SCT Logistics Annual Rollingstock Performance Report. (2024)

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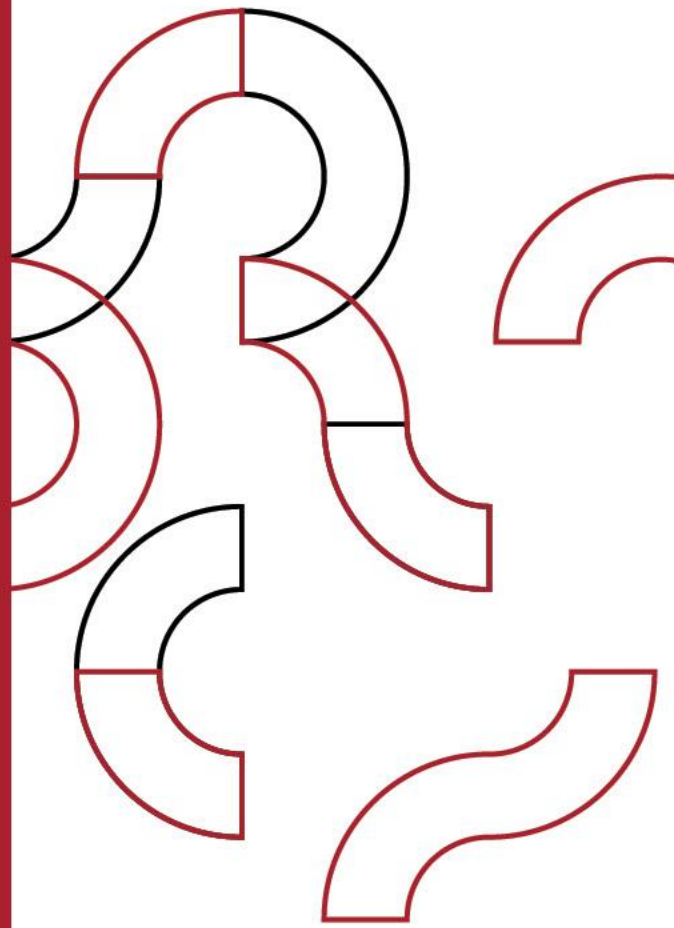

R4.2 A Major engine overhaul

Between 1st January 2024 -31st December 2024 SCT conducted 10 Major Engine Overhauls

Loco	Date Engine replaced	Date Noise Test Due	Engine Manufacturer /Reason	Completed?	Date Completed	Pass?	Comments
CSR013	25/02/2024	25/08/2024	MTU 20V4000R53 -Midlife	Y	22/03/2024	N	New original designed muffler fitted
CSR023	20/03/2024	20/09/2024	MTU 20V4000R53 -Engine Failure	Y	21/03/2024	N	New original designed muffler fitted
CSR016	4/06/2024	4/12/2024	MTU 20V4000R53 -Midlife	Y	9/06/2024	N	To be targeted for new designed muffler at PMF
CSR016	11/10/2024	11/04/2025	MTU 20V4000R53 -Engine failure	N			
CSR018	27/10/2024	27/04/2025	MTU 20V4000R53 -Engine Failure	N			
CSR022	26/07/2024	26/01/2025	MTU 20V4000R53 -Midlife	Y	17/11/2024	N	To be targeted for new muffler design at PMF
SCT002	9/08/2024	9/02/2025	EMD 710 - ICC	N			
CSR015	18/10/2024	18/04/2025	MTU 20V4000R53 -Midlife	N			
CSR019	28/10/2024	28/04/2025	MTU 20V4000R53 - TBO	N			
SCT006	25/10/2024	25/04/2025	EMD 710 - ICC	Y	19/01/2025	N	

R4.2 b)

SCT has completed noise testing under the condition M5.3(a) and noise values have exceeded the limits stated in L3.5.

The following action plan has developed with some actions completed and others are under the planning stage for the CSR Locomotives:

- New original designed mufflers: These replacement mufflers were fitted to CSR013 and CSR023 to reduce noise level, this did not reduce the noise level to below requirements of L3.5.
- Complete re-designed muffler: This has been developed by the OEM in conjunction with SCT for the CSR fleet, these mufflers is on site and ready to be installed in a locomotive which has previously failed noise testing. This will be completed and retested within 6 months. Delays were incurred with shipping of these mufflers.
- Once a re-test has been complete, determine the effectiveness of the muffler and install the new design to all CSR locomotives.

