



**8" INTAKE DRIVE
TRANSPORT AUGER**

MODEL & LENGTH: _____
SERIAL NUMBER: _____
DATE PURCHASED: _____

MANUAL

32'

A28461 31' Tube

Tube and Screw Diagrams
8" I.O. Augers

A28564 32' Discharge Screw



47'

A28778 15' Tube

A28461 31' Tube

A28566 16' Intake Screw

A28565 31' Discharge Screw



52'

A28779 20' Tube

A28461 31' Tube

A27380 21' Intake Screw

A28565 31' Discharge Screw



57'

A28780 25' Tube

A28461 31' Tube

A28567 26' Intake Screw

A28565 31' Discharge Screw



62'

A28781 30' Tube

A28461 31' Tube

A28568 31' Intake Screw

A28565 31' Discharge Screw



72'

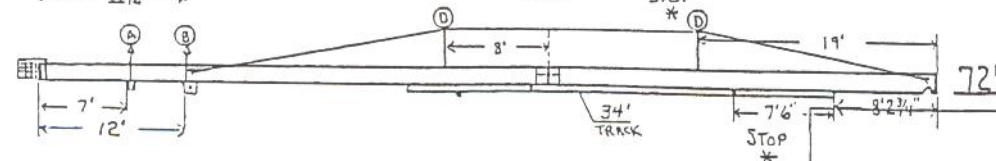
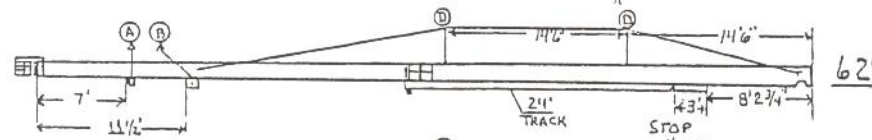
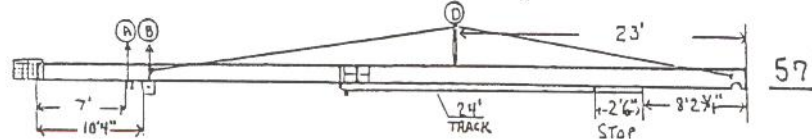
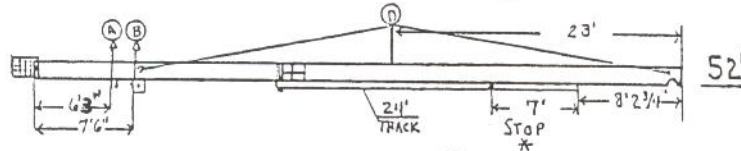
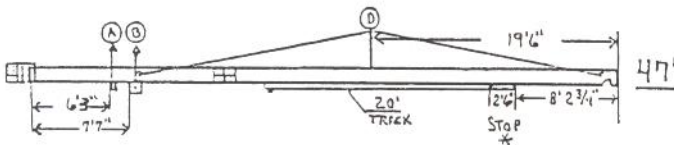
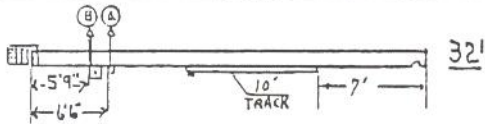
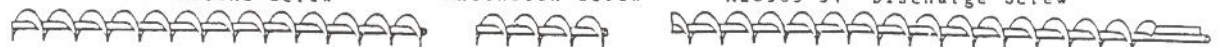
A28782 40' Tube

A28461 31' Tube

A28568 31' Intake Screw

A20616 10' Extension Screw

A28565 31' Discharge Screw



- Ⓐ WINCH MOUNT
- Ⓤ CHASSIS HOOKUP
- Ⓒ GEAR BOX MOUNT
- Ⓓ TRUSS SUPPORT
- * SPECIAL STOP

-ASSEMBLY INSTRUCTIONS-

The auger should be assembled in an area that is level. A mechanical lifting device, of at least a 2-ton capacity, should be available to lift the partially assembled auger during the assembly procedure.

This auger is shipped broken down. The tubes and screws are shipped according to the length of auger ordered. Each auger length has one 31 foot long discharge tube with the proper screw inside.

With the tubes and screw arranged in the proper order, place a joiner band (see Figure 1) over one tube at joint of two tubes. No tube joiners are required at either end of the auger. Now, with the joiner on one tube, couple the two screws together with the coupler shaft and attached coupler bolts (see Figure 1). Go to the next joint and repeat the process until all screws are coupled. Butt the tubes together and center the joiner over the joint. Use 3/8-16NC x 1 1/2 bolts starting at the center bolt hole in the joiner flange and work your way to each end of the joiner (see Figure 2). Watch the overall alignment of the auger as the tubes are joined to be sure of maintaining a straight auger. Note: Tighten the bolts (Key No. 2 in Figure 2) in the joiner band to a reading of 35-40 foot-pounds to obtain good clamping pressure.

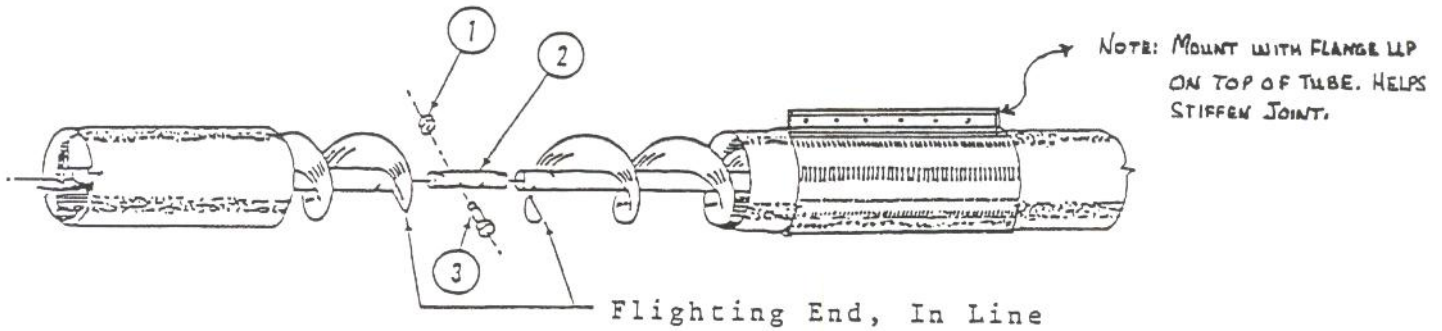


Figure #1

Figure #1 Key Nos.	Part No.	Description
1.	1280	3/8-24 LOCKNUT
2.	20627	Coupler Shaft
3.	1201	3/8-24 x 2" GR.5 HHCS

