



Olympia 500

Welcome to the Olympia Advantage

The entire Olympia's Product line is designed and built to exacting standard to provide trouble free performance. Like all mechanical equipment however, trouble free performance requires a complete maintenance and proper operating procedures to be followed. Failure to follow a complete and on-going maintenance program will invalidate the Resurfice Corp. warranty on the Olympia 500.

Purchaser:

Address:
.....
.....
.....

Model:

Serial Number:

Date Delivered:

We have included a maintenance log form at the back of this manual to assist you in maintaining a permanent record of the maintenance carried out on the Olympia 500.

The illustrations and product information contained in this manual were current at the time of publication. In order to continue Resurfice Corp.'s development of its technology, Resurfice Corp. reserves the right to change designs, models and specifications without notice and without liability for such changes.

Resurfice Corp. warrants the components of your Olympia 500 against defects in material and workmanship, for one full year from the date of delivery.

For the continued safe, economic operation and to validate the Resurfice Corp. warranty, the over all maintenance and operation of your Olympia 500 must strictly follow the guideline outlined in this manual.

Resurfice Corp. or an authorized dealer must first authorize all warranty repairs.

No warranty on this machine will be honored by Resurfice Corp. other than that stated above.

Before Operating Your Olympia 500 Ice Resurfacer

Congratulations on buying the finest tractor mounted resurfacing machine made. Before you start to operate your new "Olympia 500", we strongly recommend that you read your Owner's and Parts Manual thoroughly. In it, you will find all the information needed for years of trouble free operation.

Your new "Olympia 500" was inspected before delivery, however, due to vibrations caused by transportation, all bolts, set screws, fasteners, shields, etc. should be checked for tightness upon arrival. Following the first week of use, you should re-check these same bolts, set screws, fasteners and shields again. After your machine has been in use for a period of time, periodic preventative maintenance checks should be performed. In fact, for maximum performance, we suggest that you establish and follow a comprehensive maintenance schedule.

In the interest of safety, the operator should keep in mind that he is operating a heavy and powerful piece of equipment. It is also recommended that no person, other than the operator, be permitted to ride on the machine, while it is in operation.

"OLYMPIA 500" FEATURES

- One man operation for cleaning, scraping and resurfacing
- Simple on/off design frees tractor for summer work
- All galvanized steel flood pipes
- Controls within easy reach of the operator
- Easy maintenance by your own staff
- Fits any 3 point tractor hitch
- Easily accessible snow tanks
- Resurfacer can be hooked up in minutes
- Service and parts are readily available

SPECIFICATIONS

Height.....	67" (170.2 cm)
Width.....	82 1/2" (209.6 cm)
Length.....	43" (109.2 cm)
Weight (empty).....	1200 lbs. (544.3 kg)
Water tank capacity.....	approx. 90 gal. (409.1 L / 408.1 U.S. Gal.)
Snow bin capacity.....	50 cu. Ft. (1.415 cum)
Ice shaver blade.....	80" x 5" x 1/2" (203.2 x 12.7 x 1.3 cm)

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Tractor

It is important that your tractor be equipped with the following to give you peak performance. Waffer or ballist pack (mounted on the front of the tractor) to counter-balance the weight of the OLYMPIA 500 when it is full of water.

Studded front and rear tires. This will give you optimum traction and steering.

Swaybars are essential to prevent your machine from swaying from side to side.

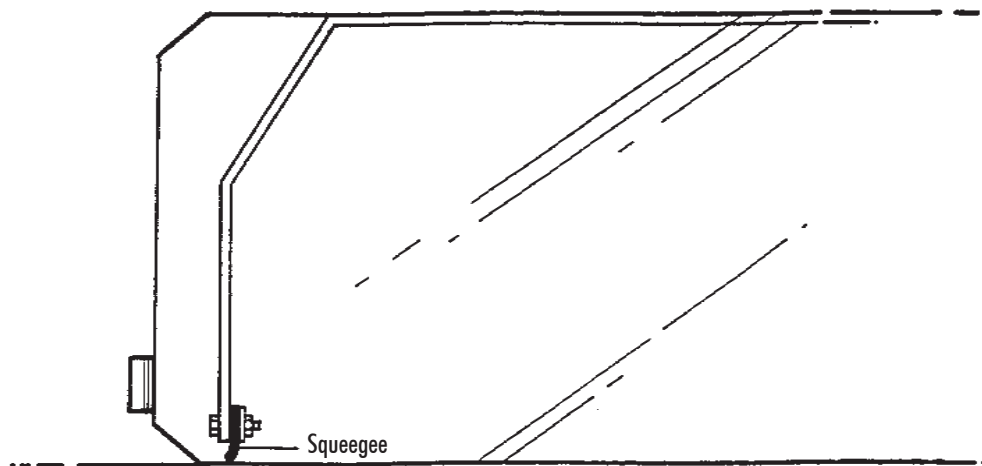
"Liquid" filled tires to reduce bounce and increase traction.

A hydraulic pump with a capacity of between 5 and 8 Imperial gallons (22.7 l x 36.3 l). If your tractor pumps more than 8 G.P.M. (36.3 L.P.M.) you will probably require a flow control valve to regulate the bottom auger RPMs which should be approximately 300 rpm.

The initial Setup of the Olympia 500 Ice Resurfac-acer

1. Attach spreader cloth to spreader cloth holder with the shorter bolts supplied (3/8" x 1").

2. The squeegee should be installed on the inside of the resurfac-acer rather than on the outside. This will prevent any snow from sliding out the sides and leaving a ridge. Use the 3/8" x 1 1/4" bolts to secure the squeegee. The ends of the squeegee should be trimmed for a tight fit.



Due to the EXTREME sharpness of the blade, caution and the utmost care should be used when handling it.

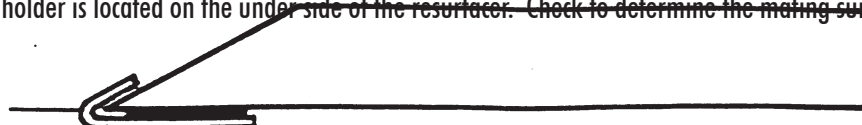
3. A blade protector had been provided - please use it!

