

H&S

H D 7+4 FEEDER BOX



WARNING

READ AND UNDERSTAND THIS MANUAL
BEFORE OPERATING THIS EQUIPMENT.

UNSAFE OPERATION OR MAINTENANCE OF THIS EQUIPMENT CAN RESULT
IN SERIOUS INJURY OR DEATH.

OPERATOR'S MANUAL

and

PARTS LIST

3-18-2009

Manufactured By

H&S MANUFACTURING CO., INC.

P.O. BOX 768 • (715) 387-3414 FAX (715) 384-5463

MARSHFIELD, WISCONSIN 54449

H&S H D 7+4 FEEDER BOX

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AFTER COMPLETION, DEALER SHOULD REMOVE AND RETAIN FOR RECORDS

**H&S
DEALER PRE-DELIVERY CHECK LIST**

After the Self-Unloading Feeder Box has been completely set-up, check to be certain it is in correct running order before delivering to the customer. The following is a list of points to inspect. Check off each item as you have made the proper adjustments and found the item operating satisfactorily.

- All Shields and Guards are in place and fastened.
- All grease fittings have been lubricated and gear box filled to proper level – See lubrication guide in this manual.
- All mechanisms are operating trouble free.
- All Roller Chains are at proper tension.
- Apron Chains are adjusted properly.
- All bolts and fasteners are tight.
- Extra Shear Bolts are provided.
- All decals are in place and legible.

(Dealer's Name)

Model Number

Serial Number

(Signature of Pre-Delivery Inspector)

(Inspection Date)

DEALER DELIVERY CHECK LIST

This check list that follows is an important reminder of valuable information that should be passed on to the customer at the time this Self-Unloading Feeder Box is delivered.

Check off each item as you explain it to the customer.

This pre-delivery check list, when properly filled out and signed assures the customer that the pre-delivery service was satisfactorily performed.

- Explain to the customer that the pre-delivery inspection was made.
- Explain to the customer all the safety precautions they must exercise when operating this unit.
- Explain recommended loads for different types of materials.
- Explain to customer that regular lubrication is required for proper operation and long life of machine. Show customer the lubrication section of Owner's Manual.
- Give the customer Owner's Manual and make sure he reads and understands all operating and service instructions.
- Record Model and Serial Numbers on Page 20 of this Manual.
- Have customer sign a completed "Warranty Registration," and mail it promptly.

Date Delivered _____

Dealer's Name _____

By _____

Signature of Original Buyer

Note: Warranty is not valid until warranty card is completed and returned to H&S Mfg. Co., Inc.

(Remove Dealers File Copy At Perforation)



**BE
ALERT!** **YOUR SAFETY
IS INVOLVED.**

THIS SYMBOL IS USED THROUGHOUT THIS BOOK WHENEVER YOUR PERSONAL SAFETY IS INVOLVED. TAKE TIME TO BE CAREFUL. REMEMBER: THE CAREFUL OPERATOR IS THE BEST OPERATOR. MOST ACCIDENTS ARE CAUSED BY HUMAN ERROR. CERTAIN PRECAUTIONS MUST BE OBSERVED TO PREVENT THE POSSIBILITY OF INJURY OR DAMAGE.

TRACTORS

This operator's manual uses the term "Tractor" when identifying the power source.

H&S MANUFACTURING CO. INC.

RECOGNIZE SAFETY INFORMATION

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



UNDERSTAND SIGNAL WORDS

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

Safety signs with signal word DANGER or WARNING are typically near specific hazards.

General precautions are listed on CAUTION safety signs.



WARNING



CAUTION



CAUTION

FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual, and all safety signs on your machine. Follow all recommended precautions and safe operating procedures.

Keep signs in good condition. Immediately replace any missing or damaged signs.



WARNING

TO PREVENT SERIOUS INJURY OR DEATH NEVER OPERATE THIS UNIT UNLESS EMERGENCY STOP FUNCTIONS PROPERLY

5896C

! DANGER



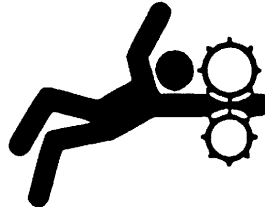
STAY CLEAR OF BEATER AND/OR CROSS CONVEYOR IF POWER SOURCE IS RUNNING OR HYDRAULICS ARE ENGAGED.

FAILURE TO HEED THIS WARNING MAY RESULT IN PERSONAL INJURY OR DEATH

KEEP CLOTHING, YOURSELF AND OTHERS WELL CLEAR.

11695

! DANGER



NO STEP-STAY CLEAR

1494G

! DANGER



STAY CLEAR OF BEATER AND/OR CROSS CONVEYOR IF POWER SOURCE OR PTO IS RUNNING

FAILURE TO HEED THIS WARNING MAY RESULT IN PERSONAL INJURY OR DEATH

KEEP CLOTHING, YOURSELF AND OTHERS WELL CLEAR.

1494H

! DANGER



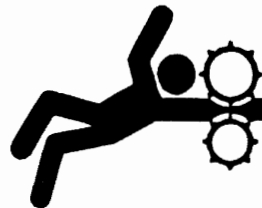
MAINTAIN SAFE CLEARANCE FROM ELECTRIC POWER LINES AND AVOID CONTACT WITH ANY ELECTRICALLY CHARGED CONDUCTOR.

CONTACT WITH ELECTRIC POWER SOURCES CAN RESULT IN ELECTRICAL SHOCK OR ELECTROCUTION.

FAILURE TO HEED THIS WARNING MAY RESULT IN SERIOUS INJURY OR DEATH.

1494P

! DANGER



1494F

NEVER ENTER FORGE BOX UNLESS THE FOLLOWING SAFETY PRECAUTIONS ARE FOLLOWED.

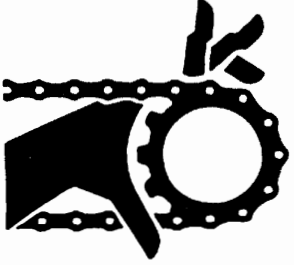
! WARNING

DO NOT GO NEAR LEAKS

- High pressure oil easily punctures skin causing serious injury, gangrene or death.
- If injured, seek emergency medical help. Immediate surgery is required to remove oil.
- Do not use finger or skin to check for leaks.
- Lower load or relieve hydraulic pressure before loosening fittings.

11599

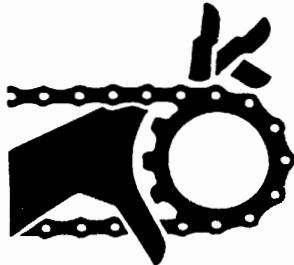




⚠ WARNING

DO NOT OPERATE
THIS EQUIPMENT
IF THIS DECAL IS
EXPOSED.
REPLACE SAFETY
SHIELDS.

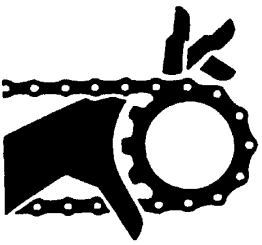
1494A



⚠ WARNING

DO NOT CLEAN
OR WORK ON THIS
MACHINE WITHOUT
FIRST DISENGAGING
POWER AND
SHUTTING OFF
TRACTOR ENGINE.

1494J



⚠ WARNING

ROTATING PARTS

CLOSE ACCESS
DOOR BEFORE
OPERATING BOX

1494D



CAUTION

STOP MACHINE - SHUT OFF
TRACTOR BEFORE
ADJUSTING OR GREASING
USE FLASHING WARNING
LIGHTS WHEN OPERATING
ON HIGHWAYS EXCEPT
WHEN PROHIBITED BY LAW

1494R




⚠ WARNING

**DO NOT
REMOVE
SHIELDS**

**MOVING
PARTS
INSIDE**

1494K



WARNING

HELP AVOID INJURY

- READ & UNDERSTAND THE OPERATORS MANUAL PROVIDED WITH THIS MACHINE. IF MISPLACED CALL H & S MANUFACTURING AT 715-387-3414 WITH MODEL AND SERIAL NUMBER.
- UNDERSTAND ALL SAFETY WARNINGS AND FUNCTION OF CONTROLS.
- KEEP SAFETY DEVICES IN PLACE AND WORKING.
- KEEP YOURSELF AND OTHERS WELL CLEAR OF MOVING PARTS.
- DISCONNECT ALL POWER BEFORE SERVICING OR CLEANING THIS MACHINE.
- DO NOT EXCEED 20 MPH

72203A



WARNING!



**KEEP CHILDREN AWAY
AT ALL TIMES!**

2495



⚠ WARNING

**STAY CLEAR
MOVING PARTS
UNDER THIS
AREA**

1494C

H&S H D 7+4 FEEDER BOX



W A R N I N G

TO PREVENT SERIOUS INJURY OR DEATH

BEFORE YOU ATTEMPT TO OPERATE THIS EQUIPMENT, READ AND STUDY THE FOLLOWING INFORMATION. IN ADDITION, MAKE SURE THAT EVERY INDIVIDUAL WHO OPERATES OR WORKS WITH THIS EQUIPMENT, WHETHER FAMILY MEMBER OR EMPLOYEE, IS FAMILIAR WITH THESE SAFETY PRECAUTIONS.

KNOW HOW TO STOP UNLOADING MECHANISM BEFORE STARTING IT.

If the machine becomes clogged, disengage the Tractor Hydraulics. Stop the tractor engine and allow all mechanisms to stop before cleaning or working on the machine.

DO NOT attempt to perform maintenance or repair with tractor running and tractor hydraulics hooked up.

DO NOT step up on machine at any time.

NEVER manually feed material into the beaters.

DO NOT allow minors to operate or be near the machine.

DO NOT ALLOW PERSONNEL OTHER THAN THE QUALIFIED OPERATOR NEAR THE MACHINE.

DO NOT clean, adjust, reset the emergency stop valve, or lubricate the machine when any part is in operation.

Check frequently to be assured that the emergency stop mechanism is in proper operating condition.

Keep hands, feet and clothing away from beaters when they are revolving.

Loose or floppy clothing should not be worn by the operator.

Be sure the machine is clear of people, tools, and other objects before engaging the tractor hydraulics.

NEVER start feeder box until all guards and safety shields are secured in place.

NEVER put hand in cross conveyor outlet openings while tractor is running.

CAUTION – Beware of electrical wires.

STAY CLEAR of Hydraulic lines and fittings, they may be under extreme pressure or heat.

H&S Mfg. Co. always takes the operator and his safety into consideration and guards exposed moving parts for his protection. However, some areas cannot be guarded or shielded in order to assure proper operation. In addition, the operators manual and decals on the machine itself warn you of further danger and should be read and observed closely.

Study The Above Safety Rules

ATTENTION - BE ALERT - YOUR SAFETY IS INVOLVED

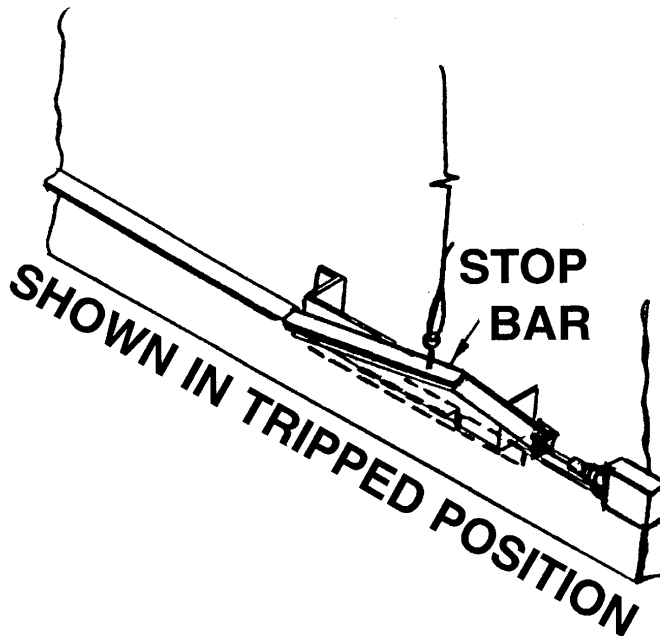


WARNING

**TO PREVENT SERIOUS INJURY OR DEATH
NEVER OPERATE THIS UNIT UNLESS EMERGENCY STOP
FUNCTIONS PROPERLY**

MAINTENANCE

1. Pushing the emergency stop bar rearward or pulling the trip cables will activate the stop to off position.
2. Activating emergency stop, will stop all box functions.
3. Trip emergency stop occasionally, and when starting the unit after periods of storage, to insure proper function.
4. Keep excessive slack out of trip cables.
5. Oil stop bar periodically to assure that valve mechanism will trip.



RESETTING THE EMERGENCY STOP

To reset emergency stop, apply hand pressure to the top of the hinged bar. When the bar is once again in a horizontal position, all box functions will resume.

EMERGENCY STOP



In case of an emergency, pushing emergency stop panel or pulling the safety cable will stop cross conveyor, beaters, and main aprons. Trip emergency stop occasionally to insure proper function

- A. Emergency Stop Cable
- B. Emergency Stop Panel

	! WARNING
	DO NOT GO NEAR LEAKS <ul style="list-style-type: none">• High pressure oil easily punctures skin causing serious injury, gangrene or death.• If injured, seek emergency medical help. Immediate surgery is required to remove oil.• Do not use finger or skin to check for leaks.• Lower load or relieve hydraulic pressure before loosening fittings. <p style="text-align: right;">11599</p>



WARNING: Some photographs used in the following pages show guards or shields removed for clarification. NEVER operate machine until these guards or shields are in proper operating position.



