OPERATING INSTRUCTIONS AND PARTS LIST

Ariens

SNO-THRO

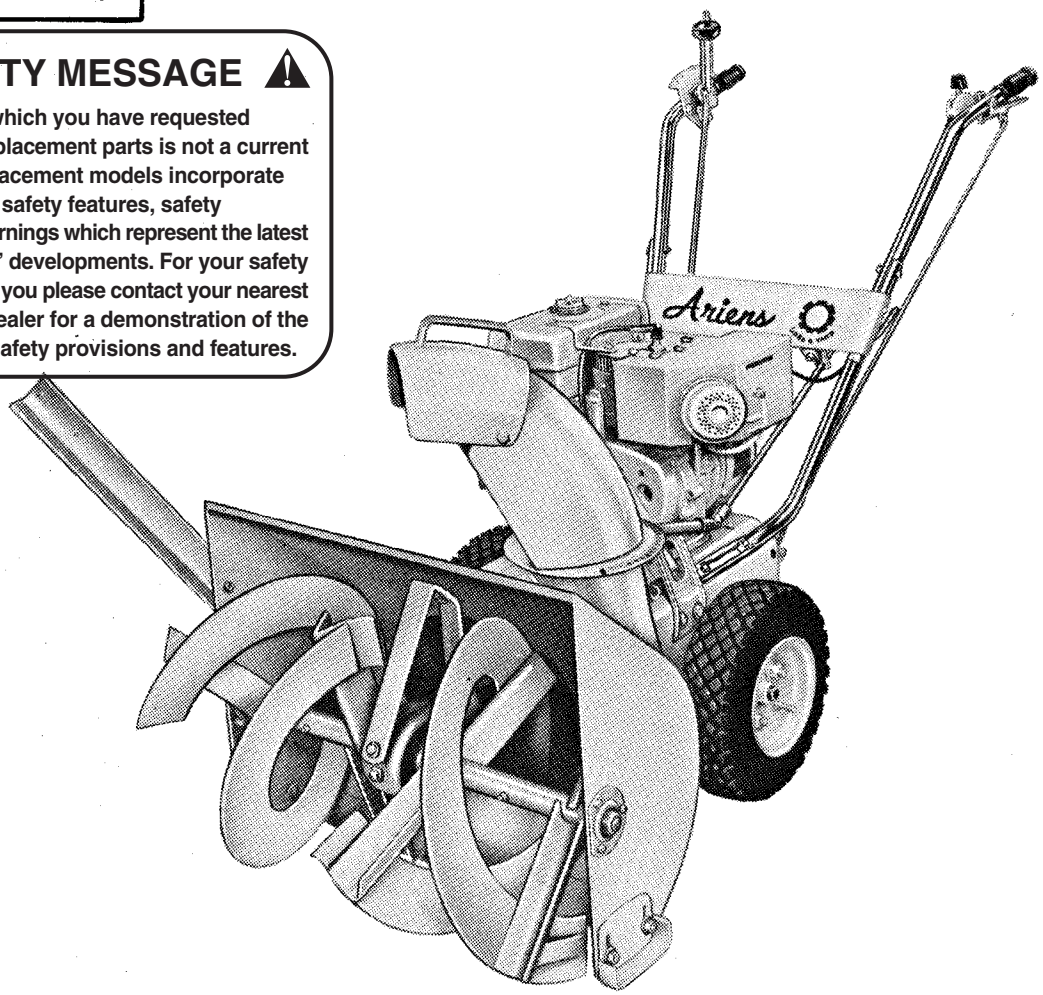
AND ATTACHMENTS

ARIENS GARD-N-YARD

10M-L60D - 06001 & up
10M-L60 - 15001 & up
10M-L35 - 06001 & 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.



Price $.25

WARRANTY

Ariens products are guaranteed to the original retail purchaser for 90 days from date of purchase. This guarantee does not include belts, tires, etc., and other items subject to normal wear. Ariens Company warranty DOES NOT APPLY ON ENGINES WHICH ARE SEPARATELY COVERED BY WARRANTY OF ENGINE MANUFACTURER. Ariens Company makes no warranty with respect to trade accessories, such being subject to the warranty of their respective manufacturer. No warranty is extended to sheet metal items or finishes.

The warranty will not apply to any products repaired or altered outside of our factory or any Ariens Authorized Service Distributor or Dealer which, in the company's judgment affects its condition or operation. Neither will the warranty apply to any failures resulting from misuse, neglect, or accident. Ariens Company is not responsible for damage in transit or handling by common carriers.

The company reserves the right to incorporate any changes in design without obligation to make them on units previously sold.

ASSEMBLY

1. GENERAL

When unpacking, be sure to remove all loose items from the carton.

2. HANDLE BARS

a. Place the holes in the flat section of the lower handle bars over the studs projecting from the frame on each side of the engine.

b. Place a lockwasher and nut on each stud but do not tighten.

c. Remove the four bolts from the lower portion of the upper handle bar and slide the upper handle bar in place between the curved portions of the lower handle bars (figure 1).

d. Replace the bolts in the top hole of the lower handle bar and the matching hole in the upper handle bar. Fasten with locknut.

e. Hook the bent portion of the nameplate panel over the lower handle bar and slide it up until the holes in the panel line up with the lower holes in the lower handle bar. Fasten in place with bolts and locknuts.

f. Tighten the nuts holding the lower handle bar to the frame.

3. SHIFT CONTROL

Position the shift control (figure 1) on the inside of the handle bars on the right hand side so that the holes in the control line up with the holes in the handle bar. Fasten the control to the handle bar with two hex head cap screws and lockwashers (figure 1).

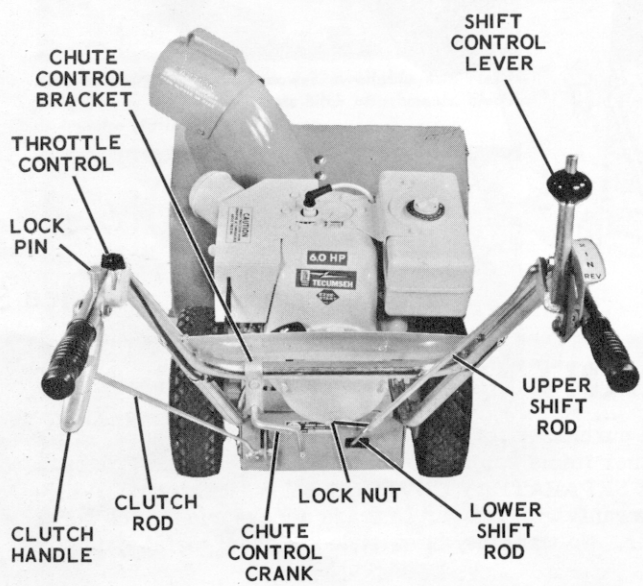


Figure 1

4. SHIFT ROD

a. Pull up as far as possible on the lower shift rod which projects from the rear of the engine mounting frame (figure 1). Screw the threaded portion of the upper shift rod over the lower shift rod.

b. Depress the rod in the center of the shift knob and pull the shift control back to the REVERSE position.

c. Thread the upper rod on the lower rod until the opposite end of the rod drops easily into the hole in the shift control. Place a washer over that portion of the rod which projects through the shift control and insert a cotter pin to hold the rod in place.

d. Tighten the locking nut on the lower shift rod.