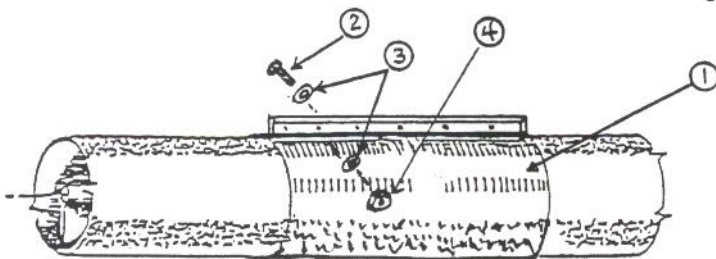


Figure #2

Figure #2 Key Nos.	Part No.	Description
1.	A28446	Tube Joiner W/Hdw
2.	1404	HHCS 3/8-16 x 1 1/2 GRD5
3.	28453	Clamp Washer 7/16 I.D.
4.	1274	3/8-16NC LOCKNUT

Assemble the discharge shaft, Key No. 10 (Figure No. 3) to the discharge screw with 3/8-24x2 bolts. Slide the discharge shaft through the bearing collar. Pin the thrust collar (Key No. 5) to the discharge shaft making sure it is up against the bearing collar. Tighten the eccentric locking bearing collar by turning it in the same direction (clockwise looking at the end of the shaft) as the shaft will be rotating in operation.

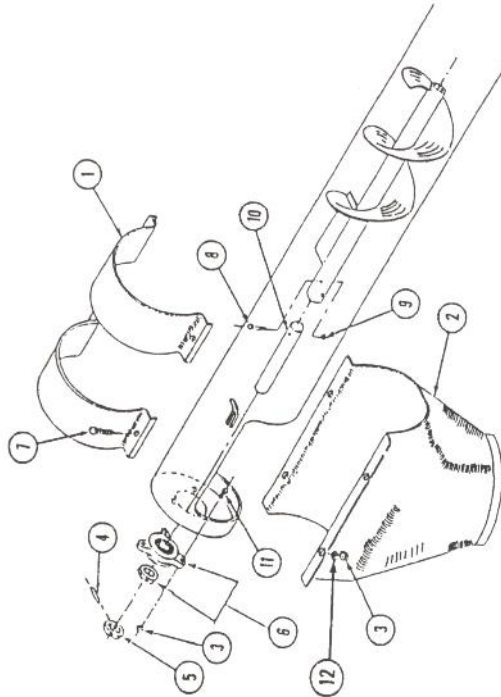


Figure #3
Discharge Details

Figure #3 Key Nos.	Part No.	Description
1.	28364	Clamp Band 8"
2.	A27176	Discharge Spout 8"
3.	1274	Hex Locknut 3/8-16
4.	10023	Spring Pin
5.	20652	Thrust Collar
6.	A20648	Flange Bearing
7.	1177	HHCS 3/8-16x1 1/2
8.	1201	HHCS 3/8-16x2 GR5
9.	1280	Hex Locknut 3/8-24
10.	28104	Discharge Shaft
11.	1217	Carriage Bolt 3/8-16x1
12.	1294	Flatwasher 3/8

Assemble the cross supports (trussed models only), Figure No. 4, to the tube placing it as shown on the component placement diagram

