

EDITORS COMMENTS

This winter has seen me riding more miles under adverse conditions than I have done for several years. Sadly it reinforces a view I have held for some time, that although winter roads are more traffic free the dangers, particularly at night, are much greater.

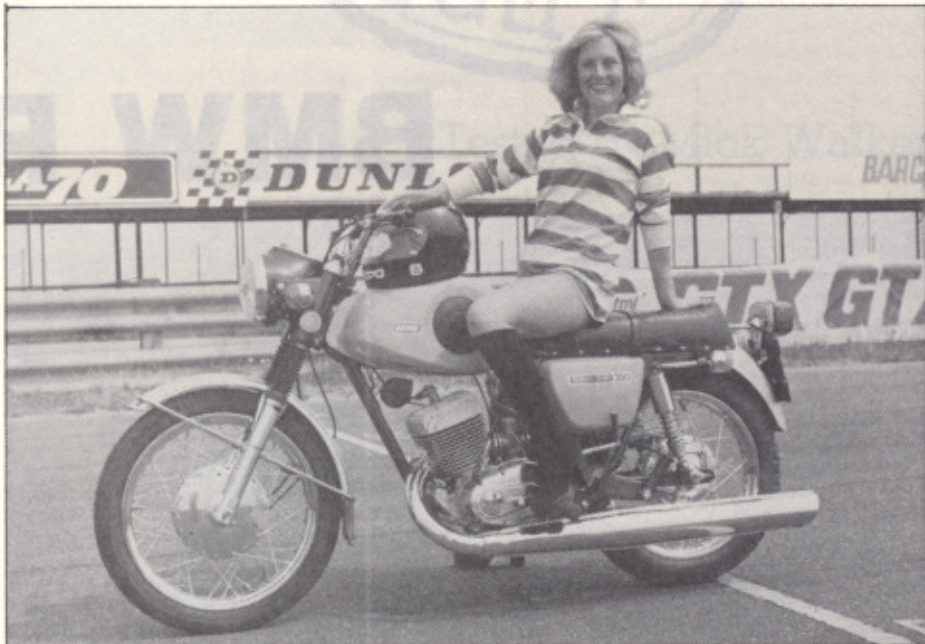
Recent developments have made winter riding warmer and dryer but virtually all the hazards remain, some far worse now than in the past. Besides the unseen danger of black ice, perhaps the greatest risk lies in what may be deposited onto the road surface. I live in a country area where most tractor drivers drive straight out of a field dropping greasy muck and mud onto the road, if this happens to be near a bend, tough. Items such as sugar beet falling from un-netted lorries are another hazard. Even though both practices are supposed to be against the law, hardly any tractor or lorry driver seems to know or care.

To cap all this, other major problems exist for the motorcyclist. There are many bikes where the lighting system is decidedly underpowered having either 6 volt systems or 12 volt ones which are inefficient. This makes riding on wet winter nights extremely dodgy, even for an experienced rider. Unfortunately, because it's often their only means of transport the younger and usually less experienced rider is the very one to be exposed to these risks. Scratched ineffective visors and dirty, unwashed headlamp glasses add to the danger.

It must also be remembered that at this time of year the condition of a motorcycle deteriorates at a greatly increased rate. Salt and water play havoc with unlubricated drive chains and sprockets and cause rapid deterioration of unprotected chrome and alloy, not to say anything of the paintwork.

What can be done? Very little I am afraid. But remember these hazards will not just effect other riders they effect you. So take care.

Dave Taylor recently made some pretty



The Planeta 350 Sport, first Soviet machine to be based on Japanese technology, obvious when comparing this machine with earlier models

loud statements on his fears that we are all sitting on a minefield under the watchful eye of Whitehall. A piece in a popular weekly was the root cause of his statement, this went something along the lines of "160mph, now even faster". Maybe big flashy headlines and impractical technically brilliant but outrageous machines sell both paper and bikes, but for how long! It seems that the popular press are only interested in machines that are the fastest with the most cylinders and which are more at home on the race track than the road.

Doug Jackson's story on Soviet motorcycles in this issue makes interesting reading, did you know for instance that Russia is the world's number two in terms of production figures, I certainly didn't. As

you can see, apart from adopting Japanese styling, western marketing techniques are being used in their publicity material.

Safe riding.

Erratum: Jeff Clew, the author of the Featherbed Manx Norton article, has pointed out to us that we incorrectly identified Joe Craig, the picture published was in fact Harold Daniell.

