



## OWNER'S OPERATING AND PARTS MANUAL



# 25" HEVI-DUTY WHIRLWIND

MODEL NO. 24002

BOOK NO. 40

Price 25 cents

# To the Toro Owner . . .

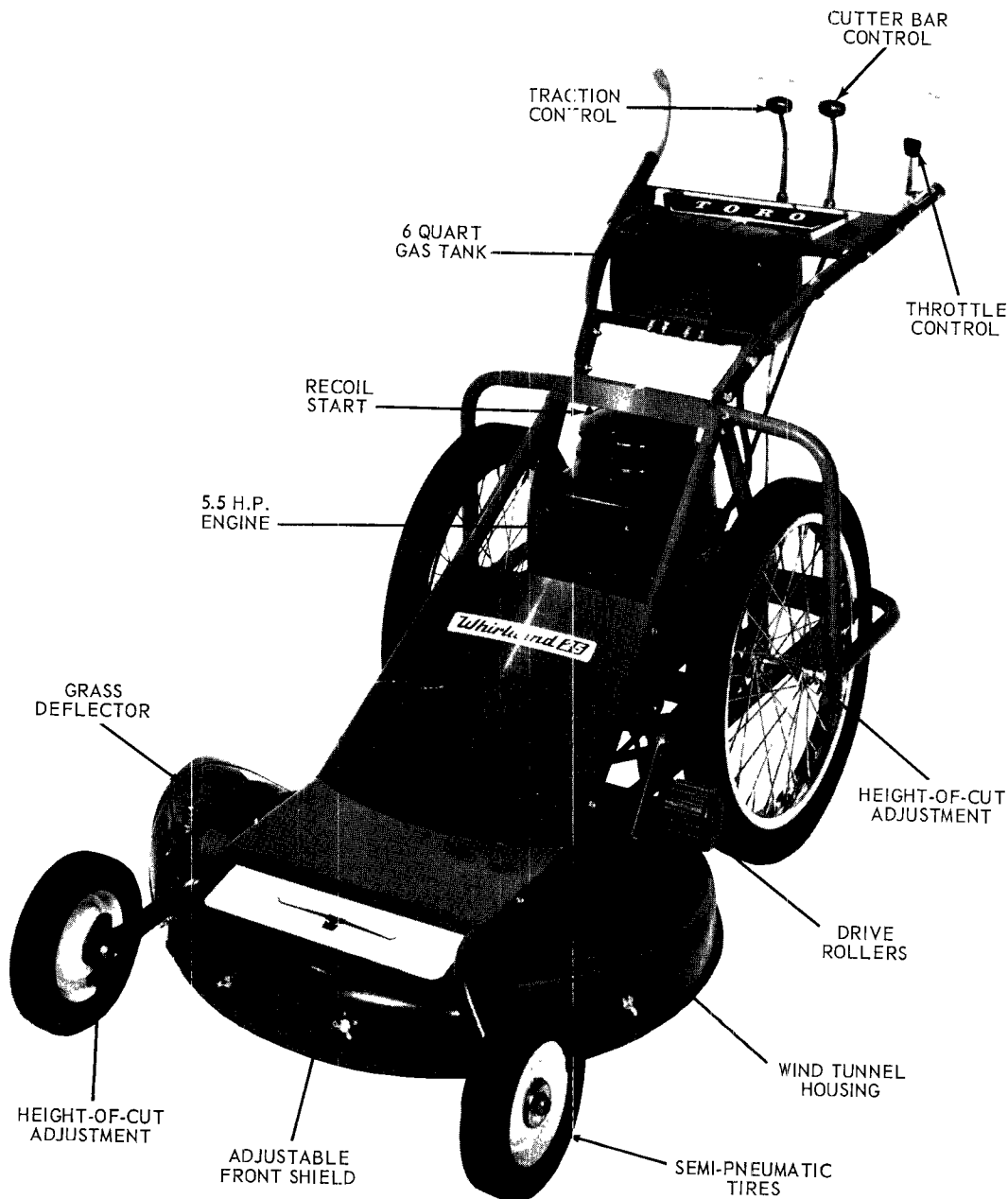
This Owner Manual has been especially prepared for your information and guidance in the operation and care of your new Toro mower. Information on care and operation of the engine is contained in a separate manual furnished with the engine.

Properly adjusted, operated and maintained, this Toro mower will respond quickly and easily to every

reasonable demand and give years of reliable service.

Toro mowers are manufactured by an organization of mowing machinery specialists with over forty years experience. Each machine is carefully inspected and tested before leaving the factory. For best performance from your Toro mower, study this manual for regular maintenance procedures.

## Know Your Mower



# SPECIFICATIONS

**ENGINE:** 5½ H.P. 4-cycle engine with oil pump, dry type air cleaner, recoil starter, and 6-quart fuel tank.

**CUTTER BLADE:** 25" hardened high carbon steel, positive attachment with one fastener.

**HEIGHT OF CUT:** 1 inch to 3½ inches by moving wheels.

**WIDTH OF CUT:** 25 inches.

**CUTTER HOUSING:** Single piece 14 gauge steel stamping with spiral grass chamber, right hand discharge, hinged chute deflector and adjustable front guard.

**FRAME:** Single piece welded construction of 14 gauge steel tubing of 1 inch diameter.

**WHEELS:** Rear - 20" spoked wheels with drop center rim. Thirty-six wire spokes of .120 diameter support wheel. Tire is semi-pneumatic 20" x 1.75. Ball bearings are used.

Front: Steel disc rims with 8" x 1.75 semi-pneumatic tires. Ball bearings are used.

**HANDLE:** 1" steel tubing of 14 gauge thickness equipped with plastic hand grip. Handle height is adjustable. Throttle lever and clutch controls are mounted on the handle.

**CUTTER SPINDLE:** Sealed bearings, 3/4" diameter spindle with anti-scalp dish as standard equipment.

**CUTTER DRIVE:** Industrial V-belt drive is engaged by mounted engine on sliding platform. Friction brake

operates when belt tension is free and prevents accidental spindle rotation when clutch is disengaged. Speed reduction engine to spindle is 1.35 to 1. A hand lever operates the clutch from the handle.

**POWER DRIVE:** Industrial V-belt drive from engine to gear reduction case. Gear reduction case contains hardened and ground worm gears mounted on needle bearings, sealed in lubricant. Final drive is accomplished by 3" diameter cast iron rollers driving the 20" tires. Rollers contain ratchets giving excellent differential action. Engagement is by means of a hand lever on the handle. Overall reduction engine to wheels, 71.8 to 1.

**GROUND SPEED:** Up to 3 m. p. h.

## BLADE CUTTING SPEEDS:

Blade Speed (rpm)	Ground Speed (mph)	Engine
12,700	2.2	2600 rpm
17,600	3.0	3600 rpm

**DIMENSIONS:** Width 29"  
Height 27" (w/o handle)  
Length 49½"

**WEIGHT:** 180 lbs.

## OPTIONAL EQUIPMENT:

**Bagging Kit:** Contains 2 giant-sized bags of 5 bushel capacity each, together with necessary rods for attaching--and a bagging chute. It is very effective for picking up grass clippings, leaves, and other debris. Takes seconds to install.

# Warranty

The Manufacturer warrants each new piece of equipment sold to be free of defects in material and workmanship. For one year from the purchase date of consumer line equipment or 45 days if sold for commercial use, Toro Manufacturing Corporation will repair or replace for the original purchaser, free of charge, through any Authorized Service Dealer, any part or parts found at our factory in Minneapolis, Minnesota, to be defective under normal use and service. All institutional equipment is warranted for ninety (90) days from the purchase date.

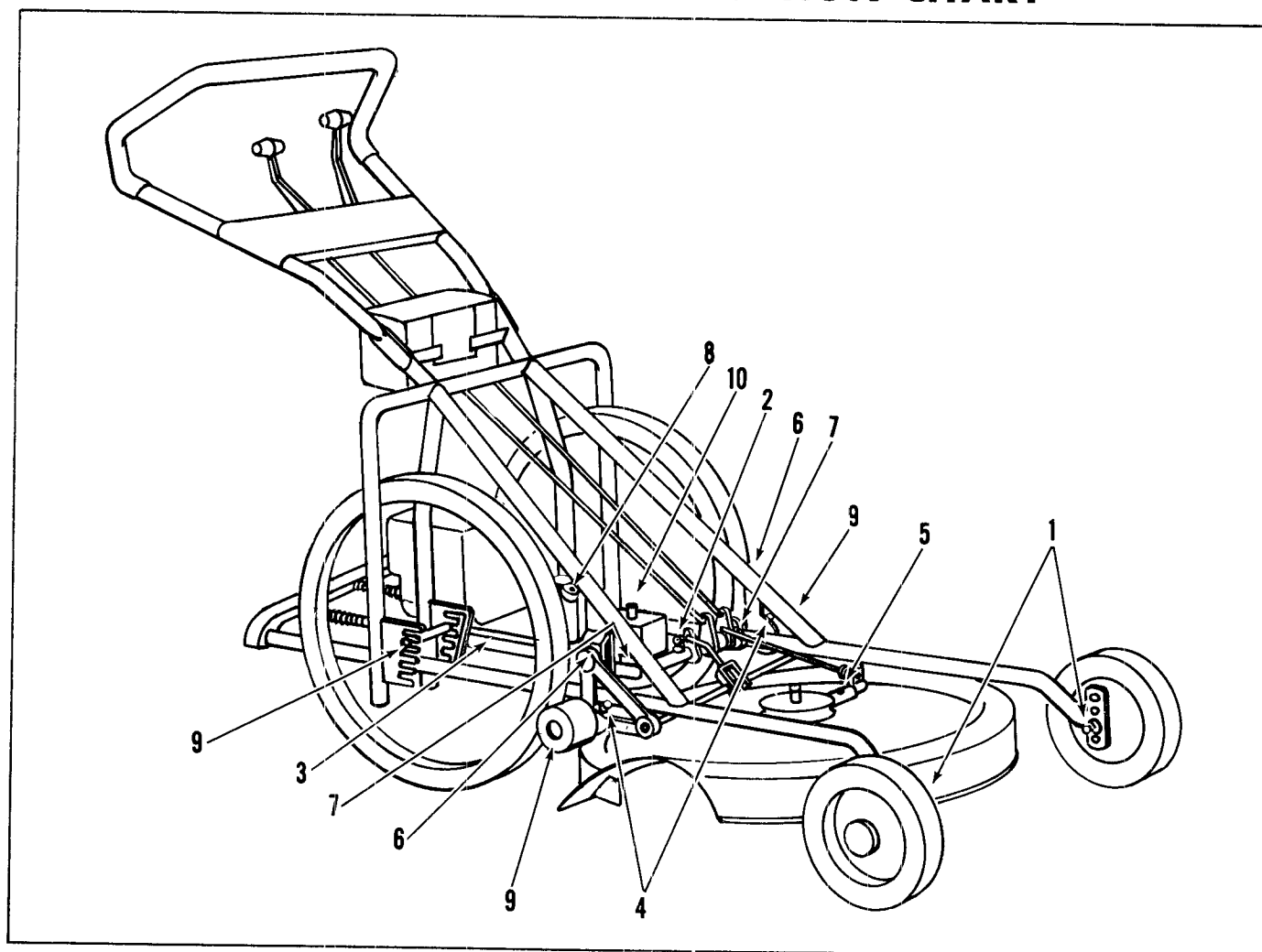
This Warranty does not obligate the Manufacturer to bear the cost of transportation charges in con-

nection with the replacement or repair of defective parts -- nor shall it apply to a machine upon which repairs or alterations have been made, unless authorized by the manufacturer.

This Warranty does not include nor cover standard accessories produced by other manufacturers. Such accessories have separate warranties by their respective manufacturers . . . and repair or exchange will be made on the basis of such warranties, and the policies authorized by them shall be adhered to.

This Warranty is in lieu of all other warranties expressed or implied.

## 25" HEVI-DUTY LUBRICATION CHART



### GREASE FITTINGS:

1. Front Wheels  
Once weekly - Mobilux #2 All purpose or equivalent
2. Bell Crank  
Once weekly - Mobilux #2 All purpose or equivalent
3. Motor Mount (under engine)  
Once weekly - Mobilux #2 All purpose or equivalent
4. Roller Shaft Bearing  
Every day - Mobilux #2 All purpose or equivalent
5. Spindle Brake Bearing  
Every day - S. A. E. 20 engine oil
6. Roller Shaft Arm Pivot  
Every day - S. A. E. 20 engine oil
7. Bell Crank Bearings (two)  
Every day - S. A. E. 20 engine oil
8. Idler Arm Bearing  
Every day - S. A. E. 20 engine oil
9. Roller Bearings and Bicycle Wheel Bearings  
Once each season disassemble and repack with Mobilux #2 All purpose grease or equivalent.
10. Gear Case  
Check level weekly; to fill, remove the breather cap and the top plug on the back side of the gear case (lower plug is the drain plug) and, using A. G. M. A. #7 compounded gear oil or S. A. E. #140, pour into breather hole on the top of the gear case until oil runs from the opened top plug hole. Replace top plug and breather cap. Once a season, drain and refill gear case.