When you are installing or removing a blade, place the protector on the blade with the magnetic strips on the bottom. REMEMBER to remove the blade protector AFTER the bolts have been properly tightened.

Do not operate your "OLYMPIA 500" with the blade protector on the blade.

3. The blade holder is located on the under side of the resurfac-acer. Check to determine the mating surfaces are free of any

Blade protector



How To Install The Blade

foreign matter. The blade and the blade holder should be covered with a light coating of oil before installing the blade to prevent rust.

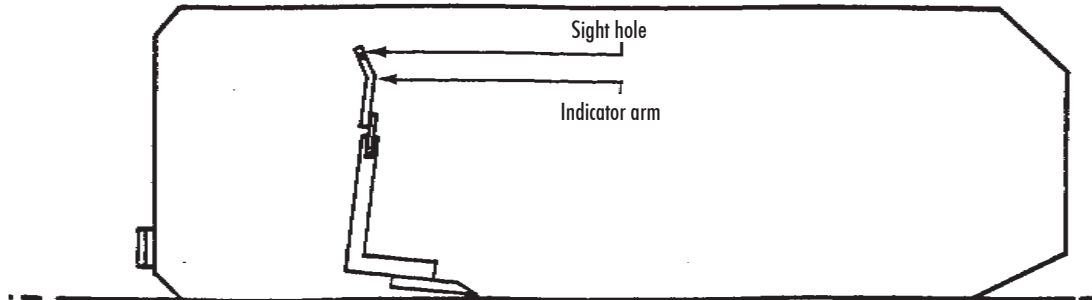
- a. Raise the OLYMPIA 500 off the floor.
- b. Place two short blocks behind the conditioner and place the sharpened blade on blocks and then slide the blocks and blade into the appropriate position for installing.
- c. Bolt one end of the blade to the blade holder (finger tight) and the bolt the other end to the blade holder (also finger tight). Then install the rest of the bolts and nuts finger tight.
- d. After all the bolts are in place, you start in the centre of the blade and tighten the bolts and nuts with wrenches working you way to the outside, OR you can start at one end and work your way to the opposite end. **DO NOT JUMP AROUND WHEN TIGHTENING - THE BOLTS MUST BE TIGHTENED CONSECUTIVELY.**

DO NOT USE LOCK WASHERS AS THEY WILL DAMAGE THE BLADE HOLDER.

4. This is one of the most critical settings.

To adjust the blade angle:

- a. Raise the resurfacer to an up position.
- b. Turn the blade adjustment crank until the indicator arm covers the sight hole.



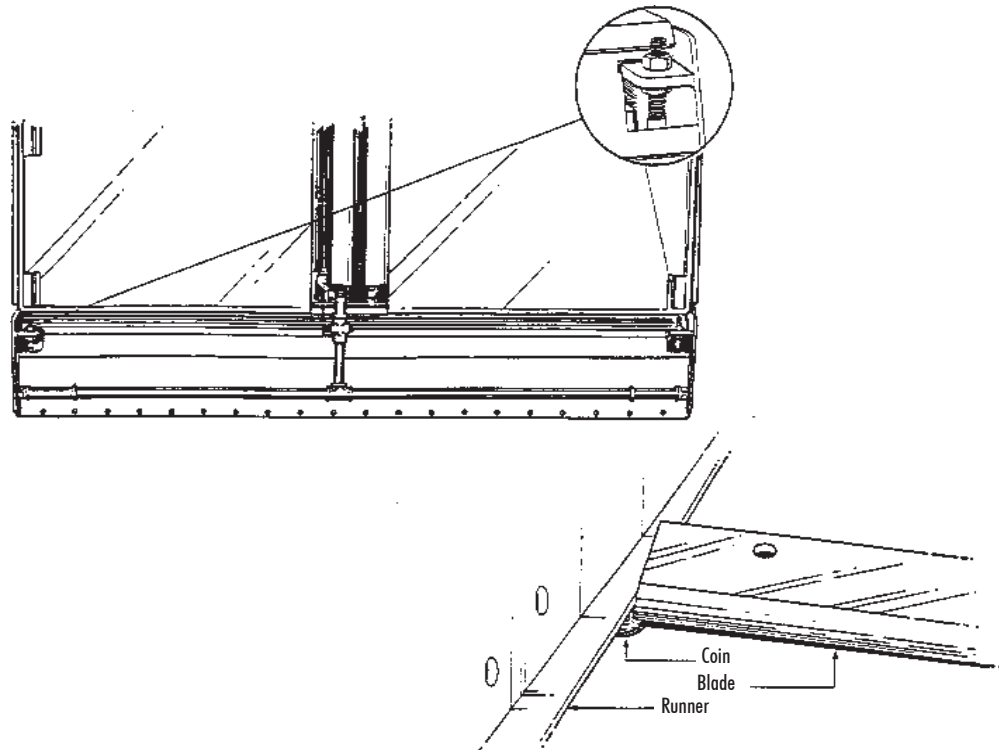
c. Adjust the blade level adjusters until the leading edge of the blade is even with the bottom of the runners. It is quite helpful to use a large coin to check the alignment.

d. Recheck to insure the indicator arm still covers the sight hole. If it does not, repeat steps B and C.

At this point your blade level and angle is set at zero position and the majority of the blade will be about 1/16" (0.2 cm) below the runners.

After you have your **BLADE ANGLE** set with the bar covering the sight hole you will be taking 1/16" (0.2 cm) of a cut. This amount would normally be quite heavy, therefore you will have to raise the blade slightly. To raise the blade turn the blade adjustment crank counter-clockwise.

NOTE: After correct adjustment of **BLADE ANGLE**, with the bar covering the sight hole and the cutting edge of the blade flush with the bottom runner, raising or lowering the cutting depth will alter the bar in the sight hole. However, normal blade



depth adjustments are within blade angle tolerances and a further adjustment of the **BLADE ANGLE** is not necessary.

As your blades get shorter due to grinding, you will have to change setting to maintain the proper blade angle.

NOTE: Blades should be used in rotation so that they are all about the same width. Do not use a wide blade one time and a short blade the next time, because you will have to change your blade angle each time.

