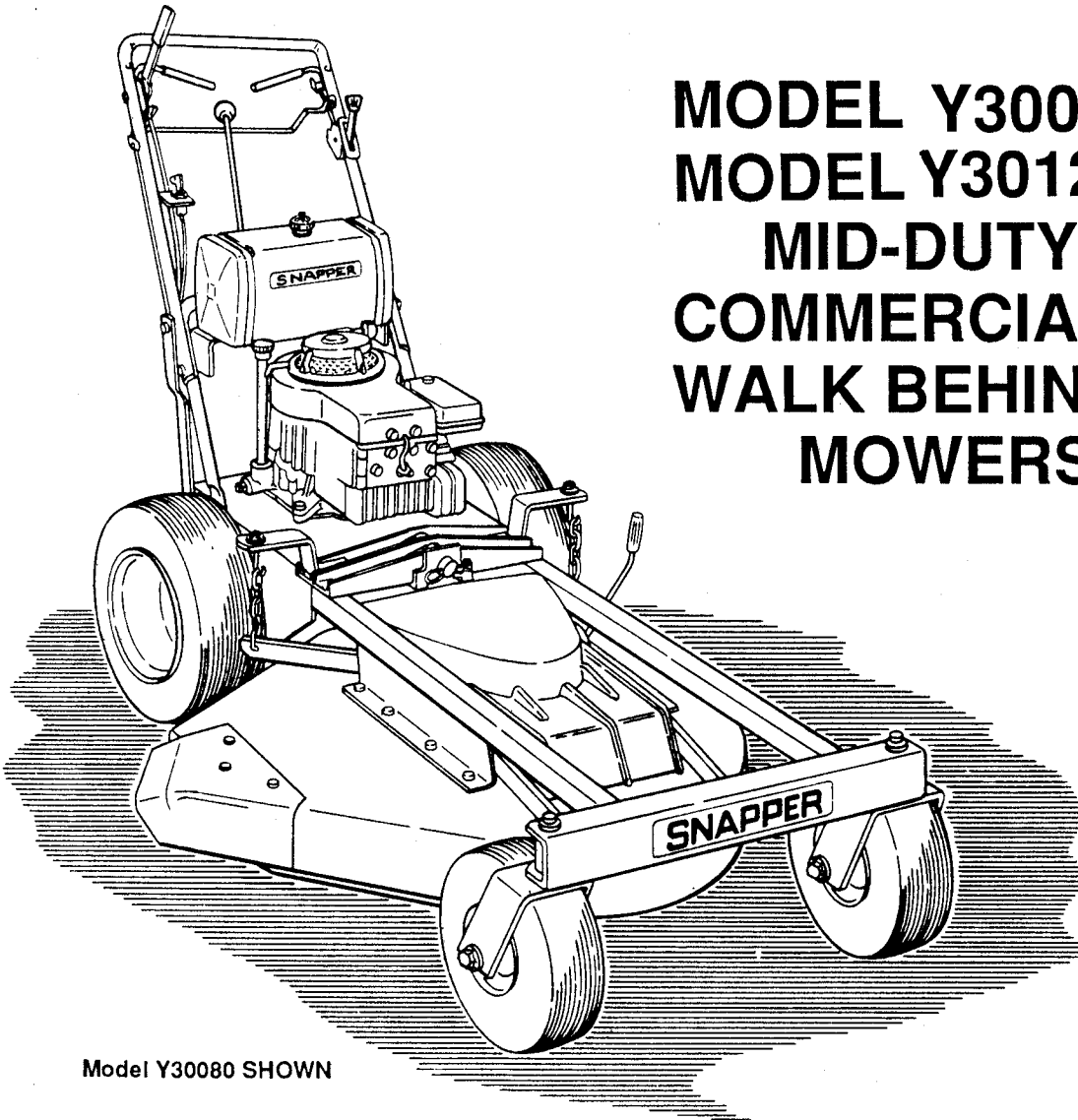


Safety Instructions & Operator's Manual for

SNAPPER®



Model Y30080 SHOWN

MODEL Y30080 & MODEL Y30120 MID-DUTY COMMERCIAL WALK BEHIND MOWERS

Thank you for buying a **SNAPPER** product! Before operating your mower, read and follow the Important Safety Instructions (on page 2), the other instructions contained in this manual and the accompanying booklet, "About Power Mower Safety". Lawnmowers, and all power equipment, can be potentially dangerous if used improperly. **REMEMBER: SAFETY REQUIRES CAREFUL USE IN ACCORDANCE WITH INSTRUCTIONS AND COMMON SENSE.**

SNAPPER® McDonough, GA., 30253 U.S.A.

MANUAL 1-5591 (10/87)

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. Make sure the traction drive clutch control is disengaged before starting engine.
6. Lock blade drive lever into OFF position before starting engine.
7. Never attempt to make a cutting height adjustment while engine is running.
8. When mowing over rough ground or in tall grass, mower must be set in highest cutting position.
9. Mow only in daylight or in good artificial light.
10. Never operate mower 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 area while engine is running.
3. Shift to number 1 speed position before making sharp turns.
4. Stop blade when crossing gravel drives, walks, or roads, and under any conditions where thrown objects might be a hazard.
5. 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.
6. Stop blade and engine whenever you leave the operating position behind the handle for any reason, including clearing grass, emptying grass catcher and making any adjustments, repairs, or inspections.
7. 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.
8. Stop engine and wait until the blade comes to complete stop before removing grass catcher and/or clearing grass.
9. 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.
10. When parking mower, stop engine, apply brakes and engage brake locks.
11. Do not use with sulky or any ride-on attachment.

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.

