

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

MAINTENANCE EXPENDITURE LIMITS FOR FSC GROUP 24, FSC CLASS 2430

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Section I. GENERAL

1. **Purpose.** a. This bulletin is an implementation of AR750-27. It prescribes inspection and repair cost estimating procedures and establishes maintenance

expenditure limits for use by organizational, direct support, general support, and depot maintenance personnel on all high speed track laying

^{*}This bulletin supersedes TB 750-98-24, 6 March 1968.

tractors, FSC Class 2430.

- b. These data will be used to determine eligibility for repair of complete Army vehicles. Component repair costs and expenditure limits will not be computed separately when vehicle eligibility repair costs are being determined.
- 2. Scope. This bulletin is applicable to —
- a. All Army organizations, installations and activities, and the Reserve components, worldwide.
- b. All US Army-procured end items of materiel requiring repair or overhaul (either by contract or inhouse).
- **3. General Provisions**. Unserviceable, economically repairable Tractors will be restored to a serviceable

condition in support maintenance shops by repair or replacement of individual parts and components. Repair of such vehicles will be limited to those maintenance operations indicated in the applicable Maintenance Allocation Charts.

4. Reporting of Equipment Publication Improvements. The Reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to DA Publications) and forwarded direct to the Commanding General U.S. Army Tank-Automotive Command, ATTN: AMSTA-TP, Warren, Mich. 48090.

Section II. REPAIR EXPENDITURE LIMITS

- **5. Procedure.** a. Perform a complete technical inspection in accordance with applicable vehicle technical manuals when a vehicle becomes unserviceable or reaches its final year of life expectancy and there is every indication that cost of repair is likely to exceed one-half of the expenditure limit. In conducting technical inspections, maximum use will be made of available diagnostic equipment.
- b. The appropriate maximum repair expenditure limit cost factor contained in the appendix will be used in conjunction with the technical inspection. In no instance will required repairs be deferred, omitted, or broken into separate estimates to avoid exceeding established expenditure limits and there-by circumventing the intent of this directive.
- c. Repair costs, for use in conjunction with the appendix to determine vehicle repair eligibility are defined in section IV.
- **6. Expenditure Limits.** *a.* Expenditure limits are the product of the current vehicle unit price multiplied by the cost factor obtained from the appendix. Average vehicle life expectancy is also shown in the appendix. Vehicle unit prices are contained in Department of the Army Supply Catalog SC 2430-ML.

- b. Compute the maximum permissible repair cost for a vehicle as follows:
 - (1) Obtain the cost factor from the appendix.
- (2) Determine the current standard cost of the specific model vehicle from Department of the Army Supply Catalog SC 2430-ML.
- (3) Multiply the standard cost by the cost factor.
- (4) The result is the maximum expenditure permitted for repair of this vehicle.

7. Maximum Expenditure Limit for Repairable

Assemblies/Parts. a. The maximum expenditure limit for repairable assemblies such as starters, generators, pumps, fans, clutches, etc., and refurbishable parts authorized to be reworked is limited to 65 percent of the acquisition cost of the new assembly/part. Exception will be on an individual request basis, or as published in special communications such as supply letters.

b. Refurbishable parts include those individual piece parts for which rework instructions have been published. Examples include but are not limited to crankshafts, housings, track, sprockets, roadwheels, support rollers and suspension arms.

Section III. TECHNICAL INSPECTIONS

- **8. Procedure.** *a.* Perform a technical inspection in accordance with instructions contained in applicable vehicle technical manuals when any or a combination of the following conditions exist:
- (1) When diagnosis indicates that repairs required are beyond the scope of maintenance of the activity performing the inspection.
- (2) When there is indication that the vehicle may be uneconomically repairable.
- (3) When a vehicle is damaged through other than fair wear and tear.
- (4) When a vehicle reaches its final year of life expectancy.
 - (5) When a vehicle is declared excess to the

requirements of a station, installation or major command.

