

Your Ref: SNM24D204995
Our Ref : CS/CTI24090156/N

16 September 2024

M/s China Taiping Insurance (Singapore) Pte. Ltd.

3 Anson Road #16-00
Springleaf Tower
Singapore 079909
(Motor Claims Department)

**TECHNICAL INVESTIGATION REPORT OF FIRE INCIDENT INVOLVING THE
INSURED VEHICLE SKD 6339H ON 4 SEPTEMBER 2024**

1. We refer to your letter dated 9 September 2024 and the instructions therein.
2. Our analysis, comments and opinions with respect to the cause of fire to the insured vehicle SKD 6339H (herein referred to as “**Insured Vehicle**”) are set out below.

Inspection of the Insured Vehicle

3. The Insured Vehicle was physically inspected on 11 September 2024 at the premises of **SME Motor Pte. Ltd.** (herein referred to as “**SME**”) located at 1 Kaki Bukit Avenue 6 #02-15, AutoBay @ Kaki Bukit, Singapore 417883.
4. A static inspection was carried out to the Insured Vehicle where the following general information was recorded:-

Vehicle Registration No.	: SKD 6339H
Make / Model	: FORD MONDEO ESTATE TITANIUM 2.0 AT GTDI SR
Chassis No	: WF0FXXWPCFGC87924
Year of Registration	: February 2017
Mileage	: N.A (battery melted)

5. The Insured Vehicle was noted to have sustained fire damage that was confined to within the engine compartment. The rear portion of the engine compartment of the Insured Vehicle was observed to be partially burnt and/or melted while the exterior portion and the interior compartment was observed to have been relatively unaffected by the fire. See photos 1 – 5 below.



Photo 1 shows the general view of the frontal portion of the Insured Vehicle at the time of our inspection. The front portion of the Insured Vehicle was relatively unaffected by the fire.



Photo 2 shows the general view of the left frontal portion of the Insured Vehicle at the time of our inspection. The left frontal portion of the Insured Vehicle was relatively unaffected by the fire.



Photo 3 shows the general view of the rear right portion of the Insured Vehicle at the time of our inspection. The rear portion of the Insured Vehicle was relatively unaffected by the fire.



Photo 4 shows the general view of the engine compartment of the Insured Vehicle at the time of our inspection. The fire damage was confined to rear portion as observed by the burnt nature of the engine components towards the rear portion of the engine (circled).



Photo 5 shows the interior compartment of the Insured Vehicle, which was observed to be relatively unaffected by the fire.

6. At the time of inspection of the Insured Vehicle, we did not find any additionally fitted electronic and/or electrical component(s) on the Insured Vehicle. There also appears to be no modification(s) fitted on the Insured Vehicle.

Investigation and Technical Analysis

7. For this particular case, the fire appears to have originated within the engine compartment of the Insured Vehicle, somewhere around the rear portion of the engine compartment. This can be determined from the whitish burn marks and also the rust that had developed on the underside of the front bonnet of the Insured Vehicle, at the bottom portion.
8. The whitish burn marks are a result of exposure to prolonged heat intensity. Rust would normally start to develop around these areas soon after a fire as prolonged exposure to high heat intensity usually causes steel/metal material body parts to be exposed to natural environmental condition. The rust that had developed on the underside of the front bonnet, around the bottom portion, is an indication that the rear portion of the engine compartment had sustained exposure to prolonged high heat intensity.

9. We also observed paint bubbles on the rear portion of the front bonnet. In general the location of the fires' origin was determined given that the damage of fire nature was confined to these particular areas on the Insured Vehicle. See photos 6 - 8 below.



Photo 6 shows the burn pattern and whitish burn marks that were found on the underside of the front bonnet of the Insured Vehicle, at the bottom portion (circled). Such whitish burn marks are a result of exposure to prolonged heat intensity, which may indicate where the fire had started. Rust would also begin to develop on these areas soon after the fire.



Photo 7 shows the rust that had developed on the underside of the front bonnet, around the bottom portion (circled). The development of rust is an indication that this area was subjected to prolonged exposure to high heat intensity, which had caused the steel/metal material of the front bonnet to be exposed to natural environmental condition. Hence the fire to the Insured Vehicle can be determined to have originated towards the rear portion of the engine compartment.



Photo 8 shows paint bubbles on the rear portion of the front bonnet (circled).

