

# OPERATING INSTRUCTIONS and PARTS LIST

# Ariens

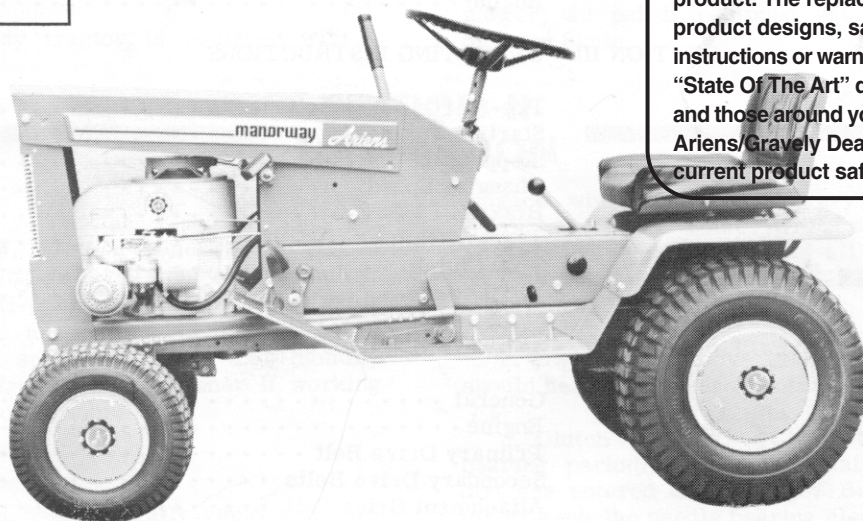
## manorway TRACTOR



Model No. 13989  
Model No. 13990  
Serial Nos. 000001  
& 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 \$.50

## SAFETY PRECAUTIONS

Improper use of riding lawn mowers, garden tractors and attachments on the part of the operator can result in injury. To reduce this possibility, give complete and undivided attention to the job at hand.

1. Know the controls and how to stop quickly -- READ THE OPERATING INSTRUCTIONS.
2. Do not allow children to operate machine; nor adults to operate it without proper instruction.
3. Clear work area of objects which might be picked up and thrown.
4. Disengage all clutches and shift into neutral before starting engine. Keep hands, feet and clothing away from power driven parts.
5. Do not carry passengers. Keep children and pets a safe distance away.
6. Never direct discharge or any material toward bystanders nor allow anyone near machine while in operation.
7. Disengage power to any attachment and stop engine before leaving operator position.
8. Take precautions when leaving machine unattended (to avoid accidental starting, rolling away, accidental dropping of any attachment, etc.).
9. Disengage power to any attachment whenever it is not in use or when traveling from one work area to another.

10. Stay alert for holes and other hidden hazards.
11. Know what is behind you before backing up.
12. Beware of steep slopes; reduce speed on all side slopes and sharp turns to prevent tipping or losing control.
13. Don't stop or start suddenly when going uphill or downhill.
14. Use extra care when pulling loads or using heavy equipment. (Refer to your operating instructions.)
15. Watch out for traffic when near roadways.
16. 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.

17. Keep machine in good operating condition and keep safety devices in place. Use guards as instructed in operating instructions.
18. Disengage power to any attachment and stop engine before making repairs or adjustments.

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## SECTION I ASSEMBLY

### 1. TRACTOR

The Manorway tractor is shipped completely assembled except for mounting the steering wheel. Before mounting the steering wheel, adjust the seat to a comfortable position so that the brake and clutch pedals can be operated easily. Remove the cap screw and locknut from the steering wheel hub. Place the steering wheel in position on the steering column. While seated on the tractor, hold the steering wheel at a comfortable height and fasten with the cap screw and locknut.

### 2. BATTERY AND REGULATOR

If your Manorway tractor is equipped with a

battery, fill the battery with commercial sulphuric acid with a 1.260 specific gravity according to the battery instructions provided. Check to be sure that the three prong plug is still in position in the regulator. This is the same plug that is to be removed for storage. See figure 11.

### 3. TIRES

The Manorway tractor is shipped with tires over inflated. Before operating, reduce tire pressure on rear tires to 12 to 15 psi. Reduce the pressure on front tires to 12 psi if using a rotary mower; 20 psi if equipped with a snow thrower or front blade.

## SECTION II LUBRICATION

### 1. TRACTOR

a. Front Wheels. Use a hand grease gun to lubricate the zerk fittings on the front wheel spindles. Use an SAE multi-purpose type grease. Wipe fittings clean after lubrication. Lubricate wheel bearings and wheel spindles in front axle monthly or every 25 hours. Lubricate oftener if working in extremely dusty conditions.

b. Transmission. Periodically remove the oil level (filler) plug and check the oil level. See figure 1. When required, use pressure oil can to add transmission lubricant. Fill to bottom of oil level (filler) hole. Be sure tractor is on level

surface when checking. Every 200 hours or 2 years, whichever comes first, remove the transmission drain plug and drain all oil. Replace the plug and add 48 ounces of SAE-EP-90 transmission oil through the filler hole.

c. Right angle drive is lubricated for life and should need no further attention.

d. Clutch Bearing. Check the clutch needle bearing periodically to be certain that no dust or dirt has entered the bearings. Be especially careful to keep the needle bearing clean when removing it to install mower and snow thrower drive belt. Remove old grease and dirt from bearing with solvent at the beginning of each spring and fall season or sooner if dirt is found in the bearing.

