

SCHULTE®

SDX - 117

SNOW REMOVAL

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Part No. B117-010C

OPERATOR'S MANUAL



This Operator's Manual is an integral part of the safe operation of this machine and must be maintained with the unit at all times. **READ, UNDERSTAND,** and **FOLLOW** the Safety and Operation Instructions contained in this manual before operating the equipment. *C01-Cover str*

FC-S-0020



Schulte Industries Ltd.

PO Box 70
Englefeld Saskatchewan
Canada S0K 1N0
Tel. (306) 287-3715
Fax. (306) 287-3355
Parts Fax. (306) 287-4066
Web: www.schulte.ca

Schulte Web Page



www.algqr.com/swe



To the Owner/Operator/Dealer

All implements with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes the potential hazards and follows reasonable safety practices. The manufacturer has designed this implement to be used with all its safety equipment properly attached to minimize the chance of accidents.

BEFORE YOU START!! Read the safety messages on the implement and shown in your manual. Observe the rules of safety and common sense!

 DANGER			
FAILING TO FOLLOW SAFETY MESSAGES AND OPERATING INSTRUCTIONS CAN CAUSE DEATH OR SERIOUS INJURY TO OPERATOR OR OTHERS IN THE AREA.			
1. READ MANUAL. 	2. NO RIDERS, NO CHILDREN OPERATORS. 	3. USE SEATBELTS, ROPS AND PPE. 	4. BLOCKUP SECURELY BEFORE WORKING UNDER. 
<ol style="list-style-type: none"> 1. Study and understand Operator's Manuals, Safety Signs, and Instructional Decals for tractor & implement to prevent misuse, abuse & accidents. Learn how to stop engine suddenly in an emergency. Be alert for passers by and children. 2. Allow no children on or near implement or tractor. Allow no riders on tractor or implement. Falling off can cause death or serious injury from being run over by tractor or implement or contact with rotating components. 3. Operate only with tractor having Roll-Over Protective Structure (ROPS) and with seatbelt fastened securely and snugly to prevent death or serious injury from falling off tractor or tractor overturn. Personal Protective Equipment such as Hard Hat, Safety Glasses with side shields (marked to comply with ANSI Z87), Safety Shoes, and Ear Plugs are recommended. 4. Block up or support raised machine and all lifted components securely before putting hands or feet under or working underneath any lifted component to prevent death or crushing injury from sudden inadvertent dropping. Make certain that area is clear before lowering. 5. Before transporting, put Lift Lever in Lift (Detent) position and follow traffic codes. Slow down at night, in turns and on hillsides. 6. Make certain that SMV sign, Warning Lights and Reflectors are clearly visible 7. Do not back or operate implement in the reverse direction, possible rocks or debris can fly out and cause death or serious injury. 8. Before dismounting, secure implement in transport position or lower to ground. Stop PTO, put tractor in park or set Brake, stop engine and remove key. Never mount or dismount a moving vehicle. Crushing from run over may cause death or serious injury. 			
5. TRANSPORT SAFELY. 	6. USE SMV, LIGHTS AND REFLECTORS. 	7. DO NOT OPERATE WITH UNIT RAISED 	8. DO NOT MOUNT OR DISMOUNT WHILE MOVING. 

226-331

WARRANTY INFORMATION:

Read and understand the complete Warranty Statement found in this Manual. Fill out the Warranty Registration Form in full and return it to within 30 Days. Make certain the Serial Number of the Machine is recorded on the Warranty Card and on the Warranty Form that you retain.

DEALER'S PREDELIVERY SERVICE GUIDE

for the SCHULTE SNOW BLOWER SDX-117

DETAILS OF ITEMS LISTED BELOW ARE COVERED IN THIS OPERATOR'S MANUAL

- Shipping damage corrected
 - Set up machine as outlined in the shipping instructions attached to these instructions.
 - Check that all safety decals are in good condition, replace if necessary.
 - Check that gearboxes have been filled with oil.
 - Check that all grease fittings have been lubricated.
-

DEALER'S DELIVERY GUIDE

for the SCHULTE SNOW BLOWER SDX-117

- Mounting and removal from tractor
- Operation
- Adjustments
- Lubrication
- Maintenance
- Operator's safety precautions
- User's responsibility and warranty
- Operator's manual delivered to owner
- Operator instructed on contents of owner's manual

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SAFETY SECTION

Safety Section 1-1

SAFETY

GENERAL SAFETY INSTRUCTIONS AND PRACTICES

A careful operator is the best operator. Safety is of primary importance to the manufacturer and should be to the owner/operator. Most accidents can be avoided by being aware of your equipment, your surroundings, and observing certain precautions. The first section of this manual includes a list of Safety Messages that, if followed, will help protect the operator and bystanders from injury or death. Read and understand these Safety Messages before assembling, operating or servicing this Implement. This equipment should only be operated by those persons who have read the manual, who are responsible and trained, and who know how to do so responsibly.



The Safety Alert Symbol combined with a Signal Word, as seen below, is used throughout this manual and on decals which are attached to the equipment. The Safety Alert Symbol means: "ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!" The Symbol and Signal Word are intended to warn the owner/operator of impending hazards and the degree of possible injury faced when operating this equipment.

Practice all usual and customary safe working precautions and above all--remember safety is up to YOU. Only YOU can prevent serious injury or death from unsafe practices.



Indicates an imminently hazardous situation that, if not avoided, WILL result in DEATH OR VERY SERIOUS INJURY.



Indicates an imminently hazardous situation that, if not avoided, COULD result in DEATH OR SERIOUS INJURY.



Indicates an imminently hazardous situation that, if not avoided, MAY result in MINOR INJURY.

Important

Identifies special instructions or procedures that, if not strictly observed, could result in damage to, or destruction of the machine, attachments or the environment.

NOTE: *Identifies points of particular interest for more efficient and convenient operation or repair.* (SG-1) str

READ, UNDERSTAND, and FOLLOW the following Safety Messages. Death or serious injury may occur unless care is taken to follow the warnings and instructions stated in the Safety Messages. Always use good common sense to avoid hazards. (SG-2) str



Si no lee ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad. (SG-3) str

¡ LEA EL INSTRUCTIVO!



SAFETY

SAFETY

OPERATOR SAFETY INSTRUCTIONS AND PRACTICES

WARNING

The rotating parts of this machine continue to rotate even after the PTO has been turned off. The operator should remain in the operator's seat for 60 seconds after the brake has been set, the PTO disengaged, the tractor turned off, and all evidence of rotation has ceased. (S3PT-

10) str

"Wait a minute...Save a life!"

WARNING

Never crawl under a raised Implement supported solely by the Tractor 3-Point hitch. Release of the control lever or mechanical failure will result in the Implement falling and possible injury or death. Always securely block up the Implement before crawling underneath to perform repairs and service. (S3PT-19) str

DANGER

Never operate the Tractor or Implement until you have read and completely understand this Manual, the Tractor Operator's Manual, and each of the Safety Messages found in the Manual or on the Tractor and Implement. Learn how to stop the tractor engine suddenly in an emergency. Never allow inexperienced or untrained personnel to operate the Tractor or Implement without supervision. Make sure the operator has fully read and understood the manuals prior to operation.

(SG-4)str



WARNING

The operator and all support personnel should wear hard hats, safety shoes, safety glasses, and proper hearing protection at all times for protection from injury including injury from items that may be thrown by the equipment. (SG-16)str



CAUTION

PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS! Tractors with or without an Implement attached can often be noisy enough to cause permanent hearing loss. We recommend that you always wear hearing protection if the noise in the Operator's position exceeds 80db. Noise over 85db over an extended period of time will cause severe hearing loss. Noise over 90db adjacent to the Operator over an extended period of time will cause permanent or total hearing loss. **NOTE:** *Hearing loss from loud noise [from tractors, chain saws, radios, and other such sources close to the ear] is cumulative over a lifetime without hope of natural recovery.* (SG-17)str



WARNING

Always read carefully and comply fully with the manufacturer's instructions when handling oil, solvents, cleansers, and any other chemical agent. (SG-22)str



SAFETY



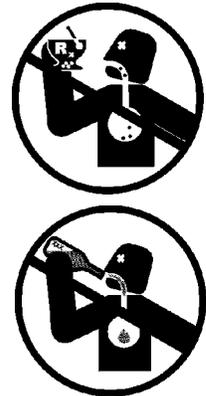
KEEP AWAY FROM ROTATING ELEMENTS to prevent entanglement and possible death or serious injury. (SG-24)str



Never allow children to play on or around Tractor or Implement. Children can slip or fall off the Equipment and be killed or injured. Inadvertent contact with controls can cause the Implement to shift or fall crushing themselves or others. (SG-25) str



DO NOT use drugs or alcohol immediately before or while operating the Tractor and Implement. Drugs and alcohol will affect an operator's alertness and coordination and therefore affect the operator's ability to operate the equipment safely. Before operating the Tractor or Implement, an operator on prescription or over-the-counter medication must consult a medical professional regarding any side effects of the medication that would hinder their ability to operate the Equipment safely. NEVER knowingly allow anyone to operate this equipment when their alertness or coordination is impaired. Serious injury or death to the operator or others could result if the operator is under the influence of drugs or alcohol. (SG-27) str



Prolonged operation may cause operator boredom and fatigue affecting safe operation. Take scheduled work breaks to help prevent these potentially impaired operating conditions. Never operate the Implement and Tractor in a fatigued or bored mental state which impairs proper and safe operation. (SG-32) str



Use extreme caution when getting onto the Implement to perform repairs, maintenance and when removing accumulated material. Only stand on solid flat surfaces to ensure good footing. Use a ladder or raised stand to access high spots which cannot be reached from ground level. Slipping and falling can cause serious injury or death. (SG-33) str



DO NOT operate this Implement on a Tractor that is not properly maintained. Should a mechanical or Tractor control failure occur while operating, immediately shut down the Tractor and perform repairs before resuming operation. Serious injury and possible death could occur from not maintaining this Implement and Tractor in good operating condition. (SG-36) str



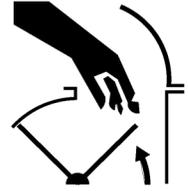
Do Not put hands or feet near the rotating auger. Auger contact can result in serious injury or even death. Stay away until all motion has stopped and the snow blower is securely blocked up before removing material, performing service, and making repairs. (SSB-5)str



SAFETY



Do not put hands or feet near the rotating fan. Fan contact can result in serious injury or even death. Stay away until all motion has stopped and the snow blower is securely blocked up before removing material, performing service, and making repairs. (SSB-6)str



Do not operate the implement while wearing loose fitting clothing. Entanglement of the clothing with the rotating elements can result in serious injury or even death. Stay clear of all rotating elements at all times. (SSP-03)str

SAFETY

EQUIPMENT OPERATION SAFETY INSTRUCTIONS AND PRACTICES



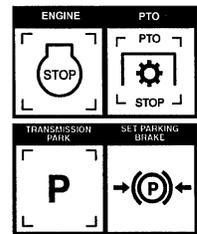
This Implement may be wider than the Tractor. Be careful when operating or transporting this equipment to prevent the Implement from running into or striking sign posts, guard rails, concrete abutments or other solid objects. Such an impact could cause the Implement and Tractor to pivot violently resulting in loss of steering control, death, or serious injury. Never allow the Implement to contact obstacles. (S3PT-12)str



Operate this Equipment only with a Tractor equipped with an approved roll-over-protective system (ROPS). Always wear seat belts. Death or serious injury could result from falling off the tractor, particularly during a turnover when the operator could be pinned under the ROPS. (SG-7) str



BEFORE leaving the tractor seat lower the implement, set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (SG-9)str



Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in death or serious injury. (SG-10)str



SAFETY

⚠ DANGER

Never allow children to operate, ride on, or come close to the Tractor or Implement. Usually, 16-17 year-old children who are mature and responsible can operate the implement with adult supervision, if they have read and understand the Operator's Manuals, been trained in proper operation of the tractor and Implement, and are physically large enough to reach and operate the controls easily. (SG-11) str



⚠ WARNING

Do not mount or dismount the Tractor while the tractor is moving. Mount the Tractor only when the Tractor and all moving parts are completely stopped. Dismounting a moving power unit can result in a crushing hazard that can cause death or serious injury. (SG-12) str



⚠ DANGER

Start tractor only when properly seated in the Tractor seat. Starting a tractor in gear can result in death or serious injury. Read the Tractor operators manual for proper starting instructions. (SG-13) str



⚠ WARNING

Do not operate this Equipment with hydraulic oil or fuel leaking. Oil and fuel are explosive and their presence could present a hazard. Do not check for leaks with your hand! High-pressure oil streams from breaks in the line could penetrate the skin and cause tissue damage including gangrene. To check for a hose leak, SHUT the unit ENGINE OFF and remove all hydraulic pressure. Wear oil impenetrable gloves, safety glasses and use cardboard to check for evidence of oil leaks. If you suspect a leak, REMOVE the HOSE and have it tested at a Dealer. If oil does penetrate the skin, have the injury treated immediately by a physician knowledgeable and skilled in this procedure. (SG-15) str



⚠ DANGER

Never run the Tractor engine in a closed building or without adequate ventilation. The exhaust fumes can be hazardous to your health. (SG-23) str

⚠ WARNING

Do not exceed the rated PTO speed for the Implement. Excessive PTO speeds can cause Implement driveline or component failures resulting in serious injury or death. (SG-26) str

⚠ DANGER

Operate the Tractor and/or Implement controls only while properly seated in the Tractor seat with the seat belt securely fastened around you. Inadvertent movement of the Tractor or Implement may cause death or serious injury. (SG-29)str

⚠ WARNING

In case of mechanical difficulty during operation, place the transmission in the park position, set the parking brake, shut down all power, including the PTO and the engine and remove the key. Wait until all rotating motion has stopped before dismounting. (SG-39) str

SAFETY

⚠️ WARNING

Never leave the Implement and Power Unit unattended while the Implement is in the raised position. Accidental operation of a lifting lever or a hydraulic failure may cause the implement to suddenly fall causing serious injury or possible death to anyone who might inadvertently be under the Implement. Lower the implement carefully to the ground. Do not put hands or feet under lifted components. (SPU-03) str

⚠️ WARNING

Only operate the snow blower in conditions where you have clear visibility in daylight or with adequate artificial lighting. Never snow blow in darkness or in conditions where you cannot clearly see at least 100 yards in front and to the sides of the Tractor and Snow Blower. Make sure that you can clearly see and identify passersby, steep slopes, ditches, drop-offs, overhead obstructions, power lines, debris and foreign objects. If you are unable to clearly see these types of items, discontinue snow blowing. (SSB-1) str

⚠️ WARNING

Extreme care should be taken when operating near loose objects such as gravel, rocks, wire and other debris. Foreign objects should be removed from the site to prevent machine damage and/or bodily injury or even death. Any object that cannot be removed must be clearly marked and carefully avoided by the operator. Stop snow blowing immediately if the auger or fan strikes a foreign object. Repair all damage before resuming snow blowing. (SSB-2) str



⚠️ WARNING

Many varied objects, such as wire, cable, rope, or chains can become entangled in the operating parts of the Snow Blower. These items could then swing outside the housing at high speeds. Such a situation is extremely hazardous and could result in serious injury or even death. Inspect the work area for such objects before snow blowing. Remove any like object from the site. Never allow the auger to contact such items. (SSB-3) str

⚠️ WARNING

Blow snow at the speed that you can safely operate and control the Tractor and Snow Blower. Safe speed depends on terrain and snow conditions. **Normal ground speed range is from 0.5 to 1.5 mph.** Use slow speeds when operating on or near steep slopes, ditches, drop-offs, overhead obstructions, power lines, or when debris and foreign objects are to be avoided. (SSB-4) str

⚠️ DANGER

Snow Blowers are capable under adverse conditions of throwing objects for great distances (200 feet or more). Do not allow the snow stream to fall on passersby. Ice, debris and heavy snow thrown from the snow blower can cause serious injury or death. (SSB-7) str



STOP SNOW BLOWING IF PASSERSBY ARE WITHIN 200 FEET.

⚠️ WARNING

When blowing snow with two machines in the same area be sure that windows are closed. (SSB-10) str

⚠️ DANGER

There are obvious and hidden potential hazards in the operation of this Snow Blower. **REMEMBER!** This machine is often operated in deep snow where vision is reduced. The fan blades of this Snow Blower can throw objects for great distances. Serious injury or even death may occur unless care is taken to insure the safety of the operator, bystanders, or passersby in the area. Do not operate this machine with anyone in the immediate area. Stop Snow Blowing if anyone is within 200 feet of Snow Blower. (SSB-11) str

SAFETY

⚠ WARNING

Do not operate Snow Blower if excessive vibration exists. Shut down PTO and the Tractor engine. Inspect the Snow Blower to determine the source of the vibration. If blades are missing or damaged replace them immediately. Do not operate the Snow Blower until the blades have been replaced and the Blower operates smoothly. Operating the Snow Blower with excessive vibration can result in component failure and broken objects to be thrown outward at very high velocities. To reduce the possibility of property damage, serious injury, or even death, never allow the Snow Blower to be operated with blades missing. (SSB-12) str

⚠ DANGER

The rotating parts of this machine have been designed and tested for rugged use. However, the blades and rotating members could fail upon impact with heavy, solid objects such as metal guard rails and concrete structures. Such impact could cause the broken objects to be thrown outward at very high velocities. To reduce the possibility of property damage, serious injury, or even death, never allow the rotating blades to contact such obstacles. (SSB-13) str

⚠ DANGER

Always keep a careful lookout and use extreme care when working around utility lines. Heavy snow or ice storms can cause utility lines to sag or drop to the ground. Never allow the Snow Blower within 10 feet of any Utility power or gas line. When working close to Utility lines consult your electric or gas company for a safe code of operation. (SSB-15) str

⚠ WARNING

Before dismounting to clear a clogged machine, place the transmission in the park position, set the parking brake, shut down all power, including the PTO and the engine and remove the key. Wait until all rotating motion has stop before dismounting. (SSB-16) str

⚠ WARNING

Snow can cover and hide solid objects such as guard rails, curbs, concrete structures, large rocks, utility boxes, fire hydrants, etc. DO NOT allow the rotating parts of the Snow Blower to contact such items. Inspect the area before operating the Snow Blower. Mark all solid items clearly with a pole or flag. To reduce the possibility of property damage, serious injury, or even death, never allow the rotating blades to contact such obstacles. (SSB-20) str

⚠ WARNING

The Implement can block the operators vision directly in front of the Implement. Inspect the area before operating the Implement and make sure that there are no obstacles, passersby, or coworkers in the path of the Implement. (SSB-22) str

SAFETY

CONNECTING OR DISCONNECTING IMPLEMENT SAFETY INSTRUCTIONS AND PRACTICES



DO NOT use a PTO adapter to attach a non-matching Implement driveline to a Tractor PTO. Use of an adapter can double the operating speed of the Implement resulting in excessive vibration, thrown objects, and blade and implement failure. Adapter use will also change the working length of the driveline exposing unshielded driveline areas. Serious bodily injury and/or equipment failure can result from using a PTO adapter. Consult an authorized dealer for assistance if the Implement driveline does not match the Tractor PTO. (S3PT-14) str



