

The Ford GAA Data Book



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Engine Data Sheet

FORD GAA, GAN and GAF

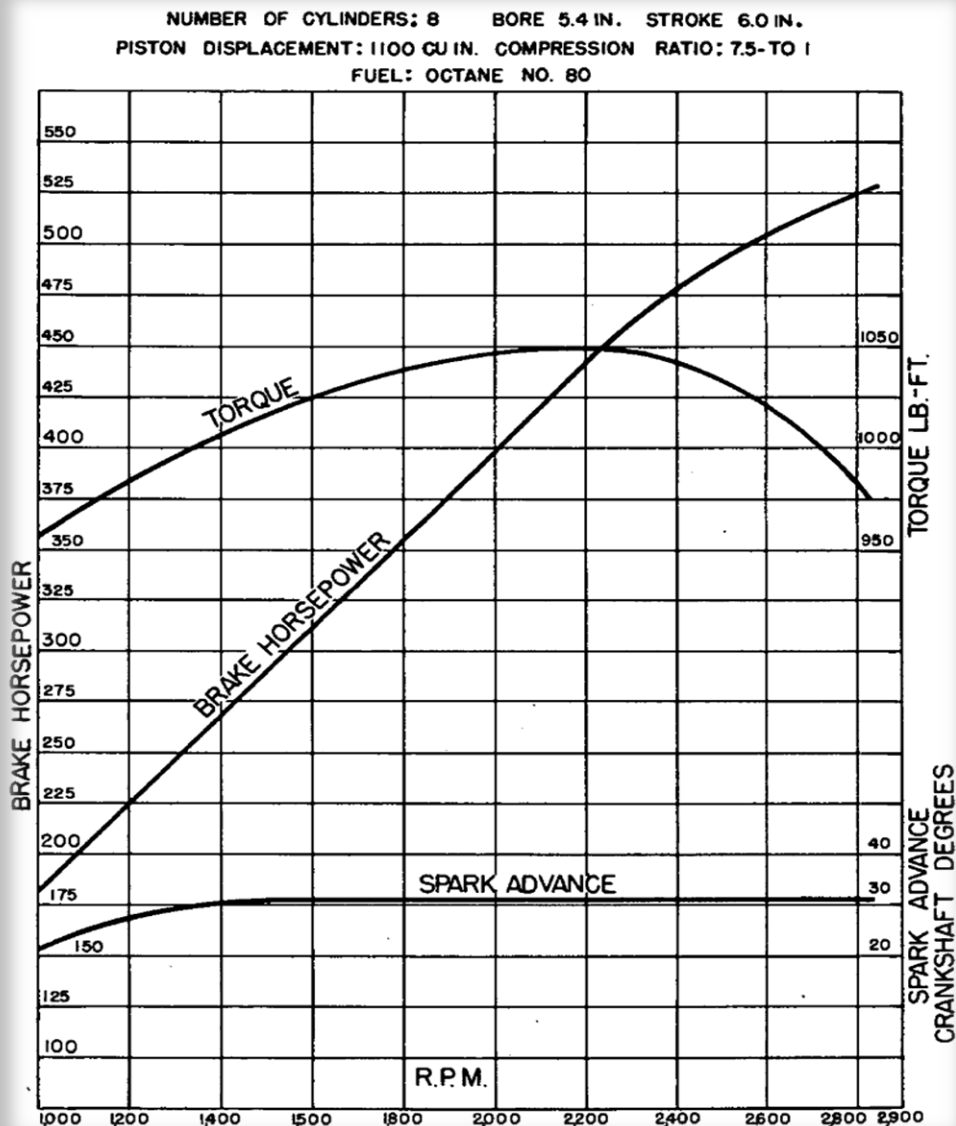
Make and Type:		Ford V-Type, 8-cylinder tank engine
Model:		GAA, GAN and GAF
Dimensions, over-all	Length:	59.02 inches
	Width:	33.25 inches
	Height:	47.78 inches
Weight with accesories:		1470 pounds
Net Horsepower At peak RPM:		500 at 2600 RPM
Net Torque at Peak RPM:		1050 FT-LBS
Number of Cylinders:		8
Bore:		5.4 inches
Stroke:		6 inches
Piston displacement:		1100 cubic inches
Compression ratio:		7.5 to 1
Ignition Type:		Magneto (2)
Direction of Rotation(viewd from rear of engine)		
Crankshaft:		Clockwise
Starter:		Counterclockwise
Accessory speeds		
Fans:		1.4 Crankshaft Speed
Tachometer:		1/2 Crankshaft Speed
Generators:		1.75 Crack Speed
Magnetos Rotor Rotaion Speed: 1/2 Crankshaft Speed	Magneto Make:	American Bosch, MJF4A-308 R-H, MJF4A-307 L-H
	Right Hand Rotor:	Clockwise
	Left Hand Rotor:	Counterclockwise
	Breaker Point Gap:	1.014 inch to 0.016 inch
Firing Order:		R-1, L-2, R-3, L-1, R-4, L-3, R-2, L-4
Spark Plug Type: Champion C88-S	Gap Early:	Three-prong Spark Plug, Gap 0.011 in. to 0.014 in.
	Late:	Two-prong Spark Plug, Gap 0.014 in. to 0.017 in.
Valve Timing:	Intake Opens:	5 degrees BTC
	Intake Closes:	55 degrees ABC
	Exhaust Opens:	50 degrees BBC
	Exhaust closes:	10 dergees ATC
		Stellite, reinforced seats, sodium-cooled stems for GAN and GAF and some GAA
Type of Valves Used:	exhaust Valve:	
	Intake Valve:	2112-W-731 steel
Valve Clearance (non adjustable):	Intake:	0.028 inches to 0.031 inches
	Exhuast:	0.029 inches to 0.033 inches
Induction system: Carburetors	Model:	GAA Bendix-Stromberg NA-Y5G
		GAF and GAN Bendix-Stromberg HD-5 or HH-5
Engine use in: GAA-M4A3(all versions), M10A1 GMC, M7B1, GAF M26, M26A1, T95, and M45, GAN T23		
Notes: The Cylinders are numbered 1,2,3,4 on the right and left blocks. Number 1 cylinder is the rear cylinder on each block.		
The Ford GAA series V8s were governed to approximately to 2600 RPM. This governor was complicated enough the only maintenance the		
Crew was allowed to do it on it was install and remove it. If it failed in some way, they just swapped in a rebuilt unit and sent the old one back		
to the ordanance maintenance depot, where a specialist would take care of it, or it would be sent back to the factory.		
Data and Description from TM9-1731B OM Ford Tank Engines GAA, GAF and GAN.		

The fuel pump was required to maintain from 4 1/2 to 6 pounds fuel pressure. Replacement required the removal of two fuel line connectors and two bolts.

The GAA V8 started out as a V12 of 1650 cubic inches, it was a very advanced motor for the time, but the Army was already going with the Allison V1710. Ford had already purchased the tooling, and when the Army needed tank motors, the aircraft motor was quickly redesigned. Because of its Aircraft motor heritage, most internal parts are safety wired, to ensure they didn't vibrate loose, overkill on a tank motor. The GAA was the biggest all aluminum V8 ever produced, and it was a very strong motor, with lots of untapped power potential.

The GAA, V8 Ford Tank Engines are the 60-degree, 4-cycle type. The cylinders and crankcase are cast in block and consists of an aluminum casting with hard steel, dry type sleeves in each cylinder bore. Four overhead camshafts are used; One exhaust and one intake per bank of cylinders. Two exhaust and two intake valves are used in each cylinder. Two four cylinder magnetos provide the ignition. These are mounted one at each end of a crossshaft at the rear of the engine and are driven by spiral gears. The engine is water cooled with water jackets extended the full length of the cylinders. The water pump is driven by the accessory drive gear assembly at the rear of the engine. --

The Accessory Drive Gear Assembly was a unit driven directly from the motor, through shafts and gears, and split out power the magnetos, water pump, fan drives and generators. This meant the engine was beltless. This was a very very inovative feature.



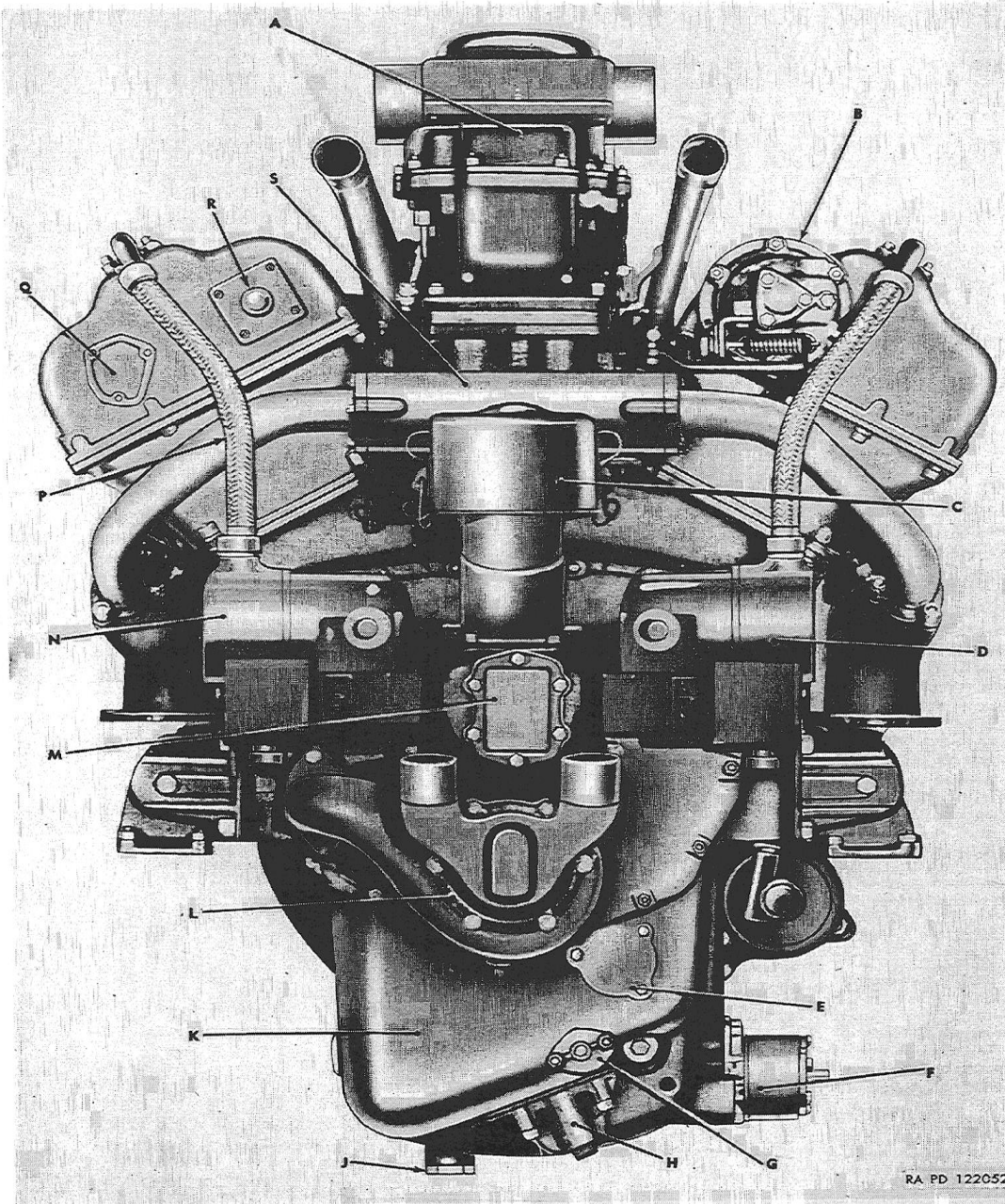
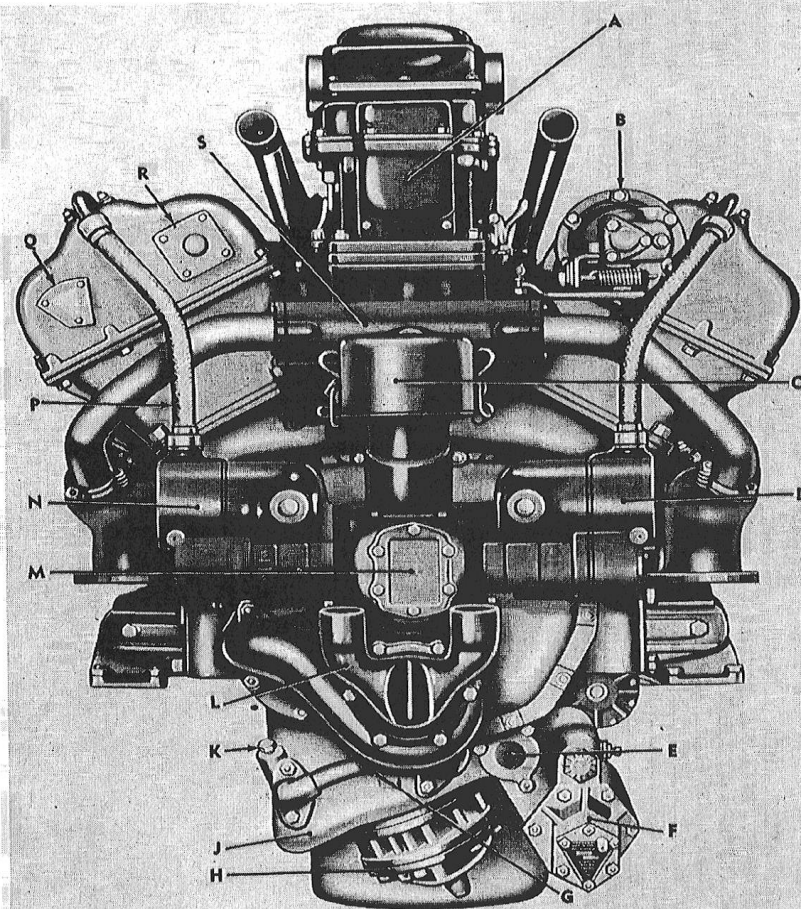


Figure 01-2. Engine, rear view, early type.

Key	Item	Part No.	Group	Key	Item	Part No.	Group
A	CARBURETOR, ASSY.....	D66321	0301.1	K	PAN, ASSY.....	5700005	0106.6
B	GOVERNOR, ASSY.....	C124379	0208	L	PUMP, ASSY.....	D66320	0504
C	BREATHER, ASSY.....	D66372	0106.5	M	COVER.....	A296671	0604.11
D	MAGNETO, ASSY.....	7035196	0604.11	N	MAGNETO, ASSY.....	7410329	0604.11
E	COVER.....	A411675	0106.5	P	CONDUIT, ASSY.....	A296654A	0605
F	FILTER, ASSY.....	C95160	0106.2	Q	COVER.....	A411666	0105.3
G	COVER.....	A296558	0106.3	R	ADAPTER, ASSY.....	A296689	0105.3
H	PUMP, ASSY.....	B258198	0106.1	S	ADAPTER, ASSY.....	C124363	0301.2
J	PLUG.....	A296534	0106.6				

Figure 01-2—Continued.



