

16^{ER} SPECIAL

Which Bike?'s intrepid testers bring you the latest and greatest in 50cc sports bikes specifically designed for the 16-year-old. From Yamaha there's the new RD50MX, the chopper FS1SE and the trail DT50; from Honda the MB50 and MT50; from Suzuki the popular TS50ER trail bike, the ZR50K-X1 and the new ZR50SL chopper; from Kawasaki the sporty AR50 and AE50 trail. Italian factories offer the Garelli KL50 and the Gilera 50TS and from East Germany there's the Simson S51B.

Words by Mark Revelle and John Nutting.

Photography by John Perkins.

You'd think that with the sixteen-year law as it stands, most of the bikes on offer would be more or less equal. After all, mopeds as they are still officially called (though they don't actually require pedals) must conform to certain specifications. One of these requirements is that the engine must displace no more than 50cc; another is that the bike's top speed must be no more than 30mph, with a tolerance of 5mph.

We wanted to find out if manufacturers were pushing the law to the limit and beyond. The results were surprising and showed that if all the sports sixteeners were equal, then some were more equal than others, even to the point at which we thought was defiance of the legal requirements.

But if these bikes are being offered as legal by manufacturers and dealers, then the punter is more or less okay, a fair situation since 16-year-olds can still legally ride the old-type unrestricted machines like the FS1E Yamaha up to their top speed of 45mph. You'll be surprised, though, to find that some of the restricted machines come close to that anyway. Read on and find out which ones.

SPORTS BIKES

HONDA MB50S

Honda was the first to offer a sports sixteener built to the same high standards as its larger machines early in 1980. Now the MB50S is being challenged by similar bikes from both Kawasaki and

Yamaha. How does it stand up?

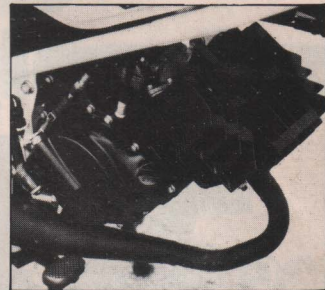
There's no doubt that specification and equipment on the Honda are up to scratch. Frame is a triple-tube triangulated spine type with a saddle fuel tank that passes under the dual seat and lay-down rear suspension units with preload adjusters. Front fork is a leading axle unit and the wheels are triple-spoke Comstars with steel rims.

The Honda's engine is unusual in its use of a balance

shaft and the way it hangs from the bike's frame, but otherwise it mirrors other engines in its reed-valve induction, five-speed gearbox and pump lubrication. Usefully, its maximum power is developed at 6,000rpm and the gearing is right for this so that throttle response at around 30mph is better than with the Kawasaki. And so is fuel consumption. While the Kawasaki managed only 71mpg, the Honda returned 88mpg, a not insignificant difference.

Handling is good, but the Honda's different weight distribution and steering geometry make the steering feel less solid than the Kawa, although the riding position is

much the same. Controls, with a pair of clip-on style handlebars mounted on the top of the fork, are just as good as the Kawasaki's, though. Instruments include a rev meter as well as the speedo and shame many a more expensive bike.



Honda's 1980 sports models were the first of the purpose-built sixteener machines.



KAWASAKI AR50

For me, the Kawasaki AR50 was the best looking bike. Strong lines, striking colour scheme, five-spoke gold wheels. A cockpit of instruments reaching BMW standards. Unitrack rear shock and a full seat.

The bike looks as though it were built to a specification rather than hurriedly adapted to a market. The riding position was immaculate, the clip-ons nicely positioned, the pegs set back. Throttle response was lively, and the clutch light, and definite. The bike seemed to reach its top speed — around 35mph — quickly, yet the Garelli had the beating of it, even to the extent of allowing it to pass then dropping a gear and catching up. The comparative lack of urge was not so evident when out alone, however, and was more than compensated for by the superb handling and road-holding. With its forward-mounted engine, the

Kawasaki's steering is firm and precise, as definite as a lightweight racer. The gears are usefully spaced and the overall performance was creditable enough during the test.

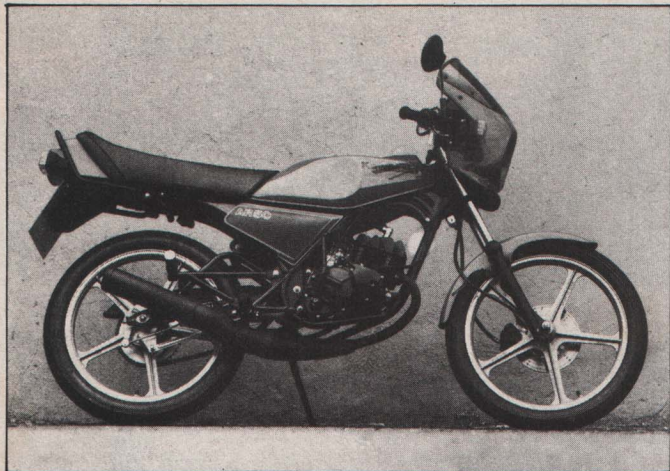
Later, the engine developed a flatspot and would burble at high revs, but while I had it, it was pure joy to ride. The brakes were excellent, the engine quiet and vibration



Classy cockpit — clip-ons and full instruments for the AR.

free. It inspired confidence even in traffic, and I constantly sought out bends and roundabouts for the sheer fun of it. Its design and finish

have the hallmark of quality. If it had the legs of the Garelli or the Simpson it would be a front runner on all counts.

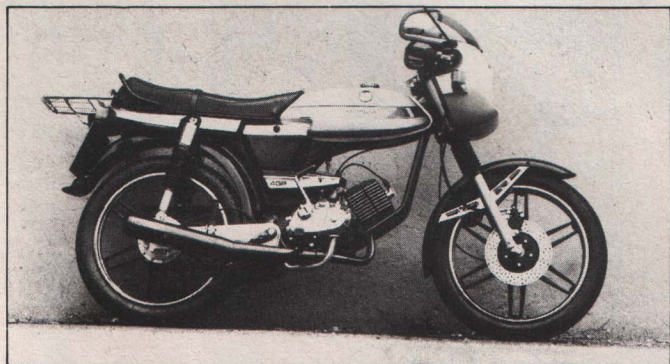


Sporting stuff – gold wheels, matt black exhaust, Uni-Track suspension.

PUCH MONZA GP

Before the dreaded regulations for sixteeners were introduced in 1976, Puch had one of the best mopeds on the market, the Grand Prix. It was fast, light and, in its black and gold finish, looked great. But it was dropped because it became too expensive.

Now the bike is back in a new guise as the Monza GP, using many of the old model's components. And it looks just as impressive. Finish is in metallic grey with green detailing and the most striking feature of the bike is its large handlebar fairing containing a rectangular headlamp. Wheels are composite construction with alloy



Puch Monza looks impressive with metallic silver finish and large handlebar fairing. Does it justify the price?

spokes rivetted into 17in steel rims. Front brake is a perforated disc. Equipment includes a chromed carrier with a bicycle-style spring-loaded flap.

