HONDA
Power
Equipment

OPERATOR'S MANUAL

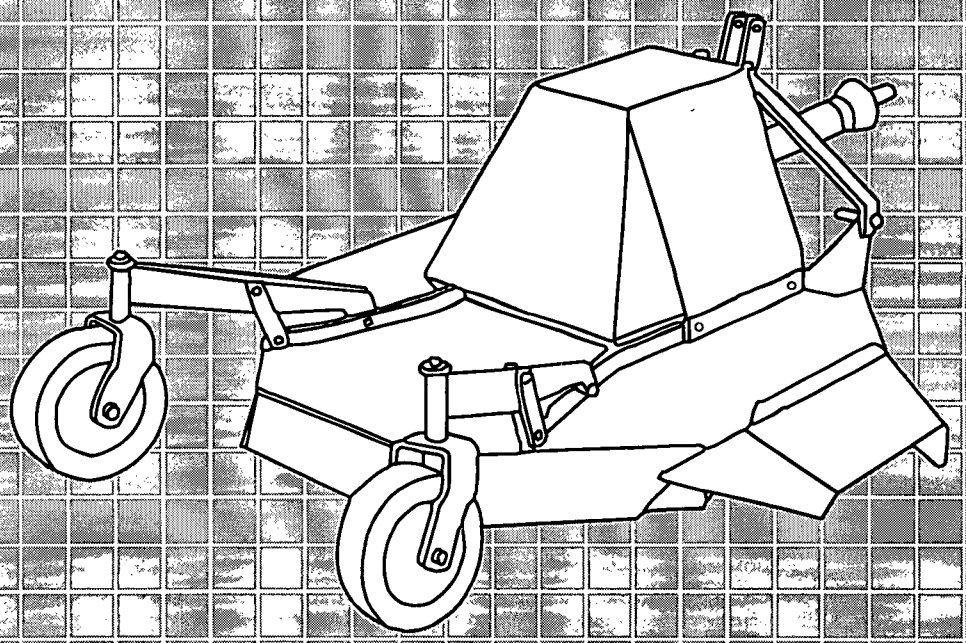
REAR MOWER RM752A

for

MULTI-PURPOSE TRACTORS

with

CATEGORY "0" 3-POINT HITCH



HONDA DEALER: PLEASE GIVE THIS PUBLICATION TO YOUR CUSTOMER

POP50106 (9407)

TABLE OF CONTENTS

SPECIFICATIONS

Cutting Width	42"
Cutting Height Range	2-1/4" -5-1/2"
Shipping Weight (approximate)	429 lbs.
Blade RPM	1.076 @ 2.000 rpm PTO
Blade Tip Speed (feet per minute)	11.831 @ 2.000 rpm PTO
Blade Spindle	1
Number of Blades	2
Universal Drive	L6W
Maximum PTO Speed RPM	2,000
Caster Wheels (Solid Rubber)	10.25 x 3.5
Mower Frame Thickness	10 GA

INTRODUCTION

Thank you for purchasing an HTA attachment for your Honda Tractor.

This manual covers the assembly, operation, and maintenance of the HTA Model RM752A Rear Mower. For your convenience, a parts guide and detailed warranty information are also included in this publication.

NOTE: The information in this publication is based on the latest product information available at the time of printing. American Honda Motor ***Co.,*** Inc., reserves the right to make changes at **any** time without notice and without incurring any obligation.

Pay special attention to the statements preceded by the following symbols:

⚠ DANGER **Indicates that serious injury or death WILL result if instructions are not followed.**

⚠ WARNING **Indicates a strong possibility that serious injury or death could result if instructions are not followed.**

⚠ CAUTION **Indicates a possibility that minor injury can result if instructions are not followed.**

IMPORTANT NOTICE Indicates that equipment or property damage can result if instructions are not followed.

NOTE: Gives helpful information.

HTA attachments are designed to give safe and dependable service if assembled and operated according to instructions.

If a problem should arise or if you have any questions about this attachment, consult an authorized Honda Tractor dealer.

CHECK LISTS

PRE-DELIVERY CHECK LIST

Inspect the mower thoroughly after assembly to ensure it is set up properly before delivering it to the customer. The following check lists are a reminder of points to inspect. Check off each item as it is found satisfactory or after proper adjustment is made.

Check that all safety decals are installed and in good condition.

Check that shields and guards are properly installed and in good condition.

___ Check all bolts to be sure they are correctly torqued.

___ Check that all cotter pins are properly installed.

___ Lubricate all grease fittings; check to make sure a small amount of grease comes out of seal.

___ Check that blades have been properly installed.

DELIVERY CHECK LIST

___ Inform customer to operate PTO at 2,000 rpm maximum.

___ Check mower attitude and belt alignment.

___ Show customer how to make adjustments.

___ Explain importance of lubrication to customer and point out lubrication points on mower.

___ Present the Operator's Manual, and ask customer to become familiar with all sections.

___ Explain to customer that when mower is transported on road or highway, safety devices. should be used to give adequate warning to operators of other vehicles.

DAILY CHECK LIST

___ Lubricate all grease fittings; check to make sure a small amount of grease comes out of seal.

___ Check that tractor PTO spring-activated locking collar slides freely and is seated firmly in mower driveline spline groove.

Check that both side skids, the left side shield and either the discharge chute or right side shield are installed.

Make sure blades are sharp, free of nicks or cracks and are securely fastened.

___ Make sure all hardware is securely fastened and in good condition.

Check that mower is properly and securely attached to tractor.

Check that all safety decals are installed and in *good* condition.

Check that shields and guards are properly installed and in good condition.

GENERAL INFORMATION

The purpose of this manual is to assist you in operating and maintaining your mower. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance. These instructions have been compiled from extensive field experience and engineering data. Some information may be general in nature due to unknown and varying operating conditions. However, through experience and these instructions you should be able to develop procedures suitable to your particular situation.

The illustrations and data used in this manual were current at the time of printing, but due to possible in-line production changes, your machine may vary slightly in detail.

We reserve the right to redesign and change the machines as mav be necessary without notification.

⚠ WARNING

Some Illustratlons In thls manual show the mower wlth shields and guards removed to provide a better view. The mower should never be operated wlth any shielding or guards removed.

Throughout this manual, references are made to right and left directions. These are determined by standing behind the equipment facing the direction of forward travel.

Blade rotation is clockwise as viewed from the top of the mower.

SAFETY RULES

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Safety is a' primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said ***"the best safety device is an informed, careful operator".*** We ask you to be that kind of an operator.

The designed and tested safety of this equipment depends on it being operated within the limitations as explained in this manual.

TRAINING

- Safety instructions are important! Read this manual, the tractor manual and all safety rules.
- Know your controls and how to stop tractor engine and mower quickly in an emergency.
- Operators must be instructed in and be capable of the safe operation of the equipment, its attachments and all controls. Do not allow anyone to operate this equipment without proper instructions.
- Do not allow children or unqualified persons to operate equipment.

PREPARATION

- Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hands, hearing and head.
- Ensure mower is properly mounted, adjusted and in good operating condition.
- Remove accumulated debris from mower to avoid fire hazard.
- Make sure tractor PTO spring-activated locking collar slides freely and is seated firmly in mower driveline spline groove.
- Ensure. all safety decals are installed and in good condition.
- Ensure shields and guards are properly installed and in good condition.
- Ensure both side skids, the left side shield and either the discharge chute or right side shield are installed.
- A minimum **20%** of tractor and equipment weight must be on tractor front wheels with mower in transport position. Without this weight, tractor could tip over causing personal injury or death. The weight may be attained with front wheel weights, ballast in tires or front tractor weights. When attaining the minimum **20%** weight on the front wheels, you must not exceed the Roll Over Protection Structure (ROPS) weight certification. Weigh the tractor and equipment. **DO** NOT GUESS **OR** ESTIMATE.
- Inspect area to be cut and remove stones, branches or other hard objects that might be thrown, causing injury or damage.

OPERATIONAL SAFETY

- Keep bystanders away from equipment while it is in operation.
- Never direct discharge toward anyone.
- Operate only in daylight or good artificial light.
- Keep hands and feet away from mower while tractor engine is running. Stay clear of all moving parts.
- If your tractor is equipped with a **ROPS,** you must wear your seat belt.
- Always comply with all state and local lighting and marking requirements.
- No riders are allowed on tractor or mower.
- Start engine from operator's seat after disengaging tractor PTO and placing transmission in neutral.

(Safety Rules continued on next page)

SAFETY RULES

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

(Safety Rules continued from previous page)

- Operate PTO at 2,000 rpm maximum.
- Do not operate PTO during transport.
- Make sure area behind you is clear before operating in reverse.
- Do not operate on steep slopes.
- Do not stop, start or change directions suddenly on slopes.
- Use extreme care and reduce ground speed on slopes and rough terrain.
- Watch for hidden hazards on the terrain during operation.
- Stop mower and tractor immediately upon striking an obstruction. Turn off engine, remove key, inspect and repair any damage before resuming operation.
- Block mower securely before working underneath.
- Disengage power to mower, lower to ground, stop engine, set parking brake and remove key before dismounting tractor.

