

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

DIRECT AND GENERAL SUPPORT AND DEPOT MAINTENANCE

REPAIR PARTS AND SPECIAL TOOLS LISTS

CRANE-SHOVEL, BASIC UNIT, CRAWLER MOUNTED, 40-TON,
2 CU YD, DIESEL DRIVEN (W/HARNISCHFEGER ENGINE MODEL 687-18)

(W/CATERPILLAR ENGINE MODEL D333TA)

(HARNISCHFEGER MODEL 855BG)

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HEADQUARTERS
 DEPARTMENT OF THE ARMY
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**DIRECT AND GENERAL SUPPORT AND DEPOT MAINTENANCE REPAIR
 PARTS AND SPECIAL TOOLS LIST**

**CRANE-SHOVEL, BASIC UNIT, CRAWLER MOUNTED, 40
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 ENGINE MODEL 687-18) (W/CATERPILLAR ENGINE
 MODEL D333TA) (HARNISCHFEGGER MODEL 855BG)
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Current as of 6 August 1968

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SECTION I INTRODUCTION

1. Scope

This manual lists repair parts, special tools, required for the performance of direct support, general support, and depot maintenance of the crane-shovel.

2. General

a. The repair parts list is arranged as follows:

(1) Individual parts and major assemblies are listed alphabetically by item name within the numbered functional groups.

(2) Assembly components and subassemblies are indented and listed alphabetically by item name under major assemblies.

b. This Repair Parts and Special Tools List is divided into the following sections:

(1) Repair Parts-Section II. A list of repair parts authorized for the performance of maintenance at the direct support, general support, and depot level.

(2) Special Tools, Test and Support Equipment-Section III. A list of special tools, test and support equipment authorized for the performance of maintenance at the direct support, general support, and depot level.

(3) Federal Stock Number and Reference Number Index-Section IV. A list of Federal stock numbers followed by reference numbers in ascending alpha-numeric sequence cross-referenced to index number.

3. Explanation of Columns

The following provides an explanation of columns in the tabular lists in sections II and III:

a. Source, Maintenance, and Recoverability Codes (SMR), Column (1):

(1) Source Code, indicates the selection status and source for the listed item. Source codes used are:

<i>Code</i>	<i>Explanation</i>
P	Applied to repair parts which are stocked in or supplied from DSA/GSA or Army supply system, and authorized for use at indicated maintenance categories.
M	Applied to repair parts which are not procured or stocked but are to be manufactured at indicated maintenance categories.

<i>Code</i>	<i>Explanation</i>
A	Applied to assemblies which are not procured or stocked as such but made up of two or more units, each of which carry individual stock numbers and descriptions and are procured and stocked and can be assembled by units at indicated maintenance categories.
X	Applied to parts and assemblies which are not procured or stocked, the mortality of which is normally below that of the applicable end item, and the failure of which should result in retirement of the end item from the supply system.
X1	Applied to repair parts which are not procured or stocked, the requirement for which will be supplied by use of the next higher assembly or components.
X2	Applied to repair parts which are not stocked. The maintenance category requiring such repair parts will attempt to obtain them through cannibalization; if not obtainable through cannibalization, such repair parts will be requisitioned with supporting justification through normal supply channels.
C	Applied to repair parts authorized for local procurements. If not obtainable from local procurement, such repair parts will be requisitioned through normal supply channels with a supporting statement of nonavailability from local procurement.
G	Applied to major assemblies that are procured with PEMA (Procurement Equipment Missile Army) funds for initial issue only to be used as exchange assemblies at DSU and GSU maintenance level. These assemblies will not be stocked above DSU and GSU level or returned to depot supply level.

Note. Source code and level of maintenance are not shown on common hardware items known to be readily available in Army supply channels and through local procurement.

(2) Maintenance Code, indicates the lowest category of maintenance authorized to install the listed item. The maintenance level codes are:

<i>Code</i>	<i>Explanation</i>
O	Organizational maintenance
F	Direct support maintenance
H	General support maintenance
D	Depot maintenance

(3) Recoverability Code, indicates whether unserviceable items should be returned for recovery or salvage. Items not coded are expendable. Recoverability codes are:

<i>Code</i>	<i>Explanation</i>
R	Applied to repair parts and assemblies which are economically repairable at DSU and GSU activities and normally are furnished by supply on an exchange basis.
T	Applied to high dollar value recoverable re pair parts which are subject to special handling and are issued on an exchange basis. Such repair parts normally are repaired or overhauled at depot maintenance activities.
U	Applied to repair parts specifically selected for salvage by reclamation units because of precious metal content, critical materials, high dollar value reusable casings or castings.