It's arguable, though, whether the Monza is worth the £455 (highest price of the tested bikes) the importer is asking for it. The engine would appear to be the same unit found in the old GP, complete with its crankshaft-mounted clutch and four-speed gearbox. We've been told that the bike offered for testing was a Spanish market model with a 40kph top speed and therefore its performance would have to be taken with a pinch of salt. Fact is that the Puch was fast, clocking an easy 38mph, suggesting that this was a UK model. But the wide ratios and notchy action of the four-speed box did nothing for the performance in combination with the noisy and peaky engine.

It may be that very low mileage on this model will have made the Puch seem poor. But the same was true for other, better bikes that are also cheaper.

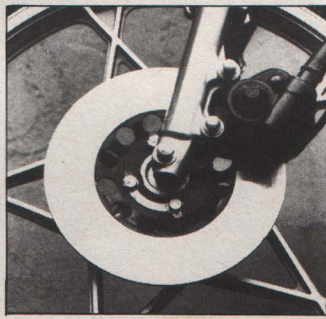
SUZUKI ZR50K-X1

The ZR50K-X1 is Suzuki's offering in the sports-style sector and has enjoyed not inconsiderable popularity, not only because its predecessor – the AP50 – had a reputation for being quick, but it looks a substantial bike with its gold alloy wheels and wide seat.

The X-1's major feature is that it's so low, and consequently looks long compared to other bikes of the type. Though the seat is large, it only measures 29in from the ground and with the high handlebar feels more like a big bike than a toy.

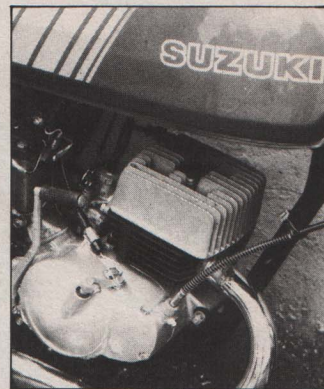
Engine is what Suzuki calls a case-reed two-stroke unit with induction both straight into the cylinder and via a reed-valve into the crankcases, a ploy meant to improve the mid-range without limiting the top end poke. It's of questionable advantage on a sixteener with a restricted top speed: the Suzuki has a sharp power curve and the five

ZR50X1's large cable-operated disc.

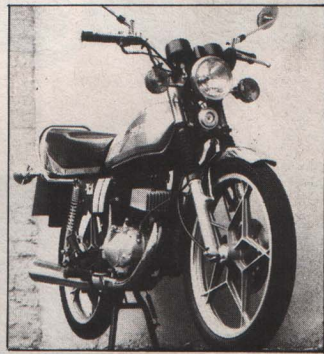


gears need stirring to get the top speed at 32mph.

Front brake is unusual in that it is a cable-operated disc. Of almost 9in diameter, it's more than powerful. Instruments, with speedo, rev meter, neutral lamp and oil level lamp, are up to the usual Suzuki standard, as are the controls. As usual, the headlamp supplied direct from the generator is just okay, nothing dramatic as you might expect. If Suzuki fits a fairing to the ZR50, it'll be up to the modern looks of the other Jap models.



Suzuki's X1 is popular, but loses on styling. A fairing may close the gap.

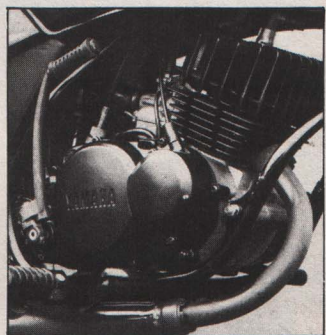


YAMAHA RD50MX

This Yamaha is to the LC250/350 model what Robin, Kermit's nephew, is to Kermit: a miniature caricature. And where Kermit runs the show while Robin sits singing halfway up the stairs, the LC 350 has its own race

series while the RD50 just pretends.

Like Robin, it isn't without its charms, though I personally feel that appearance is not one of them. The riding position is once again fine, and the switchgear and controls are comprehensive and of the highest quality. The engine spins more freely than the others do, and doesn't feel so obviously governed. The standard five-speed box is positive, the clutch clean and light. In performance terms there's little to choose between it and the Kawasaki, though the Yamaha is slightly down on power at high revs, and has more difficulty sustaining speed on steep hills: drop a gear, and you simply drop 5mph – it doesn't pull any better.



Yam's RD revved freely and didn't feel obviously restricted.

Like the Kawasaki the



AR50 looks great: strong lines and striking colour.



Forerunner of new style has some challengers.



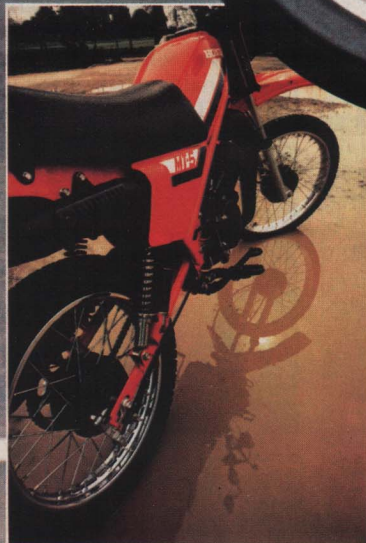
Nephew of Yam's LC flyers could tempt many.



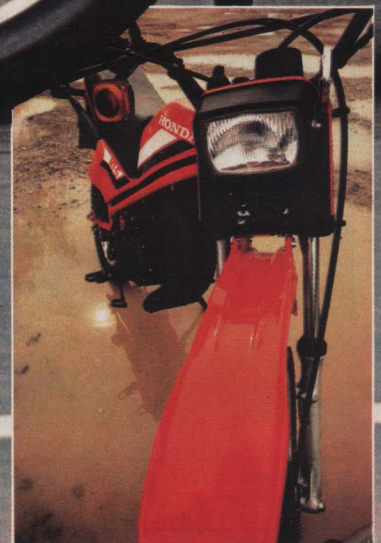
Square headlight, fairing, metallic finish, high price.



Suzy's XI looks substantial: wide seat and gold wheels.



Right and left: Trail partner of MB50S – styled in enduro mould.



Kawa's AR50 -- excellent lines, superb handling. Riding position is immaculate -- pegs set back and clip-ons well-placed. Snappy performer.

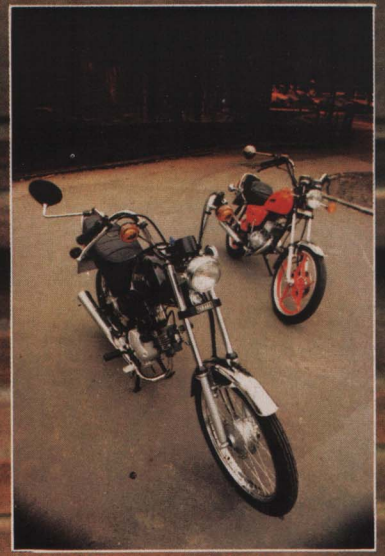
**10^{ER}
SPECIAL**



Gilera's classy looks killed by lacklustre performance.



