

How to use this file...(Operators Manuals)

Instructions for **Print Vendors (Paper Manuals)**

Paper Size: * 11 x 17
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* Cover—on pre-printed two-tone “Swash” stock.

Press: * Body—1-color, 2-sided
* Cover imprint —1-color, 1-sided

Bindery: * Saddle Stitch, Face Trim, 3-Hole Drill
* Face Trim

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* Covers are all present at the beginning of this file.
* Back cover for a particular manual is the page IMMEDIATELY AFTER the front cover.
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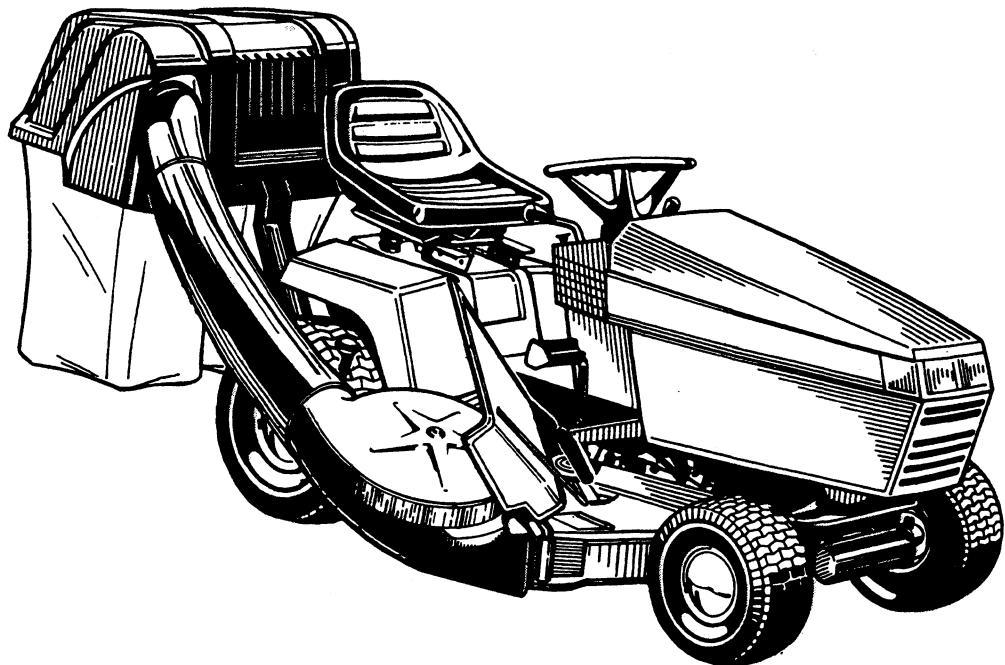
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OPERATOR'S MANUAL

**Turbo Twin Bag Grass Catcher
Mfg. No. 1692029**



Simplicity[®]

**TORQUE SPECIFICATIONS FOR
STANDARD MACHINE HARDWARE**
TOLERANCE $\pm 10\%$

SIZE	SAE GRADE #2		SAE GRADE #5		SAE GRADE #8	
						
8-32	19	In. Lbs.	30	In. Lbs.	41	In. Lbs.
8-36	20	"	31	"	43	"
10-24	27	"	43	"	60	"
10-32	31	"	49	"	68	"
1/4-20	66	"	8	Ft. Lbs	12	Ft. Lbs.
1/4-28	76	"	10	"	14	"
5/16-18	11	Ft. Lbs	17	"	25	"
5/16-24	12	"	19	"	25	"
3/8-16	20	"	30	"	45	"
3/8-24	23	"	35	"	50	"
7/16-14	30	"	50	"	70	"
7/16-20	35	"	55	"	80	"
1/2-13	50	"	75	"	110	"
1/2-20	55	"	90	"	120	"
9/16-20	65	"	110	"	150	"
9/16-18	75	"	120	"	170	"
5/8-11	90	"	150	"	220	"
5/8-18	100	"	180	"	240	"
3/4-10	160	"	260	"	386	"
3/4-16	180	"	300	"	420	"
7/8-9	140	"	400	"	600	"
7/8-14	155	"	440	"	660	"
1-8	220	"	580	"	900	"
1-12	240	"	640	"	1,000	"

NOTES:

1. These torque values are to be used for all Simplicity hardware excluding: locknuts, self-tapping screws, thread forming screws, and sheet metal screws.
2. Unless otherwise noted on assembly drawings all torque values must meet this specification.

