OPERATOR'S MANUAL

Model N21 Combination Mulching/RearBagger Walk Behind ROTARY MOWER

- Specifications
- Operating Instructions
- Maintenance Information
- Covers Both Push and Self Propelled Models

Model N21-5BS-SP Shown

McLANE MANUFACTURING INC.

7110 East Rosecrans Ave.
Paramount, CA 90723
Telephone
(562) 633-8158 (323) 636-8336

GENERAL SAFETY SUGGESTIONS

Recommended by Outdoor Power Equipment Institute

TRAINING

1. Read the Operating and Service Instruction Manual carefully. Be thoroughly familiar with the controls and proper use of the equipment.
2. Never allow children to operate a power mower.
3. Keep the area of operation clear of all persons, particularly small children and pets.

PREPARATION

1. Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wire, bones and other foreign objects.
2. Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.
3. Check fuel before starting engine. Do not fill gasoline tank indoors, or when engine is running. Wait until engine has been allowed to cool for several minutes. Clean off any spilled gasoline before starting engine.
4. Disengage self-propelled mechanism or drive clutch on units so equipped before starting engine (motor).
5. Mow only in daylight or in good artificial light.
6. Never operate equipment in wet grass. Always be sure of your footing; keep a firm hold on the handle and walk, never run.

OPERATION

1. Do not change engine governor settings or overspeed engine.
2. Do not put hands or feet near or under rotating parts. Keep clear of discharge opening at all times.
3. Stop blade(s) when crossing gravel drive, walks or roads.
4. After striking a foreign object, stop the engine (motor), remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.
5. If the equipment should start to vibrate abnormally, stop engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
6. Stop engine (motor) whenever you leave the equipment, before cleaning mower housing, and when making any repairs or inspections.
7. When cleaning, repairing or inspecting, make certain blade and all moving parts have stopped. Disconnect spark plug wire and keep away from plug to prevent accidental starting.
8. Do not run engine (motor) indoors.
9. Shut engine (motor) off and wait until blade comes to a complete stop before removing grass catcher and/or unclogging chute.
10. Mow across the face of slopes, never up-and-down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes.
11. Never operate mower without proper guards, plates or other safety protective devices in place.
12. Keep mower housing service openings closed when mowing.

MAINTENANCE AND STORAGE

1. Check blade and engine mounting bolts at frequent intervals for proper tightness.
2. Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.
3. Never store equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
4. To reduce fire hazard keep engine free of grass, leaves or excessive grease.
5. Check grass catcher frequently for wear or deterioration.

⚠CAUTION ⚠

TO AVOID INJURY:
READ OPERATOR'S MANUAL • KNOW LOCATION & FUNCTION OF CONTROLS • MAINTAIN SAFETY DEVICES • REMOVE POTENTIAL THROWN OBJECTS • NEVER MOW NEAR PEOPLE • AVOID SLIPPERY OR STEEP AREAS • AVOID BLADE UNLESS BLADE AND ENGINE ARE STOPPED.

⚠ CAUTION ⚠

Do not operate mower if fuel leaks are noticed. Remove fuel from the tank and take mower to an authorized repair station in your area. Refer to engine manual for service information.

CONTENTS

Two Year Limited Warranty

For two years from purchase (60 days for commercial use) McLane Manufacturing Inc., will replace for the original purchaser, free of charge, any part or parts, found upon examination by any factory authorized service center, or by the factory in Paramount, California, to be defective in material or workmanship or both. All transportation charges on parts submitted for replacement under this warranty must be borne by purchaser. There are no other expressed warranties. Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to two years from purchase and to the extent permitted by law. Any and all implied warranties are excluded. This is the exclusive remedy and liability for consequential damages. Any and all warranties are excluded to the extent exclusion is permitted by law. Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion limitation of consequential damages, so the above limitations and exclusion 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.

It is your responsibility to follow the maintenance instructions described in the owner's manual. Routine service (cleaning, blade sharpening) is your responsibility. Defect of engine is covered by manufacturer of engine.

McLane Manufacturing, Inc.

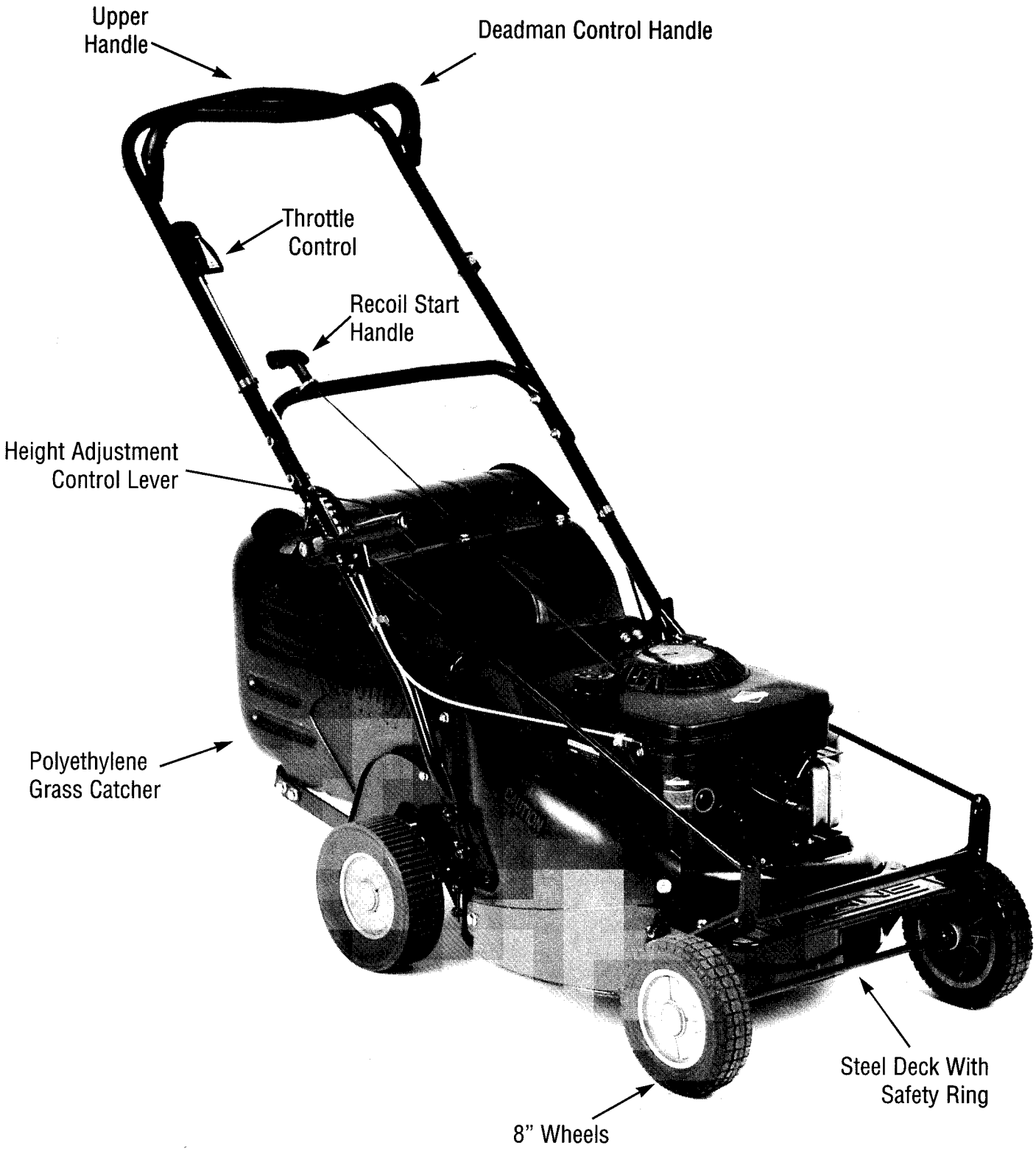
Note: Operator abuse and improper assembly of product is not covered by any written or implied warranty. Read your owner's manual carefully.

