

**S**ince "works" motocross bikes are considered the most sophisticated and technologically advanced machines in the field, it's no wonder that there's an irresistible desire on the part of the consumer to imitate and attempt to outfit his production machine as close to the factory models as possible. This fact of human nature has opened up a whole new field for the aftermarket manufacturer and the demand for accessory items that are either replicas or works-type is increasing each day. It's sometimes difficult and often impossible to duplicate parts and systems that took hours of factory man-hours to develop, but every so often there's a new accessory that truly fits the "works" billing.

Motocross Center has just introduced three new Posi-Brake System kits: one for the 1975-76 Suzuki RM250/370; one for '77 model RM250/370B and C; and one for the PE250 Enduro. These kits are unique in that each contains a complete full-floating brake system that closely resembles, both in looks and performance, the units used on the Suzuki works machines, and this is a complete bolt-on kit.

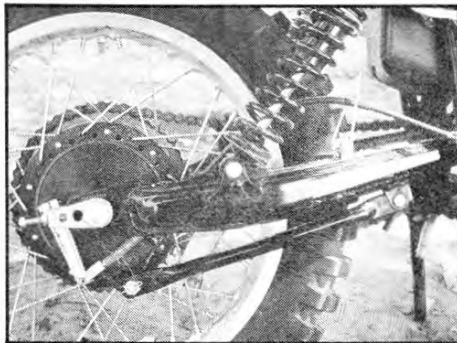
For those who aren't quite sure what a full-floating brake is, and why it works better than the conventional unit, we'll explain it briefly. Most production MX'ers like the RMs employ swing arm-anchored rear brakes. That means the brake backing plate, which is subjected to severe torque when the brake is applied, is kept from turning by an anchor arm that attaches directly to the swing arm. The backing plate is mounted rigidly so it can't pivot and the whole system is actually a part of the swing arm. Unfortunately all the twisting forces generated by braking play nasty tricks on suspension. What happens is similar to placing a wrench at nine o'clock on the right-side axle nut and twisting it clockwise—it tries to raise the wheel. During braking this upward force tends to restrict return action of the suspension and the result is a loss of traction, wheel hop and chattering.

To cure this problem most works machines employ a full-floating rear brake designed to isolate the twisting forces from the suspension. The anchor arm is extended and secured to the frame instead of the swing arm, and the rear backing plate is made to pivot or "float" around the axle; the twisting forces are thus transmitted to the frame, leaving the suspension to move freely.

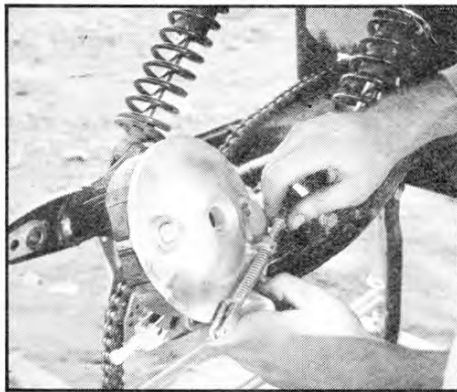
To get a valid comparison we first rode a stock RM370C, and then immediately installed the kit right at the track. Installation is no problem and requires only simple tools. The kit

# PRODUCT EVALUATION

## Motocross Center's New Posi-Brake For Suzuki RMs: A Bolt-On, Full-Floating Brake System That Really Works By Rich Cox



*Most production MX'ers, like the RMs, use the conventional rear brake system utilizing the swing-arm-anchored torque rod. It requires no maintenance, but isn't as supple as a full-floater.*



*Stock brake shoes and cam mount directly on the new backing plate—everything fits perfectly.*

comes totally complete with a new sand-cast aluminum backing plate that sports case-hardened bushings, a new anchor arm and a new front anchor plate. The stock brake shoes and cam must be installed on the new backing plate, and the brake pedal assembly must be removed to attach the new front anchor plate—installation time is 35 minutes.

Does it work? It sure does, and in fact produces a completely different feeling rear brake. It takes the harsh impulses out of the pedal and gives it a spongy feeling—like a hydraulic brake that has air in the line. Stopping is smoother, quicker and quieter, almost as if the bike had power brakes. We also noticed it was more difficult to lock the rear wheel with the softer pedal. Overall we were impressed with the brake system, both from the installation standpoint and also increased performance.

Why don't the factories equip pro-



*The full-floating Posi-Brake kit is similar to the Suzuki works-type brake and increases braking performance but requires a lot more attention. Pivot-arm angles and locations are critical to a full-floater's performance—MX Center did its homework.*



PHOTOGRAPHY: RICH COX

duction models with full floaters? It isn't cost because the expense of machining a bushing into a backing plate and relocating the front anchor is obviously nominal. Maintenance is the major factor. A full-floating system has three pivot points that must be kept clean in order for the brake to function properly, and because they do pivot, the possibility of wear is increased. Suzuki, like most other manufacturers, feels the majority of the public doesn't need the slight performance increase the full-floater provides, nor the hassles that accompany it—so nobody gets one. As for the Posi-Brake system, it too must be kept clean and working free. Unfortunately we haven't had it on the bike long enough to determine its life expectancy or its routine maintenance requirements. The kit lists for \$99.50 available from Motocross Center, 643 E. Arques Ave., Dept. 5, Sunnyvale, CA 94086.

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