

General Safety Practices



Read manual before installing or using product. Failure to follow instructions and safety precautions in manual can result in death or serious injury. Keep manual in a safe location for future reference.



On safety decals, this symbol and the signal words Danger, Warning, Caution and Notice draw your attention to important instructions regarding safety. They indicate potential hazards and

levels of intensity.



RED - DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



ORANGE - WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



YELLOW - CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



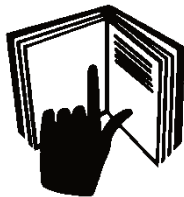
BLUE - NOTICE alerts you to practices unrelated to personal injury, such as messages related to property damage.

IMPORTANT: To prevent serious injury or death to you or your family, it is essential that safety decals are clearly visible, in good condition, and applied to the appropriate equipment.

FOLLOW MANUAL & SAFETY DECAL MESSAGES

Carefully read this manual and all safety decals on your equipment. Safety decals must be kept in good condition.

Replace missing or damaged safety decals by contacting Sukup [Manufacturing Co.](http://Manufacturing.Co) via mail at PO Box 677, Sheffield, Iowa USA, 50475; by phone at 641-892-4222; or by e-mail at info@sukup.com.



It is the responsibility of the owner/operator to know what specific requirements, precautions, and work hazards exist. It is also the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of hazards and safety precautions that need to be taken to avoid personal injury or death. Always keep children away from bins and vehicles with flowing grain.

Make no unauthorized modifications to machine. Modifications may endanger function and/or safety of unit. Keep unit in good working condition. Keep shields in place. Replace worn or missing shields free of charge by contacting Sukup Manufacturing Co.

GRAIN BIN SAFETY

Owners/operators are responsible for developing site-specific confined space entry procedures. OSHA's confined space entry procedures (29CFR 1910.146) can be found at www.osha.gov.

If you must enter bin for repair or maintenance:

- Use a safety harness, safety line and respirator
- Station another person outside of bin
- Avoid the center of the bin
- Wear appropriate personal protective equipment
- Keep clear of all augers and moving parts



DANGER: Never enter bin unless all power is locked out and another person is present.

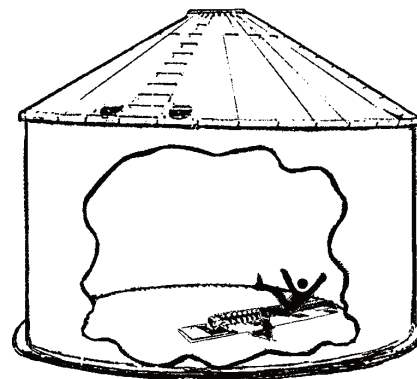


Rotating augers can kill or dismember!



NEVER enter bin when augers are running!

When bin is nearly empty, sweep auger will travel at an increasingly fast speed. Keep away from sweep and sump augers to avoid entanglement.



Failure to follow precautions above will result in death or serious injury.



DANGER: Flowing grain may trap and suffocate. If you enter a bin of flowing grain you can be completely submerged in grain in about 8 seconds.



Failure to heed this warning will result in death or serious injury.

General Safety Practices

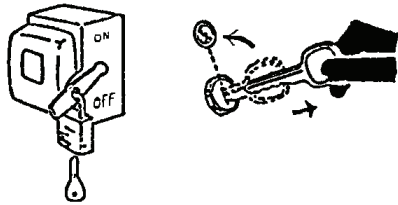
To avoid electric shock or electrocution, all equipment must be properly wired and grounded according to electrical codes. Have unit wired by qualified electrician.



Have an electrician install a main power disconnect switch capable of being locked only in OFF position. Mark disconnect clearly as to equipment it operates. Always lock out main power disconnect switch whenever equipment is not in use.

WARNING: When servicing equipment, never enter bin unless all power is locked out and another person is present. Always LOCK OUT all power and always check with voltage meter before servicing.

