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NEWS FLASH

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DIRT BIKE TESTS



HONDA XL500RC vs XT550J: Thumpers to Cape York!

YAMAHA XT200J vs HONDA XR200: Two-strokes beware!

SUZUKI DR250 and HONDA XL250R: Market leaders analysed.

KAWASAKI KDX175 and KLX250B2: Big Green's dirt runners.

YAMAHA IT250J and SUZUKI PE175: Enduro-winners both.



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Bruce Allard

By the editors of
TWO WHEELS Magazine.
ARTIST — John Taylor

TWO WHEELS DIRT TESTS is published by The Federal Publishing Company Pty Limited, 140 Joynton Avenue, Waterloo, NSW 2017. Phone (02) 662-8888 Sydney. Printed by **ESN** - The Litho Centre, Sydney. Distributed by Gordon and Gotch Limited, Sydney. Cover price \$1.25 (maximum and recommended Australian retail price only). All material published in this magazine is copyright and cannot be reproduced, in part or in full, and by any means, electronic or mechanical, including photocopying, without the written permission of the publisher. All rights reserved.
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Duo For A Long,

Australia is one of the world's biggest markets for big, four-stroke, dual-purpose motorcycles. And why not? We have the roads just begging to be ridden by the thumpers. So how do you compare the two market leaders in this bracket? Take them on an 8000-kilometre trip to Cape York and return, of course!

AFTER many years dominating the big bore dirt stakes with its XT/TT series, Yamaha found its market share being eroded two years ago by Honda's XL and Suzuki's DR500. In a bid to counter the inroads being made by the opposition Yamaha went back to the drawing board with the XT, redesigning suspension and powerplant and fitting it with a host of long overdue features. Late last year we got a brief taste of the new XT550 at the Japanese release and we must admit we were suitably impressed. We felt that finally there was a certain leader among



Dusty Road

the big-bore dual-purpose contenders. However, Honda was not about to fold without a fight and quickly retorted with the equally impressive XL500R, essentially a softer version of its successful XR enduro mount.

The Honda XL500RC may be radically different from earlier models in many respects, but after an extensive search we must admit there's bigger-all new around the motor. Perhaps wisely, Honda has elected to retain the time-tested powerplant and devote more emphasis to frame and suspension. After all, before the appearance of the 550 the XL500 was the most powerful of the three Japanese thumpers.

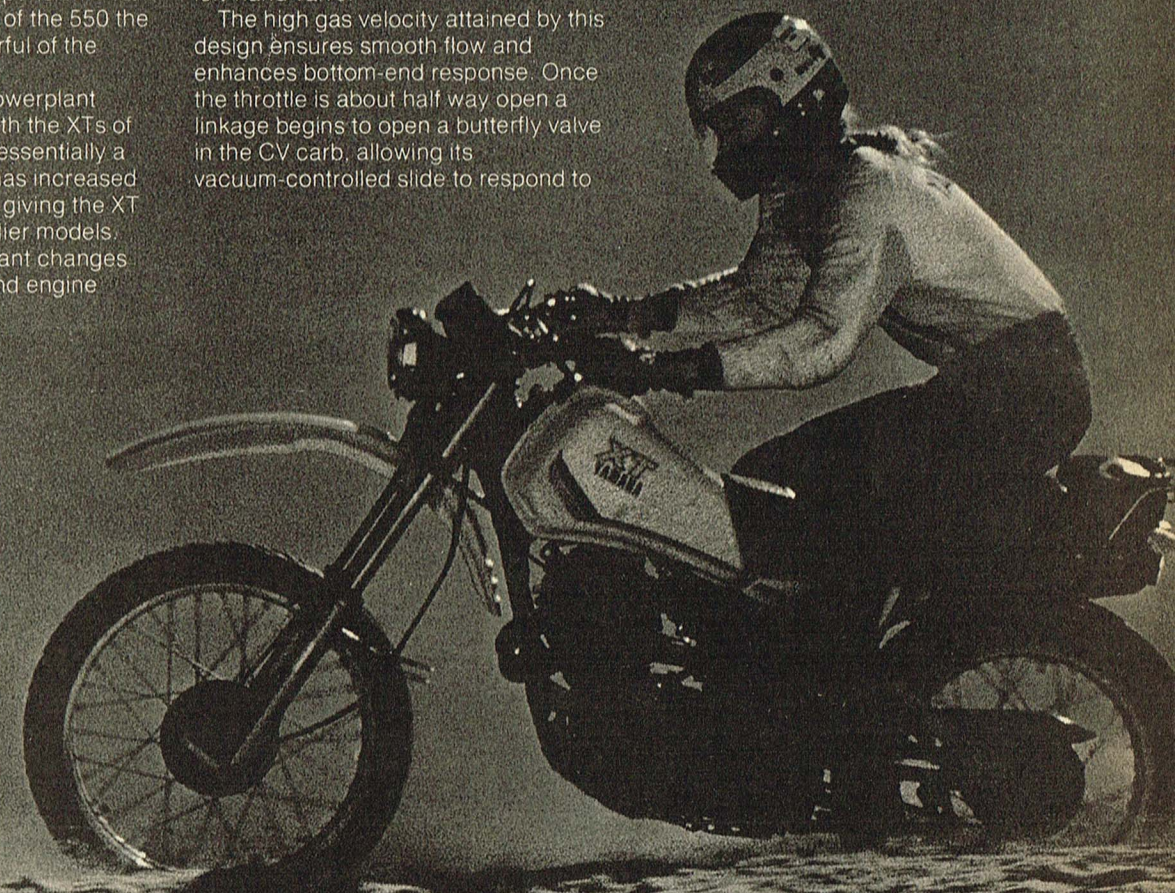
Although the Yamaha powerplant shares some similarities with the XTs of yesteryear the new 550 is essentially a different animal. Yamaha has increased the bore by 5 mm, thereby giving the XT an extra 59 cm³ on the earlier models. However, the most significant changes relate to the carburation and engine breathing.