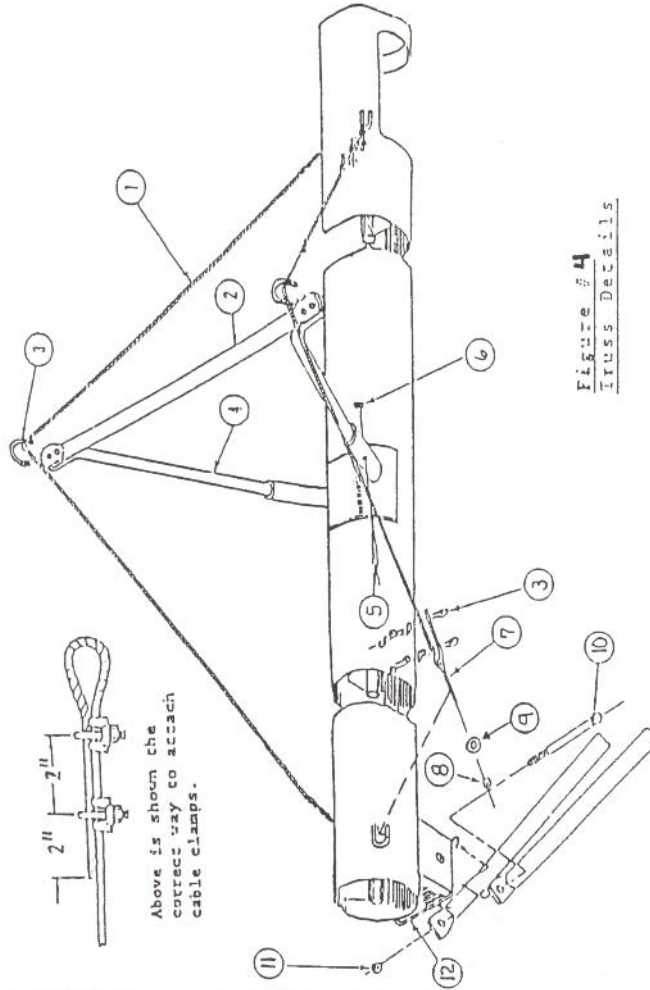


Figure #4
Truss Details

Figure #4 Key Nos.	Part No.	Description
1.	A.	1/2 DIA. x 40' CABLE (47')
	B.	1/2 DIA. x 46' CABLE (52')
	C.	1/2 DIA. x 48' CABLE (57')
	D.	1/2 DIA. x 54' CABLE (62')
	E.	1/2 DIA. x 60' CABLE (72')
2.		TRUSS CROSS PIPE
3.	28111	1/2" CABLE CLAMP
4.	15188	TRUSS SUPPORT PIPE
5.	28100	HHCS 3/8-16x1 3/4"
6.	1178	HEX LOCKNUT 3/8-16
7.	1274	EYE BOLT 1/2-13x8"
8.	A28415	1/2-13 REG. NUT
9.	1269	FLAT WASHER 1/2" (2 ex. GOUT)
10.	1295	HHCS 3/4-10x7"
11.	1508	3/4-10 LOCKNUT
12.	1278	CHASSIS HOOKUP

CHASSIS ASSEMBLY

6 Assemble the chassis pipes and axle together as shown in Figure 6. With a cable or chain sling fastened securely around the auger tube just ahead of the chassis track, lift the discharge end of the assembled auger three or four feet off the ground. Roll the assembled chassis underneath the auger. Attach the chassis hook-up band Key No. 6 and 9, in Figure No. 4, to the auger tube in the correct position as shown on the component placement diagrams. Attach the anchor bracket, Key No. 12 in Figure No. 4 to the chassis hook-up band as shown.

Bolt the winch mount to the auger tube in position as shown on the component placement diagrams. Attach the winch mount as shown.

String the winch cable as shown by starting at the end opposite the winch. Attach the cable to the winch drum as noted on the winch instruction sheet.

The cable winch is equipped with a brake which is activated by turning the handle. Turn the handle clockwise to raise the auger and counterclockwise to lower the auger. A clicking sound will be heard when raising the auger. When lowering the unit, no clicking will be heard. When the auger is lowered to the desired height, turn the handle clockwise until two clicks are heard to lock the winch. There is no pawl or clutch to release to lower the auger.

Always be sure there are at least three wraps of cable on the winch drum.

Read winch operating instructions included in the winch carton.

Carefully lift the auger with the cable or chain sling, and at the same time manually raise the chassis lift until the roller frame Key No. 12 (Figure No. 6) engages the end of the chassis track. With the roller frame in position on the chassis track, continue to raise the auger until the lift roller frame passes the four sets of holes in the track. Refer to the component placement diagrams and find where to place the chassis stop, Key No. 2 (Figure No. 5). Attach the chassis stop with four 1/2-13NCx1 bolts and nuts. Let the auger down until the lift roller frame rests against the stop.

Do not remove the lifting sling at this time as the auger may be top end heavy and tip.

String the truss cables as shown in Figure No. 4. Note: Only one truss support is shown for simplicity. Tighten cables only enough to maintain a straight auger.

Assemble the rear stop, Key No. 2, in Figure No. 5 onto the chassis track as shown on the component placement diagrams.

CAUTION: Check the assembled auger balance. If it is heavy on the discharge end, then add weight to the intake or hitch end in the form of an optional gravity hopper, electric motor, or if necessary, tie down the intake end to prevent a "tip-over" condition. Never lift the intake end any higher than necessary to attach the hitch to the towing vehicle as a weight shift toward the top of the discharge end will take place rapidly.