- Note. To determine the work required and to arrive at proper vehicle classifications as defined in AR 725-50, technical inspections will be conducted by fully qualified personnel. These personnel must be familiar with maintenance operations and standards at all categories of maintenance. Depot maintenance activities will provide, upon request, whatever guidance or assistance may be required by support maintenance to arrive at proper vehicle classification.
- b. Conduct technical inspections according to maintenance standards prescribed for the category of maintenance which is expected to undertake the repairs.
- Note. Field personnel who prepare technical inspection reports will list materiel known or suspected to require restoration to serviceable condition at depot level, and will provide whatever information is available to support the need for depot maintenance determination.
- **9. Technical Inspection Forms**. *a.* Results of technical inspections will be recorded on DA Form 2404.
- b. Follow instructions in paragraph 3-4, TM-38-750 for preparation of DA Form 2404 when this form is used for technical inspections. In addition to recording the results or findings of the inspection, include on the form the following data as indicated:
- (1) Under the column titled "Corrective Action," l0d of DA Form 2404, enter the estimated number of hours required to repair item, and the cost of parts (See para (8) and (9) below.
- (2) Use the left side of column I0d to record the manhours right side to record the cost of parts.
- (3) Determine and record the total number of manhours and the total cost of parts after the last entry for each.
- (4) Compute the total cost of labor by using the total manhours and the prevailing hourly rate (See para 10 and 11 below).
- (5) Add the total labor and overhead cost and the total cost of repair (See para 10 below).
- (6) Determine the maximum permissible repair cost for the particular vehicle concerned (See para 6b above). Record the maximum expenditure limit at the bottom of the column.
- (7) Compare the total cost of repairs against the expenditure limit, (5) and (6) above. If the total cost of repairs does not exceed the permissible expenditure limit, the vehicle is economically repairable. However, if repair costs exceed the expenditure limit, the vehicle is uneconomically repairable. Using this criteria, enter the appropriate vehicle is uneconomically repairable. Using

this criteria, enter the appropriate vehicle condition code (App 11-33, AR 725-50) in the space after the form title on the upper right hand corner of the form.

- (8) Manhours Labor: Opposite the item concerned, enter the total number of manhours required to effect item repair or replacement. As indicated in Section IV, this column is to include direct and indirect labor.
- Note. Repair or replacement manhours for components on most of the gasoline-powered M-series vehicles are contained in time schedule guide technical bulletins of the 9-1859 Series. However, if vehicle repairs are undertaken at the maintenance activity performing the technical inspection, manhour data locally developed through experience will take precedence over data in the cited TB's. Depot maintenance facilities will provide, upon request, required guidance and/or assistance if adequate repair time schedule data for a particular vehicle is unavailable.
- (9) Cost of Parts: Opposite the item concerned, enter the total cost of all parts and materials to be used in the repair or replacement operation. This is to include cost of new, overhauled, or fabricated repair parts, assemblies, modules, and components. Item unit price is obtained from pertinent Management Data Lists (ML's) of the Federal Supply Catalog.
- Note. Unit price of an item is obtained by locating first the ML for the FSC class concerned; then referring to the FSN within the FSC class; e. g., to obtain the unit price of the 5-Ton, 6x6 Truck (G744) front shock absorber, FSN 2540-740-9617, first locate the ML for FSC Class 2540; then refer to FSN 2540-740-9617 within that ML.
- **10. Disposition of Inspection Forms**. Upon completion of the technical inspection, forward DA Form 2404, inspector's worksheets, and, if appropriate, reports required by AR 755-1 (SF 120 and DD Form 1348m-3) to the CG, US Army Tank Automotive Command, ATTN: AMSTA-F (NICP), Warren, Mich. 48090, under the following circumstances:
- a. If the vehicle is inspected at either a direct or general support maintenance activity and repairs determined to be required are beyond the scope of general support maintenance.
- b. If the vehicle is excess to requirements of an installation or of a major command.
- c. If the vehicle is inspected at a depot maintenance activity.

d. If the estimated repair or overhaul costs exceeds the maximum established vehicle expenditure limitations. *Note.* When vehicles are reported as indicated above, they will be maintained in the condition code determined pending receipt of disposition instruction from the National Inventory Control Point (NICP).