KEY	ITEM
A	CARBURETOR, ASSY
B	GOVERNOR, ASSY
C	BREATHER, ASSY
D	MAGNETO, ASSY
E	COVER
F	FILTER, ASSY
G	TUBE, ASSY
H	PUMP, ASSY
J	PAN, ASSY
K	PLUG
L	PUMP, ASSY
M	COVER
N	MAGNETO, ASSY
P	CONDUIT, ASSY
Q	COVER
R	COVER
S	ADAPTER, ASSY

Figure 01-3. Engine, rear view, current type.

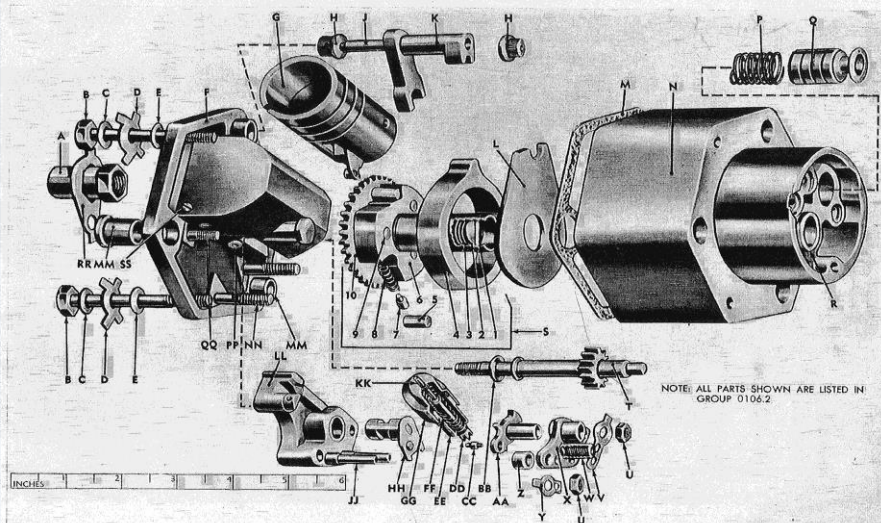


Figure 01-20. Engine automatic oil filter motor (B197556), exploded view.

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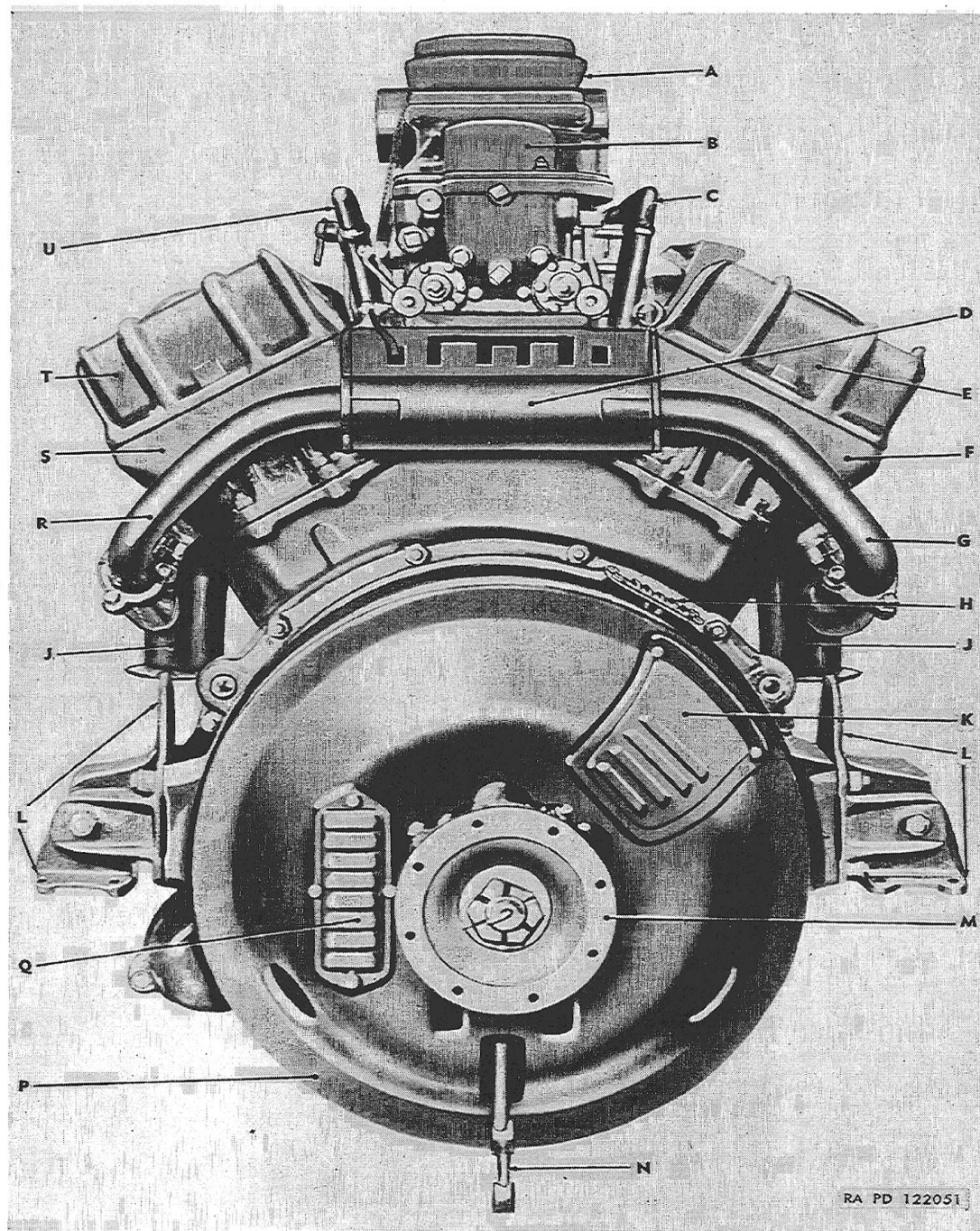
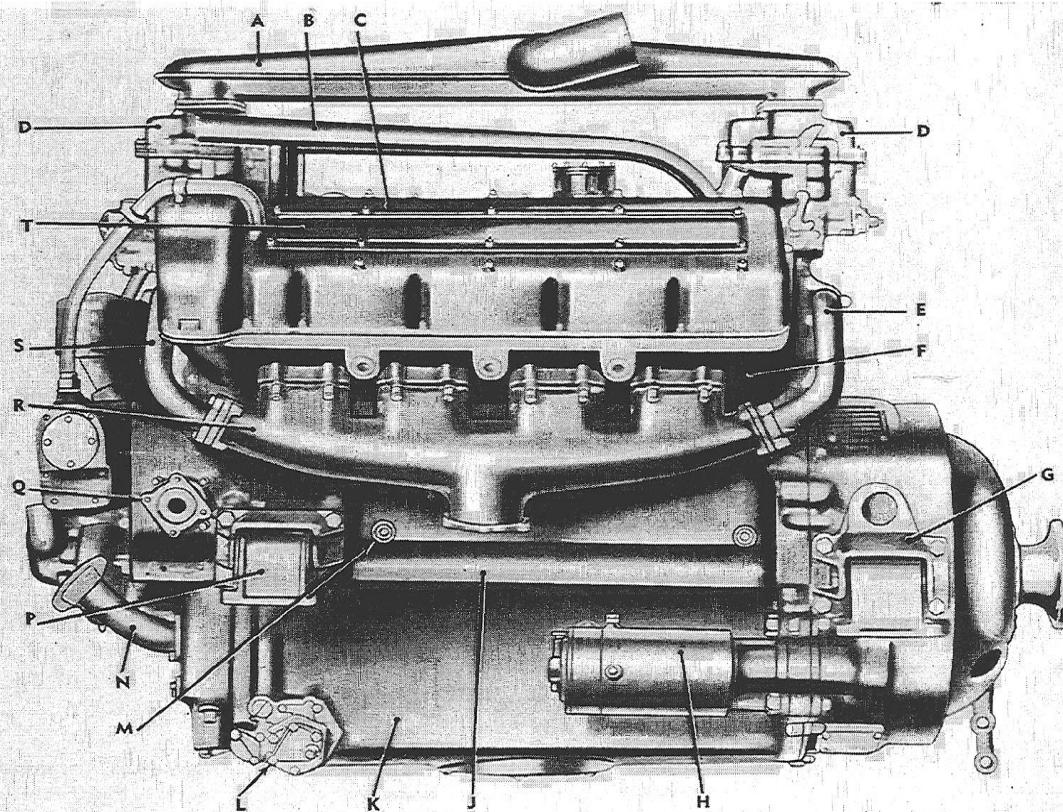


Figure 01-1. Engine, front view.

Key	Item	Part No.	Group	Key	Item	Part No.	Group
A	MANIFOLD	D66331A	0108	L	MOUNTING, ASSY	7059706	0100
B	CARBURETOR, ASSY	D66321	0301.1	M	FLANGE	C124356	0201
C	MANIFOLD	C124343B	0503	N	FORK	C100156	0202
D	ADAPTER, ASSY	C124362	0301.2	P	HOUSING	E7189	0200
E	HOUSING	E9112	0105.3	Q	COVER	B258213	0200
F	HEAD, ASSY	A411706	0101	R	TUBE	C124364A	0301.2
G	TUBE	C124364B	0301.2	S	HEAD, ASSY	A411707	0101
H	COVER	A296584	0200	T	HOUSING	E9113	0105.3
J	MANIFOLD, ASSY	E9121A	0108	U	MANIFOLD	C124343A	0503
K	COVER, ASSY	7034723	0200				

Figure 01-1—Continued.





KEY	ITEM	PART NO	GROUP	KEY	ITEM	PART NO	GROUP
A	—MANIFOLD	D66322A	0108	K	—PAN, ASSY	5700005	0106.6
B	—MANIFOLD	C124357A	0503	L	—FILTER, ASSY	C95160	0106.2
C	—HOUSING	E9113	0105.3	M	—PLUG	A411672	0101
D	—CARBURETOR, ASSY	D66321	0301.1	N	—FILLER, ASSY	B258205	0106.5
E	—TUBE	C124364A	0301.2	P	—MOUNTING, ASSY	C124328B	0100
F	—HEAD, ASSY	A296728	0101	Q	—FLANGE	B296685	0109
G	—MOUNTING, ASSY	C124328A	0100	R	—MANIFOLD, ASSY	E9121A	0108
H	—STARTER, ASSY	C124375	0603.1	S	—TUBE	C124364C	0301.2
J	—BLOCK, ASSY	A296644	0101	T	—COVER, ASSY	D66305B	0105.3

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Figure 01-5. Engine, right side view, early type.

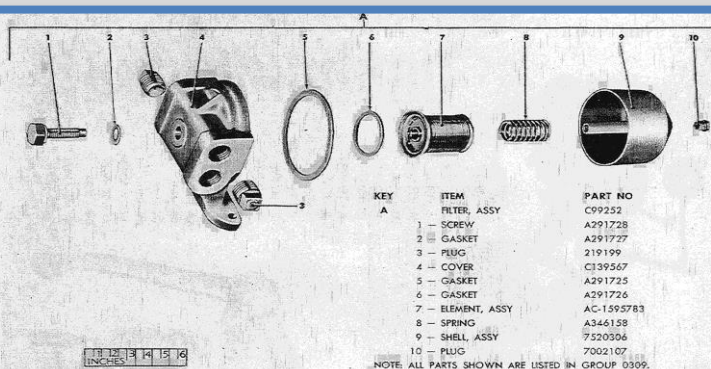


Figure 03-12. Engine fuel filter (C99552), exploded view.

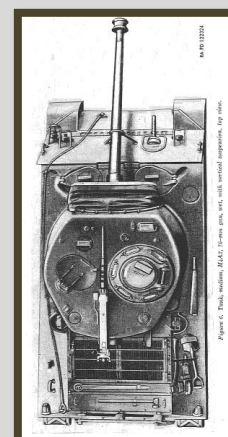
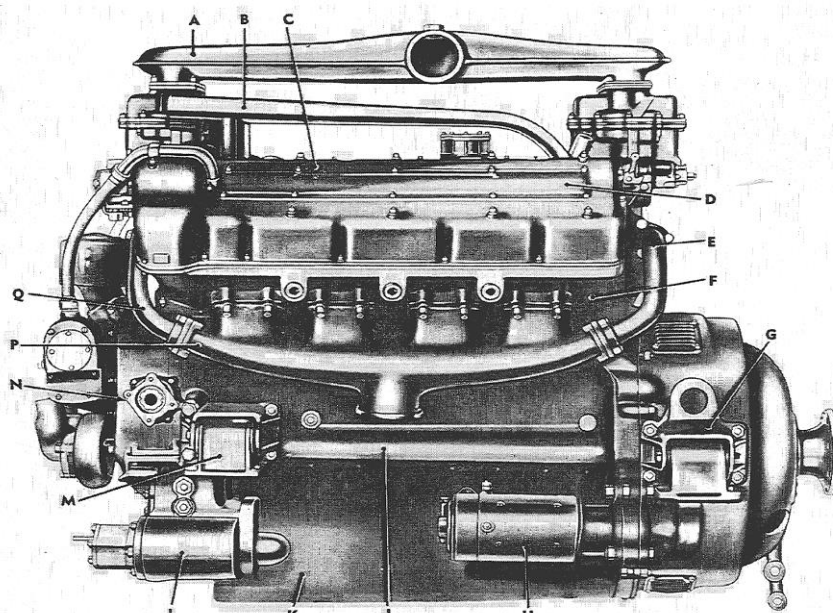


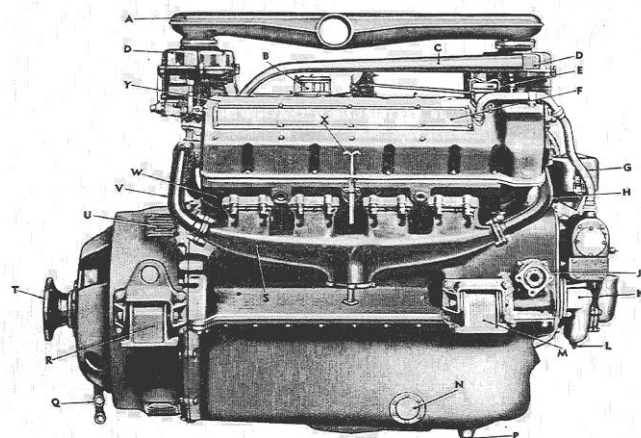
Figure 04-12. Engine fuel filter (C99552), assembled view.



