

Parts Manual



See "General Information"
for New Parts Manual
Features.

432E Backhoe Loader

JBA1-Up (Machine)
C4Z1-Up (Engine)
CRS1-Up (Engine)

Powered By C4.4 and 3054C Engines

This Parts Manual is also available in .pdf Format on Compact Disc (CD - ROM) Caterpillar Form No. SERP5080
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Product and Dealer Information

Note: For product identification plate locations, see the section "Product Identification Information" in the Operation and Maintenance Manual.

Delivery Date: _____

Product Information

Model: _____

Product Identification Number: _____

Engine Serial Number: _____

Transmission Serial Number: _____

Generator Serial Number: _____

Attachment Serial Numbers: _____

Attachment Information: _____

Customer Equipment Number: _____

Dealer Equipment Number: _____

Dealer Information

Name: _____ Branch: _____

Address: _____

Dealer Contact

Phone Number

Hours

Sales: _____

Parts: _____

Service: _____

MEMORANDA

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GENERAL INFORMATION

1. MACHINE IDENTIFICATION

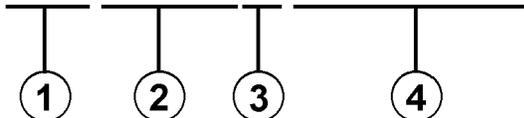
Caterpillar machines are identified by Product Identification Numbers (PIN). Some components included in a machine may be identified by Serial Numbers (S/N). Typical components that will be serialized include engines, transmissions, bulldozers, and rippers. The machine and engine are further identified by arrangement numbers and in some cases modification numbers. These numbers are shown on the product identification plate(s) and on the master plate in the operator's compartment.

Caterpillar dealers need all of these numbers to determine accurate parts identification.

New Feature

Effective First Quarter 2001 the Caterpillar Product Identification Number (PIN) changed from 8 to 17 characters. In an effort to provide uniform equipment identification, Caterpillar and other construction equipment manufacturers are moving to comply with the latest version of the product identification numbering standard. Non-road machine PINs are defined by ISO 10261. The new PIN format will apply to all Caterpillar machines and generator sets. The PIN plates and frame marking will display the 17 character PIN. The new format will look like the following:

CAT 0789BG 6SL12345



Where:

1. Caterpillar's World Manufacturing Code (characters 1-3)
2. Machine Descriptor (characters 4-8)
3. Check Character (character 9)
4. Machine Indicator Section (MIS) or Product Sequence Number (characters 10-17). These were previously referred to as the Serial Number.

Machines and generator sets produced before First Quarter 2001 will maintain their 8 character PIN format.

Components such as engines, transmissions, axles, etc. and work tools will continue to use an 8 character Serial Number (S/N).

2. ORDERING PARTS

WARNING

When replacement parts are required for this product Caterpillar recommends using Caterpillar replacement parts or parts with equivalent specifications including, but not limited to, physical dimensions, type, strength and material.

Failure to heed this warning can lead to premature failures, product damage, personal injury or death.

Quality Caterpillar replacement parts are available from Caterpillar dealers throughout the world. Their parts inventories are up to date and include all parts normally required to protect your investment in Caterpillar machines. Dealers may offer repair kits or remanufactured parts to allow selection of the most effective repair alternative for a particular situation. When ordering parts, your order should specify the quantity, part number, part name, and the serial number/product identification number of the machine for which the parts are needed.

3. PARTS MANUAL ORGANIZATION

Product information in this manual is presented as "information elements" that represent all of the components for the specific model. Engine Arrangement and Seat Group are examples of information elements. The information elements are organized alphabetically by part name and secondarily by part number within each major section of the manual.

4. TABLE OF CONTENTS

A table of contents (TOC) is found at the beginning of the manual. The TOC lists each section of the manual with a complete list of all information elements organized as they appear in the manual. Page numbers are provided for quick reference to detailed parts identification illustrations and serviceable consist lists.