Always shut the Tractor completely down, place the transmission in park, and set the parking brake before you or anyone else attempts to connect or disconnect the Implement and Tractor hitches. (S3PT-15) str



Never operate the Tractor and Snow Blower if the Implement input driveline is directly connected to the Tractor transmission. Tractor braking distances can be substantially increased by the momentum of the rotating Snow Blower blades driving the Tractor transmission even though the Tractor clutch has been disengaged. Install an over running clutch between the Tractor PTO and the Snow Blower driveline to prevent this potentially dangerous situation. (SSB-38) str



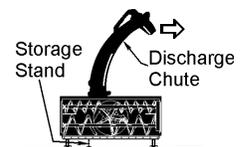
When attaching the Implement input driveline to the Tractor PTO, it is important that the connecting yoke spring activated locking collar slides freely and the locking balls are seated securely in the groove on the Tractor PTO shaft. Push and pull the driveline back and forth several times to ensure it is securely attached. A driveline not attached correctly to the Tractor PTO shaft could come loose and result in personal injury and damage to the Implement. (S3PT-17 str)



Before operating the Implement, check to make sure the Implement input driveline will not bottom out or become disengaged. Bottoming out occurs when the inner shaft penetrates the outer housing until the assembly becomes solid-it can shorten no more. Bottoming out can cause serious damage to the Tractor PTO by pushing the PTO into the Tractor and through the support bearings or downward onto the PTO shaft, breaking it off. A broken driveline can cause personal injury. (S3PT-18 str)



Before disconnecting Snow Blower swing discharge chute to side of Snow Blower, Lower and lock storage stand in place, Stay away from front of Snow Blower until equipment is stable and secured from falling. Sudden or inadvertant falling of equipment could result in serious injury or death. (SSB-35) str



SAFETY

TRANSPORTING SAFETY INSTRUCTIONS AND PRACTICES



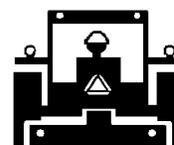
Be particularly careful when transporting the Implement with the Tractor. Turn curves or go up hills only at a low speed and using a gradual steering angle. Rear mounted implements move the center of gravity to the rear and remove weight from the front wheels. Make certain, by adding front ballast, that at least 20% of the tractor's weight is on the front wheels to prevent rearing up, loss of steering control or Tractor tip-over. Slow down on rough or uneven surfaces to prevent loss of steering control which could result in property damage or possible injury. Do not transport unless 3-Point lift lever is fully raised and in the latched transport position. Dropping implement in transport can cause serious damage to the tractor and/or Implement and possibly cause the operator or others to be killed or injured. (S3PT-02)str



Allow sufficient clearance for the Implement to swing outward while turning. Implements carried behind the Tractor will swing outside the tire path when making turns. Contacting a solid object while turning will cause equipment damage and possible injury. (S3PT-20) str



Make certain that the "Slow Moving Vehicle" (SMV) sign is installed in such a way as to be clearly visible and legible. When transporting the Equipment use the Tractor flashing warning lights and follow all local traffic regulations. (SG-6)str



Transport only at speeds where you can maintain control of the equipment. Serious accidents and injuries can result from operating this equipment at high speeds. Understand the Tractor and Implement and how it handles before transporting on streets and highways. Make sure the Tractor steering and brakes are in good condition and operate properly.



Before transporting the Tractor and Implement, determine the proper transport speeds for you and the equipment. Make sure you abide by the following rules:

Test the tractor at a slow speed and increase the speed slowly. Apply the Brakes smoothly to determine the stopping characteristics of the Tractor and Implement. As you increase the speed of the Tractor the stopping distance increases. Determine the maximum transport speed not to exceed 20 mph (30 kph) for transporting this equipment.

Test the equipment at a slow speed in turns. Increase the speed through the turn only after you determine that the equipment can be operated at a higher speed. Use extreme care and reduce your speed when turning sharply to prevent the tractor and implement from turning over. Determine the maximum turning speed for you and this equipment before operating on roads or uneven ground.

Only transport the Tractor and Implement at the speeds which allow you to properly control the equipment.

Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes or worn tires. When operating down a hill or on wet or rain slick roads, the braking distance increases: use extreme care and reduce your speed. When operating in traffic always use the Tractor's flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy. (SG-19)str



Before transporting the Snow Blower, position the snow discharge chute in the center position to reduce the possibility of blocking the operator's vision. (SSB-21) str

SAFETY

WARNING

Your driving vision may be reduced or impaired by the tractor, cab, or implement. Before driving on public roadways identify any limited vision areas, and make adjustments to your operating position, mirrors, and the implement transport position so that you can clearly see the area where you will be traveling, and any traffic that may approach you. Failure to maintain adequate vision of the public roadway and traffic can result in serious injury or even death. (STI-10)

MAINTENANCE AND SERVICE SAFETY INSTRUCTIONS AND PRACTICES

DANGER

Make sure the PTO shield, integral driveline shields, and input shields are installed when using PTO-driven equipment. Always replace any shield if it is damaged or missing. (S3PT-8) str



WARNING

Relieve hydraulic pressure prior to doing any maintenance or repair work on the Implement. Place the Implement on the ground or securely blocked up, disengage the PTO, and turn off the tractor engine. Push and pull the Remote Cylinder lever in and out several times prior to starting any maintenance or repair work. (S3PT-09)str



WARNING

Always maintain the safety signs in good readable condition. If the safety signs are missing, damaged, or unreadable, obtain and install replacement safety signs immediately. (SG-5)str

WARNING

Do not modify or alter this Implement. Do not permit anyone to modify or alter this Implement, any of its components or any Implement function. (SG-8)str

DANGER

Never work under the Implement, the framework, or any lifted component unless the Implement is securely supported or blocked up to prevent sudden or inadvertent falling which could cause death or serious injury. (SG-14)str



WARNING

Never attempt to lubricate, adjust, or remove material from the Implement while it is in motion or while tractor engine is running. (SG-20)str

WARNING

Periodically inspect all moving parts for wear and replace when necessary with authorized service parts. Look for loose fasteners, worn or broken parts, and leaky or loose fittings. Make sure all pins have cotter pins and washers. Serious injury may occur from not maintaining this machine in good working order. (SG-21) str



SAFETY



Do Not fill fuel tank while engine is running. Refuel only after engine has cooled down. If fuel is spilled, move machine away from the area of the spill and avoid creating any source of ignition until the spill has been cleaned up. (SG-28) str



Perform service, repairs and lubrication according to the maintenance section. Ensure the unit is properly lubricated as specified in the lubrication schedule and all bolts and nuts are properly torqued. Failure to properly service, repair and maintain this Implement in good operating condition could cause component failure and possible serious injury or even death. (SG-35str)



Replace bent or broken blades with new blades. NEVER ATTEMPT TO STRAIGHTEN, WELD, OR WELD HARDFACING ON BLADES SINCE THIS WILL LIKELY CRACK OR OTHERWISE DAMAGE THE BLADE WITH SUBSEQUENT FAILURE AND POSSIBLY CAUSE SERIOUS INJURY FROM THROWN BLADES. (SGM-10) str



Never leave the Power Unit and Implement unattended while the Implement is in the lifted position. Accidental operation of the lifting lever or a hydraulic failure may cause a sudden drop of the unit with possible injury or death by crushing. Fully lower the Implement to ground level to disconnect the Implement or to perform service. Do not put hands or feet under lifted components. (SPU-30) str



Always disconnect the auxiliary hydraulic couplers from the Power Unit before performing service on the Implement. Never work on the Implement with the Power Unit auxiliary hydraulics connected. Rotating parts could turn without warning and cause immediate entanglement, injury or death. (SPU-31) str



Never crawl under a raised Implement supported solely by the Power Unit boom. Release of the control lever or mechanical failure will result in the Implement falling and possible injury or death. Always securely block up the Implement before crawling underneath to perform repairs and service. (SPU-33) str



Relieve hydraulic pressure prior to doing any maintenance or repair work on the Implement. Place the Implement on the ground or securely supported on blocks or stands, disengage the auxiliary hydraulics, and turn off the engine. Push and pull the Control Levers several times to relieve pressure prior to starting any maintenance or repair work. (SSB-40) str



Always disconnect the main PTO Driveline from the Tractor before performing service on the Snow Blower. Never work on the Snow Blower with the Tractor PTO driveline connected and running. The Fan, Auger or Drivelines could turn without warning and cause immediate entanglement, injury or death. (SSB-8) str



All Safety Shields, Guards and Safety devices including (but not limited to) - the Chain Shield, Cross Shaft Shield, Gearbox Shields, and PTO integral shields must be used and maintained in good working condition. All safety devices should be inspected carefully at least daily for missing or broken components. Missing, broken, or worn items must be replaced at once to reduce the possibility of injury or death from entanglement. (SSB-9) str



DO NOT weld or repair rotating Blower components. Welds and other repairs may cause severe vibration and/or component failure resulting in parts being thrown from the blower causing serious bodily injury. See your Authorized Dealer for proper repairs. (SSB-14) str

SAFETY

WARNING

Ensure any remote starting system is inoperative before servicing or cleaning the machine. Inadvertent engine start up could result in entanglement or runover causing serious injuries or death. (SSB-17) str

DANGER

All Safety Shields, Guards and other Protective Safety devices should be used and maintained in good working condition. All safety devices should be inspected carefully at least daily for missing or broken components. **NEVER REMOVE PROTECTIVE SHIELDS AND GUARDS! NEVER MODIFY OR CUT PROTECTIVE SHIELDS OR GUARDS!** When shields or guards are removed to access areas for maintenance, they must be replaced and be in good condition before operating. Missing, broken, or worn shields, guards, and other protective devices must be replaced at once and prior to operation to reduce the possibility of injury or death from thrown objects, entanglement, or contact. (SWS-2) str

WARNING

Cancer and Reproductive Harm www.P65Warnings.ca.gov

SAFETY

SAFETY

PARTS SAFETY INSTRUCTIONS AND PRACTICES

PARTS INFORMATION

Use of genuine Schulte replacement parts is your guarantee that parts are of the same quality and are manufactured to the same standards as the original equipment. These parts are made and tested to Schulte specifications. Non-genuine "will fit" parts do not consistently meet these specifications. The use of "will fit" parts may reduce the performance, void Schulte warranties, and present a safety hazard. Use genuine Schulte parts for economy and safety. (SPSI-2) str

SEE YOUR SCHULTE DEALER

CONCLUDING SAFETY INSTRUCTIONS AND PRACTICES

In addition to the design and configuration of this Implement, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the machine. Refer also to Safety Messages and operation instruction in each of the appropriate sections of the Tractor and Equipment Manuals. Pay close attention to the Safety Signs affixed to the Tractor and Equipment. (SG-18)str

Operator's & Parts Manuals

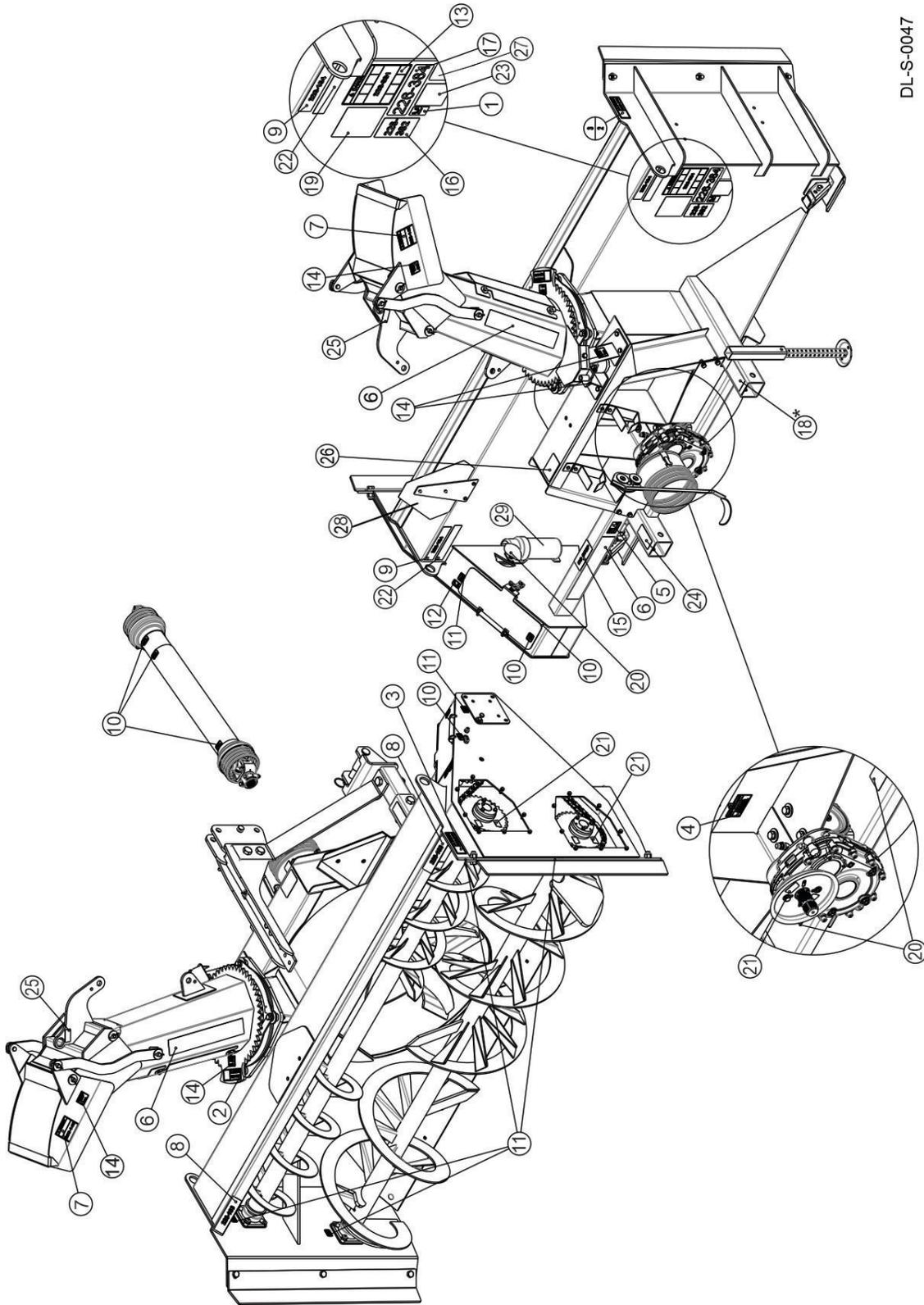


www.algqr.com/spm

SAFETY

SAFETY

DECAL LOCATION



SAFETY

SAFETY

SAFETY

ITEM	PART NO.	QTY	TYPE	DESCRIPTION
1.	226-004	1	LOGO	FEMA Member
2.	226-017	1	DANGER	Rotating Blower
3.	226-018	2	DANGER	Rotating Auger
4.	226-081	1	IMPORTANT	Check Oil Level
5.	226-100	1	SERIAL PLT	Serial Number Plate
6.	226-117	3	LOGO	SCHULTE
7.	226-149	2	DANGER	Thrown Object
8.	226-153	2	REFLECT	Red Reflector, 2" x 9"
9.	226-154	2	REFLECT	Amber Reflector, 2" x 9"
10.	226-181	6	INSTRUCT	8 Hour Grease Interval
11.	226-182	6	INSTRUCT	50 Hour Grease Interval
12.	226-183	1	INSTRUCT	8 Hour Oil Interval
13.	226-331	1	DANGER	Multi-Hazard
14.	226-335	5	WARNING	Pinch Points
15.	226-339	1	INSTRUCT	No Step
16.	226-382	1	DANGER	Entanglement Hazard
17.	226-384	1	DANGER	Multi-Decal
18.	226-414	1	DANGER	Crushing Hazard
19.	226-441	1	DANGER	Driveline Hazard/1000 RPM
20.	226-442	3	DANGER	Guard Missing
21.	226-446	3	DANGER	Guard Missing (Cone)
22.	226-454	2	NAME	SDX-117 Name
23.	226-513	1	WARNING	Use Genuine Schulte Parts
24.	226-560	1	IMPORTANT	Check Overlap/Bottom Out
25.	226-618	2	NOTICE	Blower Lifting Hole
26.	226-678	1	NOTICE	Artic Moly 0 EP Grease
27.	226-679	1	NOTICE	Raising While Under Load
28.	226-013	1	REFLECT	SMV Emblem
29.	280-201	1	---	Canister
30.	B117-010C	1	---	SDX-117 Operator's Manual
31.	250-002	3	---	1/4" Bolt
32.	270-018	3	---	1/4" Lockwasher
33.	256-025	3	---	1/4" Locknut

NOTE: Schulte supplies safety decals on this product to promote safe operation. Damage to the decals may occur while in shipping, use, or reconditioning. Schulte cares about the safety of its customers, operators, and bystanders, and will replace the safety decals on this product in the field, free of charge (Some shipping and handling charges may apply). Contact your Schulte dealer to order replacement decals.

SAFETY

SAFETY

DECAL DESCRIPTION



! DANGER

AVOID BODILY INJURY FROM ROTATING BLOWER.

- Disengage power and shut off engine before unclogging discharge chute and ensure all parts have stopped moving

226-017



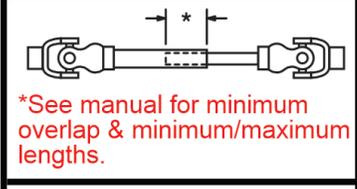
! DANGER

To avoid Death or Serious Injury:

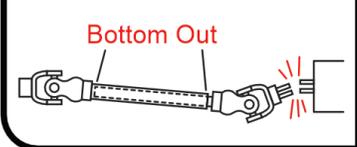
- Keep hands, feet and clothing away from rotating auger.

226-018

IMPORTANT



*See manual for minimum overlap & minimum/maximum lengths.



Bottom Out

Before connecting to a tractor, be sure to check PTO driveshaft for minimum overlap & minimum/maximum lengths. Failure to do so may result in serious damage to the tractor or snow blower. Refer to operator's manual for procedures.

Make sure to check that the shaft will not "bottom out" at any time during use. Failure to do so may result in serious damage to the tractor or snow blower, refer to operator's manual for procedure.

226-560

SAFETY

SAFETY

! DANGER

KEEP AWAY - THROWN OBJECT HAZARD
To Prevent Serious Injury or Death

- Stay away from discharge area during operation. Keep others away.
- Do not operate if passers by are within 200 feet.
- Do not point discharge toward people, animals or property.

