

The Komet Story

This is the second article I have written about Italian 100cc kart engines and follows the same format that I used to tell the Parilla story. Komet were a very successful maker of kart engines during the early period of karting which resulted in the marque winning World Championships in 1973 and 1974 with the K88 and dominating the 135cc era by winning in 1981, 1982, 1983, 1984, 1985, 1986, 1988 and 1989 with the Komet K29/30. But, this underestimates the importance of the marque in the 60s when it was almost as popular as Parilla.

Komet K12 – 1962

This, the first Komet engine, was designed by Cesare Bossaglia who was also responsible for the Parilla/Saetta V11. This engine was described by Karting magazine as 'the most technically advanced kart motor in the World'. It was a fan cooled engine with a chrome bore of 51mm and a stroke of 48mm. First appearing internationally with the Italian team in 1962 'World Championships' it was more than a match for the dominant American McCulloch engines. So impressed were 'World Champion' Bobby Allen and fellow American, Jeff Crump with the K12 that they switched from McCulloch to Komet for the 1963 season. These engines often were used as a pair in Class II on the Ital Karts also imported by Talko Motore (now TKM). In 1963 the K12 won the National championships in Sweden, Netherlands, France, Italy, South Africa, Britain, Wales, Scotland and the European Championship. These engines were almost always mounted at 45° requiring a sub mount to pick up the holes around the crankcase.

Komet K22, K33, K44, K55 and K96 – 1964

For the 1964 season, Komet took a radical departure by introducing five ultra-short stroke engines all variants of a common design. All engines use the same chrome cylinder with a bore of 54mm and a stroke of only 43.5mm. This was rather like the very over square McCulloch design. Like the McCulloch these engines had short, flat top pistons and a hemispherical combustion shape. This was a major departure from the K12 design and had a central plug. The cylinder had 4 small transfer ports and no third port. All models required an 'L' shaped engine mount to pick up the front and rear crankcase mounting studs.

The K22 and K44 are two variants of the same engine, the K22 intended for Class 1 Sport and the K44 for Class 1 Super. There appears to be no significant difference (except the price). These were fan cooled engines designed for the older karts like the American Fox or Italian Ital with the engine behind the seat.

The K33 and K55 are also essentially the same engine at two prices, with the K33 for Class 1 Sport and the K55 for Class 1 Super. These were air cooled engines, identical to the K22/44 except for the removal of the fans/cowls and the addition of a larger cylinder head. These were intended for the new wave of karts like the dominant Tecno with its side engine three bearing design. The Early '64 Komets were no match for the Parillas of the day like the all-conquering GP15L. However, the K33 was to become a very successful engine in the UK when it was downgraded to Class 1 Special in 1966.

The K96 used the same cylinder barrel as the K33 but with the exhaust facing the rear of the engine. It had two rotary valves, one either side of the engine and a unique compact ignition system. It had a unique head and crankcases. These are very rare engines as few were made.

Komet K77 – 1965

This was a radical departure from the 1964 designs. The only common feature was the engine mounting that retained the 'L' shaped mount of the '64 engines. The engine layout internally is like the Komet K12 but with a slightly shorter stroke of 48.5mm, a bore of 50.8mm, a third port with a window piston and an offset spark plug. This engine had very large head and barrel finning to aid cooling though the crankcases were not well cooled.

Though still no match for the International Parilla GP15L, this design proved to be a real winner for Komet especially later in the 100 National class.

Komet K33S/T – 1965

To give the K33 a new lease of life by improving cooling, a new sand cast cylinder was developed with larger finning around the exhaust. In every other respect the engine was identical to the K33. A cylinder head with larger fins was also developed called the TT head

Komet K88 – 1967

The first generation Komet K88 was homologated in the UK in time for the start of the 1968 season. This engine carried over the crank, piston rotary valve and barrel from the Komet K77 but had a new finned crankcase with (now) conventional mounting points on the bottom of the crankcase. This improved cooling and avoided the 'L' shaped engine sub mount of previous Komets. The engine also introduced the iconic parallel finned head with a lozenge shaped combustion chamber and central plug. For some strange reason, this engine proved little faster than the Komet K77. In the 1968 British Championships, the best a K88 managed was 9th with two K77 in front! This was probably because the engine did not get International homologation until a year later in time for the 1969 World Championship. In 1970 the British Championship was won on a K77 not a K88. It is worth noting that in mid-1971 Motaplat ignition was introduced enabling higher engine revs to be achieved reliably, something that would particularly benefit the shorter stroke Komet engines. (June 1971 Karting). Again in 1971 both the 100 National and International British Championships were won using Komet K77s. In the 1971 World Championships 2nd and 4th places went to K88s but Parilla still dominated. This was all to change a few years later.

Komet K89 - 1971

For 1971 Komet introduced a new engine based on the K88 but with the rotary valve at the front, driven by a toothed belt from the crankshaft via two idler pulleys to change the direction of rotation. The benefit was to get the induction straight between the crank wheels like on a reed valve engine. This rather bizarre idea was clearly not without its reliability problems and very few engines got into use.

Komet K88/88TT - 1973

Introduced in January 1973, the Komet K88TT was to see a major run of success for Komet. This engine introduced TT porting with the third port fed directly from the crankcase and no window in the piston. These engines can be easily recognised because the feet are wider spaced and the castings in this area are wider. More importantly there is more material around the front of the crankcase allowing a large TT port to be machined. In other respects, the 1973 K88s are identical to the 1968 counterpart. The results speak for themselves with both the 1973 (Terry Fullerton) and 1974 (Ricardo Patrese) World Championships going to Komet.

Komet K75 – 1975

This was a completely new engine with no common parts to previous Komets. It had a combination of Piston port and Reed induction. This was never introduced in any volume and certainly not developed or successful.

Komet K78/78TT – 1975

This engine homologated in 1975 is identical to the 1973 K88/K88TT but with a different cylinder head. The head is like a K77 with radial fins but has a hemi spherical combustion chamber and a central plug like Parillas and BMs. It should have been successful but BM and Sirio were dominating international karting at that time. In the UK, the Parilla TT22 was proving to be more successful. In the 1977 Worlds, not a single Komet was in the top 24 places.

Komet K80TT – 1978

This is a major development of the K78TT and looks very similar but in reality only the barrel casting is the same. The engine has a new head design with larger fins, the crank is larger probably to avoid cracking around the big end and the rotary valve and driver and the oil seals were common with Parilla.

Komet K55 – 1978

Not to be confused with the K55 of 1964, this engine is basically a reed valve version of the K80 mainly aimed at the American market.

Komet K29 – 1981

For the 1981 season the CIK changed the formula for International karting increasing the engine capacity to 135cc. This demanded a completely new engine that was developed by IAME under the Komet brand. The class was to continue for the next nine years during which Komet scored eight World Championships, six of these at the hands of Mike Wilson. At first glance the K29 engine looks like a K88 but this similarity is confined only to the exterior styling. The engine has a bore of 55mm and a stroke of 56mm. It has four transfer ports and no TT port.

Komet K30 – 1983

For 1983 Komet developed a new engine based around the crank of the K29. The exterior styling looks more like a K78 with its radial finned cylinder head and the all new crankcases are more square in shape than the K29. All the moving parts are common with the K29. The cylinder has 4 transfer ports like the K29 but with a 5th TT port. This engine carried Komet through to the end of the decade with a minor change in 1986 known as the K30 7 P to add two additional small exhaust ports.

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