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TOURING: complete guide

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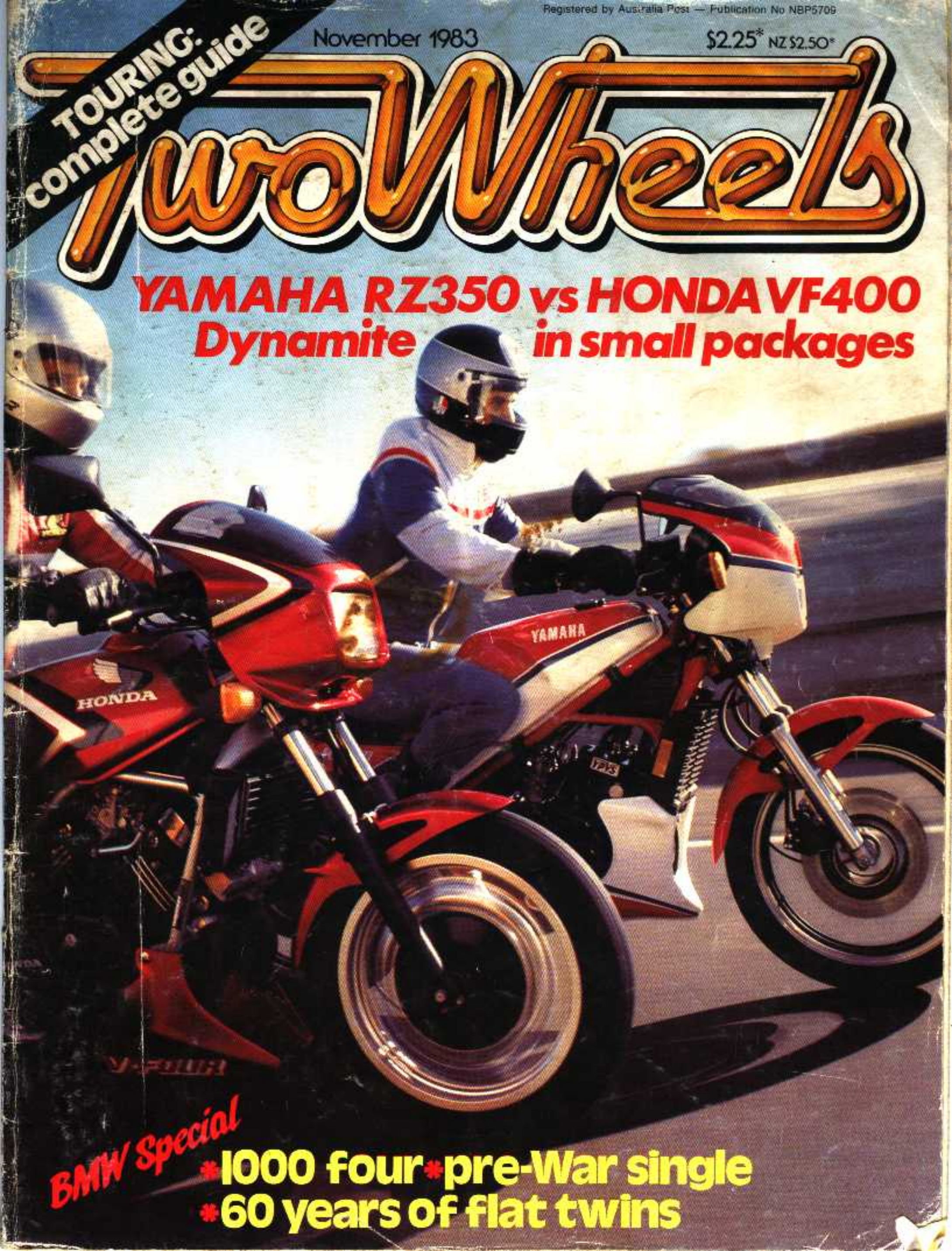
TwoWheels

YAMAHA RZ350 vs HONDA VF400
Dynamite in small packages



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Chalk 'n' Cheese SPORTSTERS

Surprisingly similar where you'd expect them to be different, surprisingly different in other areas, Yamaha's RZ350 and Honda's VF400 dominate the under-400 cm³ go-fast market. A choice between the two might simply boil down to the question: Two strokes or four?

WHEN first suggested, it seemed like a great idea — a comparison test between the two top performers in the sub-400 cm³ bracket, Yamaha's RZ350 and Honda's VF400. Pitting the complex sophistication of the V-four four-stroke against the equally sophisticated but much less complex two-stroke twin. Looking at how a nearly brand-new motor layout compared with one whose lineage stretched back nearly 20 years.

With the two bikes together, the test took on a different aspect. Instead of being a study of the fine differences between almost identical design approaches (as in our three-way 750 test in the September issue), it became more an exercise in analysing how quite dissimilar paths had achieved quite comparable results.

And in some key areas, there wasn't even too much closeness. Take outright performance. You'd expect a tense struggle, but the capability of the Yamaha is such that it could be properly compared with 550 cm³, not 400 cm³, four-strokes. The hot-zingeddy 'stroker has little respect for multi cylinders and four times that many valves when it gets on song.

Yet here's the paradox. On-road performance is often not as different as the standing quarter and dyno figures would indicate, a result of significantly lower gearing enjoyed by the high-revving Honda. Another paradox: The gap between a strong bottom end and a staggeringly muscley peak output makes the RZ feel a little flabby below 5000 rpm, whereas a torque band on the VF which is as near as damn it to the fabled "straight as a ruler" delivers a smooth, progressive response to throttle opening. In short, neither bike is entirely what it seems at first glance.

In a styling sense, first glance of the Yamaha is hard to ignore. The go-fast visual message of the previous LC model has been notched up another gear, with the addition of a bikini fairing, engine cowling, a larger, angular, racer-style tank, bright red frame, new three-spoke alloy wheels with wider rims, and a red, white and blue paint scheme straight from the Grand Prix tracks of Europe.