Service Disconnect



Failure to do so could result in death or serious injury.

Owners/operators are responsible for developing site-specific Lockout/Tagout procedures based on equipment at their work site. See OSHA's typical minimal lockout procedures (29CFR 1910.147 App A) at www.osha.gov.

WARNING: KEEP CLEAR OF ALL MOVING PARTS.

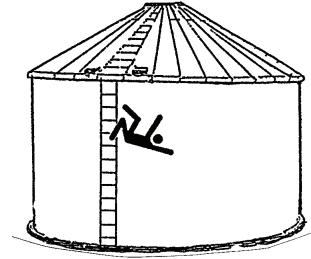
Keep people (ESPECIALLY YOUTH) away from equipment, particularly during operation.

Keep away from all moving parts. Keep all shields in place. **SHUT OFF AND LOCK OUT** all power before servicing.



Failure to follow precautions above could result in death or serious injury.

WARNING: Metal is slippery when wet. To avoid falls, never carry items if climbing on bin. Maintain secure hand and foothold if climbing on bin. Failure to do so could result in death or serious injury.



CAUTION: Metal edges are sharp. To avoid injury, wear protective clothing and handle equipment and parts with care.

Failure to do so may result in minor or moderate injury.

PERSONAL PROTECTIVE EQUIPMENT



Refer to OSHA 1910.132 (Personal Prot. Equip.)

Owners/Operators are responsible for developing site-specific personal protective equipment standards. OSHA's personal protective equipment standards (29CFR 1910.132) can be found at www.osha.gov.

EMERGENCIES – KNOW WHAT TO DO

Have emergency numbers and written directions to work site readily available in case of emergency. An area for emergency phone numbers to be recorded is provided below and at end of this manual.

Ambulance • Fire • Police: 9-1-1

Bin rescue team: _____

Emergency medical squad: _____

Address of work site: _____

Directions to work site: _____

Unload Safety Decals

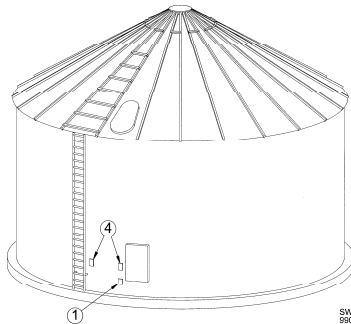
Safety decals should be mounted on your equipment as shown in this safety section. Yearly and prior to equipment use, check that all decals and shields are in place and legible.

To order a replacement decal or shield at no charge, contact your dealer or Sukup Manufacturing Co., Box 677, Sheffield, IA USA 50475. If replacement is necessary, make sure location for decal is free from grease, oil and dirt. Remove backing from decal and place in proper position.

Decals 1-5 are factory-mounted. Additional copies of decals 1 and 4 are shipped with this manual in separate packet #A3399 and have mounting instructions inside packet.

IMPORTANT: If suggested locations are not clearly visible, place safety decals in a more suitable area. Never cover up any existing safety decals.

- DECAL L0281 – WARNING:** To avoid serious injury or death. **Mount this decal** on bin sheet near door handle.



- DECAL L0271 - DANGER:** Shield missing. Do not operate!



- DECAL L0284 – WARNING:** Keep away from all moving parts.



- DECAL L0258A – DANGER:** Do not enter this bin! Keep clear of all augers. **Mount this decal** on bin sheet near door handle and near ladder leading to roof.

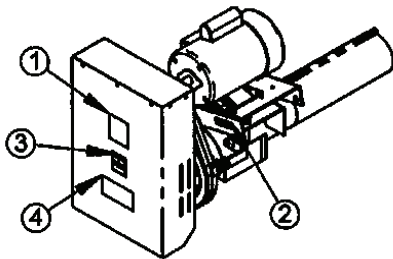


- DECAL L03061 – DANGER:** Keep away when auger is running!

