Serial No. _____

ROWSE

SINGLE BAR MOWERS
OPERATOR'S MANUAL

"QUICK-ATTACH" TRAILING THREE-POINT MOUNTED HITCH

Pitmanless and Balanced Head PTO Drive Assemblies

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Refer to the Table of Contents for easy reference as to NH Type or IH Type Models. Head and bar type is determined by the following: NH Type head and bar are yellow in color. IH Type head is red in color, and IH Type bar is black in color. If not designated, references are for both NH and IH Type.

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TO THE OWNER

Both Types

CONGRATULATIONS

We at Rowse would like to congratulate you on your purchase of a Rowse Mower. It has been designed, manufactured, and tested to make you another satisfied Rowse customer.

Be sure to read the set-up instructions, safety practices, operating and adjustment instructions in this manual. Check each item and become familiar with the adjustments required to obtain maximum, trouble-free, efficiency, and performance. A properly lubricated, adjusted, and cared for implement saves downtime, labor costs, fuel, and repairs. Consult your Rowse Dealer concerning unusual field conditions or special applications.

After the operating season, clean, inspect, and recondition your Mower, or have it reconditioned to like new. Your Rowse Dealer has original equipment parts which assure proper fit for the best performance. The lowest cost maintenance is preventative maintenance.

Should any problem arise, let the experience of your Rowse Dealer Organization serve you.

QUALITY ROWSE FARM EQUIPMENT

FEMA

CAUTION

Read the Operator's Manual.
Learn to operate this machine SAFELY.
Be alert. Observe ALL Safety Practices.
Machines can be hazardous in the hands of an UNFAMILIAR, UNTRAINED or COMPLACENT operator.
Don't risk INJURY or DEATH.

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INTRODUCTION

Both Types

The Rowse Single Bar "Quick-Attach" Trailing and Three-Point Hitch Mowers are available for most tractors equipped with a 540 RPM, 1- 3/8"-6 spline PTO shaft.

Your mower is designed so that the bar can be raised or lowered hydraulically, thus hydraulic requirements are 1 single acting control valve with float detent. If adequate hydraulic system or valves are not standard on tractor, they can be purchased from Rowse through your dealer.

The bar is equipped with an automatic safety release to protect the cutter bar and mower frame from damage. They can be easily adjusted for more or less tension for mowing in light or heavy hay crops.

"QUICK-ATTACH" TRAILING MOWERST
ALL MOWER MODELS

The trailing mower attaches to the tractor by a hitch pin through mower hitch and tractor drawbar (Clevis Hitch) or by a ball on the tractor drawbar and coupler welded to the mower hitch (Ball Hitch).

The drawbar must measure 16" from center of hitch pin hole in drawbar to end of PTO shaft on Tractor. Use of tractor with drawbar other than this measurement will result in damage to mower unit, tractor, or both.

AGAIN, CHECK 16" MEASUREMENT.

THREE-POINT HITCH MOWER^{SM}
ALL MOWER MODELS

The Three-Point Mower attaches to standard ASAE category 1 and 11 tractor hitches.

Throughout this manual you will encounter the terms: left and right, front and rear. The following is an example to distinguish left from right and front from rear. Right and left are determined from a position behind the machine facing the direction of travel. The front is the tongue end of the mower.

SAFETY

Both Types

Work Safely, Follow These Rules

Throughout this manual and on machine decals you will find precautionary statements followed by specific instructions. Please take time to read them and follow the instructions.

Important is used to warn you of potential machine damage or how to prevent minor machine damage.

Indicates a potentially hazardous situation that, if not avoided, may result In minor or moderate injury. It may also be used to alert against unsafe practices.

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

Your mower has been designed to minimize the possibility of accidents. However, there is no substitute for a careful operator. The safety suggestions which follow help you to be that kind of operator.

BEFORE OPERATING

- Review this Manual.
- Do not wear loose fitting clothing, it may catch in moving parts.
- See that all safety shields including the tractor PTO parts are in place, and that they are properly secured.
- Use extreme care when making any knife adjustments.
- After servicing, be sure all tools, parts, or servicing equipment are removed from the machine.
- Make sure that there is no one near the machine before starting it.

DURING OPERATION

- Shut off the tractor engine and be sure to wait until the knife has come to a complete stop before adjusting, cleaning, or lubricating.
- Do not attempt to remove any obstructions from belt or knife while the machine is running.
- Disengage the tractor PTO drive and shut off tractor engine before dismounting from the tractor.
- Do not stand near the cutter bar while the machine is in operation.
- Keep hands, feet, and clothing away from moving parts.
- Use extreme care when operating close to ditches, fences, or on hillsides.

TRANSPORTING

- Always place the machine in the transport position for road travel.
- Check clearance carefully before driving the mower under trees, electric lines, or bridges, and into buildings.
- Use warning devices (e.g. flags, SMV Emblem, lights, etc.) which are approved for use by your local government agencies, when moving equipment on public roads.
- Keep these devices clean and in good working condition.
- Drive at a reasonable speed to maintain complete control of the machine at all times.

SET UP INSTRUCTIONS

Both Types

Basic Unit

Basic mowers are assembled at the Rowse factory prior to shipment, except for mower head, cutter bars, shoes, swath boards, and drives which you may need to attach to your mower.

The basic mower may be detached from framework for shipping purposes. If this is the case, mount the mowers as shown in Fig. 37 on page 18 (Adjusting and Operating), with the use of 4 bolts, F, G, H, I, gripping the 2" shaft on mower frame.

The left side of the front mower should be mounted 6" from the left side of the front 2" shaft. The rear mower should be mounted 3" from the left side of the rear 2" shaft. These measurements are approximate and may vary due to bar lead, etc.

In Fig. 1 and Fig. 2 the guards and shields are removed for illustration purposes only.

DO NOT OPERATE WITHOUT GUARDS AND SHIELDS IN PLACE AND FUNCTIONING.

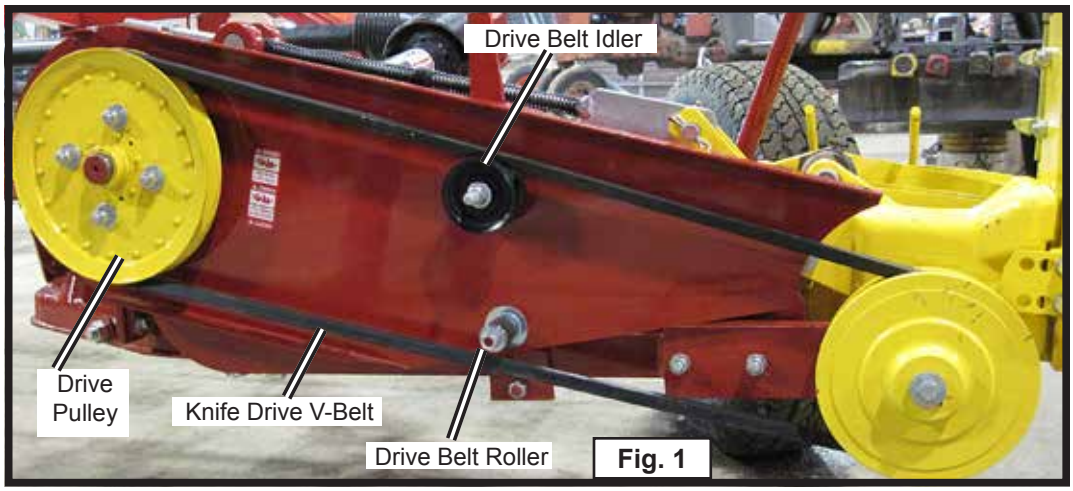
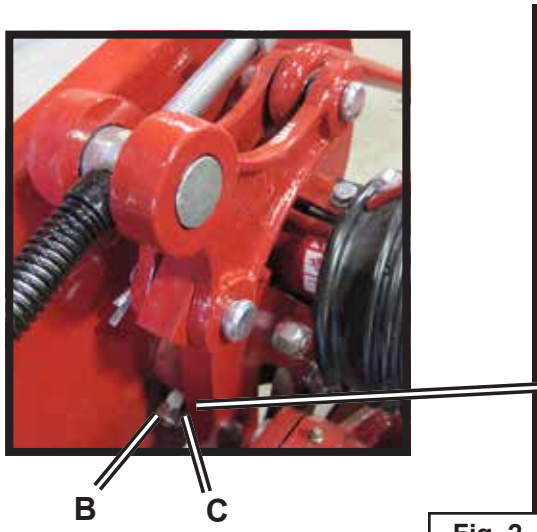


Fig. 1



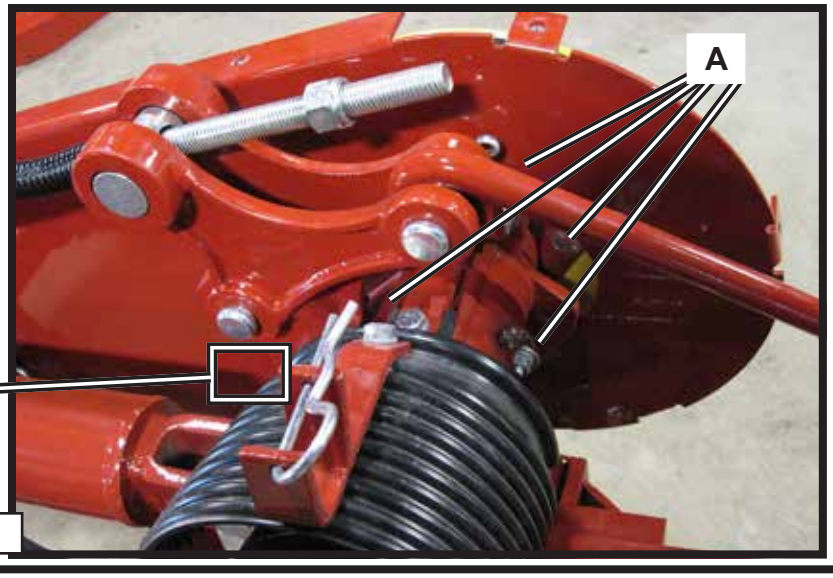


Fig. 2

Drive Belt

Remove the drive shield to install the knife drive belt. See "Drive Shield" Page 5, Fig. 3.

Adjust the V-belt so a slight thumb pressure will deflect the belt 1/2 inch at a point midway between the pulleys.

To install, remove, or adjust the V-belt, loosen nuts A, B, and C-clamp (inset view). Remove or install V-belt. Tighten nut C until proper belt tension is obtained. Retighten nuts A and B.

SET UP INSTRUCTIONS

Both Types

Drive Shield

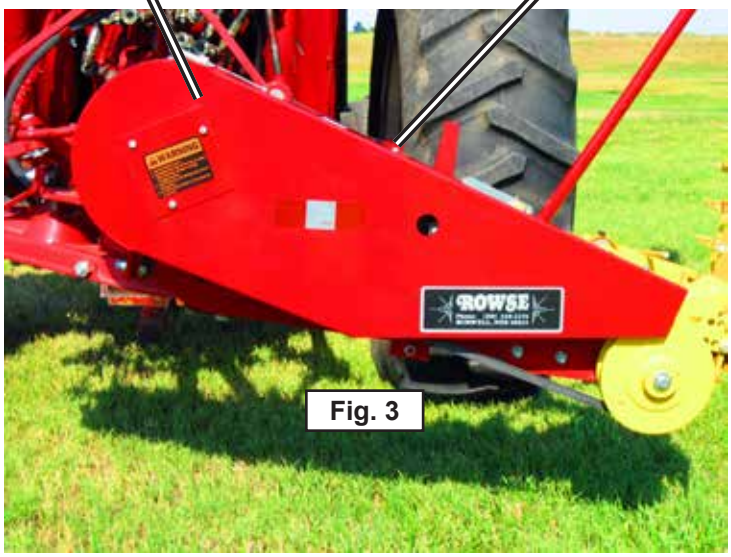
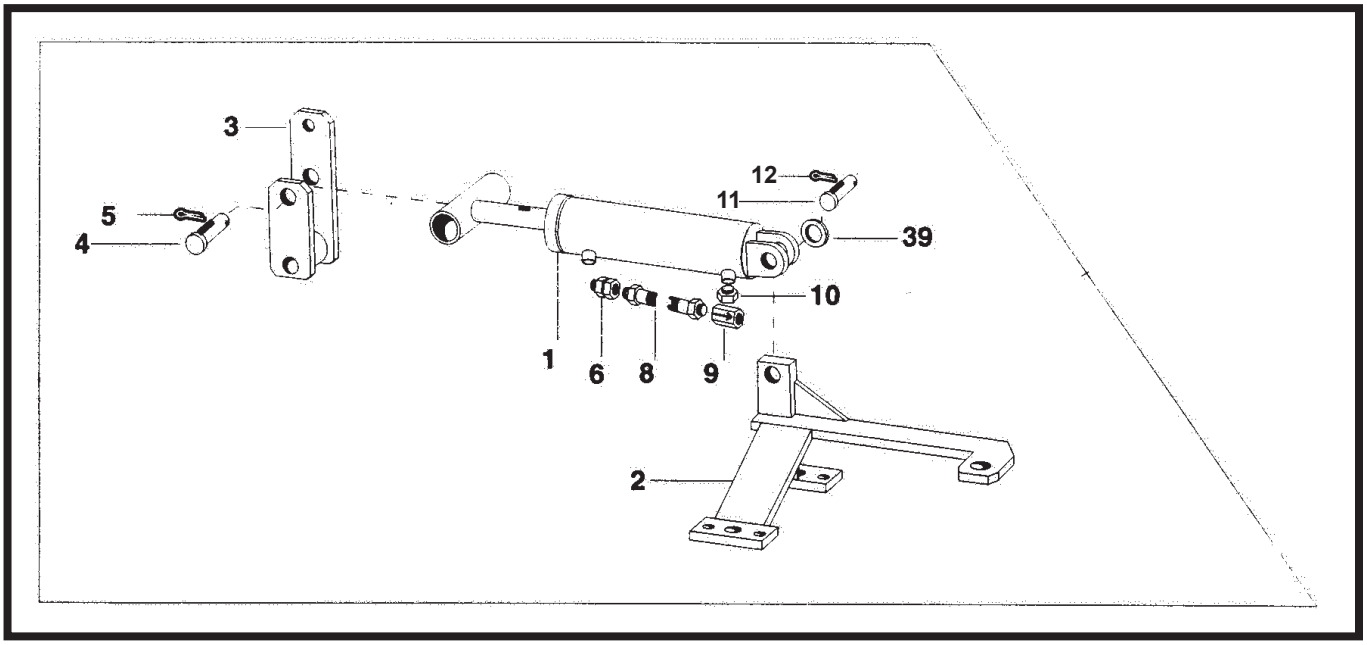


Fig. 3

Fig. 4

Installation of Cylinder



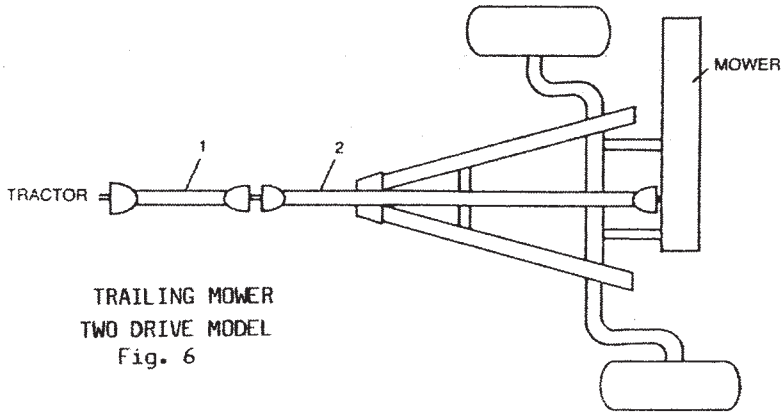
Install cylinder to cylinder mount (with vented plug 10 and cylinder port pointed down) using cylinder pin, 11 and cotter pin 12. Then, install cylinder shaft end to linkage arms 3 with pin 4 and cotter pin 5. Attach the Restrictor Valve 9 to tube fitting 7, not shown.

Important: Arrow on restrictor must point away from lift cylinder as shown. Install the swivel fitting 6 to the cylinder 1. Attach the 1/2" pressure hose 8 to the restrictor 9 and the other end to the nipple 6 on cylinder in expanded photo.

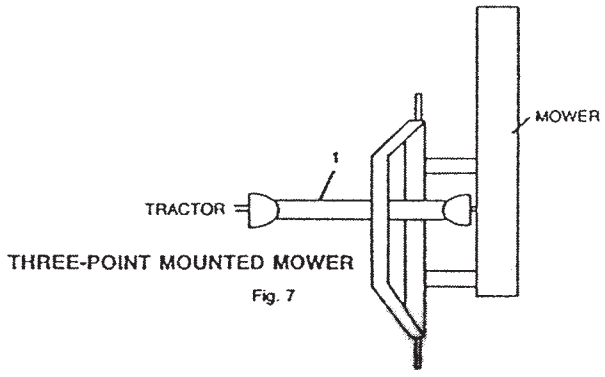
SET UP INSTRUCTIONS

Both Types

Power Take-Off Drives



TRAILING MOWER
TWO DRIVE MODEL
Fig. 6



THREE-POINT MOUNTED MOWER
Fig. 7

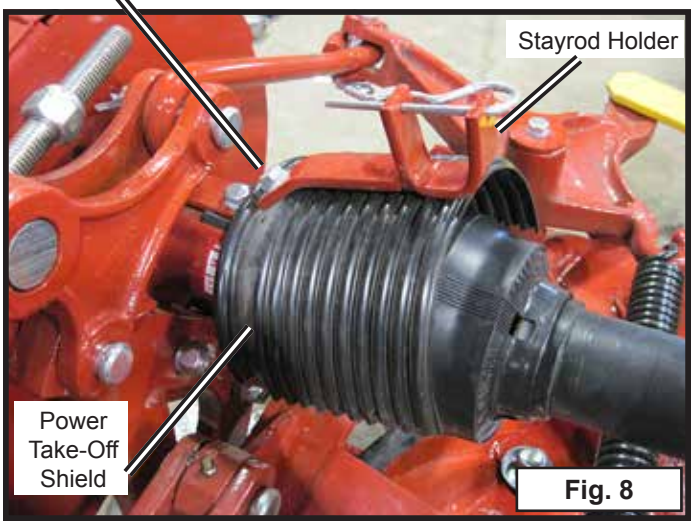


Fig. 8

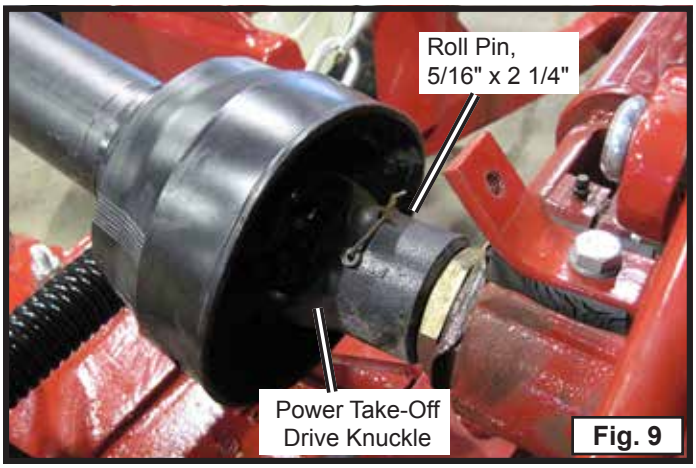


Fig. 9

SET UP INSTRUCTIONS

NH Type

NH TYPE DRIVE MOWER MODELS

PTO-ST7-NH, PTO-ST9-NH
PTO-SM7-NH, PTO-SM9-NH

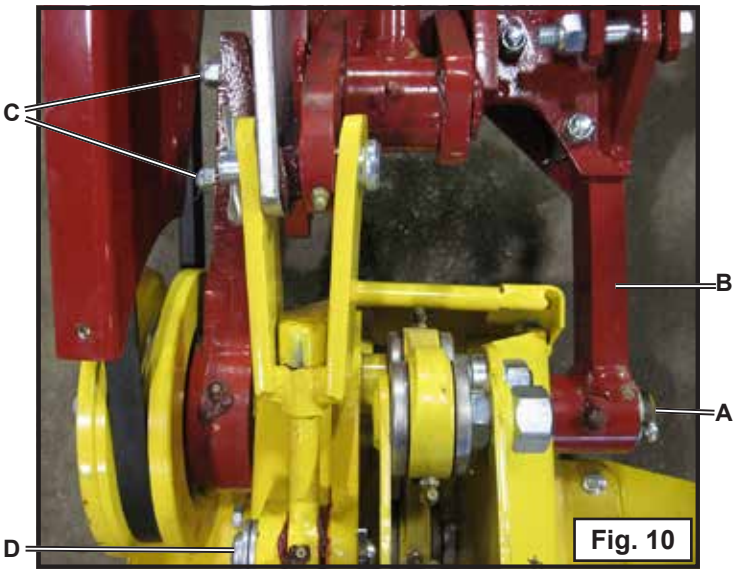


Fig. 10

Cutter Bar Head Installation

1. To install cutter bar heads, first clean off all the paint on front hinge pin A, Figure 10.
2. Push the front hinge pin A through the front bar on the mower frame B.
3. Install the arm to the mower frame with two ½" bolts C.
   a) Tighten to 90 ft. lbs.
4. Connect the lift linkage to the head at point D with pin, flat washer and cotter pin.
5. Tighten the V-belt. See "Drive Belt" on page 4.

Note: After assembly, the Cutter Bar Head must pivot freely at the hinge points.

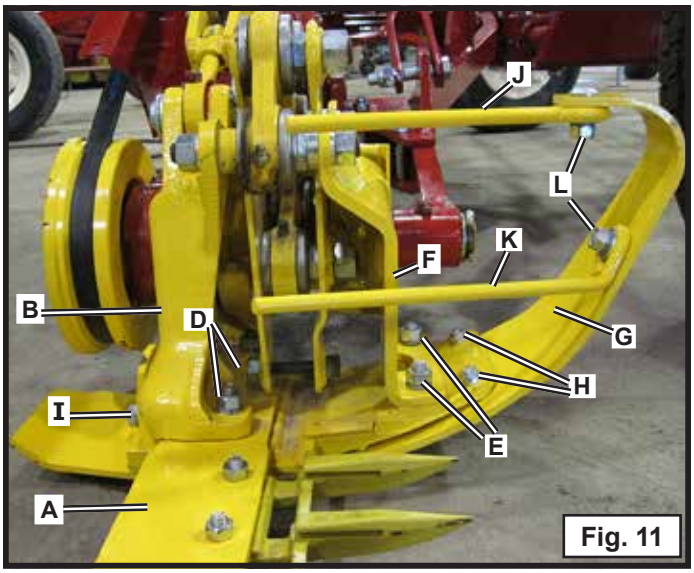


Fig. 11

Cutter Bar, Inner Shoe, and Grass Rod Installation

The Cutter Bar, Inner Shoe, and Inner Shoe Sole usually come assembled. However, in some cases shipping may prohibit this.

1. To install, place the Cutter Bar A, Fig. 11, underneath the Support Housing B.
2. Position the Inner Shoe C, Fig. 12 under the Cutter Bar.
3. Secure all three pieces with two ½" x 2½" and two ½" x 2¾" cap screws D, Fig. 12.
4. Insert the two ½" x 1½" carriage bolts E, Fig. 12, through the Inner Shoe.
   a) Secure to the Support Plate F, Fig. 11.
5. Position the Inner Shoe Sole G, Fig. 11 underneath the Inner Shoe.
   a) Secure with two 3/8" x 1¼" carriage bolts H and two ½" x 1" bolts I.

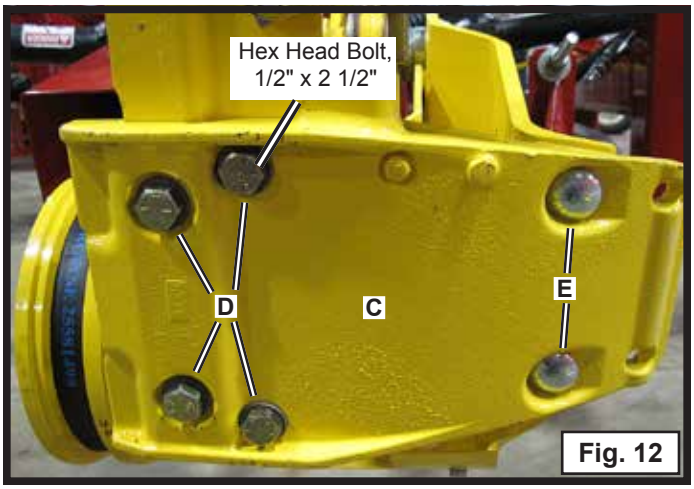


Fig. 12

Grass Rods

Grass Rods do not come attached and must be assembled as follows.

1. Position the straight rod J, Fig. 11, under the tip of the Sole and the angled rod K below.
   a) Secure with 7/16" x 1½" carriage bolts, L.

SET UP INSTRUCTIONS

NH Type

Outer Shoe and Swath Board Installation

In most cases the outer shoe is attached to mower bar, however, if it has been removed, follow this procedure.

1. Attach outer shoe **A**, Fig. 13 to the cutter bar with two 7/16" x 1 1/2" Plow bolts, **B**,
2. Attach the outer shoe sole **C** with one 1/2" x 2" Carriage bolt,
3. Install the Swath Board Assembly **D** to the outer shoe at **E**. Tighten **E** enough so it will not raise while mowing in heavy crops, but can move if an obstruction is hit. Be sure to install a cotter pin or use a lock nut.

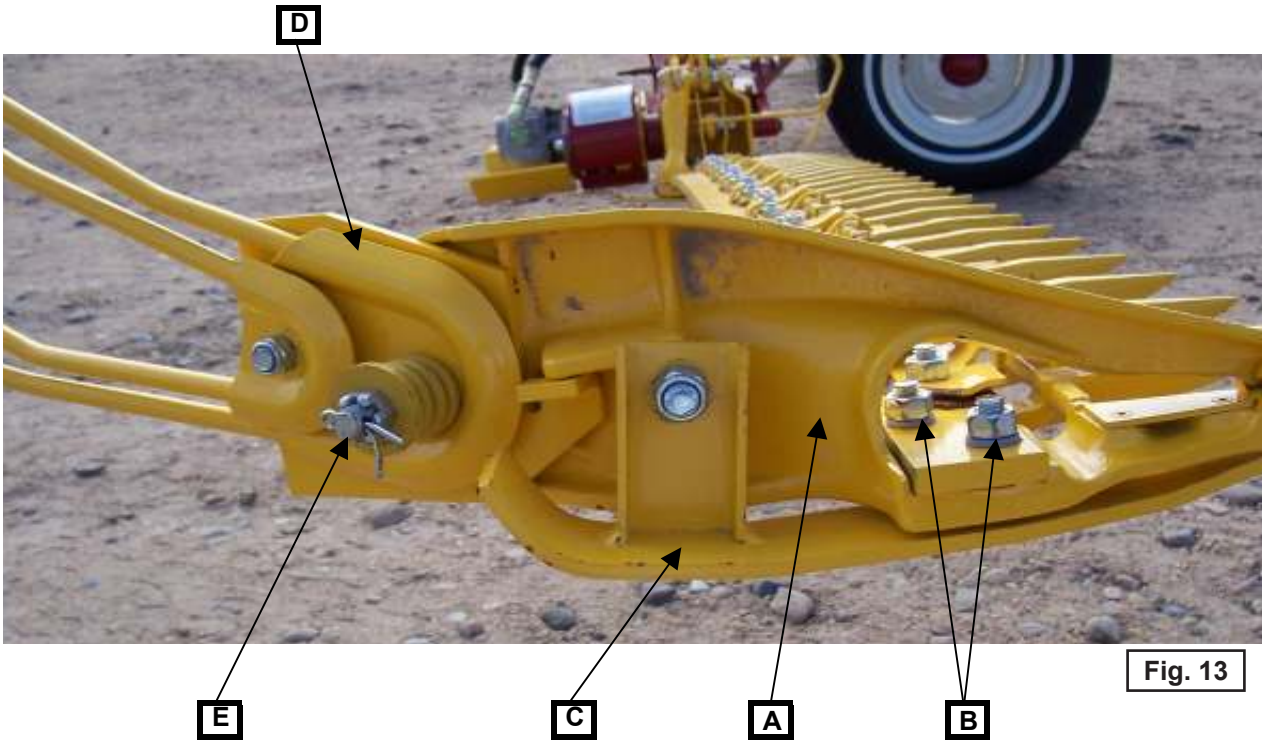


Fig. 13

SET UP INSTRUCTIONS

NH Type

Mower Knife Drive Installation

1. To install, slide knife, Fig. 15 into cutter bar between guards A and hold-down clips, Fig. 14.
2. Insert knife head bolt B, Fig. 14 through wedge drivelock, plate, knife head with rubber bushing C, Fig. 15, and through plate.
   a) Secure with hex nut D, Fig. 14.
3. With the KNIFE IN THE CENTER OF ITS STROKE, Fig. 16, tighten the knife head bolt to 85-90 ft. lbs. torque Fig. 16.
   a) A ratchet, extension and universal joint socket works the best for removing and replacing.
4. If knife binds when sliding into cutter bar,
   a) Check to make sure knife is not bent or twisted.
   b) Then, check for restrictive hold-down clips.
   c) See "Cutter Bar and Knife Alignment" on page 16.

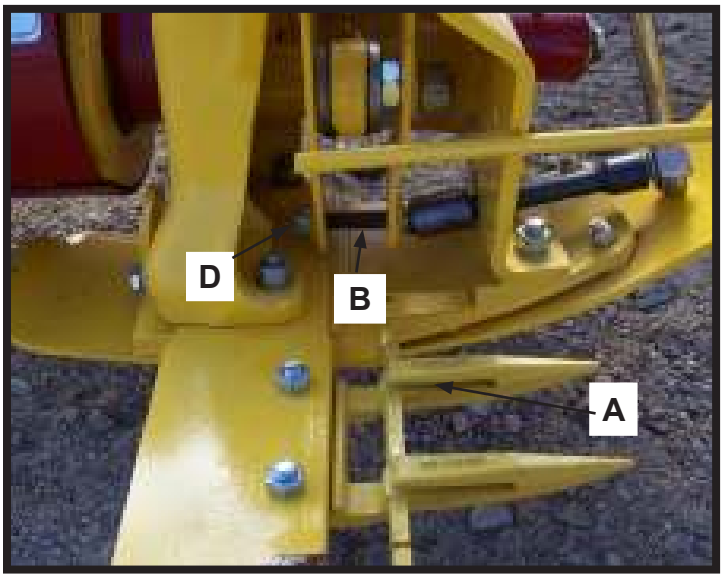


Fig. 14

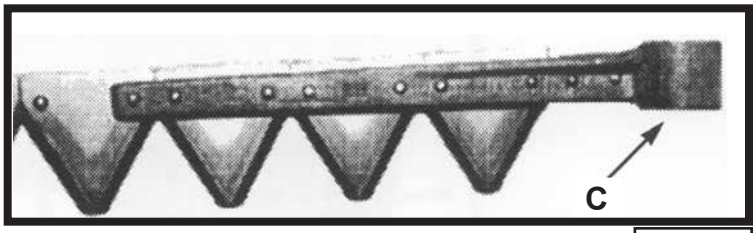
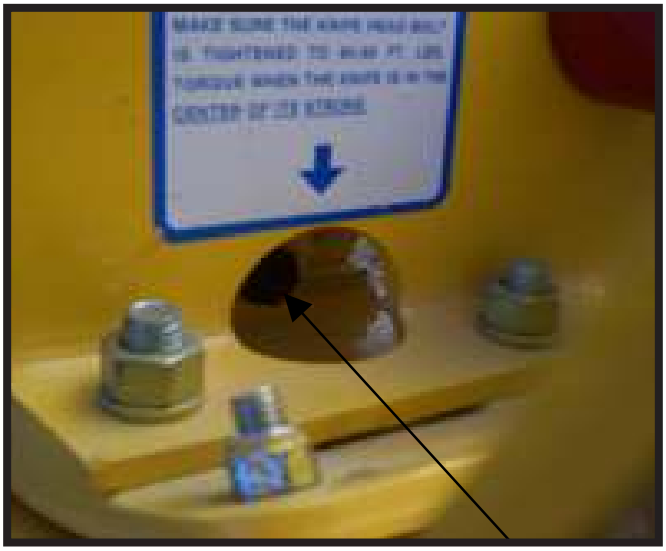


Fig. 15



Knife Head Bolt In Center Of Stroke

Fig. 16

SET UP INSTRUCTIONS

IH Type

IH Type Drive Mower Models
Principles of Operation
Balanced Head Drive

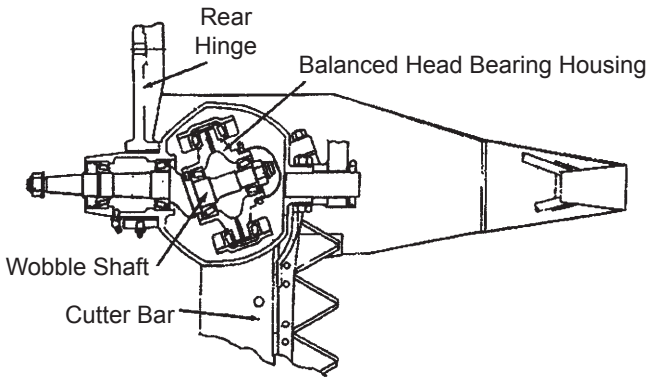


Fig. 17: Top View

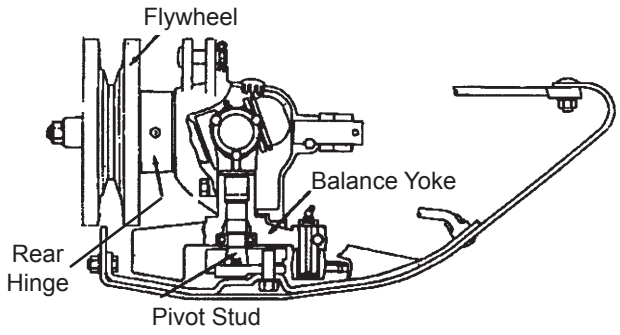


Fig. 18: Side View

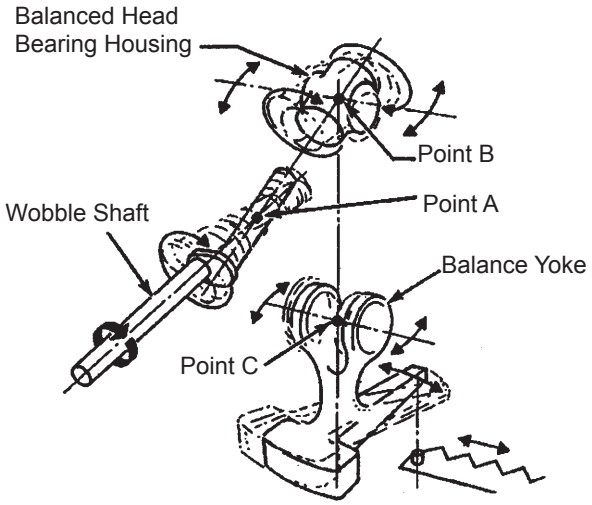


Fig. 19: Principles of Operation

1. The balanced head knife drive is a high speed counter-balanced unit.
   a) The elimination of the pitman type drive allows higher operating speeds, and therefore, more efficient cutting.
2. The knife drive head mounts directly on the mower cutter bar and pivots with it, enabling the cutter bar to operate at any desired angle.
3. Power is transmitted to the assembly by the drive belt to the wobble shaft flywheel. Rotary motion of the wobble shaft is changed to oscillating motion at the cutter bar.
4. When the balanced knife drive is in operation, points "A", in the wobble shaft, "B" in the bearing housing, and "C" in the balance yoke, are a common point which remains motionless, Fig. 19.
   a) All motion within the drive assembly pivot about this common point.
5. When points "A", "B", and "C" are one common point, performance and service will be satisfactory.