MAINTENANCE SAFETY

- Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hands, hearing and head.
- Turn tractor engine off, remove key and lower mower to ground before performing-any service or maintenance.
- Block mower securely before working underneath.
- Keep all persons away from operator control area while performing adjustments, service or maintenance.
- Make certain all movement of mower components has stopped before opening blade access cover.
- Frequently check blades. They should be sharp, free of nicks and cracks and securely fastened.
- Your dealer can supply genuine replacement blades. Substitute blades may not meet original equipment specifications and may be dangerous.
- Periodically tighten all bolts, nuts and screws and check that all cotter pins are properly installed to ensure mower is in a safe condition.
- Ensure all safety decals are installed and in good condition.
- Ensure shields and guards are properly installed and in good condition.

STORAGE

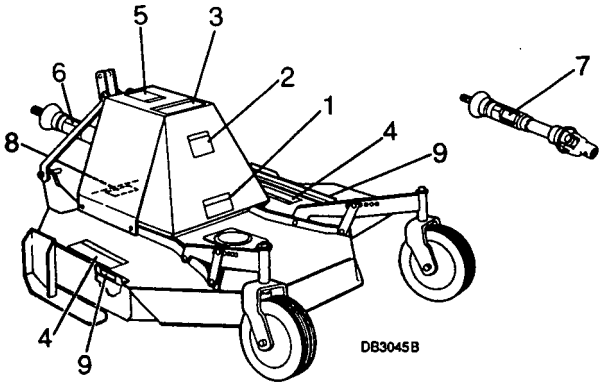
- Block mower securely for storage.

NOTES

SAFETY DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Replace Immediately If Damaged!



WARNING

LOOK & LISTEN FOR ROTATION.

DO NOT OPEN BLADE ACCESS COVER UNTIL ALL COMPONENTS HAVE STOPPED.

12923

DB31

1

DANGER

KEEP AWAY!

- ★ ENTANGLEMENT WITH ROTATING DRIVE PARTS **OR** FALLING OFF CAN CAUSE INJURY **OR** DEATH.
- ★ KEEP ALL DRIVE SHIELDS & GUARDS IN PLACE AND IN GOOD CONDITION.
- ★ ALLOW NO RIDERS.

25023

DB1458

2

WARNING

TO AVOID **SERIOUS INJURY OR** DEATH:

- ★ **READ OPERATOR'S MANUAL & FOLLOW** ALL SAFETY PRECAUTIONS. **(CONTACT DEALER FOR MANUALS.)**
- ★ KEEP SHIELDS AND GUARDS IN PLACE. KEEP CLEAR OF DRIVES AND BELTS.
- ★ LOWER IMPLEMENT, STOP ENGINE AND REMOVE KEY BEFORE DISMOUNTING.
- ★ CLEAR MOWING AREA OF DEBRIS.
- ★ DO NOT OPERATE MOWER IN VICINITY OF OTHER PERSONS. NO RIDERS.
- ★ **KNOW HOW TO STOP TRACTOR AND** EQUIPMENT QUICKLY IN AN EMERGENCY.
- ★ BLOCK UP IMPLEMENT AND REMOVE KEY BEFORE WORKING UNDERNEATH.
- ★ ALLOW NO CHILDREN **OR** UNQUALIFIED PERSONS TO RUN EQUIPMENT.
- ★ BE CAREFUL ON UNEVEN TERRAIN. DECREASE SPEED WHEN TURNING.
- ★ DO NOT OPERATE IN TRANSPORT POSITION.

31399

DB1519

3

DANGER

KEEP AWAY!

THROWN OBJECTS OR BLADE CONTACT CAN CAUSE SERIOUS INJURY OR DEATH.

KEEP DISCHARGE CHUTE AND SHIELDS IN PLACE.

62098

DB 1970

4

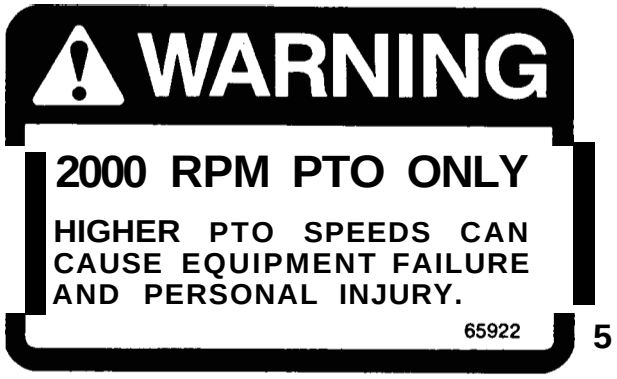
(Safety Decals continued on next page)

SAFETY DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Replace Immediately If Damaged!

(Safety Decals continued from previous page)



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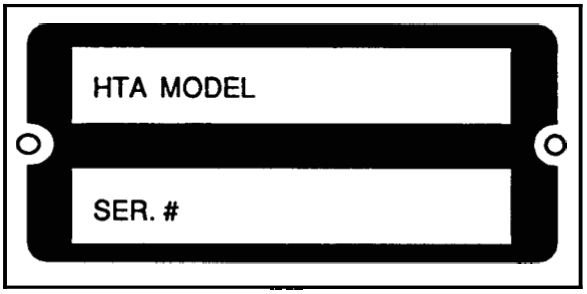

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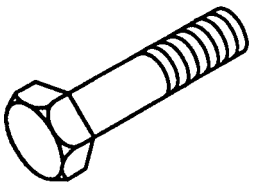
8 - Serial Number Plate

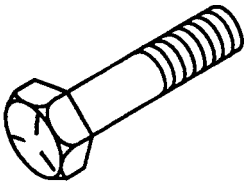
TORQUE CHART

The chart lists the correct tightening torque for fasteners used on this equipment. When **bolts** are ***to*** be tightened or replaced, refer to this chart ***to*** determine the grade of **bolts** and the proper torque **except** when specific torque values are assigned in manual text.

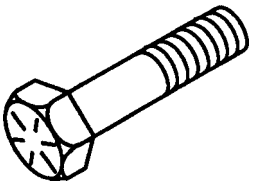
Bolt Head Markings



SAE Grade 2
(No Dashes)



SAE Grade *5*
(3 Radial Dashes)



SAE Grade *8*
(6 Radial Dashes)

Recommended Torque in Foot Pounds (Newton-Meters)

Bolt Diameter (In.)	SAE Grade 2		SAE Grade *5*		SAE Grade *8*	
114	6	(8)	11	(15)	14	(19)
5/16	13	(18)	21	(28)	25	(34)
318	23	(31)	38	(52)	55	(75)
7116	37	(50)	55	(75)	80	(110)
1/2	57	(77)	85	(115)	120	(165)
9/16	82	(111)	125	(170)	180	(245)
518	111	(150)	175	(240)	230	(310)
314	200	(270)	300	(410)	440	(600)
718	280	(380)	450	(610)	720	(975)
1	350	(475)	680	(925)	1035	(1400)
1-118	450	(610)	885	(1200)		
1-1/4	600	(815)	1255	(1700)		
1-318	675	(915)	1620	(2200)		
1-112	920	(1250)	2200	(2990)		

HARDWARE ABBREVIATIONS

ATF ..... Automatic Transmission Fluid
F ..... Female
GA ..... Gauge
GR **(5,** etc.) ..... Grade **(5,** etc.)
HT ..... Heat Treated
m ..... Meter
mm ..... Millimeter
M ..... Male
MPa ..... Mega Pascal
N ..... Newton
NC ..... National Coarse
NF ..... National Fine
NPSM ..... National Pipe Straight Mechanical
NPT ..... National Pipe Thread
P ..... Pitch
SAE ..... Society **of** Automotive Engineers
UNC ..... Unified Coarse
UNF ..... Unified Fine
UNS ..... Unified Special

ASSEMBLY

Be familiar with all safety practices on pages **4** and **5.**

⚠ WARNING

- Make certain all movement of cutter components has stopped before openlng blade **access** cover.
- Always wear relatively **tight** and belted clothing to **avoid** entanglement **in** moving **parts.** Wear sturdy, rough-soled work shoes and protective equlpment for eyes, hands, hearlng and head.
- Operate PTO **at 2,000** rpm **maximum.**
- Tum tractor engine **off,** remove key, lower mower to ground before performing any **service or maintenance.**
- Block mower securely before working underneath.
- Keep all persons away from operator control area whlle **performing** adjustments, senrlce ***or maintenance.***
- Make sure tractor PTO sprlng-activated **locking** collar **slides** freely and **is** seated **firmly in** mower drlvelline spline groove.

Removing Mower From **Box**

Remove **mower** components from the comer fillers.

Remove lag screws from crating brackets on both sides of the mower. Remove mower frame from **box.**

DEALER **SET-UP** INSTRUCTIONS

Assembly **of** this mower is the responsibility of the dealer. It should be delivered to the owner completely assembled, lubricated and adjusted for normal mowing conditions.

