



BROUWER

OWNER/OPERATOR'S MANUAL & ILLUSTRATED PARTS LIST

MODEL:

7990225 SOD LAYER, S.L.H. 2430



WARNING: If incorrectly used this machine can cause severe injury. Those who use and maintain this machine should be trained in its proper use, warned of its dangers and should read the entire manual before attempting to set up, operate, adjust or service the machine.

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STATEMENT OF LIMITED WARRANTY

Kesmac and Brouwer Turf warrants its full line of equipment to be free from defects in material and factory workmanship for a period of 12 months. This warranty begins on the date of sale or use of the equipment to the original purchaser. This statement does not extend or limit engine, tractor or component warranties in which the engine, tractor or component manufacturers may carry extended time periods up to 24 months. Engine, tractor or component warranty claims will be subject to the engine, tractor or components manufacturer's approval.

Replacement Parts carry a 90 day replacement warranty and are reimbursed to the dealer. All electrical and hydraulic parts are limited by this policy and will only be covered upon approval by the service department after inspection of the part. The installation and removal of a part will automatically place that part under the replacement parts warranty.

This warranty is limited exclusively to equipment or accessories manufactured or supplied by **Kesmac and Brouwer Turf** and are subject to the inspection and analysis by the company to conclusively identify the nature and cause of failure.

PRODUCT REGISTRATION FORM must be completely filled out, signed by the customer at the original date of installation, and returned to **Kesmac and Brouwer Turf** before any claims will be considered.

Kesmac and Brouwer Turf reserves the right to incorporate improvements in material and design of its products without notice and is not obligated to make the same improvements to equipment previously manufactured.

Kesmac and Brouwer Turf is not obliged under any warranty policy different from the Kesmac Brouwer Turf warranty policy as published above.

KESMAC AND BROUWER TURF RESPONSIBILITIES

Kesmac and Brouwer Turf's obligation under the terms of this warranty is limited to the repair, replacement or credit, at its option, of the equipment, parts or supply items that conform to its warranty.

Kesmac and Brouwer Turf will pay for the parts and the cost of surface transportation for the parts that conform to this warranty.

DEALER'S RESPONSIBILITIES

1. Only factory-trained service or approved personnel will be permitted to perform warranty service on **Kesmac and Brouwer Turf** equipment.
2. All major warranty claims exceeding \$650.00 (in total including parts and labour) must be authorized by **Kesmac and Brouwer Turf** before work is performed.
3. All replacement parts used in warranty situations must be furnished by **Kesmac and Brouwer Turf** or approved by **Kesmac and Brouwer Turf** personnel. The use of non-recommended oil could nullify warranty.

OWNERS RESPONSIBILITIES

The owner is obligated to operate and maintain the equipment in accordance with the recommendations published by **Kesmac and Brouwer Turf** in the owners/operators manual for the unit. The owner is responsible for the costs associated with such maintenance and operating adjustments that may be required on a regularly scheduled basis. Where applicable the owner is responsible for transportation to and from the dealership or service calls made by the dealer.

CONDITIONS THAT VOID WARRANTY

This warranty shall not apply to equipment which:

- 1. Has had repairs or modifications not authorized by **Kesmac and Brouwer Turf**.
- 2. Has been subject to abuse, improper maintenance, or improper application.
- 3. Has been modified from original equipment specifications.

WARRANTY EXCEPTIONS

This warranty does not apply to the following items:

- 1. Wear items including blades, cutting edges, spark plugs, belts, filters, bearings, sprockets, chains, tires, light bulbs, lubricants and fluids etc. Cost of normal maintenance including replacement of service items.
- 2. Damages to engine/drive systems caused by lack of/ or improper lubricants and/ or fluids.
- 3. Damages arising from accident, misuse or neglect.
- 4. Damages to engine/drive systems caused by improper operation and/ or maintenance.
- 5. **Kesmac and Brouwer Turf** will not be liable for any incidental or consequential damage or injuries, including but not limited to loss of profits, loss of crops, rental of substitute equipment, or other commercial loss or for damage to the equipment in which the Company Product is installed.

