



MARUSHIO LILAC

THE JAPANESE BMW

The plan was simple: Copy the basic lines of the proven BMW flat twin, add refinements, boost the performance and produce it at a lower price. But it never worked out. The Marushio factory's Lilac 500 was dogged by minor problems that eventually caused the project to fail miserably. DEREK PICKARD traces the history of the Japanese BMW and rides one of the few examples to survive.

U ntil the mid-Sixties, the western world had never heard of the Japanese factory Marushio and its unusual Lilac motorcycle. Then suddenly the name arrived in America with a blaze of publicity. Marushio, which had been making motorcycles for years, had launched a BMW look-alike 500 flat twin.

It looked very similar to a BMW, boasted more features, was a lot faster and the price was unbelievably good. On the road it left its German opponent for dead. It was not surprising that the Lilac sold like hot cakes.

But history records that BMW survived while Marushio collapsed. The Lilac was crippled by a series of engine failures and lawsuit upon lawsuit was piled on the distributor and the Japanese maker. Unfortunately the factory was too small to weather the storm and went under, taking with it the first and last chance motorcyclists were to have of buying another version of the BMW at a working

class price.

Marushio's problem was insufficient development. It overlooked a few little details which led to serious engine troubles. These gremlins included a flywheel which had the clutch and starter ring gear held on by half a dozen short screws. They either worked loose or sheared to cause the obvious at 7000 rpm.

Though the Mikuni carbs were good, the manifold stubs were held to the head via a flange which had a minimum of welding. The strength wasn't really sufficient to support the weight of a carburettor over road bumps and after a while the weld would give way, allowing the mixture to go lean. The result: A piston (or pistons) would melt.

Ignition was by a conventional battery-coil system with a cam working against two sets of points. But the points mounting plate was unconventionally thin and very easily distorted. This led to inevitable alteration of the ignition timing



Champion in ACTION

When you need reliable starts, improved engine performance, you need Champion.

Champion's unique construction and proven technology mean fuel saving and reduced engine wear.

Champion spark plugs are unrivalled in quality. Experts the world over insist on Champion.

019 P241ALHT



and the result was usually ruined internals.

So, for Mr Average Owner, it was a case of the flywheel/clutch assembly blowing up after a couple of weeks, then one or two pistons melting when the mixture 'leaned off' on a long fast run. After those two major warranty rebuilds the first service would see the ignition timing begin to move all over the place, thus inflicting more internal damage. No Lilac 500 made it to 1600 kilometres without catastrophe!

Basically a BMW

Lilac had great expectations for its R92 model. It had been making small capacity shaft drive twins (in equally small quantities) for nearly 15 years when this, the sports 500, hit the market. The price, the specification and the performance were spot on; had it been thoroughly sorted then BMW might not be where it is today. But the sales department advertised the R92 as a sportster that could blow off Bee Emms; most of the customers did just that, only to have major engine troubles. Those three little faults could have been cured by three equally small alterations — bigger screws, a bit more welding, and a different points assembly. These three things would have made the Japanese bike arguably superior to the R50 BMW.

There is no hiding the fact that Marushio used the 500 BMW as a base for its first big bike. In 1964 it produced the 500 ST which had an almost identical engine. By 1967, when the R92 Electra appeared for world markets, many changes had been made but the basic powerplant (ie crankshaft, bore and stroke, compression ratio, etc) was still identical. What the Japanese did do was raise the power output from a leisurely 19.4 kW to a tyre burning 29.8 kW.

The R92 also had a vastly different frame and running gear. This was to be expected as Lilac had been making motorcycles since the early Fifties and though its bikes were small (no bigger than 330 cm³) it nearly always made transverse twins, either flat or in vee configuration.

Whereas the BMW looked old and odd (at the time) with its leading link forks and unusual rear frame lines, the Lilac R92 looked a typically modern Japanese machine. By 1967 the Japanese had gained an excellent reputation in the all-important US market. This new bike arrived in America with a good price, a blaze of publicity and a ready market. The 160 km/h twin (the biggest out of Japan at the time) just had to be an initial sales success. Its sudden failure disappointed many.

At its heart was an uprated BMW R50-type motor built a bit more sensibly — not so many special tools were required for servicing. The bike had a 68 mm x 68 mm bore and stroke, 9.6:1 compression ratio and 493 cm³ capacity. Fuel was supplied through two 28 mm Mikunis, and the motor produced a highly respectable 29.8 kW at 7000 rpm. This power, together with the bike's reasonable weight of 182 kg, not only saw it burn off 500 Bee Emms but also the 600 versions. A *Cycle World* road test at the time noted a top speed of 164 km/h.

Electric starter and four-speed box

The clutch, naturally enough, was a dry single plate unit and the electric starter engaged on the flywheel ring gear. Transmission was by a four-speed box with the overall ratios approximately 13, 9, 7 and 5:1. The lever was on the left side with neutral at the top. The sump featured a replaceable filter element, a magnetic drain plug and a deep-finned case. Apart from those three little faults mentioned earlier, the whole unit was well made, and it was cast in alloy.

As the photographs show, the frame, suspension and brakes were typical of that era from Japan; nothing was copied from Germany in that department. The wheelbase was 1400 mm, and the seat

height was 810 mm.

