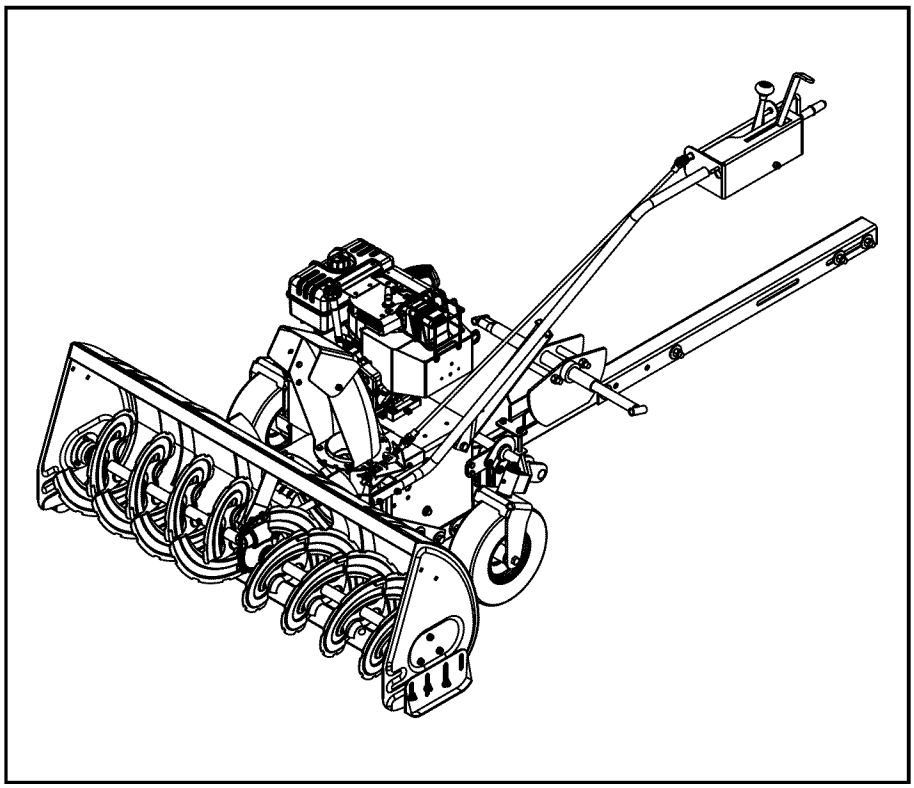
Agri-Fab

OWNERS MANUAL

Model No.

45-0418



ATV SNOW THROWER

CAUTION:
Read Rules for
Safe Operation and
Instructions Carefully

- Safety
- Assembly
- Operation
- Maintenance
- Parts

AVERTISSEMENT :
Lire et suivre attentivement
les instructions et
consignes de sécurité

- Sécurité
- Assemblage
- Utilisation
- Entretien
- Pièces

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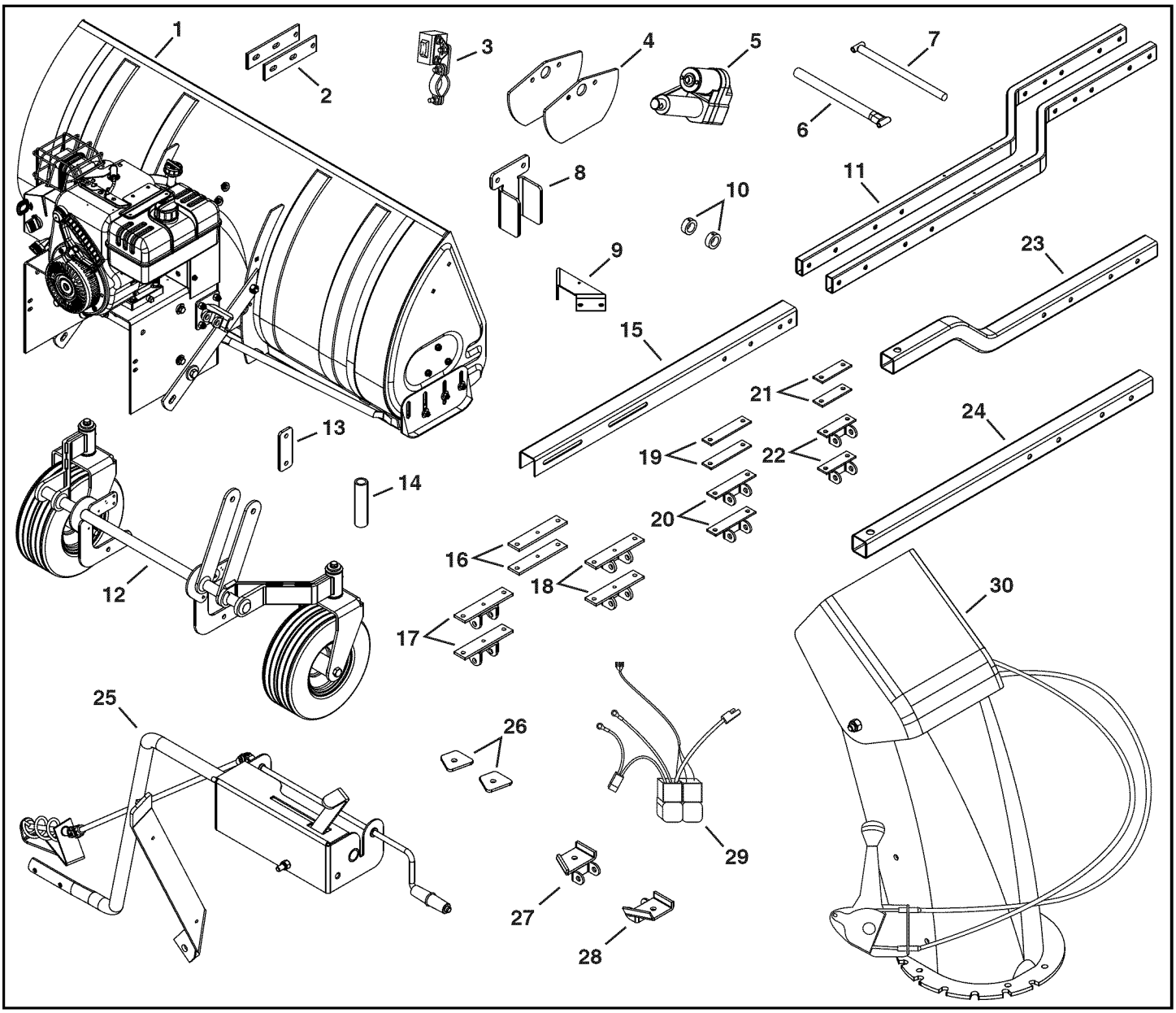
FORM NO. 40367 (REV. 2/12/08)

SAFETY

Any power equipment can cause injury if operated improperly or if the user does not understand how to operate the equipment. Exercise caution at all times, when using power equipment.

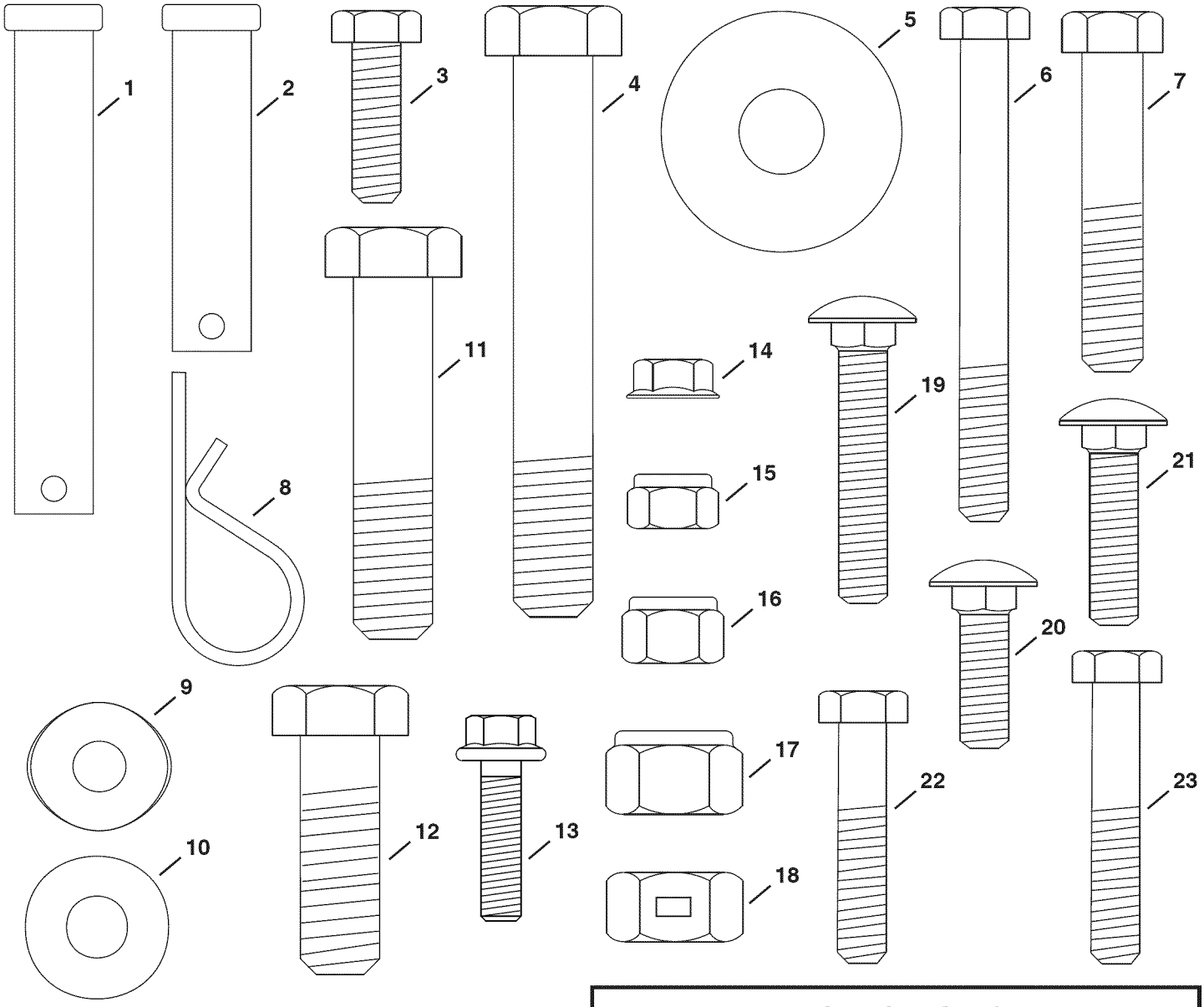
- Read this owner's manual carefully and know how to operate your snow thrower and how to stop the unit and disengage the controls quickly.
- Never allow children to operate the equipment.
- Never allow adults to operate the equipment without proper instruction.
- Keep the area of operation clear of all persons, especially small children, and pets.
- Never operate the snow thrower without good visibility or light.
- Thoroughly inspect the area where the equipment is to be used and remove all door mats, sleds, boards, wires and other foreign objects.
- Disengage all clutches and shift into neutral before starting engine.
- Do not operate equipment without wearing adequate winter outer garments.
- Wear substantial footwear which will protect feet and improve footing on slippery surfaces.
- Never operate the ATV snow thrower without attaching the clip of the tethered safety switch to your clothing. A riderless ATV with a running snow thrower could cause serious injury to a fallen operator or to others.
- Check fuel before starting the engine. Do not remove the fuel cap or fill the fuel tank while the engine is running or hot. Do not fill the fuel tank indoors. Gasoline is an extremely flammable fuel.
- Make sure the snow thrower height is adjusted to clear the type of surface it will be used on.
- Never make any adjustments while the engine is running.
- Always wear safety glasses or eye shield during operation or while performing adjustment or repair.
- Do not place hands or feet near rotating parts. Keep clear of the discharge opening at all times.
- Use extreme caution when operating on or crossing gravel surfaces.
- Do not carry passengers.
- After striking a foreign object, stop the snow thrower and ATV, set the brake on the ATV, remove the wire from the spark plug on the snow thrower and then thoroughly inspect the snow thrower for damage. Repair any damage before restarting and operating the snow thrower.
- If the snow thrower starts to vibrate abnormally, stop the snow thrower and ATV immediately, set the brake on the ATV, remove the spark plug on the snow thrower and check for the cause. Vibration is generally a warning of trouble.
- Stop the snow thrower engine and remove the spark plug wire whenever you leave the operating position, before unclogging the snow thrower or making any adjustments or inspections.
- Take all possible precautions when leaving the unit unattended. Disengage the clutch lever, lower the snow thrower, set the parking brake, turn off the ATV and snow thrower engines and remove the keys.
- When cleaning, repairing or inspecting, make certain all moving parts have stopped. Disconnect the spark plug wire and keep it away from the plug to prevent accidental starting.
- Do not run engine indoors except when transporting the snow thrower in or out of the building. Open the outside doors. Exhaust fumes are dangerous.
- Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes. Refer to the slope guide on page 34 of this manual.
- Never operate the snow thrower without guards, plates or other safety protection devices in place.
- Never operate the snow thrower near glass enclosures, automobiles, window wells, drop offs etc. without proper adjustment of the snow thrower discharge angle.
- Never direct discharge at bystanders or allow anyone in front of the snow thrower.
- Never run the snow thrower into material at high speeds.
- Do not overload the machine capacity by attempting to clear snow at too fast a rate.
- Never operate the machine at high transport speed on slippery surfaces. Look behind and use care when backing up.
- Watch for traffic and stay alert when crossing or operating near roadways.
- Disengage power to the snow thrower when transporting or when not in use.
- Refer to ATV owners manual before using other attachments or accessories.
- Never operate the snow thrower without good visibility or light.

