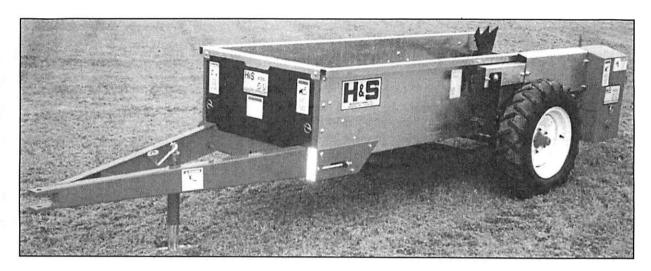
H&S MANURE SPREADER





READ AND UNDERSTAND THIS MANUAL BEFORE OPERATING THIS FOLLOWERS

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

Models 25, 50 & 80 Ground Driven Spreaders Parts & Operator's Instructions

9-25-2009

Manufactured By

H&S MANUFACTURING CO., INC.

P.O. BOX 768 • (715) 387-3414 FAX (715) 384-5463 MARSHFIELD, WISCONSIN 54449

H&S MODELS 25, 50 & 80 SPREADERS PARTS AND OPERATOR'S MANUAL

CONTENTS

WARRANTY

Mr. Owner: Before Operating-Read and Understand Operating and Safety Instructions

H&S Manufacturing Co., Inc. truly believes you have made a wise choice and a sound and lasting investment. Many years of development have made available these quality machines to assure you the performance and reliability you need. We ask you to read the following agreement and warranty as this unit is subject to this warranty and agreement and no other.

H&S Manufacturing Co., Inc. ("H&S") warrants this product to be free from defect in material and workmanship. Except as noted below, this warranty term is twelve (12) months from the date of delivery of the product to the original purchaser by an authorized H&S dealer. Under this warranty, H&S will repair or replace, at its option, any covered part which is found to be defective in material or workmanship during the applicable warranty term. In no case will the covered repair cost of a part or parts exceed the replacement cost of that part. Warranty service must be performed by H&S or a dealer authorized by H&S to sell and/or service the product involved, which will use only new or remanufactured parts or components furnished by H&S. This warranty includes approved parts and labor to fix the product but does not include, and the purchaser is responsible for, any service call and/or transportation of the product to and from the dealer's place of business, for any premium charged for overtime labor requested by the purchaser, and for any service work not directly related to any defect covered under this warranty. This warranty includes only those components of the product manufactured by H&S. Warranty for any component not manufactured by H&S including, but not limited to, engines, batteries, rims, hydraulic motors, pumps, etc., are covered by the warranty, if any, provided separately by their respective manufacturers.

This warranty in all its parts, is extended solely to the original purchaser of the product, is terminated upon any subsequent transfer or sale from or by the original purchaser and extends no third party benefits or rights whatsoever.

The warranty term for any product used in any commercial, custom for hire or rental application, is limited to six (6) months from the date of delivery of the product to the original purchaser by an authorized H&S dealer.

Polybonded (polyethylene and plywood) panels utilized in H&S Manure Spreaders are warrantied, to the original purchaser, to not wear through and the polyethylene overlay to not tear free of the plywood for the functional life to the spreader. This specific warranty on polybonded panels includes only replacement of any defective panel part without any allowance for labor beyond the terms of the general warranty (12 or 6 months), and is further limited to manure spreaders used to spread normal agricultural manure.

This warranty does not include: (1) Any product that has been altered or modified in ways not approved by H&S; (2) Depreciation or damage caused by normal wear, misuse, improper or insufficient maintenance, improper operation, accident or failure to follow the product Operator Manual recommendations and product decal recommendations; (3) Normal maintenance parts and service; (4) Repairs made with parts other than those available from H&S or performed by anyone other than H&S or a dealer authorized by H&S to sell and/or service the product involved.

To secure warranty service the purchaser must report the product defect to a dealer authorized by H&S to sell and/or service the product involved within the applicable warranty term together with evidence of the warranty start date and make the product available to that dealer within a reasonable period of time.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. H&S and the companies affiliated with it makes no warranties, representations, or promises, express or implied, as to the quality or performance or freedom from defect of its products other than those set forth above and NO IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS OR FITNESS FOR A PARTICULAR PURPOSE IS MADE. IN NO EVENT WILL THE DEALER, H&S OR ANY COMPANY AFFILIATED WITH H&S BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. The ONLY REMEDY the purchaser has in connection with the breach of performance of any warranty on H&S products are those set forth above.

The selling dealer has no authority to make any representation or promise on behalf of H&S, or to modify the terms or limitations of this warranty in any way.

2/16/2004

FILL OUT AND MAIL
IMMEDIATELY TO MAKE
WARRANTY EFFECTIVE



IMPORTANT!

Tear on dotted line, provide the information requested on the card. The H&S Warranty is valid "only" after this card is received and recorded at H&S Mfg. Co. Mail at once. No postage required in the U.S.A.

This Is Your Warranty Card Please Fill Out And Mail Immediately





NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS MAIL Permit No. 195

Marshfield, WI 54449

POSTAGE WILL BE PAID BY ADDRESSEE

H&S Manufacturing Co., Inc.

