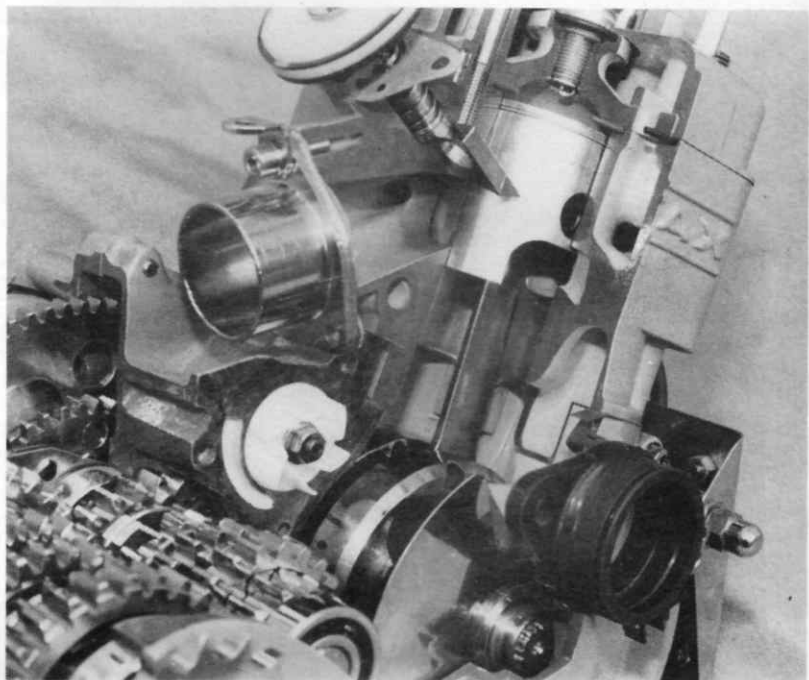


# ANDOVER NORTON ANNOUNCE NEW ROTAXES

The 1987 production series of the 250cc twin-cylinder Rotax engine type 256 is already available, and readers will be interested to learn of the changes that have taken place as a result of the factory's development experience through 1986. Many of these modifications are of a detailed nature, but all are discussed below.

For some time reliability of the big end bearing has been suspect and, as part of their test programme, Rotax tried a 20mm bearing which has proved to be a very significant improvement over the 18mm bearing used until now. The new bearing has a specially produced cage which makes it rather expensive, but as average bearing life is perhaps three times what it was it could be argued that over a full racing season it will be cheaper. The new bearing with its larger crankpin obviously means new crankshaft halves, and the factory have taken this opportunity of altering the balance factor, following vibration problems (mostly with motorcycle installations) in 1986. The new crankshafts are direct replacements for all engines from 1984 onwards, but all Rotax owners (including 125s) will be pleased to

