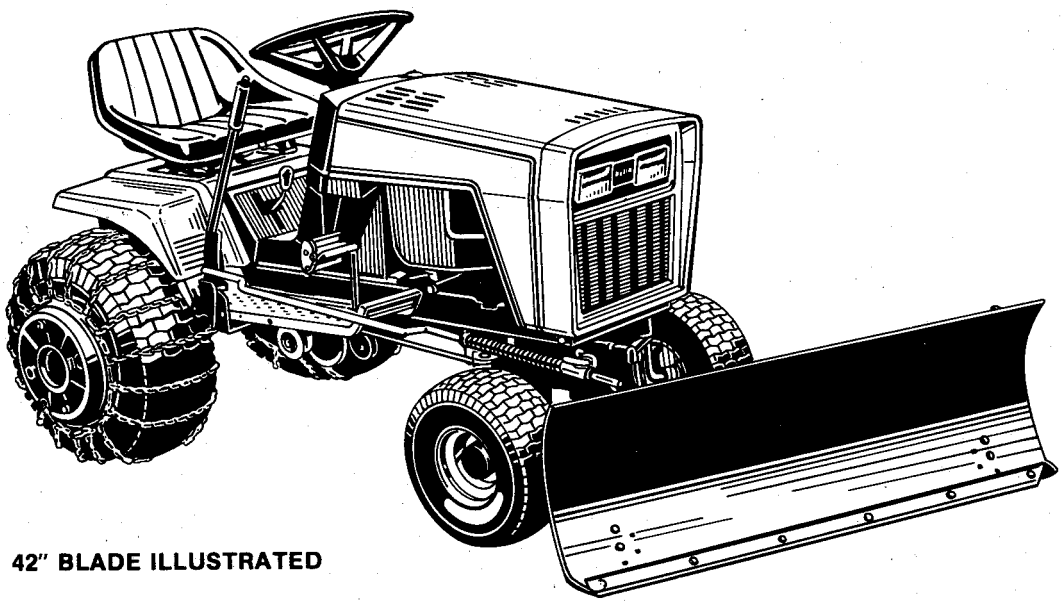
OPERATOR'S MANUAL

42" & 46" SNOW PLOW/ DOZER BLADE



42" BLADE ILLUSTRATED

42" SNOW PLOW/DOZER BLADE
MFG. NO. 1691520
HITCH ASSEMBLY
MFG. NO. 1690497
46" SNOW PLOW/DOZER BLADE
MFG. NO. 1690088
HITCH ASSEMBLY
MFG. NO. 1690498

FORM - 1702207
PRINTED IN U.S.A.
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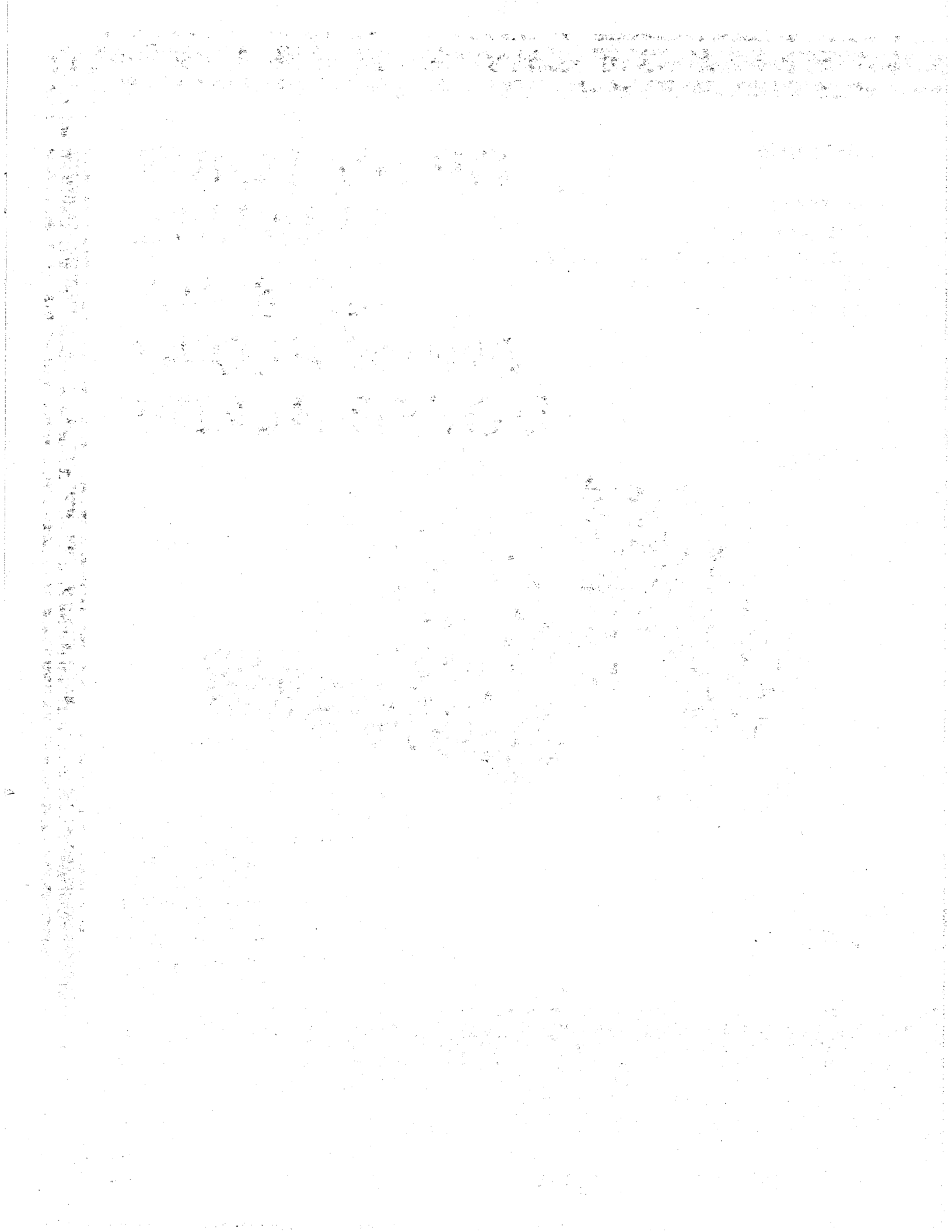


