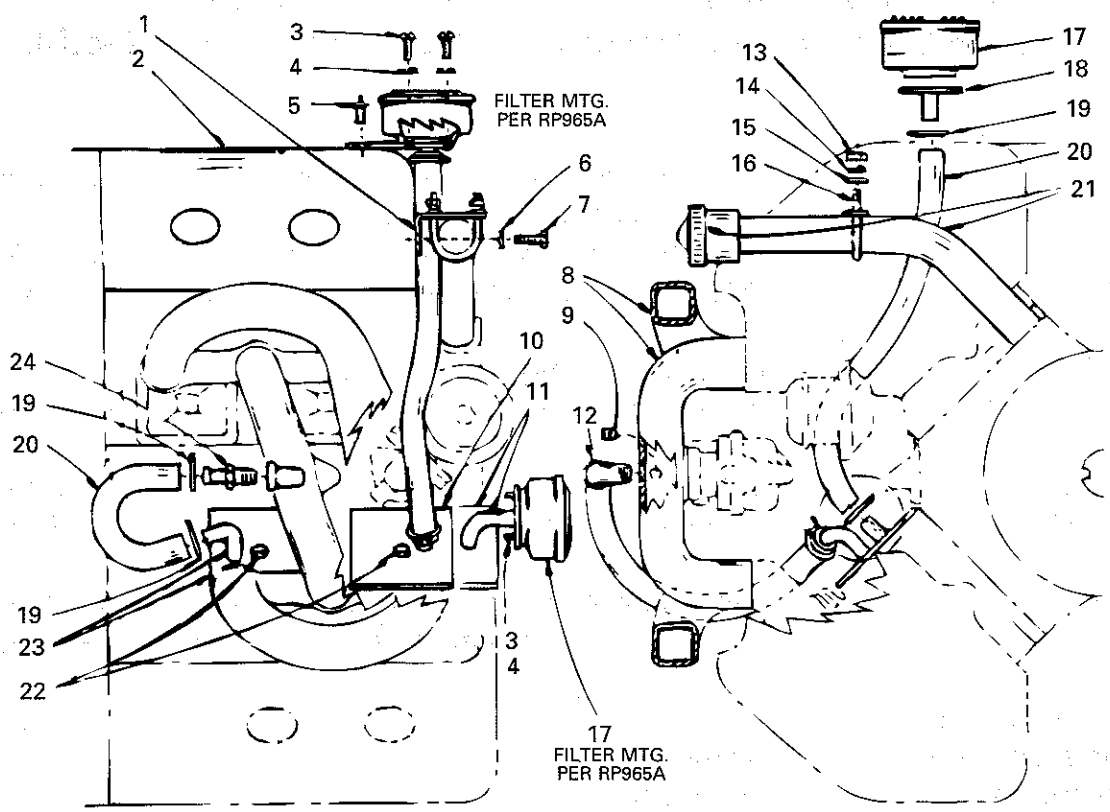
Positive Crankcase Ventilation (PCV), Engine Balancer, 3rd Bearing Parts, Vapor Separator System Kits, TriChrome Ring Sets, Semi-Finished Crankshafts, Crankshafts, Reduction Gears (Teeth), Repair Kits

RP965	PCV, Air filter toward take-off end VH4D
RP965A	PCV, Air filter on side VH4D
RP966	PCV, Air filter toward take-off end VG4D
RP966A	PCV, Air filter at flywheel end VG4D
GD142AS1	Balancer gear assembly to reduce vertical & horizontal vibrations S12D, S14D
BG358AS1	3rd bearing parts VH4D
BG358AS1	3rd bearing parts W4-1770
20211002	Vapor separator system kits ..... All 4 cylinder models
20211003	Vapor separator system kits ..... All 4 cylinder models
TriChrome ring sets	
Semi-finished crankshafts	By model
Crankshafts series	By model
Reduction gears	Number of teeth

Repair kits – Carburetor, fuel pump, fuel strainer, engine gasket sets, valve grinding kits, magneto major repair kits, points and condenser kits, distributor kits

RP965, RP965A Positive Crankcase Ventilation (PCV)

USE WITH MODEL VH4D



RP965 assembly – crankcase air filter toward take-off end
RP965A assembly – air filter on the side, at No. 3 cylinder

ITEM	PART NO.	DESCRIPTION	QTY
1	PG1209	Bracket	1
2	SE79C24	Left hand shroud	1
3	XA8	Screw, no. 10-32 thread x 1/2" long	2
4	PE14	Lock washer, no. 10	2
5	XJ65	Rivet, 3/16"	2
6	PH196	Plain washer, 1/4" x 5/8" O.D.	1
7	XD175	Screw, 1/4"-20 thread x 7/8" long	1
8	LD253-11	Manifold	1
9	XK1	Plug, 1/8" pipe	1
10	SA155C	Cover, no. 4 cylinder (RP965A)	1
11	SA155B	Cover, no. 4 cylinder (RP965)	1

ITEM	PART NO.	DESCRIPTION	QTY
12	XK37	Street ell, 1/4" pipe, 90°	1
13	PD77	Nut, 1/4"-20 thread	2
14	PE3	Lock washer, 1/4"	2
15	PH84	Plain washer, 1/4" I.D.	2
16	PI224	Clamp	1
17	LD202	Air filter	1
18	PG1304A	Bracket (RP965A)	1
19	LK32	Clamp (replaces LK33)	4
20	LL202-14	Hose (replaces LL200-14)	2
21	R109D	Oil filler tube (includes RC82)	1
22	XD22	Screw, 5/16"-18 thread x 1-3/4" long	2
23	SA155A	Cover, no. 2 cylinder	1
24	LO201	PCV valve	1

RP965, RP965A Positive Crankcase Ventilation (PCV)

OPERATION

In the normal operation of a gasoline engine, the unburned Hydrocarbons in the form of oil and fuel vapors (blow-by), leak into the crankcase causing contamination. Instead of releasing these gaseous fumes to the atmosphere as they would thru a conventional crankcase breather, they are returned to the intake manifold by the PCV system where they are mixed with fuel vapor from the carburetor and burned. This results in a cleaner, better performing, longer lasting engine.

SYSTEM, Fig. 1

The Positive Crankcase Ventilation (PCV) system, for these models of engines, is not completely sealed from the atmosphere and is considered to be a semi-closed system. Ordinarily, with this type of PCV system, it is possible under certain full load conditions for small amounts of engine blow-by gases to escape into the atmosphere thru the crankcase air intake filter. To counteract this possibility, Wisconsin Engines use a PCV valve with enough flow rate to handle all blow-by from a normal engine under load conditions.

Since blow-by is a function of BMEP (or load), and manifold vacuum is a function of load, then an ideal system is one that is sensitive to load and controlled by manifold vacuum. Thus, the PCV valve used on these engines was designed for blow-by to flow at a rate depending on load and manifold vacuum conditions.

PCV VALVE, Fig. 2

The PCV metering valve is simple in operation and construction. It consists of a Body, Metering Pin, Spring and Orifice.

The pull (pressure differential between manifold and crankcase) of the intake manifold vacuum on the metering pin compresses the spring until a balance is reached. Whenever the load (vacuum) is changed, the metering pin takes a new position in its orifice causing a different flow rate. This flow rate corresponds to the blow-by flow plus an additional volume of fresh air of about one C.M.F. from the crankcase Air Intake Filter.

When engine is not operating, or when a manifold pressure condition exists, spring tension closes the PCV valve to prevent intake manifold vapors from entering the crankcase.