(4) This column also lists, below the SMR code, an index number for each item in ascending numerical sequence, which is used to locate items in the publication when the Federal stock number and/or reference number is known.

b. Federal Stock Number, Column (2). This column indicates the Federal stock number for the item.

c. Description, Column (3). This column indicates the Federal item name and any additional description of the item required. A part number or other reference number is followed by the applicable five-digit Federal supply code for manufacturers in parentheses. Material required for manufacture or fabrication is identified.

d. Unit of Issue, Column (4). This column indicates the unit used as basis for issue, e.g., ea, pr, ft, yd, etc.

e. Quantity Incorporated in Unit Pack, Column (5). This column indicates the actual quantity contained in the unit pack.

f. Quantity Incorporated in Unit, Column (6). This column indicates the quantity of the item used in the functional group.

g. Thirty-Day DS/GS Maintenance Allowances Columns (7) and (8).

(1) The allowance columns are divided into three subcolumns. Indicated in each subcolumn opposite the first appearance of each item, is the total quantity of items authorized for the number of equipments supported. Subsequent appearances of the same item will have no entry in the allowance column but will have

in the description column a reference to the first appearance of the item. Items authorized for use as required but not for initial stockage are identified with an asterisk in the allowance column.

(2) The quantitative allowances for DS GS levels of maintenance will represent initial stockage for a 30-day period for the number of equipments supported.

(3) Determination of the total quantity of parts required for maintenance of more than 100 of these equipments can be accomplished by converting the equipment quantity to a decimal factor by placing a decimal point before the next to last digit of the number to indicate hundredths, and multiplying the decimal factor by the parts quantity authorized in the 51-100 allowance column. Example, authorized allowance for 51-100 equipments is 40; for 150 equipments multiply 40 by 1.50 or 60 parts required.

h. One-Year Allowances Per 100 Equipments Contingency Planning Purposes, Column (9). This column indicates opposite the first appearance of each item the total quantity required for distribution and contingency planning purposes. The range of items indicates total quantities of all authorized items required to provide for adequate support of 100 equipments for one year.

i. Depot Maintenance Allowance Per 100 Equipments,, Column (10). This column indicates opposite the first appearance of each item, the total quantity authorized for depot maintenance of 100 equipments. Subsequent appearances of the same item will have no entry in this column, but will have in the description column a reference to the first appearance of the item. Items -authorized for use but not for initial stockage are identified with an asterisk in the allowance column.

j. Illustration, Column (11). This column is divided as follows:

(1) *Figure number, column (11) (a).* Indicates the figure number of the illustration in which the item is shown.

(2) *Item number, column (11) (b).* Indicates the callout number used to reference the item in the illustration.

4. Special Information

a. This manual has been sectionalized into a 3 part manual. Each part being defined as follows:

(1) Part I of section II is applicable to Harnischfeger engine model 687-18.

(2) Part II of section II is applicable to Caterpillar engine model D333TA.

(3) Part III of section II is applicable, to Harnischfeger crane-shovel model 855BG.

b. Repair parts mortality has been based on 2,000 hours of operation per year.

c. Parts which require manufacture or assembly at a category higher than that authorized for installation will indicate in the source column the higher category.

d. The following publications pertain to cranes shovel and its components:

TM 5-3810-206-12	Operator, Organizational Maintenance Manual
TM 5-3810-206-20P	Organizational Maintenance Repair Parts and Special Tools List
TM 5-3810-206-35	Direct and General Support and Depot Maintenance Manual
LO 5-3810-206-12-1,2,3,4	Lubrication Order

5. How to Locate Repair Parts

a. When Federal stock number or reference number is unknown:

(1) *First.* Using the table of contents, determine the functional group or subgroup within which the repair part belongs. Locate the appropriate page in the manual and identify the part.

(2) *Second.* Locate the repair part and the illustration, figure and item number as shown in the last two columns of the repair parts listing.

(3) *Third.* Identify the repair part on the illustration by the callout number shown in the last column of the parts listing.

b. When Federal stock number or reference number is known:

(1) *First.* Using the Index of Federal Stock Numbers and Reference Numbers find the pertinent Federal stock number or reference number. This index is in ascending alpha-numeric sequence cross-referenced to an index number.

(2) *Second.* Using the Repair Part Listing, find the index number referenced in the Index of Federal Stock Numbers and Reference Numbers.

