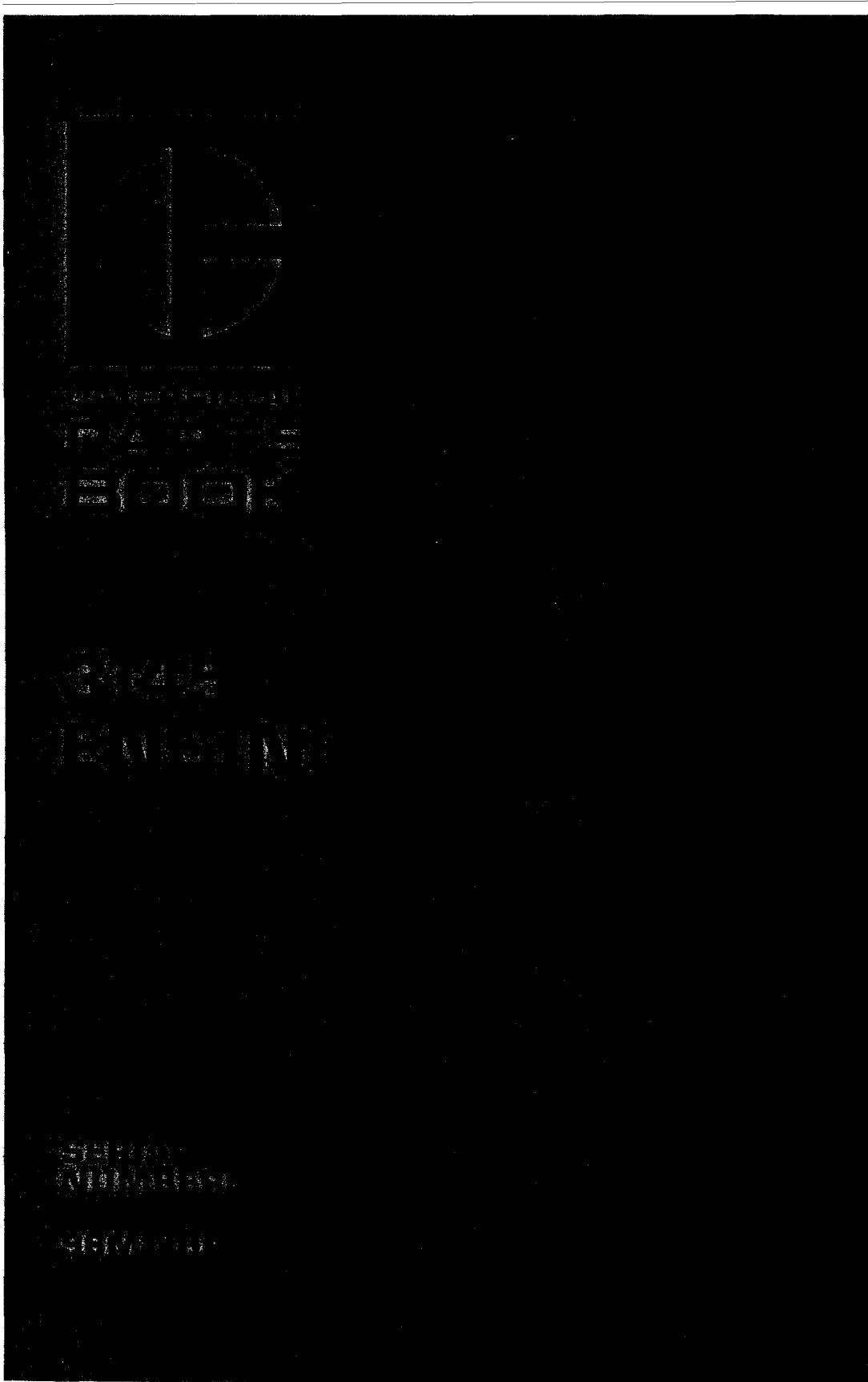




QUICK REFERENCE CHART

USE THESE CHARTS TO RECORD FREQUENTLY USED MAINTENANCE INFORMATION

MACHINE NAME

DATE

PROBLEM OR SYMPTOM

CAUSE

SOLUTION

OTHER MAINTENANCE

3145 ENGINE

SERIAL NUMBERS

96M1 — UP

PUBLISHED MAY 1972

COMPILED BY JANYCE BROERS

I N D E X

Diesel Engine

(Page 6)

Name	Page	Name	Page
Air Cleaner Adapter	15	Fuel Filter	53
Air System	12	Fuel Pump Housing	31
Alternator	64	Fuel System	36
Connecting Rod	30	Gasket Kits	28
Cooling System	8	Governor	31
Cover and Housing	21	Lubricating System	63
Crankshaft	26	Oil Pan	59
Crankshaft Bearings	28	Piston	31
Cylinder Block	20	Service Meter	31
Cylinder Head	18	Specifications	138
Engine Arrangements	6	Torque Spring	35
Engine Support	63	Transfers	137
Flywheel	29	Valve Mechanism	16

Attachments

(Page 65)

Adapter	90	Air Inlet Hose Connections	69
Air Cleaner	67	Alternator	118
Air Compressor	80	Alternator Mounting	126
Air Compressor Connections ..	84	Base	96
Air Compressor Mounting		Blower Fan	72
and Drive	76	Clutch	90

Name	Page	Name	Page
Crankshaft Pulley	85	Manifold	75
Droop Compensation	130	Meter	127
Electrical System	134	Muffler	74
Engine Enclosure	98	Oil Pan	94
Exhaust Connector	75	Pump and Lines — Fuel Priming ..	93
Fan Mounting and Drive	70	Radiator	65
Flywheel	85	Short Block	84
Fuel Tank	95	Starting — Electric	109
Generator	130	Suction Fan	73
Governor Control	91	Tachometer Drive and Mounting ..	108
Governor Torque Spring	92	Transmission Mounting	87
Instrument Panel	101	Water Pump Drive	67

INDEX ALPHABÉTIQUE

Moteur diesel

(Page 6)

Désignation	Page	Désignation	Page
Alimentation en carburant	36	Culasse	18
Alternateur	64	Ensemble moteur	6
Bielles	30	Filtre à air (groupe de montage) ..	15
Bloc-cylindres	20	Filtre à carburant	53
Butée élastique de course de crémaillère	35	Instructions sur décalcomanies ..	137
Caractéristiques	139	Jeux de joints	28
Carter de distribution et couvercle	21	Piston	31
Carter inférieur	59	Pompe d'injection	31
Circuit d'air comprimé	12	Refroidissement	8
Circuit de graissage	63	Régulateur	31
Compteur d'entretien	31	Soupapes et train de commande ..	16
Coussinets de vilebrequin	28	Support moteur	63
		Vilebrequin	26
		Volant	29

Accessoires

(Page 65)

Alternateur	118	Capot	98
Alternateur (groupe de montage) ..	126	Carter inférieur	94
Boîte de vitesses (groupe de montage)	87	Collecteurs	75
Branchement d'échappement ..	75	Compensation de chute de tension en charge	130
Branchements pour compresseur d'air	84	Compresseur d'air	80
Branchements pour tuyauterie d'admission d'air	69	Compresseur d'air (groupe de montage et entraînement) ...	76
Butée élastique de course de crémaillère	92	Démarrage électrique	109
		Dynamo	130
		Embrayage	90

Désignation	Page	Désignation	Page
Filtre à air	67	Réservoir de carburant	95
Groupe bloc et équipement mobile	84	Silencieux d'échappement	74
Groupe de montage	90	Socle	96
Installation électrique	134	Tableau de contrôle	101
Instruments de contrôle électriques	127	Tachymètre (entraînement et groupe de montage)	108
Pompe à eau (entraînement)	67	Ventilateur aspirant	73
Pompe d'amorçage et canalisations	93	Ventilateur (groupe de montage et entraînement)	70
Poulie de vilebrequin	85	Ventilateur soufflant	72
Radiateur	65	Volant	85
Régulateur (timonerie extérieure)	91		

INDICE

Motor Diesel

(Página 6)

Nombre	Página	Nombre	Página
Adaptador del filtro de aire	15	Juegos de empaquetaduras	28
Alternador	64	Mecanismo de las válvulas	16
Bielas	30	Medidor de servicio	31
Bloque del motor	20	Pistón	31
Caja de las bombas del combustible	31	Regulador	31
Calcomanías	137	Resorte auxiliar del regulador para sobrecargas	35
Cárter	59	Sistema de aire	12
Cigüeñal	26	Sistema de enfriamiento	8
Cojinetes de bancada	28	Sistema de lubricación	63
Conjuntos de motor	6	Sistema del combustible	36
Culata	18	Soporte del motor	63
Especificaciones	140	Tapa y caja	21
Filtro del combustible	53	Volante	29

Accesorios

(Página 65)

Adaptador	90	Conexiones de manguera de admisión de aire	69
Alternador	118	Conexiones del compresor de aire	84
Arranque eléctrico	109	Control del regulador	91
Base	96	Cubierta del motor	98
Bloque de motor incompleto	84	Embrague	90
Bomba de cebado del combustible y tuberías	93	Filtro de aire	67
Cárter del aceite	94	Generador	130
Compensación de caída de voltaje	130	Mando de la bomba del agua	67
Compresor de aire	80	Medidor	127
Conexión de escape	75	Montaje de la transmisión	87
		Montaje del alternador	126

Nombre	Página	Nombre	Página
Montaje del compresor de aire y mando	76	Silenciador	74
Montaje del ventilador y mando	70	Sistema eléctrico	134
Múltiple	75	Tablero de instrumentos	101
Polea del cigüeñal	85	Tanque del combustible	95
Radiador	65	Toma para tacómetro y montaje	108
Resorte auxiliar del regulador para sobrecargas	92	Ventilador de succión	73
		Ventilador insuflador	72
		Volante	85

ÍNDICE

Motor Diesel

(Página 6)

Designação	Página	Designação	Página
Adaptador da tomada de ar ...	15	Marcador de horas de serviço .	31
Arranjos do motor	6	Mecanismo das válvulas	16
Árvore de manivelas	26	Mola de controle do torque ...	35
Biela	30	Pistão	31
Bloco do motor	20	Regulador de velocidade	31
Cabeçote	18	Sistema de alimentação do combustível	36
Caixa das bombas injetoras ...	31	Sistema de ar	12
Cárter do motor	59	Sistema de arrefecimento	8
Decalcomanias	137	Sistema de lubrificação	63
Especificações	141	Suporte do motor	63
Filtro principal do combustível .	53	Tampa e caixa	21
Gerador alternador	64	Volante	29
Jogos de juntas	28		
Mancais principais do motor ...	28		

Acessórios

(Página 65)

Adaptador	90	Conexões da entrada do ar	69
Base	96	Conexões do compressor de ar .	84
Bomba de purgação de combustível e tubulações	93	Controle do regulador de velocidade (acelerador)	91
Capô e tampas laterais	98	Embreagem	90
Cárter do motor	94	Gerador alternador	118
Coletor	75	Gerador de força	130
Comando da bomba d'água ...	67	Grupo básico do motor	84
Comando e suporte do compressor	76	Instrumentos do gerador de força	127
Comando do tacômetro e suporte	108	Mola de controle do torque ...	92
Compensação de queda da tensão	130	Montagem do alternador	126
Compressor de ar	80	Painel de instrumentos do motor	101
Conexão do escape	75	Partida elétrica	109
		Polia da árvore de manivelas ...	85
		Purificador de ar	67
		Radiador	65

Designação	Página	Designação	Página
Silenciador	74	Tanque de combustível	95
Sistema eléctrico	134	Ventilador de sucção	73
Suporte de transmissões	87	Ventilador insuflador	72
Suporte do ventilador e comando	70	Volante	85

INHALTSVERZEICHNIS

Dieselmotor

(Seite 6)

Bezeichnung	Seite	Bezeichnung	Seite
Abziehbilder	137	Luftreinigeranschluß	15
Belüftungsanlage	12	Motoranordnung	6
Deckel und Gehäuse	21	Motoraufhängung	63
Dichtungssätze	28	Motorblock	20
Drehmomentfeder	35	Ölwanne	59
Drehstromlichtmaschine	64	Pleuel	30
Kolben	31	Regler	31
Kraftstoffanlage	36	Schmiersystem	63
Kraftstofffilter	53	Schwungscheibe	29
Kraftstoffpumpegehäuse	31	Technische Daten	142
Kühlsystem	8	Ventilsteuerung	16
Kurbellager	28	Wartungsmesser	31
Kurbelwelle	26	Zylinderkopf	18

Zubehör

(Seite 65)

Anlasser, elektrisch	109	Krümmern	75
Ansaugstutzen	69	Kühlernetz	65
Anschluß	90	Kupplung	90
Anzeigenkonsole	101	Lichtmaschine	130
Armaturen	127	Lüfteraufhängung und Antrieb	70
Ausgleichstransformator	130	Luftkompressor	80
Auspuffanschluß	75	Luftkompressoranschluß	84
Drehmomentfeder	92	Luftkompressoraufhängung und Antrieb	76
Drehstromlichtmaschine	118	Luftreiniger	67
Drehstromlichtmaschinen- aufhängung	126	Motorverkleidung	98
Drehzahlmesserantrieb und Aufhängung	108	Ölwanne	94
Drucklüfter	72	Riemenscheibe	85
Elektr. Anlage	134	Sauglüfter	73
Gasgestänge	91	Schalldämpfer	74
Hilfsantrieb	87	Schwungscheibe	85
Kraftstoffentlüftungspumpe und -leitungen	93	Skelettmotor	84
Kraftstofftank	95	Sockel	96
		Wasserpumpenantrieb	67

Consists of:			Page
1	8L6378	Flywheel Group.....	29
1	9L8301	Crankshaft Group.....	26
1	9L8306	Lubricating System.....	63
1	9L8307	Valve Mechanism Group.....	16
	- or -		
1	9L7129	Valve Mechanism Group.....	17
8	9L8569	Connecting Rod and Piston Group.....	30
1	9L8822	Fuel Filter Group.....	53
1	9L9446	Cylinder Block Group.....	20
1	9L9601	Cylinder Head Group.....	18
1	9L9886	Cooling System.....	8
	- or -		
1	2N5752	Cooling System.....	9
1	1N9939	Engine Support Group.....	63
1	1N9985	Fuel System.....	36
1	2N211	Air System.....	12
1	2N991	Oil Pan Group.....	59
1	2N1015	Service Meter Group.....	31
1	2N1575	Cover and Housing Group.....	21

8L6216 ENGINE ARRANGEMENT

Serial No. 96M1 to 96M962 inclusive

NOTE: WHEN ORDERING PARTS GIVE ARRANGEMENT NUMBER AND SERIAL NUMBER

Consists of:			Page
1	9L7129	Valve Mechanism Group.....	17
1	9L8301	Crankshaft Group.....	26
1	9L8306	Lubricating System.....	63
8	9L8569	Connecting Rod and Piston Group.....	30
1	9L8822	Fuel Filter Group.....	54
1	9L9446	Cylinder Block Group.....	20
1	9L9601	Cylinder Head Group.....	18
	- or -		
1	9L7361	Cylinder Head Group.....	18A
	- or -		
1	9L7625	Cylinder Head Group.....	19
1	1N9985	Fuel System.....	40
1	2N211	Air System.....	12
	- or -		
1	3N3284	Air System.....	13
1	2N991	Oil Pan Group.....	59
1	2N3490	Cover and Housing Group.....	24
1	2N5752	Cooling System.....	9
1	3N2915	Air Cleaner Adapter Group.....	15

2N8616 ENGINE ARRANGEMENT

Effective with Serial No. 96M963

NOTE: WHEN ORDERING PARTS GIVE

ARRANGEMENT NUMBER AND SERIAL NUMBER

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS

Consists of:		Page
1	8L9780 Oil Pan Group.....	61
1	9L7361 Cylinder Head Group.....	18A
	- or -	
1	9L7625 Cylinder Head Group.....	19
1	9L8306 Lubricating System.....	63
8	9L8569 Connecting Rod and Piston Group.....	30
1	9L8822 Fuel Filter Group.....	54
1	9L9446 Cylinder Block Group.....	20
1	3N3284 Air System.....	12
1	2N1575 Cover and Housing Group.....	22
1	2N4026 Crankshaft Group.....	27
1	2N5752 Cooling System.....	11
1	2N8441 Valve Mechanism Group.....	17
1	2N8509 Fuel System.....	42
1	3N740 Flywheel Group.....	30

3N3516 ENGINE ARRANGEMENT

Effective with Serial No. 96M1963

NOTE: WHEN ORDERING PARTS GIVE

ARRANGEMENT NUMBER AND SERIAL NUMBER

Consists of:		Page
1	8H4681 Primary Fuel Filter Group.....	52
1	8L6378 Flywheel Group.....	29
1	9L7129 Valve Mechanism Group.....	17
1	9L7361 Cylinder Head Group.....	18A
	- or -	
1	9L7625 Cylinder Head Group.....	19
1	9L8301 Crankshaft Group.....	26
1	9L8306 Lubricating System.....	63
8	9L8569 Connecting Rod and Piston Group.....	30
1	9L9446 Cylinder Block Group.....	20
1	2N5752 Cooling System.....	11
1	2N8449 Fuel System.....	44
1	3N2915 Air Cleaner Adapter Group.....	15
1	3N3282 Air System.....	14
1	3N4107 Alternator Group.....	64
1	3N4108 Oil Pan Group.....	62
1	3N4110 Cover and Housing Group.....	23
1	9L8822 Fuel Filter Group.....	54
1	7F6429 Ammeter	
2	9L7132 Exhaust Connector Assembly	
1	1N9787 Fan Spacer	
1	2N5880 Regulator Harness Assembly	
1	2N7278 Voltage Regulator Assembly	
1	2N8985 Regulator Bracket Assembly	

3N4106 ENGINE ARRANGEMENT

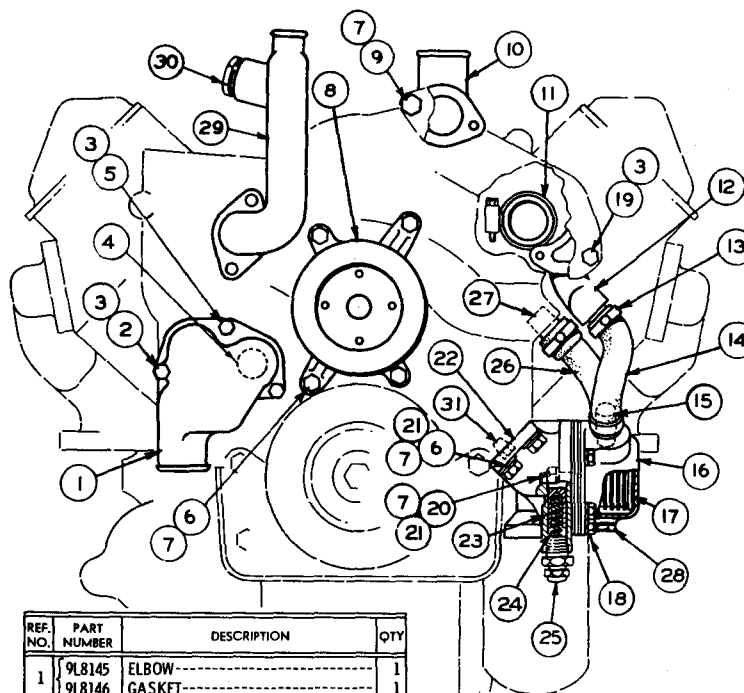
Effective with Serial No. 96M1973

NOTE: WHEN ORDERING PARTS GIVE

ARRANGEMENT NUMBER AND SERIAL NUMBER

ONLY "CATERPILLAR" PARTS GIVE "CATERPILLAR" PERFORMANCE

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS



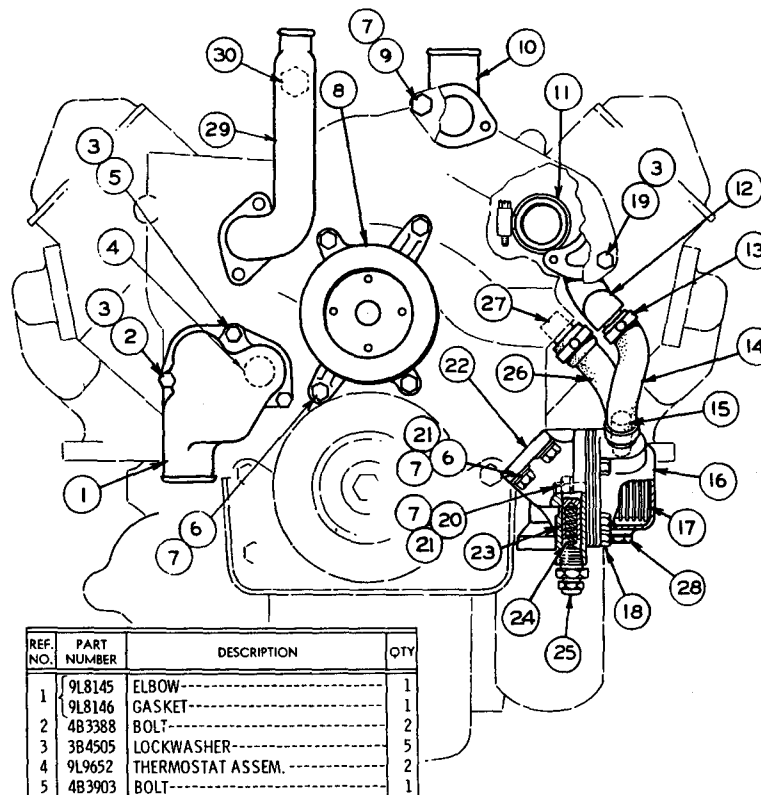
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L8145	ELBOW-----	1
2	9L8146	GASKET-----	1
3	4B3388	BOLT-----	2
4	3B4505	LOCKWASHER-----	5
5	9L9652	THERMOSTAT ASSEM.-----	2
	4B3903	BOLT-----	1

6	S1588	BOLT-----	8
7	3B4506	LOCKWASHER-----	13
8	9L7505	WATER PUMP ASSEM.-----	1
9	9L8392	GASKET-----	2
	L1143	BOLT-----	1
10	9L8662	ELBOW-----	1
	9L8046	GASKET-----	1
	9L9117	SLEEVE-----	2
11	6F711	SEAL-----	4
	9M2904	CLAMP-----	2
12	9L8070	ELBOW-----	1
	9L8071	GASKET-----	1
13	2S3440	CLAMP-----	4
14	9L8958	HOSE----- (Outlet)-----	1
15	9L8966	NIPPLE-----	2
16	9L8857	COVER-----	1
	9L8063	GASKET-----	1
17	9L8821	CORE ASSEM.-----	1
	9L8391	GASKET-----	1
18	9L8925	BOLT-----	10
19	1D4541	BOLT-----	2
20	1D4717	NUT-----	3
21	4B4278	WASHER-----	7
	9L8359	BASE ASSEM.-----	1
22	8M4389	SEAL-----	2
	5M6213	PLUG-----	2
23	9L9186	VALVE-----	1
24	9L9188	SPRING-----	1
25	9L9389	CAP-----	1
	9L9385	FITTING-----	1
		(Parts of 9L8359 Assem.)	
26	9L8957	HOSE-----	1
	9L8910	TUBE-----	1
27	9L9169	NIPPLE-----	1
28	5M6214	PLUG-----	1
29	9L7274	CONNECTOR-----	1
	9L8015	GASKET-----	1
30	3M7045	PLUG-----	1
31	3J5390	PLUG----- (Drain)-----	2

131826

9L9886 COOLING SYSTEM
Serial No. 96M1 to 96M737 inclusive
See Page 28 for Gasket Kits. Only separate parts serviced

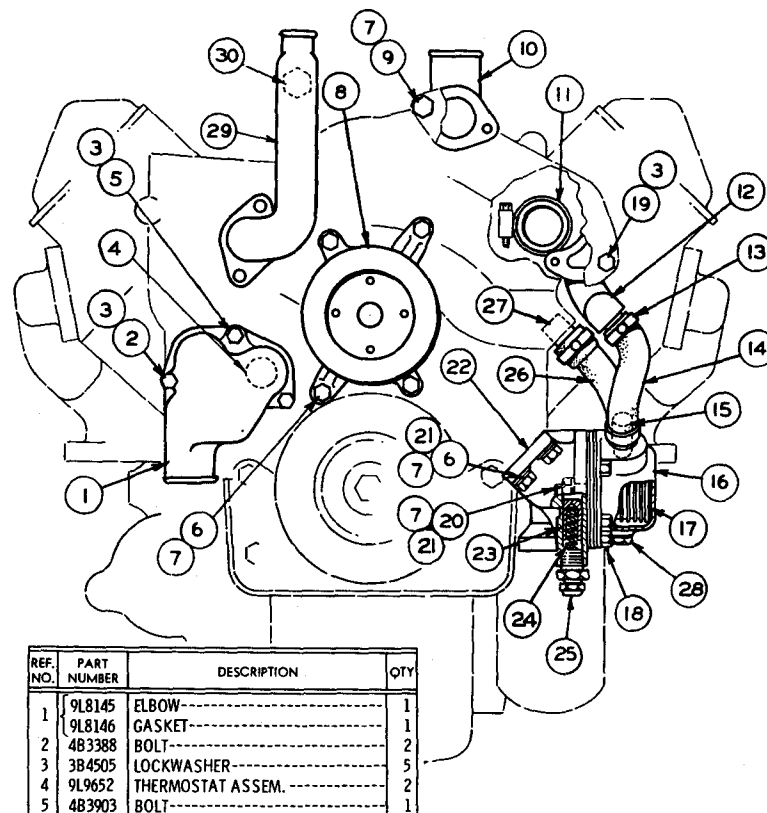
2N5752 COOLING SYSTEM
 Serial No. 96M738 to 96M1342 inclusive
 See Page 28 for Gasket Kits. Only separate parts serviced



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L8145	ELBOW-----	1
2	9L8146	GASKET-----	1
3	4B3388	BOLT-----	2
4	9L9652	LOCKWASHER-----	5
5	4B3903	THERMOSTAT ASSEM.-----	2
		BOLT-----	1

6	S1588	BOLT-----	8
7	3B4506	LOCKWASHER-----	13
8	9L7505	WATER PUMP ASSEM.-----	1
9	9L8392	GASKET-----	1
10	L1143	BOLT-----	2
11	9L8662	ELBOW-----	1
12	9L8046	GASKET-----	1
13	9L9117	SLEEVE-----	2
14	6F711	SEAL-----	4
15	9M2904	CLAMP-----	2
16	9L8070	ELBOW-----	1
17	9L8071	GASKET-----	1
18	2S3440	CLAMP-----	4
19	9L8958	HOSE----- (Outlet)	1
20	9L8966	NIPPLE-----	2
21	9L8857	COVER-----	1
22	9L8063	GASKET-----	1
23	9L8821	CORE ASSEM.-----	1
24	9L8391	GASKET-----	1
25	9L8925	BOLT-----	10
26	1D4541	BOLT-----	2
27	1D4717	NUT-----	3
28	4B4278	WASHER-----	7
29	9L8359	BASE ASSEM.-----	1
30	8M4389	SEAL-----	2
	5M6213	PLUG-----	2
	9L9186	VALVE-----	1
	9L9188	SPRING-----	1
	9L9389	CAP-----	1
	9L9385	FITTING-----	1
		(Parts of 9L8359 Assem.)	
	9L8957	HOSE-----	1
	9L8910	TUBE-----	1
	9L9169	NIPPLE-----	1
	5M6214	PLUG-----	1
	1N7248	CONNECTOR-----	1
	9L8015	GASKET-----	1
	3M7045	PLUG-----	1

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING. DADTC

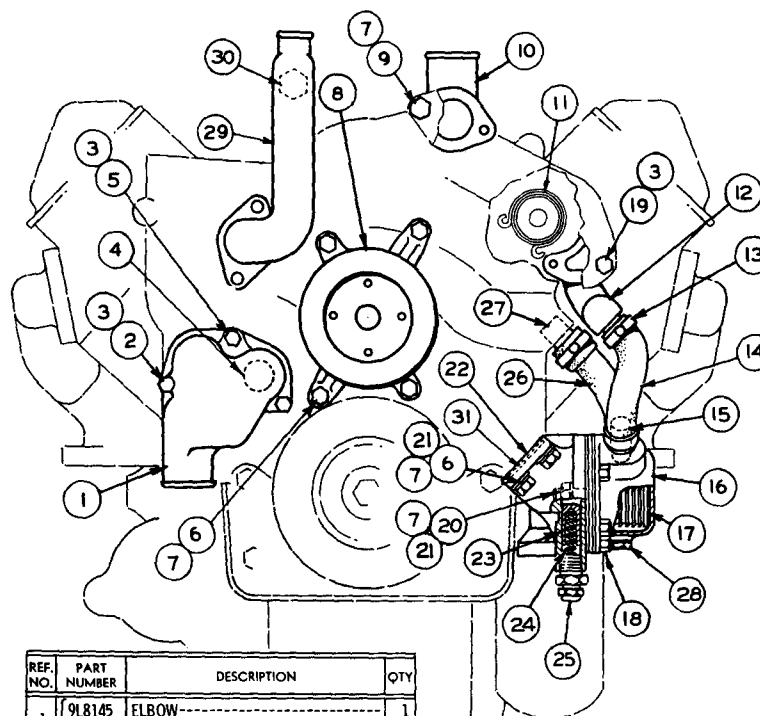


6	S1588	BOLT-----	8
7	3B4506	LOCKWASHER-----	13
8	9L7620	WATER PUMP ASSEM.-----	1
9	9L8392	GASKET-----	1
10	L1143	BOLT-----	2
11	9L8662	ELBOW-----	1
12	9L8046	GASKET-----	1
13	9L9117	SLEEVE-----	2
14	6F711	SEAL-----	4
15	9M2904	CLAMP-----	2
16	9L8070	ELBOW-----	1
17	9L8071	GASKET-----	1
18	2S3440	CLAMP-----	4
19	9L7708	HOSE----- (Outlet)-----	1
20	9L8966	NIPPLE-----	2
21	9L8857	COVER-----	1
22	9L8063	GASKET-----	1
23	9L8821	CORE ASSEM.-----	1
24	9L8391	GASKET-----	1
25	9L8925	BOLT-----	10
26	1D4541	BOLT-----	2
27	1D4717	NUT-----	3
28	4B4278	WASHER-----	7
29	9L8359	BASE ASSEM.-----	1
30	8M4389	SEAL-----	2
	5M6213	PLUG-----	2
	9L9186	VALVE-----	1
	9L9188	SPRING-----	1
	9L9389	CAP-----	1
	9L9385	FITTING-----	1
	2N9846	HOSE-----	1
	2N9847	TUBE-----	1
	9L9169	NIPPLE-----	1
	5M6214	PLUG-----	1
	1N7248	CONNECTOR-----	1
	9L8015	GASKET-----	1
	3M7045	PLUG-----	1
	7M7410	PLUG----- (R.H. Drain)-----	1
	3J5390	PLUG----- (L.H. Drain)-----	1
		(NOT SHOWN)	

135736

2N5752 COOLING SYSTEM
Serial No. 96M1343 to 96M1412 inclusive
See Page 28 for Gasket Kits. Only separate parts serviced

