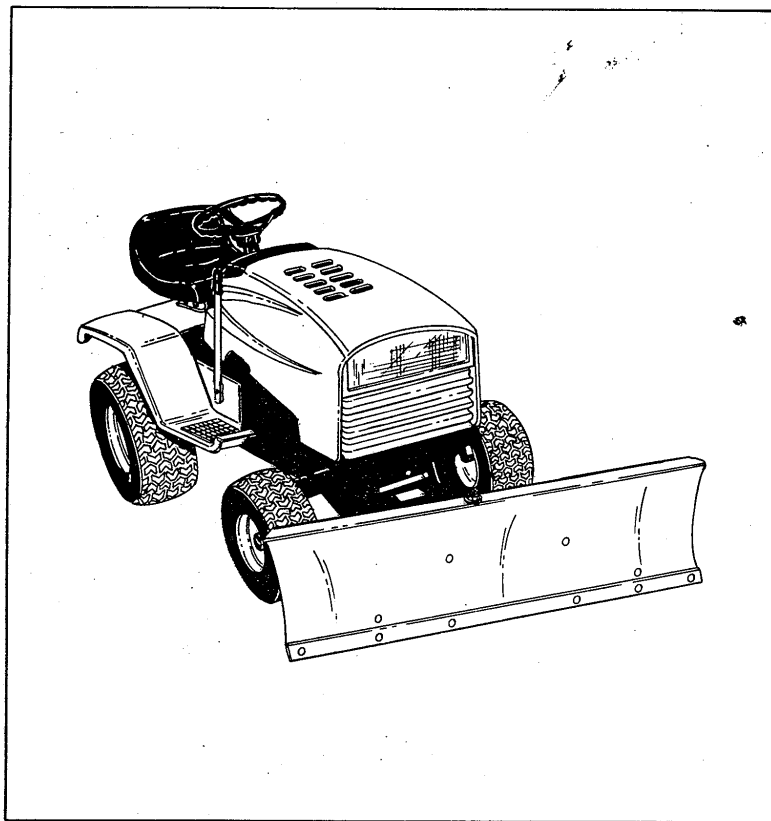


**owners
manual**

Model No.

LC020AR

**42"
SNOW BLADE**



42" SNOW BLADE

CAUTION:
Read Rules for
Safe Operation
and Instructions
Carefully

- Assembly
- Operation
- Maintenance
- Repair Parts

ROPER

OUTDOOR POWER PRODUCTS

DIVISION OF ROPER CORPORATION

PRINTED IN U.S.A.

FORM NO. 44340
(8/88)

RULES FOR SAFE OPERATIONS

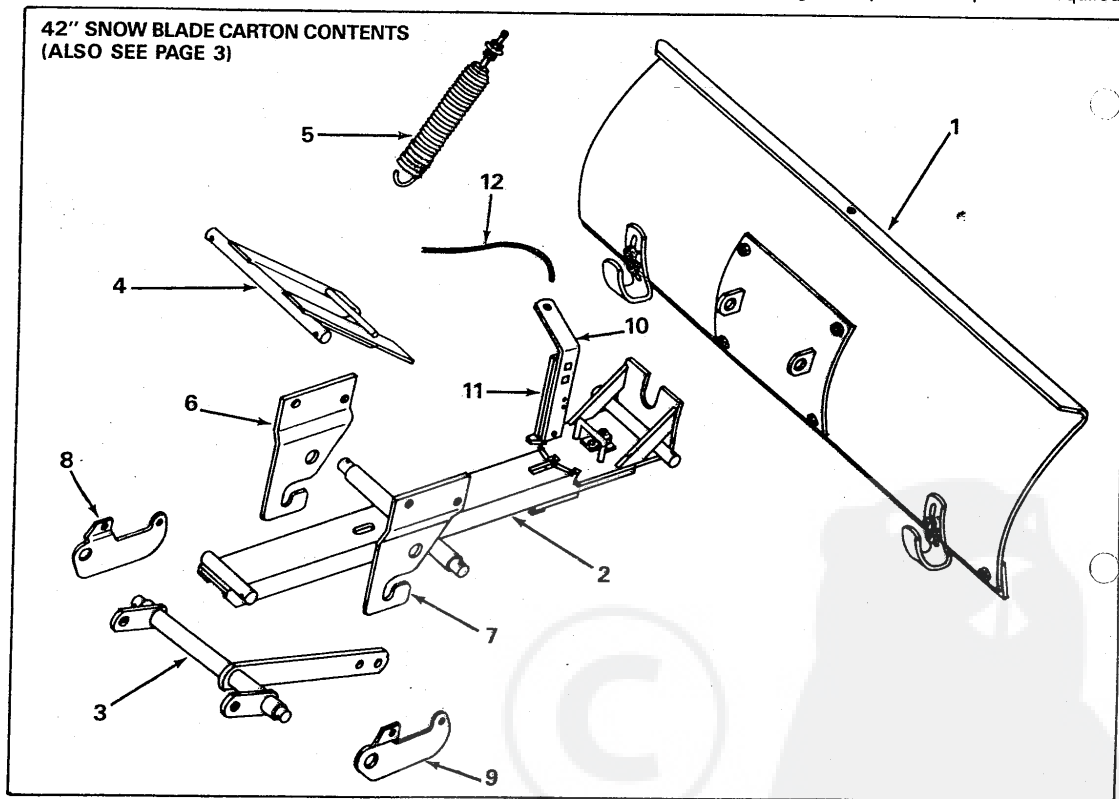
Remember, any power equipment can cause injury if operated improperly or if the user does not understand how to operate the equipment.



