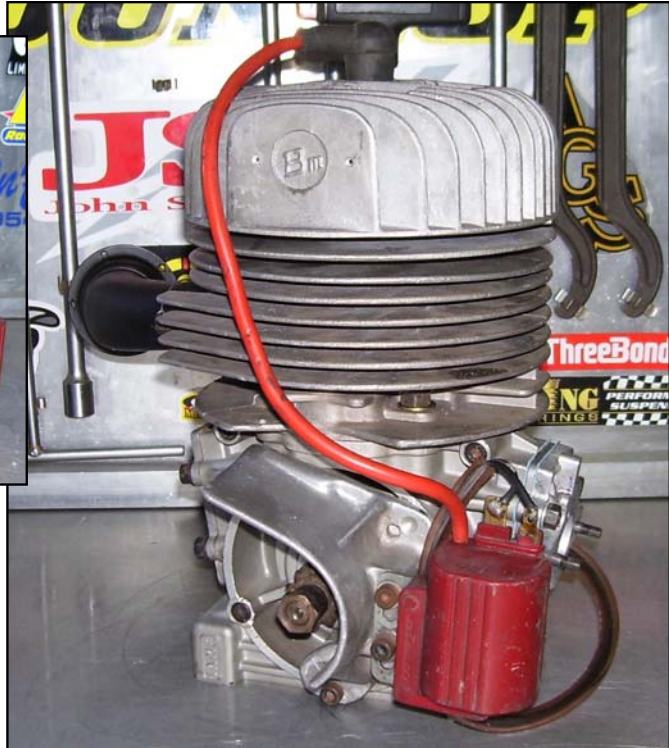
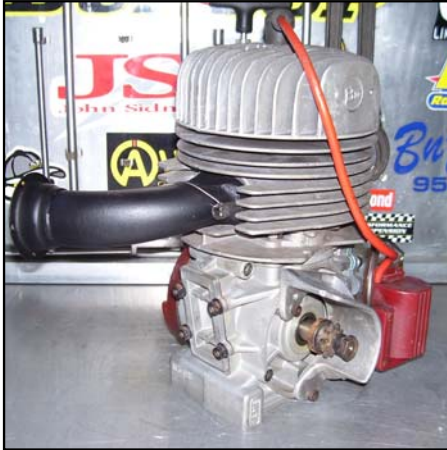


BM ATLAS 15TT KART ENGINE SPECIFICATIONS



BRAND of ENGINE
MODEL
ENG. NUMBER
TYPE
BORE SIZE-DIA.
STROKE

BM ATLAS
15TT
F10670
REED
50.84
48.5

The BM kart engine was originally a separate engine manufacture until 1976 when IAME corporation took over from the ROVELLI Family who had won the previous 3 World Championships with BM karts and engines.

This engine is a short stroke version TT ported Reed Valve induction. The BM Atlas 15TT was still being sold new in Australia as late as the mid 80's.

The distinctive trade mark was the cylinder nuts were external at the base of the cylinder , when the majority of it's competitors used long studs from the cylinder head down through to the crankcase. Also a lot of the bolts were imperial thread.

DAP T50 KART ENGINE SPECIFICATIONS

NEW DAP T50 to CHALLENGE KT100S

The Japanese Yamaha concern has for many years controlled an important segment of the kart market . Their KT100S model has been adopted in many countries for the use in single engine class's . America was the first to move this way and other countries followed. The reason of course is that this beautifully simple piston port engine is easy and economical to use while providing more than a reasonable performance.

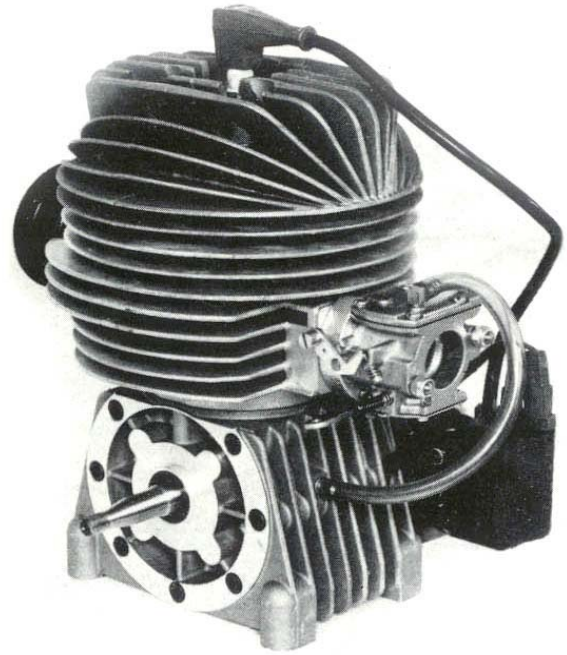
DAP is the first European firm to stop laughing at the KT100S and to realize it's market potential . The result of this realization is the DAP T50 , a simple piston port engine based on the DAP T90R reed valve engine.

DAP have been very clever and have managed to use most of the original T90R parts, the only major change from the reed to the piston port being the cylinder design and even that bears more than a close resemblance to the reed valve cylinder . Of course DAP had the head start in that their inlet track was already located in the cylinder and needed only slight modification to change the unit to a piston port induction.