FAMILIARIZATION

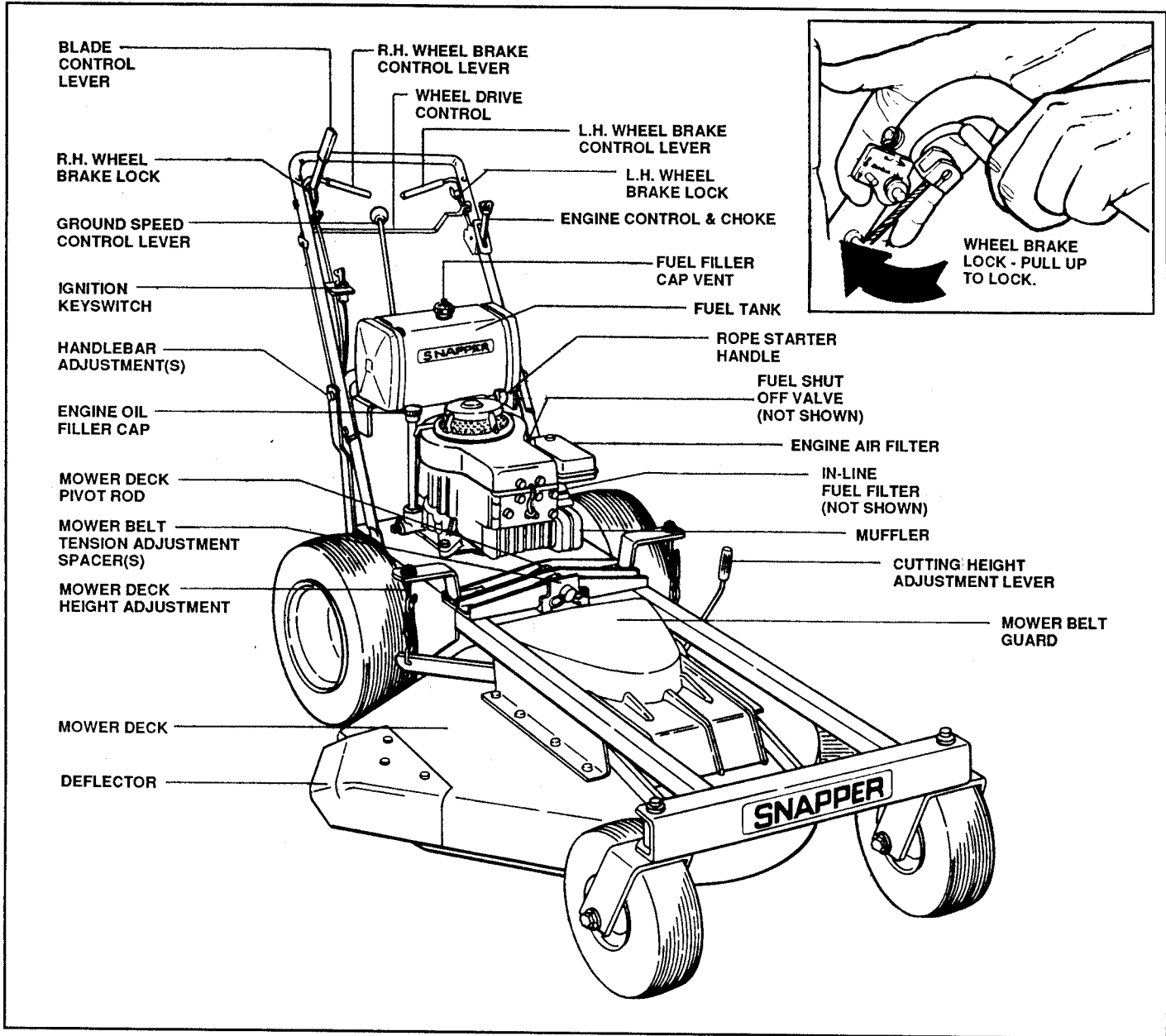


FIGURE 1

INTRODUCTION:

This manual has been prepared for the operators of the **SNAPPER Models Y30120 & Y30080 MID-DUTY COMMERCIAL WALK BEHIND MOWERS**. **READ, UNDERSTAND AND FOLLOW** the safety and operating instructions herein.

Always stop the blade and engine and set the parking brakes when it becomes necessary to leave the machine unattended. Set the parking brakes by pulling the **BRAKE CONTROL** levers up to the handle bar and rotating the **BRAKE LOCKS** up and to the rear. See inset above.

These mowers feature a light touch steering system, using individual wheel brakes on each side of the machine. **LEARN HOW TO USE THESE IMPORTANT BRAKE/STEERING CONTROLS!**

NOMENCLATURE:

The nomenclature drawing above (Figure 1) shows the essential parts of the **SNAPPER Models Y30120 & Y30080 MID-DUTY COMMERCIAL WALK BEHIND MOWERS**. It is recommended that all operators of this equipment become thoroughly familiar with the controls, parts and operation of these machines before operating. Specific details involving the engine are found in the separate engine owner's manual. Study these manuals for future reference.

OPERATING INSTRUCTIONS

BEFORE OPERATING:

Be thoroughly familiar with all controls and how to use them before operating your mower. Know beforehand how to stop the engine, wheel drive and mower blade in preparation for possible emergencies.

STOPPING

ENGINE: *STOP ENGINE* by turning the KEYSWITCH to OFF or by moving the ENGINE CONTROL to STOP. See Figure 2.

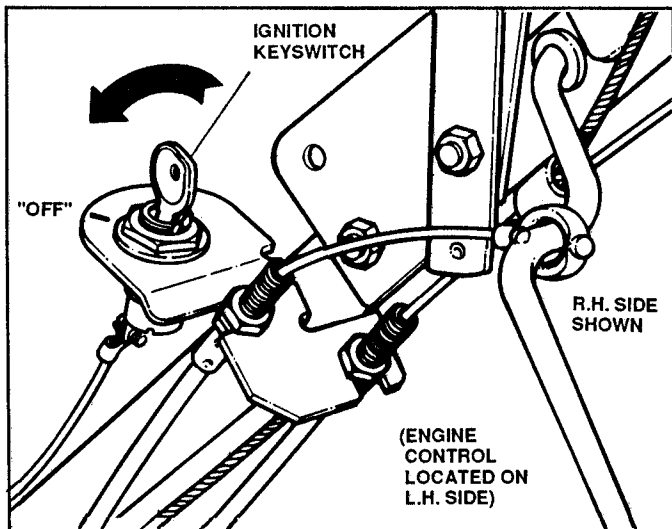


FIGURE 2

WHEEL DRIVE: *STOP FORWARD MOTION* of mower by releasing WHEEL DRIVE CONTROL. See Figure 3.

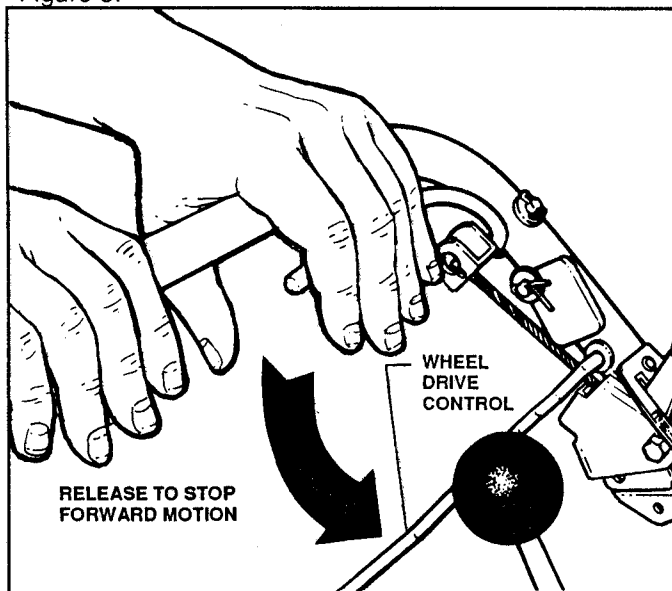


FIGURE 3

MOWER BLADE: *STOP MOWER BLADE* by moving BLADE CONTROL lever to the left and pulling back until it locks in the "OFF" position. See Figure 4.

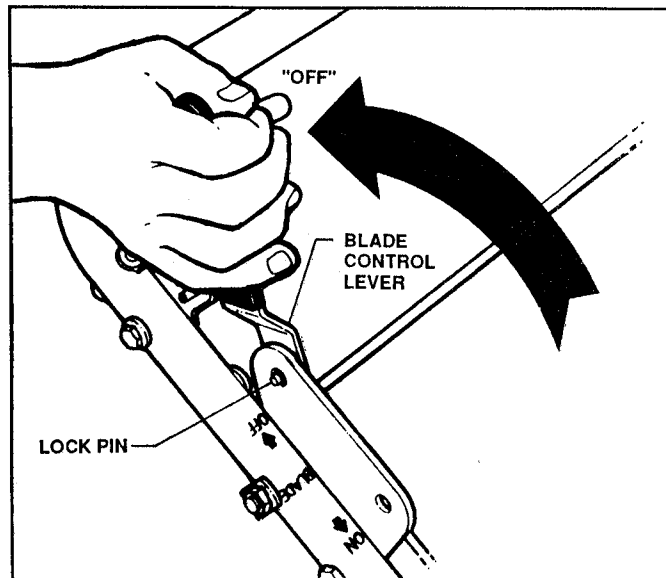


FIGURE 4

PRE-START CHECK LIST

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

- CHECK TIRES and add air as needed to bring pressure to 20 psi in front and 12 psi in rear tires.
- CHECK GUARDS, DEFLECTORS & COVERS to make sure all are in place and securely tightened.
- CHECK BLADE CONTROL to insure it works freely. Blade lever must be moved manually from ON to OFF to stop blade.
- CLEAN EXTERIOR SURFACES of cutting deck and engine of any accumulation of dirt, grass, oil, etc. Keep engine air intake screens and cooling fins clear at all times.
- CHECK ENGINE OIL and add oil as needed to bring level up to (but not over) the full mark. (Refer to engine manual for oil specifications).
- ADD FUEL to tank after pushing the mower outside where fumes can be dissipated. Make sure cap is tightened after refueling and that fuel cap vent (if applicable) is open. (Refer to engine manual for fuel specifications).

