Use with Solid Cam Followers																	
VOLP/268/400H	**G40 Fast Road Cam**	2000	264	268	0.400	0.413	0.400	0.413	20-64	66-22	112		0.032"		Hyd	Hyd	£200.00	Blank
PH2		7000			10.15	10.48	10.15	10.48					0.80mm					
Notes	Designed for the Supercharged Engine																	

Volkswagen Golf Polo 1.4 G40 Hydraulic additional components

Part No	Description	Price
DNCFHL66	8 x Hydraulic Cam Followers (35mm x 26mm)	£80.00
DNCF5118	8 x Mechanical Easy Adjust Cam Followers Non Shim Type (35mm x 26mm)	£136.00
TB5352	Timing Belt (135mm x 19mm)	£20.00
K335	Clamping Tool for Adjusting Mechanical Cam Followers	£18.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

Volkswagen / Audi

Volkswagen Camshaft Data :- Golf GTI Mk 1 Mechanical

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VOLM/264/396	Road Cam	2000	264	264	0.396	0.394	0.396	0.394	22-62	66-22	110		0.047"		0.008	0.010	£205.00	Blank
PH1		6500			10.05	10.00	10.05	10.00					1.20mm		0.200	0.250		
Notes	Ideal for Road Use. Excellent Low Down Power																	
VOLM/280/432	Road/Rally Cam	2500	280	280	0.432	0.430	0.432	0.430	30-70	70-30	110		0.062"		0.008	0.010	£205.00	Blank
PH2		7000			10.96	10.91	10.96	10.91					1.58mm		0.200	0.250		
Notes	A Free Revving Camshaft with Little Loss of Low Down Power																	
VOLM/288/442	Tarmac Rally Sprint Cam	3000	288	288	0.442	0.440	0.442	0.440	36-72	72-36	108		0.090"		0.008	0.010	£205.00	Blank
PH3		7500			11.22	11.17	11.22	11.17					2.30mm		0.200	0.250		
Notes	Good Mid Upper Range Power Fit Non Top Shim Cam Followers																	
VOLM/296/492	Race Cam	4000	296	296	0.492	0.490	0.492	0.490	40-76	76-40	108		0.143"		0.008	0.010	£205.00	Blank
PH4		8000			12.49	12.44	12.49	12.44					3.65mm		0.200	0.250		
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)	£132.00
TB5320	Timing Belt (121mm x 18mm)	£18.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

Volkswagen Camshaft Data :- Golf 1.9 PDF Diesel Pumpa Duse

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VOLD/276/367	Road Cam	2000	276	276	0.367	0.367	0.367	0.367	26-76	76-26	112		0.020"	0.020"	Hyd	Hyd	£210.00	Blank
PH1		6000			9.31	9.31	9.31	9.31					0.51mm	0.51mm	Hyd	Hyd		
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	Road Cam	2000	276	276	0.375	0.375	0.375	0.375	26-76	76-26	112		0.020"	0.020"	Hyd	Hyd	£210.00	Blank
PH1		6000			9.52	9.52	9.52	9.52					0.51mm	0.51mm	Hyd	Hyd		
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.)	£80.00

Address: Farnborough Way, Farnborough, Kent, BR6 7DH, United Kingdom
Telephone: +44 (0)1689 857 109 Fax: +44 (0)1689 855 498 E-Mail: info@newman-cams.com Website: www.newman-cams.com

