

MOTOR CYCLE MECHANICS

AUGUST 1975 25p

TRAIL **5** TESTS

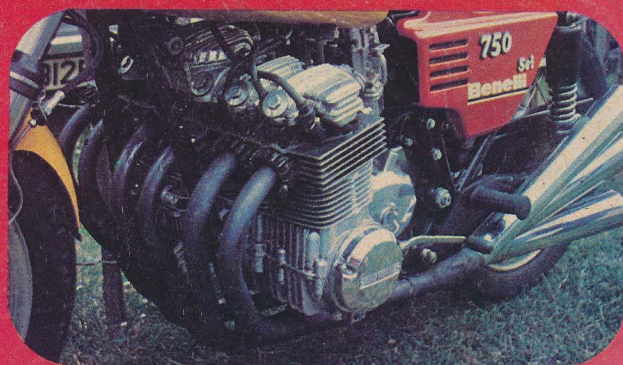


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VIBRATION:
CAUSES AND CURES

ROAD TESTS **MOTO-GUZZI 750 S3**
KAWASAKI SI 250



YAMAHA FSIE SERVICE

TT TRENDS

THIS MONTH

AUGUST 1975

VOL 17

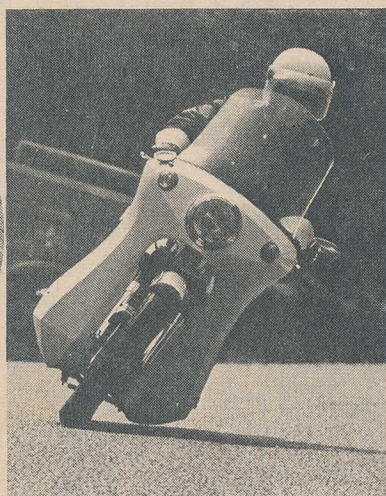
NO. 12



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TRAIL DRIVE!



**ON THE ROUGH WITH THE SUZUKI
TS250, CZ 175, DKW 125 GS, KAWASAKI
KS125 AND SUZUKI TS100 ➡**

After going through the traumatic experience of arranging for several bikes and an equal number of people all to be in the same place at the same time, the problems of actually riding off-road paled into insignificance.

In the past we'd discovered a network of trails with a really good pub at their focal point which tended to turn the bike run into more of a social occasion than anything else. Still, for the sake of good food, good beer and a landlord who didn't mind us hosing down bikes in the back yard, we felt prepared to run the risks associated with



removing journalists from saloon bars!

On previous occasions we'd taken a four-wheeler back-up vehicle which, although "cheating", meant that we could load our crates of, er, cans of oil and things in the back and that somebody could navigate continuously. Carrying stuff on the bikes is less easy and we had to stop at every cross roads to argue about where we were.

As it happened, the lack of a four-wheeler was no great handicap because in the last year or so several of the lanes had become overgrown to the point where a two-wheeler could only just get through. And none of us could ever read a map that accurately anyway.

The machines we took, more by chance than design, represented a complete cross-section of trail bikes; from Japan the 100 cc Suzuki seemed to be the bare minimum of what is required,

TRAIL DRIVE!

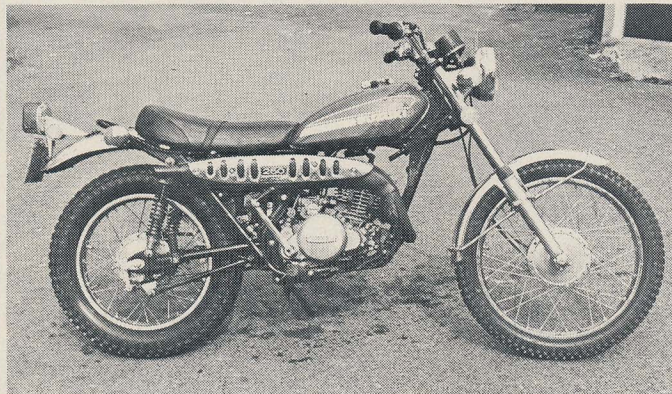
Report by John Robinson

the 125 Kawasaki is one of the more specialised Japanese machines while the 250 Suzuki is blessed with more power and is more comfortable. The rest of the world provided us with a DKW 125, a fine example of a moto-crosser with lights and a CZ 175 to show what the incredibly cheap communist bloc machines have to offer. The CZ, like the Suzuki

the Deek was a lot happier when it was screamed up through the gears. At what felt like 5000 rpm the power came in with a burst and it would rev on like a racer. Which was OK until I shut it off to plonk through some deep mud only to have it gas up again. It seemed that the plug was all right, it was wet but still firing, so we took the air cleaner element out. This

SUZUKI TS250

Bigger and heavier than the others, the 250 Suzuki is, nevertheless, easy to ride and will cruise comfortably at 60 mph.



