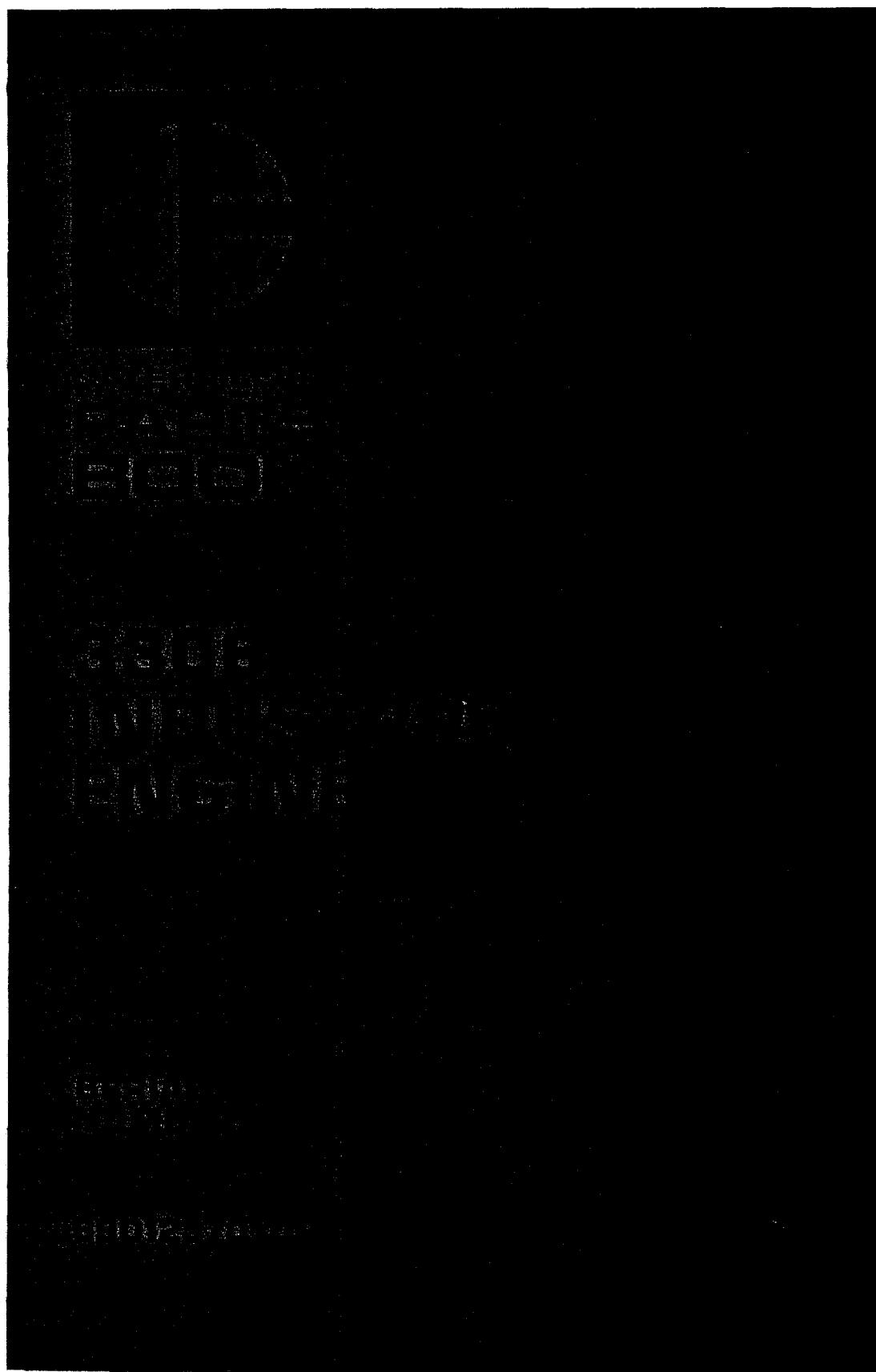




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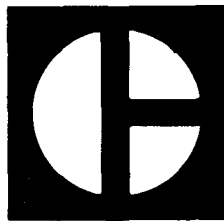
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PARTS BOOK

3306

INDUSTRIAL ENGINE

SERIAL NUMBER
66D12370-UP

REVISION PUBLISHED APRIL 1976
CATERPILLAR TRACTOR CO.
PUBLICATIONS DIV.—SERVICE G.O.
PEORIA, ILL. U.S.A.
COMPILED BY BETTY J. SCHMIDGALL

QUICK REFERENCE GUIDE TO MAJOR SECTIONS

BASIC ENGINE
LUBRICATION SYSTEM
COOLING SYSTEM
INTAKE & EXHAUST SYSTEM
FUEL SYSTEM & GOVERNOR
STARTING & ELECTRICAL SYSTEM
GAUGES & ACCESSORIES
GENERATORS
SERVICE EQUIPMENT & SUPPLIES

ORDERING PARTS

Quality Caterpillar Replacement parts are available from Caterpillar dealers throughout the world. Their parts stocks are up to date and include all parts normally required to protect your investment in Caterpillar machines.

When ordering parts, always use the Parts Book covering the serial number of your machine.

Your order should specify the quantity, part number, part name and show the machine serial number for which the parts are needed. If in doubt about the part number, please provide your dealer with a complete description of the needed item.

ENGINE MODEL	
SERIAL NUMBER	
○ GIVE ALL NUMBERS IN ALL COMMUNICATIONS	
ARRANGEMENT NUMBER	
MODIFICATION NUMBER	
302	

Serial Number Plate is Located on L.H. side of cylinder block

HOW TO USE THE CATERPILLAR PARTS BOOK

The Caterpillar Parts Books include illustrations of the groups or assemblies which make up the machine. These illustrations show the standard components of the machine plus many of the attachments available for the machine.

The alphabetical index located in the front part of the book should be used to determine the page number on which specific illustrations are shown. Reference to those pages will identify each of the individual serviceable parts.

Captions

The caption under each illustration identifies the part number and name of the group or assembly shown. If more than one illustration is included for any group, the caption identifies the specific machine serial numbers to which each illustration applies. In some cases it is not possible to determine the specific machine serial numbers to which different illustrations are applicable. In those cases the caption identifies the illustration as "First Type", "Second Type", etc. Reference to the actual group or assembly is necessary in those cases to determine which illustration should be used.

Captions provide additional information such as page numbers where illustrations of sub assemblies are shown, information regarding quantities used and other information intended to assist the user in determining parts needs.

Indented Part Names

Within each illustration is a parts list identifying each serviceable part in the illustration. When a part name is indented in this list means that serviceable item is a part of serviceable item under which it is indented.

Abbreviations and Symbols

- ▲ Used to call attention to additional information shown elsewhere within the illustration.
-
- R.H. Right Hand Refers to the side of the machine as viewed from the operator's compartment.
- L.H. Left Hand
- C Indicates changes from the previous illustration of the same group or assembly.
- O.D. Outside Diameter
- I.D. Inside Diameter
- N/S Not Serviced
- Assem. Assembly
- in. Inch
- ft Foot
- cm Centimeter
- dm Decimeter

Note:

Continuing improvement and advancement of product design may cause changes to your machine which may not be included in this publication. Each publication is reviewed and revised, as required, to update and include these changes in later editions.

Whenever a question arises regarding your Caterpillar product, or this publication, please consult your Caterpillar dealer for the latest available information.

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Kielkühlerleitungen	
Krümmerverkleidung	
Kühlernetz	
Kühlwasserheizung und Anbau	...
Lenzpumpe	.....
Lüfteranschluß	.....
Lüfterantrieb	.....
Lüfterriemenscheibe	.....
Montagezapfen	.....
Nebenstromleitungen	.....
Ölkühler	.....
Riemenspanner	.....
Sauglüfter	.....
Wandlerölkühler	.....
Wärmeaustauscher	
Wasserleitungen	
Wasserleitungsknie	
Wasserpumpe	
Zusatzpumpe	

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1	2P6516 Valve Mechanism Cover Group	34
1	1P3840 Engine Lifting Group	35
1	2P6498 Fastener Group	37
1	9L5765 Trunnion Group	86
1	2N8485 Engine Support Group	39
1	3N6939 Flywheel Housing Group	44
1	2P6574 Exhaust Manifold Group	92
1	4N9586 Manifold Fastener Group	92
1	3N6972 Air Lines Group	107
1	3N6970 Turbocharger Group	101
1	6N1305 Turbocharger Oil Lines Group	105
1	4N8165 Crankshaft Hub Group	28
1	3N6934 Pulley Group	82
1	6N1306 Fuel Injection Lines Group	135

CANCELLATION TO BASIC ENGINE ARRANGEMENT

Cylinder Head Fastener Group
 Valve Mechanism Cover Group
 Engine Lifting Group
 Front Housing Fastener Group
 Seal Adapter Group
 Pulley Group
 Engine Support Group
 Flywheel Housing Group
 Exhaust Manifold Group
 Turbocharger Group
 Turbocharger Oil Lines Group
 Air Lines Group
 Fuel Injection Lines Group

6N1309 ENGINE PROCUREMENT ARRANGEMENT—Mobile
 NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT NUMBER
 AND SERIAL NUMBER

		Consists of:	Page
1	4N4209	Engine Arrangement	18
1	2P6256	Block Cover	22
1	2P6546	Cylinder Head Fastener Group	32
1	2P6516	Valve Mechanism Cover Group	34
		Serial No. 66D12370 to 66D14669 inclusive	
1	1P3840	Engine Lifting Group	35
1	2P6498	Front Housing Fastener Group	37
1	9L5765	Trunnion Group	86
1	3N7399	Pulley Group	26
1	4N8165	Hub Group	28
1	2N8485	Engine Support Group	39
1	3N7397	Fan Drive Group	78
1	3N3276	Flywheel Housing Group	42
1	9L4380	Flywheel Group	40
1	3N8083	Fan Pulley Group	83
1	3N8094	Engine Oil Lines Group	50
1	3N6970	Turbocharger Group	101
		Serial No. 66D12370 to 66D14669 inclusive	
	-or-		
1	8S8200	Turbocharger Group	100A
		Serial No. 66D14670-Up	
1	2P7316	Turbocharger Oil Lines Group	106
		Serial No. 66D12370 to 66D12873 inclusive	
	-or-		
1	6N1305	Turbocharger Oil Lines Group	105
		Serial No. 66D12874-Up	
1	3N8093	Air Lines Group	106
1	2P6574	Exhaust Manifold Group	92
1	2P6534	Manifold Fastener Group	92
		Serial No. 66D12370 to 66D12701 inclusive	
	-or-		
1	4N9586	Manifold Fastener Group	92B
		Serial No. 66D12702-Up	
	3N7743	Electric Starting Motor Group	150
		Serial No. 66D12370 to 66D14669 inclusive	
	-or-		
	2N9305	Electric Starting Motor Group	151
		Serial No. 66D14670-Up	
	9L4243	Glow Plug Group	168
	3N8805	Solenoid Shut-Off Group	210
	6N1306	Fuel Injection Lines Group	135

3N8100 ENGINE PROCUREMENT ARRANGEMENT—Part 1

Serial No. 66D12370 to 66D16502 inclusive

NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT NUMBER

		Consists of:	Page
1	5L7660	Elbow Group Serial No. 66D13786 to 66D14663 inclusive	94A
	-or-		
1	5L7661	Elbow Group Serial No. 66D14664-Up	94
1	3N5870	Adapter Group Serial No. 66D13786-Up	96
1	6N228	Plate Serial No. 66D13786-Up	
1	4N4751	Tachometer Drive Group Serial No. 66D14352-Up	214

CANCELLATIONS TO 4N4209 ENGINE ARRANGEMENT

Block Cover Group
 Cylinder Head Fastener Group
 Engine Lifting Group
 Front Housing Fastener Group
 Pulley Group
 Engine Support Group
 Seal Adapter Group
 Flywheel Housing Group
 Flywheel Group
 Engine Oil Lines Group
 Turbocharger Group
 Turbocharger Oil Lines Group
 Air Lines Group
 Exhaust Manifold Group
 Dummy Glow Plug Group

3N8100 ENGINE PROCUREMENT ARRANGEMENT—Part 2

Serial No. 66D12370 to 66D16502 inclusive

NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT NUMBER

		Consists of:	Page
1	4N4209	Basic Engine Arrangement	18
1	2P6256	Cylinder Block Cover Group	22
1	2P6546	Cylinder Head Fastener Group	32
1	1P3840	Lifting Eye Group	35
1	2P6498	Front Housing Fastener Group	37
1	9L5765	Trunnion Group	86
1	3N7399	Pulley Group	26
1	4N8165	Hub Group	28
1	2N8485	Engine Support Group	39
1	3N7397	Fan Drive Group	78
1	3N8083	Fan Pulley Group	83
1	3N8094	Engine Oil Lines Group	50
1	6N3477	Turbocharger Group	100B
1	2P6574	Exhaust Manifold Group	92
3	6N981	Glow Plug Group	169
6	9N1291	Connecting Rod & Piston Group	28
1	6N3496	Fuel Lines Group	134A
1	4N8267	Aftercooler Group	74A
1	9N1245	Water Lines Group—Elbow	54A
1	9N1246	Water Lines Group	54A
1	6N983	Glow Plug Mounting Group	170A
1	6N3322	Air Lines Group	106A
1	9L6675	Front Timing Gear Group	38A
1	4N9586	Manifold Fastener Group	92B
1	5L7661	Exhaust Elbow Group	94
1	6N1305	Turbocharger Oil Lines Group	105
1	6N5233	Flywheel Housing Group	42-1
1	9N2382	Cylinder Head Group	30A
1	9N1292	Governor & Fuel Injection Pump Group	118-1
1	9L4380	Flywheel Group	40
1	4N1402	Tachometer Drive Group	215
1	6N8492	Aftercooler Water Lines Group	54B
1	6N228	Plate—Caution and Information	

6N3323 ENGINE PROCUREMENT ARRANGEMENT

Serial No. 66D16503-Up

NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT NUMBER
AND SERIAL NUMBER

	Consists of:	Page
1	4N4209 Basic Engine Arrangement	18
1	4N8675 Cylinder Block Cover Group	22A
1	2P7308 Crankshaft Seal Group	24A
1	2P6546 Cylinder Head Fastener Group	32
1	1P3840 Engine Lifting Group	35
1	2P6498 Fastener Group	37
1	9L5765 Trunnion Group	86
1	3N6934 Pulley Group	82
1	4N8165 Crankshaft Hub Group	28
1	2N8485 Engine Support Group	39
1	2P6131 Flywheel Housing Group	42B
1	7S5471 Flywheel Group	42A
1	2P8162 Rear Gear Group	38A
1	2P661 Water Pump Group	65
1	3N6099 Transmission Oil Cooler Group	53
1	8S8200 Turbocharger Group	100A
1	6N1305 Turbocharger Oil Lines Group	105
1	3N6972 Air Lines Group	107
1	2P6574 Exhaust Manifold Group	92
1	4N9586 Manifold Fastener Group	92
1	6N1306 Fuel Injection Lines Group	135
1	7S3622 Electric Starting Motor Group	149
1	5S8501 Glow Plug Group	170A
1	9L5762 Air Compressor Group	221
1	2P7799 Air Compressor Lines Group	223
1	2P6529 Front Housing Cover Group	36A
	Serial No. 66D14709-Up	

6N5663 ENGINE PROCUREMENT ARRANGEMENT
 NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT NUMBER
 AND SERIAL NUMBER

CONSISTS OF:		PAGE
1	4N4209 BASIC ENGINE ARRANGEMENT.....	18
1	3N4923 FRONT HOUSING COVER GROUP.....	36
1	3N3274 PULLEY GROUP.....	26
1	3N3277 FUMES DISPOSAL GROUP.....	52
1	3N2850 WATER PUMP GROUP.....	64
1	3N2914 WATER LINES GROUP.....	55
1	3N3279 HOUSING AND REGULATOR GROUP.....	69
1	3N3273 EXHAUST MANIFOLD GROUP.....	91
1	4N4746 TURBOCHARGER GROUP.....	104
1	6N1113 FUEL INJECTION LINES GROUP.....	134
1	6N2828 GOVERNOR AND FUEL INJECTION PUMP GROUP...	118

CANCELLATIONS TO 4N4209 ENGINE ARRANGEMENT

COVER GROUP
 PULLEY GROUP
 FUMES DISPOSAL GROUP
 WATER PUMP GROUP
 WATER LINES GROUP
 HOUSING AND REGULATOR GROUP
 EXHAUST MANIFOLD GROUP
 TURBOCHARGER GROUP
 FUEL INJECTION LINES GROUP
 FUEL INJECTION PUMP GROUP

6N1108 ENGINE PROCUREMENT ARRANGEMENT—Marine Auxiliary 1500 R.P.M.
 Serial No. 66D12370 to 66D13206 and 66D13208 to 66D13342 inclusive
 NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT NUMBER AND SERIAL NUMBER

Consists of:			Page
1	4N4209	Basic Engine Arrangement	18
1	4N4746	Turbocharger Group	104
1	6N2828	Governor & Fuel Injection Pump Group	118
1	5M6213	Plug—Air Transfer Pipe	
Cancellations to 4N4209 Engine Arrangement			
Turbocharger			
Pump Group—Governor and Fuel Injection			

6N1108 ENGINE PROCUREMENT ARRANGEMENT—Marine Auxiliary
1500 R.P.M.

Serial No. 66D13207 and 66D13343—Up

NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT NUMBER AND SERIAL NUMBE

CONSISTS OF:		PAGE
1	4N4209 BASIC ENGINE ARRANGEMENT.....	18
1	3N4923 FRONT HOUSING COVER GROUP.....	36
1	3N3274 PULLEY GROUP.....	26
1	3N3277 FUMES DISPOSAL GROUP.....	52
1	3N2850 WATER PUMP GROUP.....	64
1	3N3914 WATER LINES GROUP.....	55
1	3N3279 HOUSING AND REGULATOR GROUP.....	69
1	3N3273 EXHAUST MANIFOLD GROUP.....	91
1	3N3280 TURBOCHARGER GROUP.....	103
1	6N1113 FUEL INJECTION LINES GROUP.....	134
1	6N2829 GOVERNOR AND FUEL INJECTION PUMP GROUP....	117

CANCELLATIONS TO 4N4209 ENGINE ARRANGEMENT

COVER GROUP
 PULLEY GROUP
 FUMES DISPOSAL GROUP
 WATER PUMP GROUP
 WATER LINES GROUP
 HOUSING AND REGULATOR GROUP
 EXHAUST MANIFOLD GROUP
 TURBOCHARGER GROUP
 FUEL INJECTION LINES GROUP
 FUEL INJECTION PUMP AND GOVERNOR GROUP

6N1109 ENGINE PROCUREMENT ARRANGEMENT—Marine Auxiliary
1800 R.P.M.

NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT
NUMBER AND SERIAL NUMBER

		Consists of:	Page
1	4N4209	Basic Engine Arrangement	18
6	9N1291	Piston & Rod Group	28
1	9L6675	Front Timing Gear Group	38A
1	9N1246	Water Lines Group	54A
1	9N1245	Elbow Water Lines Group	54A
1	6N3745	Aftercooler Group	74B
1	6N3744	Turbocharger Group	100B
1	6N3746	Air Lines Group	106A
1	6N3688	Governor & Fuel Injection Pump Group	116A
1	6N3747	Fuel Injection Lines Group	134D
1	2P6546	Cylinder Head Fastener Group	32
1	1P3840	Engine Lifting Group	35
1	9N2382	Cylinder Head Group	30A
1	6N8492	Water Lines Group	54B

6N3743 ENGINE PROCUREMENT ARRANGEMENT—Turbocharged-Aftercooled
Serial No. 66D17936-Up

NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT NUMBER
AND SERIAL NUMBER

		Consists of:	Page
1	4N4209	Basic Engine Arrangement	18
1	9N1246	Water Lines Group	54A
1	9N1245	Water Elbow Lines Group	54A
1	6N3745	Aftercooler Group	74B
1	6N3744	Turbocharger Group	100B
1	6N3746	Air Lines Group	106A
1	6N314	Governor & Fuel Injection Pump Group	117
1	2P6546	Cylinder Head Fastener Group	32
1	1P3840	Engine Lifting Group	35
1	9N2382	Cylinder Head Group	30A
1	6N7526	Fuel Injection Lines Group	134B
1	6N8492	Water Aftercooler Lines Group	54B

6N5917 ENGINE PROCUREMENT ARRANGEMENT—Generator Set
1800 R.P.M.

Serial No. 66D18224-Up

NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT NUMBER
AND SERIAL NUMBER

CONSISTS OF:			PAGE
1	4N4209	BASIC ENGINE ARRANGEMENT.....	18
1	6N313	GOVERNOR AND FUEL INJECTION PUMP GROUP.....	118
1	4N4746	BASIC TURBOCHARGER GROUP.....	104
1	5M6213	PLUG--AIR TRANSFER PIPE	
CANCELLATIONS TO 4N4209 ENGINE ARRANGEMENT			
GOVERNOR AND FUEL INJECTION PUMP GROUP			

4N9961 ENGINE PROCUREMENT ARRANGEMENT—Generator Set
1500 R.P.M.

NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT
NUMBER AND SERIAL NUMBER

CONSISTS OF:			PAGE
1	4N4209	BASIC ENGINE ARRANGEMENT.....	18
1	6N314	GOVERNOR AND FUEL INJECTION PUMP GROUP.....	117
1	5M6213	PLUG--AIR TRANSFER PIPE	
CANCELLATIONS TO 4N4209 ENGINE ARRANGEMENT			
GOVERNOR AND FUEL INJECTION PUMP GROUP			

4N9962 ENGINE PROCUREMENT ARRANGEMENT—Generator Set

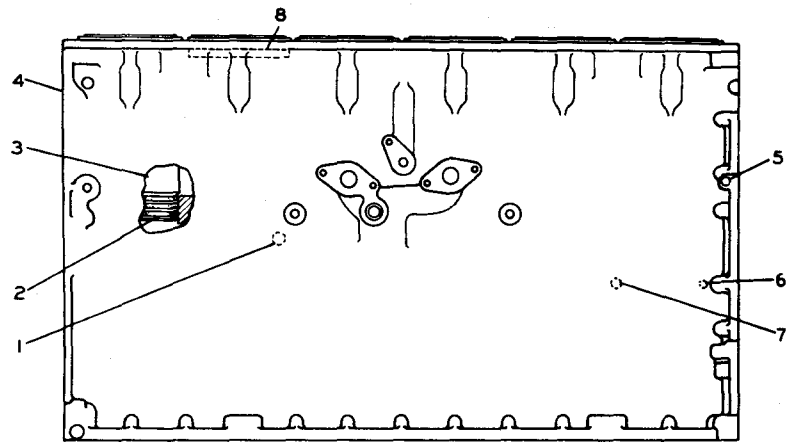
CONSISTS OF:			PAGE
<u>CENTRAL STRUCTURE</u>			
1	2P6560	CYLINDER BLOCK GROUP.....	20
1	2P6517	BLOCK COVERS GROUP.....	22
1	2P6222	CRANKSHAFT GROUP.....	23
1	2P6224	CRANKSHAFT SEAL GROUP.....	24
6	2P6272	CONNECTING ROD AND PISTON GROUP.....	29
1	2P6202	CAMSHAFT GROUP.....	29
<u>UPPER STRUCTURE</u>			
1	3N3916	CYLINDER HEAD GROUP.....	30
1	2P6530	CYLINDER HEAD COVER GROUP.....	31
1	2P6526	VALVE MECHANISM GROUP.....	33
1	3N2891	VALVE COVER GROUP.....	33
1	3N2890	ENGINE LIFTING GROUP.....	34
1	3N2892	FASTENER GROUP.....	32
<u>FRONT STRUCTURE</u>			
1	2P9641	FRONT HOUSING GROUP.....	35
1	2P6528	COVER GROUP.....	36
1	3N2887	FASTENER GROUP.....	37
1	2P9642	FRONT GEAR GROUP.....	38
1	3N2886	SEAL ADAPTER GROUP.....	24
1	3N2884	PULLEY GROUP.....	25
1	3N2885	DAMPER GROUP.....	38
1	3N2883	ENGINE SUPPORT GROUP.....	39
<u>REAR STRUCTURE</u>			
1	3N2879	FLYWHEEL HOUSING GROUP.....	43
1	8L5078	FLYWHEEL GROUP.....	41

4N4209 BASIC ENGINE ARRANGEMENT—Part 1
 NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT
 NUMBER AND SERIAL NUMBER

		Consists of:	Page
LOWER STRUCTURE			
1	3N2899	Oil Pan Group	44
1	3N2898	Oil Level Gauge Group	46
LUBRICATION SYSTEM			
1	2P1784	Engine Oil Pump Group	46
1	2P6105	Engine Oil Lines Group	49
1	2P6475	Oil Filter Group	48
1	2P6855	Oil Filler Group	47
1	1P4244	Breather Group	51
1	3N3392	Fumes Disposal Group	51
COOLING SYSTEM			
1	2P662	Water Pump Group	63
1	2P7730	Water Lines Group	54
1	3N3271	Housing and Regulator Group	68
1	2P7728	Water Lines Group	54
1	2P7738	Engine Oil Cooler Group	52
INTAKE AND EXHAUST SYSTEM			
1	3N2888	Exhaust Manifold Group	90
1	3N2882	Turbocharger Group	99
1	4N7122	Turbocharger Oil Lines Group	105
1	3N2880	Air Lines Group	108
FUEL SYSTEM			
1	1P2299	Fuel Filter Assembly	116
1	4N4314	Fuel Priming Pump Group	116
1	6N310	Governor and Fuel Injection Pump Group	119
1	4N7121	Fuel Injection Lines Group	133
ELECTRICAL SYSTEM			
3	3N3892	Dummy Glow Plug Group	168
MISCELLANEOUS			
1	4N4669	Paint and Lubricant Group	274
1	4N6656	Service Meter Group	201

4N4209 BASIC ENGINE ARRANGEMENT—Part 2

NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT NUMBER
AND SERIAL NUMBER



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	8M9307	PLUG-----	1
	6F7062	GASKET-----	1
2	5S6670	SEAL-----	18
3	2P8889	LINER-----	6

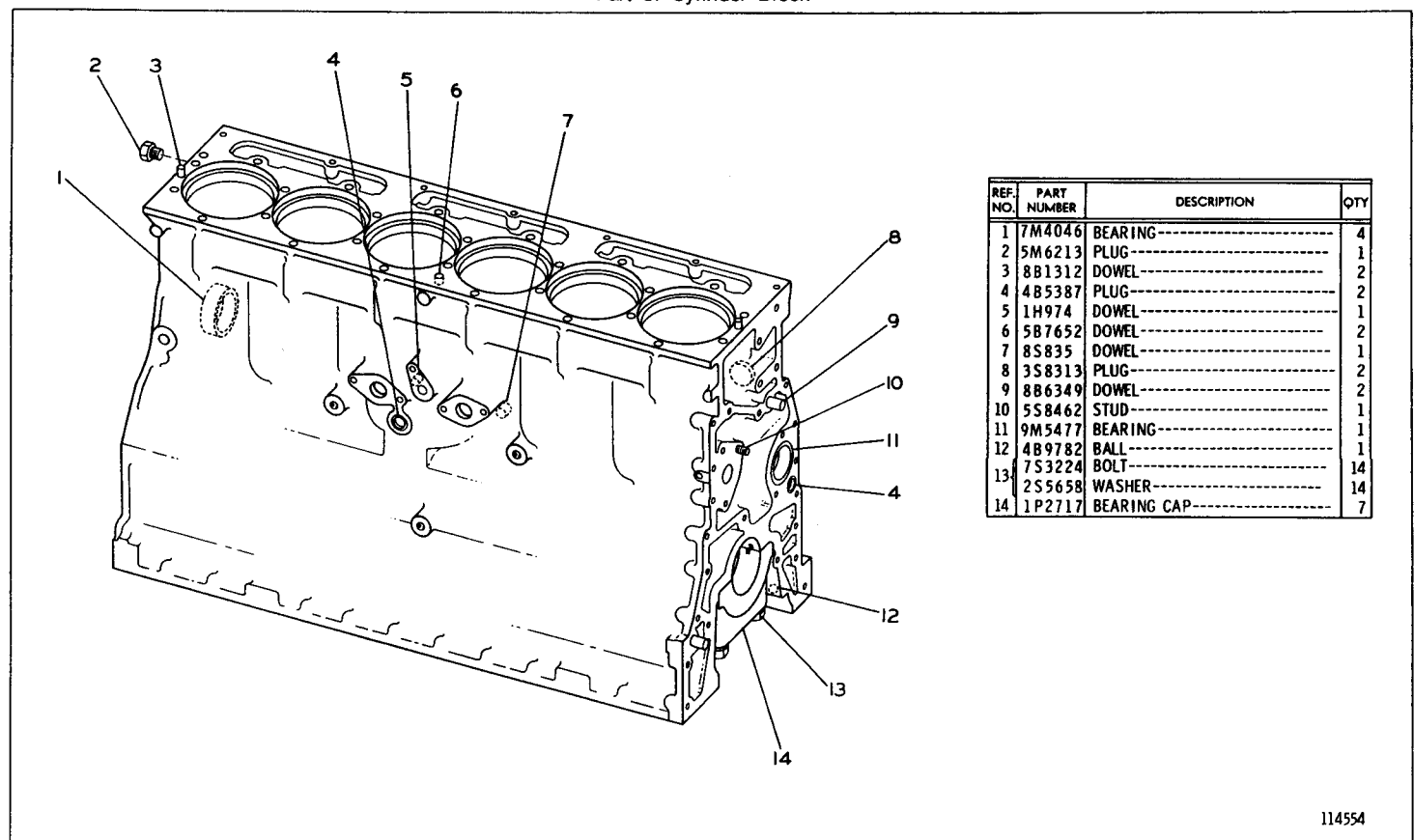
4	2P8776	BLOCK ASSEM.-----	1
		(Separate Illustration)	
5	5M6214	PLUG-----	1
6	7H3171	PLUG-----	1
7	5M6213	PLUG-----	4
8	9L5854	BAND-----	6

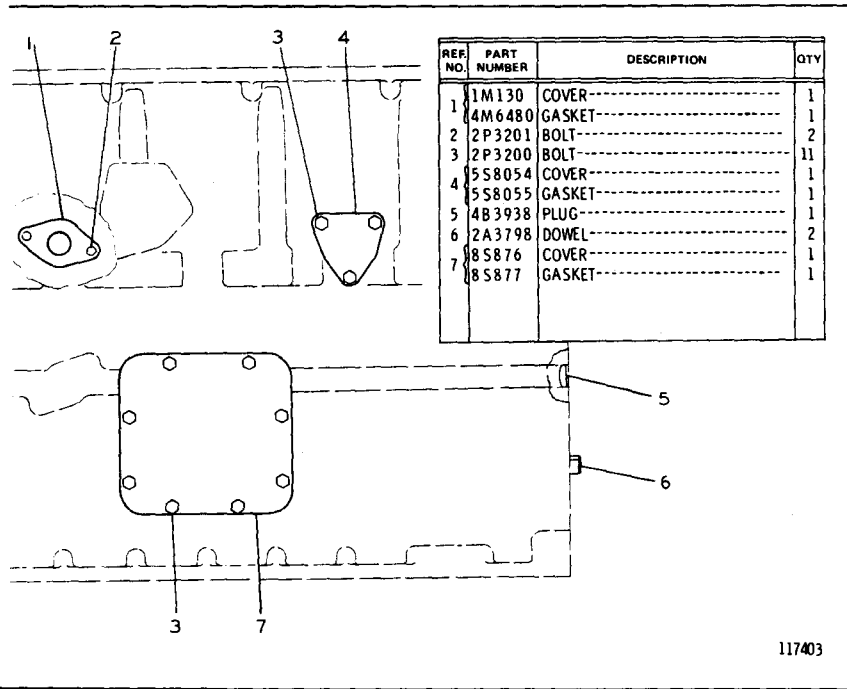
C INDICATES CHANGE

206006

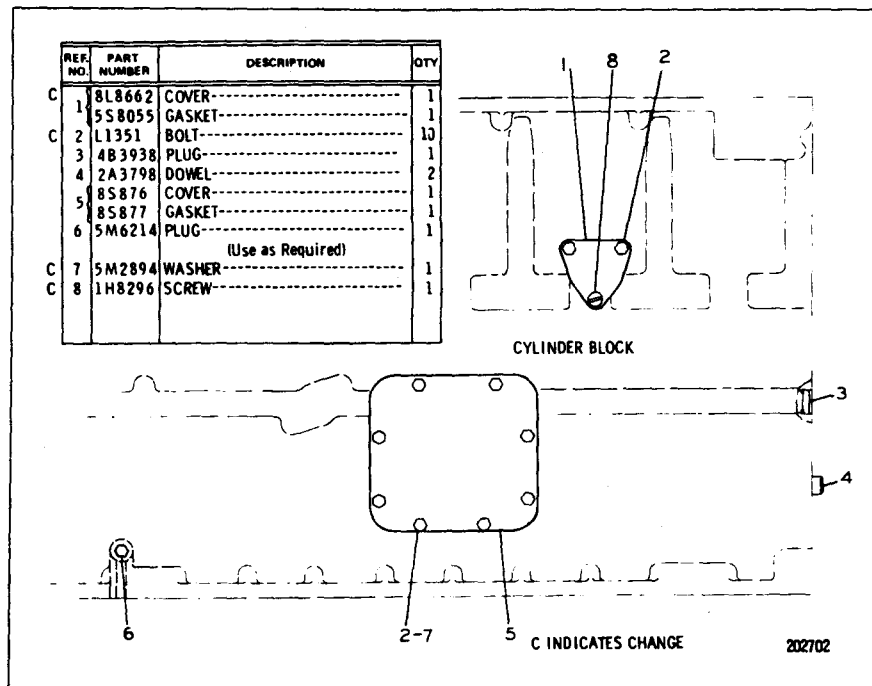
CYLINDER BLOCK (2P6560 N/S)
2P8776 Cylinder Block parts are shown on Page 21

2P8776 CYLINDER BLOCK ASSEMBLY
Part of Cylinder Block

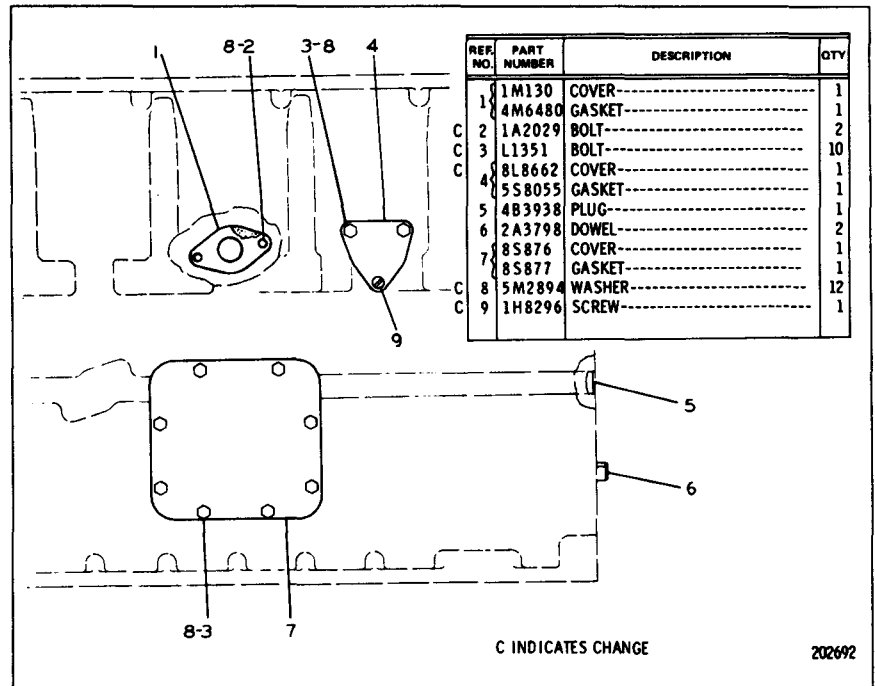




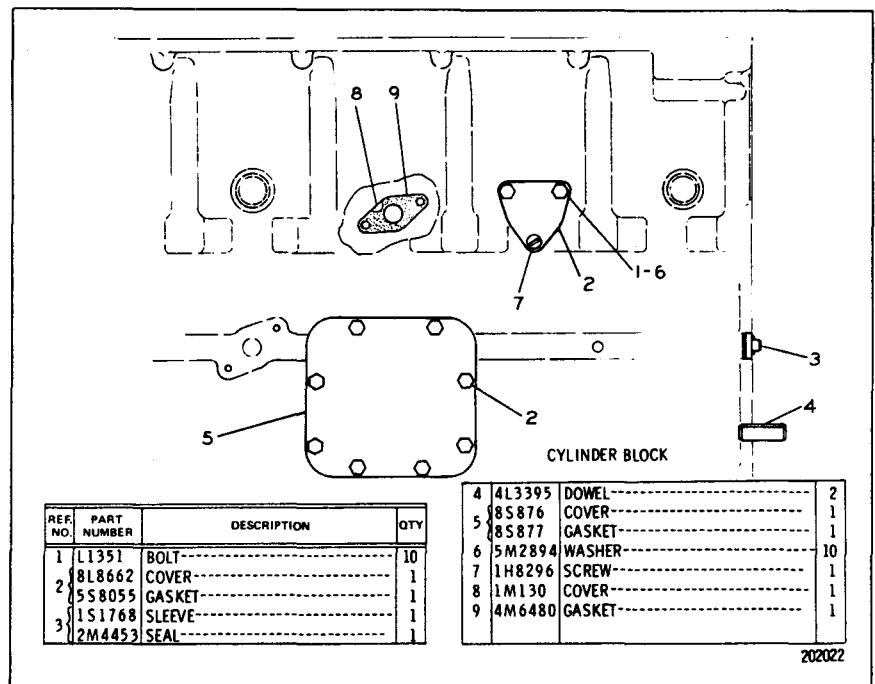
CYLINDER BLOCK COVER (2P6517 N/S)
Serial No. 66D12370 to 66D14410 inclusive

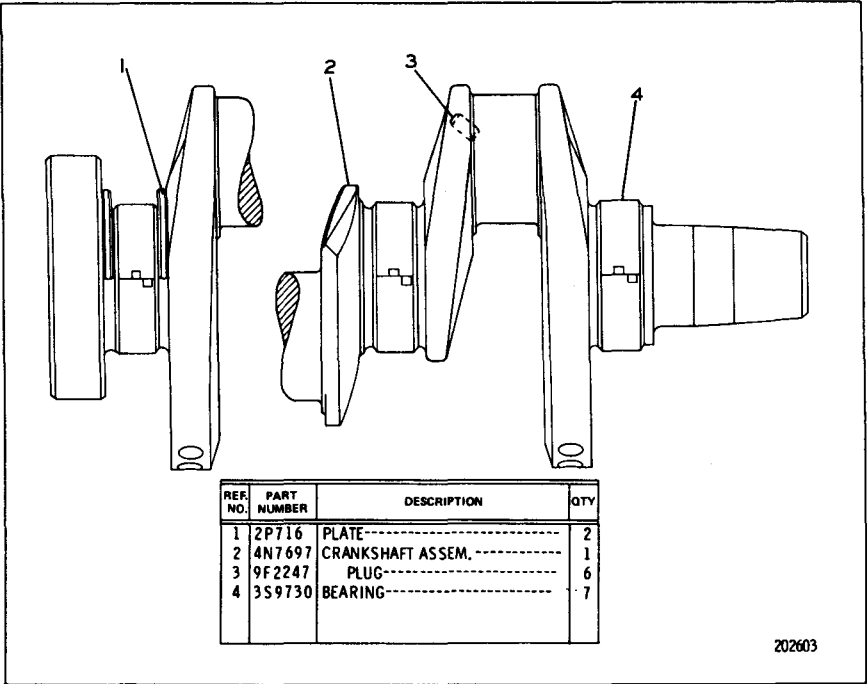


CYLINDER BLOCK COVER (2P6256 N/S)

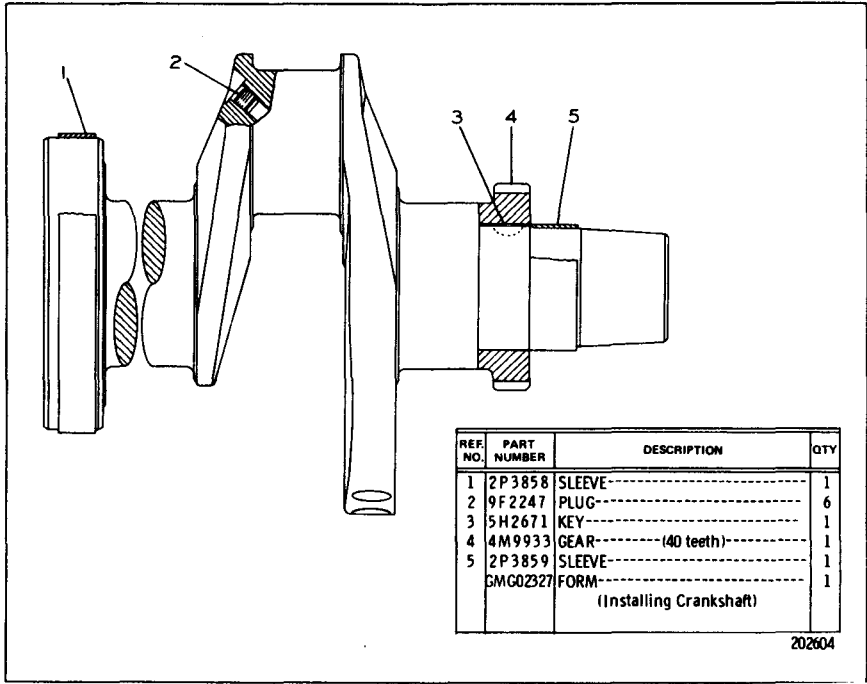


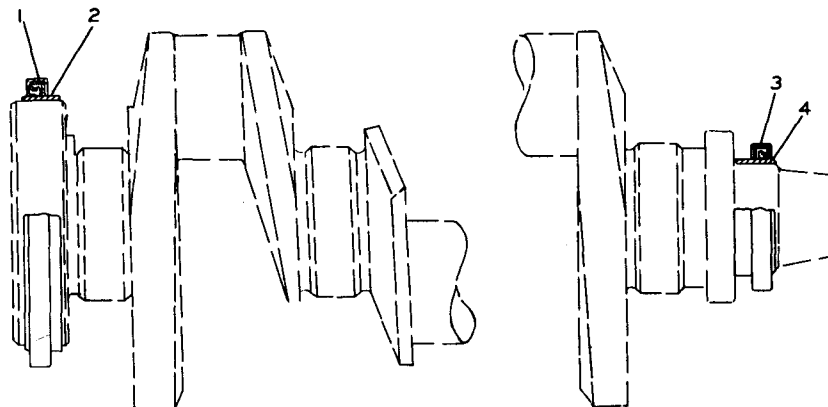
CYLINDER BLOCK COVER (2P6517 N/S)
Serial No. 66D14411—Up





CRANKSHAFT (2P6222 N/S)
For Field Replacement of 4N7697 Crankshaft Assembly order 4N7693

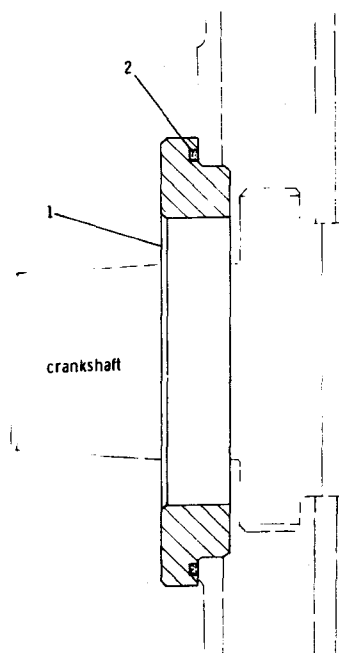




REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9S3111	SEAL-----	1
2	2P3858	SLEEVE-----	1
3	5S6296	SEAL-----	1
4	2P3859	SLEEVE-----	1

117254

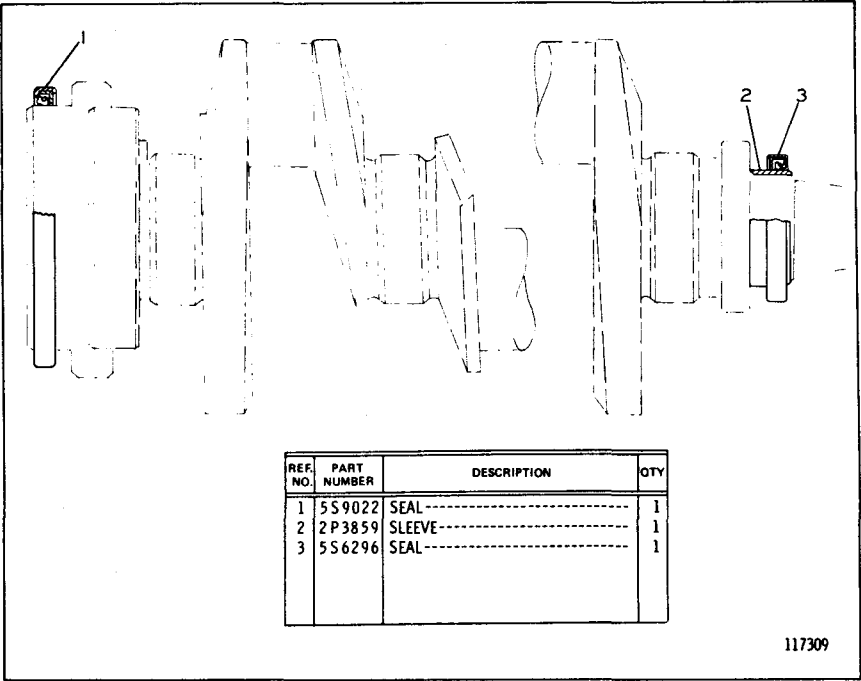
CRANKSHAFT SEAL (2P6224 N/S)



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	3N1463	ADAPTER-----	1
2	2P1692	SEAL-----	1

117722

SEAL ADAPTER (3N2886 N/S)



2P7308 CRANKSHAFT SEAL GROUP

BEARINGS FOR REBORED CYLINDER BLOCK

- 7 6N3822 Bearing—Main
 (.020 Oversize and .010 Undersize)
- 7 6N3823 Bearing—Main
 (.020 Oversize)