5. **CAUTION:** When the blade has been installed the runner should rest on wood planks to avoid damage to the blade.
6. Connect hydraulic hoses from the motor on the resurfacer to the tractor hydraulics.
7. Raise the ice resurfacer and proceed to the ice surface, so that you can check adjustments.
8. Lower the resurfacer slowly to the ice and make 3 point hitch adjustments so that the runners sit flat on the ice with **NO TENSION ON THE TOP LINK.**
9. Engage tractor hydraulics which will put the augers and elevator in motion.
10. Make a short trial scrape to ensure that all the adjustments have been made properly.
11. Your machine is now ready for resurfacing.

DO NOT FILL THE WATER TANKS IF YOU ARE JUST SHAVING AS THE TRACTOR WILL NOT LIFT THE RESURFACER WHEN IT IS LOADED WITH BOTH SNOW AND WATER.

When performing a resurfacing operation it is best to drive your machine at a **CONSTANT** speed.

It is essential that the blade be sharp at all times, if the machine is to operate properly. Although not all conditions are the same it has been found that blades require sharpening after approximately 100 resurfacings.

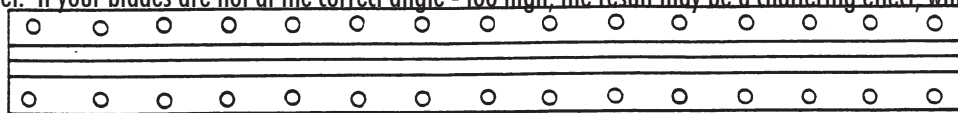
Blade Sharpness

Your "OLYMPIA 500" ice resurfer is equipped with a hardened high quality alloy steel blade which is 58 to 62 Rockwell hard. When you are purchasing replacement blades, other than from us, beware of poor quality blades, e.g. SOFT METALS.
 NOTE: You should beware of poor quality sharpening services, e.g. The burs from grinding must be honed off.

Blade Sharpening

STRAIGHT - The blade should be sharpened so that it is straight. To check to make sure your blades are being sharpened straight, just lay two sharpened blades on a flat surface with the sharpened ends of the blades, sharpened edge to sharpened edge. Then make sure that the edges are touching for the full length of the blades.

ANGLE - When you get your blades sharpened, the blades should be ground at a 27 degree angle and should be ground with one bevel. If your blades are not at the correct angle - too high, the result may be a chattering effect, while if the angle

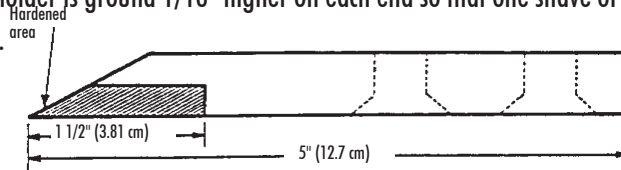


is too low the blade will not shave the ice.

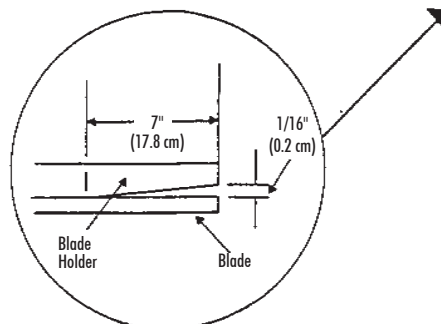
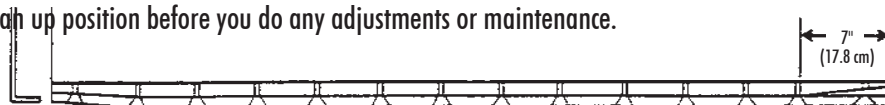
LONGEVITY - The blades that were supplied with your "OLYMPIA 500" are exhausted when approximately 1 1/2" (3.81 cm) has been removed by having them sharpened.



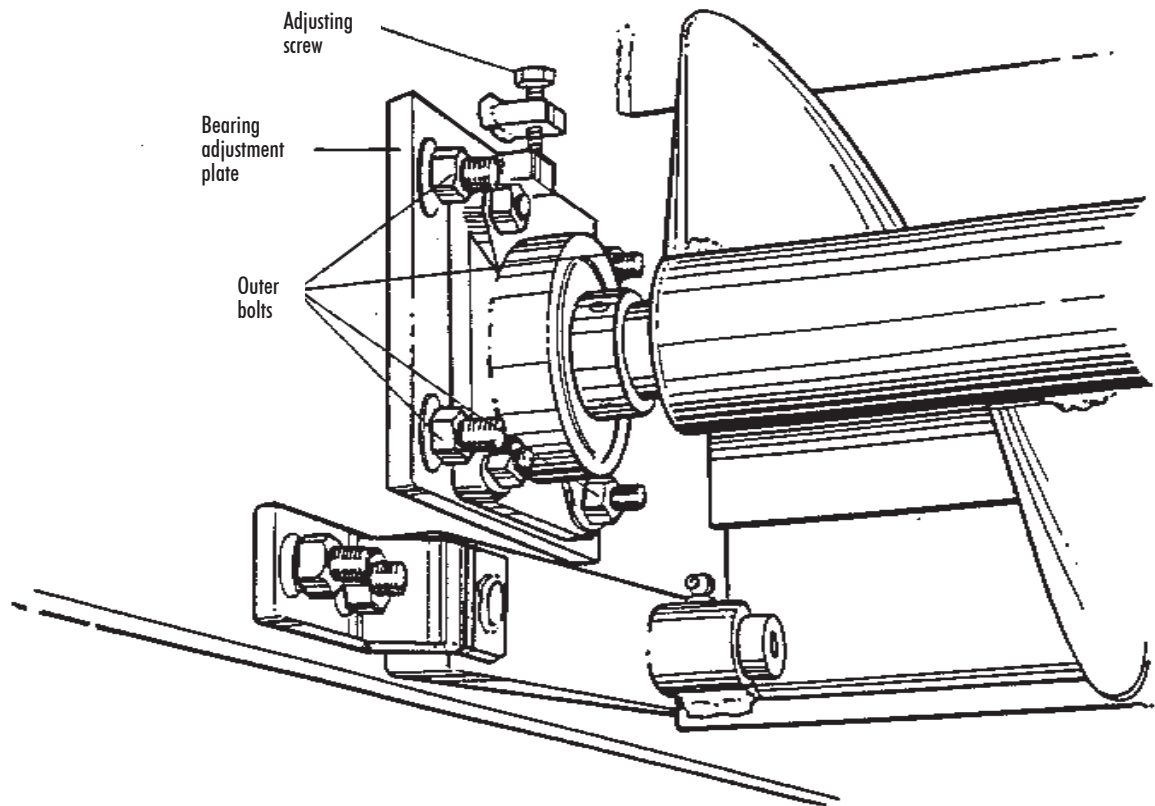
BLADE HOLDER - The blade holder is ground 1/16" higher on each end so that one shave of the ice is feathered into the adjoining shave to prevent ridges.



