



DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

Maintenance Expenditure Limits
for
FSC GROUP TRACTORS - FULL TRACK AND WHEELED
FSC CLASSES 2410, 2420

Appendix A - 2410 TRACTORS - Full Tracked.
Appendix B - 2420 TRACTORS - Wheeled
Appendix C - Obsolete and No Longer Supported Equipment

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Headquarters, Department of the Army, Washington, D.C.

15 July 1998

REPORTING OF ERRORS AND RECOMMENDED IMPROVEMENTS

You can help improve this bulletin if you find any mistakes or if you know of a way to improve this TB please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 (both are located in the back of this bulletin) direct to; Commander, US Army Tank-automotive and Armaments Command, ATTN: AMSTA-AC-NML, Rock II, 61229-7630. You can also provide DA Form 2820-2 information to TACOM via datafax or e.mail. TACOM's datafax number is DSN 793-0726 or (309) 782-0726. E-mail address: <amsta-ac-nml@ria-ehm2army.mil>. A reply will be furnished to you.

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### **SECTION I. GENERAL**

- 1-1. Purpose. This Technical Bulletin (TB) prescribes the Maintenance Expenditure Limits (MEL) which applicable support maintenance level technical inspectors will use to determine repair eligibility or disposition when inspections are performed on equipment received for repair to a serviceable condition and return to user, transfer, or for turn-in. These limits do not apply to Department of the Army (DA) directed repair programs. The material proponent (US Army Tank-automotive and Armaments Command) is responsible for specifying the MEL percentage found in the appropriate appendix in this TM.
- 1-2. Scope. This TB applies to all active Army, Army National Guard, and United States Reserve applicable support level maintenance units including Army depot activities, when performing repair-and-return to user service. It does not apply to unit level or programmed depot repair. A decision concerning the eligibility/suitability of materiel for depot repair or disposal is made by materiel proponents prior to programming repair.

### **SECTION II. DETERMINING EXPENDITURE LIMITS**

- 2-1. Procedures. A determination to ensure that the expenditure limits will not be exceeded is required each time an item is received at the applicable maintenance level or at depot level on a repair to user basis. Repair will not be broken into separate jobs to reduce total cost. Whenever cost to repair exceeds the MEL, the item must be reported for disposition or a waiver to repair must be obtained.
- To determine expenditure limits:
- a. The MEL percentage factors identified in the appropriate appendix in the TB will be used to determine the maximum dollar amount which can be expended to return an item to a serviceable condition. The dollar amount is the limit of repair authorized. This limit is compared with the estimated cost of repair. Repair is not authorized if the estimated cost exceeds the MEL, unless a waiver is granted to exceed MEL.
  - b. An inspection is performed to determine the extent of the maintenance effort required for restoring the item to prescribed conditions or serviceable and determine if the item is economically repairable. The estimated repair cost is obtained during this process by computing the cost/elements which are required to repair an item to the standards specified in the appropriate TM. Procedures are in SECTION III of this TB.
  - c. The dollar expenditure limit is obtained by multiplying the appropriate percentage factor obtained in the TB by the current unit replacement price of the item being repaired.

Current unit replacement prices for end items are contained in SB 710-1-1, Chapter 7. Replacement prices in the Army Master Data File (AMDF) will be used for secondary items. The average cost to repair assemblies or components may be used at direct support and general support where repairs are accomplished by batch or production line processes.

### **SECTION III. TECHNICAL INSPECTION**

3-1. Procedures. Support maintenance organizations and activities are responsible for performing the technical inspections incident to repair or evacuation of items listed in this bulletin.

Technical Inspections are to be made by a qualified individual with Military Occupational specialty (MOS) or job classification specific to the item being inspected. Inspections will be performed in accordance with equipment maintenance and serviceability standards applicable to the maintenance level performing the repair.

The results of the technical inspection will:

- a. Determine if the unserviceable conditions is the result of other than fair wear and tear: ensure components have not been removed: and inform owning unit of need to assess liability as necessary.
- b. Determine the extent of the maintenance effort required to restore the item to prescribed conditions of serviceability.
- c. Classify the item as economically or not economically repairable with correct condition code.
- d. Provide for verification of items with condition code P (unserviceable, materiel classified by inspection); or H (unserviceable, condemned).