⚠ CAUTION ⚠

This symbol marks important instructions relating to your personal safety. To avoid the possibility of injury, read and follow such instructions carefully.

When the manual refers to the left or right side of the mower, it means your left and right when standing in the operating position.

MOWER FEATURES



Model Shown N21-5BS-P

21" ROTARY MOWER
SELF-PROPELLED

Model Shown N21-5BS-SP

ASSEMBLY

TOOLS REQUIRED: (2) 1/2" wrenches, (1) 7/16" wrench, screwdriver, pliers.

NOTE: Reference to left or right side of machine is from operator's position at the handle, facing forward. The lawn mower, unassembled parts and operator's manual are packed and shipped in one carton.

Bolt upper handle to lower handle (Fig. 1, (5/16"-18x 1-1/4" carriage bolts required). Tighten bolts.

Attach deadman control cable to deadman control handle located near top of upper handle (Fig. 2). To attach cable, insert end of control cable into round holde located on left side of deadman control handle.

BRIGGS AND STRATTON ENGINES:

Attach throttle control to right side of upper handle.

Use cable clamp clip to attach throttle control cable and deadman control cable to lower handle (Fig. 2).

4. **HONDA & KAWASAKI ENGINES:**

Attach throttle control to left side of upper handle with 1-1/4"x1" self tapping bolt. (Fig.2).

A. Remove starter rope holder from top of lower handle. This is a U-bolt on right side of the lower handle(Fig.3).

B. With throttle control in "SLOW" position, grasp dead man clutch control and pull the starter rope up to the top of the lower handle and place inside of the cable holder (Fig.3).

C. Replace rope holder and tighten hex nut securely.

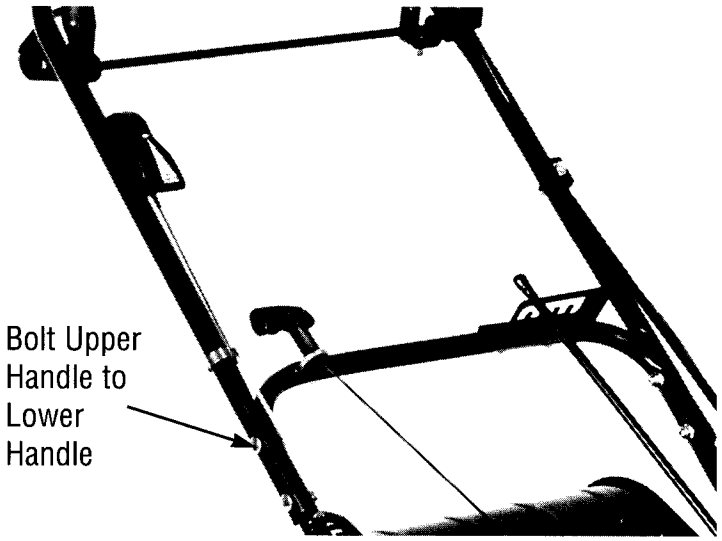


Fig.1

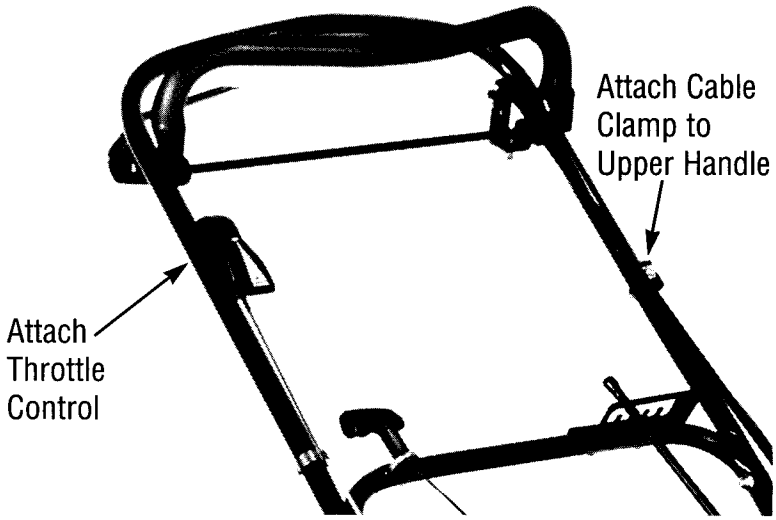


Fig. 2

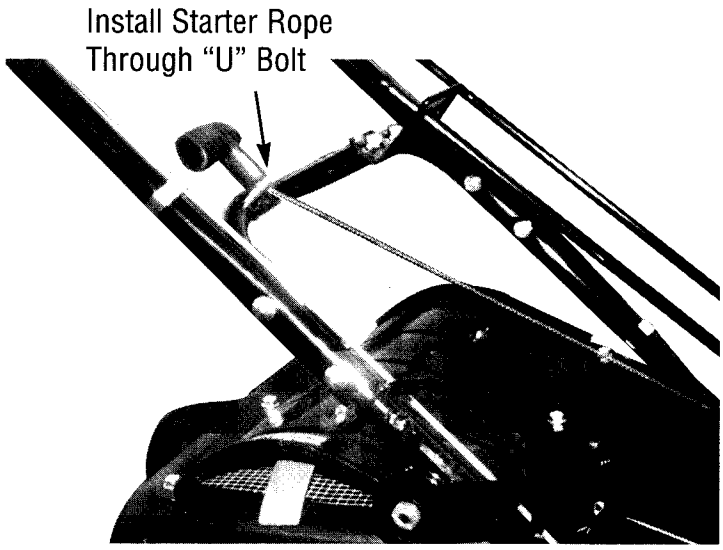
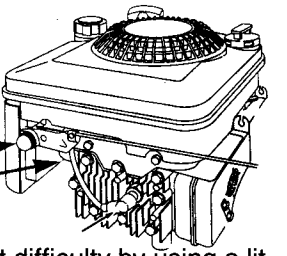


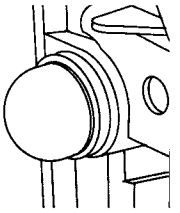
Fig. 3

MOWER OPERATION

CORRECT OPERATION



STARTING THE ENGINE



Prime (optional)

On these model engines, move throttle control to RUN or FAST position. Push primer bulb firmly 3 times before starting engine. (If engine stopped because it ran out of fuel, refuel engine and push primer bulb 3 times.)

Note: Priming is usually unnecessary when restarting a warm engine. However, cool weather may require priming to be repeated.

Push down and move throttle control all the way forward. Depress deadman control lever against the top bar of the upper handle.

Grasp the recoil starting handle and pull quickly. Return the handle slowly. If the engine fails to start after three or four pulls, raise the throttle to the detented throttle (slow) position.

Once the engine starts, move the throttle to the detented full throttle (Fast) position.

STOPPING THE ENGINE

Move throttle/choke control to the slow position. pull up on control and move into stop position. If throttle control does not have a stop position, release the dead man control lever.

If the engine has been working hard or the engine is hot, allow the engine to idle a short time before stopping. This practice will help cool the engine before shutting the unit off.

CORRECT MOWER USAGE

⚠ CAUTION ⚠

Read all manuals provided with the mower before operating. These manuals give a detailed description of operation and point out other areas of caution. Familiarize yourself thoroughly with the equipment before attempting to use it.

⚠ WARNING ⚠

Keep all shields in place. Never attempt to clear discharge areas or mower blade without stopping the mower and removing the spark plug wire clear of the spark plug.

For best operation on average lawns, operate the engine at 3/4 to full throttle as applicable. Average lawns are usually cut at a height between 2 and 3 in. (5-7.6 cm). Tall grass and weeds should be cut with the mower in its highest position, making a second pass cutting to the height desired. Always keep the mower blade sharp.

MOWING HEIGHT

The best cutting height for your lawn has probably been established from previous experience. The mowers cutting height range is 1/2 inch to 3 1/2 inches.

Very tall grass can be cut without difficulty by using a little care. Set the mower in its highest cutting position and enter the area to be mowed. If necessary, take a cut one half the width of the mower, overlapping the previously cut area on each pass. Then, with the mower set to the desired height, make a finish cut over the entire area.