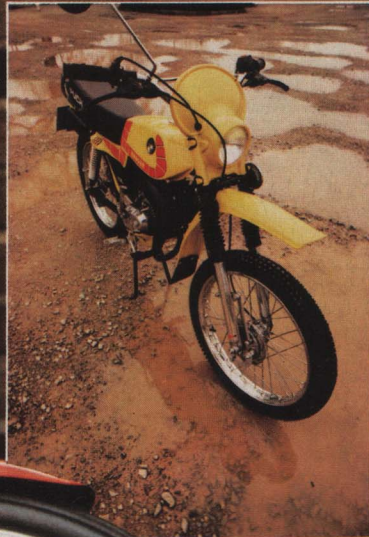
Cheapest – but quickest: Simson surprised us all.



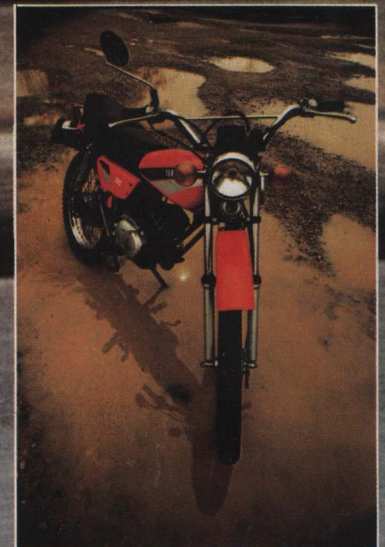
Yam FS1SE, novel design: Suzy's ZR50SC looks great.



Right: Bright yellow paint, enduro styling boost Ranger's appeal.



Enduro replica, serrated footrests and knobbies.



DT looks small but has full-sized wheels. Goes well.

Right: TS looks and feels big – a good performer.



Left: Off-road stablemate of AR50. Note fake rad cover.



Yamaha's sporty RD is sure to attract many fans.

Yamaha uses a reed valve, and employs an oil-injection system which is more convenient for the rider than the petrol mix of the Italian bikes. It shares the Kawasaki's high standard of finish, the superior electrics. The monoshock rear suspension doesn't have the Kawasaki's length of travel, and the frame's geometry makes for a less impressive ride. The

Yamaha doesn't quite have its Japanese rival's exceptional handling, nor does it have, the Garelli's performance. But it's still a pretty nice bike and will doubtless have lots of fans.

But if I had to buy a sixteen-year-old at all – and they're mostly much better than I gave them credit for – I'd go for the Kawasaki. And tune it.

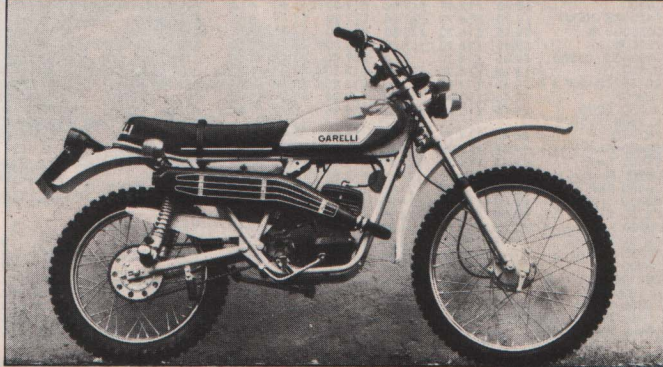
TRAIL BIKES

GARELLI KL505V



The Garelli's designation looks like a postcode and its engine at speed – well, an indicated 40mph – sounds like the braying of a police siren, usefully reminding you that you're going too fast.

Altogether a civic-minded vehicle despite being styled like a lonesome trail bike.

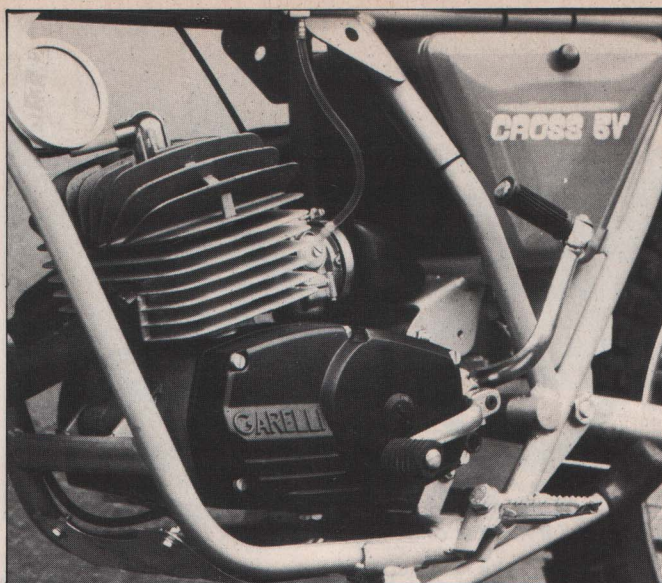


Talk of the trail: KL505V is ready for action.

