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SERVICE BULLETIN

AIRCRAFT EFFECTED:	All models fitted
BULLETIN NUMBER:	SB025
ORIGIONAL ISSUE DATE:	29 August 2017
REVISION DATE:	02 July 2018
SUBJECT:	Axle inspections and replacement intervals
APPLICABILITY:	All models fitted with Matco WHLAXLE4 and WHLAXLE8 axles
COMPLIANCE:	Mandatory

<u>Background</u>

There have been two recorded cases of Explorer aircraft where the Matco MHLAXLE4 axle sheared off on landing. This wheel and brake system were used on the pre-2017 Explorers. In both cases the failure occurred at the weld of the flange on the axle. The one aircraft had nearly 500 hr's total time and was used for training and the other aircraft had done 200 hr's and was used for private flying from a rough bush strip.

It seems that there is no link between the hours operated and when the failures occurred, however a common factor could be the bending cycles on the axles due to many landings and or rough field operations. These axles are manufactured by MATCO MFG in the USA and KFA has no control over its quality or the quality of the welds.

Although no failures have occurred on the MHLAXLE8 used in the older Safari LSA models we have included this as a precaution as the axle construction is identical and only the axle diameter differ.



Remedial actions

Possible solutions:

- Complete wheel, brake and axle upgrade (Explorer and Safari)
- Upgrade the 0.62" Axle currently fitted to the 0.75" Axle. This will include a replacement of the 0.62' bearings with 0.75 bearings (Only for Explorer)
- Replace the 0.62" Axle with a KFA manufactured solid axle upgrade.

Until such time that the complete wheel and brakes system is replaced with the upgraded Matco MHMHE6B 1.25 (MHE6B-SC) wheel and brakes with the A3C Axle assembly or the axles and bearing upgraded, the following apply:

Explorer aircraft fitted with MHLAXLE4

Training aircraft - For aircraft used in training operation we recommend that the axles be inspected at every 25hr inspection and that they be replaced at 200hr intervals. The replacement axles can be ordered from KFA or direct from MATCO MFG USA.

It is highly recommended that aircraft used in training operations upgrade their wheel and brake system to the Matco series mentioned above. The landing gear will have to be removed to have two flanges welded onto them in order to accommodate the new bolt-on axle system. These flanges can be ordered from KFA or alternatively the landing gear can be sent to KFA for fitment of these flanges.

Private operations: - It is recommended that the axles be inspected at every annual inspection or 100 hrs of operation, whichever occur first. The axles should be replaced at 400 hr intervals.

To upgrade the MHLAXLE4 axle to the MHLAXLE8 axle the landing gear axle tube must be drilled out to accommodate the larger diameter axle. In order to accomplish this, it is recommended the gear be removed and drilled on a bench with a drill press or similar tool.

Picture of the upgraded landing gear with the bolt-on A3C axles.

