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LIGHTNING STRIKES! RADICAL YZ 250G

THUNDER RIDE: BIG BUCK CCM 500

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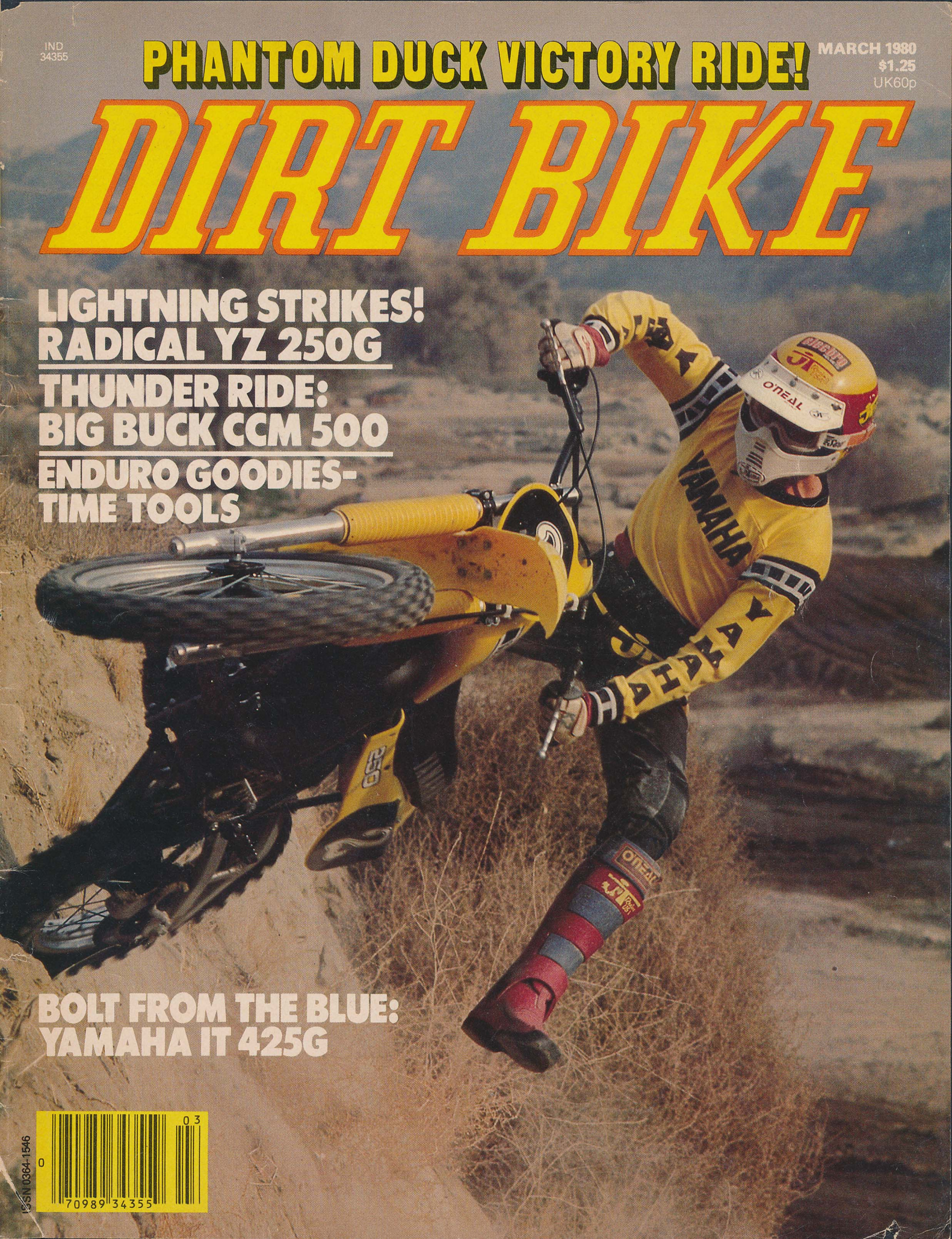