5. MAINTENANCE PARTS INDEX

The Maintenance Parts Index, located near the beginning of the manual, references most frequently used maintenance part numbers, providing description, quantity, usage and page number. This information is organized alphabetically by part description.

GENERAL INFORMATION

6. INDEX

The index located near the front of the manual is an alphabetical listing of all information elements included in the manual. Page numbers are provided for quick reference to detailed parts identification illustrations and serviceable consist lists.

7. PART NUMBER INDEX

A numerical index listing all part numbers and the corresponding page number(s) appears at the back of the manual.

8. CAPTIONS

Captions located at the beginning of each information element identify the part number and part name along with additional descriptive information. PIN and S/N information found in each caption should be used to select correct information for a specific machine. Field replacement options, identification of optional attachment components, and where used ("part of") information is also provided.

The first line of a caption is shown in larger type font to indicate the beginning of an information element. Captions for additional pages that may be required to illustrate an information element will be shown in standard type font and will include the term (*contd.*) .

9. NON-SERVICED PARTS

In some instances it is necessary to display non-serviced parts that are a link to a lower level serviceable consist lists. These non-serviced part numbers are shown in *italic* type indicating that they are not available.

10. PARTS LIST REFERENCE NUMBERS

Numbers shown in the Ref No column correspond to numbers used in the associated graphic(s). An alphabetic suffix may be added to a reference number to identify lower level consist items. Numbers shown in the Graphic Ref column refer to the graphic number identifier displayed in the lower left corner of each illustration. The Graphic Ref number may be used in combination with the item Ref No to determine the correct part number. There may be intentional omission of a Ref No in a consist list as information is updated to reflect the latest serviceable part numbers.

11. INDENTED PART NAMES

When a part name is indented in a parts list, it is part of (included in) the group or assembly under which it is indented.

12. ILLUSTRATION REFERENCE LETTERS

When necessary, illustrations contain reference letters (A, B, C etc.) that are intended to track lines and harnesses from one point to another. They are also used to show where to reconnect illustrations that have been separated.

13. ABBREVIATIONS AND SYMBOLS

O.D. – Outside Diameter
I.D. – Inside Diameter
A – Not Part Of This Group
B – Use As Required
C – Change From Previous Type
D – Order By The Meter
E – Order By The Centimeter
F – Not Shown
G – Order By The Inch
I – Refer To Hydraulic Information System
M – Metric Part
R – Remfg Part May Be Available
Y – Separate Illustration
Z – Not Serviced Separately

 **New Feature**

14. DESCRIPTION OF TYPE CHANGES

Type - A type is defined as any configuration change that requires an additional Information Element for an Arrangement, Group, or Assembly. If serial number breaks for types are not available, a type # (Type 1, Type 2, etc.) will be displayed in the caption. These "type" changes are identified with a "C" note (change from previous type) in the Parts List. Only the "types" that apply to this Parts Manual will be included. Additional types may exist causing "C" notes to appear on an Information Element when no other types are shown.

15.<END>

This symbol indicates the end of an information element.

NOTE:

Continuing improvement and advancement of product design may cause changes to your machine which may not be included in this publication. Whenever a question arises regarding your Caterpillar product or this publication, please consult your Caterpillar dealer for the latest available information.