3-2. Forms. Results of technical inspections will be recorded on the following appropriate forms. The appropriate form will reflect each applicable cost element and the total estimated cost of repair. The expenditure limit will be included to compare the estimated cost and to make a determination as to repair or disposition instructions on preparation of DA form 2404 and DA Form 2407 are found in DA Form 738-750.

Instructions on preparation of DA Form 461-5 and DA Form 2590 are found in TB 43-0140 and TB 43-0217. DA Form 461-5 will be required if item listed in this TB is mounted on a transport vehicle not managed by US Army Tank-automotive and Armaments Command (TACOM).

DA Form 461-5 (Vehicle Classification Inspection).  
DA Form 2404 (Equipment Inspection and Maintenance Work Sheet).  
DA Form 2407 (Maintenance Request).  
DA Form 3590 (Request for Disposition or Waiver).

### **SECTION IV. COMPUTATION OF REPAIR COST ESTIMATE.**

4-1. Repair Cost Estimates. Repair costs are based on all cost necessary to return materiel to serviceable condition at the authorized level of maintenance which under takes the repairs.

If repairs are determined to be within the scope of support maintenance, serviceability standards applicable to the level concerned will be used to determine work required.

The expense of operating maintenance (unit maintenance described in appropriate TM or commercial manuals) will not be included in cost estimate when being repaired and returned to user.

The repair cost is derived from the total cost of the following elements.

- a. Direct labor (military and civilian), excluding initial inspections costs, includes all labor

which can be specifically identified with repair. Direct labor rates which apply to the total man hours estimated are obtained as indicated by procedures in paragraph 4-2a.

- b. Direct materials include all repair parts, components and assemblies directly applied during the repair program. Cost of parts will be the AMDF price, except where local repair programs are already in effect. Use an estimated cost if material is required from a local source or needs to be fabricated. Estimate cost against the price of a like item.
- c. Indirect or overhead costs include cost of operating the shop and administrative expense chargeable to the activity or operation.
- d. Contractual Services. All small costs for contracted services will be included whether the services will be for complete repairs or for a small portion of total repairs. Estimate will be from contract documents or expected cost.
- e. Shipping and Transportation costs include all costs involved in preparation and movement to repair location, and expected cost to prepare and ship back. Costs will be obtained from the bill of Lading or transportation office or will be estimated.
- f. Other charges. All costs expected to be incurred to complete repair which cannot be included in cost elements above. Estimate repair from past records or expected costs

4-2. Procedures. Procedures to determine the total estimated cost of repair are as follows:

- a. Direct labor costs. Apply the total estimated man-hours of direct labor hourly rate. The direct labor estimated will be based on the Maintenance Allocation Chart (MAC) or actual past experience.

The direct labor hourly rate and total cost of direct labor is found by:

(1) Military Obtain the average hourly military wage rate of the mechanic performing the repairs, and multiply by the direct man-hours of labor required. Use the current military pay scale to obtain average hourly rate.

(2) Civilian Obtain the average hourly military wage rate of the individuals expected to perform the repairs, and multiply by a factor of 1.29 to obtain the direct labor hourly rate (the factor compensates for holidays, allowable sick/annual leave, any government contributed benefits). Multiply the direct labor hourly rate by the direct man-hours of labor to obtain the total labor cost.

- b. Determine total cost of the five remaining elements in paragraph 4-1b through 4-1f above (if applicable) and add to total labor expense.
- c. Obtain the MEL percentage factor from the appropriate appendix in this TB and determine if repair is authorized.
- d. If repair cost is equal to or less than MEL, the item may be repaired. If greater, the item will be returned to customer for turn-in action or processing of a waiver to exceed the MEL.

4-3. Computation Table. A table which may be helpful in computing total repair cost estimates and MEL follows. Use of actual repair expense column may be completed to assist in future cost estimates. Use only those elements applicable and available.

