

TECHNICAL MANUAL

**UNIT, DIRECT SUPPORT, AND GENERAL SUPPORT
MAINTENANCE REPAIR PARTS AND
SPECIAL TOOLS LISTS**

**CRANE, WHEEL-MOUNTED: 5 TON AT 10 FOOT
RADIUS, 3/8 CU YD, DIESEL ENGINE
DRIVEN, 4 X 4 ROUGH TERRAIN
AIR TRANSPORTABLE
NSN 3810-00-859-2404**

HANSON MACHINERY CO. MODEL H446A

**This manual supersedes TM 5-3810-290-20P, 7 December 1971 and
TM 5-3810-290-34P, 7 December 1971, and all changes.**

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HEADQUARTERS, DEPARTMENT OF THE ARMY

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*TM 5-3810-290-24P

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington D C., 30 March 1993

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Current as of 19 August 1992**

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2, located in the back of this manual, direct to: Commander, U S. Army Tank-Automotive Command, ATTN AMSTA-MB, Warren, MI 48397-5000A reply will be furnished to you

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TABLE OF CONTENTS

		Page	Illus Fig
SECTION I.	INTRODUCTION	1	
SECTION II.	REPAIR PARTS LIST	1-1	
GROUP 01	ENGINE		
	0100 - ENGINE ASSEMBLY.....	1-1	
	ENGINE ASSEMBLY AND ENGINE FRONT MOUNTING-	1-1	1
	0101 - CRANKCASE, BLOCK, CYLINDER HEAD.....	2-1	
	ENGINE BLOCK	2-1	2
	CYLINDER HEAD	3-1	3
	CRANKCASE UPPER FRONT COVER	4-1	4
	CRANKCASE COVER AND OIL PUMP	5-1	5

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TABLE OF CONTENTS (Con't)

	Page	Illus Fig
0102 - CRANKSHAFT	6-1	
CRANKSHAFT	6-1	6
0103 - FLYWHEEL ASSEMBLY	7-1	
FLYWHEEL AND HOUSING	7-1	7
0104 - PISTONS AND CONNECTING RODS	8-1	
PISTON AND CONNECTING ROD	8-1	8
0105 - VALVES, CAMSHAFTS, AND TIMING SYSTEM	9-1	
IDLER GEAR TIMING	9-1	9
ENGINE COVERS	10-1	10
ROCKER ARMS, VALVES, AND CAM FOLLOWER.....	11-1	11
CAMSHAFT, GEAR, AND PULLEY	12-1	12
0106 - ENGINE LUBRICATION SYSTEM.....	13-1	
OIL FILTER AND ADAPTER.....	13-1	13
OIL PAN	14-1	14
OIL STRAINER AND TUBE	15-1	15
OIL COOLER	16-1	16
0108 - MANIFOLDS.....	17-1	
EXHAUST MANIFOLD	17-1	17
 GROUP 03 FUEL SYSTEM		
0301 - CARBURETOR, FUEL INJECTOR	18-1	
FUEL INJECTOR	18-1	18
0302 - FUEL PUMPS.....	19-1	
FUEL PUMP DRIVE.....	19-1	19
FUEL TRANSFER PUMP	20-1	20
0304 - AIR CLEANER.....	21-1	
AIR CLEANER.....	21-1	21
0305 - SUPERCHARGER, BLOWER, TURBOCHARGER, OR ALTITUDE COMPENSATOR	22-1	
AIR INTAKE	22-1	22
AIR INLET HOUSING	23-1	23
BLOWER.....	24-1	24
BLOWER DRIVE SUPPORT	25-1	25
0306 - TANKS, LINES, FITTINGS, HEADERS	26-1	
FUEL LINES	26-1	26
FUEL LINES.....	27-1	27
FUEL TANKS	28-1	28
0308 - ENGINE SPEED GOVERNOR AND CONTROLS.....	29-1	
GOVERNOR LINKAGE.....	29-1	29
GOVERNOR VARIABLE SPRING HOUSING	30-1	30
GOVERNOR SOLENOID AND LINKAGE.....	31-1	31
GOVERNOR HOUSING.....	32-1	32
FUEL INJECTOR CONTROLS	33-1	33
0309 - FUEL FILTERS.....	34-1	
FUEL STRAINER AND FILTER	34-1	34
0311 - ENGINE STARTING AIDS	35-1	
ETHER START	35-1	35
ALCOHOL EVAPORATOR	36-1	36
0312 - ACCELERATOR, THROTTLE, OR CHOKE CONTROLS	37-1	
THROTTLE CONTROLS	37-1	37