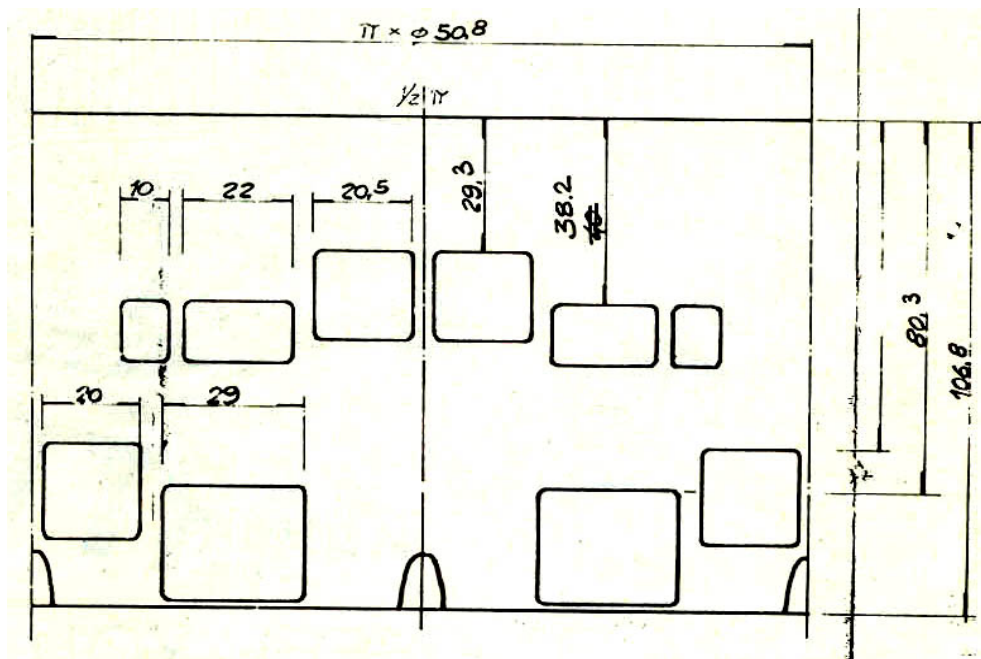
As can be seen from the accompanying port diaphragm the DAP engine would fit nicely into our Clubman class. it complies with the American piston port class where DAP are very interested in marketing the engine . To do this the port dimensions have been kept within the American limitations and the crankshaft drive end has been machined to accept the ever popular clutch used by the Americans.

This detailing to suit the American market goes right down to the use of the WALBRO carburetor and the circular outlet of legal dimensions that will accept a standard KT100S exhaust gasket . From this one would also assume that the port finish is left as cast. However this would have to be verified. Whether or not DAP apply for Homologation into the new Australia Clubman class remains to be seen . But as DAP have been able to build the T70 down to Class Australia prices , it would seem that they could match Yamaha prices with this simpler engine . However we will simply have to wait and see.

THIS EXTRACT IS FROM THE January 20 1984 Australian Kart Report Mag.



The DAP T50A is intended as a direct challenge to the KT100S in the American piston port class. It is designed to comply with the American rule limitation.



The cylinder port layout of the DAP T50 closely follows that of Yamaha's KT100S. Bore and stroke dimensions are the same as the DAP T90 reed valve engine.

T50 DAP KART ENGINE SPECIFICATIONS

NEW DAP T50 to CHALLENGE KT100S

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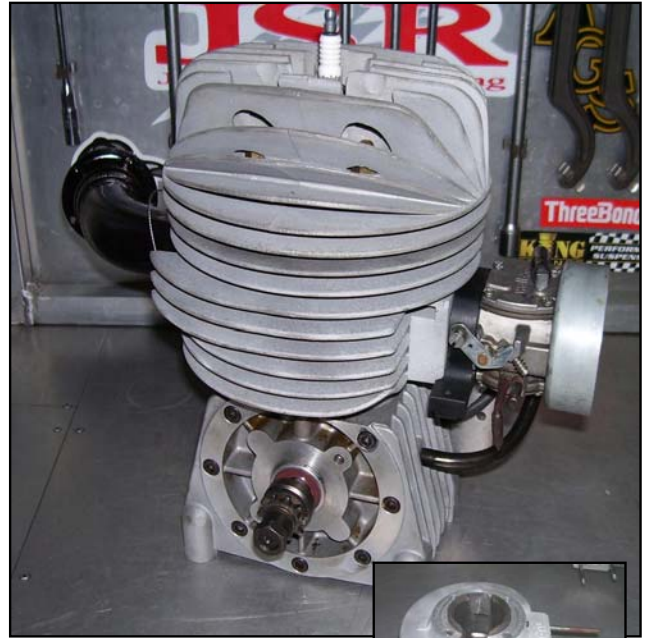
In the early 80's the Clubman Class was not yet running in Australia . This DAP engine was homologated into Class Australia class to go head to head with the KT100S, DAP T70A which was now being dropped in Europe and the aging TG14/SS20 Parilla's . These T50 piston port and the following new piston ports of other manufacture's would eventually be the death knock of the rotary engines.

THIS EXTRACT IS FROM THE January 20 1984 Australian Kart Report Mag.

The engine in the photo is not the American version , it has the T90 type exhaust header and port shape

Standard Crankcase	Modified Crankcase
BRAND of ENGINE	DAP
MODEL	T50
ENG. NUMBER	
TYPE	PISTON PORT
BORE SIZE-DIA.	51.00mm
STROKE	54.00mm

This DAP T50 Piston Port engine has been modified , the bottom of the cylinder transfer port have been extended down into the crankcase & transfer passages cut into the crankcase.



Modified Cyl. At the transfers



Standard Crankcase

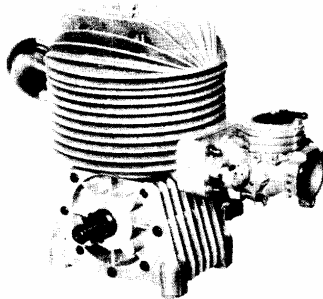


Modified Crankcase

DAP

PROUDLY PRESENTS THE DAP T90R

SPECIFICALLY
DESIGNED
FOR THE
STOCK REED CLASS
AS RUN IN
AUSTRALIA.



THIS ENGINE IS
NOT A CONVERTED
ROTARY VALVE
ENGINE. IT WAS
IN FACT DESIGNED
AROUND REED VALVE
INDUCTION FROM
THE GROUND UP.

**RESULTING IN A WIDER TOURQUE BAND THAT IS
EFFECTIVELY LOWER IN THE REV RANGE WITH THE
BENIFIT OF MORE POWER AND GREATER ENDURANCE.**

**FOR A GREAT DEAL
CHECK OUR PRICES AT YOUR**

- POWER KART SALES ● DREW PRICE ENGINEERING
 - JOHN PIZARRO KART SUPPLIES ● SNT. GEORGE KART CENTRE.
- OR THEIR AGENTS.

RACING YOUR DAP T90

Last month we ran an article on the racing, top end overhaul and general maintenance of the KT100S Yamaha. From the feed back received so far, the story was very popular. So we have decided to, as often as possible, keep on running articles along the same lines. We will be dealing with the popular engines and the articles will appear whenever the necessary information for a detailed article is available. This month, the DAP T90 engine is the subject of discussion.