Volkswagen / Audi

Volkswagen Camshaft Data :- Golf GTI 8 Valve Hydraulic

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VOLG/256/396H	**Road Cam**	2000	256	256	0.396	0.396	0.396	0.396	18-58	58-18	110		0.037"		Hyd	Hyd	£195.00	Blank
PH1		6500			10.05	10.05	10.05	10.05					0.95mm					
Notes	Ideal for Road Use. Smooth Tickover																	
VOLG/268/420H	**Road/Rally Cam**	2500	268	268	0.420	0.420	0.420	0.420	24-64	64-24	110		0.057"		Hyd	Hyd	£195.00	Blank
PH2		7000			10.66	10.66	10.66	10.66					1.45mm					
Notes	A Free Revving Camshaft with Little Loss of Low Down Power																	
VOLG/272/448H	**Tarmac Rally Sprint Cam**	3000	272	272	0.448	0.448	0.448	0.448	26-66	66-26	110		0.063"		Hyd	Hyd	£195.00	Blank
PH3		7500			11.37	11.37	11.37	11.37					1.60mm					
Notes	Good Mid Range Power																	
VOLG/276/452H	**Tarmac Rally Sprint Cam**	3500	276	276	0.452	0.452	0.452	0.452	28-68	68-28	110		0.082"		Hyd	Hyd	£195.00	Blank
PH4		7500			11.47	11.47	11.47	11.47					2.10mm					
Notes	Good Mid Upper Range Power. The Limit off Hydrualic Cam Followers																	
VOLG/296/490	**Race Cam**	4000	296	296	0.490	0.488	0.490	0.488	40-76	76-40	108		0.130"		0.008	0.010	£195.00	Blank
PH5		8000			12.44	12.39	12.44	12.39					3.30mm		0.200	0.250		
Notes	Powerful Upper Range Camshaft. For Use with Solid Cam Followers																	
VOLGS/264/463	**Supercharged G60 Cam**	2500	264	278	0.463	0.433	0.463	0.433	20-64	76-32	112		0.047"		Hyd	Hyd	£195.00	Blank
PH3		7000			11.75	10.99	11.75	10.99					1.20mm					
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
DNVP1800	1 x Vernier Pulley	£95.00
DNCFHL66	8 x Hydrualic Cam Followers	£80.00
DNCF5118	8 x Mechanical Easy Adjust Cam Followers Non Shim Type (35mm x 26mm)	£136.00
TN8124	Timing Belt (124mm x 18mm)	£20.00
K335	Clamping Tool for Adjusting Mechanical Cam Followers	£18.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

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

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VOLT/256/396H	**Road Cam**	2000	250	250	0.390	0.390	0.390	0.390	60-12	60-12	112		0.021"		Hyd	Hyd	£195.00	Blank
PH1		6500			9.90	9.90	9.90	9.90					0.54mm					
Notes	Road Rally Cam. Giving Increased Mid Range Performance																	

Volkswagen / Audi

Volkswagen Camshaft Data :- Golf GTI 1.8 2.0 16 Valve

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VOLV/264/410H	Road Cam	2000	264	264	0.410	0.410	0.410	0.410	22-62	66-22	110	110	0.033"	0.033"	Hyd	Hyd	£400.00	Blank
PH1		6500			10.41	10.41	10.41	10.41					0.85mm	0.85mm			Per Pair	
Notes	Ideal for Road Use. Excellent Low Down Power. Works with Standard Injection																	
VOLV/272/420H	Road/Rally Cam	2500	272	272	0.420	0.420	0.420	0.420	26-66	66-26	110	110	0.63"	0.63"	Hyd	Hyd	£400.00	Blank
PH2		7000			10.66	10.66	10.66	10.66					1.60mm	1.60mm			Per Pair	
Notes	A Free Revving Camshaft with Little Loss of Low Down Power. Works Well with Standard Injection																	
VOLV/288/442H	Tarmac Rally Sprint Cam	3000	288	288	0.442	0.442	0.442	0.442	36-72	72-36	108	108	0.079"	0.079"	Hyd	Hyd	£400.00	Blank
PH3		7500			11.22	11.22	11.22	11.22					2.00mm	2.00mm			Per Pair	
Notes	Good Mid Upper Range Powew. Will Not Run on Standard Injection																	
VOLV/296/492	Race Cam	4000	296	296	0.492	0.490	0.492	0.490	40-76	76-40	108	108	0.144"	0.144"	0.008	0.010	£400.00	Blank
PH4		8000			12.49	12.44	12.49	12.44					3.65mm	3.65mm	0.200	0.250	Per Pair	
Notes	Powerful Upper Range Camshaft																	
MK216V2	MK2 Control Cam	2500	272	272	0.414	0.414	0.414	0.414	26-66	66-26	110	110	0.040"	0.040"	Hyd	Hyd	£400.00	Blank
		7000			10.50	10.50	10.50	10.50					1.00mm	1.00mm			Per Pair	
Notes																		

Volkswagen Golf GTI 1.8 2.0 16 Valve Additional Components

Part No	Description	Price
DNCFHL66A	16 x Hydraulic Cam Followers (35mm x 26mm)	£160.00
DNCF5118	16 x Mechanical Easy Adjust Non Shim Cam Followers (35mm x 26mm)	£272.00
TB3460	Timing Belt 1.8 Model (147mm x 25mm)	£25.00
TB5351	Timing Belt 2.00 Model (151mm x 25mm)	£30.00
K335	1 x Clamping Tool for Adjusting Mechanical Cam Followers	£18.00
DNPVW16	1 x Vernier Pulley (Front of Engine)	£90.00
DNP 58.004	1 x Vernier Chain Adjuster for Inlet Cam	£50.00
DNS2673	16 x Competition Silicon Chrome Double Valve Springs 190 lbs	£150.00
DNV5118	16 x Chrome Moly Valve Cap to Suit DNS2673	£48.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

