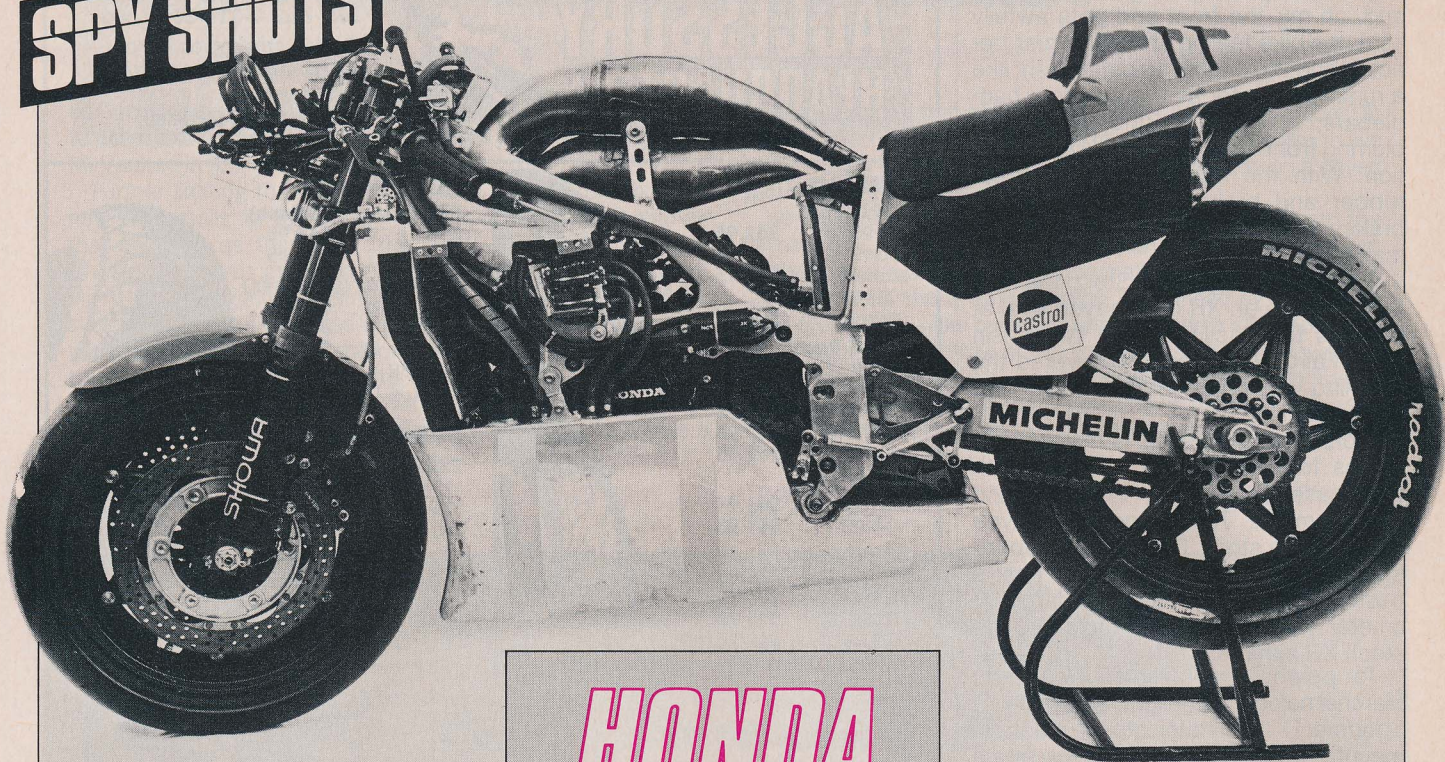


SPY SHOTS



