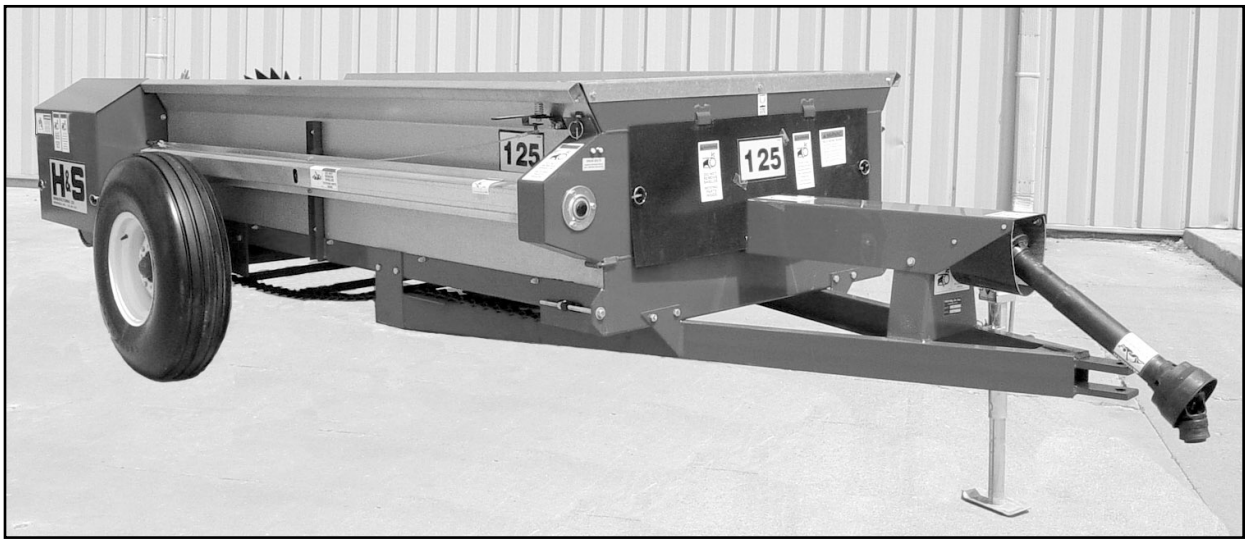
H&S

Heavy Duty Manure Spreader



WARNING READ AND UNDERSTAND THIS MANUAL BEFORE OPERATING THIS EQUIPMENT.

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

MODEL 80 & 125
PARTS & OPERATOR'S INSTRUCTIONS

10-25-2006

Manufactured By

H&S MANUFACTURING CO., INC.

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

MARSHFIELD, WISCONSIN 54449

H&S MODELS 80 & 125 SPREADER
PARTS AND OPERATOR'S MANUAL

CONTENTS

AFTER COMPLETION, DEALER SHOULD REMOVE AND RETAIN FOR RECORDS

H&S
DEALER PRE-DELIVERY CHECK LIST

After the Manure Spreader 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.

- ❑ PTO shields turn freely.
- ❑ All shields and guards are in place and fastened.
- ❑ All grease fittings have been lubricated and gearbox 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.
- ❑ All decals are in place and legible.

_____ _____

(Dealer's Name) Model Number

_____

Serial Number

_____ _____

(Signature of Pre-Delivery Inspector) (Inspection Date)

(Remove Dealers File Copy At Perforation)

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 Manure Spreader 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 Serial Number on Page 15 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.

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.

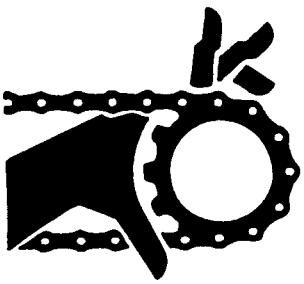
Safety signs with signal word DANGER or WARNING are typically near specific hazards.

General precautions are listed on CAUTION safety signs.

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

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

1494A

⚠ WARNING

DO NOT OPERATE THIS EQUIPMENT IF THIS DECAL IS EXPOSED. REPLACE SAFETY SHIELDS. FAILURE TO HEED MAY RESULT IN SERIOUS INJURY OR DEATH.

3894

⚠ WARNING

DO NOT REMOVE SHIELDS

ROTATING PARTS INSIDE

12794

⚠ DANGER

ROTATING DRIVELINE

CONTACT CAN CAUSE DEATH

KEEP AWAY!

DO NOT OPERATE WITHOUT-

- ALL DRIVELINE, TRACTOR AND EQUIPMENT SHIELDS IN PLACE.
- DRIVELINES SECURELY ATTACHED AT BOTH ENDS.
- DRIVELINE SHIELDS THAT TURN FREELY ON DRIVELINE.

1494L

⚠ WARNING

CRUSHING HAZARD

TO PREVENT SERIOUS INJURY OR DEATH:

KEEP HANDS AND BODY OUT OF HITCH AREA WHEN ATTACHING TOWING VEHICLE.

KEEP BODY CLEAR OF CRUSH POINT BETWEEN TOWING VEHICLE AND LOAD.

KEEP FEET AND LEGS CLEAR FROM UNDER TONGUE AREA IN CASE OF POSSIBLE JACK FAILURE.

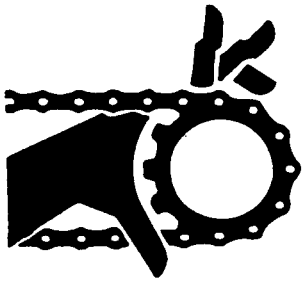
82602

⚠ WARNING

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

71494A

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

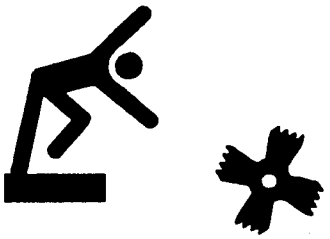
72203A

DANGER

NO STEP-STAY CLEAR

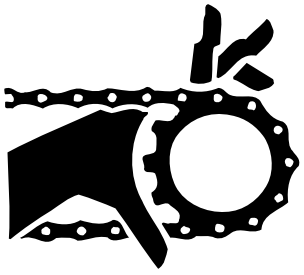
9194A

DANGER



NEVER ALLOW RIDERS ON THIS MACHINE

9194B



1494B

WARNING

DO NOT REMOVE SHIELDS

MOVING PARTS INSIDE

111593A

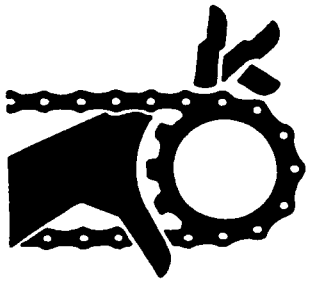
DANGER

STAY CLEAR OF BEATER IF TRACTOR OR PTO IS RUNNING BEATER SHUT OFF COULD ACCIDENTALLY BE ENGAGED

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

KEEP CLOTHING, YOURSELF AND OTHERS WELL CLEAR

WARNING



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

1494J

WARNING

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 PTO. Stop the tractor engine and allow all mechanisms to stop before cleaning or working on the machine. Never allow riders in or on the machine.

DO NOT get off the tractor while the spreader is in operation.

DO NOT attempt to perform maintenance or repair with tractor running and PTO 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.

Before starting tractor, be sure PTO shields turn freely and PTO is securely locked to tractor.

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

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 PTO.

DO NOT step over power take off shaft. Stay clear of PTO at all times.

NEVER start manure spreader until all guards and safety shields are secured in place.

NEVER hook up 1000 RPM tractor to the spreader.

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.

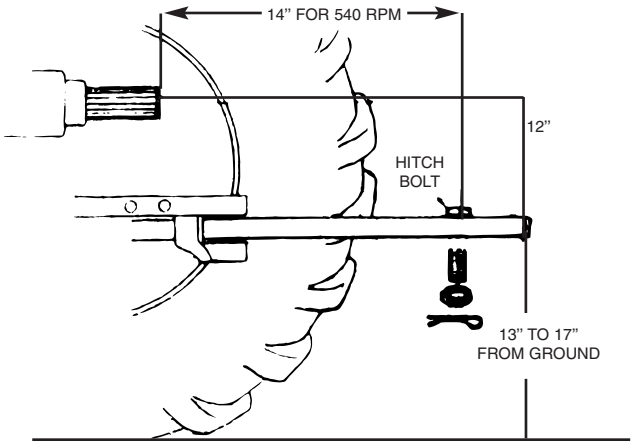
Study The Above Safety Rules
ATTENTION - BE ALERT - YOUR SAFETY IS INVOLVED

OPERATION MODEL 80
(FOR MODEL 125 SEE PAGE 14)

1. Check for proper assembly and adjustment and make sure that all bolts are tightened. Securely retighten after a few hours of operation, as bolts can loosen up on new machinery. Check wheel bolts upon delivery and periodically thereafter. Wheel bolts should be tightened at 60-65 ft./lbs. of torque.
2. Check the tires and inflate to the recommended pressure (6.70 x 15 tires to 35 pounds.)
3. Adjust the tractor hitch and attach the spreader to the tractor as described in the following sections.
4. Lubricate the machine completely and check the oil level of the gearbox.
5. Before operation run machine slowly to make sure that the spreader is operating and lubricated properly.

TRACTOR HITCH

The hitch of the spreader is designed for a standardized tractor hitch. Adjust the drawbar so that it is 13 to 17 inches above the ground. Extend or shorten it so that the horizontal distance from the end of the tractor power take-off shaft to the center of the hitch pin hole is 14 inches, as shown in drawing. Use an adapter plate, if necessary, to secure the proper distance. An improperly located hitch joint may cause damage to the universal joints of the power take-off. Secure the drawbar so that the hitch pin hole is directly below the power drive line.



If this implement is attached to a tractor with a clevis hitch (hammer-strap) style drawbar, the hammer-strap must be removed to prevent damage to the IID guarding and the IID telescoping members. [See Figure 1]

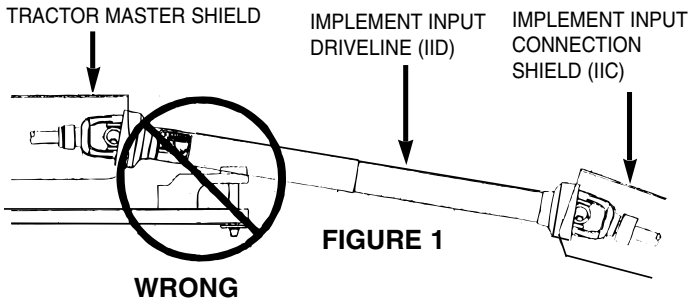


FIGURE 1

WRONG

If this implement is attached to a tractor with an offset in the drawbar, be certain it is in the down position to prevent damage to the IID guarding and the IID telescoping members. [See Figure 2]

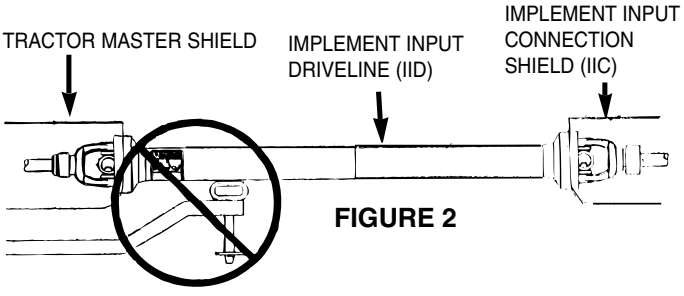


FIGURE 2

WRONG

ATTACHING TO THE TRACTOR

1. Fasten the spreader hitch to the drawbar with a hitch pin that cannot bounce out. Use 3/4" to 7/8" diameter hitch pin to pull spreader.
2. Remove the weight from the jack (jack is not to be used when spreader is loaded). Swing jack forward into its horizontal position, and lock it to provide a maximum ground clearance.
3. Slide spring loaded locking collar on PTO yoke rearward, and slide yoke onto the tractor PTO shaft. Release spring loaded collar. Be sure pins fall into groove of tractor PTO shaft and collar snaps forward into locking position. **CAUTION:** Do not use a steel hammer to aid in joining PTO parts.

Be certain to disconnect all sources of power before servicing. Keep pant cuffs and other loose clothing away from all chain and gear drives as well as the other moving parts. Keep off the equipment when in use, and keep all safety shields in place; do not attempt to clean, grease or lubricate while the machine is running. Never allow riders in or on the machine.

LOADING

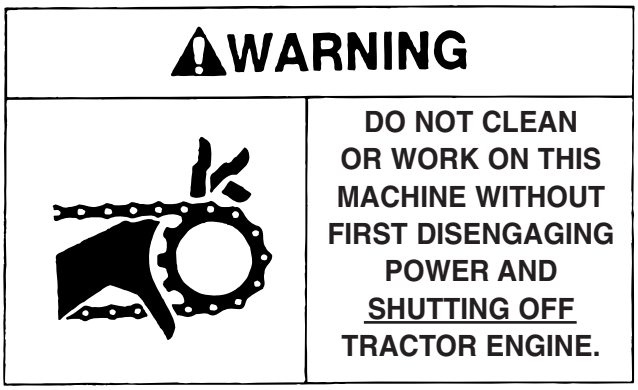
In freezing weather make sure the apron chain is not frozen to the spreader floor. Also check to make sure there are no chunks of manure frozen to the floor.

Begin loading the spreader at the front end and work toward the rear until loading is completed. Loading this way permits the materials to be spread uniformly. Loading front to rear is particularly important when the spreader is loaded by a mechanical loader because this type of load requires more power to spread than other loads.

When hauling extremely heavy material with a large portion of dirt it may be necessary to reduce the load size. Never dump material onto the beater. Do not use extra sideboards. Do not overload spreader. Overloading decreases spreading effectiveness. Do not load more than 15 inches above the beater.

SPREADING

1. When ready to unload, make sure beater is in the engaged position.
2. Engage the tractor PTO shaft slowly. Failure to do so will cause damage to the gearbox and drive train.