### OIL HOLES:

5. Spindle Brake Bearing  
Every day - S. A. E. 20 engine oil
6. Roller Shaft Arm Pivot  
Every day - S. A. E. 20 engine oil
7. Bell Crank Bearings (two)  
Every day - S. A. E. 20 engine oil

### Engine

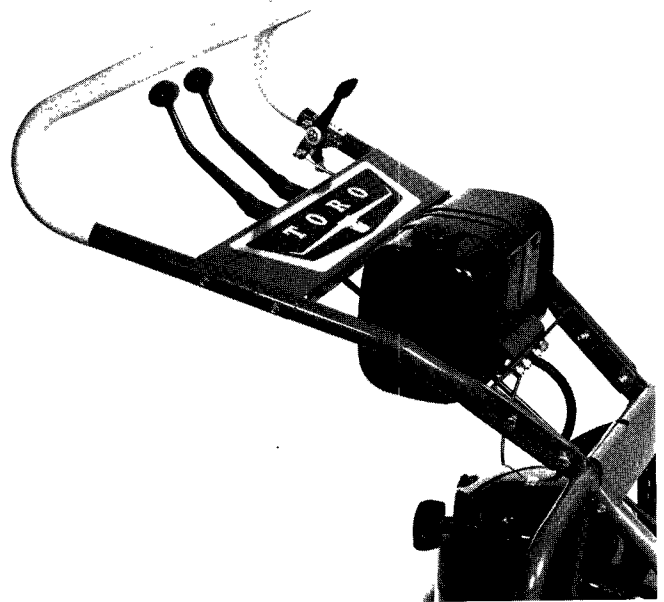
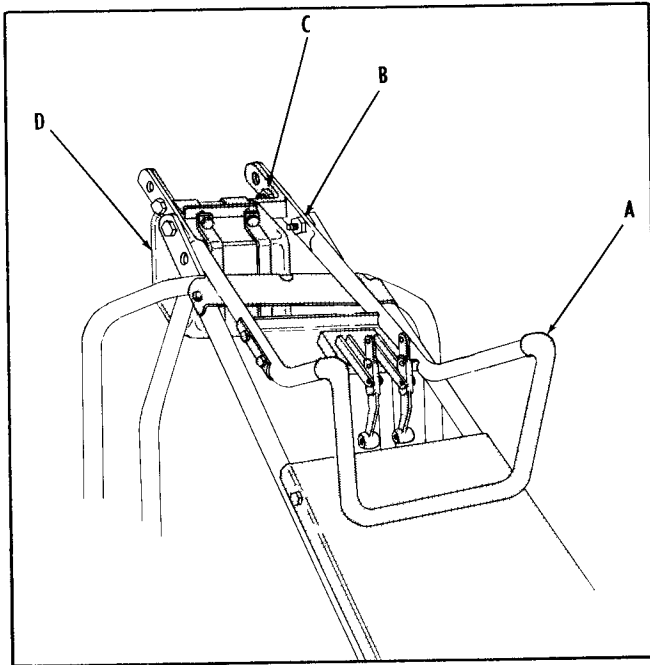
Before starting, fill crank case to full mark on dipstick (1 3/4 pints). Be sure engine is level. Above 32° F., use Mobiloil A(S.A.E. 30). Below 32° F., use Mobiloil 10W(S. A. E. 10W) or equal. Change oil after first 2 operating hours and every 25 operating hours thereafter. Check oil every 8 operating hours.

## SETTING-UP INSTRUCTIONS

Your new Toro Whirlwind mower is shipped with the mower unit completely assembled, and with mower handle in a shipping position. Control lever rods are placed in the bottom of shipping pallet. A separate bag contains fasteners for attaching throttle control and control lever rods. All items should be removed from packing case and accounted for before discarding shipping carton.

1. Remove all mower components from the packing carton.
2. Attach the mower handle, gas tank, control levers, and throttle control as outlined below.
3. Check to see that all fittings, screws and cutter bar are tight. Disconnect spark plug if you push or pull the cutter bar by hand.
4. Add oil to crankcase (see instructions).
5. Fill fuel tank with gasoline and check fittings for leakage.

## ATTACHING THE MOWER HANDLE



Your new Toro 25" Hevi-Duty Whirlwind mower is received with the handle (A) and the gas tank assembly (D) in the shipping position to facilitate packing. First, remove screws "B" and "C" and lift handle assembly "D" into its proper position as illustrated in photo at right above. Then replace fasteners as pictured and tighten securely.

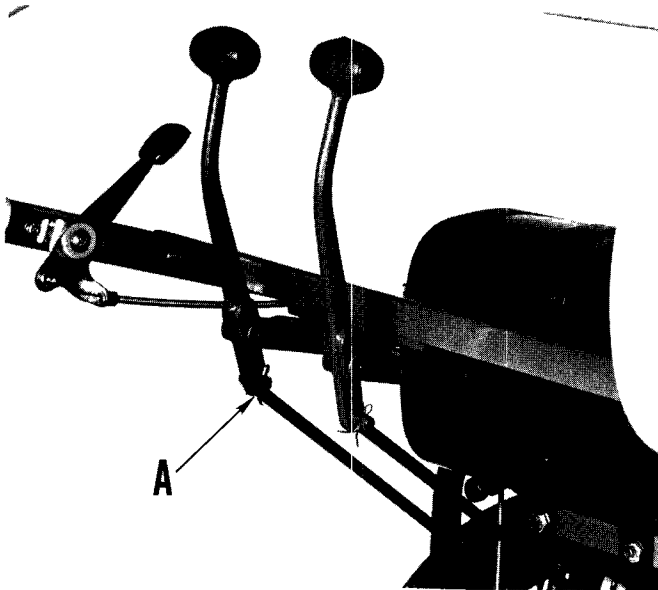
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## IMPORTANT ORDERING INSTRUCTIONS

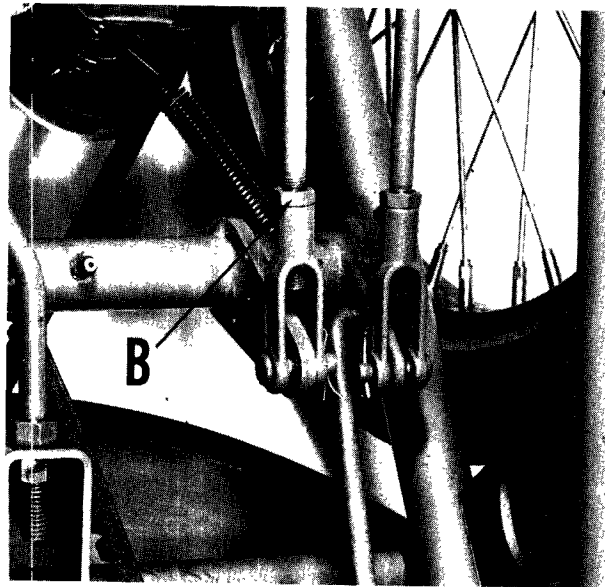
Repair parts are available from your TORO distributor or service dealer. To insure getting correct parts without delay, furnish following information:

1. Serial number of your implement as shown on the name plate.
2. Part number, description, and quantity of each part required.
3. State whether parts should be shipped by mail or express. All repair parts are shipped F. O. B. factory.
4. Name and address where parts are to be shipped.
5. Do not order by reference number; use part number only.

## ATTACHING CONTROL RODS

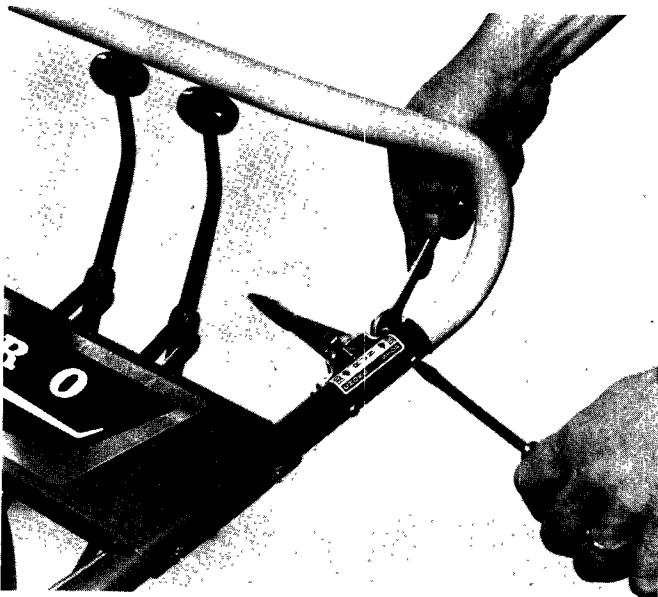


Traction and cutter spindle control lever rods are packed in the carton and must be installed in place on the mower. First place bent end "A" of the rods in position as shown in photo at left above and secure with cotter pins found in loose parts bag. Next, install opposite or clevis end "B" in place on bell crank



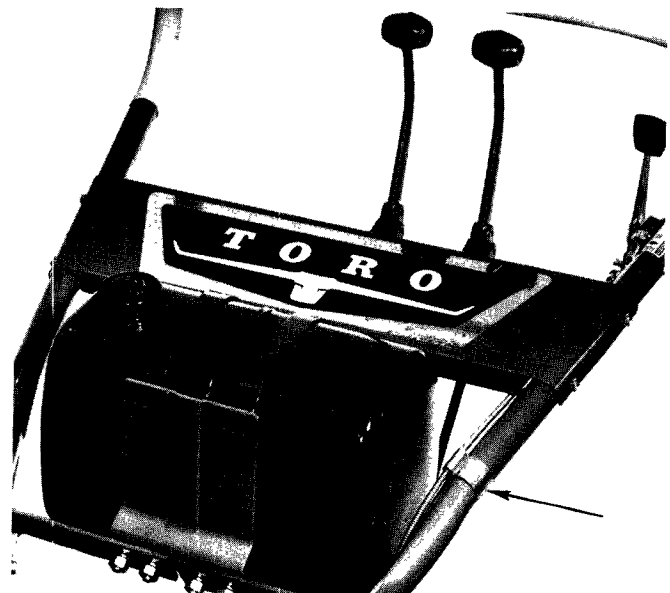
as pictured in photo at right above and fasten with cotter pins. Be sure rods are adjusted to the proper length (loosen nut on clevis and screw clevis in or out to do this) so control levers do not hit control panel when actuating levers.

## INSTALLING THROTTLE CONTROL



### STEP 4. ATTACHING CONTROL LEVER

Screw control to upper right handle. The remote control cable and lever assembly are fastened at the power head end on delivery. Cable is properly adjusted at the factory. Fasten the control to the left handle through hole provided with screw and locknut. Run cable under the handle cross bar.



### STEP 5. ATTACHING CONTROL CLIP

Clip control cable to handle as shown (see arrow). Be sure that there are no kinks in the cable on delivery and that the upper end of control cable and cable cover are firmly attached to the control lever assembly at the top end of the cable. The lever should move back and forth freely when properly installed.

## PREPARATION OF ENGINE BEFORE STARTING

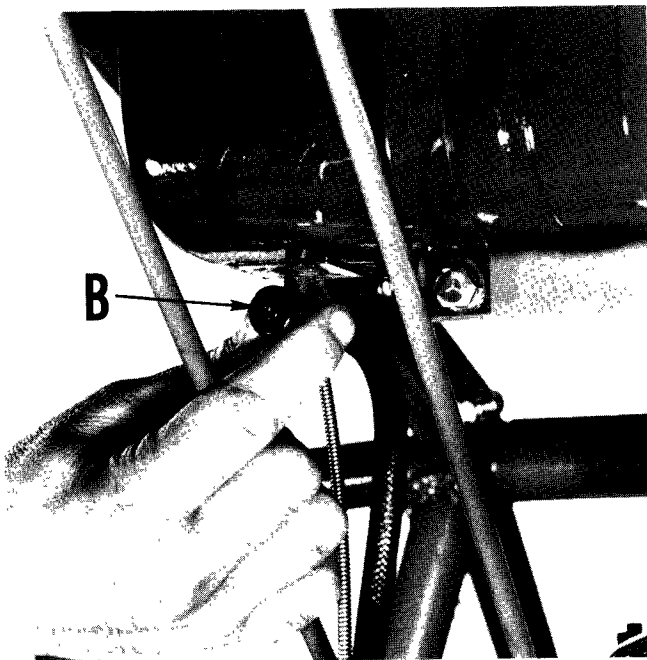
OIL AND GASOLINE have been completely removed and drained from the engine, and it is essential that the preparation instructions in this manual be followed before starting.