6 Abbreviations

AWG.....	American Wire Gage
cl.....	coil (s)
ea.....	each
ft.....	foot (feet)
gal.....	gallon (s)
in.....	inch (es)
lb.....	pound (s)
lg.....	long (length)
lh.....	left hand
mtg.....	mount (ed) (ing)
No.....	number (s)
rh.....	right hand
rl.....	roll (s)
w/.....	with

7. Federal Supply Codes for Manufacturers

<i>Code</i>	<i>Manufacturer</i>
00624	Aeroquip Corp. Aircraft Division, Jackson Plant
00761	Burndy Midwest, Inc.
01493	Zam Battery Cable Clamp, Inc.
03504	Clark Equipment Corp.
03743	Appleton Electric Co.
09367	Allis-Chalmers Mfg. Co., Harvey Works
11083	Caterpillar Tractor Co.
13445	Cole-Hersee Co.
14351	Ccntinental Motors Corp.
14959	Crane Co.
15434	Cummins Engine Corp.
15605	Cutler Hammer, Inc.
16764	Delco Remy Div. of General Motors Corp.
16901	Advanced Development Laboratories, Inc.
18265	Donaldson Co., Inc.
19220	Eberhard Mfg. Co.
19728	Electric Auto-Lite Co.
23040	Ford Motor Co.
23382	FWD Corp.
24455	General Electric Cc., Lamp Div. of Consumer Prod. Group
24617	General Motors Corp.
24981	Gits Bros. Mfg. Co.
27315	Harnischfeger Corp.
29883	Hyatt Bearings Div. of General Motors Corp.
29930	International Harvester Co.
30327	Imperial-Eastman Corp.
33544	Kiekhaefer Corp.
35510	Leece Neville Co.
41226	Viz Manufacture Corp.
43334	New Departure Div. of General Motors Corp.
43766	Nice Ball Bearing Co.
46529	Perfex Corp.
48949	Pritzlaff, John, Hardware Co.
49367	Pyle-National Co.
53591	Schwitzer Corp.
56878	Standard Pressed Steel Co.
57068	Stanley Works
57733	Stewart-Warner Corp.
58312	Mil-Tech Manufacturing, Inc.
59501	Bendix Engine Corp.
59730	Thomas and Betts Co.
60038	Timken Roller Bearing Co.
61112	Turner Corp.

<i>Code</i>	<i>Manufacturer</i>
63477	Wagner Electric Co.
65705	Willard Storage Battery Co.
66289	Teledyne, Inc.
70040	AC Spark Plug Div. of General Motors Corp.
70386	American Spring and Wire Specialty Co.
71177	Buckeye Forging Co.
72452	Brad Foote Gear Works, Inc.
72512	Davies, Harry, Molding Co.
72962	Elastic Stop Nut Corp., of America
73331	Guide Lamp Div. of General Motors Corp.
73370	Fram Corp.
73631	Curtis Development & Mfg. Co.
73680	Garlock, Inc.
73957	Groov-pin Corp.
74928	Industrial Rubber Goods Co.
76005	Lord Mfg. Co.
76599	Murray Corp.
76680	National Seal Div. of Federal-Mogul-Bower Bearing Inc.
77060	Packard Elec. Div. of General Motors Corp.
77220	Perfect Circle Co., The
77260	Pierce Governor Co.
77860	Sherman H. B. Mfg. Co.
77873	Rockford Clutch Div. of Borg-Warner Corp.
78189	Shakeproof Div. of Illinois Tool Works
78388	Synchro-Start Products Inc.
79136	Waldes Kohinoor, Inc.
79150	Victor Mfg. & Gasket Co.
79243	Wagner E. R., Mfg. Co.
79396	Wix Corp.
79470	Weatherhead Co., The
79960	Zenith Carburetor Div. of Bendix Corp.
80883	Hupp Corporation
81240	White Farm Equipment, Inc
81321	Purolator Products, Inc.
81336	Corps of Engineers
81442	Thompson Electric Welder Co.
82647	Metals & Controls Inc., Spencer Products

<i>Code</i>	<i>Manufacturer</i>
83483	T A Mfg. Corp.
84760	Hartford Machine Screw Co.
86403	Chrysler Corp., Parts Division
86579	Precision Rubber Products Corp.
88145	Ideal Corp., Actus Division
87373	Parker-Hannifin Corp.
89110	AMP, Inc.
89462	Waldes Kohinoor, Inc.
89923	P & H Diesel Div. of Harnischfeger Corp.
90005	Bendix Filter Div. of Bendix Corp.
91535	Blackhawk Machine Co.
92392	Allis-Chalmers Mfg. Co.
92394	Black Sivolls Bryson Inc.
93742	Dynamics Corps. Of America
95773	Allis-Chalmers Mfg. Co., Cedar Rapids Works
95817	Waterloo Foundry Co.
95879	Alemite Div. of Stewart-Warner Corp.
96193	Stratos Div. of Fairchild Stratos Corp.
96906	Military Standards
97562	American Cable Div. of American Chair and Cable Co., Inc.
98736	Rite Shipbuilding Corp.
98738	Stewart-Warner Electronics Division of Stewart Warner Corp
98739	Western Electric Co., Inc.

8. Report Equipment Publication Improvements

You can improve this manual 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 Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI, 48397-5000.