5. TRACTOR CLUTCH ROD

a. Using a rubber band or piece of string, tie the clutch operating handle up against the handle bar.

b. Slide the straight end of the clutch rod through the ball joint mounted on the clutch arm (figure 1) and place the bent end of the rod through the hole in the clutch operating handle (figure 1).

c. Place the small washer over the rod and fasten in place with a cotter pin through the hole in the rod.

d. Tighten the clamping screw in the ball joint.

e. Remove the ties holding the clutch operating handle to the handle bar and remove the wedge from under the clutch arm.

f. Pull up on the clutch operating handle and lock the handle in place with the locking pin. Depress the button on top of the shift lever and move the lever to the neutral position. If the shift lever does not move freely to the neutral position, loosen the clamping screw in the ball joint, slide the wedge in a little farther, and retighten the clamping screw and remove the wedge.

6. CHUTE CONTROL ROD (Sno-Thro Only)

a. Slide the chute control rod through the hole in the bracket (figure 1) mounted on the left hand side of the handle bar.

b. Slide the rod into the hole in the universal joint.

c. Line up the hole in the rod with the hole in the universal joint and insert the cotter pin.

d. Position the bracket mounted on the handle bar so the chute control rod will turn freely. Tighten the bracket.

7. THROTTLE CONTROL LEVER

a. Using the two self-tapping screws provided, fasten the throttle control lever (figure 1) to the inside of the left hand handle bar.

b. Run the control cable down the inside of the handle bar and fasten in place with the spring clip.

8. TIRES

For shipping purposes, the tires on the Sno-Thro have been inflated to greater than normal pressure. Before using the machine, deflate the tires to approximately 12 lbs. to provide greater traction. Be sure to balance the air pressure in both tires so the machine will travel in a straight line.

LUBRICATION

1. ENGINE

See manufacturer's instruction book for engine lubrication instructions.

NOTE

SAE-10 oil is recommended for use in the engine crankcase when operating at temperatures below 32 degrees Fahrenheit.

2. TRACTOR DRIVE

a. At the start of each season grease the gears, spline and fork shaft, jaw coupling, and chains. Use a grease gun to lubricate the zerk fitting on the chute control bracket support.

b. Two or three drops of light oil should be placed on the shift lever release rod.

c. Two or three drops of oil on the throttle cable wire will result in smooth operation. Place the throttle in the STOP position, oil the center wire on the cable and work the throttle control back and forth a few times to distribute the oil.

d. Once each season, remove the wheels and grease the ratchet wheel mechanism lightly.

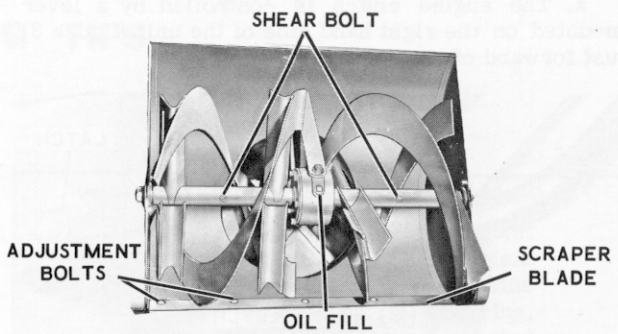


Figure 2

3. SNOW ROTOR GEAR CASE

a. Drain and refill the snow rotor gear case with Ariens Gear Oil every 25 hours of operation.

b. To drain and refill, proceed as follows:

(1) Remove drain plug and allow oil to drain.

(2) Tip machine back on handle bars (be sure clutch is locked in UP position).

(3) Pour oil into filler hole until it starts to run out of drain hole.

(4) Replace drain and filler plug.

OPERATING INSTRUCTIONS

1. ENGINE

Complete instructions for the operation, lubrication, and proper care of the engine will be found on the instruction plate attached to the engine fan housing and in the manufacturer's instruction book packed with the engine. Do not attempt to start the engine before following the manufacturer's recommendations for servicing the engine.

2. TRACTOR CLUTCH

a. The clutch operating handle mounted on the left handle bar serves to disengage the clutch so that the shift control lever may be moved to any one of the four forward speeds or reverse position.

b. When the clutch operating handle is squeezed together, the shift control lever may be moved to the desired position. Releasing the handle will cause the machine to move in the direction and at the speed selected. Once the tractor is in motion, it is possible, without using the clutch, to shift to a higher or lower speed range. However, the clutch must be used when moving the shift control lever into neutral or reverse.

c. A locking device is provided on the clutch operating handle to hold the handle in the non-operating position. The lock is released by a light squeeze on the handle.

3. SHIFT CONTROL LEVER

a. The shift control lever mounted on the right handle bar governs the speed and direction of the tractor.

b. To move the shift control lever to a selected position, squeeze the tractor clutch operating handle together, depress the button on the center of the shift control lever knob and move the lever.

4. ENGINE CLUTCH

a. The engine clutch is controlled by a lever mounted on the right hand side of the unit (figure 3) just forward of the engine.

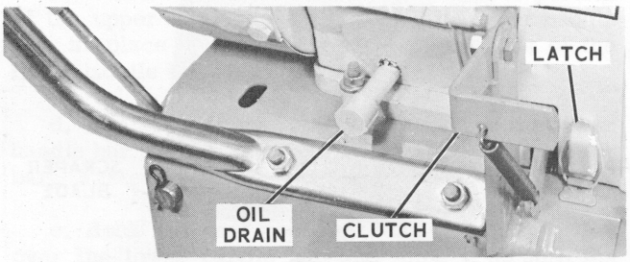


Figure 3

b. When the clutch control lever is pulled up, the idler pulley bears against the drive belt causing the engine to drive the tractor transmission and the blower.

c. When the clutch control lever is pushed down, the idler pulley moves away from the drive belt, loosening the belt and operation of the transmission and blower stops.

5. THROTTLE CONTROL (6 h.p. Models)

The throttle control lever controls the speed of the engine and therefor, in conjunction with the shift control lever, the speed of the machine. Moving the lever toward "F" increases engine speed and moving it toward "S" decreases speed. Moving the lever to the STOP position will stop the engine. ALWAYS MOVE THE THROTTLE LEVER TO "PARK" AFTER ENGINE HAS STOPPED.

6. CHOKE

A manual choke is provided which is operated by a lever projecting from the carburetor cover on the left-hand side of the engine. The lever can be placed in any one of four detent positions. Moving the lever toward the rear of the machine places it in the FULL CHOKE position. As it is moved forward it will pass through the 3/4 CHOKE and 1/2 CHOKE position to the NO CHOKE position fully forward.

7. RUNNERS

a. An adjustable runner is provided on each end of the blower housing (figure 4). 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.

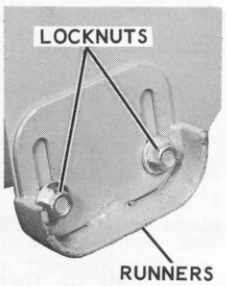


Figure 4

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.

ENGINE STARTING INSTRUCTIONS

MANUAL STARTING

a. Fill engine fuel tank with "regular" grade gasoline.

b. Place engine clutch lever in down position and shift control lever in NEUTRAL.

c. Place choke lever in FULL CHOKE position.

d. At temperatures below 10° F depress primer button and pull recoil starter slowly past compression one time. Release primer button.

