

OPERATING INSTRUCTIONS AND PARTS LIST

Ariens

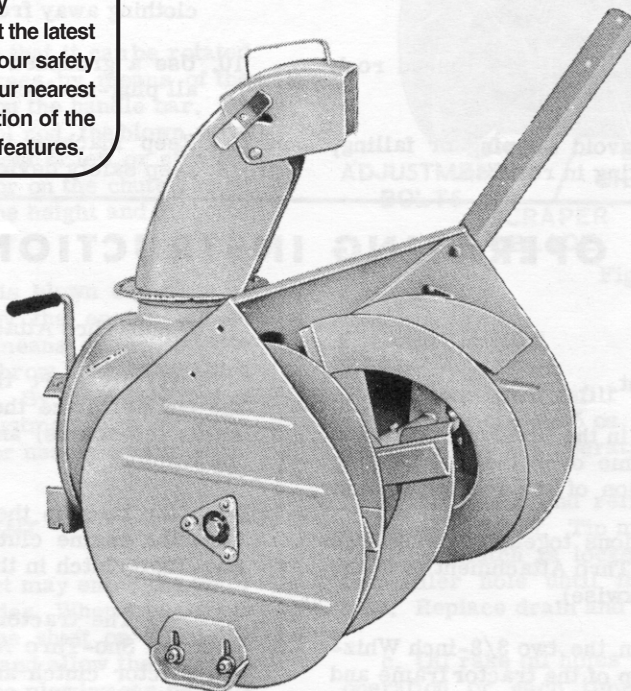


SNO - THRO ATTACHMENT

Serial No.
7-10M 68001
and up

⚠ 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.



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 products, 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.

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 attention to the job at hand.

Protect Yourself and Others By Following These Safety Tips

1. Stop motor before cleaning discharge, removing obstacles, making adjustments, or when leaving operating position.
2. Never direct discharge at bystanders nor allow anyone in front of machine -- debris may be hidden in the snow.
3. Keep children and pets a safe distance away.
4. 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.
7. Know the controls and how to stop quickly -- read the owner's manual.
8. Handle gasoline with care -- it is highly flammable.
 - A. Use approved gasoline container.
 - B. Never add gasoline to a running engine -- fill tank out of doors and wipe up spilled gasoline.
 - C. 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 motor. Keep hands, feet and clothing away from power driven parts.
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.

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 Whiz-lock 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 blower housing (figure 1). 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 nuts. When plowing on concrete or other hard surfaces, these runners should be adjusted so that they are approximately 1/8-inch below the scraper blade. When plowing gravel side-

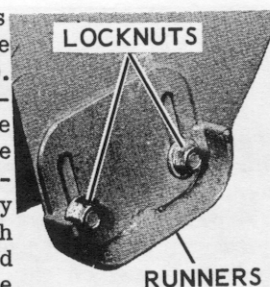


Figure 1

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

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

An adjustable 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 plowed surface. After considerable usage, this blade may wear and should be adjusted. The blade is adjusted by loosening the five nuts holding it to the housing, sliding it down to the new position and retightening the nuts. The blade is also designed so that it may be reversed if one side becomes worn beyond further adjustment.

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 oiled and turned on the shaft by hand several times to insure they do not bind.

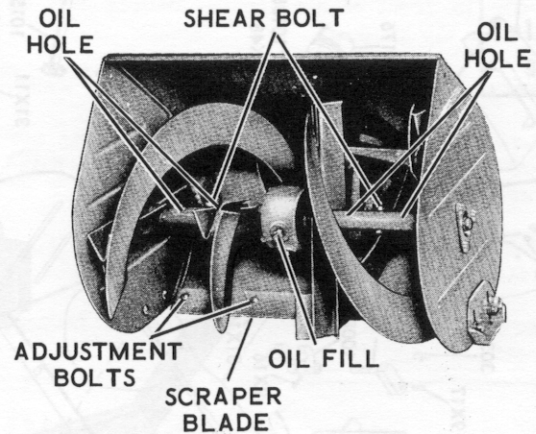


Figure 2

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. Oil rake oil holes (figure 2) every 25 hours of operation or each time a shear bolt is replaced.