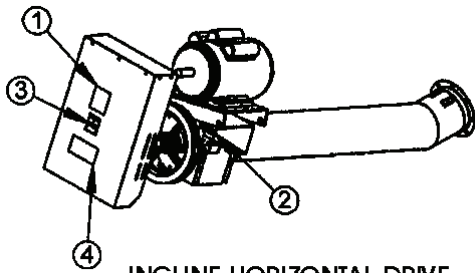


Unload Safety Decal Placement

HORIZONTAL

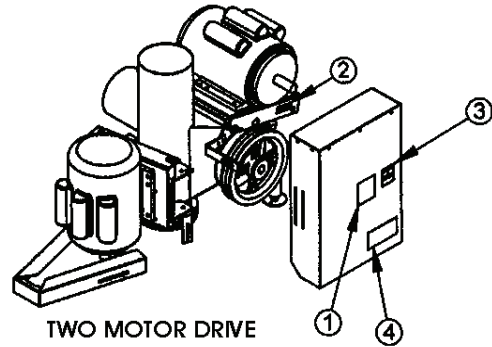


STANDARD ONE MOTOR DRIVE

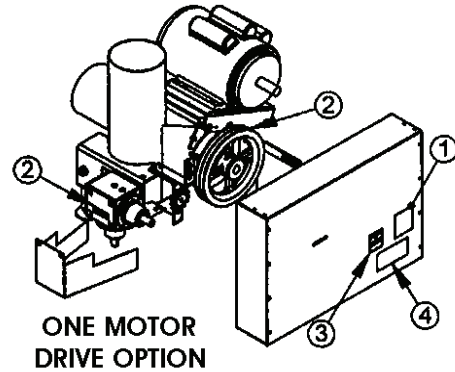


INCLINE HORIZONTAL DRIVE

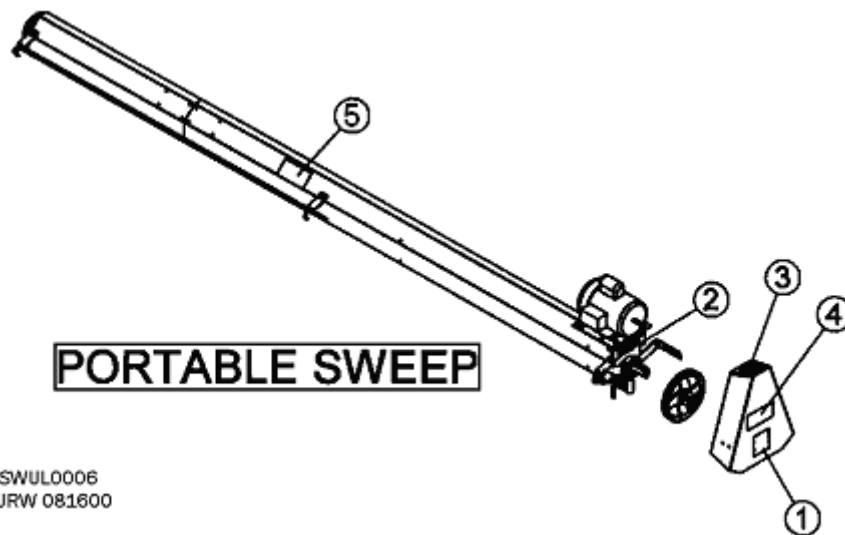
VERTICAL



TWO MOTOR DRIVE
(STANDARD)



ONE MOTOR
DRIVE OPTION



PORTABLE SWEEP

SWUL0006
JRW 081600

Unload Operation

UNLOAD OPERATING INSTRUCTIONS

1. Start horizontal (and vertical if applicable) unload auger. Open center sump. Unload grain from center sump until gravity flow stops.
2. After flow has stopped, open intermediate sump(s), allowing additional gravity flow into unload auger.
3. When grain flow stops, **shut off power to unload auger(s)**. Bring portable sweep into bin and place in pivot holder of center sump. Do not start any augers until everyone is outside bin.



