



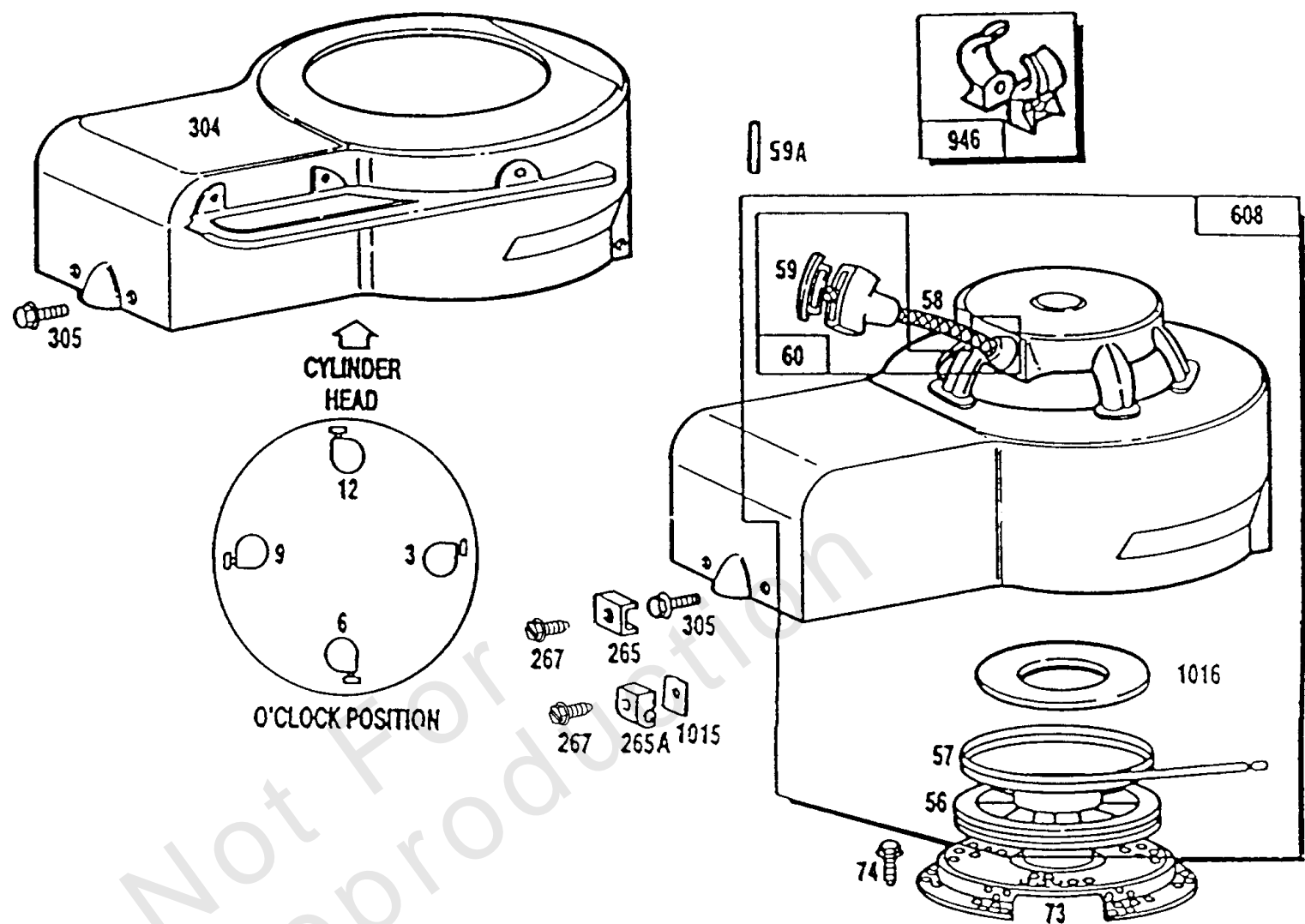
# Parts Manual

Mfg. No: 090702-3054-01



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Not For  
Reproduction



REWIND STARTER ASSEMBLIES FOR BAND BRAKE

ROPE LENGTH	CLOCK POSITIONS					
	1	5	6	9	11	12
82"			*398909			
88-5/8"	490786	399234	*399353	399872	490813	398983

\*For Specials, See Text Ref. 608.

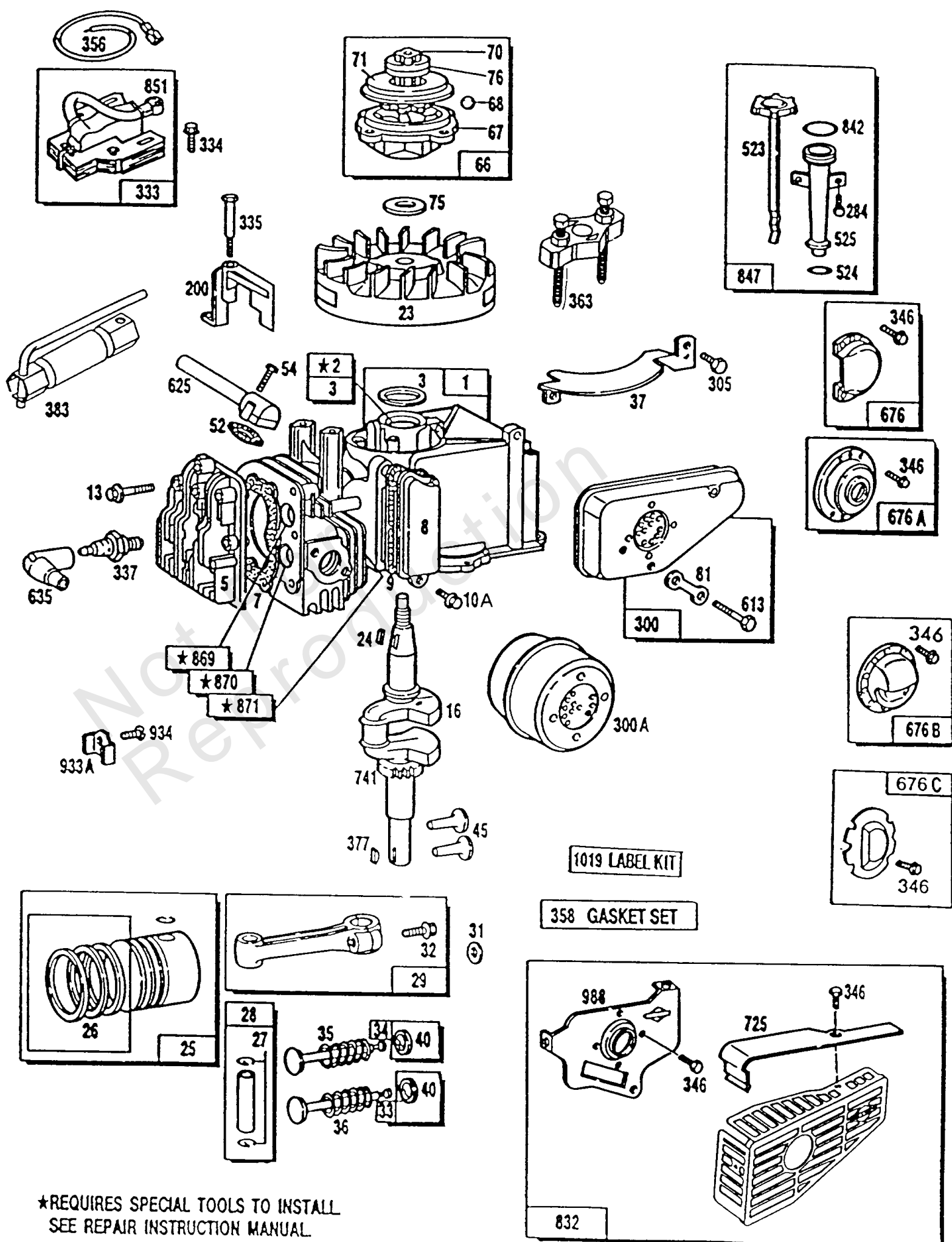
REWIND STARTER ASSEMBLIES FOR NON-BAND-BRAKE

ROPE LENGTH	CLOCK POSITIONS				
	1:30	3	6	9	12
82"		490709	*398943	398597	490382

\*For Specials, See Text Ref. 608.

