

**MAINTENANCE EXPENDITURE LIMITS  
FOR MILITARY STANDARD ENGINES (MILITARY DESIGN)  
AND OUTBOARD MOTORS**

DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED

HEADQUARTERS, DEPARTMENT OF THE ARMY

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TECHNICAL BULLETIN

No. 43-0154

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, DC. 15 May 1995

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Section I. GENERAL

1. Purpose. This bulletin sets forth the maximum maintenance expenditure limit for any one-time maintenance action on the Military Standard 1 1/2, 3, 6, 10, 14, and 20 horsepower gasoline engine, as listed in Appendix A, and 40 horsepower outboard motors as listed in Appendix B. It provides instruction for the determination of eligibility of unserviceable engines for repair, overhaul or rebuild; prescribes procedures for computing repair cost estimates; and furnishes guidance for the disposition of unserviceable Military Standard Engines (MSE) and Outboard Motors that are excess to local requirements.

2. Scope. This bulletin is applicable to all Army organizations, installations and activities, and the reserve components, worldwide, who are users of equipment listed in the appendices. This bulletin is not applicable to Army depots with assigned overhaul missions.

3. General Provisions.

- a. Military Standard Engines are designed to operate 1500 hours between overhauls.

b. Unserviceable MSE and Outboard Motors will be evaluated on an individual basis to preclude the uneconomical expenditure of maintenance resources. Required repairs will not be deferred, omitted, or segregated into separate estimates for the purpose of circumventing established expenditure limits.

4. Reporting of Errors. You can improve this bulletin by calling attention to errors and by recommending improvements, using DA Form 2028 (Recommended Changes to Publications), or by a letter, and mail directly to the Commander, U.S. Army Aviation and Troop Command, ATTN: AMSAT-I-MPEP, 4300 Goodfellow Boulevard, St. Louis, 63120-1798. A reply will be furnished directly to you.

Section II. MAINTENANCE EXPENDITURE LIMITS

5. Maximum Expenditure Limit (MEL). The maximum maintenance expenditure for the accomplishment of any one-time maintenance action, i.e., repair, overhaul or rebuild on a MSE is limited to 85 percent of the standard inventory price as reflected in Federal Supply Catalog Army Management Data List regardless of the activity accomplishing the maintenance action. On an outboard Motor, the maximum expenditure of any such one-time maintenance action is limited to 65 percent nonprorated 10-year life. In computing the cost of repair, overhaul, or rebuild, all maintenance actions necessary to produce a completely serviceable item, in accordance with the established maintenance standards set forth in applicable technical manuals, will be costed and included.

6. Repair Cost Estimate. A repair cost estimate is the sum total of the cost of labor and repair parts necessary to restore an unserviceable Military Standard Engine or Outboard Motor to a serviceable condition in accordance with applicable maintenance standards. When applicable, cost of freight, handling and preparation for shipment will also be included in the repair cost estimate (para 8).

Section III. TECHNICAL INSPECTIONS

7. Procedures. Unserviceable MSE and Outboard Motors will be inspected prior to repair or evacuation of the equipment to the next higher supporting maintenance facility for repair or disposal action. Disassembly during technical inspections will be limited to the degree necessary to determine the condition of parts, assemblies and components. Inspection results will be recorded on DA Form 2404 in accordance with DA Pam 738-750.

Section IV. COMPUTATION OF REPAIR COST ESTIMATES

8. Cost Factors. The repair or overhaul cost estimate will include the following factors:

- a. *Direct Labor* Costs. To compute this cost, estimate the direct labor manhours for the required maintenance actions and multiply the estimated number of hours by \$35.00 per hours if the maintenance actions are to be

accomplished in CONUS Depots. If required maintenance is to be accomplished where the prevailing labor rate is less than \$35.00 an hour, the lower rate will be used.

b. Direct Material Costs. All material directly identifiable to the particular unserviceable equipment as necessary to place it in serviceable condition will be reflected in these costs. Cost of replacement parts, assemblies and subassemblies will be obtained from the Federal Supply Catalog Army Management Data List.

c. Other Cost factors. Other cost factors such as indirect maintenance, general and administrative expenses, freight cost, and preparation for shipment cost and exclusions will be computed in accordance with AR

Section V. DISPOSITION INSTRUCTIONS

9. Eligibility of Material for Evacuation to Depot Maintenance.

a. All economically reparable Outboard Motors covered in Appendix B are eligible for evacuation for depot maintenance whenever the technical inspection performed at general support level indicates that repairs required are not authorized and/or exceed the capabilities.

b. Major Army Commands must retain and repair all MSE that meet the repair eligibility criteria in accordance with paragraph 5 above, commensurate with their immediate and long range requirements. Serviceable MSE in excess of total computed requirements will be reported to USAATCOM, AMSAT-I-SDD, in accordance with AR 725-50. Unserviceable economically repairable MSE in excess of total computed requirements should be disposed of at the appropriate local level.

