

September 23, 2013

300 Industrial Blvd.  
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Tel: 903 758-9981**Tech Tip #41****Aeris® Inspection Criteria – HubCap Lubrication System****Purpose**

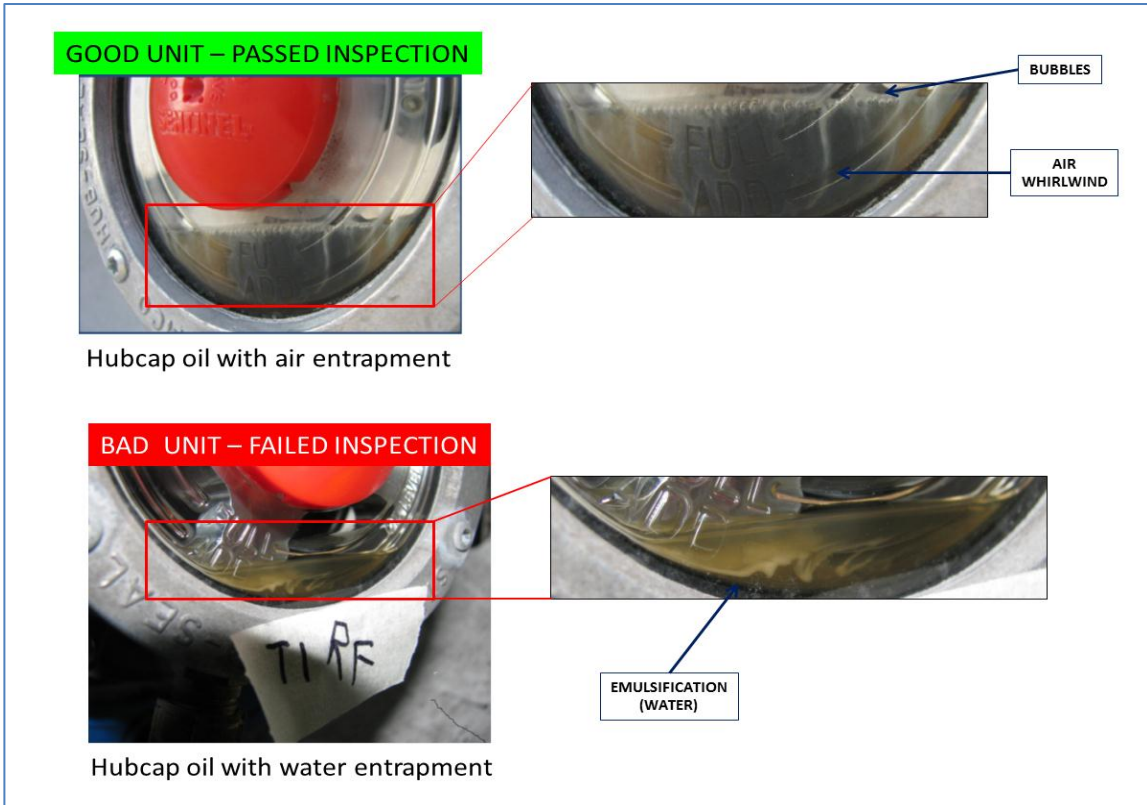
This document establishes the conditions and criteria required for the visual inspection of the oil residing in the wheel end hub cap. The primary concern to be addressed is the aeration or “milky” appearance of the oil. In addition, it visually differentiates between air entrainment and moisture in the hub oil.