KEY	ITEM	PART NO	GROUP	KEY	ITEM	PART NO	GROUP
A	MANIFOLD	D66331A	0108	J	BLOCK, ASSY	7058766	0101
B	MANIFOLD	C124343A	0503	K	PAN, ASSY	7058685	0106.6
C	HOUSING	E9113	0105.3	L	FILTER, ASSY	C124397	0106.2
D	COVER, ASSY	D663058	0105.3	M	MOUNTING, ASSY	7059705	0100
E	TUBE	C124364A	0301.2	N	FLANGE	B296685	0109
F	HEAD, ASSY	A411707	0101	P	MANIFOLD, ASSY	E9121A	0108
G	MOUNTING, ASSY	7059706	0100	Q	TUBE	C124364C	0301.2
H	STARTER, ASSY	C124376	0603.1				

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Figure 01-6. Engine, right side view, current type.



KEY	ITEM	PART NO	GROUP	KEY	ITEM	PART NO	GROUP
A	MANIFOLD	D66331A	0108	N	COVER	A411731	0106.6
B	PUMP, ASSY	7059670	0302	P	FLUG	A296534	0106.6
C	MANIFOLD	C124357B	0503	Q	FORK	C101156	0202
D	CARBURETOR, ASSY	D66721	0301.1	R	MOUNTING, ASSY	7059706	0100
E	FILLER, ASSY	B296713	0106.5	S	MANIFOLD	E9121A	0108
F	COVER, ASSY	D663058	0105.3	T	FLANGE	C124356	0201
G	CONDUIT, ASSY	A296554A	0605	U	COVER	A296584	0200
H	TUBE	C124364D	0301.2	V	TUBE	C1243648	0301.2
J	FLANGE	B296585	0109	W	HEAD, ASSY	A411706	0101
K	PUMP, ASSY	D66320	0504	X	GAGE, ASSY	B258332	0106.6
L	FLUG	A411672	0101	Y	HOUSING	E9112	0105.3
M	MOUNTING, ASSY	7059705	0100				

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Figure 01-4. Engine, left side view.

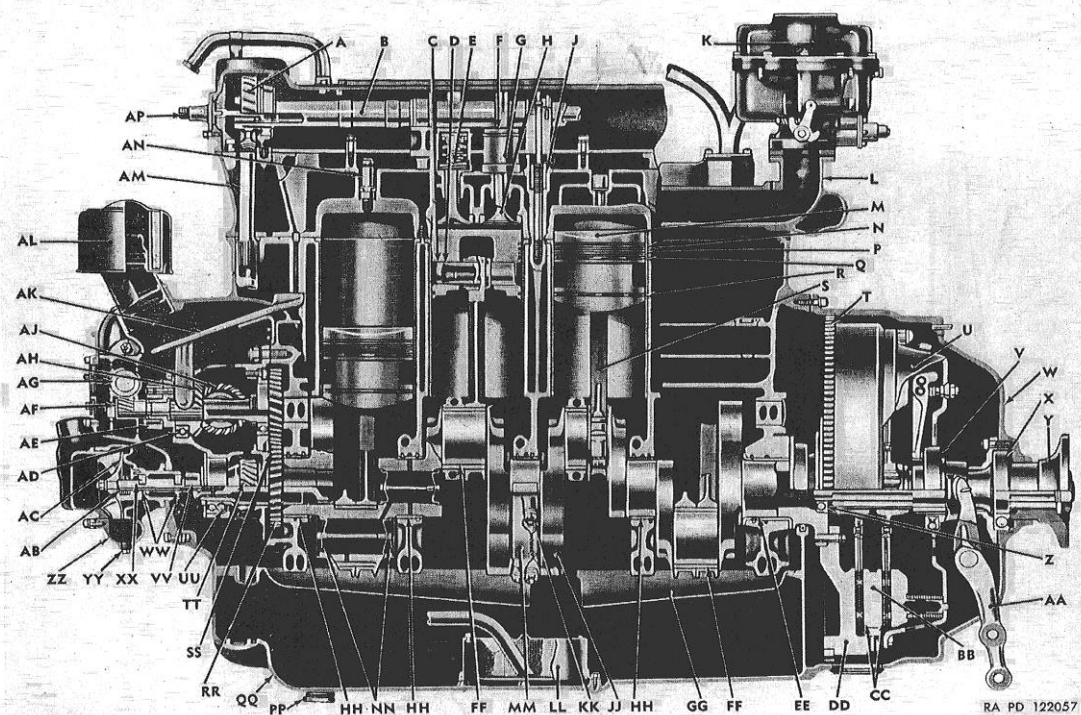


Figure 01-7. Engine, cross section, early type.

Key	Item	Part No.	Group	Key	Item	Part No.	Group
A	GEAR	B258299	0105.4	HH	BEARING	A294744	0102
B	CAMSHAFT, ASSY.	7375832	0105.3	JJ	CRANKSHAFT, ASSY.	E7181A	0102
C	RETAINER	A296443	0104	KK	STUD	A296468	0102
D	PIN	A296442	0104	LL	COVER, ASSY.	D66312A	0106.1
E	SPRING	A296502	0105.1	MM	CAP	FM-GAA6325B	0102
F	TAPPET	7520034	0105.2	NN	RETAINER	A296471A	0102
G	BEARING	B296700A	0105.1	PP	PLUG	A296534	0106.6
H	VALVE	B258303	0105.1	QQ	PAN	FM-GAA6676B	0106.6
J	NUT	A414704	0101	RR	GEAR	7058723	0109
K	CARBURETOR, ASSY.	D66321	0301.1	SS	GEAR	7058722	0109
L	ADAPTER, ASSY.	C124363	0301.2	TT	WORM	B258300	0109
M	PISTON	C124332	0104	UU	BEARING	700198	0109
N	RING	B258278	0104	VV	QUILL, ASSY.	A296598	0109
P	RING	B258310	0104	WW	BEARING	700914	0504
Q	RING	B258311	0104	XX	SHAFT	7058675	0504
R	RING	7058809	0104	YY	PLUG	A411672	0504
S	ROD, ASSY.	C124333	0104	ZZ	HOUSING	C124360	0504
T	GEAR	C124337	0103	AB	WASHER	A296596	0504
U	PLATE, ASSY.	D66318	0201	AC	IMPELLER	B258215	0504
V	BEARING	A296580	0201	AD	BEARING	700539	0109
W	HOUSING	E7189	0200	AE	GOVERNOR, ASSY.	7058794	0604.15
X	BEARING	700607	0201	AF	GEAR	B258318	0604.15
Y	FLANGE	C124356	0201	AG	GEAR	B258319	0604.11
Z	BEARING	700600	0201	AH	PINION	7058727	0109
AA	FORK	C101156	0202	AJ	GEAR	7058726	0109
BB	PLATE, ASSY.	D66342	0201	AK	TROUGH, ASSY.	C124340A	0109
CC	DISK, ASSY.	D66317	0201	AL	BREATHING, ASSY.	D66328	0106.5
DD	FLYWHEEL, ASSY.	7005718	0103	AM	SHAFT	B258179	0105.4
EE	BEARING, ASSY.	A294745	0102	AN	PLUG	501007	0605
FF	BEARING	A294746	0104	AP	ADAPTER, ASSY.	A296689	0105.3
GG	BAFFLE, ASSY.	D66315B	0105.6				

Figure 01-7.—Continued.

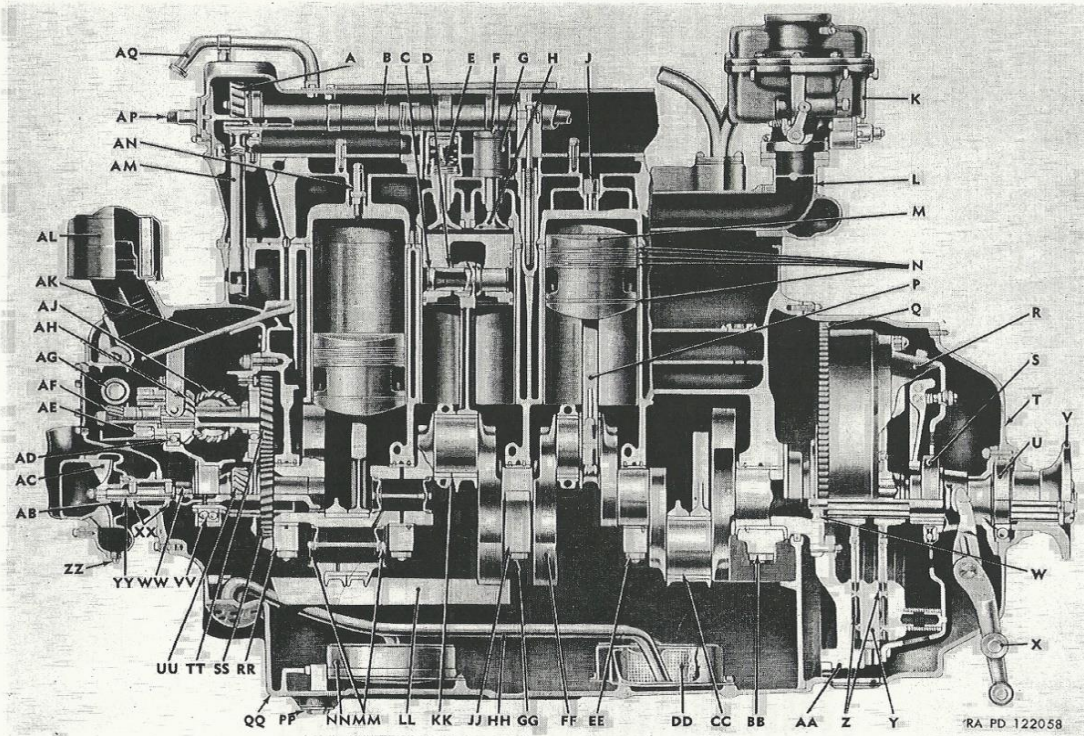


Figure 01-8. Engine, cross section, current type.

Key	Item	Part No.	Group	Key	Item	Part No.	Group
A	GEAR	B258299	0105.4	HH	COVER, ASSY	D66363	0106.1
B	CAMSHAFT, ASSY	7375830	0105.3	JJ	CAP	C124368	0102
C	RETAINER	A296443	0104	KK	CAP	B258177	0104
D	PIN	A296442	0104	LL	BAFFLE, ASSY	D66352A	0106.6
E	SPRING	A296506	0105.1	MM	RETAINER	A296471B	0102
F	TAPPET	7520034	0105.2	NN	COVER, ASSY	D66353A	0106.1
G	BEARING	B296700A	0105.1	PP	PLUG, ASSY	A414688	0106.6
H	VALVE	7058668	0105.1	QQ	PAN	7058684	0106.6
J	NUT	A296440	0101	RR	CAP	C124369	0102
K	CARBURETOR, ASSY	D66321	0301.1	SS	GEAR	7058723	0109
L	ADAPTER, ASSY	C124363	0301.2	TT	GEAR	7058722	0109
M	PISTON	C124332	0104	UU	WORM	B258300	0109
N	RING SET	A294742	0104	VV	BEARING	700198	0109
P	ROD, ASSY	C124333	0104	WW	QUILL, ASSY	A296598	0109
Q	GEAR	C124337	0103	XX	BEARING	700914	0504
R	PLATE, ASSY	7058695	0201	YY	SHAFT	7058675	0504
S	BEARING	A296580	0201	ZZ	PLUG	A411672	0504
T	HOUSING	E7189	0200	AB	SEAL	A296591	0504
U	BEARING	700607	0201	AC	IMPELLER	B258215	0504
V	FLANGE	C124356	0201	AD	BEARING	700539	0109
W	BEARING	700600	0201	AE	GOVERNOR, ASSY	7058794	0604.15
X	FORK	C101156	0202	AF	GEAR	B258318	0604.15
Y	PLATE, ASSY	D66342	0201	AG	GEAR	B258319	0604.11
Z	DISK, ASSY	D66317	0201	AH	PINION	7058727	0109
AA	FLYWHEEL, ASSY	D66301A	0103	AJ	GEAR	7058726	0109
BB	CAP	C124367	0102	AK	TROUGH, ASSY	7712644	0109
CC	BEARING	A294746	0104	AL	BREATHER, ASSY	D66372	0106.5
DD	SCREEN, ASSY	B258203	0106.1	AM	SHAFT	B258179	0105.4
EE	NUT	A296814	0102	AN	PLUG	501007	0605
FF	CRANKSHAFT, ASSY	E7181A	0102	AP	ADAPTER, ASSY	A296689	0105.3
GG	STUD	7058702	0102	AQ	CONDUIT	B258223A	0605

Figure 01-8—Continued.

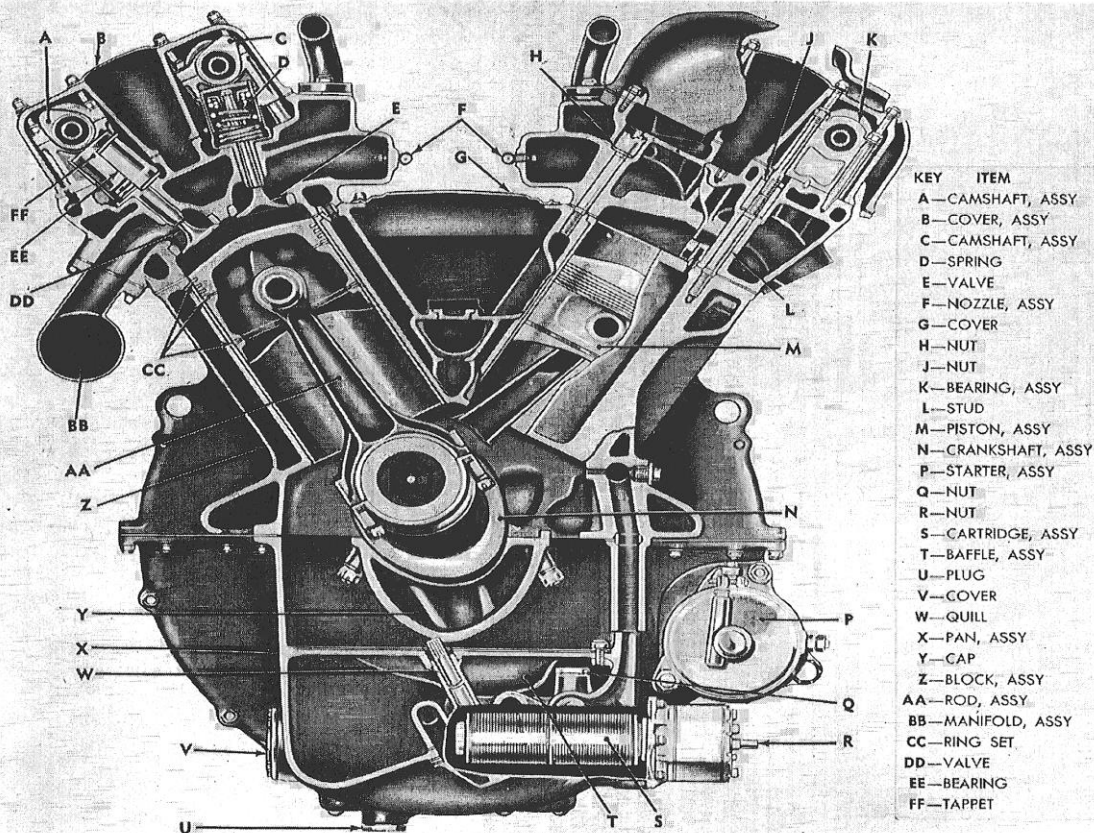


Figure 01-10. Engine, cross section, through cylinders.

