

# **SNAPPER®**

**21" HI-VAC -- SERIES 9  
WALK MOWERS**

**OD21359B  
ODP21379B**



ODP21379B SHOWN

*Thank you for buying a SNAPPER product! Before operating your mower, read this manual carefully, and pay particular attention to the **Important Safety Instructions** on page 2. Remember that mowers and all power equipment can be dangerous if used improperly. Keep in mind that safety requires careful use in accordance with the instructions and.....common sense!*

**SNAPPER POWER EQUIPMENT**  
McDonough, GA., 30253 U.S.A.

**E/I**

**FUGUA**  
INDUSTRIES  
Company

#2-4597 (REV. 1, 2/92)

# IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** Failure to comply with the following instructions may result in serious injury to the operator or other persons. The owner of the mower must understand these instructions and, furthermore, must allow only persons who understand these instructions to operate mower. Each person operating the mower must be of sound mind and body and must not be under the influence of any substance which might impair vision, dexterity, or judgement. If you have any questions pertaining to your mower which your dealer cannot answer to your satisfaction, call or write the Customer Service Department at SNAPPER POWER EQUIPMENT, McDonough, Georgia, 30253 (404 954-2500).

## TRAINING

1. Read this Manual carefully and question your dealer if something is not clear. Should the dealer be unavailable or unable to answer to your satisfaction, write or call our Customer Service Department at the factory. Be thoroughly familiar with the controls and proper use of the equipment.
2. DO NOT allow children in yard when mower is operated.
3. DO NOT allow pre-teenage children to operate mower.
4. Allow only responsible teenagers with mature judgement to operate mower and only under close supervision.
5. Keep the area clear of all persons, particularly small children, and pets.

## PREPARATION

1. Never operate mower without proper guards, plates, safety switches, or other safety protective devices in place and properly connected. Inspect to determine that these safety devices are installed properly, are in good repair, and operate properly. If the condition or operation of these devices are questionable, they must be repaired or replaced before using the mower.
2. Thoroughly inspect the area where the mower is to be used and remove all stones, sticks, wire, bones and other foreign objects. Also note the location of holes, stumps, and other possible hazards.
3. DO NOT operate mower when barefoot or wearing open sandals. Always wear substantial footwear and long pants.
4. Fill gasoline tank before starting engine. Use approved gasoline container. DO NOT smoke near open gasoline container. DO NOT fill gasoline tank indoors or when engine is running. Allow engine to cool for at least ten minutes before refilling. Wipe off any spilled gasoline before starting engine. DO NOT run engine indoors.
5. Make sure that traction drive clutch control is disengaged before starting engine.
6. Never attempt to make a cutting height adjustment while the engine is running.
7. When mowing over rough ground or in tall grass, mower must be set at highest cutting position.
8. Mow only in daylight or in good artificial light.
9. Never operate mower in tall grass. Always be sure of your footing; keep a firm hold on the handle and walk; never run.
10. DO NOT operate mower without the grass bag and adapter or the side discharge chute in place.

## 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 area while engine is running.
3. Stop engine when crossing gravel drives, walks, or roads, and under any conditions where thrown objects might be a hazard.
4. After striking a foreign object or if mower vibrates abnormally, stop the engine, disconnect and secure spark plug wire. Inspect the mower for any damage and repair the damage.
5. Stop blade and engine whenever you leave the operating position behind the handle for any reason, including clearing grass, emptying grass bag and making any adjustments, repairs, or inspections.
6. Before cleaning, repairing or inspecting, make certain blade and all moving parts have stopped. Disconnect and secure spark plug wire away from plug to prevent accidental starting.
7. Stop engine and wait until the blade comes to complete stop before removing grass bag and/or clearing grass.
8. Mow across slopes, never up-and-down. Exercise caution when changing directions on slopes. DO NOT mow steep slopes or other area where stability or traction is in doubt.

## MAINTENANCE AND STORAGE

1. Keep all nuts, bolts, and screws tight to be sure mower is in safe operating condition.
2. Never store mower with gasoline in tank inside of a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
3. To reduce fire hazard, keep mower free of grass, leaves or excessive grease.
4. Check grass bag assembly frequently for wear or deterioration. Replace with new bag if loose seams or tears are evident. Replace slider or bag adapter if broken or cracked.
5. Have your mower inspected and serviced each year by an authorized Snapper dealer. Determine if any additional devices are available which might upgrade the safety of your mower.
6. Factory specified Snapper replacement parts must be used to assure adequate protection against injury.

