

OWNER'S MANUAL

- ASSEMBLY
- OPERATION
- MAINTENANCE
- PARTS LIST

Model Nos.
247-670A
247-680A
247-670-300
247-680-300

Important:

**Read Safety Rules and
Instructions Carefully**

POWER VACUUMS



I M P O R T A N T

It is suggested that this manual be read in its entirety before attempting to assemble or operate. Keep this manual in a safe place for future reference and for ordering replacement parts.

This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see operating section of this manual for proper fuel and amount.

SAFE OPERATION PRACTICES FOR POWER VACUUMS

1. Read the operating and service instructing manual carefully. Be thoroughly familiar with the controls and proper use of the power vacuum.
2. Never allow children to operate this power vacuum.
3. Keep the area of operation clear of all persons, particularly small children and pets.
4. Check fuel before starting engine. Do not fill fuel tank indoors, when engine is running, or while engine is hot. Wipe off any spilled fuel before starting engine.
5. Do not change engine governor settings.
6. Do not put hands near rotating parts for any reason.
7. If the power vacuum should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
8. Before cleaning, repairing or inspecting make certain all moving parts have come to a complete stop. Disconnect spark plug wire and keep wire away from plug to prevent accidental starting. Also keep throttle control lever in the stop position.
9. If the power vacuum should become blocked with debris at any point shut engine off and wait until the impeller comes to a complete stop before attempting to remove the obstruction. Disconnect spark plug wire to prevent accidental starting.
10. Check all bolts for tightness at frequent periods.
11. Never store this power vacuum with fuel in the tank. Allow engine to cool before starting in any enclosure.
12. Keep bag and equipment free of debris when not in use.
13. Never operate this power vacuum unless air duct and vacuum bag are properly affixed in their place. Large zippered end of bag must be closed when operating to prevent objects from being blown out.
14. Never empty vacuum bag when engine is running.
15. Never change inlet nozzle or auxiliary hose attachment when engine is running.
16. The manufacturer recommends that the operator wear safety glasses or some other suitable eye protection when operating this machine.
17. Check the vacuum bag frequently for wear and replace when necessary.

ASSEMBLY INSTRUCTIONS

(Refer to figures 1, 2 and 3)

1. Place the upper handle in position and fasten with four (4) hex screws and hex centerlock nuts provided.
2. Place the air duct liner in the elbow of the air duct and fasten in position as you assemble the air duct in step 3. (See figure 1.)
3. Place the air duct in position on the blower housing and fasten with four (4) flat washers and hex nuts provided.
4. Slide the vacuum bag over the back of the upper handle and snap the four flaps to hold the bag.
5. Fasten the deflector on the top of the air duct with three hex screws, flat washers and hex nuts. (See figure 1.)
6. Slide the bag over the air duct.
7. Fasten the nozzle to the front of the vacuum with four flat washers and thumb nuts provided.
8. Use the following steps on the self propelled unit only.
9. Fasten the throttle control to the right hand side of the upper handle with one hex screw and hex center locknut provided.
10. Secure throttle control cable to the lower handle with the cable clip provided.



NOTE

Cable clip must be assembled to lower handle with the open end towards the engine. This will prevent wear to the bag.

11. Place ferrule through control lever.
12. Place flat washer over ferrule and thread control rod into ferrule about eight or nine turns.
13. Hook formed end of control rod in the shifting finger.
14. Place curved face of spacer towards the outside of upper handle left hand side.
15. Fasten control lever in position with hex screw and two hex nuts provided.

16. Engage and disengage control lever, check for free pivoting action. It may be necessary to readjust the control rod.

OPERATION

1. Service engine with gas and oil. See engine manual packed with lawn mower for complete instructions for care and maintenance of engine. **READ DIRECTIONS CAREFULLY.**

START ENGINE

After the engine has been properly fueled and oiled (refer to engine operating and maintenance instructions), start engine in the following manner.