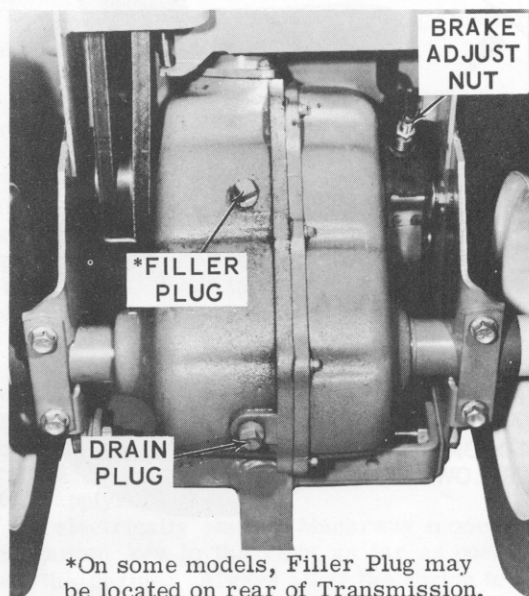


Figure 1

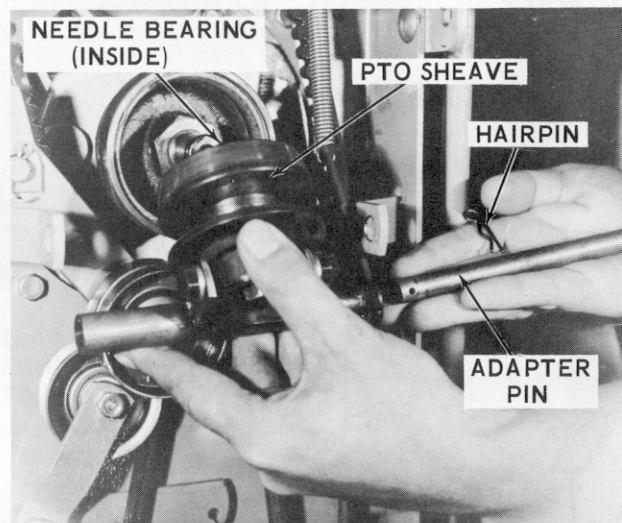


Figure 2

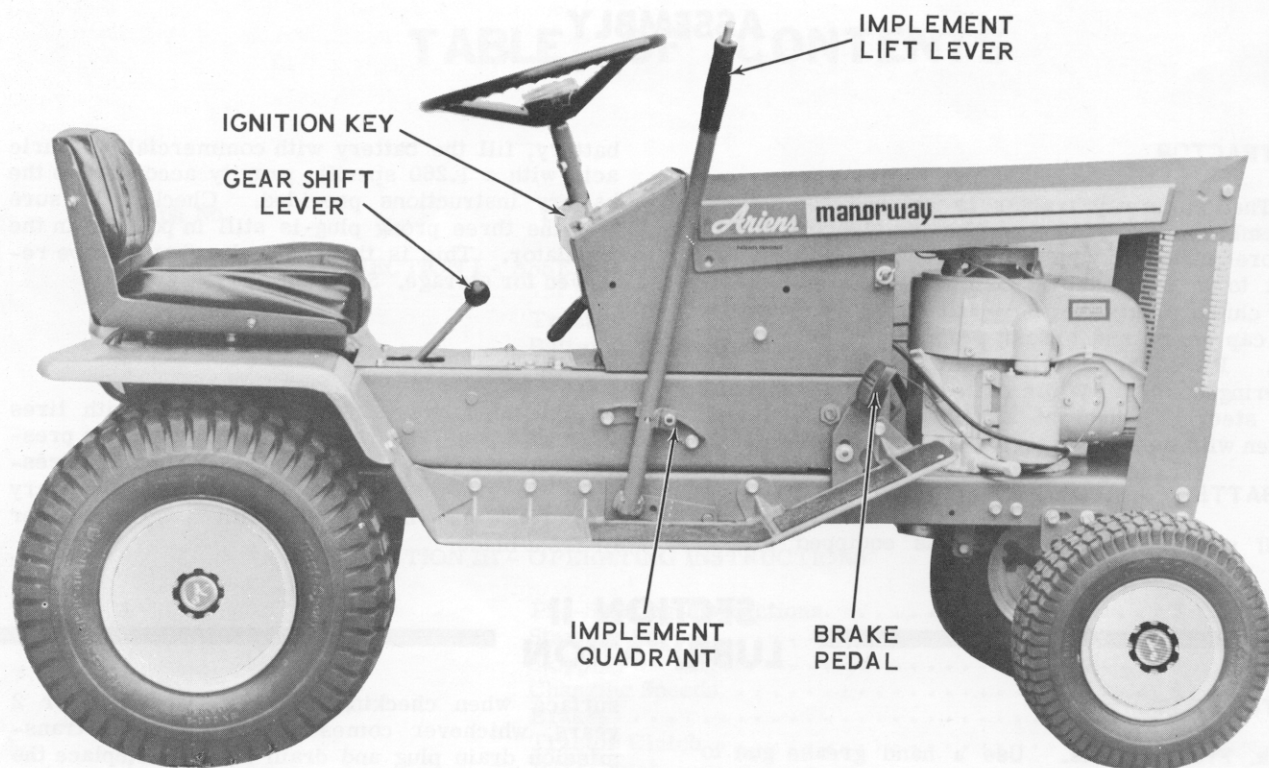


Figure 3

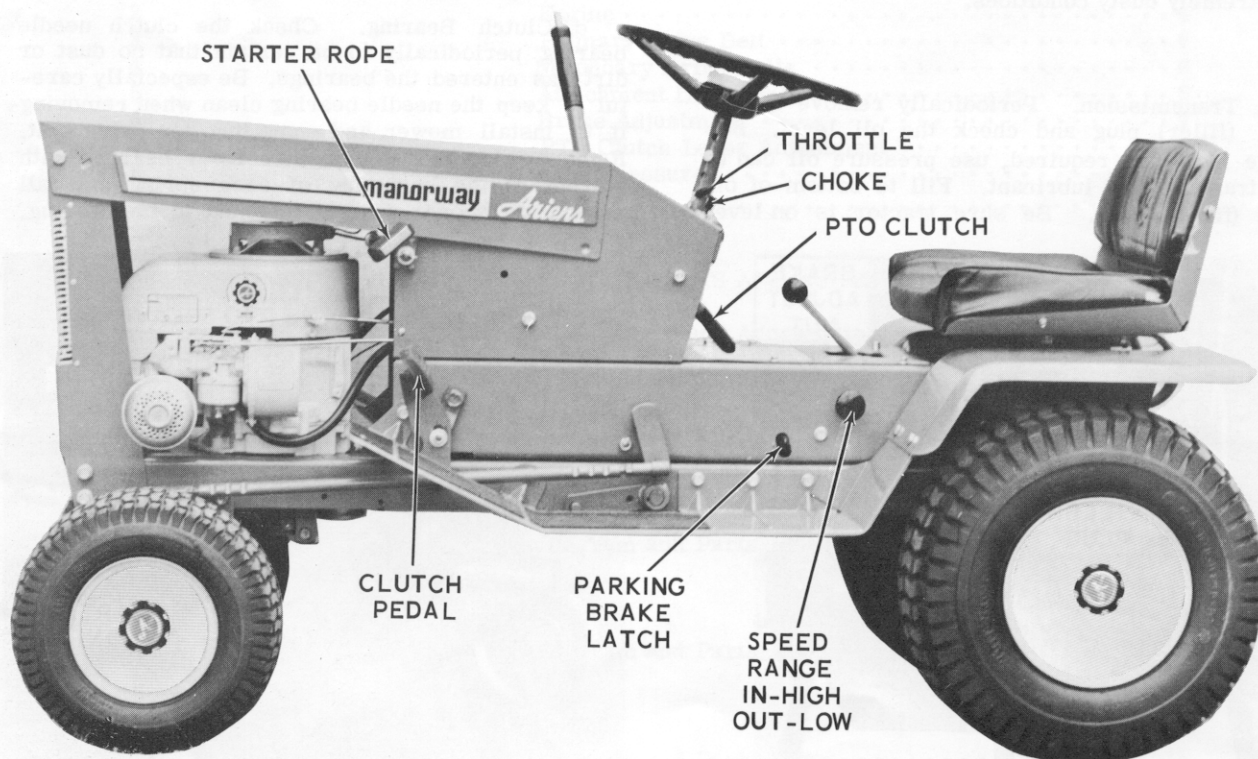


Figure 4



Dry thoroughly and repack with high temperature grease.

e. Grease the shift shaft every 25 hours of operation or once each season. See figure 8. Before greasing shaft, move the speed range control to the HI range. See figure 5.

## 2. ENGINE

Before starting the engine for the first time, fill the crankcase with oil. Proper grade of oil to

be used is indicated on the engine nameplate. Additional engine instructions are given in the engine manual.

### NOTE

Check engine crankcase oil level with the dipstick every 5 hours of operation or each time the engine is used. If necessary, add sufficient oil of the proper viscosity to bring the oil level up to the full mark on the dipstick.

## SECTION III OPERATING INSTRUCTIONS

### 1. PRE-STARTING INSTRUCTIONS

Before starting the engine each day, perform the following checks and services.

a. Check fuel supply. Use regular gasoline only.

b. Be sure oil in engine crankcase is at the proper level. Add oil as indicated to maintain indicated level.

c. Be sure air cleaner is free of obstructions and excessive dirt.

### 2. STARTING ENGINE

Before starting engine, do the following:

a. Disengage the PTO clutch by placing PTO clutch lever in the DOWN position. See figure 5.

b. Depress the brake pedal and engage the parking brake. See figures 3 and 4.

c. Place the shift lever in the NEUTRAL position.

d. Pull out the choke. The choke should be pulled all the way out for cold engine starting. Less choke is required for starting a warm engine. Experience will soon tell you how much choking is necessary. Push in choke control immediately after engine begins to run.

e. To start the manual starting model of the Manorway, turn the ignition key to the right and allow it to remain in this position. Grasp the recoil starter handle on the left side of the tractor and pull. Always allow engine to warm up before applying load.

On electrically started Manorway models, turn the ignition key to the right as far as possible to start the engine. Always allow the engine to warm up before applying load.

### 3. STOPPING THE ENGINE

a. Before stopping the engine, lower equipment and disengage drives to remove load. Allow engine to idle a few minutes before turning it off.

b. Depress the brake pedal and lock the parking brake. Depress the clutch pedal and shift to NEUTRAL position.

c. Turn the ignition key all the way to the left to stop the engine. Remove the key. This is important. Develop the habit of removing the key each time you leave the tractor.

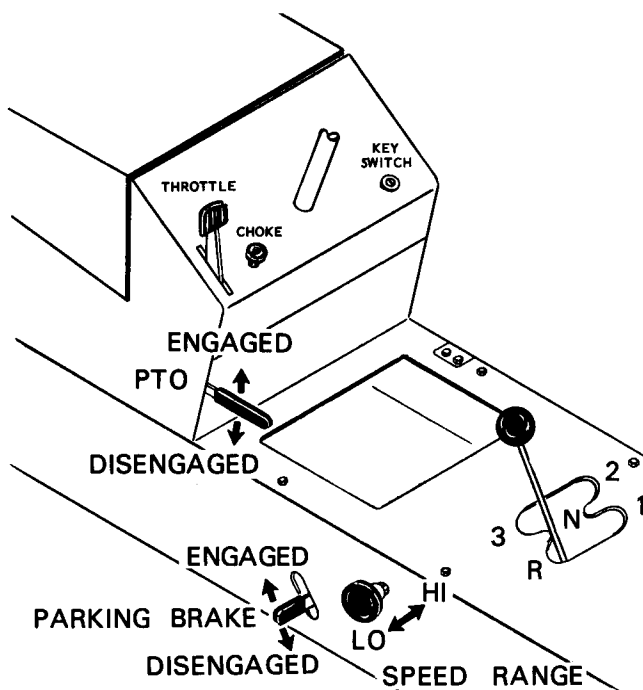


Figure 5

#### 4. CHANGING SPEEDS

Tractor ground speed is regulated by three controls:

a. Shifting the transmission into any one of the three forward or one reverse speeds. See figure 5.

b. Moving the speed range control into one of two speed ranges: HI or LO. See figure 5.

c. Adjusting the throttle position.

