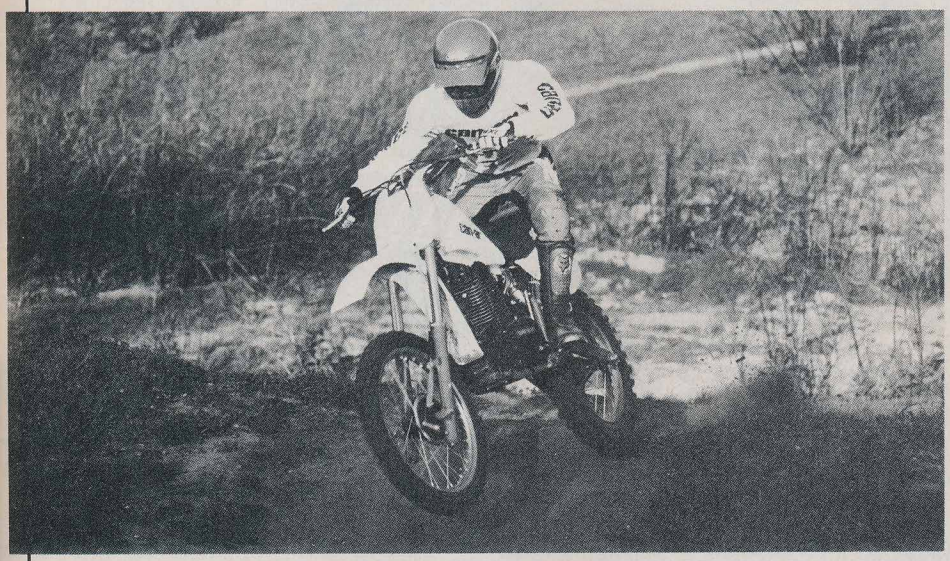
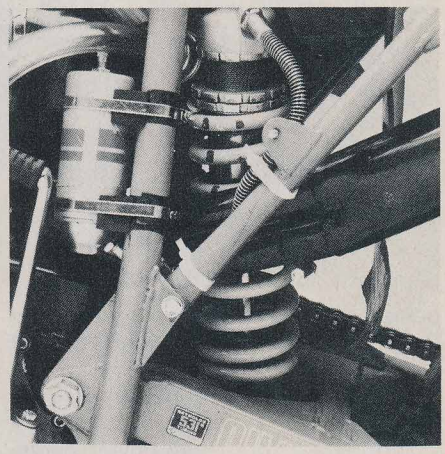
CAN-AM SONIC MX

Competition in the big-bore thumper class gets tougher every year, but Can-Am is staying right up front with a new single-shock Sonic.





□ When Can-Am introduced its new four-stroke 500 last year, it was a dream come true for die-hard thumper fans. Until then, factory-produced four-stroke singles were generally play-bikes, victims of inferior chassis and suspension systems. The 1982 Can-Am was a breakthrough; it had first-rate suspension components and handled like a serious competition machine. For 1983 the Can-Am gets an all-new British-built single-shock chassis and significantly improved running gear.