PUSH MODEL

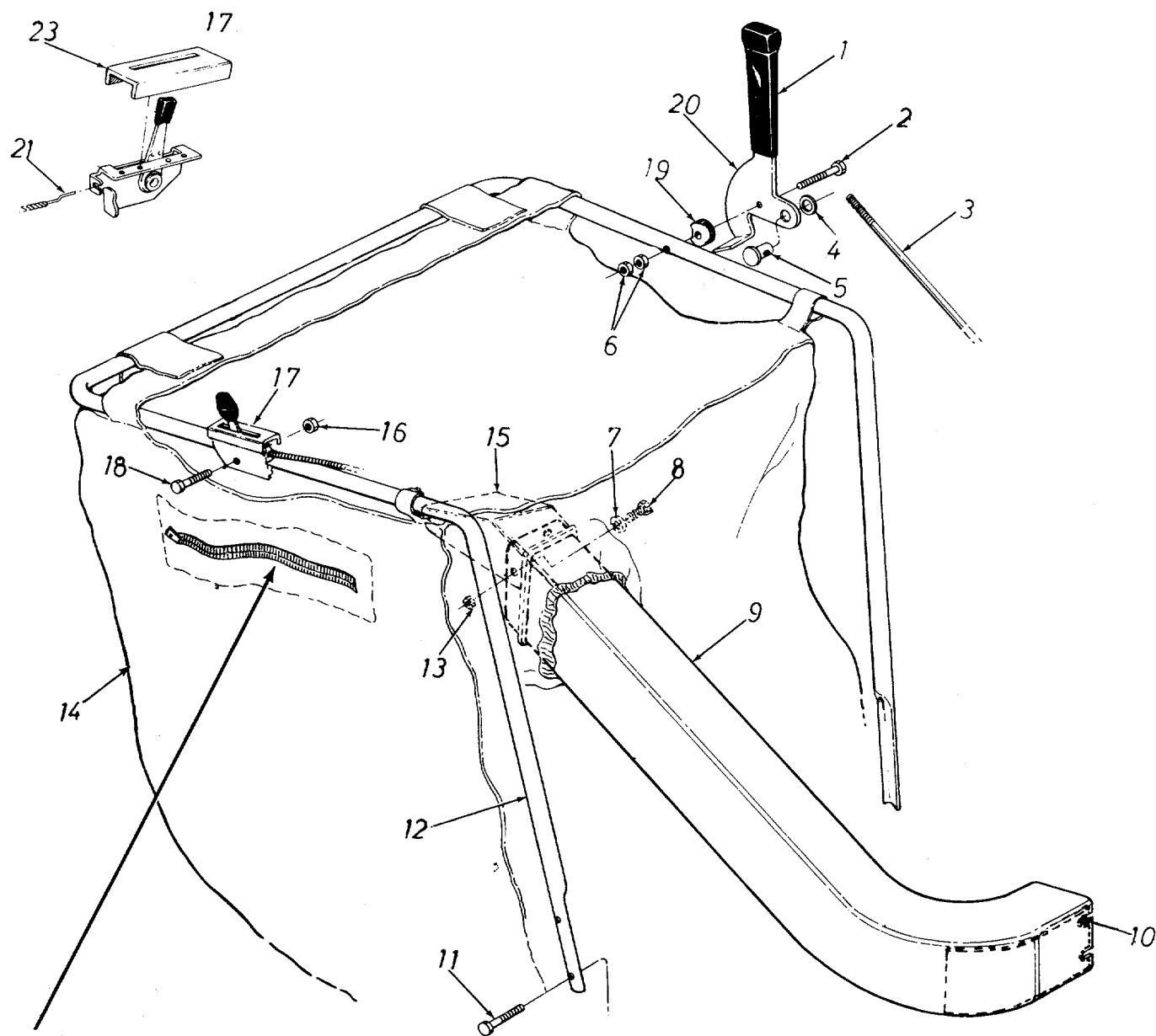
1. Move throttle control lever on engine to START position.
2. Crank engine. Pull recoil with a quick firm pull. Do not pull out so far that rope stops with a jerk as this will cause rope failure. Do not allow rope and handle to snap back into place.
3. After two or three full firm pulls on recoil (or as soon as engine fires), move speed control to run position.
4. Operate a new engine at intermediate speeds and light load for the first few hours as you would a new automotive engine.
5. To stop engine, move speed control lever on engine to STOP position.
6. If carburetor needs adjustment to start or for operation, see "Carburetor Readjustment" section.

SELF PROPELLED MODEL

1. Place drive engagement lever in the neutral position (towards the operator).
2. Move throttle control lever on handle to START position.
3. Crank engine. Pull recoil with a quick firm pull. Do not pull out so far that rope stops with a jerk as this will cause rope failure. Do not allow rope and handle to snap back into place.

247-670A
247-680A

IF YOU WRITE TO US ABOUT THIS ARTICLE
OR IF YOU ORDER REPLACEMENT PARTS AL-
WAYS MENTION THIS MODEL & SERIAL NO
MODEL



NOTE! The Vacuum Bag has an air es-
cape located on the upper right
hand side. This should be open
when the bag becomes half full.

