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two wheels

JULY, 1981

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Full Test Of The V Bomber
Yamaha Hits The Target!

BATHURST
What Really Happened? What Of The Future?

XV750

ENDURO COMPARO
Yamaha IT175
Suzuki PE175

YAMAHA

DAYTONA SPEED WEEK 1981

We Test The Gilera cbA Moped

Off To The Centre Rally!

Vol. 24, No. 5, JULY 1981

two wheels

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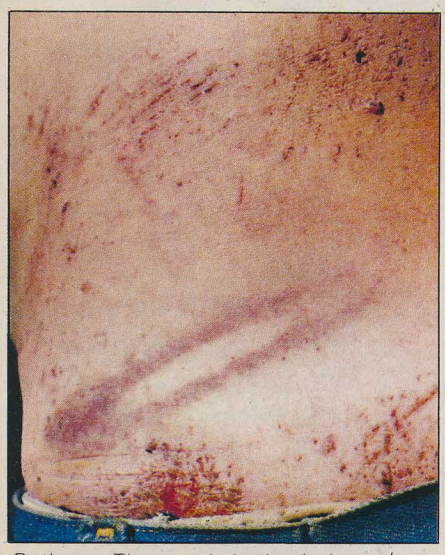

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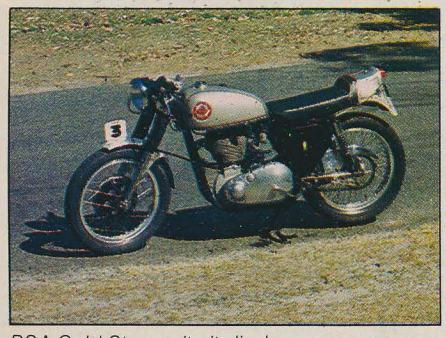

BSA Gold Star – pity it died.

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TESTS

RACING

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DEPARTMENTS

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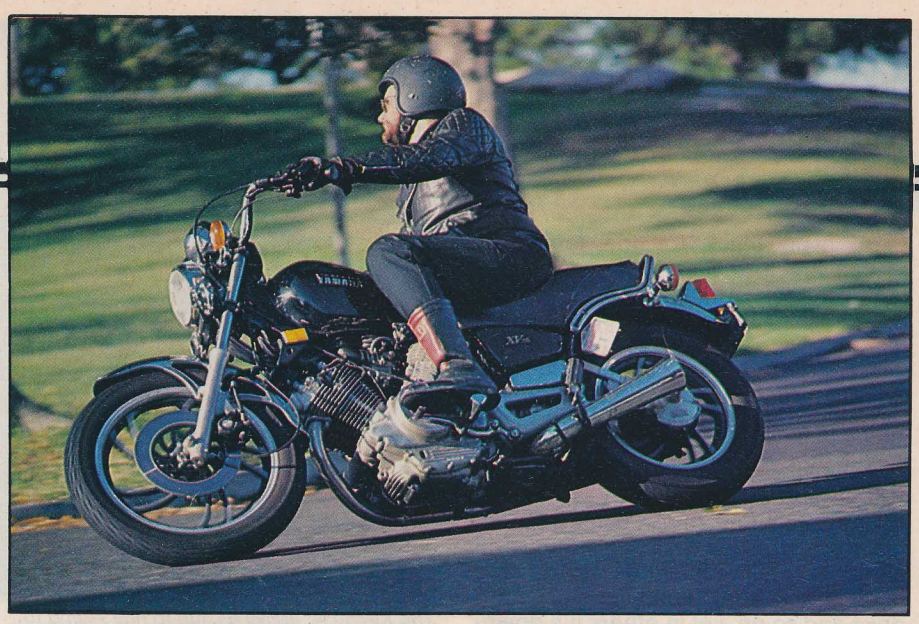
YAMAHA XV750H

A new, bright day dawns for chopper pilots. The V Bomber is 'creme de la Custom' through and through — even the engine is just right! And it handles as well . . .



The bike's handling surprised everyone who rode it. It's very, very good.

Over the years, generation upon generation of motorcyclists has been fascinated by V-twin powerplants. The layout has been around since before the turn of the century and has served the two-wheel enthusiast ever since.

Indian, Harley-Davidson, Husqvarna and J. A. Prestwich (JAP) made extensive use of V-twin engines in earlier times, and H-D still does today. A number of Italian motorcycles have V-twin hearts — Ducati (past masters), Guzzi and Morini among them, and the exotic English Hesketh will use a DOHC, four valve V-twin.

The loping two-cylinder V-engine was favoured by many now-exotic bike builders — Brough, Vincent and the superb handbuilt Crocker (from the USA) among them. With such an aristocratic history, why have the Japanese shied clear of the layout for so long? Aside from Honda's super-technology, ugly duckling CX500, the V-twin might as well have had the plague as far as Oriental manufacturers were concerned. Until Yamaha created the XV750.

Ironically 'old fashioned', the XV750 resulted from some very modern computer market research Yamaha carried out in the USA. The XV1000 is to fill a similarly detected need in Europe. Both models are tailored specifically for their respective markets and reflect exactly what the locals indicated they wanted. Australia gets both the custom-styled shaftdrive XV750 and the traditional XV1000, so buyers here can choose Eurobike or USAbike, V-twin style.

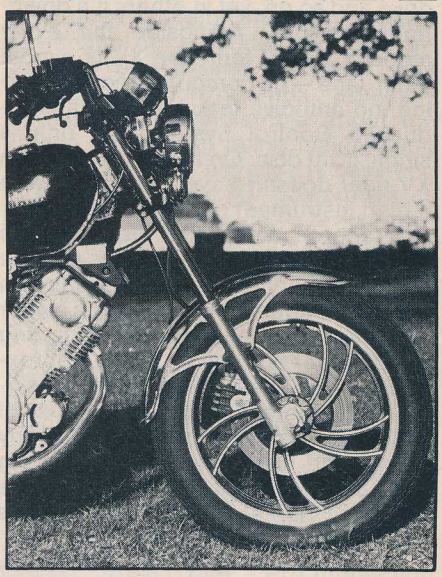
And what of the first real, slant-eyed V-twin? TWO WHEELS liked it very much, and when you consider this tester has long been a custom-hater (mass-produced customs anyway), that is high praise indeed. We predict many sales and happy owners. The XV750 is a future classic.