She's a dazzler. And the looks are not

deceptive. Significant changes to the motor and chassis have produced a bike which is much faster and quicker than its predecessor, itself no slouch when the chips were down.

The VF is all new. In essence it is a VF750 that's been buzzed by Flash Gordon's reducing ray, a 750 in miniature. The 400 is smaller, lower and lighter than big brother but still boasts much of the running gear of the larger model. There's the 16-inch front wheel, rectangular section swinging arm, and four way adjustable antidive, to name but a few.

The dazzling duo can also contend with the more mundane side to motorcycling, as both are excellent in the city. At 145 kg (dry) the Yamaha is a real lightweight and in heavy traffic situations is beautifully easy to handle. Add to this a motor which puts out usable power from 4000 rpm and the result is effortless suburban cruising. On the other hand, the VF is heavier to the tune of 30 kg and isn't blessed with as eager a motor. The Honda counters these drawbacks with its lower seat, quicker steering and slick gearbox. A bonus for both bikes in urban territory comes in the form of riding positions which are sporty but not so exaggerated that excessive weight is left on the wrists.

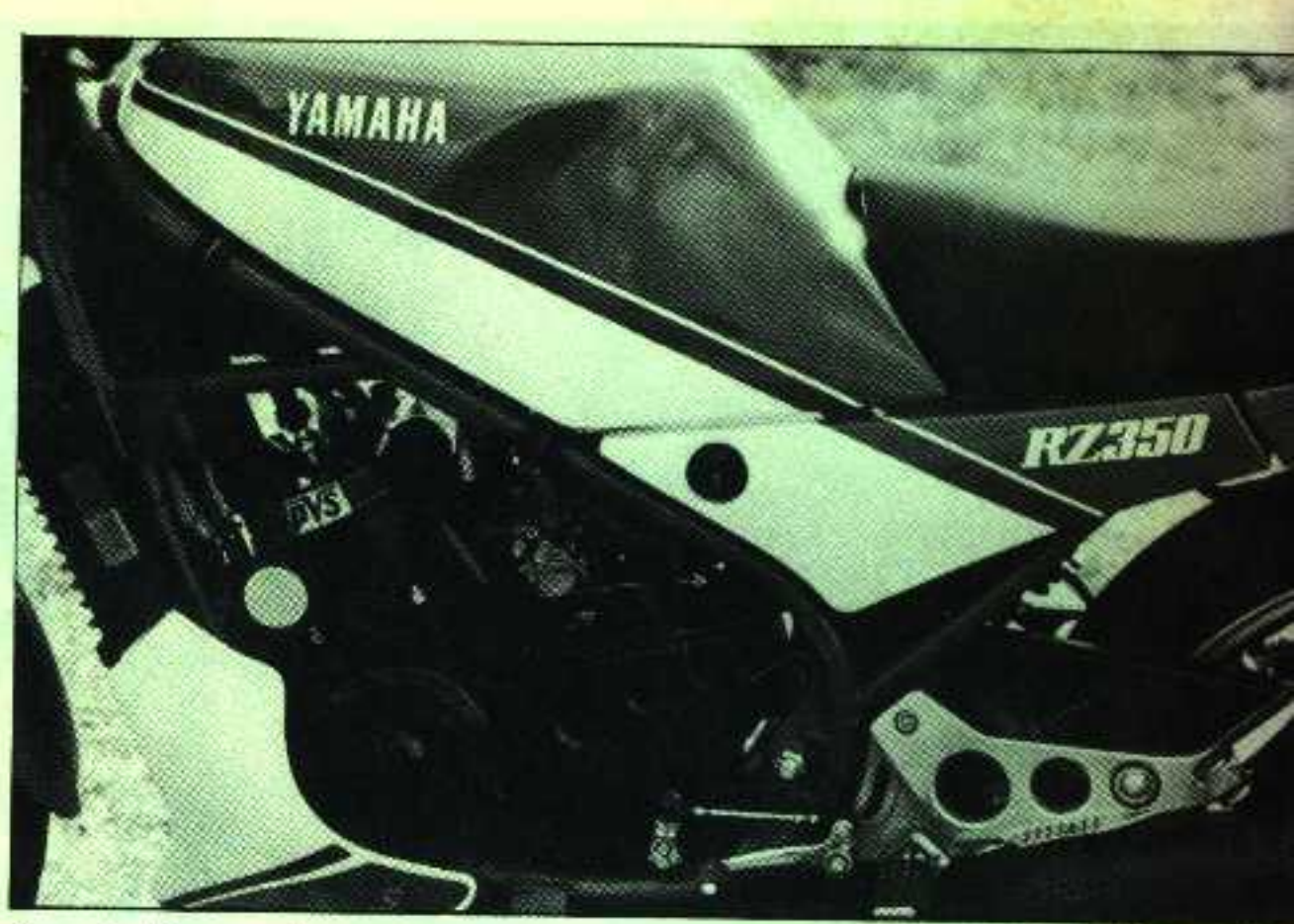
Two facets of excellence

The powerplants are two quite different but superb little motors. The RZ's is excellence in a small package. The LC treatment of the long-serving twin was a great leap forward but this later revamp is equally as significant. So complete has been the redesign that little remains of the LC apart from the built-up roller bearing crankshaft and the bore and stroke dimensions.