EXPLODED VIEW OF UPPER HANDLE

PARTS LIST FOR MODELS 247-670A AND 247-680A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	720-0142		Grip (680A)	
2	710-0606		Hex Scr. 1/4-20 x 1.50" Lg.* (680A)	
3	711-0596		Control Rod (680A)	
4	736-0108		Fl. Wash. .510" I.D. x .75" O.D. (246-680A)	
5	711-0179		Adj. Ferrule (680A)	
6	712-0107		Hex Center L-Nut 1/4-20 Thd. (680A)	
7	736-0173		Flat Wash. .28" I.D. x .75" O.D. x .063	
8	710-0289		Hex Scr. 1/4-20 x .50" Lg.*	
9	731-0212		Air Duct	
10	12262		Air Duct Liner	
11	710-0106		Hex Scr. 1/4-20 x 1.25" Lg.*	
12	12234		Upper Handle	
13	712-0107		Hex Center L-Nut 1/4-20 Thd.	
14	764-0127		Vacuum Bag	
15	12104		Deflector	
16	712-0107		Hex Center L-Nut 1/4-20 Thd.	
17	11609		Throttle Control Assy.— Comp. (680A)	
18	710-0606		Hex Scr. 1/4-20 x 1.50" Lq.*	
19	748-0210		Spacer (680A)	
20	12226		Control Lever (680A)	
21	746-0229		Conduit and Wire (680A Only)	
23	731-0344		Plastic Label (680A)	

(463—Top Flite Red)

When ordering parts, if color or finish is important use the appropriate color code shown above (e.g. Top Flite Red Finish—12236 (463).)

NOTE: This instruction manual covers various models and all accessories shown do not necessarily apply to your model vacuum. The engine is NOT under warranty by the vacuum manufacturer.

If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."

Find us fast in the

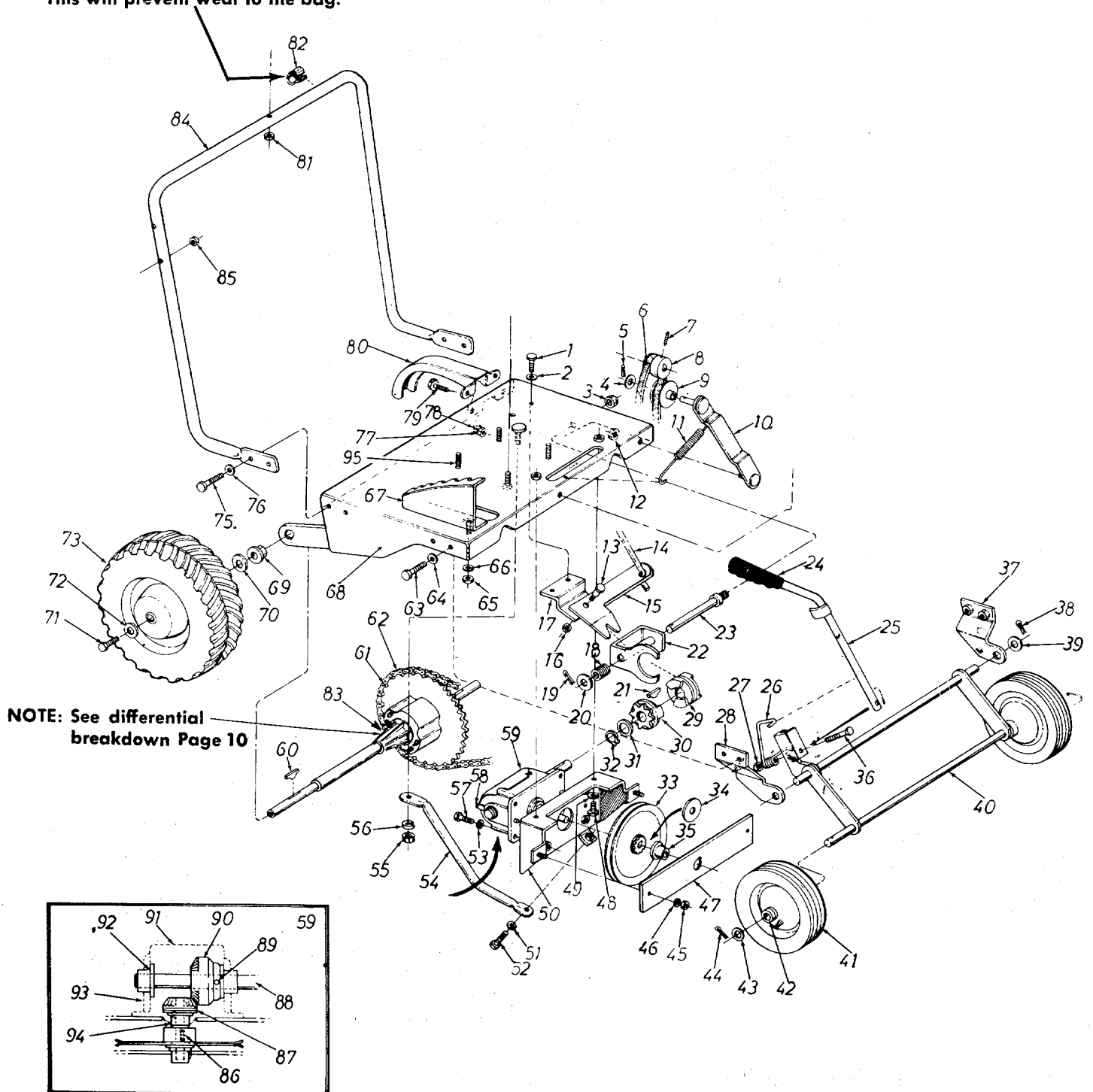


*For faster service obtain standard nuts, bolts, and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

247-670A 247-680A

NOTE:

Cable clip must be assembled to lower handle as shown, with open end towards the engine. This will prevent wear to the bag.

