

ALERT BULLETIN

AB 2024:13/3-7

5/14/2024

2101975

TO: Boeing Commercial Airplane Company

INFO: FAA (AVP-1, AVP-200, AFS-200, AFS-900, AFS-260, AFS-100, AIR-720, AIR-780, AIR-360, SEA-AEG), A4A, ALPA, AMFA, ASAP, ATSG, CAPA, IAM, IBT, ICAO, ICASS, IFALPA, IPA, NTSB, PAMA, RAA, SWAPA, TWU

FROM: Becky L. Hooey, Director
NASA Aviation Safety Reporting System

SUBJ: B737 MAX 8 Brake Assembly Issues

We recently received ASRS reports describing a safety concern that may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the following:

ASRS received a report from a B737 MAX 8 Technician expressing concern about the brake assemblies.

Reporter stated the anomalies were discovered during a main landing gear tire replacement procedure, and involved seizure of the brake assembly to the extent it could not be separated from the wheel.

Reporter also stated they have seen this brake assembly issue on other B737 MAX aircraft, and feels this is a systemic issue that should be addressed as soon as possible.

ASRS has alerted on this topic in the past. Alert message 2022:11/3-9 is also enclosed.

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Dr. Becky Hooey at (408) 541-2854 or email at becky.l.hooey@nasa.gov.



Aviation Safety Reporting System
P.O. Box 189 | Moffett Field, CA | 94035-0189



ACN 2101975

DATE / TIME

Date of Occurrence	202403
Local Time Of Day	No Local Time Of Day Stated

PLACE

Altitude - AGL	0
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AIRCRAFT / EQUIPMENT X

Make Model Name	B737 MAX 8
Operating Under FAR Part	121

COMPONENT 1

Aircraft Component	Wheels/Tires/Brakes
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PERSON 1

Function - Maintenance	Technician
ASRS Report Number	2101975

EVENTS

Anomaly	Aircraft Equipment Problem - Critical
Anomaly	No Specific Anomaly Occurred - Unwanted Situation
Detector - Person	Maintenance
Result - General	Maintenance Action

NARRATIVE 1

When Aircraft X was at ZZZ, an Aircraft Maintenance Technician found two worn Main Landing Gear Tires (MLG) worn beyond limits, which was MLG Tires #2 and #3. During the MLG tire replacement, the Technician also found two damaged brake assemblies. The #2 MLG Brake had cracks on the brackets and the #3 MLG brake had one each rotor missing.

A few years ago, I wrote a report and my Lead wrote a report pertaining to the issues we were finding on the 737 MAX Brake Assemblies. During that time we did a quick research of some of our 737 MAX aircraft and found a history of damaged and/or seized brake assemblies on said aircraft. I don't know what action was taken after my report a few years ago but it seems that the 737 MAX Brake Assembly issue is still ongoing. I truly believe there is a systemic brake assembly issue for our 737 MAX aircraft that needs to be addressed as soon as possible.

During my report years ago I requested that someone look into this matter more deeply and to further investigate why our 737 MAX Brake Assemblies were being found seized to the wheel assembly and damaged to the point where the brake assemblies were breaking apart and the debris being found on the ramp. At the time I also suggested that it could either be a bad batch of brakes from the manufacturer, brake failure, or a systemic issue with carbon brakes in general on the 737 MAX aircraft which needed to be addressed and investigated as soon as possible to avoid an accident. I am aware of an EA (Engineering Authorization) in place to check a different make/model Brake Assembly that we may have in stock throughout the system. However, it doesn't address the 737 MAX Brake Assemblies that are still failing or not up to standards. The brake assembly was so badly seized onto the wheel assembly that we could not separate them and therefore had to ship out both the brake assembly and wheel assembly attached together.

SYNOPSIS

B737 MAX 8 Technician reported finding damaged brake assemblies while replacing the #2 and #3 main landing gear tires. The reporter also mentioned the issue had happened before years ago, and on other MAX aircraft.

Previous Alert

ALERT BULLETIN

AB 2022:11/3-9

6/3/2022

1885255

TO: Boeing Commercial Airplane Company

INFO: FAA (AVP-1, AVP-200, AFS-200, AFS-900, AFS-260, AFS-100, AIR-720, AIR-780, AIR-360, SEA-AEG), A4A, ALPA, AMFA, ASAP, ATSG, CAPA, IAM, IBT, ICAO, ICASS, IFALPA, IPA, NTSB, PAMA, RAA, SWAPA, TWU

FROM: Becky L. Hooley, Director
NASA Aviation Safety Reporting System

SUBJ: B737 MAX Brake Assembly Issues

We recently received ASRS reports describing a safety concern that may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the following:

ASRS received a report from an air carrier Maintenance Technician describing B737 MAX brake assembly issues. Reporter stated that parts of the damaged brake assembly were found on the ramp after aircraft arrival. Reporter further stated that after performing a maintenance history search five other B737 MAX aircraft were found to have similar brake issues.

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Dr. Becky Hooley at (408) 541-2854 or email at becky.l.hooley@nasa.gov.



Aviation Safety Reporting System
P.O. Box 189 | Moffett Field, CA | 94035-0189



ACN 1885255

DATE / TIME

Date of Occurrence	202203
Local Time Of Day	No Local Time Of Day Stated

PLACE

Locale	ZZZ.Airport
State	US
Altitude - AGL	0

AIRCRAFT / EQUIPMENT X

Make Model Name	B737 MAX 9
Operating Under FAR Part	121

COMPONENT 1

Aircraft Component	Wheels/Tires/Brakes
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COMPONENT 2

Aircraft Component	Wheel Assemblies
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PERSON 1

Function - Maintenance	Technician
ASRS Report Number	1885255

EVENTS

Anomaly	Aircraft Equipment Problem - Critical
Anomaly	Deviation / Discrepancy - Procedural - FAR
Anomaly	Deviation / Discrepancy - Procedural - Maintenance
Anomaly	Deviation / Discrepancy - Procedural - Published
	Material / Policy
Detector - Person	Maintenance
Result - General	Flight Cancelled / Delayed
Result - General	Maintenance Action
Result - Aircraft	Aircraft Damaged

NARRATIVE 1

Aircraft X landed at ZZZ and #3 brake assembly was found damaged and parts of the brake were found on the ramp and the brake was seized to tire and wheel assembly when trying to replace the brake. Upon further investigation [Name] and I accomplished a quick search on the 737 MAX aircraft and found that there is a history of damaged and seized brake assemblies on the 737 MAX Fleet. For example [similar problems affecting five other B737 MAX aircraft] were found during a quick history search. Someone needs to look into this matter more deeply and further investigate why the 737 MAX brake assemblies are being found seized and damaged to the point where they are breaking apart and debris found on the ramp.

We need a deeper investigation on the brake assemblies that are being installed on the 737 MAX Aircraft as we are finding these brake assemblies breaking apart and/or damaged during aircraft arrival. It could either be a bad batch of brakes, brake failure or a systemic issue with these carbon brakes on the 737 MAX Aircraft. This needs to be investigated as soon as possible to avoid a possible accident.

SYNOPSIS

Technician reported the B737 MAX main wheel brake assembly had failed and was seized into the main wheel assembly, and parts were found on the ramp.