

Product Evaluation

POSI-BRAKE BOLT-ON FOR RMs

And the hows and whys of full-floating rear brakes

By the Staff of DIRT BIKE

□ For the past few years nearly all of the competition-oriented factories have been using full-floating rear brakes on their works race machinery. Up until very recently Husqvarna was the only manufacturer to incorporate this feature in their production models as well. At present Can-Am, Honda, Kawasaki and Suzuki have joined in, with others destined to follow.

The reason we have not seen full-floaters built into the world's mass-produced off-roaders until now is simple. The manufacturers didn't think that the public was ready for the maintenance program necessary to keep the device working efficiently. For, in order to get maximum benefit and durability from this system, it should be disassembled, cleaned and lubricated before every race. That's what serious racers do. Despite how well a floating system may be designed, dirt will get in the pivot areas. The frequency of maintenance is still up to the owner/mechanic.

The advantage of the floating rear brake over the conventional brake torque arm attaching arrangement can be explained as follows: In the old design with the backing plate torque arm bolted to the swingarm, torque generated by the braking resistance in the hub is transferred directly to the swingarm. When the brake is applied a lever is formed between the axle and the bottom of the tire where it contacts the earth, with the swingarm pivot as its fulcrum. This force, dependent upon the braking pressure applied and the traction coefficient, acts directly upon the rear suspension. The greater the force, the more the shocks compress. Compressed shocks are much less efficient at absorbing bumps because their springs are in effect preloaded by the braking. We're all familiar with the result — a rear end that hops, slams and skips into and over braking bumps.

A floating brake uses a backing plate that pivots freely or "floats" on the rear axle with its torque arm pivoting off the frame as the suspension moves through its arc. When the braking force is applied, the torque developed is transferred directly to the chassis as a whole rather than indirectly through

the swingarm and suspension. The result is a rear end that tracks more precisely and follows the terrain more closely under braking situations.

Motocross Center has developed a floating brake specifically for the Suzuki RM250, 370 and the PE250. The kit features a heat-treated backing plate cast of A356 aluminum and aged to a T-6 condition for maximum strength. The backing plate pivots on case-hardened bushings. A special plate replaces the stock brake pedal mount and provides an anchor point for the aluminum torque arm. Space-age self-lubricating bushings are used at both ends of the arm.

The Posi-Brake bolts on in minutes and everything fits perfectly. No hassles whatsoever. A notable quality, when you consider how some things are sold these days.

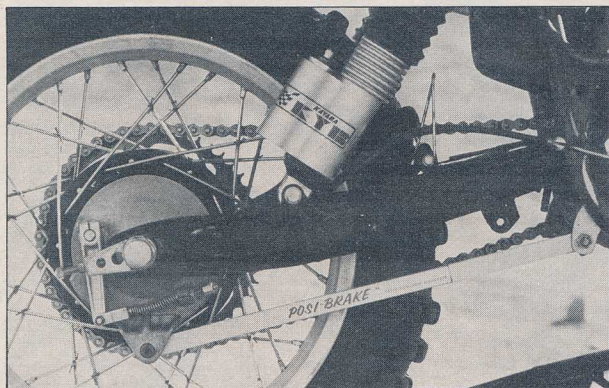
After making several laps around one of the choppiest, hole-strewn courses we could find (Saddleback on a weekday), we made a quick pit stop to install the Posi-Brake. While some of our testers felt that the difference in rear end performance was quite obvious, others scarcely felt any difference at all. This is just as we had predicted. The fact remains that the Posi-Brake does work. It's just that the feel of the efficiency gained is slight. But not so slight that you wouldn't want one on the rear of your Suzuki as the braking bumps get taller and the terrain you run on gets rougher.

It's going to cost you, though. With all the necessary hardware included, complete instructions and a 90-day warranty, it sells for \$99.50. To us, the increase is worth the cost. Whether you have another C-note to spend on your bike is up to you.

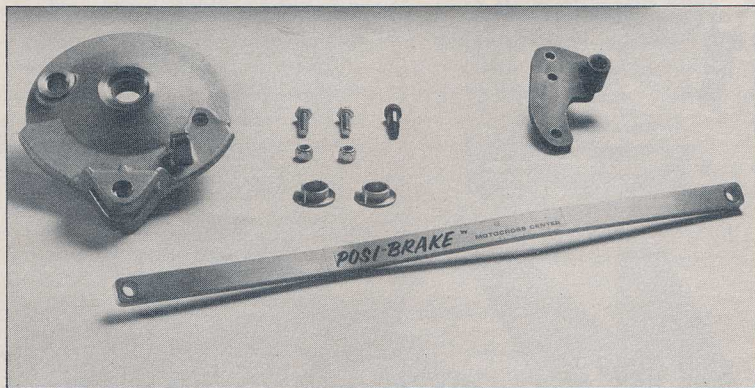
For those of you who have just purchased a new zoot 'crosser equipped with a full-floater as standard equipment, remember and appreciate its offering. Above all else, maintain it. Clean and lubricate its three pivot points regularly.

For more information on the Posi-Brake, contact the folks who designed it at Motocross Center, 1172 Aster Ave., Sunnyvale, California 94086; (408) 245-6060.

Go for it! ■



Our trusty Suzuki RM250C is shown here fitted with the Posi-Brake, Wheel Clinic cross-four spoke job, 17-inch Sun rim and KYB Pro-Line pneumatic suspension.



The kit. There's more involved in coming up with this quickie bolt-on package than you might imagine at first. Just getting the correct torque arm pivot location can be a nightmare, as do-it-yourselfers will be quick to admit.