**BOLT HEAD MARKING
S.A.E. GRADE:**

2	
5	
8	

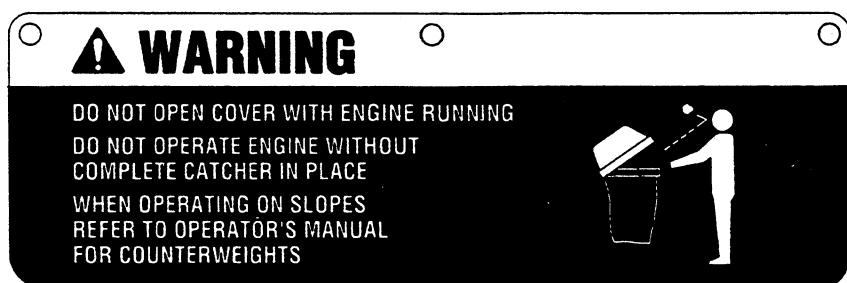
Table of Contents

STANDARD FASTENERS	.....	Inside Front Cover
RECOMMENDED ACCESSORIES	.....	1
SAFETY DECALS	.....	1
SAFETY RULES	.....	2
INSTALLATION & REMOVAL	.....	3
OPERATION AND STORAGE	.....	5
TROUBLESHOOTING	.....	6
ASSEMBLY	.....	7
TORQUE SPECIFICATIONS	.....	Inside Back Cover

Recommended Accessories

Front counterweight is recommended when using rear-mounted grass catcher. On slopes over 15% (8.5°), use two rear wheel weights in addition to front counterweight. Always mow up and down the face of slopes, never across the face. Never mow on slopes greater than 30% (16.7°).

Safety Decals



Safety Rules



Read these safety rules and the safety rules in your tractor Operator's Manual and follow them closely. Failure to obey these rules could result in loss of control of vehicle, severe personal injury to yourself, or damage to property or equipment. The triangle  in the text signifies important cautions or warnings which must be followed.

1. Know the controls and how to stop the tractor quickly. **READ THE TRACTOR'S OPERATOR'S MANUAL.**
2. Shut the engine (motor) off before attaching, adjusting or disconnecting the collection system.
3. Check the grass catcher frame to make sure it is attached securely to tractor.
4. Look behind to make sure the area is clear before backing up.
5. **CAUTION:** For added tractor stability and to prevent tipping or loss of control;
 - a. DO drive in reduced speed on uneven ground and when turning corners.
 - b. Reduce loads on hillsides. It is recommended that the Collection System be kept only half full when negotiating any slopes. Start mowing on slopes when the Collection System is empty.
 - c. Mow up and down the face of slopes: **never across the face of any slope.**
6. **CAUTION:** Objects may be thrown from mower. For your safety.
 - a. DO NOT open the cover while the mower blades are turning. Shut off the engine before removing the grass chute.
 - b. Be sure the complete Collection System is in place (cover secure and grass chute connected) before operating the mower.
 - c. DO check the cover and bags frequently for wear and tear. Replace with the new cover for safety protection.
7. For best results when mowing grass: Set the mower to cut off from 1 to 2 inches of grass (leave 1-1/2" of grass). If grass is exceptionally tall, set your mower as high as possible for first cutting. Lower cutting height at succeeding cuttings until proper height is reached. It may be necessary to mow tall grass at a slower tractor ground speed (keep engine at full throttle).



WARNING

Do not operate the tractor unless the entire grass catcher system or mower discharge deflector is properly installed.



WARNING

Before raising cover, disengage mower, turn off engine and remove the key. Do not remove catcher tube from blower housing or cover while mower is running.

Installation & Removal

NOTE

For first-time installation, follow Assembly Instructions provided at the back of this manual.

1. Install grass bag and bracket assembly (A, figure 1) onto frame spacers (B) as shown in figure 1.

Guide front of bracket assembly under front spacers and push forward so assembly will rest on rear spacers. If assembly is too bulky to install, separate grass bag cover (A, figure 2) from upright supports (B) by removing clips (D) and long clevis pins (C). Reinstall cover after support is installed.