226-149

! DANGER

226-446

GUARD MISSING
To Avoid Death Or Serious Injury Do Not Operate

IMPORTANT

**CHECK OIL LEVEL
IN ALL GEARBOXES
BEFORE OPERATION**

226-081

! WARNING

**AVOID PINCH POINTS THAT CAN
RESULT IN SERIOUS INJURY**

226-335

SAFETY

SAFETY

 DANGER			
FAILING TO FOLLOW SAFETY MESSAGES AND OPERATING INSTRUCTIONS CAN CAUSE DEATH OR SERIOUS INJURY TO OPERATOR OR OTHERS IN THE AREA.			
1. READ MANUAL. 	2. NO RIDERS, NO CHILDREN OPERATORS. 	3. USE SEATBELTS, ROPS AND PPE. 	4. BLOCKUP SECURELY BEFORE WORKING UNDER. 
<ol style="list-style-type: none"> 1. Study and understand Operator's Manuals, Safety Signs, and Instructional Decals for tractor & implement to prevent misuse, abuse & accidents. Learn how to stop engine suddenly in an emergency. Be alert for passers by and children. 2. Allow no children on or near implement or tractor. Allow no riders on tractor or implement. Falling off can cause death or serious injury from being run over by tractor or implement or contact with rotating components. 3. Operate only with tractor having Roll-Over Protective Structure (ROPS) and with seatbelt fastened securely and snugly to prevent death or serious injury from falling off tractor or tractor overturn. Personal Protective Equipment such as Hard Hat, Safety Glasses with side shields (marked to comply with ANSI Z87), Safety Shoes, and Ear Plugs are recommended. 4. Block up or support raised machine and all lifted components securely before putting hands or feet under or working underneath any lifted component to prevent death or crushing injury from sudden inadvertent dropping. Make certain that area is clear before lowering. 5. Before transporting, put Lift Lever in Lift (Detent) position and follow traffic codes. Slow down at night, in turns and on hillsides. 6. Make certain that SMV sign, Warning Lights and Reflectors are clearly visible 7. Do not back or operate implement in the reverse direction, possible rocks or debris can fly out and cause death or serious injury. 8. Before dismounting, secure implement in transport position or lower to ground. Stop PTO, put tractor in park or set Brake, stop engine and remove key. Never mount or dismount a moving vehicle. Crushing from run over may cause death or serious injury. <p style="text-align: right;">226-331</p>			
5. TRANSPORT SAFELY. 	6. USE SMV, LIGHTS AND REFLECTORS. 	7. DO NOT OPE.RATE WITH UNIT RAISED 	8. DO NOT MOUNT OR DISMOUNT WHILE MOVING. 

NOTICE

DO NOT USE FOR LIFTING, HOLE IS ONLY TO BE USED FOR ASSEMBLING THE MACHINE.

226-618

NOTICE

GREASE TELESCOPING DRIVESHAFT WITH ARCTIC MOLY 0 EP GREASE. FAILURE TO DO SO MAY RESULT IN MACHINE DAMAGE. SEE OPERATOR'S MANUAL.

226-678

SAFETY

SAFETY

⚠️ WARNING

TO AVOID DEATH OR SERIOUS INJURY:

- ONLY use genuine SCHULTE replacement parts, which have been validated and tested to use on Schulte equipment by the manufacturer.
- The equipment manufacturer cannot verify the material or structural integrity of third-party supplied non-genuine replacement parts.
- Using non-genuine parts can result in the part failing, creating hazardous conditions for operator and bystanders.

Contact local dealer or SCHULTE about repair parts at:
PO BOX 70, Englefeld,
Saskatchewan Canada S0K 1N0
Customer Service: 306-287-3715.
Email: info@schulte.ca



www.algqr.com/swe

⚠️ WARNING

Cancer and Reproductive Harm

www.P65Warnings.ca.gov 226-513

⚠️ DANGER



Entanglement Hazard

To prevent serious Injury

- Do Not operate if Shields or Guards are not secured in place.
- Stop operating implement if bystanders come within 10 feet.
- Do not approach, stand or climb on machine when is operating.
- Stop Tractor Engine, Shut off PTO, Disconnect Implement Driveline from Tractor before servicing, clearing blockage or entangled debris.

226-382

NOTICE

BE SURE TO OPERATE THE BLOWER AT THE DESIRED SET HEIGHT, RAISING THE BLOWER WHILE UNDER LOAD DURING OPERATION MAY RESULT IN MACHINE DAMAGE.

226-679

SAFETY

⚠️ WARNING

For your safety and to guarantee optimum product reliability, always use Genuine SCHULTE replacement parts. The use of inferior "will-fit" parts will void Warranty of your SCHULTE implement and may cause premature or catastrophic failure which can result in death or serious injury. If you have any questions concerning the repair parts you are using, contact Schulte Industries Ltd. Englefeld stock Canada S0K 1N0 1-800-404-6044.

SCHULTE

NOTICE

An OPERATOR'S MANUAL (with Repair Parts Listing) and a WARRANTY REGISTRATION CARD were attached to this Implement during final inspection at the factory. If they were not attached at the time of purchase, please contact your selling dealer at once.

1. Read and understand Manual before operation the implement
2. Complete, sign and mail the Warranty Registration Card in Today.

SAFETY

⚠️ WARNING



DO NOT OPERATE EQUIPMENT WITH OIL LEAKS

1. High pressure fluid can be invisible and can be injected into the body through the skin. Death or serious injury can result. A doctor familiar with this type of injury must surgically remove the injected fluid immediately.
2. You should visually inspect for hydraulic fluid leaks before using the equipment. Never use your hand to check for leaks. Wear oil impenetrable gloves, safety glasses with side shields (marked to comply with ANSI Z87), and use a piece of wood or cardboard to check for evidence of leaks. If you suspect a leak, Remove the hose and have it tested at a Dealer.
3. Inspect hoses regularly, frayed, torn, or crimped hoses may rupture suddenly and violently resulting in serious bodily injury from a flying hose end or from scalding, burn injuries, or oil penetration. Oil sprayed on hot equipment or components can result in fire. Repair or replace hoses as indicated to prevent unexpected failure and possible serious injury to operator or bystanders.

DISCONNECT Hydraulic Hoses From Tractor Before Un-jamming implement.

⚠️ DANGER

CRUSHING AND PINCH POINTS



MOVING MACHINERY PARTS CAN PINCH OR CRUSH OR FALL WHICH MAY CAUSE DEATH OR SERIOUS INJURY.

⚠️ PELIGRO

LEA EL INSTRUCTIVO

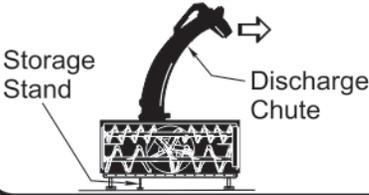


Si No Lee Ingles, Pida Ayuda a Alguien Que Se Lo Lea Para Que Le Traduzca las Medidas de Seguridad

226-384

SAFETY

SAFETY

! WARNING	
	CRUSHING HAZARD Snow Blower can fall if discharge chute is facing forward. Serious Injury can result from contact with falling Snow Blower. 226-414
	Before Disconnecting Snow Blower Swing discharge chute to side of Snow Blower, Lower and lock storage stand in place, Stay away from front of Snow Blower until equipment is stable and secured from falling.

! DANGER	
	226-442
GUARD MISSING To Avoid Death Or Serious Injury Do Not Operate	

SAFETY

SAFETY

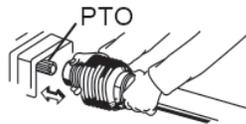
! DANGER



TO AVOID DEATH OR SERIOUS INJURY FROM DRIVELINE CONTACT, DRIVELINE SEPARATION OR PTO STUB SHAFT FAILURE:

- STOP, LOOK and LISTEN for rotating motion before approaching implement.
- STAY AWAY and KEEP hands, feet and body AWAY from driveline & rotating parts until all moving elements have stopped.
- ALWAYS shut off PTO before dismounting.
- DO NOT operate if PTO shields are damaged or missing.
- PUSH AND PULL on yoke until collar clicks and locks yoke in place.
- CHECK driveline guards for free rotation and sufficient overlap to avoid unshielded areas.
- DO NOT USE PTO ADAPTER

226-441_1



! WARNING

OPERATE THIS MACHINE AT

1000 RPM

TRACTOR PTO SPEED ONLY.

Overspeeding PTO may cause component failure resulting in bodily injury.

TRACTOR PTO ROTATION: CLOCKWISE



226-441

SAFETY

FEDERAL LAWS AND REGULATIONS

This section is intended to explain in broad terms the concept and effect of federal laws and regulations concerning employer and employee equipment operators. This section is not intended as a legal interpretation of the law and should not be considered as such.

Employer-Employee Operator Regulations

U.S. Public Law 91-596 (The Williams-Steiger Occupational and Health Act of 1970) OSHA

This Act Seeks:

“...to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources...”

DUTIES

Sec. 5 (a) Each employer-

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

(2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA Training Requirements

Title 29, Code of Federal Regulations Part 1928.57(a)(6). www.osha.gov

Operator instructions. At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee who operates an agricultural tractor and implements in the safe operating practices and servicing of equipment with which they are or will be involved, and of any other practices dictated by the work environment.

Keep all guards in place when the machine is in operation.

Permit no riders on equipment.

Stop engine, disconnect the power source, and wait for all machine movement to stop before servicing, adjusting, cleaning, or unclogging the equipment, except where the machine must be running to be properly serviced or maintained, in which case the employer shall instruct employees as to all steps and procedures which are necessary to safely service or maintain the equipment.

Make sure everyone is clear of machinery before starting the engine, engaging power, or operating the machine.

Employer Responsibilities:

To ensure employee safety during Tractor and Implement operation, it is the employer's responsibility to:

1. Train the employee in the proper and safe operation of the Tractor and Implement.
2. Require that the employee read and fully understand the Tractor and Implement Operator's Manual.
3. Permit only qualified and properly trained employees to operate the Tractor and Implement.
4. Maintain the Tractor and Implement in a safe operational condition and maintain all shields and guards on the equipment.
5. Ensure the Tractor is equipped with a functional ROPS and seat belt and require that the employee operator securely fasten the safety belt and operate with the ROPS in the raised position at all times.
6. Forbid the employee operator to carry additional riders on the Tractor or Implement.
7. Provide the required tools to maintain the Tractor and Implement in a good safe working condition and provide the necessary support devices to secure the equipment safely while performing repairs and service.
8. Require that the employee operator stop operation if bystanders or passersby come within 300 feet.

Child Labor Under 16 Years of Age

Some regulations specify that no one under the age of 16 may operate power machinery. It is your responsibility to know what these regulations are in your own area or situation. (Refer to U.S. Dept. of Labor, Employment Standard Administration, Wage & Home Division, Child Labor Bulletin #102.)

INTRODUCTION SECTION

Introduction Section 2-1

INTRODUCTION

FC-S-0020

INTRODUCTION



The SDX-117 Snow Blowers are designed for removing accumulations of snow from driveways, barnyards, roadways and parking lots. Check local regulations before operating on roadways. With proper maintenance as described in this manual, your Snow Blower will provide you with years of dependable service with a minimum of repairs.

It is recommended that all operators of this implement read this manual or be instructed of its contents as to safety, proper operation, and maintenance before beginning operation.

For the purpose of this Schulte equipment, the following definitions apply.

Left hand side: Side which is to the left when the operator is facing in the normal forward direction of the tractor.

Right hand side: Side which is to the right when the operator is facing in the normal forward direction of the tractor.

Literature Page



www.algqr.com/sle

INTRODUCTION

ATTENTION OWNER/OPERATOR

BEFORE OPERATING THIS MACHINE:

1. Carefully read the Operator's Manual, completely understand the Safety Messages and instructions, and know how to operate correctly both the tractor and implement.
2. Fill out the Warranty Card in full. Be sure to answer all questions, including the Serial Number of the implement. Mail within 30 days of delivery date of this implement.

NOTE: Warranties are honored only if completed "Owner Registration and Warranty" forms are received by Schulte within thirty days of delivery of the implement.

3. Record the Implement Model and Serial Numbers on the Warranty page at the front of the Operator's Manual. Keep this as part of the permanent maintenance file for the implement.

INTRODUCTION

! WARNING

TO AVOID DEATH OR SERIOUS INJURY:

- ONLY use genuine SCHULTE replacement parts, which have been validated and tested to use on Schulte equipment by the manufacturer.
- The equipment manufacturer cannot verify the material or structural integrity of third-party supplied non-genuine replacement parts.
- Using non-genuine parts can result in the part failing, creating hazardous conditions for operator and bystanders.

Contact local dealer or SCHULTE about repair parts at:
PO BOX 70, Englefeld,
Saskatchewan Canada S0K 1N0
Customer Service: 306-287-3715.
Email: info@schulte.ca



www.algqr.com/swe

! WARNING

Cancer and Reproductive Harm

www.P65Warnings.ca.gov 226-513

INTRODUCTION



SCHULTE INDUSTRIES LIMITED - SDX-117 **GENERAL STATEMENT AFFECTING ALL SCHULTE WARRANTY**

Schulte Industries Ltd. warrants to the original purchaser only, that in the event of any defect in material or workmanship in the product sold by Schulte Industries, the subject of this warranty (“the goods”) during the warranty period mentioned below the manufacturer will provide the coverage specified below.

This warranty is in place of any other warranty or guarantee whether implied or expressed in any conditions of purchase of the buyer, and does not extend to impose any further liability on the manufacturer than set out below.

Any work done to the product without being authorized by Schulte, may not be covered by Schulte.

WARRANTY COVERAGE: All coverage applies to manufacturer’s defects only

For Commercial, Agricultural, and Government Use

- Structural Warranty is 1 year from the date of purchase.
- Component Warranty is 1 year from the date of purchase. (Coverage includes hydraulics, drivelines, and gearbox).

For Rental Use

- Component Warranty is 30 Days from the first in-service date.
- Structural Warranty is 30 Days from the first in-service date.
Only Schulte replacement parts qualify under this coverage.

Where legislation allows:

- The dealer is responsible for any labor charges exceeding a reasonable amount as determined by the manufacturer.
- The customer is responsible for the transportation costs of the product or parts to the dealer for repair.
- Ground freight charges for shipping new warrantable replacement parts to the dealer or customer will be covered by Schulte. **Only ground transportation will qualify for reimbursement.**

INTRODUCTION

CONDITIONAL COVERAGE

All warranty is conditional upon:

- Care, Maintenance and Operation in accordance with the manufacturer's specifications and recommendations (as set out, or referred to in the "Operator's Manual") supplied with the product.
- Submission of the Warranty Registration immediately upon sale of the product.
- The Pre-Delivery Inspection sheet must be sent with the Warranty Registration. Failure to comply will result in warranty claims being denied.

EXCLUSIONS

This warranty does not extend to:

- Damage or deterioration after delivery from the manufacturer not attributable to defective material or workmanship.
- Any goods which have sustained damage or deterioration due to encounters with foreign objects for which the product is not intended, inadequate or faulty assembly, improper or inadequate maintenance, neglect, or abuse.
- Shop supplies such as the use of tools, oil or grease used in the repair or replacement of a warrantable part or component.
- Normal wearing parts such as, but are not limited to safety chains, belting, clutch linings, blades and tire wear.

THE WARRANTY CLAIM PROCESS:

- All warranty claims must be submitted as a pre-approval with photos, claimed no later than 60 days after approval.
- The dealer must allow for the examination of the goods by the manufacturer or one of its agents, when requested by the manufacturer to verify that the goods are defective in material or workmanship.
- The Dealer must keep the failed part until the claim is processed, to allow Schulte Industries the option of further examination of the part.

Further examination may mean that pictures are sent, or that the part be returned to Schulte.

- A Return Goods Authorization (RGA) must be sent with any returned part.
- If a failed part is returned to Schulte for examination, Schulte will pay the freight, **Only ground transportation will qualify for reimbursement. Any other types of freight will not be paid, unless authorized on the RGA.**

NOTE: For warranty service or parts the unit can be taken to any authorized Schulte dealer.

Warranty Contacts:

All warranty questions can be emailed to info@schulte.ca or phone Schulte Industries at 1-800-404-6044.

Schulte reserves the right to change and modify this warranty policy at any time.

ASSEMBLY SECTION

Assembly Section 3-1

ASSEMBLY

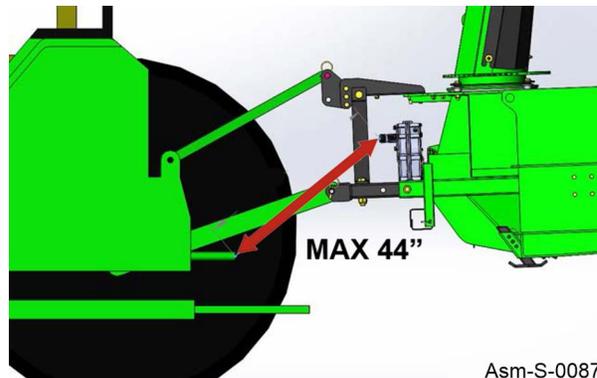
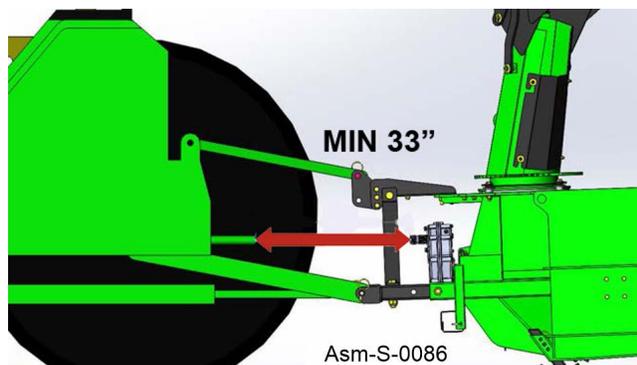
3-POINT HITCH KIT

1. Stake Arms are installed fully retracted for shipping purposes. Stake Arms may have to be extended for use. Refer to illustration of three point hitch parts in the parts manual for part numbers and fastener specifications.
2. Install the Top Link Pin in the hole that matches your 3-point Category and the two Lower Link Pins.
3. Separate the two universal joint halves and apply EP 0, Lithium Complex Grease to all sides of the sliding member. Reassemble the universal joint. Do not install the Universal Joint at this time.
4. Attach the snow blower to the tractor and level the snow blower.

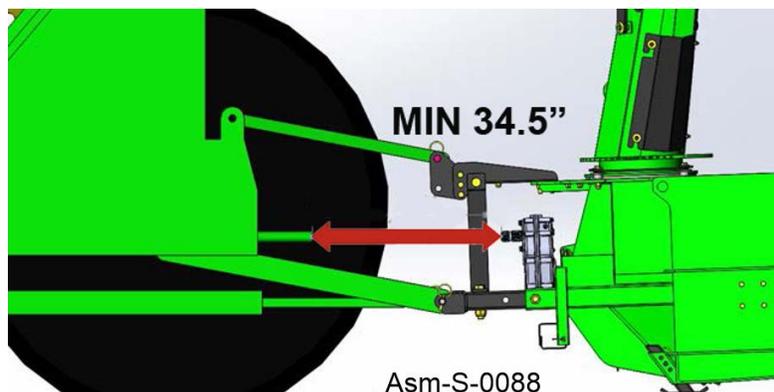
Important

Precautions must be taken when mounting the snow blower to your tractor too ensure that there is adequate clearance to allow the universal joint assembly to operate within its designed slip range.

