



AC-1820A

Owner/ Operator Manual & Parts Reference Guide

Do not operate or work on this spreader without first reading and understanding this manual.

Keep this manual with the spreader at all times.

9/2018

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CAUTION

Keep all guards in place.

Before serving, disengage PTO and wait for all moving parts to stop.

Do not use spinners disc for step.

Keep all loose clothing away from shafts and spinners.

Keep hands and feet away from conveyor when in operation.

PREFACE

This Owner/ Operator Manual & Parts Reference Guide is to assist in the correct operation and maintenance of this spreader by providing information for installation, operation, service and maintenance. Please read this manual thoroughly before proceeding to use the equipment.

The economic life of any piece of equipment is directly related to the care and maintenance it receives. Use this manual as a reference in seeing that this unit receives proper care and is correctly operated.

The use of genuine Warren parts is recommended for best equipment service as well as insuring that our warranty policy is not voided.

If additional information is required or should you desire to have a qualified service facility work on this spreader, contact your Warren Distributor.

ORDERING REPAIR PARTS

Contact the authorized dealer who services your area. If unknown contact Warren, Inc.

In ordering parts, be sure to have spreader model and serial number. Also have description and part number of parts required. Be able to specify the method of shipping if parts are not to be picked up such as UPS, Truck Line, Air Freight, or Parcel Post. If parts are ordered by phone, be sure to confirm in writing to insure an understanding of what you need.

Inspect parts shipments immediately and notify delivering carrier as well as dealer damage or shortage. If carrier loses or damages parts you should file a claim with them – not the dealer. The dealer responsibility for shipment ceases when goods are turned over to the carrier.

When possible, it is good to anticipate parts requirements by having a good preventive maintenance program having some parts on hand to take of minor requirements could be a great convenience and could save valuable time.

Warren, Inc reserves the right to make changes in our equipment at any time without any obligation whatsoever to change units already in the field.

WARRANTY

Spreaders

WARRANTY. WARREN, INC., (hereinafter called Warren) warrants each new spreader and item of hydraulic equipment manufactured by it to be free from defects in material and workmanship under normal use and service with loads not exceeding the vehicle manufacturer's rated capacity for a period of 12 months after delivery to the original purchaser direct or by and authorized distributor.

Exclusions from Warranty: This Warranty shall not apply to:

- (1) components manufactured by persons other than Warren (such as hydraulics pumps, motors, valve, bearings, etc.) beyond warranty, if any, which may be made by such manufacturer,
- (2) any unit which shall have been subject to misuse, negligence, alteration or accident or which shall have been repaired by anyone other than Warren or its authorized service distributor in any way so as in the judgment of Warren to affect adversely its performance or reliability, or
- (3) normal maintenance services.

Purchaser's Exclusive Remedies. Warren's sole obligation under this warranty will be to repair or replace. At its option, any warranted unit or part as described above which shall be returned to Warren's factory or authorized service distributor and which examination shall disclose to Warren's satisfaction to have been defective. Freight or other transportation costs to and from the factory or authorized service distributor must be paid by the purchaser. Warren will not assume any charges for repairs made by anyone other than Warren or its authorized service distributor.

Exclusion of other Warranties. No other warranty is made by Warren and in particular Warren makes NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Warren neither assumes nor authorizes any person to assume for it any liability other than described herein.

Limitations of Actions. Without extending the period of warranty stated above, any action for breach of warranty must be commenced within one year of the breached claimed or forever barred.

Limitations of Damages. The purchaser's remedy stated above shall be exclusive for any claims against Warren whether based on contract, negligence, tort, or any other theory. In no event shall Warren be liable for any consequential damages which may result from any defect or failure of a unit or part.

Warren, Inc.

707 North Fir Ave., P.O. Box 1719, Collins MS 39428

Phone: (601) 765-4554 Fax: (601) 765-4554

GENERAL DESCRIPTION

The units required under these specifications shall be mounted to the side of the dump body, below floor level and beneath the tailgate. During the maintenance operations it shall permit the dumping of materials to the left or right without interfering with the operation of the tailgate. The conveyor shall be capable of being controlled by the truck hydraulic system to vary the amount of material being conveyed to the roadway surface. Bidders must submit with bids complete detailed specifications on the units they propose to furnish. Bids with exceptions to these specifications shall be considered unresponsive. Shall be capable of right or left discharge

Has 18" belt over chain D667X , 96" wide riveted, with 3/8"x1-1/4" crossbars, H.D. hot asphalt type to withstand heat of 350 degrees Fahrenheit. Reversible with hydraulic hoses. Discharge gates to be rack & pinion and shall be located on left and right sides of spreader. Feed gate openings 16-1/4"x13" minimum. 6 tooth drive and idler sprockets flame cut steel plate, keyed and timed with 1-1/2" shafts. 1/4" wiper belting seals off front and rear end panels to conveyor.

Hydraulic reservoir and filter, hydraulic quick disconnect couplings, hydraulic hose and fitting for truck and spreader, hydraulic in cab control valve and hydraulic pump. Pin mount type using four pins for quick disconnect.

Optional Attachments:

Spinner attachment for spreading.