SET UP INSTRUCTIONS

Both Types

Cutter Bar and Inner Shoe Installation

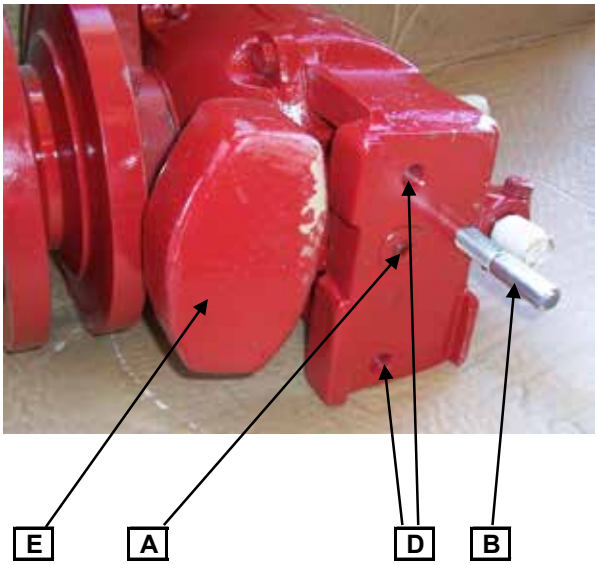


Fig. 4

Operate the bar lift hydraulics until lift cylinder is fully contracted to position the head for bar installation. Check to see that the balance yoke pivot stud **A** Fig. 4 protrudes above the bolting surface of the housing to a maximum of .048". This interference fit, between the balance yoke pivot stud and cutter bar, is purposely provided as a means to securely hold the stud in place. If the balance yoke pivot stud should fall below the cutter bar bolting surface, unscrew the set screw that is provided in the balance yoke pivot stud until the head of this screw protrudes .015" above the bolting surface for interference fit.

For convenience and ease in assembling the cutter bar, we recommend you remove the head from a 5/8" x 3" bolt and place it in the hole at **B** Fig. 4. This will help hold and align the cutter bar and inner shoe when installing the 2 rear bolts **D** Fig. 4.

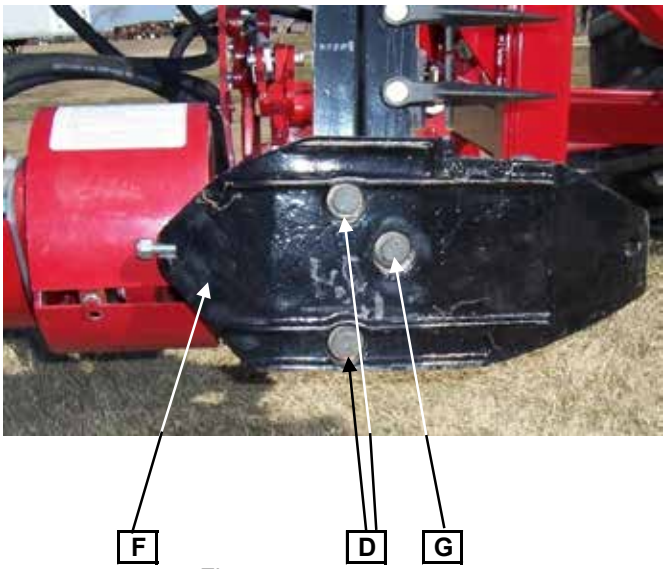


Fig. 5

Position the cutter bar on the head, place spacer and shims at **C** page 17 Fig. 22. Note: spacer not required with 9 ft. cutter bar, unless counter balance **E** on rear side of balance head rubs on inner shoe **F** Fig. 5.

The spacer and shim are used as required to position the inner shoe ledger plate in line with the cutter bar if necessary. Position the shoe, Fig. 5 and install two 5/8" x 2-1/4" bolts with nylon inserts at **D**.

Remove the headless bolt and install a 5/8" x 2" bolt with a nylon insert **G**. Torque bolts to 165 ft. lbs.

SET UP INSTRUCTIONS

Both Types

Outer Shoe Sole, Swath Board, & Grass Rods Installation

1. Position the outer shoe sole A, Fig. 23, and install the 1/2" special head bolt.
   a) This is the same for either type of swath board.

Large Swath Board

1. Install the swath board to the outer shoe with a 1/2" x 3 1/2" square head bolt, tension spring, washer, and locknut. B, Fig. 23.
2. Position the grass rod at the desired level.
3. Install the carriage bolt, washer, lockwasher, and nut at C and the carriage bolt, dampener washer, and nut at D.

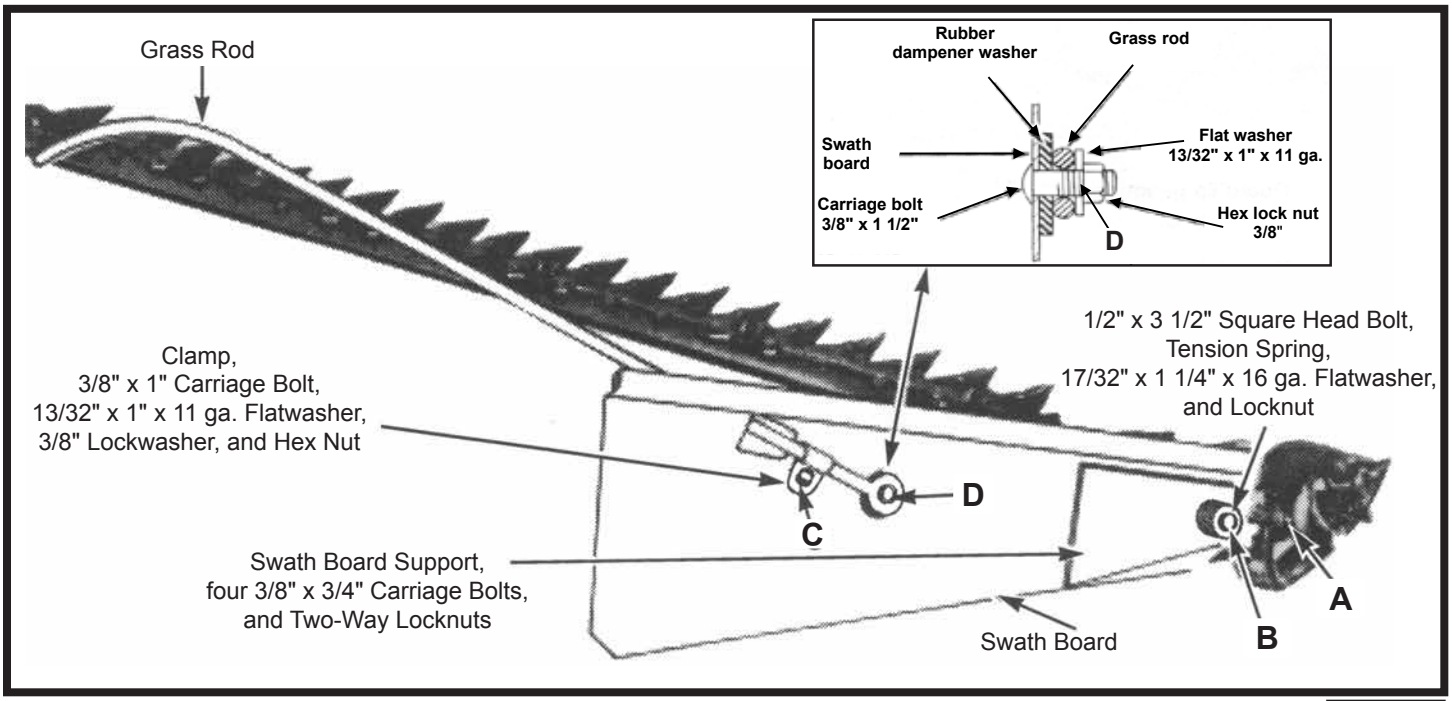


Fig. 23

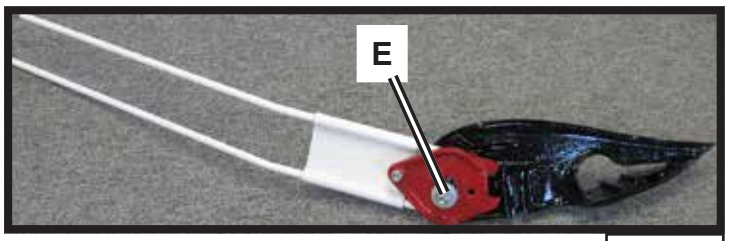


Fig. 24

Small Swath Board

1. Install the swath board and grass rod assembly at E, Fig. 24.
   a) Secure with tension spring, 1/2" x 3 1/2" square head bolt, washer, and lock nut.

SET UP INSTRUCTIONS

IH Type

Mower Knife Drive Installation

1. Loosen the first hold-down clip on the cutter bar A, Fig. 24, and any other clips that might restrict the knife installation.
2. Remove the clamp bolt B and lift the knife pin C, Fig. 25.
   a) We recommend that you use the special Guard Lip gauge tool, Fig. 26, (Part No. 670588) (optional).
3. Slide the knife in place.
4. Align the knife head with the balance yoke, Fig. 27, and slide the knife pin in place.
5. A minimum clearance of .010" is required between the knife area and the balance yoke D, Fig. 25.
   a) If necessary, place a shim or shims between the cutter bar and the inner shoe on the front mounting bolt.
   Note: Shim installation will lower the inner shoe ledger plate to prevent binding of the knife. Shim the bolt only if necessary.
6. Lower the knife pin and install the clamp bolt.

IMPORTANT: Use external tooth lockwashers under the head of the clamp bolt and nut. Torque clamp bolt 85 to 95 ft. lbs.

7. Position the knife to the outward end of its stroke.
8. Reposition hold-down clip (s) and tighten bolts.

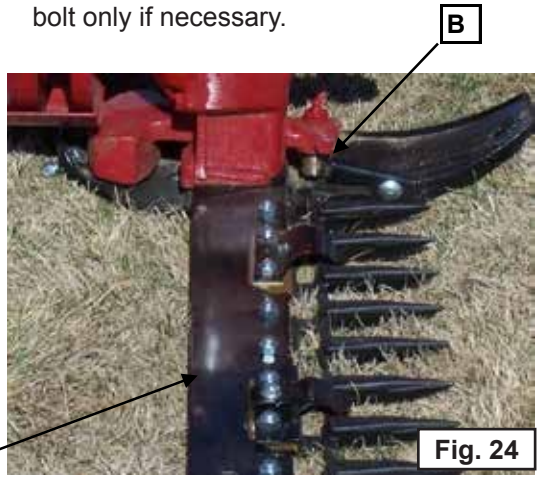


Fig. 24

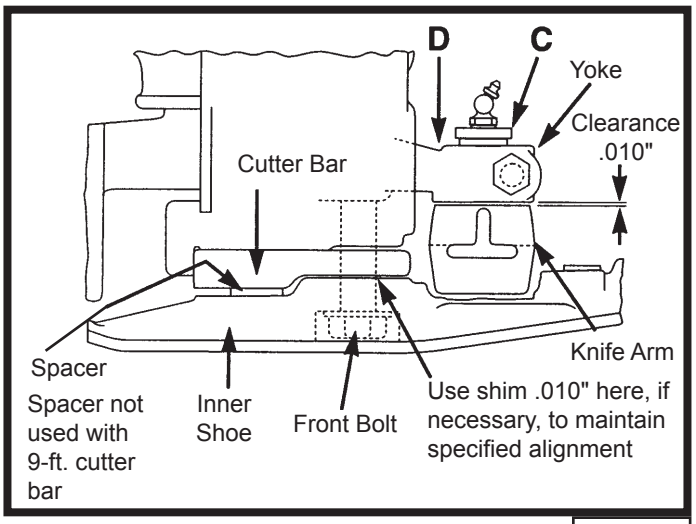
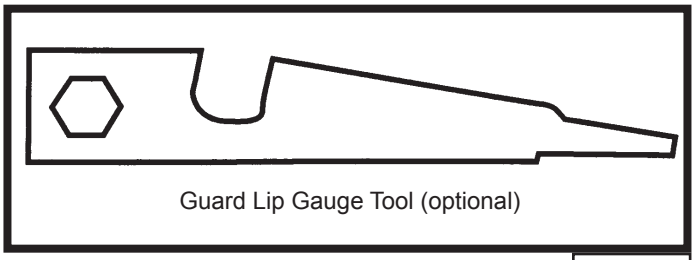


Fig. 25



Guard Lip Gauge Tool (optional)

Fig. 26

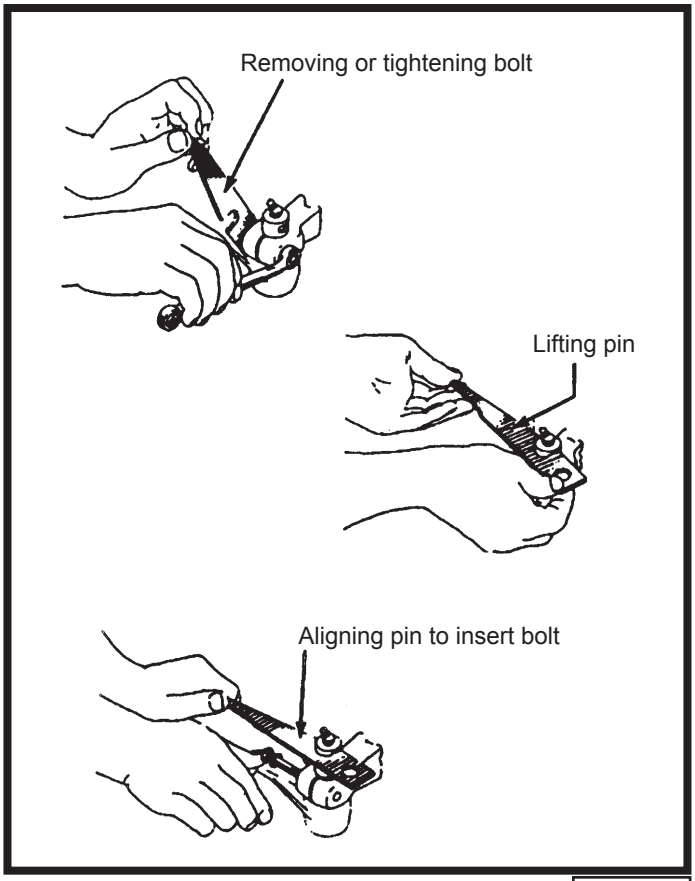


Fig. 27

SET UP INSTRUCTIONS

Both Types

All Trailing Mower Models
Attaching To Tractor

Trailing Mower

The Trailing Mower requires a standard 14" drawbar and attaches to the tractor with a 3/4" - 1" pull pin, Fig. 28 or a ball hitch (not shown) and 2" ball. Connect the hydraulic bar lift cylinder line to the tractor and connect the mower drive line to the tractor PTO.

Fig. 28

Transport Bar Removal

The transport bar is located at A, Fig. 29. It is used to hold the mower up when transporting without the use of the hydraulic bar lift cylinder connected, e.g. behind the pickup.

To remove, activate the hydraulic bar lift until the bar is raised completely and remove the nut B and key C, and lift the bar off.

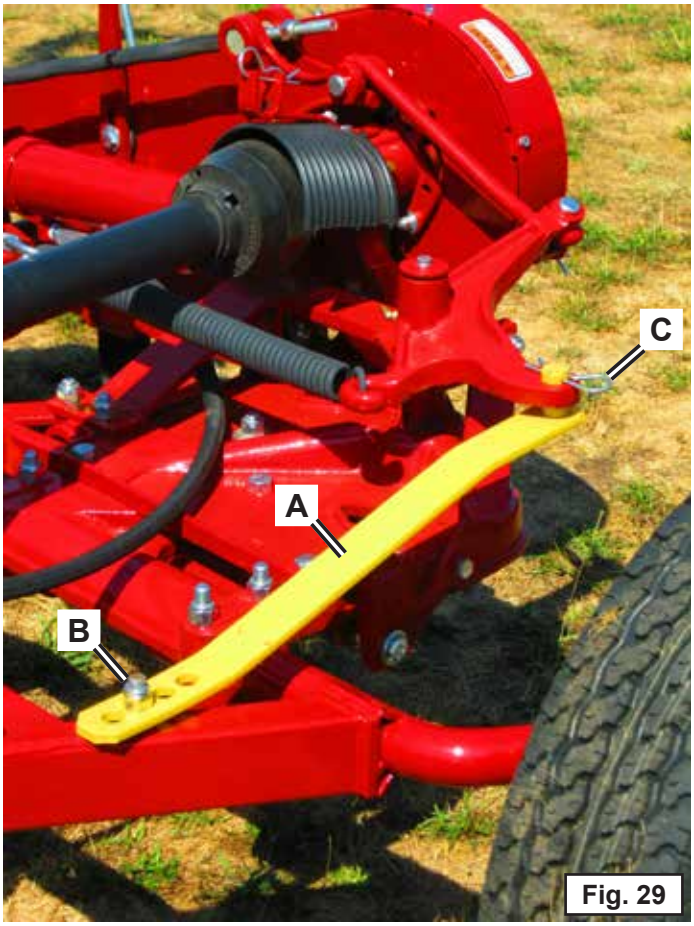


Fig. 29

SET UP INSTRUCTIONS

Both Types

All Three-Point Mounted Mower Models
Attaching To Tractor

Three-Point Mower

The Three-Point hitch mower attaches to most category I or II Three-Point hitch tractors.

Procedure For Attaching To Tractor

1. Support Mower so the mower hitch pins are level with the tractor's lower links.* Disconnect the stay rod on the cutter bar and lower it.
   *Note: Lower links on Three-Point are adjustable in height by the operator from the tractor seat.
2. Connect the lower links to hitch pins A and stabilize, Fig. 30. See your tractor operator's Manual for your specific situation. Then connect the tractor upper link to the mower hitch B, Fig. 30.
3. Connect the mower drive line to the tractor PTO.

CAUTION

DO NOT ENGAGE THE PTO
UNTIL THIS PROCEDURE IS COMPLETED

4. Adjust tractor upper link C, so mower hitch is perpendicular to lower links. Then adjust tractor lift links E, Fig. 30, to position mower hitch pins 22¼" from ground level, Fig. 30. Lift links should be equal to length for proper adjustment.
5. After the mower has been properly adjusted the cutter bar tilt may need adjusting. Refer to "Cutter Bar Tilt Adjusting and Operating", page 18.
6. Then connect the hydraulic line to the cutter bar lift cylinder.

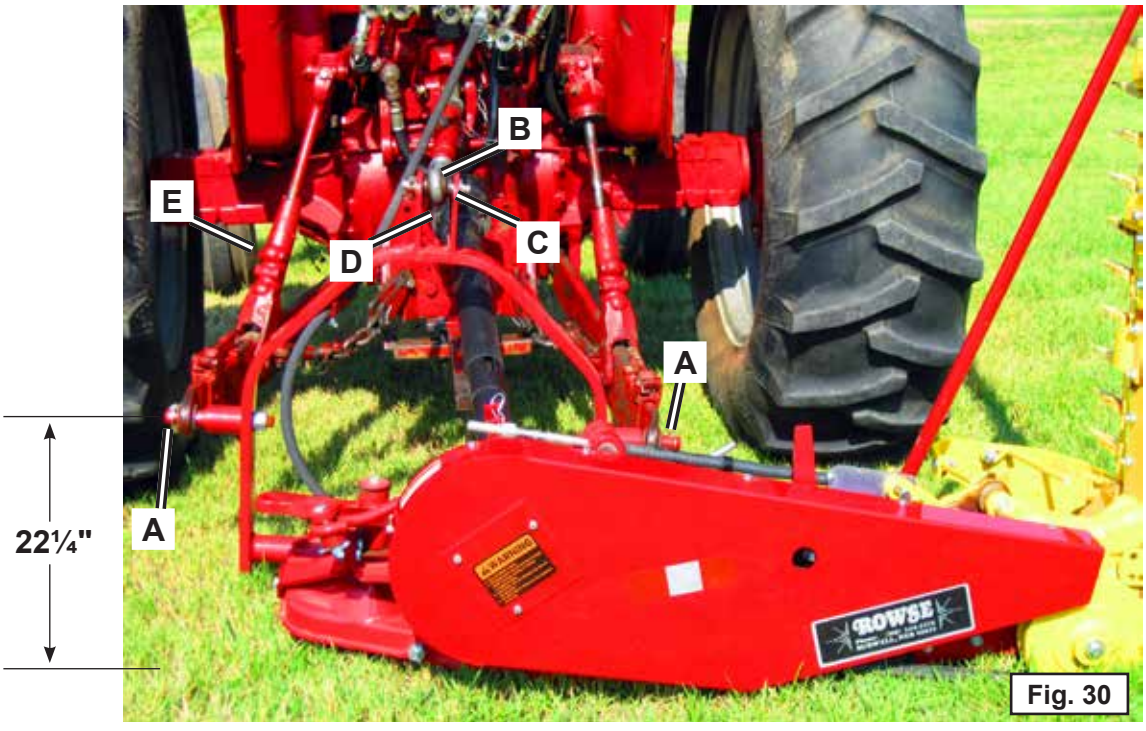


Fig. 30

SET UP INSTRUCTIONS

Both Types

Cutter Bar and Knife Alignment

Cutter Bar And Knife Alignment

1. If knife binds when inserting into cutter bar, check to make sure knife is not bent or twisted.
2. If it still binds, loosen all hold-down clips A, Fig. 31. With the knife at the outer end of its stroke, retighten and check for restrictive clips, Fig. 32.
3. To correct hold-down clip alignment use a punch to spring clip up from underneath. See Fig. 33 for proper alignment of hold-down clips.
4. With the knife at the outer end of its stroke, check guards B, Fig. 31 for proper alignment. If a guard is improperly aligned, Fig. 34 or 35, use a metal mallet to bend guard to proper alignment, Fig. 33.
5. If hold-down clips and guards are positioned but entire knife is out of alignment, cutter bar may need to be tilted.

Tilting NH Type Cutter Bar

1. If the knife tips up, Fig. 34, a shim or shims as required need to be positioned on rear bolts between bar E and head F at C, Fig. 31, to tilt the cutter bar up so that the knife rests flat on the ledger surface, Fig. 33.
2. If the knife tips down, Fig. 35, a shim or shims as required need to be positioned on front bolts between bar E and head F at D, Fig. 34, to tilt the cutter bar down, for proper knife alignment Fig. 33.

Tilting IH Type Cutter Bar

1. If knife tips up, Fig. 34, a shim or shims as required need to be positioned on rear bolts between bar E and head F at C, Fig. 31, to tilt the cutter bar up so that the knife rests flat on the ledger surface, Fig. 32.
2. If knife tips down, Fig. 35, a shim or shims as required need to be positioned on front bolt between bar E and head F at D, Fig. 31, to tilt the cutter bar down, for proper knife alignment Fig. 33.

Checking Alignment

1. Run the knife for a short time, then check clips or areas for excessive heat.
2. The cutter bar will be warm; however, if it is excessive you may have a restrictive clip or the knife may be bent or twisted.

Caution: Be sure to disengage the tractor PTO before leaving the tractor.

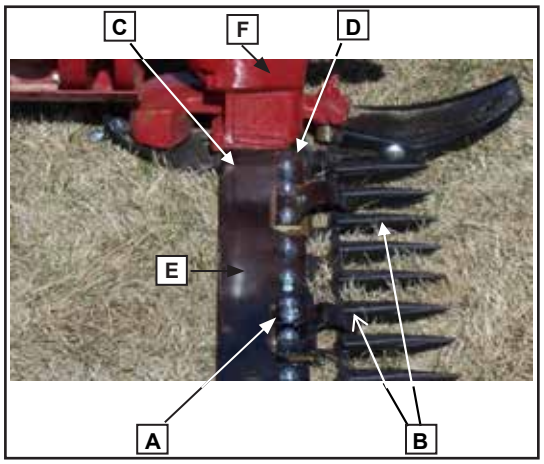


Fig. 31

IMPROPER KNIFE ALIGNMENT

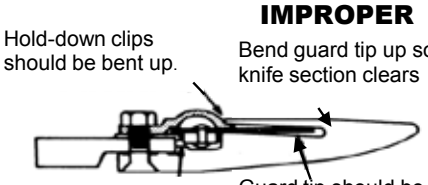


Fig. 34

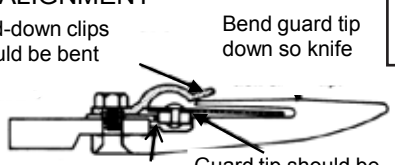


Fig. 35

PROPER KNIFE ALIGNMENT

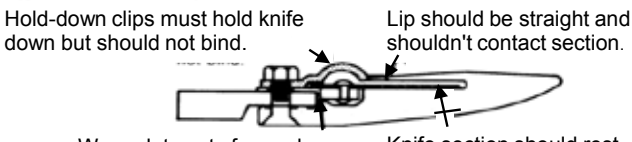


Fig. 33

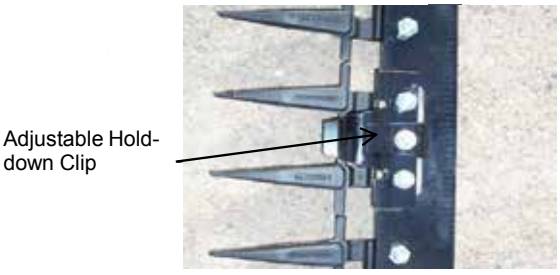


Fig. 32

SET UP INSTRUCTIONS

Both Types

Break-In Procedure

The knife drive is rugged and simple; designed to ensure long life and trouble-free operation. Its precision construction, however, requires a break-in period. After assembly is completed:

1. Thoroughly lubricate the machine (see "Lubrication Guide" pages 35-37).
2. Operate the machine at 300 RPM during the first 10 hours of operation.
   a) During the first 10 hours of operation, the bearing in the knife drive will tend to run warmer than usual. This is normal and not harmful to the mower.
3. After the initial 10-hour break-in period, the machine may be operated at maximum recommended RPM (540) thereafter.
4. If the mower seems to vibrate excessively at 540 RPM, reduce RPM until mower runs smoothly.

General Information

1. Before going into the field, check to see that your machine is properly set up, adjusted, and lubricated as instructed.
2. Be sure all nuts are tight.
   a) They should be tightened after a few hours of service.
3. Spread all cotter pins to keep them from falling out.
4. During initial operation, the head unit will run warmer than usual, but will not cause any undue damage because of the bearing being prepacked with lithium multi-purpose grease as specified in the "Lubrication Guide" pages 35-37.
5. The right rear tractor wheel may need to be slid in on the axle to be inside of the front bar's inner shoe.
6. The normal ground speed range of the mower is 3 - 8 mph depending on ground and crop conditions.
   a) Do not exceed 10 mph ground speed while mowing.

Operating Note

Operation of PTO in Excess of 540 RPM Will Result In Damage To This Unit.

ADJUSTING AND OPERATING

Both Types

Inner Shoe Balance Spring

1. The inner shoe balance spring A, Fig. 36, provides floating action to the cutter bar.
2. This spring should be tensioned to the point where the inner shoes require approximately 85-100 lbs. to lift.
   a) This is accomplished by tightening locknut B.

Gag Rod

1. After the inner shoe balance spring is adjusted, adjust the gag rod C, Fig. 36 so the outer shoe requires approximately 25 lbs. to lift.
2. The outer shoe should raise in unison with the inner shoe.
   a) If the outer shoe droops or hangs down, tighten the gag rod nut D until outer shoe raises properly.

Cutter Bar Tilt

1. To tilt the cutter bar upward (raising point of guards), loosen nuts F and G, Fig. 37, while at the same time tighten nuts H and I.
2. For downward tilt, loosen H and I while tightening F and G. A jack may be required to raise the rear of the basic mower for downward tilt adjustment.
3. During this adjustment the lower cap, which is held in place by the keyseat, will remain stationary.