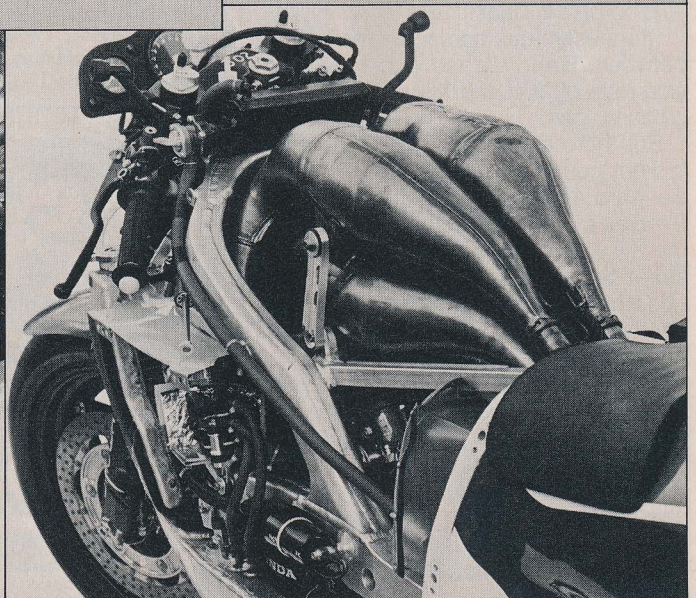
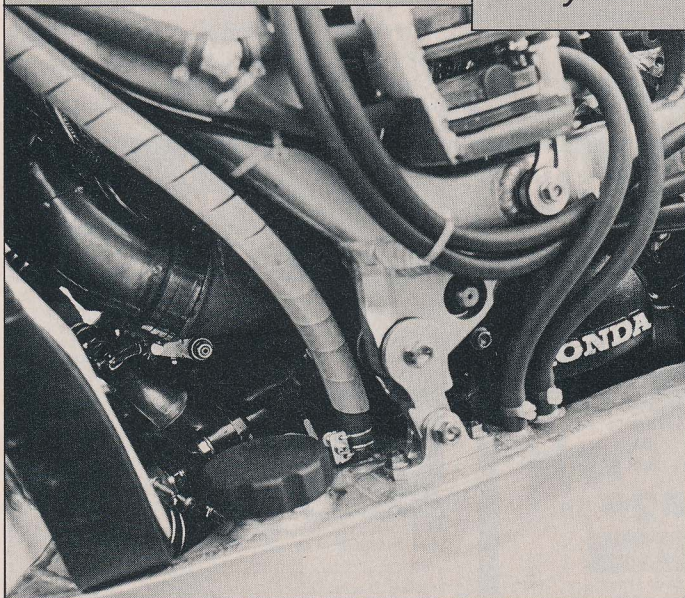
HONDA NSR 500

