

There lies in the heart of almost all big bike owners the desire to have something different — from bland changes of the handlebars to full cafe jobs, choppers even. All are representative of the individual ego. But none more so than the hybrids — one machine adapted to another for a unique blend of the best features of both. So often though, the product is untogether, ugly, perhaps ultimately unwarranted. But Melburnian Max Johnston's creation is something entirely unparalleled . . .



# SUPERIOR HYBRID "VIN-DUKE"

## A British Legend Framed by An Italian!

OF ALL THE legendary bikes around the Vincent stands supreme.

The giant that failed to exist because of the metamorphosis of the modern motorcycle movement.

Yet it lives on, in memories, in clubs, and even with craftbuilders in England who made special hybrid models to help maintain the Vincent heritage of the giant V-twin engine, designed and built by Australia's engineering genius, Phil Irving.

Phil lives in Warrandyte, a bush suburb on the north-eastern edge of Melbourne among the hills and roads where the "scratchers" can have their evening ride without travelling too far away.

Nearby, in Eltham, is the home of Max Johnson, a Vincent enthusiast with his own individual ideas on the supreme motorcycle — and a project involving two mighty V-twins. One that will snap the riding fibres tight when you see it . . . a "Vin-Duke". Yes, a combination of Ducati GT frame and parts with the handbuilt power and legend of the Vincent Rapide B series ('47-48) engine.

So in the search for that elusive but unique hybrid craftsmanship Max Johnson has come close. So close many people will just walk on past the bike with a cursory glance



at the gleaming, rich, polished black tank with the traditional gold "Vincent" scroll. The whole machine looks manufactured, completely without the odd spots or irregular pieces normally characteristic of hybrids. The Johnson special is balanced, professionally finished and a tribute to Max's skill and the ultimate expression of his belief in the Vincent marque.

From the time Max decided to build a Vincent to finally having the Vin-Duke registered ready to ride took just three years. But building a hybrid was not the original intention. Max started out to complete a Vincent. Buying an engine and parts was not difficult but the complete frame and running gear were far harder to come by. Max developed contacts in England to ensure he would receive proper Vincent parts. But all of this took time and he was anxious to start the project. During the slow process of chasing parts he had the B series Rapide engine completely rebuilt, and then decided to adapt the engine to a swinging arm frame. The Egli frame appealed, but it was an Italian that won.

The scheme was resolved during long sessions helping a friend repair

a crashed Ducati 750. Max thought the Vincent engine would fit the Duke frame and before completing the re-build job he made a set of Vincent mock-up cases and tried them in the Duke.

"The dimensions are quite similar and the mock-up cases proved the idea was sound," said Max. "The only major structural change was in the front down-tubes."

Through consistent advertising Max finally came upon a crashed GT750 Ducati and bought the damaged bare frame. The twisted frame was straightened out and the hybrid begun in earnest. The two front down-tubes were cut off and the engine slotted into a rough position.

"The project was not really difficult in the many ways people might imagine," said Max, "But it was far more involved and annoying in the smaller aspects."

One of the reasons for this was that Max insisted on not modifying or changing any Vincent part just in case he wanted to return things to an original frame at some stage in the future. All the changes had to be created around the original Vincent design.

