

Your Ref: 27716466QMX

11th May 2018

Our Ref : CS/MSG18008026/Z

M/s MSIG Insurance (Insurance) Pte Ltd 4 Shenton Way, #21-01 SGX Centre 2, Singapore 068807 (Motor Claims Department)

TECHNICAL INVESTIGATION REPORT OF FIRE INCIDENT INVOLVING THE INSURED VEHICLE SJU 7407K ON 27th April 2018

- 1. We refer to your letter dated 08th May 2018 and the instructions therein.
- Our analysis, comments and opinions with respect to the cause of fire to the Motor Vehicle SJU 7407K (herein referred to as "Insured Vehicle") are set out below.

Inspection of the Motor Vehicle

- The Insured Vehicle was physically inspected on 08th May 2018 at the premises of Wah Hong Motors & Credit Pte Ltd (herein referred to as "Wah Hong"), 38 Toh Guan Road East, #01-57, Enterprise Hub, Singapore 608581.
- 4. A static inspection was carried out to the Insured Vehicle where the following general information was recorded:-

Vehicle Registration No. : SJU 7407K

Make / Model : HONDA FIT 1.3G A

Chassis No : GE61220055
Year of Registration : 2009 (December)
Mileage : N.A. (wiring affected)

5. The Insured Vehicle was noted to have sustained fire damages that severely effected on the entire parts of the Insured Vehicle. The fire damages was observed on its interior compartment, engine compartment, front portion, left portion, right portion & rear portion. Rust had accumulated all over the Insured Vehicle as a result of exposure to environmental condition for a period of time. See photos 1 – 6 below.



Photo 1 shows the front view of the Insured Vehicle at the time of our inspection. The Insured Vehicle was noted to have sustained fire damages that severely effected on the entire parts of the Insured Vehicle.



Photo 2 shows the interior view of the Insured vehicle, it was observed to have sustained with severe burnt damages due to the fire.



Photo 3 shows the rear right side of the Insured Vehicle at the time of our inspection. The Insured Vehicle was noted to have sustained fire damages that severely effected on the entire parts of the Insured Vehicle.



Photo 4 shows the rear left side of the Insured Vehicle at the time of our inspection. The Insured Vehicle was noted to have sustained fire damages that severely effected on the entire parts of the Insured Vehicle.



Photo 5 shows the engine compartment of the Insured Vehicle at the time of our inspection. The fire damages the entire engine compartment.



Photo 6 shows the rear internal portion of the Insured Vehicle at the time of inspection.



6. 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 Insured Vehicle is an indication that it had sustained exposure to prolonged high heat intensity. See photo 7 below.



Photo 7 shows 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 Insured Vehicle is an indication that it had sustained exposure to prolonged high heat intensity.

7. At the time of inspection, we did not observe any unusual skeletal remains which could have suggested that there was possible modification(s) and/or additionally fitted electronic and/or electrical component(s) on the Insured Vehicle.



Investigation and Technical Analysis

- 8. From the Singapore Police Report No. J/20180428/2143 which was made by Mdm Jum'ah Bte Abdul Razak (herein referred to as "Mdm Jum'ah"), on 27th April 2018 at about 2150hrs she was driving the vehicle leaving Kent Ridge Wing Hospital car-park and making their way towards Ayer Rajah Expressway (herein referred to as "AYE") proceeding home. She was travelling with her husband, namely: Mr Muhammad Asri Bin Abdullah (herein referred to as "Mr Asri"), daughter and son. She realised there's a burning smell and smoke was out coming from under the dashboard compartment. Initially, they thought that the smell came from outside of the vehicle, thus continued driving. Soon, they saw more black smoke emitted from under the dashboard. By then her husband advised her to stop at the road shoulder and alight the Insured Vehicle. Her husband then instructed everybody to get off the Insured Vehicle and get to a safe distance. Soon after, the Insured Vehicle was engulfing with fire. They called for SCDF assistance.
- 9. We managed to arranged for a face to face interview with Mdm Jum'ah and Mr Asri on 10th May 2018 at their residence at Blk 156 Jalan Teck Whye #13-57 Singapore 680156 where we were able to gather further information regarding the accident and also information pertaining to the history of the Insured Vehicle.
- 10. The Insured Vehicle was purchased pre-owned & was registered on 24th December 2009 under Mr Ahmad Jamali Bin Awi. Mdm Jum'ah will drive the Insured Vehicle most of the time mainly to ferry her husband to & from work. The registered owner Mr Ahmad Jamali will occasionally drive whenever there's a need.
- 11. Mdm Jum'ah currently assisting her husband's business as an embalmer, preserving corps. They have been in the business for about 16 years. Their travelling distance from Jalan Teck whye to Hougang on daily basis. Depending on their work load, at times they even work more than 8 hours.