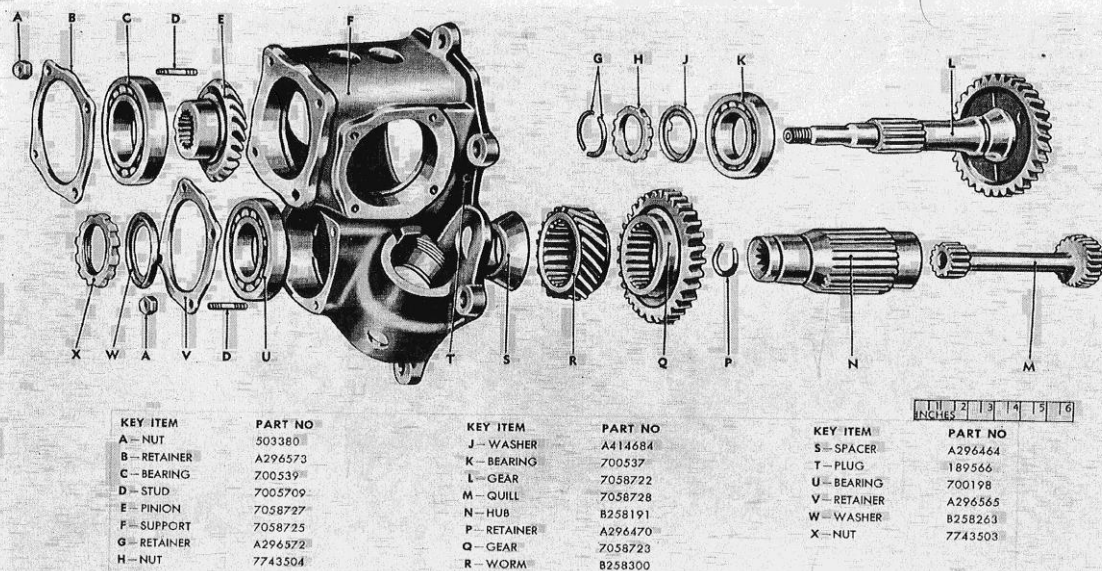
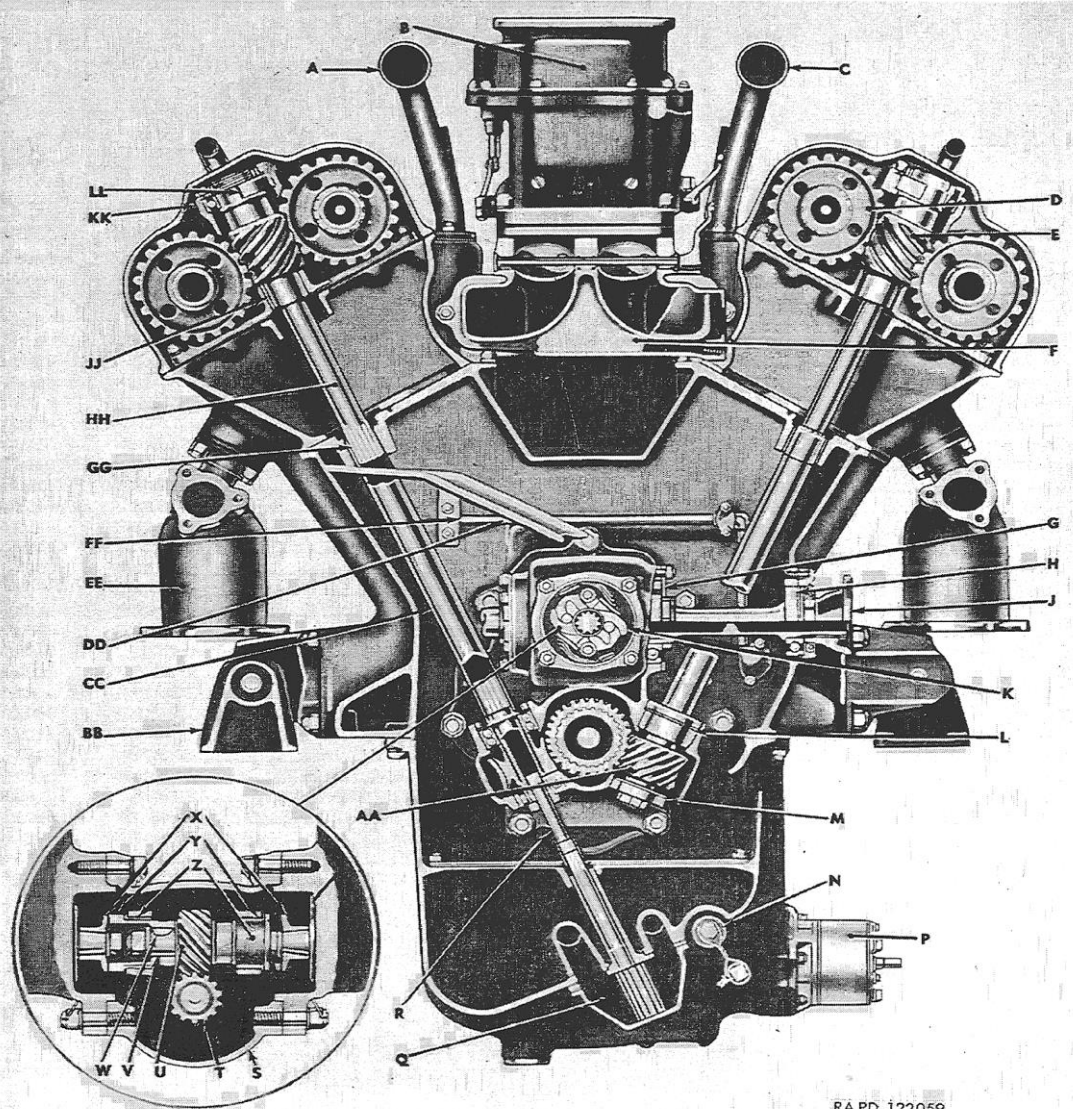


Figure 01-27. Accessory drive parts, exploded view.

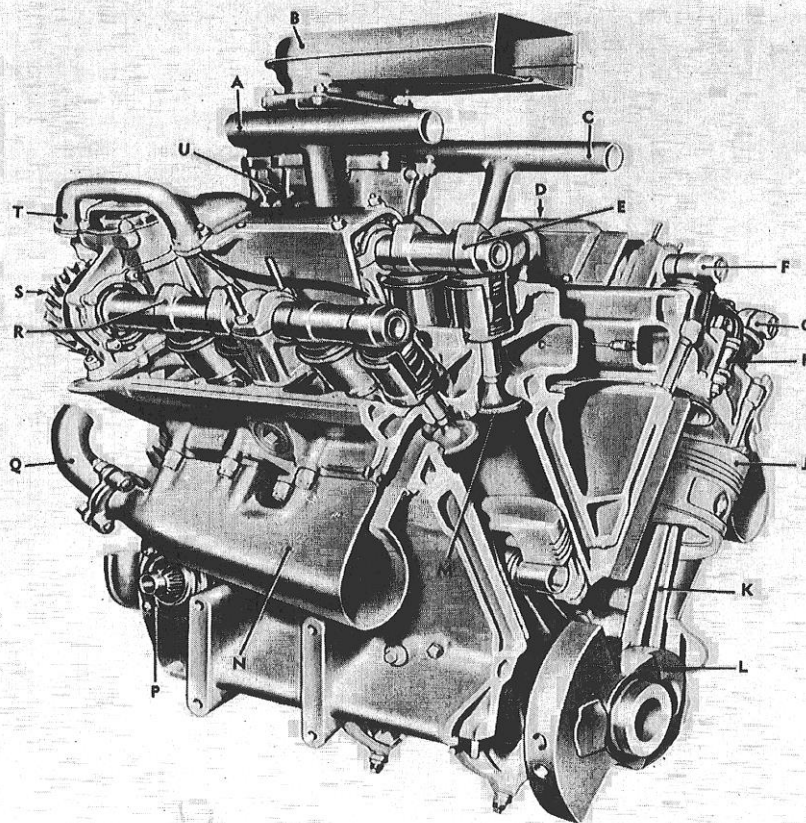


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Figure 01-9. Engine, cross section, through accessory Drive.

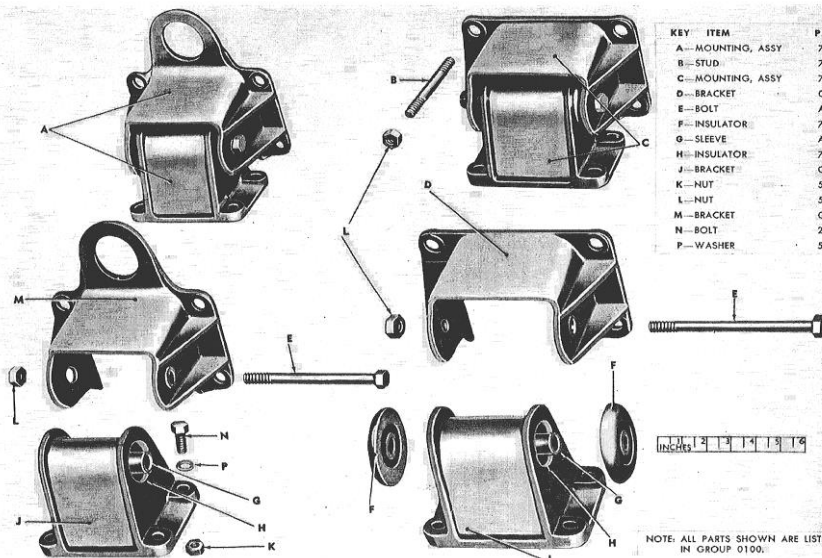
Key	Item	Part No.	Group	Key	Item	Part No.	Group
A	MANIFOLD	C124343B	0503	U	GEAR	B258319	0604.11
B	CARBURETOR, ASSY.	D66321	0301.1	V	SHAFT	B258225	0109
C	MANIFOLD	C124343A	0503	W	KEY	124543	0604.11
D	GEAR	B258299	0105.4	X	FLANGE	A296669	0604.11
E	WORM	B258207	0105.4	Y	FLANGE	A296668	0604.11
F	ADAPTER, ASSY.	C124363	0301.2	Z	BEARING	B258226	0109
G	BEARING	700538	0109	AA	WORM	B258206	0109
H	BEARING	700779	0109	BB	MOUNTING, ASSY.	7059705	0100
J	FLANGE	B296685	0109	CC	SHAFT	B258180	0105.4
K	GOVERNOR, ASSY.	7058794	0604.15	DD	TROUGH, ASSY.	7712644	0109
L	BEARING	700194	0109	EE	MANIFOLD, ASSY.	E9121A	0108
M	BEARING	710052	0109	FF	LINE, ASSY.	7326180	0103.6
N	ADAPTER	A296559	0106.6	GG	BEARING	B258193	0105.4
P	FILTER, ASSY.	C95160	0106.2	HH	SHAFT	B258179	0105.4
Q	PUMP, ASSY.	B258198	0106.1	JJ	BEARING	B258183	0105.4
R	QUILL	B258367	0109	KK	SUPPORT	7375727	0105.4
S	COVER	E9116A	0109	LL	BEARING	701023	0105.4
T	GEAR	B258318	0604.11				

Figure 01-9—Continued.



KEY	ITEM
A	—MANIFOLD
B	—MANIFOLD
C	—MANIFOLD
D	—HOUSING
E	—CAMSHAFT, ASSY
F	—CAMSHAFT, ASSY
G	—CAMSHAFT, ASSY
H	—PLUG
J	—PISTON, ASSY
K	—ROD, ASSY
L	—CRANKSHAFT, ASSY
M	—VALVE
N	—MANIFOLD, ASSY
P	—QUILL
Q	—TUBE
R	—CAMSHAFT, ASSY
S	—GEAR
T	—CONDUIT
U	—CARBURETOR, ASSY

Figure 01-11. Engine, cross section, $\frac{3}{4}$ right front view.

