

TECHNICAL MANUAL

**UNIT MAINTENANCE
REPAIR PARTS AND SPECIAL TOOLS LISTS**

**TRACTOR, FULL TRACKED, LOW SPEED,
HEAVY DRAWBAR PULL, (SIZE T-11)
W/ANGLE DOZER, WINCH AND ROPS**

**CATERPILLAR MODEL D8K-8A-58 (CCE)
NSN 2410-00-574-7597
AND
W/BULLDOZER (SEMI-U-TILT), RIPPER
AND ROPS**

**CATERPILLAR MODEL D8K-8S-8 (CCE)
NSN 2410-00-574-7598**

**This manual supersedes TM5-2410-234-20P, 1 May 1986
Approved for Public Release; Distribution is Unlimited**

HEADQUARTERS, DEPARTMENT OF THE ARMY

27 JUNE 1988

UNIT MAINTENANCE
REPAIR PARTS AND SPECIAL TOOLS LISTS
FOR
TRACTOR, FULL TRACKED, LOW SPEED,
HEAVY DRAWBAR PULL, (SIZE T-11)
W/ANGLE DOZER, WINCH AND ROPS
NSN 2410-00-574-7597
CATERPILLAR MODEL D8K-8A-58 (CCE)
AND
W/BULLDOZER (SEMI-U-TILT), RIPPER
AND ROPS
NSN 2410-00-574-7598
CATERPILLAR MODEL D8K-8S-8 (CCE)

Current as of 21 MARCH 1988

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 back of this manual direct to: U.S. Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48397-5000. A reply will be furnished to you.

Approved for Public Release; Distribution is Unlimited

TABLE OF CONTENTS

	Page	Illus Fig
SECTION I. INTRODUCTION.....	1	
SECTION II. REPAIR PARTS LIST	1-1	
GROUP 01 ENGINE		
0105-VALVES, CAMSHAFTS, AND TIMING SYSTEM.....	1-1	
ROCKER ARMS, LIFTERS AND PUSH RODS	1-1	1
ROCKER ARM COVER.....	2-1	2

*This publication supersedes TM 5-2410-234-20P, 1 May 1986

TABLE OF CONTENTS

	Page	Illus Fig
0106-ENGINE LUBRICATION SYSTEM.....	3-1	
OIL FILTER, BASE AND BRACKET	3-1	3
OIL FILLER AND BREATHER ASSEMBLY	4-1	4
OIL LEVEL GAUGE.....	5-1	5
ENGINE OIL COOLER LINES	6-1	6
OIL MANIFOLD LINES.....	7-1	7
OIL LINES	8-1	8
 GROUP 03 FUEL SYSTEM		
0304- AIR CLEANER	9-1	
AIR CLEANER	9-1	9
AIR CLEANER AND RELATED PARTS.....	10-1	10
0305-SUPERCHARGER, BLOWER, TURBOCHARGER OR ALTITUDE COMPENSATOR	11-1	
MANIFOLD AIR LINES.....	11-1	11
0306-TANKS, LINES, FITTINGS, HEADERS	12-1	
FUEL LINES.....	12-1	12
FUEL LINES (FOR USE WITH SERIAL RANGE 77V9411 THRU 77V9475).....	13-1	13
0309- FUEL FILTERS	14-1	
PRIMARY FUEL FILTER.....	14-1	14
FUEL FILTER.....	15-1	15
0311- ENGINE STARTING AIDS	16-1	
GLOW PLUG AND LEAD (ENGINE SERIAL RANGE 17S5088 AND UP)	16-1	16
 GROUP 04 EXHAUST SYSTEM		
0401- MUFFLER AND PIPES	17-1	
EXHAUST MUFFLER.....	17-1	17
MUFFLER	18-1	18
 GROUP 05 COOLING SYSTEM		
0501-RADIATOR, EVAPORATIVE COOLER, OR HEAT EXCHANGER.....	19-1	
RADIATOR (REAR VIEW, USE WITH SERIAL RANGE 77V5006 THRU 77V5953)	19-1	19
RADIATOR (SIDE VIEW, USE WITH SERIAL RANGE 77V5006 THRU 77V5953)	20-1	20
RADIATOR (SIDE VIEW).....	21-1	21
RADIATOR CAP PROTECTIVE COVER	22-1	22
0503-WATER MANIFOLD, HEADERS, THERMOSTATS AND HOUSING GASKET	23-1	
WATER MANIFOLD	23-1	23
WATER MANIFOLD LINES AND RELATED PARTS.....	24-1	24
0505-FAN ASSEMBLY.....	25-1	
FAN GUARD AND BELT	25-1	25
FAN DRIVE	26-1	26
 GROUP 06 ELECTRICAL SYSTEM		
0601-ALTERNATOR.....	27-1	
ALTERNATOR, BRACKET AND PULLEY	27-1	27
DELCO REMY ALTERNATOR.....	28-1	28