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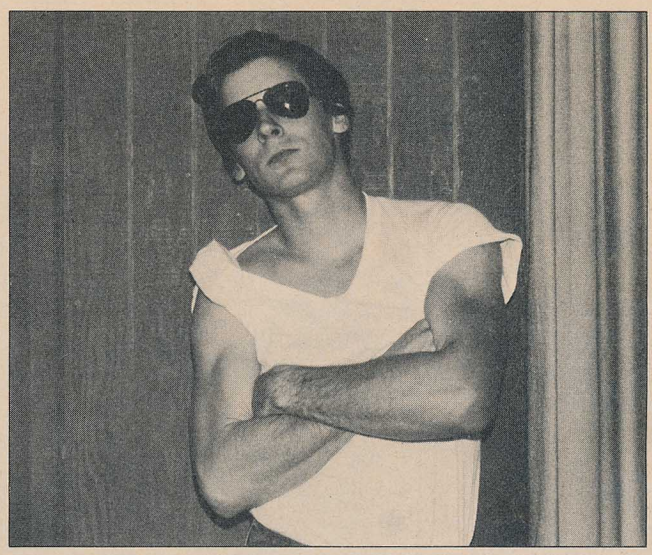

"The very best is barely good enough."

TESTS

COMPETITION

FEATURES

DEPARTMENTS

ON THE COVER:—Kenny Zahrt gets a little off-the-wall on the YZ250G for the lens of Paul Clipper.

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DIRT BIKE
CCM
1

1980 CCM 500 FOUR-VALVER

ROLLING THUNDER

Ultra-trick four-stroke at one thousand bucks per stroke

By the Editors of Dirt Bike

There is no logical reason for anyone to buy a CCM motorcycle. None whatsoever. The machine is horribly expensive, many outdated engine parts are the foundation and you most assuredly will not find a dealer on every corner.

Why, then, we must ask, did that great silvery beast attract a crowd everywhere we took it? Like so many flies to honey, people are drawn to gape at the new CCM 500. They come in ones and twos at first, then sort of kick at the ground and shuffle around making sage comments to each other. Before very many more minutes pass, a score of people or more will be mulling the bike over in small clusters, passing on supposed bits of lore and trivia about the bike to each other. Most of it —sadly—will be inaccurate.

Eventually, one or more will start asking questions of the testers or photographers. They learn that the CCM retails for $4250, plus tax and title, and they're stunned. They learn that the engine is nothing more than an ancient BSA that's been breathed on to the max, and eyeballs roll from side to side. They learn that it's a three-speed, right-side shifting gearbox, and jaws slacken and thump on chests.

Then, the inevitable question: "How can they charge over four thousand bucks for *that*?" We never really defend the cost of the CCM or try to rationalize its existence. But, you know what? All of those people standing around making jokes about the cost of the CCM would dearly love to have an extra four grand lying around and be able to give it to Martin Horn (Aero PA) for a new four-valve CCM. They'd love to have one in their garage, to polish, clean, wax and yes, even occasionally ride in the dirt.

No doubt about it, the CCM 500 is a handsome piece of machinery. The nickel-plated Reynolds 531 tubing frame is capped by a hand-formed aluminum gas tank and has that great whopping momma of an engine nestled in those shiny rails. The eye tends to wander over the lack of detailing and the obvious flaws. You dwell on the good looks and downright nasty appearance of the bike. It looks strong enough just sitting there to give a small truck fits in a tug of war.

Technical things you might want to know

Before we sling an editorial leg over the CCM, here's how it's made. CCM claims that the 531 tubing is much stronger than the more common chrome moly alloy found in most modern MXers. While this may or may not be true (we are not metallurgists), we can only wonder why they chose to plate the frame. Hydrogen embrittlement from plating is a very real thing and a painted frame—no matter what choice of tubing—will always be stronger. Still, looks sell.

Up front, CCM has their very own brand of forks and they, too, are made from Reynolds 531 tubing. CCM is proud of the strength of these units and claim that bending is almost unheard-of. The fork sliders are made of a light magnesium alloy called Electron.