Keep your feet and hands away from under the conditioner when raising or lowering. Be sure you have blocked the conditioner in an up position before you do any adjustments or maintenance.



Auger Adjustment



When you are doing a flood and you find that there are diagonal marks left on the ice it is an indication that the ice surface may be uneven, your auger is set too low or that your auger is bent. If you find that a large amount of snow is being carried in front of the auger, it is because you have set the auger too far from the ice surface.

To correct these problems you adjust your auger as follows:

1. Loosen the four outer bolts on the bearing adjustment plate.
2. Turn the adjusting screw IN if the auger is TOO FAR from the ice surface.
3. Turn the adjusting screw OUT if the auger is TOO CLOSE to the ice surface. You will also have to physically pry the auger up because loosening the adjusting screw will not automatically raise the auger since the adjusting screw is not attached to the bearing adjustment plate.
4. To check the distance for the proper height or depth, run a string across the bottom of the runners at the lowest point of the auger and measure the distance between the string and the auger. The proper amount of space between the ice and the bottom of the auger is $1/16$ " (0.2 cm) to a maximum of $1/8$ " (0.125 cm).
5. Re-tighten the four outer bolts on the bearing adjustment plate.
6. After you made the auger adjustment, be sure to check the elevator chain tension and adjust it if required.

This adjustment is very critical for the operation of your machine as well as to the life of the chain and paddles. You should check the alignment and tension weekly.

How To Adjust The Elevator Chain

1. Loosen the motor mounting bolts.
2. You set the elevator chain tension by loosening or tightening the nut on the elevator take-up bearing until the chain is snug, but not overly tight. You must do both sides equally to keep the chain level.
3. Now you re-adjust the motor chain tension and re-tighten the motor mounting bolts.

Care should be taken to ensure persons do not put their hands or fingers near the elevator chain while the machine is running.

How To Install A New Elevator Chain

1. You install the elevator chain on the machine with the paddles NOT tightened.
2. Disconnect the conditioner and tip it back onto a saw horse so that the paddles are easily accessible to be tightened down.
3. THE PADDLES MUST BE TIGHTENED OVER THE BOTTOM SPROCKET.
4. Tap the paddles on the back side when they are over the bottom sprocket after you have tightened them down.
5. You should always change at least the bottom sprocket when installing a NEW chain.

How To Install A New Bottom Sprocket

1. Clean the auger shaft where the sprocket is to be installed with a file or grinder.
2. Centre the sprocket between the elevator chute opening. The two halves should be installed so that the numbers are the same on both sides.
3. Tighten the bolts so that the space between the two halves is the same on both sides. The space should be about a 1/16" (0.2 cm).

This is set at the factory. If you find that one of the bins fills up faster than the other, loosen the three (3) allen head screws on the upper auger flighting collars and then slide the auger flighting towards the tank filling up the fastest. Now you can re-tighten the three allen head screws. Test at 1/4" (0.64 cm) at a time.

How To Adjust The Upper Auger

Your water temperature should be 140° F. (60° C.). You require hot water to get a good bond to the existing ice, and you also get denser ice because more of the oxygen has been removed from the water. Hot water gives you better ice finish with the use of less water as well as no ice build up.

Now You Are Ready To Add Water

Drain tanks after every resurfacing operation by leaving the water tap open and letting the remaining water flow out through the flood pipes. When preparing for the resurfacing operation, fill your tanks with fresh HOT water.

NOT following this procedure will result in a poor ice surface.

The amount of ice shavings picked up from a resurfacing operation should equal the amount of water that is used, otherwise you will get a build up of ice. If you find that you ice is building up, you will have to periodically just shave without flooding to prevent this build up.

The flood pipes have been drilled out to 1/8" (0.32 cm) holes. If you feel that this amount of water is still not sufficient, then enlarge the holes.

As stated at the beginning, we suggest that you establish and follow a comprehensive maintenance and service schedule.



Preventative Maintenance

If you follow this schedule your OLYMPIA 500 will give you years of excellent service. To avoid major problems, you should make minor adjustments as you notice them. Other helpful hints are as follows:

1. Lubricate all bearings WEEKLY to ensure that no moisture is present.
2. Check the elevator chain and the motor chain tensions WEEKLY.
3. Change the blade every 75 to 100 scrapes.
4. Use the blades evenly to avoid unnecessary blade holder adjustments.
5. Be sure to thoroughly wash your machine after every flood.
6. Always use the hottest water possible when flooding 140° F. (60° C.)
7. Wax the snow bins for easy snow removal.
8. Always use only genuine RESURFICE CORP. replacement parts.

There is a complete overhaul service available during the off season by RESURFICE CORP. We recommend that this overhaul be done every two (2) years. Should you require any parts, they are immediately available from our Parts Department by telephoning (519) 669-1309 or you may pick them up at 25 Oriole Parkway East, Elmira, Ontario.

How To Properly Store Your Olympia 500

The storage area should be a room located as close as possible to the ice surface, as well as on the same level as the ice to eliminate the necessity of ramps. The area between the ice surface and the storage area should be a hard, clean surface so that dirt will not be tracked onto the ice.

Since your "OLYMPIA 500" is working with ice and water, the room should be heated above freezing. The room should also be equipped with a floor drain to remove the excess water and melting snow from the area surrounding the machine.