## Blower Hsgs, Rewind Start

REF NO	PART NO	QTY	DESCRIPTION
56	280439		PULLEY, Rope Starter
57	490179		SPRING-REWIND STR
58	280406		ROPE, Starter -(Cut To Required Length) If Longer Rope is Needed, Order No. 280399 and Cut to Required Length. Order 66734 for 48-5/8 Long Rope.
59A	230228		PIN, Starter Grip
59	396892		INSERT-GRIP
60	393152		GRIP-STARTER ROPE
73	221661		SCREEN, Rotating -(Rewind Starter)
74	93490		SCREW -Included in Starter Drive Kit-Part No. 395727
265A	213146		CLAMP, Casing
265	221535		CLAMP, Casing -(Stamped Steel)
267	94694		SCREW -(Tapping)
305	94153		SCREW
608	-----		No Nomenclature
608	398597		STARTER, Rewind -(9 O'clock) (82 Rope)
608	398909		STARTER, Rewind -(6 O'clock) (82 Rope)
608	398943		STARTER, Rewind -(6 O'clock) (Non Compliance Engines)
608	398983		STARTER, Rewind -(6 O'clock) (82 Rope)
608	399234		STARTER, Rewind -(5 O'clock) (82 Rope)
608	399353		STARTER, Rewind -(6 O'clock) (Compliance Engines)
608	399872		STARTER, Rewind -(9 O'clock) (Compliance Engines)
608	490382		STARTER, Rewind -(12 O'clock) (82 Rope)
608	490709		HOUSING, Blower -(3 O'clock) (82 Rope)
608	490786		STARTER, Rewind -(1 O'clock) (Compliance Engines)
608	490813		STARTER, Rewind -(11 O'clock) (Compliance Engines)
946	396526		GUIDE, Rope
1015	223649		PLATE, Casing Clamp
1016	490817		SPACER-REWIND -(Rewind)

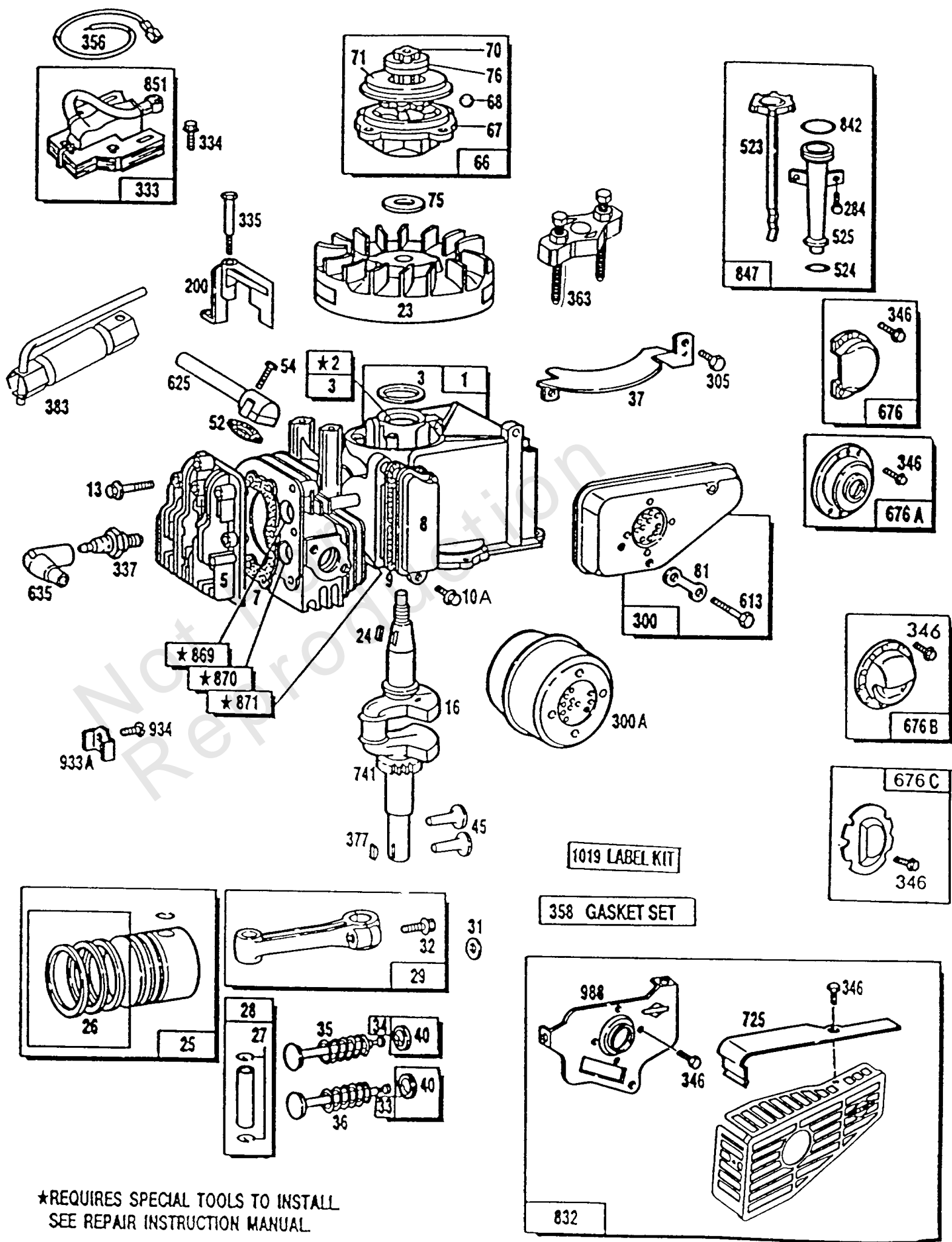


## Cyl Head,Cylinder,Piston

REF NO	PART NO	QTY	DESCRIPTION
1	399164		CYLINDER ASSEMBLY -(Air Vane)
2	293708		KIT, Bushing/Seal -(Plain Bearing)
3	299819		SEAL, Oil -(Plain Bearing) Included in Gasket Set-Part No. 298989
5	213012		HEAD, Cylinder
7	270341		GASKET, Cylinder Head
8	298383		BREATHER ASSEMBLY
9	270239		GASKET, Rocker Cover -Included in Gasket Set-Part No. 298989
10A	93394		SCREW
13	93111		SCREW -(15/16)
13	93772		STUD -(15/16)
16	492748		CRANKSHAFT -To Replace Crankshaft Gear Pin, Order Part No. 230978
16	494564		CRANKSHAFT -Used After Code Date 91063000
23	395653		FLYWHEEL
24	222698		KEY, Flywheel
25	298904		PISTON ASSEMBLY -(Standard)
25	298905		PISTON ASSEMBLY -(.010 Oversize)
25	298906		PISTON ASSEMBLY -(.020 Oversize)
25	298907		PISTON ASSEMBLY -(.030 Oversize)
26	298982		RING SET-STD -(Standard)
26	298983		SET, Ring -(.010 Oversize)
26	298984		RING SET-020 -(.020 Oversize)
26	298985		SET, Ring -(.030 Oversize)
26	299742		SET, Ring -(Standard)
27	26026		LOCK, Piston Pin
28	298908		PIN, Piston -(.005 Oversize)
28	298909		PIN. Piston
29	294201		ROD, Connecting -For Connecting Rod With .020 Undersize Crankpin Bore-Order No. 296079
31	222282		WASHER
32	94404		SCREW -(Connecting Rod)
33	262581		VALVE, Exhaust -Used After Code Date 90051500
33	296676		VALVE, Exhaust -(Grooved Stem-Includes Retainer)
34	296677		VALVE, Intake -(Grooved stem-includes Retainer)