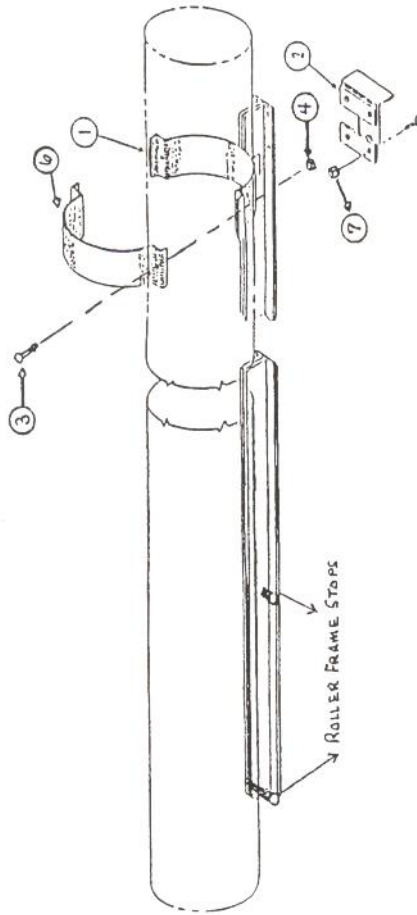


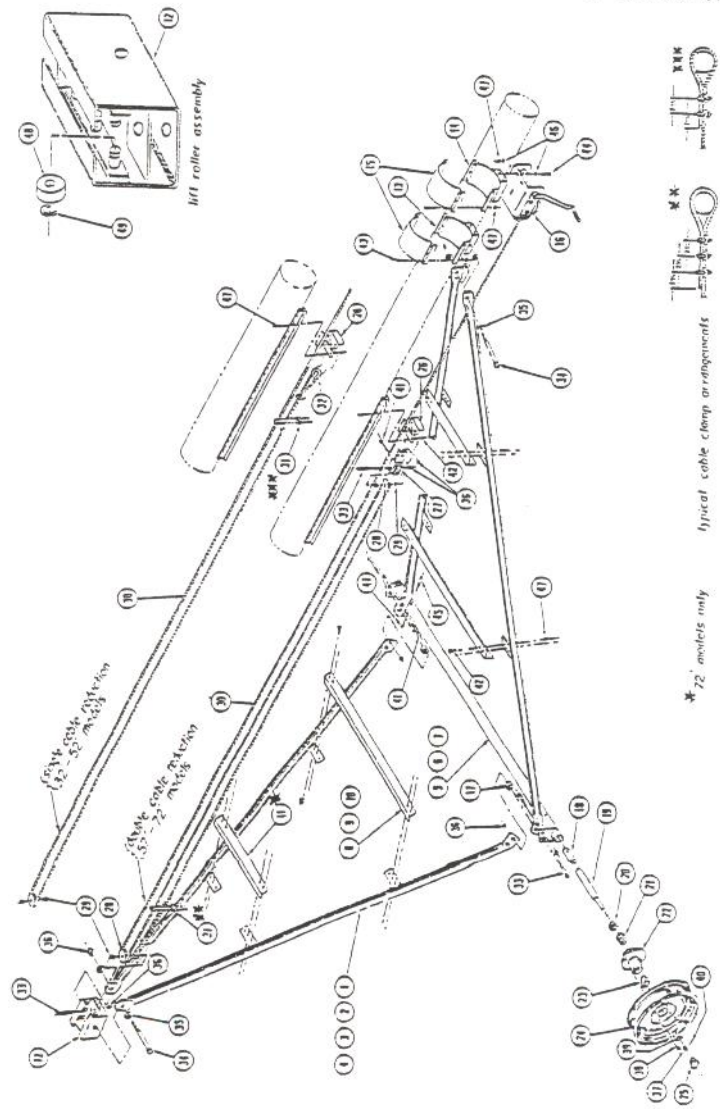
Figure #5
Chassis Track Details

Figure #	Key Nos.	Part No.	Description
1.		A28393	Track Band
2.		A28395	Stop
3.		1495	3/8-16x1 1/2 HHCS GR5
4.		1274	3/8-16 Hex Locknut (nylok)(pl)
5.		1187	HHCS 1/2x13x1"
6.		28364	Track Clamp Band Half
7.		1276	1/2-13 CENTER LOCKNUT

Figure #6 Key Nos. Part No.

1.	2 3/8" O.D. x 9' 2 7/8" Chassis Pipe (32' Auger)	A28542
2.	2 3/8" O.D. x 14' 8 1/2" Chassis Pipe (47'-52' Auger)	A28536
3.	2 7/8" O.D. x 18' 5 1/2" Chassis Pipe (57'-62' Auger)	A28547
4.	2 7/8" O.D. x 21' Chassis Pipe (62'-67' Auger)	A28544
4A.	o.o. x 2 1/4" CHASSIS PIPE (72' Auger)	A28476
5.	55.25" Axle Pipe (32' Auger)	A28477
6.	83.25" Axle Pipe (47'-62' Auger)	A28478
7.	94.75" Axle Pipe (72' Auger)	A28478
8.	35 1/2" Chassis Angle (32' Auger)	A28540
9.	47 1/2" Chassis Angle (47'-62' Auger)	A28541
10.	59 1/2" Chassis Angle (72' Auger)	A28539
11.	28 1/8" Chassis Angle (72' Auger)	A28538
12.	Lift Roller Frame W/A	A28588
13.	8" Chassis Book-up W/A	A28369
14.	8" Winch Mount W/A	A28033
15.	8" 3 Bolt Half Band	A28107
16.	Winch 1000# (32' Auger)	A20432
	Winch 1500# (47'-52' Auger)	A20385
	Winch 2500# (57'-72' Auger)	A28057
17.	Frame Spacer	A28484
18.	Axle Tube Sleeve	A28483
19.	Seal	A28513
20.	Wheel Bearing - Inner Cone	A28511
21.	Wheel Bearing - Outer Cone	A28511
22.	15" 4 Bolt Rim	A28511
23.	Cap	A28511
24.	Scop W/A	A28395
25.	Fuller Bracket	A28395
26.	Cable Sheave	A28395
27.	Spacer	A28033
28.	4" Dia. x 36" Winch Cable (32' Auger)	A28660
29.	4" Dia. x 50' Winch Cable (47' Auger)	A28627
30.	4" Dia. x 52' Winch Cable (52' Auger)	A28634
	5/16" Dia. x 81' Winch Cable (57' Auger)	A28636
	5/16" Dia. x 88' Winch Cable (62' Auger)	A28639
31.	4" Cable Clamp (32'-52' Auger)	15188
32.	5/16" Cable Thimble	15266
33.	HCS 3/4-10x3	19480
34.	HCS 3/4-10x7	1192
35.	3/4 Flatwasher	1508
36.	Locknut 3/4-10	1297
37.	Spindle Nut	1278
38.	Wheel Bolt	28507
39.	Spindle Washer	28510
40.	Spindle Cotter Pin	28506
41.	HCS 3/4-10x2	1191
42.	HCS 1/2-13x1	1187
43.	HCS 3/8-16x1 1/2 GR5	1404
44.	HCS 3/8-16x1	1175
45.	HCS 3/8-16x3 GR5	1360
46.	3/8 "Type A" Flatwasher	1294
47.	Locknut 3/8-16	1274
48.	Plastic Roller	27689
49.	Retaining Ring	27690

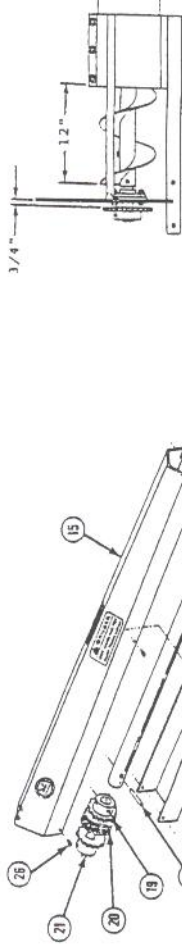
Figure #6



*72' models only

Typical cable clamp arrangements

lift roller assembly



Intake Guard Not Shown
For Flighting Clarity
And Dimensioning.

