U.S. Department of Transportation

National Highway Traffic Safety Administration

ODI RESUME

OFFICE OF DEFECTS INVESTIGATION

NHTSA

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Investigation: PE 12-033
Date Opened: 10/24/2012 **Date Closed:** 06/26/2013
Investigator: Steve Mchenry **Reviewer:** Jeff Quandt
Approver: Frank Borris
Subject: Speed control cable damage

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Ford Motor Company
Products: MY 2000 - 2003 Ford Taurus/Mercury Sables w/Duratec engines
Population: 467,719

Problem Description: The Speed Control Cable collar may fracture at the mounting bracket, which may result in a stuck throttle condition.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	91	24	100
Crashes/Fires:	3	2	5
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0
Other*:	0	11	11

***Description of Other:** Warranty claims

ACTION / SUMMARY INFORMATION

Action: This investigation is closed.

Summary:

On June 21, 2013, Ford initiated Customer Satisfaction Program 13B04 to address a concern with Speed Control Cable damage in certain model year (MY) 2000 through 2003 Taurus and Sable vehicles equipped with 3.0L 4V Duratec engines and built at the Chicago assembly plant. In the dealer letter for the program, Ford indicates that the Speed Control Cables on affected vehicles may be susceptible to damage or becoming partially disconnected during under hood vehicle maintenance (e.g., replacing a battery or changing the air filter) and that a damaged Speed Control Cable could interfere with the throttle's full return to idle when the accelerator pedal is released. Ford's program instructs dealers to inspect the Speed Control Cables and replace any with any portion of either collar retention tab missing. Dealers will install a Collar Reinforcement Clip at the Speed Control Cable collar in all vehicles.

Figure 1 shows the location of the Speed Control Cable in the engine compartment and the proximity of the battery and air filter. The failure mode of the cable assembly is associated with the plastic collar used to secure the cable to a bracket near the throttle body (Figure 2). Damage to one or both retention tabs used to secure the cable ferrule within the collar may allow the ferrule to become disconnected from the collar when the throttle is opened during accelerator pedal application. Additional examples of Speed Control Cables with damaged collar retention tabs and partial ferrule displacement are shown in Figures 3 through 5. If the displacement pulls the ferrule completely out of the collar, the ferrule end may contact the face of the collar when the accelerator pedal is released and the throttle is returning to idle (Figure 6). This results in a throttle stuck at approximately 26-29% open. Testing conducted at NHTSA's Vehicle Research and Test Center found that brake booster vacuum may become depleted, resulting in reduced brake effectiveness, if the brake is applied repeatedly when the throttle is stuck at this position.

Drivers who experienced this condition have reported being surprised that the engine speed did not drop as expected and in some cases misjudged the degree of braking required to slow the vehicle. Some drivers reported difficulty in

braking the vehicle and responded by shifting to neutral or turning the engine off. One minor crash occurred when the vehicle contacted a roadside fence post after the driver responded to the stuck throttle by shifting the car to neutral, turning the engine off and coasting to the side of a roadway with no shoulder, resulting in approximately $400 damage to the vehicle. There were four crashes reported which were attributed to increased stopping distance caused by the increased engine power and/or reduced brake effectiveness, including two of the complaints to ODI. In one crash reported to ODI (VOQ 10516101), the subject vehicle allegedly hit the back end of a truck at approximately 40 mph causing about $2000 damage. In the other crash complaint to ODI (VOQ 10501834), the subject vehicle side-swiped a vehicle as the driver was unable to stop in time and attempted to maneuver around a line of vehicles stopped at a traffic light. When the tow truck driver subsequently started the incident vehicle, the engine was still racing and it was verified that the Speed Control Cable ferrule was stuck on the collar. After further investigation, ODI does not consider the crashes reported in VOQs 10456249 and 10159399 to be related to the Speed Control Cable problem.

The specific Speed Control Cable that was the subject component of PE12-033 is unique to the subject vehicles equipped with the Duratec engine. The subject failure mode has not been observed in MY 2000 through 2003 Taurus/Sable vehicles equipped with the 2-valve 3.0L V6 Vulcan engine. Ford's analysis of damaged and exemplar parts did not find evidence of any material property degradation in the Speed Control Cable collar that could contribute to crack initiation or loss of strength. Based on this analysis and anecdotal evidence of cable damage from improper maintenance, Ford concluded that cracks in the collar are most likely due to improper maintenance or service and are not evidence of a defect in the Speed Control Cable assembly.

