

## ROAD TEST

★ DUCATI 749R 96%

## SUPERSPORT RACER

Ducati's top-line 749R is built to win races... and rule the road

It's been a long time since Ducati Corse has tasted victory in the hotly contested supersport class. But the Bologna firm has built the 749R to change all that.

The 'R' version is first and foremost a racing bike. The indicators, mirrors and so on were added later to make it road legal, so Ducati could sell enough of them to qualify for supersport racing. Paolo Casoli and Ruben Xaus competed in World Supersport in 2000 on the 748, but only scored three race wins between them. Since then, Ducati has left it to the screaming Japanese four-cylinder 600s to slug it out.

The success of the 916-998 on the track translated into big sales for the Bologna firm. But while the 999 won races straight out of the box, it still



OHLINS, Brembo and Marchesini come as standard on the 'R'

hasn't been a major commercial success. But that's changing slowly as people get used to its look and accept that it's a better bike than the 916-998.

The 749 has yet to sell in big numbers and Ducati sees success on the track as the key to increasing sales of the range. Step forward the 749R...

Supersport rules permit the 749cc

V-twin to run against 600cc in-line fours, but they also limit modifications. So if it's not built with the right bits from the off, you can't change them later.

That's why the 749R's spec sheet reads like a racer's wish list: Ohlins forks, Brembo four-pad calipers, and Marchesini wheels are all standard.

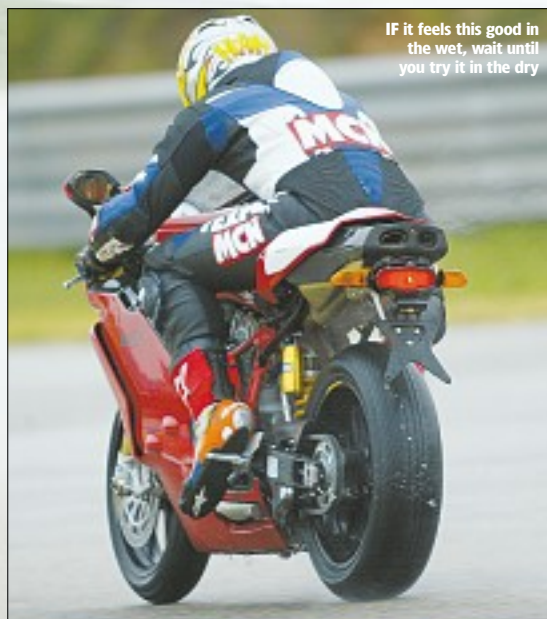
The suspension is fully adjustable, but as the shock and fork internals can be changed that's not so important to the race team. Things like rake and trail, and fork offset are all adjustable on the 749R. And the distance between the swingarm pivot point and the rear wheel spindle can also be changed. This is all vital when it comes to setting the bike up for different tracks.

But it's the motor Ducati are making the most noise about. It uses titanium conrods and, for the first time on a Ducati, titanium valves. A whole host of improvements have been made (see pages 32-33) over the 749S, underlining its racing intent.

Unfortunately, a soaking wet and cold Valencia wasn't the ideal place to test Ducati's latest sports tackle. But if it flatters your riding in the wet, as it did, it should be awesome in the dry.

Ducati is touting 2004 as a 'learning year' in WSS, but Lorenzo Lanzi has already taken the new 749R to fourth in its first outing at Valencia (see below).

We look at what the firm's bike development chief Andrea Forni has said is 'the most technologically advanced machine Ducati has ever built' is like to ride, how the 'R' version fits into the 749 range, and the technical details to see if it has got what it takes to win on the track and in the sales charts.



IF it feels this good in the wet, wait until you try it in the dry

## BREIL DUCATI 749R WORLD SUPERSPORT RACER

THE Breil Ducati 749R is being raced this season by Italian hotshot Lorenzo Lanzi.

The 22-year-old finished runner-up in the European Superstock Championship last year and is a hard charging, all-action rider. And Ducati's MotoGP test rider Vittoriano Guareschi, 33, will be joining him for a couple of races this year. The satin-black, race-kitted bike packs a 140bhp punch and is bang on the 170kg weight minimum.

Lanzi struggled with grip from the rear in the first round at Valencia last week, but battled from 16th on the grid to finish fourth. At one point he was lapping two seconds quicker than the front runners. Not a bad start at all...