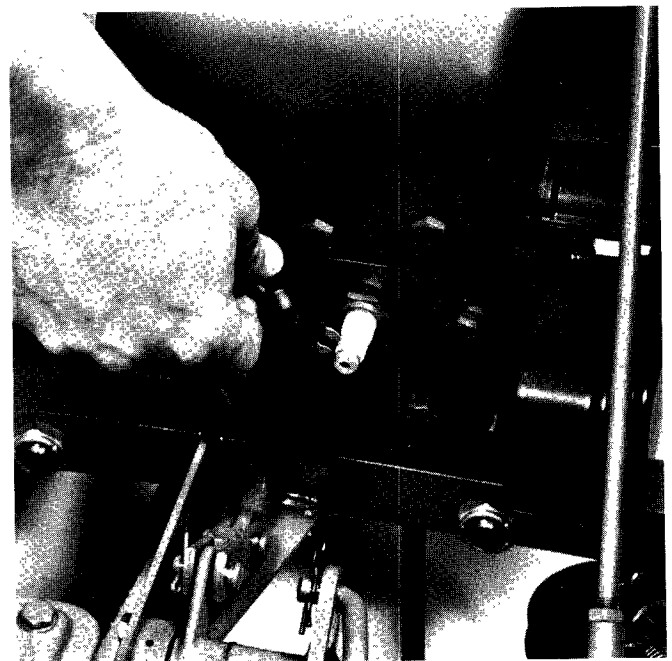
**FILL THE OIL SUMP WITH OIL** - First remove filler plug "A". Place the engine level; be sure wheels are in the same position. Pour oil slowly to prevent air being trapped in oil sump. Fill to full mark on dip stick. Observe filler neck for a few seconds before replacing oil filler plug. (Capacity  $1\frac{3}{4}$  pints) Use a good grade of S. A. E. 30 lubricating oil. Replace the filler plug.



**FILL THE TANK** with a good grade of regular gasoline. NEVER use gasoline that has been standing in a can for any length of time. SEE THAT VENT HOLE IN CAP IS OPEN. CAUTION: Do NOT fill fuel tank to overflow. Do NOT mix oil with gasoline. OBSERVE SAFETY PRECAUTIONS. ALWAYS DISCONNECT SPARK PLUG LEAD WHEN WORKING ON THE ENGINE OR MOWER CUTTER BAR.



After filling the crankcase with oil and the fuel tank with a good grade of fresh gasoline, remember to turn fuel valve "B" to the ON position. Turn in a counter-clockwise direction to open, clockwise to close. It is advisable, after each mowing, to turn the valve to the OFF position.

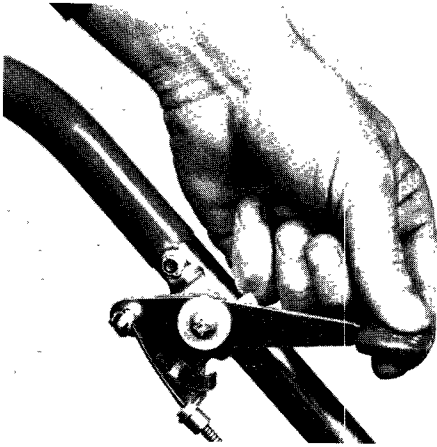


To disconnect spark plug lead wire, pull off as shown.

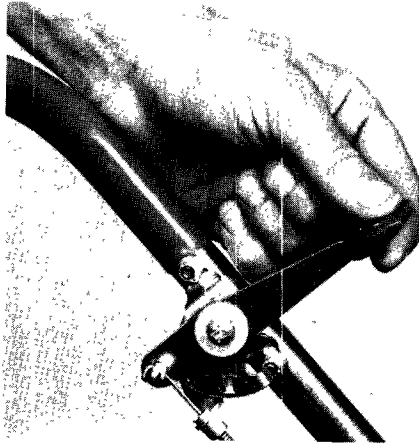
**ALWAYS DISCONNECT SPARK PLUG  
LEAD WIRE BEFORE WORKING ON  
ENGINE OR CUTTER BAR !!!**

## STARTING INSTRUCTIONS

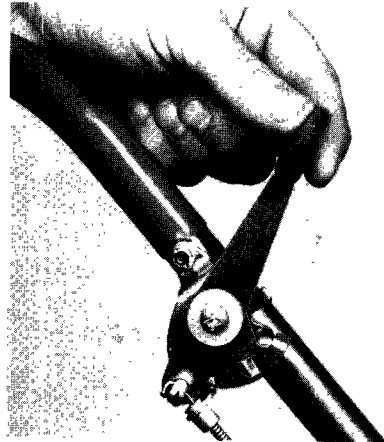
After filling with gasoline and oil, your mower is ready for operation. The engine is controlled by the control lever on the mower handle. Operating positions of this lever are shown below.



1. STARTING POSITION  
(Full Forward)



2. RUNNING POSITION  
(Lever Centered)

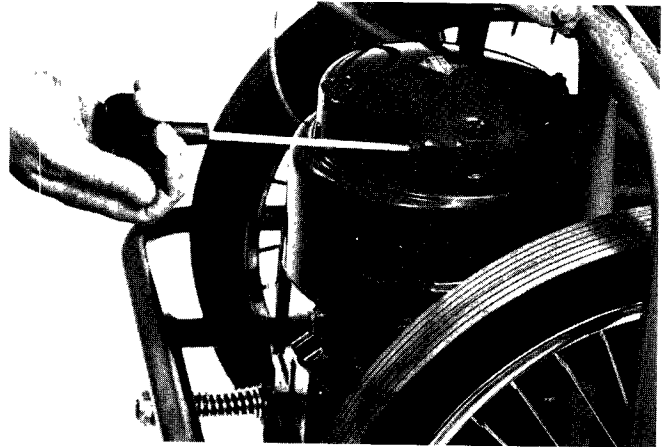


3. TO STOP ENGINE  
(Lever Full Back)

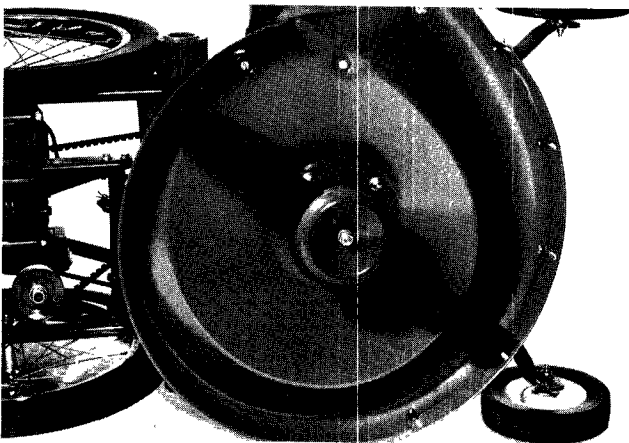
## RECOIL START

First, move the handle control lever forward to the starting position as shown in illustration No. 1. **HOLD THE MOWER FIRMLY IN POSITION.** Then pull starter rope slowly until the starter clutch engages, then pull until the resistance of compression is felt. Continue to pull slowly for about two or three inches until compression ceases.

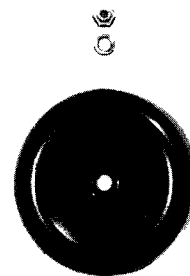
Allow starter rope to recoil and again pull out slowly until starter clutch engages. Then pull with a quick full arm stroke to start engine. Hold starter grip and allow rope to recoil. Repeat if necessary with choke opened slightly. When engine starts, open choke gradually.



## CARE OF MOWER HOUSING AND CUTTER BAR



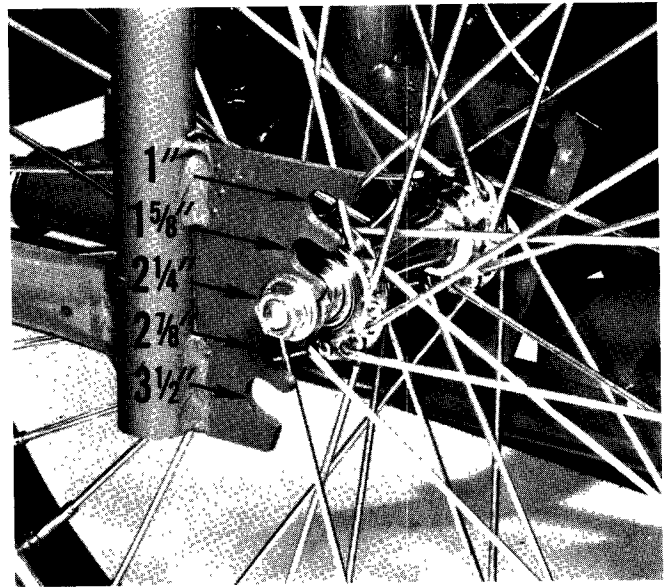
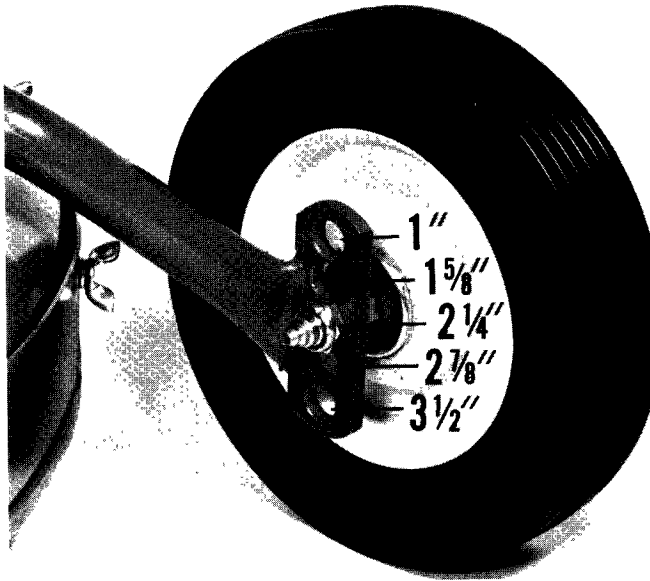
Be sure to keep under side of your mower housing and cutter bar assembly clean and free from masses and accumulations of old grass clippings. **DISCONNECT SPARK PLUG LEAD WIRE** as a safety precaution, before tilting mower on side as shown, or working on the cutter bar assembly. It is **IMPORTANT** to



use only genuine TORO replacement cutter bars on this machine. Others may be dangerous. The cutter bar and anti-scalp dish assembly are shown in the photo at right above. They should always be reassembled as illustrated, cutter bar, lockwasher and cutter bar nut. Be sure cutter bar nut is drawn up securely.

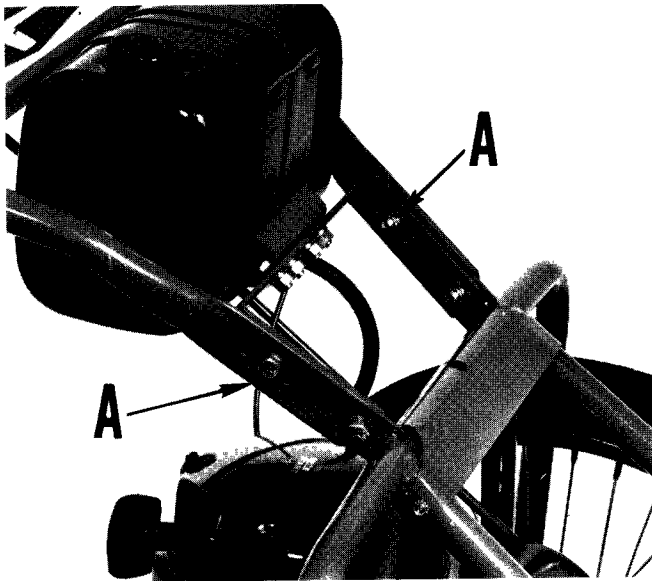


## ADJUSTING HEIGHT OF CUT



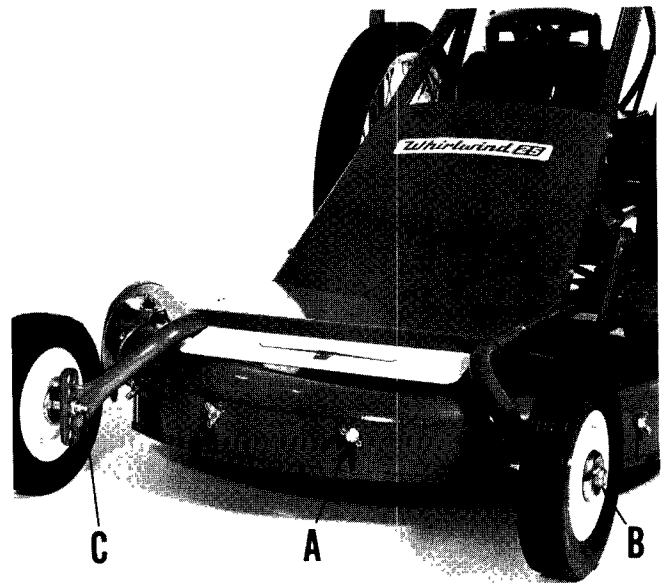
Graphs in the illustrations above indicate the various cutting heights that are available on your new Toro mower. To adjust to the desired cutting height, remove the wheels and position in the same relative holes on all wheels. Be sure traction rollers are disengaged when making this adjustment.

## HANDLE HEIGHT ADJUSTMENT



The handle height can be adjusted either up or down to suit the operator's convenience. This adjustment is accomplished by repositioning screw "A" on both sides of the handle. Move screw towards front of machine to raise handle and backwards to lower handle.

## FRONT SHIELD ADJUSTMENT



When cutting in rough growth it is advisable to move the front shield up. This is done by loosening the five wing screws "A" to the desired position (see photo). Then retighten wing nuts securely. Be sure engine is off when making this adjustment.

