

# SCAG

POWER EQUIPMENT

## *OPERATOR'S MANUAL*

### **AERSTORM DROP SEEDER**

**Models: AS30-DS**



This manual contains the operating instructions and safety information for your Scag aerator accessory. Reading this manual can provide you with assistance in maintenance and adjustment procedures to keep your aerator accessory performing to maximum efficiency. The specific models that this book covers are listed on the inside cover. Before operating your machine, please read all the information enclosed.



# WARNING

## **FAILURE TO FOLLOW SAFE OPERATING PRACTICES MAY RESULT IN SERIOUS INJURY OR DEATH.**

- Read this manual completely as well as other manuals that came with your aerator.
- ALWAYS FOLLOW OSHA APPROVED OPERATION.
- DO NOT operate on steep slopes.
- Under no circumstances should the machine be operated on slopes greater than 15 degrees. ALWAYS FOLLOW OSHA APPROVED OPERATION.
- Stay at least two machine widths away from drop offs, ditches, retaining walls, and water and do not aerate or drive on any slope exceeding 15 degrees.
- DO NOT back down a slope or ramp.
- DO NOT operate on wet grass. Wet grass reduces traction and steering control.
- Lightning can cause severe injury or death. If lightning is seen or thunder is heard in the area, DO NOT operate the machine and seek shelter.
- Keep all shields in place, especially the drive chain covers.
- Before performing any maintenance or service, stop the machine and remove the spark plug wire and ignition key.
- If a mechanism becomes clogged, stop the engine before cleaning.
- Keep hands, feet and clothing away from power-driven parts.
- Keep others off the machine (only one person at a time).

## **REMEMBER - YOUR MOWER IS ONLY AS SAFE AS THE OPERATOR!**

**HAZARD CONTROL AND ACCIDENT PREVENTION ARE DEPENDENT UPON THE AWARENESS, CONCERN, PRUDENCE, AND PROPER TRAINING OF THE PERSONNEL INVOLVED IN THE OPERATION, TRANSPORT, MAINTENANCE, AND STORAGE OF THE EQUIPMENT.**

This manual covers the operating instructions and illustrated parts list for:

AS30-DS

with a serial number of

W2800001 to W2899999

**Always use the entire serial number listed on the serial number tag when referring to this product.**

## GENERAL INFORMATION

### 1.1 INTRODUCTION

This manual has been prepared to provide the information you need to correctly assemble, operate, and maintain this drop seeder. Read it carefully and keep it for future reference.

**READ THIS OPERATOR'S MANUAL BEFORE ATTEMPTING TO START YOUR AERATOR AND USE THE DROP SEEDER ACCESSORY. MAKE SURE THAT EVERYONE KNOWS WHERE THE MANUAL IS LOCATED AND KEEP A RECORD OF EACH EMPLOYEE THAT HAS READ THE MANUAL.**

**USE OF OTHER THAN ORIGINAL SCAG REPLACEMENT PARTS WILL VOID THE WARRANTY.**

If additional information or service is needed that is not outlined in this manual, please contact your Scag Power Equipment dealer. Scag dealers are trained in the latest service methods and carry a full line of Scag replacement parts.

When ordering parts, always provide the complete model number and serial number of your drop seeder.

All information provided in this manual is based upon information available at the time of printing. Scag Power Equipment reserves the right to make changes at any time without notice or obligation.

### 1.2 DIRECTION REFERENCE

The "Right" and "Left", "Front" and "Rear" of the machine are referenced from the operator's right and left when in the normal operating position and facing the forward travel direction.

### 1.3 SAFETY AND OPERATING INSTRUCTIONS

#### NOTE -

*To avoid personal injury, it is imperative that all safety instructions be observed.*

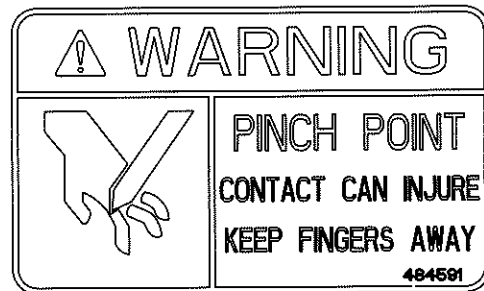
1. Read this operator's manual and the operator's manual that is supplied with the machine this attachment is used on.

A replacement manual is available from your authorized Scag Service Dealer or by contacting Scag Power Equipment, Service Department at P.O. Box 152, Mayville, WI 53050 or contact us via the Internet at [www.scag.com](http://www.scag.com). The manual for this accessory can be downloaded by using the model and serial number or use the contact form to make your request. Please indicate the complete model and serial number of your Scag product when requesting replacement manuals.

### **WARNING**

**Do not operate without all guards, covers or shields installed.**

2. Before opening the hopper cover, stop the machine, apply the parking brake, disengage the drop seeder, stop the engine, remove the key and wait for all movement to stop.

