

4T MONO

# MANN MADE LEGEND

Photography by Bill Forsyth



## DMS YAMAHA TT500

**We've all seen the movie. It's always been a tough job being America's AMA National Champion; competing in dirt track and road racing over a gruelling season that leaves budgets drained and motorcycles broken.**

Dick Mann was AMA #1 in 1963, making his mark with a British Matchless G50 single before it was banned under a set of rules which resulted in little more than a de facto one make formula for Harley Davidson. By 1971 Dick was back carrying the coveted #1 plate for a second time, riding BSA and taking the works Rocket Three 750 road racer to victory in the Daytona 200 - the very same event which saw his G50 blacklisted eight years earlier.

Unlike many of his AMA racing peers, Dick Mann was also a top notch motocross rider.

What made Mann unique was not just his unquestionable riding talent but also his adaptability and empathy with motorcycle chassis behaviour.

To this day, Dick Mann remains a talented engineer with a string of custom designed motorcycle frames to his credit. Many were derived from his original dirt-track inspired designs built around BSA Gold Star engines. All were characterised by meticulous craftsmanship and stamped with the form-follows-function philosophy which was the unwritten code of DMS - Dick Mann Specialties which was based in Richmond, California during the late 1970s.

At the time Yamaha was spending vast dollars internationally to convince the world that their

new XT500C was really some form of Gold Star clone. Their hype carried considerable weight, literally - the standard road ready XT500C weighed around 138kg (303lb), not a



**Engine installation required no fabrication or special fittings**

whole lot less than the BSA from which the XT borrowed its carefully applied veneer of four stroke heritage. Even the stripped down TT500C playbike weighed 123kg.

Well documented is the saga of the Aberg-inspired Yamaha HL500 motocrossers. Built

for the XT/TT 500 motor as either complete bikes or as kits, there were also frames available from a number of primarily USA-based aftermarket manufacturers. In most cases, the custom framed bikes were tailored along motocross lines, as genuine racers or weekend play weapons which were usually devoid of speedos, lighting, big fuel tanks and off-road friendly exhaust systems. With the right amount of money injected, any one of these race frames could trim your TT or XT down to a svelte 115kg or less. Very few would have coped with the day-to-day demands of a serious enduro ride or a long desert haul.

Dick Mann spotted a niche in the growing aftermarket for accessory frames. He envisaged a kit frame which would accommodate all stock XT or TT running gear, without the need or even the desirability of custom alloy swingarms and big budget suspension. Everything would bolt straight up from a stock Yamaha with no welding, trimming or fabrication required. Dick's DMS frame kits would be targeted at the guy who wanted a simple yet effective no-frills woods weapon. One tough enough to survive a nuclear holocaust.

Fully aware that the stock TT/XT chassis geometry was a compromise, Mann opted for a design which reduced the standard steering head rake by around two degrees and also trimmed around 15mm from the stock 1420mm wheelbase. The DMS frame used a rectangular box section swingarm extended by a corresponding amount. Early production frames, intended primarily for enduro use, also used snail cam adjusters at the pivot point.



Not only did the DMS frame kit utilise all standard TT/XT components, with the exception of the exhaust system, it also addressed the three major shortcomings of the standard Yamaha chassis - excessive weight, play rider geometry and lack of ground clearance.



*Mann-framed TT was intended primarily for enduros rather than motocross*

When fitted with enduro legal lighting gear and aftermarket shocks, a typical DMS-framed TT500 offered around 240mm of ground clearance and weighed under 118kg fuelled and ready to ride.

At the time, a new TT500C sold for around double the \$700 price tag of the Dick Mann frame in Australia, so demand for the specialised DMS kit would always be limited. However, the quality and geometry of Dick Mann's creations impressed Melbourne-based John Burrows who imported six kits to Australia for sale in early 1977. Burrows was a formidable enduro rider as well as a motorcycle retailer with a reputation for refining and developing many of the models he sold. His friendship with Dick Mann evolved through two ISDT encounters, the first in Italy and then the Isle of Man, where Dick competed in the event. Later Burrows saw the new DMS frame in a US motorcycle magazine and remembers, "It took my eye and our currency was really strong then, so I decided to get some. I couldn't wait to get them, so I had them air freighted out and built up a trail and enduro bike for myself from one of the kits. An employee of mine made one up for motocross and the others went to various customers".

Burrows was never disappointed and his initial impressions remain as positive today as they were in 1977, "Dick Mann's always been very clever with handling and steering. He's not a technical man but is a very practical man and his frames were precisely the same".

How many DMS-framed Yamahas have survived is unknown. One which has been resurrected in totally original trim is still owned by John



*Frame kit accepted all key Yamaha components apart from exhaust system*

Krober who purchased it from Burrows in early 1977. Krober's bike was built from a 1975 model TT500C, rather than the XT which he would have preferred at the time. However, the production road/trail model was not available, so Krober's DMS-framed 500 was built up to handle everything from weekday commuting to trips in the high country around Wonnongatta. John also raced the DMS in the 1977 BP Desert Rally, held at Hattah in the mallee scrub country near Mildura, and recalls, "I had a ball and the bike went well... I only wish I could say the same for me!"

After the BP event, John put the DMS into storage for over 20 years and only recently revived the bike from its hibernation beneath his Melbourne home. He says that he simply bolted it back together, splashed in some fuel and oil and kicked it into life.

## GETTING THE BUGS OUT

*By Dick Mann*

Nearly 200 frames were made from late 1976 to March 1981. I sold them all over the U.S. and a few in Australia, however, only the enduro models went to Australia. There were four different models. The first batch were intended for enduro or ISDT type use and they were the only ones that had the rear wheel adjustment at the front of the swing arm. They also used all of the stock Yamaha TT components, fenders, tank, air-box, etc, with only the exception of the exhaust system.

Later models increased in wheel travel and wheel base according to the advancing demand for more wheel travel and shock design. I also made about 50 frames for the 500 Honda four stroke in 1979 and 25 frames for the DR370 Suzuki in 1979. These frames used other components. Many of the enduro frames ended up doing duty as road racers with very little changes. I built and tested the prototypes but the production frames were fabricated by Terry Knight on my frame jig. All tubing was US aircraft specification 4130 chrome moly steel.