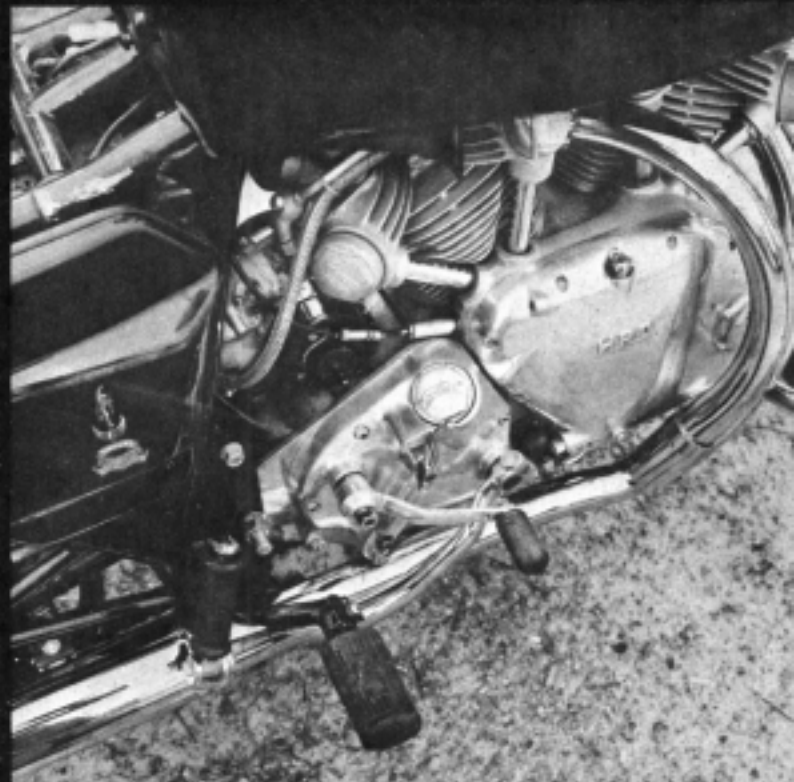
Two spacers were required to correctly align the engine in the

frame. Plus a new bracket to remount the shortened front downtubes to the front cylinder head and back to the steering head. The end result were two mounting brackets at the front (shortened original downtubes) fully gusseted, with two mounting points at the rear, one at the bottom of the frame adjacent to the countershaft sprocket and one at the top of the frame at the end of the backbone tubing.

The engine sits in the frame as though it was designed for it. It is lower than the Duke engine and helps get the heavy Rapide weight more central in the frame, yet keeps the centre of gravity as low as possible. The oil for the engine is carefully piped to a concealed 4.5-litre tank beneath the seat. But this still leaves an enormous space available for the metal tool case. Max carries "Enough tools to do a complete overhaul of the bike by the roadside".

The idea for the bike was a long-distance hauler, one that would cruise all day at high speed without great emphasis on acceleration and instant performance. The Rapide engine was carefully dismantled and new parts ordered from England and the engine fully re-built. At the time of





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the test ride the engine was still being run in. Yet at a bit less than 3500 rpm the big bike is ticking over at better than 130 km/h.

The "torque rather than power" requirement led Max to drop the compression to 7.5:1 by adding a plate under the barrels. The rods and barrels were sent back to England to be rebuilt and new oversize pistons went in. This meticulous attention to detail continued with the use of iron spacers in the gearbox rather than alloy, which may break or flake. Primary drive included a multi-plate Triumph clutch housing and plates. It was something Max did for rideability for his personal use. "The multi-plate clutch is far better in heavy traffic and for general control," he says — and it really works! The bike now has three cush drives. The Triumph clutch has one, there is another on the countershaft sprocket and a third in the hub of the standard Ducati rear wheel.

This does mean a reduction of shock through the frame and seat but it also means a lag between the throttle action and the drive wheel response which, until you get used to it, feels like a slight slipping in the clutch.

The engine is guarded from unwanted grit by Triumph air filters attached to 30 mm Amal monobloc carbies. These carbs allow the bike to idle and start easily but in Max's opinion are subject to comparatively rapid wear, so he will be adding Mikunis shortly.

Because the oil circulation of the big V-twin is not up to modern standard Max has the Vincent owners' answer to the problem; a double-start oil pump, which fits neatly and increases the circulation rate markedly. Enough for the big engine to feel better during the Australian summer, a far warmer climate than the European one the bike was designed to be used in.

Once the engine assembly was in the Duke frame and the rear wheel was set up the right way, Max was faced with the smaller details. The front end, the oil tank, the electrics, the seat, tank and instruments.

