

TABLE OF CONTENTS

DESCRIPTION	PAGE NUMBER
Warranty	1
Safety Instructions	2
Safety Signs.....	3
Operating Instructions.....	4
Maintenance and Lubrication.....	7
Storage	7
Greasing Procedure.....	8
Assembly Instructions.....	9
 Tube Assembly Drawing	 15
Lift Arm and Undercarriage Drawing.....	16
Intake Auger Drawing	17
Undercarriage Pivot Ring Drawing.....	18
Parts List.....	19
 Bridging & Extension Tube Drawing	 26
Bridging & Extension Tube Parts List	27
Extension Assembly Instructions	28
Multi-Flighting Hopper Drawing.....	29
Multi-Flighting Hopper Parts List.....	30
Reverse Kit Drawing & Parts List.....	32
Cylinder Assembly Drawings & Parts Lists	33
PTO Shaft Drawing	35
PTO Shaft Parts Lists	36
Input Box Gearbox Drawing	38
Input Box Gearbox Parts List	39
Intake Auger Gearbox Drawing.....	40
Intake Auger Gearbox Parts List.....	41
 Shipping Bundles	 42

WARRANTY POLICY

Buhler Manufacturing products are warranted for a period of twelve (12) months 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 a rate determined by the Company, Buhler Manufacturing.

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

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.

Read and understand the operator's manual before operating.

Always transport the auger in the down position carrying the weight of the auger on the undercarriage itself and not the hydraulic cylinder and hose.

Take extreme caution in maneuvering on or around tight corners so as not to catch the end on trees and buildings, etc.

When moving the auger on a road use red flag, or if absolutely necessary to move at night, accessory lights for adequate warning to operators of other vehicles.

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

Empty auger before moving, to prevent upending.

13" Auger must be attached to the drawbar of the tractor at all times during operations. This is done to prevent possible upending as the last part of the product moves to the upper end of the auger.

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. Make certain everyone is clear before operating or moving machine.

Before attempting to service, adjust or unclog an auger, disengage drive and shut off tractor.

As a precaution, when storing the auger, park it on level ground so that the bottom end will never be over its center of gravity.

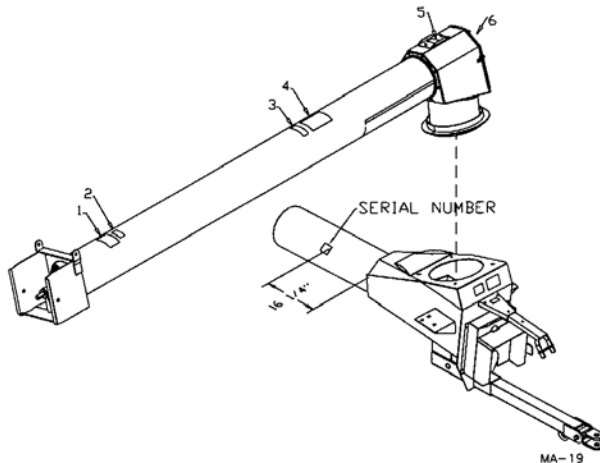
When storing auger be sure to block the wheels so that there is no chance of auger moving and tearing jack from its moorings.

Check to see that the bolts and lock nuts that clamp the PTO to the bottom of the auger flighting are in place and firmly tightened every time you are preparing to use the auger.

Keep all safety shields and devices in place.

Do not operate hydraulic cross auger when it is folded in transport position.

13" AUGER SAFETY SIGNS



#1

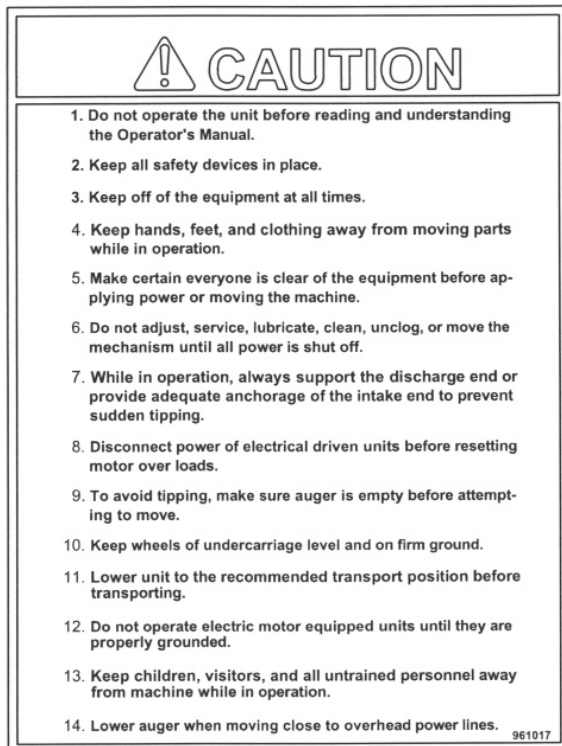
Replace safety signs immediately should it become damaged, torn or illegible. Obtain replacements from your authorized dealer using the part numbers shown.



#2



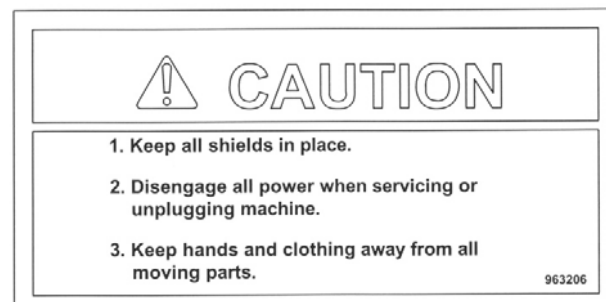
#3



#4



#5



#6

OPERATING INSTRUCTIONS

All augers may be elevated up to 45°; however, for the best operating efficiency 35° should not be exceeded. At angles over 35° the capacity and life of the auger decreases. Use in some types of fertilizer may cause accelerated wear and corrosion as well as added stress on lift components due to additional load. Use in fertilizer can affect warranty.

Run auger partially full until flighting becomes polished.

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. Do not support the auger on the bin. As the auger becomes full it carries a lot of weight and may cause damage to the underside of the auger or to the bin. The auger should be firmly attached to the drawbar of the tractor at all times during operation.

 **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.

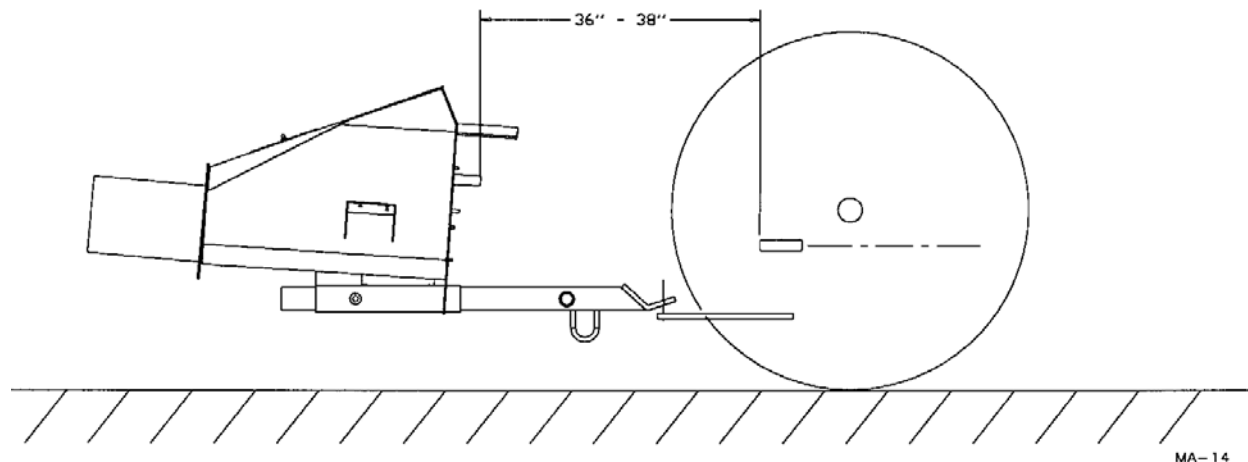
 **ALERT:** Be sure winch brake is working properly before transporting. An arrow on the winch shows the proper direction of rotation. Improper rotation may cause winch failure. Never have less than three wraps of cable on the drum of the winch.

The intake auger swivels freely on the top of the input box. It can be positioned anywhere between the tractor and the side of the auger.

 **ALERT:** 13" Augers are designed for PTO drive tractors with 540 rpm only. Maximum capacity will be attained while running the main auger between 450-500 rpm. (Do not use 1000 rpm PTO speed on these augers.)

OPERATING INSTRUCTIONS - CONT'D.

⚠ ALERT: Always maintain at least a 4" lap on the PTO shields. Be sure they turn freely and make certain everyone stands clear of the tractor, PTO shaft, and auger before engaging power take-off. Be sure ends are securely connected to the auger and tractor. An optional shaft is offered for extreme use.



The distance between the tractor and the auger stubs should be between 36" and 38" with the tractor and auger on level ground and the auger in full down position. This distance is obtained by either adjusting the tractor hitch, the auger hitch or both.

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 for 13" augers.

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: Do not use the reverse kit to attempt to unplug the auger. The reverse kit is designed to be used for **CLEAN-OUT ONLY!**

⚠ ALERT: When auger is left in raised position over night, close the ball valve on the hydraulic line to the cylinder. This will prevent the auger from lowering, due to hydraulic leakage, and avoid possible damage.

OPERATING INSTRUCTIONS - CONT'D.

One way flow control valve (#71) can be adjusted by loosening the hex nut on the side, and turning on the screw with the machined end. Turning the screw in decreases the speed the auger lowers, while turning it out increases the speed. For the 13" x 70' auger, the approximate initial setting should be three turns out from the tight position. For the 13" x 85' auger, the approximate initial setting should be five turns out from the tight position. When set, re-tighten hex nut to set position. **NOTE:** Be sure that the valve is somewhat open before raising the first time or auger will not lower.

Be sure there is always some tension on the flighting by adjusting the end thrust bearing at the upper end of the auger.

! ALERT: Always lower auger before transporting and allow the weight of the auger to rest on the undercarriage and not the hydraulic cylinder.

Be certain to turn jack sideways when towing auger.

! ALERT: Disconnect the PTO shaft from the tractor and pin it in place in the PTO holder (#126) when towing or maneuvering the auger. This will prevent possible damage to the PTO shaft during cornering.

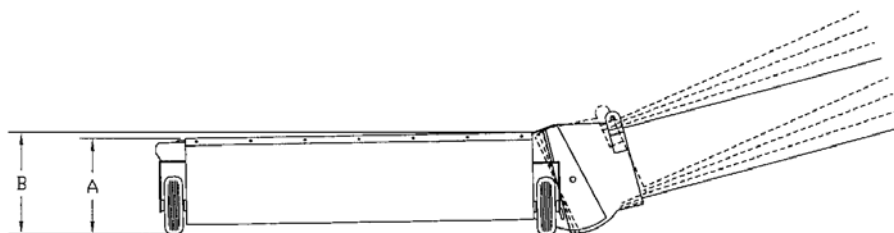
! ALERT: If the PTO shaft angle exceeds 50° during a tight turn, the constant velocity joints will be fractured and will likely fail shortly thereafter during operation.

PTO shear bolts (2 required) - 5/16" x 1" hex bolt (grade 8)

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

Always use a flag, or at night, a signal light when towing an auger on a road. Check your local regulations for further safety devices in this regard.

13" TOP FEED MECHANICAL DRIVE INTAKE AUGER PIVOT HOPPER



DIMENSION	10" AUGER	13" AUGER
A	13"	14 1/2"
B	14"	15 1/2"

MA-15

! ALERT: All heights shown are for the welded hopper only. These heights remain the same at all auger working angles because of the pivot joint between the hopper and the intake auger.

MAINTENANCE & LUBRICATION

Check condition of winch cable occasionally. Be sure it is lubricated.

Use a high temperature grease for all lubrication.

Lubricate the PTO shaft as per instruction sheet.

Check grease on end thrust bearing to be sure it is running smoothly and freely. Remove cap and grease at the start of every season.

Check hydraulic lines frequently for leaks or damage.

Grease universal joint in intake auger after every eight hours of use.

Grease the U-joint connecting the two gearboxes about every 8 hours. Do regular checks on the oil level in the gearboxes. Fill if necessary to the height of the side plug using SAE 90 oil. Because the gearbox runs in the grain, it is difficult to see any oil leaks so regular checks should be done.

 **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.

STORAGE

The auger should be stored in a dry place if possible. If stopped outside, lower auger to its lowest position and block up the wheels so auger will not move.