Like both Honda and Suzuki singles the XT550 uses a four-valve head, though its operation is unique in that each of the inlet valves draws from separate throats of the carburettor. The basis of Yamaha's "Dual Intake System" (YDIS) is the integration of a conventional cable-operated slide carburettor and a constant velocity type into a single unit which feeds from a common fuel bowl. At low engine speeds virtually all the fuel mixture feeds from the slide/needle carb through the left-hand valve.

The high gas velocity attained by this design ensures smooth flow and enhances bottom-end response. Once the throttle is about half way open a linkage begins to open a butterfly valve in the CV carb, allowing its vacuum-controlled slide to respond to

the demands of the engine rather than the direct control of the throttle. When fully opened up the big Yamaha can take advantage of the improved port area offered by the twin inlet valves, while the dual throat carburettor ensures the powerplant does not starve for lack of mixture.

Complementing its efficient aspiration the XT uses twin header pipes which exit either side of the front downtube and curve around the right hand side of the



engine. Possibly because of the monoshock suspension the muffler from the previous 500 has been redesigned, leaving out the bulky intermediate canister. The new pipe is now merely heavy instead of obese as well.

Driving the single overhead cam is a Hy-Vo chain which features an automatic tensioner, a system found also on the new XL. The only substantial difference between the overhead gear on the two makes is that the XT uses four individual rocker arms instead of the dual arms used in the Honda. Both models run the camshaft in plain metal bearings.

Another improvement for the new XT is the revised electrical system. Firstly,

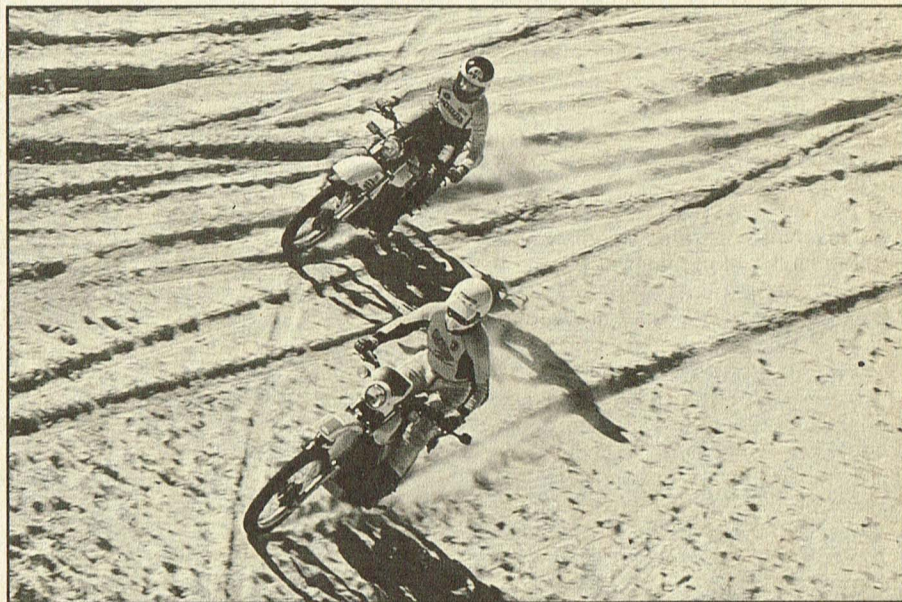


Playracing is not really the forte of the big singles. Weights in the 130-kg bracket tend to take over when the going is really rough. On smoother terrain, both develop more than enough grunt for relaxed fun. The Yamaha hits harder at low revs; the Honda prefers to be wound out more.

the output voltage has been increased to 12V, though perhaps more importantly the older magneto ignition has been replaced by a capacitor discharge type.

Essentially the bottom end on the XT remains unchanged from earlier models. The 550 retains the dry sump and paper oil filter, while the single front downtube acts as an oil reservoir. Whereas the XL uses diametrically opposed, chain-driven counterbalancers the XT now includes a simple gear-driven counterweight positioned behind the crankshaft. Though not as silky as the XL, the 550 is far smoother than the earlier XTs.