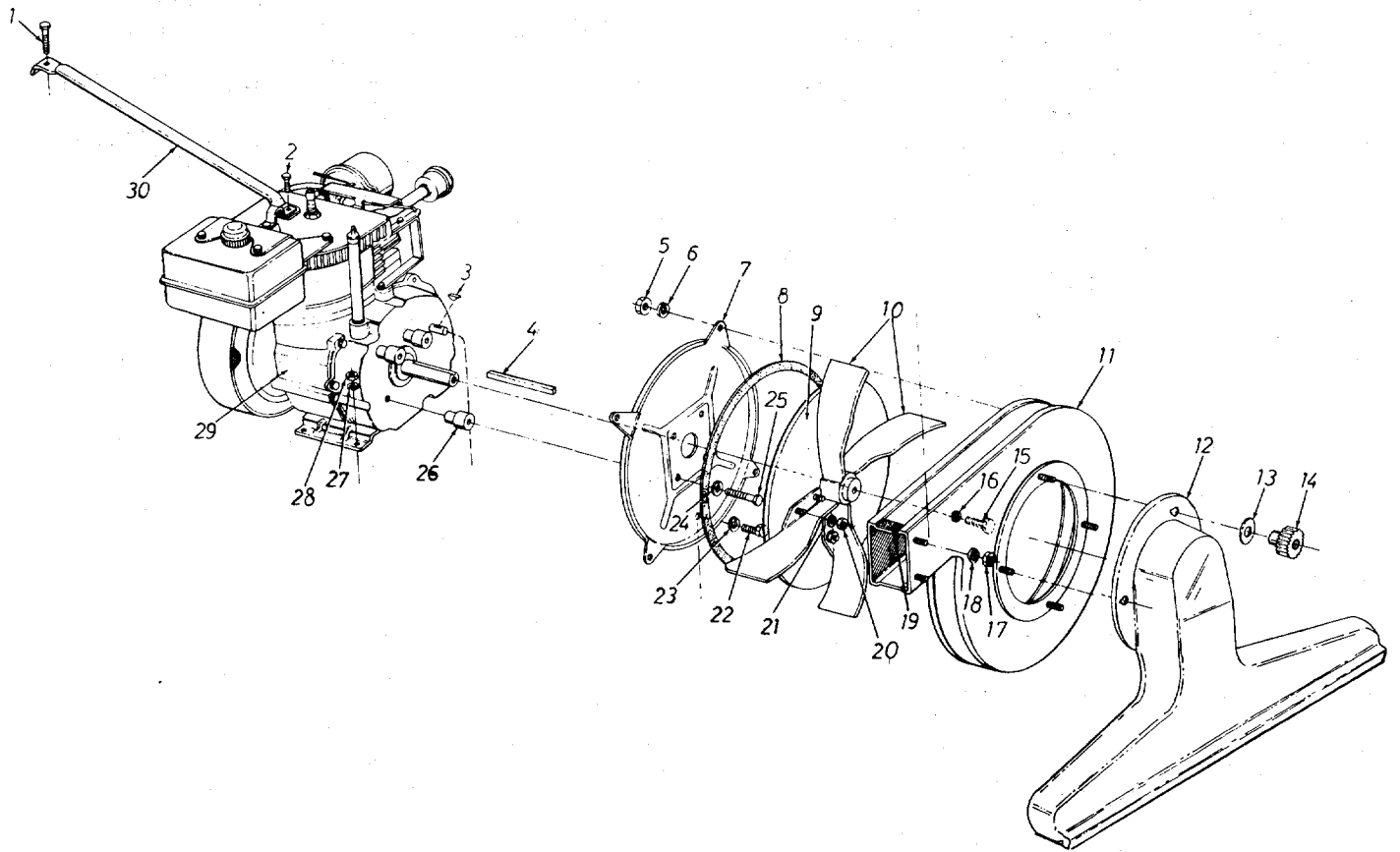


EXPLODED VIEW OF FRAME

PARTS LIST FOR MODELS 247-670A AND 247-680A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	710-0258		Hex Scr. 1/4-20 x .62" Lg. * (680A)		49	736-0119		L-Wash. 5/16" Scr. * (680A)	
2	736-0329		Spring L-Wash. 1/4" Scr. * (680A)		50	12211 —463		Gear Box Mtg. Brkt. Ass'y. (680A)	
3	712-0116		Hex Ins. L-Nut 3/8-24 Thd. (680A)		51	736-0119		L-Wash. 5/16" Scr. * (680A)	
4	736-0117		Fl.-Wash. (680A)		52	710-0118		Hex Scr. 5/16-18 x .75" Lg. * (680A)	
5	714-0127		Cotter Pin 1/16" Dia. x .75" (680A)		53	736-0329		L-Wash. 1/4" Scr. * (680A)	
6	754-0176		"V"-Belt 1/4" x 22.76" Lg. (680A)		54	12222 —463		Gear Box Brace (680A)	
7	710-0938		Set Scr 1/4-28 x .25" Lg. (680A)		55	712-0267		Hex Nut 5/16-18 Thd. * (680A)	
8	711-0590		P.T.O. Sheave (680A)		56	736-0119		L-Wash. 5/16" Scr. (680A)	
9	756-0194		Idler Pulley (680A)		57	710-0258		Hex Scr. 1/4-20 x .62" Lg. * (680A)	
10	12206		Idler Brkt. Ass'y. (680A)		58	710-0148		Hex Wash. Hd. F-Tapp Scr. #8 -32 x .38" Lg. (680A)	
11	732-0157		Spring .38" O.D. (680A)		59	717-0325		Gear Box Ass'y.—Comp. (680A)	
12	712-0429		Hex Ins. L-Nut 5/16-18 Thd. (680A)		60	714-0126		#9 Hi-Pro-Key 3/16" x 3/4" Dia. (680A)	
13	738-0140		Shoulder Bolt .437" Dia. x .180 (680A)		61	713-0118		Chain #41 x 61 Links (680A)	
14	711-0596		Control Rod (680A)		62	713-0723		#41 Master Link 1/2" Pitch Type II (680A)	
15	12231		Shifting Finger (680A)		63	710-0118		Hex Scr. 5/16-18 x .75" Lg. *	
16	712-0429		Hex Ins. L-Nut 5/16-18 Thd. (680A)		64	736-0119		L-Wash. 5/16" Scr. *	
17	12213 —463		Pivot Brkt. Ass'y. (680A)		65	712-0267		Hex Nut 5/16-18 Thd. *	
18	732-0237		Compression Spring (680A)		66	736-0119		L-Wash. 5/16" Scr. *	
19	714-0474		Cotter Pin 1/8" Dia. x .75" Lg. * (680A)		67	12224		Index Plate Ass'y.	
20	736-0300		Fl.-Wash. (680A)		68	12200 —463		Engine Mtg. Frame Ass'y.	
21	714-0137		Hi-Pro-Key 3/16" x 3/4" Dia. x 1.062" Lg. (680A)		69	748-0227		Hex Flange Bearing .630" I.D.	
22	12216		Shifting Yoke Ass'y. (680A)		70	736-0116		Fl.-Wash.	