Model:	Kawasaki AR50	Kawasaki AE50	Yamaha RD50MX	Yamaha FS1SE	Honda MB50S
Price inc VAT:	£451	£451	£459	£423	£446 inc delivery
Warranty:	12mth/unlimited	12mth/unlimited	12mth/unlimited	12mth/unlimited	12mth/unlimited
ENGINE					
Type:	Reed-valve 2-str single	Reed-valve 2-str single	Reed-valve 2-str single	Disc-valve 2-str single	Reed-valve 2-str single
Capacity:	49cc (39x41.6mm)	49cc (39x41.6mm)	49cc(40x39.7mm)	49cc(40x39.7mm)	49cc(39x41.4mm)
Lubrication:	Oil injection	Oil injection	Oil injection	Oil injection	Oil injection
Comp ratio:	7:1 corrected	7:1 corrected	6.6:1 corrected	6.6:1 corrected	6.4:1 corrected
Carburation:	14mm Mikuni	14mm Mikuni	na	na	15mm Keihin
Ignition:	Capacitor discharge	Capacitor discharge	Flywheel magneto	Flywheel magneto	Capacitor discharge
Max power:	2.9bhp @ 4,500rpm	2.9bhp @ 4,750rpm	2.9bhp @ 5,500rpm	na	2.5bhp @ 6,000rpm
TRANSMISSION					
Primary drive:	Gear	Gear	Gear	Gear	Gear
Clutch:	Wet multiplate	Wet multiplate	Wet multiplate	Wet multiplate	Wet multiplate
Gearbox:	Five-speed	Five-speed	Five-speed	Four-speed	Five-speed
Final drive:	420 chain	420 chain	420 chain	420 chain	428 chain
ELECTRICS					
Battery:	6V 6AH	6V 6AH	6V 4AH	6V 4AH	6V 4AH
Headlamp:	6V 25/25W direct	6V 25/25W direct	6V 25/25W direct	6V 25/25W direct	6V 25/25W direct
CHASSIS					
Frame:	Semi duplex cradle	Semi duplex cradle	Semi duplex cradle	Spine type	Triangulated spine
Suspension front:	Leading-axle telescopic fork	Leading-axle telescopic fork	Telescopic fork	Telescopic fork	Leading-axle telescopic fork
Suspension rear:	Swing arm c/w vertical shock and five-pos	Swing arm c/w vertical shock and five-pos	Swing arm c/w monoshock unit	Swing arm c/w twin shocks	Swing arm with five-pos spring preload adj
Brakes:	8.2 in disc (f) 4.5in drum (r)	4.5in drum (f) 4.5in drum (r)	8in disc(f) 4.5in drum (r)	4.5in drum (f) 4.5in drum (r)	8.5in disc (f) 4.5 in drum (r)
Tyres:	Nitto 2.50x18in (f) 2.75x18in (r)	Bridgestone 2.50x19 (f) 3.00x16 (r)	Yokohama 2.50x18 (f) 2.75x18 (r)	Inoue 2.50x19 (f) 3.00x16 (r)	Dunlop 2.50x18 (f) 2.50x18 (r)
Fuel tank:	2.1gal	1.4gal	2.9gal	2.0gal	1.5gal
DIMENSIONS					
Wheelbase:	47.0in	47.0in	48.8in	47.8in	49.0in
Seat height:	31.0in	32.0in	30.7in	30.5in	31.5in
H'bar width:	23.5in	30.5in	28.0in	28.0in	30.5in
Ground clearance:	7.0in	10.5in	6.7in	5.7in	10.0in
Rake/trail:	62.5deg/3.3in	61deg/3.9in	na	na	62½deg/3.5in
Dry weight:	165lb	170lb	181lb	168lb	178lb
EQUIPMENT					
	Fairing, two mirrors, turn signals, side stand, speedo, rev meter, toolkit, helmet lock, steering lock, oil level warning lamp.	Turn signals, speedo, carrier, steering lock, helmet lock, side stand, toolkit.	Headlamp fairing, steering lock, turn signals, centre stand, seat lock, speedo, rev meter, toolkit, mirror, pillion footrests.	Turn signals, speedo, mirror, centre stand, toolkit, grab rail.	Speedo, mirrors, toolkit, turn signals, helmet lock, pillion footrests, side stand, steering lock.
PERFORMANCE					
Top speed:	35mph (ind)	32mph (ind)	34 mph	32mph	35 mph
Av fuel consumption:	71mpg	72mpg	78mpg	72mpg	88mpg
Tank range:	150 miles	100 miles	224 miles	144 miles	132 miles
Importer/Manufacturer:	Kawasaki Motors UK Ltd, 748 Deal Ave, Trading Est, Slough SL1 4SH		Mitsui Machinery Sales Ltd, Oakcroft Rd, Chessington, Surrey		Honda UK Ltd, Power Road, London W4

In the same red and silver colours as the Gilera, its overall dimensions vary little, yet, thanks to the high 'bars, it looks and feels a much larger machine. Those nasty switches appear again, but the rev counter and ignition switch are dispensed with.

The bike starts after a dozen kicks, feels responsive and there's reasonable power in the engine, with enough acceleration to pull you away from cars at lights and hold your own when mixing it in average town traffic. Despite the rubber-mounted engine, vibration was in evidence through the serrated metal footrests and the handlebars, though this was a minor problem compared with that of the gears. Manoeuvring a 2bhp (well, that's what they say) engined machine through traffic requires the footwork of a Fred Astaire on the gear lever and a well-chosen set of



Despite rubber mountings, engine vibration was very evident.

gears to boot, as it were. The Garelli has the box – not, however, helped by a dragging clutch – but the siting of the gear lever is an abomination. Only the more talented

fly-kickers could hit it at one go from the footrest. Changing-down was a nightmare and finding neutral was child's play to anyone who's piloted the space shuttle.



Gears aside, the Garelli was quite fun to ride. The 18in Pirellis held the road well and the steering was only a little vague. The brakes squealed a bit but stopped well and the bike could be slung around with confidence. Like the Gilera, it uses a duplex cradle frame, and its piston-ported engine runs on a 25:1 petrol mix. The hard seat conceals a dry cell battery, and a large side panel hid enough space to pack a small tent. Overall a pleasant surprise, and the fastest of the 50s I rode.

Model:	Honda MT50S	Garelli KL50 5V	Puch Monza GP	Puch Ranger TT	Simson S51B
Price inc VAT:	£435 inc delivery	£414 inc delivery	£455	£419	£300 approx
Warranty:	12mth/unlimited	12mth/unlimited	na	na	6mth/6,000 miles
ENGINE					
Type:	Reed-valve 2-str single	2-str single	2-str single	2-str single	2-str single
Capacity:	49cc (39x41.4mm)	49.6cc (40x39.5mm)	48.8cc (38x43mm)	48.8cc (38x43mm)	49.8cc (38x44mm)
Lubrication:	Oil injection	Petrol mixture 20:1	Petrol mixture 50:1	Petrol mixture 50:1	Petrol mixture 50:1
Comp ratio:	6.4:1 corrected	10:1	8.5:1	9.5:1	na
Carburation:	15mm Keihin	14mm Dellorto	Bing	Dellorto	BVI
Ignition:	Capacitor discharge	Flywheel magneto	Flywheel magneto	Flywheel magneto	Flywheel magneto
Max power:	2.6bhp @ 6,500rpm	2bhp @ 5,000rpm	3bhp @ 6,000rpm	2.7bhp @ 6,000rpm	3.7bhp @ 5,500rpm
TRANSMISSION					
Primary drive:	Gear	Gear	Gear	Gear	Gear
Clutch:	Wet multiplate	Wet multiplate	Wet multiplate	Wet multiplate	Wet multiplate
Gearbox:	Five-speed	Five-speed	Four-speed	Four-speed	Four-speed
Final drive:	428 chain	1/2x3/16" chain	420 chain	420 chain	Enclosed chain
ELECTRICS					
Battery:	6V 4AH	6V 1.2AH dry	6V 4.5AH	6V 4.5AH	6V 12AH
Headlamp:	6V 25/25W direct	6V 18/18W direct	6V 18/18W direct	6V 18/18W direct	6V 25/25W direct
CHASSIS					
Frame:	Triangulated spine	Duplex cradle	Spine	Duplex spine	Spine
Suspension front:	Leading-axle telescopic fork	Telescopic fork	Telescopic fork	Telescopic fork	Telescopic fork
Suspension rear:	Swing arm with five-pos spring preload	Swing arm with three-pos spring preload	Swing arm	Swing arm	Swing arm
Brakes:	4.5in drum (f) 4.5in drum (r)	4in drum (f) 4in drum (r)	8.75in disc (f) 4.5in drum (r)	4.7in drum (f) 4.3in drum (r)	5.0in drum (f) 4.5in drum (r)
Tyres:	Bridgestone 2.50x19 (f) 3.00x16 (r)	Pirelli 2.50x21 (f) 3.00x17 (r)	Semperit 2.50x17 (f) 2.75x17 (r)	Pirelli 2.50x19 (f) 3.25x18 (r)	Pneumant 2.75x16 (f) 2.75x16 (r)
Fuel tank:	2.0 gal	1.4 gal	2.2gal	1.6gal	1.9gal
DIMENSIONS					
Wheelbase:	48.2in	49.0in	47.2in	48.0in	47.75in
Seat height:	30.0in	32.0in	31.0in	32.0in	29.75in
H'bar width:	25in	33.0in	26.0in	29.0in	25.0in
Ground clearance:	60in	9.5in	7.5in	11in	6.5in
Rake/trail:	65 deg/2.8in	na	na	na	na
Dry weight:	179lb	180lb	163lb	152lb	173lb
EQUIPMENT					
	Speedo, rev meter, mirrors, turn signals, toolkit, helmet lock, pillion footrests, centre stand, steering lock, fairing	Speedo, turn signals, toolkit, steering lock	Turn signals, mirror, speedo, fuel cap lock, carrier, fairing, toolkit, pillion rests;	Mirror, speedo, carrier, toolkit, pillion rests.	Speedo, turn signals, carrier, toolkit, steering lock, pillion footrests
PERFORMANCE					
Top speed:	35mph	38mph	36mph	na	38mph
Av fuel consumption:	88mpg	110mpg	na	na	89mpg
Tank range:	176 miles	152 miles	na	na	170 miles
Importer/Manufacturer:	Honda UK Ltd, Power Road, London W4	Agrati Sales (UK) Ltd St Marks St, Notts. NG3 1DA	Steyr-Daimler-Puch, 211 Parliament St, Nottingham		Wilf Green Ltd, MZ House, New Street, Haltway, nr Sheffield Yorks