HYDRAULIC CROSS CONVEYOR

MOUNTING INSTRUCTIONS FOR AC-1820A

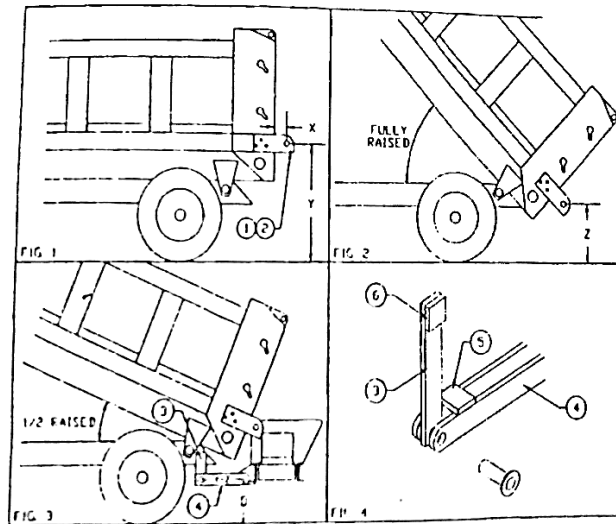
STEP 1. Place one inside upper mounting bracket, (Fig. 1, Item 1, Part No. 200536-19), on side of the dump box rub rail with the bottom edge of the bracket even with the bottom edge of the rub rail. Measure 2 1/2" from the back of the dump box to the center of the 1" hole in bracket, X, and clamp bracket in place. Drill three 1/2" holes in the dump box to match the holes in the bracket. Repeat this process for the other side of the dump box. Using the 1/2" x2 1/2* bolts in the shipping kit, insert bolt from the inside of the rub rail outward. Attach the bracket to the dump box with a lock washer and nut. Measure the outside distance between both brackets, keeping this distance approximately 1/4" greater than the inside distance between the end panels of the cross conveyor. The brackets may need to be spaced out evenly on both sides to attain the proper distance. Before tightening down the inside brackets, place a flat washer on each bolt and attach the outside bracket, (Fig. 1, Item 2, Part No. 200536-18), with a lock washer and nut. Insert the 1" pin x 2 1/4" long, Part No. 220343- 05, through the hole in the brackets and tighten the inside nut, then the outside nut. Measure the distance from the center of the pin to the ground, Y.

STEP 2. Raise the dump box to the top position and measure the distance from the center of the pin to the ground, (Fig. 2, Z). Determine the angle of the dump box that is half-way between

fully raised and fully lowered. Lower the dump box to this degree and mount the spreader to the truck. Be sure the spreader is level and measure the distance between the lower mounting hole and the ground, (Fig. 3, D).

STEP 3. In the shipping kit there are 4 brackets approximately 24" long with a 1" dia. hole in each, use the difference in the Y measurement and the Z measurement, (Fig. 3, Y-Z), to locate the distance for drilling the second 1" dia. hole from the existing hole. If more than an inch of the bracket is left beyond the hole, cut the extra material away to prevent any type of interference.

STEP 4. Using two of the four modified brackets, (Fig.3, Item 4, Part No. 200536-21). place one on each side of the lower mounting plate on the front of the spreader and insert a 1" pin x 3" long, Part No. 220343-06, through the hole securing it with a hitch pin, Part No. FM-00518. Repeat this process for the other lower mounting plate.



CAUTION: END GATE MAY CAUSE SEVERE DAMAGE WHEN RAISING DUMP BOX WITH MATERIAL IN SPREADER.

STEP 5. There are 2 brackets in the shipping kit approximately 15" long with a 1" dia. hole in each, Part No. 200536-20. Place one bracket against the truck frame and align it between the two brackets on the lower mounting plate of the spreader. Spacers of some type may need to be used to line up the brackets properly. Refer to Fig. 3, Item 3, and Fig. 4 for further details. Insert a 1" pin x 3" long through the hole and secure it with a hitch pin.

STEP 6. Move the shorter bracket along the frame until the distance between the hole you drilled and the ground is the same as the measurement "D" in Fig. 3. Tack weld the bracket to the truck frame and repeat this process for the other side. If you have the spreader leveled on removable stands, clear all objects from underneath the spreader. Check to see if the spreader is going to remain level by raising and lowering the dump box. If the spreader remains adequately level, attach the brackets more securely (solid weld or bolts). If the spreader does not remain adequately level, then break loose the tacks and raise or lower the bracket to correct for the direction in which the spreader is unlevel. With the dump box at the fully raised position, the

spreader may be unlevel, but this will not cause any damage since there is little material in the dump box at this position

STEP 7. Completely lower the dump box, then raise it until there is just over 2" of space between the front of the dump box and the subframe. Weld stop block, (Fig. 4, Item 5, Part No. 200536-22) securely to horizontal leveling arms. The block should be in contact with the vertical leveling bracket when the dump box is completely lowered. This will prevent the spreader from tilting, which could cause serious damage!

STEP8. Connect all hydraulic hoses and fittings, then check conveyor direction. If rotation is opposite of desired direction, switch hose connections.

STEP 9. Attach rubber Hap in shipping kit to the back edge of the dump box. The flap should hang inside of the spreader when the dump box is raised.

STEP 10. If asphalt is to be conveyed, spray the rubber flap and conveyor belt lightly with fuel oil. Do not spray oil on the drive roller lagging!

AC-1820A SPECIFICATIONS

MOTOR: The fluid pressure into the conveyor motor should be approximately 1500 psi. The recommended flow for the conveyor motor is 20 gpm.

BELT: The conveyor belt supplied is heat and petroleum resistant. It can withstand temperatures of up to 350° F. The belt is also equipped with a molded guide underneath to align the conveyor belt with the grooves in the pulleys. If the belt tends to travel toward one side, then the adjustment bolt on that side may need to be tightened. The belt tension should be checked regularly.

PRECAUTIONS BEFORE SPREADER OPERATION

Material should be loaded into the spreader by raising the dump box at intervals. Filling the spreader continuously could cause overflow and *damage the* conveyor motor. Spill guards are provided in the shipping kit to prevent material from spilling over the end panels of the spreader. These guards may need to be modified for clearance with the feed gate opening. When operation of the spreader is complete, we do recommend that you run the conveyor until all of the material is removed. This will prevent accumulation in undesired areas. If material builds-up between the tailgate and the spreader, the tailgate could apply severe pressure on the spreader causing some damage.

WARNING!

