



□ "Is there anything you want me to change?" asked Mike Chavez, Damon Bradshaw's mechanic. "Bars, pre-load, lever position?" We looked at him as though he was crazy. We had come to ride the bike that Damon had used to win Anaheim, Houston, Pontiac, Charlotte, Los Angeles and Mt. Morris; why would we want to change anything? "Let me know," said Chavez as he poured gas into the 1990 YZ250.

Yamaha had delivered Damon's bike to the *MXA* test crew in the exact condition it had been in the last time Damon rode it. Chavez had cleaned it, loaded up his box

van and met the wrecking crew at Perris Raceway. We were intent upon learning everything there was to know about Bradshaw's factory YZ, and even though Mike offered to set it up for us, we wanted to ride it with all of Damon's personal touches.

Little did we know that riding Damon's bike requires some serious changes in attitude—some good and some bad. Every test rider came in from his first warm-up laps with the same comments: "The worst bars on the planet, and the broadest powerband in the solar system," said the astronomers in the bunch.

TRYING TO HANG ON

Damon's personal bar bend was the subject of a lot of complaints. It's hard to imagine that a rider as fast and as young could have selected such an old-fashioned bar bend. Damon's Answer Alumilite bars are very tall with the bar ends swept back and up. The bar bend cramps the wrists by turning them outward and upward. Indisputably, Damon's bars are the strangest on the National circuit.

Equally indisputable is the incredible spread of power the Yamaha factory was able to get out of Damon's YZ250 motor. It was as shocking as Damon's bar bend. To



RIDING THE FACTORY BIKES

WE RIDE BRADSHAW'S YAMAHA YZ250

Damon's factory Yamaha yields surprises

tell the truth, the *MXA* test crew had expected the factory Yamaha to have a hard midrange powerband that enhanced the explosive and quick nature of the stock YZ motor. By no means were we expecting smoothness, tractability and a top-end rev that could make dogs howl three miles away. Damon's motor was awesome—powerful but manageable.

HOW DID IT RUN?

Tuner Bud Aksland spec'd out the cylinder porting for Team Yamaha, while Bob Oliver did the porting at the Yamaha race shop. A Bill's Pipe is mated to a Pro Circuit silencer to provide the final exhaust

touches. We snooped as deeply as possible into the YZ250 motor, looking for works parts left over from the old days or some super-secret gizmo, but there weren't any. The carb was a stock 38mm Mikuni. We did notice that the float bowl drain nut had been milled down. Chavez told us that Yamaha milled the nut to keep it from vibrating against the cases. The reeds were stock units with the stops set at standard height. The plug was an NGK B8EV and the gearing was 14/49. Chavez said that occasionally Damon would opt for a 50-tooth rear sprocket.

The ignition was different, but it wasn't

unobtainable. A 1989 YZ250 ignition was used on Damon's bike, and Chavez said that different-size rotors were used to match track conditions. A check of the gas tank revealed VP-C12 racing fuel with Yamalube-R oil mixed at 35:1.

The workmanship and hop-up were thorough, but nothing hinted at the performance that lurked inside Damon's YZ250 motor.

As you snick the bike into first gear and blip the throttle on your way to the starting line, you don't feel anything special. It doesn't jump out of your hands or jerk your elbows to full lock. It just motors, and



TECHNICAL SHEET INSIDE DAMON'S YZ250

• MOTOR

Porting	Bud Aksland
Pipe	Bill's Pipes
Silencer	Pro Circuit
Carburetor	Stock YZ
Reeds	Stock YZ
Plug	NGK B8EV

SUSPENSION

Forks ...	43mm Kayaba aluminum tubes
Triple clamps	Magnesium
Shock	Works Kayaba
Linkage	Stock YZ
Axles	Titanium

