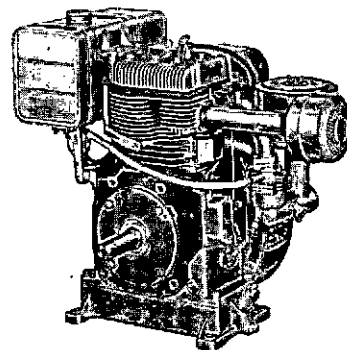


Briggs & Stratton OPERATING AND MAINTENANCE INSTRUCTIONS MODELS



302431 to 302437 326431 to 326437

IN THE INTEREST OF SAFETY, DO NOT RUN ENGINE AT EXCESSIVE SPEEDS

Operating an engine at excessive speeds increases the hazard of personal injury. **DO NOT TAMPER WITH PARTS WHICH MAY INCREASE THE GOVERNED SPEED.**

For rotary lawnmower safety, USA Standard Safety Specifications for Power Lawn Mowers specify a maximum blade tip speed of 19,000 feet per minute, primarily to reduce the hazard from thrown objects.

Rotary lawnmower manufacturers select the governed top speed of the engine based on the length and design of the cutter blade and design of other mower parts.

All rotary lawnmowers should be checked for conformance to the USA Standard Safety Specifications for Power Lawn Mowers on blade tip speed, if the engine is repaired or replaced, or if mower parts are changed.

Dirt and grass clippings, or other debris, in cooling fins or governor parts can affect engine speed. See cleaning instructions in Section 3.

CAUTION

TO PREVENT ACCIDENTAL STARTING always remove the spark plug before working on the engine or equipment driven by the engine or remove cable from spark plug and insert terminal in V-notch in cylinder head cover.

DO NOT RUN THE ENGINE IN AN ENCLOSED AREA. Exhaust gases contain carbon monoxide, an odorless and deadly poison. DO NOT FILL GASOLINE TANK WHILE ENGINE IS RUNNING. Spilling gasoline on a hot engine may cause a fire or explosion.

Section 1 BEFORE STARTING

READ THE OPERATING INSTRUCTIONS OF THE EQUIPMENT THIS ENGINE POWERS

- 1 **FILL CRANKCASE WITH OIL** — Use a high quality detergent oil classified "For Service SC or SD or MS". Nothing should be added to the recommended oil.

SUMMER
(Above 40° F.)
Use SAE 30
If not available,
Use SAE 10W-30
or
SAE 10W-40

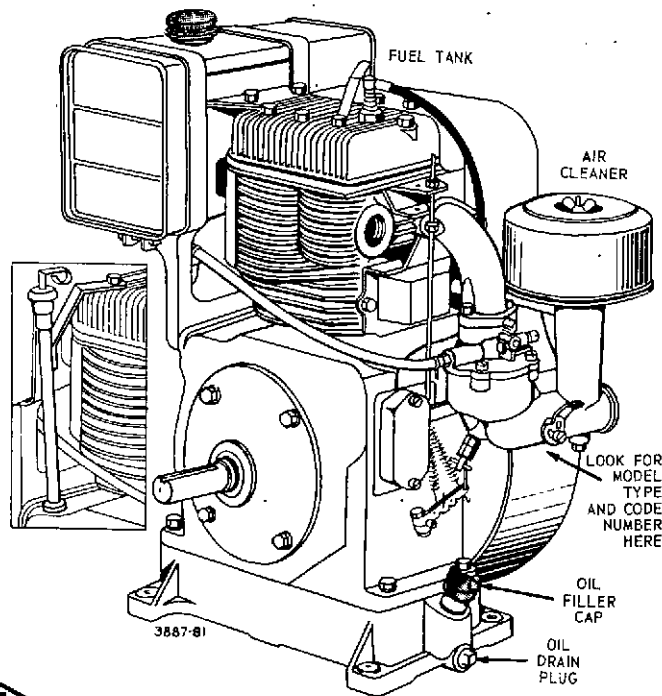
WINTER
(Under 40° F.)
Use SAE 5W-20 or SAE 5W-30
If not available,
Use SAE 10W or SAE 10W-30
Below 0° F.,
Use SAE 10W or SAE 10W-30
Diluted 10% with Kerosene

DIRECTIONS: Place the engine level. Remove oil filler plug or Oil-Minder. FILL THE OIL SUMP TO OVERFLOWING or to the FULL mark on dipstick. Pour slowly. Capacity 4 pints.

EXTENDED OIL FILL. (Optional) Remove cap and dipstick. When checking oil level push dipstick assembly firmly but slowly until cap bottoms on tube. Do not overfill. Dipstick assembly must be pushed fully into tube at all times when engine is operating.

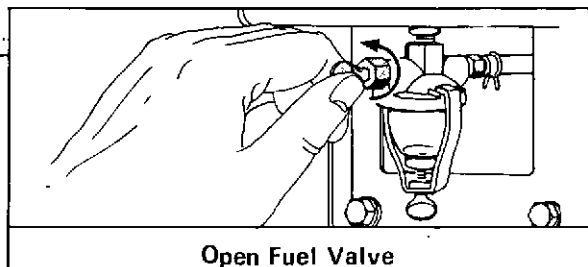
- 2 **FILL FUEL TANK** — Use clean, fresh, lead-free or leaded "regular" grade automotive gasoline. Fill tank completely!

DO NOT MIX OIL WITH GASOLINE.

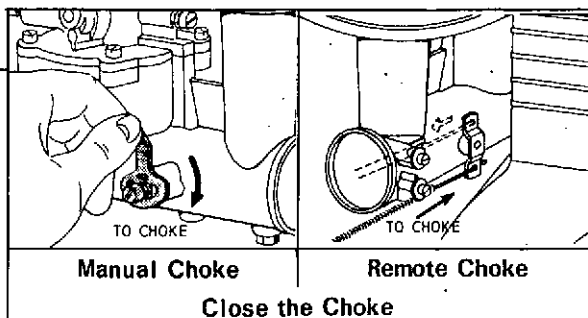


1 OPEN FUEL VALVE

CAUTION: ALWAYS KEEP HANDS AND FEET CLEAR OF MOWER BLADE OR OTHER ROTATING MACHINERY.



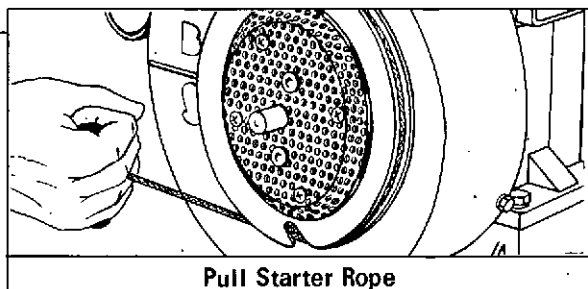
2 CLOSE THE CHOKE — Engine may be equipped with manual or remote choke.



3 START ENGINE — Engine may be equipped with rope or electric starter.

a. Rope Starter

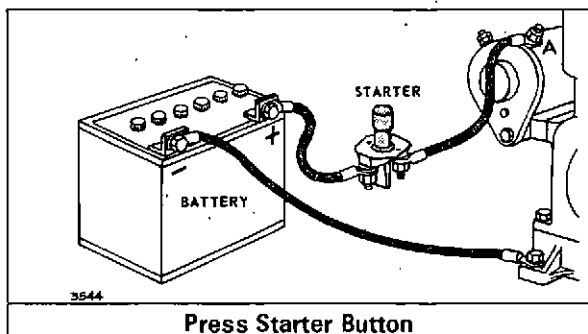
Place knot in pulley notch and wind rope around pulley in a clockwise direction. Pull rope with choke closed to prime the engine. Open choke slightly and repeat operation.



After engine warms up open choke gradually until engine runs smoothly with choke wide open (counterclockwise position).

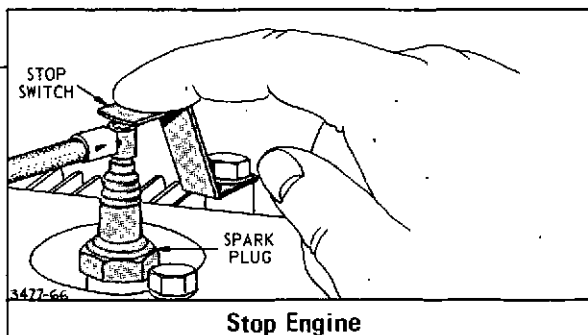
b. 12 Volt D.C. Electric Starter

Press starter button on powered equipment. When engine starts, open choke gradually.



4 TO STOP ENGINE

Push the stop switch against end of spark plug, or turn off ignition switch on equipment.



1 CHECK OIL LEVEL

Check before starting and after every 5 hours of operation. BE SURE OIL LEVEL IS MAINTAINED.

2 CHANGE OIL (Crankcase)

Change oil after first 5 hours of operation. Thereafter change oil every 25 hours of operation. Remove the oil drain plug. Drain oil while engine is warm. Remove oil filler cap or plug and refill with new oil. Replace oil filler cap or plug. Add oil regularly after each 5 hours of operation.