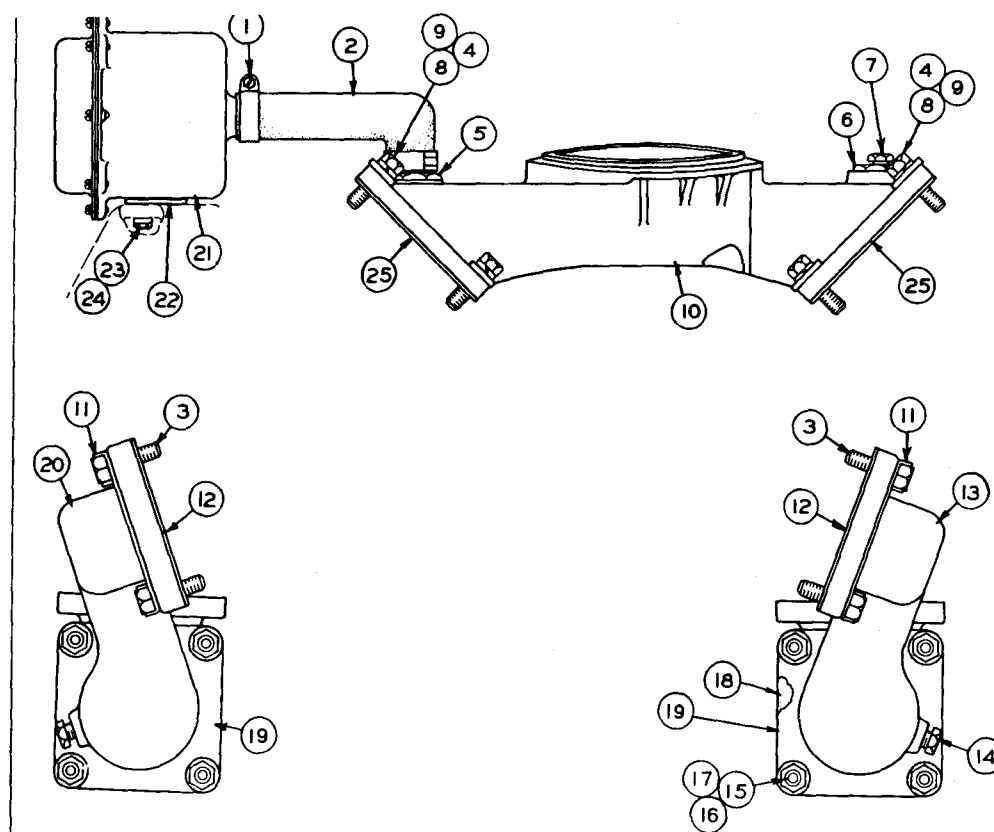
2N5752 COOLING SYSTEM
Effective with Serial No. 96M1413
See Page 28 for Gasket Kits. Only separate parts serviced



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L8145	ELBOW-----	1
2	9L8146	GASKET-----	1
3	4B3388	BOLT-----	2
4	3B4505	LOCKWASHER-----	5
5	9L9652	THERMOSTAT ASSEM.-----	2
6	4B3903	BOLT-----	1

7M7410	PLUG-----	(R.H. -Drain)-----	1
3J5390	PLUG-----	(L.H. -Drain)-----	1
(NOT SHOWN)			

6	S1588	BOLT-----	8
7	3B4506	LOCKWASHER-----	13
8	9L7620	WATER PUMP ASSEM.-----	1
9	9L8392	GASKET-----	1
10	L1143	BOLT-----	2
11	9L8662	ELBOW-----	1
12	9L8046	GASKET-----	1
13	9L9117	SLEEVE-----	2
14	6F711	SEAL-----	4
15	9L7631	CLIP-----	2
16	9L8070	ELBOW-----	1
17	9L8071	GASKET-----	1
18	2S3440	CLAMP-----	4
19	9L7708	HOSE-----	1
20	9L8966	NIPPLE-----	2
21	9L8857	COVER-----	1
22	9L8063	GASKET-----	1
23	9L8821	CORE ASSEM.-----	1
24	9L8391	GASKET-----	1
25	9L8925	BOLT-----	10
26	1N4541	BOLT-----	2
27	1D4717	NUT-----	3
28	4B4278	WASHER-----	7
29	9L7647	BASE ASSEM.-----	1
30	5M6213	PLUG-----	2
31	9L9186	VALVE-----	1
32	9L9188	SPRING-----	1
33	9L9389	CAP-----	1
34	9L9385	FITTING-----	1
35	2N9846	HOSE-----	1
36	2N9847	TUBE-----	1
37	9L9169	NIPPLE-----	1
38	5M6214	PLUG-----	1
39	1N7248	CONNECTOR-----	1
40	9L8015	GASKET-----	1
41	3M7045	PLUG-----	1
42	8M8283	SEAL-----	2



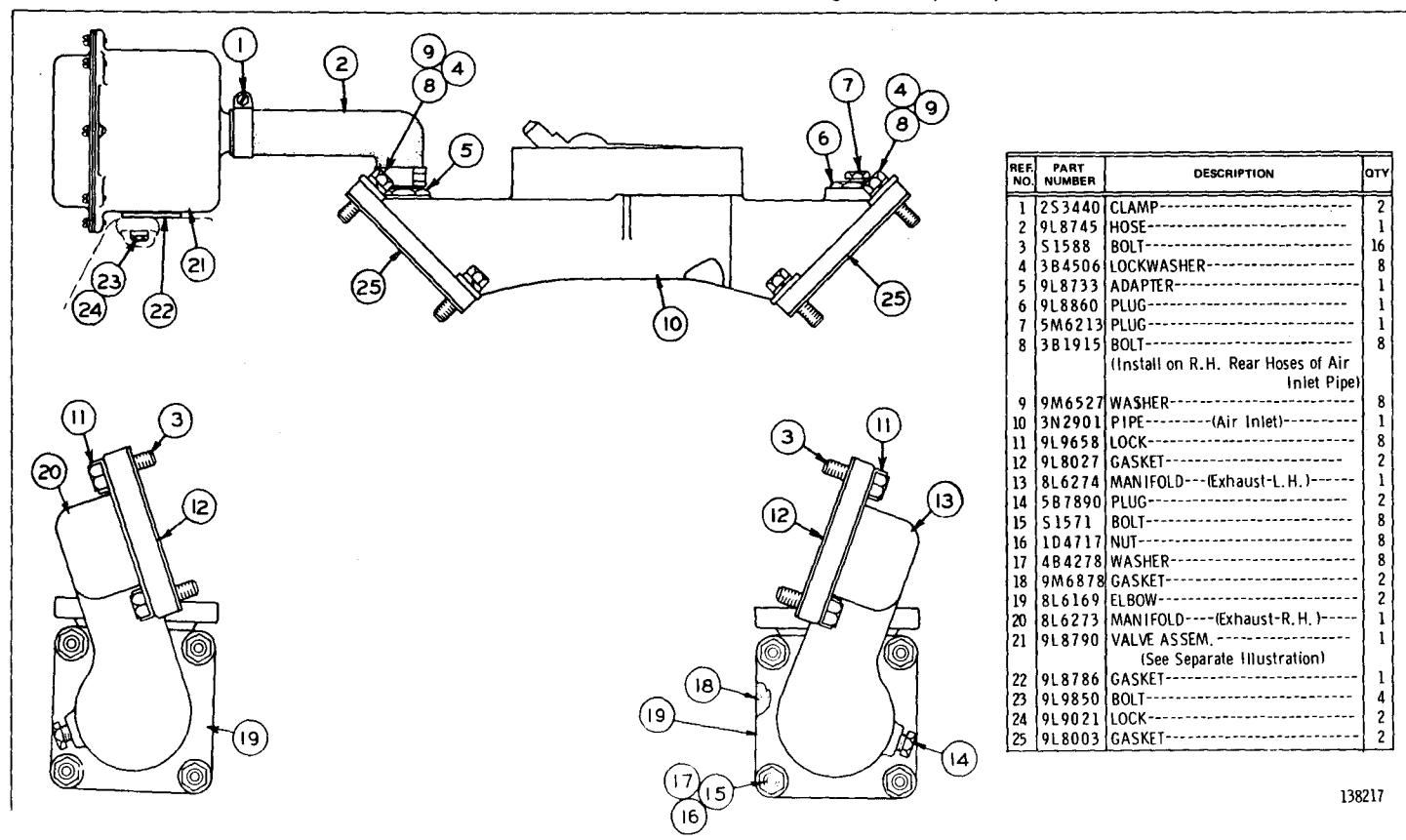
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	2S3440	CLAMP-----	2
2	9L8745	HOSE-----	1
3	S1588	BOLT-----	16
4	3B4506	LOCKWASHER-----	8
5	9L8733	ADAPTER-----	1
6	9L8860	PLUG-----	1
7	5M6213	PLUG-----	1
8	3B1915	BOLT-----	8
		(Install on Right Hand Rear Holes of Air Inlet Pipe)	
9	9M6527	WASHER-----	8
10	2N215	PIPE----- (Air Inlet)-----	1
11	9L9658	LOCK-----	8
12	9L8027	GASKET-----	2
13	8L6274	MANIFOLD-- (Exhaust-Left Hand)-----	1
14	5B7890	PLUG-----	2
15	S1571	BOLT-----	8
16	1D4717	NUT-----	8
17	4B4278	WASHER-----	8
18	9M6878	GASKET-----	2
19	8L6169	ELBOW-----	2
20	8L6273	MANIFOLD-- (Exhaust-Right Hand)-----	1
21	9L8790	VALVE ASSEM.-----	1
		(See Separate Illustration)	
22	9L8786	GASKET-----	1
23	9L9850	BOLT-----	4
24	9L9021	LOCK-----	2
25	9L8003	GASKET-----	2

132042

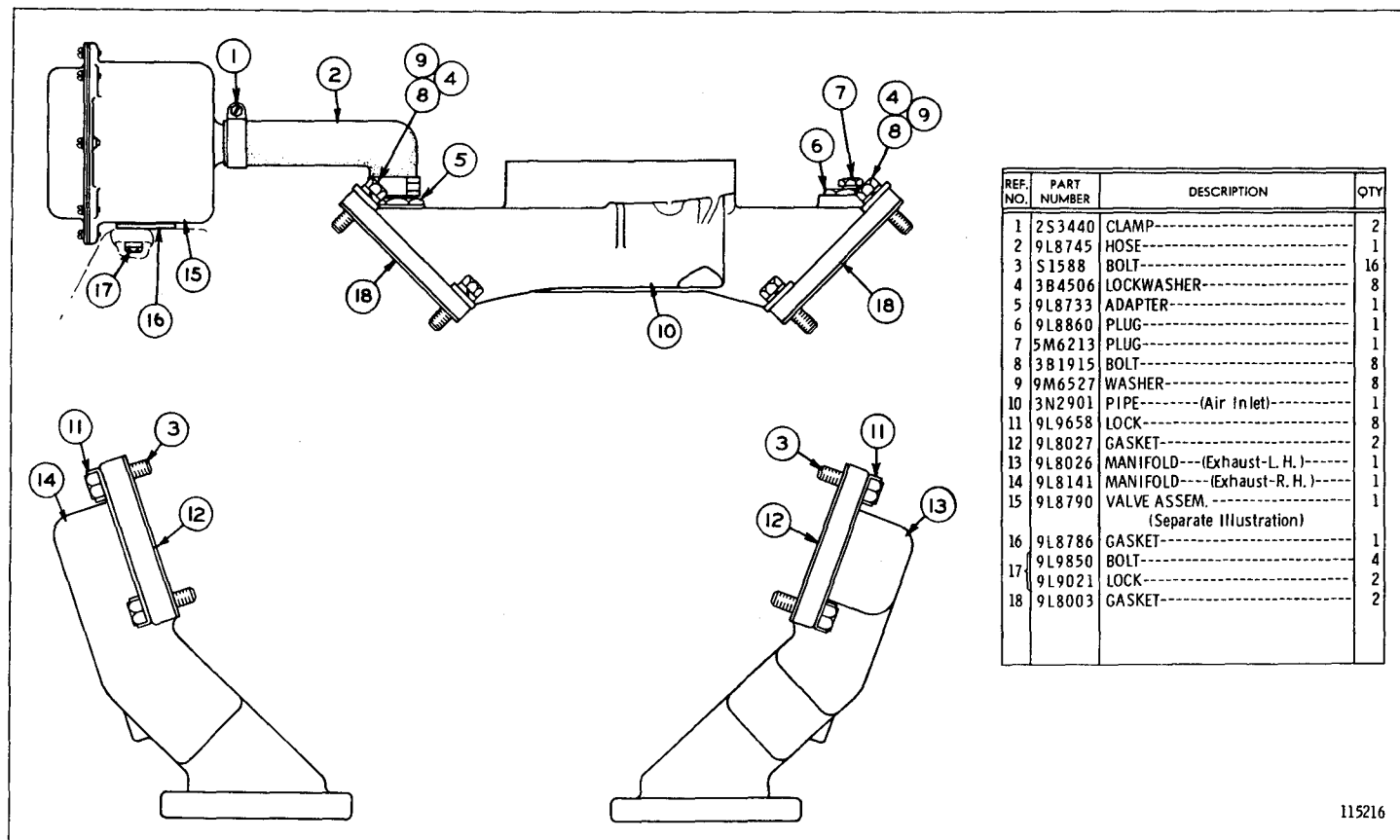
2N211 AIR SYSTEM

Serial No. 96M1 to 96M1962 inclusive. 9L8790 Valve parts are shown on Page 15
 See Page 28 for Gasket Kits. Only separate parts serviced. Refer
 also to Page 75 for special parts

3N3284 AIR SYSTEM
Effective with Serial No. 96M1963
9L8780 Valve parts are shown on Page 15. See Page 28 for Gasket Kits
Only separate parts serviced. Refer also to Page 75 for special parts



ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS

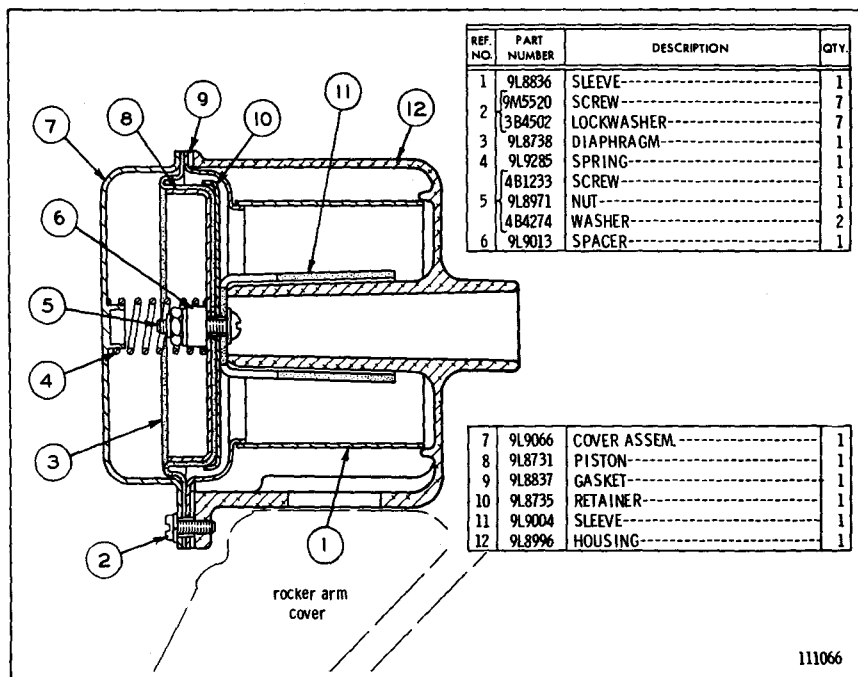


115216

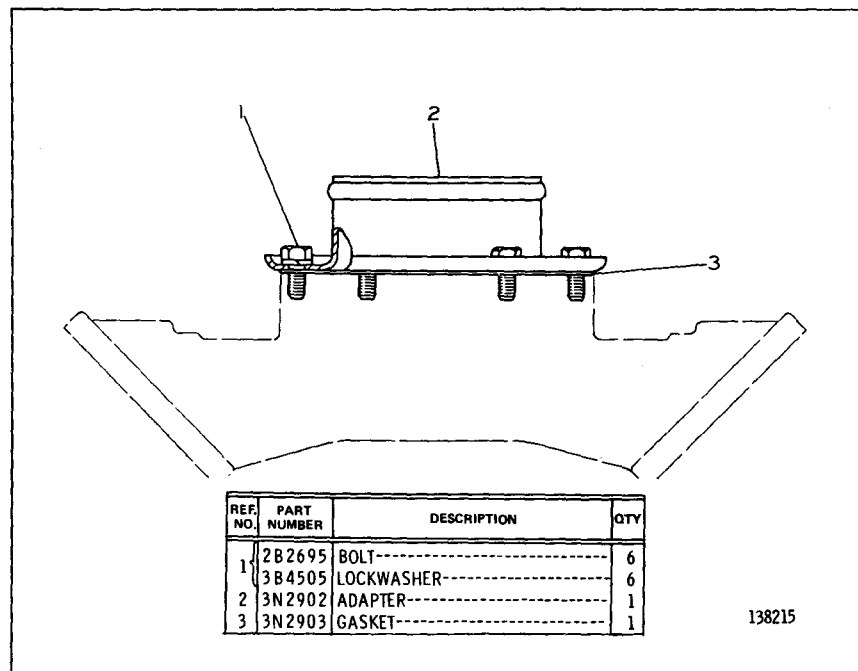
3N3282 AIR SYSTEM

See Page 28 for Gasket Kits. Only separate parts serviced
Refer also to Page 75 for special parts

3N3282 AIR SYSTEM

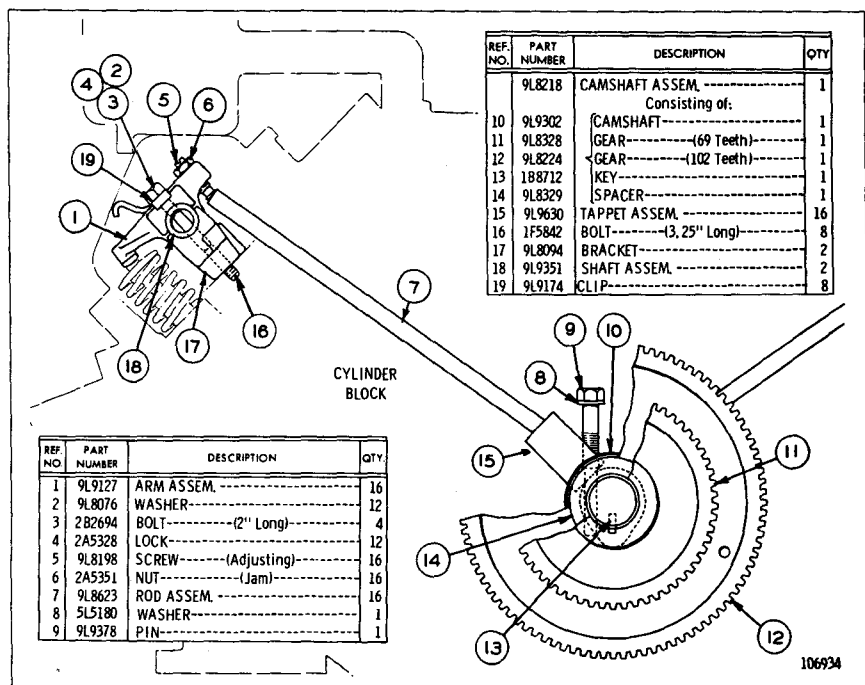


9L8790 CRANKCASE VENTILATION VALVE ASSEMBLY
 Part of 2N211, 3N3284 and 3N3282 Air Systems
 shown on Pages 12, 13 and 14

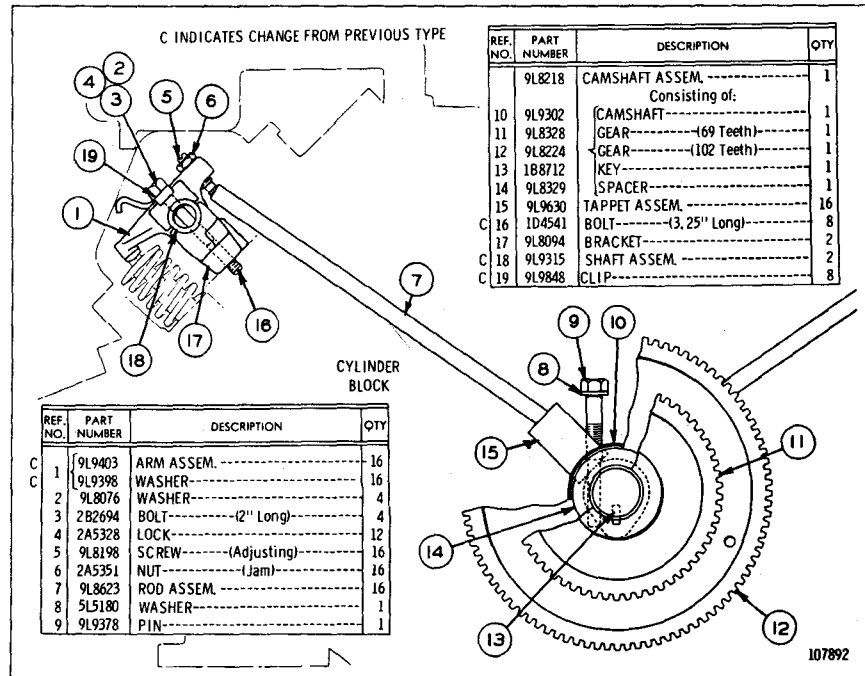


3N2915 AIR CLEANER ADAPTER GROUP
 Only separate parts serviced

ONLY "CATERPILLAR" PARTS GIVE "CATERPILLAR" PERFORMANCE

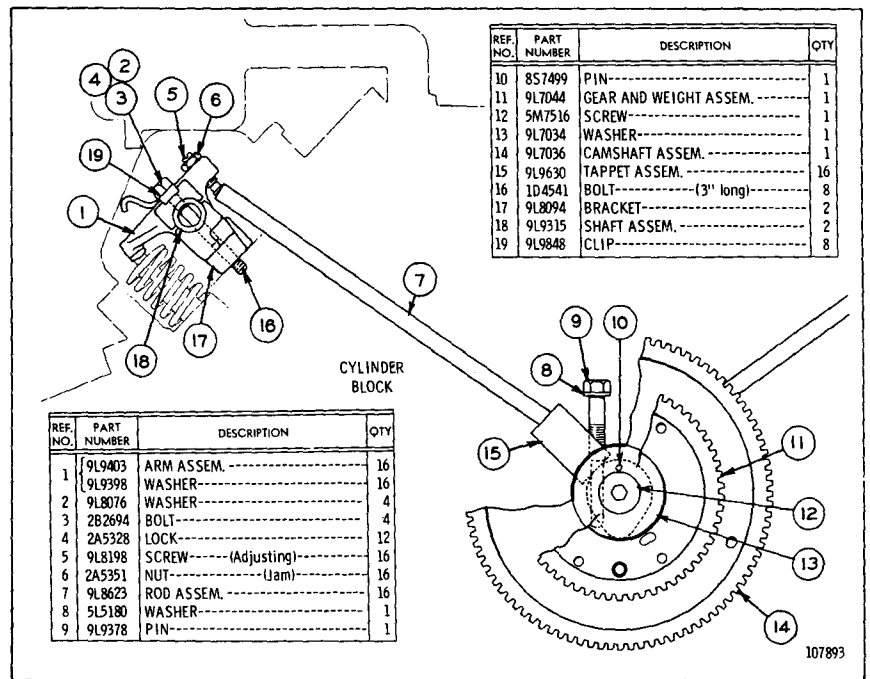


9L8307 VALVE MECHANISM GROUP
 Serial No. 96M1 to 96M302 inclusive
 Only separate parts serviced

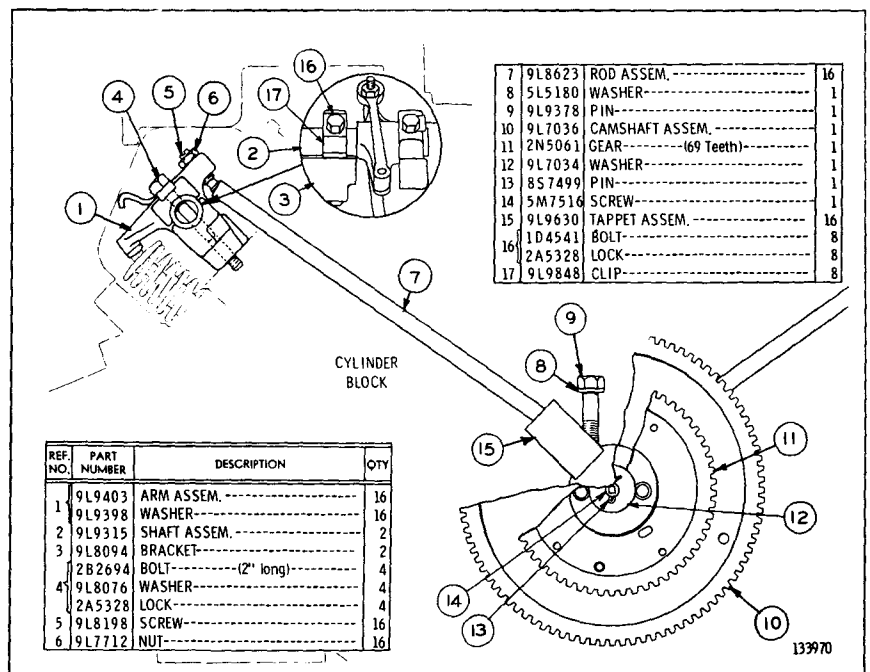


9L8307 VALVE MECHANISM GROUP
 Serial No. 96M303 to 96M522 inclusive
 Only separate parts serviced

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS

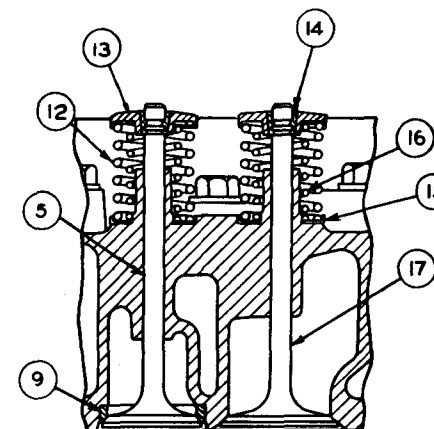
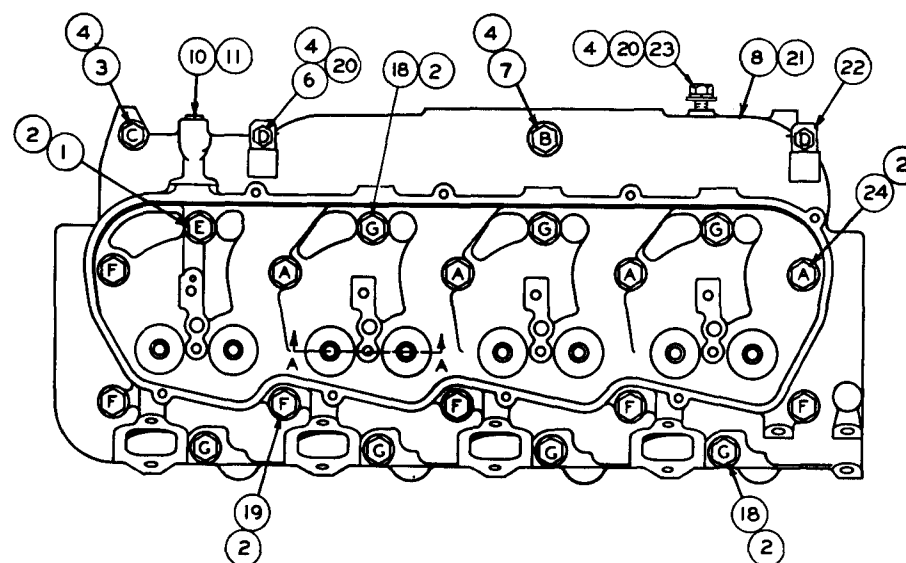


9L7129 VALVE MECHANISM GROUP
Effective with Serial No. 96M523
Only separate parts serviced



2N8441 VALVE MECHANISM
Only separate parts serviced

ONLY "CATERPILLAR" PARTS GIVE "CATERPILLAR" PERFORMANCE



VIEW A-A

REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	L1329	BOLT---(3" Long-Location "E")---	2
2	3H7654	WASHER-----	36
	S1590	BOLT---(2" Long-Location "C")--- (Left Head)	1
3	9L9166	STUD BOLT-(3.63" Long-Right Head)	1
4	3B4506	LOCKWASHER-----	9
5	9L9244	VALVE---(Exhaust)-----	8
6	5B2638	BOLT---(5.25" Long-Location "D")---	4
7	1A5183	BOLT---(4.75" Long-Location "B")---	2

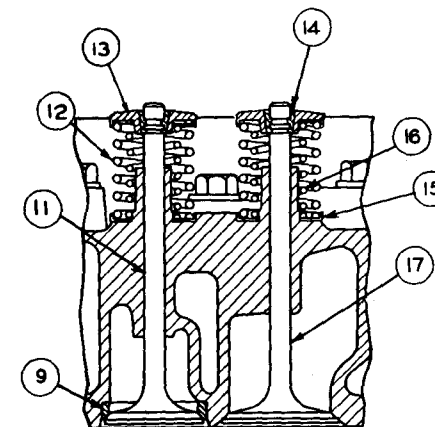
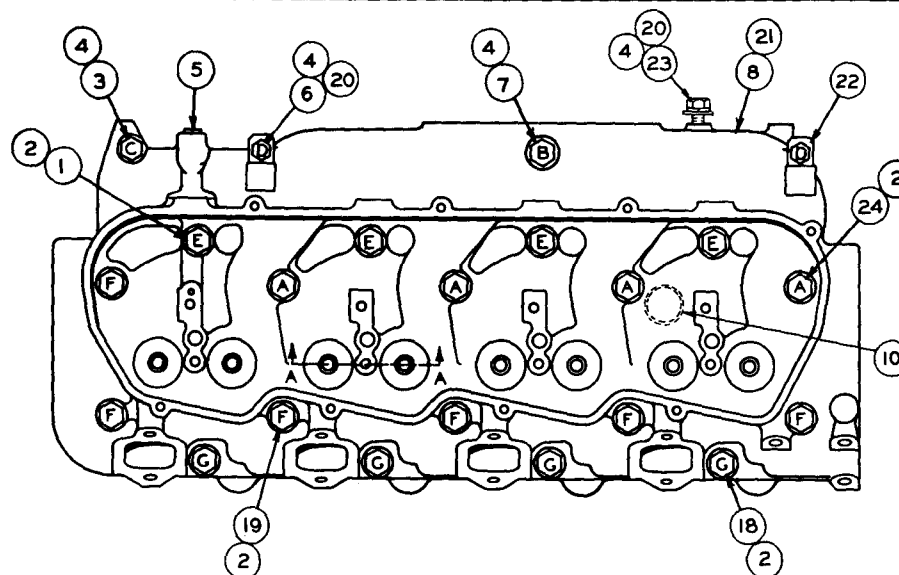
8	9L9466	HEAD ASSEM.-----	2
	T199	PLUG-----	1
9	9L8051	INSERT-----	4
10	7H3171	PLUG---(Recessed)----- (For Left Head)	1
11	5M6213	PLUG---(Hex)----- (For Right Head)	1
12	9L9190	SPRING---(Outer)-----	16
13	9L9425	RETAINER---(Outer)-----	16
14	2A4429	LOCK-----	32

15	9L8889	WASHER-----	16
16	9L9172	SPRING---(Inner)-----	16
17	9L9851	VALVE---(Intake)-----	8
18	2B947	BOLT---(2.25" Long-Location "G")---	14
19	2B2006	BOLT---(4.75" Long-Location "F")---	12
20	4B4278	WASHER---(Left Head)-----	3
21	9L9164	GASKET-----	2
22	9L9251	CLIP---(Left Head)-----	2
23	L1351	BOLT---(Left Head)-----	1
24	6F5282	BOLT---(5.25" Long-Location "A")---	8

136734

9L9601 CYLINDER HEAD GROUP
 Serial No. 96M1 to 96M1312 inclusive
 See Page 28 for Gasket Kits. Only separate parts serviced

9L7361 CYLINDER HEAD GROUP
 Serial No. 96M1313 to 96M2242 inclusive
 See Page 28 for Gasket Kits. Only separate parts serviced