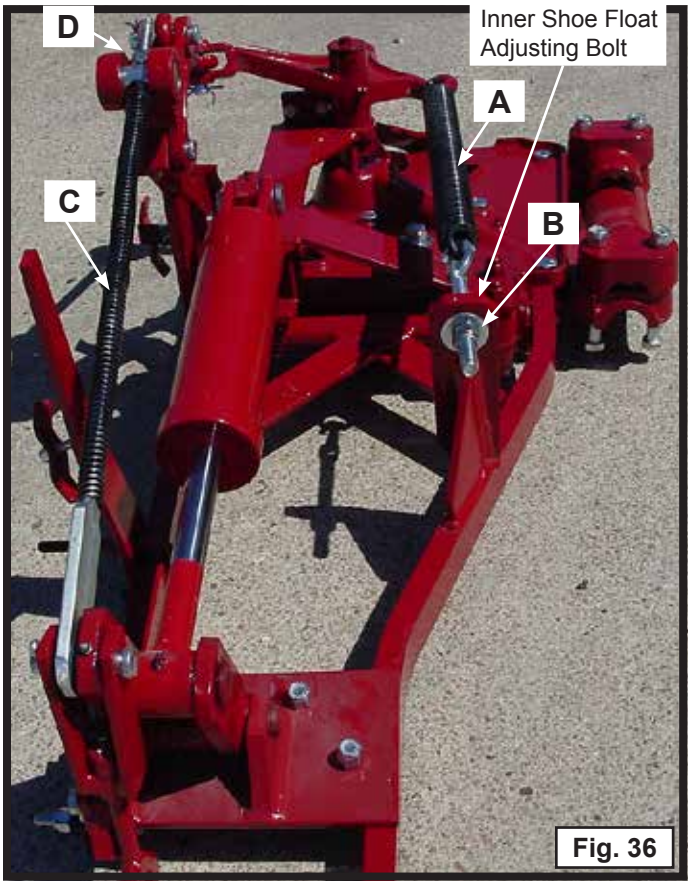


Fig. 36

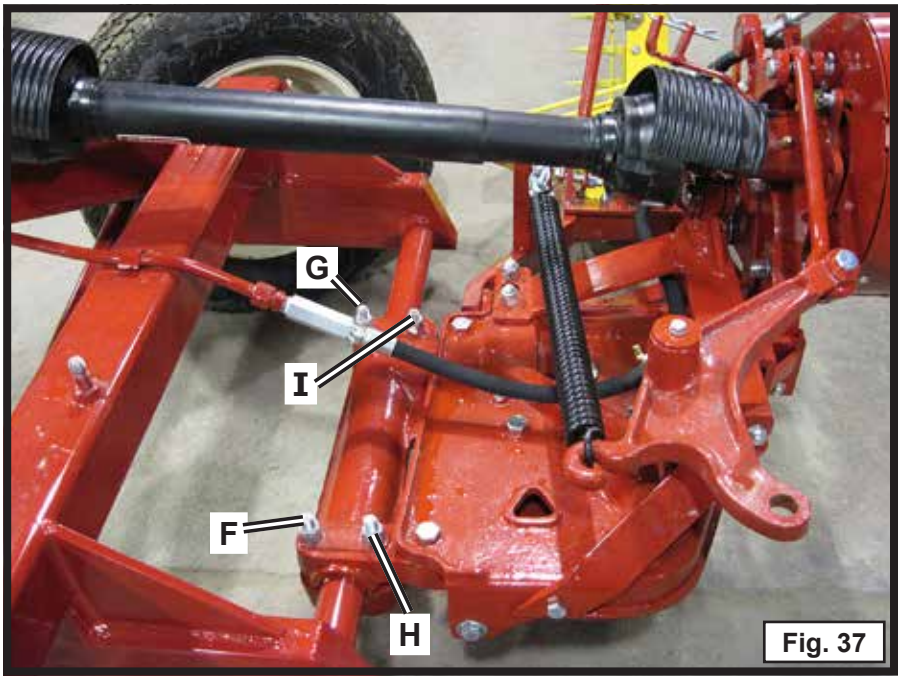


Fig. 37

ADJUSTING AND OPERATING

Both Types

Automatic Safety Release

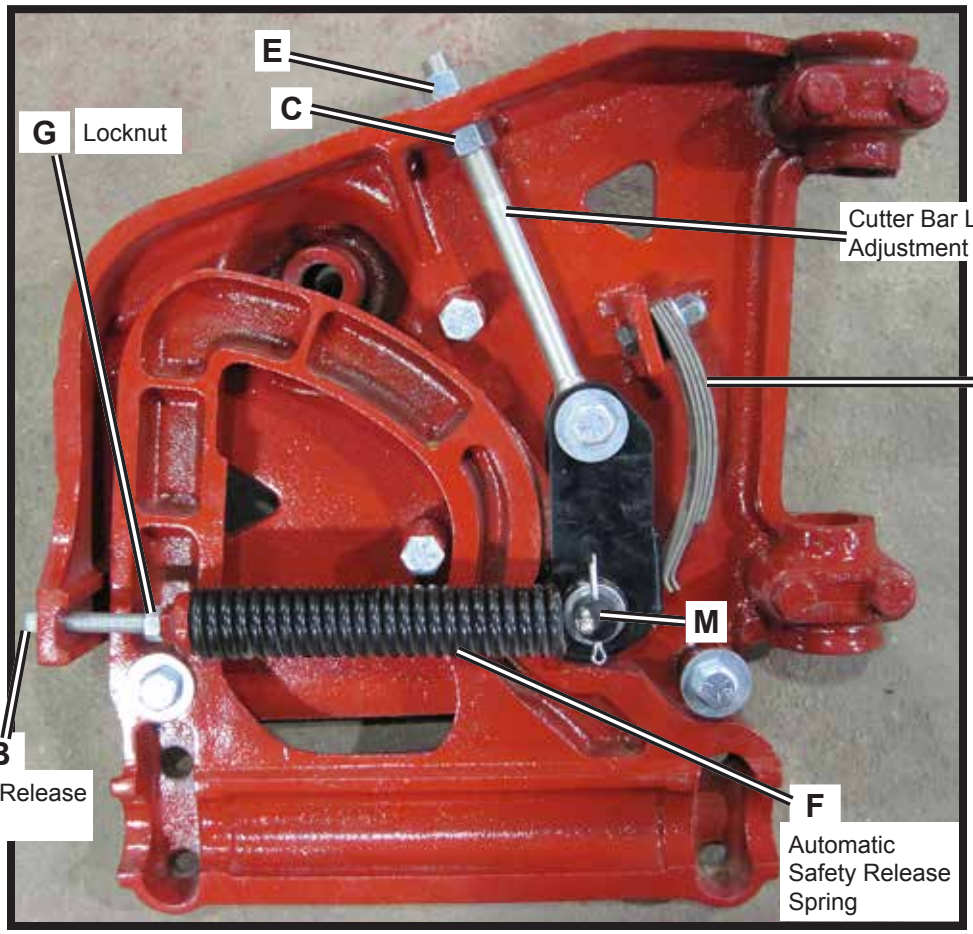


Fig. 38: Bottom view of pivot frame with latch support plate cut away for clarity.

1. The mower is equipped with an automatic safety release.
   a) If any solid obstruction is encountered, the cutter bar will automatically swing toward the rear.
2. To recouple, back the tractor and mower until the release snaps back into operating position.
3. The drive belt will remain tight without danger of running off the sheaves.
4. The tension on the automatic safety release spring should not be changed unless the mower releases in ordinary cutting.
5. Tension bolt B should be tightened only enough to hold.
   a) Too tight could cause major damage to the unit.
   b) After adjusting the tension of the spring F, Fig. 38, tighten the locknut G, against the spring.
6. If the automatic release cannot be tightened enough to hold, an additional leaf spring H, may be added to regain the required tension.

CAUTION

Do not raise the bar with the hydraulic lift when the bar is hung up on an obstruction. You may damage the bar.

ADJUSTING AND OPERATING

Both Types

Cutter Bar Lead

1. The outer end of the cutter bar should be ahead of the inner end, Fig. 39.
   a) In some instances of extremely heavy crops, incorrect bar lead can cause an increase of 30% to 50% more HP needed to operate each knife.
2. To check the cutter bar lead:
   a) Pull the outer end of the bar to the rear.
   b) With a straight edge along the tractor's rear tires, the measurement between it and the outer end should be ahead of the inner end 3-1/16 of an inch for 7-foot bars and 3-15/16 of an inch for 9-foot bars, Fig. 39.
3. Alternate method to check the cutter bar lead:
   a) Using two straight edge articles such as pipe.
   b) Place one along the rear tires and one along the front of the mower frame, Fig. 41.
   c) B and C should measure the same.
4. When cutting extremely heavy crops, measurement C may be less, this will increase the cutter bar leads.
5. To correct the lead of the cutter bars:
   a) Unscrew A, Fig. 40.
   b) One full turn will make an approximate 2" to 3" increase in the lead of both bars.
6. This adjustment will decrease bar lap.
   a) See Cutter Bar Lap below to correct.
7. To correct bar lead of each separately, see Fig. 38, page 19.
   a) Loosen the locknut C on the adjustment rod.
   b) Turn the adjusting nut E until the proper lead is obtained.
   c) Tighten nut C.

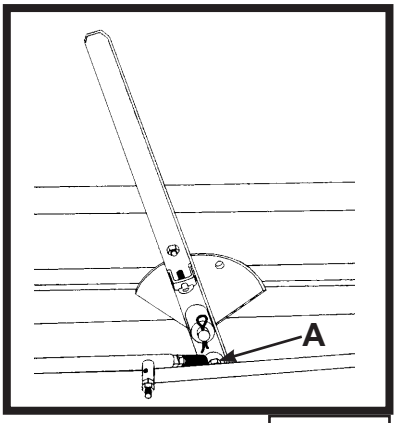


Fig. 40

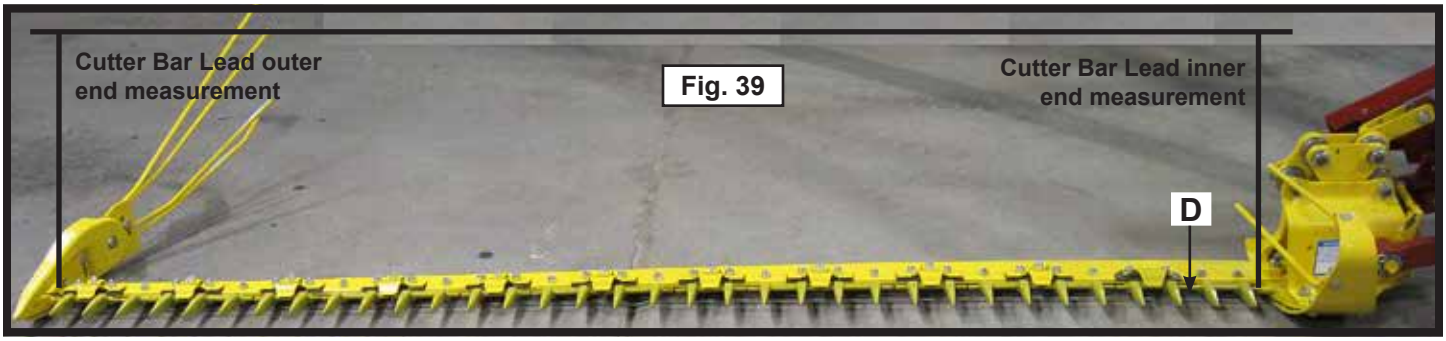


Fig. 39

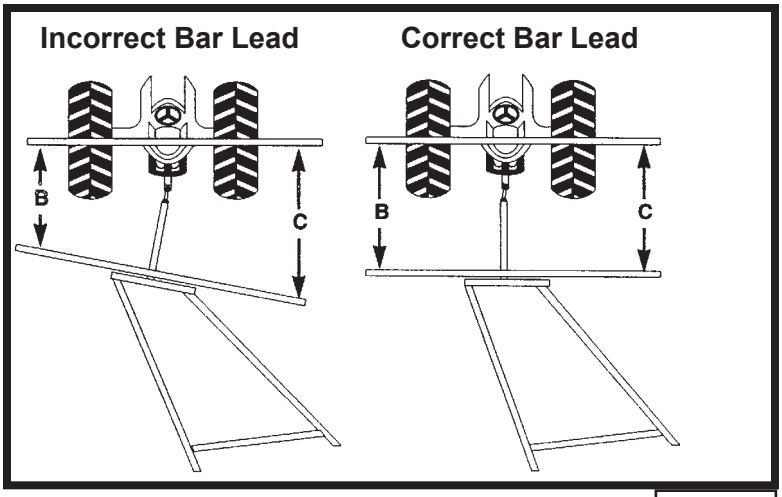


Fig. 41

Cutter Bar Lap

1. When the mower is in correct bar lap position, uncut hay should run between the 2nd and 3rd guards on the rear cutter bar, see D, Fig. 39.
2. Insufficient bar lap will leave a strip of uncut hay between the front and rear bars.
3. Excessive bar lap will result in an inner portion of the rear bar to run in mowed hay and may cause hay build up and plugging on the inner portion of the rear cutter bar.
4. To correct cutter bar lap:
   a) Loosen F, G, and H, I, page 18, Fig. 37.
   b) Slide rear mower in or out to achieve correct lap.

ADJUSTING AND OPERATING

Both Types

Angle Of Cut

1. The cutter bar can be operated with sickles running at nearly any angle, Fig. 42.
   a) This allows the operator to hydraulically lower or raise the cutter bar for mowing ditches or hills.
2. The bar may also be raised vertical while passing posts, trees, or other obstructions, without stopping to disengage the PTO drive.
   a) Care should be given, however, that the raised bar does not hit or hook obstructions.

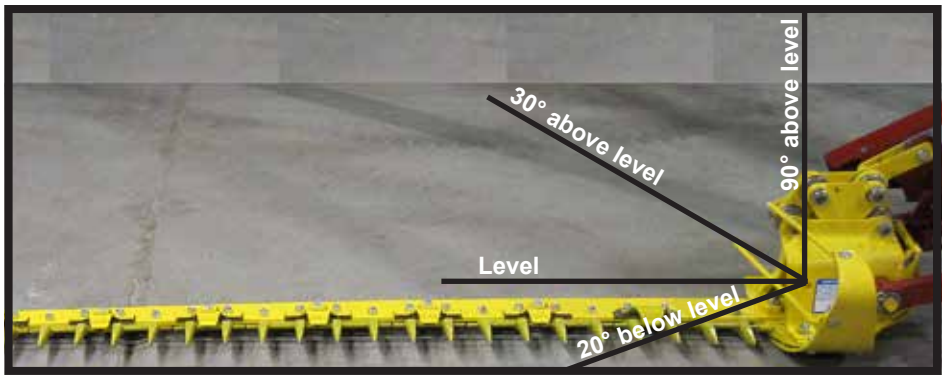


Fig. 42

Cutting A Square Corner

Trailing Mower

To cut a square corner, turn the tractor sharply to the right when the bar has cut completely out of the grass at the edge of the field, heading tractor directly back toward grass. Then turn sharply left so right tractor tire follows edge of the field. With a little practice you will become familiar with your equipment and crop conditions, and will soon have no problems cutting a square corner.

Three-Point Mower

To cut a square corner, turn the tractor sharply to the right when the center of the drive wheel is in line with the edge of the field.

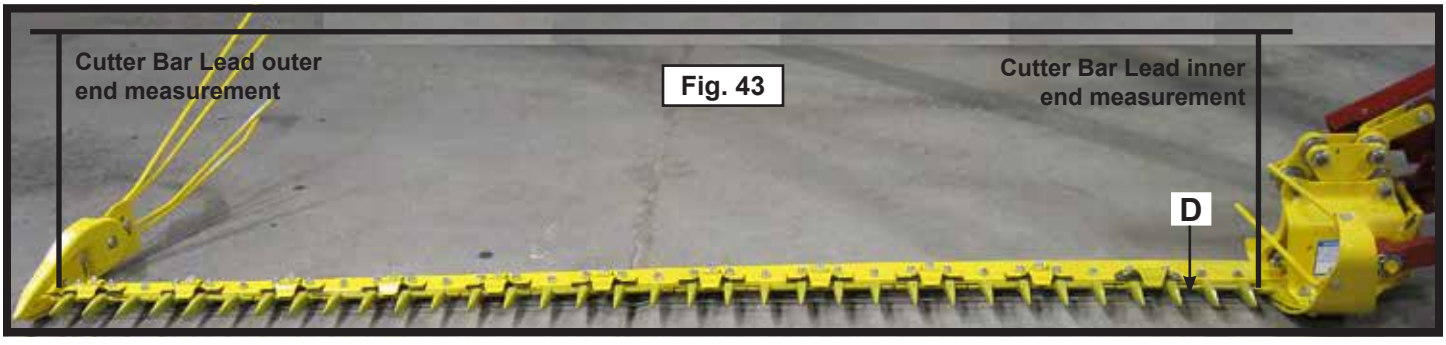


Fig. 43

ADJUSTING AND OPERATING

NH Type

Swath Board

1. The height of the swath divider F, Fig. 45, on the outer shoe may be adjusted to any of the three holes, not shown.
   a) This adjustment should be set depending on the height of the crop being cut so the crop is most effectively pushed aside, leaving a path for the inner shoe on the next round.
2. The tension on the swath board mounting spring G, Fig. 45, should be set so the rods will deflect easily when an obstruction is hit.
   a) It should be tight enough, however, so the rods will not move around when the mower is being transported.
3. The grass rods can be bent to help get a cleaner division between swaths in unusual crop conditions.

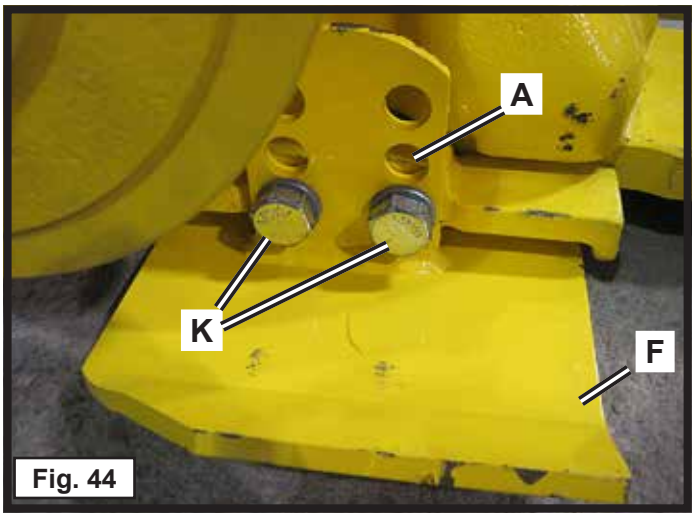


Fig. 44

Height of Cut

1. To regulate the height of cut, raise or lower the adjustable shoe soles H, Fig. 45, under the inner shoe C, and outer shoe D, Fig. 46.
2. To adjust the outer shoe sole, insert the bolt I, Fig. 45 into the desired notch, not shown.
3. To adjust the inner shoe sole, loosen the front bolts E, Fig. 46, in the shoe before attempting to change the height bolts K, Fig. 44.
4. Be sure both soles are adjusted to the same height to keep the cutter bar level.
5. On rough or stony land, the cutter bar should be protected by tilting the bar upward, see page 18.

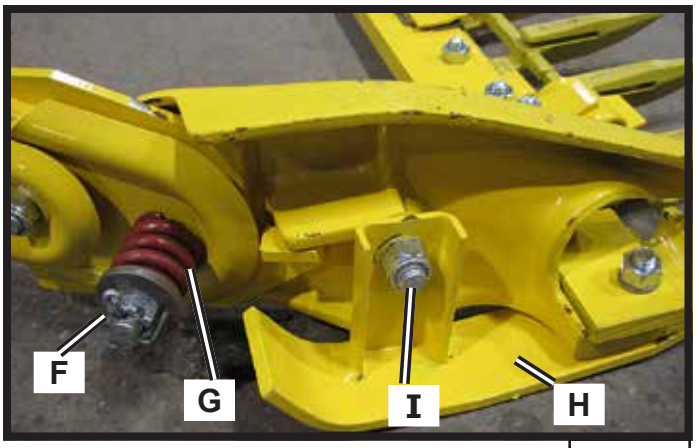


Fig. 45

Fig. 46

ADJUSTING AND OPERATING

IH Type

Swath Board

1. The tension on the swath board mounting spring A, Fig. 47 and 48, should be set so the rods will deflect easily when an obstruction is hit.
   a) It should be tight enough, however, so the rods will not move around when the mower is being transported.
2. The grass rods B, Fig. 47, can be bent to help get a cleaner division between swaths in unusual crop conditions.
3. The grass rods C, Fig. 48, can be adjusted for a high or low position according to crop height.

Height Of Cut

1. To regulate the height of cut, raise or lower the adjustable shoe soles.
2. To adjust the outer shoe sole, slide the bolt F, Fig. 47 & 48, in the notch to obtain desired height.
3. To adjust the inner shoe sole, insert the bolt G, Fig. 49, into the desired position.
4. Be sure both soles are adjusted to the same height to keep the cutter bar level.
5. On rough or stony land, the cutter bar should be protected by tilting the bar upward, see page 18, Fig. 37.

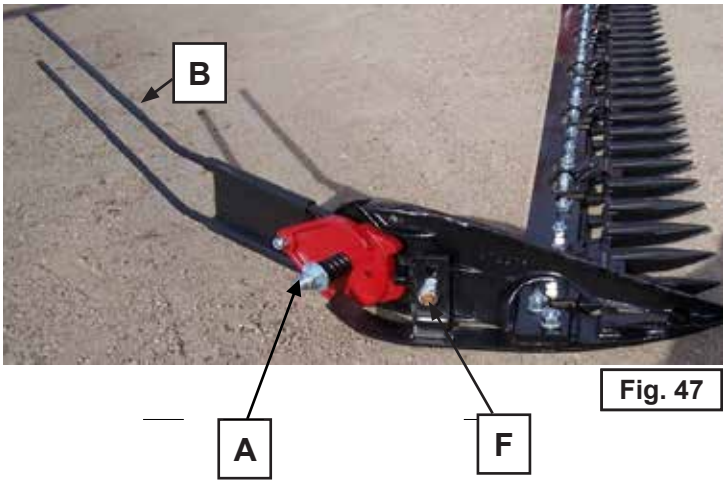


Fig. 47

Fig. 49

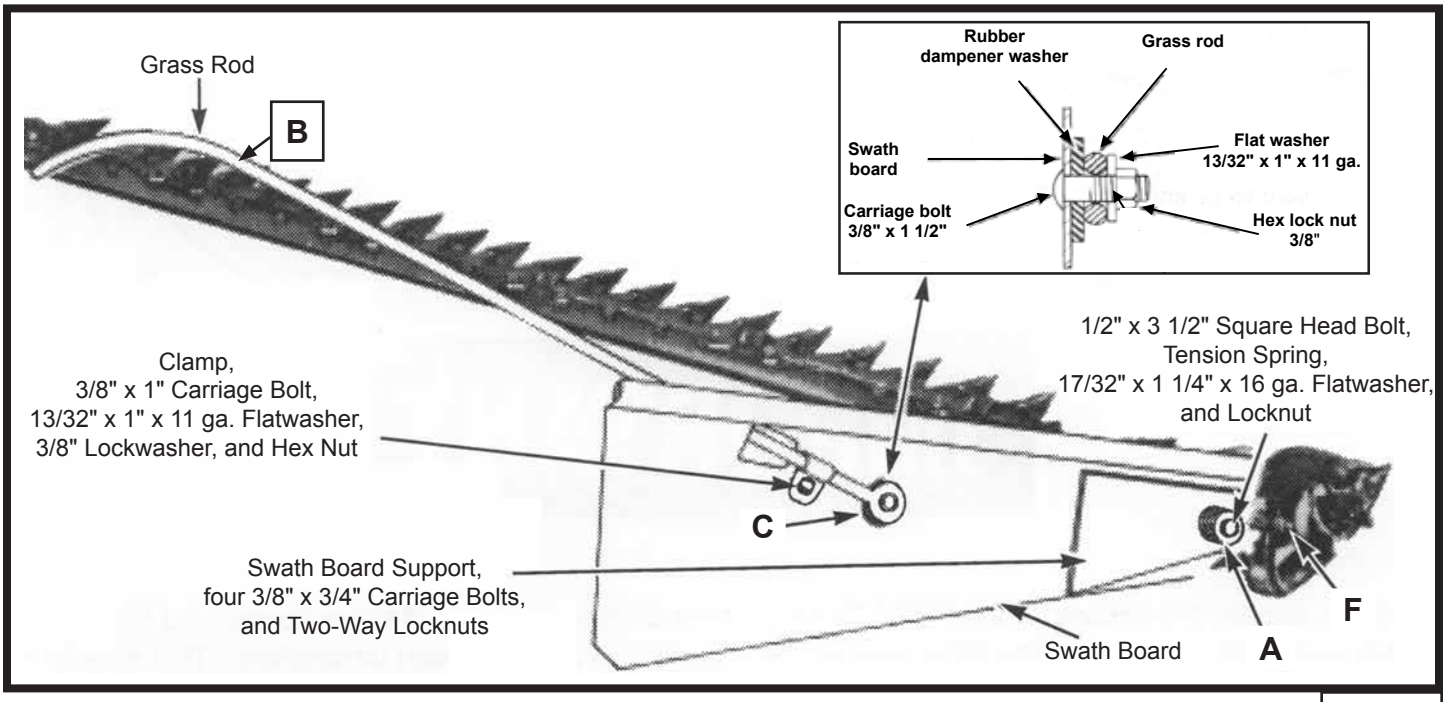


Fig. 48

ADJUSTING AND OPERATING

Both Types

Flywheel Speed

NH Type Drive

The RPM of the Flywheel speed should not exceed 825 RPM with normal speed being 800 RPM.

IH Type Drive

The RPM of the Flywheel speed should not exceed 1050 RPM with normal speed being 1000 RPM.

Drive Belt

1. The V-Belt is properly adjusted when a slight thumb pressure will deflect the belt 1/2 inch at a point midway between the pulleys.
2. To tighten the V-Belt, see "Drive Belt", page 4.

PTO Speed

1. This mower is designed to operate at a PTO (Power Take-Off) speed of 540 RPM.
2. When used with a tractor providing more than one rated engine speed, adjust the throttle to obtain the required RPM as indicated on tractor tachometer.
   a) Tachometers may be obtained from your Rowse Dealer.
3. Running at too high RPM will cause excessive vibration.
   a) If unit vibrates at the 540 PTO speed, lower RPM until unit runs smoothly.

IMPORTANT

Do not exceed the recommended PTO speed for the driven machine.

If there appears to be excessive vibration at the 540 RPM speed, decrease RPM until vibration diminishes. This should not affect performance under normal conditions.

TRANSPORTING

Both Types

Raise Bar to upright position hydraulically, Fig. 50.

CAUTION

Disengage PTO. Be sure to wait until knife has come to a complete stop before leaving tractor seat.

CAUTION

Extreme care should be given in keeping hands and fingers free of the knife when fastening stay rod A, Fig. 50, to bar for support while transporting.

You are now ready to transport the mower through gates and down the road to another field. The Trailing Mower may be hitched to a vehicle and transported at normal highway speed limits; however, we recommend you replace the transport bar before doing so. See page 14, "Transport Bar Removal".

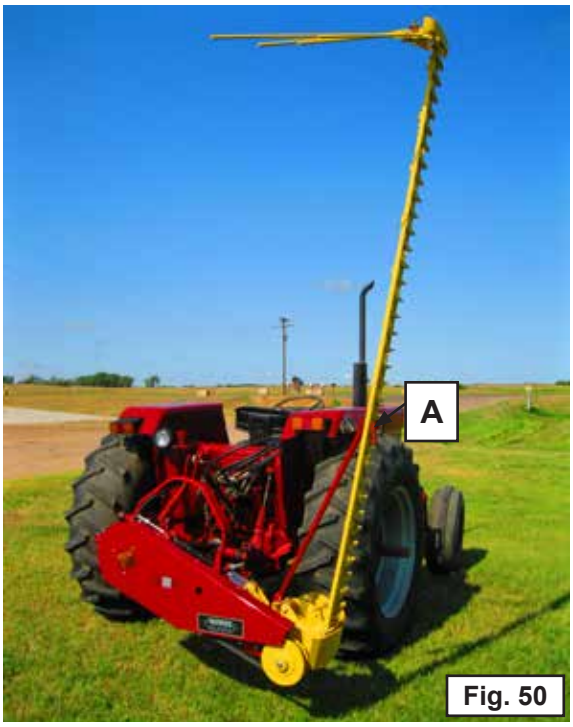


Fig. 50

Detaching Trailing Mower

1. Be sure to wait until knife has come to a complete stop before leaving tractor seat.
2. Raise cutter bar and connect stay rod.
3. Disengage PTO shaft of the mower from PTO shaft of tractor and disconnect hydraulic hose.
4. A jack B, Fig. 51, is located at the rear of the mower. The jack is used to balance the mower's weight when and after tractor is detached, Fig. 51.

Fig. 52

Detaching Three-Point Hitch Mower

1. Be sure to wait until knife has come to a complete stop before leaving tractor seat.
2. Lower cutter bar.
3. Disengage PTO shaft of mower from PTO shaft of tractor and disconnect hose.
4. Lower the mower as far as possible and support it where necessary, Fig. 52.
5. Disconnect upper link and hitch pins, then drive the tractor away, Fig. 30, page 15.
6. Use extreme care when detaching. A support must be placed under mower to prevent it from dropping and causing possible injuries and damage.

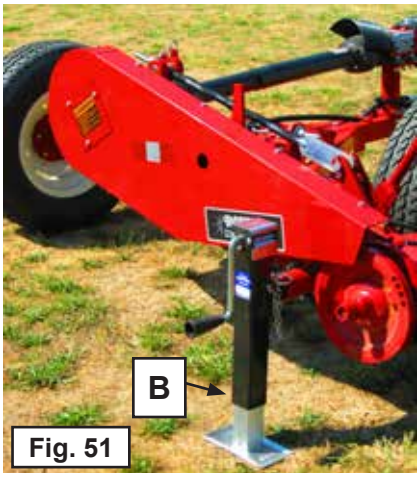


Fig. 51

STORAGE

Both Types

Storing The Machine

The life of the machine depends on how well it is taken care of during the harvest season and while in storage between seasons. The storing period of the machine, which is usually about eight months of each year, is an important factor in the life of the machine.

Even though the machine is idle and not subject to operational wear, it can, if not properly stored, receive costly wear and serious damage by being exposed to the weather or by being struck by heavy objects. No machine should be allowed to stand outside unprotected from the weather for a long period of time any more than an automobile.

A storage shed is a good investment because of the savings effected by assuring a longer lasting machine, reducing the operating costs, and continuing the highly efficient field performance.

Before Storing The Machine

1. Clean the machine of all dirt, trash and superfluous grease; if left on, it will hold moisture and thus cause serious damage from rust.
2. Lubricate all points of the mower as shown in the Lubrication Guide, and run the unit slowly for approximately ten minutes to allow lubricant to give a protective coating to all bearings and members subject to rust and corrosion.
3. Loosen the drive belt.
4. Remove the knife from the cutter bar. Cover the knife with a good rust preventive and store in a safe place.
5. Apply a light coating of oil on all exposed metal wearing parts.
6. Inspect for any worn and broken parts, and order them early. This will give your dealer ample time to provide the genuine ROWSE parts and give you sufficient time to install them before the next harvest season.

After Removing The Machine From Storage And Before Beginning The Harvest Season

1. Remove the excess grease from the mower.
2. Make sure that all bolts and nuts are properly tightened. This can save wasted time and needless expense.
3. Lubricate the machine thoroughly in accordance with the "Lubrication Guide" to make sure that all bearings have a protective coating prior to field operation.

MAINTENANCE

Both Types

General Information

1. 90% of mower problems are a result of improper adjustment and lack of maintenance of the cutter bar.
2. Periodic checking and servicing of your mower will pay dividends in a cleaner job of mowing, less damage to parts, decreased draft, and decreased maintenance costs.
3. **Excessive plugging is usually due to the following:**
   - A dull knife.
   - Wet and/or tangled crops.
   - Non-alignment of the cutter bar.
   - Insufficient "Bar Lead" (end of bar hanging back). Refer to "Cutter Bar Lead" on page 20.
   - Poor adjustment of the cutter bar parts.
   - Excessive "Lap" (rear bar set too far to the left). Refer to "Cutter Bar Lead" on page 20.
4. The knife is permanently registered at the factory and no further adjustment is needed unless damage or wear requires knife replacement.
   a) Refer to "Knife Removal and Replacement" on page 28.
5. The knife must be straight.
   a) It must be supported by the wearing plates so that all sections run parallel and flat on the guard.
   b) Refer to Fig. 53 on page 28.
6. Guards must be at the same height (level so that all sections contact).
   a) Correct installation of new guards is very important.
7. Bent guards must be reset to the proper height so that all guards are at the same height (level).
8. Do not hammer or bend down the lips of the guards.
   a) This practice will result in choking the knife, causing the mower to run hard.

MAINTENANCE

Both Types

Servicing The Cutter Bar And Components

1. The Cutter Bar of the mower corresponds to a multiple set of shears.
   a) Just as with hand shears, the opposing edges (the knife section and guard) must be sharp and contact each other if a smooth, clean cutting action is to result.
2. The knife should fit in the cutter bar as shown in Fig. 53.
   a) The following sections describe the means of achieving this fit.
   b) Also see "Cutter Bar and Knife Alignment" on page 16.

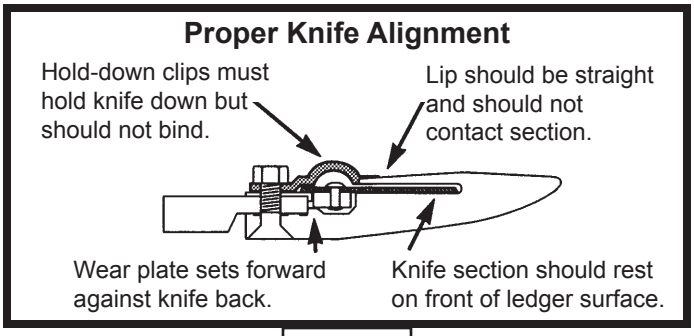


Fig. 53

Knife Removal And Replacement

1. Always check the replacement knife to be sure it is straight especially in areas from the knife head bushing to 15" - 16" to the right along the knife assembly.
   a) Any bends or twists will result in poor cutting action and excessive wear.
   b) Failure of the knife head bushing can be due to a bent knife head.
2. Before installing a knife, be sure all sections are tight and properly sharpened.
   a) Fig. 54 shows properly sharpened sections.
   b) Inspect for wear on the knife head and be sure the rivets are tight.
3. It is recommended to use a set of knives, in rotation, to assure uniform wear on each until they are discarded, or sections replaced. Setting the parts on the cutter bar to one knife will then result in a proper fit on the remaining knives.
4. If there is gummy trash on the wear plates and guards after you have installed the new knife, operate the mower slowly and pour water on the bar. Do not let it harden.
   a) Use extreme CAUTION when performing this procedure. Always stand behind and as far away as possible from moving parts.

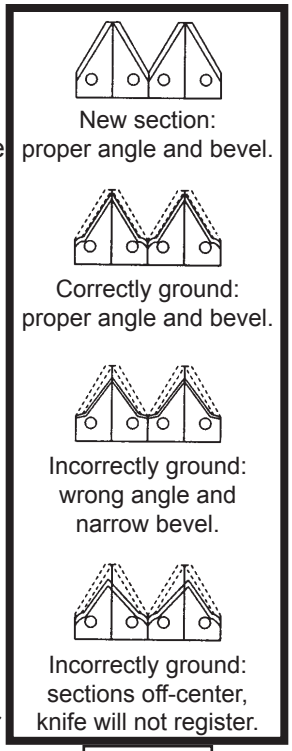


Fig. 54

NH Type Knife Removal

1. Remove the knife from the drive plates by removing the bolt A, Fig. 55, and wedge spacer, through the drive plates and knife head.
2. When a new knife is installed, first position the knife so that it is in the CENTER OF ITS STROKE, Fig. 56.
3. Tighten the knife head bolt, B, to 85-90 ft. lbs. torque.
   a) 90 ft. lbs. of torque is equal to 90 lbs. of force applied to a wrench 12" from the center of the bolt.
   b) A socket extension and ratchet is needed to complete this installation
   c) Also see "Mower Knife Drive" on page 9.