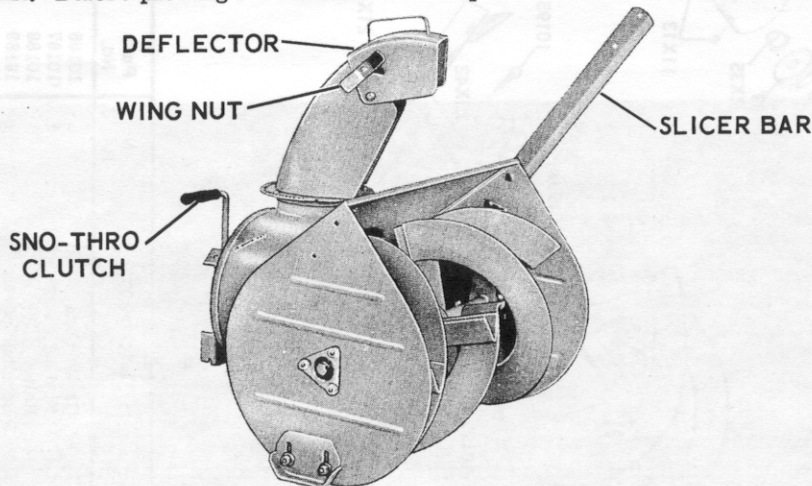
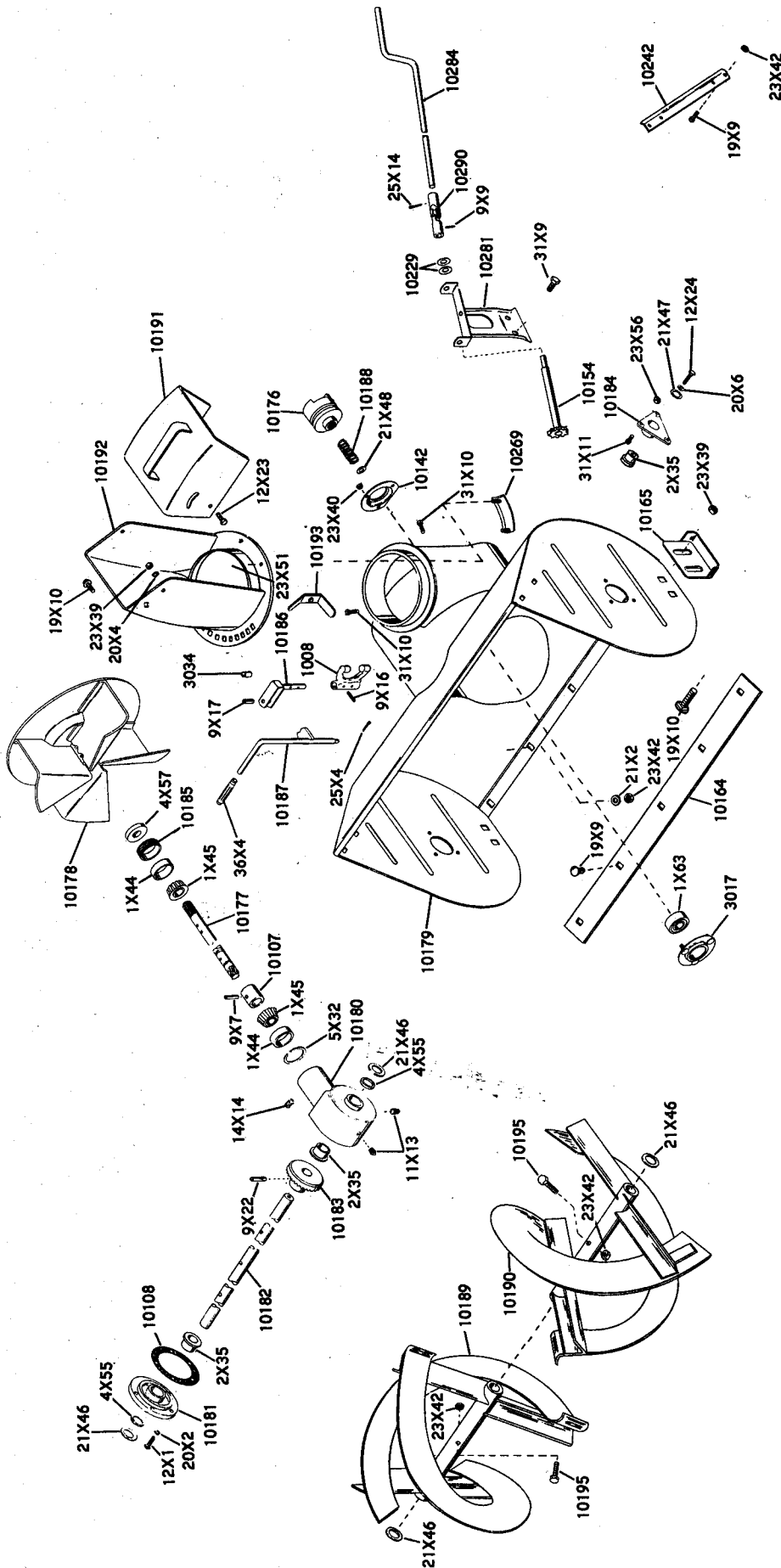


