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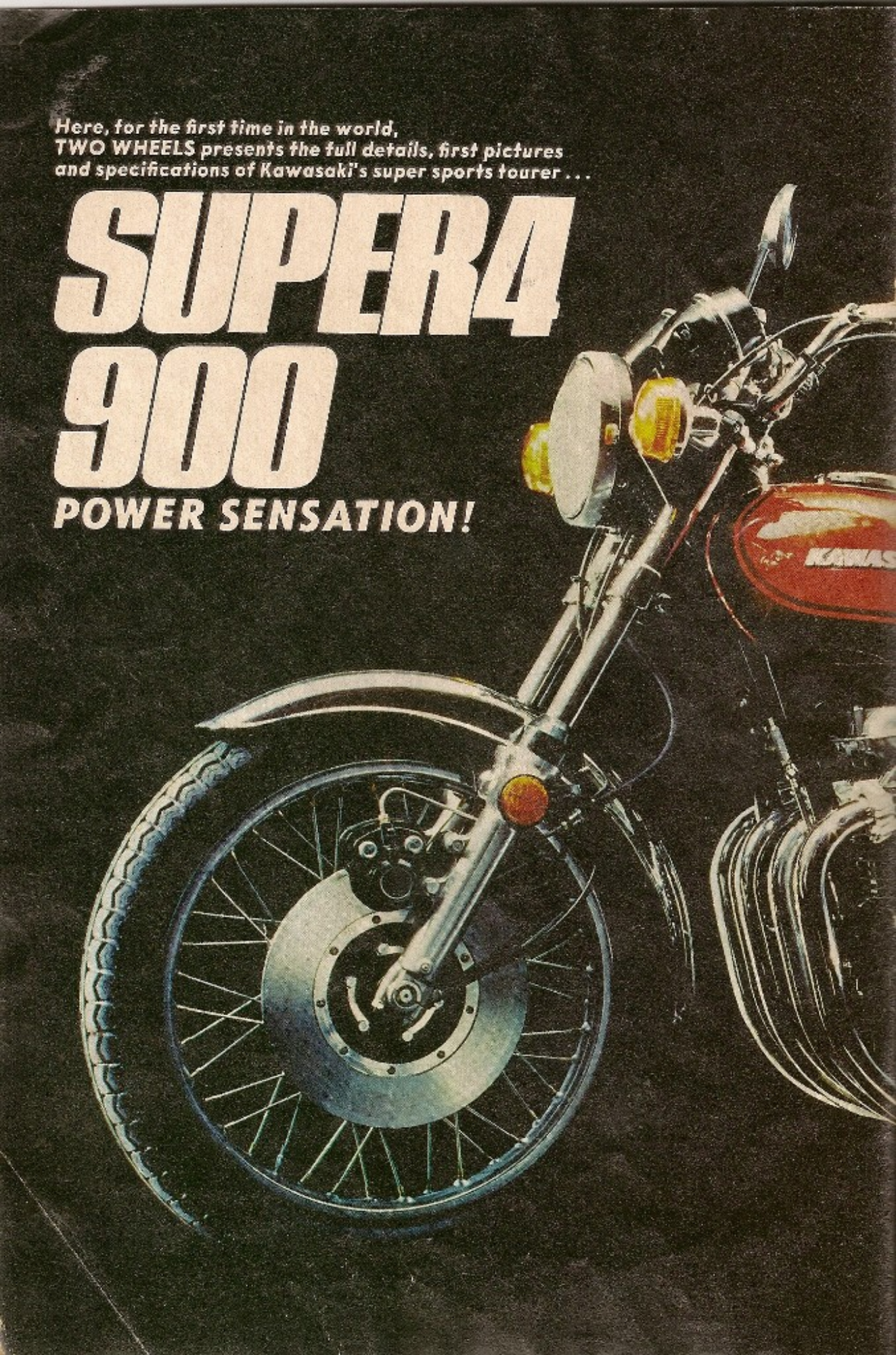
KAWASAKI SUPER4

10 SUPERBIKES ON THE DYNO

Here, for the first time in the world, TWO WHEELS presents the full details, first pictures and specifications of Kawasaki's super sports tourer . . .

