



CARS

13V-041
(11 pages) Revised

Our Ref: TA/USREP/573

Your Ref: 13V-041

Date: 25th February 2013

Chief
Recall Management Division
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 New Jersey Avenue S.E.
Washington
D.C. 20590

Subject: Part 573 Recall Notice #13V-041 – Failure of Oil Cooler Hose End Fittings

This information is submitted in accordance with the requirements of Title 49 Part 573 of the Code of Federal Regulations. Lotus Cars Ltd has been requested by NHTSA to re-submit information relating to a failure of oil hose end fittings in some of its products which was addressed by an earlier recall; 11V-510.

Following some failures outside the original VIN range declared in recall 11V-510, it has been decided to extend the range to encompass an additional 451 vehicles. This extension also broadens the range of affected vehicles to include some that were manufactured in 2008MY. As this extension to the original recall has taken place outside of the calendar year in which it was raised, NHSTA has advised Lotus that a new recall notice must be issued (13V-041) and a separate Part 573 defect notification should be submitted (see Annexe A).

If you have any questions relating to this submission, please contact the undersigned.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Ian Cawdron', with a horizontal line underneath.

Ian Cawdron
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Type Approval Department
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Annexes:

- A. §573.6 Defect Information Report
- B. Affected VIN Ranges (redacted)
- C. Chronology of Events
- D. Existing Oil Cooler Hose Installation
- E. Oil Cooler Hose Repair Strategy
- F. Oil Cooler Hose Repair Installation
- G. Customer Reimbursement Plan
- H. Customer Reimbursement Plan – Flow Chart

Enclosures:

- 1. sb_2013_01R_USA_Federal_Elise_Oil_Cooler_Hose_Recall.pdf
- 2. 13V-041_Recall Letter_21.02.13.doc



§573.6 Defect Information Report

§573.6(c)(1) **Manufacturers Name**

Full Corporate Name: Lotus Cars Limited

Designated Agent: Mr Arnold Johnson
Lotus Cars USA Inc

Official Contact: Mr Ian Cawdron
Principal Legislation Engineer
Email: icawdron@lotuscars.com
Tel: +44 (0)1953 608297

Customer Enquiries: Mr Ron Mann
Customer Services & Warranty Manager
Email: rmann@lotuscars.com
Tel: (770) 476 6564

§573.6(c)(2) **Identification of Vehicles**

Make: Lotus
Line: Elise/Exige
Model Year: 2007 - 2008
Month/Year of
Manufacture: 1 December 2006 to 31 October 2007
Affected VIN: See Annex B

§573.6(c)(3) **Number of Vehicles Potentially Containing the Defect**

451 vehicles in the United States are affected by this recall:

2007MY Elise	122
2007MY Exige	254
2008MY Elise	18
2008MY Exige	57

§573.6(c)(4) **Percentage of Vehicles Actually Containing the Defect**

The percentage of vehicles identified in Para 573.6(c)(3) that contain this defect is estimated to be 10%.

§573.6(c)(5) **Description of Defect**

Lotus has identified that there has been a small number of instances of oil cooler lines detaching from their fittings occurring as regards a group of vehicles built over



a limited period of time. In all such cases, there was a single supplier of affected parts. That supplier provided parts between May 2004 and May 2010. Lotus has identified that the vast majority of failures relate to vehicles which were manufactured before October 2006. Lotus' opinion is that the cause of failure is the process by which the hose was crimped into its fitting by the supplier.

An earlier recall (11V-510) was issued 9th January 2013 that addressed vehicles built between 1 June 2004 & 30 November 2006. Following some failures outside the original VIN range declared in recall 11V-510, it has been decided to extend the range to encompass an additional 451 vehicles. An improved hose crimping process was introduced in October 2006 and the production date range that was previously used allowed approximately 6 weeks for the latest level of parts to be fully introduced. It is now considered that this period of time was insufficient and that some older level parts may still have been in use. Consequently, the VIN range has been extended to cover the production period 1 June 2004 – 31 October 2007 to ensure that all stock holdings of the earlier level parts were exhausted. This extension also broadens the range of affected vehicles to include some that were manufactured in 2008MY.

