

Snow Blade

SP160/SP180/SP200/SP220/SP240/SP250

Operator's Manual



IMPORTANT

**READ THESE INSTRUCTIONS BEFORE
INSTALLING AND USING THIS
IMPLEMENT**

Important Safety Information

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Look for The Safety Alert Symbol

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Important Safety information

Safety at all times

Thoroughly read and understand the instructions given in this manual before operation. Refer to the “Safety Decal”, read all instructions noted on them.

- Operator should be familiar with all functions of the unit.
- Operate implement from the driver’s seat only.
- Make sure all guards and shields are in place and secured before operating the implement.
- Do not leave skid steer(tractor) or implement unattended with engine running.
- Dismounting from a moving skid steer(tractor) could cause serious injury or death.
- Do not stand between skid steer(tractor) and implement during hitching.
- Keep hands, feet, and clothing away from power-driven parts.
- Wear snug fitting clothing to avoid entanglement with moving parts.
- Watch out for wires, trees, etc., when raising implement. Make sure all persons are clear of working area.
- Turning skid steer(tractor) too tight may cause implement to ride up on wheels. This could result in injury or equipment damage.

Be aware of signal words

A signal word designates a degree or level of hazard seriousness. The signal words are:



DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purpose, cannot be guarded.



WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

For your protection

- Thoroughly read and understand the “safety label” section, read all instructions noted on them.

Shutdown and storage

- Lower machine to ground, put tractor in park, turn off engine, and remove the ignition

key.

- Detach and store implements in an area where children normally do not play. Secure implement by using blocks and supports.

Use safety lights and devices

- Slow moving skid steer(tractor), self-propelled equipment, and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.
- Flashing warning lights and turn signals are recommended whenever driving on public roads.

Transport machinery safely

- Comply with state and local laws.
- Maximum transport speed for implement is 20 mph. Do not exceed. Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrain requires a slower speed.
- Sudden braking can cause a towed load to swerve and upset. Reduce speed if towed load is not equipped with brakes.
- Do not tow a load that is more than double the weight of skid steer(tractor).

Keep riders off machinery

- Riders obstruct of operator's view, they could be struck by foreign objects or thrown from the machine.
- Never allow children to operate equipment.

Practice safe maintenance

- Understand procedure before doing work. Use proper tools and equipment.
- Work in a clean dry area.
- Lower the implement to the ground, put tractor in park, turn off engine, and remove key before performing maintenance.
- Allow implement to cool completely.
- Do not grease or oil implement while it is operation.
- Inspect all parts. Make sure parts are in good condition and installed properly.
- Remove buildup of grease, oil or debris.
- Remove all tools and unused parts from implement before operation.

Prepare for emergencies

- Be prepared if a fire starts.
- Keep a fist aid kit and fire extinguisher handy.
- Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.

Wear protective equipment

- Protective clothing and equipment should be worn.
- Wear clothing and equipment appropriate for the job. Avoid loose fitting clothing.
- Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- Operating equipment safely requires the full attention of the operator. Avoid wearing

radio headphones while operating machinery.

Avoid high pressure fluids hazard

- Escaping fluid under pressure can penetrate the skin causing serious injury.
- Avoid the hazard by relieving pressure before disconnecting hydraulic lines.
- Use a piece of paper or cardboard, not body parts, to check for suspected leaks. Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be treated within a few hours or gangrene may result.

Safety Labels

Your Snow Blade comes equipped with all safety labels in place. They were designed to help you safely operate your implement. Read and follow their directions.

1. Keep all safety labels clean and legible.
2. Replace all damaged or missing labels. To order new labels go to your nearest dealer.
3. Some new equipment installed during repair requires safety labels to be affixed to the replaced component as specified by Land Pride. When ordering new components make sure the correct safety labels are included in the request.
4. Refer to this section for proper label placement.
To install new labels:
 - a. Clean the area the label is to be placed.
 - b. Spray soapy water on the surface where the label is to be placed.
 - c. Peel backing from label. Press firmly onto the surface.
 - d. Squeeze out air bubbles with the edge of a credit card.



Introduction

Application

The Snow Blades are designed for Universal Skid Steer Quick-Hitch System mounting. Usually it is with steel blade, and rubber blade optional.

Using This Manual

- This Operator's Manual is designed to help familiarize you with safety, assembly,

operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.

- The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.

Terminology

“ Right” or “Left” as used in this manual is determined by facing the direction the machine will operate while in use unless otherwise stated.

Definitions

Note : A special point of information that the operator must be aware of before continuing.

Important : A special point of information related to its preceding topic. The intention is that this information should be read and noted before continuing.