23	711-0594		Shifting Fork Rod (680A)		71	710-0258		Hex Scr. 1/4-20 x .62" Lg. *	
24	720-0132		Grip		72	736-0211		Fl.-Wash.	
25	12208		Index Handle Ass'y.		73	734-0576		Rear Wheel Ass'y.—Comp.	
26	732-0231		Torsion Spring		75	710-0118		Hex Scr. 5/16-18 x .75" Lg. *	
27	712-0107		Hex Center L-Nut 1/4-20 Thd.		76	736-0119		L-Wash. 5/16" Scr. *	
28	12240 —463		Pivot Brkt. Ass'y.—R.H.		77	712-0287		Hex Nut 1/4-20 Thd. * (680A)	
29	748-0161		Clutch Collar (680A)		78	736-0329		L-Wash. 1/4" Scr. * (680A)	
30	748-0164		Sprocket 10 Teeth (680A)		79	710-0258		Hex Scr. 1/4-20 x .62" Lg. * (680A)	
31	736-0116		Fl.-Wash. (680A)		80	12232		Chain Guard (680A)	
32	716-0115		Snap Ring for .625" Dia. (680A)		81	712-0107		Hex Center L-Nut 1/4-20 Thd.	
33	756-0195		Drive Pulley (680A)		82	746-0128		Cable Clip	
34	736-0160		Fl.-Wash. (680A)		83	738-0185		Rear Axle (670A)	
35	748-0742		Flange Bearing (680A)			717-0284		Differential Ass'y.—Comp. (680A)	
36	710-0136		Hex Scr. 1/4-20 x 1.75" Lg. *		84	12233		Lower Handle	
37	12241 —463		Pivot Brkt. Ass'y.—L.H.		85	712-0107		Hex Center L-Nut 1/4-20 Thd.	
38	714-0115		Cotter Pin 1/8" Dia. x 1.00" Lg. *		86	714-0229		#2 Woodruff Key 3/32 x 1/2" Dia. Hdn. (680A)	
39	736-0116		Fl.-Wash.		87	748-0136		Pinion Gear .50" I.D. x 14 Teeth (680A)	
40	12217 —463		Front Axle Ass'y.		88	711-0593		Drive Shaft (680A)	
41	734-0225		Front Wheel Ass'y.—Comp.		89	715-0246		Spring Pin Spirol 3/16" Dia. x 1.25 (680A)	
42	748-0176		Flange Bearing .630" I.D.		90	748-0135		Bevel Gear .62" I.D. 28 Teeth (680A)	
43	736-0116		Fl.-Wash.		91	08187		Gear Box Cover (680A)	
44	714-0115		Cotter Pin 1/8" Dia. x 1.00" Lg. *		92	748-0110		Flange Bearing .630" I.D. (680A)	
45	712-0107		Hex Center L-Nut 1/4-20 Thd. (680A)		93	08189		Gear Box (680A)	
46	736-0329		L-Wash. 1/4" Scr. * (680A)		94	748-0108		Flange Bearing .503" I.D. (680A)	
47	12227 —463		Bearing Support Brkt. (680A)		95	710-0442		Hex Scr. 5/16-18 x 1.50 Lg. *	
48	710-0118		Hex Scr. 5/16-18 x .75" Lg. (680A)						