3. When the spreader is almost empty, the bed can be cleaned by moving the beater control lever to the OUT position. Disengage PTO before disengaging beater. With the lever in this position the beater will stop and the apron will continue to operate when PTO is re-engaged, thus saving the unnecessary driving.
4. Do not operate the spreader with a PTO speed greater than 540 RPM's.

ADJUSTMENTS MODEL 80

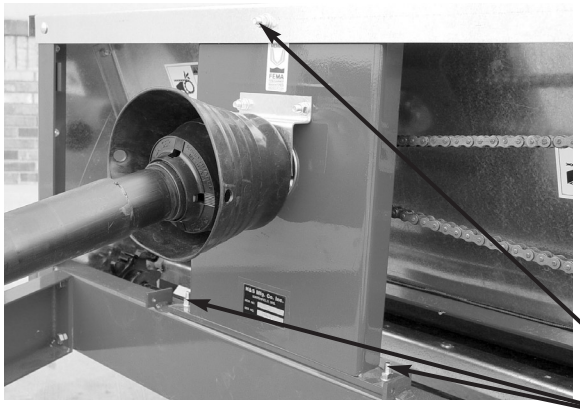
(FOR MODEL 125 SEE PAGE 15)

APRON

Adjust the apron by tightening the adjusting bolts located at the front of the spreader until the apron chain rests lightly on top of the chain guides located below the axle.

NOTE: Tighten the adjusting bolts on each front corner equally on each side so that the apron slats run parallel with the ends of the bed. The apron will be damaged if the machine is operated with one end of the apron slats running ahead of the opposite end. Do not tighten the apron chains excessively.

TIGHTENER BOLT



Shields Removed For Clarity

BOLTS

DRIVE CHAIN

To adjust main drive chain, loosen three bolts holding front center panel on to spreader. Slide panel toward right side of the spreader until proper tension on chain is reached. There should be 1/2 inch deflection at center of drive chain when properly adjusted. Retighten bolts holding front panel.

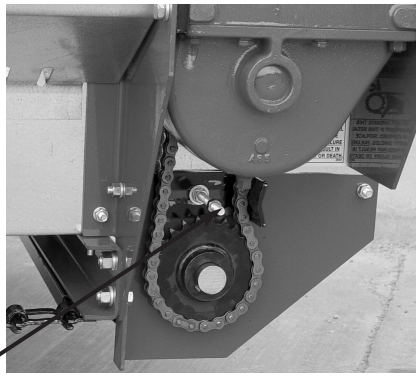
Over tightening or too loose of a chain will result in excessive wear on the bearings, chain, and sprockets.

APRON DRIVE CHAIN

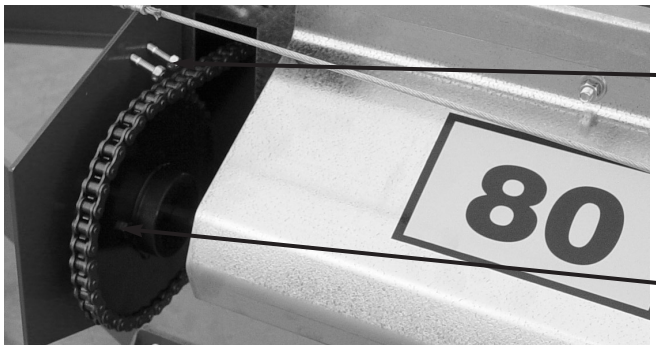
Maintain proper tension on the apron drive chain. There should be 1/4 inch deflection at the side of the chain when properly adjusted. To adjust loosen bolt holding tightener. Slide tightener against drive chain and retighten bolt. Failure to maintain proper tension will result in excessive wear to chain and sprockets.

SHEAR BOLT

The beater and apron drive are protected by one shear bolt. Two shear bolts are provided. Shearing of the bolt is normally due to foreign objectsin the manure, or starting the spreader PTO too quickly with high tractor RPM's. Always use H&S shear bolts, part number 16SV289, when replacing shear bolts.



Shields Removed For Clarity



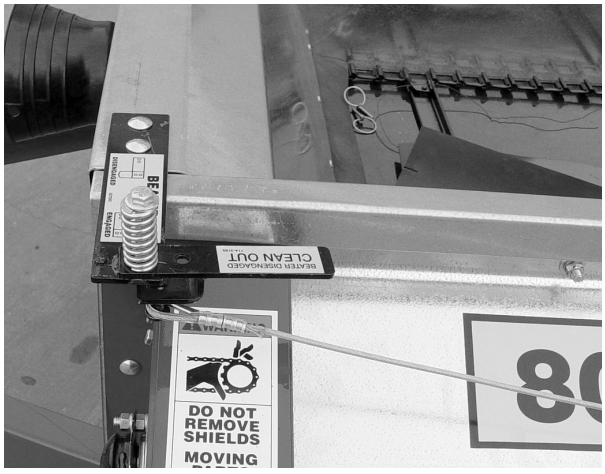
ADJUSTING WHEEL HUBS

To adjust the wheel hubs, tighten the castellated nut on the spindle to the point where there is no end-play and a slight drag on the bearings, and replace the cotter key with a new one of the correct size.

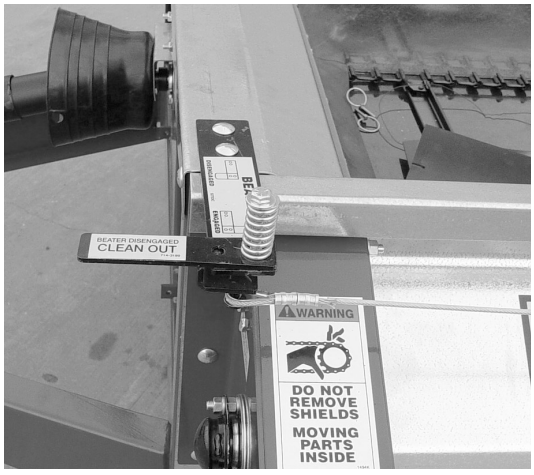
FAILURE TO FOLLOW THE RECOMMENDED ADJUSTMENTS WILL VOID WARRANTY.

BEATER CONTROL

The beater engage / disengage handle is located at the front left hand side of the spreader. **NEVER** engage or disengage beater with PTO engaged.



Beater Engaged



Beater Disengaged

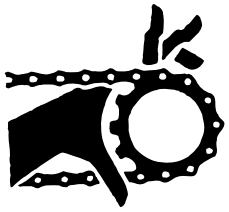
BEATER

As the beater paddles are welded to the beater tube, replacement of these paddles should be performed by authorized service personnel who are competent welders. When replacing paddles, the sharp edge of the teeth must lead in the direction of beater travel.

When transporting on the highway, regularly clean the reflective tape at the rear of the spreader. There is a holder provided for your SMV sign.

LUBRICATION GUIDE MODEL 80
(FOR MODEL 125 SEE PAGE 17)

⚠WARNING



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

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

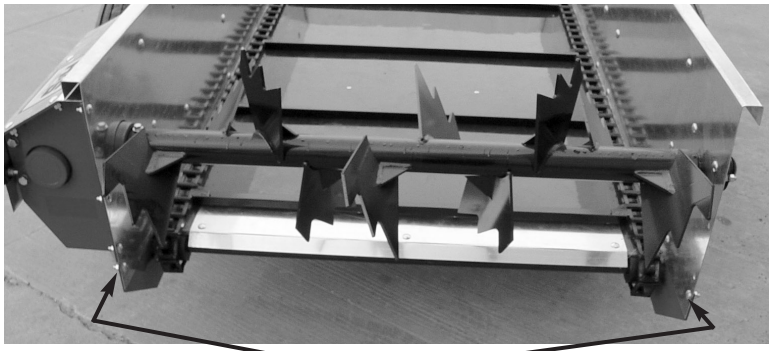
DRIVE CHAINS–Lubricate the drive chains with a light machine oil. Keep chains aligned with sprockets. This will lengthen the life of the sprockets and chain. Lubricate chains often.

GEARBOX–Before using your new machine, check the oil level in the gearbox located at the left rear of the spreader. Keep the gearbox filled to the center of the top shaft of the gearbox with 80-90 gear lube.

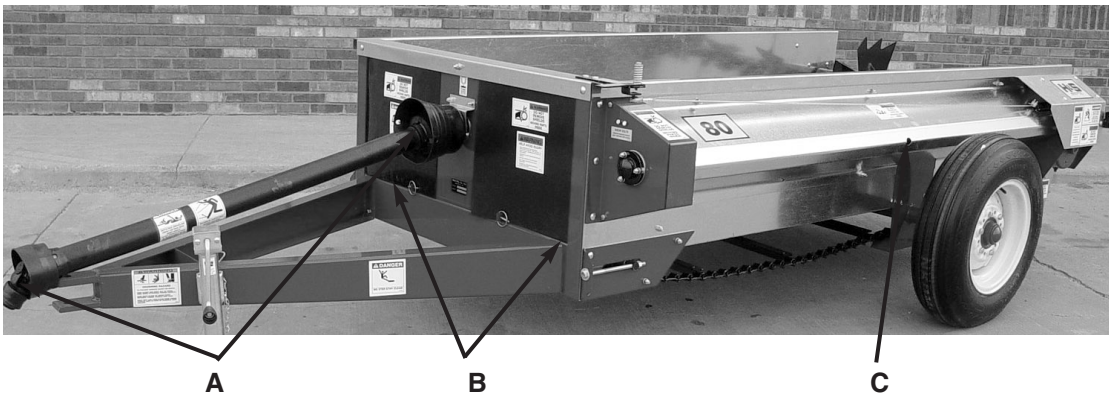
There are 7 grease fittings on this spreader. If these are lubricated properly and often enough it will prolong the life of the spreader (Grease every 20 hours, also before storage and after power washing). Make certain that the grease fittings are free of paint and dirt, force a high quality grease into them until the grease comes out around the shaft on the sleeve type bearings. On the sealed ball bearings, grease should be added slowly until a slight bead forms at the seals, indicating the correct amount of lubricant. Wipe off excess grease to prevent the accumulation of chaff and grit around the bearings.

GREASE FITTINGS – (Location)

A. (2) One at each end of PTO shaft
B. (2) One on each idler sprocket
C. (1) On the side shaft
D. (2) On each end of drive shaft



Shields Removed for Clarity

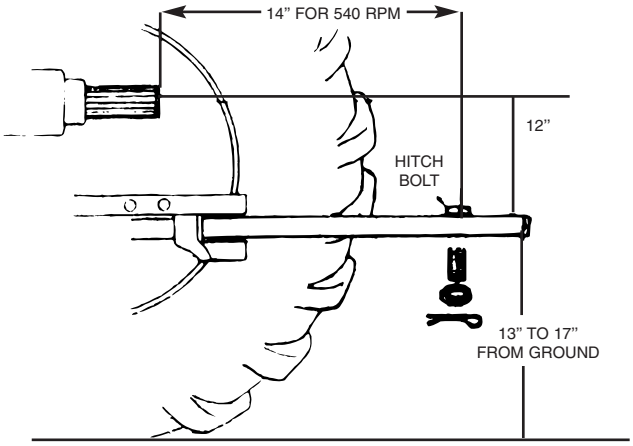


OPERATION MODEL 125

1. Check for proper assembly and adjustment and make sure that all bolts are tightened. Securely retighten after a few hours of operation, as bolts can loosen up on new machinery. Check wheel bolts upon delivery and periodically thereafter. Wheel bolts should be tightened at 60-65 ft./lbs. of torque.
2. Check the tires and inflate to the recommended pressure (10:00 x 15 tires to 40-50 pounds).
3. Adjust the tractor hitch and attach the spreader to the tractor as described in the following sections.
4. Lubricate the machine completely and check the oil level of the gearbox.
5. Before operation run machine slowly to make sure that the spreader is operating and lubricated properly.

TRACTOR HITCH

The hitch of the spreader is designed for a standardized tractor hitch. Adjust the drawbar so that it is 13 to 17 inches above the ground. Extend or shorten it so that the horizontal distance from the end of the tractor power takeoff shaft to the center of the hitch pin hole is 14 inches, as shown in drawing. Use an adapter plate, if necessary, to secure the proper distance. An improperly located hitch point may cause damage to the universal joints of the power takeoff. Secure the drawbar so that the hitch pin hole is directly below the power drive line.



If this implement is attached to a tractor with a clevis hitch (hammer-strap) style drawbar, the hammer-strap must be removed to prevent damage to the IID guarding and the IID telescoping members. [See Figure 1]

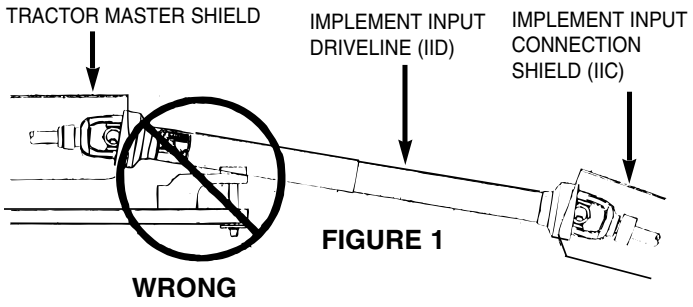


FIGURE 1

WRONG

If this implement is attached to a tractor with an offset in the drawbar, be certain it is in the down position to prevent damage to the IID guarding and the IID telescoping members. [See Figure 2]

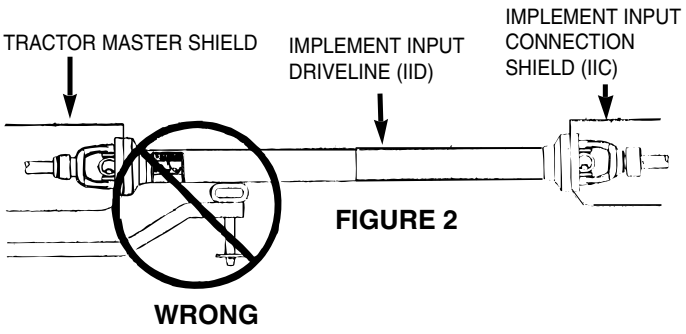


FIGURE 2

WRONG

ATTACHING TO THE TRACTOR

1. Fasten the spreader hitch to the drawbar with a hitch pin that cannot bounce out. Use 3/4" to 7/8" diameter hitch pin to pull spreader.
2. Remove the weight from the jack (jack is not to be used when spreader is loaded). Swing jack forward into its horizontal position, and lock it to provide a maximum ground clearance.
3. Depress the spring loaded pin on PTO yoke and slide it on to the tractor PTO shaft. Be sure the pin falls into the groove of the PTO shaft. **CAUTION:** Do not use a steel hammer to aid in joining PTO parts.