Do not mow right after fertilizing with dry fertilizer as the fertilizer will be vacuumed up into the grass catcher.

MOWING PATTERN

The mower will cut an area quickly and efficiently if the mowing pattern is planned to take full advantage of the mower's capabilities. Use several patterns that will permit as much continuous forward motion and long straight runs as possible and vary these patterns each time you mow. Avoid the necessity of repeated tight turns whenever you can.

GRASS CATCHER

⚠ WARNING ⚠

Do not operate mower without the entire grass catcher or discharge chute in place.

⚠ CAUTION ⚠

1. **Stop engine before removing grass catcher.**
2. **Under normal use the catcher components are subject to wear and deterioration and should be checked frequently for replacement. Replace with McLane components when wear or deterioration requires.**

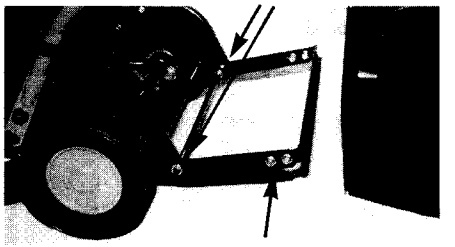
The grass catcher is made from high-density polyethylene which increases it's durability.

To remove the catcher, lift up on the rear handle until catcher releases from the "lock in" position. Pull straight back, and by holding onto top front handle and rear handle, catcher can be lifted and dumped very quickly.

To replace, hold catcher at slight angle with front lower than the rear. Place against back plate and then push down on rear of catcher until it "locks" in place.

Adjust back plate to maintain catcher "locking" action. Reposition back plate as necessary, on slotted catcher side support until locking action is achieved.

Slotted Grass Catcher Supports



Loosen Nuts To Adjust Backplate - Both Sides

Fig. 5

MAINTAINING YOUR MOWER

⚠ CAUTION ⚠

To minimize the chance of injury, perform all maintenance and adjustments on your mower with the engine off, unless instructed otherwise in this section. Use extreme care when working near operating machinery. Do not wear loose fitting clothing. Remove watch and jewelry before beginning work and observe common safety practices when using tools.

GENERAL MAINTENANCE CHECKLIST

Refer to engine manual for additional information

SERVICE OPERATION	Before Each Use	After Each Use	Every 25 Hours	Every 50 Hours	Every 100 Hours
Check:					
Deadman Safety System	X				
Engine Oil Level	X				
Tightness of all Attaching Hardware		X			
Clean Engine Cooling Fins		X			
Clean Air Filter			X		
Change Engine Oil(1)			X		
Inspect Spark Plug				X	
Replace Spark Plug					X
Replace Air Filter					X

(1) Refer to text for initial service interval for new mowers.

NOTE: These service intervals are considered **MAXIMUM** under normal operating conditions. Increase frequency under extremely dirty or dusty conditions.

OIL LEVEL

Form the habit of checking the oil level regularly. Refer to engine manual.

Check the oil level of the engine every time the mower is used. An improper oil level can cause extensive internal damage to the engine.

OIL CHANGES

Follow instructions in the engine manual.

Failure to change the engine oil at recommended intervals can lead to serious damage to the engine. This is especially true when using detergent oils which are designed to hold impurities in suspension; when the saturation point is reached, the oil may suddenly break down to form a gelatin-like substance which seriously impairs and can even stop the flow of oil. Increase the frequency of oil changes if the motor is operated under extremely dusty conditions

OIL CHANGE INSTRUCTIONS

The instructions are for engines with accessible bottom drain plugs. Check engine manual for drain plug location.

Remove drain plug to drain oil

For engines without bottom oil drain plugs we recommend following instructions under "Easy Oil Change Suggestions"

EASY OIL CHANGE SUGGESTION

NOTICE:

Several makes and types of engines are available and used on the mowers today. Some engines do not have the oil drain plug on the bottom of the engine or are very difficult to get at under the mower.

We recommend the following procedures to drain the oil:

1. Remove the oil fill cap. Then place an empty quart oil or similar container at edge of the filler neck and tip mower until oil drains into the container.

2. An inexpensive certifical pump that attaches to an electric drill can be purchased and used to pump the oil out from the oil fill opening. The pump can be obtained from most hardware and auto supply stores.

Due to different engine styles always refer to engine manual regarding engine service and maintenance

AIR FILTER

For air filter removal, changing and cleaning, please follow instructions in the engine manual.

⚠ CAUTION ⚠

LIFTING THE LAWNMOWER
OIL CHANGES
BLADE REPLACEMENT

When lifting lawnmower, always lift upward from the front and back.

⚠ CAUTION ⚠

Before checking or doing any work on the blade or underside of mower, disconnect the spark plug wire and secure it away from the spark plug to prevent accidental starting.

UNDERSIDE CLEANING

It is of vital importance to clean the underside of the deck frequently. The accumulation of matted clippings seriously impairs the mower's ability to "lift" grass blades into the cutting position and discharge clippings evenly. Matted grass clogging the underside of the mower is often times the cause of uneven cutting.

Do not wash mower with water. Water may promote rusting of engine and mower parts.

BLADE MAINTENANCE

⚠ CAUTION ⚠

Sharp edges of mower blade can cut you during blade maintenance or adjustment. Use suitable covering over cutting edges of blade to prevent bodily harm.

To obtain optimum mowing results, mower blade should be kept sharp and well balanced.

Check mower blade frequently to make sure the blade is securely tightened and in good condition.

Replace the blade if it is badly chipped, bent, worn or out of balance. If tip of blade is cracked or worn very thin, replace immediately as the tip could fly off causing personal injury or property damage.

When grass cut ends are ragged and brown soon after mowing, it indicates your blade has become dull.

To remove blade, lift mower upward and remove capscrew and washer. Sharpen cutting ends of blade with a file. File only the top side to maintain the original bevel for a fine cutting edge. Remove the same amount of material from each end to deep the blade in balance. REPLACE BLADE IF EXTENSIVELY DAMAGED OR OUT OF BALANCE. When replacing blade, be sure flat side of blade faces the ground and that the blade completely clears the inner safety ring. Tighten blade bolt to 35 ft.-lbs. torque. For safety and long life, only a mower blade with the same design and quality of the original blade should be used.

Occasionally a drop of oil should be placed on the height adjustment lever (threaded section only) for continued ease of adjustment.

NOTICE

These are general instructional guidelines. In all cases due to several types of engines used be sure to follow instructions in the enclosed engine manual.

SPARK PLUGS

Engine misfires, or generally poor operation, is often caused by a spark plug in poor condition or with incorrect spark plug gap setting. The spark plug should be checked after each 50 hours of operation. Replace the spark plug at 100 operating hour intervals, or sooner if inspection reveals fouling excessive deterioration.

Always clean the area around the spark plug before removing to prevent dirt from entering the engine. Use a spark plug wrench to remove and install the plug.

Check the condition of the plug. Good operating conditions are indicated by a light coating of gray or tan deposit. A dead white, blistered coating could indicate engine overheating. A black coating could indicate an "overrich" fuel mixture caused by a clogged air cleaner, or improper carburetor adjustment.

Replace a spark plug that is not in good condition. **Never sandblast, wire brush, scrape or otherwise service a spark plug in poor condition. Best results are obtained with a new plug.**

Always check the spark plug gap before installing a new plug or reinstalling the original plug. Use a spark plug gap gauge to adjust the electrode air gap as per instructions in the engine manual.

CARBURETOR ADJUSTMENT

Carburetors are adjusted in the factory and should not have to be reset. If however, one of the following conditions is noted, the carburetor should be readjusted immediately as continued operation with incorrect setting can lead to fouled spark plugs, overheating, excessive valve wear or other problems. If black exhaust smoke is noted, check the air cleaner first - an "overrich" mixture is usually caused by a poorly serviced, clogged air cleaner element, or an improperly adjusted carburetor.

Please follow instructions in the enclosed engine manual.