VIEW A-A

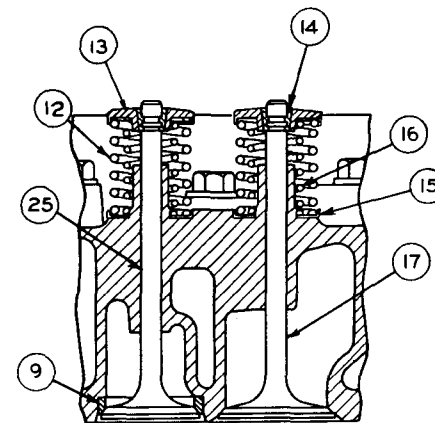
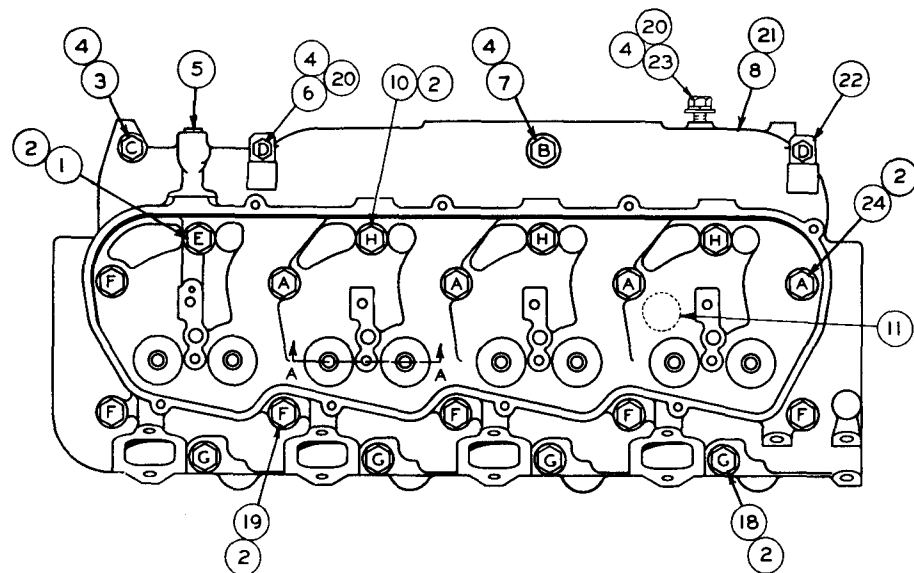
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	L1329	BOLT---(3" long - Location "E")---	8
2	3H7654	WASHER-----	36
3	S1590	BOLT---(2" Long - Location "C")---	1
		(Left Head)	
3	9L9166	STUD BOLTS(3.63" longRight Head)	1
4	3B4506	LOCKWASHER-----	9
5	7H3171	PLUG----- (Left Head)	1
5	5M6213	PLUG----- (Right Head)	1
6	5B2638	BOLT---(5.25" Long-Location "D")---	4

7	1A5183	BOLT---(4.75" Long-Location "B")---	2
8	9L7363	HEAD ASSEM.-----	2
8	T199	PLUG-----	1
9	9L8051	INSERT-----	4
10	8M5860	PLUG-----	4
11	9L9244	VALVE----- (Exhaust)	8
12	9L9190	SPRING----- (Outer)	16
13	9L9425	RETAINER-----	16
14	2A4429	LOCK-----	32
15	9L8889	WASHER-----	16

16	9L9172	SPRING----- (Inner)	16
17	9L9851	VALVE----- (Intake)	8
18	2B947	BOLT---(2.25" Long-Location "G")---	8
19	2B2006	BOLT---(4.75" Long-Location "F")---	12
20	4B4278	WASHER--- (Left Head)	3
21	9L9164	GASKET-----	2
22	9L9251	CLIP----- (Left Head)	2
23	L1351	BOLT--- (Left Head)	1
24	6F5282	BOLT---(5.25" Long-Location "A")---	8

132901

9L7625 CYLINDER HEAD GROUP
 Effective with Serial No. 96M2243
 See Page 28 for Gasket Kits. Only separate parts serviced



VIEW A-A

REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	L1329	BOLT---(3" Long - Location "E")---	2
2	3H7654	WASHER-----	36
3	S1590	BOLT---(2" Long - Location "C")--- (Left Head)	1
4	9L9166	STUD BOLT (3.63" Long-Right Head)	1
5	3B4506	LOCKWASHER-----	9
6	7H3171	PLUG----- (Left Head)-----	1
	5M6213	PLUG----- (Right Head)-----	1
	5B2638	BOLT--(5.25" long - Location "D")---	4

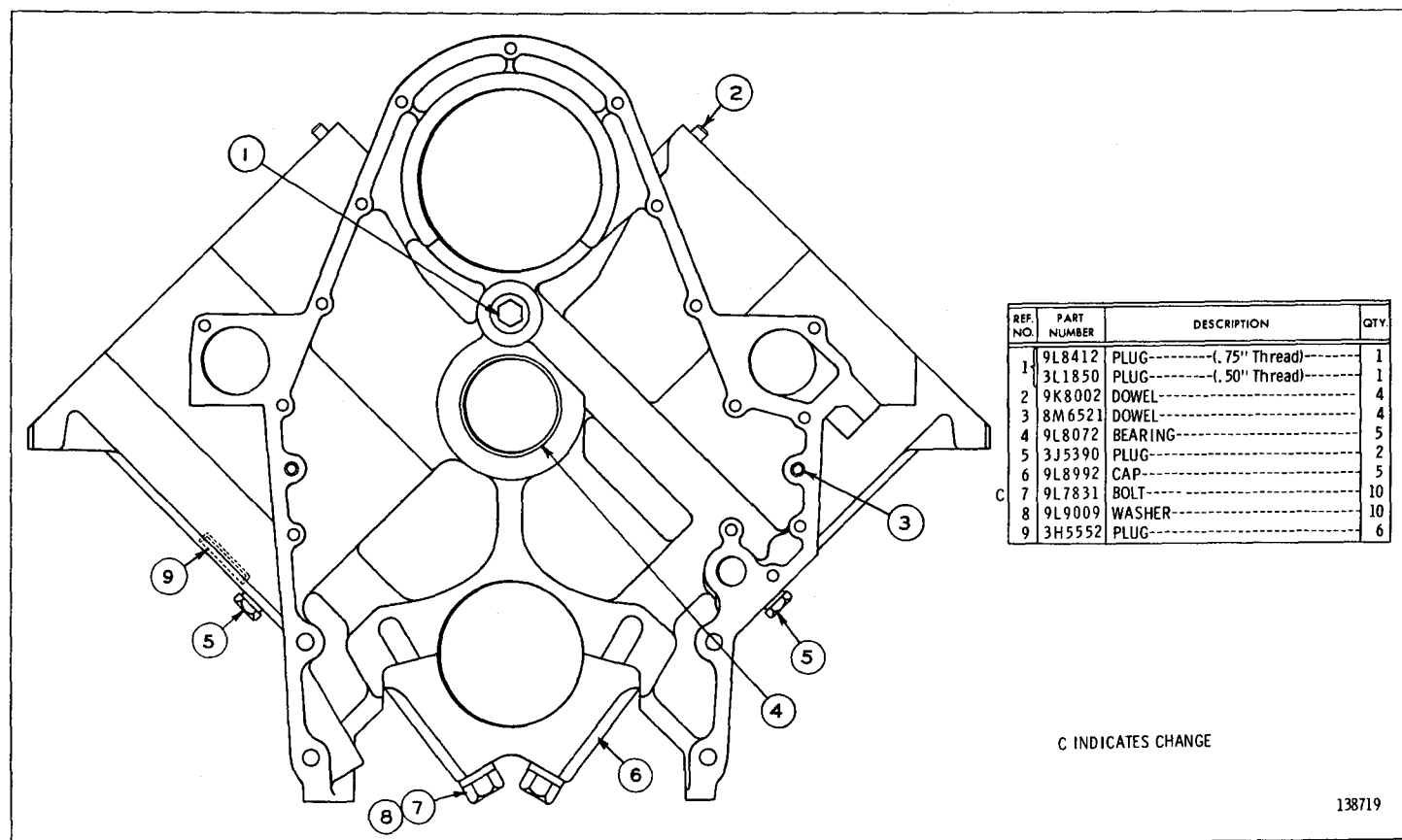
7	1A5183	BOLT---(4.75" long - Location "B")---	2
8	9L7627	HEAD ASSEM. -----	2
9	9L7657	PLUG-----	1
10	9L7622	INSERT-----	4
11	L1329	BOLT---(3" Long - Location "H")---	3
12	8M5860	PLUG-----	4
13	9L9190	SPRING----- (Outer)-----	16
14	9L9425	RETAINER-----	16
	2A4429	LOCK-----	32

15	9L8889	WASHER-----	16
16	9L9172	SPRING----- (Inner)-----	16
17	9L7682	VALVE----- (Intake)-----	8
18	2B947	BOLT---(2.25" Long-Location "G")---	8
19	2B2006	BOLT---(4.75" Long-Location "F")---	12
20	4B4278	WASHER----- (Left Head)-----	3
21	9L9164	GASKET-----	2
22	9L9251	CLIP----- (Left Head)-----	2
23	L1351	BOLT----- (Left Head)-----	1
24	6F5282	BOLT--(5.25" Long-Location "A")---	8
25	9L7683	VALVE----- (Exhaust)-----	8

C INDICATES CHANGE

114973

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS

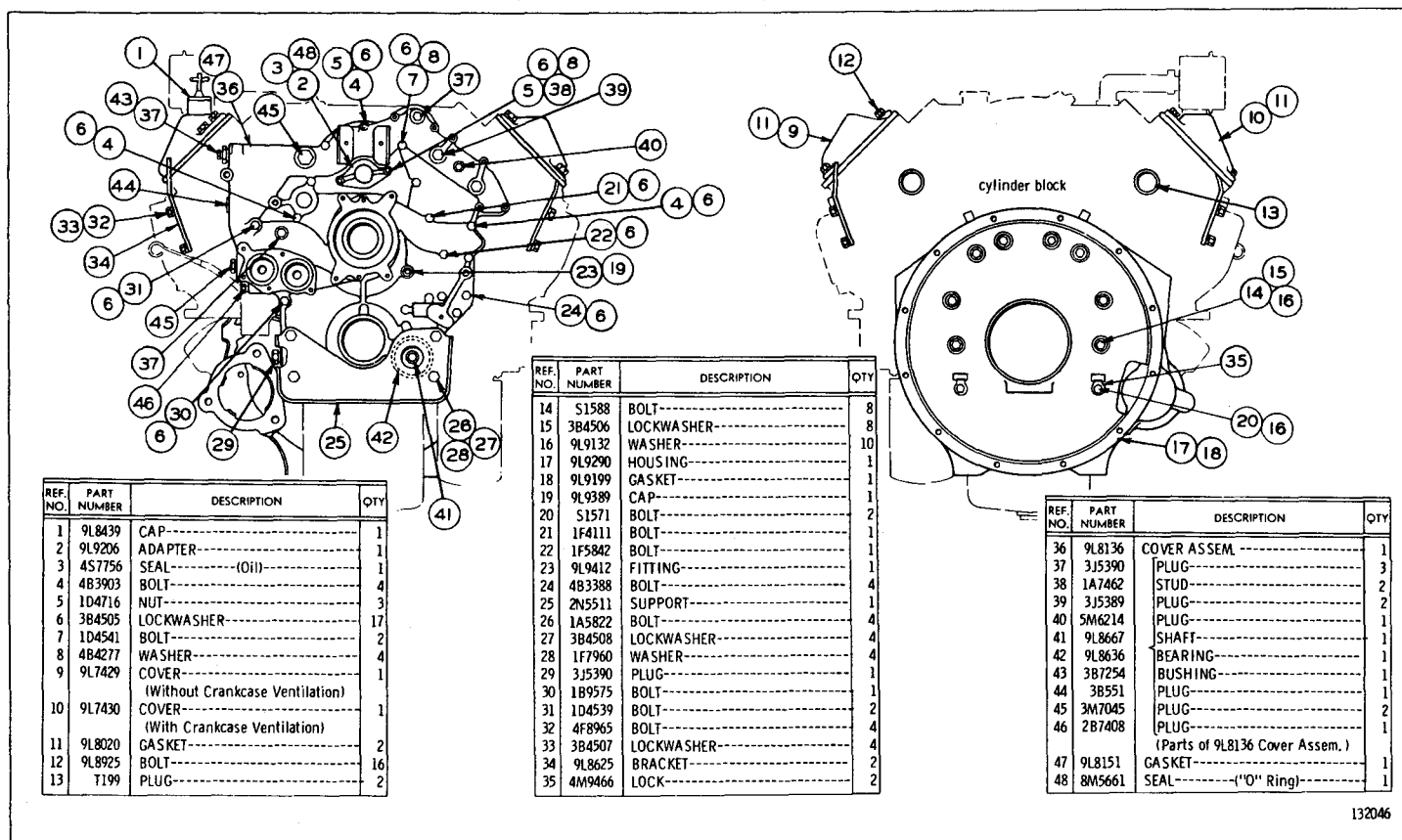


138719

9L9446 CYLINDER BLOCK GROUP
Also part of 9L9908 Short Block Group listed on Page 84

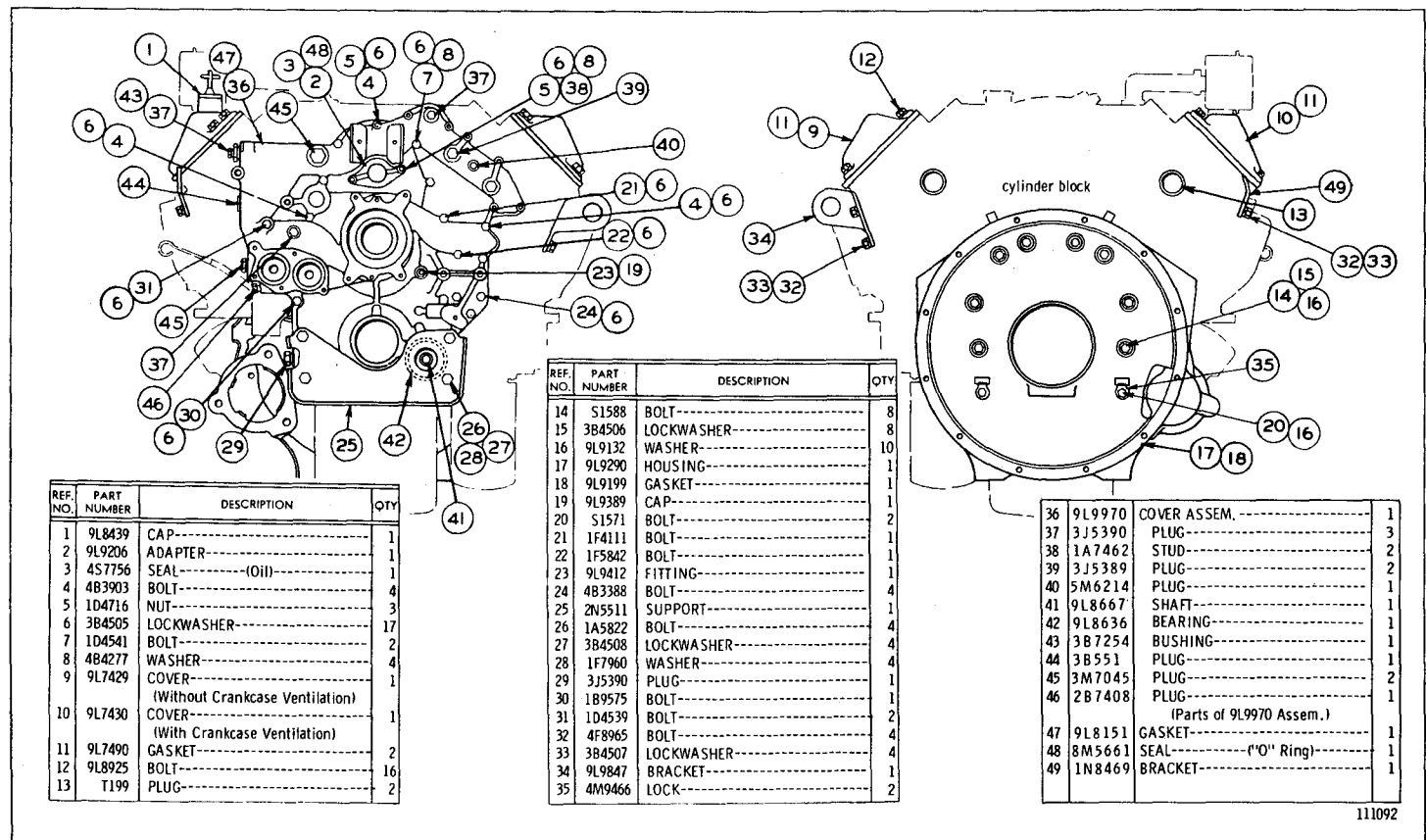
2N1575 COVER AND HOUSING GROUP
 Serial No. 96M1 to 96M878 inclusive
 See Page 28 for Gasket Kits. Only separate parts serviced

ONLY "CATERPILLAR" PARTS GIVE "CATERPILLAR" PERFORMANCE



132046

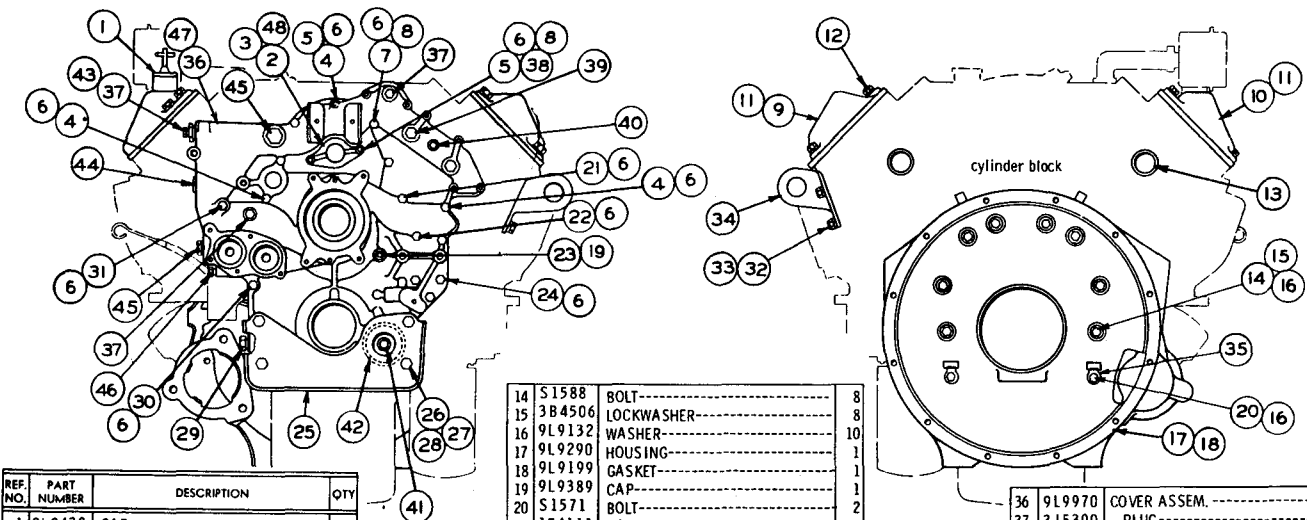
ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS



111092

2N1575 COVER AND HOUSING GROUP
Effective with Serial No. 96M879
See Page 28 for Gasket Kits. Only separate parts serviced

3N4110 COVER AND HOUSING GROUP
Only separate parts serviced

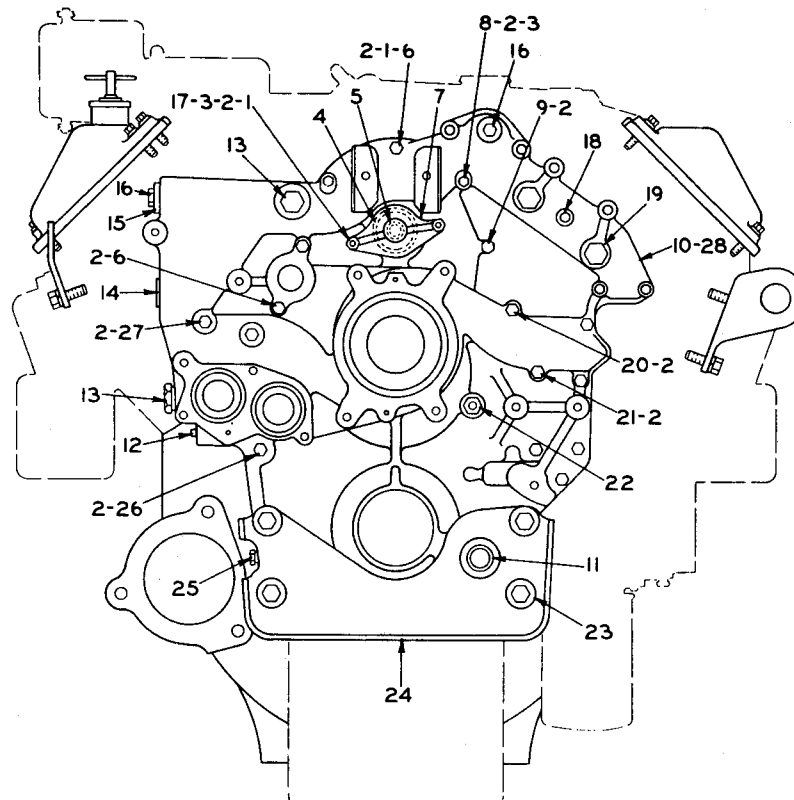


REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L8439	CAP-----	1
2	9L9206	ADAPTER-----	1
3	4S7756	SEAL----- (Oil)	1
4	4B3903	BOLT-----	4
5	1D4716	NUT-----	3
6	3B4505	LOCKWASHER-----	17
7	1D4541	BOLT-----	2
8	4B4277	WASHER-----	4
9	9L7429	COVER----- (Without Crankcase Ventilation)	1
10	9L7430	COVER----- (With Crankcase Ventilation)	1
11	9L8020	GASKET-----	2
12	9L8925	BOLT-----	16
13	9L7657	PLUG-----	2

14	S1588	BOLT-----	8
15	3B4506	LOCKWASHER-----	8
16	9L9132	WASHER-----	10
17	9L9290	HOUSING-----	1
18	9L9199	GASKET-----	1
19	9L9389	CAP-----	1
20	S1571	BOLT-----	2
21	1F4111	BOLT-----	1
22	1F5842	BOLT-----	1
23	9L9412	FITTING-----	1
24	4B3388	BOLT-----	4
25	2N5511	SUPPORT-----	1
26	1A5822	BOLT-----	4
27	3B4508	LOCKWASHER-----	4
28	1F7960	WASHER-----	4
29	3J5390	PLUG-----	1
30	1B9575	BOLT-----	1
31	1D4539	BOLT-----	2
32	4F8965	BOLT-----	2
33	3B4507	LOCKWASHER-----	2
34	9L9847	BRACKET-----	1
35	4M9466	LOCK-----	2

36	9L9970	COVER ASSEM.-----	1
37	3J5390	PLUG-----	3
38	1A7462	STUD-----	2
39	3J5389	PLUG-----	2
40	5M6214	PLUG-----	1
41	9L8667	SHAFT-----	1
42	9L8636	BEARING-----	1
43	3B7254	BUSHING-----	1
44	3B551	PLUG-----	1
45	3M7045	PLUG-----	2
46	2B7408	PLUG-----	1
47	9L8151	GASKET-----	1
48	8M5661	SEAL----- ("O" Ring)	1

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS

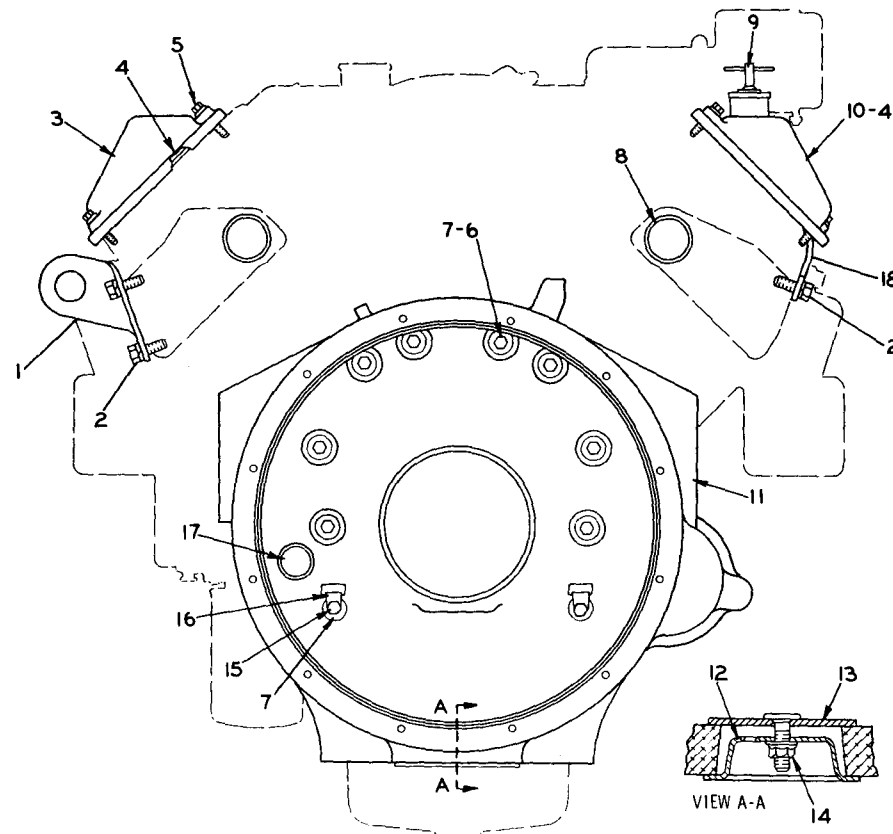


REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	1D4716	NUT-----	3
2	3B4505	LOCKWASHER-----	17
3	4B4277	WASHER-----	4
4	8M5661	SEAL-----	1
5	4S7756	SEAL-----	1
6	4B3903	BOLT-----	4
7	9L9206	ADAPTER-----	1
8	1D4541	BOLT-----	2
9	4B3388	BOLT-----	4
10	9L9970	COVER ASSEM.-----	1
11	9L8667	SHAFT-----	1
11	9L8636	BEARING-----	1
12	2B7408	PLUG-----	1
13	3M7045	PLUG-----	2
14	3B551	PLUG-----	1
15	3B7254	BUSHING-----	1
16	3J5390	PLUG-----	3
17	1A7462	STUD-----	2
18	5M6214	PLUG-----	1
19	3J5389	PLUG-----	2
(Parts of 9L9970 Assem.)			
20	1F4111	BOLT-----	1
21	1F5842	BOLT-----	1
22	9L9412	FITTING-----	1
22	9L9389	CAP-----	1
22	1A5822	BOLT-----	4
23	3B4508	LOCKWASHER-----	4
23	1F7960	WASHER-----	4
24	2N5511	SUPPORT-----	1
25	3J5390	PLUG-----	1
26	1B9575	BOLT-----	1
27	1D4539	BOLT-----	2
28	9L8151	GASKET-----	1

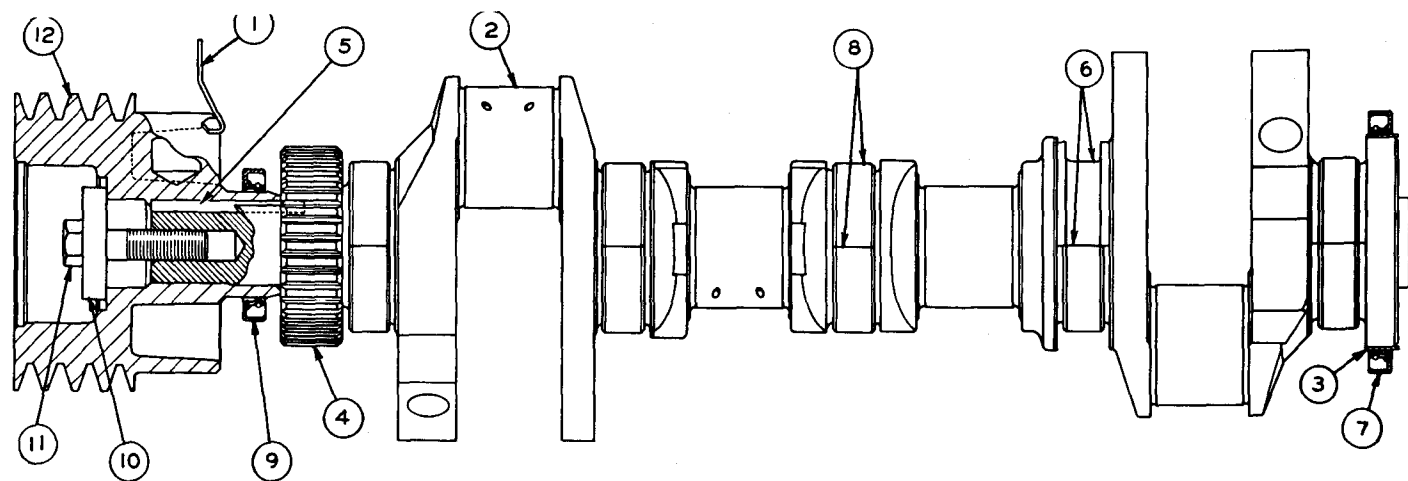
111094

2N3490 COVER AND HOUSING GROUP--Part 1
 Serial No. 96M1 to 96M962 inclusive, AN ATTACHMENT
 Also part of 2N8616 Engine Arrangement listed on Page 6. See Page 28 for Gasket Kits

2N3490 COVER AND HOUSING GROUP-Part 2
 Serial No. 96M1 to 96M962 inclusive, AN ATTACHMENT
 Also part of 2N8616 Engine Arrangement listed on Page 6



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L9847	BRACKET-----	1
2	4F8965	BOLT-----	4
3	3B4507	LOCKWASHER-----	4
4	9L7429	COVER-----	1
5	9L7490	GASKET-----	2
6	9L8925	BOLT-----	16
7	S1588	BOLT-----	8
8	3B4506	LOCKWASHER-----	8
9	9L9132	WASHER-----	10
10	T199	PLUG-----	2
11	9L8439	CAP-----	1
12	9L7430	COVER-----	1
13	2N1602	HOUSING-----	1
14	9L9199	GASKET-----	1
15	9L9812	COVER-----	1
16	9L9815	RETAINER ASSEM.-----	1
17	9L9814	NUT-----	1
18	S1571	BOLT-----	2
	4M9466	LOCK-----	2
	3B342	PLUG-----	1
	1N8469	BRACKET-----	1



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L9033	POINTER-----	1
2	9L8127	CRANKSHAFT ASSEM.-----	1
3	9L8336	SLEEVE-----	1
4	9L9330	GEAR----- (51 Teeth)	1
5	9L8337	KEY-----	1
		(Parts of 9L8127 Crankshaft Assem.)	
6	9L7127	BEARING----- (Thrust)	1

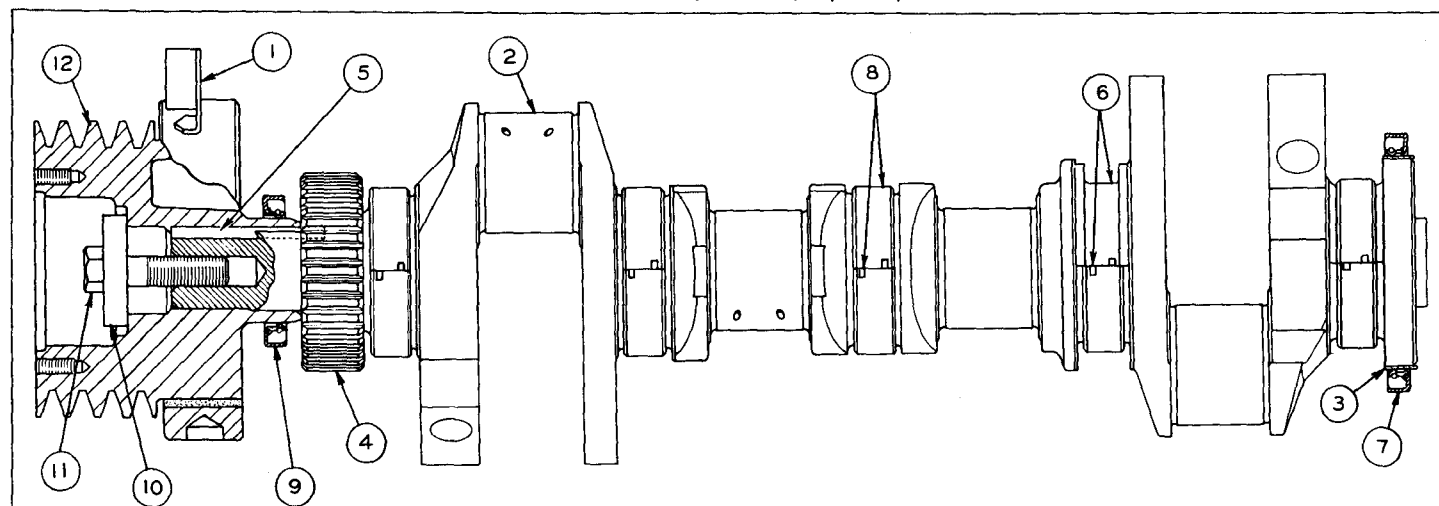
REF. NO.	PART NUMBER	DESCRIPTION	QTY
7	9L9077	SEAL----- (Rear)	1
8	9L7128	BEARING----- (Main)	4
9	9L9185	SEAL----- (Front)	1
10	9L8339	WASHER-----	1
11	8F3152	BOLT-----	1
12	9L9311	PULLEY-----	1

131401

9L8301 CRANKSHAFT GROUP

9L8127 Crankshaft Assembly is also part of 9L9908 Short Block Group listed on Page 84
 Note: 2N1968 Auxiliary Drive Pulley, which provides additional groove is available
 Only separate parts serviced

2N4026 CRANKSHAFT GROUP
 9L8127 Crankshaft Assembly is also part of 9L9908 Short
 Block Group listed on Page 84. Only separate parts serviced



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L9032	POINTER-----	1
2	9L8127	CRANKSHAFT ASSEM.-----	1
3	9L8336	SLEEVE-----	1
4	9L9330	GEAR----- (51 Teeth)	1
5	9L8337	KEY-----	1
6	9L8381	(Parts of 9L8127 Crankshaft Assem.) BEARING----- (Thrust)	1

REF. NO.	PART NUMBER	DESCRIPTION	QTY
7	9L7188	SEAL----- (Rear)	1
8	9L8338	BEARING----- (Main)	4
9	9L9185	SEAL----- (Front)	1
10	9L8339	WASHER-----	1
11	8F3152	BOLT-----	1
12	9L9282	DAMPER ASSEM.-----	1

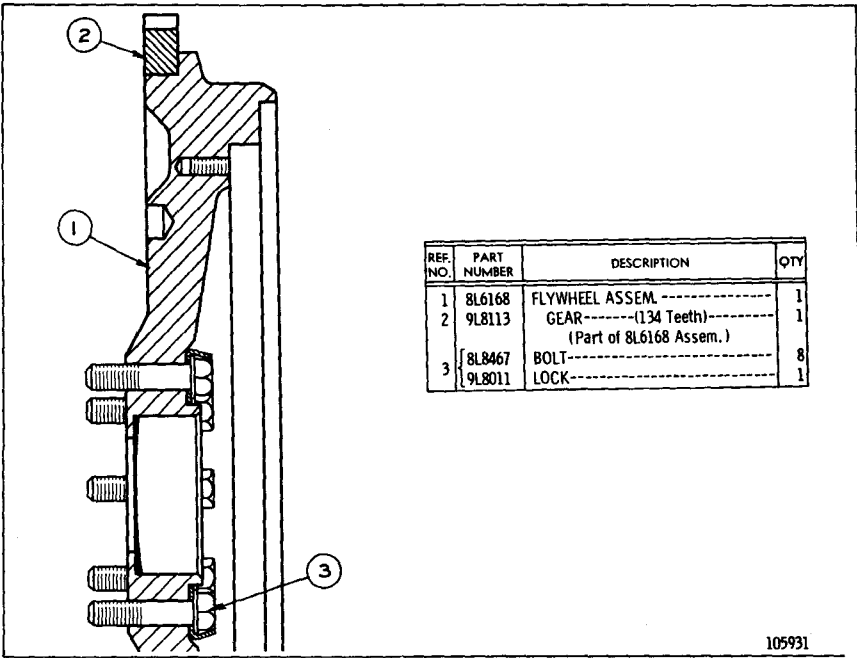
4	9L7628	Bearing-Main (.010 Oversize)
1	9L7629	Bearing-Thrust (.010 Oversize)

CRANKSHAFT BEARING REPLACEMENTS

9L7566 Engine Overhaul
Complete when used with two valve grinding kits. Does not include injection pump and governor group internal gaskets, locks and seals.