LOOK FOR THIS SYMBOL TO POINT OUT
IMPORTANT SAFETY PRECAUTIONS. IT
MEANS -- ATTENTION! BECOME ALERT!
YOUR SAFETY IS INVOLVED.

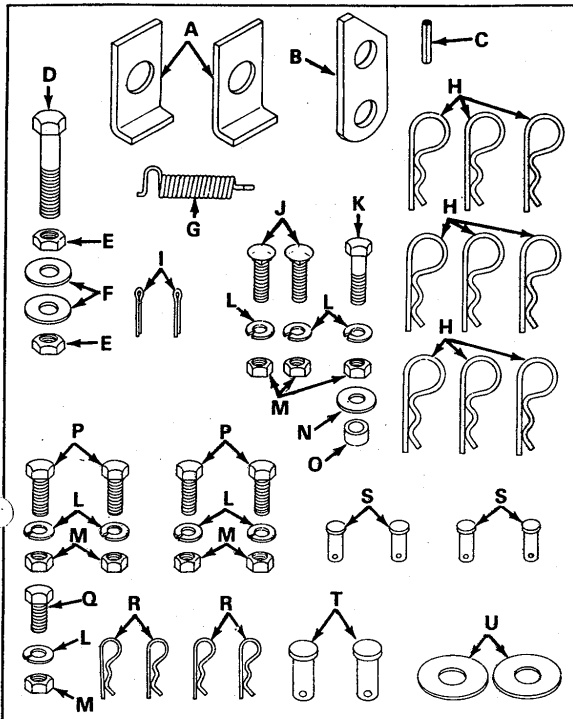
Exercise caution at all times, when using power equipment:

1. Read the tractor and snow blade owners manuals and know how to operate your tractor, before using tractor with snow blade attachment.
2. Never operate tractor and snow blade without wearing proper clothing suited to weather conditions and operation of controls.
3. Never allow children to operate tractor and snow blade, and do not allow adults to operate without proper instructions.
4. Always begin with transmission in first (low) gear and engine at low speed, and gradually increase speed as required.



CARTON CONTENTS

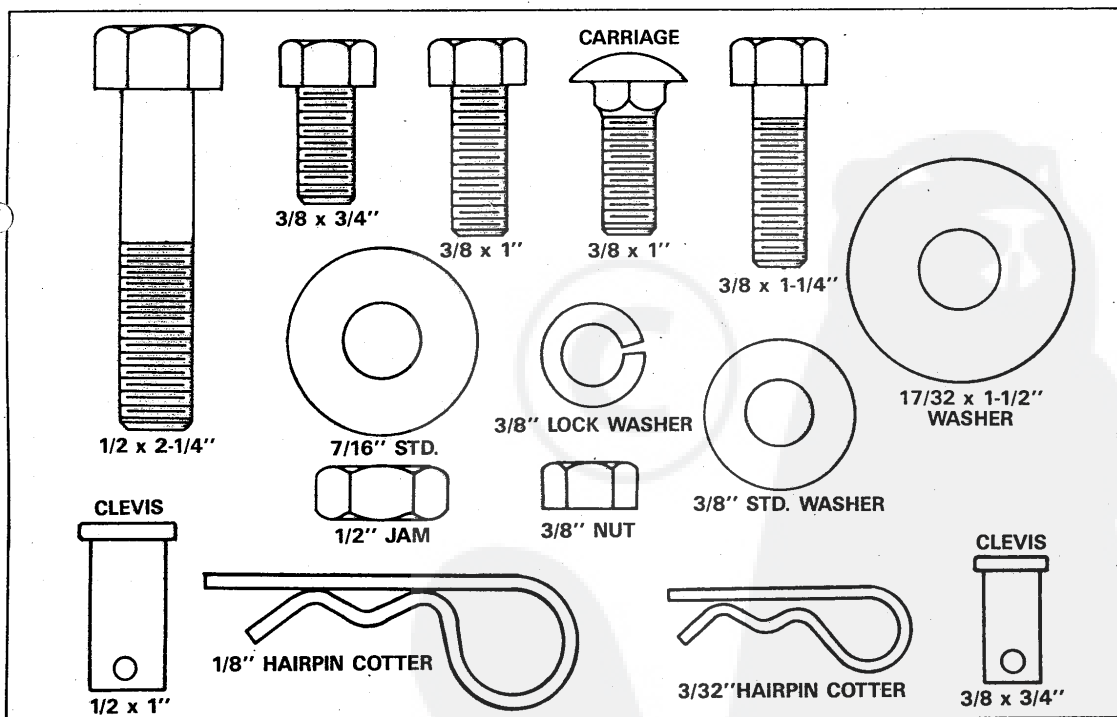
REF.	QTY.	DESCRIPTION	REF.	QTY.	DESCRIPTION
1	1	Blade Assembly	7	1	R.H. Hitch Plate
2	1	Channel/Pivot Plate Assembly	8	1	L.H. Lift Pivot Plate
3	1	Lift Assembly	9	1	R.H. Lift Pivot Plate
4	1	Guide Bracket Assembly	10	1	Angle Lock Bar (long)
5	1	Spring Assembly	11	1	Angle Lock Bar (short)
6	1	L.H. Hitch Plate	12	1	Rope
				1	Parts Package (Not Shown)



CONTENTS OF HARDWARE PACK: (Figure 1).

