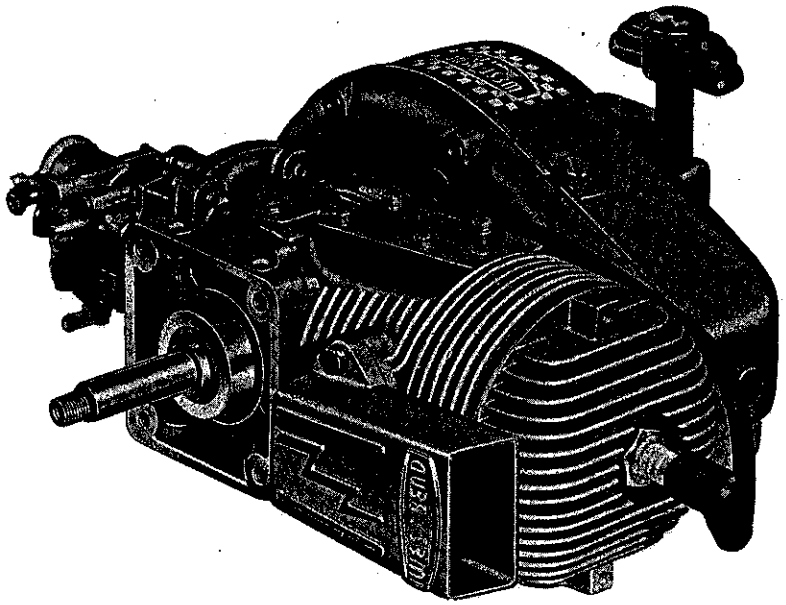
OPERATING INSTRUCTIONS AND PARTS LIST FOR

West Bend

Power Bee

ENGINE

7.00 Cu. In. Displacement	MODELS 70012 70013	7.5 H.P. @ 7000 R.P.M.



Always mention both the Model Number and Serial Number of your engine when ordering parts.
These numbers are found on the identification plate attached to the engine.