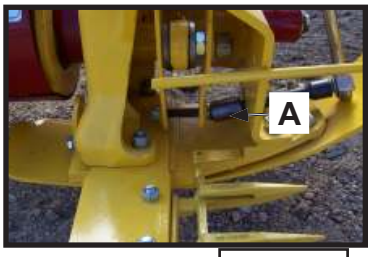


Fig. 55

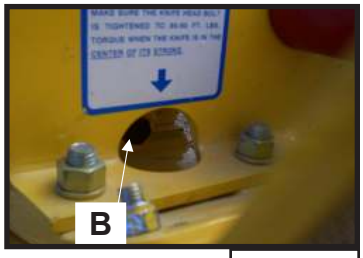


Fig. 56

IH Type Knife Removal

1. Remove the knife from the balance yoke by removing the knife bolt at Point A, Fig 56A.
2. Lift the knife pin using the optional guard lip gauge tool.
3. When a new knife is installed, check the clearance between the balance yoke and the knife head.
   a) It must be between .010" to .070" B, Fig. 56A.
   b) Use a shim or shims between the cutter bar and inner shoe to attain this clearance.
   c) See page 13, "Mower Knife Drive Installation."
4. Install the knife pin and knife bolt.
   a) Torque 85-95 ft. lbs.

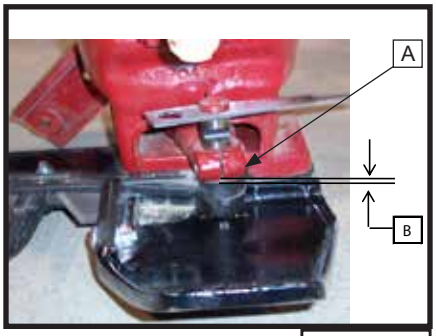


Fig. 56A

MAINTENANCE

NH Type

Guard Alignment

1. Guard alignment is a very important operation.
   a) A new knife or a straight one not badly worn should be used in aligning the guards.
2. Insert the knife and first set the high guards down.
   a) Do so by striking at the thickest part in front of the ledger plate starting at the inner shoe.
3. Then, set the low guards up to secure the knife ledger plate relationship shown in Figure 57.
4. Tighten guard bolts before and after setting the guard.
5. If all guards seem to be out of line, shims may need to be positioned to tilt the cutter bar, see "Cutter Bar and Knife Alignment" on page 16.
6. Disregard the alignment of the points of the guards, but keep them well pointed.
7. Straighten the guard wings, if necessary; so they are parallel to the knife back.
8. Keep the guard lip well raised above the ledger plate to prevent binding of the knife.
9. **Replace Worn Or Dull Guards Promptly.**
   a) Dull guards or knives put more strain on the drive mechanism which will result in more expensive repairs.

Wear Plates

1. Worn wear plates should be adjusted or replaced to take up wear on knife back and reduce play of the knife back in the neck of the guards as shown in Fig. 57.
2. In setting the wear plates ahead, be sure there is enough clearance in front of the sections to keep from striking the guards.
3. The front edges of all wear plates should be in line to give the knife back a straight wearing surface.

Knife Hold-Down Clips

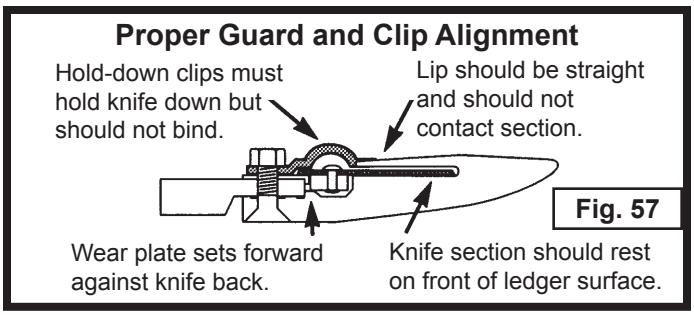


Fig. 57

1. The knife hold-down clips must be adjusted so that they hold the knife sections down against the guard while mowing, but allow the knife to move without binding.
2. When the knife clips are adjusted properly, the knife can be moved backward and forward through the guards without binding, Fig. 57.

Replacing Bushing In Knife Head

1. The knife head bushing must be snug.
   a) Excessive looseness will result in noisy operation, as well as, knife or knife head breakage.
2. Remove the old bushings using a 1" pipe, Fig. 58.
   a) Care should be taken not to bend the knife head, Fig. 59.
3. Using the 1" pipe again, install the new bushing.
   a) Be sure that the pipe and pressure you apply only contacts the steel outer portion of the bushing.
   b) Pressure on the inner rubber portion will cause damage.

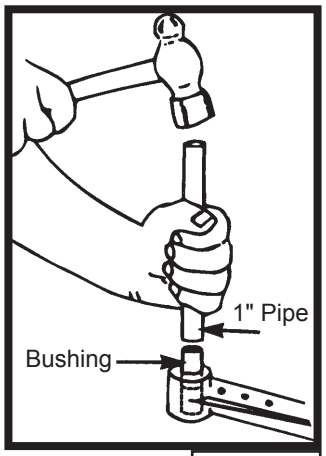


Fig. 58

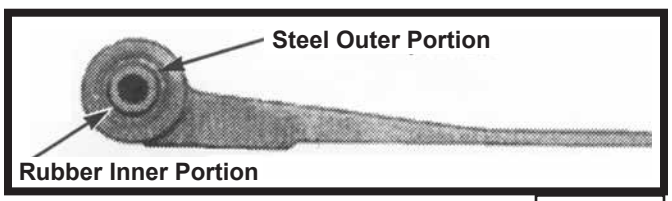


Fig. 59

MAINTENANCE

IH Type

Guard Replacement & Alignment

1. Remove broken guards and repair or replace guards which are worn on cutting edge.
2. When installing new guards, make certain that the bar is free of dirt.
3. Draw the nut up tight and then strike the guard several hammer blows on the pad section at the counter sunk hole for the bolt, Fig. 60.
   a) This will seat the guard.
   b) Then retighten the bolt.
4. Replace worn or dull guards promptly.
   a) Dull guards or knives put more strain on the drive mechanism which will result in more expensive repairs.
5. Guard alignment is very important.
   a) Check all guards for correct ledger plate height.
6. Guards which have been bent up must be pounded down to proper height by striking on the heavy section just ahead of the plate.
7. Low guards must be raised by striking the underside of the same location.

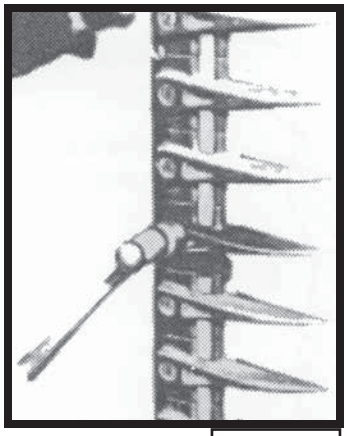


Fig. 60

Note: If guards are bent during field operation, remove the knife and bend the guard so that it is at the correct height according to the gauge tool.

8. Disregard the alignment of the points of the guards, but keep them well pointed.
9. Straighten the guard wings, if necessary, so they are parallel to the knife back.

Knife Hold-Down Clips And Wear Plates

1. Position knife in the guards with hold-down clips and wear plates slightly loose.
2. Replace knife pin and tighten knife bolt 85 to 95 ft. lbs. torque.
3. Move hold-down clips and wear plates forward against the knife assembly with the balanced head in the center of the stroke.
4. Tighten bolts enough to permit wear plates and hold-down clips to align themselves while rotating the balanced head at the right hand end of the stroke.
5. Move hold-down clips rearward an additional 1/32" and tighten bolts.
6. Rotate the balanced head to center stroke position and check clearance between hold-down clips and knife sections with the section pressed against cuffing surface of the guard.
   a) The clearance should be .008".
   b) If clip is too tight, hammer on the hump to raise.
   c) If clip is providing more than .008" clearance, hammer on the front tip.

Adjustable Hold-Down Clips

1. The adjustable hold-down clip assembly (1 in Fig. 61) can be installed on any mower or mower-conditioner equipped with standard guards.
   a) The adjustable hold-down clips cannot be used on machines with stub guards.
2. The same adjustable hold-down clip is used on all machines.
   a) A locknut (2 in Figure 61) on the adjusting bolt is used to adjust the clearance between the front of the hold-down and the knife section at Y (in Fig. 61).

NOTE: All kits also include 0.010" (0.25 mm) shims that may be required to adjust the clearance between the rear lip on the clip and the knife section at X (in Figure 61.)

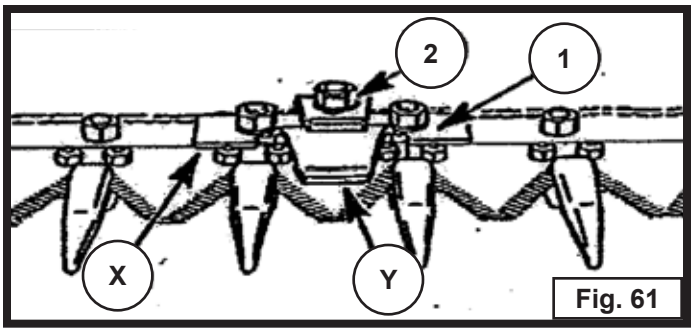


Fig. 61

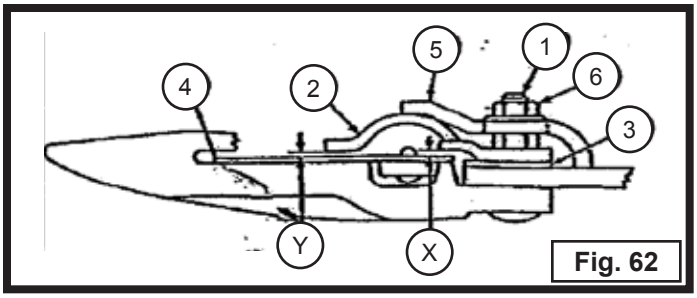


Fig. 62

MAINTENANCE

IH Type

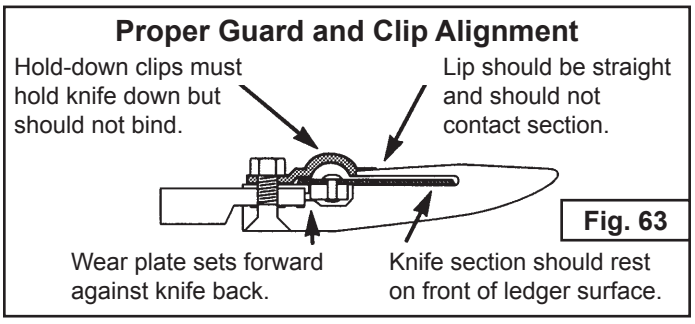
4. The kits contain the quantity of parts required for installation on the 9' NH cutter bar.
   a) When installed on a smaller machine or the IH models there will be extra parts.

Installation

Refer to Fig. 62

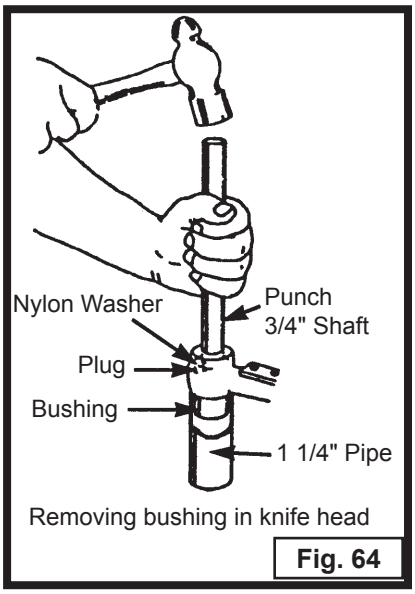
1. **NOTE: Before installing the hold-down clips check to be sure the cutter bar guards are aligned and the knife is straight.**
2. Install the knife before installing the hold-downs.
3. Place a 3/8" x 1-1/4" plow bolt (1) through the center hole in the clip (2).
4. Install the nuts on the guard bolts and tighten the nuts.
5. Check the clearance between the rear of the knife section (4) and the lip on the clip.
   a) There should be a clearance of 0.005" to 0.025" (0.1 to 0.6 mm) at (X).
6. Place the pressure bar (5) over the bolt in the clip as shown and install a flanged type locknut (6).
   a) The vertical leg of the pressure bar should be to the rear of the clip.
7. Tighten the locknut to obtain the clearance of less than 0.020" (0.5 mm) between the knife section and clip at (Y).

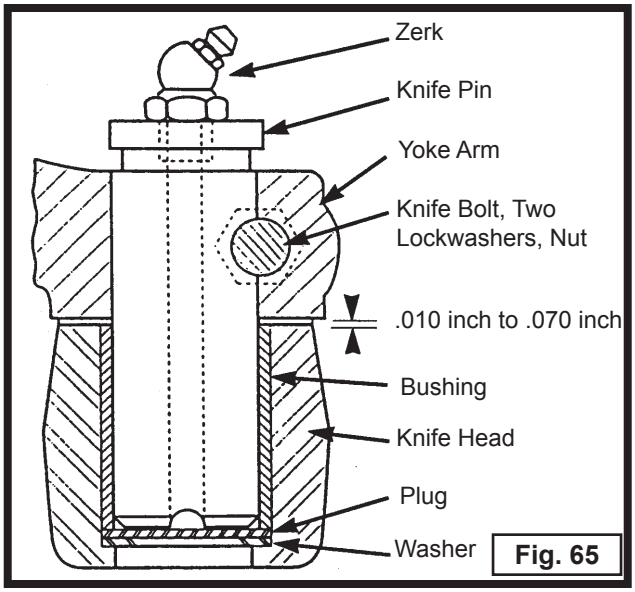
Guard and Hold-Down Clip Alignment



Replacing Bushing In Knife Head

1. Remove the knife pin and knife.
2. Press out plug, nylon washer, and old bushing with 3/4" punch, Fig. 64.
3. Assemble new nylon washer and new plug. Press in new bushing.
   a) Be sure bushing seats against plug and nylon washer.
4. Assemble knife into cutter bar.
5. Install knife pin, knife clamp bolt, two lockwashers, and nut.
6. Lubricate knife pin.





Knife Pin And Bushing

1. The knife pin must fit snugly.
   a) Excessive looseness, due to wear on the pin or bushing will result in noisy operation as well as knife or knife head breakage.
2. The pin should be lubricated every two hours.
3. Inspect the knife pin for wear and replace when required.

MAINTENANCE

NH Type

Bearing Adjustment - Crankshaft Bearings

The following procedure is suggested to periodically adjust the crankshaft tapered roller bearings, or when resetting them after repacking with grease.

1. Remove the belt shield.
2. Loosen the belt and remove it.
3. Loosen the bolt, A, two full turns so the pulley can be loosened on the tapered spline shaft. Fig. 67.
4. Install a wheel puller to break the pulley loose on the splined shaft.
5. Remove the pulley as shown in Fig. 66.
6. Remove the knife head bolt and wedge drivelock so the crankshaft, C, Fig. 66, can be turned freely.
7. Tighten the slotted nut, D, Fig. 66, until 2-6 ft. lbs. of torque is required to turn the crankshaft.
8. Replace hinge arm (E).
9. Replace the drive pulley making sure that the spring pin will align with one of the slots between the tabs of the slotted nut, D.

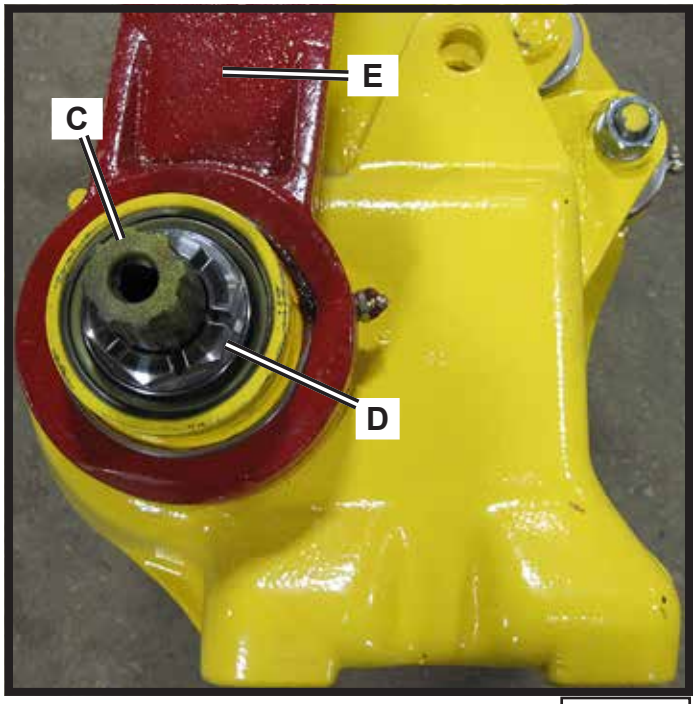


Fig. 66

9. Replace the heavy washer B and the bolt, A, Fig. 67.
   a) Torque the bolt to 95-100 ft. lbs.
   b) NOTE: If the spring pin is not positioned properly in the slot of the slotted nut, it will extend at least 1/4" beyond the pulley at B, Fig. 67.
10. Strike the pulley next to the hub with a heavy hammer to properly seat the splined shaft in the pulley.
    a) Retorque the nut again.
11. Repeat this sequence twice or until torque does not decrease.
12. Replace the belt and shield.
13. Replace knife head bolt and wedge drivelock.
    a) When KNIFE IS AT CENTER OF STROKE tighten bolt to 85-90 ft. lbs.

100 ft. lbs. of torque is equal to 100 lbs. of force applied to a wrench 12" from the center of the bolt.

Make sure the splined shaft and the bore of the crank shaft pulley are clean before installing the pulley on the shaft.

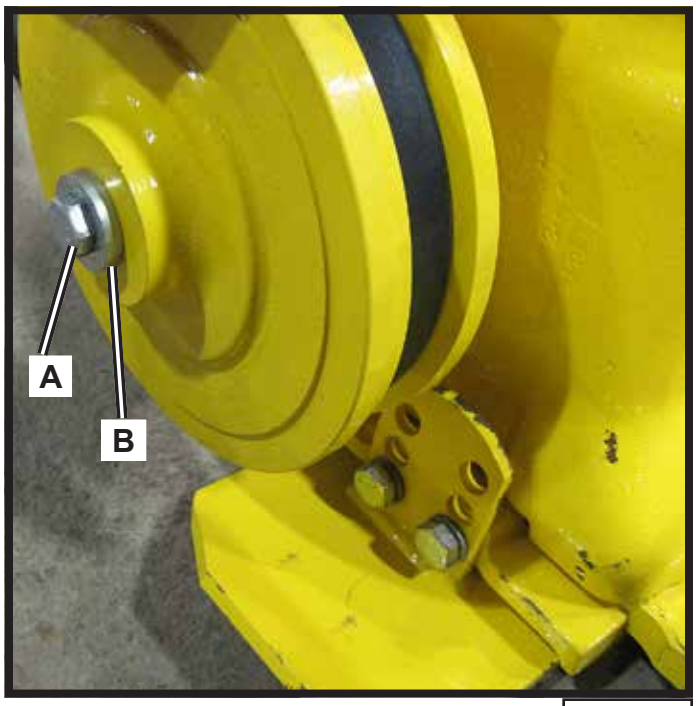


Fig. 67

MAINTENANCE

NH Type

Knife Drive Bearings

To service the knife drive area, remove the cutter bar assembly from the mower frame by performing the following steps:

1. Loosen the drive belt tension and remove the belt from the drive pulley.
2. Remove the clevis pin and cotter key A, Fig. 68 and the two bolts from the arm and mower frame, C, Fig. 68.
3. Remove the inner shoe sole, B, Fig. 68.
4. Remove nuts, D and E, and remove the support plate.
5. To service an individual pivot link bearing,
   a) Remove knife head bolt and nuts, F.
   b) Remove the front drive plate.
   c) Remove the respective bearing adjusting nuts.
6. The crank connecting rod can be removed by removing the locknut.
7. To remove the bearing studs, remove the nuts in back of rear support housing.

Assembly

1. Install the bearing studs into the rear support housing and secure the nuts.
   a) Tighten nuts to 100 ft. lbs.
2. Place dust caps on bearing studs and rear drive plate studs.
   a) Place larger dust cap on crank pin stud on drive plate.
3. With the bearings in the respective pivot links, install the pivot links and crank connecting rod.
   a) **NOTE:** Be sure zerks are positioned correctly.
4. Install a dust cap over all link and connecting rod bearings.
5. Install adjusting nuts, G.
   a) Tighten the adjusting nuts to 30 ft. lbs. to properly seat the bearings and back nuts off two flats or 1/3 of a turn.
6. Install locknut and tighten to 10 ft. lbs.
7. Install front drive plate and install nuts, F.
   a) Tighten nuts to 100 ft. lbs.
   b) Make sure the bearing adjusting nuts G do not turn when tightening nuts, F.
8. Place a spacer on studs and install the support plate.
   a) Install nuts, E and D.
   b) Tighten nuts, E, to 100 ft. lbs.
9. Install the cutter bar assembly and tighten bolts, C, Fig. 68 to 90 ft. lbs.

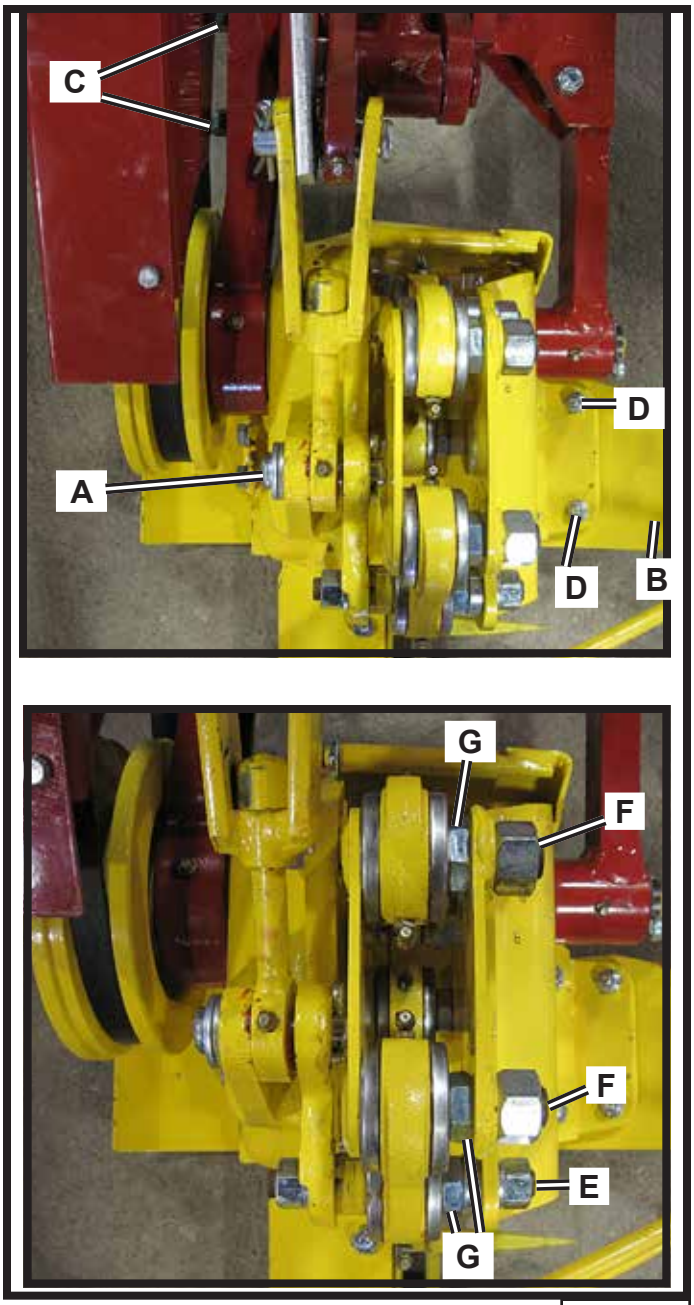


Fig. 68

10. Install belt and tighten as outlined under "Drive Belt", Page 4.
11. Install knife head bolt and tighten when KNIFE IS IN THE CENTER OF ITS STROKE to 85-90 ft. lbs.

Installation

See page 7 -- Cutter Bar Head Installation

MAINTENANCE

IH Type

Procedure For Checking Head Bearings

IMPORTANT

Bearings should be checked after the first hour of use and then daily. We recommend you check the bearings as you do the daily lubrication.

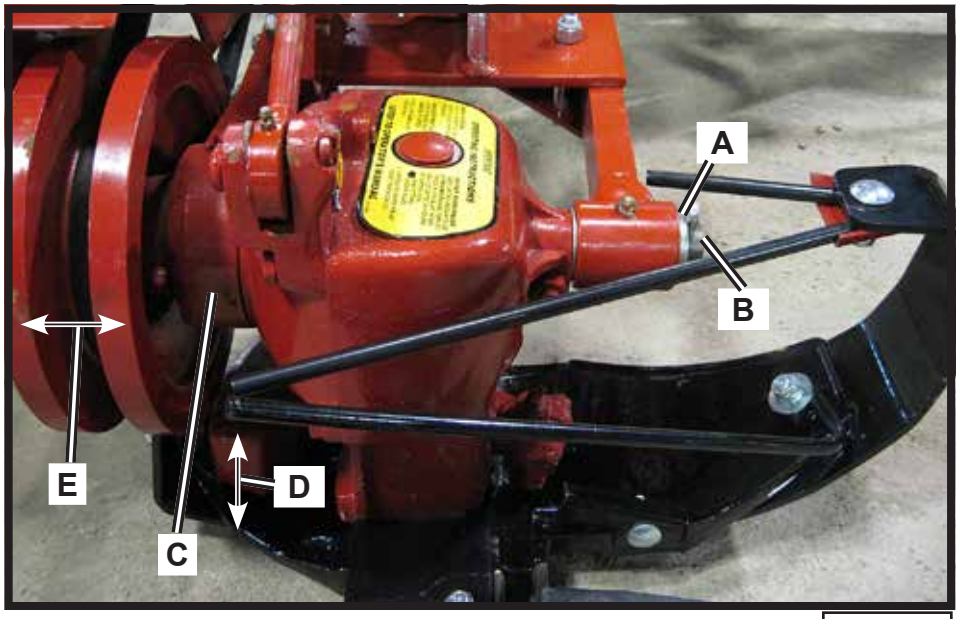


Fig. 69

Pivot Head Bushings

1. Move end shoe of bar backward and forward.
   a) This will indicate any wear on bronze bearings A, the large pivot pin B, and the large bronze pivot bushing located inside the flywheel at area C, Fig. 69.
   b) This also checks to assure tightness of bar to head.

Bottom Yoke Bearing

2. Lift yoke in an upward and downward motion D, Fig. 69.
   a) Should the yoke show any movement, replace bearing immediately.
   b) Failure to do so may/will result in damage to the yoke, etc.

Wobble Shaft Bearings

3. Pull in and out on flywheel E, Fig. 69 to check end play of wobble shaft bearings.
4. With yoke centered, turn flywheel back and forth to check bearings on wobble shaft.
   a) They should move in complete unison.

Specifications

Balanced head bearing housing end play in balance yoke.

Bearing housing -
Part No. (458953R2) (balanced yoke):
.006" to .007"

Bearing housing -
Part No. 670298 (458953R3) (crank shaft):
.003" to .004"

Wobble shaft end play
In wobble shaft housing:
.0015" to .002"
In balanced head bearing housing:
.003" to .005"

Wobble shaft assembly runout
(gauge block measurement):
.014" Maximum

Special Torques

Yoke bearing bolts	10 to 11 ft. lb.
Front hinge pin lock bolt	120 ft. lb.
Drive housing bolts	80 to 85 ft. lb.
Flywheel locknut	150 ft. lb.
Mounting bolts, bar	155 to 175 ft. lb.

Service Note

The Balanced Head knife drive is an efficient and precise operating unit. Should a bearing or seal need to be replaced, we recommend you contact your Rowse Dealer. He has the experience and precision tools necessary to service the balanced head design. However, should you desire to service your own drive head, you should order the Service Manual (GSS-1038-H) and some of the precision tools needed from Rowse.

LUBRICATION GUIDE

Both Types

CAUTION

NEVER LUBRICATE MOWER WHILE TRACTOR ENGINE IS RUNNING!

1. This mower is designed to require a minimum amount of lubrication; however, regular and sufficient lubrication increases the life of the machine, saves many dollars in service parts and is the best insurance against delays.
2. Before starting, lubricate the complete machine following the "Lubrication Guide".
3. Thereafter, lubricate at regular intervals as specified.
4. Do not use a high pressure gun! Excessive lubrication may destroy the seals.
5. Keep the lubricator gun clean and wipe off all dirt from the zerks before using the gun.

Key To Lubrication Guide

☆	More often than daily
○	Daily or after every 8 hours of operation
△	Every three days or after 30 hours of operation which ever is less
❑	Periodically

Daily or After Every 8 Hours of Operation

②	Pivot frame hinges [A]	fig. 70
③	Front hinge [A]	fig. 72 NH, 73 IH, page 36
④	Rear hinge	fig. 73 page 36

[A] Use No. 2 multi-purpose lithium grease and apply sufficient lubrication to flush out the old grease and dirt.

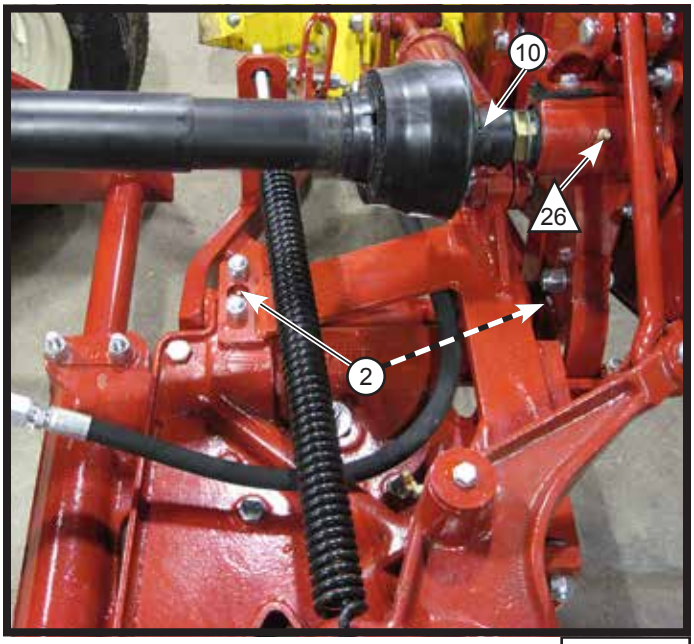


Fig. 70

⑤	Bellcrank [B]	fig. 71
⑥	Lower cylinder mount [B]	fig. 73 pg 36
⑦	Cylinder tube [B]	fig. 73 pg 36
⑧	Bar lift linkage [B]	fig. 73 pg 36
⑩	Power drive knuckles [B]	fig. 70

[B] Use No. 2 multi-purpose lithium grease and lubricate the universal drive center crosses (2 zerks). Only a few strokes of the lubricator gun are required. Do not use a high pressure gun. Excessive lubricant forced through the bearings may destroy the seals.

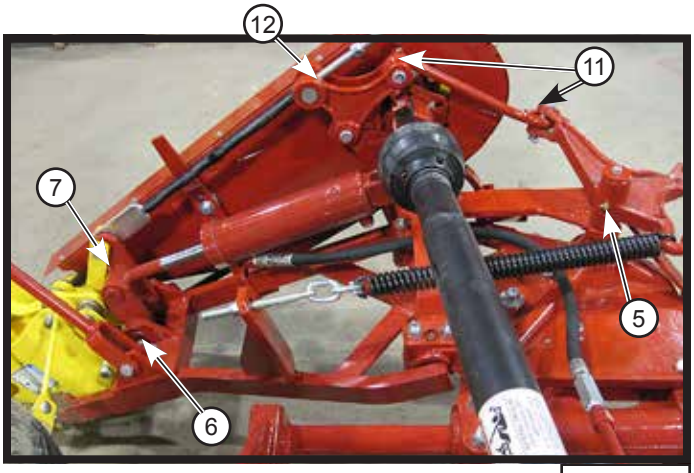


Fig. 71

LUBRICATION GUIDE

Both Types

11	Bellcrank lift rod [C]	fig. 71
12	Gag rod [C]	fig. 71
13	Crankshaft housing bearings NH Type	fig. 72

[C] Use oil can.

14	Knife guards, wear plates, and hold-down knife clips [D]	fig. 72 NH, 73 IH

[D] Lubricate with oil can. In locations where soil is sandy, the knife guard, wearing plates, and hold-down knife clips should not be oiled. In other localities where these conditions do not exist, oil them daily.

15	#1 Power drive knuckle, shaft, and sleeve [E]	fig. 74 pg. 37

[E] Should be pulled apart and lubricated with grease daily.

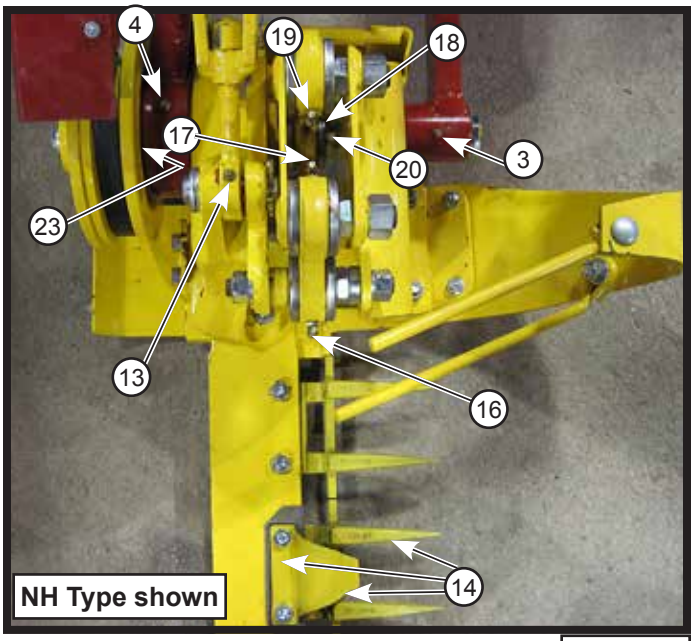


Fig. 72

○ Daily or After Every 8 Hours of Operation

NH Type Drive

16 _ 19	Pivot link bearings [B] NH Type (4)	fig. 72
20	Connecting rod bearings [B] NH Type (2)	fig. 72

[B] Use No. 2 multi-purpose lithium grease and lubricate the universal drive center crosses (2 zerks). Only a few strokes of the lubricator gun are required. Do not use a high pressure gun. Excessive lubricant forced through the bearings may destroy the seals.