Volkswagen Camshaft Data :- Golf Audi TT Turbo 20 Valve

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VA/256/315/T	Fast Road/Rally Cam	2500	256	264	0.315	0.410	0.315	0.410	40-76	76-40	112	112	0.016"	0.027"	Hyd	Hyd	£450.00	Blank
PH3		6500			7.99	10.41	7.99	10.41					0.40mm	0.68mm			Per Pair	
Notes	Powerfull Mid Range Turbo Cam That Works Well as a Road and Competition Cam																	

Address: Farnborough Way, Farnborough, Kent, BR6 7DH, United Kingdom
Telephone: +44 (0)1689 857 109 Fax: +44 (0)1689 855 498 E-Mail: info@newman-cams.com Website: www.newman-cams.com

Volkswagen / Audi

Volkswagen Camshaft Data :- Golf/Ventro VR6 12 Valve

Rocker Ratio 1 : 1

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VR6/264/420H	**Road Cam**	2000	264	264	0.420	0.420	0.420	0.420	18.-58	58-18	110	110			Hyd	Hyd	£420.00	Blank
PH1		6500			10.66	10.66	10.66	10.66									Per Pair	
Notes	Ideal for Road Use. Good Tickover. To Be Used in Engines with Standard Injection																	
VR6/270/430H	**Road/Rally Cam**	2500	270	270	0.430	0.430	0.430	0.430	25-65	65-25	110	110			Hyd	Hyd	£420.00	Blank
PH2		7000			10.91	10.91	10.91	10.91									Per Pair	
Notes	Will Not Run on Standard Injection. For Use with Modified Injection																	
VR6/288/440H	**Tarmac Rally Sprint Cam**	3000	288	288	0.440	0.440	0.440	0.440	34-74	74-34	108	108			Hyd	Hyd	£420.00	Blank
PH3		7500			11.17	11.17	11.17	11.17									Per Pair	
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)	£204.00
DNCFH66	12 x Hydrualic Cam Followers (35mm x 26mm)	£120.00
TD1	Timing Disc Dual Purpose Full Lift and Engine Degrees	£6.00

Volkswagen Camshaft Data :- Air Cooled Flat 4

Rocker Ratio 1 : 1.2

Part No	Application	Power Band	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN. ATDC	Full Lift EX BTDC	Lift @ TDC In	Lift @ TDC Ex	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
VOB/264/358	**Road Cam**	2000	264	264	0.358	0.358	0.320	0.320	18.-58	58-18	110				0.008	0.010	£90.00	Blank
PH1		5000			9.10	9.10	8.12	8.12							0.203	0.254		
Notes	Ideal for Road Use. Good Tickover																	
VOB/270/392	**Road/Rally Cam**	2500	270	270	0.392	0.392	0.350	0.350	25-65	65-25	110				0.008	0.010	£90.00	Blank
PH3		6000			9.95	9.95	8.88	8.88							0.203	0.254		
Notes	Fast Road Competition Cam. For Use with Twin Carb Set Up																	
VOB/300/440	**Formuale V Race Cam**	4500	300	300	0.493	0.493	0.440	0.440	44-76	76-44	104				0.008	0.010	£120.00	Blank
PH5		7500			12.51	12.51	11.17	11.17							0.203	0.254		
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	Duration Ex	Valve Lift In	Valve Lift Ex	Timing Open	Timing Close	Full Lift IN atdc	Full Lift Ex btdc	Valve Clear In	Valve Clear 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	£235.00	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	£235.00	Blank
Notes	A Superb Road Cam must be used in conjuction 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	£235.00	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	£235.00	Blank
Notes	Full Race Cam Use DNCF/X100 Follower													
MGX/294/366 PH2	**Supercharged Cam**	1500 6000	294	294	0.366	0.366	80/34	34/80	110		0.012	0.014	£235.00	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	£64.00
DNCF/X/100	8 x Billet Steeel EN19 Induction Hardend Nitride Steel Compeitition Cam Followers	£120.00
DNS/X/120	8 x Valve Double Valve Springs 120 lbs that will rev to 5000 RPM with PH1 to PH3 Cams	£50.00
DNS/X/150	8 x Valve Double Valve Springs 150 lbs that will rev to 6500 RPM with PH2 to PH3 Cams	£64.00