The bike

The centre of this bike is the engine — and what an engine! It looks much larger than its 750 cm³ and its visual simplicity borders on the primeval. The front cylinder bares its fins directly to the breeze (and admirers' gazes) without so much as a single downtube to shield its private regions. If Honda's six-cylinder CBX mill had sex appeal then so too has Yamaha's XV, although its power base is diametrically opposite the CBX's. It may be that continually rising fuel and maintenance costs will return the trusty V-twin to prominence in the future. We wouldn't be at all surprised.

Perhaps the best part of the new engine is that Yamaha has not built a 'four-cylinder' twin. The attributes of a V-twin arrangement are not compromised one iota in the XV. The engine is a supremely flexible, smooth (except for the upper reaches of its rev range), low revving powerplant which makes the XV750 the most relaxing motorcycle TWO WHEELS has encountered for many a day. Even the R100RT BMW is unable to match the Yamaha's fret-free pulling from 2000 rpm and below. The XV will calmly and willingly accelerate away. The new motor's flexibility is astonishing.

The XV750 has more character than any other bike out of Japan, and probably more than all of the others put together. Just enough gentle pulsing reaches the rider at idle and cruising engine speeds to let him know something alive is working away contentedly between his legs. The exhaust is rich and pleasing, not muffled to anonymity like the SR500 Single's. And mechanical noise is extremely low so the musical exhaust note isn't diminished by whirrings, clatterings and other distracting sounds. Combine the pleasing sound and non-buzzy vibes with the loafing power and immediate response of a really good V-twin and you have a sure recipe for a motorcycle with soul.



Leading-axle forks are excellent, and rake is moderate for a custom-styled bike.

Backing up the striking alloy engine is the tasteful (by Japanese standards) custom styling. The XV750 manages to look like a genuine integrated custom instead of a butchered parallel-twin commuter or an ill-at-ease, racy European four whose designer somehow slipped up on the fork rake. The two-level seat is very low (a mere 760 mm off the deck) and blends gracefully with the rest of the bike while the strutless triangulated rear subframe of the monoshock suspension gives a very clean, almost rigid looking frame. Harley, look to the back. Wheelbase is a long 1520 mm and the airspace under the crankcase (not the stands!) starts at just 150 mm with the bike unladen. Under heavy braking the XV's sump almost kisses the tarmac!

Finish to the alloy, chromework and paintwork is superb, but the choice of

bare, plain black for the tank and sidecovers leaves the XV looking spartan. The lack of pinstripe highlighting on the paint does emphasize the engine, but we felt a single, fine pinstripe would not detract too much. One Triumph Trident owner we spoke to suggested painting the lower quarter of the tank gold, an interesting option.

In many ways the XV750 bristles with state-of-the-art technology — monocoque backbone frame using the engine as a stressed member, long travel air forks, multi-adjustable air-assisted monoshock rear suspension, shaft-drive and so on, yet in others it's downright primitive. Alongside the every modcon XJ750 four, the XV is almost Plain Jane — no computerised monitoring, no anti-dive forks, no Yamaha Induction Control System and only a single front disc. On the other hand, an XV rider doesn't have to contend with a high instrument panel and headlight.

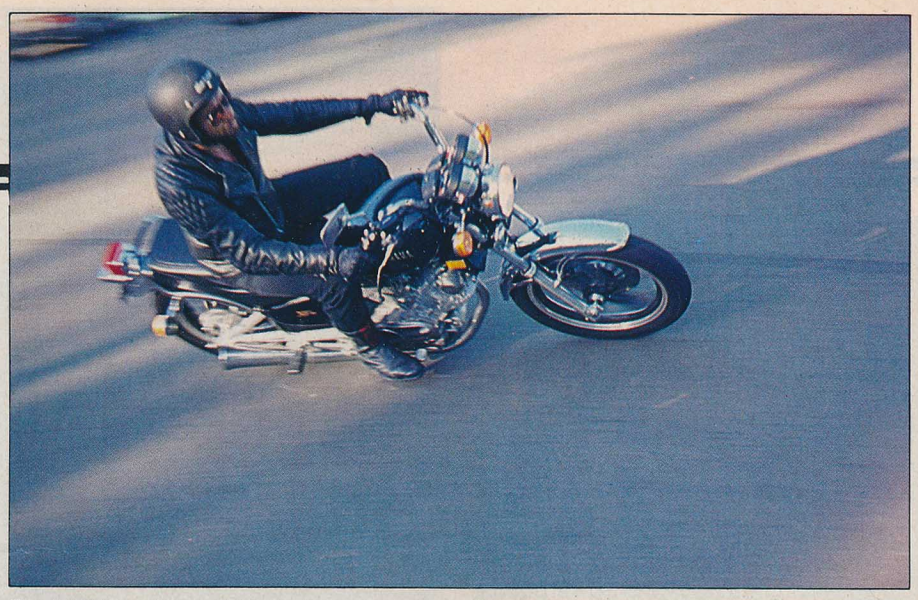
Strangely, both bikes feel complete in their own way — the XV does provide all the essentials (excellent halogen headlight, dual horns etc) and its owner won't feel short-changed. The puzzling thing is that both bikes weigh approximately the same. The XV feels significantly lighter than the XJ because of its very low centre of gravity, but clearly more effort has been put into keeping the XJ's weight down. Both bikes are light for Oriental 750s, but Kawasaki's Z750 is still the champ at 210 kg.