This Preliminary Evaluation is closed.

The ODI complaints cited above can be reviewed at www-odi.nhtsa.dot.gov/complaints under the following identification (ODI) numbers: 10002901, 10114193, 10181769, 10220414, 10228233, 10228631, 10284692, 10312195, 10322447, 10342565, 10351974, 10364001, 10404525, 10422703, 10424613, 10448591, 10451167, 10451172, 10451186, 10451319, 10451344, 10451389, 10451398, 10451409, 10451483, 10451501, 10451558, 10451579, 10451683, 10451684, 10451751, 10452403, 10453032, 10453061, 10454249, 10454596, 10455492, 10455510, 10456928, 10457002, 10457652, 10457969, 10458045, 10458061, 10459180, 10460032, 10460322, 10463194, 10463903, 10466606, 10467238, 10467920, 10467932, 10469448, 10470961, 10474454, 10478091, 10480727, 10482274, 10482335, 10482360, 10482375, 10482406, 10482482, 10482586, 10482608, 10482663, 10483172, 10483979, 10485952, 10486173, 10486469, 10487489, 10487890, 10488750, 10490377, 10491470, 10494372, 10497774, 10500552, 10502629, 10505732, 10508121, 10509930, 10510629, 10511560, 10509819, 10509993, 10514794, 10515816, 10516101.

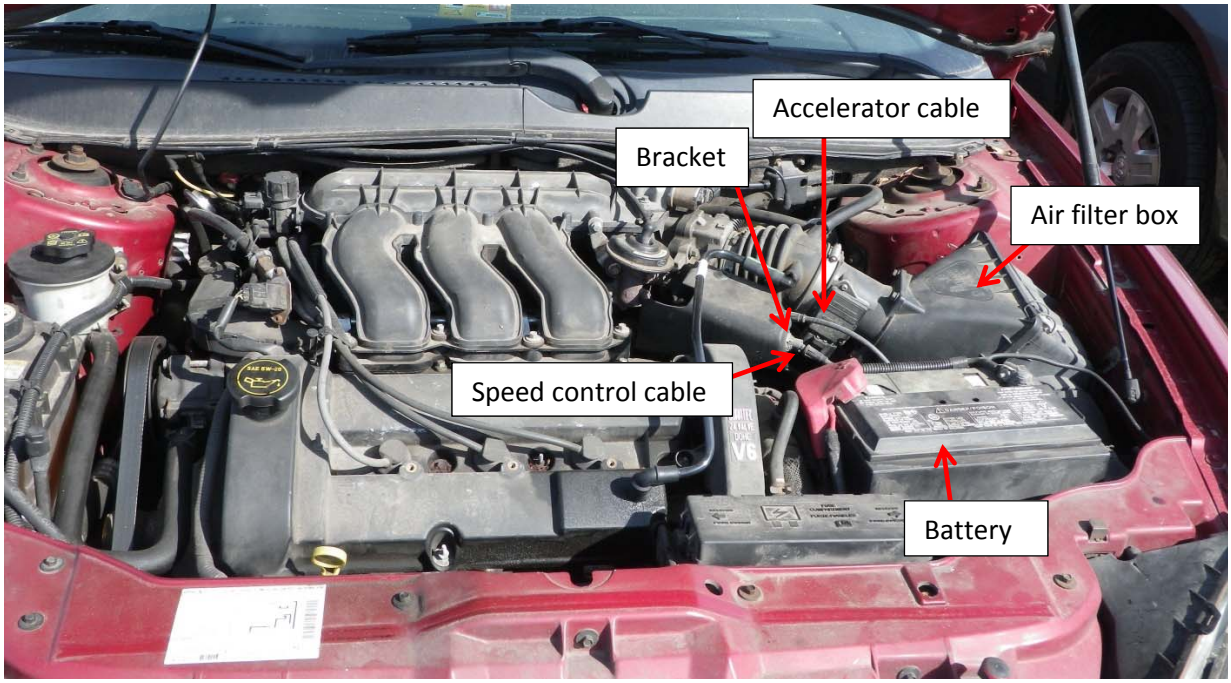

Figure 1. Engine compartment layout.