☆ More Often Than Daily

IH Type Drive

☆21	Knife Pin [F]	fig. 73
☆22	Main Frame Component Parts	pg. 40 parts and assy.

[F] Every 2 hours, use IH251HEP grease or equivalent No. 2 multi-purpose lithium grease and apply sufficient lubrication to flush out the old grease and dirt. Rowse has a product available, Piston Plate, which reduces friction and increases life of knife pin and knife head bushing.

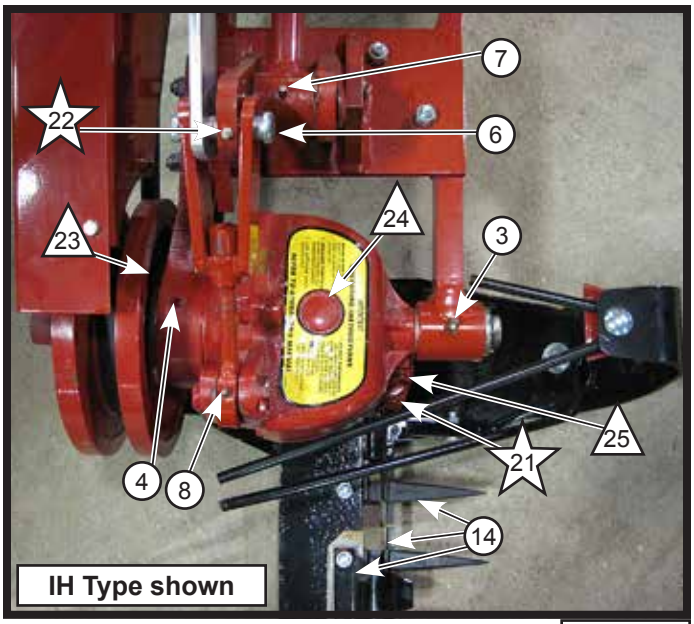


Fig. 73

LUBRICATION GUIDE

Both Types

△ Every Three Days or After 30 Hours of Operation, Whichever is Less

△23	Balanced head bearing housing[G] IH Type	fig. 73
△24	Crankshaft housing (under top button plug)[G] IH Type	fig. 73
△25	Yoke bearing (behind front button plug above knife pin)[G] IH Type	fig. 73

[G] Use a pressure gun lubricant. Apply 3/8 ounce of IH251HEP grease or equivalent No. 2 multi-purpose lithium grease. This can be determined in terms of strokes of the lubricant gun, depending on the type used. Do not use a high-pressure gun.

△26	Drive shaft housing zerk [H]	fig. 70 pg 35

[H] Use No. 2 multi-purpose lithium grease. Only a few strokes of the lubricator gun are required. Do not use a high-pressure gun. Excessive lubricant forced through the bearings may destroy the seals.

❑ Periodic

❑27	Lubricate the one fitting per hub every 500 hours. Do not overgrease or seals will force out.	fig. 74

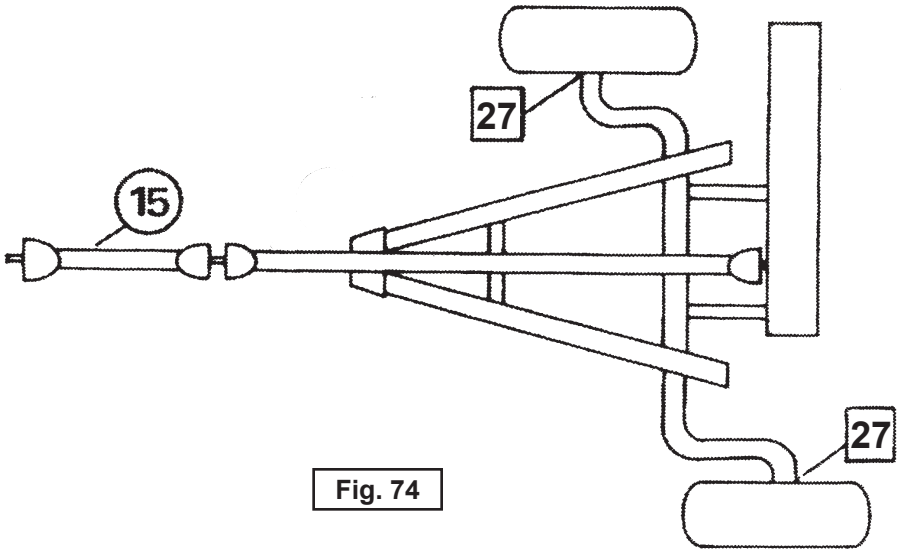


Fig. 74

TROUBLESHOOTING

Both Types

Most mower difficulties are caused by improper adjustments. When you encounter trouble, make a systematic check of all mower adjustments, using the following chart as a guide.

In some instances, special attachments are available to help overcome various ground or crop conditions. It should be kept in mind, however, special attachments will not eliminate the difficulty if the machine is not properly adjusted.

If mower difficulties cannot be corrected by making the adjustments given in this manual, see your ROWSE Dealer.

Possible Cause	Possible Remedy
PLUGGING OF THE CUTTER BAR	
Guard missing, loose, or out of line	Tighten and align guards. See Page 29(NH), 30(IH).
Too much tilt of Cutter Bar	Change angle of tilt. See Page 18.
Dull or worn-out knife	Sharpen or replace knife section. See Page 28.
Guards dull	Replace. See Page 29(NH), 30(IH).
Knife Clips not properly set	Reset knife clips. See Page 29(NH), 30(IH).
Lips of Guards bent down too far	Align guards. See Page 29(NH), 30(IH).
Drive Belt slipping	Adjust drive belt. See Page 4.
Improper Bar lead	Correct. See Page 20.
Lack of lubrication	Lubricate the mower. See Pages 35-37.
PLUGGING OF THE INNER SHOE	
Swath not properly divided	Adjust grass rods. See Page 22(NH), 23(IH.
Inner Shoe too heavy	Adjust inner shoe balance spring, See Page 18.
Broken section	Replace. See Page 28.
Cutting too low	Adjust height of cut. See Page 22 (NH), 23(IH).
Inner Ledger dull or missing	Sharpen or replace. See Page 27(NH), 28(IH).
PLUGGING AT OUTER SHOE	
Cutting too low	Adjust height of cut. See Page 22(NH), 23(IH).
Outer Shoe too heavy	Adjust Gag Rod. See Page 18.
End Ledger Plate dull or missing	Replace.
Broken Section	Replace. See Page 28.

Possible Cause	Possible Remedy
BREAKING OF KNIVES	
Guards loose or out of line	Tighten and align guards. See Page 29(NH), 30(IH).
Dull Sections and Ledger Plates	Sharpen or replace. See Page 28 & 29(NH), 30(IH).
Worn Knife Pin or Bushing	Replace. See Page 29(NH), 31(IH).
Over speed of Tractor PTO	PTO to run at 540 RPM only. Consult your ROWSE Dealer for proper changes needed.
Crooked Knife	Straighten or replace. See Page 28.
Wear Plates too far forward	Adjust or replace wear plates. See Page 29(NH), 30(IH).
EXCESSIVE VIBRATION	
Over speed of Tractor PTO	Reduce PTO RPM. See Page 24.
Loose Head Bearings	Check Bearings. See Page 32-33(NH), 34(IH).
Improper Knife installation	Correct. See Page 9(NH), 13(IH).
Dull Section and Guards	Sharpen or replace. See Page 28-29(NH), 30(IH).
KNOCKING AND NOISE IN DRIVE	
Check Knife Head Pivot for looseness	Tighten or replace knife head bushing. See Pages 9 & 29(NH), 13 & 31(IH).
Loose Drive Head Bearings	Adjust or replace Bearings. See Page 32-33(NH), 34(IH).

PARTS LIST

Both Types

PTO-ST7-NH, PTO-ST9-NH ★
PTO-ST7-IH, PTO-ST9-IH
PTO-SM7-NH, PTO-SM9-NH ★★
PTO-SM7-IH, PTO-SM9-IH

INTRODUCTION

1. Rowse attempts to keep on hand at all times an adequate supply of all parts.
   a) However, some fast-moving, high volume parts may need to be ordered early to be sure of meeting delivery requirements.
2. Check the assembly drawing and description with the part you need and give the part number and quantity when ordering.
3. Most parts are interchangeable between the Mower Models with these exceptions:
   a) Frame and Hitch
   b) Arm Linkage
   c) Mower Heads
   d) Cutter Bars and Components
   e) PTO Drive Lines
4. Be sure to use the correct part number and quantity for your mower model where parts differ.
5. Touch-up paint in convenient aerosol cans is available from Rowse.

★ ST Model Mowers are 2-wheel Trail Mowers

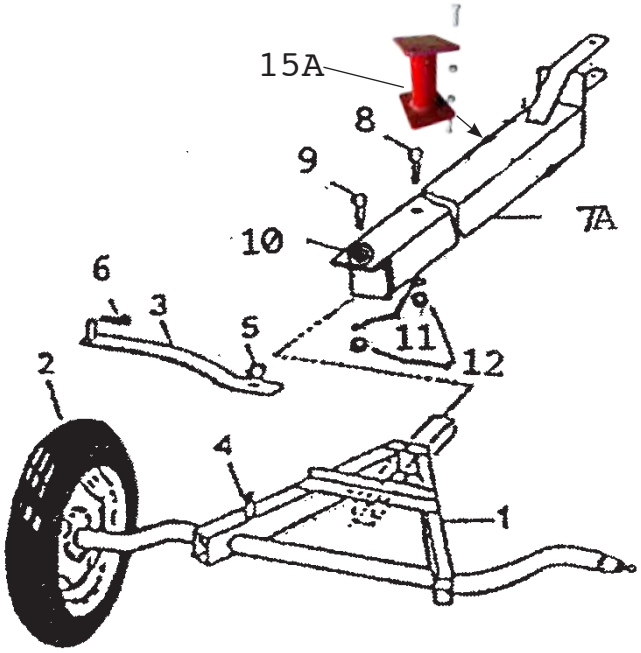
★ SM Model Mowers are 3-point Mowers

PARTS LIST

Both Types

FRAME

TWO DRIVE MODEL
CLEVIS HITCH (shown)

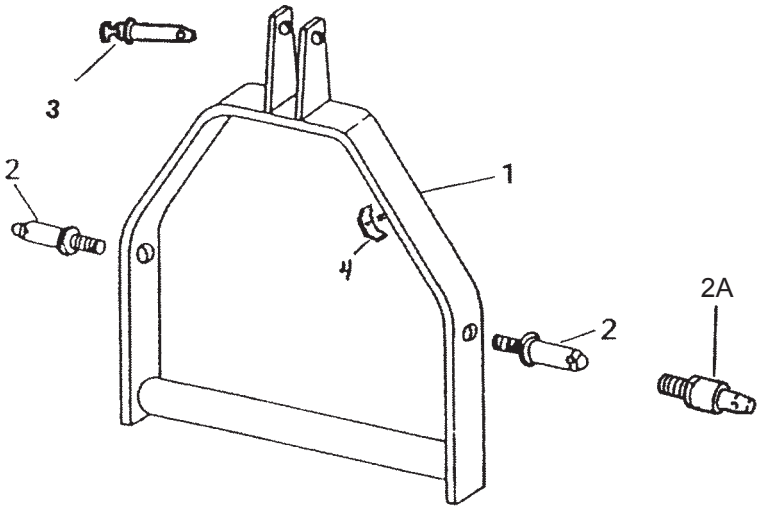


Ref.	Part No.	Description	Qty.
	PTO-ST	COMPLETE FRAME & TONGUE ASSEMBLY (all below except RM-2368, tires & wheels), (choice of coupler or clevis hitch)	
1	ST-3801	FRAME AND AXLE	1
2	845502225	TIRE, P225/75R15	2
3	RM-2383	BAR, to hold mower assembly for transporting w/o bar lift hydraulics. (ST-3803)	1
4	62C150HCS5Z	BOLT, WELDED 5/8" x 1½"	1
5	62CNNE0Z/NE	NUT, 5/8" Lock	1
6	111-20	HAIR PIN CLIP, #6	1
7	ST-3808	TONGUE ASSEMBLY, coupler hitch, incl. PTO drive stand #15A (two drive model)	1
7A	ST-3808C	TONGUE ASSEMBLY, clevis hitch, incl. PTO drive stand #15A, (two drive model)	1
8	75C500HCS5Z	BOLT, 3/4" X 5"	1
9	75C200HCS5Z	BOLT, 3/4" X 2"	1
10	75NSAE0Z	WASHER, Flat 3/4" x 1½" x 1/8"	1
11	75NLOC0Z	WASHER, 3/4" Lock	2
12	75CNFH0Z	NUT, Hex 3/4"	2
13	2B2M	COUPLER, ball 2" weld on	1
14	RM-2368	BALL, 2" w/1" Shank	1
	RM-2371	BALL, 2" w/1" Shank 3" Long	1
15A	23810312	SUPPORT (stand), PTO Drive Lines (two drive model only)	1
	50C150HC55Z	BOLT, 1/2" x 1-1/2"	10
	50CNNE0Z/NE	NUT, 1/2" Lock	10

PARTS LIST

Both Types

THREE-POINT MOUNTED MOWER HITCH ASSEMBLY
ROW CROP TRACTOR MODELS
WITH HYDRAULIC VERTICAL LIFT
MOWER MODELS 530-NH, 730-NH, 930-NH
530-IH, 730-IH, 930-IH

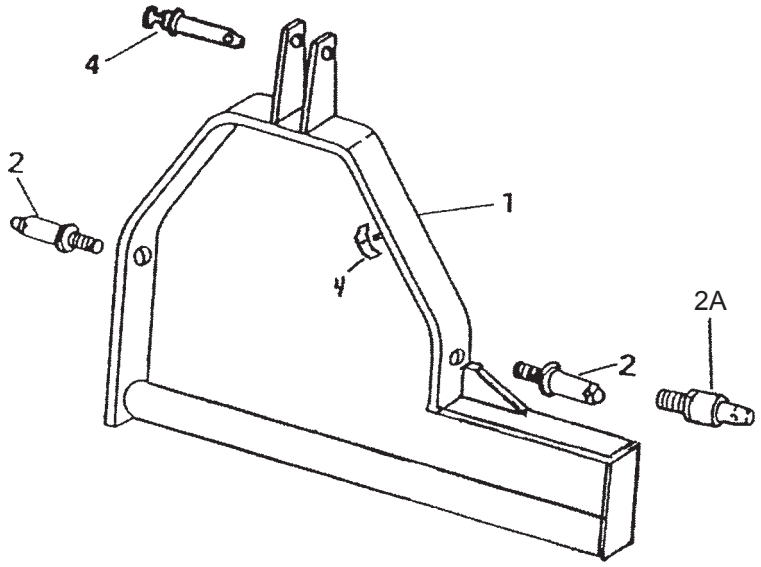


Ref.	Part No.	Description	Qty.
	PTO-SM	HITCH ASSEMBLY COMP. (incl. all except 2- LA-1 & Fittings)	
1	SM-3901	HITCH ASSEMBLY	1
2	LA-1	PIN, Side Link (Category 1)	2
	87NLOC0Z	WASHER, 7/8" Lock	2
	87CNFH0Z	NUT, 7/8"	2
	670206	KLIK PIN, 7/16" X 1¾"	2
2A	SM-3902-1	PIN, Side Link (ROWSE Special, Category 2)	2
	87NLOC0Z	WASHER, 7/8" Lock	2
	87CNFH0Z	NUT, 7/8"	2
	670206	KLIK PIN, 7/16" X 1¾"	2
3	TLP3	PIN, Top 3/4" x 3" (Category 1)	1
	TLB34-1	BUSHING, 3/4" x 1" x 2" (Category 2)	1
4	RM-2246	CLAMP, hose	1
	37CNNE0Z/NE	NUT, 3/8" lock	1

PARTS LIST

Both Types

THREE-POINT MOUNTED MOWER HITCH ASSEMBLY
COMPACT TRACTOR MODELS (16-50 HORSE POWER)
WITH HYDRAULIC VERTICAL LIFT
MOWER MODELS PTO-CV-5-NH, PTO-CV7-NH, PTO-CV9-NH
PTO-CV5-IH, PTO-CV7-IH AND PTO-CV9-IH

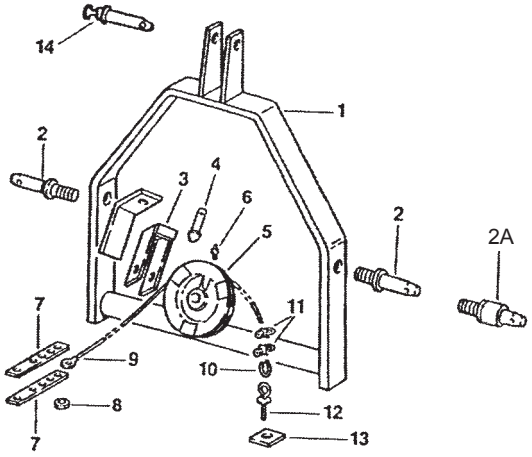


Ref.	Part No.	Description	Qty.
	PTO-SM3	HITCH ASSEMBLY COMP. (incl. all except 2- LA-1 & Fittings)	
1	SM-3903	HITCH ASSEMBLY, Compact Tractor Models	1
2	LA-1	PIN, Side Link (IH Type 525921 R1)	2
	87NLOC0Z	WASHER, 7/8" Lock	2
	87CNFH0Z	NUT, 7/8"	2
	670206	KLIK PIN, 7/16" x 1¾"	2
2A	SM-3902-1	PIN, Side Link (ROWSE Special Cat. 1 & 2)	2
	87NLOC0Z	WASHER, 7/8" Lock	2
	87CNFH0Z	NUT, 7/8"	2
	670206	KLIK PIN, 7/16" x 1¾"	2
3	TLP3	PIN, Top 3/4" x 4"	1
	TLB34-1	BUSHING, 3/4" x 1"	1
4	RM-2246	CLAMP, hose	1
	37CNNE0Z/NE	NUT, 3/8" lock	1

PARTS LIST

Both Types

Three-Point Mounted Mower Hitch Assembly
Row Crop Tractor Models
With Mechanical Lift
Mower Models 730-NH, 930-NH, 730-IH, & 930-IH

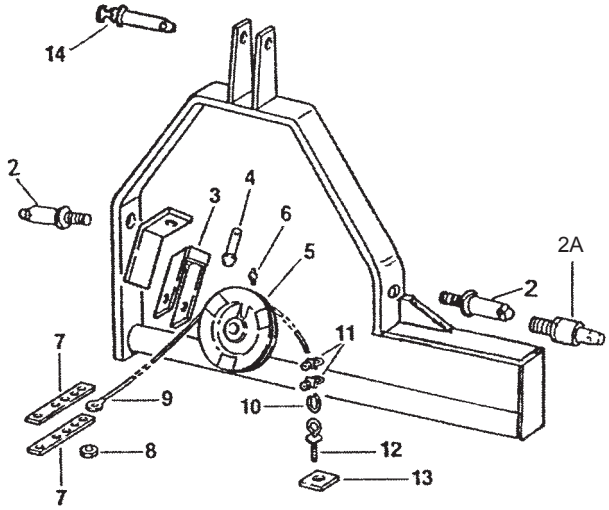


Ref.	Part No.	Description	Qty.
1	SM-3901	HITCH ASSEMBLY, Compact Tractor Models	1
2	LA-1	PIN, Side Link (IH Type 525921 R1)	2
	87NLOC0Z	WASHER, 7/8" Lock	2
	87CNFH0Z	NUT, 7/8" (013478)	2
	670206	KLIK PIN, 7/16" x 1¾"	2
2A	SM-3902-1	PIN, Side Link (ROWSE Special Category 2)	2
	87NLOC0Z	WASHER, 7/8" Lock	2
	87CNFH0Z	NUT, 7/8" (013478)	2
	670206	KLIK PIN, 7/16" x 1¾"	2
3	670145	LIFT BRACKET ASSEMBLY (135205 C1)	1
4	670104	BOLT, Special Head (101216 C2)	1
	K4324	Washer, 17/32" x 1¼" x 16 ga. (25555 R1)	1
	50CNST0	Nut, 1/2" Slotted (K3943)	1
	139-31	Cotter Key, 3/32" x 1½"	1
5	670105	PULLEY, Lifting Cable (101217 C1)	1
	RM-2112	Pin, 3/4" x 2¾" (22929 R1)	1
	25R150PCO0Z	Cotter Key, 1/4" x 1¼" (010242)	1
6	101-100	ZERK, 1/8" PTF straight (011962)	1
7	670804	BAR (61704 C1)	2
	670808	Pin, 1/2" x 1.625" (21955 R1)	1
	18R100PCO0Z	Cotter Key, 3/16" x 1" (010229)	1
	50F175HCS5Z	Bolt, 1/2" x 1¾" machine, NF	1
	670806	Spacer (521039)	2
8	50FNNE0Z/NE	NUT, 1/2" Lock NF (18452 R1)	1
9	670803	CABLE (61705 C1)	1
10	670107	WIRE ROPE THIMBLE (61706 C1)	1
11	670805	CABLE CLAMP, 5/16" includes nuts (552230 R91)	2
12	670103	EYE BOLT ASSEMBLY (101211 C1)	1
13	75CNFH0Z	Nut, 3/4" (013475)	1
	670900	SPACER (959047 R1)	1
14	TLP3	PIN, Top 3/4" x 4" (Category 1)	1
	TLB34-1	Bushing, 3/4" x 1" (Category 1 to 2)	1

PARTS LIST

Both Types

Three-Point Mounted Mower Hitch Assembly
Compact Tractor Models (16-50 Horsepower)
With Mechanical Lift
Mower Models PTO-CM5-NH, PTO-CM7-NH, PTO-CM9-NH
PTO-CM5-IH, PTO-CM7-IH and PTO-CM9-IH

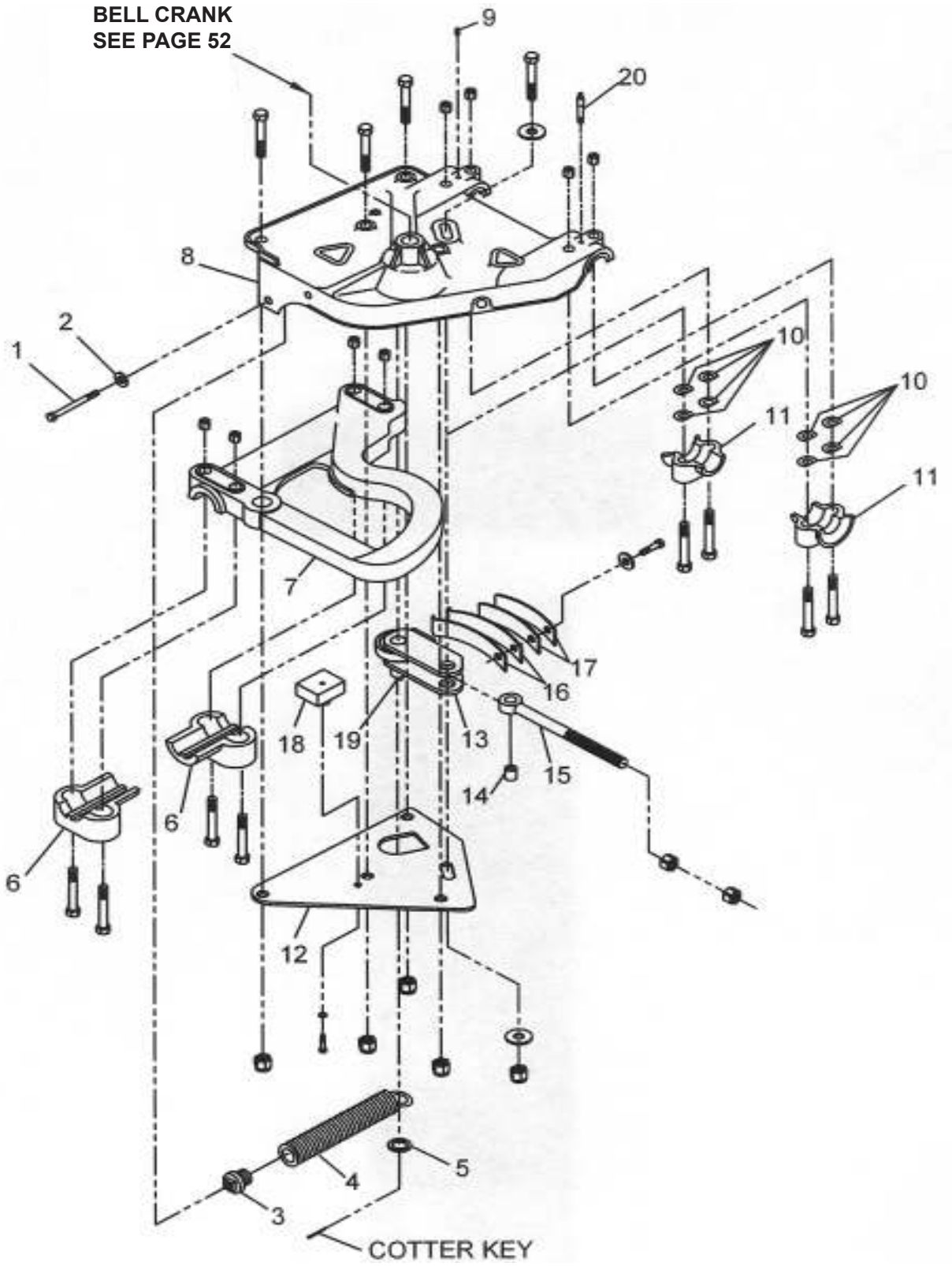


Ref.	Part No.	Description	Qty.
1	SM-3903	HITCH ASSEMBLY, Compact Tractor Models	1
2	LA-1	PIN, Side Link (IH Type 525921 R1)	2
	87NLOC0Z	WASHER, 7/8" Lock	2
	87CNFH0Z	NUT, 7/8" (013478)	2
	670206	KLIK PIN, 7/16" x 1¾"	2
2A	SM-3902-1	PIN, Side Link (ROWSE Special Category 2)	2
	87NLOC0Z	WASHER, 7/8" Lock	2
	87CNFH0Z	NUT, 7/8" (013478)	2
	670206	KLIK PIN, 7/16" x 1¾"	2
3	670145	LIFT BRACKET ASSEMBLY (135205 C1)	1
4	670104	BOLT, Special Head (101216 C2)	1
	K4324	Washer, 17/32" x 1¼" x 16 ga. (25555 R1)	1
	50CNST0	Nut, 1/2" Slotted (K3943)	1
	139-31	Cotter Key, 3/32" x 1½"	1
5	670105	PULLEY, Lifting Cable (101217 C1)	1
	RM-2112	Pin, 3/4" x 2¾" (22929 R1)	1
	25R150PCO0Z	Cotter Key, 1/4" x 1¼" (010242)	1
6	101-100	ZERK, 1/8" PTF straight (011962)	1
7	670804	BAR (61704 C1)	2
	670808	Pin, 1/2" x 1.625" (21955 R1)	1
	18R100PCO0Z	Cotter Key, 3/16" x 1" (010229)	1
	50F175HCS5Z	Bolt, 1/2" x 1¾" machine, NF	1
	670806	Spacer (521039)	2
8	50FNNE0Z/NE	NUT, 1/2" Lock NF (18452 R1)	1
9	670803	CABLE (61705 C1)	1
10	670107	WIRE ROPE THIMBLE (61706 C1)	1
11	670805	CABLE CLAMP, 5/16" includes nuts (552230 R91)	2
12	670103	EYE BOLT ASSEMBLY (101211 C1)	1
13	75CNFH0Z	Nut, 3/4" (013475)	1
	670900	SPACER (959047 R1)	1
14	TLP3	PIN, Top 3/4" x 4" (Category 1)	1
	TLB34-1	Bushing, 3/4" x 1" (Category 1 to 2)	1

PARTS LIST

Both Types

Pivot Frame, Breakaway Arm, & Latch Support Plate



PARTS LIST

Both Types

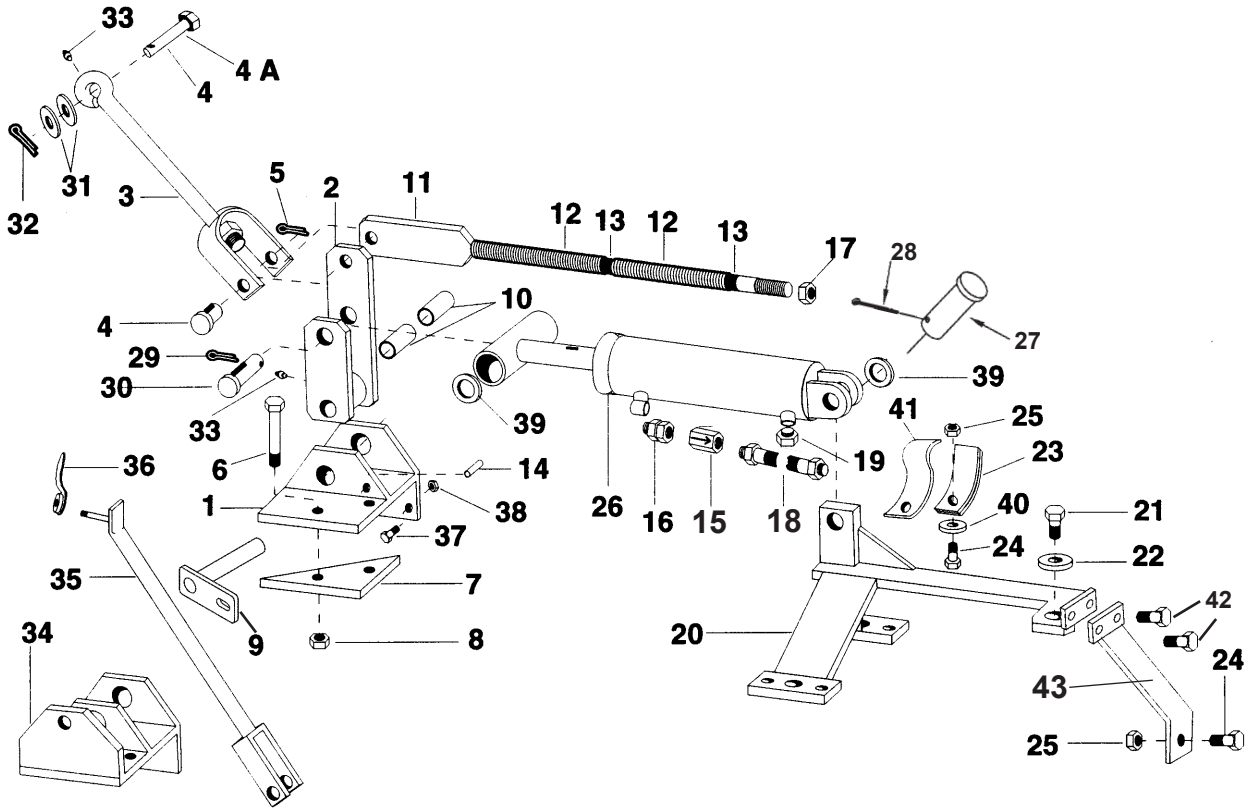
Pivot Frame, Breakaway Arm, & Latch Support Plate

Ref.	Part No.	Description	Qty.
1	50C400BTA5Z	BOLT, spring adjusting, 1/2" x 4" tap (570 640 R1)	1
	50CNFH0Z	Nut, 1/2"-13 Hex (125 536 C1)	1
2	50NUSS0Z	WASHER, 1/2" Flat (178 374 R1)	1
3	670835	PLUG, spring (M 1425)	1
4	670880	SPRING, breakaway latch, 25 coils (PO 199 A)	1
5	100N150AMB0/10GA	WASHER, 1" x 1-1/2" x 10 ga. (21 714 R1)	2
6	670678	CAP, breakaway arm (489 480 R1)	2
	62C550HCS5Z	Bolt, 5/8"- 11 x 5-1/2" HHC	4
	62CNNE0Z/NE	Nut, 5/8"-11 nylon insert (21 620 R1)	4
7	670268	ARM, breakaway (458 891 R2)	1
8	670262	FRAME (458 888 R2)	1
	62C350HCS5Z	Bolt, 5/8" x 3-1/2" H HC	5
	62CNNE0Z/NE	Nut, 5/8"-11 nylon insert (124 589 R1)	5
	62NUSS0Z	Washer, 5/8" Flat	3
9	101-100	ZERK, 1/8" PTF straight lub (109 461 R1)	2
10	670265	SHIM, pivot frame (458 890 R1)	8 or as required
	62C450HCS5Z	Bolt, 5/8"-11 x 4-1/2" HHC	4
	62CNNE0Z/NE	Nut, 5/8"-11 nylon insert (21 620 R1)	4
11	670264	CAP, pivot frame (458 889 R 1)	2
12	670275	PLATE, latch support (458 906 R1)	1
13	670358	ROLLER ASSY, breakaway latch (462 764 R93)	1
	18R150PCO0Z	Cotter Key, 3/16" x 1-1/2" (20 328 R1)	1
	100N150AMB0/10G	Washer, 1" x 1-1 /2" x 10 ga.	2
14	670335	BUSHING, latch strap pivot (459 396 R2)	1
15	670276	EYEBOLT, lead adjustment (458 907 R1)	1
	75CNFH0Z	Nut, 3/4"-10 Hex (220 086 R1)	2
16	670725	SPRING, front (490 529 R1)	2
	50C150HCS5Z	Bolt, 1/2"-20 x 1-1/2" C-Z HEX HD CAP	1
	50NUSS0Z	Washer, 1/2" Flat	1
	50FNNE0Z/NE	Nut, 1/2"-20 nylon insert	1
17	670758	SPRING, Leaf (524 453 R1) (short)	2
18	RM-2510	BREAKAWAY STOP, front mower	1
	37C125HCS5Z	BOLT, 3/8 x 1-1/4" HHC	1
	37NLOC0Z	WASHER, LOCK 3/8	1
19	111-100	ZERK, 90 Deg, 1/4-28 NPTF	1
20	RM-2148	ZERK, 1/8" PTF 65, 2-1/2" Long	1

