

Safety Instructions & Operator's Manual for **SNAPPER**®

— **LIGHT WEIGHT** —
HI-VAC -- SERIES 9

DLW359T

DLW409R-2

LW359T2

LW359T

RLW359T

WALK MOWERS

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 and keep in mind that safety requires careful use in accordance with the instructions andcommon sense!

This manual covers **SNAPPER** "LIGHT WEIGHT" HI-VAC SERIES 9 (last numeral in the five digit model designation) walk behind mowers. A letter "D" prefix designates side discharge models. Models with an "R" prefix are recycling mowers. "LW" identifies "LIGHT WEIGHT" models. The "T" suffix identifies Tecumseh engines; a -2 denotes a 2-cycle engine. Differences are pointed out wherever pertinent, throughout the manual.

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



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 the 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 (Phone 404-957-9141).

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. Never attempt to make a cutting height adjustment while the engine is running.

6. When mowing over rough ground or in tall grass, mower must be set in highest cutting position.

7. Mow only in daylight or in good artificial light.

8. Never operate mower in wet grass. Always be sure of your footing; keep a firm hold on the handle and walk; never run.

9. 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 the 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 the 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 catcher 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.

OPERATING INSTRUCTIONS

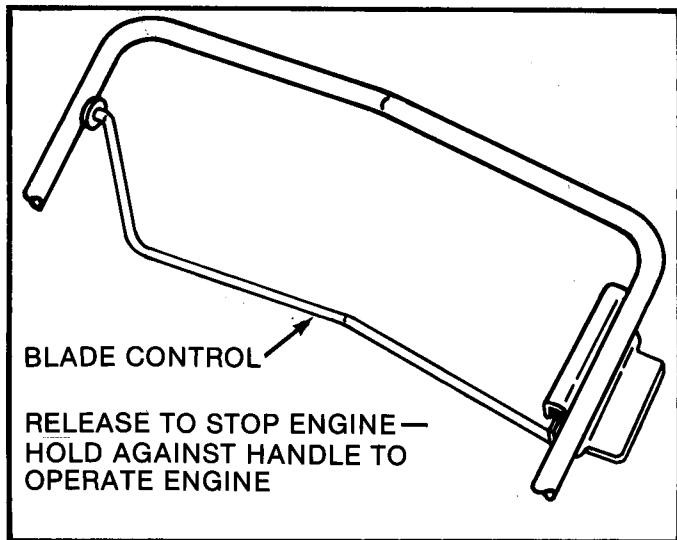


FIG. 1 -- LOCATION OF BLADE CONTROL

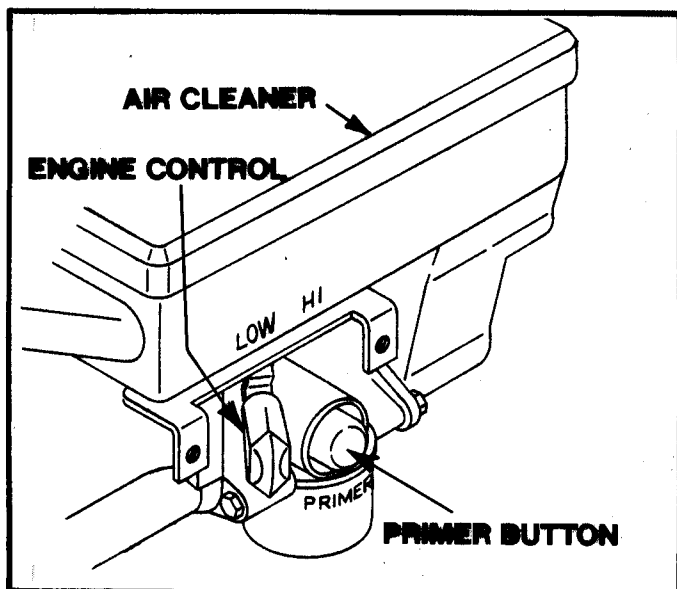


FIG. 2 -- LOCATION OF ENGINE CONTROLS



FIG. 3 -- STARTING STANCE (LEFT SIDE)

PRESTART CHECKS

Make the following checks and perform the stated services as required before each start-up.