§573.6(c)(6) **Chronology of Principal Events**

See Annex C

§573.6(c)(8)(i) **Remedy Program**

It is proposed to replace the oil cooler hose end fittings, using a bespoke dealer fitting kit. This technique involves removal of the original hose end fittings and installing new end fittings, secured by Oetiker clamps. This repair will be carried out on the left and right longitudinal oil cooler hoses (4 end fittings). The lateral oil cooler hose will be replaced in its entirety (see Annexes D, E & F). Following repair, the vehicle will be leak checked to verify oil cooler system integrity. A customer reimbursement plan is also detailed at Annexes G & H.

§573.6(c)(8)(ii) **Owner/Dealer Notification**

Notification dates are as follows:

Dealer notification: 27th February 2013
Owner notification: 4th March 2013

573.6(c)(10) **Representative Copy of all Notices, Bulletins etc**

A copy of the proposed dealer service bulletin and the customer notification letter are enclosed for consideration by NHTSA (Enclosures 1 & 2 respectively).

573.6(c)(11) **Manufacturers Campaign Number**

2013/01R



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Annexe B to
TA/USREP/573
Dated 25th February 2013

Affected VIN Ranges (redacted)

SCCVC11127HL	SCCPC11188HL
SCCVC11167HL	SCCPC111X8HL
SCCVC11107HL	SCCPC11138HL
SCCVC11147HL	SCCVC11188HL
SCCVC11187HL	SCCVC11178HL
SCCVC11197HL	
SCCVC11117HL	
SCCVC11157HL	
SCCVC11177HL	
SCCVC11137HL	
SCCVC111X7HL	
SCCPC11147HL	
SCCPC11187HL	
SCCPC11107HL	
SCCPC11167HL	
SCCPC11137HL	
SCCPC11117HL	
SCCPC11127HL	
SCCPC111X7HL	
SCCPC11177HL	
SCCPC11197HL	
SCCPC11157HL	
SCCWC11138HL	
SCCWC111X8HL	
SCCWC11128HL	
SCCWC11108HL	
SCCWC11148HL	
SCCWC11158HL	
SCCWC11198HL	
SCCWC11118HL	
SCCWC11178HL	
SCCWC11188HL	
SCCPC11108HL	
SCCPC11158HL	
SCCPC11128HL	
SCCPC11178HL	
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SCCVC11138HL	