GENERAL INFORMATION

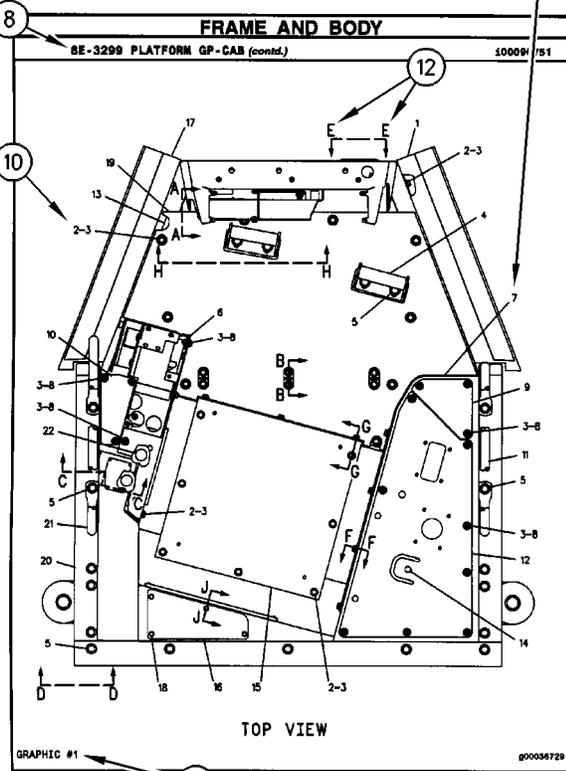
8 FRAME AND BODY					
BE-3299 PLATFORM GP-CAB					
PIN 3841-99999					
					100090751
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME & PRODUCT LEVEL
	1		31-2982	1	PLATE AS
	2		68-2982	25	BOLT (3/8-18X.750IN)
	3		68-1078	41	WASHER-HARD (3MM THK)
	4		68-1444	2	SUPPORT AS-FOOT
	5		77-2229	19	BOLT (1/2-13X1.75IN)
	6		77-2229	19	WASHER-HARD (4MM THK)
	8		68-8126	2	COVER AS-LH
	8		68-8126	2	COVER AS-RH
	7		17-8189	1	CLIP
	7		78-2411	4	COVER
	8		64-8486	18	SCREW-HEAD (3/8-18X.875IN)
	9		77-0774	1	COVER
	10		68-8972	1	GASKET
	11		68-2890	1	GASKET
	11		31-3496	1	HANDHOLD
	12		68-8978	1	COVER AS
	13		68-8978	8	NUT-WELD (3/8-16 THD)
	13		68-8978	1	GASKET
	14		77-0131	1	FLOORPLATE AS
	14		17-0752	4	NUT-WELD (1/2-13 THD)
	14		77-8087	1	PLUS-BUTTON
	16		77-0136	1	PLATE AS
	18		68-8978	5	NUT-WELD (3/8-16 THD)
	18		77-8089	1	COVER
	17		77-0770	1	GASKET
	17		31-2981	1	PLATE AS
	18		68-8984	4	BOLT (1/4-20X.825IN)
	18		68-8984	4	WASHER-HARD (2MM THK)
	19		61-8484	1	FLOOR MAT
	20		68-8984	1	MODULE AS-OPERATOR
	21		31-3494	1	HANDHOLD
	22		68-8971	2	PLUS
	22		68-8984	4	BOLT (1/4-20X.825IN)
	22		68-8984	4	WASHER-HARD (2MM THK)
	24		68-8982	17	BOLT (3/8-18X.750IN)
	24		68-1078	21	WASHER-HARD (3MM THK)
	26		77-0136	1	SEAL
	27		78-0378	2	BOLT (3/4-10X5IN)
	27		78-0382	2	WASHER-HARD (5MM THK)
	28		31-3489	2	PLATE AS
	29		31-3490	1	PLATE AS
	30		78-0388	8	SPACER
	30		31-3581	1	SEAL
	31		78-8917	1	GASKET
	32		78-8916	1	COVER AS
	32		68-8978	2	WASHER
	32		68-8928	2	SCREW-KNURLED
	33		68-3428	1	COVER
	34		68-8987	1	COVER
	35		68-8981	8	SCREW-BCKET HEAD
	36		68-3142	8	MOUNTING
	37		68-0027	2	PLATE
	38		78-0389	2	BOLT (1/2-8X5IN)
	39		78-0373	2	WASHER-HARD
	39		64-8484	4	BOLT (3/8-18X1.02IN)
	40		31-6783	1	COVER