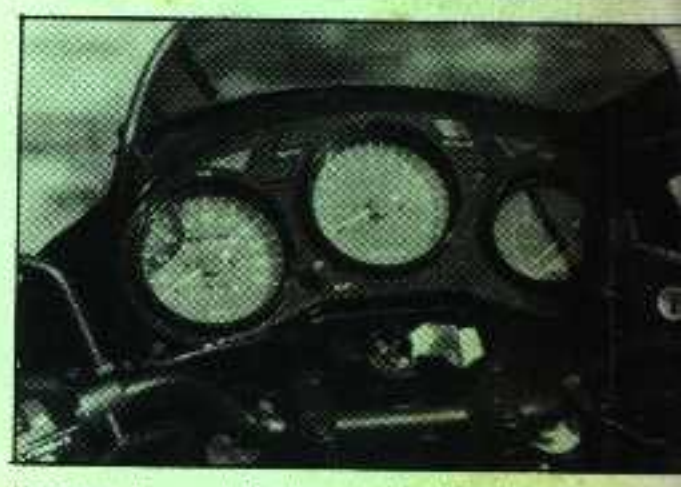
Claimed power is a hefty 43.5 kW at 9000 rpm against the LC's maximum of 34.5 kW at 8000 rpm. That's a boost of over 26 percent. Major responsibility for the top end increase lies with larger reed inlet valves and wider transfer ports, both of which improve breathing efficiency. But attention was also paid to improving midrange grunt, by the adoption of Yamaha's Power Valve system. This clever little device promotes better midrange power despite radical porting. It is essentially a cylinder with oval cutouts that rotates across the face of the exhaust port. At high engine speeds it allows unrestricted gas flow through the exhaust port but below 5000 rpm the effective size of the port is reduced by rotation of the valve. Its position is controlled by an electronically controlled servo motor.

Other minor alterations to the motor's specifications include a reduction in carburettor throat size (down to 26 mm from 28 mm) and a drop in compression ratio from 6.3:1 to 6.0:1.

Despite the addition of all this gadgetry



Dramatic differences in motor layout contrast dramatic similarities in chassis and cycle parts. Honda mill is ostentatiously new-wave multi, a VF750 hit with a reducing ray; the Yamaha twin is equally way-out in critical design areas. Cockpit areas are both simple, functional.



the RZ's motor is still quite simple. By comparison, Honda's V-four is considerably more complex. A four valves per cylinder device with double overhead camshafts and a forged one-piece, plain bearing crankshaft, the unit also has four downdraft Keihin carbs packed tightly into the V, to further add to the number of components. Displacement is 399 cm^3 while the bore and stroke is a very oversquare 52 x 42 mm. Compression ratio is a whopping 11:1 and maximum engine speed has been set to an equally impressive 12,500 rpm.

Perhaps the only similarity between the two motors is their water-cooling, and even here there are differences. Whereas the VF's cooling is aided by a thermostatically controlled electric fan and a portion of the frame tubing is used as part of the coolant circuitry, the wider radiator on the RZ ensures efficient cooling despite the absence of a fan. Certainly, both systems proved to be totally effective on test. No problems with overheating were encountered.

Both bikes were impressive starters. The VF responded immediately to a prod on the button and rarely needed any choke even on very chilly days. Hot or cold it was the same old story . . . press the button and go. The RZ impressed as well. Choke was necessary from cold but the motor never needed more than two kicks to prompt into action.

The RZ would not pull away strongly and consistently without a few minutes warmup but the motor reaches operating temperature relatively quickly. It is better than the LC in that regard. The VF didn't need any warmup and could be ridden away immediately after starting.

Once underway few riders will complain about excessive harshness. The Yamaha has rubber engine mounts up front and is super smooth between 5000 and 8000 rpm, the most frequented part of the rev range. Below 5000 rpm there are some vibes and above 8000 rpm the buzzes once again make their presence felt. Despite the solid engine mounts the VF is smoother than the RZ. The perfect primary balance of the ninety degree V configuration means that the little Honda doesn't suffer from a trace of the annoying high frequency tingles which beset most other four-stroke multis.

Neither model punishes the ears too much. The Honda's muted but very characteristic exhaust note isn't drowned out by the myriad of moving parts. Mechanical noise from the two stroke is minimal, so all that assails the senses is a wonderful TZish wail.

The VF proved the more economical of the two. Differences on test varied from slight on the highway (18.4 to 17.8 km/l) to substantial during city (17.8 to 15.2 km/l) and hard riding stints (14.2 to 12.0 km/l).

Numbers game to the Yamaha

There are no prizes for guessing which bike was faster at the strip or which of the two pulled the bigger numbers on the dyno. The Yamaha swept down the standing 400 metres in 13.2 secs at a terminal speed of 167 km/h while the VF managed 13.6 secs and 155 km/h.

With practice it probably wouldn't be overly difficult to achieve sub-13 sec times with the Yamaha. The major difficulty lies in finding the balance between too much and too little clutch slip and hence obtaining a clean start without bogging down or sending the front wheel in a skyward surge. Once off the line the RZ really flies and reaches a terminal speed that is only a fraction slower than you'd get with a top 750. The Honda, though not as quick, was easier to control; providing the engine speed was kept above 10,500 rpm, consistent starts and rapid times could be accomplished with relative ease.

The dyno testing showed that the RZ is one very powerful motorcycle. The peak power of 32.8 kW at 9000 rpm represents a specific output of 94.5 kW/litre, the highest figure we've obtained since dyno testing became part of our road test format.

Although once again out gunned, the Honda established itself as boss of the four-stroke brigade in the 400 cm^3 bracket, with a maximum of 26.8 kW at a screaming 12,000 rpm.

Differences highlighted

Not unexpectedly, on-road performance proved as dissimilar as the makeup of the motors and the characteristics of the dyno charts. The Honda provides smooth, progressively increasing power to 12,000 rpm and a similarly gradual decrease to the redline and beyond. At the other end of the spectrum is the RZ, a little rocketship that offers an adequate midrange followed by a sudden transition to a hefty powerband, and a dramatic drop off thereafter.

