# bühler

# farm king



**Conventional Augers** 

Operator's and Parts Manual FK336



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#### WARRANTY POLICY

Buhler Manufacturing products are warranted for a period of twelve (12) months (90 days for commercial application) from original date of purchase, by original purchaser, to be free from defects in material and workmanship under correct, normal agricultural use and proper applications.

Buhler Manufacturing's obligations under this warranty shall be limited to the repair or exchange, at Buhler Manufacturing's option, of any Buhler Manufacturing product or part which proves to be defective as provided. Buhler Manufacturing reserves the right to either inspect the product at the buyer's location or have it returned to the factory for inspection.

The above warranty does not extend to goods damaged or subject to accident, abuse or misuse after shipment from Buhler Manufacturing's factory, nor to goods altered or repaired by anyone other than an authorized Buhler Manufacturing representative.

Buhler Manufacturing makes no Express Warranties other than those, which are specifically described. Any description of goods, including any references and specifications in catalogues, circulars and other written material published, is for the sole purpose of identifying goods and shall conform to such descriptions. Any sample or model is for illustrative purposes only and does not create an Express Warranty that the goods conform to sample or model shown.

The purchaser is solely responsible for determining suitability of goods sold. This warranty is expressly in lieu of all other warranties expressed or implied. Buhler Manufacturing will in no event be liable for any incidental or consequential damages whatsoever. Nor for any sum in excess of the price received for the goods for which liability is claimed.

#### **WARRANTY CLAIMS:**

Warranty requests must be prepared on Buhler Manufacturing Warranty Claim Forms with all requested information properly completed. Warranty Claims must be submitted within a thirty (30) day period from date of failure repair.

#### **WARRANTY LABOR:**

Any labor subject to warranty **must** be authorized by Buhler Manufacturing. The labor rate for replacing defective parts, where applicable, will be credited at 100% of the dealer's posted shop rate. Defective parts will receive an extra 10% discount to assist with freight or other incidental costs.

#### **GOVERNMENT LEGISLATION:**

Warranty terms and conditions are subject to Provincial or State legislation.

#### **IMPORTANT FACTS:**

Buckets and Bucket Tines Carry No Warranty Bent Spears Carry No Warranty Snowblower Fan Shafts Carry No Warranty Mower Blades Carry No Warranty Portable Auger Parts Have Two (2) Year Warranty Loader Parts Have Two (2) Year Warranty

**IMPORTANT NOTE:** This warranty does not apply to rentals



#### SAFETY INSTRUCTIONS

The safety of the operator of any piece of equipment is of prime importance to the manufacturer and the following precautions should be taken when operating, starting or doing any maintenance work on this auger.

Always transport the auger in the down position carrying the weight of the auger on the winch cable and not on the transport stops.

When moving the auger on a road use accessory lights for adequate warning to operators of other vehicles. Use a safety rated tow chain when towing.

The auger must be on a level surface and the wheels free to move when raising or lowering. Everyone should be kept clear during these operations.

Never stand under the auger while raising or lowering.

When filling tall bins, tanks or granaries, it is advisable to anchor the auger to the bin or building to prevent it from being tipped over by the wind or a sudden movement. The upper end of auger should rest on some support when in operation.

Keep hands, feet and clothing away from exposed flighting and all moving parts. Do not allow children or anyone other than the operator close to the auger when in operation.

Before attempting to service, adjust or unclog an auger, disengage drive and shut off engine. In the case of an electric motor, shut off switch and unplug the connection.

Never operate an auger with the tail end off the ground.

When storing, the tail should be tied or weighted to prevent children or others from tipping the auger. The power source should be fixed in such a way that no one except an authorized person should start the unit.

Never raise the tail of an auger above waist high as the balance shifts forward and the auger will tip over.

Check to see that the set screw and roll pin are in place and not damaged or missing every time you are preparing to use the auger.

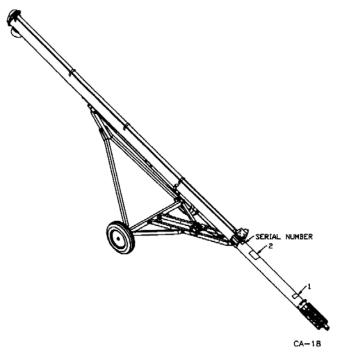


# A

#### **CAUTION**

- 1. Read and understand the operator's manual before operating.
- 2. Keep all safety shields and devices in place.
- 3. Make certain everyone is clear before operating or moving machine.
- 4. Keep hands, feet and clothing away from moving parts.
- 5. Shut off power to adjust, service or clean.
- 6. Support discharge end or anchor intake end to prevent upending.
- 7. Disconnect power before resetting motor overload.
- 8. Empty auger before moving, to prevent upending.
- 9. Lower auger to transport position for transporting.
- 10. Make certain electric motors are grounded.

#### **SAFETY SIGNS**



Replace Safety Sign immediately should it become damaged, torn or illegible. Obtain replacements from your authorized dealer using the part numbers shown.



#1

# A CAUTION

- Do not operate the unit before reading and understanding the Operator's Manual.
- 2. Keep all safety devices in place.
- 3. Keep off of the equipment at all times.
- 4. Keep hands, feet, and clothing away from moving parts while in operation.
- Make certain everyone is clear of the equipment before applying power or moving the machine.
- Do not adjust, service, lubricate, clean, unclog, or move the mechanism until all power is shut off.
- While in operation, always support the discharge end or provide adequate anchorage of the intake end to prevent sudden tipping.
- 8. Disconnect power of electrical driven units before resetting motor over loads.
- To avoid tipping, make sure auger is empty before attempting to move.
- 10. Keep wheels of undercarriage level and on firm ground.
- 11. Lower unit to the recommended transport position before transporting.
- 12. Do not operate electric motor equipped units until they are properly grounded.
- Keep children, visitors, and all untrained personnel away from machine while in operation.
- 14. Lower auger when moving close to overhead power lines.



#### SAFETY SIGNS - cont'd.

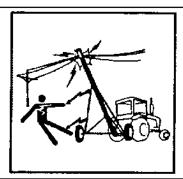


RUN AUGER
PARTIALLY FULL
UNTIL FLIGHTING
BECOMES POLISHED

961015

#3





#### ELECTROCUTION HAZARD KEEP AWAY FROM POWER LINES TO PREVENT SERIOUS INJURY OR DEATH FROM ELECTROCUTION:

- 1. STAY WELL AWAY FROM POWER LINES. ELECTROCUTION CAN OCCUR WITHOUT DIRECT CONTACT.
- 2. LOWER UNIT WELL BELOW LEVEL OF POWER LINE BEFORE MOVING OR TRANSPORTING.

909745

#4



# **BEFORE LOADING GRAIN**

HITCH MUST BE SECURELY FASTENED TO TRACTOR DRAWBAR CLEVIS TO PREVENT UPENDING AS LAST PART OF PRODUCT MOVES TO UPPER END OF THE AUGER

960569

#5



#### **OPERATING INSTRUCTIONS**

All augers may be elevated up to 45°: however, for best operating efficiency, 35° should not be exceeded. At angles over 35° the capacity and life of the auger decreases.

Never operate an empty auger for over one minute, as the flighting and housing will experience excessive wear.

To position the auger, always tow or move the auger in the down position to a point as close as possible to the bin or barn.

