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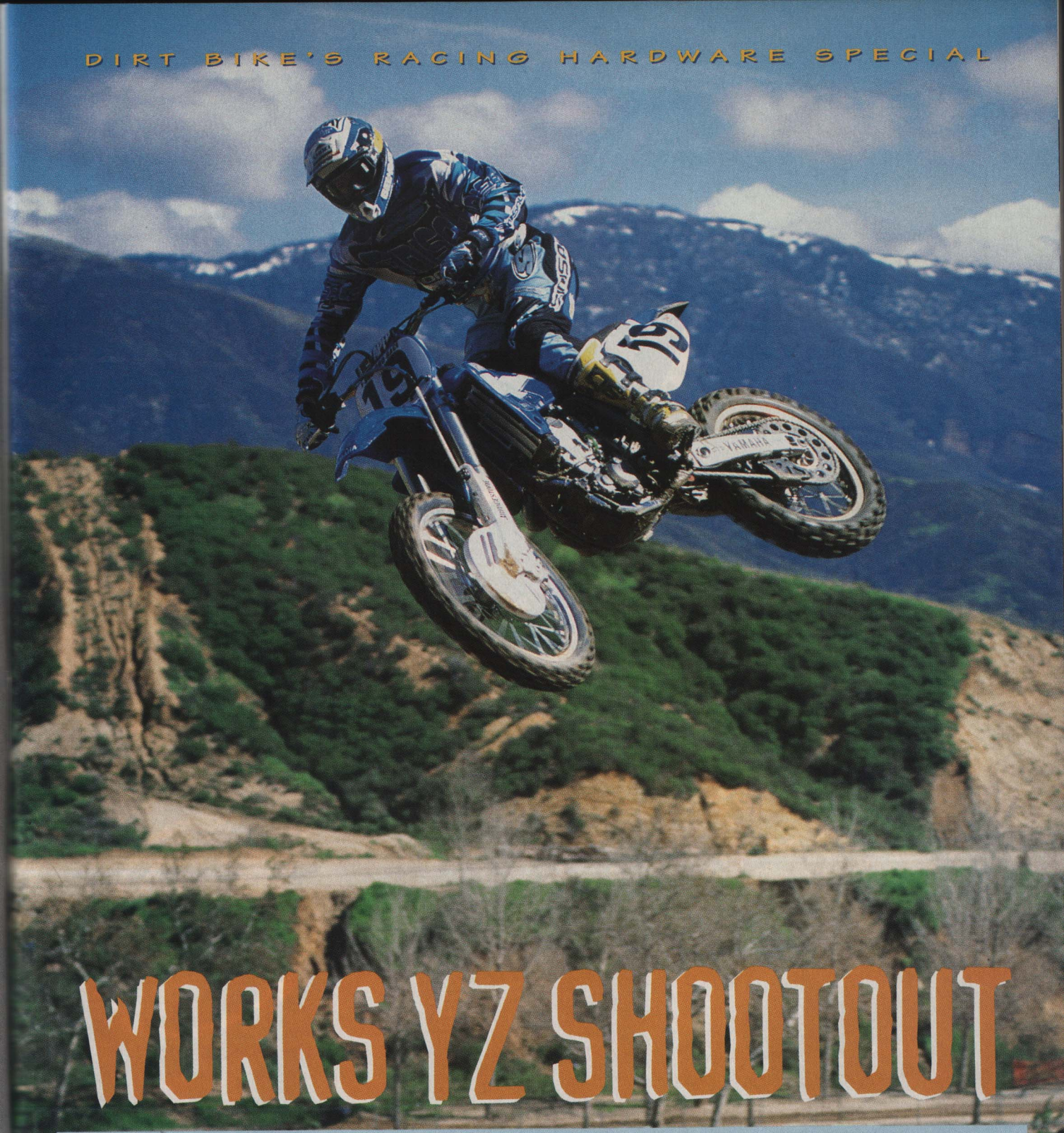


WORKS YZ SHOOTOUT

Henry's YZ400F vs. Windham's YZ250 vs. Dowd's YZ125

By the triples-challenged staff of DIRT BIKE

No doubt about it, Yamaha has created quite a buzz with its groundbreaking YZ400F. The superthumper outshined the KX250 in our March issue and smoked the two-strokes again in last month's Open-class shootout. The trouble with stock-bike shootouts are many-fold, though. Few people leave their bikes stock (hence our modified 250 comparisons of '97), and the factories tune the suspension and power for a mythical "average" rider; each has a different idea of just who that person is. Also, the manufacturers realize that most motocross bikes never see a bona fide track. How does that affect the offerings from each company? To Honda and KTM, very little. CRs and SXs are full moto this year, while YZs and KXs are so soft that they work well off-road.

