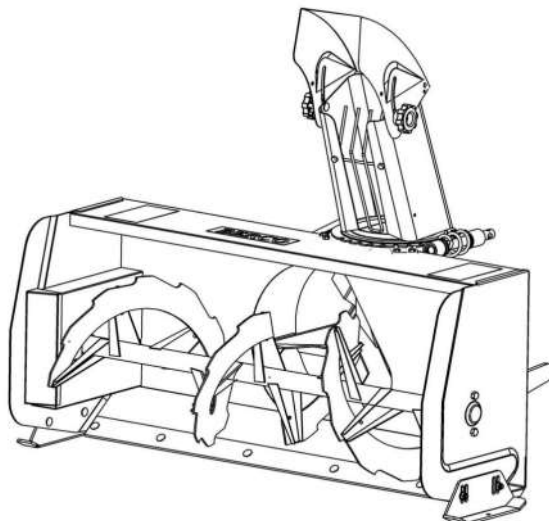


**BERCOMAC**  
LIMITÉE

# OWNER'S MANUAL

Model Number  
700300



## ***Berco two stage 48" snowblower*** ***for tractors with 2000 R.P.M. P.T.O drive:***

- \* ASSEMBLY
- \* OPERATION

- \* REPAIR PARTS
- \* MAINTENANCE

### **CAUTION:**

***READ & FOLLOW ALL SAFETY RULES & INSTRUCTIONS BEFORE  
OPERATING YOUR EQUIPMENT***

# **WARRANTY**

## **LIMITED ONE YEAR ON BERCO TRACTOR ATTACHMENTS**

For one year from date of purchase, Bercomac Limitée will repair or replace free of charge at Bercomac's option, any parts which are defective as a result of defective materials or faulty workmanship.

### **COMMERCIAL OR RENTAL USE:**

Warranty on Berco attachments used for commercial or rental purposes is limited to 90 days.

### **This warranty does NOT cover:**

- \* **Wear items, such as shear pins and belts.**
- \* **Repairs due to customer abuse or neglect.**
- \* **Pre-delivery set-up.**
- \* **In home service.**

Warranty service is available by returning the "Berco" attachment to the authorized dealers or shipped prepaid to Bercomac Limitée.

**BERCOMAC Limitée**  
**46 Fortin, St-Méthode de Frontenac, Québec, Canada, G0N 1S0**

# TABLE OF CONTENTS

	PAGE
INTRODUCTION.....	2
SAFETY PRECAUTIONS.....	3
SAFETY DECALS.....	5
ASSEMBLY	
Step 1: Snowblower preparation.....	6
Step 2: Snowblower installation.....	7
Verify tire pressure.....	9
Skid shoe adjustment.....	9
OPERATION	
Controls.....	10
Operating the snowblower.....	10
Snow removal.....	10
Snow removal methods.....	11
MAINTENANCE & DISMOUNTING	
Maintenance.....	12
Lubrication.....	12
Shear bolt replacement.....	12
Snowblower dismounting.....	13
Subframe dismounting.....	13
End of season storage.....	13
PARTS LIST	
Snowblower head.....	14
Deflector kit.....	17
Rotation kit with chute.....	18
TORQUE SPECIFICATION TABLE.....	20
OPTIONS.....	21

# INTRODUCTION

## TO THE PURCHASER

This new attachment was carefully designed to give years of dependable service. This manual has been provided to assist in the safe operation and servicing of your attachment.

**NOTE:** All photographs and illustrations in the manual may not necessarily depict the actual models or equipment, but are intended for reference only and are based on the latest product information available at the time of publication.

Familiarize yourself fully with the safety recommendations and operating procedures before putting the machine to use. Carefully read, understand and follow these recommendations and insist that they be followed by those who work with you.

**9 THIS SAFETY ALERT SYMBOL IDENTIFIES IMPORTANT SAFETY MESSAGES IN THIS MANUAL THAT HELP YOU AND OTHERS AVOID PERSONAL INJURY OR EVEN DEATH. DANGER, WARNING, AND CAUTION ARE SIGNAL WORDS USED TO IDENTIFY THE LEVEL OF HAZARD. HOWEVER, REGARDLESS OF THE HAZARD, BE EXTREMELY CAREFUL.**

**DANGER:** Signals an extreme hazard that will cause serious injury or even death if recommended precautions are not followed.

**WARNING:** Signals a hazard that may cause serious injury or death if the recommended precautions are not followed.

**CAUTION:** Signals a hazard that may cause minor or moderate injury if the recommended precautions are not followed.

Record your attachment model and serial number (there is no serial number on the subframe). Your Dealer requires this information to give you prompt, efficient service when ordering parts or attachments. Use only genuine parts when replacements are required.

If warranty repairs are required please present this registration booklet and original sales invoice to your selling dealer for warranty service.

MODEL .....
SERIAL NUMBER .....
DATE PURCHASED .....

**Right and left sides are determined by sitting on the tractor seat facing forward.**

# SAFETY PRECAUTIONS

Careful operation is your best insurance against an accident. Read this section carefully before operating the tractor and attachment. All operators, no matter how experienced they may be, should read this and other related manuals before operating the attachment. It is the owner's legal obligation to instruct all operators in safe operation.

## **TRAINING:**

9

This symbol, the industry's "Safety Alert Symbol", is used throughout this manual and on the attachment safety labels to warn of the possibility of personal injury. Please take special care in reading and understanding the safety precautions before operating the attachment or the tractor.

1. Read this owner'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.
2. Never allow children to operate equipment. Never allow adults to operate equipment without proper instructions.
3. No one should operate the unit while intoxicated or while taking medication that impairs the senses or reactions.
4. Keep the area of operation clear of all persons, particularly small children and pets.

## **PREPARATION:**

1. Thoroughly inspect the area where the equipment is to be used and remove all doormats and foreign objects.
2. Disengage all clutches and shift into neutral before starting engine.
3. Do not operate the equipment without wearing adequate winter outer garments. Wear footwear that will improve footing on slippery surfaces.
4. Handle fuel with care, it is highly flammable.
  - (a) Use approved fuel container.
  - (b) Never add fuel to a running engine or hot engine.