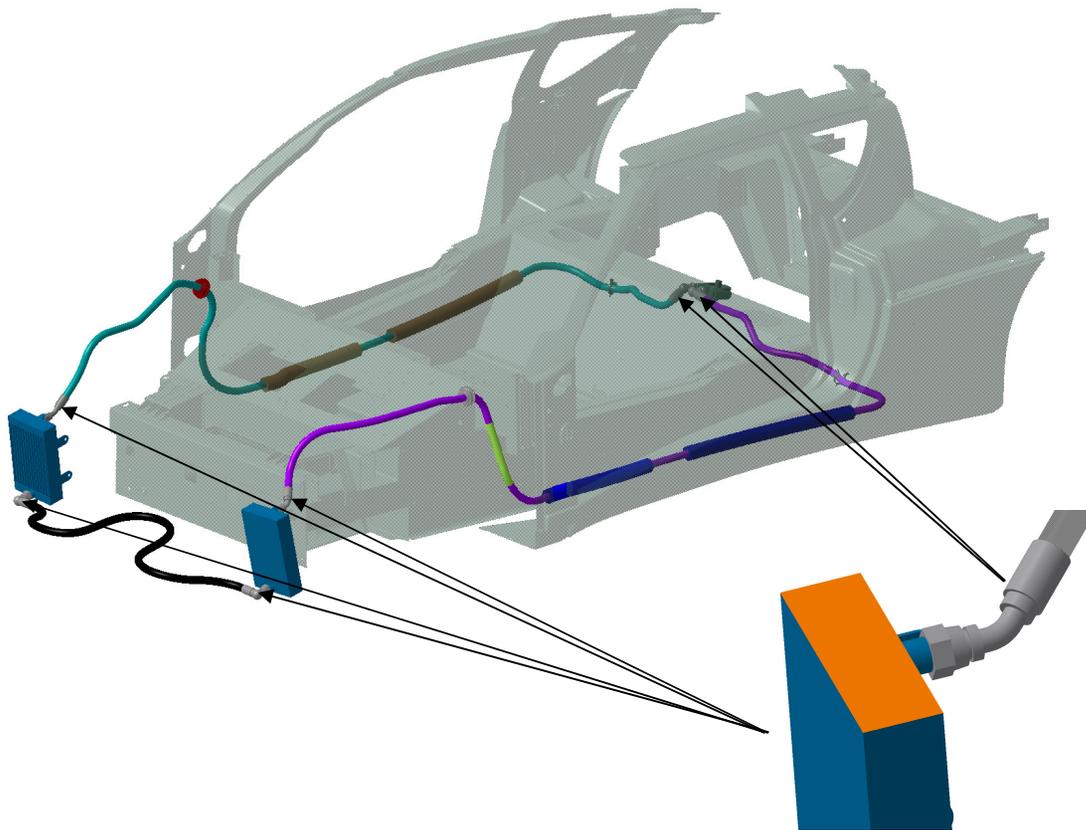


Chronology of Events

Date	Detail
05-Oct-04	1 US warranty claim
26-Aug-04	Supplier changed from Gates to Codan
2005	25 US warranty claims
2006	25 US warranty claims
29-Jun-06	Supplier Corrective Action Request: Oil cooler hose was found to be leaking on customer car SCCPA11106HN81386. Further investigation found the hose had pulled out of union and was not crimped. Root Cause: Assembly of hose, endfitting and ferrule incorrect – not fully pushed home which allowed the interlock of ferrule and fitting to be misaligned
01-Nov-06	SQA Visit Report: Crimping process now improved to 'mistake proof' clip positioning. Modify existing Pressure Decay Facility to enable leak testing of brazed coupling. Codan has stated that their crimping process has improved on site. A120K0027 & B120K0028 Sample Approval - PPAP for modified Hose - Oil Cooler will be completed by week 42. Note! Supplier Request for Concession will be required with the Sample Submission to accept parts without Pressure Test pending completion of above actions
2007	23 US warranty claims
30-Aug-07	Canada warranty claim - SCCPC111X6HM32302
2008	26 US warranty claims
07-Jan-08	Lotus BH dealer QFR report: Oil cooler hose end fitting failure
28-Jan-08	Codan initial findings report: Pull-off checks carried out. Further investigation to be carried out when parts returned
20-Feb-08	Lotus SQA visit report: Statement Codan crimping process robust. Brazing needs to be leak tested via air decay. Codan to advise air decay process & pressure test specifications. Failed crimp from BH Lotus needs to be returned for further investigation
20-Sep-08	Canada warranty claim - SCCPC11146HM32960
2009	6 US warranty claims
02-Feb-10	1 US warranty claim
24-Jun-10	Supplier changed from Codan to Walker Rubber
2011	2 US warranty claims
15-Feb-11	Supplier changed from Walker Rubber to Integraflex
12-May-11	Eng Concern # 120CON2186 raised: Oil Hose Failure - USA - 2007 Lotus Elise with 28000 miles. Oil line that is crimped on at the oil filter came loose at crimp.
18-Jul-11	NHTSA opened preliminary evaluation (PE11-022)
29-Sep-11	Meeting convened to discuss continuing failures and potential safety implications. It was decided that although the risk of an accident resulting from this issue is small it is considered that there are safety implications and in order to assure the highest level of safety it is agreed that a safety recall be implemented.
05-Oct-11	NHTSA notified of safety-related defect
14-Oct-11	Formal notice issued to NHTSA
03-Nov-11	NHTSA closed preliminary evaluation (PE11-022)
04-Nov-11	Transport Canada notified of safety-related defect
04-Feb-13	NHTSA and Transport Canada notified of intention to extend recall for vehicle production from 1 Jun 04 - 30 Nov 06 to 1 Jun 04 - 31 Oct 07