RV 125 we used once before, helped solve our first problem — the last one out of the bar had to ride it!

Within a hundred yards of leaving metalled roads we hit the first snag. We cut the motors while a herd of bullocks was driven past and the DKW gassed up. The motor would only just run, spluttering and four-stroking, on full throttle. We eventually cleared it up and found that

made the already noisy DKW a few decibels louder.

Later on we found that the bumps and jolts were probably making the carburettor flood — at high revs the motor was not affected because it needed greater fuel flow and the plug would be running hotter anyway. At lower speeds the added restriction of the air cleaner was just too much. We reached this conclusion because on

smooth roads the DKW could be ridden down to almost tickover in fifth or sixth gear and would pull away smoothly and cleanly.

It was surprisingly powerful for a 125 — the 19 hp quoted for it is measured to DIN standards — and typically European in that it is much less of a compromise and very little is conceded to the roadster half of the machine. But DKW's experience — factory motocrossers do quite well in their nationals and they sell hundreds of cross-country bikes to various armies — shows through once the machine gets on the dirt. It's nicely balanced to give good handling, it's comfortable and controllable sitting down or standing up, the brakes give just enough bite but not too much and, right down to details like the rubber mudguards, it seems to be well thought-out. It's faults are that it is too noisy, fuel consumption is fairly heavy and it needs a mixture of oil and fuel.

The first few miles of trail were pretty straightforward, mostly on hard dusty lanes which stock roadsters could have coped with. Then came a section of very rough stuff which had been dug up in great chunks and left to harden. The CZ's back mudguard fell off. The rear indicators had already fallen off when it was ridden on the road. When the mudguard started flapping about it caused a live wire somewhere to ground out and blew the fuse — later we heard that a live terminal of the voltage regulator touches the frame, a fault which isn't unheard of on these machines.

SUZUKI TS100



While it lacks sheer power the 100 Suzuki isn't short on staying power and has easy handling.





This was no problem as we were carrying a spare fuse in the toolkit under the locking seat. Locking seat . . . in the great ignition key shuffle somebody had left the CZ's seat key in a safe place in the office. As luck would have it a piece of silver paper blowing along in the wind got itself wrapped around the fuse and we were on our way again.

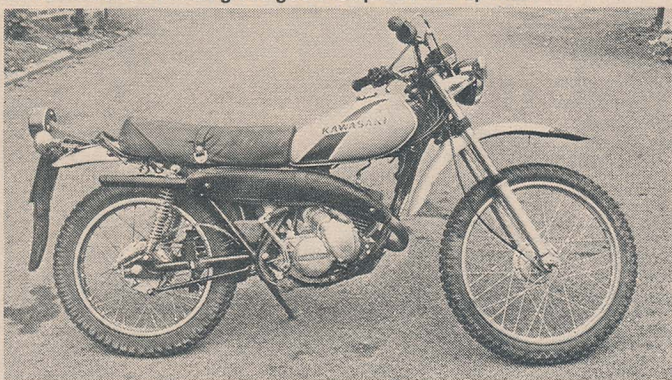
Slippery

The CZ looks remarkably like a roadster 175 with Barum trials tyres, a handlebar brace and upswept exhaust. It was the least easy to manage over most kinds of terrain but it did prove the most manoeuvrable over slippery surfaces. Despite its rugged and agricultural looks, things loosened off quite regularly, the most serious being the handlebar clamps. This happened as I was approaching a grass bank something just over a foot high. Having read all the right books I knew just what to do and sidled up to the bank on a rolled-off throttle, then with immaculate timing sat back, whopped the throttle open and heaved on the handlebar. The bars swung back towards me, the CZ buried its nose in the bank and stopped.

Over typical trail surfaces the CZ was comfortable enough, and behaved on the road pretty much like its roadster counterpart. It also has the clutch operated by the gearshift, which is something I cannot get on with — at best it seems pointless, at worst it causes some curious antics. Cost and the very good fuel consumption are the CZ's redeeming features and as long as money is an

KAWASAKI KS 125

Slow on the road, the 125 Kawasaki has a six-speed box and disc valve induction which gives good torque at low speeds.



important part of living or as long as the communists continue to subsidise their products, I guess machines like this will sell.