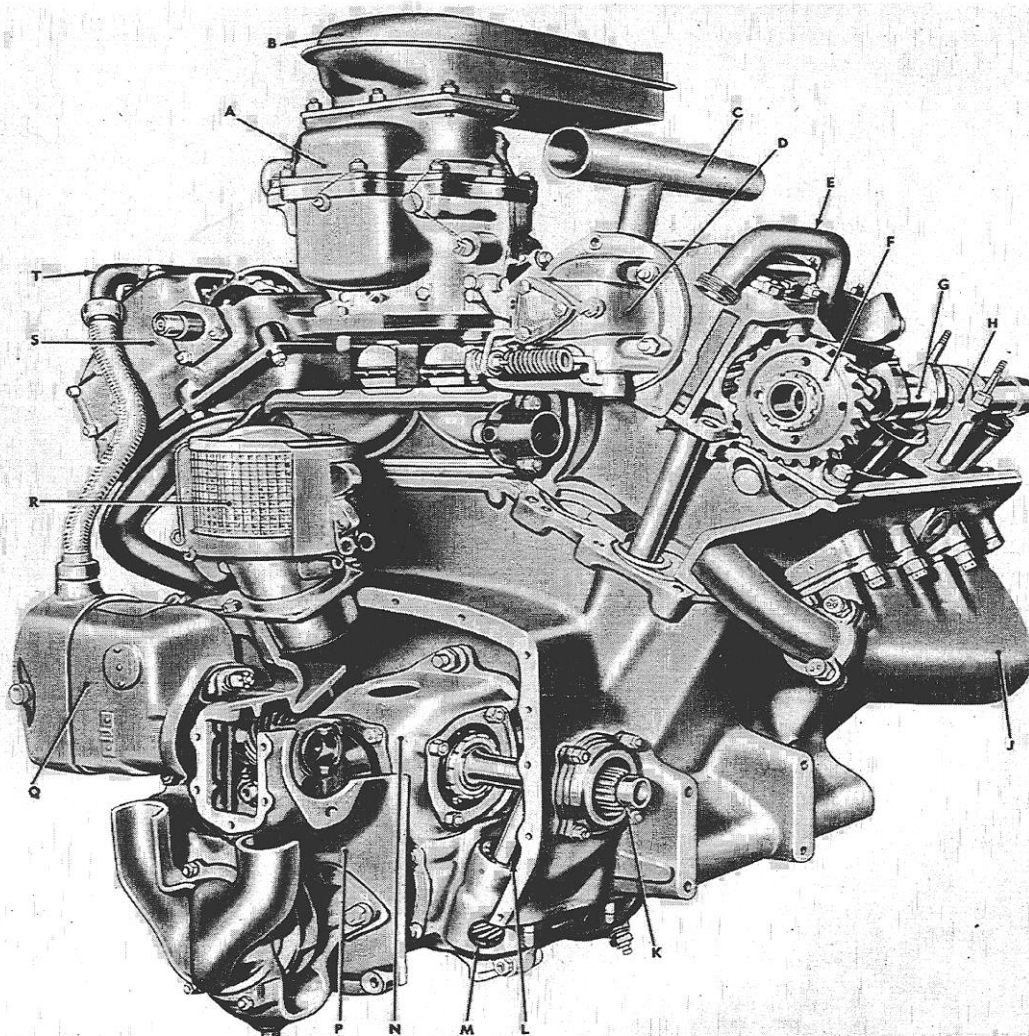


KEY	ITEM	PART NO
A	—MOUNTING, ASSY	7059704
B	—STUD	7008427
C	—MOUNTING, ASSY	7059705
D	—BRACKET	C124330
E	—BOLT	A296431
F	—INSULATOR	7059703
G	—SLEEVE	A296437
H	—INSULATOR	7059704
J	—BRACKET	C124327
K	—NUT	503357
L	—NUT	503389
M	—BRACKET	C124329
N	—BOLT	223977
P	—WASHER	502201

NOTE: ALL PARTS SHOWN ARE LISTED IN GROUP 0100.

RA PD 122063

Figure 01-13. Engine mountings, exploded view.



RA PD 122062

Figure 01-12. Engine, cross section, $\frac{3}{4}$ right rear view.

Key	Item	Part No.	Group	Key	Item	Part No.	Group
A	CARBURETOR, ASSY.	D66321	0301.1	K	QUILL	B258210	0109
B	MANIFOLD	D66331A	0108	L	SHAFT	B258180	0105.4
C	MANIFOLD	C124343A	0503	M	WORM SET	A296736	0109
D	GOVERNOR, ASSY.	C124379	0308	N	SUPPORT, ASSY.	7058811	0109
E	CONDUIT	B258222A	0605	P	COVER	E9116A	0109
F	GEAR	B258299	0105.4	Q	MAGNETO, ASSY.	7410329	0604.11
G	CAMSHAFT, ASSY.	737833	0105.3	R	ELEMENT, ASSY.	B258269	0106.5
H	BEARING, ASSY.	A296735	0105.3	S	HOUSING	E9112	0105.3
J	MANIFOLD, ASSY.	E91221A	0108	T	CONDUIT	B258223A	0605

Figure 01-12—Continued.

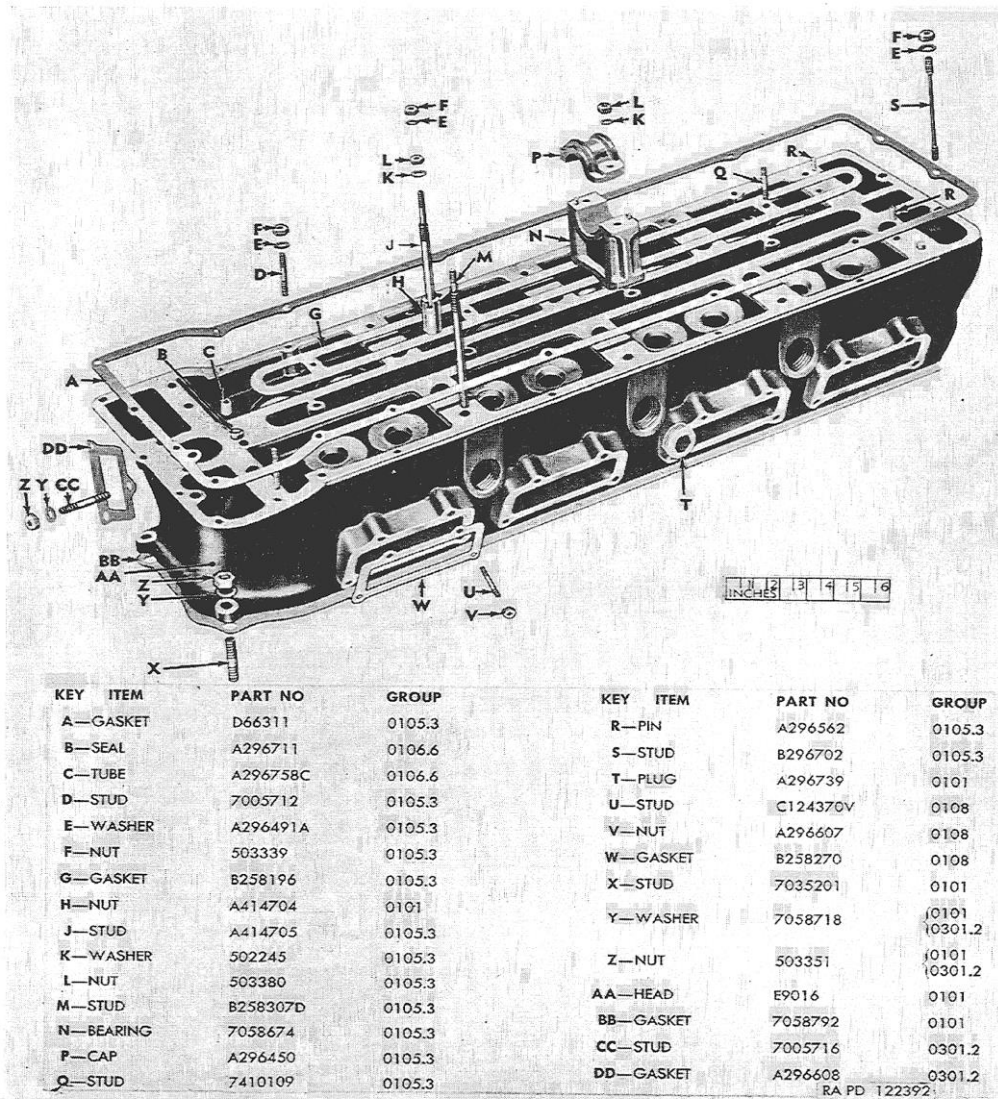
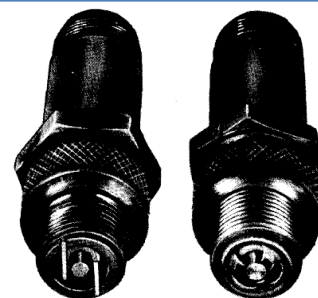
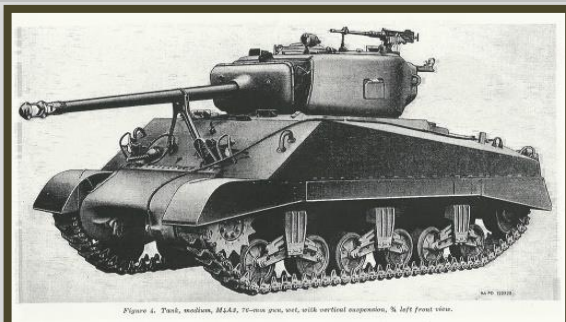


Figure 01-14. Engine cylinder head, exploded view.

The engine would see a lot of use in civilian hands. The most exciting of these uses was in Tractor Towing competitions. The GAA really doesn't take much to wake up, and really make power, unfortunately, these things are not practical for tank applications. The two main things are either turbos or super chargers, along with fuel injection and modern ECM in some cases. With these modifications the motor is capable of making more than 2000 horse power.



NEW TYPE
SPARK PLUG 7058742

OLD TYPE
SPARK PLUG A296664

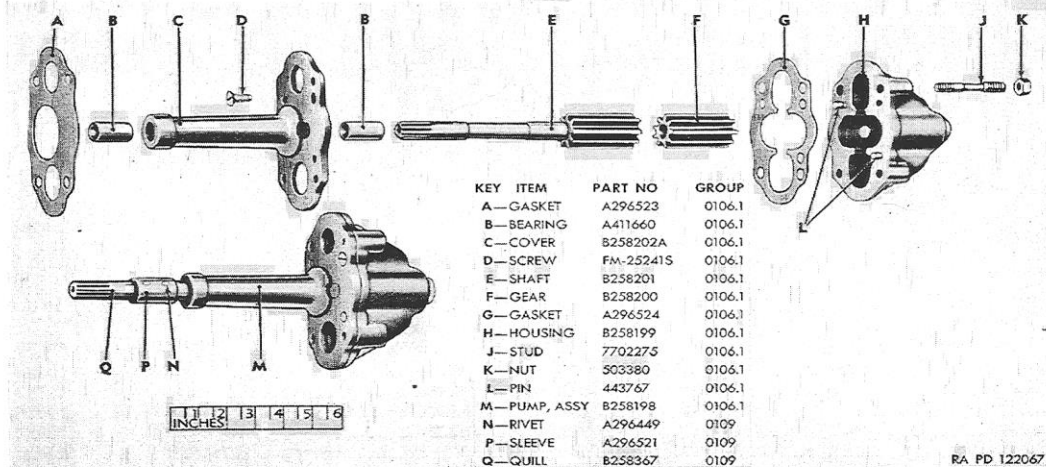


Figure 01-17. Engine oil pump (B258198), early type, exploded view.

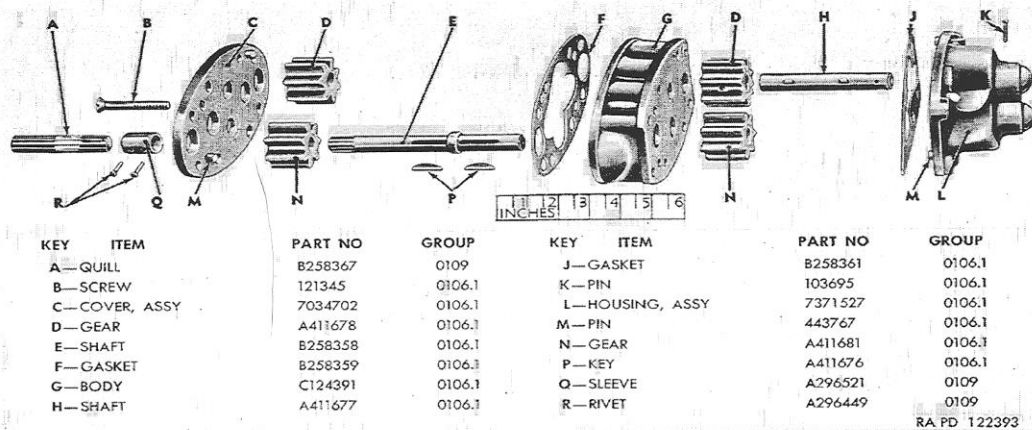


Figure 01-18. Engine oil pump (C124400), current type, exploded view.

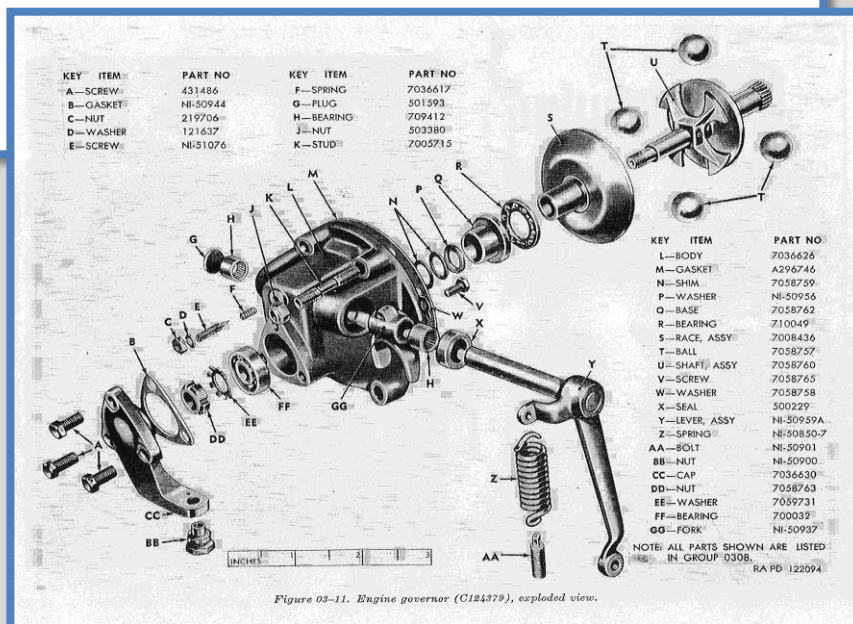
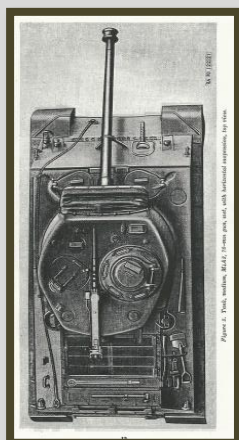


Figure 03-11. Engine governor (C124379), exploded view.