- Intake Section -

(Refer to Figure No. 7)

Assemble the intake shaft, Key No. 18, to the auger screw with two 3/8-24x2 bolts, Key No. 23.

Assemble the intake housing, Key No. 12, to the auger tube leaving 12" of exposed flighting, see figure
Attach the 25-tooth sprocket, Key No. 7, to the intake shaft leaving 3/4" between the plate and the sprocket, as shown on diagram Use a woodruff key, Key No. 24. Place the drive shaft, Key No. 13, through the top bearing. Attach the 13-tooth sprocket, Key No. 8, to the drive shaft using a woodruff key, Key No. 24. Be sure to align the two sprockets. Assemble the drive shaft shield mounting bracket, Key No. 16, to the intake housing.

Before assembling any more of the intake section, next assemble the gearbox and couple it to the drive shaft as shown for PTO drive or for electric motor drive as shown

Assemble the gearbox, Key No. 11 (Figure No. 8) or Key No. 28 (Figure No. 9) to the mount. Assemble the half coupling, Key No. 8 (Figure No. 8) or Key No. 14 (Figure No. 9) to the gearbox using a 1/2x1 1/2 square key. Insert the drive shaft, Key No. 7 (Figure No. 8) into the shear half coupling and attach with a 3/8x2 1/2 roll pin. Adjust the gearbox clamp band up or down the tube to maintain alignment of the upper sprocket with the lower sprocket. Attach the chain, Key No. 6 (Figure No. 7).

For electric drive, assemble the motor mount details as per Figure No. 9. Be sure to maintain the 13" dimension between the gearbox mount and the motor mount as shown.

Assemble the drive shaft shield, Key No. 5 (Figure No. 8) or Key No. 12 (Figure No. 9) to the shield mounting bracket, Key No. 13 (Figure No. 8) or Key No. 19 (Figure 9) on the gearbox. Attach the other end of the drive shaft cover to the mounting bracket, Key No. 16 (Figure No. 7) on the intake housing.

Attach the brackets to the drive shaft shield, Key No. 15 (Figure No. 7) using 1/2x1/2 self tapping screws, Key No. 26.

Attach the driveshaft guard, Key No. 14 (Figure No. 7) to the drive shaft shield, Key No. 15 using 1/2x1/2 self tapping screws, Key No. 26.

Figure #7
Intake Details

Figure #7 Key Nos.	Part No.
1.	25090
2.	25145
3.	25144
4.	26403
5.	25091
6.	A25118
7.	A20654
8.	A27096
9.	1177
10.	1427
11.	A25143
12.	A27094
13.	27093
14.	27107
15.	A27105
16.	A27099
17.	1404
18.	25150
19.	A27090
20.	A27092
21.	A27097
22.	27143
23.	1201
24.	15278
25.	1280
26.	1319
27.	1274
28.	1154
29.	1271
30.	1294

Description
Drive Housing
1/2" Vented Pipe Plug
1/2" Pipe Plug
Hitch
Gasket
Roller Chain
Sprocket 25T
Sprocket 13T
HHCS 3/8-16x1 1/2
HHCS 1/2-13x3 GR5
Flange Bearing 1 1/2
Intake Housing W/A
Driveshaft
Driveshaft Guard
Driveshaft Shield W/Decals
Bracket
HHCS 3/8-16x1 1/2 GR5
Intake Shaft
Shear Half Coupling 1 1/2
Coupling Chain
Half Coupling 1 1/2
Spiral Pin 3/8x2 1/2
HHCS 3/8-24x2 GR5
Woodruff Key
Hex Locknut 3/8-24
Self Tap Screw 1/2x1 1/2
Hex Locknut 3/8-16
HHCS 1/2-20x1
Hex Locknut 1/2-20
Flatwasher 3/8