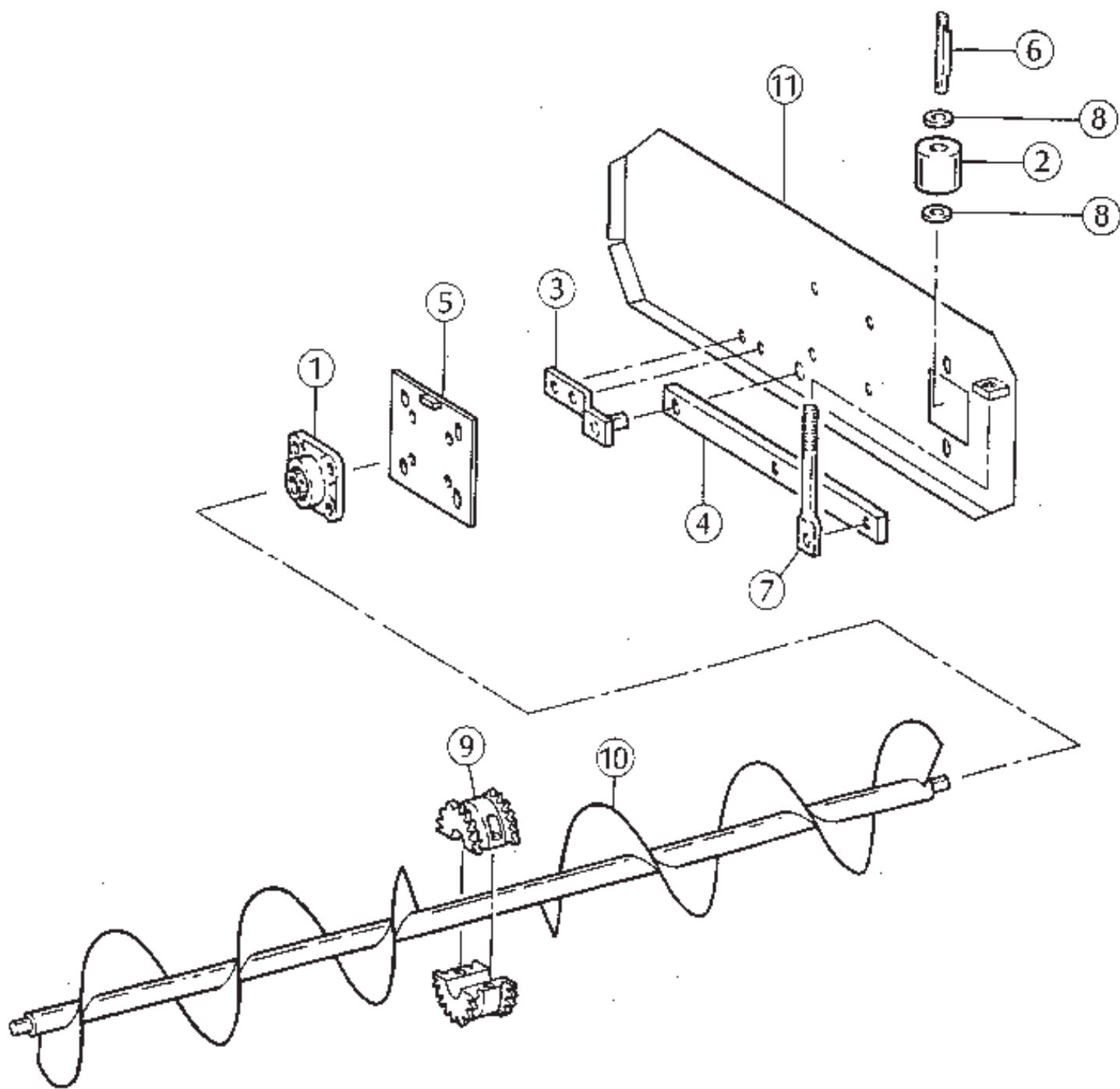
It is suggested that the water tanks should be completely drained and that the elevator shaft be flushed to clear any snow build-up.

AT NO TIME SHOULD AN ATTEMPT BE MADE TO CLEAR THE ELEVATOR SHAFT BY INSERTING YOUR ARM OR HAND WHILE THE MACHINE IS IN OPERATION.

SUMMER STORAGE FOR LONG LIFE

To protect your machine during prolonged storage the following procedure is suggested.

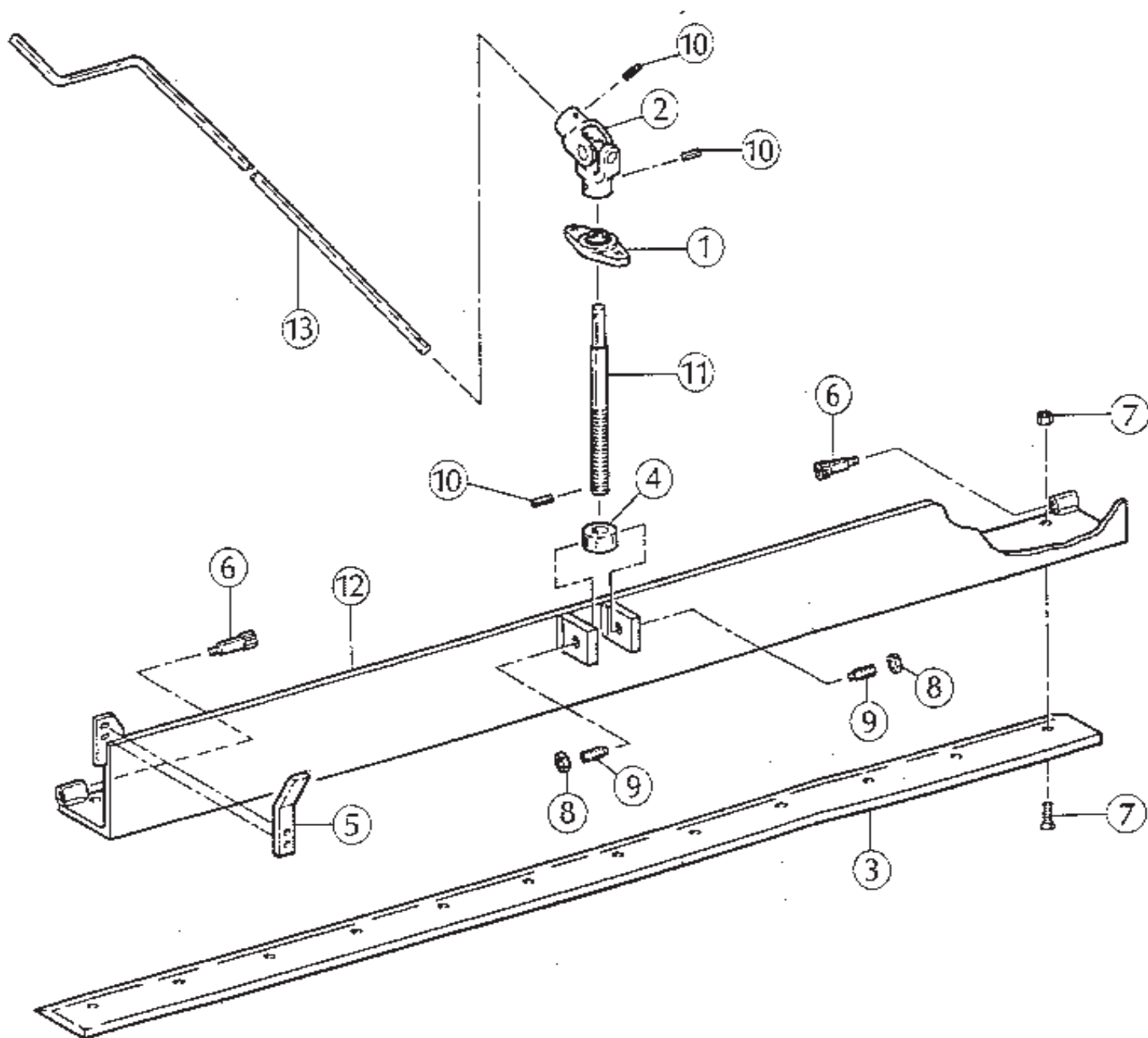
1. Grease all grease fittings.
2. Oil the elevator and motor chain.
3. Drain the water system and flush it with a rust and corrosive inhibitor.
4. Remove the blade and coat it with a rust inhibitor. Then store the blade in its wooden sheath.
5. Remove any rust with an emery cloth where the blade attaches to the holder and then coat with grease.

