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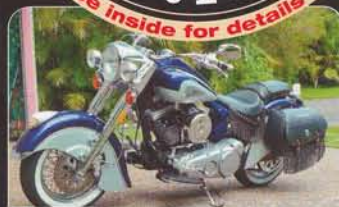
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EXCLUSIVE!



# THE BOLD AND THE

**Legendary GP champion Giacomo Agostini will ride a Bold-built but Australian-owned MV Agusta at the AMCN International Island Classic on January 27-29. Here's Ian Falloon's exclusive, behind-the-scenes preview of the bike and its builder.**

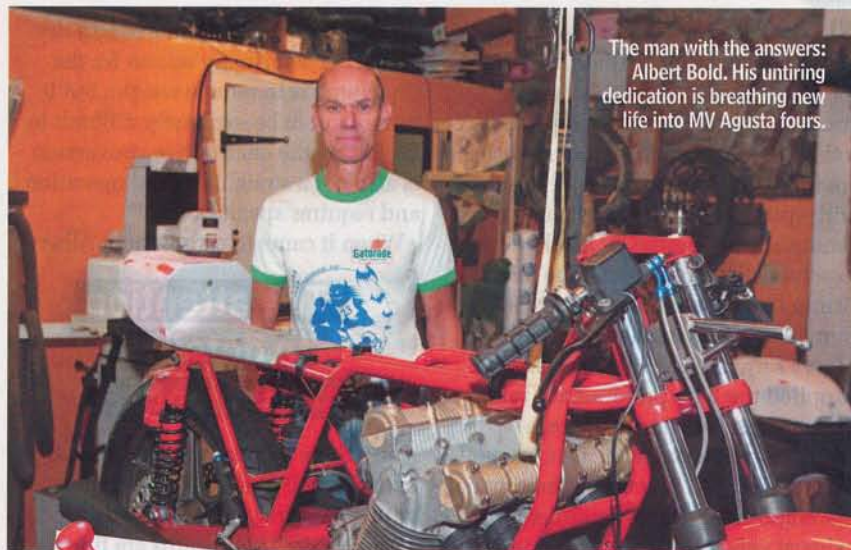
**A**lbert Bold is representative of a dying breed. Not merely a mechanic, Bold is a craftsman and perfectionist, not happy with anything unless he does it himself. Take his home in rural Pennsylvania on the outskirts of Philadelphia, USA. Singlehandedly, Bold spent 10 years restoring

the historic 1799 house and was responsible for every detail from plumbing to wiring. But Bold's real passion is for classic MV Agusta motorcycles. Although his German father was the US importer of BMW motorcycles during the 1930s, when he was 14 years old the young Albert saw a picture of an MV Agusta 750

S in the German magazine, *Das Motorrad*. "Looking at the motor," he says, "it was the most beautiful thing I had ever seen."

By the time he was 19, Bold had acquired his first MV four, "a blown up 600", and over the past 40 years has earned a reputation as one of the few that really understand





The man with the answers: Albert Bold. His untiring dedication is breathing new life into MV Agusta fours.



# beautiful

these complex bikes. Despite the distractions of building his house and working on specialised projects, Bold is also always on the lookout for MV fours in any condition. In early 2011, he stumbled on a 600 "in very ratty condition".

Coincidentally, on the other side of the world, Julian McLean, general manager of Tahbilk Winery in Nagambie, Victoria, was looking to build a better-handling MV four out of his existing America. McLean owns

an ex-Bold 750 America that seriously frightened him on a demo lap at the Phillip Island Classic.

"Powering through the Hayshed at around 140km/h or so, the bike simply went out of control," Julian says. "The marshals watching thought my day had come. The America is a great bike but very heavy and it just doesn't like abrupt changes in direction," he adds. "It was time to retire the old girl and possibly use the engine as a donor for a better-handling bike."

The problem with building MV specials is finding a suitable donor engine. Julian had earlier approached Giovanni Magni in Samarate, Italy, to build a Magni special but as only around 1300 engines were built (over a 10-year period) they couldn't find an engine. A chance phone call to Albert Bold put the two together and saw Albert embarking on building arguably the ultimate MV four. "I gave Albert the go-ahead with the instruction to leave no stone unturned," says Julian.



## NUTS AND BOLTS

For the 600cc engine Albert retained the stock crankshaft with a 56mm stroke, but with Carrillo one-piece con-rods. The standard MV crankshafts are incredibly strong, pressed together with split internal bearings and generously supported by a bolted-together, alloy crank rack. The forged, 71mm Arias pistons are machined from blanks, the displacement 887cc.

Dave Kay, another MV four expert, supplied the high performance intake camshaft with a standard intake camshaft on the exhaust. This is usual MV four hot-rod practice. Albert made the titanium intake and stainless steel exhaust valves with the largest intake possible, re-contouring the head to accommodate the larger pistons.