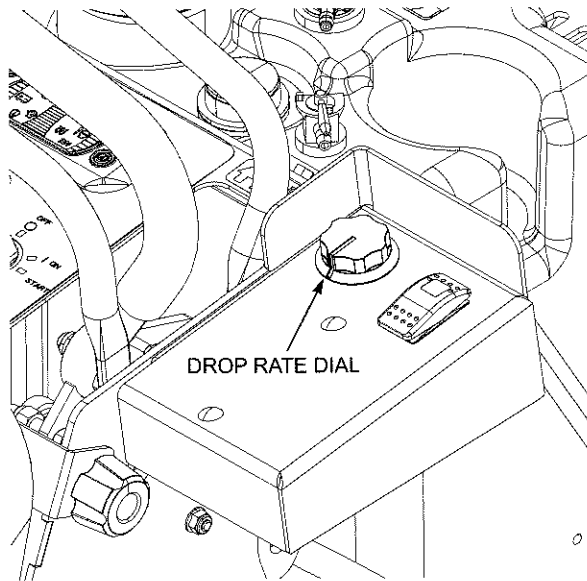


3. Make sure to **ALWAYS** turn the engine **OFF**, remove the key and wait for all movement to stop before servicing or cleaning the aerator or the drop seeder.
4. Do not modify or alter any component of the drop seeder attachment or aerator.
5. Do not allow any passengers to ride on the drop seeder attachment or on the aerator.

### 1.4 DROP SEEDER OPERATION

1. Stop the machine, apply the parking brake, disengage the drop seeder, stop the engine, remove the key and wait for all movement to stop.
2. Open the drop seeder hopper door and fill the hopper.

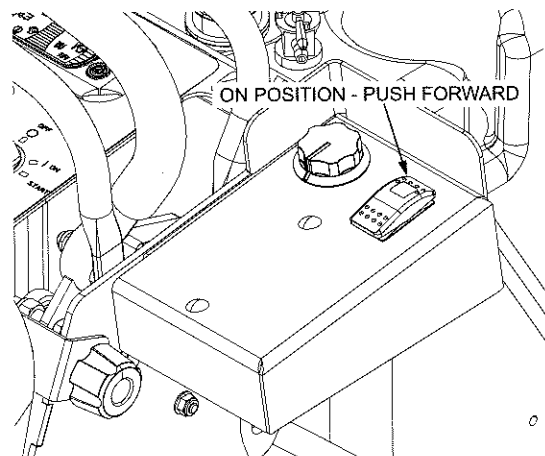
3. Close the hopper door on the drop seeder.
4. Stand on the operator platform in the operating position, place the steering control levers in the neutral position, engage the parking brake, and start the engine.
5. Using the drop rate dial located on the drop seeder control panel, select the desired drop rate for the product being applied. See Figure 1-1.



**Figure 1-1. Drop Rate Dial**

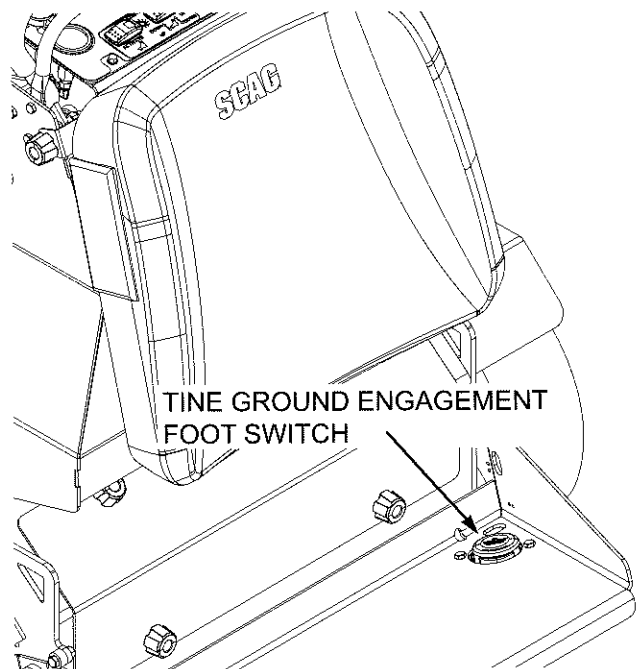
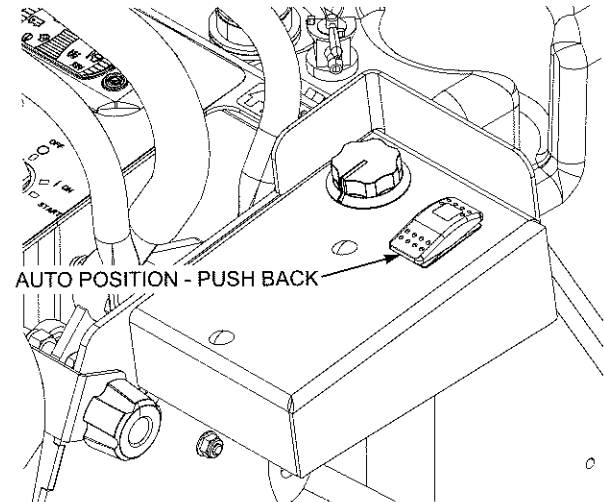
6. Using the drop seeder control switch, select the drop seeder mode to control when the drop seeder is activated.