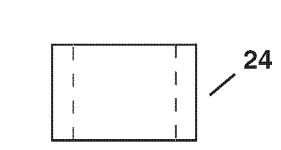
CARTON CONTENTS

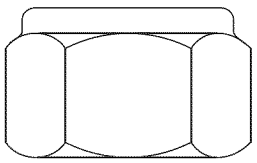


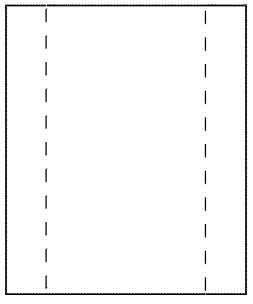
REF	QTY	DESCRIPTION	REF	QTY	DESCRIPTION
1	1	Snow thrower Housing	16	2	6-5/8" Clamp Bracket
2	2	Housing Anchor Strap	17	2	6-5/8" Strut Mount
3	1	Handlebar Switch	18	2	6-5/8" Strut Mount
4	2	Stabilizer Bracket	19	2	5-1/2" Clamp Bracket
5	1	Actuator	20	2	5-1/2" Strut Mount
6	1	Outer Mount Strut	21	2	4" Clamp Bracket
7	1	Inner Mount Strut	22	2	4" Strut Mount
8	1	Guide Bracket	23	1	Rear Frame Tube (Bent)
9	1	Support Bracket	24	1	Rear Frame Tube (Straight)
10	2	Collar	25	1	Control Assembly
11	2	Mounting Tube	26	2	Polaris Clamp Bracket
12	1	Wheel Assembly	27	1	Polaris Strut Mount (LH)
13	1	Guide Plate	28	1	Polaris Strut Mount (RH)
14	1	Spacer, 3" Long	29	1	Wiring Harness
15	1	Push Channel	30	1	Discharge Chute

HARDWARE PACKAGE

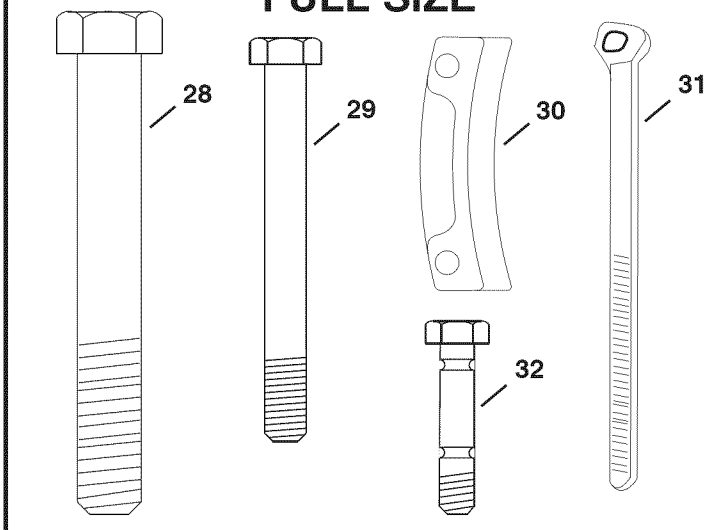








PARTS NOT SHOWN FULL SIZE



REF	QTY	DESCRIPTION	REF	QTY	DESCRIPTION
1	3	Clevis Pin, 1/2" x 3-1/2"	17	19	Nylock Nut, 1/2-13
2	1	Clevis Pin, 1/2" x 2"	18	2	Lock Nut, 1/2-13
3	4	Hex Bolt, 5/16-18 x 1"	19	2	Carriage Bolt, 5/16-18 x 1-3/4"
4	4	Hex Bolt, 1/2-13 x 3-1/2"	20	2	Carriage Bolt, 5/16-18 x 1"
5	25	Washer, 1/2" x 1-1/2"	21	2	Carriage Bolt, 5/16-18 x 1-1/4"
6	2	Hex Bolt, 5/16" x 3"	22	2	Hex Bolt, 5/16-18 x 1-1/2"
7	4	Hex Bolt, 3/8-16 x 2"	23	4	Hex Bolt, 5/16-18 x 1-3/4"
8	4	Hair Pin	24	2	Spacer, .5" x .75" x .5"
9	2	Bowed Washer, 1" x .32"	25	1	Spacer, .81" x 1.25" x 1.5"
10	10	Washer, 5/16"	26	1	Nylock Nut, 3/4-10
11	12	Hex Bolt, 1/2-13 x 2-1/4"	27	4	Spacer .75" x 1.25" x .5"
12	1	Hex Bolt, 1/2-13 x 1-1/2"	28	1	Hex Bolt, 3/4-10 x 7-1/2"
13	6	Hex Flange Bolt, 1/4-20 x 1"	29	2	Hex Bolt, 1/2" x 4-1/2"
14	6	Flanged Lock Nut, 1/4-20	30	3	Chute Keeper
15	18	Nylock Nut, 5/16-18	31	8	Nylon Tie
16	4	Nylock Nut, 3/8-16	32	2	Replacement Shear Bolt

ASSEMBLY

TOOLS NEEDED

(1) 5/16" Wrench
(1) 3/8" Wrench
(1) 7/16" Wrench
(2) 1/2" Wrenches
(2) 9/16" Wrenches
(2) 3/4" Wrenches
(1) 1-1/6" Wrench or Adjustable Wrench
(1) 1-1/8" Wrench or Adjustable Wrench
(1) 3/16" Allen Wrench
(1) Phillips Screwdriver
(1) Scissors or Knife
(1) Grease Gun w/ general purpose grease
(1) 15" Concrete Block

WIRING ASSEMBLY

1. Assemble (2) handlebar brackets and (1) handlebar strap onto the handlebars using (2) long, small screws and (2) small nylock nuts. **Do not tighten yet**.

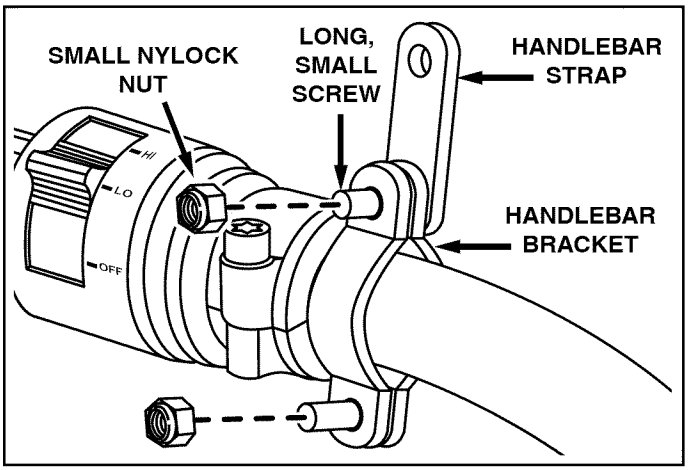


FIGURE 1

2. Assemble the switch bracket to the handlebar switch using (2) small whizlock nuts. **Tighten.**

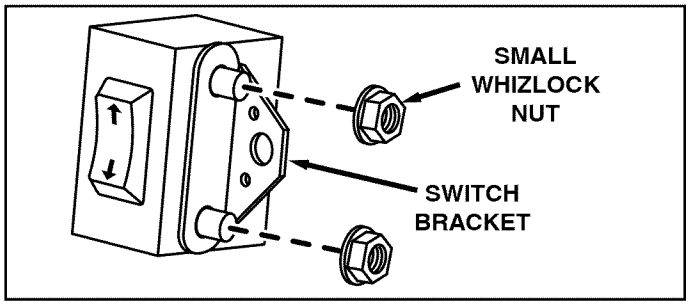


FIGURE 2

3. Assemble the switch bracket to the handlebar strap using (1) short, small screw and (1) small nylock nut. See figure 3. **Do not tighten yet**.
4. Rotate handlebar switch until it is at desired angle and then **tighten** the screws and nuts assembled in steps 1 and 3.

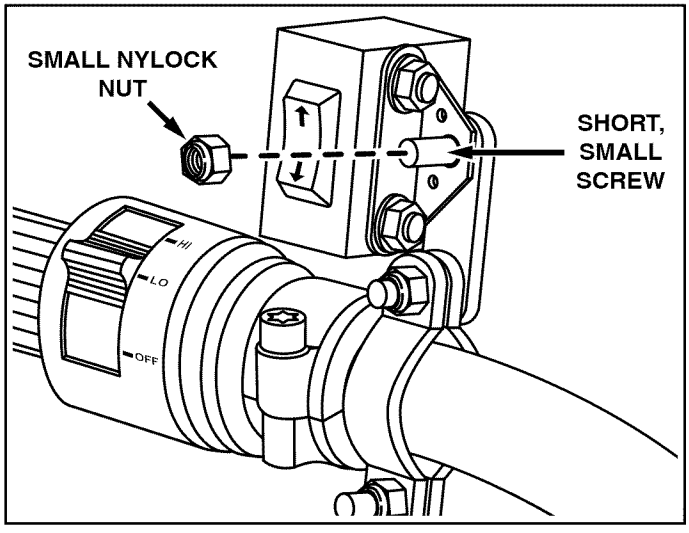


FIGURE 3

5. Secure the relay pack near the battery of the ATV or other location on the ATV out of harms way.
6. Thread the 3 wire lead from the relay pack forward through the ATV frame on the same side as the handle bar switch. **Avoid** threading wire close to moving parts, hot parts or pinch points. Use 1 or 2 nylon ties to hold wire in place.
7. Connect the three leads from the handlebar switch into the three leads from the relay pack matching up the red, green and black wires. See Figure 4.
8. Thread the bullet connector from the relay pack forward through the frame and out through the front of the ATV. **Avoid** threading wire close to moving parts, hot parts or pinch points. Use 1 or 2 nylon ties to hold wire in place.
9. Plug the bullet connector from the relay pack into the bullet connector on the actuator.
10. Attach the red wire from the fuse to the positive terminal on the ATV battery. Attach the negative lead (black wire) from the relay pack to the negative terminal on the ATV battery.
11. Use the handlebar switch to fully extend the actuator, then **disconnect** the actuator.

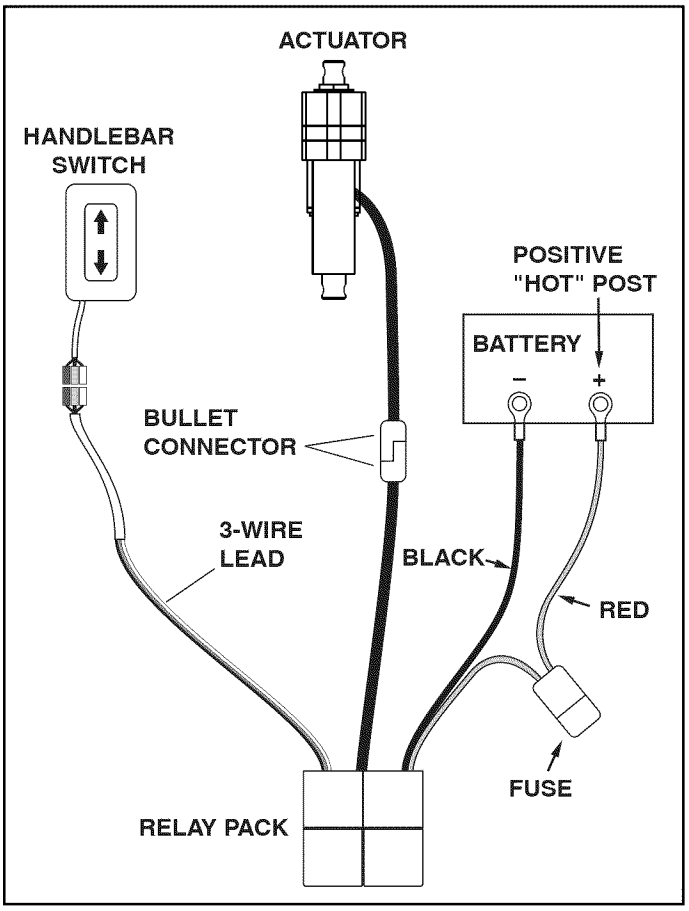


FIGURE 4

12. Attach the tethered safety switch to the handlebar using (4) pre-assembled screws and (4) pre-assembled nuts. See figure 5.
13. Thread the wiring through the ATV and out the front of the ATV. **Avoid** threading wire close to moving parts, hot parts or pinch points. Nylon ties can be used to hold wire in place.

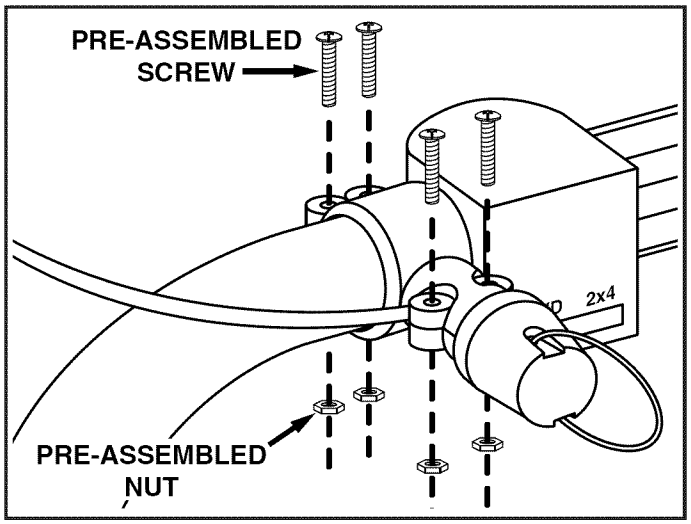


FIGURE 5

SNOW THROWER ASSEMBLY

1. Remove any CV boot guard or stick guard from the front lower A arms of the ATV. Select the correct strut mount assembly shown in figure 6 for your ATV. If your ATV is not listed in figure 6, start with the 5-1/2" strut mount assembly. If you use the 4", 5-1/2" or 6-5/8" strut mount assemblies, attach with the strut mount on the bottom of the A arm and the bolts on the outside of the A arm. **Do not tighten bolts at this time**.