The Vincent electrics were replaced by a 12V Kawasaki 650 generator, completely rewired and producing 180 Watts. A Yamaha headlight from an ill-fated 750 twin fits the front, set ahead of a handcrafted console containing a

Duke tacho and Smiths speedo and ammeter.

Max chased up the forks from another wrecked Ducati and the triple clamps include the friction steering damper. The brake hoses are Kawasaki while Yamaha switches and levers are used. These are attached to Suzuki handlebars, providing a low but comfortable arm and riding position.

The rear section is controlled by Koni units and crashbars are fitted to the front. Honda steel rims are used in preference to alloy ones. The seat and tank are straight GT Ducati items. The steel tank has the immaculate black paint scheme which Max did himself, including the Vincent logos on the tank and sidecovers. Chromework on the chain guard and headlight bracket (hand-made again) helps display the gleaming richness of the black paint job and the polished cases of the Vin-Duke at its best.

The minor items that took extra work and time included the speedo drive to the Smiths instrument, which finally required another British machine part for the finished result. The drive is from a Matchless, and modified to fit the Ducati rear hub. Typical of the



effort and trouble that Max goes to finish the article. Typical of the thoroughness of a man whose hobby is completing things well.

It took nearly 24 months from the time Max got the frame to having the bike finished. Finished well enough to take around to a Vincent Owners' Club turn where even Phil Irving checked it out and made a suitable comment: "It looks as if it grew there."

The looks are matched by the overall performance. The valve lifter ensures that one can bring the engine into firing order and the bike starts within three kicks. The flat, lumpy idle brings back the era of the four-strokes.

Settling into the seat one finds it about the same as a Ducati. But once under way the feeling disappears. It is no Duke. The vast torque is the most noticeable feature of the bike. That and the heavy front steering. This is brought about by the Vincent engine having a lot more weight further forward. The standard GT weight factors of 45 percent front and 55 percent rear are changed to 47 percent front and 53 percent at the rear. This weight transfer was deliberate. Max feels the standard Ducatis have

a front end oscillation at high speed on rough corners and wanted to get more pressure on the front.

One also notices that the engine is lower than the Duke's and the bike feels firm and solid on the road. The acceleration is about right, comparable to Honda 750s and such, but the giant Vincent has an incomparable "feel" — that it will last longer and be running stronger for more years than any Japanese machine.

The attention to detail in things like footpegs and rear brake pedal and exhaust system means the ground clearance is fine. Overall handling is stable, accurate and forgiving.

It took Max five years to build his immaculate brick home in the hills of Eltham. It took nearly two years to do the project bike. During that time he also collected a lot of other Vincent material. He has chased parts for B and C Series machines in England and Australia, including one trip to Rockhampton to pick up bits. He now has enough to build a B and C series engine and bike and is expecting two large crates of parts from England (including the elusive frames) to add to his collection. Rear wheels

have been the hard parts. Max has two A series wheels but none other and the 18 months it took his English contact to collect the parts in the crates did not come up with the right rear wheels. But a straight, original Vincent is the next step.

Meantime Max has his hybrid to ride, to tour with and to care for. He also has his E-type and Mark 10 Jags, an Ariel Mk II Square Four and his Bultaco Matador. But the new machine is the one he most cares about — after hundreds of hours of careful labor and an outlay of only \$1000 it has to be one of the most successful hybrids in the country. Easy to ride, no real vibration, no transmission wind-up or chain snatch, massive power and cruising capability. The bike is a tribute to the detail and thoroughness of Max Johnson and the project assistants Dick Maher and Bob Kent.

The engine is the cleanest Vincent we have ever seen; not a glimpse of oil anywhere and nor was there any misting.

As a hybrid the Vin-Duke is remarkable. As a Vincent the bike is absolutely modern and superb. It is a collector's item that is sure to maintain the Vincent legend. \*