10. Disposition Instructions.

a. Outboard Motors will be reported to the Commander, U.S. Army Aviation and Troop Command, ATTN: AMSAT-I-WTA, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798 for disposition instructions under the following conditions:

(1) The estimated one-time repair cost exceeds the prescribed expenditure limits and waiver authorized as provided for in AR 750-1.

(2) The repairs required to restore the Outboard Motors to a serviceable condition are beyond the capabilities of general support maintenance, regardless of estimated repair costs.

b. MSE which exceed the repair eligibility criteria, in accordance with paragraph 5 above will be reported for disposition instructions in accordance with local directives.

c. Request for disposition instructions, including DA Form 3590 will be prepared in accordance with AR 725-50, and TB 43-0140.

11. References.

AR 700-4  
AR 725-50  
AR 750-1  
DA Forms 2028  
DA Form 2404

DA Form 3590  
SB 700-20  
DA Pam 738-750  
Federal Supply Catalog  
Army Management Data List  
TB 43-0140

APPENDIX A  
MILITARY STANDARD ENGINES

Military Standard Engines have been produced in the configurations and horsepower (HP) shown below. The applicable Technical Manuals cover all configurations. Model identification relates to the HP of the MSE. The MEL for MSE is 85 percent.

|                   |             |                          |
|-------------------|-------------|--------------------------|
| 1 1/2 HP          | Model 1A08  | TM 9-2805-256-14 and 24P |
| 2805-01-1 62-8467 | 1 A08-IV    |                          |
| 2805-00-068-7510  | 1 A08-III   |                          |
| 2805-00-714-8552  | 1 A08-II    |                          |
| 2805-00-601-5181  | 1 A08-I     |                          |
| 3HP               | Model 2A016 | TM 9-2805-257-14 and 24P |
| 2995-01-169-1100  | 2A016-IV    |                          |
| 2805-00-072-4871  | 2A016-III   |                          |
| 2805-00-714-8553  | 2A016-II    |                          |
| 2805-00-601-5127  | 2A016-I     |                          |
| 6HP               | Model 4A032 | TM 9-2805-262-14 and 24P |
| 2805-01-276-5946  | 4A032-IV    |                          |
| 2805-01-1 39-0596 | 4A021-III   |                          |
| 2805-00-068-7512  | 4A032-II    |                          |
| 2805-00-776-0483  | 4A032-I     |                          |
| 10 HP             | Model 2A042 | TM 9-2805-258-14 and 24P |
| 2805-00-872-5971  | 2A042-III   |                          |
| 2805-00-952-3927  | 2A042-II    |                          |
| 14 HP             | Model A042  | TM 5-2805-213-14 and 24P |
| 2805-00-017-8680  |             |                          |
| 20HP              | Model 4A084 | TM 9-2805-259-14 and 24P |
| 2805-01-276-5947  | 4A084-IV    |                          |
| 2805-00-872-5972  | 4A084-III   |                          |
| 2805-00-952-3926  | 4A084-II    |                          |

T B 4 3 - 0 1 5 4


APPENDIX B  
OUTBOARD MOTORS

Outboard Motors AM-40A have a MEL of 65 percent nonprorated life.

|                   |                       |                         |
|-------------------|-----------------------|-------------------------|
| 40 HP             | Outboard Marine Corp. | Technical Manual        |
| 2805-01-105-1680  | AM-40A                | TM5-2805-261-13 and 23P |
| 2805-01-089-0989  |                       |                         |
| 55 HP             | Model                 | Technical Manual        |
| 2805-01-333-1772  |                       |                         |
| 35 HP             | Model                 | Technical Manual        |
| 2805-01-1 18-1275 | AM-35B                |                         |
| 2805-01-267-5047  | AM-35D                |                         |

By Order of the Secretary of the Army:

Official:



Handwritten signature of Joel B. Hudson in cursive script.

JOEL B. HUDSON

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