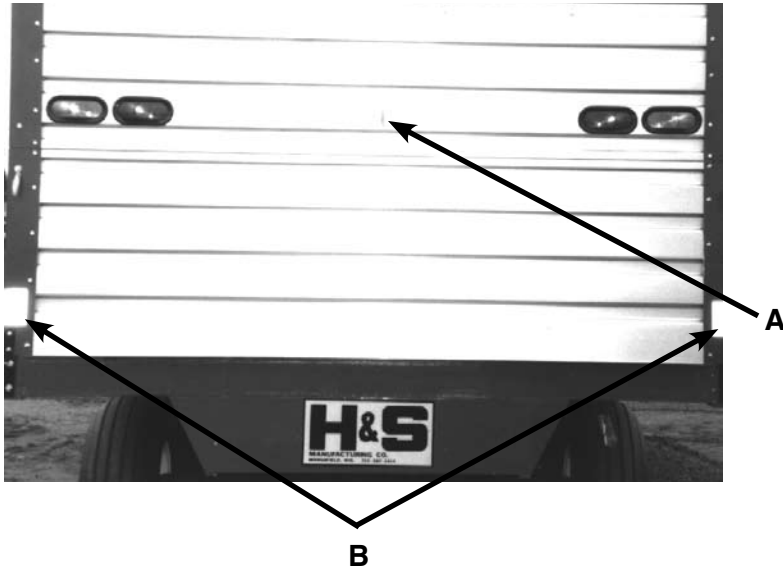
Emergency Stop Tripped



Emergency Stop Re-set

BEFORE OPERATION

Check entire unit carefully before first operation. Tighten bolts, set screws, and chains which might have come loose in handling. Lubricate as explained in the lubrication guide. Run entire feeding mechanism and unloading mechanism for several minutes. This will serve as a break-in and as a check that all parts are assembled and lubricated properly. Successful operation will be achieved by periodic adjustments and experience of the operator. Make sure to read and understand the main feeder apron adjustments.



Mounting Socket for SMV Emblem (A)

Red Reflective Tape (B)

WHEN TRANSPORTING ON THE HIGHWAY OR ROADS, PLACE SMV SIGN IN SOCKET PROVIDED AND REGULARLY CLEAN THE REFLECTIVE TAPE AT THE REAR OF THE FORAGE BOX.

NOTE: Obey all state and local laws, concerning towed equipment, on public roads.

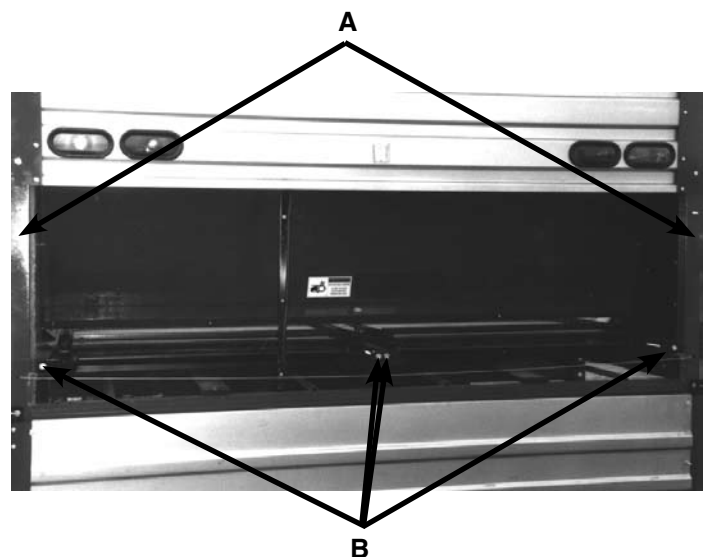
For light information (See Page 19)

MAIN FEEDER APRON ADJUSTMENT

! WARNING	
<p>DO NOT CLEAN OR WORK ON THIS MACHINE WITHOUT FIRST DISENGAGING POWER AND SHUTTING OFF TRACTOR ENGINE</p>	

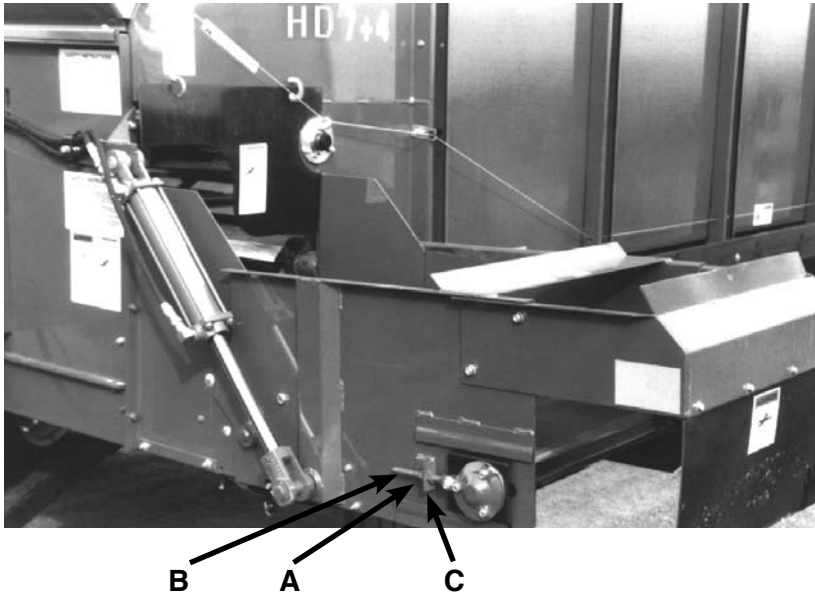
Main feeder apron adjustment bolts are located behind the convenient access door located in the bottom portion of rear tailgate. Remove handle nuts (A) to open access door and swing door downward.

All apron chains must be taken up evenly before you use the feeder box. Check again after the first few loads. The Main Feeder Aprons should be at proper tension at all times. Tighten the full threaded bolts (B) to adjust aprons. Aprons are properly adjusted when two Cross Slats, or about three feet of chain lift off the Chain Return Slides from the rear of the box. Maintain this tension when operating the box.



	! WARNING
	<p>ROTATING PARTS CLOSE ACCESS DOOR BEFORE OPERATING BOX</p>

CROSS CONVEYOR



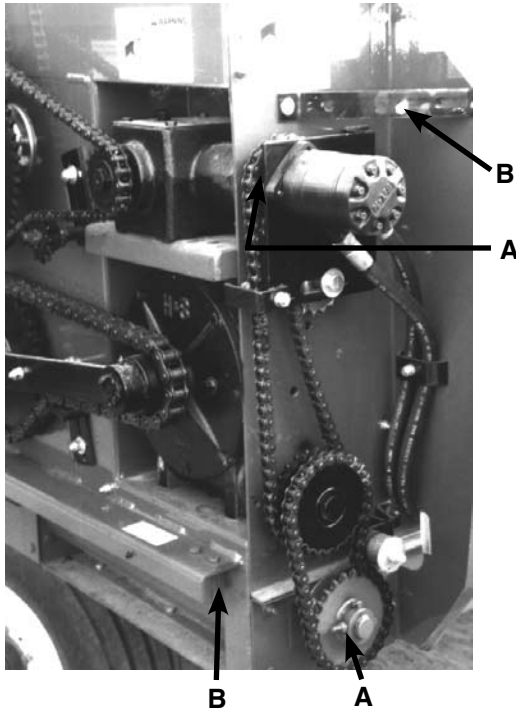
ADJUSTMENT

Proper tension should be maintained on cross conveyor chain when operating box. To adjust cross conveyor, loosen the jam nuts (A) on tightener bolts (B)). Move adjusting nuts (C) on tightener bolts until proper tension on chain is reached. The chain is properly adjusted when the center slats clear the bottom return pan by about 1/16 of an inch. Adjust both sides equally. Lock in place with jam nuts.



Shown here is the spring loaded plastic guard (A) which protects the operator from accidentally being exposed to the bottom beater at the discharge opening during operation of forage box. Keep this guard in proper position at all times when operating forage box.

CROSS CONVEYOR (Continued)



SHEAR BOLT

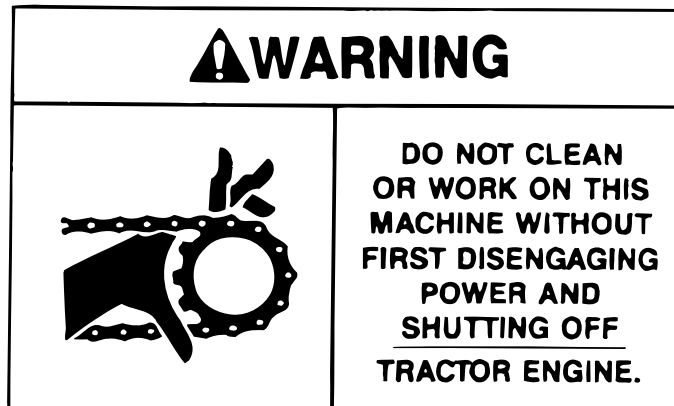
The main drive and cross conveyor are protected by one shear bolt each, as shown. Spare shear bolts are provided as shown.

Always determine the cause of failure, and eliminate the cause before installing a new shear bolt.

Use only H&S shear bolts, part number S84, when replacing.

A. Shear Bolt

B. Spare Shear Bolt

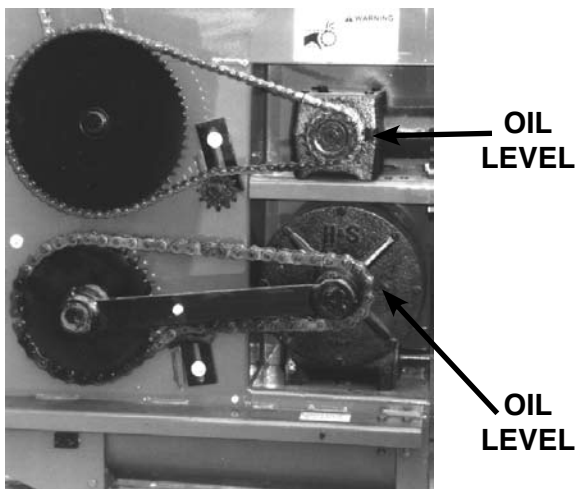


LUBRICATION GUIDE

The operator should become familiar with all lubrication points and establish a systematic routine to insure complete and quick lubrication of the machine.

GEAR BOXES – Before using your new machine, check the oil in the main apron drive and beater drive gear box. Keep the main apron gear box filled to the oil level plug in cover of gear box. Beater drive gear box should be filled to the center of the shafts. Use 80W-90 gear lube.

DRIVE CHAINS – Lubricate the drive chains with a light machine oil. Keep chains aligned with sprockets, this will lengthen the life of the sprockets and chain. Lubricate chains often.



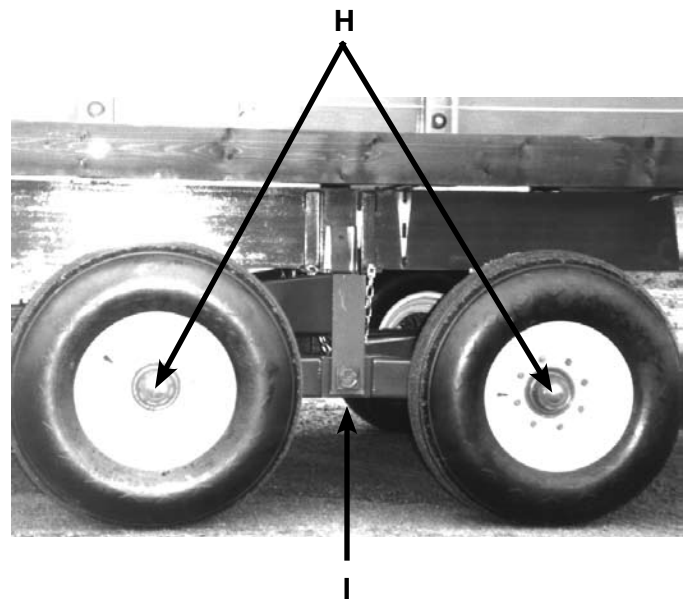
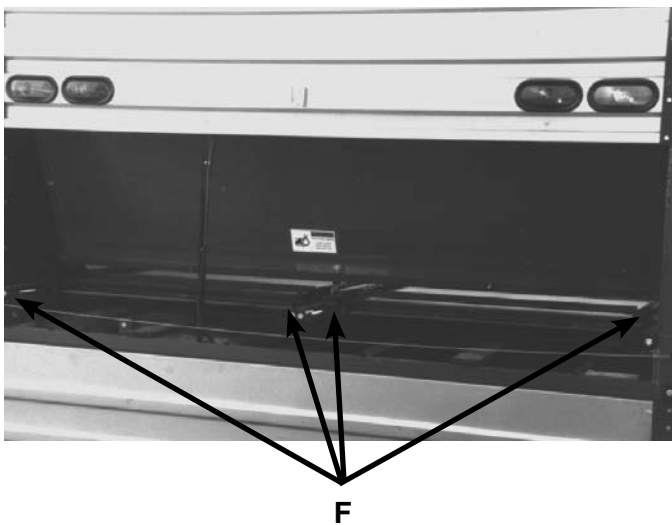
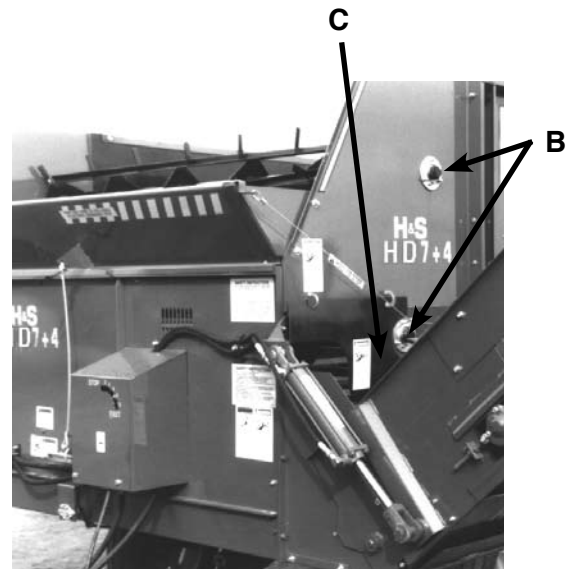
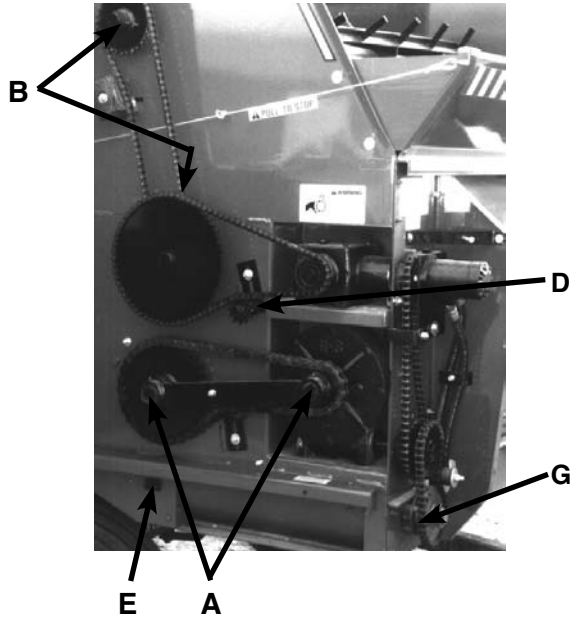
LUBRICATION GUIDE *(Continued)*

There are 21 grease fittings on your new H&S 7+4 Feeder Box.