Section IV. COMPUTATION OF REPAIR COST ESTIMATES

- 11. Repair Cost Factors. Except for costs specifically excluded in paragraph d below, repair costs are based on all cost necessary to return materiel to serviceable condition at the authorized category of maintenance which undertakes the repairs.
- a. If repairs are determined to be within the scope of direct or general support maintenance and the vehicle is repaired at that level for return to the user, serviceability standards and maximum wear limits applicable to the level concerned, will be used in computing repair cost estimates.
- b. If required repairs are beyond the general support maintenance category and are to be accomplished as depot maintenance, the cost estimate will be based on return of the vehicle to serviceability standards, condition Code A (App II-33, AR 725-50).
 - c. Repair cost estimates include the following.
 - (1) Direct Labor
 - (a) Civilian Labor
 - (b) Military Labor
- *Note.* Direct labor is defined as that labor, either civilian or military, which can be specifically identified to the repair job to be performed. Direct labor involves only personnel in direct productive contact with the service or item concerned.
- (2) Direct Materials. All parts and/or materials directly applied and identifiable to the particular equipment undergoing repair.
 - (3) Indirect Costs.
 - (a) Indirect maintenance expenses.
 - (b) General and administrative expenses.
- (4) One way freight charges to CONUS when the equipment to be repaired is located overseas, and no, local capability to repair exists. Cost of freight includes all costs involved in preparing the item for shipment at point of use and all transportation and handling costs from point of use to designated CONUS point of repair.
- (5) Processing for shipping costs, including materials used when equipment cannot be repaired on site, and costs must be incurred to prepare the equipment for shipment regardless of destination.

- (6) Miscellaneous costs, such as contractual services required, incident to and identifiable with performance of all, or a portion of, the maintenance task; and any other cost necessary to accomplish the required repair which can be directly identified with the operation.
 - d. Repair cost estimates exclude the following:
 - (1) Replacement of basic issue items.
- (2) Items of operating expenses, including replacement of tracks, batteries, anti-freeze, petroleum products and tools, except when replacement is attributable to accident damage.
- (3) Labor cost of applying Modification Work Orders.
- (4) Cost to overhaul or replace accessory items used to adapt equipment for special uses, including such items as winterization kits, sirens, flashing lights, twoway radios, rank insignia, fire extinguishers, tool kits, and similar items.
- (5) Freight charges when the equipments to be repaired is located in CONUS.
- **12. Procedures**. To determine the cost of repairs proceed as follows -
- a. Apply the direct labor hourly rate to the total manhours of direct labor as shown on DA Form 2404.
- *Note.* Direct labor hour requirement estimates will be periodically updated and based on the best available data, including actual past experience for the same job or engineering estimates.
- b. Base cost of civilian labor on a labor rate for the work center performing the work. For this purpose, use one of the following two methods:
- (1) On the basis of annual salaries of Department of the Army civilian personnel labor, compute the cost by adding a factor of 8.3% to the gross pay as shown in current pay tables. This factor is to compensate for benefits furnished by the Government. For determining hourly rates, one man-year comprises 1720 hours (215 productive days of eight hours each).
- (2) On the basis of direct labor hours applied, compute the cost by adding a factor of 29% to the

gross pay as shown in current pay tables. This factor is to compensate for holidays, allowable sick and annual leave, and Government-contributed benefits.

- c. Base cost of military personnel labor on the average military wage rate for the work center performing the work and on standard rates contained in AR 37-29.
- *Note.* Commanders and heads of agencies may establish and use standard hourly rates for direct labor, including indirect expense, provided such rates are consistent with AR 37-55.
- d. When it is considered necessary to determine the appropriate depot maintenance labor rate, request assistance in accordance with AR 700-4.
- e. As prescribed in paragraph 10c(2), include in the cost to repair all parts and material directly applied and identifiable to the particular equipment undergoing repair.
- (1) Consumable items received from the supply system may be costed as billed by the supply agency. If no billing is available, consumables will be costed at the standard inventory price as published in appropriate supply catalogs. Items procured from local sources will be priced at the latest invoice cost. Cost of fabricated items will be based on actual costs for like items, whenever possible. When actual costs are unavailable, engineering estimates including indirect expenses will be used.