In a nutshell the VF offers responsiveness at any engine speed while the RZ shows the Jekyll and Hyde facet of its character. However the Yamaha isn't really an on-off motorcycle with regard to throttle response. The powerband extends from 6000 to 9000 rpm and so is pleasantly wide, while the midrange gives the illusion of flatness mainly because of the rapid transition to the big power regions of the rev range.

A levelling factor between the two bikes proves to be gearing. The 350 is redlined at 10,000 rpm and the 400 at 12,500, and both are so geared that this engine speed difference is proportionally maintained. So, although the Yamaha is more powerful than the Honda at 4000 rpm for example, at the road speed equivalent to 4000 rpm in top for the RZ (about 80 km/h), the VF is spinning in excess of 5000 rpm . . . and producing more power.

Consequently, top gear roll-ons from 60 and 80 km/h prove to be a Honda benefit, with the four quickly establishing a three- to four-bike length break on the twin and maintaining it beyond 100 km/h. After 120 km/h the RZ looks good, and by 140 km/h it is swamping the VF.

The bikes ran out to top speeds of 193 km/h (RZ) and 186 km/h (VF), the former's speedo nudging 200 km/h and its tacho reading within 200 rpm of redline, the latter's tacho showing 11,800 rpm and its speedo a wildly optimistic 205 km/h.

The transmissions of the two models offer one of the few areas of similarity. Both transmissions have gear primary drives, six gears and demonstrate excellent behaviour. The VF has none of the drivetrain freeplay that plagued the VF750 and a new planetary shift mechanism has prevented the recurrence of bigger brother's clunky and heavy changing action. The shift lever has a light but positive feel and happily this excellence has carried through to the clutch. This hydraulic device is very light and progressive and in Honda tradition has a takeup zone which is narrow but perfectly suited to the bike's substantial low rpm punch.

The RZ's gearbox doesn't quite have the refinement of the Honda item but is still a very slick operator. It combines a short lever throw with a slightly heavy but positive shifting action. The clutch does not feel as light as the VF's but the wide takeup zone is certainly welcome.

One aspect of the RZ's gearbox that surfaced during the test was the necessity to make very positive gearchanges during sedate cruising stints. The light touch that was generally required when the bike was being pushed along at high revs was not always successful on these occasions, when a false neutral between fifth and sixth could

Continued on page 26
RZ350 specifications on page 24

Yamaha RZ350

ENGINE

Water-cooled parallel twin two-stroke. Piston-controlled porting, reed valve induction, electronically-controlled power valve in exhaust port. Built-up crankshaft, roller main bearings, needle roller big and little ends. Lubrication by pump-fed automatic injection.

Maximum claimed power	43.5 kW at 9000 rpm
Maximum claimed torque	46.5 Nm at 8500 rpm
Bore x stroke	64 x 54 mm
Displacement	347 cm³
Compression ratio	6.0:1
Maximum engine speed	10,000 rpm
Carburation	2 x 26 mm Mikuni slide/needle
Air filtration	Oiled foam
Starter system	Secondary kick
Ignition	Solid state battery/coil

TRANSMISSION

Helical gear primary drive through wet, multiplate clutch to six-speed, constant-mesh gearbox. Left foot shift, one-down, five-up pattern. Final drive by roller chain.

Ratios (overall: 1)
(km/h per 1000 rpm in brackets)

First	18.45 (6.6)
Second	12.75 (9.5)
Third	9.46 (12.8)
Fourth	7.77 (15.6)
Fifth	6.90 (17.5)
Sixth	6.38 (19.0)

Primary reduction: 2.870:1 (66/23)
Secondary reduction: 2.500:1 (40/16)

FRAME AND BRAKES

Welded tubular steel double cradle frame. Rectangular section alloy swinging arm. Front suspension by air-assisted telescopic forks, double-rate springs, rear suspension by single spring/damper unit and rising rate linkage system. Five spring preload settings. Twin disc front brakes, single piston floating hydraulic calipers; single disc rear brake, twin piston fixed hydraulic caliper.

Front suspension travel	130 mm
Rear suspension travel	90 mm
Fork rake	27 degrees
Fork trail	96 mm
Front brake diameter	270 mm
Rear brake diameter	260 mm
Front tyre	90/90 x 18 Yokohama
Rear tyre	110/80 x 18 Yokohama

DIMENSIONS

Dry weight	145 kg
Seat height	795 kg
Wheelbase	1385 mm
Ground clearance	180 mm
Fuel capacity (incl. reserve)	20 litres
Fuel reserve	N/A
Engine oil capacity	1.6 litres
Transmission oil capacity	1.7 litres

CALCULATED DATA

Weight to power ratio (90 kg load)	7.16 kg/kW
Specific power output	94.5 kW/litre
Mean piston speed at redline revs	18.0 m/sec

PERFORMANCE

Acceleration

Standing 400 m	13.2 secs at 167 km/h
Zero to 100 km/h	6.1 secs
Maximum speed	193 km/h

Braking

From 100 km/h to zero	34.2 metres
From 60 km/h to zero	12.0 metres

Fuel consumption

Touring	17.8 km/litre
City	15.2 km/litre
Hard riding	12.0 km/litre
Average on test	14.5 km/litre