Motorcycles from behind the Iron Curtain

by Doug Jackson

Western Europe has imported motorcycles from "Behind the Curtain" for many years and they are enjoying a reliable and steadily increasing market in most countries. Jawa, CZ, MZ and Simson all have their devotees, riders who have ridden their chosen marque for years, and undoubtedly will continue to do so in the future. These machines, all two strokes today, have a reputation for toughness and reliability and the great attraction of being relatively inexpensive. Often it is possible to buy a full sized 125 or 150cc motorcycle for a lower price than a Western 50cc moped and this is an excellent selling point.

Alongside the East German and Czech machines, are the motorcycles of the Soviet Union. Although they appeared on the Western Market later than their "satellite associates", they do offer a wider variety in machine and come from a much larger production system. How many people realise that the USSR is the second largest motorcycle manufacturer in the world. Soviet motorcycles follow the lead of the other members of the Eastern Bloc, selling at prices far below the opposition from Western Europe and Japan, and there are good reasons for this price difference.

Every Eastern Bloc country works on basically the same system of production and marketing, so we will take a look at the Soviet one in particular, for the simple reason that it is the largest — and at the same time examine how that motorcycle industry has developed through the years.

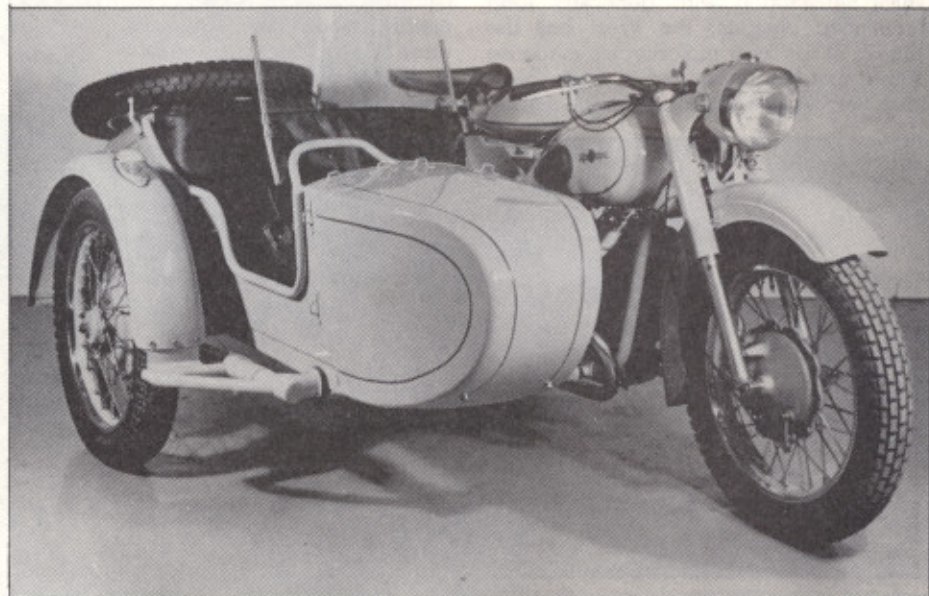
A Western factory, producing a range of motorcycles will market the range themselves or through a group system, when maybe two or three factories are linked together. Each marque determining its destiny by its success in publicising and selling its products. A healthy system, breeding competition and advancing design of all types of motorcycle at a rapid pace, inevitably bringing frequent design changes and introductions of entirely new models. All of this costs money, big money, and this is inevitably reflected in the price of each machine.

However, the Eastern system is quite different. Each country possesses a central sales and exportation body, in the case of the Soviet Union, it is "Vsesojuznoje Objedinenije Avotexport" based in Moscow. This organisation is responsible for the handling of every Soviet motorcycle sold outside of the USSR, together with just about everything else that moves, trucks, buses, tractors, cars, bicycles and so on. More than a hundred individual factories are producing for this company, a small group of them being for motorcycles. Here again the system is much different from the West. Normally one factory produces one motorcycle model, there are exceptions but this is usually when there are a couple