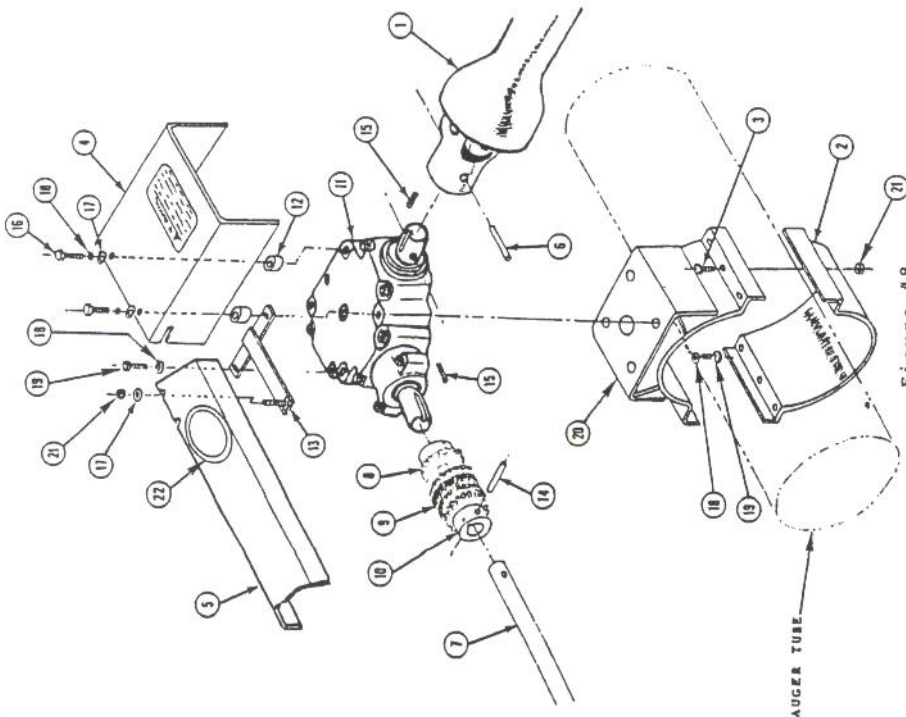


Figure #8
PTO Drive Details

Figure #8 Key Nos.	Part No.	Description
1	A27849	PTO Shaft
2	28107	Clamp Band Half
3	1177	HHCS 3/8-16x1 1/2
4	A27935	PTO Shield W/Decal
5	A27105	Shield W/Decal
6	26649	Spring Pin 5/16x2
7	27093	Drive Shaft
8	A27091	Half Coupling
9	A27092	Coupling Chain
10	A27090	Shear Half Coupling
11	A25189	Gearbox
12	26728	Spacer
13	A27097	Bracket
14	27143	Roll Pin 3/8x2 1/2
15	19179	Square Key 1/2x1 1/2
16	1180	HHCS 3/8-16x2 1/2
17	1294	Flatwasher 3/8"
18	1302	Lockwasher 3/8"
19	1175	HHCS 3/8-16x1
20	A28190	Gear Box Mount W/A
21	1274	Hex Locknut 3/8-16
22	26517	Button Plug

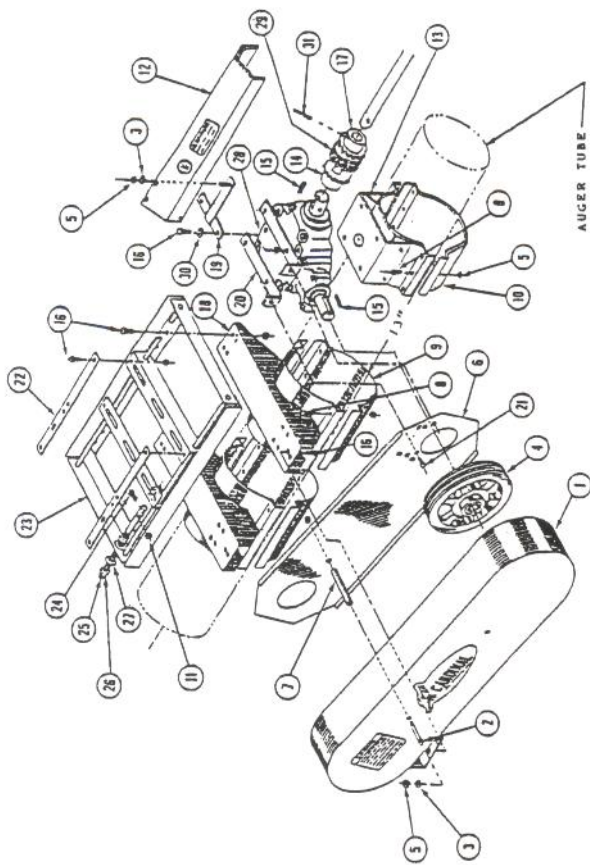
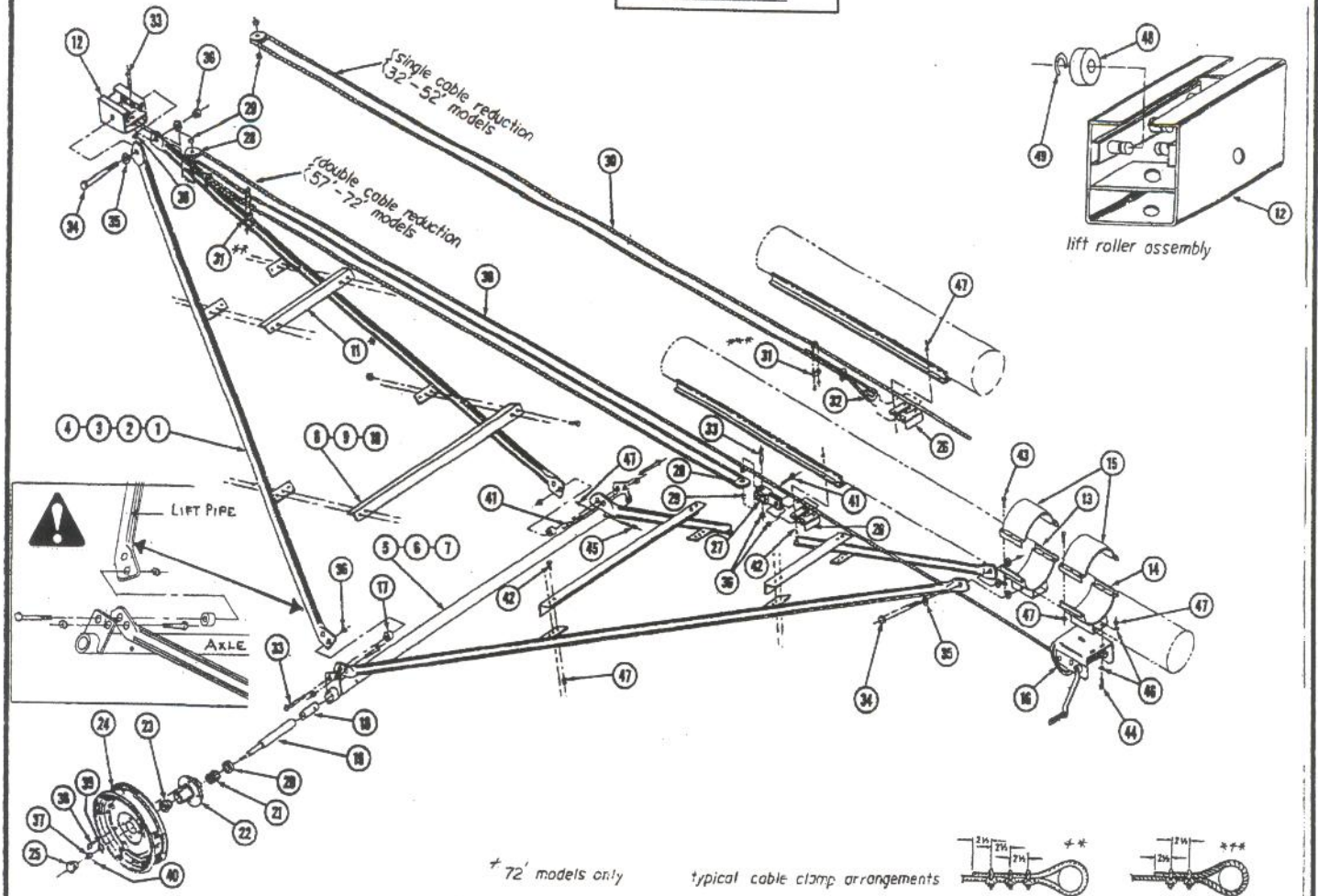