The following action plan is being developed and is already under the planning stage for the SCT Locomotives:

- Sound data analysis: Detailed analysis of sound data from SCT locomotives will be performed to identify the specific components responsible for the noise exceedances. Given Engineering resourcing, this may be outsourced to a third party. Estimated completion time (to be confirmed) is 30/08/25.

R4.2 C)

The following are details of SCT's train performance with regards to AoA exceedances reported from the Sydney Trains monitoring station at Beecroft. Also included are SCT's initiatives for reducing AoA exceedances and hence noise levels during the calendar year 2024.

The raw AoA data was analysed for the period between January to December 2024 the following was determined:

1. Overall, the number of reported exceedances were less than those reported during the previous years; 2021 -2024.
    - 2021 - 2200 individual axle exceedances were reported
    - 2022 - 1600 individual axle exceedances were reported
    - 2023 – 1027 Individual axle exceedances were reported
    - 2024 – 234 Individual axle exceedances were reported

This represents over 77% less overall exceedances during the calendar year 2023.

R4.2 C)

2. A total of 77 unique wagons have exceeded AOA for the calendar year 2024. Out of which 46 belong to priority class (PBGY-43/ABSY-3)

3. A review of the wagons by class determined the following: As noted previously the principle SCT wagons that trigger the AoA exceedance levels are the older wagons in SCT's fleet – the PBGY wagons. These wagons do account for approximately 59% of all exceedances, however overall, the PBGY exceedances are significantly improved as compared to previous years as overall the SCT exceedances have improved 79%. (i.e., PBGY - 2023 had approx. 719 exceedances vs 151 in 2024)

Row Labels	Count of Wagon ID
ABSY	3
ARBY	1
PBGY	43
PBSY	15
PQDY	1
PQIY	1
PQMY	1
PQQY	8
Grand Total	73

Class	Percentage
ABSY	4%
ARBY	1%
PBGY	59%
PBSY	21%
PQDY	1%
PQIY	1%
PQMY	1%
PQQY	11%
Grand Total	100%

Findings to Date

- There were 43 PBGY wagons from priority class exceeded AOA for calendar year 2024.
- Out of these 43 wagons, 5 had centre bowl liner mods completed prior in 2017 and 2018.
- Out of the remaining 38, mods have been completed on 9 wagons between June 2024 – Jan 2025.
- All these 9 wagons after the mods have been completed haven't been reported for AOA exceedance.

Polymer liner Mod	Wagon ID	Days (Date)	Count of Priority wagon class
28/02/2018	PBGY 000053	30-Oct	2
		31-Dec	2
6/12/2017	PBGY 000056	9-Apr	1
		29-Nov	1
24/01/2018	PBGY 000096	30-Oct	1
3/03/2018	PBGY 000100	29-Nov	2
8/03/2018	PBGY 000116	19-Dec	2

Polymer liner Mod	Wagon ID	Days (Date)	Count of Priority wagon class
14/01/2025	PBGY 000013	18-Jan	2
		1-Jun	2
		26-Nov	2
21/06/2024	PBGY 000024	8-Jan	1
		1-Jun	4
		20-Jun	1
13/01/2025	PBGY 000030	25-Oct	1
		31-Oct	1
		5-Dec	1
		17-Dec	1
		28-Dec	1
15/10/2024	PBGY 000049	9-Feb	1
		12-Sep	1
14/01/2025	PBGY 000063	14-Jun	2
9/01/2025	PBGY 000075	3-Oct	1
16/10/2024	PBGY 000077	27-Sep	2
10/01/2025	PBGY 000099	11-Oct	2
		5-Nov	2
		6-Dec	1
		24-Dec	1
3/12/2024	PBGY 000142	6-Jun	1
		20-Jun	1
		1-Aug	1
		31-Aug	1
		27-Sep	1

SCT Initiatives

1. All the wagons in priority class PBGY/ABSY are going through modification of metallic centre bowl liners to polymer liners.
2. As of 10/02/2025 we have 65 x PBGY wagons & 51xABSY wagons centre bowl liners modified from Metallic liners to polymer liners.
3. We have 81x PBGY's and 65 x ABSY that still require centre bowl liners modified from metallic to polymer liners.
4. The overall exceedances have improved by following the SCT inspection regime .

SCT will keep monitoring and working with their maintenance teams to ensure continuous improvements with regards to minimising AoA. SCT aims to complete the centre bowl liner modifications on the PBGY/ABSY class wagons by end of 2025.

Thank You

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