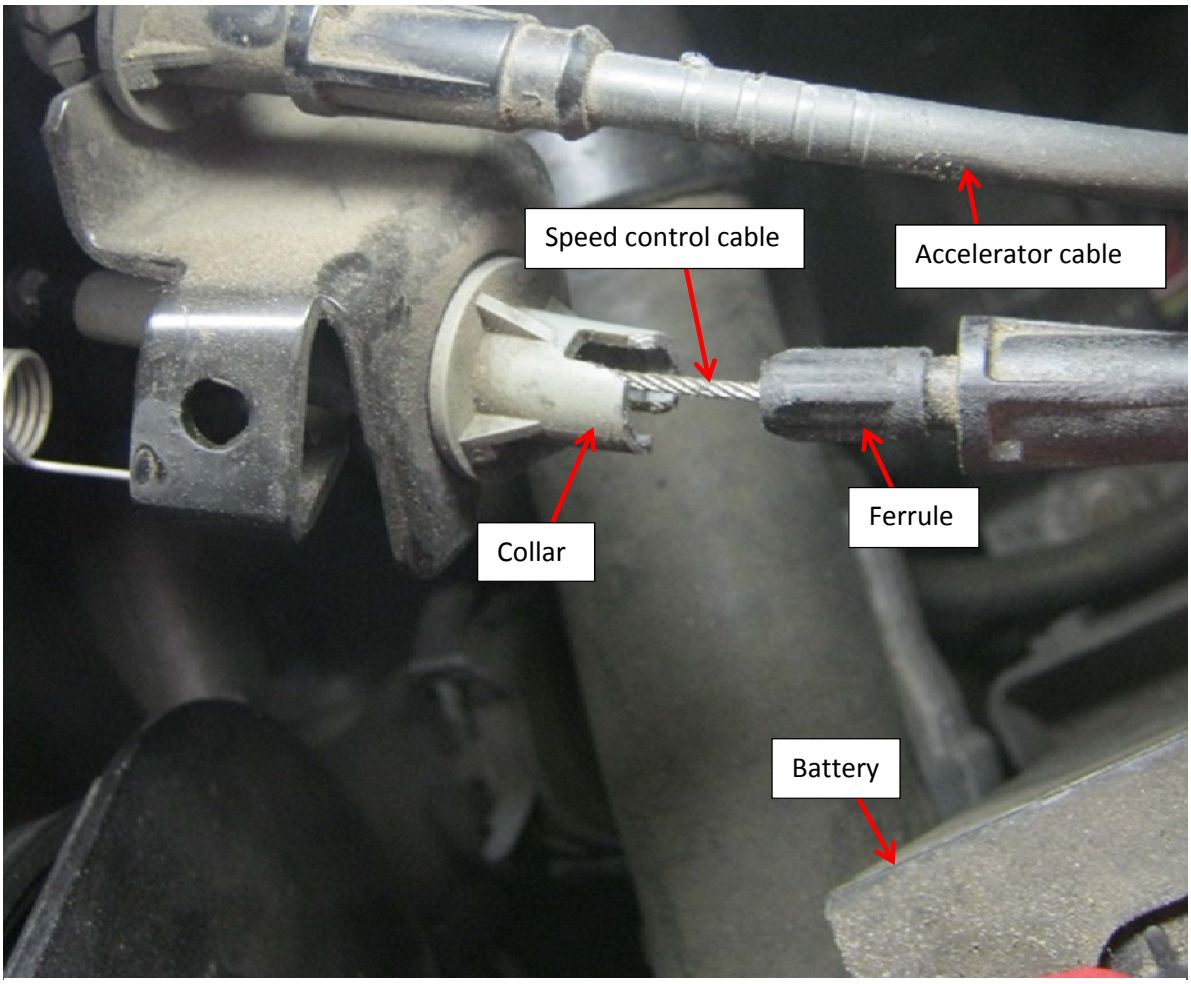

Figure 2. Damaged speed control cable collar during accelerator pedal application (throttle partially open), resulting in displaced ferrule.