Contents

Accessories

There are many optional accessories and attachments available for your tractor to make plowing and dozing easier. See your dealer if you wish to purchase any of the following:

WHEEL WEIGHTS, REAR — improve traction in loose soil or on slippery surfaces. Use two rear wheel weights (one per wheel) when operating on slopes greater than 20 percent (11.3°).

WHEEL WEIGHTS, FRONT — improves front end stability when operating on slopes or using rear mounted attachments.

ELECTRIC LIFT KIT — raises and lowers snow plow/dozer blade and other attachments with the flip of a switch.

SPRING-ASSISTED LIFT KIT — reduces operator effort in raising and lowering snow plow/dozer blade and other attachments.

DUAL LIFT LEVER — provides separate lift control of front and rear-mounted attachments. Especially useful when using dozer blade and rotary tiller at the same time.

WINTERIZING KIT — (Briggs & Stratton engines only.) Includes shield to keep carburetor warm and side-vented gas cap.

CHAINS — provide additional traction.

COUNTERWEIGHT SPRING KIT — makes it easier to lift snow plow/dozer blade.

SNOW CAB — protects operator from weather.

HOURMETER — records engine operating time in tenths of an hour.

REAR LIGHT KIT — lights path when traveling in reverse at night.

Safety Rules

Read these safety rules and follow them closely. Failure to obey these rules could result in loos of control of vehicle, severe personal injury to yourself or bystanders, or damage to property or equipment. The triangle ⚠ in the text signifies important cautions or warnings which must be followed.

⚠ ALL WARNING, CAUTION, and instructional messages on this attachment and on your tractor should be carefully read and obeyed. Personal bodily injury can result when these instructions are not followed.

GENERAL

- Read the operator's manual carefully. Be thoroughly familiar with the controls and proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Never allow children to operate the machine. Do not allow adults to operate it without proper instruction.
- Keep the area of operation clear of all persons, particularly small children, and pets.
- Do not carrry passengers.
- Make sure:
  a. tractor and attachments are in good operating condition,
  b. all safety devices and shields are in place
  c. and all adjustments (skid shoe height, etc.) have been made.

PREPARATION

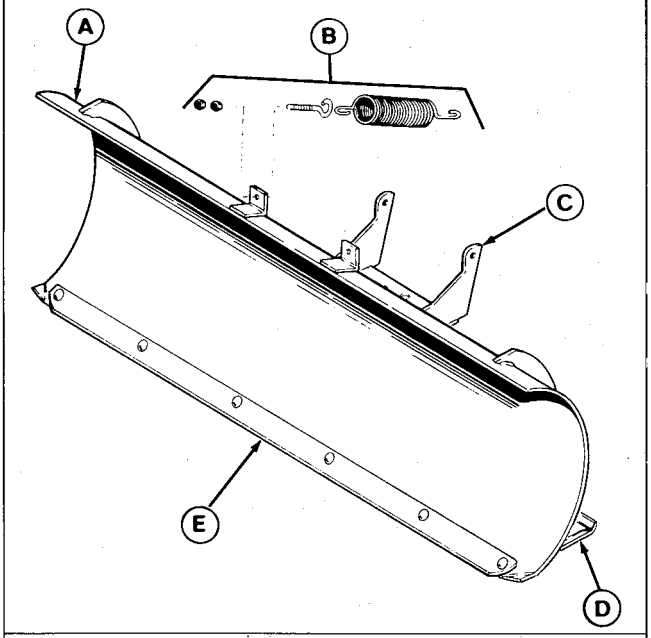
- Handle gasoline with care — it is highly flammable.
  a. Use approved gasoline container.
  b. Never remove the cap of the fuel tank or add gasoline to a running or hot engine, or fill the fuel tank indoors. Wipe up spilled gasoline.
- Do not run the engine indoors. Exhaust fumes are dangerous.
- Shift into neutral before attempting to start the engine.
- Wear heavy footwear. Do not operate tractor when barefoot or when wearing open sandals or canvas shoes.