A. ON (forward switch position) - The drop seeder will be on continuously when the switch is in this position regardless of aerator operation. The drop gate will be open to the dial setting and the agitator rotating. See Figure 1-2.



**Figure 1-2. ON Position**

B. AUTO (back switch position) - The drop seeder will work in conjunction with the aerator operation and will be active only when the aerator tines are in the down position. The drop seeder will turn ON with the Tine Ground Engagement Switch located on the foot platform of the aerator. The foot switch will simultaneously control the tines and cause the drop gate to open to the dial setting with the agitator rotating. See Figure 1-3.



**Figure 1-3. AUTO Position / Ground Tine Engagement Switch**

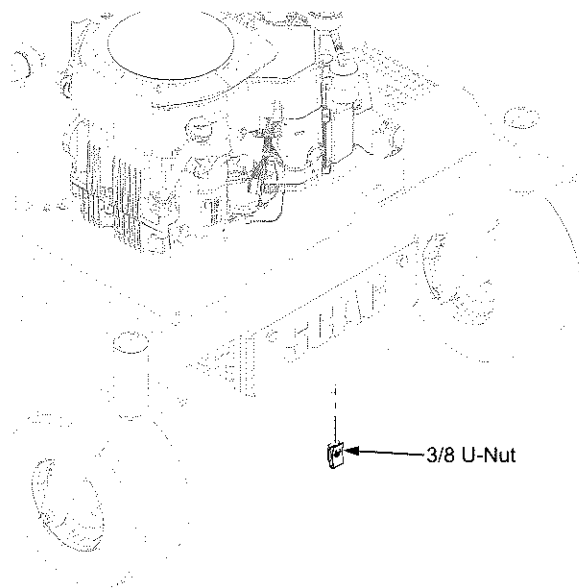
2.1 ASSEMBLY INSTRUCTIONS

1. Remove all packaging materials. Lay out the mounting hardware and the drop seeder assembly parts for easy access. Prepare the work area making sure that it is a clean and safe environment.

**⚠ WARNING**

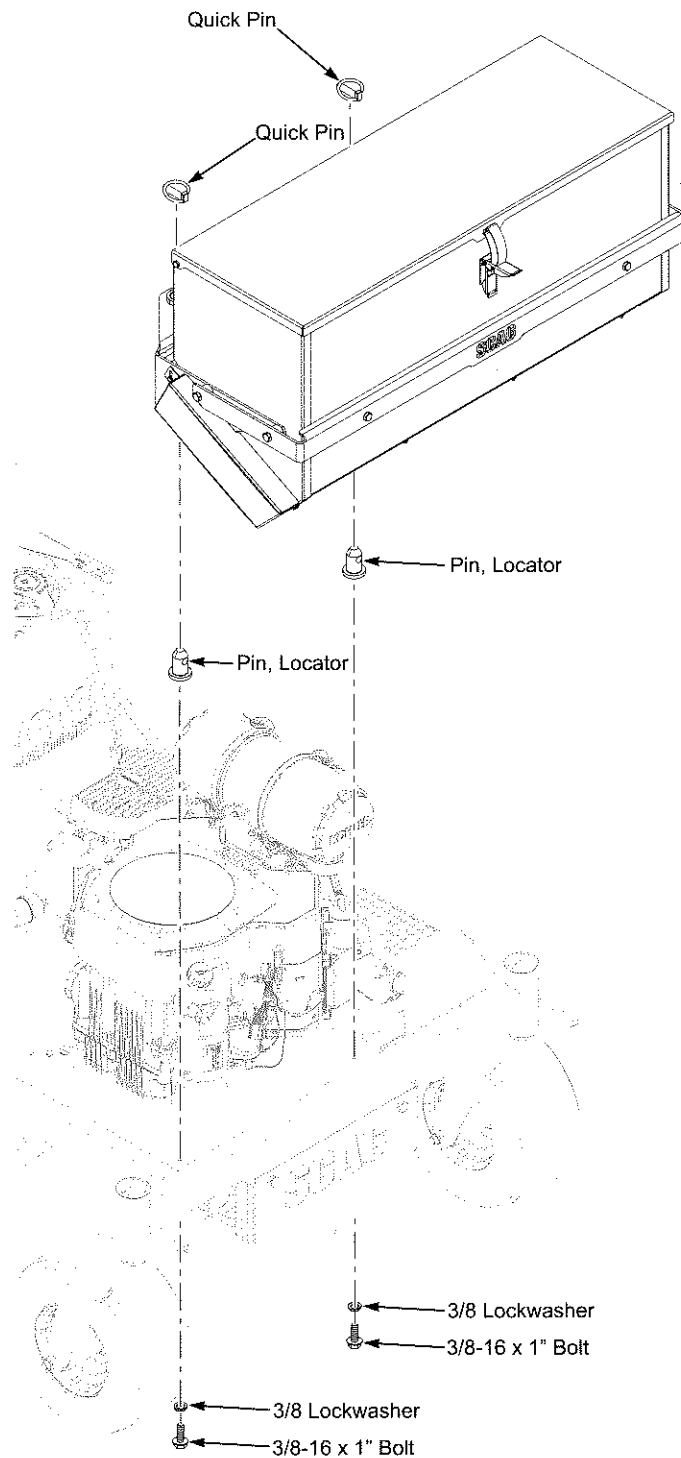
**Do not operate without all guards, covers or shields installed.**

2. Park the machine on a flat level surface.
3. Apply the parking brake, stop the engine, remove the key and wait for all movement to stop.
4. Install the 3/8" U-Nut to the front of the machine. See Figure 2-1.