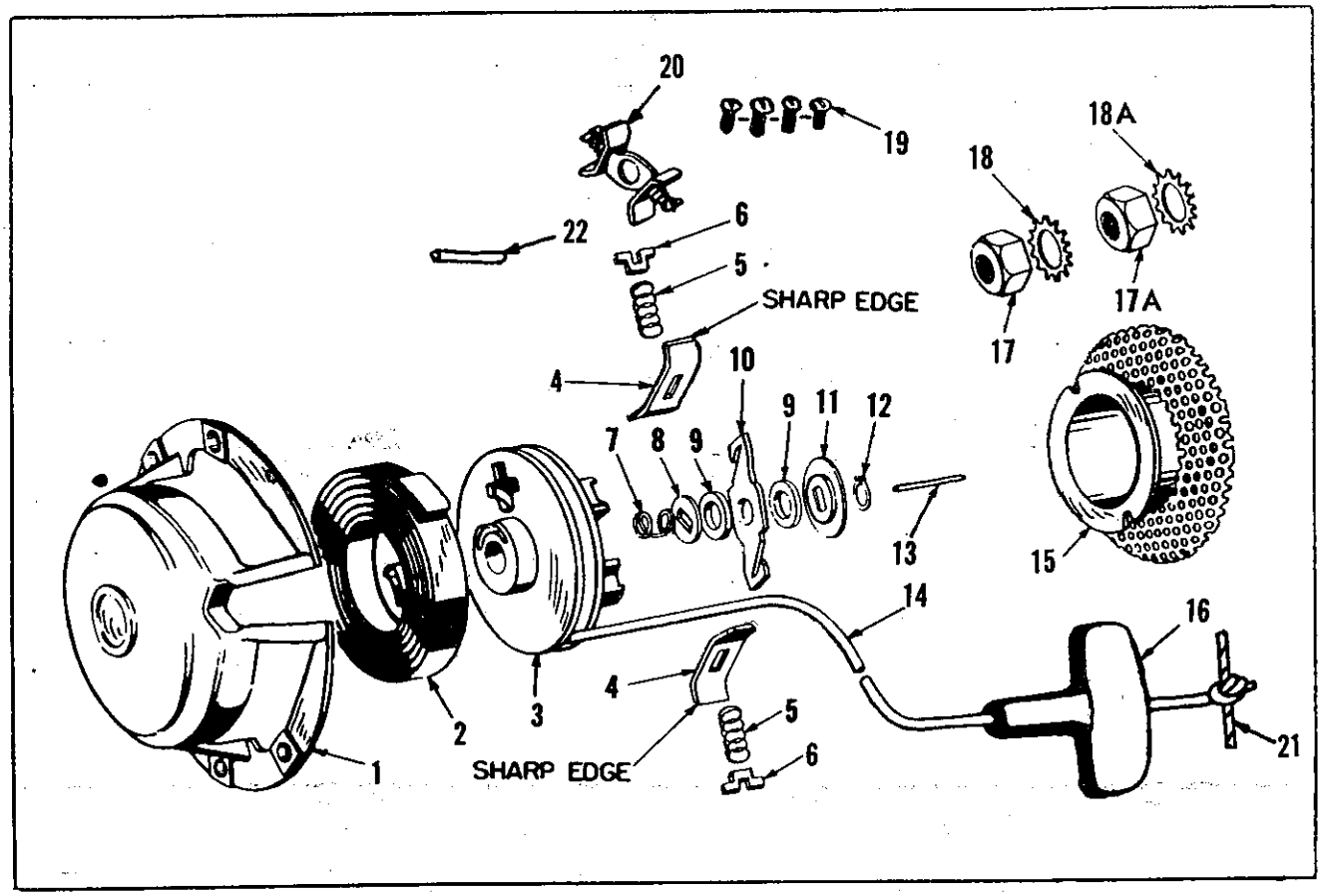
THE WEST BEND COMPANY

ENGINE DIVISION: HARTFORD, WISCONSIN

Eng. 145 5/61

PRINTED IN U.S.A.