247-670A
247-680A



EXPLODED VIEW OF DRIVE ASSEMBLY

PARTS LIST FOR MODELS 247-670A AND 247-680A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	710-0106		Hex Scr. 1/4-20 x 1.25" Lg.*	
2	—		Part of Engine	
3	714-0108		Woodruff Key (680A)	
4	714-0114		Sq. Key 1/4" x 2.00" Lg.	
5	712-0267		Hex Nut 5/16-18" Thd.*	
6	736-0119		L-Wash. 5/16" Scr.*	
7	11452 —463		Hopper to Engine Mtg. Plate	
8	721-0128		Gasket Strip—Pressure Sen.	
9	12203 —463		Vane Plate Ass'y.	
10	12230 —463		Air Vane	
11	12236 —463		Blower Housing Ass'y.	
12	731-0211		Nozzle	
13	736-0159		Fl.-Wash. .344" I.D. x .88" O.D. x .063	
14	712-0254		Thumb Nut 5/16-18 Thd.	
15	710-0239		Hex Scr. 3/8-24 x 1.75" Lg. H.T.	
16	736-0217		L-Wash. 3/8" Scr. Heavy Duty	
17	712-0107		Hex Center L-Nut 1/4-20 Thd.	
18	736-0211		Fl.-Wash. .285" I.D. x 1.25" O.D. x .060	
19	721-0129		Dust Pad—Pressure Sensitive	
20	712-0241		Hex Nut 3/8-24" Thd.*	
21	736-0217		L-Wash. 3/8" Scr. Heavy Duty	
22	710-0118		Hex Scr. 5/16-18 x .75" Lg.*	
23	736-0119		L-Wash. 5/16" Scr.*	
24	736-0119		L-Wash. 5/16" Scr.*	
25	710-0409		Hex Scr. 5/16-24 x 1.75" Lg.*	
26	711-0591		Engine Spacer	
27	736-0119		L-Wash. 5/16" Scr.*	
28	712-0267		Hex Nut 5/16-18 Thd.*	
29	—		Engine	
30	12228		Handle Brace	

(463—Top Flite Red)

When ordering parts, if color or finish is important use the appropriate color code shown above (e.g. Top Flite Red Finish—12236 (463).)