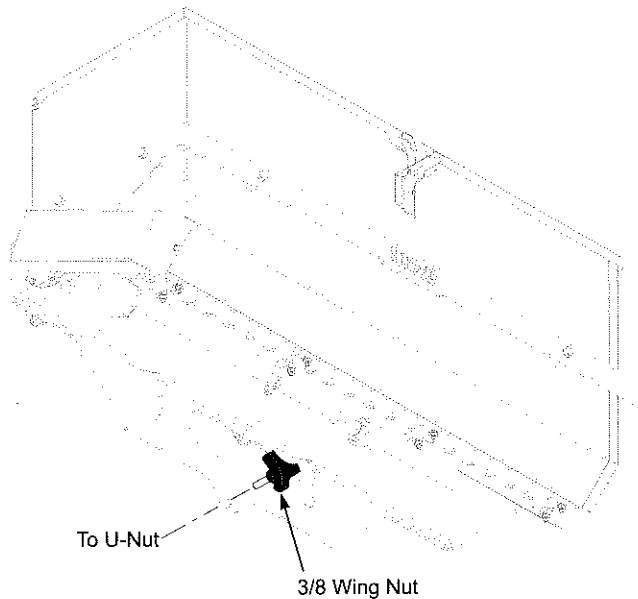
**Figure 2-1. U-Nut Installation**

5. Install the two (2) locator pins onto the front of the aerator and secure using two (2) 3/8-16 x 1" hex head bolts and two (2) 3/8" lockwashers. See Figure 2-2.
6. Tighten the hardware and torque to 39 ft/lbs. See Figure 2-2.
7. With help from a assistant, install the hopper assembly onto the locator pins and secure using two (2) quick pins. See Figure 2-2.



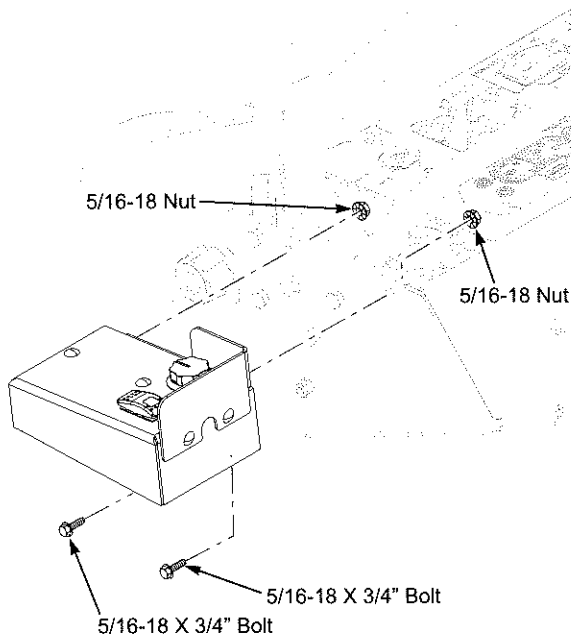
**Figure 2-2. Hopper Installation**

8. Install the 3/8" wing nut into the u-nut installed in step 4 and tighten. See Figure 2-3.



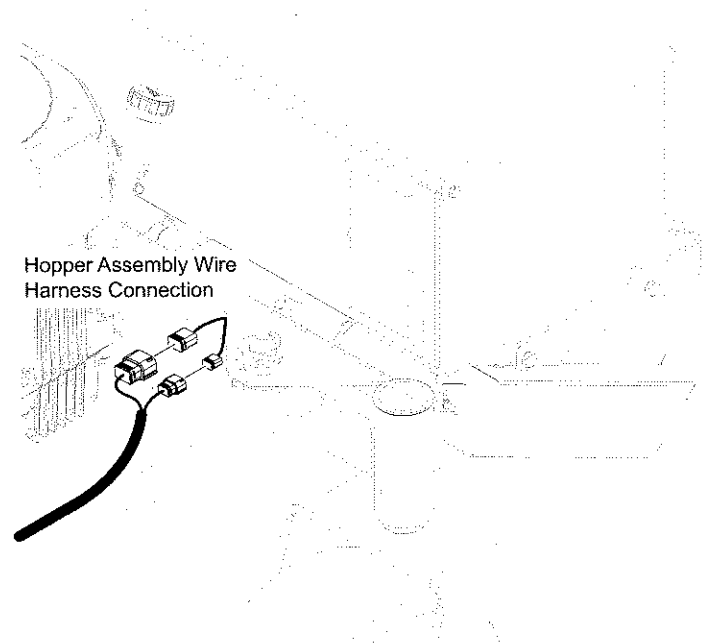
**Figure 2-3. Wing Nut Installation**

9. Install the Drop Seeder Control Panel onto the right side of the handle bar tower on the aerator and secure using two (2) 5/16-18 x 3/4" hex head bolts and two (2) 5/16-18 serrated flange nuts. See Figure 2-4.
10. Tighten the hardware and torque to 19 ft/lbs.