Grease daily during normal use and before and after storage.

Use a good grade of high quality grease.

- A. (2) One at each end of brace - gearbox to main drive shaft
- B. (4) Beater Bearings - one at each end of beaters
(sealed bearings - do not overgrease)
- C. One on left hand drive shaft bushing
- D. One on sprocket type chain tightener - beater drive chain
- E. (2) Remote fittings for right hand and center main drive shaft bushings
- F. (4) One on each rear main apron idler sprocket
- G. One on cross conveyor drive shear hub
- H. (4) One on each wheel hub
- I. (2) One on each walking beam pivot tube



DECAL LOCATION

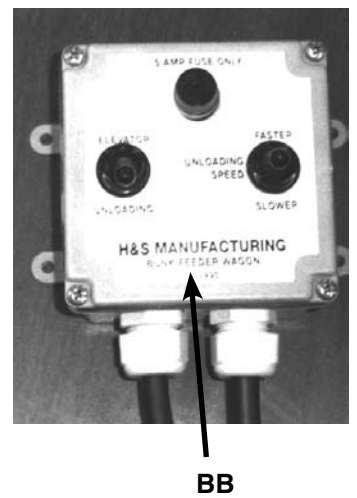
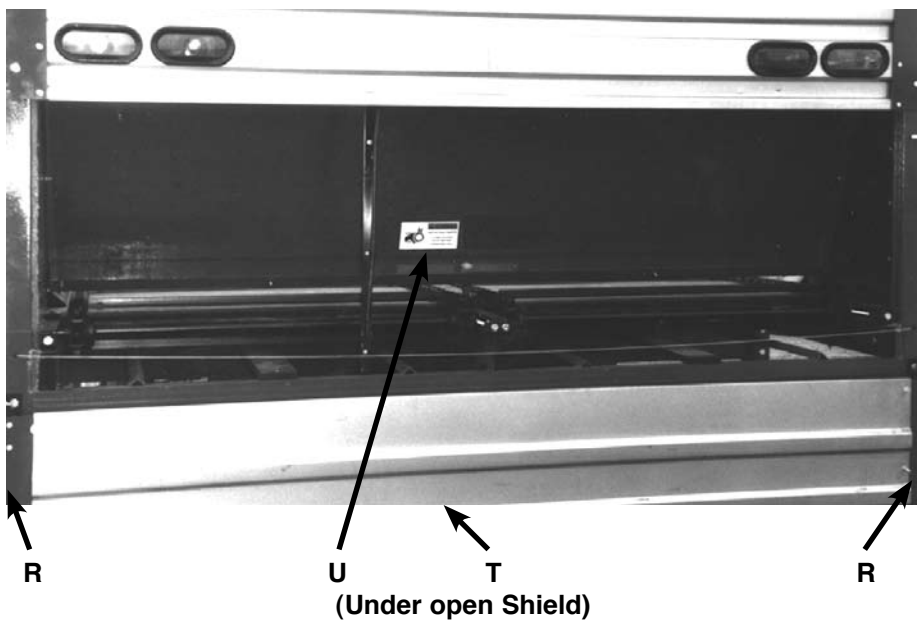
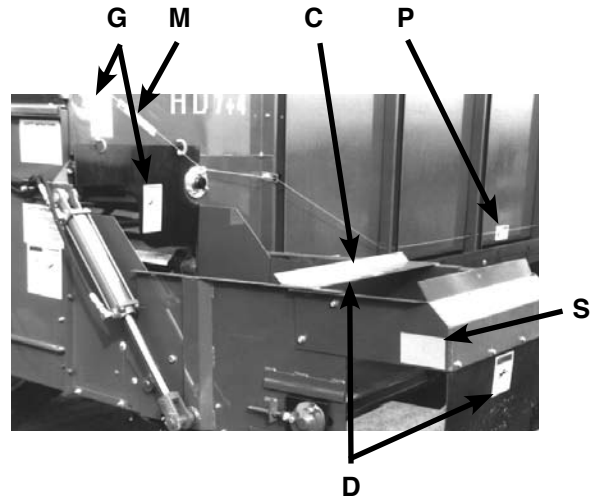
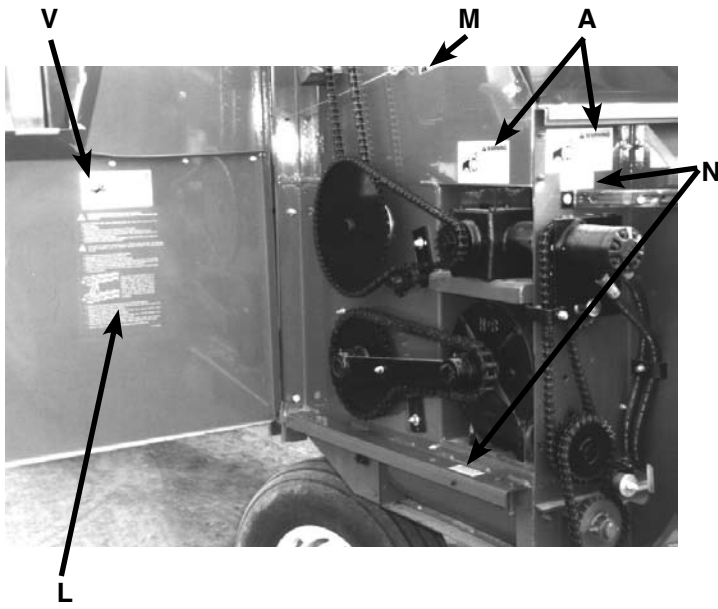
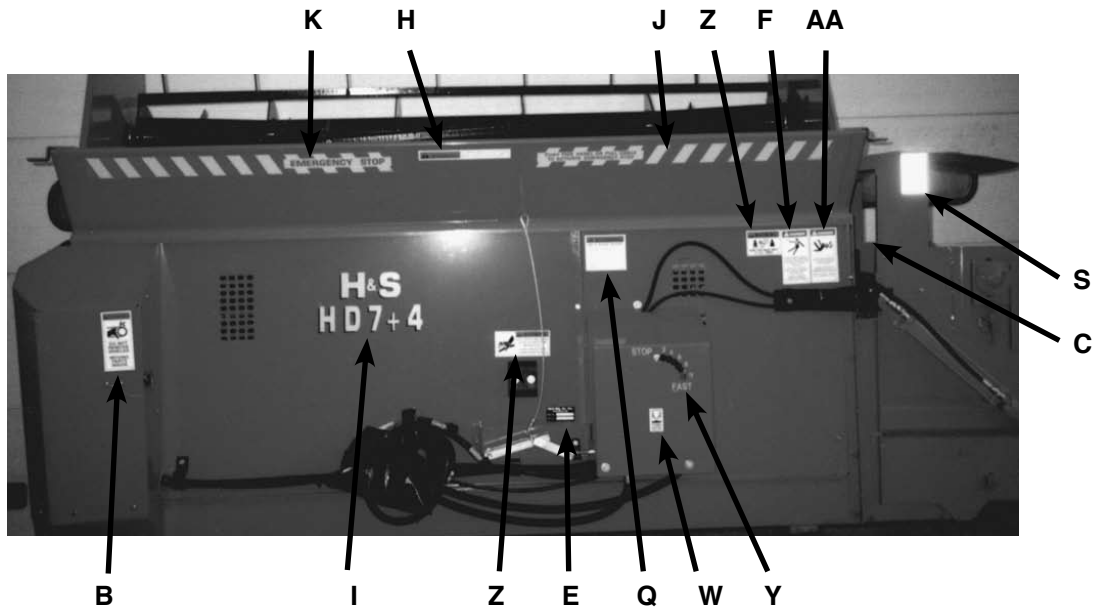
Your H&S H D 7+4 Feeder Box was manufactured with operator safety in mind. Located on the Feeder Box are various decals to aid in operation, and warn of danger or caution areas. Pay close attention to all the decals on your Feeder Box.



DO NOT REMOVE ANY OF THESE DECALS. IF DECALS ARE LOST, DAMAGED, OR IF FEEDER BOX IS REPAINTED, REPLACE DECALS. REMEMBER: DECALS ARE FOR YOUR PROTECTION.

Listed below are the decals on your H D 7+4 Feeder Box. These decals may be ordered individually by part number or by ordering complete set.

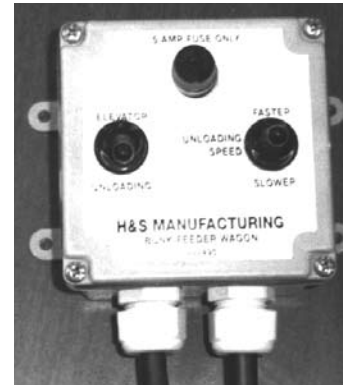
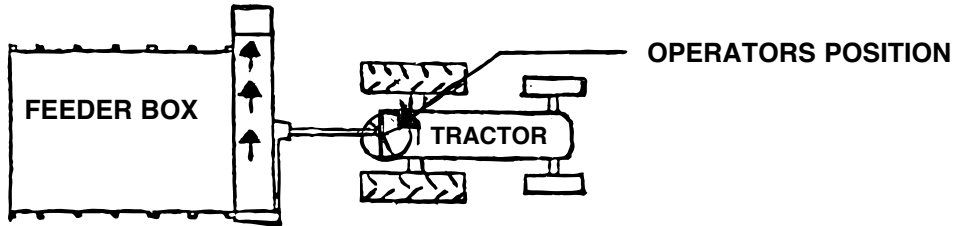
ITEM	PART NO.	DESCRIPTION
A	1494A	(2) Warning - Do Not Operate
B	1494K	Warning - Do Not Remove Shields
C	1494J	Warning - Do Not Hand Clean
D	1494G	(2) Danger - No Step
E		Serial Number
F	1494P	Danger - Stay Clear Power Lines
G	11695	(4) Danger - Stay Clear
H	5896C	Warning - Emergency Stop Reset
I		(3) H&S H D 7+4
J	104-3185	Push This Panel
K	103-3185	Emergency Stop
L	7+4-3185G	Instructions-Entering Forage Box
M	120-2177	(2) Pull to Stop
N	112-11176	(2) Shear Bolt
O	107-3185	H&S Metal Sign (12x24)
P	1494C	(2) Warning - Moving Parts Under
Q	72203A	Warning - Help Avoid Injury
R		(3) Red Reflector
S		(5) Amber Reflector
T	1494R	Caution - Flashing Lights
U	1494D	Danger - Close Access Door
V	1494F	Danger - Entering Forage Box
W		FEMA
X	2494	Warning - Children
Y	H83092	Speed Indicator
Z	11599	Warning - Do Not Go Near Leaks
AA	1494H	Danger - Stay Clear
BB	42495	Electric Control Decal
	42104-7+4FB	Complete Set of Decals
H&S Red Paint	ZX21	Gallon
	ZX22	Quart
	ZX23	Pint



FIELD OPERATION OF H D 7+4 FEEDER BOX

SAFETY REMINDERS:

1. Operate your 7+4 Feeder Box on level ground whenever possible while unloading.
2. Any time the Feeder Box is in operation, the operator should be positioned on the tractor seat, as shown below.
3. Make sure that the draw pin, hydraulic & electric controls are securely fastened to the tractor power sources.