Doug Henry's factory YZ400F is the second-fastest motocross bike we have ever ridden (Jacky Martens' 610 Husky was the fastest). As long as you don't stall it or fall (we didn't), it's the best bike on the track. Any track.

So, we end up comparing apples to oranges in a stock-bike shootout. Here at *Dirt Bike,* we test on as many tracks as possible, in a variety of conditions and with as a wide a cross-section of riders as possible, while being as unbiased as humanly possible. In former editor Rick Sieman's '97 Internet Dirt Bike Magazine Shootout, he said that *Dirt Bike* does the most thorough tests with the most objectivity. With all that said and three months with the stock YZ400F under our kidney belts, we still weren't convinced that the F is the best thing since disc brakes.

Also, we were getting a little tweaked that we couldn't find a bike or condition in which the 400F could be beaten.

So, we hit up Yamaha to let us hamfisted editors to ride all three of its works bikes—Doug Henry's YZ400F, Kevin Windham's YZ250 and John Dowd's points-leading YZ125. Not only would we be riding some of the trickest YZs on the planet, we would be eliminating a lot of variables inherent to normal shootouts. We would be comparing bikes set up by the same support team to be the fastest, best bikes on the track, bikes set up for riders of (nearly) equal speed and talent. The bikes may still be apples and oranges, but these fruits are all blue, and their purpose is to win races and championships.

IN SEARCH OF A TRACK

Originally, we were to test the three works YZs after the San Diego Supercross, but a series of Pineapple Express storms had much of Southern California under water. Tracks that weren't inundated were already rented by factories trying to sandbag their race programs against the Blue Tide of '98. The test was postponed until after Indy, and then after Atlanta. Finally, we met Team Yamaha Manager Keith McCarty, mechanic Steve Butler and P.R. honcho Terry Beal at the Glen Helen National track for the test (all SX tracks were unusable). After photos, we linked together the most supercross sections of the track for timed testing.

We had also planned on having Spud Walters do the riding, because he races the YZF in the Pace stadium off-road series and two-stroke 125s and 250s in local races, but he was testing for Honda. So, we got a weekend pass from the old-racers home to snag Pete "Grandpa" Murray, who is almost as ambidextrous as the Spudman when he's had his Geritol.

TEAM TACTICS

Adrenaline begin pumping like a PowerJet carb as the works YZs were wheeled out of the box van (the semi was on the way to Tampa). These machines were actually replicas that Yamaha uses to test with during the week. Key parts of the actual race bikes were flown to Yamaha and installed on the test units, then removed and flown to Florida after the test. It was so complicated that we are amazed the whole thing came together at all. While we shot detail photos of the clean bikes and geared up, we picked the Yamaha guys' brains about the bikes.