OPERATION

- Do not allow anyone to use the snow plow/dozer blade unless they have been instructed on how to operate it safely.
- Never attempt to adjust, repair or service the snow plow/dozer blade while the tractor engine is running.
- Do not allow others near the snow plow/dozer blade while it is being used.
- Use the snow plow/dozer blade only in daylight, or good artificial light.
- Always lower the snow plow/dozer blade completely to the ground when leaving it unattended to prevent it from being accidentally lowered and causing injury.
- Always operate the tractor at reasonable speeds to prevent the blade from catching an object and stopping the tractor abruptly.

Dozer Blade & Hitch Parts

42" Blade - Mfg. No. 1691520



Hitch - Mfg. No. 1690497

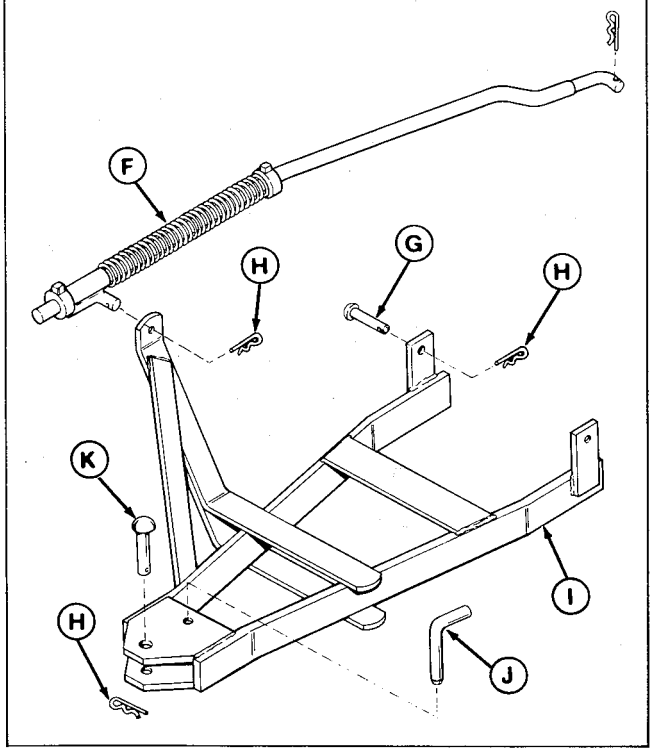
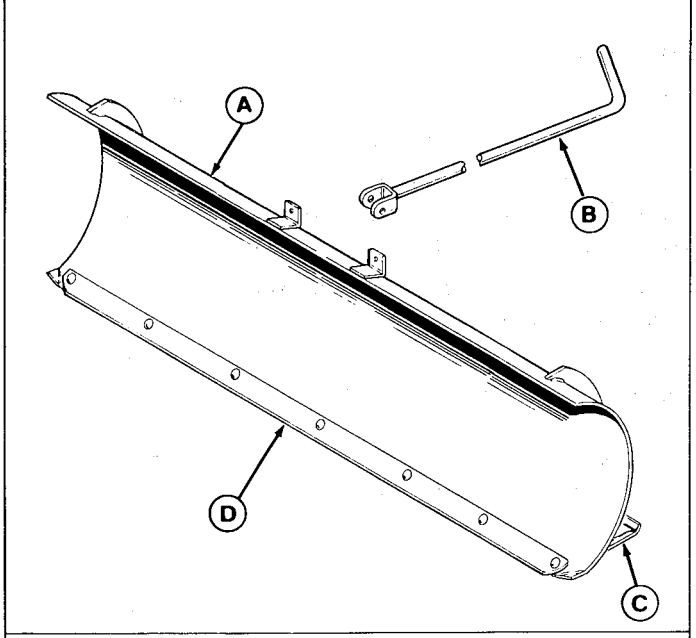