Be certain to disconnect all sources of power before servicing. Keep pant cuffs and other loose clothing away from all chain and gear drives as well as the other moving parts. Keep off the equipment when in use, and keep all safety shields in place; do not attempt to clean, grease or lubricate while the machine is running. Never allow riders in or on the machine.

LOADING

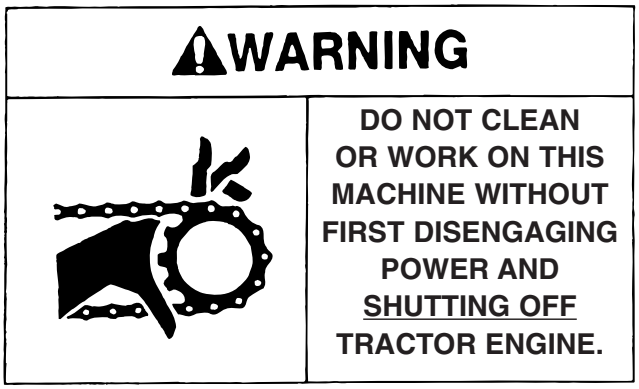
In freezing weather make sure the apron chain is not frozen to the spreader floor. Also check to make sure that there are no chunks of manure frozen to the floor.

Begin loading the spreader at the front end and work toward the rear until loading is completed. Loading this way permits the materials to be spread uniformly. Loading front to rear is particularly important when the spreader is loaded by a mechanical loader because this type of load requires more power to spread than other loads.

When hauling extremely heavy material with a large portion of dirt it may be necessary to reduce the load size. Never dump material onto the beater. Do not use extra sideboards. Do not overload spreader. Overloading decreases spreading effectiveness. Do not load more than 15 inches above the beater.

SPREADING

1. When ready to unload, make sure beater is in the engaged position.
2. Engage the tractor PTO shaft slowly. Failure to do so will cause damage to the gearbox and drive train.
3. When the spreader is almost empty, the bed can be cleaned by moving the beater control lever to the OUT position. Disengage PTO before disengaging beater. With the lever in this position the beater will stop and the apron will continue to operate when PTO is re-engaged, thus saving the unnecessary driving.
4. Do not operate the spreader with a PTO speed greater than 540 RPM's.



ADJUSTMENTS MODEL 125

APRON

Adjust the apron by tightening the adjusting bolts until the apron chain clears the underside of the axle by 1 inch.

NOTE: Tighten the adjusting bolts on each front corner equally on each side so that the apron slats run parallel with the ends of the bed. The apron will be damaged if the machine is operated with one end of the apron slats running ahead of the opposite end. Do not tighten the apron chains excessively.

Shields Removed For Clarity

DRIVE CHAIN

To adjust main drive chain, turn nut on adjusting rod (located at the left hand front side of spreader) clockwise.

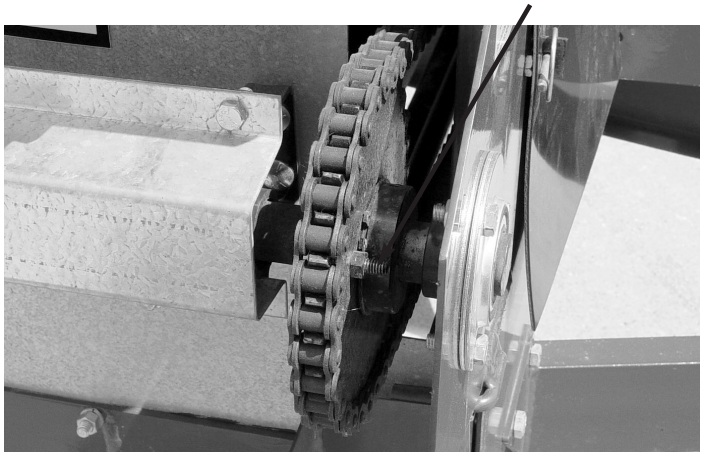
There should be 1/2-inch deflection at center of drive chain. Over tightening or too loose of a chain will result in excessive wear on the bearing, chain and sprockets.

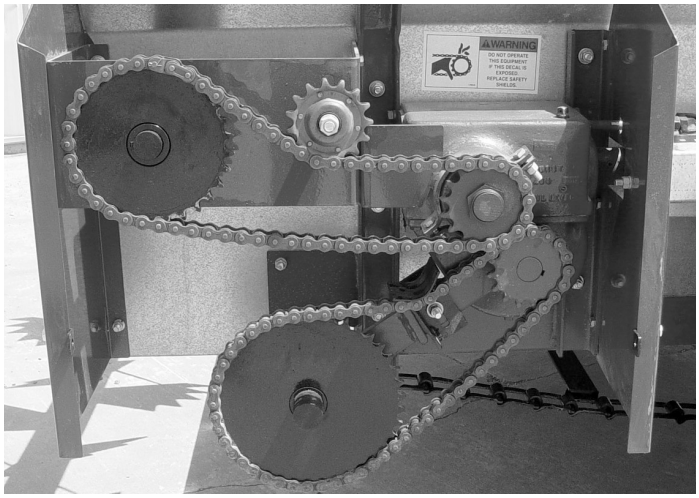
BEATER DRIVE

Maintain proper tension on the beater and apron drive chains. There should be 1/4" deflection at the bottom center of each chain. Failure to maintain proper tension will result in undue stress to beater stub shaft and bearings.

SHEAR BOLT

The beater and apron drive are protected by one shear bolt. Two spare shear bolts are provided. Shearing of the bolt is normally due to foreign objects in the manure, or starting the spreader PTO too quickly with high tractor RPM's. Always use H&S shear bolts, part number D31, when replacing shear bolts.





Shields Removed For Clarity

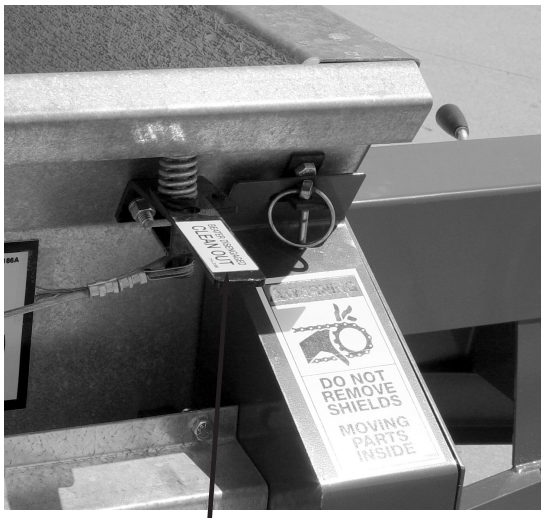
ADJUSTING WHEEL HUBS

To adjust the wheel hubs, tighten the castellated nut on the spindle to the point where there is no end-play and a slight drag on the bearings, and replace the cotter key with a new one of the correct size.

FAILURE TO FOLLOW THE RECOMMENDED ADJUSTMENTS WILL VOID WARRANTY.

BEATER CONTROL

The beater engage/disengage handle is located at the front right hand side of the spreader. **NEVER** engage or disengage beater with PTO engaged.



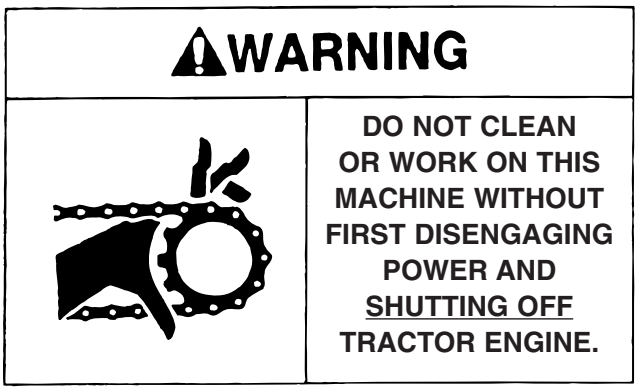
Beater Control Lever

BEATER

As the beater paddles are welded to the beater tube, replacement of these paddles should be performed by authorized service personnel who are competent welders. When replacing paddles, the sharp edge of the teeth must lead in the direction of beater travel. On the right half of the beater the teeth must point to the right side of the spreader. On the left half of the beater the teeth must point to the left side of the spreader.

When transporting on the highway, regularly clean the reflective tape at the rear of the spreader. There is a holder provided for your SMV sign.

LUBRICATION GUIDE MODEL 125

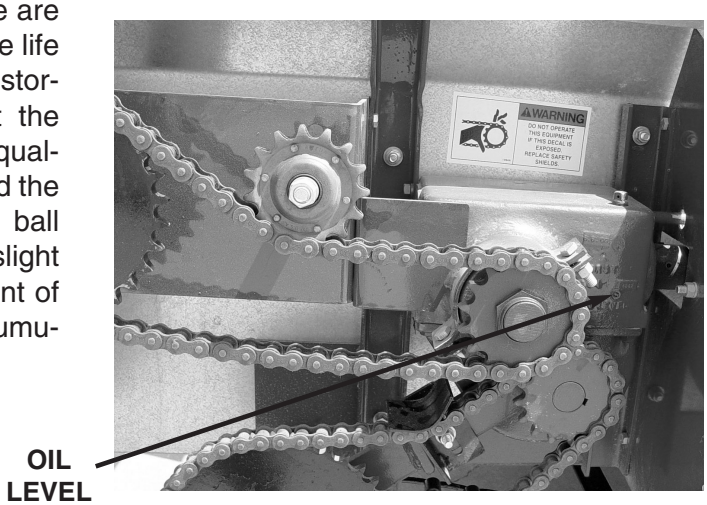


The operator should become familiar with all lubrication points and establish a systematic routine to insure complete and quick lubrication of the machine.

GEARBOX–Before using your new machine, check the oil level in the gearbox. Keep the gearbox filled to the oil level plug on the side of the gearbox as shown, with #80 or #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.

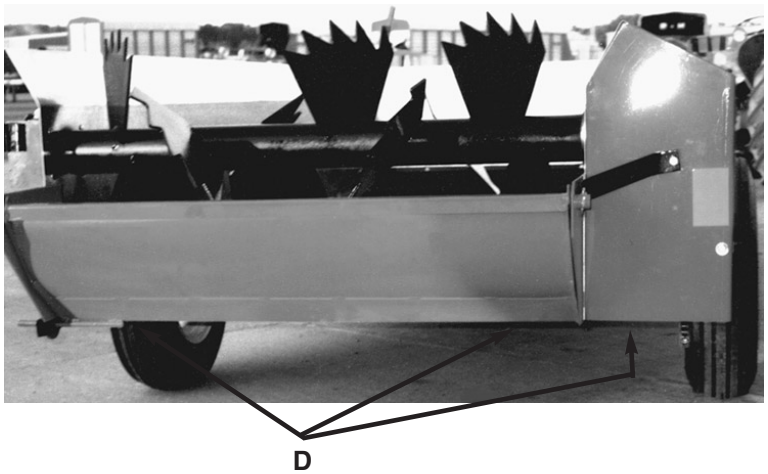
There are 10 grease fittings on this spreader. If these are lubricated properly and often enough it will prolong the life of the spreader (Grease every 20 hours, also before storage and after power washing). Make certain that the grease fittings are free of paint and dirt, force a high quality grease into them until the grease comes out around the shaft on the sleeve type bearings. On the sealed ball bearings, grease should be added slowly until a slight bead forms at the seals, indicating the correct amount of lubricant. Wipe off excess grease to prevent the accumulation of chaff and grit around the bearings.

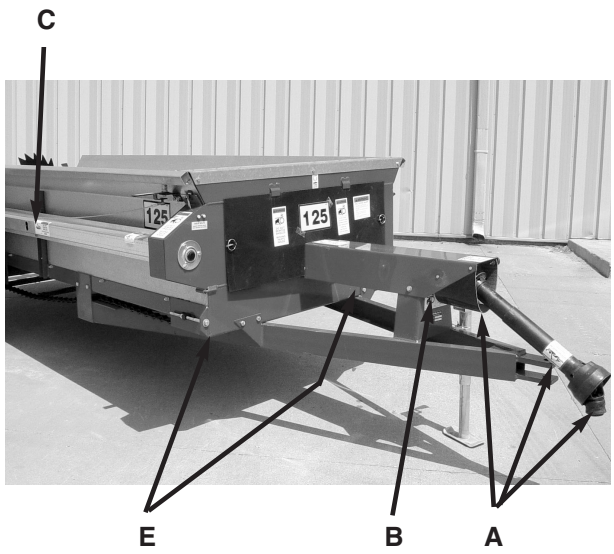


Shields Removed for Clarity

GREASE FITTINGS – (Location)

A. (3) PTO Shaft
B. (1) Front Jackshaft
C. (1) Side Shaft
D. (3) Drive Shaft
E. (2) Front Idler Sprockets





LUBRICATION GUIDE *(Continued)*

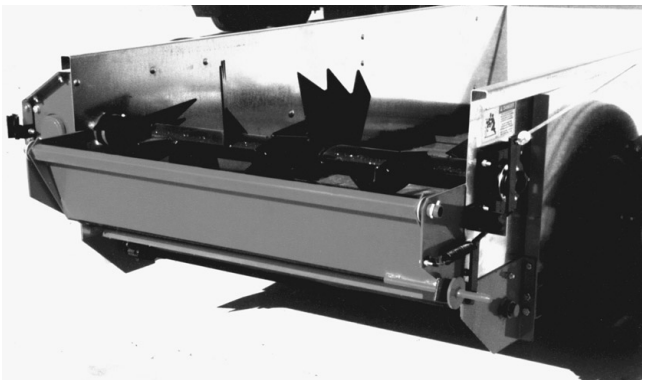
PTO ASSEMBLY – Care must be taken to keep the male and female driving elements well lubricated and free sliding. Failure to observe this precaution will result in excessive pressure being required to collapse or extend the assembly while subject to operating torque. This excessive force may damage or displace the jackshaft bearings. DO NOT lubricate the shield surfaces. The shield surfaces must be kept dry, as dirt accumulation on them will quickly cause these units to bind and not rotate. Care should also be taken to be certain that the rotating integral shields are not dented or damaged, as this also will result in excessive force being applied against the jackshaft. Damaged shields also cause obvious difficulties when installing the assembly. If at any time the shields do not turn freely, they should be checked to determine the cause, and repaired or cleaned. To avoid damage to the main drive bearings, avoid turning sharp corners while PTO is running. Start PTO slowly to avoid damage to the drive train.