3 SERVICING HEAVY DUTY AIR CLEANER

Clean and re-oil foam pre-cleaner at 3 month intervals or every 25 hours, whichever occurs first.

1. Remove upper wing nut and cover.
2. Remove foam pre-cleaner element by sliding it up off of the paper cartridge.
3. A - Wash foam in liquid detergent and water.
B - Squeeze dry.
C - Oil with one ounce engine oil. Squeeze to distribute oil evenly.
4. Install foam element over paper cartridge. Reassemble cover and wing nut. Screw wing nut down tight.

Yearly or every 100 hours, whichever occurs first, remove paper cartridge. Clean by tapping gently on flat surface. If very dirty, replace cartridge, or wash in liquid detergent and water. Rinse until water remains clear. Cartridge must be air dried thoroughly before using.

NOTE: Service more often under dusty conditions.

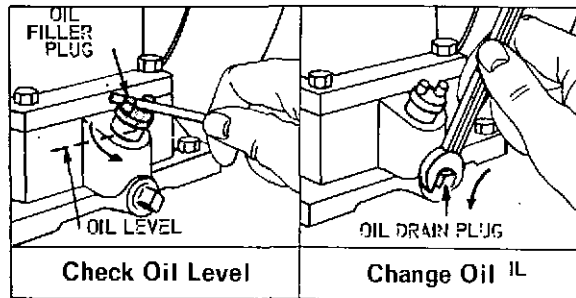
4 CLEAN COOLING SYSTEM

Grass or chaff may clog cooling system after prolonged service in cutting dry grasses or hay. Continued operation with a clogged cooling system causes severe overheating and possible engine damage. Remove blower housing and clean regularly.

5 CLEAN COMBUSTION CHAMBER

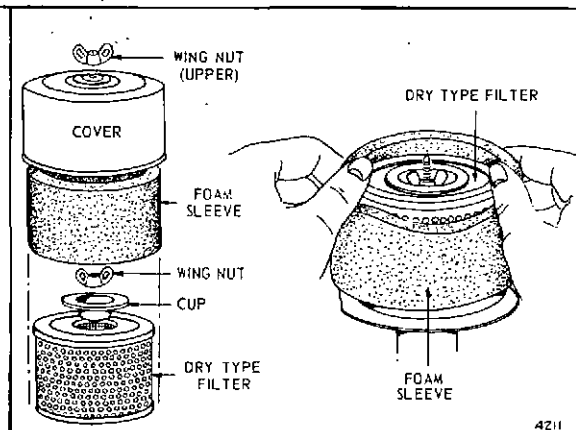
every 100-300 hours of operation. If the engine operates at constant speed and at relatively constant load, the use of regular automotive fuels results in a gradual build-up of lead deposits in the combustion chamber. This causes the engine to lose power and prevents the valves from seating properly. Removing the deposits is easy and will pay big dividends in reliability and increased valve life.

1. Remove cylinder head screws.
2. Turn crankshaft until piston is at top of cylinder bore and both valves are closed. Scrape and wire brush the lead and carbon deposits from cylinder head and combustion chamber.
3. Re-use cylinder head gasket only if in good condition. Replace cylinder head. Turn each screw in with wrench until screw head is lightly seated.
4. Use socket wrench with 6 inch handle and turn all screws 1/4 turn. Tighten screws in sequence illustrated. Run engine approximately 5 minutes and re-tighten all screws approximately 1/4 turn.

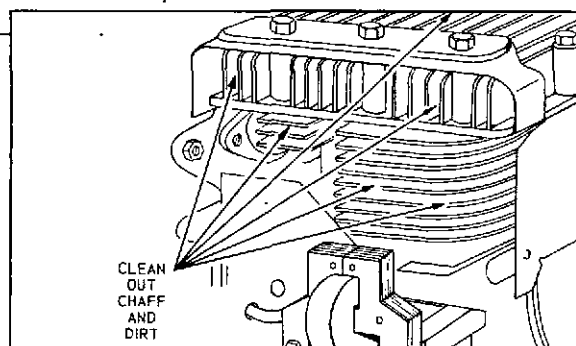


Check Oil Level

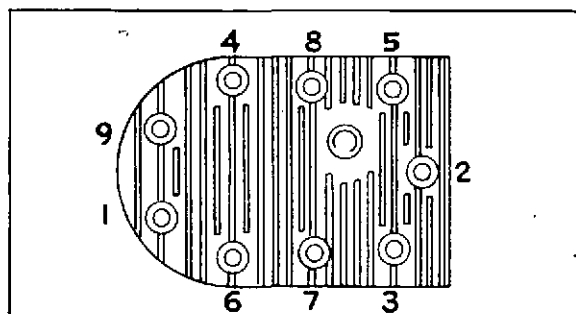
Change Oil



Clean Air Cleaner



Clean Cooling System



Tighten Head Screws

Section
6

SERVICE & REPAIR INFORMATION

If service or repair is needed, contact an Authorized Briggs & Stratton Service Center. To serve you promptly and efficiently, the Service Center will need the model, type and code number on your engine. (See Section 7).

Each Authorized Service Center carries a stock of original Briggs & Stratton repair parts and is equipped with special service tools. Trained mechanics assure expert repair service on all Briggs & Stratton engines.

Your nearest service center is listed in the 'Yellow Pages' under "Engines, Gasoline" or "Gasoline Engines". He is one of over 13,000 authorized dealers available to serve you.



FOR REPAIRS AND SERVICE CONTACT
THE DEALER DISPLAYING THIS SIGN

Section
7

WARRANTY

SAVE THIS SECTION FOR YOUR RECORD

BRIGGS & STRATTON ENGINE WARRANTY

For ONE YEAR from purchase date, Briggs & Stratton Corp. will replace for the original purchaser, FREE OF CHARGE, any part, or parts, found upon examination by any Factory Authorized Service Center, or by the Factory at Milwaukee, Wisconsin, to be DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP.

All transportation charges on parts submitted for replacement under this Warranty must be borne by purchaser.

There is no other Warranty express or implied. Briggs & Stratton Corp. shall in no event be liable for consequential damages.

BRIGGS & STRATTON CORP.

V. R. SHIELY - PRESIDENT

NOTE: The Briggs & Stratton Engine Warranty does not cover breakage of parts or damage to parts due to abuse or failure to follow the recommended maintenance procedures. The warranty also excludes any accessories, controls or equipment which are not manufactured by Briggs & Stratton Corporation.

If warranty service is needed contact your nearest Authorized Service Center. For Prompt Attention your center will need to know the engine model, type and code number, the trouble experienced and the total number of hours the engine has run. If you differ with the decision of a Service Center on a warranty claim, ask the Service Center to submit all supporting facts to the Factory for review. If the Factory decides that your claim is justified, you will be fully reimbursed for those items accepted as defective.

FILL IN THE REQUIRED INFORMATION FOR YOUR RECORD:

(See Decal on Blower Housing for Model, Type and Code Number)

Engine Model No. _____ Type No. _____ Code No. _____

Dealer Purchased From _____ Date _____

Type of Equipment _____

Name or Trademark of Equipment Manufacturer _____

BRIGGS & STRATTON ENGINES ARE MADE UNDER ONE OR MORE OF THE FOLLOWING PATENTS:

2,669,322	2,796,453	3,114,851	3,149,618	3,194,224	3,252,449				
2,693,789	2,999,491	3,110,433	3,165,094	3,296,937	3,276,439	D-191,606	D-196,017	D-197,175	D-213,476
2,693,791	2,999,562	3,144,097	3,168,936	3,242,741	3,378,099				
					3,415,237				

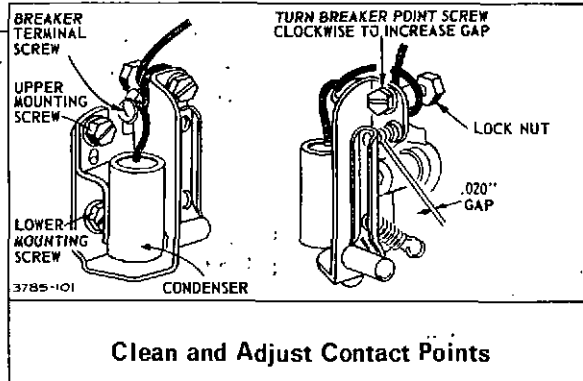
DESIGN

OTHER PATENTS PENDING

6 CLEAN AND ADJUST CONTACT POINTS

Remove cover. Clean points with a carborundum contact point stone. Then insert a hard finished card or piece of paper and close and open points. The paper will absorb any dirt or filings on the points. Adjust breaker points as follows:

- Rotate crankshaft until points open to widest gap.
- Loosen lock nut illustrated below until it is just snug.
- Rotate breaker point screw to obtain .020" gap.
- When gap is .020" tighten locknut.
- Replace breaker box cover.