There are two penalties exacted by the styling which need mentioning. One is the 12 litre fuel tank and the other is the upright riding position which is tiring at cruising speeds and can cause backaches after a few hours in the saddle. Some riders were not bothered but others, who can handle long rides without trouble on conventional bikes, complained.

A final plus is the standard Bridgestone tyres which offer quite acceptable grip in the wet and dry and will not need immediate replacing. A final minus is that the XV is the slowest 750 currently made in Japan, although it compares favourably with Triumph's 750 Bonneville, 1000 cm^3 BMWs and Yamaha's weighty XS750 triple of a few years back.

Engine

The XV's cylinders cant away from each other at 75 degrees, rather less than the 90 degrees Ducati uses (and which, incidentally, gives near perfect primary balance) and more than the 45 degrees of Harley-Davidsons. Not surprisingly, the XV, without any accessory balancing shafts, shakes slightly more than a Ducati but much less than a Harley. The conrods run side by side on the single crankpin a la Ducati, rather than in the forked conrod arrangement used by Harley Davidson. Consequently the rear cylinder is offset (to the left of the front one), an aid to cooling.

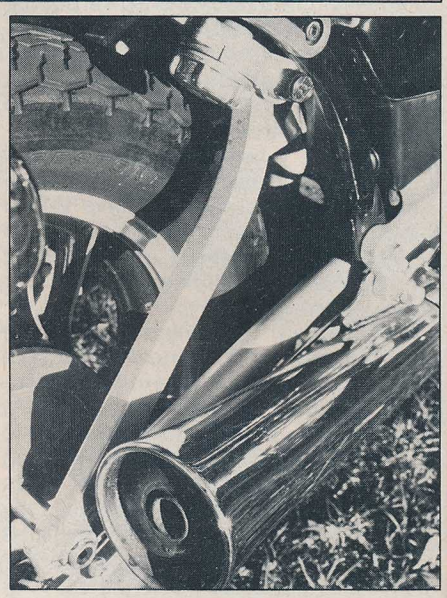


The XV750 is, above all, fun to ride — and to be seen on.

The XV runs a single overhead camshaft in each head operating two valves in a modified hemispherical combustion chamber through short rockers. The cams are driven by automatically tensioned silent chains up the outsides of each cylinder. This broadens the cylinder structure, exaggerates the piston/conrod offset and exposes more finning of the rear cylinder to airflow not preheated by the leading cylinder.

In line with Yamaha tradition, conrod bearings are plain but the one-piece crankshaft is supported in the two vertically-split crankcase halves by massive ball bearings in lieu of the plains used in Yamaha fours. Forged, half-circle flywheels provide inertia and counteract the bulk of reciprocation forces.

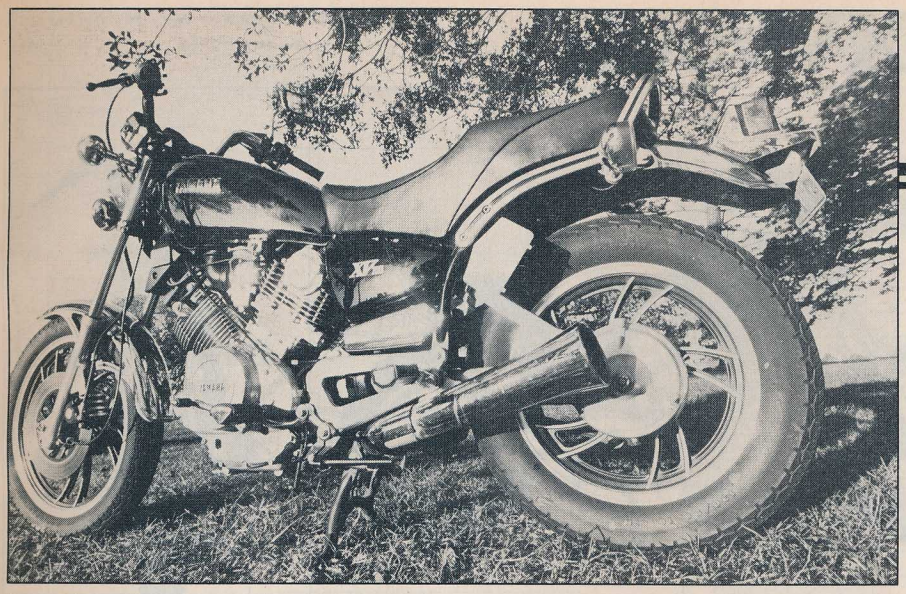
An interesting feature of the engine is the use of external oil lines to carry the high pressure feed from the dual oil pump to the cylinder heads. This has been done to avoid the risk of oil leaks from the metal headgaskets which in turn were used to cope with the high downward tension from the extra-heavy head studs which transmit frame forces through the engine as well as securing the heads to the barrels. The metal headgaskets also markedly improve the flow of heat downwards from the cylinder heads into the barrels, aiding cooling. When the oil has done its work in the one-piece (no joint) heads it returns to the sump at low pressure down the camchain galleries.



The monoshock rear suspension looks very neat and compact. Knurled knob makes suspension adjustment easy.

The real surprise in the engine is Yamaha's decision to reverse the rear cylinder head and put both carbs into the V between the cylinders. A modern, strong 750 generates a fair quantity of heat and the exhaust side of the head usually runs a good deal hotter than the intake side, hence the normal practice of putting the exhaust side of the engine forward.

Placing the intake forwards and exhaust back on the normally hotter running cylinder of a V-twin seems like asking for trouble, but Yamaha has gone to great lengths to ensure rear cylinder overheating will not occur — and certainly our testing showed none. Precautions included wind tunnel tests (the frame is designed to suck hot air away from the rear cylinder exhaust area and draw cool air in around both



It really is a stunning-looking engine. It's all very quiet, except for the starter motor. There's no kickstarter.