DANGER: KEEP AWAY when auger is running. Entanglement with rotating auger will cause death or serious injury.

4. Restart unload auger and then start portable sweep. Monitor operation from outside of bin.



DANGER: When bin is nearly empty, sweep auger will travel at an increasingly fast speed. Keep away from auger to avoid entanglement, which will result in death or serious injury.

5. To remove remaining grain from bin floor, lock out power to all augers and use push broom and/or shovel to move grain into center sump. Restart unload auger(s) after everyone has left bin. Never enter bin while augers are running.

Portable Sweep Safety Decals

Safety Decals for Portable Sweep

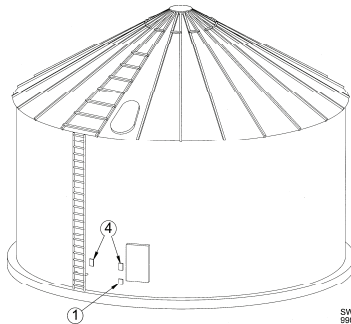
Safety decals should be mounted on your equipment as shown in this safety section. Yearly and prior to equipment use, check that all decals and shields are in place and legible.

To order a replacement decal or shield at no charge, contact your dealer or Sukup Manufacturing Co., Box 677, Sheffield, IA USA 50475. If replacement is necessary, make sure location for decal is free from grease, oil and dirt. Remove backing from decal and place in proper position.

Decals 1-5 are factory-mounted. Additional copies of decals 1 and 4 are shipped with this manual in separate packet #A3399 and have mounting instructions inside packet.

IMPORTANT: If suggested locations are not clearly visible, place safety decals in a more suitable area. Never cover up any existing safety decals.

- DECAL L0281 – WARNING:** To avoid serious injury or death. **Mount this decal** on bin sheet near door handle.



SWSW0006
R0332JRW

- DECAL L0271 - DANGER:** Shield missing. Do not operate!



- DECAL L0284 – WARNING:** Keep away from all moving parts.



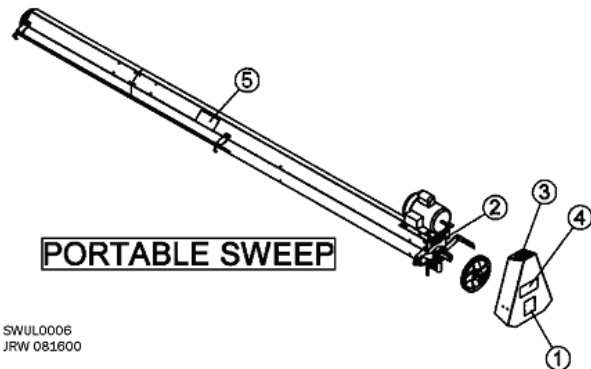
- DECAL L0258A – DANGER:** Do not enter this bin! Keep clear of all augers. **Mount this decal** on bin sheet near door handle and near ladder leading to roof.



- DECAL L03061 – DANGER:** Keep away when auger is running!