TABLE OF CONTENTS

	Page	Illus Fig
0603- STARTING MOTOR	29-1	
STARTER (USE WITH ENGINE SERIAL RANGE 17S5088 THRU 17S10786)	29-1	29
STARTER AND RELATED PARTS (USE WITH ENGINE SERIAL RANGE 17S10787 AND UP)	30-1	30
0607- INSTRUMENT PANEL	31-1	
INSTRUMENT PANEL AND VANDALISM GUARD	31-1	31
INSTRUMENT CONTROL PANEL SWITCHES AND CIRCUIT BREAKERS	32-1	32
IGNITION LOCK SWITCH	33-1	33
ELECTRIC HOURMETER	34-1	34
BACKUP WARNING ALARM HARNESS	35-1	35
0609- LIGHTS	36-1	
LAMP ASSEMBLY	36-1	36
LAMP GUARDS AND BRACKETS (USE WITH SERIAL RANGE 77V8516 THRU 77V9475)	37-1	37
0610- SENDING UNITS AND WARNING SWITCHES	38-1	
BACKUP WARNING ALARM (FOR USE WITH ROPS)	38-1	38
BACKUP WARNING ALARM	39-1	39
COOLANT FLOW WARNING ALARM (USE WITH ENGINE SERIAL RANGE 17S5966 THRU 17S9688)	40-1	40
0611- HORN, SIREN	41-1	
ELECTRIC HORN AND ATTACHING PARTS (USE WITH SERIAL RANGE 77V8516 THRU 77V9475)	41-1	41
DUAL ELECTRIC HORNS (USE WITH SERIAL RANGE 77V9163 THRU 77V9475)	42-1	42
CENTER MOUNTED ELECTRIC HORN	43-1	43
ELECTRIC HORN	44-1	44
0612- BATTERIES. STORAGE	45-1	
BATTERY AND CABLES	45-1	45
BATTERY BOX	46-1	46
BATTERY BOX STRAP	47-1	47
0613- HULL OR CHASSIS WIRING HARNESS	48-1	
MAIN WIRING HARNESS (USE WITH SERIAL RANGE 77V5006 THRU 77V8515)	48-1	48
WIRING HARNESS (USE WITH ENGINE SERIAL RANGE 17S5966 THRU 17S9688)	49-1	49
MAIN ELECTRIC WIRING HARNESS (USE WITH SERIAL RANGE 77V8516 THRU 77V9475)	50-1	50
HEADLIGHT WIRING HARNESS	51-1	51
RIPPER LIGHT WIRING	52-1	52
GROUP 07		
TRANSMISSION		
0705- TRANSMISSION SHIFTING COMPONENTS	53-1	
TRANSMISSION SHIFTER AND LINKAGE (SIDE VIEW)	53-1	53
0721- COOLERS, PUMPS, MOTORS	54-1	
TRANSMISSION OIL FILTER	54-1	54
TRANSMISSION FLUID FILTER (MAGNETIC)	55-1	55
TRANSMISSION OIL LINES	56-1	56
POWER TRAIN OIL LINES	57-1	57
TRANSMISSION OIL LINES AND MOUNTING PARTS	58-1	58