PCV MAINTENANCE

Inspect PCV valve after 500 hours of operation. Use regular solvents or lacquer thinner for cleaning.

Indications of Dirty or Faulty PCV valve are:

1. Excessive sludging of engine.
2. Excessive smoke from crankcase Filter.
3. Excessive crankcase vacuum (over 2" H_2O).
4. Poor or rough idling.

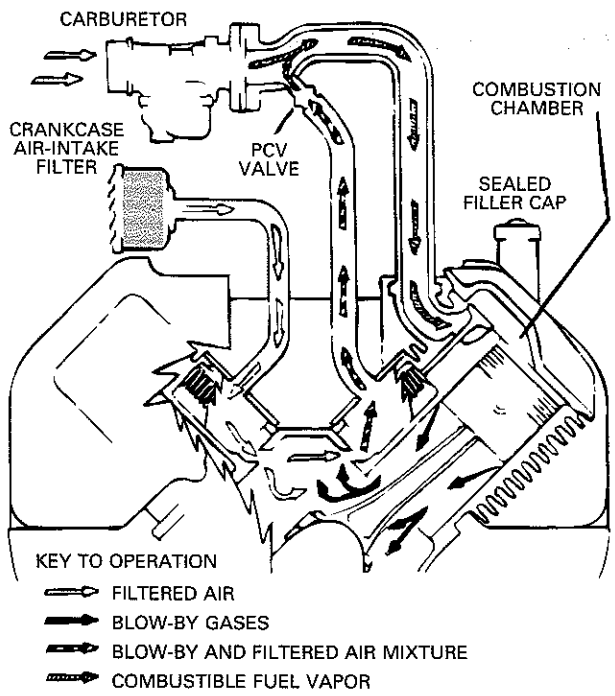


Fig. 1

RP965, RP965A Positive Crankcase Ventilation (PCV) (Cont.)

AIR INTAKE FILTER

The additional amount of air necessary for the operation of the PCV system must come from the outside and enter into the crankcase. The purpose of the filter is to admit this small amount of air, and also clean it on its way thru. This clean air circulation in the crankcase serves in purging the crankcase of water vapor, condensing acids of exhaust gases and other crankcase born contaminants, thereby greatly adding to the life of the oil and the engine.

IMPORTANT: Every 50 hours, remove the Air Intake Filter and inspect filter element – clean or replace if necessary. To clean; wash element in a solution of hot water and a nonsudsing detergent. Rinse in clear warm water and squeeze dry.

Service filter daily, if engine is operating in extreme dusty and dirty conditions.

Do not use gasoline for cleaning – Do not oil element.

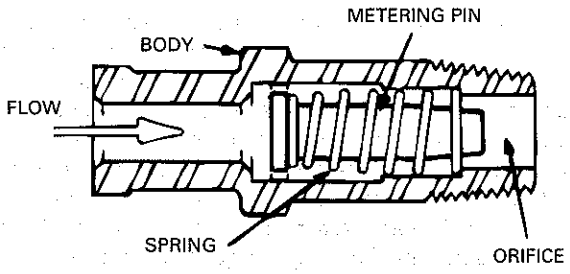
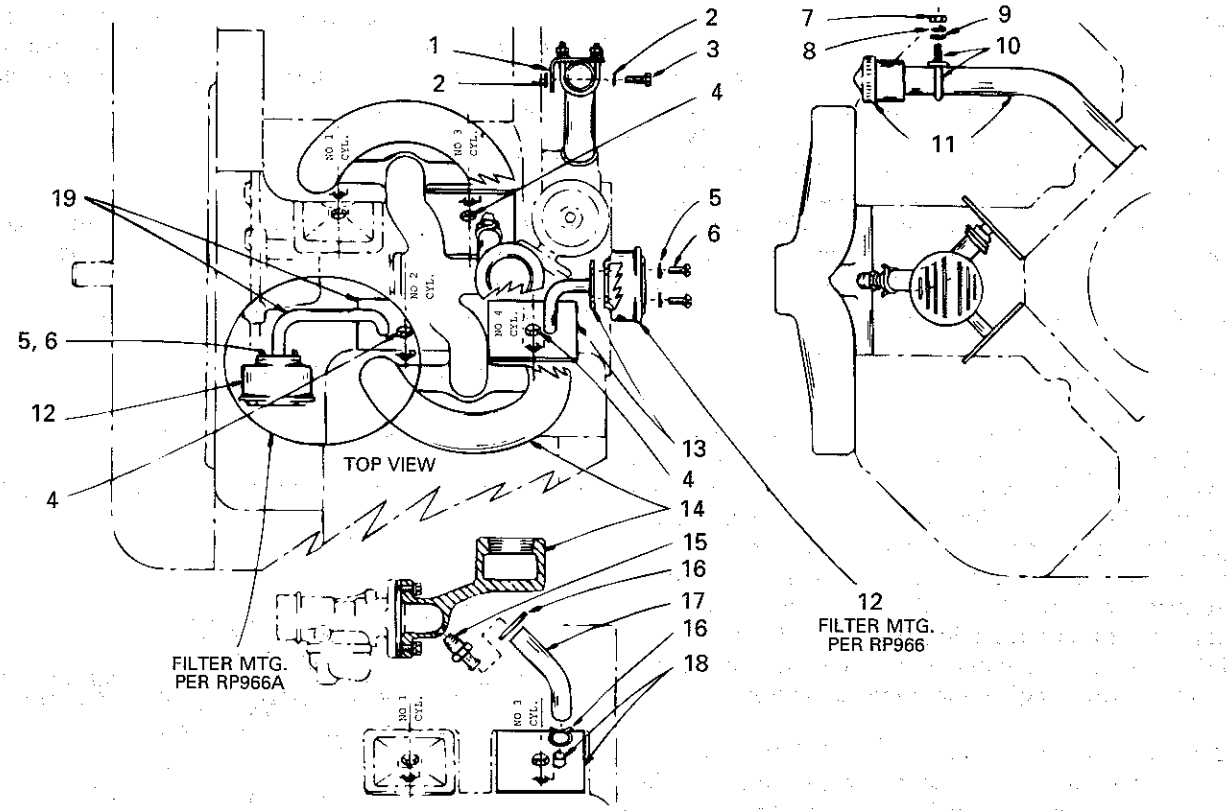


Fig. 2

RP966, RP966A Positive Crankcase Ventilation (PCV)

USE WITH MODEL VG4D



RP966 assembly – crankcase air filter toward take-off end
RP966A assembly – crankcase air filter at flywheel end

ITEM	PART NO.	DESCRIPTION	QTY
1	PG1209	Bracket	1
2	PH196	Plain washer, 1/4" x 5/8" O.D.	2
3	XD175	Screw, 1/4"-20 thread x 7/8" long	1
4	XD22	Screw, 5/16"-18 thread x 1-3/4" long	2
5	PE14	Lock washer, no. 10	2
6	XA8	Screw, no. 10-32 thread x 1/2" long	2
7	PD77	Nut, 1/4"-20 thread	2
8	PE3	Lock washer, 1/4"	2
9	PH84	Plain washer, 1/4" I.D.	2
10	PI224	Clamp	1
11	R109D	Oil filler tube (includes RC82)	1
12	LO202	Air filter	1
13	SA156D	Cover, no. 4 cylinder (RP966)	1
14	LD240-26	Inlet and exhaust manifold	1
—	LD240C4	End outlet exhaust manifold	1
15	LO201	PCV valve	1
16	LK32	Clamp	2
17	LL202-5	Breather line	1
18	SA156A	Cover, no. 3 cylinder	1
19	SA156C	Cover, no. 2 cylinder (RP966A) (includes RF1528)	1

RP966, RP966A Positive Crankcase Ventilation (PCV)

OPERATION

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The PCV metering valve is simple in operation and construction. It consists of a Body, Metering Pin, Spring and Orifice.