FREIGHT CARRIER DAMAGE

Claims for equipment damaged in transit should be referred to the freight carrier. Visible damage should be reported immediately and concealed damage as soon as possible, in accordance with freight carrier regulations.

BROUWER

289 N. Kurzen Rd., P.O. Box 504, Dalton, OH 44618
Tel. (330) 828-0200 Fax. (330) 828-1008

Date of Purchase: Month _____ Day _____ Year _____

Dealer Name _____ Phone _____

Serial Number _____

Model Number _____

*ALWAYS GIVE THE SERIAL NUMBER, MODEL NUMBER AND PART COLOR WHEN
ORDERING SERVICE PARTS.*

CALIFORNIA
Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

 **WARNING**

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Californie Proposition 65
Avertissement

Les échappements des moteurs diesel et certains de leurs composés sont reconnus par l'Etat de Californie pour être cancérigènes, provoquer des défauts congénitaux et d'autres dangers en matière de reproduction.

 **AVERTISSEMENT**

L'émission du moteur de ce matériel contient des produits chimiques que l'Etat de Californie considère être cancérigènes, provoquer des défauts congénitaux et d'autres dangers en matière de reproduction.

California Advertencia
de la Proposicion 65

El estado de California hace saber que los gases de escape de los motores diesel y algunos de sus componentes producen cáncer, defectos de nacimiento y otros daños en el proceso de reproducción humana.

 **ADVERTENCIA**

El estado de California hace saber que los gases de escape de este producto contienen productos químicos que producen cáncer, defectos de nacimiento y otros daños en el proceso de reproducción humana.

HYDRAULIC SOD LAYER

IMPORTANT

Your new **HYDRAULIC SOD LAYER** has been designed and built to give many years of outstanding performance. The service and reliability you receive from this product will be affected by the proper maintenance and operation of the machine.

It is important the operator of the machine follows all recommended operating procedures and service schedules, to ensure the safety of the machine, themselves and any bystanders.

It is not possible to list all situations that may effect the safety of the machine or the operators, therefore Brouwer cannot identify all precautions that may possibly prevent accidents.

The owner/operator must assume responsibility for their own safety, the safety of others and of the machine.

BE A QUALIFIED OPERATOR BY ;

- Reading and obeying the instructions in this manual and on the safety decals on the machine.
- Receiving training on the correct operation of the machine.
- Asking your supervisor or equipment dealer to explain anything you do not understand.
- Explaining the instructions in the operator's manual and safety decals to user/operators who cannot read or understand them.

IF YOU DO NOT UNDERSTAND.....ASK

Use only genuine Brouwer replacement parts. Parts not supplied by Brouwer may not meet factory specifications or standards of manufacture. The use of non-approved parts may result in component failure and result in an accident to the operator or bystanders.

The Brouwer **HYDRAULLIC SOD LAYER** must not be used for any purpose other than that for which it was designed.

Prior to shipping from the manufacturer the machines are inspected to insure that all safety guards, shields and warning/safety/operating decals are correctly positioned and secure.

The machine must not be used if any of the above items are missing or damaged.

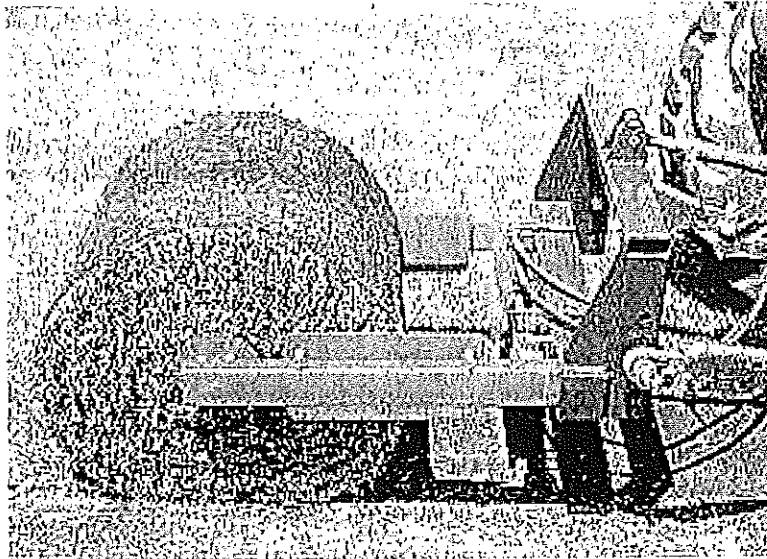
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DESCRIPTION