STARTING & OPERATING

ENGINE: *START ENGINE* as follows:

1. MOVE BLADE CONTROL lever to OFF position so that interlock will allow engine to start. Refer to Figure 4.
2. OPEN VALVE VENT (if applicable) on top of tank filler cap by turning counterclockwise. Make sure the FUEL SHUT OFF VALVE is open. See Figure 5.

OPERATING INSTRUCTIONS

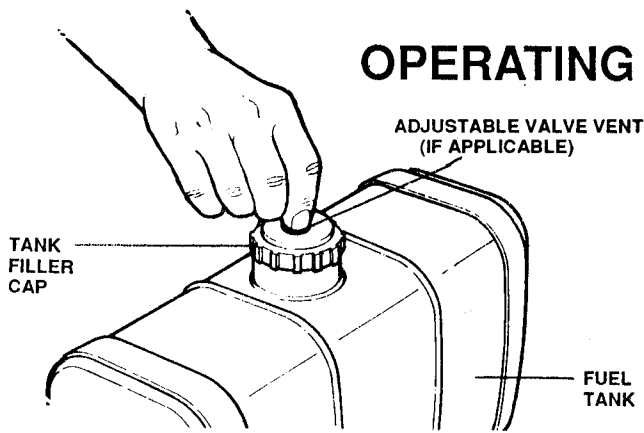


FIGURE 5

3. **CHOKE ENGINE** for cold starting by moving ENGINE CONTROL to CHOKE position. See Figure 6.

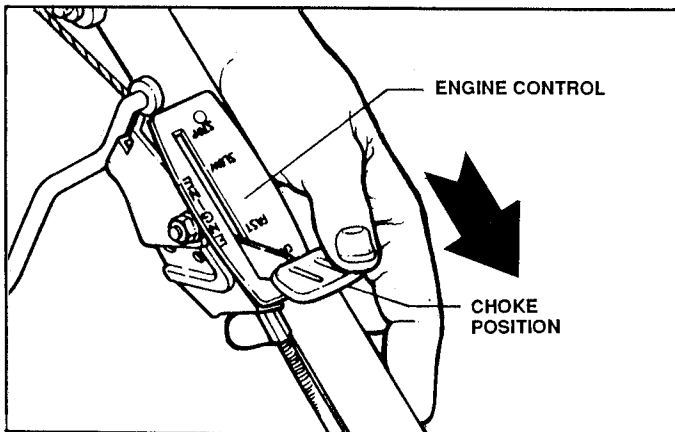


FIGURE 6

4. **MANUALLY START ENGINE** by turning the IGNITION KEYSWITCH to ON, then pull rope starter handle until the engine starts.
5. **WARM-UP ENGINE** momentarily, then move the ENGINE CONTROL to the rear out of CHOKE position until engine runs smoothly. Set desired speed. Best cutting and bagging performance is obtained with engine at or near top speed.

WHEEL DRIVE: (Forward Motion)

1. **SHIFT GROUND SPEED CONTROL** to No. 1 position. See Figure 7.

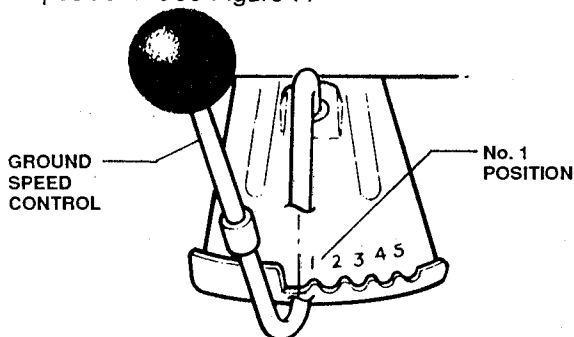


FIGURE 7

2. **PULL THE WHEEL DRIVE CONTROL** up to the handle to begin forward motion.
3. **SELECT SPEED** by moving GROUND SPEED CONTROL to any of five forward speeds while "on the go".
4. *The MOWER is turned by engaging wheel brakes -*

turn left by pulling the L.H. BRAKE CONTROL or turn right by using the R.H. BRAKE CONTROL. See Figure 8.

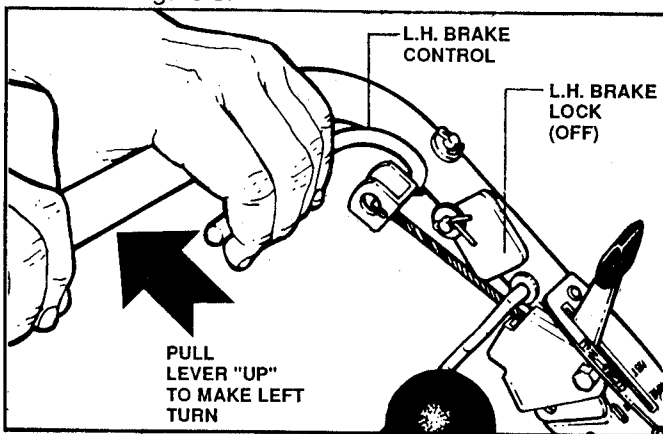


FIGURE 8

NOTE: Do not apply both brakes with WHEEL DRIVE CONTROL engaged or WHEEL DRIVE belt may be damaged.

BLADE HEIGHT:

Adjust mower deck to desired cutting height by moving CUTTING HEIGHT ADJUSTMENT LEVER "UP" or "DOWN". See Figure 8A.

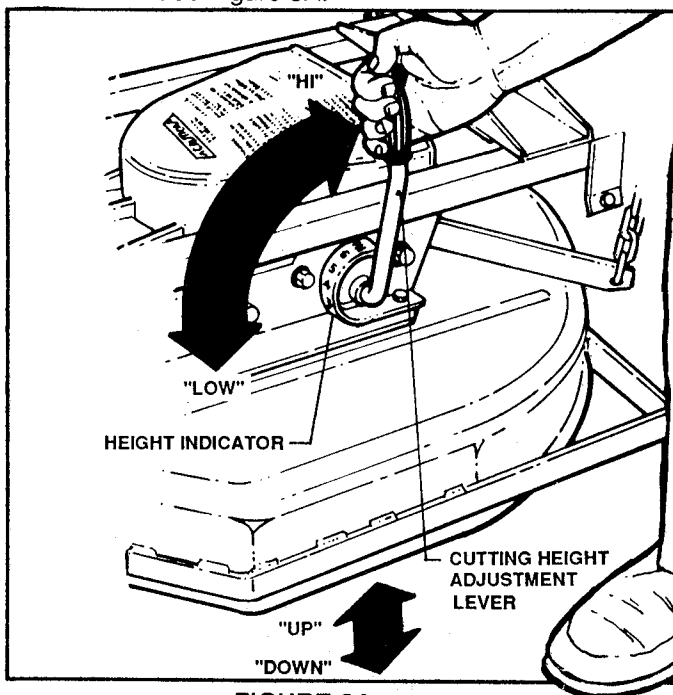


FIGURE 8A

MOWER BLADE: START MOWER BLADE by moving BLADE CONTROL lever to the left and push forward until it locks in the "ON" position.

STOP MOWER BLADE by moving BLADE CONTROL lever to the left and pulling back until it locks in the "OFF" position. See Figure 4.

STOP ENGINE by turning the keyswitch to OFF or by moving ENGINE CONTROL to STOP. Refer to Figures 2 & 3.