Owner Assistance

The Warranty Registration card should be filled out by the dealer at the time of purchase. This information is necessary to provide you with quality customer service. If customer service or repair parts are required contact a dealer. A dealer has trained personnel, repair parts and equipment needed to service the machine.

The parts on your machine have been specially designed and should only be replaced with genuine parts.

Serial Number Plate

For prompt service always use the serial number and model number when ordering parts from your dealer. Be sure to include your serial and model numbers in correspondence also.

Section 1: Assembly and Set-up

Skid Steer or Tractor Requirements

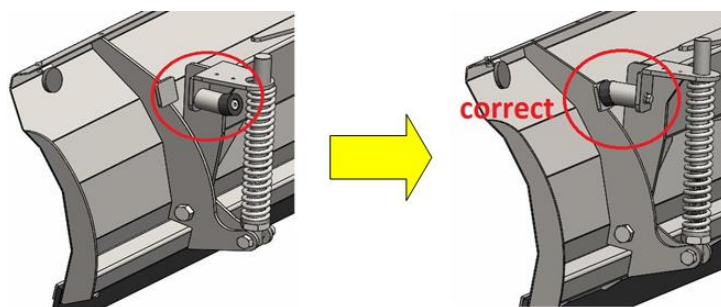
The Snow Blades are designed with Universal Skid Steer Quick-Hitch System mounting.

Assembly

Refer to the parts illustration.

For easy packing, the pole and rubber pad are assembled back,

Please DO TURN THE POLE AND RUBBER PAD FRONT like the instructions show!



Section 2: Adjustments



CAUTION

Keep feet clear when lowering the blade!

Refer to the parts illustration, you can adjust the springs to make the blades stable.



Section 3: Operating Procedures

Operating check list

Hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training involved in the operation, transport, maintenance and storage of the machine. Therefore, it is essential that no one operates the Snow Blade without first having read, fully understood and become totally familiar with the Operator's Manual. Make sure the operator has paid attention to safety information and other sections of this manual.



CAUTION

It is the operator's responsibility not to allow anyone near the Snow Blade during its operation.



CAUTION

Always keep your feet and legs out from under the blade when adjusting the height of the blade. It is possible the blade could slip and fall causing injury to your feet and/or legs.

- Follow all directions on the safety labels.
- Do not allow anyone to operate this Snow Blade who has not been properly trained in its safe operation.
- Do not let anyone under the age of 16 operate the Snow Blade.
- Use the Snow Blade for its intended purpose only.
- Never carry passengers or use the Snow Blade as a wagon to carry things.
- Never use the Snow Blade to pull or tow other equipment or objects.

- Make sure all safety labels are in their proper location and in good condition before operation.
- Never work under the unit without properly blocking the unit up.
- All nuts, bolts, screws, and fasteners should be checked periodically for tightness.
- Do not alter the Snow Blade in a way which will adversely affect its performance or reliability or use the Snow Blade for a purpose for which it was not designed.

Transporting



CAUTION

When traveling on public roads at night or during the day, use accessory lights and devices for adequate warning to operators of other vehicles. Comply with all federal, state and local laws.

- Be sure to reduce skid steer (tractor) ground speed when turning; and, leave enough clearance so the Snow Blade does not contact obstacles such as buildings, trees or fences.
- Select a safe ground travel speed when transporting from one area to another.
- When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely.
- When traveling over rough or hilly terrain, shift tractor to a lower gear.

General Operating Instructions

Once you have familiarized yourself with the operator's manual, completed the operations checklist, and properly attached your Snow Blade to your skid steer (tractor), you are now almost ready to begin work. Snow Blades are ideal for shoveling snow.

With a little practice you should become a very good operator and consistently achieve the desired results.

Section 4: Maintenance

Maintenance

Proper servicing and adjustment are the key to the long life of any farm implement. With careful and systematic inspection, you can avoid costly maintenance, time and repair.

General

- After using your Snow Blade for several hours, check all bolts to be sure they are tight.
- Replace any worn, damaged or illegible safety decals by obtaining new decals from dealer.

Blade

Replace the blade when steel blade is worn out.

storage

- At the end of the working season or when your Snow Blade will not be used for long period, it is good practice to clean off any dirt or grease that may have accumulated on the Snow Blade.
- Repaint parts where paint is worn or scratched to prevent rust.
- Replace all damaged or missing decals.
- Store the Snow Blade inside if possible. Inside storage will reduce maintenance and make for a longer life.
- Inspect Snow Blade for loose, damaged or worn parts and adjust or replace if needed.