TO BEGIN UNLOADING:

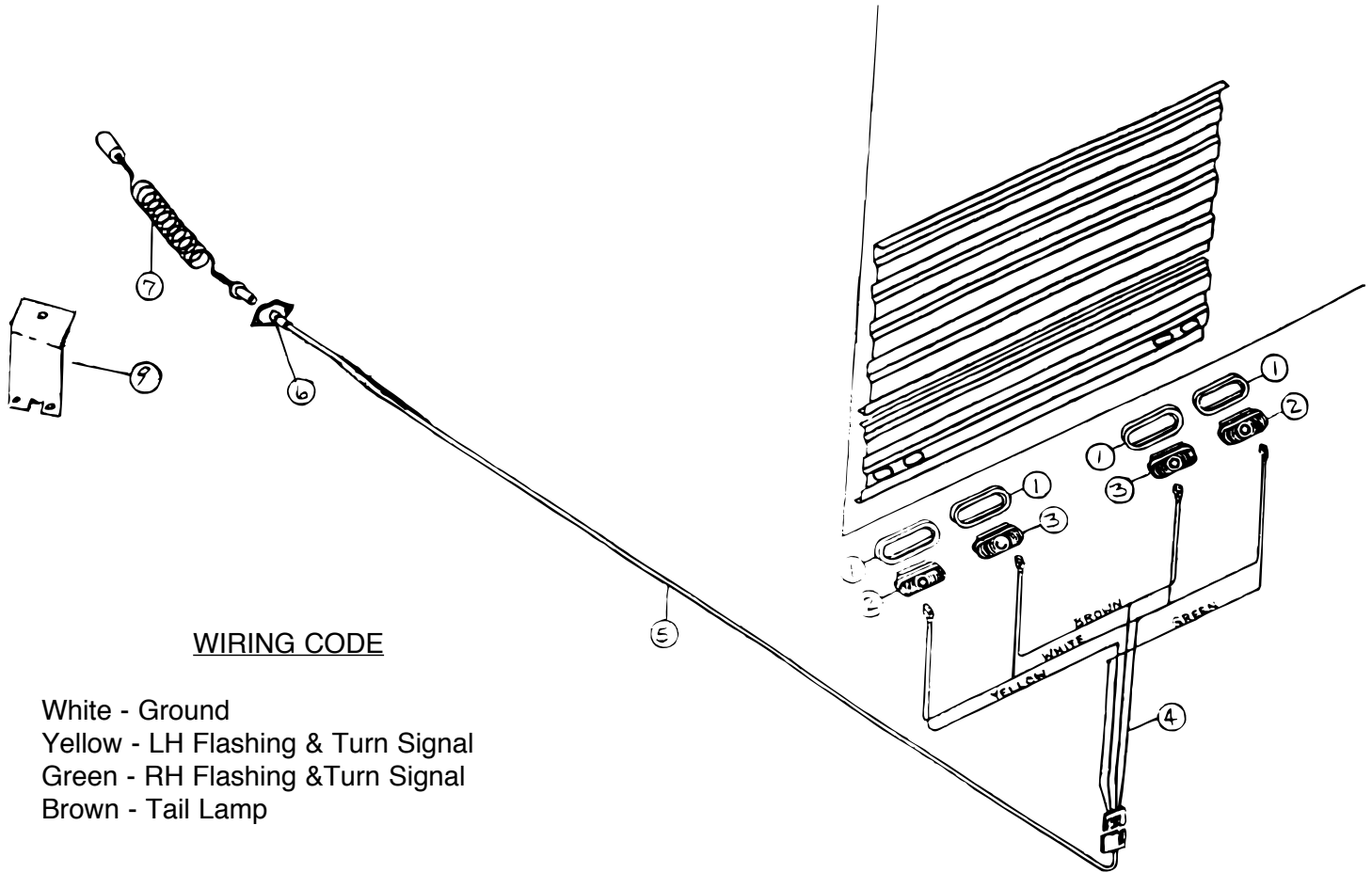
1. Switch electric control to elevator position
2. Activate tractor hydraulics to lower elevator to desired position. NOTE: The elevator will operate most efficiently at 0° to 45° angle.
3. Switch electric control to unload position
4. Activate tractor hydraulics to begin unloading
5. Using electric control, select desired unloading speed

AFTER UNLOADING IS COMPLETED:

1. Return speed selector to slow position
2. Switch electric controls to elevator position
3. Activate tractor hydraulics to raise elevator to transport position
4. When unhooking your H D 7+4 Feeder Box from the Tractor, use the convenient hanger (A) to hold hydraulic hoses and electric cable. Hydraulic coupler ends are to be inserted into the coupler storage block provided (B)



FIGURE A



WIRING CODE

- White - Ground
- Yellow - LH Flashing & Turn Signal
- Green - RH Flashing & Turn Signal
- Brown - Tail Lamp

H D 7+4 FEEDER BOX

LIGHTING ASSEMBLY

ITEM	PART NO.	DESCRIPTION
1.	S308	Rubber Light Mount
2.	S309	Amber Light
3.	S310	Red Light
4.	S311	Light Harness
5.	S313	16' Longitudinal Cord
6.	S331	4 Pole Round Connector
7.	S317	Optional Tractor Cord
8.	S319	16' Complete Lighting Assm. Less Optional Tractor Cord
9.	S316	Mounting Bracket

INSTRUCTIONS FOR ORDERING PARTS

All service parts should be ordered through your authorized H&S dealer. He will be able to give you faster service if you will provide him with the following.

1. Model & Serial Number - Both can be located on the front, center of your unit.
2. All reference to left or right apply to the machine as viewed from the rear.
3. Parts should not be ordered from illustration only. Please order by complete part number.
4. If your dealer has to order parts - give shipping instructions.

VIA truck - large pieces (please specify local truck lines)

VIA United Parcel Service (include full address)

H&S MFG. CO. INC.	
MARSHFIELD, WIS.	
MOD. NO.	<input type="text"/>
SER. NO.	<input type="text"/>
DESCR.	<input type="text"/>

PLEASE RECORD NUMBERS FOR YOUR UNIT FOR QUICK REFERENCE

ABOUT IMPROVEMENTS

H&S IS CONTINUALLY STRIVING TO IMPROVE ITS PRODUCTS.

We must therefore, reserve the right to make improvements or changes whenever it becomes practical to do so, without incurring any obligation to make changes or additions to the equipment previously sold.

FIGURE 1

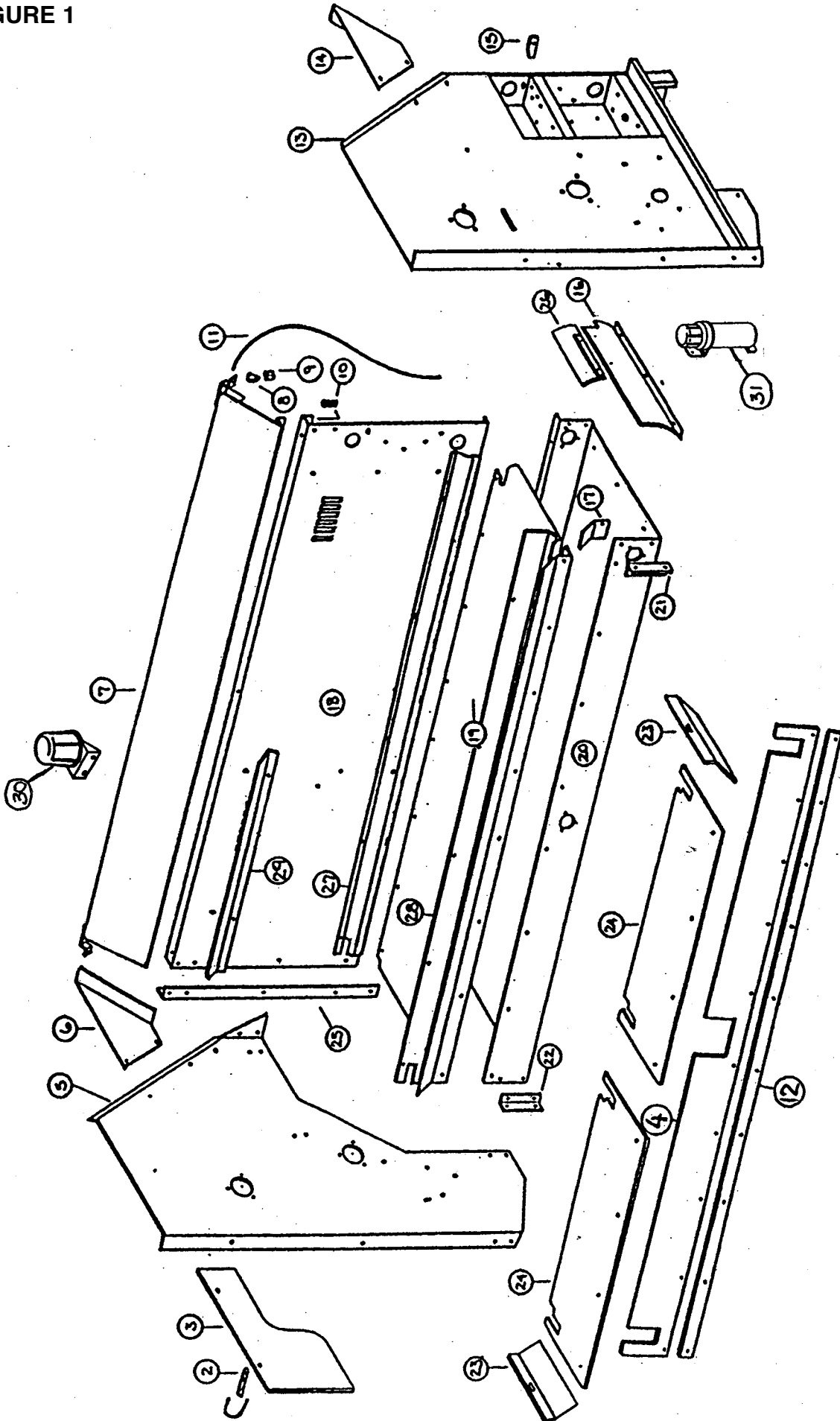


FIGURE 1
HOUSING COMPONENTS

ITEM	PART NO.	DESCRIPTIONS
1.	F32	U-Bolt
2.	S1	Spring for Shield
3.	S2	Beater Plastic Guard
4.	S306	Rubber Seal
5.	JB3	LH Side Panel
6.	S5	LH Emergency Stop Panel
7.	SR2	Emergency Stop Panel
8.	ES14	Thimble
9.	ES15	Cable Clamp
10.	S7	Spring for Emergency Stop
11.	S8	Emergency Stop Cable
12.	S288	Rubber Seal Strap
13.	JB4	RH Side Panel
14.	S11	RH Emergency Stop Panel
15.	S12	Gearbox Brace
16.	S13	Return Pan End
17.	S14	Cross Apron Pan End
18.	S15	Front Main Panel
19.	S16	Cross Apron Pan
20.	S17	Return Pan
21.	S18	RH Return Pan Angle
22.	S19	LH Return Pan Angle
23.	S20	Apron Side Spacer
24.	PB74	Drive Shaft Panel
25.	JB5	LH Front Angle
26.	S217	Return Pan End
27.	S239	Front Hold down
28.	S240	Back Hold down
29.	JB6	Front Panel Cylinder Brace
30.	CHM38	Plug Storage
31.	S522	Manual Holder