A total of six forward and two reverse tractor speeds are possible with this drive combination at full throttle as follows:

GEAR	HI-RANGE	LO-RANGE
1st gear	1.67 mph	.67 mph
2nd gear	3.34 mph	1.33 mph
3rd gear	5.00 mph	2.00 mph
Reverse	2.34 mph	.93 mph

Proper ground speed will depend first on the type of equipment used on the tractor and second on the ground conditions. Always operate the mower and snow thrower at full throttle. Then select a transmission gear and drive range that will give a safe ground speed with these attachments when the engine is operating at full throttle. In general, use the high range for proper ground speed when mowing or using the front blade. Use the lower range only when minimum ground speed is desired such as for snow throwing or when mowing in tall or dense grass. To shift transmission gears, stop the tractor, depress the clutch pedal and shift the lever into the desired gear.

#### NOTE

Tractor must be completely stopped before shifting gears. When shifting gears, use strong steady motion to slide the gears firmly into mesh. Never allow gears to grind while shifting. It may be necessary to let the clutch out momentarily and then depress it again to rotate the gears enough to permit easy engagement. To change speed ranges, push or pull the SPEED RANGE control in or out on the left side of the tractor.

#### 5. BRAKES

Brakes are actuated by the pedal on the right side of the machine. If the tractor is to be stopped or parked, brake pedal should be depressed and the parking brake lever moved into the UP position. See figures 3 and 5.

#### 6. TRACTOR CLUTCH

The tractor clutch is actuated by the foot pedal on the left side of the machine. See figure 4.

#### 7. PTO CLUTCH

Any of the tractor attachments utilizing the power take off are engaged and disengaged by moving the PTO lever up or down. The PTO lever is located on the left side under the tractor dash. See figure 5. Move the lever up to engage the PTO. Move the lever down to disengage the PTO.

#### 8. LIFT LEVER

The lift lever on the right side of the tractor is used to raise or lower the tractor attachments. See figure 3. Press the thumb release button and pull the lever toward the rear to raise mounted equipment. Move the lever forward to lower equipment. Removing pressure from the thumb release will permit the lever to lock into an indent and hold the equipment in a desired position. The attachment instructions will indicate the detent position for proper operation of the attachments.

## SECTION IV SERVICE AND ADJUSTMENTS

#### 1. GENERAL

Ariens dealers will provide any service which may be required to keep the Manoway operating at peak efficiency. The Manoway 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 your local Ariens dealer for details.

#### 2. ENGINE

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



DRIVE  
BELT  
IDLER

PRIMARY  
DRIVE  
BELT

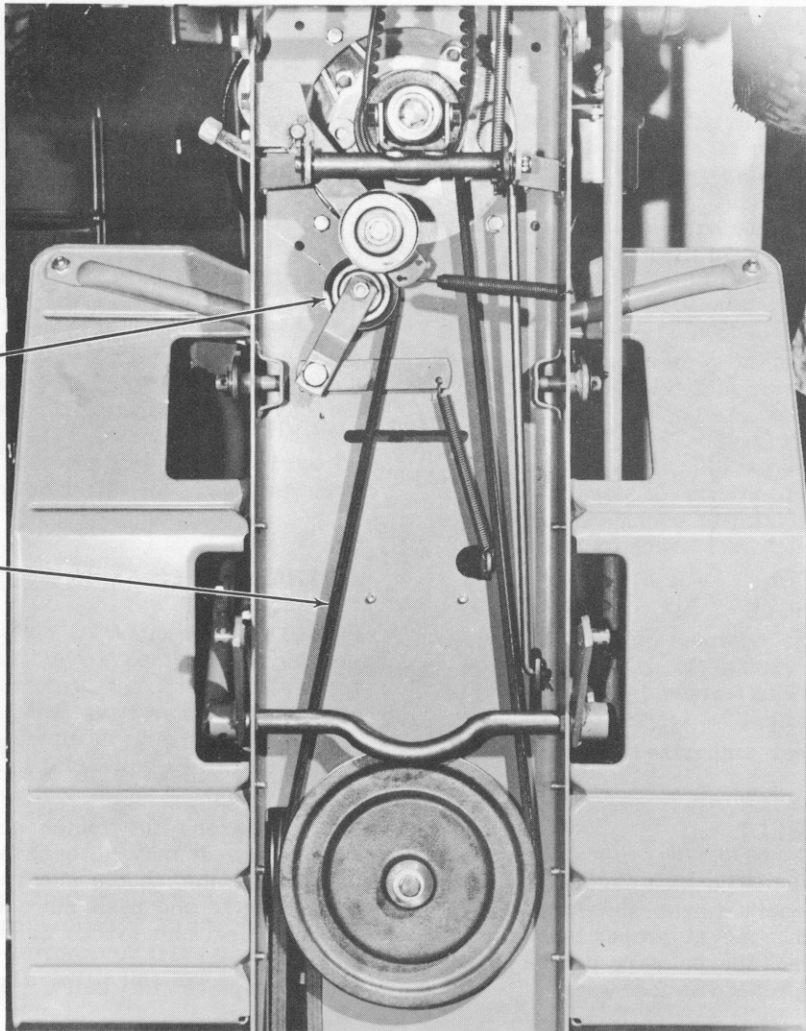


Figure 6

ADAPTER PIN

HAIRPIN

PTO SHEAVE

ATTACHMENT  
DRIVE BELT

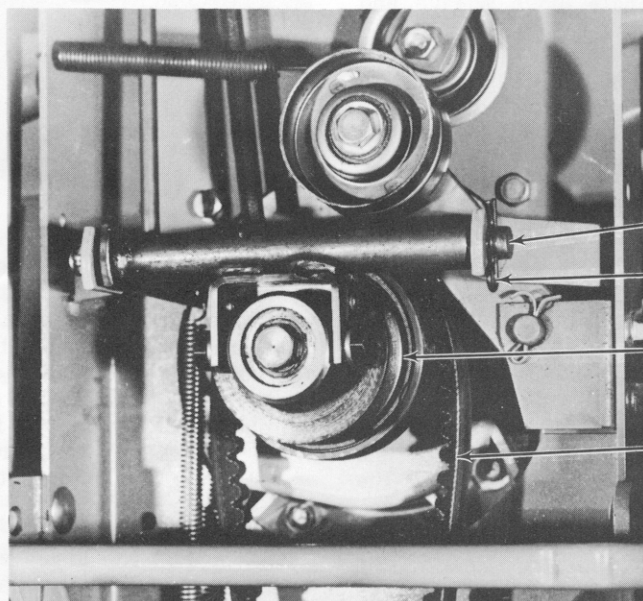


Figure 7

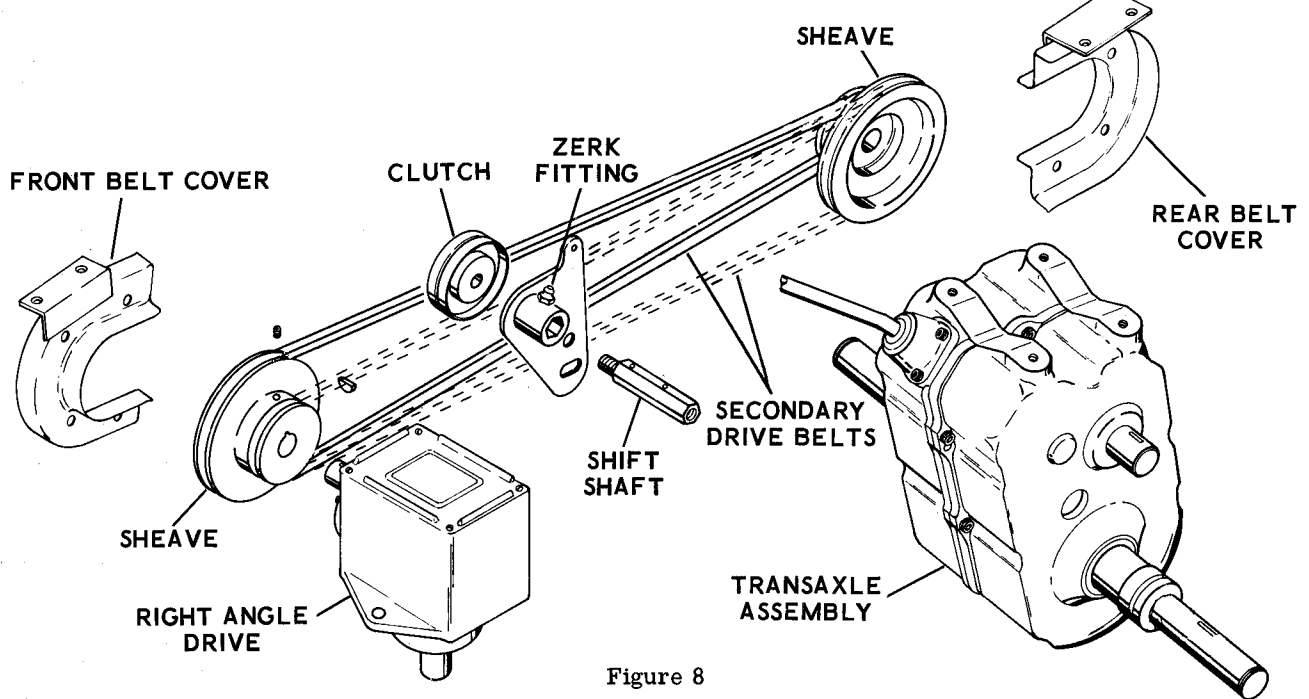


Figure 8

dealer or the nearest authorized engine service station.