5. Carefully raise and lower the snow blower.
6. Measure the distance between the end of the snow blower gearbox shaft and the tractor PTO shaft. At any point in the lifting cycle the two shaft ends must be no closer than 33 inches and no further than 44 inches apart. These dimensions will provide the required joint engagement and also ensure that the universal joint halves do not jam together.



7. In order to be able to disconnect the power shaft while the snow blower is connected to the three point hitch, the distance between shaft ends must be 34-1/2" minimum, when the snow blower is on the ground. Stake Arms may have to be adjusted for some tractor installations. The Stake Arms allow for 3 adjustments at 4" intervals.



ASSEMBLY

8. Attach the universal joint assembly to the snow blower and tractor. Depress the lock pin and slide the yoke into place. Release the lock pin.

Important

Pull and push on the quick disconnect yokes several times to ensure that the yokes are properly connected to their respective shafts.

9. Check that the snow blower is level side to side. Adjust tractor lift link if necessary.
10. Check that the tractor three point hitch check chains are snug but not overly tight. Side sway should be kept to a minimum.

Important

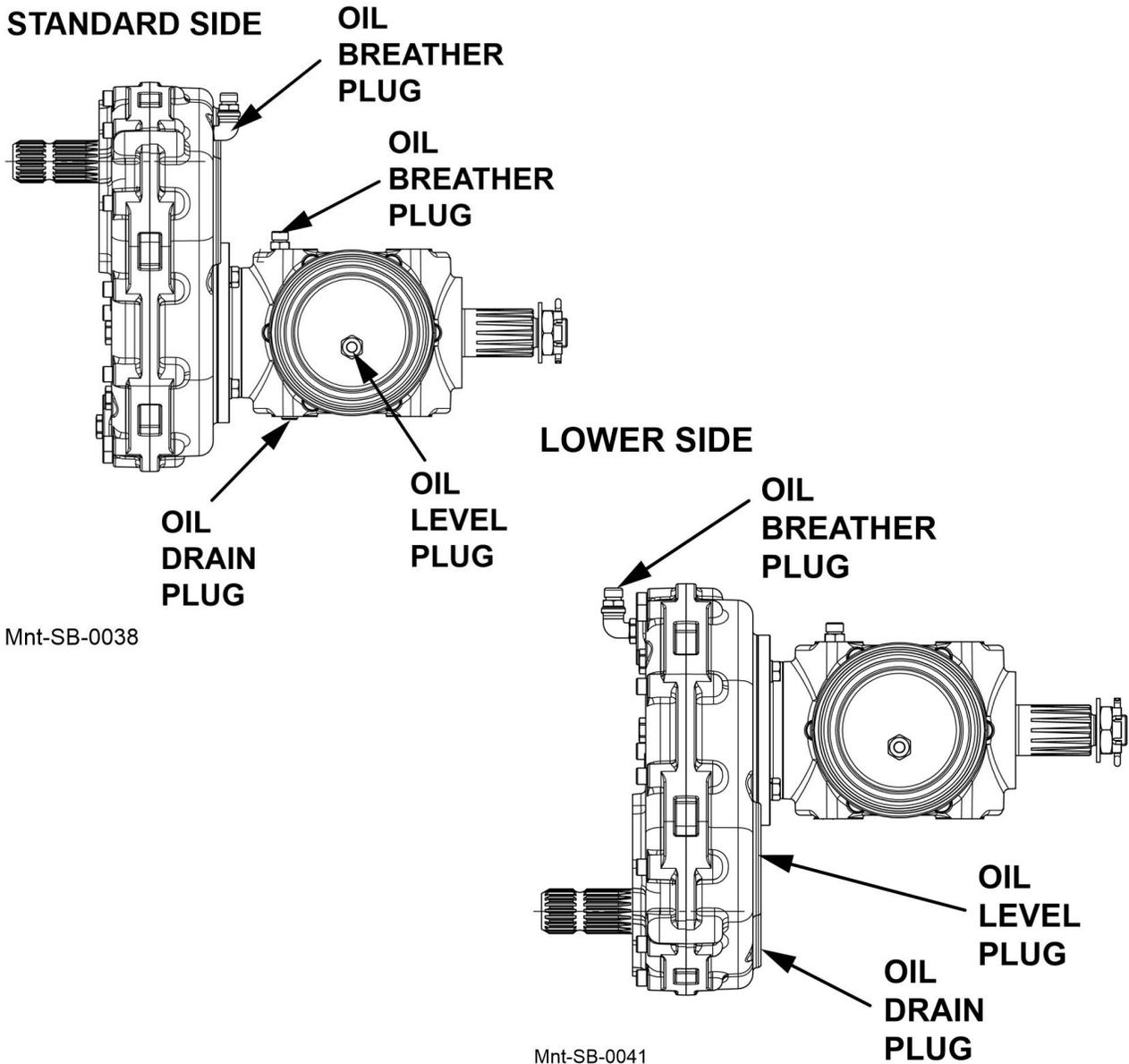
Carefully raise and lower the snow blower and check for any possible interference between the snow blower and tractor. Turn discharge chute full left and right. Make adjustments if necessary.

ASSEMBLY

ASSEMBLY

PARALLEL GEARBOX MOUNTING

The standard position for the parallel shaft gearbox on Schulte SDX-117 snow blowers is with the gearbox upright, the input shaft is in the high position. For mounting to a Schulte front mount frame the parallel shaft gearbox must be rotated down so that the input shaft is in the low position.



The procedure for rotating the parallel shaft gearbox to its low position is as follows:

1. Remove the 4 M12 screws that fix the two housings.
2. Now rotate the parallel portion of the gearbox 180 degrees and replace the four M12 screws and torque them to 1040 in/lbs (87 ft/lbs).
3. Change position of breather plug and drain plug, as shown below.

OPERATION SECTION

Operation Section 4-1

OPERATION

SCHULTE SDX-117 OPERATION INSTRUCTIONS

SCHULTE SDX-117 Snow Blowers are manufactured with quality material by skilled workers. These snow blowers are designed for removing accumulations of snow from driveways, barnyards, roadways, and parking lots. The implement is equipped with enough protective gear to maintain the objects being thrown from SDX-117 to prevent injury to bystanders and others, however, no shielding is 100% accurate. All shields and guards must be maintained in good operational condition.

It is the operator's responsibility to be knowledgeable of all potential operating hazards and to take every reasonable precaution to ensure oneself, others, animals, and property are not injured or damaged by the SDX-117, tractor, or a thrown object. Do not operate the implement if passersby, pets, livestock, or property are within 200 feet of the unit.

This section of the Operator's Manual is designed to familiarize, instruct, and educate safe and proper implement use to the operator. Pictures contained in this section are intended to be used as a visual aid to assist in explaining the operation of a SDX-117 snow blower and are not necessarily of a SDX-117 snowblower. Some pictures may show shields removed for picture clarity. NEVER OPERATE these implements without all shields in place and in good operational condition. The operator must be familiar with the SDX-117 and tractor operation and all associated safety practices before operating the SDX-117 and tractor. Proper operation of the SDX-117, as detailed in this manual, will help ensure years of safe and satisfactory use.

IMPORTANT: To avoid implement damage, re-torque all bolts after the first 10 hours of operation.

READ AND UNDERSTAND THE ENTIRE OPERATING INSTRUCTIONS AND SAFETY SECTION OF THIS MANUAL AND THE TRACTOR MANUAL BEFORE ATTEMPTING TO USE THE TRACTOR AND IMPLEMENT. If you do not understand any of the instructions, contact your nearest authorized dealer for a full explanation. Pay close attention to all safety signs and safety messages contained in this manual and those affixed to the implement and tractor. *OPS-U- 0001str*

READ, UNDERSTAND, and FOLLOW the following Safety Messages. Death or serious injury may occur unless care is taken to follow the warnings and instructions stated in the Safety Messages. Always use good common sense to avoid hazards. (SG-2str)



Si no lee ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad. (SG-3str)

¡ LEA EL
INSTRUCTIVO!



OPERATION

1. STANDARD EQUIPMENT AND SPECIFICATIONS

	SDX-117
Weight (Approximate)	2516 lbs (1144 kg)
Working Width	117" (2972 mm)
Working Length	45-1/2" (1156 mm)
Fan Diameter	38" (965 mm)
Fan Type	5 Paddle
Top Auger Diameter	14" (356 mm)
Bottom Auger Diameter	23" (584 mm)
Fan Speed (at rated PTO speed)	540 RPM
Auger Speed (at rated PTO speed)	185 RPM
Horsepower Requirement	140 - 200 HP
Tractor PTO Speed	1000 RPM
Overall Height	100" (2565 mm)
Overall Height with Truck Loading Chute	149" (3861 mm)
Oil Capacity of Parallel Gearbox	1.27 qt. (1.2L)
Oil Capacity of "T" Gearbox	1.27 qt. (1.2L)

OPERATION

2. OPERATOR REQUIREMENTS

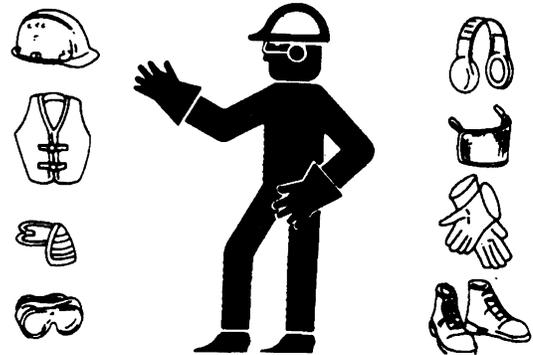
Safe operation of the unit is the responsibility of a qualified operator. A qualified operator has read and understands the implement and power unit Operator's Manuals and is experienced in implement and power unit operation and all associated safety practices. In addition to the safety messages contained in this manual, safety signs are affixed to the implement and power unit. If any part of the operation and safe use of this equipment is not completely understood, consult an authorized dealer for a complete explanation.

If the operator cannot read the manuals for themselves or does not completely understand the operation of the equipment, it is the responsibility of the supervisor to read and explain the manuals, safety practices, and operating instructions to the operator.

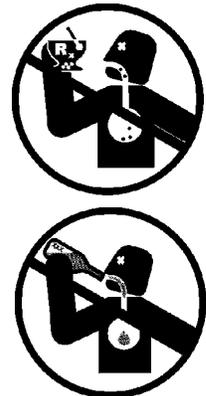
Safe operation of equipment requires that the operator wear approved Personal Protective Equipment (PPE) for the job conditions when attaching, operating, servicing, and repairing the equipment. PPE is designed to provide operator protection and includes the following safety wear:

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Always Wear Safety Glasses
- Hard Hat
- Steel Toe Safety Footwear
- Gloves
- Hearing Protection
- Close Fitting Clothing
- Respirator or Filter Mask (depends on operating conditions) OPS-U- 0002_Astr



DO NOT use drugs or alcohol immediately before or while operating the Tractor and Implement. Drugs and alcohol will affect an operator's alertness and coordination and therefore affect the operator's ability to operate the equipment safely. Before operating the Tractor or Implement, an operator on prescription or over-the-counter medication must consult a medical professional regarding any side effects of the medication that would hinder their ability to operate the Equipment safely. NEVER knowingly allow anyone to operate this equipment when their alertness or coordination is impaired. Serious injury or death to the operator or others could result if the operator is under the influence of drugs or alcohol. (SG-27) str



OPERATION

3. TRACTOR REQUIREMENTS

The tractor used to operate the snow blower must have the power capacity to lift, pull, and operate the Power Take Off (PTO) at the snow blower's rated speed while traveling at a ground speed between 2 and 5 MPH. Operating the snow blower with a tractor that does not meet the following requirements may cause tractor or snow blower damage and be a potential danger to the operator and passersby.

Tractor Requirements and Capabilities

- Certified approved Roll-Over Protective Structure (ROPS) or ROPS cab and seat belt.
- Tractor Safety Devices Slow Moving Vehicle (SMV) emblem, lighting, PTO master shield
- Tractor Horsepower - Recommended..... SDX-117 140-200 HP
- 3-Point Hitch-Lifting CapacitySDX-117 2516lb
 - Category..... CAT 2-3 Bushing and CAT 2 Top Pin
- Front End Weights As needed to maintain 20% weight on front axle
- Power Take Off Operating speed and shaft size should be 1000 RPM

3.1 ROPS and Seat Belt

The tractor must be equipped with a Roll-Over-Protective-Structure (ROPS), tractor cab, or roll-bar and seat belt to protect the operator from falling off the tractor, especially during a roll over where the driver could be crushed and killed. Only operate the tractor with the ROPS in the raised position and seat belt fastened. Tractor models not equipped with a ROPS and seat belt should have these life saving features installed by an authorized dealer. OPS-U- 0003str



Operate this Equipment only with a Tractor equipped with an approved roll-over-protective system (ROPS). Always wear seat belts. Death or serious injury could result from falling off the tractor, particularly during a turnover when the operator could be pinned under the ROPS. (SG-7) str



3.2 Tractor Safety Devices

If transporting or operating the tractor and implement near a public roadway, the tractor must be equipped with proper warning lighting and a Slow Moving Vehicle (SMV) emblem which are clearly visible from the rear of the unit. Lights and a SMV emblem must be equipped directly on implements if the visibility of the tractor warning signals are obscured.

Maintain all manufacturer equipped safety shields and guards. Always replace shields and guards that were removed for access to connect, service, or repair the tractor or implement. Never operate the tractor PTO with the PTO master shield missing or in the raised position. OPS-U- 0004str

3.3 Tractor Horsepower

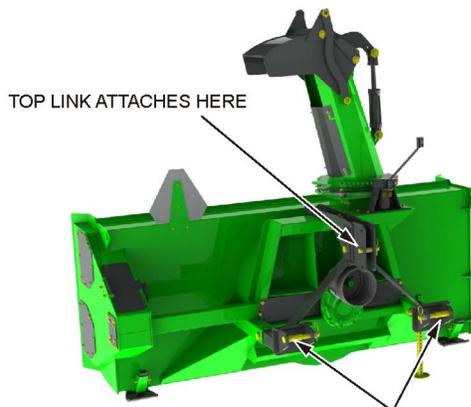
The horsepower required to operate the implement depends on several operating factors including terrain condition, operator experience, condition of the implement and tractor, and other factors. The recommended tractor HP for the SDX-117 is 140-200hp. Operating the implement with a larger tractor will greatly increase the risk of damaging the implement.

OPERATION

3.4 3-Point Hitch

The tractor 3-point hitch must be rated to lift at least 2516 lbs (1144 kg) when attaching a SDX-117.

The Snow Blower can attach to tractors with a 3-point hitch frame. The snow blower comes with CAT 2-3 lower pins and a CAT 2 top pin. Refer to the tractor operator manual for the category of the tractor used. If the hitch does not conform to ASABE dimensions, the implement may not fit or raise properly. Consult an authorized dealer for possible modification procedures to mount non-conforming hitches. Use the correct hitch pins for the hitch being used.



LIFT ARMS ATTACH HERE Ops-1521

WARNING

Never crawl under a raised Implement supported solely by the Tractor 3-Point hitch. Release of the control lever or mechanical failure will result in the Implement falling and possible injury or death. Always securely block up the Implement before crawling underneath to perform repairs and service. (S3PT-19) str

DANGER

A rear Implement can fall if not properly supported. Always use the stand on the front hitch (if equipped) or block up securely to prevent falling and possible crushing injury and/or other injury from holding or lifting heavy components. Use the stand to stabilize the implement during storage. (S3PT-3) str

3.5 Tractor Hydraulics

To be able to operate the hydraulic chute rotator the tractor requires a dual remote outlet. This is only required on units with the hydraulic chute rotator. The hydraulic chute allows you to rotate your chute to blow snow at different angles. Be particularly careful when rotating the chute at different angles, be sure there are no bystanders or animals within 200 ft. in the direction you are blowing snow.

3.6 Front End Weight

A minimum of 20% total tractor weight must be maintained on the tractor front end at all times. Front end weight is critical to maintain steering control and to prevent the tractor from rearing up while driving. If the front end is too light, add weight until a minimum of 20% total weight is reached on the front tires. Front weights and weight carriers can be purchased through an authorized tractor dealership. OPS-U-0005 str

OPERATION

3.7 Power Take Off (PTO)

The implement is designed to operate at a PTO speed of 540 RPM. Most tractors operate at either 540, or a combination of 540 and 1000 RPM PTO speeds. The operating speed of the implement and tractor can be determined by the number of splines on the driveline yoke and PTO output shaft. Those operating at 540 RPM will have a 1-3/8" diameter 6-spline shaft and those operating at 1000 RPM will have a 1-3/8" 21-spline shaft or a 1-3/4" 20 spline shaft. Refer to the tractor owner's manual for instructions to change PTO speeds on models that operate at more than one speed.

If operating an older model tractor where the tractor's transmission and PTO utilize one master clutch, an over-running clutch must be used between the PTO output shaft and the driveline of the snow blower. An authorized tractor dealer can provide the over-running clutch and its installation if needed.

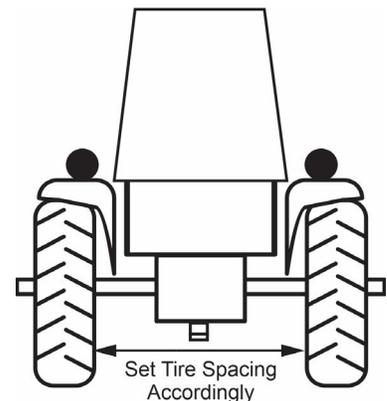


DO NOT use a PTO adapter to attach a non-matching Implement driveline to a Tractor PTO. Use of an adapter can double the operating speed of the Implement resulting in excessive vibration, thrown objects, and blade and implement failure. Adapter use will also change the working length of the driveline exposing unshielded driveline areas. Serious bodily injury and/or equipment failure can result from using a PTO adapter. Consult an authorized dealer for assistance if the Implement driveline does not match the Tractor PTO. (S3PT-14) str

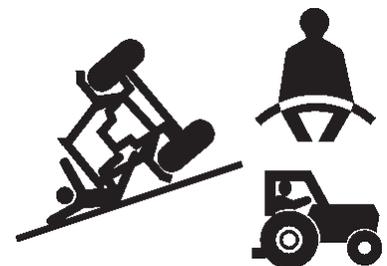
3.8 Tire Spacing



The tire spacing of the tractor must be sufficient to maintain stability on the type of terrain where it is intended to be operated and for the type of implement that is being operated. Always refer to the tractor Operator's Manual or consult the tractor's authorized dealer for instructions on sufficient tire spacing or to change tractor tire spacing. Operating without sufficient tire spacing to maintain stability can result in loss of control of the tractor, a rollover accident, or death or serious injury.



Operate this Equipment only with a Tractor equipped with an approved roll-over-protective system (ROPS). Always wear a seat belt. Death or serious injury can result from falling off the tractor and/or becoming pinned or trapped under the tractor or implement particularly during a rollover accident.