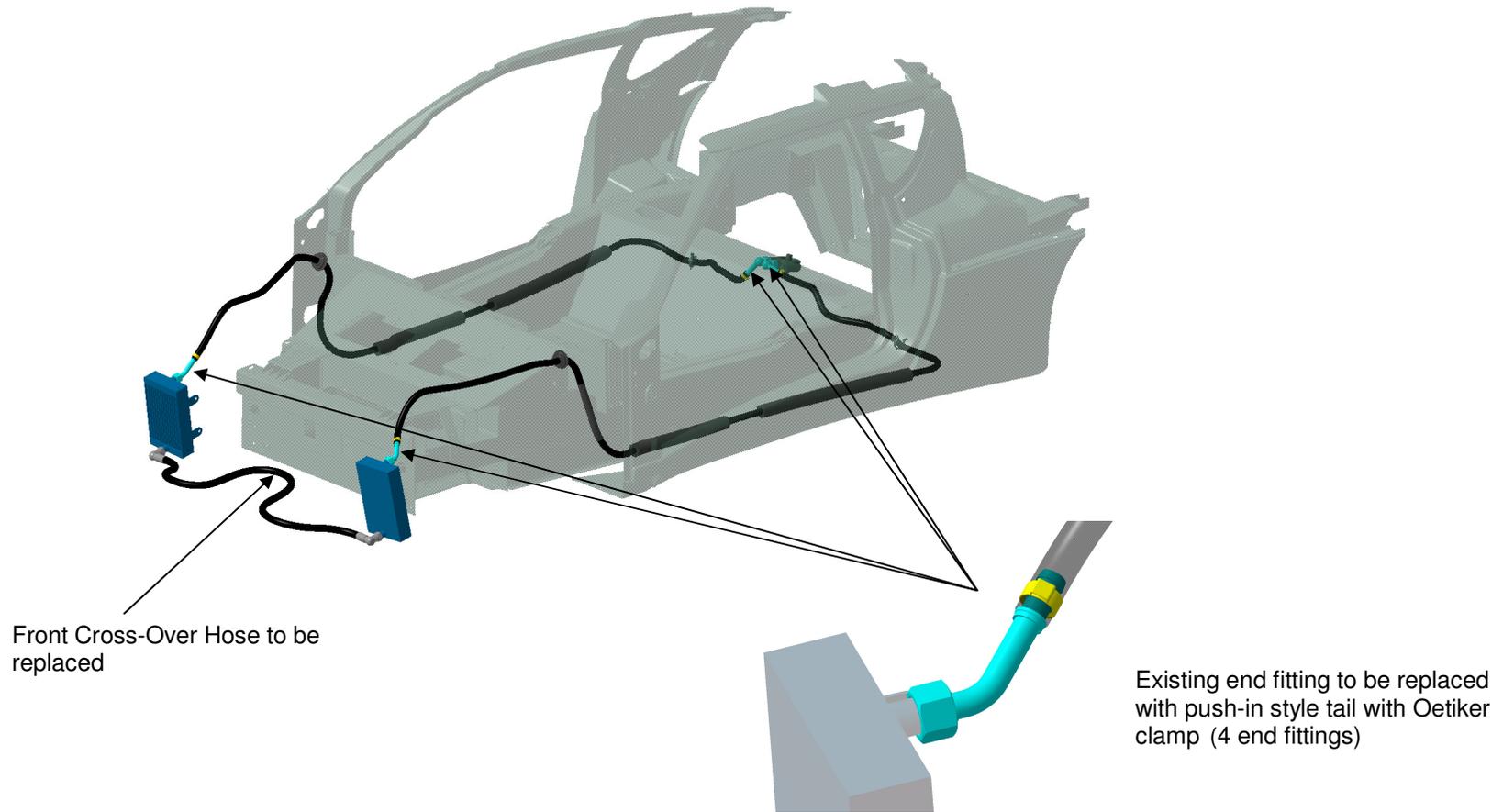
EXISTING OIL COOLER HOSE INSTALLATION



Traditional hydraulic tail and crimp ferrule (total 6 end fittings)