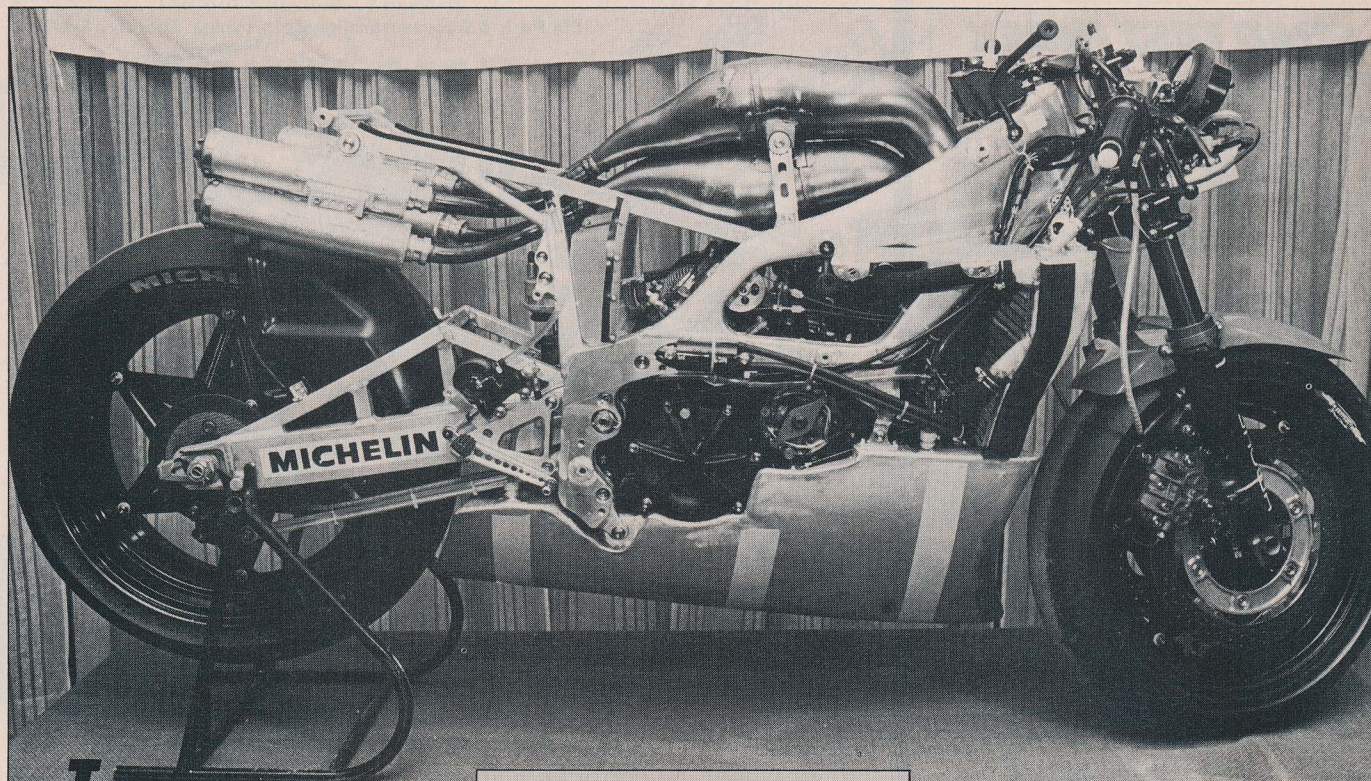
*Honda's V-4 two-stroke
racer took the pole
at Daytona and gave
Freddie Spencer a win
in his first '84 GP.
Here's that bike.
By Kevin Cameron*

Although it's not easy to see in the above profile, the "vertical" cylinder bank is actually inclined forward approximately 10 degrees, the "horizontal" cylinder bank, at 90 degrees to this. Carburetors sit at an approximate 40-degree downdraft angle. Reeds flow air into the flywheel separations of the forward cylinders and up through channels to the rear cylinders. Note both ignition coil leads running to the upper cylinder bank.

The bike's exhaust pipes emerge into the center of the vee. The pipe

connection in the photo (below left) is for cylinder #1, the left vertical cylinder. Visible below the pipe connection is the operating arm of the ATAC device, and below that is the coolant line running from the #2 cylinder head across to the right and entering the radiator header tank there. The black plastic knob is the fuel filler cap; just behind it is the fuel overflow line and the tank hanger toggle, bolted to an engine-mount lug. Foil and foam heat shield protects dual fuel pumps (lower right).