- 12. Prior to the fire incident on the same day in the morning. Mdm Jum'ah was driving the Insured Vehicle to NUH for visiting their eldest son whom was admitted the day before. At about 1330hrs they left for home from NUH. At about 1640hrs they again travel to NUH from home for visiting. About 2100hrs they returned to their parked Insured Vehicle to go back home. There was nothing unusual notice at time of boarding the Insured Vehicle.
- 13. Mdm Jum'ah than drove off leaving the NUH Kent Ridge Wing Car Park. Upon living the said car park they had smell of burning smell in the Insured Vehicle interior cabin. Mr Asri than instructed Mdm Jum'ah to stop the Insured Vehicle & also off the engine. Mr Asri alighted the Insured Vehicle to check the engine & other areas in the effort to search for the source of the burning smell. Thinking that it might be coming from outside of the Insured Vehicle, they then drove off & continued their journey.
- 14. While driving, upon switching on the air-conditioning they observed smoke came out of the air-conditioning blower compartment. It grew more & more smoke when Mr Asri decided to instruct Mdm Jum'ah to pull over & stop at the road shoulder and abundant the Insured Vehicle. By then fire had emitted from under the Insured Vehicle dashboard. SPF & SCDF was summoned for assistance.
- 15. SCDF personnel arrived about 15 minutes later & took control of the situation. SPF officers arrived shortly. After the fire was extinguished, Mdm Jum'ah was interviewed by Investigating Officers (herein referred to as "I.O") from SCDF & SPF with regards to the fire incident. Mdm Jum'ah called MSIG hotline for assistance & they arranged towing of the Insured Vehicle to MSIG insurance authorised workshop which is Wah Hong Motors & Credit Pte Ltd located at 38 Toh Guan Road East, #01-57, Enterprise Hub, Singapore 608581.
- 16. Mdm Jum'ah mentioned that she had not experienced any other mechanical problems with the Motor Vehicle till the day of the fire incident. She also mentioned that there were neither warning lights displayed nor was there an abnormal rise in temperature throughout the period he was driving the Insured Vehicle.



Auto Consultants Pte Ltd

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17. With regards to the history and maintenance records of the Insured Vehicle, Mdm Jum'ah had mentioned that she had kept records on the maintenance servicing. The last periodical servicing maintenance was sent to Hanip Automobiles Pte Ltd at Auto Bay @ Kaki Bukit No.1 Kaki Bukit Avenue 6, #01-72/73 Singapore 417883 on 29th January 2018. She was able to provide us with a document relating to this servicing. Our review of this document revealed that the recorded mileage of the Insured Vehicle during this servicing was 168,529km. The servicing package included changing of engine oil, oil filter, and drain plug gasket. Refer to invoice below.

RELIED	Check out any	office ports at warm	Harrig-Automobiles.com	for promotores and u
1/5:	MR ASRI	Tax In	voice No. 0	38964/1/18
	BLX 156,#13-67	Type:	CS	
	JALAN TECK WHYE SINGAPORE 580155	Date:	29/01/2	018
	101 004 300	NCH	s. s.	77407K
Min:	MR ASRI		ent Mode:	CASH
Conta	sct: 9003 9551			
1-51-	la Registration No: SJU 7407 K	What	Done By:	AH CIANG
	le Registration No: 5JU 7407 K VModel: HONDA FIT	Miles		529 KM
PAR	TS REQUIRED			
D	escription	Qty	Unit Price	Amour
1)	ENGINE FLUSHED	1	\$0.00	\$0.0
2)	ENGINE OIL (FULLY SYNTHETIC)	3	500,000	\$98.0
3)	ZERO FRICTION ENGINE TREATMENT		\$0.00	90.0
4)	DRAIN PLUG GASKET		\$0.00	\$0.0
0)	OIL PILTER - HONDA GENUINE PART	*	\$14.00	\$14.0
6)	SIDE MIRROR - HONDA GENUINE PART	1	\$110.00	\$110.0
Sub	dotal			3222.0
7.7	0%			\$0.0
200	total with 6% discount			\$222.0
	A Change and a Comment	To	tal amount (Parts	3222.0
LAB	OUR CHARGES			
GE:	Description			Amount
1)	FLUSHED ENGINE, CHANGED ENGINE OIL, OIL	FILTER, DRAIN	PLUG GASKET	\$0.0
2)	ZI CHECKED TYRE CONDITION & TYRE PRESSURE SERVICE AND CLEAN ALL 4 BRAKE: GRIBASE UP BACKING PLATE: CHECKED FRONT BRAKE CALIPER: CHECKED ROTOR DISC CONDITION; ADJUST HAND BRAKE			
30	COMPUTERISED ENGINE SCANING, CHECKED		& LIGHTINGS	\$0.0
4) CLEANED AIR FILTER, AIRCON FILTER, CHECKED STEERING BALL JOINTS & SHOCK ABSORGER, CHECKED POWER STEERING FOR LEAK, CHECKED AND TICHTENED ALL UNDERCARRIAGE SOLTS & NUTS				\$0.0
50	CLEANED ENGINE COMPARTMENT	010		50.0
6)	LABOUR CHARGED FOR THE ABOVE JOBS			\$77.0
-	notal			\$77.0
	notal			\$0.0
	notal with 0% discount			377.0
aut	TOTAL WINE WAS EMPLOYED.	Tota	amount (Labour	_
	4.5		d total amount	\$299.0
	1.4	Gran	a town amount	******