TABLE OF CONTENTS (Con't)

	Page	Illus Fig
GROUP 04	EXHAUST SYSTEM	
0401 - MUFFLER AND PIPES.....	38-1	
MUFFLER AND PIPES	38-1	38
GROUP 05	COOLING SYSTEM	
0501 - RADIATOR, EVAPORATIVE COOLER, OR HEAT EXCHANGE	39-1	
RADIATOR AND RELATED PARTS.....	39-1	39
0503 - WATER MANIFOLD, HEADERS, THERMOSTATS, AND	40-1	
HOUSING GASKET		
WATER CONNECTIONS.....	40-1	40
0504 - WATER PUMP	41-1	
WATER PUMP	41-1	41
0505 - FAN ASSEMBLY	42-1	
FAN BRACKET AND IDLER	42-1	42
0508 - WATER FILTER	43-1	
WATER FILTER	43-1	43
GROUP 06	ELECTRICAL SYSTEM	
0601 - GENERATOR, ALTERNATOR	44-1	
ALTERNATOR AND DRIVE.....	44-1	44
ALTERNATOR	45-1	45
0603 - STARTING MOTOR	46-1	
STARTER.....	46-1	46
STARTER END AIR BRUSH RIG	47-1	47
0607 - INSTRUMENT OR ENGINE CONTROL PANEL	48-1	
INSTRUMENT CONTROL PANELS	48-1	48
INSTRUMENT PANELS AND METERS	49-1	49
0608 - MISCELLANEOUS ITEMS	50-1	
FLARESTAT, RELAY, AND BEAM SELECTOR.....	50-1	50
0609 - LIGHTS.....	51-1	
SERVICE LIGHT	51-1	51
BLACKOUT LIGHTS	52-1	52
CLEARANCE LIGHTS	53-1	53
FLOODLIGHTS	54-1	54
SEARCHLIGHTS	55-1	55
0610 - SENDING UNITS AND WARNING SWITCHES	56-1	
SPEED SENSING SWITCH	56-1	56
SENDING UNITS, VALVES, AND RELAYS.....	57-1	57
0612 - BATTERIES, STORAGE	58-1	
BATTERY BOX	58-1	58
0613 - HULL OR CHASSIS WIRING HARNESS	59-1	
POWER CABLE ASSEMBLY.....	59-1	59
GROUP 07	TRANSMISSION	
0705 - TRANSMISSION SHIFTING COMPONENTS	60-1	
TRANSMISSION SHIFT TOWER	60-1	60

TABLE OF CONTENTS (Con't)

	Page	Illus Fig
0710 - TRANSMISSION ASSEMBLY AND ASSOCIATED PARTS.....	61-1	
RIGHT SIDE MAIN HOUSING	61-1	61
LEFT SIDE MAIN HOUSING	62-1	62
COLLECTOR HOUSING.....	63-1	63
ADAPTER HOUSING.....	64-1	64
TORQUE CONVERTER	65-1	65
TRANSMISSION SHAFT	66-1	66
0713 - INTERMEDIATE CLUTCH	67-1	
TRANSMISSION CLUTCH	67-1	67
0714 - SERVO UNIT.....	68-1	
TRANSMISSION SOLENOID VALVE.....	68-1	68
TRANSMISSION CONTROL VALVE.....	69-1	69
TRANSMISSION SELECTOR VALVE.....	70-1	70
0721 - COOLERS, PUMPS, MOTORS	71-1	
TRANSMISSION LINES AND FITTINGS	71-1	71
TRANSMISSION OIL FILTER.....	72-1	72
TRANSMISSION OIL PUMP	73-1	73
GROUP 08	TRANSFER, FINAL DRIVE, PLANETARY, AND DROP GEARBOX ASSEMBLIES	
0801 - POWER TRANSFER, FINAL DRIVE, PLANETARY, OR DROP GEARBOX ASSEMBLIES.....	74-1	
TRANSFER CASE	74-1	74
0803 - GEARSHIFT, VACUUM BOOSTER, AND CONTROLS	75-1	
TRANSFER SHIFT CONTROL	75-1	75
GROUP 09	PROPELLER, PROPELLER SHAFTS, UNIVERSAL JOINTS, COUPLER, AND CLAMP ASSEMBLY	
0900 - PROPELLER SHAFTS.....	76-1	
DRIVE SHAFTS	76-1	76
GROUP 10	FRONT AXLE	
1000 - FRONT AXLE ASSEMBLY.....	77-1	
FRONT AXLE MOUNTING	77-1	77
1002 - DIFFERENTIAL	78-1	
FRONT AXLE CARRIER.....	78-1	78
1003 - PLANETARY OR FINAL DRIVE.....	79-1	
PLANETARY GEAR.....	79-1	79
1004 - STEERING AND LEANING WHEEL MECHANISM.....	80-1	
FRONT BALL AND SOCKET.....	80-1	80
GROUP 11	REAR AXLE	
1100 - REAR AXLE ASSEMBLY	81-1	
REAR AXLE MOUNTING.....	81-1	81
1102 - DIFFERENTIAL	82-1	
REAR AXLE CARRIER.....	82-1	82
1103 - PLANETARY OR FINAL DRIVE.....	83-1	
PLANETARY GEAR.....	83-1	83