Complete check list on page ***3*** when assembly is complete.

The mower is shipped partially assembled. Assembly will be easier if components are aligned and loosely assembled before tightening hardware. Recommended torque. values for hardware are located on page ***'8.***

Select a suitable working area. Lay parts and hardware out to make location easy. Refer to illustrations, accompanying text, parts lists and exploded view drawings.

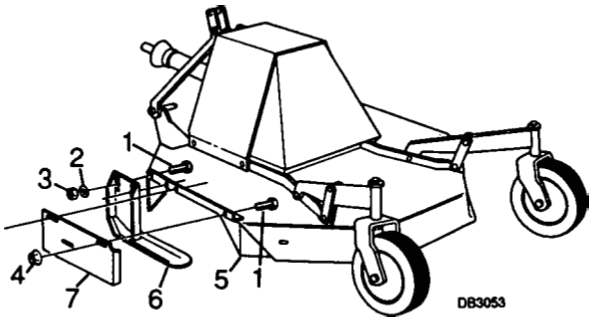
Left Side Skid and Shield Installation (figure **1)**

NOTE: To make installation easier, put blocks under the mower frame to raise it **off** the floor.

The left side shield **(7)** and skid ***(6)*** also **serve as** guards. **Do** not operate mower unless they are in place and in good condition.

Attach left side shield ***(7)*** to mower frame **(5)** as shown with **bolts (1)** and flange locknuts **(4).**

Attach left side skid **(6) to mower** frame **(5) as** shown with **bolts (1),** lockwashers **(2)** and nuts ***(3).*** Do not tighten this hardware as the skid will require adjustment when cutting height is set.



1. **3/8** x **1"** Bolt
2. **3/8"** Lockwasher
3. **3/8"** Hex nut
4. ***318"*** Flanged locknut
5. Mower frame
6. Left side skid
7. Left side shield

Figure **1.** Left Skid & Shield Installation

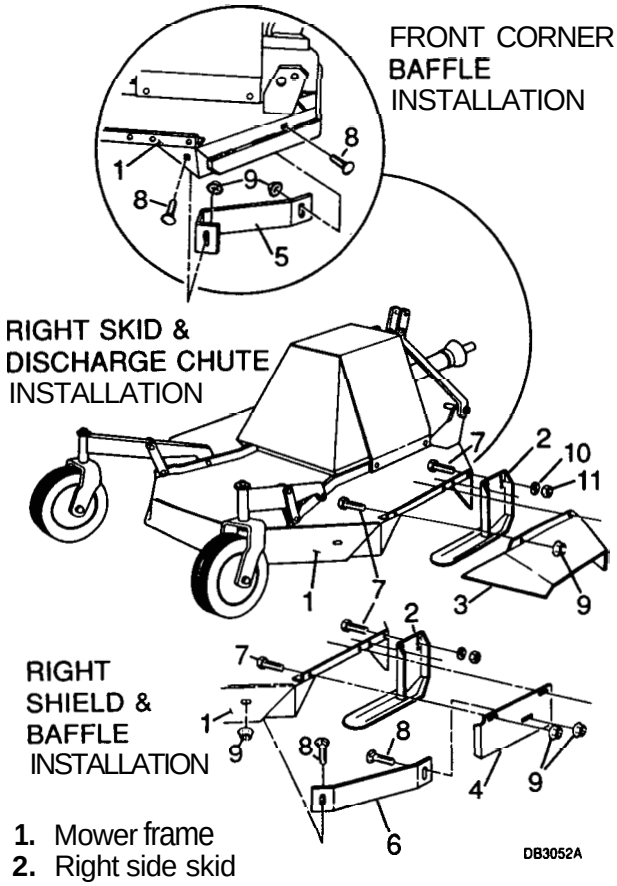
Front Corner Baffle Installation (figure 2)

Attach front corner baffle **(5)** up under mower frame as shown and attach with **bolts (8)** and flange locknuts **(9).**

⚠ WARNING

Ensure both side skids, the left side shield and either the discharge chute or right side shield are installed.

Right Side Shield & Baffle Installation (figure 2)



1. Mower frame
2. Right side skid
3. Discharge chute
4. Right side shield
5. Front corner baffle
6. Side shield baffle
7. 3/8 x 1" Bolt
8. 3/8 x 3/4" Carriage bolt
9. 3/8" Flanged hex locknut
10. 3/8" Lockwasher
11. 3/8" Hex nut

Figure 2. Right Skid, Shield & Discharge Chute

When right side shield **(4)** is installed, you **must** install side shield baffle *(6).* Attach rear portion of baffle *(6)* to mower frame with bolt **(8)** and flange locknut **(9)** as shown. Attach front end of baffle **(6)** to side shield **(4)** with bolt **(8)** and flange locknut **(9)** as shown. Attach side shield **(4)** to mower frame with **bolts** *(7)* and flange locknuts **(9)** as shown.

Discharge Chute Installation (figure 2)

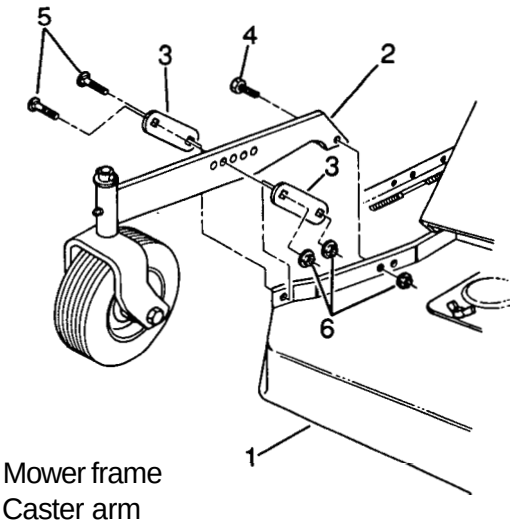
The discharge chute **(3)** may be installed in place of baffle **(6)** and side shield **(4).** Attach discharge chute **(3)** to right side of mower with **bolts** *(7)* and flange locknuts **(9)** as shown.

Right Side Skid Installation (figure 2)

The right skid **(2)** also serves as a guard. Do not operate mower unless it is in place and in good condition.

Attach right side skid **(2)** to mower frame **(1)** as shown with **bolts (7),** lockwashers **(10)** and nuts **(11).** Do not tighten this hardware as the skid will require adjustment when cutting height is set.

Caster Arm Installation (figure 3)



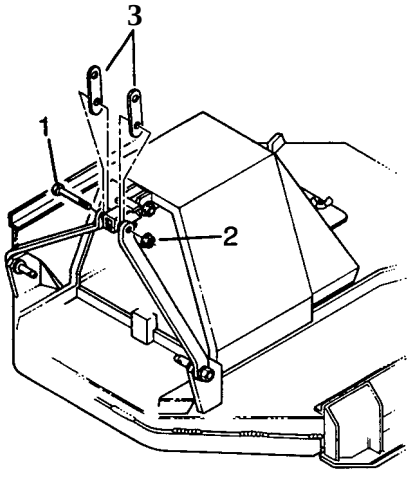
1. Mower frame
2. Caster arm
3. Adjustment bracket
4. 1/2 x 1-1/2" Bolt
5. 1/2 x 1-3/4" Carriage bolt
6. 1/2" Flanged hex locknut

Figure 3. Caster Arm Installation

Attach caster arm (2) to the frame rail as shown with bolt (4) and flange locknut (6). Attach adjustment brackets (3) to frame rail and caster arm (2) as shown with carnage bolts (5) and flange locknuts (6). Repeat for opposite caster. Do not tighten this hardware as the casters will require adjustment when cutting height is set.

Top Link Pivot Installation (figure 4)

Remove bolt (1) and flange locknut (2) from A-frame arm installation and insert top pivot links (3) as shown then secure with bolt (1) and flange locknut (2).



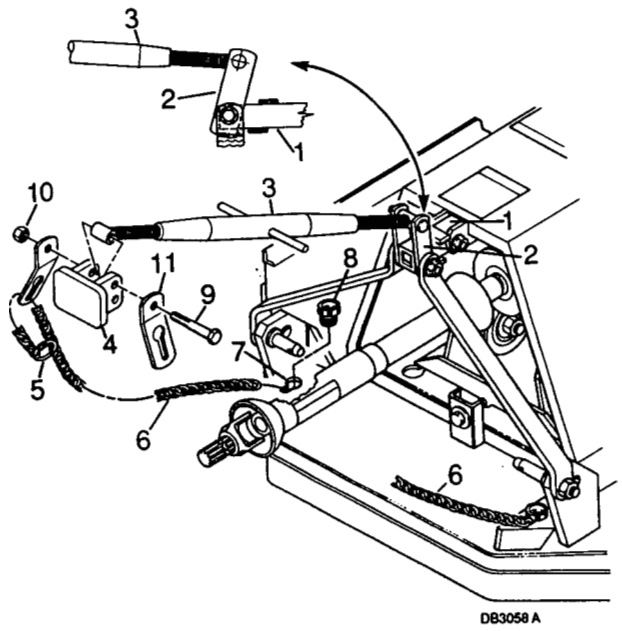
1. 1/2 x 2-3/4" Bolt
2. 1/2" Flanged hex locknut
3. Top pivot link

Figure 4. A-Frame Installation

Check Chain Installation (figure 5)

Place check chain (6) into slot on mower frame and secure with caplug (8). Repeat for opposite check chain.

