

2 Racing to Success

Yamaha have always sought to prove their products and gain publicity through racing – and, alone among the major manufacturers, they have sold consistently to the general public production racing machines. This policy has done a great deal to spread road racing around the world and wherever the sport is held you can be certain to find Yamaha machines competing.

It all started back in 1955, the year the motorcycle division was born. For the first time, a major race was planned in Japan, the Asama Volcano Road Race. A rough 12-mile course had been built on the flank of Mount Asama north of Tokyo. Yamaha entered a team on tuned versions of the humble 125cc, two-stroke YA1, and surprised the opposition by winning.

They won again the next time the race was held, in 1957, but this time the successful machine was a twin-cylinder YD250 which developed 20bhp at 7500rpm. In fact, Yamaha took the first three places in the 250cc class and first and second in the 125cc.

The next step was into the international arena. It was taken in 1958 when Yamaha sent a team to contest the annual event held on a rough course around the island of Catalina off the Californian coast. The American market was expanding

rapidly and Yamaha wanted publicity to boost their planned sales drive.

Their leading rider was Fumio Ito and, despite all sorts of problems, he battled on to finish sixth, competing against a field of mainly larger capacity machines. It was in 1959 that Honda, who had a seven-year lead over Yamaha (having started making motor cycles in 1948) sent the first Japanese racing team to Europe. In 1960 they were joined by Suzuki and in 1961 Yamaha made the Japanese attack a three-pronged one.

Success for Yamaha was far from immediate. In fact, the first year was sensibly treated as a fact-finding mission. The machines were completely new. The 125cc RA41 was a single-cylinder two-stroke with rotary valve, modelled on the successful East German MZ design which had also been copied by Suzuki. Power output was 20bhp at 10,000rpm and transmission was via a six-speed gearbox. It proved hopelessly under-powered compared to the opposition, both European and Japanese.

The RD48 250cc twin-cylinder, two-stroke was more promising, though far from being a winner. Brilliantly ridden by Fumio Ito, who still ranks as one of the best road racers to come out of Japan, it got among the World Championship points by



Yamaha's first World Champion, Phil Read, celebrates his 1964 victory with a cup of tea. The bike is the legendary RD56 250cc twin.

finishing fifth in the Belgian Grand Prix and sixth in both the Isle of Man and Dutch TTs.

Like its smaller stablemate, the RD48 followed the trend in having disc valves. Bore and stroke were 56 x 50mm and, revving to 10,000, the engines produced around 35bhp to give a top speed of 135mph. After the Belgian Grand Prix, the team returned home and new machines were

designed from the lessons learned in Europe.

Concentrating on development, Yamaha did not send a team to Europe in 1962, but the following year they were back, and this time they were serious contenders. Their new 250cc model, the soon-to-be-famous RD56, was so promising that they decided to concentrate on that class alone. The engine was a refined version of the earlier RD48 but revs were up to 11,000 and power to an impressive 45bhp. The gearbox was a seven-speeder.

The RD56 made a sensational European debut

at the Isle of Man TT. Ito, backed by Englishman Tony Godfrey, took the lead from the Honda team on the first lap. He held it until the mid-race refuelling stop. There, Yamaha inexperience told. It took his crew nearly a minute to get him away. In contrast, Honda number one, Jim Redman, refuelled in half the time – and Redman won the race by just 27.2 seconds!

At the Dutch TT Ito again finished second to Redman. Then came the race that really proved Yamaha were capable of producing winners – the Belgian Grand Prix. On the ultra-fast Spa-Francorchamps circuit no other machine could match the speed of the RD56s and they finished first and second ridden by Ito and Sunako at a winning average speed of close to 120mph.

Unfortunately, factory finance and politics would not permit Ito to stay in Europe in an attempt to take the World Championship from Redman and Honda. The team went back to Japan after Belgium, and Honda, realising that their four-cylinder machine was just not quick enough to beat the RD56, developed their six-cylinder machine. Quite a compliment!