## INTRODUCTION

This manual covers *SNAPPER* Series 9 walk behind 21" push & self-propelled mowers. Series 9 models can (with the proper attachments) discharge chopped and shredded mixed clippings (RECYCLING), bag clippings (GRASS BAG), or vacuum thatch (THATCHERIZER & GRASS BAG), or vacuum clippings and leaves (SNAPPERIZER & GRASS BAG).

The THATCHERIZER is recommended for self-propelled models. For more complete descriptions, refer to the POPULAR ACCESSORIES section.

## OPERATING INSTRUCTIONS

Know how to stop the mower in preparation for possible emergencies **BEFORE** the first start-up!

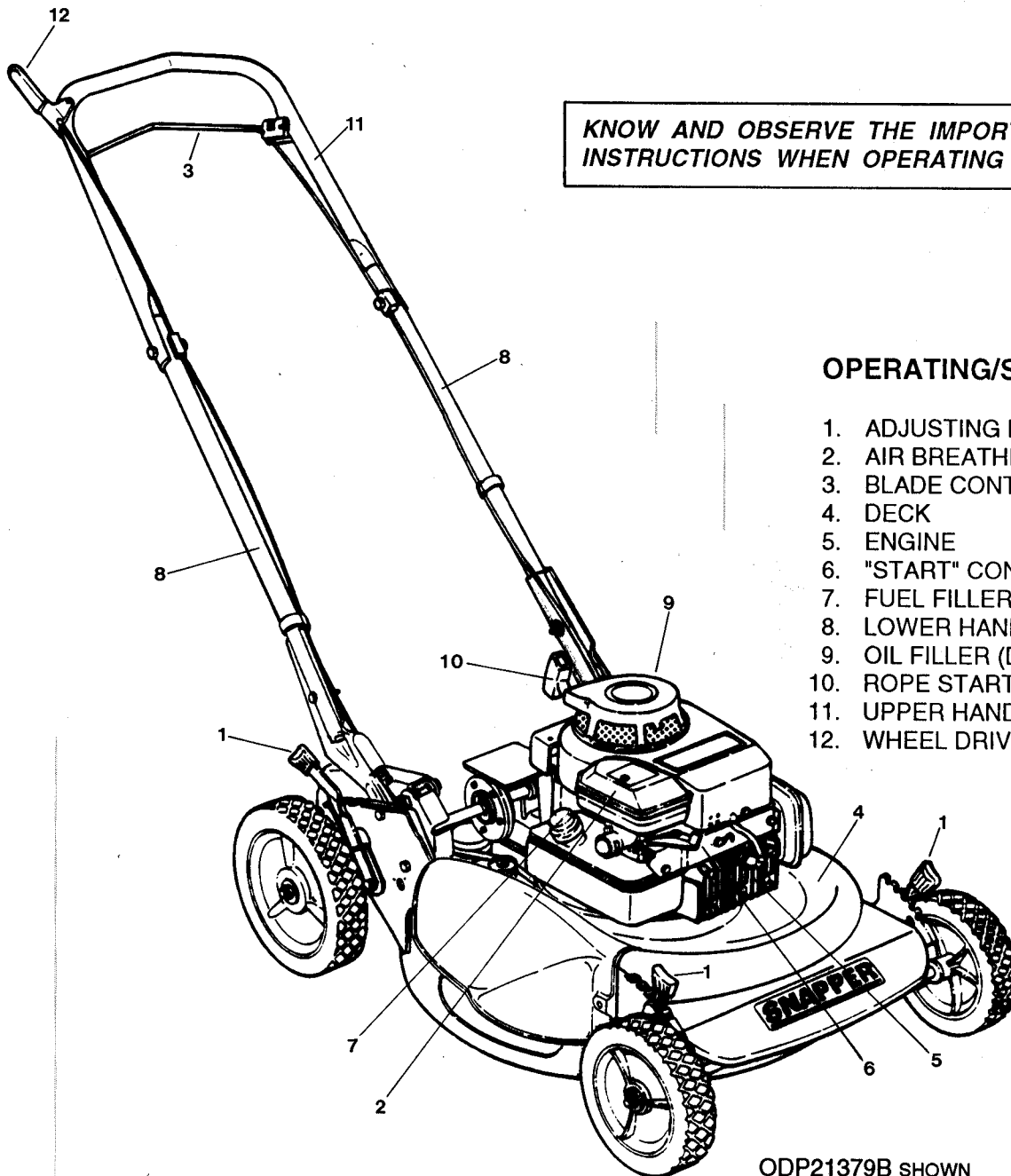
For easier starting, move the mower to an area where the blade can turn freely without being restricted by tall grass.

