

OPERATOR'S INSTRUCTIONS AND PARTS LIST

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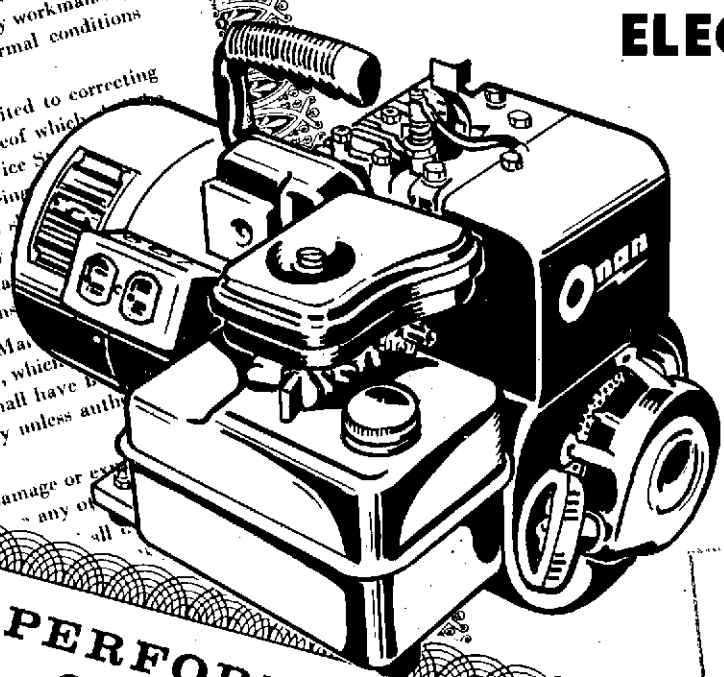
SERIES PC

PORTABLE ELECTRIC GENERATING PLANT

1750 WATT, 60 CYCLE

1400 WATT, 50 CYCLE

120 VOLT, 240 VOLT



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PERFORMANCE CERTIFIED

We certify that when properly installed and operated this Onan electric plant will deliver the full power and the voltage and frequency regulation promised by its nameplate and published specifications. This plant has undergone several hours of running-in and testing under realistic load conditions in accordance with procedures certified by an independent testing laboratory.

ONAN
 DIVISION OF PR...



ONAN
 Cummins Power Generation
 900-0092 (11AC73)

1400 73RD AVENUE N.E. • MINNEAPOLIS, MINNESOTA 55432

A DIVISION OF ONAN CORPORATION

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GENERATOR DESCRIPTION

Your ONAN generator is a high quality unit which gives extremely long life and requires very little service or maintenance. The generator is a revolving armature, self-excited type. A machined steel frame mounts the two pole shoes and field coils. The armature is connected directly to the engine crankshaft with a taper fit. A steel stud passes through the hollow center of the armature shaft. Spec A units use a commutator and brushes to produce low voltage dc field excitation. Spec B units use two-solid state rectifiers to produce low voltage dc field excitation. Both units use collector rings and brushes for ac output.

Voltage and frequency output is determined by the engine rpm.

GENERATOR RATINGS

60 HERTZ

*Output 1750-watts
60 hertz at 3600 rpm
Amp. Rating 12.5
Single Phase
Power Factor 1.0

50 HERTZ

*Output 1400-watts
50 hertz at 3000 rpm
Amp Rating 10.0
Single Phase
Power Factor 1.0

* - Ratings were formerly 1500 watts (60 hertz) and 1200 watts (50 hertz).

GENERATOR SERVICE AND MAINTENANCE

CLEANLINESS assures dependability and long life of the unit.

Every 150 Hours - Remove generator end cover and clean out dust, dirt and other foreign material. Compressed air of not more than 30 psi may be used. Wipe collector rings and commutator (Spec A only) with a lint-free, clean, dry cloth. Service more often if operating in extremely dusty conditions.

Twice Every Year - Inspect generator brushes for cracks or chips. Measure brushes and replace when worn to 5/8". Except collector ring brushes on Spec A to 5/16". If commutator or collector rings are heavily coated, clean lightly using #00 sandpaper (normal condition is smooth, glossy, dark brown color).

CAUTION

Do not attempt to adjust engine governor unless thoroughly acquainted with generator set operation. Accurate governor adjustments must be made with a voltmeter to obtain correct voltage output. Over-voltage (high engine speed) or under-voltage (low engine speed) can seriously damage any electrical equipment connected to the set. Overload operation can damage both engine and generator.