OPERATION

OPERATION

4. GETTING ON AND OFF THE TRACTOR

Before getting onto the tractor, the operator must read and completely understand the implement and tractor operator manuals. If any part of either manual is not completely understood, consult an authorized dealer for a complete explanation. OPS-U- 0007str



Do not mount the Power Unit while the Power Unit is moving. Mount the Power Unit only when the Power Unit and all moving parts are completely stopped. (SPU-18) str



4.1 Boarding the Tractor

Use both hands and equipped handrails and steps for support when boarding the tractor. Never use control levers for support when mounting the tractor. Seat yourself in the operator's seat and secure the seat belt around you.

Never allow passengers to ride on the tractor or attached equipment. Riders can easily fall off and be seriously injured or killed from falling off and being ran over. It is the operator's responsibility to forbid all extra riders at all times. OPS-U- 0008str



Never allow children to operate, ride on, or come close to the Tractor or Implement. Usually, 16-17 year-old children who are mature and responsible can operate the implement with adult supervision, if they have read and understand the Operator's Manuals, been trained in proper operation of the tractor and Implement, and are physically large enough to reach and operate the controls easily. (SG-11) str



Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in death or serious injury. (SG-10)str



4.2 Dismounting the Tractor

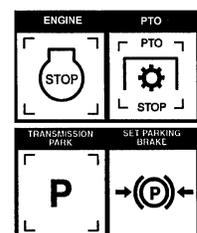
Before dismounting, park the tractor and implement on a reasonably level surface, apply the parking brake, idle the engine down, disengage the PTO, and lower the implement to the ground. Shut down the tractor engine according to the operator's manual, remove the key, and wait for all motion to completely stop. Never leave the seat until the tractor, its engine and all moving parts have come to a complete stop.

Use hand rails and steps when exiting the tractor. Be careful of your step and use extra caution when mud, ice, snow or other matter has accumulated on the steps or hand rails. Use all handrails and steps for support and never rush or jump off the tractor. OPS-U- 0009 str



BEFORE leaving the tractor seat lower the implement, set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only.

(SG-9)str



OPERATION

5. STARTING THE TRACTOR

The operator must have a complete understanding of the placement, function, and operational use of all tractor controls before starting the tractor. Review the tractor operator's manual and consult an authorized dealer for tractor operation instructions if needed.

Essential Tractor Controls:

- Locate the light control switch
- Locate the engine shut off control
- Locate the brake pedals and the clutch
- Locate the PTO control
- Locate the 3-point hitch control lever
- Locate the hydraulic remote control levers

Before starting the tractor ensure the following:

- Conduct all pre-start operation inspection and service according to the tractor operator's manual.
- Make sure all guards, shields, and other safety devices are securely in place.
- The parking brake is on.
- The PTO control lever is disengaged.
- The 3-point hitch control lever is in the lowered position.
- The hydraulic remote control levers are in the neutral position.
- The tractor transmission levers are in park or neutral.

Refer to the tractor owner's manual for tractor starting procedures. Only start the tractor while seated and belted in the tractor operator's seat. Never bypass the ignition switch by short circuiting the starter solenoid.

After the tractor engine is running, avoid accidental contact with the tractor transmission to prevent sudden and unexpected tractor movement. OPS-U-0028str



Never run the Power Unit engine in a closed building or without adequate ventilation. The exhaust fumes can be hazardous to your health. (SPU-23) str



Start the Power Unit only when properly seated in the Power Unit seat. Starting a Power Unit in gear can result in injury or death. Read the Power Unit Operator's Manual for proper starting instructions. (SPU-19) str



OPERATION

6. CONNECTING THE SNOW BLOWER TO THE TRACTOR

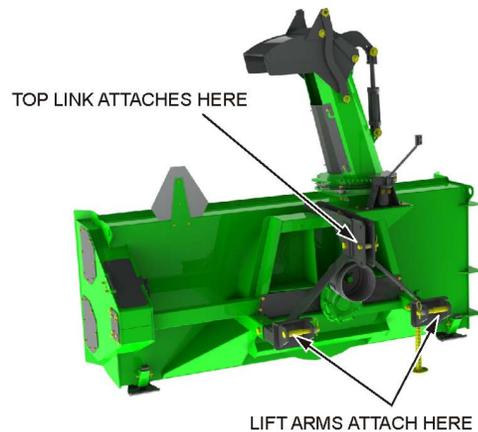
Use extreme caution when connecting the snow blower to the tractor. The snow blower should be securely resting at ground level with the parking jack foot. Keep hands and feet out from under the snowblower and clear of pinch points between the tractor and snow blower.



Always shut the Tractor completely down, place the transmission in park, and set the parking brake before you or anyone else attempts to connect or disconnect the Implement and Tractor hitches. (S3PT-15) str

6.1 Connecting the Snow Blower A-Frame to the Tractor

1. Make sure the tractor is equipped with the correct PTO shaft. Change shafts if needed.
2. Shorten or remove the tractor drawbar to avoid interference when raising and lowering the implement.
3. Board the tractor and start the engine. Position the tractor to the snow blower with the 3-point lift arms positioned to attach to the snow blower lower link pins. **Note:** Set the 3-point lift control to "Position Control" so that the lift arms maintain a constant height when attaching the snow blower. See the tractor Operator's Manual for correct settings when attaching 3-point equipment.
4. Turn off the tractor engine and dismount.
5. One lift arm at a time, attach the tractor lower link arms to the snow blower lower link pins. Then install lynch pins in the ends of the lower link pins.
6. Extend or retract 3-point top link to align its end hole with the holes of the snow blower's top link. Insert the top link hitch pin and insert lynch pin into hitch pin to hold the upper top link.
7. Check that the snow blower is level side to side. Adjust tractor lift link if necessary.
8. Adjust any lower link check chains, guide blocks, or sway blocks to prevent the snow blower from swaying side to side and possible contact with tractor rear tires.



Always shut the Tractor completely down, place the transmission in park, and set the parking brake before you or anyone else attempts to connect or disconnect the Implement and Tractor hitches. (S3PT-15) str

9. Adjust the chute crank handle in or out to suit your particular tractor then reinsert the 5/16 x 2 cotter pin through the crank handle and sleeve. Spread the ends of the cotter pins.

Important

Carefully raise and lower the snow blower and check for any possible interference between the snow blower and tractor. Turn discharge chute full right. Make adjustments if necessary.

OPERATION

Important

Before operating the snow blower, carefully read the 'Safety' and 'Operation' sections of this Operator's Manual.

DANGER

Never work under the Implement, the framework, or any lifted component unless the Implement is securely supported or blocked up to prevent sudden or inadvertent falling which could cause death or serious injury. (SG-14)str



WARNING

Never crawl under a raised Implement supported solely by the Tractor 3-Point hitch. Release of the control lever or mechanical failure will result in the Implement falling and possible injury or death. Always securely block up the Implement before crawling underneath to perform repairs and service. (S3PT-19) str

OPERATION

7. DRIVELINE ATTACHMENT

The driveline yoke and tractor PTO shaft must be dirt free and greased for attachment.

Grease applied to PTO Shaft should meet the following recommendations: Use EP 0, Lithium Complex Grease

To connect the snow blower driveline to the tractor, lift the PTO output shaft off of the PTO holder A.



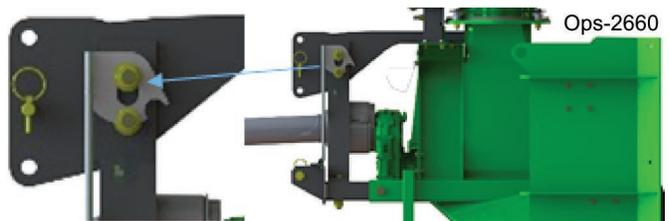
Ops-2659

Twist the driveline yoke collar and align the grooves and spines of the yoke with those of the PTO shaft. Push the driveline yoke onto the PTO shaft, release the locking collar, and position the yoke until the locking collar balls are seated onto the PTO shaft. Push and pull the driveline back and forth several times to ensure a secure attachment.



Ops-1144

Lift the PTO holder, rotate and lower it into the in service position



Ops-2660

OPERATION

⚠ DANGER

There are obvious and hidden potential hazards in the operation of this Implement as in all power-driven or pulled equipment. **REMEMBER!** This machine is often operated in rough terrain conditions that include gullies, holes, slopes, hidden obstructions and the like. Serious injury or even death may occur unless care is taken to assure the safety of the operator and bystanders in the area. Do not operate this machine with anyone in the immediate area. Stop operating if anyone comes within 200 feet of the equipment. . (SSB-34) str

⚠ WARNING

When attaching the Implement input driveline to the Tractor PTO, it is important that the connecting yoke spring activated locking collar slides freely and the locking balls are seated securely in the groove on the Tractor PTO shaft. Push and pull the driveline back and forth several times to ensure it is securely attached. A driveline not attached correctly to the Tractor PTO shaft could come loose and result in personal injury and damage to the Implement. (S3PT-17 str)

7.1 Driveline Length Check

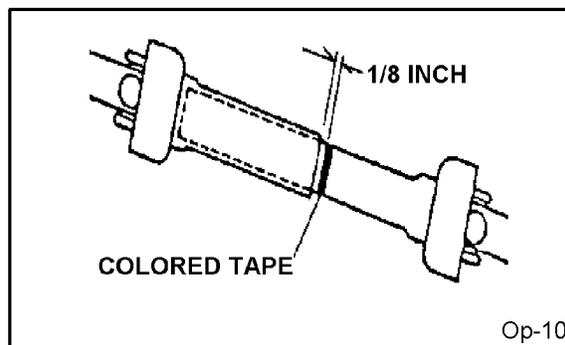
⚠ WARNING

Before operating the Implement, check to make sure the Implement input driveline will not bottom out or become disengaged. Bottoming out occurs when the inner shaft penetrates the outer housing until the assembly becomes solid-it can shorten no more. Bottoming out can cause serious damage to the Tractor PTO by pushing the PTO into the Tractor and through the support bearings or downward onto the PTO shaft, breaking it off. A broken driveline can cause personal injury. (S3PT-18 str)

When fitting the Snow Blower to the tractor, the telescoping driveline must be inspected to ensure that at its most compressed position, the profiles do not “bottom out”, and when at its farthest extended position, there is sufficient engagement between the profiles to operate safely. At its shortest length, there must be at least a 1” clearance between each profile end and opposite profile universal joint. At its farthest extension, a minimum profile engagement of 6” must be maintained for a Constant Velocity (CV) tube type driveline and a minimum engagement of 6” for non-CV solid shaft drivelines.

7.2 “Bottoming Out” Check Procedure

- Disconnect driveline from the tractor and slide the profiles together until fully compressed.
- Place a mark on the inner shield 1/8” from the end of the outer shield and reattach the driveline to the PTO shaft.
- With the **PTO NOT TURNING**, carefully raise and lower the snow blower and watch shaft movement.
- If the distance between the mark and the outer shield becomes less than 2” at any point there is a potential problem bottoming out the driveline and the driveline should be replaced with shorter driveline. Contact your local dealer or Technical Service for proper directions. OPS-SB-0035 str



Driveline in maximum compressed position

NOTE: If tractor has a 540 RPM PTO, adjusting to a 16 inch position will gain additional 2 inches of telescoping length.

OPERATION

7.3 Engagement Check Procedure

- With the driveline attached, position the Snow Blower to the point where the telescoping driveline is at its maximum extension. Completely shut down the tractor and secure in position.
- Mark the inner driveline shield 1/8" from the end of the outer shield.
- Disconnect the driveline from the tractor and separate the two driveline halves.
- Measure the distance from the mark to the end of the inner profile. This length is the amount the driveline profiles were engaged.
- If the engaged length is less than 6", the shaft is considered too short and should be replaced with a longer shaft. Consult an authorized dealer to purchase the required driveline length.

NOTE: *If the driveline cannot be shortened and still maintain the required profile engagement, the operator must be made aware of terrain conditions and avoid situations which pose a potential problem to avoid damaging the driveline or move drawbar to 16" or 20" position for required clearance.*

7.4 Connecting Snow Blower Hydraulic Lines to the Tractor

With the tractor shut down and secured in position, relieve hydraulic pressure from the tractor by moving the control levers back and forth several times or placing the levers in the float position. Keep implement hydraulic lines, hoses, quick couplers, and swivels free of contamination. Never leave a disconnected hose end open and cap the tractor hydraulic outlet ports when not in use. If the tractor ports, Snow Blower ports and hydraulic hose ends become contaminated, wipe clean with a rag before connecting.



Do not operate this Equipment with hydraulic oil or fuel leaking. Oil and fuel are explosive and their presence could present a hazard. Do not check for leaks with your hand! High-pressure oil streams from breaks in the line could penetrate the skin and cause tissue damage including gangrene. To check for a hose leak, SHUT the unit ENGINE OFF and remove all hydraulic pressure. Wear oil impenetrable gloves, safety glasses and use cardboard to check for evidence of oil leaks. If you suspect a leak, REMOVE the HOSE and have it tested at a Dealer. If oil does penetrate the skin, have the injury treated immediately by a physician knowledgeable and skilled in this procedure. (SG-15) str



7.5 Hydraulic Cylinder Priming

Hydraulic Cylinder must be filled with hydraulic oil before operating. Hydraulic cylinders and lines are filled by holding the valve control levers in the extended position until the cylinder fully retracts and extends. Place control levers in the float position and repeat process several more times to purge all air from the system.

OPERATION

8. PRE-OPERATION INSPECTION AND SERVICE

Before each use, a pre-operation inspection and service of the snow blower and tractor must be performed. This includes routine maintenance and scheduled lubrication, inspecting that all safety devices are equipped and functional, and performing needed repairs. Do not operate the snow blower and tractor if the pre-operation inspection reveals any condition affecting safe operation. Perform repairs and replacement of damaged and missing parts as soon as noticed. By performing a thorough pre-operation inspection and service, valuable down time and repair cost can be avoided.



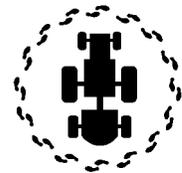
Never work under the Implement, the framework, or any lifted component unless the Implement is securely supported or blocked up to prevent sudden or inadvertent falling which could cause death or serious injury. (SG-14)str



Always disconnect the main PTO Driveline from the Tractor before performing service on the Implement. Never work on the Implement with the tractor PTO driveline connected and running. Rotating Parts, Blades or Drivelines could turn without warning and cause immediate entanglement, injury or death. (S3PT-11)str



Periodically inspect all moving parts for wear and replace when necessary with authorized service parts. Look for loose fasteners, worn or broken parts, and leaky or loose fittings. Make sure all pins have cotter pins and washers. Serious injury may occur from not maintaining this machine in good working order. (SG-21)str



OPERATION

8.1 Snow Blower Pre-Operation Inspection/Service

Before each implement use, a complete inspection and service is required to ensure the implement is in a good and safe working condition. Damaged and/or broken parts should be repaired and/or replaced immediately. To ensure the implement is ready for operation, conduct the following.

The operator's manual and safety signs affixed on the unit contain important instructions on the safe and proper use of the equipment. Maintain these important safety features on the implement in good condition to ensure the information is available to the operator at all times.

- Ensure the manual canister is secured to the equipment with the operator's manual inside.
- Ensure all safety signs are in place and legible. Replace missing, damaged, and illegible decals. *OPS-U- 0011 str*



Op-14

- Check that the main driveline is securely attached to the tractor and the locking collar is seated in the groove of the PTO Shaft.
- Check that the snow blower driveline is securely attached.
- Inspect that the snow blower pivot pins are the proper size, correctly installed, and secured to the tractor lift arms with retaining pins inserted. *OPS-SB-0007 str*



Op-254

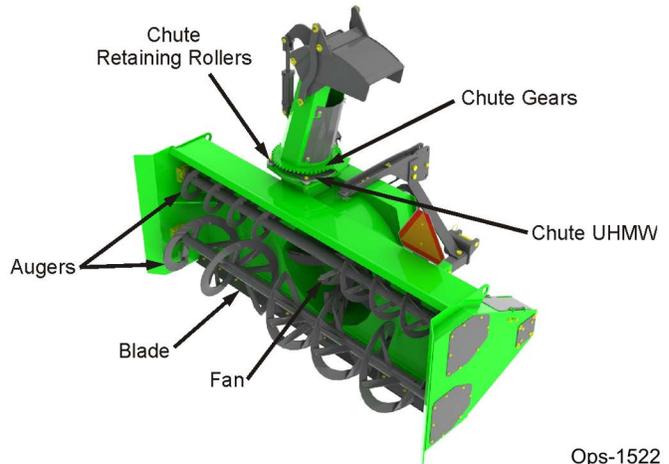
⚠ WARNING

When attaching the Implement input driveline to the Tractor PTO, it is important that the connecting yoke spring activated locking collar slides freely and the locking balls are seated securely in the groove on the Tractor PTO shaft. Push and pull the driveline back and forth several times to ensure it is securely attached. A driveline not attached correctly to the Tractor PTO shaft could come loose and result in personal injury and damage to the Implement. *(S3PT-17 str)*

OPERATION

OPERATION

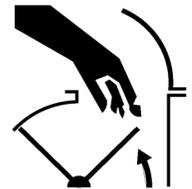
- Ensure fans are in good working condition and rotate freely.
- Ensure chute ring is rotating freely.
- Ensure the driveline integral shields are in good condition and rotate freely.
- Inspect that all bolts and screws are in position and are properly torqued.
- Check blade wear and if worn reverse it or replace. *OPS-SB-0008_C str*



Ops-1522

DANGER

Do not put hands or feet near the rotating fan. Fan contact can result in serious injury or even death. Stay away until all motion has stopped and the snow blower is securely blocked up before removing material, performing service, and making repairs. *(SSB-6)str*



DANGER

Do Not put hands or feet near the rotating auger. Auger contact can result in serious injury or even death. Stay away until all motion has stopped and the snow blower is securely blocked up before removing material, performing service, and making repairs. *(SSB-5)str*



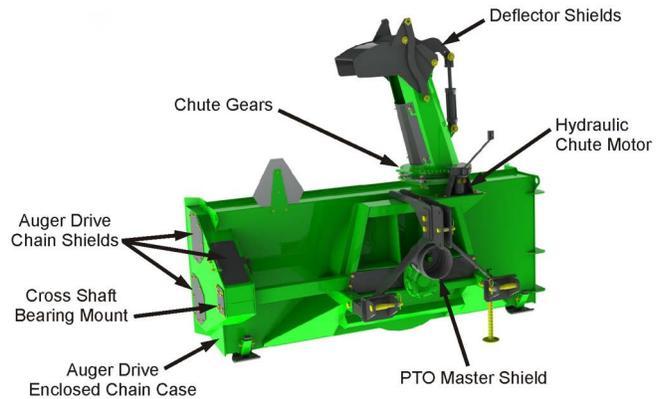
DANGER

Never work under the Implement, the framework, or any lifted component unless the Implement is securely supported or blocked up to prevent sudden or inadvertent falling which could cause death or serious injury. *(SG-14)str*



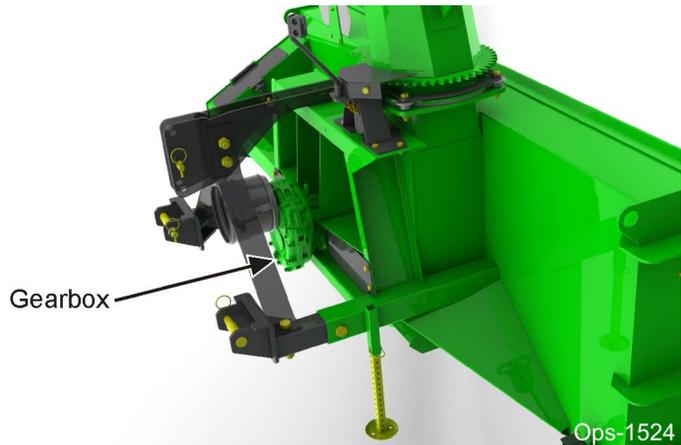
OPERATION

- Ensure the deflector chute shield is in good condition.
- Ensure the drive chain shield is in place and in good repair.
- Ensure the tractor PTO master shield is in place, lowered and in good condition.
- Inspect that the chute cable is not excessively frayed or worn out. *OPS-SB-0028_B str*



Ops-1523

- Perform scheduled lubrication as specified in the Maintenance Section.
- Inspect the oil level in gearbox and replenish if needed. A low oil level is a warning sign that the gearbox may be cracked or its seal is damaged and needs to be replaced.
- Ensure all gearbox vents are in place and free from clogs.
- If the fan must be removed from the gearbox, antiseize must be added to the shaft prior to installation. *OPS-SB-0029_B str*



Ops-1524

- Ensure the hydraulic cylinder and hydraulic motors are installed and retained correctly. Ensure the proper size pins are used to retain the cylinder in place and are secured. Ensure the bolts used to retain the hydraulic motor are secured and that the pinions attached to the motor are secured and not worn.
- Check for hydraulic oil leaks on the cylinder, motors, along the hydraulic lines, and at tractor hydraulic ports.

