



Date: 30.09.2020

Model: All Lotus Vehicles Fitted with  
Air Conditioning

Number: 2020/03

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Service Manager		Service Reception		Supervisor		Parts Manager	
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**TITLE:**

Initial start-up of vehicle after long term storage and other important information for Lotus vehicles fitted with air conditioning.

**REASON:**

After close examination of failed air conditioning compressors that were replaced under warranty and subsequently returned to Lotus, it was determined, in many instances, that the root cause of failure was oil starvation.

**ACTION:**

This Technical Service Bulletin has been issued listing items 1 -5, to remind the dealer network of existing information as well as updated information that will also be released in conjunction of this bulletin.

**Item1: Compressor Running-In Procedure:**

Confirming current information that can be found in the 'HVAC' sections of the Lotus Service Notes.

**'Compressor Running-In Procedure**

**IMPORTANT:** It is crucial to carry out the procedure described below to 'run-in' either a new or refitted compressor to ensure the refrigerant oil does not exit the compressor sump and flow directly into the air conditioning hoses/pipe-work before first circulating around the compressor ensuring the compressors internal components are fully lubricated.

*Overtime insufficient compressor lubrication can result in reduced air conditioning effectiveness, generation of diagnostic trouble codes, failure of the compressor assembly and, in extreme circumstances, seizure of internal compressor components resulting catastrophic compressor damage.*

**Preparation:**

*Before starting the engine for the first time ensure that the system is correctly recharged with suitable refrigerant gas and that the correct amount of refrigerant oil has been added.*

1. Start the engine but DO NOT allow the engine speed to rise above idle.
2. Turn on the air conditioning system, (set temperature setting to maximum cold).
3. Ensure the engine speed does not rise above idle for a minimum of TWO minutes.
4. Monitor air conditioning performance and carry out any leak detection/system checks as per normal before refitting any ancillary components back onto the vehicle.

*Carrying out this procedure allows the oil to fully circulate around the refrigerant circuit and compressor system before the compressor is put under any loading'*

**Item 2: Receiver-Drier Renewal**

Confirming the importance of renewing the receiver-drier to specifically include reference to the air conditioning compressor because of rapid discharge of the air conditioning system caused for example by accident damage or because the compressor has suffered internal damage/oil starvation.

Continued...

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### Item 3: Updated Pre-Delivery Inspection Sheet

Release of a new PDI sheet (LSL345L) listing a procedure for confirming (and reporting as necessary) the air conditioning evaporator core temperature.

The purpose of this new procedure is to confirm the air conditioning system is cooling sufficiently prior to the new owner receiving the vehicle.

This form can be downloaded from the Lotus Dealer Portal, from the home page go to: Aftersales> Aftersales Service Forms>PDI Forms & Handover Checklists.

### Item 4: Update to Owners Handbooks

The vehicle storage information shown in the handbooks for current production vehicles will be amended for the next print run to include important information when initially starting a vehicle fitted with air conditioning after long term storage, extract below:

#### **'Air Conditioning (If Fitted)**

##### *Prior To Storage*

*The air conditioning system should be in good working order and fully charged.*

##### *After Storage – Initial Engine Start*

*If the vehicle has been stored (and/or the engine not started for a period of 6 months or more), the air conditioning system should be switched on and the engine speed (revs), limited to 2,000 rpm for the first 2-minutes after engine start-up.*

*This will ensure that the refrigerant gas and oil fully circulate around the air conditioning system, preventing potential damage or premature wear of the air conditioning pump.*

*Air conditioning failures/damage proven to be caused by insufficient refrigerant oil circulation as a result of excessive engine revving during initial engine start-up after long periods of vehicle storage/inactivity will not be covered by the New Vehicle Warranty.'*

#### **Important for Dealer:**

The information above is also just as relevant for any vehicles that you have in long term storage as well as dealer stock.

It may take several months for this new information to be included in the next handbook print run, therefore, from the date of this bulletin release, when handing over any new vehicle, please ensure that the vehicle owner is made aware of this information.

### Item 5: Warranty Pre-Authorisation Request Form

A new form was issued on 13/08/2020 which included a new section to be completed specifically for air conditioning issues. Please ensure that this section is completed in full for any potential air conditioning component/gas recharging as this may, in many instances, assist Lotus in determining the initial cause of air conditioning failure.

#### **CHARGES:**

No warranty charges are associated with the contents of this bulletin.

Ends.

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