BY ALEX HEARN  
PICTURES DOUBLE RED





# YOU CAN TAKE TO THE ROAD

## 2004 DUCATI 749R **WORLD FIRST TEST**

'Lorenzo Lanzi has already taken the 749R to fourth in its first World Supersport outing in Valencia'



## So what's it like to ride?

**THE 749R** only exists because Ducati wants to add the World Supersport trophy to its collection. But is it a smaller, cheaper and paler imitation of the 999R, or is it a genuine road-legal racer at a bargain bucket price? We were at the bike's launch in Valencia to find out...

### 1 RIDING POSITION

THE wide-set clip-ons are mounted low and are a good stretch away. The footpegs are set high and rearward, but for a bike set up for the track you're pitched into an aggressive – but not uncomfortable – riding position.

The seat is flat, broad and firm, and while the tank holds three litres more than the 749S, it has chiselled

cut-outs for your knees.

Swing a leg over and you know you're sitting on something special.

Turn the ignition key and the display lights up, while the rev counter needle spins round and then back again.

Thumb the button and the starter motor only just manages to crank those high-comp pistons into life.

### 2 SUSPENSION

ON a cold, wet and slippery circuit, feel was vitally important. And feel is what the 749R's top-spec suspension and chassis provides in spades.

With front pre-load softened, and a little less compression damping on the rear shock to suit the Pirelli wets, the bike was still amazingly controlled

and super compliant. But it retained a taut edge that kept you fully aware of just how hard the front tyre was working.

Feeding in the gas, the smooth power delivery was in perfect harmony with the rear suspension – no wallow, just a rear tyre transferring over 110bhp to the Tarmac.

### 3 BRAKES

YOU get four pads in each of the Brembo calipers up front, allied to a span-adjustable lever and braided hoses. And you can hear those individual eight pads biting into the front discs – even over the noise of the engine.

These brakes are strong,

but never over-fierce. And you get great feedback, which is just what you need in the wet.

But in dry conditions this strong, progressive braking set-up will be more than enough to force your eyeballs against the inside of your visor.

### 4 HANDLING

IT'S a crying shame that the launch was marred by heavy rain and cold.

At Valencia you need a bike that stops, steers and turns quickly. But in the wet, being consistent and smooth is crucial and the 749R's chassis provides a neutral-handling platform.

Even on wet tyres, corner entry speed was

limited, but in every situation on the slithering track the 749R felt surefooted and stable.

The wide range of chassis and suspension adjustment will let experts set up the bike to suit riders and tracks – but the potential is also there for amateurs to ruin the bike's sweet handling!

### 5 ENGINE

IF the rest of the chassis is fairly familiar, it's the engine that looks different to its Testastretta siblings (see page 33).

Pick-up is crisp and the crank spins up quickly. Low-down drive is impressive, but as the needle sweeps past 7000rpm the motor bursts into life and screams towards its

blinking gear shift light at just over 10,000rpm.

The 749R motor has a fluidity that really involves the rider.

The slipper clutch takes some getting used to, as it can feel like you've hit a false neutral when changing down.

The gearbox is smooth on upchanges, but can be notchy on the way down.

## DUCATI'S 794 LINE-UP



### ✦ DUCATI 749 DARK £7995

With its matt black paint, basic spec and £8000 price tag, the 749 Dark is pitched at the Japanese 600s. It costs a bit more – but then it is a Ducati.



### ✦ DUCATI 749 £8795

The 749 shares the same engine spec as the Dark, but you do get glossy paint, adjustable Showa suspension and very similar looks to the 749S.



### ✦ DUCATI 749S £9795

The 2003 749S only got minor chassis mods over the base model. But for 2004 it has a beefed-up engine with 8bhp more than the 749 and is a much saucier riding experience as a result.

### ✦ DUCATI 749R £13,595

You've got to be a pretty tasty rider to get the most out of a 999R. But the 749R gives accessible performance for the few who can afford one of 140 that will be imported into the UK this year.

## NEW OR USED?

DUCATI'S homologation specials are expensive to buy new, full stop. But given that the race-spec machines also suffer the same depreciation hit as all other road-going bikes, is it better to wait a year or two and snap up a high-spec bike for less cash?