OPTIONAL EQUIPMENT

REAR PAN

The rear pan is optional on the ModelS 80 &125 spreaders.

MODEL 80



MODEL 125

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 PTO Bearing Support Mount.

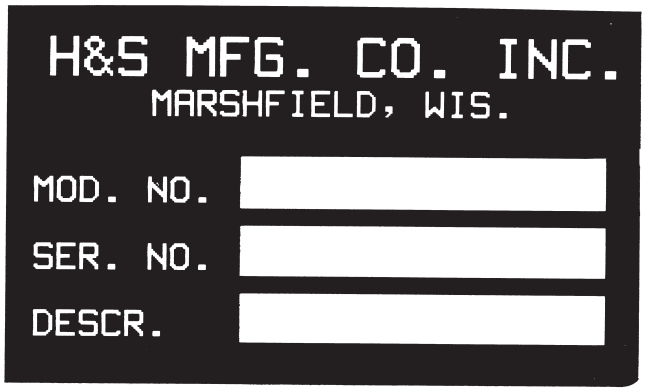
2. All reference to left or right apply to the machine as viewed from the rear.

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)



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.

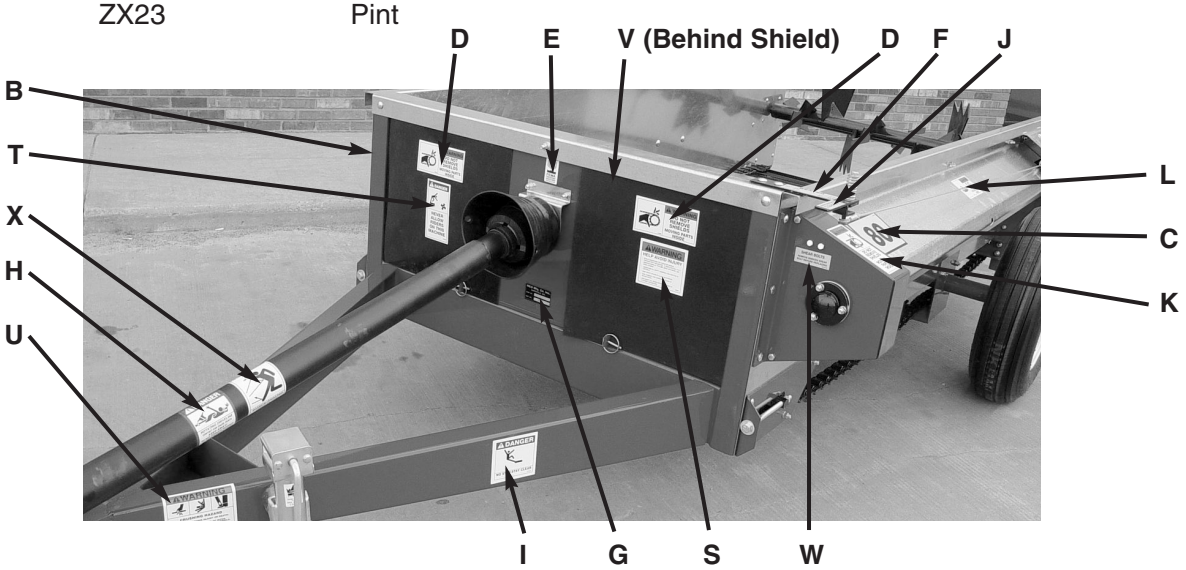
DECAL LOCATION MODEL 80

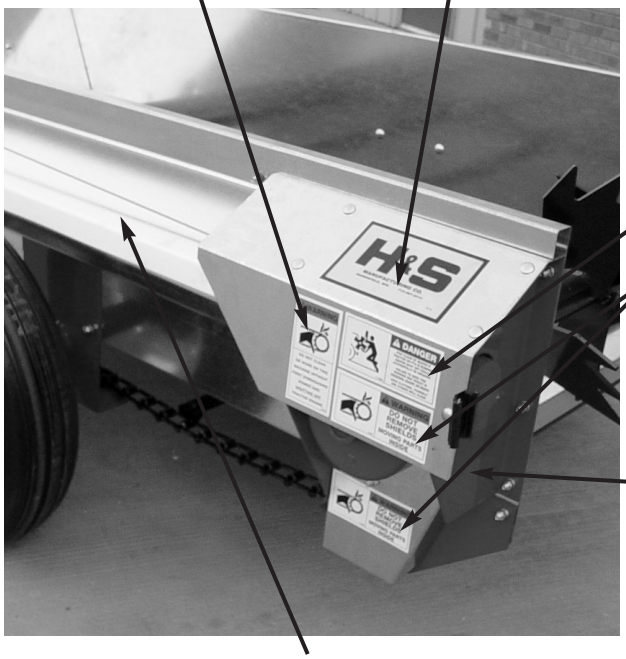
Your H&S Manure Spreader was manufactured with operator safety in mind. Located on the manure spreader are various decals to aid in operation, and warn of danger or caution areas. Pay close attention to all the decals on your Manure Spreader.

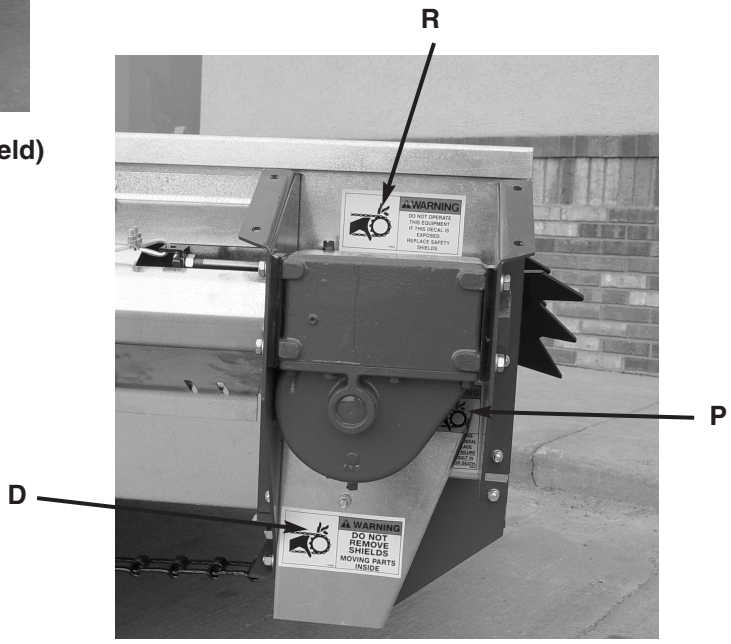
DO NOT REMOVE ANY OF THESE DECALS. IF DECALS ARE LOST, DAMAGED, OR IF MANURE SPREADER IS REPAINTED, REPLACE DECALS. REMEMBER: DECALS ARE FOR YOUR PROTECTION AND SAFETY.

Listed below are the decals on your Manure Spreader. These decals may be ordered individually by part number or by ordering a complete set.

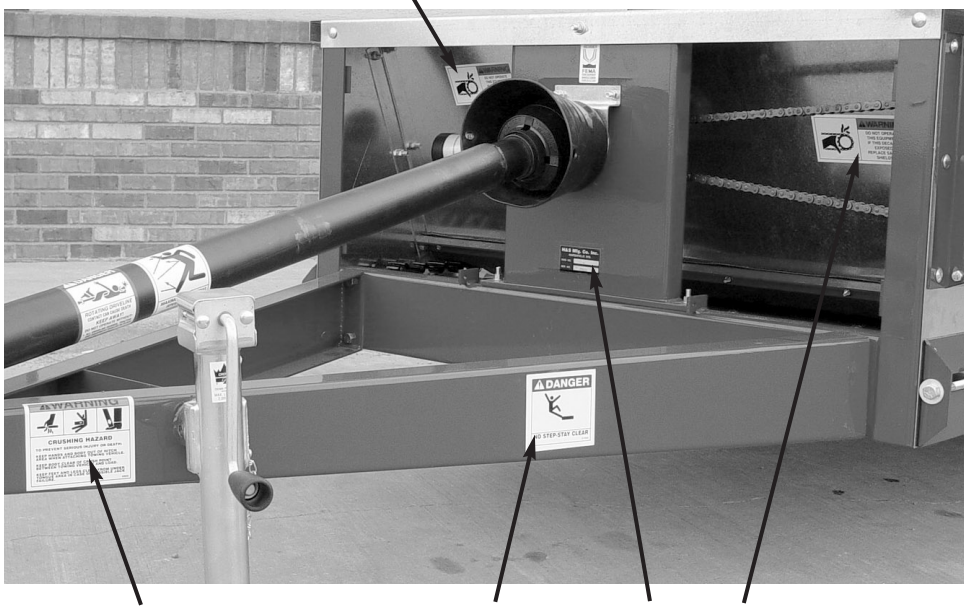
ITEM	PART NO.	DESCRIPTION
A	111593A	(2) Danger - Stay Clear of Beater
B	B12	H&S Decal (6x12)
C	H71294	(2) Model 80
D	1494B	(4) Warning - Do Not Remove Shields
E	FEMA	
F	52703C	Beater Engaged/Disengaged
G		Serial Number
H	16SV283	Danger - Rotating Driveline
I	9194A	(2) Danger - No Step
J	714-3189	Beater Disengage - Clean Out
K	1494K	Warning - Do Not Remove Shields
L	12794	Warning - Do Not Remove Shields
M	B8	H&S Decal (5x8)
N	1494J	Warning - Do Not Clean
O		Red Reflector
P	3894	Warning - Do Not Operate
Q	71494A	(2) Warning - Do Not Operate
R	1494A	(3) Warning - Do Not Operate
S	72203A	Warning - Help Avoid Injury
T	9194B	Danger - Never Allow Riders
U	82602	Warning - Crushing Hazard
V	H&S	Patent Numbers
W	112-11176	Shear Bolts
X	16SV384	Danger - 540 RPM Only
	61103-80	Complete Set of Decals
Paint - H & S Red		
	ZX21	Gallon
	ZX22	Quart
	ZX23	Pint







(Shields Removed for Clarity)