Figure 3

1-9X7



Part No.	Description	No. Req'd.	Part No.	Description	No. Req'd.	Part No.	Description	No. Req'd.	Part No.	Description	No. Req'd.
1008	Clutch Fork	1	10186	Fork Shaft	1	4X55	Seal	2	21X46	Washer 1.505 OD x 1.005 ID x 1/16	4
3017	Bearing Flange	1	10187	Fork Cam	1	4X57	Seal	1	21X47	Washer 1.441 OD x .511 ID x 1/8	2
3034	Roller	1	10188	Spring	1	5X32	Snap Ring	1	21X48	Washer 1.375 OD x .755 ID x 1/16	1
10107	Bearing Spacer	1	10189	R. H. Rake	1	9X7	Roll Pin 1/4 x 1-1/4	3	23X39	Locknut 3/8-16	6
10108	Gasket	1	10190	L. H. Rake	1	9X9	Roll Pin 1/8 x 1	1	23X40	Locknut 1/4-20 x 1/2	3
10142	Bearing Flange	1	10191	Deflector	1	9X16	Roll Pin 3/16 x 1	2	23X42	Locknut 5/16-18	9
10154	Control Sprocket	1	10192	Discharge Chute	1	9X17	Roll Pin 5/16 x 1-1/4	1	23X51	Nut #10-24	6
10164	Scraper Blade	1	10193	Wing Nut 1/8 x 1	1	9X22	Roll Pin 5/16 x 1-3/8	2	23X56	Nut 1/4-20	6
10165	Runner	2	10195	Shear Bolt	2	11X13	Pipe Plug 3/8 Sq. Hd.	1	25X4	Cotter Pin 1/8 x 1	1
10176	Sliding Jaw	1	10229	Wave Washer	1 or 2	12X1	Capscrew 1/4-20 x 3/4	5	25X14	Cotter Pin 1/8 x 1-1/4	1
10177	Helicon Pinion	1	10242	Slicer Bar	1	12X23	Capscrew 3/8-16 x 3/4	2	31X9	Flange Whitlock Screw 5/16-18x1/2	2
10178	Fan	1	10269	Chute Clamp	3	12X24	Capscrew 1/2-13 x 1	2	31X10	Flange Whitlock Screw 3/8-16x1/2	2
10179	Blower Housing	1	10281	Chute Control Support	1	14X14	Set Screw 1/4-20 x 1/4	1	31X11	Ribbed Neck Bolt 1/4-20 x 5/8	6
10180	Gear Case	1	10284	Chute Control Crank	1	19X9	Carriage Bolt 5/16-18 x 1/2	7	35X4	Grip 1/2 ID	1
10181	Flange	1	10290	Universal Joint	1	19X10	Carriage Bolt 3/8-16 x 3/4	5			
10182	Front Gear Shaft	1	1X44	Bearing Cup	2	20X2	Lockwasher 1/4	5			
10183	Helicon Gear	1	1X45	Bearing Cone	2	20X4	Lockwasher 3/8	2			
10184	Bearing Support	1	1X63	Ball Bearing	1	20X6	Lockwasher 1/2	2			
10185	Mounting Plug	1	2X35	Bushing	2	21X2	Washer 5/16	5			