CHASSIS

Frame	Stock YZ
Hubs	Magnesium
Tires	Dunlop K490/695
Rims	Excel
Air filter	Uni
Bars	Answer
Weight	218 lb. •

feels a tad sluggish at that. Behind the starting gate you select second gear and, because this bike has won races all around the world, you decide to give it everything you've got (no use plunking around on a factory bike). When the gate drops, you launch over the gate with a healthy handful. It goes, but you're disappointed. "Where's the explosion?" you ask yourself. "How come it's not shredding a trench six inches wide?" you wonder as you grab third gear. "Why isn't . . ." and before you can finish, the front wheel has started to climb towards the sky. It's wagging there, waiting for you to loop out or go for it. You shift to fourth and your eyes start to water. Fenceposts are blurring by on your left. "No more," you scream inside your helmet and shut down the throttle.

COOLING OUR HEELS

Around the first turn you take a quick breather. You probably just leaned back too much, but for the next couple of corners you cool it with the throttle. "Funny," you think to yourself, "it doesn't feel incredibly powerful." There is no burst of power, no uncontrollable surge and no explanation for how such a mellow-feeling motor had gotten you to the first turn in such a frenzy. After cruising for the first half-lap, you decide to unwind Damon's YZ and air it out on the back straight. Coming out of the berm the YZ250 has a very controllable feel. The bottom-end power is predictable, controllable but not works-like. As you crank the bars, and your wrists, out of the berm the motor begins to accelerate. You come out of the berm in second gear and you have your foot under

the shift lever ready to make that tricky YZ upshift to third. Coming into the midrange, Damon's bike begins to lift the front wheel and climb onto an obviously powerful mid-range. Your foot is waiting to shift. The front wheel stays a foot off the ground as you begin to hit the top-end. You're still waiting to shift when you reach the end of the straight.

"It can't be true," you say to yourself. "I just did a third-gear straight in second gear. I must really be dogging it." Out of the next turn you rap the YZ on, and the same thing happens again. The power builds steadily, geometrically and endlessly. It goes and goes—only on this straight you shift to third gear, not because the YZ needed to be shifted but because you felt like a major flog riding around the track in

Damon's bike: With the exception of the magnesium wheels and works shock, most of Damon Bradshaw's 1990 Yamaha YZ250 is available from over-the-counter suppliers. It has the awesome motor of all time.

second gear. Heck, go for fourth; after all, the rest of the wrecking crew is watching. It pulls tall gears, revs out low gears and does it all with a beautifully controllable crescendo of power.

All of this power is emanating from a 1990 YZ250 motor. With the exception of porting, pipe and ignition mods, it is almost stock.

YAMAHA DOES HAVE TRICKS

The power is the most impressive part of Damon's bike, and the bars are the most depressing thing, but there is a lot of trickery hiding behind the plain-looking YZ.

The axles, shock linkage pivot bolts and swingarm bolt are all titanium. Ultra-light magnesium wheels are laced to red label Excel rims with aluminum spoke nipples in the front and brass nipples in the rear.

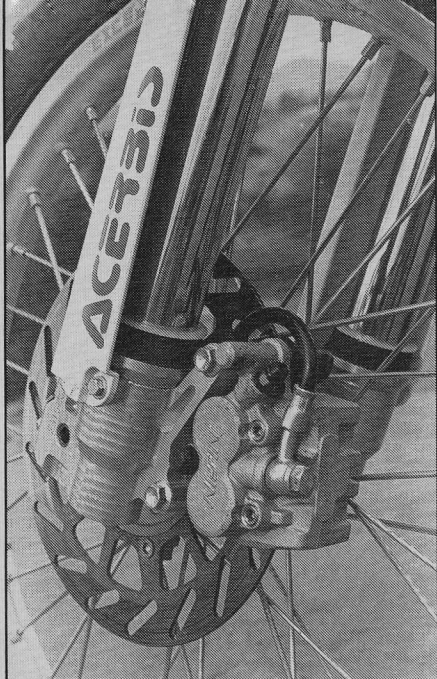
Most of the non-stressed bolts are aluminum Pollipolini bolts from Italy, while the remainder are titanium.