- (c) Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
  - (d) Replace fuel cap securely and wipe up spilled fuel.
5. Adjust the height of the snow blower to clear gravel or crushed rock surface.
  6. Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by manufacturer).
  7. Let engine (motor), tractor and attachment adjust to outdoor temperatures before starting to clear snow.
  8. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair to protect eyes from foreign objects that may be thrown from the machine.

## **OPERATION:**

1. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
2. Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic. Do not carry passengers.
3. After striking a foreign object, stop the engine (motor), disconnect the wire from the spark plug(s) and keep away from spark plug(s). Thoroughly inspect the snow blower for any damage and repair damage before restarting and operating the snow blower.
4. If the unit should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.

## SAFETY PRECAUTIONS

5. Stop the engine( motor) whenever you leave the operating position.
6. Take all possible precautions when leaving the machine unattended. Disengage the power take-off, lower the attachment, set the parking brake, stop the engine and remove the key.
7. When cleaning, unclogging, repairing, or inspecting, make certain the collector/impeller and all moving parts have stopped. Disconnect wire from the spark plug(s) and keep away from the spark plug(s) to prevent accidental starting.
8. Do not run the engine indoors, except when starting the engine and for transporting the snow blower in or out of the building . Do not operate or let motor run in a storage area without ventilation because gas contains carbon monoxide which is odourless, colorless and can cause death.
9. Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes.
10. Never operate the snow blower without proper guards, plates, or other safety protective devices in place.
11. Never operate the snow blower near glass enclosures, automobiles, window wells, drop-offs, and the like without proper adjustment of the snow discharge angle. Keep children and pets away.
12. Do not overload the machine capacity by attempting to clear snow at too fast a rate.
13. Never operate the machine at high transport speeds on slippery surfaces. Use care when backing.
14. Never direct discharge at bystanders or allow anyone in clearance area.
15. Disengage power to the collector/impeller when the snow blower is transported or not into use.
16. Use only the attachments and accessories approved by the manufacturer of the tractor ( such as wheel chains, counterweights, cabs and the like.)
17. Never operate the snow blower without good visibility or light.

## **MAINTENANCE AND STORAGE**

1. Check shear bolts, engine mounting bolts, and other bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
2. Never store the machine with fuel in the fuel tank inside a building where ignition sources are present such as hot water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.
3. Always refer to the operator's guide instructions for important instructions if the snow blower is to be stored for an extended period .
4. Maintain or replace safety and instruction labels, as necessary.
5. Run the machine a few minutes after throwing snow to prevent freeze-up of the collector/impeller.

**WHENEVER YOU SEE THIS SYMBOL**

**9**

**IT MEANS:  
WARNING!  
BECOME ALERT !  
YOUR SAFETY IS INVOLVED!**

# SAFETY DECALS

REPLACE IMMEDIATELY IF DAMAGED



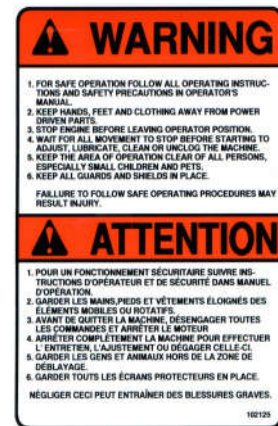
102127

Situated on the chute.



102190

Situated on drive line guard.



102125

Situated on the back of the chute.



102113

Situated on the drive line shaft



102126

Situated on the snowblower's frame, left and right side.



102124

Situated on the back of the snowblower.

# ASSEMBLY

## STEP 1: SNOWBLOWER PREPARATION

**IMPORTANT:** Torque all bolts according to torque specification table ( see table of contents), when stated: tighten securely.

- a) Install hand guard (fig.1, item 1) on chute (item 2) with the top portion inside the chute and the bottom portion outside the chute base ring. Place two 1/4 x 3/4" bolts (item 3) with the head on the outside of chute, through the chute then through the hand guard and secure with flatwashers and nuts. Tighten securely.
- b) Place plastic anti-friction insert (fig. 1, item 5) over chute base. Only one position provides a perfect fit.
- c) Insert shortest plastic bushing (fig. 1, item 6) in the welded tube at the back of the snowblower.
- d) Insert longest plastic bushing (fig. 1, item 7) in worm support (item 4), grease both ends of rotation worm and place rotation worm (item 8) in bushing.
- e) Install rotation worm assembly through the welded tube with the worm support (fig. 1, item 4) underneath the chute base lip.
- f) Install chute (fig. 1, item 2) over plastic insert (item 5) (applying grease in between) and secure with four retaining plates (item 9), using six 1/4 x 1/2" bolts (item 10) and two 1/4 x 3/4" bolts (item 11) to also secure worm support (item 4). Lock all bolts with nuts. Tighten securely.

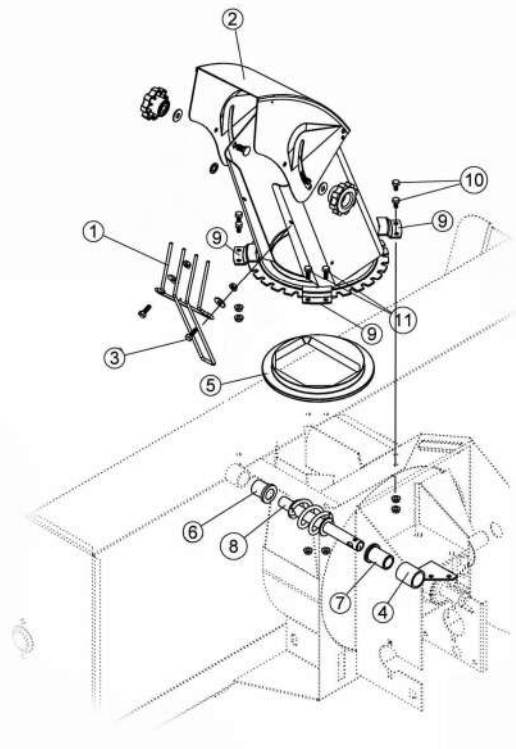
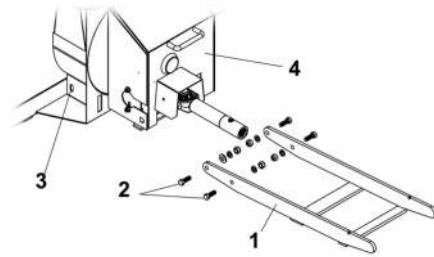