The SLH2430 is a tractor-mounted, large roll installer which provides the sod laying capabilities of our SPI2430 with a 3-point hitch design that fits standard tractors.

Using the tractor's hydraulics, you can clamp and raise the roll for transport from the operator's seat. The sod unrolls on bearings, without tearing. The SLH2430 can handle sod with or without core tubes.



SPECIFICATIONS

Roll Capacity	24" or 30" wide, 48" diameter
Clamp	Hydraulic
Categories	1 & 2, 3 point hitch
Tubes	Use with or without
Weight	271 lbs. (123 kg)

WARNING

Unauthorized modifications may result in **extreme** safety hazards to operators and bystanders, and could result in damage to the machine.

Brouwer Turf Ltd. warns against and strongly rejects and disclaims against any modifications, add-on accessories or product modifications that are not designed, developed, tested, and approved by Brouwer Engineering Department.

Any Brouwer product that is altered or modified in anyway that is not authorized, after original manufacture, including after market accessories or component parts that are not approved by Brouwer, will result in the machine warranty be voided.

All liability for personal injury and/or property damage caused by any unauthorized modifications, add-on accessories or products not approved by Brouwer will be considered the responsibility of the individual(s) or company designing and/or making such changes.

Brouwer Turf Ltd. will vigorously pursue full indemnification and costs from any party responsible for unauthorized post-manufacture modifications and/or accessories should personal injury and/or property damage result.



This symbol means:
ATTENTION!
BECOME ALERT!

Your safety and the safety of others is involved.

Signal word definitions:

The signal words below are used to identify levels of hazard seriousness. These words appear in this manual and on the safety labels attached to Brouwer machines. For your safety and the safety of others, read and follow the information given with these signal words and/or the symbol shown above.

DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices or property damage.

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **MAY** result in property damage

BROUWER EQUIPMENT BUILT FROM EXPERIENCE	BROUWER TURF LTD. KESWICK, ONT. CANADA PHONE: (905) 476-6222 FAX: (905) 476-6744
SERIAL NO.	_____
WEIGHT	_____ kg. _____ lbs.

MODEL NUMBER :

This number appears on sales literature, technical manuals and price lists.

SERIAL NUMBER:

This number applies only to the machine to which it is allocated.

The serial number must be quoted when ordering parts or calling for service or warranty advice.

The serial number plate is located on the Lower Right Hand Door Frame.

GENERAL SAFETY

- Read and understand the owner's manual, before attempting to operate this machine.
- Operate all controls from the operator's seat, (if so equipped). **NO RIDERS.**
- Keep all shields in place and safety switches adjusted properly.
- Do not leave equipment unattended. STOP the engine and remove the key (if so equipped).
- Do not allow minors or the inexperienced to operate this machine.
- Never allow anyone to operate or service this machine while under the influence of alcohol or drugs.
- Keep people and pets a safe distance away from machines using power driven attachments. Injury could result from flying debris.
- Wear all the necessary protective clothing and personal safety devices to protect your head, eyes, ears, hands, and feet.
- Operate the machine only in daylight or in good artificial light.

OPERATING SAFETY

- **DO NOT** attempt to work on unit or any attachments with the engine running. **STOP ENGINE!**
- Before leaving the tractor seat:
 1. Set Parking Brake.
 2. Stop Engine.