Damon, like all factory riders, runs wider footpegs than stock. He uses Scott MX-2 grips with Scott grip tape on the brake and clutch levers. A stock YZ250 throttle is used.

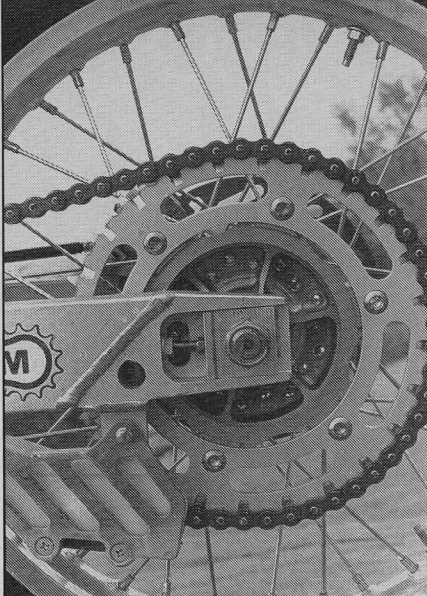
For sand tracks Damon normally runs a Dunlop 752 on the rear, but for most track conditions he chooses either a Dunlop K695 or the (unavailable) 704.

Inside the tranny the factory has a few tricks to improve shifting. First, they polish

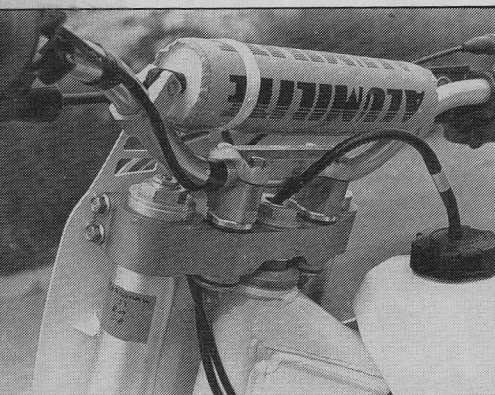
BRADSHAW'S YZ250



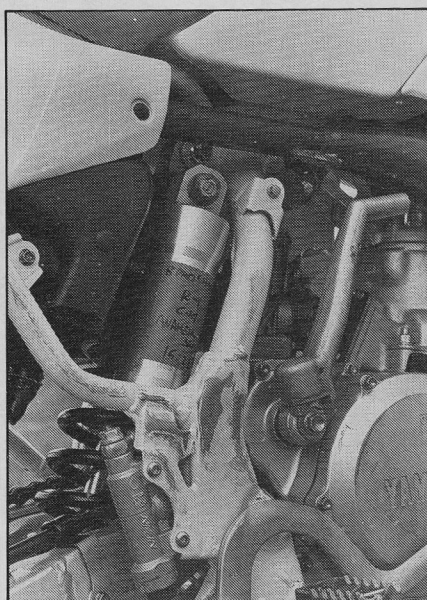
Top-heavy: The top half of Damon's Kayaba forks may be standard-issue aluminum stanchion tubes, but the lower clamps are hand-milled magnesium parts with a special bracket that allows the YZ250 to use a larger front disc. The urethane bumper acts to lessen the effects of bottoming.



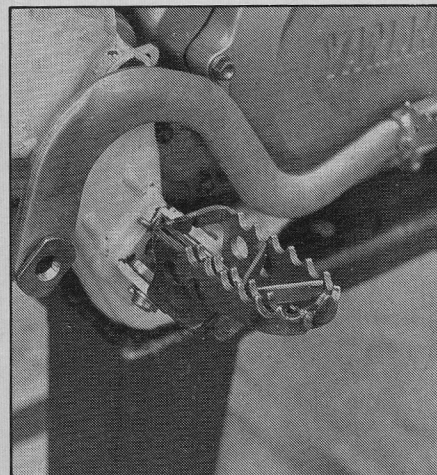
Rear end: A standard YZ swingarm is outfitted with a titanium rear axle, Afam 49-tooth sprocket, magnesium hub and Takasago Excel red label rims. Damon's choice of tires varies with terrain, but is typically a Dunlop K490 front and K695 rear.