### Footnotes:

To Replace Crankshaft Gear Pin, Order Part No. 230978



★REQUIRES SPECIAL TOOLS TO INSTALL  
SEE REPAIR INSTRUCTION MANUAL

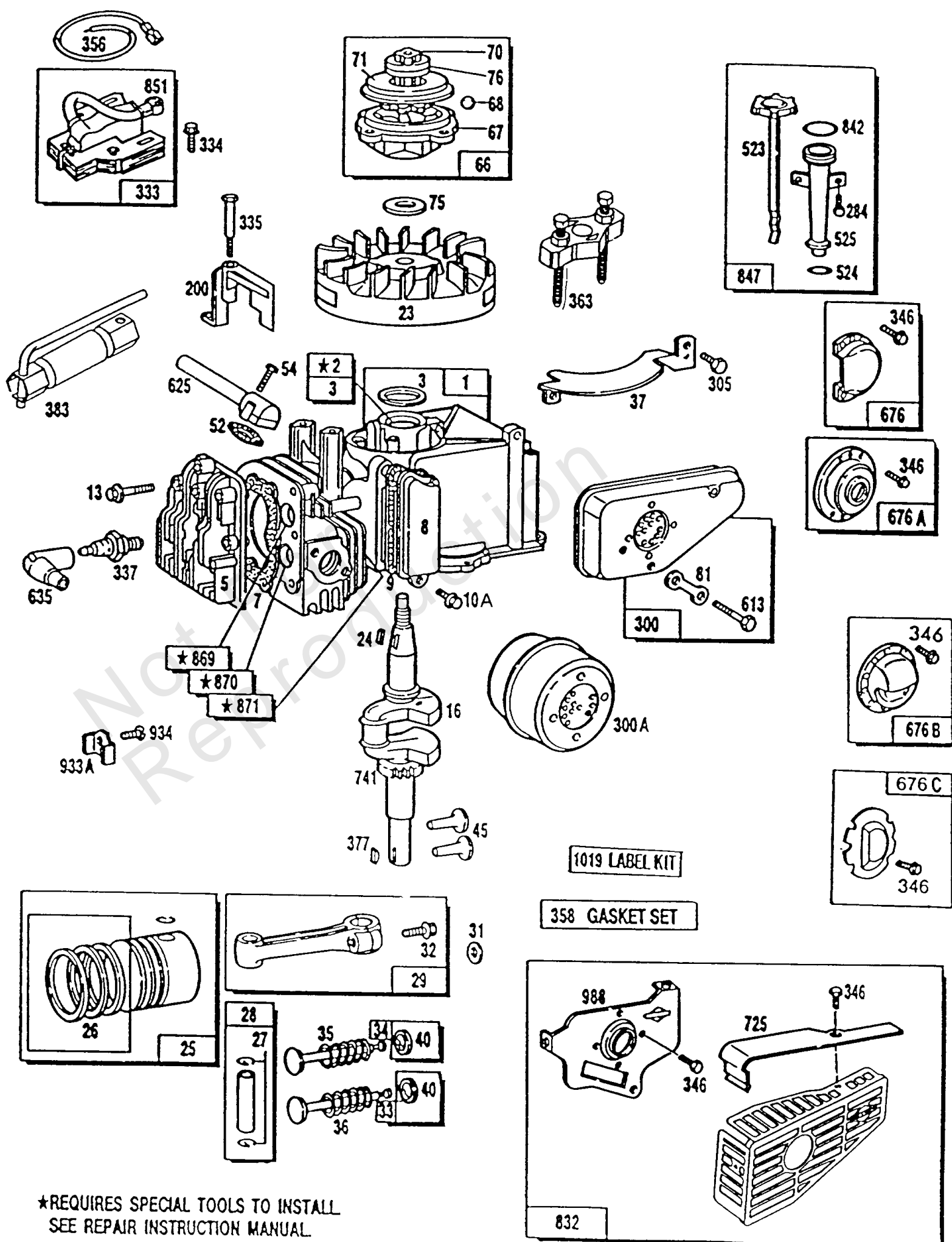


## Cyl Head,Cylinder,Piston

REF NO	PART NO	QTY	DESCRIPTION
35	260552		SPRING, Valve -(Exhaust)
36	262750		SPRING, Valve -(Exhaust) -Used After Code Date 90051500
36	26478		SPRING, Valve -(Exhaust)
37	223150		GUARD, Flywheel -(Muffler Side)
40	230126		PIN, Retainer
40	292259		RETAINER, Valve -(Exhaust)
40	491442		RETAINER, Valve -(Exhaust) -Used After Code Date 90051500
40	93312		RETAINER, Valve -(Valves With Groove In Stem)
45	230173		TAPPET, Valve
52	270345		GASKET, Intake -Included in Gasket Set-Part No. 298989
54	93485		SCREW
66	399671		CLUTCH-STARTER -(Uses Rubber Coated Retainer Washer-Ref. 71)
67	394897		HOUSING, Clutch
68	63770		BALL, Clutch
70	298799		RATCHET, Clutch -(engine W/Ring Gear on FW equipped for Elec Start)
71	394506		COVER, Ratchet -(Rubber Coated)
75	224061		WASHER -(5/8 Hole)
76	68238		SEAL, Ratchet
81	223256		LOCK, Rod Screw
200	68388		BLADE, Governor
284	94073		SCREW
300A	394569		MUFFLER -(Lo Tone)
300	394644		MUFFLER
305	94153		SCREW
333	398593		ARMATURE, Magneto -(Magnetron Ignition)
334	93381		SCREW
335	93435		SCREW
337	293918		PLUG, Spark
337	298809		PLUG, Spark
337	492167		PLUG, Spark
337	802592		PLUG, Spark -(Resistor)
346	93705		SCREW -(8-32 X 3/8)
356	398808		WIRE, Stop -(Cut To Required Length)
358	298989		GASKET SET, Engine
363	19069		PULLER, Flywheel

### Footnotes:

To Replace Crankshaft Gear Pin, Order Part No. 230978

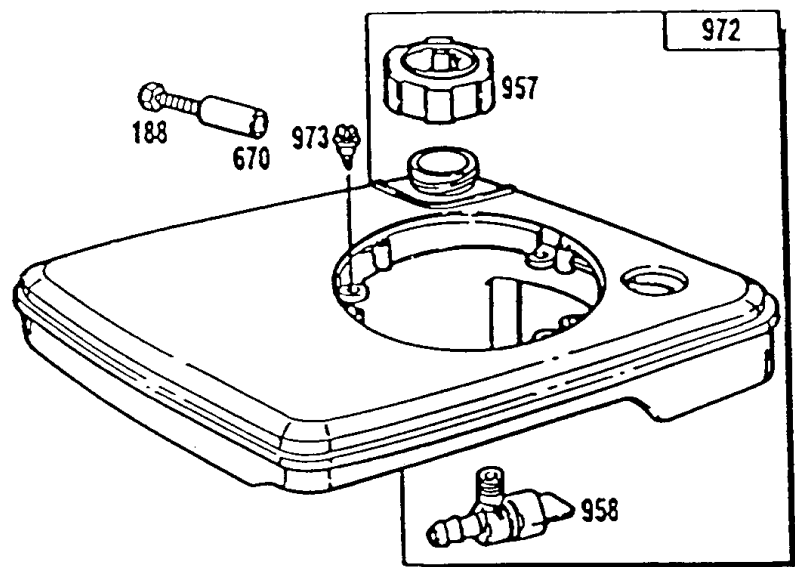


## Cyl Head,Cylinder,Piston

REF NO	PART NO	QTY	DESCRIPTION
377	93065		KEY, Woodruff -(#6)
383	89838		WRENCH, Spark Plug
523	398012		DIPSTICK -(Rewind Starter)
524	271485		SEAL, O-Ring -(Oil Fill) Included in Gasket Set-Part No. 298989
525	280504		TUBE, Dipstick -(Rewind Starter)
613	93935		SCREW -(Muffler)
625	398360		STACK, Air
635	66538		BOOT, Spark Plug
676A	397931		DEFLECTOR, Muffler
676C	393756		DEFLECTOR, Muffler -(Side Outlet)
676B	396548		DEFLECTOR, Muffler
676	393760		DEFLECTOR, Muffler
725	223725		SHIELD, Heat
741	261533		GEAR, Timing -(Plain Bearing 2 Piece Crankshaft)
832	399637		GUARD, Muffler -Used Before Code Date 90031100
832	493967		GUARD, Muffler -Used After Code Date 90031200
842	270920		SEAL, O-Ring -(Dipstick Tube) (Oil Fill)
847	398010		DIPSTICK/TUBE ASSEMBLY -(Rewind Starter)
851	221798		TERMINAL, Spark Plug
869	210879		SEAT, Valve -(Intake) -Used Before Code Date 88063000
869	211172		SEAT, Valve -(Intake) -Used After Code Date 88070100
870	211291		SEAT, Valve -(Exhaust)
871	231348		BUSHING-VALVE GUIDE -(Exhaust)
871	63709		BUSHING, Valve Guide -(Intake)
933A	223278		SPACER -(Used on Engines Without Band Brake)
934	94037		SCREW
988	223600		BRACKET, Muffler
1019	491080		KIT, Label

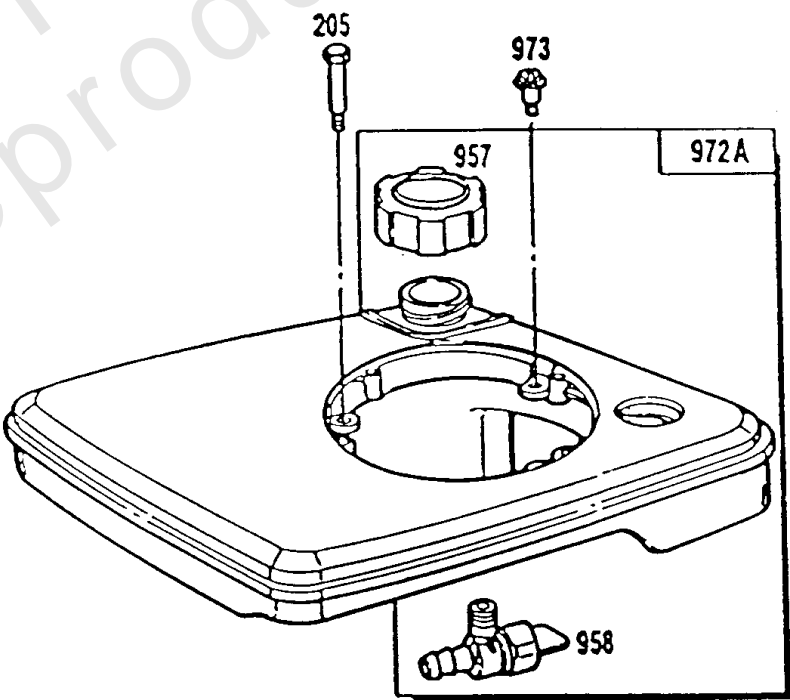
### Footnotes:

