

THE DAWN OF A NEW ERA FOR **KARTING**



As the governing body of Motor Sport worldwide,
the FIA naturally covers the activities of Karting sport.

Today, Karting is one of the only four Motor Sport disciplines that
enjoy an FIA World Championship status.

The World Karting Championship is even the second oldest
World Championship of the FIA. 2007 will mark its 44th edition.



COMMISSION INTERNATIONALE DE KARTING – FIA



The CIK is the specialised commission of the FIA for Karting matters.

In 2004, on request of the FIA World Motor Sport Council, the CIK (in conjunction with manufacturers and the CIK Advisory Group) started to work on a new concept of engines, aimed at reducing costs and increasing the number of competitors at the highest level of Karting sport.



COMMISSION INTERNATIONALE DE KARTING – FIA



In 2007, Karting will start its second half-century of existence on a new wave: new philosophy, new concept and new names.



COMMISSION INTERNATIONALE DE KARTING – FIA



The CIK has taken the opportunity of the introduction of these new engines:

- to unite Karting both as a sport and as a hobby around a single family of engines;
- to draw up for these engines a list of requirements that will satisfy the sport purists, occasional and hobby drivers, manufacturers, teams, dealers, organisers and circuit operators;
- to rename its categories in order to make their hierarchy clearer.



A single family of engines for all kart lovers

In the last decade, kart engines had become so high-performance that they were costly and difficult to run. They found themselves isolated in a restricted niche of pure racing products and could no longer satisfy the larger hobby market.

Each direct-drive category also had its own specific types of engines.

The definition the CIK has given to the new engines is based on this wise principle: homologation of a basic “standard” engine, attractive for all kartmen, and from which three sporting variants will be available.



Main characteristics compared to the “old” engines

	NEW	OLD
Type	2-stroke	2-stroke
Capacity	125cc	100cc
Inlet	Reed valve	Rotary valve, reed valve or piston-port (depending on categories)
Cooling	Water	Water or air
Water pump	Internal	External
Maximum revs	14,000 to 16,000 rpm (depending on categories)	Free (over 20,000 rpm)
Balance shaft	Yes	No
Power valve	Yes	No
On-board electrical starter	Yes	No
Fuel/lubricant ratio	4% maximum	Free
Noise	100 dB maximum	103 dB maximum
Homologation validity	9 years	6 years



New denominations of Karting categories

The new 125 cc direct drive categories, from the top class to the basic formula, will be known as:

- **KF1** (instead of Formula A)
- **KF2** (instead of Intercontinental A)
- **KF3** (instead of Intercontinental A-Junior)
- **KF4** (new)

The 125 cc gearbox categories, the technical regulations of which will undergo no major modifications, will be renamed **KZ1** and **KZ2** (“Z” being the international technical identification of gearing).



10 manufacturers have homologated engines according
to the new KF specifications:

Comer (I), Dino (DK), IAME (I), Lenzokart (I), Maxter (I),
MRC (I), PCR (I), TM (I), VKR (I) and Vortex (I)

All CIK-FIA Championships, including the World Championship,
will adopt the new KF engines as from 2007, and so will most
of the main international and national series.



The Ten Key Points of the New KF Engine

It will offer a new approach which will:

- take into account such requirements of our society as modernity, comfort, reliability, safety, environment, etc.
- combine hobby and competition within one and the same product, thus making it easier for users to switch over from hobby to competition and enlarging the potential market for the manufacturers involved, while concentrating their investments on a single polyvalent product.



The Ten Key Points of the New KF Engine

It will be easier to use:

- on-board electrical starter (pushing no longer needed)
- centrifugal clutch
- integrated water pump (easy installation)
- power valve
- easier stock control for manufacturers and dealers



The Ten Key Points of the New KF Engine

It will be less costly to run:

- rev limiter (less maintenance)
- better reliability
- reduction in the number of engines per event
- availability of a second-hand market
- fewer intermediate evolutions (stricter homologation form)
- monotype exhaust (KF3)



The Ten Key Points of the New KF Engine

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It will be more reliable:

- balance shaft (fewer vibrations)
- rev limiter
- controlled combustion chamber volume (KF2 to KF4)



The Ten Key Points of the New KF Engine

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It will be safer:

- on-board electrical starter
- centrifugal clutch
- rev limiter (fewer risks of seizures)



