



Australian Government
Australian Transport Safety Bureau

Derailment of empty passenger train 71SG

Near Teepookana, Tasmania | 9 December 2014



Investigation

ATSB Transport Safety Report
Rail Occurrence Investigation
RO-2014-023
Final – 8 April 2015

Cover photo: West Coast Wilderness Railway

Released in accordance with section 25 of the *Transport Safety Investigation Act 2003*

Publishing information

Published by: Australian Transport Safety Bureau
Postal address: PO Box 967, Civic Square ACT 2608
Office: 62 Northbourne Avenue Canberra, Australian Capital Territory 2601
Telephone: 1800 020 616, from overseas +61 2 6257 4150 (24 hours)
Accident and incident notification: 1800 011 034 (24 hours)
Facsimile: 02 6247 3117, from overseas +61 2 6247 3117
Email: atsbinfo@atsb.gov.au
Internet: www.atsb.gov.au

© Commonwealth of Australia 2015



Ownership of intellectual property rights in this publication

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Commonwealth of Australia.

Creative Commons licence

With the exception of the Coat of Arms, ATSB logo, and photos and graphics in which a third party holds copyright, this publication is licensed under a Creative Commons Attribution 3.0 Australia licence.

Creative Commons Attribution 3.0 Australia Licence is a standard form license agreement that allows you to copy, distribute, transmit and adapt this publication provided that you attribute the work.

The ATSB's preference is that you attribute this publication (and any material sourced from it) using the following wording: *Source:* Australian Transport Safety Bureau

Copyright in material obtained from other agencies, private individuals or organisations, belongs to those agencies, individuals or organisations. Where you want to use their material you will need to contact them directly.

Addendum

Page	Change	Date

Derailment of empty passenger train 71SG near Teepookana, Tasmania, on 9 December 2014

A limited-scope, fact-gathering investigation into this occurrence was conducted in order to produce this short summary report and allow for greater industry awareness of potential safety issues and possible safety actions.

What happened

On 9 December 2014, diesel locomotive D2 (Drewry locomotive built 1953, weight 27 t, length 7.6 m) travelled from Regatta Point (Strahan) to Dubbil Barril, to collect an empty passenger carriage for transfer back to Regatta Point. This was in preparation for the recommencement of passenger services between Dubbil Barril and Regatta Point on 15 December 2014. The locomotive and empty carriage, with a crew of three (designated as train 71SG), departed Dubbil Barril at about 1136, bound for Regatta Point.

At about 1215, a radio message was received from the train crew advising that the locomotive had derailed all wheels. The trailing empty passenger carriage remained on track. The crew sustained minor injuries (bruising and stiffness).

Incident site



Source: West Coast Wilderness Railway

What was found

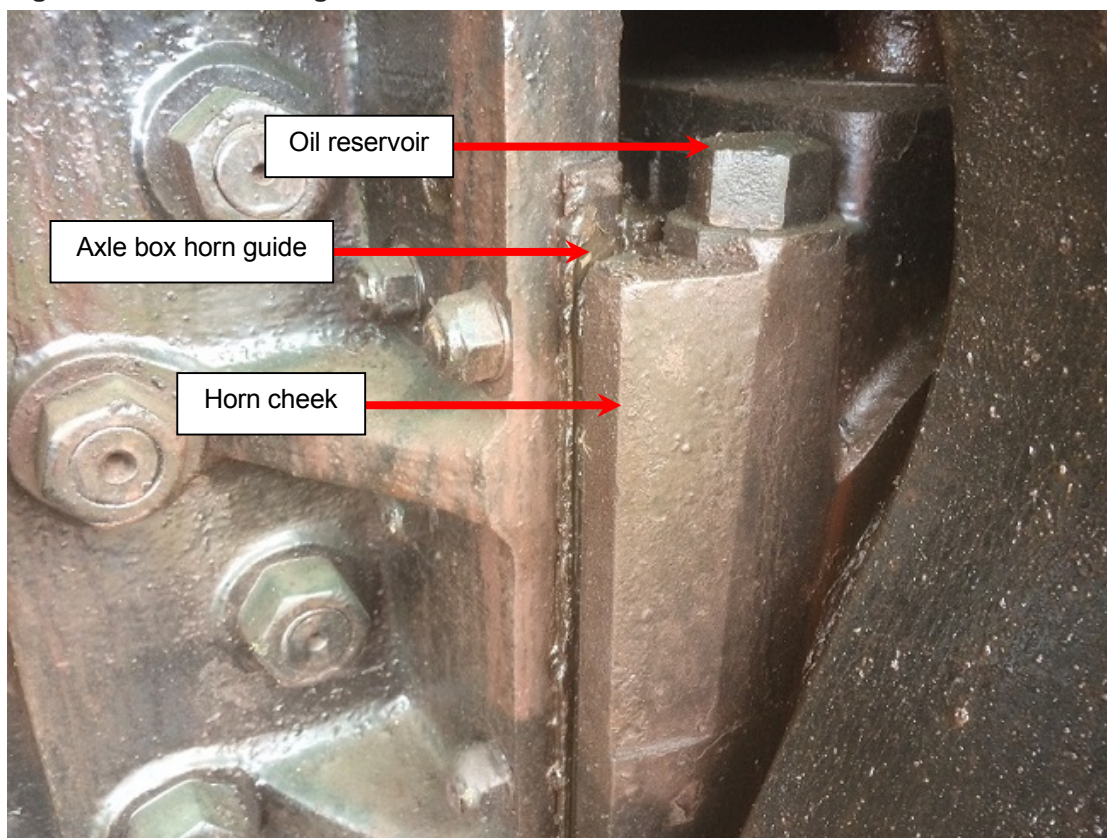
West Coast Wilderness Railway (the operator) investigated the occurrence; the findings of which indicated the track condition and geometry was not a contributing factor. Mechanical examination of the locomotive found that the front right hand axle box horn guide had jammed due to a lack of lubrication (Figure 1). The jammed horn guide had restricted axle articulation while the locomotive was negotiating a slight left-hand curve, causing the leading wheel on the right side to climb the rail head and derail to the right.