The T90 has been around for quite a while now and has over the years been updated at the factory. Basically there has been three versions. The first suffered from main bearing failure and required additional oil holes to be drilled in the crankcases for main bearing lubrication. The next model was the forerunner to the T90R and had the oil holes drilled at the factory and was also provided with additional big end cage thrust clearance. The T90R was then introduced and was a much improved product.

Basically, the T90R is a very reliable engine, but requires attention to detail by the purchaser if this reliability is to be achieved.

The first step to achieving this reliability is when you first get your new T90R is to fit an additional base gasket under the cylinder base. With this gasket fitted, the engine should be run in and then raced. Before the engine is actually raced, it is advisable to check the piston to head clearance (squish clearance). Providing this measures at least .75mm, the engine is safe to front up in competition.

While you are fitting the extra cylinder gasket and you have the cylinder removed, take time to check the big-end cage end clearance. This should be a minimum of .5mm. If it is less than this figure it would be advisable to remove the crank and have it taken to an expert so that it can be widened to give sufficient clearance for the big-end cage. If this job is required, it may also be necessary to check the crankshaft end-float on reassembly. This should measure .2mm.

After having raced the engine, make sure that you check the squish clearance again. All T90 engines that we have seen (all european engines for that matter) are subject to the cylinder liner dropping in the cylinder casting. The resulting reduction in head clearance is the main reason of piston failure in these engines. So to be safe, you keep on checking until the line does drop. Once this has happened, the extra gasket may be removed and the cylinder head taken to the machine shop to have the necessary amount machined from the squish band to obtain the necessary clearance.

NOTE: It has been known for the cylinder to drop more than once. As it is a simple task to insert a piece of resin core solder down through the plug hole, turn the piston over top dead centre and check the squish clearance, it is wise to do this each time the engine is raced.

Like any engine, the T90 responds well to expert tuning, but the standard engines goes very well indeed out of the box. In fact, many karters will have sufficient

performance from the standard engine and if they follow the few tips below, they will do quite well with the engine in all but top level competition.

IGNITION TIMING

We have found that the T90 responds very well when the ignition is set at 2.5mm before top dead centre. For fast circuits (Oran Park) this can be dropped back to 2.25mm with some advantage. Generally, leave at the 2.5 timing.

THE CARBURETTOR

Most T90 engines supplied in this country have been fitted with the 33mm Tillotson carburettor. This unit is not really the best carb in the world, but can be made to work well enough. We have found that it is best to set the blow off pressure for this unit a little lower than normal. Around 8 pond per square inch works well. The metering lever should be set just below the base of the metering chamber. As far as mixture needles are concerned, it is impossible to advise on the correct settings as each carburettor varies so much. But for starters, try half a turn out on each needle, but be careful that the engine is not lean. You simply have to tune each unit individually for mixture.

SPARK PLUG

The best results we have achieved have been with either a Motorcraft AG403 or a NGK B10EV fitted.

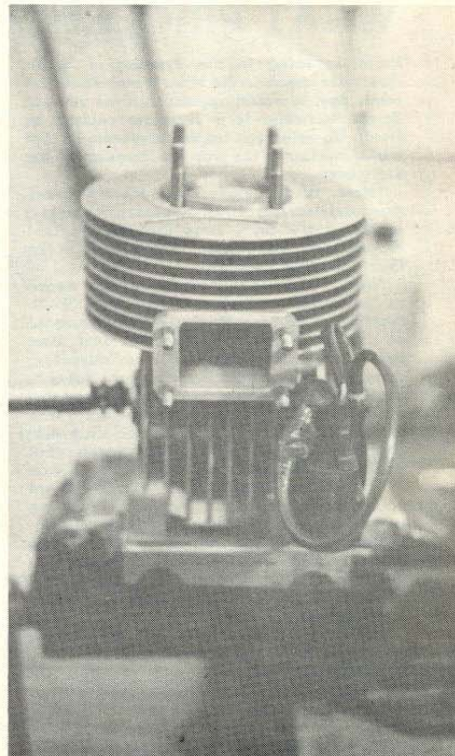
EXHAUST LENGTH

The T90 seems to work well on a fairly long pipe. Depending on circuits, from 81cm (fast track) up to 82cm for tight tracks. The T90 gives it's best if the gearing is kept down. Compared to most other kart engines, the T90 will usually use from two to four teeth less on a given circuit. It is a mistake to gear the T90 for bottom end grunt.

MAINTENANCE

We find that the best way to look after any engine is to get in first with preventative care. The top end assembly of the T90 should be replaced after four race meetings. The cylinder suffers little wear and gives long life so should need no more than a deglase at this stage. We recommend that any good going reed valve kart engine should be completely reconditioned after eight race meetings (around four hours running). But for the newcomer of the fun karter the

A T90 cylinder head with the amount to be machined off to achieve the correct squish clearance marked on the area to be machined.



The T90 is basically a very simple engine that is easy to work on.

following tip can increase the maintenance schedule by around 50% with little loss of performance. To achieve this, have the head remachined so that the squish is around 1.0mm in clearance. This will increase the head volume to about 9cc (lower compression). This is an operation that we have carried out on quite a few engines that belong to not so serious karters. The result has been fantastic with the engine going strong for much longer periods.

THE 135cc DAP T60

Each month we hear news of a new 135cc engine coming to life for the new 135cc International class. The DAP T60 was one of the late starters to get into the 1981 World Championship with development being rushed through at the last minute. For the engine to be the first non-iamc unit home at the World Championships was certainly a great effort by the DAP concern.

The engine is in fact a development of the T72TT engine and uses mainly the basic castings from that engine with small modifications in the moulds to allow the engine to accept the larger capacity. This has allowed the engine to be manufactured and sold at a far cheaper price than the I.A.M.E. Komet engine. That is at least in Europe. What we will have to pay for the engine out here remains to be seen.

The result of using the T72 castings is that the engine does not reach the full 135cc capacity allowed in the class and measures in at 128cc via a 54mm stroke and a 54mm bore.

Other major changes in the original batch of engines are mainly centred around providing the necessary strength to cope with the extra engine capacity.

