**TECHNICAL SPECIFICATION**

**PART I. DESCRIPTION OF THE SUBJECT OF THE CONTRACT**

## TERMS AND DEFINITIONS

**Client** means LTG Link UAB.

**Service Provider** means an economic entity, including a natural person, private legal person, public legal person, other organisations and their subdivisions or a group of such persons, with whom the Client concludes the Contract.

**Services** means overhaul and maintenance services for Pesa 730ML diesel train power packs.

**Ancillary Services** means minor repairs and/or other services necessary for the overhaul and maintenance of PESA 730ML power packs.

## SUBJECT OF THE CONTRACT

* 1. Overhaul and maintenance services for the Rail Pack units of Pesa 730ML diesel trains (hereinafter referred to as the **Subject of the Contract**).
  2. The procurement is not subdivided into lots.

Table 1

|  |  |
| --- | --- |
| Item No. | **Documents following which the Services are to be provided** |
| 1 | RAIL PACK 600 DH Operating Manual 122.00243121\_RU VOITH 19.10.2015 |
| 2 | RAIL PACK 600 DH Service Manual 122.00243141\_RU 11.05.2016 |
| 3 | Installation and Operating Manual 12200059340\_RU 51.99493-8600 for MAN D2862 LE633 industrial diesel engines 03.2014 |
| 4 | Maintenance Manual 12200059341\_RU 51.99597-8047 for MAN D2862 LE633 industrial diesel engines 07.2015 |

## REQUIREMENTS FOR THE SUBJECT OF THE CONTRACT

* 1. **Overhaul of the RAIL PACK 600 DH power pack (hereinafter referred to as the “power pack”) after 32000 Mh.**
     1. The Services shall be carried out by the Service Provider on its own production facilities, with its own parts and materials and with its own forces.
     2. All parts, assemblies and sub-assemblies to be replaced must be new, original and unused.
     3. The dismantling of the power pack from the train and its installation on the train shall be carried out by the Client at its own production base.
     4. If parts/assemblies/sub-assemblies comprising the power pack require more extensive repairs than those specified in the manufacturer's repair manual for that part/assembly/sub-assembly, the replacement of the additional elements/parts/assemblies and/or other repair services must be agreed with the Client prior to the performance of the Ancillary Services.
     5. When providing power pack overhaul services, the Service Provider shall:
        1. replace the cylinder block with a new one;
        2. replace pistons, cylinder inserts, crankshaft and connecting rods with new ones.
        3. replace all crankshaft bearings with new ones;
        4. replace cylinder heads with new ones;
        5. inspect and measure the camshaft and identify its defects. In case of unauthorised damage to the camshaft, replace the camshaft with a new one (if replacement is required, coordinate with the Client);
        6. replace the camshaft bearings with new ones;
        7. replace the oil pump with a new one;
        8. replace the coolant pump with a new one;
        9. replace high pressure pumps with new ones;
        10. replace turbochargers with new ones;
        11. replace all fuel injectors with new ones;
        12. replace the entire fuel injector pipework;
        13. replace the exhaust and charge manifolds with new ones;
        14. replace oil and air radiators with new ones;
        15. install new seals, flexible hoses, filter elements and sensors;
        16. carry out overhaul of the starter;
        17. repair the SCR system;
        18. replace all flexible connections with new ones;
        19. replace all coolers with new ones;
        20. provide overhaul services for the T212bre hydrodynamic drive in accordance with the manufacturer's requirements by replacing standard expendable parts (seals, bearings and filters);
        21. provide other services related to the disassembly of the gearbox: inspection of the gearbox components, reassembly with replacement of standard parts and post-repair testing;
        22. repair or replace other damaged parts of the drive found after the defect identification;
        23. in the course of overhaul, have the right to install another identical hydrodynamic drive T212bre (with a different serial number), subject to prior agreement with the Client.
        24. carry out overhaul of the hydrostatic drive system pumps A11VO260+A10VO100 in accordance with the manufacturer's requirements (replacement of the rotor and its components, bearings, expendable sealing and all rubber parts, gaskets and seals with new ones); carry out tests after repairs;
        25. replace the generator's hydrostatic motor with a new one;
        26. carry out an overhaul of the generator in accordance with the manufacturer's requirements:
        27. disassemble, check and assemble the generator;
        28. checking the shaft geometry and bearing assemblies;
        29. inspect the ignition system components;
        30. coat the windings with electrical insulating varnish;
        31. replace bearings and seals;
        32. balance the rotor (according to ISO 1940);
        33. check the wire insulation;
        34. carry out measurements and testing;
        35. carry out an overhaul of the flexible Kusel coupling in accordance with the manufacturer's requirements;
        36. perform engine diagnostics on MAN-Cats and VTBSwin;
        37. perform diagnostics and adjustment of the hydrostatic system, including replacement of cooling system hoses and filters and oil change;
        38. perform other services provided for:
            1. fully disassemble and assemble the power pack components;
            2. sand the power pack frame and supports;
            3. identify defects of the power pack frame using non-destructive testing techniques;
            4. paint the repaired power unit and its frame and supports;
        39. after the overhaul of the power pack, before sending the unit to the Client, carry out tests on the entire power pack unit on a test bench;
        40. fill all units and assemblies of the power pack with the prescribed operating fluids before testing and discharge them after testing;
        41. carry out commissioning/debugging of the installed power pack at the Client's premises.
        42. fill the power plant units and assemblies with the prescribed operating fluids during commissioning/debugging: engine oil, hydrostatic oil, coolant, ad blue, etc.
     6. All repaired units shall function reliably at outdoor air temperatures between -40C and +40C;
     7. The power pack and all its component parts must be leak-proof and not contaminate the environment with petroleum products.
     8. A representative of the Service Provider must be present at the train test run.
     9. The Client is responsible for the preparation of the power pack (packing, loading and fixing). The Service Provider shall organise the transportation to and from the Client's repair base (at: Švitrigailos g. 39 or Pramonės g. 78, Vilnius) and carry out the service with its own forces.
     10. The Service Provider must keep the additional parts replaced during the service. At the Client’s request, the Service Provider shall hand over to him the replaced parts, but the Service Provider is not obliged to keep the parts for more than 6 months.
     11. Any structural modifications to individual units and assemblies, or changes to the electrical diagrams, shall be prohibited without the prior approval of the Client.
     12. The power pack unit as a whole and all its components shall be covered by a warranty of not less than 27 months from the date of signature of the handover and acceptance certificate.
  2. **Power pack maintenance services:**
     1. The Service Provider shall carry out the Services at the Client's site using its own parts and materials and its own labour, in accordance with the requirements of the documents referred to in points 1 and 2 of Table 1.
     2. The Services shall be carried out using new original parts and materials whose characteristics (technical parameters, service life and quality) shall comply with the technical requirements set out in the documents referred to in Table 1.
     3. All parts, assemblies and sub-assemblies to be replaced must be new and unused.
     4. The Services shall be performed by the Service Provider in accordance with the Train Maintenance Plan provided by the Client (Annex 2).
     5. All units, tanks and pipelines to be maintained must be leak-tight and not contaminate the environment with oil and other products.
     6. Only consumables (lubricants, coolants, etc.) specified in the service documentation of the manufacturers of the units and assemblies to be serviced shall be used.
     7. The maintenance services include:
        1. Change of process fluids and their filters at the manufacturer's specified intervals;
        2. Diagnostics during maintenance;
        3. Inspection and adjustment of assemblies and units at intervals specified by the manufacturer;
        4. Rectification of identified defects.
           1. In the event of a defective unit under warranty, defects shall be rectified at the Service Provider's expense.
           2. In the event of a defective unit without a warranty, defects shall be rectified at the Client's expense, subject to prior agreement between both parties.

