

Go & See RESULT

Date : 8.21.2009

Place : Phoenix/Arizona

8.24.2009 CQE-LA Sakaki

Participant: TMS FTS Raul, TMS Cole , CQE-LA Haishi & Sakaki.

1. First information (入電情報)

アクセルOFFにもかかわらずブレーキを離すと加速しNレンジへ変速すると7000rpmまで吹けあがった
Although the accelerator pedal was OFF, the engine rpm was increased to 7000rpm when taking off the brake and the speed turned up when changing the gear to N-position.

2. Vehicle information (車両情報)

Model: Matrix	Model year: 2009	Milage:	
		VIN: 2T1-KU40E-29C	■■■■■
Drive Type: 2WD	Body Type: 5Dr,Sedan	Engine: L4/2ZR-FE	Transmission: 4AT
Date of First Use: 06/23/2008	Plant Code: TMMC	Miles: 43000	

3. Result(結果)

現地ディーラーにて確認を行ったところ以下の状態にて再現。

The concern was duplicated under the circumstance of the following conditions at the local dealer.

1. E/G-ON プレンジ
E/G-ON P-range
2. 手押しにてアクセルをスロットル開状態へ押し込む
Push the accelerator pedal down by hand and make the throttle opened
3. その後、ゆっくりスロットル閉状態へ戻す
Return the throttle to be closed slowly
4. 所々、引っ掛かりが感じられ再現(約3300rpm、スロットル開度22%)
The sticking was partly felt and the concern was duplicated.(approximately 3300rpm, throttle 22% opened)
5. アクセルペダルを手で全閉方向へ軽く引っ張ると"コツ"音と共に全閉に復帰
After pulling the accelerator pedal up by hand, it came to normal with the sound.
* 現品回収のため取り外したところ引っ掛かりがなくなった
There was no pedal sticking when it was removed from the vehicle.

結論: メカ的要因(応力等)によるアクセルペダル引っ掛かりと思われる。

Conclusion: The mechanical problem (ex.stress) may cause the pedal sticking.

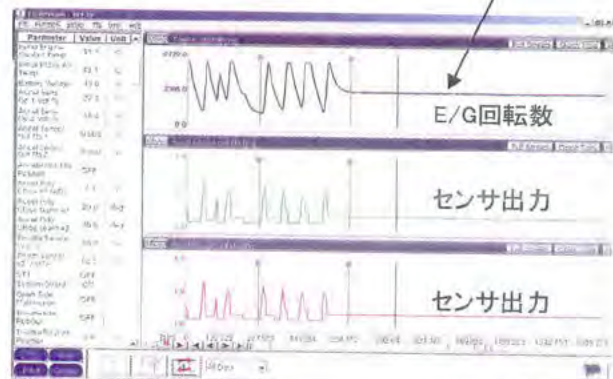
(設計担当TMC-3UBにて回収品調査実施予定)

(The part is going to be investigated by TMC-3UB)

when the accelerator pedal was sticking.

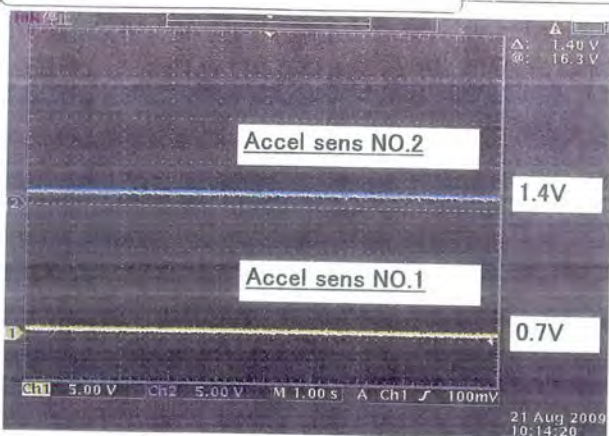


アクセル引っ掛かり時のメーター表示
Display on the meter when the pedal was sticking.