Safety Decals Placement



SWUL0006
JRW 081800

Portable Sweep Safety Decals

PORTABLE SWEEP OPERATING INSTRUCTIONS

1. Start horizontal (and vertical if applicable) unload auger. Open center sump. Unload grain from center sump until gravity flow stops.
2. Open intermediate sump(s), allowing additional gravity flow into unload system. If bin has an independent intermediate sump, open it.
3. When grain flow stops, **shut off power to unload auger(s)**. Bring portable sweep into bin. Mount center pivot pin into pivot pipe. When using an 8" portable sweep with a 10" pulley, a spacer may be needed to keep pulley from rubbing against floor. **NOTE:** Pivot pipe must be centered in bin or sweep may hit bin wall.
4. Use 5/16 x 1" bolts to mount 2hp or smaller motor, or 3/8 x 1-1/2" bolts for larger motor. Mount motor pulley to motor shaft (Motor pulley found on Page 19).
- 5.
6. Mount large pulley (See Table on Page 13) to auger shaft and align with motor pulley.
7. Place belt(s) on pulleys. Tension may be adjusted by turning nut as shown in Fig. 4. See belt-adjusting instructions on next page.
8. Attach belt shield to brackets with 5/16 - 18 x 1" bolts. Be sure shield is positioned to cover both pulleys.
9. Get out of bin and make sure no one is inside bin. Restart unload auger(s) and then start portable sweep. Monitor operation from outside of bin.



DANGER: KEEP AWAY when auger is running. Entanglement with rotating auger will cause death or serious injury.



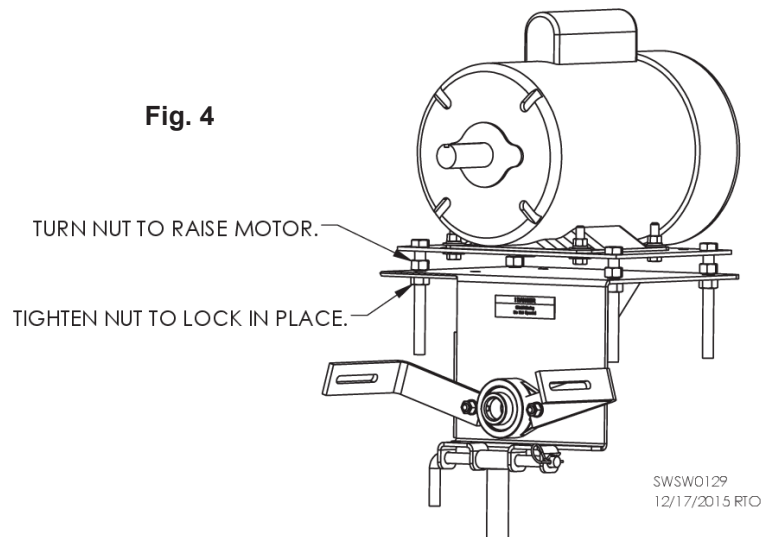
DANGER: When bin is nearly empty, sweep auger will travel at an increasingly fast speed. Keep away from auger to avoid entanglement, which will result in death or serious injury.

10. To remove remaining grain from bin floor, lock out power to all augers and use push broom and/or shovel to move grain into center sump. Restart unload auger(s) after everyone has left bin. Never enter bin while augers are running.
11. Loosen bolts under motor mount. Remove motor. Sweep is now ready to move to another bin.



DANGER: Always remove motor from sweep when not in use to prevent sweep from being turned on accidentally. Entanglement with rotating auger will cause death or serious injury.

Fig. 4



Commercial 12" Unload

NOTE: Commercial 12" Unload System is designed for use with a carry-in sweep. Follow instructions in sweep manual for operation of unload and sweep augers; for installation of wear track, if needed; and for storage of sweep after use.

COMMERCIAL 12" UNLOAD SAFETY DECALS

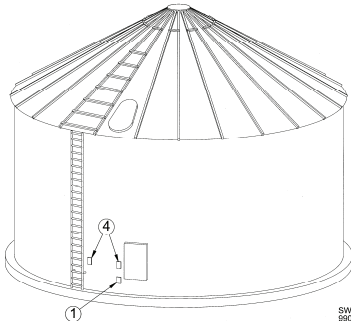
Safety decals should be mounted on your equipment as shown in this safety section. Yearly and prior to equipment use, check that all decals and shields are in place and legible.

To order a replacement decal or shield at no charge, contact your dealer or Sukup Manufacturing Co., Box 677, Sheffield, IA USA 50475. If replacement is necessary, make sure location for decal is free from grease, oil and dirt. Remove backing from decal and place in proper position.