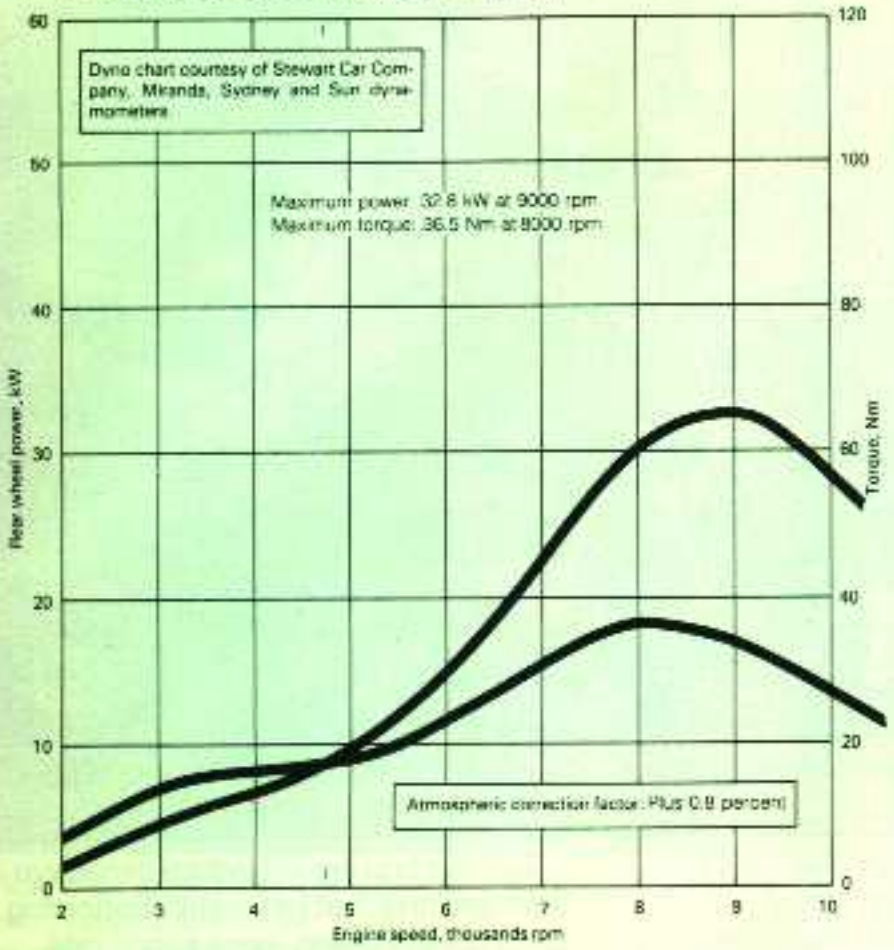
TEST MACHINE

Manufacturer	Yamaha Motor Company, Iwata, Japan
Test machine	Yamaha Motor Australia, Silverwater, NSW
Price	$2839

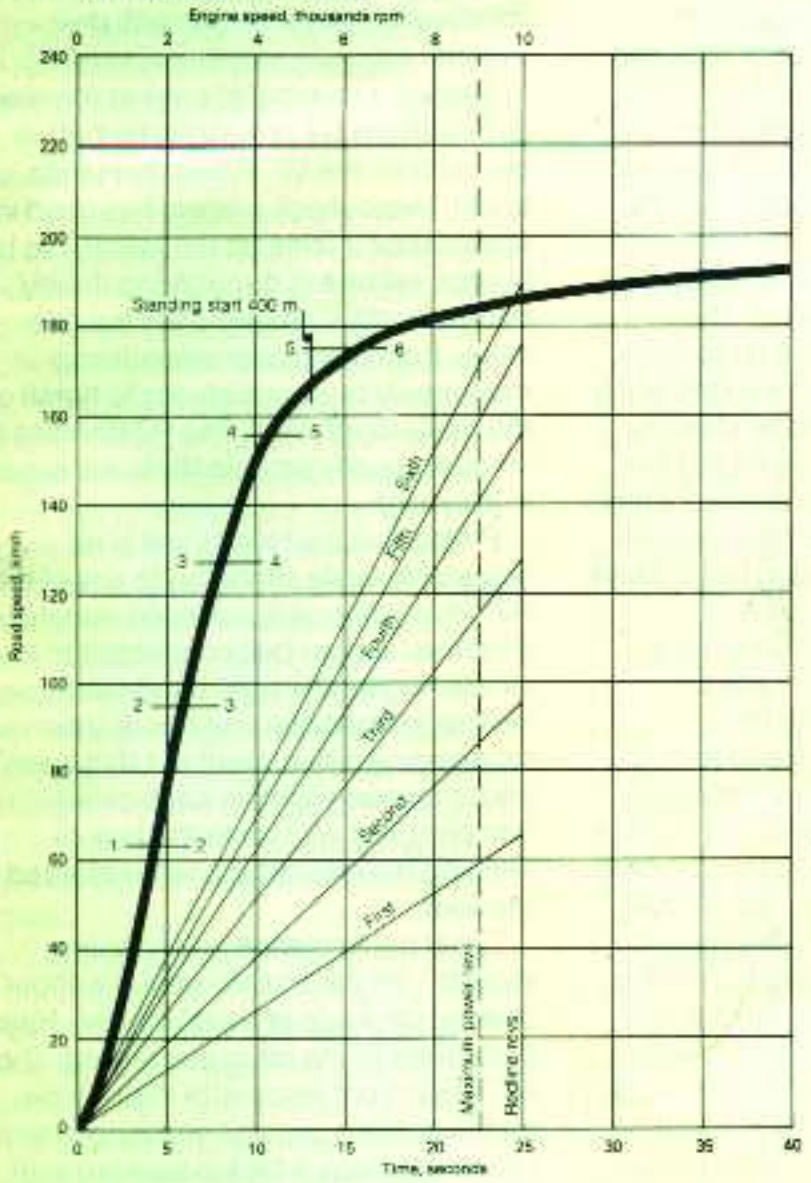
Best points: Exhilarating engine performance is backed up by equally impressive handling. Fun factor is unbeatable, but practicality is also high. Brakes are very strong and offer great feedback as well. Horn and headlight are both top class. Wonderful value for money.

Worst points: Motor needs a slight boost below 5000 rpm. Although it is stronger than Honda in this range, higher overall gearing reduces acceleration. Pushed hard, fuel consumption rises. Forks are too soft. Stiffer springing or antidive would be welcome.

