





Honda VT 500

A change of heart for the much loved CX (it says here)

by John Cutts

First impressions *are* important. I'd been riding the VT500 for less than ten minutes and I was already noting that this could be a very good and fun motorcycle indeed. Exiting Honda's Power Road HQ in Chiswick and joining the free-for-all, four lane madness of the Westway, I found myself instantly whacking open the throttles, high-rolling on the torque and jockeying for position amid fast flowing traffic with the best of the capital's despatchers. Which is unusual. I like to take my time getting to know a bike. With the bigger ones especially you have to gradually acclimatise yourself, somewhat gingerly exploring the power and the weight. On the smaller bikes you just jump on, gas 'em up and go. The VT500 is a middleweight with power and handling and is instantly rideable. It's slim, compact, fairly light and very nimble. A despatcher's dream or a relaxed, loping, slim jim tourer?

Definitely the former I'm afraid. The hopelessly inadequate pillion perch and high pegs make passenger carrying uncomfortable. It'd make a fine solo tourer, long-legged, plenty of torque, comfortable and smooth to drive. But it's forte is back lane rambling at modest speeds or cut and thrust city work. It's slickness through traffic never ceased to impress. And it's such an improvement over the nasty CX500 that the two don't warrant comparison. The VT will blow it away in every department.

Honda UK are quietly expecting good things from this motorcycle (and they're probably right, things will be quiet). It is after all, the new CX500 and the UK is the outstanding market where that old turkey strangely ruled the popularist roost.

It's lineage is distinctly weird unless you fully appreciate the depth of Honda's vast range. Basically the VT500 is a 52-degree vee-twin sold in America as the Ascot and from the same engineering family as the US-only 750 Shadow (a 45-degree twin with common engineering principles if not dimensions). Following the failure of the FT500 single within these shores and the sporting success of the VF range of vees (750, 400, 250), Honda had a gap in the 500 class for a solid and versatile 500 twin with performance, compactness and style as the main design considerations. Committed to phasing out the ageing CX, the VT is the configuration Honda have adopted for the immediate future, and it's a wise choice. The VT is a lean and fairly mean machine. A laid-back, back-laner in traditional thumper style, meaning that the vee-twin beat echoes long and loud what used to be the hallmark of the British bike industry. There will always be a market for big twins and singles though it may not be large. These days the corporate designation is Euro-Sports. Which means they took the American spec bike and styled it for Europe. Cosmetically the bike is bland and pretty unattractive. On the roll though, it's a



lovely motorcycle to ride. Nothing ultra-sporty, quick or aggressive, more of a middleweight gentleman's bike on the open road and a dashing, professional hooligan's mount in the midst of the metropolis.

The VT has just enough different things about it to tempt owners looking for a different sort of motorcycle. Most of the obvious attraction stems from that 490.9cc, SOHC, 52-degree in-line vee, and it's a motor that repays study though won't be particularly accessible for home maintenance and backyard rebuilding/tuning. Such is the price of complexity and compactness.