At the end of 1963 Yamaha signed Phil Read. He had impressed the factory on his first trial outing in the Japanese Grand Prix that autumn and it was Read who led the team in 1964 with Canadian Mike Duff as partner.

The power of the RD56 had been boosted to 54bhp at 13,000rpm. On one of these machines Read won five of the 250cc Grands Prix that year to clinch Yamaha's first World Championship. Read kept the title in 1965 winning seven rounds and Mike Duff made it a one-two for Yamaha ahead of Redman (Honda).

Radical changes were made for 1966: out went the RD56 air-cooled twin, to be replaced by a complex water-cooled, four-cylinder two-stroke, and, doubling their chances, Yamaha re-entered the 125cc class with a very competitive, water-cooled twin (virtually half a 250). Read was retained and Bill Ivy replaced Duff who had been seriously injured at the end of 1965.

Unfortunately for Yamaha, Honda had signed the brilliant Hailwood and although Read again outscored Redman it was Hailwood who won the 250cc title in 1966. Ivy finished second in the 125cc championship, but he too had been beaten by a Honda, ridden by Luigi Taveri.

In 1967 things improved. Bill Ivy won the 125cc world title with Read coming second, the Yamaha pair winning ten of the twelve Grands Prix. Again the brilliance of Hailwood thwarted Yamaha in the 250cc class, but it was a desperately close-run thing. For 1967 Yamaha had developed a far more competitive 250, lighter and lower than the original 'four'. On it Read scored 50 points and won four Grands Prix. Hailwood also finished the year with 50 points – but he had one more win and this was enough to give him the title.

The first era of Yamaha road racing successes ended in 1968. With motor-cycle sales in recession in Europe, Honda and Suzuki pulled out at the end of 1967 but Yamaha soldiered on for another year, brightening an otherwise gloomy Grand Prix scene with their incredible four-cylinder two-strokes.

That was the year of the famous Read versus Ivy controversy. Yamaha had ordered that Ivy should win the 250cc title but Read, who had



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ARWIDSON YAMAHA

CHAMPION

Castrol

DUNLOP

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been 'given' the 125cc crown as a sop, objected and fought a pitched battle with his team-mate to regain the title he had won in 1964 and 1965.

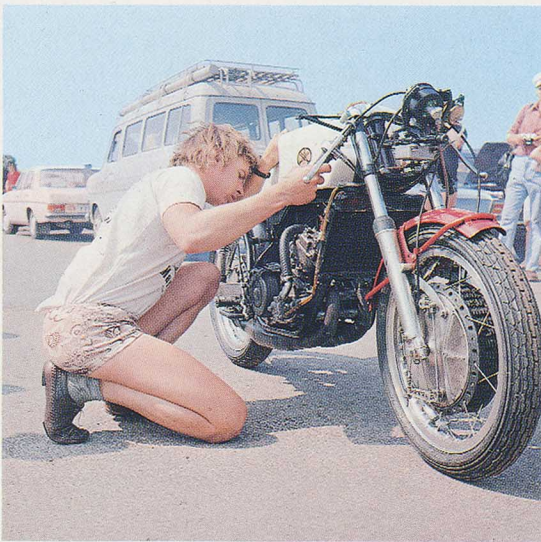
Those 1968 works Yamahas are worth looking at in brief detail. The RA31A, 125cc, water-cooled, four-cylinder, disc valve two-stroke (35 x 32.4mm bore and stroke) with nine-speed gearbox, revved to 17,000 and developed 42bhp to give a top speed of over 140mph. On it, Bill Ivy set a lap record for the TT circuit at over 100mph which stood for several years.

The 250cc RD05A, water-cooled, four-cylinder, disc valve two-stroke had bore and stroke measurements of 44 x 40.5mm and reached over 70bhp at 14,000rpm. Drive was via an eight-speed gearbox and top speed was about 155mph. It was truly the end of an era when the FIM, (Fédération Internationale Motocycliste, the sport's governing body) brought in rules that restricted both classes to twin-cylinder engines and six-speed gearboxes.

