OPERATING INSTRUCTIONS AND PARTS LIST

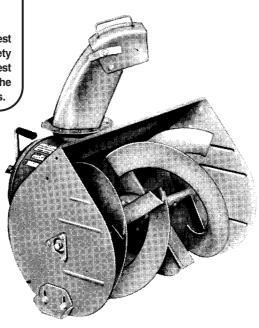
Ariens



SNO — THRO ATTACHMENT

SAFETY MESSAGE

The product for which you have requested information or replacement parts is not a current product. The replacement models incorporate product designs, safety features, safety instructions or warnings which represent the latest "State Of The Art" developments. For your safety and those around you please contact your nearest Ariens/Gravely Dealer for a demonstration of the current product safety provisions and features.



Serial No. 7-10 M 114,901 and up

PRICE \$.25

SAFE SNOW REMOVAL IS NO ACCIDENT

Improper use of snow removal equipment on the part of the operator can result in injury. To reduce this possibility, give complete and undivided aftention to the job at hand.

Protect Yourself and Others by Following These Safety Tips

- 1. Stop engine before cleaning discharge, removing obstacles,
- making adjustments, or when leaving operating position.

 Never direct discharge at bystanders nor allow anyone in front of machine -- debris may be hidden in the snow.
- Keep children and pets a safe distance away.
 Do not allow children to operate machine nor allow adults to
- operate it without proper instruction.

 5. Adjust height to clear gravel or crushed rock surface.

 6. Exercise caution to avoid slipping or falling, especially when operating in reverse
- Know the controls and how to stop quickly read the operating instructions.

- 8. Handle gasoline with care it is highly flammable.
 - A. Use approved gasoline container.
 - B. Never add gasoline to running engine fill tank out of doors and wipe up spilled gasoline.
 - . Replace gasoline cap securely.
 - D. Open doors if engine is run in garage -- exhaust gases are dangerous.
- 9. Disengage all clutches and shift into neutral before starting engine. Keep hands, feet and clothing away from power driven
- 10. Use a grounded three wire extension cord for all plug-in electric units.
- 11. Keep machine in good operating condition and keep safety devices in place.

WARRANTY

Ariens Company hereby warrants to the original retail purchaser all new products of its own manufacture to be free from defects in material and workmanship.

Engine, parts or accessories not manufactured by Ariens Company, even though incorporated into its prod-

ucts, are not covered by this warranty.

The warranty period shall be one year from date of original purchase, except when the product is used for rental purposes, in which case the warranty period shall be for 45 days from date of original purchase. Any transportation charges incurred on any product claimed defective, which shall include the time and expense of the distributor or dealer for pickup and/or return of the unit, shall be borne by the purchaser. This warranty shall not apply to any failure resulting from misuse, neglect or accident. Ariens Company shall not be responsible for damage in transit or handling by any common or contract carrier. Under no circumstances, within or without the warranty period, will the company be liable for damages for loss of use, or damages resulting from delay, or any consequential damages.

The company reserves the right to incorporate any changes in design into its products without obligation

to make such changes on units previously manufactured.

OPERATING INSTRUCTIONS

1. ATTACHING

- a. Sno-Thro Attachment.
- (1) Hook the notches in the lower portion of the Sno-Thro Attachment frame over the rod passing through the forward section of the tractor frame.
- (2) Tip the two sections together, being sure the jaw clutch on the Sno-Thro Attachment is in the OUT position (counterclockwise).
- (3) Insert and tighten the two 3/8-inch Whizlock screws through the top of the tractor frame and into the Sno-Thro Attachment.
 - b. Chute Control Rod.
- (1) Fasten the chute control support to the tractor with the hardware provided. Position the support so that the gear meshes properly with the holes in the chute. Fasten securely.
- (2) Slide the chute control rod through the rod hanger and into the end of the universal joint. Secure the rod to the universal joint with a cotter pin.

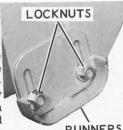
2. OPERATION

a. Tractor. For operation, see the section on OPERATION in the instruction book packed with the tractor.

- b. Sno-Thro Attachment.
- (1) To start the Sno-Thro Attachment, start the engine, place the Sno-Thro clutch in the IN position (clockwise) and engage the engine clutch on the tractor.
- (2) To stop the Sno-Thro Attachment, disengage the engine clutch on the tractor and place the Sno-Thro clutch in the OUT position.
- (3) The tractor may be used to move the unit with the Sno-Thro Attachment stopped by engaging the tractor clutch and leaving the Sno-Thro clutch in the OUT position.