HONDA MT50S

Although Honda's MT50S looks like a trail bike, it's in fact more like a conventional motorcycle in behaviour. And while it may be that it uses the same novel triangulated frame as its MB50S brother, and the same two-stroke reed-valve engine with a balance shaft, it's otherwise totally different.

Wider braced handlebars give the MT a more relaxed feel and, like all the Japanese



MT has trail styling but conventional motorcycle handling.

sixteeners, the controls operate smoothly. Everything about the MT is refined: throttle, brakes, clutch and gearchange are all up to usual standard expected of Honda. Styling is in the enduro league with the small rectangular headlamp recessed

into a dummy numberplate and the large plastic mudguards have plenty of clearance over the 19in and 16in wheels fitted with general-purpose knobby tyres. Cleated footrests with hinged mounts complete the dirt bike character of the MT.

Like the TS50ER, the MT Honda performs better than its race-styled counterpart. Engine power characteristics are changed by the use of an upswept exhaust system that, in addition to giving the bike's sound a distinctive metallic note, lifts the power by a fraction and moves it higher in the rev range. While this may not seem significant, on paper it does mean that the bike is more



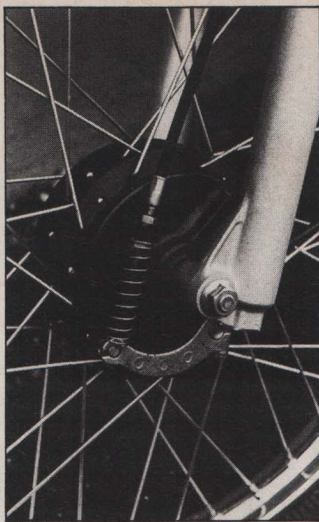
Instruments and switchgear are to the usual Honda standard.

Model:	Suzuki ZR50SL	Gilera 50TS	Suzuki ZR50K-X1	Suzuki TS50ER	Yamaha DT50M
Price inc VAT:	£445	£429	£411	£445	£420
Warranty:	6mth/10,000 miles	6 months	6mth/10,000 miles	6mth/10,000 miles	12mth/unlimited
ENGINE:					
Type:	2-str single	2-str single	2-str single	2-str single	2-str reed-valve single
Capacity:	49cc (41x37.8mm)	49.8cc (38.4x43mm)	49cc (41x37.8mm)	49cc (41x37.8mm)	49cc (40x39.7mm)
Lubrication:	Oil injection	Petrol mixture	Oil injection	Oil injection	Oil injection
Comp ratio:	6.8:1 corrected	10:1	6.8:1 corrected	6.7:1 corrected	6.8:1 corrected
Carburation:	16mm Mikuni	14mm Dellorto	15mm Mikuni	15mm Mikuni	16mm Mikuni
Max power:	2.8bhp @ 6,500rpm	na	2.9bhp @ 5,500rpm	2.9bhp @ 6,000rpm	na
TRANSMISSION					
Primary drive:	Gear	Gear	Gear	Gear	Gear
Clutch:	Wet multiplate	Wet multiplate	Wet multiplate	Wet multiplate	Wet multiplate
Gearbox:	Five-speed	Five-speed	Five-speed	Five-speed	Five-speed
Final drive:	420 chain	420 chain	420 chain	420 chain	420 chain
ELECTRICS					
Battery:	6V 4AH	6V 8AH	6V 4AH	6V 4AH	6V 4AH
Headlamp:	6V 18/18W direct	6V 25/25W direct	6V 18/18W direct	6V 18/18W direct	6V 18/18W direct
CHASSIS					
Frame:	Simple loop	Duplex cradle	Simple cradle	Duplex cradle	Duplex cradle
Suspension front:	Telescopic fork	Telescopic fork	Telescopic fork	Leading axle telescopic fork	Telescopic fork
Suspension rear:	Swing arm with five-pos. preload adj.	Swing arm	Swing arm	Swing arm	Swing arm
Brakes:	8.75in disc (f) 4.5in drum (r)	8¾in Grimeca disc (f) 4½in drum (r)	8.75in disc (f) 4.3in drum (r)	4.3in drum (f) 4.3in drum (r)	4½in drum (f) 4½in drum (r)
Tyres:	Inoue 2.50x19 (f) 3.50x16 (r)	Pirelli 2.50x17 (f) 2.75x17 (r)	Inoue 2.50x18(f) 2.50x18(r)	IRC Trials 2.75x21 (f) 3.00x18 (r)	IRC Trials 2.50x19 (f) 3.00x17 (r)
Fuel tank:	na	1.9gal	1.9gal	1.1gal	1.3gal
DIMENSIONS					
Wheelbase:	50.0in	48.2in	48.5in	50.0in	47.75in
Seat height:	29.5in	30.5in	29.0in	31.0in	31.0in
H'bar width:	25.5in	27.5in	25.5in	30.0in	30.0in
Ground clearance:	7.5in	6.0in	5.5in	10.5in	9.0in
Rake/trail:	na	na	62deg/3.2in	na	na
Dry weight:	202lb	181lb	178lb	172lb	159lb
EQUIPMENT					
	Turn signals, mirror, side stand, centre stand, grab rail, speedo, rev meter, seat lock, steering lock, pillion rests, fuel cap lock.	Speedo, rev meter, turn signals, centre stand, pillion footrests, steering lock	Speedo, rev meter, turn signals, helmet lock, grab rail, pillion footrests, steering lock, toolkit, mirrors, seat lock	Speedo, rev meter, mirrors, turn signals, side stand, pillion footrest, steering lock, helmet lock.	Speedo, mirror, turn signals, toolkit, steering lock, pillion footrest, seat lock, helmet lock.
PERFORMANCE					
Top speed:	na	30mph	32mph	37mph	37mph
Av fuel consumption:	na	na	93mpg	109mpg	90mpg
Tank range:	na	na	177miles	120miles	117miles
Importer/Manufacturer:	Heron-Suzuki GB Ltd, 87 Beddington Lane, Croydon, Surrey	Douglas (Sales & Service) Ltd, 1-2 Oak Lane, Fishponds Trading Est, Bristol	Heron-Suzuki GB Ltd, 87 Beddington Lane, Croydon, Surrey	Mitsui Machinery Sales, Oakcroft Road, Chessington, Surrey	