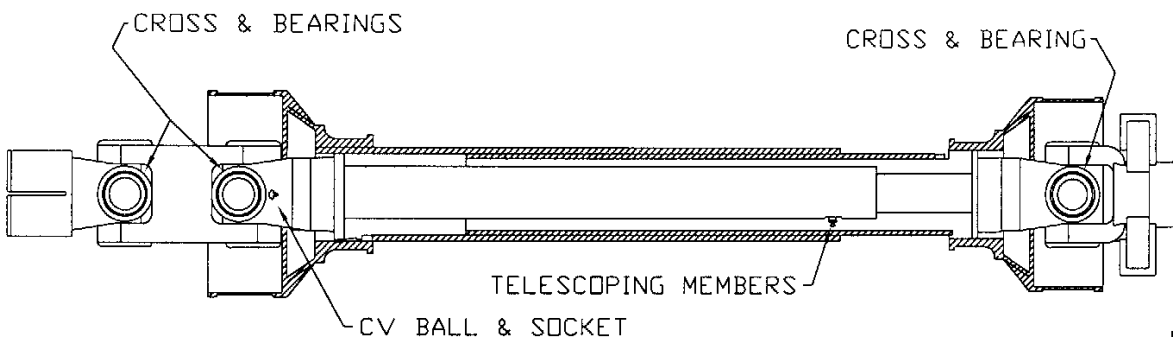
Clean auger thoroughly as dirt draws moisture and causes metal to rust. If the auger has been used to move fertilizer, clean thoroughly and apply oil or grease on entire flighting and inside the housing to stop and prevent further corrosion.

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 all bolts and set screws.

RECOMMENDED CUSTOMER GREASING PROCEDURE FOR 50 DEGREE C.V. PTO



MA-10

A general purpose grease may be used. However, a grease containing 3% molybdenum disulfide will allow the lube intervals to be extended to twice as long as that listed. The first lube interval should be 16 – 24 hours of operation after initial start-up; then follow the schedule below. Constant angle applications must have a lube interval of 4 hours.

LUBE RECOMMENDATIONS

<u>INTERVAL</u>	<u>LOCATION</u>	<u>AMOUNT</u>
8 hrs.	Cross & Bearings	1 pump
8 hrs.	Telescoping Members	4-8 pumps (until grease comes out of end)
8 hrs.	CV Ball & Socket	1-2 pumps

Greases containing various percentages of moly. are available as extreme pressure greases. Please note that all E.P. greases do not contain moly so some investigation may be necessary. The following greases all contain 3% moly: Mobile Oil Company, "Mobile Grease CMP"; Shell Oil Company, "Retinax AM"; and Texaco, "Molytex EP (#0) and (#2)".

ASSEMBLY INSTRUCTIONS

1. Fasten the input box (#121) to the bottom tube (#1) using 7/16" x 1 1/4" hex bolts, lock washers and hex nut. Assemble the bottom section to the center section (#2) making sure the flighting is aligned and locked with a 1/2" x 2 3/4" (gr. 8) cap crew and lock nut. Similarly assemble the top section (#3) to the center section using 7/16" x 1 1/4" hex bolts, lock washers and hex nuts. **ALIGN ALL THREE SECTIONS BEFORE TIGHTENING BOLTS.**



ALERT: The chain guard (#124) must be removed before you assemble the auger flighting.



ALERT: There are two holes on the top stub shaft for cotter pin installation on the top flighting, which should allow a wide range of adjustment. If the top flighting is too high, there could be a shortage of room to mount the collar on the bottom bearing in the input box.

2. Bolt bearing flanges (#186) and mount bearing (#185) at the bottom (outside) of input box using 1/2" x 1 1/4" hex bolts, lock washers and hex nuts. Loosen cap at the top end of auger. The hex bolts should be turned so the hex nuts are on the inside of the input box. If this is not done, the tips of the hex bolts may rub on the chain in the input box. After locking the bottom bearing with the collar, tension the flighting by turning the 1 1/4" hex nut at the top of the auger and replace top cap.
3. The main bridging yokes (#7) are clamped to the welded plate near the top of the bottom section tube using two clamps (#189). The yokes fit between the welded stops on the clamps. Bolt on the clamps using 5/8" x 1 3/4" hex bolts, lock washers, flat washers and hex nuts.



ALERT: The 13" x 85' auger has two positions to bolt on the main bridging yoke. The 85' auger uses the lower position. The upper position is only used when adding a 10-foot extension to make a 95' auger. Refer to the drawing included in this manual.

The yoke mount (#27) is bolted to the bottom end of the main yokes with the same size bolts. Attach the two braces (#8) to the main yokes using 7/16" x 1 1/4" hex bolts, lock washers and hex nuts. The smaller bridging yokes (#9) are bolted to the bottom and center sections with the same 5/8" bolts. Attach the tie rods (#10) to the bridging yokes using 7/16" x 1 1/4" hex bolts, lock washers and hex nuts. The 85' auger has two sizes of bridging yokes (#9). The 68 1/2" long yoke is on the bottom section while the 78 1/2" yoke is on the upper part of the center section. The 31 1/2" tie rod fits on the lower yoke and the 34" tie rod fits on the upper yoke.

ASSEMBLY INSTRUCTIONS - CONT'D.

4. Mount both sets of cables (#62) and (#63). The longer cable goes from just above the input box, across all three bridging yokes, to about the center of the top section. The shorter cable goes from just behind the undercarriage pivot ring, across the main bridging yoke, down to the center tube just below the bridging yoke. Bolt the cable yokes (#13) to the top of each cable using $\frac{1}{2}$ " x 2" hex bolts, lock washers and hex nuts. Bolt the yokes to the cable brackets welded to the top tube 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. Be sure to tighten cables before lifting the auger. Tighten cable clamps (#16) on bridging yokes after cables are tight.



ALERT: On yokes where the cable clamps hold two cables, DO NOT use the cast part of the cable clamp or it will be very difficult to get the nuts on the clamp. Use 3/8" I.D. (10 ga) flat washers on cable clamps.

5. After lifting auger at the top end, clamp on spout (#11) with clamp (#12) using 3/8" x 2" hex bolts, lock washers and hex nuts.
6. Mount the L.H. undercarriage arm (#85) only to the pivot ring on the bottom section.



ALERT: The 13" x 85' auger has two pivot rings. The 85' auger uses the lower position. The upper position is only used when adding a 10-foot extension to make a 95' auger. Refer to the drawing included in this manual.

Bolt the arm to the axle (#83) using 5/8" x 2" hex bolts, lock washers and hex nuts. Do not mount the R.H. undercarriage arm (#84) until after assembling the lift arms. The reason for this is so you can get at the lift arms with a forklift if available to lift them into position.

7. Mount wheels (#94) and tires on axle using $\frac{1}{2}$ " wheel bolts for the 70' auger and 9/16" wheel bolts for the 85' auger.
8. **70' AUGERS:** Connect the two halves of the lower lift arm at the center flange using $\frac{1}{2}$ " x 2" hex bolts, lock washers and hex nuts. Do not completely tighten the bolts until the pins are assembled in the lift arms. Connect the lower lift arms (#64) and (#180) to the axle with 1" x 5 5/8" pins (#79) and $\frac{1}{4}$ " x 1 $\frac{1}{2}$ " cotter pins. The yoke (#66), the link (#67) and the hydraulic cylinder (#68) must all be assembled using a $\frac{1}{2}$ " x 12 $\frac{1}{4}$ " pin (#75) before being placed inside the lower lift arms.



ALERT: Cylinder ports face DOWN. The 2" x 27 7/8" pin (#74) connects this assembly to the (#64) to the lower lift arms.

85' AUGERS: Same assembly procedure as the 70' except the 1" pins are 6 3/8" long; the pin joining the link, yoke and cylinder is 2" x 14 $\frac{3}{4}$ " and the lower lift pin is 2" x 34 $\frac{1}{8}$ ".

ASSEMBLY INSTRUCTIONS - CONT'D.

9. **70' AUGERS:** Connect the upper lift arm (#65) to the lower lift arms using two 1 ½" x 7" pins (#77). In order to allow correct movement of the upper and lower lifts, this pin is to be installed from the inside out; with the head of the pin end facing the center of the auger and the cotter pin end facing out. Use washers on the outside of the pin if required to snuff up the head of the pin on the inside of the lift arms. The 1 ½" x 13 5/8" upper yoke pin (#78) connects the yoke (#66) to the upper lift arm. A 1 ½" x 15 ¼" pin (#80) joins the upper lift arm to the bottom section of the main tubing. A Forklift is probably the best way to lift the arms as required to line up the bushings so the pins can be inserted.

85' AUGERS: Same assembly procedure as the 70' except the pins joining the upper and lower lift arms (#77) are 2" x 9 1/8" and the upper yoke pin (#78) is 1 ½" x 16 5/8". The pin joining the upper lift to the main tubing (#80) is also 1 ½" x 15 ¼".

10. When the lift arms are assembled, bolt on the R.H. undercarriage arm (#84) and join the two arms with a tie plate (#86) using 7/16" x 1 ½" hex bolts, lock washers and hex nuts.
11. Bolt the lift arm cradle (#82) to the angle irons on the undercarriage using 5/8" x 1 ¾" hex bolts, lock washers and hex nuts. The 2" square tube bolts to the bottom of the angle irons on the 70' auger and to the top of the angle irons on the 85' auger. Ensure that the hooks on the lower lift arms rest on top of the lift arm cradle after assembly.
12. Mount the hydraulic cylinder (#68) to the upper lift arm using a 1 ½" x 8 5/8" cylinder pin (#76). Be sure the ports face down. Connect the five foot hydraulic hose (#72) with attached flow control (#71) and fittings from the base end of the cylinder to the hydraulic line on the main auger. For 85' auger the cylinder pin (#76) is 2" x 9".

 **ALERT:** This pin is made of ground and polished high strength steel. Make sure you are not using one of the 2" x 9 1/8" lift arms pins (#77), which are only made of standard carbon steel.

 **ALERT:** The flow control valve regulates the lowering of the auger to avoid damage which could be caused by lowering the auger too quickly. Arrow should be pointing away from the cylinder. Be sure that the valve is open before raising to full position or auger will not lower.

ASSEMBLY INSTRUCTIONS - CONT'D.

13. Using a 5/16" x 1 ½" key (#184) join the hopper (#110) and the intake auger (#111) at the universal joint. Join the hopper and intake auger using two ¾" x 1 5/8" bolts and lock nuts. A flat washer goes on the outside only. Parts must swivel freely after bolting together. Check that the cross on the u-joint is in line with the two pivot pins. Gearbox shaft should be flush with the bottom of the u-joint. Adjust if necessary before proceeding any further. The cover (#192) bolts to the front edge of the hopper using ¼" x ¾" hex bolts, lock washers and hex nuts. The cover is held down by the cover rod (#193) which is pushed through the clevises welded to the intake auger and held in place by a washer and spring clip.

Standard Hopper only: After bolting the hopper and tube together, loosen the bottom bearing collar on the hopper. Adjust the position of the hopper flighting if necessary so u-joint moves freely. The flightings should not be tight against the wooden bearing. Rubbing will generate heat resulting in premature bearing failure. Re-tighten the bottom bearing collar after completing these checks.

With the cover (#192) removed, tighten all set screws on the universal joint and be sure that it has grease.



ALERT: Never run the auger without this cover bolted on. **THE YOKE CENTER MUST ALIGN WITH PIVOT HOLES AFTER ASSEMBLY.**

14. Using 3/8" sq. hd. set screws (#159) mount the u-joint (#123) on the intake auger gearbox. Slide onto the gearbox shaft flush with the bottom of the u-joint.
15. Lift the intake auger assembly onto the input box (#121). The splines on the u-joint must slide onto the splines on the input box gearbox shaft. This will probably require at least two people. Let the ring sit on the input box without forcing it to the exact center if it is not perfectly positioned. Remove one of the clean out covers from the input box and bolt on the ring using 3/8" x 1 ½" hex bolts. A 3/8" (10 gauge) flat washer (#51) goes under the input box top cover. The 1 ¼" o.d. flat washers (#174) should be 1/8" to 3/16" from touching the edge of the ring. This is done to prevent side pressure on the u-joint. Four 2" x 6 ½" plates (#130) act as a ring holder. Tighten using lock washers and hex nuts. The intake auger should turn freely around the input box. Loosen the chain idler assembly on the input box and mount the 15T sprocket (#137) on the flighting bottom stub shaft. Assemble the chain (#138) and then slide the idler assembly into place and tighten. Bolt the chain guard (#124) back to the bottom of the input box.



ALERT: If the intake auger is removed for repair or replacement, the bolt coupling the flighting to the intake auger gearbox must be replaced when the flighting is replaced. Not replacing this bolt could cause failure of the hopper flighting.

ASSEMBLY INSTRUCTIONS - CONT'D.