CHECK to make sure all guards, grass bag and adapter or side discharge chute are in proper place and securely tightened.

CHECK external surfaces of mower and engine and remove any accumulation of dust, dirt, dried grass clippings, etc. Keep space between finned area of cylinder head and top of cutting deck clear and clean at all times.

CHECK oil level in engine (if 4 cycle) and add oil of weight and grade specified in engine manual to bring level up to full.

CHECK cutting height and readjust to desired height before starting. Refer to CUTTING HEIGHT ADJUSTMENT on page 4 for procedure.

FILL fuel tank with clean, fresh gasoline after pushing mower outdoors where fumes can be safely dissipated. On model with 2 cycle engine, mix oil in proper ratio to gasoline before filling.

OPERATING PROCEDURE

For easier starting, move mower to an area where grass is short enough not to interfere with rotation of cutting blade. Before starting, (especially for the first time) know how to stop the engine quickly in the event of emergency. To stop the engine, release the BLADE CONTROL. **NOTE:** Your mower is equipped with an interlock to prevent starting if the grass bag, adapter or side discharge chute is not properly installed on the mower - check this if engine will not start.

STARTING & STOPPING: Release BLADE CONTROL to stop engine. Use the following procedure to start the engine. The 2-cycle & 4-cycle engine has a primer button --refer to the engine owners manual for priming instructions for these models. Refer to figure 3 for starting stance.

For units equipped with WISCONSIN ROBIN engines, refer to accompanying "Starting/Operating" instructions.

1. Move Engine Control toward HI on 4 cycle models or toward FAST on 2 cycle models (See figure 2).
2. Hold BLADE CONTROL against handle, place LEFT foot on tire with toe forward and bend at waist to reach starter rope with your LEFT hand. The RIGHT foot & RIGHT hand combination can also be used.
3. Keep a firm grip on the handle and push foot against tire to prevent mower from rolling backward, pull rope as you straighten up to use your back more than your arm.
4. Repeat pulling rope until engine starts, guide rope slowly back to the engine and, holding blade control, move behind handle.
5. Push mower at a ground speed that is comfortable but slow enough to allow even cutting. To STOP, release BLADE CONTROL!

OPERATION (continued)

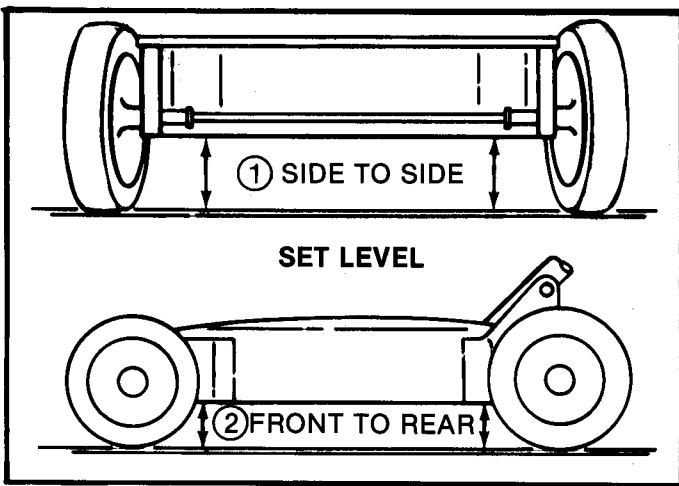


FIG. 4 -- MOWER DECK SETTING

WARNING: To prevent injury, always STOP ENGINE by releasing the BLADE CONTROL before changing cutting height.