TABLE OF CONTENTS (Con't)

	Page	Illus Fig
1104 - STEERING, SIDESHIFT, AND WHEEL LEANING MECHANISM	84-1	
REAR BALL AND SOCKET	84-1	84
1124 - STEERING BRAKES, DIFFERENTIAL AND PLANETARY DRIVE.....	85-1	
STEERING LOCK	85-1	85
GROUP 12 BRAKES		
1202 - SERVICE BRAKES	86-1	
FRONT BRAKE COMPONENTS	86-1	86
REAR BRAKE COMPONENTS	87-1	87
1208 - AIRBRAKE SYSTEM.....	88-1	
AIR SYSTEM CONTROL VALVES	88-1	88
BRAKE CONTROL VALVE	89-1	89
AIR TANKS	90-1	90
AIR PIPING	91-1	91
AIR PIPING	92-1	92
POWER CLUSTER BRAKE.....	93-1	93
FRONT BRAKE ACTUATOR	94-1	94
REAR BRAKE ACTUATOR	95-1	95
1209 - AIR COMPRESSOR ASSEMBLY	96-1	
AIR COMPRESSOR INSTALLATION.....	96-1	96
AIR COMPRESSOR HEAD AND BLOCK.....	97-1	97
AIR COMPRESSOR CRANKCASE	98-1	98
1211 - TRAILER BRAKE CONNECTIONS AND CONTROLS	99-1	
TRAILER BRAKE CONTROL	99-1	99
GROUP 13 WHEELS AND TRACKS		
1311 - WHEEL ASSEMBLY	100-1	
WHEEL ASSEMBLY	100-1	100
1313 - TIRES, TUBES, TIRE CHAINS	101-1	
TIRES.....	101-1	101
GROUP 14 STEERING		
1401 - MECHANICAL STEERING GEAR ASSEMBLY	102-1	
STEERING COLUMN	102-1	102
1407 - POWER STEERING GEAR ASSEMBLY	103-1	
STEERING GEAR.....	103-1	103
1410 - HYDRAULIC PUMP OR FLUID MOTOR ASSEMBLY	104-1	
STEERING PUMP AND DRIVE	104-1	104
1411 - HOSES, LINES, FITTINGS	105-1	
STEERING LINES.....	105-1	105
1412 - HYDRAULIC OR AIR CYLINDERS.....	106-1	
FRONT STEERING CYLINDER	106-1	106
REAR STEERING CYLINDER.....	107-1	107
1414 - STEERING SYSTEM VALVES.....	108-1	
REAR STEERING CONTROL VALVE.....	108-1	108
STEERING VALVE	109-1	109
GROUP 15 FRAME, TOWING ATTACHMENTS, DRAWBARS, AND ARTICULATION SYSTEMS		
1501 - FRAME ASSEMBLY.....	110-1	
FRAME AND BRACKETS.....	110-1	110

TABLE OF CONTENTS (Con't)