3.2.8. In the event that ancillary services, i.e. services not provided for in paragraph 3.2.7, are required during maintenance, the Service Provider shall draw up a defect report and prepare a cost estimate for the performance of the ancillary services, which shall be agreed with the Client.

3.2.9. No upgrades to the repaired objects shall be carried out during the performance of the Services without the agreement with the Client.

3.2.10. The transport of rolling stock to, and return from the place of maintenance or repair shall be at the Client's expense and responsibility.

3.2.11. The time limits for the Services and the warranty granted are set out in Annex 2.

3.2.12. The time limit of maintenance services includes both power packs on board a train.

## 4. DOCUMENTS SUBMITTED DURING THE PERFORMANCE OF THE CONTRACT

|  |  |  |  |
| --- | --- | --- | --- |
| **Item No.** | **Name** | **Content and format requirements** | **Moment of submission** |
| 4.1. | Records of the Services carried out (e.g. certificates, declarations, technical passports noting the repairs carried out, or other documents) | Submitted electronically or on paper in Lithuanian or English. | Submitted with each Service. |
| 4.2. | Defect reports, measurement and test reports, certificates and deeds | Submitted in paper or electronic form, in Lithuanian or English. | Submitted with each Service. |
| 4.3. | The Service Provider shall provide copies of certificates of conformity, declarations of conformity, passports (originals) (or equivalent documents) of the goods used in the Services after the Services have been performed. | With a translation into Lithuanian (no translation from English). | Together with documents to be submitted. |
| 4.4. | For the performance of services using equivalent parts and assemblies, the Service Provider must agree this with the Client and provide proof of suitability in the form of a written confirmation from the manufacturers of the diesel trains PESA 730ML or their assemblies – that the proposed equivalent goods meet the technical requirements of the production and are suitable for their repair. | Documents must be in the original language with a translation into Lithuanian (no translation from English is required). | Together with documents to be submitted. |

**PART II. FULFILMENT OF OBLIGATIONS**

## PLACE(S) OF FULFILMENT

* 1. Švitrigailos g. 39, Vilnius.
  2. Pramonės g. 78, Vilnius.