Section 5: Specifications & Capacities

Model	SBE180	SBE200	SBE220	SBE240
Dimensions(L*W*H)	1805*720*640	2005*720*640	2205*720*640	2205*720*640
Working Width	1800mm	2000mm	2200mm	2200mm
Structure Weight	210kg	220kg	230kg	240kg
Power Required	20-35HP	25-45HP	30-55HP	30-55HP

Section 6: Appendix

Bolt Torque

The tables shown below give correct torque values for various bolts and capscrews. Tighten all bolts to the torques specified unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

ENGLISH TORQUE SPECIFICATIONS

Bolt Diameter	Bolt Torque					
	SAE 2		SAE 5		SAE 8	
	N.m	lb-ft	N.m	lb-ft	N.m	lb-ft
1/4"	8	6	12	9	17	12
5/16"	13	10	25	19	36	27
3/8"	27	20	45	33	63	45
7/16"	41	30	72	53	100	75
1/2"	61	45	110	80	155	115
9/16"	95	60	155	115	200	165
5/8"	128	95	215	160	305	220
3/4"	225	165	390	290	540	400
7/8"	230	170	570	420	880	650

METRIC TORQUE SPECIFICATIONS

Bolt Diameter	Bolt Torque			
	8.8		10.9	
	N.m	lb-ft	N.m	lb-ft
M3	0.5	0.4	1.8	1.3
M4	3	2.2	4.5	3.3

M5	6	4	9	7
M6	10	7	15	11
M8	25	18	35	26
M10	50	37	70	52
M12	90	66	125	92
M14	140	103	200	148
M16	225	166	310	229
M20	435	321	610	450
M24	750	553	1050	744
M30	1495	1103	2100	1550
M36	2600	1917	3675	2710

Torque figures indicated above are valid for non-greased or non-oiled threads and heads otherwise specified. Therefore, do not grease or oil bolts or cpascrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

Warranty

Townsunny warrants to the original purchaser that this product will be free from defects in material and workmanship beginning on the date of purchase by the end user according to the following schedule when used as intended and under normal service and conditions for personal use.

Overall unit: one-year parts and labor.

Shanks: considered wear items.

This warranty is limited to the replacement of any defective part by manufacturer and the installation by the dealer of any such replacement part, and does not cover common wear items such as blades, belts, tines, etc. Townsunny reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship. This warranty does not apply to any part or product which in Townsunny's judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product not designed. Misuse also specifically includes failure to properly maintain oil levels, grease points, and driveline shafts.

Claims under this warranty must be made to the dealer which originally sold the product and all warranty adjustments must be made through such dealer. Townsunny reserves the right to make changes in materials or design of the product at any time without notices.