Figure 1



## ASSEMBLY

- g) Install the snowblower male hitch frame (fig. 2, item 1) in snowblower assembly and secure in place using four 7/16 x 1 1/4" bolts (item 2). Secure one bolt in the slot (item 3), closest to collector housing with flatwasher, lockwasher and nylon insert locknut. Secure the three other bolts with lockwashers and nylon insert locknuts.
- h) Remove the chain guard (fig. 2, item 4). Install the half portion of the driveline on the snowblower by sliding the round yoke (fig. 3, item 1) on the shaft (item 5). Align the bolt holes and secure with hex bolt 1/4 x 2 1/2" (item 2) and nylon locknut (item 3). Lock the key in place with an allen set screw 3/8 x 3/8 (item 4).



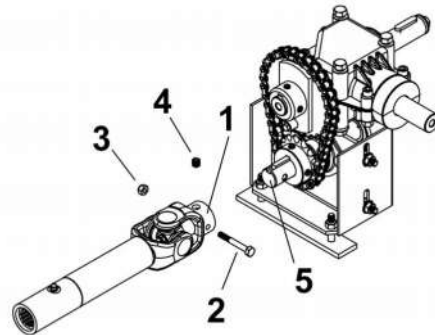
**Figure 2**

**NOTE:**

See Subframe Owner's Manual to verify if a extension guard (shield) is included with the driveline kit. If so, follow the installation instructions in Subframe Owner's Manual.

## 9      **WARNING:**      9

**For your security, read the subframe owner's manual for security precautions and rules.  
Follow the assembly and operation instructions.**



**Figure 3**

# ASSEMBLY

## STEP 2: SNOWBLOWER INSTALLATION

9

### WARNING:

9

To avoid injuries:

**Stop the motor.**

**Apply parking brakes.**

**Remove the ignition key.**

**Disconnect the wire from the spark plug(s) and keep away from spark plug(s).**

- Install the tractor's section of driveline into the snowblower's driveline by aligning the stamped marks (fig.4 item 2) (located between the spline at the end of the shaft) with the large groove in the hollow tube (item1) on the snowblower's section. Only one position allows shaft to be inserted.
- Attach the snowblower to the tractor sub-frame by inserting the blower's male hitch flat bar (fig. 5, item 2) into the subframe's female channel hitch (item 3). Verify so the male hitch is entered to its maximum and locked in place by the springs (item 1).
- Connect the rotative driveline to the tractor P.T.O. spline shaft and be sure the driveline yoke is securely attached to the tractor P.T.O.
- Install the chain guard (fig. 2, item 4) in place and attach to the snowblower with the rubber latch.
- Install 1/2 x 3" handle grip (fig. 6, item 1) on chute rotation handle (item 2) and place handle through grommet in rotation support (item 3).
- Install the handle extension (fig.6, item 7) (included with the subframe kit) on the rotation handle (item 2) with a 2.5 mm. hair pin.
- Install hook (fig.6, item 4) on rotation worm (item 5). Insert hook in rotation handle and lock in place with a 2.5 mm hair pin. (item 6).

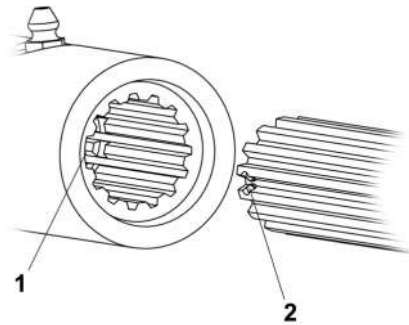


Figure 4

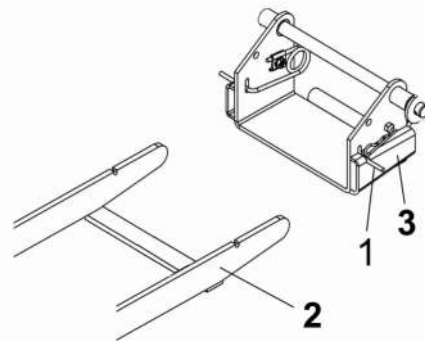


Figure 5

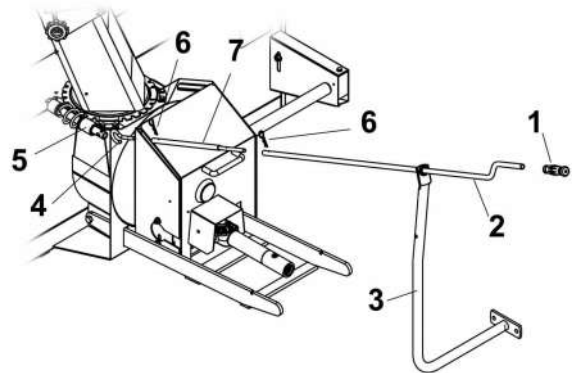


Figure 6

## ASSEMBLY

9

**DANGER:**

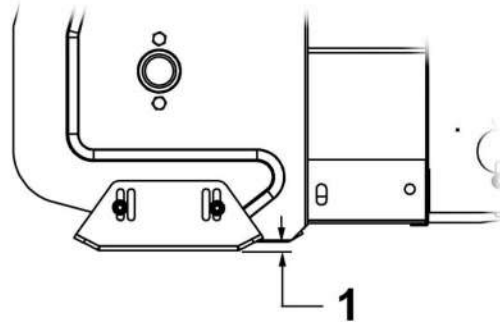
9

**ROTATIVE DRIVELINE**  
Contact can cause death.  
**KEEP AWAY**

**Do not operate without:**

**All driveline, tractor & equipment shields  
in place.**

**Drivelines securely attached at both  
ends.**



### VERIFY TIRE PRESSURE

For good lift height, check and adjust tractor tire pressure as follows:

Front tires: 20 p.s.i.  
Rear tires: 7 - 8 p.s.i.