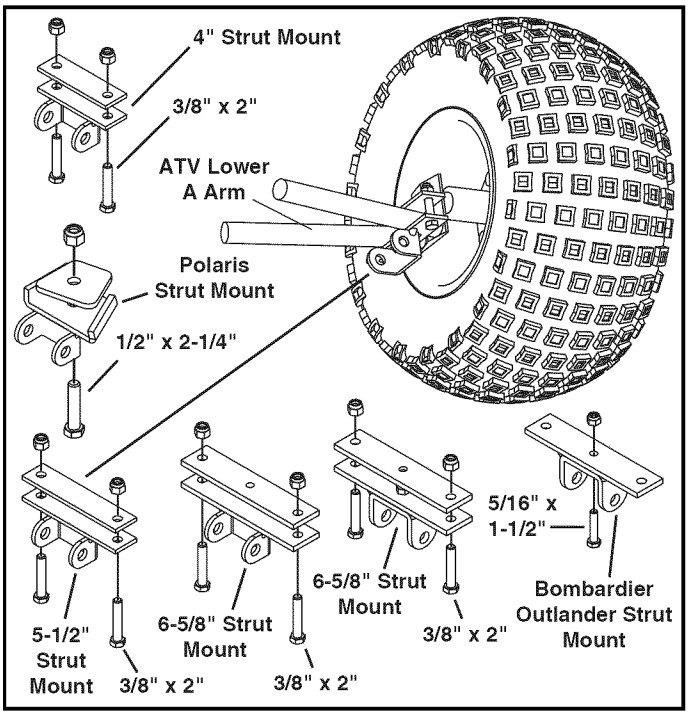


FIGURE 6

2. Assemble the stabilizer brackets together using (2) 1/2" x 4-1/2" hex bolts, (2) 3" long spacers and 1/2" nylock nuts as shown in figure 7. **Do not tighten yet.**

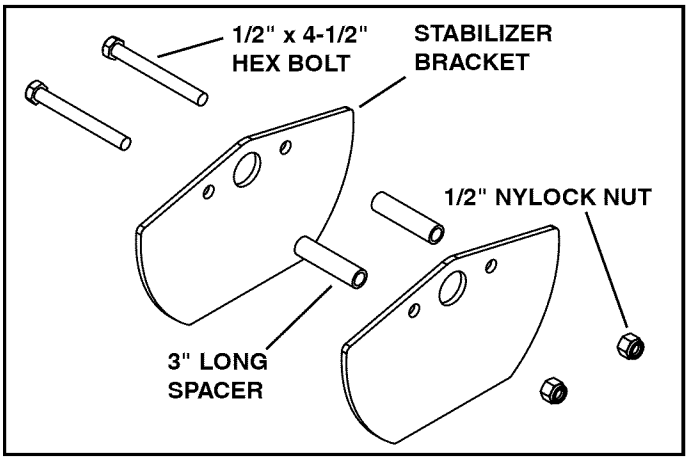


FIGURE 7

3. Slide a collar over the end of the outer mount strut.
4. Slide the outer mount strut through the brackets assembled in step 2.
5. Slide a second collar over the end of the outer mount strut.
6. Apply a light coat of grease to the inner mount strut and then insert it into the outer mount strut.
7. **Tighten** the bolts assembled in step 2.

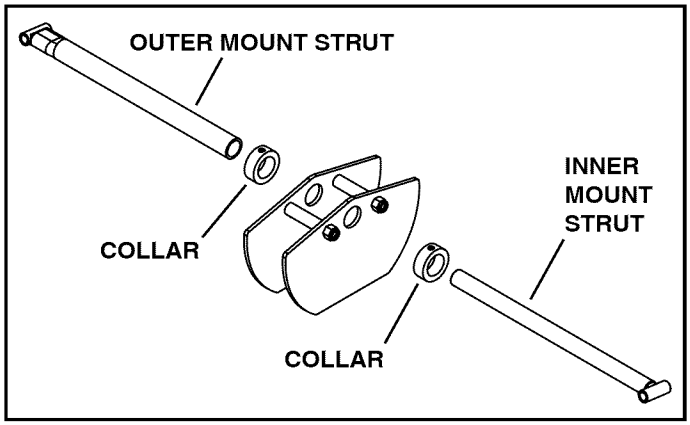


FIGURE 8

8. Fasten the ends of the inner and outer mount struts to the strut mount assemblies that you attached to the ATV's A-arms. Use two (2) 1/2" x 3" clevis pins and two (2) hairpin cotters.
9. **Tighten** the bolts and nuts assembled in step 1 that fasten the strut mount assemblies to the A-arms.
10. Center the stabilizer brackets under the ATV. Slide the collars up against the stabilizer brackets and **tighten** the set screws in the collars. The stabilizer brackets must rotate freely after the collars are tightened.

NOTE: The ATV is not shown below for clarity.

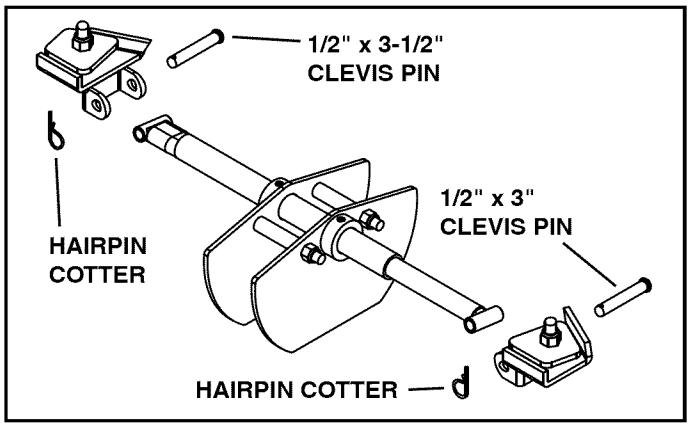


FIGURE 9

11. Place a 15" concrete block underneath the snow thrower, beneath the engine. See figure 10.

CAUTION: Use caution while working on snow thrower when it is propped up on concrete block.

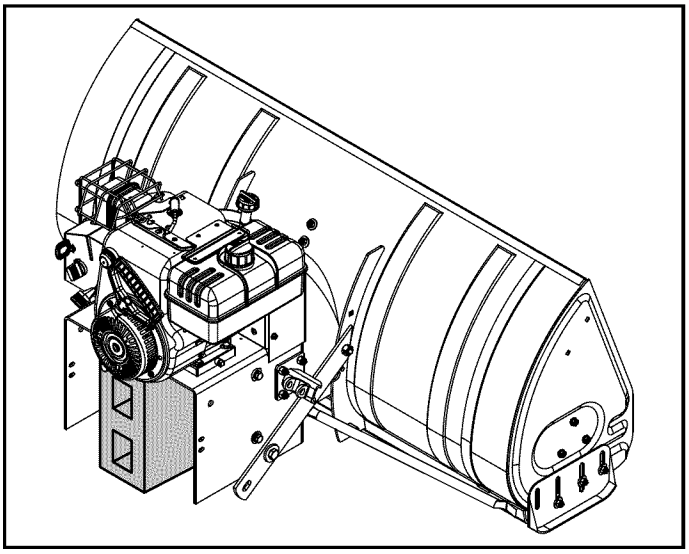


FIGURE 10

12. Attach the housing anchor straps to the **outside** of the mounting tubes using (4) 1/2" x 2-1/4" hex bolts, (8) 1/2" washers and (4) 1/2" nylock nuts. **Do not tighten yet**.

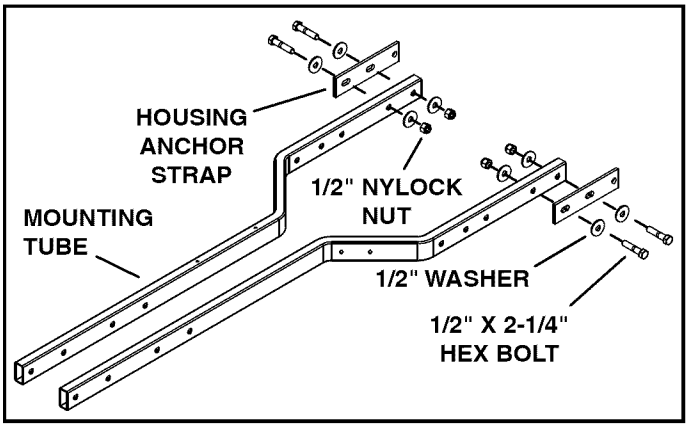


FIGURE 11

13. Attach the front holes of the housing anchor straps to the weld bolts on the housing using (2) 1/2" lock nuts. **Do not tighten yet**.

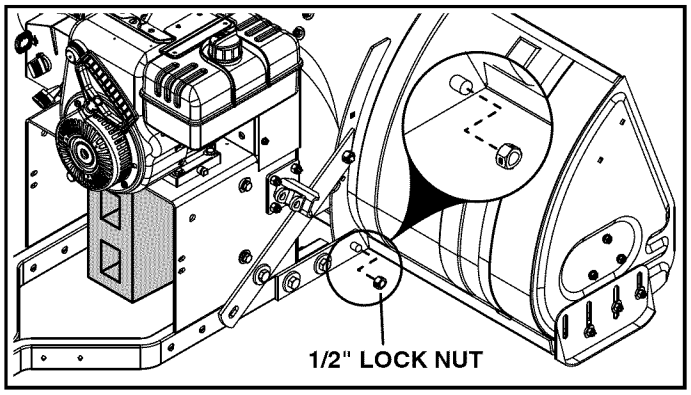


FIGURE 12

14. Secure the mounting tubes to the side support straps using (2) 1/2" x 2-1/4" hex bolts, (4) 1/2" washers (inside and outside) and (2) 1/2" nylock nuts. **Do not tighten yet**.

NOTE: Concrete block not shown for clarity.

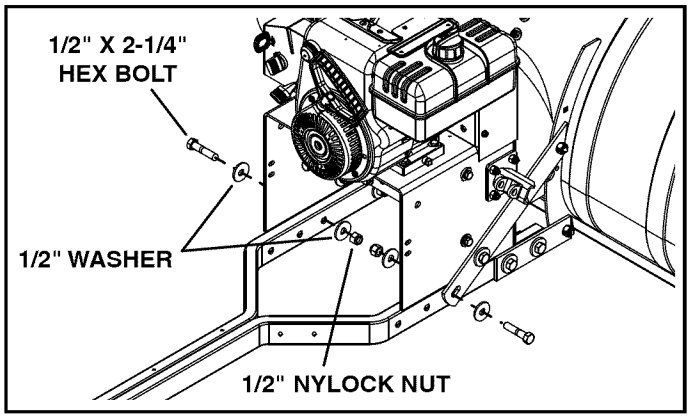


FIGURE 13

15. Place the push channel over the ends of the mounting tubes. Line up the holes as shown in the figure below and secure the push channel using (2) 1/2" x 3-1/2" hex bolts, (4) 1/2" washers (one on each side) and (2) 1/2" nylock nuts. **Do not tighten yet**.

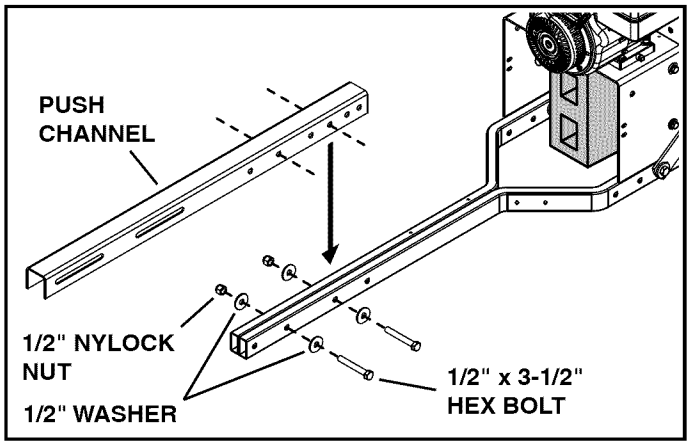


FIGURE 14

16. Attach the bent rear frame tube to the push channel using (2) 1/2" x 3-1/2" hex bolts, (4) 1/2" washers and (2) 1/2" nylock nuts. **Do not tighten yet**.
17. Remove the concrete block from under the engine and place it underneath the the end of the rear frame tube.

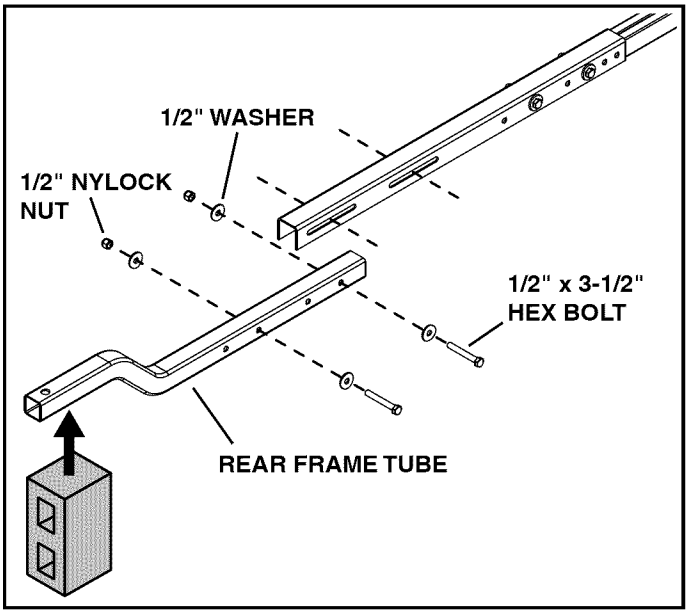


FIGURE 15

18. Attach the support bracket to the mounting tubes using (4) 5/16" x 1-3/4" hex bolts, (8) 5/16" washers and (4) 5/16" nylock nuts. **Tighten**.