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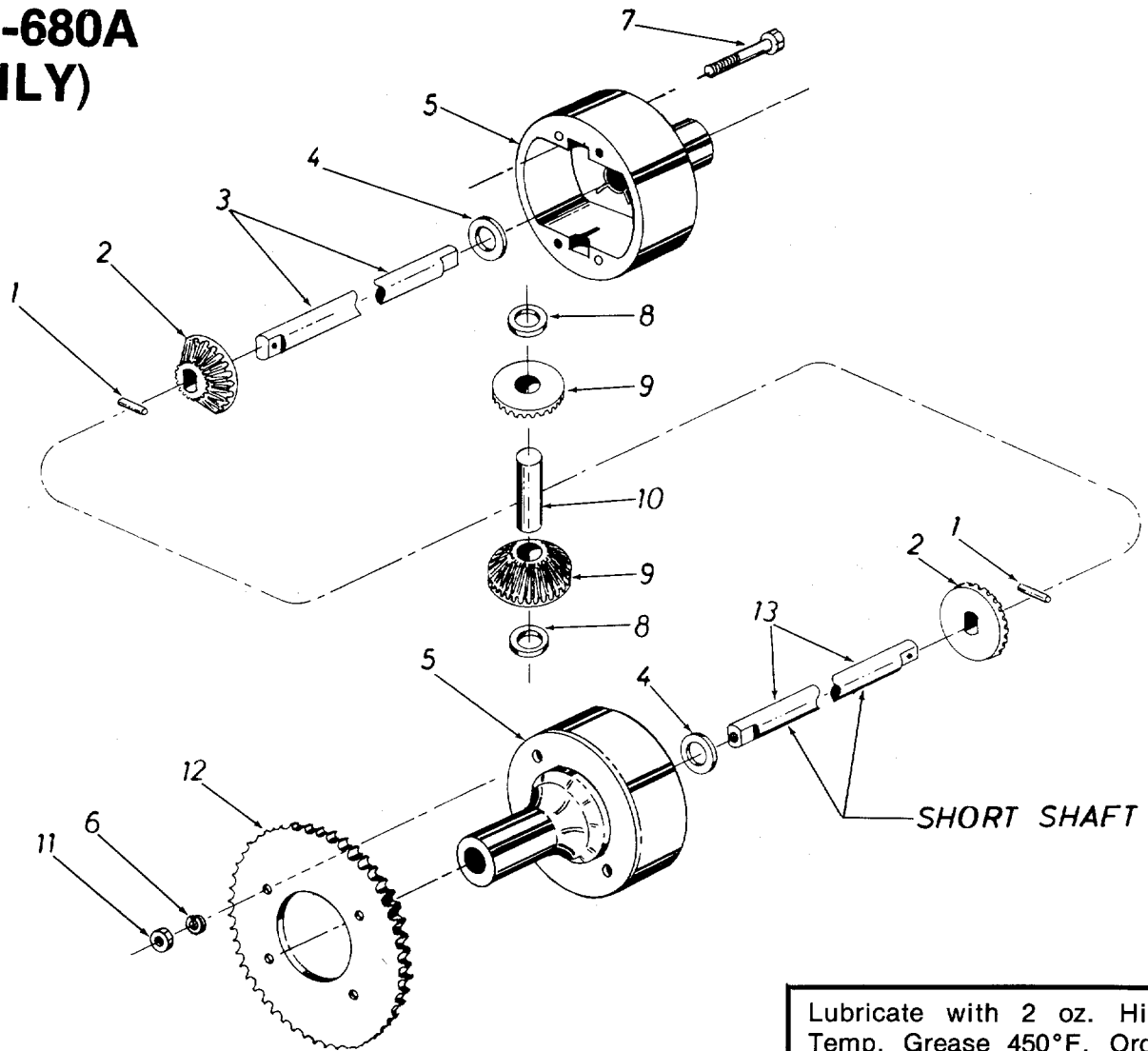
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Find us fast in the



*For faster service obtain standard nuts, bolts, and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

247-680A (ONLY)



Lubricate with 2 oz. High Temp. Grease 450°F. Order Part No. 737-0120.

FIGURE 4.
MODEL 717-0341 DIFFERENTIAL ASSEMBLY

PARTS LIST FOR FIGURE 4 MODEL 247-680A

Ref. No.	Part No.	Qty. Req'd.	Description	New Part
1	715-0247	2	Spring Pin Spir. 3/16" Dia. x 1.00" Lg.	
2	748-0185	2	Gear—Double "D" Hole	
3	738-0218	1	Shaft—Long 15.38" Lg.	
4	736-0188	2	FI-Wash. .760 I.D. x 1.49 O.D.	
5	717-0341	2	Housing Half	
6	736-0119	2	L-Wash. 5/16" Scr.*	
7	710-0526	2	Hex Scr. 5/16-24 x 4.00" Lg.*	
8	736-0187	2	FI-Wash. .640 I.D. x 1.24 O.D.	
9	748-0158	2	Gear—Round Hole	
10	711-0276	1	Drive Pin	
11	712-0237	2	Hex Cent. L-Nut 5/16-24 Thd.	
12	09054	1	Sprocket—40 Tooth	
13	738-0217	1	Shaft—Short 8.31" Lg.	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

1

2

3

PARTS INFORMATION

POWER EQUIPMENT PARTS AND SERVICE

Parts and service for all MTD manufactured power equipment are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts numbers, description of parts and the quantity of each part required.