Yamaha were uniquely prepared to take advantage of the new regulations. For they alone among the Japanese manufacturers built and sold twin-cylinder racing machines that measured up exactly to the revised rules. England's Rod Gould won the 250cc championship, using a Yamaha engine in a Bultaco frame, in 1970 and the next year Phil Read regained the 250cc crown using a Yamaha engine in a special frame.

For 1972 Yamaha built a small batch of water-cooled 250 and 350cc twin-cylinder racers. These

The brilliant Finn, Jarno Saarinen, at speed on a factory Yamaha during the 1972 Dutch TT.



Factory rider in 1972 and in 1973 until his tragic death at Monza, Jarno Saarinen warms up his then new, water-cooled TZ250 Yamaha for the 1972 Swedish Grand Prix.

were a natural development of the air-cooled TD and TR models. Incredibly, they have made batches for sale every year since then and the TZ250K and TZ350K (the A was added for 1973, B, for 1974, and so on) went on sale for 1983. The specification has changed over the years but the general layout remains the same with simple, two-stroke twins, and is described in more detail in Chapter 5.

After a period of little or no direct interest in racing, the factory decided, in 1972, to back a semi-works team in Europe with the brilliant young Finn, Jarno Saarinen, and Rod Gould as the riders. Saarinen responded by winning the

250cc title and by finishing second to Giacomo Agostini on the factory MV Agusta in the 350cc class.

With motor-cycle sales buoyant Yamaha decided on a full-scale return to racing in 1973 with a works team – they also decided to move up into the 500cc class for the first time for an all-out confrontation with MV Agusta. Saarinen was signed as their number one with works tester Hideo Kanaya in support.

Saarinen started the year brilliantly by winning the Daytona 200 on a TZ350 and he made a stunning début on the new four-cylinder, two-stroke 500cc Yamaha racer when he won the French Grand Prix. He won again in Austria and it looked as though the unbelievable was about to happen – that MV Agusta stars, Giacomo Agostini and Phil Read, were going to lose the championship that the Italian factory had held for years.

Then came tragedy. Saarinen was killed contesting the 250cc race at the Italian Grand Prix at Monza. Not surprisingly, Yamaha withdrew from racing for the rest of the year, but Rod Gould, who had joined the company as European publicity chief, was soon at work behind the scenes organising a rider switch that must have been the best kept secret of all time. Gould's target was none other than Giacomo Agostini, the most famous name in racing who had won a record number of 13 World Championships on Italian MV Agusta machines.

Despite the prolonged negotiations the motor-

Giacomo Agostini wearing Yamaha colours for the first time, at Daytona in 1974. He won the race on a TZ750.



Arsanta

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EQUIPPED WITH
CHAMPION
SPARK PLUGS