Insert chains through check chain brackets (11) and secure with quick links (5). Insert bolt (9) through check chain brackets (11) and secure with nut (10).



1. Tube assembly
2. Top pivot link
3. Tractor top link
4. Tractor top link attachment point
5. Quick link
6. Check chain
7. Check chain keyhole
8. Caplug
9. Bolt
10. Nut
11. Check chain bracket

Figure 5. Check Chain & Top Link Adjustment

Drive Shaft Installation

Install front drive half into rear drive half.

⚠ WARNING

Ensure shields and guards are properly Installed and in good condition.

NOTES

OPERATION

Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts *to* provide safe equipment can **be** wiped out by ,a single careless act of an operator.

In addition *to* the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said ***"the best safety device is an informed, careful operator".*** We ask you *to* be that kind of an operator.

The operator is responsible for the safe operation of this mower. The operator must be properly qualified and trained. Operators should be familiar with the mower, tractor and all safety practices before starting operation. Read the safety information on pages **4** and **5.**

This mower is designed for light brush shredding and grass mowing. It is especially useful in cane, berry, **grape** and vegetable crops for mowing and shredding prunings. **It** is equipped with low suction blades. Optional high suction blades are available for added suction and shredding.

Recommended mowing speed range for most conditions is from **two** to five mph.

⚠ WARNING

- **Do** not allow children or unqualified persons to operate equlpment.
- **Do** not operate **PTO** durlng transport.
- Keep bystanders away from equipment while it is in operation.
- Block mower securely before worklng underneath.
- Keep all persons away from operator control area while performing adjustments, service or maintenance.
- No riders are allowed on tractor or mower.
- Operate **PTO** at 2,000 rpm maximum.
- Never direct discharge toward anyone.
- Ensure shields and guards are properly installed and In good condition.
- Ensure both slde sklds, the left slde shield and either the dlscharge chute or right slde shleld are installed.
- Make certain all movement of mower components **has** stopped before opening blade access cover.
- Stop mower and tractor lmmedlately upon striking an obstructlon. Turn off engine, remove key, Inspect and repair any damage before resumlng operation.
- Always wear relatively tlght and belted clothing to avold entanglement In movlng parts. Wear sturdy, rough-soled work shoes and protective equlpment for eyes, **hands,** hearing and head.

Attaching Mower to Tractor

Tractor Stability (figure **6)**

WARNING

A minimum ***20%*** of tractor and equipment weight must be on tractor front wheels with mower in transport position. Without this weight, tractor could tip over causing personal injury or death. The weight may **be** attained with front wheel weights, ballast in tires or front tractor weights. When attaining the minimum **20%** weight on the front wheels, you must not exceed the Roil Over Protection Structure (ROPS) weight certification. Weigh the tractor and equipment. **DO** NOT GUESS **OR** ESTIMATE!

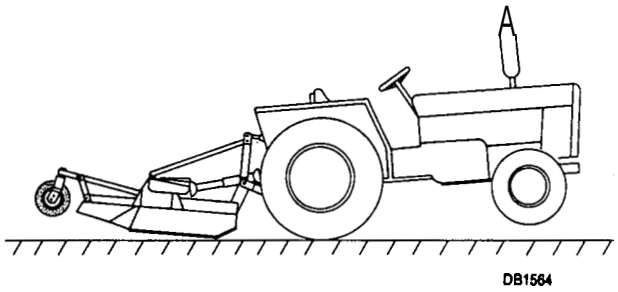


Figure **6.** Tractor Stability

Place mower on a level surface. Back tractor up **to** mower and attach lower 3-paint lift arms to mower hitch pins. Secure with Kiik pins.

WARNING

Make sure tractor PTO spring-activated locking collar slides freely and is seated firmly in mower driveline spline groove.

Attach mower drive shaft **to** tractor PTO.

Attach tractor top link to mower top link pivots. Adjust tractor top link **to** raise mower front end at least 10", making sure the back end clears the ground and top pivot links have free travel when raised.

Cutting Height Adjustment (figure *7)*

Place tractor and mower on a level surface. Check tractor tire pressure to make sure it is correct and equal.

The adjustments given are **to** provide you with a starting point. Adjustments are approximate and may vary due **to** machine wear. You may desire **to** fine tune them **for** your situation.

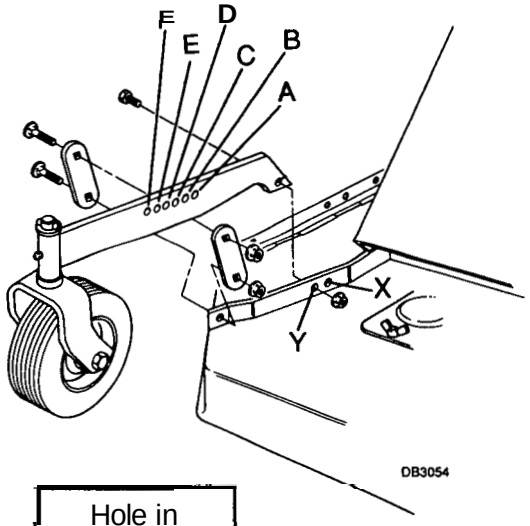
IMPORTANT NOTICE

Avoid very low cutting heights. Striking the ground with blades gives one of the most damaging shock loads a mower can encounter. Severe shock loads can damage the mower drive and/or the tractor transmission.

Mower cutting height **is** raised, lowered, and maintained with tractor hydraulics and top link adjustment, check chains and caster arms.

Place a straightedge along mower deck edge from front **to** rear (refer **to** figure **8).** Measure from each front corner **to** the ground to be sure mower is level. Use tractor 3-point arm adjustment as required.

Refer **to** figure *7.* Approximate cutting heights are provided for various hole combinations. Set caster arms **to** your desired cutting height.



Hole in Caster Arm	Hole in Frame Rail X	Y
A	*	*
B	*	*
C	*	*
D	2-1/4	2-1/2
E	3-1/4	4-1/2
F	5-1/2	*

***Not usable in these holes**

Figure *7.* Caster Adjustment

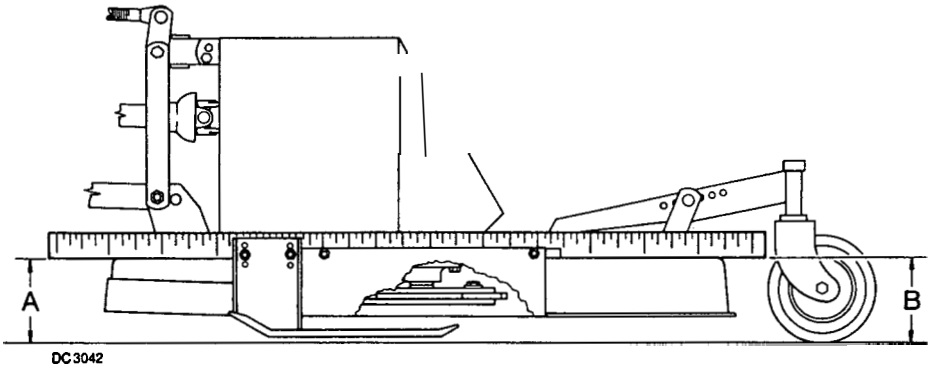
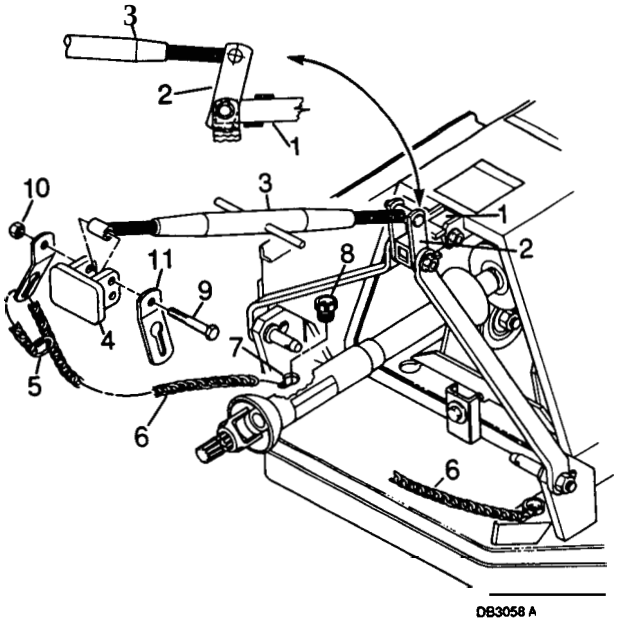


Figure *8.* Mower Attitude Adjustment

With cutting height selected, measure from the ground **to** straightedge at front and rear. The front should **be** level with, **to** not more than 1/2" lower than, the rear. Raise **or** lower tractor 3-point arms to accomplish this measurement.