The engine (and blade) is stopped by releasing the BLADE CONTROL (3). On self-propelled models, releasing the WHEEL DRIVE control (12) stops the forward movement of the mower. Refer to FIG.1 for locations of controls.

**KNOW AND OBSERVE THE IMPORTANT SAFETY INSTRUCTIONS WHEN OPERATING THE MOWER!**

### OPERATING/SERVICE POINTS

1. ADJUSTING LATCH (HEIGHT)
2. AIR BREATHER (COVER)
3. BLADE CONTROL
4. DECK
5. ENGINE
6. "START" CONTROL LEVER
7. FUEL FILLER CAP
8. LOWER HANDLE
9. OIL FILLER (DIPSTICK)
10. ROPE START HANDLE
11. UPPER HANDLE
12. WHEEL DRIVE CONTROL



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FIG.1 - LOCATION OF CONTROLS/FEATURES

## PRE-START CHECKS

Prior to each start-up, check/service as needed:

- **CHECK** side discharge chute for proper position and tightness.
- **NOTE:** The "tab" on the inside rear edge of the adapter or side chute must push the interlock spring in toward the center of the mower. If the tab is improperly installed, the engine **CAN NOT** be started.
- **CLEAN** surfaces to remove dust, dirt, and clippings—particularly from the cooling air intake screen on the engine to prevent overheating.
- **CHECK** oil level in 4-cycle engines and add oil as needed to bring the level up to but not over the dipstick (9) "FULL" mark. Refer to FIG. 2
- **CHECK** cutting height and adjust as needed, to suit the prevailing grass conditions. Refer to FIG. 4.
- **CHECK** fuel level in tank after pushing mower outdoors where fumes will safely dissipate.

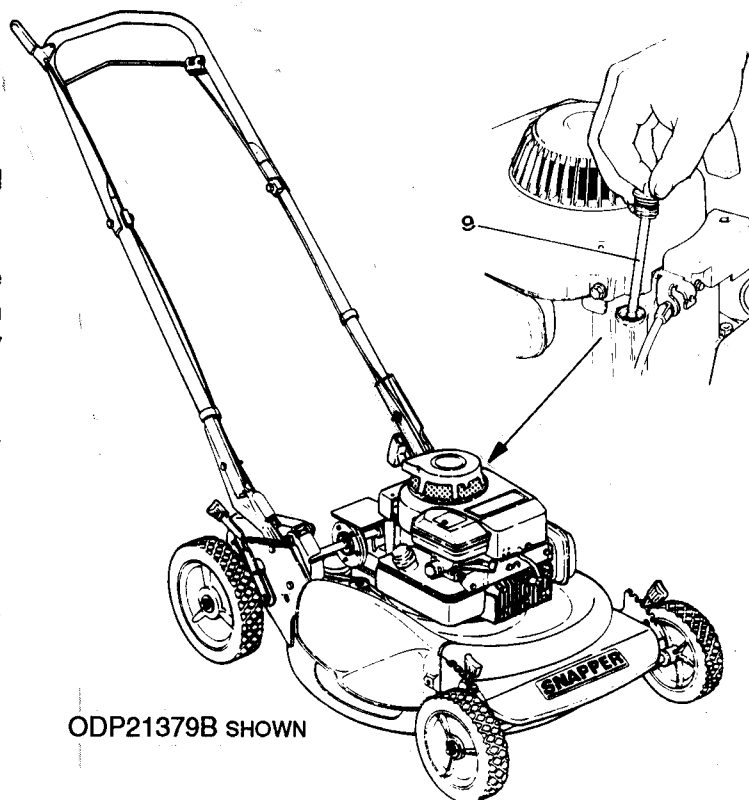


FIG. 2 - DIPSTICK LOCATION

## STARTING/STOPPING ENGINE

**NOTE:** Stop the engine (and blade) by releasing the **BLADE CONTROL**.

1. Move the ENGINE CONTROL lever to the "**START**" position. Push the primer button in if the engine is cold. (See Engine Manual)
2. Hold **BLADE CONTROL** (3) firmly against **UPPER HANDLE** (11) - otherwise the engine will not start! Refer to FIG. 3.
3. Place left foot on top of the rear tire with toes pointing forward.
4. Bend at the waist to reach **ROPE START HANDLE** (10), then straighten up as you pull the handle - using back muscles more than arm muscles.
5. Continue pulling **ROPE START HANDLE** until the engine starts. Guide rope slowly back into engine shroud to prevent rope breakage which could result if the handle is allowed to snap back. Continue holding the **BLADE CONTROL** and move around behind the **UPPER HANDLE** to the Operator's position.