SERVICE

SERVICE ASSISTANCE-REPLACEMENT PARTS

To retain the quality of your mower, use Genuine **SNAPPER** Replacement Parts only. Contact your local **SNAPPER** dealer for parts and service and service assistance. For the correct part or information for your particular mower, always mention model and serial number. We recommend returning your mower to an authorized **SNAPPER** Dealer on a yearly basis 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 under the heading **LAWN MOWERS**. For engine parts and service, look for the engine manufacturer's dealers under the heading **ENGINES - gasoline**.

LUBRICATION SCHEDULE

EVERY 25 OPERATING HOURS

- **FRONT WHEEL BEARINGS:** Lubricate through fittings with bearing grease from a pressure gun. See Figure 9.

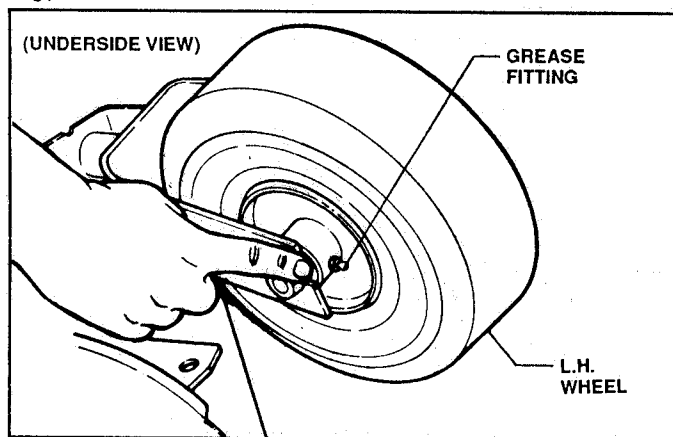


FIGURE 9

- **REAR LEFT AXLE BEARING:** Lubricate through fitting with 2 shots of bearing grease from a pressure gun. Right hand bearing is lubricated by transmission. See Figure 10.

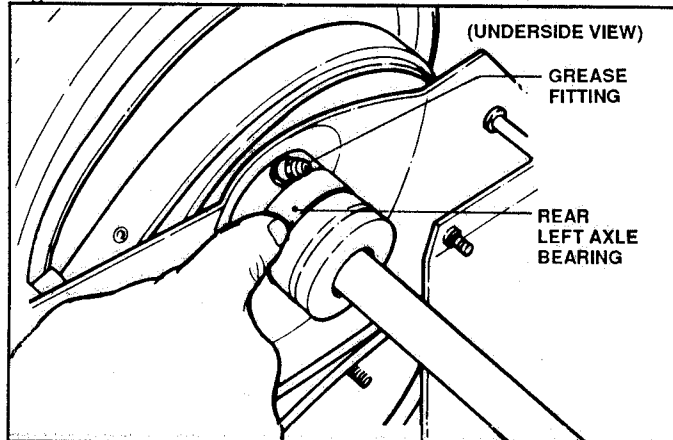


FIGURE 10

- **ENGINE:** Change oil per instructions in engine manual. Check oil before each use.

TWICE YEARLY

- **CUTTING HEIGHT LEVER:** Remove belt cover from deck and apply small amount of medium grade cup grease to top surface of adjusting cams on both sides.

END OF SEASON

- **BLADE SPINDLE:** Two shots of grease only once yearly. See Figure 11.

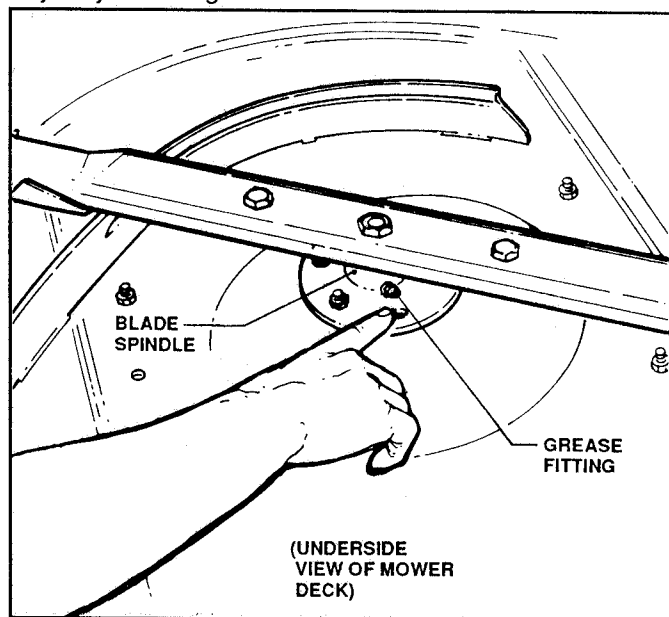


FIGURE 11

- **DIFFERENTIAL:** Remove plug from differential housing and add 2 oz. of **SNAPPER O** grease. Install new plug after servicing. See Figure 12.

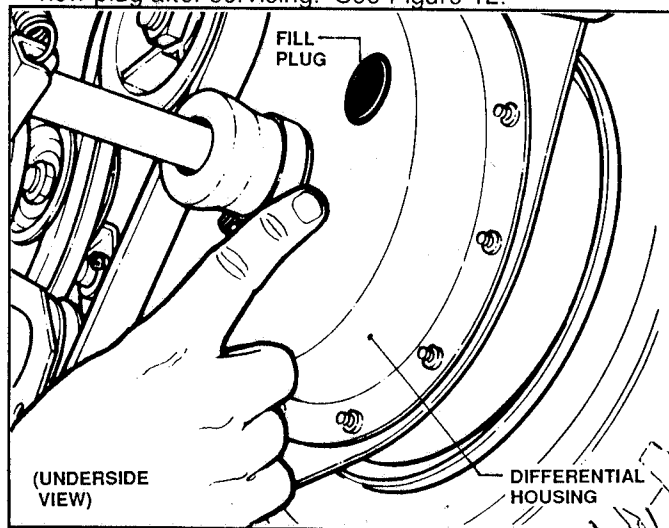


FIGURE 12

- **CHAIN CASE:** Remove plug and add about 1 ounce of **SNAPPER O** grease to case. Install new plug after servicing.

NOTE: Do not use **SNAPPER OO** grease. Use **SNAPPER O** grease.

SERVICE (continued)

CUTTING BLADE SERVICE

Check blade at frequent intervals to insure that it is securely tightened and in good condition. Replace if chipped, bent or notched. See Figure 13.

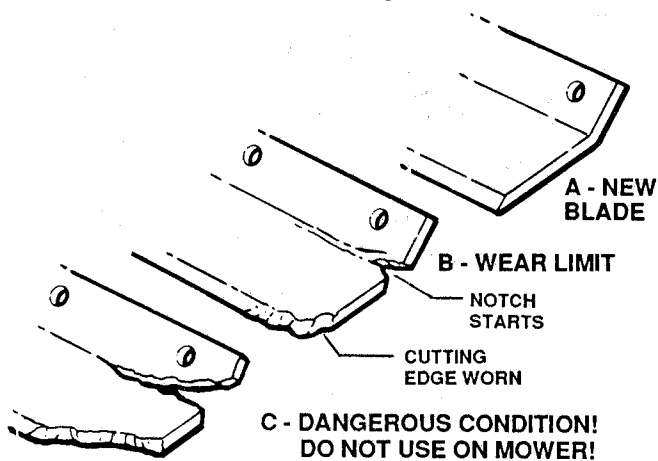


FIGURE 13

If blade is in good condition, sharpen at an angle of 22-28 degrees in about 2-1/2" from tips. See Figure 13A.