### 3. PRIMARY DRIVE BELT

The primary drive belt located under the tractor frame requires no adjustment since the spring loaded idler keeps the belt at proper tension. See figure 6. In the event the primary drive belt requires replacement, proceed as follows:

a. Remove the hairpin and pull the adapter pin securing the lower section of the power take off pulley. See figure 7.

b. Pull the lower section of the power take off pulley from the shaft.

c. Replace the primary drive belt around the engine sheave and right angle drive sheave and position the idler on the belt.

d. Replace the PTO section of the pulley. Secure with the support pin and hairpin. Remember to position the mower-snow thrower belt in place on the PTO before replacing the assembly.

### 4. SECONDARY DRIVE BELTS (Figure 8)

The two secondary drive belts for high and low range are located within the tractor frame. No adjustment of these belts is required. In the event that either of these two belts requires replacement, proceed as follows:

a. Remove the four hex head screws securing the top cover in front of the seat and remove the cover. The secondary drive belts are under the cover along the right side of the frame.

b. Remove the front belt cover. Remove the six cap screws holding on the rear hitch and remove hitch. Remove the two cap screws holding

on the rear belt cover. Remove belt cover by sliding it sideways to clear sheave and remove.

c. Depress the clutch and remove or replace the belts. It may be necessary to loosen the set-screw on the double sheave attached to the right angle drive and push the sheave toward the drive to gain clearance for the belts.

d. Replace the belts. Reposition the sheave and tighten.

e. Replace rear belt cover by sliding it sideways over sheave and fasten with cap screws. Be sure that the rear belt cover is tight against front end of slot.

f. Replace front belt cover. Be sure that the front belt cover is positioned so there is 1/32 to 1/16-inch clearance between edge of cover and the belts. The belts are to be in the engaged position.

g. Replace the rear hitch and top cover.

### 5. ATTACHMENT DRIVE BELT

The tractor is shipped with an attachment drive belt in position. The rotary mower attachments and the snow thrower attachments are designed to use the same belt. Changing attachments requires only that the belt be pulled through to the front or to the rear depending on the attachment to be used. In the event this belt requires replacement, proceed as follows:

a. Remove the hairpin and pull the support pin securing the lower section of the PTO clutch assembly. See figure 7.

b. Pull the lower section of PTO clutch assembly from the end of the engine shaft. Replace the attachment belt.



c. Replace the PTO clutch assembly on the engine shaft and secure with the support pin and hairpin.

## 6. BRAKE ADJUSTMENT

Adjustment of the brake band around the brake drum is accomplished by turning a hex nut on the brake band. See figure 1. This nut is located under the tractor on the left side of the transmission. Turning the nut clockwise will increase the brake band tension. Turning the nut counter-clockwise will release the brake band tension. Proper adjustment is secured when the brake begins to take hold with the brake pedal depressed about 1-inch.

## 7. PTO CLUTCH LEVER ADJUSTMENT

In the event that the PTO clutch lever does not lock over center in the UP position and does not supply sufficient tension to the PTO clutch, it may be adjusted by adjusting the two hex nuts located on the PTO clutch rod under the dash. See figure 9. Tightening it down (clockwise) will increase the tension on the PTO clutch.

## 8. TIRE PRESSURE

Inflate the front tires to 12 psi if tractor is equipped with rotary mower. Inflate to 20 psi if equipped with snow thrower or front blade. Inflate rear tires to 12 to 15 psi. Use low pressure tire gauge to check inflation.

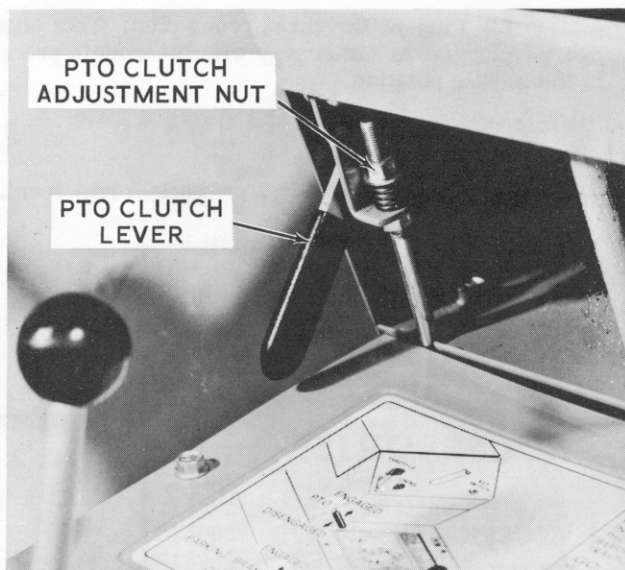


Figure 9

## 9. BATTERY (Electric Starting Models only)

Battery connection should be tight at all times, especially when charging batteries. Loose cables will cause arcing and pitting of the connections and eventual failure. If necessary, remove battery cable and use a wire brush to remove corrosion around battery terminals. Wash the terminals with

a solution consisting of one part baking soda to four parts water. Do not allow cleaning solution to run into battery cells. After connecting the cables and making sure they are tight, coat the terminals with petroleum jelly. Check the liquid level of each cell by removing the cap. Water should be level with top of circular split ledge inside filler tube. Use clean distilled water when possible to fill battery. When absolutely necessary, clean drinkable water may be used. Keep the liquid at the proper level during winter or freezing weather. Also keep the battery fully charged to prevent freezing. When adding water to battery during freezing weather, be sure the engine is running and continues to run until water and electrolyte have had a chance to mix thoroughly. This should be at least an hour.

Check battery monthly for state of charge. When specific gravity of battery falls below 1.225 or terminal voltage below 12.24 volts, recharge battery. Recharge battery at a 3 amp rate.

### NOTE

Keep vent caps in place when charging battery.

This charging rate applies only when the specific gravity of the battery indicates recharging is necessary. They do not apply to the charging rate of the generator on the equipment. For maximum performance, batteries should be kept at or near full charge. Maintain the liquid level above the plates at all times.

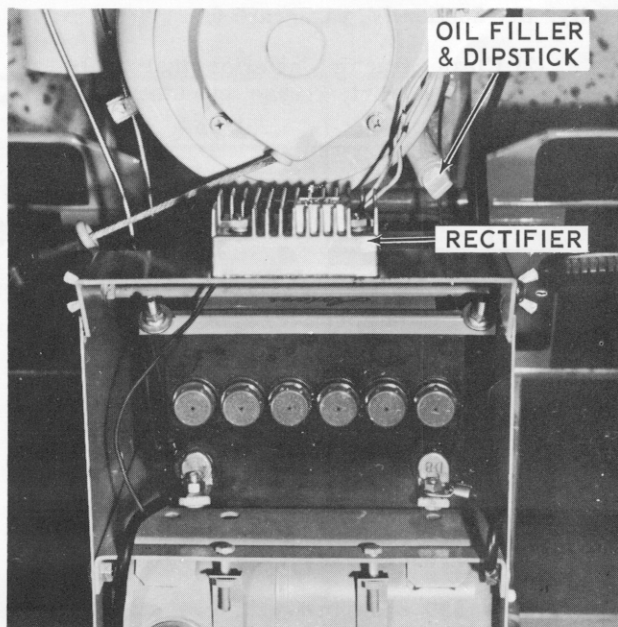


Figure 10

## SECTION V

### STORAGE

If your tractor will not be used for a period of time such as through the winter season or for more than 30 days, perform the following operations:

#### a. Engine.

(1) Remove gas line filter and drain gas tank and fuel lines.

(2) Drain carburetor bowl by pushing up on drain valve on bottom of carburetor bowl.

(3) Replace gas line filter.

(4) Remove all oil, grease and dirt from around engine and related parts.

(5) Use spray paint or brush to touch up all unpainted areas to prevent rust.

(6) Remove spark plug and pour in approximately one tablespoonful (1 ounce) SAE 30 oil. Turn engine over manually at least two times and replace spark plug.

(7) Pull out the 3 prong plug from the rectifier regulator. See figure 11.

#### b. Tractor.

(1) Remove battery and store where it will not freeze. Check water level. Refill and charge fully. See Section IV, paragraph 9.

(2) Clean tractor exterior thoroughly, removing all mud, dirt, grease and other material.