The piston is now of the forged variety to achieve the necessary strength without suffering a weight penalty. The conrod on the initial batch is machined from solid and features slots in the beam section to reduce weight. Centre to centre length of the rod is 100mm as in the 100cc engines.

The inlet tract is obviously larger to take the HR series Tillotson carburettor. Otherwise, apart from dimensions, the

engine is very similar to the T72 unit.

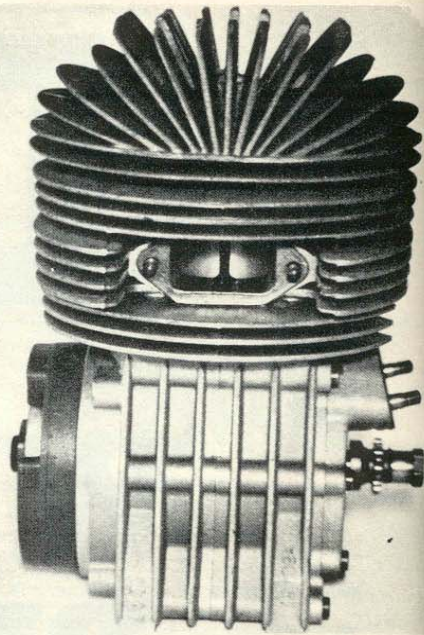
Obviously, the engine shown in the accompanying photographs is not the final DAP 135cc production engine. It will be vital to DAP if they are to succeed in the class they will have to go to the full 135cc capacity and if they are to continue to produce the engine economically they will have to avoid hand made parts such as the current 128cc conrod.

On this basis it will, we predict, be quite a while before we see the engine on sale in any quantity in Australia. But it is likely that a couple of units could be imparted by certain individuals for use in our 106-200cc Super class. Already Howard Heath is proving that the 135cc Komet is more than competitive in that class.

CHANGES TO DAP T90R

Australian Kart Report has now had a chance to look over the latest version of the DAP T90R reed valve engine and we have noticed a couple of changes.

The first is a new, longer inlet manifold. This manifold has a parallel inlet tract instead of flaring out to match the reed block as in the original manifold. The inlet tract is 25mm in diameter and accepts the HL series Tillotson carburettor as standard equipment. This change alone will be welcomed among T90 owners. The second change that we noted was the oilways for lubricating the main bearings. These are now milled slots on the inner faces of the crankcases. DAP have continually developed the T90 with most of the changes being for increased reliability and ease of operation.



Externally the T60 is almost identical to the T72 100cc Engine. (Photo by Courtesy of Kart & Superkart).



Note the slotted conrod and the larger inlet tract. (Photo by Courtesy of Kart & Superkart).

John Pizarro KART SUPPLIES

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DAP T72 ROTARY VALVE ENGINE



BRAND of ENGINE
MODEL
ENG. NUMBER
TYPE
BORE SIZE-DIA.
STROKE

DAP
T72
2169
ROTARY
50.00mm
54.00mm

CRANKCASE HAS STRAIGHT VERTICAL FINS
CYLINDER FIN AT EXHAUST HAS NO SUPPORTS

Australian Kart Report July 12 , 1981

CURRENT AFFAIRS ...

● The Italian firm of DAP have just released these photographs of their new watercooled challenger for the International Class.

The engine will be the T73 model and will be on sale next December and DAP have promised to give Australian Kart Report full details of the engine as soon as the production form is finalised.

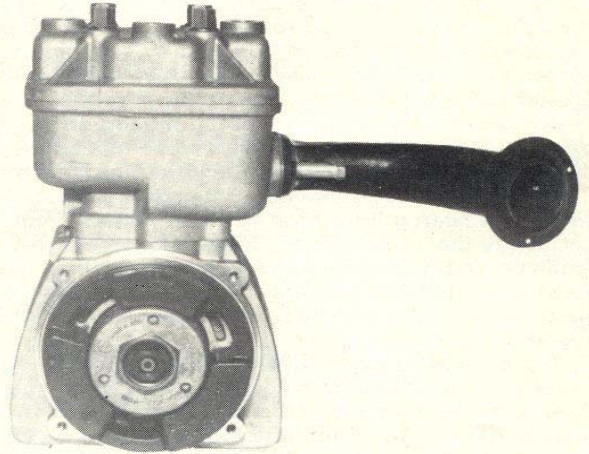
The release of the T73 will undoubtedly bring forth the release of watercooled engines from the other manufacturers with the resulting increase in speed in the International classes.

● **YAMAHA MOTOR CORPORATION** of Japan, through their N.S.W. Distributors, Milledge have just informed us of the following successes gained with their Yamaha KT100AX engine on the European circuits.

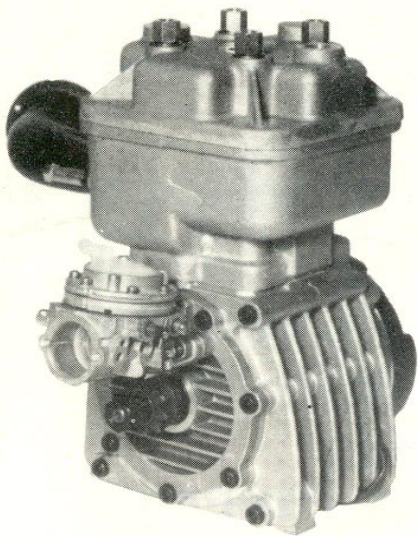
Round one of the German Championships held at Walldorf on the 28th and 29th of March went to J. Bertzen driving a Dino kart powered by a Yamaha KT100AX engine. The same combination taking out the second round at Hanover on the 19th of April.

In Australia, round two of the Australian Championships was to see C. Moser run second with a Yamaha KT100AX powered Birel kart. Then, on the 3rd

of May, Moser, using the same kart and engine combination was a clear winner of the 3rd round of the same Championship.



The new DAP T73 appears to use the T74 crankcases but with new watercooled cylinder & head.



Note the fact that most of the water jacketing is towards the rear and top of the cylinder. The TT port would seem to look after it's own cooling.

Zagreb was the venue for the first round of the Yugoslavian Championships on May the 3rd and the first place was taken out by I. Lauric driving a Birel kart powered by a Yamaha KT100AX with A. Rotar on an identical combination taking second place behind him.