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				●	
Other lights				●	
Stands					●
Rearview mirrors			●		
Horn				●	
Toolkit			●		
VALUE FOR MONEY					●

Continued from page 21

sometimes appear. This may have been a characteristic of the test bike and not typical of the breed. In any case the remedy was simple — more left foot muscle.

Bends spell grins!

Both bikes are mighty fine handlers. The superb lightness of the RZ promotes a great measure of agility and this is backed up by excellent cornering clearance. You'd be hard pressed to find a bike that is less tiring to ride and so grin-inducing in the tight stuff. Combine these qualities with the scintillating power and you have a bike that scores a very big F for fun.

While the VF is not quite as exciting, the fun score is high and the bike is equally as capable. Agility may suffer from the additional weight but this slight loss is more than offset by the quickness of the steering. What you lose on the roundabout you gain on the swings.

Steering is an area in which personal preferences can differ. Both bikes have neutral and precise steering, with rake and trail figures biased towards quickness, but there are degrees of difference in the precision. Not unexpectedly the VF's 16-inch front wheel imparts a lightness at high speed that is not duplicated by the 18-incher on the Yamaha. However, the RZ's steering is by no means sluggish and the lack of vaguenes is a definite plus. On balance the VF's steering has a touch more precision.

While both bikes handle smooth roads very competently, and their behaviour over rough territory is basically very good, there are a few minor grumbles. The VF suffers a little from 16-inch wheel syndrome. A shake of the head over bumps at high speed is an occasional problem but thanks to the overall stability of the bike any drama is an extremely rare occurrence. The RZ isn't perfect over really rough stuff either but again the drama level is very low. Large bumps can throw the bike off line and this feature is exaggerated by sudden acceleration decreasing the weight on the front wheel. It's more unsettling for the rider than the bike.

Frame and suspension generally reflect the high quality of the handling. The frames are similar, having the motor cradled in the two lower frame tubes while the two upper rails run from the steering head almost directly to the swinging arm pivot. There is no single tubular backbone and upper and lower frame members are cross braced near the steering head. Most of the VF's lower left frame rail is detachable, to facilitate motor removal.

Other basic similarities include a rectangular section swinging arm, monoshock rear suspension and air-assisted front forks. In the fine detail of construction there are variations. The VF's left fork leg wears the mechically actuated TRAC antidive. This four way adjustable device is quite effective in reducing fork compression and in banishing bottoming out during hard braking. The forks are compliant and have a silky smooth action.

Impressive compliance and road shock isolation are also hallmarks of the RZ forks, which differ from the Honda in the use of dual rate springs and no antidive system. Probably the only criticism revolves around the wimpish initial travel.

Spirited braking will induce excessive front end dive, but fortunately bottoming out is not a problem, since spring rate firms up rather substantially towards the limit of fork compression. A heavier grade fork oil might help reduce this tendency but Yamaha could contribute to further improvement by fitting an anti dive system.

There's a reversal of roles at the rear end, with the RZ proving to be better overall than the VF. While the Honda's air spring monoshock system has good initial compliance it firms up too rapidly, so big bumps will be felt through the thickly padded seat. Consequently the ride varies from plush over smooth and moderately bumpy surfaces to harsh over the really rough stuff. The RZ handles the smooth equally proficiently but is superior in the rough.

Preload on the Honda unit is air adjustable while alteration to any of the RZ's five settings is achieved remotely via a toothed rubber belt connected to a knob located under the right-hand side cover. Neither suspension unit has any provision for damping adjustment but this wasn't cause for complaint. In each case, damping was well up to the task of keeping the rider's bum firmly planted on the seat.

Great performance and handling wouldn't be particularly useful without a braking package of equal stature. Happily both bikes fill the bill in this regard. The RZ's twin front discs with their single piston calipers provide stunning braking power (perhaps a bit *too* savage) with great feedback, and while the Honda's enclosed single disc with dual piston caliper doesn't have the sensitivity or

Front ends take a different tack. The RZ's enormously powerful twin discs win the stopping war from the VF's enclosed single unit, but the Honda's antidive equipped forks are better in initial compliance.

brute force of the RZ's front brakes there is good feel and sufficient power to lock up the front wheel if you try hard enough. Both rear brakes are powerful and progressive and have good feel although the VF's is a little better in terms of feedback to the rider.

Two different approaches to wet weather braking have been taken by the respective manufacturers. Yamaha has used sintered metal pads while Honda has chosen to shield the brakes from the nasty water. Both are excellent in the wet.

Sporty models could be expected to be lacking in detail niceties, but both bikes exude an air of refinement. The VF's only real blemish is the grotty frame welds, otherwise the quality of finish is first class.

Instrumentation for each consists of speedo, tachometer and coolant temperature gauge. The Yamaha's instruments are large, very easy to use and accurate while the VF's dials — with the exception of the temperature gauge — are equally large. Unfortunately, the speedo on the test bike was hopelessly optimistic.

Switchgear is excellent all round. The RZ's controls are well laid out and include auto-cancelling indicators with manual override and a very sensible index finger operated flasher control. Good points on the VF's side include a similar flasher setup and a press button high beam switch. However, it would be a good idea if Honda separated this function from the headlight on/off switch, as it tends to crowd the area, and it is possible to turn off the headlight on activation of the right turn signal. The VF also has the choke lever mounted on the left switch block — this is more convenient than Yamaha's carburettor mounted choke control.

Lights on the RZ are extremely good. The headlight is particularly bright and taillight and indicators pass the test with flying colours. While the VF's indicators are bright enough both the taillights and headlight could do with a few more candlepower.

Being so small (the VF is particularly compact) neither bike is really suitable for the carriage of pillion passenger or gear for long distances. However, solo cruising comfort is first class. The VF has the better seat but the less compliant rear suspension, so on balance the RZ — with more supple suspension — comes out a whisker in front despite its firmer seat.