8S3982 FOR USE WITH STANDARD CRANKSHAFT

CONSISTS OF:
COMPLETE SET OF BEARING ASSEMBLIES
AS SHOWN WITH STANDARD CRANKSHAFT

8S3983 FOR USE WITH .010 UNDERSIZE CRANKSHAFT

CONSISTS OF:
7 4S8881 BEARING
2 2P716 PLATE

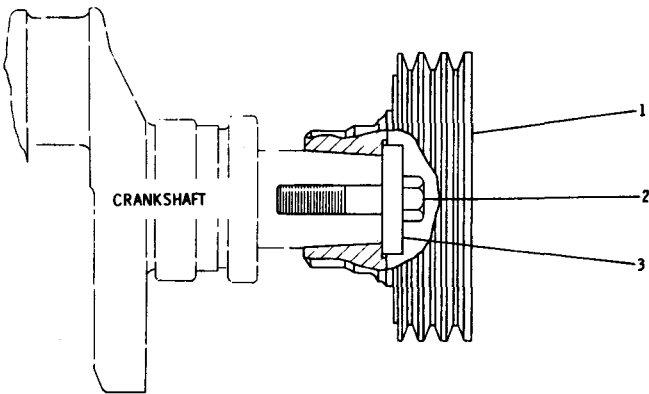
8S3984 FOR USE WITH .020 UNDERSIZE CRANKSHAFT

CONSISTS OF:
7 4S8883 BEARING
2 2P716 PLATE

8S3985 FOR USE WITH .030 UNDERSIZE CRANKSHAFT

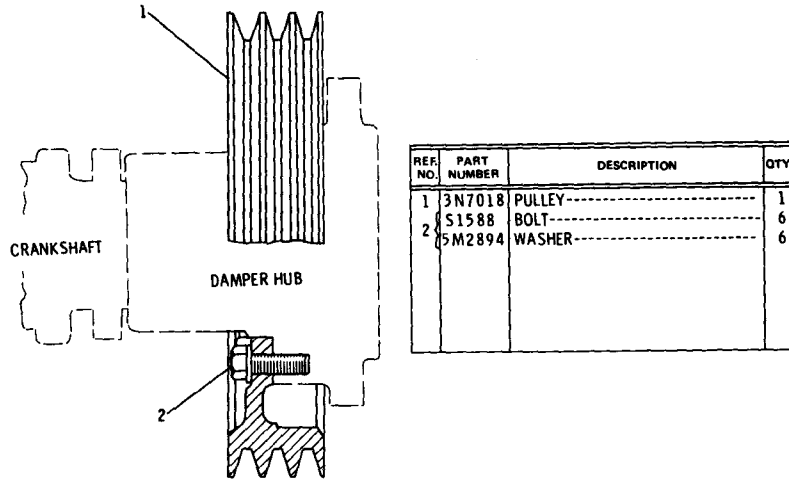
CONSISTS OF:
7 4S8885 BEARING
2 2P716 PLATE

CRANKSHAFT BEARING REPLACEMENT GROUPS



REF. NO.	PART NUMBER	DESCRIPTION	QTY
C 1	4N7092	PULLEY-----	1
2	685310	BOLT-----	1
3	5S9948	WASHER-----	1

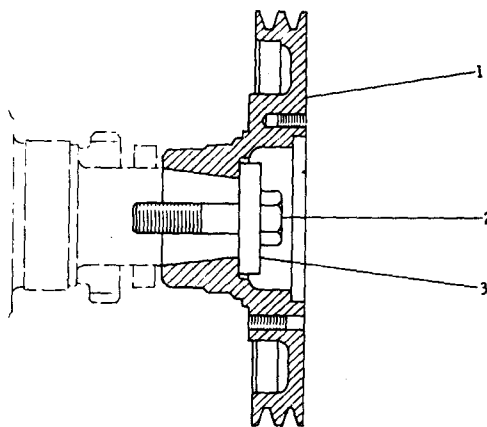
C INDICATES CHANGE



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	3N7018	PULLEY-----	1
2	S1588	BOLT-----	6
3	5M2894	WASHER-----	6

202629

3N7399 CRANKSHAFT PULLEY GROUP
Refer to Chart shown on Page 77
AN ATTACHMENT

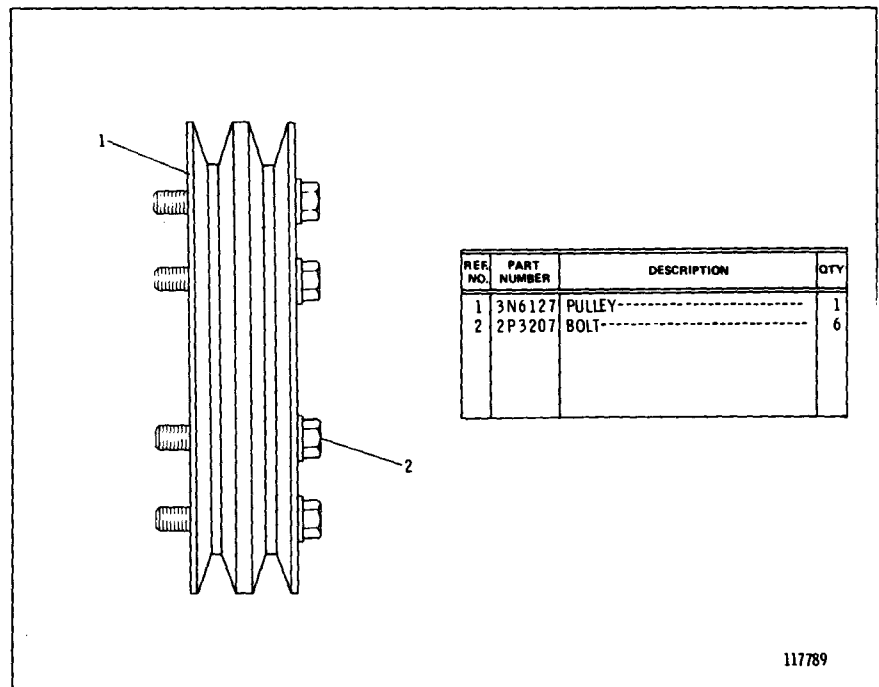


REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	4N7127	PULLEY-----	1
2	6B5310	BOLT-----	1
3	5S9948	WASHER-----	1

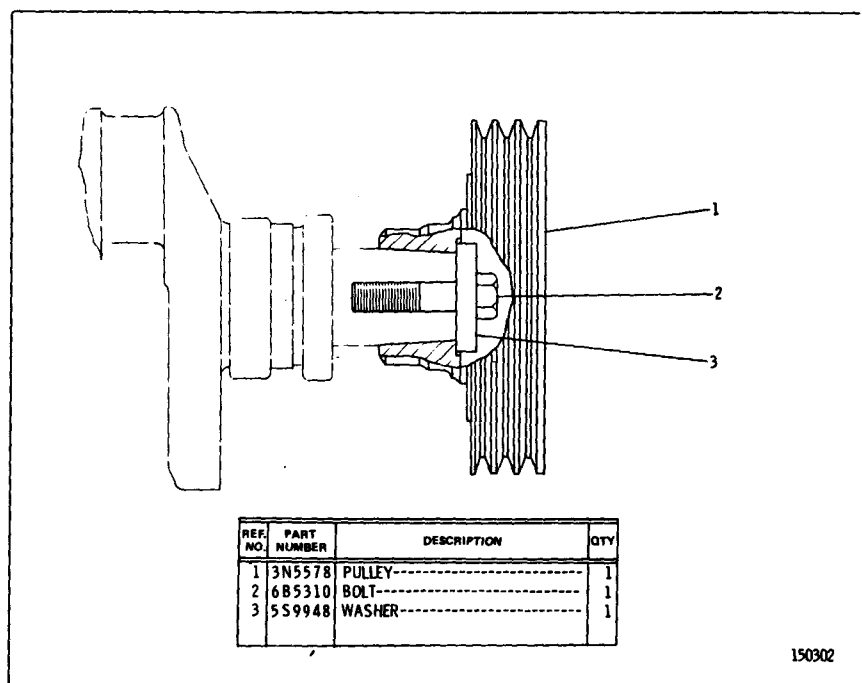
C INDICATES CHANGE

203231

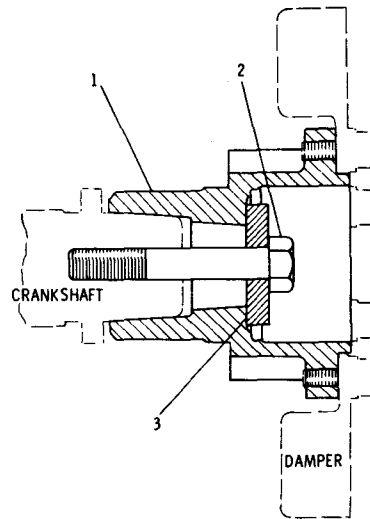
CRANKSHAFT PULLEY (3N3274 N/S)



CRANKSHAFT PULLEY (3N6128 N/S)
AN ATTACHMENT



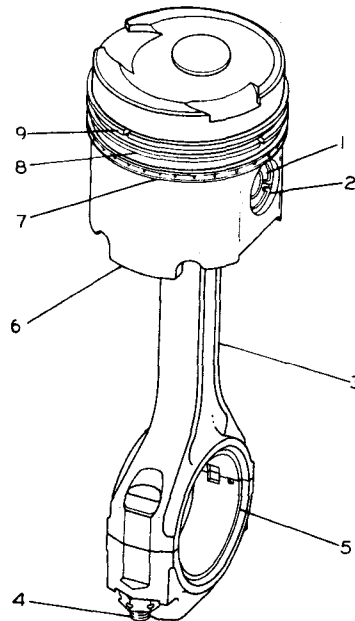
3N5518 CRANKSHAFT PULLEY GROUP



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	4N7442	HUB-----	1
2	7B5163	BOLT-----	1
3	5S9948	WASHER-----	1

202632

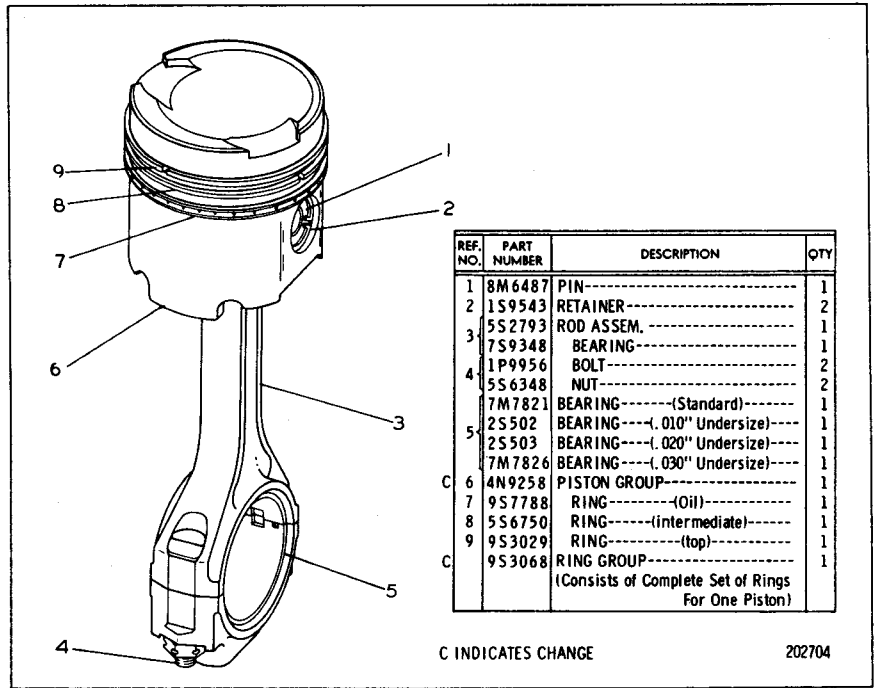
4N8165 CRANKSHAFT HUB GROUP



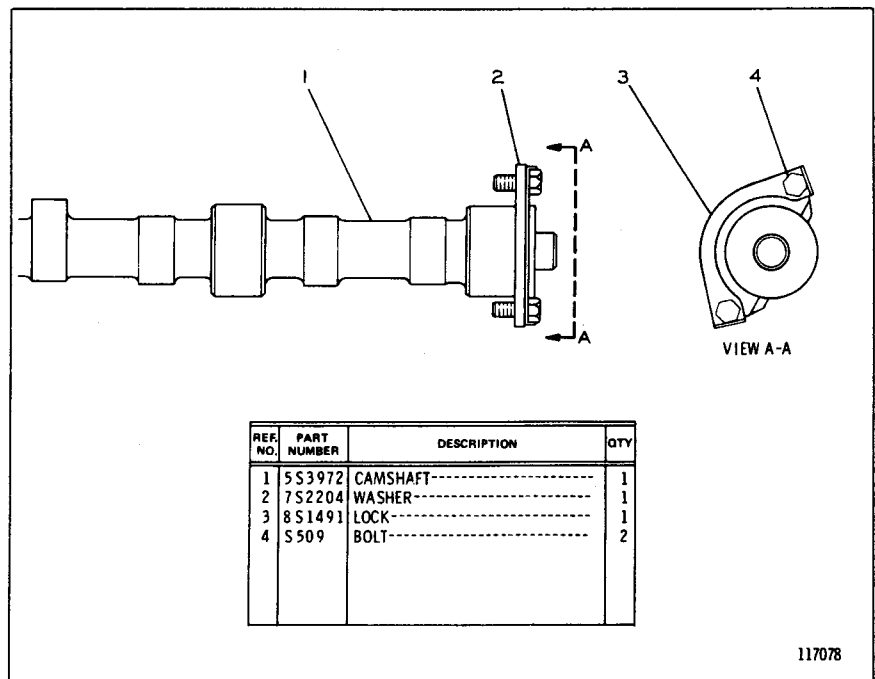
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	8M6487	PIN-----	1
2	1S9543	RETAINER-----	2
3	5S2793	ROD ASSEM.-----	1
4	7S9348	BEARING-----	1
5	1P9956	BOLT-----	2
6	5S6348	NUT-----	2
7	4N6258	BEARING----- (Standard)-----	1
8	2S502	BEARING---, 254mm(.010 in.) undersize-----	1
9	2S503	BEARING---, 508mm(.020 in.) undersize-----	1
	7M7826	BEARING---, 762mm(.030 in.) undersize-----	1
6	9N1303	PISTON GROUP-----	1
7	9L6934	RING----- (Oil)-----	1
8	9L6933	RING----- (intermediate)-----	1
9	9L6932	RING----- (top)-----	1
	9L6935	RING GROUP----- (Consist of Complete Set of Rings For One Piston)	1

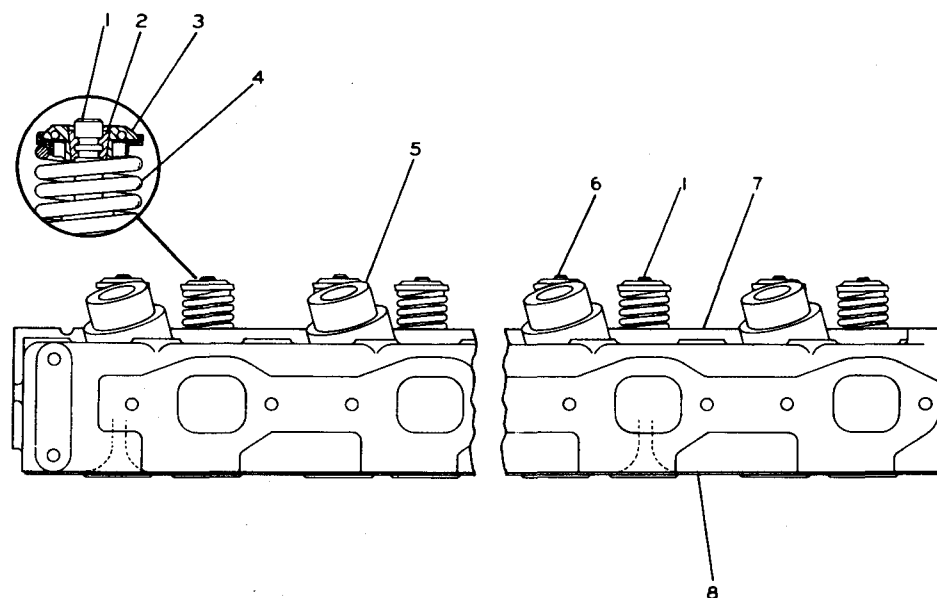
157891

9N1291 CONNECTING ROD AND PISTON GROUP



CONNECTING ROD AND PISTON (2P6272 N/S)—6 Required





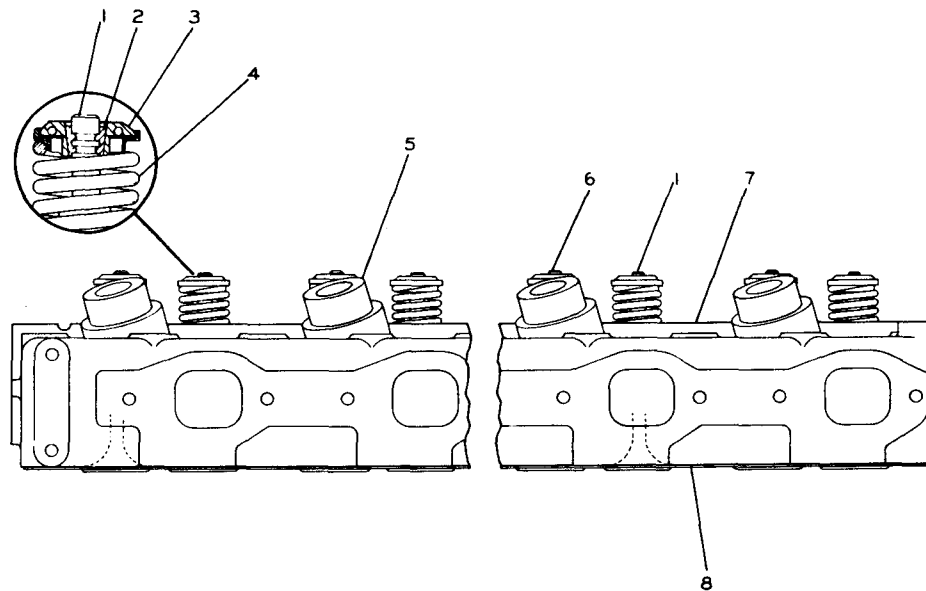
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	7S8809	VALVE------(Intake)-----	6
2	2A4429	LOCK-----	24
3	5S5874	ROTOCOIL-----	12
4	7S7144	SPRING-----	12
5	8S3970	CHAMBER ASSEM.-----	6
5	7S3206	SEAL-----	6
6	5M2667	GASKET-----	6
6	7S6767	VALVE------(exhaust)-----	6
7	4N7446	HEAD ASSEM.----- (Separate Illustration)	1
8	5S6281	GASKET-----	1

C INDICATES CHANGE

204117

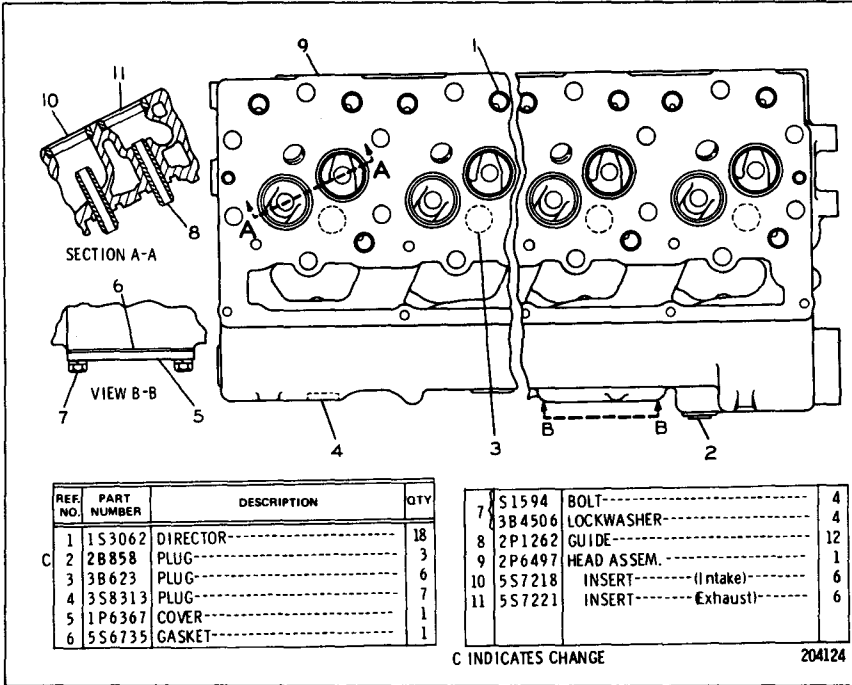
CYLINDER HEAD (3N3916 N/S)
4N7446 Cylinder Head parts are shown on Page 31

9N2382 CYLINDER HEAD GROUP
 Serial No. 66D16053-Up
 4N7446 Cylinder Head parts are shown on Page 31

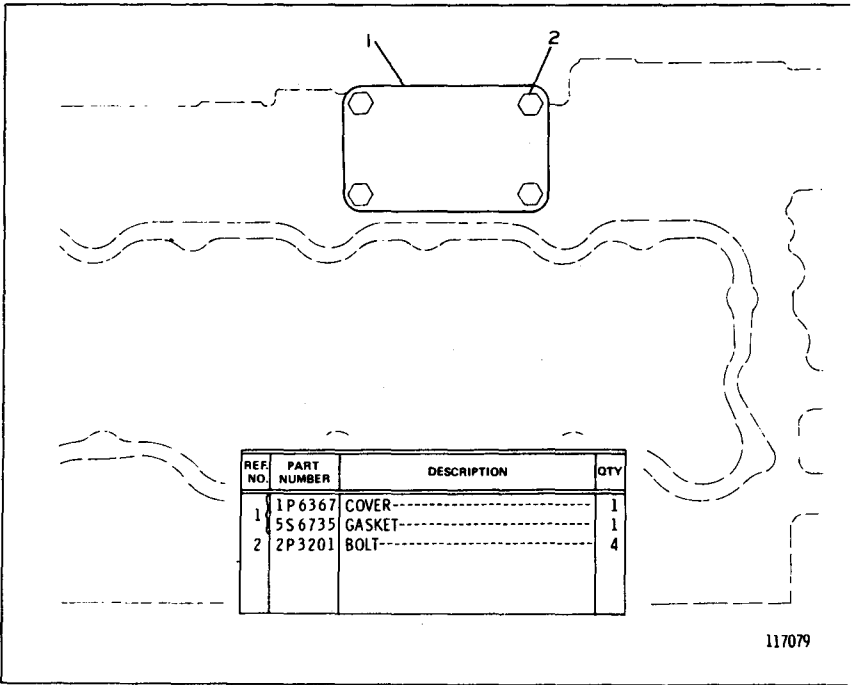


REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	7S8809	VALVE------(intake)-----	6
2	2A4429	LOCK-----	24
3	5S5874	ROTOCOIL-----	12
4	7S7144	SPRING-----	12
	9S8679	CHAMBER ASSEM.-----	6
	7S3206	SEAL-----	6
5	5M2667	GASKET---4.93 mm(.194 in.) thick	6
	2S8959	GASKET---5.67 mm(.223 in.) thick	6
	2S8960	GASKET---6.30 mm(.248 in.) thick	6
6	7S6767	VALVE------(exhaust)-----	6
7	4N7446	HEAD ASSEM.-----	1
		(Separate Illustration)	
8	6N7263	GASKET-----	1