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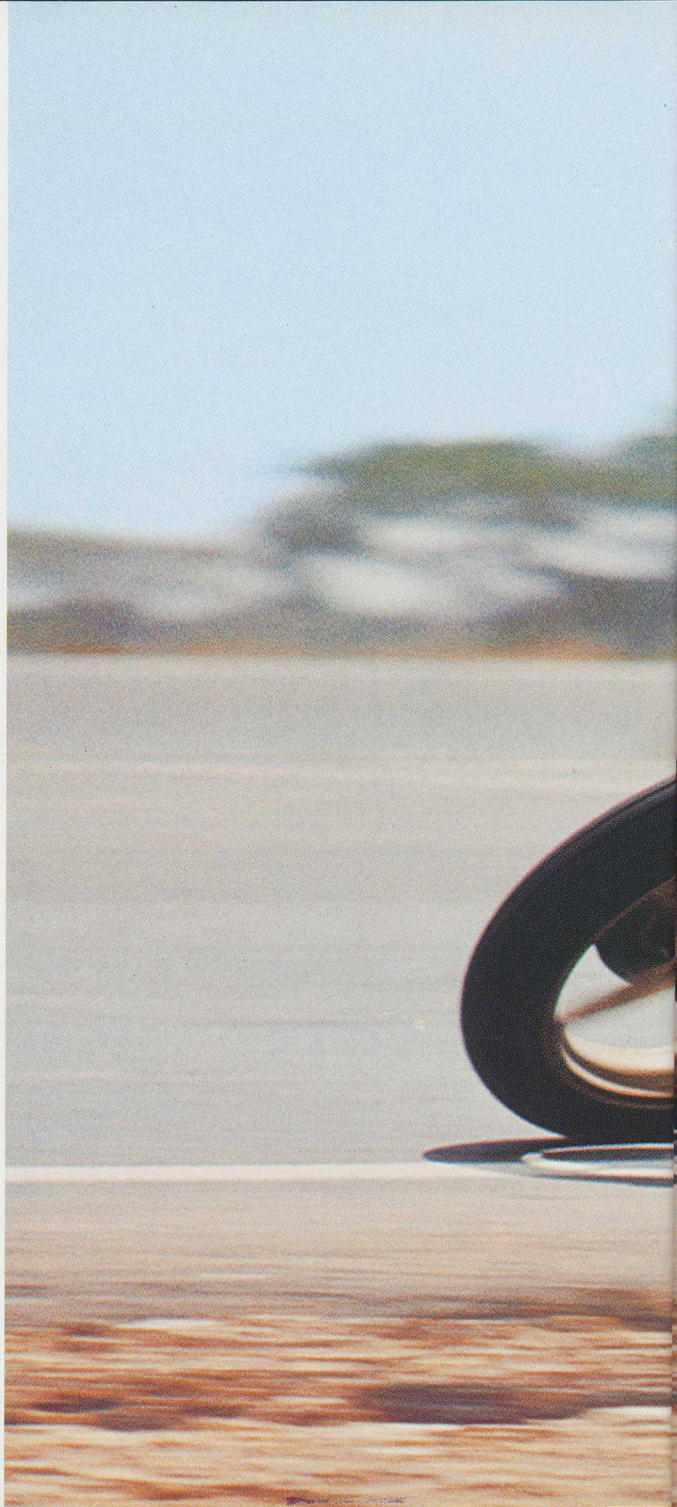
cycle press were stunned when Gould stood up and announced Yamaha's new signing at a press conference in Milan early in 1974. mv Agusta newboy, Read, had beaten Agostini to win the 500cc title after Yamaha's withdrawal the previous year and Agostini had switched camps as part of his plan to regain his championship.