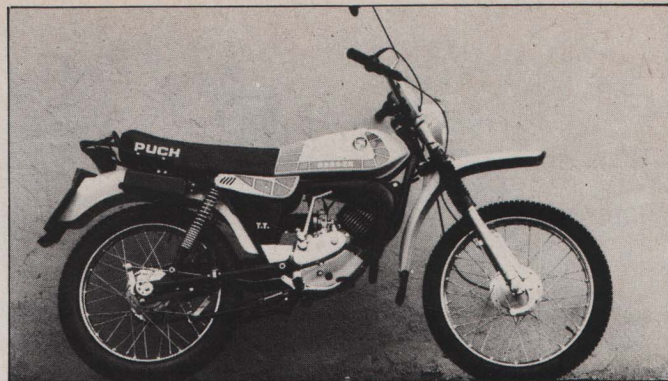
responsive at about 30 to 33mph where it would normally be cruised. Like the MB50, the better gearing also results in a healthier fuel consumption of 88mpg.

Lubrication for the motor is fed from the oil tank under the seat, where the sight glass is just as out of sight, as on the MB. Instrumentation is just a speedo with adjacent neutral and oil lamps.

The best feature of the bike was its suspension. Smoothly damped and with longer travel than usual, it makes the bike one of the most comfortable and easiest to ride at its 35mph top speed.



MT's leading axle and stopper.



Ranger has full enduro styling, including fake bash plate.

PUCH RANGERTT

If looks were the sole criterion for a sixteen-year machine, and many would argue that with so little performance they might as well be, then the new Puch Ranger would score hands down. Like the best-selling Suzuki TS50ER, the Puch has the right enduro looks, with bright-yellow paintwork. There's a combined plastic headlamp and

number plate, high front guard, upswept pipe and even a fake bash plate for the higher-mounted engine.

Only thing that the Ranger shares with the Monza is the engine, a four-speed two-stroke unit that runs on a 50 to 1 petrol mixture. This was a Spanish market model with a 25mph top speed, so an assessment of performance will have to wait for the proper UK version. Like the Monza, however, starting was trickier than usual because the starter lever was short with limited travel and the choke button apparently ineffective.

Handling felt okay, largely because of the large 19in and 18in wheels with alloy rims and Pirelli tyres. Brakes were conical alloy drums. Suspension had long travel, the rear using multirate springs on the dampers.

A smart-looking bike for £419.

KAWASAKI AE50

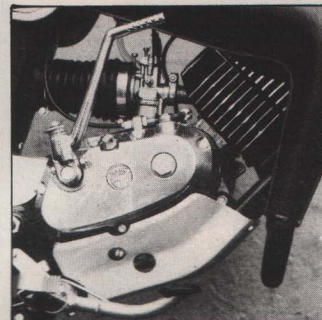
If your inclination is toward off-road machinery rather than road racing bikes, then Kawasaki caters for the 16-year old with its AE50, stablemate to the AR50. Engine is the reed-valve two-stroke unit of the AR, with pump lubrication mounted in a similar semi-duplex loop frame. Major difference as far as performance is concerned is that the exhaust system loops over the motor and its different shape pushes the maximum power revs from 4,500 to 4,750rpm.

Rear fork uses rectangular section tubing and the pillion footrests are mounted on in. Suspension at the rear is

Uni-Trak and the vertical damper unit has preload adjustment for the spring. A larger 19in front wheel, matched to a fatter 16in rear, gives the 10½in ground clearance required of a trail bike. Tyres are knobby Bridgestones with a round general purpose tread.

Being taller and having a more conventional riding position meant the AE50 was less fun than the sporty AR50. Handling was neutral and nothing like as positive, despite the use of the similar leading axle fork. Though mid-range power was better and helped acceleration, top speed was limited to 32mph by intermittent four-stroking and misfiring when running on full throttle. Gear change for the five-speed box is by a linkage. Bringing the looks up to date is a fake radiator cover at the front of the fuel tank which actually conceals the oil tank. When the oil level gets low, a warning lamp in the speedo face lights up.

Like on the AR, control levers and instruments were to a standard found on bigger bikes. Starting was easy and the bike could be run from cold. An adequate but uninspiring machine.



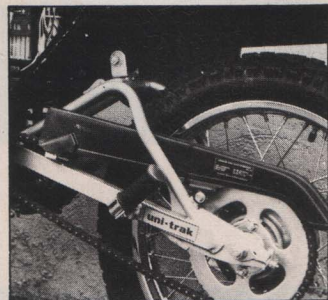
Ranger's neat power unit.

SUZUKI TS50ER

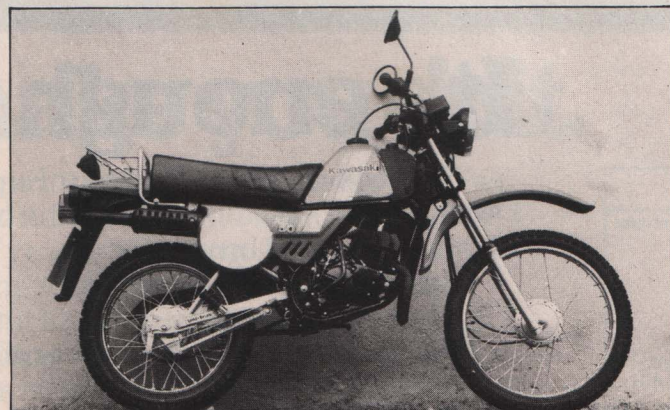
At first glance, Suzuki's TS50ER could be mistaken for the TS125ER trail bike — which is probably why the bike's so popular. No self-respecting 16-year old wants to be seen on a bike that's obviously a castrated lightweight and if you can fake it with your friends then who's to argue?