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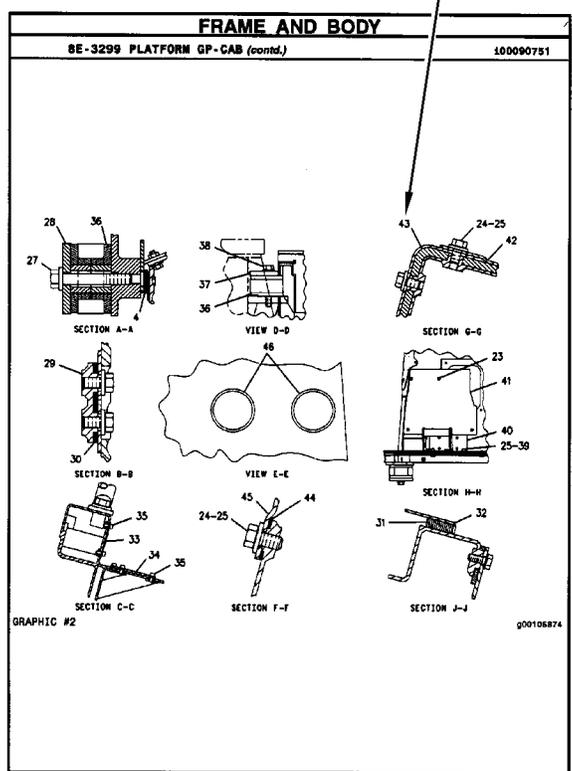
FRAME AND BODY					
BE-3299 PLATFORM GP-CAB (contd.)					
					100090751
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME & PRODUCT LEVEL
	41		68-8916	1	COVER
	42		77-0134	1	PLATE
	43		77-0128	1	GASKET
	44		78-8724	1	GASKET
	45		78-8723	1	COVER
	48		68-1069	2	PLUS-BUTTON

M-METRIC PART

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14 FRAME AND BODY 3 of 4 SELPA670-01



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REPAIR ALTERNATIVES

REMANUFACTURED COMPONENTS

As an option when making repairs consider Caterpillar Remanufactured Components. Components that are available through the Caterpillar Remanufactured Program are identified three ways in the parts book:

- with the letter R in the note field of the parts list
- with an R* at the beginning of the first line of the caption
- with an *R at the end of the first line of the caption

Typical components included in the Remanufacturing Program include:

ALTERNATORS
CONNECTING RODS
CRANKSHAFTS - UNDERSIZE
CRANKSHAFTS - UPGRADE TO NEW
CYLINDER HEADS
ELECTRONIC CONTROL MODULES (ECM)
ELECTRONIC SENSORS
FUEL INJECTORS
FUEL NOZZLES
FUEL PUMPS
GOVERNORS
OIL PUMPS
PISTONS
SHORT BLOCKS
STARTERS
TURBOCHARGERS - COMPLETE
TURBOCHARGER CARTRIDGES
WATER PUMPS

Caterpillar Remanufactured engines for many engine arrangements are also available.

SUPPLEMENTAL COOLANT ADDITIVES

CUSTOMER BENEFITS:

Protects against cavitation, foam, erosion, corrosion, and scale buildup in cooling systems.

- Provides measured coolant conditioner.

DESCRIPTION:

Additives deplete from the coolant with normal operation. For this reason, Supplemental Coolant Additives (SCA) must be added to all heavy duty coolants at regular intervals. In addition, when not using a fully formulated, pre-charged antifreeze, like Caterpillar's DEAC, an initial charge of SCA must be added to the cooling system. The amount of SCA added to the system is dependent on the capacity of the system.

The SCA for initial fill is provided as a liquid. SCA's for maintenance intervals are available in liquid form and as a spin-on element. (No Spin-on available for 3600 Family of Engines)

NOTE:

The amount of SCA added at initial fill is not the same as the amount added at maintenance intervals.

The coolant additive elements can be used with any ethylene or propylene glycol type antifreeze which meets ASTM D4985 or ASTM D5345 Specifications.

NOTE:

For use with standard heavy duty coolant only, not for use with Extended Life Coolant.