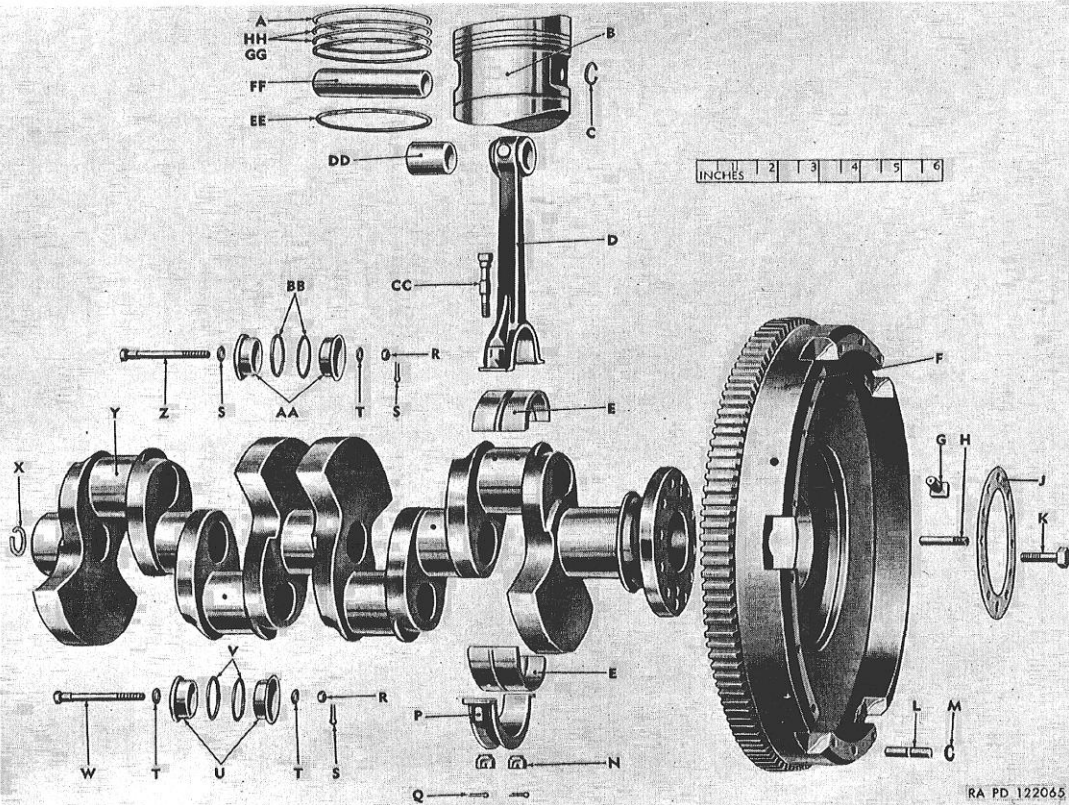


Figure 01-15. Engine crankshaft flywheel and piston, exploded view.

Key	Item	Part No.	Group	Key	Item	Part No.	Group
A	RING	B258278	0104	S	PIN	137141	0102
B	PISTON	C124332	0104	T	WASHER	A296491A	0102
C	RETAINER	A296443	0104	U	RETAINER	A296471A	0102
D	ROD	C124334	0104	V	GASKET	A296489A	0102
E	BEARING	C124416A	0104	W	BOLT	A296472A	0102
F	FLYWHEEL, ASSY	7005718	0103	X	RETAINER	A296469	0109
G	BLOCK	A296582A	0201	Y	CRANKSHAFT, ASSY	E7181A	0102
H	PIN	A296473	0103	Z	BOLT	A296472B	0102
J	RETAINER	B258212	0103	AA	RETAINER	A296471B	0102
K	BOLT	A296695	0103	BB	GASKET	7375726	0102
L	PIN	A296585	0200	CC	BOLT	B258272	0104
M	RING	A296586	0200	DD	BEARING	A296447	0104
N	NUT	A296448	0104	EE	RING	7058809	0104
P	CAP	B258177	0104	FF	PIN	A296442	0104
Q	PIN	187352	0104	GG	RING	B258311	0104
R	NUT	122921	0102	HH	RING	B258310	0104

Figure 01-15—Continued

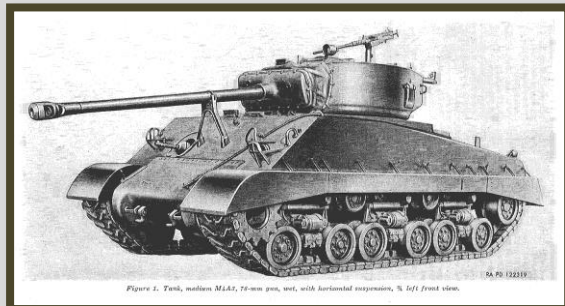


Figure 3. Tank, medium M4A1, 76-mm gun, wet, with horizontal suspension, 3/4 left front view.

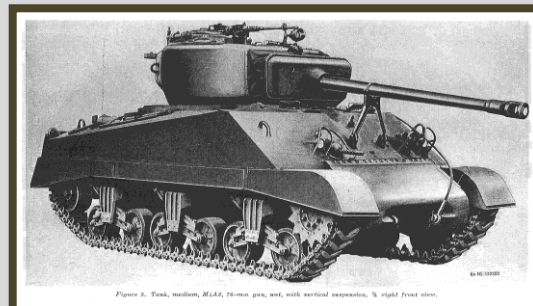


Figure 4. Tank, medium M4A1, 76-mm gun, wet, with vertical suspension, 3/4 right front view.

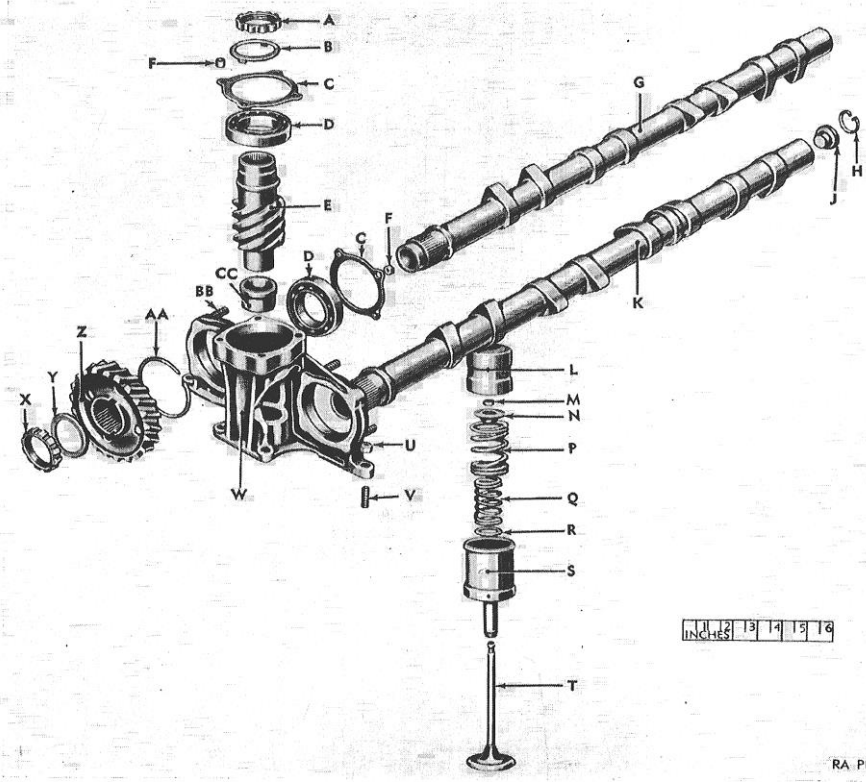


Figure 01-16. Engine camshaft and valves, exploded view.

Key	Item	Part No.	Group	Key	Item	Part No.	Group
A	NUT	7743504	0105.4	Q	SPRING	A296502	0105.1
B	WASHER	A414684	0105.4	R	WASHER	A296504	0105.1
C	RETAINER	A296495	0105.4	S	BEARING	B296700A	0105.1
D	BEARING	701023	0105.4	T	VALVE	B258312	0105.1
E	WORM	B258207	0105.4	U	NUT	503380	0105.4
F	NUT	503377	0105.4	V	STUD	C124370Q	0105.4
G	CAMSHAFT	E9102A	0105.3	W	SUPPORT, ASSY	D66304A	0105.4
H	RING	A296452	0105.3	X	NUT	A244739C	0105.4
J	PLUG	A296798	0105.3	Y	WASHER	A296400	0105.4
K	CAMSHAFT	E9104A	0105.3	Z	GEAR	B258299	0105.4
L	TAPPET	7520034	0105.2	AA	RING	A296461	0105.4
M	KEY	A296505	0105.1	BB	STUD	C124370D	0105.4
N	RETAINER	A296503	0105.1	CC	BEARING	B258183	0105.4
P	SPRING	A296506	0105.1				

Figure 01

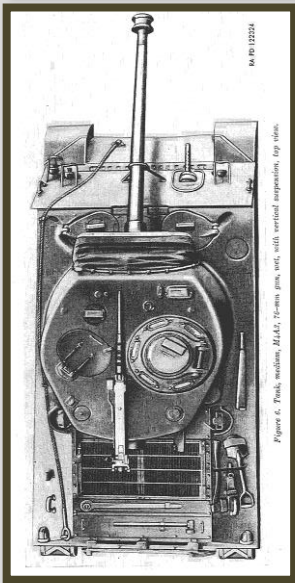


Figure 6. Pump, medium, M42, 75-mm gpm, wet, with vertical suspension, top view.

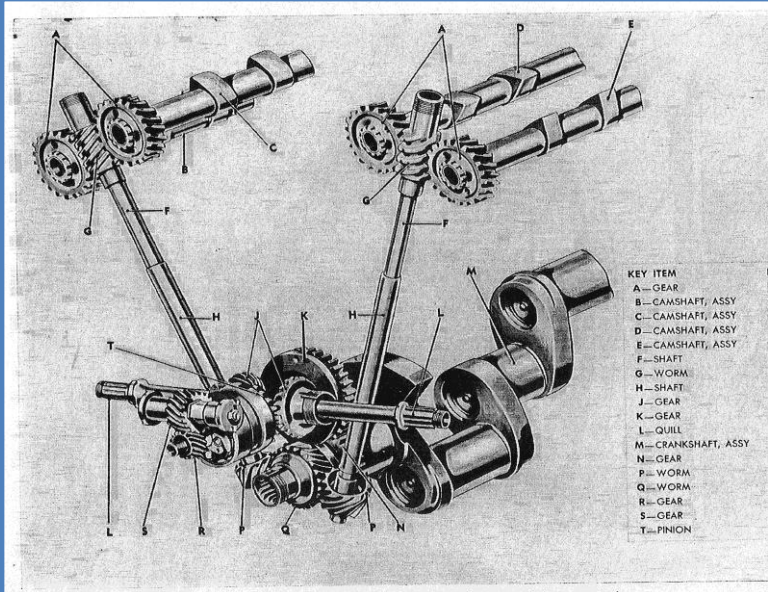


Figure 01-26. Accessory drive gear train.

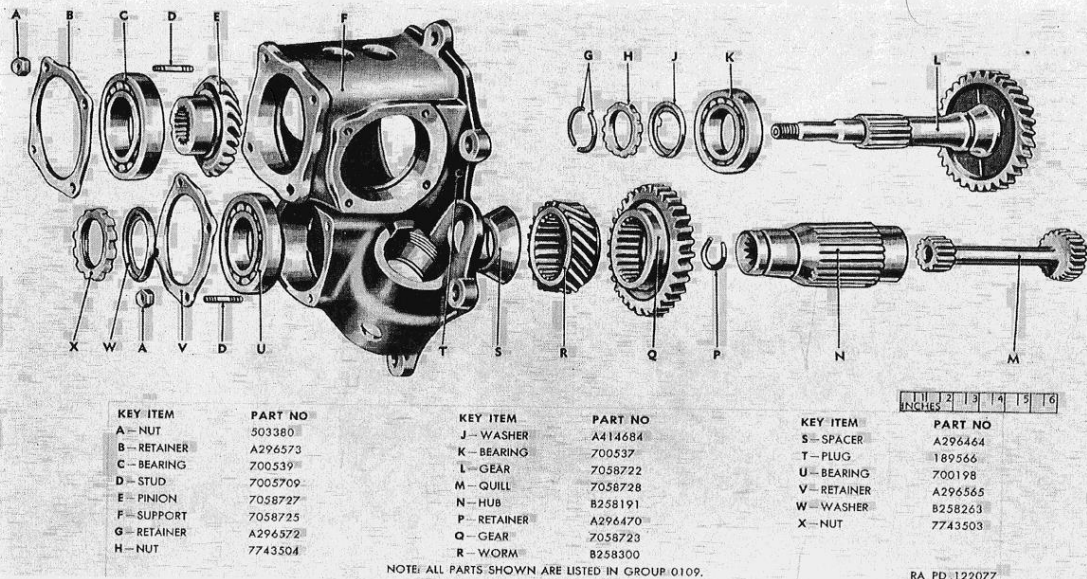


Figure 01-27. Accessory drive parts, exploded view.

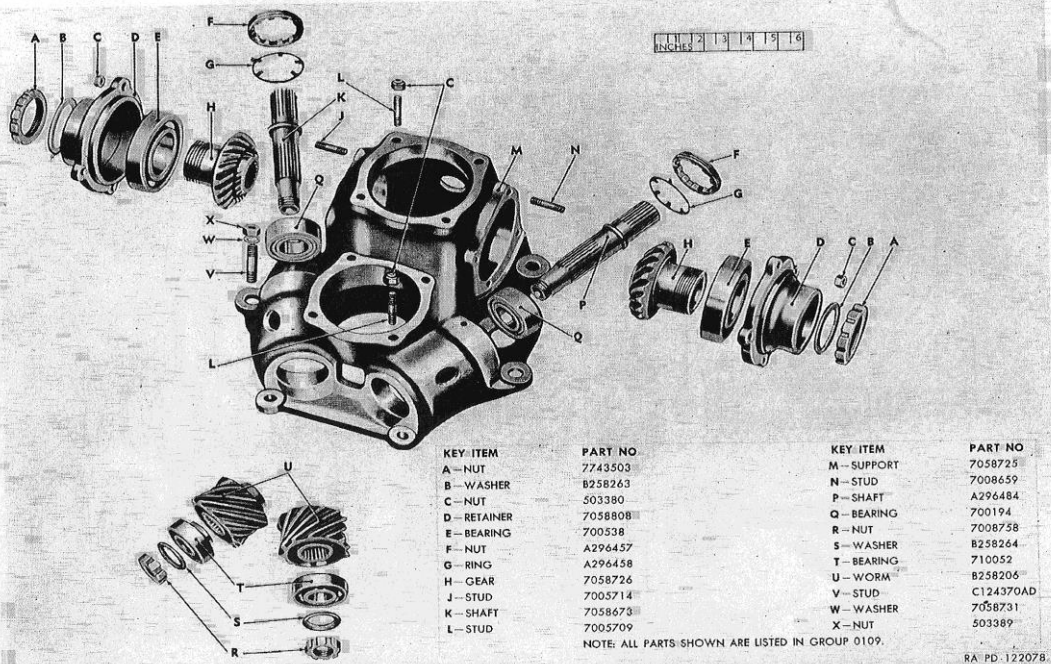


Figure 01-28. Accessory drive support, gears and shafts, exploded view.

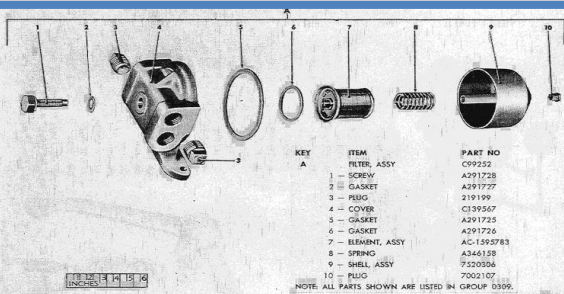


Figure 03-12. Engine fuel filter (C99252), exploded view.



