

## TRANSMISSION

The transmission of the T-500 is unique and therefore does not make alternate ratios an easy possibility. I've been told that the T-350 six-speed clusters can be adopted and some factory six-speeds or Barton close ratio five speeds may be out there but you are better off building up the stock box.

The first step in building up the T-500 tranny is purchasing a new input shaft and fifth output gear. The fifth output is a sloppy fit from its inherent design. It tends to cock on the output shaft and wear its gear faces. Consequently, it wears the fifth input gear faces. As all the input gears are fixed to the input shaft, the entire piece must be replaced.

Don't forget to safety wire the pinch bolt on the shifter; for that matter, safety wire everything that you don't want falling off the bike at 150 mph. Something to think about...

## CARBURETION

The round slide Mikuni is the greatest invention since the dawn of time. It is simple, easy to tune and infinitely adjustable over a wide range for all metering systems. Yes, you must adjust jetting for a given moment during a race weekend, but even running a little rich is O.K. as the carb and motor are rather forgiving. This is not so if the mixture is a little lean. The piston

may stick, and if you're not ultra quick to grab the clutch, it will spit you off in an instant. I have personally tested this theory and trust me it hurts!

The 32 to 38mm Mikuni or Lectron carbs work fine, however the Lectron may be illegal in some classes. Stock to mildly tuned motors like small carbs, as throttle response is improved. But if your ego cries out for larger slide openings, the 36-38mm carbs will help peak horsepower a little. Mostly they help in being able to over-rev the motor to compensate for inadequate gearing.

### CARB ADJUSTMENTS

#### 32-38mm Mikuni

Main jet - 250-330 Lg.

Hex

Pilot Jet - 45

Needle Jet - Q2

Needle - 5F 16-3 (sm.  
body carb)

Cutaway - 2.0

Air Jet - None

Air Screw - 1 1/4 - 1 1/  
2 Turns

#### Lectron

4-1 Needle set @ 44mm

## EXPANSION BOXES

Exhaust pipes are the single most important element to fine tuning any two-stroke project, whether it's a chainsaw or antique roadracer. The best TR-500 and TR-750 kits come from Swarbrick Racing in England. Their hand formed, tapered header pipes and thin-wall cones are exactly like the works pipes were twenty-two years ago. Try to avoid the aftermarket bolt-on street pipes as they are not performance oriented and can ruin an otherwise finely race-prepared motor. For long tracks, a steeper converging cone and shorter header pipe will help top end. However, the basic TR-500 design is rather forgiving. AHRMA will require silencers of any type, while WERA does not require them, allowing you to run stingers.

## GEARING

You are pretty much stuck with the wide internal ratios, but not so for overall gearing. A short track like Loudon will require 13/33; long tracks like Brainerd, try 16/33. Each track will be different, but keep in mind small changes in overall gearing make up for big differences in how you will set up for the most important turns on a given track.

Good luck and keep it on the tires! If you find yourself getting bored with 90 horsepower and 150 mph, move up to a GT-750 based racer good for 145+ horsepower and 175 mph.



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