One of the few things Albert doesn't do himself is cylinder head porting. He sent the 600 cylinder head to Mike Hubsher of Lazer Porting in nearby Pottstown, Pennsylvania. "Mike has been doing drag racing porting for 25 years and is one of the best," says Albert. "He moved the intake ports up and repaired some inherent faults peculiar to this head."

The five-speed transmission in the original 600 is one of the weakest components in the design so an America gearbox was installed. Along with the usual Magni chain drive

conversion, Albert fitted a Magni dry clutch. "The primary reason for the dry clutch is to reduce weight, but it turned out to be extremely difficult to fit. Fitting the chain drive conversion is also not a straightforward operation and requires special skills."

When it came to carburetors Albert

## "The attention to detail is staggering..."

resisted the temptation to fit a bank of larger Dell'Ortos as is often done with MV four-cylinder specials. "Four PHBH 28mm carbs are fine for this engine," says Albert, "but they required specially machined titanium linkages and bell mouths."

The attention to detail is staggering, Albert explaining that the spring rate in the linkages needed to be changed so all the slides acted evenly. He also went to the trouble of matching the carb colours by blasting the bodies.

## BRIGHT SPARK

Albert remains old school when it comes to ignition systems. "The original factory racers had a magneto ignition from a Mercury outboard and this US-built Keikhaeffer Model 4D is a copy of that magneto. With only five wires, it is a lot easier than a battery."

Of course, installation was not straightforward and required special

adapters. The ignition timing has a fixed advance, the timing determined by riding. "We'll start at 30 degrees and go from there," says Albert.

The exhaust system is also hand crafted from steel, with 32mm header pipes. Albert made two types, a 4-into-1 and one with four individual megaphones as pictured here. "I started with some swimming pool ladders and they make a great pipe. They also polish up like they are chromed."

The 4-into-1 exhaust also makes 11kW (15hp) more power than the megaphones while weighing less.

Fortunately, Albert had many of the chassis components on hand for this project. About four years earlier he had acquired a Magni frame, alloy tank, and EPM wheels from Giovanni. The Magni frame is considered *de rigueur* for modified MV fours, the special twin tube frame being similar to that on the racing 750 Imola 200 racer of 1972. Manufactured by Giovanni in lightweight chromoly tubing, the frame includes a removable left-side downtube and lower rail to facilitate engine removal, and the upper sections are sleeved for strength.

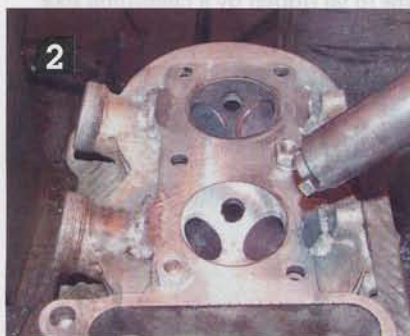
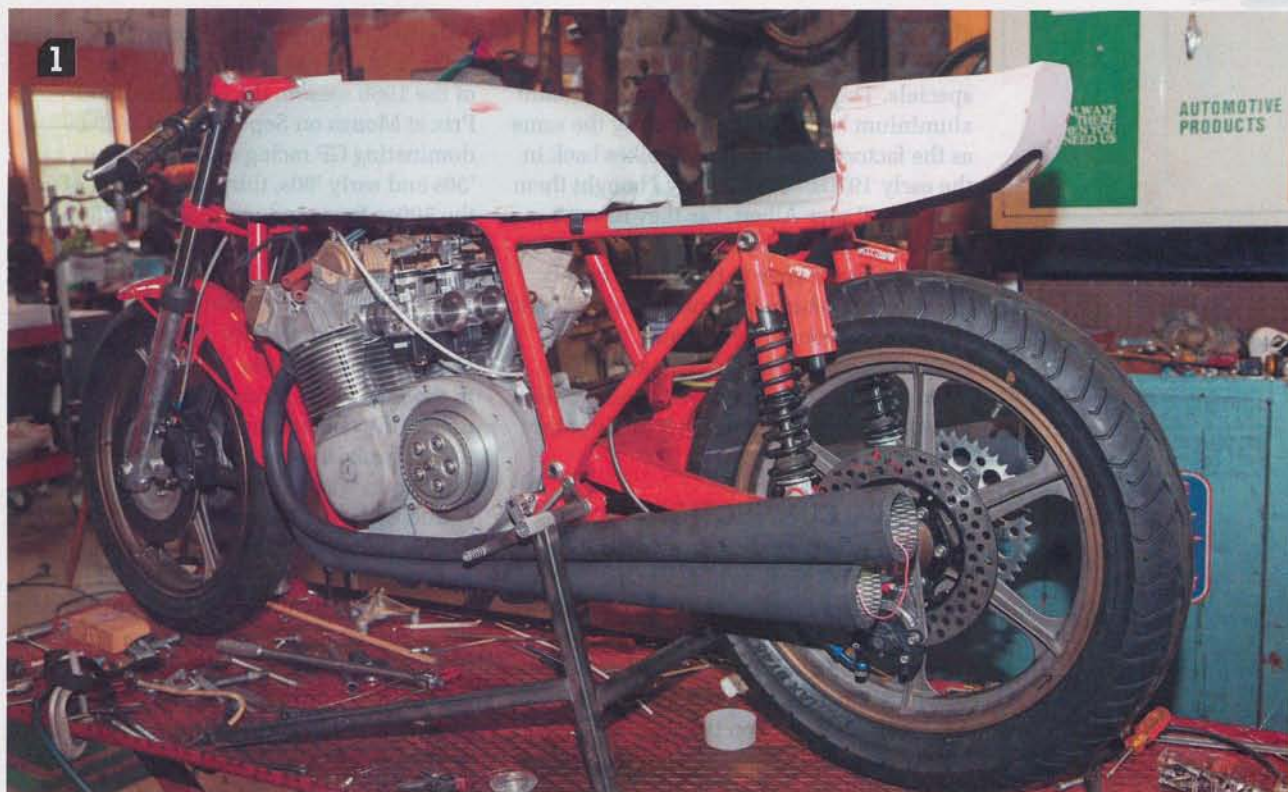
The swingarm is constructed of box-section steel, with plain Teflon bushes and the rear axle is carried in an eccentric mount for chain adjustment. With a rake of 27 degrees, 110mm of trail and a 1450mm wheelbase, steering and handling is considerably improved over the stock MV.