The bike came complete with a front crash bar and a battery that extended well beyond its cover — an incredible styling mistake. The tank held nearly 18 litres and was styled a bit on the weird side like a lot of early Sixties Japanese stuff. Its badge is meant to be an L (for Lilac, of course).

The bike featured in this story was bought by an experienced automotive engineer who corrected the three faults with BMW bits. Even by today's standards the black and chrome machine looks reasonable, especially beside the '67 BMW which appears very dated in comparison.

The control layout is good and the riding position is comfortable. Using the electric starter, the engine bursts into life effortlessly; far better than with the awkwardly placed kickstarter.

Unlike other flat twins (German and Russian) this one is a revver, not a puller. It makes no mistake about telling the rider that opening the throttle works best.

With neutral at the top and all-down to the four gears, it's certainly a bit strange at first, but after riding it for a few miles the shift action works well.

Shocking shock units

Unfortunately, the bike has a failing

World's No.1 Seller.

018.P241ARHB

common to most machines of its origin and era: the damping is appalling. The rear units have springs that are on the hard side and have next to no damping control. Up front, things are a little better but the set-up is still nowhere near the standard we've come to expect from a fast tourer of recent times.

Another problem, not quite as bad as the rear suspension performance, is the front brake. Unlike the BMW and other large capacity Japanese machines of the time, the stopper has only a single leading shoe, and with its cheap cardboard-like linings, the unit has little effective feel and stopping power.

These faults could be cured by fitting decent rear shocks, better fork springs and damping oil, machining the brake drum and doing a quality reline.

The bike wouldn't then magically become a a supertourer, but at least the revised set-up would complement the remainder of the machine, because the frame rigidity and layout are good and the engine is capable of making the whole package surprisingly fast.

The speedo is accurate and wringing the engine out to maximum power in each gear gives 60, 96, 124 and 160 km/h respectively. The latter is only obtainable under perfect conditions; most of the time the bike accelerates until 144 km/h, creeps to 152 or 153 and just sits there. Those last seven km/h are very hard to obtain.

Still surprisingly quick

The Lilac's acceleration surprises everyone. It can hit 96 km/h in just over eight seconds and burns up the standing quarter in under 15 seconds with a terminal speed of 136 km/h. This is no mean achievement; it's certainly as good as, if not better than, most CB450 Hondas which are supposed to be a lot quicker.

With a relatively low top gear ratio of 5:1 the engine pulls 22 km/h per 1000 rpm. This, combined with the weight and the power loss through the shaft drive, does not give particularly good fuel consumption. Rarely does it exceed 21 km/l, but it hardly ever drops below 17.6. A good average on a long fairly fast ride is around 19 km/l, giving the machine a cruising range of around 320 km.

The Marushio Lilac is a surprisingly competent motorcycle. For the most part it does what its manufacturers claimed. Had it not been crippled by what amounted to a handful of quite minor complaints, the Lilac might well have survived and become a major threat to the BMW it aped so closely. Who knows, if Marushio's R92 had hit the bullseye, we might now be able to buy a Japanese-made, budget-priced and super-quick R100RS — a BMW for the masses.

BIKE COVERS



- Weatherproof • Durable & lightweight • Silver polyethelene with P.U. coating • Large size

Features new locking slots* — lock the cover on when locking up your bike
\$49.95 Rec. Ret.

For your nearest dealer phone:

K. E. LAVER PTY LTD
(02) 949-4879

Chivo's

HOFFMANN TYRE
FITTING MACHINE

SEE THE EXPERTS

HOFMANN COMPUTER
BALANCER

ALL POPULAR BRANDS OF MX & ROAD TYRES

PIRELLI **Continental**

AVON
DUNLOP
SW SUSPENSION
METZELER **MICHELIN** MANY OTHER BRANDS

YOU WIN AT CHIVO'S!

CHIVAS UNIT 3/20 TELEPHONE
BROS PTY. LTD. CRESCENT STREET (02) 682-5950
GRANVILLE, NSW

Now with licensed workshop facilities.

Australians are dying younger from heart disease.



National Heart Foundation.

602-7261 — 602-7261

TRI-SPARES

BRITISH MOTORCYCLE
WRECKERS

OPEN 7 DAYS
USED & RECONDITIONED
SOME NEW PARTS
BEAD BLASTING SERVICES
PARTS TO SUIT MOST BRANDS
OF VINTAGE, CLASSIC AND CURRENT
BEST PRICES IN SYDNEY
OVER 10 TONNES OF SPARES IN STOCK
HOURS: MON-FRI 9.30 am-6 pm
SAT & SUN 9.30 am-3 pm
UNIT 5 No 32 SEFTON ROAD
MOOREBANK (OFF HEATHCOTE ROAD)
Ph. 601-7261

602-7261 MATCHLESS-VILLIERS — 602-7261

Wrothwell G. Wall SOLICITOR

146 Paddington Street
Paddington 2021
Office hours:
9.00 a.m. to 5.00 p.m.
Monday to Friday
Ph: (02) 32-9668

VIC WRECKERS

15 THOMPSON ST. ABBOTSFORD, PHONE 428 5471



NEW AND USED SPARES