Figure 7

9

**DANGER:**

9

**If the driveline is not completely covered,  
be sure a guard extension is installed.  
Do not operate without driveline  
completely covered by the shield.**

### SKID SHOE ADJUSTMENT

Level Paved Surface - adjust skid shoes to allow 3/16 to 1/4" clearance (fig.7, item 1) between cutting edge and surface.

Uneven or Gravel Surface - adjust skid shoes to allow 1/2 to 5/8" clearance (fig.7, item 1) between cutting edge and surface.

**9 WARNING: 9**

**To avoid injury and for more traction  
when using snowblower:**

- Rear counterweight of 150 lbs. minimum is required to counterbalance snowblower weight.
- Tractor manufacturer approved tire chains are required.
- Do not operate on a slope greater than 10°.
- When dismounting snowblower remove rear counterweights.

## OPERATION

### 9 WARNING: 9

**Do not attempt to clear plugged chute, auger or fan of snow while tractor engine is running.**

- Disengage snowblower
- Lower snowblower onto ground
- Set the parking brake
- Stop engine, remove the ignition key & disconnect the wire from spark plug(s) and keep away from spark plug(s).
- Make sure all moving parts have stopped
- Do not use hand to unplug chute
- Use a 36" (924mm.) minimum length stick or board.

### CONTROLS

#### CHUTE ROTATION

The chute rotation handle (fig.6, item 2) is located to the left of steering wheel. Turning the handle in a clockwise direction, turns the discharge chute in a clockwise direction.

#### CHUTE DEFLECTOR

Set the angle of the deflector according to the distance the snow must be blown and to prevent property damage. To change the deflector angle, loosen the two deflector knobs & adjust the deflectors to the appropriate angle and retighten the two knobs securely.

### OPERATING THE SNOWBLOWER

- Make sure the snowblower is clear of snow before engaging the snowblower.
- Make sure that the auger and impeller operate freely.
- Start the tractor engine.
- Before engaging the snowblower drive, always have the engine running at medium R.P.M.
- Operate the snowblower at maximum engine R.P.M.

### REMOVING SNOW

When removing snow, do not use the snowblower as a dozer blade to push snow. Allow snowblower to ingest snow at its own speed. If the speed of your tractor is too fast, the snowblower may become overloaded and plug. For best results, raise the snowblower and remove a top layer of snow. A second pass with the snowblower will remove the remaining snow.

#### **IMPORTANT:**

**Use full engine R.P.M. when removing wet, sticky snow. Low R.P.M. power will tend to plug the chute**

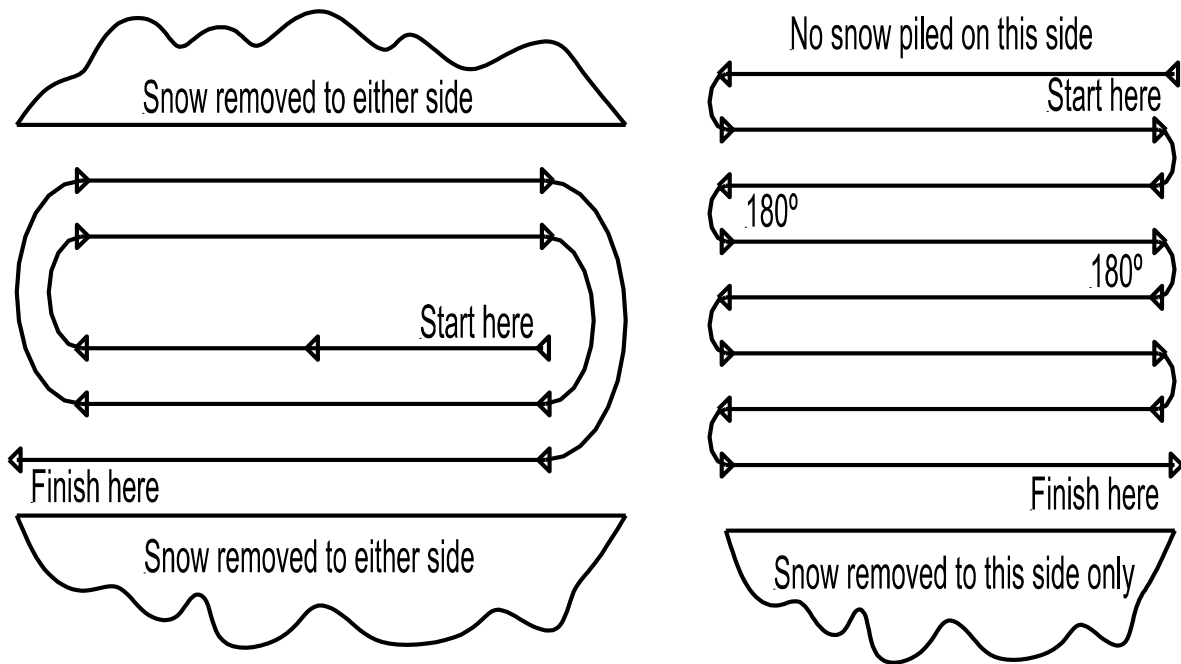
### 9 WARNING

**Read the tractor's Owner's Manual carefully. Be thoroughly familiar with the controls & proper use of the equipment. Know how to stop the unit & disengage the controls quickly.**

# OPERATION

## SNOW REMOVAL METHODS

A definite pattern of operation is required to thoroughly clear the snow area. These patterns will avoid blowing snow in unwanted places as well as eliminating a second removal of snow.



Where it is possible to throw the snow to the left and right (see above), as on a long driveway, it is advantageous to start in the middle. Blow from one end to the other, throwing snow to both sides without changing the direction of the discharge chute.

If the snow can only be thrown to one side of the driveway or sidewalk (see above), start on the opposite side. At the end of the first pass, rotate the discharge chute  $180^\circ$  to maintain direction of throw in the same area.

## MAINTENANCE

9

## WARNING

9

- BEFORE CLEARING PLUGGED CHUTE, AUGER OR FAN
- BEFORE ATTEMPTING REPAIRS OR ADJUSTMENTS
- BEFORE LUBRICATING
  1. Disengage snowblower.
  2. Lower snowblower onto ground.
  3. Set parking brake.
  4. Stop the engine, remove the ignition key & disconnect the wire from spark plug(s) and keep away from spark plug(s).
  5. Make sure all moving parts have stopped.