REF.	QTY.	DESCRIPTION
A	2	Keeper Plate
B	1	Lift Arm Link
C	1	Spring Pin 1/4 x 1"
D	1	Hex Bolt 1/2-13 x 2-1/4"
E	2	Hex Jam Nut 1/2-13 Thread
F	2	Flat Washer 7/16" Std.
G	1	Angle Lock Spring
H	9	Hairpin Cotter 1/8"
I	2	Cotter Pin 1/8 x 1"
J	2	Carriage Bolt 3/8-16 x 1"
K	1	Hex Bolt 3/8-16 x 1-1/4"
L	8	Lock Washer 3/8
M	8	Hex Nut 3/8-16 Thread
N	1	Flat Washer 3/8 Std.
O	1	Pivot Bushing
P	4	Hex Bolt 3/8-16 x 1"
Q	1	Hex Bolt 3/8-16 x 3/4"
R	4	Hairpin Cotter 3/32"
S	4	Clevis Pin 3/8 x 3/4"
T	2	Clevis Pin 1/2 x 1"
U	2	Washer 17/32 x 1-1/2 x 10 Ga.

FIGURE 1



FULL SIZE HARDWARE REFERENCE CHART

ASSEMBLY INSTRUCTIONS

TOOLS REQUIRED FOR ASSEMBLY

- (1) Pliers
- (1) Hammer
- (1) 1/2" Open End or Box Wrench
- (1) 9/16" Open End or Box Wrench
- (1) 3/4" Open End or Box Wrench
- (1) Adjustable Wrench

Refer to carton contents figure on page 2 and figure 1 on page 3 for parts and hardware needed to assemble snow blade.



RIGHT HAND (R.H.) AND LEFT HAND (L.H.) ARE DETERMINED FROM OPERATOR'S POSITION WHILE SEATED ON TRACTOR.

1. Assemble (long) angle lock bar, and (short) angle lock bar together using two 3/8" x 1" carriage bolts, 3/8" lock washers and 3/8" hex nuts, Do Not Tighten. See figure 2.

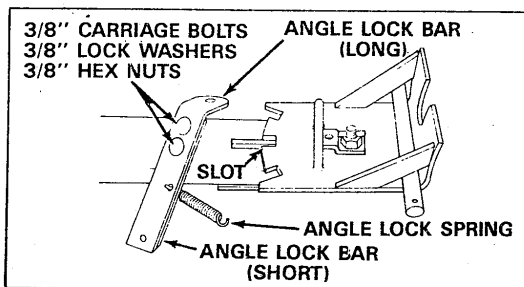


FIGURE 2

2. Assemble angle lock spring through angle lock bars positioning end hook as shown. See Figures 2 and 3.
3. Assemble hook of angle lock spring into hole of bracket under pivot bolt. Pull lock bars up to extend spring just enough to allow assembly of angle lock bars down through slot in pivot bracket and channel. See figures 2 and 3.

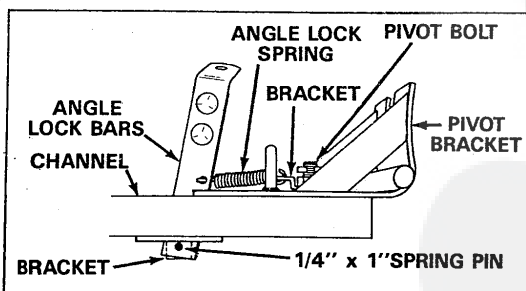


FIGURE 3

4. Using a hammer drive 1/4" x 1" spring pin through slot in bracket and hole in end of lock bars until flush with bracket. See figure 3. Tighten 3/8" hex nuts left loose in step 1.

ASSEMBLY OF SNOW BLADE TO LAWN TRACTOR.

Remove mower or any other attachment you may have mounted to your tractor. Mark all loose parts and save for re-assembly. Refer to owners manual for removal of mower/attachment.



The mower deck link arms (R.H. and L.H.) and upstop bars (if tractor is so equipped) must be removed to prevent interference with blade lift. See figure 4. Re-assemble bolt and nut shown in figure 4.

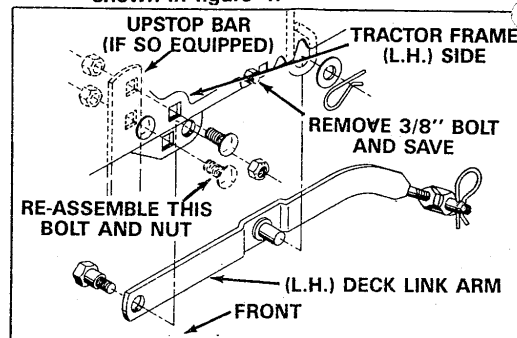


FIGURE 4

1. Assemble right hand and left hand hitch plates inside tractor frame (near front) using two 3/8" x 1" hex bolts from inside of each plate. See figure 5. Secure with two 3/8" lock washers and two 3/8" hex nuts outside frame on each side. Note: Offset on each plate must be toward inside, as shown in figure 5.

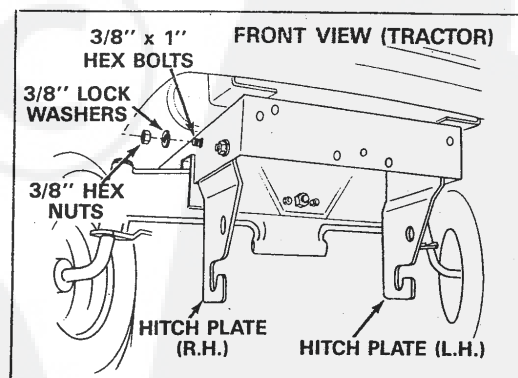


FIGURE 5

2. Assemble one 1/2" x 2-1/4" hex bolt into slotted hole in channel assembly, (see figure 6) with one 1/2" hex nut and one 7/16" standard washer on top side and one 1/2" hex nut and one 7/16" standard washer under channel. **Do not tighten at this time.**
3. Assemble channel assembly to front of tractor as shown in figures 6 and 7.