**ALERT:** Always keep the wheels level. Raise the auger to the desired height and back the auger into position. Rest the head on some support. As an auger is emptied the head becomes heavy, the tail becomes light and the auger could tip.

**ALERT:** Never place blocks under the wheels to increase the elevation of the auger.

Be sure the wheels are free to move and no one is standing close to the auger when raising or lowering. Never attempt to raise or lower the auger while it is in operation.

The auger is equipped with a safety brake winch. The auger may be raised or lowered by simply turning the winch handle in the proper direction until the desired discharge height is obtained.

Never have less than three wraps of cable on the drum of the winch.

**ALERT:** Arrow on winch shows proper direction of rotation. Improper rotation may cause winch brake failure.

**ALERT:** All wiring should be done by a competent electrical contractor to assure the electric motor is receiving the correct voltage and the cable will carry the correct load.

The life of a motor is greatly reduced if it is run at too high or too low voltage. Also, a motor cannot develop full power if the cable is too small. The electrical supply to each motor should include an enclosed safety switch or circuit breaker of the correct size to protect the motor from being overloaded. The switch should be under a padlock to prevent the motor from being turned on by accident while working on or moving the auger. This will also prevent unauthorized persons or children from operating the motor. A magnetic starter should be used to shut off the motor in case of low voltage, loss of power, or overloading the motor.

The electric motor must then be started manually.



#### **OPERATING INSTRUCTIONS – cont'd.**

Power take-off drives are designed for tractors with 540 RPM power take off and should not be run by tractors with 1000 RPM power take-off.

**ALERT:** Always check to see that both ends of the PTO shaft are securely attached before using any PTO drive auger. This should always be done with the tractor shut off.

To assure a long life from a PTO tumbler shaft, operate the shaft at the least angle possible and always keep the tractor axle parallel to the side of the auger housing.

**ALERT:** Always maintain at least a 6" lap on the tumbler shields. Be sure they turn freely and make certain everyone stands clear of the tractor, tumbler shaft, and auger before engaging power take-off. Be sure ends are securely connected to the auger and tractor.

Before engaging power take-off, start tractor and idle engine. Engage power take-off slowly and bring PTO RPM up to recommended speed of 500 RPM.

Before stopping auger (except in an emergency) let all grain empty out of the auger, idle engine then disengage power take-off. Shut off tractor.

**ALERT:** When operating an auger for the first time when new or at the beginning of a season, run only partially full until flighting becomes polished. It is always a good idea to check the flighting for freedom of movement by turning pulley or tumbler shaft by hand before connecting to a power source. Other items to check are the head (spout) and intake cage for bird nests or other obstructions before starting the auger.

**ALERT:** Always lower auger before transporting and allow the weight of the auger to rest on the winch cable and not on the transport stops.



**ALERT:** When towing the auger, never exceed 32 kilometers per hour.

Use signal lights and a safety rated tow chain when towing an auger on a road. Check your local regulations for further safety devices in this regard.



#### MAINTENANCE AND LUBRICATION

Check condition of winch cable occasionally and replace if it shows wear. The greatest wear will occur on the first few wraps around the drum of the winch.

The main thing to check on the cable is for broken strands or runs, which penetrates the cable core. This is particularly important if the auger is more than a few years old.

Lubricate the PTO tumbler shaft universal joints every five hours. Grease the PTO shear yoke before using PTO for the first time.

Oil the moving parts of the winch two times per year.

Check the oil level of the gearbox one time per year and maintain the level at ½ full. Use SAE 90.

The plastic chain guard at the top of the auger must be removed to inspect or replace the chain and sprockets. When replacing the plastic guard, clean off the residue from the old silicone and apply a fresh bead using a caulking gun. There must be about 2 pounds of grease in the guard. The bolts should be tightened in a criss-cross sequence to ensure proper seating of the guard. The bolts are a ½" grade 5 which should be torqued to about 9 foot pounds using a torque wrench.

After every 40 hours of use, add approximately 10 squirts of grease to chain cover at the top of the auger.

**ALERT:** When replacing bearings or tightening a loose bearing collar, always tighten collar in the direction of shaft rotation using a center punch or a similar tool.

If the auger is towed extensively, the wheel bearings should be repacked at least semiannually. Keep tire pressure at 37 psi. maximum.

#### **STORAGE**

The auger should be stored in a dry place if possible. If stored outside, lower auger to its lowest position and tie the tail end down so that no one can accidentally overturn it.

Clean auger thoroughly as dirt draws moisture and causes metal to rust. If the auger has been used to move fertilizer, clean thoroughly and apply oil or grease on entire flighting and inside the housing to stop and prevent further corrosion.

Remove belts and store in a cool dry place if auger is to be left outdoors.

At this time check all moving parts for wear and order replacement parts from your nearest dealer.

When taking the auger out of storage, clean it thoroughly and check for obstructions at the inlet and outlet ends. Check the oil in the gearbox.

Check all bolts and set screws.



#### **ASSEMBLY INSTRUCTIONS**

- 1. Pages 12-15: Assemble the top section (#3) to the center section (#2) making sure the flighting is aligned and locked with a hex bolt and lock nut (8" 3/8" x 2" grade 8, 10" ½" x 2 ¾" grade 8). The drivelines for the two sections are connected using a 1 5/16" SQ. x 5 ½" coupler (#70). Similarly assemble the bottom section (#1) to the center section. Use hex bolts, lock washers and hex nuts to fasten the auger rings together (8" 3/8" x 1", 10" ½" x 1 ¼"). Align all three sections before tightening the bolts. Be sure to tighten bolts evenly first one side and then the other. Bolt the intake assembly (#13) to the bottom of the auger using 3/8" x 2" hex bolts, lock washers and hex nuts.
- 2. Pages 12-15: The gearbox is shipped without oil. Before you mount the gearbox on the auger, remove the lid and fill the gearbox about 1/3 full with SAE80-90 oil. (Oil should be just touching the bottom of the gears, do not overfill). Use gasket glue when replacing the cover to reduce the chance of leaks. The gearbox may be used on either the left or the right side. Check to see that the breather plug on the gearbox lid will be on the top and the drain plug will be at the bottom when the gearbox is bolted to the auger. Connect the gearbox to the splined coupler on the driveline and bolt on the gearbox using ½" x 1" hex bolts and lock washers.

Bolt the gearbox plate (#54) to the top of the gearbox with the ring on the drive side. The extension shield holder (#55) bolts on top of the gearbox plate with the welded bolt turned towards the top of the auger. Use the same hardware as for the gearbox.

- 3. Pages 12-15: Mount the drive line shields (#8) starting at the top of the auger before you lift the auger. The final extension shield (#7) will be mounted after the auger is assembled. Bolt the extension shield to the shield holder (#55) using a 5/16" flat washer, lock washer and hex nut.
- 4. Pages 21-23: Bridging should be assembled on the main auger tubes before raising the auger.
  - **8" x 61' AUGER:** The two bridging brackets (#4) are bolted to the mounts welded to the center section using  $\frac{1}{2}$ " x 1  $\frac{1}{2}$ " hex bolts, lock washers and hex nuts. Attach the cross braces (#5) to the top of the bridging yokes using  $\frac{3}{8}$ " x 1  $\frac{1}{4}$ " hex bolts, lock washers and hex nuts. Attach the bridging cables (#13) to the yokes using  $\frac{3}{8}$ " cable clamps and  $\frac{3}{8}$ " I.D. (10 ga.) flat washers. Bolt cables to the bottom section and tension at the top using a nut and flat washer. The main tubes must be straight or bowed up slightly before lifting auger. Any downward bow will result in very loud flighting noise.