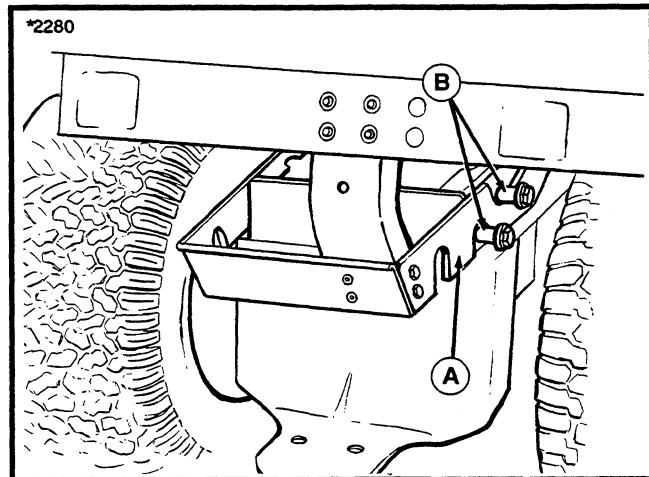


Figure 1.
A. Bracket Assembly
B. Spacers

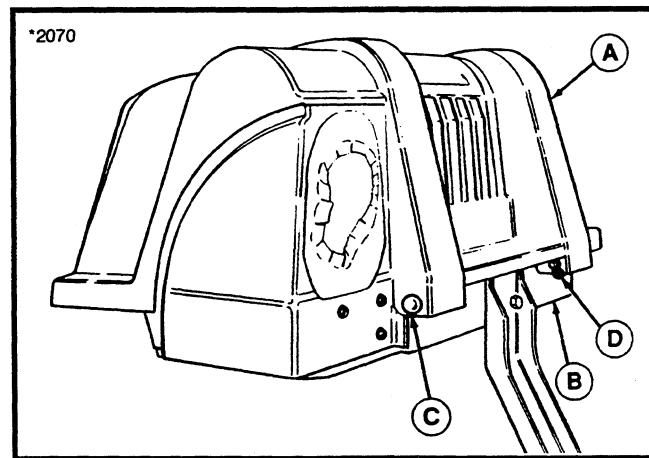


Figure 2.
A. Cover
B. Support
C. Clevis Pin
D. Clip

2. Open grass bag cover and install grass bag frames (A, figure 3) to support brackets (B).

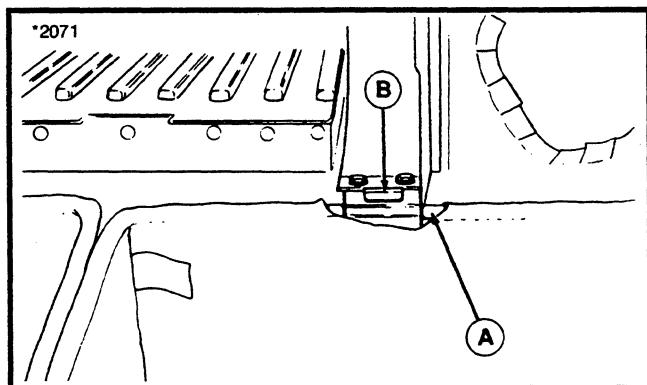


Figure 3.
A. Grass Bag Frame
B. Support Bracket

3. Install the turbo assembly as instructed in turbo Operator's Manual.
4. If upper and lower tube have been disassembled, assemble tubes with trusshead screws (A, figure 4), washers (B) and hex nuts (C).
5. Install tube assembly as far as possible into cover opening so that lower tube can be installed on blower housing. Latch lower tube clip (D, figure 4) onto bolt and nut (E).

Removal

Reverse the above steps to remove grass catcher and tubes. Tubes can be disassembled for easier storage by removing nut (C, figure 11), flat washers (B), and screw (A).

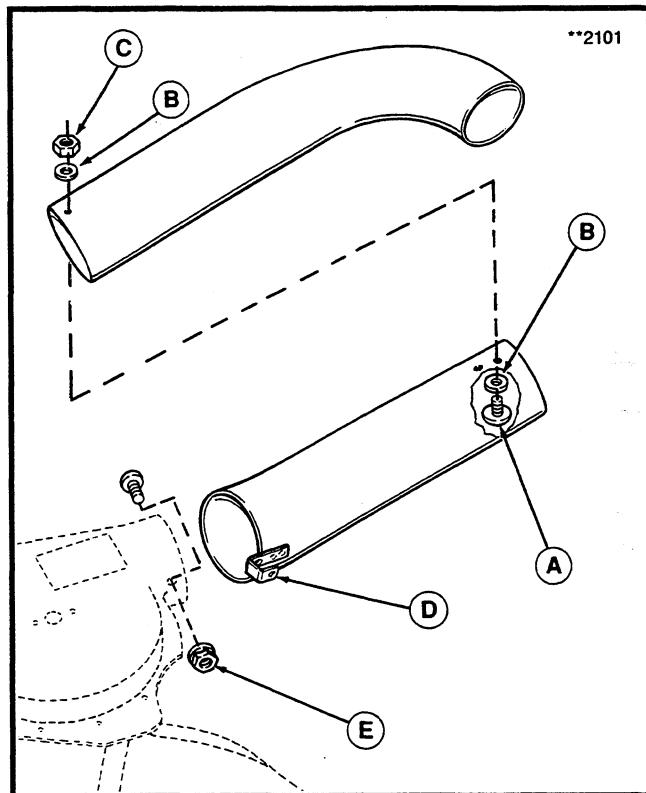


Figure 4
A. Trusshead Screw
B. Flat Washer
C. Hex Nut
D. Clip
E. Nut

Operation and Storage



WARNING

For safety reasons grass and debris are to be removed only after engine is shut off, key removed, and all moving parts stopped.