OIL COOLER HOSE REPAIR STRATEGY

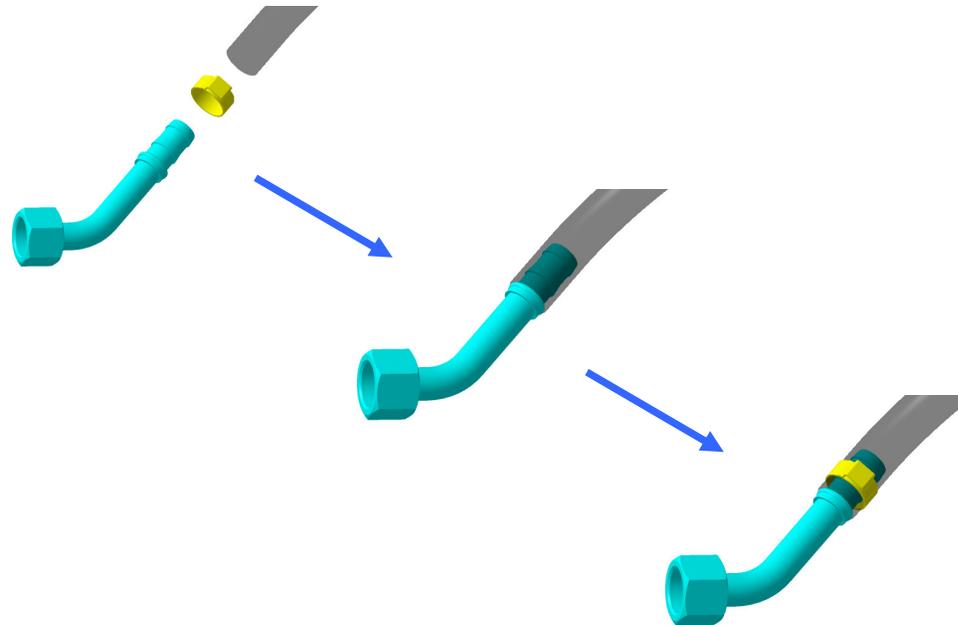




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Annexe F to
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OIL COOLER HOSE REPAIR INSTALLATION





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Annexe G to
TA/USREP/573
Dated 25th February 2013

Customer Reimbursement Plan

1. Claimants¹ to be reimbursed for repairs conducted between 5th October 2010 and 14th March 2013 (customer notification + 10 days)

2. Claims will be refused if:

- a) Repairs² are not of the same type as the recall remedy (i.e. hose repair or replacement)
- b) The repair did not address the problem that led to the recall
- c) The repair was not reasonably necessary to correct the defect that led to the recall

3. Claims will only be paid if adequate documentation is provided:

- a) Name and mailing address of the claimant;
- b) Vehicle make, model, model year, and vehicle identification number of the vehicle;
- c) Identification of the recall (either the NHTSA recall number or the manufacturer's recall number);
- d) Identification of the owner or purchaser of the recalled motor vehicle at the time that the pre-notification remedy was obtained;
- e) A receipt for the pre-notification remedy, which may be an original or copy
- f) Receipt must indicate that the repair addressed the defect or noncompliance that led to the recall or a manifestation of the defect or noncompliance, and state the total amount paid for the repair of that problem.

4. Within 60 days, claimant will be reimbursed for lesser of:

- a) Cost paid by claimant for repair

OR

- b) Lotus retail cost of parts + labour, taxes etc

5. Claims for reimbursement should be sent to:

Mr Ron Mann

Customer Services & Warranty Manager

Lotus Cars USA Inc.

2402 Tech Center Parkway

Suite 600

Lawrenceville

U.S.A.

Notes:

1. *Claimant* means a person who seeks reimbursement for the costs of a pre-notification remedy for which he or she paid.

2. *Repair* is defined as all parts, labour, disposal of waste, taxes etc associated with rectifying the defect that led to the recall. This also includes all parts that failed as a result of the defect, including engines and associated parts, provided the above conditions are met.

Customer Reimbursement Plan - Flow Chart

