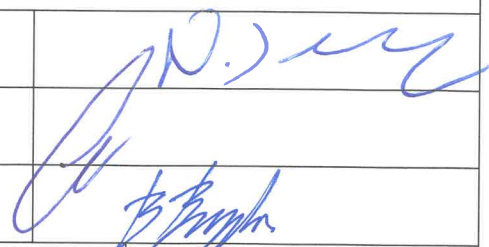


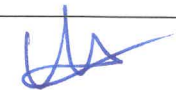


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T.Ş. 250.260

TECHNICAL SPECIFICATION FOR
 PROCUREMENT OF THE MATERIALS USED
 ON EMD TYPE LOCOMOTIVE DIESEL
 ENGINES

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Date of Issue	15.09.2020		

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Revision			
Rev	Date	Description	Rev. Made by
A	04.11.2013		
B		According to 25.11.2013 dated, 29155 numbered TCDD document.	
C	03.03.2015		
D		3.1.3 revised	
E	26.01.2015	Item 2.1.2	
F	17.03.2016	Item 3 revised.	
G	30.12.2019	Revised.	
H	15.09.2020	Without changing the content of the technical specification, TULOMSAŞ expressions were changed to TÜRASAS and the cover was prepared again.	Hakan CANIDAR

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1- SCOPE

This technical specification covers the requirements, inspection subjects and other demands concerning the procurement of the materials, in requirement list, used for DE 33000 (EMD GT26CW-2) type Locomotive's diesel engine "GM16-645E3C" and DE 22000 (EMD G26CW-2) type Locomotive's diesel engine "GM16-645E" manufactured, repaired and maintained at TÜRASAŞ.

2- REQUIREMENTS

2.1- The materials in the order list are stated as part numbers, drawing numbers and descriptions of their original manufacturers. The materials to be offered shall be original or their equivalent. Tenderers shall have one of the mentioned documents related to this subject below.

These documents are the documents not received from the official authorities, to be excluded from the approval of Turkish Consulate in the country where the documents are obtained or Turkish Ministry of Foreign Affairs.

2.1.1. Tenderers Who Offer Original Materials

- If the tenderers are the original manufacturers/licensees of the ordered materials or the vehicle/equipment which these materials are used, declaration stating that the tenderers are the original manufacturers/licensees.
- If the ordered materials shall be supplied from their original manufacturers/licensees, the authorization documents prepared in the name of the tenderers, proving that they will supply the ordered materials from the original manufacturers or licensees.

2.1.2. Tenderers Who Offer Equivalent Materials Instead of Original Materials

The Contractor shall provide an undertaking showing that the offered components are equal to the original components from the point of quality and functionality.

2.2- The names of the manufacturers, marks and types of the offered materials and the technical characteristics belong to these materials shall be documented.

2.3- The offered materials shall be brand new and it shall be stated that the full conformity of the offered materials to TURASAS's demand, in terms of quality, dimension and tolerance, appropriateness of usage place and functional operating by manufacturers/authorized dealers.

2.4- In case there are differences in the description and numbers between the offered and the ordered materials, the explanation shall be obtained from the manufacturers/authorized dealers.

2.5- Certificates Given By Quality Control Bodies Suitable Accredited Under International Rules:

The manufacturers of the offered materials shall have the updated and effective "Association of American Railroads Quality Assurance Program Certification -AAR" related to manufacturing of diesel locomotive and/or the components of a diesel locomotive or IRIS or ISO 9001 Quality Assurance Certificate.

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If the tenderer is an authorized dealer or authorized representative, it shall submit one of the above mentioned quality certificate owned by the manufacturer.

As a written confirmation certificate is not presented by TÜRKAK for "AAR" or "IRIS" accreditation necessity shall not be requested.

2.6- The name or symbol of the manufacturer, date of manufacture and part number, etc. Shall be marked on the materials.

2.7 - Manufacture, Production Capacity Certificates

- a) Should the tender is a manufacturer, they must present the manufacturing certificate/s
- b) Should the tender is authorized dealer or agent, the certificate/s proving that they are what they suggest.
- c) Should the tender runs the business in the free zone, they must present their free zone certificate of activity besides the above mentioned certificate/s.

3 - INSPECTIONS and CHECKS

The quality control certificates of the materials manufactured shall be submitted to TURASAS together with the delivery. After examination of the quality control certificates of the materials delivered, the physical inspections indicated below shall be carried out by TURASAS. The acceptance of the whole party shall be made according to the results obtained from these inspections, in case any of the result doesn't comply with below inspections, the whole party shall be rejected.

The articles 3.1, 3.1.1, 3.1.2, 3.1.3 and 3.2 shall not be applied for the componets purchased from the original manufacturer.

3.1- Physical Inspections

The following inspections shall be carried out on the samples to be selected from the materials according to the item 3.2 of the specification.

3.1.1- Appearance Inspection

For appearance inspection of the materials, it shall be inspected if the materials are brand new and the marking is conformable. The materials shall be free of the faults such as damage, deformation, corrosion etc. and the production defects such as residue, cavity, crack etc., in order to correct the defected parts, no any process shall be definitely applied.

3.1.2 - Dimension Inspection

Dimension control of the materials will be carry out according to dimension informations specified in the "Service Data" prepared for GM type diesel engines.

For materials that do not have dimension information in the Service Data, dimension and tolerance inspections of the materials shall be carried out according to the original materials currently used.

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3.1.3- Appropriateness of Usage Place and Functional Operating Inspection

The materials which has been delivered, shall be assembled in 30 calendar days into their places. After being assembled, the correctness of the place and operational test shall be implemented.

Besides these, the operational test shall be applied onto the controlled materials on locomotive. The materials shall provide the same quality and performance as the original materials upon the mentioned inspections and tests.

3.2- Sampling

The samples shall be selected randomly from the materials delivered, in the quantity to be required (for one vehicle/equipment) by TURASAS Inspection Commission.

TURASAS Inspection Commission can increase the number of the sample for the inspection, in case it is needed.

4 - **PACKAGING**

The components to be submitted to the accepting department shall be delivered in quality and thick wooden, petroleum products,etc made cases resisting the minor damages during loading and unloading to prevent any damage from dust, rain, snow, sun rays, wind, etc. and ta be protected any harm during carrying in every weather condition. That the cases shall be put on each other should be taken into consideration during the material choosing. To prevent the spreading, durable string tape shall be wrapped.

The cases' forms must be convenient to be lifted by a fork-lift. Ali writings on the case must be readable, inerasable and weatherproof and the writings must contain marking data, order number and drawing number.

Should the contractor cannot present the material to the accepting department as mentioned above, TURASAS shall reject the material. In case the rejected material because of the improper packaging is presented to the accepting department after the duration defined in the Contract, delay penalty shall be applied. The Contractor has no right to demand anything for the packaging delay.

5 - **WARRANTY**

The warranty period shall be 2 years.

ANNEX: Claim List