CAUTION

Do not use primer when temperature is above 10° F.

e. Pull recoil starter handle quickly. When engine starts, move choke control lever to 3/4 CHOKE position (first notch). After 20-seconds move choke control lever to 1/2 CHOKE position (second notch). After an additional 15-seconds move choke control lever to NO CHOKE position.

f. If engine does not start on first pull, move choke lever to 1/2 CHOKE position before pulling recoil starter a second time.

g. If engine does not start by the fifth pull, move choke lever to NO CHOKE position and pull starter twice. Repeat starting procedure. DO NOT REPRIME ENGINE BEFORE TRYING AT LEAST FIVE PULLS ON STARTER.

ELECTRIC STARTING

a. Plug the AC cord from the starter control box into a 120-volt AC receptacle. Plug the DC cord from the starter control box onto the starter on the Sno-Thro.

b. Follow steps a and b in MANUAL STARTING paragraph above. Place choke in NO CHOKE position.

c. Operate the switch on the starter control box.

d. Allow engine to crank for four or five revolutions and then move choke lever to FULL CHOKE position. As soon as the engine starts, release the switch and move the choke control lever to the 3/4 CHOKE position. After the engine has warmed up, move the choke to the NO CHOKE position.

CAUTION

Do not depress the primer button when starting the engine with the electric starter.

8. 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.

9. CHUTE

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.

OPERATING TIPS

1. PRE-OPERATION PRECAUTIONS

a. Before the first snowfall, be sure the area on which the Sno-Thro is to be operated is free of sticks, stones, toys, or other obstructions which might be picked up by the machine during operation.

WARNING

Do not allow children to run through the snow being discharged from the machine. Small objects picked up by the machine may be thrown out of the chute with considerable force and can cause serious injury.

b. Always allow the engine to warm up to operating temperature before operating the machine in snow.

c. Operate the machine in a cleared area before operating in snow for the first time. Become familiar with all controls before attempting to plow.

2. CHUTE ADJUSTMENT

a. The distance the Ariens Sno-Thro will throw the snow will depend on the type of snow being plowed. In general, the position of the deflector will determine the distance the snow will be thrown. Tipping the deflector down will decrease the throw and tipping the deflector up will increase the throw.

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.

NOTE

When operating the Sno-Thro in wet snow, occasionally a sufficient amount of snow may stick inside the chute causing partial clogging. To prevent this, it is suggested that the inside of the chute be coated with a light layer of "paste" or "spray" wax. It is recommended that the inside of the chute be waxed two or three times each season.

3. DEPTH ADJUSTMENT

How clean the Sno-Thro will plow is determined by the adjustment of the runners. See paragraph 9 of Operating Instructions. 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 driveways or other gravel areas, adjust the runners so that they are 1-1/4-inch below the scraper blade.

4. PLOWING

a. When plowing reasonable depths of ordinary snow, it is only necessary to guide the machine along the path to be plowed and to adjust the chute to blow the snow with the wind. When making the second pass on a sidewalk or driveway, allow the machine to overlap the previous path slightly to insure complete removal of snow.

b. When plowing through a very heavy drift, such as one formed by the passing of the street plow, it may be necessary to "inch" into the drift when making the first pass. To do so, allow the machine to enter the drift and then declutch. Allow the machine to blow away the accumulation of snow and then move the machine forward deeper into the drift by releasing the clutch handle. Again declutch and allow the machine to clear away the snow. Continue this process until a complete path has been cleared through the drift. On the second pass through the drift, allow the path of the machine to overlap the first path.

5. 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 continued, 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.

WARNING

If it becomes necessary to replace the shear bolts or necessary to remove any obstruction from either the rotor, blower, or chute, STOP THE ENGINE.

SERVICE

1. GENERAL

Ariens dealers will provide any service which may be required to keep the Sno-Thro operating at peak efficiency. The Sno-Thro is equipped with the finest quality engine obtainable. However, should servicing be required, it can be obtained from an Ariens dealer or authorized engine manufacturer's service station. Consult an Ariens dealer for details.

2. ENGINE

Refer to the engine instruction book and nameplate on the engine for maintenance instructions. If repairs or service are needed for engine, see an Ariens dealer or nearest authorized engine service station.

ACCESSORIES

1. SNO-ROTOR SHIELD KIT (4-10M)

The SNO-ROTOR SHIELD KIT is available as optional equipment for either model SNO-THRO. It consists of two semi-circular steel plates which bolt to the sides of the SNO-SCOOP to protect the SNO-ROTOR blades from damage due to obstacles hidden in the snow.

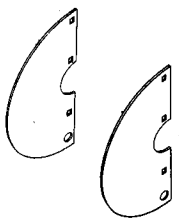


Figure 5

2. SLICER BAR (3-10M)

The slicer bar is furnished as standard equipment on Model 10M-L60 SNO-THRO and is available as optional equipment for Model 10M-L35. The SLICER BAR is designed to cut through deep snow and dislodge crusted or drifted snow. The bar can be installed on either side of the SNO-SCOOP.

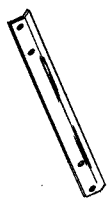


Figure 6

3. TIRE CHAINS (1-10M)

Tire chain kit number 1-10M is available for 3x12 semi-pneumatic tires.

4. TIRE CHAINS (2-10M)

Tire chain kit number 2-10M is available for 4:00x6 pneumatic tires.

5. PNEUMATIC TIRE KIT (6-10M)

Pneumatic tire kit 6-10M is available for Model 10M-L35 Sno-Thro.

6. ELECTRIC STARTER (5-10M)

a. A 110 volt AC operated electric starter kit is available for the Model 10M-L60 Sno-Thro. The kit consists of a 110 volt DC starter which mounts permanently on the engine and a box containing a momentary contact switch and a set of rectifiers.

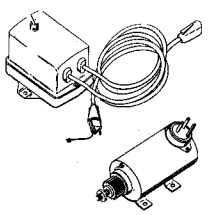


Figure 7

b. In operation, the rectifier is plugged into a 110 volt AC receptacle and the output of the rectifier connected to the starter motor by means of a polarized cord. Pressing the switch then operates the starter. When the engine has started, the cord is disconnected from the starter and the Sno-Thro operated in the usual manner.

7. RATCHET WHEEL KIT (8-10M)

A ratchet wheel kit is available for the Model 10M-L60 Sno-Thro which provides easy maneuverability on corners.

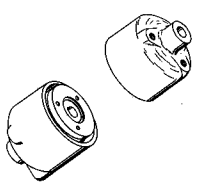


Figure 8

REEL MOWER ATTACHMENT

1. ATTACHING

a. Remove the carburetor heater box and instal the air cleaner. Refer to detailed instructions packed with the attachment.

b. Hook the notches in the lower portion of the reel mower frame over the rod passing through the forward section of the tractor frame.

c. Tip the two sections together, being sure the jaw clutch on the mower and tractor are lined up.

d. Insert and tighten the two 3/8-inch cap screws through the top of the tractor frame and into the mower frame.

2. CUTTING HEIGHT ADJUSTMENT

Cutting height is adjusted by loosening the bolt in the caster wheel mounting bracket (1, fig. 9) and sliding the bracket up or down to the desired cutting height. Level machine by loosening bolts (2, fig. 9) and rotating shaft until machine is level. Tighten bolts.

3. DISCHARGE

The mower may be adjusted for front or rear discharge. Moving the deflector all the way forward will provide rear discharge and moving the deflector all the way to the rear provides front discharge. A catcher basket (Catcher Basket Attachment No. 43-10M) is available for front discharge operation.

4. OPERATION

a. For operation of the tractor see section on OPERATION paragraphs 1 through 8.

b. With the engine running, engage the mower clutch and then the tractor clutch.