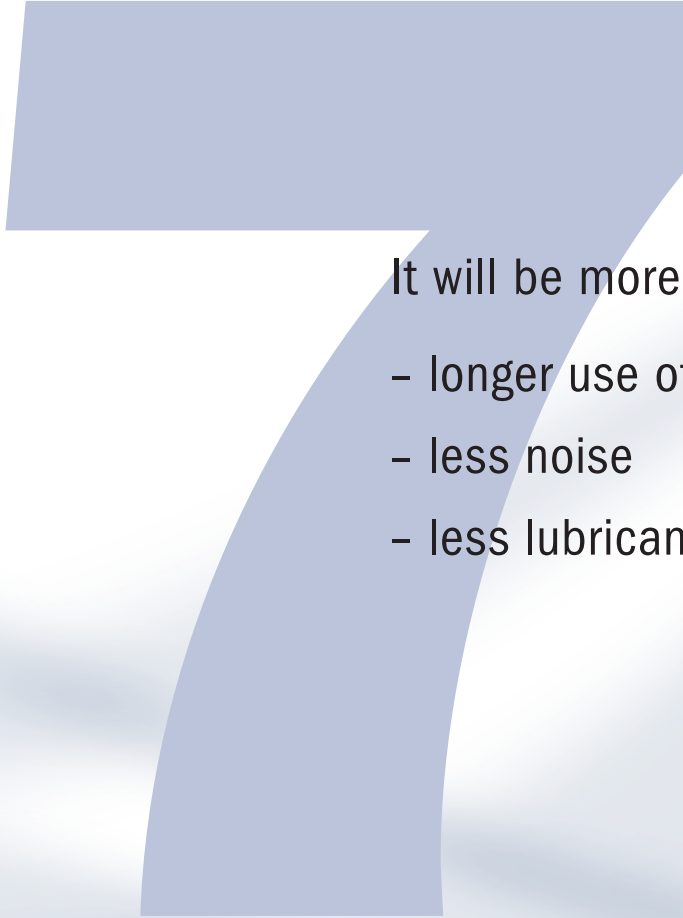
The Ten Key Points of the New KF Engine

It will be more user-friendly:

- on-board electrical starter (pushing no longer needed)
- centrifugal clutch
- mass-produced float chamber carburettor (KF4)
- less maintenance
- less noise
- battery self-charging system (KF4)



The Ten Key Points of the New KF Engine



It will be more environment-friendly:

- longer use of internal parts (less maintenance)
- less noise
- less lubricant in fuel



The Ten Key Points of the New KF Engine

It will be more attractive:

- reliable, but nonetheless very high-performance
- identification of hobby drivers with professional kartmen (same equipment)
- modern complete package
- more adequate for newcomers



The Ten Key Points of the New KF Engine

It will provide smoother upgrading from one class to another:

- common engine base
- no huge difference in driving technique



The Ten Key Points of the New KF Engine

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It will offer more opportunities:

- new horizons for drivers and organisers
- new opportunities for corporate events
- engines now appropriate for endurance racing



From a practical point of view...

In accordance with the Homologation Regulations, the fixation of the ignition rotor and stator is standardised. For each make, the ignition system is the same in the four categories (KF1 to KF4), with the exception of the ignition box, which is characterised by its colour according to the category in which it will be used:

Yellow for KF4 (limited to 14,000 rpm), Blue for KF3 (limited to 14,000 rpm), Green for KF2 (limited to 15,000 rpm), Red for KF1 (limited to 16,000 rpm).



From a practical point of view...

In KF1, KF2 and KF3, the ignition curve may be variable from 0 to 3,000 rpm and then it must be fixed (no variation of the ignition advance according to the engine revs) until the maximum engine revs minus 500 rpm.

In KF4, the digital ignition system may be variable, with a self-charging system for the battery.

4 manufacturers have homologated ignition systems according to the new KF specifications:

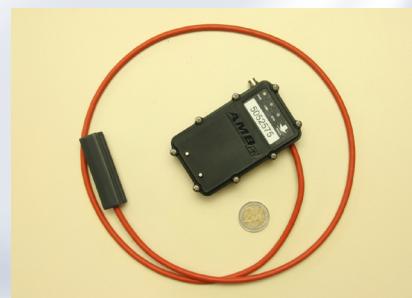
PVL (D), Selettra (I), Tecno (I) and Vering (I).



From a practical point of view...

As the engine revs will henceforth be limited – for the first time in the history of CIK-FIA homologated engines – it is now indispensable to be able to control with accuracy that the limit prescribed by the regulations is respected on the track by the competitors.

For this purpose, the CIK-FIA will dispose of a system it has specifically had developed. With this system, which was studied and developed by the AMB company, the officials of an event will be able to control at any time during the event (including when the kart is on the track and not just when it returns to the parc fermé), whether the prescribed engine speed limit of the category concerned is respected.



Calendar of the 2007 CIK-FIA Championships

20-22/4	Buenos Aires (RA)	Panamerican Sudam & Sudam-Junior Championships
02-06/5	Ugento (I)	European KF1, KZ1 & KZ2 Championships
03-06/5	Magny-Cours (F)	European Superkart Championship
25-27/5	Suzuka (J)	World Cup for KF1, Asia-Pacific KF2 Championship
01-03/6	Newcastle/IN (USA)	North American KZ2 Championship
21-24/6	Varenes s/Allier (F)	European KF1, KZ1 & KZ2 Championships
29/6-01/7	Rudskogen (N)	KF2, KF3 & KZ2 Viking Trophy
12-15/7	Essay (F)	Western Region Qualifications for the European KF2 & KF3 Championships
13-16/7	Sosnova (CZ)	Central Region Qualifications for the European KF2 & KF3 Championships
13-16/7	Genk (B)	Northern Region Qualifications for the European KF2 & KF3 Championships
02-05/8	Salbris (F)	European KF1 & KF2 Championships
10-12/8	Assen (NL)	European Superkart Championship
31/8-03/9	Sarno (I)	World Cup for KZ1, European KF3 & KZ2 Championships
10-12/8	Sachsenring (D)	European Superkart Championship
20-23/9	Mariembourg (B)	World Karting Championship (KF1), World Cup for KF2
13-15/10	Monaco (MC)	11 th Monaco Kart Cup for Juniors (KF3)
14-16/12	Macau (MO)	Asia-Pacific KF1, KF3 & KZ2 Championships