Use extreme caution around moving parts. Keep hands and loose clothing away from spreader while in operation.

LUBRICATION CHART

Description	Service Location	No. of Points	Method of Lubrication	Daily	Weekly	Monthly	Semi Annual
Gear Boxes Conveyor	Plug side of case	1	Lube Oil				X
Universal Joints PTO Drive Line to Hyd. Pump	Beneath Truck	3	Grease Gun		X		
Bearings Conveyor Drive	Both side of conveyor drive shaft at rear	2	Grease Gun		X		
Conveyor Idler	Both side of conveyor idler shaft at front	2	Grease Gun		X		
Chain Conveyor	Chain 2 strand	2	Spray Oil	X			
Feed Gate Jack Tube	Rear of tube	1	Grease Gun			X	
Gears	Top of Jack	1	Hand Grease				X
Spinner	Bearing on drive shaft	1	Grease Gun		X		

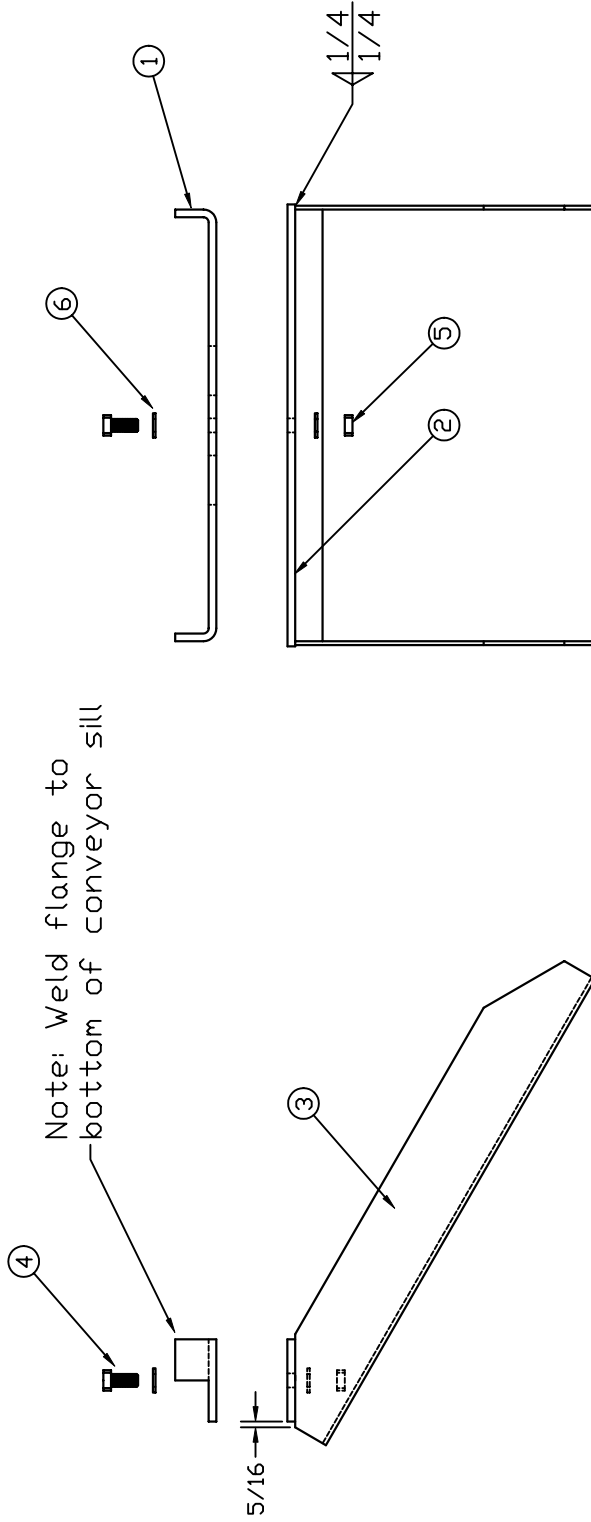
Lubrication Recommended:

- Gearbox - SAE 90 EP Gear Lube non-corrosive MIL - L2105B Multi-Purpose
- Grease Gun - Ball and Roller Bearings Lithium Base Grease - conforming to NLG1 number 2 consistency - Waterproof
- Spray Oil - for chain - make up of 75% #1 or #2 diesel fuel, 25% SAE 10W-40

PARTS LIST AND ILLUSTRATIONS

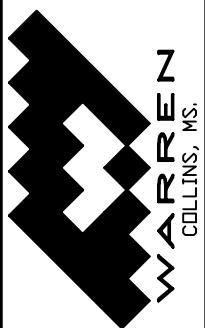
Feed Gate.....	10-11
Spreader Assembly.....	12-14

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	200319-12	Top Mnt. Bar
2	1	200319-13	Lower Mnt. Bar
3	1	200544-06	Windrow Chute
4	1	FF-50208	Capscrew 5/8"x 1-3/4" GR8
5	1	FF-50204	Nut - Stover Lock 5/8"
6	2	FF-50168	Washer Fl. 5/8"



UNLESS OTHERWISE SPECIFIED, ALL WELDS TO BE CONTINUOUS, SIZE OF WELD TO BE AT LEAST THE THICKNESS OF THE THINNER OF THE ADJACENT METALS.