**ALERT:** Do not tighten the cable clamps on the bridging yokes until after the cables are tight and before lifting the auger.



#### ASSEMBLY INSTRUCTIONS - cont'd.

10" x 61' AUGER: The main bridging yoke (#20) is bolted to the lower bridging mount on the center section using ½" x 1 ½" hex bolts, lock washers and hex nuts. Attach the tie bar (#21) to the top of the main bridging yoke using 3/8" x 1 1/4" hex bolts, lock washers and hex nuts. The upper bridging yoke (#15) bolts to the welded mount near the top of the center section using ½" x 1 ½" bolts. Mount both sets of cables (#18) and (#19). The longer cable goes from just above the gearbox, across both bridging yokes, to the top section. The shorter cable goes from just behind the undercarriage pivot pin, across the main bridging yoke, down to the welded cable brackets just below the upper bridging yoke. Bolt the cable yokes (#16) to the bottom of each cable using ½" x 2" hex bolts, lock washers and hex nuts. Bolt the yokes to the cable brackets welded to the main tubing with the same hardware. Use the bottom hole in the yoke if possible. The other holes can be used if the cable stretches after a few years. Tighten the cables using a flat washer and hex nut. The main tubes must be straight or bowed up slightly before lifting auger. Any downward bow will result in very loud flighting noise.

**ALERT:** Use 3/8" I.D. (10 ga.) flat washers on all cable clamps. Tighten the cable clamps on the bridging yokes after the cables are tight and before lifting the auger.

- 5. Pages 12-15 Raise the top end of the auger tube assembly. Bolt the pulley holder (#25) to the bottom of the track using 3/8" x 1" hex bolts, lock washers and hex nuts. Turn as shown in drawing. Slide the track roller assembly onto the track with the cast rollers and cable pulleys turned to the bottom of the auger. Bolt the track stop (#21) to the track using 3/8" x 1 ½" hex bolts, lock washers and hex nuts. Track stop bolts about 6" above the pulley holder at the bottom of the track.
- 6. Pages 16-18: Mount the two undercarriage arms (#1) and (#2) to the pivot pin under the welded gearbox mount using 1  $\frac{1}{2}$ " washers (#37) and 5/16" x 2  $\frac{1}{4}$ " cotter pins (#38). Bolt the undercarriage arms to the axle (#5) using hex bolts, lock washers and hex nuts (8" 5/8" x 3  $\frac{1}{2}$ "; 10" 5/8" x 4  $\frac{1}{2}$ ")

Bolt on the left (#3) and right (#4) cross brace tubes between the undercarriage and axle. The right hand cross brace (#4) has the winch bracket. Bolt to the undercarriage using  $\frac{3}{4}$ " bolts, lock washers and hex nuts (8" – 3  $\frac{1}{2}$ ", 10" – 4  $\frac{1}{2}$ "). The other end of the cross brace bolts to the inside of the welded brackets on the axle tube using  $\frac{5}{8}$ " x 1  $\frac{3}{4}$ " hex bolts, lock washers and hex nuts.

Bolt the lift arm extension (#8) to the track roller using a  $\frac{3}{4}$ " x 6" bolt and lock nut. Bolt the lift arm extension to the top of the two lift arms (#6) and (#7) using  $\frac{5}{8}$ " x 5  $\frac{1}{2}$ " bolts, lock washers and hex nuts. The bottom of the lift arms bolts between the welded brackets on the cross brace tubes using  $\frac{3}{4}$ " x 2  $\frac{1}{2}$ " bolts and lock nuts. Join the two lift arms with a cross brace (#58) and two plates (#57). Use  $\frac{3}{8}$ " x 3" bolts, lock washers and hex nuts for the 8" and 4" bolts for the 10".



#### ASSEMBLY INSTRUCTIONS - cont'd.

7. Pages 16-18: Bolt the idler mounting plate (#49) to the undercarriage arms just above the ends of the cross brace tubes using 3/8" hex bolts, lock washers and hex nuts (8" – 3"; 10" – 4"). The edge with the cable pulley faces down. Fit the slots in the winch bracket onto the right hand cross tube and slide against the welded stop. The slots in the winch bracket at 90° to the cross tube are turned up. Bolt in place using two connector plates and 3/8" x 1 ¼" hex bolts, lock washers and hex nuts.

Bolt the winch (#9) to the winch bracket (#12) on the right hand cross tube (#4) using 3/8" x 1" hex bolts, lock washers and hex nuts. Flat washers are supplied for bolts, which go through slotted holes.

- 8. Pages 16-18: Bolt the swivel pulley holder (#40) to the loops at the top and inside of the undercarriage using 5/16" x 2" hex bolts, lock washers and hex nuts. The pulley holder is offset on the shaft. Turn the pulley so the offset is towards the same side as the drive.
- 9. Pages 24-25: Thread the cable (#1) as shown in the drawing. From the winch the cable goes around the cable pulley on the idler plate. From there you go around the swivel pulley at the top of the undercarriage. Loop around the cable pulleys as shown in the drawing. The upper two cable pulleys are the ones in the track roller. The lower two cable pulleys are the ones at the bottom of the track. The end of the cable is clamped to the cable anchor welded to the track roller. Clamp the cable to the winch spool using the clamps supplied with the winch.
- 10. Pages 16-18 A clevis holder (#46) bolts to the top end of one undercarriage arm using a 3/8" hex bolt, lock washer and hex nut (8" 3"; 10" 4"). This holder is used as a place to leave the intake swivel clevis when it is removed prior to inserting the auger in a bin.
- 11. Pages 16-18: Mount the wheels (#36) and tires on the axle using ½" wheel bolts and torque bolts to 80 ft/lbs.
- 12. Pages 19-20: All 61' augers are available as PTO direct drive only.
  - a) Bolt the PTO hanger (#9) to the welded bracket on the tube using 3/8" x 1" cap screws, lock washers and hex nuts. A pin (#7) holds the PTO in place during transport.
  - b) Mount the PTO guard holder (#14) to the welded ring on the gearbox plate using a 4" I.D. clamp (#15) with 5/16" x 1 1/4" hex bolts, lock washers and hex nuts.
  - c) Slide the flexible PTO guard (#2) and the guard clamp (#3) on to the PTO shaft. Attach the PTO shaft using a key  $(8" \frac{1}{4}"; 10" \frac{3}{8}")$ , set screws and clamp bolt. Securely tighten the set screws and clamp bolt. After mounting the PTO, clamp on the flexible PTO guard (#2) using a  $\frac{5}{16}" \times 1 \frac{1}{4}"$  hex bolt, lock washer and hex nut.



#### ASSEMBLY INSTRUCTIONS - cont'd.

- 13. Re-check and tighten all bolts. Of particular importance are:
  - 1) Cable clamps & winch.
  - 2) Bolts on track roller assembly.
  - 3) Bolts on lift arm joining axle and extension tube.
  - 4) Bolts joining undercarriage, cross tubes and axle.
  - 5) Gearbox mounting bolts.
  - 6) Track stop bolts.
  - 7) All bolts on shields.
  - 8) Wheel bolts.
  - 9) Set screws and clamp bolts holding on the PTO shaft.
  - 10) Auger tube flange bolts.

