

MOTORCYCLE SERVICE NEWS

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YAMAHA INTERNATIONAL CORPORATION

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ALL MODELS

SPACING TRANSMISSION AXLES AND GEARS - continued

TROUBLESHOOTING TRANSMISSION PROBLEMS:

Less than 50% engagement of the gear dogs and slots can eventually cause the gears to separate under load, which will in turn bend the shift fork that moves the sliding gear. This will lead to constant popping out of gear. The normal correction procedure is to replace the shift fork, sliding gear, and corresponding spinning gear. Check the guide bar for bends (straighten or replace) and shift drum fork groove for scoring (replace if it binds fork movement). Next, carefully space out the transmission. If all damaged parts are not replaced, the problem will occur again. If the transmission (and gears) spacing is not checked and adjusted, the problem will occur again.

IMPORTANT NOTE: Popping out of gear can also occur as the axle moves because of insufficient support at one end. If a transmission bearing circlip is left off, if the left-hand drive axle bearing comes loose in the case, or if a bearing retaining plate becomes bent (such as type used on JT1 & AT1, behind clutch), then additional parts must be checked and possibly replaced.

IMPORTANT; PROPER SHIFT DRUM SPACING: Some models have shift drums anchored at one end with half-moon shift drum holders and a circlip (such models as G6, HT1, CT1, etc.). The shift drum is properly spaced by placing a spacer (#15 in Fig. #5) directly behind the half-moon holders, on the outside of the crankcase. If the spacer is placed inside the case, against the shift drum shoulder, the drum will be spaced too far toward the right. This will pull the shift forks to the right, causing incomplete gear engagement.