16. **Standard Hopper only:** Bolt the 6" wide rubber edging supplied to the top edge of the hopper on the inside using $\frac{1}{4}$ " x $\frac{3}{4}$ " hex bolts, lock washers and hex nuts. The 1" wide strips supplied bolt to the rubber on the inside of the hopper and help keep the rubber from tearing. The ends of the rubber strips are joined using 2" x 3" plates with $\frac{1}{4}$ " x $\frac{3}{4}$ " hex bolts, lock washers, flat washers and hex nuts.

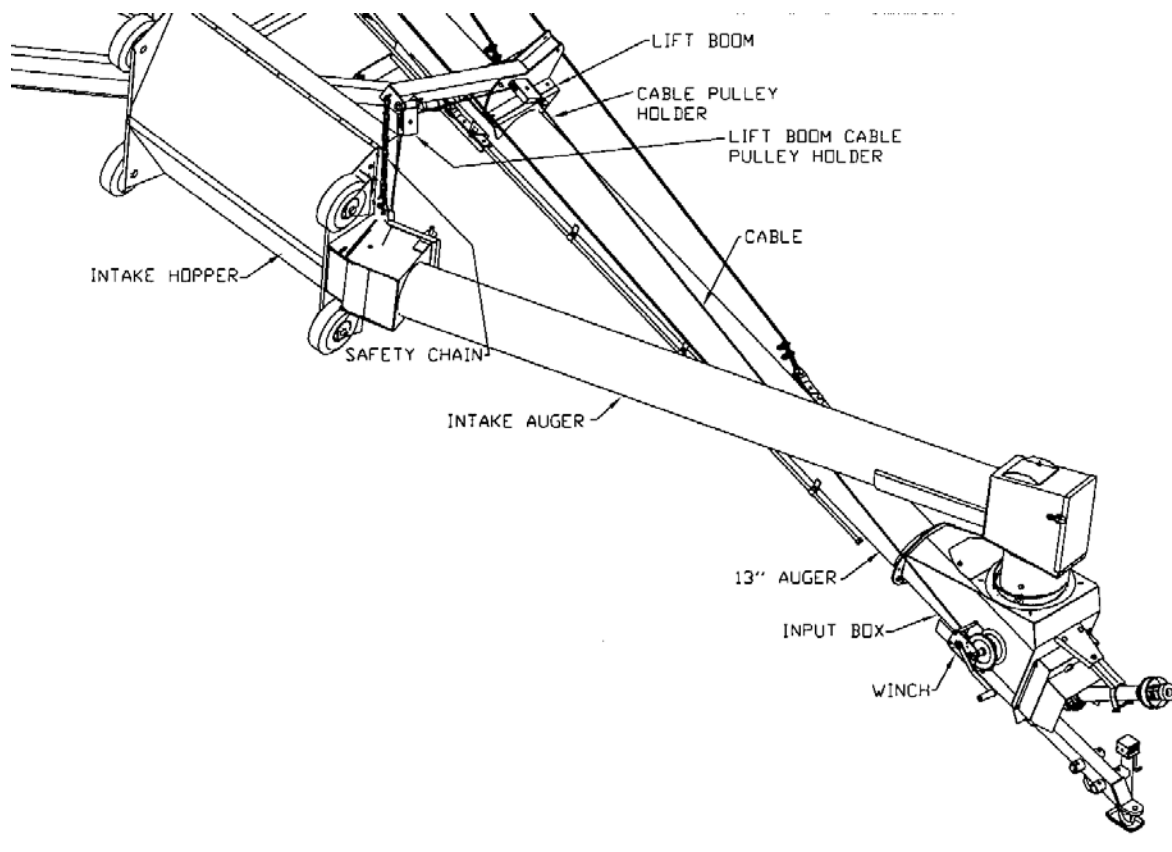
Multi-flighting Hopper only: Bolt the rubber edging (#43) supplied to the top edge of the hopper on the inside using $\frac{1}{4}$ " x 1" hex bolts, lock washers and hex nuts. One end of the rubber bolts to a welded bracket at the front of the hopper. The long 1" side strips (#39) bolt to the rubber on the inside of the hopper and help keep the rubber from tearing. Two 1" strips (#40) hold the rubber edging at both ends of the hopper. The ends of the two rubber strips are joined by two 3" x 3" connector plates (#42) at the top edge. All strips use the same hardware.

17. Fasten winch to the input box on the side opposite the lift boom using $\frac{3}{8}$ " x 1" hex bolts, lock washers and hex nuts (see #16).
18. The lift boom (#29) is bolted to a bracket on top of the main tube about 127" from the bottom pipe ring using $\frac{1}{2}$ " x $1\frac{1}{4}$ " hex bolts, lock washers and hex nuts. Thread the $\frac{1}{4}$ " cable (#28) around the pulley at the end of the lift boom and then around a cable pulley in the bracket which swivels at the back of the lift boom. From there you go down to the winch. There are two flat iron hooks at the front edge of the hopper. Hook the lift cable in the hook furthest away from the auger so the hopper will turn open end toward the auger. The safety chain is attached to the welded loop at the bottom of the intake auger using the hook and quick link supplied. The boom can be used on either side of the auger but the winch must be moved to the opposite side.



ALERT: When the intake auger is raised in working position, the lift cable is hooked into the loop at the bottom of the intake auger. The open end of the hook **MUST BE TURNED TOWARD HOPPER.** The intake auger could detach and fall if the main auger is raised with the hook turned the other way. See diagram on next page.

ASSEMBLY INSTRUCTIONS - CONT'D.



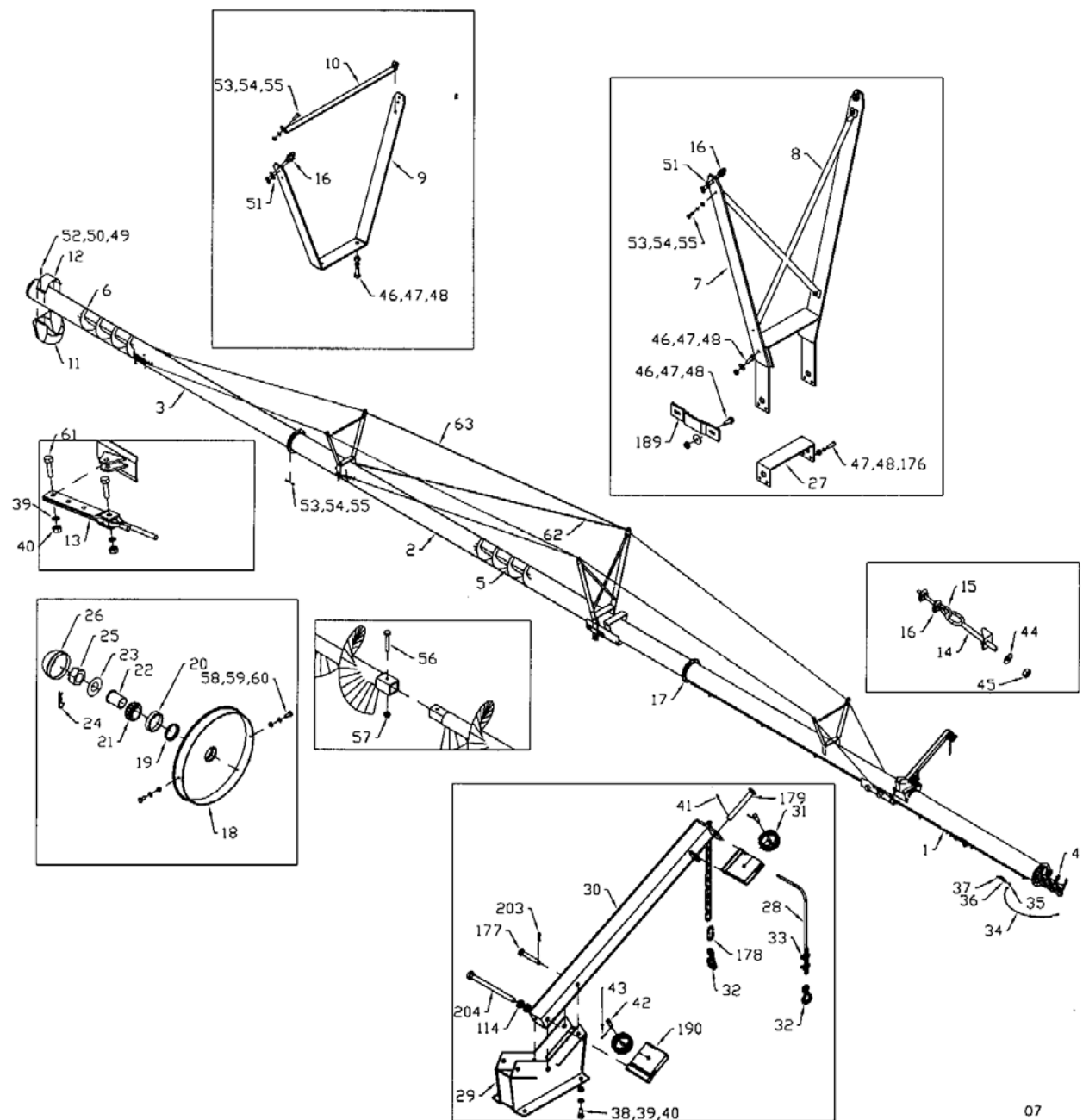
19. With the engine on the tractor shut off, attach the PTO shaft. The tractor end has a standard 6-spline end with a spring loaded locking collar. The auger end has a clamp-style yoke with a 3/8" keyway. Slide the yoke onto the fighting stub shaft with the 3/8" key supplied. Lock the yoke in place with two 1/2" x 3 1/4" bolts and lock nuts fitted through the groove in the fighting stub shaft. After tightening the bolt, insert and tighten the 3/8" socket set screw.



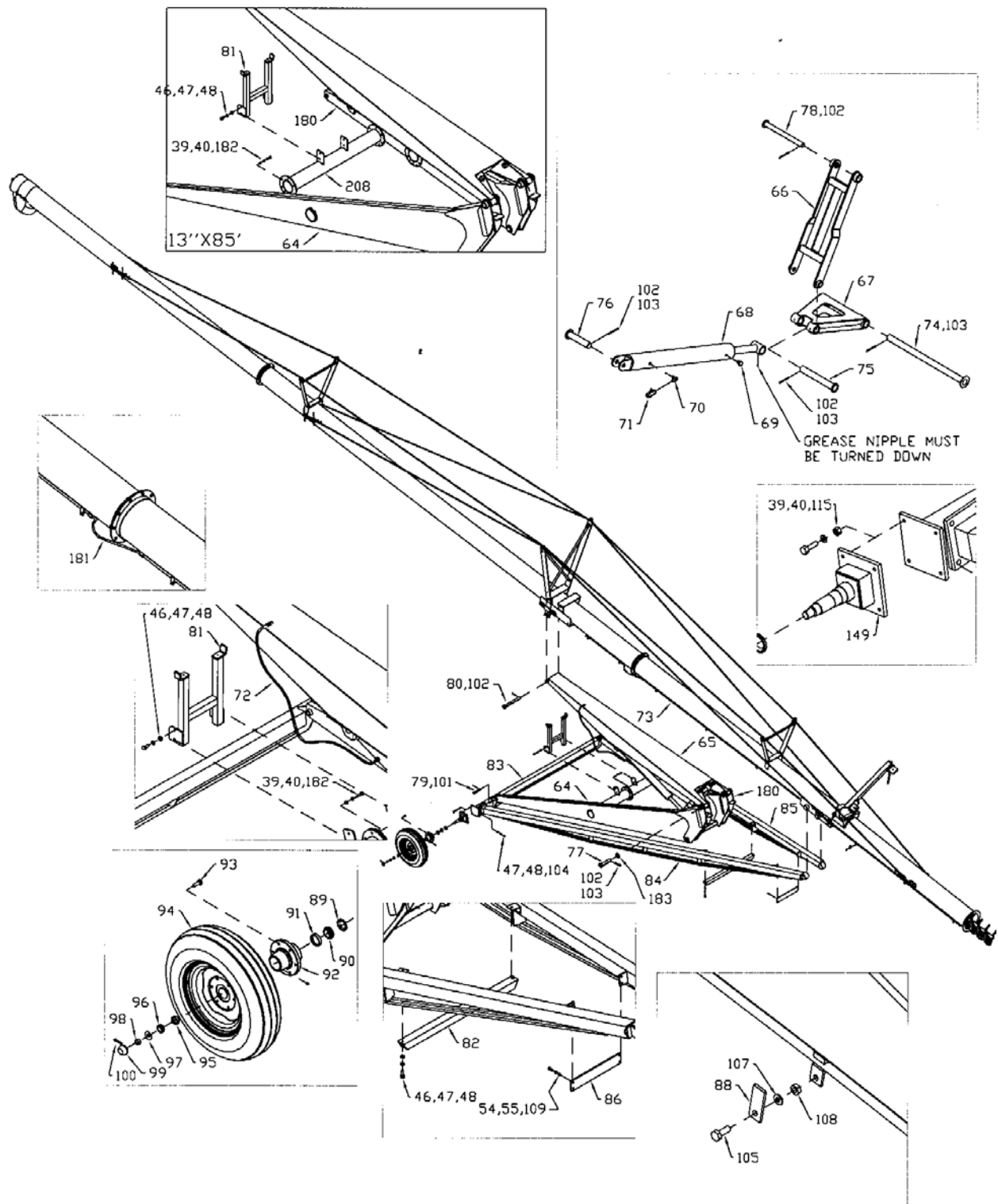
ALERT: Always check to see that both ends of the PTO shaft are securely attached every time the auger is used. This should always be done with the tractor engine off.