Computation Table

ESTIMATING TOTAL REPAIR COST AND MEL

ELEMENTS  
ACTUAL ESTIMATE

a. Repair Hours Required _____ Breakdown: MIL _____ Civilian _____		
b. MIL Ave. Hr. Rate x MIL Repair Hrs _____		
c. Civilian Hr. Rate x 1.29.		
x. /civilian.		
d. Military Cost.		
e. Indirect Overhead Costs.		
f. Contractual Cost.		
g. Shipping/transportation Costs.		
h. Other Cost.		
i. Total Repair Cost (b+c+d+e+f+g+h).		
j. MEL Percentage Factor (from table) x current Replacement Price MEL		

k. Is MEL greater than estimated Repair Cost YES? NO?

l. If YES, repairs are authorized.

m. If NO, notify customer of results and return or assist in disposition: or retain pending results of customer's request to waive limit. All forms used in inspecting, classifying and determining maintenance cost be provided to customer for assistance in disposal or reporting to MSC for disposition instructions. Do not include expenses for operating maintenance (unit maintenance which has not been performed) when repairing on a return-to-user basis.

**SECTION V. DISPOSITION**

5-1. Procedures. Disposition of materiel is the responsibility of the using unit and the Supply Activity (SSA) accountability officer. Disposition of materiel by supply activities will be in accordance with procedures in DA PAM 710-2-1 and DA PAM 710-2-2.

The reporting of unserviceable materiel to MSC's for disposition instructions will be in accordance with provisions in the unit supply updated, in instructions in this TB or other appropriate DA Guidance.

a. Maintenance support units will assist SSA's or supported units, as necessary, in the evacuation of unserviceable or uneconomical repairable materiel to expedite turn-in or further evacuation.

- b. When returning equipment to supported customers, all forms used in inspecting, classifying and determining maintenance expenditure limits will be provided to assist in requesting waiver, disposal or reporting for disposition instructions.

#### **SECTION VI. WAIVERS**

- 6-1. Procedures. A request to waive the published MEL may be submitted by the using (owning) unit or by the supporting materiel management center through supporting maintenance channels responsible for repair to MACOM commanders for approval. MACOM commanders may exceed the published MEL when any of the conditions in AR 750-1 apply.
- 6-2. Approval Criteria. MACOM commanders will ensure the following in approving waivers:
  - a. The required repairs will not be broken into separate job estimates for the purpose of circumventing prescribed one-time repair allowances.
  - b. The unit or organization requesting the waiver has been unable to obtain timely replacement of the uneconomical repairable asset from the appropriate Product Line Executive (PLE) at the Tank automotive and Armaments Command, Warren, MI.
  - c. An urgent operational or training requirement exists which justifies the uneconomical repair.
  - d. Resources are available (or can be made available) to the requisitioning organization or command to accomplish the required repairs within an acceptable period of time.
- 6-3. Forms. Send Request for Waiver and/or disposition (DA Form 3990) with DA Form 2404 and DA Form 461-5 (if applicable) to Commander, US Army Tank automotive and Armaments Command, ATTN AMSTA-IM-JC, Warren, MI 48397-5000.

#### **SECTION VII. REFERENCES.**

- 7-1. Department of the Army Publications applicable to the TB are as follows:
  - a. Department of the Army Forms.
    - (1) DA Form 461-5 (Vehicle Classification Inspection). Mar 89
    - (2) DA Form 2404 (Equipment Inspections and Maintenance Work Sheet). Apr 79
    - (3) DA Form 2407 (Maintenance Request). Jul 94
    - (4) DA Form 3590 (Request for Disposition of Waiver). Jul 75
  - b. Department of the Army Pamphlets.
    - (1) DA Form 710-2-1 (Using Unit Supply, Manual Procedures).
    - (2) DA Form 710-2-2 (The Supply Support Activity, 55A Supply System).
    - (3) DA Form 738-750 (The Army Maintenance Management System, TAMMS).
  - c. Department of Army Regulations.
    - (1) AR 37-60. (Pricing for Material and Supplies). Apr 85.
    - (2) AR 700-127. (Integrated Logistic Support). Dec 86
    - (3) AR 750-1. (Army Materiel Maintenance Concepts and Policies). Aug 94
    - (4) AR-4. (Depot Materiel Maintenance and Support/Training Activities). N.A.
  - d. Department of Army Supply Bulletins
    - (1) SB 700-20 (Army Adapted/Other items Selected for Authorization/List of Reportable Items). Jun 97
    - (2) SB 710-1-1.(Standard Study Numbering System and Replacement Factors). Oct 95
  - e. Department of the Army Technical Bulletins.
    - (1) TB 43-0001-39 Series (Equipment Improvement Report and Maintenance Digest).Sept. 93-(expires two years after issue but still available as reference).
    - (2) TB 453-40 (Instructions for Preparation of Request for Disposition or Waiver DA

Form 3590) for TACOM equipment. Nov 94.