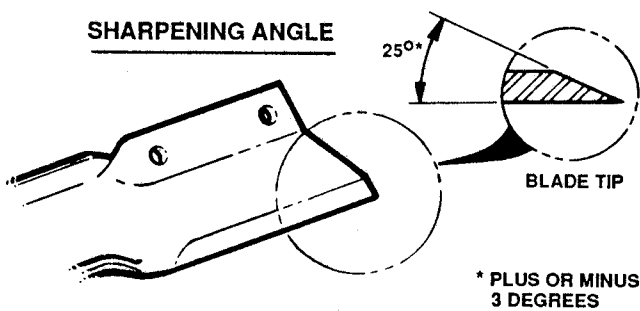


FIGURE 13A

NOTE: After sharpening, check the blade for proper balance. If required, correct balance to prevent excessive vibration.

BE CAREFUL TO AVOID CUTTING YOURSELF ON SHARP BLADE!

Install blade with retaining hardware as shown below and tighten to torque specified. See Figure 13B.

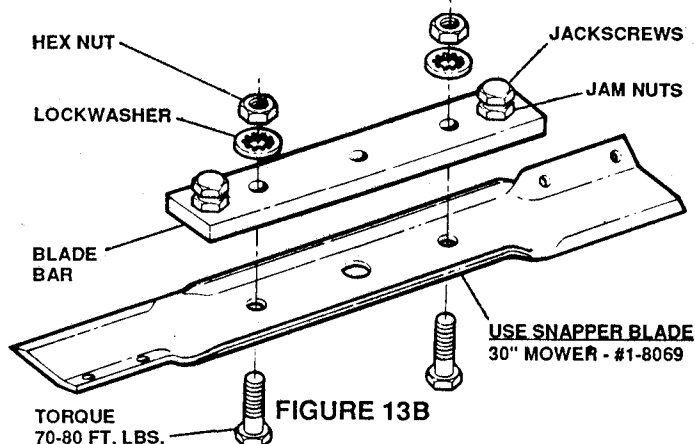


FIGURE 13B

Check blade for straightness by marking one blade tip **A**, the other **B**, then scribe a line at one point on the deck. Turn blade tip marked **A** to the line and measure between tip and lip or lower edge of the deck, then do the same with blade tip **B**. The blade is considered straight if both tips measure within 1/16" of each other. To adjust, loosen jam nut (Figure 13B) and turn jackscrews in or out until the blade tips measure within 1/16" of each other. Turn the jam nuts tight against the bar after straightening blade. If blade is removed for sharpening, mark mating parts to ensure correct reassembly.

CUTTING DECK SERVICE

If mower is cutting improperly, check the following:

1. Ground speed - too fast for proper cutting. Shift to lower ground speed.
2. Engine speed - too low for proper cutting. Increase engine speed.
3. Cutting Height - too low for ground/grass conditions. Adjust for higher cut.
4. Belt Slippage - causing bad cutting pattern or uneven cut. Adjust belt to proper tension.
5. Tire Pressure - Uneven tire pressure can cause an uneven cut from one side of the cutting swath to the other. Equalize tire pressures.
6. Deck Level - An unlevel mower deck can cause an undesirable cutting pattern. If an undesirable cutting pattern develops, and the cause is not belt slippage or uneven tire pressure, move the mower to a flat, level surface such as your garage floor and check the mower deck settings with engine stopped as follows:

- A. The MID-DUTY Models mows best with the mower deck set level. To check, shut off engine and shift the deck into the lowest cutting height.
- B. Measure the distance between the floor and the underside of the same blade tip at front and rear and also side to side.
- C. If these measurements are within 1/8" of each other, the deck is considered level.
- D. If adjustments are required, turn the chain adjusting hooks until the deck is level. See Figure 14.

SERVICE (continued)

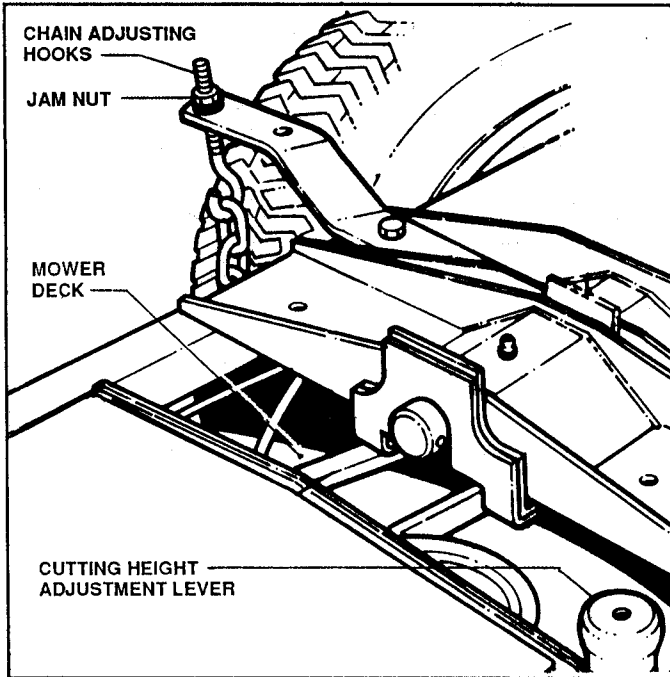


FIGURE 14

WHEEL DRIVE BELT REPLACEMENT

WHEEL DRIVE BELT: If belt is worn or damaged, wheels will not drive properly. To replace this belt, proceed as follows:

1. Disconnect spark plug wire and secure away from spark plug. Turn off fuel supply valve.
2. Loosen fitting jam nut for the WHEEL DRIVE CONTROL cable, slide fitting out of slot, then disconnect idler spring from the idler bracket. See Figure 15.

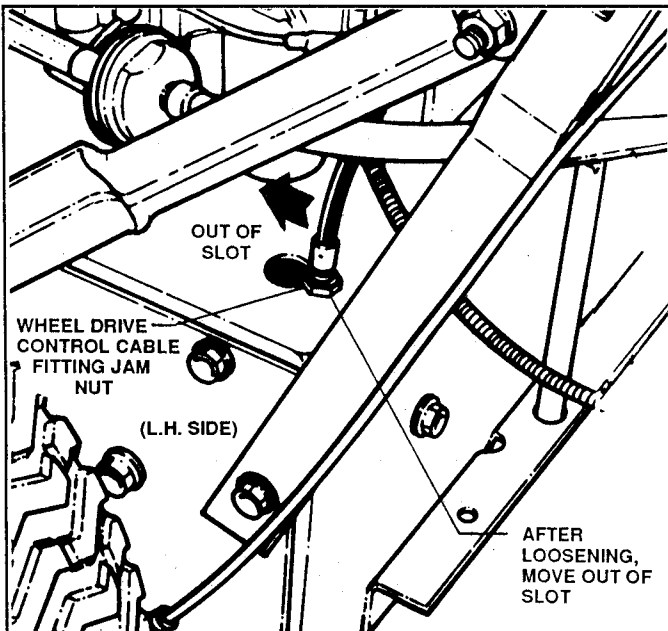


FIGURE 15

3. Work old drive belt off the top pulley. Pull idler down and twist old belt to remove. See Figure 16.

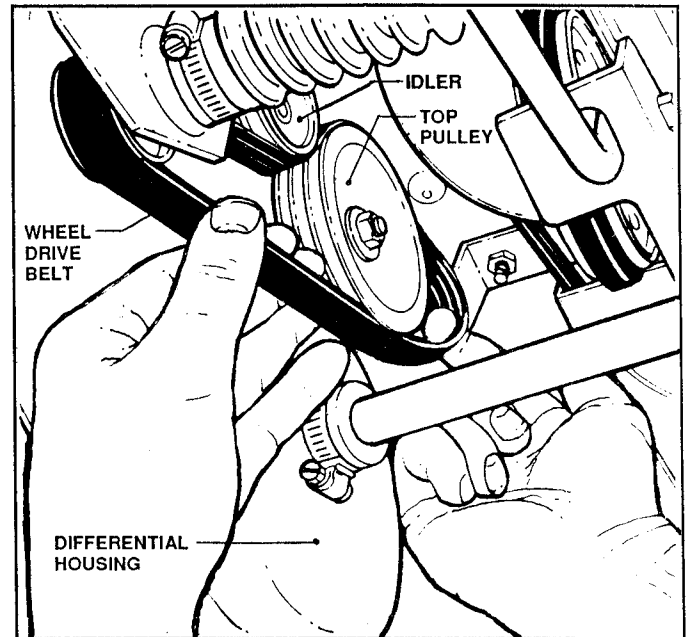


FIGURE 16

4. Reverse procedure to install replacement belt. Be sure to rehook idler spring and reinstall WHEEL DRIVE CONTROL cable. Refer to Figure 16.
5. Check WHEEL DRIVE CONTROL Clutch Adjustment. (See ADJUSTMENTS - WHEEL DRIVE CONTROL CLUTCH ADJUSTMENT).