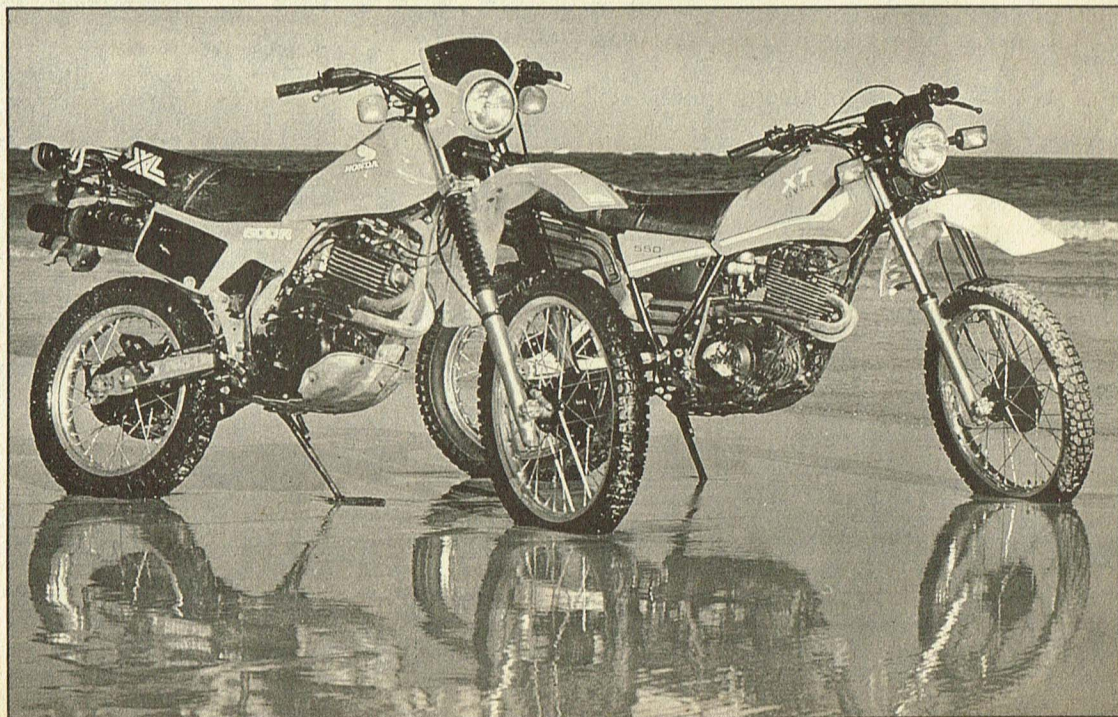
With the progression to single shock rear suspension both Honda and



Yamaha have found it necessary to redesign the air-box around the rear shock unit. Unfortunately in doing so they have made access to the oiled foam filters a little difficult. Unique to the XL is a complex crankcase breather which includes a moisture trap and a one-way drain. The virtue of this design is that it prevents water from percolating back into the wet sump should the bike fail in deep water. The value of this became apparent on our Cape York trip, as the last thing we needed was to emulsify the valuable engine oil 200 km from the nearest oil change.

Same kick, different responses

Attempts at inspiring life into the two



big singles produced a variety of responses. In most instances both machines would roar into life first kick hot or cold, yet at times they wouldn't start for love nor money. At best they could only be described as temperamental, with the Honda being more inclined to bite back when kicked in anger.

In the past, owners could make use of this temperamental nature as a means of protecting their bike from the novice. Put simply, the challenge "if you can start it, you may borrow it" was a polite yet effective deterrent to the inexperienced. Now, however, both machines are fitted with automatic decompressors so the starting ritual has been simplified to some degree. Only Honda has had the foresight to include a manual decompressor. We cannot overemphasise the value of a manual decompressor for clearing a flooded (i.e. fallen) bike. Furthermore, it facilitates variable engine braking for those steep, slippery descents.

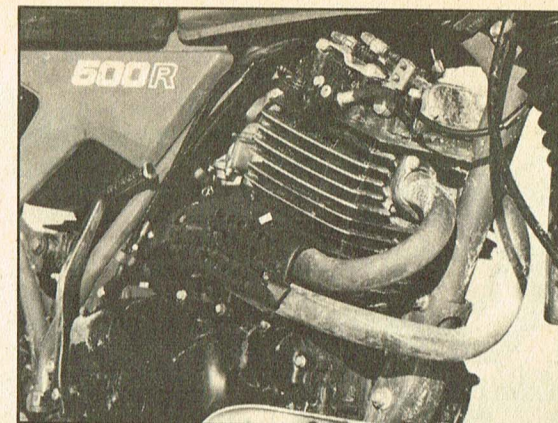
Throughout our test the clutches on both machines operated smoothly and without fault. Unfortunately the same cannot be said about the rest of the drive train. The 550 was consistently hard to change from first to second, often requiring a double movement rather than the usual smooth transition. For its part the XL occasionally proved to be troublesome when selecting neutral.

The most significant changes to appear on the current XT and XL relate to their rear suspensions. Honda has the successful Pro-Link suspension inherited from its enduro cousins, while Yamaha uses a modified version of the "Monoshock" design which has seen so many years service on the YZ motocrossers. The XT500 has always had less than excellent suspension; the introduction of the Monoshock comes at a time when Yamaha's competitors are upgrading their machines with even better designs, so in effect it does little more than retain the status quo.