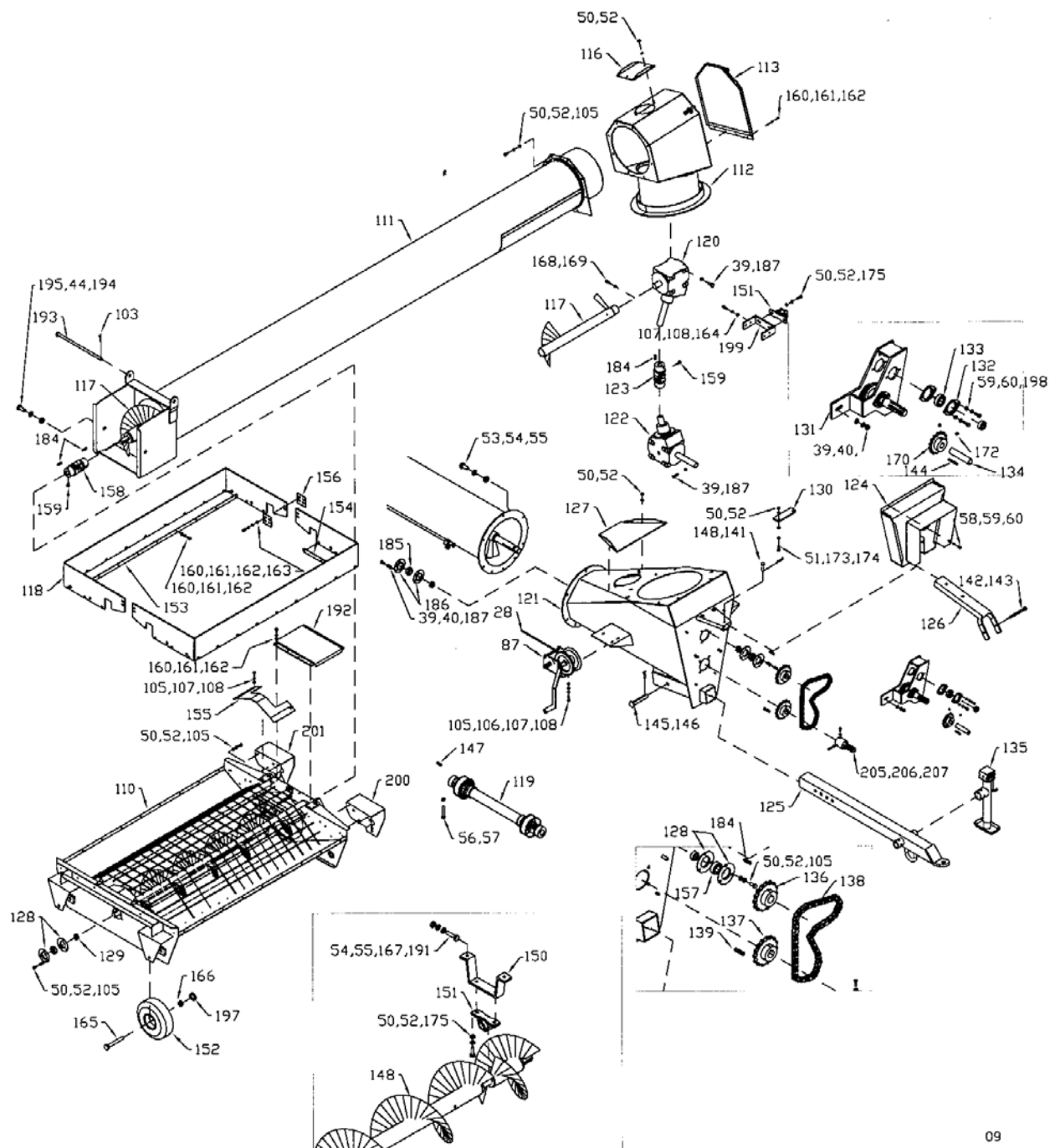
When transporting the auger, disconnect the PTO shaft from the tractor. The PTO holder on top of the input box is used to hold the PTO during transport.

20. Re-check and tighten all bolts.
21. Immediately after setting up the auger, hook it up to a tractor. Raise and lower the auger three or four times to purge all the air out of the hydraulic line to the lift cylinder. This will help to prevent the auger from settling when you have it in working position above a bin.

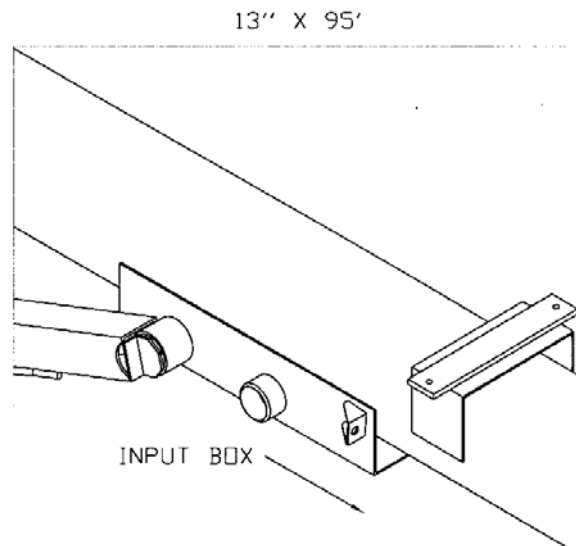
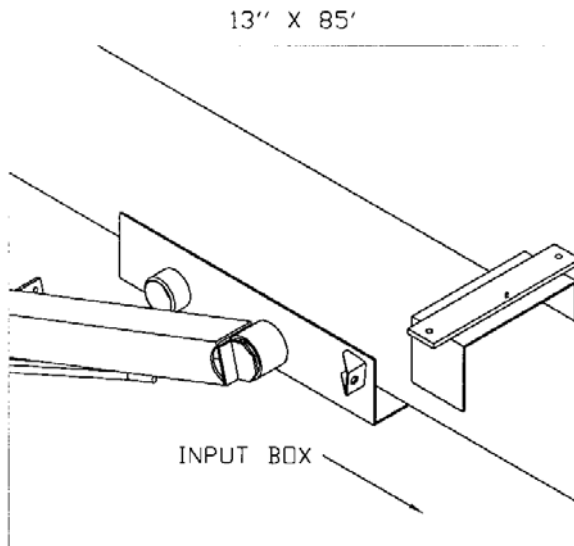


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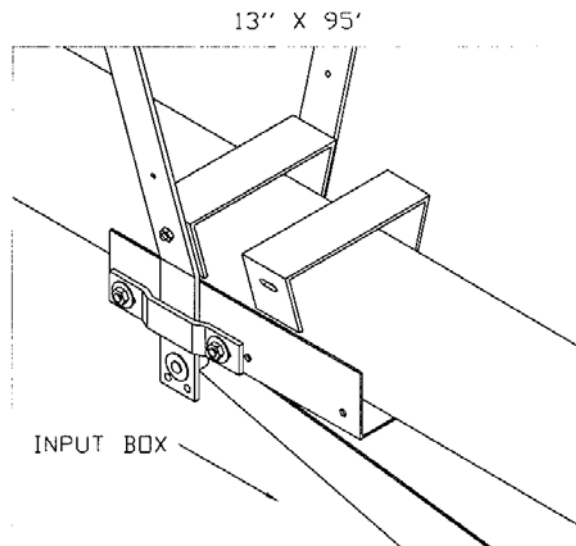
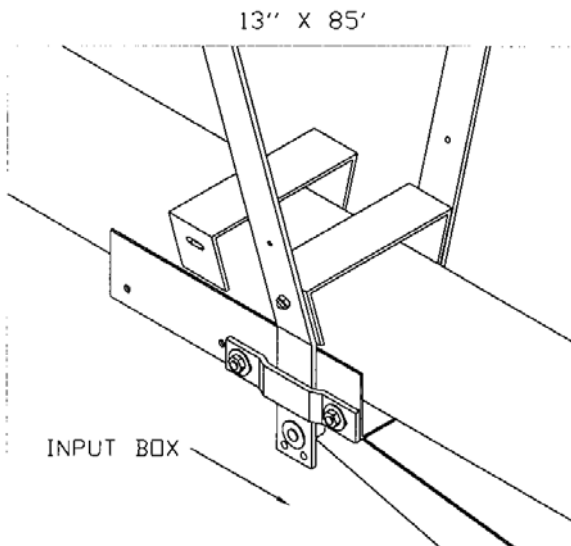




UNDERCARRIAGE PIVOT RING



MAIN BRIDGING YOKE



MA-01

WHEN ORDERING PARTS

Always give your dealer the Model 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.

13" Backsaver Auger Parts List

Item #	Part #	Description
1	906115	26'-9" Bottom Tube, 70'
	906116	26'-9" Bottom Tube, 85'
2	960602	20' Center Tube, 70'
	960949	30' Center Tube, 85'
3	960603	20' Top Tube, 70'
	960669	25' Top Tube, 85'
4	960670	30' Bottom Flighting, 70' & 85'
5	960605	20' Center Flighting, 70'
	960671	30' Center Flighting, 85'
6	960606	20' Top Flighting, 70'
	960672	25' Top Flighting, 85'
7	960607	Main Bridging Yoke, 70'
	960742	Main Bridging Yoke, 85'
8	960608	Main Bridging Brace, 70'
	960674	Main Bridging Brace, 85'
9	960675	Lower Bridging Yoke (68 1/2"), 85' & 70'
	960676	Upper Bridging Yoke (78 1/2"), 85'
10	960677	Lower Bridging Tie Rod (31 1/2") ,, 85' & 70'
	960678	Upper Bridging Tie Rod (34"), 85'
11	F9716	Discharge Spout
12	960612	Discharge Spout Clamp
13	960244	Cable Yoke
14	960613	3/4" x 8" Cable Tightener
15	964587	1/2" Cable Thimble
16	964565	1/2" Cable Clamp
17	960614	12 3/4" Pipe Ring (2" Flange)
18	960679	Top End Plate
19	960125	Oil Seal (CR14939)
20	967709	Inner Bearing Cup (LM29710)
21	967708	Inner Bearing Cone (LM29749)
22	960035	Sleeve
23	9812442	Washer (1 9/32" ID, 2" OD)
24	812435	1/4" x 1 3/4" Cotter Pin (13" x 70')
	81210	1/4" x 1" Cotter Pin (13" x 85')
25	960037	1 1/4" UNF Slotted Hex Nut
26	967209	Dust Cap (DC-15)

27	960615	Main Bridging Yoke Mount (70')
	960743	Main Bridging Yoke Mount (85')
28	960616	Intake Lift Cable Assembly 1/4" x 32'
29	905601	Side PI Weld't
30	905604	Lift Boom Arm Weld't
31	961846	Cable Pulley, 1/2" Bore
32	960041	Lift Cable Hook
33	961658	1/4" Cable Clamp
34	960466	1/2" x 112" Hyd. Hose (Both Ends Solid & 1/2" NPT)
35	960585	1/2" x 90Deg. Street Elbow (Stl.)
36	960057	1/2" Ball Valve
37	960152	Adaptor (JIC to 1/2" NPT)
38	81620	1/2" x 1 1/4" Hex Bolt (pl)
39	81637	1/2" Lock Washer (pl)
40	81636	1/2" Hex Nut (pl)
41	9812433	3/16" x 1 1/2" Cotter Pin (pl)
42	960913	1/2" x 1 13/16" Clevis Pin
43	9812430	1/8" x 1" Cotter Pin
44	84050	3/4" Flat Washer (S.A.E.)
45	81700	3/4" Hex Nut
46	84270	5/8" x 1 3/4" Hex Bolt
47	81677	5/8" Lock Washer (pl)
48	81676	5/8" Hex Nut (pl)
49	811795	3/8" x 2" Hex Bolt (pl)
50	81593	3/8" Lock Washer (pl)
51	964001	3/8" Flat Washer (10 Ga.)
52	81592	3/8" Hex Nut (pl)
53	81598	7/16" x 1 1/4" Hex Bolt (pl)
54	81615	7/16" Lock Washer (pl)
55	81614	7/16" Hex Nut (pl)
56	9812368	1/2" x 2 3/4" (Gr. 8) Hex Bolt (pl)
57	812364	1/2" Lock Nut (pl)
58	81549	5/16" x 3/4" Hex Bolt (pl)
59	81569	5/16" Lock Washer (pl)
60	81568	5/16" Hex Nut (pl)
61	811791	1/2" x 2" Hex Bolt (pl)
62	960618	1/2" x 34'-1" Cable (Assy.), 70'
	960619	1/2" x 34'-1" Cable Only, 70'
	960681	1/2" x 43'-6" Cable (Assy.), 85'
	960682	1/2" x 43'-6" Cable Only, 85'
63	960620	1/2" x 55'-2" Cable (Assy.), 70'
	960621	1/2" x 55'-2" Cable Only, 70'
	960683	1/2" x 67'-0 1/2" Cable (Assy.), 85'
	960684	1/2" x 67'-0 1/2" Cable Only, 85'
64	F9724	RH. Lower Lift Arm, 70'
	F0565	RH. Lower Lift Arm, 85'

