

The Provision to Wheelset Exchange for Class 57 Locomotives

Specification Document

01 October 2024

Contents

1	Introduction	3
2	Scope of Services	3
2.1	High Level Scope and Timelines.....	3
2.1.1	Phase 1 - Removal of bogies and installation of accommodation bogies	3
2.1.2	Phase 2 Removal of wheelsets from the bogies.....	3
2.1.3	Phase 3 – Inspect Axleboxes.....	4
2.1.4	Phase 4 - Stabling	4
2.1.5	Phase 5 – Wheelset inspection and fitment of axleboxes.....	4
2.1.6	Phase 6 – Assembly of bogie with overhauled wheelsets	4
2.1.7	Phase 7 Removal of the accommodation bogies and installation of original bogies with overhauled wheelsets	4
2.1.8	Phase 8 – Testing and redelivery.....	4
2.2	Alternative Products.....	5
2.3	Transport	5
2.4	Location.....	5
2.5	Storage Facilities	5
3	Contract Management	5
4	Quality Requirements	6
4.1	Quality	6
4.2	Standards	6
4.3	National Incident Report (NIR)	6
4.4	Documentation.....	6
5	Appendix A	7

1 Introduction

Direct Rail Services (DRS) is a leading UK national rail freight operator which has been established since 1995. It is a Supplier of transport and associated services to the nuclear industry and is wholly owned as a subsidiary to the Nuclear Decommissioning Authority (NDA).

In 2021 Nuclear Transport Solutions was formed as a centre of excellence for nuclear transport, packaging and logistics expertise which operates Direct Rail Services Ltd.

Direct Rail Services (DRS) is the Contracting Authority and trading under the umbrella of Nuclear Transport Solutions (NTS).

Direct Rail Services wish to partner for a year with a Supplier who is able to facilitate

- the Wheelset Exchange for a minimum of two Class 57 Locomotives
- Stabling of the Class 57 Locomotives
- Inspection and Overhaul of Class 57 axleboxes
- Inspection of Class 57 Overhauled Wheelsets

2 Scope of Services

2.1 High Level Scope and Timelines

DRS will let a one-year contract for the completion of a minimum of two Locomotives.

The Supplier shall provide a minimum of two Wheelset exchanges for two Class 57 Locomotives over the next year. Should the requirement for additional wheelset exchanges, this will be discussed in due course

One Class 57 Locomotive is to be completed as soon as practically possible as the Locomotive is currently out of traffic. The DRS would prefer for mobilisation to happen in October or November 2024 ,but at contract award the dates shall be confirmed..

The second Class 57 Locomotive is to be completed in February 2025, or as soon as possible after the first Locomotive is complete.

The detailed scope of the requirement can be found in Appendix A.

2.1.1 Phase 1 - Removal of bogies and installation of accommodation bogies

The Supplier is to provide a wheelset exchange service for class 57 Locomotives. The Supplier shall remove the current bogies for the Class 57 Locomotives and install the DRS accommodation Bogies.

The supplier shall remove the 6 wheelsets from the bogies. DRS shall arrange for the pick up of the loose wheelsets to be sent for overhaul.

The supplier shall follow the instructions as per the E WI 771 02, E WI 771 Documents.

2.1.2 Phase 2 Removal of wheelsets from the bogies

The supplier shall remove the 6 wheelsets from the bogies. DRS shall arrange for the pick up of the loose wheelsets to be sent for overhaul.

The supplier shall follow the instructions as per the E WI 771 02, E WI 771 Documents

2.1.3 Phase 3 – Inspect Axleboxes

The Supplier shall also remove the 12 Axleboxes from the wheelsets and inspect them and provide a condition report back to DRS. The Supplier shall visually check for cracks and damage, measure the axlebox bores, liners and manganese liners. The Condition Report shall include the dimensions and other recommendations for DRS to review. Following the receipt of the report, DRS might ask the Supplier to provide an axle box overhaul. The supplier shall have the capability to support the overhaul via their workshop or a sub-contractor and should demonstrate competence for carrying out such work including provision of proposed weld procedures.

The supplier shall follow the instructions as per the E WI 771 02 Document.