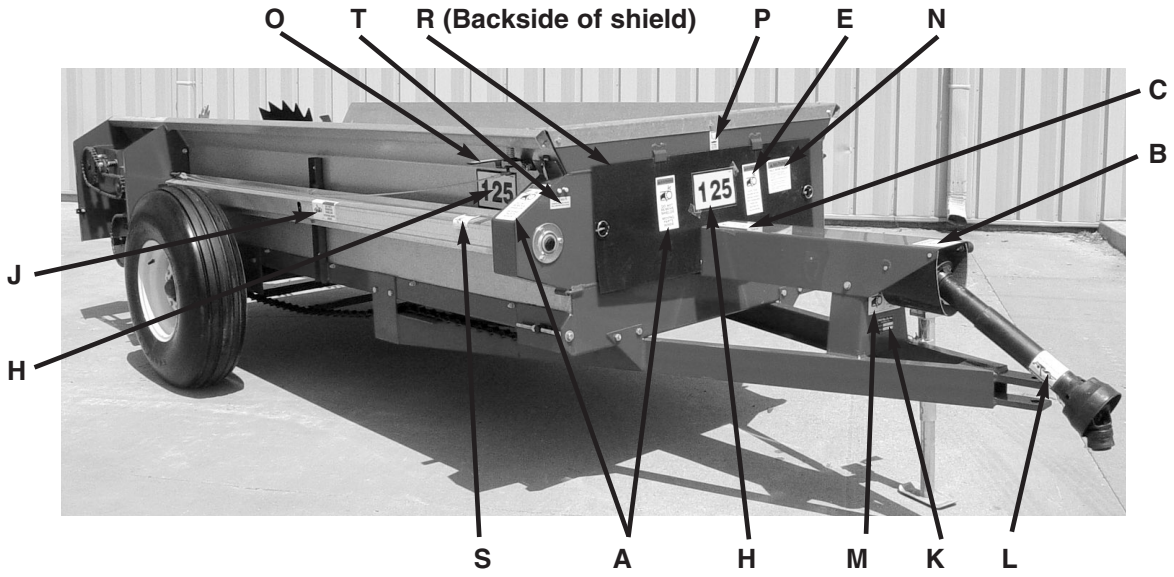
DECAL LOCATION MODEL 125

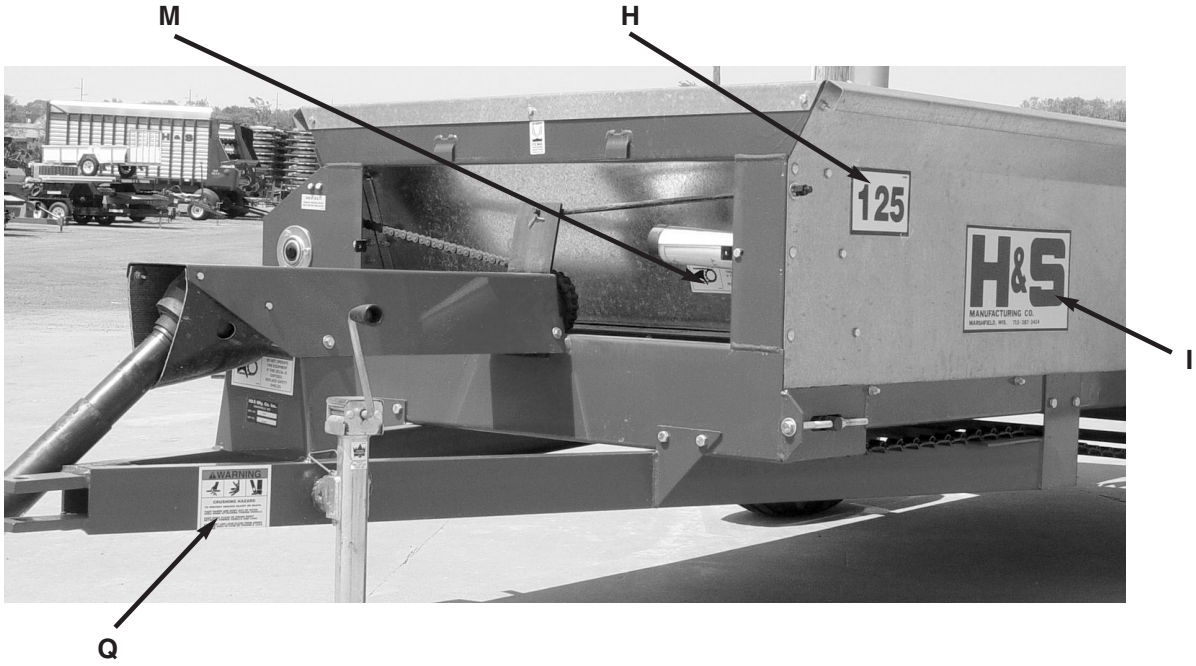
Your H&S Manure Spreader was manufactured with operator safety in mind. Located on the manure spreader are various decals to aid in operation, and warn of danger or caution areas. Pay close attention to all the decals on your Manure Spreader.

DO NOT REMOVE ANY OF THESE DECALS. IF DECALS ARE LOST, DAMAGED, OR IF MANURE SPREADER IS REPAINTED, REPLACE DECALS. REMEMBER: DECALS ARE FOR YOUR PROTECTION AND SAFETY.

Listed below are the decals on your Manure Spreader. These decals may be ordered individually by part number or by ordering a complete set.

ITEM	PART NO.	DESCRIPTION
A	1494K	(3) Warning - Do Not Remove Shields
B	9194A	Danger - No Step
C	9194B	Danger - Never Allow Riders
D	111593A	(2) Danger - Stay Clear of Beater
E	1494J	(2) Warning - Do Not Hand Clean
F	71494A	(2) Warning - Do Not Operate
G		(2) Red Reflector
H	10186A	(3) Model 125
I	B17	(2) H&S Decal
J	12794	Warning - Do Not Remove Shields
K		Serial No.
L	Weasler	Danger - Rotating Driveline (H&S Decal 1494L)
M	1494A	(3) Warning - Do Not Operate
N	72203A	Warning - Help Avoid Injury
O	714-3189	Beater Disengage - Cleanout
P		FEMA Decal
Q	82602	Warning - Crushing Hazard
R	H&S	Patent Numbers
S	52703D	Beater Engage/Disengage
T	112-11176	Shear Bolts
	6503-125	Complete Set of Decals
Paint - H & S Red		
	ZX21	Gallon
	ZX22	Quart
	ZX23	Pint





Shields Removed For Clarity

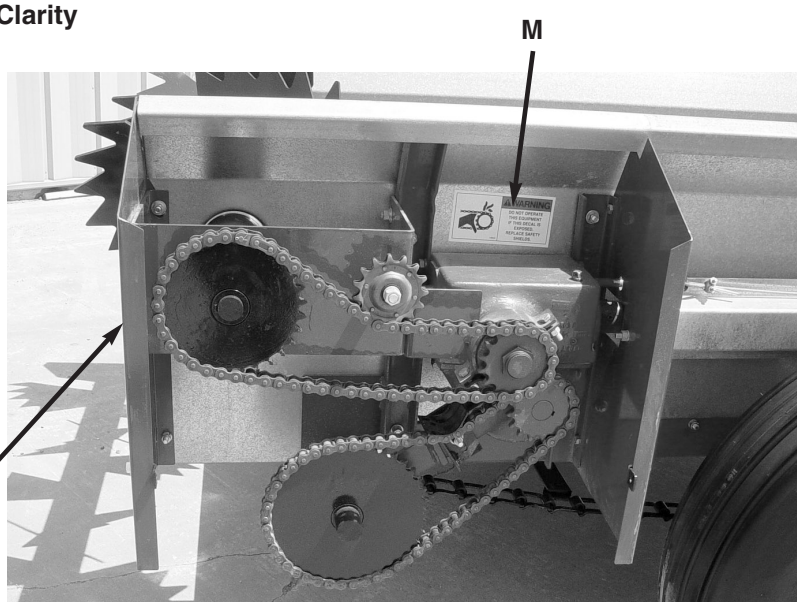


FIGURE 1

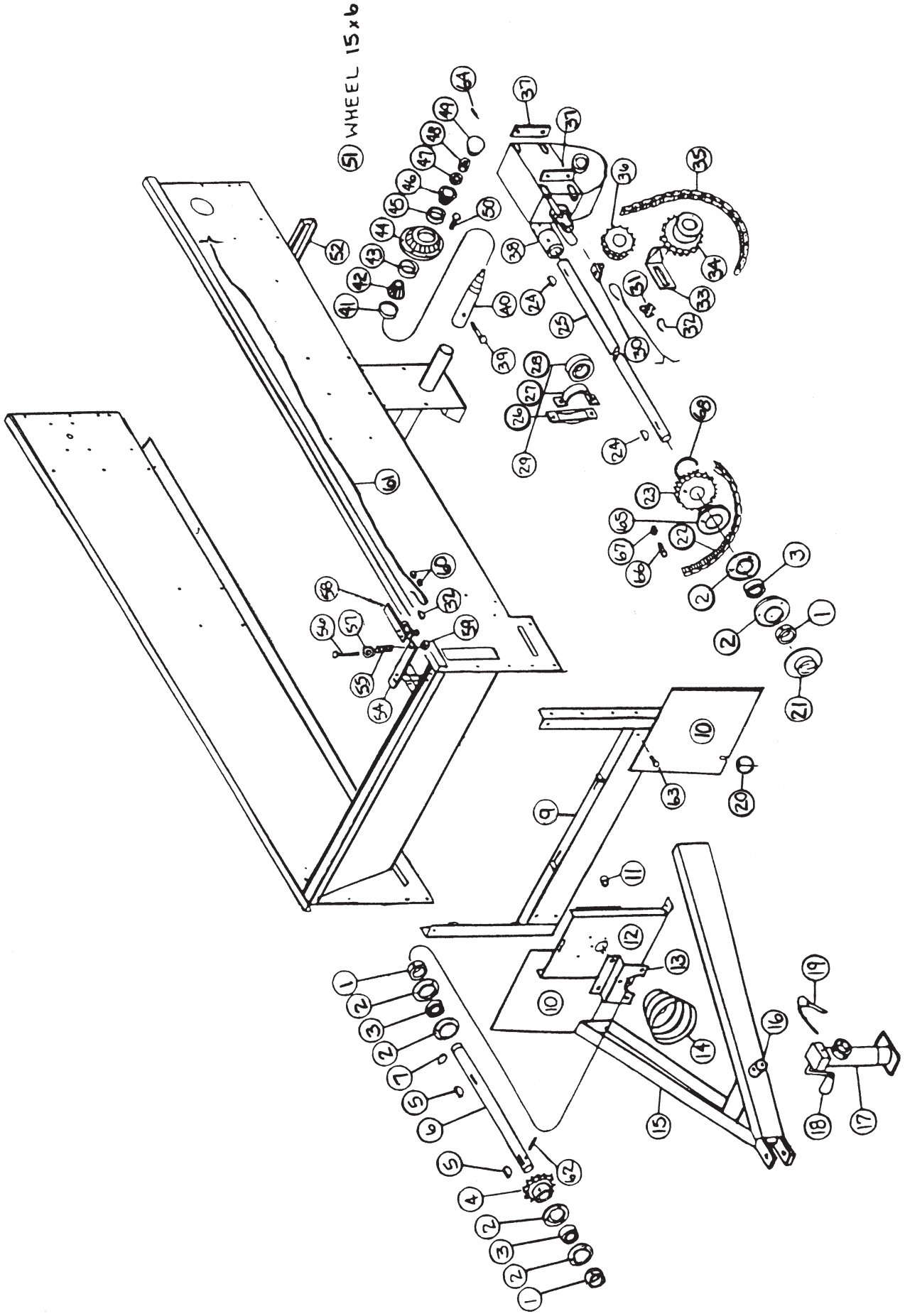


FIGURE 1
MODEL 80
COMPONENT PARTS

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.	4C9	Lock Collar	35.	80N25	#50 Roller Chain - 50 Pitches
2.	4C7	Flange	36.	80N26	17T Sprocket
3.	4C8	Bearing	37.	80N27	Gearbox Mounting Spacer
4.	4C4	Input Sprocket 13T	38.	80N28	Coupler
5.	5B10	Key 1/4" x 1"	39.	16SV91	Spindle Bolt
6.	80N7	Input Shaft	40.	12N16	Spindle
7.	3G21	Snap Ring	41.	12N17	Seal
9.	80N9	Front Frame	42.	12N18	Inner Bearing
10.	80N10	Front Poly Shields	43.	12N19	Inner Race
11.	80N11	Front Post Spacer	44.	12N20	Hub
12.	80N12	Front Post	45.	12N21	Outer Race
13.	80N13	Center Bearing Bracket	46.	12N25	Outer Bearing
14.	17G45	Implement Yoke Shield	47.	B4	Washer
15.	80N14	Pole Assembly	48.	B3	Nut
16.	12N14	Jack Mount	49.	12N23	Dust Cap
17.	12N11	Jack	50.	12N22	Hub Bolt
18.	12N12	Jack Handle	51.	RG127	Wheel 15 x 6
19.	12N13	Jack Pin & Chain	52.	80N29	Back Cross Beam
20.	F56	Linchpin	54.	80N31	Beater Shut-Off Bracket
21.	80N15	Shaft Guard	55.	5B6	Spring
22.	80N16	#50 Roller Chain - 118 Pitches	56.	12N51	Bolt 3/8" x 2-3/4" GR.5
23.	X141	40T Sprocket	57.	X67	Washer 3/8"
24.	5B10	Key 1/4" x 1"	58.	12N48	Shifter Bracket
25.	80N18	Side Shaft	59.	K93	Lock Nut 3/8"
26.	80N19	Bearing Cover	60.	ES5	Cable Clamp
27.	80N20	Bearing Holder	61.	80N33	Cable
28.	80N21	Bearing	62.	3G22	Roll Pin 5/16" x 1-3/4"
29.	80N22	Bearing Assembly	63.	R10	Bolt 1/2" x 1-1/4" GR.5
30.	80N23	Shifter Angle	64.	B31	Cotter Pin
31.	BFR220	Cable Clamp	65.	80N74	Shear Hub
32.	ES4	Thimble	66.	16SV289	Shear Bolt 5/16" x 1-1/2" GR.2
33.	80N24	Chain Tightener	67.	D81	Lock Nut 5/16"
34.	ST28	24T Sprocket	68.	23N75	Snap Ring