BLADE DRIVE BELT REPLACEMENT:

BLADE DRIVE BELT: If belt is excessively worn or damaged, blade will not drive properly. To replace this belt, proceed as follows:

1. Disconnect spark plug wire and secure away from spark plug. Turn off fuel supply valve.
2. Remove blade belt cover on mower housing.
3. Loosen Idler pulley & belt guide enough to remove belt from pulley.
4. Remove the 4 screws from the back of the mower as shown in Figure 17. This action allows the Hex Shaft Assembly to drop down, thus providing clearance for belt removal and replacement.

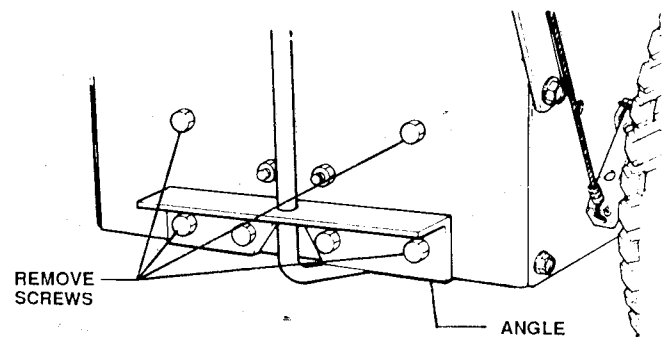


FIGURE 17

SERVICE & ADJUSTMENTS

5. Unhook spring from shift bracket near rear axle.
6. Work old belt out from remainder of deck pulley(s) and from engine pulley.
7. Install new belt in reverse order with belt on engine pulley first.
8. Make sure belt is properly in all pulley grooves and belt guides are in correct location and properly secured.
9. Rehook spring to shift bracket.
10. Reinstall Hex Shaft Assembly.
11. Install Blade belt cover.
12. Check BLADE BELT & BLADE BRAKE Adjustment as shown in ADJUSTMENTS.

FUEL FILTER

An in-line fuel filter is provided between the fuel tank and carburetor to protect the engine against damage from impurities in the gasoline. Check this occasionally for leakage, especially around the hose clamp areas. Replace the filter (**SNAPPER #1-4359**) before the screen becomes totally clogged with sediment. Make sure the replacement filter is installed with side marked **IN** toward tank, and **OUT** toward carburetor. See Figure 18.

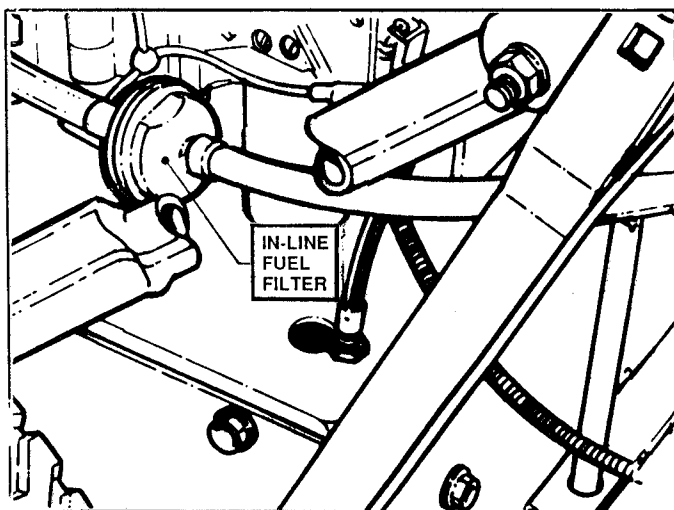


FIGURE 18

ADJUSTMENTS

BLADE BELT & BRAKE: Three areas are involved with Blade belt and blade braking functions. Check all three with the engine off in the order described in the following:

1. Move the **BLADE CONTROL** to the left and forward to the "ON" position and check the distance between the inside spans of the belt adjacent to the edge of the idler pulley. This should measure about 1 1/8". If less than this, correct spacing by pulling the cotter pin and moving one of the spacers from the front of the frame pivot shaft to the space between the front and rear frames. Reinstall pin and recheck. When clearance is about 1 1/8", proceed with Step 2. See Figure 19.

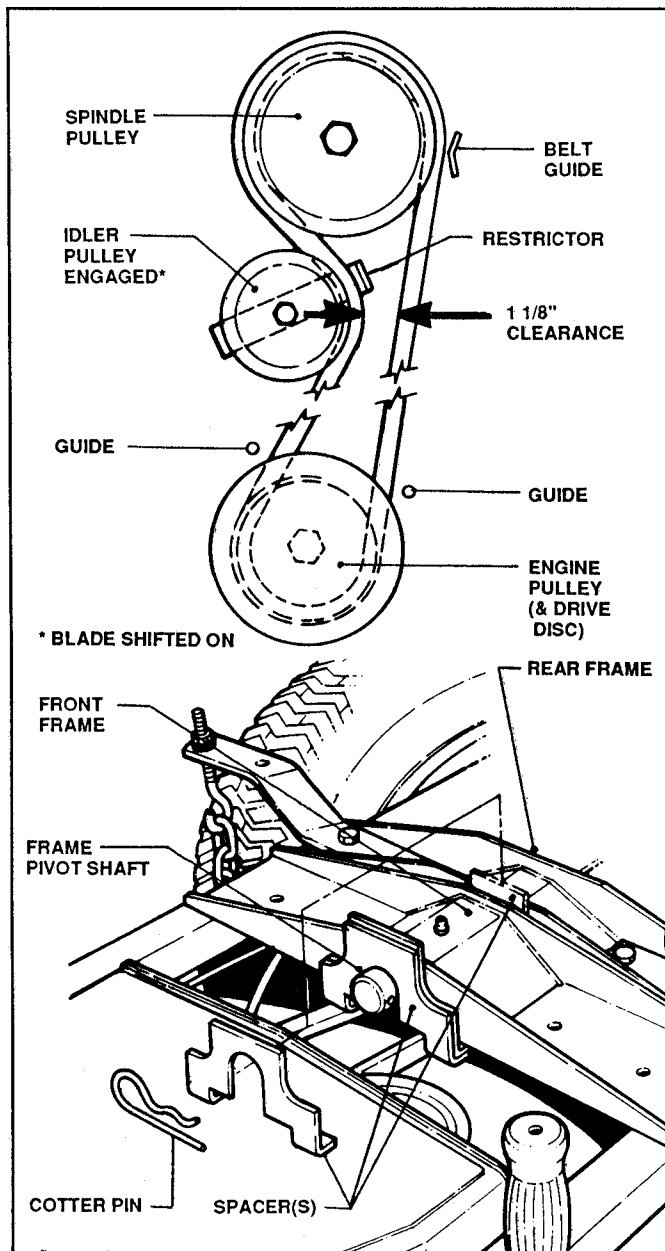


FIGURE 19

2. Measure length of the blade cable spring with the **BLADE CONTROL** in the "OFF" position, then measure again with the **BLADE CONTROL** in the "ON" position. The spring should stretch about 1/4" from "OFF" to "ON" position. Spring extension can be adjusted at either the fitting on the ignition switch plate or at fitting on the deck bracket. Shortening the fitting extension tightens the belt. When properly adjusted, the spring should stretch about 1/4" with **BLADE CONTROL** engaged and there should be slack in the cable with the **BLADE CONTROL** "OFF". **If there is no slack, the blade brake cannot engage.** Check the blade brake as described in Step 3. See Figures 20 & 21.