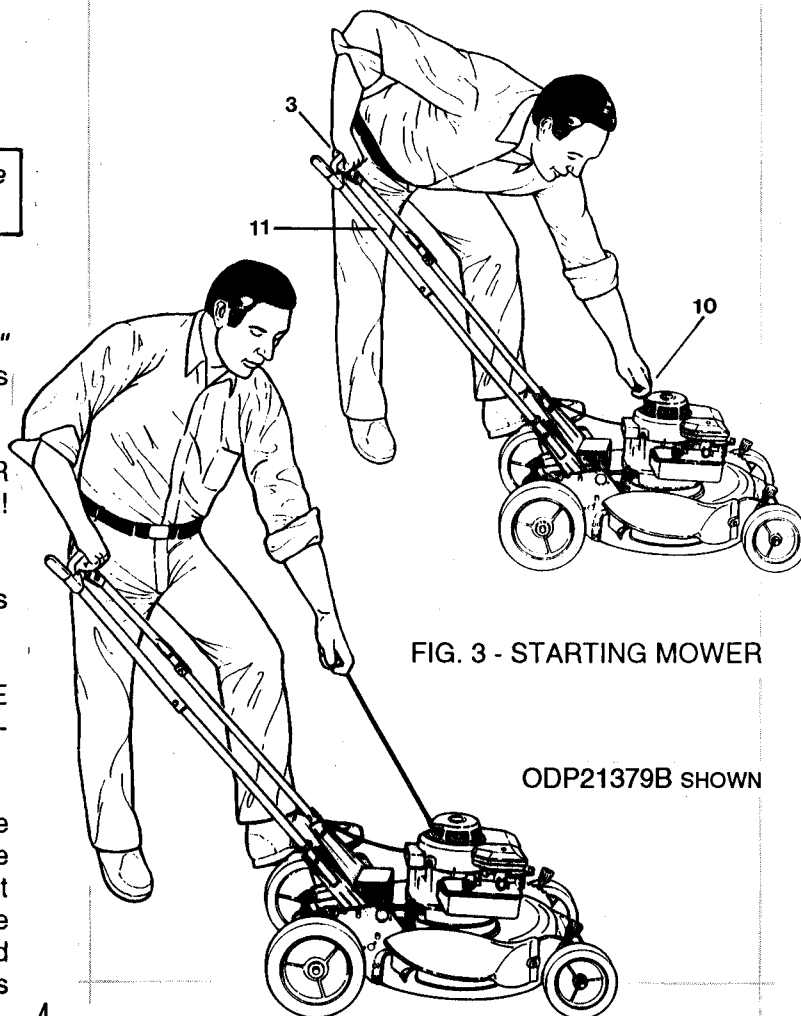


FIG. 3 - STARTING MOWER

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## CUTTING HEIGHT ADJUSTMENT

**ALWAYS STOP THE ENGINE AND WAIT UNTIL THE MOWER'S BLADE STOPS COMPLETELY BEFORE RE-ADJUSTING CUTTING HEIGHT!**

To re-adjust mower cutting height, pull each of the four height ADJUSTING LATCHES (1) outward toward the wheel and then slide into the desired notch. Set both latches on one side and then set the two on other side into corresponding notches. When setting the rear latches into LOWER notches, raise the rear wheels off the ground to ease procedures.

It is recommended that no more than 1/3 the height be cut from the grass.

**EXAMPLE:** If the grass is 4" tall, set the four ADJUSTING LATCHES (1) in notch 5 (the highest blade setting) which will leave the grass at approximately 3" tall after cutting - well within the 1/3 off limit. If you prefer shorter grass, wait a few days before recutting at a lower setting. If cut short too frequently, the root system will be more subject to burning, due to energy being expended toward the development of new leaf structures rather than the necessary development and reinforcement of a good healthy root system!

If allowed to grow too tall, the lower portion (which will then be shaded) will discolor.

During dry seasons, allow the grass to grow taller than normal. Refer to FIG. 4 -A.

## MOWING PROCEDURE

Set the ENGINE CONTROL lever (10) in the fast (F) position for thick grass, AND slow down (reduce "Ground Speed") OR narrow the cut to less than the full blade width.

On the self-propelled model, grasp the WHEEL DRIVE CONTROL (12) and hold against the UPPER HANDLE (11) to engage clutch. To stop the mower's forward movement, release the WHEEL DRIVE CONTROL - the mower can then be pushed forward or pulled for trimming.

## SERVICE PROCEDURE

Your SNAPPER mower requires very little service, however, it is important that the engine be serviced at the intervals specified in the engine manual furnished with your mower.