Touring range is pretty good all round. The RZ's 20-litre tank will run out at around 340 km while the smaller Honda tank (17 litres) will last about 310 km. Both bikes have external fuel cocks, making undertank fumbling a thing of the past.

Maintenance is a mixed bag. On the one hand the VF has an automatically tensioned cam chain and electronic ignition, so these items should need little if any attention. But valves will need periodic checking and adjustment and along with the four carbs will give rise to accessibility problems. On the other hand the RZ should need less periodic maintenance but will most likely require major tinkering (in the way of rings and decoking) sooner than the Honda. Then again, any major surgery will be far less troublesome with the two-stroke.

The horns and mirrors are a collection of pluses and minuses. The RZ has twin horns and good, basically fuzz-free mirrors while the single Honda horn is only adequate and the short stalks on the mirrors result in a restriction of the field of view. The rider gets a good view of elbows and shoulders.

In the form of the VF400 and RZ350, Honda and Yamaha have produced a pair of superb little sportsters. If your riding habits tend towards the "boy racer" you'll find that both offer bulk fun. The RZ is faster and quicker, and delivers more exhilaration per cubic centimetre than anything yet slung on two wheels. On the other hand, the VF has a smooth, progressive power delivery, is a little more stable at high speed, and is a less demanding bike to ride.

Both make a surprisingly good fist of commuting, and (load-carrying limitations apart) are also bloody good little tourers.

Making a choice between the two may not be too hard for most riders. If the go get 'em approach of a grunty two-stroke is what you like, then you'll love the RZ. If you're not too fussed about two-strokes and get your thrills more in the high-revving and less dramatic approach of a hot four-stroke multi, then the VF is the king of that breed. The only thing that could cause a few defectors to cross the old two-stroke/four-stroke barrier is price. With better performance on its side, and as an equally good bike in an overall sense, the Yamaha really has the edge in the dollar stakes. And that could well be the factor that brings a stack of new converts to the two-stroke fold.

— D. B.

VF400 specifications overleaf

Honda VF700F

ENGINE

Water-cooled 90-degree V-four four-stroke, crankshaft set transversely. Double overhead camshaft driven by HyVo chain, four valves per cylinder. Barrels cast integrally with top of crankcase. One-piece crankshaft, plain main and big end bearings. Wet sump lubrication.

Maximum claimed power	40.4 kW at 11,500 rpm
Maximum claimed torque	35.3 Nm at 10,500 rpm
Bore x stroke	55 x 42 mm
Displacement	399 cm^3
Compression ratio	11.0:1
Maximum engine speed	12,500 rpm
Carburation	4 x 32 mm Keihin CV
Air filtration	Pleated paper
Starter system	Electric only
Ignition	Solid state battery/coil

TRANSMISSION

Gear primary drive through wet, multiplate clutch to six-speed, constant mesh gearbox. Hydraulic clutch operation. Left foot shift, one-down, five-up pattern. Final drive by roller chain.

Ratios (overall: 1)
(Km/h per 1000 rpm in brackets)

First	21.23 (5.4)
Second	14.37 (8.0)
Third	11.48 (10.0)
Fourth	9.63 (11.9)
Fifth	8.34 (13.7)
Sixth	7.23 (15.8)

Primary reduction: 2.533:1 (76/30)
Secondary reduction: 3.067:1 (46/15)

FRAME AND BRAKES

Welded tubular steel double cradle frame. Rectangular section alloy swinging arm. Front suspension by air-assisted telescopic forks, four-way adjustable mechanical antidive on left fork leg. Rear suspension by single air spring damper unit and rising rate linkage system. Single enclosed disc brakes front and rear, dual piston floating hydraulic calipers.

Front suspension travel	120 mm
Rear suspension travel	95 mm
Fork rake	26.5 degrees
Fork trail	91 mm
Front brake diameter	270 mm
Rear brake diameter	270 mm
Front tyre	100/90 x 16 Bridgestone
Rear tyre	110/90 x 18 Bridgestone

DIMENSIONS

Dry weight	175 kg
Seat height	775 mm
Wheelbase	1415 mm
Ground clearance	140 mm
Fuel capacity (incl. reserve)	17 litres
Fuel reserve	3 litres
Engine oil capacity	3 litres

CALCULATED DATA

Weight to power ratio (90 kg load)	9.98 kg/kW
Specific power output	67.2 kW/litre
Mean piston speed at redline revs	17.5 m/sec

PERFORMANCE

Acceleration

Standing 400 m	13.6 secs at 155 km/h
Zero to 100 km/h	6.2 secs
Maximum speed	186 km/h

Braking

From 100 km/h to zero	34.7 metres
From 60 km/h to zero	12.3 metres

Fuel consumption

Touring	18.4 km/litre
City	17.8 km/litre
Hard riding	14.2 km/litre
Average on test	17.3 km/litre