WARNING

Before raising cover, shut off engine, remove key, and set parking brake.

BEFORE OPERATION

Clear the lawn of all sticks, stones, wire and other debris which may be caught or thrown by the mower blades.

Clean the tube with mild detergent (other products may damage tube). Inspection windows can be removed to be cleaned. Make sure windows are securely in place before operating.

Check grass condition. If wet, wait until later in the day. If grass is wet plugging may occur.

For efficient bagging, air circulation under the mower deck, through the chute and into the bag is very important. For this reason, you should remove grass and debris from underside of mower deck, discharge chute and screen inside cover.

The blower housing and tube should be removed for cleaning. Remove the tube by unlatching the lower tube clip from blower housing.

If desired, the bags can be lined with 30 gallon trash bags for easy disposal.

Inspect the grass bags for wear or damage. Make sure that there is a snug fit between mower deck, blower housing, tubes, and grass bag cover.

OPERATION

Grass should be cut often, and not too short. If grass is too long or lush it may be necessary to keep ground speed to a minimum or to cut only half the width to prevent clogging. If grass is high, operate with mower in high cutting position. Cut the grass again in lower cutting position, if desired.

To check if grass is flowing up tube, view tube through rear inspection window. Do not open cover with mower engaged.

To check if grass bags are full, reach back and feel top of right bag (left bag will fill first) or view tube discharge through front inspection window in cover.

If a large amount of cut grass is spilling out from under deck, the tube may be plugged or grass bags are full. Shut off tractor, disengage PTO, and allow all moving parts to stop before disconnecting tube.

Always operate with throttle at full speed.

EMPTYING THE BAGS

NOTE

Move the seat to the forward position and tilt up to allow cover to remain in "up" position.

Raise the cover. If a plastic liner was not used, unhook the bag and turn inside down to empty (use handle on bottom).

If plastic liner was used, first tie up top of liner. Then, either pull the liner out, or turn the bag upside down and allow the filled liner to slide out.

STORAGE

1. Clean the grass catcher thoroughly.
2. If paint has been scratched on metal parts, coat with paint or oil.
3. Store in a dry area. Hang the bags to dry. Always store away from moisture.

Troubleshooting

This section provides troubleshooting instructions for the more common and easily corrected problems. See Table 1. For problems not covered, see your dealer.

WARNING

To avoid serious injury, perform maintenance on the grass catcher only after stopping the engine and waiting for all moving parts to come to a complete stop. Always remove the Ignition key before beginning the maintenance to prevent accidental starting of the engine. Disconnect the spark plug wire and fasten away from plug.

Problem	Cause/Remedy
1. Leaves and grass not being completely picked up.	<ul style="list-style-type: none">A. Engine speed too slow. Run at full throttle.B. Ground speed too fast. Use lower speed.C. Discharge tube plugged. Stop engine and remove key. Then remove and unplug discharge tube.D. Blades not tight. Torque to 60 ft. lbs.E. Mower not level. See Operator's Manual to level mower.F. Belt slipping. See tractor Operator's Manual for adjustment.
2. Grass catcher discharge tube or mower plugs easily.	<ul style="list-style-type: none">A. Bags full. Empty bags.B. Grass too high. Reduce tractor ground speed, reduce cutting width or raise mower adjustment for the first pass, lower it for the second pass.C. Grass or leaves too wet. Wait for drier conditions.D. Build-up of cut grass in mower or adapter. Clean thoroughly.E. Screen in grass bag cover clogged. Remove cover and clean screens.F. Belt slipping. See tractor Operator's Manual for adjustment.G. Engine not running at full throttle. Use hydro or gear lever to control ground speed and keep engine at full throttle.

Table 1. Troubleshooting

Assembly

ATTENTION SETUP PERSONNEL:

As setup personnel you have the obligations to know the product better than the customer. This includes safety related items. Prior to setup, thoroughly familiarize yourself with the Operator's Manual. Pay special attention to all safety warnings. Remember, it is your responsibility to set up the product safely and to know it well enough to be able to instruct a customer in the safe use of this power unit.

It is possible during setup to place yourself in a position which is more hazardous than when the unit is in operation. Safety is a matter of common sense. . . A matter of thinking before acting. Most shops have specific safety practices. Follow them. The precautions listed in the Operator's Manual should not supersede existing practices but should be considered as supplemental information.

1. Install the four spacers (A, figure 1) to the rear tractor frame using four washers (B) and 1/2-13 x 2 1/2" capscrews (C). Secure on inside of frame with 1/2-13 nyloc nuts. The front capscrews are mounted in the top frame holes and the rear capscrews are mounted in the bottom frame holes as shown in figure 1.