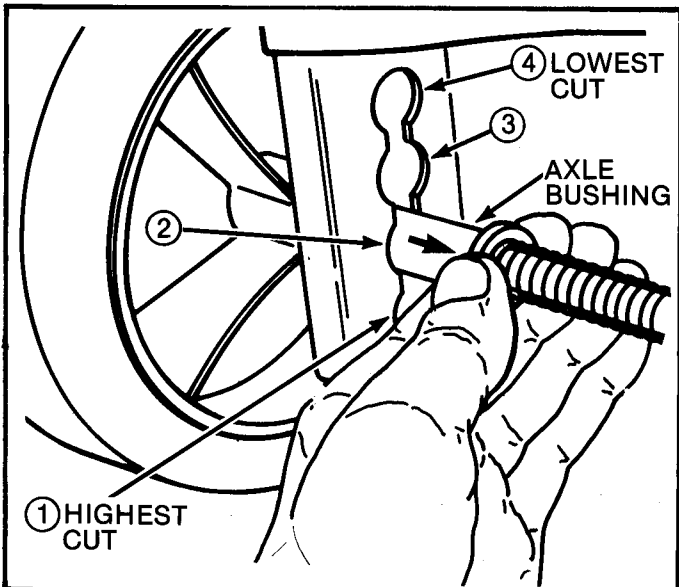
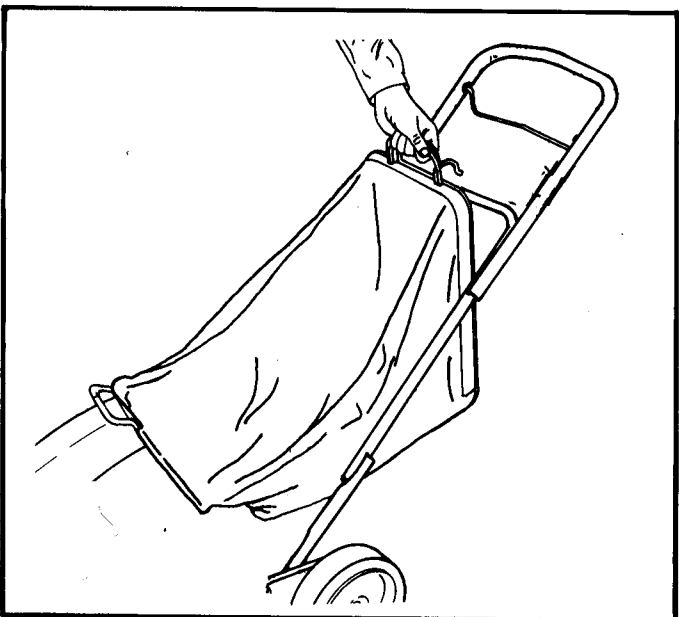


FIG. 5 -- CUTTING HEIGHT ADJUSTMENTS



MOWING HINTS: The cutting deck should be level. As a general rule, never cut more than 1/3 off the height of the grass. If you want the grass shorter, wait a few days then recut to the lower height. If cut too short, the grass will use more energy for development of new leaf structure and less for a healthy root system and will be more subject to burning. On the other hand, if allowed to grow too long, the lower portion will be shaded and, as a result will discolor. In dry periods, allow the grass to grow longer than you normally would. Change your mowing pattern from time to time for a smoother cut lawn.

CUTTING HEIGHT ADJUSTMENT

Positioning the axles in the lowest of the four adjustment positions in the wheel brackets raises the cutting deck to the highest cutting height which is about 3". The top position provides the lowest cut of about 1". Repositioning into the next height of cut position changes cutting height about 2/3rds of an inch.

Readjust cutting height with engine shut off as follows: To reposition front axle, raise front wheels off the ground then pull in on one of the spring loaded bushings until it clears the bracket, move to the desired height of cut position and release the bushing. Repeat procedure on bushing on other side of axle. When repositioning rear axle, lift handles to raise one of the rear wheels off ground then change axle position using same procedure as used on front axle. Repeat same procedure on other rear wheel. NOTE: Make sure axle bushings are firmly engaged and in the same height of cut position in the brackets on both sides of axle.

RECYCLING MOWER OPERATION

For best results when recycling, set the cutting height in the highest blade setting, and mow with the engine speed control in fastest speed setting. Operate the mower at the slowest ground speed to allow fine chopping of the clippings or leaves. The grass must be dry. If the grass is extremely dense, set the front height adjusters one notch lower than the rear adjusters to raise the front of the deck. Experiment with deck settings to achieve best recycling.

WARNING: DO NOT operate mower without the recycling cover installed on the mower deck! If the cover is removed for side discharging or bagging, always install the proper side discharge chute or bag adapter and grass bag. The special blade provided on the recycling models does not have to be replaced for side discharging or bagging grass.