65	F9707	Upper Lift Arm, 70'
	F0464	Upper Lift Arm, 85'
66	960624	Pivot Yoke, 70'
	907342	Pivot Yoke, 85'
67	960625	Connecting Link, 70'
	960688	Connecting Link, 85'
68	F9778	Cylinder (4 1/2" x 42 1/2"), 70'
	F0445	Cylinder (5" x 52 3/8"), 85'
69	967908	Vented Plug (3/4 - 16 ORB)
70	906541	Elbow 90 Deg 3/4" MORB x 1/2" MNPT
71	960118	1/2" One Way control Valve
72	960710	1/2"x6' Hyd. Hose(One End 1/2" NPT;One End JIC)'
73	960144	5/8" O.D. x 11' Hyd. Line, 70'
	960468	5/8" O.D. x 13'-4" Hyd. Line, 70'
	960467	5/8" O.D. x 15'-10" Hyd . Line, 85'
	960200	5/8" O.D. x 9'-7" Hyd. Line, 85'
	960143	5/8" O.D. x 36' Hyd. Line (85')
74	F0034	2" x 27 15/16" Connecting Link Pin, 70'
	F0035	2" x 34 3/16" Connecting Lin Pin, 70'
75	960628	1 1/2" x 12 3/8" Bottom Cylinder Pin, 70'
	960690	2" x 14 13/16" Bottom Cylinder Pin, 85'
76	960691	1 1/2" x 8 11/16" Top Cylinder Pin, 70'
	960692	2" x 9 1/16" Top Cylinder Pin, 85'
77	960629	1 1/2" x 7 1/8" Clevis Pin, 70'
	960693	2" x 9 3/16" Clevis Pin, 85'
78	960630	1 1/2" x 13 11/16" Top Yoke Pin, 70'
	960694	1 1/2" x 16 11/16" Top Yoke Pin, 85'
79	960631	1" x 5 5/8" Clevis Pin, 70'
	960695	1" x 6 3/8" Clevis Pin, 85'
80	960632	1 1/2" x 15 5/16" Pivot Pin, 70' & 85'
81	960633	Upper Lift Arm Cradle, 70'
	960744	Upper Lift Arm Cradle, 85'
82	960634	Lower Lift Cradle (40"), 70'
	960697	Lower Lift Cradle (46"), 85'
83	F0191	Axle Tube Weld't, 70'
	F0192	Axle Tube Weld't, 85'
84	F9722	RH. Undercarriage Arm, 70'
	F9734	RH. Undercarriage Arm, 85'
85	F9723	LH. Undercarriage Arm, 70'
	F9735	LH. Undercarriage Arm, 85'
86	960638	Tie Plate (3 1/2" x 18 1/4"), 70'
	960699	Tie Plate (3 1/2" x 20"), 85'
87	961888	Winch Assembly (K1550)
88	960639	Hyd. Line Clamp

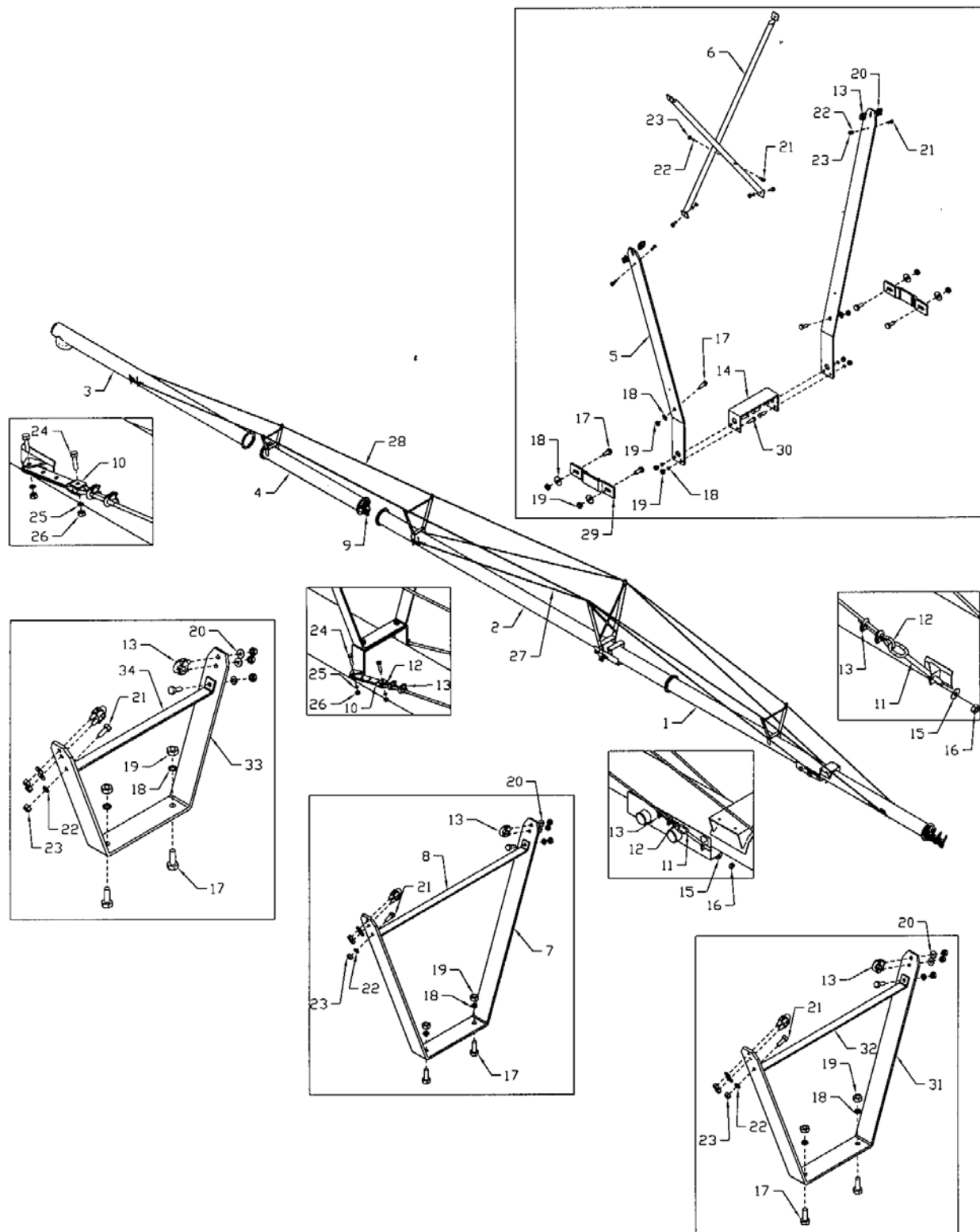
89	967707	Oil Seal (SE13), 70'
	967204	Oil Seal (SE30), 85'
90	967205	Inner Bearing Cone (25580), 85'
91	965252	Inner Bearing Cup (25520), 85'
92	967710	Hub w/ Bearing Cups (H611), 70'
	967207	Hub w/ Bearing Cups (H618), 85'
93	968404	1/2" Wheel Bolt, 70'
	967210	9/16" Wheel Bolt, 85'
94	F0210	15" x 6" x 6 Bolt Wheel, 70'
	F0211	15" x 8" x 6 Bolt Wheel, 85'
95	967711	Outer Bearing Cup (LM67010), 70'
	968412	Outer Bearing Cup (LM48510), 85'
96	967712	Outer Bearing Cone (LM67048), 70'
	967208	Outer Bearing Cone (LM48548), 85'
97	967713	Flat Washer (7/8" S.A.E.)
	967218	Flat Washer (1" S.A.E.)
98	810010	7/8" Slotted Hex Nut, 70'
	967217	1" Slotted Hex Nut, 85'
99	967716	Dust Cap (DC13), 70'
	967209	Dust Cap (DC15), 85'
100	9812486	1/8" x 1 1/2" Cotter Pin, 70'
	812681	3/16" x 1 1/2" Cotter Pin, 85'
101	9812434	1/4" x 1 1/2" Cotter Pin
102	81210	1/4" x 2" Cotter Pin
103	967162	5/16" x 3" Cotter Pin
104	84299	5/8" x 2" Hex Bolt (pl)
105	86170	3/8" x 1" Hex Bolt (pl)
106	84000	3/8" B.S. Flat Washer
107	81593	3/8" Lock Washer (pl)
108	81592	3/8" Hex Nut (pl)
109	81599	7/16" x 1 1/2" Hex Bolt (pl)
110	960945	Intake Hopper Weldment
111	960757	Intake Auger Tube
112	905650	Intake Auger Top Box
113	905658	Door Weld't
114	86111	3/4" Jam Nut (pl)
115	87553	1/2" x 1 3/4" Hex Bolt (pl)
116	960645	Intake Auger Clean-Out
117	903217	Intake Auger Flighting
	903216	Splined Coupler Only
118	960782	Rubber Edging (1/4" x 7" x 102")
119	F9551	PTO Shaft W/CV - 13" x 70'
	F9553	PTO Shaft OPT 55R Ser. CV - 13" x 85'
	F9552	PTO Shaft CV (2-6 SPL Ends) - 13" x 70'
	F9554	PTO Shaft, CV 55R Ser. (2-Spl) - 13" x 85'

120	960950	Intake Auger Gearbox
121	907415	Input Box Weldment
122	960788	Input Box Gearbox
123	960784	U-Joint (1 3/8" I.D.)
	906547	Repair Kit Extended Life (std.)
	936079	Repair Kit (Optional)
124	907421	Chain Cover
125	905065	3" Sq. x 48" Hitch Tube
	960923	3" Sq. x 45" Hitch Weld't (Option)
	960927	Clevis (Option - Req'd w/ 45" Hitch)
126	960796	PTO Holder (19")
127	960931	Input Box Top Clean-Out
128	961675	Bearing Retainer/Pair
129	961676	1 1/4" Bearing W/ Collar (AEL207-104)
130	960653	Ring Clamp (1/4" x 2" x 6 1/2")
131	907427	Idler Arm Weldment
	907428	Idler Assembly (Arm, Sprkt, Bearings, Shaft, etc.)
	907430	Idler Assy W/ Reverse Shaft (8 1/4" lg)
132	963009	1" Bearing Flange Set
133	961627	1" Bearing w/ Collar
134	960533	1" x 4 1/2" Idler Shaft
	960182	8 3/4" Reverse Idler Shaft W/ 6 Spl.
135	905066	Jack
136	961041	15T Sprkt., #80, 1 3/8" Bore
137	960719	15T Sprkt., #80, 1 1/2" Bore
138	907429	#80 Chain x 40 Pitch Unending W/ Conn.
139	960704	3/8" x 1 1/2" Key (Alloy)
140	961010	1/2" x 2 1/8" Clevis Pin
141	961012	#16 Hair Pin Clip
142	904445	3/8" x 5 1/4" PTO Holder Pin
143	12780	#7 Hair Pin Clip
144	960177	1/4" x 1 1/4" Key (Alloy)
145	904445	3/4" x 5 1/4" Hitch Pin
146	12779	#9 Hair Pin Clip
147	960705	PTO Key, 3/8" x 1 3/4" (Alloy)
148	960359	Intake Hopper Flighting
149	906466	Stub Axle Weld't W/ 8 1/2" Shaft, 70'
	906467	Stub Axle Weld't W/ 9 1/2" Shaft, 85'
150	960707	Bearing Hanger
151	960789	1 3/8" Wooden Bearing & Flange Set
	960790	1 3/8" Wooden Bearing Only
152	960714	Wheel & Tire (4.10-4 W/ 3/4" Bore) - 4 Ply
153	960660	Rubber Reinforcement (1" x 57 1/4")
154	960661	Rubber Reinforcement (1" x 13 1/2")
155	960929	Deflector Extension