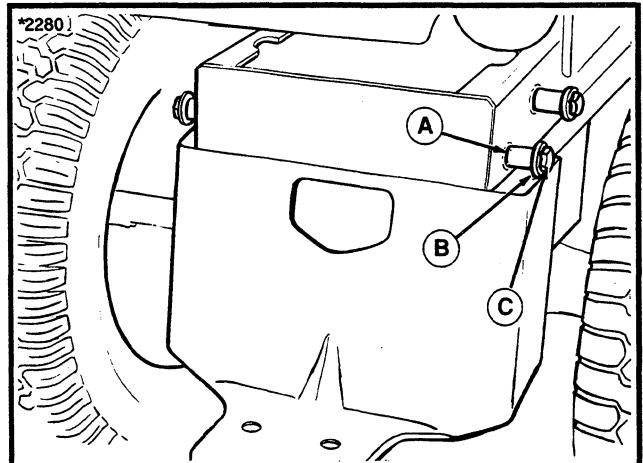


Figure 1.

A. Spacers

B. Washers

C. Capscrews, 1/2-13 x 2 1/2

2. Assemble upright support (A, figure 2) on the inside of back plate (B) and secure with two 3/8-16 x 1 1/4" capscrews (C), flat washers (D), lockwashers (E) and nuts (F). Leave all hardware loose.

3. Assemble the right-hand side plate (G, figure 2) on the **outside** of back plate (B) and the left-hand side plate (H) on the **inside** of back plate as shown in figure 2. Secure with four 3/8-16 x 1 1/4" capscrews (I), lockwashers (J), and nuts (K). Note that the right hand side hardware also secures the upright support (A). Leave all hardware loose.