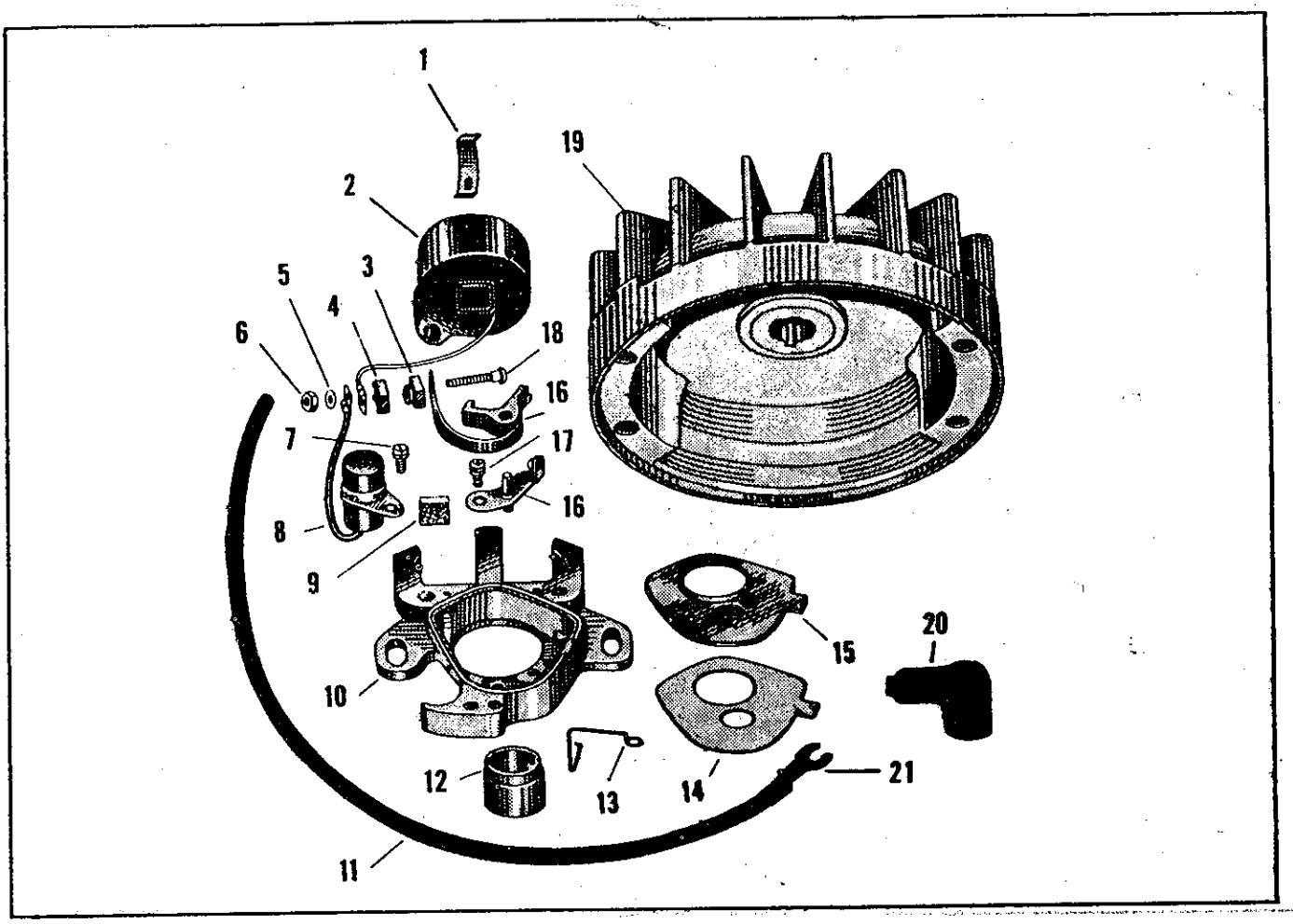
Starter



ILLUS. NO.	PART NO.	QTY.	DESCRIPTION
1	151-146	1	Cover assembly
2	20-35	1	Rewind spring
3	13-15	1	Rotor
4	11-71	2	Friction shoe plate
5	29-2	2	Friction shoe spring
6	11-19	2	Spring retainer plate
7	20-3	1	Brake spring
8	27-3	1	Brake washer
9	27-2	2	Fiber washer
10	16-4	1	Brake lever
11	27-8	1	Brake retainer washer
12	29-3	1	Retainer ring
13	25-9	1	Centering pin
14	140-6	1	Cord
15	114-100	1	Cup and screen assembly
16	A144-14	1	T-handle
17	See chart	1	Flywheel nut (left hand thread)
17A	See chart	1	Flywheel nut (right hand thread)
18	See chart	1	External tooth lockwasher (left hand)
18A	See chart	1	External tooth lockwasher (right hand)
19	10-24 x 3/8	4	Pan head machine screw w/internal-external tooth lockwasher
20	111-71	1	Friction shoe assembly, includes: Items 4,5, 6 and 10
21	25-55	1	Spiral pin
22	25-7	1	Roll pin
	See chart	1	Complete starter assembly (right hand) not shown
	See chart	1	Complete starter assembly (left hand) not shown

MODEL NO.	COMPLETE STARTER	FLYWHEEL NUT	EXTERNAL TOOTH LOCKWASHER
70012	31063 (375-114LK)	7/16-20 L.H. Thick hex nut	7/16 (Left hand) (8051)
70013	30063 (375-114K)	7/16-20 R.H. Thick hex nut	7/16 (Right hand) (8066)