Tail light unit looks a bit odd, and could be brighter.

sides of the back head and barrel), a shortened exhaust passage, a special piston coating above the second ring to improve thermal efficiency and the metal bore seal mentioned earlier. The combination worked perfectly on our test bike.

Two 40 mm Hitachi constant vacuum carbs draw air from inside the backbone frame (the oiled foam aircleaner fits between the underseat intake and the back of the frame) and meter fuel perfectly to each cylinder without the aid of stumble-curing, but petrol-eating accelerator pumps. The rear cylinder carb runs different jetting to the front, not because the cylinder runs hotter but because the intake tract runs cooler. Both inlet ports take a fairly sharp downcurve into the cylinder from the carb but top-end power wasn't the aim of the XV designers so this is of little consequence.

The flat-top pistons displace 748 cm^3 from the well oversquare dimensions of 83.0 x 69.2 mm bore and stroke and compression ratio is an easy 8.7:1.

Both front and back exhausts feed into the power chamber (actually a pre-silencer expansion box and balancer in one) behind the crankcases and the front exhaust pipe is the usual double-pipe affair (of very large diameter on the XV) but the rear exhaust is single pipe only, unchromed, and looks decidedly undernourished with its outside diameter far smaller than the front pipe. Nevertheless the system works well, sounds nice and doesn't stifle the XV's personality. What more can you ask?

Spark comes from a transistorised electronic ignition with twin coils and advance is electronically controlled by a similar system to that used on last year's XJ650. Unlike Harley Davidsons, but like most other V-twins, one plug fires each crankshaft revolution, the cylinder offset of 75 degrees resulting in a 285-435 degree spacing of power strokes.

The XV twins may be outwardly simple and routine maintenance and tuning should be straightforward (with the possible exception of adjusting the rear cylinder valve clearances) and not too frequent, but as with many machines from the Land Of The Rising Sun the internals of the V-twins are not as simple as outward appearances suggest. We're sure they will prove durable in the Yamaha tradition (one of the most bulletproof big bikes is the XS1100), however, should major surgery be required a skilled mechanic will be essential.

Yamaha has gone to great lengths to make the XV twins mechanically quiet — it allows them to muffle the exhaust slightly less and still meet California's stringent noise regulations. The XV750 is mechanically the quietest air-cooled motorcycle TWO WHEELS has encountered. Some of the techniques Yamaha has used to quieten the engine include the use of spiral gears for the primary drive; special double-toothed, zero-lash gears for cam timing; silent Morse-type chains to drive the oil pump as well as the cams and the use of pressed-in bushings to support the camshafts instead of noisier ball races or the less durable approach of allowing the cams to spin directly in the head alloy.

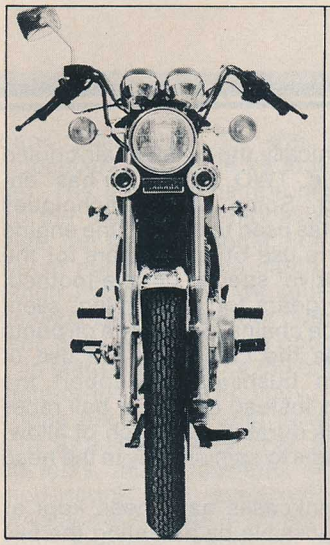
The crankcases have been kept as short as possible by mounting the two gearshafts on a 45 degree angle instead of one behind the other. The crankcase/clutch/gearbox assembly is reasonably symmetrical about the engine rather than being mainly hung off the back as is usually the case and this helps give the XV powerplant its distinctive appearance. Oil is contained in the finned sump (3.6 litres) and an oil cooler was thought unnecessary for either the 750 or 1000 cm^3 engines.

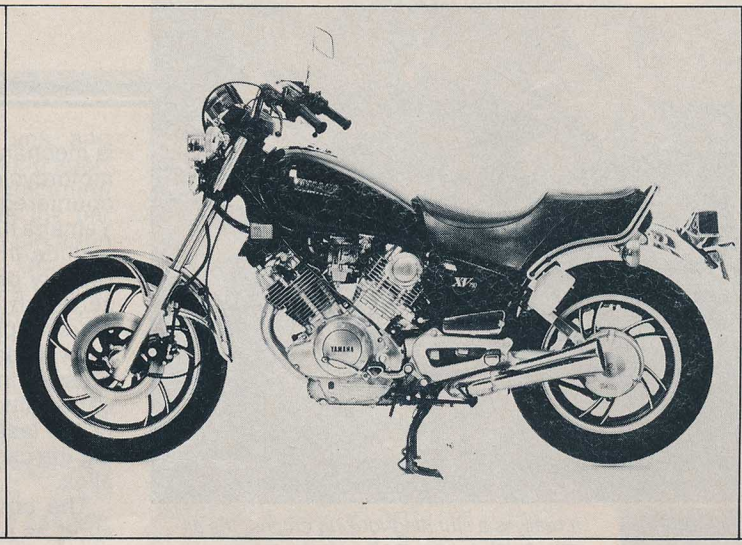
The XV750 is not a ball-tearer in maximum power — a peak of 44.8 kW (61 hp) at 7000 rpm is the claimed crankshaft power. Torque is said to be 65.4 Nm at 6000 rpm and both figures seem reasonable in the light of our dyno tests. The important thing to note about the claims is the engine speed at maximum power — a casual (nowadays) 7000 rpm. Pre-production XV750s and XV1000s sent to America carried 8000 rpm redlines but the tachos of production models have red zones starting at 7000 rpm. Our test XV spun very willingly to 7500 rpm on its electric tacho and probably the short stroke engines will be safe to 8000 rpm. Mean piston speed at 7000 rpm is a restrained 16.2 metres/second; many modern fours work their pistons 25 percent faster at redline. Even at 8000 rpm mean piston speed for both XVs (they share the same stroke) is a moderate 18.5 metres/second so ring and bore wear, if nothing else, ought to be slow.