The pull (pressure differential between manifold and crankcase) of the intake manifold vacuum on the metering pin compresses the spring until a balance is reached. Whenever the load (vacuum) is changed, the metering pin takes a new position in its orifice causing a different flow rate. This flow rate corresponds to the blow-by flow plus an additional volume of fresh air of about one C.M.F. from the crankcase Air Intake Filter.

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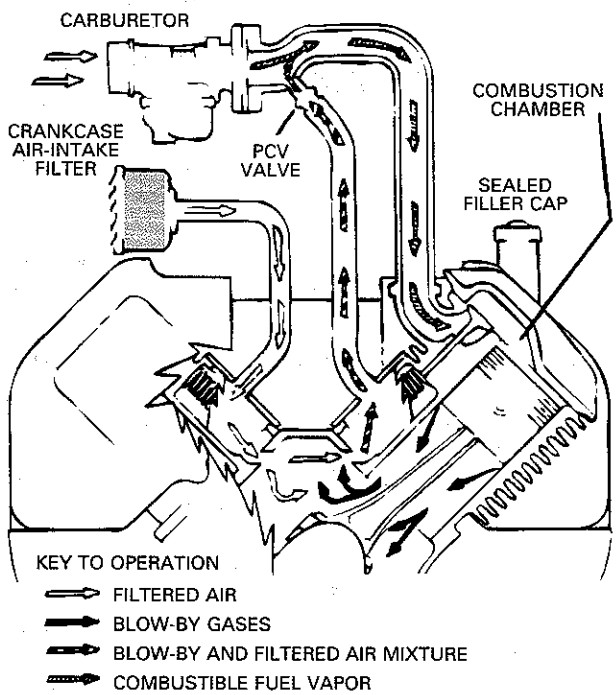

Fig. 1

AIR INTAKE FILTER

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Service filter daily, if engine is operating in extreme dusty and dirty conditions.

Do not use gasoline for cleaning – Do not oil element.

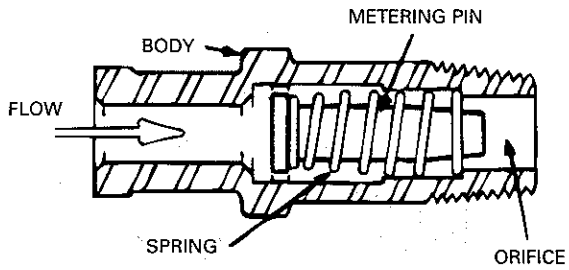


Fig. 2

Engine Balancer

USE WITH MODELS S12D, S14D

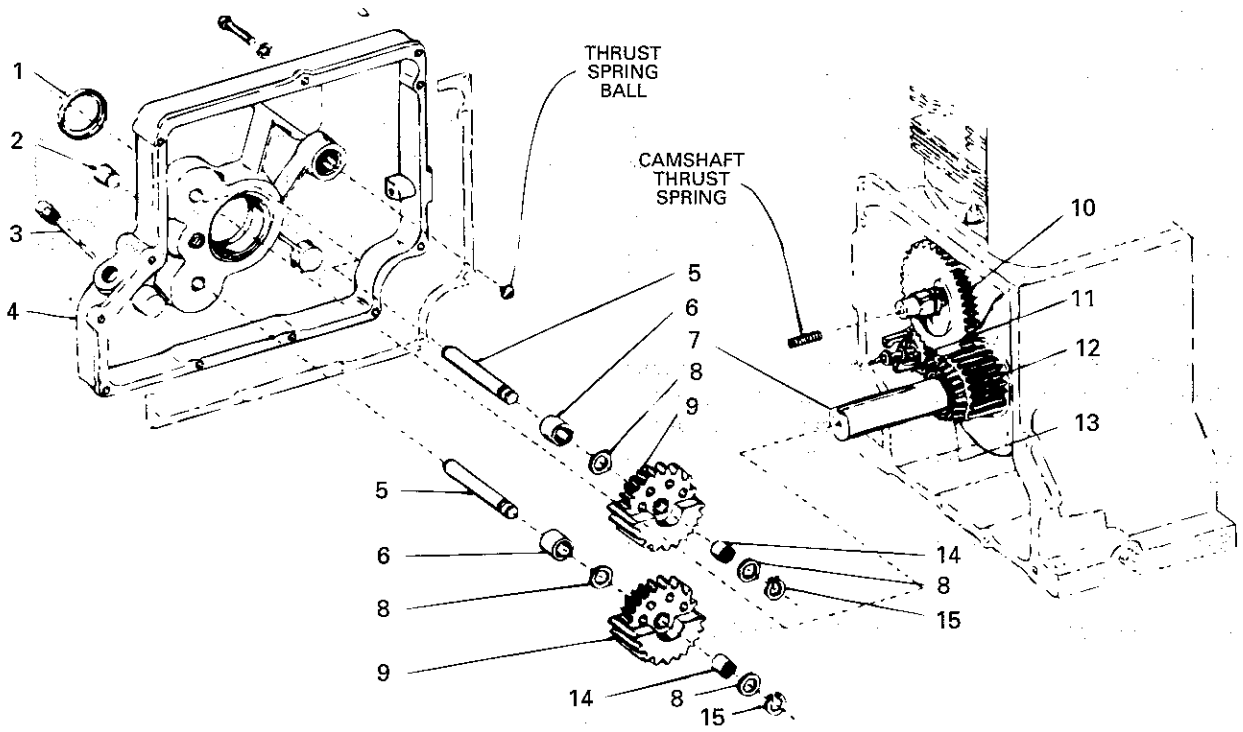


Fig. 1 EXPLODED VIEW

ITEM	PART NO.	DESCRIPTION	QTY
1	PH529	Oil seal	1
2	XK6	Pipe plug, 1/2"	1
3	RJ162	Oil dip stick (NLA)	1
4	BD113ES1	Gear cover assembly (includes 1, 5; includes ME170-1, PH571)	1
5	PJ113	Pin	2
—	† ME170-1	Bearing cup	1
—	PH571	Oil seal (not illustrated)	1
6	HF635	Spacer	2
7	CA80DS1	Crankshaft assembly (includes 12, 13; includes ME212, PL21)	1
8	PH592	Thrust washer	4
9	GD142AS1	Balancer gear (includes item 14)	2
10	EA134D	Camshaft and gear assembly	1
11	GD139CS1	Governor gear and flyweight assembly (includes PK118, PA332, TC488)	1
—	PK118	Snap ring	1
—	PA332	Flyweight pin	2
—	TC488	Flyweight	2
12	GA46B	Crankshaft gear	1
13	ME170	Bearing assembly (T.O. end)	1
—	ME212	Bearing assembly (standard flywheel end)	1
—	PL21	Key (not illustrated)	1
14	ME219	Needle bearing	1
15	PK175	Retainer ring	2

† Not serviced separately.

Engine Balancer (Cont.)

This is an optional accessory furnished on these models of engines, to reduce vertical and horizontal vibrations, as well as to minimize harmonic vibration and noise transmitted to driven equipment.