5. LUBRICATION

a. Swivel Wheels. A grease fitting is provided on the top of the swivel wheel shaft. Grease the swivel wheel assembly approximately every eight hours of operation.

b. Gear Case. Drain and refill mower gear case every 100 hours of operation or once each season. Refill with Ariens Gear Oil.

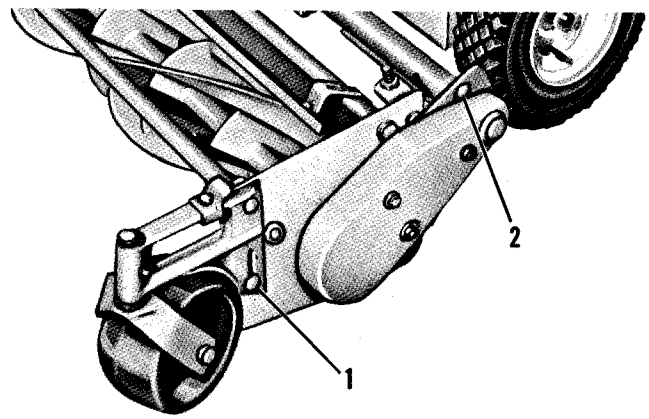


Figure 9

VACUUM ATTACHMENT

1. ATTACHING

a. Remove the carburetor heater box and instal the air cleaner. Refer to detailed instructions packed with the attachment.

b. Hook the notches in the lower portion of the vacuum frame over the rod passing through the forward section of the tractor frame.

c. Tip the two sections together, being sure the jaw clutch on the vacuum and tractor are lined up.

d. Insert and tighten the two 3/8-inch cap screws through the top of the tractor frame and into the vacuum frame.

e. Insert the bag support bar in the bracket on the right hand side of the frame and fasten in place with capscrew and nut. Pass the loop on the bag over the support bar.

f. Slide the opening in the discharge bag over the bracket and around the discharge chute. Strap in place.

2. HEIGHT ADJUSTMENT

Nozzle height is adjusted by loosening the set screws in the caster wheel sockets and positioning the wheels for the desired nozzle height.

3. OPERATION

a. For operation of the tractor see section on OPERATION .

b. With the engine running engage the clutch on the vacuum and then the engine clutch on the tractor

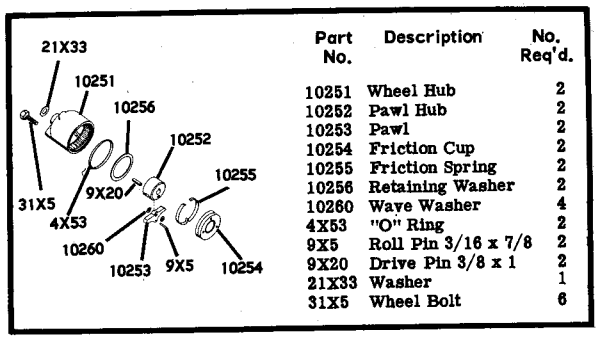
4. LUBRICATION

A grease fitting is provided on top of the caster wheel shaft. Grease the caster wheel assembly approximately every eight hours of operation.