PO Box 768 Marshfield WI 54449-9963

(Remove Dealers File Copy At Perforation)

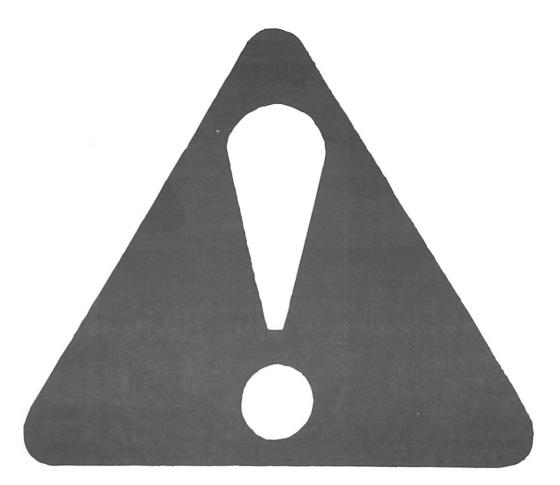
AFTER COMPLETION, DEALER SHOULD REMOVE AND RETAIN FOR RECORDS

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.

•		All shields and guards are in place and fa All grease fittings have been lubricated.	astened.	
		See lubrication guide in this manual.		
		All mechanisms are operating trouble fre	9.	
		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)
		DEALER <u>DELIVE</u>	RY CHECK LIST	
This ch	eck l	ist that follows is an important reminder o the time this Manure Spreader is delivere	rvaluable information th	nat should be passed on to the
Check	off ea	ach item as you explain it to the customer.		
This pr service	e-del was	ivery check list, when properly filled out a satisfactorily performed.	nd signed assures the	customer that the pre-delivery
		Explain to the customer that the pre-deliv	very inspection was mad	de.
		Explain to the customer all the safety pre	cautions they must exe	rcise when operating this unit.
		Explain recommended loads for different	-	. 0
		Explain to customer that regular lubrication		
	_	machine. Show customer the lubrication		
		Give the customer Owner's Manual and r service instructions.	nake sure he reads and	understands all operating and
		Record Serial Number on Page 14 of this	Manual.	
		Have customer sign a completed "Warra		ail it promptly.
Date D	elive	red	Dealer's Name	
	00			
			Бу	
			Signa	ture 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.

-5-



STAY CLEAR OF BEATER IF SPREADER IS MOVING 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



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.



H&S MODELS 25, 50 & 80 MANURE SPREADERS



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, <u>stop the tractor engine and disengage spreader drive</u> before cleaning or working on the machine. <u>Never allow riders in</u> 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 spreader drive engaged.

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, make sure all shields are securely in place.

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 spreader drive.

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 25 (FOR MODEL 50 & MODEL 80 SEE PAGE 12)

- 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 85-95 ft./lbs. of torque.
- 2. Check the tires and inflate to the recommended pressure (14 PSI.)
- 3. Attach the spreader to the tractor as described in the following sections.
- 4. Before operation pull machine slowly to make sure that the spreader is operating and lubricated properly.

ATTACHING TO THE TRACTOR

Fasten the spreader hitch to the drawbar with a hitch pin that cannot bounce out. Use 1/2" diameter hitch pin to pull spreader.

SERVICING

Be certain to shut off tractor, and disengage apron and beater drives before servicing. Keep 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. Do not load up to beater; leave approximately 6-12" in front of beater. When hauling extremely heavy material it may be necessary to reduce the load size. Never load material onto the beater. Do not use extra sideboards. Do not overload spreader. Overloading decreases spreading effectiveness. Do not load above the beater.

HOW TO ENGAGE SPREADER

Make sure the tractor is shut off and all motion has stopped. To engage the beater pull the beater lever on the right hand side of the spreader forward. This will release the latch. Allow the lever to travel rearward to engage the beater. To engage the apron pull the apron lever on the left hand side of the spreader forward. This will release the latch. Allow the lever to travel rearward to engage the apron. When forward motion begins the spreader will operate. See illustration on next page.

SPREADING

- 1. DO NOT back up with beater or apron engaged or damage to drives may occur.
- 2. Do not operate the spreader with a ground speed greater than 4 M.P.H.
- 3. Only operate spreader with the beater and apron both engaged until spreader is almost empty.
- 4. Beater may be disengaged when spreader is almost empty to speed up clean out time.



Beater and Apron Engaged



Beater and Apron Disengaged

ADJUSTMENTS

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.

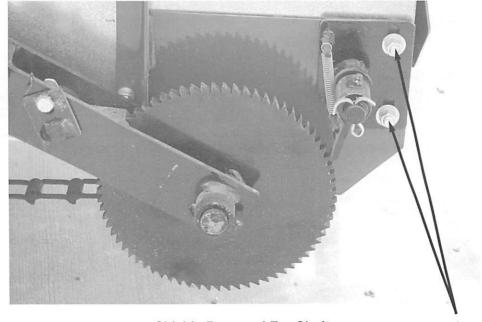
NOTE: Tighten the adjusting bolts on each front corner equally so that the apron slats run parallel with the ends of the bed. The apron will be damaged if the machine is operated with one end of the apron slats running ahead of the opposite end. Do not tighten the apron chains excessively.