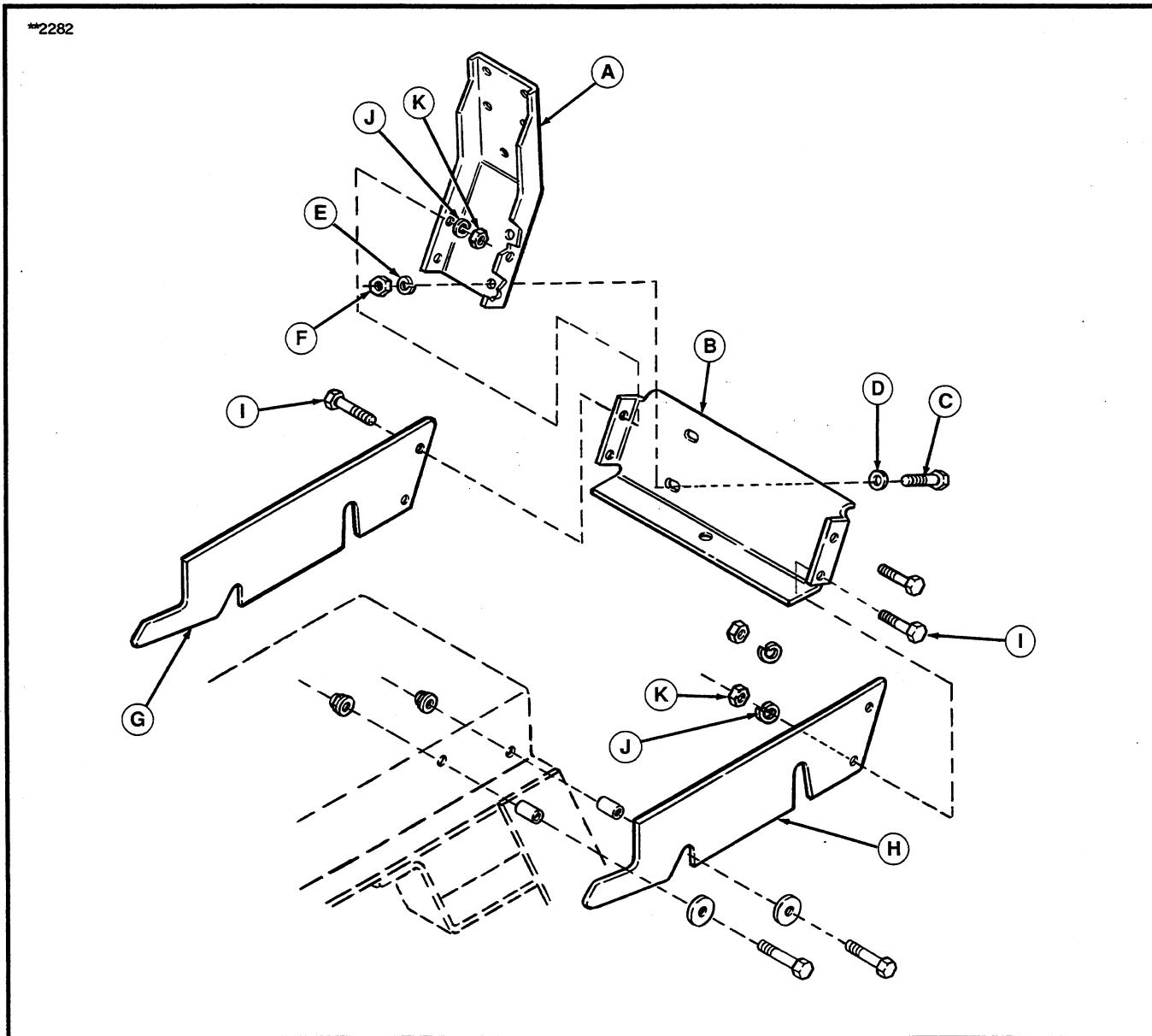


Figure 2

A. Upright Support
B. Back Plate
C. Capscrews, 3/8-16 x 1 1/4"
D. Flat Washers (7/8 O.D.)
E. Lockwashers
F. Nuts, 3/8-16

G. RH Side Plate
H. LH Side Plate
I. Capscrews, 3/8-16 x 1 1/4"
J. Lockwashers
K. Nuts, 3/8-16

4. Install bracket assembly to rear frame by tipping assembly upward and positioning notches on side plates (A, figure 3) on spacers (B). Lower assembly and make sure that bracket assembly is securely seated on front and rear spacers. Tighten all bracket hardware securely after checking fitment on frame.

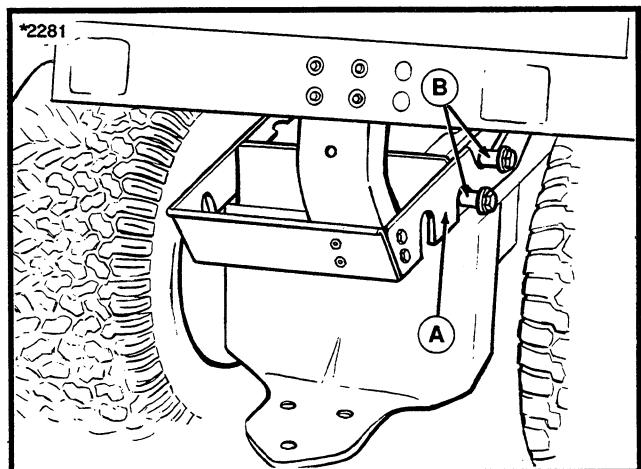


Figure 3.
A. Side Plate
B. Spacers

NOTE:

Cover and bag support are packaged as an assembly with long clevis pins and clips. It may be easier to separate components for the following step.

5. Install horizontal bag support (A, figure 4) to upright (B) with four 3/8-16 x 7/8 capscrews (C) and flange lock-nuts. Install capscrews from the front and tighten when upright and support are square. Note that the open set of holes (D) is toward the discharge side of mower.

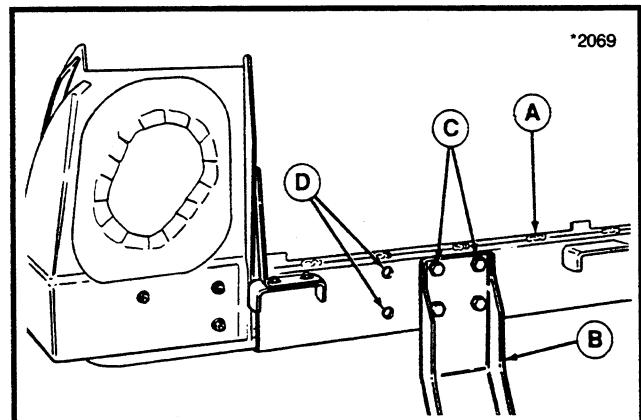


Figure 4.
A. Bag Support
B. Upright
C. Capscrews, 3/8-16 x 7/8
D. Open Set of Holes

6. Reinstall grass catcher cover (A, figure 5) to support (B) and secure with clevis pins (C) and clips (D).

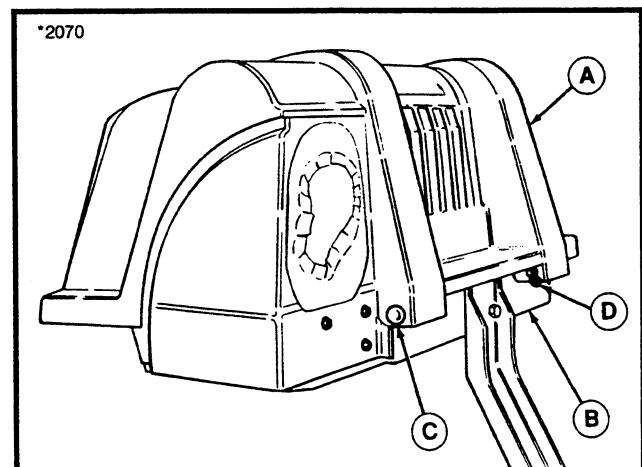


Figure 5.
A. Cover
B. Support
C. Clevis Pin
D. Clip

7. Install handle (A, figure 6) to rear surface of lid with offset toward the rear. Secure with two 10-32 x 1/2 truss screws (B) and 10-32 nut/washer assemblies (C).