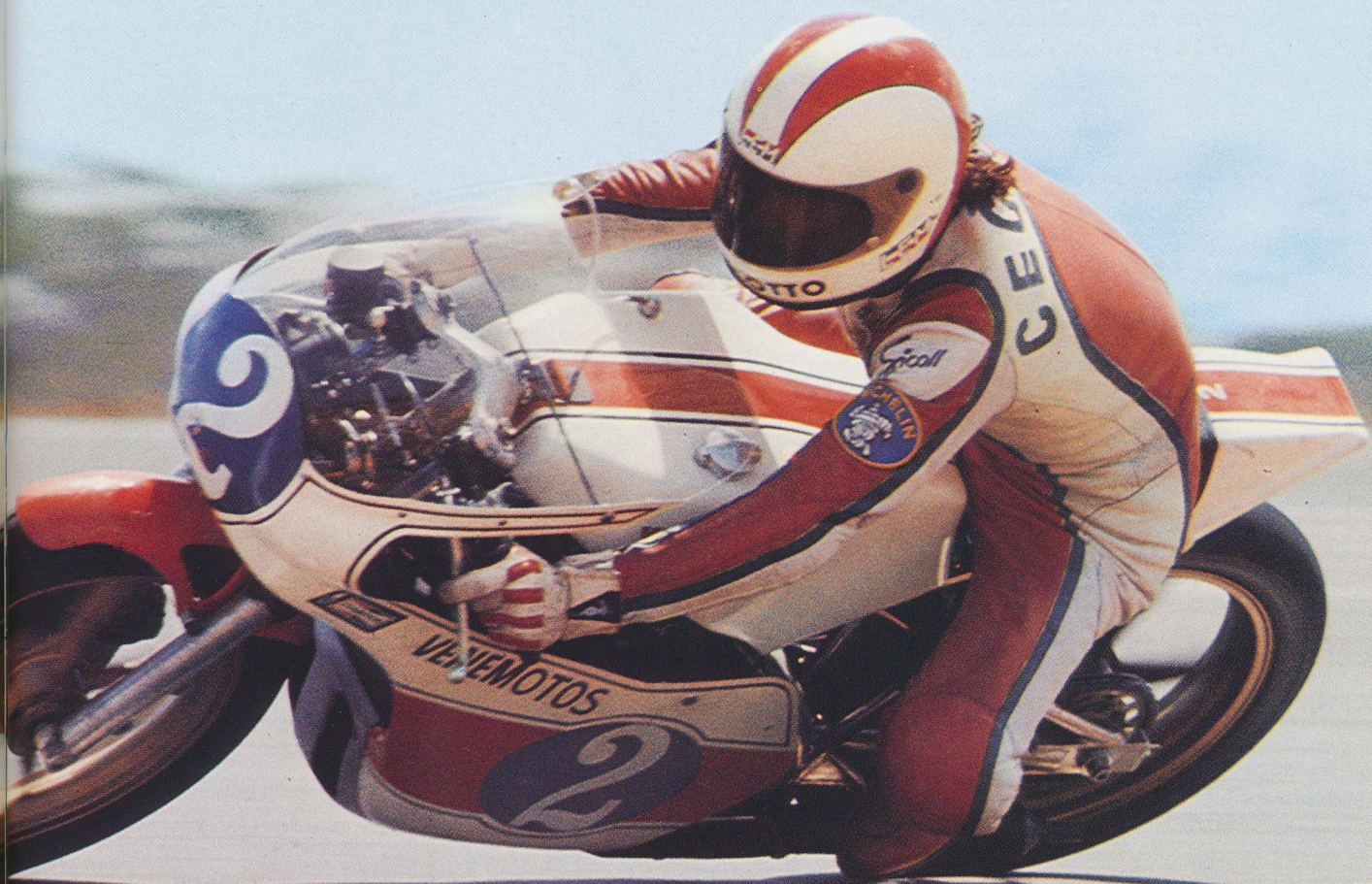
In 1974 Agostini won the 350cc title for Yamaha but Read retained the 500cc crown, Agostini challenging hard until a crash in Sweden put him out of the hunt. That year Yamaha set a trend by fitting their works racing machines with an entirely new rear suspension, controlled by a single, central spring-damper unit. This was later copied by all the rival factories.

Agostini finally regained his 500cc title in 1975. It was the first time a rider on a Japanese bike had won the 500cc championship, although Honda had taken the manufacturer's award in 1966. The young Venezuelan, Johnny Cecotto, won the 350cc title for Yamaha that year, but at the end of the season Yamaha decided to cut their racing activities and Agostini switched back to mv Agusta.

After missing the 1976 season Yamaha returned in 1977 when Takazumi Katayama won the 350cc World Championship, riding an interesting factory special – a three-cylinder two-stroke. But their new American star, Steve Baker, was beaten to the 500cc title by Suzuki's Barry Sheene. Determined to succeed, Yamaha

Venezuelan Johnny Cecotto in action on a 350cc Yamaha in South America in 1977. He won the World Championship for the class in 1975.