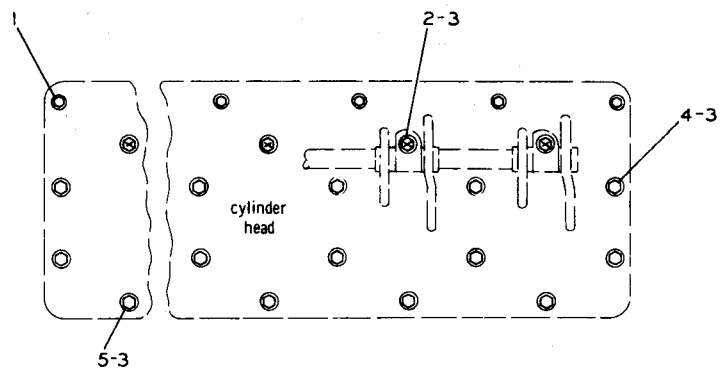
157908



4N7446 CYLINDER HEAD ASSEMBLY
Part of Cylinder Head



CYLINDER HEAD COVER (2P6530 N/S)

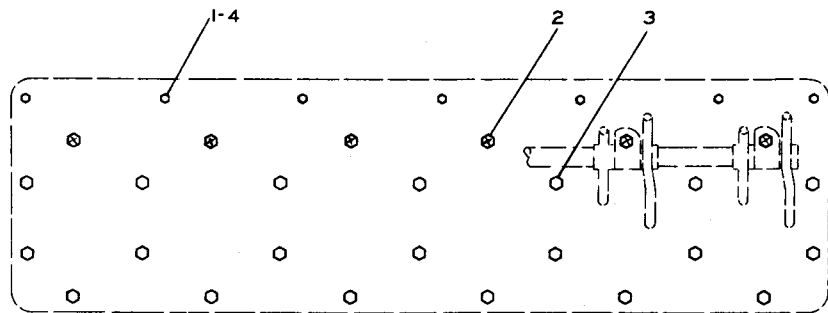


REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	1A5183	BOLT-----	7
	5B3850	WASHER-----	7

2	1B7709	BOLT----- (Location X) -----	6
3	2S736	WASHER-----	26
4	1D4595	BOLT-----	18
5	8F1635	BOLT-----	2

117685

CYLINDER HEAD FASTENER (3N2892 N/S)

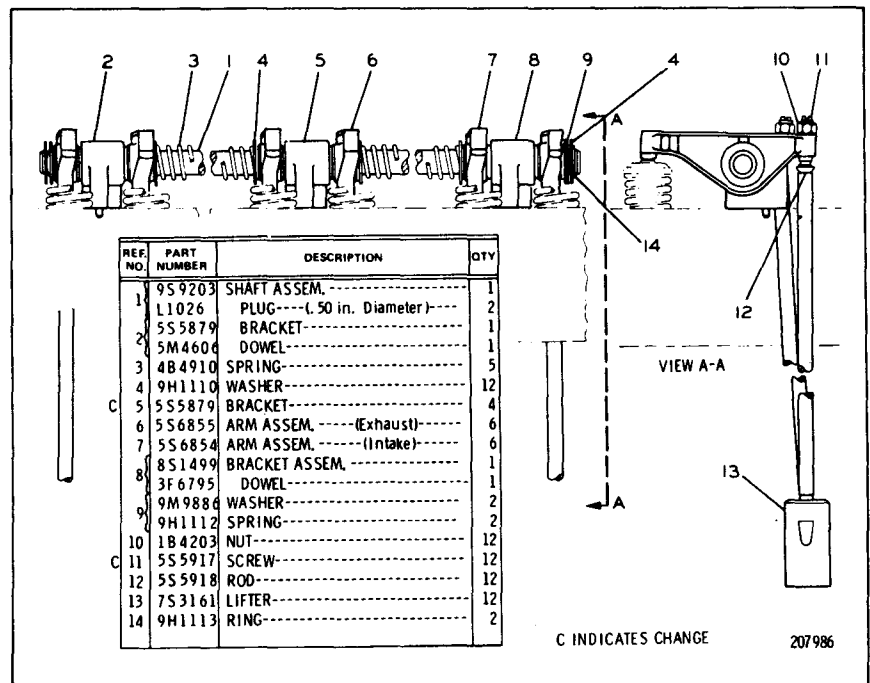


REF. NO.	PART NUMBER	DESCRIPTION	QTY
A 1	1A5183	BOLT----- (4.75 in. long) -----	7
	5B3850	WASHER-----	7
2	1B7709	BOLT----- (Location X) -----	6
	2S736	WASHER-----	6
3	1D4595	BOLT-----	20
	2S736	WASHER-----	20
C A 4	5B2638	BOLT----- (5.25 in. long) -----	1

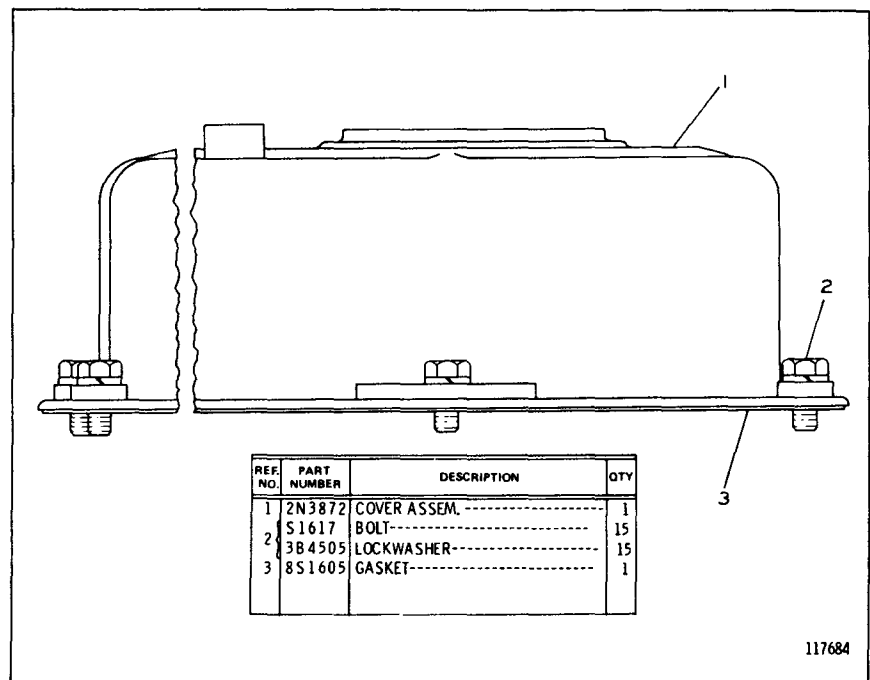
C INDICATES CHANGE
 ▲ USE AS REQUIRED

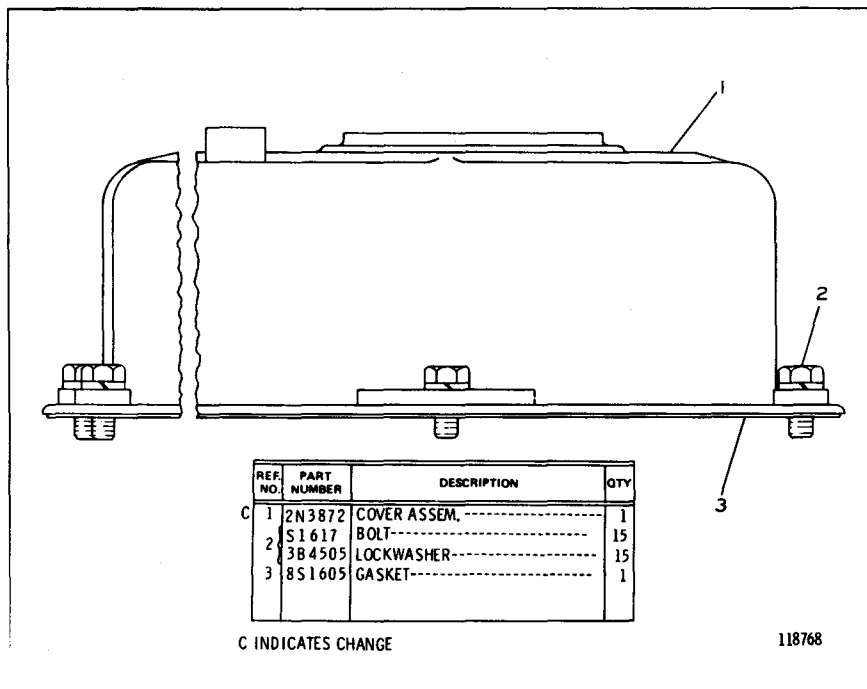
201638

CYLINDER HEAD FASTENER (2P6546 N/S)

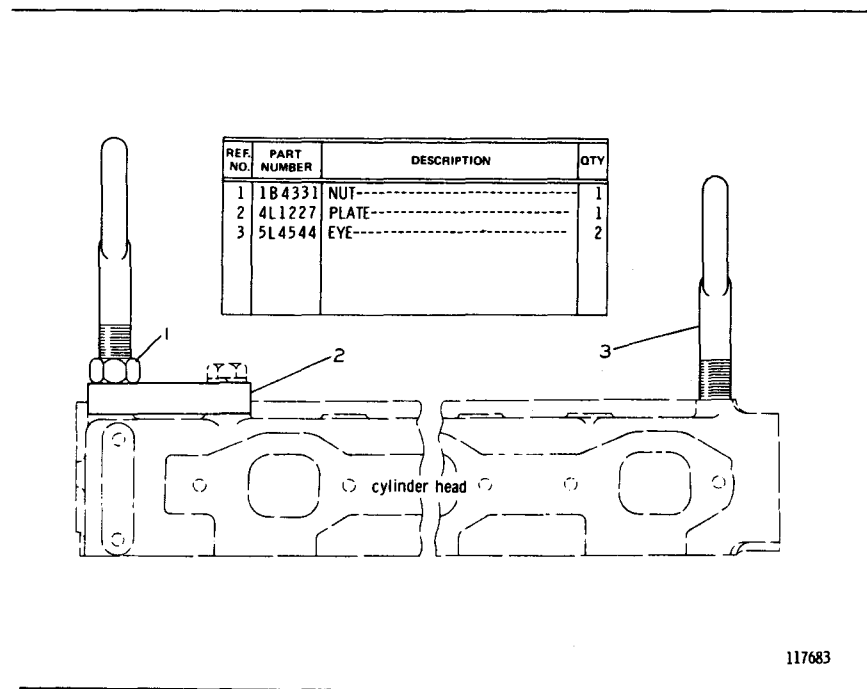


2P6526 VALVE MECHANISM GROUP

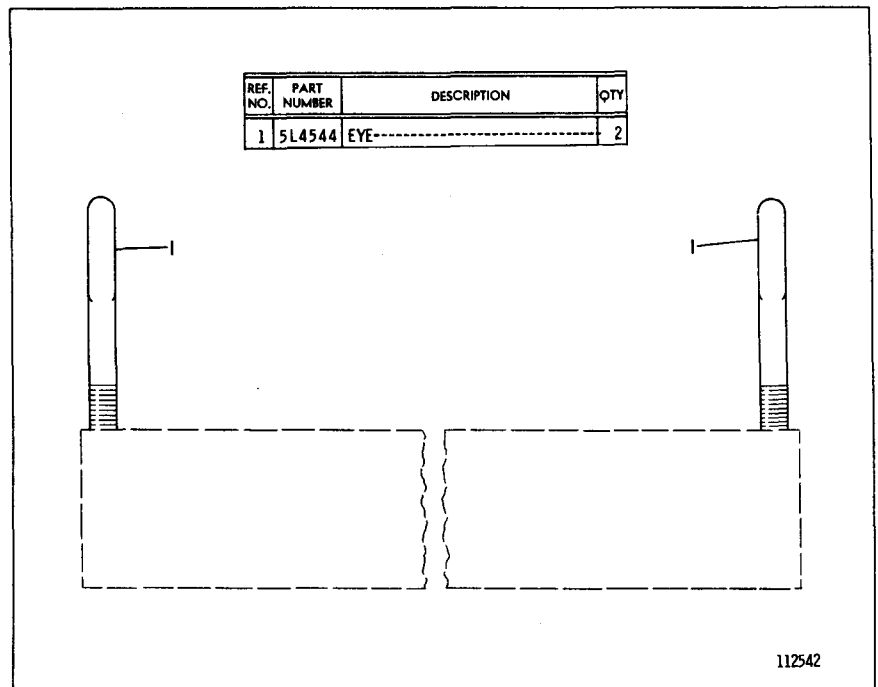




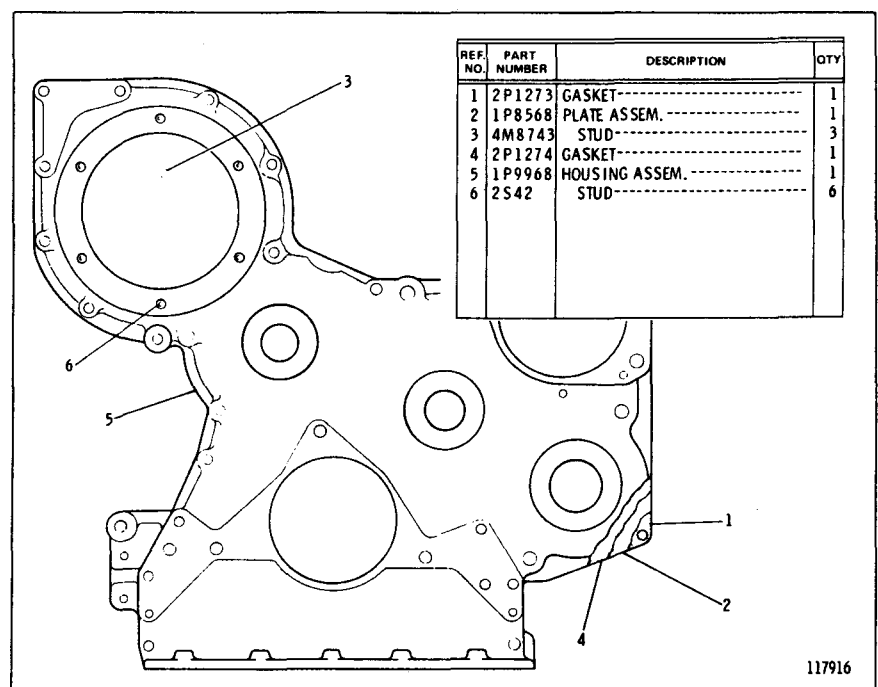
VALVE MECHANISM COVER (2P6516 N/S)

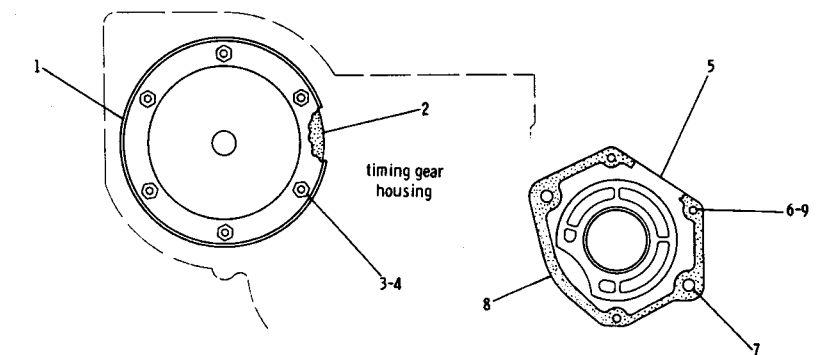


LIFTING EYE (3N2890 N/S)



LIFTING EYE (1P3840 N/S)





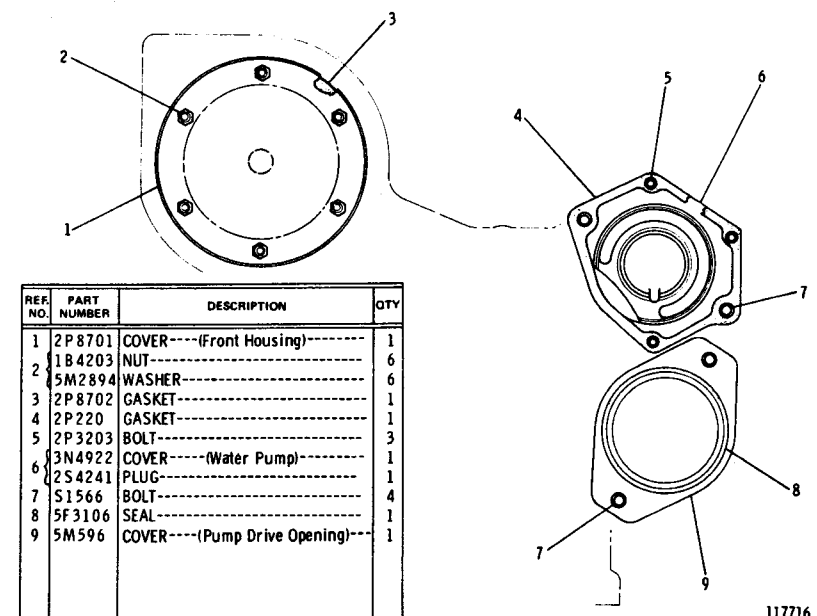
REF. NO.	PART NUMBER	DESCRIPTION	QTY
C 1	2P8701	COVER-----	1
C 2	2P8702	GASKET-----	1
C 3	1B4203	NUT-----	6
C 4	5M2894	WASHER-----	6
5	2P218	COVER-----	1

6	2P3202	BOLT-----	3
7	S1566	BOLT-----	2
8	2P220	GASKET-----	1
C 9	4D3704	WASHER-----	2

C INDICATES CHANGE

119040

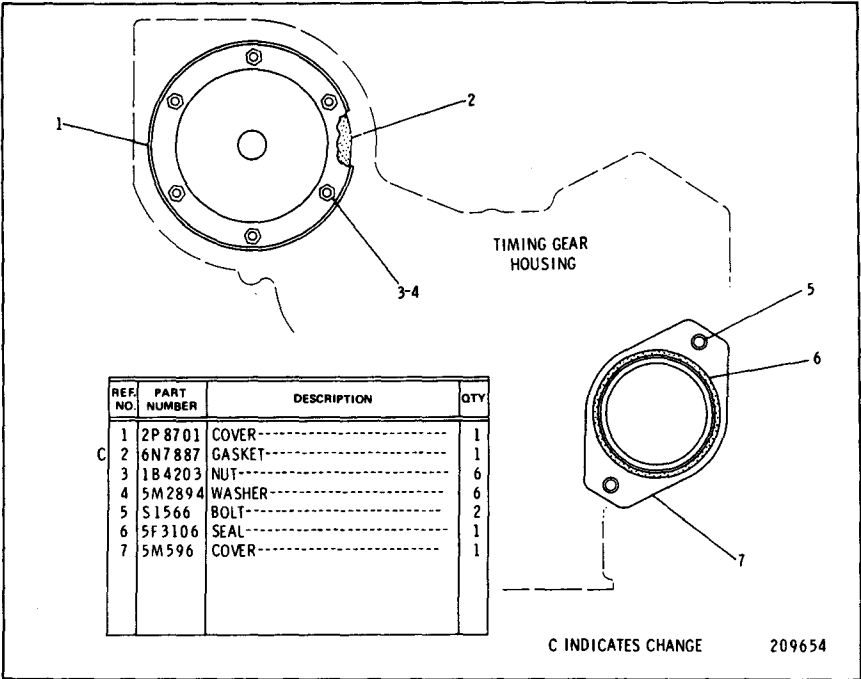
FRONT HOUSING COVER (2P6528 N/S)



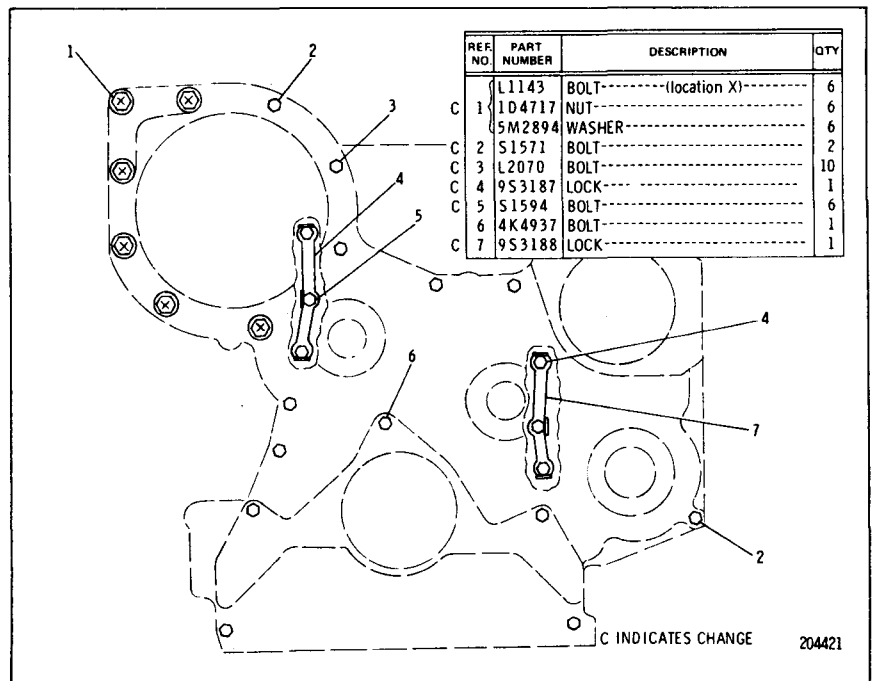
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	2P8701	COVER-----(Front Housing)-----	1
2	1B4203	NUT-----	6
2	5M2894	WASHER-----	6
3	2P8702	GASKET-----	1
4	2P220	GASKET-----	1
5	2P3203	BOLT-----	3
6	3N4922	COVER-----(Water Pump)-----	1
6	2S4241	PLUG-----	1
7	S1566	BOLT-----	4
8	5F3106	SEAL-----	1
9	5M596	COVER-----(Pump Drive Opening)---	1

117716

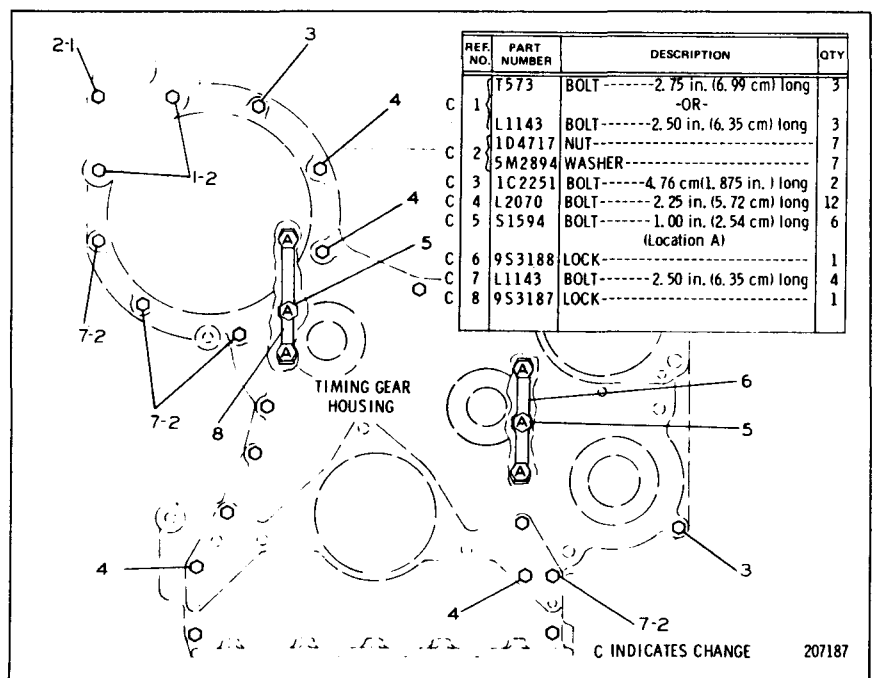
FRONT HOUSING COVER (3N4923 N/S)