APRON DRIVE RATCHET

Ratchet should be set to take two teeth while under normal operation. If adjustment is needed, loosen two bolts (A) securing holding dog bracket. Adjust bracket in slotted holes. Re-tighten bolts when proper adjustment is reached.



Shields Removed For Clarity

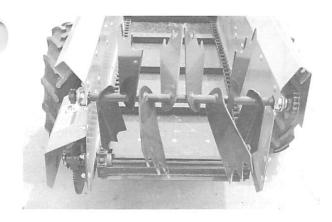
Δ



BEATER DRIVE CHAIN

Tightening of the chain may be done by loosening the idler sprocket bolt (B), by sliding slider sprocket assembly towards the front of the spreader. Then re-tighten the idler sprocket bolt. Over tightening of the beater chain drive will cause engagement misalignment.

Shields Removed For Clarity



BEATER

As the beater paddles are welded to the beater shaft, replacement of these paddles should be performed by an authorized service person who is a competent welder. When replacing paddles, the sharp edge of the teeth must lead in the direction of beater travel.

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, then replace the cotter key with a new one of the correct size.

FAILURE TO FOLLOW THE RECOMMENDED ADJUSTMENTS WILL VOID WARRANTY.



OPERATION MODEL 50 & MODEL 80 (FOR MODEL 25 SEE PAGE 9)

- 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 75-85 ft./lbs. of torque.
- 2. Check the tires and inflate to the recommended pressure (760 15 / 28 PSI.)
- 3. Attach the spreader to the tractor as described in the following sections.
- 4. Before operation pull 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.

ATTACHING TO THE TRACTOR

- 1. Fasten the spreader hitch to the drawbar with a hitch pin with a safety locking device. Use 3/4" 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.

SERVICING

Be certain to shut off tractor, and disengage apron and beater drives before servicing. Keep 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. Do not load up to beater; leave approximately 6-12" in front of beater. When hauling extremely heavy material with a large portion of dirt it may be necessary to reduce the load size. Never load material onto the beater. Do not use extra sideboards. Do not overload spreader. Overloading decreases spreading effectiveness. Do not load above the beater.

HOW TO ENGAGE SPREADER

Make sure the tractor is shut off and all motion has stopped. Raise the Engage and Disengage lever slightly pull latch forward, lower lever. When forward motion begins the spreader will operate. See illustration on page 14.

SPREADING

- 1. When ready to unload, make sure spreader drive is engaged.
- 2. Do not operate the spreader with a ground speed greater than 4 M.P.H.



ADANGER

STAY CLEAR OF BEATER IF
SPREADER IS MOVING
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

ADJUSTMENTS

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

DRIVE CHAIN

Drive chain is spring loaded. Tightening of the chain will be done automatically.

RATCHET

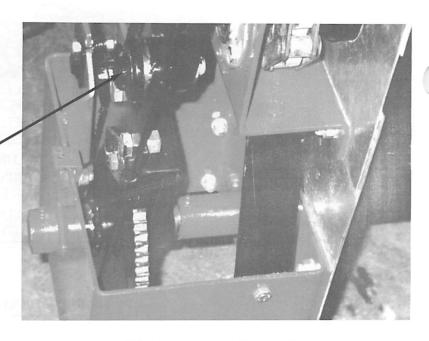
Ratchet should be set to take two teeth while under normal operation. For extreme loads, cam bearing may be adjusted in slot to ratchet one tooth at a time.

Ratchet Adjustment

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 RECOM-MENDED ADJUSTMENTS WILL VOID WARRANTY.



Shields Removed For Clarity

Make sure tires are mounted in correct direction as shown.

Direction of Travel



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.

50 & 80 GROUND DRIVE APRON SPEED ADJUSTMENT

sing a piece of barstock, put pressure against the ratchet gear by forcing it against the ratchet gear. This will simulate a load. While applying pressure to the rachet gear, rotate the beater by hand. Adjust cam roller until the holding dog takes 1 ½ teeth per 1 beater revolution (for slower apron speed) or 2 ½ teeth per 1 beater revolution (for faster apron speed). The extra ¾ of a tooth is needed to take up chain stretch.

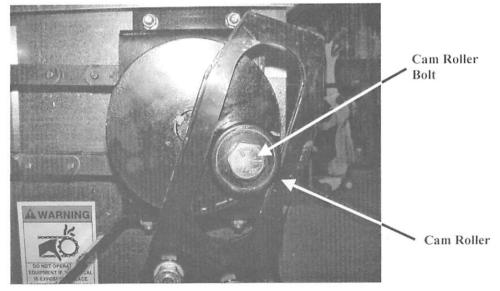


TO INCREASE APRON SPEED:

Loosen the cam roller bolt, and move the cam roller away from the beater shaft. Re-tighten the cam roller bolt

TO DECREASE APRON SPEED:

Loosen the cam roller bolt, and move the cam roller toward the beater shaft. Re-tighten the cam roller bolt.



LUBRICATION GUIDE MODEL 25

AWARNING



DO NOT CLEAN
OR WORK ON THIS
MACHINE WITHOUT
FIRST 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.