The firm claims its profit margin is minimal on this model and you don't even get a race exhaust and chip thrown in on top of the road-legal silencer.

A new 749R will lose about £2000 in its first 1000 miles of its life. But this could make it a sensible

nearly-new used buy.

Craig Lormor, sales manager of Ducati Coventry, loves any used 'R' specification Ducati. He said: "It must have a full Ducati service history. Even in top condition, it's not worth touching without it. Ducatis need expert maintenance and the high-performance engines even more so."

"If they do go pop, the repair bills are that bit higher. The same rule of thumb applies to a two or three-year-old machine. A crisp 748R with history is a great used buy because you get all the right bits with it."

## MCN BikeMart

If you want to buy or sell a Ducati 749 or any other bike then check out MCN every week, or log on to [www.motorcyclenews.com](http://www.motorcyclenews.com)



## ROAD TEST

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WHAT DOES AN EXTRA **£5000** BUY YOU?

AT close to £5000 more than the base model, and £3800 more than the 'S' version, what do you get for all that extra cash?

**EXHAUST**

UNLIKE the 999R, you don't even get a race exhaust thrown in. The stock can is road-legal and thankfully doesn't completely stifle the V-twin.

However, a race kit will be available with a high-performance 57mm bore full exhaust system. It will also include revised cylinder heads with gas-flowed intake ports, redesigned airbox and uprated ECU, taking power up to a claimed 137bhp. Unfortunately the kit costs £5522.50 and Ducati UK is unsure how many will be available.

**REAR SUSPENSION**

THE adjustable Ohlins rear shock is compressed by a rocker arm mounted above the spring. Compared to the 749S, it allows much less wheel travel. The suspension action is also nearly linear, so it doesn't get firmer towards the end of its travel. This is designed to provide a consistent action in racing conditions, and because it's a single-seater Ducati haven't had to worry about carrying a pillion.

**SWINGARM**

THE swingarm is similar to the design used on World Superbike-spec 999Rs. The area around the pivot housing is cast aluminium, while the arms are made from two pressed, box section metal sheets welded together. The arm on the chain side features a triangulated strengthening support underneath. The distance between the rear wheel spindle and the swingarm pivot point can be lengthened when fine-tuning chassis geometry.



SWINGARM is virtually WSB-spec

**FRAME**

DUCATI has unrivalled experience when it comes to the tubular steel trellis frame and the 999R superbike effort has given them excellent racing data for the chassis and set-up. The engine acts as a stressed member and, because the airbox is not sealed by the top of the fuel tank (which at 18 litres is three litres larger than on the 749S) the frame is only 345mm at its widest point.

Fork rake is adjustable between 23.3-24.3° and trail 91-97mm. With the 749R fork offset is also adjustable through two fixed settings, 30 or 36mm, via an eccentric steering stem housing. But Ducati is keen to point out that this level of adjustability is for racing applications only.

**BRAKES**

THE pair of Brembo radial brake calipers up front feature four 34mm pistons each and work on 320mm floating discs, much like the 999R. You also get four individual pads per caliper. The rear twin-piston caliper grips a 240mm disc.

**DUCATI 749R IN DETAIL**

A LIMITED-EDITION homologation special like this should be dripping in beautiful touches – if only to justify the price tag. This latest race-oriented bike from the Italian firm doesn't disappoint. The 749 is about show as well as go, and has plenty to distinguish it from a standard 749



TIMING belt cover helps with cooling



TOP-SPEC rear shock is from Ohlins



ROAD-LEGAL can is shrouded in carbon



THAT little 'R' after the 749 says it all



# 2004 DUCATI 749R WORLD FIRST TEST



## WHEELS

BOTH front and rear Marchesini wheels are made from forged aluminium alloy, which means that they're both light and strong.

The 749R is approved for road use, but only as a single-seater. This means the 749 can run lighter wheels than they would have on a pillion-friendly machine.

## FRONT SUSPENSION

THE 43mm upside-down Ohlins forks are adjustable for pre-load, as well as rebound and compression damping. The fork bottoms have been designed by Ohlins to accept the radially mounted Brembo callipers and the stanchions are titanium nitride coated to reduce stiction.