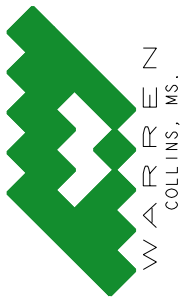
OP. #	OPERATION	MACH #	QTY.	CLK #	DATE	W/O#	REQ'D.
							SCALE 1/10
							DRAWN JS
							CHECKED
							DATE 10-2-90
							DATE
							FOR AC1820
							NUMBER 220132-05



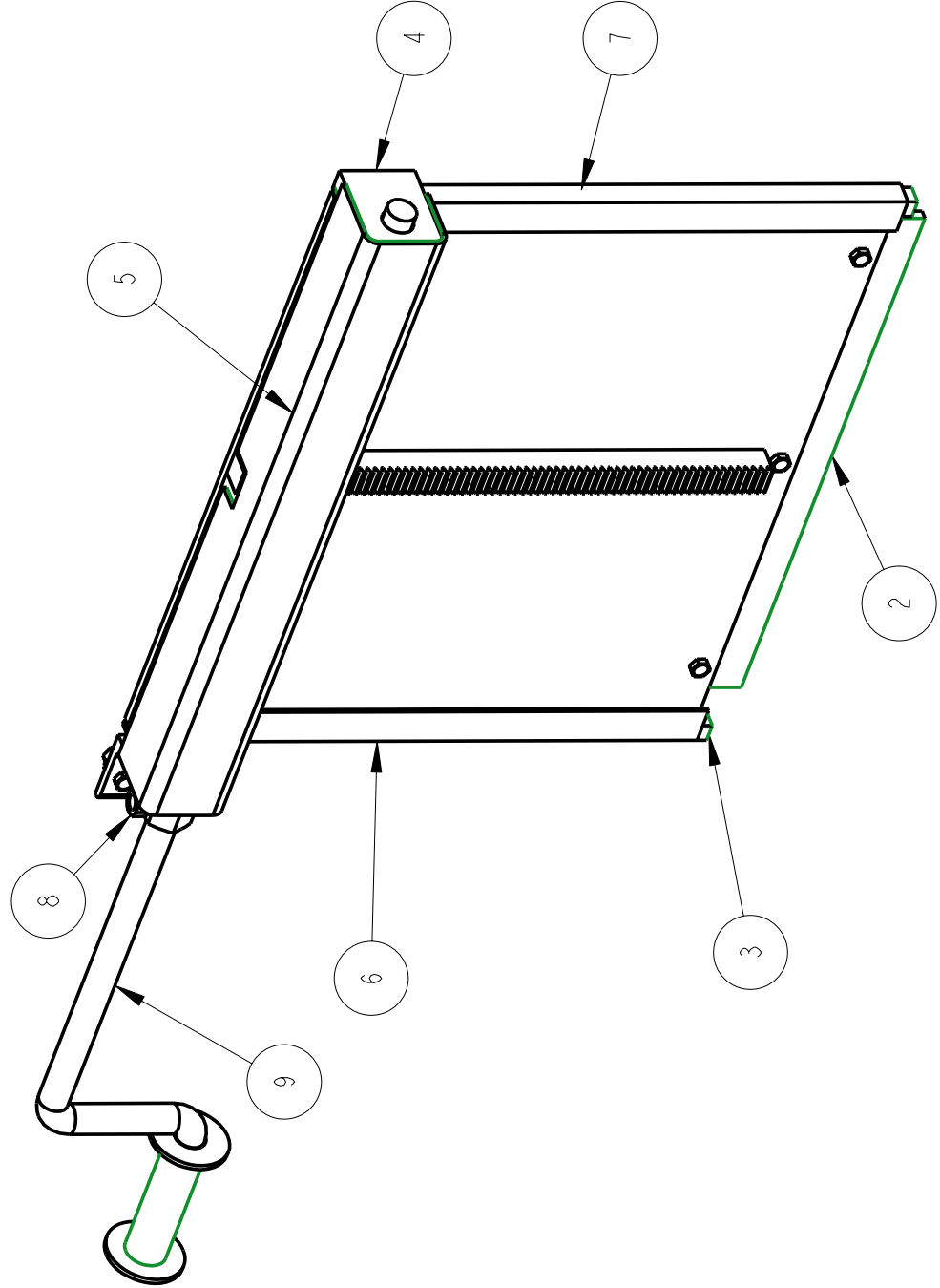
Windrow Chute Weldment

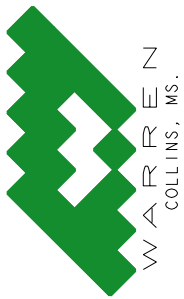
MATERIAL

TOLERANCE-UNLESS OTHERWISE SPECIFIED.
 DECIMAL ± FRACTIONAL ± ANGULAR ±

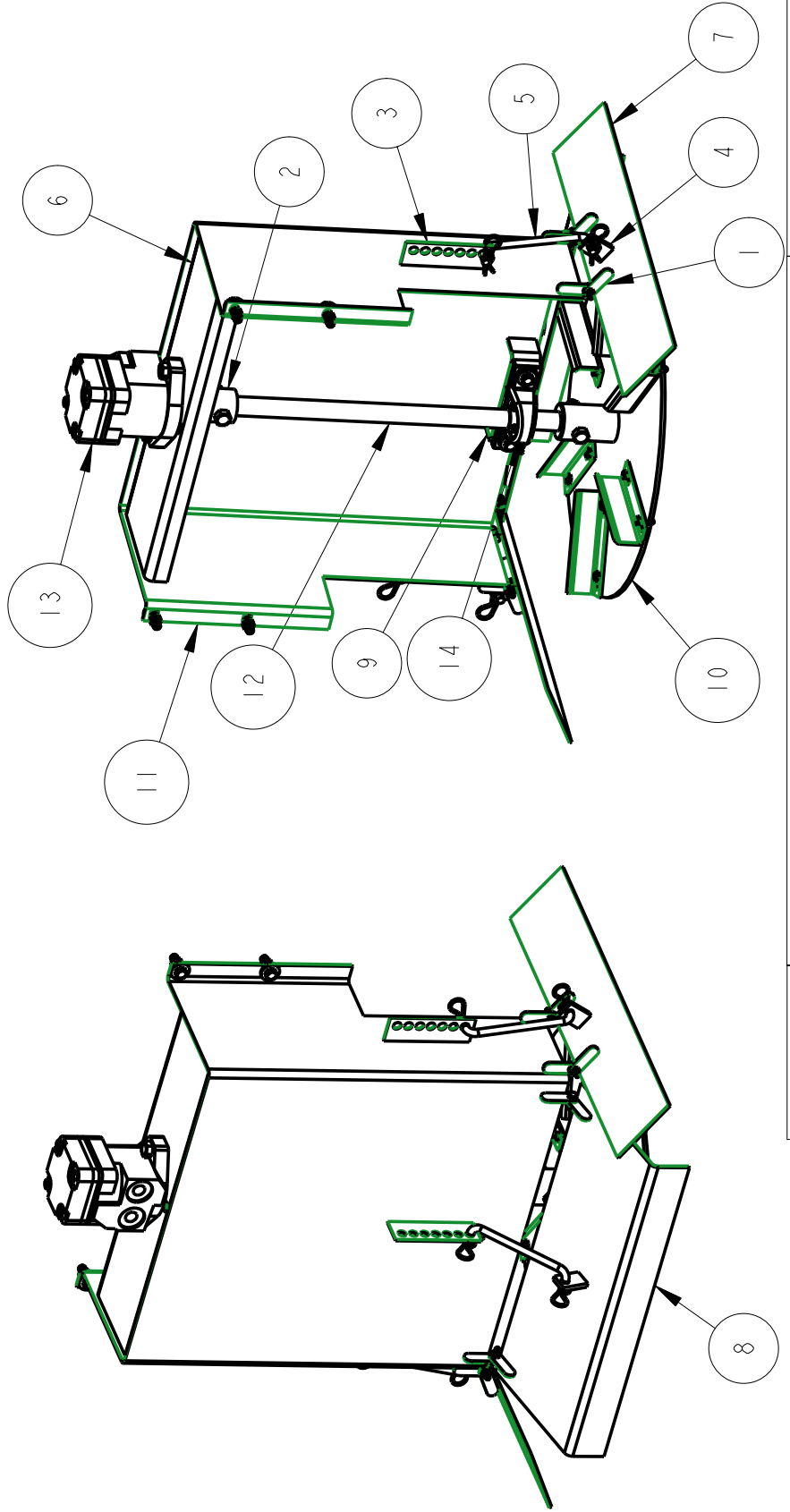


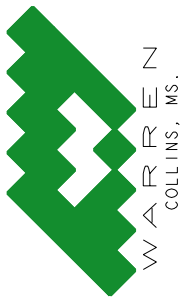
ITEM	QTY.	PART NO.	WARREN PART NO.	DESCRIPTION	WEIGHT
1	1	200474-08	300-30434	WIPER BELT BACK STRIP	0.602
2	1	200474-09	300-30434	FEEDGATE WIPER BELT	0.344
3	2	200477-08	300-30437	FEEDGATE STOP	0.018
4	1	200477-09	300-30438	FRONT HANDLE HINGE	0.632
5	1	200477-12	300-30440	FEEDGATE HANDLE COVER	2.967
6	2	200477-19	300-30441	GUIDE RAIL - AC-1820	0.805
7	1	220034-17	300-30497	FEEDGATE WELDMENT - AC-1820	21.190
8	1	220166-02-R	300-30523	GATE HANDLE HINGE WELDMENT - RH	0.577
9	1	220351-04	300-30533	FEEDGATE HANDLE ASSEMBLY	5.991