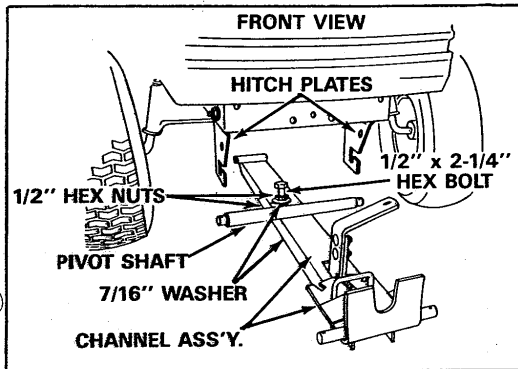


FIGURE 6

4. Assemble keeper plates over each end of pivot shaft with lip under hitch plates (see figure 7) and secure with two 1/8" (large) hairpin cotters through small holes near each end of shaft.

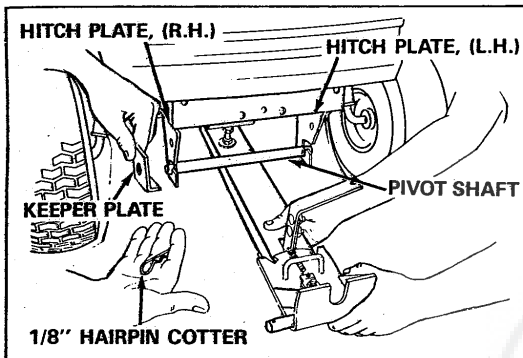


FIGURE 7

5. Adjust 1/2 x 2-1/4" stop bolt, previously assembled into channel assembly (step 2). See figure 8. Adjust hex nuts, above and below channel to provide approximately 1/8" clearance between channel and the tractor engine pulley with the stop bolt positioned against frame member. See figure 8.



The stop bolt must be tightened in place before assembling blade assembly to channel.

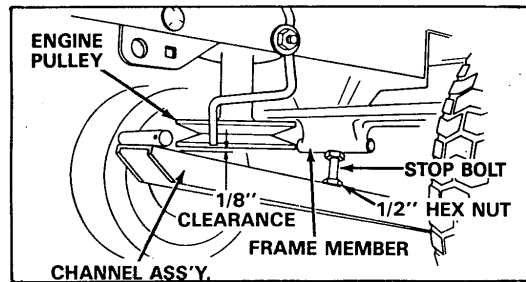


FIGURE 8

6. Assemble blade assembly to channel assembly by sliding one end of pivot bar into right hand bracket and then sliding back into left hand bracket. See figure 9. Secure by assembling two 1/8" x 1" cotter pins into small holes near ends of pivot bar. Spread ends to retain.



Blade shoes are factory assembled to blade assembly in lower setting. See adjustments step "C" page 8, for repositioning.

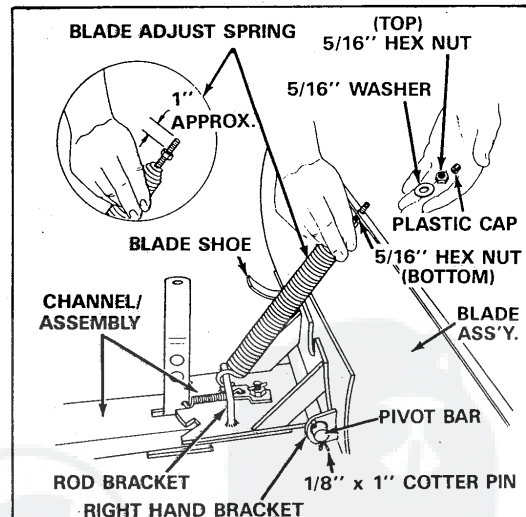


FIGURE 9

7. To assemble blade adjust spring, remove plastic cap, 5/16" flat washer and one 5/16" hex nut. Adjust the remaining 5/16" hex nut on the long bolt to approximately one inch down from end of bolt threads. Assemble adjusting bolt through hole in top edge of blade and hold in place with 5/16" flat washer and 5/16" hex nut removed earlier. **Do not tighten 5/16" hex nut at this time.** Push down on the spring and hook end of spring over rod bracket as shown in figure 9. Tighten 5/16" hex nut on top edge of blade down against the bottom 5/16" hex nut. Replace plastic cap over end of adjusting bolt threads. See figure 9.

- Assemble left hand lift pivot plate (note offset, see figure 10) under left hand foot rest and outside of frame. Secure with two 3/8" x 3/4" clevis pins and two 3/32" (small) hairpin cotters. See figures 10 and 11. Do not assemble lift pivot plate under the right hand foot rest at this time.