The model ►  
128 with  
power valve



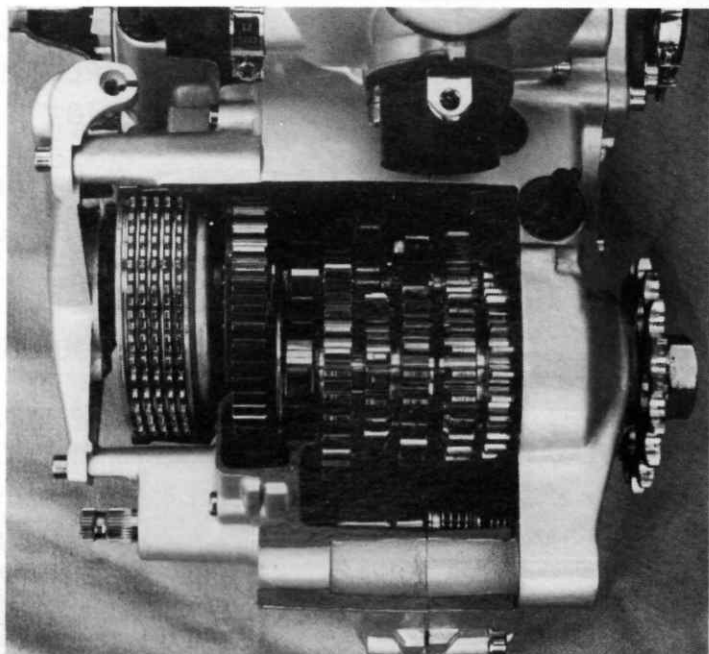
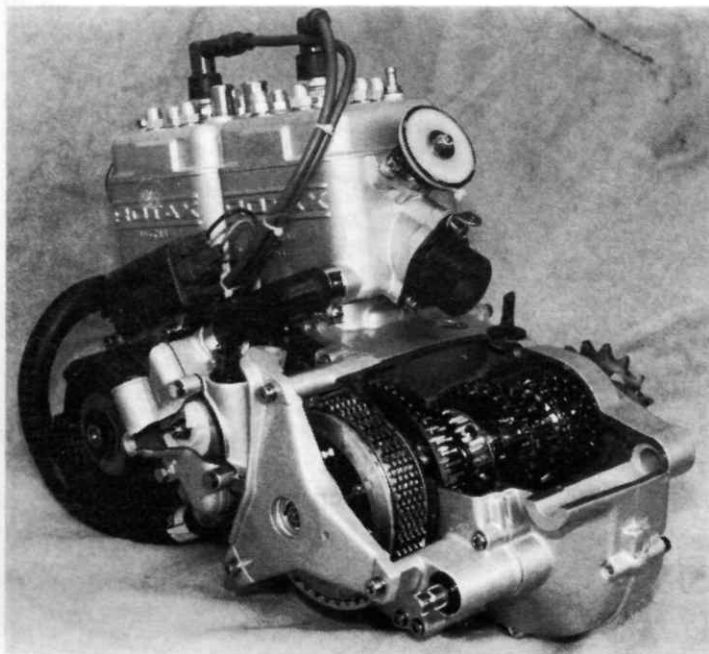
know that a specialist update service is offered by Chris Stoney who can install the new conrod assembly in your existing flywheels. Over the past season Chris has tested the new bearing in his own very fast motors and has found that crankshaft life is greatly extended.

New cylinders with revised porting are now available which have shown a useful power increase, and these too are interchangeable with all previous cylinders. They are slimmer than earlier types, containing less coolant, and can be recognised by a more pronounced bulge at the transfer ports and the external lip at the top joint face. These cylinders are available immediately.

Other performance related improvements are a crankcase with smaller crank chambers to increase primary compression, and all

1987 engines are supplied with 38mm Dellorto carburettors, PHSB 38. Not many drivers will want to change crankcases, but the larger carburettors can be fitted to all earlier engines providing the latest mounting flange (part number 267 847) is used. 1985 and 1986 engines already have this flange as standard.

Under the heading of more general improvements are a number of changes aimed at reducing weight. Though not installed in all engines, lightweight parts will become available as production permits. For example some nuts and distance sleeves will be of aluminium instead of steel, and some larger items (clutch outer bracket, disc valve covers, etc.) will be in magnesium alloy. A lighter clutch assembly is achieved with a new, lighter clutch centre and spring retaining



Model 256 with power valve



# CIK STOP PRESS!

## Communique from the CIK/FIA 1. International Court of Appeal

The judgement of the International Court of Appeal, which met on January 21st 1987 on the Appeal lodged by the CBA on behalf of its licence holder Augusto Ribas of Brazil, was against the decision handed down by the National Court of Appeals of the United States (ACCUS) with respect to the 1986 Formula-K World Championship race held in Jacksonville/Florida, on 21st September 1986.

The Judgement is as follows:

As to the form, declares and rules the Appeal admissible. In respect of the substance it quashes the decision handed down by the Court of Appeals. It declares and rules that because the overtaking by Mr. Kroeger was irregular and not allowed, the classification of the 1986 Formula-K World Championship race held in Jacksonville, Florida, on 21st September 1986 be re-established as follows:

1st Augusto Ribas, 2nd Ken Kroeger.

Declares and rules that the costs be borne by the respondent.

## 2. Meeting of the 'CIK-Working Group' engine and chassis manufacturers the 23/24 January 1987 at Geneva.

The meeting was a big success. The following manufacturers were represented: Alpha-Karting (F), Birel (I), DAP (I), EME (GB), Gillard (GB), Hetschel (D), IAME (I), Polyester-Accessoires (F), RKD (F), Rotax (A), Swiss-Hutless (CH), Tabon (F), Tal-Ko (GB), Vega (I), Zip (GB). For the ASN'S: CSAI (I), FSK (CH), GNK (F), RAC (GB), SBF (S).