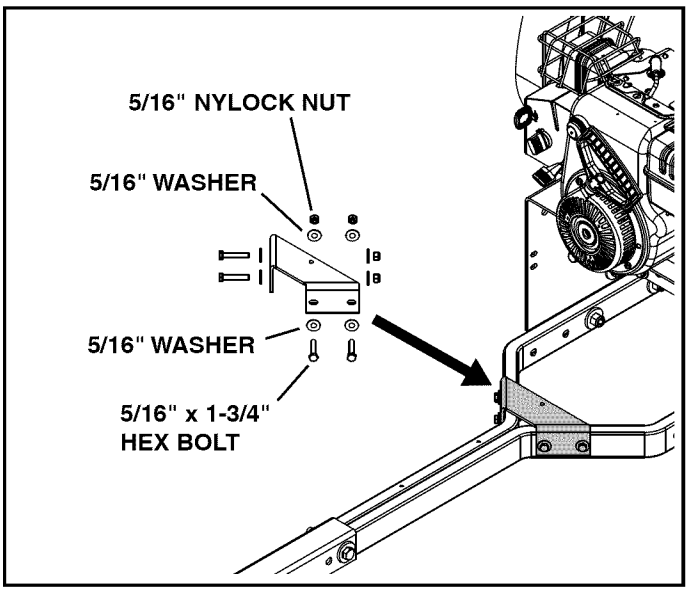


FIGURE 16

19. Place the wheel assembly behind the engine mounting base.
20. Fasten the bottom of the anchor brackets (part of wheel assembly) to the outside of the mounting tubes using (4) 1/2" x 2-1/4" hex bolts, (4) 1/2" washers (on inside of mounting tube) and (4) 1/2" nylock nuts. **Do not tighten yet**.
21. Fasten the tops of the anchor brackets to the engine mounting base using (4) 5/16" x 1" hex bolts and (4) 5/16" nylock nuts. **Do not tighten yet**.
22. **Tighten** all nuts and bolts assembled in **steps 12-14** and **18-21**. **Do not tighten** the nuts and bolts assembled in **steps 15-16** at this time.

NOTE: Complete wheel assembly not shown for clarity.

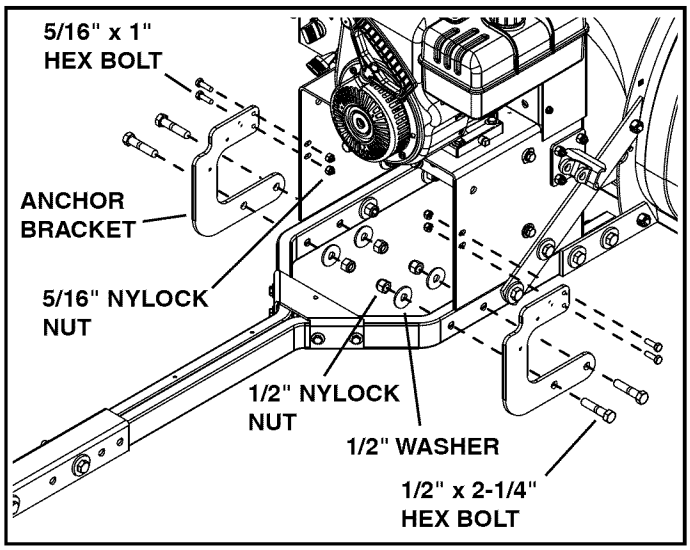


FIGURE 17

NOTE: Before proceeding with next assembly step, make sure the actuator is fully extended. Refer to step 11 on page 6 in the Wiring Assembly Section.

23. Fasten top of actuator to wheel assembly using (1) 1/2" x 3" clevis pin, (2) .5" x .75" x .5" spacers and (1) hairpin.
24. Fasten bottom of actuator to actuator bracket using (1) 1/2" x 2" clevis pin and (1) hair pin.

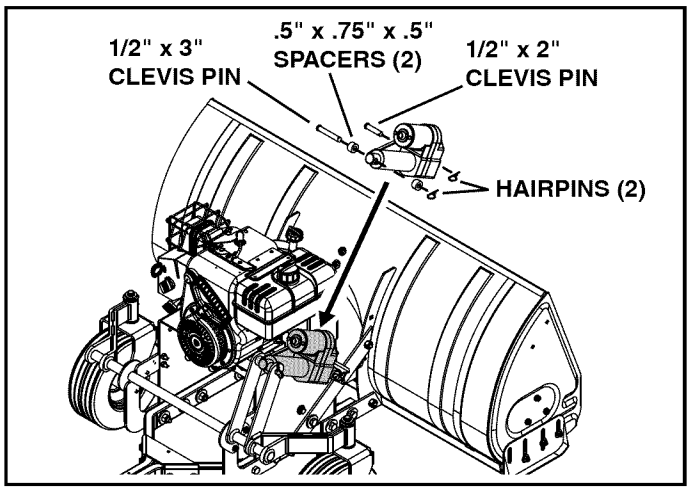


FIGURE 18

25. Assemble the guide bracket and guide plate to the mounting tubes using (2) 5/16" x 3" hex bolts and 5/16" nylock nuts. **Do not tighten yet.**
26. Remove the concrete block from under the rear frame tube.

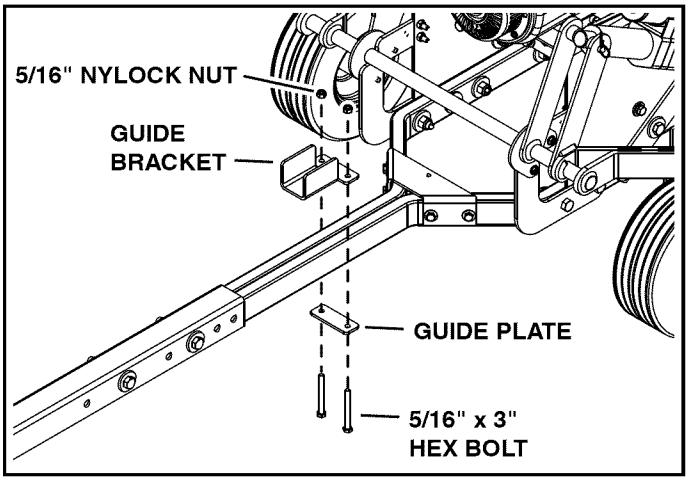


FIGURE 19

27. Lightly coat the top of the ring around the discharge opening with general purpose grease.

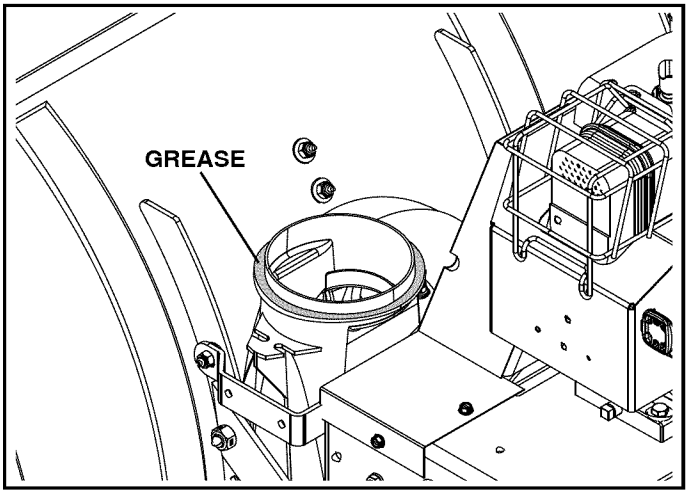


FIGURE 20

28. Place the discharge chute (facing forward) onto the ring. Attach (3) chute keepers (right side up as shown) to the bottom of the flange using (6) 1/4" x 1" hex flange bolts and (6) 1/4" flanged lock nuts. Tighten carefully so that the nuts are snug but do not dig into plastic chute keepers. Grasp the bottom flange and make sure the chute turns freely.

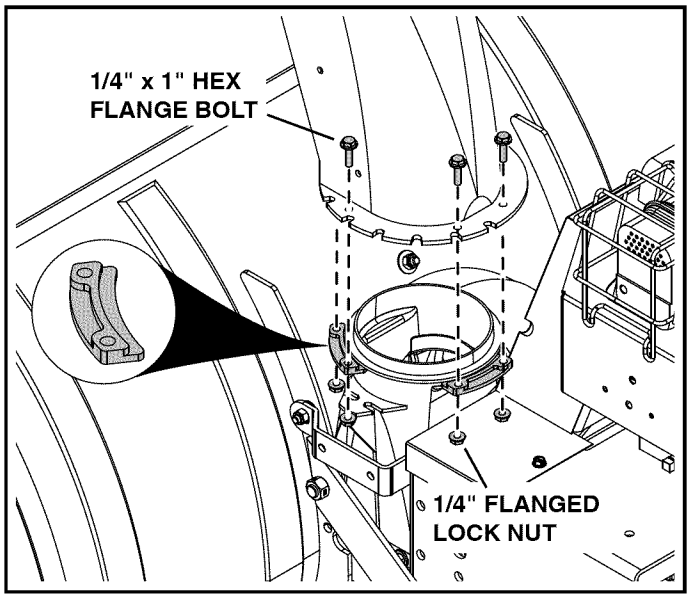


FIGURE 21

29. Attach the control assembly's support strap to the engine mounting base using (1) 1/2" x 1-1/2" hex bolt, 1/2" washer (on inside of mounting base) and 1/2" nylock nut. **Do not tighten yet.**

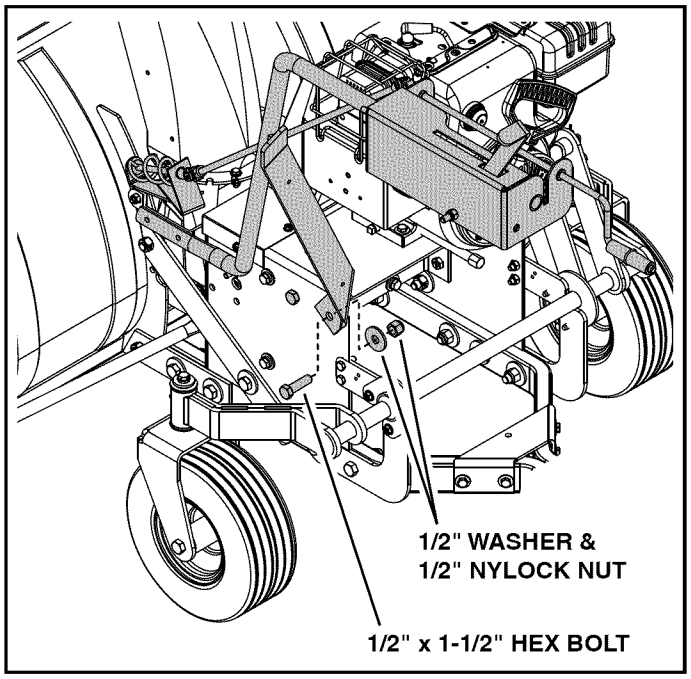


FIGURE 22

30. Attach the control assembly's support tube to the welded bracket below the discharge chute using (2) 5/16" x 1-1/4" carriage bolts and (2) 5/16" nylock nuts. **Do not tighten yet.**
31. **Tighten** bolts assembled in steps 29 and 30.

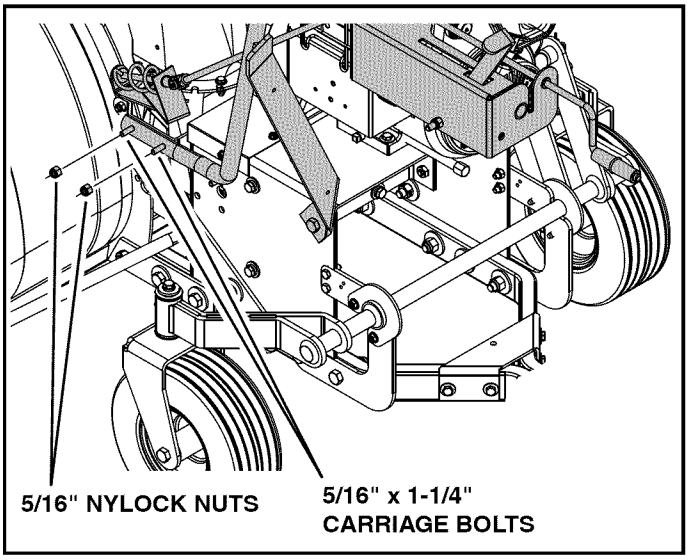


FIGURE 23

32. Cut the nylon tie that holds the two chute crank brackets together.
33. Attach the chute crank brackets to the discharge housing using (2) 5/16" x 1" carriage bolts, 5/16" washers and 5/16" nylock nuts. **Do not tighten yet.**
34. Adjust position of chute crank brackets so that spiral does not rub bottom of discharge chute notches.
35. **Tighten** bolts and nuts assembled in step 33.

NOTE: Spiral not shown for clarity.

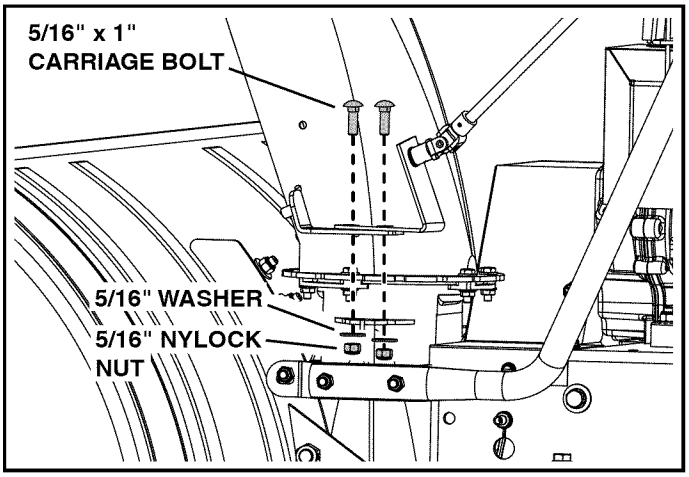


FIGURE 24

36. Attach the chute tilt control to the control assembly using (2) 5/16" x 1-3/4" carriage bolts, (2) bowed washers and (2) 5/16" nylock nuts.
37. Using a nylon tie, secure the cables from the chute tilt control to the support tube as shown in figure 25.

Note: Do not secure the chute tilt control cables in locations other than the one shown.