MAGNETO

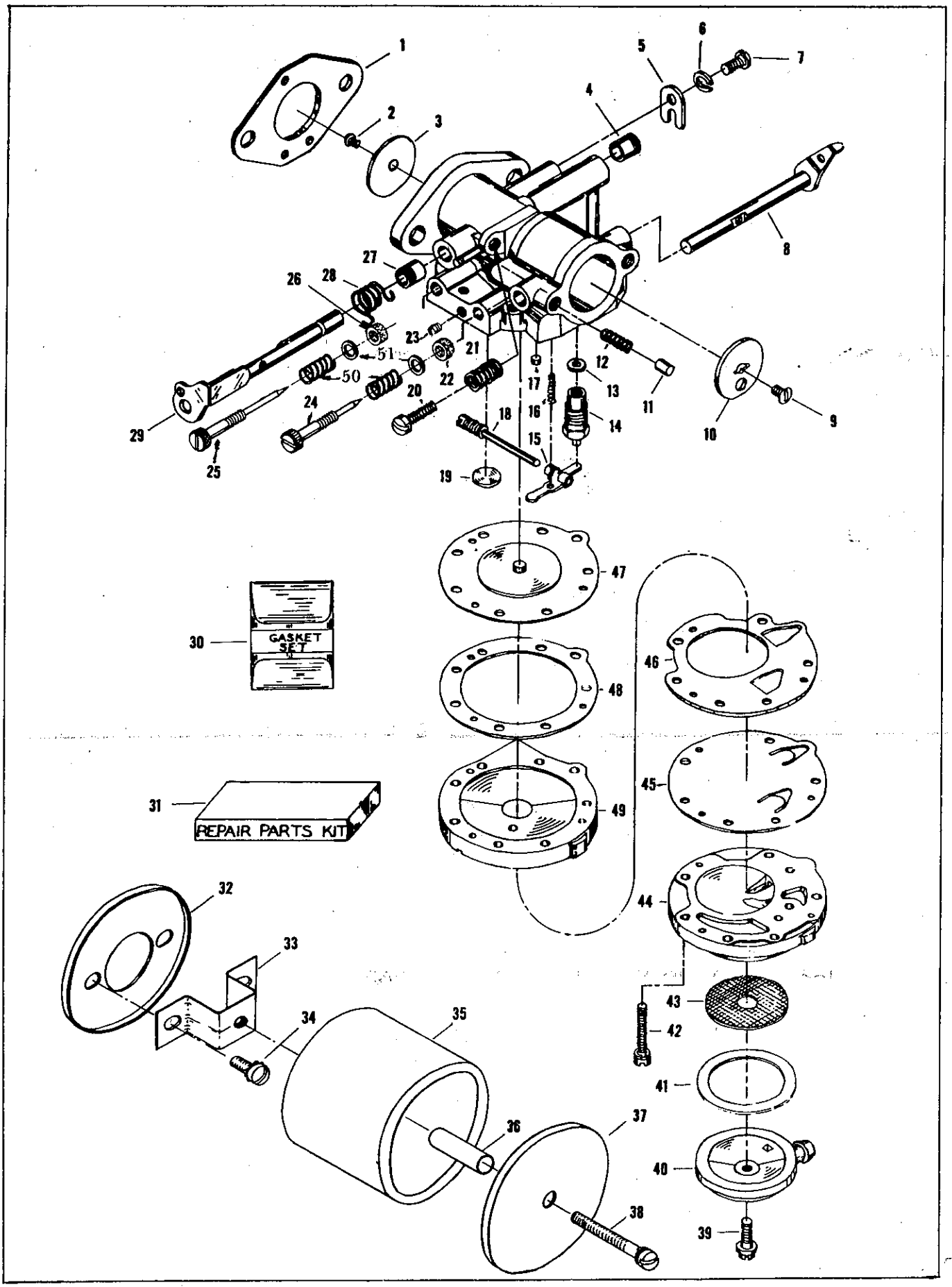


ILLUS. NO.	PART NO.	QTY.	DESCRIPTION
1	11028	1	Coil wedge spring
2	X11260	1	Coil
3	11027	1	Connection stud insulator
4	11025	1	Connection stud insulator
5	#6	1	Spring lockwasher
6	11015	1	Nut
7	5431F	1	Condenser clamp screw
8	X12508	1	Condenser
9	6318	1	Cam wiper felt
10	X11060	1	Stator plate (plate and core only)
11	2732841	1	High tension lead (with terminal
12	See Chart	1	Breaker cam
13	11024	1	Breaker box cover spring
14	30031	1	Breaker box cover gasket (Wico 11019)
15	30029	1	Breaker box cover (Wico 11018)
16	X11030	1	Breaker point replacement set
17	5900	1	Fixed contact clamp screw
18	9996	1	Connection stud
19	See Chart	1	Rotor
20	K-750	1	Sparkie kit
21	30673	1	Lead wire terminal
	X11061	1	Terminal connection unit (not shown) (includes items 3, 4, 5, 6, 18)
	30498	1	Shaft key (not shown) (Wico 11092)
	30907	1	Ground lead (not shown)
	X11189	1	Stator plate unit complete (not shown)
	See Chart	1	Magneto complete (not shown)
	11785	1	Ground lead terminal (not shown)

MODEL NO.	REPLACEMENT MAGNETO NO.	ROTOR	BREAKER CAM
70013	27062 (FW2605)	Y12717	30002 (Wico 11021)
70012	31062 (FW2639)	Y12341	31002 (Wico 11084)

