STATEMENT OF WORK

USNS FALL RIVER

REDUCTION GEAR LAYUP

1.0 ABSTRACT

The purpose of this item is to perform the inspection and layup of the reduction gears onboard USNS FALL RIVER.

2.0 REFERENCES

2.1 NAVSEA Tech Manual S9241-DA-MMC-010, Marine Reduction Gear, Model ZF 60000 NR2H

2.2 ZF Marine EN 3000.765.104 - 2017-05 Marine transmissions Preservation manual Commissioning, Storage and Decommissioning

3.0 ITEM LOCATION/DESCRIPTION

3.1 Locations

3.1.1 Jet Drive Room 1: 5-70-1
3.1.2 Jet Drive Room 2: 5-70-2

3.2 Quantity: Four (4) Reduction Gears
3.3 Item Description/Manufacturer's Data

3.3.1 Model: ZF 60000

4.0 GOVERNMENT FURNISHED EQUIPMENT/MATERIAL/SERVICE: None

5.0 NOTES

5.1 The contractor and all subcontractors, regardless of tier must consult the General Technical Requirements (GTR) to determine applicability to this work item. In performance of this work item, the contractor and all subcontractors regardless of tier must comply with the requirements of all applicable GTR's including but not limited to GTR's 1 through 7, 22, 23, 24, 28, and 29.

6.0 QUALITY ASSURANCE REQUIREMENTS: None additional.

7.0 STATEMENT OF WORK REQUIRED

7.1 Provide the services of an authorized OEM authorized field service representative to perform inspection and preservation stage VI layup of the reduction gears. OEM representative to bring all required material to accomplish this work item.

7.2 With the assistance of ship's force, ensure that effected systems are locked out/tagged out prior to the start of any work.

7.3 All work shall only be accomplished by trained, experienced and OEM authorized service personnel for the specific system.

7.4 Verify and record the Manufacturers name, Model and Serial number of each Reduction Gear. Upon vessel arrival, the OEM Rep is to interview the Chief Engineer prior to inspecting the equipment to familiarize him/herself with the reduction gear operational history and investigate any known abnormal conditions. Such conditions may be noisy operation, low oil pressure, abnormal heating, excessive vibration, oil leakage, high/low sump temperatures, water in the sump, presence of wear metals noted in oil analysis, high bearing temperatures, babbitt particles in the lube oil system. In addition, review the most recent LO analysis and discuss the RTD temperature trends for bearing analysis. Submit a typewritten report capturing the results of this meeting to the MSCREP.

7.5 Conduct inspections, maintenance and testing of the reduction gears using References 2.1 for guidance.

CAUTION: The inspection covers must be kept closed and locked except when it is necessary that they be open for inspection or service. When gear casings are open, precautions should be taken to prevent the entry of foreign matter. The openings shall never be left unattended. Before replacing an inspection plate, connection, fitting, or cover which permits access to the gear casing, a careful inspection shall be made to ensure that no foreign matter has entered or remains in the casing or oil piping.

7.5.1 Conduct inspection of the reduction gears using the manufacturers design, installation, maintenance instructions and service bulletins as guidance to confirm the condition of the gears, pinions, shafts, bearings and lubrication system. The examination shall include/verify:

a. The reduction gears or their lubrication system have not been modified.

b. With assistance of ship's force:

1. Check the operation of each lubrication oil pump and motor verifying their output pressures and performance.

2. Check the operation of each pressure switch verifying their proper performance.

c. Visually examine the exterior of the reduction gear and lubrication system.

d. Inspect all external fasteners, hold down bolts and chocks on the reduction gearbox for signs of loosening, missing components or corrosion.

e. Inspect all thermometers, pressure gauges, oil sight flow gauges, and level indicators for damage, leakage and current calibration.

f. Visually inspect gear teeth through inspection cover. Check for pits and scoring contact pattern. Ideal tooth contact covers between 80% to 90% of the face width and extends radially from just above the root fillet to an area slightly below the tip chamfer.

7.6 Replace with new oil level probe P/N 0501329471 on number 3 reduction gear.

7.7 Inspect number 3 reduction gear for low oil pressure. (Last Service December 2020 OEM reps from ZF were on board and replaced the oil pressure regulators to the clutch. Known problem August 2021 unit operated fine up to 900 rpms. As ships force attempted to take vibration readings, unit again shut down the engine on low lube oil.)

7.8 Conduct testing of the reduction gears using the manufacturers design, installation, maintenance, test instructions and service bulletins as guidance. The testing shall include/verify:

7.9 Verify proper output pressure from every lube oil pump.

7.10 Verify proper oil flow at each oil flow sight gauge.

7.11 Perform an operational test of the reduction gears during Dock Trials.

7.12 All testing is to be coordinated with the MSCREP and Chief Engineer to allow for observation.

7.13 Operational test is to include a test of all safety functions for the reduction gears.

7.14 Manufacturer's representative, perform Preservation stage VI layup of the reduction gears and the following maintenance procedures of Reference 2.1 and 2.2 on equipment listed in 3.0:

7.14.1 Accomplish Internal preservation: Corrosion protection oil according to MIL-PRF-21260E NATO codec-640 or C-642 or TL 9150-0037 according to BAAINBw. Fill the transmission with Tectyl 930E2 which conforms to MIL-PRF-21260E corrosion protection oil to the upper measuring mark of the oil dipstick.