#### 14. **ALERT:**

- 1) Gearbox is shipped without oil. Add oil as described in section 2.
- 2) Do not exceed 600 RPM flighting speed when operating auger.
- 3) An external chain tightener is supplied with all augers.

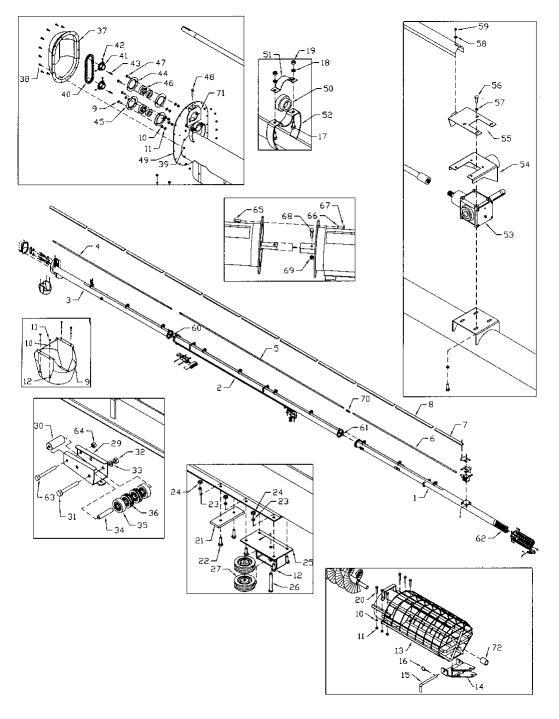


#### **ALERT**

- 1) High position: It is dangerous to move auger in raised position in Vicinity of electrical lines.
- 2) Keep all shields and guards in place.
- 3) Turn off power when servicing or unplugging auger.
- 4) Check that the intake guard bolts are tight and that the swivel clevis pin has the hitch pin in place before transporting the auger.



# **TUBE ASSEMBLY**



CA-17



#### WHEN ORDERING PARTS

Always give your dealer the Model, Color and Serial Number of your machine to assist him in ordering and obtaining the correct parts. Use the exploded view and tabular listing of the area of interest to exactly identify the required part.

#### **TUBE ASSEMBLY**

ITEM	PART#	DESCRIPTION
1	908967	Bottom Section Tube 8" x 20'
	962018	Bottom Section Tube 10" x 20'
2	908968	Center Section Tube 8" x 23' 6"
	962019	Center Section Tube 10" x 23' 6"
3	908969	Top Section Tube 8" x 16' 6"
	962020	Top Section Tube 10" x 16' 6"
4	962021	Top Drive Line Tube 17' 1/8"
5	962022	Center Drive Line Tube 23'-5 7/8" Lg
6	961260	Bottom Drive Line Tube 14'-8 7/8" Lg
7	962023	Extension Drive Line Shield 47" Lg (8" x 61')
	962024	Extension Drive Line Shield 49" Lg (10" x 61')
8	961987	Drive Line Shield 62 1/2" Lg (8" x 61')
	961264	Drive Line Shield 48 1/4" Lg (10" x 61')
9	961339	10" Bolt On Spout
10	81593	3/8" Lock Washer (pl)
11	81592	3/8" Hex Nut (pl)
12	86170	3/8" x 1" Hex Bolt (pl)
13	903556	8" x 61' Intake Guard Weldment
	903558	10" x 61' Intake Guard Weldment
14	903248	Clevis Weld't (8")
	903294	Clevis Weld't (10")
15	903246	Clevis Pin 5/8" x 9" (8")
	903293	Clevis Pin 5/8" x 10 1/2" (10")
16	966729	3/16" Linch Pin
17	81549	5/16" x 3/4" Hex Bolt (pl)
18	81569	5/16" Lock Washer (pl)
19	81568	5/16" Hex Nut (pl)
20	811795	3/8" x 2" Hex Bolt (pl)
21	962025	Track Stop
22	86171	3/8" x 1 1/4" Hex Bolt (pl)
23	81593	3/8" Lock Washer (pl)
24	81592	3/8" Hex Nut (pl)
25	962026	Pulley Holder Weldment
26	961011	Clevis Pin 1/2" x 3 1/2" Lg
27	961846	Cable Pulley 1/2" Bore
29	962027	Track Roller Frame
30	902365	Rear Track Roller



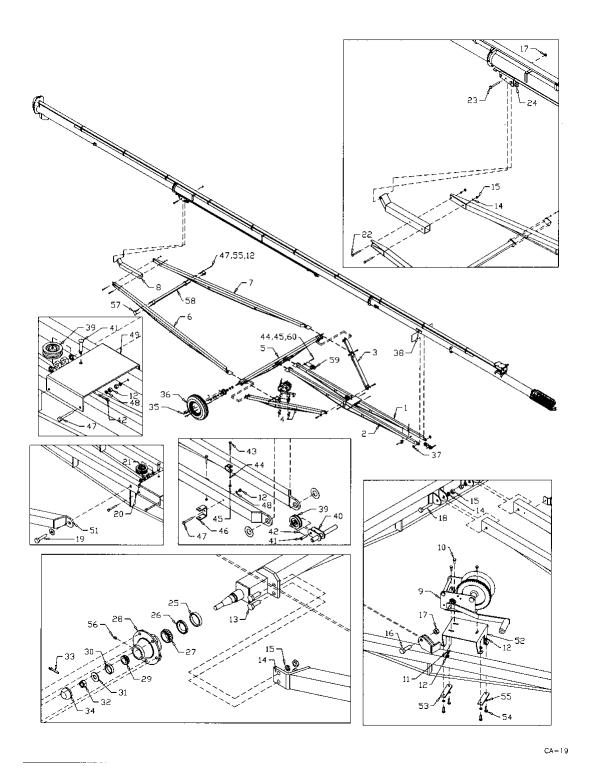
31	84215	3/4" x 6" Hex Bolt (pl)
32	81700	3/4" Hex Nut (pl)
33	81701	3/4" Lock Washer (pl)
34	962028	Track Spacer .995" O.D. x 4 9/16" Lg
35	961844	Track Roller 3 1/2" Dia. X 1" Bore
36	961845	Track Cable Pulley 3 1/2" Dia. X 1" Bore
37	961098	Plastic End Cover
38	967473	1/4" x 3/4" Flange Bolt (pl)
39	967474	1/4" Flange Nut (pl)
40	961997	#80 Chain 36 Link (8")
	961181	#80 Chain 38 Link (10")
41	961998	#80 20T Sprocket 1 3/8" Bore
42	985639	3/8" x 1/2" Socket Set Screw
43	967041	5/16" Sq. x 1 1/2" Key
44	961091	2-Hole Flange (1 3/8")
45	961675	3-Hole Flange (1 3/8")
46	965917	1 3/8" Bearing
47	9812387	3/8" x 1" Carriage Bolt
48	967291	3/8" x 2" Full Thread Bolt (pl)
49	961308	8" x 61' Tube End Plate
	904787	10" x 61' Tube End Plate
50	965917	1 3/8" Bearing
51	961990	1 3/8" Bearing Cap
52	961989	Bearing Stand
53	BU50510	Gearbox
	961086	Reverse Shift Gearbox (Optional)
54	961348	Gearbox Plate
55	961346	Extension Drive Line Shield Holder
56	81619	1/2" x 1" Hex Bolt (pl)
57	81637	1/2" Lock Washer (pl)
58	81570	5/16" B.S. Flat Washer (pl)
59	81568	5/16" Hex Nut (pl)
60	962029	Top Section Flighting 8" x 16'-11 1/2" Lg
	962030	Top Section Flighting 10" x 16'-11 1/2" Lg
61	962031	Center Section Flighting 8" x 23'-8 3/8" Lg
	962032	Center Section Flighting 10" x 23'-8 3/8" Lg
62	905243	Bottom Section Flighting 8" x 21'-9 1/2" Lg
	961255	Bottom Section Flighting 10" x 21'-9 1/2" Lg
63	812087	5/8" x 6" Hex Bolt (pl)
64	812482	5/8" Hex Nut (pl)
65	86170	3/8" x 1" Hex Bolt (pl) (8")
	81620	1/2"x 1 1/4" Hex Bolt (pl) (10")
66	81593	3/8" Lock Washer (pl) (8")
	81637	1/2" lock Washer (pl) (10")