VENEMOTOS

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Scott
MAGGIORINI

VENEMOTOS



STEVE BAKER

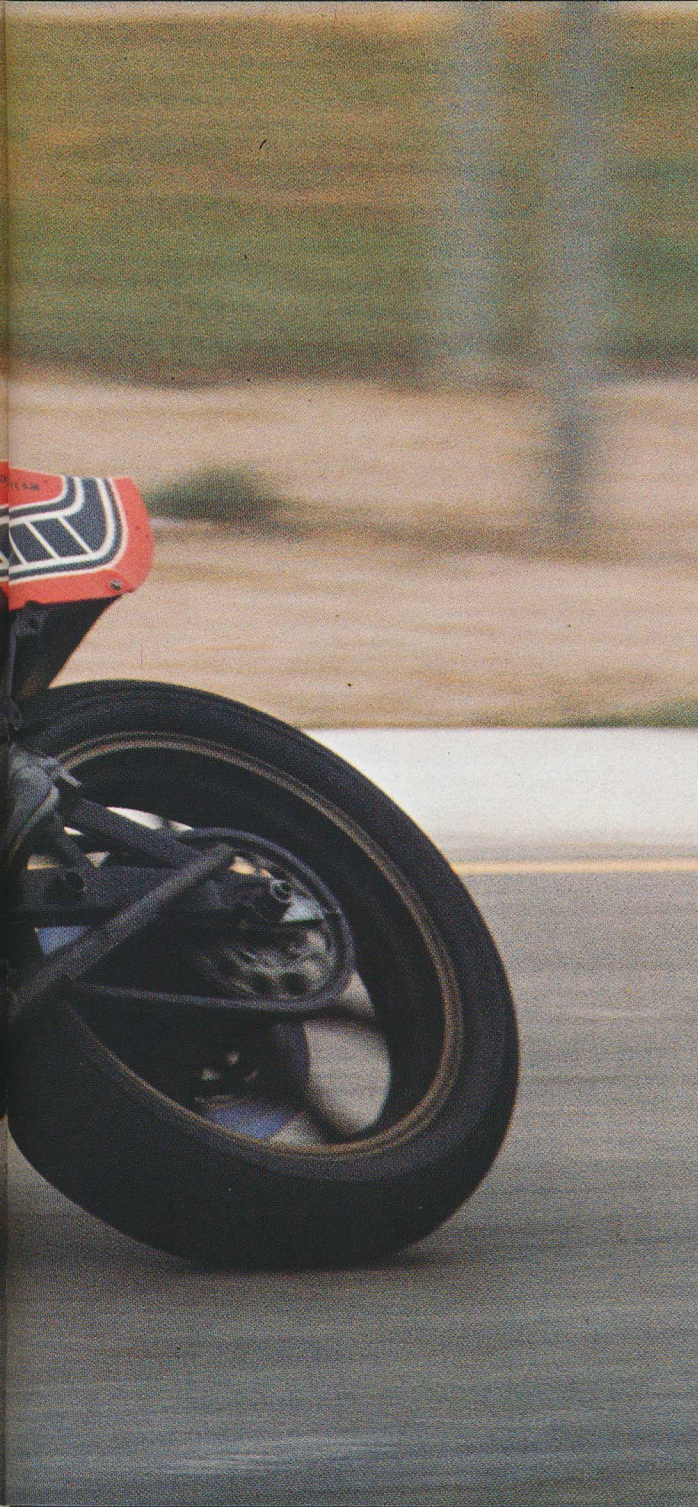
CHAMPION

YAMAHA MOTOR CANADA

GOOD YEAR

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Little Steve Baker, seen in action on a 750cc Yamaha, was the factory's first American signing.



A test rider in action on the RD350LC power valve model.