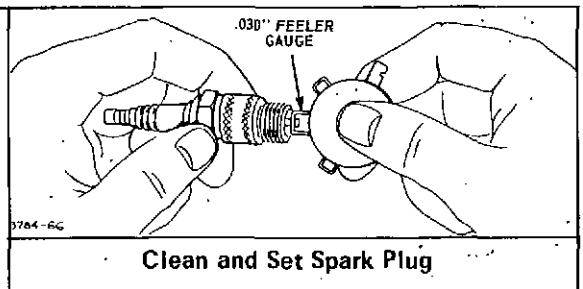
Clean and Adjust Contact Points

7 CLEAN SPARK PLUG – Clean and reset gap at .030" every 100 hours of operation.

CAUTION: Blast cleaning of spark plugs in machines that use abrasive grit is not recommended. Spark plugs should be cleaned by scraping or wire brushing and washing with a commercial solvent or gasoline.

8 DRAIN FUEL TANK AND CLEAN FUEL FILTER

Loosen thumb screw below filter bowl. Remove and clean filter bowl and screen. Open shut-off valve to see if fuel flows freely from the tank: **IMPORTANT:** If you find a gummy, varnish-like substance use alcohol or acetone to dissolve it.



Clean and Set Spark Plug

Section
4
ADJUSTMENTS

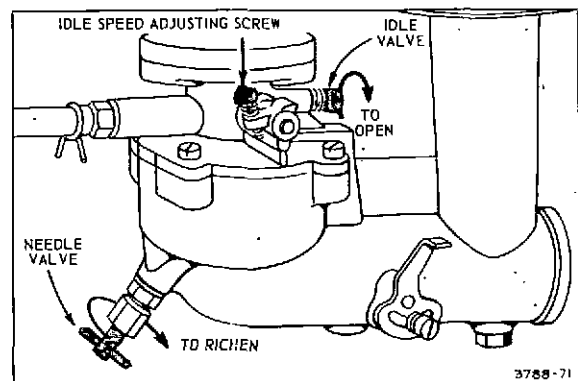
CARBURETOR ADJUSTMENTS

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude and load.

Initial Adjustment

Turn needle valve clockwise until it just closes. – **CAUTION:** Valve may be damaged by turning it in too far.

Now open needle valve 1-1/2 turns counterclockwise. Close idle valve in same manner and open it 1 turn. This initial adjustment will permit the engine to be started and warmed up prior to final adjustment.



Final Adjustment Turn needle valve in until engine misses (lean mixture), then turn it out past smooth operating point until engine runs unevenly (rich mixture). Now turn needle valve to the mid-point between rich and lean so the engine runs smoothly. Hold throttle at idle position, set idle speed adjusting screw until fast idle is obtained (1200 RPM). Hold throttle at idle position and turn idle valve in (lean) and out (rich) until engine idles smoothly. Then reset idle speed so that engine idles at 1200 RPM. Release throttle – engine should accelerate without hesitation or sputtering. If engine does not accelerate properly, re-adjust needle valve to a slightly richer mixture.

GOVERNOR SPEED ADJUSTMENTS

The governor controls the engine speed from idle through the full operating range. Idle speed should be no lower than 1000 RPM and top no load speed should be no higher than 3800 RPM. See illustration to adjust governor.

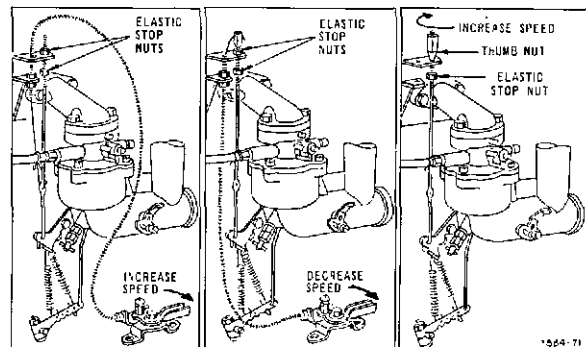
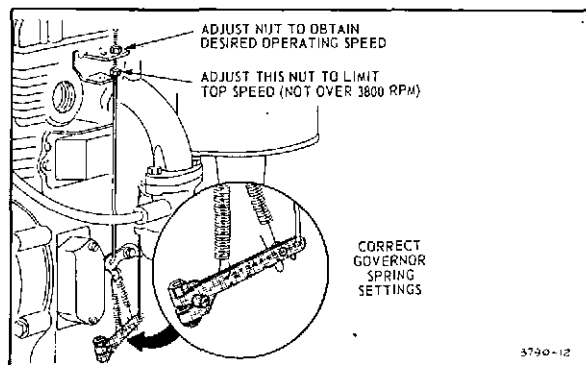
Governed Idle Speed Adjustment

The shorter spring keeps the engine on governor, even at idle speed. If moderate loads are applied at idle, the engine will not stall.

First make final carburetor mixture adjustments. Then place remote control in idle position. Hold throttle shaft in closed position and adjust idle speed screw to 1000 RPM. Release the throttle. With remote control in idle position, adjust upper elastic stop nut to 1200 RPM.

REMOTE SPEED CONTROL ADJUSTMENT

Engine speed is controlled by movement of the control lever. To adjust: Move control lever to HIGH speed position. Loosen screw on swivel. Move wire through swivel until desired operating speed is obtained. Retighten swivel screw, bend loose end of wire around swivel. Cut off excess wire.



These engines are single cylinder, L-head, air-cooled type

MODEL SERIES 302431 to 302437

Bore	3-7/16"
Stroke	3-1/4"
Displacement	30.16 cu. in.
Horsepower	13.0 H.P. max. @ 3600 RPM
Torque (Ft. Lbs.)	21.3 max. @ 2600 RPM

326431 to 326437

Bore	3-9/16"
Stroke	3-1/4"
Displacement	32.4 cu. in.
Horsepower	16.0 H.P. max. @ 3600 RPM
Torque (Ft. Lbs.)	25.80 max. @ 2700 RPM

The horsepower ratings listed are established in accordance with the Society of Automotive Engineers Test Code J607. For practical operation, the horsepower loading should not exceed 85% of these ratings. Engine power will decrease 3½% for each 1,000 feet above sea level and 1% for each 10° above 60° F.

Major engine repairs should not be attempted unless you have the proper tools and a thorough knowledge of internal combustion engines.

TUNE-UP SPECIFICATIONS

	A.C.	Autolite	Champion
Spark Plug Type			
Short Plug	CS-45	A7N	CJ-8
Long Plug	GC-46	A71	J-8
Spark Plug Gap030"
Ignition Point Gap020"
Intake Valve Clearance007" - .009"
Exhaust Valve Clearance017" - .019"

STORAGE INSTRUCTIONS

Engines stored for over 30 days should be completely drained of fuel to prevent gum deposits forming on essential carburetor parts, fuel filter, fuel lines and tank.

- a. Remove filter bowl, open shut-off valve and drain tank completely.
- b. Replace filter bowl. Leave fuel valve open.
- c. Operate engine until it stops from lack of fuel.
- d. While engine is still warm, drain and clean the oil sump. Refill with fresh oil.
- e. Remove spark plug, pour one ounce of SAE 30 oil into cylinder and crank slowly to spread oil. Replace spark plug.
- f. Clean dirt and chaff from cylinder, cylinder head fins and blower housing.

326430 to 326499

Illustrated Parts List

MODEL SERIES

326430 to 326499

TYPE NUMBERS

0010 through 0050

0110 through 0197

TO FIND

THE CORRECT NUMBER OF THE PART YOU NEED:

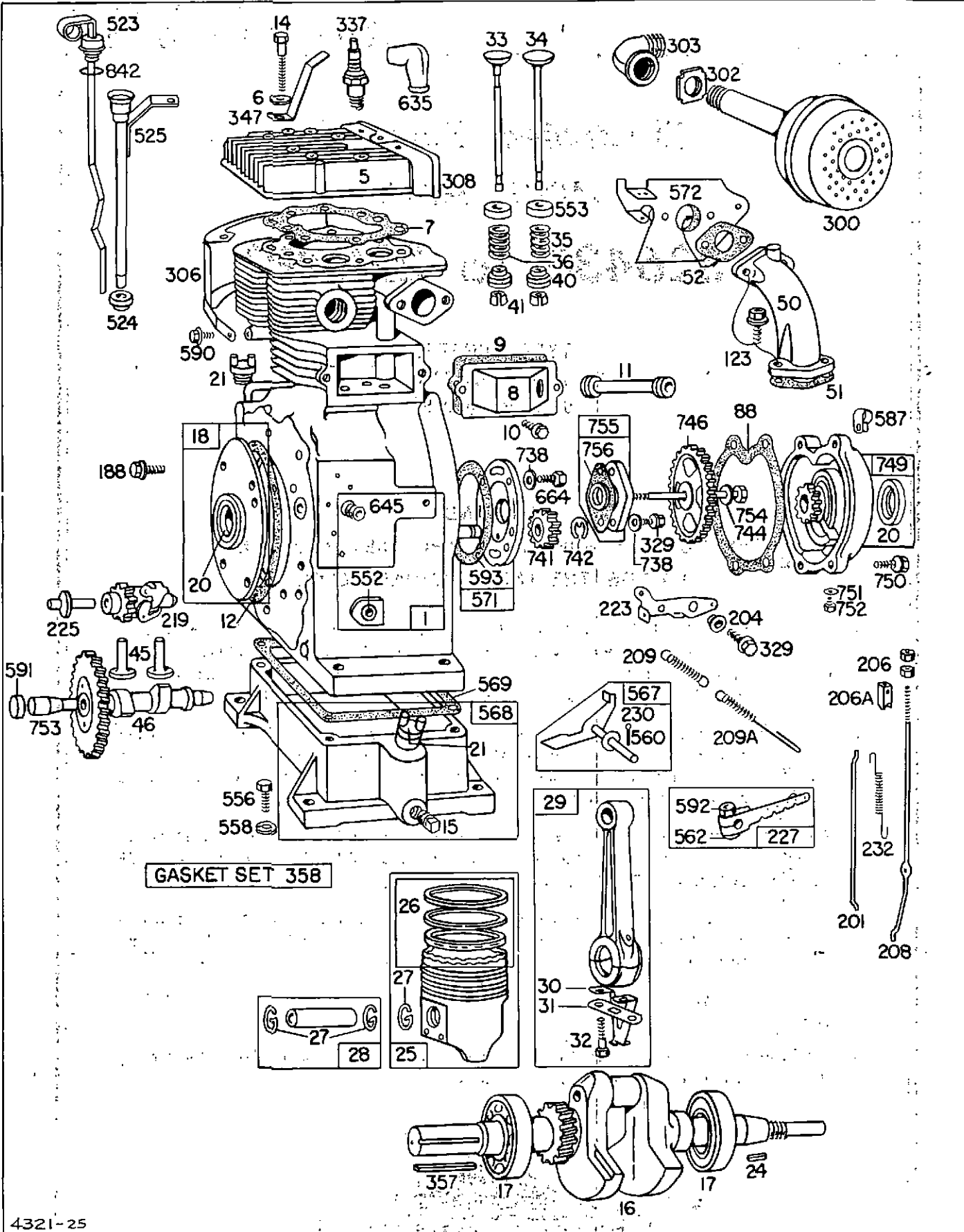
FOLLOW THE INSTRUCTIONS BELOW

- A. Refer to Engine Model, Type and Code Number that is stamped on the blower housing or name plate of engine. Engine type numbers such as 0123 01 are listed herein only as 0123. The two digits (01 or 02, etc.) to the right of the space are not needed for parts identification. Then use the Illustrated Parts List covering these Model Series.
- B. Refer to Illustrated Parts section and compare the old part with illustration. The number on the illustration is the Reference Number. Assemblies include all parts shown in frames. All parts shown in assembly frames on which individual reference numbers are given can be purchased separately.
- C. After the Reference Number has been identified, refer to the Numerical Parts List, where Reference and Master Part Numbers are listed. THE MASTER PART IS USED ON ALL TYPE NUMBERS EXCEPT THOSE TYPE NUMBERS UNDER "NOTE".
- D. If a "Note" appears below the Master Part Number, this means that this part differs from the Master Part for certain types. If the Type Number is listed under "Note", order the part referred to.
- E. If the Engine Type Number does not appear after any part number listed under "Note", use the Master Part Number.
- F. For Type Numbers higher than those covered by this book, please refer to the factory if you are unable to identify the part by comparison.

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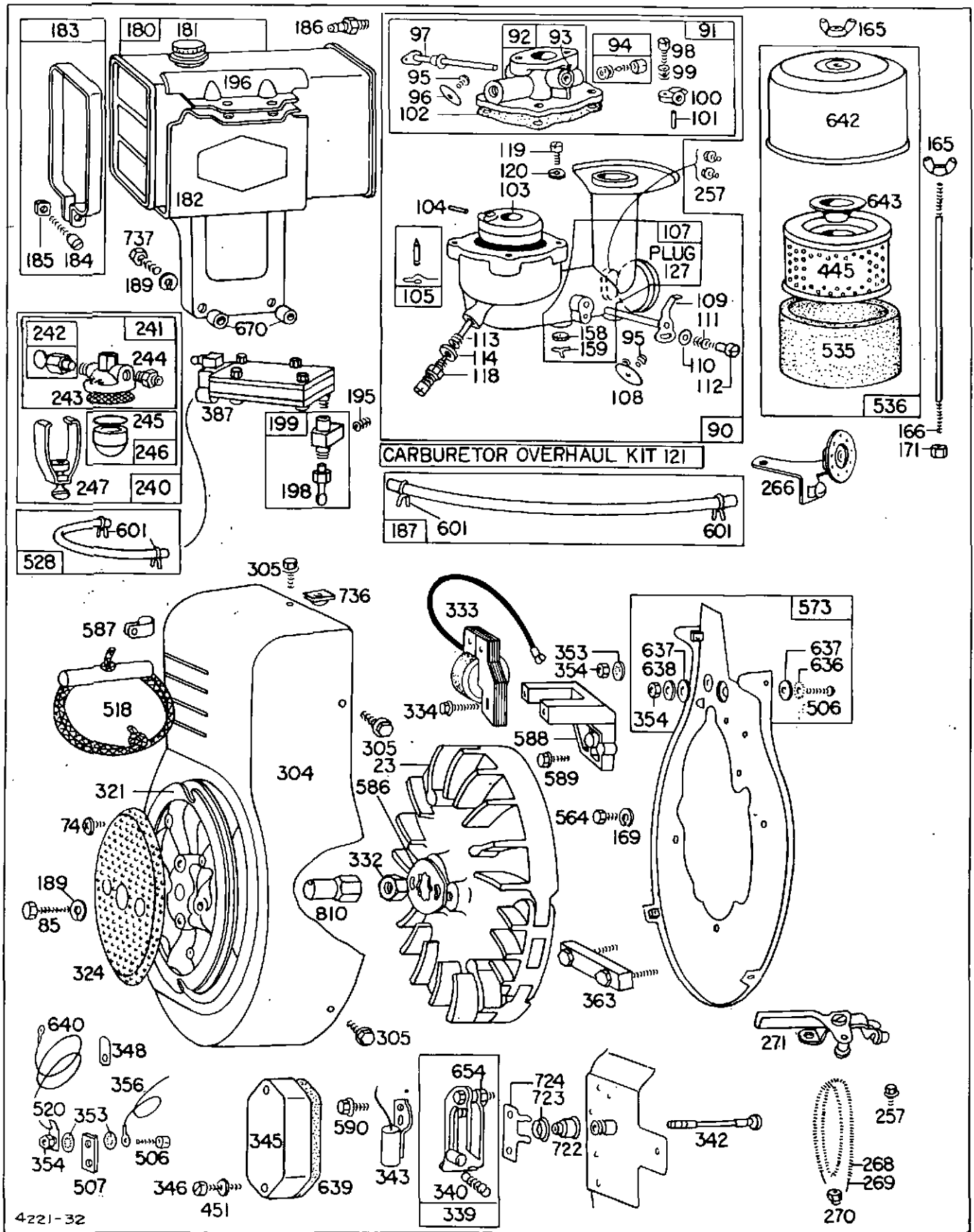
326430 to 326499