To retain the integrity of your mower, only use Genuine SNAPPER Replacement Parts.

By returning your mower to an Authorized SNAPPER Dealer on a yearly basis for inspection and addition of any new devices to upgrade your mower, the reliability of the unit's functions will be assured.

**NOTE:** The highest cutting position is attained with the four latches set in notch 5. The lowest cutting position is with latches set in notch 1. Refer to FIG. 4.

FIG. 4  
CUTTING HEIGHT  
ADJUSTMENT

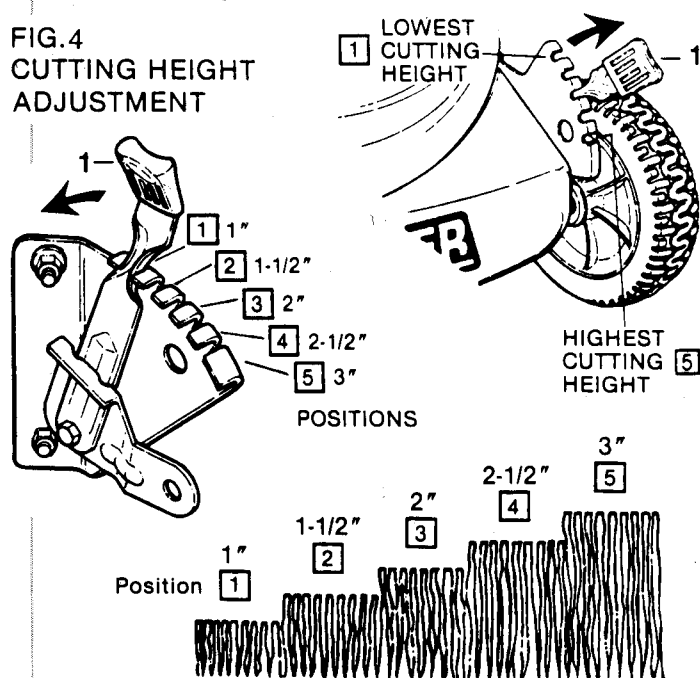


FIG. 4 -A- CUTTING HEIGHT SETTINGS

**NOTE:** It is recommended that the ENGINE CONTROL lever be set in the "FAST" position (higher RPM's) when recycling.

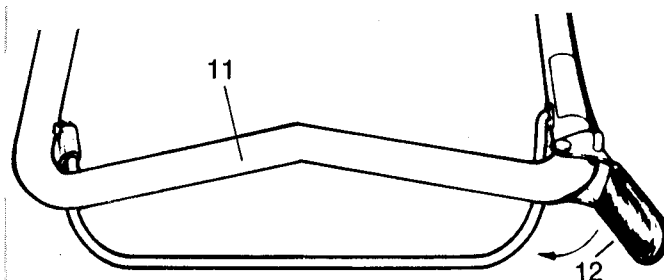


FIG. 5-MOWING CONTROLS

Check the yellow pages under LAWN MOWERS for the nearest SNAPPER Dealer. Always mention the model and serial number of your mower when contacting the dealer for information, parts, or service.

**WARNING:** Always disconnect the spark plug wire from the spark plug when inspecting/servicing the mower - to prevent unintentional engine start-ups.

**NOTE:** When tipping the mower to work on the underside, always tilt it onto the LEFT wheels to prevent flooding the engine with gasoline and/or oil which would cause hard starting after servicing.

5 For engine parts/service, check the yellow pages under the heading ENGINES - gasoline, for the nearest engine manufacturer's dealer.

## LUBRICATION SCHEDULE

• **ENGINE:** Change oil every 25 hours as specified in engine manual; check oil level before each use.

• **TRANSMISSION (on the self-propelled models):**

The transmission is filled with 4 ounces of **SNAPPER "00"** grease at the factory and under normal usage, will not require additional grease. It is recommended that plug (A) be removed after every 25 hours of operation, and a visual determination of the lubrication condition of the transmission be made. If grease IS NOT visible on the INPUT GEAR (the small gear below the plug opening), add a small amount of **SNAPPER "00"** grease. Reinstall the plug (A) after servicing the transmission. Refer to FIG. 6.