10. Upon closer examination of the rear portion of the engine compartment, which was where the fire to the Insured Vehicle had likely started, we had found several stretches of wirings leading from the battery burnt internally to its bare copper state. Such condition normally indicates internal heating of copper wires which is a sign of an electrical short circuit occurring. This physical evidence would then appear to suggest that the cause of fire to the Insured Vehicle could have possibly been due to electrical in nature. See photos 9 - 11 below.

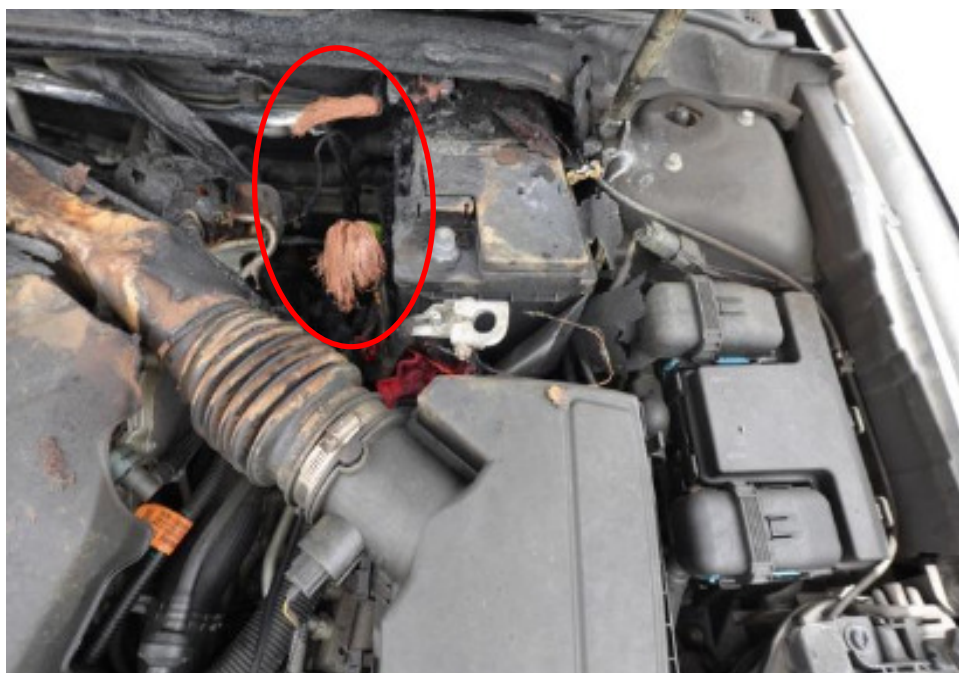


Photo 9 shows the wirings around the rear portion of the engine compartment, which is in the immediate vicinity where the fire to the Insured Vehicle had likely started. The wirings leading from the battery (circled) were found to have been burnt internally to its bare copper state, suggesting occurrence of an electrical short circuit.