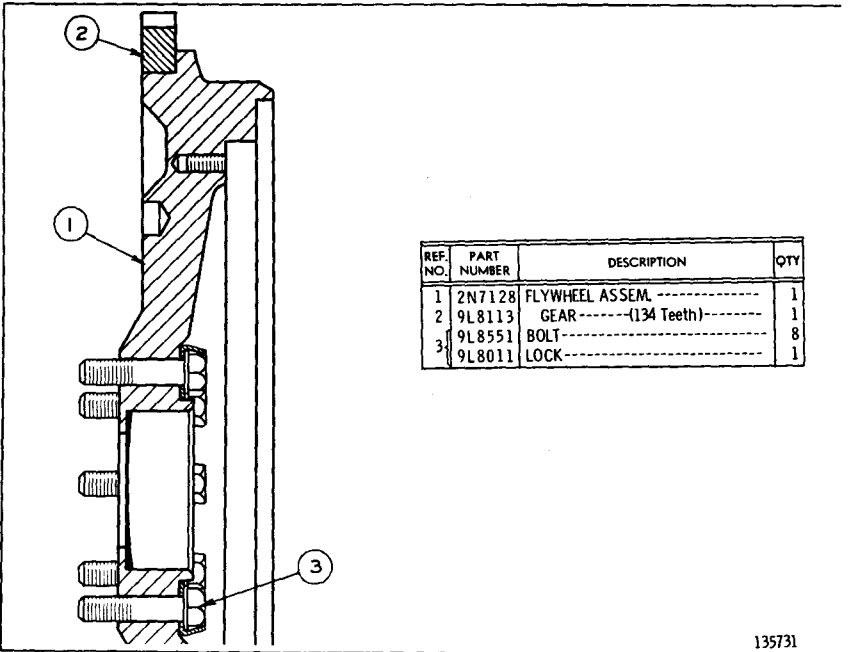
9L7568 Valve Grinding
Complete for one cylinder head.

GASKET KITS



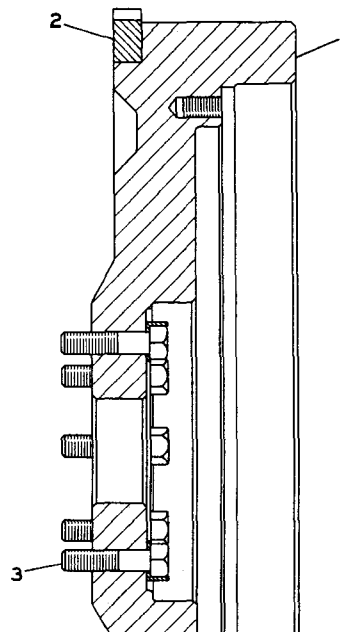
105931

8L6378 FLYWHEEL GROUP--Type 1
Effective with Serial No. 96M963. AN ATTACHMENT
Also part of 8L6216 Engine Arrangement listed on Page 6
FOR USE WITH S.A.E. NO. 2 FLYWHEEL HOUSING
Only separate parts serviced



135731

8L6378 FLYWHEEL GROUP--Type 2
Effective with Serial No. 96M963. AN ATTACHMENT
Also part of 8L6216 and 3N4106 Engine Arrangements listed on Pages 6 and 7
FOR USE WITH S.A.E. NO. 2 FLYWHEEL HOUSING
Only separate parts serviced



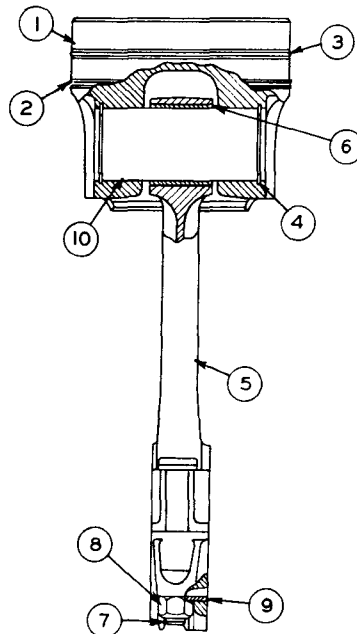
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	3N595	FLYWHEEL ASSEM.-----	1
2	9L8113	GEAR----- (134 Teeth)-----	1
3	9L7650	BOLT-----	8
	9L8011	LOCK-----	1

133973

3N740 FLYWHEEL GROUP

Only separate parts serviced

Refer also to Page 85 for special parts



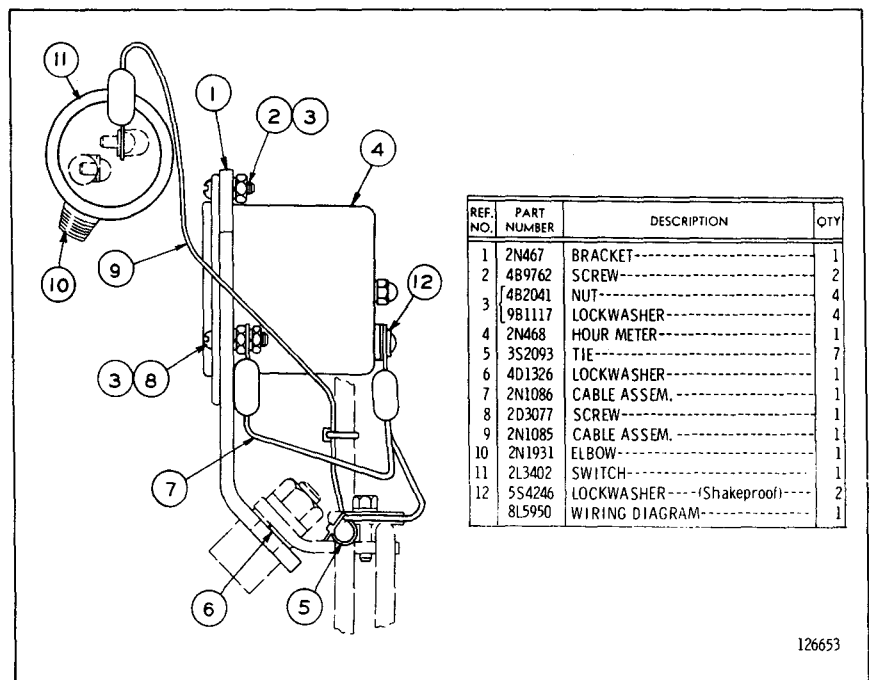
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L9361	PISTON GROUP----- (Standard)-----	1
1	9L9670	PISTON GROUP--- (.020" Oversize)---	1
	9L9298	PISTON GROUP--- (.040" Oversize)---	1
	9L9316	RING ASSEM. --- (Standard-Oil)---	1
		(Part of 9L9361 Group)	
2	9L9673	RING ASSEM. --- (.020" Oversize-Oil)---	1
		(Part of 9L9670 Group)	
	9L9323	RING ASSEM. --- (.040" Oversize-Oil)---	1
		(Part of 9L9298 Group)	
	9L9192	RING--- (Standard-Compression)---	1
		(Part of 9L9361 Group)	
3	9L9674	RING--- (.020" Oversize)---	1
		(Part of 9L9670 Group)	
	9L9146	RING--- (.040" Oversize)---	1
		(Part of 9L9298 Group)	
4	1J6473	RING-----	2
5	9L9326	ROD ASSEM.-----	1
6	9L8382	BEARING-----	1
7	9L8225	BOLT-----	2
8	9L9301	NUT-----	2
9	9L7651	BEARING----- (Service)-----	1
		(Consists of 2 9L9324 Bearings)	
10	9L9889	PIN-----	1

9L9612-PISTON RING GROUP----- 1
 (Consists of complete set of Rings for one Piston)

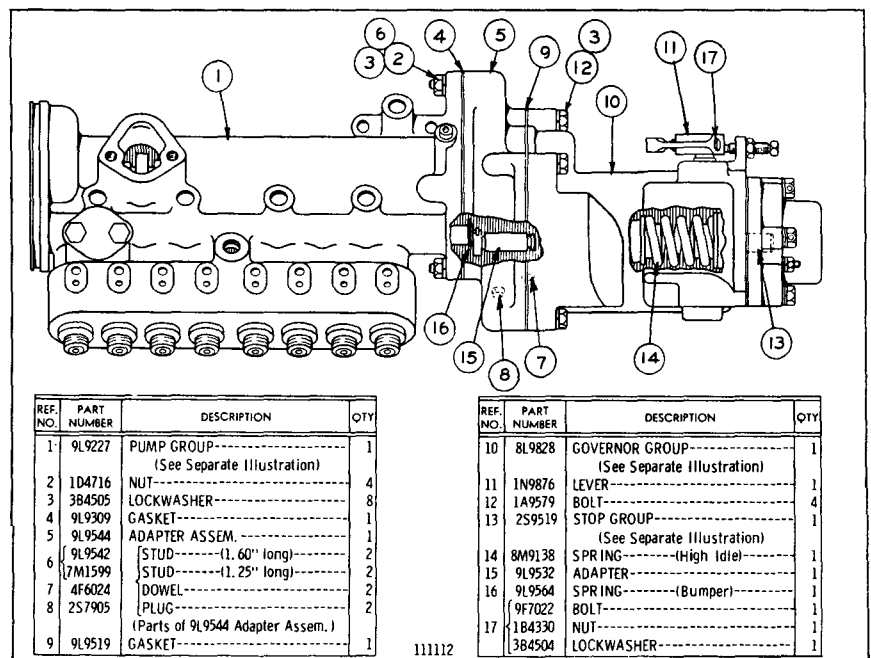
133329

9L8569 CONNECTING ROD AND PISTON GROUP—8 Required

Also part of 9L9908 Short Block Group listed on Page 84



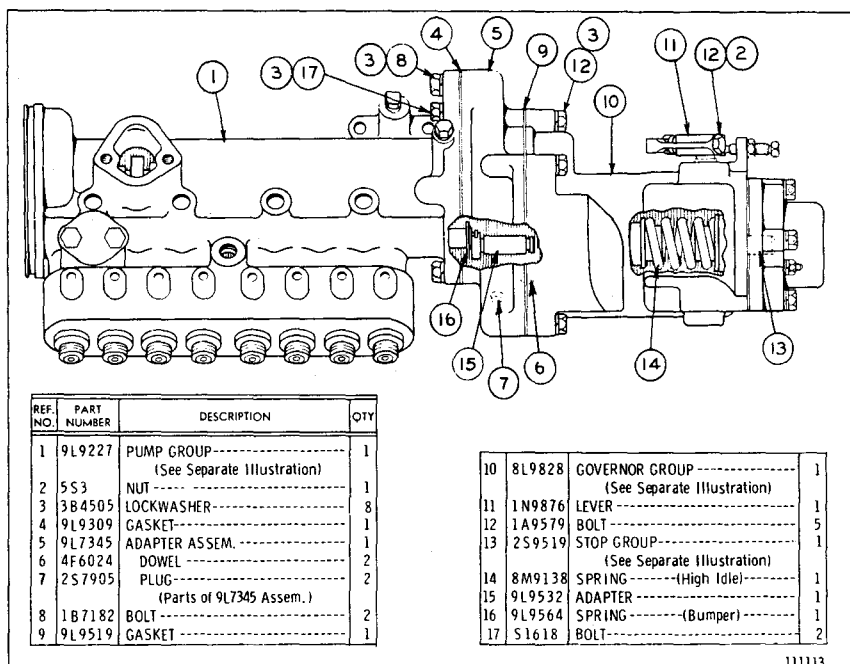
2N1015 SERVICE METER GROUP
 Effective with Serial No. 96M188, AN ATTACHMENT
 Also part of 8L6216 Engine Arrangement listed on Page 6



FUEL PUMP HOUSING AND GOVERNOR (2N155 N/S)

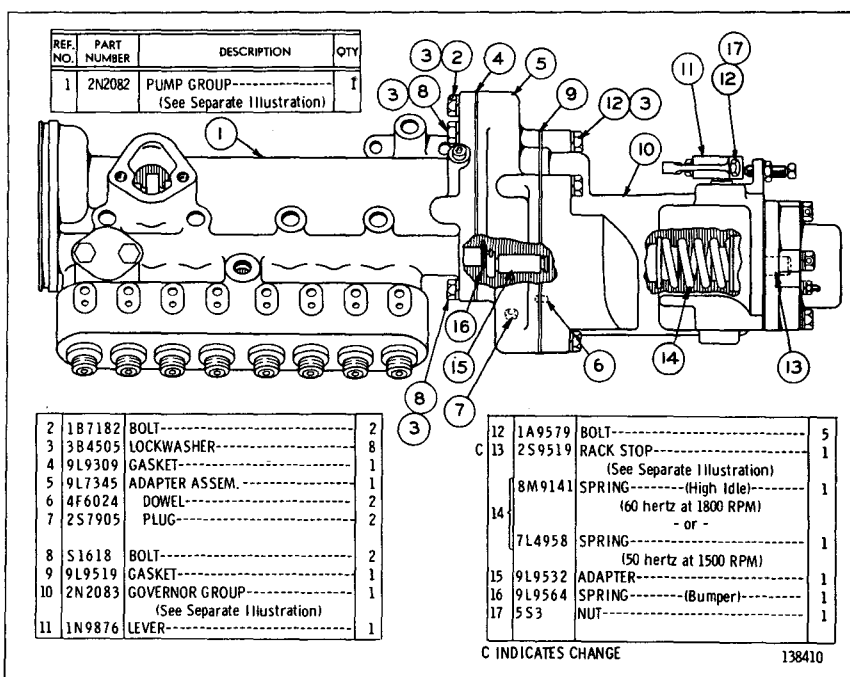
Serial No. 96M1 to 96M479 inclusive. Part of 1N9985 Fuel System shown on Pages 37 and 39. 2S9519 Rack Stop, 8L9828 Governor and 9L9227 Pump Housing parts are shown on Pages 33, 46 through 49, 55, 56 and 57

ONLY "CATERPILLAR" PARTS GIVE "CATERPILLAR" PERFORMANCE



FUEL PUMP HOUSING AND GOVERNOR (2N155 N/S)

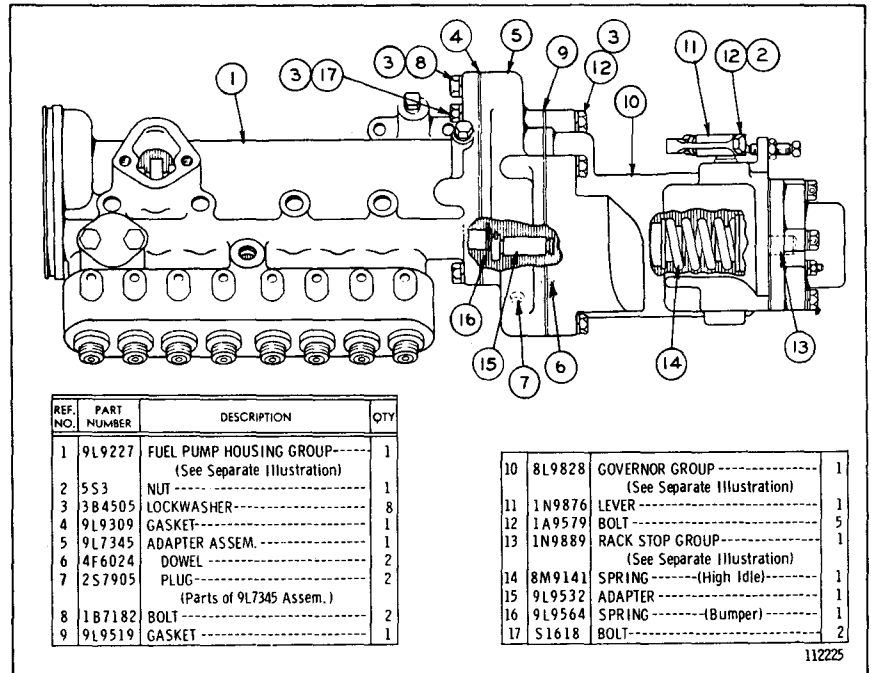
Effective with Serial No. 96M480. Part of 1N9985 Fuel System shown on Pages 39 and 41. 2S9519 Rack Stop, 8L9828 Governor and 9L9227 Pump Housing parts are shown on Pages 33, 34, 46 through 49, 55, 56 and 57



FUEL PUMP HOUSING AND GOVERNOR (2N2820 N/S)

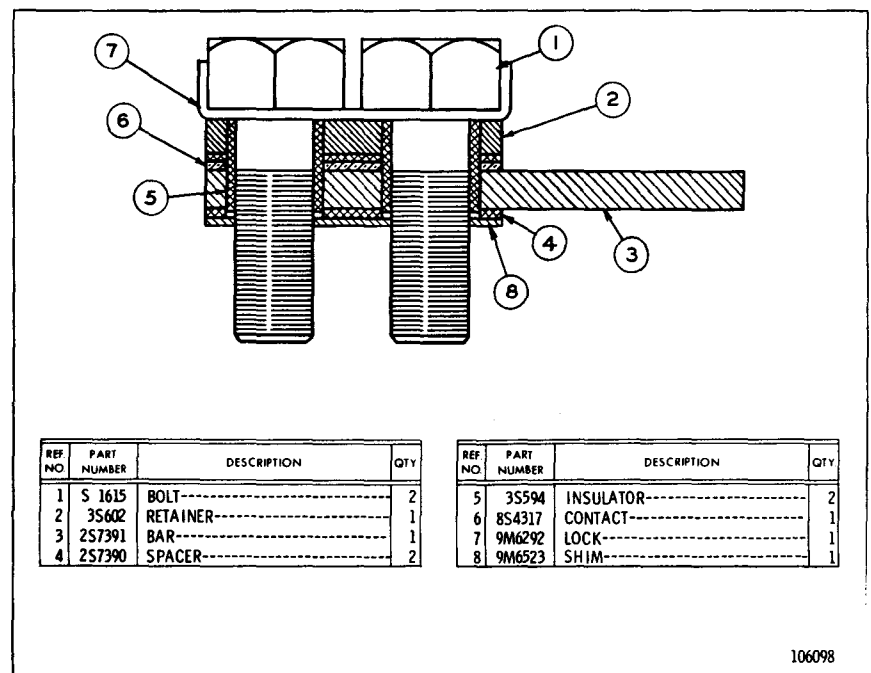
Part of 2N8509 Fuel System on Page 43. 2S9519 Rack Stop, 2N2083 Governor and 2N2082 Pump Housing parts are shown on Pages 34, 50, 51 and 58

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS



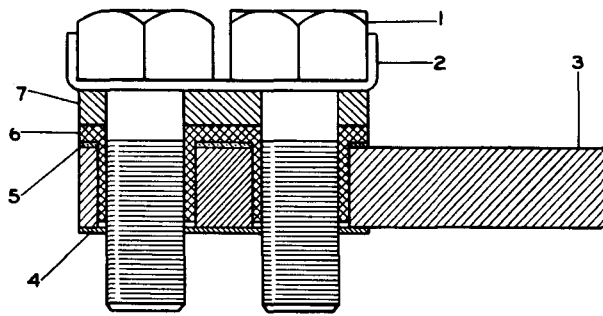
FUEL PUMP HOUSING AND GOVERNOR (2N8450 N/S)

Part of 2N8449 Fuel System shown on Page 45. 1N9889 Torque Spring, 8L9828 Governor and 9L9227 Pump Housing parts are shown on Pages 35, 46 through 49, 55, 56 & 57



2S9519 RACK STOP GROUP

Serial No. 96M1 to 96M1058, 96M1062 and 96M1081 to 96M1083 inclusive
Part of Fuel Pump Housing and Governor shown on Pages 31 and 32

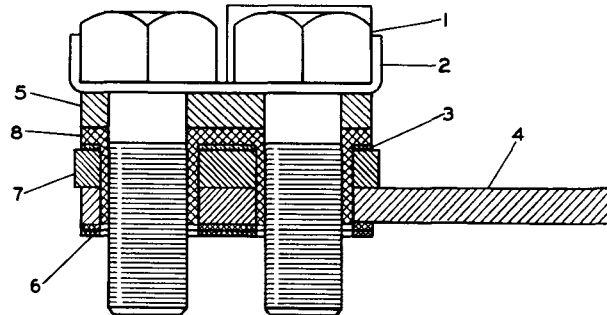


REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	4F7957	BOLT-----	2
2	9M6292	LOCK-----	1
3	1P6453	BAR-----	1
4	1P9958	INSULATOR-----	1
5	8S4317	CONTACT-----	1
6	1P6452	INSULATOR-----	1
7	8M9062	RETAINER-----	1

111340

2S9519 RACK STOP GROUP

Serial No. 96M1059 to 96M1061, 96M1063 to 95M1080 and 96M1084 to 96M1328 inclusive
Part of Fuel Pump Housing and Governor shown on Page 32



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	4F7957	BOLT-----	2
2	9M6292	LOCK-----	1
3	8S4317	CONTACT-----	1
4	2S7391	BAR-----	1
5	8M9062	RETAINER-----	1
C 6	2S7390	SPACER-----	2
7	3S602	RETAINER-----	1
8	1P6452	INSULATOR-----	1

C INDICATES CHANGE

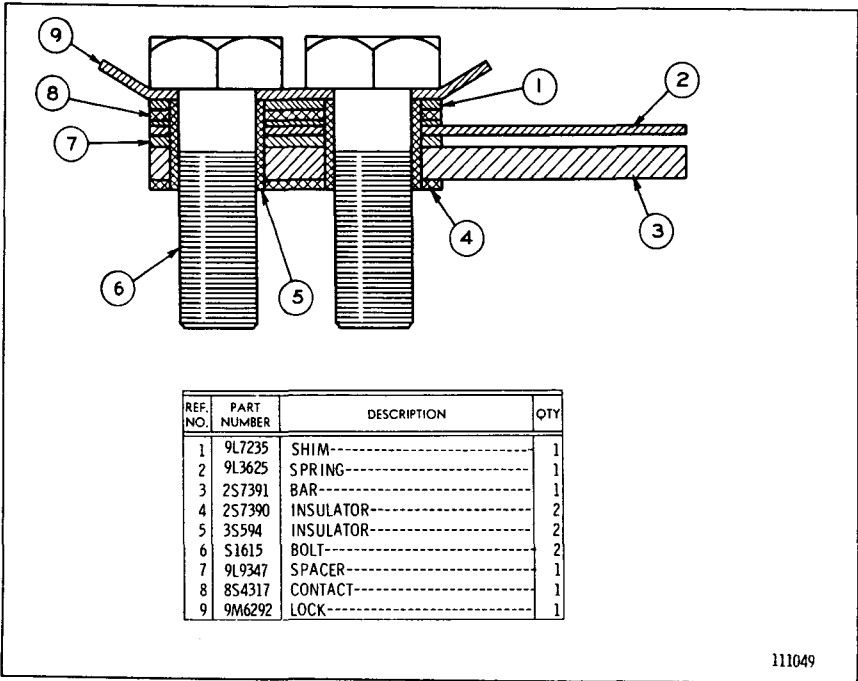
114355

2S9519 RACK STOP GROUP

Effective with Serial No. 96M1329

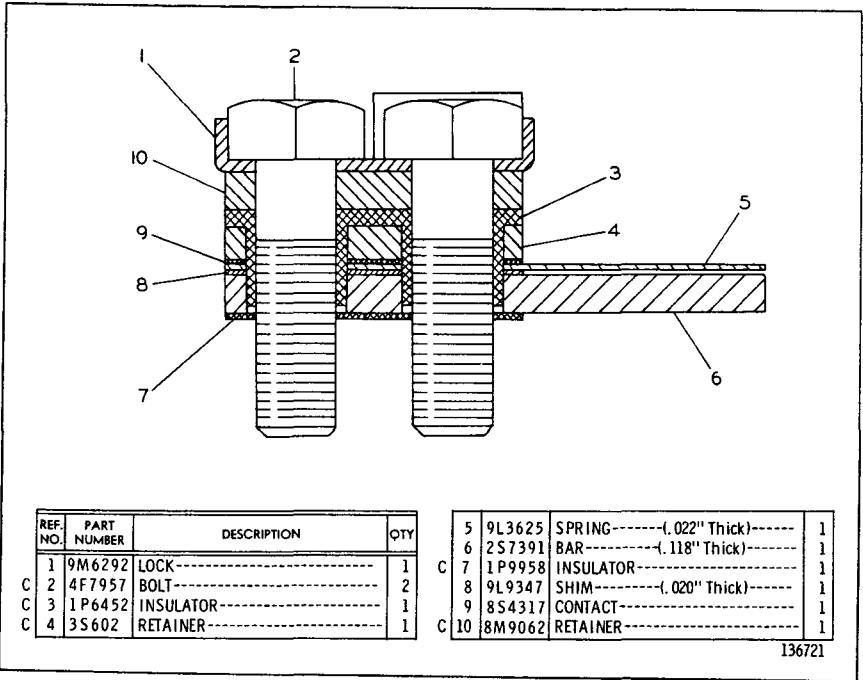
Part of Fuel Pump Housing and Governor shown on Page 32

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS



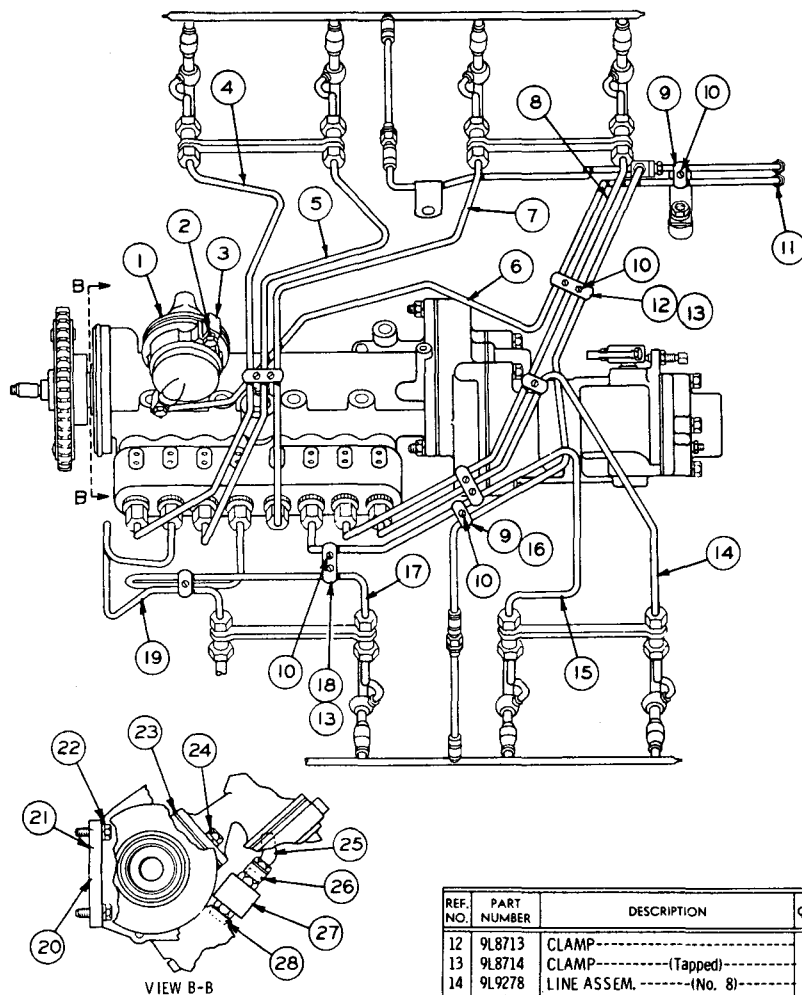
1N9889 GOVERNOR TORQUE SPRING—Type 1
AN ATTACHMENT