Figure 1. 42" Blade and Hitch

A. Blade
B. Spring Trip Assembly
C. Pivot Frame
D. Skid Shoes
E. Wear Plate
F. Lift Rod Assembly
G. Pin
H. Spring Clips
I. Push Bar
J. Pivot Pin
K. King Pin

46" Blade - Mfg. No. 1690088



Hitch - Mfg. No. 1690498

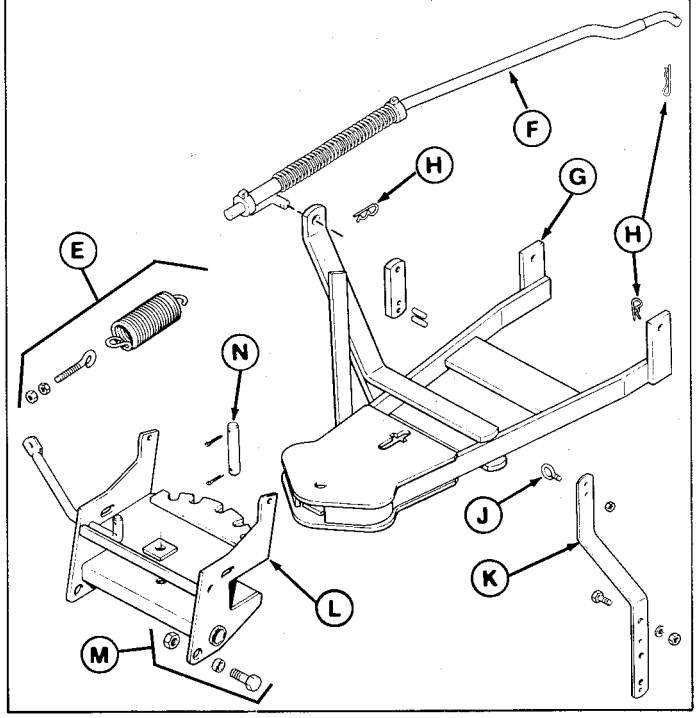


Figure 2. 46" Blade and Hitch

A. Blade
B. Control Rod
C. Skid Shoe
D. Wear Plate
E. Spring Trip Assembly
F. Lift Rod Assembly
G. Push Bar
H. Spring Clips
I. Clevis Pins
J. Eyebolt
K. Tractor Frame Bracket
L. Pivot Frame
M. Blade Mounting Hardware
N. Pivot Pin

Assembly, Installation, & Removal

ASSEMBLY

1. Place the blade (A, figure 3) on a flat surface.

NOTE

For easier 46" blade installation, the pivot frame (L, figure 2) can be separated from the push bar (G) by removing the pivot pin (N).

On the 42" blade, the pivot frame and blade have been preassembled. Proceed to step 3.

2. Insert one spacer (B) in each one of the two mounting holes in the pivot frame (C). Position the push bar as in figure 3 and align the mounting holes with the brackets on the blade. Push the capscrews (D) thru and install locknuts (E). Torque locknuts to 75 ft. lbs. (103 N.m).

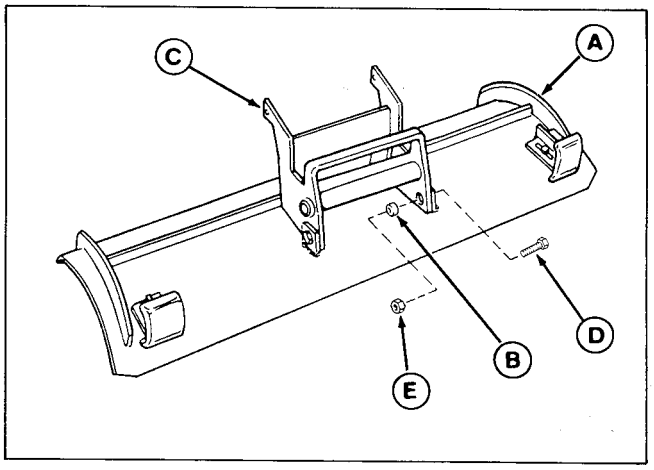


Figure 3. Attaching Blade and Pivot Frame (46" Blade)

A. Blade Assembly
B. Spacer
C. Pivot Frame
D. Capscrews
E. Locknuts

3. Insert eyebolt through looped end of spring. Align the openings to hook spring to eyebolt. Insert eyebolt (A, figure 4) thru lug on blade and screw on nut (B) only far enough so that it is flush with the end of the eyebolt.

4. Stretch the spring with a pliers to hook spring (C) into pivot frame (E).

NOTE

The 46" blade is illustrated in figure 4. Eyebolts and springs are mounted in similar manner for the 42" blade.