**Scope**

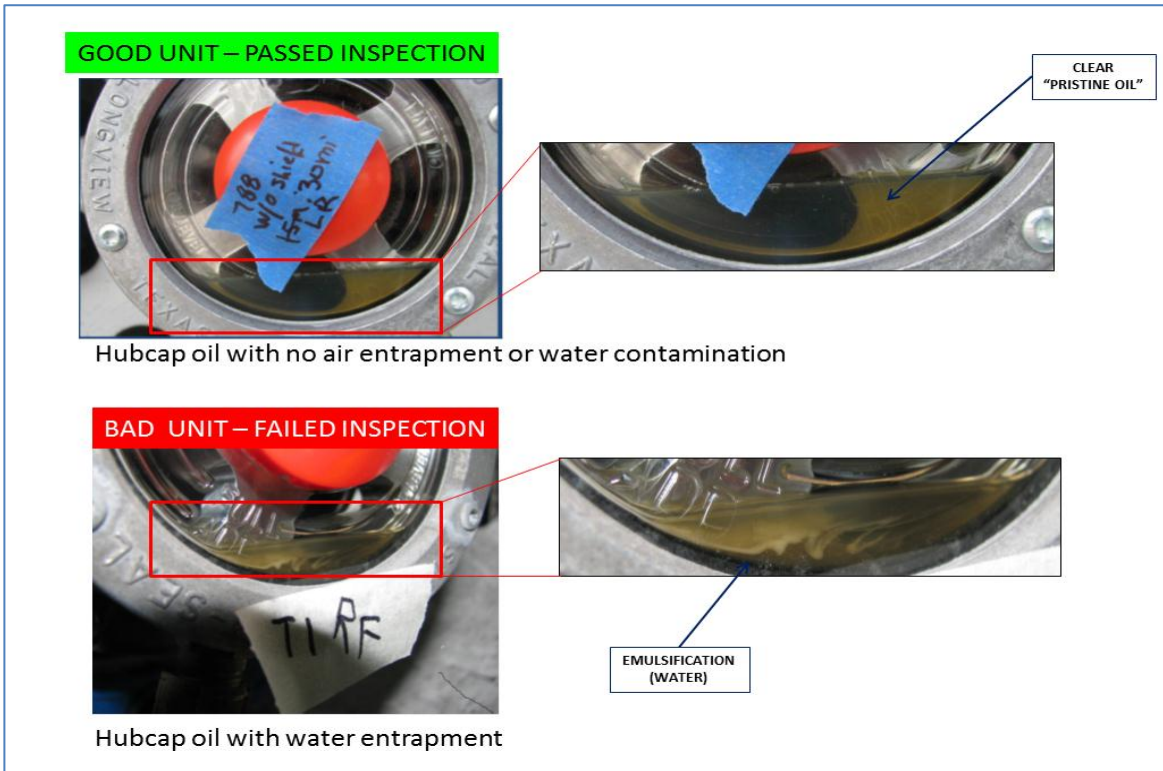
These inspection criteria are applicable for the Aeris system installed on trailers. The pass/fail criteria are based on the test results obtained August 29 - 30, 2013.

**Inspection Procedure**

1. Vehicle condition
  - The trailer shall have incurred at least 30 miles of road travel at a speed of 35MPH to 70MPH.
2. Inspection process
  - Stop the vehicle in its designated parking space
  - Allow the oil in the hubcap to level down
  - Visually observe the oil through the transparent hub cap window
  - Identify the pass or fail criteria based on **Figure 1** below.
  - If the oil presents an aerated condition, the vehicle is ok and has **passed** the inspection.
  - If the oil presents an emulsified moisture condition, follow the confirmation step below
    - Do not move the vehicle for 24 hrs. and re-inspect
    - Visually inspect the oil as shown in **Figure 2** for confirmation as part of the “after-24 hrs” inspection.
    - Identify the unit as “pass” or “fail” for final vehicle disposition
      - If the oil is pristine in nature, then the vehicle is ok and has **passed** the inspection
      - If the oil presents an emulsified moisture condition, the vehicle has **failed** the inspection. Please notify your immediate supervisor for vehicle disposition (repair).
3. Additional Information
  - The **Figure 3** below shows good oil versus the emulsified oil. Oil that is highly emulsified will have a light color (compared to the non-emulsified oil) that is permanent.



**Figure 1:** Visual criteria for Hubcap lubrication system inspection



**Figure 2:** Visual criteria for the “after-24hrs” inspection to the Hubcap lubrication system



**Figure 3:** Oil with large amount of water has a light, milky appearance that is permanent.