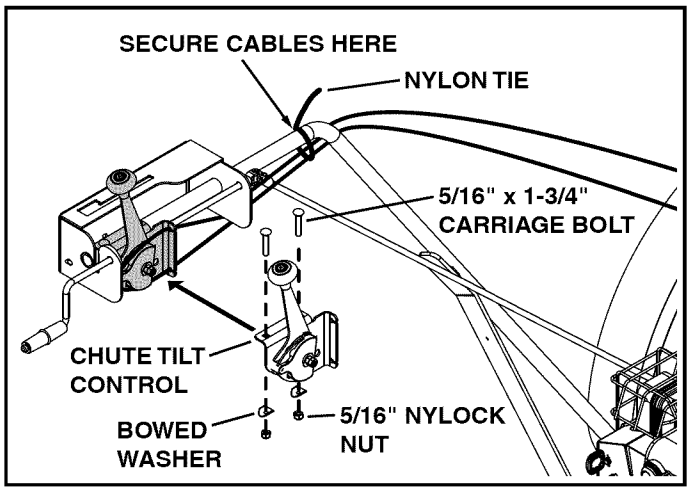


FIGURE 25

38. Insert the wire harness into the large hole at the front of the control box.
39. Connect the wire harness to the switch.
40. Using nylon ties, secure the wire harness and clutch cable to the handle assembly to keep them from interfering with moving parts.

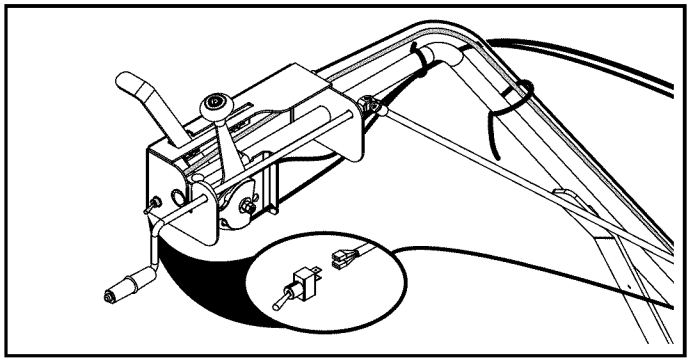


FIGURE 26

41. Roll the ATV up behind the snow thrower, keeping the push channel centered between the stabilizer brackets. Make sure the guide bracket will slide in between the stabilizer brackets as shown in figure 27. Keep a minimum clearance of 3"-4" between the front of the ATV and the snow thrower.

NOTE: ATV not shown below for clarity.

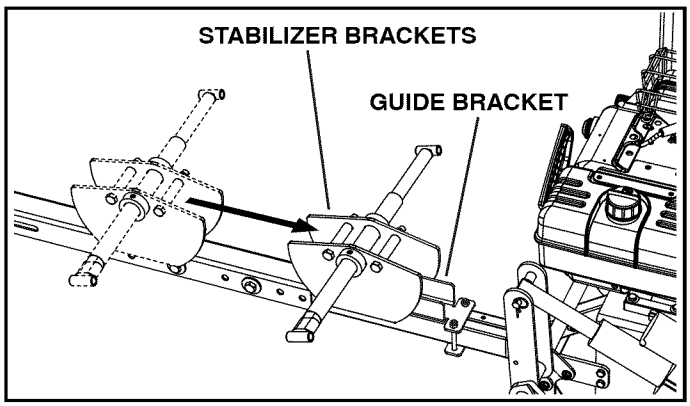


FIGURE 27

42. Slide the rear frame tube in or out of the push channel to align it with the ATV hitch. Make sure the minimum 3"-4" clearance between the ATV and the snow thrower is maintained.
43. If the rear frame tube does not slide in or out enough to align with the ATV hitch, move the bolts that fasten the rear frame tube to the push channel to a different set of holes. (Refer to figure 15). If alignment is still not possible, move the bolts that fasten the push channel to the mounting tubes to a different set of holes. (Refer to figure 14).
44. Attach the rear frame tube to the ATV hitch using a 3/4" x 7-1/2" hex bolt, four (4) short spacers, a long spacer and a 3/4" nylock nut. Place spacers above or below the hitch as needed to maintain at least 1" clearance with the bottom of the ATV and adequate clearance with the ground. **Tighten**.

NOTE: Replace the bent rear frame tube with the straight rear frame tube if the bent rear frame tube does not provide adequate ground clearance and there is extra clearance with the bottom of the ATV.

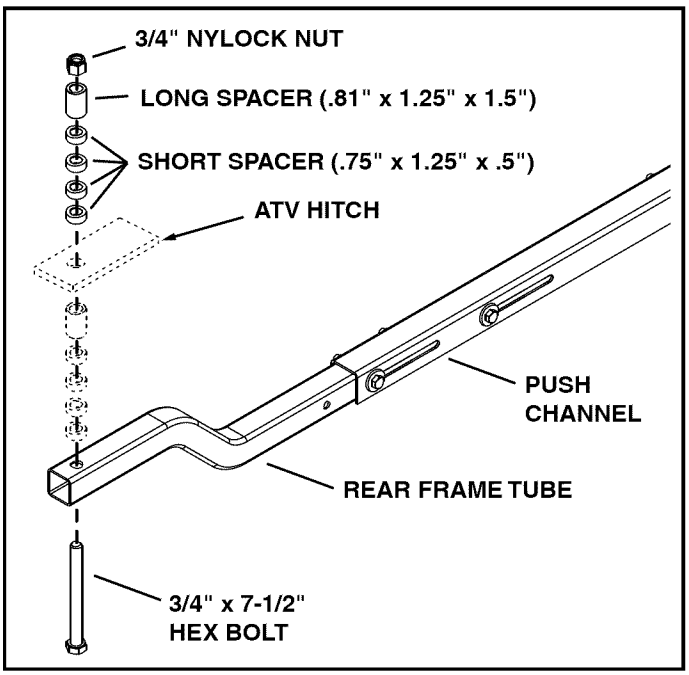


FIGURE 28

45. **Tighten** the nuts and bolts that fasten the push channel to the mounting tubes, and the rear frame tube. Refer to figures 14 and 15. Make sure the mounting tubes stay centered with the ATV while tightening.
46. Slide the guide bracket along the mounting tubes until the front edge is a 1/4" in front of the front edge of the stabilizer brackets as shown in figure 29. **Tighten**.

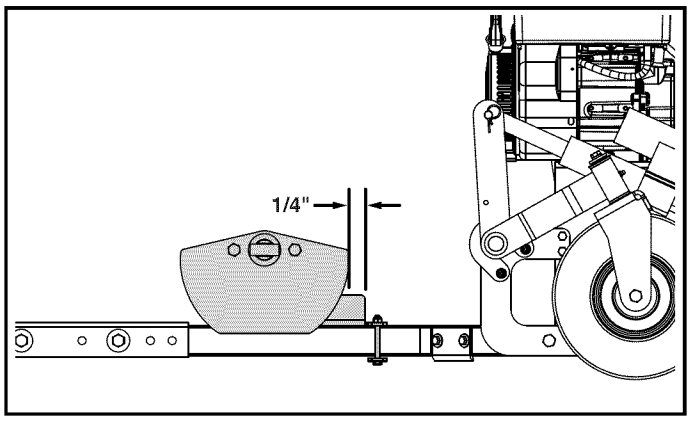


FIGURE 29

47. Use a grease gun to apply general purpose grease to the grease fittings in the wheel hubs and wheel spindles. Apply until grease is forced out the ends of the hubs and spindles.
48. Connect the wiring from the tethered safety switch to the bullet connector on the wire harness for the switch on the control box.
49. Reconnect the actuator to the handle bar switch that was unplugged in step 11 on page 6.

CHECKLIST

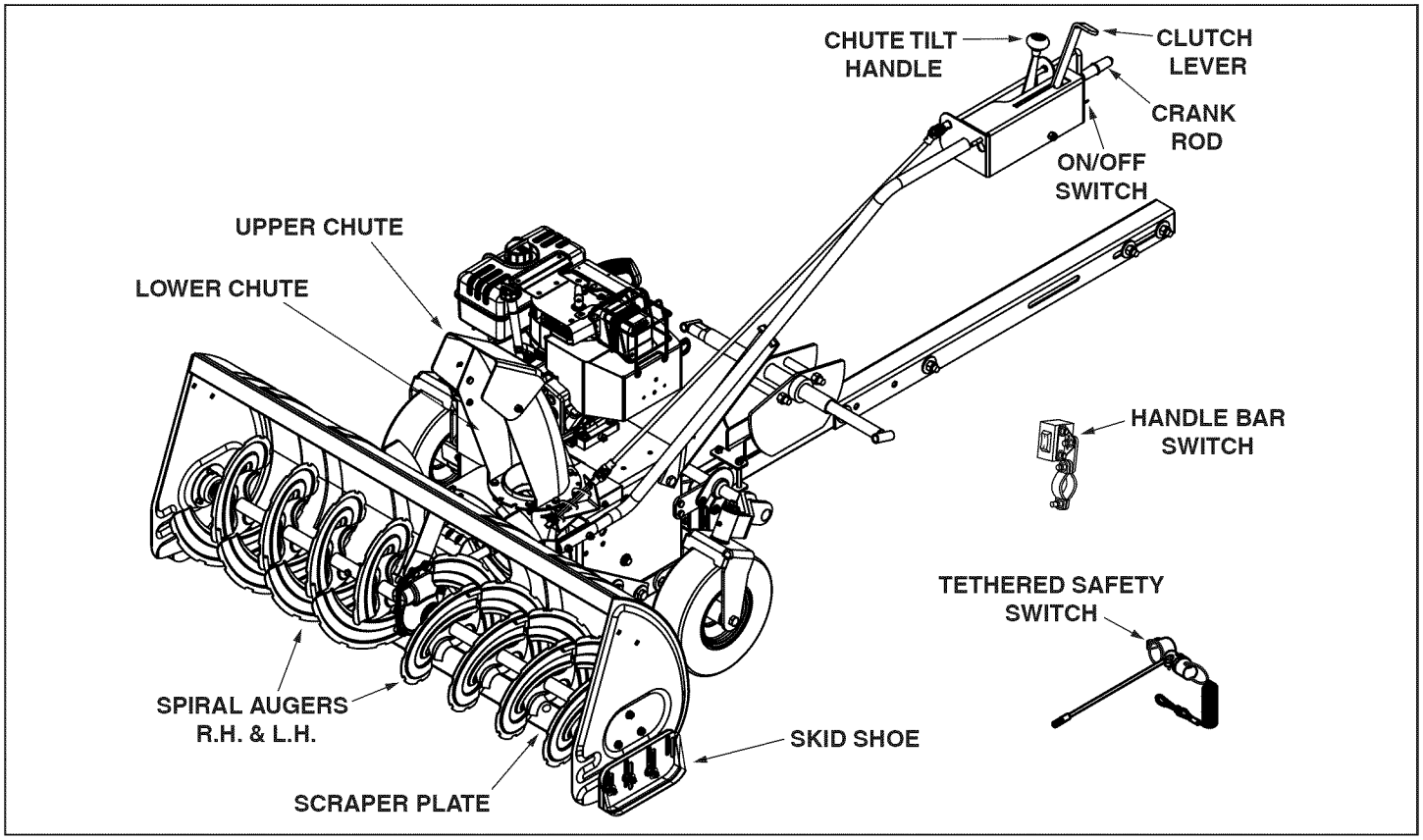
Before you operate your snow thrower, please review the following checklist to help ensure that you will obtain the best performance from your snow thrower.

1. All assembly instructions have been completed with all bolts and nuts properly tightened.
2. Check the discharge chute for proper rotation.
3. Check operation of tilt control for upper chute.
4. Verify that the wiring is correct for the actuator and that the actuator will raise and lower the snow thrower.
5. Check skid shoe adjustment. (Refer to the Service and Adjustments section.
6. Check that the tethered safety switch will shut off the engine.
7. Check that the wheel hubs and wheel spindles are full of grease.

OPERATION

KNOW YOUR SNOW THROWER

Read this owner's manual and safety rules before operating your snow thrower.
Compare the illustration below with your snow thrower to familiarize yourself with the various controls and their locations.



CHUTE TILT HANDLE — Pivots the Upper Chute up or down to control the angle and distance of discharge.
CRANK ROD — Rotates the Lower and Upper Chutes to control the direction of discharge.
UPPER AND LOWER DISCHARGE CHUTE — Controls direction and height of snow discharge.
SCRAPER PLATE — Replaceable plate that absorbs wear and impact from contact with ground.
SKID SHOE — Controls amount of clearance between the scraper plate and the ground.
SPIRAL AUGER, R.H. & L.H. — Feeds snow to the impeller fan at the center of the housing.
ON/OFF SWITCH — Allows snow thrower engine to be turned off when sitting on ATV.
HANDLE BAR SWITCH — Raises and lowers the snow thrower.
TETHERED SAFETY SWITCH — Turns snow thrower off when pulled out.
CLUTCH LEVER — Engages and disengages the spiral augers.

HOW TO USE YOUR SNOW THROWER

CAUTION: Never direct discharge towards bystanders or windows. Do not allow anyone in front of unit.

BEFORE STARTING

- Use the end of assembly checklist to verify that all instructions have been properly completed.
- Make sure the skid shoes are adjusted to maintain adequate ground clearance between the snow thrower and the type of surface to be cleared. (Refer to the Service and Adjustments section.)
- Make sure the ATV engine has the correct oil for winter operation. Refer to ATV owner's manual.

HOW TO START YOUR SNOW THROWER

- Set clutch lever to "DISENGAGED"
- Attach the pull out plug to the tethered safety switch. The snow thrower will not run if the plug is not attached.
- Set on/off switch on control mount to "ON"
- Follow instructions in your Engine Operator's Manual to start the snow thrower engine, then continue below.
- Board your ATV and move clutch lever on control mount to "ENGAGED" position

HOW TO STOP YOUR SNOW THROWER

- Set clutch lever on control mount to "DISENGAGED"
- Set on/off switch on control mount to "OFF"
- Follow instructions in your Engine Operator's Manual to finish Stop Engine procedures.