GRASS CATCHER

To install the grass catcher on the mower, slide the connector down over the adapter flange then lower the support frame hooks onto the middle handle (see figure 6). When the catcher becomes full, stop engine and lift the support hooks up over the handle then lift the connector off and continue lifting while moving the catcher forward until the bag clears the mower (see figure 7). To empty the bag, raise the connector end up and release the handle of the door flap. Shake the catcher back and forth to dump the

(continued on page 5)

OPERATION

GRASS CATCHER (continued)

clippings. If the bag is too heavy to lift between handles, lower it to ground. If your mower does not have the grass catcher bag, it is available in kit form. Refer to the accessory section on the last page of this manual.

WARNING: To prevent injury, never operate mower without grass bag and adapter or the side discharge chute in place.

EMPTY INTO TRASH BAG: Use the following procedure to empty clippings into trash bag. After removing catcher from mower, place connector end on ground, open door flap, slip trash bag over the catcher, turn catcher over so that large opening is down inside bag, lift catcher by connector and door handles and shake until clippings are dumped in the trash bag.

HANDLE HEIGHT ADJUSTMENT

Handle height is adjustable to any point within a range of about five inches to provide the most comfortable position for you. With the engine stopped, set the cutting height in the position which you anticipate using during most of your mowing. Loosen the upper nut on each side, which secures the middle handle to the wheel brackets, then move the handle to desired position and securely tighten the two nuts.

ADAPTER-SIDE CHUTE CHANGES

When changing from bagging to side discharge, remove the three locknuts and washers securing adapter to deck, pry the rear lower edge of the adapter away from the deck unit clear then remove adapter. Guide side chute into position over bolt on side of deck then over bolt extending from top of deck ensuring side chute slides under and lifts the interlock. Secure with two locknuts. Reverse procedure to remove side chute. To install adapter, guide adapter over stud on the rear side of deck, push adapter in from side over stud on top of the deck, then downward until adapter snaps into place over front side stud. **NOTE:** Flange of adapter must slide between interlock spring and deck to lift interlock contact point off deck (See figure 9). Secure with three locknuts and washers.

STORAGE PROCEDURE

Take the following steps to prepare your mower for storage at the end of the mowing season. Refer to the engine manual for directions for preserving the engine. With the spark plug wire disconnected from plug and the mower laying on the RIGHT wheels, thoroughly clean underside of deck. Scrape away accumulations of grass with putty knife and/or wire brush first, then wash down with water from a hose. **CAUTION:** Avoid spraying water into exhaust or air intake of engine while washing deck - tape openings closed to prevent this. Clean external surfaces of mower and allow to dry, then lubricate all exposed metal surfaces with a light coat of oil to prevent corrosion. Make sure grass bag is completely emptied to prevent decay and formation of mold inside the bag while in storage. The grass bag may be washed in detergent but allow it to dry thoroughly after washing. Store mower during off season in storage shed or dry area protected from weather.