156	903483	Connector Plate (3" x 3")
157	965917	1 3/8" Brg. W/ Collar (AEL207-106)
158	960547	Universal Joint (1140 Series)
159	9812378	3/8" x 3/4" Sq. Hd. Set Screw (ser)
160	81525	1/4" x 3/4" Hex Bolt (pl)
161	81545	1/4" Lock Washer (pl)
162	81544	1/4" Hex Nut (pl)
163	81546	1/4" B.S. Flat Washer (pl)
164	811792	3/8" x 1 1/2" Hex Bolt (pl)
165	811751	3/4" x 5" Bolt
166	812365	3/4" Lock Nut
167	81600	7/16" x 1 3/4" Hex Bolt (pl)
168	967906	3/8" x 2 3/4" Hex Bolt (Gr.8)
169	812363	3/8" Lock Nut (pl)
170	960717	9T Sprocket, #80, 1" Bore
171	9812419	7/16" B.S. Flat Washer (pl)
172	988999	3/8" x 3/8" Socket Set Screw
173	811792	3/8" x 1 1/2" Hex Bolt (pl)
174	960494	1 1/4" OD, 13/32" ID Washer
175	86171	3/8" x 1 1/4" Hex Bolt (pl)
176	967284	5/8" x 1 3/4" Flat Hd Bolt skt (pl)
177	905568	Pin Weld't 5/8" x 4 1/4" Lg
178	960167	5/16" Quick Link
179	905570	Pin Weld't 3/4" x 6 1/4" Lg
180	F9725	LH. Lower Lift Arm, 70'
	F0564	LH. Lower Lift Arm, 85'
181	960162	1/2" x 18" Hyd. Hose (Both Ends JIC)
182	811791	1/2" x 2" Hex Bolt (pl)
183	967135	1 1/2" S.A.E. Flat Washer, 70'
	967153	2" Mach. Bushing, 85'
184	960180	5/16" x 1 1/2" Key (Alloy)
185	968627	1 1/2" Bearing w/ Collar
186	967260	1 1/2" Bearing Retainer (Set) (pl)
187	81620	1/2" x 1 1/4" Hex Bolt
188	960932	1/4" x 1 1/2" Key (Alloy)
189	960745	Main Bridging Yoke Clamp
190	905602	Pulley Holder Weld't
191	981616	7/16" B.S. Flat Washer
192	960355	Hopper Lid
193	960356	Hopper Lid Rod (5/8" x 17")
194	967437	3/4" x 1 5/8" Bolt (pl)
195	812365	3/4" Lock Nut (pl)
196	81702	3/4" B.S. Flat Washer
197	960839	Wheel Spacer

198	967183	5/16" x 1" Flat H.D.. Bolt
199	960933	Bearing Holder
200	960946	Wheel Bracket RH.
201	960947	Wheel Bracket LH.
202	813174	Adaptor STR 3/4" MORB x 1/2" FNPT
203	961012	Hair Pin Clip #16
204	811803	3/4" x 10" Hex Bolt (pl)
205	960666	1 1/2" ID - 6 Spl. Pump Adaptor
206	81213	3/8" x 1" Sq Hd Set Screw (pl)
207	986045	3/8" Jam Nut Gr 2. (pl)
208	907742	LA Torque Tube Weld't w/ 13 7/8" Inside Dim.

13" x 95' MECHANICAL AUGER BRIDGING & EXTENSION TUBE



MA-02

13" x 95' MECHANICAL AUGER BRIDGING & EXTENSION TUBE

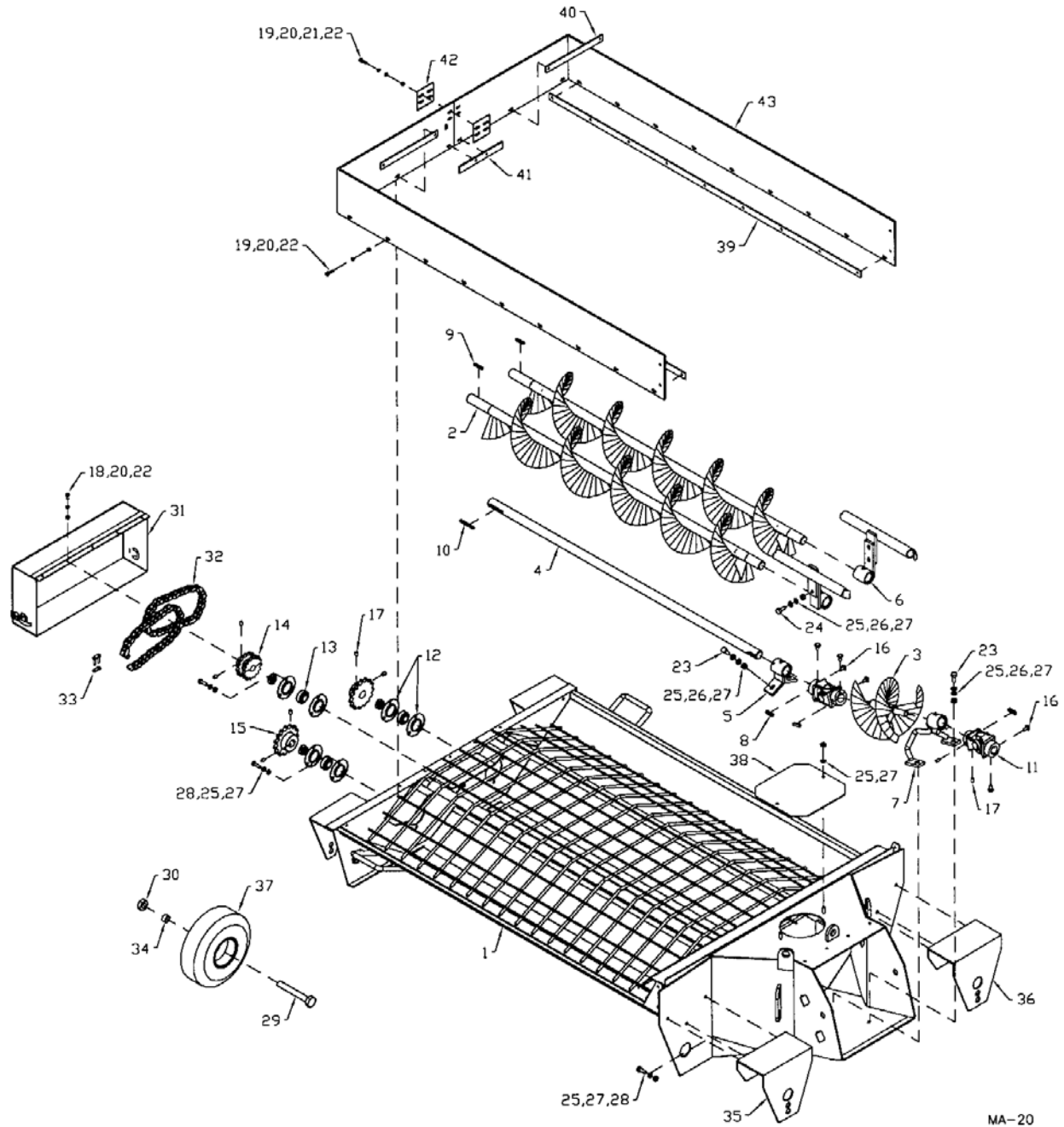
Item #	Part #	Description
1	960741	26'-9" Bottom Tube
2	960668	30' Center Tube
3	960669	25' Top Tube
4	904015	10' Extension Tube
5	960742	Main Bridging Yoke
6	960674	Main Bridging Brace
7	960676	Upper Bridging Yoke
8	960678	Upper Bridging Tie Bar
9	904533	Extension Flighting 123" long
10	960244	Cable Yoke
11	960613	3/4" x 8" Cable Tightener
12	964587	1/2" Thimble
13	964565	1/2" Cable Clamp
14	960743	Main Bridging Yoke Mount
15	84050	3/4" Flat Washer (S.A.E.)
16	81700	3/4" Hex Nut
17	84270	5/8" x 1 3/4" Hex Bolt
18	81677	5/8" Lock Washer
19	81676	5/8" Hex Nut
20	964001	3/8" Flat Washer (10ga)
21	81598	7/16" x 1 1/4" Hex Bolt
22	81615	7/16" Lock Washer
23	81614	7/16" Hex Nut
24	811791	1/2" x 2" Hex Bolt
25	81637	1/2" Lock Washer
26	81636	1/2" Hex Nut
27	960682	1/2" x 43'-6" Cable
	960681	1/2" x 43'-6" Cable Assembly
28	904537	1/2" x 77'-4" Upper Cable
29	960745	Main Bridging Yoke Clamp
30	967284	5/8" x 1 3/4" Flat Head Bolt
31	960675	Lower Bridging Yoke
32	960677	Lower Bridging Tie Bar 31 1/2"
33	904534	Extension Bridging Yoke
34	904535	Extension Bridging Tie Bar

13" X 10' EXTENSION – ASSEMBLY INSTRUCTIONS

ALERT: This extension can be used to extend the 85' auger to 95' only. It is not made to be used on any other size of auger.

1. The 13" backsaver manual should be used for assembly instructions. The extension tube (#4) is mounted between the center and the top sections of the 85' augers. Align all four sections before tightening the pipe ring bolts. Tube is turned as shown in drawing.
2. The cables must be removed and the main yoke (#5) must be re-positioned for a 95' Auger. Use the higher of the two positions for the 95' auger as shown on the illustration. The 10' extension has an additional bridging yoke (#33) and tie bar (#34).
3. The undercarriage pivot for 95' auger must also be moved when converting from a 85'. The 95' auger uses the higher of the two pivot rings. See the illustration with the instructions. The shift in the main yoke and undercarriage pivot ring is done to increase the weight at the bottom end for the 95' auger. This should prevent losing all the weight at the bottom end when emptying the auger.
4. The inner cables do not change from the 85' to the 95' auger. The outer cables mount as per the 85' except they are attached to the extra bridging yoke on the 10' extension.
5. The rest of the assembly is exactly the same as for a standard 85' auger as described in the 13" backsaver manual.