Decals 1-4 are factory-mounted. Additional copies of decals 1 and 4 are shipped with this manual in separate packet #A3399 and have mounting instructions inside packet.

IMPORTANT: If suggested locations are not clearly visible, place safety decals in a more suitable area. Never cover up any existing safety decals.

- DECAL L0281 – WARNING:** To avoid serious injury or death. **Mount this decal** on bin sheet near door handle.



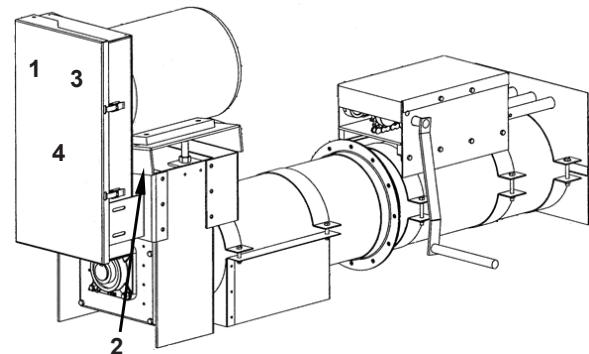
- DECAL L0271 - DANGER:** Shield missing. Do not operate!



- DECAL L0284 – WARNING:** Keep away from all moving parts.



- DECAL L0258A – DANGER:** Do not enter this bin! Keep clear of all augers. **Mount this decal** on bin sheet near door handle and near ladder leading to roof.



SAFETY DECAL PLACEMENT

Safety Decals for U-Trough Power Sweep

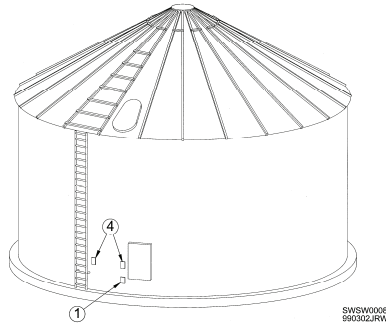
Safety decals should be mounted on your equipment as shown in this safety section. Yearly and prior to equipment use, check that all decals and shields are in place and legible.

To order a replacement decal or shield at no charge, contact your dealer or Sukup Manufacturing Co., Box 677, Sheffield, IA USA 50475. If replacement is necessary, make sure location for decal is free from grease, oil and dirt. Remove backing from decal and place in proper position.

Decals 1-6 are factory-mounted. Additional copies of decals 1 and 4 are shipped with this manual in separate packet #A3399 and have mounting instructions inside packet.

IMPORTANT: If suggested locations are not clearly visible, place safety decals in a more suitable area. Never cover up any existing safety decals.

- DECAL L0281 – WARNING:** To avoid serious injury or death. **Mount this decal** on bin sheet near door handle.



- DECAL L0271 - DANGER:** Shield missing. Do not operate!



- DECAL L0284 – WARNING:** Keep away from all moving parts.



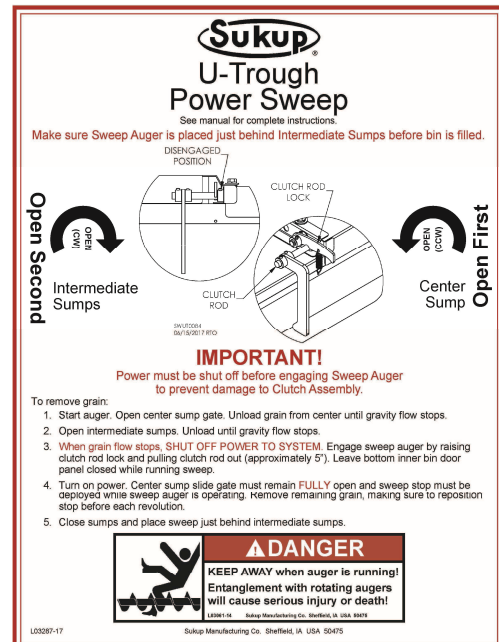
- DECAL L0258A – DANGER:** Do not enter this bin! Keep clear of all augers. **Mount this decal** on bin sheet near door handle and near ladder leading to roof.