3. RUNNERS

a. An adjustable runner is provided on each end of the (figure 1). housing Raising or lowering these runners controls the distance the scraper blade is held above the surface being plowed. Adjustment is accomplished by loosening the two nuts on each of the runners to the desired position and retightening the When plowing on connuts.



RUNNERS

Figure 1 crete or other hard surfaces, these runners should be adjusted so that they are approximately 1/8-inch below the scraper blade. When plowing gravel drive-

OPERATING INSTRUCTIONS

ways or other gravel areas, adjust the runners so that they are 1-1/4-inch below the scraper blade.

b. In wet snow which packs easily, it may be necessary to remove the runners or turn them upside down so the scraper blade will scrape clean.

4. SCRAPER BLADE (See figure 2)

A scraper blade (figure 2) is provided along the bottom edge of the blower housing. During operation, this blade runs along the surface being plowed, directing the snow into the rotor and insuring a clean surface. After considerable usage, this blade may wear and require replacement. The blade is replaced by removing the five locknuts, washers and carriage bolts holding it to the housing, removing the old blade and replacing with a new blade and replacing the carriage bolts, washers and locknuts.

5. CHUTE

- a. The chute is designed so that it can be rotated through an angle of 240 degrees by means of the chute control crank mounted on the handle bar. By turning the handle of the control rod, the blown snow can be directed either to the right or left or straight ahead. An adjustable deflector on the chute can be moved up or down to control the height and distance the snow will be blown.
- b. The distance the snow is blown can also be controlled to some extent by the engine speed. Slowing down the engine by means of the throttle control will decrease the throw and increasing speed will increase the throw. By a combination of engine speed and deflector adjustment, the snow can be blown a distance suitable for nearly every situation.

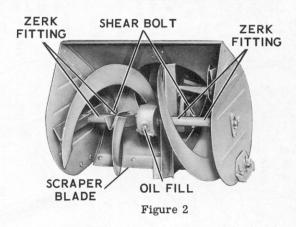
6. SHEAR BOLT REPLACEMENT

Occasionally a small object may enter the rotor and become jammed in the blades. When this occurs the shear bolts, located on the shaft on which the rotor is mounted, will break and allow the rotor to turn freely on the shaft. Before plowing can be con-

tinued, this shear bolt must be replaced. See figure 2. USE ONLY ARIENS SHEAR BOLTS. USE OF OTHER TYPES OF BOLTS MAY RESULT IN SEVERE DAMAGE TO MACHINE. STOP THE ENGINE BEFORE ATTEMPTING TO REMOVE OBSTRUCTIONS OR REPLACE SHEAR BOLTS.

NOTE-

Each time a shear bolt is replaced, the rakes must be greased and turned on the shaft by hand several times to insure they do not bind.



7. LUBRICATION

- a. Drain and refill the snow rotor gear case with approximately 5 oz. of SAE-90 Ariens Gear Oil every 25 hours of operation.
- b. To drain and refill, remove drain plug and allow oil to drain. Tip machine back on handle bars (be sure clutch is locked in UP position). Pour oil into filler hole until it starts to run out of drain hole. Replace drain and filler plug.
- c. Grease rake shaft (figure 2) periodically or each time a shear bolt is replaced. At the end of each season, remove shear bolts and grease shaft. Turn several times and replace shear bolts.

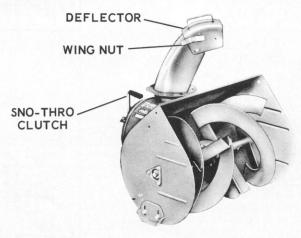
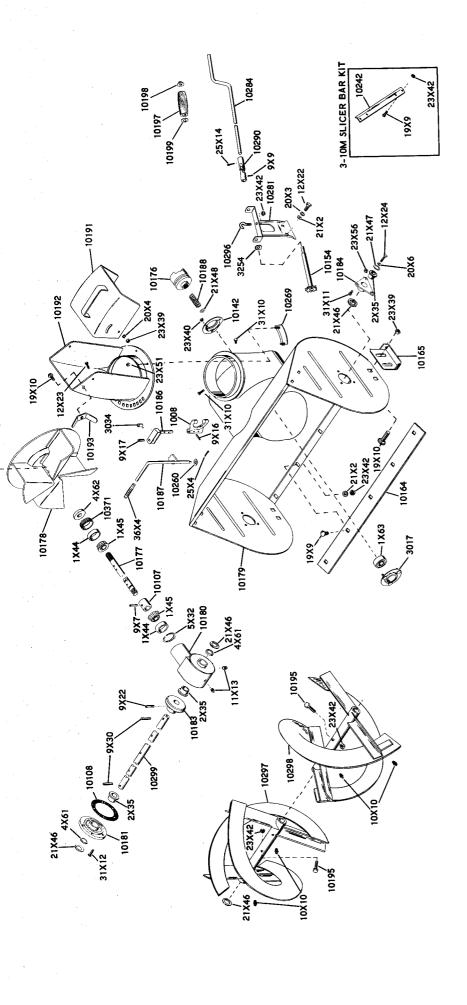