MOWING TIPS

When to Mow
Most grasses should be mowed when they have grown 1/2 to 1 inch above their recommended height. To properly mulch it is recommended not to exceed 1/2 inch new grass growth per cutting.

Cutting Height
Consult a local nursery or lawn and garden center for cutting height recommendations and advice about specific types of grasses and growing conditions in your area.

If you look closely, you'll see that most grass has stems and leaves. If you cut off the leaves, you'll scalp the lawn. Let the grass recover between mowings. Your mower will work better, and your lawn will look better.

If you grass gets too tall, cut it once at the highest cutting height setting, then mow again in 2 or 3 days. Don't take off more than one third of total grass height in any one mowing, or brown patches may develop.

Cutting Width
For an even lawn finish, overlap each mowing swath by a few inches. If the grass is very tall or thick, use more overlap and a narrower mowing swath.

Blade Speed
The blade must spin very fast to cut properly. Always use the FAST throttle setting, and keep the engine running at maximum rpm.

If engine speed drops, it could mean the engine is being overloaded by the blade trying to cut too much grass. Mow a narrower swath, move the mower slower, or raise the cutting height.

Blade Sharpness
A sharp blade cuts cleanly. A dull blade tears the grass, leaving shredded ends that turns brown. when your blade doesn't cut cleanly anymore, have it sharpened or replace.

Dry Grass
If the ground is too dry, mowing will stir up a lot of dust. Besides being unpleasant to work in, too much dust will clog the carburetor air filter.

If dust is a problem, water your lawn the day before mowing. Mow when the grass is dry to your touch, but the soil is still moist.

Wet Grass
Wet grass is slippery and can make you lose your footing. Also, wet grass clippings will clog the mower deck and collect in clumps on the lawn. Always wait for wet grass to dry before mowing.

Clogged Mower Deck
Before clearing a clogged mower deck, stop the engine and turn the fuel valve OFF. With the spark plug cap disconnected, tilt the mower so the carburetor side is up.

Mulching
When using mower to mulch refer to pg. 12 for correct position of grass chute cover.

STORAGE INSTRUCTIONS

Mowers stored for any length of time should be completely drained of fuel to prevent gum deposits forming on essential parts such as the carburetor, fuel lines and tank. Such deposits may affect the operation of the engine when used again. Therefore, it is important that the following instructions be adhered to before storing the engine.

1. Drain the fuel tank completely.

2. Operate engine until it stops from lack of fuel to clean gasoline out of the carburetor.

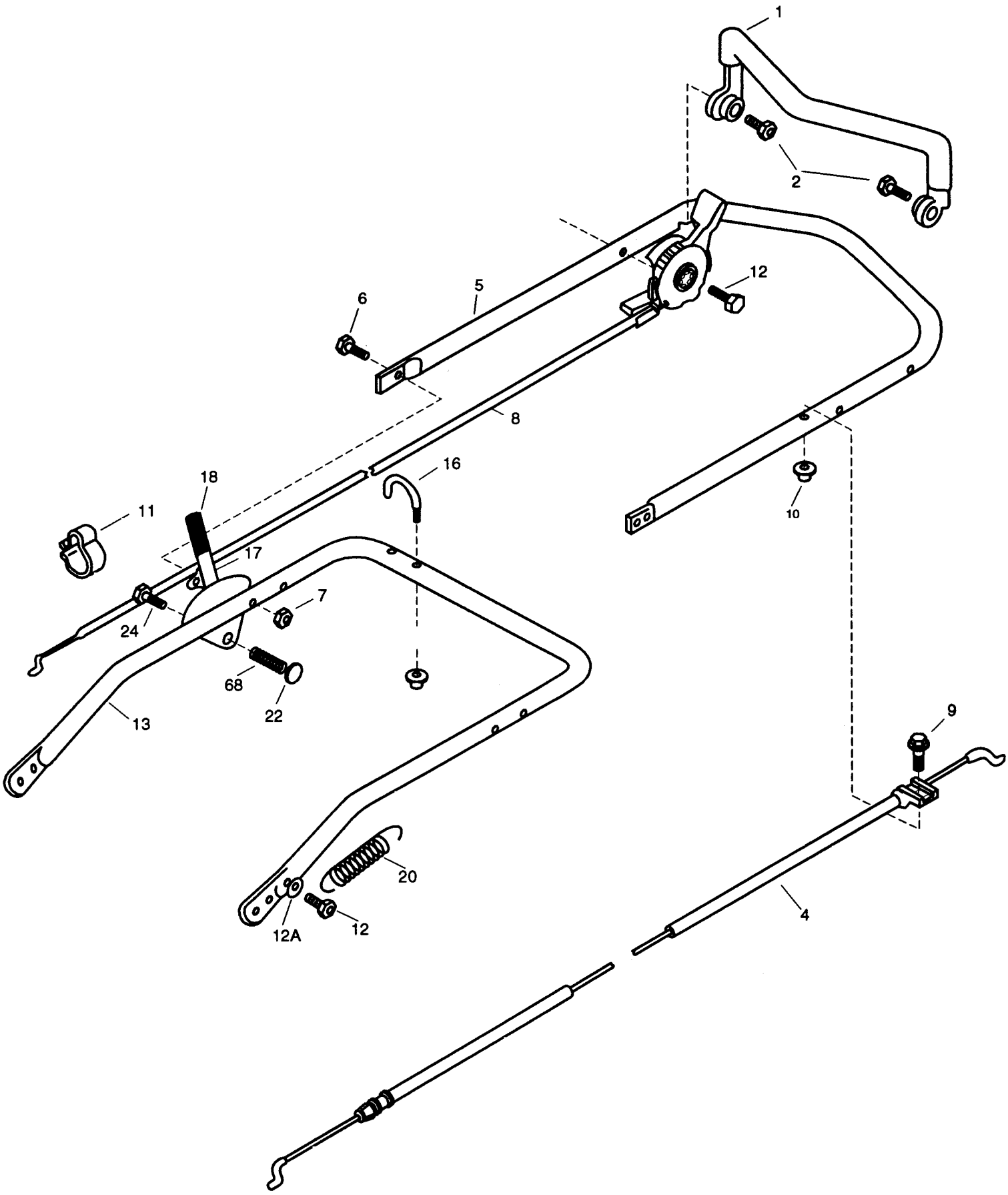
3. While the engine is still warm, drain the crankcase. Refill with fresh oil.

4. Remove spark plug and pour one ounce of oil into the cylinder. Pull the starter rope to spread the oil. Replace spark plug.