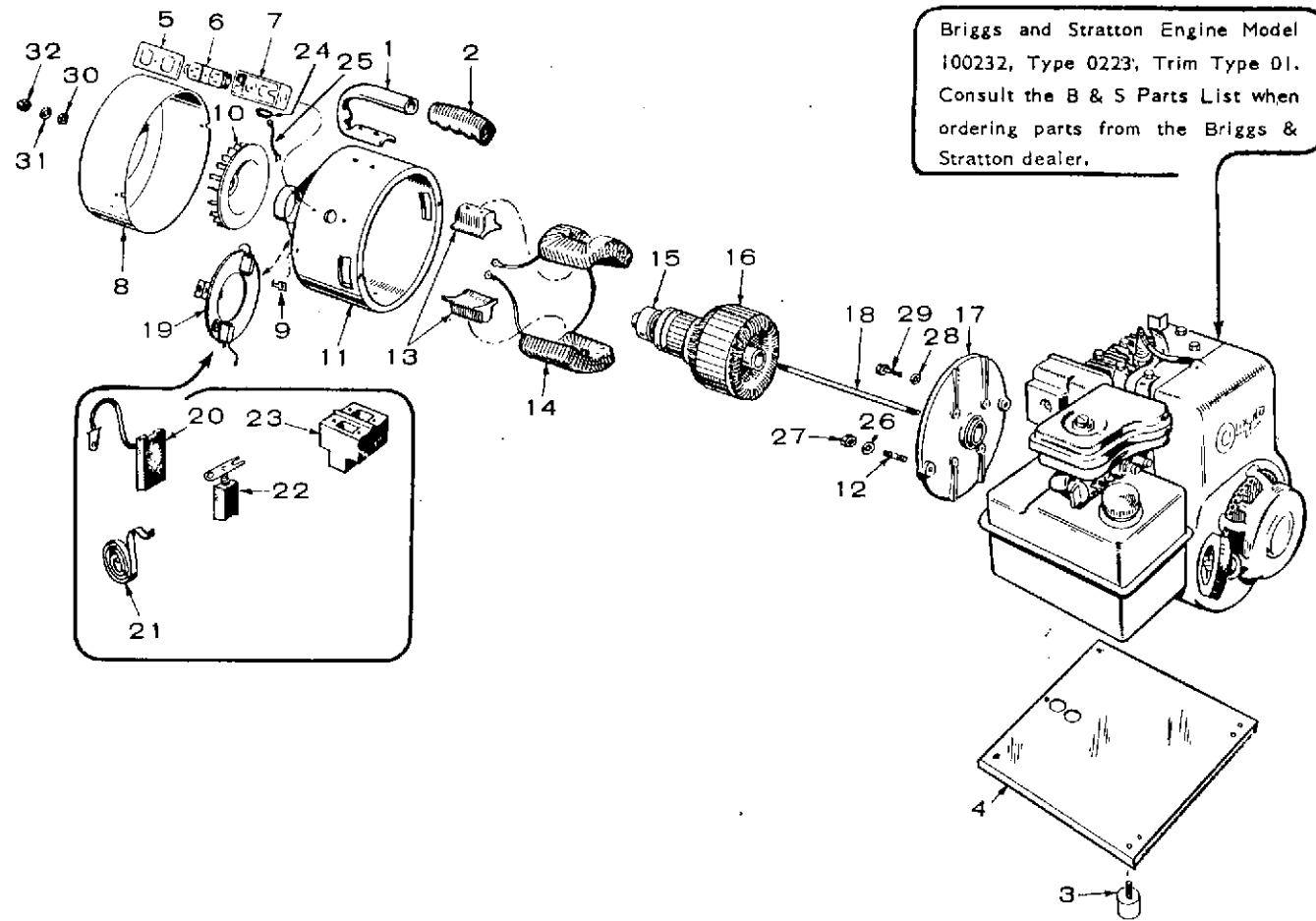
TROUBLE SHOOTING

TROUBLE	POSSIBLE CAUSE	REMEDY
Low voltage at far end of line but normal near set	Line wire too small for load and distance	Install larger wires or reduce load
Electric motors run too slow and over-heat at far end of line but normal near set	Line wire too small for load and distance	Install larger wires or reduce load
Voltage unsteady but engine running smoothly	Speed too low (▲ Poor commutation) or brush contact Loose connections Fluctuating load	*Adjust engine governor to correct speed Check for proper brush seating on commutator. Measure brush wear. Check spring tension. Brush must be free in holder Check and tighten Correct abnormal load conditions
Noisy brushes	▲High mica between commutator bar	●Undercut mica
Excessive brush arcing	▲Rough commutator ▲Dirty commutator Improper brush seating Open circuit in armature ▲Improper brush rig position	●Turn in lathe Clean with #00 sandpaper ●Replace brush or sand to proper seat ●Replace ●Adjust
Generator Over-heating (approximately 160°F above ambient)	Generator overloaded	Reduce electrical load
Voltage drop under heavy load (Some voltage drop from no-load to full-load is normal)	Improper engine operation	*Check engine condition, clean, adjust repair engine as required

● Your local Onan dealer should make this adjustment.
* See the local Briggs & Stratton Agency for service.

▲ Spec A models only.

