



Parts Manual

236D Skid Steer Loader

MPW1-Up (Machine)
SEN1-Up (Machine)

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: _____

	<u>Dealer Contact</u>	<u>Phone Number</u>	<u>Hours</u>
Sales:	_____	_____	_____
Parts:	_____	_____	_____
Service:	_____	_____	_____

MEMORANDA

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GENERAL INFORMATION

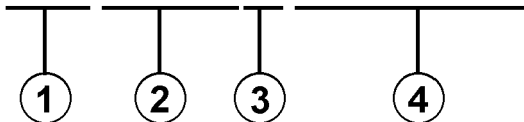
1. MACHINE IDENTIFICATION

Cat 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.

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

Effective First Quarter 2001 the Cat 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 Cat 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 Cat replacement parts are available from Cat dealers throughout the world. Their parts inventories are up to date and include all parts normally required to protect your investment in Cat 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

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.

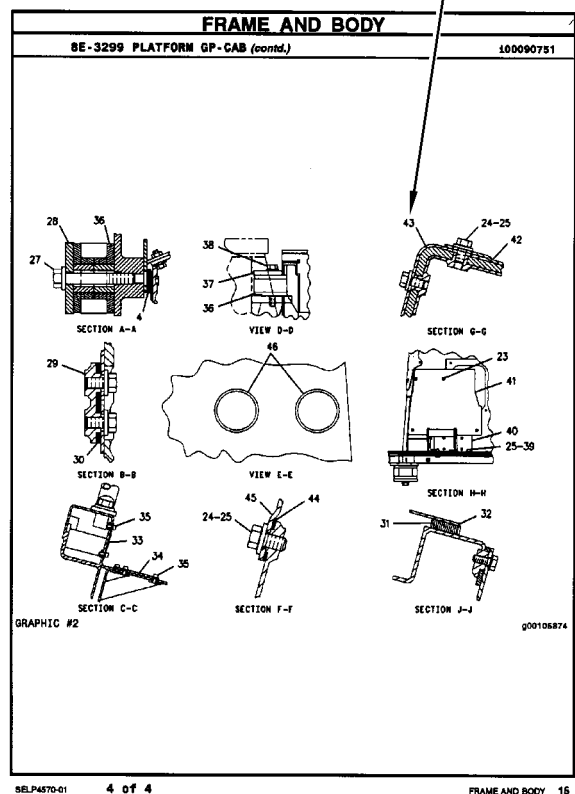
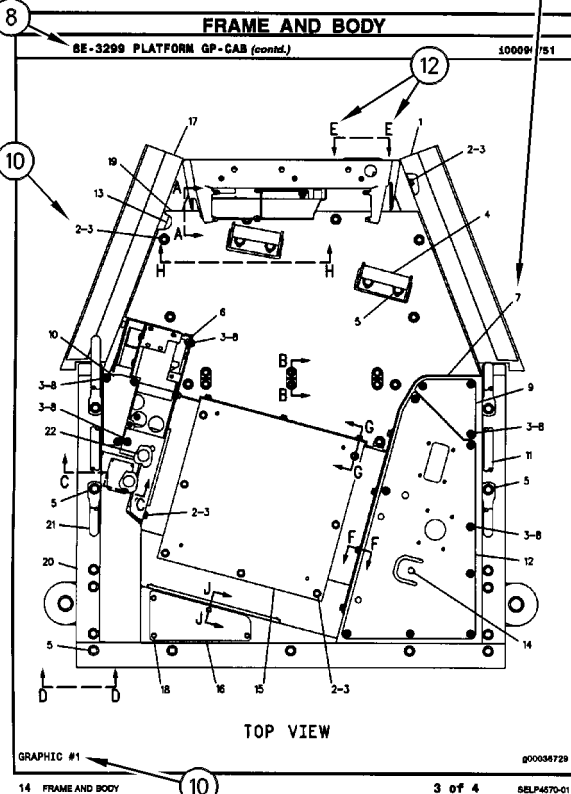
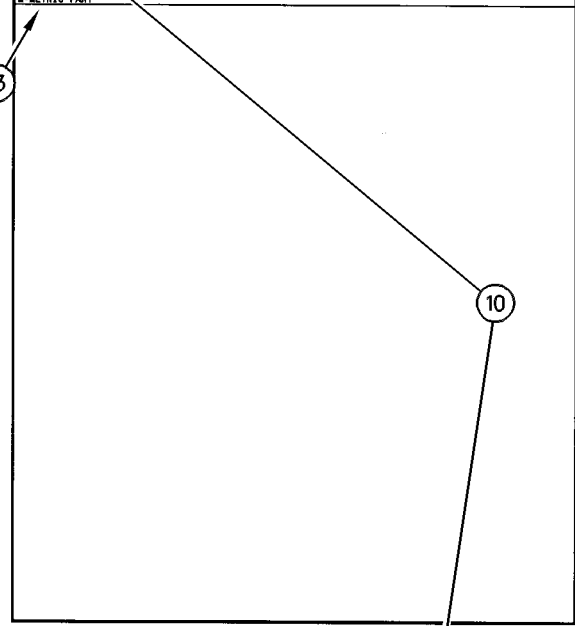
NOTE:

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 Cat product or this publication, please consult your Cat dealer for the latest available information.