The TS50ER's got more to

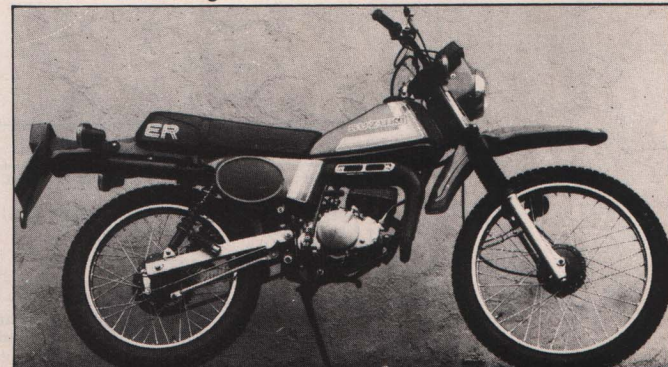
it than being just a teenage poser's bike, though. All the right plasticware, from the big red front fender, side panels (complete with number plates) to the headlamp cowl, is fitted to a chassis that also comes up with the goods. The bike is man-sized (sorry, all you feminists) and doesn't feel like a toy because of the 50in wheelbase, wide braced handlebar and full-sized 21in and 18in wheels. Completing the up-to-the-minute dirt bike looks is a



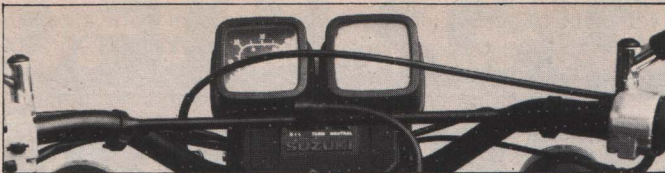
AE has box section swing arm and Uni-Trak suspension.



Kawasaki's off-road stablemate to the sporty AR.



TS50ER has looks of its bigger brothers.



The TS50ER's clocks can be found in larger models.

<51

silver-finished square-section swing arm and, like all the Suzuki trail models, the instruments (yes, both speedo and rev counter) have similar rectangular faces.

Engine is basically the same unit used in the ZR50K-X1 but it differs in power characteristics, due to the altered shape of the raised expansion chamber. Power peak is pushed to 6,000rpm and with lower gearing this means that the TS is much more peaky at around 30mph, and therefore easier to ride. Top speed is better

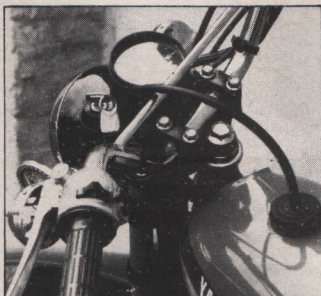
than most of the other Japanese sixteeners with an indicated 37mph on the flat. Fuel consumption was in the 70-80mpg range.

Main advantage over the other, equally fast trail bikes from the continent was that the TS was so sanitary. It would start okay, warm up smartly, run smoothly, change gear cleanly and brake confidently. Handling was okay, the suspension giving a cosy ride and the IRC trials-type tyres fairly good road-holding. Who could ask for more?

YAMAHA DT50M

We've run this particular DT50 for something like 2,000 miles over the past six months so we're aware of how sixteeners machines stand up to the rigours of heavy use and neglect during winter riding. Though the DT50 looks small because of its little tank, it's got full-size 19in and 17in wheels, shod with trials tyres, and a wide handlebar that even our tall Art Director thought ample enough before he switched to a DT175MX.

In terms of open road per-

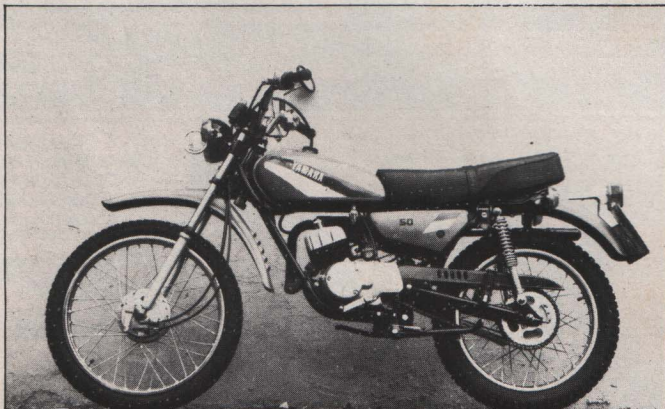


Switchgear and instruments are unchanged.

formance it was one of the best of the Japanese sixteeners, and in dense town traffic its real merits come into play, with good acceleration from the sharp reed-valve two-stroke motor and secure handling. Top speed can hit an indicated 37mph in good conditions and over the long test period the bike returned about 80mpg. So far, the only maintenance needed has been to keep the cables and rear chain lubricated.

Like most of the sixteeners, because of their lightweight, the DT is durable and survives spills well - in one, the only damage was a bent gear lever. Starting, too, was easy and reliable, the choke being operated by a button on the carb. Passenger carrying wasn't possible because the soft rear units bottom out. Drum brakes are used and are adequately powerful, like the headlamp.

Soon to join the DT50 in the Yamaha range is the DT50MX with a new frame, engine and monoshock suspension, as on the RD50MX.



DT looks small but has full-size wheels.

CUSTOM BIKES



SUZUKI ZR50SL

Now here's the way to style a custom sixteener! The SL uses much of the same equipment as the ZR50K-X1: the same two-stroke engine in a semi-duplex frame. Specification is uprated by the use of a longer front fork, better rear suspension units with preload adjustment, plus the usual stepped seat and rounded fuel tank. Finish is red, set off by red-painted cast wheels, and makes the bike look even bigger than it is.

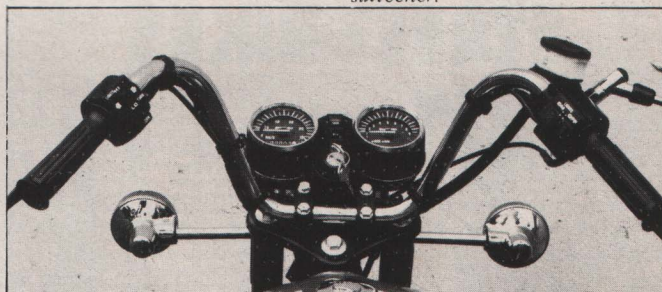
The longer fork brings the wheelbase up to a hefty 50in and dry weight is 200lb, some 20lb more than the ZR50K, an increase that should spike the performance somewhat. We'd like to be able to tell you how much but the only bike Suzuki had was a non-runner and there was precious little information on that. We can say that the 8 1/4in disc brake is hydraulically operated and for the sake of the passenger's comfort, the pillion footrests are frame-

mounted. Both side and centre stands are offered along with a locking fuel cap, helmet lock and a seat lock. Like on the ZR50K, there's an oil level check lamp between the instruments.

With a 29 1/2in seat height, the ZR50SL is low and flash, a big custom sixteener appealing (okay, so the Angels won't like it). The main thing is that it doesn't look silly.



Homework done! Suzuki's well-styled ZR50SL custom sixteener.



The ZR50SL's high-rise bars offer a comfortable ride.

