

SMITHCO

Wayne, Pennsylvania 19087

**OWNER'S
MANUAL**

**TOURNAMENT ROLLER
Model # 7401**

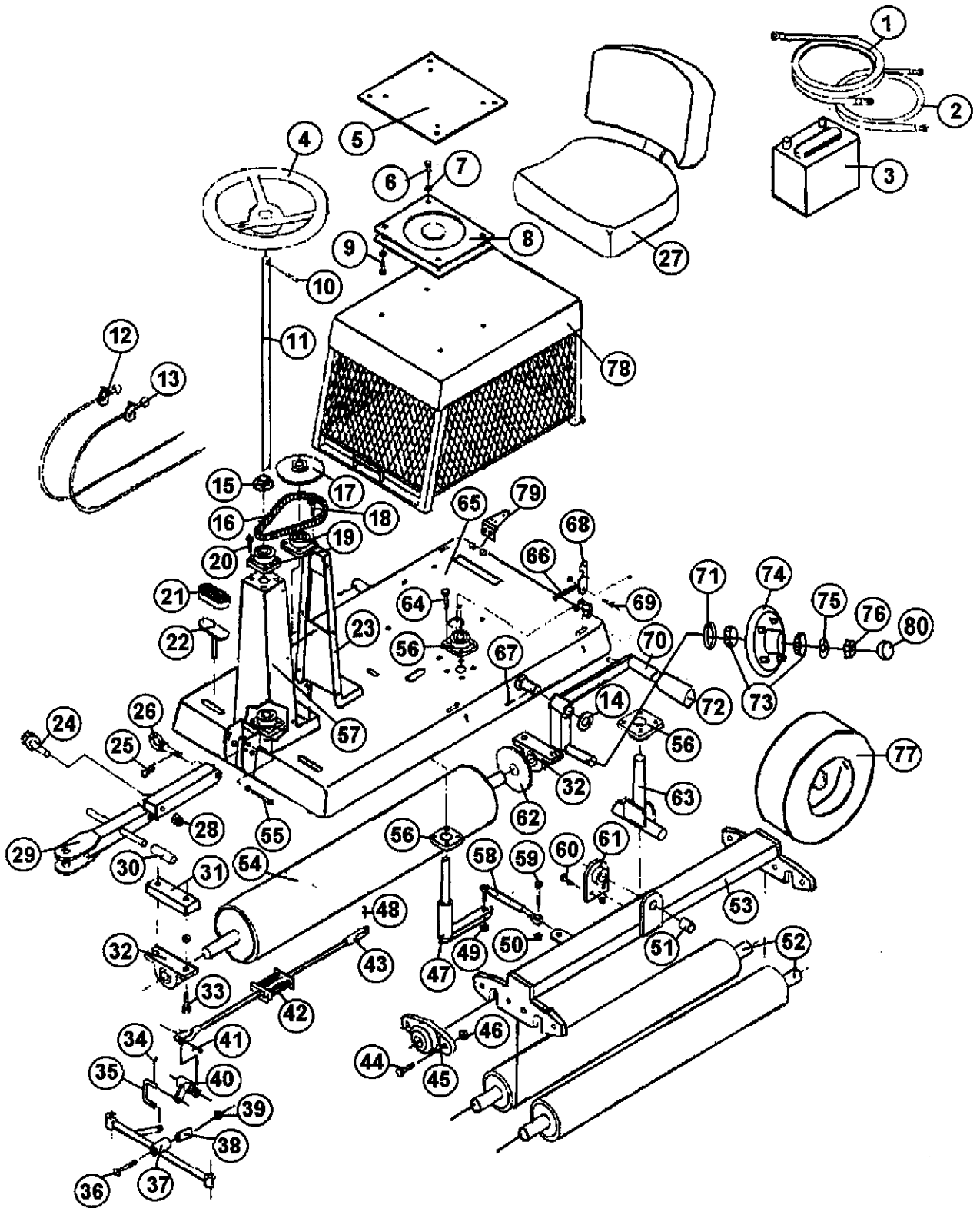
Starting Serial #T230

Revised September, 1999

TABLE OF CONTENTS

Model #7401 Drawing.	1
7401 Parts List	2&3
Engine & Transmission Drawing.	4
Engine & Transmission Parts List.	5
740-050 #11 Eaton Transmission Drawing.	6
740-050 #11 Eaton Transmission Parts List.	7
7401 Wiring Diagram.	8
Grease Fitting Locations.	9
Use & Maintenance.	10