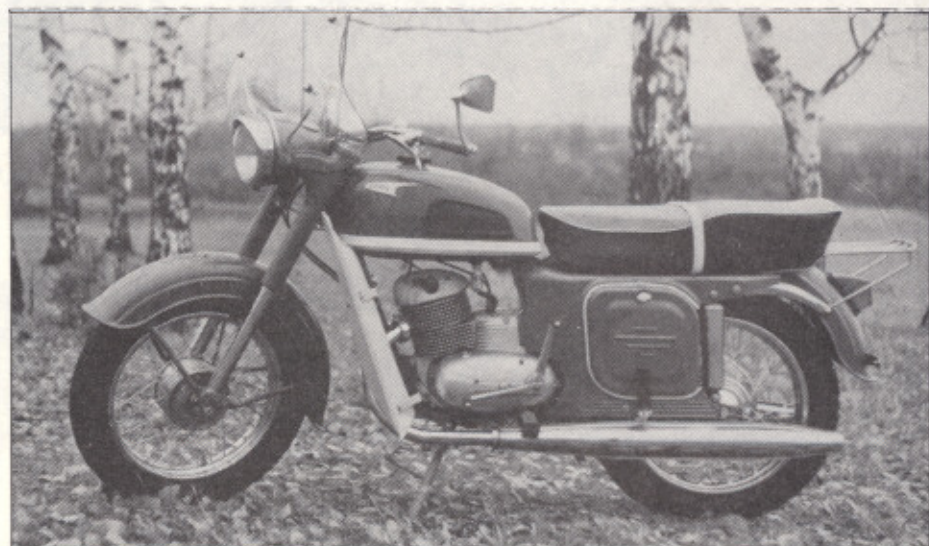
of machines of almost identical specification. The simplicity of one factory making one motorcycle model must be a "pipe dream" for any Western motorcycle constructor, in the USSR it is a reality and has been for many years. At present there are nine main factories in operation and their output is impressive in volume and rate of expansion. A few statistics will best illustrate that statement. In 1950, total motorcycle production was 123,100; 1965 showed an increase to 902,000 and 1971 had an output of 1,507,000. The latest available figures, 1979 were 2,100,000! When you remember that Japan produces approximately 3,750,000, it is a staggering production. Export figures have also

shown rapid increases, in 1971 just 33,636 machines left the country, in 1979 it was 120,010.

Returning to the "factories" themselves, they are spread out across the USSR. In Kiev the Dnepr is produced, in Kovrov the Voskhod, in Ishevsk the Isch and in Irbit the Ural, while of course, the Minsk is made in Minsk. The prime benefit of this is that machine tooling can be standardised, with production line techniques perfected and maintained with ease. All development is taken care of by another organisation, the CKEB near Moscow. Therefore, the individual manufacturing units, again quite the opposite to their Western counterparts, have no concern for

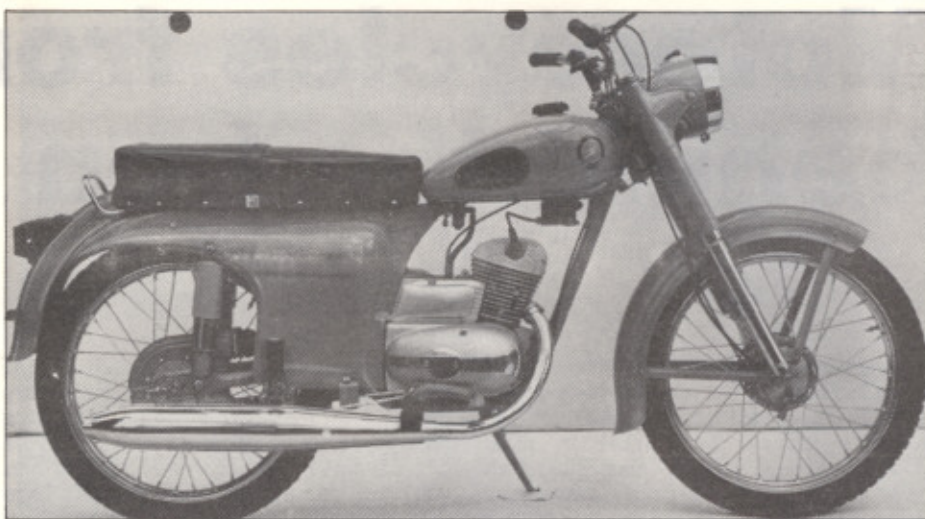


The M62 flat twin hitched to a side car, of mid sixties vintage. Still used by many in the Soviet Union



