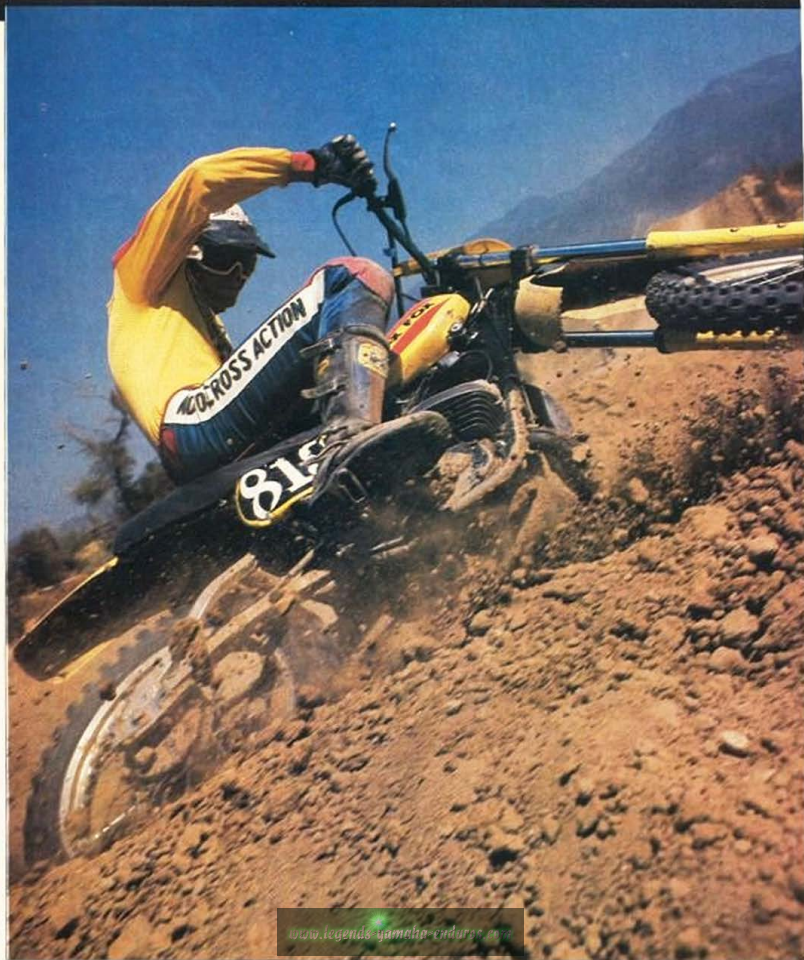


MAKING THE 19



5 MONO BETTER

By Jody Weisel

MOTO-X FOX'S ULTIMATE PRIVATEER YZ

Quick as a fox

□ The Yamaha YZ125E, and its D-model predecessor, give away a handful of advantages to the class-dominant Suzuki RM125. YZs can and do win, but they do so in spite of a balky gearbox, peeled powerband and lack of low end. The YZ125 shifter is a mysterious ratchet that has been a problem child for several years. To make matters worse, the stock YZ cylinder is so over-ported as to require the pilot to push the revs high up the pipe. The more revs the Why-Zed concocts, the less cooperative the transmission becomes. To pull off a 100-percent shifting ratio the rider has to back off the throttle. The RM makes about one to two ponies more than the YZ through the mid-range, plus it will shift under power. The only place the YZ matches the Suzuki on horses is way on top where the bikes won't shift cleanly. The result is that RM's are able to get a more concentrated and applied use out of their power/gearbox relationships than the YZ. That translates into lower lap times.

Last year Moto-X Fox fielded the top privateer team in the 125 Nationals with Steve Wise, Pat Richter and Mark Barnett. Wise rode a special Honda, but Pat and Mark toiled around on super-rare Suzukis. Surprisingly enough, Moto-X Fox fielded the top-placing privateer entry this year also with Danny Turner, but they did it with a Yamaha. How did they do it?

MOTO-X FOX YZ ENGINE

The Fox brain-trust devised a complete package for the YZ125 that increased the power of the stock engine. It didn't just punch up the top end with a loss on the bottom, or give it middle and an anemic upper and lower; the MX Fox kit increased power throughout the range.

The carb is replaced with a special 34mm Mikuni. It runs a 330 main jet. O5 needle jet and standard needle. The

carb comes with a new cap and new slide (2.5 cutaway instead of the stock 3.0). The larger carb and more generous jetting are necessary to feed what will soon become a thirsty mill.

A Moto-X Fox head replaces the

stock head. The stock head is a joke. It looks as though it was designed as a stopgap, temporary measure and then left on as a cost-per-unit money-saver. The Fox head does the job right. It weighs three pounds more than stock, lowers the cylinder head temperature by 50 degrees and completely eliminates flash heat wave cycling that could raise the temperature by 100 degrees. There is an 82-percent increase in surface area. Moto-X Fox expert Keith Bontrager suggests using the stock head gasket, and advises against ever using a thinner head gasket (even with the stock head).

The Fox cylinder gets 20 thousandths



When you are bordering on a foot of travel at each end of a one-two-five the frame begins to look a lot less imposing.



Steve Simona's super forks come in a gaudy yellow, but so does the YZ125. The front brake cable must be replaced with a YZ250 unit.



The transformation from loser to winner took one complete day of removing, opening, replacing, drilling, throwing away and sanding.