(3) TB 43-0217 (Instructions for Preparation of Request for Disposition or Waiver DA Form 3590) for TACOM Construction and Materiel Handling Equipment. May 1980.

### **SECTION VIII. EXPLANATION OF ABBREVIATIONS AND TERMS.**

8-1. Department of the Army Acronyms. Department of Army Acronyms applicable to this TB are as follows:

1. AMDF - Army Master Data File.  
List of National Stock Numbers (NSN's), end Item part numbers, support source, managing activity, etc.
2. DA -Department of the Army.  
One of the branches of Service. (Army, Navy, Marines, Coast Guard).
3. MAC -Maintenance Allocation Chart.  
Chart or table placed in maintenance TM's that allocates the level of maintenance authorized to repair end items. Levels are Operator, Unit, Direct, General, and Depot.
4. MACOM -Major Command. (AMC).
5. MEL -Maintenance Expenditure Limit.  
(A TB that contains charts showing percentage amount of funds approved based on class and age of end items and life cycle expectations).
6. MOS -Military Occupation Specialist.  
(Mechanic, Radio Repair Specialist, Cook, Military Policeman, etc.)
7. SSA -Supply Support Activity.  
Army command, military branch, or Federal Agency managing the end item and is the source for repair parts and information.
8. TACOM -Tank-automotive and Armaments Command.  
TACOM now has three locations. In reorganization during 1997, TACOM is located at ALCALA-Rock Island, Ill., Picatinny Arsenal at Dover, N.J., and at TACOM-Warren, MI.
9. TB -Technical Bulletin.  
A publication covering a range of subjects of a technical or professional nature. TB's cover test equipment, safety issues, auxiliary apparatus, MEL's, etc.
10. TM -Technical Manual.
  - a. Paper publications provide information for the operation, maintenance, and repair of end item equipment. Parts technical manuals contain illustrations of parts and special tools.
  - b. Some commercial end item equipment is purchased with COTS (Commercial Off the Shelf) technical manuals. These manuals normally include supplemental data such as safety messages, MAC charts, PMCS, auxiliary equipment maintenance and repair instructions. The usually have conventional DA TM covers and often follow a format familiar to army maintenance personnel.
  - c. Technical Publications are now undergoing a transformation away from paper products. Future TM's will be accessed from the Intranet or be placed digitally on CD-Roms and delivered

to computers at repair stations around the world. Entire books or just chapters may be downloaded and printed, on-the-spot, as needed. Updates will be easy and timely.

- d. Replacement parts needed will be ordered directly from the manufacture or dealer body via the Intranet and shipped overnight to the requestor. Complete ordering instructions will be included an the vehicle parts manual.

#### **SECTION IX. APPENDIX**

9-1. General. The appendix contains equipment listings and data for determining repair eligibility. The equipment listing contains only those end items that are known to be in the hand of troop and depot stock. These listings are not be used as an identification list of the items assigned to the Federal supply Class (FSC) indicated. For complete materiel identification on a applicable FSC group refer to the appropriate Federal Supply Ground Identification List (IL).

9-2. Explanation of Columns. The explanation of Columns in the appendix are as follow:

- a. Column (1) lists the equipment end item National Stock Number (NSN) in numerical sequence.
- b. Column (2) lists the equipment end item Identification item generic nomenclature, functional capability, make and model.
- c. Column (3) lists the year that item was manufactured. If no date is shown, refer to the equipment data plate or equipment log book.
- d. Column (4) Through (14) lists repair limitations. The limiting years in which the percentage shown at the top of columns can be applied to the end item replacement price as the authorized on-time repair expenditure.
- e. One-time MEL authorized percentage extensions on fielded equipment that has exceeded life expectancy are listed in appropriate columns marked with an asterisk sign as long as the item is classified Standard A or until washout out of Army System.

MEL managers in local commands should use discretion in the application of this authorized percentage MEL extension. The critical need for equipment by a particular unit must be considered plus fielding of replacement equipment being delivered in near term.