	Page	Illus Fig
1503 - PINTLES AND TOWING ATTACHMENTS	111-1	
PINTLE AND EYEBOLT.....	111-1	111
GROUP 18		
BODY, CAB, HOOD, AND HULL		
1801 - BODY, CAB, HOOD, AND HULL ASSEMBLIES.....	112-1	
ENGINE COWLING	112-1	112
BRUSH GUARD ASSEMBLY.....	113-1	113
HYDRAULIC TUBE BRACKETS.....	114-1	114
CAB	115-1	115
1802 - FENDERS, RUNNING BOARDS WITH MOUNTING AND ATTACHING		
PARTS, OUTRIGGERS, WINDSHIELD, GLASS, ETC	116-1	
FENDERS, BRACKETS, AND LIGHT BOXES	116-1	116
FRONT OUTRIGGERS.....	117-1	117
REAR OUTRIGGERS	118-1	118
WINDSHIELD AND CAB DOOR GLASS	119-1	119
1806 - UPHOLSTERY, SEATS, AND CARPETS.....	120-1	
SEAT	120-1	120
1808 - STOWAGE RACKS, BOXES, STRAPS, CARRYING CASES, CABLE		
REELS, HOSE REELS, ETC	121-1	
TOOLBOX	121-1	121
GROUP 22		
BODY CHASSIS, AND HULL ACCESSORY ITEMS		
2202 - ACCESSORY ITEMS	122-1	
TIRE INFLATOR	122-1	122
REARVIEW MIRROR	123-1	123
WINDSHIELD WASHER.....	124-1	124
WINDSHIELD WIPER AND MOTOR	125-1	125
AIR HORN.....	126-1	126
REFLECTORS	127-1	127
2207 - WINTERIZATION EQUIPMENT	128-1	
HEATER.....	128-1	128
GROUP 24		
HYDRAULIC AND FLUID SYSTEMS		
2401 - PUMP AND MOTOR	129-1	
PUMP DRIVE	129-1	129
PUMP DRIVE GEARBOX	130-1	130
HYDRAULIC PUMP	131-1	131
2402 - MANIFOLD AND/OR CONTROL VALVES	132-1	
MAIN VALVE BANK	132-1	132
MAIN VALVE BANK INLET VALVE	133-1	133
MAIN VALVE BANK OUTLET VALVE	134-1	134
MAIN VALVE BANK HOIST VALVE.....	135-1	135
MAIN VALVE BANK BOOM VALVE.....	136-1	136
OUTRIGGER VALVE BANK	137-1	137
OUTRIGGER VALVE BANK INLET VALVE	138-1	138
OUTRIGGER VALVE BANK OUTLET VALVE	139-1	139
OUTRIGGER VALVE BANK SWING VALVE	140-1	140
OUTRIGGER VALVE BANK CENTER SELECTION VALVES.....	141-1	141
BOOM HOIST VALVE MOUNTINGS.....	142-1	142

TABLE OF CONTENTS (Con't)

		Page	Illus Fig
	2406 - STRAINERS, FILTERS, LINES, AND FITTINGS, ETC	143-1	
	HYDRAULIC LINES AND FITTINGS	143-1	143
	HYDRAULIC LINES AND FITTINGS	144-1	144
	HYDRAULIC OIL FILTER	145-1	145
	2407 - HYDRAULIC CYLINDERS	146-1	
	BOOM HOIST CYLINDER	146-1	146
	BOOM EXTENSION CYLINDER	147-1	147
	OUTRIGGER CYLINDER	148-1	148
	STABILIZING CYLINDER	149-1	149
	2408 - LIQUID TANKS OR RESERVOIRS.....	150-1	
	HYDRAULIC RESERVOIR AND CONNECTIONS	150-1	150
GROUP 47	GAGES (NONELECTRICAL), WEIGHING AND MEASURING DEVICES		
	4701 - INSTRUMENTS.....	151-1	
	TACHOMETER DRIVES.....	151-1	151
	TACHOMETER ADAPTER	152-1	152
GROUP 74	CRANES, SHOVELS, AND EARTHMOVING EQUIPMENT COMPONENTS		
	7412 - BACKHOE ATTACHMENTS	153-1	
	TACKLE BLOCK	153-1	153
	7417 - HOISTS	154-1	
	BOOM HEAD	154-1	154
	BOOM HEAD EXTENSION.....	155-1	155
	BOOM ANGLE INDICATOR	156-1	156
	ANTIROTATION ARM	157-1	157
	BOOM AND TELESCOPE	158-1	158
	HOIST DRIVE MOTOR	159-1	159
	HOIST GEARBOX.....	160-1	160
	ROTARY SEAL ASSEMBLY	161-1	161
	7419 - TURNTABLE	162-1	
	SWING DRIVE MOTOR.....	162-1	162
	SWING GEARBOX	163-1	163
	SUPERSTRUCTURE ROTARY SEAL.....	164-1	164
	SUPERSTRUCTURE	165-1	165
GROUP 94	REPAIR KITS		
	9401 - REPAIR KITS	KIT-1	
	REPAIR KITS	KIT-1	KIT
GROUP 95	GENERAL USE STANDARDIZED PARTS		
	9501 - BULK MATERIEL	BULK-1	
	BULK MATERIEL	BULK-1	BULK
SECTION III.	SPECIAL TOOLS (NOT APPLICABLE)		
SECTION IV.	CROSS-REFERENCE INDEXES		
	NATIONAL STOCK NUMBER INDEX	I-1	
	PART NUMBER INDEX	I-31	
	FIGURE AND ITEM NUMBER INDEX	I-120	

UNIT, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LISTS

SECTION I. INTRODUCTION

1. Scope.

This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of Unit, Direct Support, and General Support Maintenance of the Wheel-Mounted Crane. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools as indicated by the source, maintenance and recoverability (SMR) codes.