(3) Touch up all unpainted and exposed surfaces with paint to prevent rust.

(4) Check all visible moving parts for wear, breakage or damage. Now is the time to order any parts required and make necessary repairs to avoid needless delay when starting again next season.

(5) Block up tractor to take weight off tires. Store tractor in cool, dark and dry place if possible to prevent excess tire deterioration.

(6) Clean belts with a dry cloth.

Your dealer is equipped to give your tractor a complete service check and make recommendations for replacing parts in need of attention.

#### c. Preparing Tractor for Use After Storage.

##### (1) Engine.

(a) Drain and refill engine crankcase with proper weight and grade oil.

(b) Refill gasoline tank.

(c) Clean spark plug and set gap.

(d) Plug in the three prong plug. This plug can be plugged in either way with the middle prong in the middle position.

##### (2) Tractor.

(a) Reinstall battery. Check liquid level.

(b) Check transmission oil level.

(c) Check tire inflation.

## SECTION VI

### ATTACHMENTS AND ACCESSORIES

#### 1. ATTACHMENTS

The following attachments for the Manorway Tractor are available from your Ariens dealer:

1. 13987 - 30" Rotary Mower
2. 13982 - 40" Snow Blade
3. 13983 - 32" Sno-Thro with two stage blower

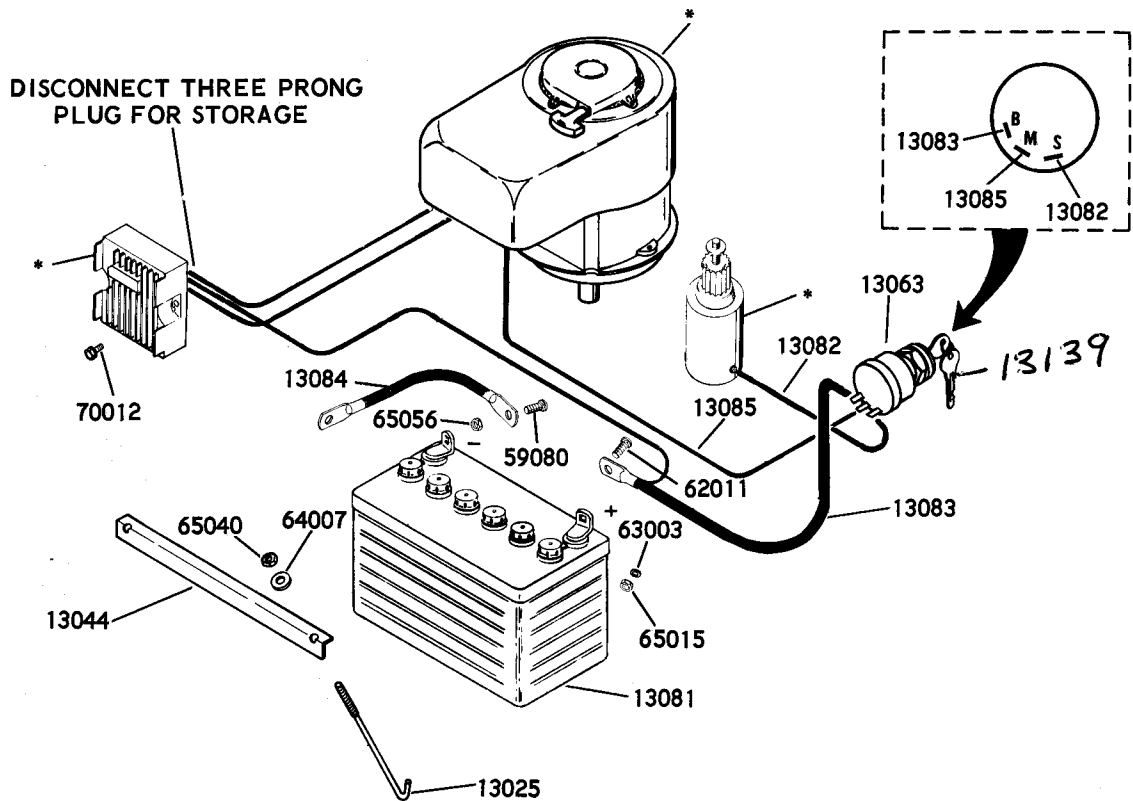
#### 2. ACCESSORIES

The following accessories for the Manorway Tractor are available from your Ariens dealer:

1. 13977 - Tire Chains
2. 13976 - Weight Bucket



# ELECTRICAL SYSTEM



\* AVAILABLE FROM LAUSON SERVICE CENTER

Figure 11

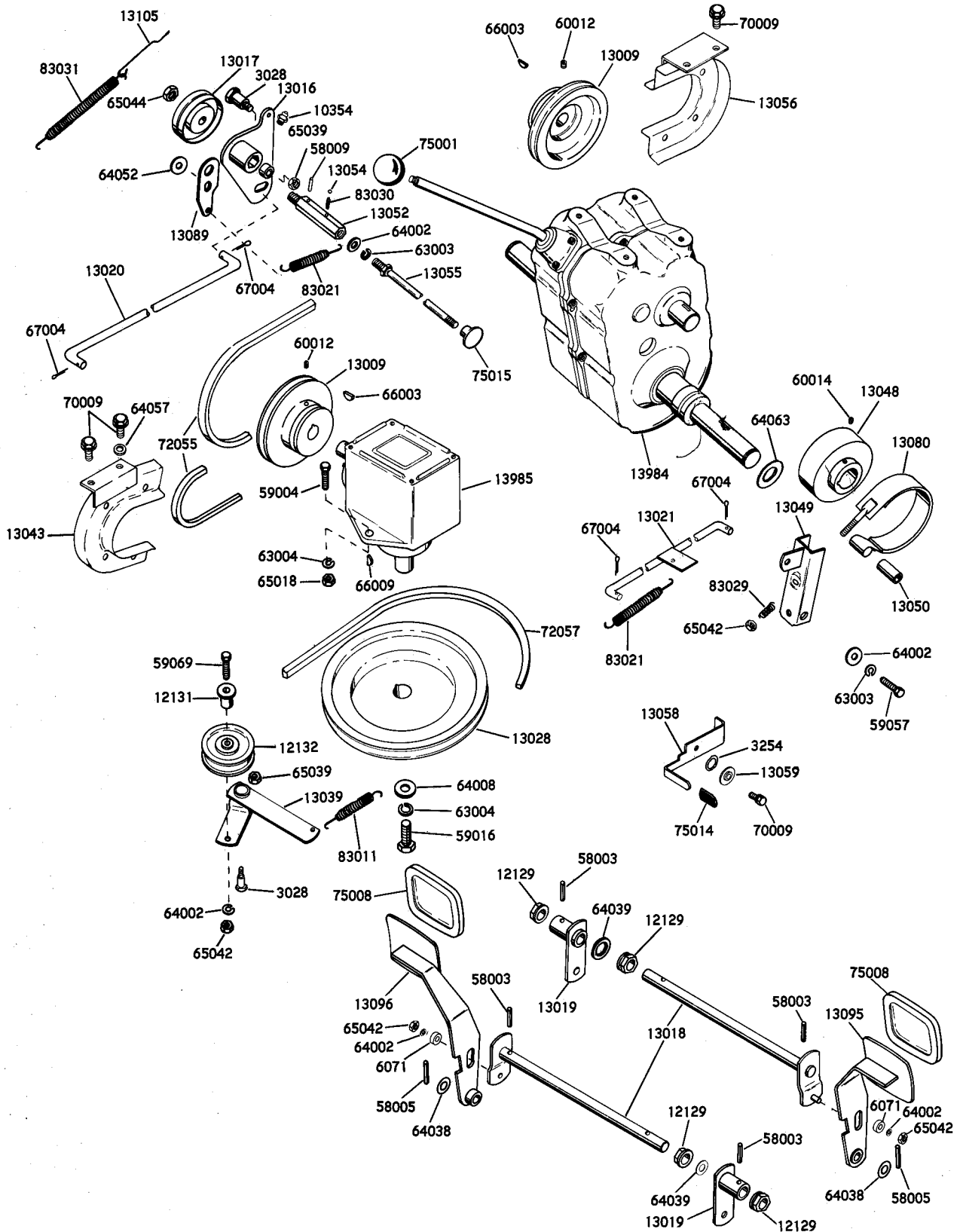
Part No.	Description	No. Req'd.	No. Req'd.
		Model 13990	Model 13989
13025	Hook Bolt	2	
13044	Battery Holddown	1	
13063	Key Switch	1	1
13081	Battery	1	
13082	Starter Cable	1	
13083	Positive Battery Cable	1	
13084	Ground Cable	1	
13085	Shorting Wire	1	1
59080	Cap Screw 1/4-20 x 5/8	1	
62011	Carriage Bolt 5/16-18 x 3/4	1	
63003	Lockwasher	1	
64007	Wrought Washer, 1/4 Std.	2	
65015	Nut, 5/16-18	1	
65040	Locknut 1/4-20	2	
65056	Flange Whizlock Nut 1/4-20	1	
70012	Flange Whizlock Screw 1/4-20 x 3/4	2	