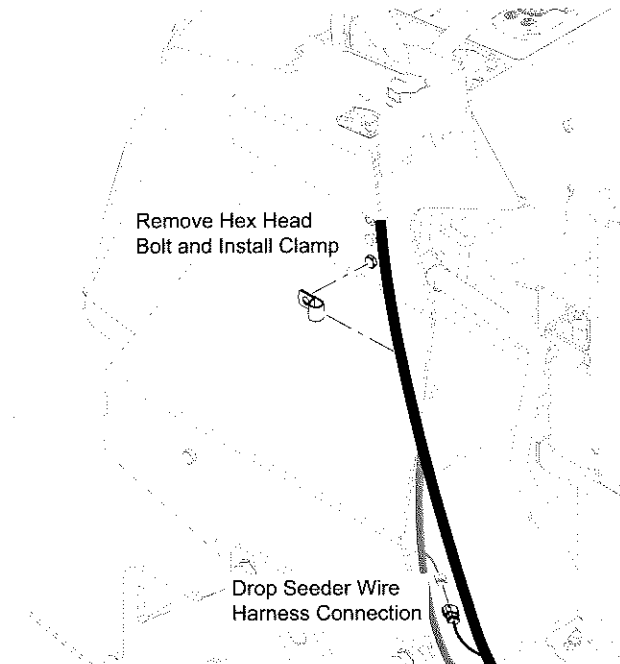
**Figure 2-4. Drop Seeder Control Panel Installation**

11. Connect the drop seeder wire harness to the hopper assembly. See Figure 2-5.



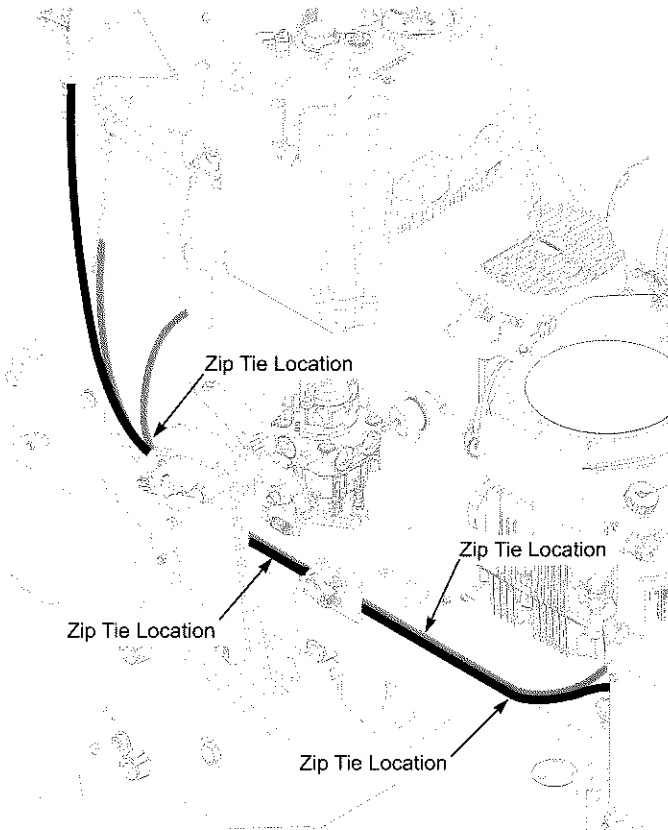
**Figure 2-5. Hopper Wire Harness Connection**

12. Connect the drop seeder wire harness to the aerator's main wire harness using the accessory plug location under the handle assembly. Install the wire harness through the clamp and install the clamp where shown. See Figure 2-6.



**Figure 2-6. Drop Seeder Wire Harness Connection to Aerator Main Harness**

- Using the zip ties provided in this Drop Seeder Accessory, secure the drop seeder wire harness to the existing aerators main wire harness and battery cables as shown in Figure 2-7.

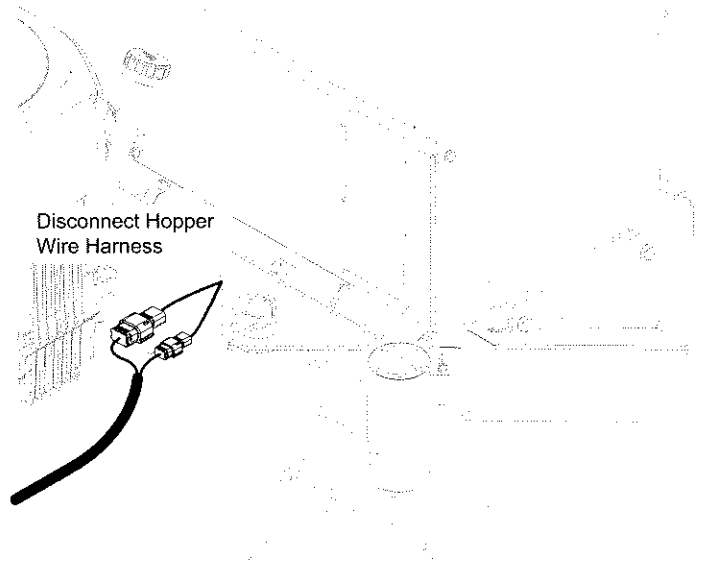


**Figure 2-7. Securing the Drop Seeder Wire Harness**

- Operate and test the drop seeder.