## WHEEL BEARING ADJUSTMENT

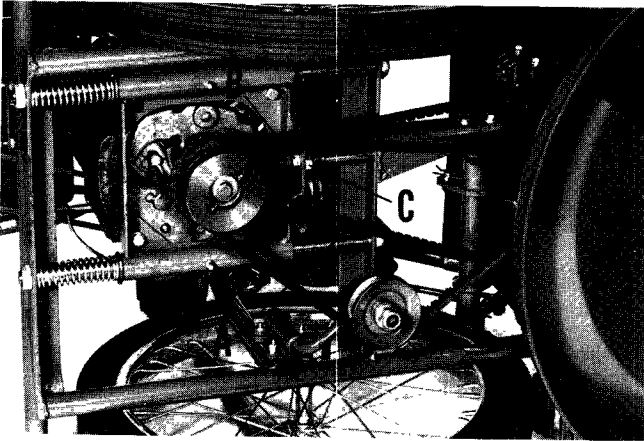
If front wheels become wobbly after lengthy service, bearings can be adjusted by tightening outside nut "B" (in photo above at right).

## OILING WHEELS

Two or three shots of a good grade of gun grease into zerk fittings "C" (photo above) on front wheels will insure easier pushing of your Toro rotary. Do this weekly.

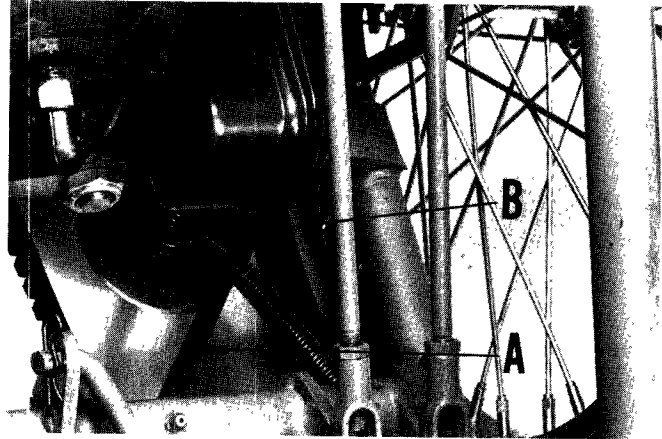
## ADJUSTMENTS

### CUTTER SPINDLE DRIVE BELT



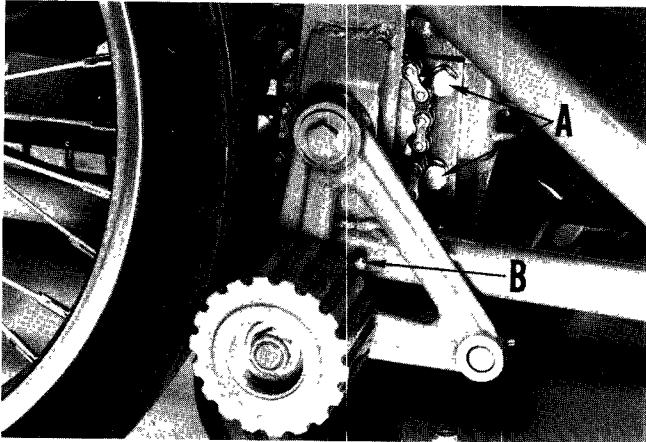
To increase tension on cutter spindle drive belt "A" (this may occur after the initial wear-in period), back off nut "B" and then tighten nut "C" until proper tension is obtained. Do not get belts too tight as this will cause undue wear.

### TRACTION DRIVE BELT



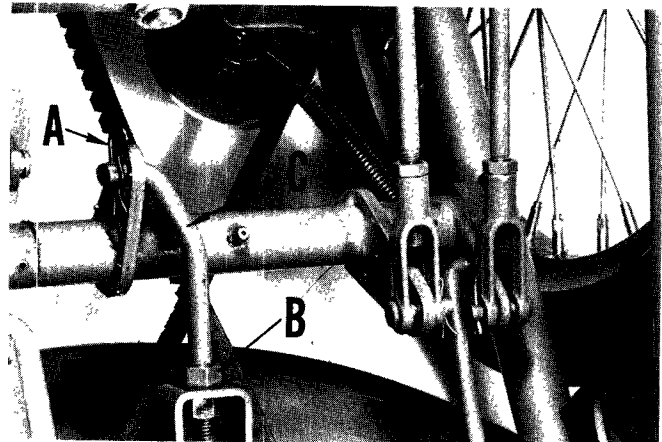
Proper tension of the traction drive belt "A" should be sufficient to prevent slipping of the belt when the spindle drive is disengaged. If it becomes necessary to increase tension on belt, unhook idler arm spring "E" and replace in the next hole.

### CHAIN ADJUSTMENT



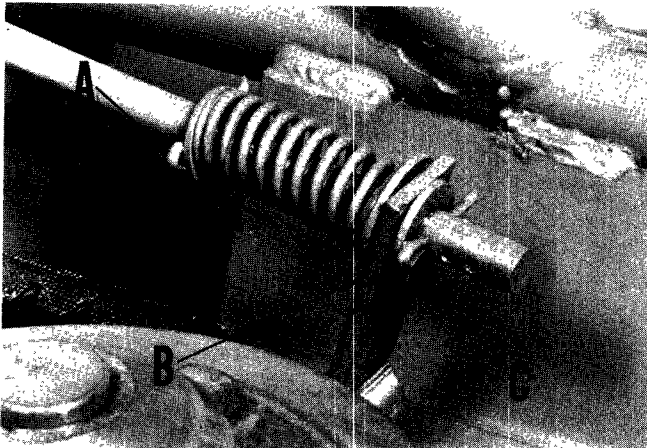
When drive chain becomes loose after long wear, adjustment is made by loosening four screws and moving gear case up. Then retighten screws securely. Offset link in chain can be removed if chain is excessively loose. NOTE: Grease fitting "B" on drive roller should be greased daily.

### TRACTION CONTROL



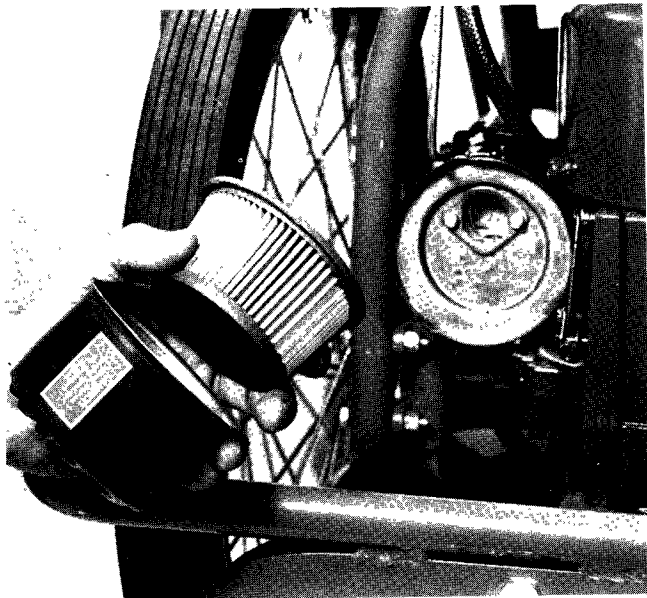
Traction control adjustment is accomplished by removing hairpin cotter "A" and taking link "C" from bell crank. Next, loosen nut "B"; then turn link "C" clockwise to increase drive roller pressure and counterclockwise to decrease roller pressure. Roller pressure should be sufficient to slip drive wheels on dry ground. When adjustment has been completed, retighten nut "B", securely replace link "C", and secure with hairpin cotter "A".

### BRAKE ADJUSTMENT



To increase brake engaging pressure, remove cotter pin "A" and replace pin in the next hole towards brake lever "B". (See illustration at left.) Cotter Pin "C" regulates the point at which the cutter spindle brake is disengaged; if the brake drags upon engagement of the cutter spindle, adjustment can be made by removing cotter pin "C" and replacing in the next hole toward brake lever "B".

## AIR CLEANER SERVICE



Your engine is equipped with a dry type air cleaner which must be periodically removed and cleaned to maintain maximum engine performance.

To remove for cleaning, twist body and pull away from the bracket; then proceed as follows:

Pull element out of the body.

Tap element lightly to dislodge accumulated dirt and brush dirt from element.

Do not wash element in gasoline or other solvent. Clean the body and bracket with gasoline or any solvent.

Reassemble.

(a) Insert element into body, with smaller diameter end first.

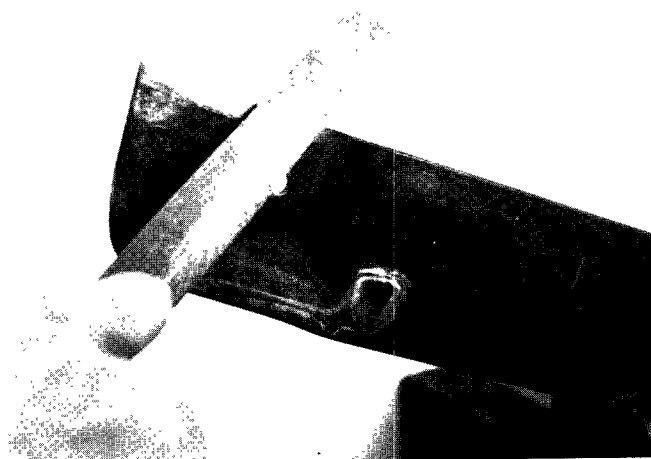
(b) Place body into bracket and twist firmly to lock into place.

It is recommended that a new air cleaner element be purchased and installed at beginning of each mowing season. This is your best protection against excessive engine wear.

## SHARPENING THE CUTTER BAR



1. To remove the cutter bar, disconnect spark plug lead wire, grasp bar as shown, and turn blade nut sharply counterclockwise. Remove anti-scalp dish, lockwasher and bar.



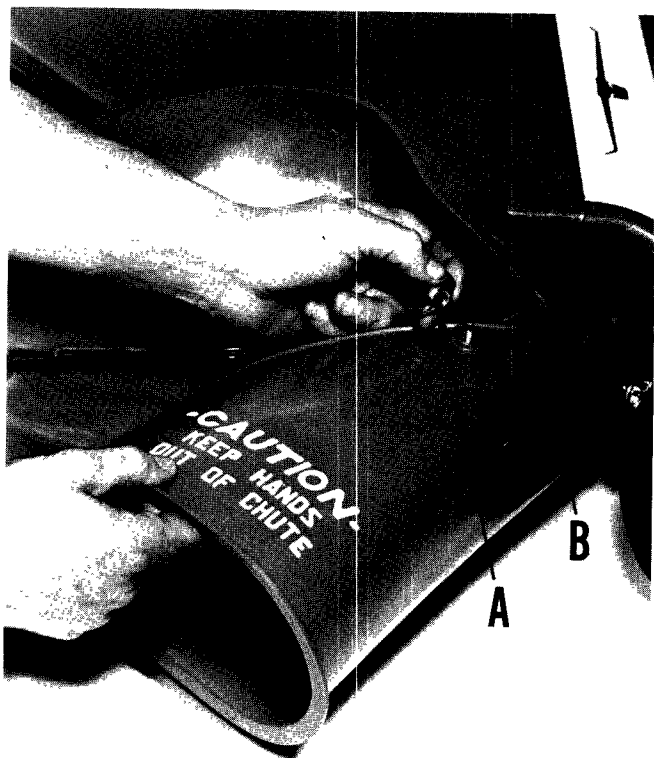
2. Sharpen the cutting ends of the bar with a 10 inch mill-bastard file to as close to the original bevel as possible. Keep blade ends razor sharp. Be sure blade is in proper balance. Remove same amount from each end of bar.

## CHECKING SPARK PLUG GAP

This engine is equipped with a 14mm spark plug (Use Champion J-8 or equivalent for replacement.) Keep a fresh plug on hand. Clean and reset the gap at .030 inches every 100 hours of operation. Use some graphite grease on threads when replacing spark plug.



## INSTALLATION OF LAWN VAC KIT (Optional Equipment)



Remove wing nut "A" and lift hinged deflector "B". Then place discharge chute in position as shown in above illustration. Replace wing nut "A" securely on stud under the hinged deflector.

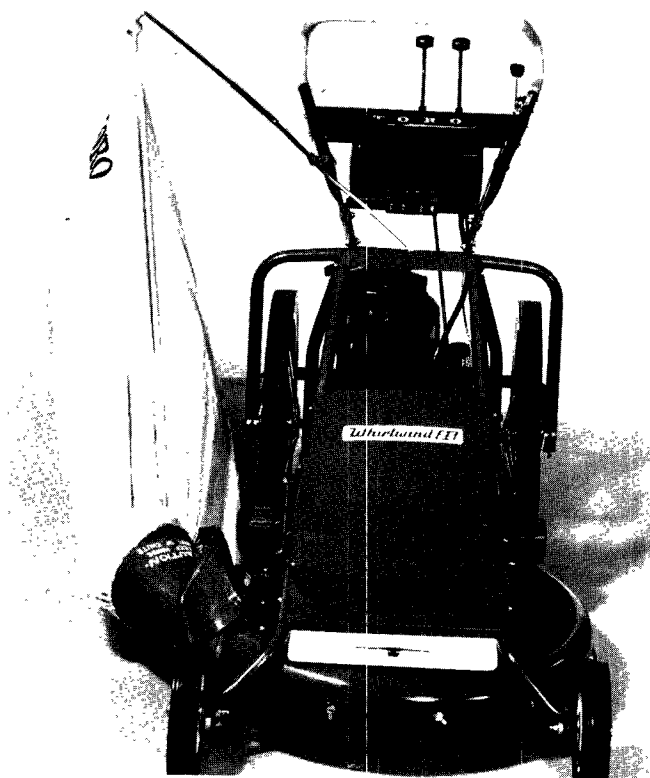


Install the cloth bag and fastener as shown above. Bag should be secured on the bagging chute lip.