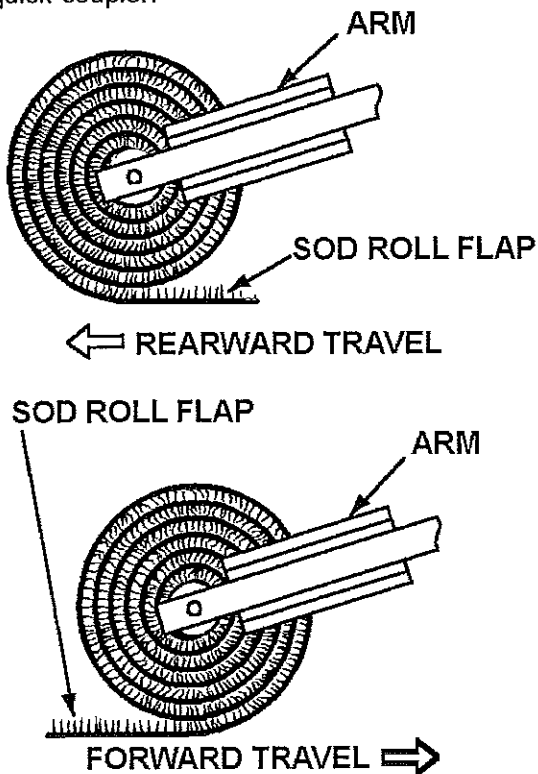
OPERATING INSTRUCTIONS

The SLH2430 sod layer is designed as a companion attachment for use with sod rolls made by the BROUWER Rollmax 2400 sod harvester.

1. Mount the sod layer to the Category 1 three-point hitch in the usual manner.

NOTE: For Category 2 hitch, move the hitch pins to the outside of the frame and use the upper top link hole.

2. Attach each of the hydraulic hoses from the cylinder to the tractor using a 90° fitting and a quick coupler.



LAYING A SOD ROLL

Determine whether forward travel or rearward travel will be used to lay the sod roll. The sod roll flap must be oriented accordingly when the sod roll is engaged in the cones.

NOTE: Rolls of sod may be fitted with 6 inch I.D. core tubes if desired. Core tubes are not required, depending upon sod roll conditions.

1. Position the tractor so the sod roll is at the rear of the sod layer, centered between the side rails of the frame.
2. Spread the lift arms outward just enough to allow the cone tips to clear the outside edges of the sod roll.
3. Slowly move the tractor backward to align the lift arm cones at the center of the sod roll.
4. If desired, the rear shield can be adjusted to contact the back of the sod roll when the machine is positioned correctly. See Page 8.
5. Swing the arms inward to the fully closed position, ensuring that the cones engage the core of the sod roll or core tube (if used).
6. Position the tractor so the sod roll is at the beginning of the desired work area.
7. If the sod roll flap is oriented to be laid using forward travel, move the tractor forward until the sod roll flap is positioned at the bottom of the roll, contacting the ground as shown at left. If the sod roll flap is oriented to be laid using rearward travel, move the tractor rearward until the sod roll flap is positioned at the bottom of the roll, in contact with the ground as shown at left.
8. Begin either forward travel or rearward travel in accordance with the sod roll flap orientation.

CAUTION

Be careful when moving rolls.

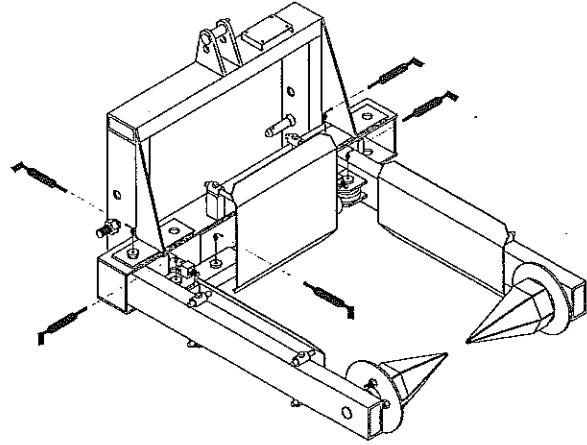
Sod rolls are very heavy and should be handled with the proper equipment.

Use extreme care when working on slopes.