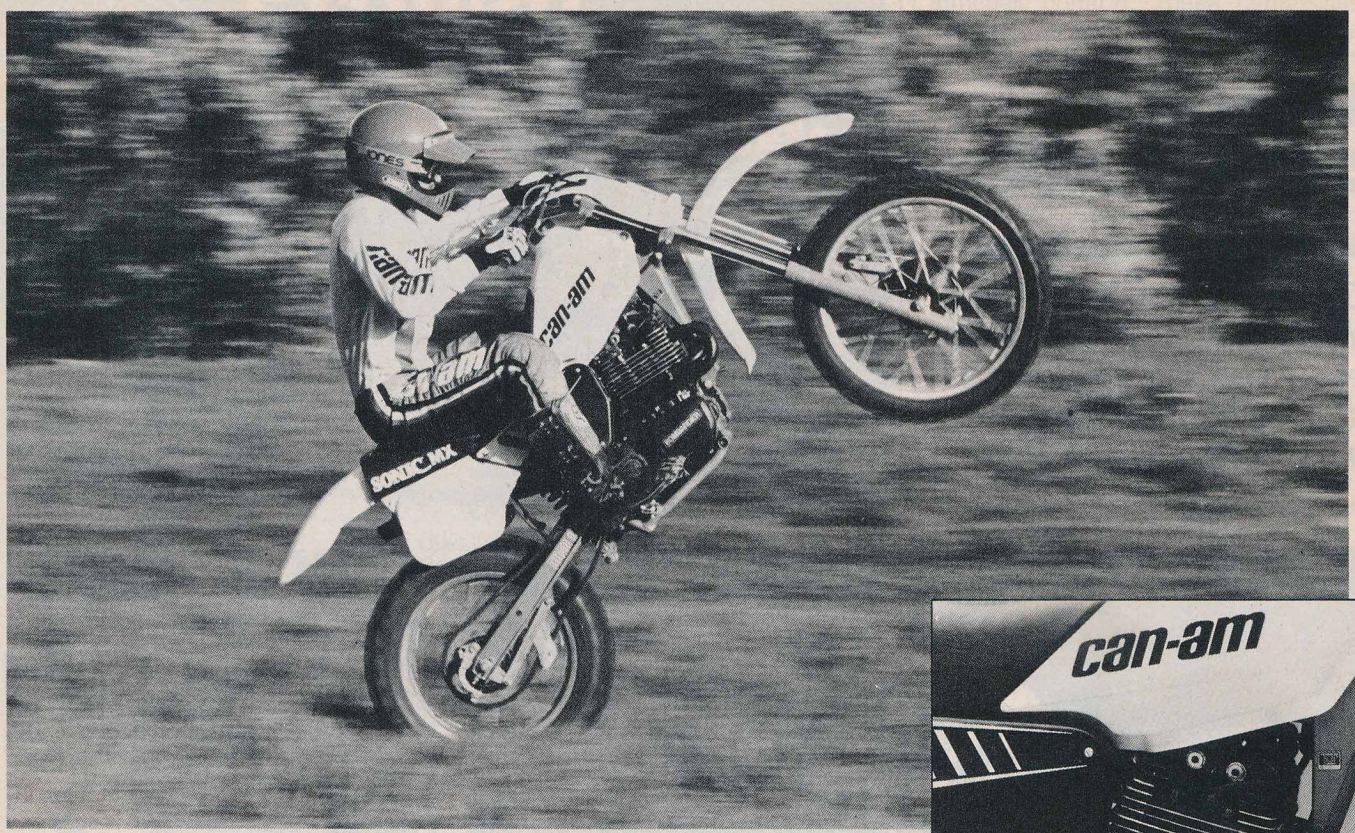
The new single-shock rear suspension system, dubbed Quad Link, uses an Ohlins damper which bolts to the frame at its top mount and attaches to a bell-crank linkage at its bottom. This rising-rate linkage produces a compliant, comfy ride through the initial portion of the rear wheel's arc yet controls the rear end over large bumps and jumps. The remote-reservoir shock features 40 rebound settings. Threaded lock rings set spring preload adjustment.

The 1983 Sonic fork differs from the 1982 front end, which carried a Marzocchi piggyback-reservoir fork with magnesium sliders, 42mm fork tubes and Piffero progressive-action damper rods. The current fork, an aluminum-slider 40mm Marzocchi unit *sans* reservoir, still incorporates the Piffero damper rods. For further reduced stiction, each leg has dual Teflon-coated bushings; last year's Marzocchi used single bushings.

The new Quad Link chassis uses the engine as a stressed member, tying steering head to swing-arm pivot rigidly and yielding excellent handling in the field. The Sonic's quick steering is remarkably precise for a big bike, and the suspension performs well in all circumstances. The 500 tracks straight and true over whoops and stutter bumps without a hint of side-hop, and the big Can-Am lands off large jumps and drop-offs with a softness that belies its size. Although the Quad Link running gear has a wheelbase one-half-inch longer than last year's twin-shock Sonic, the 1983 bike's 28-degree steering rake has been pulled back 1.4 degrees. We think this year's bike is more agile than last year's without sacrificing high-speed stability. A lower seat and trimmer riding position strengthen this impression, as does the reduced weight: Can-Am clipped 18 pounds.