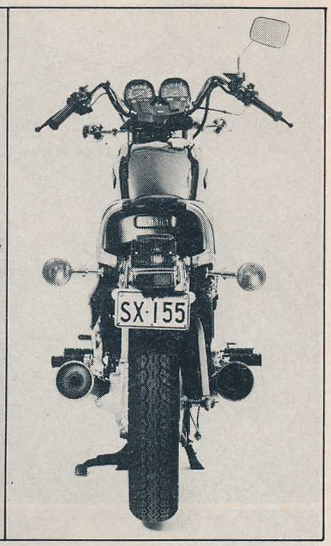
The only part of the XV engine which is not mechanically quiet is the electric starter slung off the front. It's downright loud! The Mitsuba unit spins the crank through straight-cut gears and is protected from kickback by an automatic clutch. It worked fine on our testbike (there is no kickstarter), but each touch of the button produces an alarming racket.

Starting, with or without the handle-

YAMAHA XV750H







ENGINE

Air-cooled, longitudinal, 75-degree, four stroke Vee-twin with single overhead cam on each cylinder. Hy-Vo chain driven cams, plain big and small end bearings. One-piece forged crank supported in ball bearings in vertically split crankcase halves, conrods running side-by-side on crankpin. Wet sump lubrication.

Maximum rear wheel power	32.3 kW at 6500 rpm
Maximum torque	49.3 Nm at 6000 rpm
Bore x stroke	83.0 x 69.2 mm
Displacement	748 cm³
Compression ratio	8.7:1
Maximum engine speed	7000 rpm
Carburetion	2 x 40 mm constant vacuum Hitachis
Air filtration	Oiled polyurethane foam
Starter system	Electric only
Ignition	Transistorised battery/coil with electronic advance

TRANSMISSION

Gear primary drive to wet, multiplate clutch and five speed constant mesh gearbox with one-down four-up pattern. Sealed shaft final drive.

Ratios (overall:1)

First	12.53
Second	8.87
Third	6.85
Fourth	5.49
Fifth	4.84
Primary reduction:	1.660:1
Internal reductions (two):	1.102:1
Final reduction:	3.070:1

FRAME AND BRAKES

Welded, pressed-steel, backbone frame using engine as stressed member in place of downtube cradle, ball race steering head. Air assisted leading axle coilspring forks with oil damping. Multiadjustable air/nitrogen and coilspring monoshock rear suspension oil damped. Hydraulic, single front disc brake and rod-operated single-leading-shoe drum rear brake.

Front suspension travel	145 mm
Rear suspension travel	105 mm
Fork rake	29.5 degrees
Fork trail	133 mm
Front brake diameter	300 mm
Rear brake diameter	180 mm
Front tyre	3.50H19 Bridgestone Mag Mopus
Rear tyre	130/90H16 Bridgestone Mag Mopus

DIMENSIONS

Dry weight	211 kg
Seat height	760 mm
Wheelbase	1520 mm
Ground clearance	150 mm
Fuel capacity (inc. reserve)	12.0 litres
Fuel reserve	2.0 litres
Engine oil capacity	3.6 litres

CALCULATED DATA

Weight to power ratio (90 kg load)	9.32 kg/kW
Specific power output	43.2 kW/litre
Mean piston speed at redline revs	16.2 m/sec

PERFORMANCE

Acceleration

Standing 400 m	13.6 secs at 154 km/h
Average of last three runs	13.8 secs (see text)
Zero to 100 km/h	5.1 secs
Maximum speed	181 km/h

Braking

From 100 km/h to zero	35.4 metres
Average of last three stops	35.6 metres
From 60 km/h to zero	12.4 metres
Average of last three stops	12.5 metres

Fuel consumption

Touring	20.7 km/l (58.9 mpg)
City	17.5 km/l (49.9 mpg)
Hard riding	13.7 km/l (39.0 mpg)
Average on test	17.9 km/l (50.9 mpg)

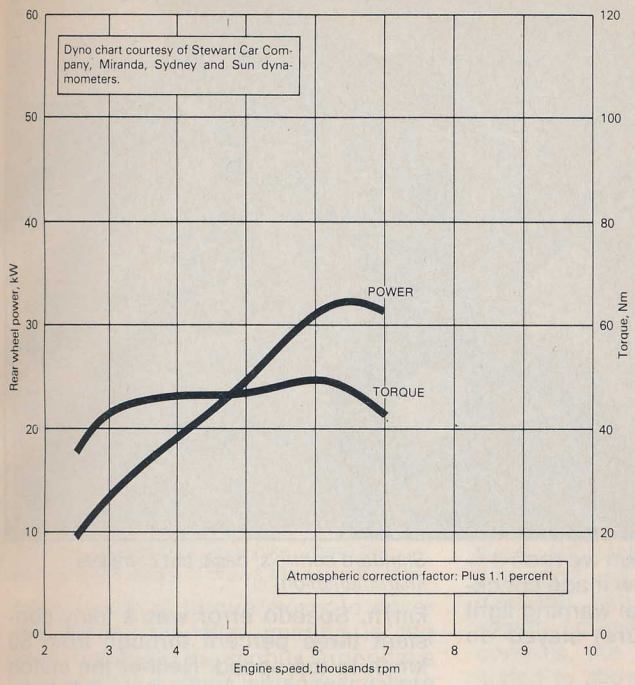
TEST MACHINE

Manufacturer	Yamaha Motor Co, Iwata, Japan
Test machine	McCulloch of Aust, Seven Hills, Sydney
Price	$2999

