



TE-IMS-PEMM-KDS-SPEC-1030

Description: Specification for the Repairs and Service of the Amada Laser Cutting Machine (Serial Number: 28510253-2008; Model: LC3015F1NT) at RSE Business Koedoespoort				
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Location:	Koedoespoort			

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1. Scope of Work

This specification requirement covers all the requirements that will be needed to inform the supplier/vendor/manufacture/service provider to carry out what is expected from him/her:

This specification states the minimum requirements relating to the work and in no way absolves the contractor/supplier from responsibility for sound maintenance engineering practice. Any omissions or sub-standard requirements of this specification must be brought to the attention of Transnet Engineering Maintenance Manager at tender stage and optional prices for addressing such omissions must be provided.

2. Specific Requirements:

- Comply with the Occupational Health and Safety Act (Act85 of 1993), as amended.
- Adhere to the Construction Regulations of the Occupational Health and Safety Act (Act85 of 1993), as amended.
- Comply with any Environmental Legislative requirements relating to the scope of work, namely National Environmental Management Act (NEMA), Act 107 of 1998.
- The contractor to have SHE INDUCTION and have valid permits when entering Transnet Engineering.
- The contractor to have a SHE FILE, SITE INSTRUCTION BOOK on site at all times.
- All measurements and amounts must be stipulated in quote.
- Contractor's name board will always be visible.
- A supervisor will always be on site.
- The correct PPE for all hazards that the contractor's employers may be exposed to, must always be worn.
- Failure to comply will result in a SHE Stop Certificate being issued, and the supplier will be required to leave the site until the situation is rectified.

- All employees who will be working at height to have medical fitness certificate to declare employee fit to work on heights, and proof of working at heights competency training thereof.
- Valid letter of good standing with Workman's Compensation.
- Comply with Transnet SHE Specification for contract work Version 02.

3. Technical Requirements:

All equipment and installation whether detailed in this specification or not shall comply with the requirements of the Occupational Health and Safety Act 85 of 1993 as amended. Sudden power losses will not have an adverse effect on equipment and shall not unduly delay return to operation after power is restored.

4. Testing:

The tenderer shall perform the testing of the machine once all the repairs work has been completed.

5. Specific Requirements:

	REQUIRED		DETAILS OF OFFER Comply (Yes) / Do not comply (No)
	Specification for the Repairs of Amada Laser Cutting Machine at RSE Bay 10 in Koedoespoort Plant		
1.	Scope of work:		
	Description: Supply; Install and Test	Quantity	
1.1	Folding Mirror C4000-IB	6	
1.2	Optical Path Length Low + Right	1	
1.3	Optical Path Length Upper + Right	1	
1.4	Output Coupler AF4000IB	1	

	REQUIRED		DETAILS OF OFFER Comply (Yes) / Do not comply (No)
1.5	• Rear Mirror AF400IB	1	
1.6	• External Mirror Diameter 3"	3	
1.7	• Copper Base Mirror Dia 2" -3,0MCX	1	
1.8	• Copper Base Mirror Dia 2" -4,6MCC	1	
1.9	• 71670191 M3 Deformable Mirror	1	
1.10	• 71511466 M1 Deformable Mirror	1	
1.11	• 35 Degrees zero shift mirror 3,0"	2	
1.12	• 71501260 Auto Lubrication	2	
1.13	• 71501291 Grease Cartridge	2	
1.14	• 71341725 5000 Hour Kit	1	
1.15	• 71341726 10 000 Hour Kit	1	
1.16	• SV25 Vacuum Pump	1	
1.17	• O-Ring Set 4kW	1	
1.18	• 71558085 O Ring Discharge Tubes	16	
1.19	• 71558366 Discharge Tube	8	
1.20	• Oil Mist Filter	2	
1.21	• Dust Collector Filters	12	
1.22	• AMG-EL450 Element	1	
1.23	• AFF-EL11B Filter Element	1	
1.24	• AMH-EL450 Filter Element	1	
1.25	• 71501261 Apron Pans	5	
1.26	• 71710000 Scale Tape	2	
1.27	• 71501023 Lida -18 Operation Head	2	

	REQUIRED		DETAILS OF OFFER Comply (Yes) / Do not comply (No)
1.28	• 71710009 X Axis Ligth Path Bellows	1	
1.29	• 71710010 X Axis Counter Bellows	1	
1.30	• 71716104 Y Axis Bellows Drive	2	
1.31	• 71710501 Target	1	
1.32	• 71555237 Lens Target	1	
1.33	• 71555273 2 7.75 Lens Holder Assy	1	
1.34	• 71555248 2 5 Lens Holder Assy	1	
1.35	• 71712444 2 10 Lens Holder Assy	1	
1.36	• Chiller Float Level Timer	1	
1.37	• 304 <i>S/S</i> Strainer open	1	
1.38	• 71359732 In Line Filter	2	
1.39	• 71713255 Check Valve	3	
1.40	• 44420806 Silencer	1	
1.41	• 71710023 Y Light Path Bellows	1	
1.42	• 71710024 Y Counter Bellows	1	
1.43	• 71716113 X Axis Drive Bellows R	2	
1.44	• 71716112 X Axis Drive Bellows F	2	
1.45	• Chiller Water with Antifreeze	2	
1.46	• Consumables	1	
1.47	• Turbo Blower A04B-0800-C015	1	

	REQUIRED		DETAILS OF OFFER Comply (Yes) / Do not comply (No)
2	General		
2.1	The contractor should share information regarding the spares being supplied to Transnet Engineering, e.g. material certificates, quality documents providing assurance that spares are within the right tolerances and design standards as stipulated on OEM manufacturing drawings.		
2.2	The contractor should indicate the minimum life span of the spares. If the spare fails before the stipulated life span, the contractor must conduct failure investigation and provide root cause analysis report (report should also contain the proposed solution that will be implemented to prevent failures) to the Plant Engineer and Maintenance Manager. Note: Should the spare part fail before its life span has elapsed, the contractor will be expected to supply another spare part at his/her own cost. Unless thorough investigation is conducted, which will prove that the failure of the spare part is a result of an inherent failure of the system that the spare is part of.		
2.3	Should machine not work and components or spares must be ordered by the contractor from the OEM, the contractor shall report this to Transnet Engineering. This is required to ensure that the working area is optimally utilized while the contractor is waiting for spares or components.		
2.4	The Contractor shall report any damage, found during repairs, to Transnet Engineering. At the completion of all the maintenance work, the supplier must produce a report describing the following: • Root cause of the problem. • What action was taken to rectify the fault (inclusive of spares) • What preventative action should be taken to prevent the failure reoccurring.		
2.5	Before any work can take place the contractor with the Transnet Supervisor should check that the machine is locked		



	REQUIRED		DETAILS OF OFFER Comply (Yes) / Do not comply (No)
	out. The contractor shall ensure that the machine and working area are safe and clean. If required, the area shall be marked with chevron tape to indicate working boundaries.		
2.6	The contractor shall not commence work until they have reported to the local supervisor of Transnet Engineering, who will take note of its presence in the working area.		
2.7	Contractor should allow PEMM team to observe and ask questions during any fault finding and repairs conducted on the Amada Laser Cutting Machine. No information should be concealed from the PEMM team.		
2.8	Any modifications to the Amada Laser Cutting Machine for whatever reason shall first be approved by the Plant Engineer in writing before implementation.		