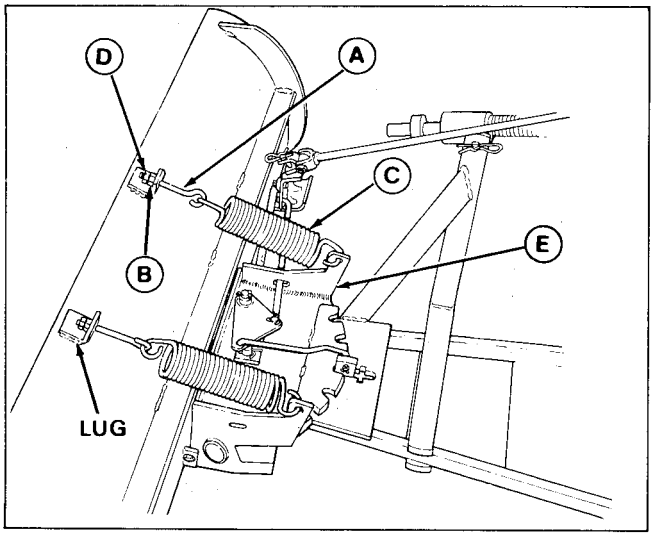


Figure 4. Attaching Springs (46" Blade Shown)

A. Eyebolt
B. Adjustment Nut
C. Spring
D. Locking Nut
E. Pivot Frame

5. Repeat steps 3 and 4 for the other spring.

6. Tighten the adjustment nuts (B) on both eyebolts down to expose about 3/4 inch (19 mm) of thread. Refer to page 8 for spring tension adjustment.

7. Add the locking nut (D) to each eyebolt. Hold the adjustment nut (B) secure with a wrench and tighten the locking nuts (D) against the other nuts (B).

8. For the 46" blade only, follow these steps.

   a. Attach eyebolt (A, figure 5) to the bottom hole on the control rod bracket (B). Secure eyebolt with nut (C).

   b. Mount the control rod bracket (B) to tractor frame with capscrew, lockwasher, and nut (D).

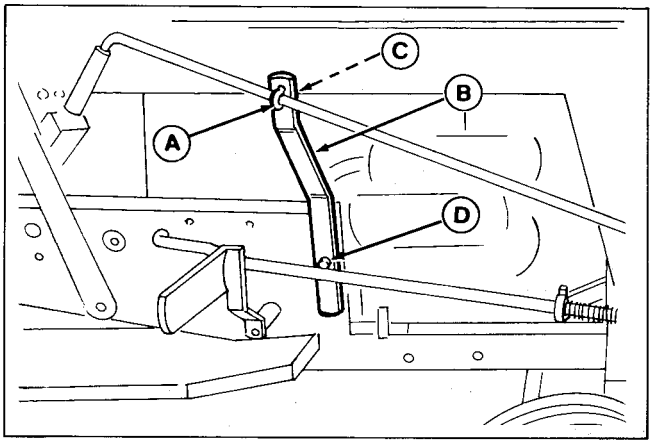


Figure 5. Control Rod Bracket

A. Eyebolt
B. Bracket
C. Nut
D. Mounting Hardware

INSTALLATION

1. Drive the tractor over the push bar until rear of push bar is under front tractor hitch.
2. Stop engine, remove key and set parking brake.
3. Raise rear of push bar so its arms fit between lugs of hitch (A, figure 6) at rear of tractor axle. Use two clevis pins (B) and spring clips (C) to secure push bar to hitch.

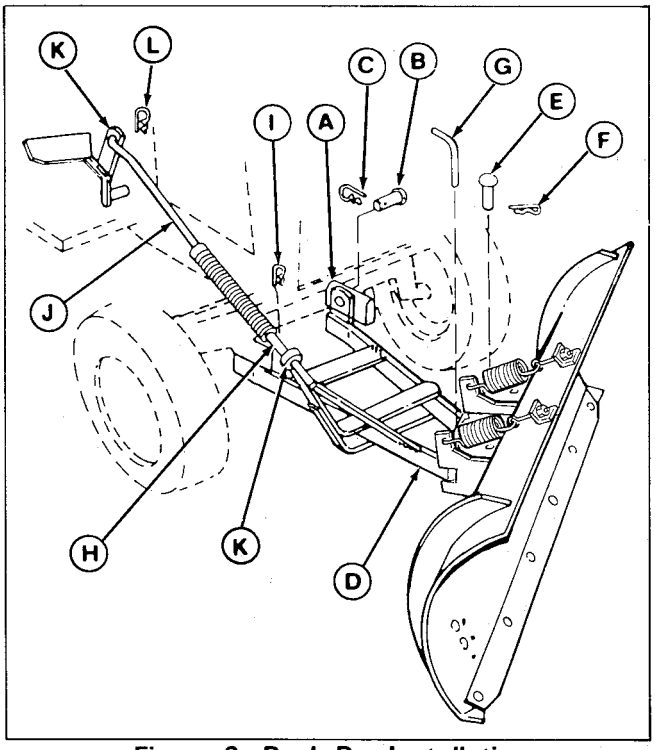


Figure 6. Push Bar Installation (42" Blade Shown)