**SNAPPER "00"** grease is available in a convenient squeeze container (Part No. 6-1017) at your **SNAPPER** Dealer.

OIL PLUG-DRAIN (UNDER DECK)

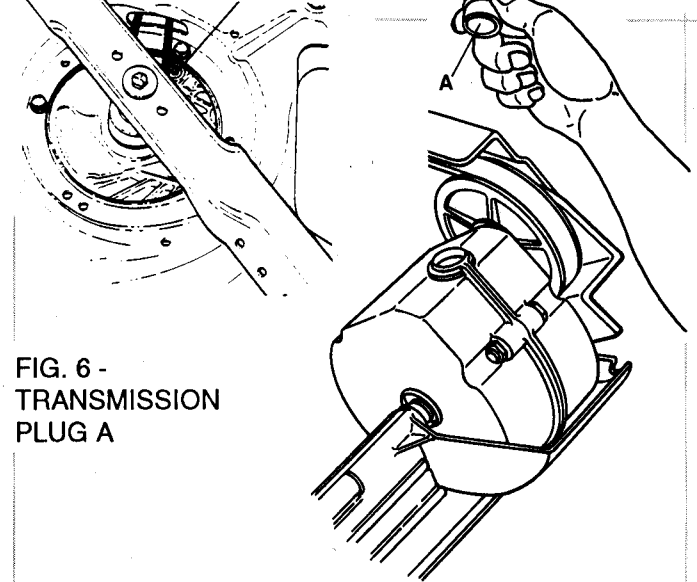


FIG. 6 -  
TRANSMISSION  
PLUG A

## CUTTING BLADE SERVICE

**WARNING:** Always disconnect the spark plug wire and secure the end away from the plug before inspecting/servicing the blade, to prevent unintentional start-ups.

Inspect blade at frequent intervals for tightness and condition.

Refer to FIG. 7 for blade condition. Replace the blade if it is badly chipped, bent, noticeably out of balance, or has a notch worn in either tip - as shown in example B.

The B wear pattern occurs more rapidly under sandy soil conditions and appears between the flat surface and upturned "lift" lip at each end of blade tip.

**WARNING:** Never operate the mower with a blade worn to the extent shown in example C - the "tip" could fly off and cause personal injury or property damage.

When the blade's cutting edges have become dull (while in otherwise good condition), sharpen on a grinding wheel at an angle of 22 to 28 degrees. The cutting surface (on each end) should extend inward about 3-1/2" from the tip. After sharpening, check the blade for balance - a blade "out of balance" will cause excessive vibration. Re-balance as required.

Re-install the blade with the components in proper sequence as shown in FIG. 8.

**DO NOT** substitute any components! Make sure the flange on each side of the blade (at the mounting hole) fits over the edge of the blade drive hub (A). Tighten the blade retaining capscREW (B) to 30 FOOT POUNDS TORQUE.

**BE CAREFUL: AVOID CUTTING YOURSELF ON A SHARP BLADE!** Wear gloves to protect your hands while handling the blade.

**WARNING:** DO NOT operate the mower without the side discharge chute, adaptor/bag, or deck cover installed and properly secured!

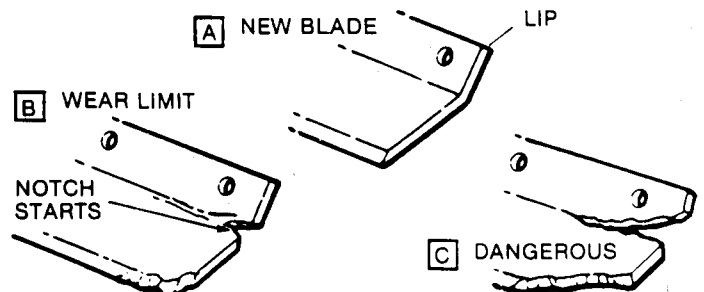


FIG. 7-BLADE WEAR PATTERNS

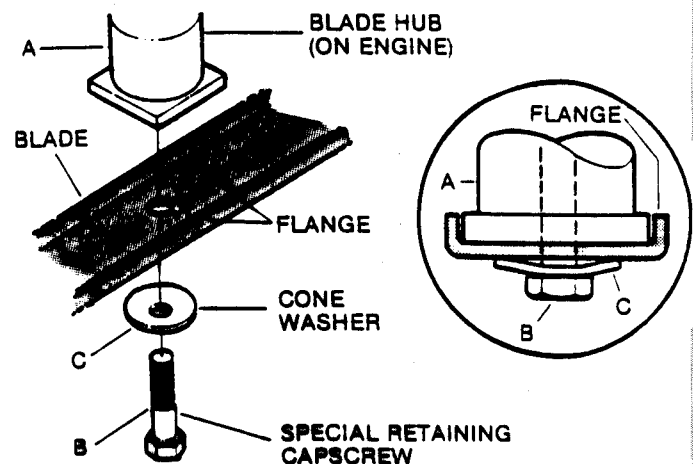


FIG. 8 - BLADE RETENTION DETAIL

## BELT SERVICE

Slippage (from worn belts) can prevent a self-propelled mower from maintaining optimum performance. The engine belt transmits power to the drive belt which then drives the transmission and wheels. Replace the two belts as needed.