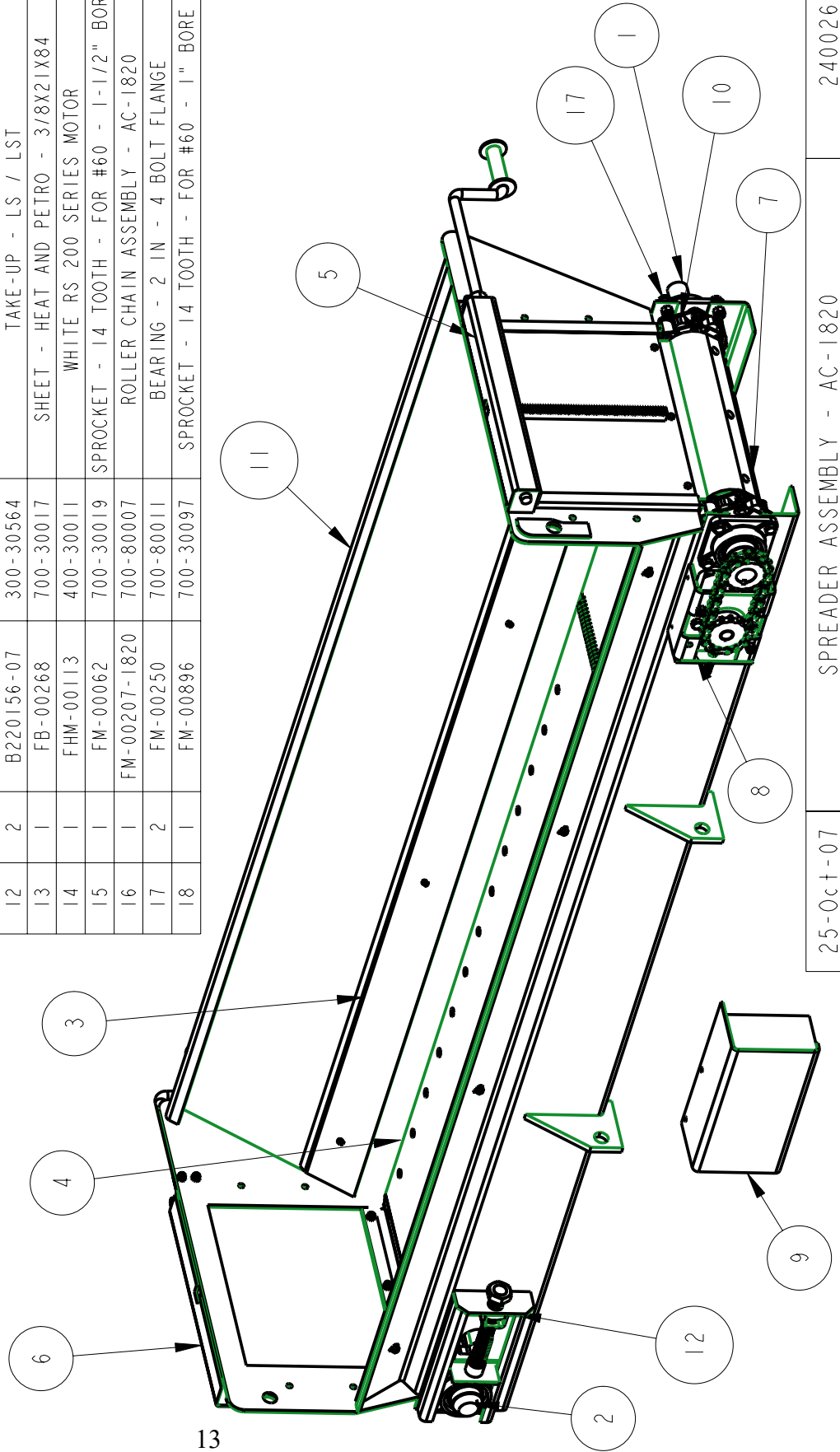


ITEM	QTY.	PART NO.	WARREN PART NO.	DESCRIPTION	WEIGHT
1	12	200159-03	300-30181	DEFLECTOR HINGE	0.042
2	1	200165-08	TBD	SHAFT COUPLING - 1 IN. MOTOR SHAFT	4.669
3	3	200253-01	300-30192	DEFLECTOR ROD BRACKET - FRT, REAR & SIDES	0.161
4	3	200254-01	300-30193	DEFLECTOR ROD MOUNT - SIDE	0.096
5	3	200264-01	300-30194	ROD - FAN ASSEMBLY DEFLECTOR	0.239
6	1	200808-02	TBD	SPINNER MOTOR MOUNT BRACKET	23.996
7	2	200808-03	TBD	BAFFLE - FRONT AND REAR	10.760
8	1	200808-04	TBD	SIDE BAFFLE - AC-1820 FAN ASSEMBLY	23.524
9	1	200808-05	TBD	BEARING MOUNT BRACKET	2.134
10	1	220123-01	300-30033	18" - SPINNER DISK WELDMENT	18.469
11	1	A200808-11	TBD	MAIN BODY	87.751
12	1	A200808-12	TBD	SPINNER SHAFT	16.398
13	1	FHM-00114	400-30013	WHITE RS 200 SERIES MOTOR	15.792
14	1	FM-00248	700-30027	PILLOW BLOCK BEARING - 1IN.	2.230

