

Owner Operation and Maintenance Manual

WITH
PARTS
LIST

BOLENS

ROTARY MOWER

Type 8424-01



Mower Illustrated
with Impulse Starter

ASSEMBLY

Slip the rubber washer (beveled side up) over the lower end of handle bar. Insert lower end of handle through the hole in top of hood and over end of steering post. Align hole in handle with hole in steering post and secure with capscrew and lock nut. Attach seat to seat support with hardware provided.

OPERATION

CAUTION: BEFORE USING MOWER, REMOVE STONES, WIRE, ETC. FROM AREA TO BE MOWED. BE SURE TO AVOID STRIKING PROTRUDING OBJECTS SUCH AS PIPES AND ROOTS WITH CUTTING BLADE. NEVER PLACE HANDS OR FEET UNDER MOWER HOUSING WHEN ENGINE IS RUNNING. WHEN WORKING UNDERNEATH THE MOWER BASE, BE SURE THE ENGINE SPARK PLUG WIRE IS DISCONNECTED.

The mower is designed with a gear transmission which provides both forward and reverse travel, an automotive type differential rear wheel drive, and a foot operated clutch pedal. The shift lever of the gear transmission is located on the right side of gear housing, behind the engine. The lever has three positions; up for reverse, center for neutral, down for forward.

The mower power drive is controlled by the foot pedal located on the right in disengaged position. By pushing the pedal downward, the idler pulley engages the belt running from engine sheave to the gear transmission sheave thereby transmitting power

to the transmission. The mower will automatically stop when the pedal pressure is released.

Before starting the engine, as a safety measure place gear shift lever in neutral position. After the engine is running, shift the gear lever to desired position either up for reverse, or down for forward. Do not shift gears with foot pedal engaged. In the event the transmission gears do not readily mesh, lightly tap the foot pedal while gently applying pressure to the shift lever.

The lever on the right side of the mower actuates the blade lock-out clutch and engages and disengages the cutting blade. Moving the lever slowly forward engages the blade and moving lever backward disengages the blade and also acts as a blade to stop blade rotation. The mower engine may be started with the clutch either engaged or disengaged at the operator's discretion. With blade engaged, however, better starting will be noted as the blade will act as additional flywheel momentum. The bracket on the mower base can be utilized to wire or padlock the cutting blade in disengaged position as a safety measure if unit is to be used for transport purposes only.

CUTTING BLADE

A sharp cutting edge on both ends of the blade will give the best cutting results. Use a flat file to touch up the cutting edges. Do this often. It only takes a few minutes. When grinding the blade edges to remove knicks or gouges, grind off equal portions from each cutting edge because an unbalanced blade will cause excessive vibration. Before replacing blade, check blade balance by centering it on a straight edge. Be sure the capscrews are securely tightened when blade is replaced.

The mower is assembled with one spacer above the cutter blade, giving a height of cut of two inches. An extra spacer is supplied which can be added above the blade to reduce the cutting height to 1-1/2 inches. Removing both spacers will give a cutting height of 2-1/2 inches. Before removing blade mounting screws, be sure the threads are free of dirt and grit.

SHEAVE AND BELT SERVICING

A special plate is provided at the bottom of the main

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frame to prevent grass clippings from accumulating around the sheave and on the drive belt. This plate can easily be removed if replacement of the belt is necessary.

LUBRICATION

The rear axle differential housing is packed with pressure gun grease when assembled and requires no further lubrication unless the housing is disassembled. In this case the housing should be filled with approximately 3/4 pound of fresh grease.

The transmission gear case, located beneath seat, is filled to the level of filler plug hole with SAE #90 gear lubricant. Before using the mower and regularly thereafter, check oil and maintain the level to