PARTS LIST

Both Types

Mower Mounting Parts



Ref.	Part No.	Description	Qty.
1	RM-2100	MOUNT, front arm linkage, NH Type Models	1
	RM-2252	MOUNT, front arm linkage, IH Type Models	1
2	RM-2103	ARM, linkage	1
3	RM-2106	LINKAGE, mower hookup, NH Type Models	1
	RM-2107	LINKAGE, mower hookup, IH Type Models	1
4	RM-2112	PIN, clevis, 3/4" x 2-3/4", NH Type Models	1
4 A	670735	PIN, clevis, 3/4" x 2-5/16", IH Type Models	1
5	25R150PCO0Z	COTTER KEY, 1/4" x 1-1/2"	1
6	50C350HCS5Z	BOLT, 1/2" x 3-1/2", Hex	2
7	R-3	PLATE, mounting	1
8	50CNNE0Z/NE	NUT, 1/2", Hex Lock	2
9	RM-2115	PIN, hinge, 1" x 6-1/2"	1
9A	RM-2115-A	Pin, hinge, bolted w/ strap. (For mowers 2008 & newer.)	1
10	PSW-1001-64	BUSHING, bronze, 1" x 1-1/4" x 1"	2
11	RM-2118	GAG ROD, lift	1
12	OG-5144	SPRING, gag rod	2
13	RM-2133	SPACER	2

PARTS LIST

Both Types

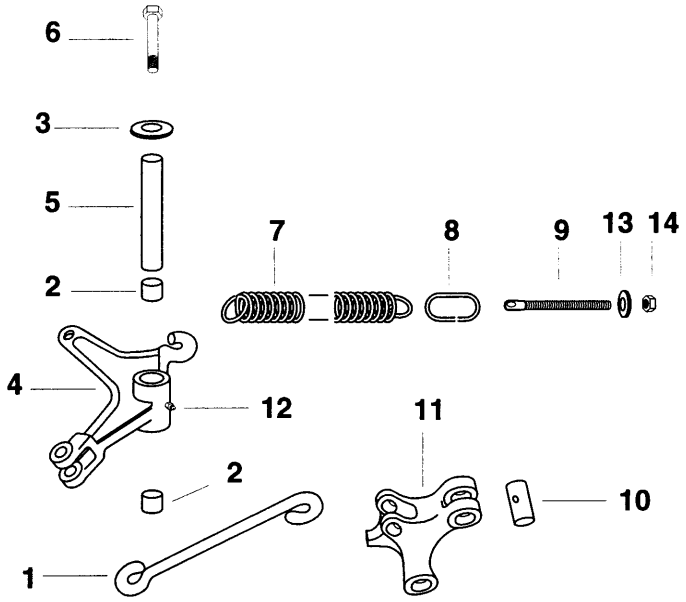
Mower Mounting Parts *(continued)*

Ref.	Part No.	Description	Qty.
14	31R150PSP0/HBK	PIN, spiral roll, 5/16" x 1-1/2"	1
15	PMR 12	RESTRICTOR, 1/2", 1-way	1
16	841305020	NIPPLE, 1/2" x 2"	1
17	62CNNE0Z/NE	NUT, 5/8", Hex Lock	1
18	844905084-BX	HOSE, hydraulic, 1/2" x 84", 3 pt pull-type	1
	8449050120-BX	HOSE, hydraulic, 1/2" x 120", 3 pt pull-type	1
19	PM-BHF-3	CAP, vent	1
20	RM-2121	MOUNT, cylinder	1
21	37C100HCS5Z	BOLT, 3/8" x 1", Hex	1
	37NUSS0Z	Washer, 3/8", Flat	1
	37NLOC0Z	Washer, 3/8", Lock	1
22	RM-2130	WASHER, special, 2" OD X 3/8" ID X 11 ga	1
23	670758	SPRING, leaf (524 453 R1)	2
24	50C150HCS5Z	BOLT, 1/2" x 1-1/2", Hex	2
25	50CNNE0Z/NE	NUT, 1/2", Hex Lock	2
26	HD308	HYDRAULIC CYLINDER, 3" x 8"	1
27	WR1027	Pin, 1" x 2.3", Headed	1
28	18R200PCO0Z	Cotter Key, 3/16" x 2"	1
29	31R250PCO0Z	COTTER KEY, 5/16" x 2-1/2"	1
30	RM-2127	PIN, 1" x 4"	1
31	75NSAE0Z	WASHER, 3/4" S.A.E., flat	2
32	25R150PCO0Z	COTTER KEY, 1/4" x 1-1/2"	1
33	107-100	ZERK, 1/4" NFT, straight lub	1
34	RM-2145	MOUNT, rear arm linkage NH Type	1
	RM-2255	MOUNT, rear arm linkage IH Type	1
35	RM-2136	TRANSPORT ROD, rear	1
36	RM-2141	HANDLE NUT, 1/2", special ROWSE	1
	RM-2140	Grip, handle nut (plastic)	1
37	50C350HCS5Z	BOLT, 1/2" x 3-1/2", Hex	2
38	50CNNE0Z/NE	NUT, 1/2", Hex Lock	2
39	100N150AMB0/10GA	WASHER, 1" x 1-1/2" x 10 ga	2
40	50NUSS0Z	WASHER, 1/2", Flat	1
41	670725	SPRING, long (490 529 R1)	2
42	50C150HCS5Z	BOLT, 1/2" x 1-1/2", Hex	2
	50CNNE0Z/NE	NUT, 1/2", Hex Lock	2
43	RM-2125	BRACE, cylinder mount	1

PARTS LIST

Both Types

Bellcrank, Gag and Lift Lever & Balancing Spring

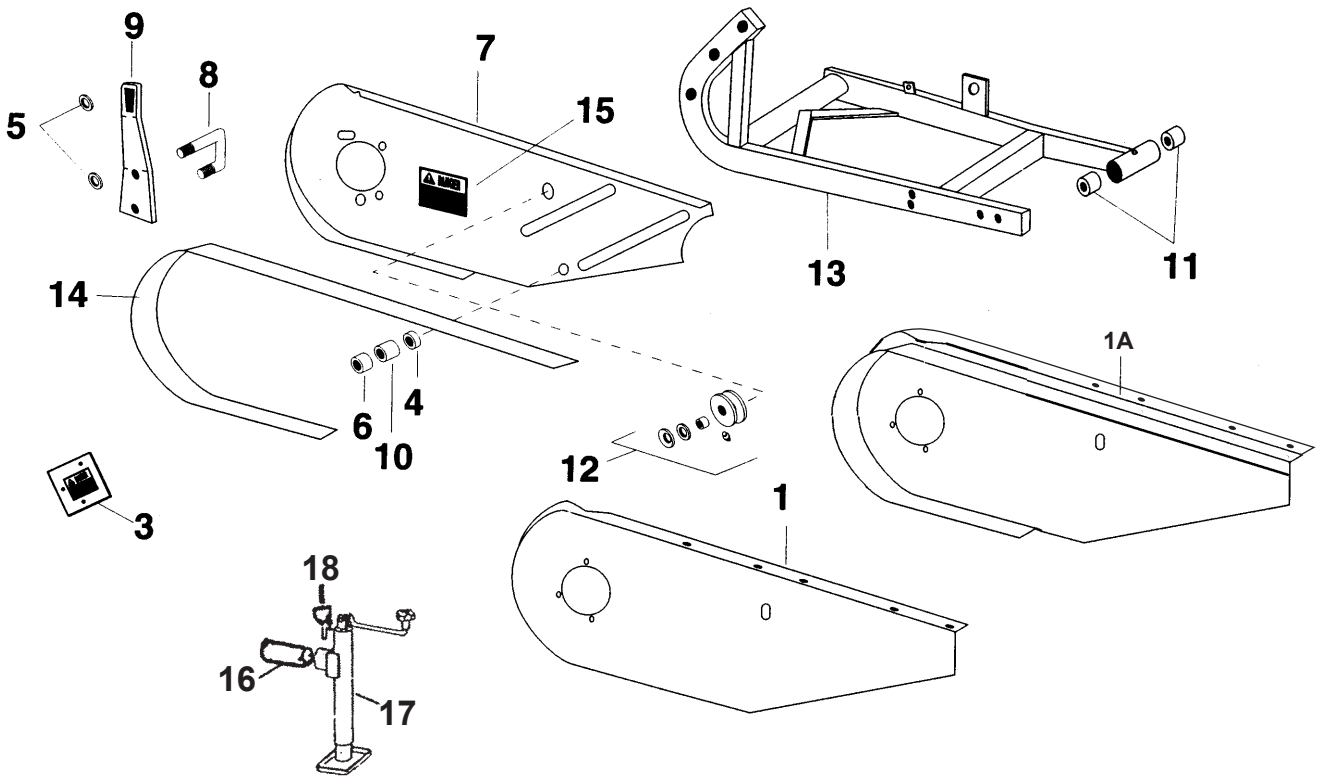


Ref.	Part No.	Description	Qty.
1	670282	ROD, bellcrank lift.(458 912 R2)	1
2	670235	BUSHING, bellcrank, bronze.(454 154 R1)	2
3	RM-2130	WASHER, .452 x 2" x .2190	1
4	670518	BELLCRANK, with bushings.(465 245 R11)	1
	RM-2112	Pin, 3/4" x 2-3/4", STD-HD	1
	25R150PCO0Z	Cotter Key, 1/4" x 1-1/2" (20 340 R1)	1
5	670280	SHAFT, bellcrank.(458 911 R1)	1
	31R225PSP0/HBK	Pin, 5/16" x 2-1/4" spiral roll	1
6	37C100HCS5Z	BOLT, 3/8" x 1" HHC	1
7	670790	SPRING, cutter bar balancing, 49-1/2 coils.(59 323 C1)	1
8	RM-2225	LAP LINK, 3/8"	2
9	670792	BOLT, 5/8" x 7", Eye (59 324 C1)	1
10	670285	PIVOT, gag rod.(458 914 R1)	1
11	670284	LEVER, gag and lift.(458 913 R1)	1
	RM-2112	Pin, 3/4" x 2-3/4" STD-HD.(21 947 R1)	2
	25R150PCO0Z	Cotter Key, 1/4" x 1-1/2" (20 340 R1)	2
12	101-100	ZERK, 1/8" PTF Straight Lub	1
13	62NUSS0Z	WASHER, 5/8", Flat	1
14	62CNNE0Z/NE	NUT, 5/8"-11 Hex Lock	1

PARTS LIST

Both Types

Front & Rear Cutter Bar Support Hinge Coupling, Idler Pulley, & Shields



Ref.	Part No.	Description	Qty.
1	670685	SHIELD, rear, incl. decal (489 491 R1) (old style)	1
1A	670685-H	Shield and Rim, heavy	1
	25C50BCG2Z	Bolt, 1/4"-20 x 1/2" CRG	8
	25CNFH0Z	Nut, 1/4"-20 Hex	8
	25NLOC0Z	Washer, 1/4" med Lock	8
3	R-606	SHIELD COVER	1
	25C37HCS5Z	Bolt, 1/4" -20 x 3/8" H HC	3
	25NLOC0Z	Washer, 1/4" med Lock	3
	RM-2280	Safety Decal, "Warning, Keep All Shields …"	1
4	670788	SPACER, drive shield (586 329 R1)	1
5	670680	DAMPENER, rubber washer (489 486 R1)	2
6	670698	ROLLER, drive belt (489 497 R1)	1
	50NSAE0Z	Washer, 1/2" S.A.E., Flat	2
7	670682	SHIELD, front, includes decal (489 487 R1) (old style)	1
7A	670682-H	Shield, heavy	1
	37C125BCG5Z	Bolt, 3/8" x 1-1/4" CRG (18 684 R1)	2

Quantities are per each mower unit.

PARTS LIST

Both Types

Front & Rear Cutter Bar Support Hinge Coupling, Idler Pulley, & Shields *(continued)*

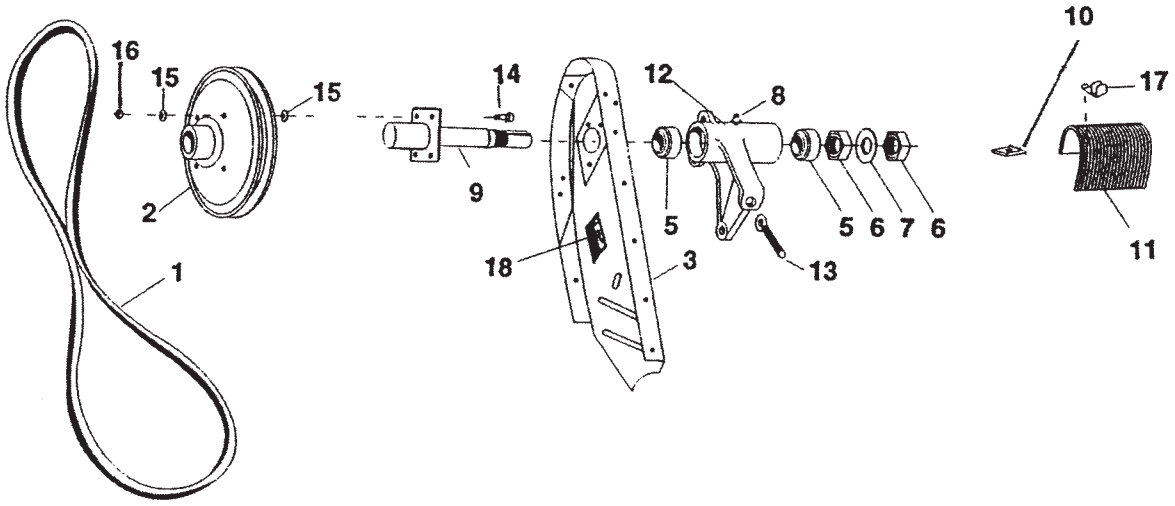
Ref.	Part No.	Description	Qty.
	37NUSS0Z	Washer, 3/8" Flat	2
	37CNFH0Z	Nut, 3/8"	2
	37NLOC0Z	Washer, 3/8" Lock	2
	25C50HCS5Z	Bolt, 1/4"-20 x 1/2" HHC	8
	25CNFH0Z	Nut, 1/4"-20 Hex	8
	25NLOC0Z	Washer, 1/4" med Lock	8
8	670695	BOLT, idler support U (489 496 R-1)	1
	50N200WFE0Z	Washer, 1/2" x 2" fender	3
	50NUSS0Z	Washer, 1/2" Flat	1
	50CNNE0Z/NE	Nut, 1/2"-13 Hex Lock (474 848 R1)	2
	50CNFJ0Z	Nut, 1/2"-13 Hex Jam	1
9	R-52	SUPPORT, idler bracket (489 501 R2)	1
	50C350HCS5Z	Bolt, 1/2" x 3-1/2" HHC	1
	50CNNE0Z/NE	Nut, 1/2"-13 Hex Lock	1
10	670700	BEARING, roller bushing (489 500 R1)	1
11	670658	BUSHING, hinge pin (487 050 R11)	2
12	670475	IDLER, drive belt, complete assembly (464 893 R91)	1
	50NSAE0Z	Washer, 1/2" S.A.E .	2
13	670665	SUPPORT, with bushing, hinge coupling (487 055 R11 NH)	1
	670668	SUPPORT, with bushing, hinge coupling (487 055 R11 IH)	1
	107-100	Zerk, 1/4" NFT, Str Lub	1
	31R225PCO0Z	Cotter Key, 5/16" x 2-1/4" Q.A. (520 175 R1)	1
	56C300HCS5Z	Bolt, 9/16" x 3" HHC	1
	56C250HCS5Z	Bolt, 9/16" x 2-1/2" HHC	1
	56NSAE0Z	Washer, 9/16" S.A.E. Flat	1
	56CNNE0Z/NE	Nut, 9/16" Hex, Nylon Insert (474 848 R1)	2
14	670798	SHIELD, rim (60 776 C92) (old style)	1
15	RM-2279	SAFETY DECAL, "DANGER Shield Missing, DO NOT OPERATE"	1
16	ST-4316	SUPPORT, jack, Trailing Models Only	1
17	SWS158DTSF	JACK, Trailing Models Only	1
18	018403	PIN, Jack	1

Quantities are per each mower unit.

PARTS LIST

Both Types

Drive Shaft Housing, Pulley, V-Belt and Shield Parts



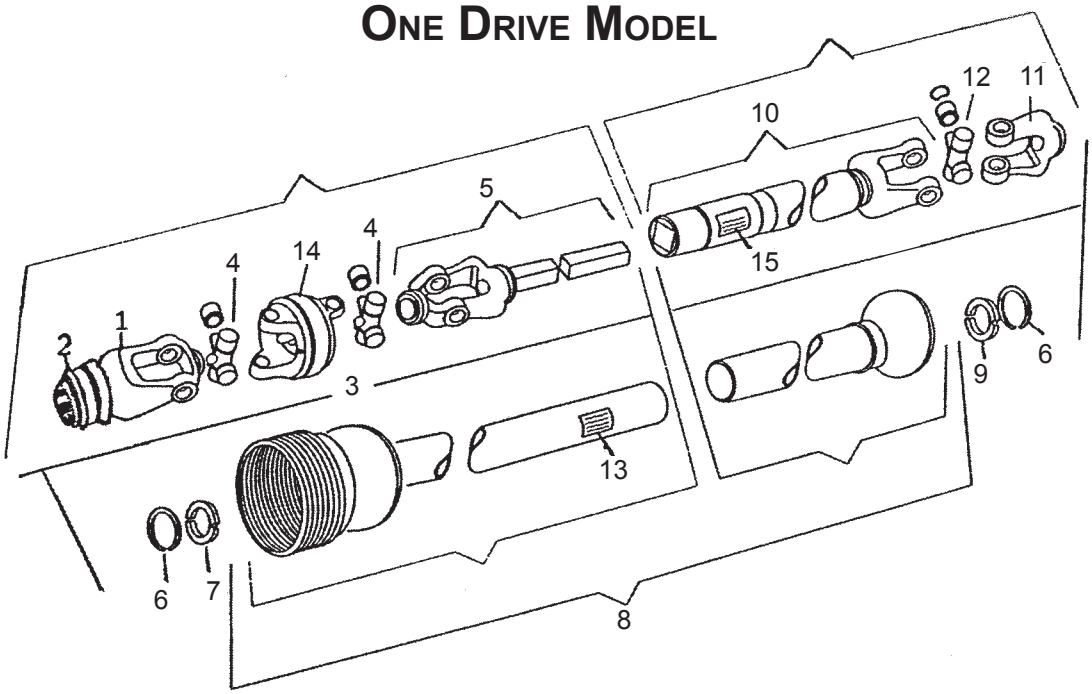
Ref.	Part No.	Description	Qty.
1	255814199	V-BELT, knife drive (NH only)	1
1	670768	V-BELT, knife drive (IH only) (558141 R1)	1
2	RM-2204	PULLEY, drive-4 bolt, (NH only)	1
2	RM-2201	PULLEy, drive-4 bolt, (IH only)	1
3	670682H	SHIELD	1
5	LM67000LA&67010	BEARING, drive shaft ball w/seal (602957 R91)	1
6	670142	NUT, 1¼" 12 worm (1.28 x 2.5 x 16 ga.) (133613 H)	2
7	670592	WASHER, 1.3 x 1.28 x 2.5 x 16 ga. (471946 R1)	1
8	101-100	ZERK, 1/8-27 PTF vented Straight Lub (13019 R1)	1
9	RM-2219	SHAFT, drive	1
	31R225PSP0/HBK	PIN, 5/16" x 2¼", spiral roll	1
10	670690	DAMPENER, shield (489494 R1)	1
11	RM-2222-1	SHIELD	1
	37C100HCS5Z	BOLT, 3/8" x 1" (18494 R1)	1
	37NLOC0Z	WASHER, 3/8" Lock (120382)	1
12	670362	HOUSING, drive shaft (462836 R3)	1
	37C125HCS5Z	BOLT, 3/8" x 1¼"	1
	37NLOC0Z	WASHER, 3/8" Lock	1
13	670120	EYEBOLT, belt adjusting (10400 F)	1
	50CNFH0Z	NUT, 1/2"	2
14	50F150HCS5Z	1/2" x 1½" bolt, N.F.	4
15	501251200	WASHER, .50 x 1.25 x .120 spacer	8
16	50CNNE0Z/NE	NUT, 1/2" Lock	4
17	RM-2398	TRANSPORT ROD HOLDER	1
18	RM-2279	SAFETY DECAL, "DANGER, Shield Missing, DO NOT OPERATE"	1

PARTS LIST

Both Types

Power Take Off Assembly
Model #270 (7 Ft) & #290 (9 Ft)
Constant Velocity Drive

One Drive Model



Ref.	Part No.	Description	Qty.
1	14161-1084	SPRING LOCK YOKE ASSEMBLY (include 2)	1
2	26-10070	SPRING LOCK REPAIR KIT	1
3	93-16268	JOINT & SHAFT HALF ASSEMBLY W/ C.V. & SHIELD	1
4	03-11561	CROSS & BEARING KIT (CV2-3K1)	2
5	99-16268	YOKE & SHAFT	1
6	24-10018	BEARING RETAINER	2
7	04-10085	NYLON BEARING	1
8	90-16268	COMPLETE SHIELD (#19 inner, #18 outer & bell extension)	1
9	04-10069	NYLON BEARING	1
10	98-16268	YOKE, TUBE & SLIP SLEEVE	1
11	12021-1186	YOKE 1.125 6B SPLINE	1
12	03-10077	CROSS & BEARING KIT 12R	1
13	13-10022	*SAFETY DECAL (on shield)	1
14	26-10190	C.V. CENTER HOUSING ASSEMBLY	1
15	13-10021	*SAFETY DECAL (on tube)	1

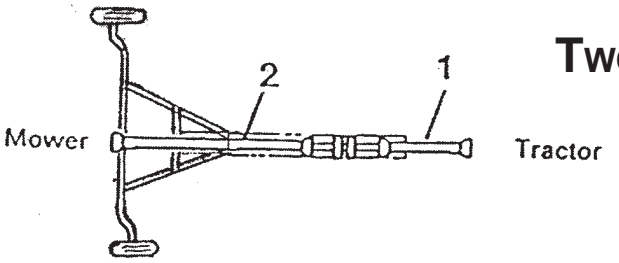
+Shield halves cannot be ordered separately but must be ordered as a complete unit

* Special Order Item

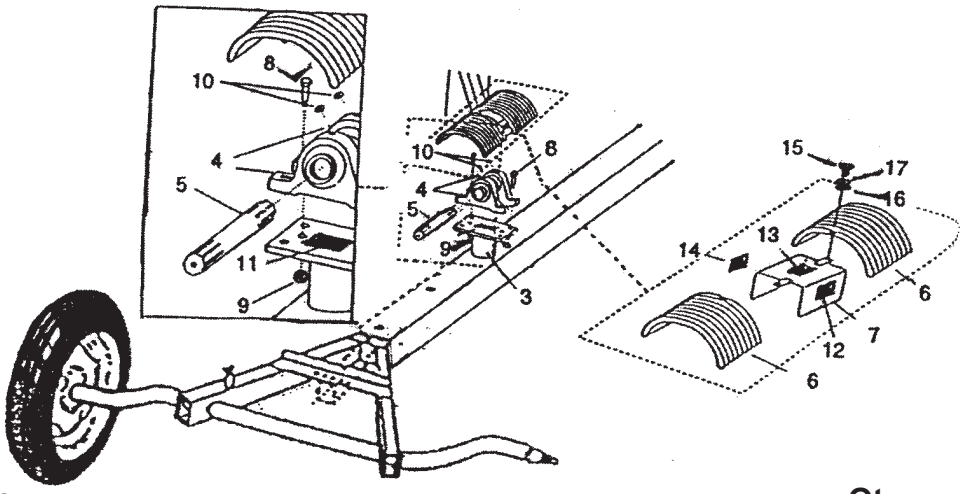
PARTS LIST

Both Types

Power Take Off Assembly
Model #270 (7 Ft) & #290 (9 Ft)



Two Drive Model

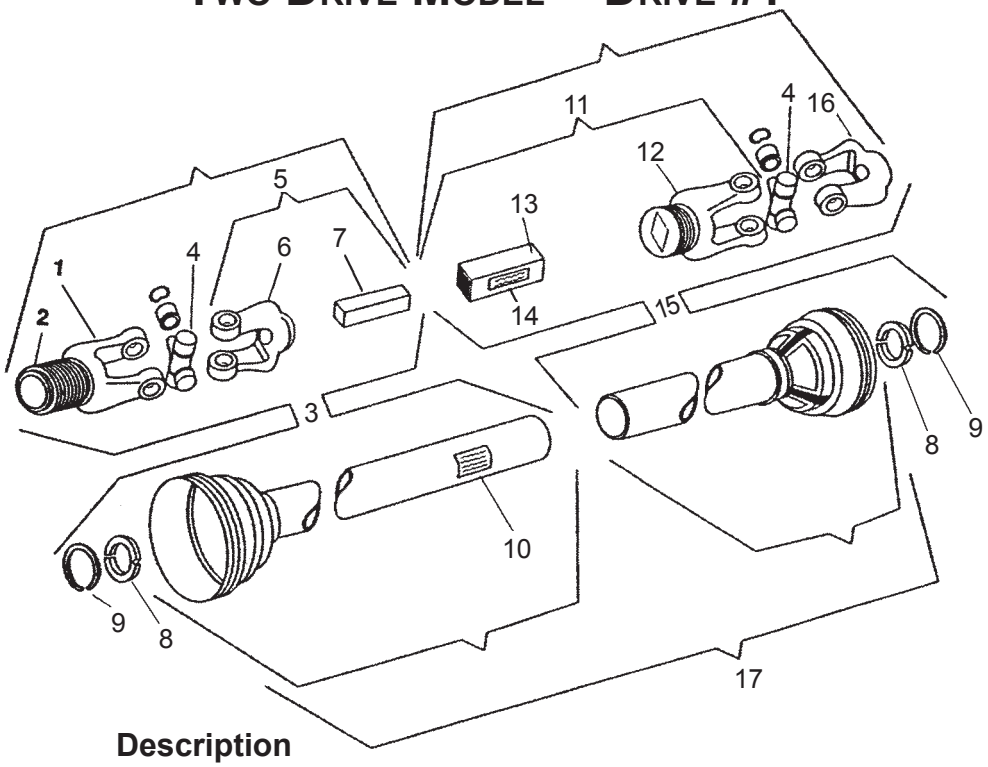


Ref.	Part No.	Description	Qty.
	222-1603839	COMPLETE TWO DRIVE SET UP	
1	222-16038	COMPLETE DRIVE W/ SHIELD #1 12R 29"	1
	31R225PSP0/HBK	PIN, 5/16" X 1-1/5" spiral roll	1
2	222-16039	COMPLETE DRIVE W/ SHIELD #2 12R 37.5"	1
	31R225PSP0/HBK	PIN, 5/16" X 1-1/5" spiral roll	2
3	23810312	SUPPORT (stand), PTO Drive Lines (two drive model only)	1
	50C150HC55Z	BOLT, 1/2" x 1-1/2"	10
	50CNNE0Z/NE	NUT, 1/2" Lock	10
4	RM-2326	PILLOW BLOCK ASSEMBLY	2
	RM-2329	PILLOW BLOCK HOUSING	2
	G1106KRRB/COL	PILLOW BLOCK BEARING, only	2
	S 1106 K	COLLAR, pillow block, eccentric lock	2
5	RM-2332	SHAFT, splined	1
6	RM-2222-1	SHIELD, pillow block	2
	37C125HCS5Z	BOLT, 3/8" x 1¼"	2
	37NUSS0Z	WASHER, 3/8" flat	2
	37NLOC0Z	WASHER, 3/8" lock	2
7	RM-2223	BRACKET, pillow block shield	1
8	50C200HCS5Z	BOLT, 1/2" x 2"	6
9	50CNNE0Z/NE	NUT, 1/2" lock	6
10	107-100	ZERK, 1/4" NPT straight lub.	2
11	RM-2279	SAFETY DECAL, "DANGER", shield missing, Do not operate	1
12	RM-2280	SAFETY DECAL, "WARNING", keep all shields in place	1
13	RM-2297	DECAL, OPERATIONAL "IMPORTANT" operate PTO below 540rpm	1
14	RM-2291	SAFETY DECAL, "CAUTION", read owners manual	1
15	37C125HCS5Z	BOLT, 3/8" x 1¼"	2
16	37NUSS0Z	WASHER, 3/8" flat	2
17	37NLOC0Z	WASHER, 3/8" lock	2

PARTS LIST

Both Types

Power Take Off Parts for Drive #1
Mower Models PTO-ST7-NH, PTO-ST9-NH, PTO-ST7-IH & PTO-ST9-IH
Two Drive Model -- Drive #1



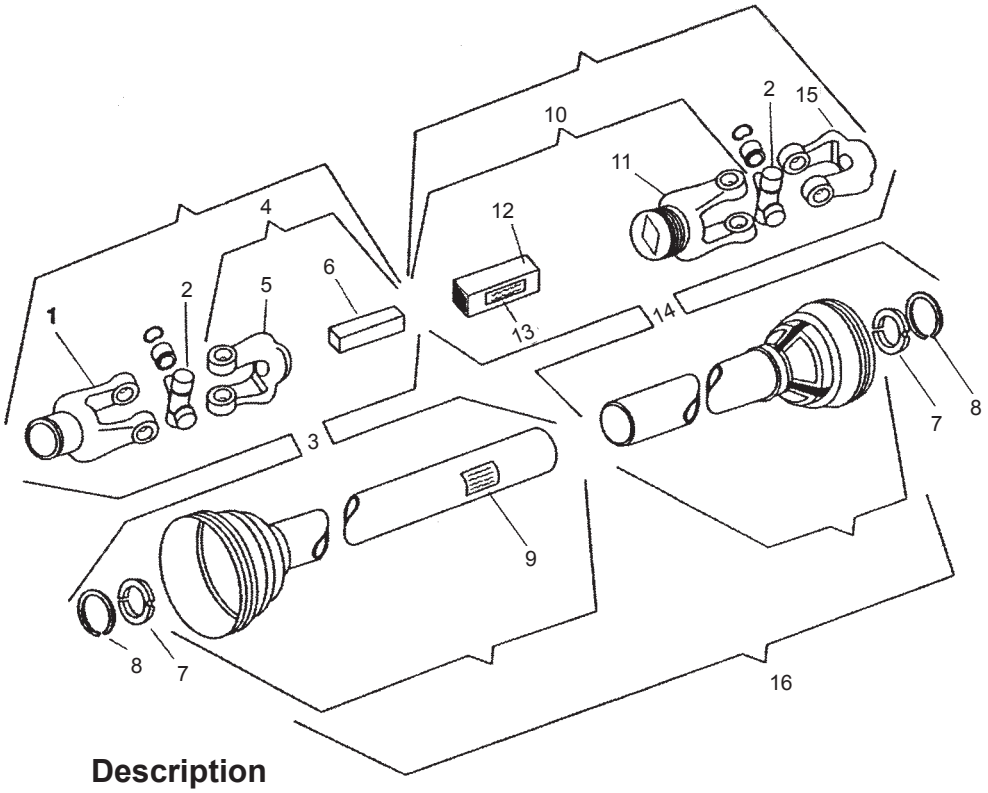
Ref.	Part No.	Description	Qty.
	222-16038	DRIVE W/ SHIELD, COMPLETE 12R, 29"	
1	12061-1000	SPRING LOK YOKE ASSEMBLY, 12R snap hitch	1
2	26-10070	SPRING LOK REPAIR KIT	1
3	93-16038	JOINT & SHAFT HALF ASSEMBLY W/ SHIELD	1
4	03-10077	REPAIR KIT, 12R	2
	5300	ZERK, 1/8" PTF, 65 degree	2
5	99-16038	YOKE & SHAFT	1
6	300-1200	YOKE, Shaft	1
7	09-E0183	SHAFT, 17.5"	1
8	920-1200	BEARING, Nylon	2
9	24-10018	BEARING RETAINER	2
10	13-10021	*SAFETY SIGN (on shield)	1
11	98-16038	YOKE & TUBE, includes 16	1
12	700-1200	YOKE, Tube	1
13	07-E0165X	TUBE, 16.5"	1
14	13-10022	*SAFETY SIGN (on tube)	1
15	92-16038	JOINT & TUBE HALF ASSEMBLY W/ SHIELD	1
16	12021-1187	YOKE, End 1.375-6B Spline 5/16" P.H.	1
17	90-16038	SHIELD ASSEMBLY, COMPLETE	1