The two smaller Japanese machines were probably the most impressive in the sense that they were so docile yet nothing seemed to stop them. They didn't handle as precisely or go as quickly as the DKW and they may not have been as comfortable as the 250 but they kept up and stayed the course without complaint.

The six-speed Kawasaki is better set-up for off-road riding

strap on the seat. These dig painfully into the legs when you push yourself back on the seat — which seemed to be the position which suited most of the sections we travelled along.

Kawasaki say that the KS125 is developed from trials bikes and at a sedate pace along trails it was hard to remember it was only a 125. It was nimble and could be steered easily over ruts, while the motor responded to heavy going like it had at least another 100ccs tucked away.

One of the worst parts

tend to go by the board and the necessarily slow pace was offset by the panic to get back before opening time. Overall the Kawasaki was the least tiring in these conditions, mainly due to its light steering and its responsive manner. The DKW was certainly the easiest at the start of such a section because it had the power and the handling to get the front end light enough to skim over the wheel-wrenching mud, but you can't keep going faster and faster, at least, not when you're as cowardly as me you can't.

Suzuki's 100cc machine, although it lacked sheer power, wasn't short on staying power. It demonstrated this surprising quality by getting up a steep slope in deep sand without bogging down. It was a bit scary to start with, I daren't slip the clutch as a sudden burst of revs could easily have stood the Suzuki up on end. The sand gripped the wheels, the revs dropped right off but just when I was expecting the little motor to stall it suddenly found some more urge and ploughed on to the top of the slope at little more than tick-

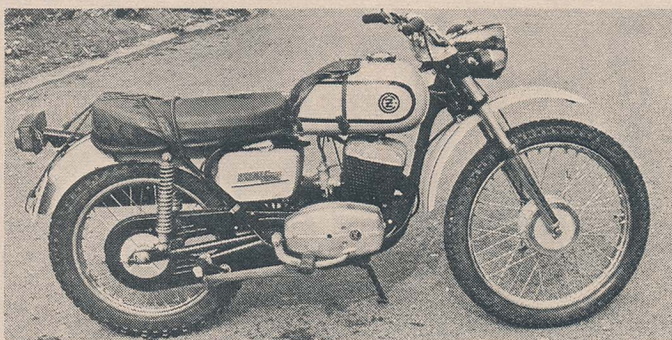


ing, the extra gear making sure that the engine never has to struggle. The disc valve induction gives good torque at low speeds, but the power isn't spread as thickly at the top end, making the Kawasaki lose out on road performance. Top gear was a bit too high for it to pull, after a short while the motor also seemed to lose power, possibly overheating, and slowed, at which point it felt and sounded happier in fifth gear.

My one complaint is about the metal clips holding the

CZ 175 TRAIL

Based on the roadster of the same size, the 175 CZ is economical on fuel and cheap to buy. Our test model was let down by poor preparation.



was a very long trail with deep ruts churned out of the waterlogged mud — the sort of place that once the front wheel gets into one of the ruts you either have to follow it or stop and lift the bike out. Every hundred yards or so there would be a muddy quagmire and because the trail was so narrow there wasn't the usual hard shoulder down the centre.

After two or three miles of this we were all exhausted — once you've got muddy the niceties of careful navigation

over speed.

As with the Kawasaki, its light weight obviously helped and contributed to easy handling. This was demonstrated on the second day. The Suzuki's back tyre punctured, tearing the tube. It was either caused by the enormous weight of our photographer or by an act of God. At least that's what we told Suzuki. The only way out was to ride the bike some fifteen miles back — the fact that it proved rideable at all says enough but in the main it

stayed pretty well controllable too.

The Suzuki 250 is a totally different type of machine to the smaller one; it is bigger and heavier and much more comfortable in terms of seat padding and suspension. After the other bikes it felt big and soft and spongy but the extra weight is more than balanced by the flexible power output from the single cylinder motor. It actually had the best power-to-weight ratio of the lot. All this combined to make it a machine which is very easy on the rider. If it wasn't as fast or responsive as the DKW, it demanded a lot less and so was less tiring over long stretches. It was also the best on the road — with a cruising speed in the 60s, the quickest without screaming the motor too cruelly — and probably comes closest to the true concept of a trail bike in this respect.

Our route covered about 65 miles on the first day, about 90 per cent of which was off metalled roads and remarkably incident-free. Towards the end the machines started to go on to reserve, one by one. First the TS100, then the DKW, then the bigger Suzuki and the Kawasaki. The CZ was the only one with plenty of fuel left, the DKW finally running dry a few hundred yards before the end of the journey. When we later worked out the consumption and range of each machine it turned out that the route was bordering on the maximum mileage for all but the CZ.