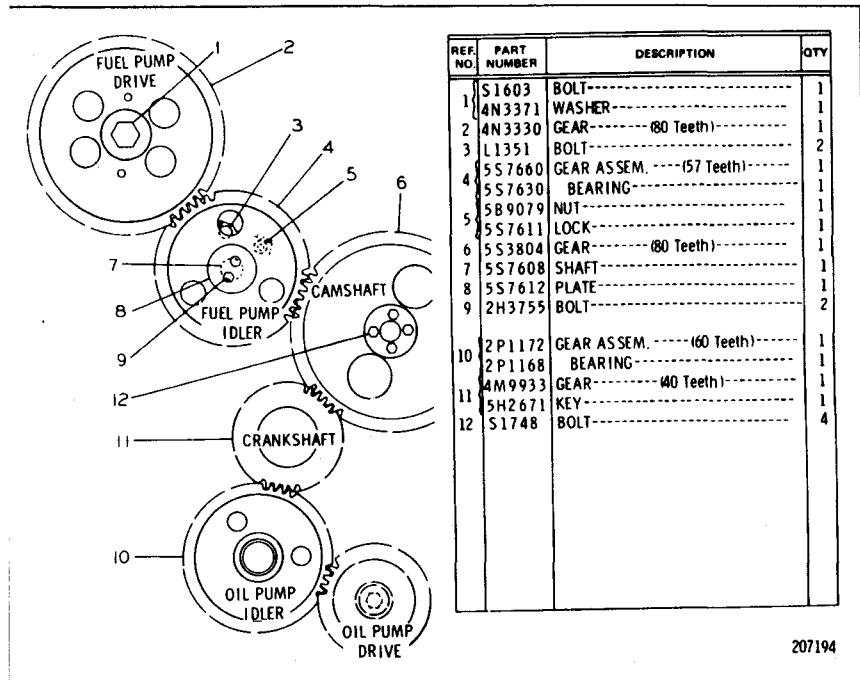


2P6529 FRONT HOUSING COVER GROUP
Serial No. 66D14709-Up

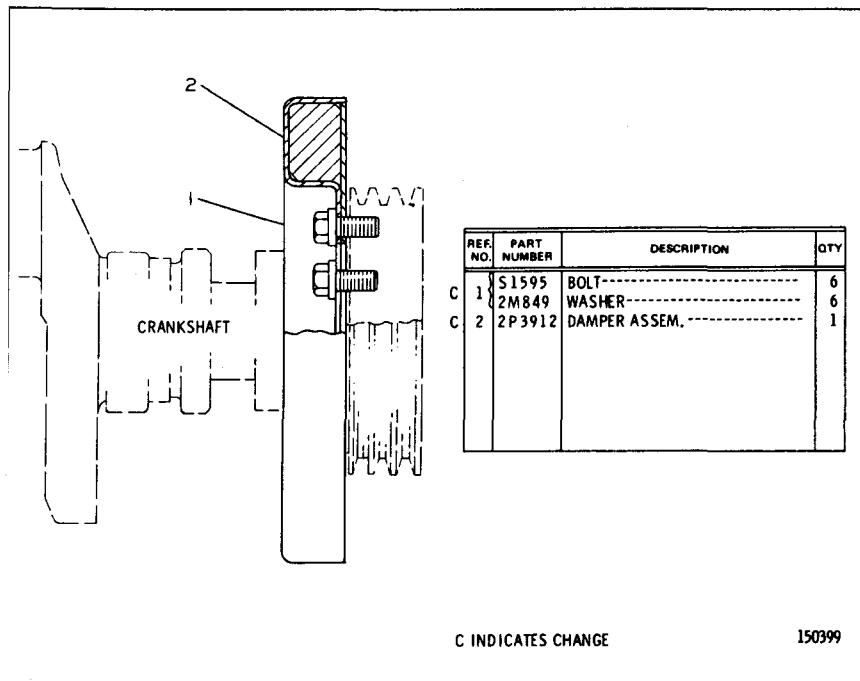


3N2887 FRONT HOUSING FASTENER GROUP

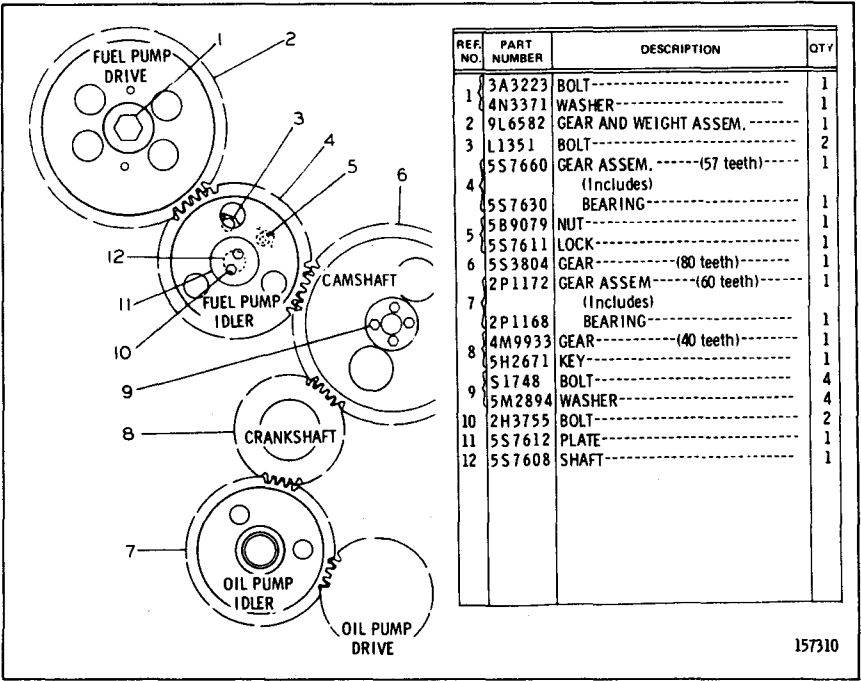




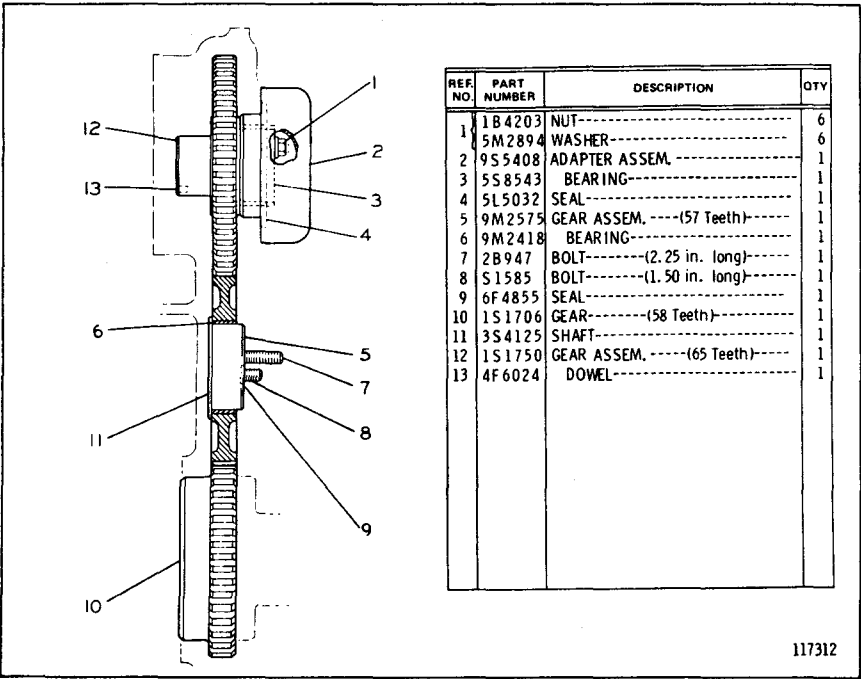
2P9642 FRONT TIMING GEAR GROUP

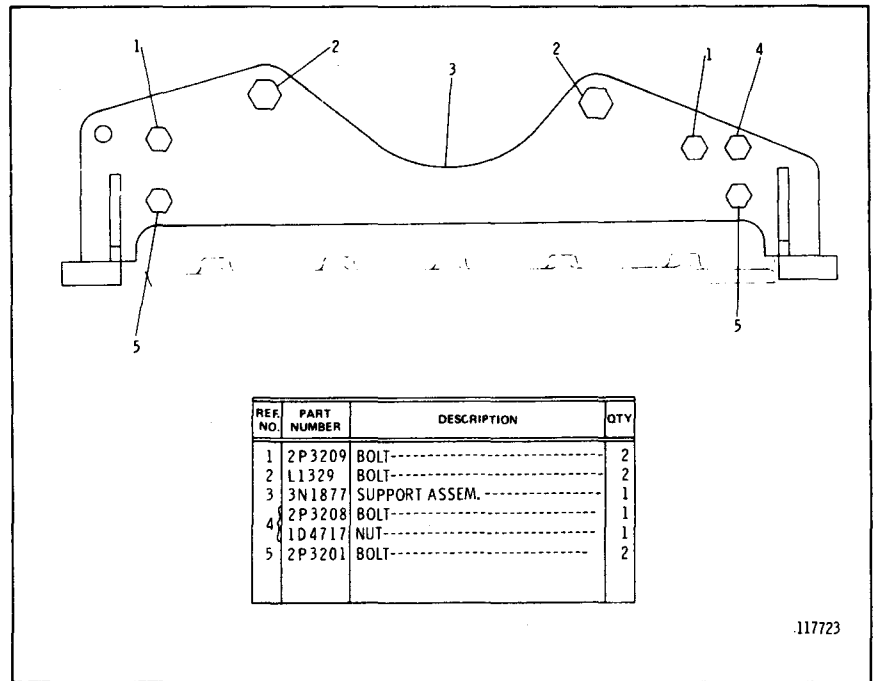


3N2885 DAMPER GROUP

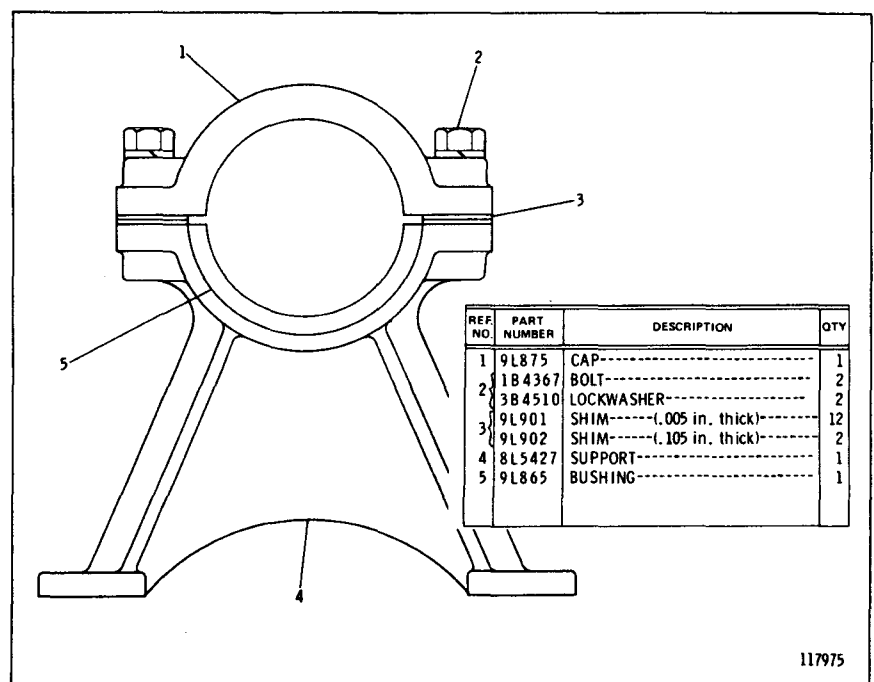


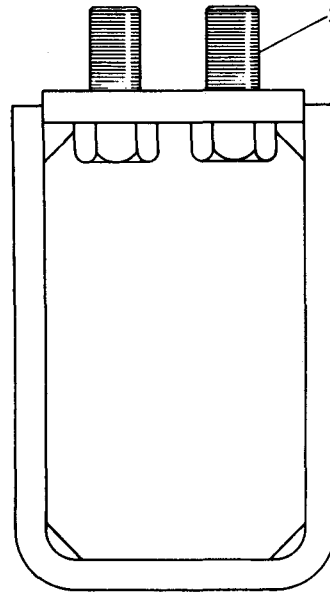
9L6675 FRONT TIMING GEAR GROUP
Serial No. 66D16503-Up





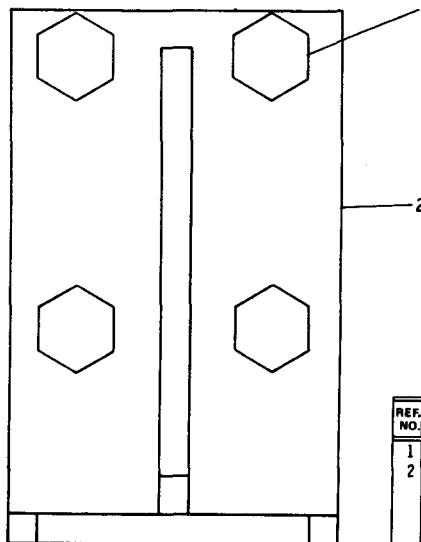
3N2883 ENGINE SUPPORT GROUP





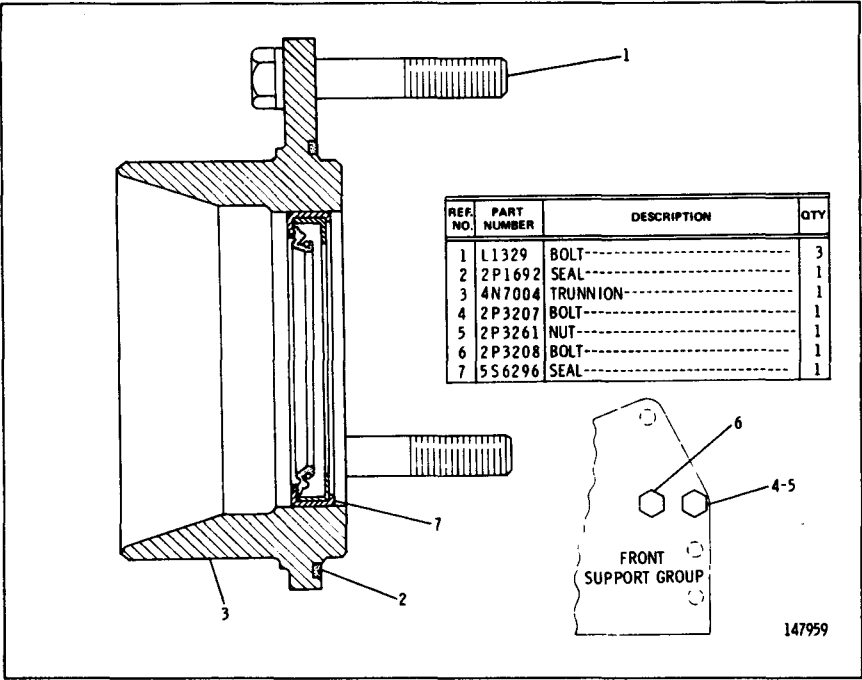
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	4B4043	BOLT-----	4
2	1N5526	SUPPORT ASSEM.-----	2

203216

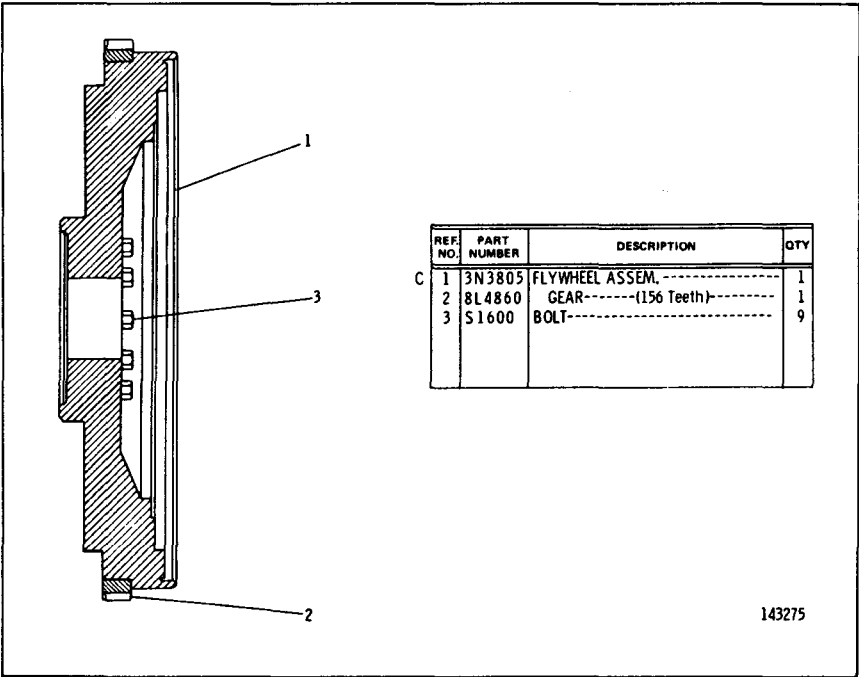
3N6695 FRONT ENGINE SUPPORT GROUP
AN ATTACHMENT

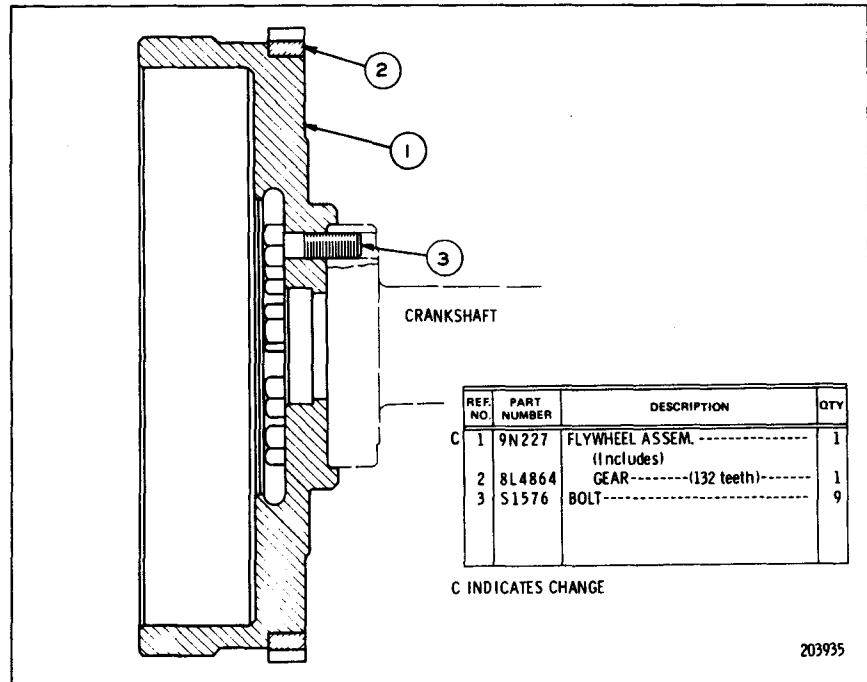
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	4B4043	BOLT-----	8
2	3L9120	SUPPORT ASSEM.-----	2

117787

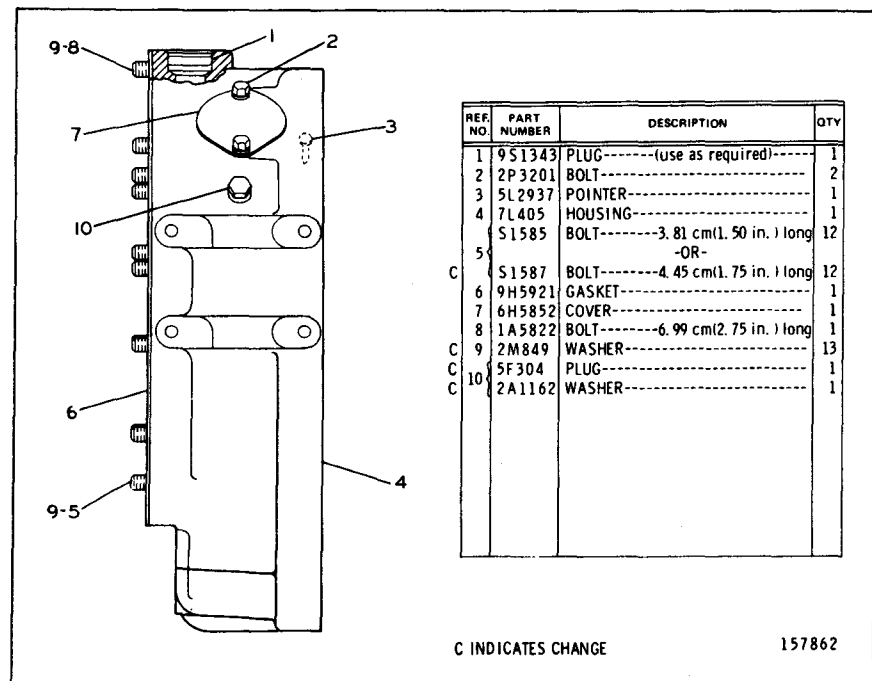


4N9447 ENGINE TRUNNION GROUP
FOR USE WITH 4N8165 HUB GROUP
AN ATTACHMENT





9L4380 FLYWHEEL GROUP



3N3276 FLYWHEEL HOUSING GROUP
 Serial No. 66D12370 to 66D16502 inclusive

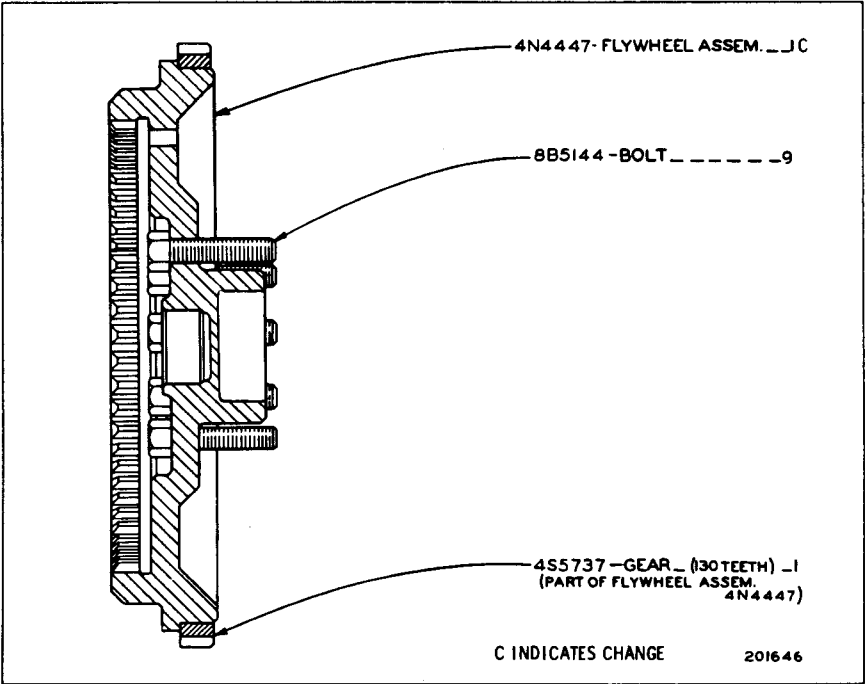
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9S1343	PLUG----- (use as required)-----	1
2	S1594	BOLT-----	2
3	5M6213	PLUG-----	1
4	6N4691	HOUSING-----	1
5	S1587	BOLT-----	12
6	9H5921	GASKET-----	1
7	6H5852	COVER-----	1
8	1A5822	BOLT-----	1
9	2M849	WASHER-----	13
10	2A1912	PLUG-----	1
	2A1913	WASHER-----	1

