

DATA ITEM DESCRIPTION			Form Approved OMB No. 0704-0188	
2. TITLE EQUIPMENT STRUCTUREBORNE VIBRATION ACCELERATION MEASUREMENTS TEST REPORT		1. IDENTIFICATION NUMBER DI-HFAC-80274		
3. DESCRIPTION / PURPOSE 3.1 This report provides a description of the structureborne sound tests and results in order to demonstrate compliance or noncompliance with requirements of MIL-STD-740-2.				
4. APPROVAL DATE (YYMMDD) 861230	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR) SH	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE	
7. APPLICATION / INTERRELATIONSHIP 7.1 This Data Item Description (DID) contains the format and content preparation instructions for that data generated under the work task described by 5.10 of MIL-STD-740-2. 7.2 This DID is to be applied for each equipment item measured on each contract or order when MIL-STD-740-2 is invoked. 7.3 The data generated under the requirements of this DID may be combined with the data generated under DI-HFAC-80272 associated with MIL-STD-740-1. (Continued on page 2)				
8. APPROVAL LIMITATION		9a. APPLICABLE FORMS		9b. AMSC NUMBER N4014
10. PREPARATION INSTRUCTIONS 10.1 <u>Reference document.</u> The applicable issue of the documents cited herein, including their approval dates, and dates of any applicable amendments, notices, and revisions shall be as specified in the contract. 10.2 <u>General report requirements.</u> The report shall contain the following information: 10.2.1 <u>Test and equipment information.</u> a. Equipment being evaluated, including contract number. b. Ship names and hull number, if known, for which the unit is being acquired. c. Evaluation measurements being performed. d. Evaluating activity and test site. e. Test date. f. Data analysis date. g. Equipment specification acceptance criteria. h. Driven and driver unit manufacturers and serial numbers. i. Driver unit horsepower (HP). j. Rated Electrical characteristics, including volts, amps, phase. k. Rated fluid media parameters (flow rates, temperatures, pressures, etc.) l. Equipment rated operational speeds (driver and driven unit revolutions per minute (r/min), etc.). m. Equipment noise and vibration sources and their frequencies of excitation (rotationals, gear tooth contact, blade rate, etc.). n. Resilient mount manufacturer and model number. o. Dates of resilient mounts used. (Continued on page 2)				
11. DISTRIBUTION STATEMENT <u>DISTRIBUTION STATEMENT A:</u> Approved for public release; distribution is unlimited.				

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7. APPLICATION/INTERRELATIONSHIP (Cont'd)

7.4 This DID supersedes UDI-T-23764 and UDI-T-23760.

10. PREPARATION INSTRUCTIONS (Cont'd)

- p. Number of resilient mounts used.
- q. If the use of non-Navy standard resilient mounts has been approved, provide mount characteristics including load rating, in pounds, and resonant frequency data.
- r. Equipment load during test (full, half, etc.).
- s. Operating speeds during test.
- t. Throttling conditions, if any.
- u. Operating suction and discharge fluid media parameters during test (flow rates, pressures and temperatures, etc.).
- v. Electrical inputs, outputs, or both during test.
- w. Block diagrams and identification of make, model, and serial numbers of measurement and analysis instrumentation used.
- x. Block diagrams and identification of make, model, and serial numbers of system calibration instrumentation used.
- y. Place and date of latest laboratory calibration of measurement instruments, system calibration instruments (including field calibrators), and analysis instruments.

10.2.2 Drawings and sketches to show assembly information, equipment details and the test set up.

- a. Overall unit dimensions and orientation (vertical, horizontal, etc.) during test.
- b. Identification of major components.
- c. Interface information.
- d. Mounting locations and dimensions.
- e. Weights and center of gravity for major components.
- f. Resilient mount orientation (vertical, horizontal, angle), approximate load on each mount, attachment locations, overall unit weight and center of gravity.
- g. Pedestal or subbase dimensions, materials and weights, when applicable.
- h. Dimensions, materials and weight of the mounting fixture if a mounting fixture other than the standard fixture is used.
- i. Arrangement and description of flexible pipes and ducts, if used.
- j. Arrangement of test piping and fittings.
- k. Arrangement of electrical power leads.
- l. Location and description of test instrumentation used to measure r/min, flow rates, total discharge head, etc.
- m. Locations of resilient mounts and pedestals or fixtures that support the equipment.
- n. Exact location and orientation of each accelerometer relative to equipment features or mounts, serial number of accelerometer by location, and method of attachment of accelerometers.

10.2.3 Test data.

- a. Tabular or graphic records of all acceleration levels required to be measured (including background noise) in accordance with 5.2.1 of MIL-STD-740-2. Both corrected and uncorrected data, along with all correction factors etc., needed to obtain absolute levels to compare to specification limits.

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10. PREPARATION INSTRUCTIONS (Cont'd)

- b. Tabulation of measured levels exceeding specifications and the corresponding specification levels.

10.3 Reporting standards. The report shall comply with the reporting standards of 4.4. of MIL-STD-740-2.