IMPORTANT: DO NOT use your hands to check for oil leaks. Use a piece of heavy paper or cardboard to check for hydraulic oil leaks. *OPS-SB-0030_C*



Ops-2357

OPERATION

TRACTOR PRE-OPERATION INSPECTION



Tractor ID# _____

Date: _____

Make : _____

Shift: _____



Before conducting the inspection, make sure the tractor engine is off, all rotation has stopped and the tractor is in park with the parking brake engaged. Make sure the implement is resting on the ground or securely blocked up and all hydraulic pressure has been relieved.

OPERATION

Item	Condition at Start of Shift	Specific Comments if not OK
The flashing lights function properly		
The SMV Sign is clean and visible		
The tires are in good condition with proper pressure		
The wheel lug bolts are tight		
The tractor brakes are in good condition		
The steering linkage is in good condition		
There are no visible oil leaks		
The hydraulic controls function properly		
The ROPS or ROPS Cab is in good condition		
The seatbelt is in place and in good condition		
The 3-point hitch is in good condition		
The drawbar pins are securely in place		
The PTO master shield is in place		
The engine oil level is full		
The brake fluid level is full		
The power steering fluid level is full		
The fuel level is adequate		
The engine coolant fluid level is full		
The radiator is free of debris		
The air filter is in good condition		
Proper hourly greasing is done per Operator's Manual		

Operator's Signature: _____

DO NOT OPERATE an UNSAFE TRACTOR or IMPLEMENT

OPERATION

SNOW BLOWER PRE-OPERATION INSPECTION



Implement ID# _____
 Date: _____
 Make: _____
 Shift: _____

IMPORTANT: Scan this QR Code for an electronic copy of this inspection sheet.

Inspection Sheets



www.algqr.com/sbi



Before conducting the inspection, make sure the skid steer engine is off, all rotation has stopped and the skid steer is in park with the parking brake engaged. Make sure the implement is resting on the ground or securely blocked up and all hydraulic pressure has been relieved.

OPERATION

Item	Condition at Start of Shift	Specific Comments if not OK
The Operator's Manual is in the canister on the mower		
All safety decals are in place and legible		
The SMV sign is in place and is clean and visible.* If applicable		
3-Pt. Hitch or Skid Steer connections, bolts & pins are secure.		
There are no signs of cracks or stress on machine.		
The 3-Pt. Hitch sway bar/chains are secure & tight.* If applicable.		
The hydraulic hose connections are securely attached.		
There are no leaks or damaged hoses		
The hydraulic cylinder pins are secure.		
The snow blower discharge shoot is clear of ice/debris.		
Snow discharge shoot is in place & in good condition.		
PTO Driveline/Gearbox shields are in good condition.		
Driveline yokes are securely attached to Tractor PTO and blower.* If applicable.		
Gearbox mounting bolts are tight.		
Gearbox oil is at the proper level.		
Snow blower fan blades are not chipped, cracked or bent.		
Machine is lubricated as per Operator's Manual.		

Operator's Signature: _____

DO NOT OPERATE an UNSAFE TRACTOR or IMPLEMENT

OPERATION

9. DRIVING THE TRACTOR AND SNOW BLOWER

Safe tractor transport requires the operator possess a thorough knowledge of the model being operated and precautions to take while driving with an attached implement. Ensure the tractor has the capacity to handle the weight of the implement and the tractor operating controls are set for safe transport. To ensure safety while driving the tractor with an attached implement, review the following.

WARNING

Transport only at speeds where you can maintain control of the equipment. Serious accidents and injuries can result from operating this equipment at high speeds. Understand the Tractor and Implement and how it handles

before transporting on streets and highways. Make sure the Tractor steering and brakes are in good condition and operate properly.



Before transporting the Tractor and Implement, determine the proper transport speeds for you and the equipment. Make sure you abide by the following rules:

Test the tractor at a slow speed and increase the speed slowly. Apply the Brakes smoothly to determine the stopping characteristics of the Tractor and Implement. As you increase the speed of the Tractor the stopping distance increases. Determine the maximum transport speed not to exceed 20 mph (30 kph) for transporting this equipment.

Test the equipment at a slow speed in turns. Increase the speed through the turn only after you determine that the equipment can be operated at a higher speed. Use extreme care and reduce your speed when turning sharply to prevent the tractor and implement from turning over. Determine the maximum turning speed for you and this equipment before operating on roads or uneven ground.



Only transport the Tractor and Implement at the speeds which allow you to properly control the equipment.

Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes or worn tires. When operating down a hill or on wet or rain slick roads, the braking distance increases: use extreme care and reduce your speed. When operating in traffic always use the Tractor's flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy. (SG-19)str

DANGER

This Implement may be wider than the Tractor. Be careful when operating or transporting this equipment to prevent the Implement from running into or striking sign posts, guard rails, concrete abutments or other solid objects. Such an impact could cause the Implement and Tractor to pivot violently resulting in loss of steering control, death, or serious injury. Never allow the Implement to contact obstacles. (S3PT-12)str

OPERATION

9.1 Starting the Tractor

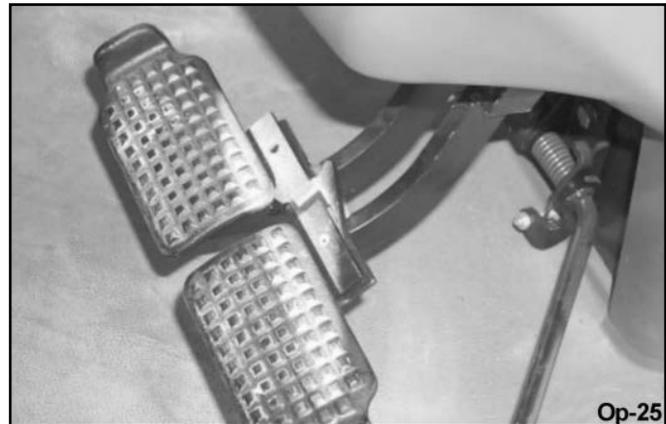
The procedure to start the tractor is model specific. Refer to the tractor operator's manual for starting procedures for your particular tractor. Consult an authorized dealer if the starting procedure is unclear. Ensure the 3-point control lever is in the lowered position and the PTO is disengaged before starting the tractor.



9.2 Brake Lock and Differential Setting

Make sure the tractor brakes are in good operating condition. Tractor brakes can be set to operate independently allowing single rear wheel braking action or locked together to provide simultaneous rear wheel braking. FOR MOST DRIVING AND OPERATING CONDITIONS, THE BRAKE PEDALS SHOULD BE LOCKED TOGETHER TO PROVIDE THE MOST EFFECTIVE BRAKING ACTION.

Always disengage the tractor differential lock when turning. When engaged the differential lock will prevent or limit the tractor from turning. During normal cutting conditions, locking the differential provides no benefit and should not be used.



WARNING

Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes. When operating down a hill or on wet or rain slick roads, the braking distance increases. Use extreme care and reduce your speed in these conditions. When operating in traffic, always use the Tractor's flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy. OPS-U- 0013 str

OPERATION

OPERATION

9.3 Driving the Tractor and Snow Blower

Start off driving at a slow speed and gradually increase your speed while maintaining complete control of the tractor and snow blower. Moving slowly at first will also prevent the tractor from rearing up and loss of steering control. The tractor should never be operated at speeds that cannot be safely handled or which will prevent the operator from stopping quickly during an emergency. If the power steering or engine ceases operating, stop the tractor immediately as the tractor will be difficult to control.

WARNING

Allow sufficient clearance for the Implement to swing outward while turning. Implements carried behind the Tractor will swing outside the tire path when making turns. Contacting a solid object while turning will cause equipment damage and possible injury. (S3PT-20) str

Perform turns with the tractor and snow blower at slow speeds to determine how the tractor with the attached implement handles a turn. When operating the snow blower the overall working length of the unit is increased. Allow additional clearance for the rock picker when turning. Extra precaution should be taken to avoid hitting parked vehicles, sign, road structures, bystanders, and animals due to the overall length and width of the implement.



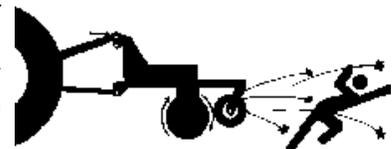
To avoid overturns, drive the tractor with care and at safe speeds, especially when operating over rough ground, crossing ditches or slopes, and turning corners. Rear tractor tire spacing should be increased when working on inclines or rough ground to reduce the possibility of tipping.



Use extreme caution when operating on steep slopes. Keep the tractor in a low gear when going downhill. DO NOT coast or free-wheel downhill.

WARNING

Do not let the auger turn when the implement is raised for any reason, including clearance or for turning. Raising the implement exposes the auger which creates a potentially serious hazard and could cause serious injury or even death from objects thrown from the auger.



OPERATION

10. OPERATING THE TRACTOR AND SNOW BLOWER

THE OPERATOR MUST COMPLETELY UNDERSTAND HOW TO OPERATE THE TRACTOR AND SNOW BLOWER AND ALL CONTROLS BEFORE ATTEMPTING TO OPERATE. The operator must read and understand the Safety and Operation Sections of the snow blower and tractor operator's manuals. These manuals must be read and explained to any operator who cannot read. Never allow someone to operate the snow blower and tractor without complete operating instructions.



Before starting any operation, the operator must become familiar with the area to be snow blown and any obstacles and hazards contained within to ensure safety to the operator, bystanders, and equipment. Special attention should be paid to foreign debris, rough terrain, steep slopes, and passersby and animals in the area.



Many varied objects, such as wire, cable, rope, or chains, can become entangled in the rotating parts of the Implement. These objects could then swing outside the housing at great velocity. Such a situation is extremely hazardous and could result in serious injury or even death. Inspect the area for such objects before working in the area. Remove any such objects from the site. Never allow the implement to contact such objects. (STL-6) str

10.1 Foreign Debris Hazards

Before blowing snow, inspect the area to make sure there are no objects larger than 2" to be snow blown or debris that can get entangled on the auger. Remove all foreign objects and debris. If objects are too big to remove, mark them clearly and be sure to prevent the implement from contacting them.



If you hit a solid object or foreign debris that is larger than 2", stop the implement and tractor at once. Immediately idle the engine speed and disengage the PTO. Wait for all rotating motion to stop, then raise the implement and move the tractor and implement off the object. Inspect the area and mark the location of the debris. Inspect the condition of the implement and make any needed repairs immediately. Make sure the auger is not damaged before resuming operation.

Always wear your seat belt securely fastened and only operate the tractor and snowblower with the ROPS in the raised position. If the tractor or snow blower hits a tree stump or bump, a sudden movement could throw you off of the seat and under the tractor and snowblower. The seat belt is your best protection from falling off the tractor and the ROPS provides protection from being crushed during a tractor roll-over. OPS-SB-0016_A str

OPERATION



Be sure you have adequate knowledge of the property you will be working on. Take time to make yourself aware of any area underwater or underground lines or cables. Contact with buried lines or cable could result in serious injury or death. (STL-1) str



There are obvious and hidden potential hazards in the operation of this Implement as in all power-driven or pulled equipment. REMEMBER! This machine is often operated in rough terrain conditions that include grass, weeds, gullies, holes, slopes, hidden obstructions and the like. Serious injury or even death may occur unless care is taken to assure the safety of the operator and bystanders in the area. Do not operate this machine with anyone in the immediate area. Stop operating if anyone comes within 25 feet of the equipment. (STL-4) str

10.2 Engaging the Power Take Off (PTO)

Before engaging the PTO, make certain that the area is clear of bystanders and passersby. Set the tractor engine speed at approximately 1,000 RPM before engaging the PTO. Shift the PTO control to the ON position, and slowly increase the engine speed until the PTO is operating at the rated speed. If you here unusual noises or feel abnormal vibrations, disengage the PTO immediately. Inspect the snow blower to determine the cause of the noise or vibration and repair the abnormality. OPS-SB-0017 str



Do not put hands or feet under implement as it can result in death or serious injury. Stay away until all motion has stopped and the frames are securely blocked up. (STL-3) str



Make sure the PTO shield, integral driveline shields, and input shields are installed when using PTO-driven equipment. Always replace any shield if it is damaged or missing. (S3PT-8) str



10.3 PTO RPM Ground Speed

Ground speed for snowblower will depend upon the condition of the area to be snow blown. Recommended speed for efficient snow blower performance is 1.5 mph. **However, the speed at which the snow blower will operate at peak performance is dependent upon terrain and snow conditions.** Reduce ground speed when operating in heavy or wet snow conditions. Operate the implement at its full rated PTO speed to maintain speed for snow blower operation. Refer to the tractor operator's manual or the tractor instrument panel for the engine speed and gear to provide the required PTO and desired ground speed. Make sure that the snowblower is operating at its full rated speed before entering the field or paved areas to be snow blown. If it becomes necessary to temporarily regulate engine speed, increase or decrease the throttle gradually.

Ground speed is achieved by transmission gear selection and not by the engine operating speed. The operator may be required to experiment with several gear range combinations to determine the best gear and range which provides the most ideal performance from the snowblower and most efficient tractor operation. As the severity of operation conditions increase, the ground speed should be decreased by selecting a lower gear to maintain the proper operating PTO speed.



Blow snow at the speed that you can safely operate and control the Tractor and Snow Blower. Safe speed depends on terrain and snow conditions. **Normal ground speed range is from 0.5 to 1.5 mph.** Use slow speeds when operating on or near steep slopes, ditches, drop-offs, overhead obstructions, power lines, or when debris and foreign objects are to be avoided.

(SSB-4) str

OPERATION

11. OPERATING THE SNOW BLOWER

When ready for field use, stop the snow blower and set the chute deflector to the desired position. Make sure that the blade is running at an even height at both ends. Ensure scraper blade clearances of about 1/4" are set for paved surfaces. Also when running over uneven or gravel surfaces keep blade clearance at about 1" to avoid blowing rocks & debris.

Before operating the snow blower recheck that all fasteners, nuts, bolts, screws and cotter pins are in place and all bolts are torqued to specification.



Ops-1526

WARNING

Only operate the snow blower in conditions where you have clear visibility in daylight or with adequate artificial lighting. Never snow blow in darkness or in conditions where you cannot clearly see at least 100 yards in front and to the sides of the Tractor and Snow Blower. Make sure that you can clearly see and identify passersby, steep slopes, ditches, drop-offs, overhead obstructions, power lines, debris and foreign objects. If you are unable to clearly see these types of items, discontinue snow blowing. (SSB-1) str

DANGER

DO NOT operate this Implement on a Tractor that is not properly maintained. Should a mechanical or Tractor control failure occur while operating, immediately shut down the Tractor and perform repairs before resuming operation. Serious injury and possible death could occur from not maintaining this Implement and Tractor in good operating condition. (SG-36) str

When operating on a snow blower with a 3-point hitch be sure to carefully read the Operator's manual of your tractor, and familiarize yourself with the 3-point hitch and power take-off controls. Always adjust the tractor's rate of lower control so that the snow blower can be lowered at a safe speed.



Ops-1527

CAUTION

Excessive speed of drop may cause damage or injury. Fully lowering implement should require at least two seconds.

OPERATION



Do not use the tractor's upper link to adjust the height of the snow blower blade. The snow blower should sit square to the ground, otherwise, universal joint angles will be out of parallel.



Do not operate the snow blower PTO drive in the fully raised position.



Stop engine, disengage power take-off, and remove ignition key whenever leaving tractor operating position

When implement is ready to snow blow do not use the snow blower to **PUSH SNOW!** Let the machine work its way through deep drifts and hard packed snow. For best results keep the snow blower fan running at rated PTO speed. If the tractor engine starts to labor, gear down.

Do not continuously operate the snow blower in transport position, as this will shorten the life of the universal joints.

Tractor chains and weighted tires will increase traction and improve performance especially in icy conditions.

The casting chute should not plug during normal operation. However, if fan RPM is allowed to drop drastically in wet, sticky conditions, or if a shear bolt breaks in the fan the casting chute may plug. If the chute should plug, try raising the snow blower to transport position and the dropping it suddenly, if this fails to clear blockage, the casting chute will have to be manually cleared.

The performance of the skid steer mounted snow blower is dependent on the hydraulic flow rate available.



Snow Blowers are capable under adverse conditions of throwing objects for great distances (200 feet or more). Do not allow the snow stream to fall on passersby. Ice, debris and heavy snow thrown from the snow blower can cause serious injury or death.

(SSB-7) str



STOP SNOW BLOWING IF PASSERSBY ARE WITHIN 200 FEET.



When blowing snow with two machines in the same area be sure that windows are closed.

(SSB-10) str



Operate the Tractor and/or Implement controls only while properly seated in the Tractor seat with the seat belt securely fastened around you. Inadvertent movement of the Tractor or Implement may cause death or serious injury. (SG-29)str

Use extreme care when transporting the snow blower on public highways and roads. The combination of snow blower and the tractor is longer in length. The implement is also wider than the tractor. Allow ample clearance when transporting the tractor and implement to insure that they do not contact any bystanders, signs, road structures, or other vehicles.

OPERATION

Never raise the implement entirely while the auger is turning. If the implement must be raised higher than 12" from ground level, disengage the tractor PTO and wait for all implement rotation to come to a complete stop before proceeding to raise the implement. If implement is raised to high while the unit is running there is a possibility of damaging the driveline.