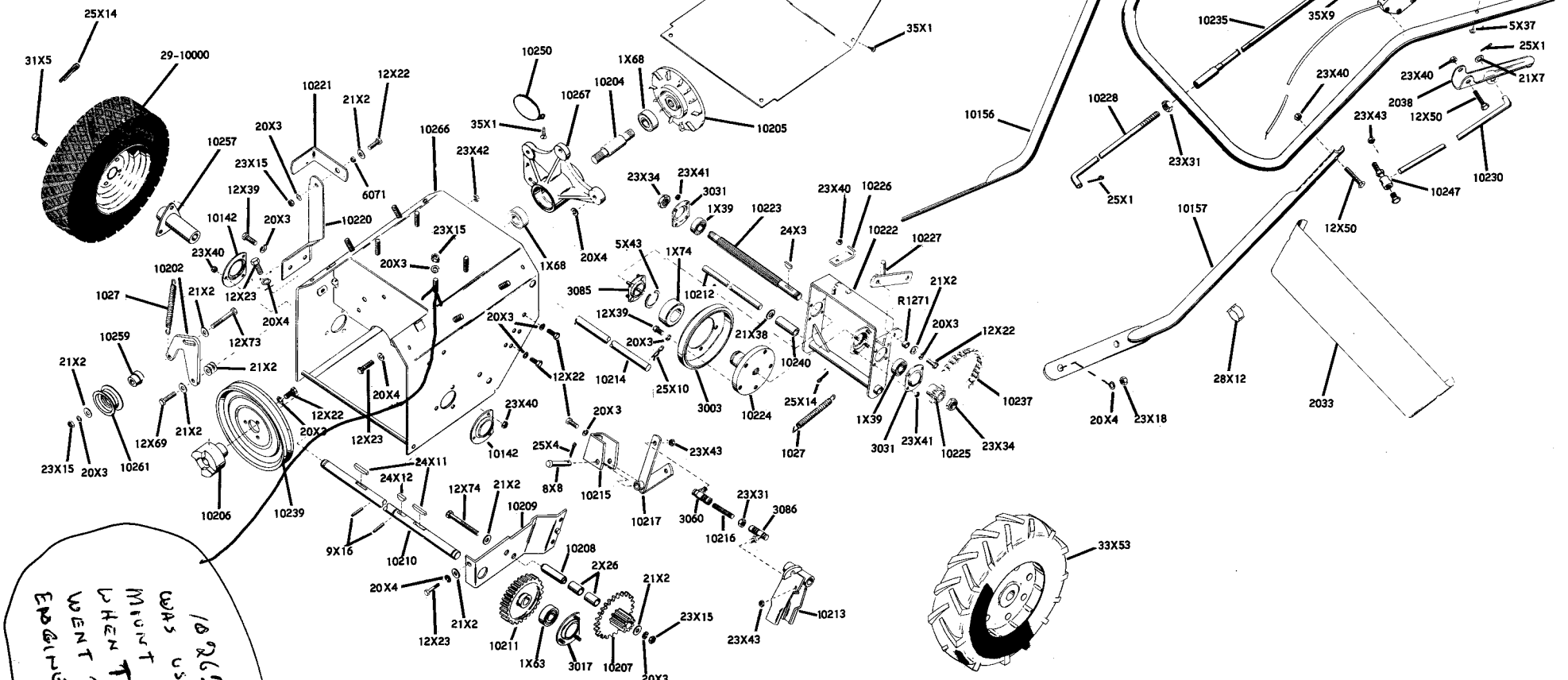
PARTS LISTED ARE USED ON BOTH MODELS EXCEPT AS OTHERWISE INDICATED

Part No.	Description	No. Req'd.
1027	Spring	2
R1271	Spacer Bushing	1
2033	Handle Bar Panel	1
2038	Clutch Handle	1
2044	Spring	1
2045	Lock Pin	1
3003	Friction Disc	1
3017	Bearing Flange	2
3031	Bearing Flange	2
3060	Ball Joint - Quick Disconnect	1
3085	Bearing Flange	2
3086	Ball Joint - Solid	1
5006	Key	1
6071	Spacer	2
10142	Bearing Flange	2
10147	Bottom Cover	1
10156	R. H. Lower Handle Bar*	1
10157	L. H. Lower Handle Bar*	1
10158	Outer Belt Guard	1
10159	Inner Belt Guard	1
10160	R. H. Belt Finger	1
10161	L. H. Belt Finger	1
10202	Idler Arm	1
10204	Spindle	1
10205	Drive Plate	1
10206	Jaw Coupling	1
10207	Pinion & Sprocket	1
10208	Pinion Stub Shaft	1
10209	Support Bracket	1
10210	Axle Shaft	1
10211	Spur Gear	1
10212	Bracket Pin	1
10213	Sliding Fork	1
10214	Fork Shaft	1
10215	Lever Bracket	1
10216	Connecting Link	1
10217	Transfer Lever	1
10220	Clutch Bracket	1
10221	Clutch Lever	1
10222	Disc Bracket	1
10223	Splined Shaft	1
10224	Friction Disc Hub	1
10225	Sprocket	1
10226	Neutral Catch	1
10227	Throwout Lever	1
10228	Lower Shift Rod	1
10230	Clutch Rod	1
10231	Shift Quadrant	1
10232	Shift Handle	1
10233	Spring	1
10234	Release Rod	1
10235	Shift Rod	1
10237	Chain	1
10238	Engine Sheave (10M-L60)	1
10239	Sheave	1
10240	Spacer 3/4	1
10241	Upper Handle Bar*	1
10247	Ball Joint	1
10248	Shift Ball	1
10250	Starter Hole Cover (10M-L60)	1
10257	Hub (10M-L60)	2
10258	Pulley (10M-L35)	1
10259	Bearing Spacer	1
10261	Idler	1
10266	Tractor Frame	1
10267	Bearing Housing	1
10270	Boot, Shift Knob	1
10272	Carburetor Heater Box, 6 HP Lauson	1
10273	Carburetor Heater Box, 3-1/2 HP Lauson	1
1X39	Ball Bearing	2
1X63	Ball Bearing	2
1X68	Ball Bearing	2
1X74	Thrust Bearing	1
2X26	Bushing	2
5X37	Snap Ring	1
5X43	Snap Ring	1
8X8	Clevis Pin	1
9X16	Roll Pin 3/16x1	2
12X22	Cap Screw H. H. 5/16-18x3/4	10
12X23	Cap Screw H. H. 3/8-16x3/4	6
12X39	Cap Screw H. H. 5/16-18x1/2	7
12X50	Cap Screw H. H. 1/4-20x1-1/2	5
12X53	Cap Screw H. H. 5/16-24x3/4	2
12X56	Cap Screw H. H. 1/4-20x1-1/4	2
12X69	Cap Screw 5/16-18x1-1/4	1
12X72	Cap Screw H. H. 1/4-20x1-1/4	1
12X73	Cap Screw 5/16-18x1-3/4	1
12X74	Cap Screw H. H. 5/16-18x2-3/4	1
14X12	Socket Head Set Screw	2
20X2	Lockwasher 1/4	2
20X3	Lockwasher 5/16	24
20X4	Lockwasher 3/8	10
21X2	Wrought Washer 5/16	15
21X7	Wrought Washer 1/4	1
21X37	Wrought Washer 9/32	1
21X38	Shim Washer	1 or 2
23X15	Hex Nut 5/16-18	7
23X18	Hex Nut 3/8-16	4
23X31	Hex Nut 5/16-24	2
23X34	Hex Lock Nut 5/8-18	2
23X40	Hex Nut 1/4-20	13
23X41	Hex Lock Nut 3/16-24	8
23X42	Hex Lock Nut 5/16-18	2
23X43	Hex Lock Nut 5/16-24	3
24X3	Woodruff Key	1
24X11	Feather Key	2
24X12	Woodruff Key	1
25X1	Cotter Pin 3/32x3/4	2
25X4	Cotter Pin 1/8x1	2
25X10	Hair Pin Cotter	2
25X14	Cotter Pin 1/8x1-1/4	3
28X12	Cable Clip	1
28X32	Throttle Control (10M-L60)	1
31X5	Wheel Bolt (10M-L60)	6
33X49	Tire (10M-L60)	2
33X50	Tube (10M-L60) — 29-10000	2
33X52	Wheel (10M-L60)	2
33X53	Tire & Assembly (10M-L35)	2
34X88	Belt (10M-L60)	1
34X89	Belt (10M-L35)	1
35X1	Tapping Screw #10x1/2	3
35X9	Tapping Screw #10x1 (10M-L60)	2
36X6	Plastic Grip	2

* Specify plated or painted



Part No.	Description	No. Req'd.
10251	Wheel Hub	2
10252	Pawl Hub	2
10253	Pawl	2
10254	Friction Cup	2
10255	Friction Spring	2
10256	Retaining Washer	2
10260	Wave Washer	4
4X53	"O" Ring	2
9X5	Roll Pin 3/16 x 7/8	2
9X20	Drive Pin 3/8 x 1	2
21X33	Washer	1
31X5	Wheel Bolt	6