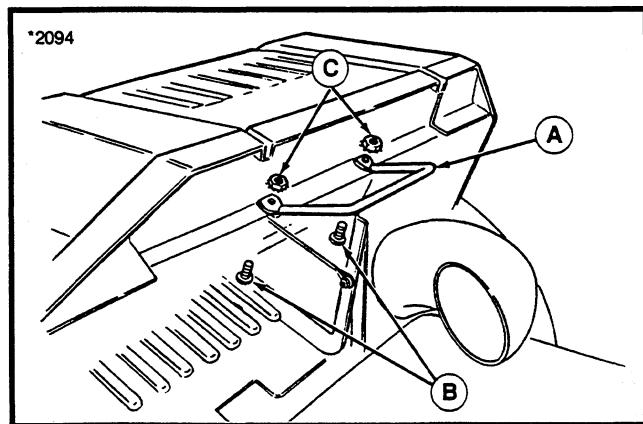


Figure 6.
A. Handle
B. Truss Screw
C. Nut/Washer Assemblies

8. Open cover and fasten cable (A, figure 7) to tube support (B) to prevent cover from going overcenter when opened. Loop end of cable fits over washer (C).

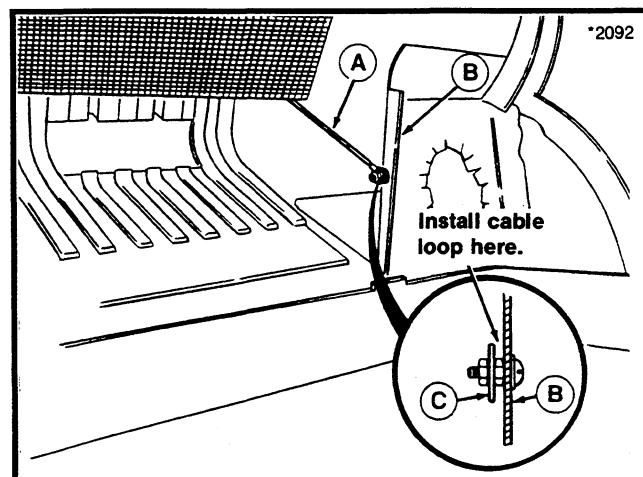


Figure 7.
A. Cable
B. Support
C. Washer

9. Open grass bag cover and install grass bag frames (A, figure 8) to support brackets (B). Make sure cover handle latches to grass bag frames.

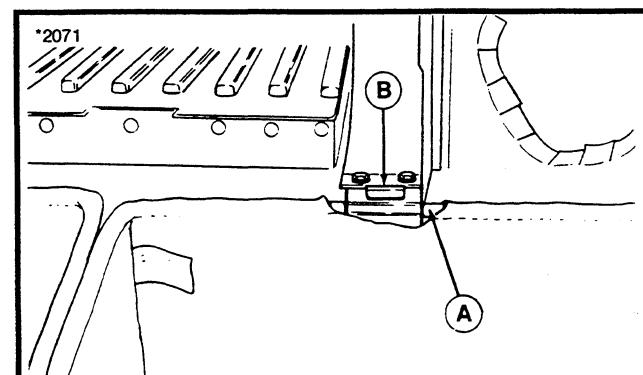


Figure 8.
A. Grass Bag Frame
B. Support Frame

10. Install the turbo housing to mower deck following instructions found in the turbo Operator's Manual.
11. Install the 1/4-20 x 5/8" roundhead bolt (A, figure 9) through the inside of turbo housing discharge as shown in figure 9. Secure with 1/4-20 locknut (B).
12. Assemble the upper and lower tubes as shown in figure 9. Use trusshead screws (C, figure 9) with washers (D) on each side of tubes, and secure with hex nuts (E).
13. Apply dry talc powder to rubber seal at cover opening. Install tube assembly as far as possible into opening so that lower tube can be installed at blower housing. Latch lower tube clip (F, figure 9) onto bolt and locknut (installed in step 11).