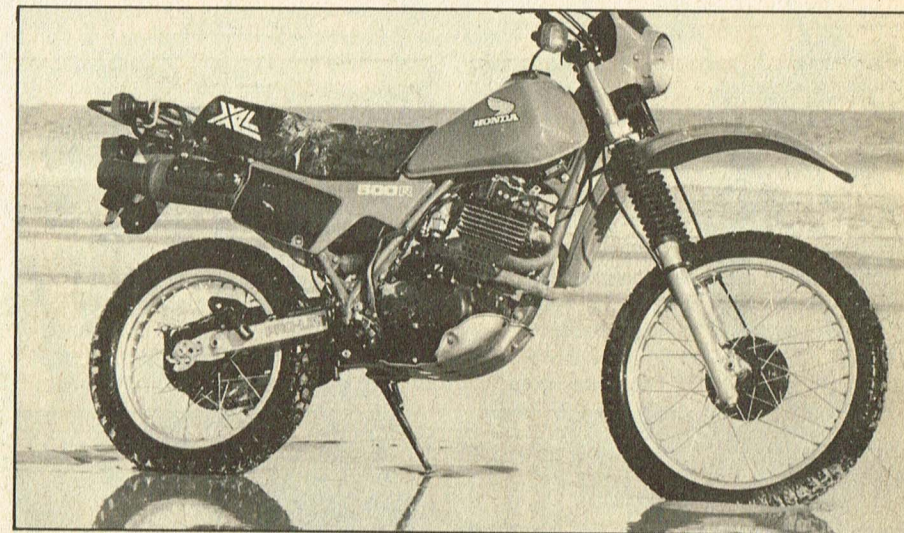
The major limitations of the Monoshock are that it contributes towards a high centre of gravity for the bike (since the shock unit is mounted under the tank) and it cannot offer truly progressive springing and damping. Little can be done to overcome these difficulties. Lighter materials reduce the weight problem, and the use of a multiple rate spring achieves some degree of progressive response.

A much-desired attribute

Progressive response of the sort offered by the rising-rate rear suspensions is a much-desired attribute and Yamaha has now dumped the original cantilever strategy in favour of



Leader of the switch to four valves and twin exhaust ports, and still able to cut it with the opposition, Honda's big dirt single. Pro-Link suspension works as well as any, manual decompressor on motor is a boon in dicey situations when controlled engine braking is called for.



the new "Mono-X" suspension — a design at least as good as the Pro-Link and Full-Floater. Unfortunately only the motocross range and the IT175 saw the new suspension in 1982. If Yamaha really wanted to decimate its competition in the dual-purpose market it should have released the XT550 with Mono-X suspension — then there would have been something to crow about.

Both the XL and XT use needle roller bearings in the swinging arm pivots and have grease nipples at the major points of wear. For the Pro-Link suspension, having more moving parts under high load means the importance of regular maintenance and lubrication cannot be ignored.

One problem both machines have in common is that of heat build-up in the shock units. Mounted behind or above the engine they receive very little cooling air to dissipate the heat build-up when riding hard. And if the oil in a damping unit becomes hot its damping abilities decrease. To overcome this problem enduro and motocross machines use remote oil reservoirs, but neither manufacturer seems to think their inclusion is warranted on the dual-purpose mounts.

Adjusting the spring preload is a

difficult task on both machines. For the Yamaha it requires removal of the seat and tank and the shock unit itself if you don't happen to have the correct factory tools. The Honda is only slightly easier. Damping adjustment is straightforward — there isn't any.

The Yamaha uses the engine as a stressed frame member. In this "diamond frame" layout a double lower cradle becomes superfluous, which means a saving of several kilos. But whereas the XT has shed weight during the transformation into the 550 (at 133 kg it is the lightest of a heavy bunch), the Honda has put it on with age. The XL now weighs in at 139 kg, equal to the Suzuki DR500.

The bikes are also different in the back of their frames. The Yamaha has a complete rear subframe, while the Honda uses a short bolt-on carry rack cum grab rail to support the mudguard. Though the Honda's rear end is structurally sound, the largely unsupported overhang on the XT is its Achilles heel. Care must be taken not to overload the rear of the Yamaha as the subframe is easily fractured.

Pivoting from tapered roller bearings the leading axle forks on both machines offer the rider the versatility of

air-assisted preload. Front wheel travel for the Honda is claimed to be 215 mm compared to the XT's 205 mm. Like its smaller brother the XL has cast off the unique 23-inch front wheel in favour of the more conventional 21-inch rim.

New to the big XL is a twin leading shoe front brake, albeit somewhat milder than we may have expected. Though neither machine displays braking ability consistent with its power output, their stopping performance is adequate for most riding situations. Only during sustained braking through tight downhill sections did the shortcomings of the Yamaha's single leading shoe front brake become noticeable.

Let's try the tar

Around the suburbs both machines proved to be amiable commuters, the excess weight which became noticeable on the dirt barely perceivable on the road. Compared to true road bikes of similar calibre the two big thumpers were extremely agile and easy to throw about, making them very competitive through tight, uphill stretches of road.

On the open road the differences between the two bikes became more apparent. At 120 km/h the Honda was

turning over at just on 6000 rpm, whereas for the same speed the Yamaha was doing only 4800 rpm. In a way this variation in engine speed reflects the power characteristics of the two machines. The Honda liked to rev out, making full use of the good top-end power. The Yamaha was less inclined to spin out to red-line, being more comfortable taking advantage of the superb mid-range power. In any event the 550 benefited from short-shifting.

Apparently some XTs suffer from a dead spot due to fuel starvation as the second throat of the carburettor comes into play. Our test bike had been cured of this complaint by the addition of a balancer tube between the fuel bowl and the primary carburettor. We believe that Yamaha has agreed to supply this modification under warranty where necessary.