PARTS NEEDED:

Cooling System Capacity		Liquid SCA at Initial Fill	Liquid SCA at Maintenance*	Spin-on SCA Maintenance Element*
Liters	Gallons			
22-30	(6-8)	3P-2044 (1)	6V-3542 (1)	111-2370 (1)
30-38	(8-10)	3P-2044 (1) 6V-3542 (1)	111-2372 (1)	111-2369 (1)
38-49	(10-13)	3P-2044 (1) 8T-1589 (1)	111-2372 (1)	111-2369 (1)
49-64	(13-17)	3P-2044 (2)	8T-1589 (1)	9N-3368 (1)
64-83	(17-22)	3P-2044 (2) 8T-1589 (1)	111-2372 (1) 6V-3542 (1)	111-2371 (1)
83-114	(22-30)	3P-2044 (3) 8T-1589 (1)	3P-2044 (1)	9N-3718 (1)
114-163	(30-43)	3P-2044 (5)	3P-2044 (1) 6V-3542 (1)	111-2371 (2)
163-242	(43-64)	3P-2044 (8)	3P-2044 (2)	9N-3718 (2)

* Normal maintenance period is 250 hrs. See your Operation and Maintenance Manual for complete coolant maintenance instructions.

() Indicates quantity required.

MAINTENANCE PARTS

DESCRIPTION	PART NUMBER	QTY	WHERE USED	PAGE
AIR INLET AND EXHAUST SYSTEM				
FILTER ELEMENT-AIR (PRIMARY)	293 - 4053	1	AIR CLEANER GP	114
FILTER ELEMENT-AIR (SECONDARY)	227 - 7449	1	AIR CLEANER GP	114
BASIC ENGINE				
GASKET (VALVE COVER)	225 - 6451	1	COVER GP-VALVE MECHANISM	24
		1	COVER GP-VALVE MECHANISM	26
PLUG-DRAIN (ENGINE OIL)	7C - 0351	2	PAN GP-OIL	62
		2	PAN GP-OIL	64
COOLING SYSTEM				
BELT-SERPENTINE (FAN)	212 - 9353	1	FAN GP-SUCTION	95
		1	FAN GP-SUCTION	97
	324 - 3408	1	FAN GP-SUCTION	96
CAP AS-COOLANT TANK	251 - 3227	1	LINES GP-RADIATOR	100
		1	TANK & LINES GP-COOLANT	112
HOSE-RADIATOR (LOWER)	210 - 6139	1	TANK & LINES GP-COOLANT	112
HOSE-RADIATOR (UPPER)	325 - 5855	1	LINES GP-RADIATOR	100
		1	TANK & LINES GP-COOLANT	112
REGULATOR GP-TEMPERATURE (INCLUDES CONNECTOR)	254 - 2267	1	CONNECTION GP-WATER	89
REGULATOR GP-TEMPERATURE (INCLUDES CONNECTOR) (WATER)	254 - 2267	1	CONNECTION GP-WATER	91