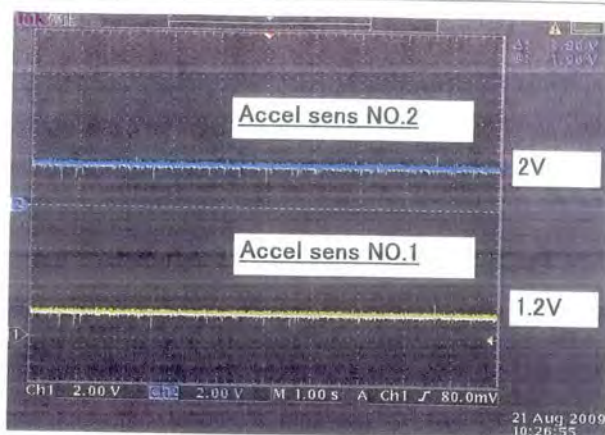


テックストリームデータ表示
Tech stream data

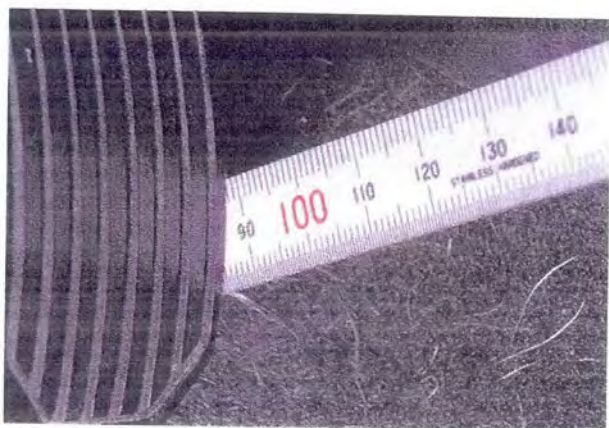
4. Pictures of phenomenon



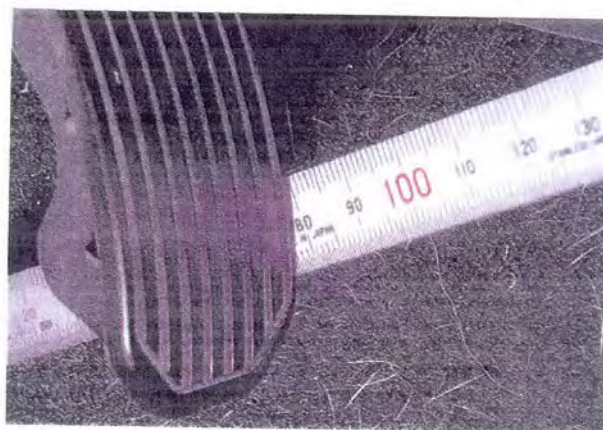
アクセルセンサ出力値(全閉位置)
Output value of the accel. sensor
(when the accel. pedal was fully closed)



アクセルセンサ出力値(引っ掛かり時)
Output value of the accel. sensor
(when the accel. pedal was sticking)



アクセルペダル全閉位置
The position of the pedal fully closed



アクセルペダル引っ掛かり時
The position of the pedal sticking



アクセルセンサ単体
The accelerator pedal sensor



アクセルセンサ品番
The part number of accelerator pedal sensor

Go & See Summary Report: 2008 M/Y Tundra Accelerator Pedal Stuck

Vehicle Info	Dealer / Region Info	Go & See Attendees
VIN: 5TFRU54168X [REDACTED]	Name: Fairfield Toyota	TMS: Cole Stutz
Katashiki: GSK51L-CRASKA	Location: Fairfield, CA	CQE-LA W. Gates
Mileage: 94273	FTS: Robert Miskimmin	CQE-LA D. Kim
L/O Date: 05/15/2008	Go&See Date: 01/15/2009	TMS: Barry Hare
TAS / FTR # TBD	Other: - 10	
TQ-NET# N/A		

Detection: Customer brought in vehicle second time. First time occurrence was earlier in the week.

I. Background:

1/12/10: Customer brought in vehicle to dealer and reported a sudden acceleration issue. Customer had rubber aftermarket floor mats installed on driver side, which dealer recommended to remove. Customer left floor mats.
 1/14/10: Customer brought vehicle in a 2nd time to same dealer and reported recurrence of the issue despite the removal of the aftermarket floor mats. Technician could not duplicate the stuck condition and vehicle was left for study.

II. Go & See Activity Summary:

A) VISUAL OBSERVATION OF VEHICLE:

INTERIOR:

Aftermarket security alarm installed.
 Factory floor mats in place and secured in retaining clips.

EXTERIOR:

Aftermarket truck bed cover installed.
 No problems or signs of abnormal driving or maintenance noted.