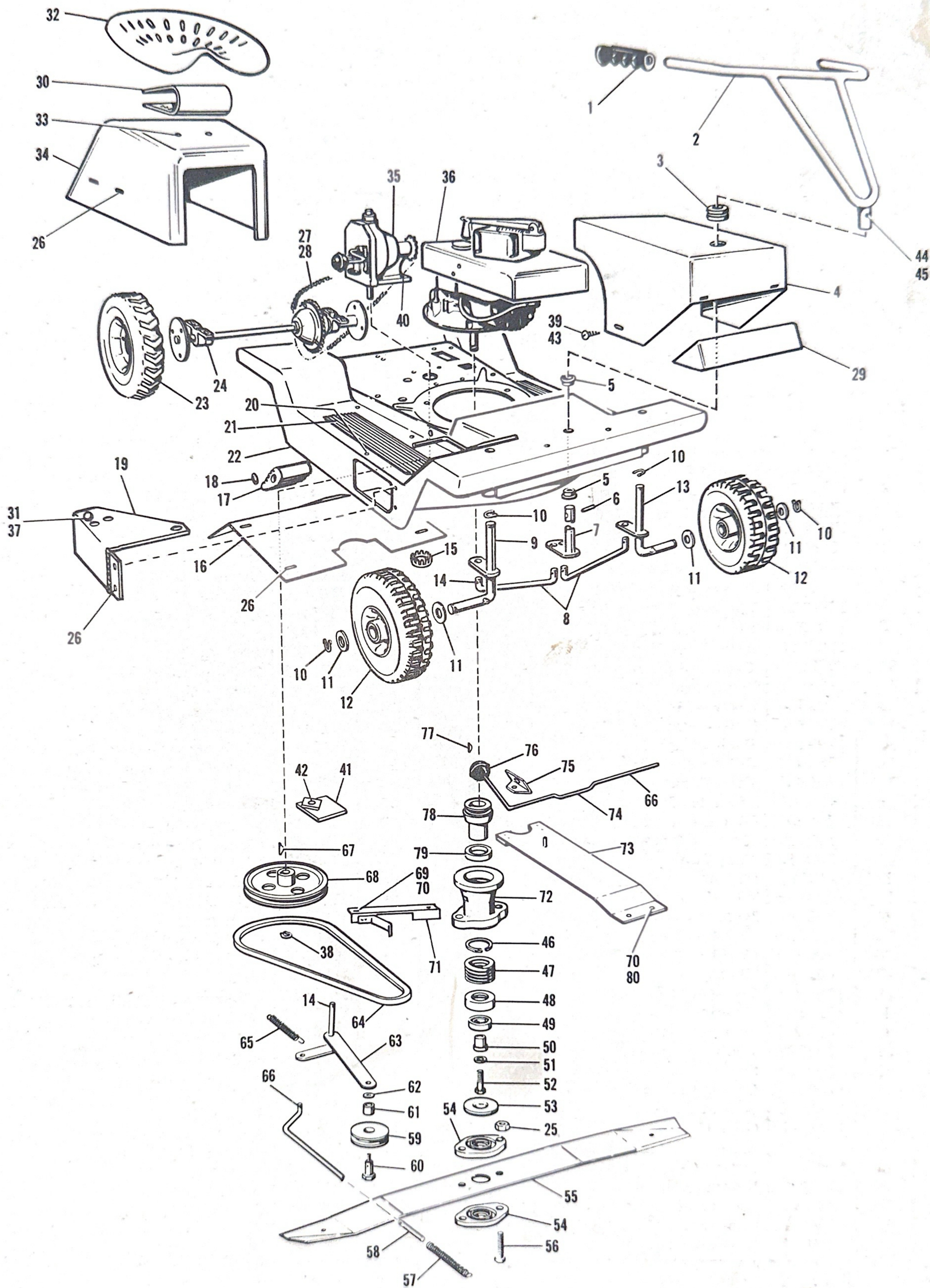
the filler plug hole. A funnel and tube are supplied for adding gear lubricant.

The idler pulley can be lubricated with light oil through the hole in mower base located to the right rear of engine. The pulley must be lubricated with the clutch pedal in disengaged position so the idler bolt aligns with the hole in frame.

Lubricate the front wheels frequently with light oil. Place oil on each side of wheel bearings and spin wheels to distribute oil. Lubricate the rear axle bushings by placing several drops of light oil in the hole in mower frame located under each rear fender. This oil will seep into the oilite bushings of pillow blocks which support the rear axle.

Ref. No.	Part No.	Description	No. Req'd.
1	1709064	Handle Grip	2
2	1711677	Steering Handle	1
3	1708850-	Rubber Washer	1
4	1711689	Hood	1
5	1185035	Bushing	2
6	1185232	Drive Pin	1
7	1711664	Steering Arm	1
8	1708727	Tie Rod	2
9	1708657	Front Spindle-R. H.	1
10	1185388	Retaining Ring	4
11	1700821	Thrust Washer	4
12	1708697	Wheel and Tire	2
13	1708658	Front Spindle-L. H.	1
14	1100350	Cotter Pin 1/2 x 1	5
15	1709135	Push Plug	1
16	1708656	Deflector	1
17	1710168	Foot Pedal	1
18	1710146	Push-on Cap	1
19	1708903	Discharge Cover	1
20	1100118	Rd. Hd. Screw 1/4-20 x 1/2	1
21	1708915	Foot Pad	2
22	1711700	Frame	1
23	1708695	Wheel and Tire	2
24	1708692	Rear Axle Assembly*	1
25	1109529	Hex Nut 3/8-24	2
26	1106830	Capscrew 1/4-20 x 1/2	16
27	180124	Chain	
28	1185013	Connector Link	1
29	1711690	Cowling	1
30	1711678	Seat Spring	1
31	1702327	Knob	1
32	1709137	Seat	1
33	1106915	Capscrew 3/8-16 x 3/4	2
34	1711679	Seat Support	1
35	1711348	Gear Case*	1
36		Engine	1
37	1185407	Screw #8-32 x 3/8	1
38	1118804	Retaining Ring	1
39	1185435	Speed Nut	8
40	1106878	Capscrew 5/16-18 x 1	4
41	1710165	Lever Stop	1