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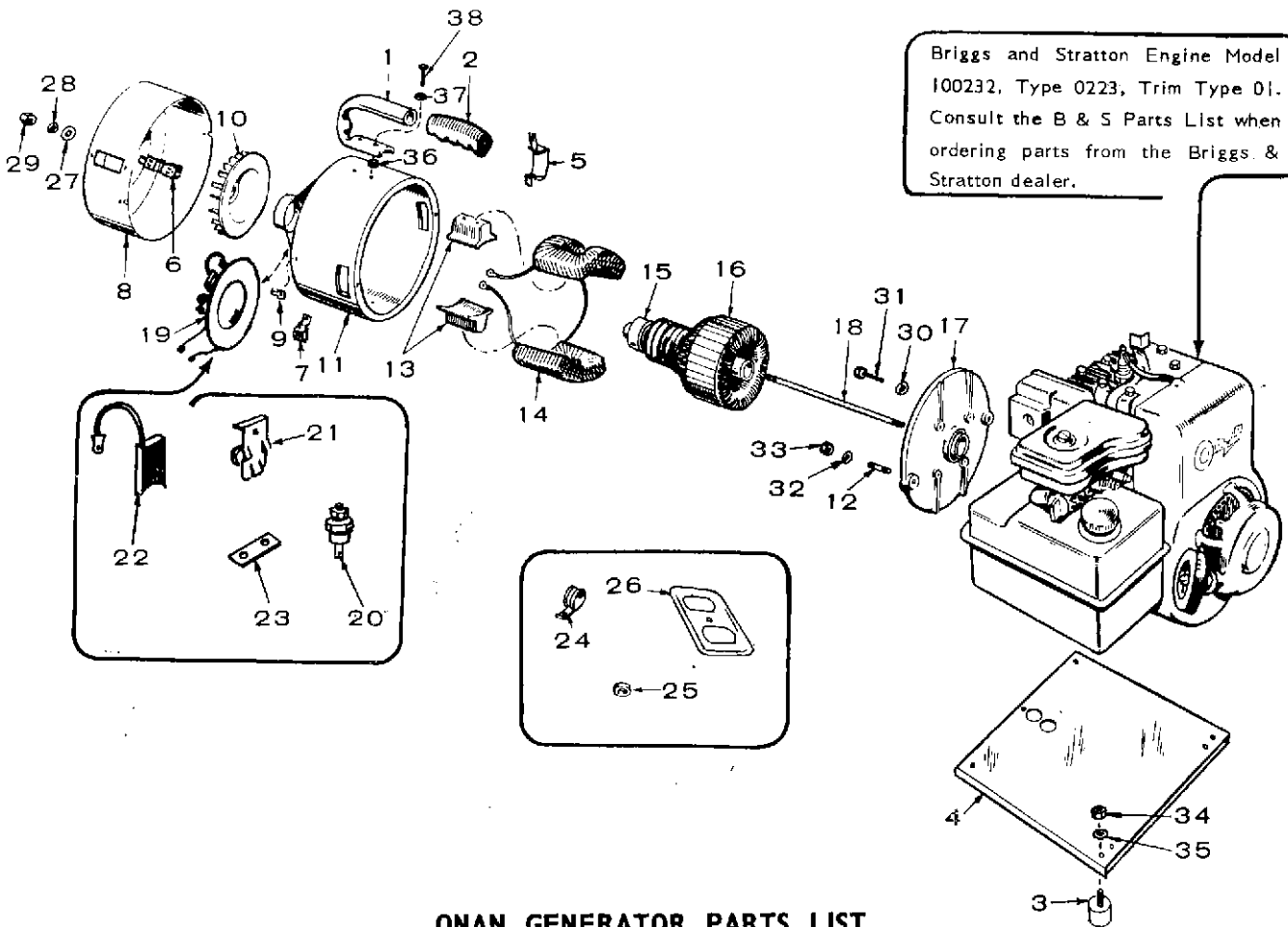
ONAN GENERATOR PARTS LIST (SPEC A ONLY)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-0715	1	Handle, Carrying	18	520-0659	1	Stud, Armature
2	403-0205	1	Grip, Handle	19	212-0275	1	Rig Assembly, Brush (Includes Brushes and Springs)
3	402-0325	4	Mount, Shock	20	214-0001	2	Brush, Commutator - DC
4	403-0714	1	Base, Mounting	21	212-1003	2	Spring, Commutator Brush
5	330-0016	1	Cover, Receptacle Box	22	214-0072	2	Brush, Collector Ring - AC
6	323-0184	1	Receptacle, Duplex	23	212-1105	2	Spring, Collector Ring Brush
7	330-0063	1	Box, Receptacle	24	508-0098	1	Bushing
8	234-0127	1	Cover, End, Generator	25	336-1513	1	Lead Wire (4'')
9	232-1362	2	Clip, Cover	26	850-0040	2	Washer, Lock (1/4'')
10	205-0056	1	Blower, Armature	27	115-0025	2	Nut (1/4-28)
11	*	1	Generator Frame	28	850-0045	4	Washer, Lock (5/16'')
12	520-0632	2	Stud, Generator Frame to Adapter	29	801-0027	4	Screw (5/16-24 x 7/8'') - Adapter Mounting
13	221-0115	2	Pole, Shoe	30	526-0029	1	Washer (3/8'')
14	222-1624	1	Field Coil Set (2 Coils Wired Together)	31	850-0050	1	Washer, Lock (3/8'')
15	510-0047	1	Bearing, Ball	32	104-0091	1	Nut (3/8-24) - Armature Through Stud
16	ARMATURE ASSEMBLY						
	201-1240	1	120 Volt				
	201-1295	1	240 Volt				
17	23J-0116	1	Adapter, Generator				

* - Refer to Factory Giving Complete Model, Spec and Serial Number.

CAUTION

Never use emery or carborundum paper to clean commutator or collector rings. Always use genuine Onan replacement brushes for efficient performance.