Personal injury can result from attempting to move rolls by hand.

LUBRICATION

Apply grease to the arm pivot pin and cylinder pin grease fittings daily, as shown at right.



Lubrication Points

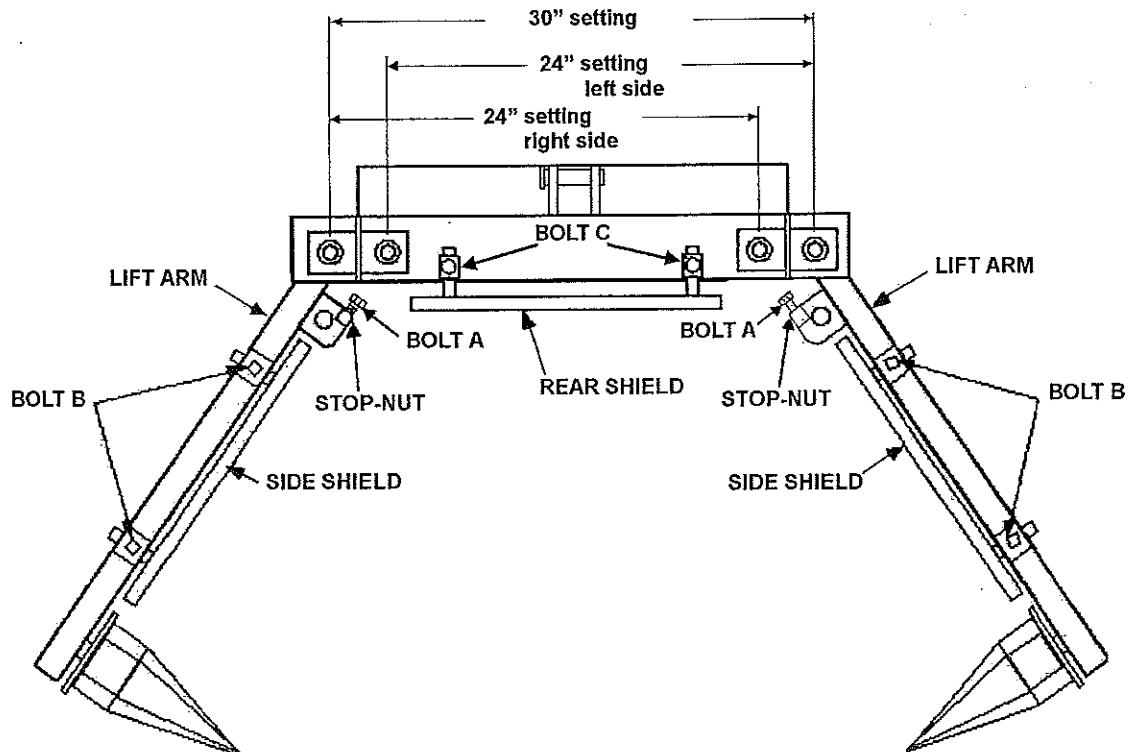
ADJUSTMENTS

The lift arms can be spaced 24" or 30" apart. Choose from right or left 24" setting or the 30" setting as shown in the Lift Arm Adjustment illustration.

The arms should be parallel to each other, and perpendicular to the main frame. If adjustment is required, proceed as follows:

1. Start the tractor.
2. Raise, then open the lift arms.
3. Shut down the tractor.
4. Loosen the stop-nut on the arm requiring adjustment.
5. Thread the adjustment bolt A inward to adjust the end of the lift arm inward. Thread the adjustment bolt outward to adjust the end of the lift arm outward.
6. Tighten the stop-nut.
7. Start the tractor, then fully close the lift arms.
8. Shut down the tractor.
9. Check for proper adjustment so that the lift arms are spaced 24" or 30" apart, parallel to each other, and perpendicular to the main frame.
10. Repeat steps 1 through 9, as required, until the lift arm is properly adjusted.

NOTE: When using the 30" spacing, it is necessary to install the 6" cylinder extension to the closed end of the cylinder. (See parts section on Pages 10 and 11 for parts identification.)