Figure 3



Part	Description	Reg'd.	Part So.	Description	No. Req'd.	Part No.	Description	No. Req'd.	Par So.	Description	No. Req'd.
	June Bord		10193	Wing Nut	1	6X6	Roll Pin 1/8 x 1	1	23X56	Whizlock Nut 1/4-20	9 -
1000	Donning Florida		10195	Shear Bolt	2	9X16	Roll Pin 3/16 x 1	7	25X4	Cotter Pin 1/8 x 1	٠,
201	Dearing Flanke	1 -	1010	Orient Door	-	0×17	Boll Din 5/16 x 1-1/4	-	25X14	Cotter Pin $1/8 \times 1-1/4$	_
3034	Roller	٠,٠	LATOT	drap	1 -	6670	Doll Din 5/16 v 1-2/8	-	31X10	Flange Whizlock Screw 3/8-16 x 1/2	67
3254	Wave Washer	1	10198	Cap	٦.	27YA	KOM Put 9/ 10 A 1-3/ 0		21711	Pibbed Neck Bolt 1/4-20 x 5/8	9
10107	Bearing Spacer		10199	Fastener		9X30	Koll Pin 3/16 x 1-1/2	4 •	11410	This was the post 1/ 1-20 A 5/ 5	
10101	1040 P	•	10280	Wave Washer	-	10X10	Zerk Fitting	4'	31X12	Flange Whizlock Screw 1/4-20 x 3/4	
10100	Destring Floring		10269	Chute Clamp	က	11X13	Pipe Plug 3/8 Sq. Hd.	2	36X4	Grip 1/2 ID	-
10154	Control Sprocket		10281	Chute Control Support	_	12X22	Capscrew 5/16-18 x 3/4 H.H.	7			
10101	Contract Dipole		10284	Chute Control Crank		12X23	Capscrew 3/8-16 x 3/4 H.H.	7		NOT ILLUSTRATED	
10101		1 6	10001	United Court of Court		12X24	Capserew $1/2-13 \times 1$ H.H.	87			
10165		3	10290	Olliver sat some			O	ıc			
10176	Jaw Clutch		10296	J-Bolt	-	FXST	Carriage Boit 5/10-10 x 1/2		40×19	Spo_Thro Label	_
10177		-	10297	R. H. Rake	1	19X10	Carriage Bolt $3/8-16 \times 3/4$	0	1001	Contier Tobel	٠.
10178		_	10298	L. H. Rake	1	20X3	Lockwasher 5/16	27	#140#	Caution Laber	٠.
10179			10299	Front Gear Shaft		20X4	Lockwasher 3/8	7	#0490	Autaciment Labor	٠.
1010		_	10371	Adjustment Plug	-	20X6	Lockwasher 1/2	67	40 X 31	in-Out Label	4
70107	Geat Case	1 -	1 1 1	Dooming City	6	21X2	Washer 5/16	-			
10181	Cear Case Flange	٠,	144	Dear mig Cup	1 0	27270	Wester 1 606 OD v 1 005 TD v 1/18	4		3-10M SLICER BAR KIT	l
10183	Helicon Gear	-	1X45	Bearing Cone	77 -	21X40	Washer 1.000 OD A 1.000 ID A 1/10	H C			
10184	Bearing Support	7	1X63	Ball Bearing	-	21X47	Washer 1.441 OD x .511 LD x $1/8$	۷,	10949	Glicon Box	-
10186	Fork Shaft		2X35	Bushing	7	21X48	Washer 1.375 OD x .755 ID x 1/16		0201	Commission Dolf E/18, 19 v. 1/9	
10187	-	-	4X61	Seal	67	23 X 39	Locknut 3/8-16	9	1943	Carriage Doit 0/ 10-10 A 1/ 2	10
1010			4X62	Seal		23X40	Locknut 1/4-20	m	23 X 42	rocknut 3/ 10-10	1
1010		•	5X32	Span Ring	-	23X42	Locknut 5/16-18	∞			
10191	7		0.X.0	Boli Din 1/4 x 1-1/4	က	23X51	Keps Nut #10-24	9			
76101	Discipling Cine	1		- / /							
						_					