MAINTENANCE PARTS

DESCRIPTION	PART NUMBER	QTY	WHERE USED	PAGE
ELECTRICAL AND STARTING SYSTEM				
BATTERY (12-VOLT, MAINTENANCE FREE)	230-6368	1	BATTERY & WIRING GP	168
BATTERY (12-VOLT, MAINTENANCE FREE) (WET)	230-6368	1	BATTERY & WIRING GP	174
BATTERY (12-VOLT, MAINTENANCE FREE, WET)	3T-5760	1	BATTERY & WIRING GP	170
		1	BATTERY & WIRING GP	172
BELT-DRIVE (WARNING BEACON)	9X-8139	1	LAMP GP-WARNING BEACON	199
CAP AS-FILLER (BATTERY)	123-1373	6	BATTERY & WIRING GP	172
FLASHER AS (12-VOLT) (HAZARD)	7T-4848	1	WIRING GP-PLATFORM	244
FUSE (10-AMPERE)	113-8490	9	WIRING GP-PLATFORM	245
FUSE (15-AMPERE)	113-8491	10	WIRING GP-PLATFORM	245
FUSE (20-AMPERE)	113-8492	7	WIRING GP-PLATFORM	245
FUSE (30-AMPERE)	274-9872	1	RELAY GP	212
		1	WIRING GP-PLATFORM	244
FUSE (40-AMPERE)	278-6377	1	RELAY GP	208
		1	RELAY GP	212
		1	WIRING GP-PLATFORM	244
FUSE (60-AMPERE)	267-2701	2	RELAY GP	209
		1	RELAY GP	210
FUSE (60-AMPERE) (POWER, 1)	267-2701	1	WIRING GP-PLATFORM	244
GLOW PLUG (12-VOLT)	232-6662	4	GLOW PLUG GP	177
		4	GLOW PLUG GP	178
LAMP (12-VOLT, 10-WATT)	195-9712	1	LAMP GP-REGISTRATION PLATE	196
LAMP (12-VOLT, 21-WATT) (AMBER)	226-4560	1	LAMP GP-HEAD & SIGNAL	192
		1	LAMP GP-HEAD & SIGNAL	193
		1	LAMP GP-HEAD & SIGNAL	194
		1	LAMP GP-HEAD & SIGNAL	195
LAMP (12-VOLT, 21-WATT) (ROADING LIGHTS)	9W-3326	1	LIGHTING GP-ROADING	201
LAMP (12-VOLT, 5-WATT) (CLEAR)	226-4561	1	LAMP GP-HEAD & SIGNAL	192
		1	LAMP GP-HEAD & SIGNAL	193
		1	LAMP GP-HEAD & SIGNAL	194
		1	LAMP GP-HEAD & SIGNAL	195
LAMP (12-VOLT, 55-WATT) (FLOODLIGHT)	9W-0607	1	LAMP GP-FLOOD	190
		1	LAMP GP-FLOOD	191
LAMP (12-VOLT, 55-WATT) (WARNING BEACON)	9X-8118	1	LAMP GP-WARNING BEACON	199
LAMP GP-SIGNAL (12-VOLT) (STOP, TAIL, TURN, LH)	336-9096	1	WIRING GP-REAR	250
LAMP GP-SIGNAL (12-VOLT) (STOP, TAIL, TURN, RH)	336-9096	1	WIRING GP-REAR	250
LAMP-HEAD (12-VOLT, 60/55-WATT) (CLEAR)	9W-3324	1	LAMP GP-HEAD & SIGNAL	192
		1	LAMP GP-HEAD & SIGNAL	193
		1	LAMP GP-HEAD & SIGNAL	194
		1	LAMP GP-HEAD & SIGNAL	195