CARBURETOR

ILLUS. NO.	PART NO.	QTY.		DESCRIPTION
1	2775906-2	1		Carburetor gasket
2	010280	1	*	Throttle shutter screw
3	012089	1		Throttle shutter
5	09678	1		Throttle shaft clip
6	0992	1		Throttle shaft clip lockwasher
7	01974	1		Throttle shaft clip retaining screw
8	012093	1		Choke shaft and lever
9	010280	1		Choke shutter screw
10	09626	1		Choke shutter
11	05454	1		Choke friction pin
12	08805	1		Choke friction pin spring
13	010165	1		Inlet seat gasket
14	010580	1	*	Inlet needle, seat and gasket
15	010513	1	*	Inlet control lever
16	010578	1	*	Inlet tension spring
17	010588	1	*	Body channel cup plug
18	010581	1	*	Inlet control lever pinion screw
19	02531	1		Body channel welch plug
20	05095	1	*	Idle speed regulating screw
21	0788	1	*	Idle speed regulating screw spring
22	011401	1		Main adjustment screw seal ring
23	02232	1		Diaphragm chamber drain screw
24	011718	1	*	Main adjustment screw
25	011498	1	*	Idle adjustment screw
26	011401	1		Idle adjustment screw seal ring
28	010775	1	*	Throttle shaft return spring
29	012091	1		Throttle shaft and lever
30	GS-145	1	*	Gasket and packing set
31	RK-445	1		Repair parts kit (Includes: items marked with *)
32	2770650-1	1		Air cleaner adapter
33	2770652-1	1		Air cleaner bracket
34	10-32 x 3/8	2		Fillister head machine screw w/external tooth lockwasher
35	2770653	1		Air cleaner element (Skinner type)
35	2703653	1		Air cleaner element (Aluminum foil type)
36	2770617	1		Air cleaner spacer (used w/Skinner type only)
37	2703651	1		Air cleaner cover
38	10-24 x 1-7/8	1		Fillister head machine screw w/spring lockwasher used w/Skinner type only
38	10-24 x 3/4	1		Pan head screw w/spring lockwasher (used w/aluminum foil type only)
39	010571	1	*	Fuel strainer cover retaining screw
40	010527	1		Fuel strainer cover
41	010529	1		Fuel strainer cover gasket
42	010098	6		Fuel pump body screw
43	010530	1	*	Fuel strainer screen
44	010525	1		Fuel pump body
45	010531	1	*	Fuel pump diaphragm
46	010880	1		Fuel pump gasket
47	010579	1	*	Diaphragm
48	010542	1		Diaphragm cover gasket
49	010526	1		Diaphragm cover
50	08793	2		Adjustment needle spring
51	011428	2		Adjustment needle washer
	2770589	1		Throttle shaft arm (not shown)
	10-24 x 5/8	1		Fillister head machine screw w/spring lockwasher (not shown)
	10-24	1		Square nut (not shown)
	8018	1		Plain washer (not shown)
	2760061	1		Carburetor complete (not shown) (HL88A)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GASKET SET
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REPAIR PARTS KIT
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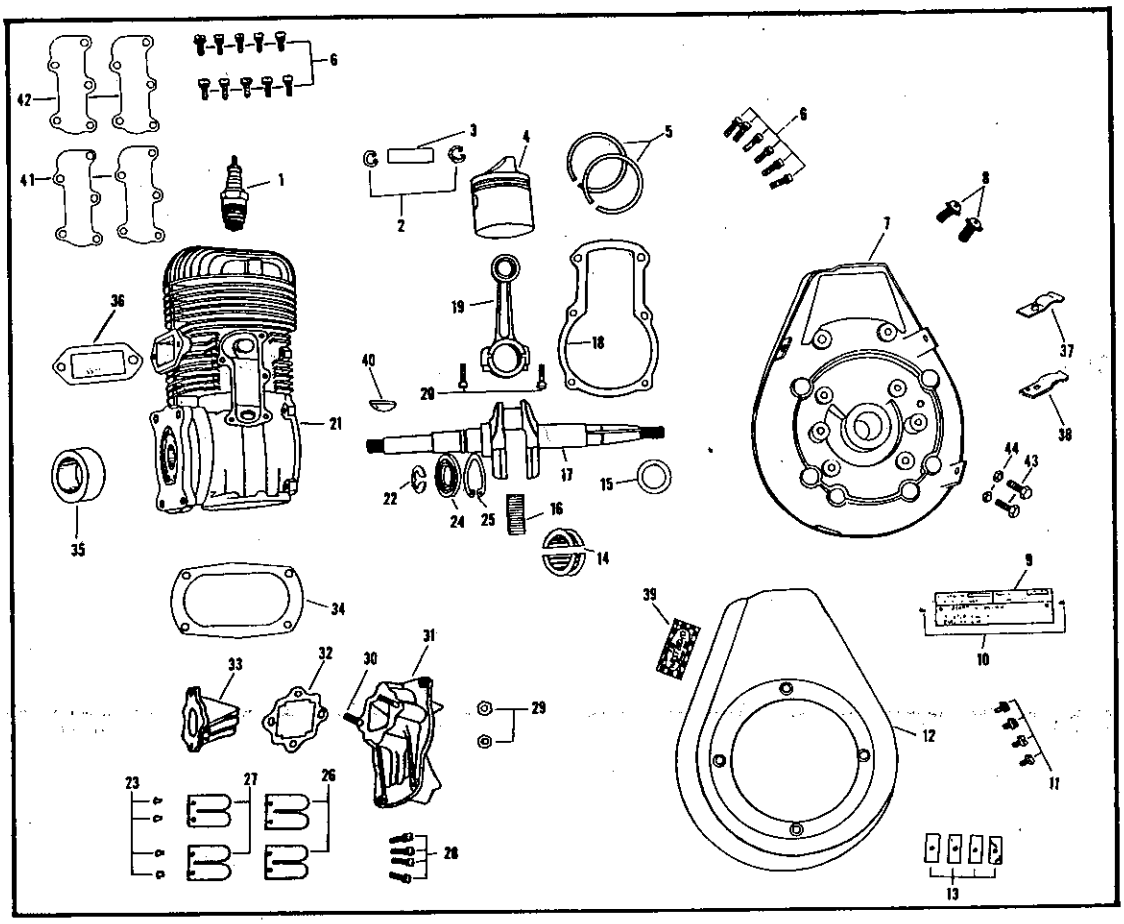
POWER HEAD