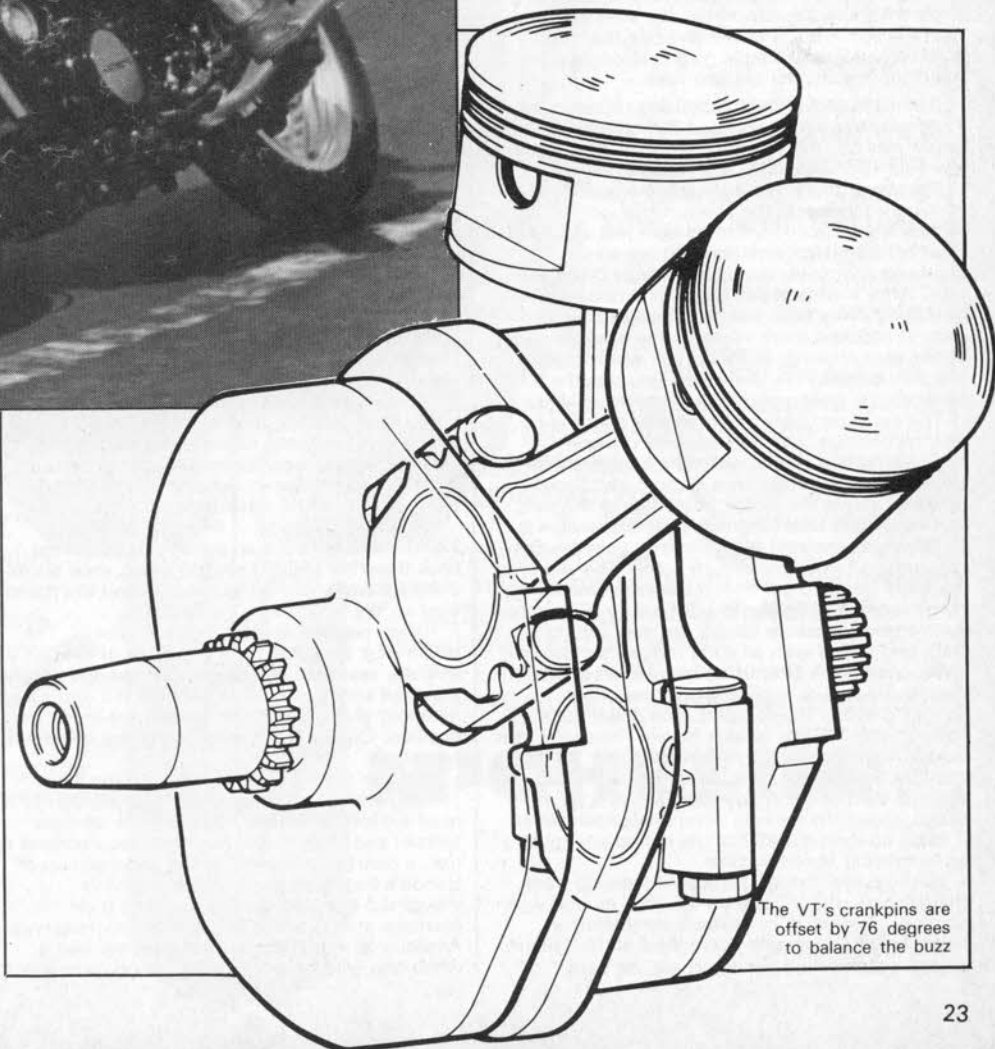
Actually squeezing the engine into the frame called for some unusual plumbing and tube bending. The motor is so tall, the upper frame rails have been bent considerably just to accommodate the two cylinders and the two CV Keihins that nestle in the vee. And why 52-degrees anyway? It's close to a Harley and a Shadow's 45 but a long way from the perfect primary balance and massive wheelbase of a 90. An in-line 52-degree vee is tight, everywhichway, necessitating water cooling and offset crankpins to ensure smooth, primary vibration-free working without resorting to those horrible Dream type balancers to even out the power pulses.

The VT has a one piece, forged steel, plain bearing crank with two crankpins offset by 76 degrees. According to a simple mathematical formula determining the amount of offset, Honda can build vee-twins of almost any angle. Using two offset crankpins makes the engine behave, it fools the big and weighty pistons into thinking they're in perfect balance. The pins are separated by a flywheel, balancing out all untoward vibes. And it works. The result as experienced by the rider is remarkably vibration free. Sure it lets you know it's a vee-twin motor, even on idle, but apart from a high rpm buzz through the bars, it's not obtrusive and never detracted from riding enjoyment.

The oversquare cylinders 71 x 62mm are finned unnecessarily since both wear water jackets. A narrow radiator is mounted up front between the downtubes with a thermostatically operated electric fan sited behind cutting in when the going gets hot and sticky. Coolant capacity is two litres. A temperature gauge sits in the instrument cluster and never got anywhere near the red zone.