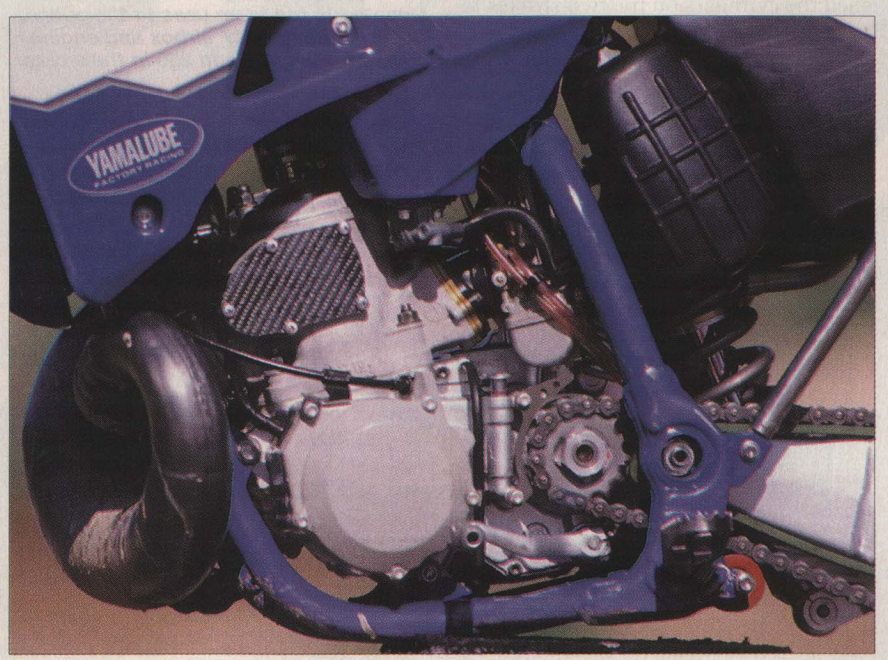
Yamaha Motor Corp. supplies a few factory parts for the Y-Zeds. Billet mag hubs, works brake components and programmable digital ignitions flow in from Japan, and YMC plays a larger role inside Henry's engine than Windstorm's and Dowdy's. Doug gets a much lighter crank and valvetrain from Japan, along with a carbon fiber airbox and works FCR carb.

Yamaha Motors U.S. does most of its own development on Team bikes. YMUS has its own billet linkages, triple clamps, Ti subframes, bolts and axles (new this season), pipes, silencers and carbon fiber pieces made by various players here in the States. Pro Circuit builds the two-stroke exhausts, while Dirt Squirt Performance builds Henry's titanium pipe and carbon fiber pieces for all the works Yamahas. Currently, Henry runs DSP carbon motor mounts, head stays, skidplate, water pump and frame guards and chainguide on his 400, while the 125 and 250s use DSP skidplates, head stays and chainguides.

DSP is also developing brake and fork guards, clutch and ignition covers, airboxes and axle blocks, but durability

Team Yamaha shelved its own Ti and carbon fiber pipe for a lighter DSP Ti pipe with tapered headpipe. The whole thing weighs 3.5 lb. Check out the magnesium kickstart base and extended water pump guard.

Kevin Windham prefers the Bob Oliver-tweaked '98 cylinder (with DSP cover) over the '94 cylinder that the team used last year. Yamaha is still resisting the PowerJet craze.



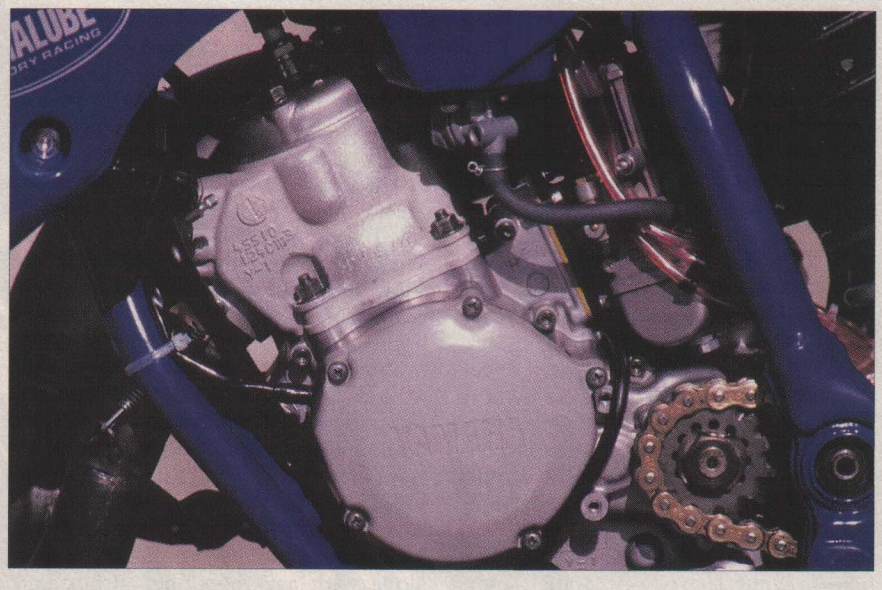
testing hasn't been completed yet. We may see those parts when the Mazda Truck MX Nationals begin. These pieces will lighten the works YZs even more. As of right now, Henry's 400 weighs 229 (21 pounds under stock), Windham's 250 is 221 (eight pounds lighter) and Dowd's 125 is 205 (also eight pounds lighter).