Vintage Riley

Riley 9

Part No	Aplication	Power Band	Duration In	Duration Ex	Cam In	Cam Ex	Timing Open	Timing Close	Full Lift IN atdc	Full Lift Ex btdc	Valve Clear In	Valve Clear 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	£400.00 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	£400.00 Per Pair	Blank
Notes	A Superb Road Cam based on the Sprite Profile, must be used in conjuction 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	£400.00 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	£120.00
K104	2 x Lag Tappets	£30.00

Riley 12/4

Part No	Aplication	Power Band	Duration In	Duration Ex	Cam In	Cam Ex	Timing Open	Timing Close	Full Lift IN atdc	Full Lift Ex btdc	Valve Clear In	Valve Clear 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	£450.00 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	£450.00 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	£450.00 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	£450.00 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	£120.00

Vintage Riley

Riley 6 Cylinder 12/6 15/6

Part No	Aplication	Power Band	Duration In	Duration Ex	Cam In	Lift Ex	Timing Open	Timing Close	Full Lift IN atdc	Full Lift Ex btdc	Valve Clear In	Valve Clear 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	£600.00 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	£600.00 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	£600.00 Per Pair	Blank
Notes	A cam sutable 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	£180.00

Address: Farnborough Way, Farnborough, Kent, BR6 7DH, United Kingdom
Telephone: +44 (0)1689 857 109 **Fax:** +44 (0)1689 855 498 **E-Mail:** info@newman-cams.com **Website:** www.newman-cams.com

VINTAGE MOTORCYCLES SECTION - PRE 1970

BSA Twin Cylinder Camshafts A6/A7/A10/A65

Part No	Aplication	O.E. Part No	Duration In	Duration Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Lift at TDC	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
BSA A6	**Standard Cam**		TBA	TBA	0.265	0.265				0.012	0.014	£50.00 £150.00	Repro Billet
Notes	Billet New Cams Manufactured from AISI 8620 Case Hardening Steel (Regrind Max Wear on top of cam lobe 0.010 Thou)												
BSA A7	**Standard Cam**		TBA	TBA	0.265	0.265				0.012	0.014	£50.00 £150.00	Repro Billet
Notes	Billet New Cams Manufactured from AOISI 8620 Case Hardening Steel (Regrind Max Wear on top of cam lobe 0.010 Thou)												
BSA A10	**Super Rocket** **Standard Cam**	356	328	328	0.301	301	61/86	86/61	0.088"	0.012	0.014	£50.00 £150.00	Repro Billet
Notes	New Billet Cams Manuafctured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)												
BSA A10	**Spitfire** **Standard Cam**	357	320	320	0.338	0.338	57/83	83/57	0.121"	0.012	0.014	£50.00 £150.00	Repro Billet
Notes	New Billet Cams Manuafctured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)												
BSA A10	**Race Cam**		330	330	0.350	0.35	58/84	84/58	0.141"	0.012	0.012	£150.00	Billet
Notes	New Billet Cams Manuafctured from EN40 B Nitriding Steel												
BSA A65	**Super Rocket** **Standard Cam**	356	328	328	0.301	0.301	57/83	83/57	0.088"	0.012	0.014	£50.00 £150.00	Repro Billet
Notes	New Billet Cams Manuafctured from EN40 B Nitriding Steel (Regrind max wear on top of cam lobe 0.010 Thou)												
BSA A65	**Spitfire** **Standard Cam**	357	320	320	0.338	0.338			0.121"	0.012	0.014	£50.00 £150.00	Repro Billet
Notes	New Billet Cams Manuafctured from EN40 B Nitriding Steel (Re Grind max wear on top of cam lobe 0.010 Thou)												
BSA A65	**Race Cam**		290	290	0.445 11.12	0.445 11.12	58/84	84/58	0.141"	0.012	0.014	£150.00	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 Manuactured 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.
Camshaft we can only regrind cams that have around a Max wear on top of the lobe of 0.010"
We only grind existing profiles on Extsing Cams i.e.: Spitfire profile on to an exiting spitfire cam it is not an uprating service.
After Grinding all reground cams are are heat treated to a min of 60RWC.
For cams manufactured to 270 or 90 degree crankshafts add £40.00.