ILLUS. NO.	PART NO.	QTY.	DESCRIPTION
1	J4J or H4J	1	Spark plug
2	31410	2	Piston pin lock ring
3	31017	1	Piston pin
4	231015	1	Piston
5	IA31260	1	Piston ring set
6	10-24 x 5/8	16	Pan head machine screw w/spring lockwasher
7	See chart	1	Support plate
8	1/4-20 x 5/8	2	Round head machine screw w/external tooth lockwasher
9	A27395-1	1	Identification plate w/screws
10	4 x 1/4	2	Sheet metal screw
11	1/4-20 x 1/2	4	Nylok hex head machine screw w/Type "A" external tooth lockwasher
12	See chart	1	Fan housing
13	2775595	4	Fan housing washer
14	31241	1	Crankpin roller cage
15	30146	1	Crankshaft seal upper
16	A31228	1	Crankpin roller set
17	See chart	1	Crankshaft
18	27277	1	Bearing cage gasket upper
19	AA36016-3	1	Connecting rod assembly
20	36634	2	Connecting rod screw
21	A231010	1	Cylinder
22	2770410	1	Crankshaft retaining ring
23	6-32 x 1/4	4	Round head machine screw w/spring lockwasher
24	127910-1	1	Ball bearing
25	30410	1	Crankshaft bearing retaining ring
26	31160	2	Reed
27	31161	2	Reed stop
28	1/4-20 x 3/4	4	Hex slotted head machine screw w/spring lockwasher
29	1/4-20	2	Hex nut
30	27209	2	Carburetor stud
31	A31157	1	Carburetor manifold w/studs
32	31168	1	Carburetor manifold gasket
33	A31158	1	Reed plate assembly
34	2770159-1	1	Reed plate gasket
35	129146	1	Crankshaft seal collar assembly
36	27279	1	Cylinder exhaust gasket
37	9010	1	Lead wire clip
38	9025	1	Lead wire clip (nylon)
39	30396	1	Decal (name plate)
40	9035	1	Woodruff key (#5)
41	230222	2	Transfer port cover
42	230223	2	Transfer port cover gasket
43	1/4-20 x 1-1/4	2	Hex head cap screw
44	1/4-20	2	Hex nut
	KG 2725-1	1	Gasket set(not shown)

MODEL NO.	SUPPORT PLATE	FAN HOUSING	CRANKSHAFT
70012	A31038-3	A131596	A2762018
70013	A30038-1	A130596	A2761018

OPERATING INSTRUCTIONS

FUEL MIXTURE

In a separate, clean container thoroughly mix 1/2 pint SAE No. 30 or No. 40 oil with each gallon of gasoline.