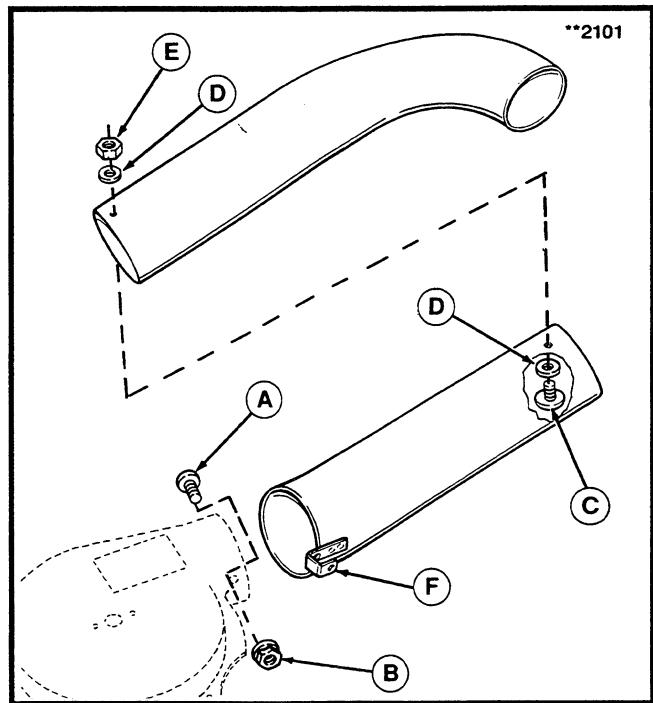


Figure 9.
A. Roundhead Bolt
B. Locknut
C. Trusshead Screw
D. Flat Washer
E. Hex Nut
F. Clip

STANDARD FASTENER IDENTIFICATION CHART



HEX CAPSCREW



CARRIAGE BOLT



PLAIN WASHER



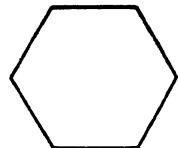
LOCKWASHER



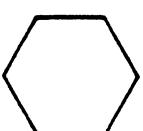
NUT

HEX CAPSCREW IDENTIFICATION

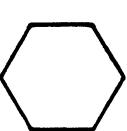
Shown below are actual size hex heads for standard screw sizes. Example: a 1/4" screw has a 7/16 head and thus requires a 7/16 wrench. To measure length, use the scale below.



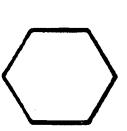
3/4" Head
screw with
1/2" S.D.



5/8" Head
screw with
7/16" S.D.



9/16" Head
screw with
3/8" S.D.

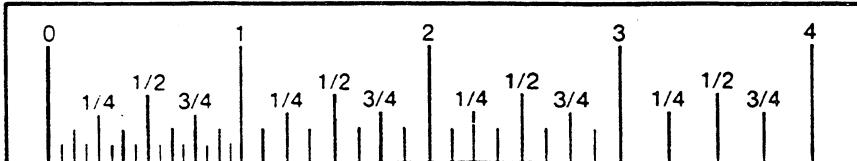


1/2" Head
screw with
5/16" S.D.



7/16" Head
screw with
1/4" S.D.

S.D. = Shaft Diameter



WASHER AND NUT IDENTIFICATION

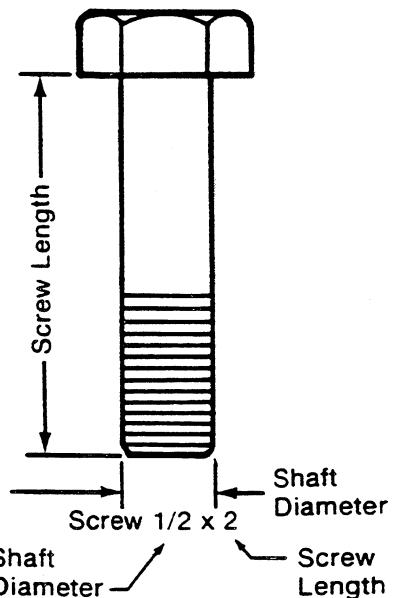
Place the washer or nut on the above scale to determine the inside diameter. The actual inside diameter can vary 1/16 inch. Use the scale for comparison.

Hardware sizes are given in the illustrations throughout this manual.

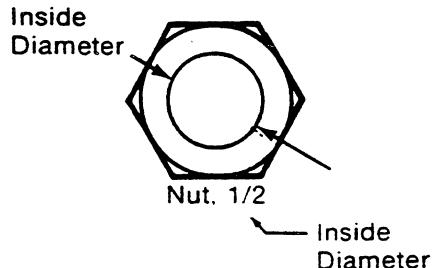
If a washer or nut is identified as "washer, 1/2" or "nut, 1/2", this means the inside diameter is 1/2 inch.

If a screw is identified as "screw, 1/2 x 2", this means the shaft diameter is 1/2 inch and the shaft of the screw is 2 inches long. If a screw is identified as "screw, 1/2-16 x 2", the number "16" means that the screw has 16 threads per inch.

SAMPLE: SCREW IDENTIFICATION



SAMPLE: NUT IDENTIFICATION



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FORM 1708177
PRINTED IN U.S.A.