10262 SPACER WAS USED TO MOUNT ENGINE WHEN TECUMSEH WENT TO THIN BASE ENGINE

PARTS LIST SNO—SCOOP

PARTS LISTED ARE USED ON BOTH MODELS EXCEPT AS OTHERWISE INDICATED

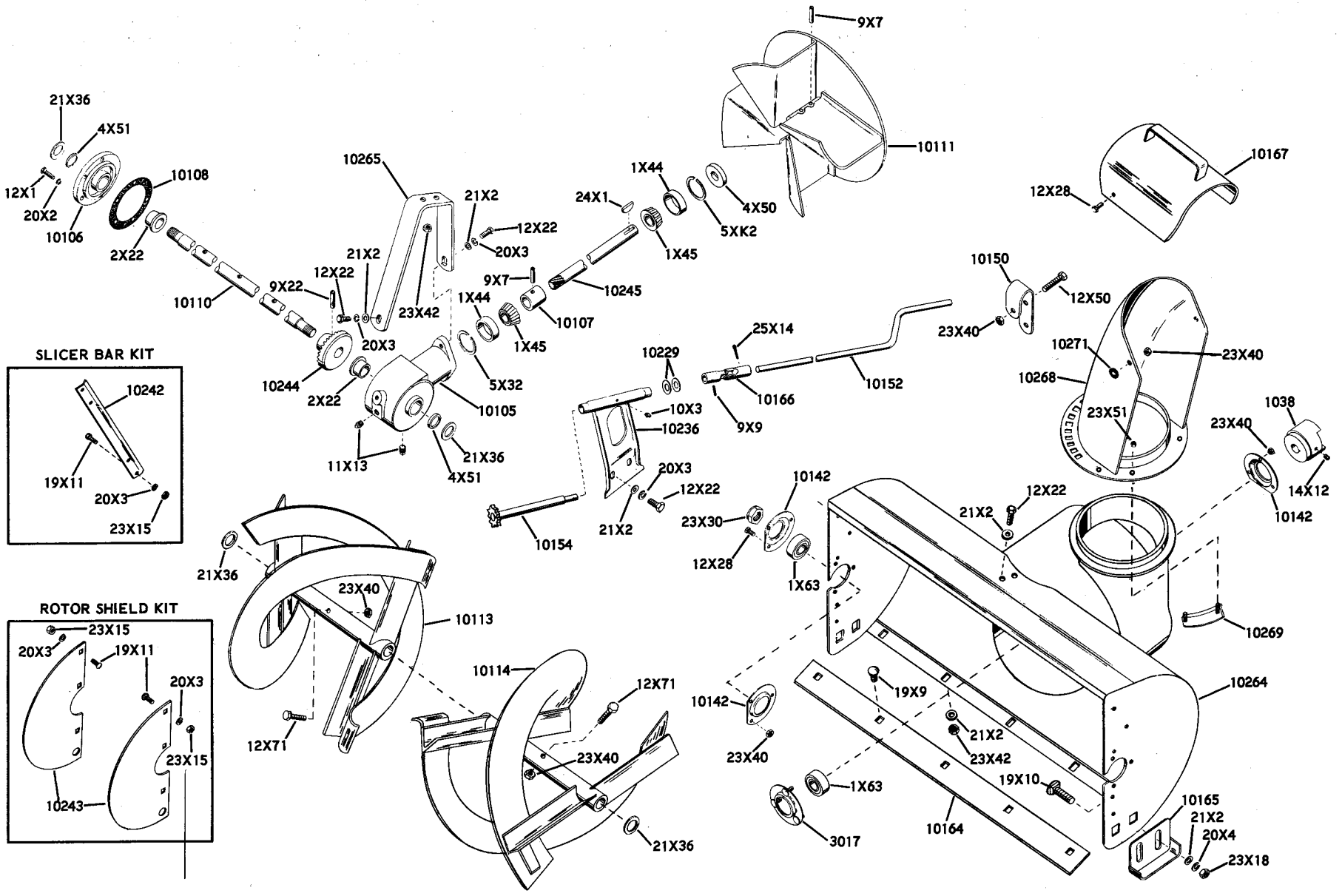
Part No.	Description	No. Req'd.
1038	Jaw Clutch	1
3017	Bearing Flange	1
10105	Gear Case	1
10106	Gear Case Flange	1
10107	Bearing Spacer	1
10108	Gasket	1
10110	Front Gear Shaft	1
10111	Fan	1
10113	R. H. Rake	1
10114	L. H. Rake	1
10142	Bearing Flange	5
10150	Rod Hanger	1
10152	Chute Control Crank	1
10154	Control Sprocket	1
10164	Scraper Blade	1
10165	Runner	2
10166	Universal Joint	1
10167	Deflector	1
10229	Wave Washer	1 or 2
10236	Chute Control Support	1
10244	Helicon Gear	1
10245	Helicon Pinion Shaft	1
10264	Blower Housing	1
10265	Front Gear Case Support	1
10268	Discharge Chute	1
10269	Chute Clamp	3
10271	Rubber Washer	2
1X44	Bearing Cup	2
1X45	Bearing Cone	2
1X63	Ball Bearing	3
2X22	Flange Bushing	2
4X50	Seal	1
4X51	Seal	2
5X32	Snap Ring	1
5XK2	Snap Ring	1
9X7	Roll Pin 1/4x1-1/4	3
9X9	Roll Pin 1/8x1	1
9X22	Roll Pin 5/16x1-3/8	1
10X3	Zerk Fitting	1
11X13	Pipe Plug 3/8 Sq. Hd.	2
12X1	Cap Screw H. H. 1/4-20x3/4	5
12X22	Cap Screw H. H. 5/16-18x3/4	6
12X28	Cap Screw H. H. 1/4-20x1/2	8
12X50	Cap Screw H. H. 1/4-20x1-1/2	1
12X71	Shear Bolt	2
14X12	Socket Set Screw 5/16-18x3/8	2
19X9	Carriage Bolt 5/16-18x1/2	5
19X10	Carriage Bolt 3/8-16x3/4	4
20X2	Lockwasher 1/4	5
20X3	Lockwasher 5/16	4
20X4	Lockwasher 3/8	4
21X2	Washer 5/16	15
21X36	Washer 1-3/8x.880x1/16	4
23X18	Full Nut 3/8-16	4
23X30	Hex Locknut 3/4-16	2
23X40	Hex Locknut 1/4-20	14
23X42	Hex Locknut 5/16-18	7
23X51	Keps Nut	6
24X1	Woodruff Key	1
25X14	Cotter Pin 1/8x1-1/4	1

SLICER BAR 3—10M

Part No.	Description	No. Req'd.
10242	Slicer Bar	1
19X11	Carriage Bolt 5/16-18x3/4	2
20X3	Lockwasher 5/16	2
23X15	Hex Nut 5/16-18	2

SNO—ROTOR SHIELD KIT 4—10M

Part No.	Description	No. Req'd.
10243	Rotor Guard	2
19X11	Carriage Bolt 5/16-18x3/4	6
20X3	Lockwasher 5/16	6
23X15	Hex Nut 5/16-18	6


SLICER BAR KIT
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19X11
20X3
23X15
ROTOR SHIELD KIT
23X15
20X3
19X11
20X3
23X15
10243
21X36
4X51
12X1
20X2
10106
10108
2X22
10110
10265
21X2
12X22
20X3
9X22
12X22
21X2
23X42
20X3
10244
2X22
11X13
4X51
21X36
10105
5X32
1X44
1X45
9X7
10107
24X1
10245
1X44
1X45
4X50
5XK2
9X7
10111
10229
10X3
10236
10154
21X2
20X3
12X22
25X14
10166
9X9
10152
10150
12X50
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10268
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10167
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14X12
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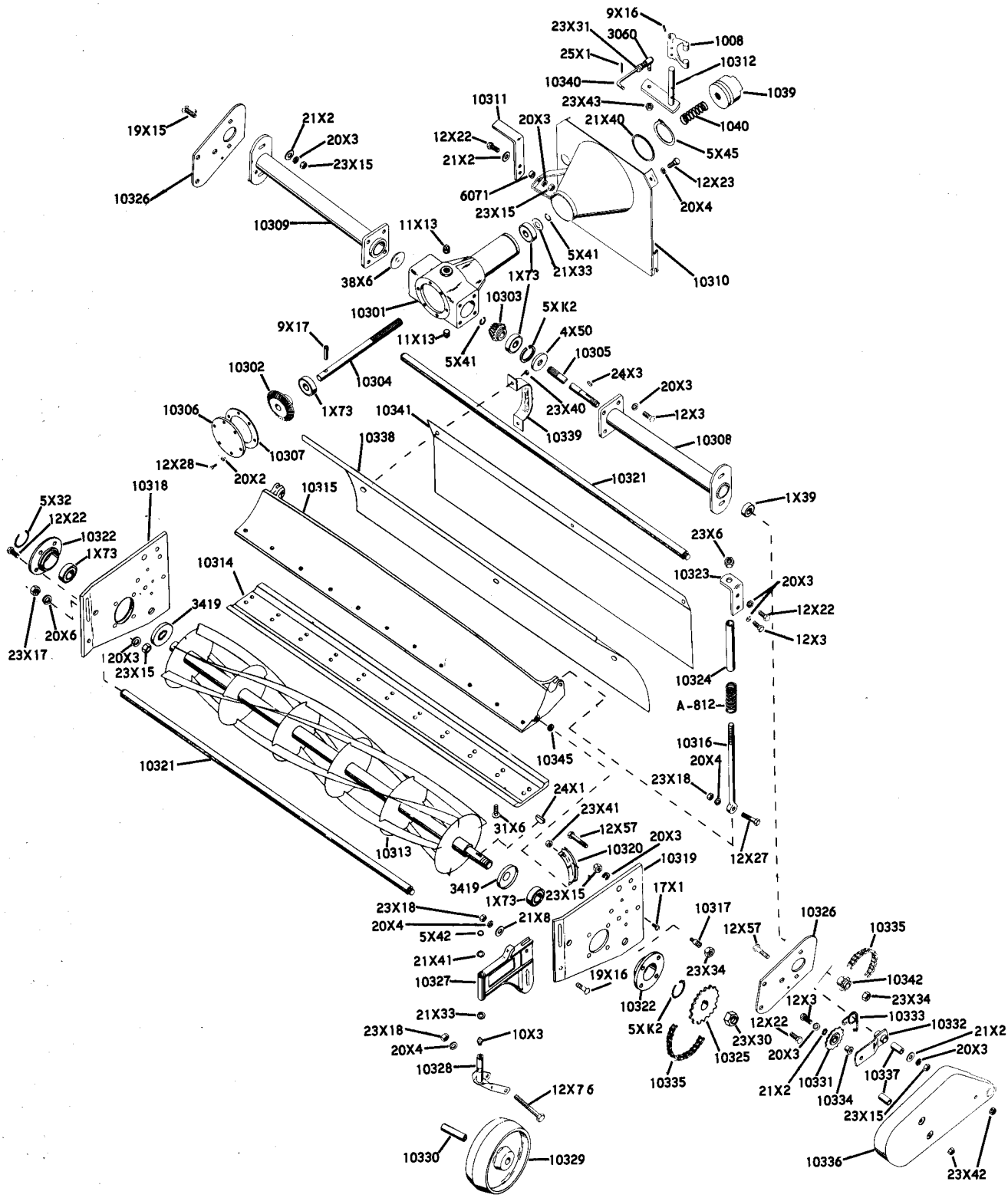
23X40
21X36
10269
10264
10142
23X40
19X9
21X2
23X42
19X10
1X63
3017
10164
10165
21X2
20X4
23X18