157863

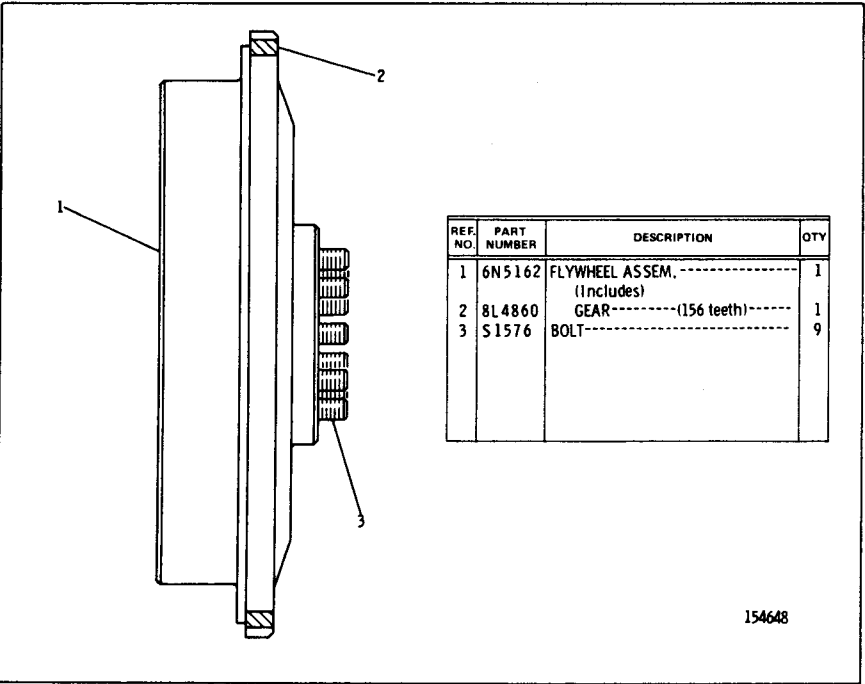
6N5233 FLYWHEEL HOUSING GROUP
Serial No. 66D16503-Up

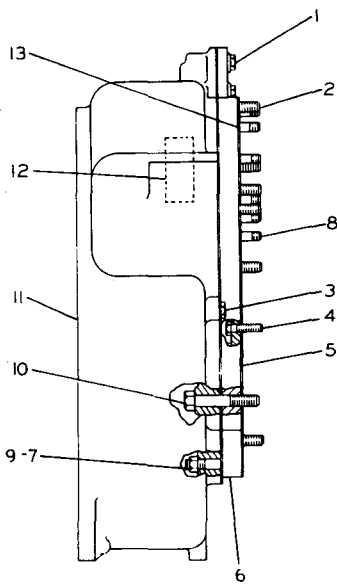
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	6N5729	FLYWHEEL ASSEM.----- (Includes)	1
2	8L4860	GEAR----- (156 teeth)-----	1
3	S1577	BOLT-----	9

158443



FLYWHEEL (7S5471 N/S)
FOR USE WITH DIRECT ELECTRIC STARTING





REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	2P3201	BOLT-----	11
2	2P3209	BOLT-----	2
3	5M6213	PLUG-----	1
4	4B3823	BOLT-----	2
5	9H5921	GASKET-----	1
6	9S6150	HOUSING ASSEM.-----	1
7	9F2247	PLUG-----	1
8	4M2743	STUD-----	5
9	2M1538	STUD-----	6
10	1D4717	NUT-----	5
11	1A5822	BOLT-----	10
12	9S9763	HOUSING ASSEM.-----	1
13	5S8543	BEARING-----	1
	1S2043	GASKET-----	1

C INDICATES CHANGE

205718

2P6131 FLYWHEEL HOUSING GROUP

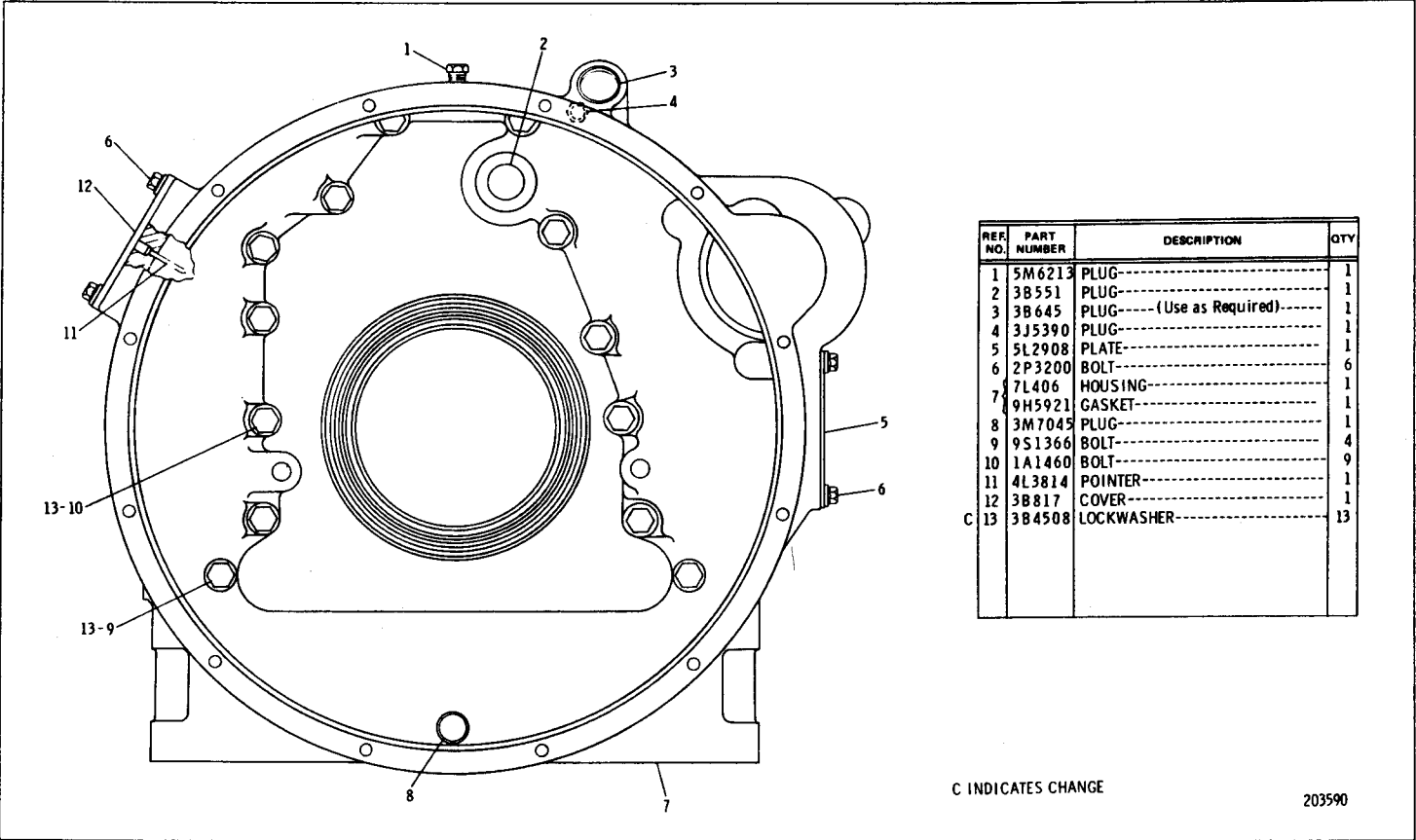
Consists of:

1 8L4864 Gear

3N9802 FLYWHEEL ASSEMBLY

Provides Flywheel for use with 12 1/2 in.. 4 plate Rockford C-2793-SK-7

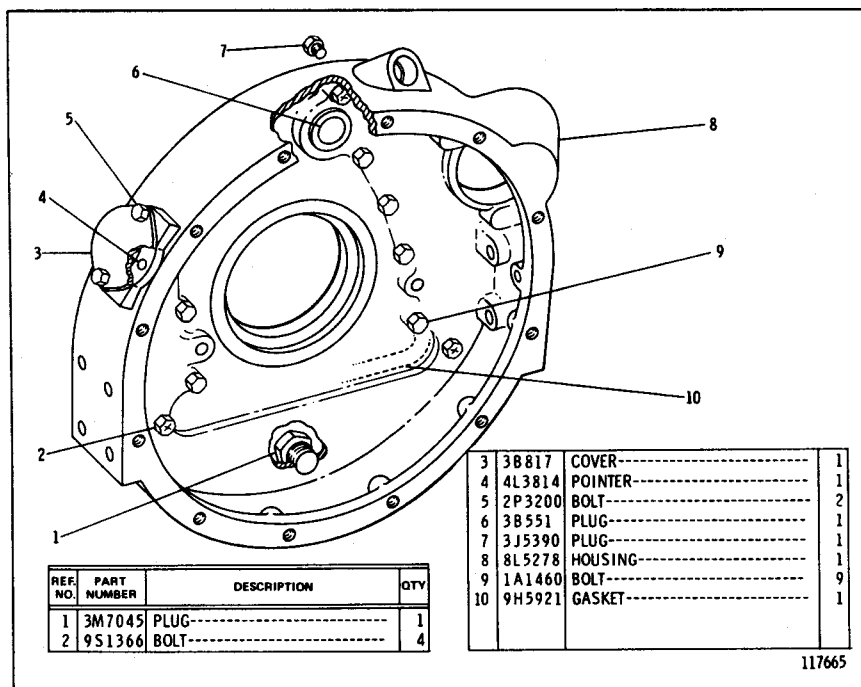
FLYWHEEL HOUSING (3N2879 N/S)



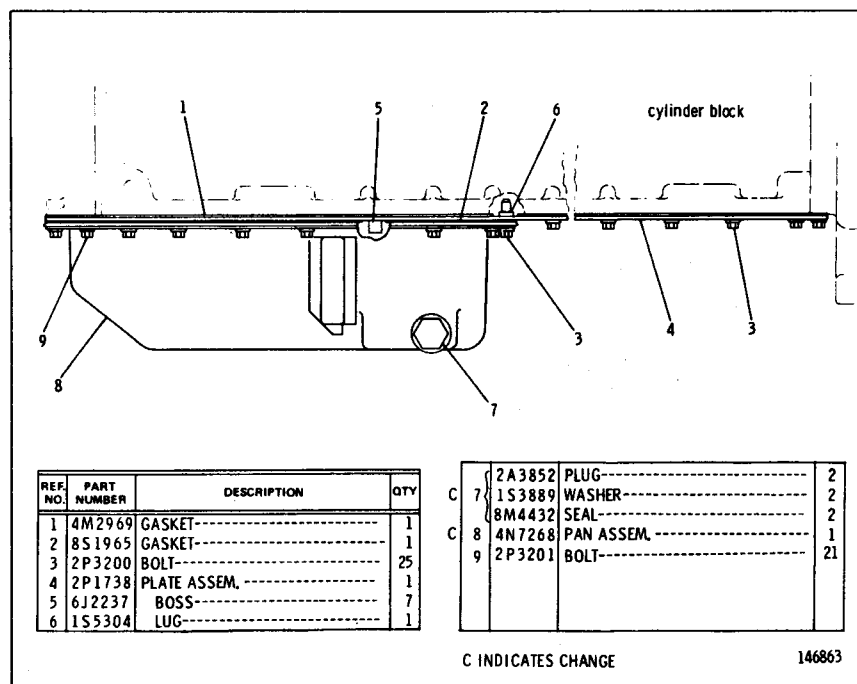
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	5M6213	PLUG-----	1
2	3B551	PLUG-----	1
3	3B645	PLUG----- (Use as Required)-----	1
4	3J5390	PLUG-----	1
5	5L2908	PLATE-----	1
6	2P3200	BOLT-----	6
7	7L406	HOUSING-----	1
8	9H5921	GASKET-----	1
9	3M7045	PLUG-----	1
10	9S1366	BOLT-----	4
11	1A1460	BOLT-----	9
12	4L3814	POINTER-----	1
13	3B8817	COVER-----	1
C 13	3B4508	LOCKWASHER-----	13

C INDICATES CHANGE

203590



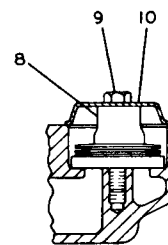
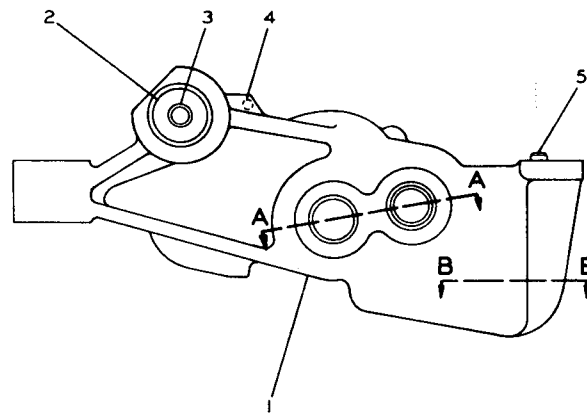
FLYWHEEL HOUSING (3N6939 N/S)



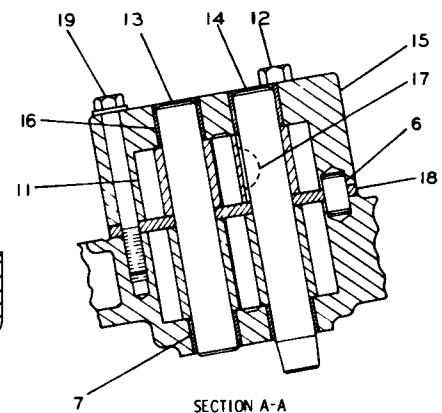
OIL PAN (3N2899 N/S)

Note: 511594 Oil Pan Sump Pump Group is available when used.

2P1785 GEAR PUMP GROUP
Part of 2P1784 Oil Pump Group shown on Page 46



SECTION B-B



SECTION A-A

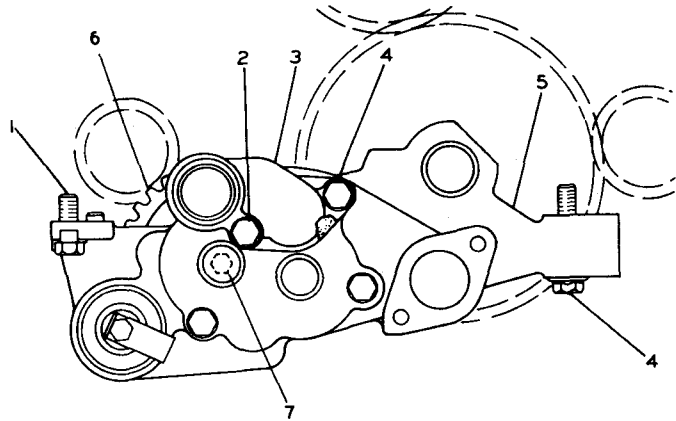
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	2P685	BODY ASSEM.-----	1
2	2P1170	SHAFT ASSEM.-----	1
3	6F7172	DOWEL-----	1
4	4B9880	BALL-----	1
5	1F1006	DOWEL-----	1
6	1M3735	DOWEL-----	2
7	8S6511	BEARING-----	2

C 8	4N8385	VALVE ASSEM.-----	1
9	1B9575	BOLT-----	1
10	4N3732	COVER-----	1
C 11	6N1036	GEAR----- (8 Teeth)	2
C 12	T65	BOLT-----	2
C 13	8S493	SHAFT ASSEM.-----	1
14	2P6245	SHAFT ASSEM.-----	1

15	4N4055	BODY ASSEM.-----	1
16	8S6511	BEARING-----	2
17	1B8709	KEY-----	1
18	2P1781	SPACER-----	1
C 19	2M3403	BOLT-----	1
C 19	5M2894	WASHER-----	1

C INDICATES CHANGE

208705



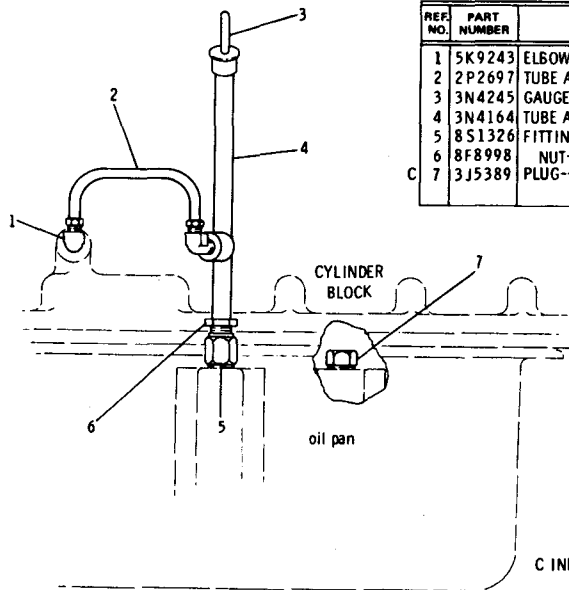
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	1A2029	BOLT-----	2
1	8M7587	LOCK-----	2
2	2P3210	BOLT-----	1
3	4N5353	ELBOW-----	1
3	2P8746	GASKET-----	1

4	2P3206	BOLT-----	3
5	2P1785	PUMP GROUP-----	1
		(Separate Illustration)	
6	8S497	GEAR-----	1
		(40 teeth)	
6	8M5599	KEY-----	1
7	S1590	BOLT-----	1
7	1P7346	WASHER-----	1

C INDICATES CHANGE

206005

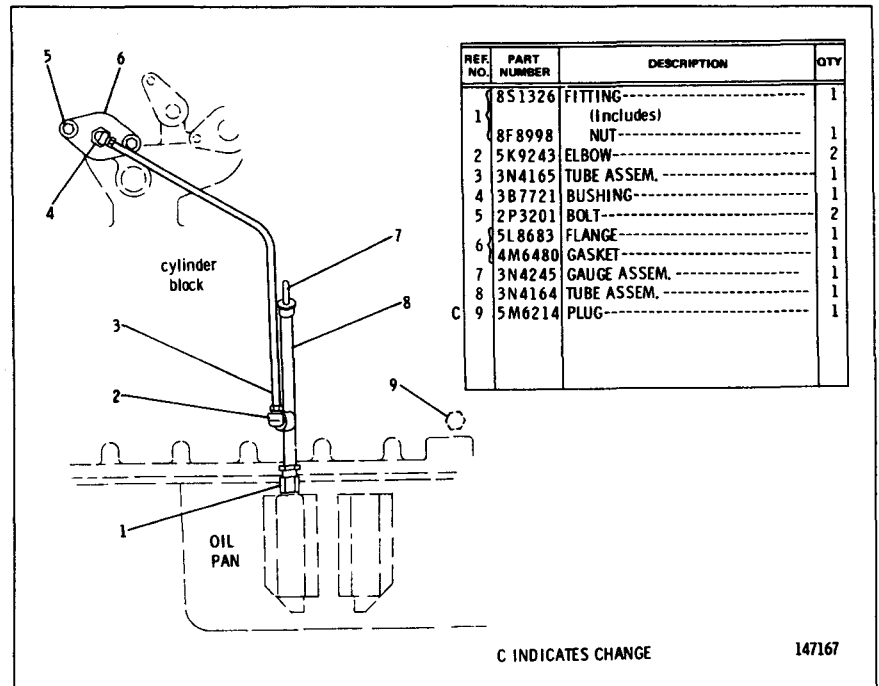
OIL PUMP (2P1784 N/S)
2P1785 Gear Pump parts are shown on Page 45



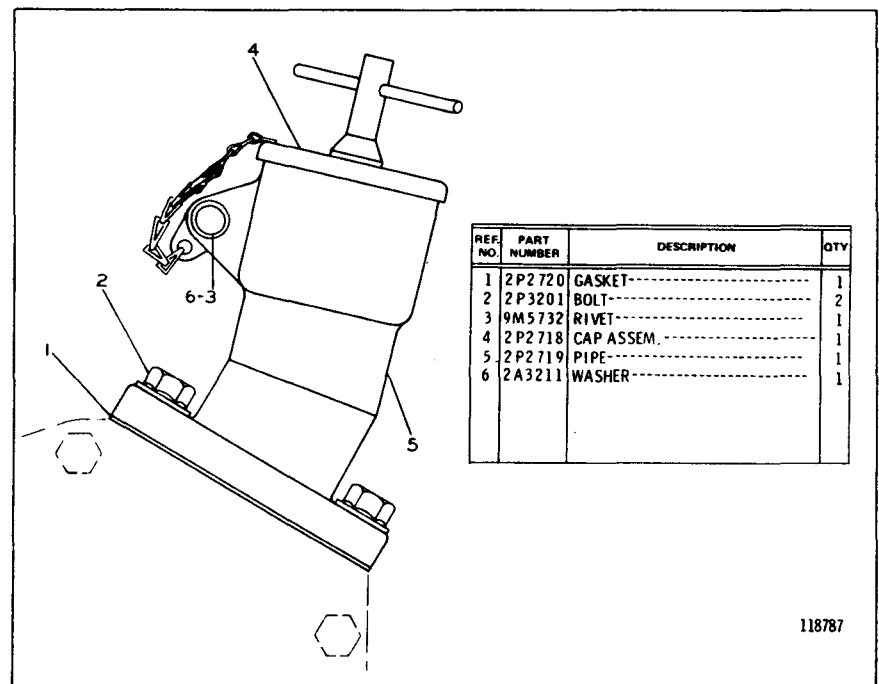
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	5K9243	ELBOW-----	2
2	2P2697	TUBE ASSEM.-----	1
3	3N4245	GAUGE ASSEM.-----	1
4	3N4164	TUBE ASSEM.-----	1
5	8S1326	FITTING-----	1
6	8F8998	NUT-----	1
7	3J5389	PLUG-----	1