2. General.

In addition to Section I. Introduction, this Repair Parts and Special Tools List is divided into the following sections:

a. *Section II. Repair Parts List.* A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. The list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Bulk materials are listed in item name sequence. Repair kits are listed separately in their own functional group within Section II. Repair parts for reparable special tools are also listed in the section. Items listed are shown on the associated illustration(s)/figure(s).

b. *Section III. Special Tools List.* A list of special tools, special TMDE, and other special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in DESCRIPTION AND USABLE ON CODE column) for the performance of maintenance.

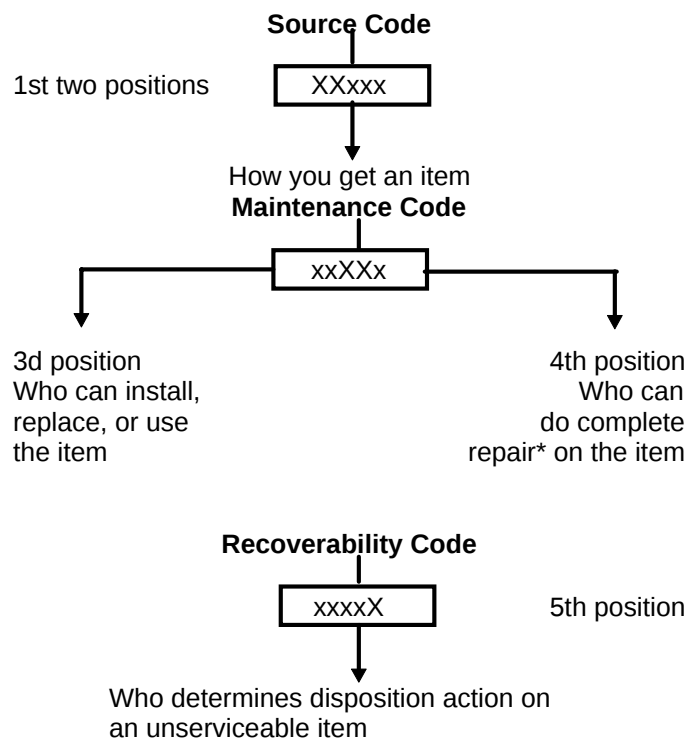
c. *Section IV Cross-reference Indexes.* A list, in National Item Identification Number (NIIN) sequence, of all National stock numbered items appearing in the listing, followed by a list in alphanumeric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration/figure and item number appearance. The fig

ure and item number index lists figure and item numbers in alphanumeric sequence and cross-references NSN, CAGE, and part numbers.

3. Explanation of Columns (Sections II and III).

a. *ITEM NO. (Column (1)).* Indicates the number used to identify items called out in the illustration.

b. *SMR CODE (Column (2)).* The Source, Maintenance, and Recoverability (SMR) code is a 5-position code containing supply/requisitioning information, maintenance category authorization criteria, and disposition instructions, as shown in the following breakout:



*Complete Repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

(1) **Source Code.** The source code tells you how to get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follows:

<u>Code</u>	<u>Application/Explanation</u>
<i>PA</i>	Stocked items; use the applicable NSN to request/requisition items with these source codes. They are authorized to the category indicated by the code entered in the 3d position of the SMR code.
<i>PB</i>	
<i>PC**</i>	
<i>PD</i>	
<i>PE</i>	
<i>PF**</i>	**Items coded PC are subject to deterioration.
<i>PG</i>	
<i>KD</i>	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance category indicated in the 3d position of the SMR code. The complete kit must be requisitioned and applied.
<i>KF</i>	
<i>KB</i>	
<i>M-(Made at UM/ AVUM Level)</i>	Items with these codes are not to be requested/requisitioned individually. They must be made from bulk material which is identified by the part number in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the Bulk Material group of the repair parts list in this RPSTL. If the item is authorized to you by the 3d position code of the SMR code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance.
<i>MF-(Made at DS/ AVUM Level)</i>	
<i>MH-(Made at GS Level)</i>	
<i>ML-(Made at Specialized Repair Activity (SRA))</i>	
<i>MD-(Made at Depot)</i>	
<i>AO-(Assembled by UM/ AVUM Level)</i>	Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the 3d position code of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.
<i>AF-(Assembled by DS/AVIM Level)</i>	
<i>AH-(Assembled by GS Category)</i>	
<i>AL-(Assembled by SRA)</i>	
<i>AD-(Assembled by Depot)</i>	
<i>XA -</i>	Do not requisition an "XA"-coded item. Order its next higher assembly. (Also refer to the NOTE following.)
<i>XB -</i>	If an "XB" item is not available from salvage, order it using the CAGE and part number given.
<i>XC -</i>	Installation drawing, diagram, Instruction sheet, field service drawing, that is identified by the manufacturer's part number.
<i>XD -</i>	Item is not stocked. Order an "XD"-coded