Also part of Fuel Pump Housing and Governor shown on Page 33



1N9889 GOVERNOR TORQUE SPRING—Type 2
AN ATTACHMENT

Also part of Fuel Pump Housing and Governor shown on Page 33



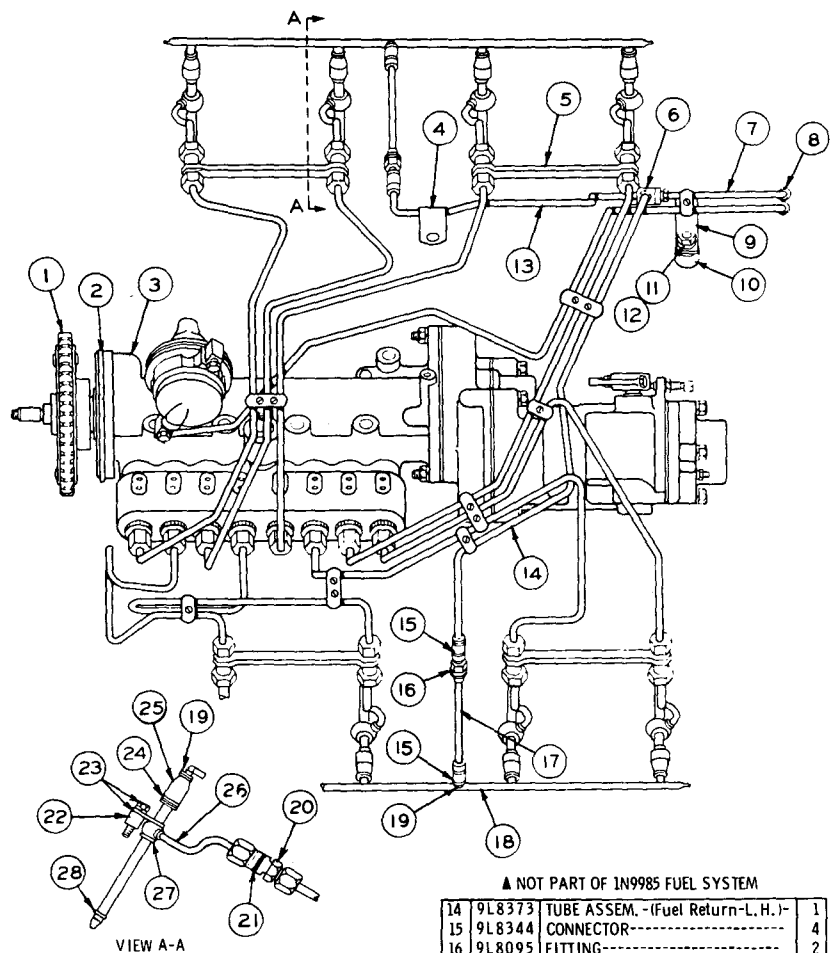
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L9250	PUMP ASSEM.---(Fuel Transfer)---	1
2	9L8492	PLUG-----	2
3	9L8496	TEE-----	2
4	9L9271	LINE ASSEM. --- (No. 1)---	1
5	9L9273	LINE ASSEM. --- (No. 3)---	1
6	9L8472	TUBE ASSEM. --- (Fuel Inlet)---	1
7	9L9275	LINE ASSEM. --- (No. 5)---	1
8	9L9277	LINE ASSEM. --- (No. 7)---	1
9	9L8715	CLAMP-----	4
10	9L9014	SCREW-----	12
	3B4502	LOCKWASHER-----	12
11	5K9979	FITTING-----	1

REF. NO.	PART NUMBER	DESCRIPTION	QTY
12	9L8713	CLAMP-----	3
13	9L8714	CLAMP----- (Tapped)---	4
14	9L9278	LINE ASSEM. --- (No. 8)---	1
15	9L9276	LINE ASSEM. --- (No. 6)---	1
16	9L8716	CLAMP----- (Tapped)---	3
17	9L9274	LINE ASSEM. --- (No. 4)---	1
18	9L9160	CLAMP ASSEM. ---	1
19	9L9272	LINE ASSEM. --- (No. 2)---	1
20	8M8157	SEAL-----	1
21	8M5260	SEAL-----	1
22	S1618	BOLT-----	3
	3B4505	LOCKWASHER-----	3
23	9L8175	GASKET-----	1
	S1594	BOLT-----	2
24	3B4506	LOCKWASHER-----	2
25	9L8868	ELBOW-----	1
26	1J9671	SEAL-----	1
27	9L8791	SOLENOID-----	1
28	3J7354	SEAL-----	1

132145

1N9985 FUEL SYSTEM—Part 1
Serial No. 96M1 to 96M187 inclusive. See Page 28 for Gasket Kits
Only separate parts serviced

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L9631	TIMING GROUP----- (See Separate Illustration)	1
2	9M9729	SEAL-----	1
3	Not Serv	HOUSING AND GOVERNOR----- (See Separate Illustration)	1
4	2B2404	CLIP-----	1
5	9L9372	LOCK-----	4
6	9L8557	TEE-----	1
7	9L8374	TUBE ASSEM.-(Fuel Return-R. H.)-	1
8	5K9979	FITTING-----	1
9	9L8873	CLAMP-----	1
10	1L5081	SPACER-----	1
11	1D4717	NUT-----	1
12	3B4506	LOCKWASHER-----	1
13	9L8345	TUBE ASSEM.-(Fuel Return-R. H.)-	1

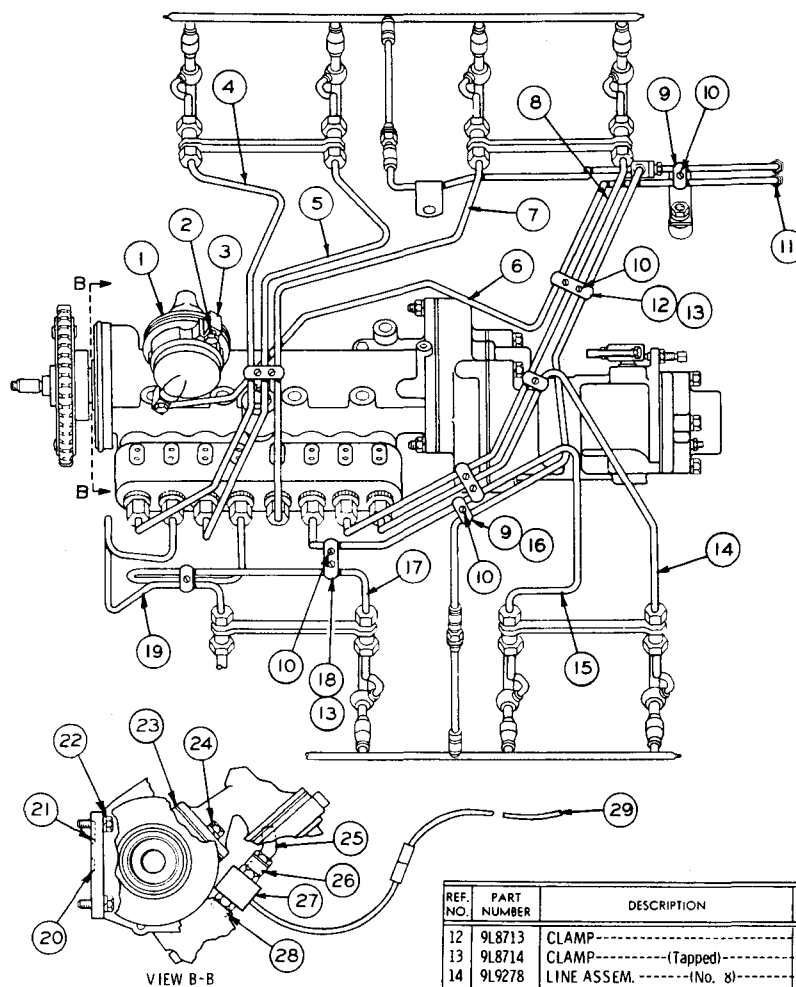
▲ NOT PART OF 1N9985 FUEL SYSTEM

14	9L8373	TUBE ASSEM.-(Fuel Return-L. H.)-	1
15	9L8344	CONNECTOR-----	4
16	9L8095	FITTING-----	2
17	9L8387	TUBE-----	2
18	9L8248	MANIFOLD ASSEM.-----	2
19	9L8969	CLAMP-----	12
20	9L9380	ADAPTER ASSEM.-----	8
21	6F4855	SEAL-----	1
22	9L8388	SPACER-----	8
23	9L8134	CLAMP ASSEM.-----	8
24	9L8970	CLAMP-----	8
25	9L8436	BOOT-----	8
26	9L9263	NOZZLE ASSEM.-----	8
26	1H1023	SEAL-----	1
27	9L9099	WASHER-----	1
28	9L9098	SEAL-----	1
▲	9L7663	PROTECTIVE PLUG----- (Fuel Nozzle Inlet)	8
▲	6H3687	PROTECTIVE CAP----- (Fuel Nozzle Tip) (NOT SHOWN)	8

135861

1N9985 FUEL SYSTEM—Part 2
 Serial No. 96M1 to 96M187 inclusive. Fuel Pump Housing and Governor
 and 9L9631 Timing parts are shown on Pages 31, 32 and 52
 Only separate parts serviced

FUEL SYSTEM PERFORMANCE

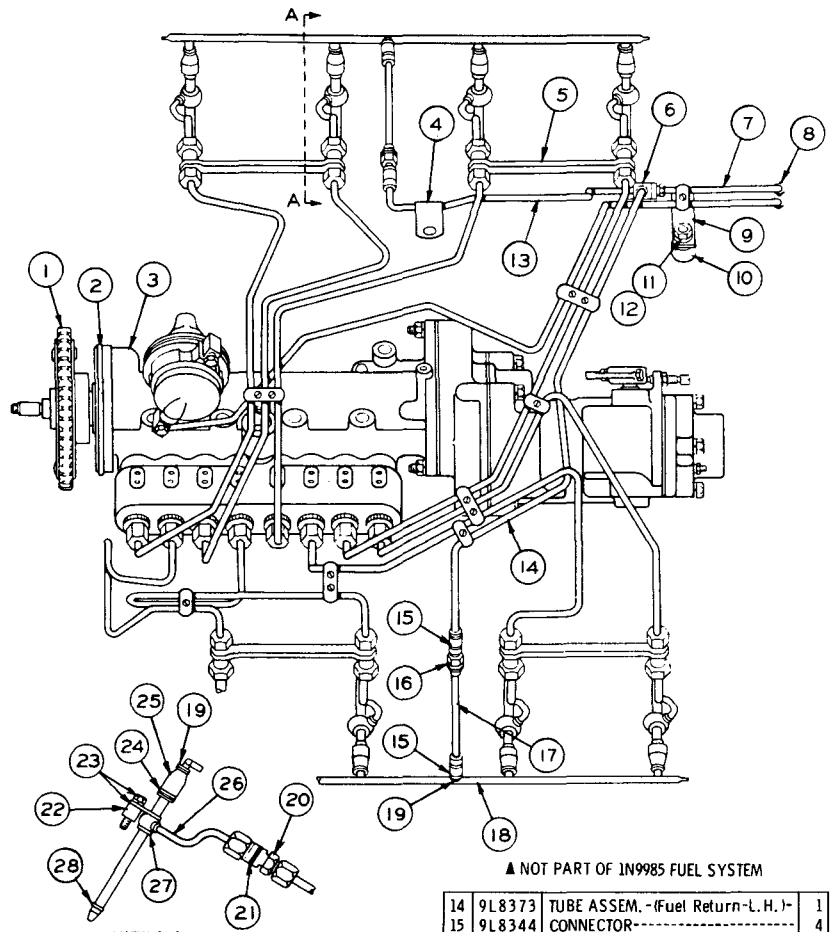


REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L9250	PUMP ASSEM.---(Fuel Transfer)---	1
2	9L8492	PLUG-----	2
3	9L8496	TEE-----	2
4	9L9271	LINE ASSEM.----- (No. 1)-----	1
5	9L9273	LINE ASSEM.----- (No. 3)-----	1
6	9L8472	TUBE ASSEM.---(Fuel Inlet)---	1
7	9L9275	LINE ASSEM.----- (No. 5)-----	1
8	9L9277	LINE ASSEM.----- (No. 7)-----	1
9	9L8715	CLAMP-----	4
10	9L9014	SCREW-----	12
	3B4502	LOCKWASHER-----	12
11	5K9979	FITTING-----	1

REF. NO.	PART NUMBER	DESCRIPTION	QTY
12	9L8713	CLAMP-----	3
13	9L8714	CLAMP----- (Tapped)-----	4
14	9L9278	LINE ASSEM.----- (No. 8)-----	1
15	9L9276	LINE ASSEM.----- (No. 6)-----	1
16	9L8716	CLAMP----- (Tapped)-----	3
17	9L9274	LINE ASSEM.----- (No. 4)-----	1
18	9L9160	CLAMP ASSEM.-----	1
19	9L9272	LINE ASSEM.----- (No. 2)-----	1
20	8M8157	SEAL-----	1
21	8M5260	SEAL-----	1
22	S1618	BOLT-----	3
	3B4505	LOCKWASHER-----	3
23	9L8175	GASKET-----	1
24	S1594	BOLT-----	2
	3B4506	LOCKWASHER-----	2
25	9L8868	ELBOW-----	1
26	1J9671	SEAL-----	1
27	9L8791	SOLENOID-----	1
28	3J7354	SEAL-----	1
29	2N2074	CABLE ASSEM.-----	1

132146

1N9985 FUEL SYSTEM—Part 1
 Serial No. 96M188 to 96M522 inclusive. See Page 28
 for Gasket Kits. Only separate parts serviced



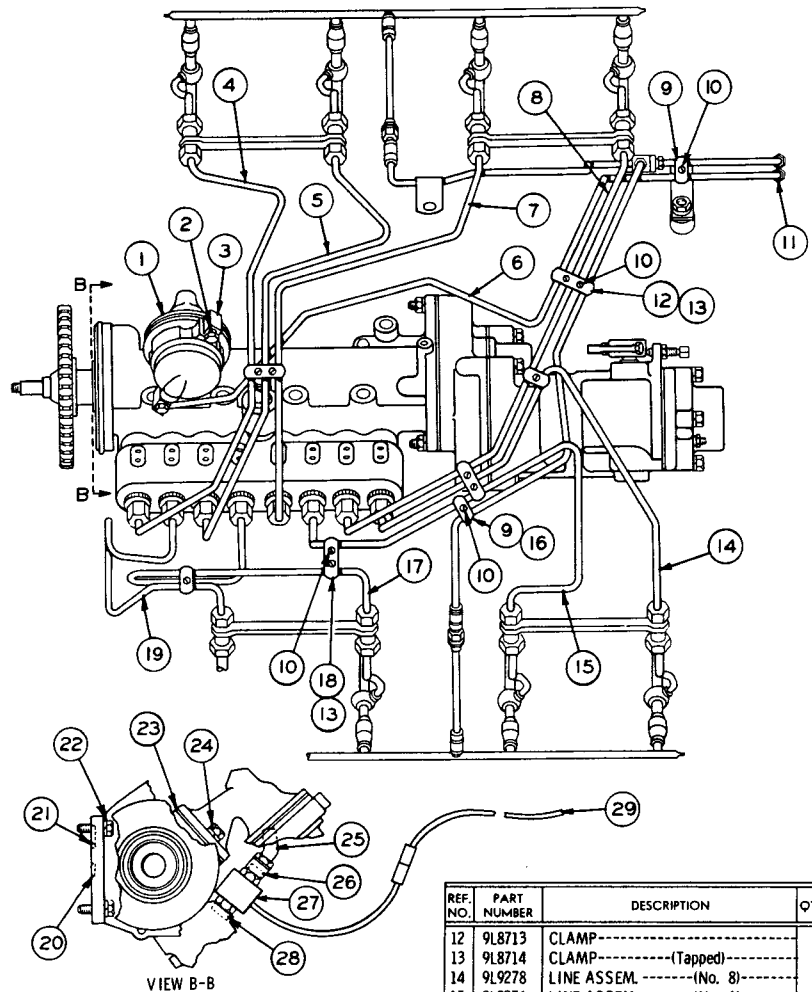
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L9631	TIMING GROUP----- (See Separate Illustration)	1
2	9M9729	SEAL-----	1
3	Not Serv	HOUSING AND GOVERNOR----- (See Separate Illustration)	1
4	2B2404	CLIP-----	1
5	9L9372	LOCK-----	4
6	9L8557	TEE-----	1
7	9L8374	TUBE ASSEM.-(Fuel Return-R.H.)-	1
8	5K9979	FITTING-----	1
9	9L8873	CLAMP-----	1
10	9L9167	SPACER-----	1
11	1D4717	NUT-----	1
12	3B4506	LOCKWASHER-----	1
13	9L8345	TUBE ASSEM.-(Fuel Return-R.H.)-	1

14	9L8373	TUBE ASSEM.-(Fuel Return-L.H.)-	1
15	9L8344	CONNECTOR-----	4
16	9L8095	FITTING-----	2
17	9L8387	TUBE-----	2
18	9L8248	MANIFOLD ASSEM.-----	2
19	9L8969	CLAMP-----	12
20	9L9380	ADAPTER ASSEM.-----	8
21	6F4855	SEAL-----	1
22	9L8388	SPACER-----	8
23	9L8134	CLAMP ASSEM.-----	8
24	9L8970	CLAMP-----	8
25	9L8436	BOOT-----	8
26	9L9263	NOZZLE ASSEM.-----	8
27	1H1023	SEAL-----	1
28	9L9099	WASHER-----	1
28	9L9098	SEAL-----	1
▲	9L7663	PROTECTIVE PLUG----- (Fuel Nozzle Inlet)	8
▲	6H3687	PROTECTIVE CAP----- (Fuel Nozzle Tip) (NOT SHOWN)	8

135862

1N9985 FUEL SYSTEM—Part 2
Serial No. 96M188 to 96M522 inclusive. Fuel Pump Housing and Governor and 9L9631 Timing parts are shown on Pages 31, 32 and 52
Only separate parts serviced

ONLY "CATERPILLAR" PARTS GIVE "CATERPILLAR" PERFORMANCE



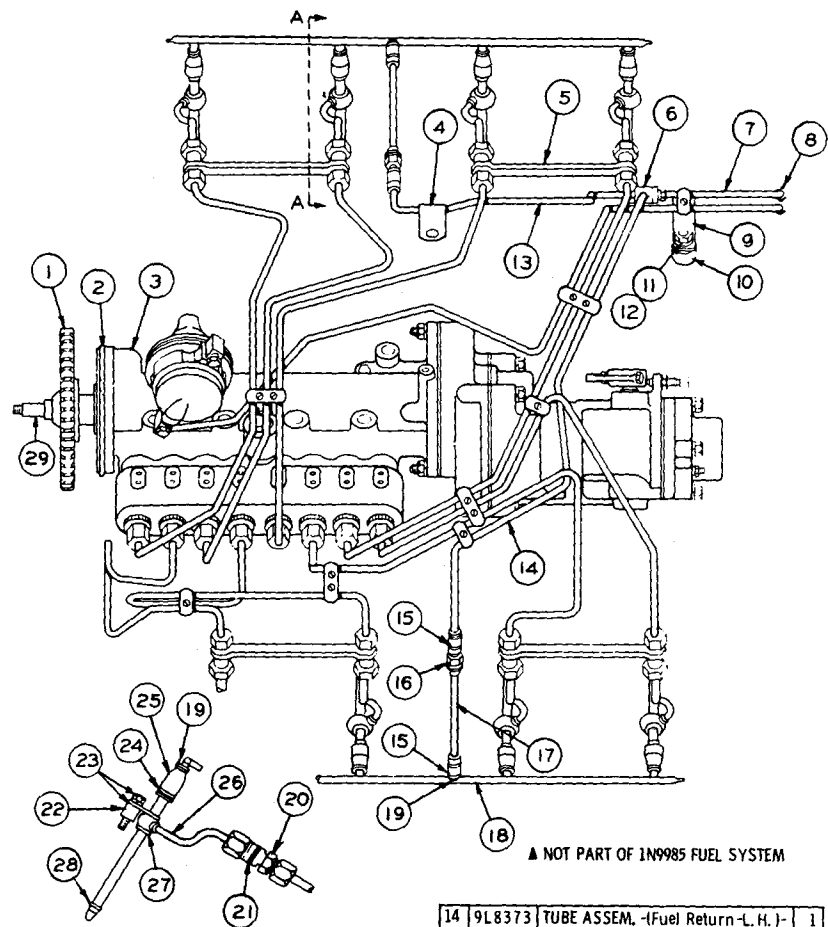
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L7180	PUMP ASSEM.---(Fuel Transfer)---	1
2	9L8492	PLUG-----	2
3	9L8496	TEE-----	2
4	9L9271	LINE ASSEM. --- (No. 1)---	1
5	9L9273	LINE ASSEM. --- (No. 3)---	1
6	9L8472	TUBE ASSEM. --- (Fuel Inlet)---	1
7	9L9275	LINE ASSEM. --- (No. 5)---	1
8	9L9277	LINE ASSEM. --- (No. 7)---	1
9	9L8715	CLAMP-----	4
10	9L9014	SCREW-----	12
	3B4502	LOCKWASHER-----	12
11	5K9979	FITTING-----	1

REF. NO.	PART NUMBER	DESCRIPTION	QTY
12	9L8713	CLAMP-----	3
13	9L8714	CLAMP----- (Tapped)---	4
14	9L9278	LINE ASSEM. --- (No. 8)---	1
15	9L9276	LINE ASSEM. --- (No. 6)---	1
16	9L8716	CLAMP----- (Tapped)---	3
17	9L9274	LINE ASSEM. --- (No. 4)---	1
18	9L9160	CLAMP ASSEM. ---	1
19	9L9272	LINE ASSEM. --- (No. 2)---	1
20	8M8157	SEAL-----	1
21	8M5260	SEAL-----	1
22	S1618	BOLT-----	3
	3B4505	LOCKWASHER-----	3
23	9L8175	GASKET-----	1
24	S1594	BOLT-----	2
	3B4506	LOCKWASHER-----	2
25	9L8868	ELBOW-----	1
26	1J9671	SEAL-----	1
27	9L8791	SOLENOID-----	1
28	3J7354	SEAL-----	1
29	2N2074	CABLE ASSEM. ---	1

132147

1N9985 FUEL SYSTEM—Part 1
Effective with Serial No. 96M523. See Page 28 for Gasket Kits
Only separate parts serviced

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS



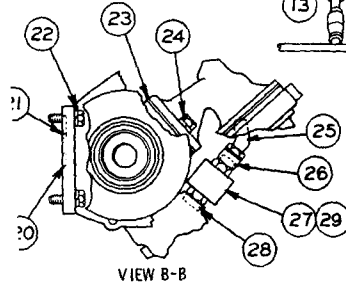
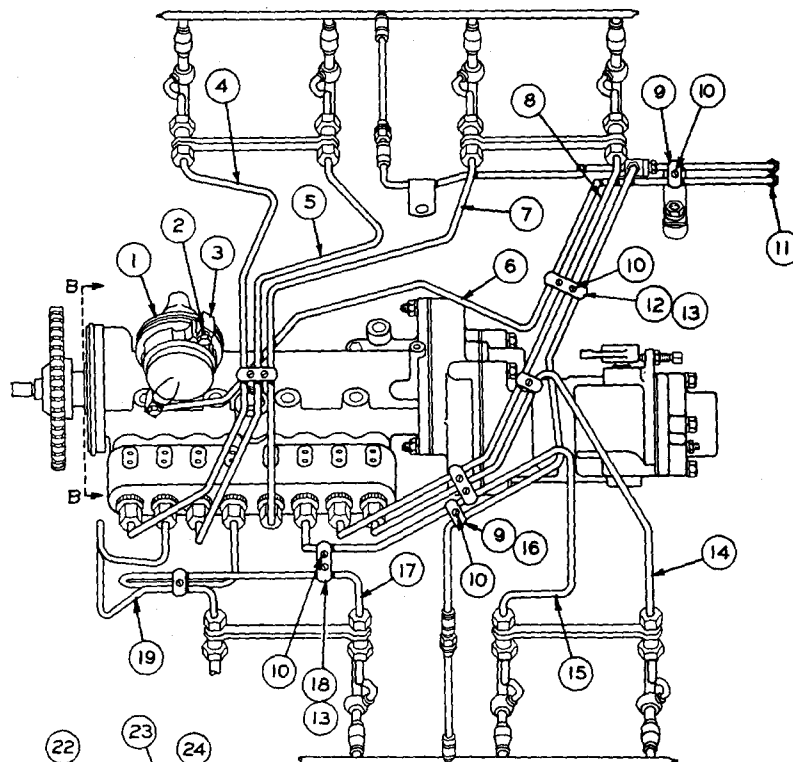
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L7012	GEAR ASSEM.-----	1
2	9M9729	SEAL-----	1
3	Not Serv	HOUSING AND GOVERNOR----- (See Separate Illustration)	1
4	2B2404	CLIP-----	1
5	9L9372	LOCK-----	4
6	9L8557	TEE-----	1
7	9L8374	TUBE ASSEM.-(Fuel Return-R. H.)-	1
8	5K9979	FITTING-----	1
9	9L8873	CLAMP-----	1
10	9L9167	SPACER-----	1
11	1D4717	NUT-----	1
12	3B4506	LOCKWASHER-----	1
13	9L8345	TUBE ASSEM.-(Fuel Return-R. H.)-	1

14	9L8373	TUBE ASSEM.-(Fuel Return-L. H.)-	1
15	9L8344	CONNECTOR-----	4
16	9L8095	FITTING-----	2
17	9L8387	TUBE-----	2
18	9L8248	MANIFOLD ASSEM.-----	2
19	9L8969	CLAMP-----	12
20	9L7675	ADAPTER ASSEM.-----	8
21	6F4855	SEAL-----	1
22	9L8388	SPACER-----	8
23	9L8134	CLAMP ASSEM.-----	8
24	9L8970	CLAMP-----	8
25	9L8436	BOOT-----	8
26	9L9263	NOZZLE ASSEM.-----	8
27	1H1023	SEAL-----	1
28	9L9099	WASHER-----	1
29	9L9098	SEAL-----	1
▲	9L7652	SHAFT ASSEM.-----	1
▲	9L7663	PROTECTIVE PLUG----- (Fuel Nozzle Inlet)	8
▲	6H3687	PROTECTIVE CAP----- (Fuel Nozzle Tip) (Not Shown)	8

135863

1N9985 FUEL SYSTEM-Part 2
Effective with Serial No. 96M523. Fuel Pump Housing and Governor parts are shown on Page 32. Only separate parts serviced

ONLY "CATERPILLAR" PARTS GIVE "CATERPILLAR" PERFORMANCE



VIEW B-B

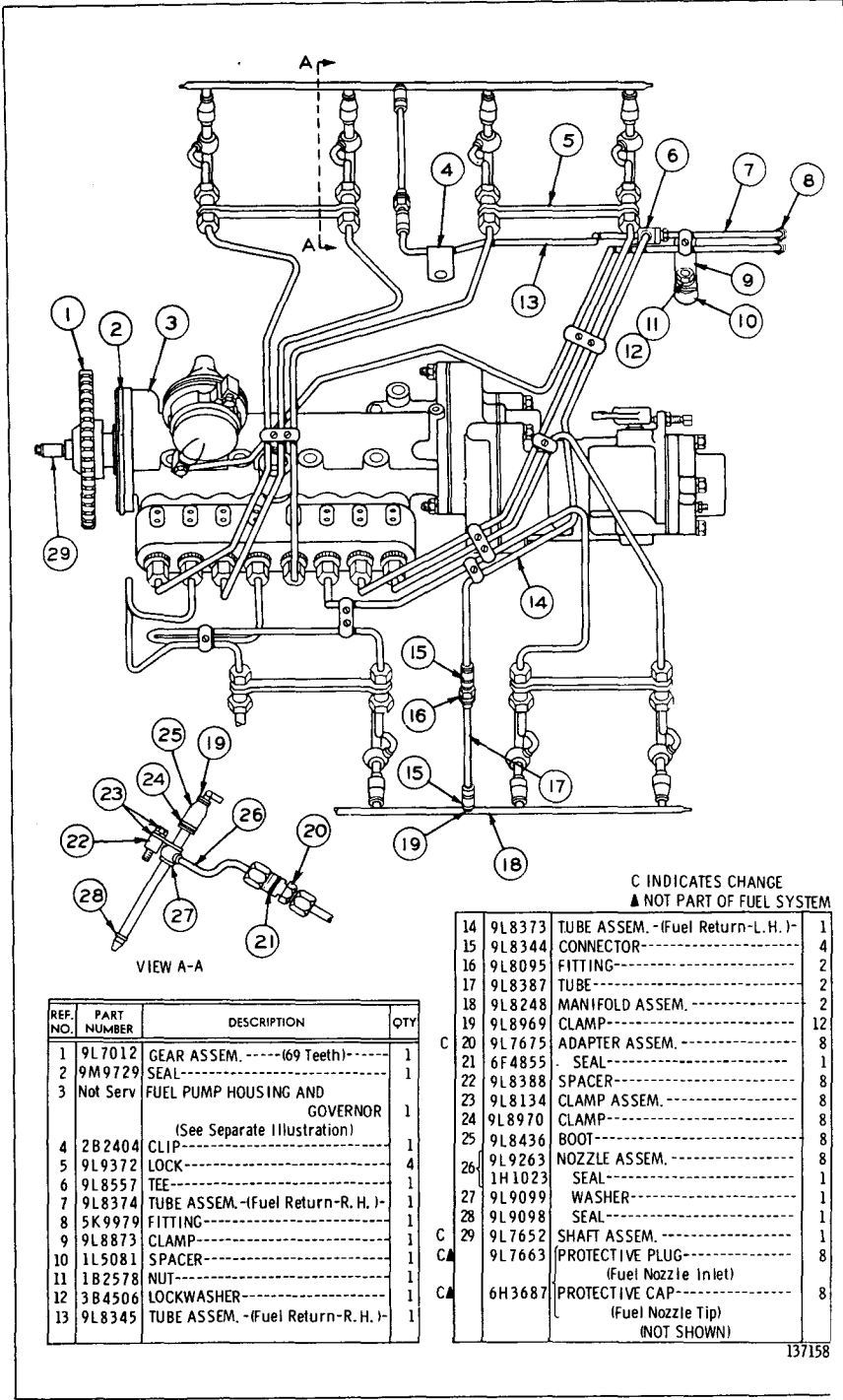
PART NUMBER	DESCRIPTION	QTY
9L7180	PUMP ASSEM.---(Fuel Transfer)---	1
9L8492	PLUG-----	2
9L8496	TEE-----	2
9L9271	LINE ASSEM.-----(No. 1)----	1
9L9273	LINE ASSEM.-----(No. 3)----	1
9L8472	TUBE ASSEM.-----(Fuel Inlet)---	1
9L9275	LINE ASSEM.-----(No. 5)----	1
9L9277	LINE ASSEM.-----(No. 7)----	1
9L8715	CLAMP-----	4
9L9014	SCREW-----	12
9L84502	LOCKWASHER-----	12
9L9979	FITTING-----	1

REF. NO.	PART NUMBER	DESCRIPTION	QTY
12	9L8713	CLAMP-----	3
13	9L8714	CLAMP----- (Tapped)-----	4
14	9L9278	LINE ASSEM.-----(No. 8)----	1
15	9L9276	LINE ASSEM.-----(No. 6)----	1
16	9L8716	CLAMP----- (Tapped)-----	3
17	9L9274	LINE ASSEM.-----(No. 4)----	1
18	9L9160	CLAMP ASSEM.-----	1
19	9L9272	LINE ASSEM.-----(No. 2)----	1
20	8M8157	SEAL-----	1
21	8M5260	SEAL-----	1
22	S1618	BOLT-----	3
23	3B4505	LOCKWASHER-----	3
24	9L8175	GASKET-----	1
25	S1594	BOLT-----	2
26	3B4506	LOCKWASHER-----	2
27	9L8868	ELBOW-----	1
28	1J9671	SEAL-----	1
29	9L8791	SOLENOID-----	1
	3J7354	SEAL-----	1
	2N2074	CABLE ASSEM.-----	1

