

ISSUE NUMBER

23-028-VEH

ISSUE NAME

OOSC, Part II, Item 1. Brake Systems, a. (5) Drum Air Brakes, (a) Missing Bushing

STATUS

Closed

Vehicle Committee

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Missing S-cam Bushings

JUSTIFICATION OR NEED

In one of the photo's included the s-cam shaft is hitting against the drum affecting the performance of that brake. It was in adjustment, but because the s was hitting the drum was stopping brake travel.

REQUEST FOR ACTION

To include completely missing any s-cam shaft bushing into the 20% rule along with other components missing or broken.

SUPPORTING DOCUMENTS/PHOTOS

- [Missing-S-Cam-Bushing-3.JPG](#)
- [Missing-S-Cam-Bushing.jpg](#)
- [Missing-S-Cam-Bushing-2.JPG](#)
- [IMG_2596.JPG](#)

ACTION TAKEN BY COMMITTEE

The request is to add 20% brake defect criteria for the S-cam bushing missing. This situation likely resulted in another underlying issue aside from the missing bushing. A question was raised as to whether braking performance would be affected due to a brake application and the centering of the camshaft when the pads touch the drum. The committee discussed that a missing bushing would be like other brake components identified in the out-of-service criteria and should be included as a brake defect and in the 20% brake calculation. There were pictures of three different brakes shown, and in some cases, there were no other brake defects present. Whether or not brake performance is affected would not determine if a brake assembly has a defect and should be repaired. Inclusion as a 20% defect does not automatically place the vehicle out-of-service.

An amendment to the 20% OOS condition to add a condition for the S-cam bushing missing in Part II, Item #1.(5)(a) was made. Discussion about brake effectiveness and how a missing bushing would affect performance.

1. Brake Systems

a. Defective Brakes

(5) Drum (Cam-Type and Wedge) Air Brakes

Missing or broken brake shoe, lining, return spring (shoe or chamber), anchor pin, spider, cam roller, camshaft, camshaft bushing (missing only), pushrod, yoke, clevis pin, clevis pin retainer (e.g., cotter pin), brake adjuster, parking brake power spring or air chamber mounting bolt.

The “2006-01, Camshaft bushing” inspection bulletin would also need amended due to the edit to the OOSC. Discussion to amend the wording of the document to only apply to worn bushings and align with the OOSC criteria change. A change was also made to rename the bulletin from “Camshaft Bushings” to “Worn Camshaft Bushings” with edits to refer to worn bushings only. (This bulletin amendment would be dated for April 1, 2024 to correspond with the change in the OOSC)