### MAINTENANCE

Check mounting bolts at frequent intervals for proper tightness to be sure that equipment is in proper working conditions.

### LUBRICATION

Drive Chains: Lubricate with chain saw chain lubricant every 4 hours of operation and at the end of each operation.

Chute Rotation System: Oil chute base, rotation worm bushings and rotation hook every 8 hours of operation.

Rotative driveline: Lubricate the rotative driveline joints every 8 hours of operation and the splines so that they slide easily into each other every 16 hours of operation.

### CHAIN ADJUSTMENT

#### Auger chain drive:

Loosen chain idler bolt (see snowblower head, item 48). Set chain tension leaving 1/2" deflection in longest chain span. Tighten idler arm bolt securely.

#### Main Chain Drive:

Remove cover (see snowblower head, item 44) and loosen the four flange nuts which retain the reduction box (item 38). Set chain tension leaving 1/4" deflection in longest chain span. Tighten bolts & nuts securely.

### SHEAR BOLT REPLACEMENT:

#### Fan Shear Bolt Replacement:

The fan is protected by a shear bolt (for identification see Replacement Parts list( Snowblower head, item 20). If a foreign object is hit, the snowblower is designed so the shear bolt will shear to avoid damage to the snowblower. Replace with original part (Part # 103184). The use of any other bolt may void the warranty.

#### Auger Shear Bolt Replacement:

The auger is protected by a shear bolt (for identification see Replacement parts list( Snowblower head, item 22). If a foreign object is hit, the snowblower is designed so the bolt will shear to avoid damage to the snowblower. Replace with original part (Part # 102038). The use of any other bolt may void the warranty.

#### To remove the damaged auger shear bolt:

The hole (situated directly to the right of the shear bolt) is used as an alignment guide. Turn the rotative driveline until the holes are aligned and push the the part of the shear bolt that is still in the hole. Reinstall a new bolt and secure with a nut.

# **MAINTENANCE & DISMOUNTING**

## **DISMOUNTING**

### **SNOWBLOWER DISMOUNTING**

- a) Select a level surface, set parking brake, stop the engine, remove the ignition key and remove wire from the spark plug(s) and keep away from spark plug to prevent accidental starting.
- b) Remove hairpin from handle tube and remove handle.
- c) Disconnect the driveline from tractor P.T.O. by sliding back the collar on the yoke then pull the driveline out.
- d) Detach the snowblower by lifting up the spring locks on quick hitch and pulling back the snowblower.

### **SUBFRAME DISMOUNTING**

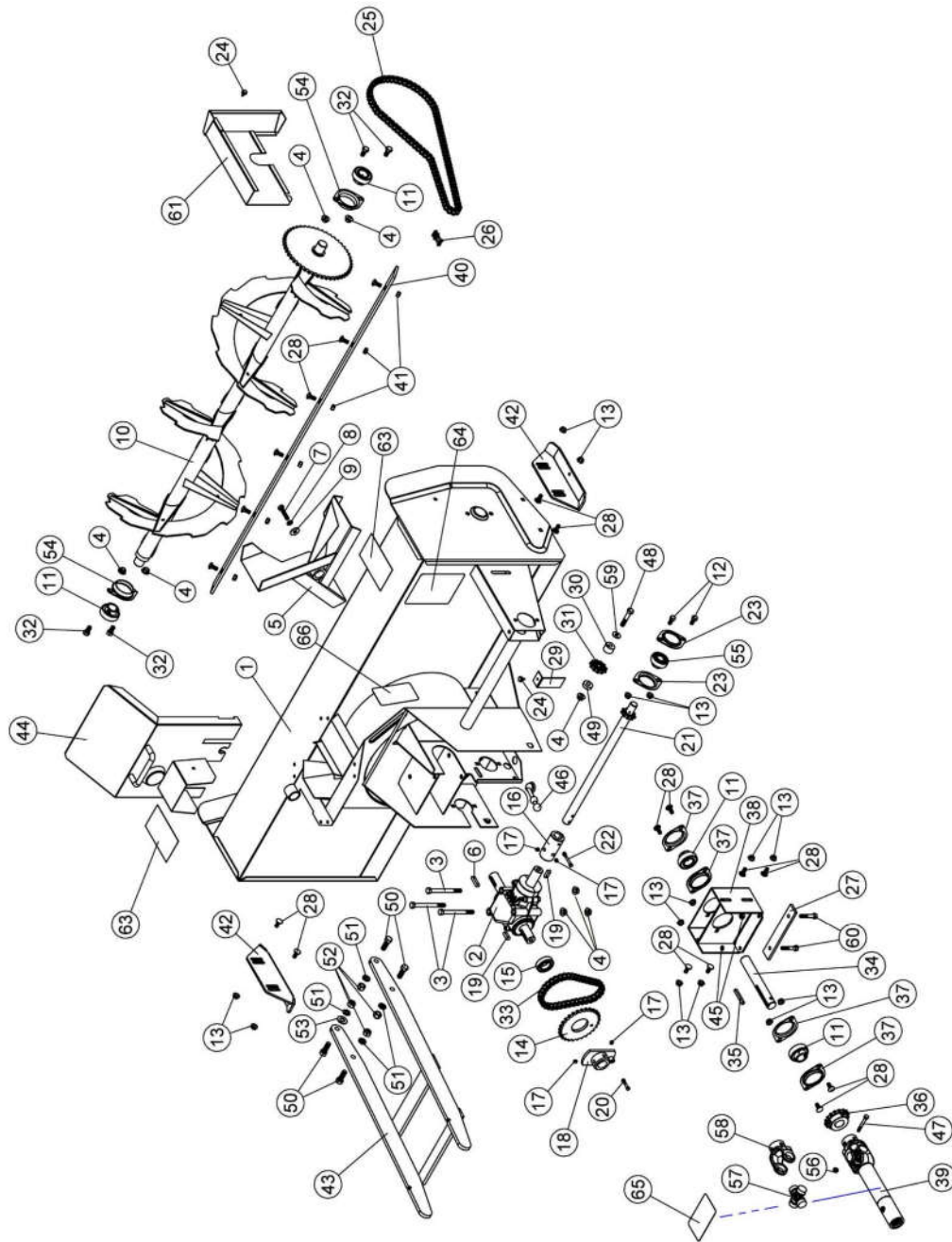
See the subframe owner's manual for dismounting instructions.