TABLE OF CONTENTS

	Page	Illus Fig
GROUP 09	PROPELLER, PROPELLER SHAFTS, UNIVERSAL JOINTS, COUPLER AND CLAMP ASSEMBLY	
	0900-PROPELLER SHAFTS59-1	
	UNIVERSAL JOINT ASSEMBLY.....59-1	59
GROUP 13	WHEELS AND TRACKS	
	1301-SUSPENSION ASSEMBLY60-1	
	TRACK ROLLER FRAME.....60-1	60
	1303-TRACK IDLERS AND BRACKETS61-1	
	FRONT IDLER (EXTERNAL VIEW)61-1	61
	1304-TRACK DRIVE SPROCKETS.....62-1	
	HUB AND SPROCKET SEGMENTS.....62-1	62
	TRACK (SEALED AND LUBRICATED).....63-1	63
	TRACK (SEALED AND NON-LUBRICATED).....64-1	64
GROUP 14	STEERING	
	1403-STEERING BRAKES65-1	
	BRAKE BAND AND LINING65-1	65
	STEERING CLUTCH CONTROL LINKAGE (SIDE VIEW).....66-1	66
GROUP 15	FRAME, TOWING ATTACHMENTS, DRAWBARS, AND ARTICULATION SYSTEMS	
	1503-PINTLES AND TOWING ATTACHMENTS67-1	
	FRONT PULL HOOK AND DRAWBAR.....67-1	67
	SWINGING DRAWBAR68-1	68
GROUP 18	BODY, CAB, HOOD AND HULL	
	1801-BODY, CAB, HOOD AND HULL ASSEMBLIES.....69-1	
	BRUSH GUARD.....69-1	69
	HEAVY DUTY CRANKCASE GUARD.....70-1	70
	CRANKCASE GUARD71-1	71
	HOOD AND DASH72-1	72
	HOOD AND DASH (FOR USE WITH SERIAL RANGE THRU 77V5953).....73-1	73
	1802-FENDERS, RUNNING BOARDS WITH MOUNTING AND ATTACHING PARTS, OUTRIGGERS, WINDSHIELD, GLASS, ETC74-1	
	RIGHT HAND FENDER74-1	74
	LEFT HAND FENDER.....75-1	75
	1805-FLOORS, SUBFLOORS, AND RELATED COMPONENTS.....76-1	
	FLOOR PLATE.....76-1	76
	1806-UPHOLSTERY SEATS AND CARPETS.....77-1	
	ADJUSTABLE SEAT77-1	77
	SEAT BASE78-1	78
GROUP 20	HOIST, WINCH, CAPSTAN, WINDLASS, POWER CONTROL UNIT, AND POWER TAKE OFF	
	2001-HOIST, CAPSTAN, WINDLASS, CRANE OR WINCH ASSEMBLY79-1	
	SHEAVE, CABLE AND HITCH79-1	79

TABLE OF CONTENTS

	Page	Illus Fig
WINCH FILTER RELATED PARTS	80-1	80
WINCH CONTROLS (FRONT VIEW)	81-1	81
WINCH CONTROLS (SIDE VIEW)	82-1	82
2006- BULLDOZER TRIPOD, MAIN FRAME, JACK AND MOUNTING	83-1	
WINCH VALVE	83-1	83
WINCH FAIRLEADS (USE WITH LOW SPEED AND STANDARD WINCH)	84-1	84
WINCH PUMP LINES	85-1	85
2007- CHAIN HOIST ASSEMBLY	86-1	
WINCH MOUNTING	86-1	86
 GROUP 22 BODY, CHASSIS, AND HULL ACCESSORY ITEMS		
2210-DATA PLATES	87-1	
DATA PLATES	87-1	87
 GROUP 24 HYDRAULIC AND FLUID SYSTEMS		
2402- MANIFOLD AND CONTROL VALVES	88-1	
RIPPER SELECTOR VALVE	88-1	88
PIN PULLER CONTROL VALVE	89-1	89
DUAL VALVE FOR RIPPER	90-1	90
SELECTOR VALVE (TYPES 1 AND 2)	91-1	91
2404- TILT CYLINDERS AND TILT CRANK	92-1	
TILT CYLINDERS AND TILT CRANK	92-1	92
2406- STRAINERS, FILTERS, LINES AND FITTINGS, ETC	93-1	
PUMP LINES, TYPE2 (USE ON 8A BULLDOZER WITH SINGLE VALVE)	93-1	93
PUMP LINES, TYPE3 (USE ON 8A BULLDOZER WITH SINGLE VALVE)	94-1	94
PUMP HOSES, TYPES 1,2 AND 3 (USE WITH DOUBLE VALVE)	95-1	95
PUMP LINES TYPES 1 AND 3 (USE WITH DOUBLE VALVE)	96-1	96
PUMP LINES, TYPE 2 (USE WITH DOUBLE VALVE)	97-1	97
RIPPER PIN PULLER LINES, TYPES 1, 2 AND 3	98-1	98
PIN PULLER LINES	99-1	99
RIPPER LINES, LEFT AND RIGHT	100-1	100
BULLDOZER LINES	101-1	101
BULLDOZER LINES AND FITTINGS	102-1	102
TILT CYLINDER HYDRAULIC LINES	103-1	103
TILT CYLINDER LINES	104-1	104
HYDRAULIC FILTER	105-1	105
2407-HYDRAULIC CYLINDERS	106-1	
LIFT CYLINDERS, LEFT AND RIGHT HAND	106-1	106
RIPPER CYLINDER LEFT AND RIGHT	107-1	107
RIPPER CYLINDER, CENTER	108-1	108
2408-LIQUID TANKS OR RESERVOIRS	109-1	
HYDRAULIC TANK CAP PROTECTION COVER	109-1	109
 GROUP 47 GAGES, WEIGHING AND MEASURING DEVICES		
4702-GAGES, MOUNTINGS, LINES, AND FITTINGS	110-1	
PRESSURE GAGES	110-1	110