7401 TOURNAMENT ROLLER



SMITHCO MODEL 7401 TOURNAMENT ROLLER PARTS LIST

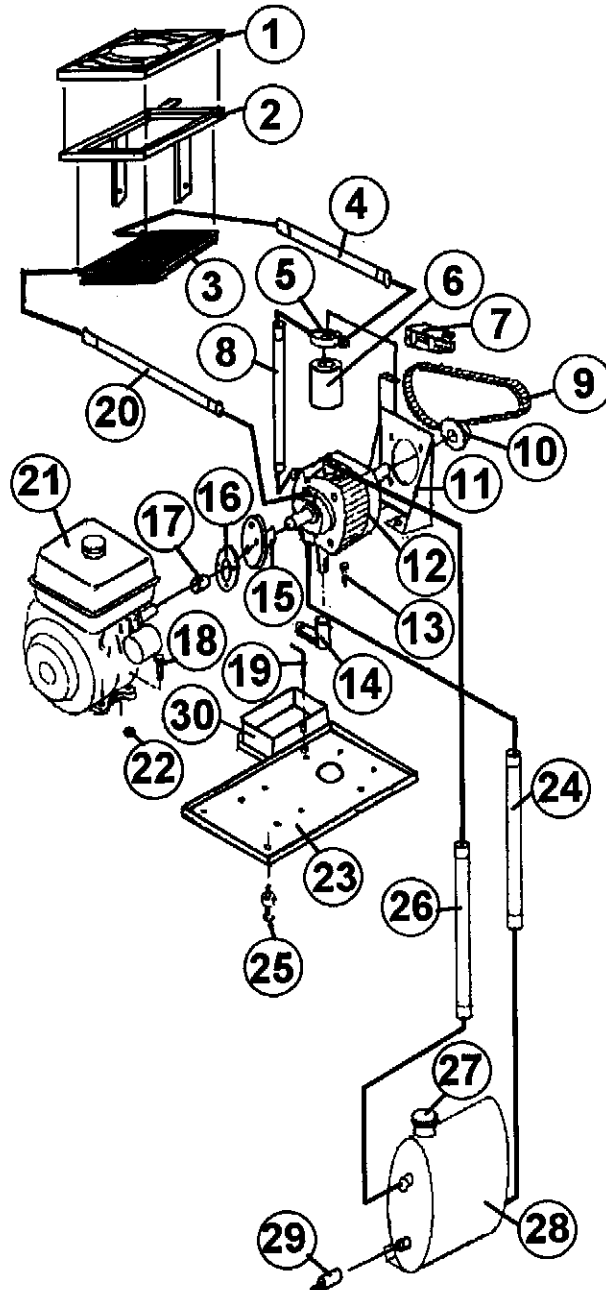
REF.#	PART#	DESCRIPTION	QTY.
1	720-092	Battery Wire Negative 12"	1
2	720-093	Battery Wire Positive 24"	1
3	720-076	Battery	1
4	720-057	Steering Wheel	1
5	720-021	Seat Plate	1
6	400-044	1/4" x 1" HHCS ZNC	8
7	400-101	1/4" Hex Nut	8
8	720-024	Swivel Seat Bracket	1
9	400-108	1/4" Locknut 2-way	8
10	720-039	1/4" x 2" Roll Pin	1
11	720-035	Steering Shaft	1
12	720-055	Choke Cable	1
13	720-056	Throttle Cable	1
14	713-368	Machine Bushing 1" x 10 GA	2
15	720-031	Sprocket 50B10 x 1	1
16	720-034	#50 Chain w/Master Link 41 Pitch	1
17	720-032	Sprocket 50B36 x 1	1
18	400-016	3/8" x 2" HHCS	4
19	720-002	Four-Bolt Bearing	3
20	400-014	3/8" x 1 1/2" HHCS	2
21	720-013	Foot Pedal Pad	2
22	720-047	Right Foot Pedal	1
	720-091	Left Foot Pedal	1
23	720-054	Steering Cover Guard	1
24	400-029	1/2"-13 x 3" Bolt	1
25	2050	Hair Pin	1
26	400-057	3/4" x 3 1/2" HHCS	1
27	832-123	Low-Back "Smithco" Seat	1
28	400-112	1/2" Locknut	1
29	720-037	Drawbar	1
30	720-011	Handle Grip	2
31	720-094	Bearing Spacer	2
32	709-243	Pillow Block Bearing	2
33	400-016	3/8" x 1 3/4" HHCS	4
34	40-168	1/8" x 1" Cotter Pin	4
35	720-045	"U" Rod	1
36	400-027	1/2" x 3" HHCS	1
37	720-046	Foot Pedal Arm	1
38	720-009	Bronze Bushing	1
39	400-112	1/2" Locknut	1
40	720-044	Rocker Arm	1
41	720-078	5/16" x 1" Clevis Pin	1