This diagram illustrates the assembly of a machine, likely a small tractor or utility vehicle, showing the chassis, body, and wheels. The components are labeled with part numbers:

- Chassis and Frame:** 13035, 13032, 13034, 13036, 13037, 13038, 13039, 13040, 13041, 13042, 13043, 13044, 13045, 13046, 13047, 13048, 13049, 13050, 13051, 13052, 13053, 13054, 13055, 13056, 13057, 13058, 13059, 13060, 13061, 13062, 13063, 13064, 13065, 13066, 13067, 13068, 13069, 13070, 13071, 13072, 13073, 13074, 13075, 13076, 13077, 13078, 13079, 13080, 13081, 13082, 13083, 13084, 13085, 13086, 13087, 13088, 13089, 13090, 13091, 13092, 13093, 13094, 13095, 13096, 13097, 13098, 13099, 13100, 13101, 13102, 13103, 13104, 13105, 13106, 13107, 13108, 13109, 13110, 13111, 13112, 13113, 13114, 13115, 13116, 13117, 13118, 13119, 13120, 13121, 13122, 13123, 13124, 13125, 13126, 13127, 13128, 13129, 13130, 13131, 13132, 13133, 13134, 13135, 13136, 13137, 13138, 13139, 13140, 13141, 13142, 13143, 13144, 13145, 13146, 13147, 13148, 13149, 13150, 13151, 13152, 13153, 13154, 13155, 13156, 13157, 13158, 13159, 13160, 13161, 13162, 13163, 13164, 13165, 13166, 13167, 13168, 13169, 13170, 13171, 13172, 13173, 13174, 13175, 13176, 13177, 13178, 13179, 13180, 13181, 13182, 13183, 13184, 13185, 13186, 13187, 13188, 13189, 13190, 13191, 13192, 13193, 13194, 13195, 13196, 13197, 13198, 13199, 13200, 13201, 13202, 13203, 13204, 13205, 13206, 13207, 13208, 13209, 13210, 13211, 13212, 13213, 13214, 13215, 13216, 13217, 13218, 13219, 13220, 13221, 13222, 13223, 13224, 13225, 13226, 13227, 13228, 13229, 13230, 13231, 13232, 13233, 13234, 13235, 13236, 13237, 13238, 13239, 13240, 13241, 13242, 13243, 13244, 13245, 13246, 13247, 13248, 13249, 13250, 13251, 13252, 13253, 13254, 13255, 13256, 13257, 13258, 13259, 13260, 13261, 13262, 13263, 13264, 13265, 13266, 13267, 13268, 13269, 13270, 13271, 13272, 13273, 13274, 13275, 13276, 13277, 13278, 13279, 13280, 13281, 13282, 13283, 13284, 13285, 13286, 13287, 13288, 13289, 13290, 13291, 13292, 13293, 13294, 13295, 13296, 13297, 13298, 13299, 13300, 13301, 13302, 13303, 13304, 13305, 13306, 13307, 13308, 13309, 13310, 13311, 13312, 13313, 13314, 13315, 13316, 13317, 13318, 13319, 13320, 13321, 13322, 13323, 13324, 13325, 13326, 13327, 13328, 13329, 13330, 13331, 13332, 13333, 13334, 13335, 13336, 13337, 13338, 13339, 13340, 13341, 13342, 13343, 13344, 13345, 13346, 13347, 13348, 13349, 13350, 13351, 13352, 13353, 13354, 13355, 13356, 13357, 13358, 13359, 13360, 13361, 13362, 13363, 13364, 13365, 13366, 13367, 13368, 13369, 13370, 13371, 13372, 13373, 13374, 13375, 13376, 13377, 13378, 13379, 13380, 13381, 13382, 13383, 13384, 13385, 13386, 13387, 13388, 13389, 13390, 13391, 13392, 13393, 13394, 13395, 13396, 13397, 13398, 13399, 13400, 13401, 13402, 13403, 13404, 13405, 13406, 13407, 13408, 13409, 13410, 13411, 13412, 13413, 13414, 13415, 13416, 13417, 13418, 13419, 13420, 13421, 13422, 13423, 13424, 13425, 13426, 13427, 13428, 13429, 13430, 13431, 13432, 13433, 13434, 13435, 13436, 13437, 13438, 13439, 13440, 13441, 13442, 13443, 13444, 13445, 13446, 13447, 13448, 13449, 13450, 13451, 13452, 13453, 13454, 13455, 13456, 13457, 13458, 13459, 13460, 13461, 13462, 13463, 13464, 13465, 13466, 13467, 13468, 13469, 13470, 13471, 13472, 13473, 13474, 13475, 13476, 13477, 13478, 13479, 13480, 13481, 13482, 13483, 13484, 13485, 13486, 13487, 13488, 13489, 13490, 13491, 13492, 13493, 13494, 13495, 13496, 13497, 13498, 13499, 13500, 13501, 13502, 13503, 13504, 13505, 13506, 13507, 13508, 13509, 13510, 13511, 13512, 13513, 13514, 13515, 13516, 13517, 13518, 13519, 13520, 13521, 13522, 13523, 13524, 13525, 13526, 13527, 13528, 13529, 13530, 13531, 13532, 13533, 13534, 13535, 13536, 13537, 13538, 13539, 13540, 13541, 13542, 13543, 13544, 13545, 13546, 13547, 13548, 13549, 13550, 13551, 13552, 13553, 13554, 13555, 13556, 13557, 13558, 13559, 13560, 13561, 13562, 13563, 13564, 13565, 13566, 13567, 13568, 13569, 13570, 13571, 13572, 13573, 13574, 13575, 13576, 13577, 13578, 13579, 13580, 13581, 13582, 13583, 13584, 13585, 13586, 13587, 13588, 13589, 13590, 13591, 13592, 13593, 13594, 13595, 13596, 13597, 13598, 13599, 13600, 13601, 13602, 13603, 13604, 13605, 13606, 1360

Part No.	Description	No. Req'd.	Part No.	Description	No. Req'd.
3057	Washer	2	59003	Cap Screw, 5/16-18 x 1	4
3254	Wave Washer	1	59022	Cap Screw, 5/16-18 x 3/4	2
3268	Hub Cap, Rear	2	59023	Cap Screw, 3/8-16 x 3/4 H. H.	6
10354	Hydraulic Drive Fitting	2	59028	Cap Screw 1/4-20 x 1/2	4
12128	Bushing	4	59039	Cap Screw 5/16-18 x 1/2	4
12129	Bushing	2	59042	Cap Screw 1/2-13 x 1-1/4	2
13001	Main Frame	1	59050	Cap Screw 1/4-20 x 1-1/2	2
13002	Front Axle	1	59069	Cap Screw 5/16-18 x 1-1/4	3
13003	Spindle, L. H.	1	59095	Cap Screw 1/2-20 x 2 H. H.	1
13004	Spindle, R. H.	1	59097	Machine Screw #10-24 x 3/8	2
13005	Lever	2	61014	Machine Screw #10-24 x 3/8	1
13006	Tie Rod	1	62009	Carriage Bolt 5/16-18 x 1/2	4
13007	Axle Support Bracket	2	63002	Lockwasher 1/4 Std.	6
13008	Hub	2	63003	Lockwasher 5/16 Std.	14
13013	Steering Gear	1	63004	Lockwasher 3/8	10
13014	Pinion	1	63006	Lockwasher 1/2 Std.	3
13024	Dash Console	1	64002	Wrought Washer 5/16 Std.	4
13027	Axle Spacer	1	64008	Wrought Washer 3/8 Std.	2
13029	Steering Bracket	1	64033	Washer .755 ID x 1.375 OD x .125	2
13030	Footrest, L. H.	1	64039	Washer .630 ID x 1.005 OD x .062	2
13031	Footrest, R. H.	1	65005	Nut, 3/8-24 Hex	8
13032	Steering Wheel	1	65006	Nut, 1/2-20	1
13033	Gas Tank	1	65015	Nut, 5/16-18 Hex	12
13034	Steering Shaft Extension	1	65038	Nut, Wing, 5/16-18	2
13035	Hood	1	65039	Locknut, 3/8-16	2
13037	Tractor Hitch	1	65040	Locknut, 5/16-18	1
13038	Seat Spring	2	65041	Locknut, 10-24	1
13042	Shift Pattern Plate	1	65042	Nut, 5/16-18	9
13045	Front Hub Cap	2	65051	Nut #10-24 Keps	2
13047	Wheel Hub	2	65056	Whizlock Nut 1/4-20	6
13051	Gas Line (Long)	1	66008	Woodruff Key "A"	2
13053	Nipple (For mounting muffler, not illus.)	1	67014	Cotter Pin 1/8 x 1-1/4	2
13060	Steering Gear Shaft	1	69002	Throttle Control	1
13061	Steering Column	1	69006	Choke Control	1
13062	Drag Link	1	69010	Clamp	1
13065	Gas Tank Bracket	1	70005	Wheel Bolt	10
13066	Gas Tank Strap	2	70009	Flange Whizlock Screw 5/16-18 x 1/2	30
13067	Gas Tank Cushion	2	70010	Flange Whizlock Screw 3/8-16 x 1/2	10
13075	Fender, L. H.	1	70011	Rib Neck Bolt 1/4-20 x 5/8	2
13076	Fender, R. H.	1	70012	Screw, Flange Whizlock 1/4-20 x 3/4	2
13077	Seat Pan	1	70015	Screw, Flange Whizlock	5
13078	Seat Back	1	74021	Taptite #10-24 x 1/4	4
13079	Seat Cushion	1	78036	Cast Iron Decal (Not Illus.)	1
13087	Shut-Off Valve	1	78037	7 H.P. Engine Decal (Not Illus.)	1
13090	Ball Joint	4	78045	Dash Decal (Std. Only) (Not Illus.)	1
13091	Axle Hub	1	78046	Manorway Instr. Label (Not Illus.)	1
13092	Gas Tank Support	2	78047	Hood Decal (Not Illus.)	1
13098	Steering Wheel Cap	1	78048	Grille Decal (Not Illus.)	1
13100	Retaining Plate	1	78049	Dash Decal (Elec. Only) (Not Illus.)	1
13101	Rear Foot Pad	2	78050	Ariens Logo Decal (Not Illus.)	1
13102	Center Foot Pad	2	78051	L. H. Manorway Decal (Not Illus.)	1
13103	Foot Pad, L. H.	1	78052	R. H. Manorway Decal (Not Illus.)	1
13104	Foot Pad, R. H.	1			
13106	Gas Gage	1			
13107	Fuel Line (Short)	1	A13992	Rear Wheel Assembly	2
13108	Filter, Gas Line	1		Consisting of per wheel assy.	
A13980	Grille Assembly	1		Tire 71018	1
54025	Flange Bearing	1		Rim 71022	1
55038	Flange Bushing	4	A13993	Front Wheel Assembly	2
57038	Snap Ring	2		Consisting of per wheel assy.	
57052	Clamp	4		Zerk Fitting 12152	1 (Not Illus.)
58007	Roll Pin, 1/4 x 1-1/4	5		Bushing 55028	2
58016	Roll Pin, 3/16 x 1	2		Rim 71023	1
59002	Cap Screw, 5/16-18 x 5/8 H. H.	2		Tire 71028	1