At the rear, a set of Ohlins shocks ride on a banana swingarm. These fine units have a good reputation and are quite expensive. They invariably work well with a minimum of fiddling. Normal retail for a pair of Ohlins is over 300 bucks or so.

The engine on our 1980 bike was a four-valver with an actual 498cc of displacement. CCM also offers a 600 version. Both engines are based on a BSA bottom end, with a modified cylinder and valve gear. In spite of the fact that the basic engine is history, the work done in the combustion chamber is state-of-the-art four-stroke technology.

Our machine had a three-speed box with a right-side shift. Other CCMs we have tested have had a four-speed box. Apparently CCM feels that the 500 four-valve puts out enough power, so that a fourth gear is not needed.

Unlike previous total-loss ignition systems, the new CCM has a more conventional electronic system that requires no charging or maintenance. A welcome change, to be sure. Older CCMs used to require a charge to their dry cell battery every two to three hours. While this could be done with the supplied cables from most car batteries, it was very inconvenient and absolutely prohibited the use of the CCM for any long-distance racing, or serious trail riding.

You won't find an oil tank on the CCM. Oil is carried in the frame rails, as well as a filter. This trims some weight off the bike, but the oil lines are hanging out all over the place, just begging to be ripped off by a wayward rock. To compound this, no skid plate is supplied with the bike. Just riding over a fallen competitor's machine could wipe out the oil lines *and* the engine. No oil . . . no lubrication.

Getting the fire lit

We expected to have the usual miserable time starting the big single, but were pleasantly surprised to find that it lit off with ease, once the ritual was followed. To quote the manual:

Starting procedure

Before starting it may be necessary to free the clutch plates which tend to stick together if the machine is left for a period without use. This is accomplished by selecting fourth gear (top) and pulling the machine backwards sharply. When the clutch plates are free, select first gear and pull machine backwards until compression is felt. Select

neutral, operate carburetor tickler or choke and switch on ignition if total-loss type is fitted. Operate kickstart lever through full stroke when engine should start. Should engine fail to start, repeat the procedure. If engine kicks back heavily, then this is an indication that the ignition is set too far advanced. This condition should not be allowed to continue or damage to kick-start mechanism may result.

Quaint. Only one thing makes this more awkward than it reads, and that is the fact that the kickstarter is preset to engage the kicking pawl at about half-way down through the stroke. This means that the kickstarter cannot be raised to the normal angle one uses on any other bike in the world. The horizontal positioning didn't prove a problem, though, as the CCM usually fired up after two or three decent boots. A bit of care must be taken to keep from thwacking the instep on the footpeg.

Once things got stirred up properly, the CCM would sniff the spark, take a gulp of gas and air, then snort into life with a spine-tingling, booming rap. The utterly beautiful sound of a real, honest, no-bullshit motorcycle exhaust would shudder up and down as the throttle was blipped. A moderate amount of mechanical clatter merely added to the mellow sound.

Yes, the CCM is on the loud side. But it's a different sort of loud. It's not the sort that hurts the eardrums and makes people wince... it's the kind that makes people turn their heads to drink up the sound. It's totally different from a TT500, or a highly modified XR500. The sound is almost primeval and probably brings out the caveman in all of us. When you hear the CCM, you want one. As simple as that.

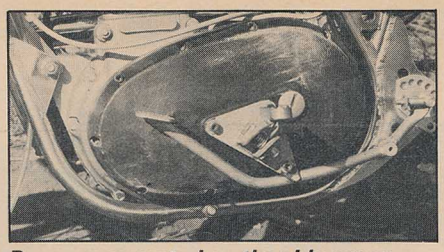
Take a ride

When you sling a leg over the saddle, things don't feel set up like the bikes you might be used to. The pegs are far forward. Too far forward. It makes riders tuck their knees up awkwardly, and getting to a standing position demands a tug on the bars. There simply is no justification for this layout.