SUPER 4 900

POWER SENSATION!



Rolling from a factory in Akashi, Japan, as you read this is the most exciting mass-produced motorcycle in the world.

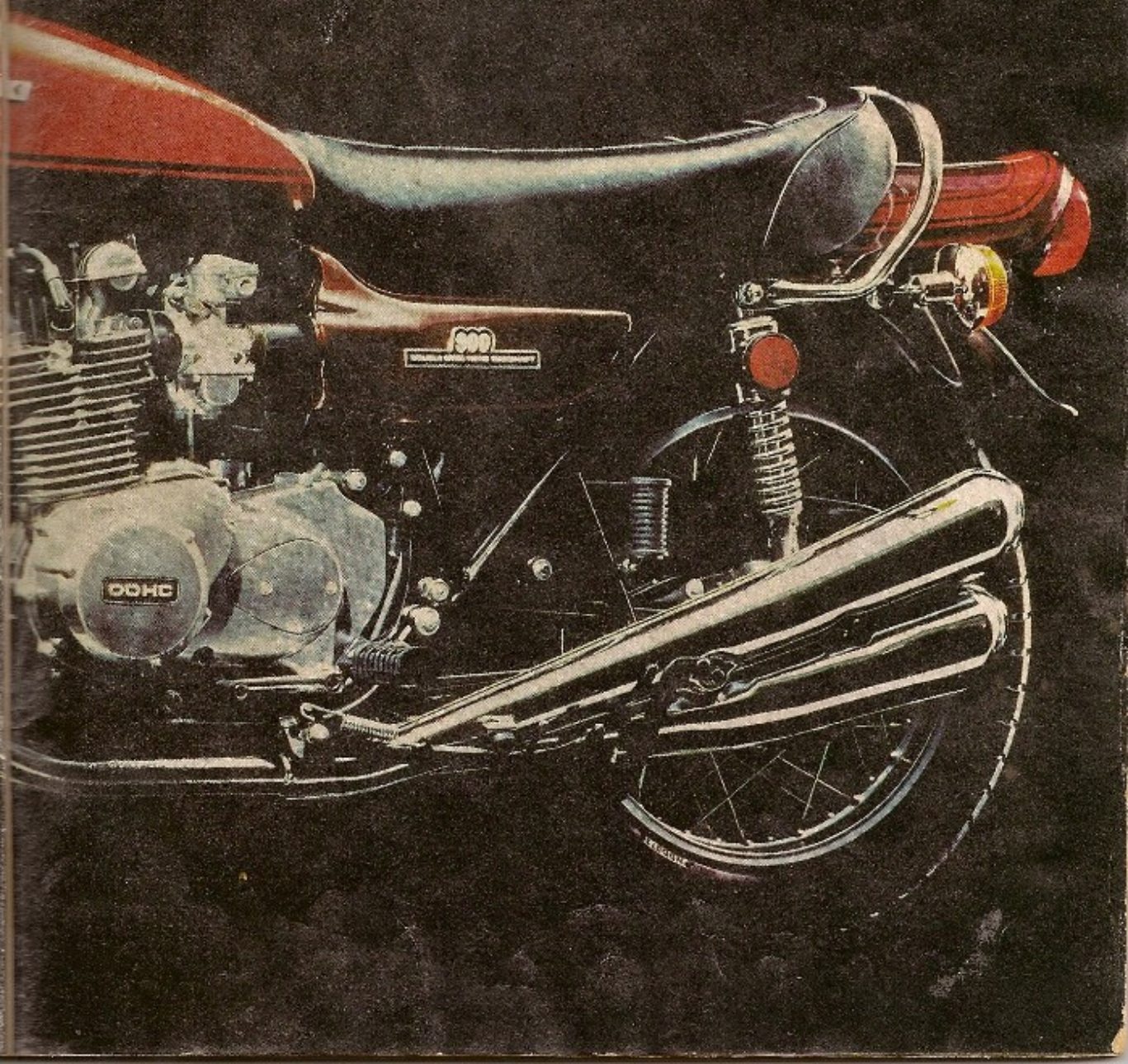
Kawasaki has built its Super4, a 900 cc four-cylinder four-stroke — the quickest, most sophisticated production bike ever built.