FSC GROUP 24 APPENDIX A  
 MAINTENANCE EXPENDITURE LIMITS FOR FSC CLASS

2410 TRACTOR- FULL TRACKED

TB 43-0002-85

NATIONAL STOCK NUMBER	END ITEM <small>DED = Diesel Engine Driven GED = Gasoline Engine Driven EMT = Electric Motor Driven PT = Pneumatic Tires SRT = Solid Rubber Tires RT = Rough Terrain Use VR = Variable Reach</small>	PROD YEAR	EXPENDITURE LIMITS * = Expenditure Limit ** = 5% 1992 to 1999 x = Authorized Maintenance limit until item is removed from the Army System										
			60%	55%	50%	45%	40%	35%	30%	25%	20%	10%	0%
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. 2410-00-177-7283	TRACTOR:Full Tracked Low Speed, DED, Medium 32,000, Dhp: W/Bulldozer; Ripper Hyd Caterpillar Model D7F	1971									x		
2. 2410-00-177-7284	TRACTOR:Full Tracked Low Speed, DED; Medium 32,000, Dhp. W/Bulldozer; Winch Hyd Caterpillar Model D7F	1971									x		
3. 2410-00-185-9792	TRACTOR:Full Tracked Low Speed, DED; Medium 32,000 lb , Dhp: W/Bulldozer, Caterpillar Model D7F	1971									x		
4. 2410-00-185-9794	TRACTOR:Full Tracked Low Speed, DED, Medium. 32,000, Dhp Dhp: W/Bulldozer; Winch Hyd, Caterpillar Model D7F	1971									x		
5. 2410 -00-300-6664	TRACTOR:Full Tracked Low Speed, DED, Medium, 32,000 lb. Dhp. W/Bulldozer;Dhp: W/Bulldozer, Winch Hyd, Caterpillar Model D7F	1971									x		
6. 2410-00-300-6665	TRACTOR.Full Tracked Low Speed, DED; Medium, 32,000 lb. Dhp: W/Bulldozer;Dhp: W/Bulldozer; Winch Hyd, Caterpillar Model D7F	1971									x		
7. 2410-00-574-7598	TRACTOR Full Tracked Low Speed; Hvy Drawbar Pull. W/Bulldozer, Ripper, Roll Over Protection; Caterpillar Model D8K-8A-58 (CCE)	1975 1976									x x		
July 1998			60%	55%	50%	45%	40%	35%	30%	25%	20%	10%	0%