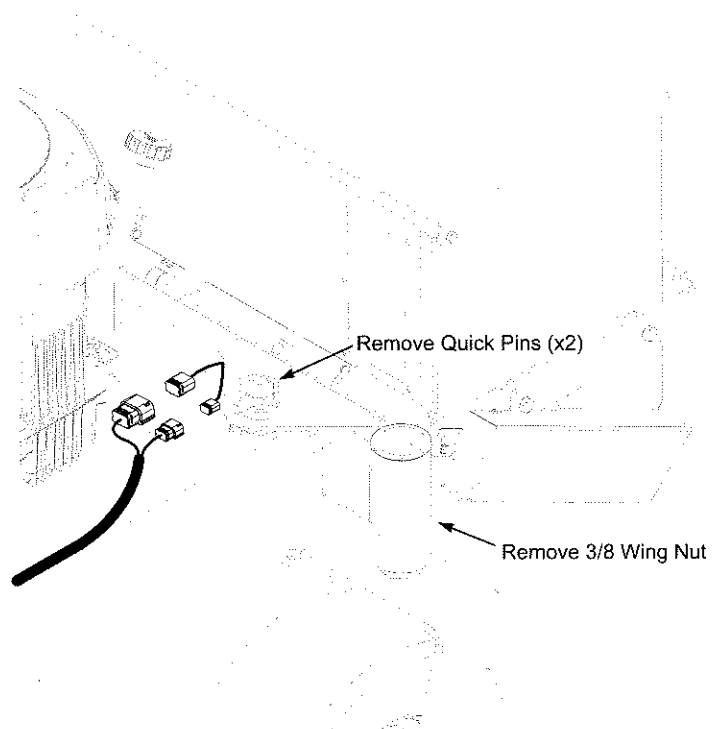
## 2.2 REMOVING THE DROP SEEDER HOPPER ASSEMBLY

- Park the machine on a flat level surface.
- Apply the parking brake, stop the engine, remove the key and wait for all movement to stop.
- Disconnect the hopper assembly wire harness from the drop seeder wire harness. See Figure 2-8.



**Figure 2-8. Disconnect the Hopper Assembly Wire Harness**

- Remove the two (2) quick pins and the 3/8 wing nut securing the hopper assembly to the aerator. See Figure 2-9.



**Figure 2-9. Removing the Quick Pins and Wing Nut**

- With help from an assistant, lift and remove the hopper assembly from the aerator.

## MAINTENANCE

### 3.1 MAINTENANCE CHART - RECOMMENDED SERVICE INTERVALS

Break-In (First 4)	HOURS						Procedure	Comments
	8	20	40	100	200	500		
X							Check all hardware for tightness	
X							Check drive chain for proper alignment	
	X						*Clean hopper sight window	Remove dust and debris
	X						*Check spread rate adjuster in hopper	Remove debris
	X						Inspect drive chain and adjust as needed	Replace worn components. Tighten the chain using the motor mounting bolts.
	X						Check condition of hopper assembly	
	X						*Apply lubrication to the chain assembly	
		X					Check drive chain for proper alignment	

\* Perform these maintenance procedures more frequently when applying dusty material or dirty conditions.