FIGURE 2

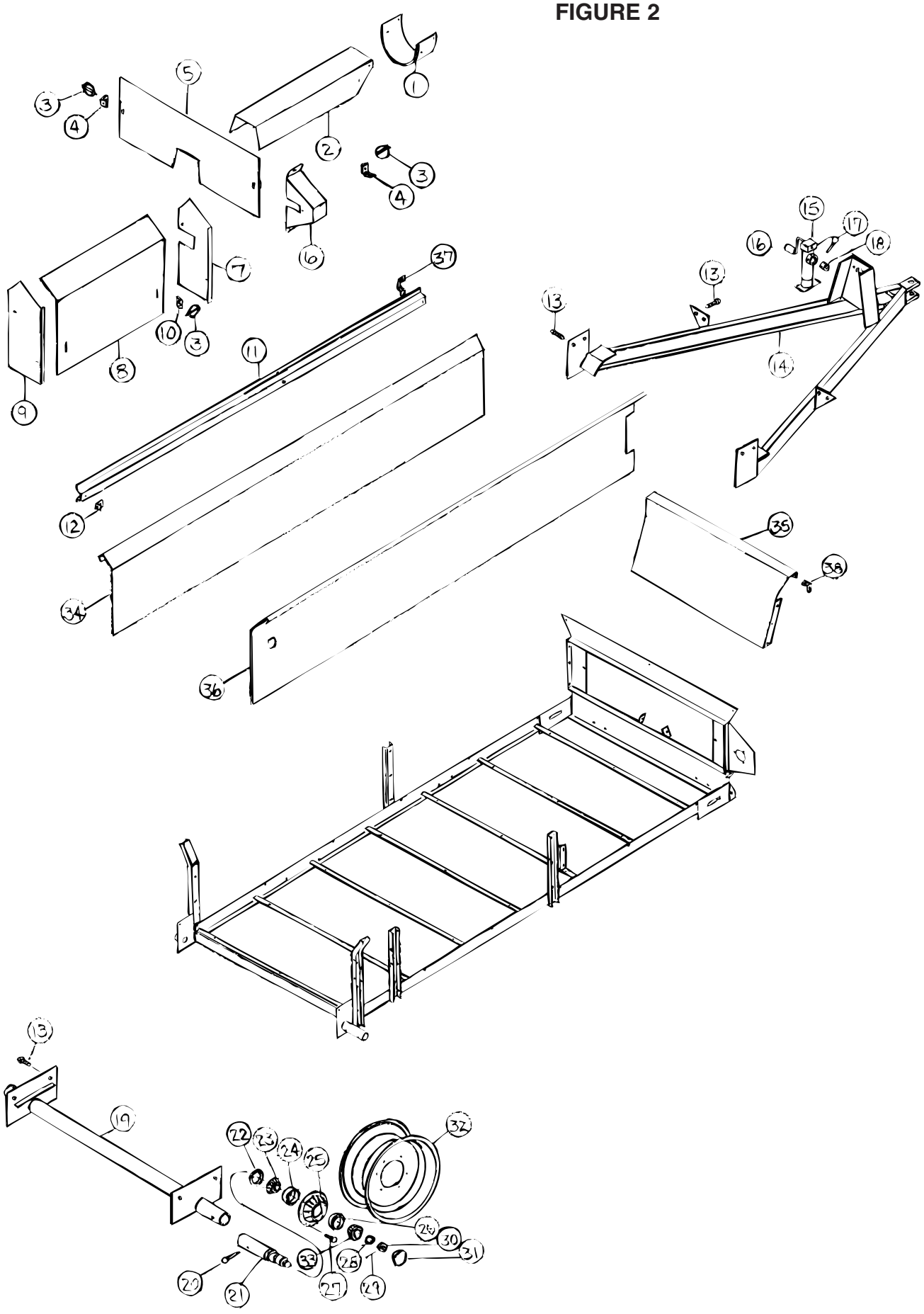

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FIGURE 2
MODEL 125
SHIELDS, AXLE AND POLE ASSEMBLY

ITEM	PART NO.	DESCRIPTION
1.	F54	PTO Rubber Shield
2.	12N1	Shield
3.	F56	Clip Pin
4.	F92	Front Shield Bracket
5.	12N85	Front Poly Shield
6.	12N86	Front Side Shield
7.	12N4	Front Housing
8.	12N5	Cover
9.	12N6	Rear Housing
10.	F69	Shield Bracket
11.	12N87	Side Shield
12.	12N8	Side Shield Bracket
13.	R10	1/2” x 1-1/4” Bolt, GR.5
14.	12N10	Pole Assembly
15.	12N11	Jack Assembly
Not Shown	12N9	Jack Gear Replacement Kit
16.	12N12	Jack Handle
17.	12N13	Jack Pin and Chain
18.	12N14	Jack Mount
19.	12N15	Axle Tubing
20.	B10	Spindle Bolt GR.5
21.	12N16	Spindle
22.	12N17	Seal
23.	12N18	Inner Bearing
24.	12N19	Inner Race
25.	12N20	Hub
26.	12N21	Outer Race
27.	12N22	Hub Bolt
28.	B4	Washer
29.	B31	Cotter Pin
30.	B3	Nut
31.	12N23	Hub Cap
32.	12N24	Wheel
33.	12N25	Outer Bearing
34.	12N88	LH Side Panel
35.	12N89	Front Bolt In Panel
36.	12N90	RH Side Panel
37.	12N96	Front Side Shield Bracket
38.	WM135	Angle
Not Shown	12N79	Complete Hub Assembly

FIGURE 3

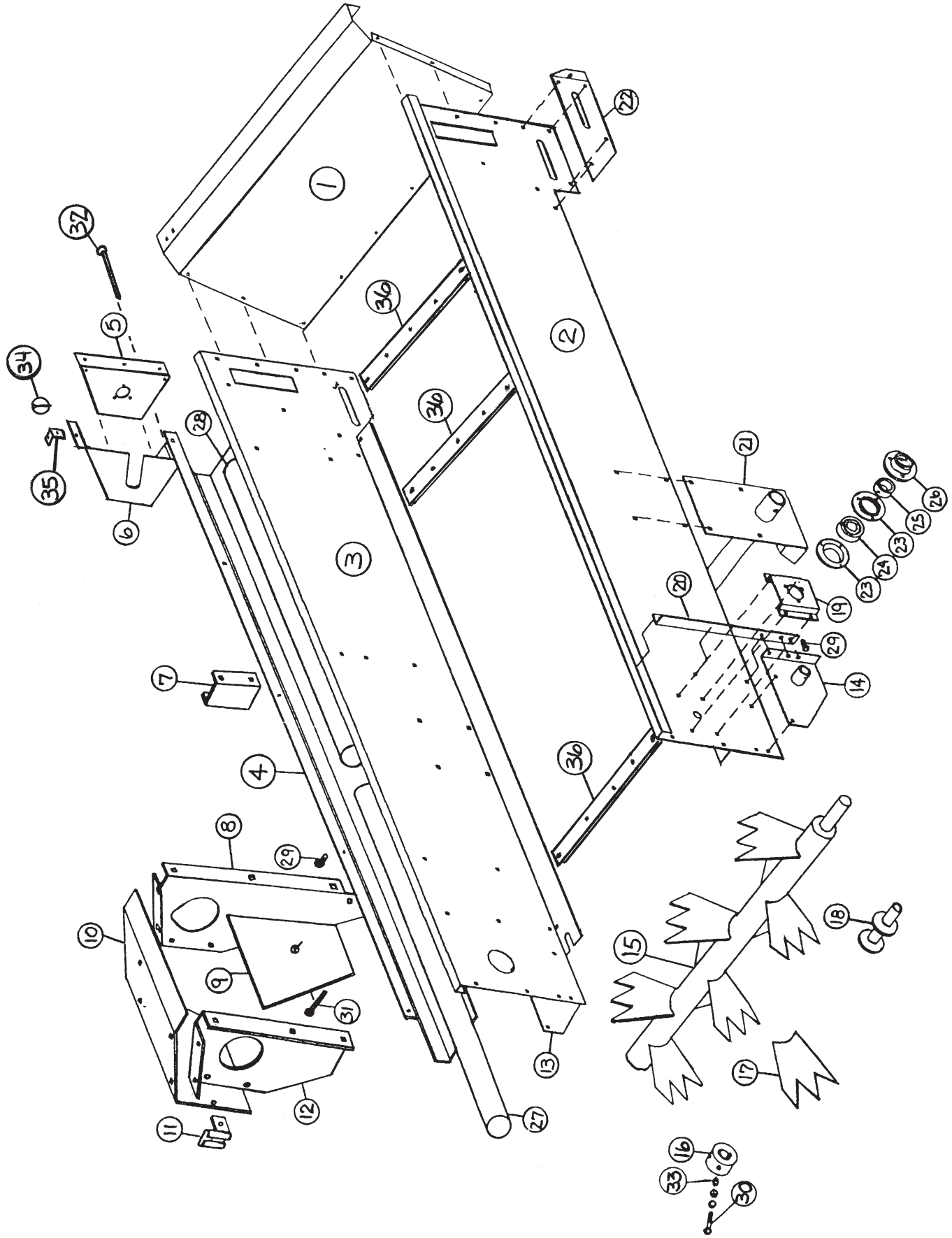
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FIGURE 3
MODEL 80
FRAME, BEATER & SHIELDS

ITEM	PART NO.	DESCRIPTION
1.	80N34	Front Panel
2.	80N77	Right Spreader Side
3.	80N79	Left Spreader Side
4.	80N37	Side Shaft Shield
5.	80N38	Front Side Shield Cover
6.	80N80	Front Side Shield
7.	80N40	Side Bearing Mount
8.	80N41	Front Gearbox Mount
9.	80N42	Apron Drive Shield
10.	80N43	Gearbox Mounting Cover
11.	80N44	SMV Bracket
12.	80N45	Rear Gearbox Mount
13.	80N46	Apron Shaft Bracket LH
14.	80N47	Apron Shaft Bracket RH
15.	80N73	Beater
16.	80N49	Beater Insert
17.	80N50	Beater Blade
18.	80N51	Stub Shaft
19.	80N52	Beater Bearing Mount
20.	80N53	Right Side Brace
21.	80N54	Axle Assembly
22.	80N55	RH Apron Chain Tightener
*	80N56	LH Apron Chain Tightener
23.	4C7	Flange
24.	4C8	Bearing
25.	4C9	Lock Collar
26.	80N15	Bearing Cover
27.	80N32	Front PVC Guard
28.	80N69	Back PVC Guard
29.	R10	Bolt 1/2” x 1-1/4” GR.5
30.	X111	Bolt 3/8” x 1” GR.5
31.	80N70	Bolt 3/8” x 3-1/2” Carr. Bolt GR.2
32.	80N71	Bolt 3/8” x 5” GR.2
33.	80N72	Beater Bolt Spacer
34.	F56	Clip Pin
35.	F92	Angle
36.	80G5	Floor Braces

NOTE: * (Means Not Shown)

FIGURE 4

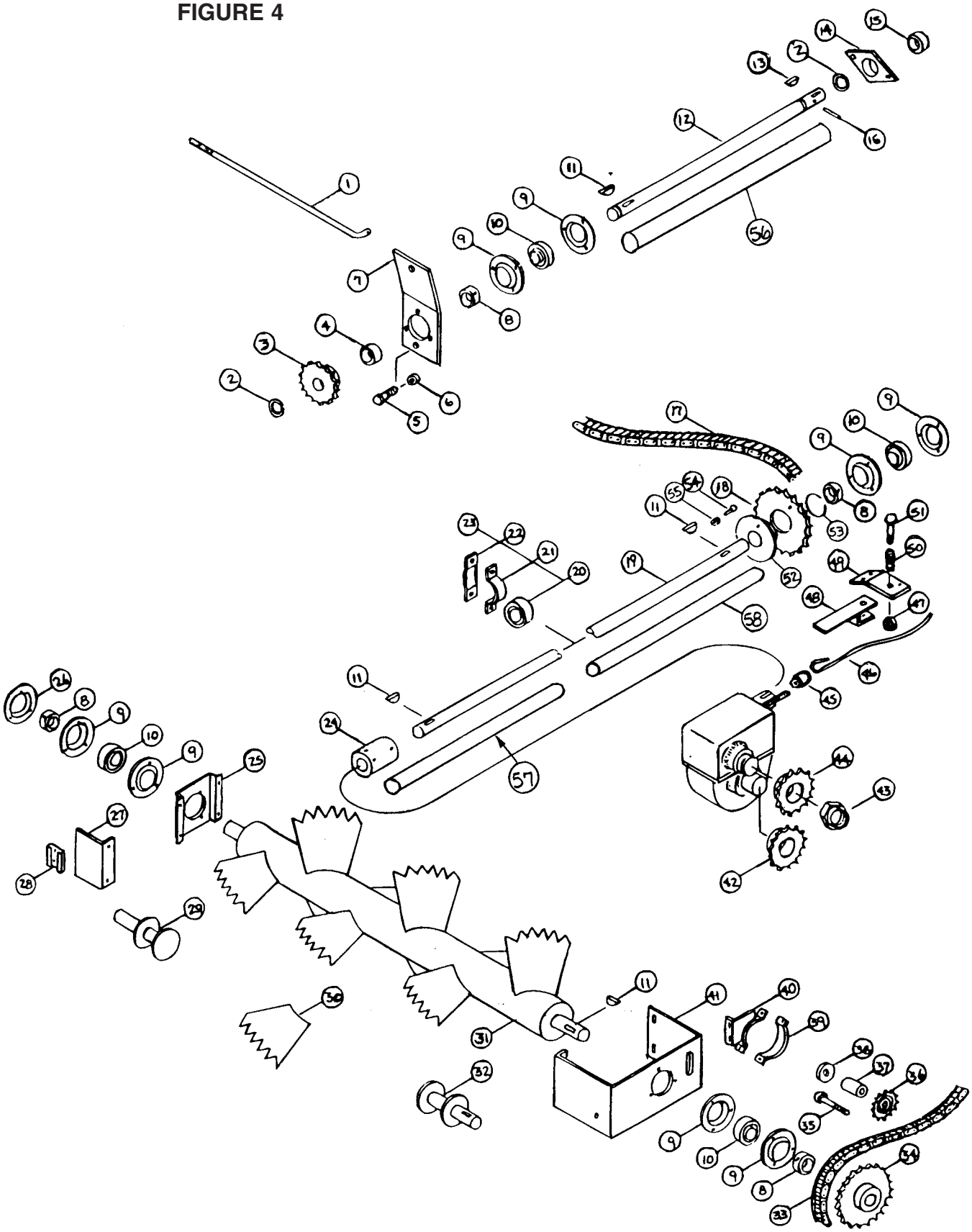

FIGURE 4
MODEL 125
FRONT SHAFT, SIDE SHAFT AND BEATER

ITEM	PART NO.	DESCRIPTION
1.	12N26	Tightener Rod
2.	F73	Snap Ring
3.	F13	20T Sprocket
4.	12N30	Spacer (2)
5.	R10	1/2" x 1-1/4" Bolt GR.5
6.	9S17	1/2" Lock Nut
7.	12N27	Front Adjustment Plate
8.	F16	Lock Collar
9.	F14	Bearing Flange
10.	F115	Bearing (Grease Type)
11.	5B9	3/8" x 1-1/4" Woodruff Key
12.	12N28	Front Shaft
13.	5B10	1/4" x 1" Woodruff Key
14.	12N29	Pillow Block Bearing
15.	12N30	Spacer
16.	F26	5/16" x 2-1/4" Roll Pin
17.	12N91	#60 Roller Chain 99 Pitches
18.	23N191	Shear Sprocket 30T
19.	12N92	Side Shaft
20.	12N33	Bearing
21.	12N34	Bearing Cover
22.	12N35	Bearing Holder
23.	12N36	Bearing Assembly
24.	D12	Connector
25.	R16	Shaft Support
26.	F95	Bearing Flange Guard
27.	12N37	SMV Sign Holder
28.	F97	SMV Holder
29.	12N38	LH Beater Stub Shaft
30.	12N39	Beater Blade
31.	12N40	Beater
32.	R34	RH Beater Stub Shaft
33.	12N41	#60 Chain 64 Pitches
34.	D26	30T Sprocket
35.	A19	1/2" x 3-1/2" Carr. Bolt GR.5
36.	12N42	Idler Sprocket
37.	12N43	Spacer
38.	12N44	Washer
39.	D100	Ring for Beater Brace
40.	12N45	Gearbox Brace
41.	12N46	Beater Rear Support
42.	D18	16T Sprocket
43.	G35	Stake Nut
44.	D23	16T Sprocket
45.	F31	Cable Loop
46.	12N47	Cable
47.	A14	3/8" Nylock Nut
48.	12N48	Shut-Off Lever
49.	12N49	Shut-Off Bracket
50.	5B6	Shut-Off Spring
51.	12N51	3/8" x 2-3/4" Bolt GR.5
52.	23N190	Shear Hub
53.	23N189	Snap Ring
54.	D31	5/16" x 1-1/2" Shear Bolt GR.5
55.	D81	5/16" Lock Nut
56.	12N82	Front Shaft Shield
57.	12N84	Back Side Shaft Shield
58.	12N83	Front Side Shaft Shield
Not Shown	D38	#60 Offset Link
Not Shown	D39	#60 Connector Link