YAMAHA FS1SE

Reaction to Yamaha's FS1SE was of polite amusement.

Which is hardly surprising as there's nothing more anachronistic than a 50cc chopper, especially one that looks like a preying mantis. What did surprise me, though,

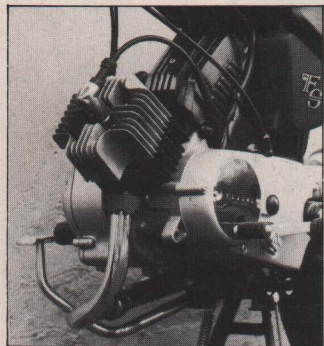


Looks are deceiving: Yam's FS1SE gave a surprising ride.

16 ER SPECIAL

was that the FS1E was one of the better bikes to ride, despite its modest top speed of a fraction over 30mph. So long as you didn't take the bike onto open stretches of road, the FS's good handling and stopping, combined with acceleration markedly better than most of the Japanese sixteeners, made it quite enjoyable to ride.

The bike is based on the same engine and frame as the



Engine and frame design are based on the FS1E.

FS1E. In this case the pressed steel spine frame is cloaked in a larger droopy two gallon tank and a low seat that envelops the sides. Engine is a disc-valve unit with four speeds and, unusually, neutral is at the top of the range, which meant you had to keep count of the gears (or an eye on the speedo-mounted indicator) to ensure you didn't have drive when feeding through traffic. Lubrication is by a pump fed from the oil tank at the rear of the seat. Starting was reliable but you had to wait for the motor to warm up before riding off because the choke button on the top of the carb at the side of the engine was impossible to reach, except with your foot. Solo ride comfort was good, except that the kick start lever dug into your ankle. Passenger carrying was impractical because of lack of space and oversoft rear shocks with no load adjustment.

The drum brakes, mounted in wire spoke 19in and 16in wheels, had adequate power. Lighting was direct from the generator and just passable, likewise the battery-fed indicators.

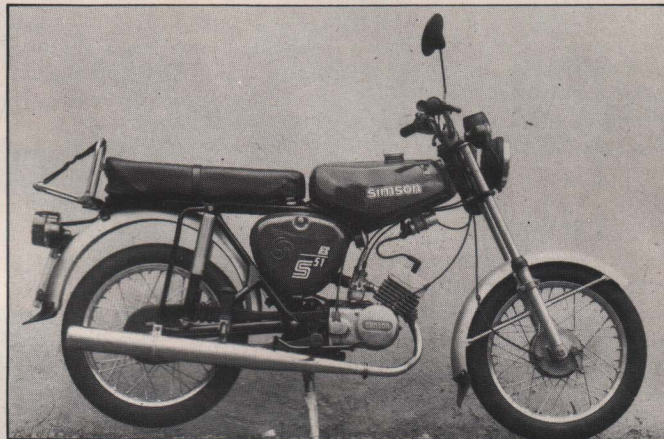
A novelty that works.

vulnerable. Lighting, despite a 12Ah battery, was only adequate in function.

But everything else functions perfectly. Suspension has long travel and, though having a soft action, doesn't

bottom, even with a passenger. Like a Yamaha XV1000 or an MZ, the rear chain is fully enclosed, a real bonus.

If you want to leave your mates gasping in your wake, get a Simson.



The ugly ducking had the legs on everyone.

GILERA 50TS

From across the road, the Gilera looks like a real motorcycle. With its silver-grey frame, red tank and cast wheels it appears to personify a long and honourable Italian tradition of sporting machines. But, on closer inspection, the machine shrinks and its imagined links with a glorious past fade as mediocre reality intrudes.

The switchgear is crude, half-moon tumbler devices set too far from the controls. The ignition key fails to light any of the three blank idiot lights. The choke, once depressed, can only return automatically. The bike fired up after 20 kicks, struggled

against a too-rich mixture, then died like a ham actor. It wouldn't fire again, and bump starts became common. The over-heavy and sticky clutch was not appreciated.

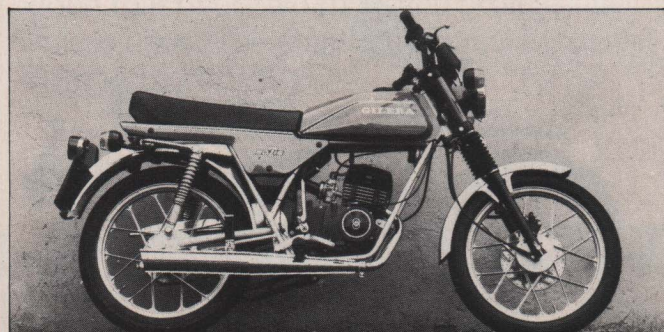
In first gear, the Gilera reaches a giddy 4mph if you don't grab second quickly you fall off for lack of momentum. Changing up at 6,000rpm brings 25mph up in a matter of seconds. About 40, in fact. The gutless, lifeless engine will eventually push the bike to 35 mph. Lower gearing would help.

It wouldn't improve the ride, however. The narrow seat and hard suspension contribute to the feeling of riding a garden gate over a bed of marbles. And that was in the dry. In the wet, the front brake lost its power and exaggerated the fierceness of the rear drum. The steering was less than precise; combined with the lack of any performance and the poor overall handling it made the Gilera feel more unsafe than it actually was. Riding it offered no enjoyment and, I'm afraid, confirmed all my prejudices against the whole idea of sixteeners.

WB7



Gilera's semi-double cradle frame.



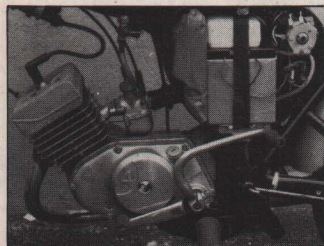
More show than go from Gilera's colourful 50TS.

STREET BIKES

SIMSON S51B

Simson's S51B was the dark horse of all the bikes we tried. Having ridden the three-speed S50/B a few years back and been impressed by its smooth and lively performance, I wondered how this new four-speed version from East Germany would compare with the latest bikes from Japan. Answer: no contest.

The Simson was quicker away from lights, faster on top speed with an indicated 40mph flat out, was more comfortable and even had the room and power to carry a



Functional design is the name of the game.

passenger with ease. Significantly, the bike was safer to ride because it never got blown off by cars in heavy traffic. It was so much better than the other bikes that we questioned the importers, Wilf Green Ltd in Sheffield, about its legality. But yes, they assured us, the test bike was the restricted version because it had the longer exhaust pipe. Price wasn't fixed at the time of writing but it would easily be the cheapest at around £300.

Only drawbacks, as far as we could see, were the Simson's spartan and drab green appearance, its need to run on a diet of 50 to 1 petrol mixture, and a curious whining from the engine. You won't get beautifully designed components on the Simson. Even the handlebar switch consoles are in what looks like sand-cast alloy. Under the left-hand side lockable cover is a main switch operated by a blade key and fed by a maze of wires that looks extremely