## **END OF SEASON STORAGE**

- Clean snowblower and subframe thoroughly and repair all parts from which paint has worn.
- List the replacement parts that will be needed before using again.
- Store the snowblower and the subframe in a dry place.

# SNOWBLOWER HEAD

Head 300





## PARTS LIST

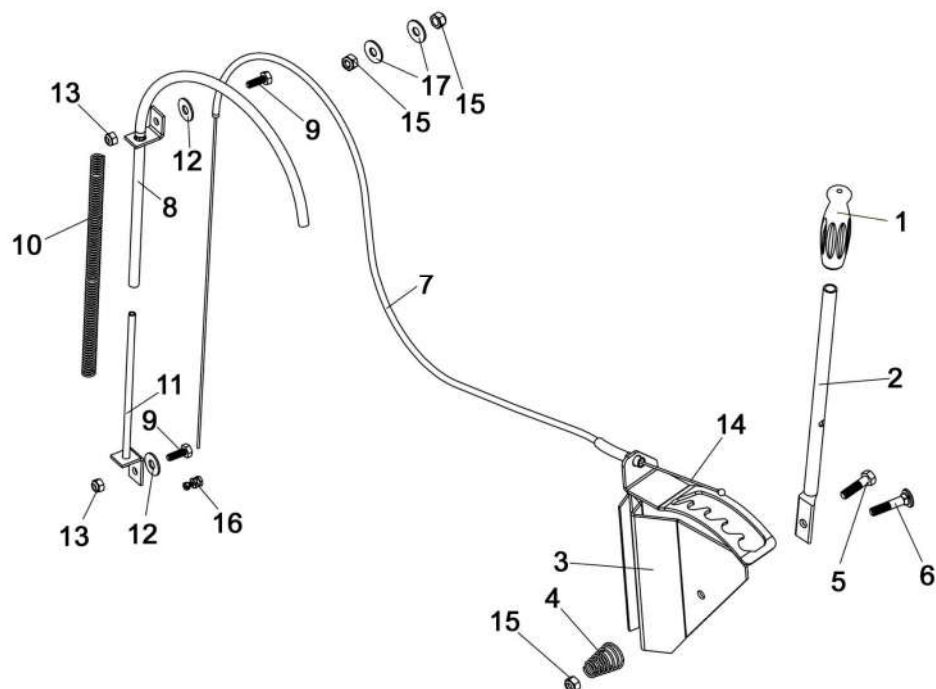
Reference	Description	Qty	Part #
1	Frame 48"	1	103190
2	Gear box	1	102091
3	Bolt 3/8 x 4"	3	O/L
4	Flange nut 3/8	8	O/L
5	Fan	1	102001
6	Key 8 x 7 x 35mm	1	102035
7	Bolt 8mm x 1.25 x 25mm	1	O/L
8	Lock washer 5/16"	1	O/L
9	Flat Washer 3/8 hole	1	O/L
10	Auger	1	103200
11	Flushmount bearing 1.00" w/set screw	4	102755
12	Hex bolt 5/16 x 3/4	2	O/L
13	Flange nut 5/16	14	O/L
14	Sprocket	1	102921
15	Bearing	1	102095
16	Shear sleeve	1	102097
17	Socket set screw 5/16 nc x 5/16	4	O/L
18	Shear plate	1	103183
19	Key 8 x 7 x 25mm	2	102030
20	Shear bolt/N.I.Locknut 5 x .8 x 30mm (Impeller)	1	103184
21	Drive shaft 48"	1	103185
22	Shear bolt /N.I.Locknut 5 x .8 x 45mm (Auger)	1	102038
23	Flangette	2	102212
24	Self tapping screw 1/4 x 1/2"	2	O/L
25	Chain roller #40 x 92 links / connecting link	1	102022
26	Connecting Link #40	1	102040
27	Retaining bar	1	103189
28	Carriage bolt 5/16 x 3/4	18	O/L
29	Chain guard	1	102041
30	Idler spacer	1	102242
31	Idler sprocket	1	102027
32	Hex bolt 3/8 x 3/4 nc	4	O/L
33	Chain roller #40 x 38 Link / Connecting link	1	102924
34	Input shaft	1	102148
35	Key 1/4 x 1/4 x 2	1	102922

## PARTS LIST

Reference	Description	Qty	Part #
36	Sprocket w/set screw	1	102917
37	Flangette	4	102213
38	Reduction box	1	103186
39	Half teles. drive shaft w/set screw	1	102898
40	Cutting edge	1	103187
41	Lock nut 5/16"	6	O/L
42	Skid shoe	2	103188
43	Male Hitch	1	102911
44	Reduction cover	1	102926
45	Nylon Insert Lock Nut 5/16	2	O/L
46	Rubber Latch	1	102547
47	Hex bolt 1/4 x 2"	1	O/L
48	Hex. bolt 3/8 x 2	1	O/L
49	Idler spacer	1	102241
50	Hex bolt 7/16 x 1 1/4"	4	O/L
51	Lock washer 7/16	4	O/L
52	Nylon Insert Lock nut 7/16"	4	O/L
53	Flat washer 1/2Ø hole	1	O/L
54	Flangette	2	102680
55	Bearing 3/4" w/set screw	1	102864
56	Nylon Insert Lock Nut 1/4	1	O/L
57	Universal Joint Kit	1	102928
58	Yoke 1" dia	1	102929
59	Flat washer 5/16Ø hole	1	O/L
60	Hex bolt 5/16 x 1 3/4	2	O/L
61	Chain guard	1	102698
62	Decal	1	102629
63	Danger decal	2	102126
64	Warning decal	1	102124
65	Danger decal	1	102113