## PROCEDURE AND DEADLINES FOR THE FULFILMENT OF OBLIGATIONS

* 1. **Order lead times**
     1. After signing the contract, the Client will provide a preliminary annual plan of repairs. The Client will also inform the Service Provider of the impending order prior to the performance of the services:

1) For overhaul, no later than 1 month,

2) For maintenance, no later than 2 weeks.

* + 1. The overhaul services must be provided within the period specified in the Tender, which cannot exceed 90 calendar days.
    2. Maintenance Services must be provided within the time limits set out in Annex 2.
    3. All the services listed above may be carried out outside standard working hours.
    4. The services shall be provided for no longer than 36 months from the Contract’s effective date or until the initial contract value has been exhausted.
  1. **Procedure for placing orders**

2.2.1. By email. The order is considered submitted on the day following its dispatch to the Service Provider.

2.2.2. The Service Provider shall not be entitled to use during the performance of the Contract any parts and/or provide any services which do not comply with the requirements of the Procurement documents and/or the supply/provision of which is restricted due to international sanctions (as defined in the Republic of Lithuania Law on International Sanctions) and/or due to their threat to the national security, as defined in the Procurement documents and in the Republic of Lithuania Law on Procurement by Contracting Entities in the Water Management, Energy, Transport and Postal Services Sectors.

2.2.3.The Client shall not accept the Services if, at the time of acceptance (inspection) of the handover of the Services, the Client finds that the installed parts do not comply with the requirements of the Procurement documents and/or the provision of which is restricted due to international sanctions (as defined in the Republic of Lithuania Law on International Sanctions) and/or due to the threat to national security, as defined in the Procurement documents and the Republic of Lithuania Law on Procurement by Contracting Entities in the Water Management, Energy, Transport and Postal Services Sectors.

**2.3. Procedure for signing the handover and acceptance certificate**

5 (five) calendar days from the date of service provision.

**2.4. Procedure and deadlines for rectifying defects**

2.4.1. Upon receiving information about the identified defect, the Service Provider must respond within no more than 4 working hours after the Service provider has sent the notification by email and/or other means.

2.4.2. If, during the operation of the power pack, it is found that the Services have not been performed to a satisfactory standard, the Service Provider shall rectify the defects:

2.4.2.1. If the fault is minor or insignificant, i.e. further operation of the train is possible after the defect/fault has been identified, the Service Provider must rectify the defect within a maximum of 5 working days, or agree a detailed schedule for the rectification of the defect with the Client within 1 working day.

2.4.2.2. If the fault is significant or major, i.e. further operation of the train is not possible after the fault/defect has been identified, the Service Provider must rectify the defect within a maximum of 1 working day, or agree a detailed schedule for the rectification of the defect with the Client within the same time limit. The Client must approve the defect elimination schedule in writing (the Client has the right to reject the schedule proposed by the Service Provider, in which case the Service Provider remains obliged to eliminate the defects within 1 working day).

2.4.3. Warranty faults shall be repaired at the Client's repair facilities at the following addresses: Švitrigailos g. 39, Vilnius; Pramonės g. 78, Vilnius, or at a location agreed with the Client.

**3. Annexes**

Annex 1. Provisional quantities of services.

Annex 2. Frequency of maintenance services.

Annex 1. Provisional quantity of services

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Drawing (catalogue) No.** | **UoM** | **Provisional quantity** |
| Overhaul of 730ML power pack 600DH after 32000 Mh | 600DH RP | pcs. | 6 |
| Maintenance of 730ML power pack 600DH S1 | 600DH RP | pcs. | 2 |
| Maintenance of 730ML power pack 600DH TP-3 | 600DH RP | pcs. | 2 |
| Maintenance of 730ML power pack 600DH ER-1 | 600DH RP | pcs. | 2 |
| Maintenance of 730ML power pack 600DH ER-2 | 600DH RP | pcs. | 2 |
| Maintenance of 730ML power pack 600DH ER-3 | 600DH RP | pcs. | 2 |
| Ancillary services (D) |  | hrs | 20 |

Annex 2. Frequency of maintenance services.

**MAINTENANCE INTERVALS, REPAIR TIMES AND WARRANTIES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item No. | Type of repair, type of wagon | Frequency of maintenance | Train outage (from the moment of signing the handover and acceptance certificate) | Warranty (from the date of signing the service handover and acceptance certificate) |
| **DIESEL TRAIN 730ML** | | | | |
| 1. | S1 maintenance | 400 Mh | 6 hours | 200 Mh |
| 2. | TP-3 maintenance | 1000 Mh | 10 hours | 500 Mh |
| 3. | ER-1 maintenance | 4000 Mh | 18 hours | 2000 Mh |
| 4. | ER-2 maintenance | 8000 Mh | 20 calendar days | 4000 Mh |
| 5. | ER-3 maintenance | 16 000 Mh | 28 calendar days | 8000 Mh |