**Bottom
Auger
Assembly**



Bottom Auger Assembly

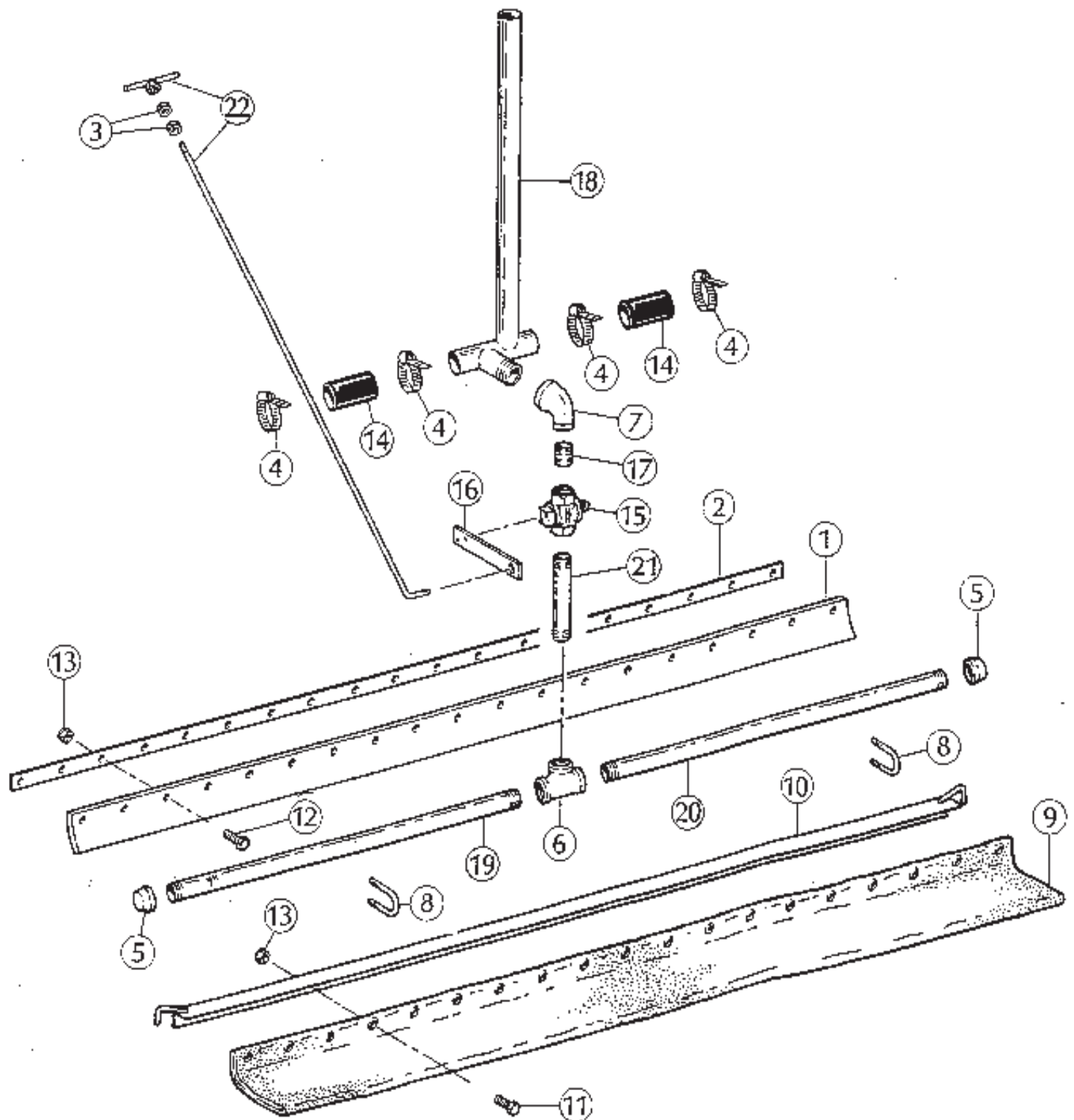
	Part Number	Description
1)	20-1250	4 Hole Flange Bearing 1 1/2" (3.8 cm)
2)	20-9270	Bumper Wheel - Conditioner
3)	20-21271	Arm Pivot Clamp Bracket
4)	20-21282	Blade Level Adjustment Arm 20" (50.8 cm)
5)	20-21330	Auger Bearing Adjustment Plate
6)	20-25640	Shaft - Bumper Wheel - Conditioner
7)	20-25800	Level Adjustment Rod
8)	49-36900	Washer-Bumper Wheel-Conditioner
9)	70-21120	Double Bottom Sprocket
10)	70-21420	Bottom Auger
11)	70-21780	Runner Right
12)	70-21781	Runner Left (not shown)