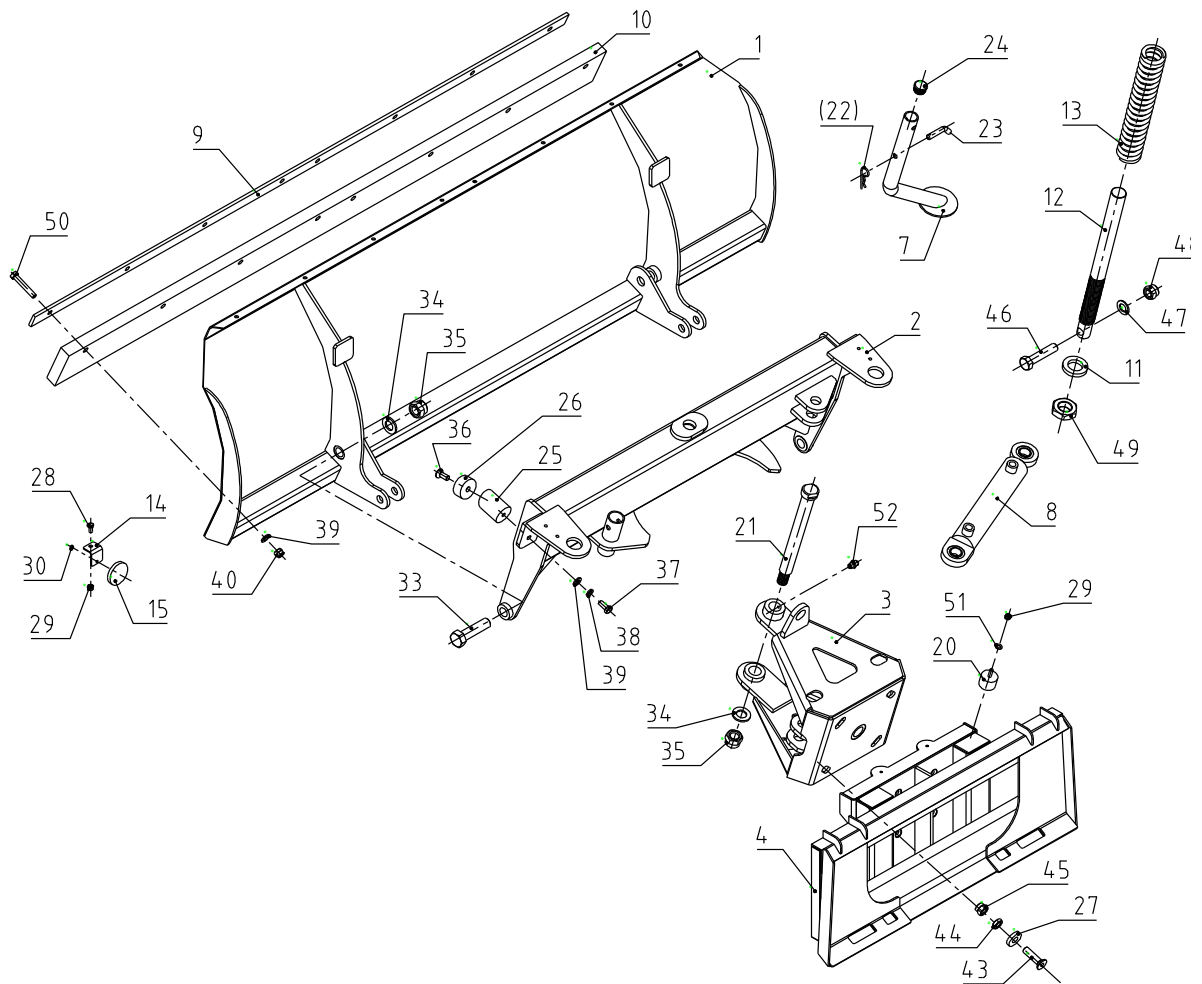
This warranty shall not be interpreted to render Townsunny liable for damages of any kind, direct, consequential, or contingent to property. Furthermore, Townsunny shall not be liable for damages resulting from any cause beyond its reasonable control. This warranty does not extend to loss of crops, any expense or loss for labor, supplies, rental machinery or for any other reason.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

Section 7: Parts illustration

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Snow Blade Parts List



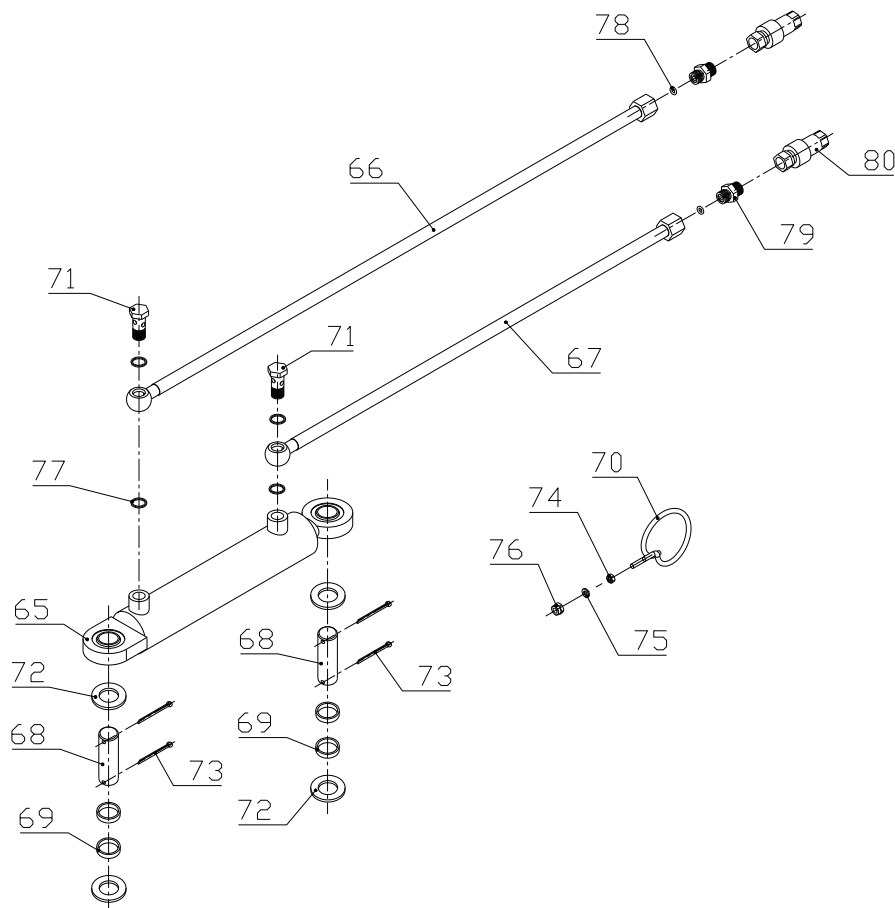
REF	PART NUMBER	DESCRIPTION
1	SBE140.011	SBE140 Main snow blade weldment
	SBE160.011	SBE160 Main snow blade weldment
	SBE180.011	SBE180 Main snow blade weldment
	SBE200.011	SBE200 Main snow blade weldment