5. Clean dirt and chaff from cylinder and cylinder head fins, blower housing, etc.

Service Record

DATE	COMPONENTS REPLACED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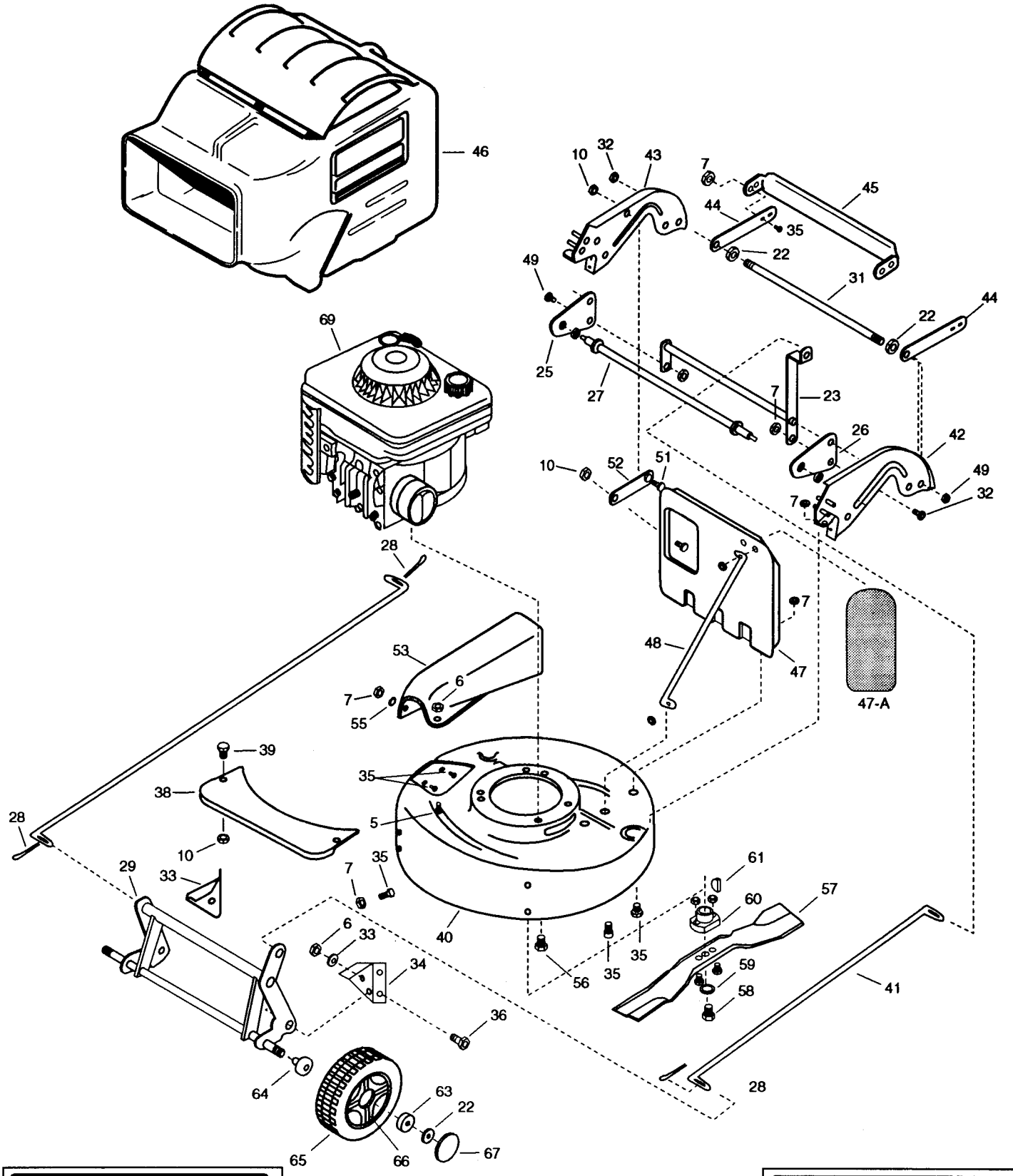

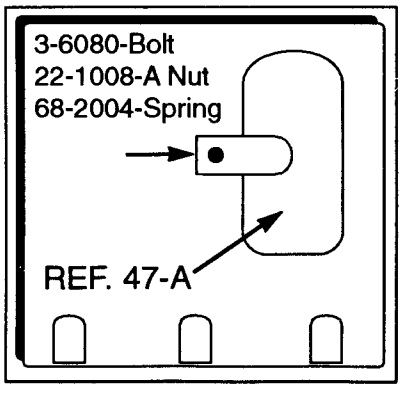

GRASS CHUTE COVER POSITION

Mulching ← → Bagging

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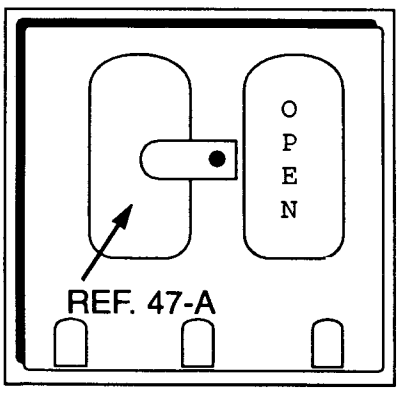


REF. NO.	PART NO.	DESCRIPTION
1	7000	Deadman Blade Control Lever
2	7001-N	Deadman Lever Bolt 1/4-20x1-1/2
3	6080	Bolt 7/16-14 x 2-1/2
4	7003-A	Deadman Blade Control Cable
5	7004-N	Upper Handle
6	7005	5/16"-18x1/4" Carriage Bolt
7	1075-A	5/16"-18 Nut
8	7006-AA	Throttle Control Assembly
9	7007	1/4"-28x1-1/2" Bolt
10	1015	Nut 1/4"-28
11	7008	Blade & Throttle Control Cable Housing Clamp
12	7009	1/4"x1" Bolt
12-A	7009-B	Bushing for 7009 Bolt
13	7010-N	Lower Handle Complete w/Height Adjusting
NS*	7067	Lower Handle Bolt 1/2"x3/4" Welded to Wheel Skirt
NS*	7068	1/2"-20 Nut
16	7011	Recoil Starter Rope Stop & Nut
17	7012-N	Height Adjustment Lever
18	1009	Grip
19	7020-R	Right Height Adjustment Long Control Rod
20	6047	Spring
21	7015-A	Special 7/16"x3/4" Shoulder Bolt
22	1008-A	7/16"-14 Jam Nuts
23	7021-A	Height Adjustment Rear Bracket
24	2006	7/16-14x2 Bolt
25	7022-A	Right Rear Axle Plate, Square Hole
26	7023-A	Left Rear Axle Plate,
27	7024	Rear Axle 7/16"-14x21"
28	7026-A	Height Adjustment Indicator
29	7070-A	Height Adjustment Tie Rod & Front Axle Assy.
31	7030-A	Rear Tie Rod 7/16-14x16-9/16"
32	1008	Tie Rod Lock Nuts (4) 7/16"-14
33	7031	Right Front Mounting Bracket
34	7032	Left Front Mounting Bracket
35	7033	5/16"-18x1/2" Carriage Bolt
36	7015-A	7/16"-14x3/4" Shoulder Bolt
38	7037	Front Support Panel and Name Plate
39	1020	1/4"-28x5/8 Bolt
40	7038	Steel Deck

REF. NO.	PART NO.	DESCRIPTION
41	7020-L	Left Height Adjustment Short Control Rod
42	7039	Left Wheel Skirt
43	7040	Right Wheel Skirt
44	7041	Catcher Support Arm (2)
46	7043	Grass Catcher
47	7044-N	Grass Catcher Plate
47-A	7044-P	Grass Chute Cover
48	7045-N	Catcher Plate to Deck Brace
49	1033	5/16"-18x1/2" Hex
51	7047	1/4"-28x7/16" Bolt Special Head
52	7048	Catcher Plate to Wheel Skirt Base
53	7049-A	Grass Chute
55	7035	Flat Washer 5/16"
56	7051	Engine Mounting Bolt (3) 3/8" Self Tapping
57	21RMB-H	Mower Blade-Bagging
	21RMB-L	Mower Blade-Mulching
58	7053-A	Blade Bolt 3/8"-24x1"
59	7054	Blade Washer 3/8" Special Concave
60	7055-A	Blade Drive Hub
61	7056	Woodruff Key
	7058	8" Complete Wheel w/Bushings, Tire and Hub Cap
63	7059-N	Outside Replacement Wheel Bushing
64	7060-N	Inside Replacement Wheel Bushing
65	7061	8" Replacement Wheel Tire
66	7062	Replacement Wheel Rim
67	7063	Replacement Hub Cap
68	2004	Spring
69	Various	Engine - State Make and Model