To Replace Crankshaft Gear Pin, Order Part No. 230978



REF. 972  
FUEL TANKS FOR ENGINES WITH REWIND START ONLY

Color	Black	Grey	Amer. Red (I/C®)	Sun Yellow	Light Fawn
Part No.	490622	490808	490806	490804	491045

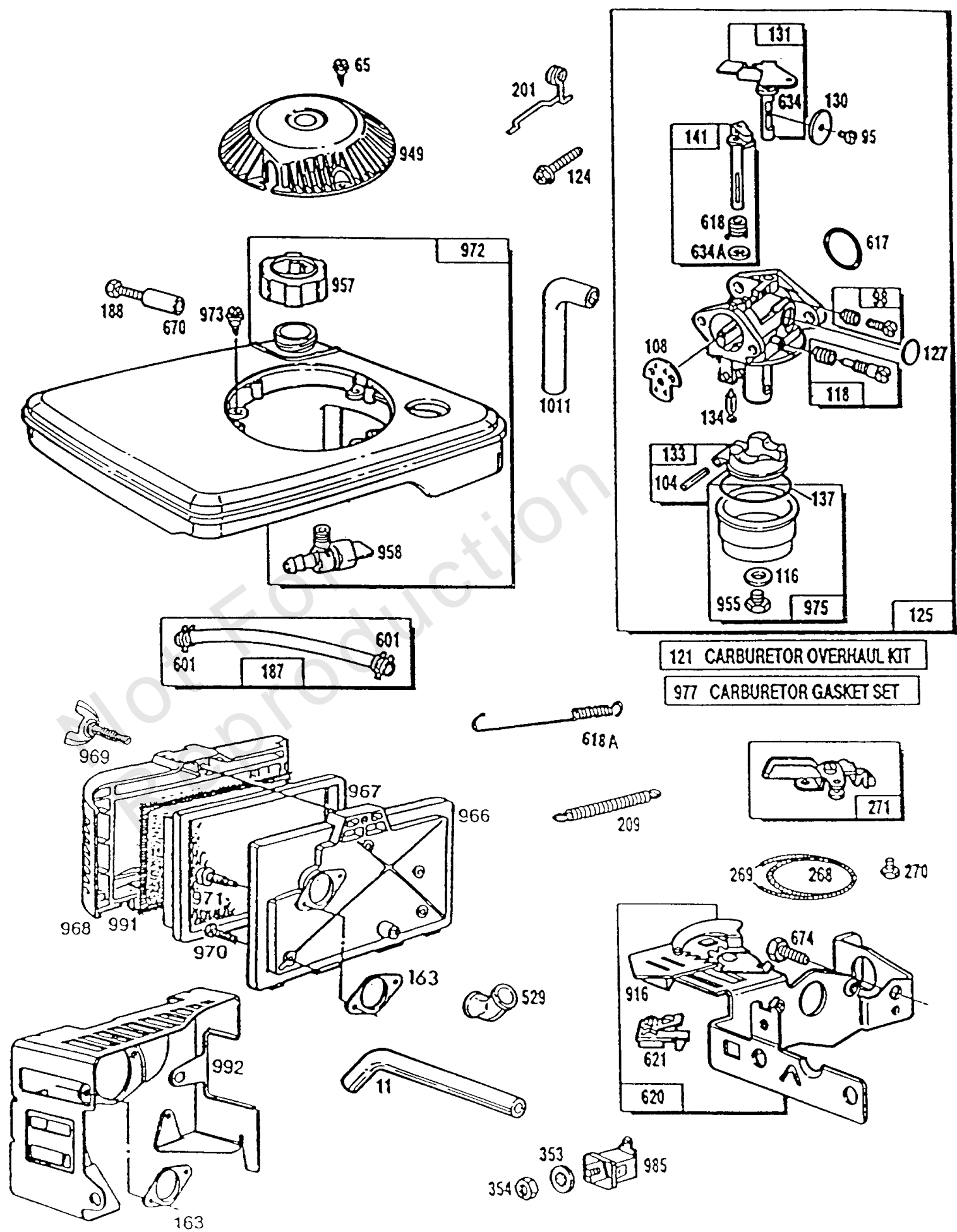


REF. 972A  
FUEL TANKS FOR ENGINES WITH VERTICAL PULL OR ELECTRIC STARTERS.

COLOR	BLACK	GREY	AMER. RED(I/C )	SUN YELLOW	LIGHT FAWN
PART NO.	490623	492879	490805		491134

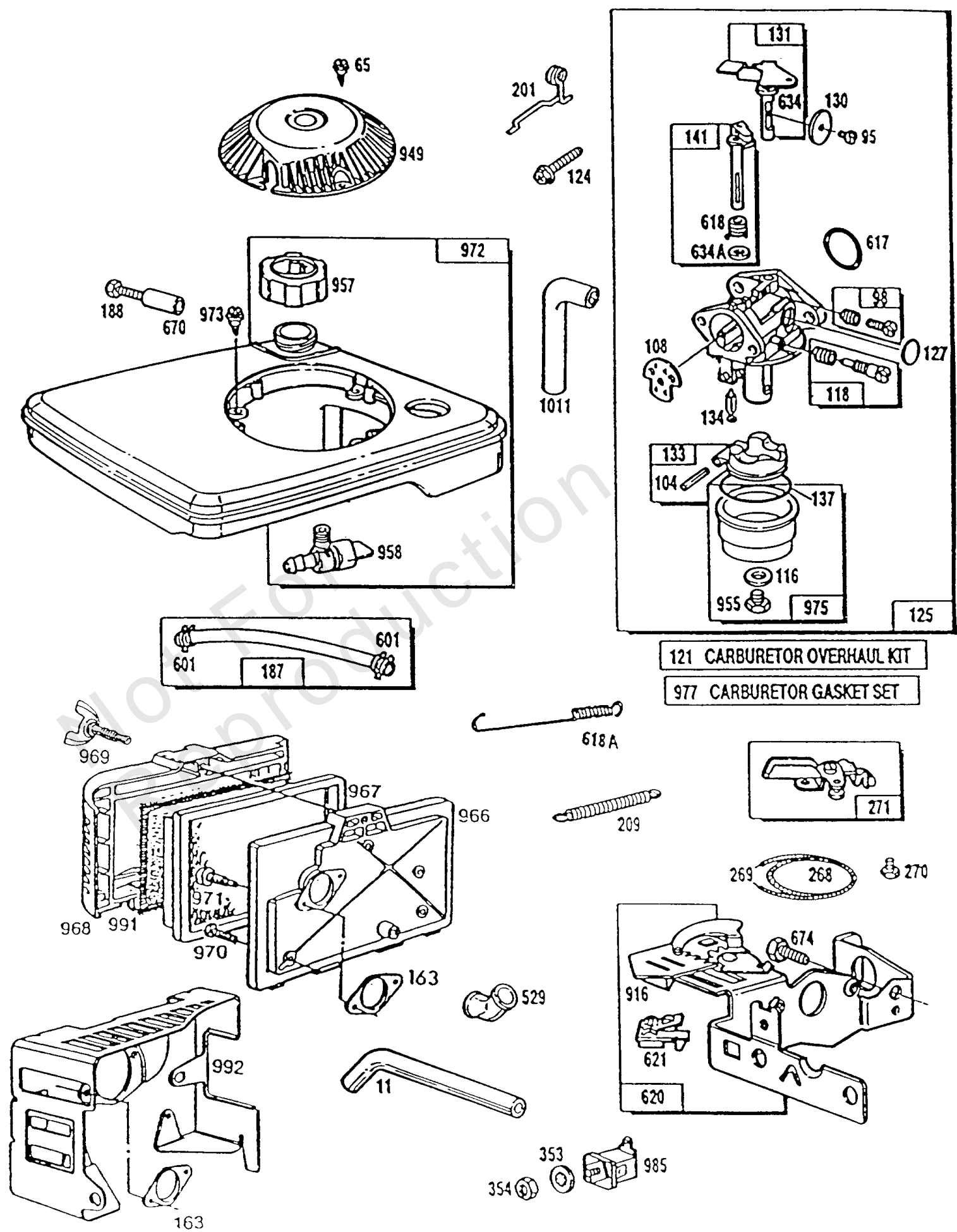
## ***Fuel Tank Assemblies***

REF NO	PART NO	QTY	DESCRIPTION
188	398540		SCREW -(Control Bracket)
205	94141		SCREW
670	280512		SPACER, Fuel Tank
957	397974		CAP, Fuel Tank -(Plastic)
958	399517		VALVE, Fuel Shut Off -(Plastic)
972A	490623		TANK, Fuel -(Black) (Pull or Electric Starter)
972A	-----		No Nomenclature
972A	491134		TANK, Fuel -(Pull or Electric Starter) (Light Fawn)
972A	492879		TANK, Fuel -(Grey)
972A	490805		TANK, Fuel -(Red)
972	490622		TANK, Fuel -(Black) (Rewind Starter)
972	490804		TANK, Fuel -(Yellow) (Rewind Starter)
972	490806		TANK, Fuel -(Red)
972	490808		TANK, Fuel -(Grey) (Rewind Starter)
972	491045		TANK, Fuel -(Rewind Starter) (Light Fawn)
973	94114		SCREW