UNDERBODY:

No problems or signs of visual damage noted.

B) INVESTIGATION SUMMARY:

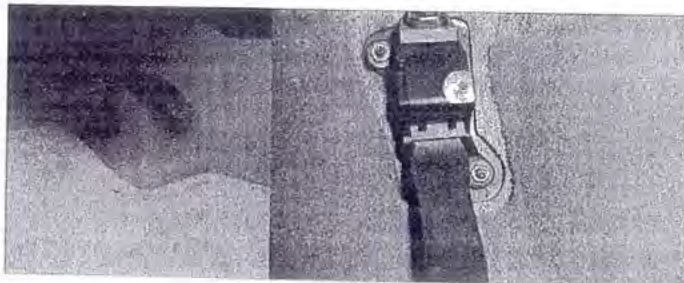
- 1.) Pedal actuation was noted as very notchy at around 50-60% closed position. (video provided)
- 2.) Engine was started. No problems noted with ignition start and idle speed. No indicator lights on.
- 3.) Pedal actuation retained notchy feeling after vehicle is on.
- 4.) Pedal was allowed to spring back from 100% open position to closed without actuation of the pedal. After pedal was released, the notchiness was significantly reduced.
- 5.) Team attempted to duplicate the stuck condition by raising cabin temperature and relative humidity measure. Relative humidity could not be raised significantly and the pedal stuck condition could not be duplicated.

Climate/Weather in Fairfield:
- 17.4 degrees C
- 54% relative humidity

Vehicle Cabin Environment (Initial):
- 26.4 degrees Celsius

III. Pictures / Additional Detail:

A) PICTURES & DIAGNOSTIC FREEZE FRAME DATA



Accel Sensor Out No.1	0 V	0.7 V
Accel Sensor Out No. 2	0 V	1.6 V
Accelerator Idle Position	ON	
Accel Fully Close #1	0.7 V	
Throttle Position Sensor No.1	0 V	0.9 V
Throttle Position Sensor No.2	0 V	2.5 V
Throttle Idle Position	OFF	
Throttle Motor Current	0 V	

B) CUSTOMER DESCRIPTION OF LAST KNOWN OCCURRENCES

1st Occurrence:

- 1.) Customer stopped at stop light, turned left and increased speed with foot on pedal to 20 MPH. Took foot off accelerator pedal and truck continued to gain speed. Customer came to a stop by applying brakes but RPM still high.
- 2.) Drove home at the current speed, applied brake and put into Park mode. After putting into Park mode the RPM increased to almost redline. Customer shut off engine and restarted. RPM's raced to previous point before off. Customer looked down and noticed pedal was stuck and lifted the pedal to closed position with hand. Restarting the truck the idle speed was normal.

2nd Occurrence:

- 1.) Customer stopped at stop sign, turned right and increased speed with foot on pedal to 20 MPH. Took foot off accelerator pedal and truck continued to gain speed to 40 MPH. This time customer released pedal with foot from prior experience. Vehicle reduced speed as expected.

IV. Next Step

- 1.) Recovered part is in possession of TMS legal for additional technical review. Possibility of return to CQE is unknown but will be requested.
- 2.) CQE feels that this issue is the same that is being addressed by an existing ECI to change the friction lever shape. If additional parts are gathered, parts will be reviewed with CTS to confirm same phenomenon.

Go & Study Report

CONFIDENTIAL
関係者外秘
Div. CD Unit

GM H. Ueda	S. Mgr H. Dochi	Manager J. Feytons	Coord. Y. Kamal	S. Eng P. Laurent
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Distribution:	TMMF-QC, TME Body Design, TME CSTD, TMC CQE Q22, Takaoka QC, TME QF (Senturk-san → ECQE circulation)			
Attendees:	Toyota Ireland	Ray Maloney	TME Body Design	M. Matsushiro
	CTS Scotland	C. Grant	TME ECQE	J. Miura (Home Doctor), P. Laurent
Date:	23-24/04/2009	Location:	Ireland, Galway	
Report Date:	/04/2009			Page 1

Subject: Vehicle Go&Study: Accelerator pedal Stuck on TMMF Yaris

Conclusion:

- Customer Problem not duplicated
- Necessary Data recorded:
 - No interference between Accelerator pedal and Floormat confirmed
 - Now detail study of Engine data by Design
 - No evidence of condensation or water entry