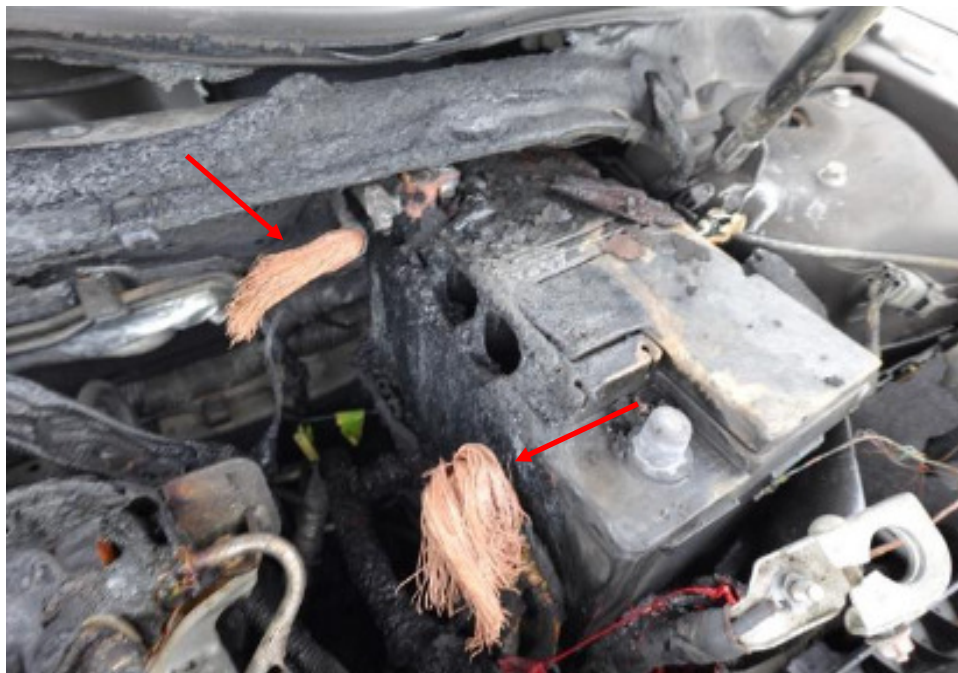


Photo 10 shows a closer view of the wirings around the rear portion of the engine compartment, which is in the immediate vicinity where the fire to the Insured Vehicle had likely started. The wirings leading from the battery (red arrows) were found to have been burnt internally to its bare copper state, suggesting occurrence of an electrical short circuit.



Photo 11 shows a close up view of the wirings leading from the battery (red arrows) which were found to have been burnt internally to its bare copper state, suggesting occurrence of an electrical short circuit.

11. From the Singapore Accident Statement, which was made by Mr Yin Hongli (herein referred to as “**Mr Yin**”), we note that the fire to the Insured Vehicle had started at a time after the Insured Vehicle was parked. He was alerted of the fire by an announcement in the shopping mall when he was walking towards the Insured Vehicle.
12. We were able to gather further information pertaining to the incident as well as information pertaining to the history of the Insured Vehicle.
13. According to Mr Yin, at about 0600hrs on 1 September 2024, he together with his family drove to Mersing, Johor, Malaysia for a holiday. At about 1000 hours they arrived at Mersing. Mr Yin parked the Insured Vehicle inside a carpark located beside the ferry terminal before he and his family boarded a ferry to Tioman Island and stayed over for 2 nights. On 3 September 2024 they returned to Mersing at 1000 hours and headed to Mr Yin’s rental apartment located in Danga Bay, Johor Bahru. They arrived around 1600 hours. Mr Yin drove the Insured Vehicle in the evening later that day to have dinner with his family. The following day, on 4 September 2024 at about 0730 hours they left the apartment and proceeded to have breakfast somewhere nearby.
14. They later headed to Paradigm Mall to drop his children at the indoor playground. He then returned to his rental apartment. At about 1200 hours he left the apartment and returned to Paradigm Mall. At about 1600 hours as they were about to reach the carpark they heard an announcement that the Insured Vehicle had caught fire. Mr Yin immediately ran over to the Insured Vehicle and saw security personnel using fire extinguishers in an attempt to put out the fire. Mr Yin was instructed by one of the security personnel to open the front bonnet of the Insured Vehicle so they could put out the fire quickly. When Mr Yin lifted the front bonnet, he saw smoke and flames coming from near the battery of the Insured Vehicle.
15. The security officers managed to put out the fire within a few minutes before the arrival of the firefighters. Mr Yin mentioned that the firefighters conducted preliminary investigations before cutting the wires connecting the battery of the Insured Vehicle. The firefighters informed Mr Yin that he was not required to lodge a police report as the fire had not spread to other vehicles in the carpark. He was informed to make towing arrangements which he did.

16. Mr Yin waited for the tow truck which arrived by 1930 hours. The Insured Vehicle was towed to Vantage Automotive Limited (herein referred to as “**Vantage**”). Mr Yin and his family returned to Singapore via taxi. He made an insurance report the next day on 5 September 2024 at SME at 1545 hours.
17. With regards to the history of the Insured Vehicle, we were able to gather that he is the owner and only driver of the Insured Vehicle. To the best of his recollection, there has not been any major mechanical problem and/or electrical problem with the Insured Vehicle.
18. Pertaining to the maintenance aspect, Mr Yin sends the Insured Vehicle for periodic servicing.
19. During the course of our investigations, we were also able to obtain from Mr Yin, a document relating to the latest servicing of the Insured Vehicle done at Vantage on 10 May 2024. The servicing package included changing of engine oil and oil filter. The oil drain plug was also replaced. Refer to Invoice 1 below.