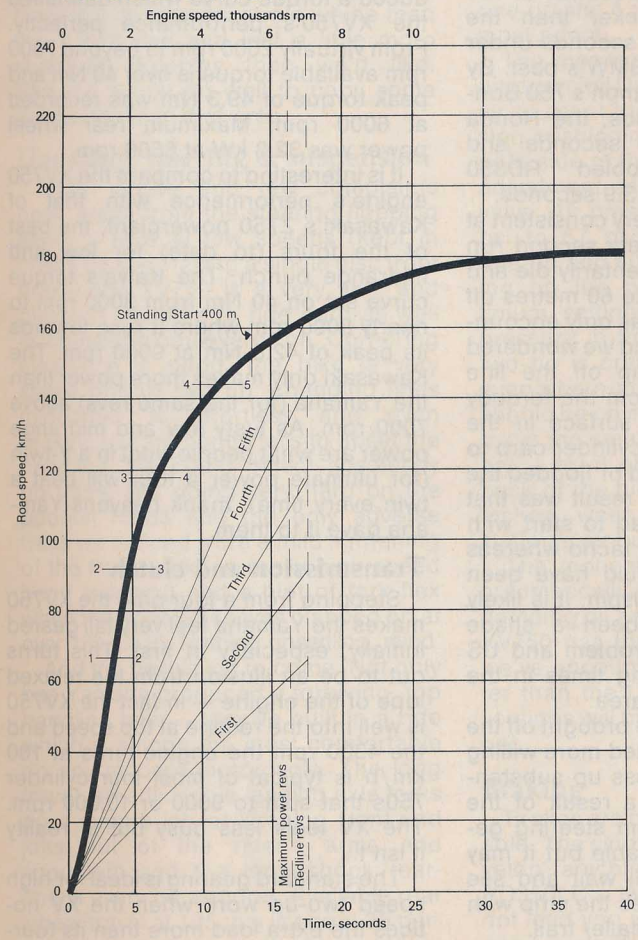
Best points: Best Custom bike ever and probably best V-twin as well. Relaxed, loping engine provides a soothing torquey power quite unlike busier, frenetic fours and combines with compliant suspension to give an incredibly smooth, together, boulevard cruiser. The XV has tonnes of character and style and sounds spunky to boot. Low seat, good handling, lightweight and healthy engine braking are icing on the cake.

Worst points: No real weaknesses. Top end power is a bit down on fours of similar size, 12-litre chopper tank is too small and the riding position, while good by custom bike standards, gave us sore backs after four hours in the saddle. The XV750 is too good a motorcycle to be limited to four hours at a stretch. Gearing is a trifle low. Bring on the XV1000!

CHASSIS DYNAMOMETER



ACCELERATION



SUMMARY

RATINGS	Poor	Below Average	Average	Above Average	Outstanding
ENGINE					
Responsiveness				●	
Smoothness			●		
Bottom end power					●
Mid range power					●
Top end power		●			
Fuel economy				●	
Starting			●		
Ease of maintenance				●	
Quietness			●		
Engine braking					●
TRANSMISSION					
Clutch operation				●	
Gearbox operation				●	
Ratio suitability			●		
Drivetrain freeplay			●		
HANDLING					
Steering				●	
Cornering clearance				●	
Ability to forgive rider error					●
High speed cornering				●	
Medium speed cornering				●	
Bumpy bends					●
Tossing side to side					●
Changing line in corners					●
Braking in corners				●	
Manoeuvring					●
Top speed stability				●	
SUSPENSION					
Front				●	
Rear					●
Front/rear match				●	
BRAKES					
Resistance to fading			●		
Stopping power			●		
Braking stability				●	
Feel at controls				●	
CONTROLS					
Location of major controls				●	
Switches				●	
Instruments				●	
TWO-UP SUITABILITY					
Passenger comfort				●	
Stability with pillion				●	
Cornering clearance two-up				●	
GENERAL					
Quality of finish					●
Engine appearance					●
Overall styling					●
Seat comfort				●	
Riding position		●			
Touring range		●			
Headlight					●
Stands					●
Other lights			●		
Rearview mirrors			●		
Horn				●	
Toolkit			●		
VALUE FOR MONEY				●	

bar choke lever thumbed on, was always easy although the noises make it clear the big twin takes a bit of turning over in really cold weather. Once running, the engine only requires choke for a very short time and is more than willing to take riding loads virtually as soon as the oil is right through the motor (say 30 seconds or so). The hefty alternator and two weighty flywheels may make the engine response a trifle slower than sportier twins and fours, but they also combine with the massive sub-2000 rpm torque to ensure the XV doesn't stall easily, cold or otherwise.

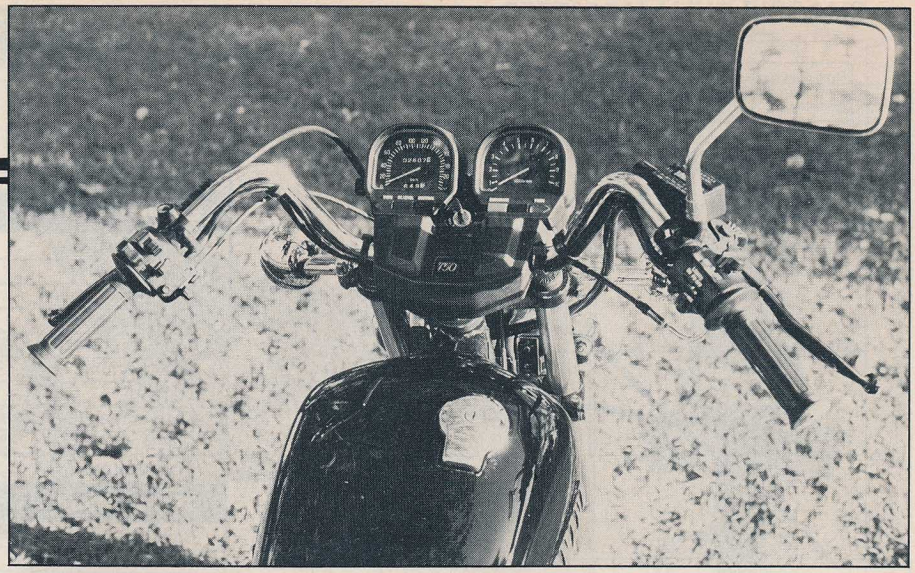
Indeed after only a minute's running the engine feels exactly the same as it does after 20 hot laps of Oran Park — which may or may not be a good thing as it's hardly warm enough to be given its head yet without nasty wear consequences.