A. Tractor Hitch	G. Pivot Pin
B. Clevis Pin	H. Rod Guide Assembly
C. Spring Clip	I. Spring Clip
D. Push Bar	J. Lift Rod
E. King Pin	K. Lift Arm
F. Spring Clip	L. Spring Clip

4. Install the 42" blade by following these steps:
   a. Insert front of push bar (D) into pivot frame on rear of blade. Then install king pin (E) down through holes in hitch and pivot frame. Secure king pin with spring clip (F).
   b. Using king pin as the pivot, swivel push bar to align holes for pivot pin (G). Then install pivot pin downward through holes in blade and push bar. The pivot pin can be installed in any of three holes, depending on desired blade angle.
5. Install the 46" blade by inserting front of push bar into pivot frame. Install pivot pin and secure with cotter pins.
6. Insert prong of rod guide assembly (H) through hole in upright of push bar. Secure with spring clip (I).
7. Connect rear of lift rod (J) to lift arm (K) mounted on tractor using spring clip (L).
8. For the 46" blade only, complete installation by following these steps.
   a. Slide the control rod (A, figure 7) through the frame bracket eyebolt (A, figure 5).
   b. Positon the fork of control rod over pivot stud (B, figure 7). Be sure the handle on other end of control rod points down. Secure with spring clip (C).

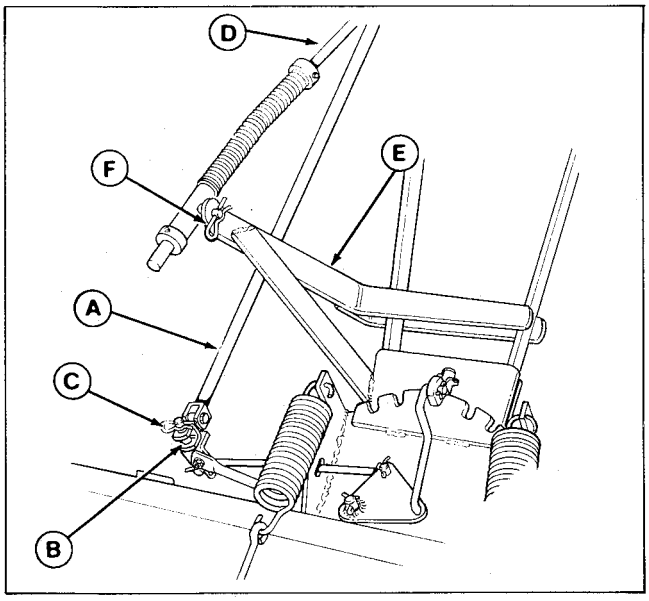


Figure 7. Control Rod Installation (46" Blade Only)

A. Control Rod	D. Lift Rod
B. Pivot Stud	E. Upright
C. Spring Clip	F. Spring Clip

NOTE

When dual lift lever is used on the 46" blade, make sure that lift rod (D, figure 7) is installed to push bar upright (E) so that spring clip (F) is on the outside of upright. This is opposite of installation shown in figure 7.

9. Carefully raise and lower blade several times using tractor lift and check for proper operation.
10. Perform Lift Rod Adjustment. See page 7.

REMOVAL

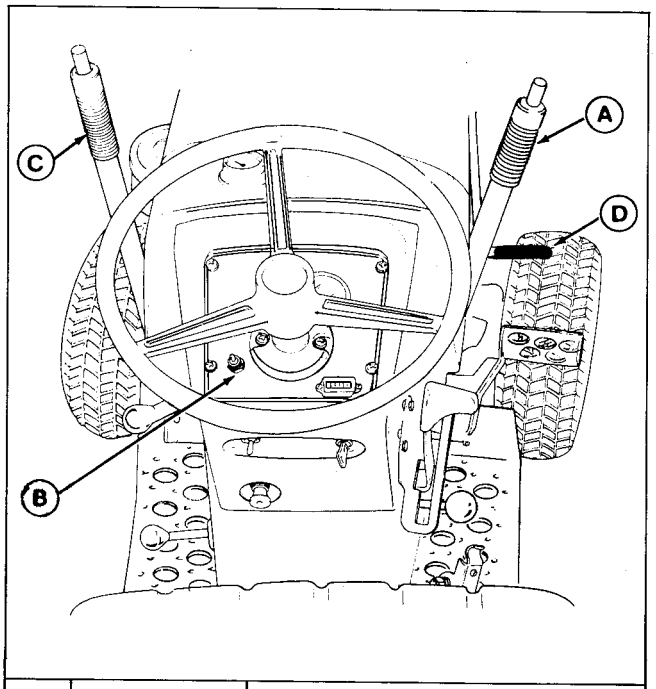
1. Using tractor lift lever, lower blade completely to the ground
2. Stop engine, remove key, and set parking brake.