ALABAMA	BIRMINGHAM	
	Auto Electric & Carburetor Co.	2625 4th Ave. S. 35233
ARKANSAS	NORTH LITTLE ROCK	
	Sutton's Lawn Mower Shop	Rt. 4, Box 368 72117
	FORT SMITH	
	Mity Mite Motors, Inc.	2515 Towson Ave. 72901
CALIFORNIA	SAN BERNARDINO	
	Lawn Mower Supply Co.	25608 E. Baseline 92410
	SAN FRANCISCO	
	J.W. Jewett Co.	981 Folsom St. 94107
	SACRAMENTO	
	Luttig & Severson	2030 28th St. 95818
COLORADO	DENVER	
	South Denver Lawn Equip.	527 West Evans 80223
CONNECTICUT	SUFFIELD	
	The Jones & Ramsey Co.	850 Thompsonville Rd. 06078
FLORIDA	JACKSONVILLE	
	Radco Distributors	2403 Market St. 32206
	CORAL GABLES	
	Moz-All of Florida, Inc.	365 Greco Ave. 33146
GEORGIA	EAST POINT	
	East Point Cycle & Key	2834 Church St. 30344
ILLINOIS	LYONS	
	Keen Edge Co.	8615 Ogden Ave. 60534
INDIANA	ELKHART	
	Parts & Sales Inc.	2101 Industrial Pkwy. 46514
IOWA	DUBUQUE	
	Power Lawn & Garden Equip.	2551 J.F. Kennedy 52001
KANSAS	WICHITA	
	Hixon, Inc.	3030 Mascot 67204
LOUISIANA	NEW ORLEANS	
	Suhren Engine Co.	8330 Earhart Blvd. 70118
MARYLAND	TAKOMA PARK	
	Center Supply Co.	6867 New Hampshire Ave. 20012
MASSACHUSETTS	SPRINGFIELD	
	Morton B. Collins Co.	300 Birnie Ave. 01107
MICHIGAN	MOUNT CLEMENS	
	Power Equipment Dist.	36463 South Gratiot... 48043
	LANSING	
	Lorenz Service Co.	2500 S. Pennsylvania.. 48900
MINNESOTA	MINNETONKA	
	Hance Distributing Inc.	11212 Wayzata Blvd. 55343
MISSISSIPPI	BILOXI	
	Biloxi Sales & Service, Inc.	506 Caillavet St. 39533
MISSOURI	KANSAS CITY	
	Automotive Equip. Service	3117 Holmes St. 64109
	ST. LOUIS	
	Henzler, Inc.	2015 Lemay Ferry Rd. 63125
NEW YORK	CARTHAGE	
	Gamble Dist., Inc.	West End Ave. 13619
	SYRACUSE	
	Kimber's, Inc.	115 N. Geddes St. 13204

BRIGGS & STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

Briggs & Stratton, Tecumseh and Peerless parts and service should be handled by your nearest authorized engine service firm. Check the yellow pages of your telephone directory under the listing *Engines Gasoline*, Briggs & Stratton or Tecumseh Lauson

NORTH CAROLINA	GREENSBORO	
	Dixie Sales Company	327 Battleground Ave.. 27402
	GOLDSBORO	
	Smith Hardware Co.	515 N. George St. 27530
OHIO	WADSWORTH	
	National Central	687 Seville Rd. 44281
	CLEVELAND	
	Bleckrie, Inc.	7900 Lorain Ave. 44102
	CARROL	
	Stebe's Mid-State Mower Supply	Box 366 43112
	WILLARD	
	Sunshine Wholesale Tire Outlet	Route 224 44890
	MANSFIELD	
	McClure Lawn & Garden Supply	1114 Lexington Ave. . 44903
OKLAHOMA	MUSKOGEE	
	Victory Motors, Inc.	605 S. Cherokee 74401
	ADA	
	Ada Auto Supply	301 E. 12th St. 74820
OREGON	PORTLAND	
	Kenton Supply Co.	8216 N. Denver Ave. . 97217
PENNSYLVANIA	LANCASTER	
	Raub Supply Co.	James & Mulberry Sts... 17604
	PITTSBURGH	
	Bluemont Co.	11125 Frankstown Rd.. 15235
TENNESSEE	KNOXVILLE	
	Master Repair Service	2423 Broadway, N.E. ... 37917
	MEMPHIS	
	Memphis Cycle & Supply Co.	421 Monroe Ave. 38103
	American Sales & Service, Inc.	1922 Lynnbrook 38116
TEXAS	DALLAS	
	Marr Brothers, Inc.	423 E. Jefferson 75203
	HOUSTON	
	Bullard Supply Co.	2409 Commerce St. 77003
	SAN ANTONIO	
	Catto & Putty, Inc.	P.O. Box 2408 78206
	FORT WORTH	
	Woodson Sales Corp.	1702 N. Sylvania 76111
UTAH	SALT LAKE CITY	
	A-1 Engine & Mower Co.	437 E. 9th St. 84111
VERMONT	BURLINGTON	
	Vermont Appliance Co.	44 Lakeside Ave. 05401
VIRGINIA	RICHMOND	
	RBI Corp.	963 Myers St. 23260
WASHINGTON	SEATTLE	
	Bailey's Rebuild, Inc.	1325 E. Madison St. ... 98102
WEST VIRGINIA	CHARLESTON	
	Young's, Inc.	233 Virginia St., E. ... 25301
WISCONSIN	APPLETON	
	Automotive Supply Co.	123 S. Linwood Ave. ... 54911

WARRANTY PARTS AND SERVICE POLICY

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture, It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions over which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES

1. Replacement of Missing Parts on new equipment.
2. Replacement of Defective Parts within the warranty period.
3. Repair of Defects within the warranty period.

All claims MUST be substantiated with the following information:

1. Model Number of unit involved.
2. Date unit was purchased or first put into service.
3. Date of failure.
4. Nature of failure.