Lift Arm Adjustment

SIDE SHIELDS

The side shields can be adjusted to contact the sides of the sod roll, if desired. If so adjusted, the side shields apply pressure to the sides of the sod roll, thereby greatly reducing the inertial rotation of the sod roll when the machine is stopped.

NOTE: Refer to Lift Arm Adjustment drawing on Page 7.

If adjustment is desired, proceed as follows:

1. Loosen all eight bolts **B**.
2. Slide both side shields fully outward.
3. Start the tractor.
4. Properly secure a sod roll within the arms, centered between both arms.
5. Shut down the tractor.
6. Slide both side shields fully inward until secure contact is achieved with the sides of the sod roll.
7. Tighten all eight bolts **B**.

REAR SHIELD

The rear shield can be adjusted to contact the circumference of a uniform sod roll, if desired. When so adjusted, the rear shield will contact the circumference of all additional uniform sod rolls when the machine is positioned properly for the engagement of a new uniform sod roll. This feature simplifies the horizontal centering of a uniform sod roll.

If adjustment is desired, proceed as follows:

1. Loosen all four bolts **C**.
2. Slide the rear shield toward the tractor.
3. Start the tractor.
4. Properly secure a sod roll within the arms, centered between both arms.
5. Shut down the tractor.
6. Slide the rear shield toward the sod roll until secure contact is achieved with the circumference of the sod roll.
7. Tighten all four bolts **C**.