3. Remove spring clip and remove lift arm from lift lever.
4. For 46" blade only, remove eyebolt securing control rod to tractor frame. Entire control rod barcket can be removed from tractor frame if desired.
5. Remove both spring clips and pins and lower push bar to ground. Store pins and spring clips in holes of push bar.

Operation & Normal Care

CONTROLS

See figure 8 to identify the controls.



ITEM	NAME	FUNCTION
A	Dual Lift Lever (Optional)	Provides lift control for front mounted attachments such as the snow plow/dozer blade.
B	Electric Lift Switch	Controls optional electrically operated power lift for snow plow/dozer blade if this item is present and item A and C are not present.
C	Lift Lever	Used to raise and lower snow plow/dozer blade if items A and B are not present.
D	Control Rod Handle	Used to move blade to 1 to 5 angle positions (46" blade only). Twist the handle clockwise to release the latch. Move blade to desired position and allow handle to twist back to normal position so latch can fall back into nearest notch.

Figure 8. Location and Function of Controls

TRANSPORTING

For maximum ground clearance, transport the blade to and from work areas fully raised and angled straight ahead.

⚠WARNING

Be particularly careful and operate at low tractor speeds in any area where the blade can hook on solid objects. Such objects can cause the tractor to be jarred or come to an abrupt stop.

DOZING & SNOW PLOWING

When dozing, push the dirt to the desired location, then drag the blade backwards for final leveling. Pack down the dirt or gravel by driving the tractor over the leveled area.

Use any grade to your advantage. Plow downhill and set the blade angle so that plowed material (especially snow) is moving downhill as it leaves the blade. For large drifts of snow, bite off small amounts instead of plowing a full blade width.

Set tractor speed to obtain the needed power to move the material. Operate at a safe speed, depending on conditions, so that you have complete control of the tractor. Rear wheel weights and chains are recommended for slippery surfaces.

OPERATION ON SLOPES

Never operate on slopes greater than 30 percent (16.7°) which is a rise of three feet (91 cm) in ten feet (305 cm) forward. Use two rear wheel weights (one per wheel) when operating on slopes greater than 20 percent (11.3°).

Always operate up and down the face of slopes, and never across the face. Use a slow ground speed on slopes.

NORMAL CARE

After dozing jobs, hose down the blade to remove excess dirt. Coat bare metal surfaces to prevent rusting. Lightly oil all pivot points.

If the wear plate (E, figure 1) on the bottom of the 42 inch blade is worn excessively, replace it with a new one by removing the six carriage bolts.

If the wear plate (D, figure 2) on the bottom of the 46 inch blade is worn excessively, remove the seven carriage bolts, turn it upside down, and re-install the seven carriage bolts.

Adjustments

SKID SHOES

For clearing snow from uneven or gravel surfaces, adjust the skid shoes so the blade rides above the ground. For grading, leveling or plowing smooth surfaces, adjust the skid shoes so the blade rides on the ground.

To adjust the skid, raise the blade off the ground and block with a piece of wood. Loosen the bolts (A, figure 9). Move the skid shoes (B) up or down to the desired height. Tighten the bolts after adjustment is correct. Make sure the skid shoes are set to equal height.

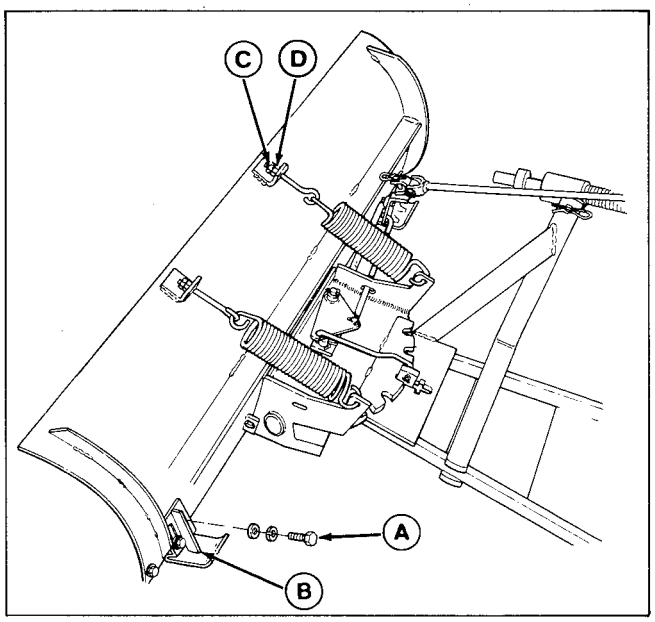


Figure 9. Skid Shoe Adjustment (46" Blade Shown)