By name, the Sonic MX is a motocross machine. In fact, though, the Sonic is neither as light nor as powerful as a two-stroke motocrosser, nor could anyone reasonably expect it to be. The 1983 Honda CR480, for example, tested in March, weighed 231 pounds, 46 pounds less than the 277-pound Sonic. The Can-Am is 16 pounds heavier than the Yamaha IT490K, tested last issue, and that 251-pound two-stroke enduro carries lights, a spark arrestor and tools. Realistically, the Sonic would make a better Hare Scrambles bike than a race-ready motocrosser going head-to-head with the latest two-strokes, but the Can-Am would be quite competitive as a thumper-class motocrosser.

Even though some motocross riders could lap just as quickly on the Sonic as on certain two-strokes, the best riders will be quicker on the lighter, more



powerful machines. You can expect the Sonic to be good; you can't expect it to be magic.

Since Can-Am fine-tuned the engine for motocross use, you might think it would have a top-heavy power curve. Not so. The Sonic pumped out a high of 32.48 horsepower on the dynamometer, putting it 1.0 ponies up on the KTM 504 and 1.5 up on last year's Can-Am. At peak output these four-strokes are all about 10 horsepower under the CR480 Honda two-stroke (42.2 horsepower). The Sonic's powerband, however, is a model of smooth, predictable delivery; the torque curve is table-top flat, and the engine continues making power past 10,000 rpm.

To the four-valve powerplant, basically the same as last year's, Can-Am engineers made a few racing-oriented changes: they boosted the compression ratio (10.5:1 from 9.2:1), redesigned the camshaft, and tossed out the engine counterbalancer, cutting seven pounds. Furthermore, the compression release, once standard, is now an option.

The Sonic vibrates noticeably—more than it did last year, but not more than you'd expect of a 494cc single; even without the counterbalancer the present level of vibration is acceptable.

Noise level is another thing. As a full-blown four-stroke MX bike, the Can-Am sports a straight-through pipe which fires off ear-splitting bursts of exhaust thunder. Can-Am doesn't currently offer a silencer package, and the unusual two-into-one exhaust complicates fitting a silencer/spark arrestor.

Our Sonic carbureted well; an occasional glitch down low was the only flaw. The big Can-Am also shifts easily and accurately, and the clutch resists fade better than last year's unit. We missed the compression release a few times when we stalled the bike; it would facilitate bump-starting.

Details? Good and bad. The plastic body pieces are very durable, and the 2.3 gallon gas tank (0.3 gallon less than last year's) should be adequate with the Sonic's modest fuel appetite. Cold-starting is difficult—the choke lever is nearly impossible to use. With choking, the engine usually starts within two or three kicks, but the rider must wait for it to warm because he can't flip the lever off while astride the bike.

As it stands now, the Can-Am Sonic is the best four-stroke dirt bike we've tried. But the competition in the thumper class continually toughens—besides KTM's 504, Honda and Yamaha offer brand-new big-bore off-road singles this year. At $3120 the Sonic MX is also *the* most expensive dirt bike on the market. Consider it the price of improvement. In the ever-more-competitive world of four-stroke dirt bikes, premium price must bring superior performance. For small manufacturers, that's the rule for survival. ■

Vital Statistics

Make & model ..... Can-Am Sonic MX
Price $3120

Engine

Type ..... Four-stroke, single-cylinder; air-cooled with one belt-driven overhead camshaft; four valves per cylinder
Bore & stroke ..... 89.0 x 79.4mm (3.50 x 3.13 in.)
Displacement ..... 494cc (30.2 cu. in.)
Transmission ..... Five-speed, constant-mesh, wet-clutch

Chassis

Type ..... Single-downtube frame with engine as stressed member; box-section steel swing arm
Suspension, front ..... Leading-axle, air-adjustable fork with 40mm tubes, and 11.6 in. (295mm) of travel
rear .. (1) gas-charged, remote-reservoir shock absorber, adjustable for spring preload and rebound damping, producing 12.3 in. (313mm) of rear-wheel travel
Brake, front ..... Cable-actuated, single-leading-shoe drum
rear ..... Rod-actuated, single-leading-shoe drum
Tire, front .... 3.00/3.20-21 Pirelli Pentacross MT25E
rear ..... 5.00-18 Dunlop K88
Fuel capacity ..... 2.3 gals. (8.7 l)
Weight (w/one gal. gas) ..... 277.0 lbs. (125.6 kg)