MEN BEHIND THE BLUE TIDE

Yamaha builds its own linkages, too, to go with the works Kayaba suspension components, which are valved by Jon Rosentheil at YMUS. Suspension settings are surprisingly similar between Henry's 400 and Windham's 250 (also Jeremy's Chaparral 250—see sidebar). Because Henry's 400 is based on the 250 and weighs almost as little as a 250, it stands to reason that his settings would be similar to the 250's.

When asked about what changes are made from week to week, McCarty said, "We didn't get Henry's bikes as early as we would've liked, so we're still trying new things with Doug between races. He's pleased with the bike, but we're trying new things, because we didn't get a lot of supercross experience with it last year. Kevin hasn't changed his suspension since Seattle, and Jeremy is also confident with his settings. If we see something that could be improved or if a rider feels he's having trouble with something, we'll go in and make changes. If it needs less low-speed and more high-speed compression, we'll take a shim out here and add a shim there, but we don't make major changes from week to week."

Bob Oliver is the man behind the motors at YMUS. Oliver ported and polished the cylinders on the two-strokes to scream with Mikuni carbs and Pro Circuit pipes. He reworked the mills from head to tranny and went to Hinson clutches on the two-strokes. Oliver also performed his magic on Henry's thumper, producing one of the all-time great motocross motors.



Looks like a standard issue YZ125 engine, doesn't it? Inside beats a heart fortified by Bob Oliver and a YMC programmable ignition. It's a rocket, but a friendly rocket.

HENRY'S HAMMER

Letting the clutch out on Henry's 400 was like opening the door on Super Bowl Sunday and seeing Ed McMahon holding a $10-million check with your name on it. Off the very bottom, power was much like the stock 400, but, 2000 rpm later, it hit like Mike Tyson—and much more pleasing to the ear. Or maybe it was more like opening the flood gates—in an instant the bike went from 20 horsepower to 50. The lack of crank mass let it rev insanely fast, and the DOHC, five-valve engine revs even further from stock. Imagine riding a speedway bike with nitrous oxide injection. From our well-polished pants' seats, we figured it was making over 50 horsepower from 5000 to 12,000 rpm! The suspension settings put almost all of that power to the ground, so the bike would leap forward like no four-stroke ever has.

After his first stint on the F, Murray said, "Either I forgot how to count, or this thing only has four speeds!"

Lump asked McCarty, "AMA rules state that a race bike has to have the same number of gearsets as stock, but they don't say what they have to be made of, right? You could block off fifth and make the gears out of plastic if you wanted to, right?"

Keith uncurled a wry smile and nodded affirmatively, almost imperceptibly. Whatever fifth is made of, it won't be used in the stadium series. Murray wished he had fifth, because he was topping out fourth on Glen Helen's back straight, even with the extended over-rev.

As impressive as Doug's engine is, it was almost overshadowed by the handling. We were mesmerized by the light feel, especially in the air. There was a bit of the Open-class crank inertia, and that was most noticeable in turns, but we could also detect it in the air. Combined with the brutal power and stiff SX suspension, Henry's bike worked us hard. It was a small price to pay to experience the most talked-about thumper in the world.

WINDHAM'S WINDMILL

From a performance perspective over stock, Windham's YZ250 was most im-

Dirt Squirt Performance is offering the same parts the team uses to the public. DSP also has a 400F airbox and engine covers for the 125 and 250 in the works.

Fanning the clutch on Kevin Windham's works YZ250 is like pushing the button to fire a Patriot missile. Before you can bat an eye, it's on its way to the next target.