- DECAL L03061 – DANGER:** Keep away when auger is running!



- L03287 – Instructional sticker for U-Trough Power Sweep.** For placement, see drawing on next page.



Decal Placement for U-Trough Power Sweep

Fig. 1 shows placement of safety decals and instructional sticker for U-Trough Power Sweep.

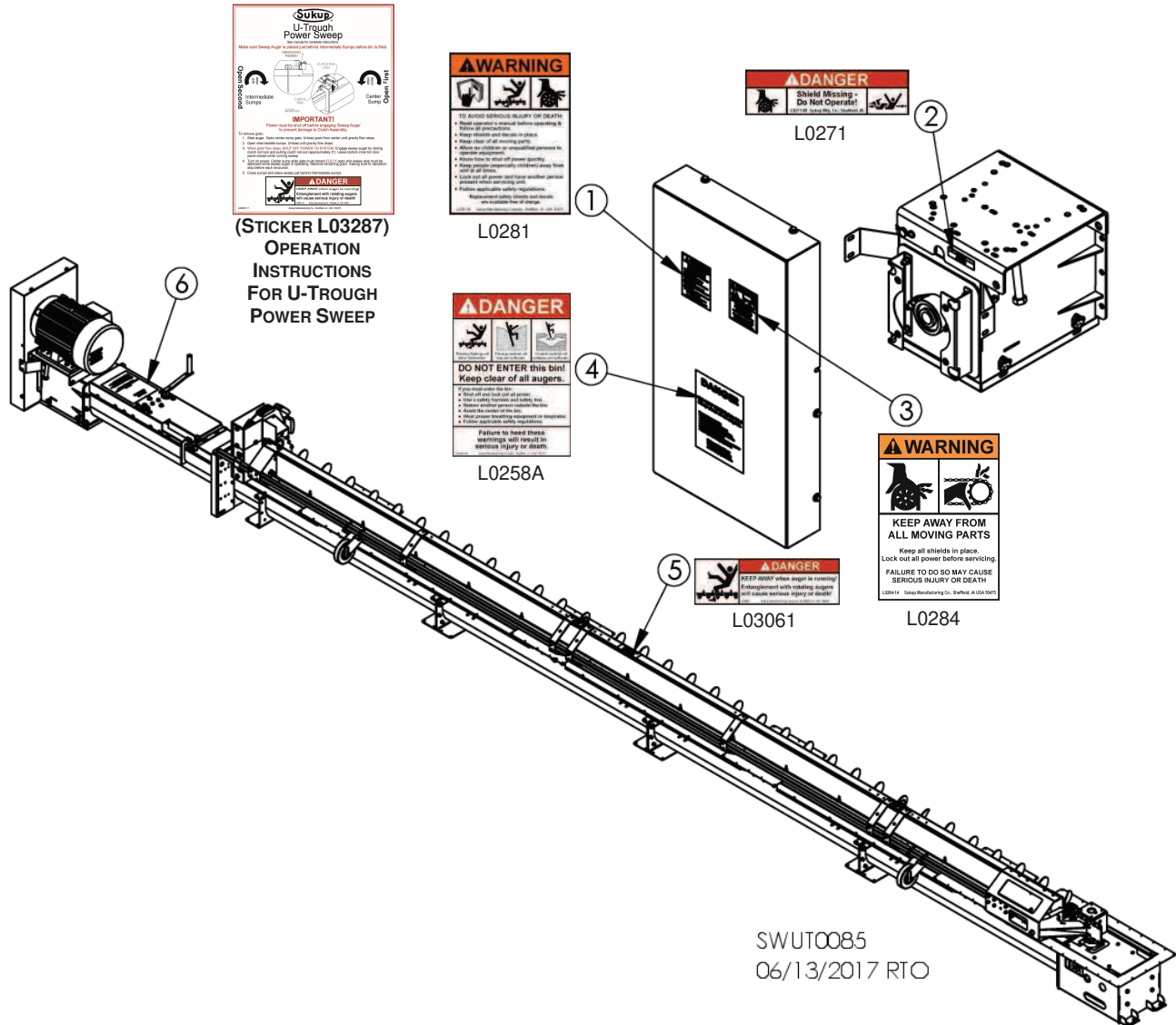


Fig. 1

OPERATING INSTRUCTIONS

IMPORTANT: This U-Trough is designed for single-stage sweeping only. Verify that bin is designed for single-stage sweeping.

Standard Sukup grain bins are designed with anchors that allow sweeping of entire diameter of bin in one stage. However, older Sukup bins 72' dia. and larger that do not have two anchors per stiffener should be swept in multiple stages beginning with inner section of floor, and then outer section after sweep extension is added. Additional anchor brackets can be purchased from Sukup Manufacturing Co. and retrofitted to enable single-stage sweeping.

For single-stage sweeping of Sukup bins 54' to 105' in diameter, bin must have 1" Grade 5 anchor bolts (17" deep for "Inverted T" foundation, or deep into stemwall ring rebar zone for "T-Cap"), with a minimum of 7-1/2" from anchor to outside edge of stemwall. Check bin anchor specifications prior to using sweep.

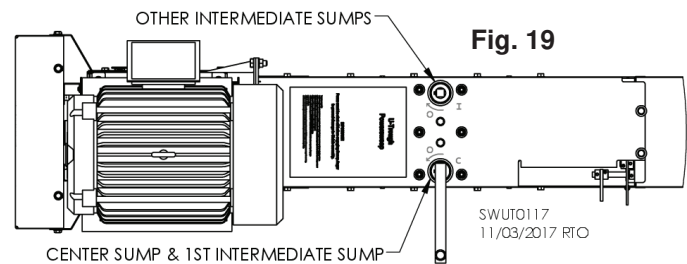
Bins by other manufacturers that are 60' dia. or less may be swept in one stage provided anchors have been inspected and found suitable for single-stage sweeping. (Contact bin manufacturer for further information.)



DANGER: KEEP AWAY when auger is running. Entanglement with rotating auger will cause death or serious injury.