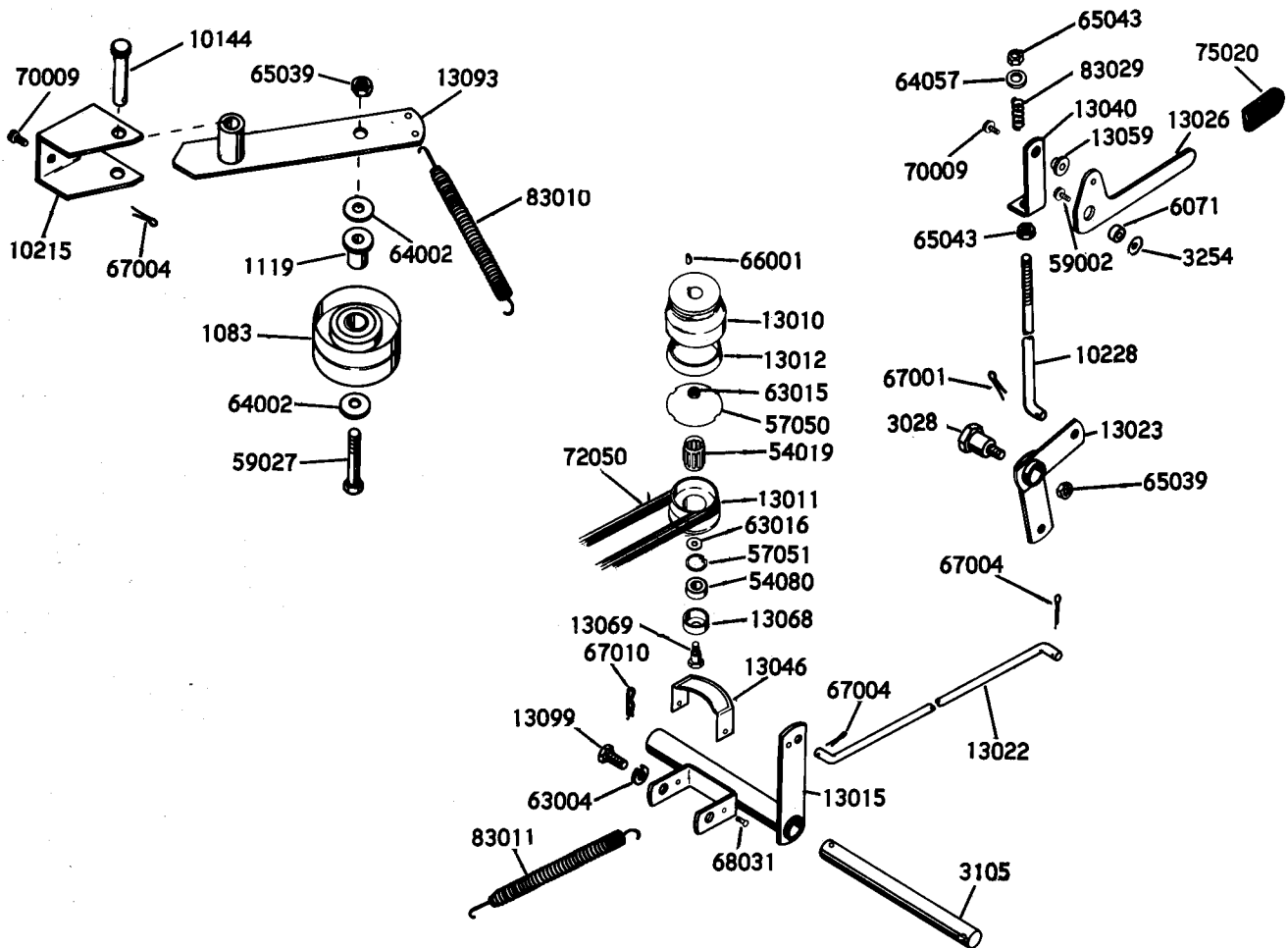
# TRACTOR DRIVE





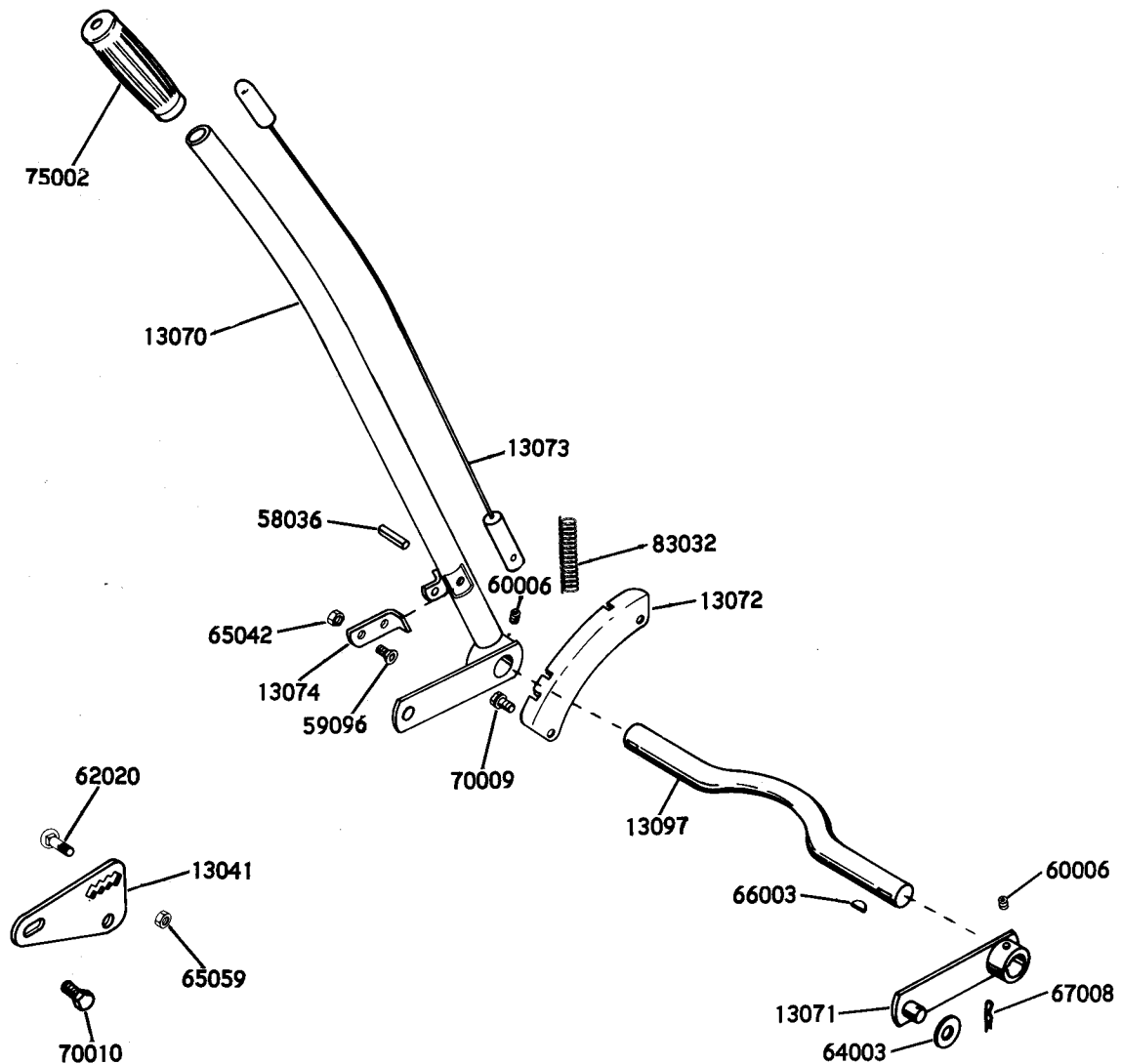
Part No.	Description	No. Req'd.	Part No.	Description	No. Req'd.
3028	Shoulder Bolt	2	59004	Cap Screw, 3/8-16 x 1	2
3254	Wave Washer	1	59016	Cap Screw, 3/8-24 x 1-1/8	1
6071	Spacer	2	59057	Cap Screw, 5/16-18 x 2	1
10354	Hydraulic Drive Fitting	1	59069	Cap Screw, 5/16-18 x 1-1/4	1
12129	Bushing	4	60012	Setscrew, 5/16-18 x 3/8 Nylok	2
12131	Bearing Spacer	1	60014	Setscrew, 1/4-20 x 1/4 Nylok	1
12132	Idler	1	63003	Lockwasher, 5/16 Std.	2
13009	Sheave	2	63004	Lockwasher, 3/8 Std..	3
13016	Idler Bracket	1	64002	Wrought Washer, 5/16 Std.	5
13017	Idler	1	64008	Flat Washer, 3/8 Std.	1
13018	Brake and Clutch Shaft	2	64038	Washer, .505 ID x .775 OD x 24 Ga.	2
13019	Brake and Clutch Lever	2	64039	Washer, .630 ID x 1.005 OD x .062	2
13020	Clutch Rod	1	64052	Washer, .380 ID 13/16 OD x 24 Ga.	1
13021	Brake Rod	1		.385	
13028	Driven Sheave	1	64057	Washer 21/64 ID x .625 OD x .062	1
13039	Idler Bracket	1	64063	Washer	2
13043	Front Belt Finger	1	65018	Nut, 3/8-16 Std.	2
13048	Brake Drum	1	65039	Locknut, 3/8-16 Hex	2
13049	Brake Bracket	1	65042	Locknut, 5/16-18 Hex	4
13050	Spacer	1	65044	Locknut, 1/2-20	1
13052	Shift Shaft	1	66001	Woodruff Key #11	1
13054	Ball, 1/4	1	66003	Woodruff Key #9	2
13055	Ball Joint	1	66009	Woodruff Key #6	1
13056	Rear Belt Cover	1	67004	Cotter Pin, 1/8 x 1	4
13058	Parking Brake Latch	1	70009	Flange Whizlock Screw 5/16-18 x 1/2	5
13059	Shoulder Spacer	1	72055	Belt	2
13080	Brake Band	1	72057	Drive Belt	1
13089	Stop Lever	1	75001	Shift Ball	1
13095	Clutch Pedal	1	75008	Grip Pad	2
13096	Brake Pedal	1	75014	Grip	1
13105	Spring Hook	1	75015	Shift Ball	1
13984	Transaxle Assembly	1	83011	Spring	1
13985	Right Angle Drive Assembly	1	83021	Spring	2
58003	Roll Pin, 3/16 x 1-1/4	4	83029	Spring	1
58005	Roll Pin, 3/16 x 7/8	2	83030	Spring	1
58009	Roll Pin, 1/8 x 1	1	83031	Spring	1

# P.T.O.



Part No.	Description	No. Req'd.	Part No.	Description	No. Req'd.
1083	Idler	1	57050	Retaining Ring	1
1119	Spacer	1	57051	Snap Ring	1
3028	Shoulder Bolt	1	59002	Cap Screw 5/16-18 x 5/8	1
3105	Adapter Pin	1	59027	Cap Screw 3/8-16 x 1-3/4	1
3254	Wave Washer	1	63004	Lockwasher 3/8 Std.	2