ADJUSTMENTS (continued)

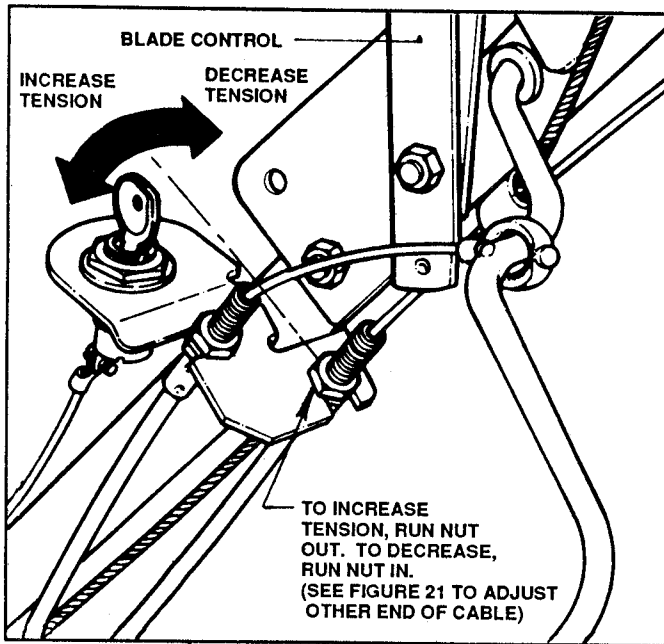


FIGURE 20

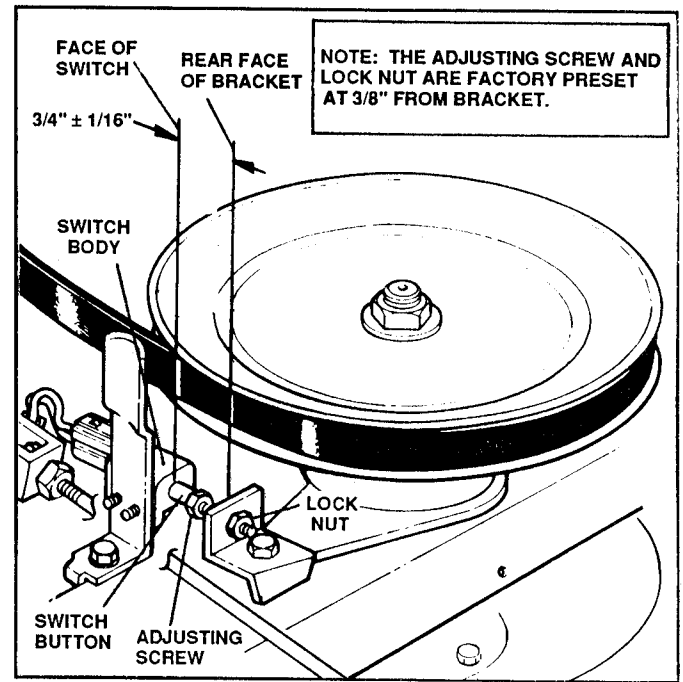


FIGURE 22

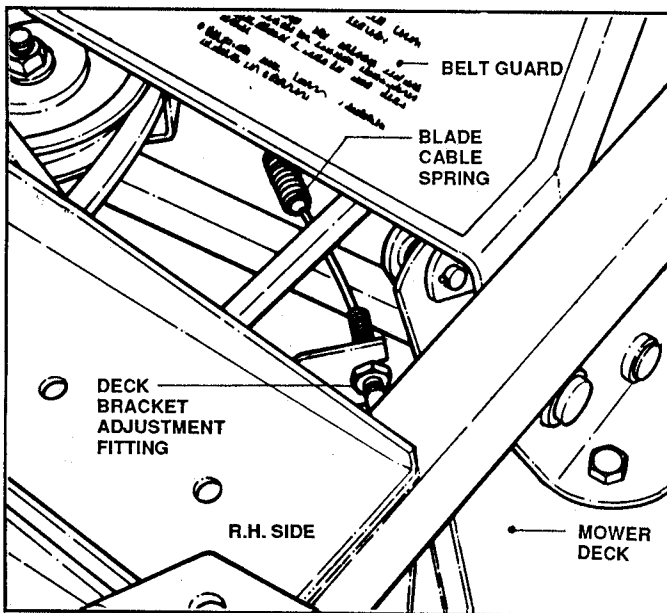


FIGURE 21

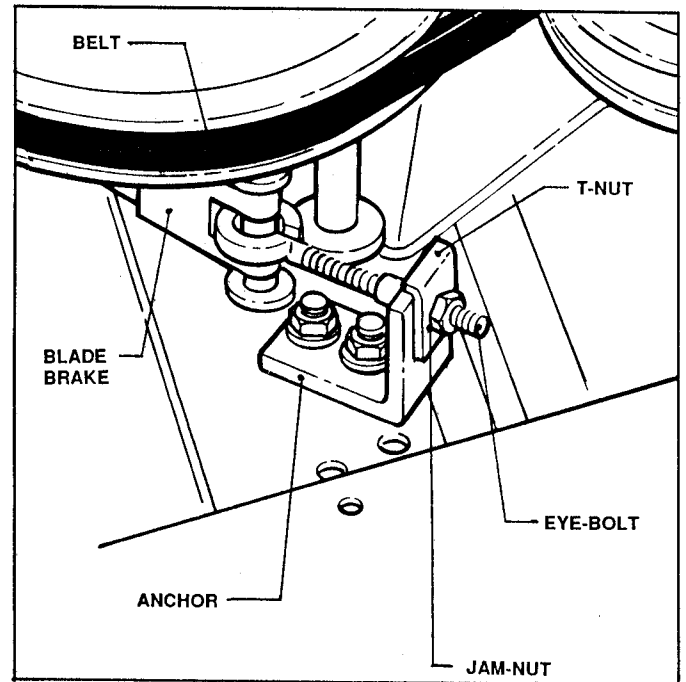


FIGURE 23

- Note that the blade brake operates properly only if cable is sufficiently slack with the BLADE CONTROL "OFF". If the blade does not stop from full speed within 3 seconds after moving the BLADE CONTROL to "OFF", readjustment of the brake band is required. To check braking action, start engine, turn BLADE CONTROL first to "ON", then "OFF", and observe how long it takes for the blade to stop rotating. To adjust brake action, stop the engine and remove the belt cover, then pull the brake band away from the drum, loosen the jam nut and adjust T-nut until there is 3/4" between face of switch and rear of bracket as shown in Figures 22 & 23.

Release the band and turn the jam-nut tight against the T-nut. Recheck for slack in the BLADE CONTROL cable when BLADE CONTROL is "OFF". Reinstall belt cover, start engine, turn BLADE CONTROL first to "ON", then "OFF" to recheck blade stopping time. Repeat process as necessary until blade operates and stops properly.

ADJUSTMENTS (continued)

WHEEL BRAKE ADJUSTMENT: If brake adjustment is required on either wheel brake, stop engine and adjust as follows:

1. Remove snap ring and washer, then pull the BRAKE CONTROL out of the bushing in upper handle and disconnect the brake cable from the slot in BRAKE CONTROL. Slip other end of cable out of the slot in the wheel brake arm, add 1 sleeve at a time from topside to inside of arm to shorten cable and tighten brake. Then reconnect cable and test braking action. Braking action is correctly set when wheels are locked when BRAKE LOCK is "ON". Repeat procedure as required. See Figure 24.