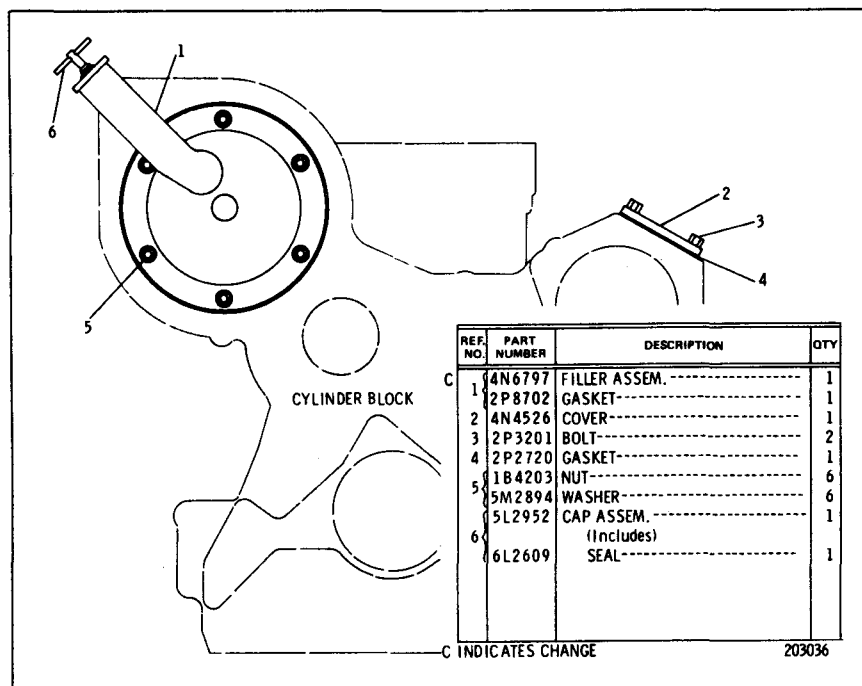
C INDICATES CHANGE

147166

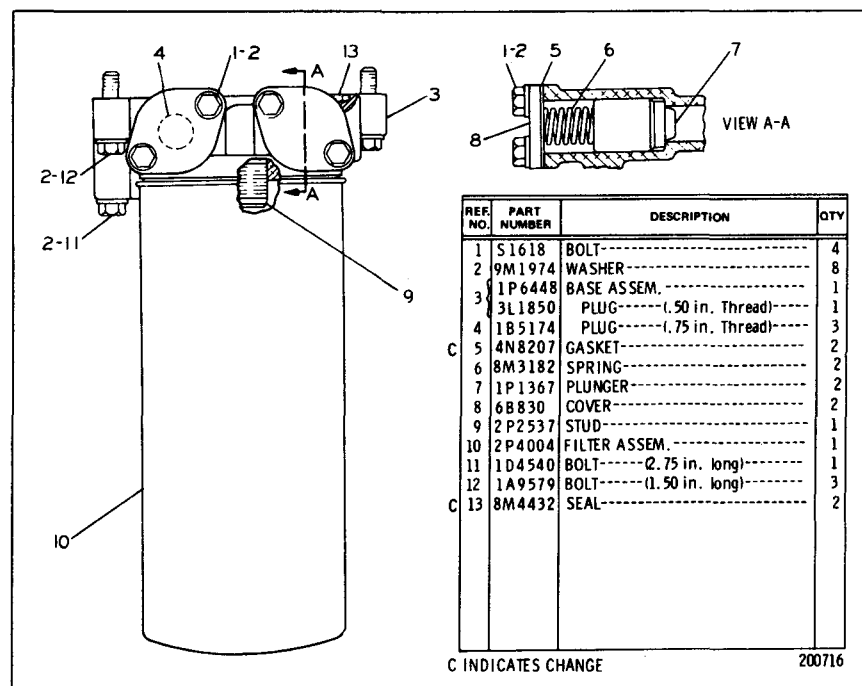


3N6280 OIL LEVEL GAUGE GROUP—R.H.—Factory Installation
AN ATTACHMENT

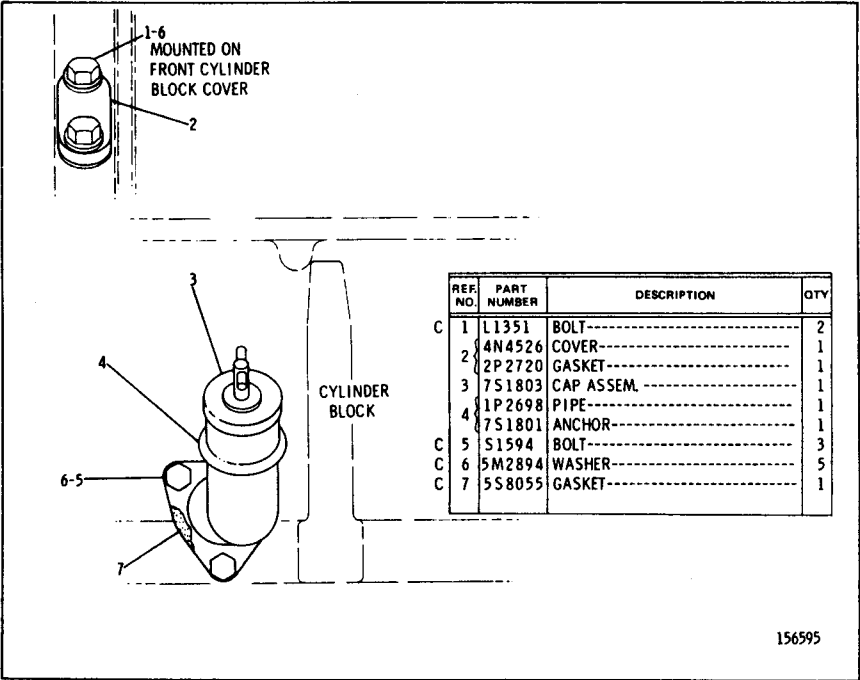




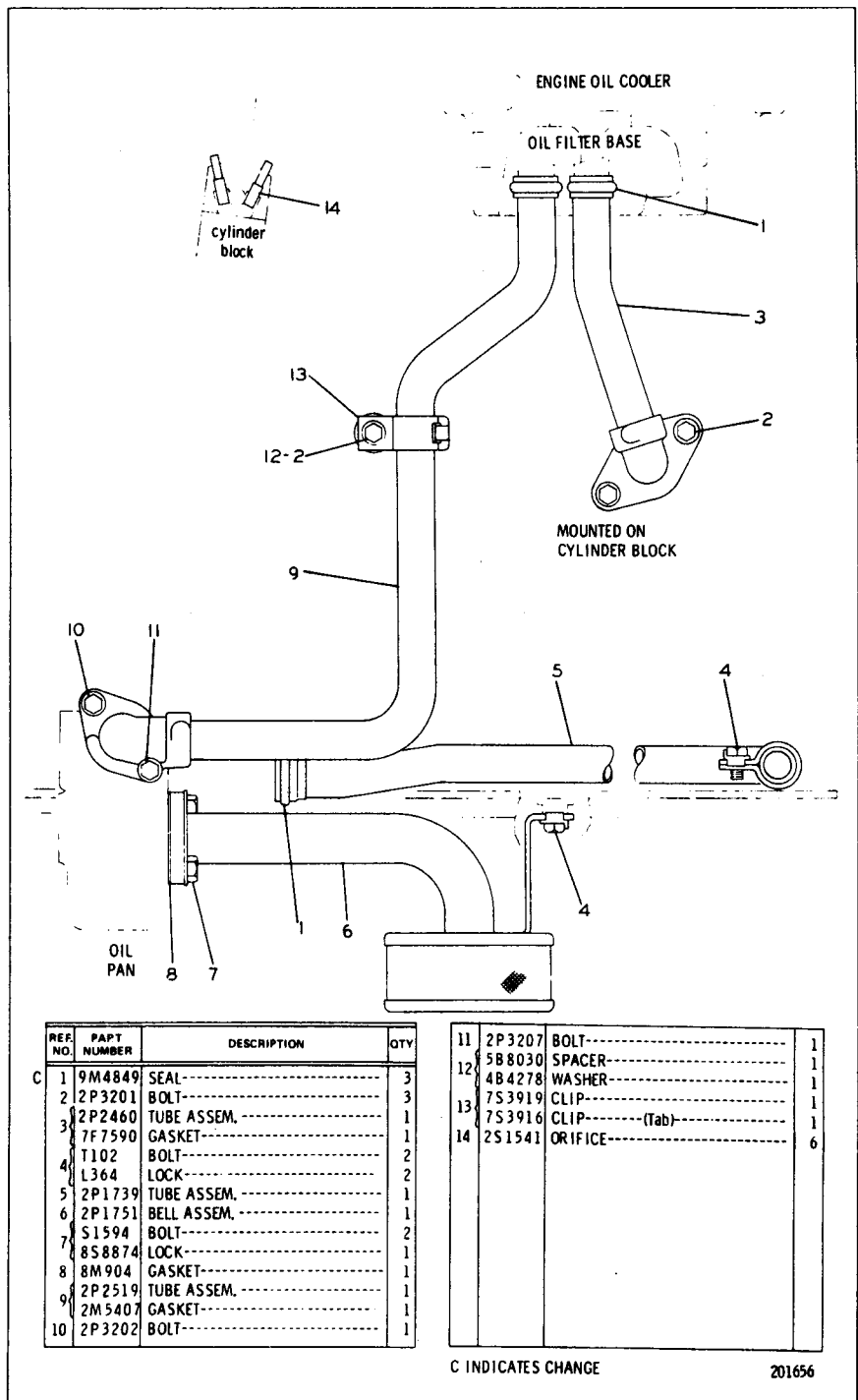
4N6975 OIL FILLER GROUP—Factory Installation
AN ATTACHMENT



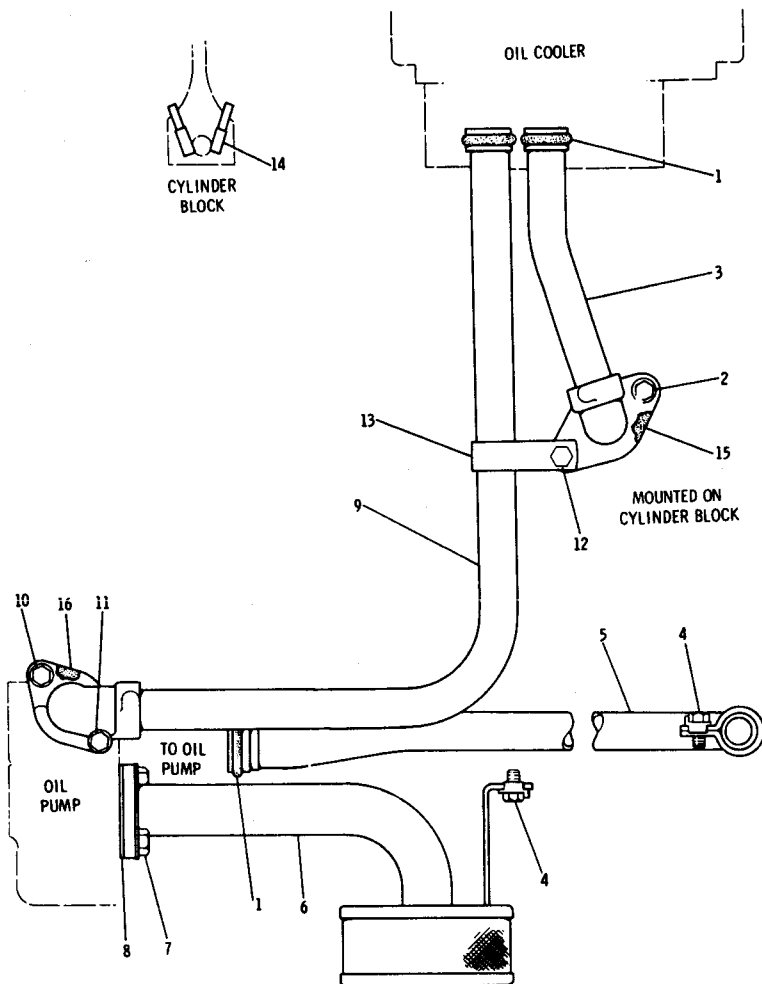
OIL FILTER (2P6475 N/S)



9N1869 OIL FILLER GROUP—Left Side Rear
AN ATTACHMENT



OIL LINES (2P6105 N/S)

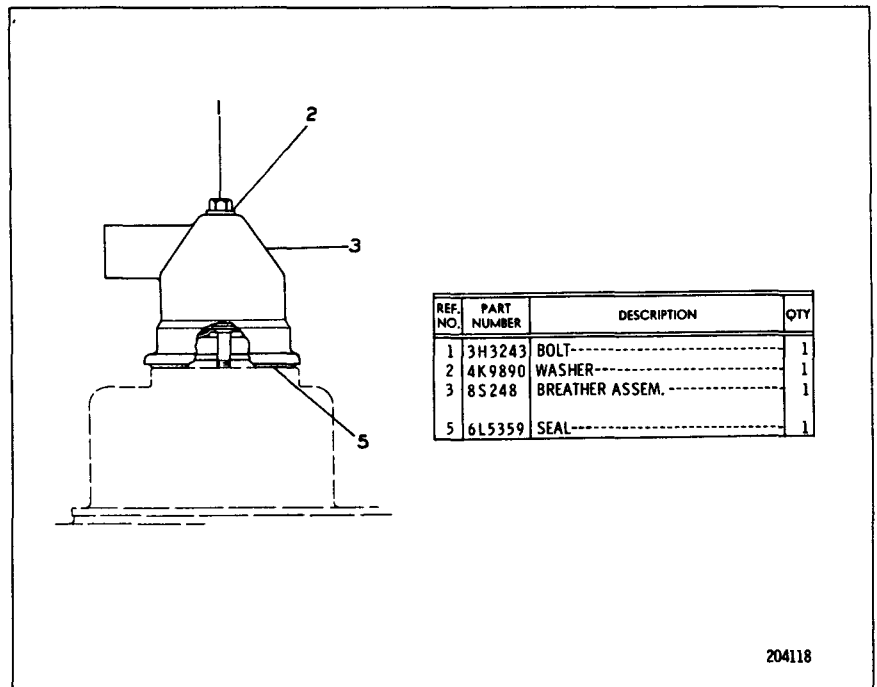


REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9M4849	SEAL-----	3
2	2P3201	BOLT-----	1
3	2P2460	TUBE ASSEM.-----	1
4	T102	BOLT-----	2
5	L364	LOCK-----	2
6	2P1739	TUBE ASSEM.-----	1
7	2P1751	BELL ASSEM.-----	1
8	S1594	BOLT-----	2
9	S8874	LOCK-----	1
10	8M904	GASKET-----	1
11	3N7614	TUBE ASSEM.-----	1
12	2P3202	BOLT-----	1

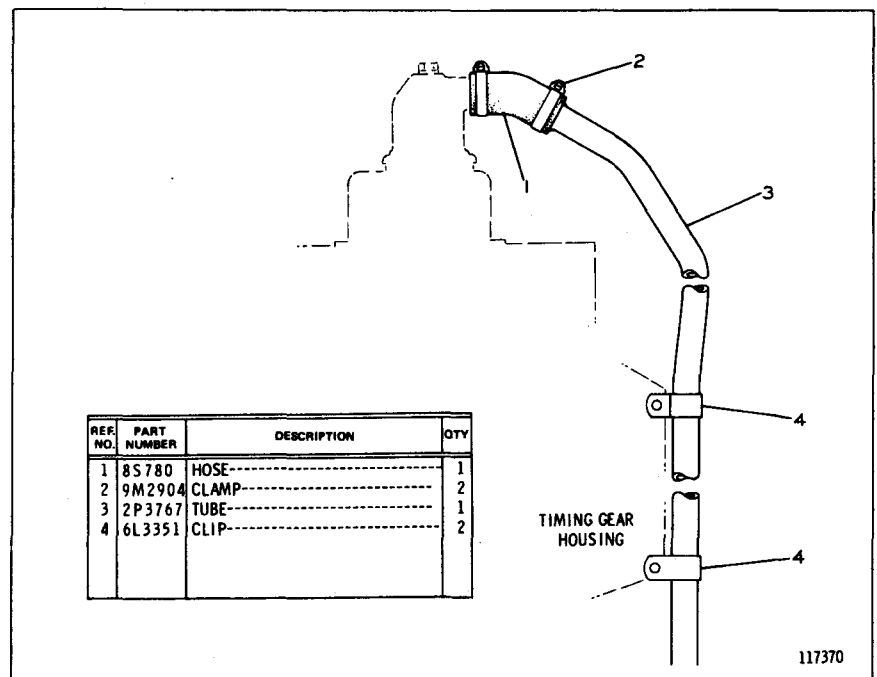
11	2P3207	BOLT-----	1
12	2P3204	BOLT-----	1
13	1M7163	SPACER-----	1
14	4L3641	CLIP-----	1
15	2S1541	ORIFICE-----	6
16	7F7590	GASKET-----	1
17	2M5407	GASKET-----	1

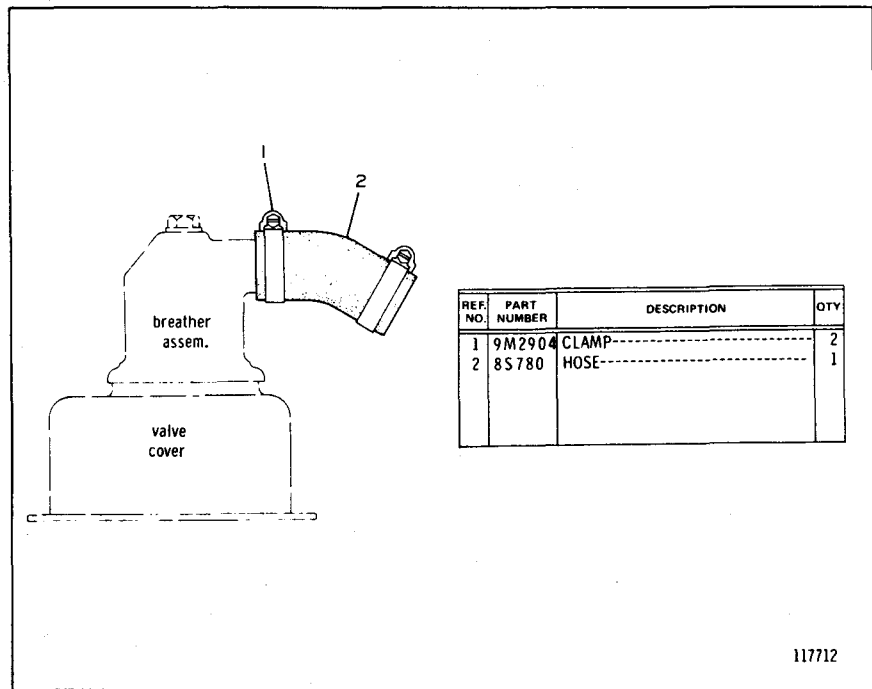
202631

OIL LINES (3N8094 N/S)

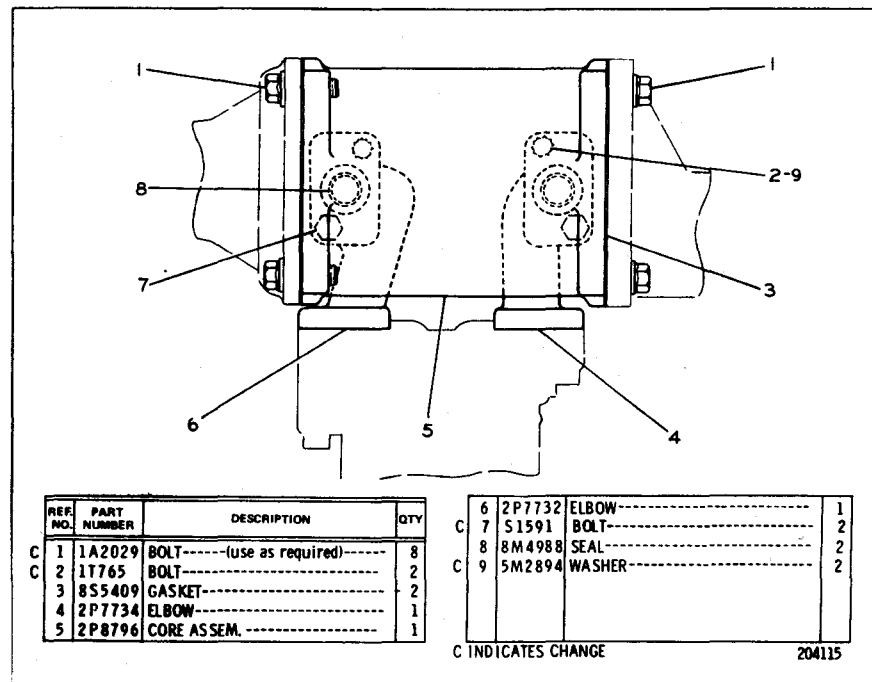


BREATHER (1P4244 N/S)