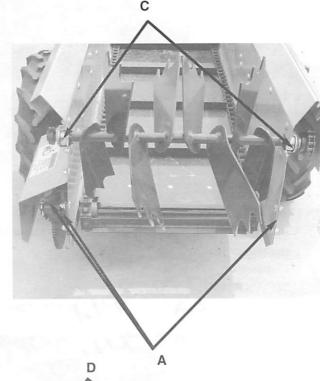
DRIVE CHAIN

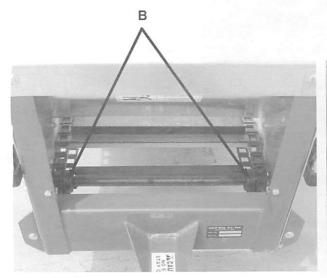
Lubricate the drive chain with a light machine oil. Keep chains aligned with sprockets. This will lengthen the life of the sprockets and chain. Lubricate chains often.

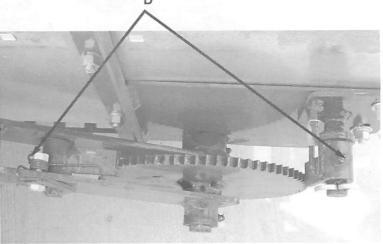
GREASE FITTINGS

There are 9 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. Wipe off excess grease to prevent the accumulation of chaff and grit around the bearings.

- A. (3) Three Apron Drive Shaft
- B. (2) Two Apron Idler Sprockets
- C. (2) Two Beater
- D. (2) Two Ratchet Dogs







Shields Removed for Clarity

LUBRICATION GUIDE MODEL 50 & MODEL 80

AWARNING



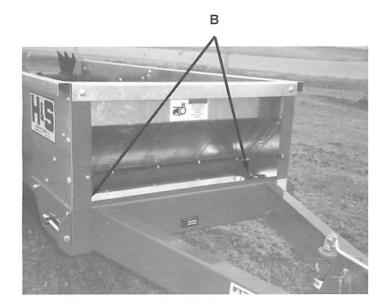
DO NOT CLEAN
OR WORK ON THIS
MACHINE WITHOUT
FIRST SHUTTING OFF
TRACTOR ENGINE.

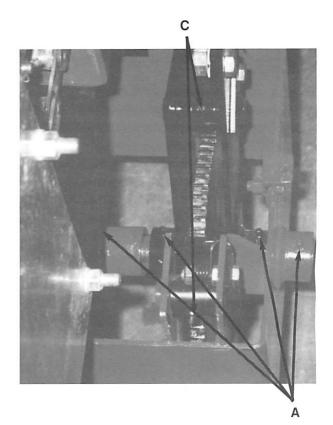
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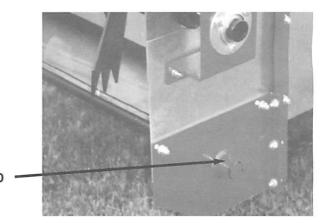
DRIVE CHAIN—Lubricate the drive chain with a light machine oil. Keep chains aligned with sprockets. This will lengthen the life of the sprockets and chain. Lubricate chains often.

GREASE FITTINGS - (Location)

- A. (4) Four along left hand side apron drive shaft
- B. (2) One on each idler sprocket
- C. (2) One on each ratchet dog pivot
- D. (1) One on right side of apron drive shaft







There are 9 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. Wipe off excess grease to prevent the accumulation of chaff and grit around the bearings.

DECAL LOCATION MODEL 25

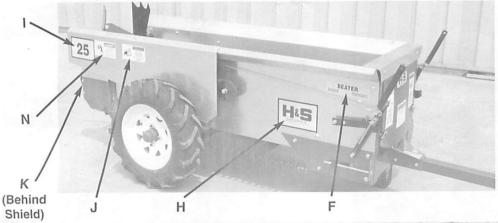
Your H&S Manure Spreader was manufactured with operator safety in mind. Located on the manure spreader are various decals to aid in operation, and warn of danger or caution areas. Pay close attention to all the decals on your Manure Spreader.



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
Α.	72203A	Warning-Help Avoid Injury
B.	1494K	Warning-Do Not Remove Shields
C.	9194B	Danger-Never Allow Riders
D.	B6	H&S Decal
E.	106-4176	Caution-No Step
F.	52703E	Beater Engage/Disengage
G.	52703F	Apron Engage/Disengage
H.	B12	(2) H&S Decal
1.	20201	(2) H&S Model 25
J.	1494B	(2) Warning-No Not Remove Shields
K.	1494A	(3) Warning-Do Not Operate
L.		Serial Number
M.	H&S	Patent Numbers
N.	82697A	(2) Danger Stay Clear
	6603-25	Complete Set of Decals
	N	





DECAL LOCATION MODEL 50 & MODEL 80

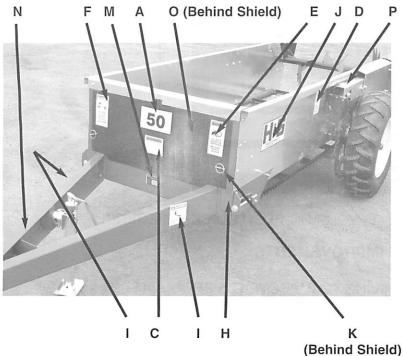
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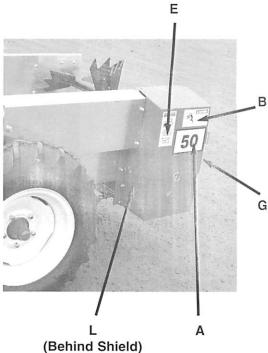


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Listed below are the decals on your Manure Spreader. These decals may be ordered individually by part number or by ordering a complete set.

