

BETA GS250

HAPPINESS IS A WARM GUN

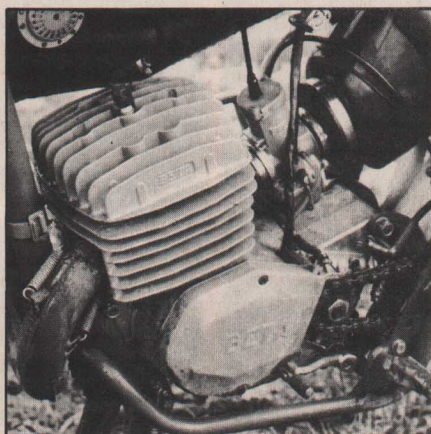
In our January issue we tested the latest incarnation of Beta's 125 Enduro, a machine that's now well established as a serious contender in its class and one that's firmly established the Italian factory's name in the UK. Mark Williams now samples it's bigger brother, the GS250. Photography by John Perkins

"You can lead a horse to water. You can even make him drink. But if you can get him to swim, then you've really got something." I wish I could claim authorship of that little epithet, used by Stiff Records as part of their 1978 ad. campaign, for it so accurately sums up the lengths a manufacturer now has to go to if he really wants to stun the opposition in the motocross and enduro world. It seems that almost everyone is building state-of-the-art machinery these days. Miniscule differences in specification separate the major contenders in virtually every capacity class; half an inch extra fork travel, a couple of degrees of trail, a lower brake horse power, a pound or two in weight. Within a few months of one factory coming out with a novel swinging arm design, three or four others have followed suit. And so on and so on.

Some manufacturers, however, will be making the best of what they've already got. This is particularly true in the case of a smaller company, like Beta, which doesn't have vast R & D resources. On paper the Italian factory's 250 CR (motocross) and GS (enduro) bikes look rather ordinary. Their engines are bereft of disc or reed valves, the Marzocchi forks fitted to the GS have a centrally slung axle and offer a distinctly untrendy eight inches of travel, and devoid of such exotica as magnesium engine cases or swinging arms, they are not especially light bikes.

So Beta's GS250 breaks no new ground design-wise, in fact in some respects it could be uncharitably described as slightly old-fashioned. But taken individually, every one of the GS's components is exceptionally well matched with the others and manufactured with reliability and durability in mind. The net result is a very well balanced and purposeful bike of great strength — an equation not always found in Italian competition machines where compromises made to fashion or cost are not exactly rare.

However to bring home the bacon in



Beta 250 engine:- comes on strong

top class enduros you're competing with the Austrians, the Germans and the Japanese and that's a daunting task which Beta seem to've approached with a philosophy found on tried and trusted solutions. Starting with the engine, (which with the exception of gearing is identical to that used in the CR motocrosser), we find a slightly oversquare 70 x 64.5mm bore and stroke, 13 to 1 compression ratio, Dansi electronic ignition and a whacking great 36mm Bing 54 carburettor. Despite the high compression ratio, the steel lined GS barrel has been ported to maximise power output in the mid-range, with a powerband that is unusually wide and devoid of peaks and troughs. Running on at 20:1 petrol mix — we used Duckhams — the engine starts easily and pulls cleanly right up through the rev band, refusing to gas up even when deliberately encouraged to by this writer's evil whims. The only penalty you pay for this hefty dollop of mid-range poke — and it's a small one — is that the motor won't rev as highly as, say, a KTM or a Suzuki. However since there's six cogs — well spaced except for a fractionally wide gap between second and third — the Beta is capable of pulling a steady 85mph in top.

Gearchanging in itself is far more fluid than on Beta's 125 enduro and neutral is easily found. The multiple

plate clutch is fairly light in operation but not mandatory for fast up, or even down changes, and no adjustment was necessary whilst the GS was in our care.

Final drive is by 3/4 x 1/4 inch chain which, whilst not kept in tension by any sprung rubber device, is shielded from quite a lot of harm by a rubber bushing on the swinging arm axle and a massive alloy and rubber guard which hangs directly under the swinging arm itself. The chain is also lubricated by means of an adjustable tap situated between the gearbox drive sprocket and the swinging arm which is fed from, wait for it, a Yamaha oil tank mounted neatly behind the nearside competition number plate! Any multigrade oil, perhaps with a graphite additive, works efficiently and helps reduce chain wear.

The chassis is a single downtube design which branches out around the line of the crankshaft and sweeps under the engine to rise rather abruptly behind the footrests. The swinging arm is a tough looking, well gusseted and fitted with shocker mounting points about six inches forward of the rear axle, it moves in Silentbloc bearings. The Marzocchi gas shocks have remote reservoirs and are each fitted with two springs.

The steering head is held in taper roller bearings and the location of the bump stops allows the beautifully finished triple clamps to arc the forks through a wide angle. With a relatively small amount of trail occasioned by the headstock angle and the conventionally mounted front axle, steering in tight situations is a cinch. Yet the generous overall wheelbase of the GS ensures that the chassis isn't at all skittish when pushed fast over difficult surfaces.