VANTAGE AUTOMOTIVE LIMITED ←

(A Sime Darby Motors Company)
Co. Reg. No. 192600045M GST Reg. No. M2-0000551-1

305 Alexandra Road
Vantage Automotive Centre
Singapore 159942
Service Booking: 6477 7368
Vantage 24-Hour Assist: 6473 8588
Fax: 6477 7300



SERVICE TAX INVOICE
RE-PRINT

REPAIR ORDER NO. W9 78362	Date IN 10/05/2024 ← Payment Term 30 Days From Invoice Customer Service Advisor Lam Jia Le	Invoice Number 5572285 / WSH Invoice Date 11/05/2024 Invoice By Wendy Chuah	Page No. 1 of 1
CUSTOMER INFORMATION Vin Hongli 89 Tampines Avenue 1 #11-36 Singapore 528689		INVOICE TO 910019 Int-AS-2yrs Service Prepaid Package	
REGISTRATION No. SKD6339H ←	CHASSIS No. WF0FXKWPCFGC87924	STOCK No. 15465	REGISTRATION DATE 28/02/2017
MODEL Mon 2.0 SW		MILEAGE 108219	
JOB CODE	DESCRIPTION	UNITS	DISC %
2	OCLA1WYPN	1	20.00
	Conduct oil change service (1/4)		
	AA6Z6731B	1	0.00
	FILTER OIL		
	E3726730	1	0.00
	PLUG OIL DRAIN		
		Sub-Total :	
		96.80	
JOB CODE	DESCRIPTION	UNITS	DISC %
6	9990	0	20.00
		Sub-Total :	
		32.00	
REMARKS : Car washing & vacuuming is complimentary from us. Your serving CSA is Jia Le. Please contact him at 51784543 should further assistance is required. Your next service is approximately @ 118,219km or 06/11/24 (w/c ever comes first). Be informed that Quicklane is the Authorized Repairer for the following: Liberty & MSIG Insurers. Also Authorized Workshop for Hitachi Capital and Fleet Management for Hertz.			
Service Packages		0.00	Total Labour/Parts/Service Package Charges
Labour Charges		88.00	\$S 128.80
Parts Charges		40.80	Less Insurance Excess
Lubricant/Misc		0.00	\$S 0.00
			GST @ 0%
			\$S 0.00
			Invoice Total Amounts
			\$S 128.80
			Less Deposit/Voucher
			\$S 0.00
Computer generated invoice. No signature is required.		Amount Payable	
		\$S 128.80	
All amounts are in Singapore Dollars. Work was carried out subject to the Company's Terms and Conditions of Service. No complaints will be entertained unless reported within seven (7) days of the date of this invoice. For credit purchases, interest @1% per month will be debited on overdue amounts.		Account Name Vantage Automotive Limited Bank Name Citibank N.A. Singapore Branch Bank Code 7214 Branch Code 901 Account Number (SGD only) 0-853128-007 PayNow UEN 192600045M Swift Code CTI2SGSG	

Invoice 1 shows the last servicing done on the Insured Vehicle 10 May 2024 at Vantage (red arrows). The servicing package included changing of engine oil and oil filter. The oil drain plug was also replaced (circled).

20. Mr Yin mentioned that after the servicing was done he had not experienced any mechanical or electrical problems with the Insured Vehicle till the day of the incident. He also mentioned that there were neither warning lights displayed nor was there an abnormal rise in temperature of the Insured Vehicle when he was driving the Insured Vehicle on the day of the incident.

21. Mr Yin mentioned that since the purchase of the Insured Vehicle, he has not done any modification(s) and/or additionally fitted any electrical or electronic component(s) to the Insured Vehicle.

Incident Scene Photographs

22. We were able to obtain from Mr Yin photographs of the Insured Vehicle at the incident location. The photographs were taken after the fire to the Insured Vehicle were extinguished. In general, the information that could be gathered from these photographs had corresponded to the events that were related to us by Mr Yin. Our close examination of these photographs also showed no unusual foreign material(s) and/or object(s) found on the lot in the immediate area where the Insured Vehicle was parked. See photos 12 & 13 below.