67	81592	3/8" Hex Nut (pl) (8")
	81636	1/2" Hex Nut (pl) (10")
68	9812483	3/8" x 2" Hex Bolt Gr. 8 (pl) (8")
	9812368	1/2" x 2 3/4" Hex Bolt Gr.8 (pl) (10")
69	812363	3/8" Lock Nut (pl) (8")
	812364	1/2" Lock Nut (pl) (10")
70	961648	1 5/16" Sq. Hollow Coupler 5 1/2" Long
71	903478	Chain Tightener Bracket
72	960461	Brass Bushing 1 3/8" x 1 3/4" Lg (8")
	967915	Brass Bushing 1 5/8" x 1 3/4" Lg (10")



# UNDERCARRIAGE, AXLE & LIFT ARM ASSEMBLY





#### UNDERCARRIAGE, AXLE & LIFT ARM ASSEMBLY

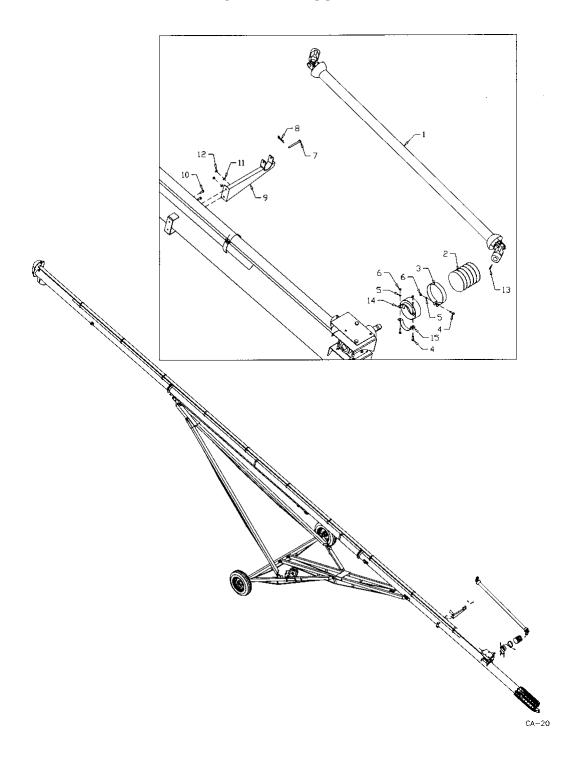
ITEM	PART#	DESCRIPTION
1	F0718 F0723	L.H. Undercarriage Tube 183" Long (8" x 61') L.H. Undercarriage Tube 183" Long (10" x 61')
2	F8851	R.H. Undercarriage Tube 183" Long (8" x 61')
_	F9933	R.H. Undercarriage Tube 183" Long (10" x 61')
3	962035	L.H. Cross Brace Tube 85 5/8" Long (8" x 61')
0	962086	L.H. Cross Brace Tube 82 1/4" Long (10" x 61')
4	903416	R.H. Cross Brace Tube 85 5/8" Long (8" x 61')
7	903417	R.H. Cross Brace Tube 82 1/4" Long (10" x 61')
5	962039	Axle 114" Long (8" x 61')
O	962040	Axle 114" Long (10" x 61')
6	F8853	R.H. Lift Arm Tube 173" Long
7	F8852	L.H. Lift Arm Tube 173" Long
8	962043	Lift Arm Extension
9	961945	Winch
10	86170	3/8" x 1" Hex Bolt (pl)
11	84000	3/8" B.S. Flat Washer (pl)
12	81592	3/8" Hex Nut (pl)
13	84270	5/8" x 1 3/4" Hex Bolt (pl)
14	81677	5/8" Lock Washer (pl)
15	81676	5/8" Hex Nut (pl)
16	84346	3/4" x 2 1/2" Hex Bolt (pl)
17	812365	3/4" Lock Nut (pl)
18	81669	5/8" x 3 1/2" Hex Bolt (pl) (8" x 61')
	81672	5/8" x 4 1/2" Hex Bolt (pl) (10" x 61')
19	810149	3/4" x 3 1/2" Hex Bolt (pl)
	811790	3/4" x 4 1/2" Hex Bolt (pl) (10" x 61')
20	81701	3/4" Lock Washer (pl)
21	81700	3/4" Hex Nut (pl)
22	81674	5/8" x 5 1/2" Hex Bolt (pl)
23	84215	3/4" x 6" Hex Bolt (pl)
24	962044	Track Roller Assembly
25	968412	Inner Cup (LM48510)
26	968430	Oil Seal (SE14)
27	967208	Inner Cone (LM48548)
28	968403	Hub (5-Bolt W/Cups - H516)
	968431	H516 Hub Assembly
29	968406	Outer Cone (LM11949)
30	968405	Outer Cup (LM11910)
31	9812416	3/4" S.A.E. Flat Washer (br)
32	81834	3/4" Slotted Hex Nut (br)
33	9812486	1/8" x 1 1/2" Cotter Pin
34	968409	Dust Cap (DC12)



35	968404	1/2" Wheel Bolt (pl)
36	F0110	Wheel 15" x 5" x 5-Bolt
37	967135	1 1/2" Rim Washer 10ga (pl)
38	967913	5/16" x 2 1/4" Cotter Pin (pl)
39	961846	3 1/2" Cast Cable Pulley W/ 1/2" Bore
40	961333	Pulley Holder (7" & 8")
	961334	Pulley Holder (10")
41	961010	1/2" x 2 1/8" Clevis Pin (pl)
42	9812430	1/8" x 1" Cotter Pin (pl)
43	810640	5/16" x 2" Hex Bolt (pl)
44	81569	5/16" Lock Washer (pl)
45	81568	5/16" Hex Nut (pl)
46	903392	Clevis Holder
47	81583	3/8" x 3" Hex Bolt (pl) (8")
	81587	3/8" x 4" Hex Bolt (pl) (10")
48	81637	1/2" Lock Washer (pl)
49	962060	Idler Mounting Plate (8")
	962064	Idler Mounting Plate (10")
51	81702	3/4" B.S. Flat Washer (pl)
52	903413	Winch Bracket 8 1/4" x 19 1/2"
53	903414	Connector Plate 3/8" x 1 1/4" x 5 1/2"
54	81546	3/8" x 1 1/4" Hex Bolt (pl)
55	81593	3/8" Lock Washer (pl)
56	967900	1/4" Grease Fitting
57	905152	X-Brace Plates 4" x 4 1/2"
58	905154	X-Brace Weldment 2" x 3" x 44 1/2"
59	909277	Manual Holder
60	812744	5/16" x 3 1/2" Hex Bolt (pl)