HYDRAULIC
SOD LAYER

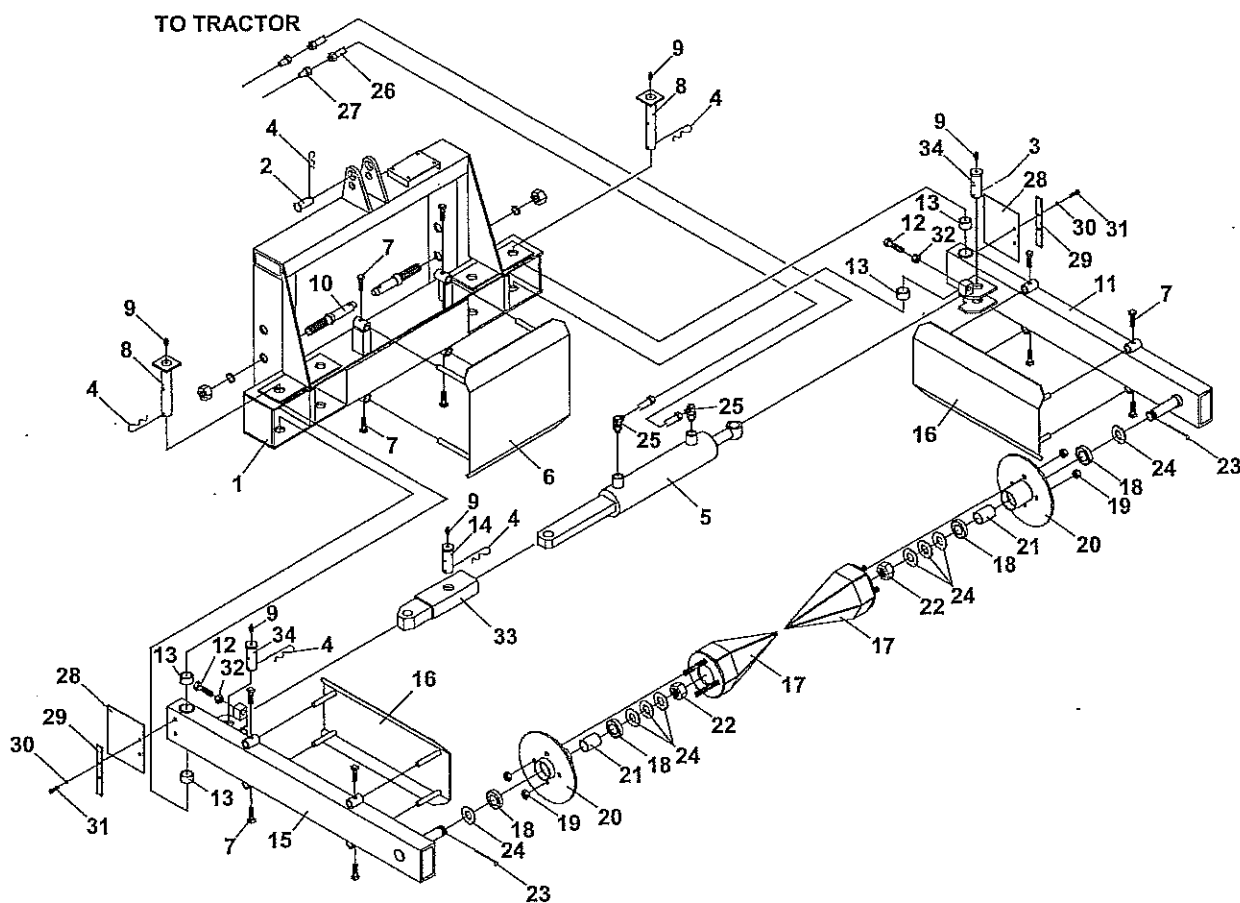
PARTS SECTION

ILLUSTRATED
PARTS LIST

FRAME ASSEMBLY

HYDRAULIC SOD LAYER

FIGURE 1



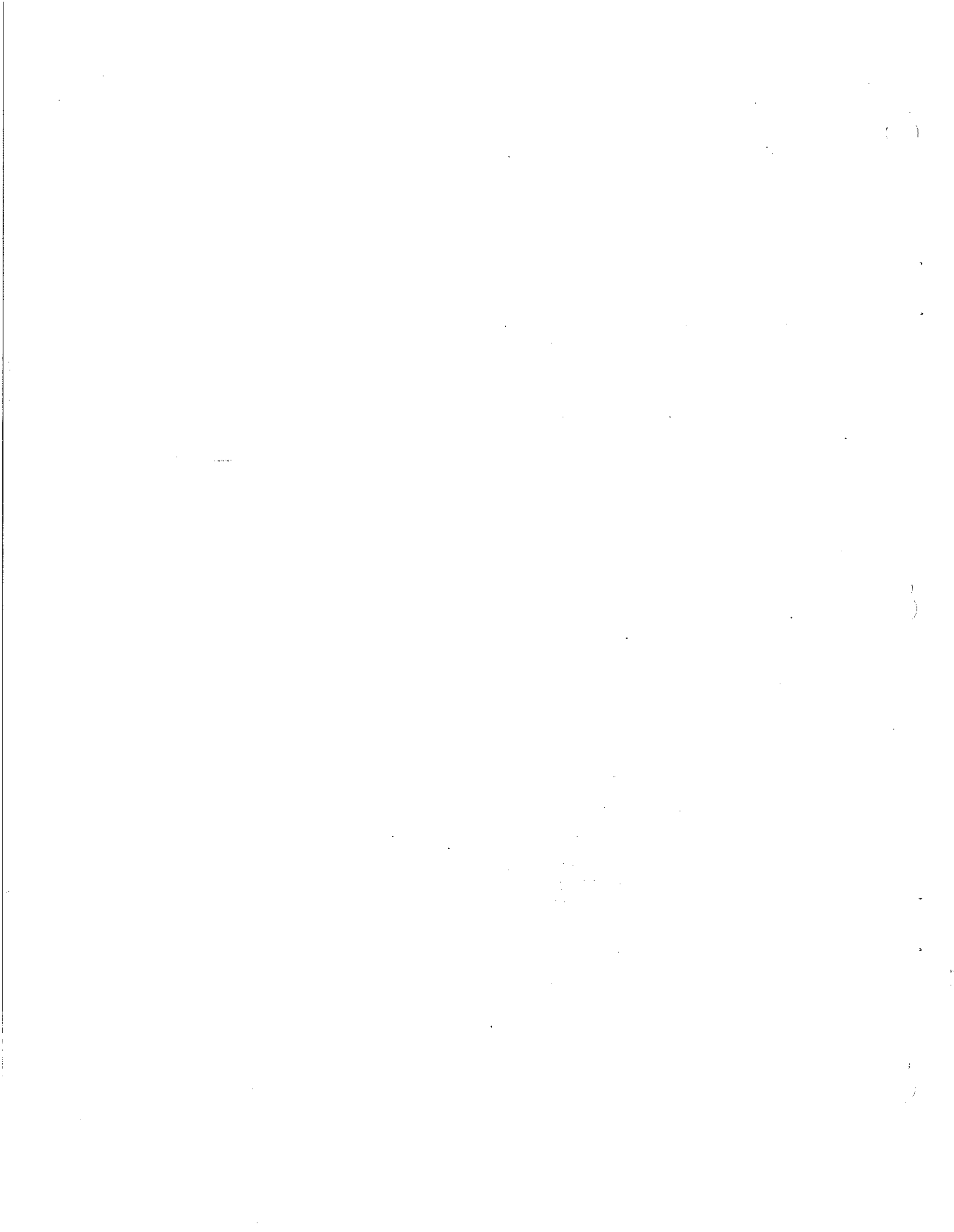
HYDRAULIC SOD LAYER

FRAME ASSEMBLY

FIGURE 1

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1-1	013467.7	MAIN FRAME	1				
1-2	64188-50	PIN-CLEVIS 3/4 X 3-1/2	1				
1-3	02-CP0612	COTTER PIN, 3/16 X 1-1/2	1				
1-4	02-PP0524	PRESTO PIN, 5/32 X 2-15/16	4				
1-5	23-176.6	CYLINDER	1				
1-6	013432.6	REAR SHIELD	1				
1-7	F3602	SET SCREW-3/8 X 1/2	12				
1-8	013479	PIN-LIFT ARM PIVOT	2				
1-9	29-010	GREASE FITTING	5				
1-10	013028	HITCH PIN MODIFICATION (INCLUDES A LOCKWASHER & NUT)	2				
1-11	013290.6	LIFT ARM W/A (LH)	1				
*	00-245	DECAL-SWINGING ARMS	1				
*	00-247	DECAL-KEEP AWAY	1				
*	4131393	DECAL-BROUWER	1				
1-12	64123-117	BOLT-HEX 1/2-13X1-1/2	2				
1-13	85-B41	BUSHING	4				
1-14	202370	PIN-CLEVIS	1				