Mix and match: Beefy magnesium triple clamps house 43mm aluminum (surprise) forks. Most of the bolts on Damon's bike are titanium or aluminum, but the triple clamp bolts are stockers.



Trick stuff: Kayaba supplies Damon Bradshaw's YZ250 with a billet aluminum shock. Unlike most of the factory teams, Yamaha does not run different shock linkages or rising rates. The swingarm pivot bolt and shock linkage bolts are titanium.



Low cost: Rather than spend the big bucks that Honda did to cast wider footpegs for their works bike, Yamaha simply welded an extra cage to the back of Damon's pegs.

life. The front brake has a bigger rotor (with the caliper hanger machined to accept it), plastic brake line and a stock master cylinder.

The air filter is a Uni filter. Mike Chavez zip-ties the airbox to the frame to keep it from bouncing around in stadium whoops.

A CLOSE LOOK AT THE SUSPENSION

Damon sets up his suspension a bit differently than most of the works bikes we have ridden. The front forks aren't that different. The 43mm Kayaba works forks use a magnesium casting for the axle clamps, aluminum stanchion tubes, magnesium triple clamps, oversize aluminum steerer tube, stiffer fork springs and a special urethane bottom-out bumper on the fork leg.

In action the forks were very solid, well damped and firmly sprung. Although not as responsive to small bumps as they could be, Damon's works forks absorbed everything bigger than a whoop like it was silk-upholstered. The faster you went, the better the forks worked. Big jumps, which most local racers allow their bikes to bottom on, didn't get all the way through the works Kayaba's travel range. Bradshaw's fork setup mimicked most factory riders' desire for forks stiff enough to handle quasar jumps and the heck with the little stuff.

On the rear we were shocked to find a very supple rear shock. Yamaha uses the stock 1990 linkage connected to an aluminum-bodied Kayaba works shock. It was equipped with a stiffer spring, but basically was a soft, absorbent and pliable rear end, perhaps the softest rear suspension we had ever felt on a works bike and a major contrast to the stiff front forks. It's no secret that guys who win supercrosses and Nationals go faster than mere mortals; thus, they hit bumps at higher rates of speed, jump farther, land harder and generally need stiff (super-stiff) suspension to handle their acrobatics. Damon had a stiff front end on his YZ, but used rear suspension that would work perfectly for the average guy (regardless of his speed).

AS THE DAY CAME TO AN END

We wore out Damon's factory YZ250. We started riding in the morning and kept going until the sun set. Most factory bikes are pampered during the racing season. They are used for Nationals and supercrosses, and some limited testing, but if Damon wants to go out and practice during the week he rides a practice bike. The number of hours on a factory bike in a season are amazingly small, and even then it gets new parts to eliminate the possibility of failure. There's no doubt that our eight hours of trashing Damon's bike shortened its and Mike Chavez's life by a considerable amount. Don't worry, though; Damon got a new 1991 Yamaha YZ250 the day after we rode his bike, and the bike he rode to so many victories in 1990 was relegated to the parts bins back at the factory workshop. □

the shift drum to lessen stiction. Second, they mill out the cases at the shift shaft and install a bearing to allow the shifter to move unhindered. Third, Damon uses Maxima transmission oil. Finally, the clutch is equipped with works clutch plates, and both the aluminum and fiber plates are of higher quality but not different in dimensions or width. Clutch springs are stock.

Damon likes his saddle to be firm. Mechanic Mike Chavez replaces the stock seat with a new one, with Damon's personalized seat cover, every two races.

For stopping power Damon uses a stock rear brake setup with Motul 300c brake fluid and accessory brake pads for longer