MAINTENANCE EXPENDITURE LIMITS FOR FSC CLASS

2410 TRACTOR- FULL TRACKED

1 NATIONAL STOCK NUMBER	2 END ITEM  DED = Diesel Engine Driven GED = Gasoline Engine Driven EMT = Electric Motor Driven PT = Pneumatic Tires SRT = Solid Rubber Tires RT = Rough Terrain Use VR = Variable Reach	3 PROD YEAR	* = Expenditure Limit x = Authorized Maintenance limit until item is removed from the Army System EXPENDITURE LIMITS										
			4 60%	5 55%	6 50%	7 45%	8 40%	9 35%	10 30%	11 25%	12 20%	13 10%	14 0%
8. 2410-01-127-6512	TRACTOR.Full Tracked Light, Sectionalized. Caterpillar Model D5BS	1983				1992	1993	1994	1995	1996	2003		
9 2410-01-136-7902	TRACTOR Full Tracked Light, Non-Sectional: Caterpillar Model D5BANS	1983				1992	1993	1994	1995	1996	2003		
10. 2410-01-139-9859	TRACTOR:Full Tracked Low Speed; DED, Air Trans/Air Drop, Dbp: John Deere, Model 550/6405	1983				1992	1993	1994	1995	1996	1997	1998	1999
11. 2410-01-223-0350	TRACTOR; Full Tracked, Low Speed, MDB: w/Ripper, Model D7G	1986 1987	1992	1992 1993	1993 1994	1994 1995	1995 1996	1996 1997	1997 1998	1998 1999	1999 2000	2000 2001	2001 2002
12. 2410-01-223-7261	TRACTOR; Full Tracked, Low Speed, MDB: Cab with Winch, Model D7G	1986 1987 1988 1988 1989 1989	1992 1993 1993 1994 1994	1992 1993 1994 1995 1996 1996	1993 1994 1995 1996 1997 1998	1994 1995 1996 1997 1998 1999	1995 1996 1997 1998 1999 2000	1996 1997 1998 1999 2000 2001	1997 1998 1999 2000 2001 2002	1998 1999 2000 2001 2002 2003	1999 2000 2001 2002 2003 2004	2000 2001 2002 2003 2004	2001 2002 2003 2004
13 2410-01-253-2117	TRACTOR, Full Tracked, Low Speed, MDB.Wintenzed, Cab with Winch, Model D7G	1986 1987 1988 1989	1992 1993 1994 1995	1992 1993 1994 1995	1993 1994 1995 1996	1994 1995 1996 1997	1995 1996 1997 1998	1996 1997 1998 1999	1997 1998 1999 2000	1998 1999 2000 2001	1999 2000 2001 2002	2000 2001 2002 2003	2001 2002 2003 2004
14. 2410-01-253-2118	TRACTOR; Full Tracked, Low Speed, MDB. Wintenzed, Cab w/Ripper, 1987 Model D7G	1986 1992 1988 1989	1993 1994 1993 1994	1992 1993 1994 1995	1993 1994 1995 1996	1994 1995 1996 1997	1995 1996 1997 1998	1996 1997 1998 1999	1997 1998 1999 2000	1998 1999 2000 2001	1999 2000 2001 2002	2000 2001 2002 2003	2001 2002 2003 2004
15. 2410-01-270-1192	TRACTOR, Full Tracked Light: D5BSI	1987	1992	93-94	1995	1996	1997	1998	1999	2000	2001	2002	2003
16. 2410-01-296-8479	TRACTOR; Full Tracked Light D5BSI	1987	1992	93-94	1995	1996	1997	1998	1999	2000	2001	2002	2003
July 1998			60%	55%	50%	45%	40%	35%	30%	25%	20%	10%	0%

FSC GROUP 24 APPENDIX B  
 MAINTENANCE EXPENDITURE LIMITS FOR FSC CLASS

2420 TRACTOR- FULL WHEELED

TB 43-0002-85

NATIONAL STOCK NUMBER	END ITEM <small>DED = Diesel Engine Driven GED = Gasoline Engine Driven EMT = Electric Motor Driven PT = Pneumatic Tires SRT = Solid Rubber Tires RT = Rough Terrain Use VR = Variable Reach</small>	PROD YEAR	EXPENDITURE LIMITS * = Expenditure Limit x = Authorized Maintenance limit until item is removed from the Army System										
			60%	55%	50%	45%	40%	35%	30%	25%	20%	10%	0%
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. 2420-00-567-0135	TRACTOR; Wheeled, IND:DED, w/Front End Loader and Rear Backhoe John Deere. Model JD410 (CCE)	1975 1980										x x	
2. 2420-01-160-2754	TRACTOR, Wheeled DED With Front Loader, Backhoe Hyd Chain Saw, Drill and Breaker Model FLU 419.	1986 1987 1988 1989 1990	1992	92-93 93-94	1994 1995	1995 1996	1996 1997	1997 1998	1998 1999	1999 2000	2000 2001	2001 2002	2002 2003
3. 2420-01-205-8636	TRACTOR, Wheeled DED With Forklift:Crane: Hyd Impact Wrench. Model FLU 10344	1989 1990	92-94 92-95	95-96 96-97	1997 1998	1998 1999	1999 2000	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	2005 2006
July 1998			60%	55%	50%	45%	40%	35%	30%	25%	20%	10%	0%