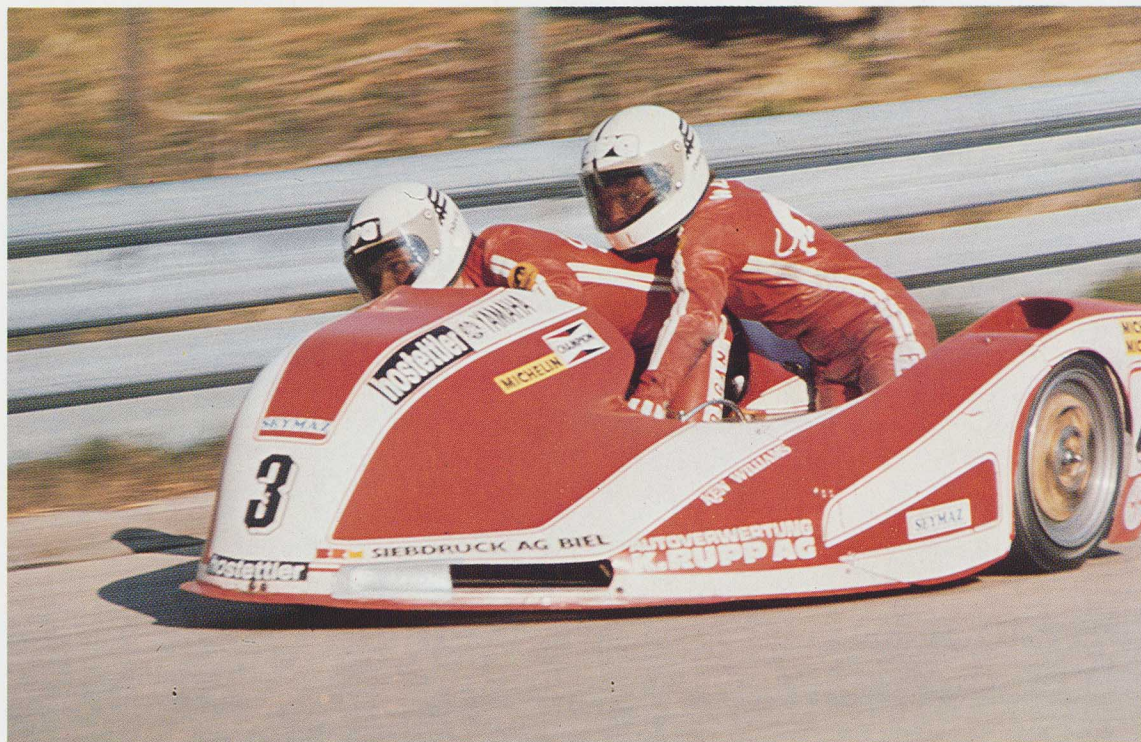
replaced Baker with Kenny Roberts for 1978 and Roberts responded by winning the title three years in succession – 1978, 1979 and 1980.

Those titles were all won on refined versions of the original four-cylinder racer (ow20) with an in-line across-the-frame, water-cooled engine. Then, for 1981, the factory produced a completely new machine, the ow54 with disc-valves and the cylinders in a square. Roberts lost his title to Marco Lucchinelli (Suzuki) that year

and another new machine, the ow61, with the disc valve cylinders in a vee was produced for the 1982 season. But again Suzuki won the championship with Franco Uncini as top rider.

On an enlarged version (680cc) Roberts won the Daytona 200 in 1983. Yamaha have an incredible record at Daytona, having won the American classic 12 years in succession, despite fierce opposition over the years from Suzuki, Honda and Kawasaki.

Virtually every year the top private riders in both the 250cc and 350cc classes have been



Switzerland's Rolf Biland in action during the 1976 Austrian Grand Prix on his Yamaha-powered Seymaz. Yamaha have dominated the class in recent years.

Yamaha-mounted. In fact, South African Jon Ekerold won the 350cc World Championship on a TZ350 in 1980 and Jean-Louis Tournadre, the first Frenchman to win a road-racing world title, chalked up his success in 1982 on a 'same as you can buy' TZ250.

But nowhere is Yamaha supremacy more clearly illustrated than in the sidecar class. There the Japanese engines took over in 1977 when George O'Dell won the title and competitors using Yamaha power won again in 1978, 1979, 1980, 1981, and 1982. In fact, so complete was the Yamaha supremacy in 1982 that every single competitor who scored World Championship points, 26 in all, used a Yamaha engine!