7.14.2 Immediately after having filled the corrosion protection oil, start the engine and let transmission run for at least 5 min at engine idle speed or at slightly increased engine speed in enginewise rotation and counter-rotation shift position each.

7.14.3 External preservation: Blank parts with corrosion protection agent corresponding to mil-C-16173D TYP 4, K 19 or TL 8030-015, TYP 4 according to BAAINBw.

7.15 With ship's force assistance, clear all tags.

7.16 Reports

7.16.1 When inspection, service and testing reveal any deficiency a condition report is to be submitted to the MSCREP with recommended repairs and parts required. Submit three (3) typewritten copies and one (1) electronic copy in Portable Document Format (PDF).

7.16.2 Submit a report that includes "as released" condition of the reduction gears. Submit three (3) typewritten copies and one (1) electronic copy in Portable Document Format (PDF).

7.16.3 All reports and checklists are to be completed and signed by the person who carried out the inspection and maintenance work and countersigned by the Company's representative.

7.17 Painting: None additional.

7.18 Manufacturer's Representative

7.18.1 Provide the services of OEM authorized field service technical representative and labor to accomplish all work and testing on the reduction gears identified in paragraph 3.0 ensuring compliance with the manufacturer's standards and performance specifications.

7.18.2 This work item requires maintenance and repair actions to be performed on an MSC ship critical safety item. Only original equipment manufacturer (OEM) authorized technical field service providers or MSC qualified non-OEM technical field service providers and OEM authorized or MSC qualified non-OEM parts are to be used to accomplish the requirements of this work item for this ship critical safety item including oversight and guidance on all aspects of equipment as-found condition

inspection, removal, disassembly, reassembly, repairs, modifications, reinstallation, and testing as applicable..

Known Source

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7.19 Preparation of Drawings: None additional.

8.0 GENERAL REQUIREMENTS: None additional.

9.0 PERIOD OF PERFORMANCE

April 10-21, 2023

10.0 PLACE OF PERFORMANCE

Pearl City, Hawaii
Victor Wharf Pier

11.0 MSC TERMS AND CONDITIONS

Offers/quotes submitted in response to this solicitation shall not contain nor be subject to the offeror's/vendor's standard commercial terms and conditions. Any offer/quote submitted in response to this solicitation which includes the offeror's/vendor's standard commercial terms and conditions may be considered a material defect and may be rejected as being non-responsive to the solicitation.

12.0 MSC NRFK MANPOWER

The contractor shall report contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract for the Military Sealift Command via a secure data collection site. Contracted services excluded from reporting are based on Product Service Codes (PSCs). The excluded PSCs are:

(1) W, Lease/Rental of Equipment;
(2) X, Lease/Rental of Facilities;
(3) Y, Construction of Structures and Facilities;
(4) S, Utilities ONLY; and
(5) V, Freight and Shipping ONLY.

The contractor is required to completely fill in all required data fields using the following web address https://doncmra.nmci.navy.mil

Reporting inputs will be for the labor executed during the period of performance during each Government fiscal year (FY), which runs October1 through September 30. While inputs may be reported any time during the FY, all data shall be reported no later than October 31 of each calendar year. Contractors may direct questions to the help desk, linked at https://doncmra.nmci.navy.mil.

13.0 MSC BASE SHIP EPIC

SHIP & BASE ACCESS (APR 2013)

Defense Biometric Identification System (DBIDS) is being implemented for access to DoD facilities in CONUS, HI, Guam and Puerto Rico (replaces RapidGate). Vendor is responsible to acquire DBIDS credentials prior to performance start date. Delays that may result from inadequate planning are contractor responsibility. Vendor instructions and program information is available at https://www.cnic.navy.mil/om/dbids.html. DBIDS credentials require (in succession) (1) Present a letter or official document from the Government sponsoring organization that provides the purpose for your access, (2) Present valid identification, such as a passport or Real ID Act-compliant state driver's license, (3) Present a completed copy of the SECNAV 5512/1 form to obtain your background check, (4) Upon completion of the background check, the Visitor Control Center representative will complete the DBIDS enrollment process, which includes your photo, finger prints, base restrictions, and several other assessments, and (5) After all of this is done, the contractor will be provided with the DBDIS credential. For vendors with existing Navy Commercial Access Control System (NCACS) cards, see https://www.cnic.navy.mil/om/dbids.html for instructions to obtain DBIDS credentials. Vendor is responsible to confirm that each employee held DBIDS credentials are active for the specific facility and performance period in accordance with DBIDS.

Additional access permissions may be required in the future.

Vehicle Access: Required for vehicle access to Navy facilities. Follow supplemental instructions on Base Access forms or base-specific vehicle access forms.

Ship Access List (Vendor-Provided): On company letterhead attachment via email, the vendor is required to provide the ship master (courtesy copy the Port Engineer) with an accurate, current list of performing personnel prior to being admitted aboard the vessel. **Under no circumstances will a hand-delivered list be accepted.**
T-AKE email address: MASTER@AKE#.NAVY.MIL
(example: master@ake8.navy.mil, where "8" is the hull number).
All other hulls address: MASTER.*SHIPNAME*@MSC.NAVY.MIL
(example: master.sioux@msc.navy.mil).

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