6071	Spacer	1	63015	Lockwasher, Internal	1
10144	Clevis Pin	1	63016	Lockwasher, Internal	1
10215	Lever Bracket	1	64002	Wrought Washer 5/16 Std.	1
10228	Rod	1	64057	Washer 21/64 ID x .625 OD x .062	1
13010	Engine Sheave	1	65029	Nut 7/8-14	1
13011	PTO Sheave	1	65039	Locknut 3/8-16	2
13012	PTO Lining	1	65043	Locknut 5/16-24	2
13015	PTO Clutch and Brake Lever	1	66001	Key #11 Woodruff	1
13022	PTO Clutch Rod	1	67001	Cotter Pin 3/32 x 3/4	2
13023	Bell Crank	1	67004	Cotter Pin 1/8 x 1	2
13026	PTO Lever	1	67010	Hair Cotter Pin	3
13040	PTO Adjusting Angle	1	68031	Pop Rivet	2
13046	Brake Shoe	1	70009	Flange Whizlock Screw 5/16-18 x 1/2	3
13059	Shoulder Spacer	1	72050	V-Belt	1
13068	Collar	1	75020	Grip	1
13069	Shoulder Bolt	1	83010	Spring	1
13093	Idler Arm	1	83011	Spring	1
13099	Screw Pin	2	83029	Spring	1
54019	Needle Bearing	1			
54080	Bearing	1			

# ATTACHMENT LIFT



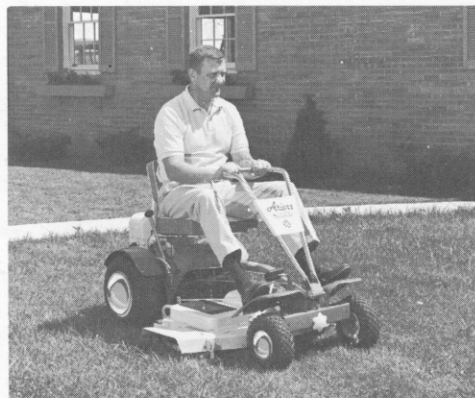
Part No.	Description	No. Req'd.	Part No.	Description	No. Req'd.
13041	Attachment Mounting Bracket	2	64003	Wrought Washer 1/2 Std.	2
13070	Attachment Lift Lever	1	65042	Locknut 5/16-18 Hex	1
13071	Attachment Lift Arm	1	65059	Locknut 3/8-16	2
13072	Attachment Lift Quadrant	1	66003	Woodruff Key #9	2
13073	Plunger	1	67008	Hair Pin Cotter	2
13074	Latch	1	70009	Flange Whizlock Screw	
13097	Shaft	1		5/16-18 x 1/2	2
58036	Roll Pin 1/4 x 3/4	1	70010	Flange Whizlock Screw	
59096	Cap Screw, Flat Head			3/8-16 x 1/2	2
	5/16-18 x 3/4	1	75002	Grip	1
60006	Setscrew 5/16-18 x 1/4	2	83032	Spring	1
62020	Carriage Bolt	2			

# Ariens

## OUTDOOR POWER EQUIPMENT



ARIENS JET series rotary tillers. Choice of 3 h.p., or 4 or 5 h.p. with tine reverse drive.



ARIENS EMPEROR riding mowers with Flex-N-Float rotary mower. Choice of 6 h.p. or 7 h.p. models.



ARIENS ROCKET VI 6 h.p. rotary tiller. Cast iron Tecumseh engine. 2 forward speeds, 2 reverse.



ARIENS SNO-THRO. 2-stage, self-propelled 4, 5, 6 or 7 h.p. models with 240 degree revolving Sno-Chute.



ARIENS FAIRWAY riding mower with 26-inch rotary mower. Choice of standard or deluxe models.



ARIENS LAWN VACUUM. Self-propelled 6 h.p. unit with 30" nose cone, 9 cu. ft. refuse bag.

### ARIENS COMPANY

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