,	18.0	
ITEM	PART NO.	DESCRIPTION
A.		(2) H&S Model 50/80
B.	82697A	(2) Danger-Stay Clear of Beater
C.	72203A	Warning-Help Avoid Injury
D.	82697B	Beater and Apron Engage/Disengage
E.	1494K	(2) Warning-Do Not Remove Shields
F.	9194B	Danger-Never Allow Riders
G.		(2) Red Reflector
H.		Amber Reflector
1.	9194A	(2) Danger-No Step
J.	B12	(2) H&S Decal (6x12)
K.	1494A	Warning-Do Not Operate
L.	3894	Warning-Do Not Operate
M.		Serial Number
N.	82602	Warning-Crushing Hazard
Ο.	H&S	H&S Patent Numbers
P.	52803	Caution-Pinch Point
	5699-50/80	Complete Set of Decals
Paint - H & S Red		
	ZX21	Gallon
	ZX22	Quart
	ZX23	Pint
N E M	A O (Rehind Ship	Id) F I D P

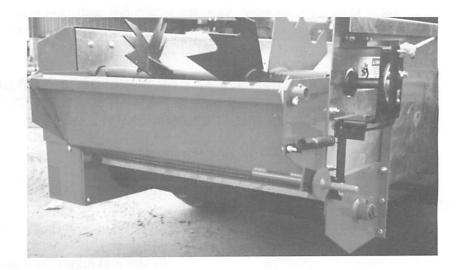




OPTIONAL EQUIPMENT

REAR PAN

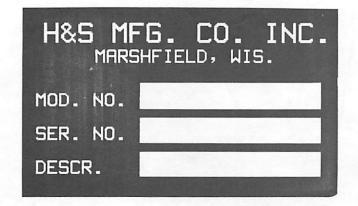
The rear pan is optional on the Model 50 bu. or 80 bu. spreader.



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 main cross channel.
- 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.
- 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 IT'S 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.