The SOHC Hy-Vo chains run off each end of the crank, are automatically tensioned and operate six valves via rocker arms and screw adjusted tappets. Valve clearances at .10mm or four thou for both the two 26mm inlet valves and the large single exhaust valve will be . . . er, tricky. Access to the heads is er . . . keen. Access to the valve gear is er . . . tight. But it can be done.

The three valves sit in a heart-shaped combustion chamber. There's too much valvetrain to fit a centrally locating plug so the VT sports a twin plug head — two spark plugs firing simultaneously from opposite sides of the chamber. The VT has 20percent greater valve circumference than a comparable two valve motor. Thus it has greater gas flow. The twin plugs allow a higher compression ratio (10.5:1), Honda also claim they cut combustion time of the mix in half, though this seems dubious. Certainly combustion efficiency is helped by the swirling heart shape of the chamber. Flow efficiency is helped by the relatively narrow included valve angle and the combined effects of chamber shape, valves and



The VT's crankpins are offset by 76 degrees to balance the buzz

plugs promotes greater fuel economy (reckoned to be up 30 percent at 40 mph).

On each pot, one plug is conveniently accessible while the other is located down a 5in well in the head. Rubber boots help keep the crap out of the dark depths. Both are fired off a single coil by a transistorised, pointless ignition with electronic advance. Breathing through two "compact, lightweight, dual-draught" strangely inverted, 34mm CV carburettors, the VT is very responsive above 4000rpm, pulling strongly, cleanly and making plenty of torque up to around 7000rpm and maximum power of 50bhp at 9000.

The carbs have an astonishingly long intake path. The airbox is under the seat behind the tank. Between the carbs and the box, completely filling the space between the top rails, is an ugly and very long piece of plastic plumbing. Aesthetically unpleasing, it seems to work. As does the decidedly unlovely two-into-two exhaust, both pots collecting on the right and dumping on either side. The rearward collector is particularly unappealing. As is the removable bottom frame rail on the same side and in the immediate vicinity, where the smooth frame tube becomes abruptly flattened for the benefit of two mounting bolts.

Though they call sixth gear an overdrive it's not that much higher than the rest and was useable in day-to-day riding. The motor makes enough low down torque you only need a small handful of revs to pull away cleanly. Starting is a bit fussy. It likes to warm up, on then off the choke at a fast idle. It stalled a couple of times even when hot. Power is broad and useful everywhere but sharper above 4000rpm with real poke coming in between 6000 and the 9500 red line. A top gear 70mph equals 5500rpm. Top speed was a pleasing 111mph with the tach needle bouncing ten grand, which surprised me cos I rarely rode it flat out in top with that many revs flowing. It's just not that sort of bike. Even though it'd pull a still higher top gear, the VT is better just below the ton with around 8000rpm showing. It'll hold that comfortably all day, though it's eminently preferable to drop still another 1000 revs and haul ass in the 90/95mph bracket where the motor sounds sweetest producing max torque. The gearing complements the power. With six gears, shaft drive and a gutsy motor, it's a bit of a lazy man's scooter. Stick it in top and ride the throttle and it's perfectly tractable pulling strongly from low rpm despite the tall top ratio.

Gas consumption was promising. It averaged 47.1mpg over two weeks and 800 miles. The best return was 55, the worst 42. Touring range from the 18lit (3.96gal) tank is a healthy 170 miles.

The worst thing about the engine was a persistent misfire on the overrun that got worse. At first it amused. Hey I'm riding a real vee-twin! Shut off from high revs and you get a loud explosion seemingly occurring halfway down the pipe. After a while it just gets embarrassing, backfiring every time you drop revs to change gear. It happens more when you're hard charging rather than cruising, but then you want to wind up any bike occasionally and when you ride the VT hard, that's what you get, a nagging misfire.