DISASSEMBLY of GEAR COVER

1. Drain engine oil.
2. Turn engine over to T.D.C. on compression stroke (take-off shaft keyway up and both valves closed).
3. Disconnect linkage and remove governor lever from side of gear cover.
4. Remove gear cover cap screws and lock washers.
5. Tap the two dowel pins with a hammer from crankcase side and gear cover will break free from crankcase. Note: Prevent camshaft from coming out with gear cover, otherwise tappets will fall down and become damaged.

Caution: Remove steel ball for camshaft end thrust from bearing hole in gear cover, and take out thrust spring from end of camshaft, to prevent their being lost.

BALANCER GEARS (Fig. 1 exploded view)

1. Remove retainer rings (Ref. 15) with ring pliers.
2. Take off balancer gears (Ref. 9), thrust washers (Ref. 8) and spacers (Ref. 6).
3. Inspect balancer gear support pins (Ref. 5) for excessive wear. Replace if out of round by more than 0.00075 inch, or if diameter is more than 0.001 inch under low limit dimension shown in Fig. 2.
4. To replace balancer gear support pins – Drive out old pins and press in new pins. Pins must be straight and should extend out from finished face of gear cover to within 1.215 – 1.205 inches. See Fig. 2.

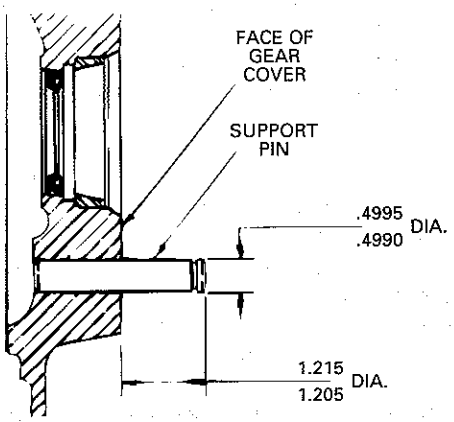


Fig. 2

REASSEMBLY (Fig. 1 exploded view)

1. Check needle bearings (Ref. 14) for possible replacement. If balancer gear teeth show wear, complete gear and bearing assembly (Ref. 9) is available for service replacement.

2. Place spacers (Ref. 6) and thrust washers (Ref. 8) on to gear support pins in gear cover (Ref. 4).

3. Balancer gears (Ref. 9) are identical – mount with alignment marks, Fig. 4, toward gear cover.

4. Mount top thrust washers (Ref. 8), and retainer rings (Ref. 15). Note: Balancer gears will rock slightly mounted on the pins, due to the running clearance requirements between the pin and needle bearing.

5. Check end play: balancer gears must rotate freely but not too loose. Place a feeler gauge between outer thrust washer and gear face (both gears). Clearance should be 0.003 to 0.004 inch, see Fig. 3. If there is too much clearance between gear and thrust washer, press support pin in until correct clearance is obtained. Not enough clearance – press support pin outward.

6. Tap dowel pins into gear cover until they extend about 1/8 inch past flange face. Place a dab of low melting grease into camshaft bearing hole in gear cover and drop thrust spring ball in place. Lubricate gears and lip of crankshaft oil seal. Add a light film of oil to gear cover face to hold new gasket in place. Assemble thrust spring into end of camshaft and mount gear cover.

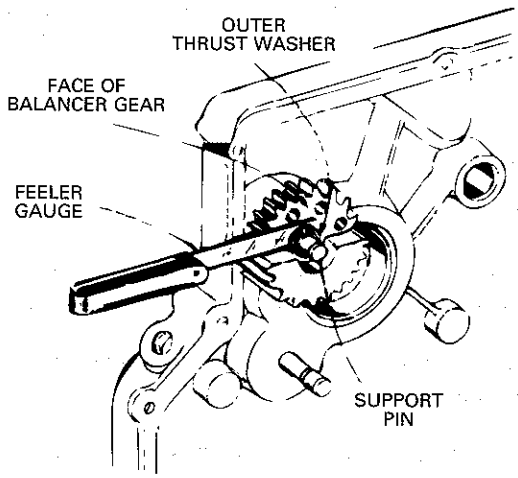


Fig. 3

Caution: Be sure timing marks on crankshaft and camshaft gear remain correctly mated when end of camshaft is pressed into bearing hole of gear cover. See Fig. 4.

When mounting gear cover, top balancer gear will mesh with crankshaft gear first, then the bottom gear.

7. Before securing gear cover in place, check alignment of balancer gears thru inspection opening in gear cover. With the piston at T.D.C. on compression stroke, the 3/32" dia. holes between two of the teeth on both balancer gears must be in alignment as illustrated in Fig. 4. If not, repeat engagement of balancer gears with crankshaft gear until alignment is obtained. Mount inspection hole plug.

8. Tighten gear cover cap screws to 22 ft. lbs. torque and hammer dowel pins in place. Assemble governor lever and connect linkage.