### BAGGING TIPS

When using the bagging attachment on your new Toro Whirlwind, the following tips are suggested to give you the most effective results:

1. INSTALL THE BAGGING ATTACHMENT BEFORE STARTING THE ENGINE.
2. Walk leisurely behind your Toro mower; do not run.
3. Wet grass cutting is not advisable; wait until the grass is dry.
4. In tall grass, cut at the highest height-of-cut setting and recut lawn a second time.
5. Empty the bag often for more effective results.
6. Do not launder bags. Washing dissolves the sizing and may cause deterioration of fabric.
7. Do not use your bag for rough cutting.
8. When backing your mower into tight areas, lift up on the bag so the rear wheel will not run over the bag and pull it under the housing.
9. DO NOT PUT YOUR HANDS OR FEET UNDER THE MOWER HOUSING OR INTO DISCHARGE CHUTE WHILE THE ENGINE IS RUNNING. TO STOP THE CUTTING BLADE, SHUT OFF THE ENGINE.
10. Maximum engine speed is desirable for efficient bag filling.



The 25" Whirlwind Hevi-Duty mower with the bagging attachment properly installed is illustrated above.

## ◀ accessories ▶



### BLADE SHARPENER FITS ANY ELECTRIC DRILL

Now! Every owner of a rotary lawn mower can sharpen his own cutter bar. A properly sharpened blade is a must to obtain the ultimate in lawn grooming. This easy-to-use tool will permit professional sharpening at home or in the shop. Ideal for homeowners, commercial cutters or lawn mower repair outlets.



### EXTRA GIANT BAGS

Additional leaf bags can be purchased at nominal cost.



### LAWN VAC ATTACHMENT KIT

Bag your leaves--end tedious raking forever. Toro's optional Lawn Vac Attachment Kit contains 2 super size bags, bagging chute, and the necessary rods and fasteners for easy installation. Order rods and fasteners under part #2-5559, bags under #81055, and chute #3-6220.



### GAS CAN

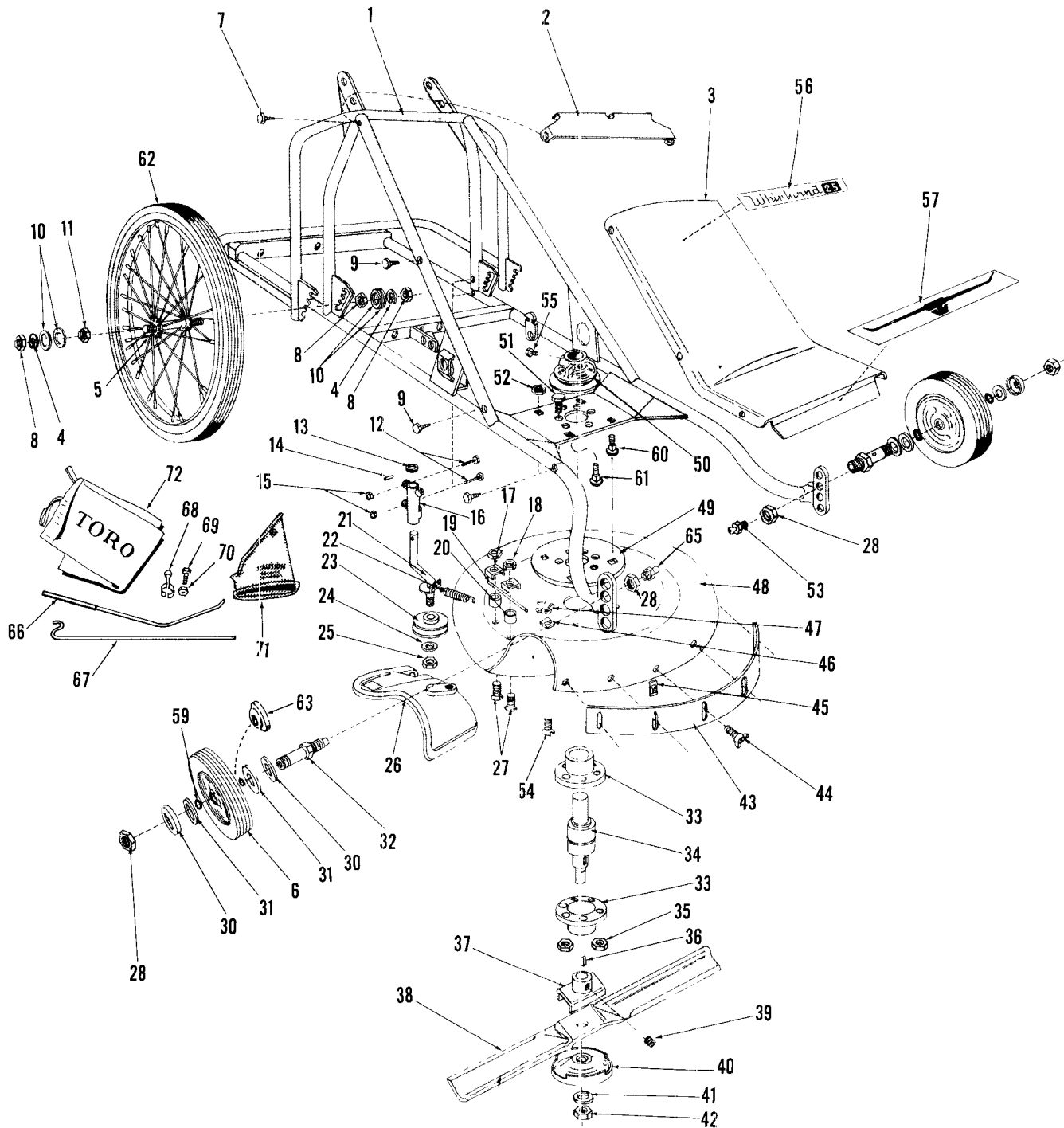
Fill'er up with a Toro gas can. One gallon capacity with a flexible spout for convenient filling. Available at your Toro Dealer.

### ENGINE OIL

Toro power mower engine oil is bottled exclusively for the Toro owner. Provides the exact amount of oil (20 oz.) for one change, or can be used for adding between oil changes. No funnel needed. Extra long spout for easy filling. Keep several on hand.



# 25" HEVI-DUTY MAIN FRAME ASSEMBLY



Drawing No. 40-14

## 25" HEVI-DUTY MAIN FRAME ASSEMBLY PARTS LIST

Ref. No.	Part No.	Description	No. Used
1	3-6350	Frame W. A.	1
2	3-4561	Cover Plate	1
3	3-6460	Shroud W. A.	1
4	3254-6	Lockwasher	4
5	2-5419	Rear Wheel & Tire Assy.	2
*	242-20	Axle	2
*	242-21	Hub Cap	4
*	242-22	Brg. Cone	4
*	242-23	Cone Dust Ring	4
*	242-24	Hub Shell Dust Ring	4
*	242-25	Axle Lock Nut	4
*	242-26	Axle Lock Nut	4
*	242-27	Ball Retainer	4
*	242-29	Spokes	36
6	234-18	Tire	2
7	32140-32	Sems Screw	2
8	3219-3	Nut	4
9	32140-16	Screw	6
10	3256-3	Washer	8
11	3220-3	Nut	4
12	321-10	Cap Screw	2
13	3256-26	Washer	1
14	32121-18	Roll Pin	1
15	3296-42	Stop Nut	2
16	3-4392	Idle Bracket	1
17	3-2123	Clamp	2
18	3296-8	Stop Nut	2
19	3-1176	Hinge Pin	1
20	3-2122	Spacer	2
21	3-6380	Idle Arm W. A.	1
22	3-4677	Spring	1
23	243-5	Idle Sheave	1
24	3256-26	Washer	1
25	3296-45	Stop Nut	1
26	3-0674	Deflector	1
27	32108-7	Screw	2
28	3296-28	Stop Nut	4
30	3-4416	Slinger	4
31	3-4417	Felt Washer	4
32	3-4903	Wheel Spindle	2

Ref. No.	Part No.	Description	No. Used
33	3-1931	Bearing Housing	2
34	3-4533	Spindle Bearing	1
35	3296-29	Stop Nut	6
36	3257-23	Key - Woodruff	1
37	3-5220	Blade Retainer & Hub	1
38	3-4793	Blade	1
39	3247-2	Setscrew	1
40	3-3803	Anti Scalp Dish	1
41	3253-7	Lockwasher	1
42	32127-41	Locknut	1
43	3-4563	Cover - Housing Opening	1
44	3288-7	Wing Screw	5
45	3290-192	Speed Nut	5
46	3290-184	Speed Nut	1
47	3-4808	Wing Nut - Deflector	1
48	3-4562	Housing	1
49	3-2118	Plate - Reinforcement	1
50	3-5262	Spindle Sheave	1
51	322-5	Cap Screw	6
52	3296-44	Stop Nut	4
53	302-16	Grease Fitting	1
54	32108-21	Screw	1
55	3247-2	Set Screw	2
56	3-4898	Decal - Shroud	1
57	3-4503	Decal - Front Panel	1
59	237-30	"O" Ring	4
60	3231-3	Carriage Bolt	2
61	3231-2	Carriage Bolt	2
62	3-4664	Tire	2
63	251-171	Bearing	4
64	3-7070	Wheel Disc W. A.	2
65	302-16	Grease Fitting	1
66	3-7230	Lower Rod	1
67	3-5297	Upper Rod	1
68	3-5026	Clip	1
69	321-4	Screw	1
70	32127-40	Nut	1
71	3-6220	Chute	1
72	81055	Bags	2

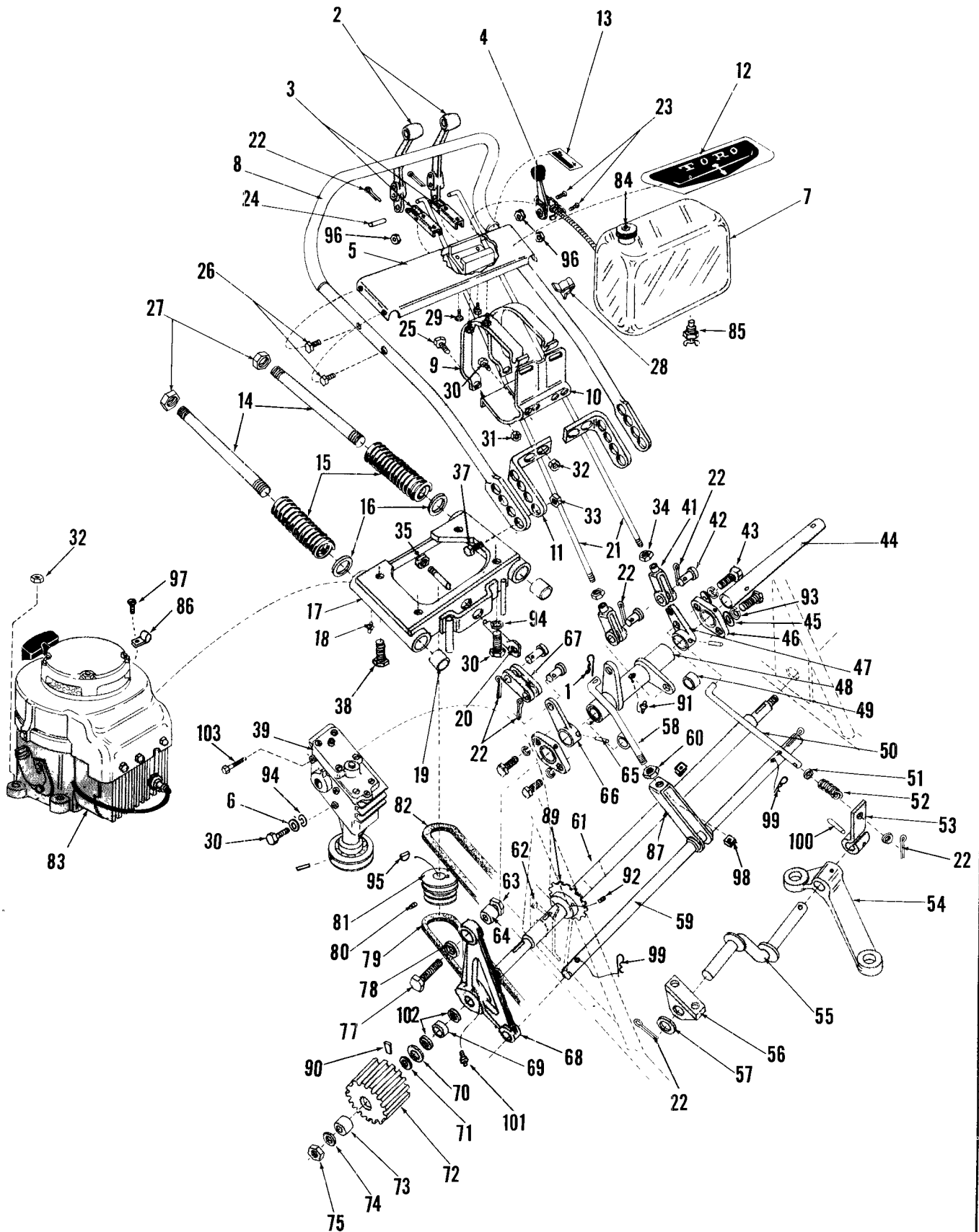
\* Not Illustrated

### IMPORTANT ORDERING INSTRUCTIONS

Repair parts are available from your TORO distributor or service dealer. To insure getting correct parts without delay, please furnish the following information:

1. Serial number of your mower as shown on the name plate.
2. Part number, description and quantity of each part required.
3. State whether parts should be shipped by mail or express. All repair parts are shipped F.O.B. factory.
4. Name and address where parts are to be shipped.
5. Do not order by reference number; use part number only.