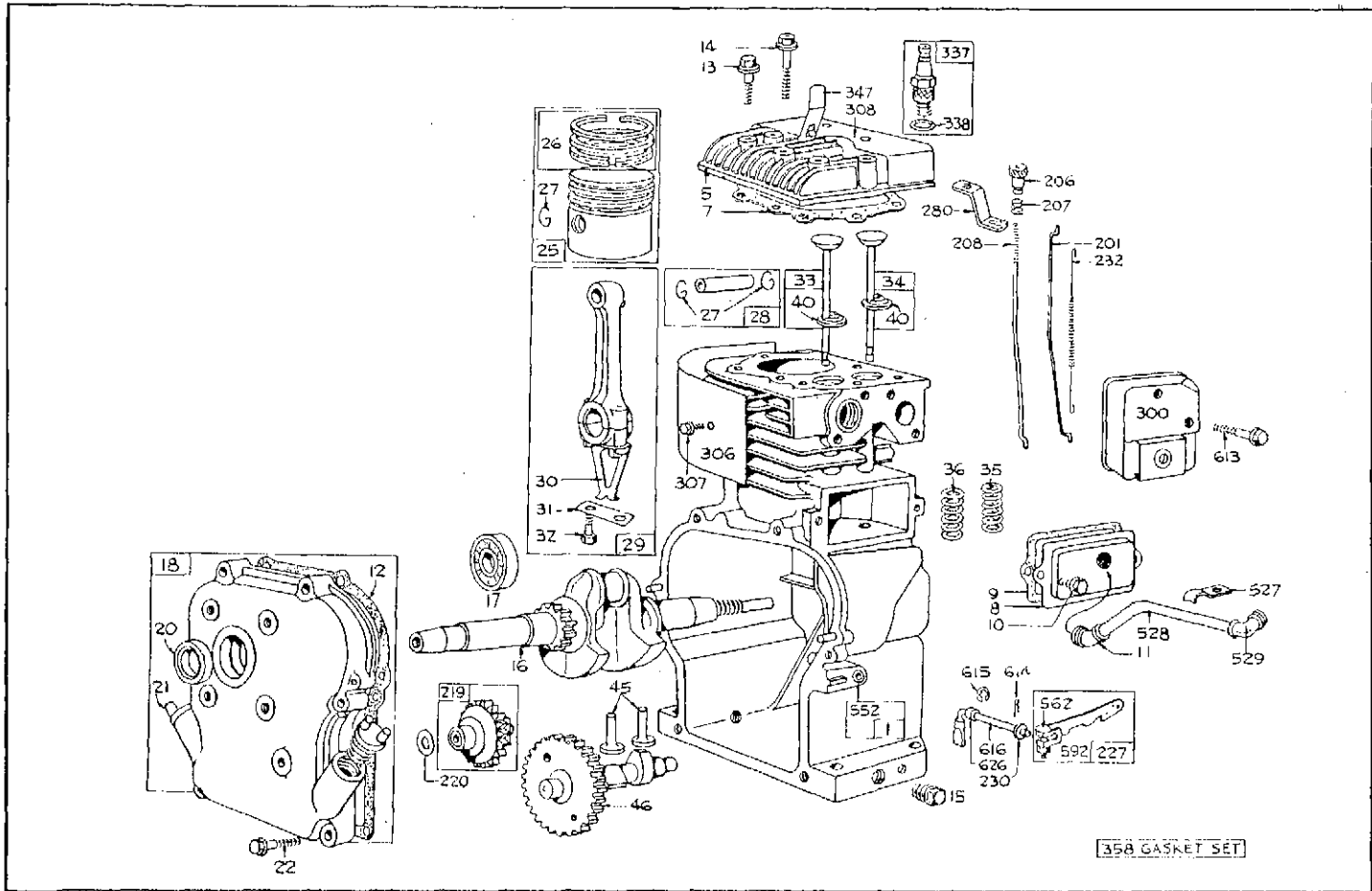
**ONAN GENERATOR PARTS LIST
(BEGIN SPEC B)**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-0715	1	Handle, Carrying	19	212-0292	1	Rig Assembly, Brush (Includes Brushes & Springs) - 120 Volt
2	403-0205	1	Grip, Handle	19	212-0305	1	Rig Assembly, Brush (Includes Brushes & Springs) 240 Volt
3	402-0325	4	Mount, Shock	20	305-0448	2	Rectifier, 120 Volt (Includes Lead)
4	403-0714	1	Base, Mounting	20	305-0449	2	Rectifier, 240 Volt (Includes Lead)
5	234-0169	2	Cover, Air Outlet	21	212-1105	2	Spring, Collector Ring Brush AC
6	323-0383	1	Receptacle, Duplex - 120 Volt	22	214-0072	2	Brush, Collector Ring - AC
6	323-0213	1	Receptacle, Duplex - 240 Volt	23	332-0878	1	Strip, Connector - Rectifiers
7	332-0142	1	Terminal, Solderless - Ground Connection	24	332-0050	1	Clip, Tinnerman
8	COVER, END BELL			25	508-0008	1	Grommet, 240 Volt
	234-0243	1	120 Volt Sets	26	330-0016	1	Cover, Receptacle Box, 240 Volt
	234-0258	1	240 Volt Sets (Includes Receptacle Box)	27	526-0029	1	Washer (3/8") - Armature Through Stud
9	232-1557	2	Clip, Cover	28	850-0050	1	Washer, Lock (3/8")
10	205-0056	1	Blower, Armature	29	104-0091	1	Nut (3/8-24) - Armature Through Stud
11	*	1	Generator Frame	30	850-0045	4	Washer, Lock (5/16")
12	520-0632	2	Stud, Generator Frame to Adapter	31	801-0027	4	Screw (5/16-24 x 7/8") - Adapter Mounting
13	221-0115	2	Pole, Shoe	32	850-0040	2	Washer, Lock (1/4")
14	FIELD COIL SET (2 Coils Wired Together)			33	115-0025	2	Nut (1/4-28)
	222-1625	1	120 Volt Sets	34	862-0015	4	Nut (5/16") - Mounting
	222-1635	1	240 Volt Sets	35	850-0045	4	Washer, Lock (5/16")
15	510-0047	1	Bearing, Ball	36	134-2100	2	Spacer, Carrying Handle
16	ARMATURE ASSEMBLY			37	850-0045	2	Washer, Lock (5/16")
	201-1246	1	60 Hertz, 120 Volt	38	800-0027	2	Screw (5/16-18 x 7/8")
	201-1302	1	60 Hertz, 240 Volt				
	201-1279	1	50 Hertz, 120 Volt				
	201-1297	1	50 Hertz, 240 Volt				
17	231-0116	1	Adapter, Generator				
18	520-0660	1	Stud, Armature				