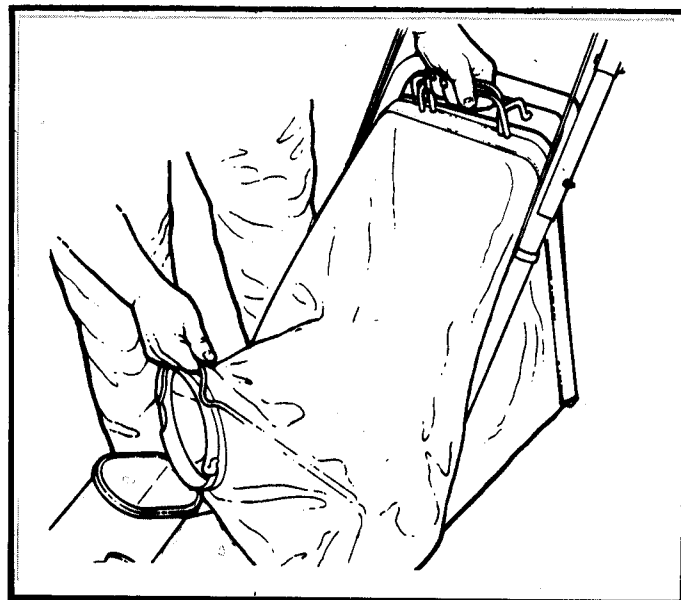


FIG. 7--REMOVING GRASS CATCHER

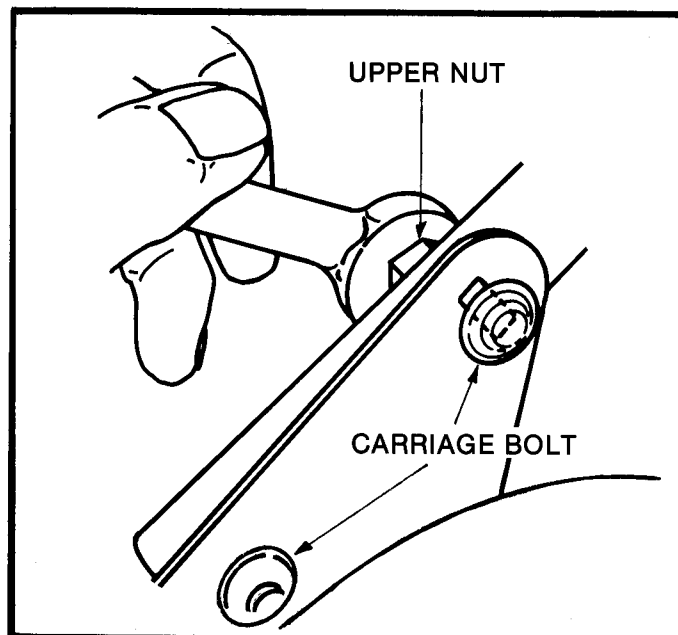


FIG. 8 -- HANDLE HEIGHT ADJUSTMENT

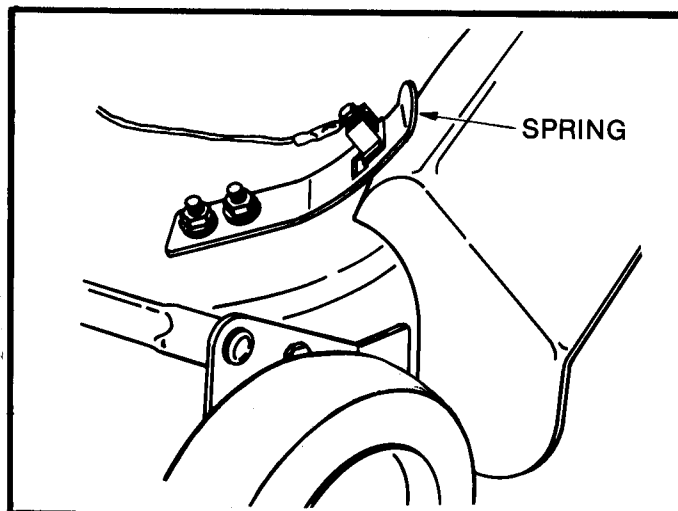


FIG. 9--INTERLOCK DETAIL

SERVICE

The mower itself requires very little service, however, it is very important that the engine be serviced at the intervals specified in the engine manual furnished with your mower. When performing any service on the mower, always disconnect the spark plug wire from the spark plug to prevent unintentional starting. When tipping the mower to work on the underside, always tilt to the left side to prevent flooding the engine with gasoline or oil which would cause hard starting after servicing. NOTE: If engine will not start, check bag adapter or side chute to determine that either item is positioned on mower.

SERVICE ASSISTANCE-REPLACEMENT PARTS

To maintain the original quality of your mower, use Genuine **SNAPPER** Replacement Parts only. To obtain the correct part for your particular mower, always specify model and serial number as found on name plate. Contact your **SNAPPER** Dealer for parts and service assistance. We recommend returning your mower to an authorized **SNAPPER** Dealer once each year for inspection and addition of any new devices which might upgrade the safety of your mower. For the nearest **SNAPPER** Dealer, check the Yellow Pages of your telephone directory under the heading **LAWN MOWERS**. For engine parts or service, check for the engine dealer under the heading **ENGINES-- gasoline**.

DECK SERVICE

To prolong the life and efficiency of your mower, keep the underside of deck clean and free of accumulated grass clippings by washing it down with a hose and/or scraping with a wire brush and scraper. Make sure this is done at the end of the cutting season before placing the mower in storage.