FIGURE 5

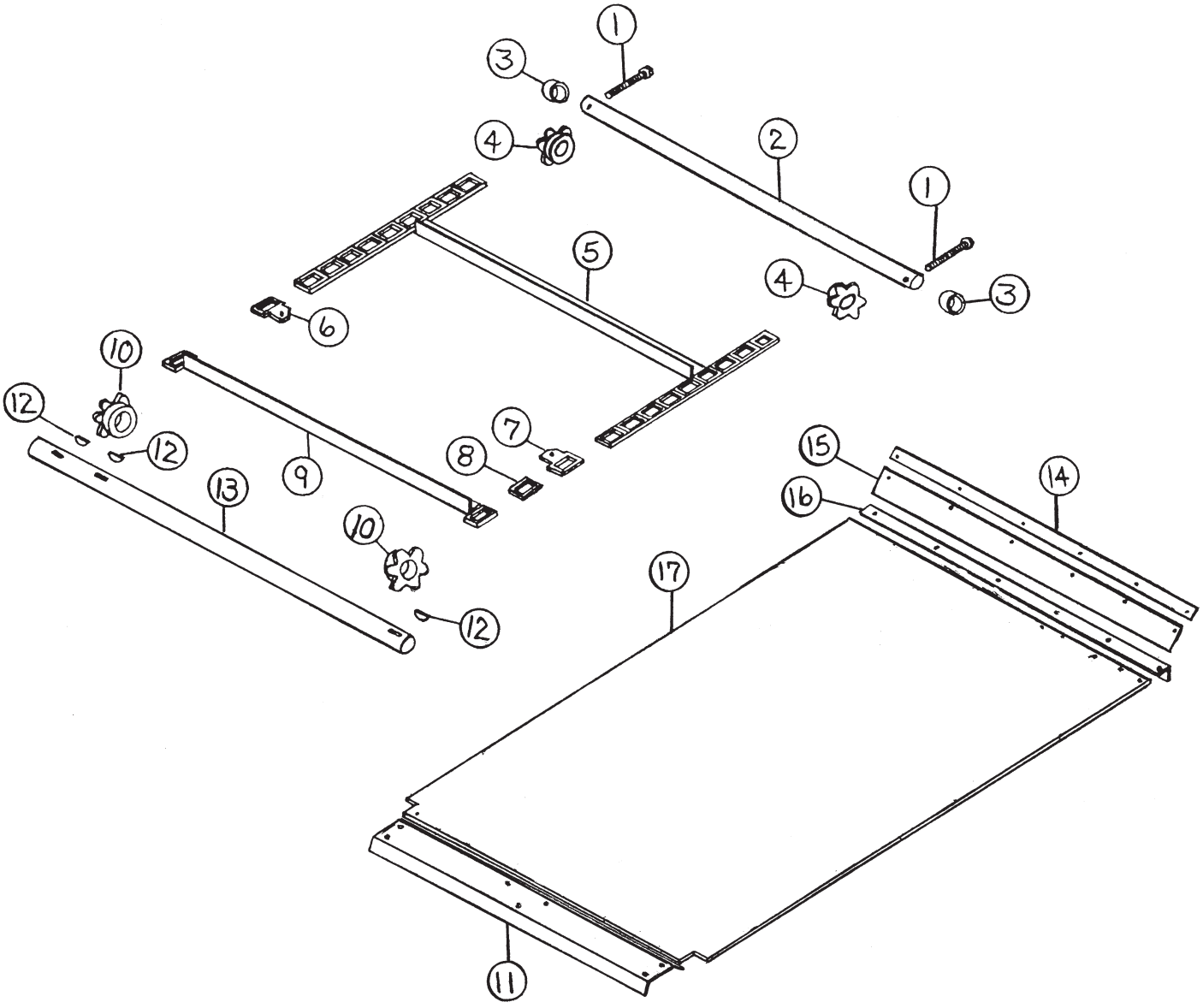

FIGURE 5
MODEL 80
APRON, CHAIN, SHAFTS & FLOOR

ITEM	PART NO.	DESCRIPTION
1.	A7	Idler Shaft Bolt
2.	12N67	Idler Shaft
3.	12N66	Spacer
4.	12N65	Idler Sprocket
5.	80N58	Apron Chain
6.	11S23	Att. Link LH 67H
7.	11S24	Att. Link RH 67H
8.	11S25	Connector Link 67H
9.	80N62	Slat W/Att. Link
10.	80N63	Apron Drive Sprocket 6T
11.	80N78	Rear Floor Brace
12.	G12	Key
13.	80N65	Apron Drive Shaft
14.	80N66	Front Rubber Strap
15.	12N69	Front Rubber
16.	80N67	Front Floor Brace
17.	80N81	Poly Bonded Floor

FIGURE 6

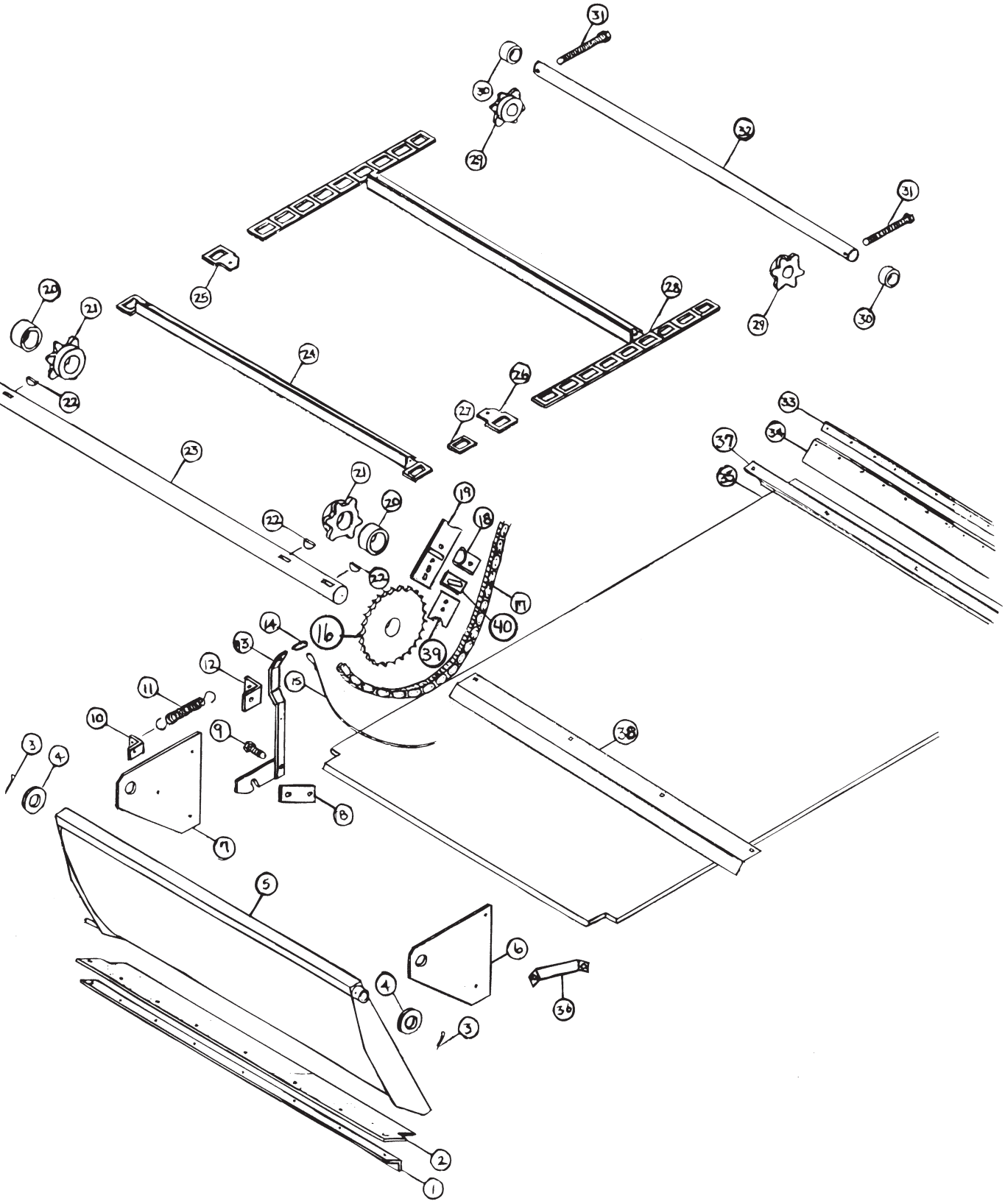

FIGURE 6
MODEL 125
APRON, CHAIN, FLOOR & PAN

ITEM	PART NO.	DESCRIPTION
1.	12N52	Rubber Flap Angle
2.	12N53	Rubber Flap
3.	R70	Cotter Pin
4.	R3	Pan Spacer
5.	12N54	Pan
6.	12N55	RH Pan Support
7.	12N56	LH Pan Support
8.	12N57	Trip Lever Plate
9.	R30	1/2" x 2" Bolt
10.	R26	Spring Angle
11.	R27	Spring
12.	R60	Trip Lever Stop
13.	12N58	Trip Lever
14.	R31	Clip
15.	12N59	Trip Rope
16.	12N60	40T Sprocket
17.	12N41	#60 Chain 64 Pitches
18.	D20	Chain Tightener
19.	12N103	Brace Gearbox to Drive Shaft
20.	A39	Spacer
21.	A4	Conveyor Drive Sprocket 6T
22.	5B9	3/8" x 1-1/4" Key
23.	12N62	Drive Shaft
24.	12N63	67XH Slat with Att. Link
25.	11S26	67XH Att. Link LH
26.	11S27	67XH Att. Link RH
27.	11S29	67XH Connector Links
28.	12N64	67XH Complete Apron
29.	12N65	6T Idler Sprocket
30.	12N66	Spacer
31.	A7	1/2" x 9-1/2" Bolt GR.5
32.	12N67	Idler Shaft
33.	12N97	Angle for Rubber
34.	12N69	Front Rubber
35.	12N93	Floor Poly Bonded
36.	12N50	Brace
37.	12N94	Front Floor Brace
38.	12N95	Rear Floor Brace
Not Shown	D38	#60 Offset Link
Not Shown	D39	#60 Connector Link
Not Shown	D92	Apron Slow Down Sprocket 48T
Not Shown	12N80	Apron Speed Up Sprocket 32T
39.	12N104	Short Drive Shaft Brace
40.	12N105	Wedge

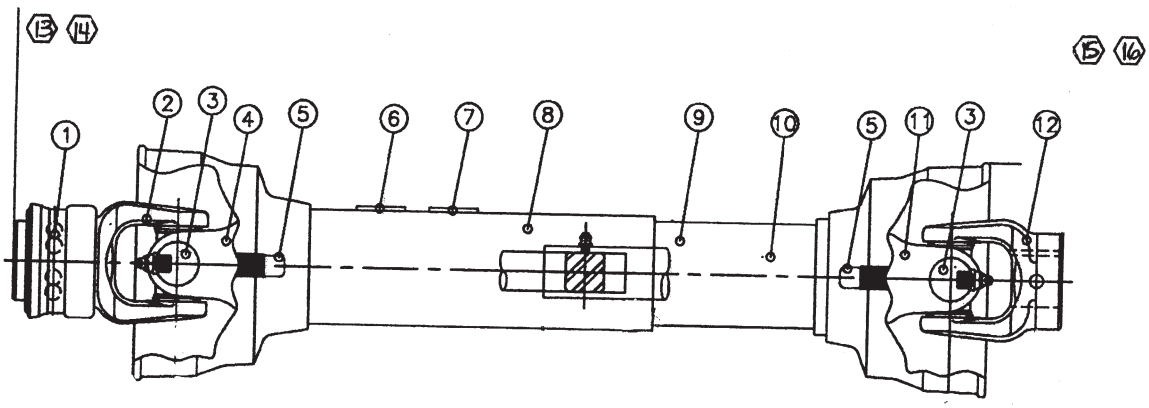

FIGURE 7
MODEL 80
PTO PARTS

ITEM	PART NO.	DESCRIPTION
1.	S225	Spring-Lok Repair Kit
2.	S379	Spring-Loc Yoke Assm.
3.	T274	12P Cross and Bearing Kit
4.	80N88	Yoke and Shaft
5.	S206	Guard Repair Kit (Not Shown)
6.	16SV283	Safety Sign
7.	16SV384	Safety Sign 540 RPM
8.	80N89	Outer Guard
9.	80N90	Inner Guard
10.	16SV388	Safety Sign (Not Shown)
11.	80N91	Yoke and Tube
12.	80N92	Yoke
13.	80N84	Joint & Shaft Half Assm. w/Guard
14.	80N85	Joint & Shaft Half Assm.
15.	80N86	Joint & Tube Half Assm. w/Guard
16.	80N87	Joint & Tube Half Assm.
17.	80N83	Complete PTO Assembly