SHOEI
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YAMAHA
BRIDGESTONE

pressive. Where the stocker is merely okay on top-end and has very little hit, Kevin's bike absolutely rips! You better be leaning forward—*way* forward—when you wind up the throttle and drop the clutch. It leaped forward much like Henry's hammer and revved out much further than stock, but not like the 400. Hook-up was also mind-blowing. The bike came off of corners so hard that it wore out us lesser mortals quickly.

Part of that was due to the super-stiff, supercross-valved fork. The thing barely moved on braking bumps, or anything else, for that matter. Kevin likes it like that, and the reasons are many-fold. Top guys like Windham land on their front wheel, so the fork takes most of the big impacts. This allows the shock to be comparatively lighter, so it can hook up out of corners and on the start straight. Also, the stiff shock/stiffer fork combo is better for blitzing whoops. The rear compresses a bit more than the fork, so the front end doesn't want to drop into troughs as readily.

Also, it served to remind us editorial types how slow and out-of-shape we are.

Kevin's bike was suspended just like Doug's, but we noticed it more on the 250 because the extra weight the YZF places on its front wheel. We backed off of the fork and shock three clicks, and that helped the fork compliance, but Murray started bottoming the shock. He preferred the race setting on the shock and our lighter setting for the fork.

Also, Windham's brakes were much stronger than Henry's. The thumper doesn't require much rear brake, because of compression braking, but Doug runs his front brake so loose that it felt to us like it needed bleeding. It didn't.

DOWD'S DESTROYER

Dowd's YZ125 was fitted with a high-low ignition switch on the handlebars, something we hadn't seen on his race bike. McCarty explained, "John doesn't use this in racing, but it helps with testing. It's easier to compare two settings with a flick of a switch as opposed to reprogramming the ignition."

With the stock YZ125 being so good, we figured that it would be really hard for the race team to make a huge improvement. We were wrong. The works YZ125 made more power everywhere, and it retained its user-friendly delivery. Its biggest gain, though, was on top. Dowdy's 125 felt like it revved as far as Henry's 400. It shifted well, and the clutch held up to serious slippage in the deep ruts of Glen Helen.

We were also impressed with Dowdy's suspension, mainly because we could make it move. Action was comparatively lighter than the bigger bikes, and it seemed more balanced. Murray thought that the suspension and engine were perfect for him, and he could turn more consistent laptimes on the YZ125. The *DB* staff was also very impressed, but more so because it made us feel less like talentless goons than the 250 and 400.

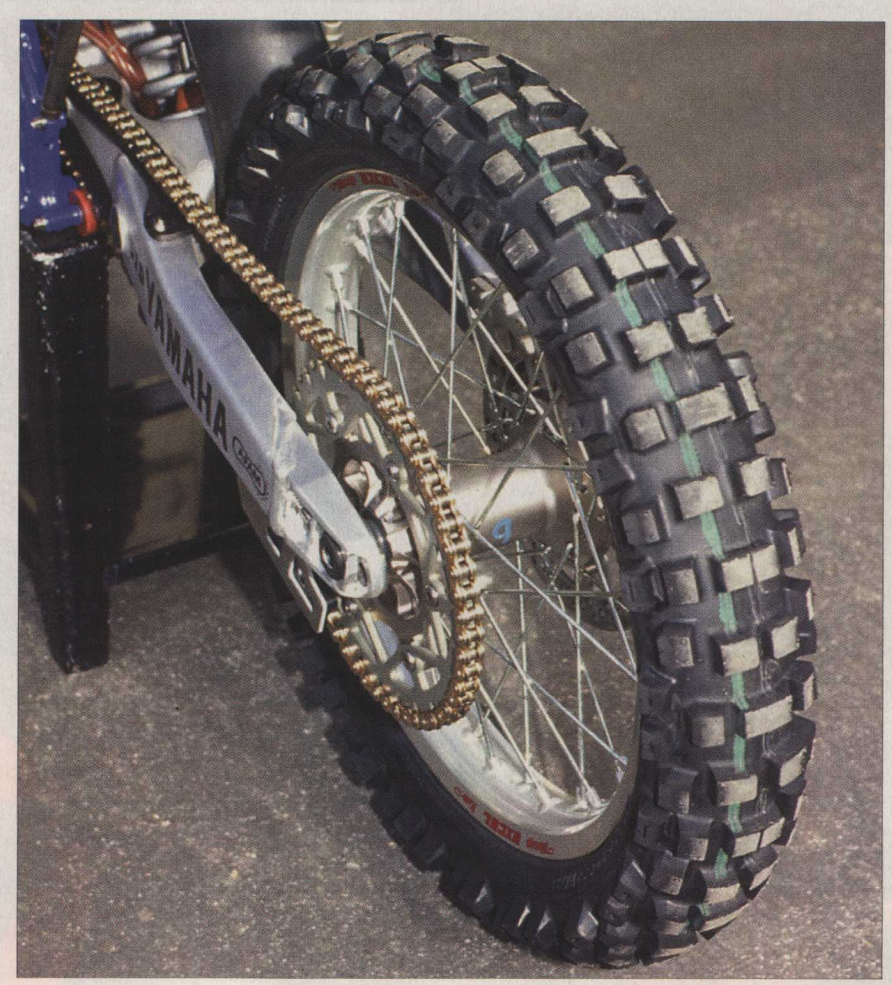
"Where I could make mistakes on the 250 and 400 and make up for them with motor," Murray said, "I simply didn't make mistakes on the 125."