**NOTE:** Disconnect the SPARK PLUG WIRE **BEFORE** starting belt replacement.

## ENGINE BELT ADJUSTMENT

1. Using a 1/2" wrench, loosen hex nut (L) which secures idler pulley (4) to the deck.
2. Move the idler pulley to the LEFT to increase the belt tension.
3. While holding the idler pulley in the desired position, tighten the hex nut. Use care not to over torque the nut and break its carriage bolt.

## ENGINE BELT REPLACEMENT

1. Using a 1/2" wrench, loosen the hex nut (L) which secures idler pulley (4) to the deck.
2. Move the idler pulley to the RIGHT as far as it will go.
3. Remove guard (X) to permit necessary clearance for engine belt removal.
4. Relieve spring tension by turning spring (C)'s retaining bolt (D) *COUNTER-CLOCKWISE* while holding hex nut (E). **DO NOT** remove the nut.
5. Remove the engine belt from the groove in the drive disc assembly. Then, raise the drive shaft and slip the belt out between the driven disc and drive disc (A).
6. Tilt the mower up on its LEFT wheels and remove the cutting blade and hub. Then install the new **SNAPPER** engine belt and insert it through the hole in deck before lowering the mower back down on all four wheels.
7. Reinstall the cutting blade and hub. Raise the drive shaft and slip the engine belt in between the driven disc and drive disc (A) and then down into its proper position in pulley grooves.
8. Retention spring (C) by holding hex nut (E) while tightening bolt (D) - turn the bolt *CLOCKWISE* until it is flush with the bottom of nut (E).
9. Reinstall guard (X).

## DRIVE BELT REPLACEMENT

1. To replace the drive belt (POLY-VEE), remove the belt from the grooves in the drive shaft pulley (1). Remove it from between idler pulley (2), and guard (Y), and slip it out between the transmission pulley (3), and the transmission bracket/guard.
2. Remove guard (X). Hold hex nut (E) while turning spring (C)'s retaining bolt (D) *COUNTER-CLOCKWISE* - remove these components.
3. Raise the drive shaft enough to permit the belt to pass between the driven disc and drive disc (A).
4. Rotate the drive shaft bearing holder assembly (4) upward, and guide the worn belt around the bearing holder until the belt can be removed and discarded.
5. Reverse the above procedures to install a new **SNAPPER** POLY-VEE drive belt.
6. After the new drive belt has been installed, tighten the retaining bolt (D) against spring (C) until the bolt is flush with the bottom of nut (E).