McLane

21" Self-Propelled Rotary Model Parts List

REF. NO.	PART NO.	DESCRIPTION	LIST PRICE
1	7000	Deadman Blade Control Lever	
2	7002-A	Deadman Control Axle and Drive Handle Assembly	
3	7003-A	Deadman Blade Control Cable	
4	7004	Upper Handle	
5	7005	Bolts 5/16"-18x1/4"	
6	1075-A	Nut 5/16"-18 (4)	
7	7006-A	Throttle Control Assembly-5HP	
8	7007	Bolt 1/4"-28x1-1/2"	
9	1015	Nut 1/4"-28	
10	7008	Blade & Throttle Control Cable Housing Clamp	
11	7009	Throttle Control Assembly Bolt 1/4"x1"	
11-A	7009-B	Bushing for 7009 Bolt	
12	7010-N	Lower Handle Complete With Height Adjusting	
NS*	7068	Lower Handle Nut 1/2"-20	
15	7011	Recoil Starter Rope Stop & Nut	
16	6047	Spring	
17	7012-N	Height Adjustment Lever	
18	1009	Grip	
20	7009	1/4"x1" Bolt	
22	7020-R	Height Adjustment Main Control Rod	
23	2006	7/16"-14x2" Bolt	
24	7021-A	Height Adjustment Rear Bracket	
25	7070-A	Height Adjustment Tie Rod & Front Axle Assembly	
26	2004	Spring	
27	7030-A	Rear Tie Rod 7/16"-14x16-9/16"	
21	1008-A	Jam Nuts 7/16"-14 (4)	
28	1008	Lock Nuts 7/16"-14 (3)	
29	7031-A	Right Front Mounting Bracket	
30	7032-A	Left Front Mounting Bracket	
31	7033	Bolt, 5/16"-18x1/2" (4)	
32	7015-A	Shoulder Bolt 7/16"-14x3/4" (2)	
34	7037	Front Support Panel & Name Plate	
35	1020	Bolt, 1/4"-28 (2)	
36	1015	Nut 1/4"-28	
37	7147	Steel Deck	
38	7039-A	Left Wheel Skirt	
39	7020-L	Left Height Adjustment Short Control Rod	
40	7040-A	Right Wheel Skirt	
41	7041	Catcher Support Arm (2)	
42	7042	Catcher Support Rear Bracket	
43	7043	GrassCatcher	
44	7044-N	Grass Catcher Plate	
	7044-P	Grass Chute Cover	
45	7120	Catcher Plate Support Bracket	
46	7047	Bolt 1/4"-28 x 7/16" Special Head	
48	7048	Catcher Plate to Wheel Skirt Brace	
49	7049-A	Grass Chute	
50	7035	Flat Washer 5/16"	
51	7051	Engine Mounting Bolt 3/8"x1" Self Tapping(3)	
52	21RMB-H	Mower Blade Bagging	
	21RMB-L	Mower Blade Mulching	
53	7053-A	Blade Bolt 3/8"-24x1"	
54	7054	Blade Washer 3/8" Special Concave	
55	7055-A	Blade Drive Hub with Bolts & Nuts	
56	7056	Woodruf Key-For Honda Engine	
	7056-A	Regular Key for B&S Engine	
	7058	8" Complete Front Wheel w/Bearings, Rim, Tire and Hub Cap	
58	7059-N	Outside Replacement Wheel Bushing	
59	7060-N	Inside Replacement Wheel Bushing	
60	7061	8" Replacement Wheel Tire	
61	7062	Replacement Wheel Rim	
62	7063	Replacement Hub Cap	
63	7100	Motor Pulley	
63-A	7056	Woodruff Key for 7100 Pulley	
64	7101	Drive Disc Assembly Complete	
66	1033	Drive Disc Bolt 5/16"-18x1/2" Hex (4)	
67	7102	Drive Belt #2245	
68	7103	Drive Wheel Assembly	
69	7104-C	Bell Crank Complete with Bearing, Jack Shaft, Rear Gear and Offset Bracket	

McLane

21" Self-Propelled Rotary Model Parts List

REF. NO.	PART NO.	DESCRIPTION
	NOTE:	*As of 11/92 the Bell Crank Assembly parts will be sold separately as listed below: (4 parts)*
69	7104-AA	Bell Crank & 1 Bearing
80	7114-B	Jack Shaft & Rear Gear
83	1069-A	Sprocket (9 Tooth w/Hub)
84 A	7115-A	Drive Brackets and Guard (1 Piece)
71	7105-A	Hex Drive Shaft, Bearing & Front Gear
99	7107-B	Drive Belt
73	7109	Bell Crank Bolt 5/16"-18x2" Hex
74	7109-A	Bell Crank Bolt 5/16"-18x2-3/4" Hex
75	7110-A	Bell Crank Stop Bracket w/Bearing
70	2036	Bearing (6202 5/8")
77	7111-A	Spacer 1-9/16"
78	7112	Drive Support to Deck Bracket
79	7113-A	Front Upright Support w/Bearing
86	7117-A	Chain (#41-34 Pitch) Jack Shaft to Double Idler Sprocket w/ML
87	7118	Rear Upright Support w/Bearing
88	7121	Shift Lever Guide
89	7122	Shift Selector
90	7123	Shift Lever
91	7124	Top Shift Finger
92	7125	Bottom Shift Finger
93	1018	Shift Finger to Shift Lever Bolt
94	7126	Shift Selector to Handle Bolt
95	7127-A	Double Idler Sprocket with Bearing
95	7060	Bearing for 7127-A Sprocket
96	1033-G	Assembly Consists of 2 Bolts & 1 Nut (Nut welded to bolt)
98	1070-A	Set Screw For 1069-A Sprocket
100	7130-A	Right Drive Strut w/Bearing
	7130-B	Left Drive Strut w/Bearing
100-A	7170	Idler Chain Tension Bracket
	7171	Idler Chain Tension Sprocket (8 Tooth)
101	7131-A	Rear Axle 5/8"x19 13/16"
102	1068-C	Rear Sprockt (30 Tooth w/Hub)
103	7132-A	Rear Chain (54 Pitch) Double Sprocket to Rear Axle w/ML
104	7133	Right Rear Axle Hanger w/Bearing
105	7133-A	Left Rear Axle Hanger w/Bearing
106	1037	Axle Hanger Bearing
107	1051	Axle Washer 5/8" (2)
	7135-B**	Rear Wheel Comp. w/8" Rear Wheel Tire
108	7136-A	Replacement Rear Wheel Rim
109	7061-A	Replacement Rear Wheel Tire
62	7063	Replacement Hub Cap
70 A	7180	Replacement Outside Wheel Bearing
110	7137-A	Replacement Sprag
111	7138	Replacement Sprag Roller (4)
112	7140-A	Replacement Dust Cover
113	7143	Left Drive Arm
114	7018	Square Head Set Screw 3/8"-16x5/8" (1)
115	7144-A	Drive Control Rod
117	7152	Drive Control Rod Spring
118	1011	Drive Control Rod Cotter Pins 1/8"x1/2" (2)
119	7199	Return Spring
122	1061-A	Inside Chain Guard
123	7153	Main Guard
125	7159	Axle Chain Guard
126	Various	Engine - State Make and Model
127	7166	Drive Belt Guard
128	7167	Alignment Bracket-Rear Deck to Rear Tie Rod
	7160	Complete Drive Train
130	7198	Chain Idler Spring