* - Refer to factory giving complete Model, Spec and Serial Number from the Onan nameplate.

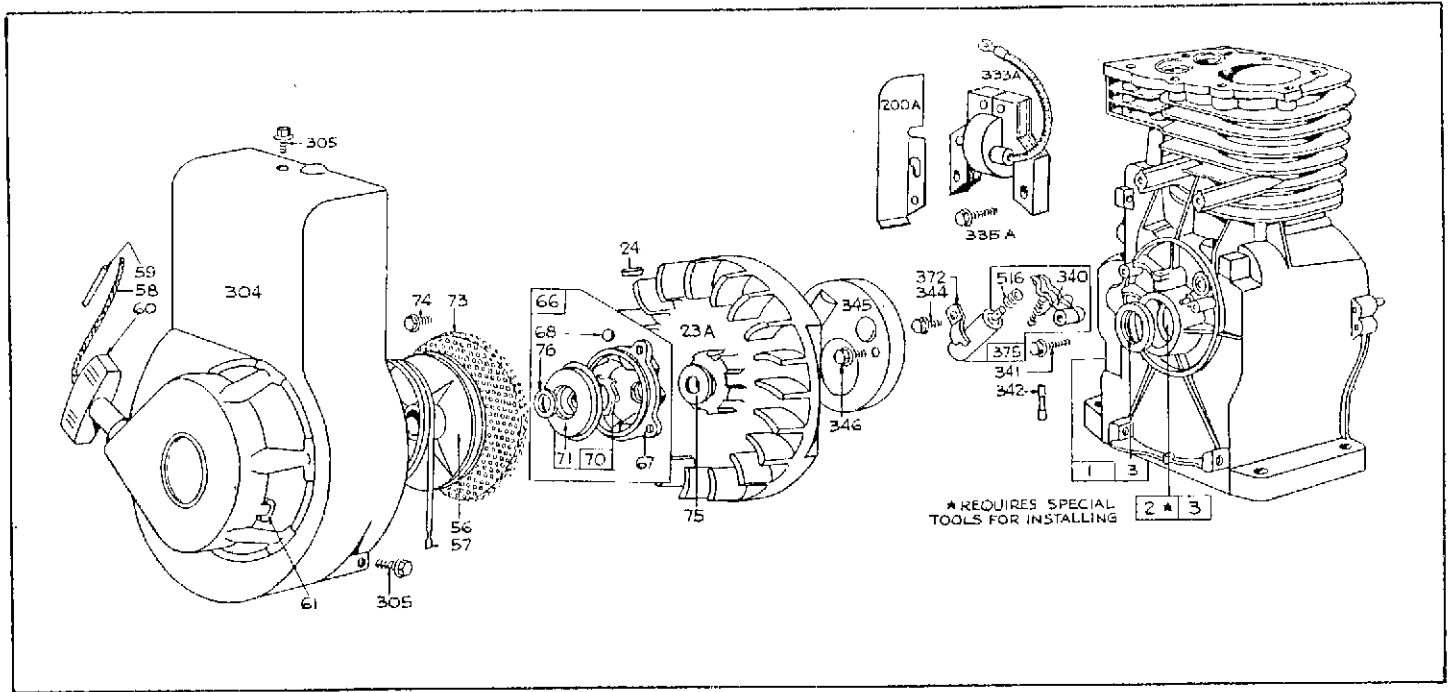
ENGINE PARTS LIST FOR PC SERIES

ORDER ENGINE PARTS FROM BRIGGS & STRATTON DEALERS

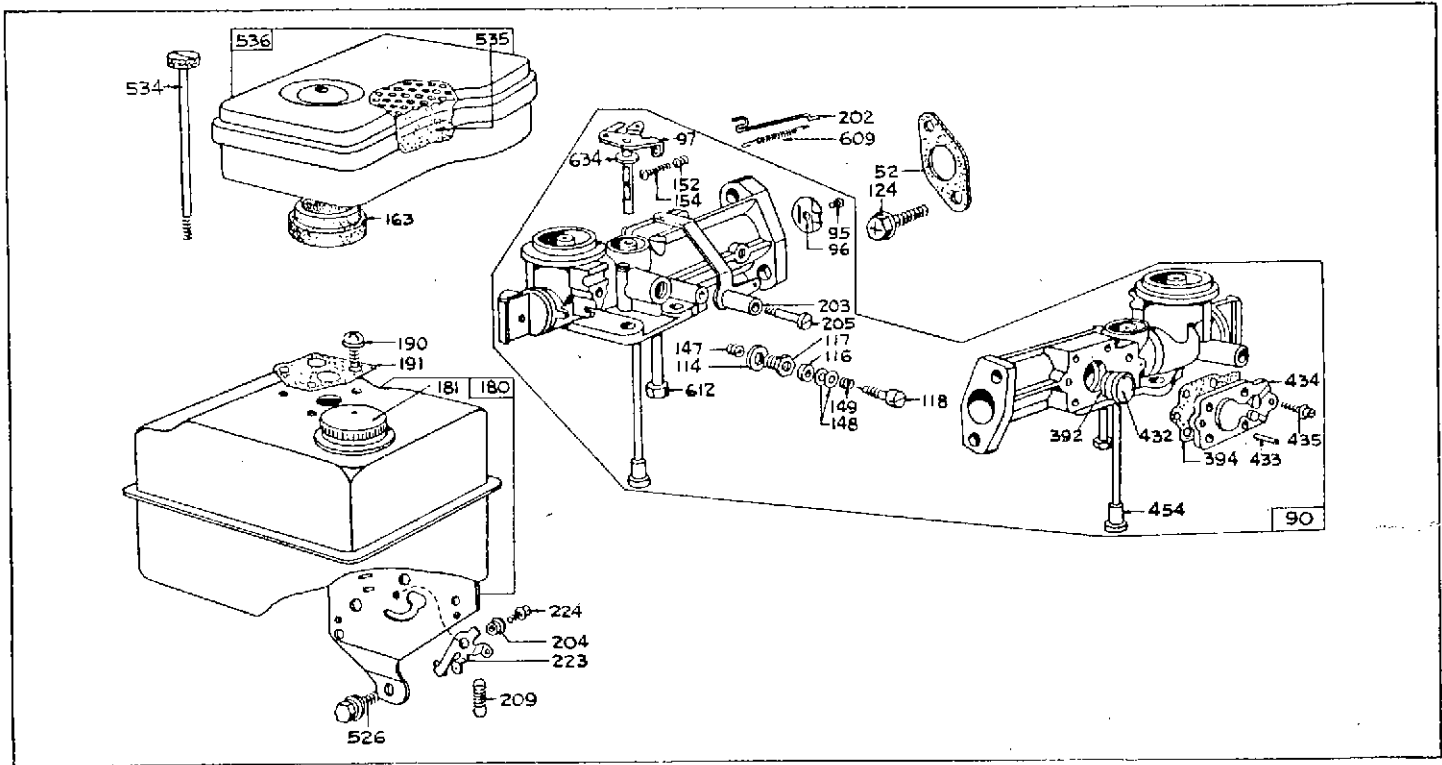


REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION
1	297566	1	Cyl. Assbly.	13	93368	5	Screw, Cyl. Head (2-3/32" long)	298171	1	1	Piston Assbly., .030" O.S.
2	297565	1	Bushing, Cyl.	14	93369	3	Screw, Cyl. Head (2-15/32" long)	26	298174	1	Ring Set, Std. Piston, Consists of:
			NOTE: Special Tools needed.	15	91249	1	Plug, Pipe, 1/4" Std., Square Hd.	211297			Ring, Piston, Comp., Top, 5/64" Wide
3	89660	1	Seal, Oil	16	260727	1	Crankshaft	211298			Ring, Piston, Comp., Center, 5/64" Wide
5	211127	1	Head, Cylinder	17	99158	1	Bearing, Ball	211299			Ring, Piston, Oil
7	270068	1	*Gasket, Cylinder Head	18	298204	1	Crankcase	298175			Ring Set, .010" O.S. Piston, Consists of:
8	294178	1	Breather, Valve Chamber	20	293740	1	Seal, Oil	211353			Ring, Piston, Comp., Top, .010" O.S., 5/64" Wide
9	27549	1	*Gasket, Valve Cover	21	66768	1	Plug, Oil Filter	211352			Ring, Piston, Comp., Center, .010" O.S., 5/64" Wide
10	93394	2	Screw, Breather Mtg. Sem	22	93032	6	Screw, Crankcase Cover Mtg. Sem	211351			Ring, Piston, Oil, .010" O.S.
11	66578	1	Grommet, Breather Tube	23A	297229	1	Flywheel Assembly	298176			Ring Set, .020" O.S.
12	270080	1	Gasket, Crankcase, .015" (Std.)	24	61760	1	Key, Flywheel				
	270125	As Req.	Gasket, Crankcase, .005" Thick	25	298168	1	Piston Assbly., Std.				
	270126	As Req.	Gasket, Crankcase, .009" Thick		298169	1	Piston Assbly., .010" O.S.				
					298170	1	Piston Assbly., .020" O.S.				