133972

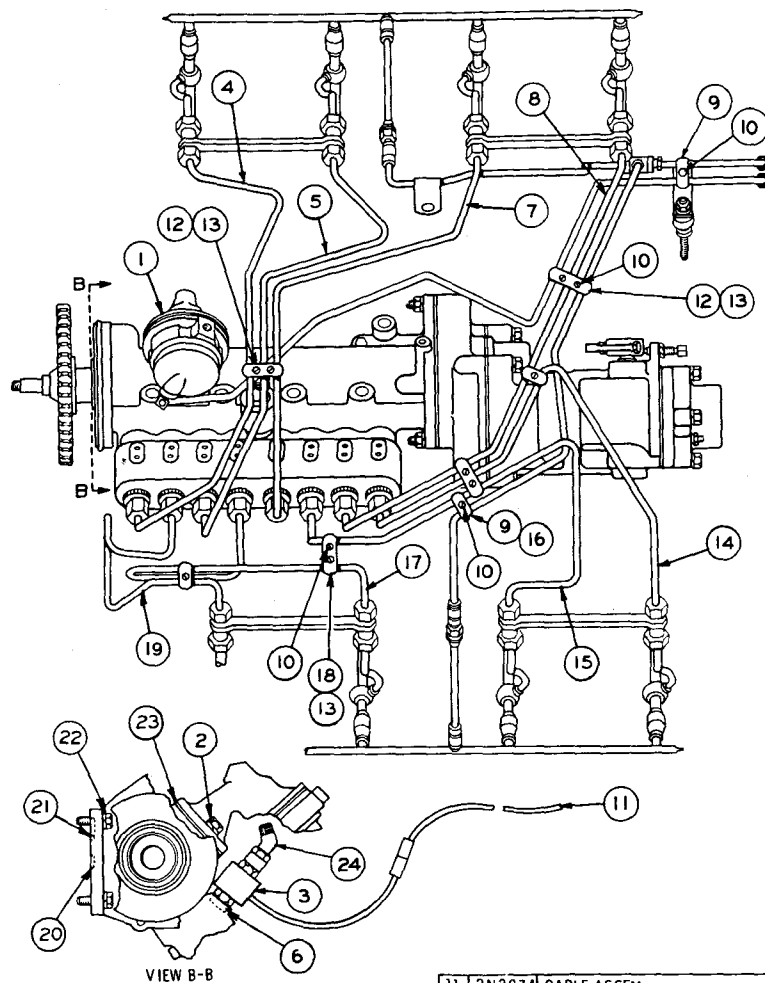
2N8509 FUEL SYSTEM--Part 1
See Page 28 for Gasket Kits
Only separate parts serviced

AYS GIVE SERIAL NUMBER WHEN ORDERING



137158

2N8509 FUEL SYSTEM—Part 2
Fuel Pump Housing and Governor parts are shown on Page 32
Only separate parts serviced



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L7659	PUMP ASSEM. --- (Fuel Transfer)---	1
2	S1594	BOLT-----	2
3	3B4506	LOCKWASHER-----	2
4	9L8791	SOLENOID-----	1
5	9L9271	LINE ASSEM. ----- (No. 1)-----	1
6	9L9273	LINE ASSEM. ----- (No. 3)-----	1
7	3J7354	SEAL-----	1
8	9L9275	LINE ASSEM. ----- (No. 5)-----	1
9	9L9277	LINE ASSEM. ----- (No. 7)-----	1
10	9L8715	CLAMP-----	4
	9L9014	SCREW-----	12
	3B4502	LOCKWASHER-----	12

11	2N2074	CABLE ASSEM. -----	1
12	9L8713	CLAMP-----	3
13	9L8714	CLAMP----- (Tapped)-----	4
14	9L9278	LINE ASSEM. ----- (No. 8)-----	1
15	9L9276	LINE ASSEM. ----- (No. 6)-----	1
16	9L8716	CLAMP----- (Tapped)-----	3
17	9L9274	LINE ASSEM. ----- (No. 4)-----	1
18	9L9160	CLAMP ASSEM. -----	1
19	9L9272	LINE ASSEM. ----- (No. 2)-----	1
20	8M8157	SEAL-----	1
21	8M5260	SEAL-----	1
22	S1618	BOLT-----	3
23	3B4505	LOCKWASHER-----	3
24	9L8175	GASKET-----	1
	9L8868	ELBOW-----	1
	1J9671	SEAL-----	1

115218

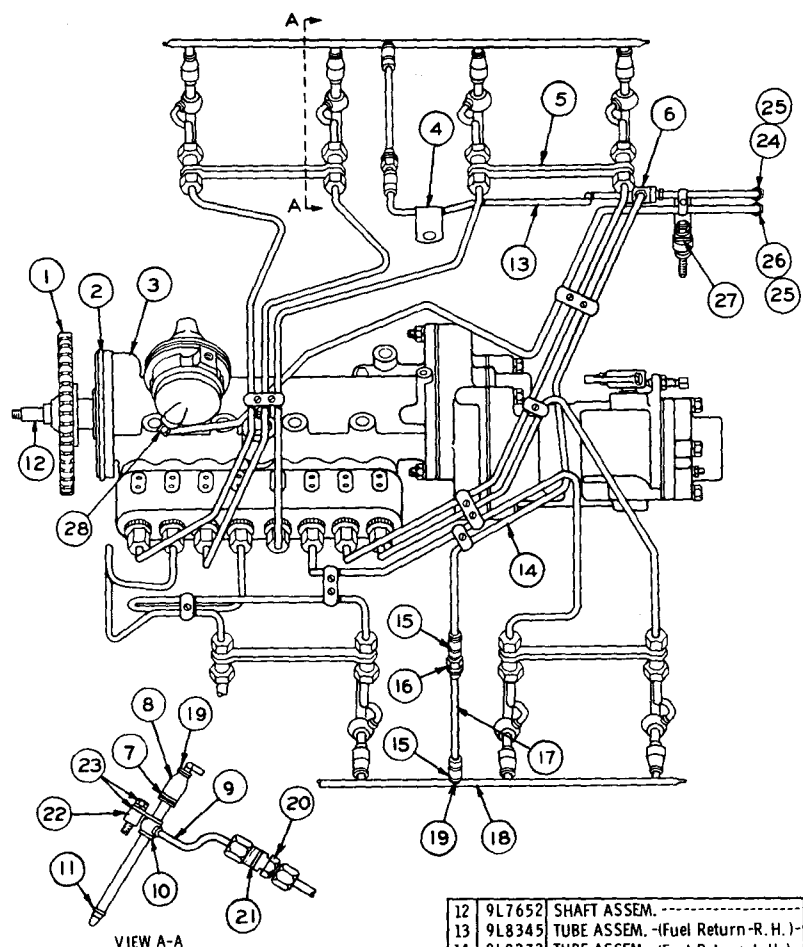
2N8449 FUEL SYSTEM—Part 1

See Page 28 for Gasket Kits

Only separate parts serviced

SEE WHEN ORDERING PARTS

DIESEL ENGINE

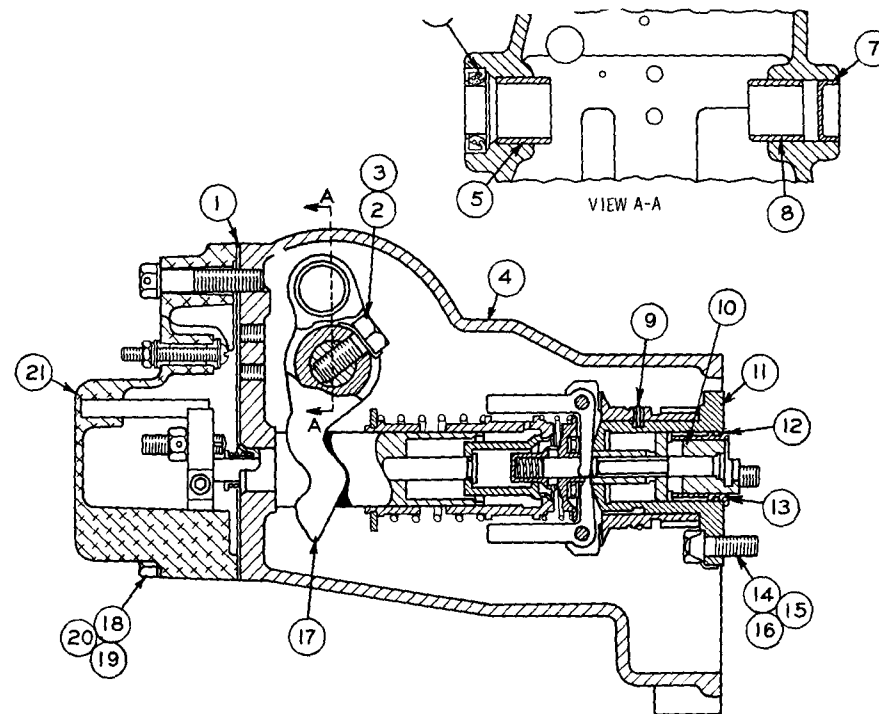


REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L7012	GEAR ASSEM. ----(69 Teeth)----	1
2	9M9729	SEAL-----	1
3	Not Serv	HOUSING AND GOVERNOR----- (See Separate Illustration)	1
4	2B2404	CLIP-----	1
5	9L9372	LOCK-----	4
6	9L8557	TEE-----	1
7	9L8970	CLAMP-----	8
8	9L8436	BOOT-----	8
9	9L9263	NOZZLE ASSEM.-----	8
	1H1023	SEAL-----	1
10	9L9099	WASHER-----	1
11	9L9098	SEAL-----	1

12	9L7652	SHAFT ASSEM.-----	
13	9L8345	TUBE ASSEM. -(Fuel Return-R.H.)-	
14	9L8373	TUBE ASSEM. -(Fuel Return-L.H.)-	
15	9L8344	CONNECTOR-----	
16	9L8095	FITTING-----	
17	9L8387	TUBE-----	
18	9L8248	MANIFOLD ASSEM.-----	
19	9L8969	CLAMP-----	
20	9L7675	ADAPTER ASSEM.-----	
21	6F4855	SEAL-----	
22	9L8388	SPACER-----	
23	9L8134	CLAMP ASSEM.-----	
24	9L8374	TUBE ASSEM.-----	
25	5K9979	FITTING-----	
26	9L8472	TUBE ASSEM.-----	
	9L8873	CLAMP-----	
	1D4717	NUT-----	
27	9L9167	SPACER-----	
	3B4506	LOCKWASHER-----	
	9L8496	TEE-----	
28	9L8492	PLUG-----	

2N8449 FUEL SYSTEM-Part 2
Fuel Pump Housing and Governor parts are shown on Page 33
Only separate parts serviced

AYS GIVE CEDIAI

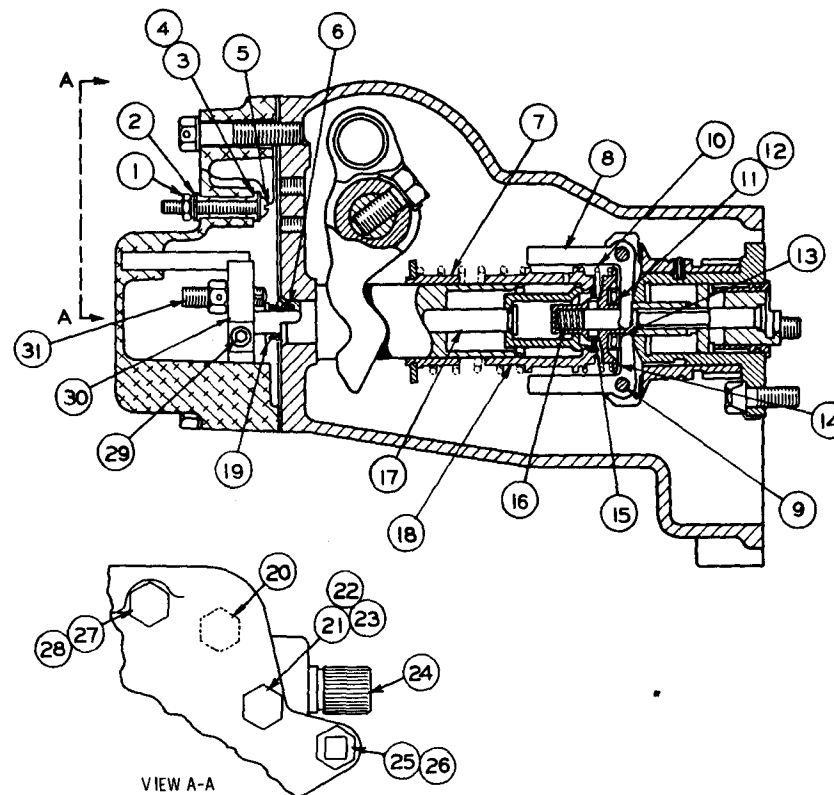


REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L9577	GASKET-----	1
2	1A2343	BOLT-----	1
3	9L9678	LOCK-----	1
4	9L9524	HOUSING ASSEM.-----	1
5	9S798	BEARING-----	1
6	9S4671	SEAL-----	1
7	4F4585	PLUG-----	1
8	8S134	BEARING-----	1
(Parts of 9L9524 Housing Assem.)			
9	7B8105	RING-----	1
10	7S8447	PISTON & VALVE ASSEM.-----	1
11	9L9504	CYLINDER-----	1
12	8M8997	SEAL-----	1
13	7L8777	SLEEVE-----	1
14	51615	BOLT-----	3
15	7F2836	LOCK-----	1
16	9L9679	LOCK-----	1
17	9L9511	LEVER ASSEM.-----	1
18	1A9579	BOLT-----	3
19	3B4505	LOCKWASHER-----	3
20	4B4277	WASHER-----	3
21	9L9666	COVER-----	1

105922

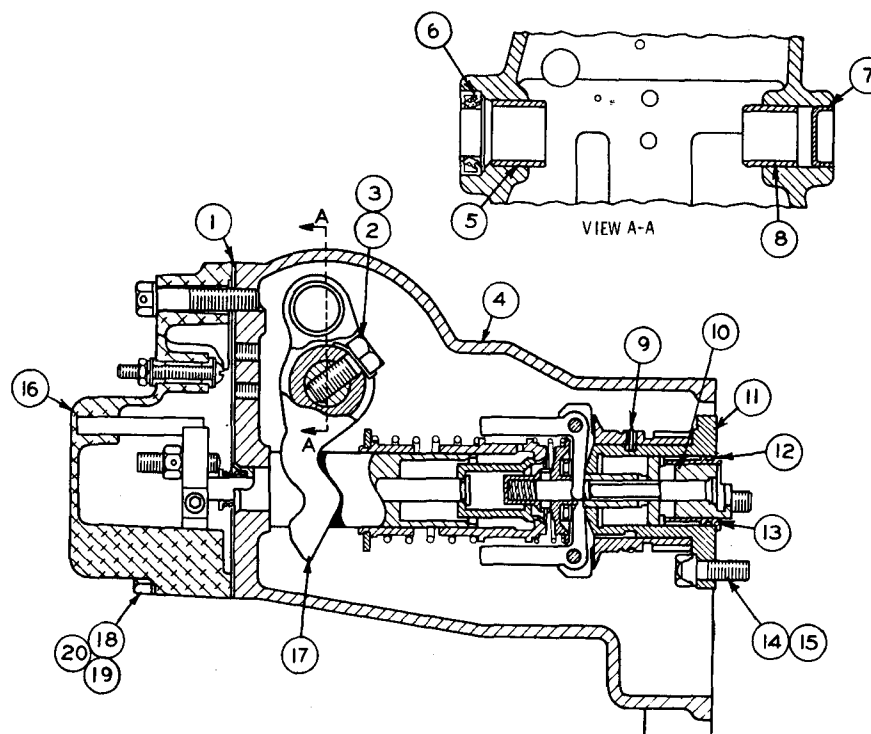
8L9828 GOVERNOR GROUP—Part 1—Type 1
Part of Fuel Pump Housing and Governor shown on Pages 31, 32 and 33

8L9828 GOVERNOR GROUP—Part 2—Type 1
Part of Fuel Pump Housing and Governor shown on Pages 31, 32 and 33



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	4B2042	NUT-----	1
2	3B4501	LOCKWASHER-----	1
3	2S7307	INSULATOR-----	2
4	8F1326	WASHER-----	2
5	2S7465	SCREW-----	1
6	2S7235	SPRING-----	1
7	3S9639	SEAT ASSEM.-----	1
8	9L9676	WEIGHT ASSEM.-----	1
9	1S5440	DOWEL-----	2
(Part of 9L9676 Assem.)			
10	9L9606	SPRING-----	1
11	7M7219	BEARING-----	1
12	7M7193	RACE-----	2
13	3K810	RING-----	1
14	9L9541	GUIDE-----	1
15	9L9548	DOWEL-----	1
16	9L9549	RING-----	1
17	9L9522	SPRING-----	1
18	9L9583	BOLT-----	1
19	1N7083	SEAT ASSEM.-----	1
20	2S7289	COLLAR-----	1
21	7S9331	SCREW----- (High Idle)-----	1
22	9L9578	BOLT-----	1
23	3B4505	LOCKWASHER-----	1
24	4B4277	WASHER-----	1
25	9L9608	SHAFT-----	1
26	8H9588	SETSCREW-----	1
27	5B3180	NUT-----	1
28	6H5636	BOLT-----	1
29	5B5492	WASHER-----	1
30	9M4704	SCREW-----	1
31	8L4154	COLLAR-----	1
	8L4155	SCREW-----	1
	5S9607	NUT-----	1

110337

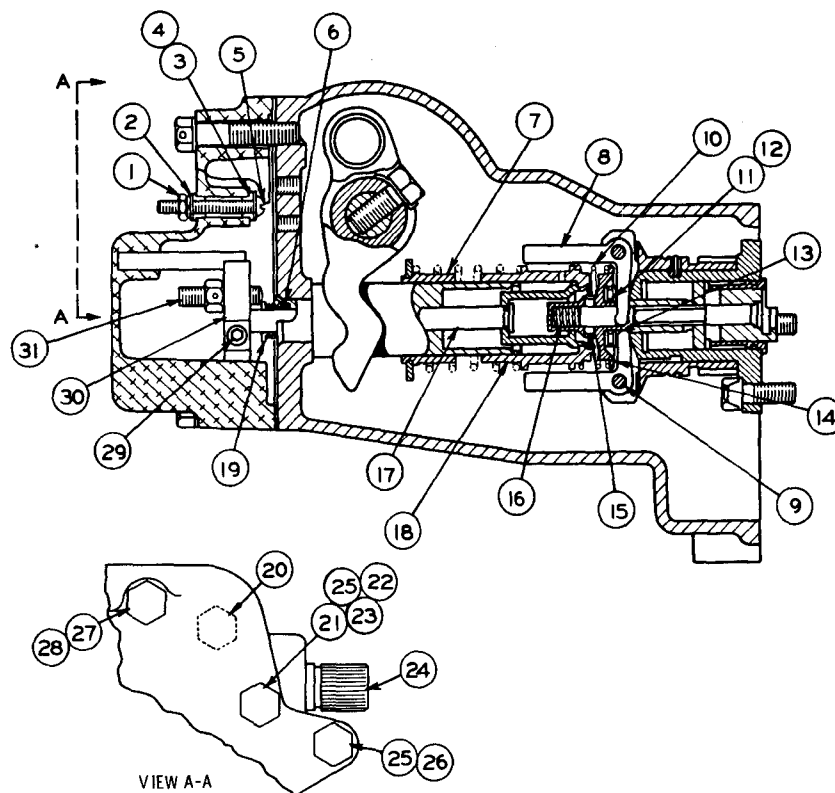


REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	9L9577	GASKET-----	1
2	1A2343	BOLT-----	1
3	9L9678	LOCK-----	1
4	9L9524	HOUSING ASSEM. -----	1
5	9S798	BEARING-----	1
6	9S4671	SEAL-----	1
7	4F4585	PLUG-----	1
8	8S134	BEARING-----	1
(Parts of 9L9524 Housing Assem.)			
9	7B8105	RING-----	1
10	7S8447	PISTON & VALVE ASSEM. -----	1
11	9L9504	CYLINDER-----	1
12	8M8997	SEAL-----	1
13	7L8777	SLEEVE-----	1
14	S1615	BOLT-----	3
15	9L7272	LOCK-----	1
16	9L9666	COVER-----	1
17	9L9511	LEVER ASSEM. -----	1
18	1H5514	BOLT-----	2
19	3B4505	LOCKWASHER-----	2
20	4B4277	WASHER-----	2

111058

8L9828 GOVERNOR GROUP—Part 1—Type 2
Part of Fuel Pump Housing and Governor shown on Pages 31, 32 and 33

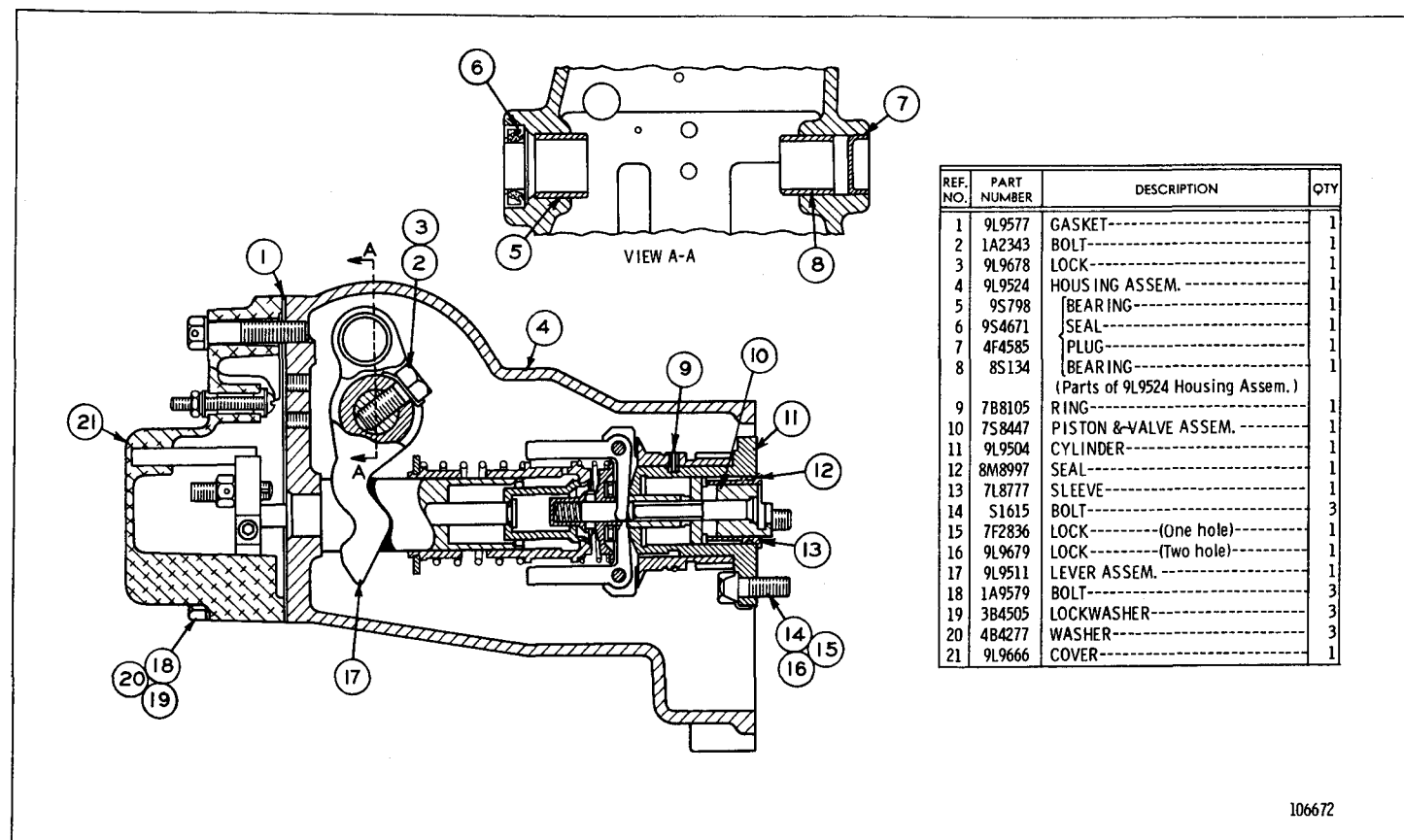
8L9828 GOVERNOR GROUP—Part 2—Type 2
Part of Fuel Pump Housing and Governor shown on Pages 31, 32 and 33



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	4B2042	NUT-----	1
2	3B4501	LOCKWASHER-----	1
3	2S7307	INSULATOR-----	2
4	8F1462	WASHER-----	2
5	2S7465	SCREW-----	1
6	2S7235	SPRING-----	1
7	3S9639	SEAT ASSEM.-----	1
8	9L9676	WEIGHT ASSEM.-----	1
9	1S5440	DOWEL-----	2
(Part of 9L9676 Assem.)			
10	9L9606	SPRING-----	1
11	7M7219	BEARING-----	1
12	7M7193	RACE-----	2
13	3K810	RING-----	1
14	9L9541	GUIDE-----	1
15	9L9548	DOWEL-----	1
16	9L9522	SPRING-----	1
17	9L9583	BOLT-----	1
18	1N7083	SEAT ASSEM.-----	1
19	2S7289	COLLAR-----	1
20	2N9397	SCREW----- (High Idle)	1
21	9L9578	BOLT----- (Drilled Head)	1
22	3B4505	LOCKWASHER-----	2
23	4B4277	WASHER-----	2
24	9L9608	SHAFT-----	1
25	1A9579	BOLT----- (Plain)	2
26	5B3180	NUT-----	1
27	6H5636	BOLT-----	1
28	5B5492	WASHER-----	1
29	9M4704	SCREW-----	1
30	8L4154	COLLAR-----	1
31	9L9777	SCREW-----	1
	5S9607	NUT-----	1

112222

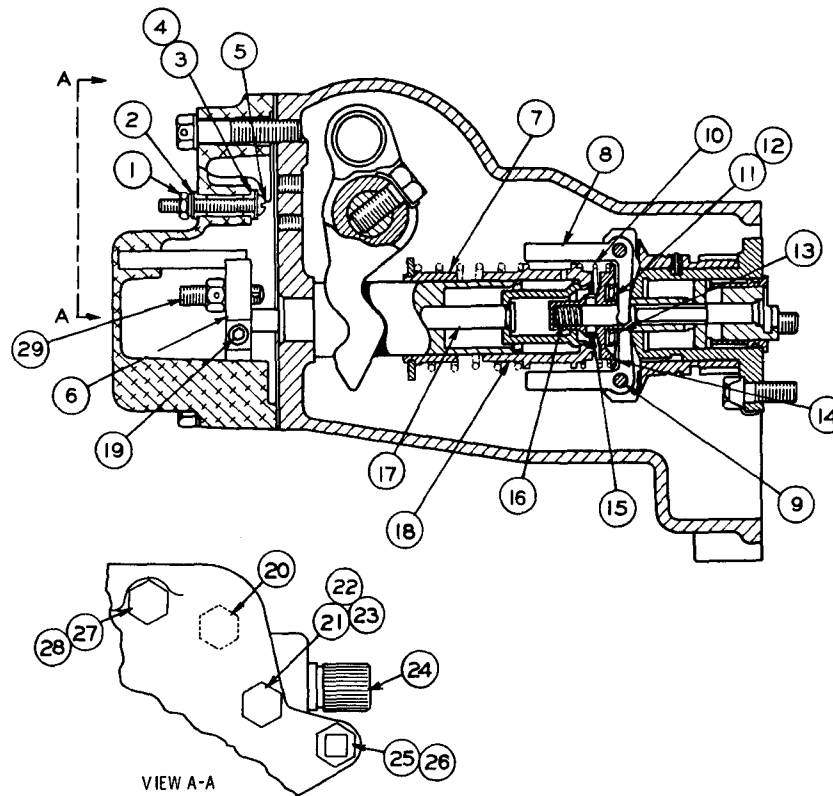
ALWAYS GIVE SPECIAL ATTENTION WHEN OPERATING PARTS



106672

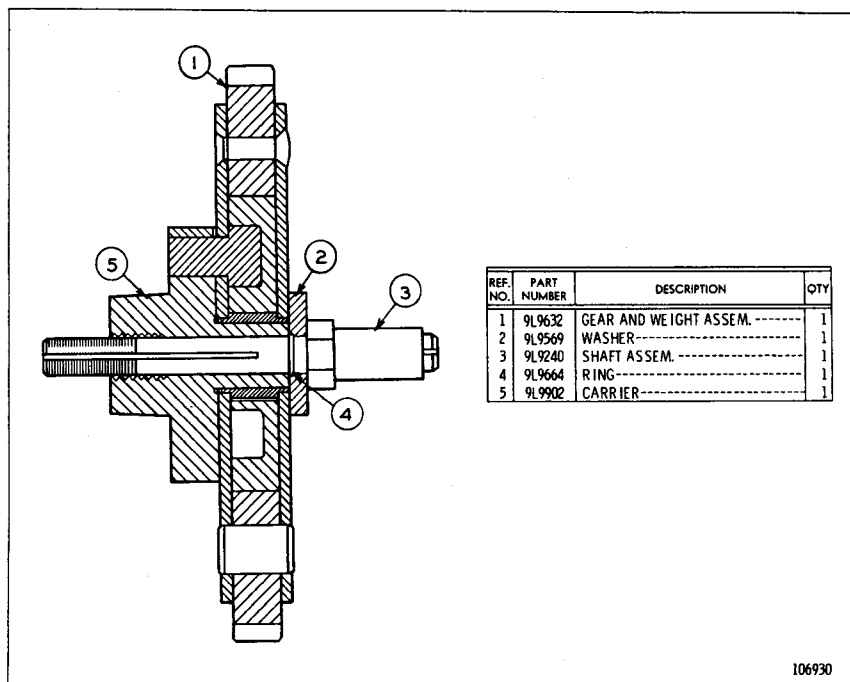
2N2083 GOVERNOR GROUP—Part 1
Part of Fuel Pump Housing and Governor shown on Page 32

2N2083 GOVERNOR GROUP—Part 2
Part of Fuel Pump Housing and Governor shown on Page 32



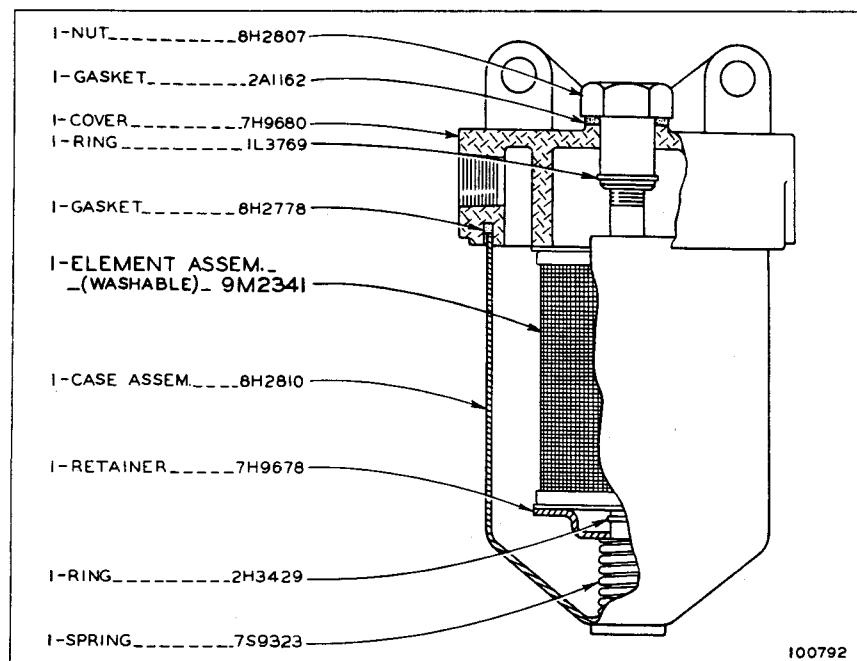
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	4B2042	NUT-----	1
2	3B4501	LOCKWASHER-----	1
3	2S7307	INSULATOR-----	2
4	8F1326	WASHER-----	2
5	2S7465	SCREW-----	1
6	8L4154	COLLAR-----	1
7	3S9639	SEAT ASSEM.-----	1
8	2N478	WEIGHT ASSEM.-----	1
9	1S5440	DOWEL----- (Part of 2N478 Weight Assem.)	2
10	9L9606	SPRING-----	1
11	7M7219	BEARING-----	1
12	7M7193	RACE-----	2
13	3K810	RING-----	1
14	9L9541	GUIDE-----	1
15	9L9548	DOWEL-----	1
16	9L9549	RING-----	1
17	9L9522	SPRING-----	1
18	9L9583	BOLT-----	1
19	1N7083	SEAT ASSEM.-----	1
20	9M4704	SCREW-----	1
21	9L9675	SCREW----- (High Idle)	1
22	3B4505	LOCKWASHER-----	1
23	4B4277	WASHER-----	1
24	9L9608	SHAFT-----	1
25	8H9588	SETSCREW-----	1
26	5B3180	NUT-----	1
27	6H5636	BOLT-----	1
28	5B5492	WASHER-----	1
29	8L4155	SCREW-----	1
	1S59607	NUT-----	1