item through normal supply channels using the CAGE and part number given, if no NSN is available.

NOTE : Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes, except for those source coded "XA" or those aircraft support items restricted by requirements of AR 700-42.

(2) *Maintenance Code.* Maintenance codes tell you the level(s) of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

(a) The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to one of the following levels of maintenance.

<u>Code</u>	<u>Application/Explanation</u>
<i>C -</i>	Crew or operator maintenance done within unit maintenance or aviation unit maintenance.
<i>O -</i>	Unit maintenance or aviation unit category can remove, replace, and use the item.
<i>F -</i>	Direct support or aviation intermediate level can remove, replace, and use the item.
<i>H -</i>	General support level can remove, replace, and use the item.
<i>L -</i>	Specialized repair activity can remove, replace, and use the item.
<i>D -</i>	Depot level can remove, replace, and use the item.

(b) The maintenance code entered in the fourth position tells whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (i.e., perform all authorized repair functions). (**NOTE:** Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.) This position will contain one of the following maintenance codes:

<u>Code</u>	<u>Application/Explanation</u>
<i>O -</i>	Unit maintenance or aviation unit is the lowest level that can do complete repair of the item.
<i>F -</i>	Direct support or aviation Intermediate is the lowest level that can do complete repair of the item.

- H* - General support is the lowest level that can do complete repair of the item.
- L* - Specialized repair activity is the lowest level that can do complete repair of the item.
- D* - Depot is the lowest level that can do complete repair of the item.
- Z* - Nonreparable. No repair is authorized.
- B* - No repair is authorized. (No parts or special tools are authorized for the maintenance of a "B"-coded item.) However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

(3) *Recoverability Code*. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the SMR code as follows:

<u>Code</u>	<u>Application/Explanation</u>
<i>Z</i> -	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the 3d position of the SMR code.
<i>O</i> -	Reparable Item. When uneconomically repairable, condemn and dispose of the item at unit maintenance or aviation unit level.
<i>F</i> -	Reparable item. When uneconomically repairable, condemn and dispose of the item at the direct support or aviation intermediate level.
<i>H</i> -	Reparable item. When uneconomically repairable, condemn and dispose of the item at the general support level.
<i>D</i> -	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item not authorized below depot level.
<i>L</i> -	Reparable item. Condemnation and disposal of item not authorized below specialized repair activity (SRA).
<i>A</i> -	Item requires special handling or condemnation procedures because of specific reasons (e.g., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. *CAGEC (Column (3))*. The Commercial and Government Entity (CAGE) Code (C) is a 5-digit alphanumeric code which is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

d. *PART NUMBER (Column (4))*. Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements to identify an item or range of items.

NOTE: When you use an NSN to requisition an item, the item you receive may have a different part number from the part ordered.

e. *DESCRIPTION AND USABLE ON CODE (UOC) (Column (5))*. This column includes the following information:

(1) The Federal item name and, when required, a minimum description to identify the item.

(2) Physical security classification. Not Applicable.

(3) Items that are included in kits and sets are listed below the name of the kit or set on Figure KIT.

(4) Spare/repair parts that make up an assembled item are listed immediately following the assembled item line entry.

(5) Part numbers for bulk materials are referenced in this column in the line item entry for the item to be manufactured/fabricated.

(6) When the item is not used with all serial numbers of the same model, the effective serial numbers are shown on the last line(s) of the description (before UOC). Not Applicable.

(7) The usable on code, when applicable (see paragraph 5, Special Information).

(8) In the Special Tools List section, the basis of issue (BOI) appears as the last line(s) in the entry for each special tool, special TMDE, and other special support equipment. When density of equipment supported exceeds density spread indicated in the basis of issue, the total authorization is increased proportionately.