# HANDLE, CONTROLS, AND ENGINE ASSEMBLIES



Drawing No. 40-16



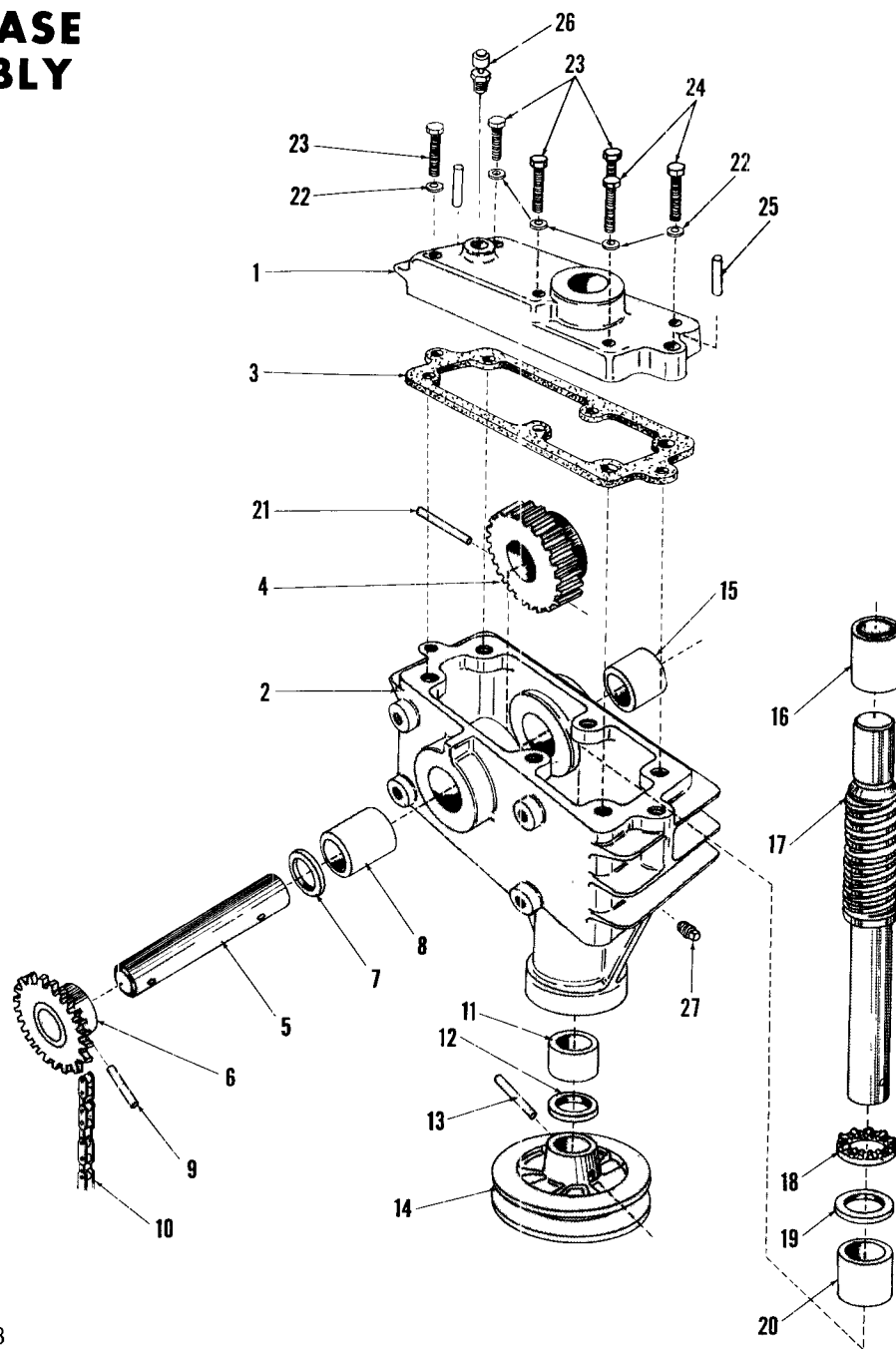
# HANDLE, CONTROLS, AND ENGINE ASSEMBLIES PARTS LIST

Ref. No.	Part No.	Description	No. Used
1	3290-250	Hairpin Cotter	1
2	3-4732	Clutch Lever	2
3	3-0517	Clutch Lever Bracket	2
4	3-5216	Throttle Control	1
5	3-6400	Cross Member Handle W. A.	1
6	3256-23	Washer	4
7	222-9	Gas Tank	1
8	2-5529	Handle & Grip Assy.	1
9	3-4341	Strap, Fuel Tank	2
10	3-5001	Tank Bracket	1
11	3-4997	Mounting Bracket	2
12	3-4331	Decal, Handle Panel	1
13	3-2067	Decal, Throttle Control	1
14	3-4474	Rod, Engine Platform	2
15	WW-5858	Spring	2
16	3256-27	Washer	2
17	3-7110	Engine Platform & Bush.Assy.	1
18	302-11	Grease Fitting	2
19	3-4471	Bushing	9
20	3-4505	Rod, Platform	1
21	3-4507	Rod, Control	2
22	3272-6	Cotter Pin	6
23	3251-11	Machine Screw	2
24	32121-16	Roll Pin	2
25	321-7	Capscrew	2
26	3251-7	Screw	4
27	3296-33	Stop Nut - 5/8-18 Lt. Wt. Thin HT	4
28	3-2556	Clamp	1
29	3251-2	Machine Screw	4
30	322-2	Cap Screw	8
31	3296-16	Stop Nut	2
32	3296-29	Stop Nut	6
33	3296-5	Stop Nut	4
34	3220-2	Jam Nut	2
35	3218-5	Jam Nut	2
37	3211-4	Capscrew	4
38	322-6	Capscrew	2
39	3-6370	Gear Case Assy. Less Pulley	1
41	282-2	Yoke	2
42	283-13	Yoke Pin	2
43	321-3	Capscrew	4
44	3-4477	Shaft, Bell Crank	1
45	3256-22	Washer	4
46	3-4516	Bearing	2
47	3-4394	Lever, Input	1
48	3-6450	Bellcrank, Drive Roller w/bush.	1
49	256-42	Bushing	2
50	3-4506	Rod, Spindle Brake	1
51	3256-23	Washer	2
52	6P-25	Spring	1

\* Not Illustrated

Ref. No.	Part No.	Description	No. Used
53	3-4475	Lever Brake	1
54	3-4393	Bracket, Spindle Brake	1
55	3-6960	Crank, Brake W. A.	1
56	3-6500	Brake Shoe Assembly	1
57	3256-24	Washer	1
58	3-4508	Rod, Roller Shaft Bell Crank	1
59	3-5184	Rod	1
60	3218-3	Jam Nut	1
61	3-4465	Shaft, Drive Roller	1
62	3257-5	Key - Woodruff	1
63	3296-5	Stop Nut	2
64	3-4473	Pivot, Roller Shaft Arm	2
65	32121-16	Roll Pin	2
66	3-4395	Lever, Output	1
67	3-7470	Link W. A.	1
68	3-5186	Arm, Roller Shaft R. H.	1
*	3-5185	Arm, Roller Shaft L. H.	1
69	252-61	Bearing, Needle	2
70	3-4472	Washer, Drive Roller	2
71	3-4494	Thrust Washer, Drive Roller	2
*	2-4629	Drive Roller L. H. , w/bushing	1
72	2-4619	Drive Roller R. H. , w/bushing	1
73	256-17	Bushing	2
74	3256-26	Washer	2
75	3296-28	Stopnut	2
77	3211-25	Capscrew	2
78	3256-4	Washer	2
79	271-93	V-belt, Spindle Drive	1
80	3247-3	Set Screw	1
81	3-4527	Engine Sheave	1
82	271-85	V-belt, Traction Drive	1
83	221-213	Engine	1
84	222-13	Cap	1
85	304-71	Shut Off Valve	1
86	WW-5380	Clamp	1
87	3-5183	Fork	1
88	3-6650	Sprocket, Gear Case	1
89	3-6660	Sprocket, Roller Shaft	1
90	2-3620	Ratchet Pawl	2
91	302-11	Grease Fitting	1
92	3245-7	Setscrew	2
93	3253-3	Lockwasher	4
94	3253-4	Lockwasher	6
95	3257-3	Key - Woodruff	1
96	3296-12	Stop Nut	6
97	32104-3	Self-Tap Screw	1
98	3-5261	Nut	1
99	3290-255	Hair Pin Cotter	2
100	32121-50	Roll Pin	1
101	302-13	Grease Fitting	2
102	253-84	Oil Seal	4
103	322-1	Screw	1

# GEAR CASE ASSEMBLY

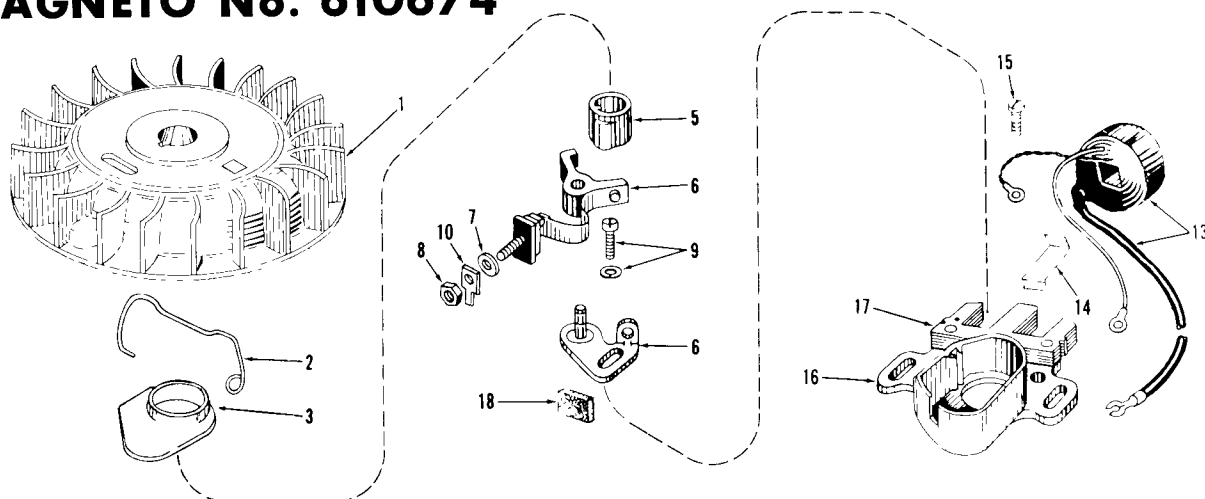


Drawing No. 40-18

Ref. No.	Part No.	Description	No. Used
1	3-4086	Cover (Gear Case)	1
2	3-4085	Gear Case	1
3	3-4512	Gasket	1
4	3-4513	Worm Gear	1
5	3-4495	Shaft	1
6	3-6650	Sprocket - Gear Case	1
7	253-84	Oil Seal	1
8	252-6	Bearing	1
9	32121-12	Roll Pin	1
10	3-4534	Roller Chain Assembly	1
11	252-16	Bearing	1
12	253-66	Oil Seal	1
13	32121-6	Roll Pin	1
14	3-4553	Pulley	1

Ref. No.	Part No.	Description	No. Used
15	252-56	Bearing	1
16	252-57	Bearing	1
17	3-4522	Worm Shaft	1
18	252-58	Thrust Bearing	1
19	252-59	Thrust Washer	1
20	252-16	Bearing	1
21	32121-12	Roll Pin	1
22	3253-3	Lockwasher	6
23	321-13	Hex Hd. Capscrew	4
24	321-5	Hex Hd. Capscrew	2
25	32121-2	Roll Pin	2
26	302-14	Vent	1
27	285-10	Pipe Plug	2

