

# **MeGa 1 BUILD DOCUMENTATION**

## **FRAME**

- Began construction with 1972 BMW R75/5 short wheelbase frame
- Frame stripped of all brackets, hangers and mounts; centerstand, sidestand, passenger peg plates removed
- Standard subframe discarded, replaced with custom fabricated unit incorporating additional bracing and improved suspension pickup points
- Fabricated Heim jointed longitudinal aluminum frame braces for each side
- Gusseted frame in the steering head area
- Strengthened the swingarm pivot with gussets and frame braces
- Installed double front downtube bracing (as in later model frames)
- Scratch built sidestand and mount assembly
- Frame powder coated Super Midnight Pearl over black by Advanced Powder Coating in Longwood, FL

## **BODYWORK**

- 1977 R100RS fuel tank, filled and smoothed with flush mount knurled aluminum filler cap
- Fiberglass seat/fender unit, widened and lengthened 900SS pattern, custom upholstery by Sargent Cycle Products, Jacksonville, FL
- Paint color matched to frame with metallic silver insert, airbrush BMW logo and ghost flames applied by Fleming Island Auto Body in Orange Park, FL
- Chrome headlight installed on special bottom mount bracket
- Lucas pattern taillight on alloy hanger integrated with license plate holder
- Handmade aluminum front fender “hangs” beneath fork brace on hidden stay

## **FRONT SUSPENSION, WHEEL, BRAKES**

- R100RT forks fitted with matching lower clamp and cast aluminum fork brace
- Upper triple clamp is older style San Jose unit bored to 38.5mm to fit late forks
- Fork outers machined to remove reflector mounts and fender lugs
- 38mm Race Tech cartridge emulators modified to work with BMW internal components
- Original 1970's Morris alloy wheel designed for /6 BMW
- Brembo rotors from later BMW adapted; required redrilling front wheel and fabricating spacers to accommodate wider R100RT forks
- Special spacers and bearings used to convert wheel to late 25mm front axle
- Brembo front calipers required machining to clear wheel spokes
- Mechanical steering damper made to BMW pattern using upgraded materials
- Rebuilt R90S 17mm under tank master cylinder is activated by bar mounted cable
- Custom HEL stainless brake lines fitted
- Forks and calipers powder coated light gray metallic, wheel spokes done to match frame

## **REAR SUSPENSION, WHEEL, BRAKE**

- Swingarm strengthened with modified CC Products brace kit
- One-off alloy bodied lay-down reservoir shocks designed and built by Works Performance specifically for this project
- Morris rear wheel fitted with special spacers on modified rear axle
- Grimeca rotor replaces standard early BMW drum brake
- Grimeca caliper rotated to bottom of wheel and mounting on fabricated torque arm
- Honda CB-R rear master cylinder rebuilt and fitted on custom brackets
- Custom HEL stainless brake line routed along swingarm
- Components powder coated same as front wheel and brake components

## **ENGINE AND TRANSMISSION**

- Engine built up from R100GS short block, rebuilt from the crank up
- R100RT heads mildly ported and polished, Black Diamond valves, and dual plugged
- Barrels shaved to bring compression to 10.3:1
- New BMW "S" camshaft installed
- 38mm Mikuni carburetors mounted on custom spigots, fitted with velocity stacks
- Air box removed, pre-emissions engine cover installed, powder coated
- Modified Luftmeister 2 into 1 header (powder coated high temp Satin Black), Supertrapp muffler with hidden hanger assembly
- All new high performance coils, ignition booster, electronic regulator
- 13mm sump spacer increases oil capacity by .5 liters
- R100GS 5-speed transmission

## **ELECTRICS AND CONTROLS**

- Custom fabricated aluminum battery box mounted below gearbox
- Gel battery installed on its side
- Aluminum electrics box fabricated and fitted above gearbox contains all relays, fuses, etc.
- All new wiring harness made from scratch
- Barrel lock ignition/headlight switch, starter button and BMW power outlet (for battery charging) located on the sides of the electrics box
- Electronic dash with LED display and warning lights, computer instrumentation
- Rearsets made up of highly modified Honda parts with GP-style footpegs
- Scratch built aluminum heel guards
- Magura R90S bend handlebars
- NOS Magura throttle and hand controls

## **SPECIFICATIONS**

- 85 Horsepower
- 388 pounds (wet, no fuel)