BSA Twin Cylinder Camshafts A6/A7/A10/A65 Additional Components

Part No	Description	Price
BSA A65 Followers	4 x Reground Cam Followers heated treated to Min 60 RW/C	£50.00

BSA Single Cylinder Gold Star

Part No	Aplication	O.E. Part No	Duration In	Duration Ex	Cam In	Lift Ex	Timing Open	Timing Close	Lift at TDC	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
BSA/42IN	**Inlet Cam**	42	336	336	0.440	0.440	50/106	106/50	0.161"	0.014	0.014	£95.00	Billet
Notes	Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)												
BSA/42EX	**Exhaust Cam**	42	336	336	0.440	0.440	50/106	106/50	0.161"	0.014	0.014	£95.00	Billet
Notes	Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)												
BSA/44IN	**Inlet Cam**	44	330	330	0.450	0.450	55/100	100/55	0.160"	0.020	0.020	£95.00	Billet
Notes	Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)												
BSA/44EX	**Exhaust Cam**	44	330	330	0.450	0.450	55/100	100/55	0.160"	0.020	0.020	£95.00	Billet
Notes	Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)												
BSA/46IN	**Inlet Cam**	46	344	344	0.397	0.397	62/102	102/62	0.124"	0.014	0.014	£30.00 £95.00	Repro Billet
Notes	Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)												
BSA/46IN	**Exhaust Cam**	46	344	344	0.397	0.397	62/102	102/62	0.124"	0.014	0.014	£30.00 £95.00	Repro Billet
Notes	Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)												
BSA/48IN	**Inlet Cam**	48	334	334	0.375	0.375	56/98	98/56	0.106"	0.014	0.014	£30.00 £95.00	Repro Billet
Notes	Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)												
BSA/48EX	**Exhaust Cam**	48	334	334	0.375	0.375	56/98	98/56	0.106"	0.014	0.014	£30.00 £95.00	Repro Billet
Notes	Billet New Cam Manufactured from AISI 8620 Case Hardening Steel (Regrind. Maximum Wear on top of cam lobe 0.010 Thou)												
BSA/50IN	**Inlet Cam**	50	296	296	0.365	0.365	38/78	78/38	0.101"	0.012	0.012	£30.00 £95.00	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

Norton Commando

Part No	Aplication	O.E. Part No	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Timing Inlet	Timing Exhaust	Lift at TDC	Valve Clear In	Valve Clear Ex	Price Ex VAT	Material Type
COM/STD	**Standard Cam** **Commando**	COM/STD	316	316	0.326	0.326	57/79	79/57	0.111" 0.111"	0.016	0.016	£175.00 £205.00	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	56/84	84/56	0.168" 0.152"	0.016	0.016	£175.00 £205.00	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	60/92	92/60	0.168" 0.145"	0.016	0.016	£175.00 £205.00	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	55/89	89/55	0.132" 0.132"	0.012	0.014	£175.00 £205.00	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	£50.00

Norton Dominator

Norton Dominator

Part No	Aplication	O.E. Part No	Duration In	Duration Ex	Valve Lift In	Valve Lift Ex	Timing Inlet	Timing Exhaus	Lift at TDC	Valve Clear In	Valve Clear 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	£165.00 £195.00	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	£165.00 £195.00	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	£165.00 £195.00	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	£165.00 £195.00	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	£165.00 £195.00	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	£50.00

Triumph T120/T140 Twin Cylinder Camshaft

Part No	Aplication	O.E. Part No	Duration In	Duration Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Lift at TDC	Valve Clear In	Valve 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	£95.00 £30.00	Billet Repro
Notes	New Billet Cams Manuafctured 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	£95.00 £30.00	Billet Repro
Notes	New Billet Cams Manuafctured 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	£95.00 £30.00	Billet Repro
Notes	New Billet Cams Manuafctured 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	£95.00 £30.00	Billet Repro
Notes	New Billet Cams Manuafctured 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	£95.00 £30.00	Billet Repro
Notes	New Billet Cams Manuafctured 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	£95.00 £30.00	Billet Repro
Notes	New Billet Cams Manuafctured 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	Aplication	O.E. Part No	Duration In	Duration Ex	Cam Lift In	Cam Lift Ex	Timing Open	Timing Close	Full Lift IN atdc	Valve Clear In	Valve 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	£185.00 £60.00	Billet Repro
Notes	New Billet Cams Manuafctured 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 extisting 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	£50.00
TRI/T120/40 NEW	4 x New Cam Followers	£80.00

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