TWO WHEELS told you the news of this sensational machine back in June, correctly predicting configuration, large capacity and Kawasaki's dramatic switch to a four-stroke powerplant.

Designed to meet the highest standards required of a sports tourer, the Super4 develops a searing 82 horsepower, capable of powering the 506 lb (dry) machine over the standing quarter in 12 seconds dead and to a top speed of more than 125 mph.

Kawasaki has taken the plunge to a four-stroke multi powerplant in a unique capacity class, but the combination of design and capacity has produced a remarkably tractable high-performance motorcycle.

The factory claims the Super4 to be practical for both high speed touring and sports performance (an understatement?), but it also offers a wide power band that



climbs smoothly from 2000 rpm to its 82 horsepower at 8500 rpm maximum — an honest 125 mph.

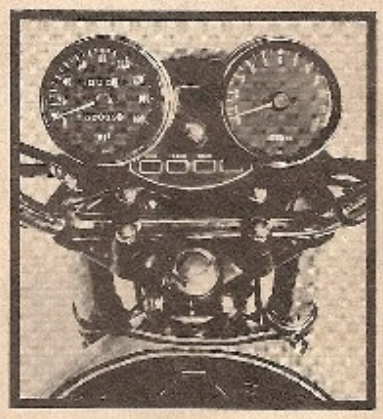
The engine is at its torquiest (54.3 ft/lb) at 7000 rpm. Although this is a lesser figure than that claimed by the Mach IV (57 ft/lb), it is considerably more than the Honda Four (44 ft/lb) and spread over a wide usable band — at 2500 rpm the Super4 has 36 ft/lb on tap.

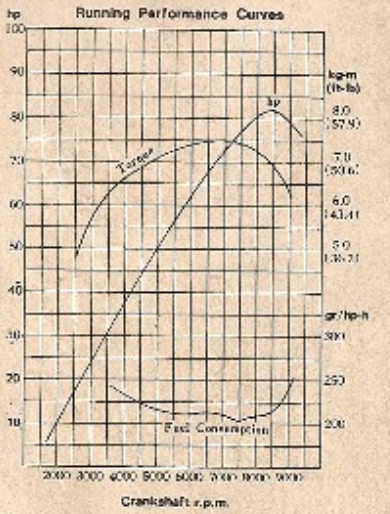
Just what this means in terms of tractable road performance is very strongly demonstrated by the factory's claim that the Super4 pulls cleanly in top gear from only eight mph — an innovation; made even more surprising considering it comes from Kawasaki.

Oh sure, it's a blaster, too — turned out by a crowd who are already acknowledged as king of the tar-burners — but here is a dramatic step which broadens the high performance motorcycle's appeal on the road.

The first drawings of the Super4 dated back to 1967, we were told by Mr T. Yamada, Kawasaki's motorcycle division manager.

The following year a wooden mock-up was completed — at which stage the Super4 suffered the blow that nearly killed it and caused Kawasaki to hang back.





The blow was called the CB750. Honda pulled the wraps off the then revolutionary sportster at the '68 Tokyo Motor Show and declared it ready for delivery.

It was, in many ways that count, quite different from Kawasaki's pet project, but similar enough for Kawasaki to pull out for a re-evaluation — it was still a question of one four-stroke, four-cylinder aceing another, however you looked at it.

But the way the hungry world market gobbled up the CB750 convinced the two-stroke specialists the market for an alternative 4/4 (cylinders and strokes) was still attractive.