- SERVICE NOTES -

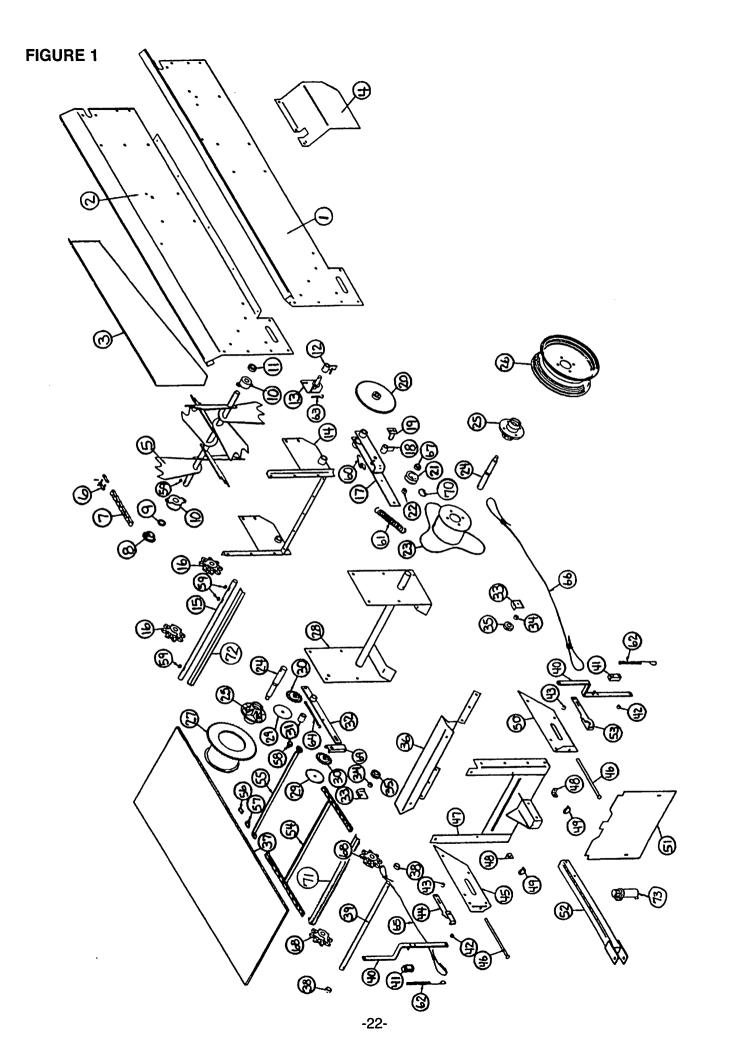


FIGURE 1 H&S 25 BUSHEL SPREADER

ITEM	PART #	DESCRIPTION	ITEMPA	ART#	DESCRIPTION	
1.	25G18	LH Spreader Side	32.	25G8	Engagement Arm	
2.	25G19	RH Spreader Side	33.	25G21	Pulley Mount	
3.	25G20	Beater Drive Shield	34.	ST81	Spacer	
4.	25G17	Ratchet Shield	35.	BFR292	Poly Pulley	
5.	25G6	Beater	36.	25G16	Front Panel	
6.	X61	#50 Connector Link	37.	25G36	Floor	
7.	25G38	#50 Chain 147 Pitch	38.	25G26	Spacer	
8.	4C4	13TSprocket	39.	25G28	Front Shaft	
9.	X28	Spacer	40.	25G11	Control Handle	
10.	25G51	Bearing	41.	23N282	Shifter Dog	
11.	L4C4	Collar	42.	ST77	Spacer	
12.	25G13	Holding Dog w/90° Zerk	43.	S70	Spacer	
13.	25G12	Dog Plate	44.	25G14	Right Control Bar	
14.	25G9	Back Bracket	45.	25G24	Right Chain Tightener	
15.	25G29	Apron Shaft	46.	25 G33	Bolt 3/8"x9" GR.2 Full Thread	
16.	LI0R24	Apron Chain Sprocket	47.	25G2	Front End	
17.	25G7	Cam	48.	R26	Shield Angle	
18.	5N51	Drive Dog w/45° Zerk	49.	F56	Lynch Pin	
19.	5N26	Dog Pin	50.	25G23	Left Chain Tightener	
20.	25G10	Ratchet Gear	51.	25G34	Front Poly Shield	
21.	25G66	Cam Roller	52.	25G1	Pole	
*	25G67	Cam Roller Complete	53.	25G15	Left Control Bar	
22.	23N94	Spacer	54.	25G46	Complete Apron Chain	
23.	25G4	Hub	55.	25G47	Apron Slat	
24.	25G30	Spindle	56.	25G48	Connector Link	
25.	25G40	Hub-Road Wheels	57.	25G49	Attachment Link RH	
*	BFR273	Seal	58.	25G50	Attachment Link LH	
*	BFR274	Bearing	59.	5B10	1/4"x1" Woodruff Key	
*	BFR275	Race	60.	23N186	Spring-Dog Front	
*	25G42	Stud Bolt	61.	K103	Spring-Rope Return	
*	CAT14	Stud Nut	62.	23N284	Spring-Dog	
*	BFR64	Spindle Nut	63.	12R3	Spring	
*	CAT13	Hub Cap	64.	25G41	Spring	
*	25G25	Spindle Washer	65.	25G44	Cable 47"	
*	T37	5/32"x1-1/4" Cotter Pin	66.	25G45	Cable 62"	
26.	BFR280A	Wheel	67.	25G39	Bearing w/Bushings	
*	25G43	Tire 6x12	68.	L10R20	Front Apron Chain Sprocket	
27.	25G5	Right Hub	69.	25G53	Chain Guide	
28.	25G3	Under Axle	70.	25G68	Snap Ring	
29.	25G22	Chain Washer	71.	25G65	Front Floor Protector	
30.	K101	Sprocket	72.	25G64	Rear Floor Protector	
31.	25G31	Pivot Bushing	73.	S522	Manual Holder	
* /Blooms Not Chaum)						

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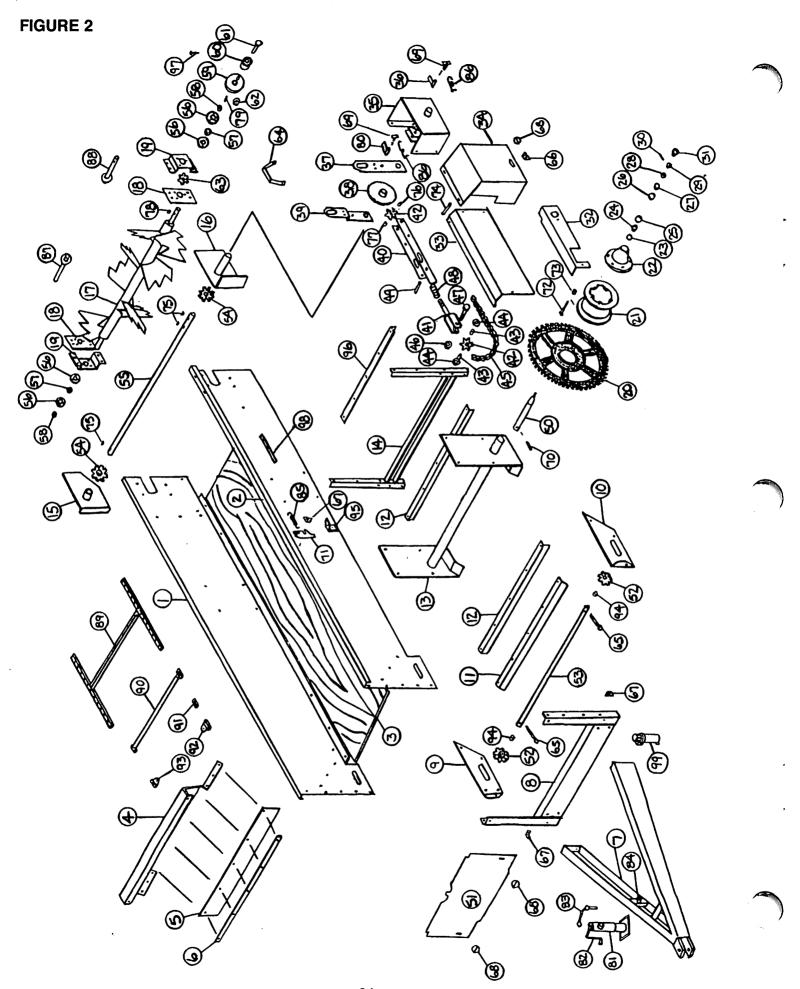
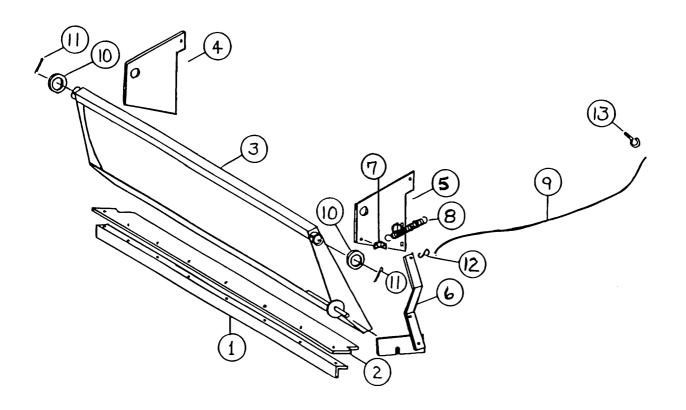