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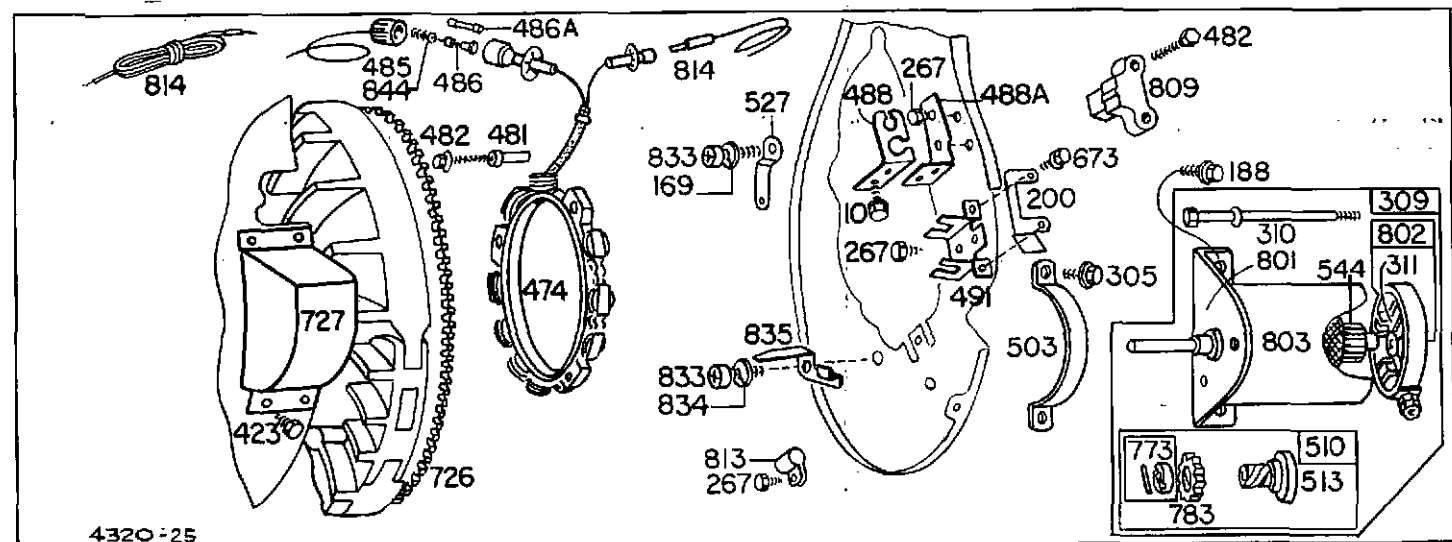
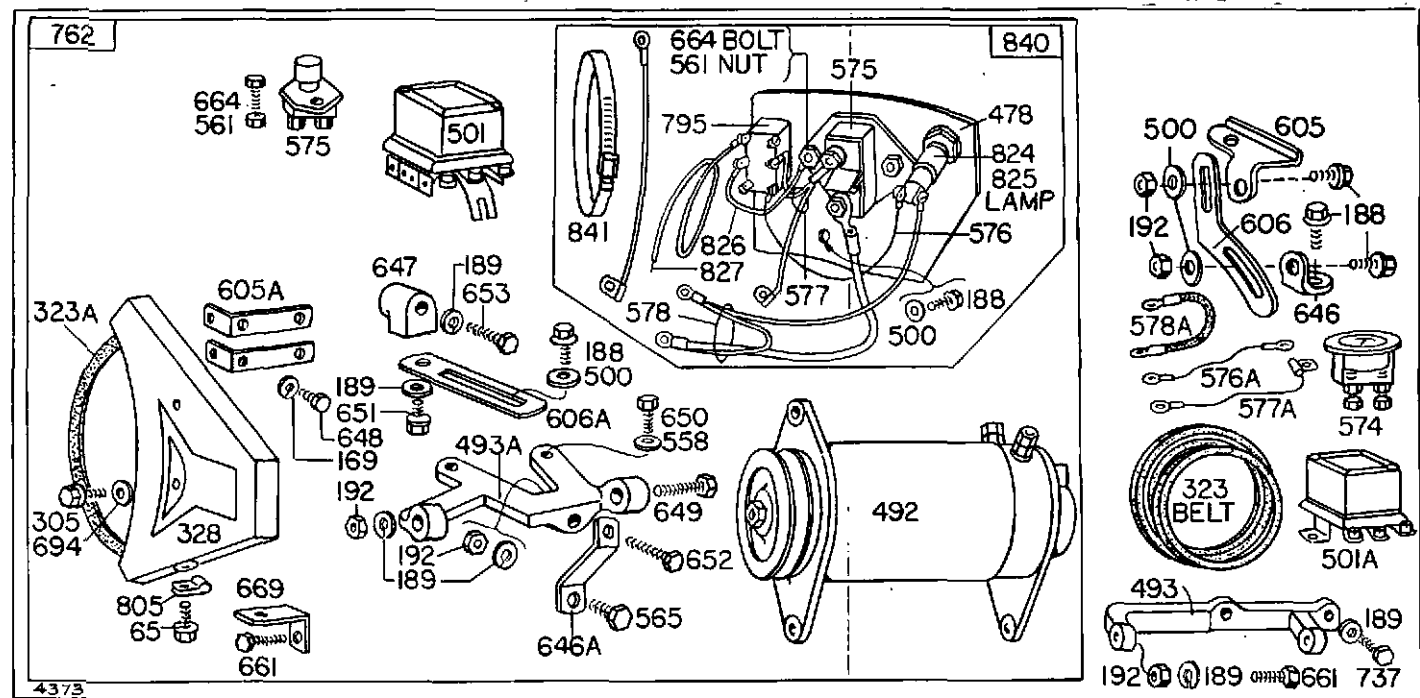
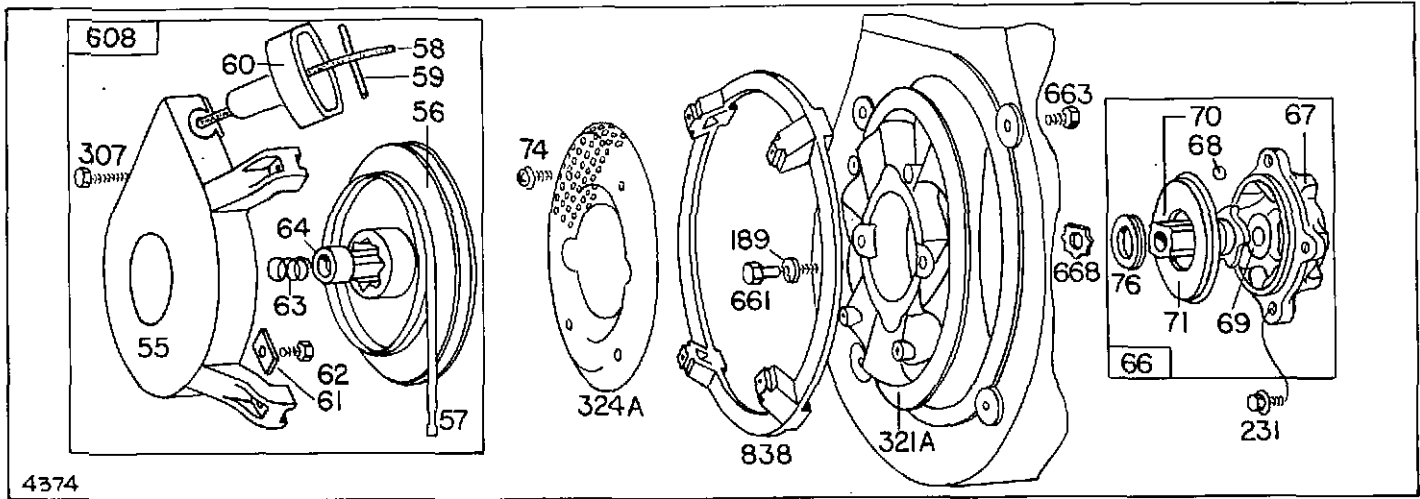
Assemblies include all parts shown in frames.

326430 to 326499



Assemblies include all parts shown in frames.

326430 to 326499



Assemblies include all parts shown in frames.

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	
1	392096	Cylinder Assembly (Includes Piston and Ring Assembly) Note: 392135 Cylinder Assembly Used on type No. 0144.		261220	Crankshaft Used on type Nos. 0127, 0133, 0190.			Used on type Nos. 0021, 0022, 0128, 0129, 0170, 0181, 0189.	
5	211889	Head—Cylinder Note: 211981 Head—Cylinder Used on type Nos. 0157, 0164, 0182.		261221	Crankshaft Used on type No. 0136.	20	299609	Seal—Oil Note: 291675 Seal—Oil Used in P. T. O. Cove on type Nos. 0021, 0022, 0050, 0112, 0113, 0114, 0116, 0128, 0129, 0130, 0143, 0147, 0149, 0150, 0151, 0153, 0156, 0160, 0167, 0170, 0171, 0172, 0173, 0174, 0175, 0176, 0181, 0183, 0185, 0186, 0188, 0189, 0192, 0193, 0196, 0197.	
6	22963	Washer—Cylinder Hd.		261222	Crankshaft Used on type No. 0139.				
7	*270662	Gasket—Cylinder Hd.		261223	Crankshaft Used on type Nos. 0050, 0116, 0130, 0143, 0147, 0149, 0150, 0151, 0156, 0167, 0170, 0172, 0173, 0174, 0185, 0186, 0188, 0192, 0193.				
8	299328	Breather		261225	Crankshaft Used on type Nos. 0113, 0171, 0196.	21	66768	Plug—Oil Filler Note: 298860 Oil Minder Used on type Nos. 0111, 0131, 0142, 0187, 0195.	
9	*27803	Gasket—Valve Cover		261228	Crankshaft Used on type No. 0119.				
10	93394	Screw—Breather Mtg. Sem		261245	Crankshaft Used on type Nos. 0022, 0114, 0129, 0153, 0175, 0176, 0183.	23	298975	Flywheel—Magneto Note: 391116 Flywheel Magneto Used on type Nos. 0132, 0187, 0194, 0195. 391363 Flywheel Assembly Used on type Nos. 0027, 0115, 0123, 0126, 0135, 0143, 0148, 0149, 0162, 0163, 0164, 0165, 0167, 0168, 0170, 0171, 0172, 0174, 0178, 0180, 0182, 0184, 0185, 0188, 0189, 0192, 0193.	
11	68818	Tube—Breather		261255	Crankshaft Used on type Nos. 0160, 0197.				
12	270789	Gasket—Cover	17	291667	Bearing—Ball				
14	92674	Screw—Cylinder Head—2-7/16" Long (9) Note: 91203 Screw— Cylinder Hd. (3) Used on type Nos. 0157, 0164, 0182. 93211 Screw— Cylinder Head— 2-21/32" Long (2) Used on type Nos. 0136, 0139. 93583 Stud—Cylinder Head (2) Used on type Nos. 0169, 0181, 0184.	18	391062	Cover Assy. — Crankcase Note: 291665 Cover Assy. — Crankcase Used on type Nos. 0050, 0112, 0113, 0114, 0116, 0130, 0143, 0147, 0149, 0150, 0151, 0153, 0156, 0160, 0167, 0171, 0172, 0173, 0174, 0175, 0176, 0183, 0185, 0186, 0188, 0192, 0193, 0196, 0197. 291710 Cover Assy. — Crankcase				
15	91084	Plug—Pipe—3/8" Note: 93418 Plug—Oil Drain (Hex. —Socket) Used on type Nos. 0136, 0140, 0183. 93720 Cap—Pipe 93719 Pipe—Oil Drain Used on type Nos. 0144, 0157, 0158, 0164, 0169.				24	61760	Key—Flywheel	
16	261218	Crankshaft Note: 261219 Crankshaft Used on type Nos. 0021, 0112, 0128, 0181, 0189.				25	390364	Piston Assy. — Standard 390365 Piston Assembly— .010" O. S. 390366 Piston Assembly— .020" O. S. 390367 Piston Assembly— .030" O. S.	