Seat height is a fairly tall 34 inches which I figure could be reduced as there's a lot of space between the top of the cylinder head and the base of the tank, space which is currently occupied by the well made up-and-over expansion chamber-type exhaust system. (Unladen ground clearance is nine inches). However the Beta's suspension errs towards the stiff so there was little of





the 'give' that affords shorter legged riders the confidence essential when contemplating today's long travel off-road racers. Changing to a lighter weight oil should improve matters at the front end though, and various springs are available to alter the rear suspension to suit a particular rider's weight. Being used to a Yamaha IT175 and Suzuki PE175 respectively, Pete Furlong and I both figured the Beta in its test bike form could prove unnecessarily tiring on the posterior in a four or five hour event.

On the credit side, however, the Beta's handling and *directional* stability were an improvement on the IT, which we had along as some sort of yardstick for the day. It steered with a great neutrality and could be hustled through a closely bunched batch of corners with easy precision. In part this was due to the brakes and the wide power band, the former although cable operated at both ends, were incredibly obedient and powerful, and the ever obliging engine meant that a corner that might require one or even two gear changes on the Yamaha could be comfortably negotiated and exited from in second, or in some cases third. A big handful on the way out of a berm usually had the front wheel pawing the atmosphere too, although never gratuitously, and we were both impressed with the eager nature of the GS's power/handling combination. Steep, slippery inclines that meant dropping down to second on the Yamaha could be easily negotiated in third on the GS and the Italian bike's straightline acceleration comfortably surpassed the IT's as well. Naturally one has to take a displacement differential of some 70cc into account, but by any



Tommaselli handlebar-ware was of excellent standard; efficient and beautifully made. Forks proved stiff but otherwise efficient, thinner oil should help, but brakes were everything one could ask for.

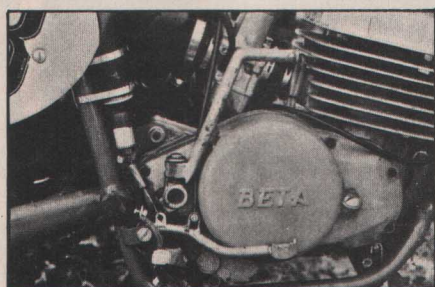
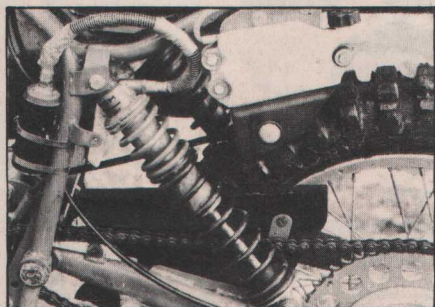


standards the GS is a rapid piece of machinery.

The Akront alloy rims are shod with Metzlers, generally regarded as the top tyre for most enduro conditions with a strong but fairly pliant sidewall. Running about 13/14 lbs in the rear gave enough bite to cope with the very greasy and ice covered (!) surfaces we confronted the Beta with and there was never any need to slip the clutch to find traction.

The Beta's riding position was ideal as far as both Pete and I were concerned, despite some six inches difference in our height. The footrests are just 2 1/4 inches forward of the swinging arm bearing axis and permits easy use of the beautifully crafted alloy brake and gear levers. The 'bars sit in non-canted mounts on the alloy triple clamp and extend 32 inches from end to end. They're blessed with Tommaselli 'Racer' levers which are well protected from the elements and nicely finished. . . and, yes, there's a nasty CEV tin-box which controls the lighting functions, the token horn and the oh-so-vulnerable engine kill button.

To describe the GS as a docile bike would be to undermine its unfailingly gutsy nature. But of the current crop of quarter litre enduros, many of them derived from motocrossers, the Beta must rank as one of the most predictably natured yet responsive. Its unflinching spirit is its other strong point, and it'll be a long time before I forget the satisfaction of gunning the red-hot GS around through the worst January could provide for an off-road freak. Yes, happiness is a warm gun — on a Beta 250 GS!



Leather strap retains tank and a few essential wrenches — another example of Italian ingenuity. Reservoir for gas shocks extends below comp. number plates but never caused problems. Sturdy kickstart lever fired the Beta engine up with no trouble. De Carbon-type shocks wear two springs and are ideally matched to the Beta's performance. Note Yamaha oil tank for chain lube!



BETA 250

Price:	
Engine:	2-stroke single
Bore & Stroke:	70x64.5mm
Capacity:	248cc
Comp Ratio:	13:1
Carburation:	36mm Bing 54
Ignition:	CDI
BHP @ RPM:	n/a
Primary Drive:	Gear
Clutch:	Wet multi plate
Gearbox:	6-speed
Electrics:	6v Flywheel mag

DIMENSIONS

Wheelbase:	56.6ins
Seat Height:	34ins
Grnd Clrnce:	9ins
Weight:	n/a
Fuel Capacity:	1.9gals
Tyres:	3.00x21 (f) 4.50x18 (r)
Brakes:	Drum (f) Drum (r)
Importers:	Harglo Ltd, 462 Station Road, Dorridge, Solihull West Midlands