Check Chain **Installation** (figure **9)**



1. Tube assembly
2. Top pivot link
3. Tractor top link
4. Tractor top link attachment point
5. Quick link
6. Check chain
7. Check chain keyhole
8. Caplug
9. Bolt
10. Nut
11. Check chain bracket

Figure **9.** Check Chain & Top Link Adjustment

Attach check chain brackets (11) **to** tractor top link bracket **(4).**

Insert check chains into check chain brackets. Count the links between mower and brackets to ensure you have the same number of links on each side. Chains may be twisted to obtain finer adjustment. Secure excess chain **to** taut chain with quick link **(5).**

With check chains properly adjusted, you will be able **to** raise mower with 3-point hitch and return **to** the original cutting height.

Check top link adjustment to be sure mower front end raises at least 10" and the back end clears the ground and top pivot links have free travel when raised.

Side Skid Adjustment

With cutting height established, adjust side skids approximately 1/2" above the ground. Never operate mower with weight continually on side skids. Properly adjusted side skids are designed to carry mower over uneven ground and minimize scalping.

Removing Mower from Tractor

Place tractor and mower on a solid level surface. Raise mower **to** accommodate blocking.

Disengage PTO, set parking brake, stop engine and remove key.

Place a block, that will not allow mower to fall **or** tip, under front edge of mower deck. Lower mower **onto** block.

Pre-Operation Check List

Operate PTO at 2,000 rpm maximum.

Ensure both side skids, the left side shield and either the discharge chute or right side shield are installed.

No riders are allowed on tractor or mower.

Do not allow children or unqualified persons to operate equipment.

Blades should be sharp, free of nicks and cracks and securely fastened.'

Ensure shields and guards are properly installed and in good condition.

Inspect area to be cut and remove stones, branches or other hard objects that might be thrown, causing injury or damage.

Check mower cutting height and attitude adjustment.

Check to ensure caster wheels, spindles, drive shaft and universal joints are lubricated.

IMPORTANT NOTICE

Mower vibration tends to loosen bolts durlng Operation. All hardware should be checked regularly to malntaln proper torque. It Is a good practice to check mower before each operation to ensure all bolts are secure.

Power for operating mower is supplied by tractor PTO. Do not exceed tractor manufacturer's rated PTO speed of 2,000 rpm maximum. Know how to stop tractor and mower quickly in case of an emergency.

Should mower become plugged, causing belt to slip, immediately'maneuver equipment into a previously cut area and allow mower to clear accumulated material. Continue running at least two minutes, allowing pulleys to cool. Stopping the mower with belt in contact with a very hot pulley will bake and ruin belt.

⚠ CAUTION

Stop mower and tractor Immediately upon striking an obstructlon. Turn *off* engine, remove key, Inspect and repair any damage before resuming Operation.

Operating Technique

Proper ground speed will depend upon the terrain and the height, type and density of material to be cut.

Normally, ground speed will range from two to five. mph. Tall dense material should be cut at a low speed; thin medium-height material can be cut at a faster ground speed.

Always operate tractor PTO at 2,000 rpm. This is necessary to maintain proper blade speed and produce a clean *cut.*

Under certain conditions, tractor tires may roll some grass down and prevent it from being cut at the same height as the surrounding area. When this occurs, reduce your ground speed, but maintain 2,000 rpm PTO speed. The lower ground speed will permit grass to at least partially rebound.

Under some conditions, grass will not rebound enough to be cut even. In general, lower cutting heights give a more even cut with less tendency to leave tire tracks. However, it is better to cut grass frequently rather than too short. Short grass deteriorates rapidly in hot weather and invites weed growth during growing seasons. Follow local recommendations for the suitable cutting height in your area.

Tips

Extremely tall material should be cut twice. Set mower at a higher cutting height for the first pass. Then cut at desired height at 90° to the first pass.

Remember, sharp blades produce cleaner cuts and require less power.

Analyze area to be cut to determine the best procedure. Consider height and type of grass and terrain type: hilly, level or rough.

Plan your mowing pattern to travel straight forward whenever possible. Mow with uncut grass to the left. This will distribute the clippings over the cut area. Discharging clippings over uncut grass will cause a buildup and may prevent uniform cutting.

⚠ WARNING

Inspect area to be cut and remove stones, branches or other hard objects that might be thrown, causing injury or damage.

A side shield and discharge chute are provided for the right side. The side shield is best for normal mowing and shredding. The discharge chute is recommended when mowing extremely heavy material.

For a professionaltouch in large open areas, try the mowing pattern in figure 10. Make two or three passes' clockwise to discharge the clippings away from bordering objects. Then cut the lawn in half by mowing down center. Turn counterclockwise to the left at end of the area over grass previously mowed.

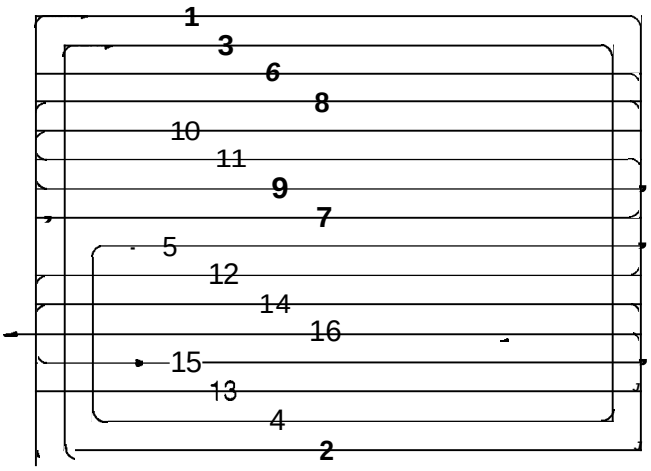


Figure 10. Mowing Pattern

Uneven Terrain

WARNING

- **Do not operate on steep slopes.**
- **Do not stop, start or change directions suddenly on slopes.**
- **Use extreme care and reduce ground speed on slopes and rough terrain.**
- **Watch for hidden hazards on the terrain during operation.**

Pass diagonally through sharp dips and avoid sharp drops to prevent "hanging up" the tractor and mower. Practice will improve your skills in maneuvering rough terrain. Always mow up and down **slopes.** Never **mow** across the face **of slopes.**

Disengage power to cutter, lower to ground, stop engine,. set parking brake and remove key before dismounting tractor.

NOTES

OWNER SERVICE

Be familiar with all safety practices on pages **4** and ***5.***

⚠ WARNING

- Make certain all movement of cutter components has stopped before opening blade access cover.
- Always wear relatively tight and belted clothing to avoid entanglement In moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hands, hearing and head.
- Operate **PTO** at **2,000** rpm maximum.
- Turn tractor engine **off,** remove key, lower mower to ground before performing any service or maintenance.
- Block mower securely before working underneath.
- Keep all persons away from operator control area while performing adjustments, service **or** maintenance.
- Make sure tractor PTO spring-activated locking collar slides freely and Is seated firmly In mower driveline spline groove.

LUBRICATION INFORMATION (figure 11)

Do *not* let excess grease collect on **or** around parts, particularly when operating in sandy areas.

The accompanying illustration shows lubrication points. The chart gives the frequency of lubrication in operating hours, based on normal operating conditions. Severe **or** unusual conditions may require more frequent lubrication. Some reference numbers have more than one location; be sure you lubricate all locations.

Use a good quality **SAE** multi-purpose type grease in all locations. Be sure **to** clean fittings thoroughly before attaching grease gun.