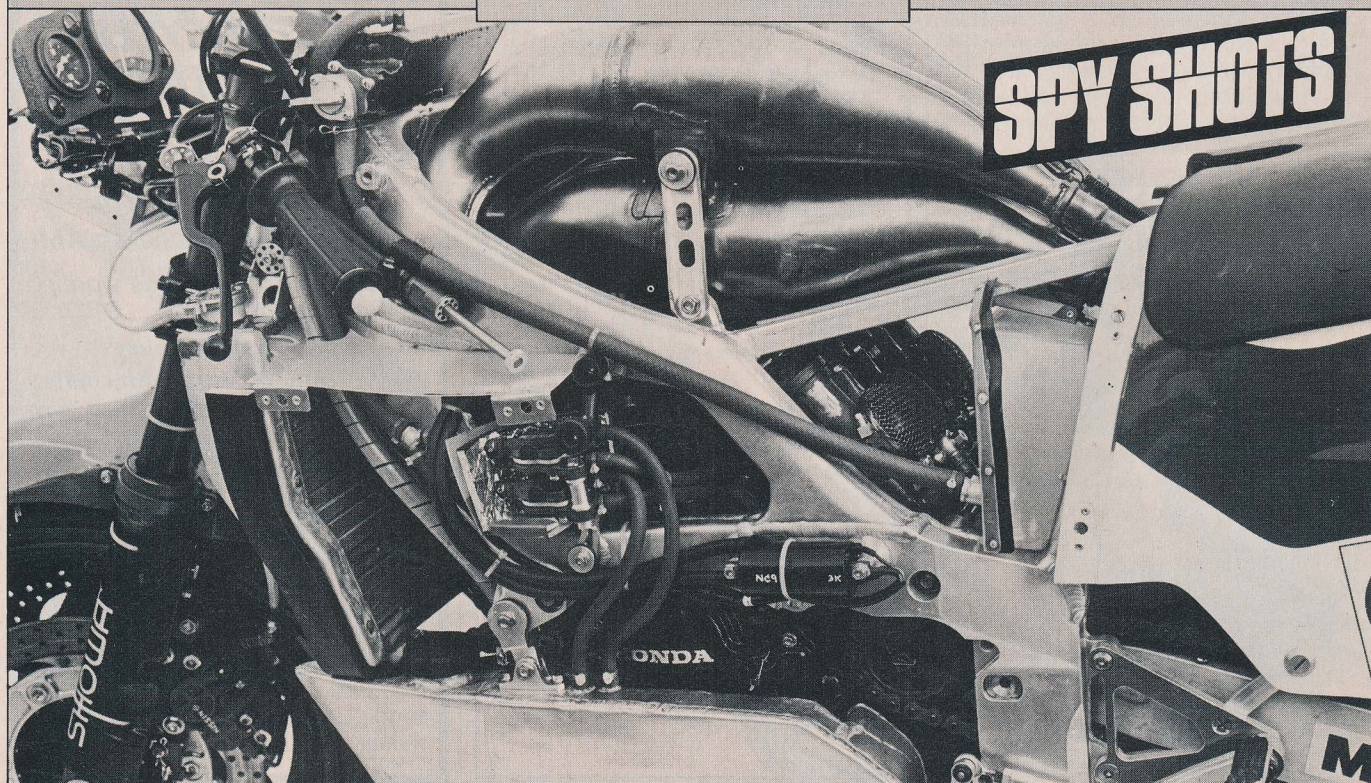


The chassis differs fundamentally from the rival Yamaha OW-70. Rubber mounted, the Yamaha engine contributes nothing to structural rigidity. The Honda engine, solid mounted, bolts up in three locations and uses an additional head-steady. This greatly stiffens up the lower "Lazy L" of the frame.

Detail shot below shows fuel system routing. Two separate lines carry fuel to pumps from belly tank. Pres-

HONDA NSR 500

sure lines (shown disappearing behind the frame member just ahead of the carbs) drive the pumps. Two delivery lines join at a "Y" fitting to a single large hose running to the weir tank just behind the steering head. The large line from the petcock on the weir tank delivers fuel under gravity alone to a log manifold just under the carb bells. These are probably twin two-throat carbs—the bike appears to have only two fuel bowls.





SPY SHOTS

HONDA NSR 500

Wheelbase for the NSR is 1375mm (54 inches), and total weight is 132–135 kg (about 297 lbs.). The 16-inch front wheel runs two 300mm iron discs, while the rear wheel mounts a 17-inch Michelin radial tire and a carbon-fiber disc (clearly seen on page 86). The tire's low sidewall gives the necessary lateral stiffness with the flexible radial construction.

Two center-tapped (dual output) ignition coils, one on each side of the

chassis, each serve one cylinder bank. Most likely, both coils fire together four times per revolution, allowing two crankpins at zero degrees and two at 180 degrees for a smooth flow of power impulses. The engine's high exhaust note corroborates this notion.

Visible just underneath the ignition unit (below) is the operating arm of the ATAC control unit, linked by rod and balljoints to the bell-crank visible just below the lower radiator hose. ■