7401 PARTS LIST

(Continued...)

REF.#	PART#	DESCRIPTION	QTY.
42	720-068	Dampner Assembly	1
43	11-100	Yoke	2
44	400-016	3/8" x 1 3/4" HHCS	8
45	720-004	Bearing Two-Bolt	4
46	400-116	3/8" Locknut	8
47	720-077	Tie Rod Arm	1
48	720-078	5/16" x 1" Clevis Pin	1
49	400-125	3/8" Hex Nut	1
50	400-112	1/2" Locknut	1
51	713-218	1" Brass Bushing	6
52	720-061	4" Rubber Roller	2
53	720-001	Mounting Bracket f/4" Rollers	1
54	720-060	6" Rubber Roller	1
55	720-063	5/8" x 3 1/2" Pin	1
56	720-002	Four-Bolt Bearing	2
57	720-059	Steering Cover	1
58	720-019	Tie Rod Assembly	1
59	400-028	1/2" x 2" HHCS	1
60	400-014	3/8" x 1 1/2" HHCS	2
61	720-083	Tee-Shaft Bracket	1
62	720-030	Sprocket 40B30 x 1	1
63	720-082	Tee-Shaft	1
64	400-016	3/8" x 2" HHCS	4
65	740-000	Frame	1
66	720-014	Spring 7/16" x 2"	5
67	720-043	1/8" x 1 1/2" Cotter Pin	2
68	720-049	Latch	4
69	400-003	5/16" x 1 1/4" HHCS	4
70	720-041	Transport Axle Left	1
	720-042	Transport Axle Right	1
71	709-171	Grease Seal	2
72	720-011	Handle Grip	2
73	2028	Tapered Bearing	4
74	2027H	Hub	2
75	2013	Spindle Washer	2
76	709-126	Spindle Nut	2
77	700-040	Wheel & Tire	2
78	740-004	Engine Cover	1
79	730-058	Hinge	2
80	2024	Dust Cap	2