FSC GROUP 24 APPENDIX C  
 MAINTENANCE EXPENDITURE LIMITS FOR FSC CLASS

2410-2420 OBSOLETE EQUIPMENT

TB 43-0002-85

NATIONAL STOCK NUMBER	END ITEM <small>DED = Diesel Engine Driven GED = Gasoline Engine Driven EMT = Electric Motor Driven PT = Pneumatic Tires SRT = Solid Rubber Tires RT = Rough Terrain Use VR = Variable Reach</small>	PROD YEAR	EXPENDITURE LIMITS * = Expenditure Limit x = Authorized Maintenance limit until item is removed from the Army System											
			60%	55%	50%	45%	40%	35%	30%	25%	20%	10%	0 %	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1. 2410-00-078-6483 OBSOLETE	TRACTOR: Full Tracked: Low Speed 32400 Lbs. Dbp w/Bulldozer: Scaripier, Winch, Allis Chalmers Model HD 16M	1964 1965			No Longer Supported									
2. 2410-00-078-6484 OBSOLETE	TRACTOR Full Tracked. Low Speed 32400 Lbs. Dbp. w/Bulldozer. Scaripier, Winch, Allis Chalmers Model HD 16M	1964 1965			No Longer Supported									
3. 2410-00-142-5283 OBSOLETE	TRACTOR: FULL TRACKED: Low Speed, DED. Segmented, Air Dropable: Caterpillar. Model 5DA	1968			No Longer Supported									
4. 2410-00-230-2767 OBSOLETE	TRACTOR, Full Tracked, Low Speed, 17,000 Lb. Dbp.Light. W/ Tilt Dozer Ripper; Hyd; Sectionalized: Air Transportable; Caterpillar Model D5A	1970			No Longer Supported									
5. 2410-00-542-2338 OBSOLETE	TRACTOR, Full Tracked, Low Speed, DED; w/bulldozer, Scaripier, Hvy Duty; IHC, Model TD-24-241	1959			No Longer Supported									
6. 2410-00-542-4881 OBSOLETE	TRACTOR, Full Tracked, Low Speed, DED, W/Bulldozer, Scaripier, Hvy Dbp, Caterpillar, Model D-8.	1958			No Longer Supported									
7. 2410-00-542-4882 OBSOLETE	TRACTOR, Full Tracked, Low Speed, DED, W/Bulldozer, Scaripier, Hvy Dbp, IHC, Caterpillar, Model D-8.	1958			No Longer Supported									
8. 2410-00-574-7597 OBSOLETE	TRACTOR Full Tracked, Low Speed, Hvy Drawbar pull: w/Angle Dozer; Winch Roll Over Protection: Caterpillar Model D8K-8A-58 (CCE)	1975 1976			No Longer Supported									
9. 2410-00-782-1130 OBSOLETE	TRACTOR Full Tracked, Low Speed, Hvy ., 30,000 lb. Dbp: W/ Bulldozer Hyd. Scaripier,w/Winch, Caterpillar Model D7E	1965 1966 1967			No Longer Supported									
July 1998			60%	55%	50%	45%	40%	35%	30%	25%	20%	10%	0%	

FSC GROUP 24 APPENDIX C  
 MAINTENANCE EXPENDITURE LIMITS FOR FSC CLASS

2410-2420 OBSOLETE EQUIPMENT

TB 43-0002-85

NATIONAL STOCK NUMBER	END ITEM	PROD YEAR	EXPENDITURE LIMITS											
			60%	55%	50%	45%	40%	35%	30%	25%	20%	10%	0%	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
10. 2410-00-828-6856 OBSOLETE	TRACTOR: Full Tracked, Low Speed, DED, Sectionalized, Air Transport, Lt Dbp; Caterpillar Model D5	1967			No Longer Supported									
11. 2410-00-837-4224 OBSOLETE	TRACTOR, Full Tracked. Low Speed, DED; W/Bulldozer, Scaripier, Lt. Dbp, Caterpillar. Model D-4.	1961			No Longer Supported									
12. 2410-00-843-6374 OBSOLETE	TRACTOR, Full Tracked. Low Speed, DED; W/Bulldozer, Scaripier, Lt. Dbp, Caterpillar. Model D-4.	1961			No Longer Supported									
13. 2410-00-900-8539 OBSOLETE	TRACTOR: Full Tracked, Low Speed, DED, Sectionalized, Air Transport, Lt Dbp; Caterpillar Model D-6B	1967			No Longer Supported									
14. 2410-00-901-1950 OBSOLETE	TRACTOR: Full Tracked: Low Speed Winterized, Med Dbp. w/Bulldozer: Scaripier, Med Dbp, Allis-Chalmers. Model HD 16M	1965	-		No Longer Supported									
15. 2410-00-926-0910 OBSOLETE	TRACTOR: Full Tracked, Low Speed, DED, W/Bulldozer, PCU, Cable: Air Dbr: Caterpillar Model D-6B	1967			No Longer Supported									
16. 2410-00-926-3697 OBSOLETE	TRACTOR: Full Tracked, Low Speed, Hvy., 30,000 lb. Dbp: W/ Bulldozer Hyd Scaripier, w/Ripper, Caterpillar Model D7E	1967 1968 1969			No Longer Supported									
17. 2410-00-935-0714 OBSOLETE	TRACTOR, Full Tracked, Low Speed, DED, 7,500 lbs. Dbp with Tilt Dozer Hyd; Air Dbp J.I. Case. Model; M450.	1967 1970.			No Longer Supported									
18. 2410-01-024-4065 OBSOLETE	TRACTOR, Full-Tracked W/Roll Over Protectect Structure Air Dbp- J.I. Case Model 1150 ROPS.	1971			No Longer Supported									
July 1998			60%	55%	50%	45%	40%	35%	30%	25%	20%	10%	0%	