On May the 16th and 17th at Liedolshein in West Germany, Tony Zorserl and his Birel/Yamaha KT100AX won the main International event to break the existing lap record and defeat all of the other top European drivers present.

With the World Championships approaching an all out attempt by Yamaha can be expected if the event is run for the current 100cc engines and such names as Zorserl and Muller could well be expected to be at the head of the attack.

● **GRAHAM POWLES**, in case you have not heard of him, Graham comes from Numurkah in Victoria and could well be considered one of the few remaining purely independent, amateur drivers remaining in the 100cc International class. Graham has for as long as I can remember campaigned home made karts that he has both designed and built himself. While doing so he has achieved a National Championship and many placings in National Championships over the years. All of this must have been of great personal satisfaction to Graham and must rate highly in any list of personal achievements in karting.

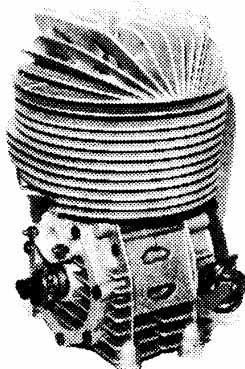
But like all good things, they end. While talking to Graham at Brooklyn during the third round of the Australian Teams Selection Series, he informed me that his current kart is for sale and he will be buying a factory manufactured chassis in which to campaign his undoubted talents. His third placing at Brooklyn means that anyone buying his current machine would indeed be making a wise choice and whichever manufacturer or dealer sells Graham a new kart will also be on a winner.

DAP

T70A

THE ENGINE FOR CLASS AUSTRALIA

- **LOW MAINTENANCE COSTS:** Did you know, at DAP we use the same High Quality parts in our Class Australia engines as we use in our International engines? This means you can race your DAP T70A a lot, lot longer between rebuilds.
- **SUPER RELIABLE:** Because we use parts developed for the High Stress of International engines our T70A is Super Strong. So when you're out in front you can be confident your DAP T70A WON'T LET YOU DOWN.
- **ROTARY VALVE INDUCTION:** The fastest kart engines use ROTARY VALVE INDUCTION, and it is simple to change if you want to test various settings.
- **A TRUE WINNER:** Australian Champion, State Champion, etc, etc, etc, Out of the box the DAP T70A is a TRUE WINNER. Complete with all the right equipment. Winning Major Races all over Australia without the need for an expensive blueprint job.



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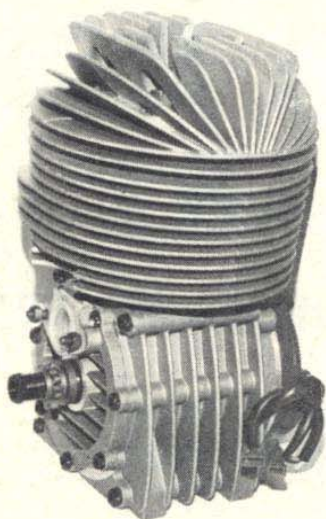
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AUSTRALIAN KART REPORT

JAN 12 1982
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DAP

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ENGINE AVAILABLE

AS USED TO WIN THE 1981 CHAMPIONS CUP
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THE NEW ENGINES FROM DAP AND ROTAX

The Reed Valve Stock 100 Class looks like really hotting up in 1984 with the introduction of several new engines into the Class. Both DAP and PCR have been successful in getting the nod from the Technical Advisors for homologation for 1984 and both engines break new ground in reed engine layout. We have not yet had the opportunity to inspect the PCR engine but can now bring you details of both the long and short stroke versions of the new DAP Reed Valve Engines.

The long stroke DAP reed valve engine for next year is labelled the T91 and has a 54mm stroke. The top end includes the cylinder and cylinder head from the ultra successful DAP TT70 and of course utilises a 48.0mm bore.

This top end is fitted to a completely new crankcase and this is where the engine breaks new ground. Where the I.A.M.E. reed valve engines use two identical crankcase halves to form the crankcase complete, the DAP has two separate castings. By going this way DAP have been able to avoid the additional stuffer block required to block off the back of the I.A.M.E. crankcases. This in turn provides for better crankcase compression and also provides a much cleaner crankcase design.

Unfortunately DAP have not seen fit to provide crankcase lubrication drillings for the main bearings. Hopefully the production versions coming into Australia will include these oil holes.

The engine comes set up with the small bore Tillotson carburettor and is fitted with Moto-Plat ignition.

The T92 is the short stroke version of the same engine and has a bore of 50.7 and a stroke of 48.5mm. The crankcases are identical to the T91 but are machined to facilitate the short stroke configuration.

The top half of this engine uses the cylinder and cylinder head from the T81 rotary valve engine. Australia has not seen the T81 for many a year so the following details will prompt the memory.

The T81 arrived in Australia only shortly before the advent of the TT70. Due to the TT70 proving so successful, not too many T81 engines were imported and the engine faded from the scene before any real development was carried out on it. Briefly, it was the TT ported version of the famous T80 engine and in fact was the first of the TT ported DAP engines. The original versions had a 18mm TT port but a later version with a wider TT port was manufactured. This is the cylinder that DAP is now putting to use in the T92.

The T92 is also supplied with the small bore Tillotson carburettor and Moto-Platt ignition.

Also new from DAP is the TT75. This engine is actually a TT70 with the stroke lengthened .5mm. It is reported that this engine shows definite improvement in the mid-range performance segment. It is possible to fit the new long stroke crankshaft to the TT70 and this may prove to be a worthwhile update for current TT70, 72 and 74 owners.

ROTAX — the manufacturers of the famous 125 and 250cc engines so widely used in gearbox Karting in Europe have now entered into the field of 100cc, purpose built kart engines. With the reputation for fine engineering and success in competition that this firm already has, the new R100 Rotax as it is known, will almost certainly be an immediate threat to the establishment.

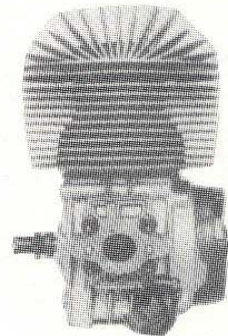
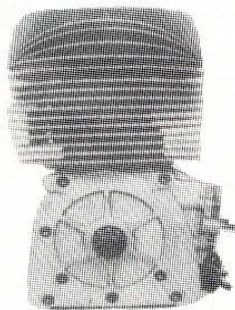
The engine has a displacement of 99.157cc and this is achieved through a bore of 50.0mm and a stroke of 50.5mm making the engine marginally a long stroker.