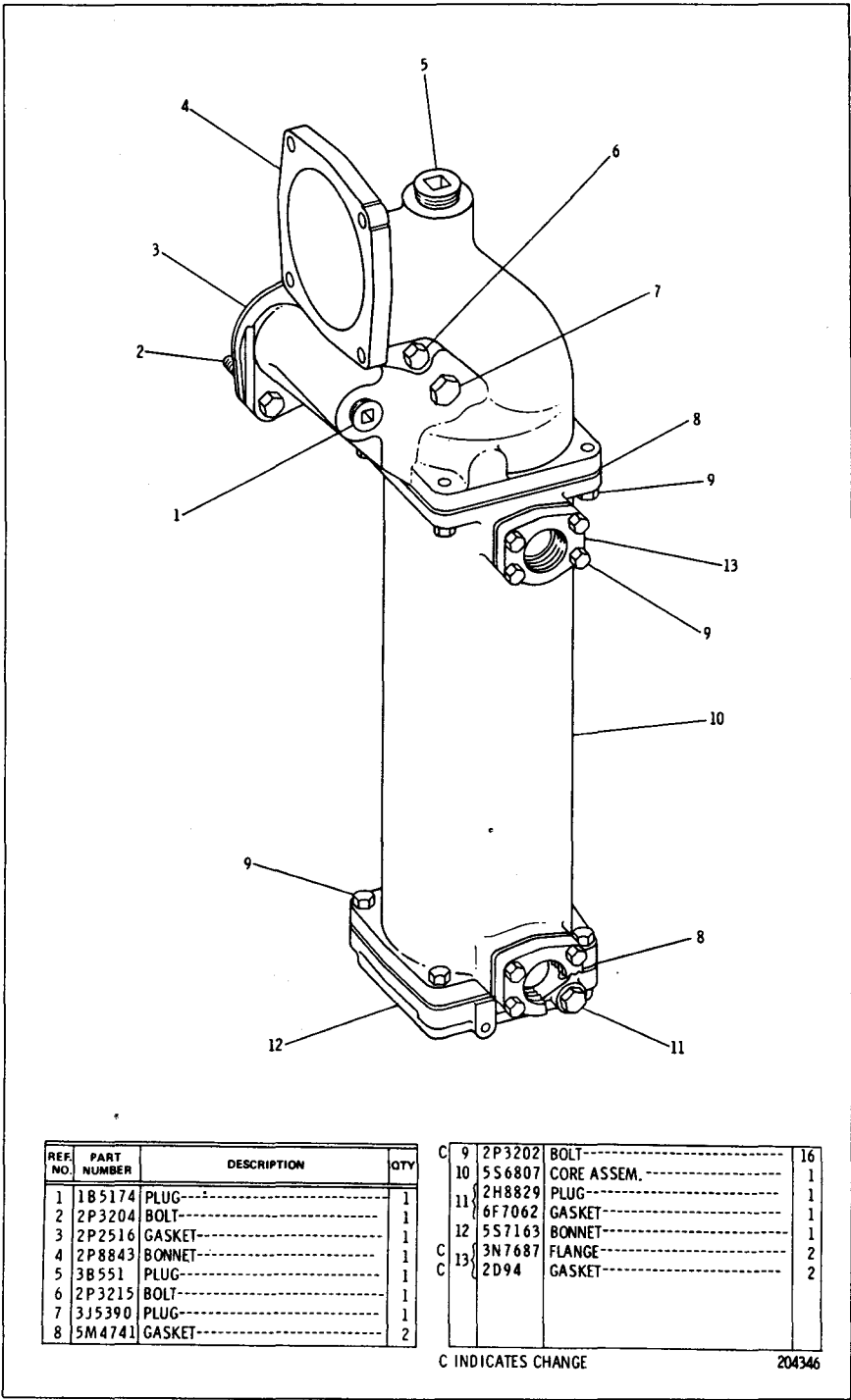




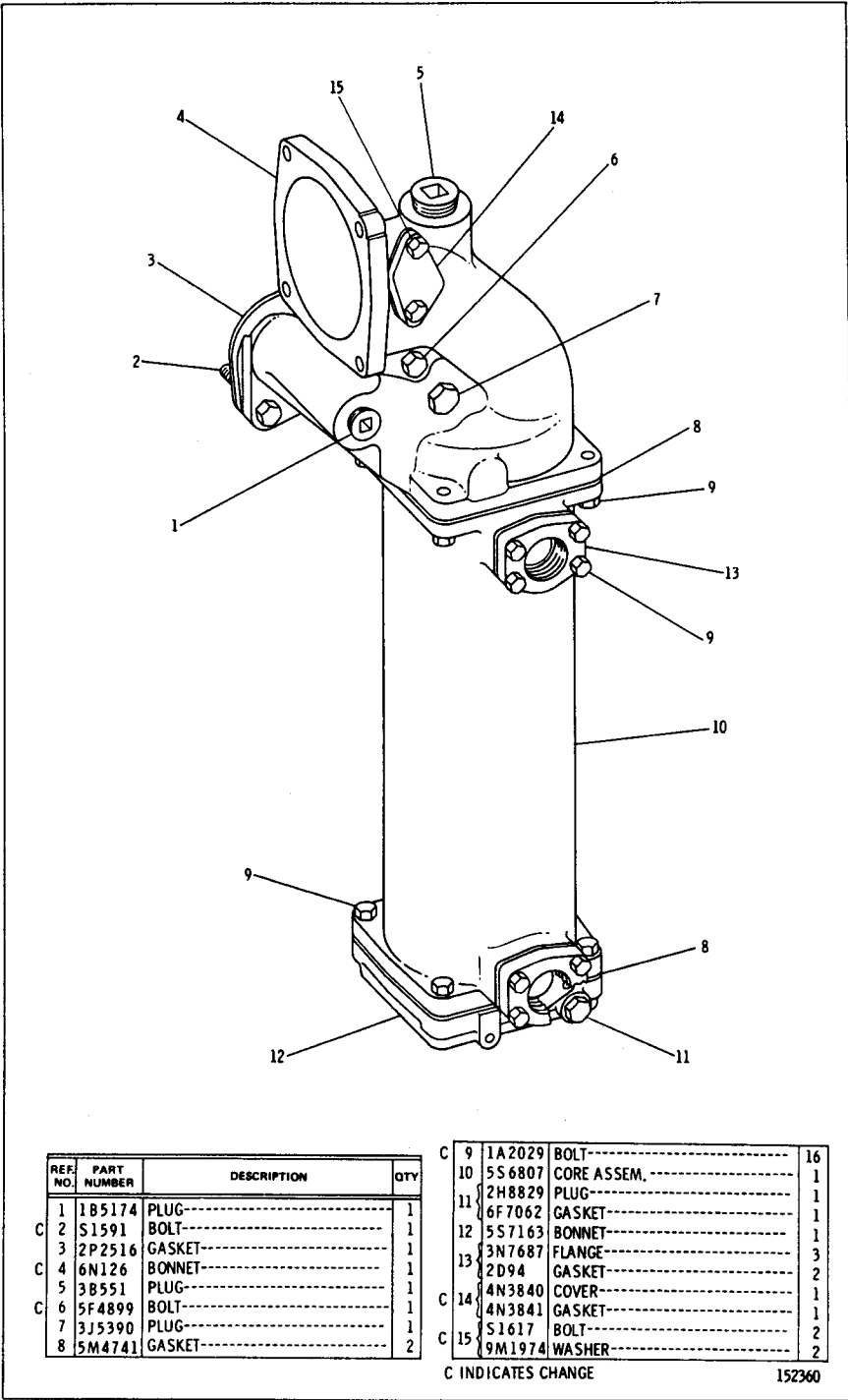
FUMES DISPOSAL (3N3277 N/S)



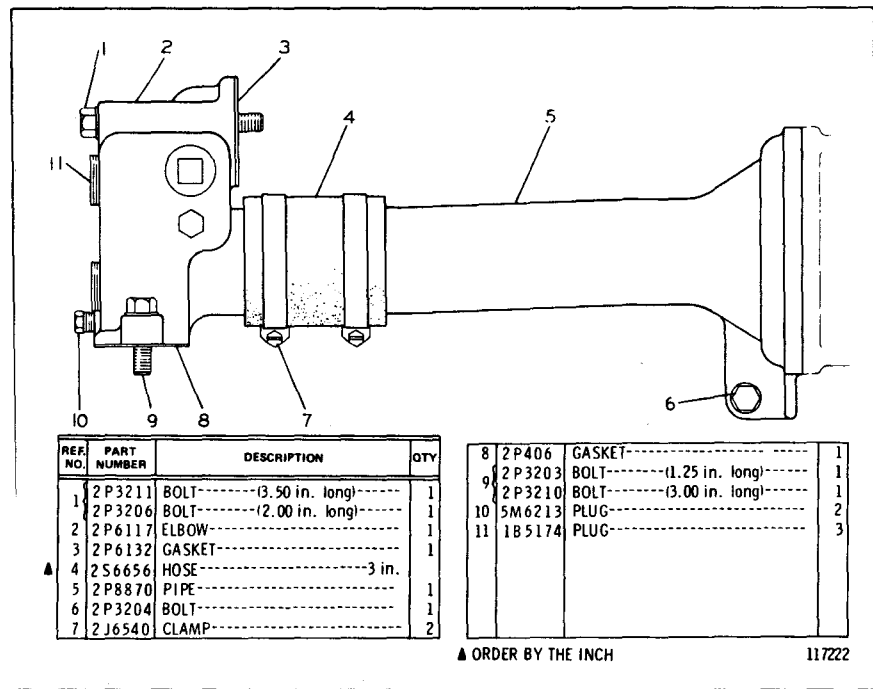
OIL COOLER (2P7738 N/S)



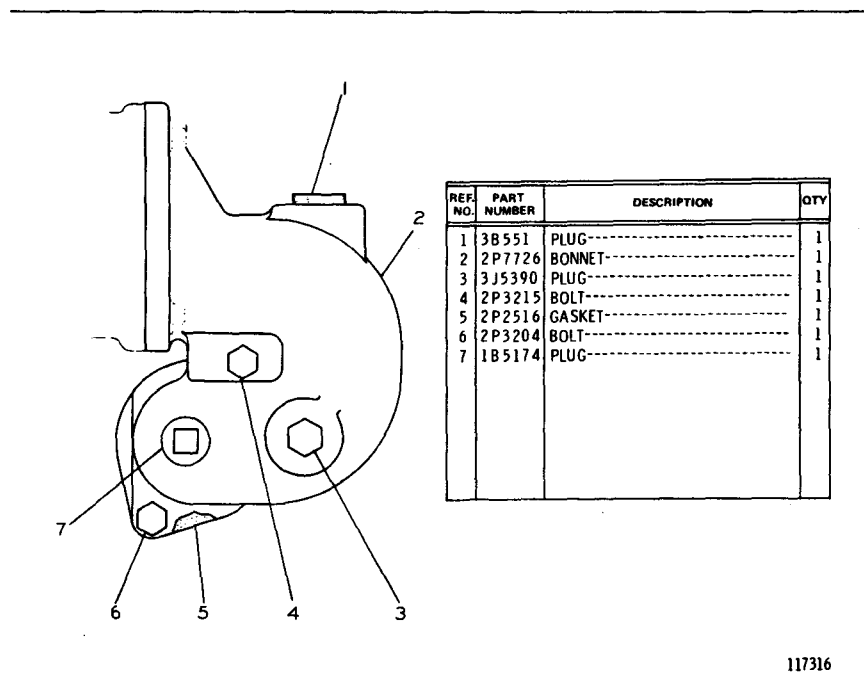
3N6099 TRANSMISSION OIL COOLER GROUP—Type 1
AN ATTACHMENT

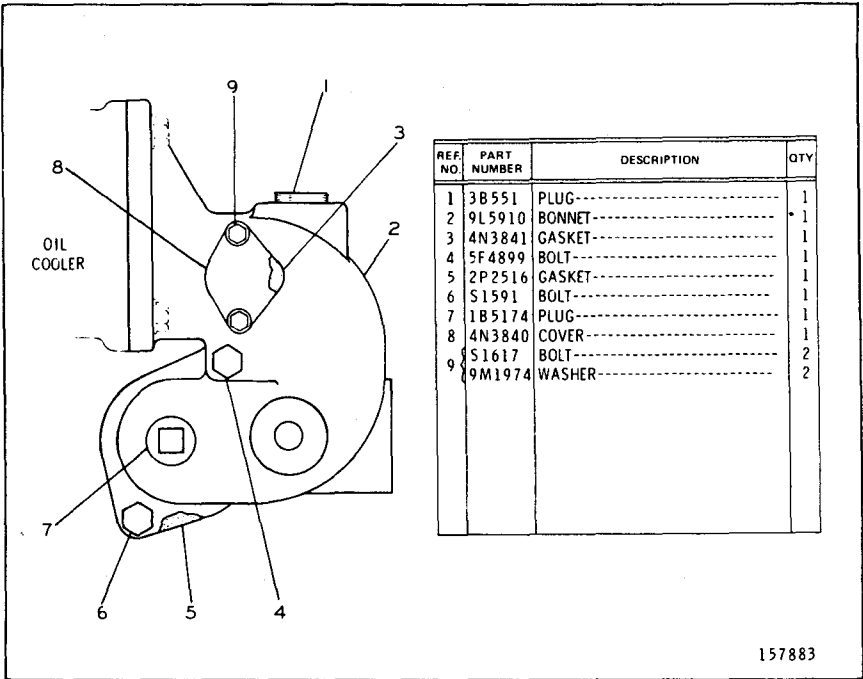


3N6099 TRANSMISSION OIL COOLER GROUP—Type 2
AN ATTACHMENT

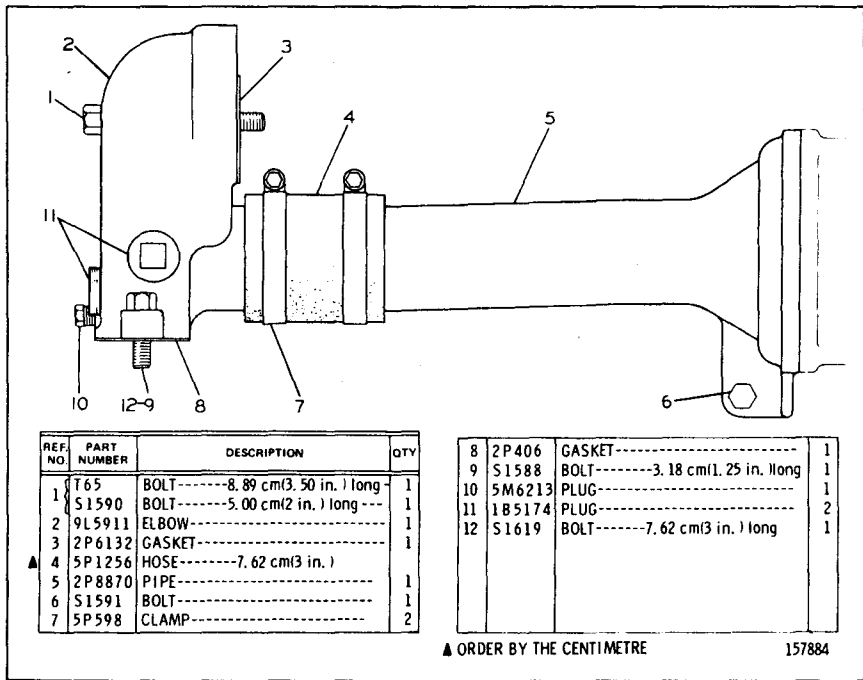


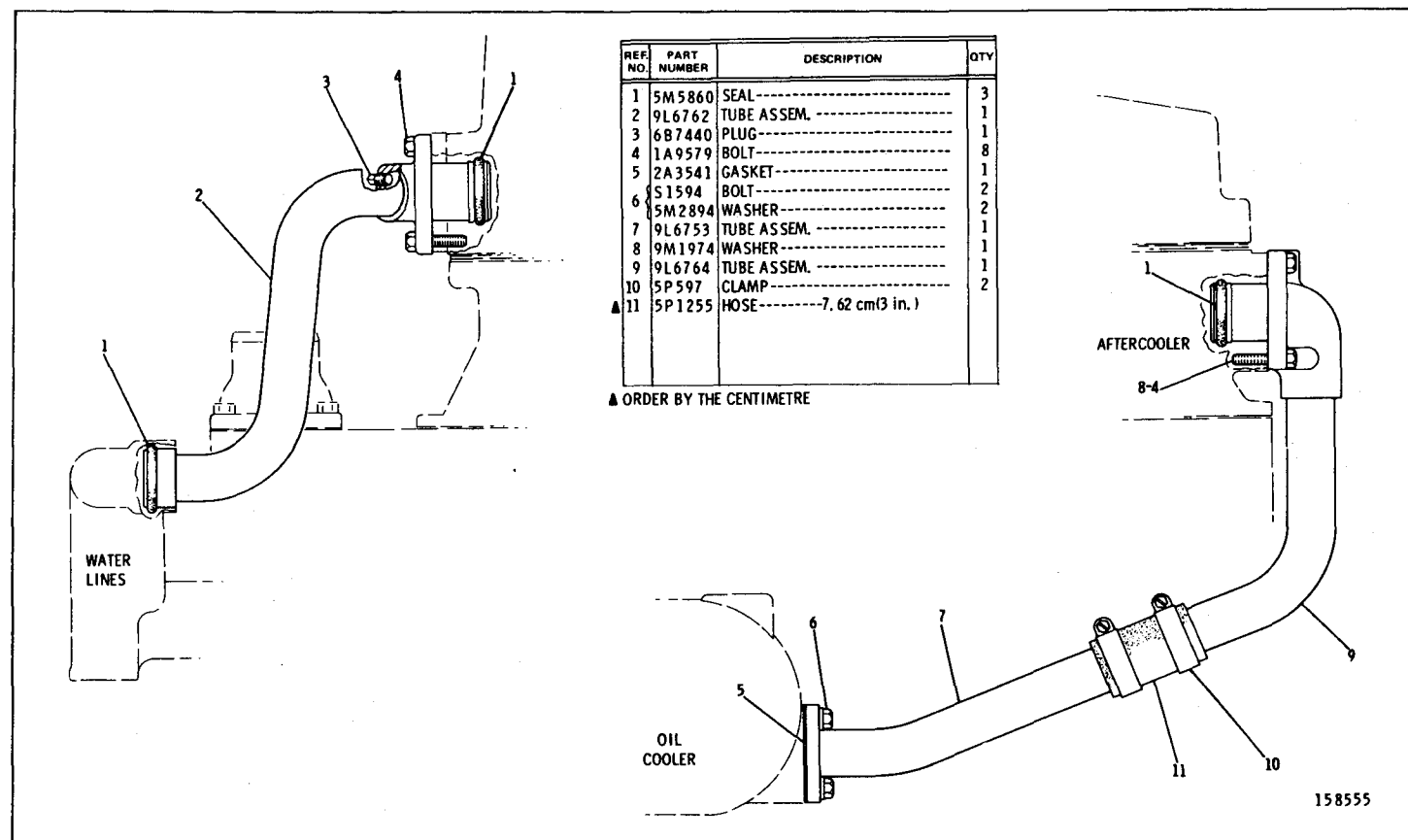
WATER LINES (2P7730 N/S)





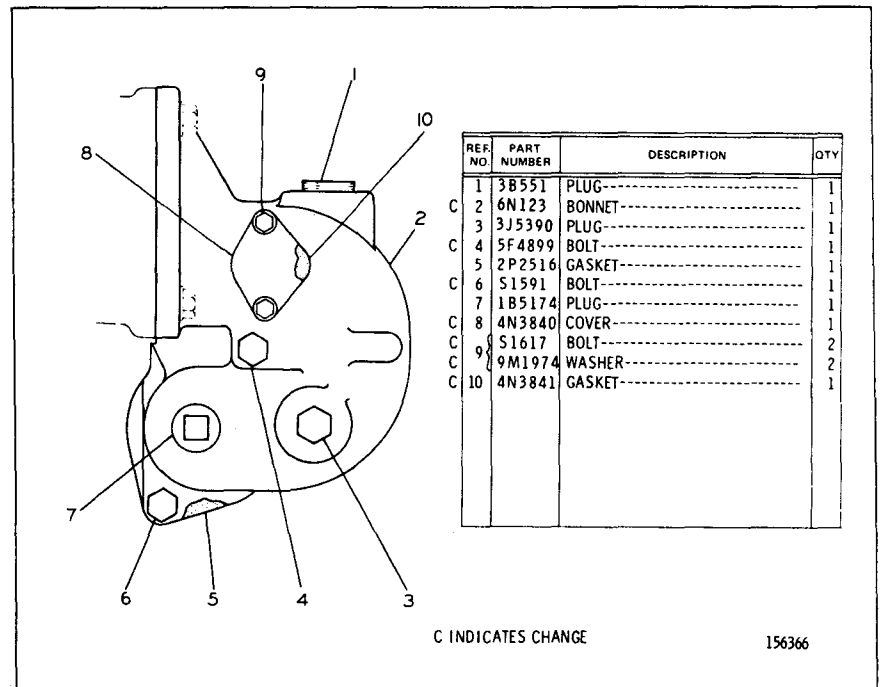
9N1245 WATER LINES GROUP—Elbow
Serial No. 66D16503-Up



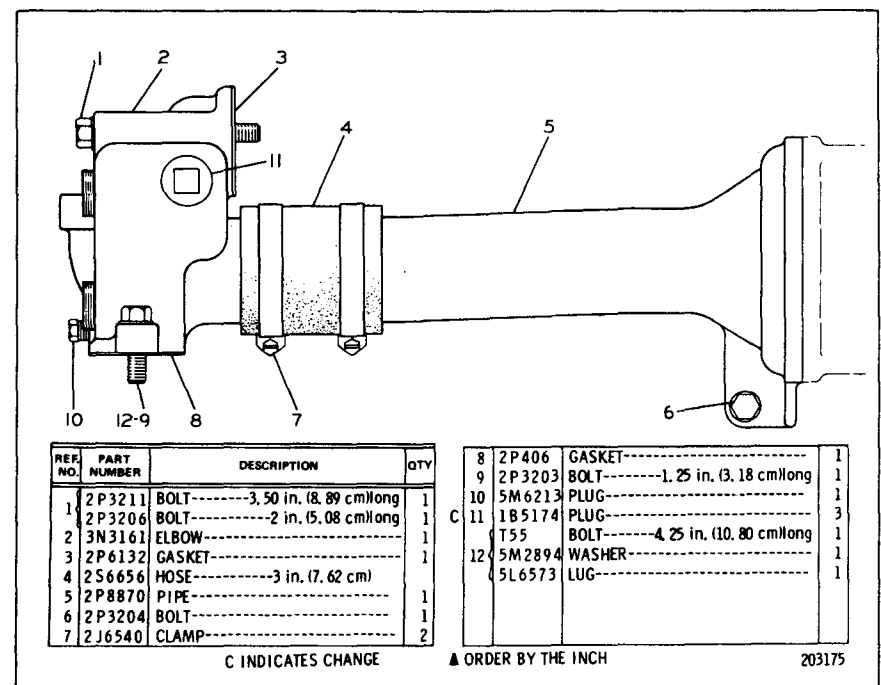


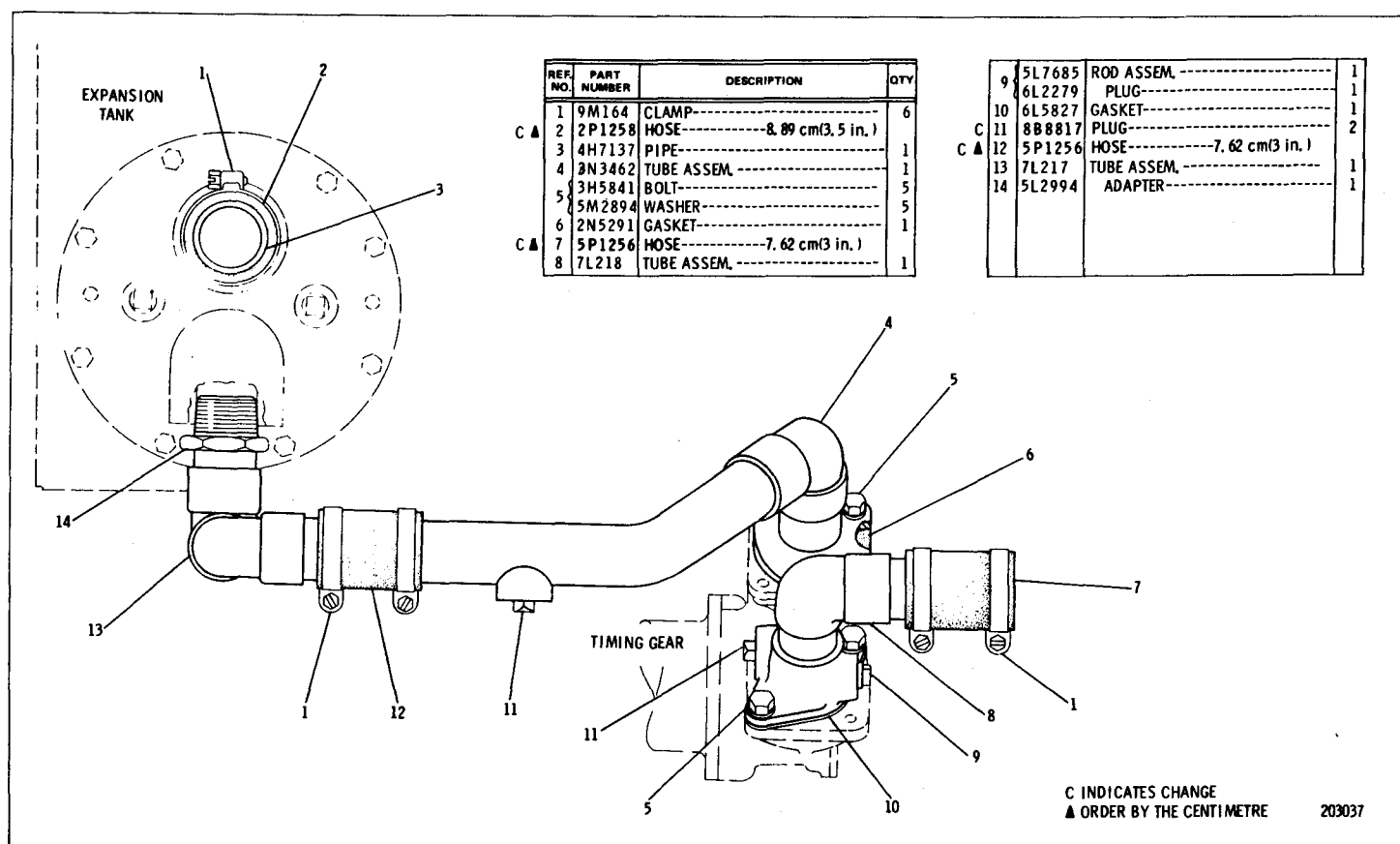
6N8492 AFTERCOOLER WATER LINES GROUP
Serial No. 66D16503-Up

158555



WATER LINES ELBOW (2P7728 N/S)
Serial No. 66D12579—Up





3N4920 AUXILIARY LINES GROUP—Sea Water
FOR USE WITH HEAT EXCHANGER AND SEA WATER PUMP
AN ATTACHMENT

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