## FuelTank Assy,A/C,Carburetor

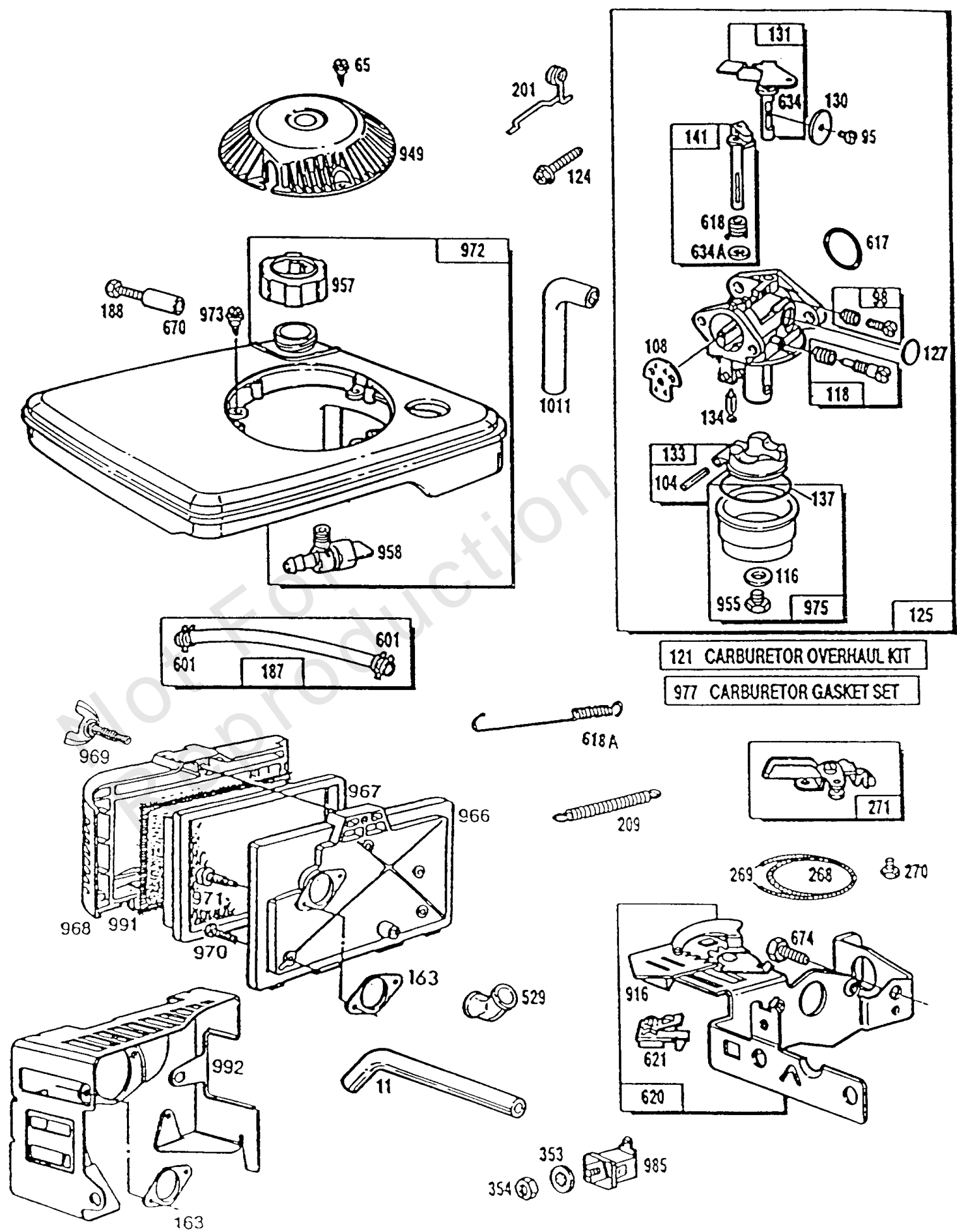
REF NO	PART NO	QTY	DESCRIPTION
11	231406		TUBE, Breather
65	94058		SCREW -(Rewind Starter)
95	94098		SCREW -(Throttle Valve)
98	398185		KIT-IDLE SPEED -(Idle Speed) (Lmt 26, 27, 28, 31)
104	231371		PIN, Float Hinge -Included in Carburetor Overhaul Kit-Ref. No. 121
108	223471		VALVE, Choke
116	-----		No Nomenclature -Included in Carburetor Gasket Kit-Part No. 490937. Included in Carburetor Overhaul Kit-Ref. No. 121
118	398670		KIT, Idle Mixture -(Lms 3,4,5,7,10)
118	492500		VALVE, Needle -(Lms 11,12,13,14,15)
121	492072		KIT, Carburetor Overhaul -(Lms 3,4,10)
121	492495		KIT, Carburetor Overhaul -(Lms 11,12,13,14,15,m26)
124	94525		SCREW
125	491330		CARBURETOR -(Lms 10)
125	492496		CARBURETOR -(LMS 3, 13 And Xxxx3)
125	492498		CARBURETOR -(Lms 3) -Used Before Code Date 87082400
127	-----		No Nomenclature -Included in Carburetor Overhaul Kit-Ref. No. 121
130	223470		VALVE, Throttle
131	398673		SHAFT, Throttle -Used Before Code Date 87082400
131	491333		SHAFT, Throttle -Used After Code Date 87082500
133	398187		FLOAT-CARBURETOR
134	398188		KIT-NEEDLE/SEAT -Included in Carburetor Overhaul Kit-Ref. No. 121
137	-----		No Nomenclature -Included in Carburetor Gasket Kit-Part No. 490937. Included in Carburetor Overhaul Kit-Ref. No. 121
141	398186		SHAFT, Choke
163	271840		GASKET, Air Cleaner
187	393815		HOSE, Vacuum -(Cylinder To Impulse Pump)(Cut To Required Length)
188	398540		SCREW -(Control Bracket)
201	262043		LINK, Choke -Used Before Code Date 87082400
201	262365		LINK, Choke -Used After Code Date 87082500
209	261105		SPRING, Governor -(3000 To 3200 RPM)
268	66986		CASING, Control Wire -(Cut To Required Length)
269	26099		WIRE, Control -(Cut To Required Length) If Longer Wire is Needed, Specify Length in Inches; if Shorter Wire is Needed, Order No. 26099 and Cut to Required Length.