Yamaha claims the 550 develops 28.4 kW compared to Honda's 24.6, though in practice there's not much in it once the two machines are lined up in direct competition. From a rolling start the 550 would quickly take the lead, though across the line the Honda never trailed by more than a few metres. Wrung right out on a long stretch both machines

would top an indicated 165 km/h. However, as the inclination of the road increased, the Honda would tire well before the 550.

Throughout our test the Honda consistently returned better fuel consumption than the Yamaha. Averaged out over 8000 km it claimed 20.1 km/l to the XT's 19.4 km/l. Both machines returned their best consumption (approx. 23 km/l) when limited to 80-90 km/h. As touring speeds increased the consumption figures levelled out until above 120 km/h when they increased markedly. Notwithstanding the lower engine speed of the XT, the big Yamaha became extremely thirsty when pushed along at high speeds, more so than the Honda.

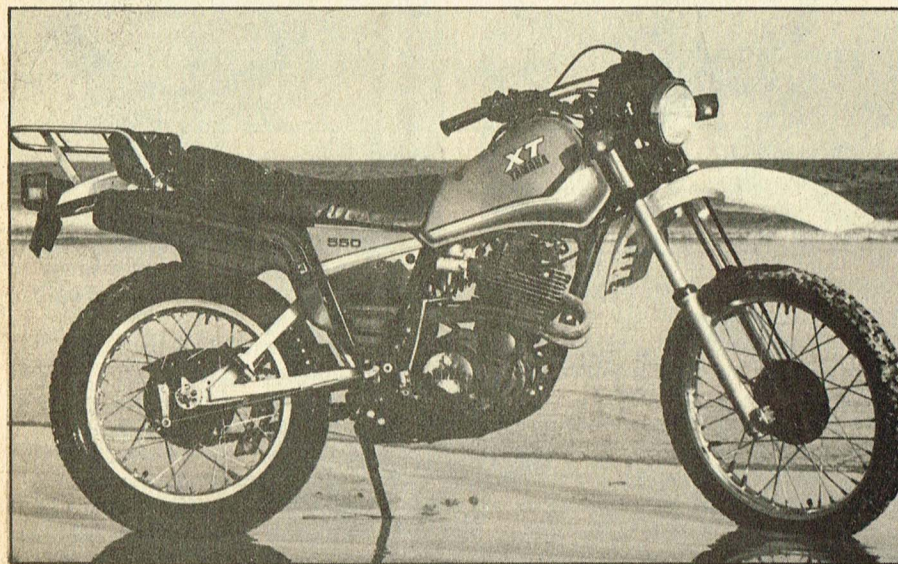
Despite its appetite for fuel, the larger 11.4 litre tank on the XT gives it a better touring range than the XL. Nonetheless both machines would benefit from larger accessory tanks if much outback touring was envisaged. The present 200 km range is really cutting things fine. The big tank on the "Paris-Dakar" model XL would be an ideal replacement for the stock item. We certainly hope Honda in Australia offers this as an option as it would represent an attractive bonus for many prospective owners.

Over rough or badly surfaced sections of road the Pro-Link suspension returned a very plush ride, soaking up all but the worst bumps. Even when loaded up with 20 kg of gear on the rear end the XL retained a smooth ride without bottoming out on larger bumps. Damping which had been inadequate in the dirt proved to be satisfactory on-road. The Yamaha's suspension also performed its task well, though it wasn't quite as responsive or forgiving as the Pro-Link no matter how it was adjusted. Under brakes both machines had a tendency to dive heavily in the front end, but a few pounds of air in the forks reduced this inclination without detracting from their operation.

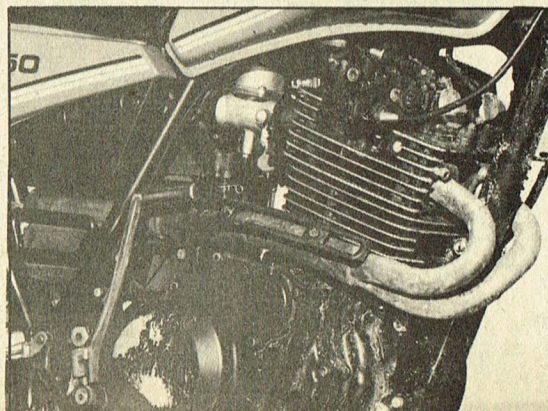
Counterbalancers for ever!

The effectiveness of the internal counterbalancers soon became obvious after several hours in the saddle. Though both mounts had reasonably comfortable saddles, the 550 developed a low frequency vibration which passed into the seat and footpegs eventually contributing to rider fatigue. Furthermore this vibration made the mirrors on the XT rather useless above 120 km/h.

At night the 550 took the lead. The merits of the 60/55 Watt headlight on the Yamaha soon became apparent once the sun set. Though both bikes run 12-Volt systems the quartz-halogen light



Yamaha's thumper features unique twin carb set-up: slide/needle unit looks after low-speed operation, is supplemented by CV model as the revs increase. Continued adoption of Monoshock rear suspension when more advanced systems are available detracts from the bike's potential on rough surfaces.



Duo For A Long, Dusty Road

on the XT shone both far and wide, superior to the impotent beam cast by the Honda. Since the Yamaha headlamp runs directly from the battery its intensity remains constant even at idle or when the engine is stopped.