The first dohc powerplant of 900 cc in four-cylinder, four-stroke design is of compact design, sufficiently so to allow the Super4 an overall width of only 31.5 in. (the Mach IV is 33.5 in. wide and the CB750 measures 34.5 in.).

The cylinder design is 66 mm square — a desirable characteristic for smooth, high revs — and needle bearings are used on both the big ends and crankshaft mains.

All parts can be removed (except the crankshaft itself and parts of the five-speed transmission) with the engine in the frame. Periodic adjustment of valve clearance shims in the dohc can be done with the camshafts still in the cylinder head.

And there's a new constant flow lubrication system for the chain, too. Kawasaki have equipped the Super4 with an automatic pressurised system pumping oil at a rate syncronised to the bike's speed.

Overall powerplant design shows a noticeable leaning to anti-pollution features, and the Super4 has obviously been designed to meet possible future legislation in this area. The motor uses sintered valve seats and Kawasaki claim it can be run on lead free petrol without loss of performance. This means that the motor (and valves particularly) will operate without the pollution-producing lubricants which are found added to petrol — but which will have to go if stringent anti-pollution measures become law.

A Positive Crankcase Ventilation system (PCV) recirculates blow-by gas from the wet-sumped crankcase, and the system is said to offer a dramatic reduction in hydro-carbon emissions.

The Super4 five-speed constant mesh gearbox has obviously been neatly matched to the motor's wide torque spread to stress the big-boomer's touring potential. At say, 70 mph in top (fifth) you're cruising at comfortable speed and engine speed is 4500 rpm.

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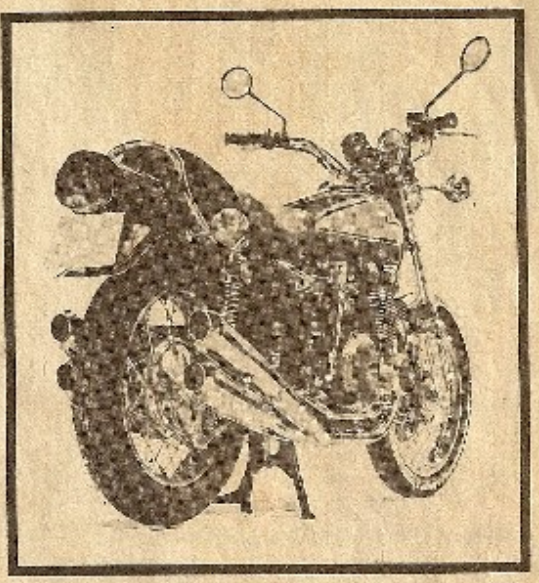
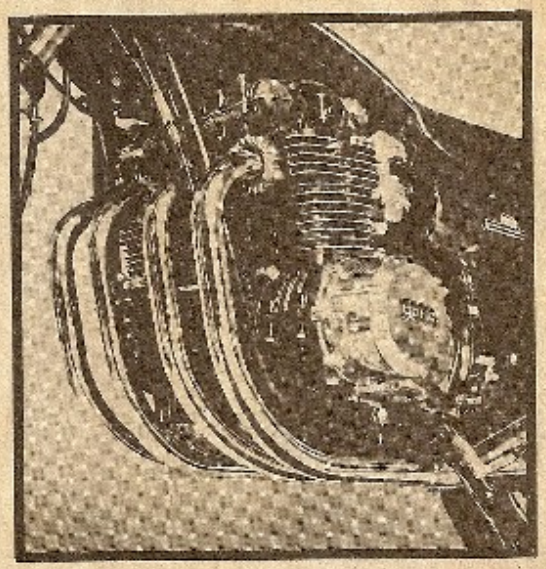
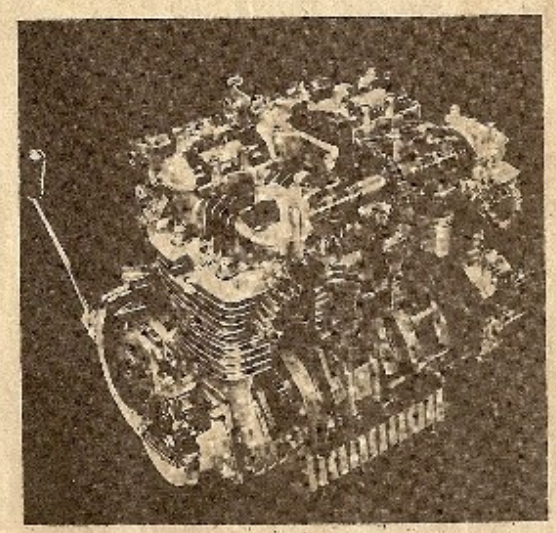