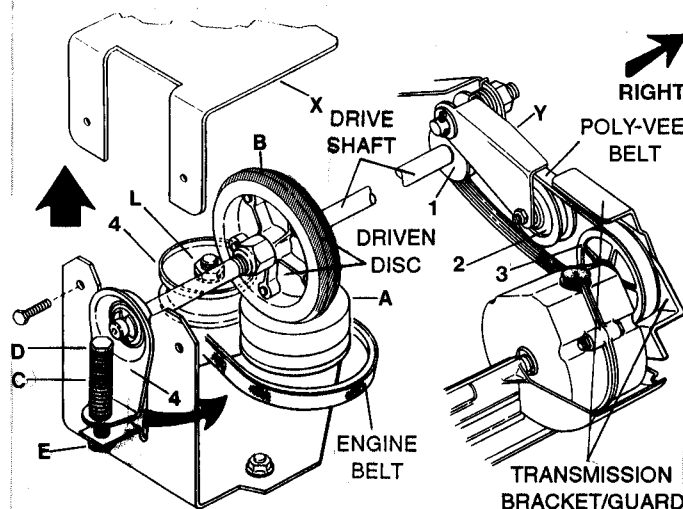


FIG. 9 - ENGINE/DRIVE BELT DETAILS

## DRIVEN DISC SERVICE

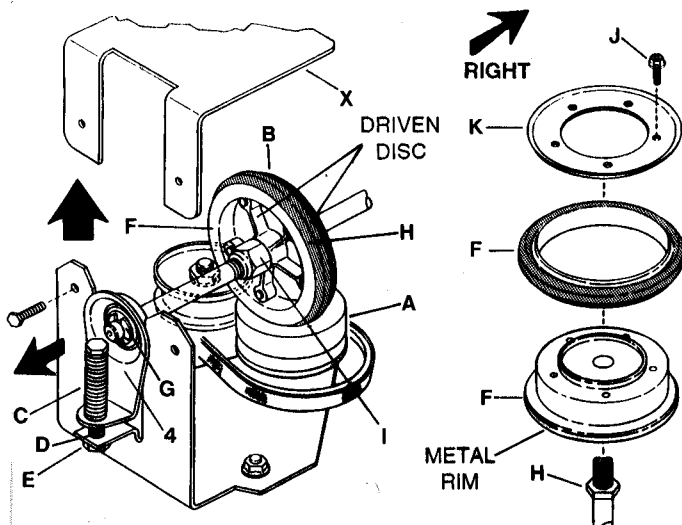
If self-propelled mower (ODP model) does not pull properly, refer to Fig. 10 and check for the following:

- ☐ Grease on surface of drive disc (A) - causing the driven disc's rubber ring (B) to slip. Remove grease from BOTH surfaces.
- ☐ The driven disc's rubber ring (B) is not contacting drive disc (A) properly. If the rubber ring is slightly worn, and in good condition, it may be adjusted for better contact by tightening retaining bolt (D) until more friction is attained. Replace rubber ring when necessary.
- ☐ One or both belts are worn - replace as needed.

## DRIVEN DISC REPLACEMENT

If the driven disc's rubber ring (B) is found to be badly chunked, or it is worn down to within 1/16" of the metal rim on hub (F), it must be replaced.

1. Remove guard (X). Hold hex nut (E) while turning spring (C)'s retaining bolt (D) **COUNTER-CLOCKWISE** - remove these components.
2. Remove E-ring (G) from the LEFT end of the drive shaft and slide bearing holder assembly (4) off shaft.
3. Hold the drive shaft hex nut (H) (on RIGHT side of hub F) with a 3/4" wrench while removing the 1/2" hex lock nut (I) (on LEFT side of hub F).
4. Slide driven disc hub (F) to the LEFT and off shaft.
5. Remove the five machine screws (J), and remove retaining plate (K). Replace the worn rubber ring (B) as shown in Fig. 10.
6. Reverse procedures for reassembly and installation.



## STORAGE PROCEDURE

Refer to the engine manual for directions regarding engine storage preparations.

Prepare the mower for "End of Season" storage as follows:

1. **DISCONNECT THE SPARK PLUG WIRE BEFORE ANY OTHER PREPARATIONS ARE MADE!**
2. Tape all openings closed to prevent spraying water into exhaust or air intakes during washing.
3. Turn the mower on it's LEFT side and thoroughly clean the underside of the deck. Scrape away any accumulation of grass with a putty knife and/or wire brush. Then use a hose to wash down the underside of the deck and allow it to dry. Clean all external surfaces of the mower and allow to dry.
4. Lubricate all exposed metal with a light coating of oil to prevent corrosion.
5. If so equipped, empty the grass bag to prevent decay of debris and the formation of mold while the mower is in storage. The grass bag may be washed in detergent, but allow it to dry thoroughly!
6. Store the mower in a shed or other dry area, protected from weather.

## POPULAR ACCESSORIES

Your **SNAPPER** mower is very versatile and can, with the addition of the accessories mentioned here (those not presently being used), perform various additional lawn care duties:

Grass Bag Kit  
Recycling Kit  
Snapperizer Kit

Thatcherizer Kit

See your **SNAPPER** Dealer for additional information on these popular kits, and the complete line of quality **SNAPPER** products.

## MANUFACTURER'S 2 YEAR LIMITED WARRANTY

For two (2) Years from purchase date for the original purchaser's residential, non-commercial use [ninety (90) days from purchase date for the original purchaser's commercial, rental, or other non-residential use], **SNAPPER POWER EQUIPMENT**, through any **SNAPPER** dealer will replace, free of charge, any part or parts found upon examination by the factory at McDonough, Georgia, to be defective in material or workmanship or both.

All transportation costs incurred by the purchaser in submitting material to a **SNAPPER** dealer for replacement under this warranty must be borne by the purchaser.

This warranty does not apply to engines and their components, as these items are warranted separately by their manufacturers, and does not apply to batteries which are covered separately. This warranty does not apply to parts that have been damaged by accident, alteration, abuse, improper lubrication, normal wear, or other cause beyond our control.

There is no other express warranty.

Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to two (2) years from purchase date for the original purchaser's residential, non-commercial use [ninety (90) days from purchase for the original purchaser's commercial, rental or other non-residential use], and to the extent permitted by law any and all implied warranties are excluded. This is the exclusive remedy. Liabilities for consequential damages, under any and all warranties are excluded.

Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or 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.