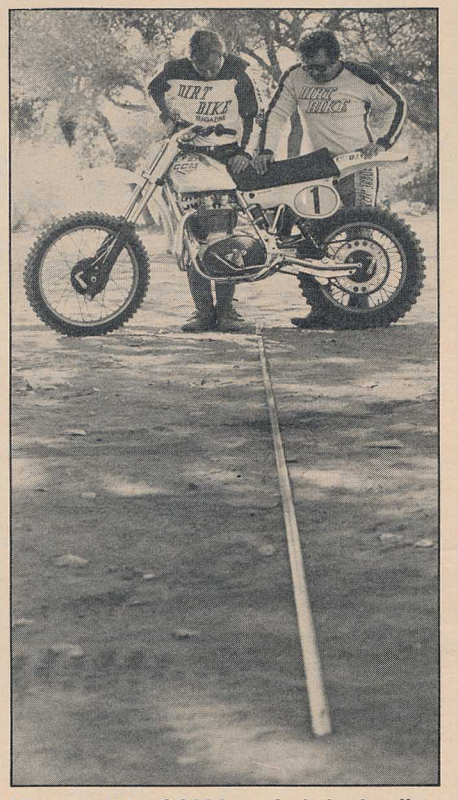
When the bike is slipped into gear, a clunk is felt through the shift lever. Some things never change. Pull on the clutch is hard, enough to tire the hand out if the clutch had to be used on a regular basis.

Ease out on the clutch and feed some gas to the Amal carb and the CCM rolls easily off, with no lurching, snatching or grabbing. You can tell right away that low gear is not needed.

A shift into second at very low speeds does not even begin to bog the engine. The bike pulls surprisingly smoothly. A stock Honda XR500 is grabby by comparison.



Pegs are mounted on the side cases. Even though this method looks weak, it works.



We rolled the CCM in a circle in the dirt to check out the steering radius. Our tape showed about 20 feet; way too much.

When you get to the starting line, you roll the bike over the starting gate, then nail the throttle. A powerful surge takes charge and the CCM churns off the line like a good thing. The blast of power at mid-range is equal to any big-inch two-stroke to be found, and just when you think you should shift, the CCM revs out like a road racer. Strangely, little vibration is felt through the bars as the CCM approaches a condition of over-rev.

A longish stab at the shift lever gets third gear and the CCM positively leaps forward. It does this, though, without the front end clawing up. At full throttle in third gear, the CCM is as fast as any bike on the track, if not faster. Even with the rather limited three-speed gearbox, the top end is more than enough for any motocross track you're likely to race on. And, for trail riding, the top end is sufficient. About the only place the lack of a fourth gear will prove a handicap, is in a cross-country event.

So, here we are in third gear on the CCM, with the engine pulling like a 16-year-old and the first turn looms up. Backing off the throttle lets the engine compression do some of the slowing down, and a tap at both brake controls hauls the big bike down quickly with no chattering at either end.

Here's where the problems start. The CCM has a distinct tendency to push the front end in corners. The logical way to compensate for this is to get a big handful of throttle and power