**Blade Holder
Assembly**



Blade Holder Assembly

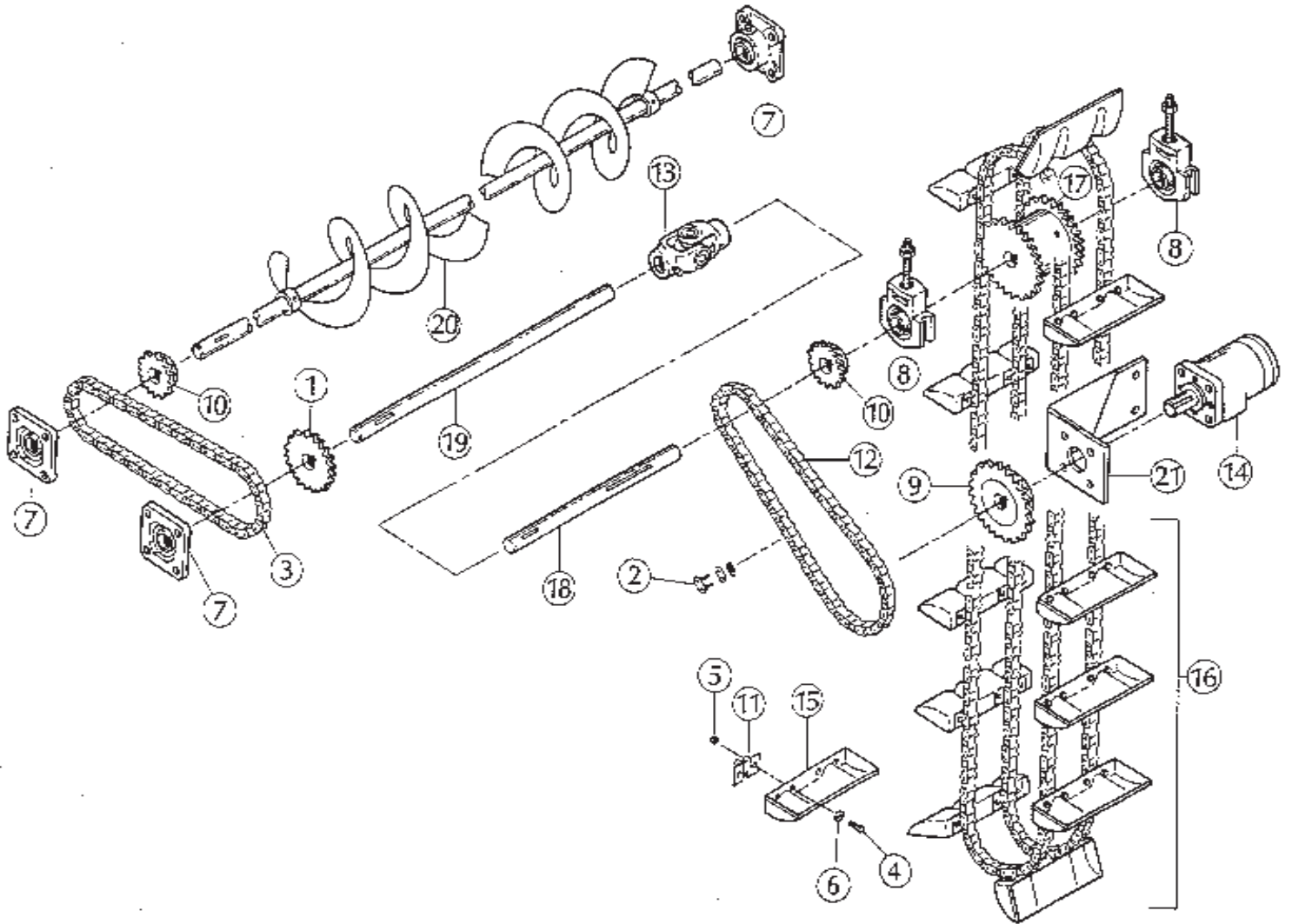
	Part Number	Description
1)	20-1240	2 Hole Flange Bearing 3/4" (1.9 cm)
2)	20-3560	Universal 3/4" (1.9 cm)
3)	20-9548	Blade 80" x 5" x 1/2" (302.2 cm x 12.7 cm x 1.3 cm)
4)	20-21260	Blade Adjustment Nut
5)	20-25650	Blade Angle Sight Bar
6)	49-21315	Blade Holder Pivot Bolt
7)	49-22000	Blade Bolt and Nut
8)	49-33910	Hex Head Jam Nut 1/2" - 13
9)	49-36950	Pivot Bolt - Adjustment Nut
10)	49-37800	Split Pin 1/4" x 1 1/2"
11)	70-21225	Blade Adjustment Screw
12)	70-21303	Blade Holder
13)	70-21640	Blade Holder Crank

**Flood Water
System**

Flood Water System

	Part Number	Description
1)	20-21140	Squeegee
2)	20-21150	Squeegee Clamp Bar
3)	25-17010	Set Collar
4)	30-3350	Gear Clamp 1 3/4" (4.4 cm)
5)	30-5310	1" (2.54 cm) End Cap
6)	30-5320	1" (2.54 cm) Tee
7)	30-5330	1" x 1 1/4" (2.54 cm x 3.2 cm) 90° Elbow
8)	30-17030	U-Bolt 1" Pipe
9)	30-21160	Spreader Cloth - 81
10)	30-21170	Spreader Cloth Holder
11)	49-30500	Bolt 3/8" x 1"
12)	49-30550	Bolt 3/8" x 1 1/4"
13)	49-33500	Locknut 3/8"
14)	70-3330	Water Hose 1 3/4" x 3 1/2" (4.4 cm x 8.9 cm)
15)	70-5255	Water Tap
16)	70-5255	Water Tap Arm
17)	70-5300	1" x 1 1/2" Galv Nipple (2.54 cm x 3.8 cm)
18)	70-5340	Water Fill Pipe
19)	70-5390	Flood Pipe 37 1/2" (95.3 cm)
20)	70-5400	Flood Pipe 40" (101.6 cm)
21)	70-5410	Nipple 1" x 6" (2.54 cm x 15.2 cm)
22)	70-21650	Water Tap Handle