Ref. No.	Part No.	Description	No. Req'd.
42	1106884	Capscrew 5/16-18 x 1-1/2	1
43	1185109	Screw 10-24 x 1/2	8
44	1710148	Special Capscrew	1
45	1110149	Locknut 5/16-24	1
46	1185439	Retaining Ring	1
47	1708925	Compression Spring	1
48	1708926	Bearing Retainer	1
49	1185169	Ball Bearing	1
50	1708927	Step Collar	1
51	1100243	Lockwasher 3/8	1
52	1103363	Capscrew 3/8-24 x 1-1/4	1
53	1710142	Centering Plug	1
54	1710145	Blade Spacer	2
55	1710143	Cutter Blade	1
56	1710144	Blade Mounting Screw	2
57	1708715	Extension Spring	1
58	1708730	Control Rod	1
59	1708728	Idler Pulley	1
60	1708729	Shoulder Screw	1
61	1185395	Sleeve Bearing	1
62	1706576	Flat Washer	1
63	1708709	Idler Arm	1
64	1108466	Belt 33"	1
65	1708736	Spring	1
66	1100346	Cotter Pin 3/32 x 3/4	4
67	1185156	Hi-Pro Key 1/8 x 3/4	1
68	1708820	Sheave	1
69	1106886	Capscrew 5/16-18 x 1-3/4	2
70	1100242	Lockwasher 5/16	2
71	1708849	Belt Guide	1
72	1710141	Clutch Housing	1
73	1710075	Clutch Fork	1
74	1708976	Clutch Lever	1
75	1708974	Lock Clip	1
76	1706756	Control Knob	1
77	1709298	Woodruff Key 5 32 x 5 8	1
78	1708933	Sheave	1
79	1710140	Bronze Bearing	2
80	1106872	Capscrew 5 16-18 x 5 8	1
	1711168	Funnel (Not Illust.)	1
	1711169	Oil Tube (Not Illust.)	1



Rear Axle

Ref. No.	Part No.	Description	Quan. Reqd.
1	1708683	Rear Axle	1
2	1708641	Pillow Block, R. H.	1
3	1185386	Flange Bearing	1
4	1706236	Set Collar	1
5	1708681	Differential Housing, R. H.	1
6	1114755	Mach. Screw, Rd. Hd. #10-32 x 5/8	6
7	1708691	Sprocket, 33T.	1
8	1185390	Flange Bearing	1
9	1707546	Thrust Washer	1
10	1185400	Drive Pin, 5/16 x 1-1/4	1
11	1708689	Differential Gear	2
12	1706471	Retaining Washer	1
13	1185391	Flange Bearing	1

Ref. No.	Part No.	Description	Quan. Reqd.
14	1708682	Differential Housing, L. H.	1
15	1185387	Flange Bearing	1
16	1708639	Pillow Block, L. H.	1
17	1185319	Bronze Bearing	2
18	1708686	Wheel Hub	1
19	1701447	Washer - Special	As Req.
20	1185388	Retaining Ring	1
21	1111285	Carriage Bolt, 3/8-16 x 1	4
22	1106834	Capscrew, 1/4-20 x 3/4	6
23	1708690	Differential Shaft	1
24	1708688	Differential Pinion	2
25	1706873	Thrust Washer	2
26	1182554	Set Screw, 5/16-18 x 5/16	1

Gear Case

Ref. No.	Part No.	Description	Quan. Reqd.
1	1705377	Control Knob	1
2	1710108	Shift Lever	1
3	1708707	Quadrant	1
4	1711321	Gasket	1
5	1711344	Cover	1
6	1708675	Shifter Clutch	1
7	1185392	Bronze Bearing	4
8	1708471	Bevel Pinion	2
9	1708676	Thrust Washer	2
10	1185165	Needle Bearing	2
11	1891820	Oil Seal	1
12	1708674	Shaft	1
13	1185156	Hi-Pro Key 1/8 x 3/4	1
14	1890883	Set Collar	1

Ref. No.	Part No.	Description	Quan. Reqd.
15	1185438	Retaining Ring	2
16	1711277	Bevel Gear	1
17	1711331	Thrust Washer	1
18	1711195	Gear Case	1
19	1105666	Pipe Plug	1
20	1710051	Gear Shaft	1
21	1104436	Woodruff Key 3/16 x 3/4	1
22	1185259	Set Screw 5/16-18 x 1/4	2
23	1185296	Oil Seal	1
24	1705793	Thrust Washer	1
25	1185481	Thread Cutting Screw 10-24 x 5/8	7
26	1106840	Capscrew 1/4-20 x 1	1
27	1110106	Locknut 1/4-20	1