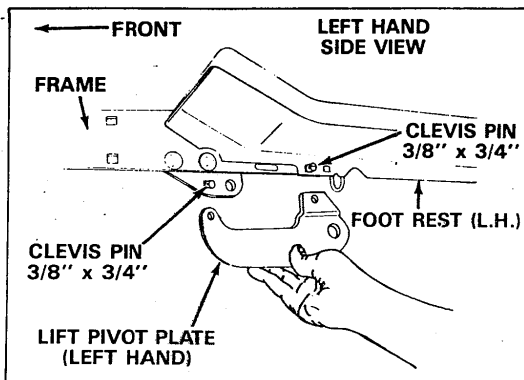


FIGURE 10

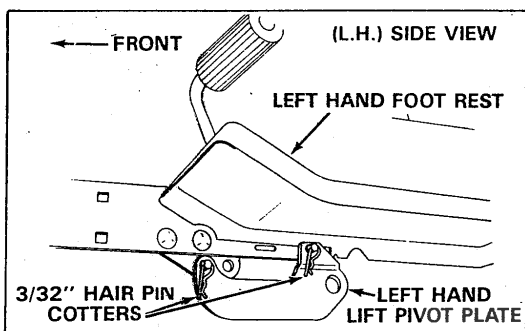


FIGURE 11

- Pre-assemble lift arm link to inside of long arm on lift assembly. As shown in figure 12.

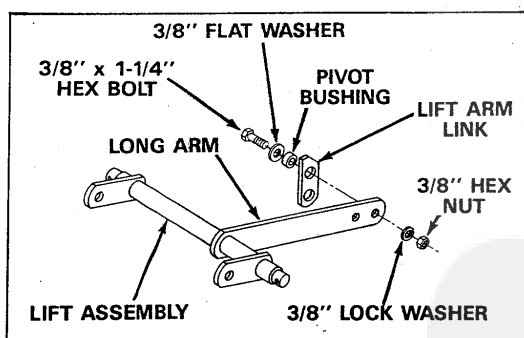


FIGURE 12

- Assemble one 3/8" x 1-1/4" hex bolt through 3/8" flat washer, through pivot bushing, through large hole in lift arm link near angle end and through hole in long arm nearest the end. Secure with one 3/8" lock washer and one 3/8" hex nut. See figure 12. NOTE: Lift arm link must pivot freely.



Lift arm link must be positioned as shown in figures 12 and 13.

- Assemble one 3/8" x 3/4" hex bolt from inside, through second hole from end of long arm. Secure with one 3/8" lock washer and one 3/8" hex nut on outside. This bolt is used as a limit stop for the lift arm link. See figure 13.
- Move tractor lift control lever all the way back and lock in position. See figure 18, page 8.
- Assemble lift arm link (lift assembly) over channel rod and insert pivot shaft end (from R.H. side of tractor) into hole in L.H. lift pivot mount plate. See figure 13. Secure lift arm link to channel rod with 1/8" (large) hairpin cotter. See figure 14.

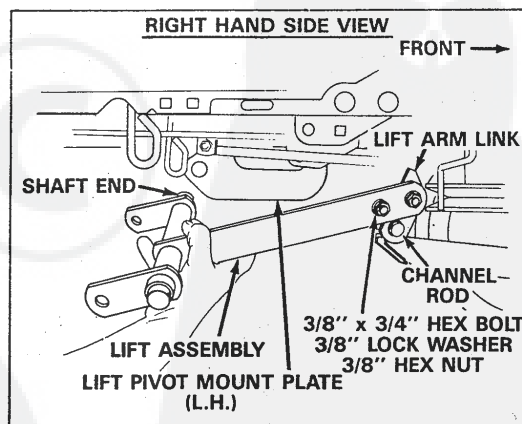


FIGURE 13

- Assemble **right hand lift pivot plate**, (stamped R.H.), over right hand end of lift assembly pivot shaft and connect to outside of frame (see figure 14) using two $3/8'' \times 3/4''$ clevis pins from inside. Secure with two $3/32''$ (small) hairpin cotters and two $1/8''$ (large) hairpin cotters assembled to each end of pivot shaft. See figure 14.

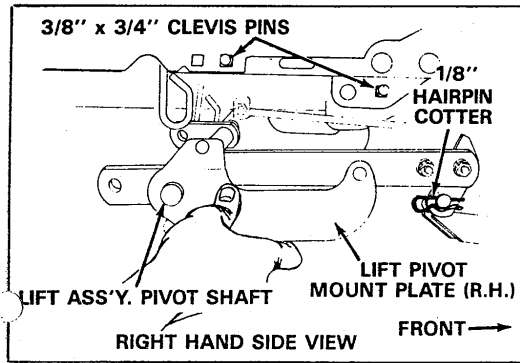


FIGURE 14

- Move tractor lift control lever forward (see figure 18, page 8) to lower link rods **outside** of short arms on lift assembly. See figure 15.
- Assemble one $1/2'' \times 1''$ clevis pin from **inside** through short arm through right hand link rod, and through one $17/32'' \times 1-1/2''$ washer. Secure with one $1/8''$ (large) hairpin cotter on **outside**. See figure 15.
Assemble one $1/2'' \times 1''$ clevis pin from **outside** (on left side of tractor), through one $17/32'' \times 1-1/2''$ washer, through left hand link rod, and through short arm. Secure with one $1/8''$ hairpin cotter on **inside**.

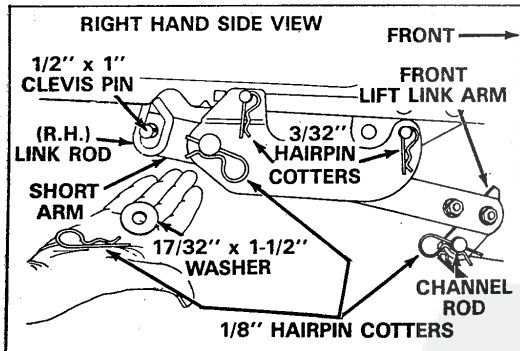


FIGURE 15

- Assemble guide bracket assembly **shaft end** into the left hand hitch plate. See figure 16. Slide guide assembly back to the right and into hole of the right hand hitch plate. Secure with a $1/8''$ (large) hairpin cotter in each end. See figure 17. Lower front end of guide bracket assembly to straddle channel assembly.