CONTROLLING SNOW DISCHARGE

- To control the direction snow is thrown, the discharge chute has 180 degrees of rotation. Turn the crank rod clockwise to rotate the chute to the right. Turn the crank rod counterclockwise to rotate the chute to the left.
- To control the distance snow is thrown, the upper section of the discharge chute pivots up and down. Push forward on the chute tilt handle to pivot the chute down, decreasing the distance snow is thrown. Pull back on the handle to pivot the chute up, increasing the distance snow is thrown.

RAISING AND LOWERING

- To raise, use the handle bar switch to shorten the actuator.
- To lower, use the handle bar switch to lengthen the actuator.

REMOVING SNOW

Snow removal conditions vary greatly from light fluffy snowfall to wet heavy snow. Operating instructions must be flexible to fit the conditions encountered. The operator must adapt the ATV and snow thrower to depth of snow, wind direction, temperature and surface conditions.

- Before beginning operation, thoroughly inspect the area of operation and remove all door mats, sleds, boards, wires and other foreign objects.

CAUTION: Never operate the ATV snow thrower without attaching the clip of the tethered safety switch to your clothing. A riderless ATV with a running snow thrower could cause serious injury to a fallen operator or to others.

- It is advisable to operate the ATV at a slow ground speed for safe and efficient snow removal.
- In deep, drifted or banked snow it will be necessary to use slow ground speed. Drive forward into the snow and allow the spiral auger to clear the snow. Repeat this method until a path is cleared. On the second pass, overlap the first enough to allow the snow thrower to handle the snow without repeated stopping and starting of forward motion.
- In extremely deep snow, raise the snow thrower from the ground to remove the top layer and drive forward only until the ATVs front tires reach the uncleared bottom layer of snow. Depress the ATV's clutch-brake pedal and allow the spiral auger to clear the snow. Reverse the ATV and lower the snow thrower to the ground. Drive the ATV forward until the snow again becomes too deep. Repeating this process into and out of drifts will eventually clear even the deepest of snow piles.
- If the snow thrower becomes clogged with snow or jammed with a foreign object, disengage the snow thrower immediately and shut off the ATV and snow thrower engines. Set the parking break on the ATV and unclog the snow thrower with a wooden stick before resuming operation.

DANGER: Shut off engine and disengage snow thrower before unclogging discharge chute. Unclog using a wooden stick, not your hands.

OPERATING TIPS

- Discharge snow down wind whenever possible.
- To help prevent snow from sticking to the snow thrower, allow the snow thrower to reach outdoor temperature before using it. A light coat of wax may also be applied to the inside surface of the snow thrower housing and discharge chute.
- Use tire chains to improve traction if recommended by your ATV owners manual.
- Before the first snowfall, remove all stones, sticks and other objects which could become hidden by the snow. Permanent obstacles should be marked for visibility.
- Overlap each pass slightly to assure complete snow removal.

MAINTENANCE

CUSTOMER RESPONSIBILITIES

- Read and follow the maintenance schedule and the maintenance procedures listed in this section.

MAINTENANCE SCHEDULE Fill in dates as you complete regular service.	Before each use	After each use	Every season	Before storage	Service Dates										
Check for loose fasteners	X														
Check scraper and shoes for wear	X			X											
Cleaning				X											
Lubrication Section			X												
Check engine oil level	X														
Maintain engine per instructions below and in engine manual.															

LUBRICATION

- Oil all pivot points on the snow thrower.
- Oil pivot points of two idler arms on the clutch/idler assembly.
- Apply penetrating oil to the control cables of the discharge chute.
- Fill grease zerks on front wheels and spindles with grease.

CHECK SCRAPER AND SHOES FOR WEAR

- The scraper plate and skid shoes on the bottom of the snow thrower are subject to wear. To prevent damage to the spiral auger housing, replace plate and shoes before wear is excessive.

ENGINE MAINTENANCE

- Check oil level before each use. Maintain engine oil as instructed in the separate engine manual.
- Perform spark plug or other maintenance as instructed in the separate engine manual.

SERVICE AND ADJUSTMENTS

CAUTION: Before servicing or adjusting the snow thrower, shut off snow thrower and ATV engines, remove the spark plug wire(s), set the parking brake and remove the key from the ignition.

SPIRAL AUGERS

- The spiral augers are secured to the auger shaft with two shear bolts and nylock nuts. If you hit a foreign object or if ice jams the augers, the snow thrower is designed so that the bolts will shear.
- If the augers will not turn, check to see if the shear bolts have sheared. See figure 30. Two replacement shear bolts and nylock nuts have been provided with the snow thrower. For future use order part number 710-0890A shear bolt and number 47810 nylock nut.

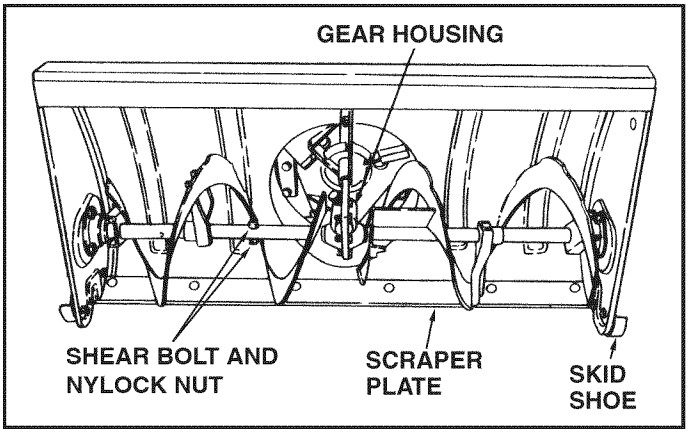


FIGURE 30

SKID SHOE ADJUSTMENT

- The skid shoes are mounted on each side of the spiral auger housing. They regulate the distance the scraper plate is raised above the plowing surface. When removing snow from a gravel driveway or and uneven surface, it is advisable to keep the scraper plate as high above the surface as possible to prevent possible damage to the spiral auger. On blacktop or concrete surface, keep the scraper plate as close to the surface as possible.
- Raise snow thrower off the ground and place a block under each end of the scraper plate. Loosen the six hex nuts securing the skid shoes to the housing. Adjust the skid shoes up or down and retighten the nuts securely. Adjust both skid shoes to the same height to keep the housing and the scraper plate level. See figure 31.

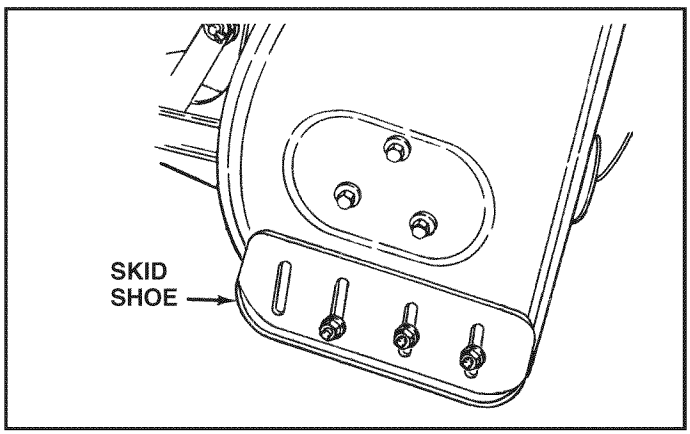


FIGURE 31

REMOVING THE BELT (Figures 32-35)

- Remove the key and disconnect the spark plug wire from the snow thrower.
- Remove the engine pulley cover, the drive cover and the skid plate from the snow thrower.
- Disengage the snow thrower clutch.
- Remove the belt from the top pulley.
- Engage the clutch.
- Remove the belt from the bottom pulley.
- Disengage the clutch.
- Lift up on the brake assembly and slip the belt between the brake assembly and bottom pulley to remove the belt from the snow thrower.

INSTALLING THE BELT

- Lift up on the brake assembly and slip the belt between the bottom pulley and the brake assembly.
- Engage the clutch.
- Install the belt around the bottom pulley.
- Disengage the clutch.
- Install the belt around the top pulley.
- Make sure the belt runs inside all of the belt keepers.
- Replace the covers.
- Replace the key and reconnect the spark plug wire.

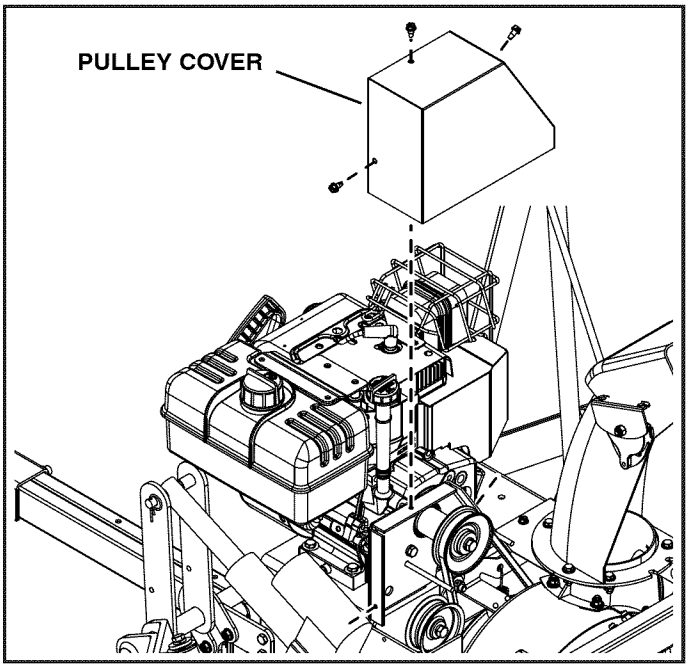


FIGURE 32

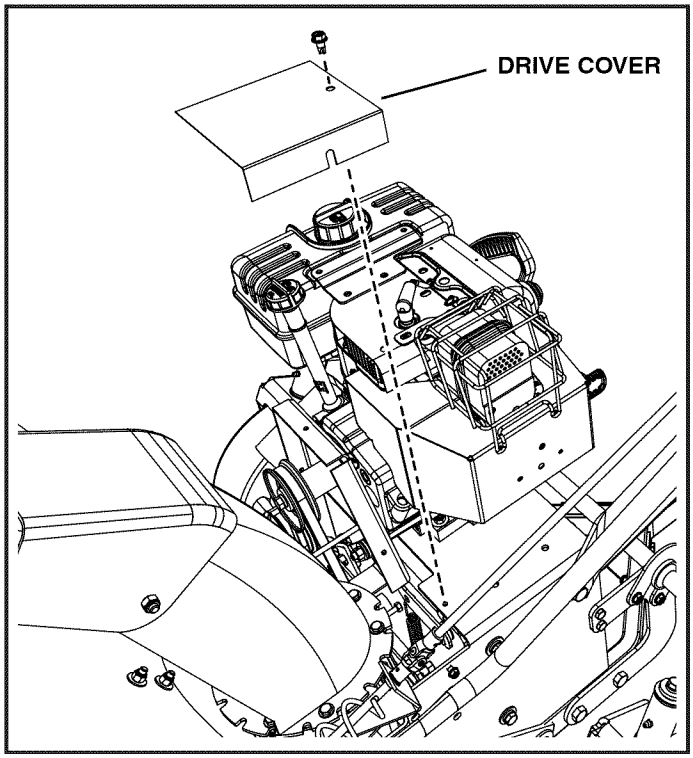


FIGURE 33

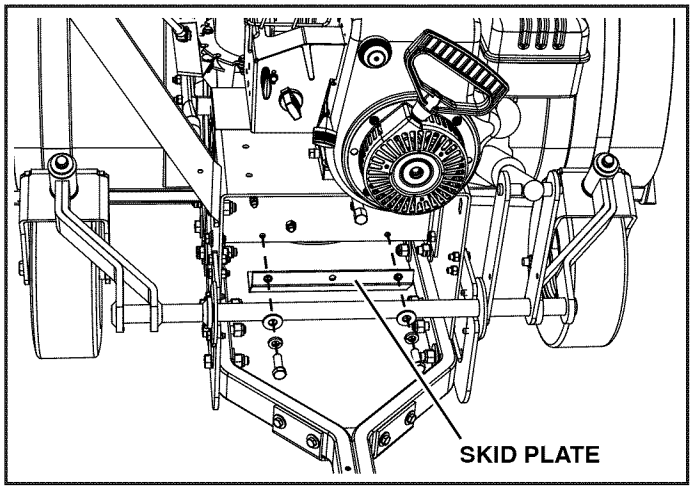


FIGURE 34

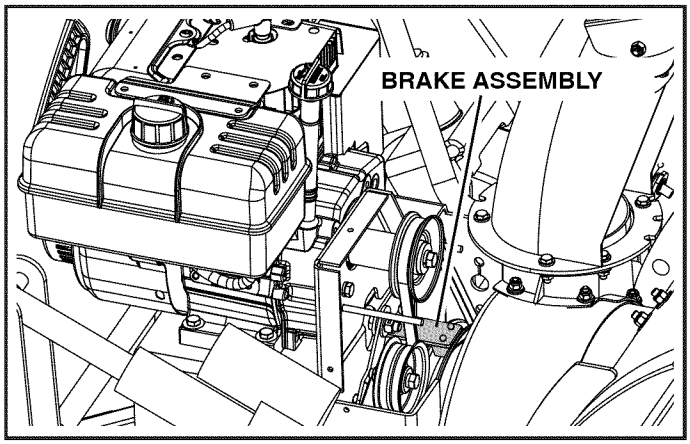


FIGURE 35

STORAGE

STORAGE RECOMMENDATIONS

- Clean the snow thrower thoroughly. Wash off any salt deposit which may have dried on the thrower and housing.
- Any bare metal that has become exposed should be painted or coated with a light oil to prevent rust.
- Lubricate all pivot and wear areas.
- Store in a dry area protected from weather.

REMOVAL INSTRUCTIONS

- Lower the snow thrower to the ground.
- Unplug the actuator.
- Unplug the tethered safety switch from the wire harness of the control box switch.
- Remove the clevis pins from the strut mount assemblies attached to the bottom of the ATV's front A arms and remove the stabilizer assembly from the ATV. (Refer to figure 9 on page 7.)
- Remove the 3/4" x 7-1/2" hex bolt from the rear hitch of the ATV to complete removal of the snow thrower.