Ref No	Item Des	Frequency
1	Front U-joint	*8* hrs
2	Drive Shaft **Slip** Joint	*8* hrs
3	Rear U-Joint	a hrs
4	Drive Spindle	**24 hrs**
5	Caster **Arm**	*8* hrs
6	Blade Spindle	**24** hrs
7	Caster Wheel (right & left)	*8* hrs

Lubrication Chart

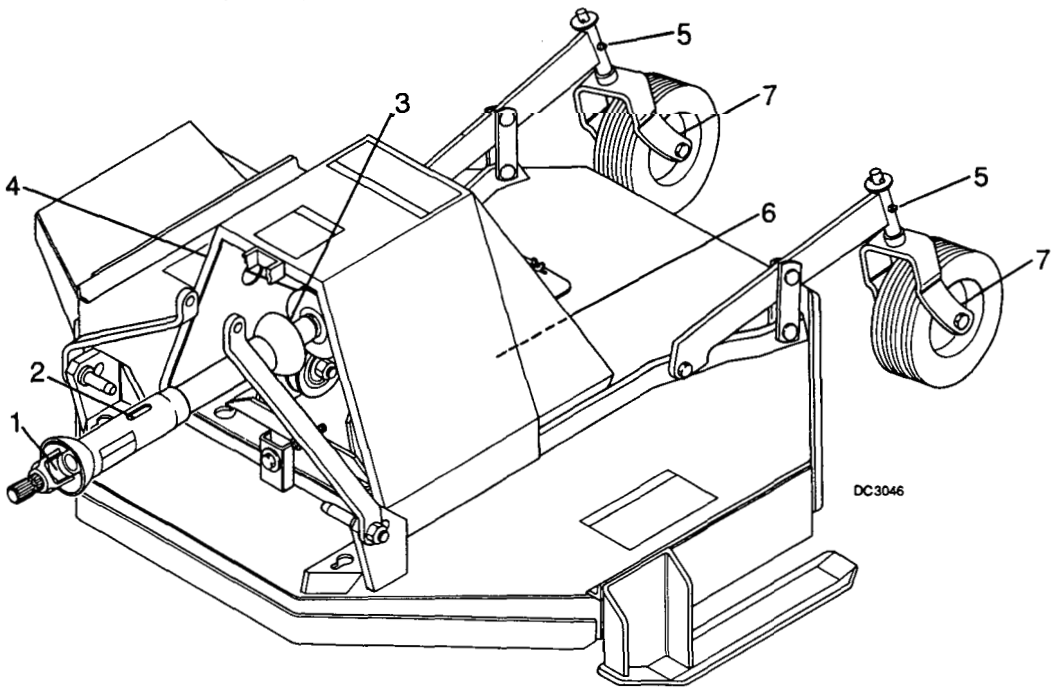


Figure **11.** Lubrication Points

Drive Shaft Lubrication

Lubricate the drive shaft slip joint every *8* operating hours. Failure to maintain proper lubrication could result in damage to U-joints, gearbox and drive shaft.

Lower mower to ground, disconnect drive shaft and apply a bead of grease all around the male half where it meets the female half. Slide shaft in and out several times to distribute grease.

BLADE SERVICING

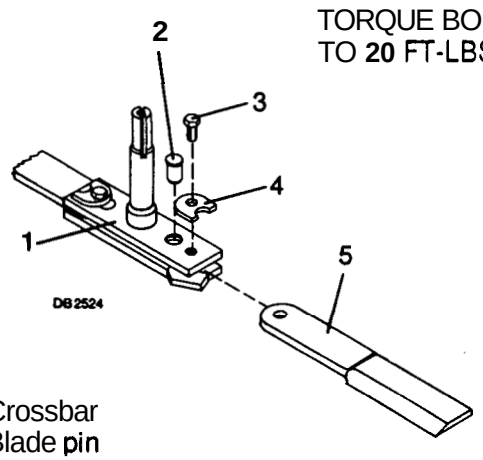
Inspect blades for condition and proper installation each time before operation. Replace any blade that is bent, excessively nicked, worn or has any other damage. Small nicks can be ground out when sharpening.

Blade Removal (figure 12)

⚠ WARNING

Make certain ail movement of cutter components has stopped before opening blade access cover.

Open blade access cover, reach through and align one end of the crossbar with the hole. Use a block of wood to hold blade carrier and loosen blade retainer bolt (3), rotate retainer (4) until half moon is aligned with blade pin (2) and remove blade pin. Remove blade (5).



1. Crossbar
2. Blade pin
3. Blade retainer bolt
4. Blade retainer
5. Blade

Figure 12. Blade Assembly

Blade Installation (figure 12)

The words "This Side Down" are stamped on the blade. Make sure this side of the blade is placed toward the ground. Install blade (5) into crossbar (1). Insert blade pin (2) from top then rotate blade retainer (4) until half moon is away from the blade pin. Tighten blade retainer bolt (3) to 20 ft-lbs. Do not over-tighten. Rotate crossbar and repeat procedure. Replace blade access cover.

⚠ WARNING

Your dealer can supply genuine replacement blades. Substitute blades may not meet original equipment specifications and may be dangerous.

Blade Sharpening (figure 13)

Remove blades.

Always sharpen both blades at the same time to maintain balance. Follow original sharpening pattern. Do not sharpen blade to a razor edge. Leave a 1/16" blunt edge. Do not sharpen back side.

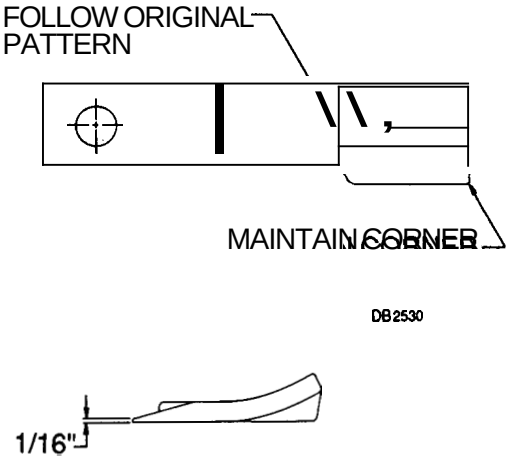
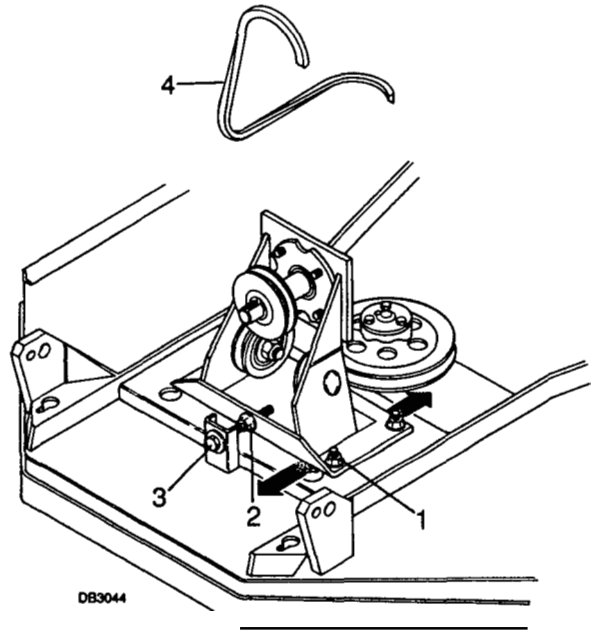


Figure 13. Blade Sharpening

Belt Replacement (figure 14)

One of the major causes of belt failure is improper installation. Before a new belt is installed, check pulley shafts and bearings for wear. Check pulley grooves for cleanliness. Make sure spindles turn freely and without wobble. If grooves require cleaning, moisten a cloth with a non-flammable, non-toxic degreasing agent or commercial detergent and water.

Avoid excessive force during installation. **Do** not use **tools** to pry belt into pulley groove. **Do not roll** belt over pulleys to install. This can cause hidden damage and premature belt failure.



1. Flanged hex locknut
2. Locknut
3. Adjustment bolt
4. Belt

Figure 14. Belt Replacement and Adjustment

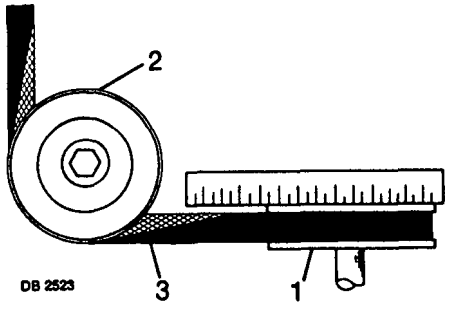
Belt replacement is accomplished in these steps:

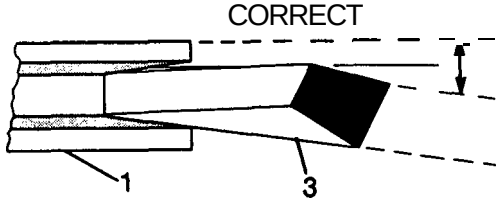
REMOVAL: Loosen all four nuts **(1),** figure **14,** two turns. Loosen locknut **(2)** on adjustment bolt **(3).** Loosen adjustment bolt and slide spindle support **to** the rear and remove **belt (4).**

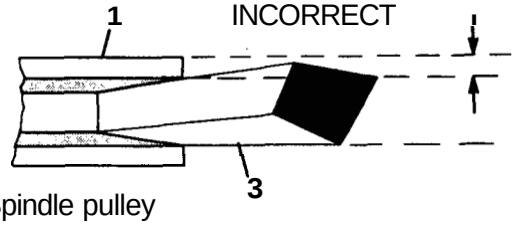
INSTALLATION: Install new belt over blade spindle pulley, route under idler pulleys leaving a **1/4** twist between spindle pulley and each idler pulley. Route over drive pulley leaving a **1/4** twist between each idler pulley and the drive pulley.

ALIGNMENT: It is important that the **belt** comes straight **off** of the blade spindle pulley **(1),** figure **15.** Inside edges of belt are lined up with pulley in correct installation. In **the** incorrect installation illustration, the belt edge rubs the pulley which will cause belt wear and/or belt **roll** over.