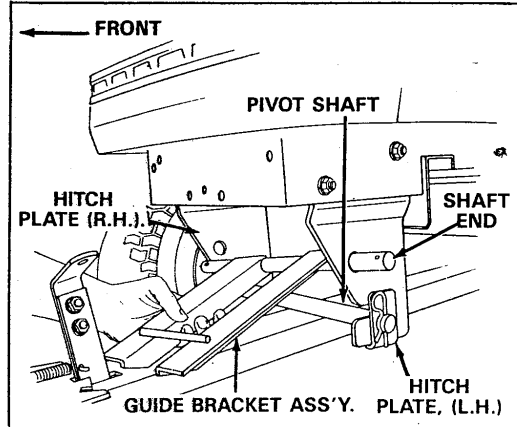


FIGURE 16

- Secure rope to top hole in angle lock bars. See figure 17. Thread rope as shown under left hand side of tractor, proceeding **over** pivot shaft, inside left hand hitch plate, between the steering link rod and tie rod, continuing outside of frame up to tractor steering column. See figure 18, page 8. Tie rope securely to steering column, taking up most of the slack in rope.

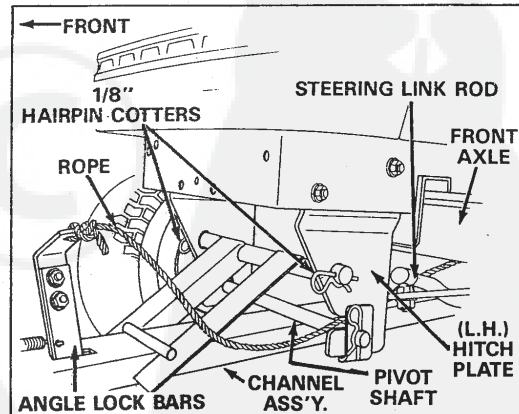
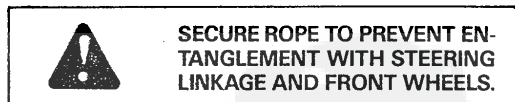


FIGURE 17

OPERATION INSTRUCTIONS and ADJUSTMENTS

The snow blade attachment is designed to move new loose snow in depths up to 6" – 8".



HIDDEN OBJECTS CAN CAUSE SUDDEN STOPS OR CHANGE IN DIRECTION.

CONTROLS

Become familiar with all of the controls and adjustments on the tractor and snow blade before operating. Refer to tractor owner's manual for tractor controls. Controls for operating snow blade are as follows:

- A. **Lift control lever:**
Located on right hand side of tractor. See figure 18. Move lever forward to lower snow blade. Pull lever back to raise and lock snow blade.
- B. **Lift lever plunger:**
Located on top of lift control lever. See figure 18. Pull back on lift control lever and depress plunger to release.



WITH THE SNOW BLADE IN THE "UP" POSITION DO NOT DEPRESS THE PLUNGER WITHOUT HOLDING BACK ON THE LIFT CONTROL LEVER OR SNOW BLADE MAY SUDDENLY DROP.

- C. **Attachment depth control knob:**
Adjust lift control lever movement with attachment **DEPTH CONTROL KNOB** (see figure 18) for **maximum movement** between locking notches and to prevent lever from locking in the down lock notch. See figure 18.

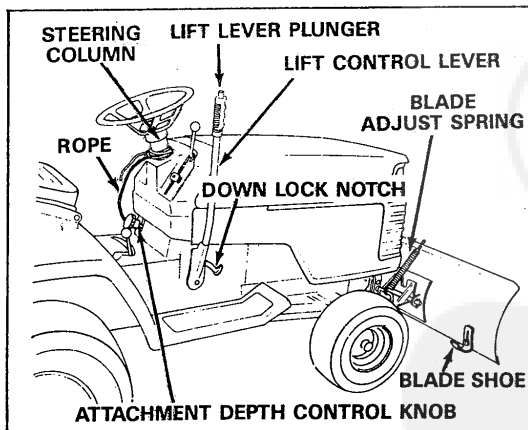


FIGURE 18

ADJUSTMENTS

- A. **Blade angle lock bars:**
Blade angle can be adjusted at the blade pivot in front of tractor by first raising the blade to transport position, pull back on angle lock bars to release the blade and pivot to the right, center, or left positions. Release lock bars to lock.

To adjust blade angle from the tractor seat: Raise blade to transport position, shift tractor to low speed range, pull back on rope to release angle lock bars. Move tractor forward slowly, dragging the right, or left end of blade against snow bank (or other object) to angle blade to right or left. Release rope to lock.

- B. **Adjust blade spring:**
Blade adjust spring tension is adjustable to permit blade to tilt forward to by pass solid obstructions.



KNOW THE TERRAIN. AVOID EXCEPTIONALLY SHARP SLOPES OR DROP-OFFS WHICH MAY BE HIDDEN BY THE SNOW. NEVER RUN THE SNOW BLADE INTO HEAVY MATERIAL AT HIGH SPEED.

- C. **Blade shoe adjustment:**
Blade shoes on ends of blade, (see figure 18), may be raised for close work on smooth surfaces or lowered to raise the blade to work on rough or uneven areas. Make sure both shoes are set evenly and nuts are tightened securely.