The engine is supplied standard with a 26mm Ibea carburettor and features a four transfer port cylinder layout similar to the 135cc Komet. The port timings are 87.0 degrees for the exhaust and 62.4 degrees for the transfers with the rotary valve opening the inlet at 130 degrees before T.D.C. and closing off at 70 degrees A.T.D.C.

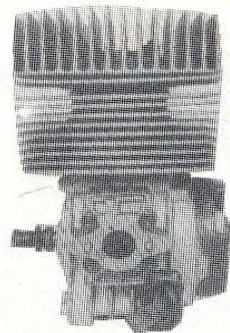
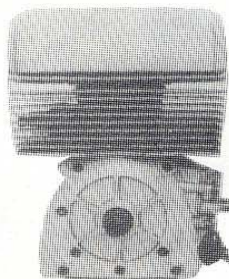
The engine uses a 100mm connecting rod and the cylinder volume to the top of the spark plug hole is 9.28cc. The recommended piston to bore

clearance is .9mm and the recommended spark plug is the Bosch W370 S2S. Recommended ignition timing is 2.5mm B.T.D.C.

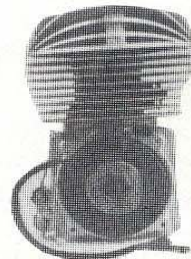
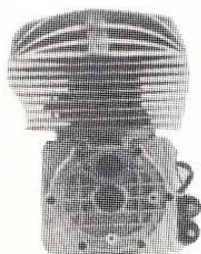
A little hard to believe is the recommended changeover period for the conrod assembly of 15 hours. If this is correct, then the engine would be exceptionally economical to use, to the point of making International class when using this engine one of our most economical classes. However we are extremely sceptical and cannot see, providing the engine turns out competitive power, how it could possibly give this increase in service life over other 100cc International engines. Only time will tell.



The new TT91 DAP Reed Valve Engine should add considerable interest to the Stock 100 Class in 1984.



The T92 is the new short stroke DAP Reed Valve Engine. Note the absence of the rear stuffer block as used on I.A.M.E. engines.



The Rotax R100 will fit nicely into our 100cc International Classes. The engine comes complete with 26mm Ibea slide carburettor.

DAP T77 ROTARY VALVE ENGINE



BRAND of ENGINE

DAP

MODEL

T77

ENG. NUMBER

TYPE

ROTARY

BORE SIZE-DIA.

50.04mm

STROKE

54.00mm

NOTES

This DAP T77 has been highly modified in the cylinder ports & passages . The front boost port has been increased in size and 2 extra smaller ports added. These ports has increased the actual size of the boost port by a considerable amount. Also there has been 2 extra smaller ports added each side the exhaust port . The side transfer ports have been increased in size , and the crankcase ports have been also increased in size to accommodate the cylinder port increase both in the number of ports and their sizes.

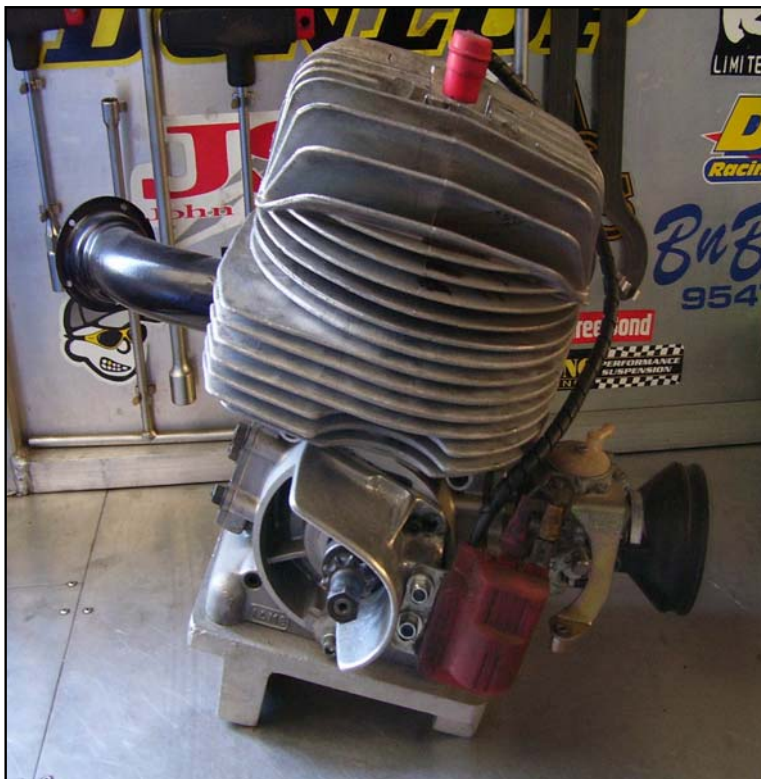
All these modifications would have taken a lot of time and skill to accomplish . The bore size is out to 50.00mm .

CRANKCASE HAS STRAIGHT HORIZONTAL FINS

CYLINDER FIN AT EXHAUST HAS SUPPORTS



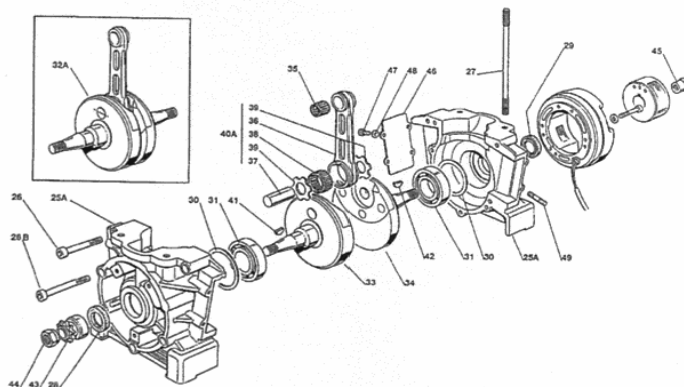
KOMET K55 KART ENGINE SPECIFICATIONS



BRAND of ENGINE	KOMET
MODEL	K55
ENG. NUMBER	M29119
TYPE	REED
BORE SIZE-DIA.	51.25mm
STROKE	48.50mm

KOMET K55 is a TT port [boost port] REED VALVE engine goes back a long way in karting and was still current in the last few years . This engine was resurrected to run in karting until just recently slightly updated with a 135 large header and pipe.