FIGURE 2

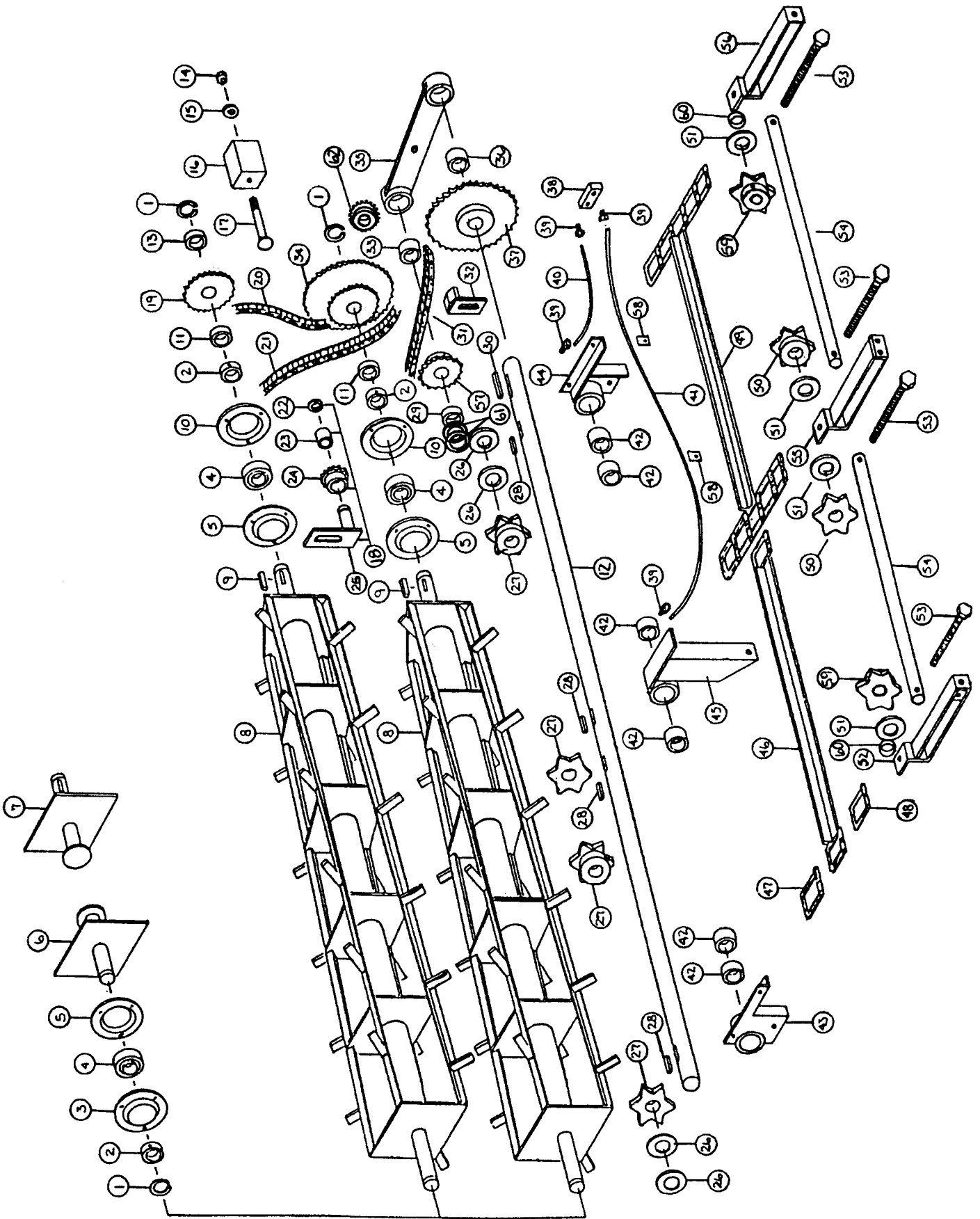


FIGURE 2
BEATERS AND MAIN APRON DRIVE

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.	F73	Snap Ring	35.	S43	Drive Shaft Brace
2.	F16	Lock Collar	36.	S44	Bushing
3.	F114	Bearing Flange w/Zerk	37.	S45	Apron Drive Shaft Sprocket
4.	F115	Bearing Greaseable Type	38.	S46	Grease Line Bracket
5.	F14	Bearing Flange	39.	S47	Grease Line Fitting
6.	S23	LH Beater Stub Shaft	40.	S48	Short Grease Line
7.	S24	RH Beater Stub Shaft	41.	S49	Long Grease Line
8.	S25	Beater	42.	S50	Drive Shaft Bushing
9.	G23	5/16" x 1-3/8" Sq. Key	43.	S51	LH Drive Shaft Bracket
10.	F114A	Bearing Flange	44.	S52	RH Drive Shaft Bracket
11.	S218	3/8" Spacer	45.	S53	Center Bearing Bracket
12.	S68	Main Apron Drive Shaft	46.	S54	T-Rod Slat w/Att. Links
13.	S219	1/4" Spacer	47.	S55	T-Rod Standard Link
14.	K60	Nut	48.	11S51	667H Pintle Conn. Link
15.	X67	Washer	*	11S50	667H Pintle Att. Link RH or LH
16.	S27	Wood Chain Tightener	49.	S231	667H Pintle Apron 16'
17.	S28	Carriage Bolt	50.	S60	Rear Idler Sprocket
18.	S216	Chain Tightener Assembly	51.	S61	Idler Shaft Spacer
19.	JB7	2nd Beater Sprocket - 30T	52.	S62	LH Rear Idler Bracket
20.	S31	#50 1st to 2nd Beater Chain 98 Pitches	53.	S7	Tightener Bolt
21.	JB8	#50 Beater Drive Chain 90 Pitches	54.	JB9	Rear Idler Shaft
22.	10R32	Snap Ring	55.	S64	Center Idler Bracket
23.	S33	Chain Tightener Bushing	56.	S65	RH Rear Idler Bracket
24.	S34	Tightener Sprocket w/Bushing	57.	ST11	Worm Gear Shaft Sprocket 13T
25.	S35	Chain Tightener Bracket	*	S66	Slow Down Sprocket
26.	S36	Drive Shaft Spacer	58.	S67	Grease Line Clip
27.	S37	Apron Drive Shaft Sprocket	59.	JB10	Apron Idler Sprocket
28.	A32	3/8" x 1-3/8" Sq. Key	60.	JB11	Spacer
29.	A5	Spacer	61.	S327	Poly Washer
30.	S38	3/8" x 2-3/8" Sq. Key	62.	K185	17T Beater Sprocket
31.	ST10	#80 Apron Drive Chain 56 Pitches	*	F157	#80 Connector Link
32.	S40	Chain Tightener	*	F158	#80 Offset Link
33.	S41	Bushing	NOTE: * (Means Not Shown)		
34.	S42	1st Beater Sprocket 60T-20T			

FIGURE 3

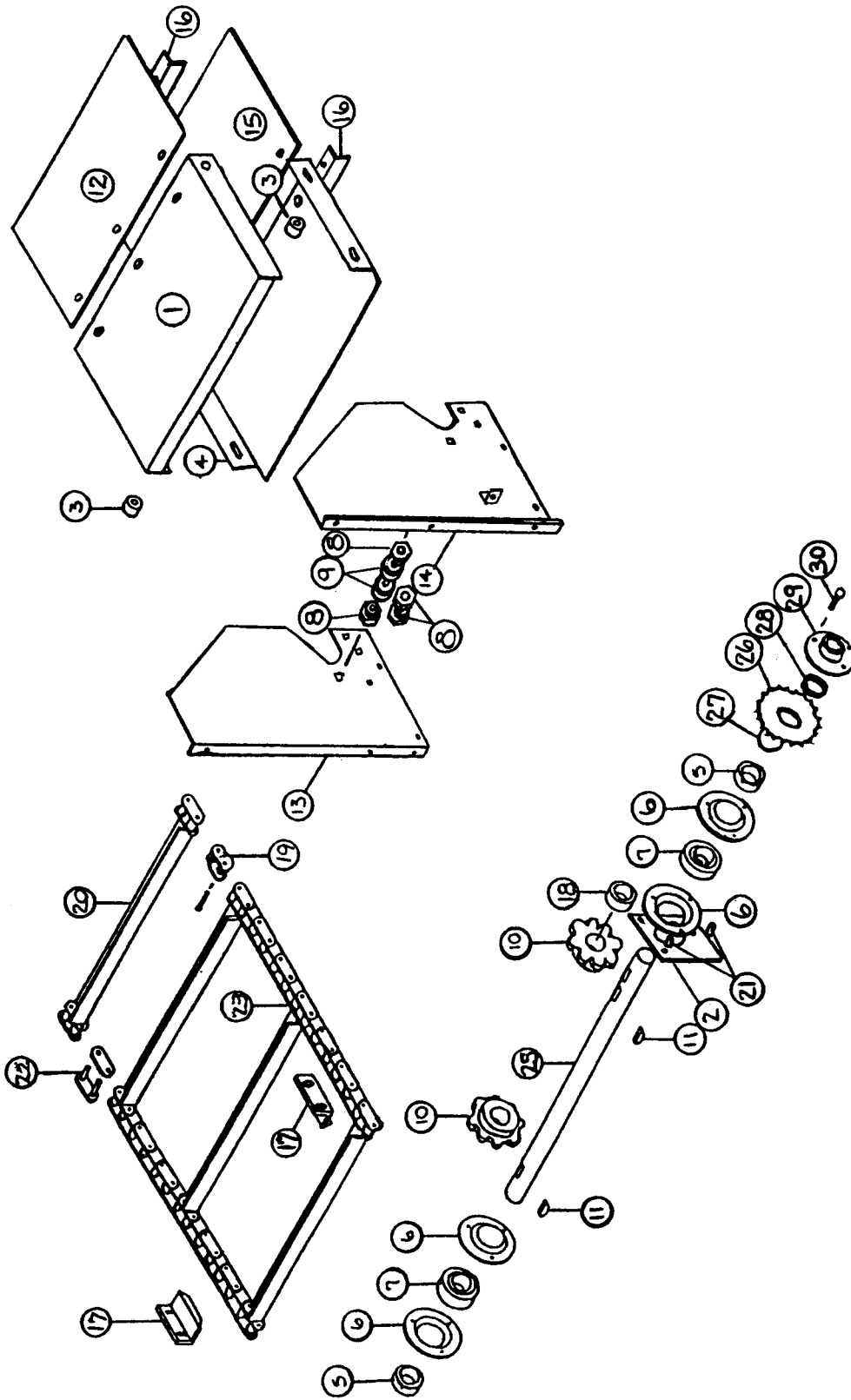


FIGURE 3
CROSS APRON AND DRIVE ASSEMBLY

ITEM	PART NO.	DESCRIPTION
1.	JB12	Cross Apron Pan Extension
2.	JB24	Bearing Flange Brace
3.	S71	Pan Extension Carrier
4.	JB13	Return Pan Extension
5.	4C9	Lock Collar
6.	4C7	Bearing Flange
7.	4C8	Bearing
8.	JB14	Conveyor Roller Block
9.	JB15	Hold down Roller
10.	L10R24	8T Sprocket
11.	5B10	1/4 x 1" Woodruff Key
12.	JB19	Elevator Corner Poly
*	16SV124	Bolt For Poly
13.	JB17	Tightener Panel Rear
14.	JB18	Tightener Panel Front
15.	JB16	Return Pan Corner Poly
*	16SV124	Bolt For Poly
16.	JB20	Poly Strap
17.	S223	Cross Conveyor Hold down
18.	JB21	Spacer
19.	K122	550 Offset Link Cross Conveyor
20.	K120	550 Slat with Att. Links
21.	JB25	Bearing Flange Spacer
22.	K121	550 Connector Link Cross Conveyor
23.	JB22	Cross Conveyor
25.	JB108	Cross Apron Drive Shaft
26.	S392	Sprocket 24T
27.	S394	Snap Ring
28.	S393	Bronze Bushing
29.	S391	Shear Hub
30.	RGB38	Shear Bolt 5/16" x 1" GR.2

Not Shown #50 Offset Link

Not Shown #50 Connector Link

NOTE: * (Means Not Shown)

FIGURE 4

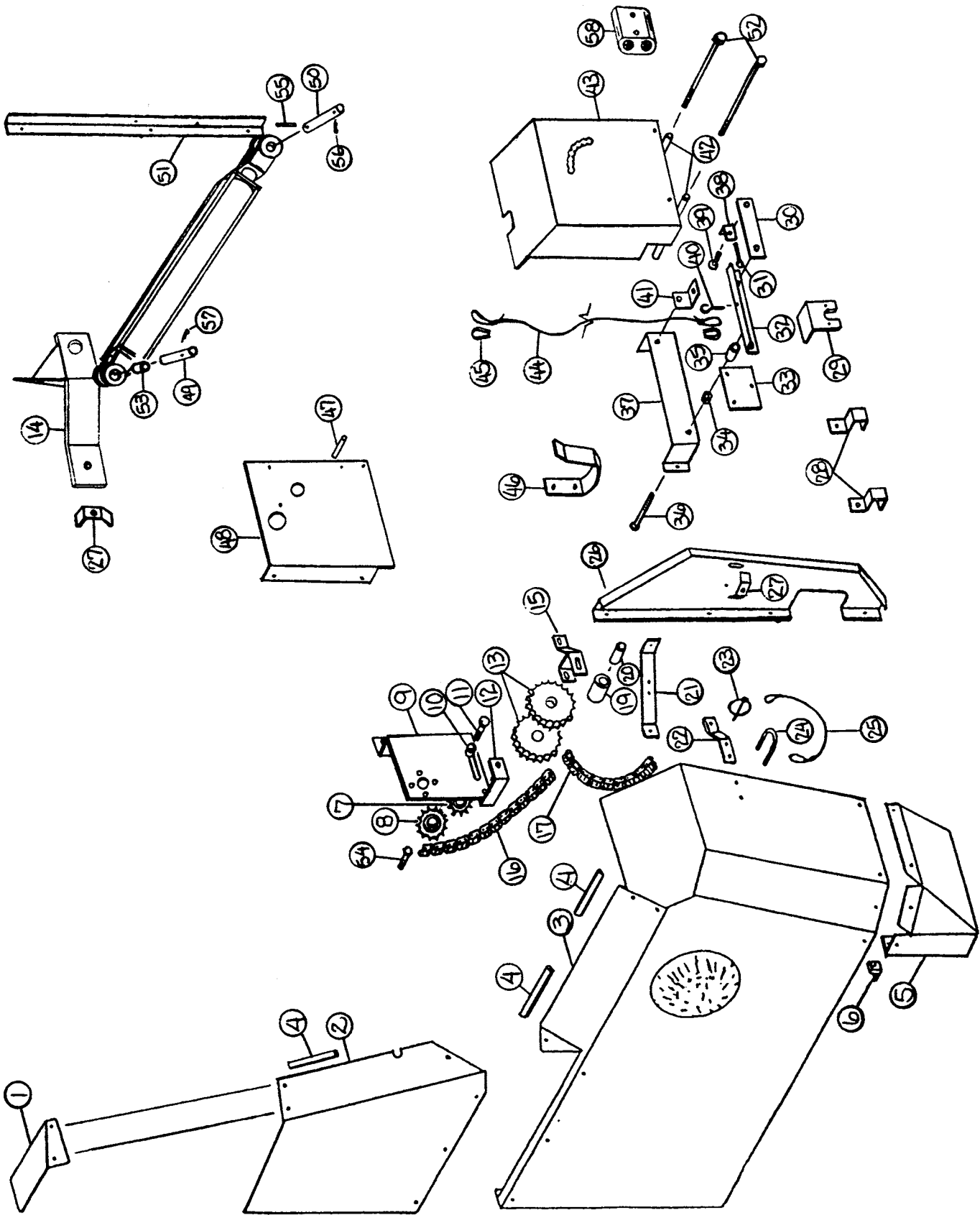
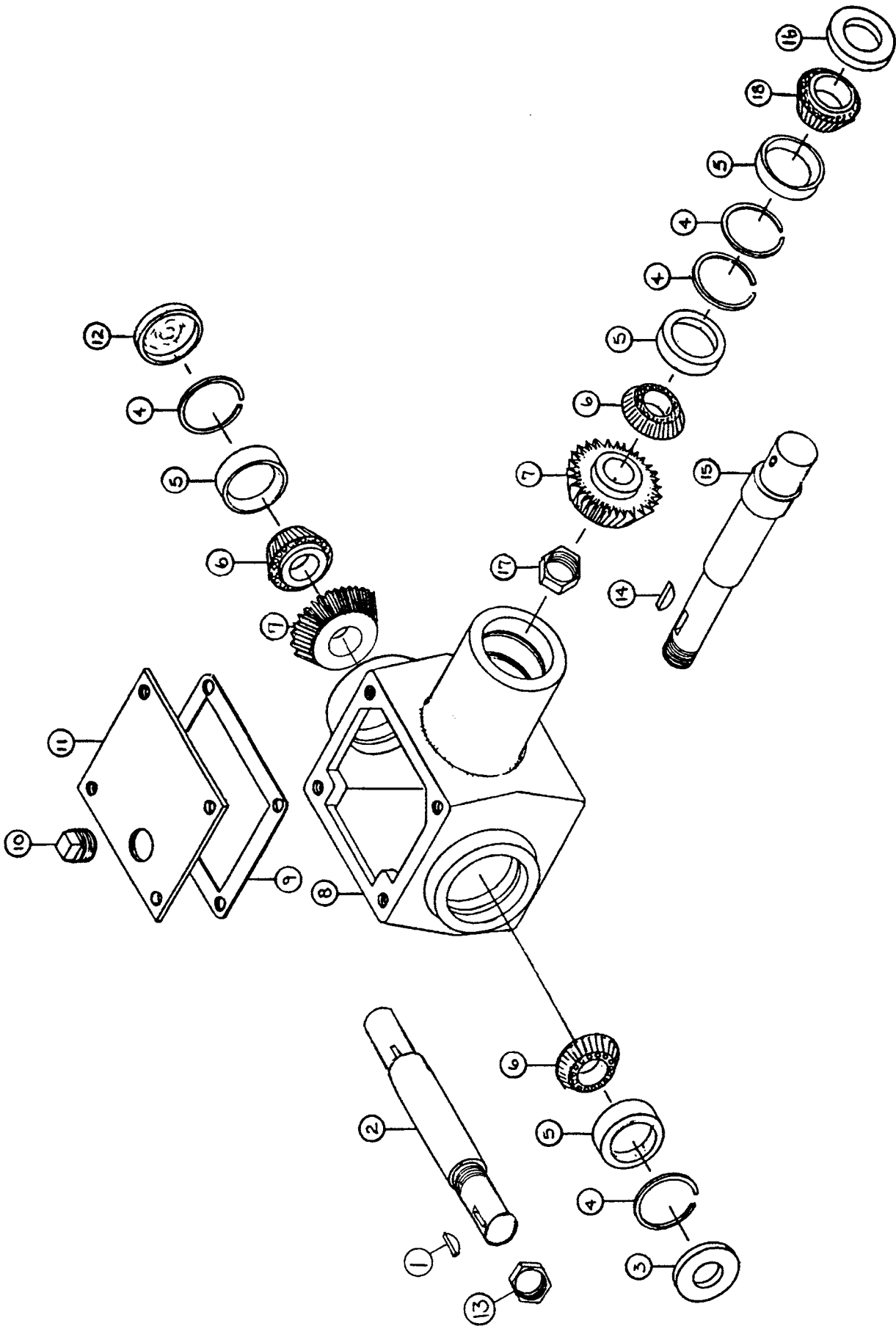