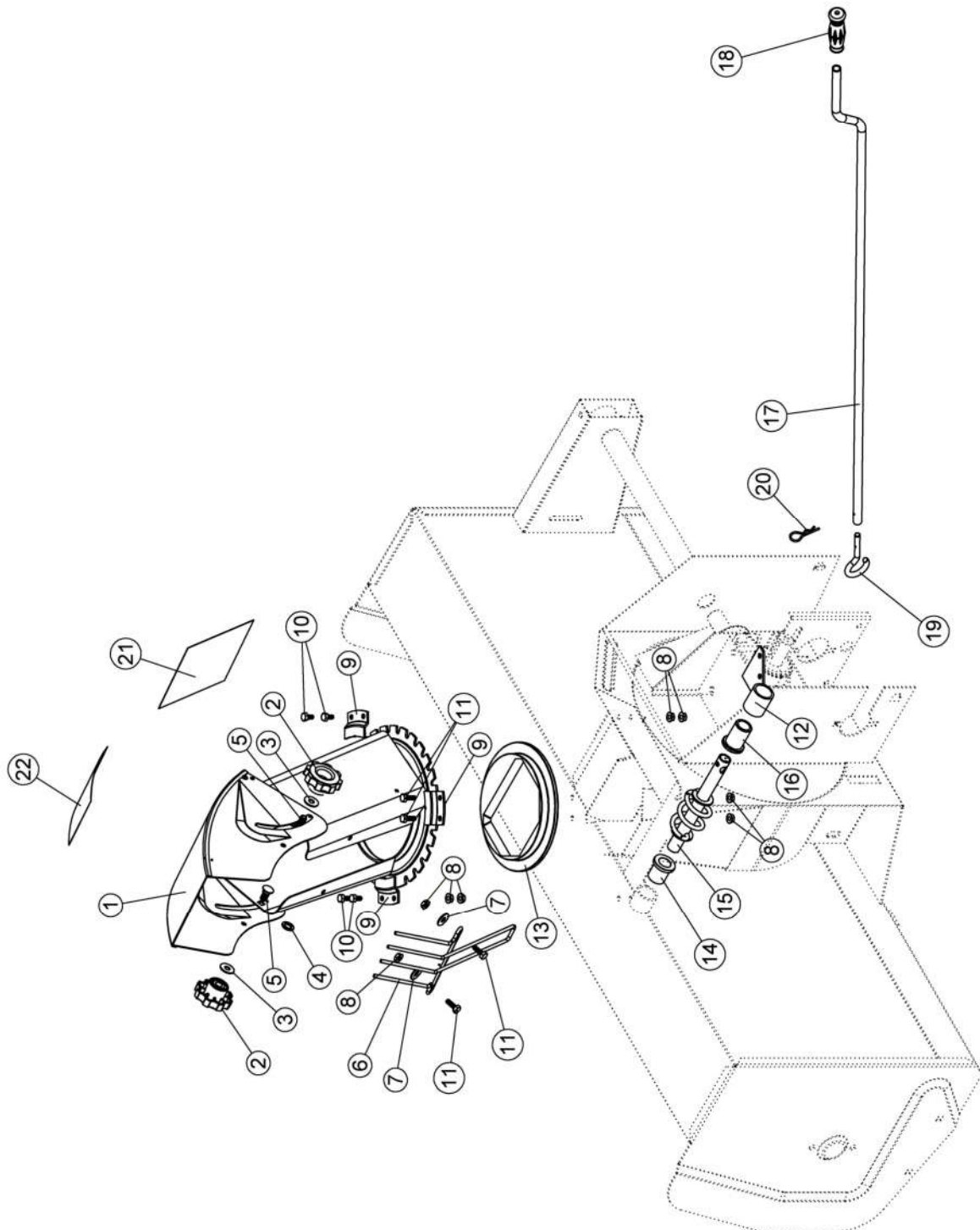
O/L= Obtained locally

## CHUTE DEFLECTOR KIT (OPTION)



REF.	DESCRIPTION	QTY.	PART NO.
1	Handle grip	1	102062
2	Arm	1	103155
3	Arm support	1	103152
4	Cone spring	1	102302
5	Hex bolt 5/16 x 1 1/4"	1	O/L
6	Carriage bolt 5/16 x 1 1/2"	1	O/L
7	Cable shield	1	102539
8	Top actuator	1	103153
9	Hex bolt 1/4 x 3/4"	2	O/L
10	Compression spring	1	102301
11	Bottom actuator	1	103154
12	Flat washer 5/16"	2	O/L
13	Nylon insert locknut 1/4"	2	O/L
14	Inner cable	1	103039
15	Nylon insert locknut 5/16"	3	O/L
16	Wire stop	1	103150
17	Nylon washer 11/32"	2	102009

# ROTATION SYSTEM WITH CHUTE



## PARTS LIST

Reference	Description	Qty	Part #
1	Chute	1	102058
2	Knob	2	102020
3	Nylon flat washer 11/32"	2	102009
4	Nylon flat washer 7/16	2	102011
5	Carriage bolt 5/16" x 3/4"	2	O/L
6	Hand guard	1	102012
7	Flat washer 5/16ø hole	2	O/L
8	Flange nut 1/4"	10	O/L
9	Retaining plate	4	102007
10	Hex bolt 1/4" x 1/2"	6	O/L
11	Hex bolt 1/4" x 3/4"	4	O/L
12	Worm support	1	102014
13	Rotation ring	1	102016
14	Rotation bushing	1	102060
15	Rotation worm	1	102005
16	Rotation bushing	1	102059
17	Handle	1	102061
18	Handle grip	1	102062
19	Handle hook	1	102006
20	Hair pin 2.5 mm	1	102013
21	Warning decal	1	102125
22	Danger decal	1	102127

# TORQUE SPECIFICATION TABLE

## GENERAL TORQUE SPECIFICATION TABLE (Revised 2-74) USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal engine oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