The carburetor shown here is the:
Bendix-Stromberg NA-Y5G

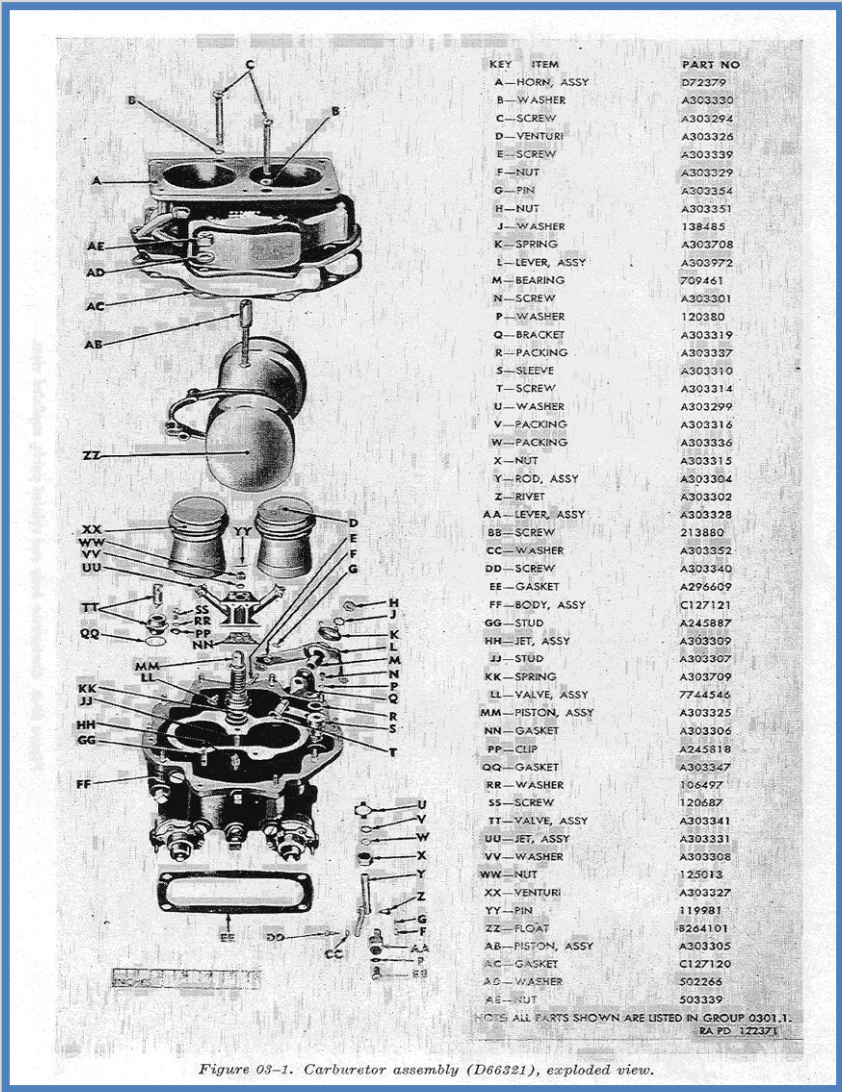


Figure 03-1. Carburetor assembly (D66321), exploded view.

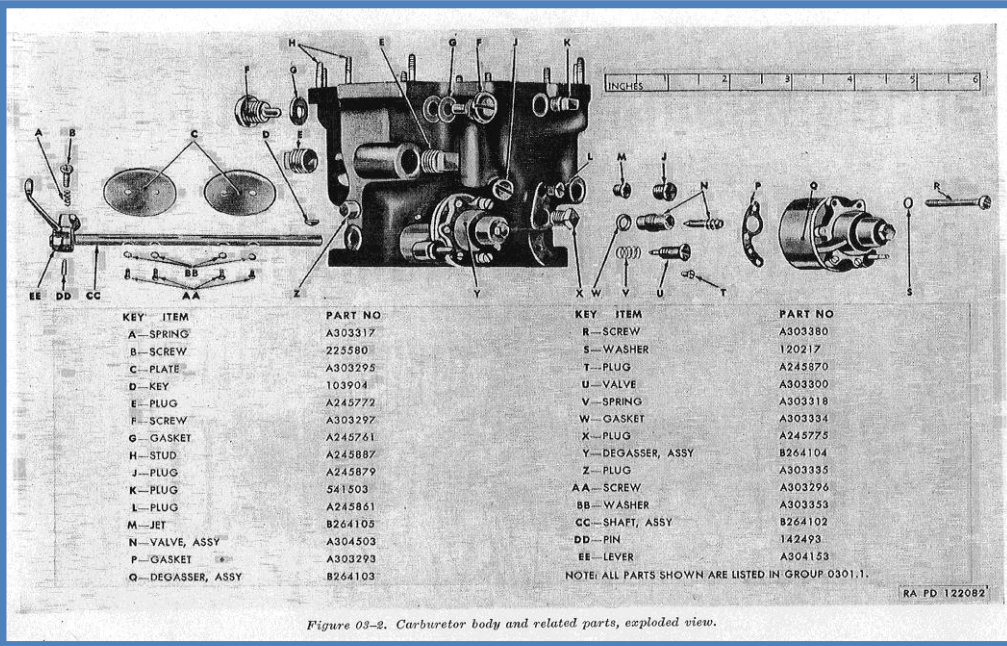


Figure 03-2. Carburetor body and related parts, exploded view.

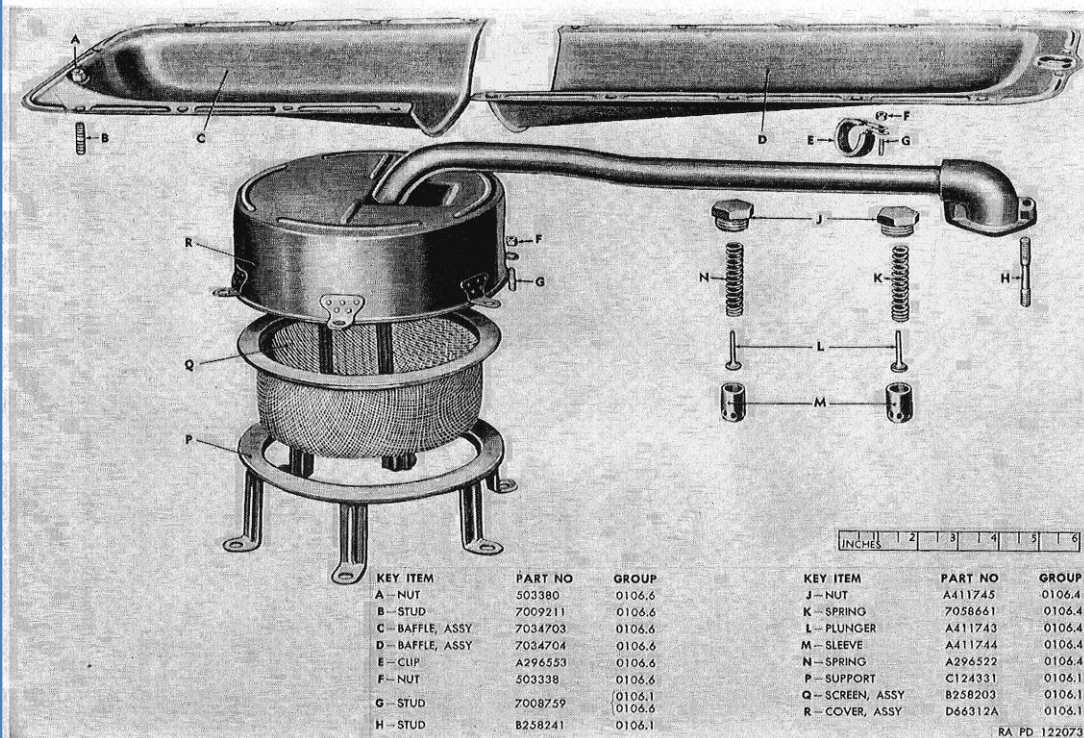


Figure 01-23. Enigne oil screen, baffles and relief valves, early type, exploded view.

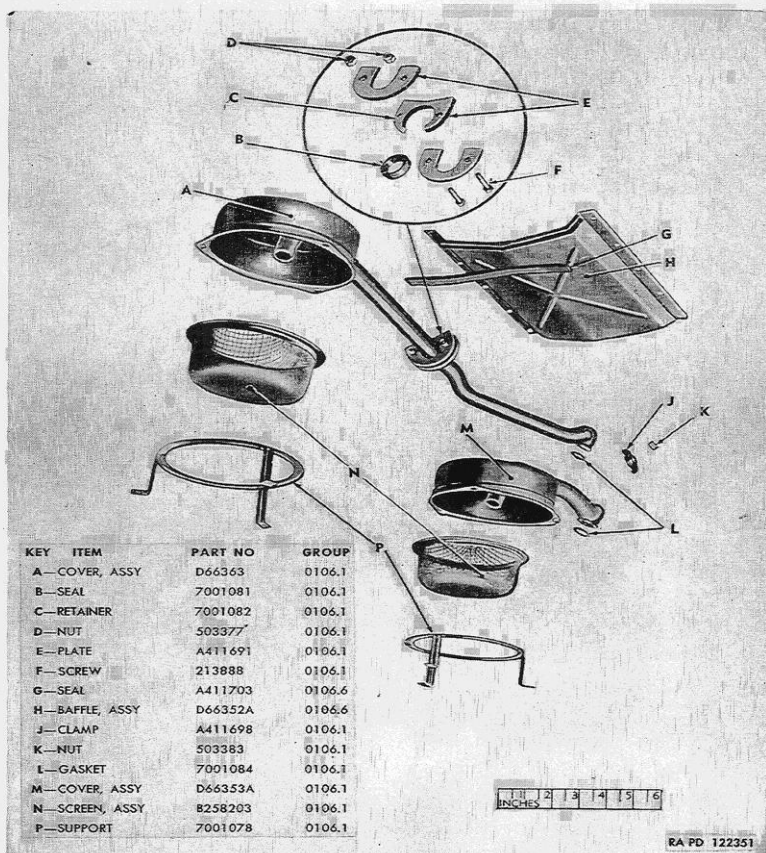


Figure 01-24. Engine oil baffle and screens, current type, exploded view.

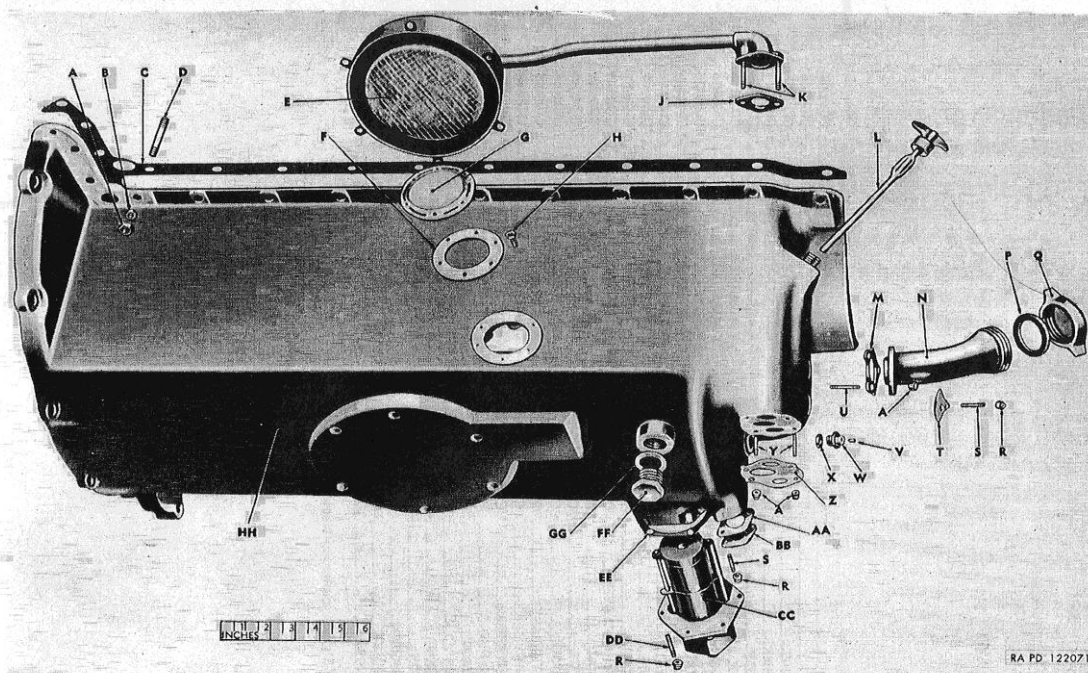


Figure 01-21. Engine oil pan and related parts, early type, exploded view.

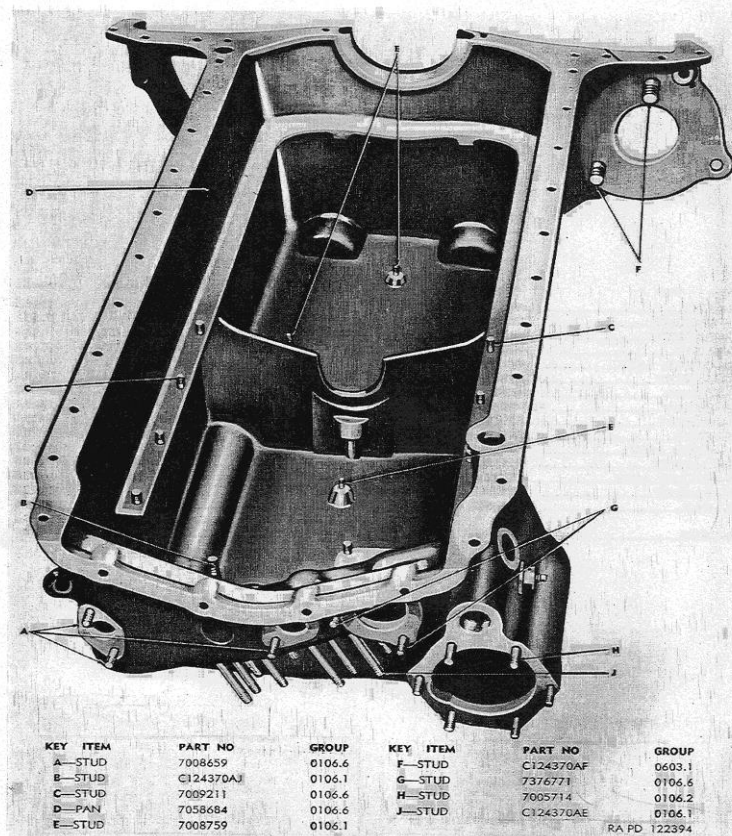


Figure 01-22. Engine oil pan (7058683), current type.