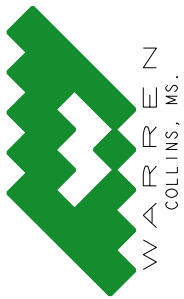




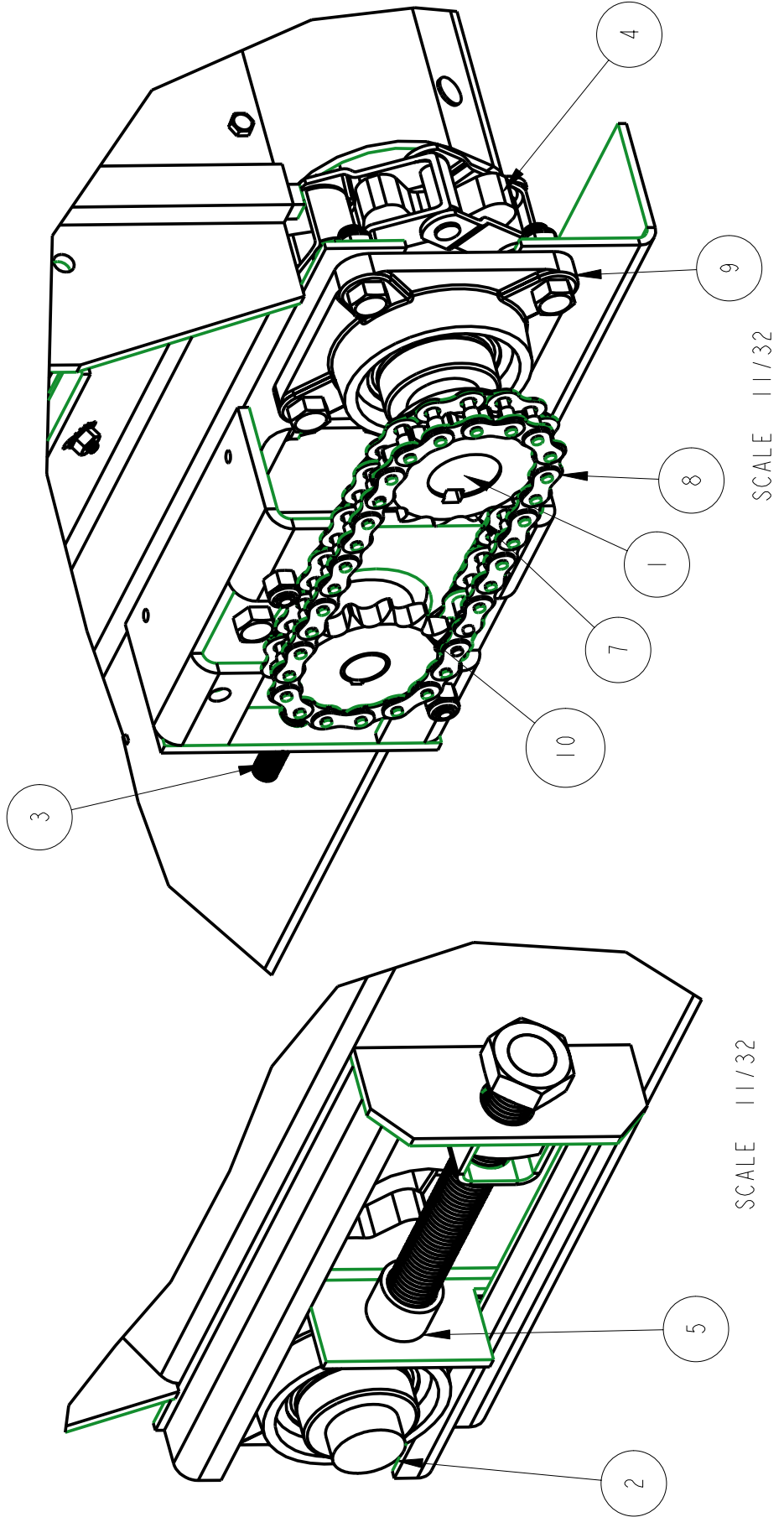
ITEM	QTY.	PART NO.	WARREN NO.	DESCRIPTION	WEIGHT
1	1	200469-14	300-30430	SHAFT - DRIVE - AC-1820	14.234
2	1	200469-15	300-30431	SHAFT - DRIVE - AC-1820	13.531
3	2	200474-04	300-30432	BACKING STRIP-CONVEYOR BELT SHIELD	17.530
4	2	200474-05	300-30433	CONVEYOR SHIELD BELTING	6.257
5	1	220034-18-L	300-30498	FEEDGATE ASSEMBLY - AC-1820	34.110
6	1	220034-18-R	300-30498	FEEDGATE ASSEMBLY - AC-1820	34.110
7	1	220044-85	300-30500	PINTLE CHAIN - AC-1820	191.176
8	1	220095-03	300-30503	CHAIN ADJUSTMENT ASSEMBLY	25.195
9	1	220286-07	300-30526	CHAIN GUARD - AC-1820	9.985
10	4	220337-01	300-30529	SPROCKET ASSEMBLY - 6T - 1 1/2 BORE	4.686
11	1	220387-07	300-30534	BASIC HOPPER WELDMENT	302.904
12	2	B220156-07	300-30564	TAKE-UP - LS / LST	15.821
13	1	FB-00268	700-30017	SHEET - HEAT AND PETRO - 3/8X21X84	38.161
14	1	FHM-00113	400-30011	WHITE RS 200 SERIES MOTOR	21.104
15	1	FM-00062	700-30019	SPROCKET - 14 TOOTH - FOR #60 - 1-1/2" BORE	1.532
16	1	FM-00207-1820	700-80007	ROLLER CHAIN ASSEMBLY - AC-1820	1.097
17	2	FM-00250	700-80011	BEARING - 2 IN - 4 BOLT FLANGE	5.720
18	1	FM-00896	700-30097	SPROCKET - 14 TOOTH - FOR #60 - 1" BORE	1.892