A. Bolts
B. Skid Shoes

LIFT ROD

For initial setting, place front set collar (A, figure 10) one inch from rod guide with blade fully lowered. Place rear set collar (B) against spring (C). Tighten the setscrews in the two set collars. To adjust, perform the following:

1. Fully raise the blade by pulling back on the tractor lift lever. Measure distance between scraper bar and ground. If it measures approximately six inches, it is properly adjusted. If not, proceed to step 2.

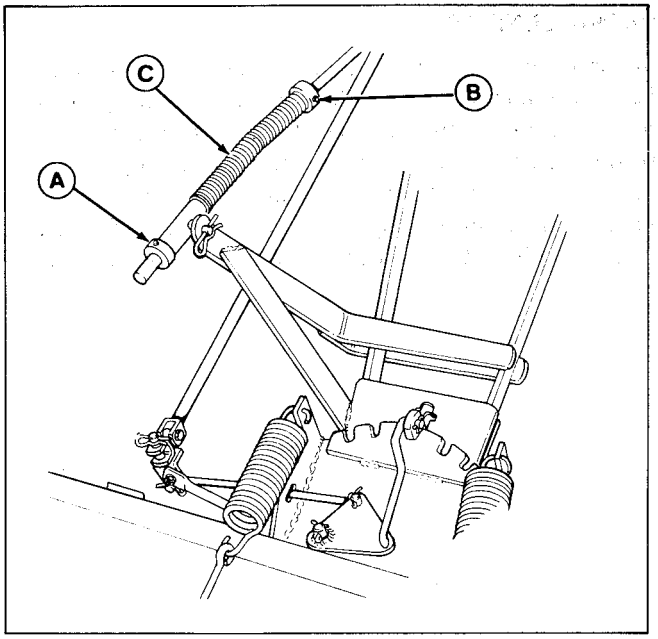


Figure 10. Lift Rod Adjustment (46" Blade Shown)

A. Front Set Collar
B. Rear Set Collar
C. Spring

2. Lower the blade. Loosen the setscrew in the front set collar. Move the set collar back to increase clearance or forward to decrease clearance. Tighten the setscrew. Recheck the measurement.

NOTE

Different ground contours may require diffeent adjustments. Lower the blade to adjust rear set collar. Moving the rear set collar toward rear will allow the blade to follow a rolling contour. The farther back the rear set collar is positioned, the more the blade will float. Moving the rear set collar toward the front will increase down pressure.

BLADE ANGLE

The angle of the 46 inch blade can be adjusted from the operator's position (see Operation section). To adjust the angle of the 42 inch blade, proceed as follows.

a. Lift the blade off the ground using the lift lever or optional lift kits.

b. Remove the pivot pin (J, figure 1), move the blade to desired angle and reinstall the pivot pin in a different hole.

SPRING TENSION

This snow plow/dozer blade is spring loaded so that when the blade strikes a solid object, the springs will allow the blade to release rather than cause damage. To adjust spring tension, hold adjustment nut (A, figure 11) and loosen nut (B). Adjust rear nut (A). Tighten nut to increase spring tension or loosen to decrease. Tighten locking nut (B) so the two nuts are drawn firmly together.

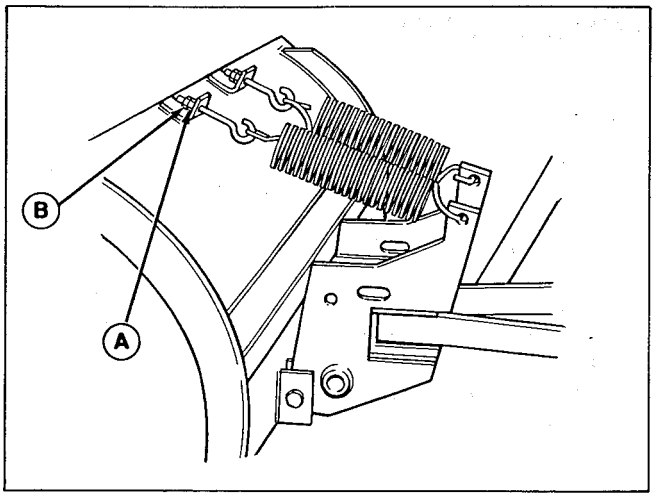


Figure 11.

A. Adjustment Nut
B. Locking Nut