The cycle parts are unremarkable sporting no new technology, just conventional chassis engineering that works well. The double cradle tubular frame has odd lines — bent and flared upwards above the motor, really low at the seat (800mm/32ins seat height). Front suspension is by 38mm air-assisted but unlinked telehydraulics that wear a forged aluminium brace. The air valves are a tad fiddly to get at and the recommended range is small (0-6psi), very difficult to discern on even a good pressure gauge. On max setting the front end coped with all sorts of road surface and never used all its 120mm of travel even on the brakes. No anti-dive given or wanted. Rear springing is by FVQ dampers, laid down quite steeply with 105mm of axle travel. The swing arm runs in taper rollers with a box section construction on the right. Despite five preload settings the back end bounces around a bit at speed, especially on long 90mph sweepers where it loads up then dispatches the stored energy into an unnerving speed wobble.

With neutral though fairly light steering from the flat bars, the VT can be chucked around with some aggression. It never feels completely at home being ridden as a sports bike and is better as an accomplished bend swinger, sit back



Honda VT500 Euro-Sport
£1765 including all taxes

PERFORMANCE

Maximum Speed — 111mph
Fuel Consumption — Hard Riding — 42mpg
— Cruising — 55mpg

POWERTRAIN

Water-cooled, SOHC, 52-degree vee-twin with three-valve, twin-plug heads. Maximum power 50bhp at 9000rpm, maximum torque 4.8kg/m (34.7ft/lb) at 7000rpm. Bore x stroke 71 x 62mm, compression ratio 10.5:1. Induction by two 34mm CV Keihin, two-into-two exhaust, wet sump lubrication. Electronic ignition. Wet multi-plate clutch. Six-speed constant mesh gearbox. Primary drive by gear, final drive by shaft

CHASSIS

Tubular double cradle frame, air-assisted forks, swing-arm with FVQ dampers, five-way adjustable for pre-load. Wheelbase 1485mm (58.5in). Ground clearance 153mm (6in). Trail 125mm (4.9in). Dry weight 178kg (390.3lb). Wet weight 435lb. Fuel capacity 18lit (3.96gal). Single enclosed disc brake front with dual-piston caliper, single leading shoe drum brake at rear. Tyres Bridgestone 100/90-18 front, 120/80-18 rear, tubeless

comfortably, and just steer. At 435lbs fully gassed, it's light enough to be pitched around quite hard. Ground clearance at 153mm (6ins) was good, no pegs dragged. The handling is excellent at all speeds up to about 95mph. Around one-way systems, roundabouts and city street racing circuits, the VT could be laid down in a confident, competent manner. Only once did the rear Bridgestone break away in such a huge slide, I felt doomed to highside. Fortunately, it hooked up again unthinkingly. I've since heard tales of VTs being "chucked abait" with mucho abandon and enjoyment until the inevitable one time when the VT abandons its rider. Whatever, the VT displays an eagerness to be lent over that CX500 owners will not appreciate. The VT's handling is in another league, another world. Naturally it's still a shade top heavy but that weight only impinges on slow, tight turns. Overall the handling is impressive and would be doubtless improved by alternative boots (if you can fit them). As is, the VT comes with a variety of Jap rubberwear, all tubeless. Wet weather testing wasn't possible, but since the cycle's nicely balanced I should imagine it drives well, though you'd have to watch the tyres.

Braking is by a single, in-board ventilated 230mm disc with a dual piston caliper. At the back there's a 150mm single leading shoe drum. Both are well-matched to the bike and the drum is trustworthy.

Riding position is okay, nothing special. The pillion's lot is terrible. The front half of the smooth, seamless seat is well-padded and comfy, the pegs are forward. The bars are flat and rubber mounted giving a good sit-up and roll-it-on position. Exactly the reverse is true for any adult passenger.

You can't really get down behind the bikini cowl with its smoked screen but you don't need to. Instrumentation (including a tail light telltale) and controls are fuss-free and excellent to use, a constant reminder of the fine tradition of Honda's instrumentation which is always thoughtful and well-designed. Unlike their cosmetic styling which is cold and uninteresting. Available in red, white or true blue, we had a white one with bold pinstriping going some way to

contrast the stark slabs of angular aesthetics Honda call Euro-Sports. Not really my cup of hot fat. What does rate highly is the overall view — lean, compact, neat. Sit on it and you feel instantly at home and it's much the same to ride.