PARTS TO REMOVE AT END OF SEASON

- Remove the A-arm brackets from the suspension of the ATV, especially before using your ATV for off-roading, trail riding or other activities hard on the suspension. See the owners manual of your ATV for more information.

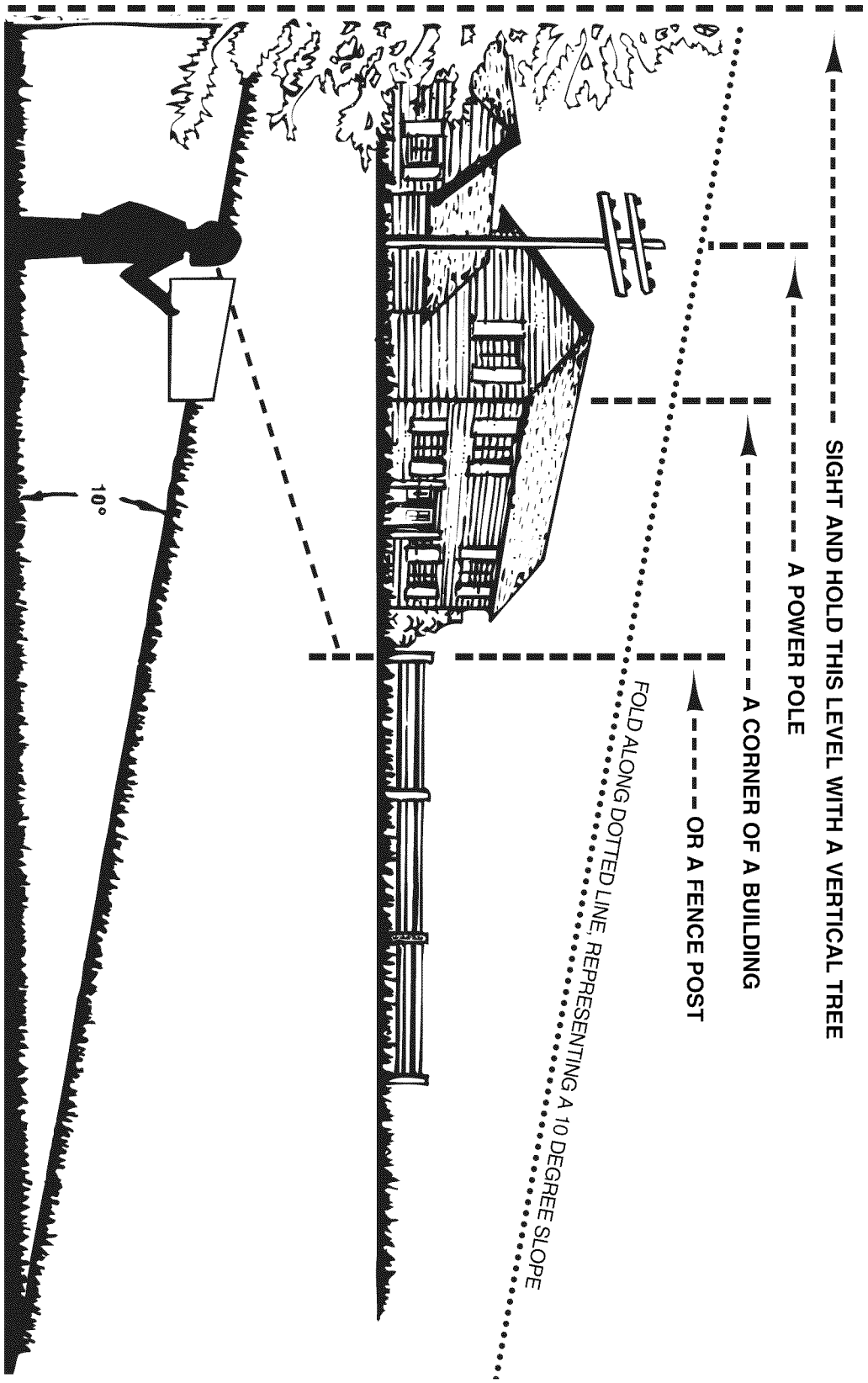
TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
Spiral augers don't turn	1. Drive belt too loose 2. Drive belt broken 3. Shear bolts are sheared.	1. Increase tension on drive belt 2. Replace drive belt 3. Replace shear bolts
Clogged discharge chute	1. ATV ground speed too fast 2. ATV throttle set too low 3. Snow too deep 4. Snow melts during contact with snow thrower	1. Decrease ground speed 2. Increase to full throttle 3. Raise snow thrower 4. Allow snow thrower to cool to outdoor temperature before using
Snow thrower stalls	1. Object jammed in spiral auger 2. Hard or heavy snow	1. Stop ATV and snow thrower engine, disengage the snow thrower clutch and clear the auger 2. Decrease ground speed
Front wheels slide instead of steering	1. Not enough traction at front wheels 2. Snow thrower wheels do not have enough lubrication	1. Increase scraper plate clearance by lowering the skid shoes 2. Fill front grease zerks with grease until a small amount comes out the bottom
Snow thrower rides up over snow	1. ATV ground speed too fast 2. Bottom snow is icy or hard packed	1. Decrease ground speed 2. Lower the skid shoes so that front of skid shoe is lower than the rear

SLOPE GUIDE

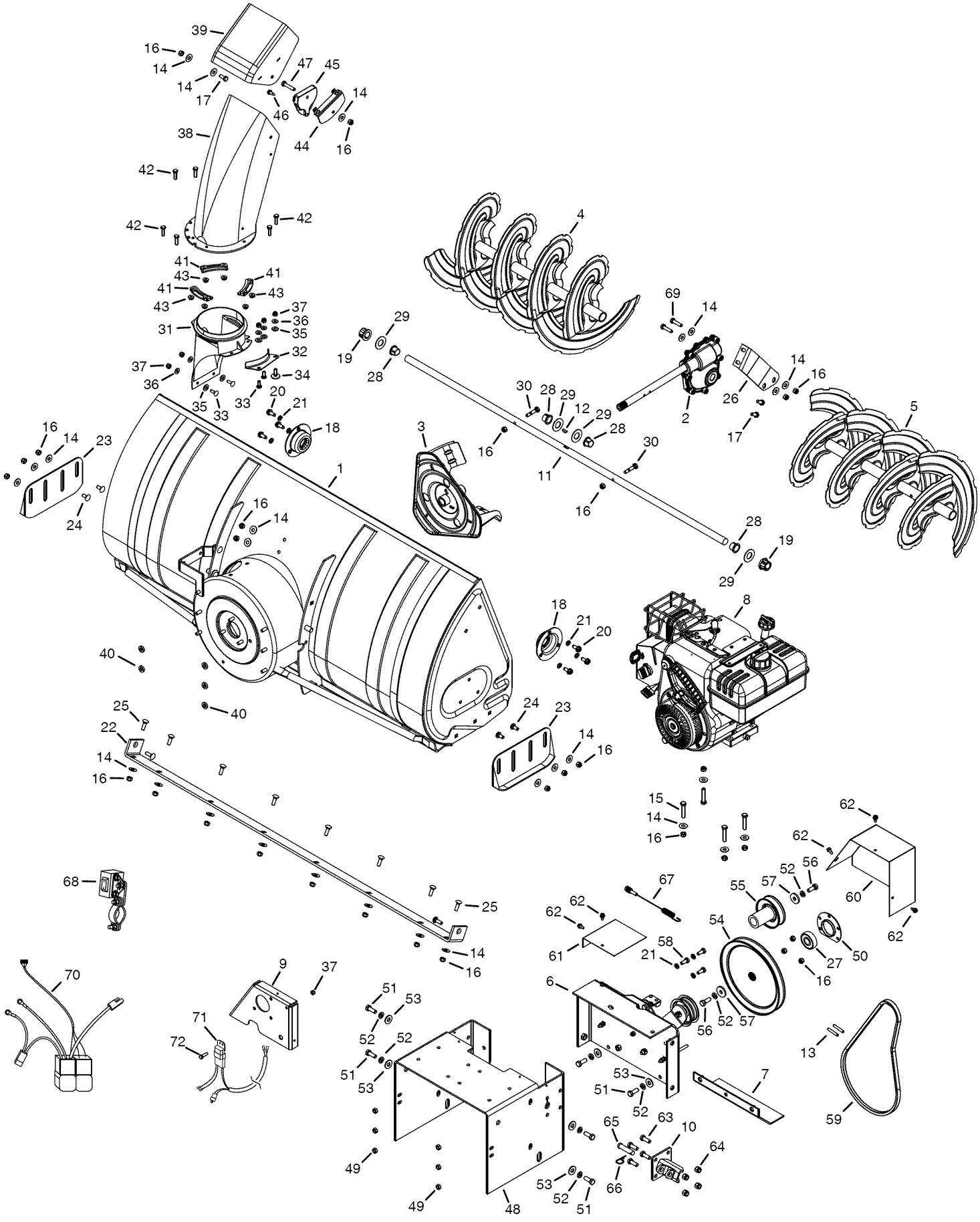
(Keep this sheet in a safe place for future reference.)

Use this guide to determine if a slope is safe for the operation of your ATV and snow thrower. Refer also to the instructions in your ATV owners manual.



CAUTION: DO NOT OPERATE YOUR ATV AND SNOW THROWER ON A SLOPE IN EXCESS OF 10 DEGREES. BE SURE OF YOUR ATV'S TOWING AND BRAKING CAPABILITIES BEFORE OPERATING ON A SLOPE. AVOID ANY SUDDEN TURNS OR MANEUVERS WHILE ON A SLOPE.

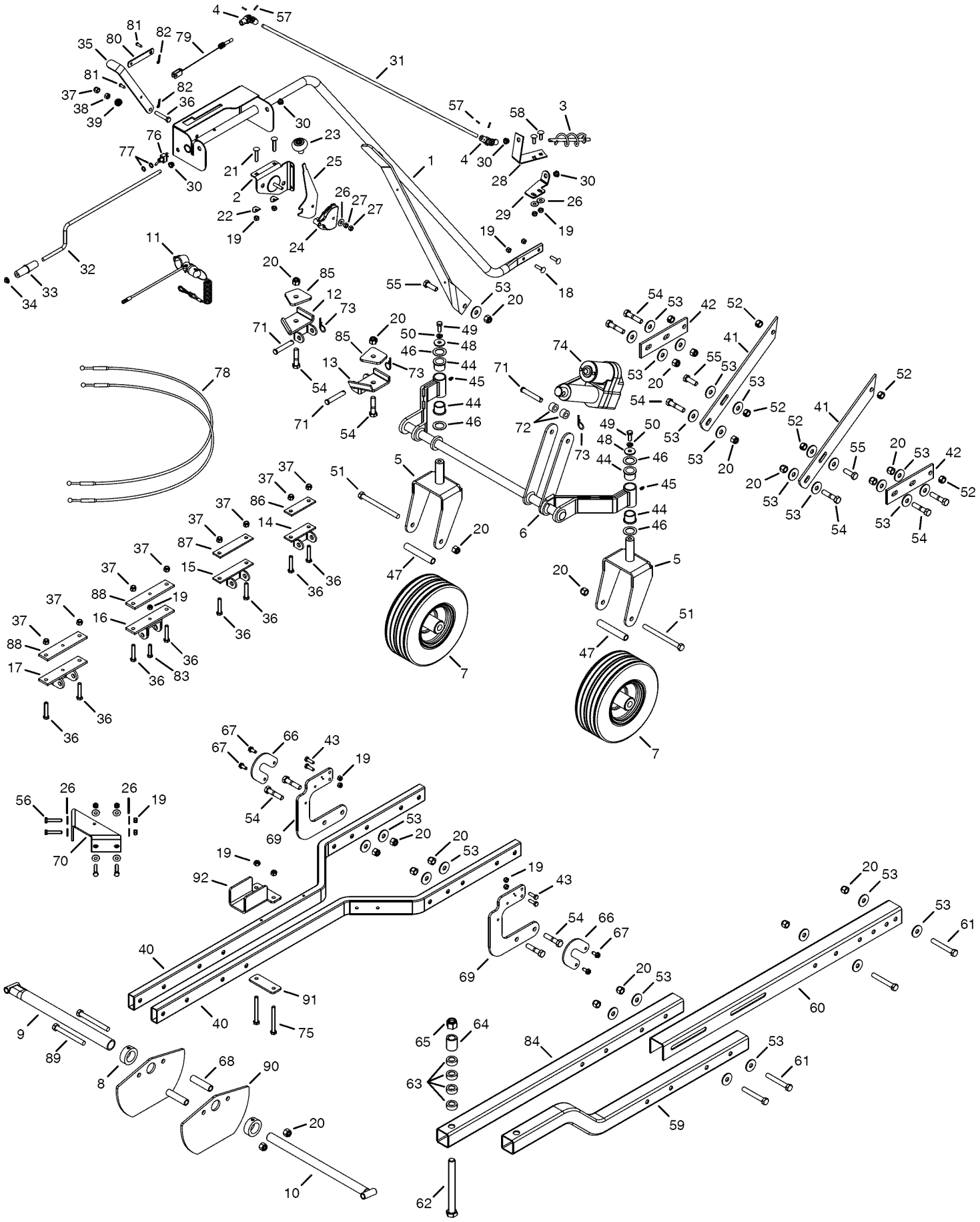
REPAIR PARTS FOR MODEL 45-0418 ATV SNOW THROWER



