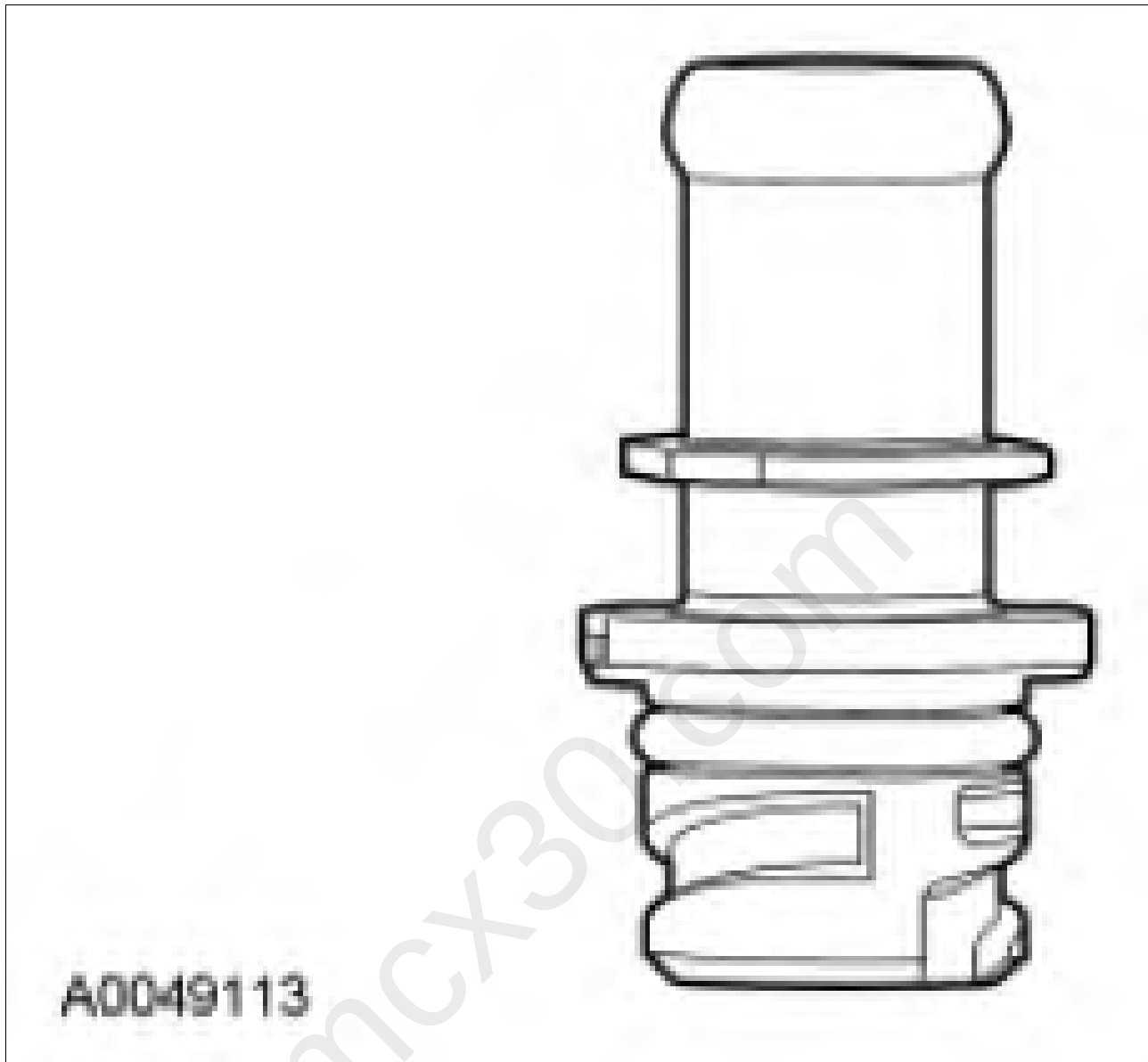


Fig 2: Identifying Quarter Turn Cam Lock Design PCV



Courtesy of FORD MOTOR CO.

(TORQUE BASED) ELECTRONIC THROTTLE CONTROL (ETC) > OVERVIEW

The torque based ETC is a hardware and software strategy that delivers an engine output torque (via throttle angle) based on driver demand (pedal position). It uses an electronic throttle body throttle actuator control (TAC), the PCM, and an accelerator pedal assembly to control the throttle opening and engine torque.

Torque based ETC enables aggressive automatic transmission shift schedules (earlier upshifts and later downshifts). This is possible by adjusting the throttle angle to achieve the same wheel torque during shifts, and by calculating this desired torque, the system prevents engine lugging (low RPM and low manifold vacuum) while still delivering the performance and torque requested by the driver. It also enables many fuel economy/emission improvement technologies such as variable camshaft timing (VCT), which delivers same torque during transitions.