



Automatic Train Inspection: Maintenance Activities and Supply of Critical Spares Package – award of contract

Date of meeting 23 February 2024

Date of report 2 February 2024

Report by Director of Transport Operations

1. Object of report

To request the Committee approve the award of a contract to MERMEC for the provision of planned maintenance activities and the supply of a critical spares package for the Automatic Train Inspection (ATI) system fitted at Broomloan Depot as part of the Subway Modernisation programme.

2. Background to report

An ATI system was fitted within the Operational Area of Broomloan Depot during Modernisation works. The system provides SPT with measurements of wheel set dimensions, collector shoe thickness and brake disc/pad thickness, every time a unit passes over the ATI track bed.

ATI will allow for/provide to SPT:

- Pro-active alerts and warnings of Unit conditions for the components monitored to improve performance and availability.
- Provide condition-based monitoring data for SPT to support asset lifecycle improvements including improvements in data driven for the optimisation of wheelset life.

The ATI system was supplied and constructed by MERMEC (subcontracted by ANSTA under the Manufacture and Supply Agreement) and was installed in 2021, commissioned in 2023 and is planned to be Accepted by SPT during Quarter 1 2024.

The ATI system configuration is bespoke to SPT and contains considerable amounts of proprietary components, equipment assemblies and software.

SPT maintenance staff have been trained to conduct non-specialist routine planned maintenance tasks and a number of foreseeable corrective tasks on the ATI. However, the system further requires a number of maintenance activities which are identified as technically complex in the equipment Operations and Maintenance Manual as requiring specialist knowledge and tooling, and recommended by the manufacturer that that these should not be undertaken by operators.

SPT therefore requires a maintenance agreement with MERMEC to conduct the specialist maintenance activities specified by the manufacturer to be undertaken within the agreed ATI maintenance plan.

Provision for corrective maintenance is excluded from the maintenance proposal as the ATI will be under manufacturer's (ANSTA) warranty for three years following SPT acceptance.

The ATI contains a number of specialised assemblies and bespoke components that are only available from MERMEC and have significant lead times. It is proposed that as part of this agreement SPT will purchase at discount, and hold on Depot, a critical spares package so that in the event of a critical component failure, the spares are immediately available and the risk of the ATI system unavailability due to long component lead times is avoided. This critical spares package also reduces the risk of future obsolescence and significant price increases for replacements throughout the future of the ATI's design life (minimum 10 years).

3. Outline of proposals

3.1 Scope of services

The proposed term for the offer is three years commencing from agreement and will include:

- MERMEC to provide maintenance visits every six months to complete all planned maintenance identified within the agreed maintenance schedule as within the scope of the supplier. This will be six visits in total across the three-year agreement period.
- Planned maintenance costs include all required consumables and spares to complete the specified activities.
- During year three of the agreement, a number of additional preventative tasks are completed.

The following is not included within the scope supply:

- Corrective Maintenance – covered by manufacturer's (ANSTA) warranty.
- Technical Support – Provision for technical support is provided for duration of TSSSA contract.

3.2 Tender process

ATI is a bespoke system built by MERMEC primarily using proprietary complex technology. There are no alternative suppliers of MERMEC equipment and due to the uniqueness of the ATI system, MERMEC is the only supplier with the necessary equipment, knowledge and competency for the SPT system.

An option was explored of securing this support and spares through ANSTA, rather than directly through MERMEC however this was significantly more expensive and introduced additional issues including around the title to spares at the end of the TSSSA term.

As result there is no intention to conduct a tender process for this award and once approved will be directly awarded to MERMEC.

3.3 Costs

MERMEC has provided SPT with a proposal to meet the terms specified above:

Line	Description	Price
1	Planned Maintenance (two visits per year over the three-year period)	£155,956.29
2	Spares Package	£177,253.50
	Total Price	£333,209.79

4. Committee action

The Committee is recommended to approve the award of up to £333,209.79 for the provision of Maintenance and the supply of critical spares package by MERMEC.

5. Consequences

Policy consequences	<i>None.</i>
Legal consequences	<i>None.</i>
Financial consequences	<i>The costs for maintenance contract and supply of spares will be accommodated within the Maintenance revenue budget.</i>
Personnel consequences	<i>None.</i>
Equalities consequences	<i>None.</i>
Risk consequences	<i>Risk of prolonged ATI unavailability significantly reduced.</i>
Climate Change, Adaptation & Carbon consequences	<i>None.</i>

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