1-15	013291.6	LIFT ARM W/A (RH)	1				
*	00-245	DECAL-SWINGING ARMS	1				
*	00-247	DECAL-KEEP AWAY	1				
*	4131393	DECAL-BROUWER	1				
1-16	013293.6	SIDE SHIELD	2				
1-17	013294.6	FLANGED CONE	2				
1-18	55-99R16-NR	BEARING	4				
1-19	64229-05	LOCKNUT, 1/2-13 NYLON	8				
1-20	013350.6	FLANGE-CONE BRG HSNG	2				
1-21	013274	SPACER-CONE BRG SPNR	2				
1-22	99-E19	CASTLE NUT-1"	2				
1-23	02-CP0512	COTTER PIN-5/32 X 1-1/2	2				
1-24	64163-64	WSHR 1.015X1.500X14	8				
*	4116761	DECAL-MADE IN USA	1				
1-25	25-2503-6-6	FITTING	2				
1-26	20-134	HOSE-3/8 X 60"	2				
1-27	H1801	QUICK COUPLER-MALE	2				
1-28	013433	SHIELD-3-POINT FINGER	2				
1-29	013472.6	STRAP-FINGER SHIELD	2				
1-30	64006-01	LOCKWASHER-1/4	4				
1-31	64197-002	BLT-TDFM 1/4-20X3/4	4				
1-32	64001-8	NUT-HEX JAM,1/2-13	2				
1-33	013460.6	CYLINDER EXTENSION	1				
1-34	006633	PIN-CYLINDER 1 X 3	2				

* NOT ILLUSTRATED



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