Stay alert and watch for trees, powerlines, posts, signs, and all other overhead and ground obstructions while you are snow blowing. Use extreme care to avoid hitting these types of obstructions. The snow blower is operated in deep snow and can reduce vision while operating. Serious injury or even death may occur unless care is taken to insure the safety of the operator, bystanders, or passersby in the area. Do not snow blow if there is anyone within 200 feet from the snow blower.



11.1 Shutting Down the Implement

Tractor and Snow Blower

To shut down the implement, first bring the tractor to a complete stop. Then slow down the snow blower by reducing the engine speed before disengaging the PTO. Wait for all rotating motion to stop before proceeding to drive or shut down the tractor.

Park the tractor on a level surface, place the transmission in park or neutral and apply the parking brake, lower the attached implement to the ground, shut down the engine, remove the key, and wait for all motion to come to a complete stop before exiting the tractor



OPERATION

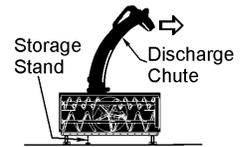
12. DISCONNECTING THE SNOW BLOWER FROM THE TRACTOR



Always shut the Tractor completely down, place the transmission in park, and set the parking brake before you or anyone else attempts to connect or disconnect the Implement and Tractor hitches. (S3PT-15) str



Before disconnecting Snow Blower swing discharge chute to side of Snow Blower, Lower and lock storage stand in place, Stay away from front of Snow Blower until equipment is stable and secured from falling. Sudden or inadvertant falling of equipment could result in serious injury or death. (SSB-35) str



Never stand or allow another person to stand between a running Tractor and the Unit when disconnecting the Implement from the Tractor 3-point hitch. Always shut the Tractor off completely and set the parking brake before attempting to disconnect the Implement pins from the Tractor hitch.

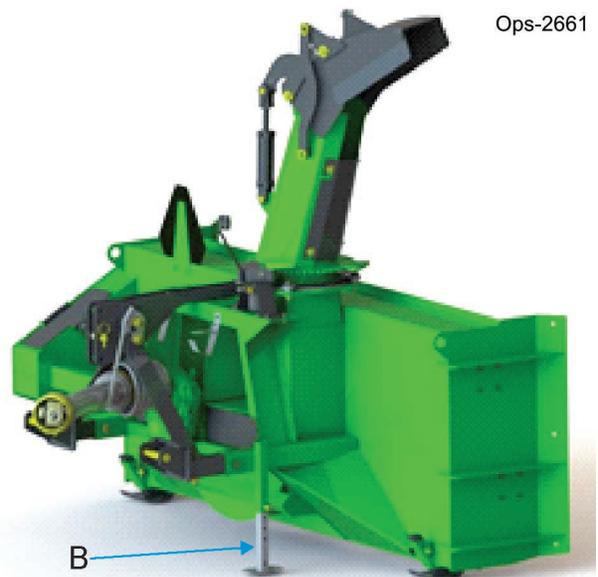


Never crawl under a raised Implement supported solely by the Tractor 3-Point hitch. Release of the control lever or mechanical failure will result in the Implement falling and possible injury or death. Always securely block up the Implement before crawling underneath to perform repairs and service. (S3PT-19) str

Before disconnecting the implement, the PTO must be disengaged and auger rotation must be at a complete stop. Move the implement to a level storage location and lower the implement to the ground. If the implement is not resting securely on the ground, block the implement up securely before attempting to disconnect it from the tractor. Engage the park brake.

Use extreme care to keep feet and hands out from under the implement and clear of any pinch points when disconnecting the unit from the tractor.

Ensure that the Storage Stand "B" is lowered.

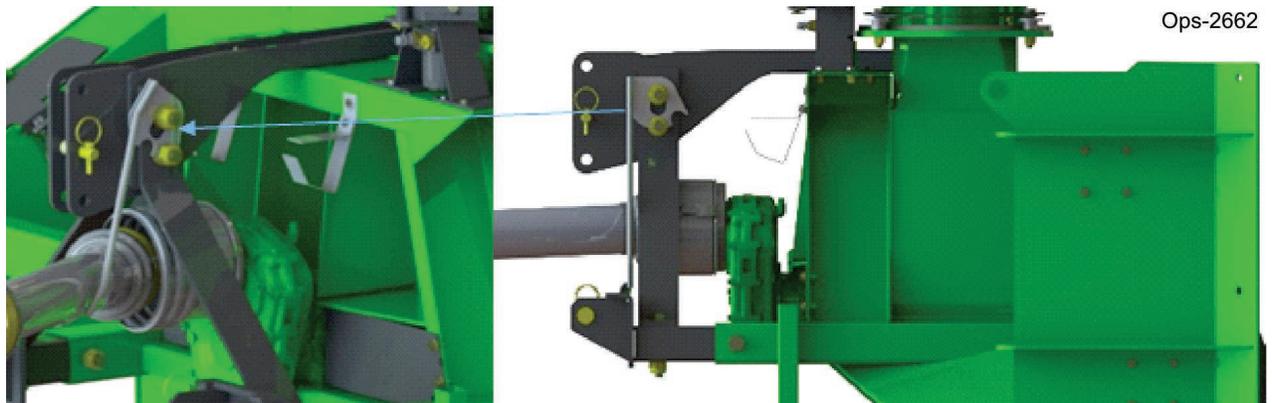


OPERATION

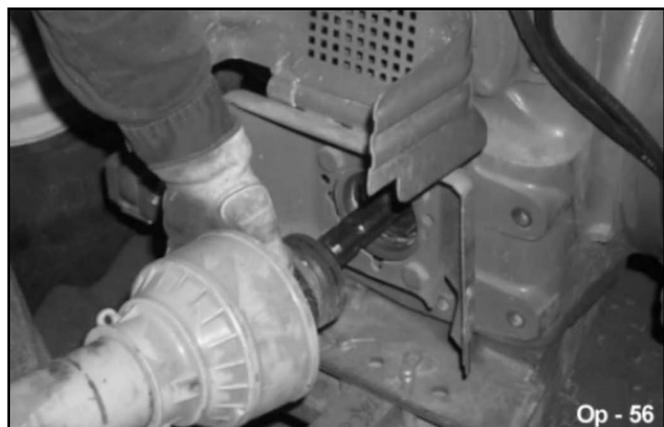
To disconnect the implement, first extend the tractor 3-point hitch top link to remove tension on the top link hitch pin. When the pin is loose and easy to rotate, remove the pin from the implement. Next remove both lower hitch pins.



Lift and rotate the PTO storage holder into the PTO storage position.



After disconnecting the 3 lift points, remove the implement driveline from the tractor PTO shaft. Lay the driveline down carefully to avoid damaging the driveline or its shield. Do not let the driveline fall into mud or dirt, which can contaminate the bearing and shorten the life of the driveline.



OPERATION

OPERATION

DANGER

Never work under the Implement, the framework, or any lifted component unless the Implement is securely supported or blocked up to prevent sudden or inadvertent falling which could cause death or serious injury. (SG-14)str



WARNING

Relieve hydraulic pressure prior to doing any maintenance or repair work on the Implement. Place the Implement on the ground or securely blocked up, disengage the PTO, and turn off the tractor engine. Push and pull the Remote Cylinder lever in and out several times prior to starting any maintenance or repair work. (S3PT-09)str



OPERATION

13.SNOW BLOWER STORAGE

Properly preparing and storing the snow blower at the end of the season is critical to maintaining its appearance and to help ensure years of dependable service. The following are suggested storage procedures:

1. Thoroughly clean all debris off the implement to prevent damage from rotting grass and standing water.
2. Lubricate all implements points and fill gearbox oil levels (applies to 3-point only) as detailed in the maintenance section.
3. Tighten all bolts and pins to the recommended torque.
4. Check the implement for worn and damaged parts. Perform repairs and make replacements immediately so that the implement will be ready for use at the start of the next season..
5. Store the implement in a clean, dry place with the implement resting securely on blocks or at ground level.
6. Keep the driveline's yokes or hydraulic hoses from sitting in water, dirt and other contaminants.
7. Use spray touch-up enamel where necessary to prevent rust and maintain the appearance of the implement.

NOTE: *If equipped with the truck-loading chute, ensure the chute is rotated to the side. If the chute is facing forward, the blower may tip over.*

DANGER

Never allow children to play on or around Tractor or Implement. Children can slip or fall off the Equipment and be killed or injured. Inadvertent contact with controls can cause the Implement to shift or fall crushing themselves or others. (SG-25) str

WARNING

Always maintain the safety signs in good readable condition. If the safety signs are missing, damaged, or unreadable, obtain and install replacement safety signs immediately. (SG-5)str

OPERATION



Periodically inspect all moving parts for wear and replace when necessary with authorized service parts. Look for loose fasteners, worn or broken parts, and leaky or loose fittings. Make sure all pins have cotter pins and washers. Serious injury may occur from not maintaining this machine in good working order. (SG-21)str



OPERATION

14. TRANSPORTING THE TRACTOR AND SNOW BLOWER

Inherent dangers of operating the tractor and implement and the possibility of accidents are not left behind when you finish snow blowing an area. Therefore, the operator must employ good judgement and safe operation practices when transporting the tractor and implement between locations. By using good judgement and following safe transport procedures, the possibility of accidents while moving between locations can be substantially minimized. OPS-SB-0022 str



Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in death or serious injury. (SG-10)str



Before transporting the tractor on a public roadway or boarding a trailer for transport, the tractor brake pedals should be locked together. Locking the pedals ensures that both wheels brake simultaneously while stopping, especially when making an emergency stop.



OPERATION

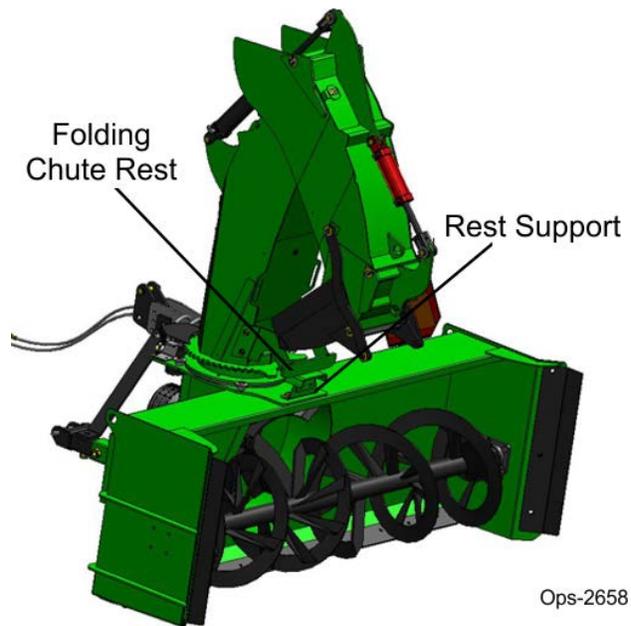
OPERATION

Use extreme caution and avoid hard applications of the tractor brakes when towing heavy loads at road speeds. Never tow the implement at speeds greater than 20 MPH (32 kph). *OPS-U- 0018 str*
If the tractor's hydraulic pump is not independent of the tractor PTO, or if the tractor PTO has to be run to have hydraulic power, disconnect the snow blower driveline from the tractor PTO output shaft. Secure the driveline to the snow blower deck to prevent driveline damage or loss during transport.



If the Snow Blower is equipped with a Folding Truck Loading Chute always follow these steps before transporting the snow blower or putting it into storage.

1. Rotate the chute so it faces fully forward so the folding chute rest sits fully on the rest support.
2. Retract the upper chute section and deflector until the deflector comes to rest in the notches of the folding chute rest. This provides additional stability to the chute during transport.



WARNING

In wet conditions where there is a likelihood of material collecting on the Implement, make certain that this material is removed before traveling on public roadways. *(STL-7) str*

OPERATION

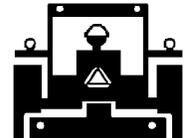
14.1 Transporting on Public Roadways



Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in death or serious injury. (SG-10)str



Make certain that the “Slow Moving Vehicle” (SMV) sign is installed in such a way as to be clearly visible and legible. When transporting the Equipment use the Tractor flashing warning lights and follow all local traffic regulations. (SG-6)str



Extreme caution should be used when transporting the tractor and implement on public roadways. The tractor must be equipped with all required safety warning features including a SMV emblem and flashing warning lights to alert drivers of the tractor’s presence. Remember that roadways are primarily designed for automotive drivers and most drivers will not be looking out for you, therefore, you must look out for them. Check your side view mirrors frequently and remember that vehicles will approach quickly because of the tractor’s slower speed. Be extremely cautious when the piece of equipment that you are towing is wider than the tractor tire width and/or extends beyond your lane of the road.



The SMV (Slow-Moving Vehicle) emblem is universal symbol used to alert drivers of the presence of equipment traveling on roadways at a slow speed. SMV signs are a triangular bright orange with reflective red trim for both easy day and night visibility. Make sure the SMV sign is clean and visible from the rear of the unit before transporting the tractor and implement on a public roadway. Replace the SMV emblem if faded, damaged, or no longer reflective. OPS-U- 0020str



OPERATION

OPERATION

Make sure that all tractor flashing warning lights, headlights, and brake/tail lights are functioning properly before proceeding onto public roads. While newer model tractors have plenty of lighting to provide warning signals and operating lighting, most older models are only equipped with operating lights. Consult an authorized tractor dealer for lighting kits and modifications available to upgrade the lighting on older tractor models. *OPS-U- 0021str*



When operating on public roads, have consideration for other road users. Pull to the side of the road occasionally to allow all following traffic to pass. Do not exceed the legal speed limit set in your country for agricultural tractors. Always stay alert when transporting the tractor and implement on public roads. Use caution and reduce speed if other vehicles or pedestrians are in the area. *OPS-U- 0022 str*



Reduce speed before turning or applying the brakes. Ensure that both brake pedals are locked together when operating on public roads. *OPS-U- 0023 str*



This Implement may be wider than the Tractor. Be careful when operating or transporting this equipment to prevent the Implement from running into or striking sign posts, guard rails, concrete abutments or other solid objects. Such an impact could cause the Implement and Tractor to pivot violently resulting in loss of steering control, death, or serious injury. Never allow the Implement to contact obstacles. *(S3PT-12)str*

OPERATION



Allow sufficient clearance for the Implement to swing outward while turning. Implements carried behind the Tractor will swing outside the tire path when making turns. Contacting a solid object while turning will cause equipment damage and possible injury. (S3PT-20) str



Be particularly careful when transporting the Implement using the tractor. Turn curves or go up or down hills only at a low speed and at a gradual steering angle. Make certain that at least 20% of the tractor's weight is on the front wheels to maintain safe steering. Slow down on rough or uneven surfaces. (STI-01) str



Only tow the Implement behind a properly sized and equipped Tractor which exceeds the weight of the Implement by at least 20%. DO NOT tow the Implement behind a truck or other type of vehicle. Never tow the Implement and another Implement connected in tandem. Never tow the Implement at speeds over 20 MPH. (STI-06)str



Secure the Implement for transport before traveling on public roads. For pull-type Implements, secure the center axle using cylinder stops or transport pin and properly attach a safety chain between the Implement and Tractor. Secure wings in upright position on folding Implements using wing transport locks. (STI-7) str



Transport only at speeds where you can maintain control of the equipment. Serious accidents and injuries can result from operating this equipment at high speeds. Understand the Tractor and Implement and how it handles before transporting on streets and highways. Make sure the Tractor steering and brakes are in good condition and operate properly.



Before transporting the Tractor and Implement, determine the proper transport speeds for you and the equipment. Make sure you abide by the following rules:

Test the tractor at a slow speed and increase the speed slowly. Apply the Brakes smoothly to determine the stopping characteristics of the Tractor and Implement. As you increase the speed of the Tractor the stopping distance increases. Determine the maximum transport speed not to exceed 20 mph (30 kph) for transporting this equipment.

Test the equipment at a slow speed in turns. Increase the speed through the turn only after you determine that the equipment can be operated at a higher speed. Use extreme care and reduce your speed when turning sharply to prevent the tractor and implement from turning over. Determine the maximum turning speed for you and this equipment before operating on roads or uneven ground.

Only transport the Tractor and Implement at the speeds which allow you to properly control the equipment.

Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes or worn tires. When operating down a hill or on wet or rain slick roads, the braking distance increases: use extreme care and reduce your speed. When operating in traffic always use the Tractor's flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy. (SG-19)str



OPERATION

OPERATION

14.2 Hauling the Tractor and Snow Blower

Before transporting a loaded tractor and implement, measure the height and width dimensions and gross weight of the complete loaded unit. Ensure that the load will be in compliance with the legal limits set for the areas that will be traveled through. OPS-U- 0024str



Use adequately sized and rated trailers and equipment to transport the tractor and implement. Consult an authorized dealer to determine the proper equipment required. Using adequately sized chains, heavy duty straps, cables and/or binders, securely tie down both the front and rear of the tractor utilizing the proper tie down locations as specified by the tractor manufacturer. OPS-U- 0025 str



OPERATION

15. TROUBLESHOOTING GUIDE

Problem	Possible Cause	Remedy
Auger Does Not Operate	Cross shaft shear bolt broken.	Replace shear bolt.
Excessive Power Required to Operate Snow Blower	Operating in too high of gear.	Gear down tractor.
	Blade scraping ground.	Adjust skid shoes.
Tractor Wheel Slippage	Ballast or traction.	Install chains.
Excessive Mechanical Noise	Loose bolts.	Tighten bolts.
	Worn universal joint bearings,	See your dealer.
	Worn bearings.	See your dealer.
Does Not Throw Snow	Check valve installed wrong.	Install check valve as shown on parts page.