GENERAL INFORMATION

FRAME AND BODY						
8E-3299 PLATFORM GP-CAB						
P/N 38K1-00000						
ITEM NO.	REF ID	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
1			3T-3963	1	PLATE AS	
2			8E-3092	25	BOLT (3/8-18X.750IN)	
3			8E-1076	41	WASHER-HAND (3MM THK)	
4			8E-1044	2	SUPPORT BR-FOOT	
5			8E-2229	19	BOLT (1/2-13X1IN)	
6			8E-1136	1	WASHER-HAND (4MM THK)	
7			8E-8136	1	COVER AS-LH	
8			8E-8136	1	NUT-WELD (3/8-16 THD)	
9			1P-8189	1	CLIP	
10			7E-2411	4	COVER	
11			8E-3092	18	SCREW-HEAD (3/8-18X.875IN)	
12			8E-3092	1	COVER	
13			8E-8912	1	GASKET	
14			8E-3249	1	COVER	
15			8E-3249	1	COVER	
16			8E-3249	1	COVER	
17			8E-3249	1	COVER	
18			8E-3249	1	COVER	
19			8E-3249	1	COVER	
20			8E-3249	1	COVER	
21			8E-3249	1	COVER	
22			8E-3249	1	COVER	
23			8E-3249	1	COVER	
24			8E-3249	1	COVER	
25			8E-3249	1	COVER	
26			8E-3249	1	COVER	
27			8E-3249	1	COVER	
28			8E-3249	1	COVER	
29			8E-3249	1	COVER	
30			8E-3249	1	COVER	
31			8E-3249	1	COVER	
32			8E-3249	1	COVER	
33			8E-3249	1	COVER	
34			8E-3249	1	COVER	
35			8E-3249	1	COVER	
36			8E-3249	1	COVER	
37			8E-3249	1	COVER	
38			8E-3249	1	COVER	
39			8E-3249	1	COVER	
40			8E-3249	1	COVER	

FRAME AND BODY						
8E-3299 PLATFORM GP-CAB (contd.)						
100090751						
NOTE	REF ID	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
	41		8E-2515	1	COVER	
	42		7T-0134	1	PLATE	
	43		7T-0138	1	GASKET	
	44		7E-8724	1	GASKET	
	45		7E-8723	1	COVER	
	46		8V-1250	2	PLUG-BUTTON	



REPAIR ALTERNATIVES

REMANUFACTURED COMPONENTS

As an option when making repairs consider Cat Remanufactured Components. Components that are available through the Cat 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

Cat 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 Cat 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				
CAP AS-VENTED (COOLANT RECOVERY)	229-3469	1	LINES GP-COOLING	54
FILTER ELEMENT AS-AIR (PRIMARY)	110-6326	1	AIR CLEANER GP	47
FILTER ELEMENT AS-AIR (SECONDARY)	110-6331	1	AIR CLEANER GP	47
		1	AIR CLEANER GP	48
BASIC ENGINE				
ELEMENT (BREATHING)	388-7488	4	COVER GP-VALVE MECHANISM	10
		4	COVER GP-VALVE MECHANISM	12
V-BELT (FAN DRIVE PULLEY)	437-2564	1	PULLEY GP	33
COOLING SYSTEM				
CAP AS-RADIATOR	036-1865	1	RADIATOR & HYD OIL COOLER GP	44
REGULATOR AS	389-5308	1	LINES GP-WATER	42
REGULATOR AS (WATER TEMPERATURE)	389-5308	1	LINES GP-WATER	41
ELECTRICAL AND STARTING SYSTEM				
BATTERY (12-VOLT, 880-CCA)	230-6368	1	BATTERY & WIRING GP	87
BELT-DRIVE (WARNING BEACON)	9X-8139	1	LAMP GP-WARNING BEACON	122
CIRCUIT BREAKER AS	373-1592	1	HARNESS AS-QUICK COUPLER	106
FLASHER AS (12-VOLT) (STOP LIGHT)	242-9000	1	LAMP GP-ROADING	119
		1	LIGHTING GP-ROADING	124
FUSE (10-AMPERE)	113-8490	6	HARNESS AS-CAB	95
	3K-8782	1	HARNESS AS-CHASSIS	98
FUSE (100-AMPERE)	378-1012	1	WIRING GP-PLATFORM	142
FUSE (15-AMPERE)	113-8491	10	HARNESS AS-CAB	95
	9W-1441	1	HARNESS AS-CAB	95
FUSE (20-AMPERE)	113-8492	4	HARNESS AS-CAB	95
	267-2680	2	COVER GP-FUSE PANEL	91
		1	RELAY GP	127
		1	RELAY GP	128
FUSE (30-AMPERE)	274-9872	1	RELAY GP	128
FUSE (50-AMPERE)	396-8366	1	WIRING GP-PLATFORM	142
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