9. Add correct grade of engine oil and test engine.

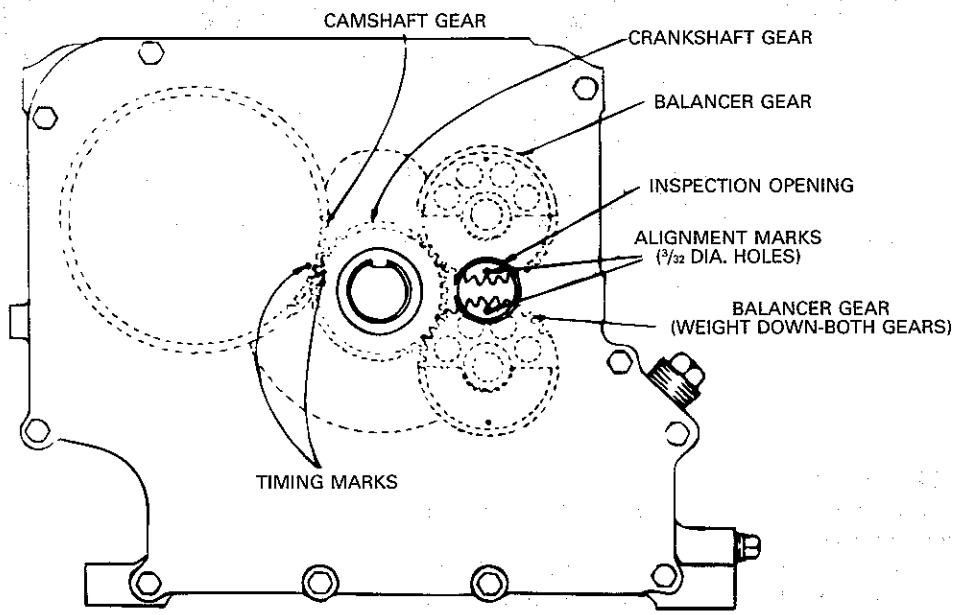
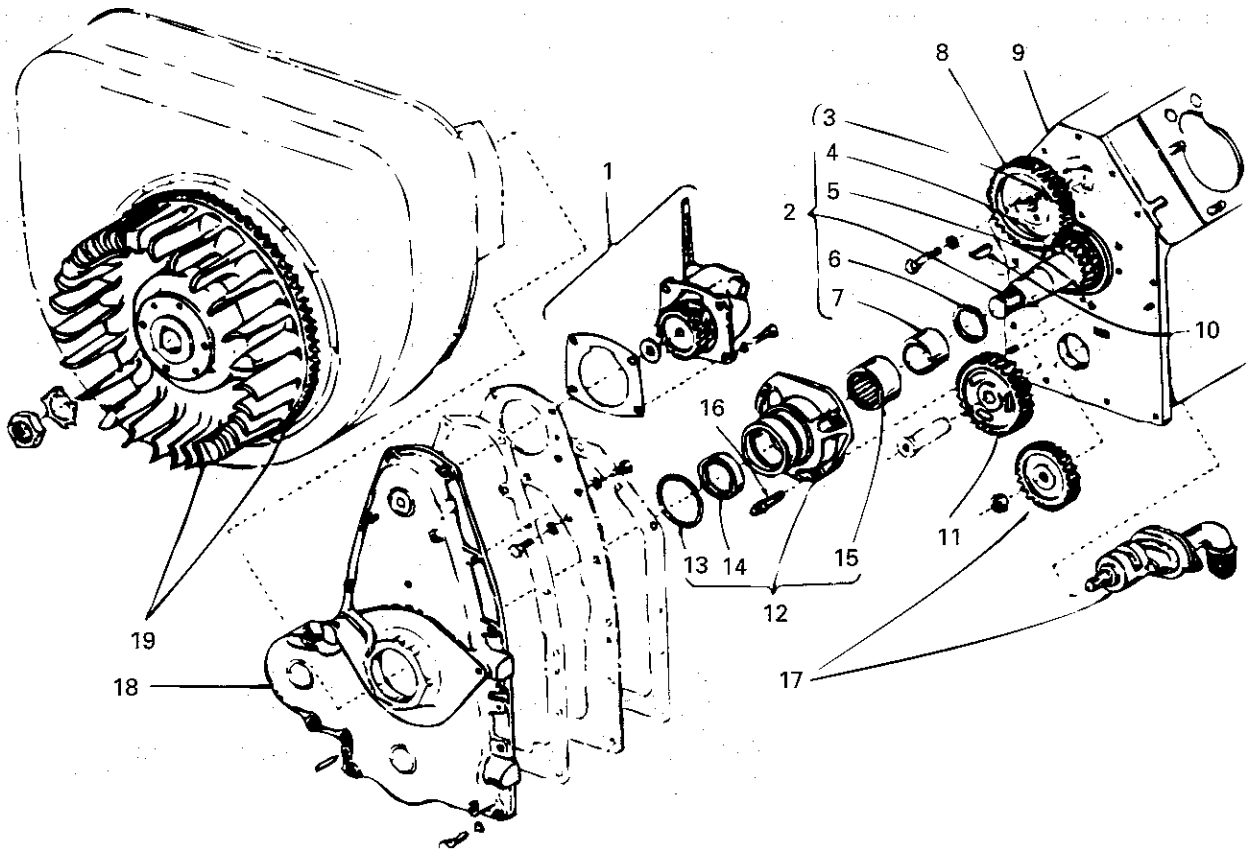


Fig. 4

BG358AS1 3rd Bearing Parts (Wisconsin Spec No. 390568)



ASSEMBLY NOTES:

1. Bearing cup (3) must extend .125 inches out from face of crankcase.
2. When mounting bearing race (7), apply 1/8 inch wide bead of Loctite 601 to I.D. at center, and to crankshaft.
3. Torque housing screws (16), 40 to 45 foot pounds.

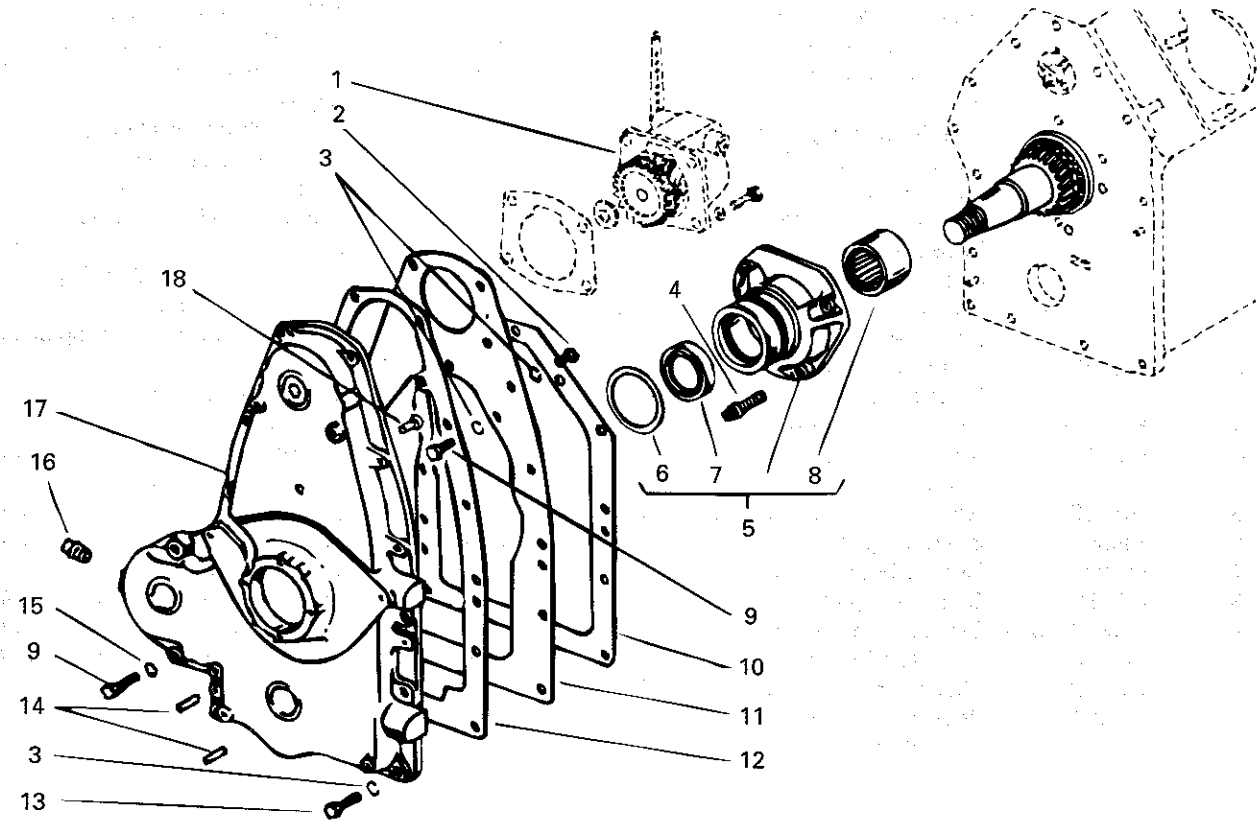
BG358AS1 3rd Bearing Parts

USE WITH MODEL VH4D (see pg. 11)