Use regular grade of gasoline. High test, ethyl gasoline is not recommended.

Use any good quality Outboard, 2-cycle, or equivalent motor oil.

Strain the fuel mixture through a fine meshed screen when filling gasoline tank on engine to remove dirt and water if present.

PREPARATION FOR STARTING

1. Fill gasoline tank with fuel mixture prepared per above instructions. Wipe up all spilled gasoline.

2. Open gasoline shut off valve.

3. Move choke lever to closed position.

Note: If engine is warm, it may not require choking.

4. Turn ignition switch "ON".

5. Open the throttle and crank engine.

6. When engine starts, move choke lever to open position.

Note: The normal main adjustment needle settings are approximately one turn open. Occasional readjustment may be required but it is not necessary to readjust for starting except for cold weather starting when it may be necessary to open the high speed adjusting needle an additional 1/2 turn.

TO STOP ENGINE

Moving ignition toggle switch to "OFF" position will stop engine by shorting magneto to ground.

Engines not equipped with toggle switch will have a shorting contact which when depressed will short the spark plug to ground.

CARBURETOR ADJUSTMENT

1. Turn both adjustment needles (diaphragm carburetor) clockwise until completely closed.

CAUTION: Do not force needle tightly closed as the seat may be damaged.

2. Turn both needles counter-clockwise one turn. This is the average setting for proper engine operation.

3. Start engine and allow it to warm up, then, if carburetor setting is too "Lean", engine will not run at full speed and will "Pop", and may stop. Turn main adjustment needle counter-clockwise an eighth of a turn at a time until the engine runs smoothly.

If engine runs at full speed without load, but will not maintain full speed under load, richen the main adjustment needle 1/8 turn.

If carburetor setting is too "Rich", engine will not develop full power but will roll and run unevenly under load. Turn main adjustment needle clockwise an eighth of a turn at a time until the engine runs smoothly.

4. To verify proper idle needle setting, start engine and allow to warm up. If motor surges and runs at uneven speed, turn the idle adjustment needle slowly clockwise up to 1/4 turn. If this aggravates rather than corrects the situation, return to the original setting, then turn the idle adjustment needle slowly counter-clockwise up to 1/4 turn. This should cause the engine to "settle down" and run at a constant speed. If engine fails to accelerate, open idle screw 1/8 turn.

5. If engine runs too fast at idling speed, loosen the idle stop screw a little at a time until desired speed is obtained. To increase idling speed tighten the idle stop screw.

MAGNETO

1. Breaker point gap should be set at .020. Set points with cam follower at highest point of breaker cam.

2. Directional arrow on cam must be UP.

3. For magneto inspection or service, contact your nearest authorized dealer.

4. If magneto stator plate is loosened or removed from the engine for any reason, be sure it is re-installed as follows:

(a) Place stator plate in position.

(b) Install hold down screws, but do not tighten.

(c) Turn stator plate to the mid-range position.

(d) Tighten screws.

(e) Reset breaker points to .020" gap.

This places the stator plate in the position for correct ignition timing.

AIR CLEANER

Under ordinary operating conditions, the air cleaner should be cleaned daily. However, under extremely dirty conditions, more frequent cleaning or brushing off of loose dirt is recommended. To clean the air cleaner.

1. Remove the air cleaner from the carburetor.

2. Wash thoroughly using kerosene, gasoline or other good solvent.

3. Blow or wipe dirt from filter element.

4. Re-install air cleaner.

IMPORTANT: Dirt that enters the engine through the carburetor is one of the greatest causes of engine wear. Therefore, it is very important that the air cleaner be serviced regularly as outlined above.

SPARK PLUG

Check and clean spark plugs regularly. A fouled, dirty, or carboned spark plug causes hard starting and poor engine performance.

Set spark plug gap at .030".

STARTER SCREEN

The screen keeps dirt, etc., from entering the fan housing, and clogging the air cooling passages.

Because this engine is air-cooled, it is necessary to keep this screen clean at all times to permit the unrestricted passage of air into the fan housing.

STORING MOTOR

The following steps should be taken to prepare your engine for storage:

1. Close gasoline shut off valve.

2. Start engine and allow to run until it stops from lack of fuel. This will use up all the fuel in the carburetor and prevent the formation of deposits due to evaporation of fuel.

