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WHEELS AND TIRES (G2400928)

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PRINCIPLES OF OPERATION

For a detailed description of the Wheels and Tires refer to the relevant description and operation section in the workshop manual.

INSPECTION AND VERIFICATION

 CAUTION:

Diagnosis by substitution from a donor vehicle is **NOT** acceptable. Substitution of control modules does not guarantee confirmation of a fault, and may also cause additional faults in the vehicle being tested and/or the donor vehicle.

 NOTES:

- Check the JLR claims submission system for open campaigns. Refer to the corresponding bulletins and SSMS which may be valid for the specific customer complaint and complete the recommendations as required.
- When performing voltage or resistance tests, always use a digital multimeter that has the resolution ability to view 3 decimal places. For example, on the 2 volts range can measure 1mV or 2 K Ohm range can measure 1 Ohm. When testing resistance always take the resistance of the digital multimeter leads into account.
- Check and rectify basic faults before beginning diagnostic routines involving pinpoint tests.

1. Verify the customer concern
2. Visually inspect for obvious signs of damage and system integrity
3. If an obvious cause for an observed or reported concern is found, correct the cause (if possible) before proceeding to the next step
4. If the cause is not visually evident, verify the symptom and refer to the Symptom Chart, alternatively check for Diagnostic Trouble Codes (DTCs) and refer to the DTC Index