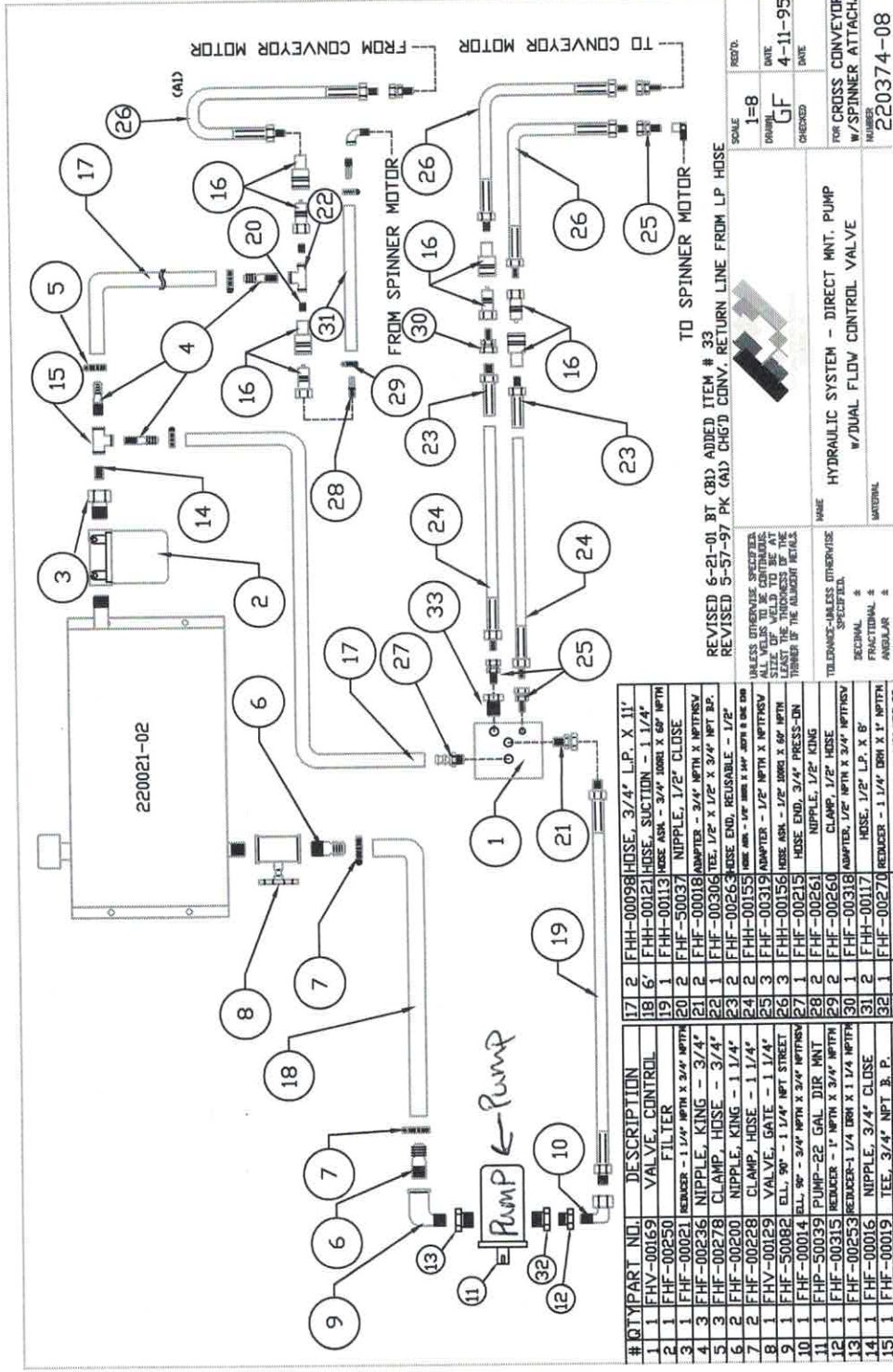
13



ITEM	QTY.	PART NO.	WARREN PART NO.	DESCRIPTION	WEIGHT
1	1	200469-14	300-30430	SHAFT - DRIVE - AC-1820	14.234
2	1	200469-15	300-30431	SHAFT - DRIVE - AC-1820	13.531
3	1	220095-03	300-30503	CHAIN ADJUSTMENT ASSEMBLY	25.195
4	4	220337-01	300-30529	SPROCKET ASSEMBLY - 6T - 1 1/2 BORE	4.686
5	2	B220156-07	300-30564	TAKE-UP - LS / LST	15.821
6	1	FHM-00113	400-30011	WHITE RS 200 SERIES MOTOR	21.104
7	1	FM-00062	700-30019	SPROCKET - 14 TOOTH - FOR #60 - 1-1/2" BORE	1.532
8	1	FM-00207-1820	700-80007	ROLLER CHAIN ASSEMBLY - AC-1820	1.097
9	2	FM-00250	700-80011	BEARING - 2 IN - 4 BOLT FLANGE	5.720
10	1	FM-00896	700-30097	SPROCKET - 14 TOOTH - FOR #60 - 1" BORE	1.892



AC 1820 Hydraulic System



REVISED 6-21-01 BT (B) ADDED ITEM # 33
 REVISED 5-57-97 PK (A) CHG'D CONV. RETURN LINE FROM LP HOSE

SCALE 1=8
 DRAWN GF
 CHECKED DATE
 RECD: 4-11-95

HYDRAULIC SYSTEM - DIRECT MNT. PUMP
 W/SPINNER ATTACH.

220374-08

#	QTY	PART NO.	DESCRIPTION
1	1	FHV-00169	VALVE, CONTROL
2	1	FHF-00250	FILTER
3	1	FHF-00021	REDUCER - 1 1/4" NPT X 3/4" NPT
4	3	FHF-00236	NIPPLE, KING - 3/4"
5	3	FHF-00278	CLAMP, HOSE - 3/4"
6	2	FHF-00200	NIPPLE, KING - 1 1/4"
7	2	FHF-00228	CLAMP, HOSE - 1 1/4"
8	1	FHV-00129	VALVE, GATE - 1 1/4"
9	1	FHF-50082	ELL, 90° - 1 1/4" NPT STREET
10	1	FHF-00014	ELL, 90° - 3/4" NPT X 3/4" NPT
11	1	FHP-50039	PUMP-22 GAL DIR MNT
12	1	FHF-00315	REDUCER - 1" NPT X 3/4" NPT
13	1	FHF-00253	REDUCER-1 1/4 DRN X 1 1/4 NPT
14	1	FHF-00016	NIPPLE, 3/4" CLAMP
15	1	FHF-00019	TEE, 3/4" NPT B. P.
16	4	FHF-00256	COUPLER, QUICK - 1/2"
17	2	FHH-00098	HOSE, 3/4" L.P. X 11'
18	6'	FHH-00121	HOSE, SUCTION - 1 1/4"
19	1	FHH-00113	HOSE, ASK - 3/4" DRN X 60' NPT
20	2	FHF-50037	NIPPLE, 1/2" CLAMP
21	2	FHF-00018	ADAPTER - 3/4" NPT X NPT
22	1	FHF-00306	TEE, 1/2" X 1/2" X 3/4" NPT
23	2	FHF-00263	HOSE END, REUSABLE - 1/2"
24	2	FHH-00155	HOSE, 1/2" NPT X 1/2" NPT
25	3	FHF-00319	ADAPTER - 1/2" NPT X NPT
26	3	FHH-00156	HOSE, 3/4" NPT X 3/4" NPT
27	1	FHF-00215	HOSE, 3/4" PRESS-ON
28	2	FHF-00261	NIPPLE, 1/2" KING
29	2	FHF-00260	CLAMP, 1/2" HOSE
30	1	FHF-00318	ADAPTER, 1/2" NPT X 3/4" NPT
31	2	FHH-00117	HOSE, 1/2" L.P. X B'
32	1	FHF-00270	REDUCER - 1 1/4" DRN X 1" NPT
33	1	FHF-50014	REDUCER - 3/4" X 1/2" NPT BR

UNLESS OTHERWISE SPECIFIED
 ALL WELDS TO BE CONTINUOUS
 SIZE OF WELDS TO BE AT
 LEAST AS SHOWN IN
 DRAWING OR THE ALTERNATE
 TOLERANCE-UNLESS OTHERWISE
 SPECIFIED
 DECIMAL
 FRACTIONAL
 ANGULAR