CUTTING BLADE SERVICE

CAUTION: Before checking or doing any work on the blade, disconnect the spark plug wire and secure it away from the plug to prevent unintentional starting.

CHECK at frequent intervals to make sure the blade is securely tightened and that it is in good condition.

REPLACE blade if badly chipped, bent, out of balance or as soon as notch starts wearing in the tip between the flat surface and upturned lift as depicted in View B, Figure 10. This type wear pattern occurs more rapidly under sandy soil conditions.

CAUTION: Never operate the mower with blade worn to the extent shown in View C as the tip could fly off causing personal injury or property damage.

SHARPEN blade when the cutting edges become dull if the blade is in otherwise good condition. When dull the grass cut ends will be ragged and usually turn brown soon after mowing. For best results, remove the blade and sharpen it on a grinding wheel at an angle of 22 to 28 degrees. The cutting surface should extend inward about 2½" from the tips. Check the blade after sharpening to determine that it is still balanced. It will cause excessive vibration if unbalanced. **BE CAREFUL TO AVOID CUTTING YOURSELF ON SHARP BLADE!**

INSTALL sharpened or replacement blade with components in same sequence as removed. The widest part of the cone washer goes next to the underside of blade. Make sure the blade flanges fit over the edges of the blade drive hub when installing. Do not substitute any components here. Tighten the blade retaining capscrew to 20-30 foot pounds torque valve.