#### **DIRECT DRIVE ASSEMBLY**



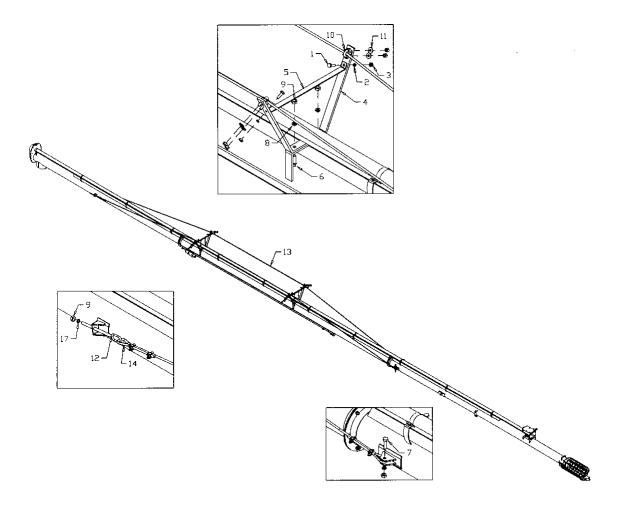


#### **DIRECT DRIVE ASSEMBLY**

ITEM	PART#	DESCRIPTION
1	F7240	8" & 10" PTO Shaft
2	961201	6" Plastic Tube 6 1/2" Long
3	961200	6 1/4" x 1 1/4" Guard Clamp
4	81553	5/16" x 1 1/4" Hex Bolt (pl)
5	81569	5/16" Lock Washer (pl)
6	81568	5/16" Hex Nut (pl)
7	961539	3/8" x 4 1/2" Pin
8	12780	#7 Hair Pin Clip
9	961790	PTO Hanger
10	86170	3/8" x 1" Hex Bolt (pl)
11	81593	3/8" Lock Washer (pl)
12	81592	3/8" Hex Nut (pl)
13	968807	3/8" x 3/8" x 2" Key
14	961202	PTO Guard Holder W/4" I.D. Clamp
15	961896	4" I.D. Clamp



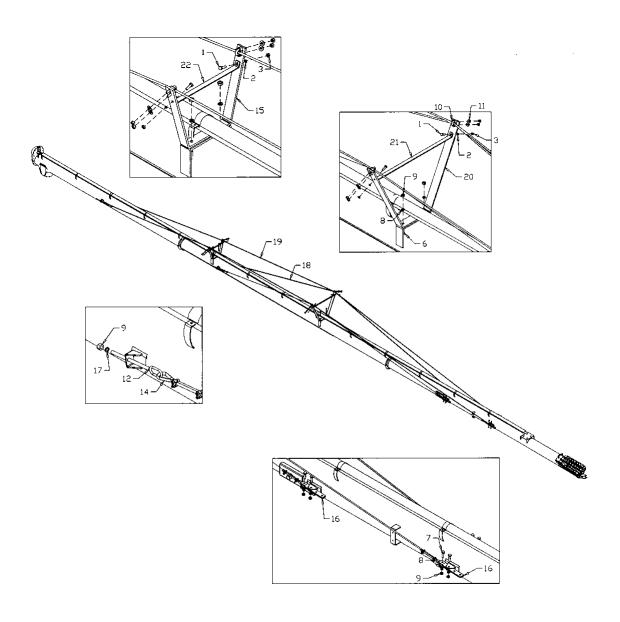
#### 8" x 61' CONVENTIONAL AUGER BRIDGING ASSEMBLY



CA-22



#### 10" x 61' CONVENTIONAL AUGER BRIDGING ASSEMBLY



CA-23

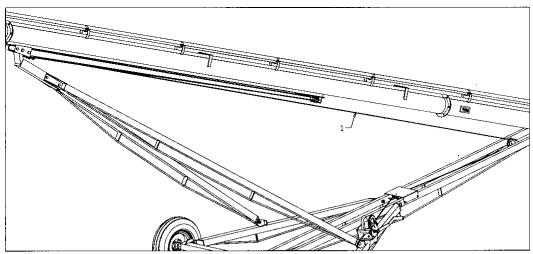


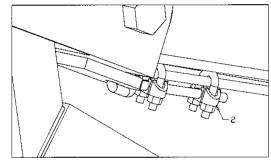
#### **BRIDGING ASSEMBLY**

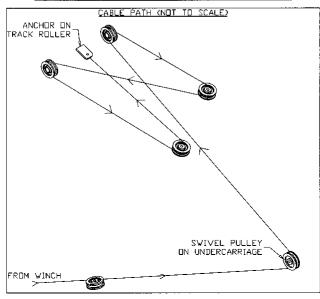
ITEM	PART#	DESCRIPTION
1	86171	3/8" x 1 1/4" Hex Bolt (pl)
2	81593	3/8" Lock Washer (pl)
3	81592	3/8" Hex Nut (pl)
4	F7027	Bridging Bracket Weldment
5	961532	Bridging Cross Brace
6	84277	1/2" x 1 1/2" Hex Bolt (pl)
7	811791	1/2" x 2" Hex Bolt (pl)
8	81637	1/2" Lock Washer (pl)
9	81636	1/2" Hex Nut (pl)
10	964264	3/8" Cable Clamps
11	964001	1" O.D. x .438" I.D. x 10ga Flat Washer (pl)
12	960031	Cable Tightener 1/2" x 7 7/8"
13	962047	Bridging Cable 3/8" x 37'-11" Assembled (8" x 61')
	962046	3/8" x 39'-7" Cable Only (8" x 61')
14	964267	3/8" Thimble
15	907054	Bridging Bracket Weldment
16	960244	Cable Yoke 1/4" x 1 1/2" x 10"
17	81638	1/2" B.S. Flat Washer (pl)
18	961265	Inner Cable 3/8" x 25'-6" Lg Assembled (10" x 61')
	961266	3/8" x 27'-2" Cable Only (10" x 61')
19	962048	Outer Cable 3/8" x 43'-7" Lg Assembled (10" x 61')
	962049	3/8" x 45'-3" Cable Only (10" x 61')
20	961257	Bridging Yoke 62 1/2"
21	961258	Bridging Tie Bar 31"
22	902830	Bridging Tie Bar 18 3/16" Long