ACCESSORY ITEM

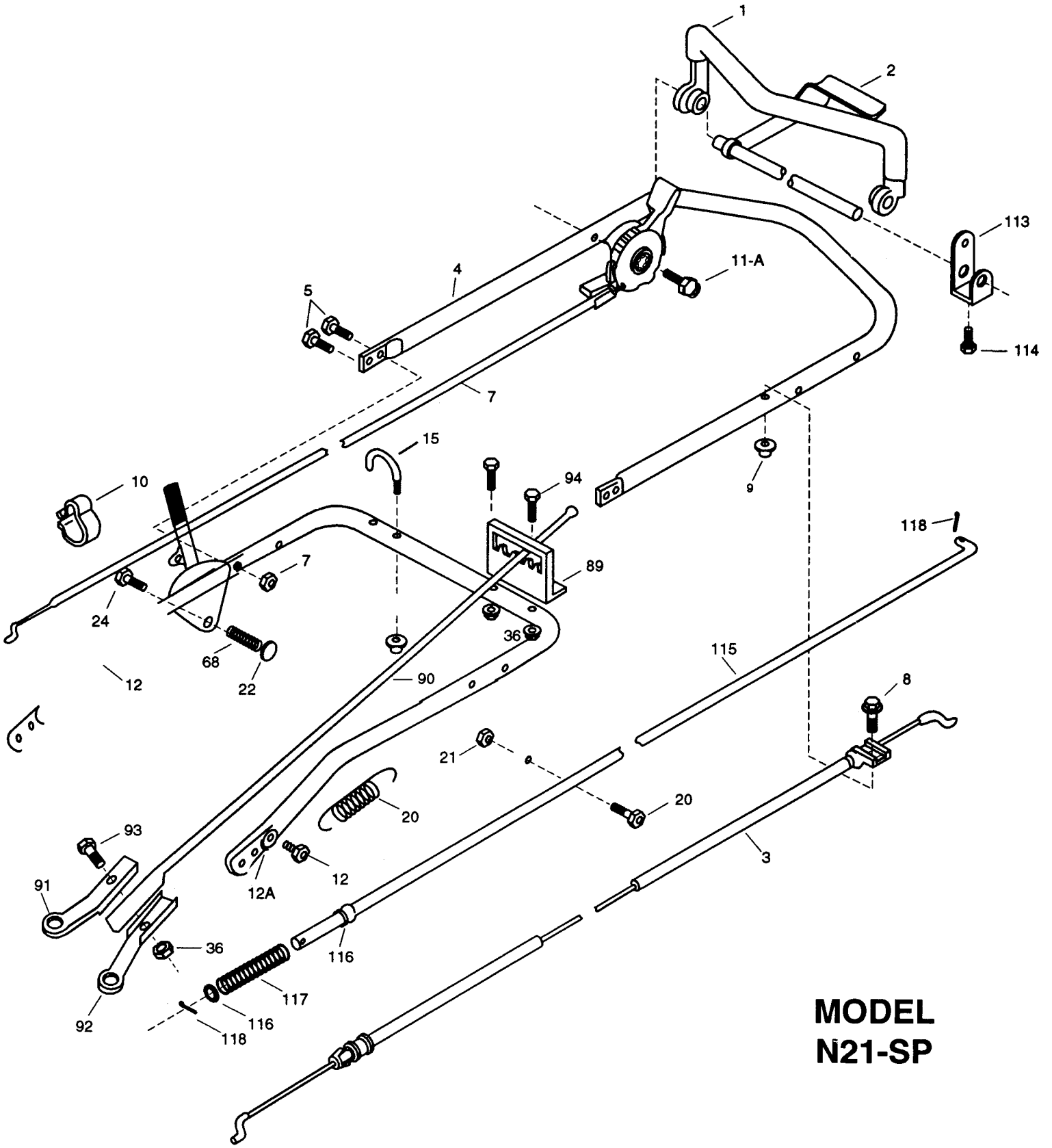
*7155	Side Discharge Chute

* Not Shown

** Must Indicate Left or Right Wheel

When ordering parts, be sure to specify model and part numbers. Do not order by Ref. No.

ALL ORDERS UNDER $15.00 ARE C.O.D.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MODEL
N21-SP

INSTRUCTIONS FOR INSTALLING A SIDE DISCHARGE CHUTE

(The side discharge chute is an accessory item listed above)
Tools required: 1/2" wrench

1. Remove the three bolts holding the grass chute (Ref. No. 49) to the mower deck.

2. Remove the front bolt from the removable shield (Ref. No. 120) After the shield is removed, replace the front bolt and be sure to tighten securely.

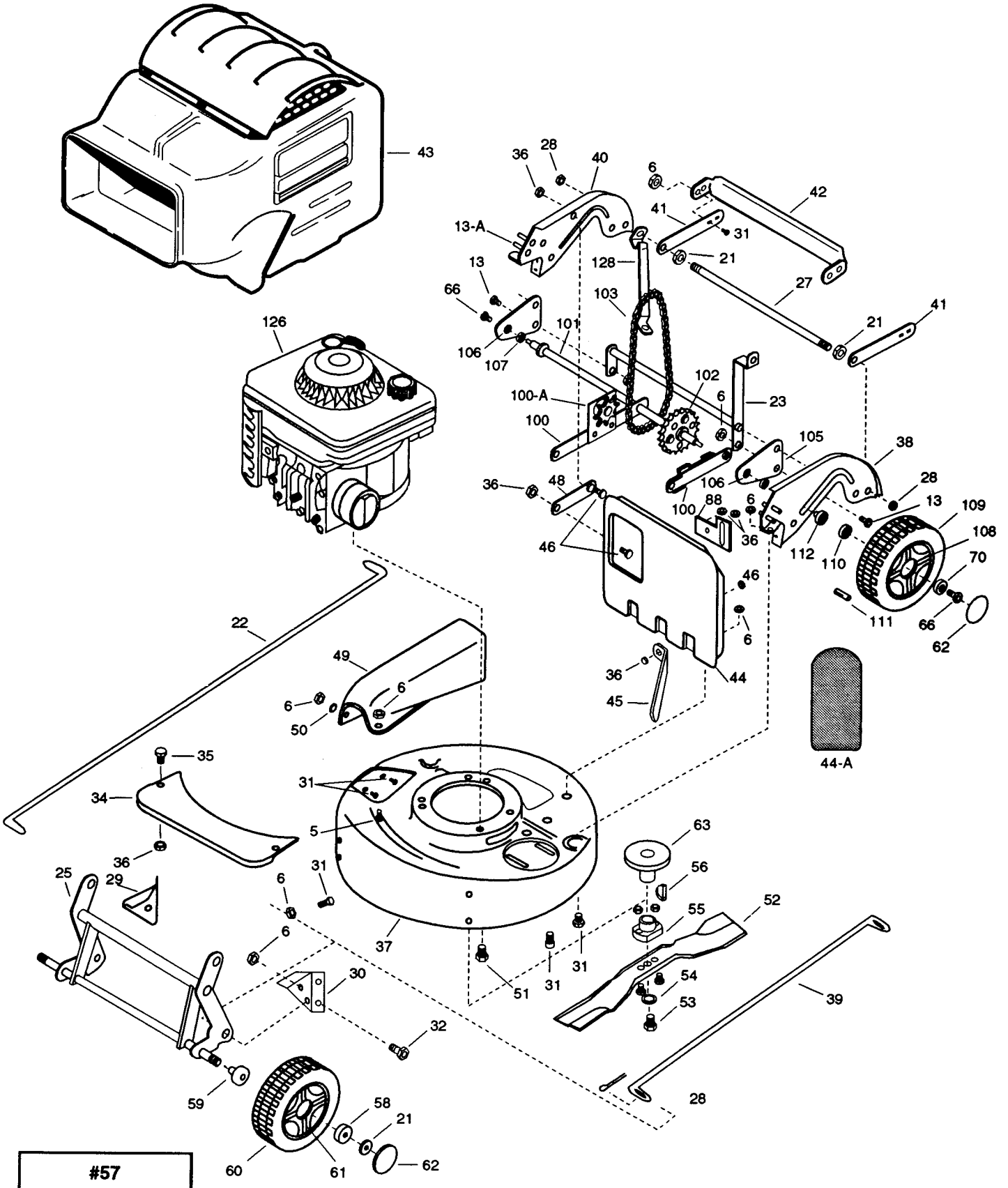
3. Remove the grass chute from the mower by pulling it free from the catcher back plate (Ref. No. 44).

4. Be sure to keep the grass chute, removable shield and the three bolts and nuts together in a secure place so they will be available when returning the the mower to a rear-bagger.

5. Remove the three bolts from the side discharge chute and place the chute over the opening in the deck where the grass chute is located. Now secure the side discharge chute to the mower deck with the three bolts furnished. Be sure to tighten the nuts securely.

6. The grass catcher now becomes a non-functional part of the mower, but need not be removed while using the side discharge chute.