A blanket speed restriction of 10 km/h existed for diesel locomotives travelling the section between Regatta Point and Dubbil Barril. Although the locomotive did not have a mechanism to display or record speed, individual crew member interviews and the damage sustained by the track infrastructure and rolling stock suggested that speed was not a factor in the derailment.

West Coast Wilderness Railway operates three diesel locomotives of this type – primarily for shunting and the occasional freight service. They are not normally used for passenger services. Although the locomotives receive regular inspections they can spend long periods idle, are often housed in the open and are subject to the harsh environment of Tasmania's west coast.

A pre-departure inspection (A-exam) was conducted on the locomotive before operation, but the lack of adequate horn guide lubrication was not noted. The investigation found that the A-exam did not specify a requirement to check the axle box horn guide oil reservoir to ensure lubrication was being applied.

Figure 1: Axle box horn guide



Source: West Coast Wilderness Railway

Safety action

As a result of this occurrence, the West Coast Wilderness Railway has advised the ATSB that they are taking the following proactive safety action in order to reduce their safety risk:

- Review locomotive AB examination recording sheet; making changes where needed and ensuring maintainers are advised of any changes made.
- Review the daily locomotive A-exam to include the need for ensuring the oil reservoir above the axle box horn guide is clear, horn cheeks are showing signs of lubrication and checked for visual signs of binding, and ensure that locomotive crews are advised of the change.
- Investigate the possibility of improving the lubrication delivery method.
- Revisit and amend the risk register for rolling stock inspections.
- Undertake a review of the rolling stock maintenance procedures manual.

ATSB comment

The ATSB noted that the risk exposure for derailment of passenger services is reduced due to the limited use and blanket speed restriction for these types of locomotives on the West Coast Wilderness Railway network. In addition, the ATSB noted that the actions taken by West Coast Wilderness Railway should further reduce the risk of future derailment.

Safety message

This incident highlights to operators and maintainers, the importance of continually monitoring and reassessing risks to the safe operation of rolling stock – particularly with respect to low utilisation operating scenarios.



General details

Occurrence details

Date and time:	9 December 2014 – 1215 EDT	
Occurrence category:	Incident	
Primary occurrence type:	Derailment	
Location:	Teepookana, Tasmania	
	Latitude: 42° 11.209' S	Longitude: 145° 25.418' E

Train details

Registration:	71SG	
Operator:	West Coast Wilderness Railway	
Type of operation:	Empty passenger train	
Persons on board:	Crew – 3	Passengers – 0
Injuries:	Crew – 1, minor	Passengers – 0
Damage:	Minor	

About the ATSB

The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory agency. The ATSB is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers. The ATSB's function is to improve safety and public confidence in the aviation, marine and rail modes of transport through excellence in: independent investigation of transport accidents and other safety occurrences; safety data recording, analysis and research; and fostering safety awareness, knowledge and action.

The ATSB is responsible for investigating accidents and other transport safety matters involving civil aviation, marine and rail operations in Australia that fall within Commonwealth jurisdiction, as well as participating in overseas investigations involving Australian registered aircraft and ships. A primary concern is the safety of commercial transport, with particular regard to fare-paying passenger operations.

The ATSB performs its functions in accordance with the provisions of the *Transport Safety Investigation Act 2003* and Regulations and, where applicable, relevant international agreements.

The object of a safety investigation is to identify and reduce safety-related risk. ATSB investigations determine and communicate the safety factors related to the transport safety matter being investigated.

It is not a function of the ATSB to apportion blame or determine liability. At the same time, an investigation report must include factual material of sufficient weight to support the analysis and findings. At all times the ATSB endeavours to balance the use of material that could imply adverse comment with the need to properly explain what happened, and why, in a fair and unbiased manner.

Australian Transport Safety Bureau

Enquiries 1800 020 616

Notifications 1800 011 034

REPCON 1800 011 034

Web www.atsb.gov.au

Twitter @ATSBinfo

Email atsbinfo@atsb.gov.au

Investigation

ATSB Transport Safety Report Rail Occurrence Investigation

Derailment of empty passenger train 71SG
Near Teepookana, Tasmania, 9 December 2014

RO-2014-023

Final – 8 April 2015