(9) The statement "END OF FIGURE" appears just below the last item description in Column 5 for a given figure in both Section II and Section III.

f. *QTY (Column (6))*. The QTY (quantity per figure column) Indicates the quantity of the item used in the breakout shown on the illustration/figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column in lieu of a quantity indicates that the quantity is variable and the quantity may vary from application to application.

4. Explanation of Columns (Section IV).

a. *NATIONAL STOCK NUMBER (NSN) INDEX*.

(1) *STOCK NUMBER column*. This column lists the NSN by National Item Identification Number (NIIN)

sequence. The NIIN consists of the last nine digits

NSN
|
5305-01-674-1467
|
NIIN

of the NSN (i.e., 5305-01-674-1467). When using

this column to locate an item, ignore the first 4 digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

(2) *FIG. column.* This column lists the number of the figure where the item is identified/located. The figures are in numerical order in Section II and Section III.

(3) *ITEM column.* The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.

b. *PART NUMBER INDEX.* Part numbers in this index are listed by part number in ascending alphanumeric sequence (i.e., vertical arrangement of letter and number combination which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

(1) *CAGEC column.* The Commercial and Government Entity (CAGE) Code (C) is a 5-digit alphanumeric code used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

(2) *PART NUMBER column.* Indicates the primary number used by the manufacturer (individual, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements to identify an item or range of items.

(3) *STOCK NUMBER column.* This column lists the NSN for the associated part number and manufacturer identified in the PART NUMBER and CAGE columns to the left.

(4) *FIG. column.* This column lists the number of the figure where the item is identified/located in Sections II and 111.

(5) *ITEM column.* The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

c. *FIGURE AND ITEM NUMBER INDEX.*

(1) *FIG. column.* This column lists the number of the figure where the item is identified/located in Sections II and III.

(2) *ITEM column.* The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

(3) *STOCK NUMBER column.* This column lists the NSN for the item.

(4) *CAGEC column.* The Commercial and Government Entity (CAGE) Code (C) is a 5 digit alphanumeric code used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

(5) *PART NUMBER column.* Indicates the primary number used by the manufacturer (individual, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards and inspection requirements to identify an item or range of items.

5. Special Information.

a. *USABLE ON CODE.* The usable on code appears in the lower left corner of the Description column heading. Not Applicable.

b. *FABRICATION INSTRUCTIONS.* Bulk materials required to manufacture items are listed in the Bulk Material Functional Group of this RPSTL. Part numbers for bulk materials are also referenced in the Description column of the line item entry for the item to be manufactured/fabricated. Detailed fabrication instructions for items source coded to be manufactured or fabricated are found in *TM 10-3810-290-12* and *TM 5-3810-290-34*.

c. *ASSEMBLY INSTRUCTIONS.* Detailed assembly instructions for items source coded to be assembled from component spare/repair parts are found in *TM 10-3810-290-12* and *TM 5-3810-290-34*. Items that make up the assembly are listed immediately following the assembly item entry or reference is made to an applicable figure.

d. *KITS.* Line item entries for repair parts kits appear in group 9401 in Section II.

e. *INDEX NUMBERS.* Items which have the word BULK in the figure column will have an index number shown in the item number column. This index number is a cross-reference between the National Stock Number/Part Number Index and the bulk material list in Section II.

f. *ASSOCIATED PUBLICATIONS.* The publications listed below pertain to the Forklift Truck and its components:

<u>Publication</u>	<u>Short Title</u>
<i>LO 5-3810-290-12</i>	Wheel-Mounted Crane, Model H446A
<i>TM 5-3810-290-12</i>	Wheel-Mounted Crane, Model H446A
<i>TM 5-3810-290-12HR</i>	Wheel-Mounted Crane, Model H446A
<i>TM 5-3810-290-34</i>	Wheel-Mounted Crane, Model H446A

6. How to Locate Repair Parts.

a. *When National Stock Number or Part Number is Not Known:*

(1) *First.* Using the table of contents, determine the assembly group or subassembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and listings are divided into the same groups.

(2) *Second.* Find the figure covering the assembly group or subassembly group to which the item belongs.

(3) *Third.* Identify the Item on the figure and use the Figure and Item Number Index to find the NSN.

b. *When National Stock Number or Part Number is Known:*

(1) *First.* Using the National Stock Number or Part Number Index, find the pertinent National Stock Number or Part Number. The NSN index is in National

Item Identification Number (NIIN) sequence (see paragraph 4.a.(1)). The part numbers in the Part Number index are listed in ascending alphanumeric sequence (see paragraph 4.b). Both indexes cross-reference you to the illustration/figure and item number of the item you are looking for.