ITEM	PART NO.	DESCRIPTION	QTY
1	T89R1S1	Governor assembly Note: All parts same as standard T89KS1 governor except: TC405P flyweight assembly including GD100A6 gear in place of TC405J and GD100A3 gear. Also TC395-4 housing in place of TC395	1
2	CA71GS1	Crankshaft assembly (includes 3-7)	1
3	ME223	Roller bearing, flywheel end	1
4	PL21	No. 3 Woodruff key	1
—	ME114	Roller bearing, t.o. end (not illustrated)	1
5	GA36C	Gear	1
6	HF643	Bearing spacer	1
7	ME225	Needle bearing	1
8	GB45D	Camshaft gear	1
9	BA48C105S1	Crankcase assembly	1
10	PL165	"B" Woodruff key	1
11	GC27D	Idler gear	1
12	BG358AS1	Bearing and housing assembly (includes 13-15)	1
13	JK72	"O" ring seal	1
14	PH299	Oil seal	1
15	ME224	Needle bearing	1
16	XB88	Cap screw, 3/8"-16 thread x 1" long	3
17	K129A	Oil pump assembly Note: All parts same as standard K95L oil pump except: KB46-1S2 cover assembly replaces KB42S2 KD121BS1 drive shaft replaces KD121S1	
18	BD100MS1	Gear cover assembly (includes PF52A, PH299, TC388-1, XK3)	1
19	N101B14	Flywheel assembly (includes GH44)	1
—	BG209	Plate (not illustrated)	1
—	PE49	Lock washer (not illustrated)	4
—	RK170	Oil sling (not illustrated)	1
—	XC68	Screw (not illustrated)	4

BG358AS1 3rd Bearing Parts

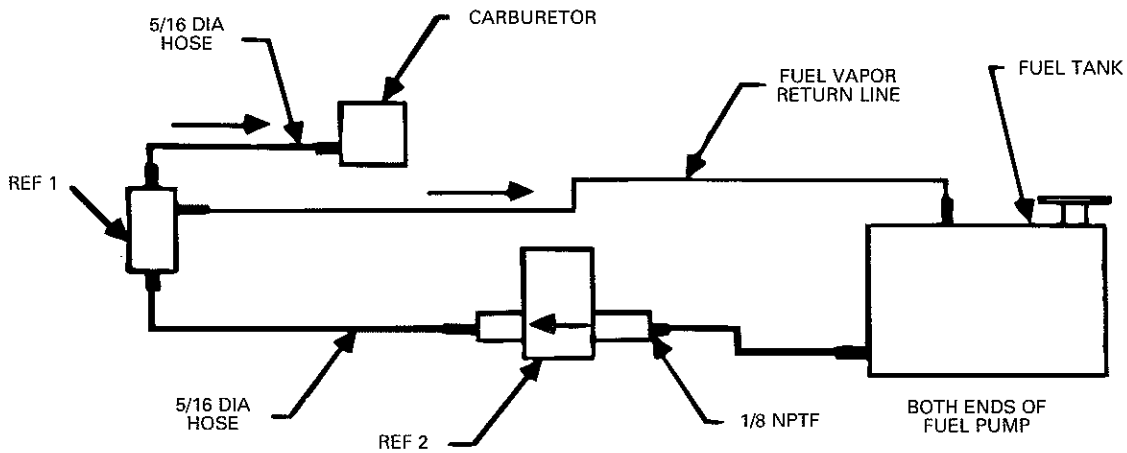
USE WITH MODEL W4-1770



ITEM	PART NO.	DESCRIPTION	QTY
1	— — —	Governor assembly	1
2	XD15	Screw, 5/16"-18 thread x 3/4" long	2
3	PE4	Lock washer, 5/16"	17
4	XB88	Cap screw, 3/8"-16 thread x 1" long	3
5	BG358AS1	Housing assembly (includes 6-8)	1
6	JK72	"O" ring seal	1
7	PH299	Oil seal	1
8	ME224	Bearing	1
9	XD14	Screw, 5/16"-18 thread x 5/8" long	5
10	QD614	Gasket	1
11	WE182A	Spacer	1
12	QD611	Gasket	1
13	XD19	Screw, 5/16"-18 thread x 1-1/4" long	10
14	PA291	Dowel pin	2
15	PH14	Washer, 5/16"	2
16	XK3	Pipe plug, 3/8"	1
17	BD100M1S1	Gear cover assembly (includes 16, 18; includes TC388-1)	1
18	PF52	Button	1

Vapor Separator System
Warm Weather Operation Kits 20211002 Or 20211003

USE WITH ALL FOUR CYLINDER MODELS



This vapor separator system vents any fuel vapors trapped between the fuel pump and carburetor back into the fuel tank. The addition of this vent to the fuel system eliminates the build-up of vapors in the fuel lines which leads to erratic operation and vapor lock.

ITEM	PART NO.	DESCRIPTION	QTY
1	2021002	Vapor separator	1
—	TTP20085	Instruction sheet	1
—	SA69	Cover plate	1
—	PE4	Lock washer	2
—	XA34	Capscrew	2
—	QD67	Gasket	1
2	LP63	Fuel pump, electric	1
Above included in 20211003 kit, 20211002 is the same less fuel pump.			
—	SE286A	Mechanical fuel pump heat deflector (VH4D) (not illustrated)	1

ITEM	PART NO.	DESCRIPTION	QTY
—	SE286A1	Heat deflector (VG4D, W4-1770) (not illustrated)	1
—	HF637	Spacer (not illustrated)	1
—	PB190	Screw (not illustrated)	1
—	LP19B	Fuel strainer, large capacity (not illustrated)	1
—	L63BW	Carburetor, anti-percolation (VH4D) (not illustrated)	1
—	QC71C	Gasket, carburetor (VH4D) (not illustrated)	1

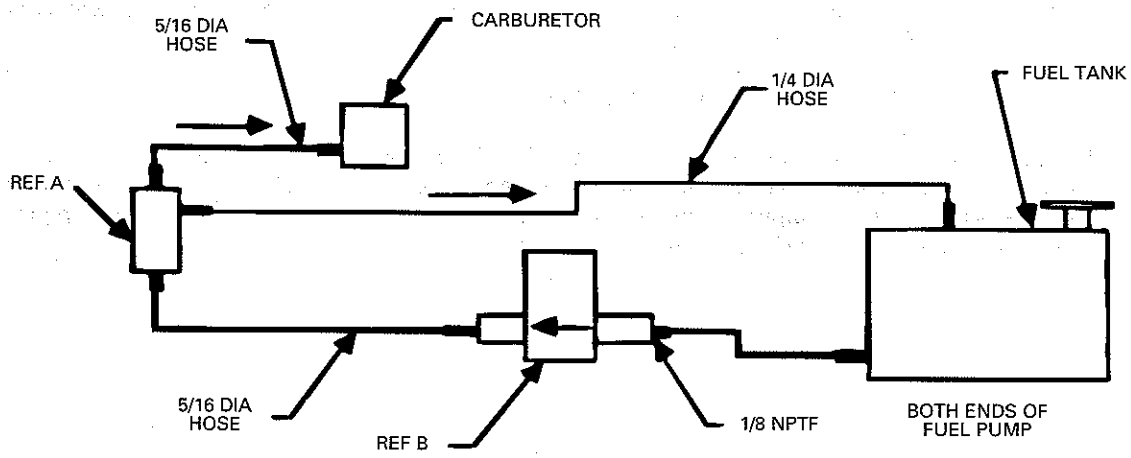
Vapor Separator System
Warm Weather Operation Kits 20211002 Or 20211003 (Cont.)

USE WITH ALL FOUR CYLINDER MODELS

- Use kit 20211003 if LP63 fuel pump is already in use.
  NOTE: Do not use automotive type electric fuel pump.
- Ref. 1 must be installed as high as possible between centerline of crankshaft and carburetor.
  Ref. 1 must be installed in the position shown and may hang from hose.
- All hoses must be approved for use with gasoline.
- Use good quality hose clamps on all connections.
- Disconnect and remove mechanical fuel pump and adapter. Install cover plate, lock washer, capscrew, and gasket then connect Ref. 1 to carburetor as shown.
- Connect Ref. 1 to Ref. 2 and Ref. 2 to fuel tank as shown.