FIGURE 4 SHIELDS

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.	JB26	Beater Top Shield	31.	JB102	5/16" x 4" Bolt Full Thread
2.	JB27	Beater Side Shield	32.	JB40	Emergency Trip Stop Link
3.	S120	Main Side Shield	33.	JB41	Bearing Filler
4.	S328	Shield Edging 3-1/2"	34.	K60	3/8" Nut
5.	S121	Side Shield Bottom	35.	JB42	Safety Trip Spacer
6.	D58	Shield Angle	36.	T123	3/8" x 2-1/4" Bolt GR.5
7.	K101	Tightener Sprocket	37.	JB43	Safety Trip Mount
8.	JB28	Motor Drive Sprocket	38.	JB45	Safety Trip Valve Angle
9.	JB29	Hydraulic Motor Mount	39.	A15	3/8" x 1" Bolt
10.	JB30	Upper Tightener Spacer	40.	K79	1/4" I-Bolt
11.	X53	1/2" x 2-1/2" Bolt	41.	JB44	Safety Trip Support
12.	JB31	Motor Mount Brace	42.	JB46	Valve Cover Spacer
13.	S82	Sprocket	43.	JB47	Valve Cover
14.	JB32	Top Cylinder Mount	44.	JB48	Emergency Trip Cable
15.	JB33	Lower Tightener Bracket	45.	ES4	Cable Loop
16.	JB34	#50 Chain 73 Pitches	46.	PB79	Hose Holder
17.	JB35	#50 Chain 44 Pitches	47.	JB49	Valve Mount Brace
19.	23N238	Chain Tightener Roller	48.	JB50	Valve Mount
20.	JB36	Lower Tightener Spacer	49.	23N107	Cylinder Mount Pin - Top
21.	S234	Shield Brace	50.	JB52	Cylinder Mount Pin - Bottom
22.	S123	Shield Latch Bracket	51.	S93	Front Panel Brace
23.	F56	Clip Pin	52.	JB53	3/8" x 6-1/2" Valve Cover Bolt
24.	F32	U-Bolt	53.	JB101	Cylinder Mount Pin Collar
25.	S122	Clip Pin Cable	54.	S84	5/16" x 2-1/2" Bolt GR.5
26.	JB37	Front Upright Shield	55.	S110	1/4" x 2" Roll Pin
27.	23N67	Hose Bracket	56.	T56	5/32" x 2" Cotter Pin
28.	HE14	Small Pipe Brackets	57.	23N108	Cotter Pin
29.	S316	Light Bracket	58.	JB105	Hose Holder
30.	JB39	Safety Trip Valve Link	NOTE: * (Means Not Shown)		

FIGURE 5



**FIGURE 5
BEVEL GEARBOX**

ITEM	PART NO.	DESCRIPTION
1.	5B10	1/4" x 1" Woodruff Key
2.	JB54	Gearbox Side Shaft
3.	3G9	Seal
4.	3G19	Snap Ring
5.	3G18	Race #15245
6.	3G7	Bearing #15101
7.	3G5	Gear
8.	3G1	Gearbox Housing
9.	3G2	Gearbox Gasket
10.	3G20	Fill Plug
11.	3G3	Cover
12.	X2	Dust Cap
13.	3G11	Nut
14.	5B10	1/4" x 1" Woodruff Key
15.	JB55	Gearbox Front Shaft
16.	S136	Seal
17.	3G4	Nut
18.	L3G24	Gearbox Bearing #15113
*	JB56	Complete Bevel Gearbox

NOTE: * (Means Not Shown)

FIGURE 6

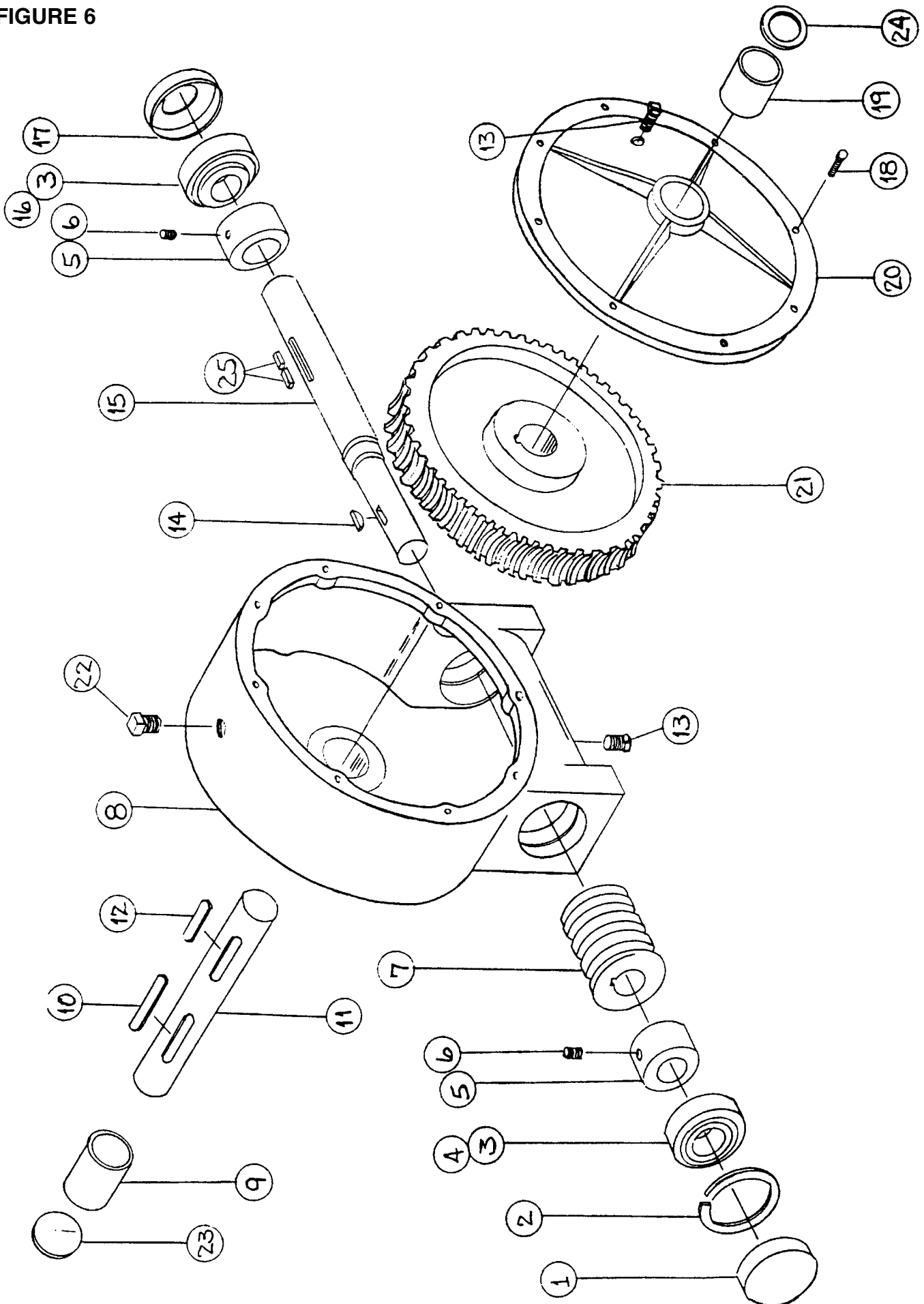


FIGURE 6
WORM GEARBOX

ITEM	PART NO.	DESCRIPTION
1.	G90	Dust Cap
2.	3G19	Snap Ring
3.	3G18	Race #15245
4.	3G7	Bearing #15101
5.	X9	Spacer
6.	G83	Set Screw
7.	G76	Worm
8.	G114	Gearbox Housing
9.	X8	Gearbox Bushing
10.	S138	3/8" x 2-3/8" Sq. Key w/Round Ends
11.	S139	Worm Gear Side Shaft
12.	A32	3/8" x 1-3/8" Sq. Key
13.	G65	3/8" Plug
14.	5B10	1/4" x 1" Woodruff Key
15.	JB57	Worm Gear Front Shaft
16.	L3G24	Gearbox Bearing #15113
17.	G115	Seal
18.	G84	Cap Screw
19.	X75	Cover Bushing
20.	G116	Worm Gearbox Cover
21.	G77	Worm Gear
22.	G91	Vent Plug
23.	G117	Cap
24.	G120	Seal
25.	S135	1/4" x 1-1/4" Sq. Key
*	JB58	Worm Gearbox Complete

NOTE: * (Means Not Shown)