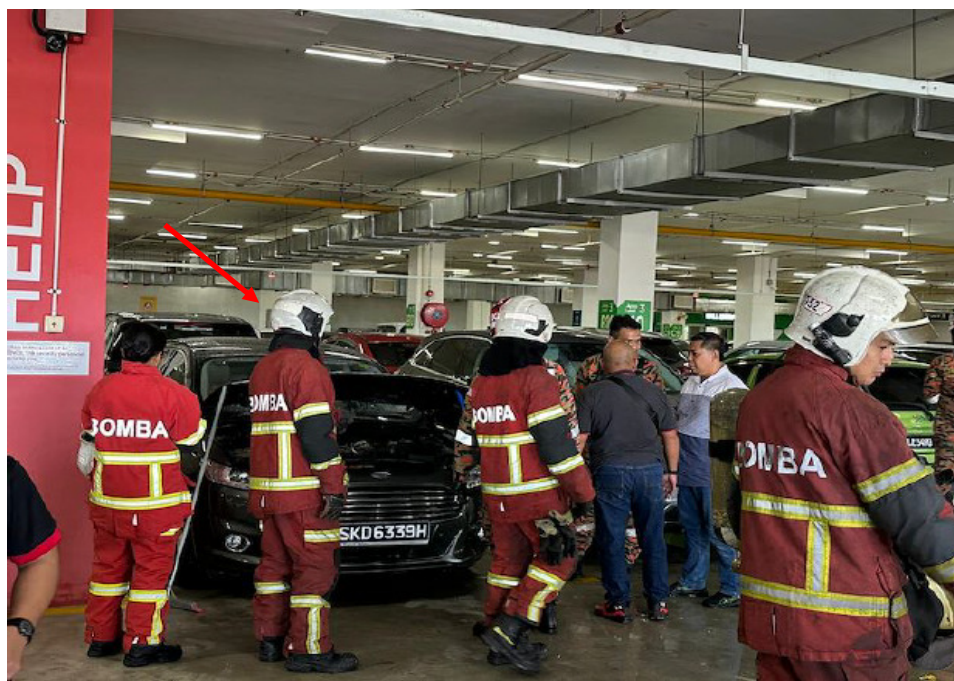


Photo 12 shows the Insured Vehicle after the fire was extinguished. In general, the information that could be gathered from this photograph had corresponded to the events that were related to us by Mr Yin, which is firefighters had responded to the incident (arrowed).

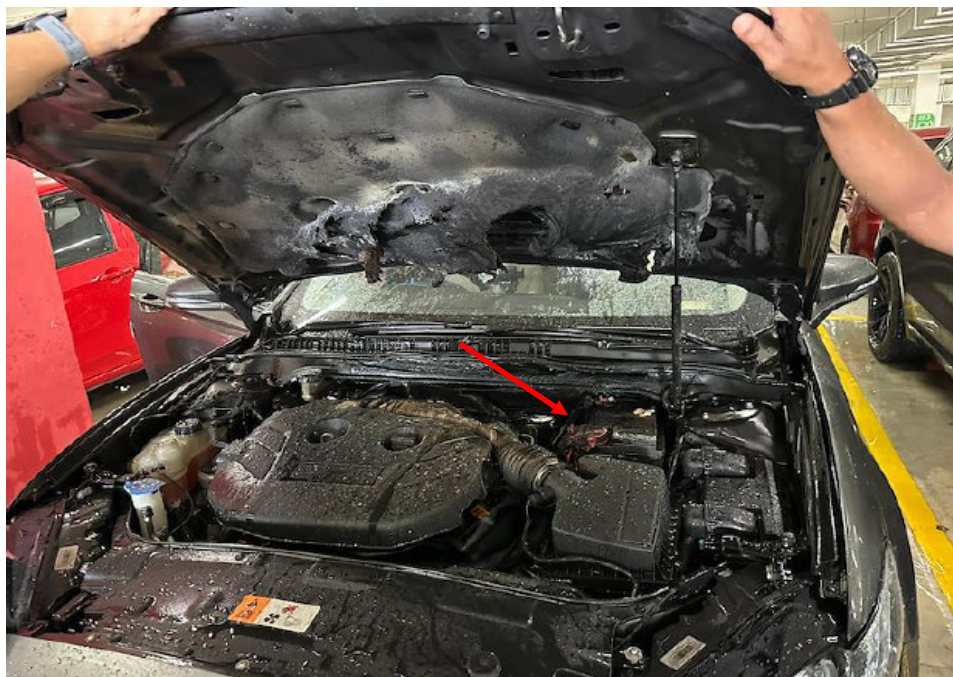



Photo 13 shows the engine compartment of the Insured Vehicle at the incident location post- incident. In general, the information that could be gathered from this photograph had corresponded to the events that were related to us by Mr Yin, which is the fire to the Insured Vehicle had started from the rear portion of the engine compartment (arrowed).

23. Based on the vehicle service record invoice provided, we are of the opinion that it is unlikely that the fire could have been caused by poor maintenance of the Insured Vehicle.
24. Given the circumstances of the incident as reported, the possibility of the cause of fire to the Insured Vehicle being due to engine overheating would seem unlikely as Mr Yin had mentioned to us there were no indications of abnormally high temperatures on the Insured Vehicle when he was driving on that day. Furthermore, the fire had started after the engine was switched off for a period of time (about 4 hours).
25. The possibility of the fire being due to external factors (foreign material(s) stuck on hot surfaces, arson and sabotage amongst others) would also seem unlikely as the fire was confined to within its engine compartment. The location of where the Insured Vehicle was parked was also observed to be not at a secluded location.