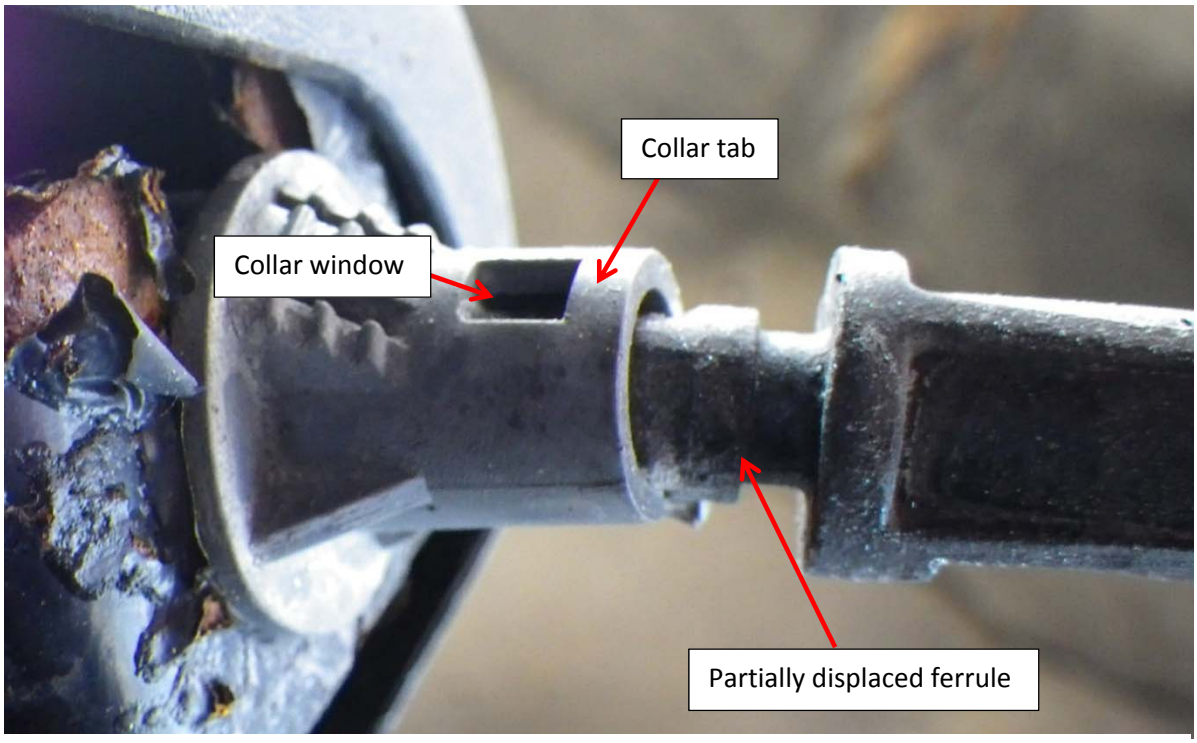

Figure 3. Damaged collar with unretained ferrule
(broken tab is not visible in this view).

Figure 4. Fractured collar tab with unretained ferrule, side view.