TENSION: Refer to figure **14.** lighten belt adjustment bolt **(3)** until the belt section between the left side of the drive pulley .and left idler pulley can **be** deflected approximately **1/4"** with thumb pressure. Rotate pulley by hand until belt makes two revolutions and recheck tension. When proper tension is set, tighten all four nuts **(1)** and tighten locknut **(2)** on adjustment bolt **(3).**







1. Spindle pulley
2. Idler pulley
3. Belt

Figure 15. Belt Adjustment

NOTES

Be familiar with all safety practices on pages **4** and **5.**

WARNING

- Make certain all movement of cutter components has stopped before opening blade access cover.
- Always wear relatively tlght and belted clothing to avoid entanglement In moving parts. Wear sturdy, rough-soled work shoes and protective equlpment for eyes, hands, hearing and head.
- Operate **PTO** at. **2,000** rpm maximum.
- **Turn** tractor engine **off,** remove key, lower mower to ground before performing any service or maintenance.
- Block mower securely before working underneath.
- Keep ail persons away from operator control area whlle performing adjustments, service or maintenance.
- Make sure tractor **PTO** spring-activated locking collar slides freely and is seated firmly in mower driveline spline groove.

SPINDLE REPAIR

Blade Spindle Removal

Remove blade from spindle.

Remove belt from pulleys.

Remove split taper bushing (located on top of pulley) by removing the **two bolts** and insetting them into the threaded holes in bushing flange. Tighten **bolts** alternately **to** remove split taper bushing.

Remove key and pulley.

Remove four **bolts** attaching spindle **to** mower frame and remove spindle.

Spindle Repair Tips

As a reference point, the grease fitting is in the top portion of spindle housing.

To minimize wear, bearing cups, cones and sleeves are press fit to shaft and will require a press **or** similar device for removal.

When disassembling, support housing casting **to** prevent damage.

Remove bearing cups by placing a punch in housing **slots** and driving cup out. Alternate punch positions from side **to** side. Use care **to** prevent housing damage.

Permatex 3D Aviation Form-A-Gasket@**or** equivalent is recommended as a sealant for spindle repair.

Blade Spindle Disassembly (figure **16)**

Top and bottom washers **(3)** and sleeve **(2)** are tack welded to shaft. You must grind **or** break weld **off** before pressing shaft and crossbar **(9)** out **of** housing.

Support spindle in a press and push shaft and crossbar **(9) down** through housing ***(6).***

Remove seals from housings.

Remove bearing cups from housing as described in Tips section above.

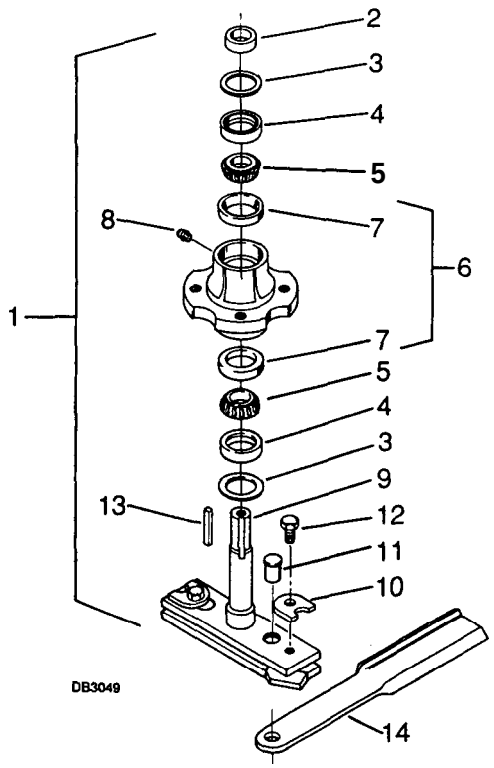
Blade Spindle Assembly (figure **16)**

Bearing cups and cones are designed to work together. **It** is important **to** position them **so** bearing cone taper mates with bearing cup taper.

Lubricate new cups ***(7)*** with a light oil. Place them in spindle housing ***(6)*** **so** they will mate with cones **(5).** Seat cups (7) against machined shoulder of housing with a press **or** by placing a large soft drift on the flat lip and driving them into housing.

Place bottom bearing cone **(5)** into housing against bearing cup **(7).**

Pennatex 3D Aviation Form-A-Gasket is **a registered trademark of the** Permatex **Corporation.**



1. Blade spindle
2. Sleeve
3. 1-3/4 x 2-3/8" Flat washer
4. Seal
5. Bearing cone
6. Spindle housing with cups
7. Bearing cup
8. Grease fitting
9. Spindle shaft and crossbar
10. Blade pin retainer washer
11. QD Blade pin
12. 1/2 x 3/4" Nylok bolt
13. Key
14. Blade

Figure 16. Blade Spindle Assembly

IMPORTANT NOTICE

Improper positioning of seals can cause seal failure.

Proper seal installation is important. An improperly installed seal will leak and could cause bearing failure.

Coat area of housing where seals seat, lightly with Permatex.

Pull the rubber portion of seal back and locate spring.

Apply a thin coat of lubricant to bottom seal and install with spring up toward center of housing.

Place seal squarely on housing. Select a piece of pipe or tubing with an outside diameter that will set on outside edge of seal. A tube that is too small will bow seal cage.

Carefully press seal into housing, preventing distortion to metal seal cage. Seal should seat firmly and squarely against machined shoulder in housing.

Make sure seal lip did not roll under. Distortion to seal cage or damage to seal lip will cause seal to leak. Damaged seals must be replaced.

Place bottom washer **(3)** on shaft and crossbar **(9).** Place housing assembly with bottom seal **(4),** bottom cone **(5)** and cup (7) installed over shaft and crossbar **(9).** Carefully guide seal over shaft and press shaft into housing.

Fill housing cavity with a medium grade grease.

Place top bearing cone *(5)* and sleeve **(2)** on shaft.

Press sleeve and bearing onto shaft until all bearing free play is removed and there is a slight drag (similar to adjusting the front wheel bearings on an automobile). Check by spinning spindle. It should turn freely.

IMPORTANT NOTICE

Bearing adjustment Is set by pressing sleeve agalnst bearing until proper adjustment is attained. Adjustment is maintained by tack welding sleeve (2) and washers (3) to spindle shaft.

Be careful not to over-tighten bearings. Proper bearing adjustment is essential to good bearing life.

Should you over-tighten bearings, hold spindle housing and rap spindle shaft with a lead hammer to loosen bearings. Adjust to obtain proper setting.

Place a damp rag over bearings to protect them. Tack weld sleeve to shaft in two spots 180° apart. Also tack weld top and bottom washers in two spots 180° apart.

IMPORTANT NOTICE

When welding bottom washer, connect welder ground directly to crossbar. When welding top washer and sleeve, connect welder to top of spindle shaft. Failure to connect welder ground properly can cause bearings to become welded to shaft.

Install top seal with spring up away from center of housing. Top seal should be flush with, to 1/16 above, housing.

Lubricate spindle with a medium grade grease. Rotate housing on spindle shaft, checking for free movement.

Blade Spindle Installation

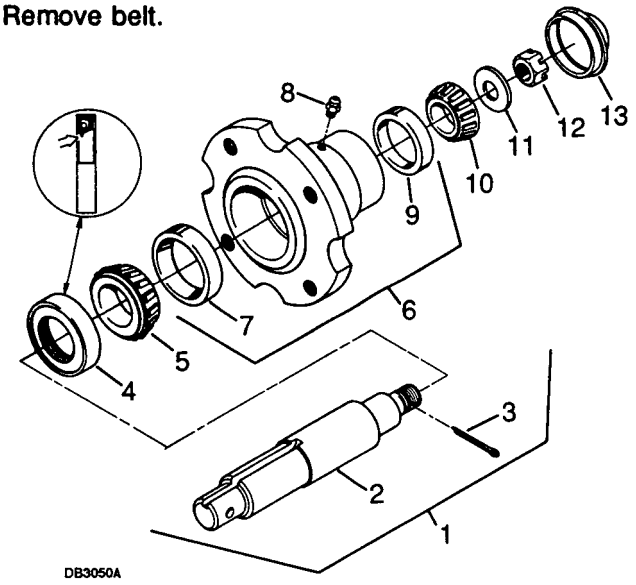
Insert spindle through bottom of mower deck and secure with four mounting bolts. Be sure to position grease fitting toward lubrication access area. Refer to Lubrication in Owner Service section.

Install pulley and key on spindle shaft. Place split taper bushing on pulley and drive down to seat against spindle shaft shoulder and alternately tighten split taper bushing bolts to 12 ft-lbs.

Drive Spindle Removal (figure 17)

Remove drive shaft from drive spindle. Tape key to spindle shaft.

Remove belt.