+Shield halves cannot be ordered separately but must be ordered as a complete unit
* Special Order Item

PARTS LIST

Both Types

Power Take Off Parts for Drive #2
Mower Models PTO-ST7-NH, PTO-ST9-NH, PTO-ST7-IH & PTO-ST9-IH
Two Drive Model -- Drive #2



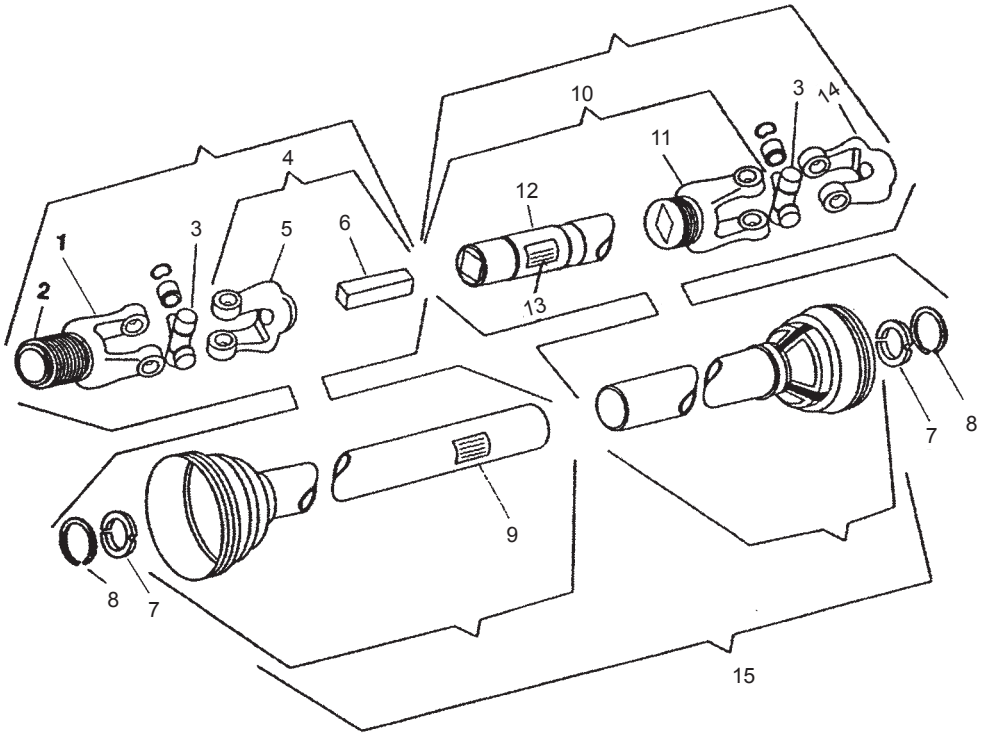
Ref.	Part No.	Description	Qty.
	222-16039	DRIVE W/ SHIELD, COMPLETE 12R, 37½"	
1	12021-1187	YOKE, End 1.375 - 6B Spline w/5/16" P.H.	1
2	03-10077	REPAIR KIT, 12R	2
	5300	ZERK, 1/8" PTF 65 Degree	2
3	93-16039	JOINT & SHAFT HALF ASSEMBLY W/ SHIELD	1
4	99-16039	YOKE & SHAFT	1
5	300-1200	YOKE, Shaft	1
6	09-E0263	SHAFT, 26"	1
7	920-1200	BEARING, Nylon	2
8	24-10018	BEARING RETAINER, Nylon	2
9	13-10021	*SAFETY SIGN (on shield)	1
10	98-16039	YOKE & TUBE, includes 15	1
11	700-1200	YOKE, Tube	1
12	07-E0276X	TUBE, 25½"	1
13	13-10022	*SAFETY SIGN (on tube)	1
14	92-16039	JOINT & TUBE HALF ASSEMBLY W/ SHIELD	1
15	12021-1186	YOKE, End 1.125 - 6B Spline with 5/16" P.H.	1
16	90-16039	SHIELD ASSEMBLY, COMPLETE	1

+Shield halves cannot be ordered separately but must be ordered as a complete unit
* Special Order Item

PARTS LIST

Both Types

Power Take Off Assembly
Three-Point Mounted Mower Models



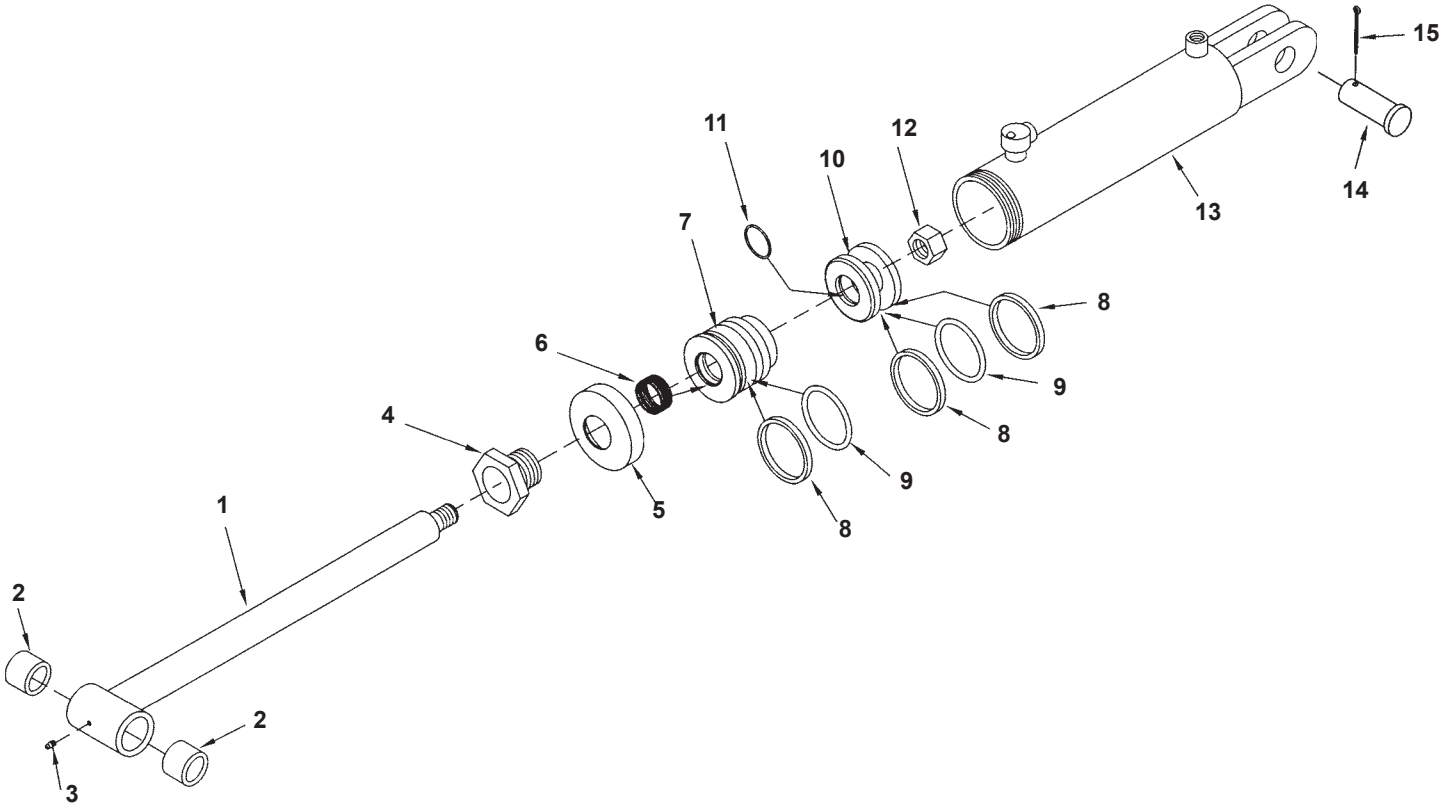
Ref.	Part No.	Description	Qty.
	412-16041-00	COMPLETE DRIVE W/ SHIELD, 33", 6R	
1	06241-1044	SPRING LOK YOKE ASSEMBLY	1
2	26-10070	SPRING LOK REPAIR KIT	1
3	03-10002	REPAIR KIT, 6R	2
4	99-16040	YOKE & SHAFT	1
5	300-0600	YOKE, SHAFT	1
6	09-C0225	SHAFT, 22.5"	1
7	920-0600	NYLON BEARING	2
8	24-10018	BEARING RETAINER	2
9	13-10021	*SAFETY DECAL (on shield)	1
10	98-16040	YOKE & TUBE, includes #16	1
11	700-0600	YOKE, TUBE	1
12	07-CF215X	TUBE	1
13	13-10022	*SAFETY DECAL (on tube)	1
14	06061-3102	END YOKE 1.125-6B Spline	1
15	90-16041	COMPLETE SHIELD ASSEMBLY (#12 & 17)	1

+Shield halves cannot be ordered separately but must be ordered as a complete unit
* Special Order Item

PARTS LIST

Both Types

3" Hydraulic Cylinder



Ref.	Part No.	Description	Qty.
1	HD3S	Shaft, with Pen Eye	1
2	PSW-1001-64	Bushing, Bronze, 1" x 1 1/4" x 1"	2
3	107-100	Zerk, 1/4"-28 Straight Lub	2
4	HD3Z	Packing Nut	1
5	HD3K	Collar	1
6	HD3G	Packing	1
7	HD3H	Head, Cylinder	1
8	HD3L	Washer, Backup	3
9	HD3O	O-Ring	2
10	HD3P	Piston, Cylinder	1
11	HD3E	O-Ring	1
12	HD3N	Nut, Hex	1
13	HD3B	Barrel, Cylinder, with Clevis	1
14	WR1027	Pin, 1" x 2.3", Headed	1
15	18R200PCO0Z	Cotter Key, 3/16" x 2"	1

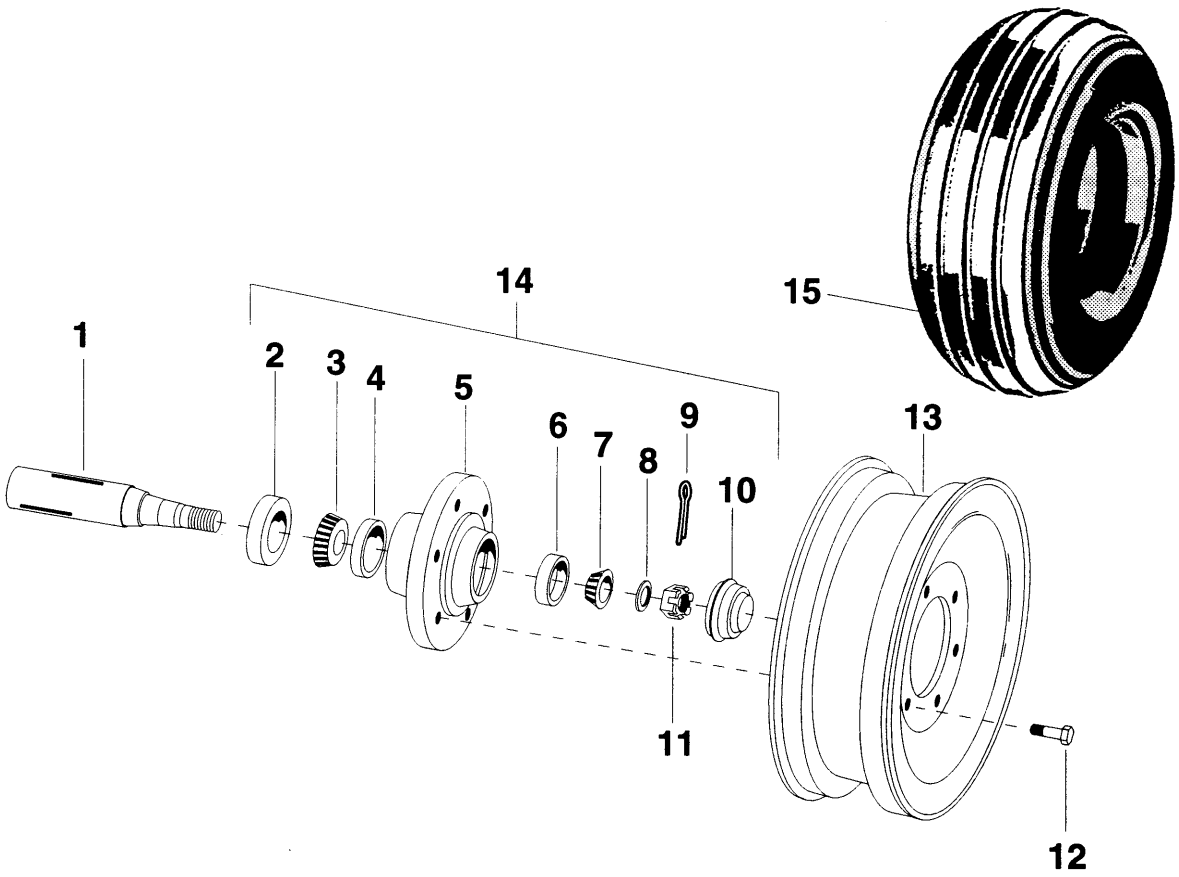
Assemblies

HD308	Hydraulic Cylinder Assembly, 3" Bore x 8" Stroke (Items 1 thru 13)	1
HD3RK-P	Cylinder Repair Kit, 3" with Packing (Items 6, 8, 9, 11)	1
	NOTE: These items are available only in this kit. They are not available individually.	
HD3RK	Cylinder Repair Kit, 3" without Packing(Items 8, 9, 11)	1
	NOTE: These items are available only in this kit. They are not available individually.	

PARTS LIST

Both Types

MOWER - 6-BOLT "888 HUB" WHEEL ASSEMBLY

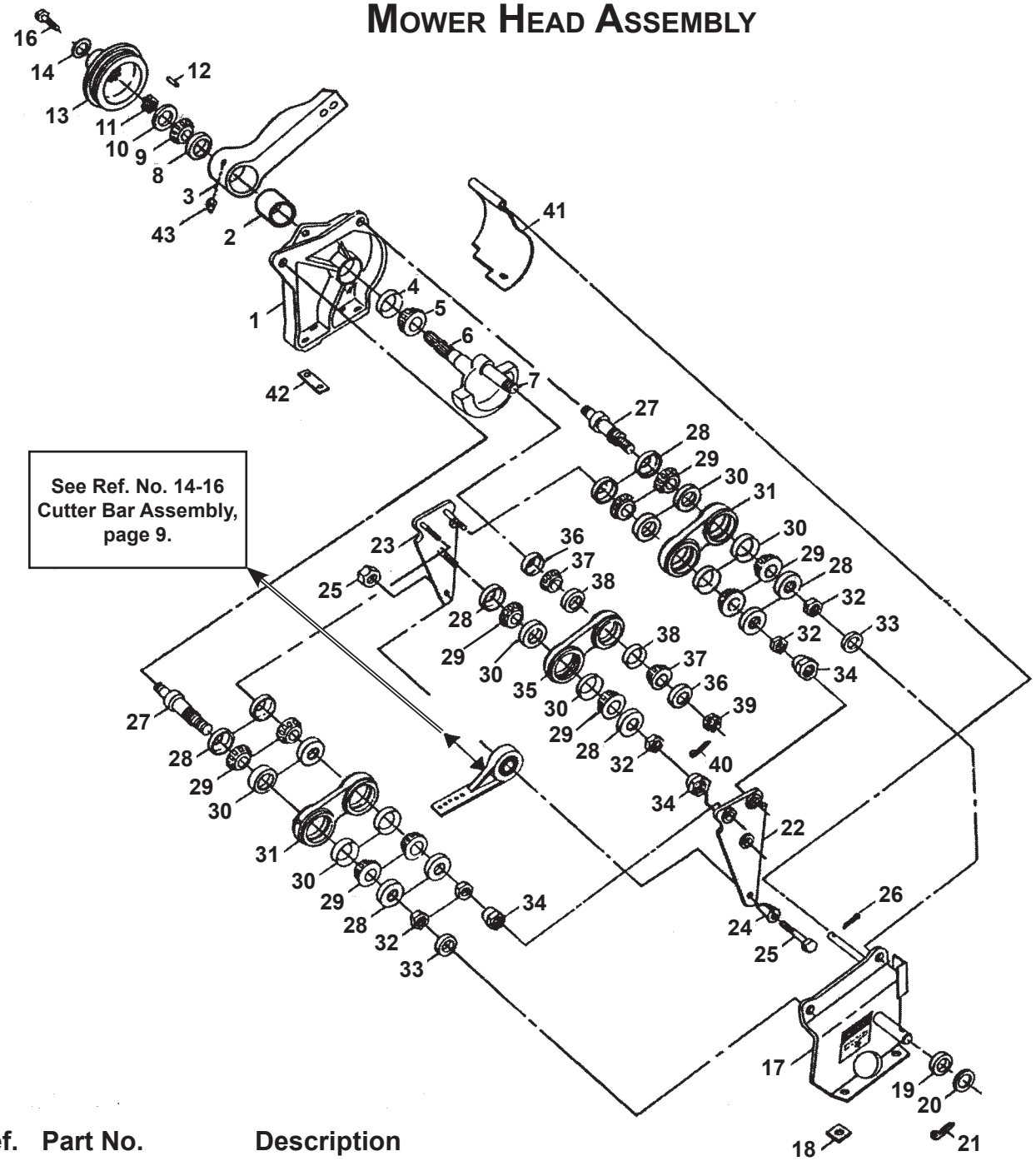


Ref.	Part No.	Description	Qty.
1	2807220L7.0	SPINDLE ASSEMBLY, 7", includes Ref. 8, 9, & 11	1
2	CR16289	SEAL	1
3	JL69349	CONE, bearing (inner) .	1
4	JL69310	CUP, bearing (inner)	1
5	W 888	HUB, only	1
6	LM67010	CUP, bearing (outer)	1
7	LM67048	CONE, bearing (outer)	1
8	9136831	WASHER	1
9	15R125PCO0Z	COTTER KEY, 5/32" x 1-1/4" (905939)	1
10	909905	CAP, hub	1
11	9129521	NUT, slotted	1
12	0613945	LUG BOLT, Wheel	6
13	0411141	WHEEL, 15" x 6" x 6"	1
14	207167	HUB ASSEMBLY (Ref. 2, 3, 4, 5, 6, 7, 10, & 12)	1
15	845502225	TIRE, 2.25/7.5/R15 6-ply	2

PARTS LIST

NH Types

MOWER HEAD ASSEMBLY



Ref.	Part No.	Description	Qty.
	671213	MOWER HEAD ASSEMBLY COMPLETE (includes all items listed below)	1
1	671215	SUPPORT HOUSING ASSEMBLY (includes Ref. 4 & 8).(784665)	1
2	671190	BUSHING, bronze.(63904)	1
3	671450	HINGE, rear, w/bronze bushing.(467 216 R1)	1
4	LM48510	CUP, tapered roller bearing (48976)	1
5	LM48500LA	CONE, tapered roller bearing (58202)	1
6	671302	CRANKSHAFT ASSEMBLY (includes Ref. 7).(172396)	1
7	671305	CRANK PIN (172397) (includes Ref. 39A nut, lock)	1
8	LM67010	CUP, tapered roller bearing (36723)	1
9	LM67048	CONE, tapered roller bearing (36726)	1

PARTS LIST

NH Types

Mower Head Assembly *(continued)*

Ref.	Part No.	Description	Qty.
10	671325	SEAL, oil.(181991)	1
11	671220	NUT, HEX, slotted special.(67437)	1
12	12R200PSP0/HBK	PIN, 1/8" x 2" spiral roll (280462)	1
13	671235	SHEAVE ASSEMBLY (130585)	1
14	671425	WASHER, special (618086)	1
16	50F150HCS5Z	BOLT, 1/2"-20 x 1-1/2" HHC NF (88338)	1
17	671185	SUPPORT PLATE WELD ASSEMBLY, front (784667 or 63881)	1
	50C150BCG5Z	BOLT, 1/2" x 1-1/2", Carriage (280420 or 88783) .	2
	50NLOC0Z	WASHER, 1/2", Lock (80679)	2
	50CNFH0Z	NUT, 1/2", Hex (280431 or 84946)	2
18	671165	SHIM (63848)	As required
19	671335	WASHER, special (197025)	2
20	671205	WASHER, special, plated (64972)	1
21	25R200PCO0Z	COTTER KEY, 1/4" x 2" (88182)	1
22	671435	PLATE WELD ASSEMBLY, front (784858 or 617223)	1
23	671440	PLATE WELD ASSEMBLY, rear (784859 or 617218)	1
24	671420	WEDGE, drive lock (605205)	1
25	50F300HCS5Z	BOLT, 1/2" x 3", KNIFE HEAD, NF, HHC (88849)	1
	671125	NUT, 1/2", special, NF, Hex (29790)	1
26	12R75PCO0Z	COTTER KEY, 1/8" x 3/4" (80756)	1
	62FNFH0Z	NUT, 5/8" NF, Hex (87262)	4
	62NLOC0Z	WASHER, 5/8", Lock (84057)	4
27	671295	PIN, weld assembly (172391)	2
	62FNFH0Z	NUT, 5/8" NF, Hex (87262)	4
	62NLOC0Z	WASHER, 5/8", Lock	4
28	671315	* SHIELD (172433)	10
29	LM11949	* CONE, tapered roller bearing (36724)	10
30	LM11910	* CUP, tapered roller bearing (36725)	10
31	671300	PIVOT LINK (172395)	2
	111-100	ZERK, 1/4" 90-Degree, NFT (87415 or 80718)	4
32	75FNFJ0Z	NUT, 3/4", NF, Hex Jam (87313)	5
33	671316	BUSHING (172434)	2
34	671245	NUT, special, Hex (143517)	3
35	671290	CONNECTING ROD (172390)	1
	109-100	ZERK, 1/4" 45-Degree, NFT (80721)	1
36	671310	* SHIELD (172427)	2
37	L44643	* CONE, tapered roller bearing (132710)	2
38	L44610	* CUP, tapered roller bearing (132709)	2
39	671415	* HEX NUT, slotted, special (603373 or 143183)	1
39A	671415L	NUT, Lock	1
40	18R150PCO0Z	COTTER KEY, 3/16" x 1-1/2" (80754 or 80737)	1
41	671280	SHIELD (172204)	1
	43NUSS0Z	WASHER, 7/16" (87363)	1
	25C50HCS5Z	BOLT, 1/4" x 1/2", HHC (88542 or 88503)	1
	25NLET0Z	WASHER, 1/4", external tooth, Lock (87552 or 280279)	1
42	671160	SHIM (63843)	As required
43	101-100	ZERK, 1/8" Str Lub (109-461 R1)	1
	671212	BEARING KIT includes all * items	1

Note: Part quantities are for one Mower Head ONLY.

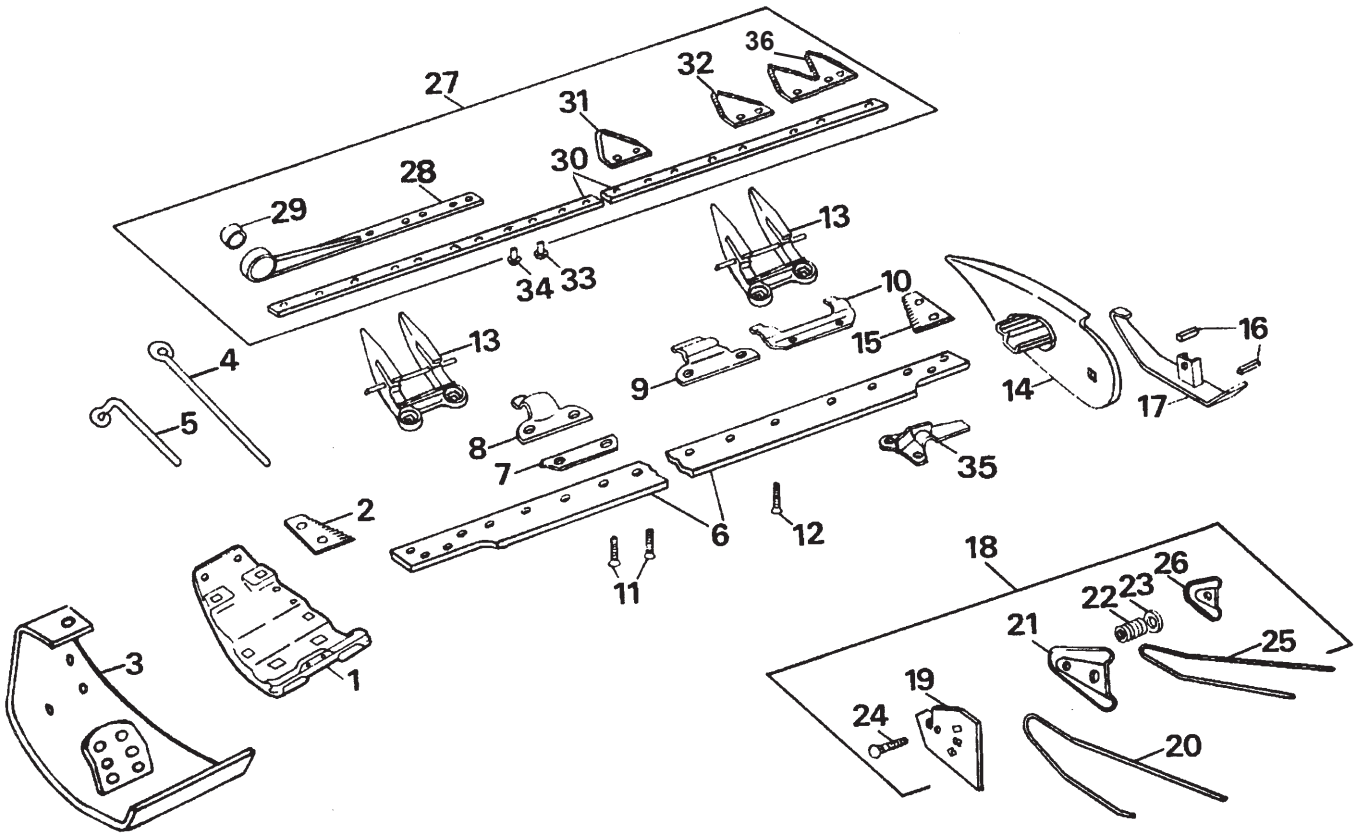
NUMBERS IN PARENTHESIS ARE NEW HOLLAND PARTS NUMBERS.

PARTS LIST

NH Types

Cutter Bar Assembly

For 7 Ft. or 9 Ft. Cutter Bar



PARTS LIST

NH Types

Cutter Bar Assembly (For 7 Ft. or 9 Ft. Cutter Bar) *(continued)*

Ref.	Part No.	Description	Qty. 7 Ft.	Qty. 9 Ft.
1	671395	INNER SHOE ASSEMBLY, (Includes Ref. 2).(244271)	1	1
	50C250HCS5Z	Bolt, 1/2" x 2-1/2", HHC (87972)	2	2
	50C275HCS5Z	Bolt, 1/2" x 2-3/4", HHC	2	2
	50C150BCG5Z	Bolt, 1/2" x 1-1/2", Carriage (280420 or 88783)	2	2
	671210	Washer, Special (65319 or 58102)	4	4
	50NLOC0Z	Washer, 1/2", Lock (80679)	6	6
	50CNFH0Z	Nut, 1/2", Hex (280431 or 84946) .	6	6
2	671175	LEDGER PLATE, inner (63869)	1	1
	920-408	Bolt, w/nut, 7/32" x 1-1/4", bolt on ledger, (Optional)	2	2
3	671275	RUNNER WELD ASSEMBLY, Inner Shoe (166396) .	1	1
	50C100HCS5Z	Bolt, 1/2" x 1", HHC (87909) .	2	2
	37C125BCG5Z	Bolt, 3/8" x 1-1/4", Carriage (88681 or 87494)	2	2
	50NLOC0Z	Washer, 1/2", Lock (80679)	2	2
	37NLOC0Z	Washer, 3/8", Lock (80680)	2	2
	37CNFH0Z	Nut, 3/8", Hex (84944)	2	2
4	671180	GRASS ROD (63871)	1	1
	43C150BCG5Z	Bolt, 7/16" x 1-1/2", Carriage (88586 or 88192)	1	1
	43NUSS0Z	Washer, 7/16", Flat (81541)	1	1
	43NLOC0Z	Washer, 7/16", Lock (81547) .	1	1
	43CNFH0Z	Nut, 7/16", Hex (280717 or 84945)	1	1
5	671155	GRASS ROD (63753)	1	1
	43C150BCG5Z	Bolt, 7/16" x 1-1/2", Carriage (88586 or 88192)	1	1
	43NUSS0Z	Washer, 7/16", Flat (81541) .	1	1
	43NLOC0Z	Washer, 7/16", Lock (81547)	1	1
	43CNFH0Z	Nut, 7/16", Hex (280717 or 84945)	1	1
6	671410	CUTTER BAR, Actual Length 94-7/16" (258454), 7 FT. bare	1	
	671405	CUTTER BAR, Actual Length 112-7/16" (258452),9 FT. bare		1
7	670872	WEAR PLATE, (MC 468 or 26616)	9	11
8	671136	HOLD-DOWN, HIGH KNIFE (850154)	1	1
9	671320	HOLD-DOWN, LOW KNIFE (172440) (riveted section only) non-adjustable	7	9
	671322	HOLD-DOWN, LOW KNIFE, bolt on section, adjustable	7	9
	515-066	HOLD-DOWN, LOW KNIFE, bolted & riveted	7	9
10	671250	HOLD-DOWN, OUTER KNIFE double (143599) (riveted section only)	1	1
	671341	HOLD-DOWN, OUTER KNIFE double (bolt or riveted) (850137)	1	1
11	43C175BPL5Z/N3H	BOLT, 7/16" x 1-3/4", Plow (87227)	18	22
	43CNFH0Z	Nut, 7/16" Hex (280717)	18	22
12	43C150BPL5Z/N3H	BOLT, 7/16" x 1-1/2", Plow (87226)	10	12
	43CNFH0Z	Nut, 7/16", Hex (280717)	10	12
13	671340	GUARD ASSEMBLY, DOUBLE (219190)	14	17
13A	671218	GUARD ASSEMBLY, DOUBLE (optional) (replaces 671340)	14	17
14	671400	OUTER SHOE ASSEMBLY (Includes Ref. 15) (244273)	1	1
	43C150BPL5Z/N3H	Bolt, 7/16" x 1-1/2", Plow (87226)	2	2
	43NLOC0Z	Washer, 7/16", Lock (81547)	2	2
	43CNFH0Z	Nut, 7/16", Hex (280717)	2	2
15	671145	LEDGER PLATE, outer (39665)	1	1
	920-408	Bolt w/nut, 7/32" x 1-1/4" (bolt-on ledger) (optional)	2	2

PARTS LIST

NH Types

Cutter Bar Assembly (For 7 Ft. or 9 Ft. Cutter Bar) *(continued)*

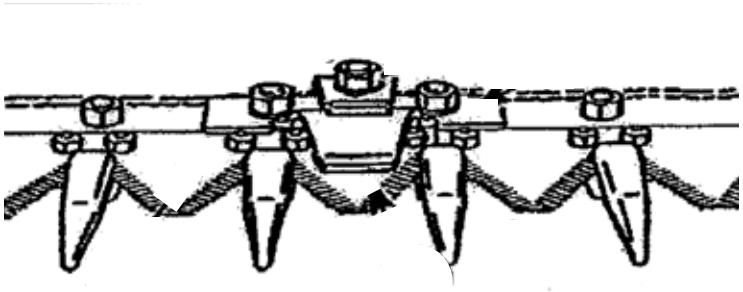
Ref.	Part No.	Description	Qty. 7 Ft.	Qty. 9 Ft.
16	671330	SHIM (189475)	As Required	
17	671285	OUTER SHOE SOLE ASSEMBLY (172208)	1	1
	50C200BCG5Z	Bolt, 1/2" x 2", Carriage (84250)	1	1
	50NLOC0Z	Washer, 1/2", Lock (80679)	1	1
	50CNFH0Z	Nut, 1/2", Hex (280431 or 84946)	1	1
18	671262	SWATHBOARD ASSEMBLY, (Includes Ref. 19 thru 26)	1	1
19	671170	SWATHBOARD PLATE (63867)	1	1
	43C125BCG5Z	Bolt, 7/16" x 1-1/4", Carriage (87013)	1	1
	43NLOC0Z	Washer, 7/16", Lock (81547)	1	1
	43CNFH0Z	Nut, 7/16", Hex (280717 or 84945)	1	1
20	671270	DIVIDER (143617)	1	1
21	671195	CLAMP, Divider (63905)	1	1
22	671140	SPRING (38391)	1	1
23	671110	WASHER, Special (26312)	1	1
24	671200	BOLT, Carriage, Drilled (63908)	1	1
	50CNST0	Nut, 1/2", Hex, Slotted (87240) .	1	1
	12R100PCO0Z	Cotter Key, 1/8" x 1" (80741) .	1	1
25	671265	DIVIDER (143616)	1	1
26	671260	CLAMP, Divider (143615)	1	1
	43C150BCG5Z	Bolt, 7/16" x 1-1/2", Carriage (88586 or 88192)	1	1
	43CNNE0Z/NE	Nut, 7/16", Hex Lock (280980 or 280377)	1	1
27	671365	KNIFE ASSEMBLY, Smooth, 7 Ft. (228433)	1	
	671364	KNIFE ASSEMBLY, Smooth, 7 Ft. bolt-on sections	1	
	671355	KNIFE ASSEMBLY, Smooth, 9 Ft. (228432)		1
	671354	KNIFE ASSEMBLY, Smooth, 9 Ft. bolt-on sections		1
	671385	KNIFE ASSEMBLY, Underserrated 7 Ft. (228435)	1	
	671384	KNIFE ASSEMBLY, Underserrated 7 Ft. bolt-on sections	1	
	671375	KNIFE ASSEMBLY, Underserrated 9 Ft. (228434)		1
	671374	KNIFE ASSEMBLY, Underserrated 9 Ft. bolt-on sections		1
28	671255	KNIFE HEAD ASSEMBLY, (Includes Ref. 29) (143603)	1	1
29	671230	BUSHING, rubber, knife head (127610) .	1	1
30	671350	KNIFE BACK (228431) 7 Ft.	1	
	671345	KNIFE BACK (228430) 9 Ft.		1
31	670852	KNIFE SECTION, Heavy Smooth (26622)	29	35
32	671130	KNIFE SECTION, Heavy Underserrated (29875)	29	35
33	5-1/2X9/16 OH	RIVET, BAR, Oval Head, #5-1/2 x 9/16" (46436)	51	63
	B55-0055	Bolt w/locknut, 7/32" x 5/8" (bolt-in section) (optional)	51	63
34	5-1/2X15/16 OH	RIVET, HEAD, Oval Head, #5-1/2 x 15/16" (65474)	9	9
	B55-0085	Bolt w/locknut, 7/32" x 1" (bolt-in section) (optional)	9	9
35	RM-2505	PLUG BUNDLE, (691163) (optional)	1	1
	43C200BPL5/N3H	Bolt w/nut, 7/16" x 2" Plow	2	2
36	612-080	Section, Double End	1	1

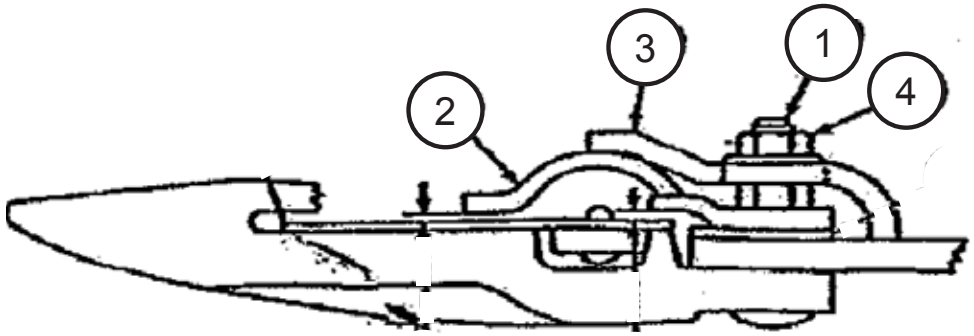
NOTE: Quantities listed are for one 7 ft. or 9 ft. Cutter Bar ONLY.
NUMBERS IN PARENTHESIS ARE NEW HOLLAND PARTS NUMBERS.