Designed and built by Arturo Magni's

Below: The PHBH 28mm carbs required specially machined titanium linkages and bell mouths. Bold even changed the springs rates in the linkages for uniform operation. Below right: The surgeon at work...







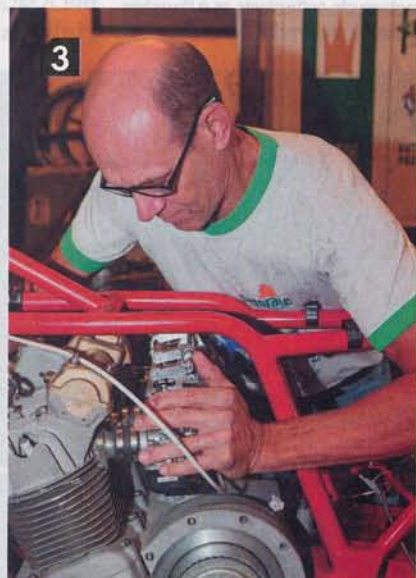
1: The bike is pictured here with four megaphone exhausts but Bold's alternate 4-into-1 system produces another 11kW (15hp) while weighing far less.

2: Two-valve cylinder heads – a remnant of a different age...

3: Bold went to extreme lengths to set up and fettle the bank of PHBH 28mm carburetors.

4: The Hunt brake rotors are no longer available – Bold bought these ones years ago.

5: Mike Hubsher handled the cylinder-head porting; he's been a go-to guy on the US drag-racing circuit for some 25 years now.





**"This is truly  
a bike that  
deserves to  
be ridden by a  
champion like  
Agostini."**

Bold's passion is seeing the MV four live on, and thrill new generations of motorcycle enthusiasts as it thunders around a racetrack.

elder son Carlo, the 18in aluminium EPM wheels are also regular fare for Magni specials. The Hunt, plasma-coated, 280mm aluminium brake discs are exactly the same as the factory used on the GP bikes back in the early 1970s. "Fortunately I bought them years ago," says Albert, "as they haven't been available for quite a while now." Also quite similar in spec to the earlier factory bikes are the 38mm Marzocchi forks, Strada shocks and Brembo twin-piston brake calipers. No detail has been spared in an effort to reduce weight down – the titanium clip-ons weigh just 150g each (the stockers were 438g each).

### THE AGO CONNECTION

But even Albert's experience with these engines didn't prepare him for a few hiccups along the way. On the first dyno run the engine dropped a valve and the magneto failed. But these are minor inconveniences and Albert expects to see 73.6kW (100hp) on the next running. The goal now is to have it running for demonstration laps by Giacomo Agostini at the AMCN International Island Classic at Phillip Island at the end of January.

The last time Ago raced one of the older 500cc fours in earnest was at the final race of the 1966 season, the Nations Grand Prix at Monza on September 11. After dominating GP racing during the late '50s and early '60s, this final version of the 500cc four produced 55.2kW (75hp) at 9000rpm and was capable of around 265km/h.

The 1966 season proved an epic struggle between Ago on the MV Agusta and Mike Hailwood on a Honda. Hailwood went to the final GP at Monza needing to win to take the championship but the Honda RC181 broke a valve and Agostini, on the older four, was untroubled, winning at a comfortable 191.46km/h.

After 1966 the four was pensioned off in favour of the more compact triple; the racing era for two-valve cylinder heads was over. But the older four would have another life, as a limited-quantity production engine. It is due to the passion of craftsmen like Albert Bold that examples of the venerable four can still be seen and heard on a race track. This is truly a bike that deserves to be ridden by a champion like Agostini. ■