13" MULTI-FLIGHTING HOPPER



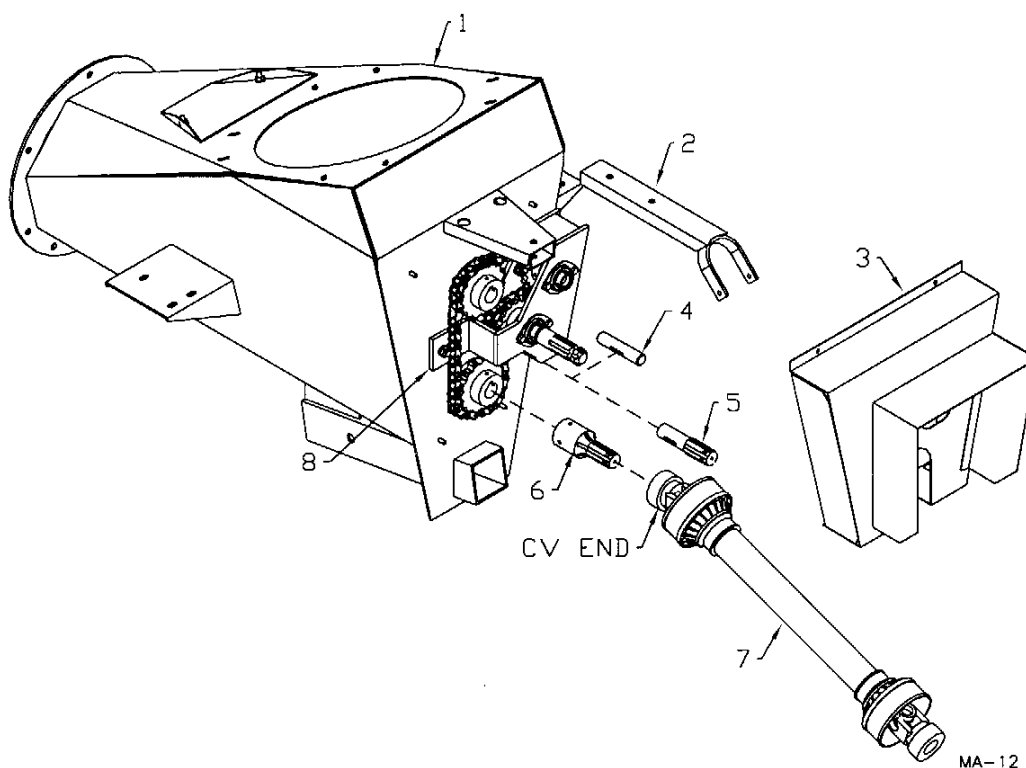
MA-20

13" Multi-Flighting Hopper

Item #	Part #	Description
1	905413	Hopper Weld't
2	905419	Outside Flighting Weld't
3	905433	Center Flighting Weld't
4	905434	Center Flighting Rod
5	905437	Center Shaft Holder
6	905438	Outside Flighting Holder
7	905445	Center Flighting Holder
8	905248	Hopper U-Joint Key 5/16" x 1 1/4"
9	905368	Outside Sprocket Key 1/4" x 1 1/2"
10	905369	Inside Sprocket Key 1/4" x 2 1/2"
11	960547	U-Joint 1 1/4" Both Ends W/ 5/16" Keyway
12	961675	Flange Bearing. (72MS) Pair
13	961676	1 1/4" Bearing W/ Collar
14	905562	Spkt 14T #60 1 1/4" Bore
15	960492	Spkt 17T #60 1 1/4" Bore
16	9812378	3/8" x 3/4" Setscrew Sq. Shed (Br)
17	988999	3/8" x 3/8" Setscrew (Br)
18	81525	1/4" X 3/4" Hex Bolt (pl)
19	81527	1/4" x 1" Hex Bolt (pl)
20	81701	1/4" Lock Washer (pl)
21	812624	1/4" Flat Washer (pl)
22	81544	1/4" Hex Nut (pl)
23	86171	3/8" x 1 1/4" Hex Bolt (Pl)
24	811792	3/8" x 1 1/2" Hex Bolt (Pl)
25	81593	3/8" Lock Washer (Pl)
26	84039	3/8" Flat Washer (Pl)
27	81592	3/8" Hex Nut (Pl)
28	86170	3/8" x 1" Hex Bolt (Pl)
29	812114	3/4" x 5 1/2" Hex Bolt (pl)
30	812365	3/4" Lock Nut (pl)
31	905444	Chain Guard Weldment
32		Chain #60H x 33L
33	912300199	Chain Connector Link 60
34	960839	Spacer 1" OD x 1 1/2" lg
35	902575	Standard Wheel Brkt 9" x 17 7/8" - LH
36	902576	Standard Wheel Brkt 9" x 17 7/8" - RH
37	960714	Wheel W/ Tire 4.10/3.50
38	905632	Cover Plate 9 1/2" x 10"
39	960660	Rubber Reinf. 1" x 57 1/4" lg

40	960837	Rubber Reinf. 1" x 10 1/2"
41	960834	Rubber Reinf. 1" x 8"
42	903483	Connector Plates 3" x 3" x 14 Ga
43	905608	1/4" x 7" x 81" Rubber Strips W/ Holes
*	905572	Chain Assy Including Connector

13" MECHANICAL DRIVE AUGER REVERSE KIT



Reverse Kit Option – F7349 (for 13" x 70' only)

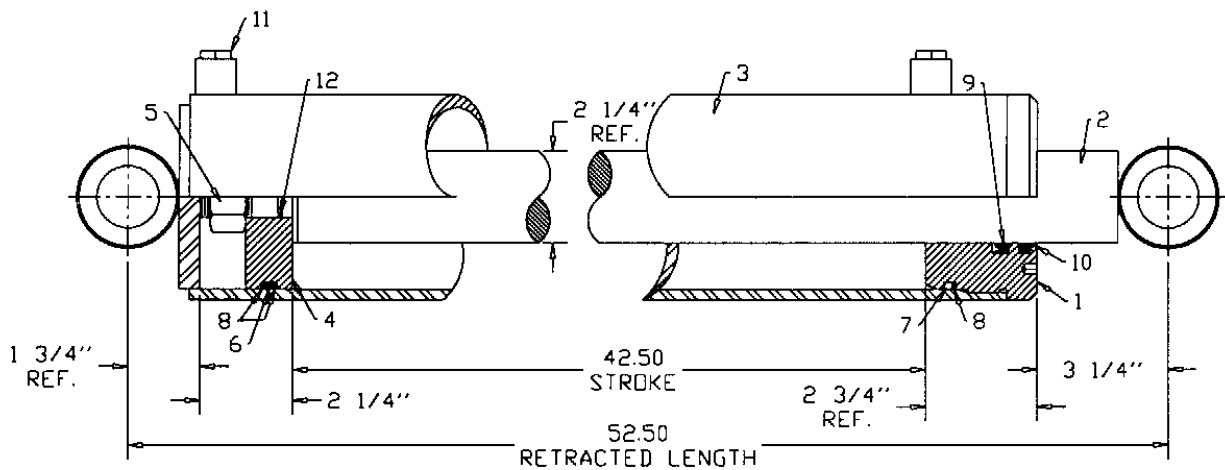
Reverse Kit Option – F7449 (for 13" x 85' only)

13" Mechanical Drive Auger Reverse Kit

Item #	Part #	Description
1	907415	Input Box
2	903494	PTO holder (21 1/2" long)
3	907421	Chain Cover
4	960533	1" x 4 1/2" Idler Shaft
5	960182	6 Splined Shaft (8 3/4" long)
6	904411	1 1/2" I.D. Pump Adapter
7	936366	6 Spline End Yoke (70' only)
	F9552	Shaft Complete (both ends 6-spline) 70' only
	936431	6 Spline End Yoke (85' only)
	F9554	Shaft Complete (both ends 6-spline) 85' only
8	907430	Idler Assembly (arm, sprocket, bearings shaft, etc.)

4.5 x 42.50 CYLINDER ASSEMBLY

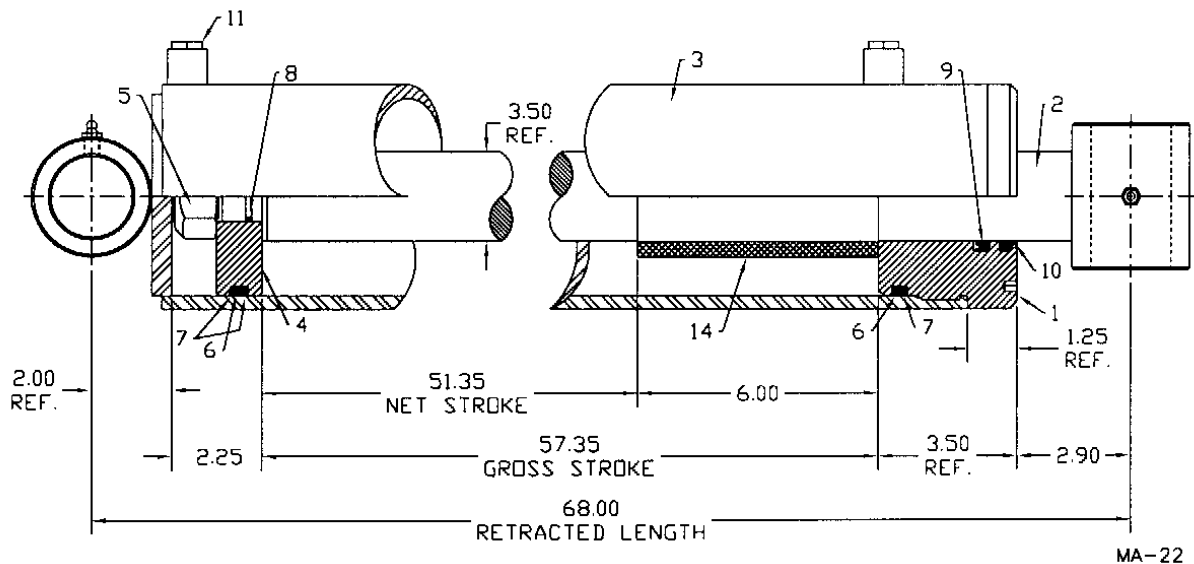
Item #	Part #	Description
	F9778	Cylinder Complete
1	24888	4.5 Dia. Headplate
2	112564	Shaft Weld't 2.25 OD x 50.75 Lg
3	24886	4.5 Dia. Tube Weldment
4	112561	4.5 Dia. Piston
5	813407	Locknut 1.0 UNF
6	85346	O-Ring 4.125 ID x 4.50 OD Poly
7	82346	O-Ring 4.125 ID x 4.50 OD Buna
8	83346	Backup 4.125 ID x 4.50 OD x 0.06
9	812934	U-Cup 2.25 ID x 2.75 OD x 0.375
10	812979	Wiper Seal 2.25 ID x 2.75 OD x 0.25
11	812081	Plug s MORB Stl
12	82020	O-Ring 0.875 ID x 1.00 x 0.06
13	22370	Hydraulic Cylinder Decal
14	105420	Reference Plate JBI/FK Serial #



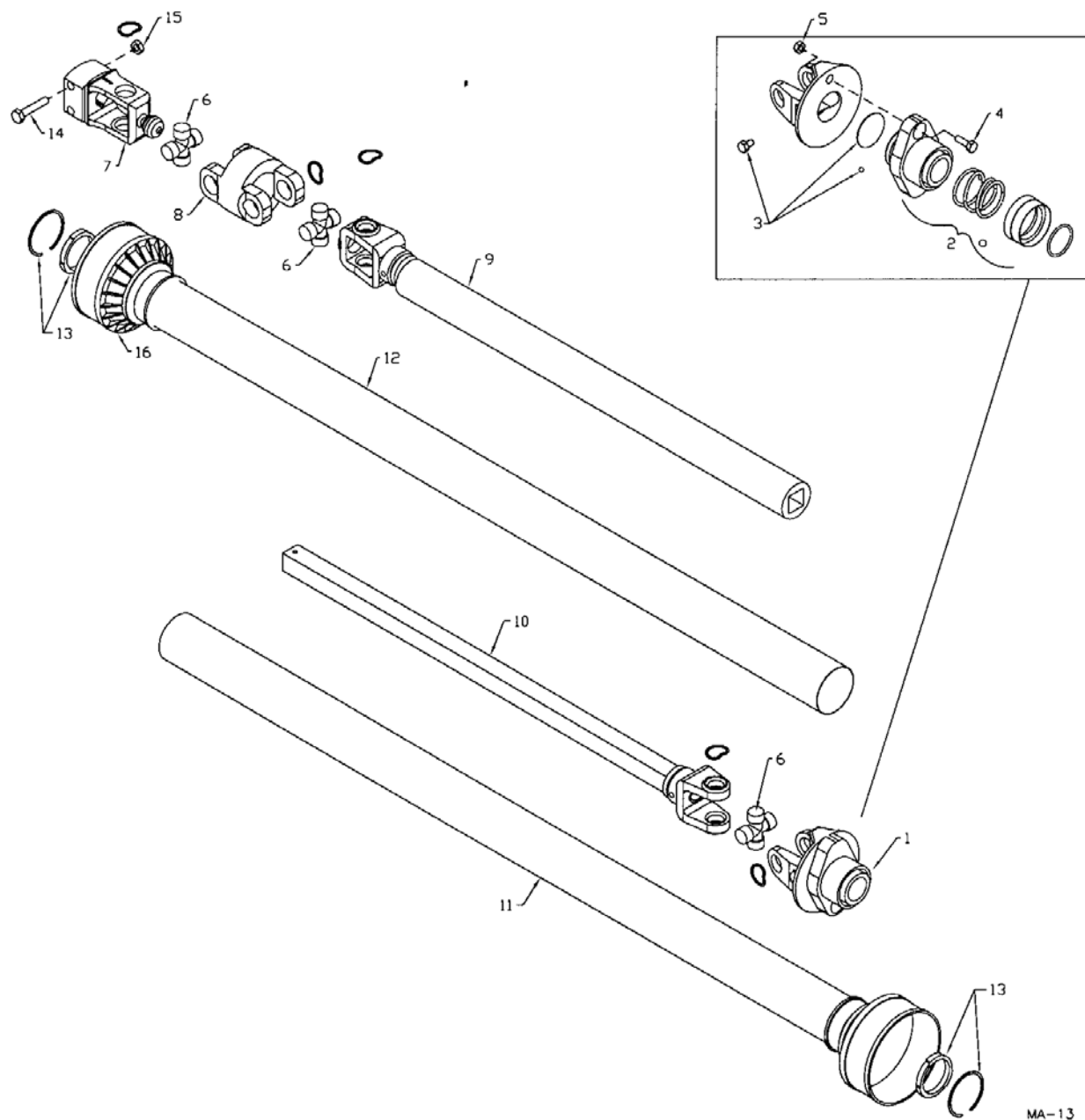
MA-21

5.0 Dia. x 51.35 CYLINDER ASSEMBLY

Item #	Part #	Description
	F0445	Cylinder Complete
1	25123	5.0 Dia. Headplate
2	116128	Shaft Weld't 3.5 x 66
3	25122	5.0 Dia. Tube Weld't
4	111299	5.0 Dia. Piston
5	87557	Locknut 1.25 UNF
6	82425	O-Ring 4.50 ID x 5.00 OD Buna
7	83425	Backup 4.50 ID x 5.00 OD x 0.085
8	82214	O-Ring 1.00 ID x 1.25 OD Buna
9	115130	U-Cup 4.25 OD x 3.50 ID x 0.375
10	115129	Wiper Seal 3.50 ID x 4.00 OD x 0.25
11	812081	Plug 3/4 MORB Steel
12	22370	Hydraulic Cylinder Decal
13	105420	Reference Plate JBI/FK Serial #
14	116129	Stop Tube 6.00 Long