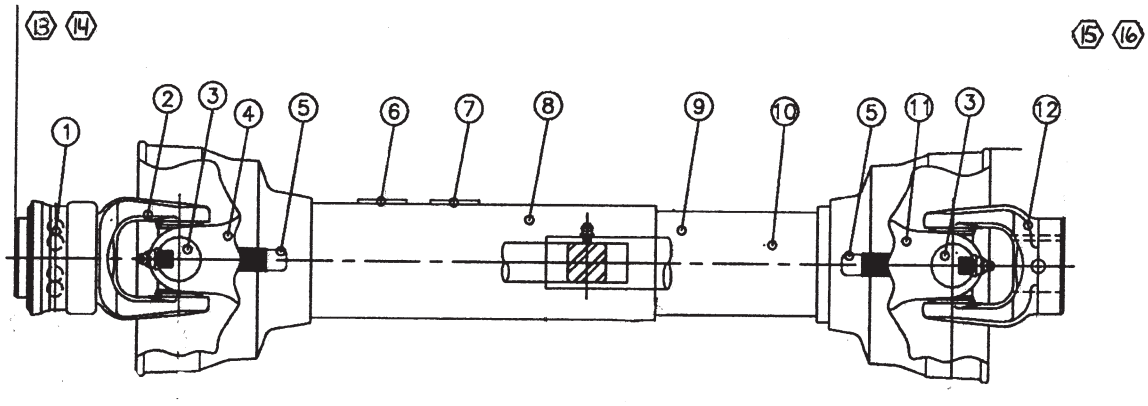

FIGURE 8
MODEL 125
PTO ASSEMBLY

ITEM	PART NO.	DESCRIPTION
1.	S225	Spring-Lok Repair Kit
2.	S379	Spring-Loc Yoke Assm.
3.	T274	12P Cross and Bearing Kit
4.	12N110	Yoke and Shaft
5.	S206	Guard Repair Kit (Not Shown)
6.	16SV283	Safety Sign
7.	16SV384	Safety Sign 540 RPM
8.	12N111	Outer Guard
9.	12N112	Inner Guard
10.	16SV388	Safety Sign (Not Shown)
11.	12N113	Yoke and Tube
12.	12N115	Yoke
13.	12N106	Joint & Shaft Half Assm. w/Guard
14.	12N107	Joint & Shaft Half Assm.
15.	12N108	Joint & Tube Half Assm. w/Guard
16.	12N109	Joint & Tube Half Assm.
17.	12N102	Complete PTO Assembly

FIGURE 9

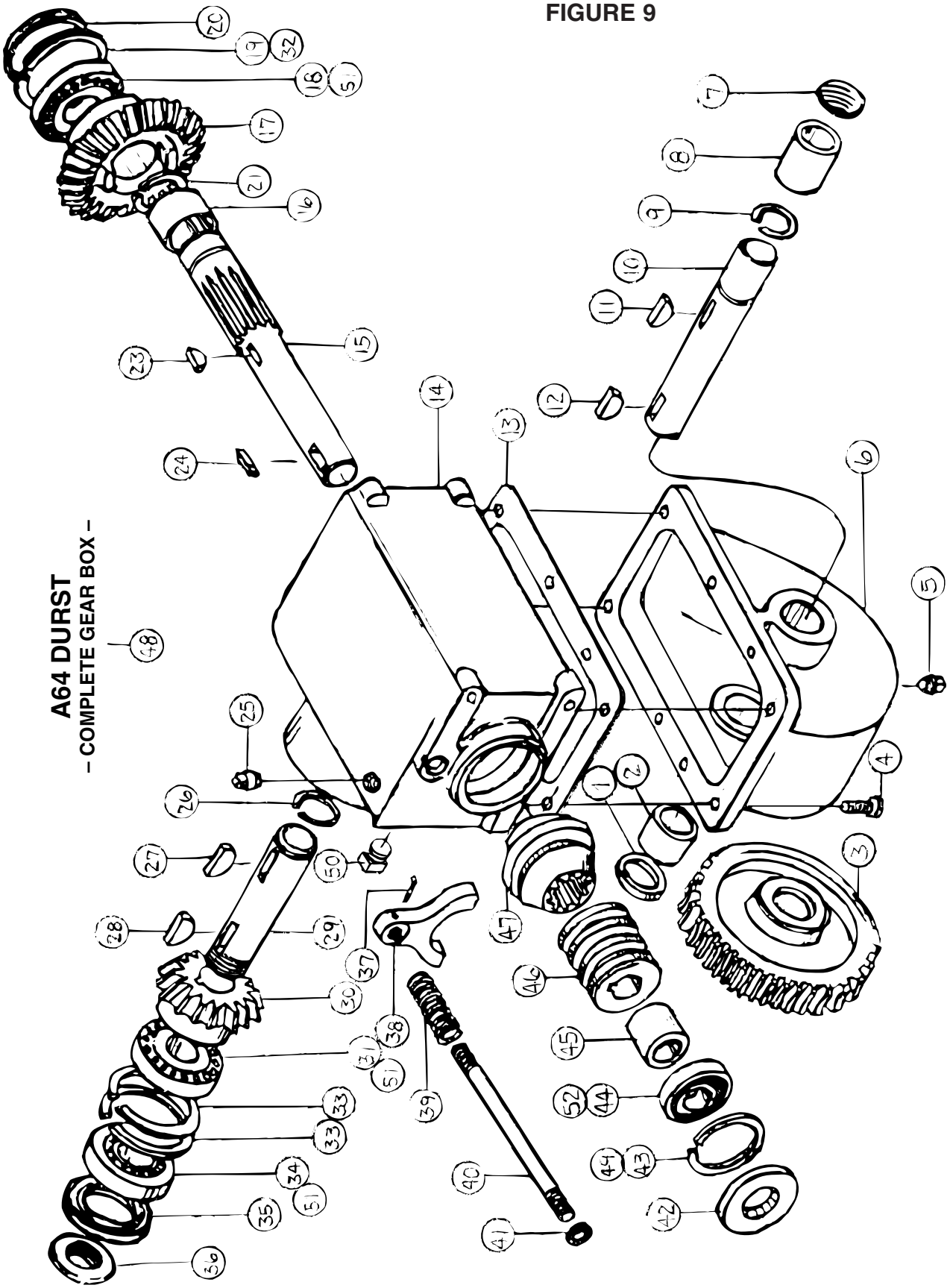

FIGURE 9
MODEL 80 & 125
GEAR BOX

ITEM	PART NO.	DESCRIPTION
1.	G1	Seal
2.	G2	Bushing
3.	12N98	36T Gear
4.	G4	Capscrews (8)
5.	G5	Drain Plug
6.	G6	Gear Housing - Lower
7.	G7	Expansion Plug
8.	G2	Bushing
9.	G9	Snap Ring
10.	12N99	Low Speed Output Shaft
11.	G11	1/4" x 1-1/8" Key
12.	G12	5/16" x 1" Key
13.	G13	Gasket
14.	G14	Gear Housing - Top
15.	12N100	Shaft
16.	G16	Bushing
17.	G17	24T Gear
18.	G18	Bearing
19.	G55	Snap Ring
20.	G20	Cap
21.	G9	Snap Ring
23.	G22	1/4" x 7/8" Key
24.	G23A	5/16" x 1-1/4" Square Key
25.	G24	Plug Vent
26.	G25	Snap Ring
27.	G26	3/8" x 1-1/4" Key (Hardened)
28.	5B9	3/8" x 1-1/4" Key
29.	G28	Hi-Speed Output Shaft
30.	G29	16T Gear
31.	G53	Bearing
32.	G69	Shim (When Needed)
33.	G55	Snap Ring (2)
34.	G33	Bearing
35.	G34	Seal
36.	G35	Stake Nut
37.	G95	1/8" x 1-1/2" Cotter Key
38.	G37	Yoke
39.	G38	Spring
40.	G39	Clutch Rod
41.	G40	Seal
42.	G41	Seal
43.	3G19	Snap Ring
44.	L3G24	Bearing
45.	G44	Spacer Ring
46.	12N101	Worm
47.	G46	Clutch 18T Spline
48.	D7A	Gearbox Complete
49.	G92	Shim (When Needed)
50.	G87	Plug 1/8-27 NPT
51.	G54	Race
52.	3G18	Race

FIGURE 10

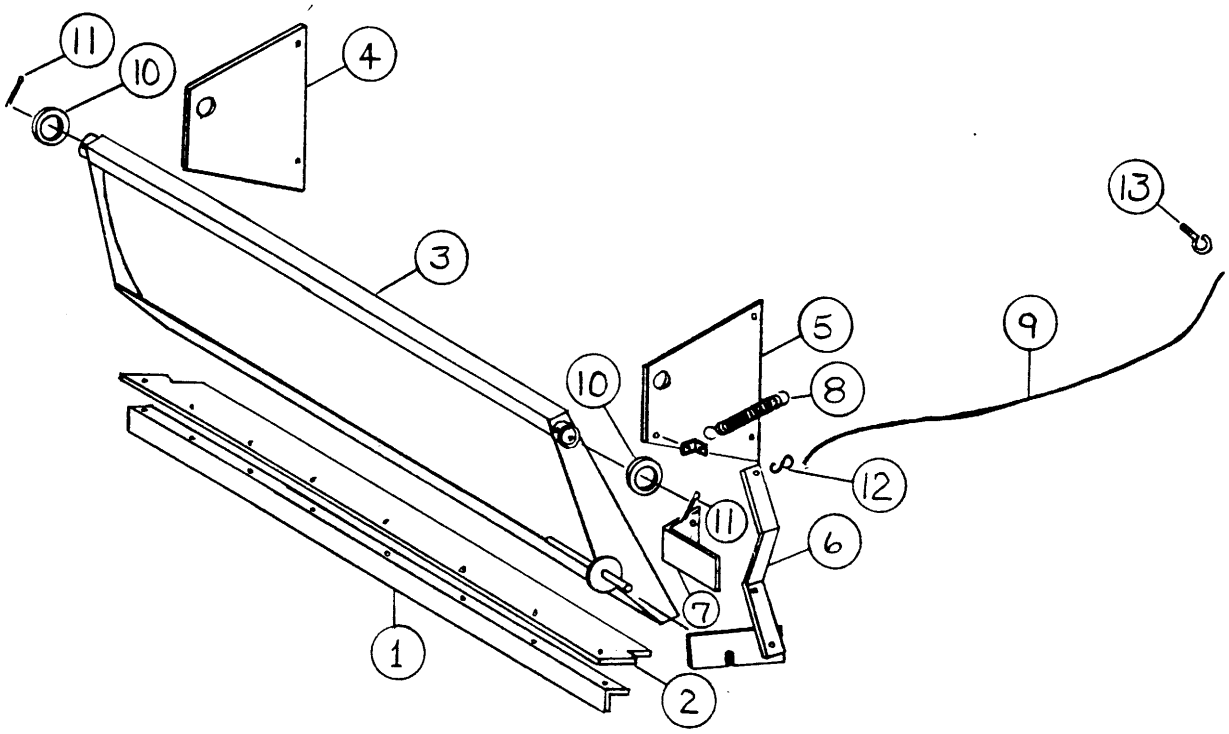

FIGURE 10
MODEL 80
OPTIONAL PAN
80 BUSHEL SPREADER

ITEM	PART NO.	DESCRIPTION
1.	12N52	Pan Angle
2.	12N53	Pan Rubber
3.	80N1	Pan
4.	80N2	LH Pan Plate
5.	80N3	RH Pan Plate
6.	5N67	Pan Handle
7.	80N82	Pan Handle Stop
8.	R27	Pan Handle Spring
9.	80N6	Trip Rope
10.	R3	Pan Spacer
11.	R70	Cotter Pin
12.	R31	“S” Hook
13.	23N213	“I” Bolt

– SERVICE NOTES –

H&S MODEL 80 MANURE SPREADER

Your new H&S spreader has been manufactured of the finest quality materials and components. The performance you get from your machine is largely dependent upon how well you read and understand this manual and apply this knowledge. There is a right and a wrong way to do everything. Please do not assume that you know how to operate and maintain your spreader before reading this manual carefully. Keep this manual available for ready reference.

SPECIFICATIONS

Top Flare Width	51”
Inside Width	48”
Inside Length	96”
Inside Depth	20”
Overall Width W/6.70 x 15 Tires	76”
Overall Length	13’-8”
Overall Length with Rear Pan	13’-11-1/2”
Overall Height W/6.70 x 15 Tires	34-1/2”
Wheel Tread	67-1/2”
Diameter of Beater	18-1/2”
Drive Worm - Timken	Single Speed
Weight W/6.70 x 15 Tires	1190 Lbs.
PTO Speed	540 RPM
Capacity - Cu. Ft. Struck	53
Old Rating	80 Bu.
Rear Pan	Optional Equipment
Swing Away Jack	Standard Equipment

H&S MODEL 125
MANURE SPREADER

Your new H&S spreader has been manufactured of the finest quality materials and components. The performance you get from your machine is largely dependent upon how well you read and understand this manual and apply this knowledge. There is a right and a wrong way to do everything. Please do not assume that you know how to operate and maintain your spreader before reading this manual carefully. Keep this manual available for ready reference.

SPECIFICATIONS

Top Flare Width	54”
Inside Width	48”
Inside Length	10’-6”
Inside Depth	22”
Overall Width W/10:00 x 15 Tires	80”
Overall Length	15’-3”
Overall Length with Rear Pan	15’-6”
Overall Height W/10:00 x 15 Tires	43”
Wheel Tread	68”
Diameter of Beater	22”
Drive Worm - Timken	Single Speed
Weight W/10:00 x 15 Tires	1430 Lbs.
PTO Speed	540 RPM
Capacity - Cu. Ft. Struck	75
Old Rating	125 Bu.
Rear Pan	Optional Equipment
Swing Away Jack	Standard Equipment

NOTE

Determine right or left side of spreader by viewing it from the rear. If instructions or parts lists call for hardened bolts, they are identified with three lines or marks on the head.

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