Both machines have ignition-operated steering locks — just turn the key fully anticlockwise to lock. Additionally the Honda has a helmet lock and a handy luggage rack. Under the rear subframe the XL has a small lockable tool box, while the XT has a zip-up tool bag like its competition brothers. The extra longevity of the O-ring chain on the Honda was clearly demonstrated during our test. After 10,000 km the conventional chain on the Yamaha had been replaced once and was due for another replacement. Under the same conditions the XL used less than 50 percent of its adjustment on the original chain.

When looking at these two bikes it must be remembered that neither was designed or intended to be ridden seriously in the dirt. Their dual-purpose outlook dictates that many features will be a compromise between two conflicting interests. However, in the dirt both return a most enjoyable ride if used within their limitations. On faster fire trails both steered reasonably well, though the Honda was more inclined to wash out the front end than the XT. In

tighter sections the Yamaha maintained its quick steering, yet in most instances the XL appeared to be more manoeuvrable despite its six kilo weight penalty. In either case, throwing around some 130-odd kilos of bike for extended periods is bloody hard work by anybody's standards.

In deep sand the combination of an 18-inch rear wheel and the tremendous low-revs grunt developed by the 550 give it a distinct advantage over its competitors. Unlike the Honda — which needed to open up more — the XT could chug along in higher gears, attaining better traction. On harder surfaces the broad power delivery of both large four-strokes allowed controllable slides, providing weight was kept well forward.

Over rough terrain the suspension on both bikes performed adequately, though when ridden hard the shortcomings of the on/off road compromise became obvious. The Pro-Link suspension on the Honda proved to be more versatile than the Yamaha's, giving a good feel over most surfaces without bottoming out on the larger bumps. The suspension did a reasonable job of maintaining traction despite the limitations of the dual-purpose tyres. Yamaha's Monoshock wasn't quite as responsive or forgiving, especially on a trailing throttle. One of the most noticeable characteristics of both machines was

their lack of adequate damping in either the front or rear suspension.

Trash-bin special

At the end of 2000 km of dirt on the trip to Cape York, the rear shock on the Yamaha deserved to be thrown in the waste bin. What little damping it had beforehand had disappeared completely. The XL — initially the better of the two — wasn't much better. Setting up the front end may only require a bit of patience and a few bottles of fork oil, but the rear units really let down an otherwise functional design. We can't understand why the Japanese manufacturers bother to offer progressive designs on their machines and then dilute their performance by incorporating cheap and nasty shock units.

Climbing hills several difficulties became apparent. The lack of traction afforded by the trials-type tyres became really evident on steep or slippery sections. This was compounded by the fairly tall gearing on both machines. If the rider let the speed drop to negotiate a tricky obstacle, it was extremely difficult to regain speed without traction being lost. Because of the high saddle and top-heavy nature of the XL many riders had difficulty footing or maintaining their balance on rocky or steep inclines. Overall the 550 proved to be the better mountaineer despite the abysmal standard rubber.

Neither machine can claim particularly staggering ground clearance. The lower

also a mixed lot. The Honda steered a bit quicker than the Yamaha which made it easier to throw around on tight, twisty trails, but not so in the sand, where its self-steering tendencies caused it to wash out fairly readily. This, combined with a very high seat, makes it a handful to control at times. The XL also lost out on the tar as it was not as stable when pushed over the legal speed limit.

Please Yamaha, give us Mono-X rear suspension next year, your Monoshock setup is not adaptable enough. No matter how many times I adjusted it, a happy medium could not be found. It was either soft enough to soak up small bumps and corrugations, and at the same time trying to shorten my spine by six inches when it bottomed out over large bumps, or, stiff enough to stop it bottoming regularly, in which case small bumps become bone-shaking. Opposing this the Honda's Pro-Link setup was excellent, being both compliant and resisting bottoming out under all road conditions.

In general, both bikes are well suited to a variety of roles, be they commuting,

of the two, the Yamaha, clears only 250 mm and yet the bashplate is totally inadequate to protect the soft underside of the engine. In contrast the XL has a wide aluminium sump guard which wraps around to protect the sidecovers. Both machines have rubber mounted blinkers, and folding footpegs, and the XT even gets folding gear and brake levers — just like its enduro cousins. Still the steel fuel tank remains vulnerable in the event of a mishap.

They say that beauty is only skin deep, and in the case of the Honda, lurking beneath the glossy lacquered finish is a colourless plastic base just waiting to expose itself given the chance. Even a minor altercation has the potential to scratch away the coloured lacquer, leaving a permanent scar. The competition-like front numberplate on the XL serves to protect the instruments and headlight from damage, yet the handlebar levers cannot rotate freely because of the protruding mounting lugs. With the price of Honda levers being what they are owners would be well advised to file off the protrusions — which prevent free rotation of the controls.

A unique type of motorcycle

Among motorcycles the big-bore trail bikes are unique. They offer something that few other machines can claim — versatility. On the tar they can cruise effortlessly all day at highway speeds and yet when the bitumen runs out they are equally confident taking to the dirt.

touring or bush bashing. (No, they are not serious enduro mounts.) Both started first or second kick and ran faultlessly for the entire distance with no sign of wanting to give up when the going got tough. A prospective buyer would certainly be getting good value for money with the purchase of either.

Which one would I buy? The Yamaha — it has a better feel to it than the Honda, which feels awkward and takes a lot of kilometres to adjust to its idiosyncrasies. On the XT, everything falls immediately to hand and one seems at home from the first kilometre on, which is very confidence inspiring.