13" BACKSAVER AUGER PTO SHAFT



MA-13

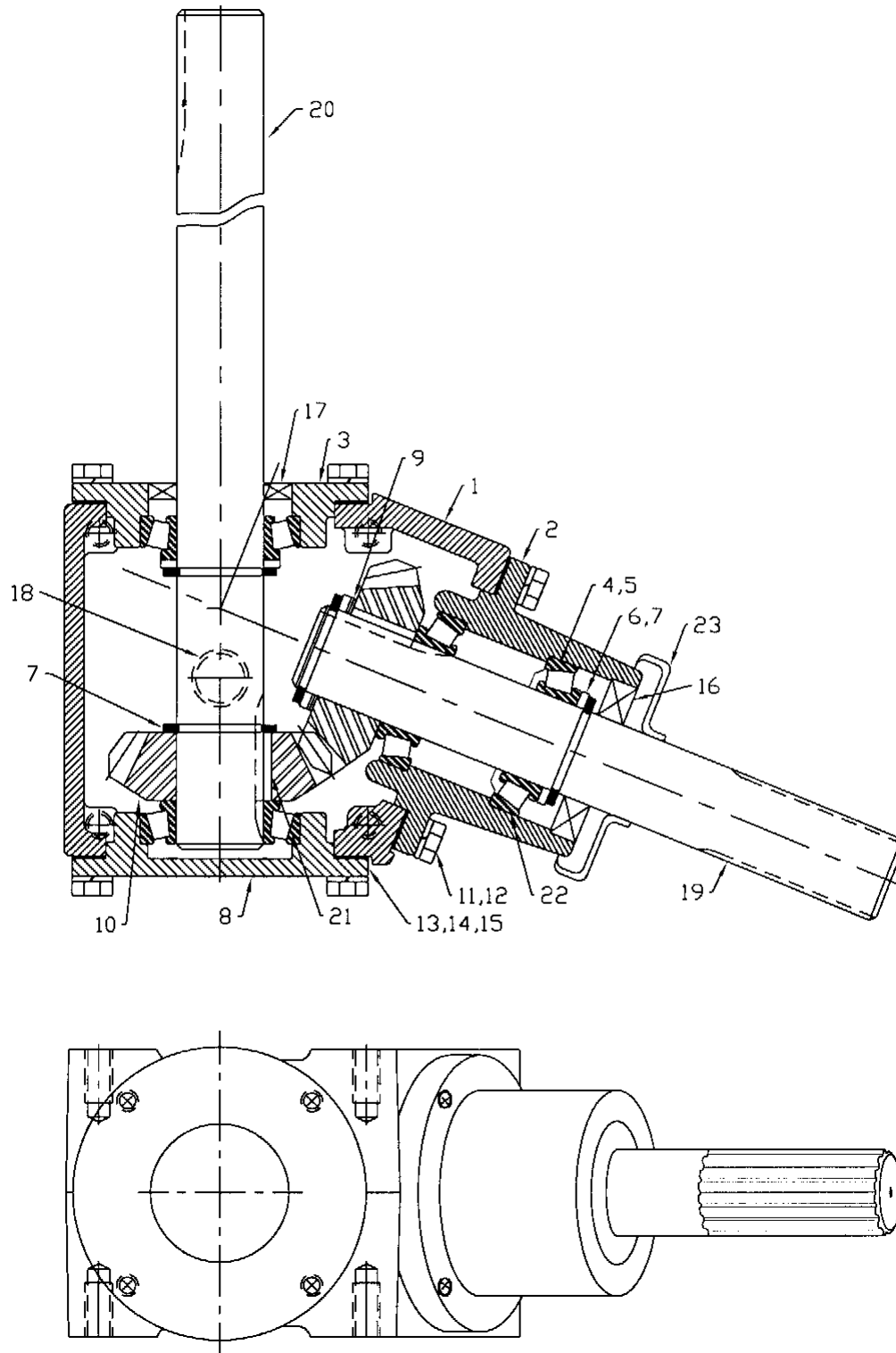
13" x 70' Backsaver Auger PTO Shaft Parts List

Item #	Part #	Description
	F9551	Shaft Complete
	936565	Outer Half Shaft - Implement
	936566	Inner Half Shaft - Tractor
1	936277	Ball Shear Assembly
2	936199	Safety Slide Lock Repair Kit (collar, spring, ret. Ring, 2-pawls)
3	936249	Shear Assembly Repair Kit (3/8" x 1/2" bolt, lube, blank, 31-1/4" balls)
4	967247	Shear Bolt - 5/16" x 1" (grade 8) - 2 required
5	812362	5/16" Lock Nut
6	906504	Repair Kit - Extended Life (std.)
	936025	Repair Kit - Optional
7	936360	Clamp Yoke
8	936361	CV Center Housing
9	936362	Yoke & Tube
10	936274	Yoke & Shaft
11	936363	Inner Guard
12	936273	Outer Shield
13	936364	Nylon Repair Kit (brg. & snap ring)
14	936320	Nylon Repair Kit (brg. & snap ring)
15	81627	1/2" x 3" Hex Bolt
16	812364	1/2" Lock Nut
	964001	3/8" Flat Washer (10ga)

13" x 85' Backsaver Auger PTO Shaft Parts List

	F9553	Shaft Complete
	936567	Outer Half Shaft - Implement
	936568	Inner Half Shaft - Tractor
1	936432	Ball Shear Assembly
2	936199	Safety Slide Lock Repair Kit (collar, spring, ret. Ring, 2-pawls)
4	967247	Shear Bolt - 5/16" x 1" (grade 8) - 2 required
5	812362	5/16" Lock Nut
6	906505	Repair Kit - Extended Life (std.)
	936434	Repair Kit - Optional
7	936435	Clamp Yoke
8	936436	CV Center Housing
9	936437	Yoke & Shaft
10	936438	Yoke & Tube
11	936439	Inner Guard
12	936440	Outer Guard
13	936417	Nylon Repair Kit (brg. & snap ring)
15	81628	1/2" x 3 1/4" Hex Bolt
16	812364	1/2" Lock Nut
17	936441	CV Bell Extension

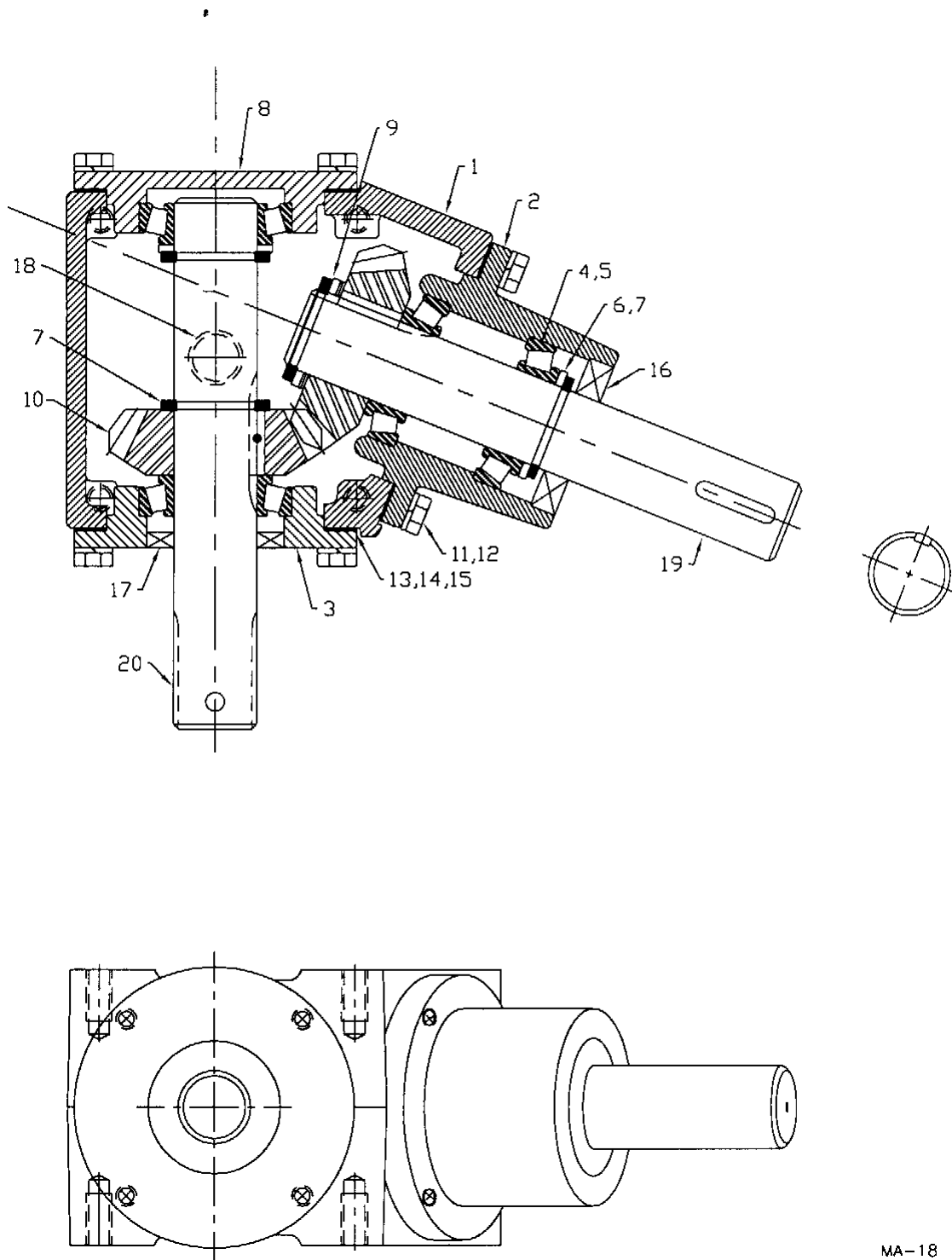
13" MECHANICAL DRIVE – INPUT BOX GEARBOX



13" Mechanical Drive - Input Box Gearbox

Item #	Part #	Description
	960788	Gearbox Complete
1	960803	Case
2	960804	Quill
3	960810	Cover
4	967208	Bearing Cone
5	968412	Bearing Cup
6	960808	Washer
7	960809	Snap Ring
8	960805	Cover
9	960811	Shim
10	960812	Gear, 68 degree cut
11	960813	Lock Washer
12	960814	Capscrew
13,14,15	960815	Shim Set
16	960816	Seal
17	960817	Seal
18	960818	Pipe Plug
19	960822	Shaft – pinion - splined
20	960823	Shaft - cross
21	960821	Key
22	960824	Washer - grease
23	960825	Dust Cover

13" MECHANICAL DRIVE – INTAKE AUGER GEARBOX



MA-18

13" Mechanical Drive - Intake Auger Gearbox

Item #	Part #	Description
	960950	Gearbox Complete
1	960803	Case
2	960804	Quill
3	960805	Cover
4	967208	Bearing Cone
5	968412	Bearing Cup
6	960808	Washer
7	960809	Snap Ring
8	960810	Cover
9	960811	Shim
10	960812	Gear, 68 degree cut
11	960813	Lock Washer
12	960814	Capscrew
13,14,15	960815	Shim Set
16	960816	Seal
17	960817	Seal
18	960818	Pipe Plug
19	960819	Shaft – pinion - key
20	960951	Shaft - cross
21	960821	Key

SHIPPING BUNDLES

SIZE: 13" x 70' TOP FEED MECHANICAL DRIVE AUGER Y1370TM

QUANTITY REQUIRED	BUNDLE NUMBER	DESCRIPTION
1	F9701	top section
1	F9702	center section
1	F0132	bottom section
1	F9551	PTO shaft
1	F0191	axle
1	F9722	r.h. undercarriage arm
1	F9723	l.h. undercarriage arm
1	F9707	upper lift arm
1	F9724	r.h. lower lift arm
1	F9725	l.h. lower lift arm
1	F0100	intake auger
1	F9776	intake hopper
1	F0471	crate of parts
1	F0468	input box
2	F0210	wheels, 15" x 6" x 6 bolt
1	F9180	carton of parts (hopper)

SIZE: 13" x 85' TOP FEED MECHANICAL DRIVE AUGER Y1385TM

1	F9730	top section
1	F9731	center section
1	F0133	bottom section
1	F9553	PTO shaft
1	F0192	axle
1	F9734	r.h. undercarriage arm
1	F9735	l.h. undercarriage arm
1	F0464	upper lift arm
1	F9737	r.h. lower lift arm
1	F9738	l.h. lower lift arm
1	F0100	intake auger
1	F9776	intake hopper
1	F0472	crate of parts
1	F0468	input box
2	F0211	wheels, 15" x 8" x 6 bolt
1	F9180	carton of parts (hopper)