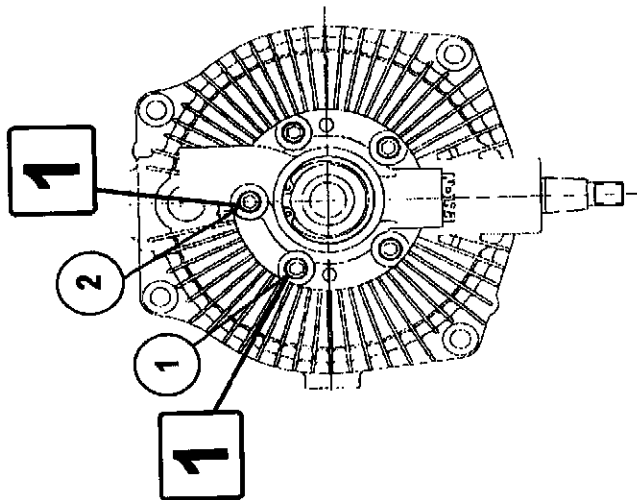
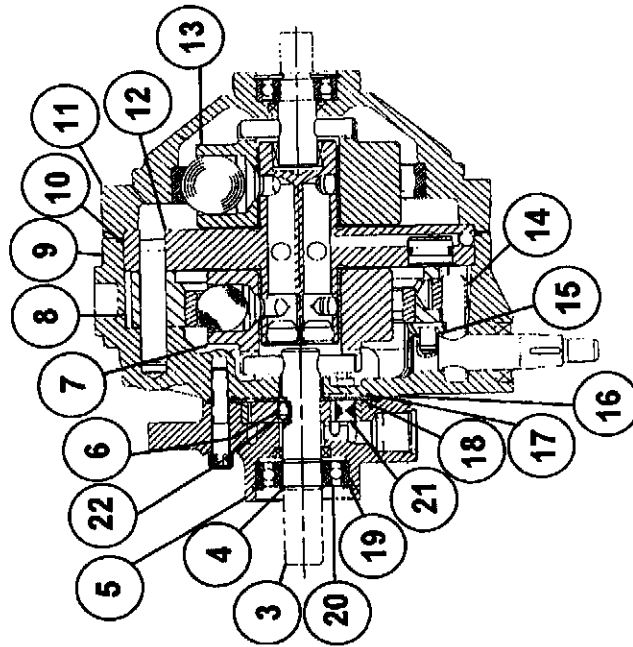
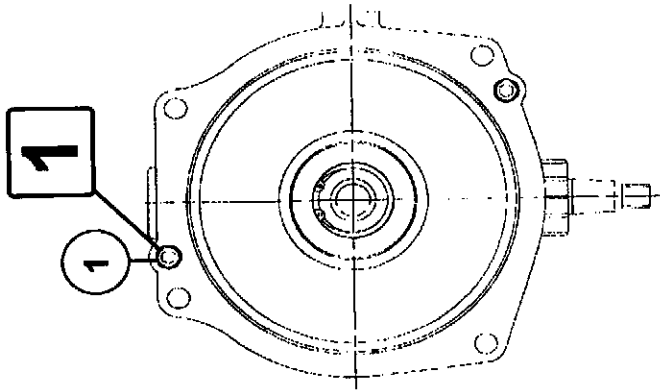
ENGINE AND TRANSMISSION



ENGINE & TRANSMISSION PARTS LIST

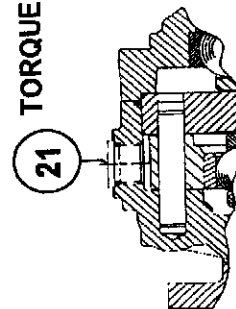
REF#	PART#	DESCRIPTION	QTY.
1	740-005	24 Volt Fan 10"	1
2	740-007	Hydraulic & Fan Frame	1
3	740-008	Hydraulic Cooler	1
4	740-014	Hydraulic Hose 3/8" x 37" w/Fittings	1
5	740-010-1	Oil Filter Head	1
6	740-010	Hydraulic Oil Filter	1
7	720-040	Snap Idler	1
8	740-017	Hydraulic Hose 1/2" x 10 3/4" w/Fittings	1
9	740-024	#40 Drive Chain 88 Pitch	1
10	720-033	Sprocket 40B9 x 17mm	1
11	740-002	Transmission Base	1
12	740-050	#11 Eaton Transmission	1
13	400-014	3/8" x 1" Bolt	4
14	740-003	Transmission Arm	1
15	740-021-750	Hub 3/4"	1
16	740-022	Rubber Element	1
17	740-020	Hub 1"	1
18	400-008	Bolt 5/16" x 2 1/2"	4
19	720-080	Battery Hold Down	1
20	740-013	Hydraulic Hose 3/8" x 20" w/Fittings	1
21	709-458	Honda 8hp Electric Start Engine	1
22	400-109	5/16" Locknut 2-Way	4
23	740-001	Engine Base	1
24	740-016	Hydraulic Hose 1/2" x 30" w/Fittings	1
25	1096	Hard Rubber Engine Mount	8
26	740-015	Hydraulic Hose 1/2" x 24" w/Fittings	1
27	1157	Plastic Cap f/Fuel Tank	1
28	740-009	Oil Tank	1
29	740-006	Fan Switch	1
30	720-074	Battery Box	1

740-050 #11 EATON TRANSMISSION



NOTE:
 1 TORQUE TO 17.5 ± 2.5 lbf·ft
 TRANSMISSION USES 10W40
 NONDETERGENT OIL.