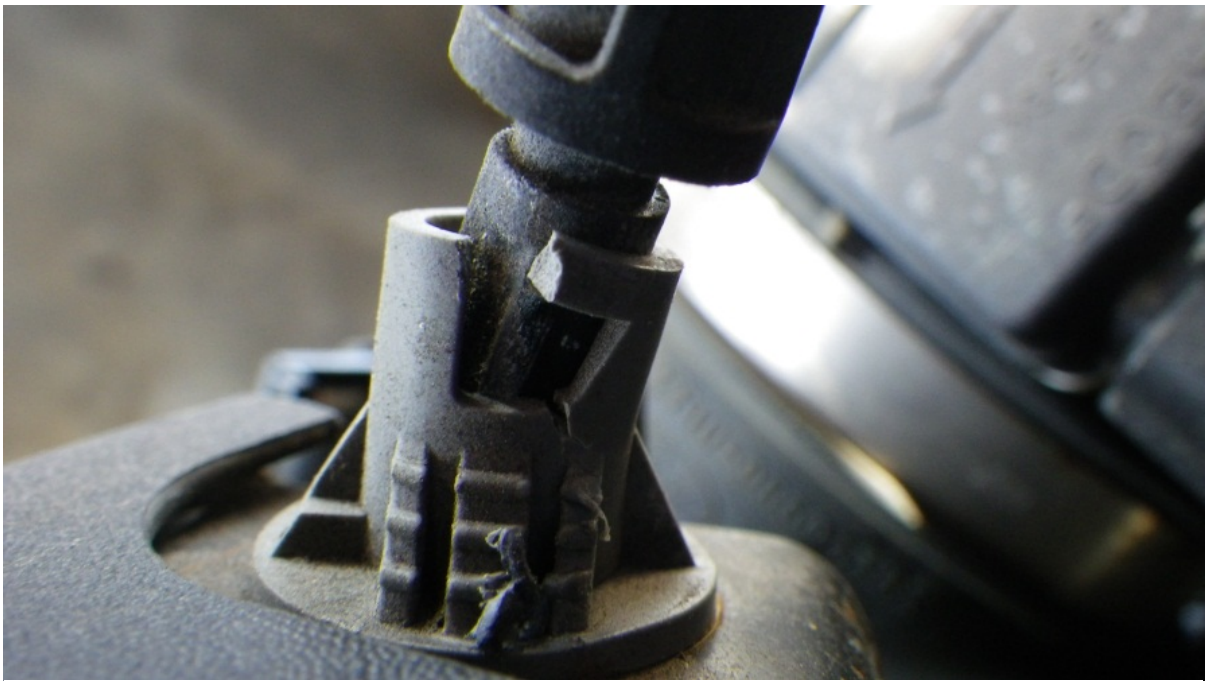

Figure 5. Fractured collar tab with unretained ferrule, bottom view.

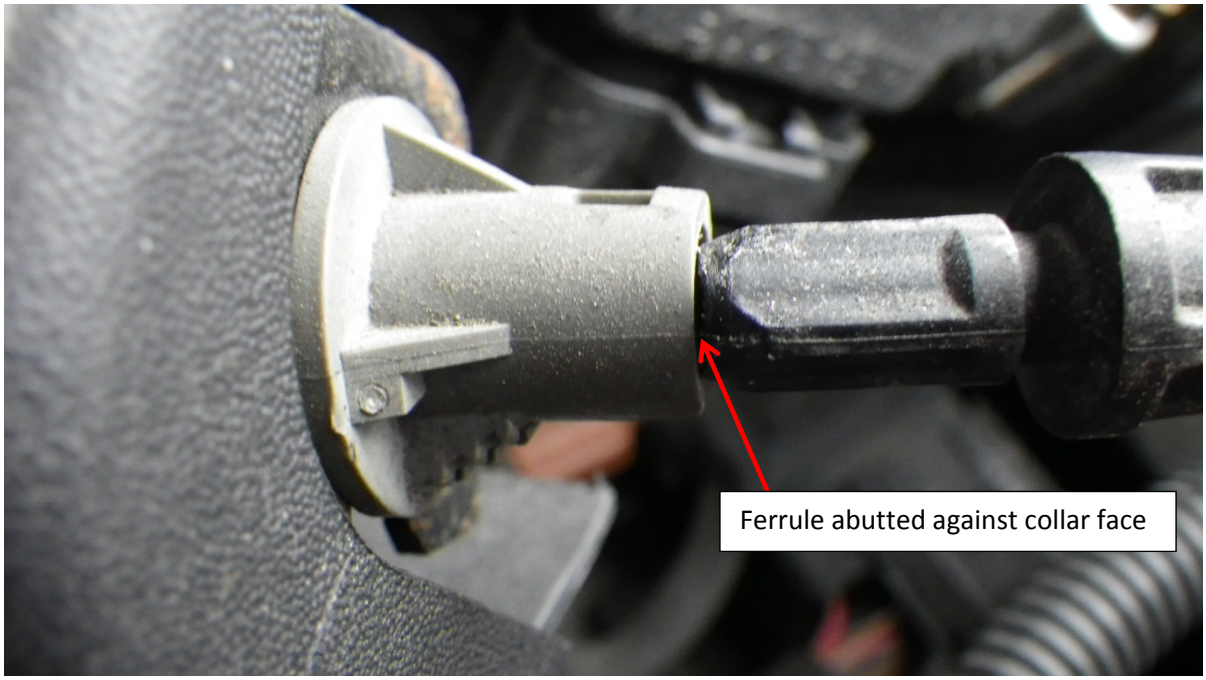

Figure 6. Stuck throttle condition associated with Speed Control Cable collar damage. Ferrule is abutted against collar face during throttle return to idle following release of the accelerator pedal.