* Included in Gasket Set—
Part No. 299719.

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
MODEL 326430 SERIES PISTON RING SETS			28	299691	Pin Assy.—Piston—Standard	74	93521	Screw—Rotating Screen Mounting
	Note: For Chrome Piston Ring Set—Standard Size—order Part No. 390679.		29	299632	Rod Assy.—Connecting	76	68238	Seal—Ratchet Sealing
26	390484	Ring Set—Piston—Std. Consists of:		Note:	For Connecting Rod with .020" undersize Crankpin Bore—order No. 390306.	85	91386	Screw—Fan Pulley Mounting
		211807 Ring—Piston, Comp., Top, Standard	30	221777	Dipper—Conn. Rod	88	270449	Gasket—Gear Case Cover
		211808 Ring—Piston, Comp., Center, Std.	31	221776	Lock—Conn. Rod Screw	90	391065	Carburetor Assy.
		390485 Ring—Piston, Oil, Std. (w/expander)	32	230907	Screw—Conn. Rod		Note:	391068 Carburetor Assy.
390486		Ring Set—Piston—.010" O.S. Consists of:	33	261207	Valve—Exhaust			Used on type Nos. 0121, 0144, 0157, 0158, 0164, 0165, 0169, 0170, 0184, 0192.
		211822 Ring—Piston, Comp., Top, .010" O.S.	34	261206	Valve—Intake			391070 Carburetor Assy.
		211823 Ring—Piston, Comp., Center, .010" O.S.	35	26828	Spring—Intake Valve			Used on type Nos. 0127, 0133, 0134, 0135, 0136, 0139, 0140, 0149, 0162, 0163, 0166, 0172, 0173, 0180, 0185, 0186.
		390487 Ring—Piston, Oil, .010" O.S. (w/expander)	36	26828	Spring—Exhaust Valve			392035 Carburetor Assy.
390505		Ring Set—Piston—.020" O.S. Consists of:	40	292260	Rotocoil—Exhaust and Intake Valve			Used on type No. 0182.
		211825 Ring—Piston, Comp., Top, .020" O.S.	41	68283	Collar—Valve Spring Retainer			392139 Carburetor Assy.
		211826 Ring—Piston, Comp., Center, .020" O.S.	45	26670	Tappet—Valve			Used on type No. 0190.
		390506 Ring—Piston, Oil, .020" O.S. (w/expander)	46	211794	Gear—Cam			
390507		Ring Set—Piston—.030" O.S. Consists of:	50	211589	Elbow—Carburetor Intake			
		211828 Ring—Piston, Comp., Top, .030" O.S.	51 †	*270267	Gasket—Intake Elbow	91	299687	Body Assy.—Upper Carburetor
		211829 Ring—Piston, Comp., Center, .030" O.S.	52	*27381	Gasket—Intake Elbow Mounting		Note:	391067 Body Assy.—Upper Carburetor
		390508 Ring—Piston, Oil, .030" O.S. (w/expander)	55	298402	Housing—Rewind Starter			Used on type Nos. 0121, 0144, 0157, 0158, 0164, 0165, 0169, 0170, 0182, 0184, 0192.
27	260924	Lock—Piston Pin	56	295871	Pulley—Rewind Starter			
			57	294303	Spring—Rewind Starter			
			58	66564	Rope—Rewind Starter			
			59	230228	Pin—Starter Grip			
			60	66728	Grip—Starter Rope			
			61	68848	Bumper—Starter Pulley			
			62	93254	Screw—Pulley Bumper Mounting Sem			
			63	260414	Spring—Ratchet			
			64	230543	Adapter—Ratchet Spring			
			65	93163	Screw—Sem			
			66	298798	Clutch Assembly—Rewind Starter			
			67	211383	Housing—Rewind Starter	92	299357	Body—Upper Carburetor
			68	63770	Ball—Clutch		Note:	390998 Body—Upper Carburetor
			69	66718	Washer—Starter Clutch Thrust			Used on type Nos. 0121, 0144, 0157, 0158, 0164, 0165, 0169, 0170, 0182, 0184, 0192.
			70	298799	Ratchet—Rewind Starter Clutch			
			71	221653	Washer—Retainer			

* Included in Gasket Set—Part No. 299719.

† Included in Carburetor Overhaul Kit—Part No. 391071.

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
93	23108	Bushing—Throttle Shaft			Used on type Nos. 0182, 0190.	182	22813	Bracket—Fuel Tank
94	† 292681	Valve Assembly—Carburetor Idle	110	62899	Washer—Choke Lever	183	291490	Strap Assy.—Fuel Tank
95	93038	Screw—Choke and Throttle Valve Mtg. Sem	111	26155	Spring—Choke Lever	184	91257	Screw—Machine, Fill. Hd.—1/4-20 x 1-1/4"
96	221939	Valve—Throttle	112	23123	Screw—Choke Lever	185	90970	Nut—Square—1/4-20
97	298535	Shaft Assy.—Throttle	113	† 390950	Nozzle—Carburetor	186	230318	Connector—Fuel Pipe
98	91920	Screw—Machine, Fill. Hd.—8-32 x 5/8"	114	† 68667	Gasket—Nozzle		Note: 67218	Connector—Fuel Pipe
99	26157	Spring—Throttle Adjustment	118	† 99525	Valve Assembly—Needle			Used on type Nos. 0127, 0133, 0134, 0135, 0170, 0182, 0190.
100	61967	Stop—Throttle	119	90746	Screw—Machine, Fill. Hd.—10-32 x 5/8"	187	296004	Pipe—Fuel
101	93043	Pin—Throttle Lever	120	92290	Washer—Lock—No. -10 x 1/16 x 3/64"		Note: 299146	Pipe—Fuel
102	† 270268	Gasket—Carburetor Body	121	391071	Carburetor Overhaul Kit			Used on type Nos. 0170, 0182.
103	298514	Float—Carburetor	123	93357	Screw—Hex. Hd.	188	93535	Screw Sem
104	† 230896	Pin—Float Hinge	127	† 221747	Plug—Welch	189	90366	Washer—Lock—5/16 x 1/8 x 1/16"
105	† 299096	Valve—Fuel Inlet	158	27590	Filter—Carburetor Drain	192	91397	Nut—Hex. 5/8-18
107	391066	Body Assy.—Lower Carburetor	159	220521	Retainer—Carburetor Drain Filter	195	91635	Nipple
	Note: 391069	Body Assy.—Lower Carburetor	165	93453	Nut—Wing (2)	196	22907	Support—Upper Fuel Tank
		Used on type Nos. 0121, 0127, 0133, 0134, 0135, 0136, 0139, 0140, 0144, 0149, 0157, 0158, 0162, 0163, 0164, 0165, 0166, 0169, 0170, 0180, 0182, 0184, 0185, 0186, 0190, 0192.	166	231007	Stud—Air Cleaner	198	293934	Valve—Shut-Off
108	390936	Valve—Choke	169	90832	Washer—Lock—1/4 x 3/32 x 5/64"	199	297563	Outlet—Fuel
109	298534	Shaft and Lever—Choke		Note: 92744	Washer—Lock (2)	200	222445	Deflector—Air
	Note: 298622	Shaft and Lever—Choke			Used on type Nos. 0027, 0115, 0123, 0135, 0143, 0148, 0149.	201	260923	Link—Throttle
		Used on type Nos. 0121, 0127, 0133, 0134, 0135, 0136, 0139, 0140, 0144, 0149, 0157, 0158, 0162, 0163, 0164, 0165, 0166, 0169, 0170, 0180, 0184, 0185, 0186, 0192.	171	92129	Nut—Hex.—1/4-28	204	23849	Bushing—Control Lever
	391583	Shaft and Lever—Choke	180	291488	Tank Assy.—Fuel (6 Quart)		Note: 230919	Bushing—Control Lever
				Note: 292415	Tank Assy.—Fuel (8 Quart)			Used on type Nos. 0136, 0139.
					Used on type Nos. 0137, 0140, 0141, 0143, 0148, 0151, 0152, 0153, 0156, 0162, 0163, 0167, 0172, 0173, 0175, 0176, 0178, 0180, 0181, 0183, 0185, 0186, 0197.	206	93422	Nut—Governor Adjusting
			181	69221	Cap—Fuel Tank	206A	21772	Nut—Governor Adjusting
				Note: 297866	Cap—Fuel Tank	208	230040	Rod—Governor Control
					Used on type Nos. 0162, 0180.	209	260815	Spring—Governor (2" long)
							Note: 26764	Spring—Governor
								Used on type Nos. 0021, 0022, 0117, 0128, 0129, 0130, 0131, 0132, 0141, 0142, 0147, 0150, 0153, 0154, 0155, 0156, 0159, 0160, 0161, 0166, 0168, 0174, 0175, 0176, 0177, 0179, 0183,

† Included in Carburetor Overhaul Kit—Part No. 391071.