PISTON CAGE 20mm
 CONROD HI FI 96mm
 BIG END PIN 18mm X 43mm
 PISTON PIN 14mm X 40mm



Parilla TG14 KART ENGINE SPECIFICATIONS

The Parilla TG14 has been around since early days of karting . This TG14 is not the earliest , using the moto plat ignition and the brass inlet manifold for the Tillotson instead of the bowl type carburetor. The flat section on the front of the crankcase is for the addition of pulse type fuel pump. The rotary valve is standard 94mm diameter . The crankshaft drive nut thread is LH and the Ignition use's a pin to locate the rotor instead of the usual wood rough key.



Drive nut LH thread



BRAND of ENGINE
MODEL
ENG. NUMBER
TYPE
BORE SIZE-DIA.
STROKE

PARILLA
TG14
6700
ROTARY
48.2mm
53.5mm

Parilla TG14 KART ENGINE SPECIFICATIONS

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Ignition has pin not a key



Drive nut LH thread



Cylinder head combustion chamber

BRAND of ENGINE
MODEL
ENG. NUMBER
TYPE
BORE SIZE-DIA.
STROKE

PARILLA
TG14
ROTARY
48.6mm
53.5mm

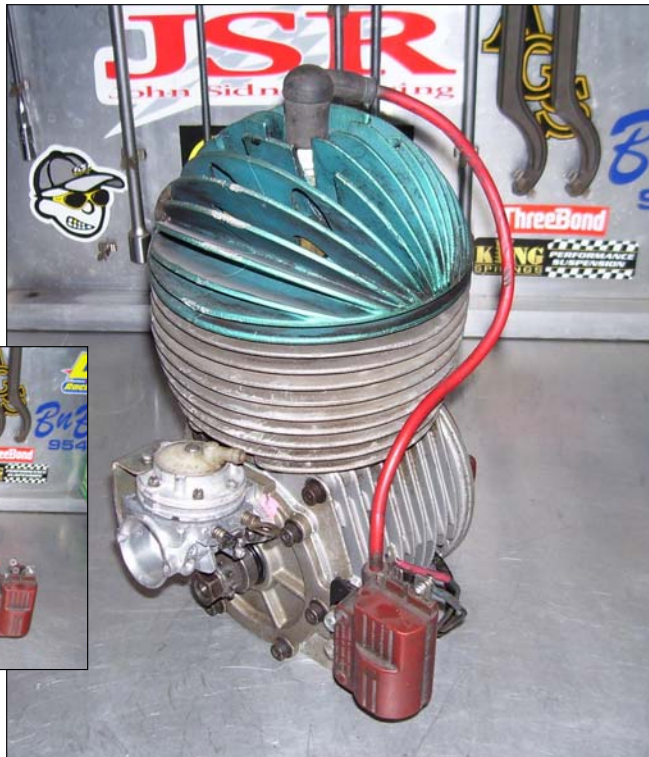
BM CONROD WITH BRONZE BUSH L/E 19.80mm WIDE
85.90mm DIA . CRANKSHAFT WHEELS 100mm CONROD
NO BIGEND SPACERS , USE'S WIDE TOP LITTLE END TO CONTROL THE CONROD

SS20 Parilla KART ENGINE SPECIFICATIONS

The SS20 Iame engine is a later version of the successful TG14 engines that had been around for many years. The SS20 has no boost port cut into the crankcase , the boost port is feed through a window in the piston.

In 1980 AKA Technical Conference made the decision make a new class called Class Australia from the beginning of 1981. This Class would have such engines as Yamaha KT100S , DAP T70A & PCR .

With 11cc minimum head cc. which was larger than the previous international engine and required a larger combustion bowl diameter. Fitted to the engine was a 25.00mm Tillotson butterfly carburetor.



BRAND of ENGINE	PARILLA
MODEL	SS20
ENG. NUMBER	
TYPE	ROTARY [CLASS AUST]
BORE SIZE-DIA.	48.04mm
STROKE	54.00mm

In 1980 The Retail price of the complete engine including muffler .

\$448.00

TT22 Parilla KART ENGINE SPECIFICATIONS



BRAND of ENGINE	PARILLA
MODEL	TT22
ENG. NUMBER	M1255
TYPE	ROTARY
BORE SIZE-DIA.	48.60mm
STROKE	53.50mm

Crankcase front section has no vertical fins to enable a fuel pump to be fitted. Exhaust gasket surface is further out than the later cylinders , 30.70mm to outside fins. Ignition side are drilled to take Ignition cover but base machined off. Rotary valve cover is smaller overall diameter & mounting bolt PCD is smaller. Has no coil mount on the rotary cover. Rotary valve is 94.00mm dia. [same as SS20]
The rotary recess is 95.60mm dia.

Crankcase bolts , 6 x 70mm [rotary cover] 1 x 65mm [front top] 1 x 60mm [rear top]

PARILLA TT65 KART ENGINE SPECIFICATIONS



BRAND of ENGINE	PARILLA
MODEL	TT65
ENG. NUMBER	
TYPE	REED
BORE SIZE-DIA.	[standard 47.80mm] 50mm
STROKE	54mm

The Parilla TT65 was the last small bore long stroke reed valve IAME produced during the mid 80's This engine's crankshaft has square crankwheel edges with plastic counter weights and outside dia. LH and RH side crankcase halves are cast and machined the same , you can run a LH rotation moto plat ignition on the RH side to enable it to be run as a LH 200 super engine . The only other thing you need to do is to turn the crankshaft around to have the ignition small key on the RH side while maintaining the correct direction of the piston. The conrod is 100mm Hi Fi spaced at the bigend with a hollow pin .