Figure #9
Motor Mount Details

Figure #9 Key Nos.	Part No.	Description
1	A25133	Guard Cover W/Decals
2	1369	HHCS 5/16-18x5
3	1294	Flatwasher 3/8"
4	A26413	V-Belt Pulley
5	1774	Hex Locknut 3/8-16
6	25125	Guard Backplate
7	25128	Cover Stand-off
8	1177	HHCS 3/8-16x1 1/2
9	A25137	Clamp Band
10	28107	Clamp Band
11	1273	Hex Locknut 5/16-18
12	A27105	Drive Shaft Shield W/Decals
13	A28190	Gear Box Mount
14	A27091	Half Coupling
15	19179	Square Key 1/2x1 1/2
16	1175	HHCS 3/8-16x1
17	A27090	Shear Half Coupling
18	A25078	Support Bracket
19	A27097	Bracket
20	26752	Guard Support
21	1159	5/16-18x1 HHCS
22	20766	Spacer Strap
23	A20758	Motor Base W/A
24	1202	HHCS 5/16-18x1 3/4
25	20771	Adjusting Rod
26	1278	Hex Locknut 3/4-10
27	1297	Flatwasher 3/4"
28	A25189	Gearbox
29	A27092	Coupling Chain
30	1302	Lockwasher 3/8"
31	27143	Roll Pin 3/8x2 1/2

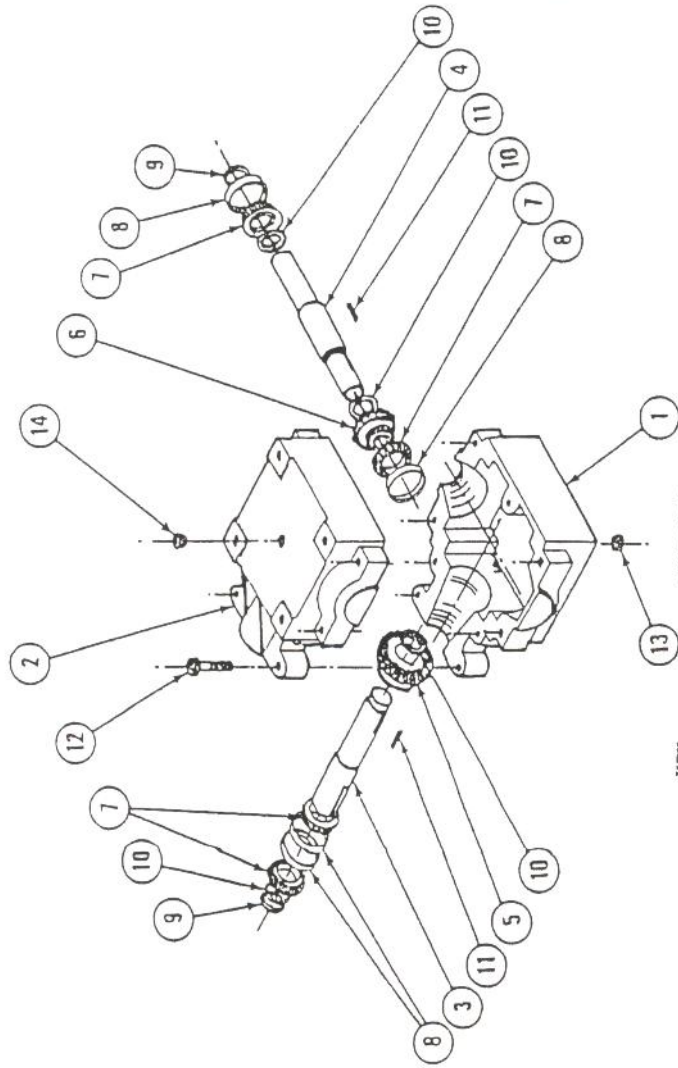
FIGURE-6



- 1. A28542 2 3/8" O.D. x 9'2 7/8" CHASSIS PIPE
- 2. A28543 2 3/8" O.D. x 14'8 1/2" CHASSIS PIPE
- 3. A28547 2 7/8" O.D. x 18'5 1/2" CHASSIS PIPE
- 4. A28544 2 7/8" O.D. x 21' CHASSIS PIPE
- 5. A28476 65.25" AXLE PIPE (32' AUGER)
- 6. A28477 83.25" AXLE PIPE (47' thru 62' AUGERS)
- 7. A28478 94.75" AXLE PIPE (72' AUGER)
- 8. 28540 35 1/2" CHASSIS ANGLE (32' AUGER)
- 9. 28541 47 1/2" CHASSIS ANGLE (47' thru 62' AUGERS)
- 10. 28539 59 1/2" CHASSIS ANGLE (72' AUGER)
- 11. 28538 28 1/8" CHASSIS ANGLE (72' AUGER)
- 12. A28588 LIFT ROLLER FRAME -W/A
- 13. A28369 CHASSIS HOOKUP-W/A
- 14. A28033 WINCH MOUNT-W/A
- 15. 28107 3 BOLT- HALF BAND
- 16. A20532 1000 # WINCH- (32' AUGER)
- A20385 1500 # WINCH- (47' & 52' AUGERS)
- A28057 2500 # WINCH- (57' thru 72' AUGERS)
- 17. 28484 FRAME SPACER
- 18. 28483 AXLE TUBE SLEEVE
- 19. 28513 AXLE SPINDLE
- 20. 28511 SEAL
- 21. 15128 WHEEL BEARING-INNER CONE
- 22. 15184 WHEEL HUB
- 23. 15127 WHEEL BEARING-OUTER CONE
- 24. 15124 15" 4 BOLT RIM
- 25. 28509 CAP