106673



106930

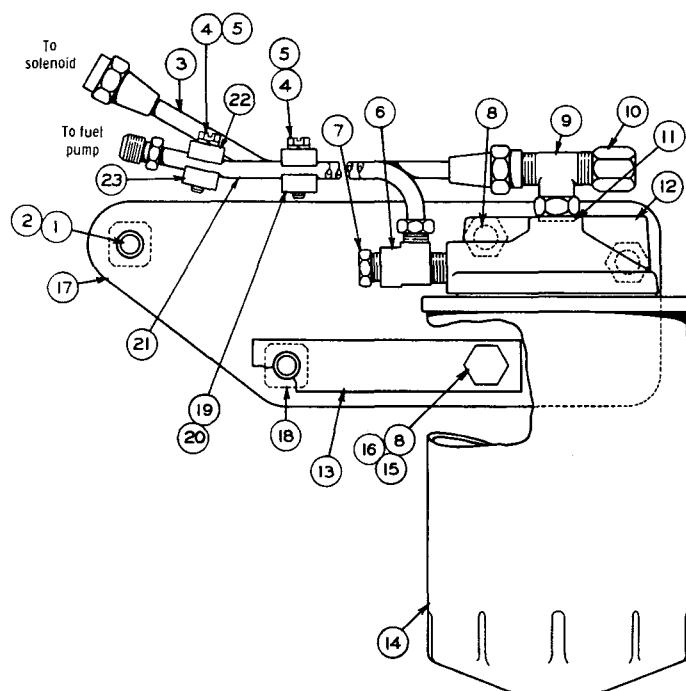
9L9631 FUEL PUMP TIMING ADVANCE GROUP
Part of 1N9985 Fuel System shown on Pages 37 and 39



100792

8H4681 PRIMARY FUEL FILTER GROUP
Serial No. 96M1 to 96M1972 inclusive. AN ATTACHMENT
Also part of 3N4106 Engine Arrangement and 2N3435
Fuel Tank Group shown on Pages 7 and 95

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS



C INDICATES CHANGE FROM PREVIOUS TYPE

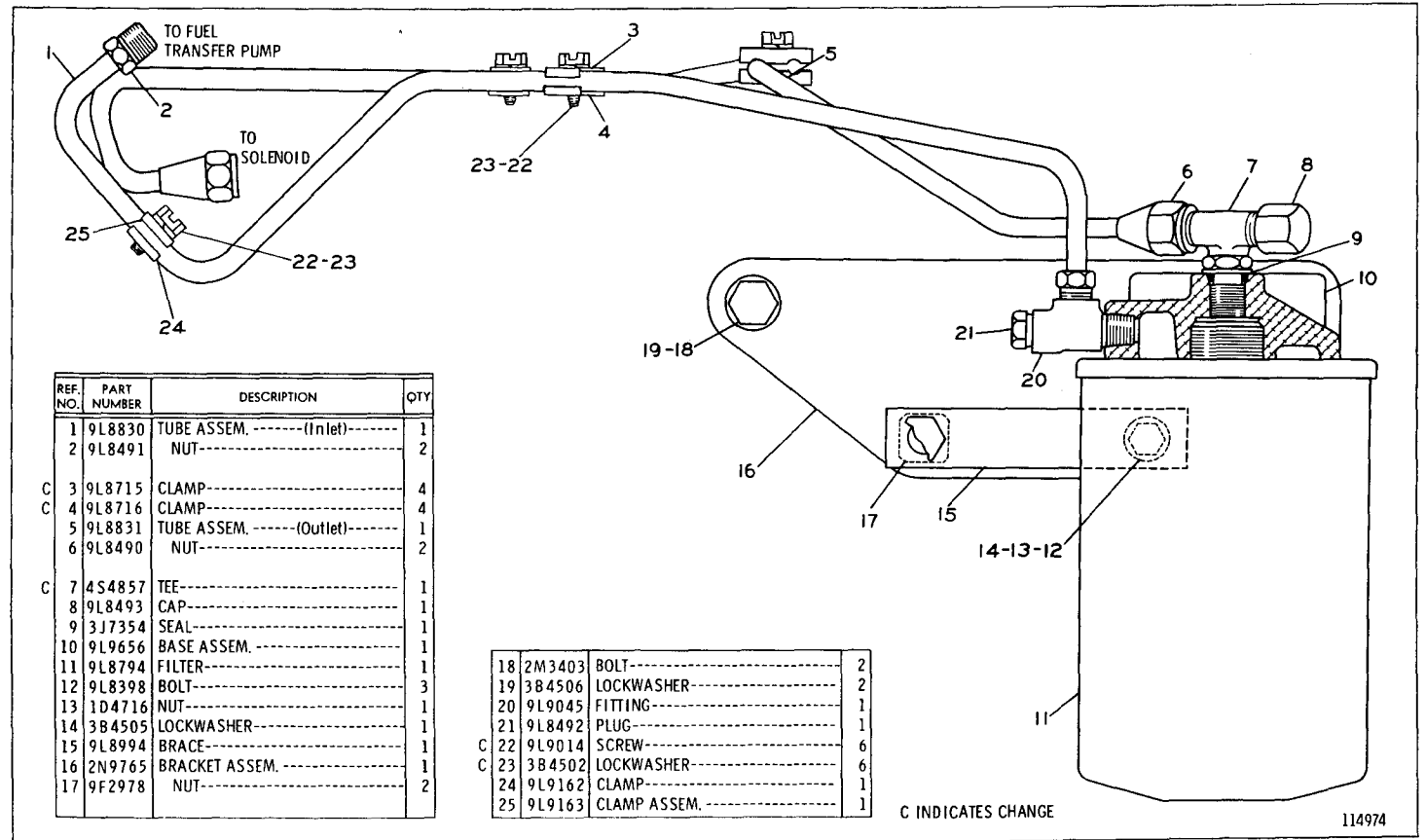
REF NO.	PART NUMBER	DESCRIPTION	QTY.
1	T 65	BOLT-----	2
2	3B4506	LOCKWASHER-----	2
3	9L8831	TUBE ASSEM. (23.98" Long Overall)	1
4	9L9014	SCREW-----	4
5	3B4502	LOCKWASHER-----	4
6	9L9045	FITTING-----	1
7	9L8492	PLUG-----	1
8	9L8398	BOLT-----	3
9	9L8494	TEE-----	1
10	9L8493	CAP-----	1
11	3J7354	SEAL-----	1
12	9L8805	BASE ASSEM.-----	1

REF NO.	PART NUMBER	DESCRIPTION	QTY.
13	9L8994	BRACE-----	1
14	9L8794	FILTER-----	1
15	1D4716	NUT-----	1
16	3B4505	LOCKWASHER-----	1
17	9L8797	BRACKET ASSEM.-----	1
18	9F2978	NUT----- (Weld) (Part of 9L8797 Bracket Assem.)	2
19	9L9162	CLAMP-----	1
20	9L9163	CLAMP ASSEM.-----	1
21	9L8830	TUBE ASSEM. (21.53" Long Overall) (Ref. No. 11 to Fuel Pump)	1
C 22	9L8713	CLAMP-----	1
C 23	9L8714	CLAMP-----	1

106932

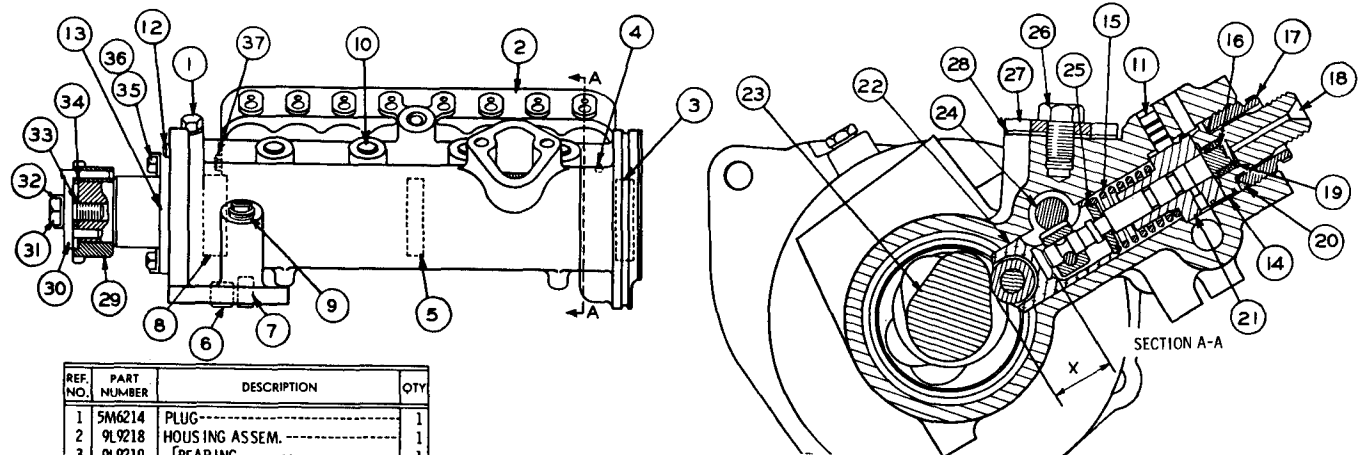
9L8822 FUEL FILTER GROUP
Serial No. 96M1 to 96M264 inclusive

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS



9L8822 FUEL FILTER GROUP
Effective with Serial No. 96M265

9L9227 FUEL PUMP HOUSING GROUP-Type 1
Part of Fuel Pump Housing and Governor shown on Pages 31, 32 and 33



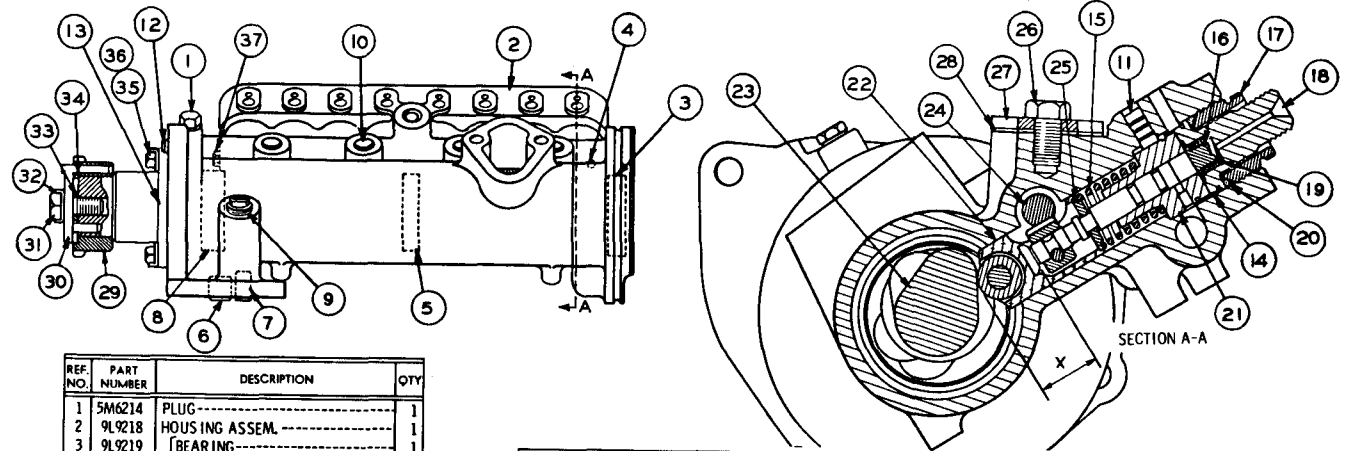
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	5M6214	PLUG-----	1
2	9L9218	HOUSING ASSEM.-----	1
3	9L9219	BEARING-----	1
4	4B9783	BALL-----	1
5	1M1226	BEARING-----	1
6	9L8431	DOWEL-----	1
7	9L9503	DOWEL-----	1
8	9L9508	BEARING-----	1
9	2B7409	PLUG-----	1
10	2S6958	PIN-----	4
11	8M3019	DOWEL-----	8
12	9L9068	DOWEL-----	2
(Parts of 9L9218 Assem.)			
13	9L9516	PLATE-----	1
14	9L8478	RING-----	8
15	9L8410	SPRING-----	8
16	9H5746	CHECK VALVE-----	8
17	9L8425	BUSHING-----	8
18	9L8428	BONNET-----	8
19	9L9424	SPRING-----	8
20	9L8420	SEAL-----	8

REF. NO.	PART NUMBER	DESCRIPTION	QTY
21	9L9211	PLUNGER & BARREL ASSEM.-----	8
	9L9448	LIFTER ASSEM. --(.867" DIM. X)---	8
	9L9449	LIFTER ASSEM. --(.869" DIM. X)---	8
	9L9450	LIFTER ASSEM. --(.871" DIM. X)---	8
	9L9451	LIFTER ASSEM. --(.873" DIM. X)---	8
22	9L9452	LIFTER ASSEM. --(.875" DIM. X)---	8
	9L9453	LIFTER ASSEM. --(.877" DIM. X)---	8
	9L9454	LIFTER ASSEM. --(.879" DIM. X)---	8
	9L9455	LIFTER ASSEM. --(.881" DIM. X)---	8
	9L9456	LIFTER ASSEM. --(.883" DIM. X)---	8
23	9L9589	CAMSHAFT-----	1
24	9L9530	RACK-----	1
25	9L8403	WASHER-----	8
26	9L9497	BOLT-----	2
27	9L9303	COVER-----	1
28	9L9304	GASKET-----	1

108552

REF. NO.	PART NUMBER	DESCRIPTION	QTY
29	9L9518	GEAR ASSEM. ----(57 Teeth)-----	1
	9L9543	DOWEL-----	1
(Part of 9L9518 Gear Assem.)			
	9L9546	PLATE ASSEM.-----	1
30	9L9543	DOWEL-----	1
(Part of 9L9546 Plate Assem.)			
31	9L9314	BOLT-----	1
32	9L9588	LOCK-----	1
33	9L9539	SPACER-----	1
34	9L9545	SPRING-----	1
35	1A9136	BOLT-----	2
36	1M7390	LOCK-----	2
37	9S4182	PLUG-----	1
	3J7354	SEAL-----	1

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	5M6214	PLUG-----	1
2	9L9218	HOUSING ASSEM.-----	1
3	9L9219	BEARING-----	1
4	4B9783	BALL-----	1
5	1M1226	BEARING-----	1
6	9L8431	DOWEL-----	1
7	9L9503	DOWEL-----	1
8	9L9508	BEARING-----	1
9	2B7409	PLUG-----	1
10	256958	PIN-----	4
11	8M3019	DOWEL-----	8
12	9L9068	DOWEL-----	2
(Parts of 9L9218 Assem.)			
13	9L9516	PLATE-----	1
14	9L8478	RING-----	8
15	9L8410	SPRING-----	8
16	9H5746	CHECK VALVE-----	8
17	9L8425	BUSHING-----	8
18	9L7237	BONNET-----	8
19	9L9424	SPRING-----	8
20	9L8420	SEAL-----	8

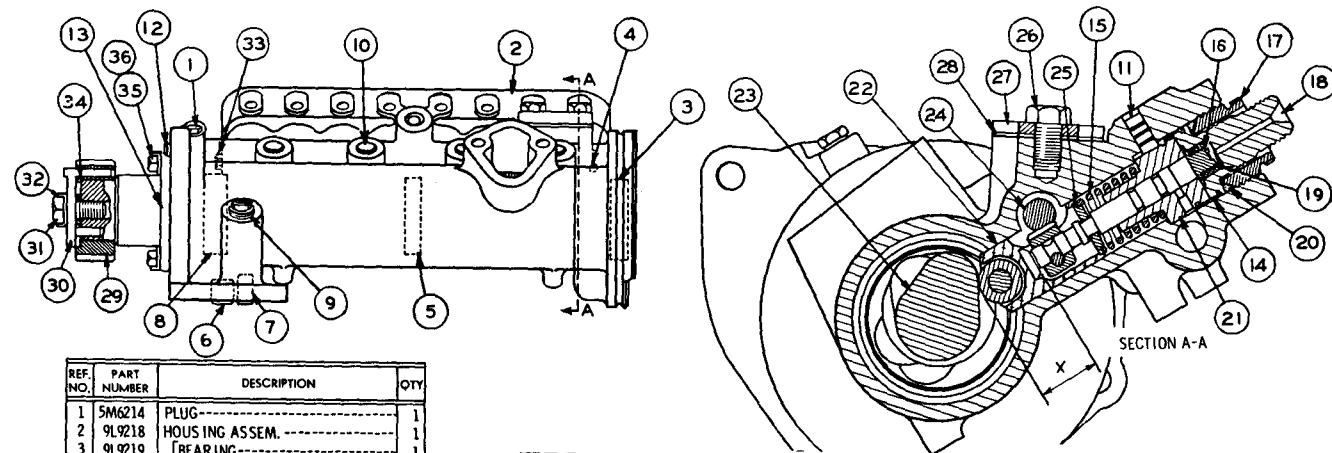
REF. NO.	PART NUMBER	DESCRIPTION	QTY
21	9L9211	PLUNGER & BARREL ASSEM.-----	8
	9L9448	LIFTER ASSEM. --(.867" DIM. X)---	8
	9L9449	LIFTER ASSEM. --(.869" DIM. X)---	8
	9L9450	LIFTER ASSEM. --(.871" DIM. X)---	8
	9L9451	LIFTER ASSEM. --(.873" DIM. X)---	8
	9L9452	LIFTER ASSEM. --(.875" DIM. X)---	8
	9L9453	LIFTER ASSEM. --(.877" DIM. X)---	8
	9L9454	LIFTER ASSEM. --(.879" DIM. X)---	8
	9L9455	LIFTER ASSEM. --(.881" DIM. X)---	8
	9L9456	LIFTER ASSEM. --(.883" DIM. X)---	8
23	9L9589	CAMSHAFT-----	1
24	9L9530	RACK-----	1
25	9L8403	WASHER-----	8
26	9L9497	BOLT-----	2
27	9L9303	COVER-----	1
28	9L9304	GASKET-----	1

REF. NO.	PART NUMBER	DESCRIPTION	QTY
29	9L9518	GEAR ASSEM. ----(57 Teeth)----	1
	9L9543	DOWEL-----	1
(Part of 9L9518 Gear Assem.)			
	9L9546	PLATE ASSEM. -----	1
30	9L9543	DOWEL-----	1
(Part of 9L9546 Plate Assem.)			
31	9L9314	BOLT-----	1
32	9L9588	LOCK-----	1
33	9L9539	SPACER-----	1
34	9L9545	SPRING-----	1
35	1A9136	BOLT-----	2
36	1M7390	LOCK-----	2
	9S4182	PLUG-----	1
37	3J7354	SEAL-----	1

111145

9L9227 FUEL PUMP HOUSING GROUP—Type 2
Part of Fuel Pump Housing and Governor shown on Pages 31, 32 and 33

9L9227 FUEL PUMP HOUSING GROUP—Type 3
Part of Fuel Pump Housing and Governor shown on Pages 31, 32 and 33

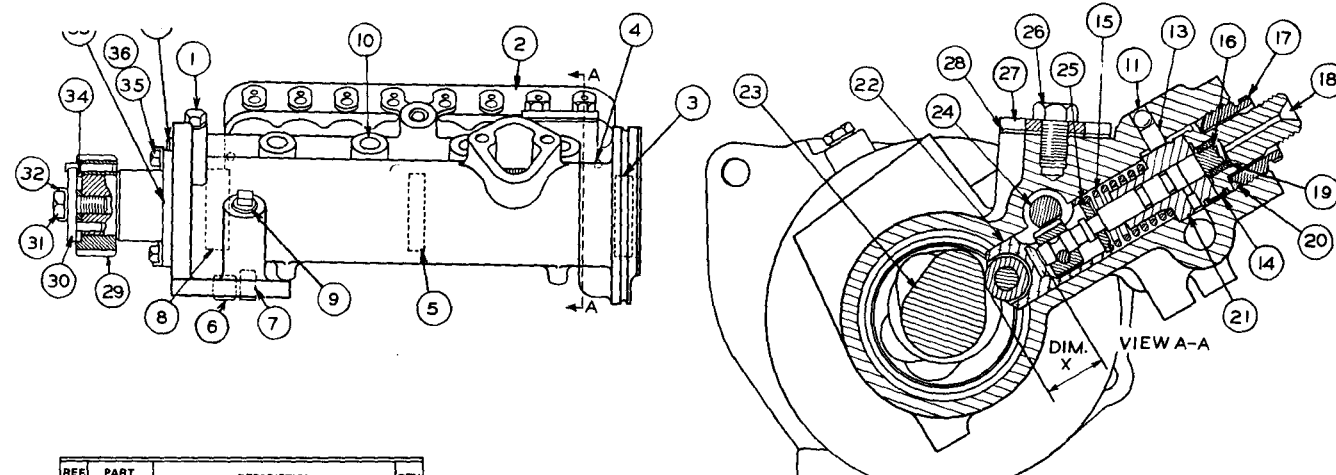


REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	5M6214	PLUG-----	1
2	9L9218	HOUSING ASSEM.-----	1
3	9L9219	BEARING-----	1
4	4B9783	BALL-----	1
5	1M1226	BEARING-----	1
6	9L8431	DOWEL-----	1
7	9L9503	DOWEL-----	1
8	9L9508	BEARING-----	1
9	2B7409	PLUG-----	1
10	256958	PIN-----	4
11	8M3019	DOWEL-----	8
12	9L9068	DOWEL-----	2
		(Parts of 9L9218 Assem.)	
13	9L7478	PLATE-----	1
14	9L8478	RING-----	8
15	9L8410	SPRING-----	8
16	9H5746	CHECK VALVE-----	8
17	9L8425	BUSHING-----	8
18	9L7237	BONNET-----	8
19	9L9424	SPRING-----	8
20	9L8420	SEAL-----	8

REF. NO.	PART NUMBER	DESCRIPTION	QTY
21	9L9211	PLUNGER & BARREL ASSEM.-----	8
	9L9762	LIFTER ASSEM.--(.867" DIM. X)-----	8
	9L9796	LIFTER ASSEM.--(.869" DIM. X)-----	8
	9L9797	LIFTER ASSEM.--(.871" DIM. X)-----	8
	9L9798	LIFTER ASSEM.--(.873" DIM. X)-----	8
22	9L9799	LIFTER ASSEM.--(.875" DIM. X)-----	8
	9L9800	LIFTER ASSEM.--(.877" DIM. X)-----	8
	9L9801	LIFTER ASSEM.--(.879" DIM. X)-----	8
	9L9802	LIFTER ASSEM.--(.881" DIM. X)-----	8
	9L9803	LIFTER ASSEM.--(.883" DIM. X)-----	8
23	9L9589	CAMSHAFT-----	1
24	9L9530	RACK-----	1
25	9L9761	WASHER-----	8
26	9L9497	BOLT-----	2
27	9L9303	COVER-----	1
28	9L9304	GASKET-----	1

29	9L9769	GEAR ASSEM.----- (57 Teeth)-----	1
	9L9543	DOWEL-----	1
		(Part of 9L9769 Assem.)	
30	9L9758	PLATE ASSEM.-----	1
	9L9543	DOWEL-----	1
		(Part of 9L9758 Assem.)	
31	9L9314	BOLT-----	1
32	9L9588	LOCK-----	1
33	9S4182	PLUG-----	1
34	3J7354	SEAL-----	1
35	9L9545	SPRING-----	1
36	1A9136	BOLT-----	2
	1M7390	LOCK-----	2

112242



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	5M6214	PLUG-----	1
2	9L9218	HOUSING ASSEM.-----	1
3	9L9219	BEARING-----	1
4	4B9783	BALL-----	2
5	1M1216	BEARING-----	1
6	9L8431	DOWEL-----	1
7	9L9503	DOWEL-----	1
8	9L9508	BEARING-----	1
9	2B7409	PLUG-----	1
10	2S6958	PIN-----	4
11	1P232	BALL-----	8
12	9L9068	DOWEL-----	2
13	1P234	DOWEL-----	8
14	9L8478	RING-----	8
15	9L8410	SPRING-----	8

16	9H5746	CHECK VALVE-----	8
17	9L8425	BUSHING-----	8
18	7L7237	BONNET-----	8
19	9L9424	SPRING-----	8
20	9L8420	SEAL-----	8
21	9L9835	PLUNGER & BARREL ASSEM.-----	8
	9L9448	LIFTER ASSEM. --(.867" DIM. X)---	8
	9L9449	LIFTER ASSEM. --(.869" DIM. X)---	8
	9L9450	LIFTER ASSEM. --(.871" DIM. X)---	8
	9L9798	LIFTER ASSEM. --(.873" DIM. X)---	8
22	9L9452	LIFTER ASSEM. --(.875" DIM. X)---	8
	9L9453	LIFTER ASSEM. --(.877" DIM. X)---	8
	9L9454	LIFTER ASSEM. --(.879" DIM. X)---	8
	9L9455	LIFTER ASSEM. --(.881" DIM. X)---	8
	9L9456	LIFTER ASSEM. --(.883" DIM. X)---	8
23	9L9589	CAMSHAFT-----	1

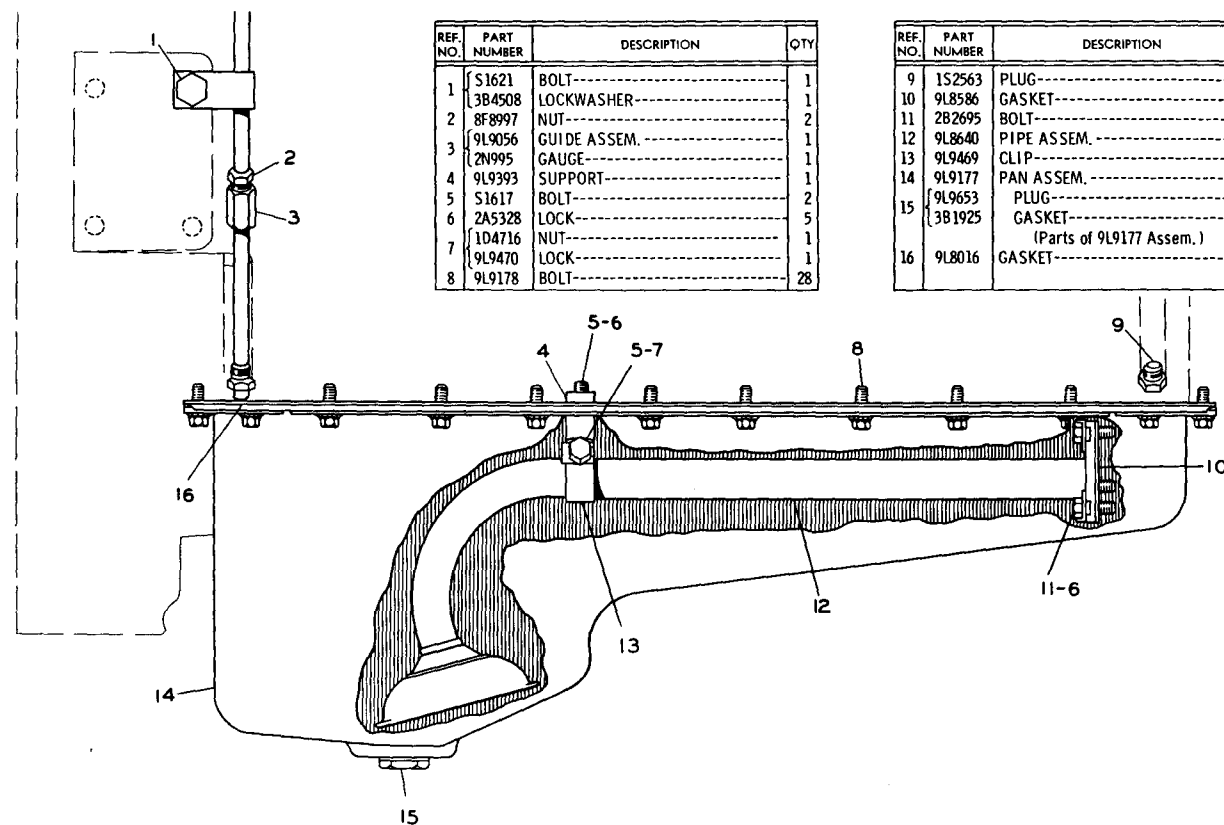
24	9L9530	RACK-----	1
25	9L9761	WASHER-----	8
26	9L9497	BOLT-----	2
27	9L9303	COVER-----	1
28	9L9304	GASKET-----	1
29	9L9769	GEAR ASSEM. -----(57 Teeth)----	1
	9L9543	DOWEL-----	1
	9L9758	PLATE ASSEM.-----	1
30	9L9543	DOWEL-----	1
31	9L9314	BOLT-----	1
32	9L9588	LOCK-----	1
33	9L7478	PLATE-----	1
34	9L9545	SPRING-----	1
35	1A9136	BOLT-----	2
36	9L7552	LOCK-----	2

C INDICATES CHANGE

138201

2N2082 FUEL PUMP HOUSING GROUP
Part of Fuel Pump Housing and Governor shown on Page 32