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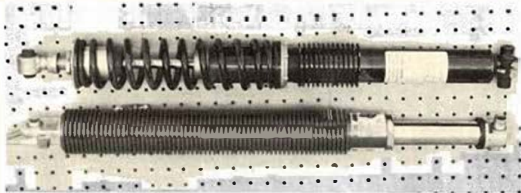
milled off the bottom, and the porting could best be described as one cylinder off of a TZ250 road racer. The exhaust ports are widened and reshaped, the transfers are reangled and the intake gets two creative auxiliary boost ports that feed directly into the transfer area. Essentially, Moto-X Fox is attempting to cut back on the radical over-porting that was done by the factory while improving the aspiration characteristics of the 125 engine. A YZ125D piston is suggested because it is a single-ring unit, but the dual-ring E piston will work almost as well.

In a refreshing move the Fox crew suggests that you use your stock exhaust pipe. Although they have pipes that can give you more power, they are trying to create the type of power that has something in the works for every situation. The stock pipe is well made. But, Fox does have a super-secret trick exhaust flange that is 15mm longer and 5mm narrower at the neck. Without confusing the issue with theories of flow patterns and the dynamics of gas discharge, the Fox flange really is the most significant improvement available for the YZ engine.

The Fox engine will now perform well enough to make you the top privateer on the 125 National circuit, because it made Danny Turner that. You just have to be able to do the riding as well as Danny. But there are additional bits of engine trivia that are important. The jetting is critical, especially in regard to the needle. The engine may appear to be jetted perfectly, but as the engine heats up the mixture will lean out enough to cause both a loss of power, and possibly a loss of the whole kit and kaboodle. Use a 3.50 Metzeler (or tire of your choice), but nothing larger than a 3.50, unless you want to waste precious and expensive power trying to turn a too-fat tire. Do not use a Moto-Tek ignition with the Moto-X Fox engine. It is undesirable. It will improve the stock bike, but it is essential that it be carefully and expertly lapped onto the shaft. Even then it is sometimes unreliable because of the lack of a key fit. Do not bend the reed cage stops to allow your reeds to open farther. The stock stainless steel petals are good, but if you bend the stops you could open up a whole bag of worms. Moto-X Fox recommends Golden Spectro at 37:1 and the use of a Moto-X Fox Poly Foam air filter. The peak power will be at 10,000 rpm.

SUSPENSEFUL SUSPENSION

The world has waited for a good accessory replacement for the stock



Night and day, black and white, shock and shocker, the Fox Airshox are worth \$225.



Off of Racing World's fastest jump the Moto-X Fox mono-mods soaked up the landing with ease. Check out the ground clearance, which means there is travel left.

Yamaha mono-shock. The \$225 Fox Airshox is better than stock. It comes with a complete manual of info and adjustments and makes the stock springer look like a springer. The Fox mono isn't an easy fit, but if you follow the instructions you'll be pleasantly surprised. The Fox team bikes use the Airshox and it has been proven in the toughest competition. The shock should be dialed in a little soft so that you can adjust to the ride characteristics.

The Fox team bikes also come with Simons forks. The \$325 Simons setups are the best aftermarket front forks available today, but there are a few problems that we had to work out on our units. The Simons forks are so long that you have to get a YZ250 front brake cable to reach the front wheel. Also, the Yamaha backing plate must be machined to fit in between the yellow Simons sliders. Moto-X Fox offers this service, or your local machine shop can do it for you.

We ended up making one piece ourselves. The brake stay on the Simons forks is a metal block that slips into a slot on the backing plate. This block keeps the brake panel from spinning and serves the same purpose as a brake anchor arm. The metal block that was supplied with the Simons forks was not machined to a close enough tolerance to avoid an annoying clicking sound and slight movement when the brakes were applied. We whipped out a much larger and better-fitting block to anchor our brakes.

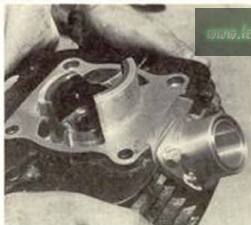
THE RIDE CLYDE IS A SURPRISE

The suspension is in excess of 11 inches at each end, and the result is a 125 with a wheelbase of over 57 inches. The YZ125's previously great turning is gone. The bike now seeks a berm or requires a large patch of JT leathers on the gas tank coming into turns. But, this is the price that you have to pay to get supreme suspension. Whoops, jumps, ruts and other bikes are leapt over without the slightest fears. The feeling of the forks and shock is confidence-building. The long wheelbase and increased rake also help the bike's rough-terrain stability.

The new engine is fast and competitive. Paired with the long legs, nothing can touch you down a rough straight. The gears are 100-percent more usable than they were with the stock engine. There is a nagging gap between second and third that judicious use of the clutch will get you over. Coming out of a test second-gear corner, second is too high and third wants to bog, but it is a problem that you would have solved on the stock YZ by staying in second. At least you now have the grunt to clutch your way out in third.



The stock front backing plate (left) must be machined down to slip in between the Simons sliders.



The secret and super-effective exhaust flange. This shiny aluminum item could account for 1½ horses throughout the range.



The Moto-X Fox cylinder head has 62-percent more surface area than stock. That makes a difference on the thermometer.

Moto-X Fox has proved this unit in the hands of the most talented 125 privateer in the country. Danny Turner rode it to first privateer. The Junior riders were not as overwhelming in their approval of the total package. The loss of the turning ability and rapid increase in speeds, mixed with tricky shifts, made more than a few novice testers dislike



The air valve, or nitrogen valve, exits out of the frame through a hole that you must drill. Be sure to follow the instructions. It is murder to get that little braided hose through the hole.

the machine. The intermediates loved it. It had power and suspension by the boatload, and they had the developing talents and skills to pull it off. The Expert riders believed that it was one of the few Nationally competitive Yamahas this side of the works 125s. All agreed that it was head and shoulders over the stock YZ125E.