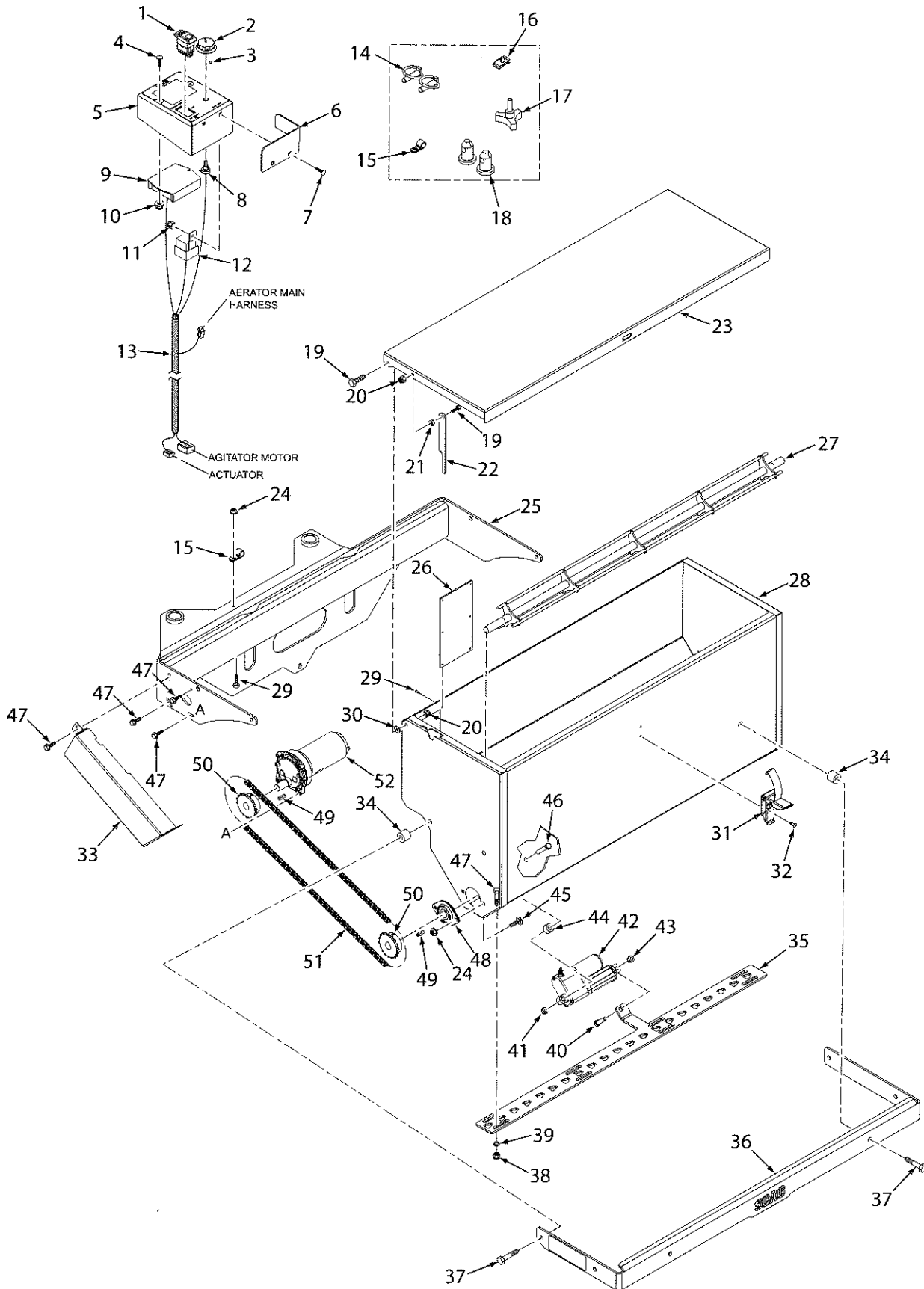


## ILLUSTRATED PARTS LIST

### 4.1 SCAG APPROVED ATTACHMENTS AND ACCESSORIES.

Attachments and accessories manufactured by companies other than Scag Power Equipment are not approved for use on this machine.

### DROP SEEDER COMPONENTS

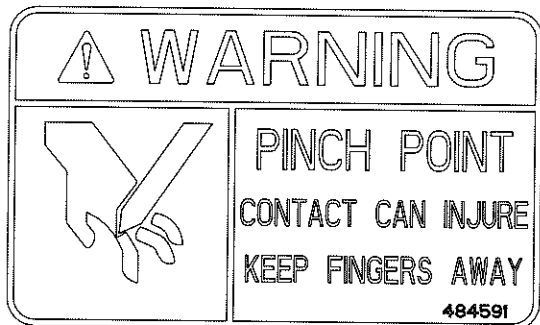


## DROP SEEDER COMPONENTS

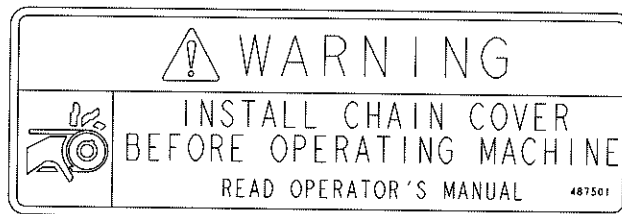
Ref. No.	Part No.	Description
1	487548	SWITCH, ROCKER - LIGHTED
2	486807	KNOB, SPREADER
3	04012-16	SET SCREW, #8-32 X .375
4	04003-55	CARR BOLT, #10-24 X .75
5	463528	INSTRUMENT PANEL W/DECAL
6	429292	GUARD, POTENTIOMETER
7	04003-02	CARR BOLT, 1/4-20 X .75
8	487552	POTENTIOMETER, SEEDER
9	487509	MODULE, LINEAR ACTUATOR CONTROL
10	04117-06	LKNUT,#10-24 FLG HH ELAS STOP
11	04021-08	LKNUT, 1/4-20 ELASTIC STOP
12	483013	RELAY SWITCH W/ DIODE
13	487545	WIRE HARNESS, SEEDER
14	04066-01	QUICK PIN, .438 DIA
15	48030-09	CLAMP, CABLE - .50 ID
16	04110-03	U-NUT, 3/8-16
17	481625-01	KNOB W/ STUD, 3/8-16 X 1.25
18	43884	PIN, LOCATOR
19	04001-01	HHCS, 1/4-20 X .75
20	04021-08	LKNUT, 1/4-20 ELASTIC STOP
21	431137	PIVOT, BRAKE LEVER
22	429198	PROP, SEEDER LID
23	463527	HOPPER LID W/DECALS
24	04019-02	NUT,1/4-20 SERR FLG HH
25	453394	MTG BRKT WLMT, AS SEEDER
26	487490	WINDOW, HOPPER
27	453393	SEEDER AGITATOR WLMT
28	463526	HOPPER ASSY
29	04090-04	POP RIVET, 1/8 X .294
30	04040-03	FLTWSHR,1/4-.281X.625X.065
31	481309	LATCH, HOOD
32	04090-03	POP RIVET, 3/16 X .402
33	429221	COVER, HOPPER CHAIN
34	43123	SPACER,CAM PIVOT
35	429178	ADJUSTER, SPREAD RATE
36	463536	BUMPER W/ DECAL - DS
37	04001-21	HHCS, 3/8-16 X 1.75
38	04021-01	LKNUT, #10-32 ELASTIC STOP