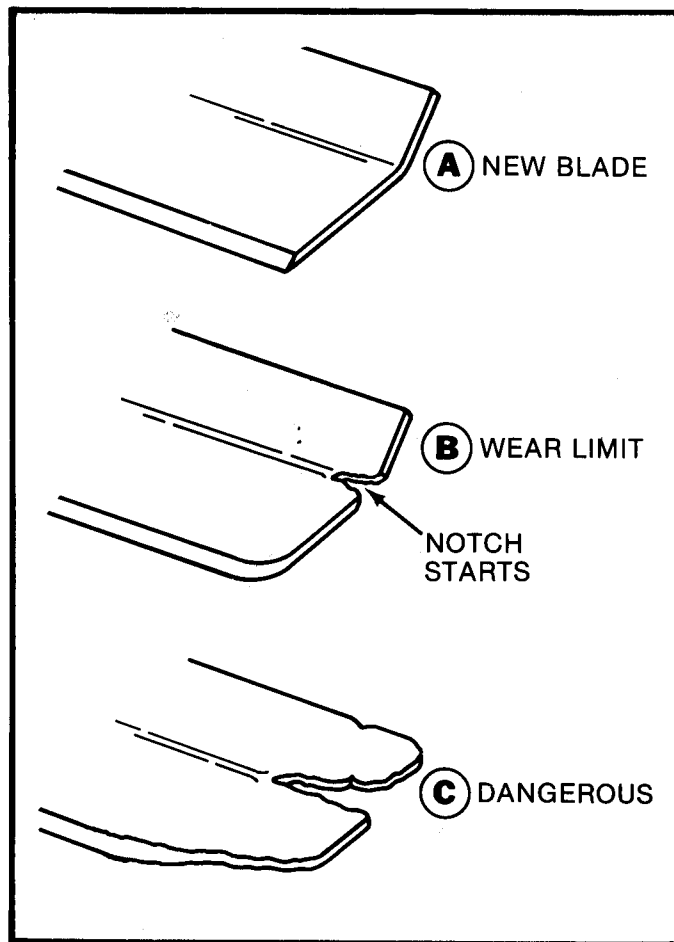


FIG. 10 -- BLADE WEAR PATTERNS

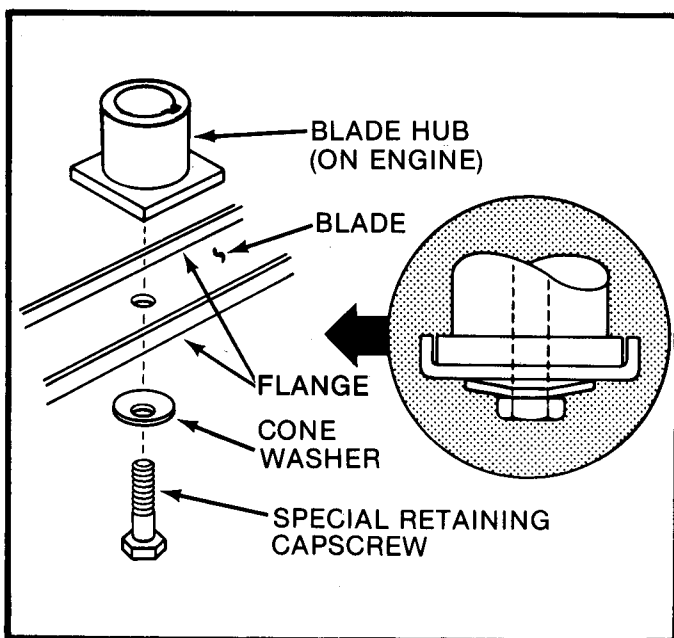


FIG. 11 -- BLADE RETENTION DETAIL

FOLDING HANDLES

The handles of your mower may be folded for storage or for transporting in a confined space (such as the trunk of your car). To fold, loosen the two upper knobs which secure the upper handle to the middle handle. Flex both handle "legs" OUTWARD and then swing the upper handle forward. Next, loosen the two lower knobs which secure the middle handle to both rear wheel brackets. Flex both lower handle "legs" outward and pivot the handle forward over the engine and mower.

CAUTION: Be Careful! DO NOT "kink" cable on models so equipped when folding handles.

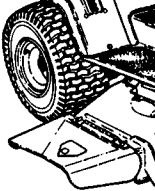

NOTE: The grass bag and adaptor, on mowers so equipped, DO NOT have to be removed to fold handles. Side chutes do not interfere with the folding process.

HUBCAP REMOVAL/INSTALLATION- ON PLASTIC WHEEL

To remove the hubcap, slip a small *flat blade* screwdriver under the hubcap lip and gently pry the hubcap from the wheel hub.

Reinstall the hubcap by aligning the four ribs with the corresponding notches in the wheel hub and then press the hubcap into place.

SERVICE NOTES

It's A Snap With A Snapper.

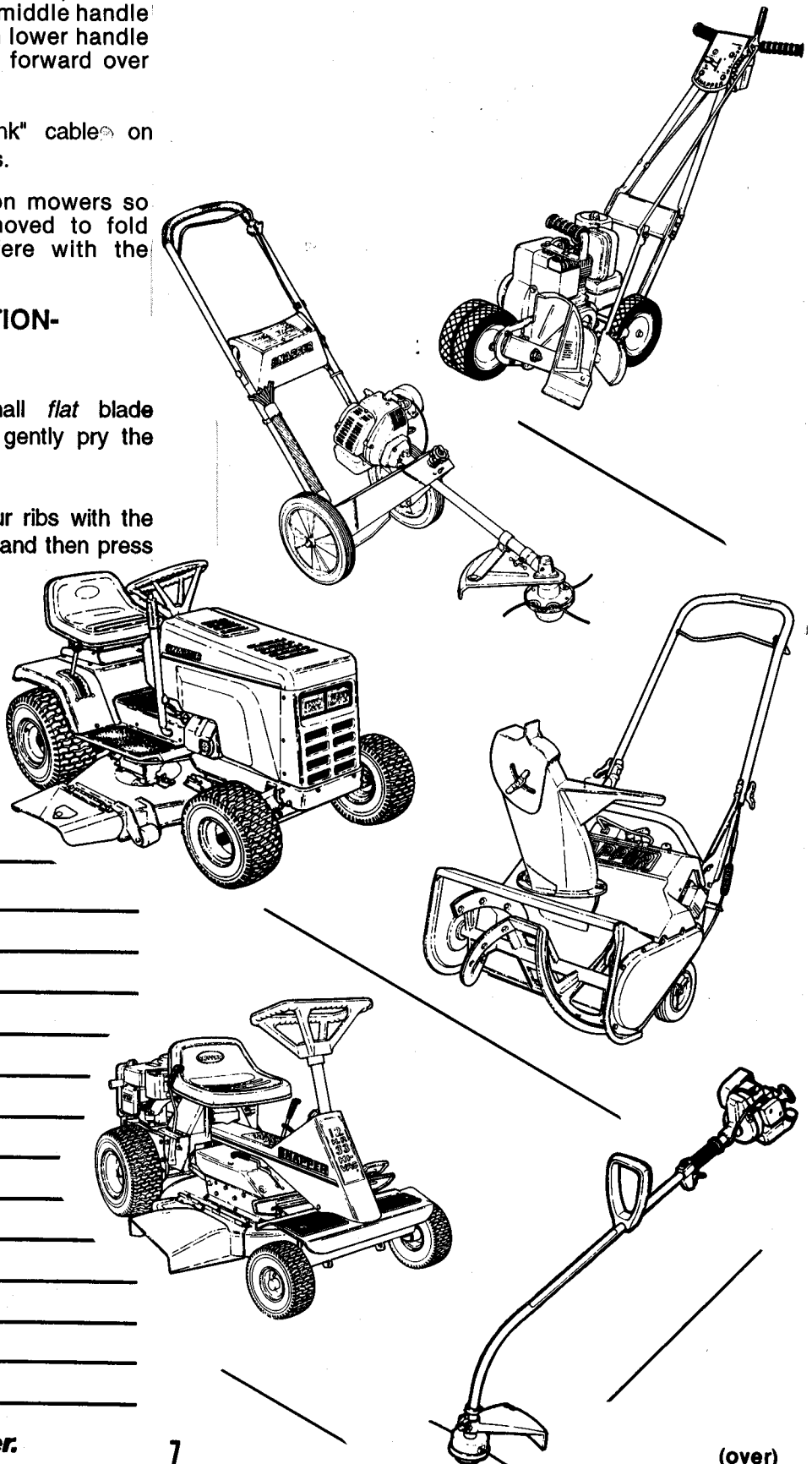
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OTHER