STALKING THE STOPWATCH

Murray was most consistent on Dowd's 125, and he turned mid 1:40s and low 1:41s, with 1:40.33 being his fastest and the average being 1:40.63. On Windham's YZ250, Pedro made mistakes that dropped a couple of laps into the 1:43s, but his fastest lap was a 1:40.20. His average for seven timed laps was 1:41.44 on the 250. On the thumper, Petey was almost as consistent as he was on the 125, with his average being 1:40.75 and his fastest lap being the best of the day at 1:39.57.

Admittedly, our track was softer than a normal supercross circuit, with the exception of Daytona and (this year) Los Angeles, but you know the adage about everyone having to race the same track. The sections with deep ruts most affected the 125, but it made up for the comparative lack of power with lightness, incredible handling and more earthly suspension. Everyone could go fast longer on the 125 than the more intense 250 and 400, but it required the most skill in hording and cultivating momentum.

That's why the 125 snatches the overall win, barely, from the fire-breathing Henry YZ400F. The thumper turned the fastest lap of the day and allowed consistently fast times. It handled superbly and had the most awesome power of all time, but it could not shake its Open-class roots. The 400 worked us the hardest during a moto. It was easiest to start when there was no pressure, but we have all seen what happens when



Mag and Ti abound on the factory Yamahas. Titanium axles are new on all the works Yamahas this year, and they even have the option of running a Ti shock spring. ►

◄ After riding Doug Henry's factory YZ125, we know how he's able to go so much faster than the youngsters in his class. The bike almost rides itself, but its still blazing fast.