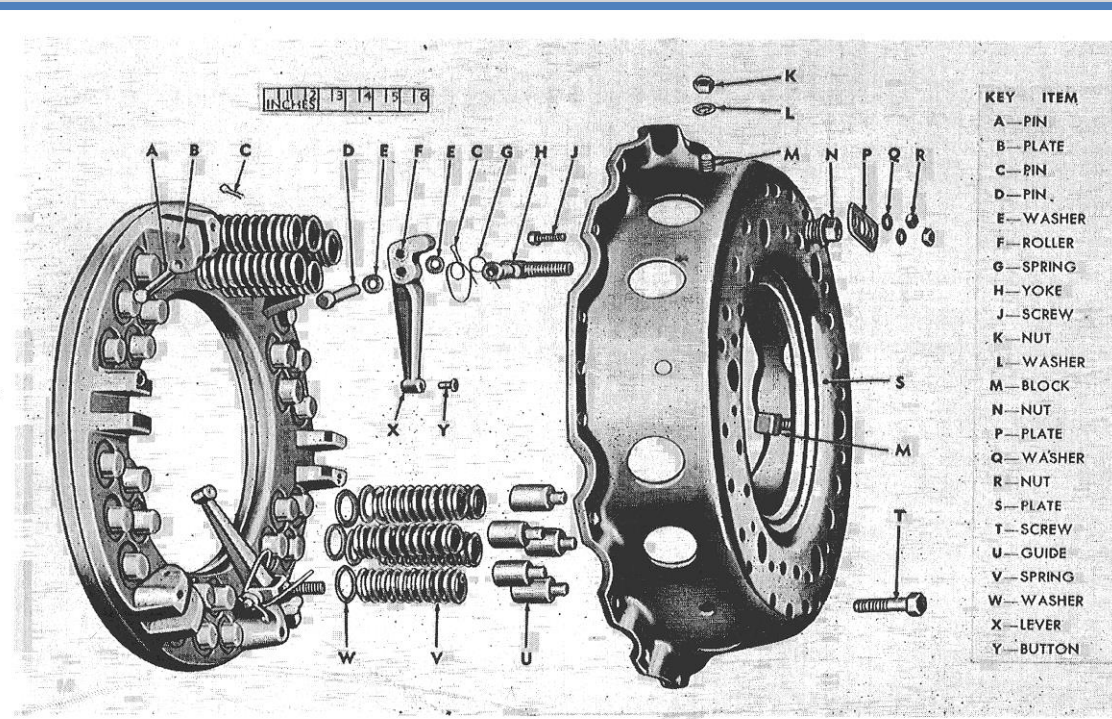


Figure 02-3. Engine clutch drive and pressure plates, exploded view.

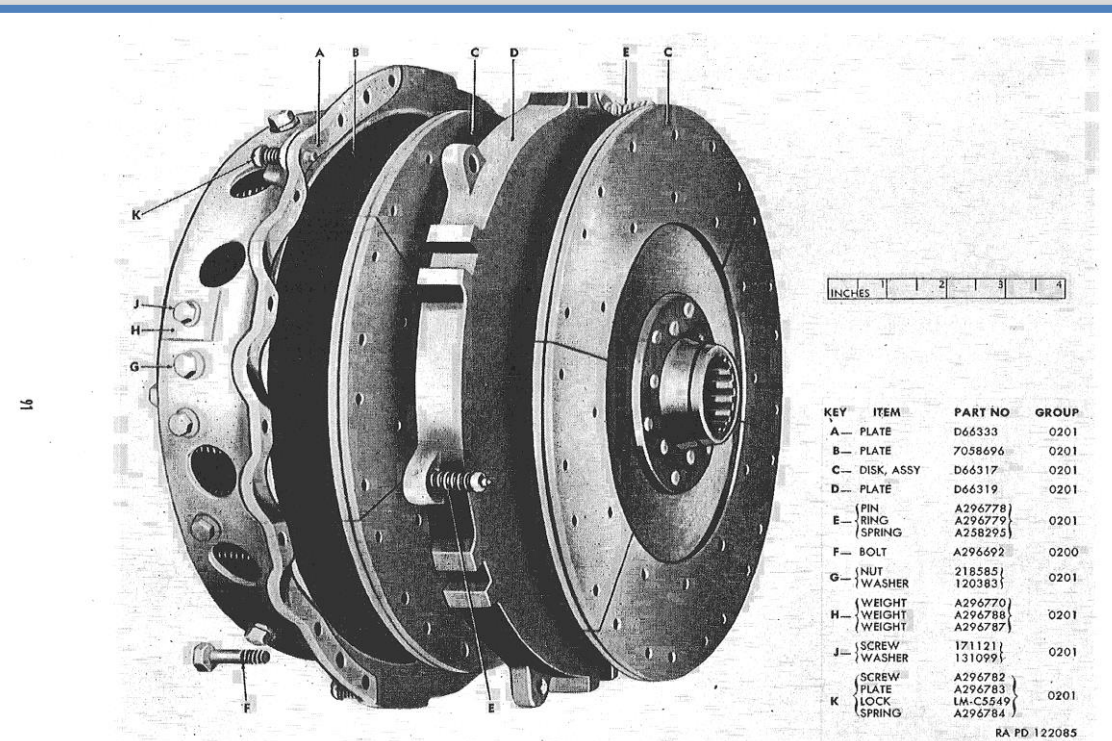


Figure 02-1. Engine clutch, exploded view.

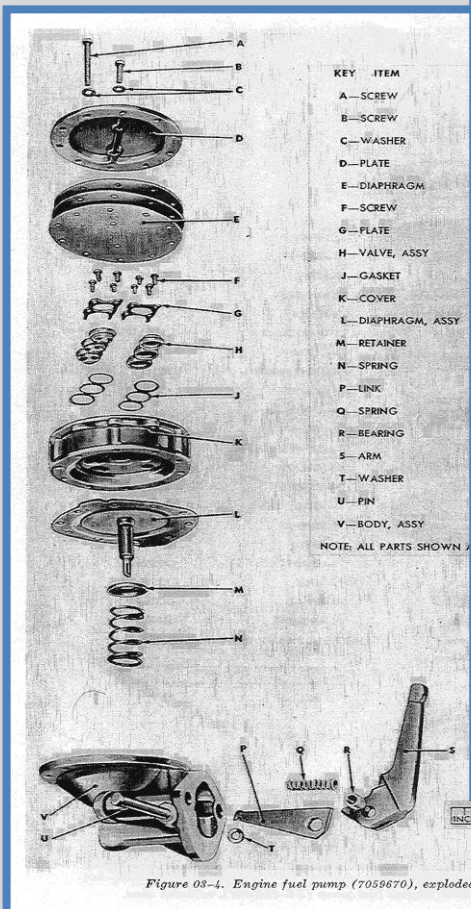
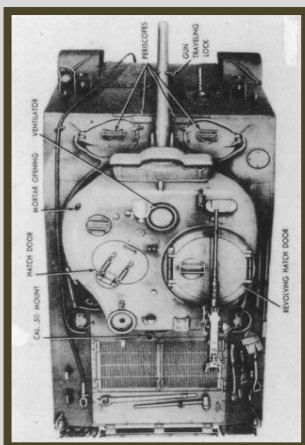


Figure 03-4. Engine fuel pump (7059670), exploded view.

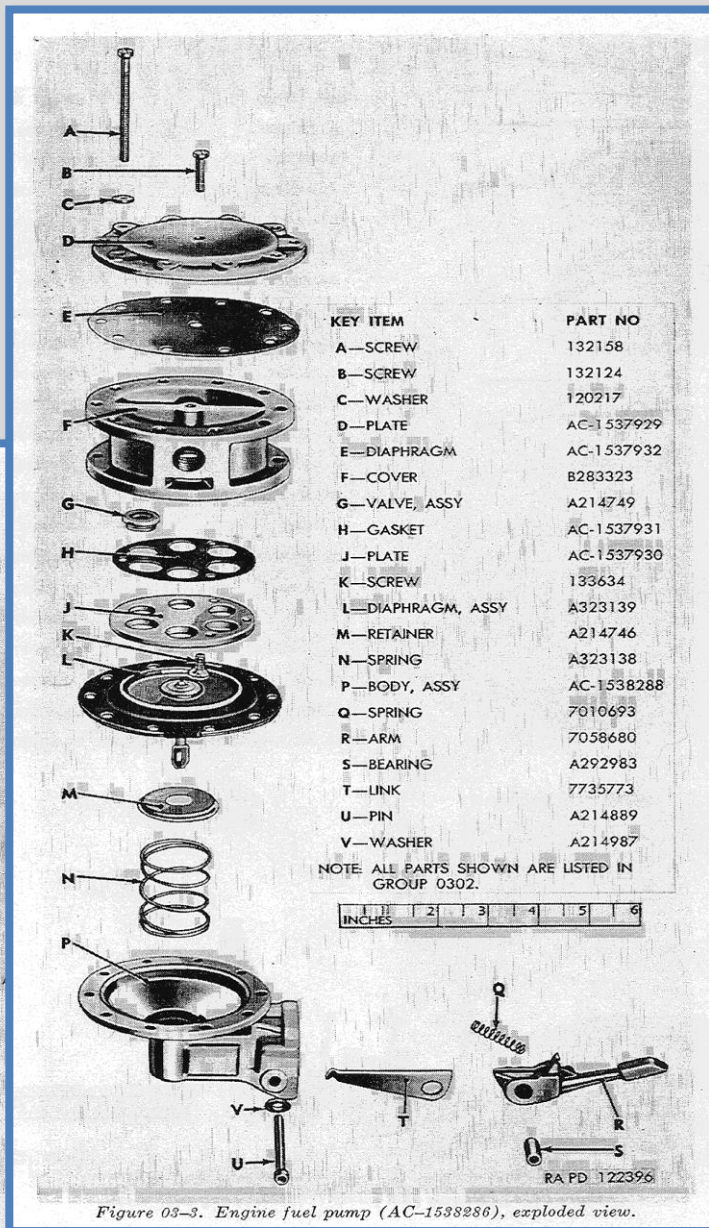


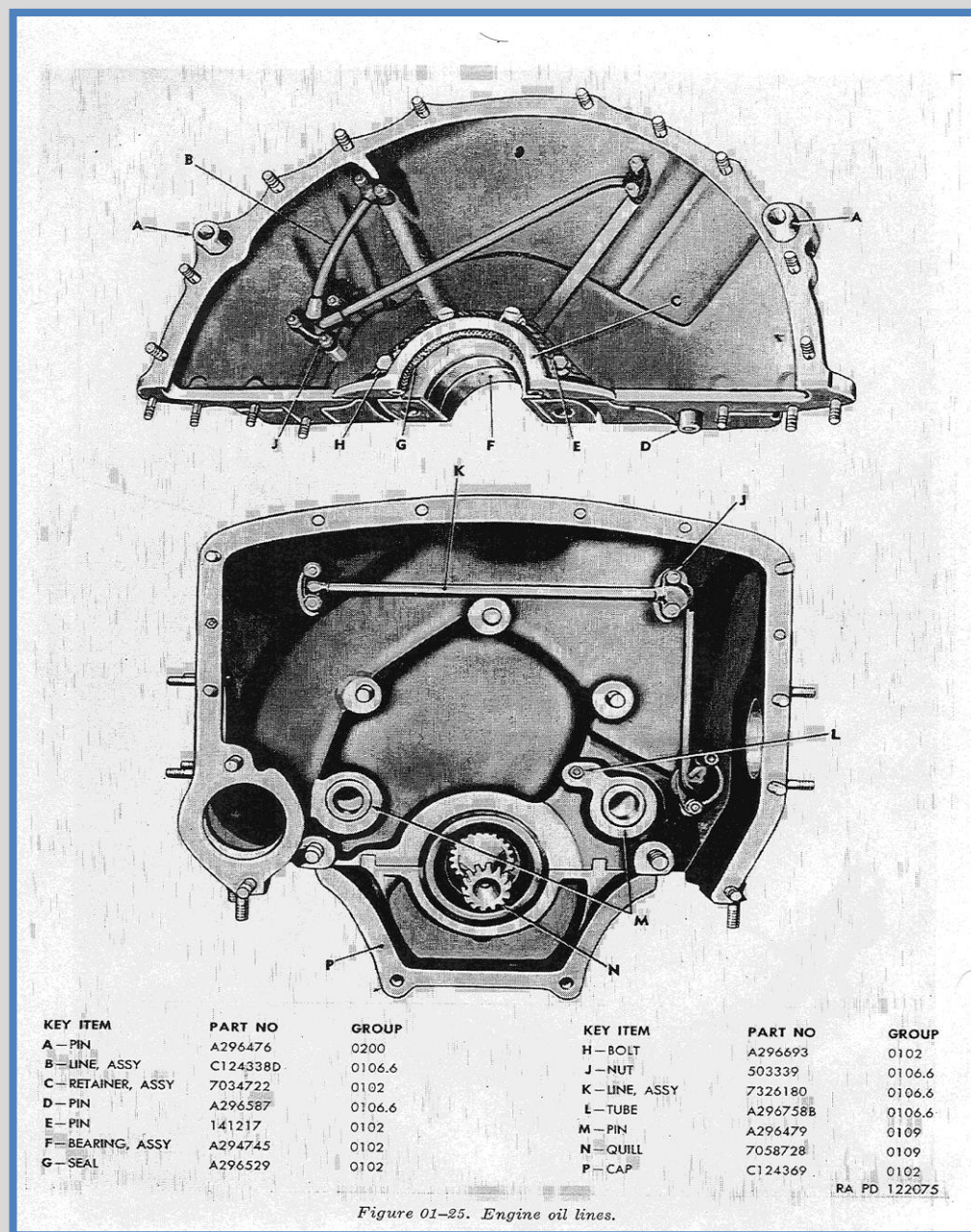
Figure 03-3. Engine fuel pump (AC-1538286), exploded view.

Differences between the early and final Ford V8s:

The oiling system was changed, a new screen and pick up was used and a relief valve system was removed. The oil pump was changed as well. There seems to have been two types of fuel pump, but they may be interchangeable.

The main bearing caps were changed as well, on early engines they used four bolts per cap. On the later motors they went down to two bolt mains, since the motor was extremely robust. None of the changes effected the motors lifespan or robustness.

I really can't stress enough how high tech this motor was for WWII, dual overhead camshafts was a big thing in 1943, and the GAA was complicated and advanced design, but since it was so overbuilt and well built, it was also very reliable.



Sources: TM9-748, and TM9-1731B, ORD 9 SNL G-205

Image of the GAA on the cover was taken by Hohum

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