The decision to introduce Formula Super-Hundred as from the 1.1.1988, as well as the philosophy for this category was well accepted by all the manufacturers and ASN'S.

The sporting and technical regulations are the same as for the Formula-K, except the cylinder capacity of the engine, which is 100ccm. The CIK Championship events for Formula-K and Formula Super-Hundred are also the same: 5 Grand-Prix counting for the European Championship Title and one event counting for the World Championship title.

In the Technical regulations, the engine of Formula Super-Hundred must be one from the Intercontinental-A homologation. There will be no special homologation for Formula Super-Hundred engines. The minimum weight in Formula Super-Hundred has to be fixed. An Inquiry will be made on Intercontinental-A, in 1987.

It has been agreed to write Formula Super-Hundred/Formule Super-Cent/Formel Super-Hundert/Formula Super-Cento, etc. All in full, not the figures 100 for the word 'Hundred'.

At the chassis manufacturers meeting, the modifications concerning chassis homologation for 1988/90 have been discussed. Finally the manufacturers made unanimous proposals to the CIK.

The last point on the agenda of the meeting with the engines and chassis manufacturers was: 'The manufacturers turn to speak, proposal to the CIK and criticism of the CIK'.

On the point of criticism of the CIK, the floor was open to everybody. Nobody has asked for the floor. This could mean that there is nothing to be criticized or things are not important enough to be brought up and to be criticized.

## 3. Meeting of the CIK-Executive Committee, Friday, 30th January 1987. The CIK-Executive Committee met in Paris.

The following decisions have been taken:

3.1. The unanimous proposals from the 'CIK-Working Group' meeting with engines and chassis manufacturers in Geneva have been approved.

3.2. Treatment of results by computer for 1987 and 1988. The system CIK/Scheitler for the treatment of the results by computer has been introduced for the non-gearbox classes at CIK-Championships in Europe.

3.3. European championship Inter-continental-B 1988. As a result of the small number of entries it has been decided: 'The minimum number of entries is fixed at 30, otherwise there will be no Championship event'. Introduced as from 1988.

3.4. CIK-International drivers licences. As from 1988, CIK-International drivers licences will be introduced. The regulations being established according to the rules in the FIA-International Sporting Code, Appendix 'L'. The regulations will be published in agreement with the ASN'S, end of April 1987.

CIK/FIA  
Ernest C. Buser, President

## NEW ROTAXES Continued

1	242 605	899 785	hex. nut M18x1.5	clutch shaft	90
1	242 650	—	hex. nut M20x1.5	main shaft	40
2	842 042	899 788	hex. nut M6	pump shaft	10
12	842 321	—	cap nut M8 mod. 86	cylinder head cover	18-22
8	842 471	—	cap nut M8 mod. 86	cylinder	18-22
12	842 520	—	cap nut M8 mod. 87	cylinder head cover	18-22
8	842 474	—	cup nut M8 mod. 87	cylinder	18-22

### TECHNICAL DATA

#### ROTAX engine type 256 RAVE, model 1987

design no.	37 256.1212 Road Racer (without exhaust valve)
	37 256.1312 Road Racer (with exhaust valve)
	37 256.1412 Kart (without exhaust valve)
	37 256.1512 Kart (with exhaust valve)
	37 256.1612 Micro Midget
Description:	ROTAX twin-cylinder, two-stroke, rotary valve engine, oil-in-fuel lubrication, water-cooled, with integrated water pump.
Bore:	54 mm
Stroke:	54.5 mm
Displacement:	249.6 c.c.
Compression ratio:	14,0 ± 0,3
Combustion chamber volume Vc:	9,6 ± 0,4 c.c.
Cylinder:	2 light alloy cylinders, NIKASIL plated, with pneumatic exhaust valve.
Piston/cylinder clearance:	0,060 — 0,085 mm
Ignition unit:	MOTOPLAT electronic ignition unit
Ignition timing:	1,4 mm ± 0,1 mm (16.6°) before T.D.C. at 11,000 r.p.m.
Spark plug:	2 × BOSCH W370 S2S (W07CS) thread M14 × 1.25
Electrode gap:	0,4 mm
Intake system:	Rotary valve
Rotary valve:	Cut-off section 162°
Rotary valve timing:	opens 136° = 48,5 mm before T.D.C. closes 80° = 25,9 mm after T.D.C.
Carburettor:	2 × Dell'Orto PHSB 38
Fuel pump:	MIKUNI DF 52-48 (only for Kart versions)
Fuel:	Gasoline, octane number not below RON 98
Lubrication engine:	CASTROL R30 mixing ratio 1:20 or CASTROL A747 mixing ratio 1:40
Lubrication gearbox:	0,65 ltr. ISO VG 100
Lubrication primary drive:	0,20 ltr. ISO VG 100