No.	Item																																																
1.	<p>Background</p> <ul style="list-style-type: none"> GR1 item registered on Aygo and Yaris by 16/03/2009 Customer complaint: 'Accelerator Pedal Stuck during driving' 																																																
2.	<p>Visit Purpose</p> <ul style="list-style-type: none"> Vehicle Investigation to duplicate and understand reported problem Datas collection for Root Cause Analysis (jointly with TME R&D and supplier) Dealer's interview to understand duplication method 																																																
3.	<p>Investigation Results</p> <p>1. <u>Vehicle Information:</u></p> <table border="1"> <tr> <td>Model Type</td> <td colspan="3">TMMF Yaris, 1KR engine without A/C</td> </tr> <tr> <td>VIN</td> <td>VNKKG96330A [REDACTED]</td> <td>Mileage</td> <td>25,648km</td> </tr> <tr> <td>L/O Date</td> <td>01/03/2007</td> <td>Repair History</td> <td>Accelerator pedal replaced by 12/01/09</td> </tr> </table> <p>2. <u>Evaluation method:</u></p> <ul style="list-style-type: none"> Static measurement by means of Calliper rule / Engine measurement by Intelligent Tester 2 Actual Part / FTR 2009/007/IRL part & Brand new part measurement after installation into vehicle Additional measurement done with new Accelerator pedal bracket <p>3. <u>Results:</u></p> <p>A. <u>Static measurement</u></p> <table border="1"> <thead> <tr> <th>Accelerator Pedal</th> <th>Pedal Stroke</th> <th>Pedal position vs Carpet</th> <th>Carpet Shape</th> <th>Pedal Hole edge-pitch</th> <th>Bracket Hole edge-pitch</th> </tr> </thead> <tbody> <tr> <td>Actual</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>FTR Part</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>New</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>New with new Bracket</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Final Judgement (Based on Data file)</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>→ No interference between Floormat and panel confirmed</p> <p>B. <u>Engine Data measurement</u></p> <ul style="list-style-type: none"> Initial data analysis did not show any abnormal condition. Further analysis should be performed by TMC. 	Model Type	TMMF Yaris, 1KR engine without A/C			VIN	VNKKG96330A [REDACTED]	Mileage	25,648km	L/O Date	01/03/2007	Repair History	Accelerator pedal replaced by 12/01/09	Accelerator Pedal	Pedal Stroke	Pedal position vs Carpet	Carpet Shape	Pedal Hole edge-pitch	Bracket Hole edge-pitch	Actual	0	0	0	0	0	FTR Part	0	0	0	0	0	New	0	0	0	0	0	New with new Bracket	0	0	0	0	0	Final Judgement (Based on Data file)	0	0	0	0	0
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C. Vehicle test drive for duplication purpose

- Vehicle was driven in actual condition and with recovered parts installed for 20min each
→ No duplication

D. Vehicle body check

- Floormat, windshield, doors, roof were checked
→ No mark of water entry neither condensation could be confirmed

E. Dealer's Interview

- FTR 2009/007/IRL: Problem occurred by 12/01/2009 at 15:00 / Temperature between 5 to 6°C / No rain
- Concern details:
By 12/01/2009, Customer brought the vehicle to the dealer complaining about accelerator pedal sticking to the floor. Vehicle was parked outside in front of the dealer. Then, technician drove the vehicle inside the workshop in 1st gear and faced also the accelerator pedal sticking to the floor. Dealer took at that time some video of the concern. Afterwards, he tried to duplicate the phenomenon for 10min but without any success.

4. Conclusions:

- 'Accelerator Pedal Stuck condition' not duplicated
- No interference between Floormat and panel confirmed by static measurements
- Engine data should be further analysed by TMC design
- No evidence of condensation or water entry

4. Next Actions

ITEMS	Who	Due
Recorded Engine ECU Data analysis	TMC J-CQE	Week 19
Joint TV Meeting with JCQE, TMC Design to discuss next steps	ECQE, J-CQE & TMC Design	Week 19

5. Attachments



Pic. 1: Pedal Stroke Measurement



Pic. 2: Duplication trial with dealer's technician



Pic. 3: Body check for condensation



Pic. 4: Wrap-up meeting with NMSC