FIGURE 2 **50/80 BUSHEL SPREADER**

1. 2. 3. 4. 5.	5N2 5N1	"	RH Tub Side	E 1		0.0410.0	
3. 4. 5.			1111 100 0100	54.	5N42	80N63	Apron Drive Sprocket
4. 5.			LH Tub Side	55.	5N25	80G16	Apron Drive Shaft
5.	5N70	80G20	Floor	56.	4C7	"	Flange
	5N5	80G2	Front Panel	57.	4C8	"	Bearing
	5N45	12N69	Front Seal	58.	4C9	"	Lock Collar
6.	5N44	80N66	Front Seal Band	59.	5N23	14	Beater Cam Hub
7.	5N6	80N14	Pole Assembly	60.	T66	"	Cam Bearing
8.	5N10	80G3	Front Support	61.	5N74	"	Bolt 5/8" x 2-1/2" GR.5
9.	5N8	41	Apron Chain Tightener RH	62.	5N60	"	Flange Nut
10.	5N9	tt	Apron Chain Tightener LH	63.	5N76	tt.	Beater Sprocket
11.	5N7	80G4	Front Shaft Cover	64.	5N50	"	Beater Mount Re-enforcement
12.	5N4	80G5	Floor Brace	65.	A9	u	Tightener Bolt
13.	5N15	80G6	Axle Assembly	66.	5N53	"	Back Shield Angle
14.	5N3	80G7	Rear Support	67.	5N68	"	Front Shield Angle
15.	5N11	80G8	RH Rear Apron Bracket	68.	F56	16	Clip Pin
16.	5N12	80G9	LH Rear Apron Bracket	69.	5N26	44	Dog Pin
17.	5N18	80G10	Beater	70.	T245	u	3/8" x 3" Hex Bolt GR.5
18.	5N49	80G11	Beater Mount Seal	*	-	B10	1/2"x3-1/4"Bolt GR. 5
19.	5N45 5N16	"	Beater Bracket	71.	5N35	"	Latch
20.	5N40	44	Sprocket 41T	72.	BFR143	80G21	Stud
21.	5N71	80G12	Hub Drum	73.	BFR144	"	Stud Nut
22.	5N77 5N72	RG101	Wheel Hub	74.	5N36	14	Shield Spacer
23.	BFR57	12N17	Seal	75.	G12	16	Key 5/16" x 1"
23. 24.	BFR58	12N17	Inner Bearing	76.	5N29	"	Outside Bushing
2 4 . 25.	BFR59	12N10	Inner Race	77.	5N30	"	Inside Bushing
26.	BFR61	12N19 12N20	Outer Race	78.	5B10	4	Key 1/4" x 1"
20. 27.	BFR62	12N25	Outer Bearing	79.	S135	46	Key
	BFR63	121V25 B4	Washer	80.	5N51	46	Drive Dog W/45 Degree Zerk
28.		B3		81.	5N77	12N116	Jack
29.	BFR64	вз В31	Nut Cotter Pin	82.	5N78	12N119	Jack Handle
30.	BFR65	12N23		83.	12N117	12N117	Jack Pin & Chain
31.	BFR66	121123	Hub Cap	84.	12N117	12N117	Jack Mount
32.	5N39	u	Rotary Shield	04. *	12N121	12N121	Replacement Bearing
33.	5N33	и	Stationary Shield	*	-	12N110	Replacement Gears
34.	5N32	u	Rear Shield	85.	12R3	"	Spring
35.	5N17	и	LH Apron Mechanism Cover		23N186	4	Dog Spring
36.	5N20	"	Holding Dog W/Straight Zerk	86.		90C17	RH Beater Stub Shaft
37.	5N13	"	Reciprocator Face	87.	5N58	80G17 80G18	LH Beater Stub Shaft
38.	5N21	u	Ratchet Gear	88.	5N59		Apron Chain (50 bu. 62H/80 bu. 67H)
39.	5N14	"	Reciprocating Arm	89.	5N47	80G19	Slat W/Attachment Link
40.	5N28		Pivot Arm	90.	5N48	80N62	
41.	5N27	"	Idler Spring Bracket	91.	L10R33	11525	Connector Link 62H/67H
42.	5N56	"	Idler Sprocket	92.	L10R37	11523	Attachment Link LH 62H/67H
43.	5N31		Sliding Idler Spacer	93.	L10R38	11S24	Attachment Link RH 62H/67H
44.	5N62	"	Washer 3/4"	94.	5N24	12N66 "	Front Apron Shaft Spacer
45.	5N57	"	Chain	95.	ST33		Angle Drive Shoft Cover
46.	HE7		Lock Nut 3/4"	96.	5N69	80N64 "	Drive Shaft Cover
47.	5N55	"	Bolt 3/4" x 3-1/2" GR.5	97.	S84	44	5/16" x 2-1/2" GR.5 Bolt
48.	S109	"	Spring	98. *	5N73	"	Edge Guard 1/8"
49.	5N34		Pivot Arm Spacer	*	5N46		Tire-Tractor Lug
<u>50.</u>	5N61	12N16	Spindle		5N63	RG127	Wheel 15 x 6
51.	5N54	80G14	Front Shield	99. NOTE	S522	lot Chourn	Manual Holder
52.	L10R20	12N65	Apron Chain Sprocket		: * (Means N	•	lumbor\
53.	5N22	12N67	Apron Front Shaft			Preceding N	
			-2	- (IVIE: 5-	ans NOLUSE	d on This Mo	uei)