PARTS LIST REEL MOWER

Part No.	Description	No. Req'd.
1008	Fork	1
1039	Jaw Clutch	1
1040	Spring	1
3060	Ball Joint	1
3419	Bearing Slinger	2
6071	Spacer Bushing	1
10301	Bevel Gear Case	1
10302	Bevel Gear	1
10303	Bevel Pinion	1
10304	Gear Shaft	1
10305	Pinion Shaft	1
10306	Gear Case Cover	1
10307	Gasket	1
10308	Support Arm, L. H.	1
10309	Support Arm, R. H.	1
10310	Mounting Bracket	1
10311	Clutch Lever	1
10312	Fork Shaft	1
10313	Reel	1
10314	Bed Knife	1
10315	Bed Plate	1
10316	Adjusting Rod	2
10317	Stud	2
10318	R.H. Frame Side	1
10319	L.H. Frame Side	1
10320	Shroud Support	2
10321	Frame Bar	2
10322	Bearing Carrier	2
10323	Adjustment Support	2
10324	Spring Spacer	2
10325	Reel Sprocket	1
10326	Side Arm	2
10327	Caster Bracket	2
10328	Caster Fork	2
10329	Caster Wheel	2
10330	Caster Wheel Axle	2
10331	Chain Idler	1
10332	Idler Arm	1
10333	Idler Spring	1
10334	Idler Spacer	1
10335	Chain	1
10336	Chain Cover	1
10337	Cover Spacer	3
10338	Shroud	1
10339	Shroud Spring	2
10340	Clutch Rod	1
10341	Deflector	1
10342	Sprocket	1
10345	Frame Spacer	2
A-812	Spring	2

Part No.	Description	No. Req'd.
1X39	Ball Bearing	1
1X73	Ball Bearing	5
1X75	Ball Bearing	1
4X50	Seal	1
5X32	Snap Ring	1
5XK2	Snap Ring Kit	2
5X41	Snap Ring	2
5X42	Snap Ring	2
5X45	Snap Ring	1
9X16	Roll Pin	2
9X17	Roll Pin	1
10X3	Zerk Fitting, 1/4-28	2
11X13	Pipe Plug	2
12X3	Hex Hd Capscrew 5/16-18x1	11
12X22	Hex Hd Capscrew 5/16-18x3/4	13
12X23	Hex Hd Capscrew 3/8-16 x 3/4	2
12X27	Hex Hd Capscrew 3/8-16 x 1-3/4	2
12X28	Hex Hd Capscrew 1/4-20 x 1/2	6
12X57	Hex Hd Capscrew 5/16-18x2	3
12X76	Hex Hd Capscrew 3/8-16 x 4-3/4	2
17X1	Round Hd Machine Screw 10-24x1/2	6
19X15	Carriage Bolt 5/16-18x1	4
19X16	Carriage Bolt 3/8-16x1-1/4	4
20X2	Lockwasher 1/4	6
20X3	Lockwasher 5/16	31
20X4	Lockwasher 3/8	10
20X6	Lockwasher 1/2	4
21X2	Wrt. Washer 5/16	7
21X8	Wrt. Washer 3/8 Plated	4
21X33	Washer, 1.375 OD x .755 ID x .125	3
21X40	Washer, 3-1/2 OD x 2.380 ID x .125	1
21X41	Washer 1 ODx.754 IDx.032	2
23X6	Hex Nut 1/2-20 SAE	2
23X15	Hex Nut 5/16-18	18
23X17	Hex Jam Nut 1/2-13	4
23X18	Hex Nut 3/8-16	8
23X30	Lock Nut 3/4-16 Gripco	1
23X31	Hex Nut 5/16-24	1
23X34	Lock Nut 5/8-18 Gripco	3
23X40	Lock Nut 1/4-20 Gripco	5
23X41	Hex Lock Nut 10-24	6
23X42	Hex Lock Nut 5/16-18	3
23X43	Hex Lock Nut 5/16-24	1
24X1	Woodruff Key No. 11	1
24X3	Woodruff Key No. 9	1
25X1	Cotter Pin 3/32x3/4	1
31X6	Bed Knife Screw 3/8-16 Jacobsen	11
38X6	Exp Plug, Hubbard 1.775 x .032 (use sealer)	1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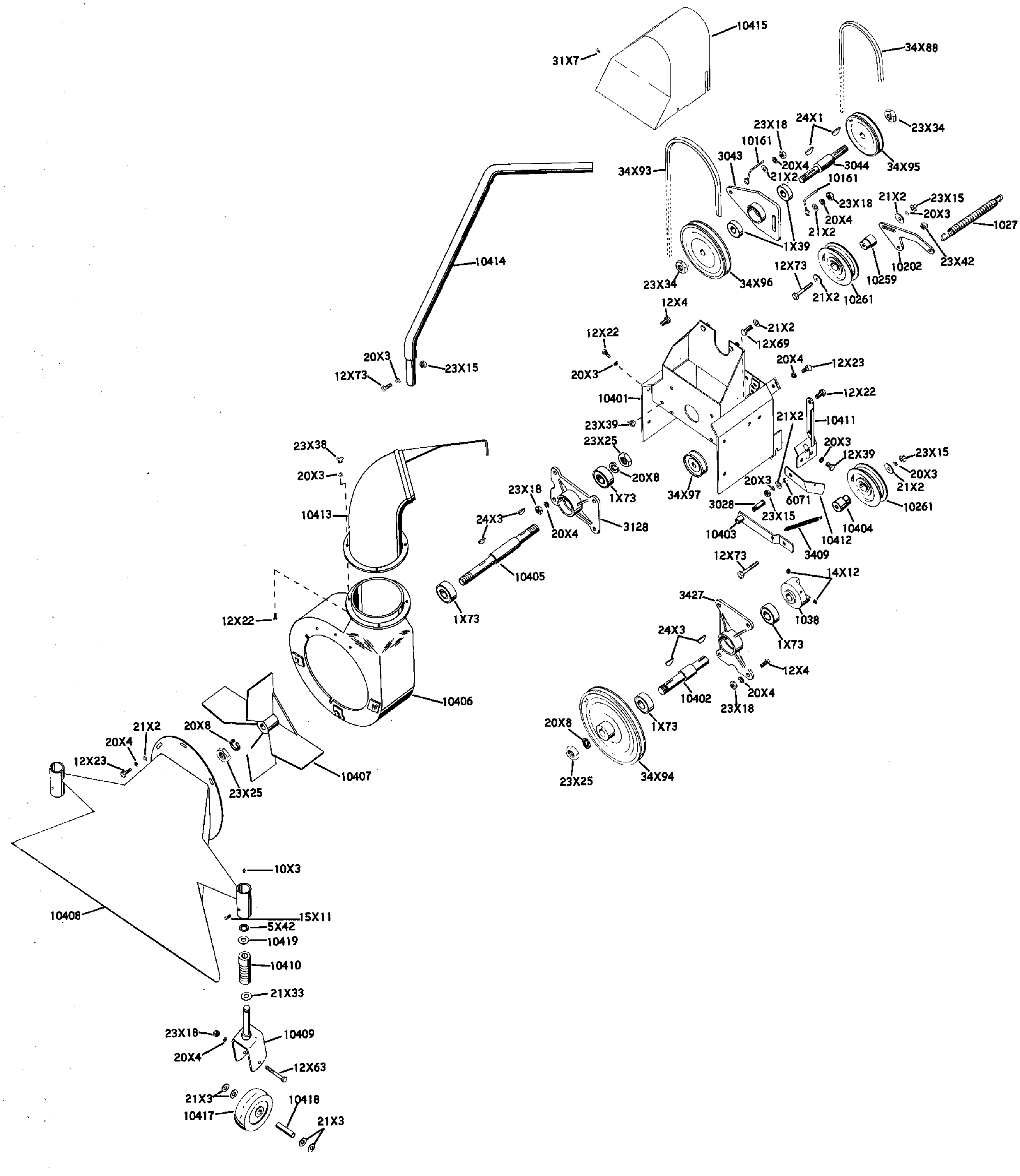
PARTS LIST VACUUM