## MAGNETO No. 610674

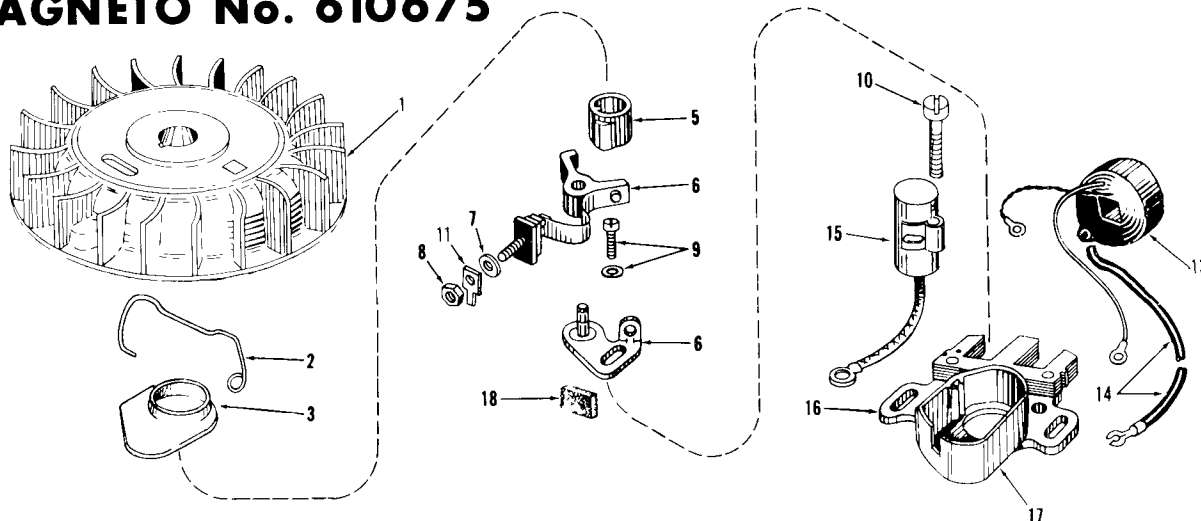


Drawing No. 40-19A

Ref. No.	Part No.	Description	No. Used
1	30555	Flywheel	1
2	30551	Spring, Breaker Box Cover	1
3	30550	Cover, Breaker Box	1
5	30553	Cam, Breaker	1
6	30547	Breaker Assembly	1
7	610385	Washer, Terminal	1
8	610408	Nut, Terminal	1
9	29181	Screw and Washer, Breaker	1

Ref. No.	Part No.	Description	No. Used
10	29686	Tab, Ground Terminal	1
13	30560	Coil and Lead Wire	1
14	29629	Spring, Coil Wedge	1
15	30562	Screw, Ground	1
16	30545	Core & Plate Group	1
17	30561	Stator Assembly (Incl. Nos. 2 thru 18)	1
18	30549	Felt, Cam Wiper	1

## MAGNETO No. 610675

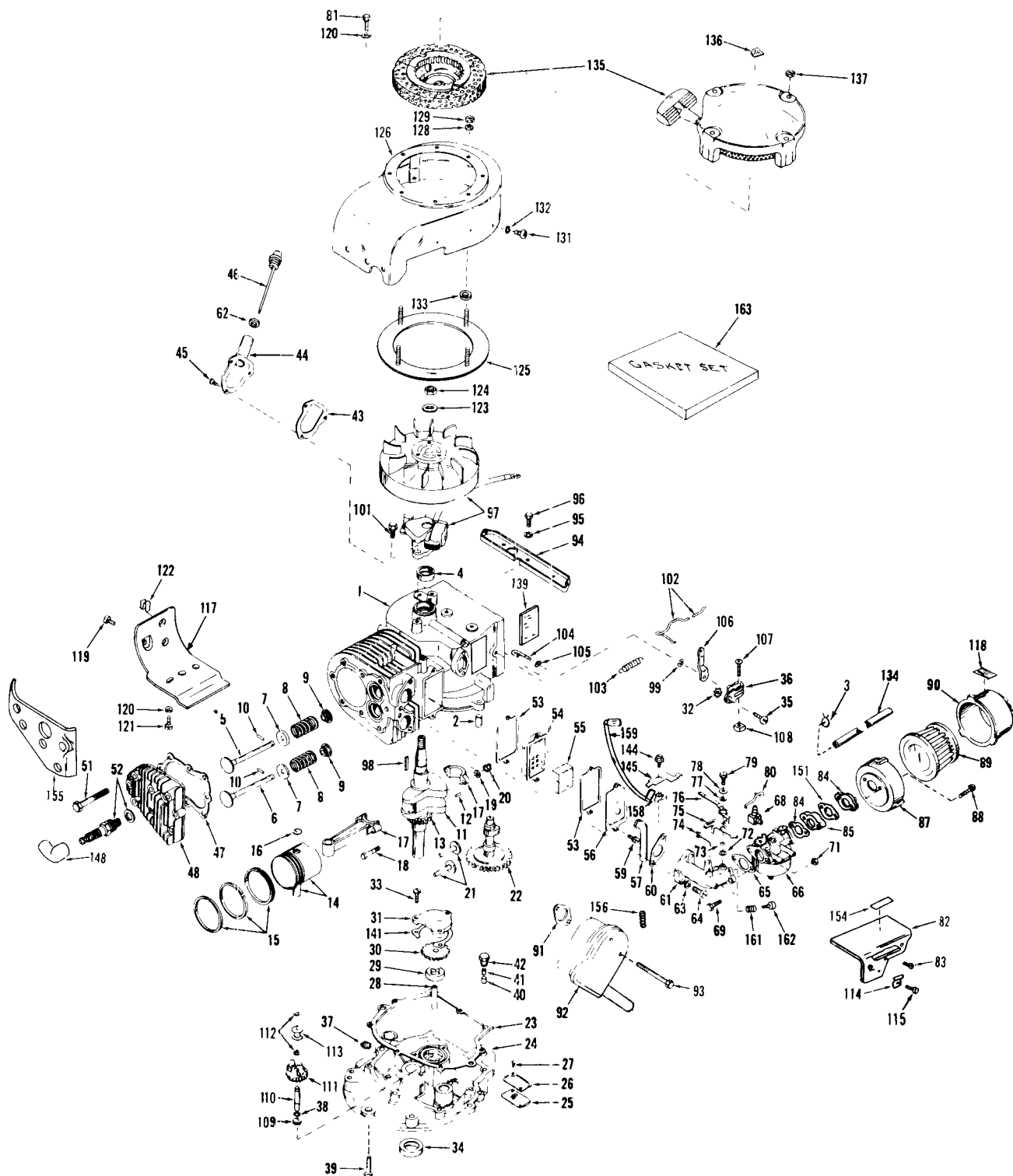


Drawing No. 40-19B

Ref. No.	Part No.	Description	No. Used
1	30555	Flywheel	1
2	30551	Spring, Breaker Box	1
3	30550	Cover, Breaker Box Dust	1
5	30553	Cam, Breaker	1
6	30547	Breaker Assembly	1
7	610385	Washer, Terminal	1
8	610408	Nut, Terminal	1
9	29181	Screw & Washer, Breaker	1
10	610593	Screw, Condenser Fastening	1

Ref. No.	Part No.	Description	No. Used
11	29686	Tab, Ground Terminal	1
13	30546	Coil Assembly	1
14	30554	Wire, Ignition Lead	1
15	30548	Condenser	1
16	30545	Core & Plate Group	1
17	30544	Stator Assembly (Incl. Nos. 2 thru 18)	1
18	30549	Felt, Cam Wiper	1

# ENGINE DRAWING Model VXT55C-3412



Drawing No. 40-20

# ENGINE PARTS LIST

Ref. No.	Part No.	Description	No. Used
1	30627	Cylinder Assy. (Incl. Nos. 2 & 4)	1
2	27652	Pin, Dowel	2
3	26460	Clamp, Fuel Line	1
4	*27876	Seal, Oil	1
5	27877	Valve, Intake (Std.)	1
5	27879	Valve, Intake (1/32" oversize)	1
6	27878	Valve, Exhaust (Std.)	1
6	27880	Valve, Exhaust (1/32" oversize)	1
7	27882	Cap, Upper Valve Spring	2
8	27881	Spring, Valve	2
9	27883	Cap, Lower Valve Spring	2
10	20810	Pin, Valve Spring Retaining	2
11	30896	Crankshaft Assy. (Incl. Nos. 12 & 13)	1
12	29783	Pin, Crankshaft gear	1
13	27884	Gear, Crankshaft	1
14	30662	Piston and Pin Assy. (Std.) (Incl. 2 of No. 16)	1
14	30663	Piston & Pin Assy. (.010 oversize) (Incl. 2 of No. 16)	1
14	30664	Piston & Pin Assy. (.020 oversize) (Incl. 2 of No. 16)	1
15	28935	Ring Set (Std.)	1
15	28936	Ring Set (.010 oversize)	1
15	28937	Ring Set (.020 oversize)	1
16	27888	Ring, Piston Pin Retaining	2
17	30949	Rod Assy., Connecting (Incl. Nos. 18, 19, 20)	1
18	30682	Bolt, Connecting Rod	2
19	26073	Washer, Connecting rod bolt	2
20	28264	Nut	2
21	27893	Lifter, Valve	2
22	30665	Camshaft	1
23	*30667	Gasket, Mounting Flange	1
24	30666	Flange Assy., Mounting (Incl. Nos. 25, 26, 27, 34, 37, 40, 41, 42, 110 & 141)	1
25	29325	Screen, Oil Filter	1
26	29326	Retainer, Oil Filter Screen	1
27	29117	Screw	2
28	27652	Pin, Oil Pump Gear	1
29	27648	Gear, Oil Pump	1
30	27643	Gear, Oil Pump Drive	1
31	27653	Cover, Oil Pump	1
32	29918	Lockwasher	1
33	29517	Screw	3
34	*27897	Seal, Oil	1
35	29919	Screw	1
36	29916	Clamp, Governor Lever	1
37	27642	Plug, Oil Drain	1
38	30590	Washer, Shim	1
39	650488	Screw	7
40	28746	Plunger, Oil Pressure Relief	1
41	28745	Spring, Compression	1
42	28744	Plug, Oil Pressure Relief Valve	1
43	*28747	Gasket, Oil Filler Tube	1
44	29759	Tube, Oil Filler	1

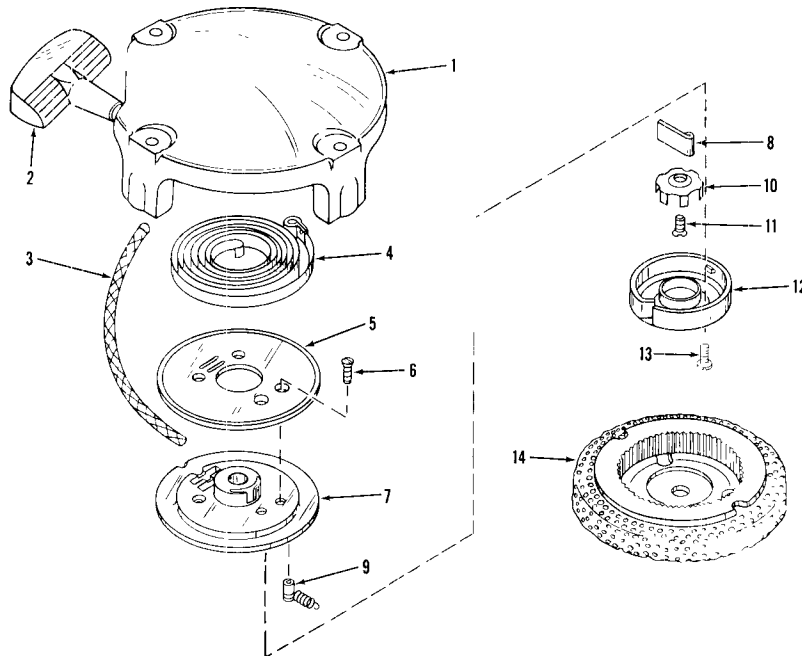
Ref. No.	Part No.	Description	No. Used
45	28749	Screw	3
46	29760	Dipstick, Oil	1
47	*28938	Gasket, Cylinder Head	1
48	30938	Head, Cylinder	1
51	28261	Screw	8
52	21943	Plug, Spark (Champion J-8 or Equiv.)	1
53	*27896	Gasket, Valve Chamber Cover	2
54	28423	Body Assy., Breather	1
55	28424	Element, Filter	1
56	28425	Cover, Valve Chamber	1
57	27627	Tube, Breather	1
59	650128	Screw	2
60	*27915	Gasket, Intake Pipe	1
61	29327	Pipe, Intake	1
62	*29673	Gasket, Oil Filler	1
63	8274	Lockwasher	2
64	29440	Screw	2
65	*27913	Gasket, Carburetor	1
66	630940	Carburetor	1
68	28566	Fitting, Fuel Line	1
69	6201	Screw	2
71	29752	Nut	2
72	27830	Washer, Flat	1
73	28558	Washer, Spring Wave	1
74	29484	Spring, Control Lever	1
75	29188	Lever, Control	1
76	30130	Lever, R. P. M. Adjusting	1
77	28562	Bushing, R. P. M. Adj. Lever	1
78	28563	Washer	1
79	28762	Screw	1
80	30670	Link, Choke	1
81	650216	Screw	1
82	30952	Cover, Speed Control	1
83	28763	Screw	2
84	*27272	Gasket, Air Cleaner Bracket to Carb.	2
85	30936	Flange, Air Cleaner	1
87	30673	Bracket, Air Cleaner	1
88	650521	Screw	2
89	30727	Element, Air Cleaner	1
90	30605	Body, Air Cleaner	1
91	*27930	Gasket, Muffler Flange	1
92	28921	Muffler	1
93	27931	Screw	2
94	28738	Bracket, Blower Housing (Incl. Nos. 131 & 132)	1
95	8303	Lockwasher	3
96	650216	Screw	3
97	610674	Magneto, Tecumseh (Identified by Letter "T" following engine model no.)	1
97	610675	Magneto, Tecumseh (Identified by Letter "P" following engine model no.)	1
98	27902	Key, Flywheel	1
99	30587	Ring, Retainer	1
101	650489	Screw	2
102	30671	Link, Governor	1
103	29332	Spring, Extension	1
104	30669	Rod, Governor (Incl. Nos. 99 & 105)	1
105	28277	Washer	1