2N991 OIL PAN GROUP—Rear Sump
Only separate parts serviced

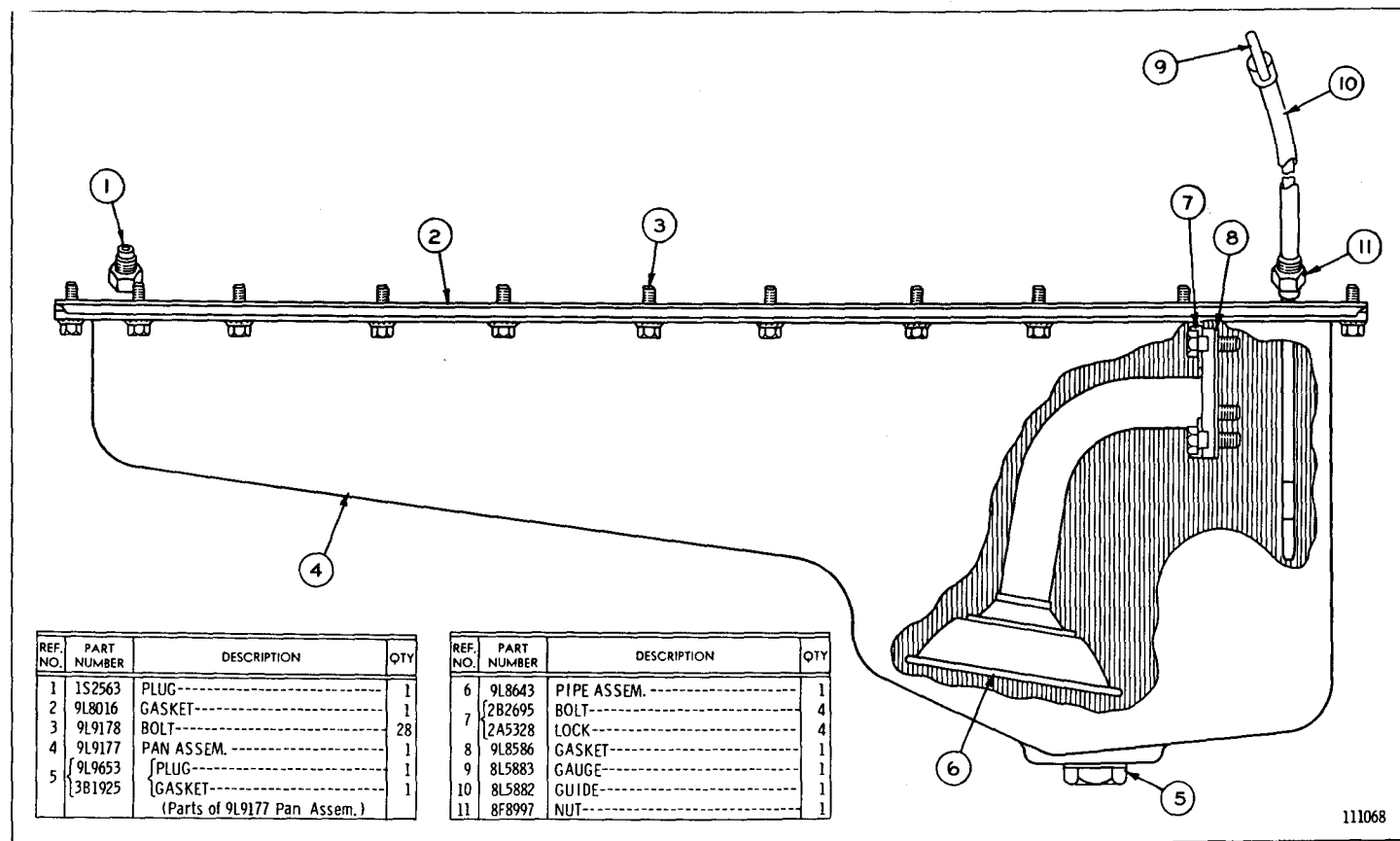


REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	S1621	BOLT-----	1
	3B4508	LOCKWASHER-----	1
2	8F8997	NUT-----	2
3	9L9056	GUIDE ASSEM.-----	1
4	2N995	GAUGE-----	1
4	9L9393	SUPPORT-----	1
5	S1617	BOLT-----	2
6	2A5328	LOCK-----	5
7	1D4716	NUT-----	1
	9L9470	LOCK-----	1
8	9L9178	BOLT-----	28

REF. NO.	PART NUMBER	DESCRIPTION	QTY
9	1S2563	PLUG-----	1
10	9L8586	GASKET-----	1
11	2B2695	BOLT-----	4
12	9L8640	PIPE ASSEM.-----	1
13	9L9469	CLIP-----	1
14	9L9177	PAN ASSEM.-----	1
15	9L9653	PLUG-----	1
	3B1925	GASKET-----	1
	(Parts of 9L9177 Assem.)		
16	9L8016	GASKET-----	1

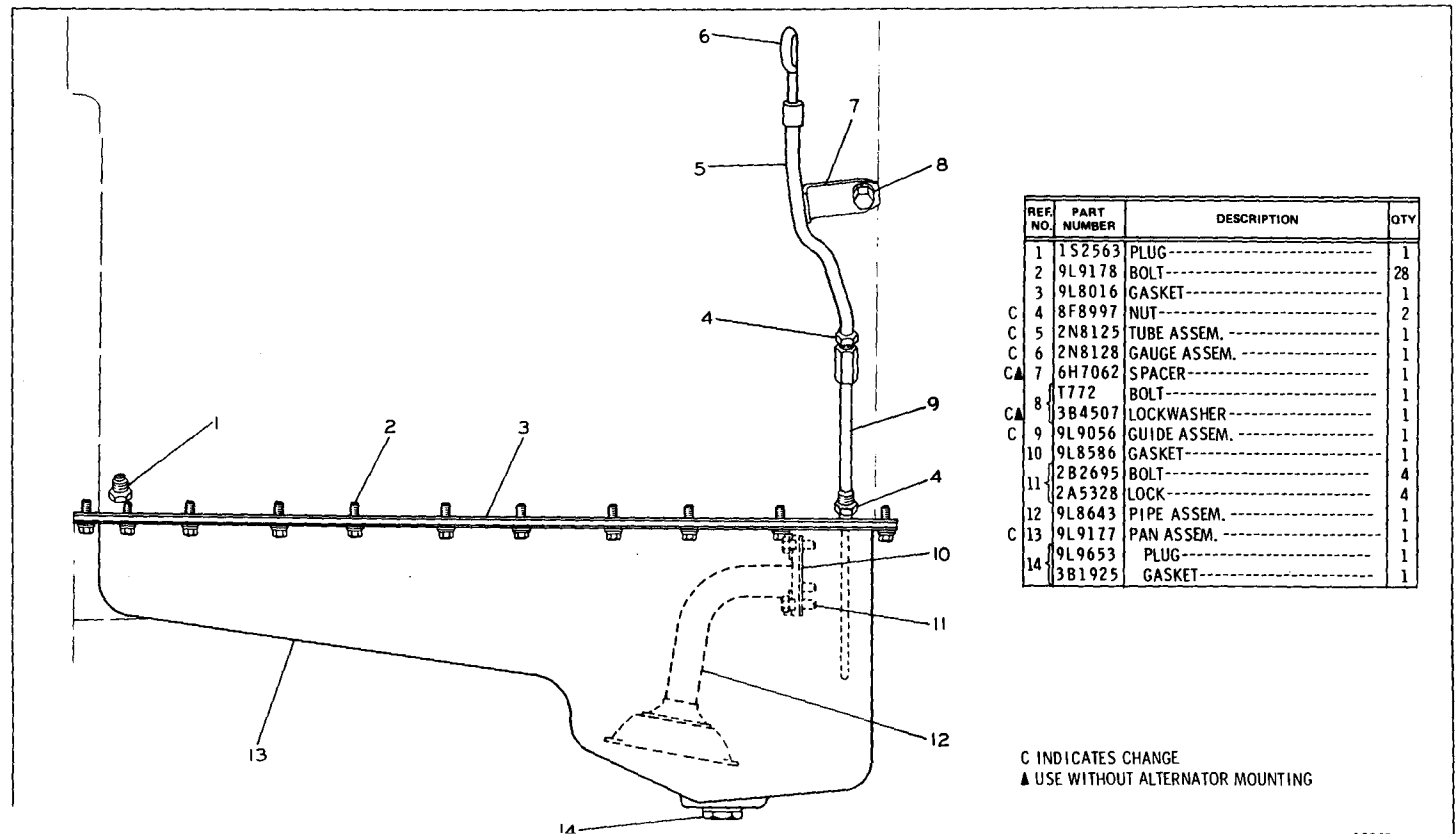
DIESEL ENGINE

ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS



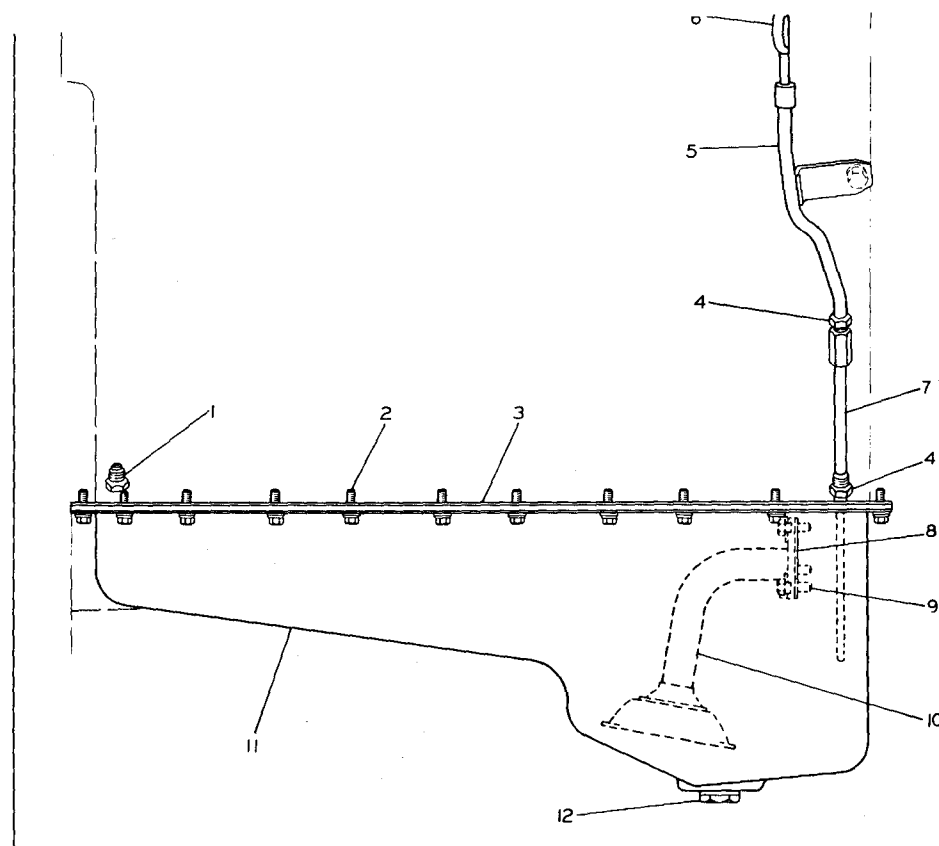
8L9780 OIL PAN GROUP--Front Sump--Type 1
 Serial No. 96M1 to 96M962 inclusive. AN ATTACHMENT
 Only separate parts serviced

8L9780 OIL PAN GROUP—Front Sump—Type 2
Only separate parts serviced



REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	1S2563	PLUG-----	1
2	9L9178	BOLT-----	28
3	9L8016	GASKET-----	1
4	8F8997	NUT-----	2
C 5	2N8125	TUBE ASSEM.-----	1
C 6	2N8128	GAUGE ASSEM.-----	1
C 7	6H7062	SPACER-----	1
8	1T772	BOLT-----	1
C 8	3B4507	LOCKWASHER-----	1
C 9	9L9056	GUIDE ASSEM.-----	1
10	9L8586	GASKET-----	1
11	2B2695	BOLT-----	4
12	2A5328	LOCK-----	4
13	9L8643	PIPE ASSEM.-----	1
C 13	9L9177	PAN ASSEM.-----	1
14	9L9653	PLUG-----	1
	3B1925	GASKET-----	1

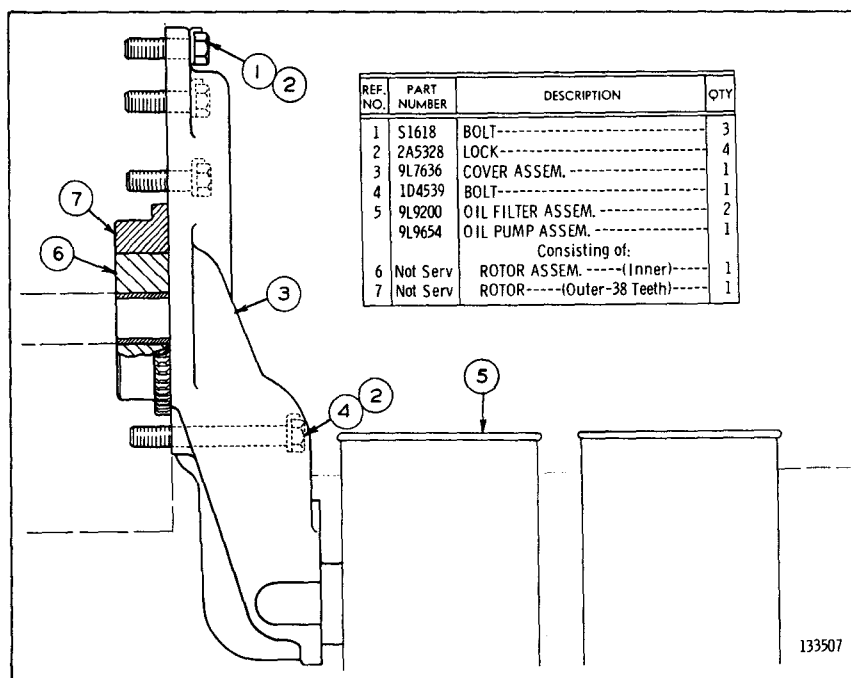
C INDICATES CHANGE
▲ USE WITHOUT ALTERNATOR MOUNTING



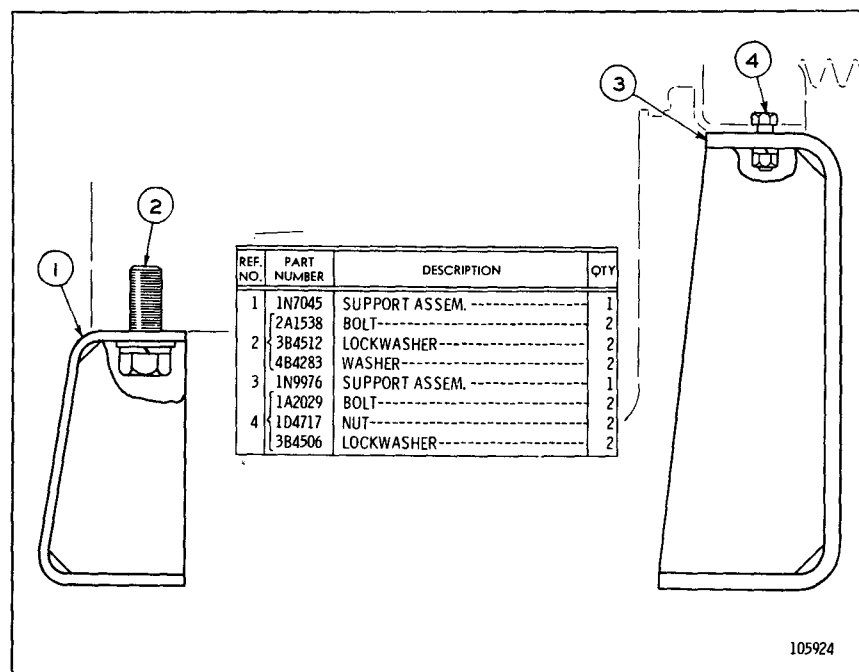
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	1S2563	PLUG-----	1
2	9L9178	BOLT-----	28
3	9L8016	GASKET-----	1
4	8F8997	NUT-----	2
5	2N8125	TUBE ASSEM.-----	1
6	2N8128	GAUGE ASSEM.-----	1
7	9L9056	GUIDE ASSEM.-----	1
8	9L8586	GASKET-----	1
9	2B2695	BOLT-----	4
	2A5328	LOCK-----	4
10	9L8643	PIPE ASSEM.-----	1
11	9L9177	PAN ASSEM.-----	1
12	9L9653	PLUG-----	1
	3B1925	GASKET-----	1

115214

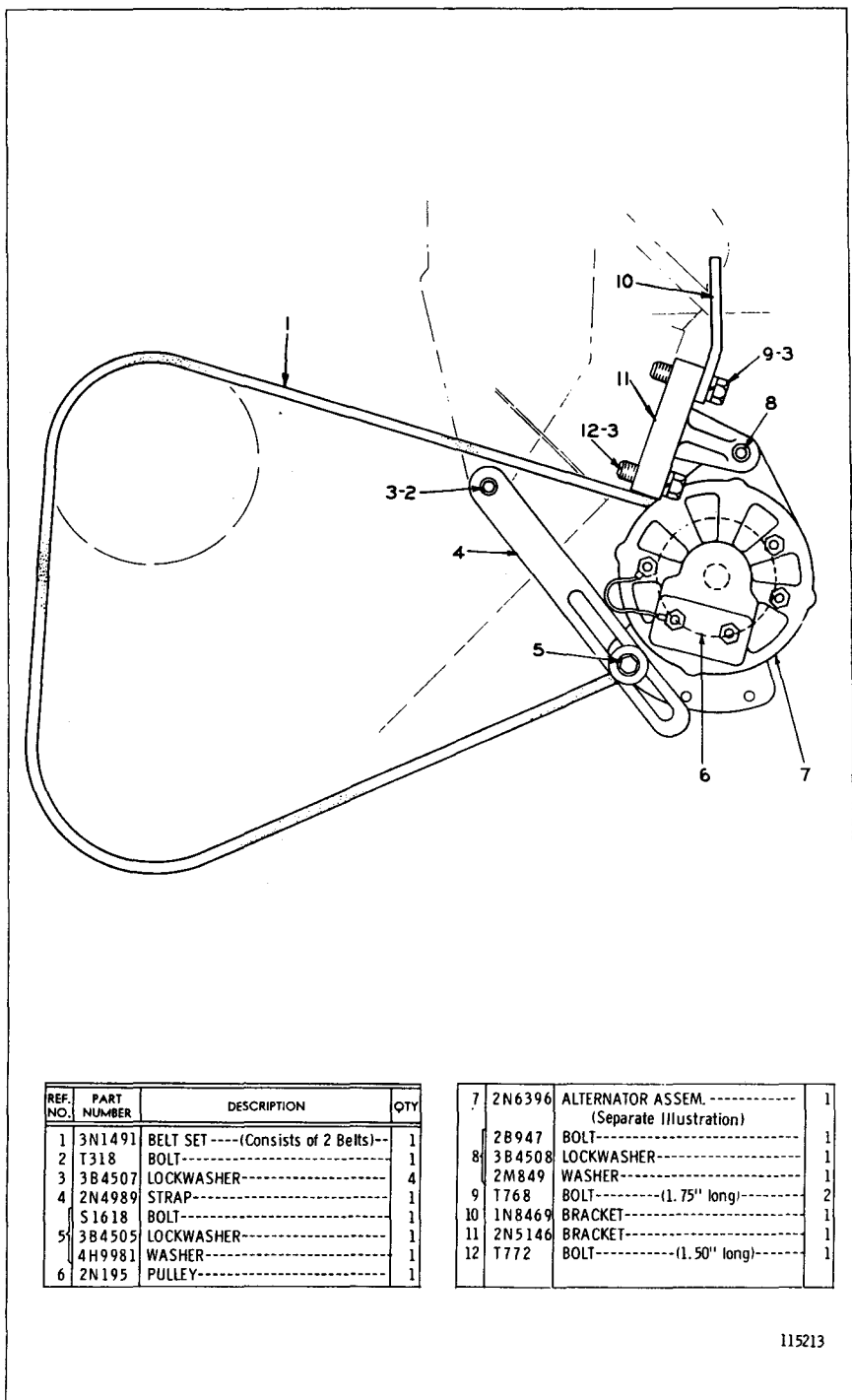
3N4108 OIL PAN GROUP—Front Sump
Only separate parts serviced



9L8306 LUBRICATING SYSTEM
Only separate parts serviced



1N9939 ENGINE SUPPORT GROUP
Effective with Serial No. 96M188. AN ATTACHMENT
Also part of 9L8306 LUBRICATING SYSTEM



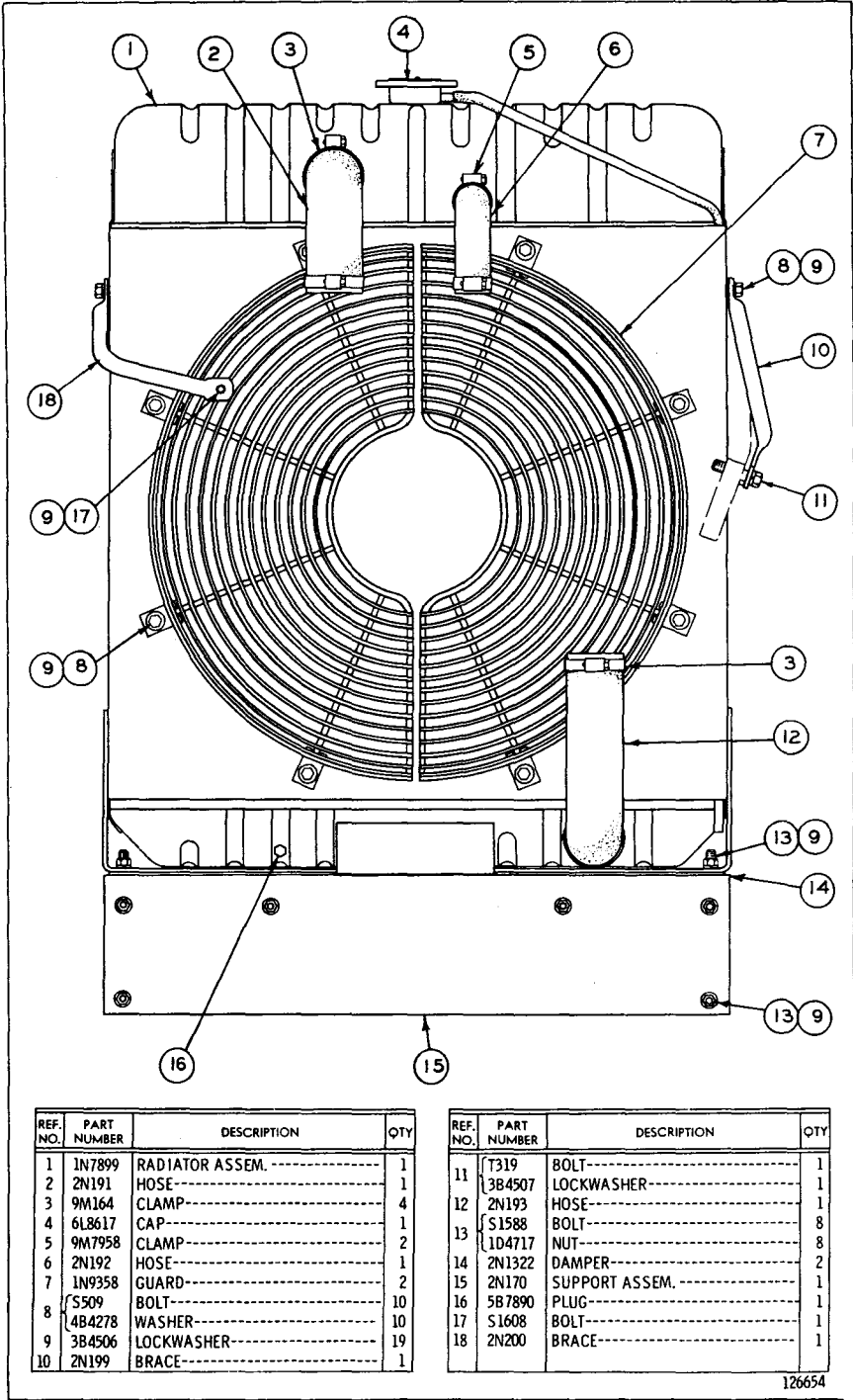
REF. NO.	PART NUMBER	DESCRIPTION	QTY
1	3N1491	BELT SET ----(Consists of 2 Belts)---	1
2	T318	BOLT-----	1
3	3B4507	LOCKWASHER-----	4
4	2N4989	STRAP-----	1
	S1618	BOLT-----	1
5	3B4505	LOCKWASHER-----	1
	4H9981	WASHER-----	1
6	2N195	PULLEY-----	1

7	2N6396	ALTERNATOR ASSEM. ----- (Separate Illustration)	1
	2B947	BOLT-----	1
8	3B4508	LOCKWASHER-----	1
	2M849	WASHER-----	1
9	T768	BOLT----- (1.75" long)-----	2
10	1N8469	BRACKET-----	1
11	2N5146	BRACKET-----	1
12	T772	BOLT----- (1.50" long)-----	1

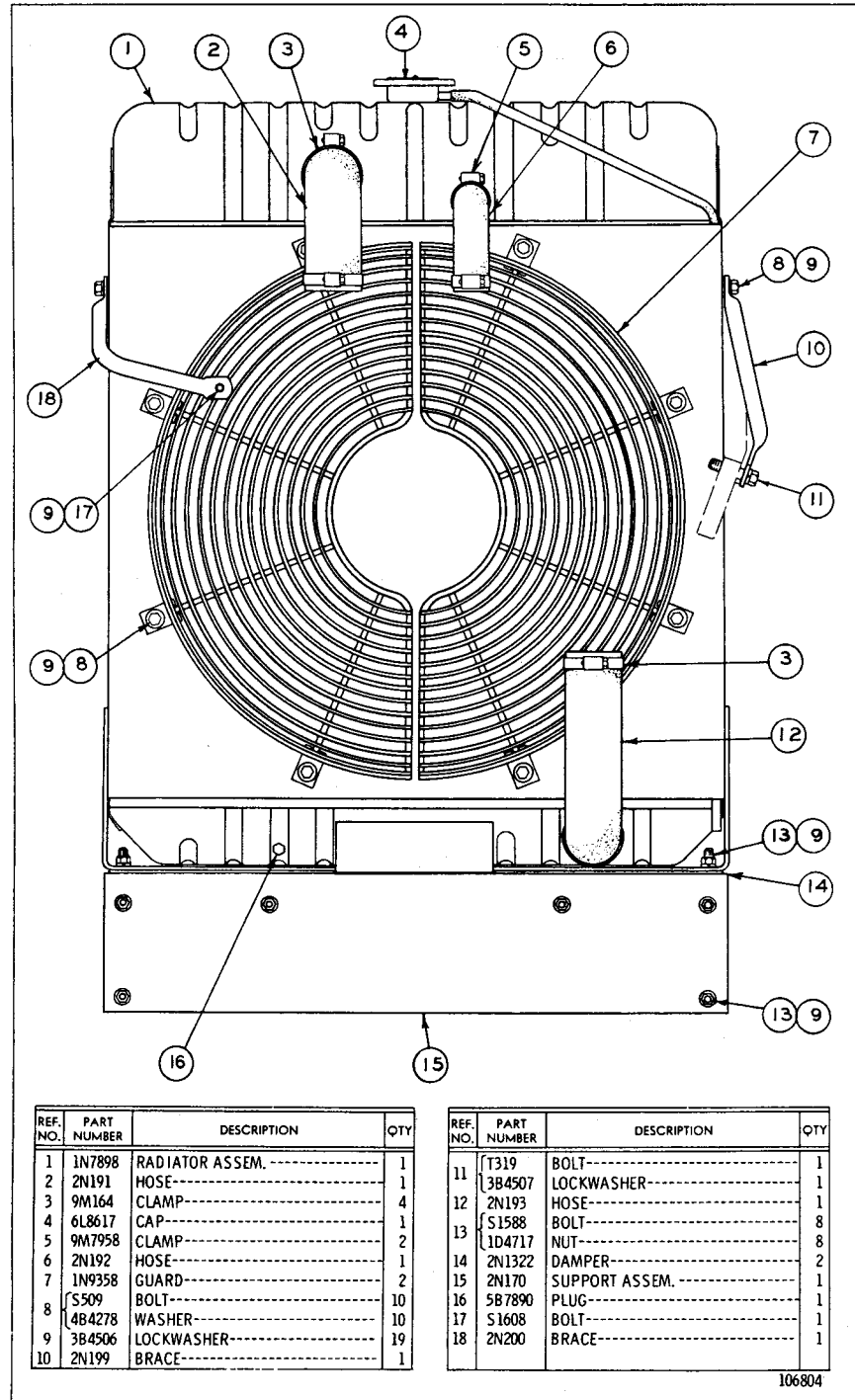
115213

3N4107 ALTERNATOR GROUP—12 Volt, 35 Ampere
2N6396 Alternator parts are shown on Page 125

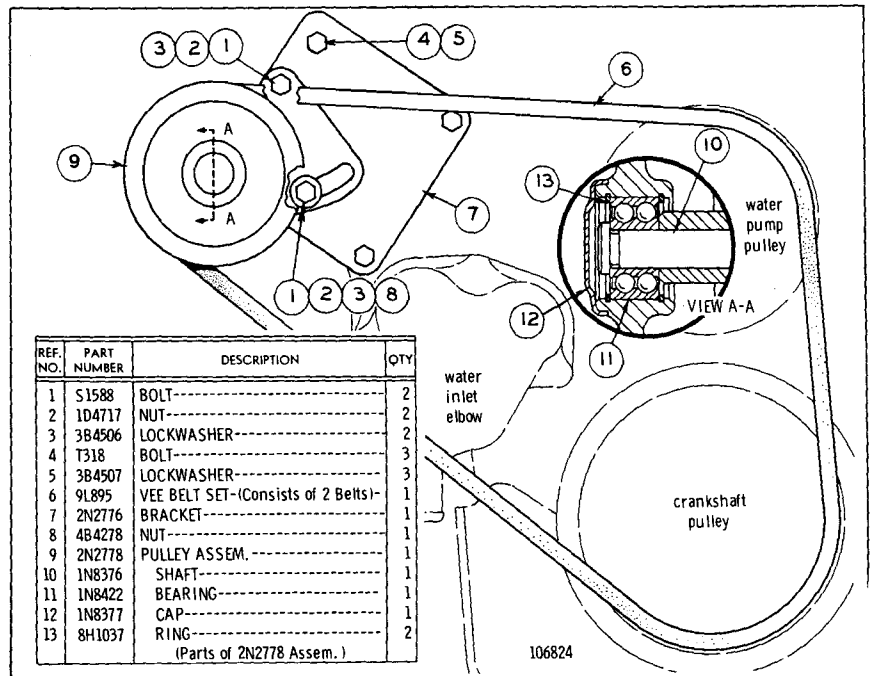
ALWAYS GIVE SERIAL NUMBER WHEN ORDERING PARTS



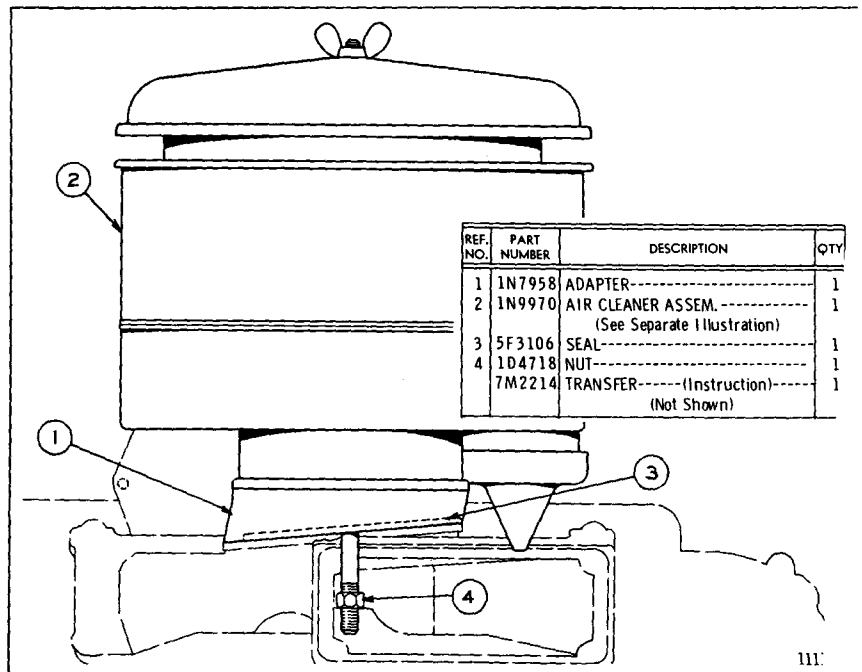
2N1055 RADIATOR GROUP—Rear View
FOR USE WITH 2N2858 OR 2N2458 FAN GROUPS
Note: 6F6041 Rust Inhibitor is available



2N1056 RADIATOR GROUP—Rear View
 FOR USE WITH 2N2895 OR 2N2458 FAN GROUPS
 Note: 6F6041 Rust Inhibitor is available



2N2835 WATER PUMP DRIVE GROUP



2N905 AIR CLEANER GROUP
Serial No. 96M1 to 96M1962 inclusive
1N9970 Air Cleaner parts are shown on Page 68

FOR BETTER PERFORMANCE