



Prototype that created a legend

GWOCGB Club Archivist Peter Rakestrow from Exeter looks into the debt to BMW in the development of the GoldWing

Who would have thought that BMW would have had a helping hand in creating the world's most luxurious touring motorcycle that we now take for granted, when they themselves build touring motorcycles (at the time I don't think BMW knew much about their involvement).



Honda's M1 prototype – the first step in the development of the GoldWing ...

Thirty-two years have now passed since Soichiro Irimajiri and a number of engineers and designers met in a small committee room in Honda's factory at Wako in southern Japan. On this particular day in 1972 the meeting was to discuss a new project codenamed 'M1' and called King of Kings. This project was to create a motorcycle that would be the fastest and best grand tourer ever built. The motorcycle in question had a wheelbase of 1480mm (this is 210mm shorter than the current GL1800), ran on narrow tyres (by today's standards), the front was a 3.25 x 19", the rear was a 4.00 x 18", it had a 20 litre fuel tank and a six cylinder horizontally opposed engine with 1470cc. The machine weighed in at 484lbs, that was 4lbs heavier than the CB 750, but it felt much lighter because of its low centre of gravity.

The M1 was very much a 'bitza' motorcycle with the whole front end taken from the Honda CB 750K4, the back end taken from a BMW R75/5, as was the seat, the silencers, the gearbox and half of the frame, yes Honda cut the frame in half, used the back section and fabricated the front and middle sections. The engine and exhaust down-pipes were made by the Honda engineers, the fuel tank was made from aluminium and hand formed. One reason Honda used the BMW swing-arm and shaft final drive was because at the time they didn't have the technology themselves to build one.

Like with any project, you must set targets or goals, otherwise what would you be trying to achieve? The goals set in this case, were to build a machine that was capable of 130mph, with peak power of 61bhp at a high 7500rpm, the maximum torque was to be set at 5500rpm, which was higher than the machine's cruising speed, the quarter mile time goal was 12.40 seconds, this was quicker than the CB 750, the weight was to be 463lbs, divided roughly 40/60 percent between engine and chassis.

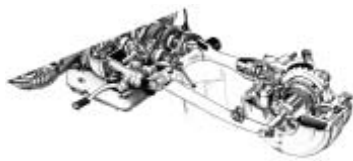


The Official Newsletter of The GoldWing Owners Club of Great Britain

All in all the goals set out by the engineers were achieved, except the weight, the bike was 211lbs heavier and the brake horsepower, which came out at 80bhp at 6700rpm. The engine was sand-cast in magnesium and had a bore and stroke of 72mm x 60mm which was the same as the Honda N600 car. It breathed through a downdraught twin-barrel carburettor, one venturi having a 29mm bore, the other a 27mm. These fed into a cast inlet manifold (which is common car practice) that looks similar to those used on the GL1500. The gearbox was 4-speed and was bolted to the back of the engine, which made the engine quite long.



... which couldn't have been produced without some of the visible back end bits from a BMW R75/5 (above) along with internal and hidden parts such as the gearbox and parts of the frame (below).



On the left hand cylinder head there was a car like distributor, the coolant reservoir was mounted above the right cylinder head. The radiator was a small unit mounted between the two front frame down tubes. Its brakes were a single disc with leading caliper at the front and a drum at the rear, which was a full width light alloy unit, with a friction area 16.55 square inch.

The M1 took just six weeks to build and was rigorously tested through 1973, even Mr Honda himself took it for a ride (so legend has it), he apparently said when he returned 'It was pretty good' and 'It looks like a bat'. OK, so the bike was pretty good, but the design team decided that they didn't think the design was marketable, also the riding position was not right, the rider had to stretch to reach the controls which made it uncomfortable. The Honda engineers knew they had entered new territory but weren't going to give up, it was decided that the original idea of creating a dual function motorcycle was asking too much, so the M1 King of Kings project was to be split in two. This split brought us the GL1000 GoldWing in 1974 and the six cylinder CBX 1000 in 1978. Most prototypes normally end up in the crusher, as for the M1 it was merely shelved.

At the end of 1983 two journalists from Rider Magazine (a USA publication) went to Japan to do an interview with some of the top Honda designers who brought us the GoldWing. The meeting took place in a nondescript conference room at Honda R&D in Asaka. At this time Yamaha and Kawasaki both had tourers on the market and Honda were starting to lag behind, so journalist Mike Stubblefield had decided to get straight to the point and ask the big question (as he'd seen three bikes covered up in the hallway), 'Are those the new sixes out there in the hallway?' trying to sound as casual as possible. 'We built a six over 10 years ago,' replied Mr Tsuboi, Managing Director of Honda R&D, 'It was too long, too big, too fast for existing components and too expensive'. The next question had to be 'Where is it, do you still have one we could look at?' 'It's right behind you,' Mr Tsuboi quietly replied and invited Mike to sit on the bike and start it up. The bike responded instantly before settling into a subdued burbling idle, on opening the throttle the note changed to a metallic whine of a Porsche Six.

Over the time the M1 has been changed and mutilated, at one point in the early days it had front crash bars and panniers, then the front end was changed from the CB 750 to a GL1100, but the front fender and wire-spoked wheel were from a GL1000. Then later the front wheel and



The M1 in use again – this time in a Limited Edition 1200 frame – as Honda begins the development of the GL1500



From the pages of WingSpan

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fender were replaced with GL1100 units. In the spring of 1985 the M1 had its engine removed and inserted into a GL1200 Limited Edition, complete with the M1/BMW exhausts. This was the start of the development of the soon to be GL1500 GoldWing.

From the first concept, to the launch of the first six cylinder GoldWing it took the Honda engineers 15 years to achieve their goal. After this the M1 was rebuilt and now resides at Honda's R&D facility in Japan, still with the GL1100 front end, but it now has different down pipes and silencers.