TABLE OF CONTENTS

	Page	Illus Fig
SERVICE METER.....	111-1	111
PRESSURE GAGES LINES AND FITTINGS.....	112-1	112
GROUP 60 STEAM BOILERS, WATER HEATERS, HEATING UNITS, BURNERS		
6015- WATER HEATER ASSEMBLY.....	113-1	
WATER HEATER JACKET	113-1	113
GROUP 74 CRANES, SHOVELS, AND EARTH MOVING EQUIPMENT COMPONENTS		
7427- MISCELLANEOUS VALVES.....	114-1	
EXTERNAL QUICK DROP VALVE	114-1	114
7435- MOLDBOARD ASSEMBLY	115-1	
STRAIGHT BULLDOZER BLADE	115-1	115
7436- LIFT ARMS AND PIVOT ASSEMBLIES.....	116-1	
BULLDOZER PUSH ARM	116-1	116
ARM AND BRACE.....	117-1	117
BLADE CYLINDER MOUNTING	118-1	118
7465- ROOTERS, RIPPERS, PLOWS, HARROWS	119-1	
RIPPER LINK	119-1	119
GROUP 94 REPAIR KITS		
9401-REPAIR KITS.....	KIT-1	
KIT.....	KIT-1	KIT
GROUP 95 GENERAL USE STANDARDIZED PARTS		
9501-BULK MATERIEL.....	BULK-1	
BULK MATERIEL	BULK-1	BULK
SECTION III SPECIAL TOOLS LIST (NOT APPLICABLE)		
SECTION IV CROSS-REFERENCE INDEXES	I-1	
NATIONAL STOCK NUMBER INDEX	I-1	
PART NUMBER INDEX	I-19	
FIGURE AND ITEM NUMBER INDEX	I-67	

UNIT MAINTENANCE

REPAIR PARTS AND SPECIAL TOOLS LIST

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 Maintenance of the Tractor. 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 repairable special tools are also listed in the section. Items listed are shown on the associated illustration(s)/figure(s).

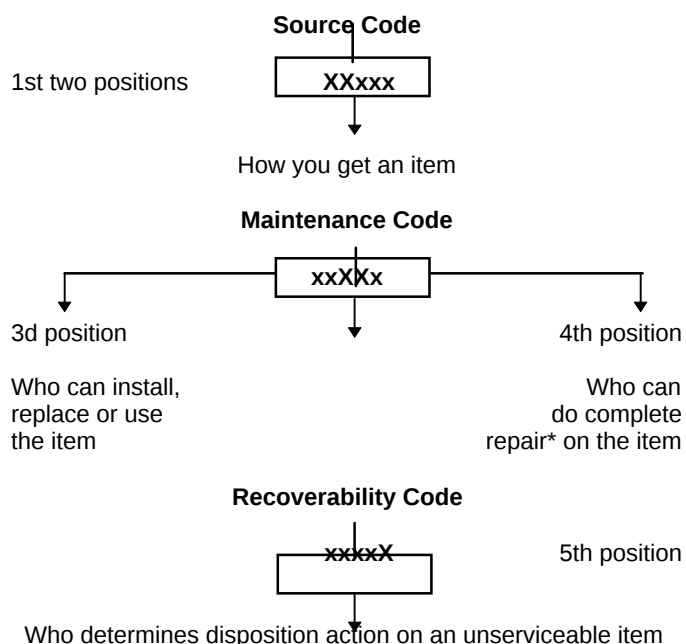
b. *Section III Special Tools List.* A list of special tools, special TMDE, and other special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in DESCRIPTION AND USABLE ON CODE column) for the performance of maintenance.

c. *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 figure and item number index lists figure and item numbers in alphanumeric sequence and cross-references NSN, FSCM, 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.