FSC GROUP 24 APPENDIX C  
 MAINTENANCE EXPENDITURE LIMITS FOR FSC CLASS

2410-2420 OBSOLETE EQUIPMENT

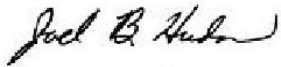
TB 43-0002-85

NATIONAL STOCK NUMBER	END ITEM <small>DED = Diesel Engine Driven GED = Gasoline Engine Driven EMT = Electric Motor Driven PT = Pneumatic Tires SRT = Solid Rubber Tires RT = Rough Terrain Use VR = Variable Reach</small>	PROD YEAR	EXPENDITURE LIMITS * = Expenditure Limit x = Authorized Maintenance limit until item is removed from the Army System											
			60%	55%	50%	45%	40%	35%	30%	25%	20%	10%	0%	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
19. 2410-01-050-9628 OBSOLETE	TRACTOR, Full Tracked, Low Speed, DED, Medium DBP, Winch w/Roll Over Protective Structure, Caterpillar Model D-7E ROPS				No Longer Supported									
20. 2410-01-050-9629 OBSOLETE	TRACTOR, Full Tracked, Low Speed, DED, Medium Ripper, w/Roll Over Protective Structure, Caterpillar Model D-7E ROPS				No Longer Supported									
21. 2420-00-088-9384 OBSOLETE	TRACTOR, Wheeled, IND: 34,650 to 38,150 lbs.				No Longer Supported									
July 1998			60%	55%	50%	45%	40%	35%	30%	25%	20%	10%	0%	

**By Order of the Secretary of the Army:**

DENNIS J. REIMER  
*General, United States Army*  
*Chief of Staff*

Official:



JOEL B. HUDSON  
*Administrative Assistant to the*  
*Secretary of the Army*  
04883

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109		51	
2-8			2-1
12	1-6a		

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

Item 10. Change illustration. Reason: Tube end shown assembled on wrong side of lever cam.

Item 3. The NSN and P/N are not listed on the AMDF nor the MCRL. Request correct NSN and P/N be furnished.

Preventive Maintenance Checks and Services. Item 7 under "Items to be inspected" should be changed to read as follows: Firing linkage and firing mechanism pawl.

Since there are both 20- and 30- round magazines for this rifle, data on both should be listed.


SAMPLE

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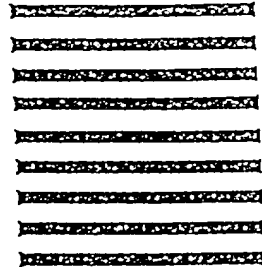
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# THE METRIC SYSTEM AND EQUIVALENTS

## WEIGHT MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches  
 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches  
 1 Kilometer = 1000 Meters = 0.621 Miles

## WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces  
 1 Kilogram = 1000 Grams = 2.2 lb.  
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

## LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces  
 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

## SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches  
 1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet  
 1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

## CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches  
 1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

## TEMPERATURE

$5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$   
 212° Fahrenheit is equivalent to 100° Celsius  
 90° Fahrenheit is equivalent to 32.2° Celsius  
 32° Fahrenheit is equivalent to 0° Celsius  
 $9/5^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

## APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
arts	Liters	0.473
gallons	Liters	0.946
gallons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
gallons	Gallons	0.264
ounces	Ounces	0.035
pounds	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
Kilometers per Liter	Miles per Gallon	2.354
Kilometers per Hour	Miles per Hour	0.621



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