The V-twin throbs away lazily at idle, smooths out as revs approach 2000, remains very smooth till 4500 rpm where non-annoying vibes start to creep in and grow until they become annoying at 5500 rpm. From 5500 rpm upwards there is no further smoothing out, the frequency of vibration just increases and the vibes continue to annoy. In real terms there is no vibration problem unless you are cruising at over 135 km/h. The mild shaking where the engine spends most of its life is pleasurable if it's there at all.

Fuel consumption was reasonable but not brilliant. The bike is among the most economical 750s (Kawasaki's light Z750 is better), but then it should be as the engine is less powerful (read mildly tuned) and the bike lighter than most of its rivals. It may be that the engine is so flexible and happy lugging there is a tendency for the rider to just open the throttle and enjoy the pull when it would be more fuel efficient to drop a gear and use less throttle.

Whatever the reasons, we averaged 17.9 km/litre (50.9 mpg) on test. Country touring returned an average of 20.7 km/litre (58.9 mpg) although we managed 22.1 km/l (62.8 mpg) on one solo stretch riding with economy in mind. City riding gave 17.5 km/l (49.9 mpg) and hard use 13.7 km/l (39.0 mpg). Absolute low of the test was the 11.3 km/l (32.1 mpg) we achieved for 54 km of dragstrip testing.

Engine braking is hearty on the XV750 and this made riding in mountain regions a little more enjoyable and a little less hard work. Only a negligible amount of oil was consumed by our XV750 during the 1400 km we rode it — the oil sight glass window made checking easy and the oil level warning light (note — not oil pressure) stayed on holiday.



Standard controls, basic but complete instrumentation.

Performance

While the XV750's on-road performance is impressive, we didn't expect big things at Castlereagh. As it turned out the XV finally ran 13.6 seconds at 154 km/h, one tenth quicker than the R100RT BMW and 0.5 seconds under the dual purpose 800 BMW's best. By way of comparison Triumph's 750 Bonneville ran 14.2 seconds, the Honda CX500 managed 14.0 seconds and Yamaha's liquid cooled RD350 stopped the clocks at 13.9 seconds.

The XV750 was not very consistent at the strip. On about every second run the engine would momentarily die and then pick up again 50 to 60 metres off the line. This malady was only encountered at the dragstrip and we wondered whether the hard jump off the line (plenty of wheelspin from the torquey twin) caused the fuel surface in the backward-facing, rear cylinder carb to slope so much it starved or flooded the rear cylinder. The nett result was that for a clean run one had to start with about 7000 rpm on the tacho whereas 5000 to 5500 rpm would have been ideal to minimise wheelspin. It is likely the XV would have been a shade quicker without this problem and US magazines are reporting times in the 13.25 to 13.4 seconds area.

The 750 needed to be brought off the line carefully as it seemed more willing than most bikes to cross up substantially. Whether this is a result of the raked forks and custom steering geometry or not is debatable but it may have contributed. We'll wait and see how the XV1000 handles the strip with its steeper forks and smaller trail.

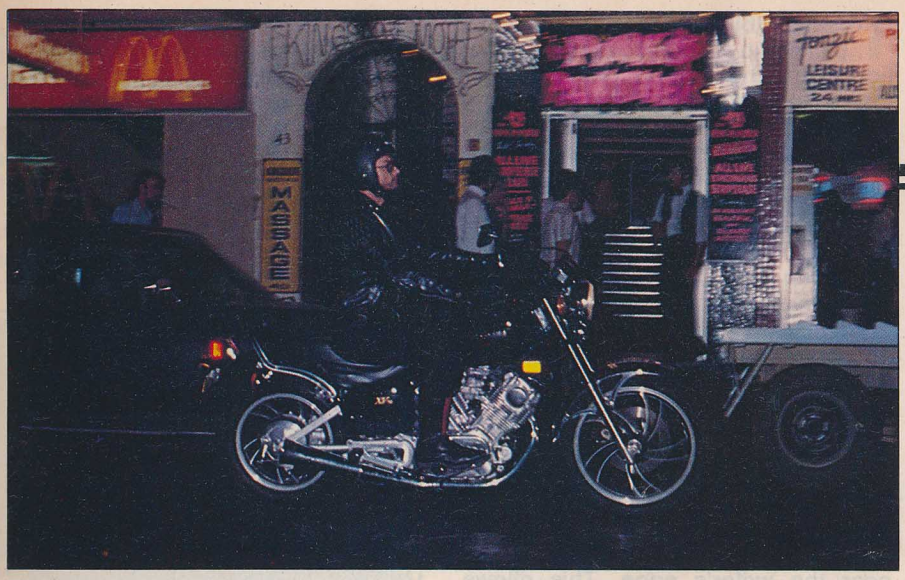
Top speed was a true 181 km/h at 7800 rpm, the speedo showed 186 km/h. Speedo error was a fairly constant three percent through from 50 km/h to top speed. Neither the clutch nor engine showed any sign of distress at the strip or dyno and the engine, though past its best, revved willingly to almost 8000 rpm. Valve bounce set in at around 8200 rpm. The dyno run produced a torque curve which quantified the XV750's performance perfectly. From virtually 2600 rpm to beyond 7000 rpm available torque is over 40 Nm and peak torque of 49.3 Nm was recorded at 6000 rpm. Maximum rear wheel power was 32.3 kW at 6500 rpm.