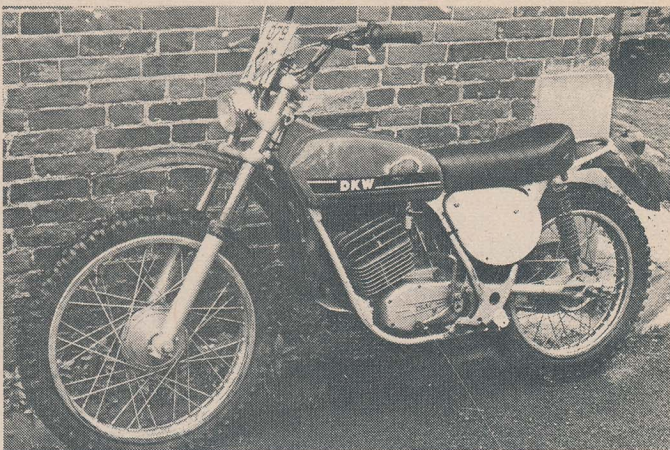
If there is such a thing as the average-ability rider then he would be able to get on quite well with all of the machines, although the DKW assumes at least a degree of aggressiveness if not a higher level of skill. The Japanese bikes are the easiest to ride and make the best compromise. The CZ is inexpensive.

I wouldn't like to say which was the best. The DKW was great fun but if a fair amount of road use was needed the TS250 would be better. While I would choose more power than the 100 or 125, several other people preferred them for their lightness and small bulk. There is as little as that in the final choice.



DKW 125

The 19hp motor used in the 125 DKW is surprisingly powerful, but fuel consumption is heavy. Handling is very good.



SPECIFICATIONS

	SUZUKI TS250	SUZUKI TS100	KAWASAKI KS125	DKW 125GS	CZ 175 TRAIL
displacement	246 cc	97 cc	124 cc	122 cc	172 cc
bore x stroke mm	70 x 64	49 x 51.8	56 x 50.6	54 x 54	58 x 65
compression ratio	6.7:1	6.5:1	7:1	11.8:1	8.6:1
ignition	PEI	magneto	magneto	breakerless magneto	cb/coil
hp at rpm	22 at 6500 SAE	10.8 at 7000 SAE	13 at 6500 SAE	19 DIN at 8800	15 at 5600
torque lb ft at rpm	18.8 at 5500	8.43 at 6000	10.7 at 6000	—	—
power to weight (hp/lb)	.090	.053	.060	.087	—
gears	five	five	six	six	four
gear ratios	2.416 1.800 1.277 1.00 0.826	2.818 1.816 1.388 1.100 0.869	2.60 1.69 1.25 1.00 0.84 0.75	4.60 2.93 2.16 1.72 1.43 1.24	25.17 13.54 9.20 7.36
gearbox sprockets alternatives	15 13, 14, 16	13 12, 14	15 14, 13	— —	13 14, 15, 16, 17
wheel sprockets alternatives	39 40, 41	49 47	45 50, 47, 54	56 58, 66, 67	— —
lubrication	CCI	CCI	Superlube	fuel/oil	Posilube
fuel tank	2 gal	1.4 gal	1.6 gal	2.1 gal	2.5 gal
mpg off road	42	51	49	33	53
range (miles)	84	71	79	68	152
tyres front	3.00 x 21	2.75 x 19	2.75 x 21	3.00 x 21	2.50 x 21
rear	4.00 x 18	3.00 x 18	3.50 x 18	4.00 x 18	13.50 x 18
suspension front	teles	teles	teles	teles	teles
rear dampers	5-way	3-way	5-way	3-way	—
dry weight	245 lb	202 lb	216 lb	218 lb	246 lb
steering lock	43 deg	40 deg	—	—	—
wheelbase	55.7 in	49 in	53 in	50 in.	51 in
ground clearance	9.8 in	7.7 in	9.6 in	9 in	8.5 in
overall length	87 in	79 in	84 in	77 in	79.5 in
overall width	35 in	33.5 in	35 in	28 in	26.3 in
lighting	6v battery	6v battery	6v battery	6v direct	6v battery
road cruising	60 mph	45 mph	45 mph	50 mph	50 mph
speed	wet	wet	wet	paper	paper
air cleaner	polyurethane	polyurethane	polyurethane	piston-ported	piston-ported
porting	7.9 feet	disc valve	disc valve	—	—
turning radius	7.9 feet	6.9 feet	6.6 feet	—	—
price inc VAT.	£485.50	£299.50	£339	£666.18	£260