	SBE220.011	SBE220 Main snow blade weldment
	SBE240.011	SBE240 Main snow blade weldment
	SBE250.011	SBE250 Main snow blade weldment
2	SBE180.012	Long support weldment
3	SBE180.013	Connection frame weldment
4	SBE180.014E	Mounting Bracket weldment
7	SBE180.017	Kickstand weldment
8	SBE180.004	Hydraulic system assembly
9	SBE140.101	SBE140 Decking of rubber (Unnecessary for steel blade)
	SBE160.101	SBE160 Decking of rubber (Unnecessary for steel blade)
	SBE180.101	SBE180 Decking of rubber (Unnecessary for steel blade)
	SBE200.101	SBE200 Decking of rubber (Unnecessary for steel blade)
	SBE220.101	SBE220 Decking of rubber (Unnecessary for steel blade)
	SBE240.101	SBE240 Decking of rubber (Unnecessary for steel blade)
	SBE250.101	SBE250 Decking of rubber (Unnecessary for steel blade)
10	SBE140.102	Steel Blade(or rubber blade)
	SBE160.102	Steel Blade(or rubber blade)
	SBE180.102	Steel Blade(or rubber blade)
	SBE200.102	Steel Blade(or rubber blade)
	SBE220.102	Steel Blade(or rubber blade)
	SBE240.102	Steel Blade(or rubber blade)
	SBE250.102	Steel Blade(or rubber blade)
11	SBE180.103	Spring pad
12	SBE180.104	Shaft axle of spring
13	SBE180.105	Spring
14	SBE180.106	Mounted plate of reflector plate
15	SBE180.107	reflector plate
20	SBE180.112	Bolt rubber pad
21	SBE180.018	Rotation pin
22	FEL300.114	Hair clip pin(ϕ 3.2)
23	SBE180.113	Bent pin
24	SBE180.114	Decking of kickstand
25	SBE180.115	Pole
26	SBE180.116	Rubber block
27	SBE180.117	Small block
28	GB/T5782 M8x16	Bolt M8x16
29	GB/T889.1 M8	Self-lock nut M8
30	GB/T6170 M5	Nut M5

33	GB/T5782 M24x90	Bolt M24x90
34	GB/T97.1 24	Plain washer 24
35	GB/T889.1 M24	Self-lock nut M24
36	GB/T70.3 M12x30	Bolt M12x30
37	GB/T5782 M12x25	Bolt M12x25
38	GB/T93 12	Spring washer 12
39	GB/T97.1 12	Plain washer 12
40	GB/T889.1 M12	Self-lock M12
43	GB/T70.3 M16x60	Bolt M16x60
44	GB/T6172.1 M16	Thin nut M16
45	GB/T889.1 M16	Self-lock nut M16
46	GB/T5782 M20x85	Bolt M20x85
47	GB/T97.1 20	Plain washer 20
48	GB/T889.1 M20	Self-lock nut M20
49	GB/T6173 M36x3	Thin nut M36x3
50	GB/T5782 M12x70	Bolt M12x70
51	GB/T97.1 8	Plain washer 8
52	M6 JB/T7940.1	Oil cup M6

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Hydraulic system assembly Parts List



REF	PART NUMBER	DESCRIPTION
65	SBE180.041	Hydraulic cylinder of snow blade
66	SBE180.042	Long oil pipe
67	SBE180.043	Short oil pipe
68	SBE180.401	Shaft axle of cylinder
69	SBE180.402	Pad of cylinder
70	SBE180.403	Hook
71	SBE180.404	Hollow bolt 16
72	GB/T97.1 24	Plain washer 24
73	GB/T91 4x50	Cutter pin 4x50
74	GB/T6170 M6	Nut M6
75	GB/T97.1 6	Plain washer 6
76	GB/T889.1 M6	Self-lock nut M6
77	CP-16	Copper pad 16
78	GB/T3452.1 11x2.4	Seal ring 11x2.4
79	J-M16x1.5- R1/2	Joint M16x1.5- R1/2
80	QJ- XZ 2-G1/2	Quick joint XZ 2- G1/2