#### **CABLE ASSEMBLY**







CA-21

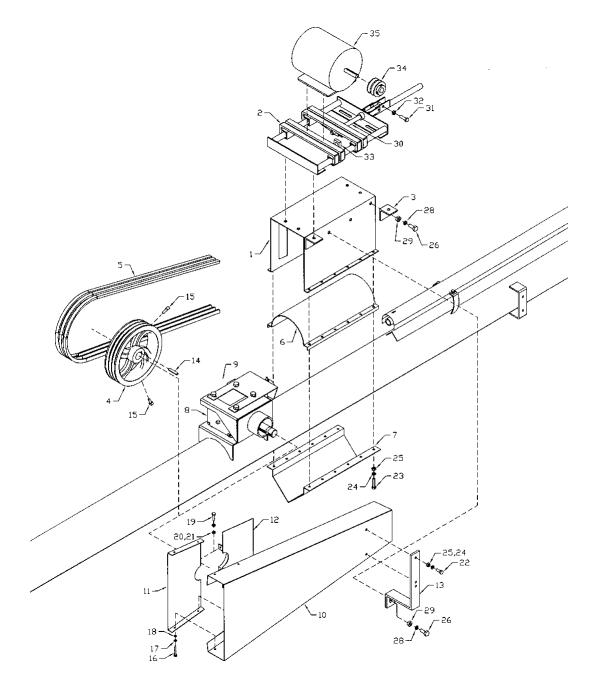


#### **CABLE ASSEMBLY**

ITEM	PART#	DESCRIPTION
1	962045	5/16" Cable 107' Long
2	961763	5/16" Cable Clamp



# **CLAMP-ON MOTOR MOUNT**



CA-24



#### **CLAMP-ON MOTOR MOUNT PARTS LIST**

ITEM	PART#	DESCRIPTION
1	961196	8" Motor Mount Stand
	961184	10" Motor Mount Stand
2	907360	Motor Mount Weldment
	907361	Motor Mount Assembly
3	961186	Angle Iron
4	961187	12" Triple Pulley (1 1/2" bore)
5	973417	B-83 V-Belt (3 req'd)
6	961164	8" Round Clamp
	961191	10" Round Clamp
7	961165	8" V-clamp
	961192	10" V-Clamp
8	BU50510	Auger Gearbox
9	961348	Gearbox Plate
10	F1871	Belt Guard (42 1/2" long)
11	961157	10" Bolt-on Guard Insert
12	961158	10" Clamp-on Guard Insert
13	961162	Guard Bracket (21" long)
14	968807	3/8" sq. x 2" key
15	81213	3/8" x 1" sq. hd. Set Screw
16	81525	1/4" x 3/4" Hex Bolt
17	81545	1/4" Lock Washer
18	81544	1/4" Hex Nut
19	81552	5/16" x 1 1/4" Hex Bolt
20	81569	5/16" Lock Washer
21	81568	5/16" Hex Nut
22	86170	3/8" x 1" Hex Bolt
23	81578	3/8" x 1 3/4" Hex Bolt
24	81593	3/8" Lock Washer
25	81592	3/8" Hex Nut
26	81620	1/2" x 1 1/4" Hex Bolt
27	81638	1/2" B.S. Flat Washer
28	81637	1/2" Lock Washer
29	81636	1/2" Hex Nut
30	961973	12" Adjusting Rod
31	981601	7/16" x 2" Hex Bolt
32	86273	7/16" Lock Nut
33	811852	3/4" Sq. Nut (pl)
*34		MOTOR PULLEY (SUPPLIED BY CUSTOMER)
*35		ELECTRIC MOTOR (SUPPLIED BY CUSTOMER)

<sup>\*</sup>SEE INSTRUCTIONS FOR CORRECT PULLEY AND MOTOR SIZES



#### CLAMP-ON MOTOR MOUNT KIT INSTRUCTIONS

1. All 61' augers are supplied with direct drive only. Bolt the motor mount stand (#1) and the two clamps (#6) and (#7) together on the tube with 3/8" x 1 3/4" cap screws, lock washers and hex nuts. Bolt the two angle irons (#3) to the side of the stand so they are flush with the top of the stand.



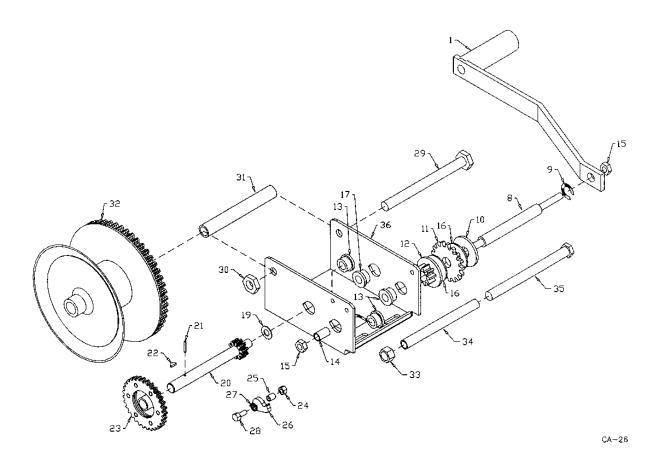
**ALERT:** The angle irons and the two extra holes on the side of the stand near the center must be on the same side as the guard.

- 2. Bolt the electric motor (#34) to the motor mount and mount a triple pulley (both supplied by customer). Do not tighten bolts until both pulleys are aligned. The electric motor must be a 1725 RPM. Motor sizes are: 8" x 61' 15 H.P.; 10" x 61' 20 H.P. Pulley size: 3 ½" FOR 8" & 10".
- 3. Mount the 12" triple pulley on the gearbox using key and set screws supplied. After aligning the two pulleys with the auger tube, tighten motor mount bolts and pulley set screws. Mount belts on the pulleys. The motor mount handle acts as a belt tightener.
- 4. Bolt the guard insert (#11) to the belt guard (#10) using ¼" x ¾" cap screws, lock washers and hex nuts. The guard assembly is then clamped to the ring on the gearbox plate using clamp (#12) and 5/16" x 1 ¼" cap screws, lock washers and hex nuts.

The other end of the guard is held on by a guard bracket (#13) which bolts to the guard using 3/8" x 1" bolts and to the motor mount stand (#1) using a  $\frac{1}{2}$ " x 1  $\frac{1}{4}$ " bolt. Center the guard on the motor pulley before tightening guard.