This particular engine has been bored to take the later 50.00mm coated single ring piston. Because the distance from the ring down to the piston pin is less on the later pistons you need to machine the base of the cylinder to allow it to be dropped to obtain the same port timing as before.This can sometimes allow the bottom of the piston to go past the bottom of the exhaust port and open the exhaust to the crankcase at TDC. This does not seem to

1983 ROTAX ROTARY KART ENGINE SPECIFICATIONS

ROTAX- the manufactures of the famous 125 and 250cc engines so widely used in the gearbox karting in Europe have now entered into the field of 100cc , purpose built kart engines. With the reputation for fine engineering and success in completion that this firm already has , the new R100 Rotax as it known , will almost centennially be an immediate threat to the establishment.

The engine has a displacement of 99.157cc and this achieved through a bore of 50.00mm and a stroke of 50.50mm making the engine marginally a long stroker.

The engine is supplied standard with a 26mm Ibea carburetor and features a four port cylinder layout similar to the 135cc Komet . The port timings are 87.0 degrees for the exhaust and 62.4 degrees for the transfers with the rotary valve opening the inlet 130 degrees before T.D.C and closing off at 70 degrees A.T.D.C.

The engine uses a 100mm conrod and the cylinder volume to the top of the spark plug hole is 9.28cc . The recommended piston to bore clearance is .9mm and the recommended spark plug is the Bosch W370 S2S . recommended timing is 2.5mm B.T.D.C.

A little hard to believe is the recommended change over period for the conrod assembly of 15 hours . If this is correct, then the engine would be exceptionally economical to use , to the point of making International class . However we are extremely sceptical and cannot see , proving the engine turns out competitive power , how it could possibly give this increase in service life over other 100cc International engines. Only time will tell.

This was written in June 20 1983

AUSTRALIAN KART REPORT

This engine is spaced at the bigend with a 15 roller bigend bearing & caged piston bearing .

BRAND of ENGINE
MODEL
ENG. NUMBER
TYPE
BORE SIZE-DIA.
STROKE

ROTAX
R100
185263
REED
50.04mm
50.50mm



1987 ROTAX 100cc ROTARY KART ENGINE SPECIFICATIO



There is no fin support around the exhaust port,

6mm exhaust studs .



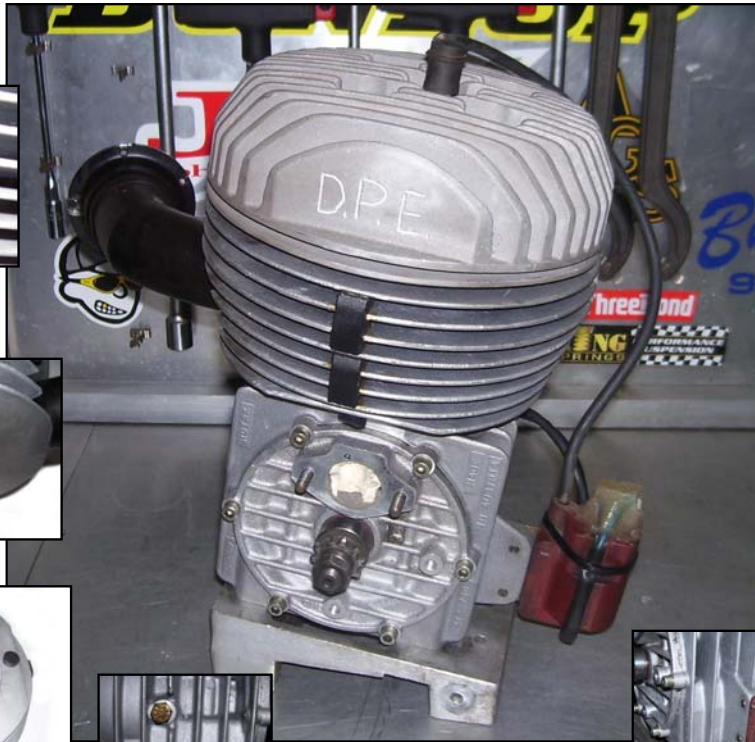
On the bottom of the alloy casing is the year of manufacture.



1987 model engine has a split boost port

BRAND of ENGINE
MODEL
ENG. NUMBER
TYPE
BORE SIZE-DIA.
STROKE

BRAND of ENGINE	ROTAX
MODEL	
ENG. NUMBER	235684
TYPE	ROTARY
BORE SIZE-DIA.	50.02mm
STROKE	50.50mm



Up to & including the 1987 model has no between the front & rear crankcase fins coil mount is in the centre of the case.

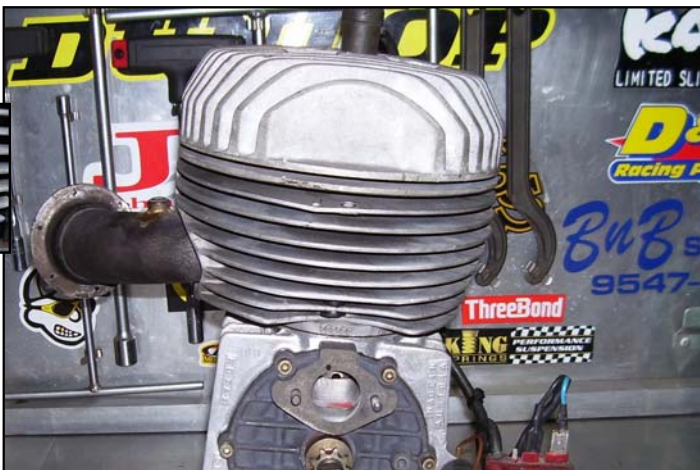


1988-89 ROTAX ROTARY KART ENGINE SPECIFICATIONS



Exhaust fin support section

7mm exhaust studs.



Crankcase has cut away sections between the bottom of the fins . The coil is mounted to the outside .

The Rotax rotary engines from the first kart 100cc rotary in 1983 through to the 1989 engine. The most obvious change was the shape of the cylinder head and fining. The rest of the engine did not change much. In 1987 rotax introduced a boost port with a divider, then in 1988 & 9 went back to the single open boost port.

Rotary cover use's gasket. The last Rotax 100cc to use Moto Plat ignition the next model with the nicosil bore use's PVL ignition .

BRAND of ENGINE	ROTAX
MODEL	
ENG. NUMBER	266047
TYPE	ROTARY
BORE SIZE-DIA.	50.05mm
STROKE	50.00mm

Head 8.8cc
Ignition Timing .083"