## FuelTank Assy,A/C,Carburetor

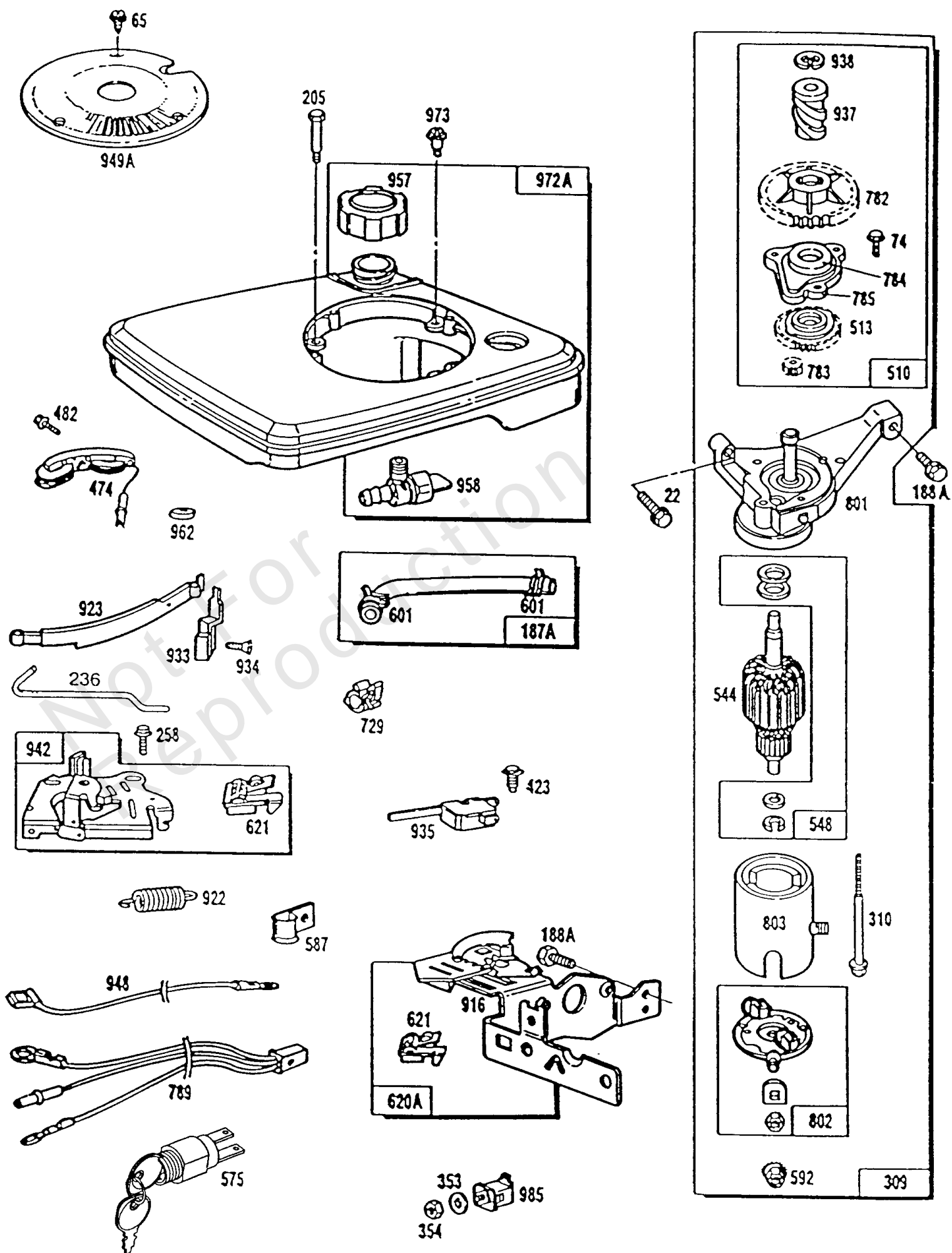
REF NO	PART NO	QTY	DESCRIPTION
270	63426		NUT -(Control Wire Casing)
271	290568		LEVER, Control
353	92791		WASHER
354	90576		NUT -(Ground Terminal)
529	280524		GROMMET -(Breather)
601	93053		CLAMP, Hose -(Green)
617	270344		SEAL, O-Ring -(Intake Manifold) Included in Carburetor Gasket Kit-Part No. 490937. Included in Carburetor Overhaul Kit-Ref. No. 121
618A	260870		SPRING, Choke Return -(Choke Return For Snap-Over Choke)
618	262035		SPRING, Choke Return
620	398363		BRACKET, Control
621	396847		SWITCH, Stop
634	-----		No Nomenclature -Included in Carburetor Gasket Kit-Part No. 490937. Included in Carburetor Overhaul Kit-Ref. No. 121
634A	-----		No Nomenclature -Included in Carburetor Gasket Kit-Part No. 490937. Included in Carburetor Overhaul Kit-Ref. No. 121
670	280512		SPACER, Fuel Tank
674	94117		SCREW -(Tank) (Fuel Tank)
916	280522		RACK, Governor Gear -Used Before Code Date 89040100
916	280993		RACK, Governor Gear -Used After Code Date 89033100
949	280502		GUARD, Rewind -(Rewind Starter)
955	231373		SCREW
957	397974		CAP, Fuel Tank -(Plastic)
958	399517		VALVE, Fuel Shut Off -(Plastic)
966	399059		BASE, Air Cleaner
967	397795		FILTER, A/C Cartridge
968	280501		COVER, Air Cleaner
969	94173		SCREW
970	94118		SCREW -(Tapping)
971	94121		SCREW -(Air Cleaner Base)
972	490622		TANK, Fuel -(Black) (Rewind Starter)
972	490804		TANK, Fuel -(Yellow) (Rewind Starter)
972	490806		TANK, Fuel -(Red)
972	490808		TANK, Fuel -(Grey) (Rewind Starter)
972	491045		TANK, Fuel -(Rewind Starter) (Light Fawn)
973	94114		SCREW
975	398191		BOWL, Float



### ***FuelTank Assy,A/C,Carburetor***

REF NO	PART NO	QTY	DESCRIPTION
977	490937		SET, Carburetor Gasket -(Lms 11)
985	398525		INSULATOR
991	399039		FILTER, Pre Cleaner
992	223596		COVER, Air Cleaner
1011	280786		TUBE, VENT

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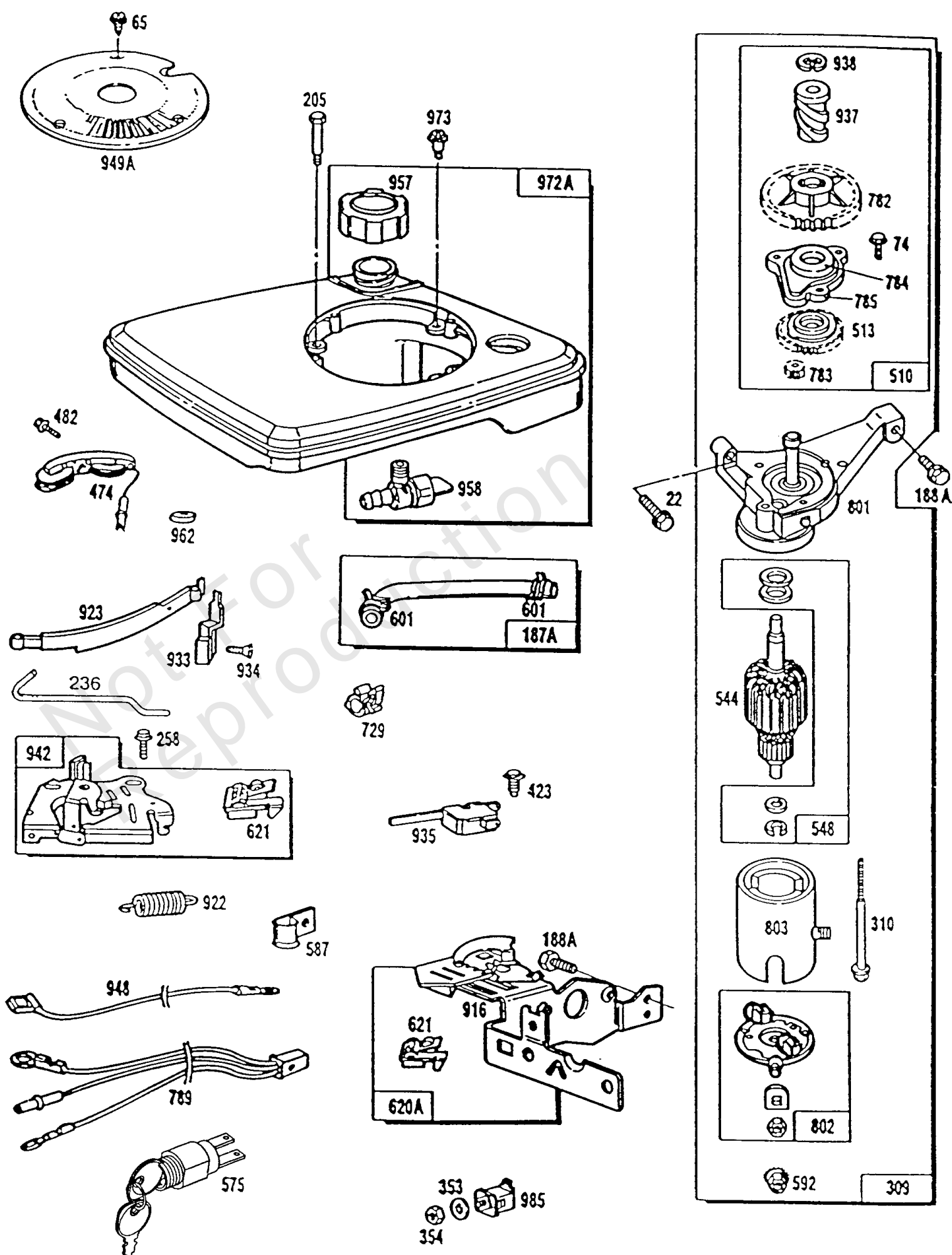