## DUCATI 749R PRICE: £13,595

Available: March  
Contact: 0845-1222996  
Power (claimed): 118bhp @ 10,250rpm  
Torque (claimed): 60ftlb @ 8250rpm  
Trail: 91-97mm  
Rake: 23.3-24.3°  
Wheelbase: 1420mm  
Weight: 192kg (wet, no fuel)  
Seat height: 810mm  
Fuel capacity: 18 litres

### SPECIFICATION:

Engine: Liquid-cooled, 749.5cc (94 x 54mm) 8v  
Desmodromic four-stroke 90° V-twin. Magneti Marelli fuel injection. Six gears  
Chassis: Tubular steel trellis  
Front suspension: 43mm Ohlins inverted forks, adjustable for pre-load, rebound and compression damping  
Rear suspension: Ohlins monoshock, adjustable for pre-load, rebound and compression damping and ride height adjustment  
Tyres: Michelin Pilot Race H2; 120/70 x17 front, 180/55 x17 rear  
Brakes: Brembo; 2 x 320mm front discs with four-piston callipers, 240mm rear disc with twin-piston calliper

**PROS** • Brilliantly involving engine • Superb Ohlins suspension • Even more fun than a 999R

**CONS** • Race exhaust isn't included • You could have two Honda CBR600RRs instead

**96%**

## 749R TESTASTRETTA

## V-TWIN MOTOR

SHORTER stroke means the 749's rev ceiling has been hiked



## ENGINE

THE 90° Testastretta V-twin has a bore and stroke of 94 x 54mm, giving a capacity of 749.5cc. The 749S runs a 90 x 58.8mm layout, which equates to 748.1cc. But the change is about cylinder head efficiency.

The 749R engine is built to work much harder than the 749S and needs its bigger bore and shorter stroke to cram in larger diameter intake and exhaust valves. A shorter stroke also means it can rev higher. The compression ratio is up, too. The 749S runs 12.3:1, while the 749R is up to 12.7:1. Ducati claims peak power is 118bhp, which compares to the 749S's 110bhp.

## FUEL INJECTION

THE Magneti Marelli injectors used on the 749R engine – one per cylinder – are not the single-hole injectors used in the other Testastretta engines. They use 12 tiny holes for optimum fuel atomisation and improved engine efficiency, especially at high revs.

## VALVE TRAIN

TITANIUM valves are used in the 749R and this is a first for Ducati. Titanium valves are lighter, which reduces reciprocating mass, and are stronger than steel. Intake valves are 39.5mm in

diameter with a lift of 13mm (the 749S is 38mm and 11.4mm), and exhaust valves are 32mm with 11.5mm of lift (749S is 30.5mm and 10.2mm).

## CRANKSHAFT

A SMALLER, tapered crankshaft flywheel shape shaves weight while providing enough mass to balance the crankshaft assembly.

## CON RODS

THE 749R's top-end assembly length is identical to that of the 749 and 749S motors. However, since the 'R' engine uses a shorter stroke, slightly longer titanium con rods from Pankl are used.

## TIMING BELT COOLING

THE timing belts driving the Desmodromic valve gear get a good hammering in such a high-revving motor. Ducati racing engines have traditionally dispensed with any sort of belt cover to aid cooling efficiency. However, the 749R uses a carbon-fibre cover which draws in cooling air, and protects the timing belt mechanism.

## SENSOR

TO gather consistent information on engine revs and stroke

sequence, a sensor has been machined into the camshaft drive gear. Coupled to a magnetic induction sensor this generates a strong signal for the ECU without fear of interference at high revs.

## ELECTRONICS

THE wiring system that the Magneti Marelli ECU and instrument panel are connected to has been greatly simplified, saving a significant amount of weight.

## SLIPPER CLUTCH

HIGH-COMPRESSION racing V-twin engines produce a lot of back torque under hard deceleration, which can easily lock up the back wheel. The 749R uses a ramp-style slipper clutch, which stops the rear wheel from locking up on hard down changes, but it can take some getting used to.

## DEEP SUMP

THE 749R's crankcases, identical to the 999S Testastretta's, have been manufactured by pressure die-casting with a lower 'V' shaped sump with increased oil reservoir capacity. This feature is important in a racing engine because in all track situations – cornering, heavy braking, hard acceleration and wheelies – the oil pump always has a reserve of oil available.

749R uses longer titanium con rods



TITANIUM valves are a first for Ducati