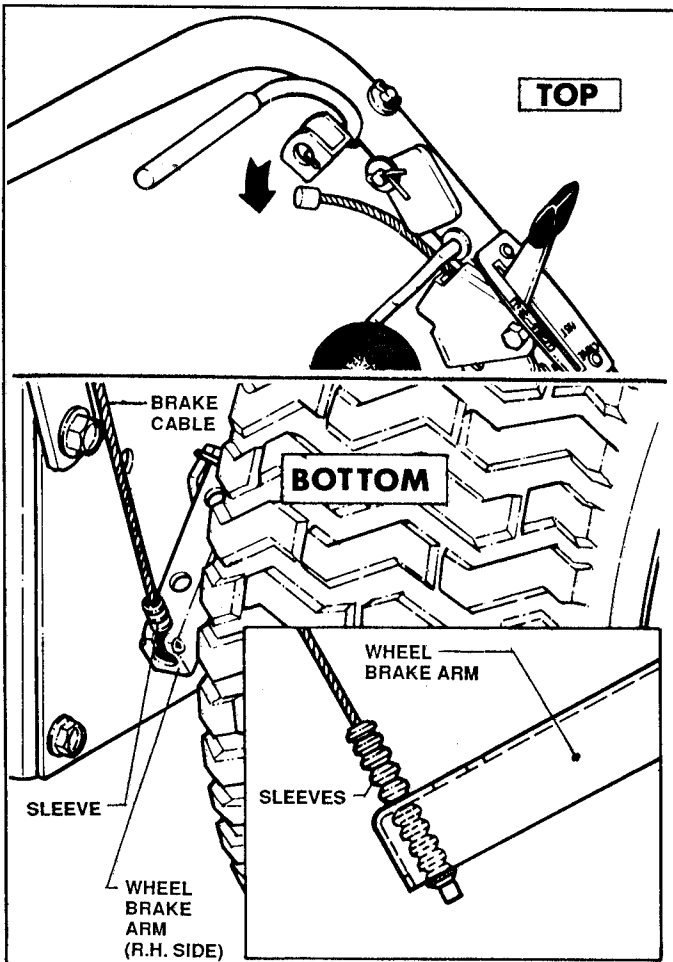


FIGURE 24

WHEEL DRIVE CLUTCH ADJUSTMENT: If the wheel drive cable is too tight, clutch spring life will be shortened. If too loose, wheel drive belt slippage will occur and belt life will be shortened. When properly set, the wheel drive bail can be pulled up about 45 degrees toward the handle before spring tension is felt. This can be adjusted at either end of two fittings - one is the cable fitting on the ignition switch and the other is the fitting on the rear frame. (Refer to Figure 16). Shorten the fitting extension to tighten clutch force on belt. See Figure 25.

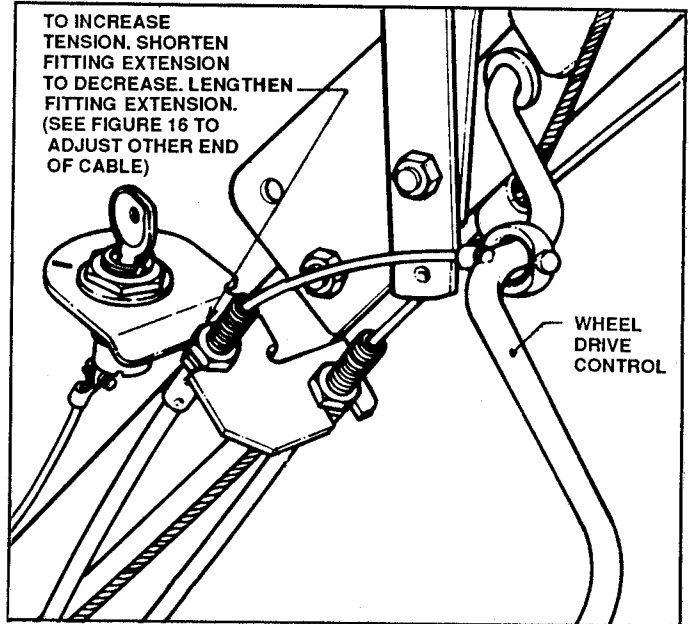


FIGURE 25

HANDLEBAR ADJUSTMENT: Remove the screw and nut from handlebar support. Raise or lower handlebar to desired position. Replace screw and nut. See Figure 26. After changing handlebar position, readjust WHEEL BRAKES. (See WHEEL BRAKE ADJUSTMENT).

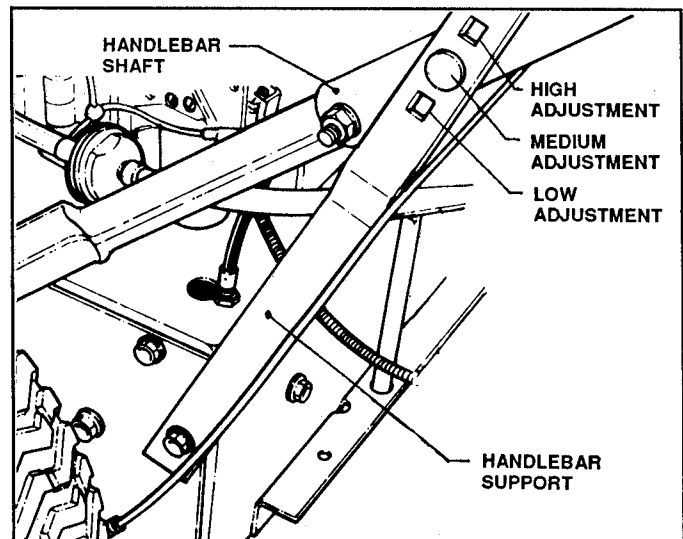
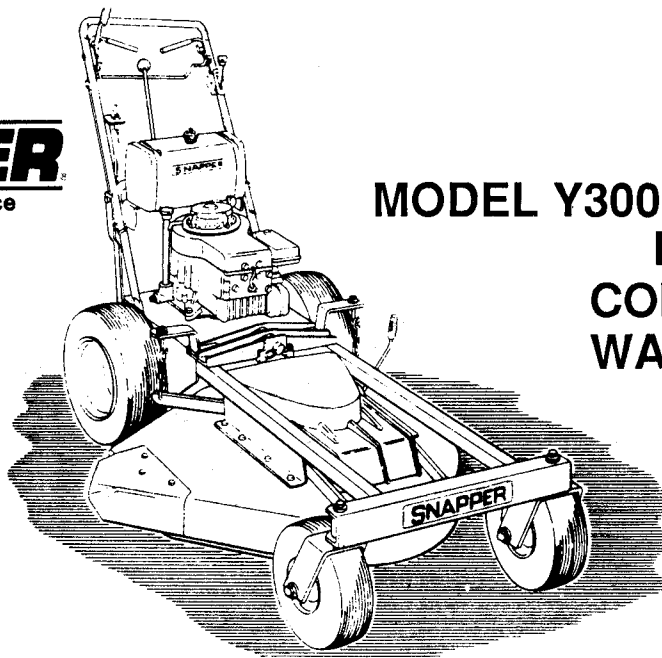


FIGURE 26

STORAGE PROCEDURE

1. Thoroughly clean all surfaces and lubricate machine. (See LUBRICATION SERVICE).
2. Drain fuel from tank.
3. Service engine for storage as described in ENGINE OWNER'S MANUAL.



MODEL Y30080 & Y30120 MID-DUTY COMMERCIAL WALK BEHIND MOWERS

MANUFACTURER'S 90 DAY LIMITED WARRANTY

For 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 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® McDonough, GA., 30253 U.S.A.