- 26. A28395 STOP W/A
- 27. A26033 PULLEY BRACKET
- 28. 15144 CABLE SHEAVE
- 29. 20660 SPACER
- 30. A28627 1/4" x 36' WINCH CABLE (32' AUGER)
- A28594 1/4" x 52' WINCH CABLE (47' & 52' AUGER)
- A28636 5/16" x 88' WINCH CABLE (57' & 62' AUGER)
- A28639 5/16" x 97' WINCH CABLE (72' AUGER)
- 31. 15188 1/4" CABLE CLAMP
- 15266 5/16" CABLE CLAMP
- 32. 19480 5/16" CABLE THIMBLE
- 33. 1192 HHCS 3/4"-10x3"
- 34. 1508 HHCS 3/4"-10x7"
- 35. 1297 3/4" FLATWASHER
- 36. 1278 3/4" LOCKNUT
- 37. 28507 SPINDLE NUT
- 38. 28510 WHEEL BOLT
- 39. 28506 SPINDLE WASHER
- 40. 28508 SPINDLE COTTER PIN
- 41. 1191 HHCS 3/4"-10x2"
- 42. 1187 HHCS 1/2"-13x1"
- 43. 1404 HHCS 3/8"-16x1 1/2" GR.5
- 44. 1175 HHCS 3/8"-16x1"
- 45. 1514 HHCS 3/8"-16x2 3/4" GR.5
- 46. 1294 3/8" FLATWASHER
- 47. 1274 3/8"-16 LOCKNUT
- 48. 27689 PLASTIC ROLLER
- 49. 27690 RETAINING RING

PARTS LIST FOR SERIES 251 GEAR BOX
(P/N A25189, Superior P/N 251AEF-066)

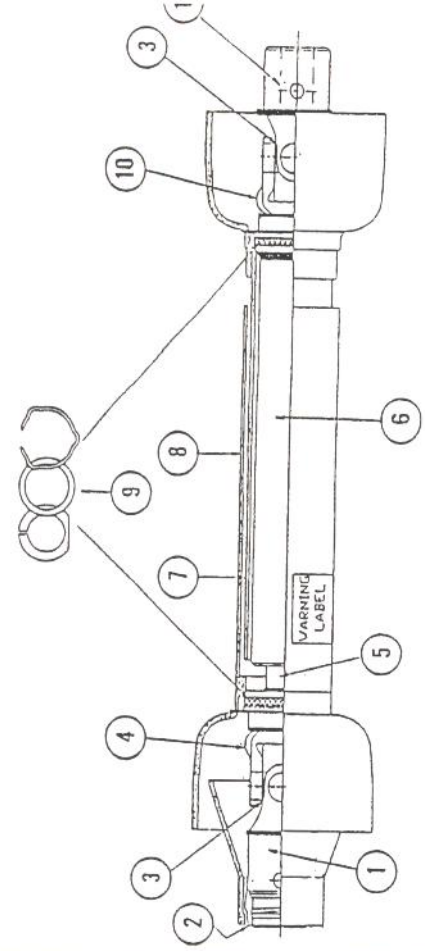


KEY NO.	PART NO.	SUPERIOR PART NO.	DESCRIPTION
1	27707	210001	GEARCASE (THREADED HOLES)
2	27708	210002	GEARCASE (THROUGH HOLES)
3	26223	200100-24	PINION SHAFT
4	26224	200110-113	CROSS SHAFT
5	26227	251016	PINION GEAR
6	26226	251024	CROSS SHAFT GEAR
7	23198	244643	BEARING CONE
8	23197	244610	BEARING CUP
9	26225	209843	SEAL
10	27030	203293	RETAINING RING
11	27029	200200	KEY
12	27709	203825	2 1/2 LG. BOLT
13	27711	200300	PIPE PLUG
14	27712	20030V	VENTED PLUG

USE EP90 GEAR OIL

CHANGING LUBRICANT — After the first 100 hours of operation, drain out initial oil, preferably while warm. Flush out the case with an approved flushing oil and refill. Thereafter oil should be changed every 2500 operating hours or every 6 months — whichever occurs first. If unit is operating in extremely dirty or high or low temperature environments, change oil more often.

REPAIR PARTS LIST
CARDINAL PART NO. A27849 (183-63) (G&G)



KEY NO.	PART NO.	DESCRIPTION
1	27852	Snap Hitch Yoke
2	27853	Uni-Shield Repair Kit
3	A25292	Repair Kit Complete
4	25293	Yoke 1x1-1/8 Rect.
5	25294	1x1-1/8 Rect. Shafting x 5'
6	25295	1x1-1/8 Rect. Tubing x 5'
7	27854	Inner Plastic Shield
8	27855	Outer Plastic Shield
9	A25298	Nylon Bearing, Thrust Washer & Snap Ring
10	25299	Yoke 1-9/32 x 1-13/32 Rect.
11	25301	Implement Yoke 1" Bore
	A27850	Tractor Half Assembly
	A27851	Implement Half Assembly