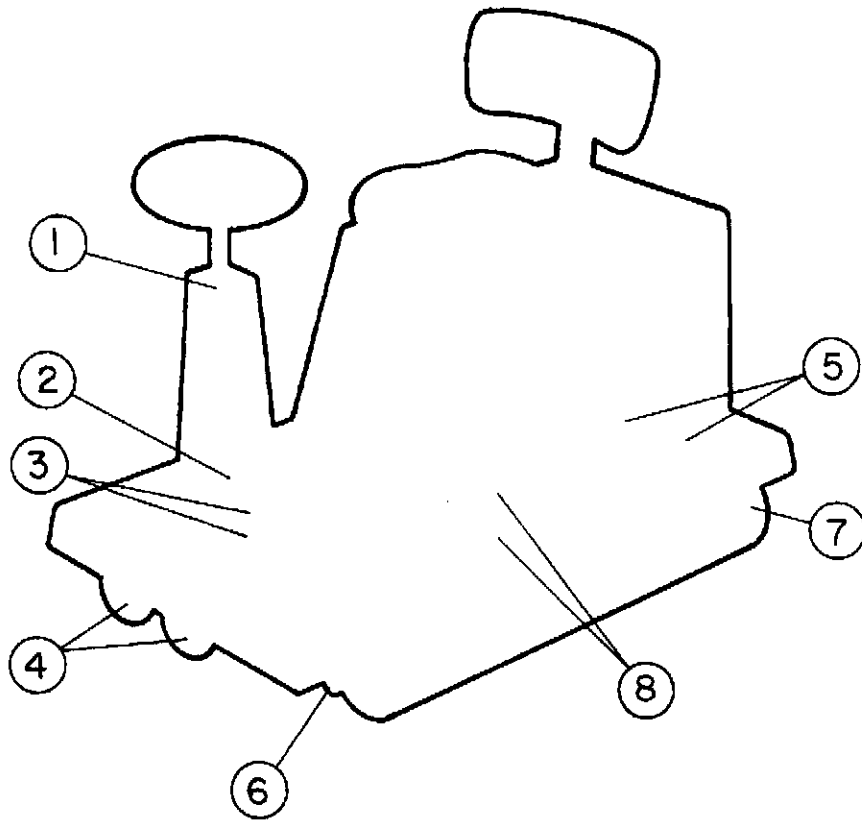
TORQUE TO 17 ± 1.7 N·M
 (150 ± 15 lbf·in)



740-050 #11 EATON TRANSMISSION PARTS LIST

REF.#	PART#	DESCRIPTION	QTY.
1	740-050-1	Cap Screw	6
2	740-050-2	Upper Cap Screw	1
3	740-050-3	Input Shaft S/A	1
4	740-050-4	Snap Ring	2
5	740-050-5	Charge Pump S/A	1
6	740-050-6	Drive Pin	1
7	740-050-7	Pump Rotor - Ball S/A	1
8	740-050-8	Cam Ring S/A	1
9	740-050-9	Cover S/A	1
10	740-050-10	Upper Square Cut Seal	1
*11	N/A		
*12	N/A		
13	740-050-13	Motor Rotor - Ball S/A	1
14	740-050-14	Cam Ring Insert	1
15	740-050-15	Buttons	2
16	740-050-16	Pump Plate	1
17	740-050-17	Lower Square Cut Seal	1
18	740-050-18	Middle Square Cut Seal	1
19	740-050-19	Input Bearing	1
20	740-050-20	Retaining Ring	1
21	740-050-21	Roll	6
22	740-050-22	Carrier	1
23	740-050-23	Overhaul Seal Kit	1

*Note: #11 and #12 can not be ordered.



7401 GREASE FITTING LOCATIONS

- 1 - Top Steering
- 2 - Bottom Steering
- 3 - Upper & Lower Sprocket
- 4 - Front Steering Roller
- 5 - Rear Steering Roller
- 6 - Front Drive Roller
- 7 - Rear Drive Roller
- 8 - Upper & Lower Steering Shaft

SMITHCO MODEL 7401 TOURNAMENT ROLLER

The SMITHCO MODEL 7401 TOURNAMENT ROLLER is a field developed tool designed to condition the surface of putting greens, lawn bowling greens, and grass tennis courts to a precise texture for tournament grade quality.