FIGURE 7

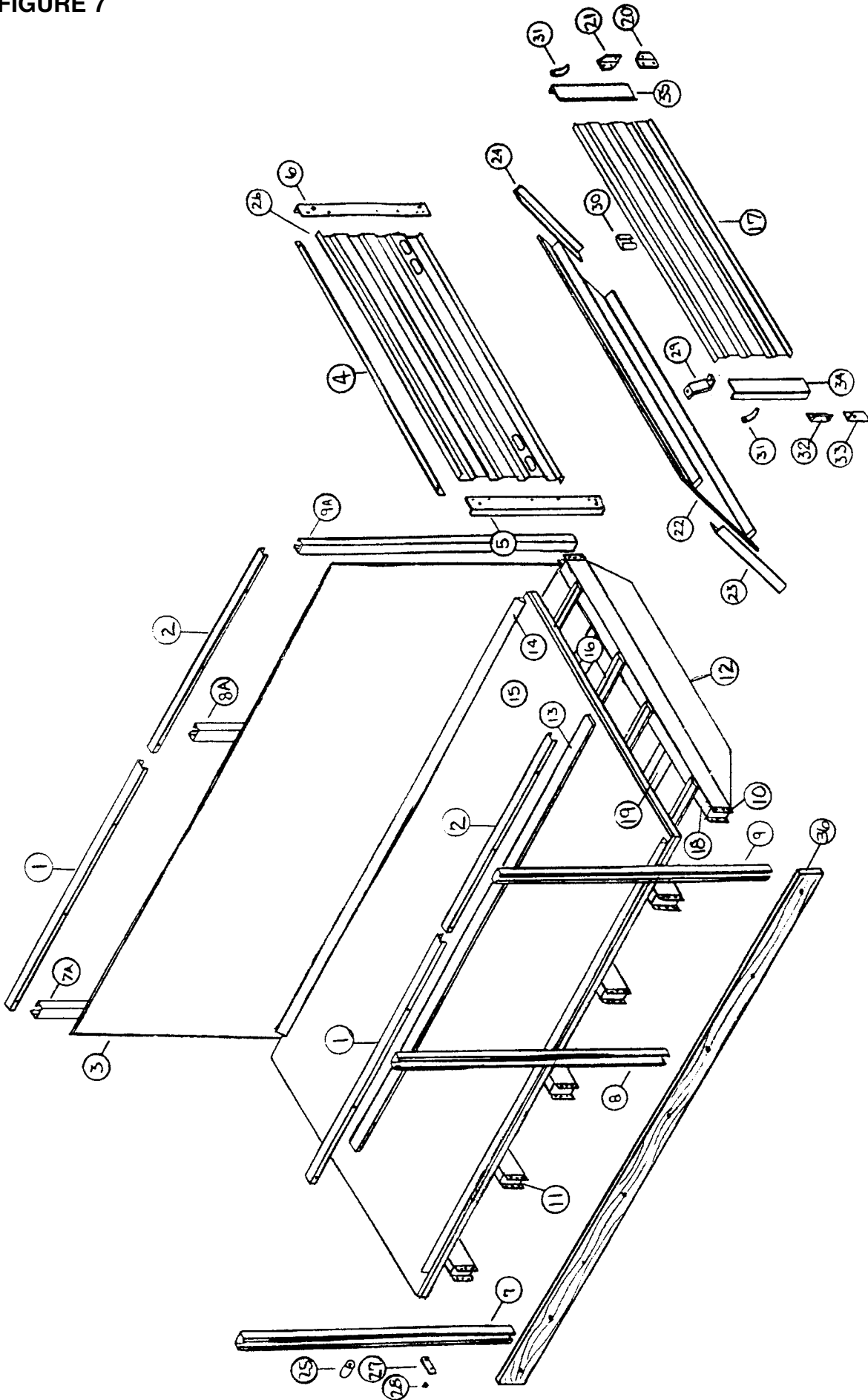
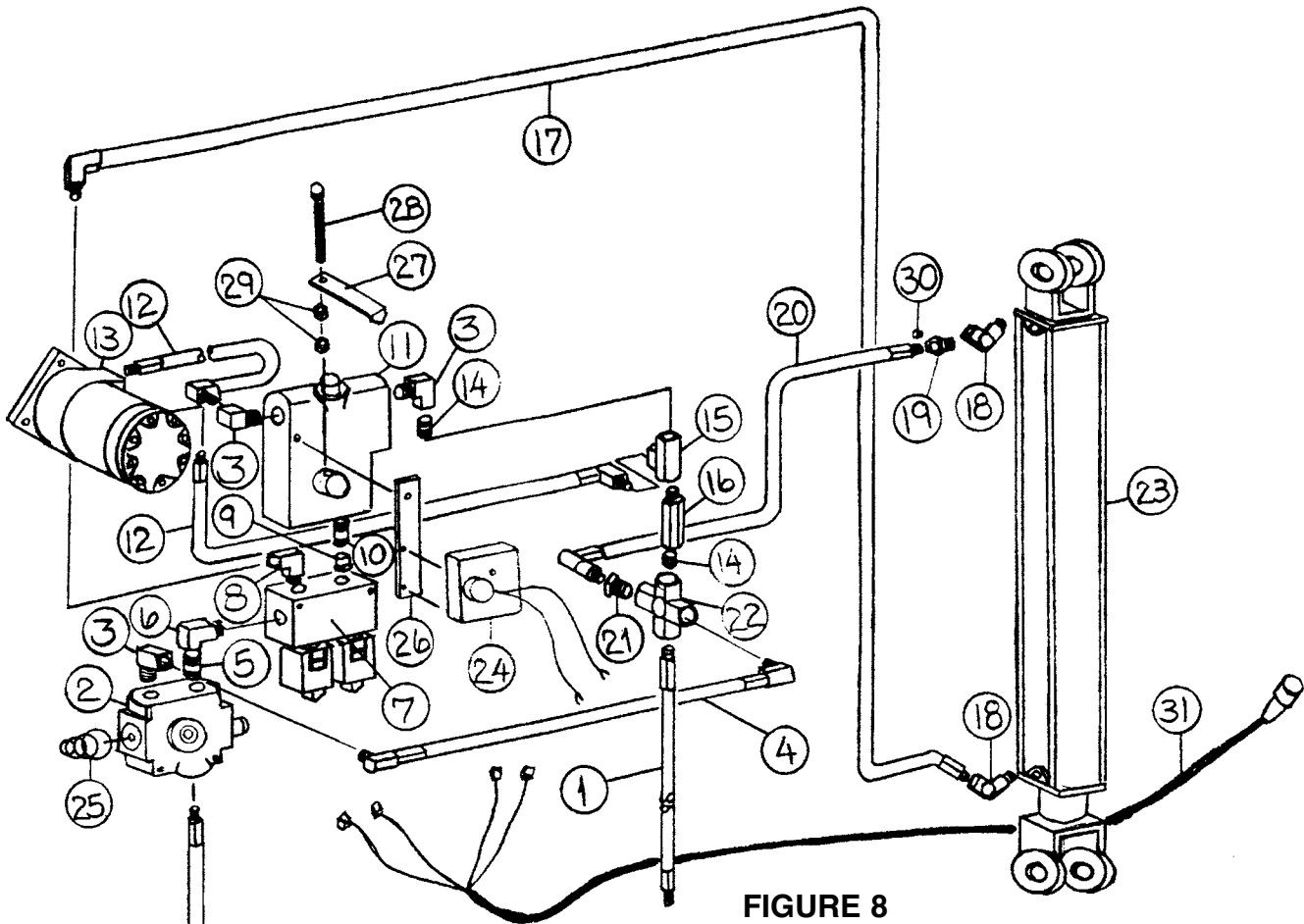


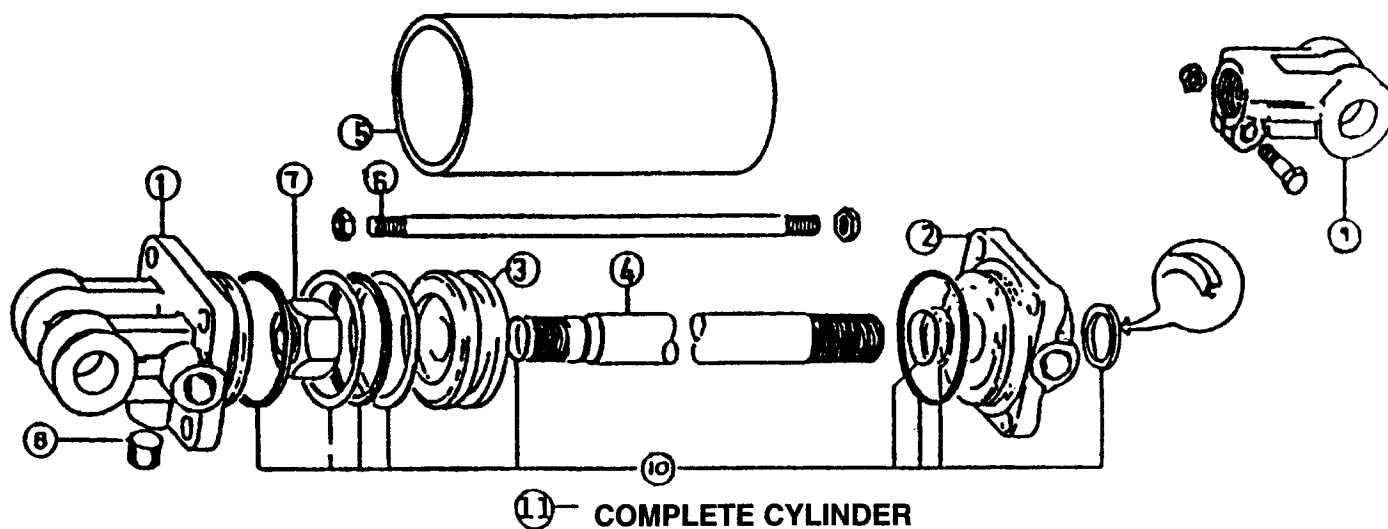
FIGURE 7
BOX AND COMPONENT PARTS

ITEM	PART NO.	DESCRIPTION
1.	JB59	Top Rail Front
2.	JB60	Top Rail Back
3.	JB61	FRP Side
4.	JB62	Back Door Top Angle
5.	JB63	Back Door Top LH
6.	JB64	Back Door Top RH
7.	JB65	LH Front Stake
7A.	JB66	RH Front Stake
8.	JB67	LH Side Stake
8A.	JB68	RH Side Stake
9.	JB69	LH Back Stake
9A.	JB70	RH Back Stake
10.	S269	Back Stake Pocket
11.	S268	Stake Pocket
12.	S270	Rear Filler and Brace
13.	JB103	16' Apron Chain Center Spacer
14.	JB104	16' Apron Chain Side Spacer
15.	JB71	16' Poly Bonded Plywood Floor Assembly
16.	S271	16' Apron Chain Return Slide
17.	S197	Tailgate Steel
18.	S275	Cross Channel
19.	S276	16' Stringer
20.	S198	RH Hinge Bottom Piece
21.	S199	RH Hinge Top Piece
22.	JB38	Rear Slant Panel
23.	S185	LH Angle for Slant Panel
24.	S186	RH Angle for Slant Panel
25.	ST55	Stake Spacer
26.	JB72	Back Door Upper Steel
27.	ST56	Cable Bracket
28.	ST57	Plastic Grommet for Cable
29.	S191	Slant Panel Brace
30.	F97	SMV Holder
31.	S192	Handle Nut
32.	S193	LH Hinge Top Piece
33.	S194	LH Hinge Bottom Piece
34.	S195	Tailgate LH Side Piece
35.	S196	Tailgate RH Side Piece
36.	JB106	Rub Rail



**FIGURE 8
HYDRAULIC DIAGRAM – 2 HOSE**

ITEM	PART NO.	DESCRIPTION
1.	16SV129	1/2" x 108" Hose
2.	16SV133	Selector Valve – Emergency Trip
3.	HE58	1/2" NPT Street Elbow
4.	JB73	3/8" x 12" Hose
5.	DF17	1/2" NPT x 2" Nipple
6.	JB74	90 Degree Elbow Adapter – 1/2"
7.	JB75	Selector Valve – Double Solenoid
8.	JB76	90 Degree Elbow Adapter – 3/8"
9.	JB77	Straight Adapter – 1/2"
10.	JB78	1/2" x 1-1/2" Nipple
11.	16SV254	Flow Control Valve – Electric
12.	JB79	1/2" x 85" Hose
13.	DF1	Hydraulic Motor
14.	DF7	1/2" NPT x 1-1/8" Full Thread Nipple
15.	DF8	1/2" NPT Female Tee
16.	DF18	Check Valve
17.	JB80	1/4" x 58" Hose
18.	23N234	3/8" Street Elbow
19.	BFR122	Union
20.	JB81	1/4" x 45" Hose
21.	JB82	1/2" x 3/8" Reducer
22.	JB83	1/2" Female Cross
23.	16SV171	2" x 10" Hydraulic Cylinder
24.	16SV246	Speed Control Motor
25.	T241	Spring - Selector Valve
26.	JB84	Speed Control Motor Mount
27.	JB85	Speed Valve Pointer
28.	X26	3/8" x 3" Bolt Full Thread
29.	K60	3/8" Nut
30.	BFR120	Orifice
31.	16SV240	Power Supply Cord w/Ends



**FIGURE 9
HYDRAULIC CYLINDER**

ITEM	PART NO.	DESCRIPTION
1.	23N142A	Clevis Cap
2.	23N143A	Rod Cap
3.	23N144	Piston
4.	16SV168A	Rod
5.	16SV169	Cylinder Tube
6.	16SV170	Tie Rod
7.	23N148	Piston Nut
8.	23N149	Plug
9.	23N150A	Rod Clevis
10.	23N151	Seal Kit
11.	16SV171A	Complete Hydraulic Cylinder