Ref. No.	Part No.	Description
39	431190	SPACER, SLIDING GATE
40	04001-10	HHCS, 5/16-18 X 1.25
41	04021-04	LKNUT, 5/16-18 CENTER LOCK
42	487500	LINEAR ACTUATOR, SEEDER
43	04021-10	LKNUT, 5/16-18 ELASTIC STOP
44	431004	SPACER
45	04003-07	CARR BOLT, 1/4-20 X .50
46	04001-12	HHCS, 5/16-18 X 1.75
47	04017-02	HHCS, 10-32 X .75 SERR FLG
48	487495	BEARING, FLANGE 5/8 ID
49	04063-15	KEY, 3/16 X 3/16 X 3/4
50	487516	SPROCKET, 35 18T - 5/8" BORE
51	487518	CHAIN, SEEDER
52	487494	MOTOR, AGITATOR

### DECALS



484591



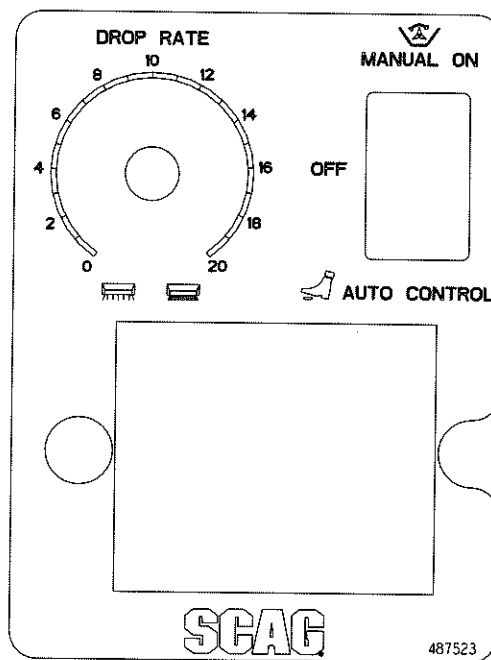
487501



487570



487571



487523

**NOTES**

NOTES

## LIMITED WARRANTY- COMMERCIAL ACCESSORY

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Any part of the Scag commercial accessory manufactured by Scag and found, in the reasonable judgment of Scag, to be defective in material or workmanship, will be repaired or replaced by an Authorized Scag Service Dealer without charge for parts and labor.

The Scag accessory, including any defective part, must be returned to an Authorized Scag Service Dealer within the warranty period. The expense of delivering the accessory to the dealer for warranty work and the expense of returning it back to the owner after repair or replacement will be paid for by the owner. Scag's responsibility in respect to claims is limited to making the required repairs or replacements, and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any Scag machine. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work must be performed by an Authorized Scag Service Dealer.

This warranty is limited to 90 days from the date of original retail purchase for any Scag accessory that is used for commercial purposes, or any other income-producing purpose including rental use.

The warranty for the grass catcher blower assemblies (excluding the belt) is limited to 1-year from the date of original retail purchase. 90 Days for rental use.

This warranty does not cover any accessory that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in the Operator's Manual. The warranty does not apply to any damage to the accessory that is the result of improper maintenance, or to any accessory or parts that have not been assembled or installed as specified in the Operator's Manual.

The warranty does not cover any accessory that has been altered or modified. In addition, the warranty does not extend to repairs made necessary by normal wear, or by the use of parts or accessories which, in the reasonable judgment of Scag, are either incompatible with the Scag mower or adversely affect its operation, performance or durability. This warranty does not cover engines and electric starters, which are warranted separately by their manufacturer.

Scag Power Equipment reserves the right to change or improve the design of any accessory without assuming any obligation to modify any accessory previously manufactured.

All other implied warranties are limited in duration to the 90 day warranty period. Accordingly, any such implied warranties including merchantability, fitness for a particular purpose, or otherwise, are disclaimed in their entirety after the expiration of the appropriate ninety day warranty period. Scag's obligation under this warranty is strictly and exclusively limited to the repair or replacement of defective parts and Scag does not assume or authorize anyone to assume for them any other obligation. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Scag assumes no responsibility for incidental, consequential or other damages including, but not limited to, expense for gasoline, oil, expense of delivering the machine to an Authorized Scag Service Dealer and expense of returning it back to the owner, mechanic's travel time, telephone or telegram charges, rental of a like product during the time warranty repairs are being performed, travel, loss or damage to personal property, loss of revenue, loss of use of the mower, loss of time, or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.