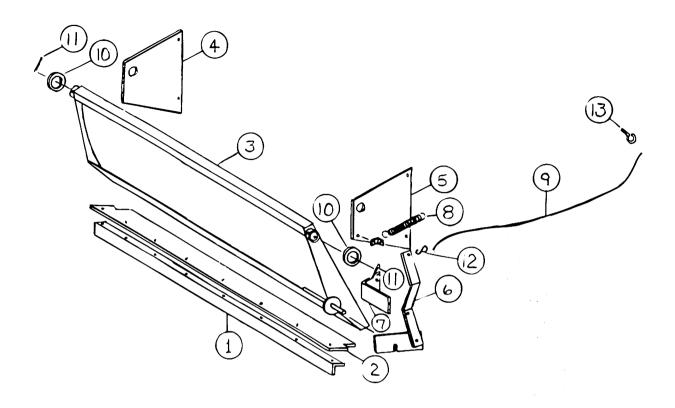
FIGURE 3



OPTIONAL PAN 25 BUSHEL SPREADER

ITEM	PART #	DESCRIPTION
1.	25G59	Pan Angle
2.	25G61	Pan Rubber
3.	25G56	Pan
4.	25G60	LH Pan Plate
5.	25G57	RH Pan Plate
6.	25G58	Pan Handle
7.	R26	Spring Angle
8.	R27	Pan Handle Spring
9.	25G62	Trip Rope
10.	R3	Pan Spacer
11.	R70	Cotter Pin
12.	R31	"S" Hook
13.	K79	"I" Bolt

FIGURE 4



OPTIONAL PAN 50/80 BUSHEL SPREADER

ITEM	50 BU. PART #	80 BU. PART #	DESCRIPTION		
1.	5N64	12N52	Pan Angle		
2.	5N65	12N53	Pan Rubber		
3.	5N66	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	<i>"</i>	Pan Spacer		
11.	R70	"	Cotter Pin		
12.	R31	"	"S" Hook		
13.	23N213	"	"I" Bolt		
NOTE: " (Means Same as Preceding Number)					

H&S MODEL 25 GROUND DRIVEN 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

	<u>25 BU.</u>
Top of Flare Width	
Inside Width	
Inside Length	
Inside Depth	
Overall Length	
Overall Loading Height - Top of Flare	
Overall Width W/Standard Tires	
Standard Tire Size	
Spindle Size	
Diameter of Beater	
Number of Paddles	8
Main Apron Chain	
Capacity - Cu. Ft. Struck Level	
Heaped (Old Rating) Bu	
Box Construction	Corrosion Resistant Galvanized Steel
Floor Construction	
Apron Drive	
Weight W/Tires	

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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.

H&S MANUFACTURING CO. INC.

2608 S. Hume Ave. P.O. Box 768 – Telephone (715) 387-3414 FAX (715) 384-5463 MARSHFIELD, WI 54449



H&S WAREHOUSE Rt. #5 and 76 P.O. Box 1260 – Telephone (716) 736-7595 FAX (716) 736-7596 RIPLEY, NY 14775

H&S MODELS 50/80 GROUND DRIVEN MANURE SPREADERS

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

<u>50 BU.</u>	80 BU.
Inside Width	48"
Inside Length	"
Inside Depth	"
Overall Width 760 x 15 Tires	71"
Overall Length	"
Overall Height 760 x 15 Tires	"
Wheel Tread	"
Diameter of Beater	"
Ratchet DriveTwo Speed	"
Weight 760 x 15 Tires	975 Lbs.
Capacity - Cu. Ft. Struck	47
Old Rating	80 Bu.
Rear PanOptional	Optional
Swing Away JackStandard	Standard

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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