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
		0187, 0189, 0193, 0194, 0195, 0197.			221988 Bracket— Casing Clamp Used on type Nos. 0136, 0139, 0192.			Used on type Nos. 0020, 0023, 0050, 0136, 0139, 0140, 0145, 0150, 0151, 0152, 0155, 0159, 0175, 0181, 0183, 0191.
209A	260816	Spring—Governor (2-1/2" long)	266	299361	Control—Throttle Note: 392150 Control— Throttle Uses: 261322 Spring— Throttle Return Used on type No. 0195.			390663 Housing— Blower Used on type Nos. 0144, 0157, 0158.
219	291192	Gear Assembly— Governor						391229 Housing— Blower Used on type Nos. 0027, 0115, 0123, 0126, 0135, 0143, 0148, 0149, 0162, 0163, 0165, 0167, 0168, 0170, 0171, 0172, 0174, 0178, 0180, 0182, 0184, 0185, 0188, 0189, 0192, 0193.
223	22814	Lever—Gov. Control Note: 221987 Lever— Governor Control Used with No. 22814 . Lever on type Nos. 0136, 0139.	267	93612	Screw—Sheet Metal (5)			
225	291177	Shaft—Governor Gear	268	65616	Casing—Control Wire— 72" long Note: If longer casing is re- quired, specify length in inches; if shorter casing is needed, order No. 65616 and cut to required length.			
227	298399	Lever Assy.—Governor Note: 291365 Lever Assy.— Governor Used on type Nos. 0021, 0022, 0117, 0128, 0129, 0130, 0131, 0132, 0141, 0142, 0147, 0150, 0153, 0154, 0155, 0156, 0159, 0160, 0161, 0166, 0168, 0174, 0175, 0176, 0177, 0179, 0183, 0187, 0189, 0193, 0194, 0195, 0197.	269	26633	Wire—Control—78" long Note: If longer wire is re- quired, specify length in inches; if shorter wire is needed, order No. 26633 and cut to required length.			391711 Housing— Blower Uses: 93572 Screw— Screen Mtg. (4) 231065 Spacer— Screen Mtg. (4)
230	22826	Washer—Flat	270	63426	Locknut—Control Wire Casing			
231	93380	Screw—Sem	271	290568	Lever Assy.—Control			Used on type No. 0164.
232	260478	Spring—Governor Link	300	391221	Muffler—Exhaust Note: 390247 Muffler— Exhaust Used on type Nos. 0150, 0174, 0181.	305	93158	Screw—Sem
240	295984	Filter Assembly—Fuel Note: 298090 Filter—Fuel (In Fuel Pipe) Used on type Nos. 0158, 0192.	302	91310	Locknut—Muffler	306	299536	Shield—Cylinder
241	296005	Cover Assembly—Fuel Filter.	303	91308	Elbow—Exhaust, 1" 90° Street Note: 91415 Elbow— Exhaust, 1" 45° 91416 Nipple— Exhaust Used on type No. 0163.	307	93686	Screw—Thread Forming
242	295913	Valve—Fuel Shut-off				308	221953	Cover—Cylinder Head Note: 222357 Cover— Cylinder Head Used on type Nos. 0157, 0164, 0182.
243	22547	Screen—Fuel Filter						
244	230318	Connector—Fuel Pipe						
245	*68477	Gasket—Fuel Filter Bowl	304	294698	Housing—Blower Note: 297010 Housing— Blower Used on type Nos. 0119, 0160, 0197. 297453 Housing— Blower	309	391178	Motor—Starting
246	298683	Bowl—Fuel Filter				310	391790	Thru Bolt Assembly
247	99665	Yoke Assembly— Fuel Filter				311	391791	Brush Set
257	93543	Screw—Casing Clamp Note: 93107 Screw—Casing Clamp 22372 Clamp—Casing				321	211555	Fan and V-Belt Pulley Note: 211739 Fan and V-Belt Pulley Used on type Nos. 0136, 0139, 0140, 0148, 0152, 0163 0169, 0184.

* Included in Gasket Set—
Part No. 299719.

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
321A	212000	Fan-Booster	348	221976	Switch-Stop	451	90364	Washer-Lock- No. 8 x 3/64 x 1/32"
323	68878	V-Belt	353	92791	Washer-Lock- Shakeproof	474	391520	Stator and Bracket- Alternator (Diode Type)
323A	68898	V-Belt	354	90576	Nut-Hex. -8-32			Note: 391222 Stator and Bracket-Alternator (Fuse Type)
324	221851	Screen-Rotating	356	295413	Wire-Ground	478	221745	Panel-Instrument
	Note: 222044	Screen- Rotating		Note: 299656	Wire-Ground	481	230976	Bushing-Stator (Loose)
		Used on type Nos. 0136, 0139, 0140, 0148, 0152, 0163, 0169, 0184.			Used on type Nos. 0023, 0145, 0150, 0151, 0155, 0159, 0175, 0191.	482	93621	Screw-Sem
		222283 Screen- Rotating			299907 Wire-Ground	485	390888	Knob Assembly-Fuse
		Used on type Nos. 0127, 0133, 0182, 0190.			Used on type No. 0131.	486	391507	Diode-Alternator
324A	222388	Screen-Rotating			391115 Wire-Ground	486A	67125	Fuse-7-1/2 Amp.
328	222062	Guard-Belt			Used on type Nos. 0020, 0021, 0022, 0027, 0050, 0126, 0127, 0133, 0134, 0135, 0136, 0139, 0140, 0142, 0144, 0146, 0149, 0157, 0158, 0161, 0162, 0163, 0164, 0165, 0167, 0169, 0170, 0172, 0173, 0174, 0180, 0182, 0184, 0185, 0186, 0188, 0189, 0190, 0192.	488	222211	Bracket-Output
329	93294	Screw-Sem				488A	222345	Bracket-Output Bracket Mounting
	Note: 93415	Screw-Sem				491	222344	Bracket-Rectifier
		222289 Washer-Flat				492	297779	Starter-Generator (Delco-Remy No. 1101864 and Pulley- Delco-Remy No. 1949358)
		Used to mount Control Lever on type Nos. 0136, 0139.				493	211785	Bracket-Upper Starter
332	230674	Nut-Flywheel				493A	211169	Bracket-Lower Starter
333	298968	Armature Assembly				500	91325	Washer-Flat
334	93381	Screw-Armature to Mounting Bracket Sem				501	297196	Regulator-Voltage (Delco-Remy No. 1119577)
337	298809	Plug-Spark	357	91540	Key-Pulley Mtg.	501A	295924	Regulator-Voltage (Delco-Remy No. 1118988)
	Note: Spark Plugs 298809, 293918 and 29693	use Ignition Cable Terminal No. 221798.		Note: 91944	Key-Woodruff- No. 808	503	222331	Strap-Starter
		29693 Plug-Spark			Used on type No. 171.	506	90072	Screw-Machine Fill. Hd. -8-32 x 5/8"
		Used on type Nos. 0156, 0162, 0180, 0193.	358	299719	Gasket Set	507	66895	Insulator
		293918 Plug-Spark	363	19068	Puller-Flywheel (Optional Accessory)		Note: 299598	Insulator Used on type No. 0131.
		Used on type Nos. 0022, 0153, 0160, 0179.	387	390665	Pump-Impulse	510	391461	Drive Assembly- Starter
339	298185	Breaker Assy.-Ignition		Note: 390818	Pump-Impulse	513	391135	Clutch Assembly- Starter
340	26018	Spring-Breaker Arm			Use: 222221	518	69932	Rope-Starter
342	298125	Plunger-Contact			Bracket-Fuel Pump Mtg.	520	93722	Terminal-Spade
343	298060	Condenser			93380 Screw- Bracket to Pump (2)	523	390947	Cap and Dipstick-Oil Filler
345	211327	Cover-Breaker			93535 Screw- Bracket to Cylinder		Note: 390836	Cap Assy.- Oil Filler Uses: 65304 Gasket- Filler Cap
346	93400	Screw-Breaker Cover Mounting Sem			Used on type Nos. 0170, 0182.			
347	220197	Switch-Stop	423	93410	Screw-Cover Mounting			
	Note: 298926	Switch-Stop	445	390930	Cartridge-Air Cleaner			
		Used on type Nos. 0138, 0187, 0195.						