2.1.4 Phase 4 - Stabling

DRS expects the wheelset overhaul will take approximately 4-8 weeks by their Overhauler, during which time the Supplier shall provide stabling for the Class 57 Locomotive.

2.1.5 Phase 5 – Wheelset inspection and fitment of axleboxes

The Supplier shall inspect the overhauled Class 57 Wheelsets as per the E POL 709 & E POL 709 01 Policies and Standards and E WI 771 02 Document and install the axleboxes

2.1.6 Phase 6 – Assembly of bogie with overhauled wheelsets

Following the inspection of the overhauled wheelsets, the bogie shall be re-assembled with the overhauled wheelsets.

The supplier shall follow the appropriate instructions as per the E WI 771 02 Document.

2.1.7 Phase 7 Removal of the accommodation bogies and installation of original bogies with overhauled wheelsets

The Supplier shall remove the accommodation bogies and swap them with the original bogies and overhauled wheelsets. The Supplier must complete the DRS Wheelset exchange paperwork. DRS will arrange for the pick up of the Locomotive from the Suppliers site and the accommodation bogies as required.

The supplier shall follow the instructions as per the E WI 771 02, E WI 771 and F P 0738 02 Documents.

2.1.8 Phase 8 – Testing and redelivery

The supplier shall test all of the systems disturbed or affected by the installation of new wheelsets and overhauled bogies, including but not limited to DRS reserves the right to inspect their work at this point.

UF 57 J6301 Clauses 2.20 - 2.26 including	Testing
2.20 BH 57 J0306	Handbrake Operation - Check

2.21 BZ 57 J0302	Brake -Test
2.22 EO 57 J0108	Speedometer Calibration – Check
2.23 SD 57 J0105	TPWS - Test

The supplier shall follow the instructions as per the E WI 771 Document.

DRS reserves the right to inspect their work at this point.

DRS will arrange for the collection of the Locomotive from the Suppliers site and the accommodation bogies as required.

2.2 Alternative Products

DRS is not able to accept alternative products. DRS can only accept OEM or OEM recognised components as listed in the E WI 771 02, E WI 771 Documents.

2.3 Transport

DRS shall arrange all transport between

- DRS and the Supplier
- DRS' Wheelset Overhauler and the Supplier

2.4 Location

The supplier shall provide at contract start the location of the workshop where the Wheelset Exchange will occur.

2.5 Storage Facilities

The Supplier's storage premises will be required to be clean, secure, weatherproof and free from vermin.

The Supplier's facility and management systems are to be suitable and capable of being used to perform storage and enable the Supplier to effectively manage the storage of the bogies.

3 Contract Management

The Supplier shall provide a single point of contact for DRS to enable the communication and management.

Regular operational review meetings will take place throughout the Contract Term as required and frequencies as the Parties determine from time to time. The Parties shall be flexible about the timings of these meetings.

4 Quality Requirements

4.1 Quality

The Supplier shall ensure that all supply activities are carried out in accordance with relevant health and safety standards, regulations and industry best practices.

4.2 Standards

The Supplier shall meet the following Standards

- ISO 9001:2015 Quality Management System
- ISO 14001:2015
- BS ISO 45001:2018
- RIS2750 or IRIS Certification (ISO/TS 22163:2017 and IRIS Certification Conformity assessment:2020 or equivalent certification.
- RIS-2704-RST Rail Industry Standard for Wheelsets Handling and Storage

Throughout the duration of the term of the contract, the Supplier shall be required to maintain the current and most up-to-date revisions of all above standards.

4.3 National Incident Report (NIR)

National Incident Report (NIR) is a system used to record, analyse and report safety-related defects on rail vehicles, their components, systems, and related documents.

If a Supplier raises a National Incident Report (NIR) or has an NIR raised against them, then the Supplier shall:

1. Inform DRS if it impacts the scope of the Contract.
 - a. Provide a background to the issue.
 - b. Provide a solution to the issue.
 - c. Inform DRS of the lessons learned.
 - d. Provide any changes to practices or processes to prevent a re-occurrence.