## ***Fuel Tank, Elect Start, Controls***

REF NO	PART NO	QTY	DESCRIPTION
22	93032		SCREW -(Fuel Tank) (Tank)
65	94058		SCREW -(Rewind Starter)
74	93490		SCREW -Included in Starter Drive Kit-Part No. 395727
187A	398396		LINE, Fuel -(Molded)
188A	93847		SCREW -(Fuel Tank) (Tank)
205	94141		SCREW
236	262461		LINK, Lockout
258	94018		SCREW
309	398635		MOTOR, Starter -(12 Volt)
310	94051		SCREW
353	92791		WASHER
354	90576		NUT -(Ground Terminal)
423	93758		SCREW -(Rotating Screen)
474	397880		ALTERNATOR
482	94016		SCREW
510	395727		DRIVE, Starter
513	394815		CLUTCH, Starter -Included in Starter Drive Kit-Part No. 395727
544	398636		ARMATURE, Starter -(12 Volt)
548	396067		WASHER -(Starter Motor)
575	396291		SWITCH, Starting -Includes: 392832 Key Set
587	220162		CLIP, Wire
592	93991		NUT -(10-24)
601	93053		CLAMP, Hose -(Green)
621	396847		SWITCH, Stop
729	280470		CLIP, Wire
782	280038		GEAR, Starter Drive -Included in Starter Drive Kit-Part No. 395727
783	261606		GEAR, Starter Drive -Included in Starter Drive Kit-Part No. 395727
784	223123		COVER, Gear -Included in Starter Drive Kit-Part No. 395727
785	271457		GASKET, Gear Cover/Housing -Included in Starter Drive Kit-Part No. 395727
789	397916		HARNESS, Wiring -(Non Compliance Engines)
801	398244		CAP, Drive
802	396061		CAP, End
803	396059		HOUSING, Starter
916	280522		RACK, Governor Gear -Used Before Code Date 89040100

### **Footnotes:**

To Replace Crankshaft Gear Pin, Order Part No. 230978



## ***Fuel Tank, Elect Start, Controls***

REF NO	PART NO	QTY	DESCRIPTION
916	280993		RACK, Governor Gear -Used After Code Date 89033100
922	261647		SPRING, Governor -(Return)
923	394867		PIVOT, Band Brake
933	223448		PIVOT, Band Brake
934	94037		SCREW
935	398758		SWITCH, Interlock -(12 Volt)
937	280366		SPLINE, Starter -Included in Starter Drive Kit-Part No. 395727
938	93941		RETAINER, E Ring
942	493248		BRACKET, Brake
948	397803		HARNESS, Wiring -(12 Volt)
949A	280509		GUARD, Rewind -(Electric Starter) Used on Engines With Electric Start Only.
957	397974		CAP, Fuel Tank -(Plastic)
958	399517		VALVE, Fuel Shut Off -(Plastic)
962	231277		BUSHING, Alternator
972A	491134		TANK, Fuel -(Pull or Electric Starter) (Light Fawn)
972A	490805		TANK, Fuel -(Red)
972A	492879		TANK, Fuel -(Grey)
972A	-----		No Nomenclature
972A	490623		TANK, Fuel -(Black) (Pull or Electric Starter)
973	94114		SCREW
985	398525		INSULATOR

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### **Footnotes:**

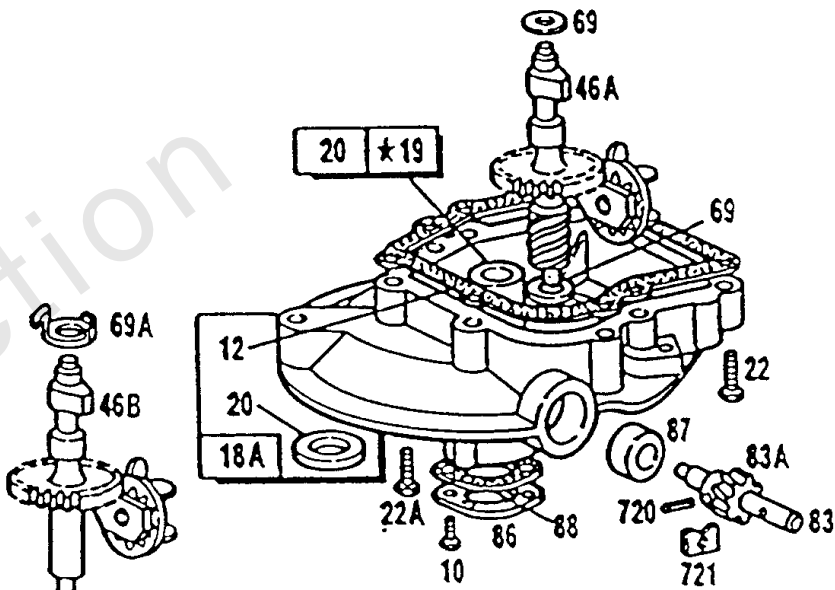
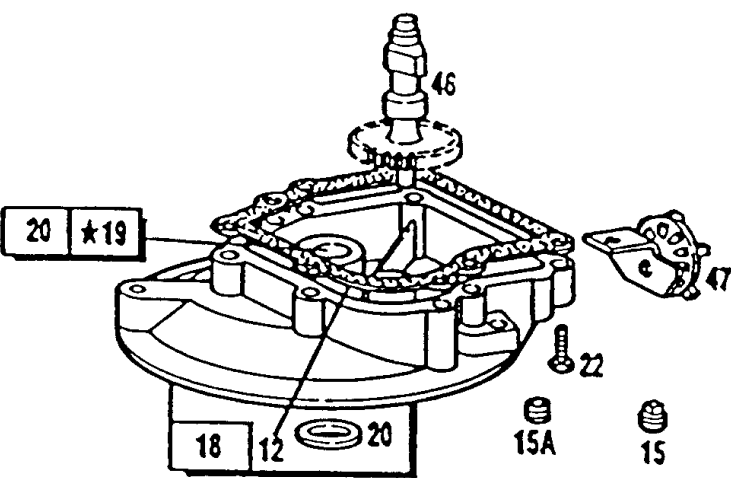
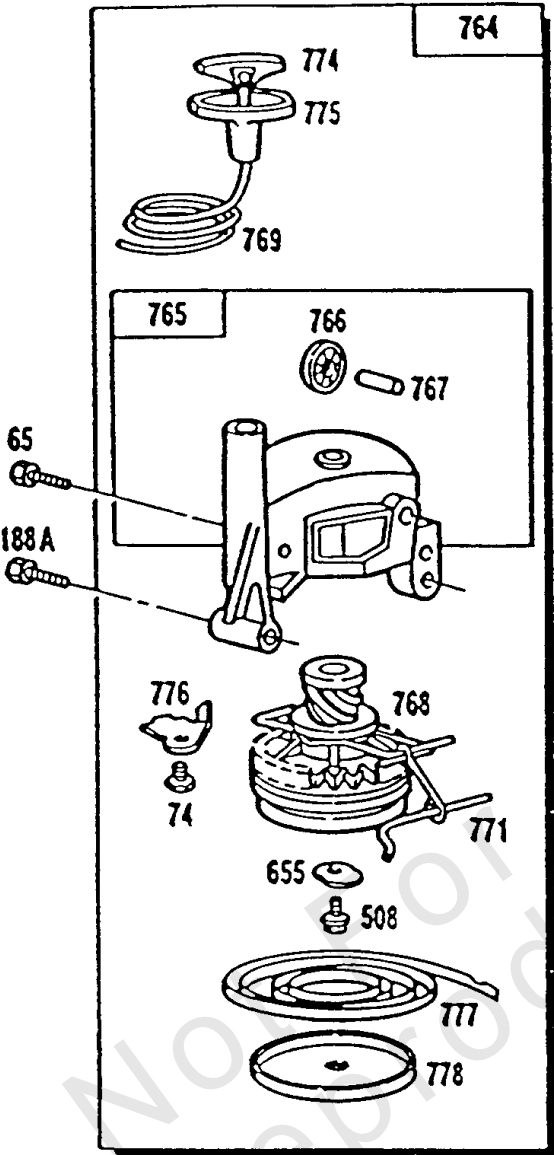
To Replace Crankshaft Gear Pin, Order Part No. 230978

*Replacement Engine - US & Canada*

REF NO	PART NO	QTY	DESCRIPTION
	126M021015	1	Replacement Engine
	-----		Top No-Load Speed: 3200 -Trim: ALL
	-----		Service Note: This Service Engine is NLA. Contact Your Engine Distributor For a Replacement