FIGURE 10

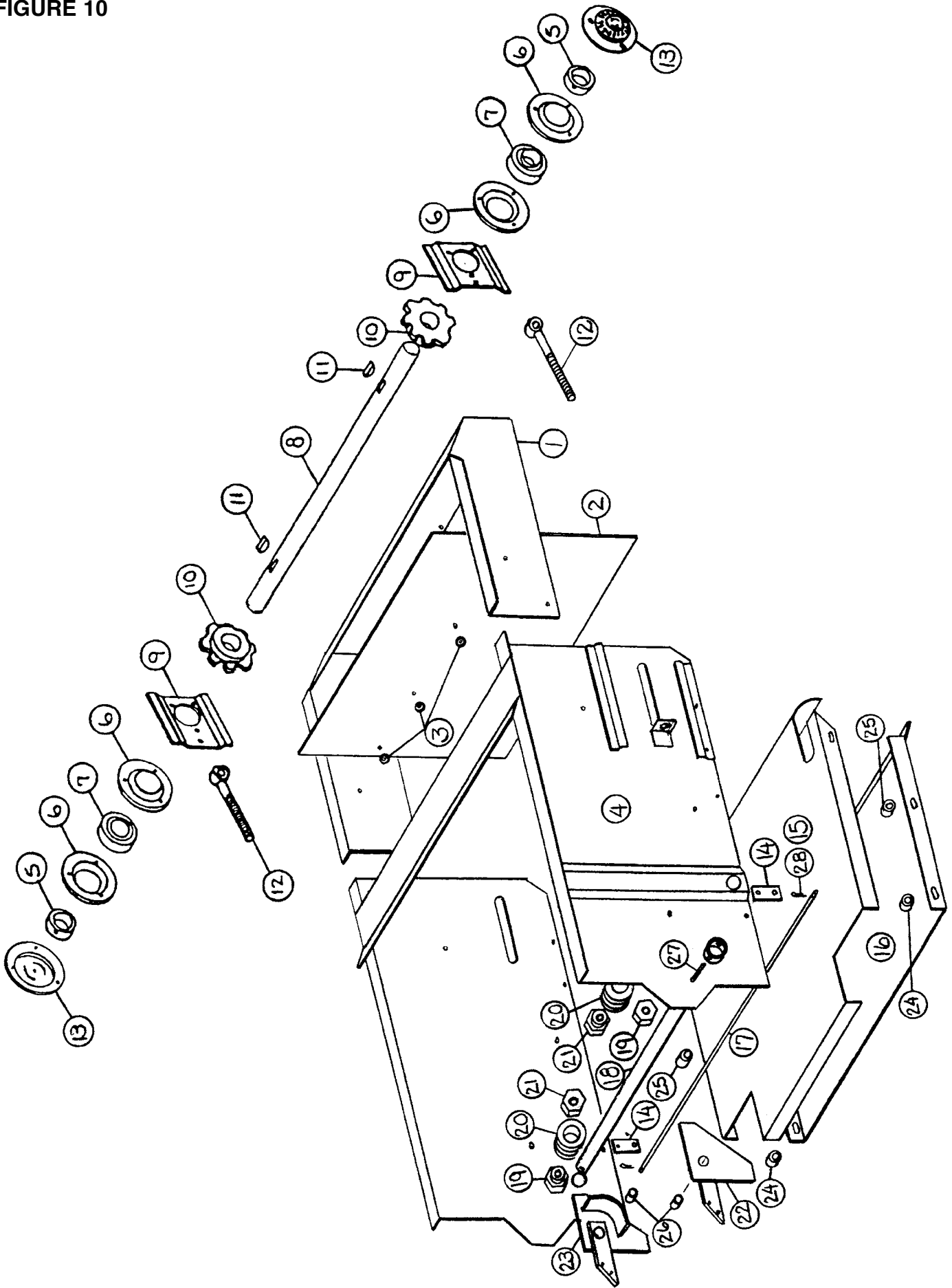
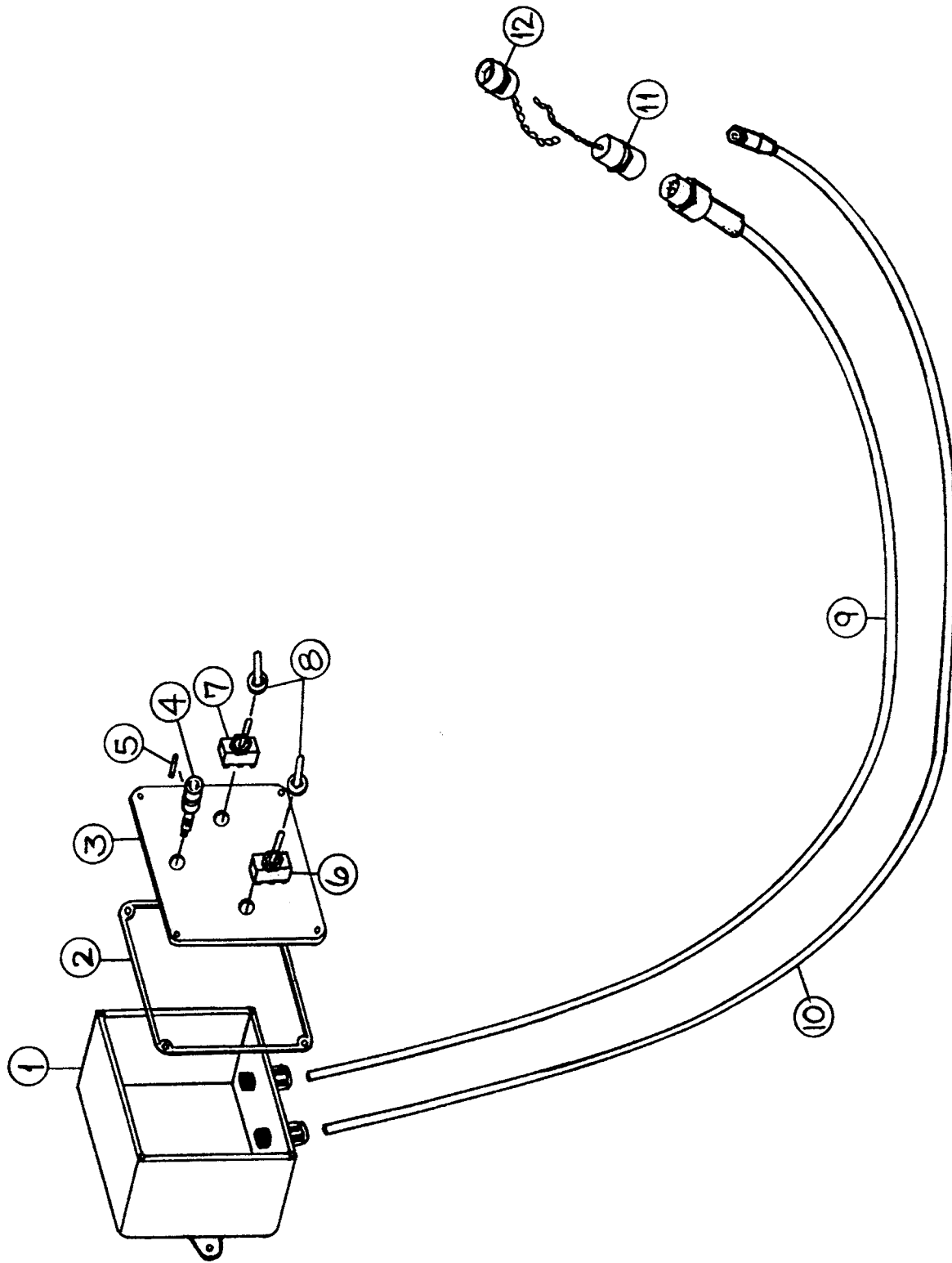


FIGURE 10
ELEVATOR EXTENSION

ITEM	PART NO.	DESCRIPTION
1.	JB86	Deflector Mount
2.	JB87	Deflector Shield
3.	JB88	Deflector Shield Washer
4.	JB89	Elevator Extension
5.	4C9	Lock Collar
6.	4C7	Bearing Flange
7.	4C8	Bearing
8.	JB90	Cross Apron Idler Shaft
9.	S74	Tightener Bracket
10.	L10R24	8T Sprocket
11.	5B10	1/4" x 1" Woodruff Key
12.	S75	Tightener Bolt
13.	S87	Cross Apron Shaft Guard
14.	JB91	Poly Hold Down Tab
15.	JB92	Elevator Extension
16.	JB93	Elevator Return Pan
17.	JB94	Poly Hold Down Rod
18.	JB95	Elevator Pivot Shaft
19.	JB96	Elevator Roller Block
20.	JB15	Hold Down Roller
21.	JB14	Conveyor Roller Block
22.	JB97	RH Chain Slide Bracket
23.	JB98	LH Chain Slide Bracket
24.	S71	Pan Extension Carrier Spacer
25.	S70	Spacer
26.	RG16	Bushing
27.	3G22	Roller Pin 5/16" x 1-3/4"
28.	T37	Cotter Pin

FIGURE 11



**FIGURE 11
FEEDER BOX
CONTROL BOX ASSEMBLY**

ITEM	PART NO.	DESCRIPTION
1.	16SV228	Control Box
2.	16SV229	Control Box Gasket
3.	JB99	Control Box Cover w/Switches
4.	16SV231	Fuse Holder
5.	16SV232	Fuse
6.	16SV233	Elevator/Unloading Switch
7.	16SV234	Unloading Speed Switch
8.	16SV235	Switch Boots
9.	16SV236	Tractor Power Supply Cord w/Ends
10.	16SV237	Control Box Power Supply Cord w/Ends
11.	16SV238	Optional Cover for Control Box Plug
12.	16SV239	Optional Cover for Tractor Plug
*	JB100	Complete Feeder Wagon Control Box Assembly

NOTE: * (Means Not Shown)

FIGURE 12

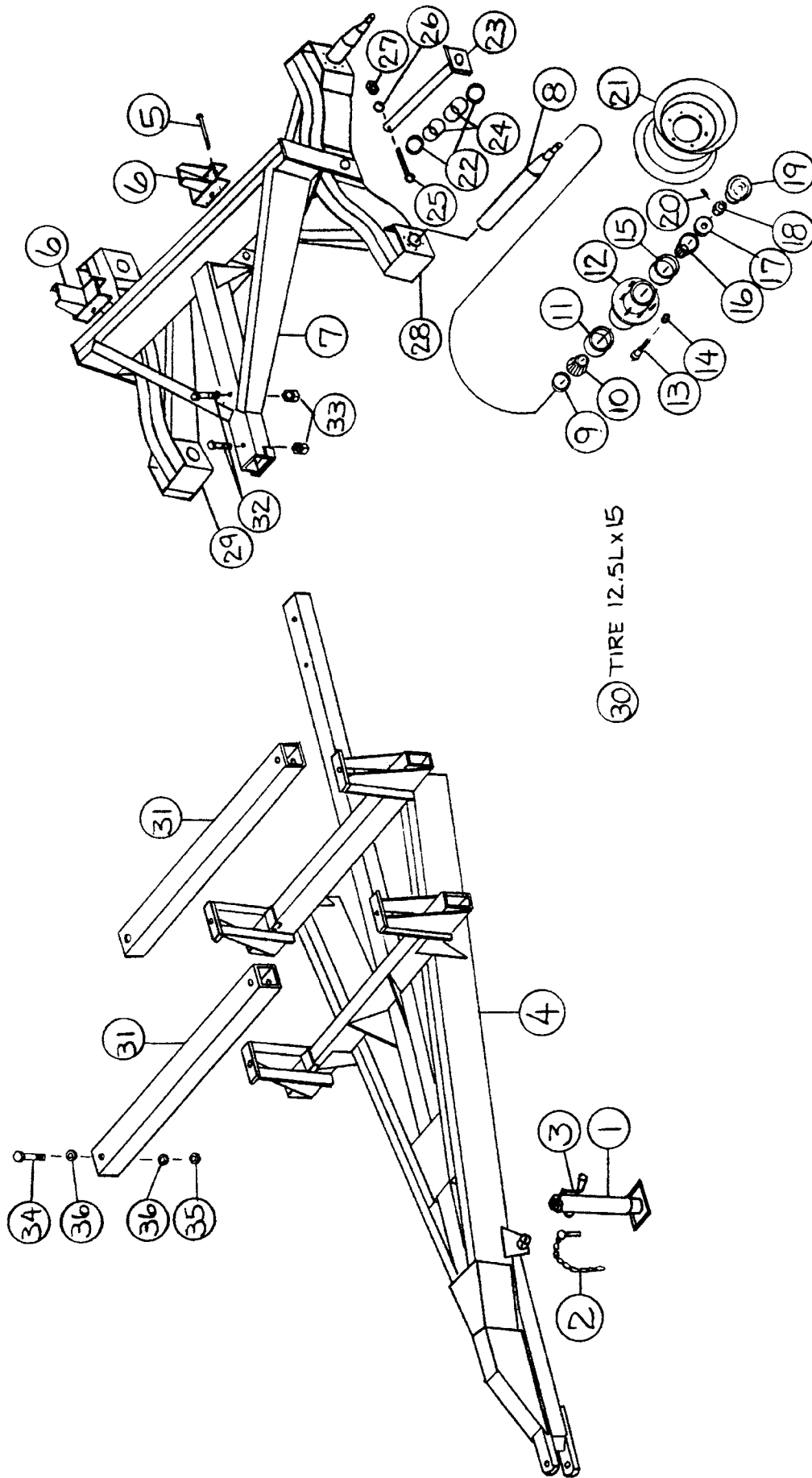


FIGURE 12
H&S H D 7+4 FEEDER BOX – RUNNING GEAR

ITEM	PART NO.	DESCRIPTION
1.	27N14	Jack
2.	12N13	Jack Pin & Chain
3.	12N12	Jack Handle
4.	JB1	Front Frame
5.	RG36	3/8" x 4" Bolt
6.	RG221	Stake Pockets
7.	RGT7	Back Frame
8.	RG66	Back Spindle
9.	RG67	Seal
10.	RG68	Inner Bearing
11.	RG69	Inner Race
12.	RG70	Hub
13.	RG71	Stud Bolt
14.	RG72	Nut
15.	RG47	Outer Race
16.	RG48	Outer Bearing
17.	RG49	Washer
18.	T35	3/4" -16 Slotted Nut
19.	12N23	Hub Cap
20.	T72	Cotter Pin
21.	RG73	Wheel 15 x 10
22.	RGT12	Washer
23.	RGT8	Tandem Pin
24.	RG26	Bushing
25.	23N53	1/2"-13 x 4" Bolt GR.5
26.	R35	1/2" Lock Washer
27.	R29	1/2" Nut
28.	RGT9	LH Tandem Axle Assembly
29.	RGT10	RH Tandem Axle Assembly
*30.	RG52	Tire 12.5L x 15
31.	JB2	Mount Hold down
32.	HE6	3/4" x 4-1/2" Bolt GR.5
33.	HE7	3/4" Top Lock Nut
34.	BFR133	5/8" x 4" Bolt GR.5
35.	T60	5/8" Top Lock Nut
36.	RG8	5/8" Flat Washer

NOTE: * (Means Not Shown)

H&S H D 7+4 FEEDER BOX

Power	Hydraulic Drive
Hydraulic Requirements	(2000 PSI, 10 GPM.)
Feeder Apron Drive	Worm Gear (Bronze)
Speeds	Infinite Variable
Main Aprons	4 Chains - 667H Pintle
Beaters	2-18" Diameter, 4 Spiral Bars
Beater Drive	#50 Roller Chain
Cross Conveyor	#550 Roller Chain with Angle Cross Slats
Cross Conveyor Drive	Sprocket and #50 Roller Chain
Cross Conveyor Width	22"
Discharge	Left Side Unloading Elevator
Discharge Opening	533 Sq. In.
Discharge Height	
Minimum (0 Degree Angle)	(Approx.) 33"
Maximum (45 Degree Angle)	(Approx.) 39"
Inside Length	16'
Inside Width	7'-4"
Inside Height	48"
Capacity	
By Volume, Struck Level	454 Cubic Ft.
By Weight (Total)	20,000 Lbs.
Overall Length	23'-7"
Overall Width	
Conveyor Up	9'-8"
Conveyor Down	12'-4"
Overall Height (Loading Height)	8'-2"
Weight	5570 Lbs.
Sides and Floor (Inside Box)	Poly Bonded to Plywood
Tires	12.5L x 15, 8 Ply Tandem
Rub Rail - Wood	Standard
Emergency Stop Mechanism	Standard
Highway Light Package	Standard
Electric Controls	Standard
Truck Mounted Version	Optional
Height From Bottom of Frame to Top of Box	69"
Recommended Truck Cab to Center of Axle	(Minimum) 150"

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

H&S MANUFACTURING CO. INC.

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