TEAM YAMAHA FACTORY BIKES' SPECS

Rider/number	John Dowd/#9	Kevin Windham/#8	Doug Henry/#19
Team	Yamaha Factory USA	Yamaha Factory USA	Yamaha Factory USA
Mechanic	Brian Berry	Alley Semar	Pete Steinbrecher
Cylinder/head	Yamaha Motors US/YMUS	YMUS/YMUS	Stock/YMUS
Pipe/muffler	Pro Circuit/PC Shorty	Pro Circuit/P.C.	Dirt Squirt Ti w/tapered headpipe
Crank	Stock	Stock	Yamaha Motor Corp.
Reeds/block	Stock/Stock	Stock/Stock	Stock, anodized
Ignition	Yamaha Motor Corp. programmable	Yamaha Motor Corp. programmable	YMC programmable
Carb	Works Mikuni XTM	38mm works Mikuni TMX	Keihin FCR w/mag bell
Air filter	UNI	UNI	UNI
Gas/oil	Elf/Yamalube R@32:1	Elf/Yamalube R@32:1	Elf/Yamalube 4-stroke
Spark plug	NGK B9EV	NGK B7EV	NGK CR8E
Gearing (SX)	13/52	14/52	13/54
Chain	D.I.D ERT	D.I.D ERT	D.I.D ERT
Tires	Bridgestone M78/M77	Bridgestone works M77/M78	Bridgestone M78/M77
Hubs	YMC billet	YMC billet	YMC billet
Rims	Excel	Excel	Excel
Brake discs	YMC 245mm front	250mm works	270mm front
Brake pad	Stock	Stock	Stock
Brake mods	YMC front m/c, caliper, hose & mag carriers	YMC front m/c, caliper & hose	YMC front m/c, caliper, hose & carriers
Fork mods	Works KYB, YMUS valving	Works KYB, YMUS valving	Factory Kayaba, YMUS valving
Shock mods	Factory KYB w/hi-lo comp.	Works KYB w/hi-lo comp.	Works KYB w/hi-lo comp
Linkage	YMUS billet	YMUS billet	YMUS billet
Handlebars	ProTaper CR-lo	ProTaper CR-lo	ProTaper Henry
Triple clamps	YMUS billet	YMUS billet	YMUS billet
Skidplate	Carbon fiber Dirt Squirt	Dirt Squirt Performance c-f	DSP c-f
Footpegs	Stock	Stock	Stock
Trick parts	YMUS TZ clutch perch, Ti axles, Ti bolts, spokes and seat foam; Dirt Squirt Performance carbon fiber chain guide and head stay; YZR graphics and seat cover by CEET; Scott Hurricane grips.	YMUS mag caliper carriers, Ti axles, aluminum and Ti bolts, TZ clutch perch, petcock, spokes, aluminum throttle pipe, seat foam and Ti subframe; YZR graphics and seat cover by CEET; Dirt Squirt c-f head stay and chain guide; Hinson clutch.	YMUS TZ clutch perch, Ti and aluminum bolts, Ti subframe, spokes, lightweight petcock and seat foam; DSP c-f frame guards, chain guide, head stays and motor mounts; YZR graphics and seat cover by CEET.

you drop the 400 in the heat of battle. Let the engine stall, and you will have better odds of winning the lottery than topping the podium.

Although its fastest laptime also topped the 125's best time, Windham's YZ250 demanded the most from its rider and forced him to pay the most for his mistakes. It also gave us newfound respect for Windham and McGrath. These guys are lion tamers, and they don't carry bullwhips or guns. Team Yamaha's 250 is as fast and furious as championship machines we have ridden in the past, and it is much more friendly than Damon Bradshaw's '96 works Yamaha, but we could never master it, or even feel close to mastering it like we could Dowd's 125. We mortals were intimidated by the works YZ250, but McGrath will most likely win the supercross title on one.

It's been a long time coming, too. Yamaha won the first supercross title in '74 with Pierre Karsmakers, and Bob Hannah won three straight championships ('77–'79), but Yamaha hasn't taken the stadium crown since Mike Bell did it in '80. Jeremy is out to change that, and Yamaha will three-peat the 125 West title, so that puts mongo pressure on Henry to win some races to boost confidence before the outdoor season starts.

WHAT ABOUT McGRATH'S YZ?
LIFE ON THE HIGH CHAPARRAL

● Jeremy's team is officially the Chaparral/1-800-COLLECT/Mazda Yamaha, but Chaparral has absolutely nothing to do with McGrath's YZ250, other than putting stickers on it. It is Team Yamaha, through and through. If Jeremy wanted more carbon fiber parts on his bike, Keith McCarty would have to approve it first. Jeremy tests with Yamaha and even receives his win bonuses (rumored to be $50,000 per main win) from the factory. Jeremy tested the new '98 cylinder that Windham is running, but opted to stick with the tried-and-trued '94 works cylinder.

McGrath's suspension is very similar to Windham's—super-stiff fork with a somewhat less stiff shock. Componentry is identical to Kevin's bike. Although Ezra's CR may still be a bit faster and fortified with torque, McGrath has adapted well to the blue streak, and has obviously worked very hard on his starts. Jeremy has regained his confidence, and four mains in a row have given him and Yamaha a 45-point lead (after seven rounds). ❑

Chaparral stickers notwithstanding, Jeremy McGrath has the option of running the same bike as Windham. He prefers the old cylinder, and with a runaway points lead, you have to admit it's working for him.

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