NOTE
Wheel weights and tire chains should be used with your snow blade to improve traction.

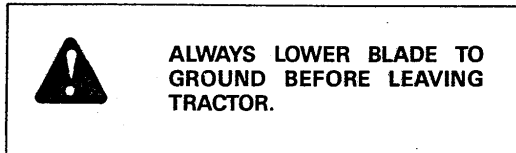
OPERATION



INSPECT THE AREA TO BE WORKED CAREFULLY BEFORE OPERATING THE SNOW BLADE. AVOID PIPES, ROOTS, CURBS OR OTHER HEAVY OBSTRUCTIONS.

1. Prepare the lawn tractor engine for cold weather use following instructions furnished with lawn tractor.
2. Always begin with transmission in first (low) gear and engine at slow speed and gradually increase speed as required.

3. DO NOT always push snow in the same direction causing excessive build up with each successive pass.
4. If blade is stored in heated area, allow lawn tractor and blade to adjust to outdoor temperature before operating to reduce icing on the metal surfaces.



TO REMOVE SNOW BLADE FROM TRACTOR

1. Lower blade to ground with blade in the center (straight) position.
2. Refer to figure 19 below and;
 - A. Remove 1/8" (large) cotters, 1/2" x 1" clevis pins and 17/32" x 1-1/2" flat washers from right hand and left hand link rods.
 - B. Remove 3/32" (small) hairpin cotters from right hand and left hand lift pivot plates, remove two 3/8" x 3/4" clevis pins from each side of frame, and lower the lift assembly to the ground.
 - C. Re-assemble one 3/8" x 16 x 3/4 carriage bolt and 3/8" hex nut in hole labeled A in figure 19 on each side of tractor frame. Also see figure 4 on page 4.

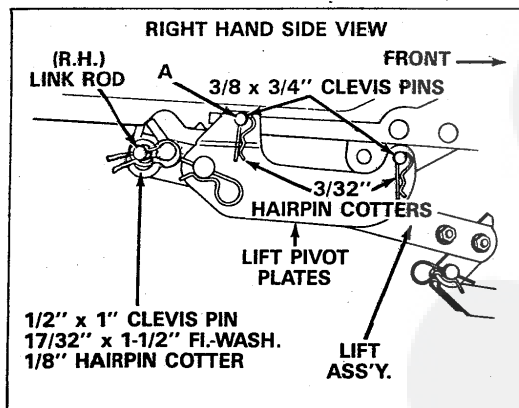


FIGURE 19

3. Refer to figure 20 below and remove 1/8" (large) hairpin cotters from ends of guide bracket assembly and remove guide bracket assembly.

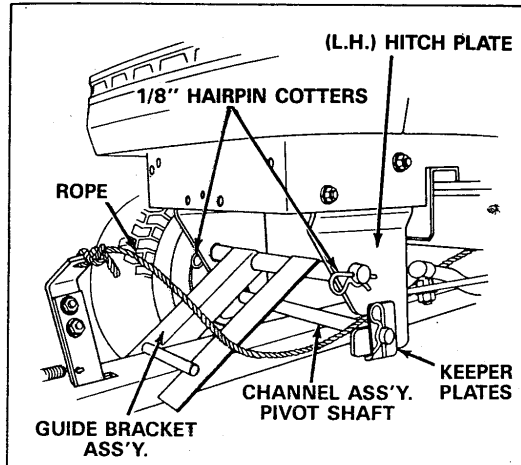


FIGURE 20

4. Refer to figure 20 above and remove 1/8" (large) hairpin cotters from ends of channel assembly pivot shaft and remove keeper plates. Lift the channel assembly pivot shaft out of the hitch plates and lower channel to the ground.



NOTE
Hitch plates do not require removal for re-assembly of mower deck. See figure 20.

5. Remove rope (if installed) from tractor and save all loose parts and hardware for re-assembly of blade to tractor.

MAINTENANCE

During the operating season, check all bolts, nuts and hairpin cotters to be sure they are secure. For improved snow removal performance, coat the blade with automotive type paste wax.

LUBRICATION

Oil all pivot points so that they will work freely.