Part No.	Description	No. Req'd
1027	Spring	1
1038	Jaw Clutch	1
3028	Shoulder Bolt	1
3043	P.T.O. Housing	1
3044	Spindle	1
3128	Spindle Housing	1
3409	Spring	1
3427	Spindle Housing	1
6071	Spacer	1
10161	Belt Finger	2
10202	Idler Arm	1
10259	Bearing Spacer	1
10261	Idler	1
10401	Coupling Frame	1
10402	Input Spindle	1
10403	Idler Arm	1
10404	Idler Spacer	1
10405	Blower Spindle	1
10406	Fan Housing	1
10407	Fan	1
10408	Pick-up Shout	1
10409	Caster Fork	2
10410	Caster Raising Tube	2
10411	Clutch Bracket	1
10412	Clutch Lever	1
10413	Elbow	1
10414	Bag Support Bar	1
10415	Belt Cover	1
10416	Bag (Not Illustrated)	1
10417	Caster Wheel	2
10418	Spacer Bushing	2
10419	Shim Washer	2
1X39	Ball Bearing	2
1X73	Ball Bearing	4

Part No.	Description	No. Req'd
5X42	Snap Ring	2
10X3	Zerk Fitting	2
12X4	Hex Hd Capscrew, 3/8-16 x 1	8
12X22	Hex Hd Capscrew,5/16-18 x 3/4	9
12X23	Hex Hd Capscrew,3/8-16 x 3/4	6
12X39	Hex Hd Capscrew, 5/16-18 x 1/2	2
12X63	Hex Hd Capscrew, 3/8-16 x 2-3/4	2
12X69	Hex Hd Capscrew, 5/16-18 x 1-1/4	1
12X73	Hex Hd Capscrew, 5/16-18 x 1-3/4	3
14X12	Setscrew, 5/16-18 x 3/8	2
15X11	Sq Hd Setscrew, 5/16-18 x 3/4	2
20X3	Lockwasher, 5/16	14
20X4	Lockwasher, 3/8	18
20X8	Lockwasher, 3/4	3
21X2	Wrought Washer, 5/16	11
21X3	Washer, 1/2	8
21X33	Washer, .755 ID x 1-3/8 OD x .125	2
23X15	Hex Nut, 5/16-18	4
23X18	Hex Nut, 3/8-16	12
23X25	Hex Nut, 3/4-10	3
23X34	Locknut, 5/16-18	2
23X38	Wing Nut, 5/16-18	4
23X39	Locknut, 3/8-16	1
23X42	Locknut, 5/16-18	1
24X1	Woodruff Key, #11	2
24X3	Woodruff Key, #9	4
31X7	Wing Screw, 10-24 x 1/2	2
34X88	Belt,	1
34X93	Belt,	1
34X94	Sheave,	1
34X95	Sheave,	1
34X96	Sheave,	1
34X97	Sheave,	1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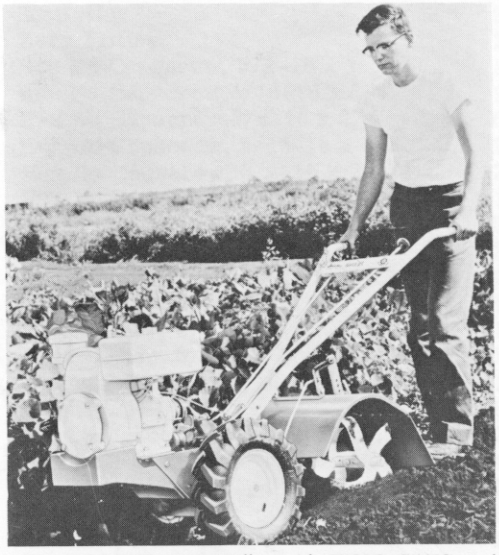
10418
10417
21X3

Ariens

"GARD-N-YARD®" TOOLS

ARIENS SUPER JET rotary tiller with TURBO TINES. 24" tilling width. Choice of 4 famous make engines — 3 h.p. to 5 h.p. with tine reverse drive.



ARIENS ROCKET rotary tiller with TURBO TINES and friction-drive Tine Reverse. 20" tilling width. 6 h.p. Lauson engine. For commercial, professional and home gardener use.

ARIENS EMPEROR riding mower. Available with Flex-N-Float 26" or 32" rotary; Insta-hitch attachments. Electric or impulse starting 6 h.p. engine.

ARIENS TRANS-A-MATIC for heavy duty commercial tilling. Choice 9.0 h.p. or 16.5 h.p. Wisconsin engine; 20" or 28" tilling widths. Non-slip differential.

ARIENS SNO-THRO Self propelled, 2 stage, heavy duty, 3½ or 6 h.p. rotary snow thrower. 180° swiveling SNO-CHUTE with hand crank directional control.

ARIENS TILLIVATOR. Tractor mounted, custom-built tillers for large scale vegetable growers.

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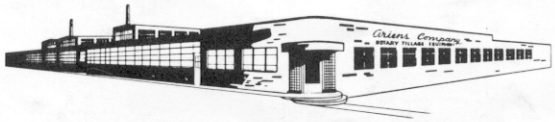

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