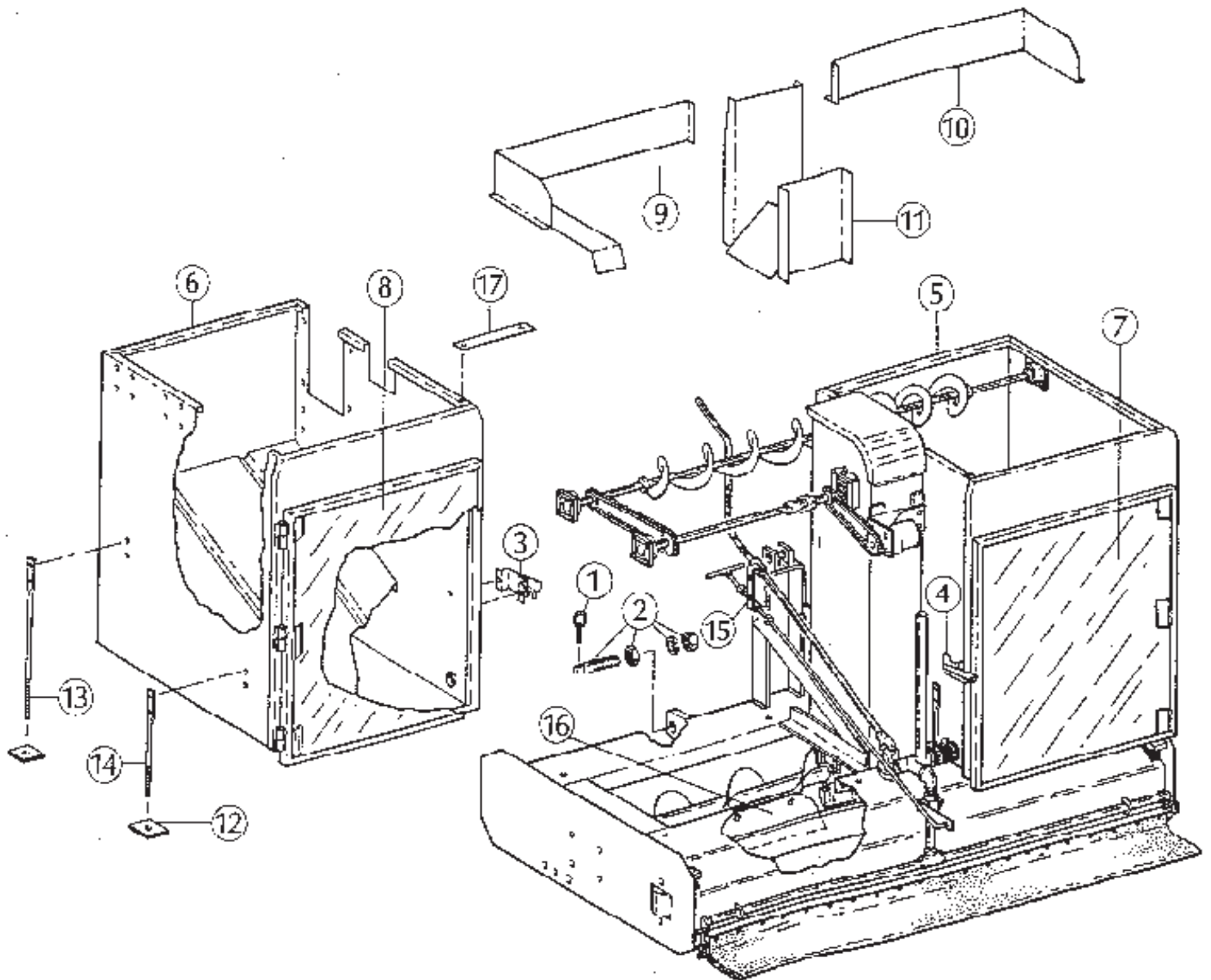
Snow Conveyor System





Snow Conveyor System

	Part Number	Description
1)	20-1300	19 Tooth Sprocket
2)	20-1330	Connecting Link
3)	20-1360	Drive Chain 32" (81.3 cm)
4)	49-30200	Bolt 1/4" x 3/4"
5)	49-33200	Locknut 1/4"
6)	49-36100	Flat Washer 1/4" Hole
7)	70-1260	4 Hole Flange Bearing 1" (2.54 cm)
8)	70-1270	1" (2.54 cm) Take-up Bearing
9)	70-1280	25 Tooth Sprocket
10)	70-1310	14 Tooth Sprocket
11)	70-1340	Attachment Link
12)	70-1350	Motor Drive Chain 36" (91.4 cm)
13)	70-3550	Universal 1" (2.54 cm)
14)	70-3650	Hydraulic Motor
15)	70-10050	Paddle
16)	70-20080	Elevator Chain
17)	70-21110	Double Top Sprocket
18)	70-21210	Top Elevator Shaft
19)	70-21220	Top Extension Shaft
20)	70-21430	Top Auger
21)	70-21590	Motor Mount

**Main
Assembly**



Main Assembly

	Part Number	Description
1)	20-11490	Linch Pin
2)	70-11500	Lift Arm Pin c/w Nut & Washers
3)	70-21340	Door Catch Left
4)	70-21350	Door Catch Right
5)	70-21450	Aluminum Tank Right
6)	70-21451	Aluminum Tank Left
7)	70-21460	Door Right
8)	70-21461	Door Left
9)	70-21500	Snow Shield - Left Tank
10)	70-21510	Snow Shield - Right Tank
11)	70-21520	Snow Divider
12)	70-21610	Rubber Pad
13)	70-21620	Tank Tie Down 23 1/2" (59.7 cm)
14)	70-21635	Tank Tie Down 9 1/2" (24.1 cm)
15)	70-21660	Guide Bar - Water & Blade
16)	70-21760	Snow Shield
17)	70-21770	Tank Spacer Bar