REPAIR PARTS FOR MODEL 45-0418 ATV SNOW THROWER

REF	QTY	PART NO.	DESCRIPTION
1	1	65683	50" Snow thrower Housing
2	1	71464	Drive Assembly
3	1	63768	Impeller
4	1	65685	Spiral Blades (LH)
5	1	65684	Spiral Blades (RH)
6	1		Drive Control Assembly (See back page)
7	1	65695	Skid Plate
8	1	LH358SA-159655A	Engine
9	1	65697	Belt Guide Assembly
10	1	66093	Actuator Bracket
11	1	25942	Drive Output Shaft
12	1	HA20185	#61 Woodruff Key
13	2	715-0114	Spiral Roll Pin, 1/4 x 1-1/2"
14	27	43081	Washer, 5/16" Standard
15	4	43084	Hex Bolt, 5/16-18 x 1-3/4"
16	28	47810	Nylock Nut, 5/16-18
17	3	43182	Hex Bolt, 5/16-18 x 3/4"
18	2	784-5618	Bearing Housing
19	2	47615	Flange Bearing
20	6	47630	Hex Bolt, 5/16-18 x 3/4" (Self)
21	6	43086	Lock Washer, 5/16"
22	1	25940	Scraper Plate
23	2	24279	Skid Shoe
24	4	43080	Carriage Bolt, 5/16-18 x 3/4"
25	10	44326	Carriage Bolt, 5/16-18 x 1"
26	1	25937	Gearbox Center Brace
27	1	741-0309	Ball Bearing
28	4	741-0493A	Split Bearing, 3/4"
29	4	736-0188	Washer, .76 x 1.49 x .06
30	2	710-0890A	Shear Bolt, 5/16-18 x 1-1/2"
31	1	731-1379A	Chute Adapter
32	1	705-5226	Reinforcement Chute
33	4	44950	Carriage Bolt, 1/4-20 x 3/4"
34	1	40504	Elevator Bolt, 1/4-20 x 1"
35	5	48015	Nylon Washer
36	5	43088	Washer, 1/4" Standard
37	6	47189	Nylock Nut, 1/4-20
38	1	731-1300C	Lower Chute
39	1	731-0921	Upper Chute
40	5	750-0437	Pivot Bushing
41	3	731-0851A	Chute Keeper
42	6	49395	Flange Hex Bolt, 1/4-20 x 1"
43	6	47598	Washer Faced Nut, 1/4-20
44	1	784-5594	Cable Bracket
45	1	731-1313C	Cable Guide
46	1	710-0896	Washer Screw, 1/4-14 x .625
47	1	43085	Hex Bolt, 5/16-18 x 1-1/2"
48	1	25947	Engine Mounting Base
49	6	43064	Lock Nut, 5/16-18
50	1	05931	Bearing, Housing
51	6	49681	Hex Bolt, 3/8-16 x 1"
52	8	43003	Lock Washer, 3/8"
53	6	43070	Washer, 3/8" Standard
54	1	40230	Splined Pulley
55	1	40236	Engine Pulley
56	2	44377	Hex Bolt, 3/8-24 x 1"
57	2	736-0247	Washer, .41 x 1.25 x .156
58	3	710-0627	Hex Bolt, 5/16-24 x 3/4"
59	1	40585	V-Belt
60	1	25960	Engine Pulley Cover
61	1	25961	Drive Cover
62	5	48840	Washer Screw, 1/4-20 x 1/2"
63	4	43001	Hex Bolt, 3/8-16 x 1"
64	4	HA21362	Nylock Nut, 3/8-16
65	1	HA23505	Clevis Pin, 1/2 x 2"
66	1	43055	Hair Pin, 3/32 x 1.8"
67	1	49777	Clutch Cable
68	1	40649	Handle Bar Switch
69	2	43840	Hex Bolt, 5/16-18 x 1-1/4"
70	1	66282	Wiring Harness
71	1	40235	Module Assembly
72	1	43012	Hex Bolt, 1/4-20 x 3/4"

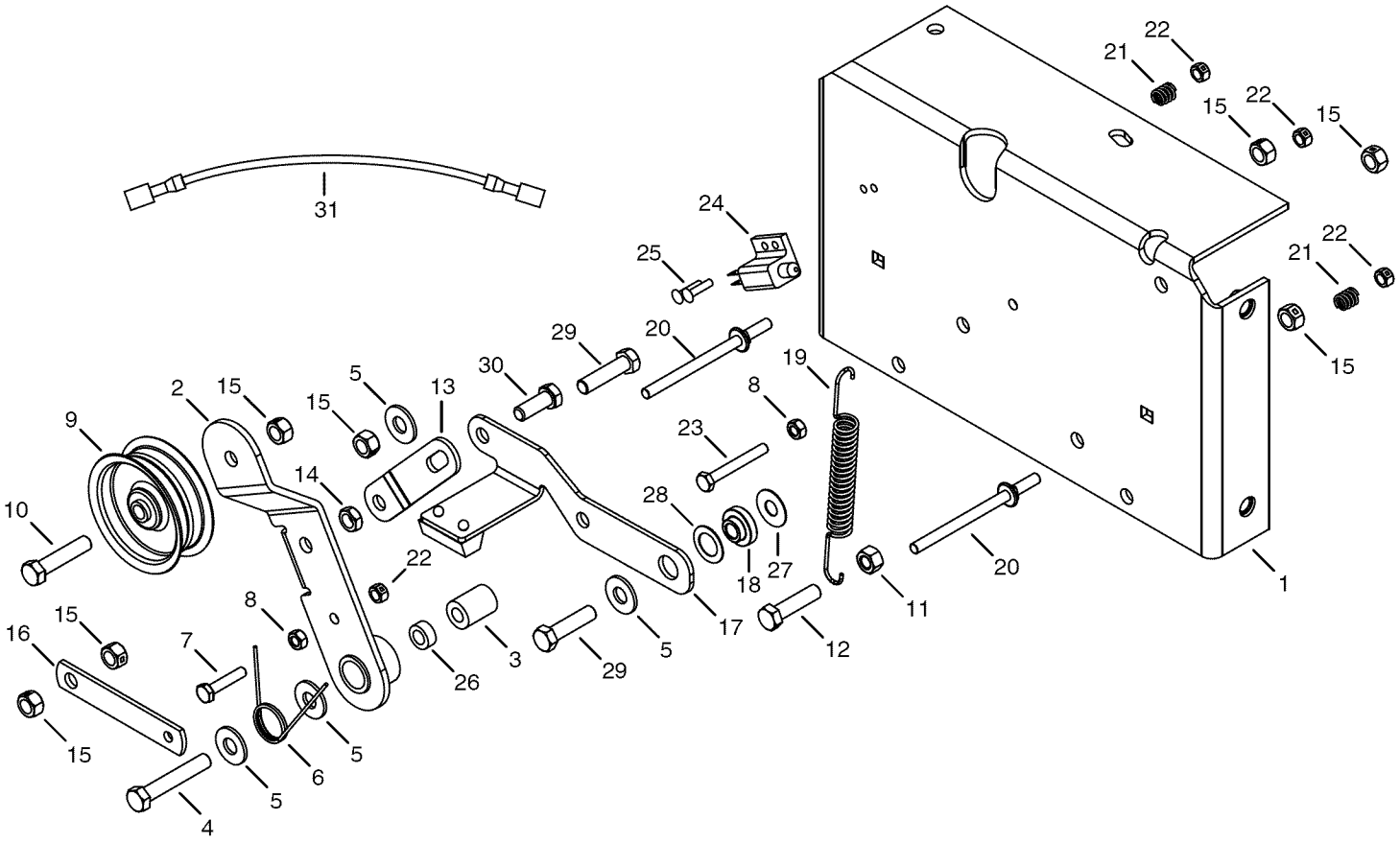
REPAIR PARTS FOR MODEL 45-0418 ATV SNOW THROWER



REPAIR PARTS FOR MODEL 45-0418 ATV SNOW THROWER

REF	QTY	PART NO.	DESCRIPTION
1	1	65699	Crank Rod Support
2	1	603-0302	Chute Tilt Bracket
3	1	684-0061	Crank Chute Assembly
4	2	784-5149	U-Joint Block
5	2	66036	Caster Assembly
6	1	66122	Wheel Lift Assembly
7	2	49503	Wheel
8	2	40366	Collar
9	1	65025	Outer Mount Strut
10	1	65024	Inner Mount Strut
11	1	66283	Tethered Safety Switch
12	1	65027	Strut Mount Assembly (LH)
13	1	65026	Strut Mount Assembly (RH)
14	2	65030	4" Strut Mount
15	2	65028	5-1/2" Strut Mount
16	2	65032	6-5/8" Strut Mount
17	2	66068	6-5/8" Strut Mount
18	2	43682	Carriage Bolt, 5/16-18 x 1-1/4"
19	18	47810	Nylock Nut, 5/16-18
20	21	712-3083	Nylock Nut, 1/2-13
21	2	44215	Carriage Bolt, 5/16-18 x 1-3/4"
22	2	44695	Bowed Washer, 1 x .32 x .06
23	1	720-04039	Shift Knob
24	1	731-1313C	Cable Guide
25	1	784-5604A	Chute Tilt Handle
26	11	43081	Washer, 5/16" Standard
27	2	43064	Lock Nut, 5/16-18
28	1	703-2735A	Chute Crank Bracket
29	1	24393	Chute Crank Bracket
30	4	741-0475	Plastic Bushing, 3/8"
31	1	25973	Crank Rod
32	1	40244	Crank Rod Chute
33	1	720-0201A	Crank Knob
34	2	44917	Palnut, 3/8"
35	1	25639	Clutch Handle
36	5	43054	Hex Bolt, 3/8-16 x 2"
37	5	HA21362	Nylock Nut, 3/8-16
38	1	43015	Hex Nut, 3/8-16
39	1	HA19445	Deflector Lock Spring
40	2	25921	Mounting Tube
41	2	25963	Side Support Strap
42	2	25932	Housing Anchor Strap
43	4	43063	Hex Bolt, 5/16-18 x 1"
44	4	49832	Bushing, 1"
45	2	HA5074	Grease Fitting
46	4	43601	Washer, 1.59 x 1 x .06
47	2	49542	Spacer
48	2	736-0247	Washer, .41 x 1.25 x .156
49	2	43001	Hex Bolt, 3/8-16 x 1"
50	2	43003	Lock Washer, 3/8"
51	2	49835	Hex Bolt, 1/2-13 x 6"
52	6	43262	Lock Nut, 1/2-13
53	29	R19172410	Washer, .5312 x 1.5 x .1345
54	12	HA180183	Hex Bolt, 1/2-13 x 2-1/4"
55	3	43020	Hex Bolt, 1/2-13 x 1-1/2"
56	4	43084	Hex Bolt, 5/16-18 x 1-3/4"
57	4	43850	Roll Pin, 1/8 x 5/8"
58	2	44326	Carriage Bolt, 5/16-18 x 1"
59	1	25922	Rear Frame Tube
60	1	25923	Push Channel
61	4	46526	Hex Bolt, 1/2-13 x 3-1/2"
62	1	49362	Hex Bolt, 3/4-10 x 7-1/2"
63	4	711-0469	Spacer, .75 x 1.25 x .5
64	1	25377	Spacer, .81 x 1.25 x 1.5
65	1	48911	Nylock Nut, 3/4-10
66	2	26228	Lift Retainer
67	4	47630	Hex Bolt, 5/16-18 x 3/4" (Thd.)
68	2	26424	Spacer
69	2	25928	Anchor Bracket
70	1	26038	Support Strap
71	3	49932	Clevis Pin, 1/2" x 3"
72	2	24817	Spacer, .5 x .75 x .5
73	3	43055	Hair Pin, 3/32 x 1.8
74	1	40571	Linear Actuator
75	2	46782	Hex Bolt, 5/16-18 x 3"
76	1	45084	On-Off Switch
77	2	45048	Hex Nut, 15/32-32
78	2	40354	Chute Control Cable
79	1	49777	Clutch Cable
80	1	25944	Cable Strap
81	2	43982	Clevis Pin, 1/4 x 5/8"
82	2	HA3090	Hair Cotter Pin, .08 x 1-1/8"
83	2	43085	Hex Bolt, 5/16-18 x 1-1/2"
84	1	40656	Rear Frame Tube (Straight)
85	2	25382	Upper Clamp Bracket
86	1	25384PL	Clamp Bracket, 4"
87	2	25385PL	Clamp Bracket, 5-1/2"
88	2	25388PL	Clamp Bracket, 6-5/8"
89	2	47024	Hex Bolt, 1/2" x 4-1/2"
90	2	26422	Stabilizer Bracket
91	1	26423	Guide Plate
92	1	26421	Guide Bracket

REPAIR PARTS FOR MODEL 45-0418 ATV SNOW THROWER



REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
1	1	65688	Drive Control Plate	17	1	65690	Belt Brake Assembly
2	1	65689	Idler Arm	18	1	49155	Brake Trunnion
3	1	24286	Spacer, .38 x .75 x 1	19	1	HA20186	Idler Spring
4	1	HA180132	Hex Bolt, 3/8-16 x 2-1/4"	20	2	40232	Belt Guide Rod
5	4	43070	Washer, 3/8" Standard	21	2	40233	Spring
6	1	47607	Torsion Spring	22	4	43013	Lock Nut, 1/4-20
7	1	1509-90	Hex Bolt, 1/4-20 x 1-1/4"	23	1	46699	Hex Bolt, 1/4-20 x 2"
8	2	43178	Hex Nut, 1/4-20	24	1	HA23199	Interlock Switch
9	1	HA11496	Idler Pulley	25	2	C-9M5732	Pop Rivet, 3/16
10	1	41576	Hex Bolt, 3/8-16 x 1-3/4"	26	1	23625	Spacer, .38 x .62 x .27
11	1	43015	Hex Nut, 3/8-16	27	1	47605	Washer, .411 x 1 x .03
12	1	43768	Hex Bolt, 3/8-16 x 1-1/2" (full thd.)	28	1	44125	Washer, .625 x 1 x .03
13	1	25946	Brake Release Strap	29	2	43062	Hex Bolt, 3/8-16 x 1-1/2"
14	1	712-3008	Hex Jam Nut, 3/8-16	30	1	43001	Hex Bolt, 3/8-16 x 1"
15	7	43082	Hex Lock Nut, 3/8-16	31	2	40741	Harness
16	1	25944	Cable Strap				

REPAIR PARTS
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