MAINTENANCE SECTION

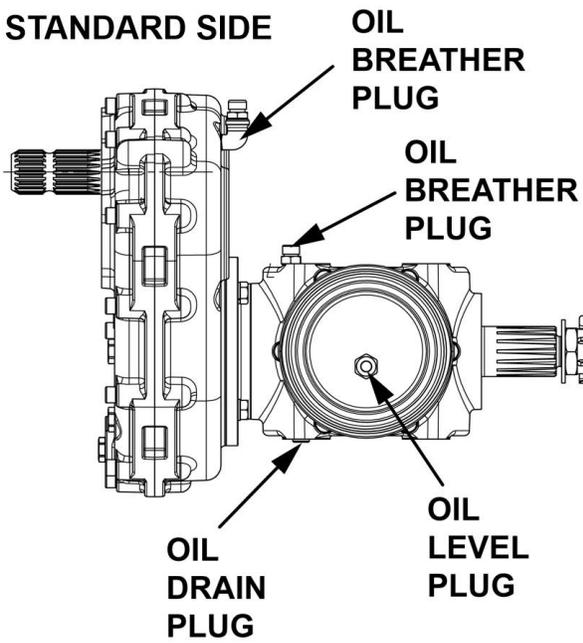
Maintenance Section 5-1

MAINTENANCE

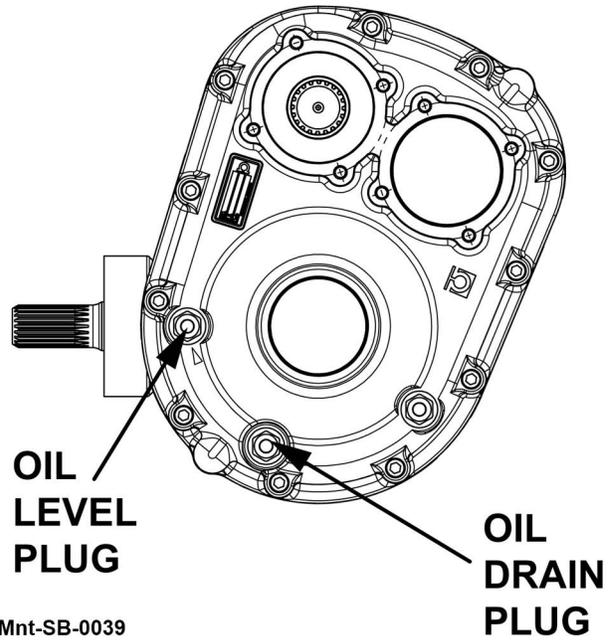
MAINTENANCE

GEARBOXES

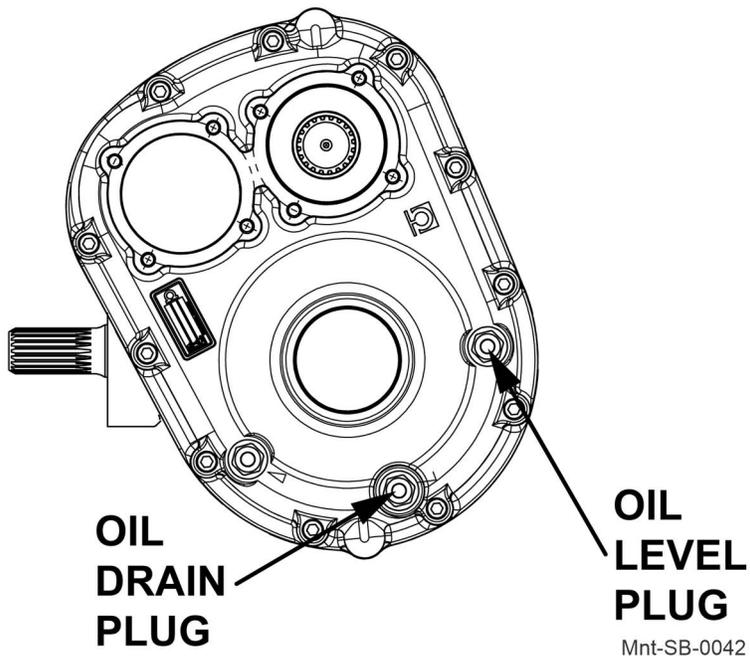
STANDARD SIDE



STANDARD ROTATION

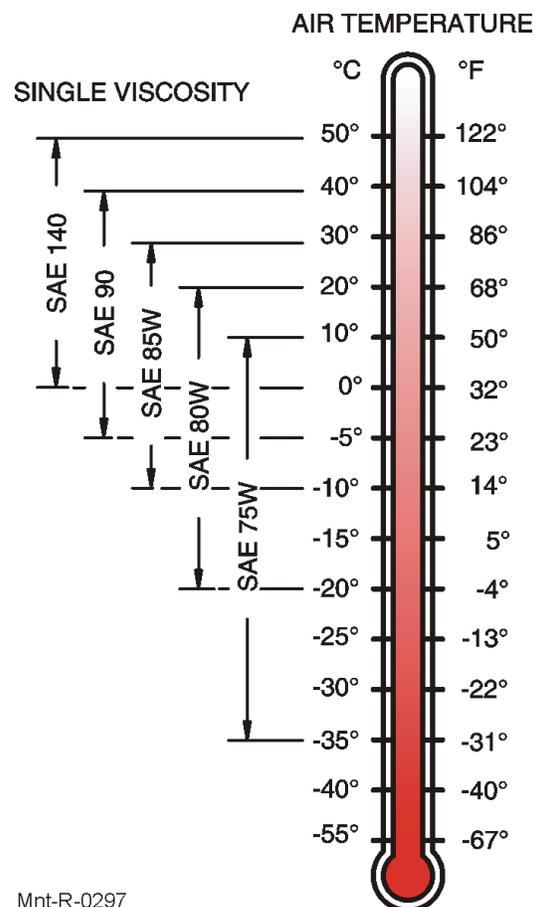


REVERSE ROTATION



MAINTENANCE

1. **IMPORTANT:** Check that gearboxes are filled with oil
2. Replace gear oil in all gearboxes after the first 50 hours of operation, then yearly.
3. Check gearbox oil levels frequently. Steady loss of oil will indicate damaged seals, which should be replaced immediately to prevent ruining the gearbox. Gearbox oil should be maintained to the height of the level plug located in the side of the gearbox.
4. Procedure for refilling a gearbox:
 - Park unit on level surface
 - Remove the drain plug and drain out oil.
 - Reinstall drain plug
 - Remove the vent plug and oil level plug from the gearboxes. Please see **Figures on Opposite page** for proper location depending upon orientation of your gearbox.
 - Refill the gearbox until oil runs out the level plug hole. Gearbox capacity is approximately 1.27 qt. (1.2 L) in the input box and 1.27 qt (1.2 L) in the output box.
 - Reinstall the vent plug and level plug.
 - Dispose of old oil in accordance with local regulations.
5. If the fan must be removed from the gearbox, antifreeze must be added to the shaft prior to installation.
6. Gear case oil should meet the following specifications:
 - API Service Classifications GL 5
 - Military Specification MIL L 2105CConsult the following chart for the oil viscosity recommendations:



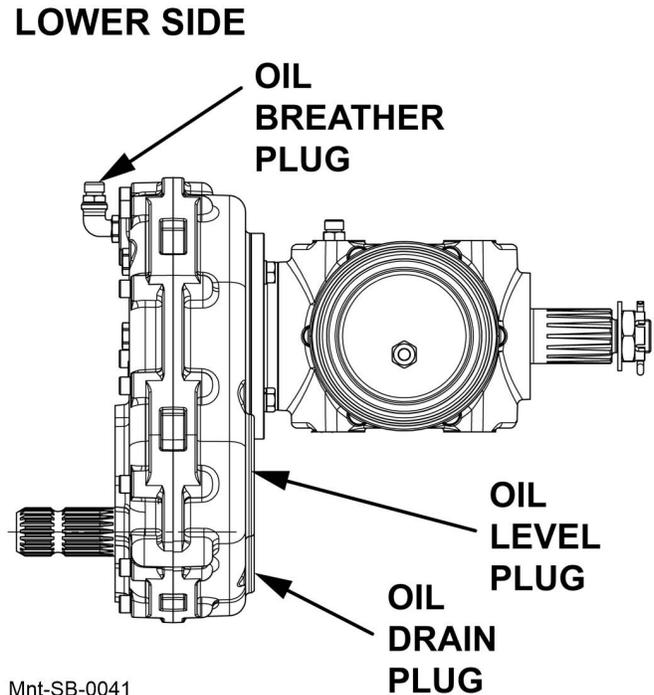
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MAINTENANCE

MAINTENANCE

The procedure for rotating the parallel shaft gearbox to its low position is as follows:

1. Remove the 4 M12 screws that fix the two housings.
2. Now rotate the parallel portion of the gearbox 180 degrees and replace the four M12 screws and torque them to 1040 in/lbs (87 ft/lbs).
3. Change position of breather plug and drain plug, as shown below.



GREASE SCHEDULE

Grease should meet the following recommendations:

1. SAE Multi Purpose grease
SAE Multi purpose grease containing 3 to 5 percent molybdenum disulfide
Below 0° (32°F) use SAE (NLGI) #0 or #1
Above 0° (32°F) use SAE (NLGI) #2
2. Grease applied to PTO shaft should meet the following recommendation:
Use EP 0, Lithium Complex Grease
3. Auger Drive Shear Plate
Apply grease to the auger shear plate whenever a shear bolt breaks.
4. Auger Drive Chain
Apply oil every 8 hours of operation (minimum) with a brush or spout can. Volume and frequency should be enough to prevent discoloration of the lubricant in the chain joints. Use SAE30 oil as heavier oils and greases are generally too stiff to enter and fill the chain joints.
5. Universal Joint Assemblies
Apply grease to the grease nipple on the slip sleeve of the universal assembly every 5 hours of operation.

NOTE: The snow blower may have to be raised or lowered and the safety shields rotated to fully expose the grease nipple.

Occasionally pull the universal joints apart and apply EP 0, Lithium Complex Grease to all sides of the slip shaft.

IMPORTANT: If the universal joint sliding members are allowed to dry out to the point where two halves cannot slip freely, damage to the snow blower or tractor may occur.

MAINTENANCE

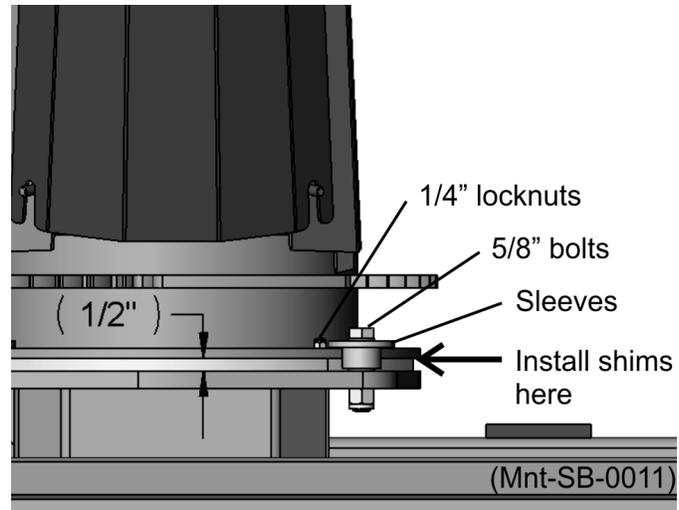
6. Universal Joint Cross Kits

Every 5 hours of operation (minimum) lubricate the grease fittings on the universal joint cross kits. If grease is seen leaking out of the cross kit bearings, this is an indication that bearings are running hot. Under these conditions re-grease the cross kits more frequently. Apply only one or two strokes from a hand type grease gun. If fittings are over lubricated seals may be damaged.

CHUTE RING

The UHMW ring requires no lubrication. However it must be inspected for wear. The distance between the chute and the base should always be about 1/2". If wear is found, a shim kit can be purchased from your local Schulte dealer. To install the shim kit:

1. Remove the 5/8" bolts holding the guide sleeves to the chute base
2. Remove the 1/4" locknuts fixing the UHMW to the chute.
3. Safely lift the chute and install the shims onto the UHMW, around the brass bolts.
4. Lower the chute onto the shims and reinstall the 1/4" locknuts.
5. Reinstall the guide sleeves and tighten the 5/8" bolts. Do not overtighten. The guide sleeves should be able to be turned by hand.



NOTE: If excessive wear is found, replace the UHMW ring. The guide sleeves must be inspected for wear as well. If wear on the brass bushing or outer sleeve is found, please replace.

REVERSING OR REPLACING BLADE

1. Occasionally check the blade for wear. If the blade has worn to the point where the moldboard is starting to wear then reverse it or replace it.
2. Remove the carriage bolts which attach the blade. Reverse or replace the blade.

NOTE: If the lock nuts are damaged or worn replace them also.

3. Replace the carriage bolts and locknuts.

STORAGE

1. Wash any dirt or salt off the snow blower.
2. Remove drive chains and submerge in oil.
3. Smear grease over any exposed hydraulic cylinder shafts.

NUTS AND BOLTS

Check all nuts and bolts for tightness after the first 5 hours of operation then yearly.

Important

Identifies special instructions or procedures that, if not strictly observed, could result in damage to, or destruction of the machine, attachments or the environment.

MAINTENANCE

MAINTENANCE

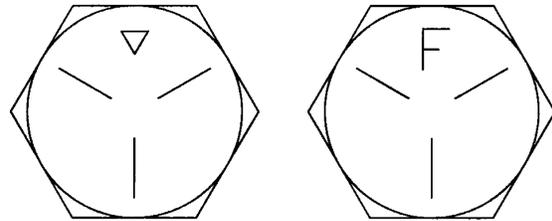
Bolt Grades and Torque

When replacing damaged bolts use only plated Grade 5 bolts unless otherwise specified. Use only bolts of the correct length [Refer to the "Parts" section]. Do not replace lock nuts with nuts and lock washers. Use only original equipment lock nuts.

Recommended Torques in foot pounds for SAE Grade 5 bolts, based on dry assembly:

Bolt Size	UNC		UNF	
	Ft-lbs	Nm	Ft-lbs	Nm
1/4"	8	11	10	14
5/16"	17	23	19	26
3/8"	31	42	35	47
7/16"	49	66	55	75
1/2"	75	102	85	115
5/8"	150	203	170	230
3/4"	269	365	297	403
1"	644	873	704	954
1-1/4"	1255	1700	1380	1870

GRADE (5) Bolt Head



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IMPERIAL TO METRIC CONVERSION TABLE

Diameter of Bolts

Inches	Inches	Millimeters
0.25	1/4	6
0.3125	5/16	8
0.375	3/8	10
.05	1/2	12
0.625	5/8	16
0.75	3/4	20
1	1	24
1.25	1-1/4	30
1.5	1-1/2	36

Length of Bolts

Inches	Inches	Millimeters	Inches	Inches	Millimeters
0.5	1/2	12	5.25	5-1/4	130
0.625	5/8	16	5.5	5-1/2	140
.075	3/4	20	5.75	5-3/4	150
1	1	25	6	6	150
1.25	1-1/4	35	6.25	6-1/4	160
1.5	1-1/2	40	6.5	6-1/2	170
1.75	1-3/4	45	6.75	6-3/4	170
2	2	50	7	7	180
2.25	2-1/4	60	7.25	7-1/4	190
2.5	2-1/2	65	7.5	7-1/2	190
2.75	2-3/4	70	7.75	7-3/4	200
3	3	75	8	8	200
3.25	3-1/4	80	8.25	8-1/4	210
3.5	3-1/2	90	8.5	8-1/2	220
3.75	3-3/4	100	8.75	8-3/4	220
4	4	100	9	9	230
4.25	4-1/4	110	9.25	9-1/4	240
4.5	4-1/2	120	9.5	9-1/2	240
4.75	4-3/4	120	9.75	9-3/4	250
5	5	130	10	10	260

Grade / Class

Imperial		Metric	
	Gr 5	Cl 8.8	
	Gr 8	Cl 10.9	

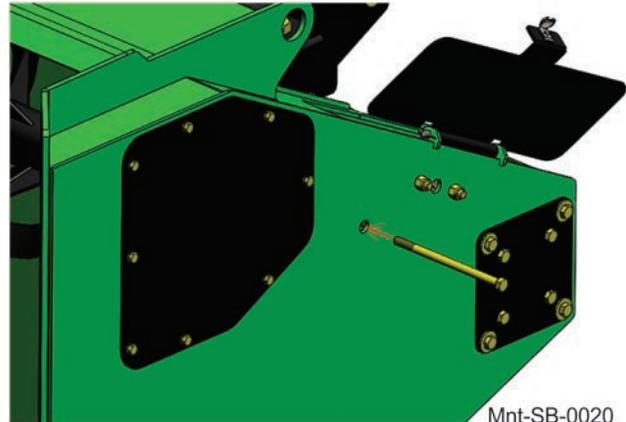
NOTE: This conversion sheet should only be used when all options to use correct hardware have been exhausted.

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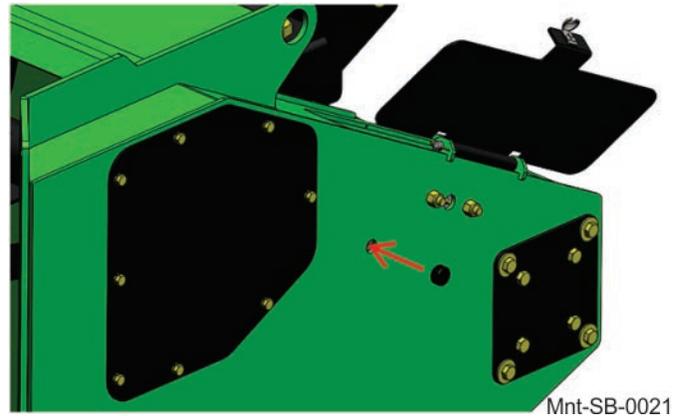
MAINTENANCE

AUGER DRIVE CHAIN

1. Re-tighten the auger drive chain when slack exceeds 3/4 inch at the center of the bottom chain section.
2. When Removing/Installing the auger drive chain, remove rubber plugs and prop the idler using the bolt provided in the manual canister.
3. When complete, remove the bolt and return to storage in the manual canister.

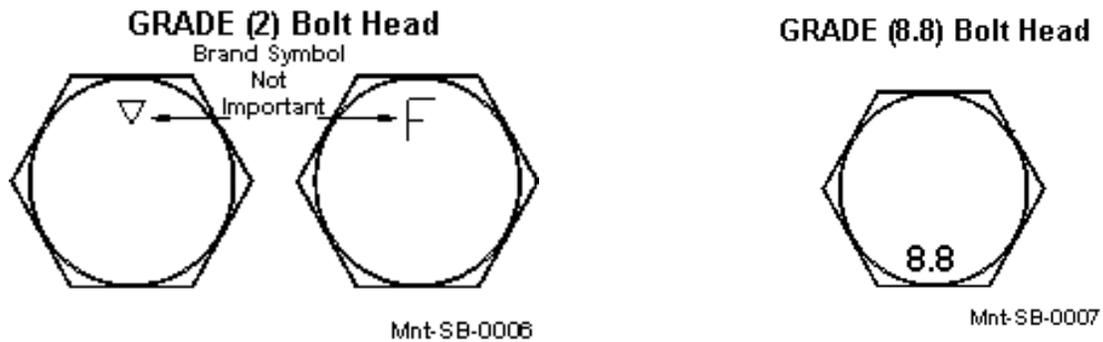


4. BE SURE TO REPLACE RUBBER PLUGS. Leaving the plug holes open will result in snow entering the chain case potentially causing premature wear



MAINTENANCE

PTO SHEAR BOLT



1. **IMPORTANT:** If the PTO shear bolt breaks immediately shut down the tractor and replace the shear bolt.
2. The shear bolts used on this Schulte snow blower and mounting kits are either Grade 2 or Metric Grade 8.8. Refer to the illustrations for help in identification of these grades of bolts.
3. Specified shear bolts and their locations are listed below:
SDX-117 Snow Blower, Auger: 3/8-16 UNC, 2" long, Grade 2
SDX-117 PTO Shaft: M10 METRIC, 50mm, Grade 8.8

NOTE: Both length and grade are important in this specification.

4. Remove the broken shear bolt and replace.

Important

Tighten nut only enough to draw the shear plates together. Do not over tighten nut. Occasionally apply grease to the shear plates.

Important

Replacement of the shear bolt with one of any other grade or size will be considered an unauthorized modification and the warranty will be void.