So, the VT500E is a very appealing improvement in Honda's 500 twin class. It's a better bike than the FT single or even the CX650 (without turbo). Anything would have been an improvement over the much hated CX500 but the VT is a genuinely interesting and pleasant bike, comfortable to drive with good power and handling. There's no anti-dive, Pro-Link, 16in wheels or '83 super sporting nonsense. The VT's appeal is to an older, somewhat less frantic tradition of motorcycling, that of big vee-twin, all-rounders. A trick new motor in a conventional chassis that works just fine. Rather dear at £1765 but there's not a lot in the middleweight twin market that compares and it should be well discounted. It'll be interesting to see how long it survives.

SHOPPIN' 'ROUND

Pitched firmly in the middle of the crucial £1500-£2000 bracket, the VT500E-D at £1765 has a price that reflects its newness. Apart from Yamaha's Powervalve 350 at £1695 and Honda's own VF400 at £1895, this competitive sub-£2000 section of the market is bereft of spanking new, '83-spec models.

The VT's direct competitors must be the other twins available. Below the Honda's asking price is Moto Morini's 3.5 at £1695, a classic and tiny vee much loved by aficionados and older motorcyclists. A small, light bike (340lbs), the 72-degree, ohv, vee-twin makes slightly less than 40hp and runs to a top speed of just over a ton. But it's the handling that really impresses. Light and extremely nimble with excellent suspension and brakes, the Morini really is a superb back lane scratcher. For big guys the riding position is slightly cramped but acceptable if only ever ridden solo. The worst thing about it is the humble poke quota — s'only a 350. The Maestro 500 at £1945 is a better buy.

Dearer than the Honda at £1799 is Moto Guzzi's V50Mk3 and at £1830, Yamaha's XZ550. The tiny Guzzi has many fans and was the original competitor to Honda's horrible but ubiquitous CX500. It was always a better bike than the CX but is ageing fast and can't really compete with the all-round effortless performance of the VT. Again, the Guzzi offers typically Italian features, light weight, excellent steering and handling. And again, power is the limiting factor. Yamaha's XZ550 has power aplenty, 64hp and a top speed of 115mph. But it has problems along the way, like starting, flat spots and a hot clutch. The handling is decidedly mediocre and generally the bike was poorly received. News from South Africa though hints that the XZ has considerable potential. Over there, the 70-degree vee-twin is consistently beating all-comers in the 600 proddie class, including GPZ 550s, Pantahs and plenty of £2000-plus mounts. Much of the bike's problems stem from some fussy, downdraught 34mm CV Mikunis. Sort the carburation and you sort the motor (maybe).

Other notables in the VT's price range include the underated Yamaha XV750 at £1700, excellent value for a big, vee-twin, custom cowboy shaftie and a good all-rounder with comfort, power and handling yet never bought by the masses (or anybody for that matter). For £1799 you can have a classic Z650/4, for £1848 a hot GPZ550 or for £1649, a Suzi GS550 Katana. But fast fours aren't the VT's competitors. At £1765, I'd say it's a trifle expensive but well-priced by Honda in the marketplace. Hopefully it will be discounted. If so, it's just one more reason for calling it the most attractive twin in this part of the market.

PARTS BIN

All prices include VAT
Fairing £163.76, Indicator lens/unit £7.18, Fork leg £62.23, Fork slider £67.19, Front mudguard £54.92, Front wheel £133.22, Tank £105.99, Seat £147.75, Exhaust downpipe £35.08, silencer £55.20, Footrest £12.39, Clutch lever £5.18, Sidepanel £38.42, Head gasket £6.30, Crankshaft £175.58, CDI Ignition £97, Oil filter £6.30, Battery £24.73.