The trip as a whole was excellent (it was worth it for the NQ Lager alone), but beware!, the road is very rough and a lot of preparation must be made to ensure a safe and trouble-free journey. Also, tread softly and carry a big stick (hockey will do) as there are a lot of "cross" in the rivers just dying for a taste of "Mad Motorcycle Rider" and you would have to be mad to attempt it.

We did, and we are!

— Gary Swinton

For sustained outback or rough road touring they have no equal. Naturally they don't show the refinement found in pure road bikes or competition dirt machines but they can dwell in the domain of either and still perform the fundamental role as an economical weekday commuter. Essentially the big thumpers are "Jack of all trades, master of none".

On the bitumen there was little separating the XL and the XT. The XL ran a little smoother, stopped a fraction better and was marginally more economic to run. The big Yamaha was slightly quicker, developed more low-down torque and cruised along at a lower engine speed. Additionally the 550 had a better touring range and a far superior headlight.

When the going got dirty the XL was a

more enjoyable mount, though the XT was better on hills or in deep sand. Despite its weight disadvantage the Honda seemed to be more manoeuvrable in tight sections though some riders may find the taller saddle disconcerting. There was little difference between the front suspension on either machine, though we found the Pro-Link superior to the Monoshock at the rear.

Leaving performance and suitability considerations aside, many riders would be attracted to the 550 simply because it appeals to the ego or the "bigger is better" philosophy. Yet again few would dispute the appeal of Honda's sleek lines and eye-catching colour scheme. To us, either reason is equally valid, though undoubtedly price will be the final consideration in many instances.

— C.L.

Second Opinion

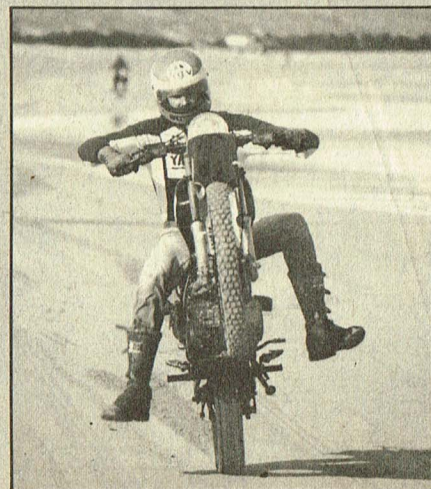
SYDNEY to Cape York and return, 8300 km in three weeks, turned out to be quite a test of man and machine.

Having been softened by years on large-capacity road bikes, I was a bit apprehensive about such a great distance on the trail orientated XL500 and XT550. Initial impressions were not favourable, aching shoulders and a sore bum figuring largely, but as the kilometres wore on my body adjusted and I soon settled into the "sit up and beg" riding position and skinny, not-well-padded trail bike seats.

Highway speeds of around 120 km/h did not seem to overtax either bike. Although the XL was revving at 5900 rpm as opposed to the XT's 5000 rpm, it was by far the smoother, felt less busy and was a more willing revver. The XT on the other hand feels like a thumper and the low and midrange torque has to

be felt to be believed (great for wheelstands) but it is an unwilling revver.

The frames and suspensions were



Yamaha XT550J

ENGINE

Air-cooled, single-cylinder four-stroke. Chain driven single overhead camshaft, four valves per cylinder, twin exhaust ports, two-carburettor (slide/needle and CV) induction. Gear driven balancer shaft. Dry sump lubrication with frame tubes as reservoir.

Claimed power.....	28.4 kW at 6500 rpm
Claimed torque.....	44.3 Nm at 5500 rpm
Bore x stroke.....	92 x 84 mm
Displacement.....	558 cm ³
Compression ratio.....	8.5:1
Maximum engine speed.....	7000 rpm
Carburetion.....	1 x slide/needle, 1 x CV type
Air filtration.....	Oiled foam
Ignition.....	Transistorised battery/coil

TRANSMISSION

Spur gear primary drive through wet, multiplate clutch to five-speed, constant mesh gearbox. One-down, four-up pattern. Final drive by roller chain.

Ratios (overall:1)	
First.....	15.19
Second.....	10.45
Third.....	7.90
Fourth.....	6.28
Fifth.....	5.12
Primary reduction.....	2.533:1
Secondary reduction.....	2.600:1

FRAME AND BRAKES

Welded steel backbone frame. Pressed steel top section, tubular single down tube. Monoshock rear suspension, gas/oil damping. Oil-damped, air-assisted leading axle telescopic coil spring forks. Single leading shoe brakes both front and rear.

Front suspension travel.....	205 mm
Rear suspension wheel travel.....	190 mm
Fork rake.....	28.1 degrees
Fork trail.....	115 mm
Front brake diameter.....	150 mm
Rear brake diameter.....	150 mm
Front tyre.....	3.00 x 21
Rear tyre.....	4.60 x 18

DIMENSIONS

Dry weight.....	133 kg
Seat height, bike unloaded.....	860 mm
Wheelbase.....	1400 mm
Ground clearance.....	250 mm
Footpeg width.....	525 mm
Footpeg height.....	320 mm
Fuel capacity (incl. reserve).....	11.4 litres

TEST MACHINE

Manufacturer.....	Yamaha Motor Company, Iwata, Japan
Test machine.....	McCulloch of Australia, Seven Hills, NSW
Price.....	\$2199

Best points: Tremendous bottom end and midrange power. Lightest weight in its class, low seat height, excellent headlight. Large petrol tank, nimble steering.