26. The possibility of the fire being due to electrical in nature would then seem more likely given that engine overheating and external factors would both seem unlikely. The fire being due to electrical nature is also supported by the condition of the wirings that were found in the engine compartment of the Insured Vehicle, which was earlier discussed in paragraph 10 above.

27. Our checks with both local and international bodies and associations had revealed that at the time of writing this report, there was a manufacturer recall on 10 August 2021 for the propellant in the Takata airbag inflators. It was rectified on 11 August 2022. There was a 2nd manufacturer recall on 23 August 2022 for the door latches. It was rectified on 2 November 2023. There was a 3rd manufacturer recall on 28 September 2022 for the front brake hoses. It was rectified on 21 February 2023. See search result from LTA below.



Vehicle Recall Details

ONLY INFORMATION ON VEHICLE RECALLS SUBMITTED FROM 9 APRIL 2007 IS AVAILABLE

<i>Owner ID Type</i> Singapore NRIC	<i>Owner ID</i> 226B
<i>Vehicle No.</i> SKD6339H	<i>Make/Model</i> FORD/ MONDEO ESTATE TITANIUM 2.0 AT GTDI SR
<i>Engine No.:</i> GC87924	<i>Chassis No.:</i> WF0FXXWPCFGC87924

Recall Details

Recall No.: R2022101190

Manufacturer Recall Date:

23 Aug 2022 ←

Estimated Completion Year of Recall:

2024

Brief Description (As Provided by Motor Dealer):

The door latches have a pawl spring tab that may break. This condition will typically prevent the door from latching. ←

Date Rectified:

02 Nov 2023 ←

Hotline Information:

REGENT MOTORS at 64777399

For more details, contact VANTAGE AUTOMOTIVE LIMITED

Recall No.: R2023011223

Manufacturer Recall Date:

28 Sep 2022 ←

Estimated Completion Year of Recall:

2024

Brief Description (As Provided by Motor Dealer):

Date Rectified:

In some of the affected vehicles, brake fluid may leak from one or both front brake flexible hoses. ←

21 Feb 2023 ←

Hotline Information:

REGENT MOTORS LTD at 64777399

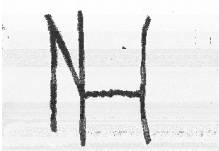
For more details, contact VANTAGE AUTOMOTIVE LIMITED

Recall No.: R2021111079	
Manufacturer Recall Date: 10 Aug 2021 ←	Estimated Completion Year of Recall: 2024
<p>Brief Description (As Provided by Motor Dealer):</p> <p>In some of the affected vehicles, the propellant in certain Takata airbag inflators can experience an alteration over time with exposure to certain climate conditions. A combination of time, high temperature fluctuations, and humidity contribute to the degradation of the propellant in the inflators. This degradation can cause the propellant to burn too quickly, creating high pressure inside the inflator, and in extreme cases causing the inflator to rupture in the event of a crash necessitating airbag deployment. ←</p>	
<p>Date Rectified: 11 Aug 2022 ←</p>	
<p>Hotline Information: REGENT MOTORS LTD at 64777399</p>	
<p>For more details, contact VANTAGE AUTOMOTIVE LIMITED</p>	

Conclusion

28. Having investigated and technically analysed the damages to the Insured Vehicle, we are of the view that the cause of fire to the Insured Vehicle was of electrical in nature. For this particular case, the fire had originated along the wirings inside the engine compartment, somewhere around the rear portion. The wirings were original factory wirings of the Insured Vehicle.
29. We did not find any evidence which had suggested that the cause of fire to the Insured Vehicle was due to poor maintenance and/or recurring electrical problem.
30. There were no modification(s) or additional electronic and/or electrical component(s) fitted on the Insured Vehicle at the time of our inspection of the Insured Vehicle.

31. Our investigations had also revealed that at the time of writing this report, there is no manufacturer recall of electrical nature to similar make and model vehicle as the Insured Vehicle that may possibly be related to this incident.

**Muhd Nazril***Senior Technical Investigator***Ang Bryan Tani***AMSOE, AMIRTE, AFF SAE, M.MATAI, AFF.Inst.AEA**Senior Technical Investigator**Technical Investigation & Reconstructionist (SAE-A)*

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