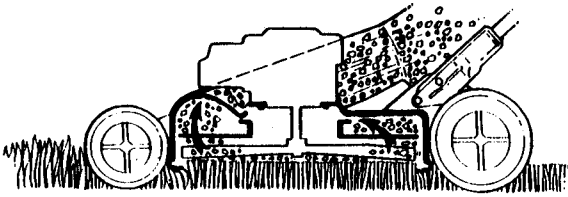
SNAPPER®

PRODUCTS...



POPULAR ACCESSORIES

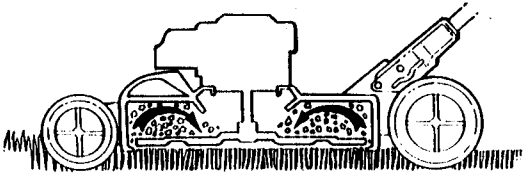
SNAPPERIZER



Depending on how your mower is originally equipped, it can be converted to perform other lawn care duties with the kits described below. These kits are available from your **SNAPPER** Dealer.

SNAPPERIZER KIT: Converts mower into an outdoor vacuum and shredder to broadcast shredded clippings and leaves with side discharge chute or for bagging with the grass catcher.

RECYCLING



RECYCLING KIT: Converts mower into effective recycling mower to cut and chop the grass before blowing clippings directly into the lawn as nutritive mulch.

GRASS CATCHER BAG KIT: If your mower is equipped with side discharge chute, it can be converted for bagging operation whenever desired with a grass bag kit.

SIDE CHUTE KIT: If your mower is equipped with the grass catcher, it can be quickly converted to side discharge with a side chute kit to broadcast clippings and eliminate bagging whenever desired, and to quickly convert back to bagging operation.

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 cost 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.

WARNING: THE USE OF REPLACEMENT PARTS OTHER THAN GENUINE SNAPPER PARTS MAY IMPAIR THE SAFETY OF SNAPPER PRODUCTS AND WILL VOID ANY LIABILITY AND WARRANTY BY SNAPPER ASSOCIATED WITH THE USE OF SUCH PARTS.

IMPORTANT: Please fill out the attached SNAPPER Product Registration Card immediately and mail to: SNAPPER POWER EQUIPMENT, McDONOUGH, GEORGIA 30253

SNAPPER