3. Disconnect fuel line and permit all fuel to drain from the gasoline tank. Replace fuel line.

4. Remove spark plug and pour 1/4 cup of motor oil into cylinder. Replace spark plug.

5. Crank engine two or three times to distribute oil throughout cylinder. This will coat the cylinder walls with oil and prevent rust from forming during the storage period.

CHECK LIST

TROUBLE	CAUSE	WHAT TO DO
1. Engine fails to start.	No fuel in tank or shut-off valve closed.	Fill tank and open shut-off valve.
	Fuel line or fuel tank screen clogged.	Clean fuel line and screen.
	Flooded.	Close carburetor main adjustment needle and crank until engine starts. Then turn needle to 1 turn open.
	Spark plug shorted, fouled or broken.	Install new spark plug.
	Magneto lead wire shorted, broken or disconnected from spark plug.	Replace lead wire or attach to spark plug.
	Magneto inoperative (No spark from lead wire.)	Contact factory or nearest authorized dealer.
	Breaker points out of adjustment.	Reset breaker points to .020" gap.
2. Engine hard to start.	Water in gasoline or stale fuel mixture	Drain and refill fuel system.
	Too much oil in fuel mixture.	Drain and refill with correct mixture.
	Engine over or under choked.	If flooded by over-choking, proceed according to instructions in previous section. If under-choked, move choke lever to closed position and crank two or three times.
	Carburetor out of adjustment.	See "Adjustments" on page 7.
	Gasket leaks (carburetor or reed plate gaskets.	Replace gaskets.
	Weak spark at lead wire.	Contact the factory or your nearest authorized dealer.
	Breaker points out of adjustment	Reset breaker points to .020" gap.
3. Engine misses.	Dirt in fuel line or carburetor.	Remove and clean.
	Carburetor improperly adjusted.	See "Adjustment" on page 7.
	Spark plug fouled, broken or incorrect gap setting.	Clean or replace spark plug - set gap to .030".
	Weak or intermittent spark at lead wire.	Contact factory or nearest authorized dealer.
	Breaker points out of adjustment.	Reset breaker points to .020" gap.
4. Engine lacks power.	Air cleaner clogged.	Clean air cleaner.
	Carburetor out of adjustment.	See "Adjustments" on page 7.
	Muffler clogged.	Clean carbon from muffler.
	Clogged exhaust ports.	Remove muffler, rotate engine until piston is at bottom of cylinder. With a wooden scraper or blunt tool, remove all carbon from exhaust ports. Be careful not to scratch or damage piston or cylinder walls. Blow out loose carbon with compressed air. Start engine and run briefly to remove all carbon, then install muffler and gasket.
	Poor compression	Contact factory or nearest authorized dealer
	Breaker points out of adjustment.	Reset breaker points to .020" gap.
5. Engine overheats	Insufficient oil in fuel mixture.	Mix fuel as shown in starting instructions.
	Air flow obstructed.	Clean flywheel, cylinder fins and screen.
6. Engine noisy or knocking	Loose flywheel.	Tighten flywheel nut.
	Spark plugs incorrect heat range.	Replace with plugs specified for engine.
	Worn bearings, piston rings or cylinder walls	Contact factory or nearest authorized dealer
	Bent fan housing.	Remove fan housing and straighten bent portion.
7. Engine "Stalls" under load.	Carburetor main adjustment too "lean"	Readjust carb. as shown on page 7.
	Engine overheats.	See section No. 5 above.

WARRANTY

We guarantee every West Bend engine to be free from defects in material and workmanship under normal use and service for a period of ninety (90) days from date of sale to the original purchaser.

Our obligation under this warranty provides for repair or replacement by any authorized West Bend Central Service Distributor, Service Distributor, or Service Dealer, of any part or parts as shall appear upon inspection by the manufacturer, to have been defective in material or workmanship. This warranty shall not apply to any engine which has been repaired or altered outside of our factory or authorized service outlets.

This warranty shall apply if the engine is given reasonable care under normal use and service. It shall not apply to any engine which has been subjected to accident or modification, resulting in increased revolutions.

This warranty is in lieu of all other warranties, either expressed or implied, and we do not authorize any person or representative to make any other warranty or to assume for us any liability in connection with the sale of our engines other than those contained herein.