The 7401 utilizes three rubber covered rollers to achieve a "billiard table" surface. The two articulated four inch steering rollers are used to compact the greens growth and the large six inch driving roller further levels the surface to a perfect finish for accurate play.

The TOURNAMENT ROLLER is built of the finest and heaviest material utilized on each part to insure longevity. The pan is fabricated out of seven gauge steel to provide weight to the machine and prevent warping. The steering has been especially engineered for operator comfort to alleviate fatigue during prolonged use. The specially designed, articulated steering rollers allow the rollers to follow the contour of the green to insure an even compaction over the entire surface.

Before placing the 7401 into service it must be serviced with fuel and the hydraulic fluid checked. Refer to the manuals furnished for the engine and transmission which will specify fuel and oils required.

Operator familiarization should be conducted before use of the 7401 on the greens. Improper handling of the roller could cause damage to the turf. Do not allow the roller to stand idle on the putting surface for any length of time as the weight of the machine will cause indentions that will be difficult to smooth out. Place the 7401 into motion while off the green, and never attempt to turn the steering rollers sharply while the machine is on the green. Do not attempt to turn the steering wheel while the machine is not in motion.

Each Golf Course Superintendent should plan a pattern for the rolling of his greens so all greens would be compatible in speed and direction. Most Superintendents will probably decide that the best method of rolling would be back and fourth in an alternate direction. When possible, the roller should be run up and down major undulations, not across. Each Superintendent can decide as to which method is best for his greens.

The 7401 should be lubricated frequently with any grade of machine oil at all moving joints, and the bearings that are furnished with grease fittings should be greased with any good grade Lithium or equivalent water repellent grease. The Eaton Transmission uses 10W40 nondetergent oil.

Various items on the 7401 should be checked periodically. The drive chain tensioner should be kept at a level of tension just slightly less than tight. It should travel up and down on the chain slightly while in motion. The speed governor has been set at the factory for safe operation as outlined by the NASB and should not be changed. The muffler and the exhaust has been designed to comply with sound restrictions and should not be modified.

THE SMITHCO TOURNAMENT ROLLER IS TO BE USED ON GOLF COURSE GREENS, LAWN BOWLING AREAS AND GRASS TENNIS COURTS ONLY. IT IS NOT TO BE USED ON ASPHALT, CEMENT, OR GRAVEL AREAS.

Good maintenance and regular servicing will insure that longevity of your SMITHCO TOURNAMENT ROLLER. Support is readily available from your local distributor or SMITHCO.

LIMITED WARRANTY

SMITHCO warrants this product to be free from defects in material and workmanship under normal use for one year from the date of purchase by the original user. (60 days if product is used for rental purposes.) All warranty claims must be handled through a SMITHCO authorized dealer or by SMITHCO, INC. All transportation charges must be paid by the purchaser.

There is no further express warranty. All implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one year. (60 days if product is used for rental purposes) from date of purchase by the original user, and, to the extent permitted by law any and all implied warranties are excluded and disclaimed after the expiration of such period.

All incidental and consequential damages, including pick-up and delivery of the unit, communication, mileage charges and/or rental of a replacement unit during repair, are not covered under this warranty, or is any loss of income and/or other loss resulting from the failure of the product to function due to a warranty defect.

The following items are not covered under the SMITHCO warranty and are warranted by their respective manufacturer.

- a) Engine and engine parts including starters, generators, alternator and filters.
- b) Transaxle, differentials, gear boxes, and mechanical pumps.
- c) Hydrostatic transmissions, hydraulic pumps and motors.
- d) Batteries
- e) Wheels and tires.

A copy of the warranty for the above items is furnished if necessary with each SMITHCO product.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion of limitations of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

Federal law now requires disclosure of the warranty which applies to this product prior to the sale to a consumer. Please leave this statement attached to the product and allow the buyer to remove it after purchase.

SMITHCO

Wayne, Pennsylvania 19087