#### NO. K2550 WINCH # 961945



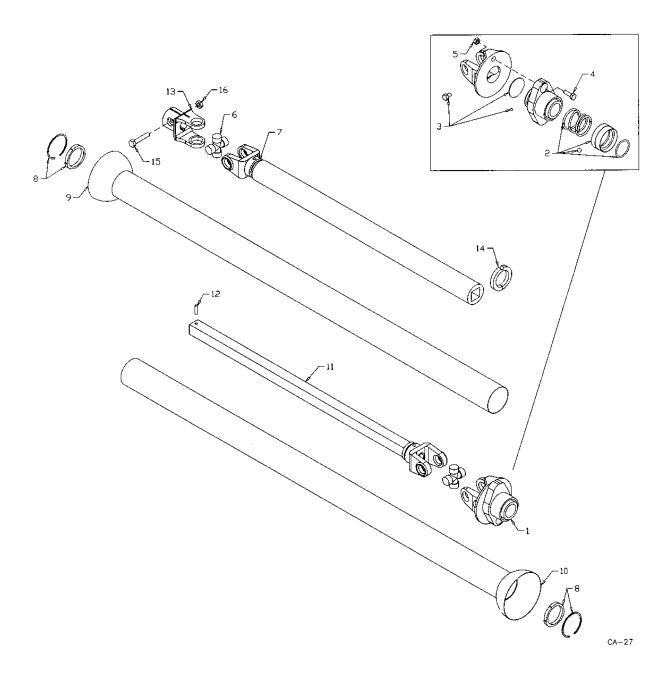


#### NO. K2550 WINCH

ITEM	DESCRIPTION	DADT #
ITEM	DESCRIPTION	PART#
1	Handle	2461S01
CABLE KEEPE		5621S01
4	Bolt	3021301
5	Cable Clamp	
6	Lockwasher	
7	Nut	
,	Nut	
INPUT SHAFT	T KIT	1565S01
8	Input Shaft	.00000
9	Retaining Ring	
10	Brake Disc	
11	Ratchet Gear	
12	Pinion Gear	
13	Bushing	
14	Spacer	
15	Nut	
	-	
16	Friction Disc	1578\$00
INTERMEDIA	ATE SHAFT KIT	1569S01
17	Bushing	
19	Washer	
20	Intermediate Shaft	
21	Roll Pin	
22	Woodruff Key	
23	Gear	
RATCHET P	KIT	6730S00
24	Nut	
25	Spacer	
26	Ratchet Pawl	
27	Spring	
28	Shoulder Bolt	
29	Drum Bolt	*
30	Lock Nut	*
31	Drum Spacer	*
32	Drum Assembly	*
33	Lock Nut	*
34	Frame Spacer	*
35	Bolt	*
36	Frame	*
BUSHING K		906537
13	Bushing	
17	Bushing	



#### **PTO ASSEMBLY**





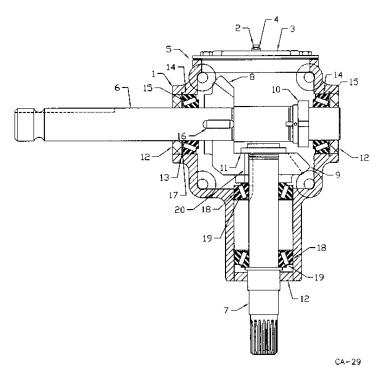
# 10" Direct Drive Auger PTO Assembly

Item #	Part #	Description
	F0466	Shaft Complete
	908960	Tractor Half of PTO (shear)
	908958	Implement Half of PTO
1	936324	Shear Assembly
2	936168	Spring-Lok Repair Kit
		(Collar, Spring, Ret. Ring, 2 3/8" Balls)
3	936248	Shear Assembly Repair Kit
		(3/8" x 1/2" Bolt, (Grade 5) - one required
4	86170	3/8" x 1" Shear Bolt (Grade 5) - one required
5	812363	3/8" Lock Nut
6	936093	Repair Kit
7	936325	Yoke & Tube
8	936320	Nylon Bearing Repair Kit
9	908956	Inner Guard
10	907397	Outer Guard
11	936329	Yoke & Shaft
12	936315	1/4" x 1" Roll Pin
13	936376	Clamp Yoke
14	936316	Shield Bearing
15	81628	1/2" x 3 1/4" Hex Bolt
16	812364	1/2" Lock Nut



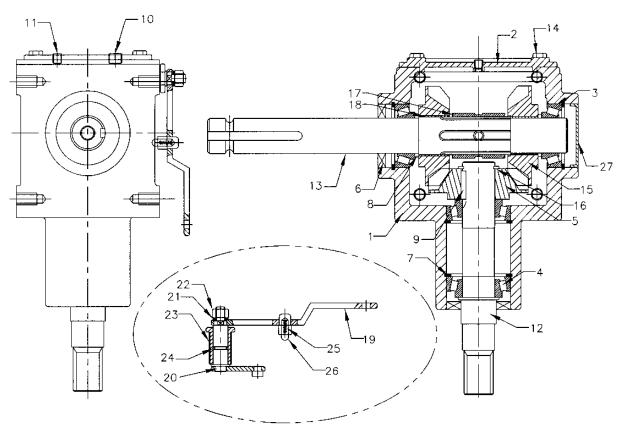
#### **BU50510 - Gearbox Parts List**

Item #	Part #	Description
	BU50510	Gearbox Complete
1	BU50310	Gearbox Casting Only
2	BU500089-3	Pipe Plug
3	BU50457	Gearbox Cover
4	BU500167-1	Relief Valve
5	BU50458	Gearbox Gasket
6	BU50509	Cross Shaft
7	BU50502	Pinion Shaft
8	BU50329	Bevel Gear 1 1/2" B
9	BU50331	Bevel Gear 1 3/8" B
10	BU50428	Adjusting Nut
11	BU50444	Adjusting Nut
12	BU50422-1	Oil Seal (3 Used)
13	BU50415	Retainer Ring (4 Used)
14	BU575902	Bearing Cup (2 Used)
15	BU575901	Bearing Cone (2 Used)
16	BU50429	Key
17	BU50210X	Shim Set
18	BU575907	Bearing Cup (2 Used)
19	BU575906	Bearing Cone (2 Used)
20	BU50417-1	Key





#### #961086



CA-31



#### 961086 - Reverse Gearbox Parts List

Item	Part #	Description
	961086	Gearbox Complete
1	906690	Case
2	906691	End Cap
3	906692	Bearing (13620&13687)
4	906693	Bearing (14276&14137)
5	906694	Gear
6	906695	Seal
7	906696	Snap Ring
8	906697	Shim
9	906698	Key
10	906699	ZG 1/8"-27 Vent Plug
11	906700	3/8" NPT Solid Plug
12	906701	Output Shaft
13	906702	Input Shaft
14	906703	Bolt 5/16" UNC x 3/4"
15	906704	Gears
16	906705	Snap Ring
17	906706	Dog
18	906707	Bronze Bushes
19-26	906708	Complete Lever Assembly
27	907453	Stamping Cap



#### 8" x 61' CONVENTIONAL AUGER SHIPPING BUNDLES

QUANTITY BUNDLE

REQUIRED NUMBER DESCRIPTION

#### 8" x 61' DIRECT DRIVE AUGER: C861D

1	F0654	Top section tube
1	F0653	Center section tube
1	F0652	Bottom section tube
1	F0718	L.H. undercarriage arm
1	F8851	R.H. undercarriage arm
1	F8852	L.H. lift arm
1	F8853	R.H. lift arm
1	F8854	Axle
1	F0699	Undercarriage x-brace
1	F0700	Crate of parts

#### 8" CLAMP-ON MOTOR MOUNT KIT: Y0066

1	F0588	Bundle of parts
1	F1869	Carton of parts
1	F1871	Belt guard

#### 10" x 61' CONVENTIONAL AUGER SHIPPING BUNDLES

#### 10" x 61' DIRECT DRIVE AUGER: C1061D

1	F9515	Bridging
1	F9929	Top section tube
1	F9930	Center section tube
1	F9931	Bottom section tube
1	F0723	L.H. undercarriage arm
1	F9933	R.H. undercarriage arm
1	F8852	L.H. lift arm
1	F8853	R.H. lift arm
1	F9936	Axle
1	F0698	Undercarriage x-brace
1	F0702	Crate of parts

#### 10" CLAMP-ON MOTOR MOUNT KIT: Y0067

1	F1869	Carton of parts
1	F0589	Bundle of parts
1	F1871	Belt guard



#### OPTIONS: 8" & 10" x 61' CONVENTIONAL AUGER

F3003	8" Flexible Spout (galvanized)
F3004	10" Flexible Spout (galvanized)
F213	8" Poly Spout
F214	10" Poly Spout
F210	Std. Flex Hopper
F211	Big Daddy Hopper
F890	Battery Box
F0013	Reflective Safety Decal Kit
F0017	Safety Light Kit

# **NOTES**

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