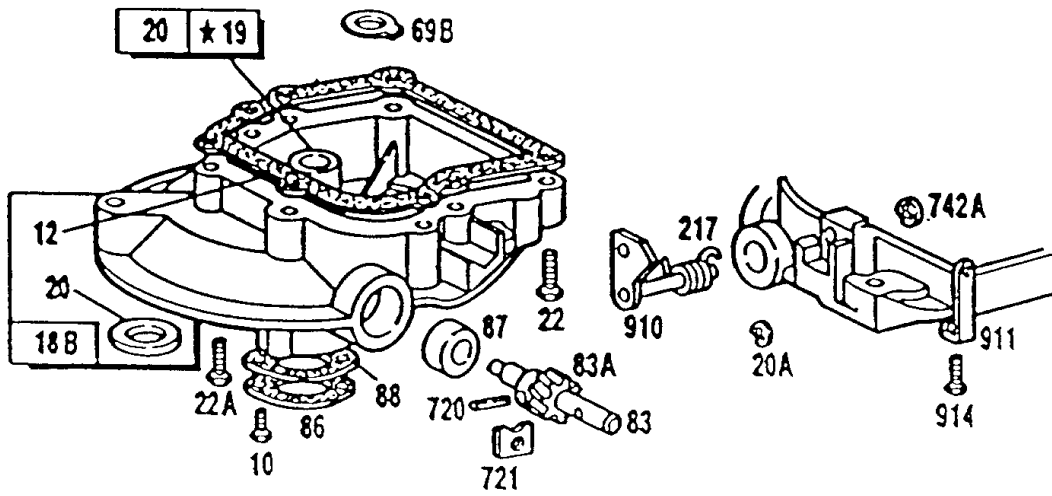
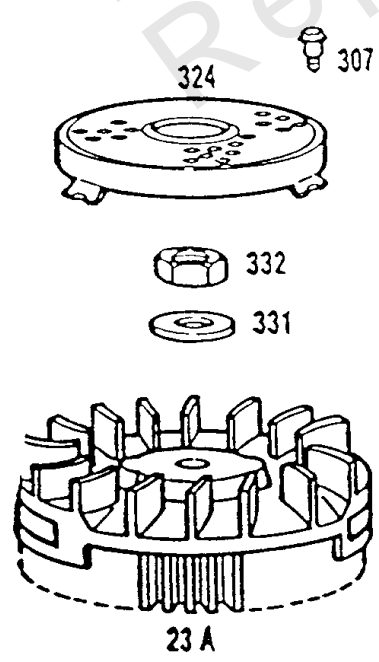
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998 POWER TRAC KIT

\*REQUIRES SPECIAL TOOLS TO INSTALL  
SEE REPAIR INSTRUCTION MANUAL

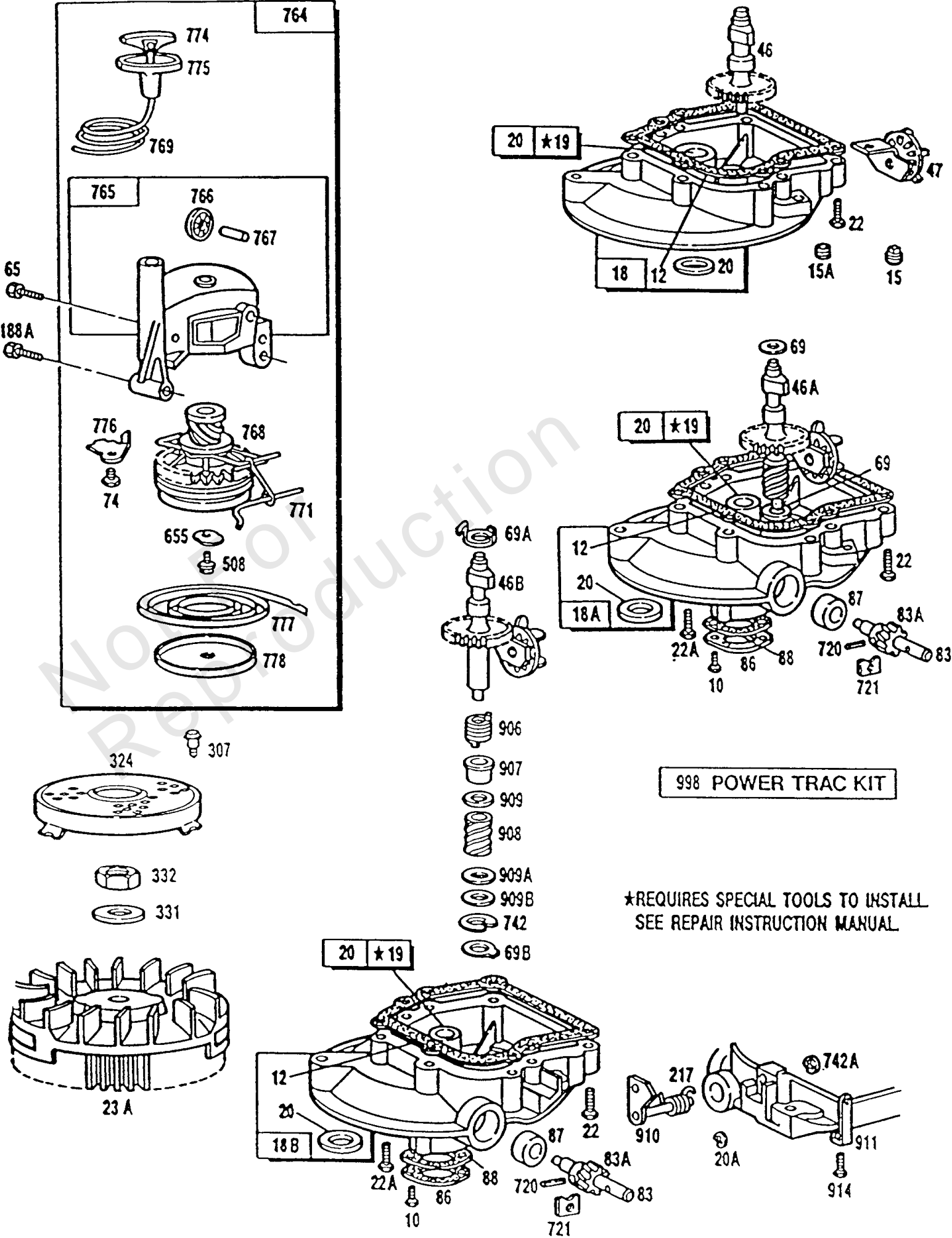


## Sump Bases, Vertical Pull

REF NO	PART NO	QTY	DESCRIPTION
10	93394		SCREW
12	270833		GASKET, Crankcase -(.015) Included in Gasket Set-Part No. 298989
12	270895		GASKET, Crankcase -(.005) Included in Gasket Set-Part No. 298989
12	270896		GASKET, Crankcase -(.009) Included in Gasket Set-Part No. 298989
15A	94613		PLUG, Oil Drain -(Flush)
15	91084		PLUG, Oil Drain -(3/8)
18B	395392		SUMP, Engine -(Clutch)
18	395384		SUMP, Engine
19	293709		KIT, Bushing/Seal -(PTO Side)
20A	280266		SEAL, Oil
20	391483		SEAL, Oil -Included in Gasket Set-Part No. 298989
22	93032		SCREW -(Fuel Tank) (Tank)
23A	394848		FLYWHEEL -(Vertical Pull Starter) Used on Vertical Pull
46A	396197		CAMSHAFT -(Clockwise)
46B	395334		CAMSHAFT -(Clutch)
46	394800		CAMSHAFT -(Metal)
46	493747		CAMSHAFT -(Plastic)
47	491688		SLINGER, Governor/Oil
65	94058		SCREW -(Rewind Starter)
69A	223225		WASHER
69B	223228		WASHER, Thrust
69	68938		WASHER -(13/16 ODx17/32 ID) Use on Aux Drive PTO.Cam
74	93490		SCREW -Included in Starter Drive Kit-Part No. 395727
83A	231278		GEAR, Drive -(Clockwise)
83	230831		SHAFT, Auxiliary Drive
86	221780		COVER, Drive Gear
87	391484		SEAL, Oil -(1/2 Auxiliary Drive Shaft)
88	270328		GASKET, Drive Gear Cover -Included in Gasket Set-Part No. 298989
188A	93847		SCREW -(Fuel Tank) (Tank)
217	261520		SPRING, Return -(Clutch Lever)
307	93490		SCREW -(Rotating Screen)
324	223006		SCREEN, Rotating

### Footnotes:

To Replace Crankshaft Gear Pin, Order Part No. 230978



## Sump Bases, Vertical Pull

REF NO	PART NO	QTY	DESCRIPTION
331	223047		WASHER -(Flywheel)
332	92284		NUT -(Flywheel)
508	93158		SCREW -(1/4-20 X 5/8)
655	222057		ANCHOR, Spring
720	93474		PIN, Shaft
721	221779		STOP, Shaft
742A	93925		RETAINER -(Clutch Lever)
742	93525		RETAINER, E Ring
764	398753		STARTER, Rewind -(48-5/8)
765	398683		HOUSING, Vertical Starter
766	280022		PULLEY, Rope Guide
767	231048		PIN, Retainer -(7/16)
768	395870		PULLEY, Vertical Starter -(81 Rope)
769	280406		ROPE, Starter -(Cut To Required Length)
769	66734		ROPE, Starter -(48-5/8)
771	299961		CLIP -(Vertical Pull Starter)
774	280121		INSERT, Grip
775	280036		GRIP, Starter Rope
776	222049		GUIDE, Rope
777	390066		SPRING, Vertical Rewind Starter
778	280021		COVER, Vertical Pulley
906	261650		SPRING, Torsion
907	394871		SLEEVE, Clutch
908	231220		GEAR, Worm
909A	271418		WASHER, Thrust
909B	271312		WASHER, Thrust
909	271417		WASHER, Thrust
910	394051		LEVER, Control -(Clutch)
911	223009		BRACKET, Clutch
914	93970		SCREW
998	399634		HARNESS, Power

### Footnotes:

To Replace Crankshaft Gear Pin, Order Part No. 230978