PARTS LIST

Both Types

Adjustable Hold Down Clips



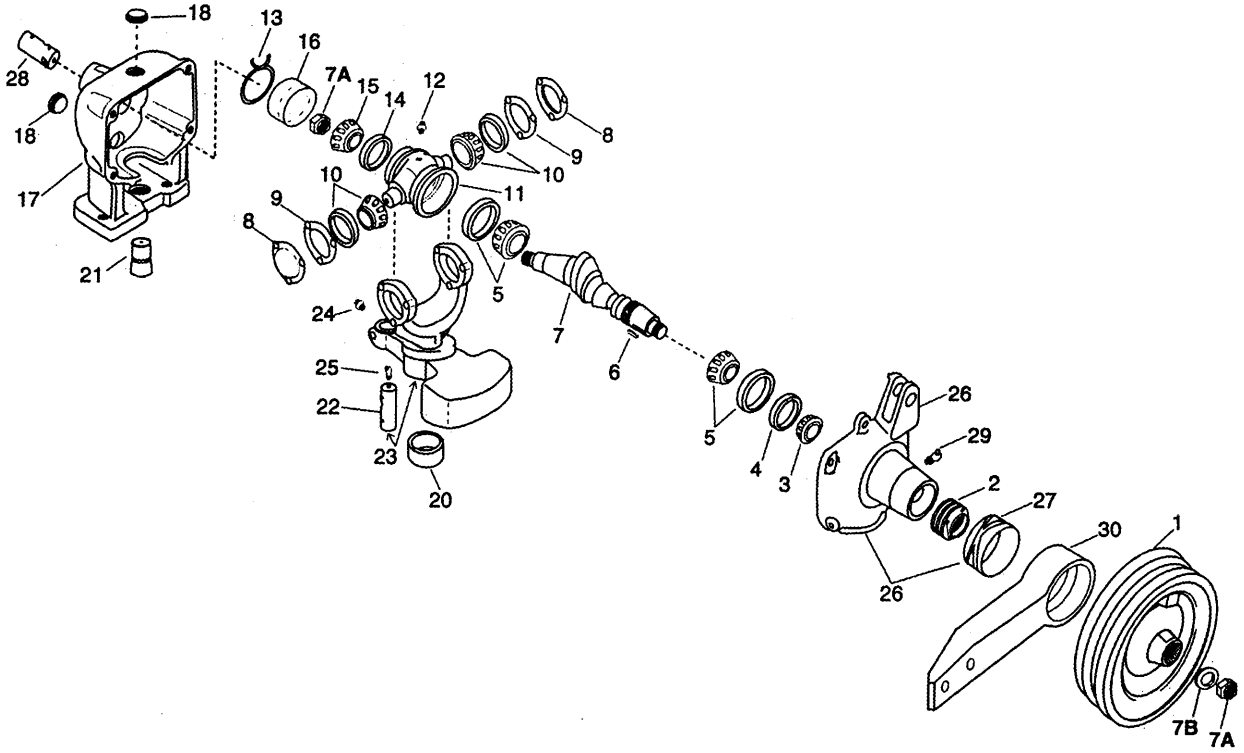


Ref.	Part No.	Description	Qty. 7 Ft.	Qty. 9 Ft.
	671337	ADJUSTABLE HOLD-DOWN KIT (86523028) (consists of the following):		
	86523032	Instructions	1	1
1	37C100BPL5Z	Bolt, 3/8" x 1-1/4" Sq-Nk Crg. (86517871)	10	10
2	671322	HOLD-DOWN, low (86504492)	10	10
2H	671136	HOLD-DOWN, high (850134), Non-Adjustable	1	1
3	671324	PRESSURE BAR, hold-down (9800028)	10	10
4	671336	NUT, 3/8" flange (593045)	10	10

PARTS LIST

IH Types

MOWER HEAD ASSEMBLY



Ref.	Part No.	Description	Qty.
	670612	HOUSING ASSEMBLY, BALANCED HEAD (1265780 C91) (Consists of all parts listed below except item 30)	
1	670618	PULLEY ASSEMBLY, flywheel (478787 R11) includes item 670625 washer pulley	1
	670625	Washer, pulley (478789 R1)	1
2	670622	NUT, Lock and Seal (478788 R1)	1
3	LM67048	CONE, housing bearing assembly (651818 R91)	1
4	LM67010	CUP, housing bearing (651817 R1)	1
5	LM29700LA&29710	CONE, CUP & SEAL, wobble shaft, bearing (478790 R91)	2
6	670888	KEY, 1/4" x 1", SQ parallel (Q 53)	1
7	670615	SHAFT- ASSEMBLY, wobble (478786 R11)	1
7A	670185	Nut, 3/4"-16 Special Hex NF (254771 R1)	2
7B	670158	Washer, 25/32" x 1-1/2" x 7 Ga. (21211 R1)	1
8	670306	CAP, yoke BRG (458958 R1)	2
	25C100HCS5Z	Bolt, 1/4" x 1" (26329 R1)	6
9	670302	SHIM, yoke bearing cap, .002 (458955 R1)	2
9	670304	SHIM, yoke bearing cap, .006 (458956 R1)	6 or as required
9	670305	SHIM, yoke bearing cap, .010 (458957 R1)	6 or as required
10	M12600LA&M12610	CONE, CUP & SEAL, balance yoke roller (458952 R91)	2
11	670298	HOUSING, balanced head BRG (458953 R3)	1
12	5099	ZERK, 1/8"-27, PTF STR Vented LUB (13019 R1)	1
13	670188	CLAMP, hose, bearing housing cap (317596 R1)	1

PARTS LIST

IH Types

Mower Head Assembly *(continued)*

Ref.	Part No.	Description	Qty.
14	M12610	CUP, balanced head housing bearing (371883 R1)	1
15	M12649	CONE, balanced head housing bearing (371882 R92)	1
16	670300	CAP, crankshaft BRG housing (458954 R1)	1
	670346	Sealer, Crankshaft BRG housing cap (461678 R1)	1
17	670650	HOUSING, wobble (487047 R1)	1
	50C125HCS5/NE	Bolt, w/nylon insert, 1/2" x 1-1/4" HHC (143865 C1)	4
	50C175HCS5/NE	Bolt, w/nylon insert, 1/2" x 1-3/4" HHC (143866 C1)	3
	56F250HCS5Z	Bolt, 9/16" x 2-1/2" HHC, front hinge pin (181461)	1
	670605	Nut, 9/16"-18 Hex, two way Lock (472215 R1)	1
18	670440	PLUG, button (464197 R1)	2
20	MRD-1205EAL	BEARING ASSEMBLY, balance yoke pivot stud .	1
	670795	Washer, felt (59357 DA), use with MRD-1205EAL bearing	1
	MR1205EL	Bearing assembly, balance yoke pivot stud	1
	RM-2400	Washer, felt, use with MR1205EL Bearing	1
	6205Z	Bearing assembly (467146R1)	1
	670360	Washer, Felt (462800R1), use with 6205Z bearing	1
21	670308	STUD, balance yoke pivot (1253780 C1)	1
	50C50KSCE	Set Screw, 1/2"-13 x 1/2" HEX-SOC-HD cup PT (102615)	1
22	670322	PIN, knife (458973 R4)	1
	50FNFH0Z	Nut, 1/2", Hex NF (103028)	1
	50NLET0Z	Washer, 1/2" EXT-Tooth lock (543115 R1)	2
23	670652	YOKE ASSEMBLY, balance (1253779 C1)	1
	50F250HCS8	Bolt, 1/2" x 2-1/2", NF GR8 (336132 R1)	1
	50FNFH0Z	Nut, 1/2" Hex NF (103028)	1
	50NLET0Z	Washer, 1/2" EXT-Tooth lock (543115 R1)	2
24	107-100	ZERK, 1/4"-28 NFT STR LUB (110146 R91)	1
25	5100	ZERK, 1/8"-27 PTF Short 30 degree angle LUB (109459)	1
26	670628	HOUSING ASSEMBLY, wobble shaft (478797 R91) (includes part #670560)	1
	670735	Pin, 3/4" x 2-5/16" (519416 R1)	1
	25R150PCO0Z	Cotter Key, 1/4" x 1-1/2" (20340 R1)	1
27	670560	BUSHING, rear shaft housing (467215 R1)	1
28	670660	SHAFT, front hinge (487051 R1)	1
	125N187AMB0/14GA	Washer, 1-1/4" x 1-7/8" x 14 Ga. (608700 R1)	1
	31R200PCO0Z	Cotter Key, 5/16" x 2" (22442 R1)	1
29	5100	ZERK, 1/8"-27 PTF Short 30-degree angle LUB (461252 R1)	1
30	670562	HINGE, rear (467216 R1)	1
	101-100	Zerk, 1/8"-27 PTF STR LUB (109461)	1
	50C250HCS5Z	Bolt, 1/2" x 2-1/2" HHC (179891)	2
	50CNFH0Z	Nut, 1/2" Hex (102637)	2
	50NLOC0Z	Washer, 1/2" Med Lock (103323)	2

NOTE: Quantities are for one assembly ONLY.
in parentheses are *IH, *Bower and *Timkin part

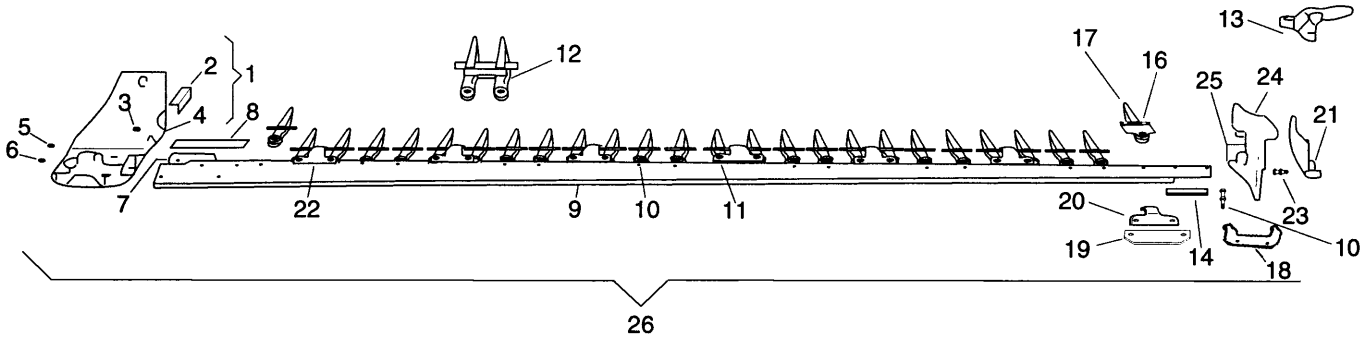
* Trade Mark

PARTS LIST

IH Types

CUTTER BAR ASSEMBLY

For 7 Ft. or 9 Ft. Cutter Bar



Ref.	Part No.	Description	Qty. 7 Ft.	Qty. 9 Ft.
1	670648	SHOE ASSEMBLY, inner (486 934 R91) (includes 670310 ledger plate, IH)	1	1
2	670645	SHIELD, inner shoe. (486 708 R1)	1	1
	43C125BCG5Z	Bolt, 7/16" x 1-1/4" CRG. (15016 R1)	1	1
	43NUSS0Z	Washer, 7/16" Flat	1	1
3	43CNNE0Z/NE	NUT, 7/16", Hex Lock (664 646 R1)	1	1
4	670310	LEDGER PLATE, inner shoe (458 965 R1)	1	1
	920-408	Bolt w/nut, 7/32" x 1-1/4", bolt in ledger plate (optional)	2	2
	62C200HCS5/NE	Bolt, bar, w/nylon insert, 5/8" x 2" (143868Cl)	1	1
	62C225HCS5/NE	Bolt, bar, w/nylon insert, 5/8" x 2-1/4" (27434R1)	2	2
5	670642	WASHER, 5/8" Flat (486 707 R1)	3	3
6	670290	SHIM, cutter bar (458 941 R1)	2 or as required	
7	670675	SHIM, spacer (488 411 R1)	3 or as required	
8	670292	SPACER, cutter bar 1/8" (458 942 R1)	1	
9	670325	CUTTER BAR, 7 ft. bare (458 974 R1)	1	
	670370	CUTTER BAR, 9 ft. bare (1 265 863 C1)		1
10	43C150BPL5Z/N3H	BOLT, w/nut, short guard, 7/16" x 1-1 /2" (M 805 X)	13	17
	43CNFH0Z	Nut, 7/16", Hex (271500)	13	17
11	43C175BPL5Z/N3H	BOLT, w/nut, long guard, 7/16" x 1-3/4" (Q 3596 X)	14	18
	43CNFH0Z	Nut, 7/16", Hex (271500)	14	18
12	670600	GUARD, double, IH Type Double Heat Treat (483 500 R3)	13-1/2	17-1/2
	670601	GUARD, double, IH Type Double Heat Treat w/ wear plate	13-1/2	17-1/2
	671340	GUARD, NH double (219190)	13-1/2	17-1/2
	671218	GUARD, NH type	13-1/2	17-1/2
13	RM-2506	PLUG BUNDLE (optional)	1	1
	43C200BPL5/N3H	Bolt, 7/16" x 2" Plow	2	2
	43CNFH0Z	Nut, 7/16", Hex (271500)	2	2
14	670740	SHIM (521036)	as required	

PARTS LIST

IH Types

Cutter Bar Assembly (For 7 Ft. or 9 Ft. Cutter Bar) *(continued)*

Ref.	Part No.	Description	Qty. 7 Ft.	Qty. 9 Ft.
16	670240	LEDGER PLATE, for malleable guards (455 634 R1)	27	35
	3/16X1 CS	Rivet, 3/16" x 1", Countersunk Hd, (472 040 R1)	27	35
	3/16X1 CS TUB	Rivet, 3/16" x 1", Countersunk Hd, tubular (472 040 R1)	27	35
17	670868	GUARD W/LEDGER PLATE, hvy/malleable (MC2041Z)	27	35
18	671250	HOLD-DOWN, OUTER KNIFE, double (143599) riveted only	1	1
	671341	HOLD-DOWN, double end, bolt or riveted (850137)	1	1
19	670872	WEAR PLATE, (MC 468)	7	9
20	671320	HOLD-DOWN, low knife, NH (172440) riveted only	6	8
	670862	HOLD-DOWN, low knife, mallable	6	8
	671322	HOLD-DOWN, low for bolt on sections, adjustable	6	8
	515-066	HOLD-DOWN, low for bolt on sections, riveted, non-adjustble	6	8
21	670848	SOLE W/BRACKET, outer shoe (M 259 X)	1	1
22	670800	HOLD-DOWN, high knife (611 759 R1) mallable	1	1
	671136	HOLD-DOWN, high, for bolt on sections (850154) (optional)	1	1
23	670830	BOLT W/NUT, outer shoe sole (D 266 X)	1	1
	50CNFH0Z	Nut, 1/2", Hex (280431 or 84946)	1	1
24	670878	SHOE W/LEDGER PLATE, outer (MF 729 AX)	1	1
25	670860	LEDGER PLATE, outer shoe serrated (MA 330)	1	1
	920-408	Bolt, 7/32" x 1-1/4" (bolt-in ledger plate)	2	2
26	*670371	CUTTER BAR Assembly (9') w/o head		1
	*670326	CUTTER BAR Assembly (7') w/o head	1	

NOTE: Part quantities are for one 7 ft. or 9 ft. Bar ONLY.
* Includes all of the above except duplicate parts.
NUMBERS IN PARENTHESIS ARE INTERNATIONAL HARVESTER PARTS NUMBERS.

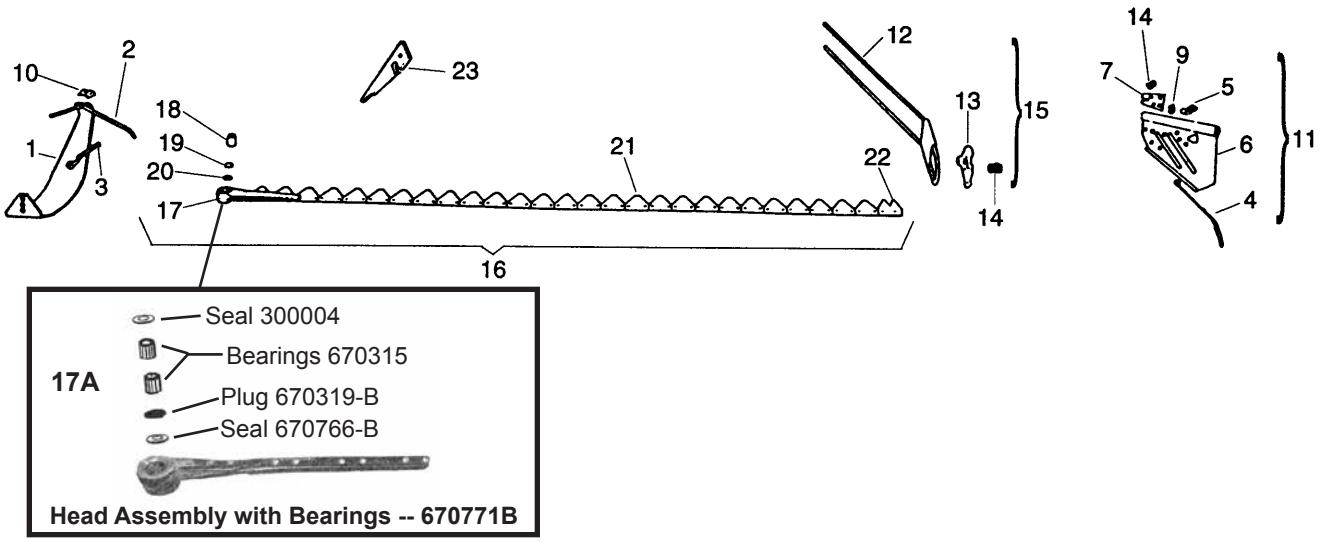
Ref.	Part No.	Description	Qty. 7 Ft.	Qty. 9 Ft.
	671337	ADJUSTABLE HOLD-DOWN KIT (86523028) (consists of the following):		
	86523032	Instructions	1	1
	37C125BCG2Z	Bolt, 3/8" x 1-1/4" Sq-Nk Crg. (86517871)	10	10
	671322	HOLD-DOWN, low (86504492)	10	10
	671324	PRESSURE BAR, hold-down (9800028)	10	10
	671136	HOLD-DOWN, high (850134) (not adjustable)	1	1
	671336	NUT, 3/8" flange (593045)	10	10

PARTS LIST

IH Types

Inner Shoe Sole, Grass Deflectors & Knife Assembly

For 7 Ft. or 9 Ft. Cutter Bar



Ref.	Part No.	Description	Qty. 7 Ft.	Qty. 9 Ft.
1	670355	SOLE, inner shoe, STUB type (462743R1)	1	1
	50C150BCG5Z	Bolt, 1/2" x 1-1/2", CRG (17140 R1)	2	2
	50NLOC0Z	Washer, 1/2", Med Lock (120384)	2	2
	50CNFH0Z	Nut, 1/2", Hex (120378)	2	2
	50C200BCG5Z	Bolt, 1/2" x 2", CRG	1	1
	50NUSS0Z	Washer, 1/2", Flat (K846)	1	1
	50NLOC0Z	Washer, 1/2", Med Lock (1120384)	1	11
	50CNFH0Z	Nut, 1/2", Hex (1203780)	1	1
2	670356	ROD, inner shoe upper grass (462744 R1)	1	1
3	670340	ROD, inner shoe lower grass (461281 R1)	1	1
4	670710	ROD, grass deflector (489536 R1)	1	1
	37C150BCG5Z	Bolt, 3/8" x 1-1/2", CRG (143245 R1)	1	1
	37NUSS0Z	Washer, 3/8" Flat	1	1
	37CNNE0Z/NE	Nut, 3/8", Hex Lock (385525 R1)	1	1
5	670712	CLAMP, grass rod (489537 R1)	1	1
	37C100BCG5Z	Bolt, 3/8" x 1", CRG (17351 R1)	1	1
	37NUSS0Z	Washer, 3/8", Flat	1	1
	37NLOC0Z	Washer, 3/8", Med Lock (120382)	1	1
	37CNFH0Z	Nut, 3/8", Hex (120377)	1	1
6	670708	DEFLECTOR, grass (489535 R1)	1	1
7	670715	SUPPORT, grass deflector (489538 R1)	1	1
	37C75BCG5Z	Bolt, 3/8" x 3/4", CRG (605449 R1)	4	4
	37CNNE0Z/NE	Nut, 3/8", Hex Lock (385525 R1)	4	4
9	670680	DAMPENER, rubber grass rod (489486 R1)	1	1
10	670342	CLIP, grass rod (461383 R1)	1	1
11	670705	GRASS BOARD DEFLECTOR ASSEMBLY (489533 R91)	1	1
12	670376	ROD ASSEMBLY, outer shoe grass (463326 R11)	1	1

PARTS LIST

IH Types

Inner Shoe Sole, Grass Deflectors & Knife Assembly (For 7 Ft. or 9 Ft. Cutter Bar) *(continued)*

Ref.	Part No.	Description	Qty. 7 Ft.	Qty. 9 Ft.
13	670330	CLAMP, outer shoe grass rod (458979 R1)	1	1
	37C150HCS5Z	Bolt, 3/8" x 1-1/2", HHC (17471 R1)	1	1
	37CNFH0Z	Nut, 3/8" Hex (120377)	1	1
	25R75PCO0Z	Cotter Key, 1/4" x 3/4" (103417)	1	1
	37NLOC0Z	Washer, 3/8", Lock (103321)	1	1
14	670832	SPRING, grass rod tension (M 1015)	1	1
	50C350BSQ5Z	Bolt, 1/2" x 3-1/2", SQ-HD	1	1
	50CNNE0Z/NE	Nut, 1/2", Hex, Lock (22816 R1)	1	1
	50NUSS0Z	Washer, 1/2", Flat (178374 R1)	1	1
15	670422	GRASS ROD DEFLECTOR ASSEMBLY (463411 R92)	1	1
16	670354	KNIFE ASSEMBLY, 7 Ft., w/heavy smooth sections (462381 R92)	2	
	670352	KNIFE ASSEMBLY, 7 Ft., w/heavy underserrated sections (462380 R92)	2	
	670364	KNIFE ASSEMBLY, 9 Ft., w/heavy underserrated sections (463159 R92)		2
	670368	KNIFE ASSEMBLY, 9 Ft., w/heavy smooth sections (463182 R92)		2
	670351	KNIFE ASSEMBLY, 7 Ft., w/heavy underserrated, bolt-on sections (optional)	2	
	670353	KNIFE ASSEMBLY, 7 Ft., w/heavy smooth, bolt-on sections (optional)	2	
	670363	KNIFE ASSEMBLY, 9 Ft., w/heavy underserrated, bolt-on sections (optional)		2
	670367	KNIFE ASSEMBLY, 9 Ft., w/heavy smooth, bolt-on sections (optional)		2
17	670770	HEAD ASSEMBLY, knife w/bushing (56692 C91)	1	1
17A	670771B	HEAD ASSEMBLY with bearings, includes:		
	300004	Seal	1	1
	670315	Bearing	2	2
	670319-B	Plug	1	1
	670766-B	Seal	1	1
18	670318	BUSHING, knife head (458971 R1)	1	1
19	670320	PLUG, knife head (458972 R2)	1	1
20	670765	WASHER, seal (544553 R1)	1	1
21	670852	SECTION, smooth heavy knife (826724C1 or M333 1/2)	28	36
	670838	SECTION, underserrated heavy knife (826722 C1 or M22 831)	28	36
	670815	SECTION, top serrated, (recommended for alfalfa only)	28	36
	5-1/2X9/16 OH	Rivet, 5-1/2 x 9/16" OV-HD (19869 R1)	47	63
	B55-0055	Bolt, w/Locknut 7/32" x 5/8", bolt-on section	47	63
	5-1/2X15/16 OH	Rivet, 5-1/2 x 15/16", OV-HD (14768 R1)	9	9
	B55-0085	Bolt, w/Locknut 7/32" x 1", bolt-on section	9	9
22	612-080	SECTION, US hvy dbl. end (2-US)	1	1
	612-130	SECTION, SM hvy dbl end (1-SM)	1	1
23	670588	GAUGE, guard lip and knife pin (469975 R3) (optional)	1	1

NOTE: Part quantities are for one 7 ft. or 9 ft. Bar ONLY.
NUMBERS IN PARENTHESIS ARE INTERNATIONAL HARVESTER PARTS NUMBERS.

SPECIFICATIONS

Both Types

All Mower Models

Cutter Bar

Width of Cut	7 ft. or 9 ft. swath
Cutting Range	90° above, 20° below
Breakaway	Automatic, 42° swing back
Lead	5°, adjustable
Knife	Heavy underserrated or heavy smooth
Swath Divider	Spring steel
Mowing Speed	Up to 8 mph
Drive Power Source	From PTO shaft through universal joint drive shaft, V-belt drive to drive head
PTO Drive Bearings	Needle bearings
Type of Lift	Hydraulic to vertical position, single acting
Tractor Requirements	
HP Req.	Trailing -- 25+ Three-Point -- 30+
PTO Req.	540 RPM
Hitch Req.	Trailing -- Standard drawbar Three-Point Hitch -- Most ASAE category 1 & 2 tractors
Hydraulic Req.	One single acting valve, bar lift
Weight	PTO-ST7-NH Approximately 805 lb. PTO-ST9-NH Approximately 826 lb. PTO-SM7-NH Approximately 625 lb. PTO-SM9-NH Approximately 650 lb. PTO-ST7-NH Approximately 765 lb. PTO-ST9-IH Approximately 785 lb. PTO-SM7-IH Approximately 585 lb. PTO-SM9-IH Approximately 610 lb.

PTO-ST7-NH, PTO-ST9-NH, PTO-SM7-NH, PTO-SM9-NH Mower Models

Knife Register	Maintained at any cutting angle
Knife Speed at 540 PTO RPM	1600 cutting strokes per minute
Knife Stroke	3-3/8"
Guards	Medium-Carbon forged steel double guards -- single rock guard optional
Cutter Bar Drive	Tapered roller bearings, Pitmanless
Drive Bearings	Tapered roller bearings, knife head uses a rubber torsion bushing
Flywheel Speed at 540 PTO RPM	Approximately 800 RPM

PTO-ST7-IH, PTO-ST9-IH, PTO-SM7-IH, PTO-SM9-IH Mower Models

Knife Speed at 540 PTO RPM	2000 cutting strokes per minute
Knife Stroke	2-5/8"
Cutter Bar Drive	Enclosed wobble shaft attached to yoke creating an oscillating motion
Guards	Double forged, standard
Drive Bearings	Tapered roller bearings
Flywheel Speed at 540 PTO RPM	Approximately 1000 RPM

ROWSE Hydraulic Rakes Co., Inc. is always striving to make improvements on present machines and specifications are subject to change without notice. ROWSE is not responsible for making changes or additions to equipment sold previously.

WARRANTY

Both Types

Limited Warranty

New Rowse
Agricultural and Industrial Machines

Rowse Hydraulic Rakes Co., Inc., (hereinafter "Rowse"), warrants each new agricultural and industrial machine or equipment, (hereinafter "Product") to be free from defects in materials and workmanship under normal use for which it was intended for a period of one year from the date of purchase. The obligation of Rowse under this warranty is limited to repairing or at its option, replacing F.O.B. factory any part or parts which is reported in writing to Rowse within 30 days from the date of failure thereof and specifying the nature of the defect or failure and which Rowse inspections shall disclose to have been defective. It is the responsibility of buyer to transport at his own expense the product to the dealer's service shop or Rowse factory. When requested by Rowse, part or parts shall be returned for inspection, transportation prepaid, to Rowse or a place designated by Rowse. In no event shall Rowse be obligated for incidental or consequential damages caused by such failure or defect, including, but not limited to, the loss of crops, inconvenience, rental of replacement equipment, loss of profits, or other commercial loss.

There is no warranty with respect to used products or new products that have been improperly assembled by one other than an authorized dealer, modified or altered, repaired, neglected, or used for purposes other than those for which it was intended.

EXCEPT AS SPECIFICALLY WARRANTED HEREIN, ROWSE DISCLAIMS ANY OTHER WARRANTY OF MERCHANTABILITY, IMPLIED OR EXPRESSED, AND FITNESS FOR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE FACE HEREOF.

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Web Site: www.rowserakes.com

WARRANTY DETAIL

Both Types

Warranty Details

Introduction

The following information explains for you the details of Rowse's farm equipment warranty. These details include an explanation of the criteria for determining warranty, those items which are included for warranty, those which are not covered, and information about how to obtain warranty service.

Warranty Determination

Only defective parts are covered under this warranty. Any part found to be defective in accordance with the provisions of this warranty will be repaired or replaced by an authorized ROWSE dealer.

Items Covered By Warranty

ROWSE'S warranty includes the replacement or repair of any part or parts of machines or attachments on ROWSE new equipment purchased from an authorized ROWSE dealer (except tires and tubes) which are defective in material, workmanship, or both.

Obtaining Warranty Service

To obtain warranty service, contact the authorized ROWSE dealer from whom the machine was purchased. In the event this is not practical to do, any authorized ROWSE dealer may perform warranty work. However, a servicing dealer who did not sell the unit has the right to charge the customer the difference between their normal shop rate and the rate ROWSE allows for warranty work.

Items Not Covered

1. Tires shall be warranted by the selling dealer or by local representatives of the tire manufacturer.
2. Dealer Travel Time—The customer shall be responsible for payment of dealer travel time to the machine or to deliver the machine to the dealer's service shop for repair. ROWSE warranty does not cover travel time.
3. Used Equipment—ROWSE warranty shall apply only to the original owner of new equipment sold by an authorized ROWSE dealer. ROWSE shall have no liability for used equipment.
4. No warranty shall be made on any equipment or parts that have been modified, or altered in any way without prior approval and knowledge of ROWSE, nor is there warranty if service, other than normal replacement of service items, is performed by someone other than an authorized ROWSE dealer.
5. Normal Wear or Maintenance Parts—ROWSE shall not be responsible for normal replacement parts such as cutting knives, chains, belts, filters, oil, nor for parts which are worn out unless they are deemed to be defective in material or workmanship.
6. No warranty shall apply to damage resulting from accident, misapplication, abuse, or damage caused by environment; (such as exposure to corrosive material).

Leased Or Rented Units

If a unit is leased or rented, the warranty period starts on the date the unit is first leased and / or rented. If the unit is sold to a second user at a later date, it is then considered a used machine.

Improvements

ROWSE continually strives to improve its products and, therefore, reserves the right to make improvements or changes without incurring any obligations to make such changes or additions on equipment previously sold.

Patented

This machine is covered by one or more of the following U.S. patents:

6,212,866, 6,151,877, 6,220,008.

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