NOTICE: If bin is equipped with a Cluster Buster, ensure neither rod nor cable is in torsion bar. If bin is equipped with a sidedraw, do not use at same time sumps are being used to unload grain.

1. Start U-Trough unload auger. Turn rack and pinion opener to simultaneously open center sump and first intermediate sump. See Fig. 19. Unload grain from these sumps until gravity flow stops.



NOTICE: To prevent overloading of U-Trough during gravity unloading, do not open center sump all the way or exceed 6,000 bu./hr. To unload at maximum capacity, monitor motor current and open sump just enough to run at or just below rated full load current.

2. Re-position rack and pinion opener handle and open other intermediate sumps (see Fig. 19), allowing additional gravity flow of grain into unload system. Again monitor motor current/capacity.
3. When grain flow stops, shut off power to system. Engage sweep auger by pulling clutch rod handle. **NOTICE:** Power must be shut off before engaging sweep auger to prevent damage to clutch assembly.
4. Turn on power. Center sump slide gate must remain **FULLY** open and sweep stop must be deployed while sweep auger is operating. See Image 1. Remove remaining grain, making sure to reposition stop before each revolution. **NOTICE:** Leave bottom panel of inner bin door closed when running sweep to avoid possible damage to sweep wheel and/or door.



DANGER: When bin is nearly empty, sweep auger will travel at an increasingly fast speed. Keep away from auger to avoid entanglement, which will result in death or serious injury.

5. Close sumps and place sweep just behind intermediate sumps.