* Included in Gasket Set - Part No. 297615.



REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION
			Piston, Consists of	32	93450	2	Screw, Connecting Rod Used before Serial	124	93357	2	Screw, Sem, Phillips Hex. Hd.
211357			Ring, Piston, Comp., Top, .020" O.S., 5/64" Wide	147	230591	1	Seat, Needle Valve	148	22235	2	Washer, Needle Valve
211356			Ring, Piston, Comp. Center, .020" O.S. 5/64" Wide	149	26336	1	Spring, Needle Valve	152	260575	1	Spring, Throttle Adj.
211355			Ring, Piston, Oil .020" O.S.	154	92634	1	Screw, Machine, Rd. Hd. 5-40 x 5/8"	163	27660	1	*Gasket, Air Cleaner Mtg.
298177	1		Ring Set, .030" O.S. Piston, Consists of	180	297600	1	Tank Assbly., Fuel	181	293270	1	Cap, Fuel Tank
211361			Ring, Piston, Comp., Top, .030" O.S., 5/64" Wide	190	93341	3	Screw, Fuel Tank Mtg. Sem	191	27911	1	*Gasket, Fuel Tank Mtg.
211360			Ring, Piston, Comp., Center, .030" O.S. 5/64" Wide	200A	221480	1	Guide, Air	201	260661	1	Link, Governor
211359			Ring, Piston, Oil, .030" O.S.	202	260678	1	Link, Throttle	203	297718	1	Crank, Bell
27	260645	2	Lock, Piston Pin	204	23688	1	Bushing, Governor Lever	205	230754	1	Screw, Bell Crank Mtg.
28	297581	1	Pin Assbly., Piston, Standard	206	230149	1	Nut, Control Rod	207	26855	1	Spring, Control Rod
	297582	1	Pin Assbly., Piston, .005" O.S.	208	230734	1	Rod, Control	209	260695	1	Spring, Governor
29	297569	1	Rod Assbly., Connect.	219	297656	1	Gear, Governor	220	221551	1	Washer, Thrust
30	221786	1	Dipper, Connecting Rod Used after Serial No. 6503231	222	221517	1	Lever, Gov. Control	224	93389	1	Screw, Governor, Con- trol Lever Mtg. Sem
		1	NOTE: 221507 Dipper, Connecting Rod Used before Serial No. 6503241	227	297601	1	Lever Assy., Gov.	230	221559	1	Washer, Gov. Lever
		1	NOTE: 221451 Lock, Connecting Rod Screw Used before Serial No. 6503241	232	260478	1	Spring, Gov. Link	280	221384	1	Strap, Control Rod
31	221741	1	Lock, Connecting Rod Screw Used after Serial No. 6503231	300	297274	1	Muffler, Exhaust	304	297596	1	Housing, Blower
			NOTE: 221451 Lock, Connecting Rod Screw Used before Serial No. 6503241	305	93158	3	Screw, Blower Hsg. Mounting	306	221511	1	Shield, Cylinder
				114	66594	1	Gasket, Needle Valve Nut				
				116	65978	1	Packing, Needle Valve				
				117	230590	1	Nut, Needle Valv.				
				118	23433	1	Valve, Needle				



REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION
307	93042	1	Screw, Cyl. Shield Mounting Sem	347	220884	1	Switch, Stop	527	221514	1	Clamp, Breather Tube
308	221512	1	Cover, Cylinder Head	358	297615	1	Gasket Set	528	230722	1	Tube, Breather
333A	298316	1	Armature, Magneto	372	220477	1	Clamp, Condenser	529	67838	1	Grommet, Breather Tube
335A	93414	2	Screw, Armature Mtg.	375	294628	1	Breaker Points and Condenser Set	534	93322	1	Screw, Air Cleaner Element, Air Cleaner
337	293918		Plug, Spark (with Gasket)	392	260455	1	Spring, Fuel Pump Diaphragm	535	27987	1	Element, Air Cleaner
338	29806	1	Gasket, Spark Plug	394	270026	1	Diaphragm	536	297036	1	Cleaner Assembly, Air
340	26018	1	Spring, Breaker Arm	432	221377	1	Cap, Spring	552	230732	1	Bushing, Governor
341	93381	1	Screw, Breaker Arm Mounting Sem	433	93265	1	Pin, Diaphragm Cover	562	92613	1	Bolt, Governor Lever
342	65704	1	Plunger, Breaker Point	434	210959	1	Cover, Diaphragm	592	90356	1	Nut, Hex., 10-24
344	93042	1	Screw, Condenser Clamp Mounting Sem	435	93141	4	Screw, Diaphragm Cover	609	260694	1	Spring, Throttle Link
345	220366	1	Cover, Brkr. Point & Condenser	454	296178	1	Housing, Fuel Pipe Screen (for 3/16" O.D. Pipe)	612	296811	1	Pipe, Fuel
346	93014	2	Screw, Dust Cover Mounting Sem	516	260374	1	Spring, Connector	613	93377	2	Screw, Muffler Mtg.
				526	93343	1	Screw, Tank Brkt. Mtg. Sem	614	93306	1	Cotter, Hair Pin
								615	93307	1	Retainer, L-Ring
								616	230723	1	Crank, Governor
								626	230749	1	Spacer, Gov. Crank
								634	270167	1	Washer, Throttle Shaft (Felt)

SPECIAL PARTS LIST FOR **MODEL** 105PG-1P **SPEC** 1A
 FOR STANDARD PARTS REFER TO **CATALOG** 900-0092 **KEY NO.**
 OPTIONAL GROUPS IN CATALOG ARE LISTED BY GROUP NO. BELOW WHEN USED.