## ENGINE PARTS LIST

Ref. No.	Part No.	Description	No. Used
106	29992	Lever, Governor	1
107	29826	Screw	1
108	29216	Nut	1
109	29335	Spacer	1
110	30668	Shaft, Mechanical Governor	1
111	30591	Gear Assy., Governor	1
112	29193	Ring, Retaining	2
113	30588	Spool, Governor	1
114	27793	Clip, Conduit	1
115	28942	Screw	1
117	30622	Extension, Blower Housing	1
118	30002	Decal, Air Cleaner	1
119	650128	Screw	1
120	8303	Lockwasher	2
121	650306	Screw	1
122	27275	Clip, Hi Tension Wire Ret.	1
123	650490	Washer	1
124	8116	Nut	1
125	28318	Ring Assy., Blower Housing Reinforcing	1
126	28267	Blower Housing	1
128	29689	Washer	4
129	8112	Nut	4
131	29596	Screw	2

Ref. No.	Part No.	Description	No. Used
132	8274	Lockwasher	2
133	8345	Washer	4
134	30705	Line, Fuel	1
135	28319	Starter Assy., Rewind	1
136	30595	Decal, Ezee Start	1
137	29752	Nut	4
139	30586	Decal, Name & Instruction	1
141	*28803	Gasket, Shim (.005 thick) (Use as req.)	
141	*28804	Gasket, Shim (.010 thick) (Use as req.)	
144	28762	Screw	1
145	29389	Terminal	1
148	27276	Cover, Spark Plug	1
151	30767	Spacer, Air Cleaner	1
154	28671	Decal, Speed Control	1
155	30939	Cover, Cylinder Head	1
156	30937	Spring, Coil	1
158	29209	Washer, Insulating	1
159	28468	Wire, Ground	1
161	28569	Spring, Compression	1
162	6674	Screw, Speed Adj. Slotted Hd.	1
163	30740	Gasket Set (Incl. items marked *)	1

### RECOIL STARTER No. 28319

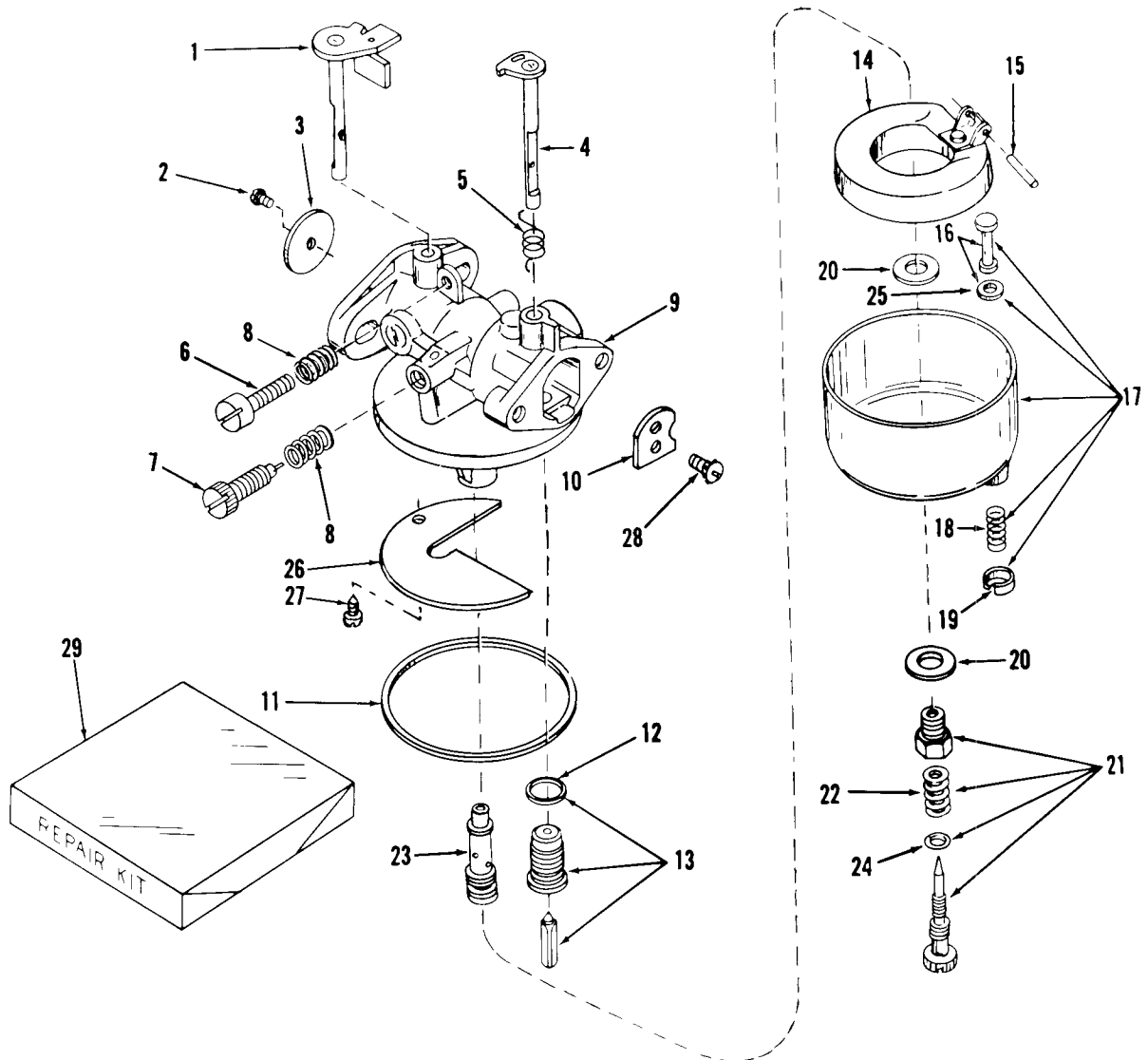


Drawing No. 40-22

Ref. No.	Part No.	Description	No. Used
	28319	Starter Assembly (Incl. Nos. 1-14)	1
1	28320	Cover	1
2	5902888	Handle	1
3	28288	Rope	1
4	28289	Spring, Rewind	1
5	28287	Pulley, Sheave	1
6	590275	Screw	4

Ref. No.	Part No.	Description	No. Used
7	28286	Hub, Pulley	1
8	590148	Dog, Starter	1
9	27515	Bushing & Spring Assy.	1
10	590151	Brake	1
11	590150	Screw, Brake	1
12	590153	Retainer	1
13	590152	Screw	2
14	29709	Hub & Screen Assy.	1

# CARBURETOR No. 630940



Drawing No. 40-23

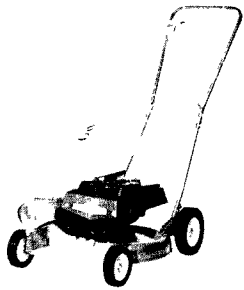
Ref. No.	Part No.	Description	No. Used
1	30739	Shaft Assembly, Throttle	1
2	30357	Screw	1
3	30726	Shutter, Throttle	1
4	30933	Shaft Assembly, Choke	1
5	30358	Spring, Choke Shaft	1
6	630605	Screw, Throttle Adjusting	1
7	*27112	Needle, Idle	1
8	27114	Spring, Idle	2
9	30940	Body Assembly, Carburetor	1
10	30927	Valve, Choke	1
11	*30356	Gasket, Body-to-bowl	1
12	27108	Gasket, Float Valve Seat	1
13	*29154	Valve, Seat & Gasket Matched Float	1
14	30354	Float Assembly	1
15	*27106	Shaft, Float	1
16	27136	Stem and Gasket Assembly, Bowl Drain	1

Ref. No.	Part No.	Description	No. Used
17	30350	Bowl & Drain Assembly, Fuel (Incl. Nos. 16, 18, 19 and 25)	1
18	27137	Spring, Bowl Drain	1
19	27138	Retainer, Bowl Drain Stem	1
20	*27110	Gasket, Bowl-to-body	2
21	*28945	Needle Assembly, Power Adj. (Incl. Nos. 22 and 24)	1
22	630786	Spring, Power Needle	1
23	30355	Nozzle	1
24	27544	"O" Ring	1
25	27554	Gasket, Bowl Drain	1
26	30815	Baffle, Bowl	1
27	30817	Screw	1
28	630606	Screw, Choke Valve	2
29	30359	Repair Kit (Incl. items marked *)	1

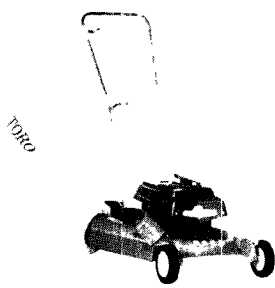
# TORO POWER MOWERS

Toro power mowers and Power Handle implements are designed and built to give years of precision performance . . . to make them "the best you can buy" And there's over 40 years of manufacturing experience to back them up. One of Toro's most important objectives — and one which has

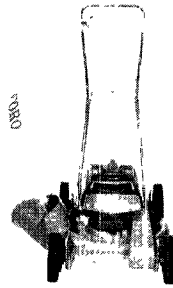
helped make Toro the world's largest manufacturer of power mowers — is to provide the customer with complete local service and parts. This Toro has done through an extensive chain of service dealers, factory-trained to give you the most careful, competent care for your Toro work-saver.



19" WHIRLWIND



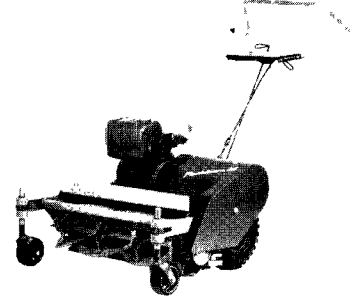
21" HAND PROPELLED WHIRLWIND



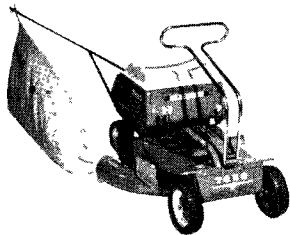
21" SELF-PROPELLED WHIRLWIND



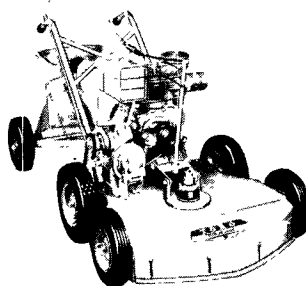
21" SPORTLAWN



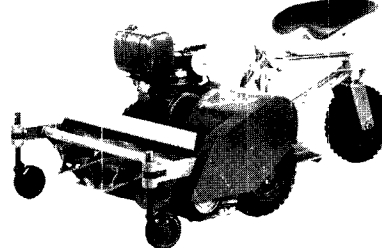
25" PARKLAWN



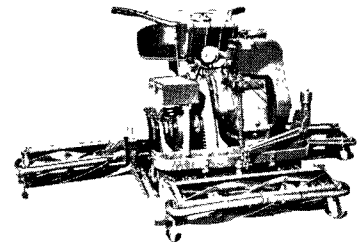
25" PONY



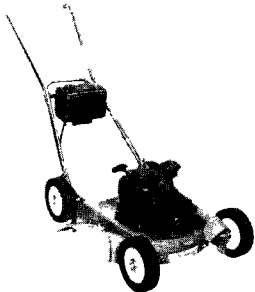
31" GRASSKING



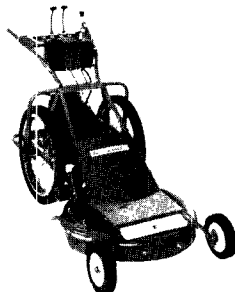
30" PARKLAWN



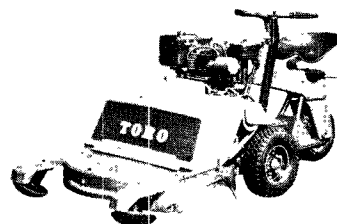
76" PROFESSIONAL



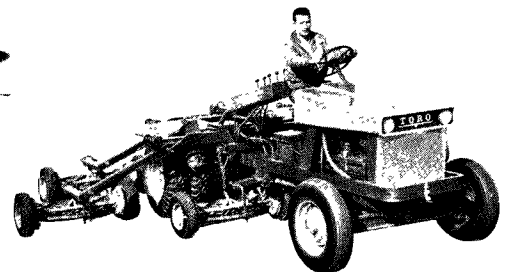
21" HEVI-DUTY WHIRLWIND



25" HEVI-DUTY WHIRLWIND



32" SELF-PROPELLED WHIRLWIND



7 UNIT HYDRAULIC PARKMASTER

Reel Mower or Rotary Mower . . . Self Propelled or Riding Mower . . . Whatever your preference in Power Mowers, Toro makes a model to fit your needs. Choose from Toro's complete line of fine mowing equipment.

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TORO MANUFACTURING CORPORATION - Minneapolis 6, Minnesota, U.S.A.

LITHO IN U S A

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