It is interesting to compare the XV750 engine's performance with that of Kawasaki's Z750 powerplant, the best of the fours (to date) for low and midrange punch. The Kawa's torque curve sat on 40 Nm from 3000 rpm to nearly 8000 rpm where it rose towards its peak of 42.8 Nm at 9000 rpm. The Kawasaki only makes more power than the Yamaha (for the same revs) above 7000 rpm. As lusty low and midrange power are what people want in a V-twin (for ultimate power a four will beat a twin every time), thank heavens Yamaha gave it to them.

Transmission and clutch

Stepping from a four onto the XV750 makes the Yamaha feel very tall geared initially, especially in first. This turns out to be an illusion from the relaxed lope of the engine — in fact the XV750 is well into the redline at top speed and the 4300 rpm the engine turns at 100 km/h is typical of most four cylinder 750s that spin to 9000 or 10,000 rpm. The XV feels less busy but in reality it isn't.

The standard gearing is ideal for high speed two-up work when the XV notices the extra load more than its four-jug counterparts but most riders felt the twin could easily pull a taller fifth. Cer-



The first Japanese custom bike where the styling really works. It draws the crowds, too.

tainly plenty of torque exists to cover the fractionally taller gearing in the lower ratios and the slightly larger gaps between gears which would result were the ratios raised a little. Fuel economy on the open road might improve a touch too.

Aside from this minor criticism the transmission and clutch were perfect, there is a lot less drivetrain whine than the XJ650 has and just a little more shaftdrive freeplay than we'd like. Yamaha would do well to copy some Suzuki tricks in that area.

Handling, steering & suspension

Much praise and few complaints here. Aside from the steering flopping about a little at low speeds (kept in check by only having a single disc front brake) the XV750 is a very safe and pleasant machine to ride hard as well as cruise the boulevards on. Cornering clearance is good, the bike is very stable one or two up, changing lines midcorner is effortless and even braking in hard bends fails to upset the handling. We could detect absolutely no frame flex riding very hard on the poorest roads and the only adverse traits we noticed were a mild lightening of the front wheel in really high speed bend swinging and a hint of fork flex when the front brake was clapped on at over 130 km/h. Nothing unsettling, mind.

And the best is yet to come. Not only has Yamaha produced a forgiving, top handling bike — they've built in a ride which is among the most comfortable on any modern motorcycle. The long travel, air-adjustable leading axle forks do a superb job of keeping front-end jolts out of the rider's arms and shoulders and the monoshock rear-end is every bit as good. Available rear wheel travel at 105 mm is about 25 per-cent longer than most shock absorber/swingarm combinations and the super-adjustable monoshock unit puts it to good use. There are 20 choices of damping although only six can be selected conveniently from the outside controls, the cable having to be adjusted to allow selection of a different six dampings. We found a large difference in damping could be had with the standard first set of six positions ranging from mild to quite heavy and never explored further. Position 2 or 3 one-up and 4 or 5 two-up were ideal for most riders.

The monoshock itself is basically a nitrogen/oil De Carbon unit which uses air to assist the coilspring in compression cushioning. A small fitting on the right side of the seat handles damping adjustment as well as holding the air valve. Air pressures may be set from 7 psi to 57 psi and we found 20 psi one-up and 40-50 psi two-up, depending on the passenger's weight, optimum settings. Having the right air pressure in the monoshock for riding two up is critical, the XV will bottom everywhere at 20 psi two-up. The bike should be on its mainstand to add or remove the small volumes of air necessary — try it on the sidestand and the back of the bike jumps up a couple of inches when you hit the service station's air button.

The monoshock also compensates automatically for internal changes in damping oil and gas temperatures. The XV750 has the best road monoshock we've encountered (we thought it better than the LC's setup) and if future versions will be as effective, bring them on!

Braking

Brakes are best described as reasonable. The single front disc does not develop anything like the power the RD350LC's twins do but the XV does not lead you into situations where you need such stopping either. The single disc requires a fair pull for powerful stopping but its wet weather performance is excellent.

The XV only gives away a metre or so to the RD350LC (the new braking record holder, by the way) from 60 km/h, stopping in a best distance of 12.4 metres. Stopping from 100 km/h took 35.4 metres, an average result, but stability in crash stops was excellent. The single leading shoe rear drum was adequate for normal use, excellent (of course) in the wet and could be made to fade after a few hard stops in quick succession. The front disc too could be heated enough by deliberate abuse to fade slightly. Feel is okay but not as good as the triple disc Suzukis and a number of other Yamahas. As we said desperate braking is not really where the XV750 is at.

General

Despite being called the Virago in America (a virago is a bold, masculine, shrewish woman) the XV750 is a pleasant, solid bike to ride. It's well endowed with standard Yamaha grommets and other thoughtful touches like excellent switches (including self-cancelling blinkers, though unfortunately ours didn't work!), light throttle and clutch, slick gearshift linkages, easy to use stands, safety lockout on the starter and good mirrors. The XV is one of the few big bikes which is easy to keep near speed limits.

The seat is very comfortable for the rider and quite good for a passenger, it's just the riding position which is a bit take-it-or-leave-it. The dual horns could be louder, the tail-light bigger and brighter and the blinkers brighter (we are being picky here as none of the above are actually poor or dangerous). The saddle-type rider's seat pushes his knees out in the breeze where the wind catches them.

On the other hand the solid passenger grab rail is terrific, the steering lock is where it should be (in the ignition switch) and all the major things about a bike are right.

Conclusion

A good cross-section of motorcyclists rode the XV750 while it was in TWO WHEELS hands. Among them were both male and female Ducati owners, BMW owners, Harley riders and Triumph riders. Without exception everyone really liked it, although many would not actually buy a custom. Speaking for ourselves we could definitely own an XV. Is that recommendation enough? *