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
Standard Model					
210-1841	1	Frame, Generator			

SPECIAL PARTS LIST FOR **MODEL** 105PG-2P **SPEC** 1A
 FOR STANDARD PARTS REFER TO **CATALOG** 900-0092 **KEY NO.**
 (PARTS CATALOG ALSO CONTAINS COMPONENTS FOR MAJOR OPTIONAL FEATURES LISTED BE
WIRING DIAGRAM NO. (AC) 601-0132

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
Standard Model					
210-1841	1	Frame, Generator			

SPECIAL PARTS LIST FOR MODEL 102PC-51P SPEC 1B
 FOR STANDARD PARTS REFER TO CATALOG 900-0092 KEY NO.
 (PARTS CATALOG ALSO CONTAINS COMPONENTS FOR MAJOR OPTIONAL FEATURES LISTED B
WIRING DIAGRAM NO. (AC)601-0133

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
Standard Model					
210-1809	1	Frame, Generator			

SPECIAL PARTS LIST FOR MODEL 102PC-52P SPEC 1B
 FOR STANDARD PARTS REFER TO CATALOG 900-0092 KEY NO.
 (PARTS CATALOG ALSO CONTAINS COMPONENTS FOR MAJOR OPTIONAL FEATURES LISTED I
WIRING DIAGRAM NO. (AC) 601-0134

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
Standard Model					
210-1809	1	Frame, Generator			

SPECIAL PARTS LIST FOR MODEL 105PC-1P SPEC 1B
 FOR STANDARD PARTS REFER TO CATALOG 900-0092 KEY NO. -
 (PARTS CATALOG ALSO CONTAINS COMPONENTS FOR MAJOR OPTIONAL FEATURES LISTED BELC
 WIRING DIAGRAM NO. (AC)601-0133

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
Standard Model					
210-1809	1	Frame, Generator			

SPECIAL PARTS LIST FOR MODEL 105PC-2P SPEC 1B
 FOR STANDARD PARTS REFER TO CATALOG 900-0092 KEY NO. -
 (PARTS CATALOG ALSO CONTAINS COMPONENTS FOR MAJOR OPTIONAL FEATURES LISTED BELOW)
 WIRING DIAGRAM NO. (AC) 601-0134

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
Standard Model					
210-1809	1	Frame, Generator			

SPECIAL PARTS LIST FOR MODEL 1.4PC-51P SPEC 1C
 FOR STANDARD PARTS REFER TO CATALOG 900-0092 KEY NO. -
 (PARTS CATALOG ALSO CONTAINS COMPONENTS FOR MAJOR OPTIONAL FEATURES LISTED BELOW)

WIRING DIAGRAM NO. (AC)601-0133

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
Standard Model					
210-1809	1	Frame, Generator			

SPECIAL PARTS LIST FOR MODEL 1.4PC-52P SPEC 1G
 FOR STANDARD PARTS REFER TO CATALOG 900-0092 KEY NO. -
 (PARTS CATALOG ALSO CONTAINS COMPONENTS FOR MAJOR OPTIONAL FEATURES LISTED BELOW)
 WIRING DIAGRAM NO. (AC)601-0134

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
Standard Model					
210-1809	1	Frame, Generator			

SPECIAL PARTS LIST FOR MODEL 1.7PC-1P SPEC 1C
 FOR STANDARD PARTS REFER TO CATALOG 900-0092 KEY NO. -
 (PARTS CATALOG ALSO CONTAINS COMPONENTS FOR MAJOR OPTIONAL FEATURES LISTED BELOW)

WIRING DIAGRAM NO. (AC) 601-0133

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
Standard Model					
210-1809	1	Frame, Generator			

SPECIAL PARTS LIST FOR MODEL 1.7PC-2P SPEC 1C
 FOR STANDARD PARTS REFER TO CATALOG 900-0092 KEY NO. -
 (PARTS CATALOG ALSO CONTAINS COMPONENTS FOR MAJOR OPTIONAL FEATURES LISTED BELOW)
 WIRING DIAGRAM NO. (AC)601-0134

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
Standard Model					
210-1809	1	Frame, Generator			

SPECIAL PARTS LIST FOR MODEL 1.7PC-1P SPEC 8000C
 FOR STANDARD PARTS REFER TO CATALOG 900-0092 KEY NO. -
 (PARTS CATALOG ALSO CONTAINS COMPONENTS FOR MAJOR OPTIONAL FEATURES LISTED BELOW

WIRING DIAGRAM NO. (AC)601-0133

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
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Manufactured For: Lad-E-Vator

210-1809 1 Frame, Generator