Introduced in 1967, the 175 Voskhod (Sunrise) was definitely designed for the commuter

development projects. The CKEB handle this and feed back any new ideas ready tested for production incorporation. All very good for sheer production in numbers, but not necessarily the right climate for rapid development. Soviet motorcycles, to a greater extent than their associated Czech and East German compatriots, have not exhibited in production models, any great changes for many years. Again it is necessary to consider the sales and potential market that the Soviet industry must feed. In the USSR virtually every motorcycle is made in the homeland, imports do not exist, save for a few Jawa and CZ machines, and so if the average Soviet comrade decides to buy a motorcycle, it must almost certainly be of Soviet manufacture. This is illustrated clearly by those production and export figures for 1979 — the total production being 2,100,000, while just 120,010 were exported — nearly two million motorcycles for the home market in one year! The fact that the latest models cannot match Italy or Japan for sophisticated dohc multi-cylinder engines and highly tuned suspensions etc, is of no consequence. If they tried to follow this line, then the factories would be re-tooling regularly and costs would rocket. Therefore, with young Ivan's satisfaction with generally long established designs, the West has the spin-off of low cost motorcycles made on tooling that has re-couped its costs many times over. A real advantage in the market



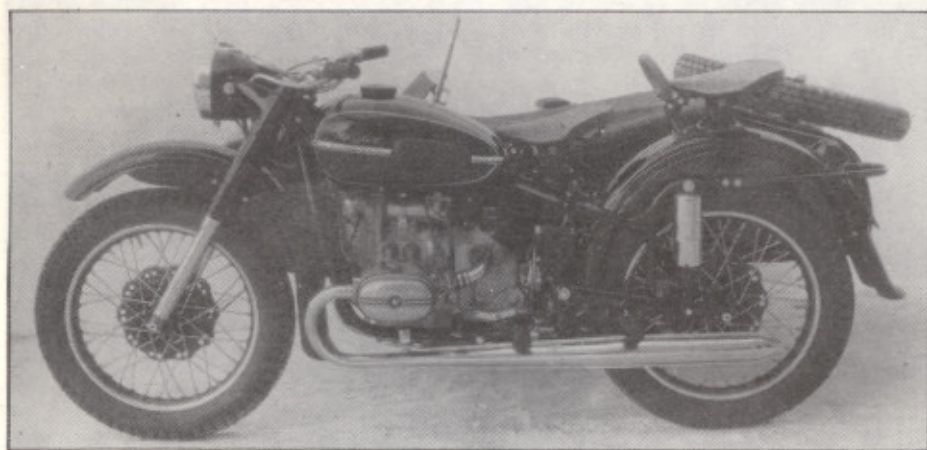
The 1968 125cc M-105 A much modernised version of the K-58 and the M-103

place, especially today, when so many riders must turn away from high cost sophistication for something simpler and more economical on the wallet.

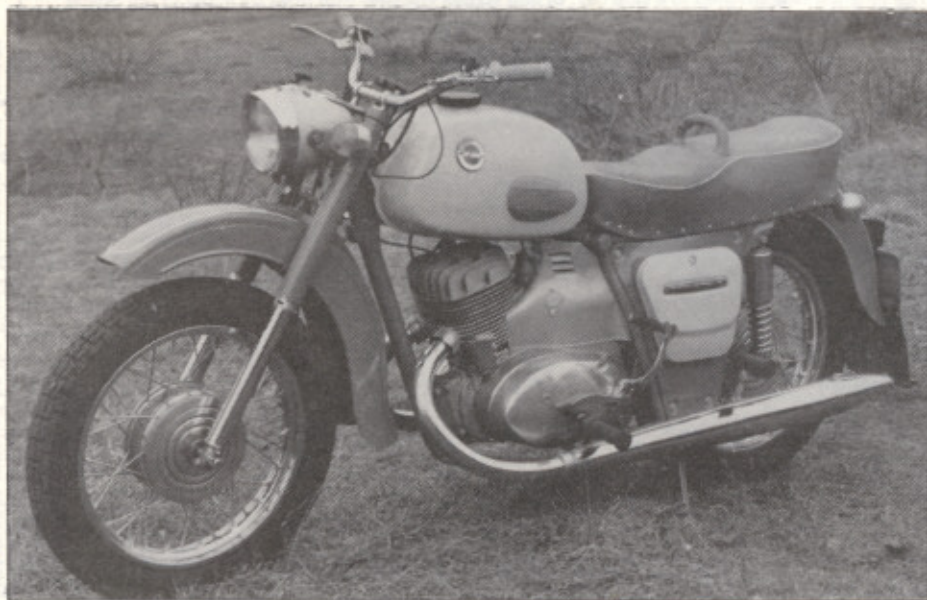
The Soviet Motorcycle Industry itself is not new, but it is only in the last twenty years or so that its products have become a common sight on our side of "The Curtain". Exactly when the first Soviet motorcycle was built is uncertain, but there was a lively industry in action in the 1920s. A variety of machines were built in the years that followed, two-stroke and four-