CCM 500 Specifications

NAME AND MODEL	1980 CCM 500
ENGINE TYPE	500cc four-stroke single, four-valve head
BORE AND STROKE	84mm x 90mm
DISPLACEMENT	498cc
HORSEPOWER (CLAIMED BY FACTORY)	50 at 7000 rpm
CARBURETION	34mm Amal
FACTORY RECOMMENDED JETTING:	
MAIN JET	250
NEEDLE JET	107 or 106, depending on area
JET NEEDLE	Standard
PILOT JET	35
SLIDE NUMBER	2.5
RECOMMENDED GASOLINE	Premium—100 octane
RECOMMENDED OIL (MFR)	Castrol "R" bean oil—40-weight
FUEL TANK CAPACITY	1.25 gallons
FUEL TANK MATERIAL	Aluminum
GAS/OIL RATIO	N/A
LUBRICATION	Oil in frame, dry sump
OIL CAPACITY	Five pints
AIR FILTRATION	Oiled foam
CLUTCH TYPE	Wet, multi-plate
TRANSMISSION	Three-speed, right-side shift
GEARBOX RATIOS:	
1	1.71-1
2	1.27-1
3	1.00-1
GEARING, FRONT/REAR	14/58 or 14/60
IGNITION	Electronic—magnetic trigger
PRIMARY KICK SYSTEM?	No
RECOMMENDED SPARK PLUG	Champion G-63
SILENCER/SPARK ARRESTOR/ QUALITY	None—loud
EXHAUST SYSTEM	Straight pipe, extractor tip
FRAME, TYPE	Reynolds 531 tubing
WHEELBASE	59 inches
GROUND CLEARANCE	Approx. 12 inches
SEAT HEIGHT AT TANK	36.5 inches
WEIGHT WITH ONE GALLON GAS	247 pounds (dry—236)
RIM MATERIAL	Aluminum (Akront)
TIRE SIZES:	
FRONT	3.25x21 knobby
REAR	5.00x18 knobby
SUSPENSION:	
FRONT, TYPE	CCM telescopics
REAR, TYPE	Ohlins shocks—banana swingarm
INTENDED USE, MFR.	Off-road and MX racing
COUNTRY OF ORIGIN	England
PRICE, APPROX	$4250
PARTS PRICES, HIGH-WEAR ITEMS:	
PISTON ASSEMBLY, COMPLETE	$110
RINGS ONLY	$43
CYLINDER	$180
SHIFT LEVER	$12
BRAKE PEDAL	$12
FRONT SPROCKET	$27
DISTRIBUTOR:	CCM Imports, Inc. Rt. 1 Huntley, Illinois 60142 (815) 923-2155
OVERALL RATING, FROM 0 TO 100, VARIOUS CATEGORIES, KEEPING INTENDED USE OF MACHINE IN MIND:	
HANDLING	75
SUSPENSION	75 front—95 rear
POWER	98
COST	60
ATTENTION TO DETAIL	70
EFFECTIVENESS, STONE STOCK	75

through the corner with the rear end hanging out slightly. The only flaw here is that the steering lock is so limited, that doing this invites a high-side. The obvious cure is to saw some of the protruding fork stops off and give the forks a greater range of movement. Still, one can't go too far without the forks hitting that beautiful gas tank and putting a dent or two in the metal. The CCM should come with clearance grooves in the tank and shorter stops.

We put a tape measure on the ground and measured the turning radius of the CCM with the bike bolt upright. It was close to 20 feet, which is in the league of a small Greyhound bus. Inexcusable!

Jim Connolly, our Senior Tester and a confirmed four-stroke addict, told us that the CCM was actually dangerous to ride quickly with the limited steering movement. We whipped a hacksaw out of the Official DIRT BIKE Combination Toolbox and Beer Cooler and attempted to saw through those offending stops.

Fat chance. That Reynolds tubing is tough stuff. Our high-class hacksaw merely blunted its teeth off, leaving only minor scratches on the surface. Jim took the CCM back to his machine shop at a later date and carved it away with a carbide grinder.

Because of the steering problems and the front-end washout, we were forced to use every berm on the track to get the CCM to turn. We only had to shift twice on the Indian Dunes International track, but this was a problem, as the gearbox showed a reluctance to downshift smoothly.

To get the next lower gear, the rider had to lift up lightly on the shifter and then snub it down. We called CCM and they explained how to adjust the shifting mechanism to correct this. To get to the slotted nut adjuster, the side case had to be removed. There just has to be a better setup.

In spite of the downshifting hassle, Jim was still able to turn some very respectable lap times. The only thing that kept him from going full honk on the track was the ever-present threat of a highside from the aforementioned steering limitations.

Suspension

We could find no fault with the rear end of the CCM, but the forks felt harsh compared to just about any 1979 bike we have ridden. We put a tape on the fork tubes and the dust marks indicated only about nine inches of up travel. Not enough in this day and age. CCM must either improve their own forks or go to another fork. The fork action must be rated below average.

CCM recommends very high tire pressures... in the 18 to 25 psi range. With the Dunlops, we found poor traction at this pressure and found the tires only acceptable at the 8 to 10 psi range. We'd rather see a Metzeler up front and the biggest Terraflex we could find on the rear.