NOTE: This system requires a fuel vapor return line from the vapor separator(1) to the top of the fuel tank on the equipment. The fuel vapor return line must be attached to the fuel tank using a 1/4 inch hose fitting. If the fuel tank is not already equipped with this 1/4 inch hose fitting, one must be mounted on top of the fuel tank prior to assembling the vapor separator system.

Vapor Separator System



Vapor Separator System

USE WITH ALL MODELS (see pg. 16)

KIT – 20211002

ITEM	PART NO.	DESCRIPTION	QTY
A	20210002	Vapor separator	1
B	LP63	Fuel pump	1
C	TTP20085	Instruction sheet	1
D	SA69	Cover plate	1
E	PE4	Lock washer	2
F	XA34	Cap screw	2
G	QD67	Gasket	1

KIT – 20211003

ITEM	PART NO.	DESCRIPTION	QTY
A	20210002	Vapor separator	1
C	TTP20085	Instruction sheet	1
D	SA69	Cover plate	1
E	PE4	Lock washer	2
F	XA34	Cap screw	2
G	QD67	Gasket	1

- Use kit 20211003 if LP63 fuel pump is already in use.
  NOTE: Do not use automotive type electric fuel pump.
- Ref. A must be installed as high as possible between centerline of crankshaft and carburetor. Ref. A must be installed in the position shown and may hang from hose.
- All hoses must be approved for use with gasoline.
- Use good quality hose clamps on all connections.
- Disconnect and remove mechanical fuel pump and adapter. Install Ref. D thru G then connect Ref. A to carburetor as shown.
- Connect Ref. A to Ref. B and Ref. B to fuel tank as shown.

NOTE: This system requires a fuel vapor return line from the vapor separator (Ref. A) to the top of the fuel tank on the equipment. If the fuel tank does not have an existing fitting which is appropriate for installing a fitting to attach the 1/4 in. return hose then follow the instruction below.

WARNING! Before welding or brazing take appropriate steps to eliminate fuel vapors such as filling tank with water etc. Only qualified welders should attempt this procedure.

- Drain fuel into suitable container, then disconnect and remove fuel tank. Weld or braze a 1/4 in. tube in the hole, the tube may be bent for best installation prior to weld or braze. An alternative method is to weld or braze a pipe fitting over an appropriate size hole and screw in a 1/4 in. hose barb.
- Remove all chips from tank and clean thoroughly, re-install tank.

TriChrome Ring Sets

Standard is represented by part number only. Oversize is indicated by S10, S20 and S30 for .010", .020" and .030" oversizes.

TriChrome ring sets can be used in unmachined bores if wear does not exceed .003" taper per inch of bore, or they can be fitted to a honed bore. Full-chrome plating of.004" to .006" on 3 rings with 2 expanders – on 2 rings of sets for "S" model engines – make sets self-conforming and prelapped for best fit and quick starting.

By Part No.

Part No.	Model Used On
DR35	ACN
DR36	AKN, BKN
DR37	AEN, AENL
DR41	TF, TH, THD, TJD
DR42	VH4D, VF4D
DR43	AGND
DR44	VG4D
DR49	V465D
DR55	S8D, HS8D, TR10D, TRA10D
DR59	S12D, TRA12D

By Model

ACN	DR35
AEN, AENL	DR37
AGND	DR43
AKN, BKN	DR36
S8D, HS8D, TR10D, TRA10D	DR55
S12D, TRA12D	DR59
TF, TH, THD, TJD	DR41
VG4D	DR44
VF4D, VH4D	DR42
V465D	DR49

Semi-Finished Crankshafts

MODEL	CRANK PART NO.
ACN, BKN	CA51-116S1
ACN, BKN	CA51A82S1
AENL	CA48G119S1
AGND	CA73-18S1
S7D	CA79-116S1
S7D	CA79A82S1
S10D, S12D, S14D	CA80-119S1
S10D, S12D, S14D	CA80B9S1
THD	CA62-100S1
TJD	CA86-100S1
TJD	CA87-100S1
VE4D, VF4D	CA55-148S1
VH4D	CA71A146S1
VG4D	CA69C82S1
V465D	CA75C25S1
W2-1230, W2-1235, W2-1250	None
W2-880	CA86-100S1
W4-1770	None

All working surfaces essential to the engine including the seal surface are machined. The power take-off is machined only to clean forging.

Crankshafts

MODEL	PART NUMBER (STANDARD, BASIC)
ACN, BKN	CA51 Series
ACN, BKN	CA51A
AEH	CA48C Series
AENL	CA48D Series
AENL	CA48G Series
AHH	CA47F Series
AGND	CA73 Series
MVF4D	CA68A Series
MVH4D	CA71E Series
MVG4D	CA69E Series
MTHD	CA70A Series
S7D	CA79 Series
S7D	CA79A Series
S8D	CA82 Series
S8D	CA82A Series
S10D, S12D, S14D	CA80 Series
S10D, S12D, S14D	CA80B Series
S10D, S12D, S14D	CA80E Series
THD	CA87 Series
TJD	CA86 Series
VE4D, VF4D	CA55 Series
VG4D	CA69C Series
VH4D	CA71A Series
V460D, V465D	CA75 Series
V460D, V465D	CA75C Series
W2-1230, W2-1235, W2-1250	CAA101
W2-1230, W2-1235, W2-1250	CAA102
W2-880	CA86 Series
W4-1770	CA89 Series

Dash numbers are added to the basic part number to identify special machining at the take-off end. The dash number (–) will be found stamped on the cheek facing the fly-wheel end of shaft. Order by complete part number (dash number added to basic part number) example CA51-23S1.

Reduction Gears – Number of Teeth

PART NUMBER	DESCRIPTION	TEETH	USED ON
GG104	Sprocket	16	ACN, BKN
GG105	Sprocket	32	ACN, BKN, VH4D
GG113	Sprocket	20	TE, TF, TH, THD, TJD
GG114	Sprocket	15	AGND, TH, THD, TJD, VH4D
GG115	Sprocket	14	AGND, TH, THD, TJD, VH4D
GG116	Pinion	30	AGND, TH, THD, TJD, VH4D
GG117	Pinion	23	AGND, TH, THD, TJD, VH4D
GG118	Pinion	19	AGND, TH, THD, TJD, VH4D
GG119-2	Driven	61	AEH, AENL
GG119-3	Driven	64	AEH, AENL
GG120-2	Driver	16	AEH, AENL
GG121-2	Driver	26	AEH, AENL
GG122-1	Driven	34	AEH, AENL
GG122-3	Driven	54	S10D, S12D
GG123	Sprocket	10	AEH
GG128	Sprocket	15	AA, AB, AK
GG129	Sprocket	13	ACN, BKN
GG130	Sprocket	38	ACN, BKN
GG131 (Obsolete)	Sprocket	28	VE, VF
GG132	Sprocket	40	ADH, AEH
GG133	Sprocket	13	AEH
GG134	Driven	78	ADH, AEH
GG134-1	Driven	76	ADH, AEH
GG135	Driven	73	ADH, AEH
GG136	Driven	68	ADH, AEH
GG136-2 (Obsolete)	Driven	79	ADH, AEH
GG136-5	Driven	103	AEH, ADH
GG137	Driven	36	AEH, ADH
GG138	Sprocket	17	AEH, ADH
GG139	Drive	30	AEH
GG140	Drive	23	AEH, ADH, VH4D
GG141	Drive	18	AEH
GG142	Drive	15	AEH
GG66-2 (Obsolete)	Pinion	30	AFH, AGH, AHH
GG66-3	Pinion	30	AFH, AGH, AHH, VH4D TE, TF, TH, THD, TJD

Reduction Gears – Number of Teeth (Cont.)