stroke. Often they were reminiscent of the successful designs of Western Europe, and even the USA, and were technically very interesting. The marque Isch is generally believed to be the first significant plant to start production in 1928, but there were earlier models, among them a 502cc four-stroke single with a primitive rear suspension system from 1925. Isch produced a range of novel machines, including a 1,200cc v-twin, set transversely in the frame. Transmission was by shaft and the frame of pressed steel construction, reminiscent of the Zundapp models of the time. In 1935 another v-twin appeared, a 750, again in a pressed steel frame with the fuel tank sitting snugly inside it. A leaf spring front fork was utilised. During 1937 a small 985cc two-stroke single was produced, still with the pressed steel frame, which gave its two-speed gearbox a very easy time! Prior to the outbreak of the Second World War, the M72 appeared, a machine just like the BMW of the time. A 750cc transverse twin, it produced 22bhp at 4,600rpm, and was manufactured in various guises for use by Soviet Forces.

During the next few years little was heard of Soviet motorcycles and this situation continued for some time after the conflict was finished. In fact, it was not until 1958 when the world had the opportunity to see what the Soviet industry was producing. The occasion was the World Fair in Bruxelles, when a range from 125ccs to 500ccs was exhibited. The K-58 was the junior, being a simple 125cc single cylinder two-stroke with three gears, but it did boast interchangeable wheels, a reliable commuter bike. The K175 was next in that 1958 line up, again a two-stroke single, but of 175ccs and of streamlined shape, vaguely like a Jawa, output was a modest 8bhp. The range became more interesting with the new 350cc two-stroke twin, a good looking machine with the rear section and carburettor fully enclosed. Designated the "Jupiter", it has survived well, the 1958 version produced 18bhp and gave a top speed of 68mph (110kph). A pair of 500cc four-stroke twins were shown, both with transverse cylinders, similar to a BMW, but of different designs. However, the cycle parts of the M-52 were very reminiscent of the 750cc twin produced in around 1938. There were telescopic forks and plunger type rear suspension units, the motor turning 25bhp at 4,900rpm



The original M-63 with sidecar, 1968



The 1972 Planeta-3 single, also produced in twin cylinder form

through a four speed gearbox. The M-53 however, was more powerful, producing 28bhp at 5,600rpm. the motorcycle itself was quite different too, it had a new frame, with swinging-arm rear suspension and leading link front forks.

Western observers gained the impression that the 1958 line-up at the Fair was the complete range of Soviet machines, but that was far from the truth. In fact there were numerous special machines being built for sport, off road and pure road racing. Both 125 and 350cc models were made for road racing, but were very simple, definitely not exotic and would not have shown up well in world class competition. But they were being made for Soviet sport, both were two-stroke singles, with rigid frames. Outputs and speeds for the 125 and 350 were 7.5bhp at 5,500rpm and 56mph and 18bhp at 5,200rpm and 84mph respectively. Four models, two of 125ccs and two of 350ccs were produced for ISDT type events and for motocross. These had swinging arm rear suspensions and again all had two-stroke single cylinder engines. All the 125cc models had three speed gearboxes, while the 350ccs had four.

The ISDT versions came to light at an ISDT event, when in 1961 a full team arrived at the British event. Capacities were 173, 246, 346 and 352, marques were Isch and Kovrovets. Compared with the various British, German, and Italian competition (there were no Japanese machines in sight in those days), the Soviet machines were very rough, but made up for this in toughness — they were built like military tanks. In a demanding event like the ISDT they were virtually unbreakable. The Soviet approach to the event was not in little trick details, but in sheer strength and reliability. The motorcycles behaved well.

Development of the road machine range continued but at a very leisurely pace, for, as already explained, the Soviet Industry has no reason to change designs merely for the sake of a new year appearing on the Calendar. The K175 became the Kovrovets-175 in 1965, updated with new cycle parts and the K58, with more changes, the M-103. The 350cc twin Planeta was still in production virtually unchanged, but alongside it was a 350cc



One of the special Soviet machines, only seen in the USSR. The 1978 Voskhod 250 motocrosser, with 36bhp, electronic ignition and monoshock rear suspension

two-stroke single in the same frame and cycle part layout except for a fixed front mudguard with the wheel moving up and down independently. However, output was down on the twin, the bhp figures being 18 and 13 respectively.