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DESCRIPTION	PART NUMBER	QTY	WHERE USED	PAGE
FUEL SYSTEM				
CAP-FUEL (LOCKABLE, VENTED)	284-9039	1	TANK GP-FUEL	164
ELEMENT-WATER SEPARATOR (FUEL FILTER)	361-9554	1	PUMP GP-FUEL PRM & PRIM FILTER	163
FILTER AS-WATER SEP & FUEL	228-9130	1	PUMP GP-FUEL PRM & PRIM FILTER	158
FILTER ELEMENT-FUEL (WATER SEPARATOR)	131-1812	1	FILTER GP-WATER SEP & FUEL	134
STRAINER (FUEL TANK)	311-6886	1	TANK GP-FUEL	164
STRAINER-FUEL (FILLER NECK SCREEN)	180-3730	1	TANK GP-FUEL	164
HYDRAULIC SYSTEM				
CAP AS	6V-9830	2	VALVE & LINES GP-CONTROL	517
		2	VALVE & LINES GP-CONTROL	519
CAP-FILL (HYDRAULIC OIL)	237-3797	1	TANK & MTG GP-HYDRAULIC	513
FILTER ELEMENT-BREATHING (HYDRAULIC TANK)	9R-9925	1	TANK & MTG GP-HYDRAULIC	513
FILTER-OIL (FLOW REGULATOR)	227-1197	1	MANIFOLD GP-CONTROL	504
FILTER-OIL (ULTRA HIGH EFFICIENCY) (OIL FILTER BYPASS)	126-1817	1	FILTER GP-OIL	425
LUBRICATION SYSTEM				
CAP AS-FILLER (ENGINE OIL FILLER)	236-6651	1	GAUGE GP-OIL LEVEL & FILLER	86
FILTER AS-ENGINE OIL	7W-2326	1	GAUGE GP-OIL LEVEL & FILLER	86
OPERATOR STATION				
BLADE AS-WIPER (450-MM) (REAR)	315-1316	1	WIPER GP-WINDOW	812
BLADE AS-WIPER (600-MM) (FRONT)	101-0745	1	WASHER GP-WINDOW	802
DRYER-REFRIGERANT (IN-LINE) (AIR CONDITIONER)	283-4237	1	LINES GP-HEATER & AIR COND	771
FILTER ELEMENT AS-AIR (CAB HEATER)	211-2661	1	HEATER & MTG GP-CAB	742
		1	HEATER & MTG GP-CAB	744
		1	HEATER & MTG GP-CAB	746
		1	HEATER & MTG GP-CAB	749
FILTER ELEMENT-AIR (CAB HEATER)	211-2660	1	HEATER & AIR CONDITIONER GP	740
		1	HEATER GP-CAB	753
FILTER ELEMENT-AIR (CAB HEATER, AIR CONDITIONER)	211-2660	1	HEATER & AIR CONDITIONER GP	738
		1	HEATER GP-CAB	751
LAMP (12-VOLT)	210-8754	1	LINER GP-CAB	768

MAINTENANCE PARTS

DESCRIPTION	PART NUMBER	QTY	WHERE USED	PAGE
POWER TRAIN				
BREATHER (AXLE, FRONT)	253-5024	1	AXLE GP-DRIVE & STEERING	268
BREATHER (AXLE, REAR)	197-9155	1	AXLE GP-REAR	270
BREATHER (TRANSMISSION)	7T-3251	1	TRANSMISSION GP-DIRECT DRIVE	319
		1	TRANSMISSION GP-POWER SHIFT	323
BREATHER AS (TRANSMISSION)	293-2147	1	TRANSMISSION GP-DIRECT DRIVE	318
FILTER-OIL (STANDARD EFFICIENCY) (POWER TRAIN)	119-4740	1	POWER TRAIN AR	299
		1	POWER TRAIN AR	300
PLUG AS-DRAIN	6Y-1896	1	TRANSMISSION GP-DIRECT DRIVE	319
PLUG AS-DRAIN (MAGNETIC) (AXLE, FRONT)	152-6144	4	AXLE GP-DRIVE & STEERING	268
		1	DIFFERENTIAL & BEVEL GEAR GP	277
PLUG AS-DRAIN (MAGNETIC) (AXLE, REAR)	152-6144	4	AXLE GP-REAR	270
PLUG AS-DRAIN (TRANSMISSION)	6Y-1896	1	TRANSMISSION GP-POWER SHIFT	323
STRAINER-SUCTION (TRANSMISSION)	7T-2651	1	CASE AS-TRANSMISSION	273
		1	TRANSMISSION GP-POWER SHIFT	323
SERVICE EQUIPMENT AND SUPPLIES				
FILTER AS-ENGINE OIL	7W-2326	1	SERVICE GP-FILTER	824
FILTER AS-WATER SEP & FUEL	228-9130	1	SERVICE GP-FILTER	824
FILTER-OIL (STANDARD EFFICIENCY) (HYDRAULIC)	119-4740	1	SERVICE GP-FILTER	824
FILTER-OIL (ULTRA HIGH EFFICIENCY) (HYDRAULIC)	126-1817	1	SERVICE GP-FILTER	824

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