PART NO.	DESCRIPTION	TEETH	USED ON
GG67-1	Driven	62	AFH, AGH, AHH, VH4D AGND, THD, TJD, TH
GG68-1S1	Pinion	19	AFH, AGH, AHH
GG69-1	Driven	73	AFH, AGH, AHH, VH4D AGND, THD, TJD, TH
GG70 (Obsolete)		20	AFH, AGH, AHH
GG71	Sprocket	40	AFH, AGH, AHH, VH4D AGND, TH, THD, TJD
GG72		14	AFH, AGH, AHH
GG73	Sprocket	53	AFH, AGH, AHH, VH4D TE, TF, TH, THD, TJD
GG74 (Obsolete)		15	AFH, AGH, AHH
GG76-1	Pinion	23	AFH, AGH, AHH
GG77-1		69	AFH, AGH, AHH AGND, TH, THD, TJD
GG79-1		23	AFH, AGH, AHH, VH4D TE, TF, TH, THD, TJD
GG80-1	Pinion	19	AFH, AGH, AHH, VH4D TE, TF, TH, THD, TJD
GG81	Sprocket	20	TE, TF, TH, THD, TJD, VH4D
GG82	Sprocket	15	TE, TF, TH, THD, TJD, VH4D
GG83	Sprocket	14	TE, TF, TH, THD, TJD, VH4D
GG87-1			S7D, S8D
GG90A1		72	S7D, S8D
GG90A2		71	S7D, S8D
GG90-7		72	ACN, BKN
GG90-8		71	ACN, BKN
GG99-1 (Obsolete)		49	AA, AB, AK

Chain Pitches

GJ10	Roller Chain	30	AFH, AGH, AHH, TH, THD, TJD
GJ13	Roller Chain	42	
GJ15	Roller Chain	40	
GJ18	Roller Chain	45	

Reduction Gears – Number of Teeth (Cont.)

PART NO.	DESCRIPTION	TEETH	USED ON
GJ19	Roller Chain	23	ADH, AEH
GJ20	Roller Chain	23-1/2	ADH, AEH
GJ8	Roller Chain	27	AFH, AGH, AHH
GJ9	Roller Chain	26	AFH, AGH, AHH

Repair Kits

CARBURETOR REPAIR KITS

KIT NO.	USED ON
LQ33	L63A, L63C, L63E, L63G, L63H, L63J, L63K, L63L, L63M, L63N, L63R, L63U, L63AE, L63AN, L63AF, L63AP, L63AQ, L63BC, LZ63C, LZ63C2
LQ34	L51G
LQ35	L51A, L51B, L51C, L51E, L51F, L51H, L51J, L51K
LQ36	L48J, L48L, L48M, L48Q, L48U, L48AB, L48AC, L48AD, L48AE, L48AL, L48AZ
LQ37	L57, L77, L77B, L77C, L77G, L77H, L57M
LQ38	L48, L48-1, L48-2, L48-3, L48B, L48C, L48E, L48F, L48G, L48H, L48K, L48P, L48V, L48Y, L48Z, L48AA, L48BF, L48BM
LQ39	L63, L63D, L63F, L63V, LZ63-2, L63-2AH, L63-2AY, L63-2AZ
LQ40	L80, L80C, L80G, L80J, L80K, L80L, L80R, L80N, L80U
LQ42	L80A, L80M, L80W, L80F, L80H, L80P
LQ44	L86A, L86C, L95B
LQ45	L86B, L86E, L86F, L95C, L95E
LQ52	L97, L97A, L104
LQ54A	L106, LTA100
LQ55	L108, L111
LQ56	L115, L116
LQ57	L118
LQ58	L119
LQ59	L122, L122C, D, E
LQ60	L123, LTA101

FUEL PUMP REPAIR KITS

LQ28	LP42 Series
LQ30	LP38
LQ46	LP38E

Repair Kits (Cont.)

FUEL PUMP REPAIR KITS (Cont.)

KIT NO.	USED ON
LQ46A	LP38F
LQ47	LP38H
LQ51	LP62 Series

FUEL STRAINER

LQ31	ABN, ACN, AKN, BKN, AENL, AEN, AEH, AGND, W4-1770, W2-880
LQ32	VE4D, VF4D, VH4D, VG4D, V460D, V461D, V465D, W4-1770

ENGINE GASKET SETS

Q1	ABN
Q2	AKN
Q2B	BKN
Q5A	AEH
Q8	AHH
Q12J	VE4D, VF4D, VH4D, W4-1770
Q18C	VG4D
Q21B	TF, TH, THD
Q22	AEN, AENL
Q24	ACN
Q31	AGND
Q32C	V460D, V461D, V465D
Q35B	S7D
Q36C	S8D
Q37A	TR10D, TRA10D
Q38	S10D, S12D
Q38A	S14D
Q39	HS7D
Q40	HS8D
Q41	TJD
Q42	TRA12D
Q43	TRA12D (Bearing Plate)

Repair Kits (Cont.)

ENGINE GASKET SETS (Cont.)

KIT NO.	USED ON
Q48	W2-1230, W2-1235
Q52	W2-880
Q54	W2-1250

VALVE GRINDING GASKET SETS

Q27	VG4D
Q28	VH4D, W4-1770
Q29	VE4D, VF4D
Q30	TE, TF, THD, TJD, W2-880
Q34A	V460D, V461D, V465D
Q49	W2-1230, W2-1235
Q53	W2-1250

MAGNETO MAJOR REPAIR KITS

WICO YQ2	ABN, ACN, AKN, BKN, AENL, AEN, AEH, AGND, TE, TF, THD, VE4D, VF4D, VG4D, VH4D
F.M. YQ3	TE, TF, THD, VE4D, VF4D
F.M. YQ4	AEH, AGND
F.M. YQ9	ACN, BKN, AENL, AEN, VH4D, VG4D, W4-1770
F.M. YQ17	TJD
F.M. YQ20	AENL, BKN, ACN

POINTS AND CONDENSER KITS

WICO YQ5	ABN, ACN, AKN, BKN, AENL, AEN, AEH, AGND, TE, TF, THD, VE4D, VF4D, VG4D, VH4D
F.M. YQ6	TE, TF, THD, VE4D, VF4D
F.M. YQ7	AEH, AGND
F.M. YQ8	ACN, BKN, AENL, AEN, VH4D, VG4D, W4-1770

Repair Kits (Cont.)

POINTS AND CONDENSER KITS (Cont.)

KIT NO.	USED ON
WICO YQ11	S7D, HS7D
WICO YQ12	S8D, HS8D, TR10D, TRA10D
F.M. YQ16	S10D, S12D
F.M. YQ18	TJD
F.M. YQ19	AENL, BKN, ACN

DISTRIBUTOR KITS

PREST. YQ21	VH4D, VG4D, W4-1770
PREST. YQ22	VE4D, VF4D
PREST. YQ23	TE, TF, THD, TJD
PREST. YQ24	All single cylinders
PREST. YQ25	W2-1230
COLT YQ26	VH4D, VG4D, V465D, TJD, W2-880, THD
COLT YQ27	VH4D, VG4D, V465D
COLT YQ28	TJD, W2-880
COLT YQ29	THD
YQ30	W2-1230, W2-1235