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
		93687 Nipple— Oil Filler Used on type Nos. 0127, 0133, 0190.		294751 Base Assy. — Engine Used on type Nos. 0020, 0023, 0050, 0139, 0145, 0150, 0151, 0152, 0155, 0159, 0175, 0191.	577A 295161 Wire—Ammeter to Regulator			
524	68838	Seal—Filler Pipe			578 298583 Wire—Starter Switch to Generator Terminal and Regulator and Indicator Light Terminal			
525	390941	Pipe—Oil Filler Note: 93687 Nipple—Oil Filler Used on type Nos. 0127, 0133. 390945 Pipe—Oil Filler Used on type Nos. 0121, 0144, 0157, 0158, 0164, 0165, 0169, 0170, 0182, 0184, 0192.		391165 Base Assy. — Engine Used on type Nos. 0120, 0121, 0123, 0126, 0127, 0133, 0135, 0136, 0140, 0144, 0149, 0157, 0158, 0162, 0163, 0164, 0165, 0169, 0170, 0172, 0173, 0174, 0178, 0180, 0182, 0183, 0184, 0185, 0186, 0190, 0192.	578A 295162 Wire—Starter Switch			
527	222192	Bracket—Alternator Harness			586 22906 Lock—Flywheel Nut			
528	391498	Pipe—Fuel			587 220509 Clamp—Cable			
535	270782	Element—Air Cleaner			588 211440 Bracket—Armature Mtg. Note: 211976 Bracket— Armature Mtg. Used on type Nos. 0027, 0115, 0123, 0126, 0135, 0143, 0148, 0149, 0162, 0163, 0164, 0165, 0167, 0168, 0170, 0171, 0172, 0174, 0178, 0180, 0182, 0184, 0185, 0188, 0189, 0192, 0193.			
536	391063	Cleaner Assembly—Air			589 93473 Screw—Armature Bracket to Cylinder Mounting Sem			
544	391160	Armature Assembly— Starter	569 *27351 Gasket—Engine Base		590 93171 Screw—Sem			
552	23837	Bushing—Governor Crank	571 299705 Support Assy. —Bearing (Mag. Side)		591 222251 Plug—Cam Shaft			
553	62222	Cup—Valve Spring	572 291871 Guide—Front Air		592 231082 Nut—Hex. —10-24			
556	90887	Screw—Cap, Hex. Hd. —3/8-16 x 1-1/4"	573 299450 Plate—Back Note: 391220 Plate—Back Used on type Nos. 0027, 0115, 0123, 0126, 0135, 0143, 0148, 0149, 0162, 0163, 0164, 0165, 0167, 0168, 0170, 0171, 0172, 0174, 0178, 0180, 0182, 0184, 0185, 0188, 0189, 0192, 0193.		593 *270513 Shim—Mag. Side Bearing Support—, 015" thick			
558	92268	Washer—Lock 3/8 x 1/8 x 3/32"			*270514 Shim—Mag. Side Bearing Support—, 010" thick			
560	91984	Pin—Cotter— 1/16 x 1/2" long			*270515 Shim—Mag. Side Bearing Support—, 005" thick			
561	92278	Nut—Hex. —1/4-20	574 295158 Ammeter (Stewart Warner No. 357-W)		601 93053 Clamp—Fuel Pipe			
562	92613	Bolt—Governor Lever	575 299139 Switch—Starter (Includes (2) Terminal Nuts and Lockwashers)		605 221933 Bracket—Starter Angle			
564	92980	Screw—Cap, Hex. Hd. —1/4-20 x 1/2 Note: 93743 Screw— Machine, Fill. Hd. (1) Used on type Nos. 0027, 0115, 0123, 0135, 0143, 0148, 0149.	576 298579 Wire—Ignition Switch to Indicator Lamp		605A 297171 Bracket—Guard			
565	93142	Screw—Bracket to Base Mounting	576A 295160 Wire—Ammeter to Switch		606 221931 Strap—Adjusting			
567	291364	Crank Assy. —Governor	577 298582 Wire—Starter Switch to Ignition Switch and "Bat." on Regulator		606A 221442 Strap—Adjusting			
568	291404	Base Assy. —Engine Note: Engine Base for type Nos. 0134 and 0135 is furnished by the Equipment Manufacturer			608 298340 Starter Assy. —Rewind			
					635 66538 Elbow—Spark Plug			
					636 92864 Washer—Lock			
					637 66154 Washer—Back Plate Term.			
					638 26404 Washer—Back Plate Term.			
					639 *270176 Gasket—Breaker Cover			

* Included in Gasket Set—
Part No. 299719.

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
640	298141	Lead-Primary	722	68768	Seal-Plunger	762	390048	Electric Starter- Generator and Panel Kit-12 Volt
642	222271	Cover-Air Cleaner	723	93516	Eyelet-Seal Retainer	773	391462	Retainer & Pin Assembly
643	222272	Cup-Air Cleaner	724	221873	Retainer-Plunger Seal	783	280104	Gear-Starter
	Note:	222290 Washer-Air Cleaner Used on type No. 0144, 0157, 0158, 0164.	726	391362	Gear-Flywheel Ring (includes mtg. parts)	795	298590	Switch-Ignition
645	230775	Bushing-Plunger	727	391238	Cover-Starter	801	392062	Drive End Bracket Assembly-Starter
646	221932	Brace-Upper Bracket	736	93542	Nut-Clip	802	391172	Commutator End Cap Assembly-Starter
646A	221472	Brace-Lower Bracket	737	93546	Screw-Tank and Starter Bracket Mtg.	803	391167	Housing Assembly- Starter
647	211170	Link-Anchor	738	221944	Washer-Flat	805	93593	Nut-Belt Guard Bracket Mounting
648	91439	Screw-Cap, Hex. Hd. -1/4-20 x 3/8"	741	390937	Gear Assy. -Idler	809	391552	Rectifier-Alternator
649	93546	Screw-Cap, Hex. Hd. -5/16-18 x 1-1/4"	742	93525	Retainer-E-Ring	810	230950	Extension-Crankshaft
650	91814	Screw-Cap, Hex. Hd. -3/8-16 x 2"	744	93526	Washer-Belleville	813	93732	Clamp-Stator Wire
651	92034	Screw-Cap, Hex. Hd. -5/16-18 x 1/2"	746	211927	Gear-Drive	814	390867	Wire Assy.-Alternator
652	91162	Screw-Bracket to Bracket	749	391061	Cover Assy. -Mag. Side	824	298586	Holder-Charge Indicator
653	91442	Screw-Link Anchor Mounting		Note:	391361. Cover Assy. - Mag. Side	825	67245	Lamp-Charge Indicator (#1893 T3-1/4 Bulb, Miniature Bayonet Base, 12 Volt)
	Note:	92909 Screw-Link Anchor Mounting Used on type Nos. 0136, 0139.			Used on type Nos. 0027, 0115, 0123, 0126, 0135, 0143, 0148, 0149, 0162, 0163, 0164, 0165, 0167, 0168, 0170, 0171, 0172, 0174, 0178, 0180, 0182, 0184, 0185, 0188, 0189, 0192, 0193.	826	298580	Wire-Ignition Switch to Ground
654	230783	Nut-Contact Point Adjusting Screw	750	93587	Screw-Mag. Side Cover Mounting Sem	827	298581	Wire-Ignition Switch to Breaker Box
661	91203	Screw-Cap, Hex. Hd. -5/16-18 x 1-3/4"	751	22355	Washer-Flat	828	298578	Wire-Regulator to Generator
663	93572	Screw-Thread Forming	752	93554	Screw-Plug	833	93743	Screw-Machine
664	93415	Screw-Sem	753	231006	Shaft-Cam Gear	834	93744	Washer-Lock
668	260647	Spacer (Used between end of Ratchet and Starter Pulley	754	93528	Bolt-Cam Gear Shaft	835	222370	Bracket-Wire Harness
669	222067	Bracket-Belt Guard	755	299706	Bearing Assy. - Cam Gear	838	211983	Ring-Starter Adapter
670	230900	Spacer-Fuel Tank Bracket Mtg. (2)	756	*270516	Shim-Cam Gear Bearing-.009" thick	840	298561	Kit-Starter Generator Panel
673	93014	Screw-Hex. Hd.		*270517	Shim-Cam Gear Bearing-.007" thick	841	297197	Clamp-Regulator
694	91324	Washer-Belt Guard		*270518	Shim-Cam Gear Bearing-.005" thick	842	270933	Seal-Oil Filler Cap
						844	261269	Spring-Diode

* Included in Gasket Set-
Part No. 299719.