The big four-stroke flat twins had also received some attention, the M-52 500cc being boosted to 650ccs. Plunger rear suspension was still used, but one of the improvements was the incorporation of full width hubs, designed "M-61". The new larger engine gave 28bhp at 4,500rpm and had a compression ratio of only 6 to 1. The M-62 Ural was now on the scene, supplementing the M-61, again being a 650cc twin. Largest model offered then was the K-750, from the same mould as the others, but with an extended rear frame permitting the suspension units to locate on the swinging arms very close to the wheel spindle. Front forks were leading link and output was 26bhp at 4,800rpm.

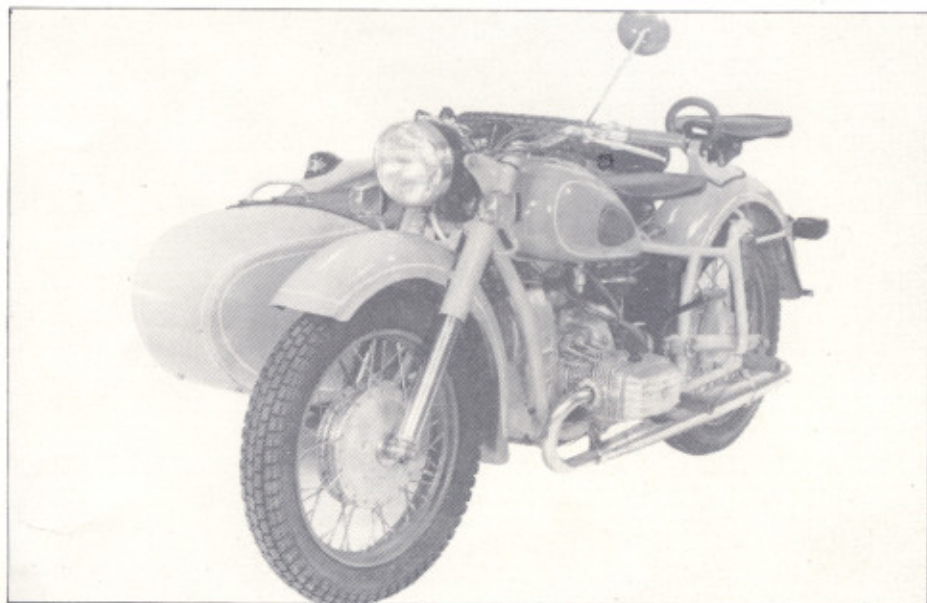
During 1967 a new 175cc machine was introduced, the Voskhod. Styling was up to date and it was very clean for the rider to use, particularly when commuting. To aid this type of rider, the machine was supplied complete with leg-shields and a

windscreen of good proportions, wheels were 16". Then, still looking at the same sector of the market, a new 125, the M-105 was introduced. The old basic 125 engine was completely tidied up and a bulbous rear enclosure added. The M-105 was given swinging arm rear suspension and a fully enclosed rear chain.

During 1972 the M-106 appeared, an up-dated M-105, now with screen and legshields and apparently some changes to the cylinder and carburettor, plus a revised Voskhod. More interesting were the new 350cc two-stroke roadsters, which although retaining many of the well tried ideas, were very much in line with other machines of the Western manufacturers. Designated "IJ Planeta 3" and "IJ Jupiter 3", they were single and twin cylinder machines respectively. Their outputs being 18 and 25bhp. Both were identical on sight, apart from the shape of the cylinder block, imparting whether it was the twin or single under observation. Both had twin exhaust systems. Soon after this, the 650cc Dnepr and the Sport version of the 350 Planeta came on to the scene, the latter being the first Soviet motorcycle that was designed to sit alongside the sports machines from Japan.

More development work continued and in 1978 details filtered out from "under the Curtain" of a new 250cc motocross model being produced for the Soviet market only. This one had cantilever rear suspension, with 250mm travel and a power output of 36bhp at 7,700rpm, weight was 98 kilos. Work had been done on the other models too, making them more pleasing to the Western buyers and this trend will undoubtedly continue.

The Soviet Motorcycle Industry cannot, in any way, claim a history to match a country such as Japan, for it has simply not been necessary. The Soviet theme through the years has been of steady development, keeping models in massive production for many years and for them it works just fine. Their method is not for Japan, but for the USSR it is ideal. Great changes in the future cannot be expected, history tells us that, but you can be sure that the Soviet machines will be still rolling when many of her faster and prettier competitors have long since been forgotten!



The 650 Dnepr, circa 1977, now fitted with full width hubs and new finely finned cylinder head and barrel