7. To return the mower to a rear-bagger, just reverse the above procedures.

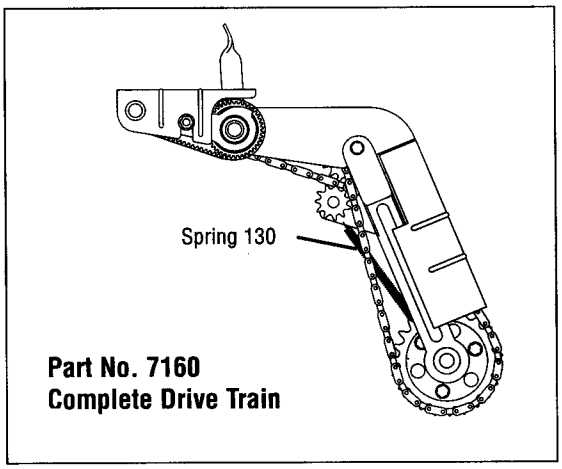


#57

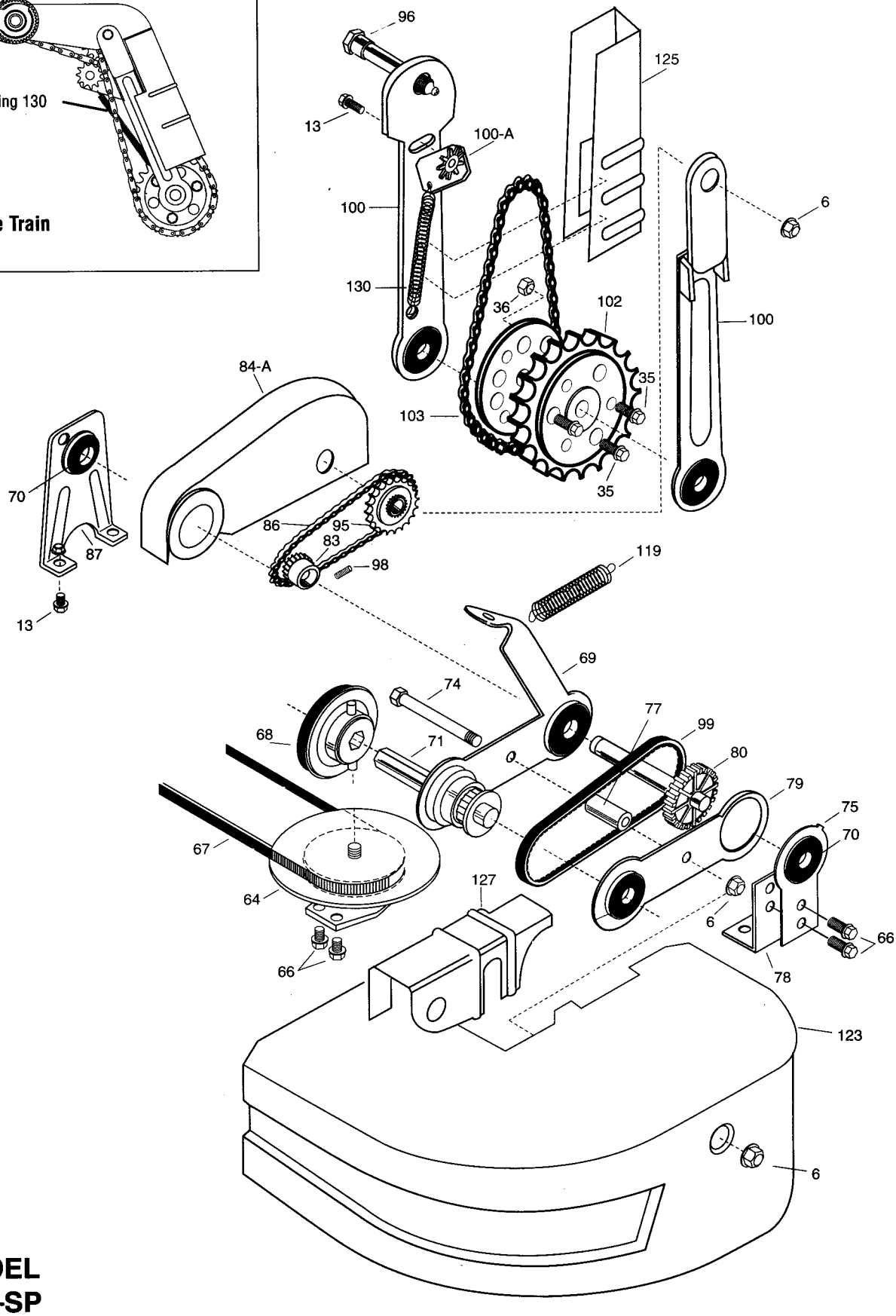
Brigs & Straton

Honda

MODEL N21-SP



Part No. 7160
Complete Drive Train



MODEL
N21–SP

Service Record

DATE	COMPONENTS REPLACED

ENGINE
TROUBLE SHOOTING CHART

PROBLEM	CAUSE
1. Engine fails to start	**A.** Check fuel tank for gas. **B.** Spark plug lead wire disconnected. **C.** Throttle control lever not in starting position. **D.** Check Spark plug.* **E.** Carburetor improperly adjusted. Engine flooded. Remove spark plug, dry the plug, crank engine with plug removed, and throttle in off position. Replace spark plug and lead wire and resume starting procedures. **F.** Old/stale gas. Drain and refill with fresh gas.
2. Hard starting or loss of power	**A.** Spark plug wire loose. **B.** Carburetor improperly adjusted.* **C.** Dirty air cleaner.*
3. Operation erratic	**A.** Dirt in gas tank. Drain, clean and refill. **B.** Dirty air cleaner.* **C.** Water in fuel supply. Drain and refill. **D.** Vent in gas cap and/or carburetor plugged. Clear vent. **E.** Carburetor improperly adjusted.*
4. Occasional skip	**A.** Spark plug fouled, faulty or gap too wide.* **B.** Carburetor improperly adjusted.* **C.** Dirty air cleaner.*
5. Idles Poorly (hesitates) at high speed	**A.** Carburetor idle speed too slow.* **B.** Spark plug gap too close.* **C.** Carburetor idle mixture adjustment improperly set.*
6. Engine overheats	**A.** Adjust carburetor.* **B.** Remove any obstructions from air passages in shrouds. **C.** Clean cooling fans. **D.** Fill crankcase to proper oil level.

***Note:** For repairs beyond the minor adjustments listed above, please contact your local Authorized Dealer.

Notice to customers In the State of California. The engine on this unit is not equipped with a spark arrestor.

⚠ WARNING ⚠

USE OR OPERATION OF THIS ENGINE ON ANY FOREST COVER, BRUSH COVERED, OR GRASS COVERED LAND WITHOUT A STATE APPROVED SPARK ARRESTOR IN EFFECTIVE WORKING ORDER CONSTITUTES A VIOLATION OF THE LAW OF THE STATE OF CALIFORNIA.

DRIVE SYSTEM
TROUBLE SHOOTING CHART
N21-SP MODEL

PROBLEM	CAUSE
1. Drive will not turn—Slips or is slow.	**A.** Drive belt (7102) from engine to drive disc is loose or broken. 1. Tighten belt by sliding #7101 toward outside of deck. 2. Replace belt. 3. Check nylon engine pulley for wear. **B.** Drive wheel (7103) is not making good contact with drive disc. 1. Adjust by lowering drive control handle. See page 9. **C.** Drive Disc (7101) is oily. 1. Clean disc and wheel with solvent. **D.** Drive Wheel will not go to outside of drive disc. 1. Readjust wheel to disc. See page 9.
2. Rear wheel not moving, but axle turns.	**A.** Sprag rollers sticking. 1. Remove rear wheels and clean sprags and sprag rollers. Reassemble. **B.** Replace Axle if excessive wear is evident.
3. Rear Chain will not stay on.	**A.** Check spring loaded idler. 1. Check sprocket and spring. 2. Replace if worn or weak. **B.** Check chain for wear and replace if excessive wear is evident. **C.** Replace chain guard.
4. Grass blows out around catcher plate.	**A.** Catcher rear support is too loose. 1. Move forward to tighten catcher against catcher plate.
5. Grass blows out around top corners of catcher plate.	**A.** Catcher rear support is too low. 1. Loosen 7/16" nuts on support arms and raise rear support. Tighten nuts. 2. Check the support arm retainer tab on wheel skirt. If not tight against bottom of support arm, bend tabs up against support arms.