With the new motor comes a new style and new treatment of the tank, side covers (no oil tank, Super4 is wet-sumped) and rear guard.



With double overhead camshafts and squared bore and stroke, Kawasaki's new four puts the torque where you need it — right across the rev range. Bike has both electric and kick start.



Cut-away shows central chain drive to cams. Crank mains and big ends are all needle bearings. Motor is only 31.5 in. wide — the narrowest four yet!

SUPER4 900

Continued from page 9

The Super4 not only goes — it stops. The disc/drum combination (same as the Mach IV) hauls the bike to a standstill from 23 mph (50 kph) in 36 ft. An interesting figure this one. Our test Mach IV (May issue) stopped comfortably in less than factory figures but we've tried private bikes since and experienced a variation of 10 ft! Obviously, one of the critical areas of the Super4 is going to be the way it's tyred!

The factory reportedly experimented with 10 variations of frame design for the final product, and prototype test riders have said the bike handles low-speed manoeuvres easily and offers stability in both heavy traffic and touring conditions.

The Super4 has an all-new instrument panel, too. The easily-read tacho/speedo dials are now separated by an instrument panel, on which the key keeps company with neutral, flasher, high beam and oil pressure warning lights.

"The Kawasaki Super4 is our expression of confidence in the future of high-performance motorcycles," Mr Yamada said.

You know, we like that phrase, and if the Super4 is as good as the Mach IV it could be a new high in the art of building bikes — and in fulfilling this aim Kawasaki have created a whole new market. The Super Sports Tourer has arrived!

KAWASAKI 900 TECHNICAL DETAILS

PERFORMANCE

Maximum horsepower	82 hp/8500 rpm
Maximum torque	54.3 ft-lb/7000 rpm
Maximum speed	125 mph
Acceleration	SS ¼ mile 12 sec
Fuel consumption	48 mpg @ 70 mph

ENGINE

Type	4-cycle, 4-cylinder, in-line, transversely mounted, air-cooled, dohc
Displacement	903 cc (55.1 cu in.)
Bore and stroke	2.6 x 2.6 in. (66 x 66 mm)
Compression ratio	8.5 to 1
Ignition system	battery and coil
Starting system	electric starter and kick
Lubrication	wet sump

TRANSMISSION

Type	5-speed, constant mesh, return shift
Clutch	wet, multi-disc
Primary reduction ratio	1:73
Gear ratios:	
1st	3.17
2nd	2.19
3rd	1.67
4th	1.38
5th	1.22
Final reduction ratio	2.33 (35/15)
Overall drive ratio	4.92

FRAME

Type	tubular, double cradle
Suspension front	telescopic fork
Suspension rear	swing arm
Tyre size front	3.25 x 19
rear	4.00 x 18
Castor	64 deg
Trail	3.54 in. (90 mm)

BRAKES

Front	disc brake, disc dia 11.65 in. (296 mm) single
Rear	7.9 x 1.4 in. (200 x 35 mm)

DIMENSIONS

Length, overall	86.8 in. (2205 mm)
Width, overall	31.5 in. (800 mm)
Height, overall	45.3 in. (1150 mm)
Wheelbase	58.7 in. (1490 mm)
Ground clearance	6.3 in. (160 mm)
Dry weight	506 lbs (230 kg)
Fuel tank capacity	4 gal