Site Incident Photograph

- 18. We were able to gather some photographs taken by Mdm Jum'ah at the incident scene before the Insured Vehicle was towed away. We note that the location of the incident was located at the entrance of AYE from South Buona Vista Road.
- 19. In general, the information that could be gathered from these photographs had corresponded to the events that were related to us by Mdm Jum'ah. Our close examination of these photographs also showed no unusual foreign material(s) and/or object(s) found on the ground in the immediate area of the side of the road where the Insured Vehicle was positioned. See photos 14 -20 below.



Photo 14 shows the fire incident entrance of AYE from South Buona Vista Road.



- 20. For this case, the evidence and information gathered such as vehicle service invoice appears to suggest that the fire to the Insured Vehicle does not occurred due to lack of maintenance service/poor maintenance. In this aspect, a few possible causes of fire could have existed. These include electrical nature of the wiring inside the engine compartment, an overheated engine, the possibility of the fire being due to external factors (foreign material(s) stuck on hot surfaces, arson and sabotage and leakage of fluid onto hot surfaces amongst others.
- 21. Given the circumstances of incident as reported, the possibility of the cause of fire to the Insured Vehicle being due to engine overheating would seem unlikely as there were neither warning lights displayed nor was there an abnormal rise in temperature throughout the period he was driving the Motor Vehicle.
- 22. 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 occurred at an open space environment without near to any foreign materials.
- 23. Basing on the result of our interview session with Mdm Jum'ah on 10th May 2018. Information gathered to the best of her recollection. The fire was seen emitted out from under the interior dashboard compartment at time of the incident. Therefore there are possibilities that the fire erupted from under the dashboard compartment area. It was believed that there are possibilities 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 sparked from the short circuit wires might cause ignition to start a fire. However given the extensive damage of burnt nature to the engine area of the Insured Vehicle, we are unable to determine the source of the leakage.
- 24. Our checks with both local and international bodies and associations had 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. See search result from LTA below.



Enquiry on Vehicle Recall	Vehicle Specific	
ONLY INFORMATION ON	VEHICLE RECALLS SUBMITTED FROM 9 APRIL 2007 IS AVAILABLE	
Vehicle Owner Particulars	W. 1004 W. HOU CO. ST. ST. ST. ST. ST. ST. ST. ST. ST. ST	
Owner ID Type:	5ingapore NRIC	
Owner ID:	3868Z	
Vehicle Details		
Vehicle Registration number:	SJU7407K ←	
Make:	HONDA	
Vehicle Model:	FIT 1.3GA ←	
Engine No.:	L13A4241803	
Chassis No.:	GE61220055	
Recall Details		

OK

Conclusion

- 25. Having investigated and technically analysed the damages of burnt nature to the Insured Vehicle, We are of the view that the fire had originated from under the interior dashboard compartment area of the Insured Vehicle. The cause of fire to the Insured Vehicle was likely due to of electrical short circuit in the engine compartment. However given the extensive damage of burnt nature to the engine area of the Insured Vehicle, we are unable to determine the source of the leakage.
- 26. 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.
- 27. 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.
- 28. 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.



29. SCDF was activated to attend to the fire incident and a fire report pertaining to their findings will likely be forth coming. We have applied for this fire report and will forward a copy of the report once it is made available to us.

Rohaizal A. Rahim

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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