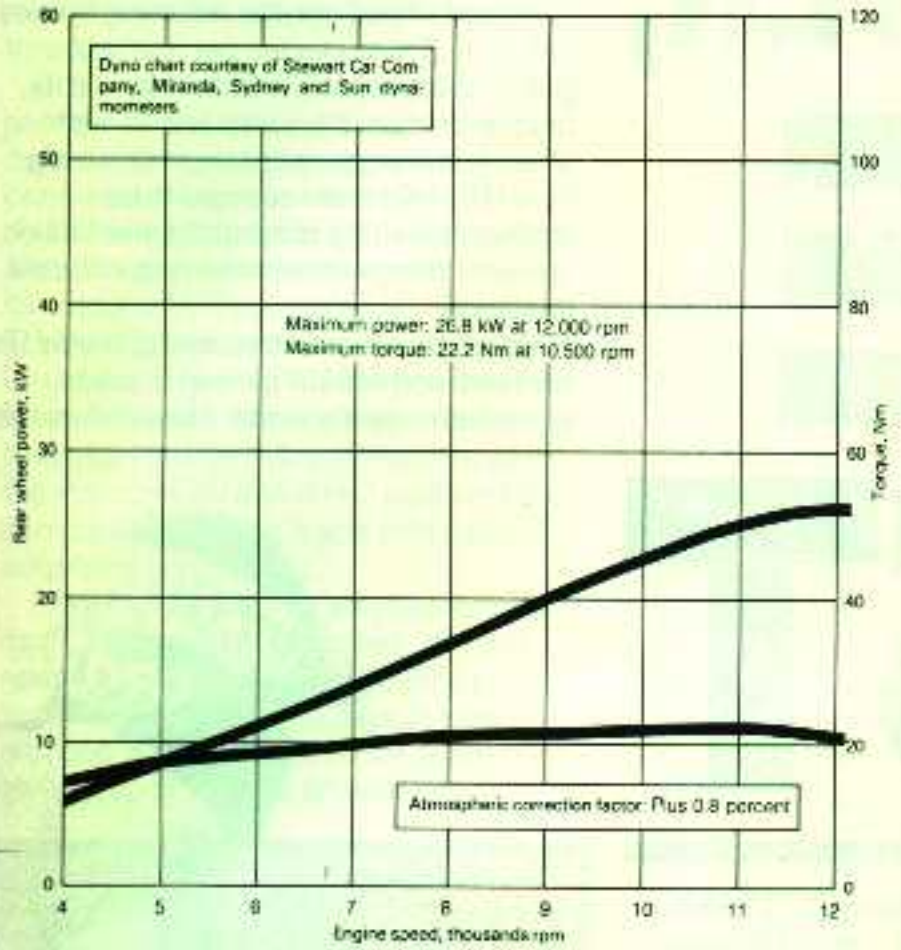
TEST MACHINE

Manufacturer	Honda Motor Company, Tokyo, Japan
Test machine	Bennett Honda, Wetherill Park, NSW
Price	$3399

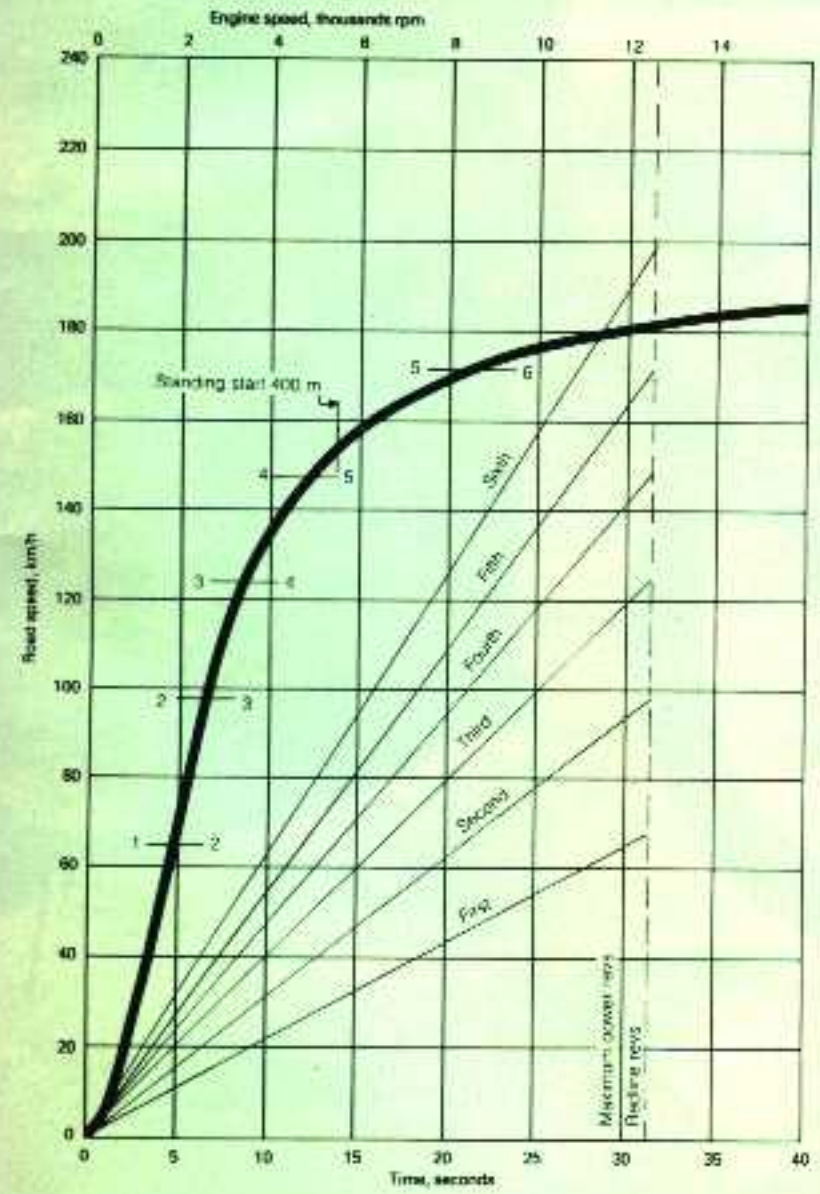
Best points: Smooth motor combines excellent performance and responsiveness across range. Classy handling is made up of fine steering, generous cornering clearance and capable roadholding. Bike does everything well.

Worst points: Rear suspension gives an uncompromising ride over rough roads. Motor is complex and has some annoying accessibility problems. Horn and mirrors need improvement, and ground clearance underneath is limited by engine cowling.

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			●		
Other lights			●		
Stands			●		
Rearview mirrors		●			
Horn		●			
Toolkit			●		
VALUE FOR MONEY			●		