4.4 Documentation

After the Contract Award the Supplier shall be issued the controlled versions of the following documents

- E WI 771 - 10U Job Descriptions U Section
- E WI 771 02
- F E POL 709 01 - Wheelset Delivery Inspection Check List
- E POL 709 - Wheelset Delivery Inspection Policy
- F P 0738 02 - Wheelset Exchange Sheet

5 Appendix A

Phase	Phase Title	E WI 771 02 Ref	E WI 771	E POL 709 & E POL 709 01	Description/Title	Wheelset Swap Scope
Phase 1	Removal of bogies and installation of accommodation bogies	n/a			Accept loco onto supplier site	*
		n/a			Accept accommodation bogies - provided by DRS	*
		n/a	UF 57 J6301 Clauses 1.1. - 1.8		Carry out Bogie change utilising (accommodation bogies)	*
Phase 2	Removal of wheelsets from the bogies.	5.2			Dismantling of the Bogie	*
		5.2.1			Bolster (Spider)	*
		5.2.2			Spring Plank	*
		5.2.3			Traction Motors & Gearcases	*
		5.2.4.2			Life Guards (Light)	*
		5.2.4.3			Brakegear Part 1	*
		5.2.5			Bogie Frame	*
		5.2.8.4			Bogie Pipework (Light)	*
		5.2.9			Equalising Beams	*
		n/a	n/a		Prepare Wheelsets for transport to third party Supplier	*
Phase 3	Inspect axleboxes				Retain axleboxes and all other equipment (Keep everything secure and listed)	
		5.4			Axleboxes	*
		5.4.1			Axlebox dismantling and removal	*
		5.4.2			Axlebox cleaning and examination	*
					Report findings to DRS	
Phase 4	Stabling	n/a	n/a		Stabling of locomotive and recovered bogies	*
Phase 5	Wheelset Inspection and fitment of axleboxes				Accept wheelsets onto supplier site	
		n/a	n/a	*	Inspection of overhauled wheelsets on delivery to E POL 709 and completion of EPOL 709 01	*
		7.3			Wheelsets - E WI 771 02	*
		5.4.3			Fitting of axlebox including mounted end play checks	*
		5.4.4			Lubrication of axleboxes	*
		5.4.5			Inspection of fitted axleboxes	*
		5.5			Traction motor and gearcases	*

Phase	Phase Title	E WI 771 02 Ref	E WI 771	E POL 709 & E POL 709 01	Description/Title	Wheelset Swap Scope
		5.5.1			Cleaning	*
		5.5.4			Gearcase	*
		5.6.1			Cleaning	*
		5.9.3.1			Air Pipework Examination	*
Phase 6	Assembly of bogie with overhauled wheelsets	5.1			Reassembly of the Bogie	*
		5.10.1			Pre-assembly - Re-assemble those areas disassembled in order to remove the wheelset	*
		5.10.4			Equalising Beam and Wheels	*
		7.10.5			Traction Motor Re-Fitting	*
		7.10.6			Bolster	*
		7.10.7			Brake Rigging Part 2	*
		5.10.8			Bogie Attachments	*
		5.10.8.1			AWS Receiver Height	*
		5.10.8.5			Bogie Lubrication	*
		5.10.8.6			Brake Blocks Refit and Adjust Rigging	*
		5.11			Testing & Setting Brake Rigging	*
		5.13			Bogie Storage and Transit - Where appropriate	*
Phase 7	Removal of accommodation bogies and installation of original bogies with overhauled wheels		UF 57 J6301 Clauses 2.1 - 2.19		Bogie change (accommodation bogies)	*
Phase 8	Testing		UF 57 J6301 Clauses 2.20 - 2.26 including		Testing	*
			2.20 BH 57 J0306		Handbrake Operation - Check	*
			2.21 BZ 57 J0302		Brake -Test	*
			2.22 EO 57 J0108		Speedometer Calibration – Check	*
			2.23 SD 57 J0105		TPWS - Test	*
					DRS Inspection	
		n/a	n/a		Prepare Loco for Departure and Maintenance documentation	*
		5.11	n/a		Storage of Bogies or Send the accommodation bogies to DRS (as required)	*