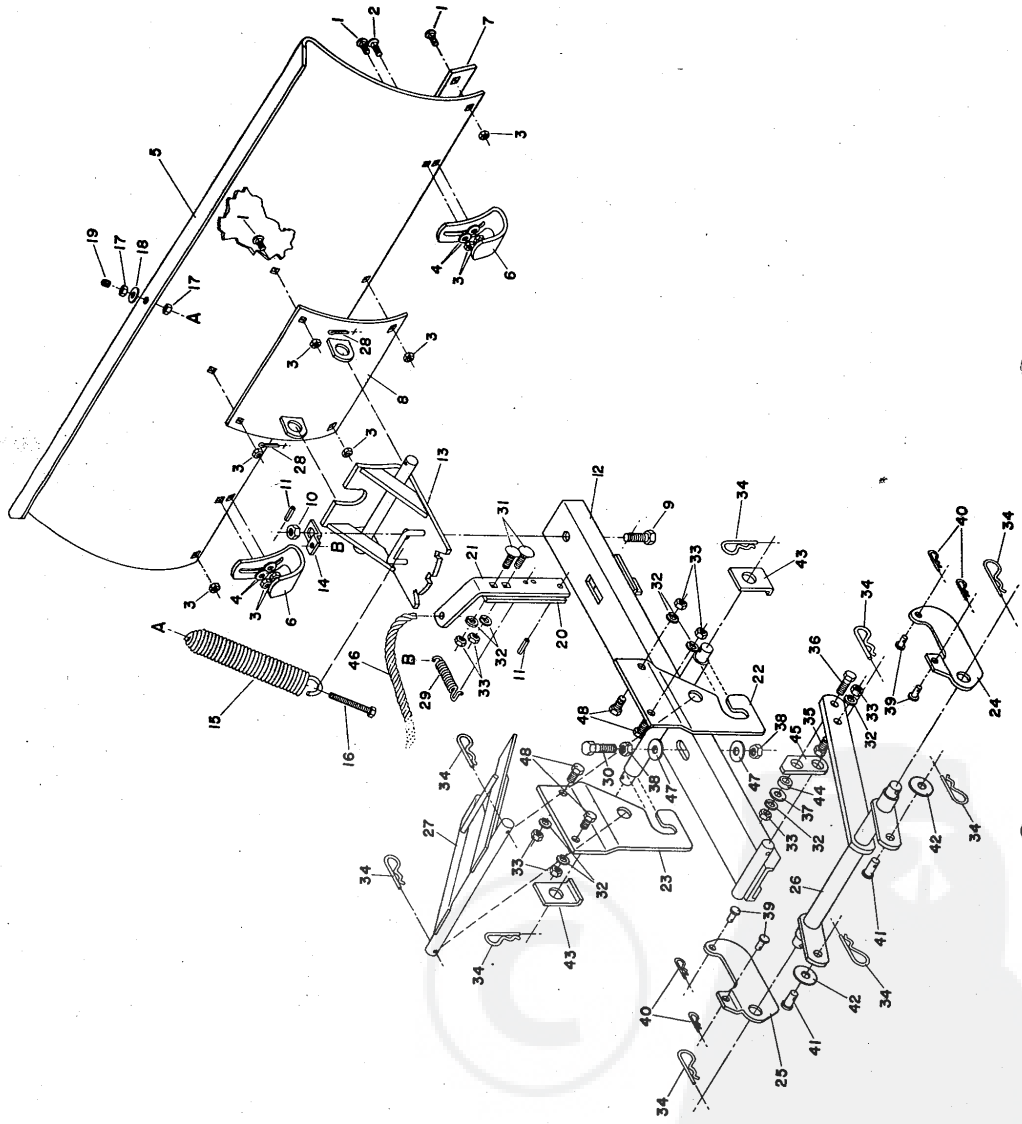
STORAGE

When the snow blade is not being used, remove all dirt and rust and touch up with paint.

Apply a light coat of grease or rust preventative to the blade and oil pivot points.

Store in an area where it is protected from weather.

REPAIR PARTS FOR MODEL LC020AR — 42" SNOW BLADE



REPAIR PARTS FOR MODEL LC020AR — 42" SNOW BLADE

REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION
1	43080	8	Carriage Bolt 5/16-18 x 3/4"	26	62546	1	Lift Ass'y.
2	43079	2	Carriage Bolt 5/16-18 x 1"	27	62547	1	Guide Brk't. Ass'y.
3	43064	10	Hex Lock Nut 5/16-18*	28	43010	2	Cotter Pin 1/8 x 1"
4	43081	4	Washer 5/16 Std. Wrt.*	29	43348	1	Angle Lock Spring
5	23118	1	Blade 42"	30	44063	1	Hex Bolt 1/2-13 x 2-1/4"
6	23070	2	Shoe	31	43350	2	Carriage Bolt 3/8-16 x 1"
7	23117	1	Wear Plate 42"	32	43003	8	Spring Lock Washer 3/8*
8	62142	1	Reinforcement Plate Ass'y.	33	43015	8	Hex Nut 3/8-16*
9	23131	1	Special Pivot Bolt	34	43343	9	Hairpin Cotter 1/8*
10	43262	1	Hex Lock Nut 1/2-13*	35	43407	1	Hex Bolt 3/8-16 x 3/4"
11	43349	2	Spring Pin 1/4 x 1"	36	43087	1	Hex Bolt 3/8-16 x 1-1/4"
12	62545	1	Channel Ass'y	37	43070	1	Washer 3/8 Std. Wrt.*
13	62143	1	Pivot Plate Ass'y.	38	43019	1	Hex Jam Nut 1/2-13*
14	23130	1	Spring Mount Bracket	39	44044	2	Hex Bolt 3/8 D. x 3/4 L.
15	43263	1	Adjustment Spring	40	43055	4	Clevis Pin 3/8 D. x 3/4 L.
16	44043	1	Hex Bolt 5/16-18 x 3-1/4 (special)	41	44062	2	Hairpin Cotter 3/32*
17	43083	2	Hex Nut 5/16-18*	42	R19172410	2	Clevis Pin 1/2 D. x 1" L.
18	43081	1	Washer 5/16 Std. Wrt.*	43	23624	2	Washer 17/32 x 1-1/2 x 10 Ga.
19	43331	1	Plastic Cap	44	23625	2	Keeper Plate
20	23151	1	Angle Lock Bar (short)	45	23631	1	Pivot Bushing
21	23129	1	Angle Lock Bar (long)	46	43737	1	Lift Arm Link
22	23614	1	Hitch Plate, R.H.	47	43352	1	Rope
23	23613	1	Hitch Plate, L.H.	48	43001	2	Washer 7/16 Std. Wrt.*
24	23616	1	Lift Pivot Plate, R.H.	---	---	4	Hex Bolt 3/8-16 x 1"
25	23615	1	Lift Pivot Plate, L.H.	---	44340	1	Owners Manual

*Purchase common hardware locally.