Clutch:	Dry multi-plate	
Gear shifting:	left or right side shifting, neutral between 1st and 2nd speed	
Transmission:	Integrated 6-speed transmission, constant mesh, dog engagement, rotary change	
Gear ratios:	ROAD RACER STANDARD OPTION	
1st	2,583:1 (31/12)	2,385:1 (31/13)
2nd	1,933:1 (29/15)	1,867:1 (28/15)
3rd	1,571:1 (22/14)	1,571:1 (22/14)
4th	1,353:1 (23/17)	1,353:1 (23/17)
5th	1,222:1 (22/18)	1,222:1 (22/18)
6th	1,150:1 (23/20)	1,150:1 (23/20)
Primary reduction ratio:	2,636:1 (58/22)	
Overall reduction ratio:	ROAD RACER STANDARD OPTION	
1st	6,810	6,288
2nd	5,096	4,922
3rd	4,142	4,142
4th	3,567	3,567
5th	3,222	3,222
6th	3,032	3,032
Sprocket:	ROAD RACER 17 teeth	
Gear ratios:	KART STANDARD OPTION	
1st	2,667:1 (32/12)	3,000:1 (30/10)
2nd	2,000:1 (28/14)	2,070:1 (29/14)
3rd	1,571:1 (22/14)	1,571:1 (22/14)
4th	1,353:1 (23/17)	1,353:1 (23/17)
5th	1,222:1 (22/18)	1,222:1 (22/18)
6th	1,150:1 (23/20)	1,150:1 (23/20)
Primary reduction ratio:	2,636:1 (58/22)	
Overall reduction ratio:	KART STANDARD OPTION	
1st	7,031	7,909
2nd	5,273	5,457
3rd	4,142	4,142
4th	3,567	3,567
5th	3,222	3,222
6th	3,032	3,032
Sprocket:	KART 19 teeth	
Gear ratios:	MICRO-MIDGET	
1st	2,583:1 (31/12)	
2nd	1,933:1 (29/15)	
3rd	1,571:1 (22/14)	
4th	1,353:1 (23/17)	
5th	1,263:1 (24/19)	
6th	1,222:1 (22/18)	
Primary reduction ratio:	2,809:1 (59/21)	
Overall reduction ratio:	MICRO-MIDGET	
1st	7,257	
2nd	5,431	
3rd	4,414	
4th	3,801	
5th	3,548	
6th	3,433	
Sprocket:	MICRO-MIDGET 14 teeth	
Exhaust system:	per drawing VSK 148	
Dry weight:	approx. 29 kg (without muffler and carburetors)	

## To Super National Karters,

The introduction of slide carburetors in Super National for 1987 looks as though the RAC are, quite rightly, trying to bring our 100cc drivers back towards the old 100 International class.

We have had a few barren years at International level because we have not been testing and competing in this country with the same equipment as the Continentals, therefore making it impossible to achieve good results for the few drivers who have competed in European events. This year looked like being the big breakthrough, with many Super 1 Series drivers considering entering the Northern Qualifying round of the European Championships in Belgium in June.

At the end of 1986 I spoke to the top 15 drivers and without exception everyone wanted to run exactly the same equipment in the Super 1 Series as the European Championships. I put this point to the organisers who, although not committing themselves, promised to ballot all the Super National drivers to assess the position for themselves.

What has happened? No ballot and the same S.L. Vegas as last year. The result will be more outclassed British drivers in Europe this year. Don't let the organisers of the Series say it is the cost, everyone has to use a new set of tyres for every Series meeting

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