Norwegian Safety Investigation Authority

Investigation of serious aviation incident at Sandefjord Airport Torp

During take-off from Gardermoen with KLM route 1204, a Boeing 737-800 with registration PH-BXM on 28 December 2024, a main wheel de-laminated and damaged the aircraft. Poor visibility at Gardermoen meant that the aircraft performed an emergency landing at Torp. The aircraft became unstable towards the end of the landing rollout and skidded off the runway.

During take-off from Oslo Gardermoen, the aircraft experienced a sudden delamination on one of the four main wheels. Parts from the wheel came loose and damaged the aircraft's hydraulic system. The pilots then chose to perform a planned emergency landing. Due to fog and low visibility at Gardermoen, Sandefjord Airport Torp was chosen. As a normal part of an emergency landing, the aircraft was met by fire and rescue. After a normal approach and landing, the aircraft lost directional stability towards the end of the roll-out and skidded off to the right of a runway exit. As there was no immediate danger to life and health, the passengers were kept on board until stairs for disembarkation were in place.

The Norwegian Safety Investigation Authority has seized the flight data recorder and cockpit voice recorder as a normal routine. The aircraft has been inspected and released to the airline.

The investigation will clarify the sequence of events and the contributing factors to the incident. Based on this, the NSIA will assess areas for improving safety.

It is not the NSIA’s task to apportion blame or liability under criminal or civil law. The purpose of the investigation is solely to contribute to learning and the prevention of serious incidents and accidents.

Update 19 December 2025

The Norwegian Safety Investigation Authority (NSIA) was able to recover most of the failing tire. The investigation authority was thus able to examine the tire together with the manufacturer. The initial fracture was x-shaped, indicating that the failure was triggered by external damage. This damage did not penetrate deeply enough to puncture the tire. The tire was manufactured in March 2023, 21 months before the incident. During this period, the tire had been re-treaded four times. The tire showed signs of internal fatigue, which may be consistent with normal use. The weakening and external damage led to the tire's disintegration. Oslo Airport Gardermoen (ENGM) conducted runway inspections prior to departure without uncovering any foreign objects.

The investigation will also look into how the loss of several independent systems affected the crew's ability to control the aircraft, both during flight and landing. The loss of one hydraulic system and the brakes on one side had the greatest impact on the outcome.

Furthermore, the NSIA focuses on how the situation was perceived and handled by the crew. The crew’s training and available documentation, including checklists, are part of this.

After the incident, Sandefjord Airport Torp (ENTO) was closed for nearly 25 hours. The NSIA's investigation does not include the delay or any other incidents that occurred after the last passenger or crew member left the aircraft.

The findings so far will be carried forward in the ongoing investigation.

Update 18 March 2025

The Norwegian Safety Investigation Authority (NSIA) has upgraded the incident to serious and continues its investigation. The focus is on understanding what caused the tire to fail, why the aircraft was so damaged by a rare but not entirely unlikely event, as well as what information and situational awareness the crew had.

- The tire on the inner left main wheel delaminated when the aircraft was moving at 139 knots.
- As the aircraft rotated the flight crew got indication of a fault with one of the hydraulic systems, the safest course of action was to continue the departure.
- When airborne the flight crew were unable to raise the landing gear.
- Both the part that raises the landing gear and the parts that activate the brakes on one side were damaged when rubber parts from the delaminated tire struck the aircraft.
- The approach and landing at ENTO proceeded normally under the circumstances.
- As the speed was reduced towards the end of the rollout, and the effectivity of the rudder decreased, the aircraft started to deviate to the right of the centreline. Despite crew inputs directional control was lost and the aircraft ran off the side of the runway.

NSIA has so far not found any indications of foreign objects or debris at the departure airport (ENGM), and no deficiencies have been found with the runway at the arrival airport (ENTO). Furthermore, air traffic control has handled the incident well and provided the flight crew with the support they needed.

Facts

Location	Sandefjord Airport Torp
Occurrence date	28.12.2024
ICAO Location indicator	ENTO
Aircraft	Boeing 737-600/700/800
Registration	PH-BXM
Meteorological conditions	IMC
County	Vestfold
Type of occurrence	Serious incident
Type of operation	Scheduled air transport
Category of operation	Heavy, aeroplane (> 10 000kg)
Aircraft category	Turbofan/Turbojet, Landplane, Multi-engine
FIR/AOR	ENOS (Oslo ATCC)

NSIA conducts its investigations for the sole purpose of improving transportation safety. The object of a safety investigation is to clarify the sequence of events and root cause factors, study matters of significance for the prevention of transportation accidents and improvement of transportation safety, and to publish a report with eventually safety recommendations. NSIA shall not apportion any blame or liability. Use of information from this investigation for any other purpose than for improvements of transportation safety shall be avoided.