Worst points: No manual decompressor, poor sump guard, no grab rail or carry rack. Insufficient front and rear suspension damping.

SUMMARY	Poor	Below Average	Average	Above Average	Outstanding
RATINGS					
ENGINE					
Responsiveness				●	
Smoothness				●	
Low rev power					●
Midrange power				●	
Top end power					●
Fuel economy			●		
Starting				●	
Quietness			●		
TRANSMISSION					
Clutch				●	
Gearbox operation			●		
Ratio suitability			●		
Drivetrain freeplay			●		
SUSPENSION					
Front			●		
Rear			●		
Front/rear match			●		
DIRT RIDING					
Ground clearance			●		
Steering (overall)				●	
Braking on dirt			●		
Sliding				●	
Jumping			●		
Hillclimbing				●	
Slow, naggery work				●	
Ease of throwing around			●		
Ability to forgive rider error			●		
STREET RIDING					
Riding position				●	
Seat comfort				●	
Ride comfort			●		
Highest cruising speed					●
Touring range					●
Street handling (overall)				●	
Stability at speed				●	
Braking on tar			●		
Tyres			●		
Pillioning				●	
GENERAL					
Location of controls				●	
Lighting				●	
Rearview mirrors			●		
Horn				●	
Toolkit			●		
Quality of finish			●		
Overall styling			●		
VALUE FOR MONEY					

Honda XL500RC

ENGINE

Air-cooled, single-cylinder four-stroke. Chain driven single overhead camshaft, four valves per cylinder, twin exhaust ports. Pressed-up crankshaft supported by ball bearing mains. Chain driven balancer shafts. Needle roller big end bearing. Wet sump lubrication.

Claimed power.....	24.6 kW at 6500 rpm
Claimed torque.....	39.2 Nm at 5000 rpm
Bore x stroke.....	89 x 80 mm
Displacement.....	498 cm ³
Compression ratio.....	8.6:1
Maximum engine speed.....	7000 rpm
Carburetion.....	32 mm Keihin slide/needle
Air filtration.....	Oiled foam
Ignition.....	Capacitor discharge

TRANSMISSION

Helical-cut primary drive through wet, multiplate clutch to five-speed, constant-mesh gearbox. One-down, four-up pattern. Final drive by roller chain.

Ratios (overall:1)	
First.....	16.00
Second.....	10.71
Third.....	8.13
Fourth.....	6.50
Fifth.....	5.46
Primary reduction.....	2.379:1
Secondary reduction.....	2.733:1

FRAME AND BRAKES

Welded tubular steel backbone frame. Single top and down tubes. Pro-Link progressive rate rear suspension, gas/oil damping. Oil-damped, air-assisted leading axle telescopic coil spring forks. Double leading shoe drum front brake, single leading shoe drum rear brake.

Front suspension travel.....	215 mm
Rear suspension travel.....	190 mm
Fork rake.....	29 degrees
Fork trail.....	118 mm
Front brake diameter.....	160 mm
Rear brake diameter.....	140 mm
Front tyre.....	3.00 x 21
Rear tyre.....	4.60 x 17

DIMENSIONS

Dry weight.....	139 kg
Seat height.....	895 mm
Wheelbase.....	1405 mm
Ground clearance.....	270 mm
Footpeg width.....	530 mm
Footpeg height.....	335 mm
Fuel capacity (incl. reserve).....	10 litres

TEST MACHINE

Manufacturer.....	Honda Motor Company, Tokyo, Japan
Test machine.....	Bennett Honda, Wetherill Park, N.S.W.
Price.....	\$2183

Best points: Bike is economical, yet offers good top end power. Rear suspension is as good as anything in its class. Attractive styling, provision of manual decompressor, long-life chain. Integral grab rail/rack at rear is a nice touch.

Worst points: Bike is easily damaged in a fall, leans too far over when placed on its side stand. It is too heavy for even semi-serious dirt bashing.

SUMMARY	Poor	Below Average	Average	Above Average	Outstanding
RATINGS					
ENGINE					
Responsiveness				●	
Smoothness				●	
Low rev power			●		
Midrange power				●	
Top end power					●
Fuel economy			●		
Starting				●	
Quietness				●	
TRANSMISSION					
Clutch				●	
Gearbox operation			●		
Ratio suitability			●		
Drivetrain freeplay			●		
SUSPENSION					
Front			●		
Rear				●	
Front/rear match				●	
DIRT RIDING					
Ground clearance				●	
Steering (overall)				●	
Braking on dirt				●	
Sliding				●	
Jumping			●		
Hillclimbing				●	
Slow, naggery work				●	
Ease of throwing around				●	
Ability to forgive rider error			●		
STREET RIDING					
Riding position				●	
Seat comfort				●	
Ride comfort			●		
Highest cruising speed					●
Touring range					●
Street handling (overall)				●	
Stability at speed				●	
Braking on tar			●		
Tyres			●		
Pillioning				●	
GENERAL					
Location of controls				●	
Lighting				●	
Rearview mirrors			●		
Horn				●	
Toolkit			●		
Quality of finish			●		
Overall styling			●		
VALUE FOR MONEY					