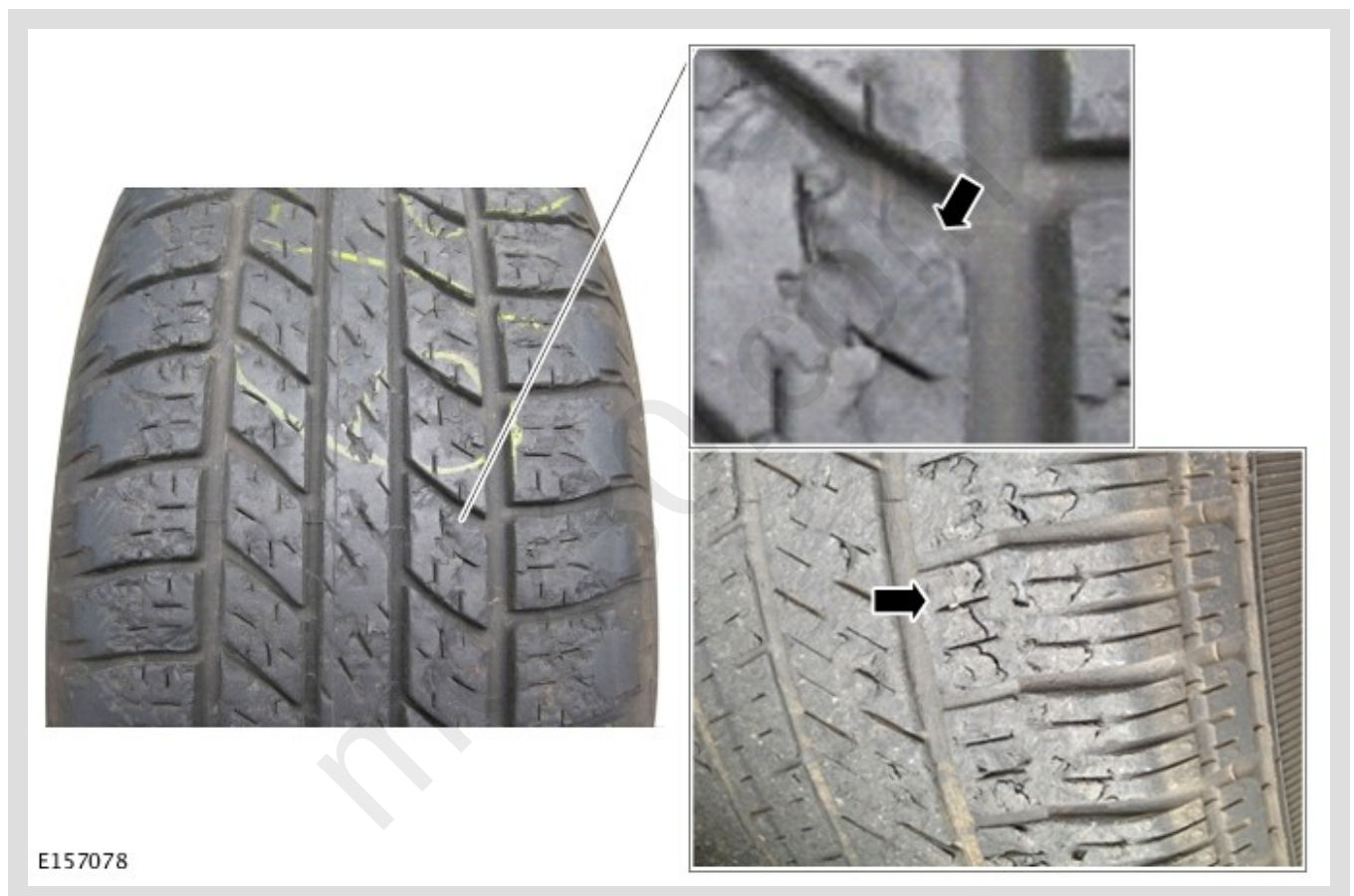
TIRE CHIP AND CHUNK

NOTE:

If the level of chip and chunking is excessive or overall tire condition is poor the tire should be treated as any damaged/punctured tire. Where detrimental damage to the tire is evident, it must be reported to the customer with recommendations to accordingly replace damaged tires.

Symptoms

Typical example of a serviceable tire exhibiting chip and chunk phenomenon



Possible Causes:

Tire Chip and Chunk is a phenomenon that may develop on the tire tread when vehicles are driven on rough gravel or aggressive road surfaces. Typically the tread may lose small pieces of tread rubber within and around the periphery of the tread block. This loss of rubber ultimately leads, with extended usage, to an overall rough appearance to the tread area of the tire

Action:

When a customer contacts a retailer concerning the chip and chunk phenomenon, retailer/authorized repairer must:

- Conduct a thorough evaluation of the tire condition and, where no detrimental damage has occurred, inform the customer that the chip and chunk condition does not affect the overall tire integrity or significantly affect performance
- Inform the customers of the conditions that generate chip and chunk phenomenon

Complaints associated with this phenomenon must initially include a thorough examination of the vehicles tires for the following:

- Excessive chip and chunk (tread cuts or loss of tread block section, extending deep into the tread rubber beyond the tread wear indicators or in the shoulder area extending beyond the groove depth)
- Cuts and bulges especially within the sidewall
- Overall tire condition including tread depth

Where the tires do not exhibit excessive chip and chunk, cuts, sidewall bulges and are in generally good condition the customer should be advised that the condition does not affect the overall tire integrity or significantly affect performance and as such are serviceable

TIRE FLAKING



NOTES:

- If the level of tire flaking is excessive or overall tire condition is poor the tire should be treated as any damaged/punctured tire. Where detrimental damage to the tire is evident, it must be reported to the customer with recommendations to accordingly replace damaged tires
- Perform a tread depth measurement to make sure the tire is within local regulations. If specifications are not met inform customer that they require replacement

Symptoms

Typical example of a serviceable tire exhibiting tire flaking phenomenon

**Possible Causes:**

Tire Flake damage may develop on the outer sections of the tire tread when vehicles are driven enthusiastically and peak available grip has been surpassed. Typically the tread may lose small pieces of tread rubber within and around the periphery of the tread blocks on the outer sections of the tire

Action:

When a customer contacts a retailer concerning the tire flaking phenomenon, retailer/authorized repairer must:

- Conduct a thorough evaluation of the tire condition and determine that they are seeing flake damage on the outer sections of the tire. If damage is seen in the central tread, please refer to the Tire Chip and Chunk section
- Inform the customers of the driving styles that generate tire flaking (Mid corner understeer that generates high pitched tire noise, and/or over application on throttle inputs when exiting junctions that cause the traction control light to come on)

Complaints associated with this phenomenon must initially include a thorough examination of the vehicles tires for the following:

- Excessive flaking (tread cuts or loss of tread block section, extending deep into the tread rubber beyond the tread wear indicators or in the shoulder area extending beyond the groove depth)
- Cuts and bulges especially within the sidewall
- Overall tire condition including tread depth

Where the tires do not exhibit excessive flaking, cuts, sidewall bulges and are in generally good condition the customer should be advised that the condition does not affect the overall tire integrity or significantly affect performance and as such are serviceable

DTC INDEX

For a list of Diagnostic Trouble Codes (DTCs) that could be set on this vehicle, please refer to Section 100-00. REFER to: [Diagnostic Trouble Code Index - DTC: Tire Pressure Monitoring System Control Module \(TPMSCM\)](#) (100-00 General Information, Description and Operation).

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