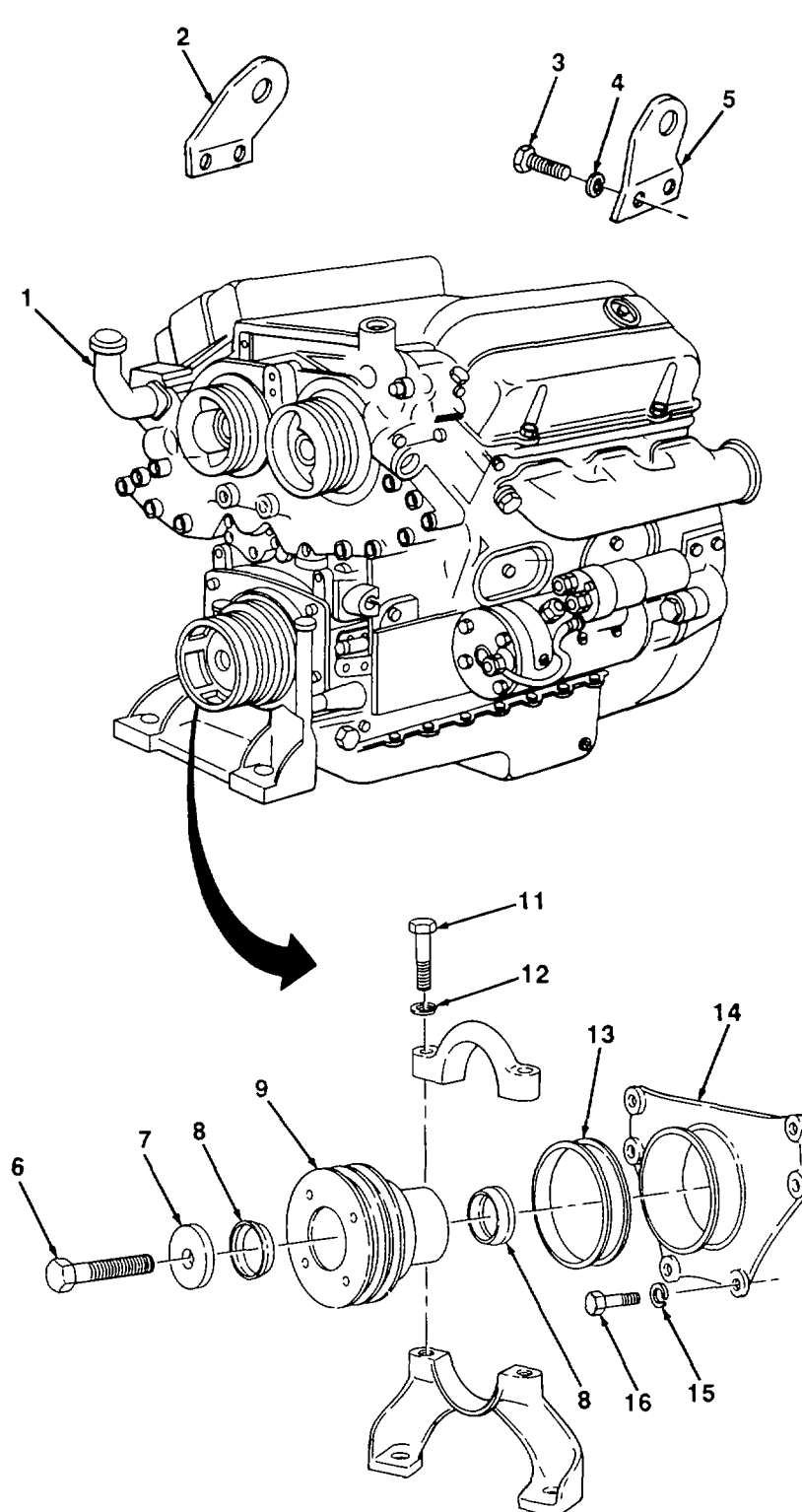
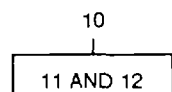
(2) *Second.* Turn to the figure and item number, verify that the item is the one you're looking for, then locate the item number in the repair parts list for the figure.

7. Abbreviations.

For standard abbreviations see MIL-STD-12D, *Military Standard Abbreviations for Use on Drawings, Specifications, Standards, and in Technical Documents*.

Abbreviations Explanation

NIIN.....	National Item Identification Number (consists of the last 9 digits of the NSN)
RPSTL.....	Repair Parts and Special Tools List



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FIGURE 1. ENGINE ASSEMBLY AND ENGINE FRONT MOUNTING