Bits and pieces

Our bike came with the British standard breather... an Amal carb. We found no faults with it, and carburetion was clean throughout the range.

CCM forks are made of 531 tubing. While strong, they were on the harsh side.

Getting to the choke lever was accomplished by reaching a finger through a hole in the side panel, a minor inconvenience.

Pegs are mounted directly on the side of the cases. Everyone who examined this was astounded, and wondered about the strength, but their worries are needless. Only a bad crash will make the peg mounting bend or fail.

Huge gussets buttress the banana swingarm. There should be no problem here.

The pipe exits the exhaust port and bends gracefully around to end forward of the shock. The only problem here is the very sharp edge of the muffler (?) tip that looks like a natural ankle-snagger. This should have been taper-cut in the opposite direction, or be directed downward.

No one complained about the saddle, which meant that it was correct. Proper things tend to go unnoticed.

A cable actuates the rear brake, where a rod would do the job as well.

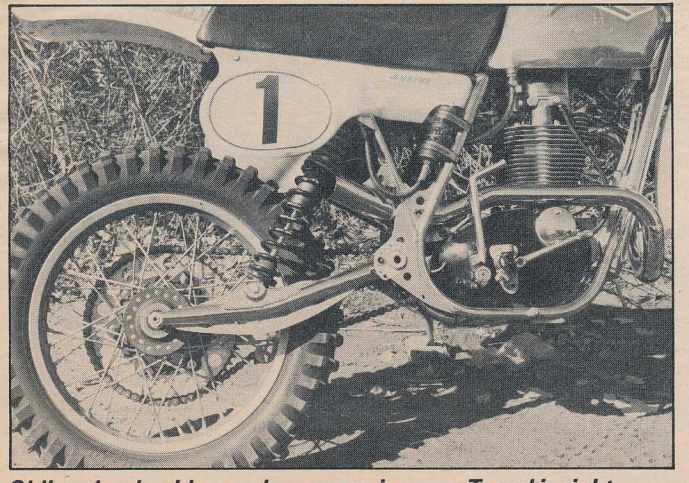
Fenders and other plastics are decent stuff.

Is it worth it?

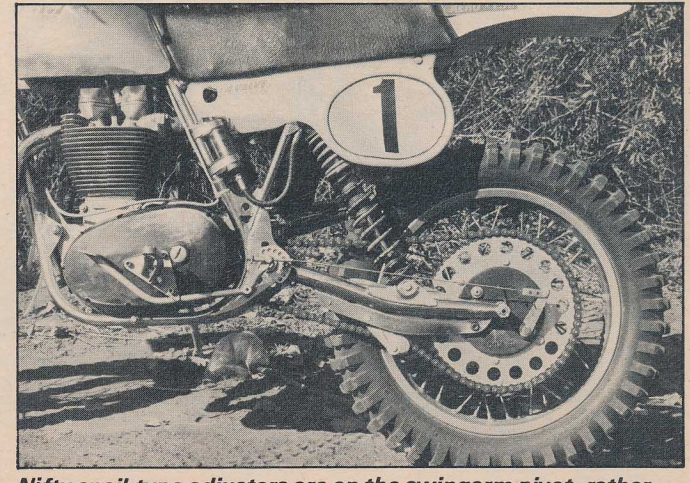
Of course not. Is a Ferrari worth it? Is a Porsche worth the bucks? Still, there are people who want something exotic, with enough performance to thrill them. To that select cluster of people, the CCM is a natural choice, except for one thing. Until CCM moves that shifter over to the left side, like everyone else in the world, they are just not going to find people eager to add this bike to their collection.

Most people who would consider buying a CCM have more than one bike in the garage. And, you can bet your buns that bike is a left-side shifter. A rider should not be asked to adapt and readapt from side to side.

If CCM does this, they'll find that elusive market they're searching for. And they'll sell every one they make. If not, they'll only appeal to the riders who grew up on BSAs, Matchlesses and other junk of that era. □



Ohlins shocks ride on a banana swingarm. Travel is right around 11 inches.



Nifty snail-type adjusters are on the swingarm pivot, rather than at the rear axle.