- (2) Replacement components and assemblies used in the repair process will be costed at the standard inventory price. Credit will be allowed for return of the repairable component removed in an amount equal to the standard price, less the estimated cost to repair the component.
- f. In the repair costs estimates include freight, packaging, and other miscellaneous costs as stipulated in paragraphs 10c (4) (5) and (6) above.
- g. As mentioned in paragraph 10c (c) above, in costs must be included in the cost to repair. Therefore, determine the cost to be included by ring the indirect maintenance expense rate, and the general and administrative expense rate (expressed as dollar cost per direct labor manhour) to estimated direct labor manhours.
- (1) In the indirect maintenance expense rate de manufacturing or production expense, i.e., indirect cost incurred within or identifiable to the maintenance shop or organization performing the repair work although not identifiable to particular jobs.
- (2) In the general and administrative expense include costs incurred in general management supervision of the installation as a whole, which allocated among maintenance and other activities.

Section V. DISPOSITION INSTRUCTIONS

- **13.** Eligibility of Materiel for Evacuation to Depot Maintenance. Based on results of technical inspection unserviceable, economically repairable vehicles may be excavated to depots when:
- a. Depot maintenance is authorized by the maintenance Allocation Chart.
- *b* These vehicles are excess to field authorization and cost of repair does not exceed the one-time repair expenditure limits established by this bulletin.
- c. Repair and/or redistribution within a major command is not economically feasible.
- d. The workload at the activities performing lower categories of maintenance is such that depot maintenance support becomes necessary.

- *Note.* Unserviceable vehicle assets are considered economically repairable if the total cost of repairs does not the maintenance expenditure limit computed according to paragraph 6 above.
- **14. Vehicle Disposition Instructions**. Dispose of unserviceable, uneconomically repairable vehicles accordance with instruction issued by the NICP. The NICP will issue disposition instructions according to AR 711-16, AR 735-35, AR 750-27, AR 750-50 AR 755-1 and TM 38-750. Technical inspection DA Form 2404, will accompany the property turn-in forms when a vehicle is turned-in.

REFERENCES

1. Publication Indexes. The following indexes should	Joint Procedures for Management		
be consulted frequently for the latest changes or	of Administrative Use of		
revisions of references given in this list and for new	Motor Vehicles AR 58-1		
publications relating to materiel covered in this bulletin;	Supply and Maintenance Technical		
Index of Administrative Publications	Assistance Program AR 700-4		
DA Pam 310-1	DSU/Installation Stock Control and		
Index of Blank Forms DA Pam 310-2	Supply Procedures (Army Field Stock Control System) AR 711-16		
Index of Technical Manuals, Technical	,		
Bulletins, Supply Bulletins and	Requisitioning, Receipt, and Issue System AR 725-50		
Lubrication Orders DA Pam 310-4	Army Pricing Policy AR 735-7		
Index of Modification Work Orders	Deviations and Waivers of Military		
DA Pam 310-7	Property Accounting Requirements		
2. Forms . Use of the following forms is required by this	AR 735-9		
bulletin:	Supply Procedures for TOE and		
5	TDA Units or Activities AR 735-35		
Recommended Changes to Publications DA Form 2028	Maintenance Concepts AR 750-1		
Equipment Inspection And	Repair Cost Estimates and Maintenance Expenditure Limits		
Maintenance Worksheet DA Form 2404	Use of Controlled Cannibalization		
Equipment Transfer Report DA Form 2408-7	As a Source of Low Mortality		
Equipment Acceptance and	Repair Parts Supply AR 750-50		
Registration Record DA Form 2408-8	Reporting, Utilization and		
DOD Single Line Item Detail	Redistribution of Installation,		
Billing CardDD Form 1348m-3	US Army Materiel Command		
Report of Excess Personal Property SF 120	and Oversea Command Excess Personal Property AR 755-1		
	DA Supply Catalog SC 1400 ML		
3. Other Publications. The following publications are	Time Schedule Guides TB 9-1859		
referenced within this bulletin:			
Accounting and Reporting for the Cost of Military Personnel ServicesAR 37-29	Army Equipment Record Procedures TM 38-750		
Accounting and Reporting for Depot	1 1000dd103 11VI 30-730		
Materiel Maintenance and			
Support ActivitiesAR 37-55			

APPENDIX COST FACTOR FOR HIGH SPEED TRACK LAYING TRACTOR FSC GROUP 24

Federal Supply	Expenditure	Average Life Expectancy
Classification	Limit	Before Overhaul
2430	65%	5000 miles

By Order of the Secretary of the Army:

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