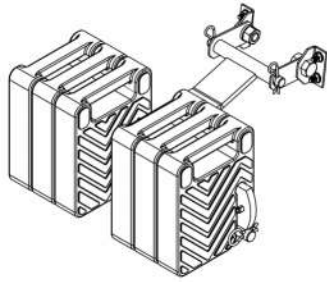
SEE Grade No.		2				5				8 *			
BOLT HEAD IDENTIFICATION MARKS AS PER GRADE - NOTE: MANUFACTURING MARKS WILL VARY		TORQUE				TORQUE				TORQUE			
BOLT SIZE		POUNDS FEET		NEWTON-METERS		POUNDS FEET		NEWTON-METERS		POUNDS FEET		NEWTON-METERS	
Inches	Millimeter	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1/4"	6.35	5	6	6.8	8.13	9	11	12.2	14.9	12	15	16.3	30.3
5/16"	7.94	10	12	13.6	16.3	17	20.5	23.1	27.8	24	29	32.5	39.3
3/8"	9.53	20	23	27.1	31.2	35	42	47.5	57.0	45	54	61.0	73.2
7/16"	11.11	30	25	40.7	47.4	54	64	73.2	86.8	70	84	94.9	113.9
1/2"	12.7	45	52	61.0	70.5	80	96	108.5	130.2	110	132	149.2	179.0
9/16"	14.29	65	75	88.1	101.6	110	132	149.2	179.0	160	192	217.0	260.4
5/8"	15.88	95	105	128.7	142.3	150	180	203.4	244.1	220	264	298.3	358.0
3/4"	19.05	150	185	203.3	250.7	270	324	366.1	439.3	380	456	515.3	618.3
7/8"	22.23	160	200	216.8	271.0	400	480	542.4	650.9	600	720	813.6	976.3
1"	25.4	250	300	338.8	406.5	580	696	786.5	943.8	900	1080	1220.4	1464.5
1 1/8"	25.58	-	-	-	-	800	880	1084.8	1193.3	1280	1440	1735.7	1952.6
1 1/4"	31.75	-	-	-	-	1120	1240	1518.7	1681.4	1820	2000	2467.9	2712.0
1 3/8"	34.93	-	-	-	-	1460	1680	1979.8	2278.1	2380	2720	3227.3	3688.3
1 1/2"	38.1	-	-	-	-	1940	2200	2630.6	2983.2	3160	3560	4285.0	4827.4

THICK NUTS MUST BE USED WITH GRADE 8 BOLTS

## METRIC BOLT TORQUE SPECIFICATIONS

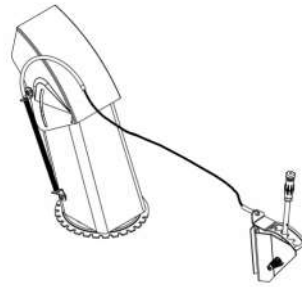
Size Screw	Grade No.	COARSE THREAD			FINE THREAD		
		Pitch (mm)	Pounds Feet	Newton-Meters	Pitch (mm)	Pounds Feet	Newton-Meters
M 6	4 T	1.00	3.6-5.8	4.9-7.9	-	-	-
	7 T		5.8-9.4	7.9-12.7		-	-
	8 T		7.2-10	9.8-13.6		-	-
M 8	4 T	1.25	7.2-14	9.8-19	1.00	12-17	16.3-23
	7 T		17-22	23-29.8		19-27	25.7-36.6
	8 T		20-26	27.1-35.2		22-31	29.8-42
M 10	4 T	1.50	20-25	27.1-33.9	1.25	20-29	27.1-39.3
	7 T		34-40	46.1-54.2		35-47	47.4-63.7
	8 T		38-46	51.5-62.3		40-52	54.2-70.5
M 12	4 T	1.75	28-34	37.9-46.1	1.25	31-41	42-55.6
	7 T		51-59	69.1-79.9		56-68	75.9-92.1
	8 T		57-66	77.2-89.4		62-75	84-101.6
M 14	4 T	2.00	49-56	66.4-75.9	1.50	52-64	70.5-86.7
	7 T		81-93	109.8-126		90-106	122-143.6
	8 T		96-109	130.1-147.7		107-124	145-168
M 16	4 T	2.00	67-77	90.8-104.3	1.50	69-83	93.5-112.5
	7 T		116-130	157.2-176.2		120-138	162.6-187
	8 T		129-145	174.8-196.5		140-158	189.7-214.1
M 18	4 T	2.00	88-100	119.2-136	1.50	100-117	136-158.5
	7 T		150-168	203.3-227.6		177-199	239.8-269.6
	8 T		175-194	237.1-262.9		202-231	273.7-313
M 20	4 T	2.50	108-130	146.3-176.2	1.50	132-150	178.9-203.3
	7 T		186-205	252-277.8		206-242	279.1-327.9
	8 T		213-249	288.6-337.4		246-289	333.3-391.6

## OPTIONS



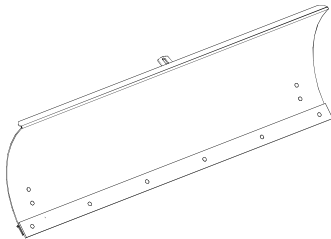
### #700240 REAR WEIGHTS UNIVERSAL

Required for safety & better traction 160 lbs.



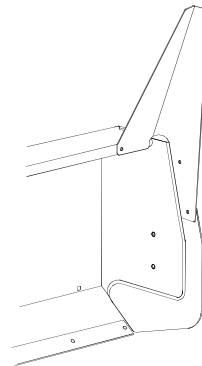
### #700239 CHUTE DEFLECTOR KIT

Adjusts height at which snow may be thrown from driver's seat.



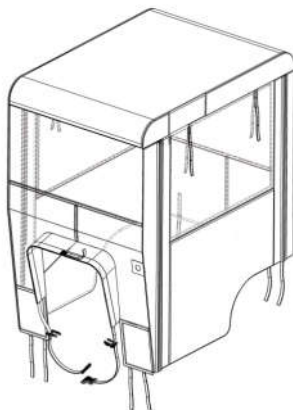
### # 700266 DOZER BLADE 48"

Robust. Mounts on same subframe as snowblower. Angle adjustable from driver seat. Skid shoes/ cutting edge are replaceable.



### # 700261 SNOW DRIFT CUTTER

Slices through high snow drifts to facilitate and increase snow intake. Installed on both ends of blower housing. Package of 2.



### # 700271 TRACTOR CAB

Universal fit. Easy to install. Galvanized steel frame with cold resistant polyethylene and flexible vinyl. Top quality at a very moderate price.

### TIRE CHAINS

Two link spacing. Recommended for better traction and safety. Wide variety of sizes available. Package of 2.