1. Drive spindle assembly complete
2. Drive spindle shaft
3. 3/16 x 1" Cotter pin
4. Seal
5. Bearing cone
6. Housing with cups
7. Bearing cup
8. Grease fitting
9. Bearing cup
10. Bearing cone
11. 3/4" Flat washer
12. 3/4" Slotted hex nut
13. Dust cap

Figure 17. Drive Spindle Assembly

Remove the four bolts attaching spindle to spindle support and remove spindle.

Remove split taper bushing (located on top of pulley) by removing the two bolts and inserting them into the threaded holes in bushing flange. Tighten bolts alternately to remove split taper bushing.

Spindle Repair Tips

As a reference point, the grease fitting is in the top portion of spindle housing.

To minimize wear, bearing cups, cones and sleeves are press fit to shaft and will require a press or similar device for removal.

When disassembling, support housing casting to prevent damage.

Remove bearing cups by placing a punch in housing slots and driving cup out. Alternate punch positions from side to side. Use care to prevent housing damage.

Permatex 3D Aviation Form-A-Gasket® or equivalent is recommended as a sealant for spindle repair.

Drive Spindle Disassembly (figure 17)

Remove dust cap (13). cotter pin (3) and nut (12).

Press shaft (2) down through housing.

Remove seal (4).

Remove bearing cups (7) and (9) refer to Tips section above.

Drive Spindle Assembly (figure 17)

Bearing cups and cones are designed to work together. It is important to position them so bearing cone taper mates with bearing cup taper.

Lubricate new cups (7 & 9) with a light oil. Place them in spindle housing (6) so they will mate with cones (5 & 10). Seat cups (7 & 9) against machined shoulder of housing with a press or by placing a large soft drift on the flat lip and driving them into housing.

Place bottom bearing cone (5) onto spindle shaft (2) with taper up. Seat on bottom shoulder of shaft with a press.

Insert shaft and bearing cone assembly through bottom of housing (6). Fill housing cavity with a medium grade grease.

Place top bearing cone **(10)** on shaft (2) **to** mate with top bearing cup **(9).**

Install washer **(11)** and nut **(12)** on shaft (2) and tighten until all bearing free play is removed and there is a slight drag (similar **to** adjusting the front wheel bearings on an automobile). Check by spinning spindle. **It** should turn freely.

Be careful not **to** over-tighten bearings. Proper bearing adjustment is essential **to** good bearing life.

Should you over-tighten bearings, hold spindle housing and rap spindle shaft with a lead hammer **to** loosen bearings. Adjust **to** obtain proper setting.

IMPORTANT NOTICE

Improper posltlonlng of seals can cause seal fallure.

Proper seal installation is important. An improperly installed seal will leak and could cause bearing failure. Coat area of housing where seals seat, lightly, with Permatex.

Pull the rubber portion of seal back and locate spring.

Apply a thin coat of lubricant to bottom seal and install with spring up toward center of housing.

Place seal squarely on housing. Select a piece of pipe or tubing with an outside diameter that will set on outside edge of seal. A tube that *is* too small will bow seal cage.

Carefully press seal into housing, preventing distortion to metal seal cage. Seal should seat firmly and squarely against the machined shoulder in housing.

Make sure seal lip did not roll under. Distortion to seal cage or damage to seal lip will cause seal to leak. Damaged seals must be replaced.

Lubricate spindle with a medium grade grease. Rotate housing on spindle shaft, checking for free movement.

When desired adjustment is obtained, secure nut in position with cotter key and install dust cap (13).

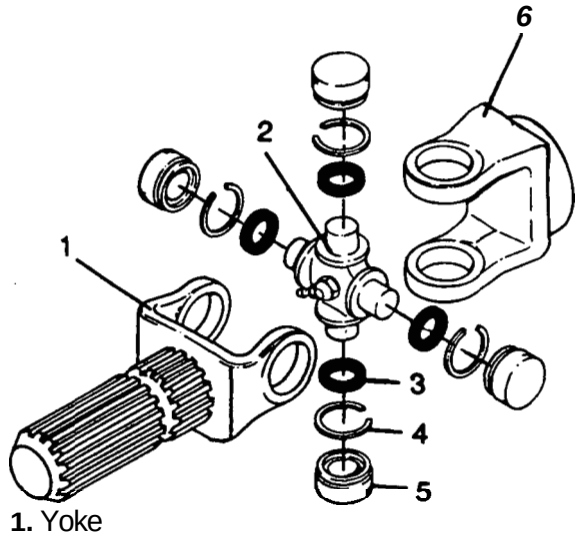
Drive Spindle Installation

Place key in shaft and position pulley on spindle shaft **with** split taper bushing **so** the center line of the pulley is 2-13/16 **(+1/16 ,-0)** from the top rear face of the spindle housing.

Alternately tighten split taper bushing bolts **to** secure pulley in proper alignment. Continue alternate tightening sequence until assembly is tight and all bolts are torqued to 12 ft-lbs.

Check drive pulley **and** adjust **if** necessary. When aligned, peen keyway to prevent key from working out.

Universal Joint Repair (figures **18 - 23)**

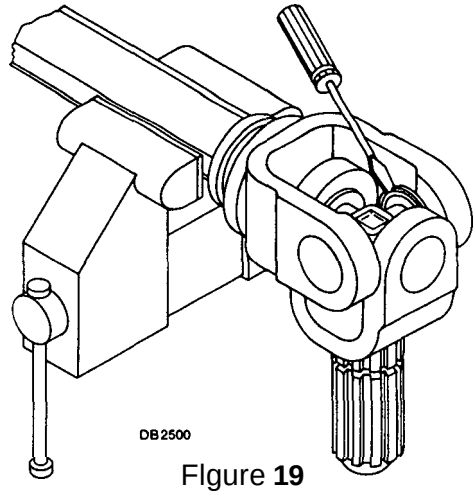


1. Yoke
2. Journal cross
3. Seal
4. Snap ring
5. Cup and bearings
6. Yoke

Figure 18. U-Joint Exploded View

Disassembly

1. Remove snap rings from inside of yokes in four locations as shown in figure **19.**



Flgure **19**

2. With snap rings removed, support drive in vise, hold yoke in hand and tap on yoke to drive cup out of yoke. See figure 20.

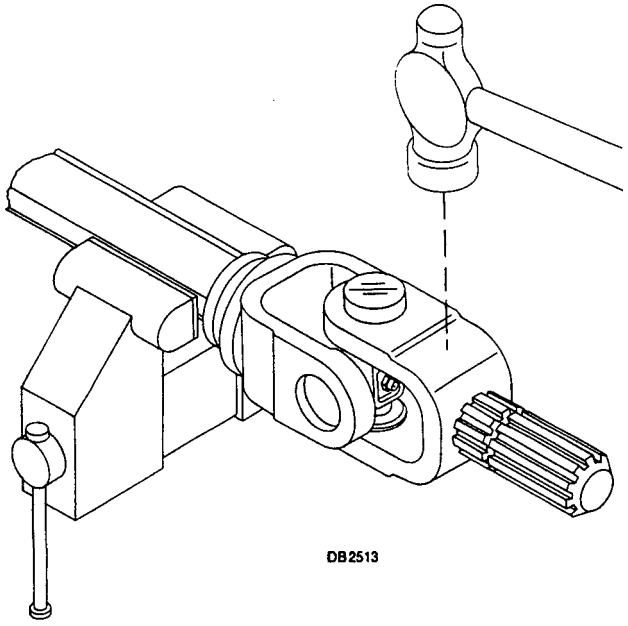


Figure 20

3. Clamp cup in vise as shown in figure **21** and tap on yoke to completely remove cup from yoke. Repeat steps ***two*** **and** three **for** opposite cup.

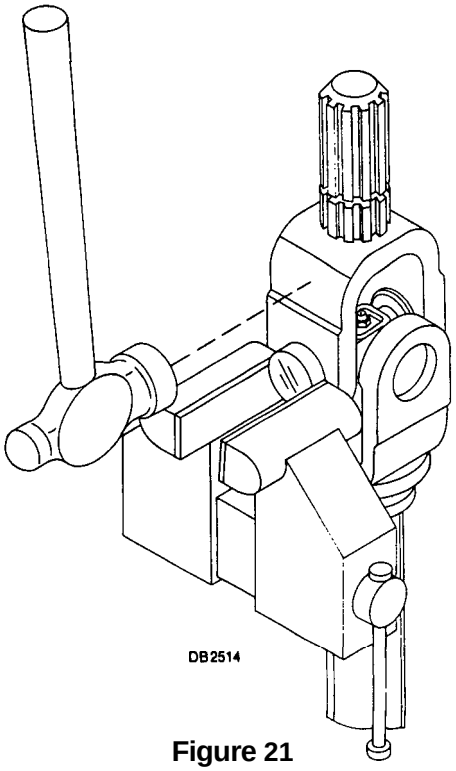


Figure 21

4. Place universal cross in vise as shown in figure 22 and tap on yoke **to** remove cup. Repeat step three for final removal. Drive remaining cup ***out*** with drift **and** hammer.

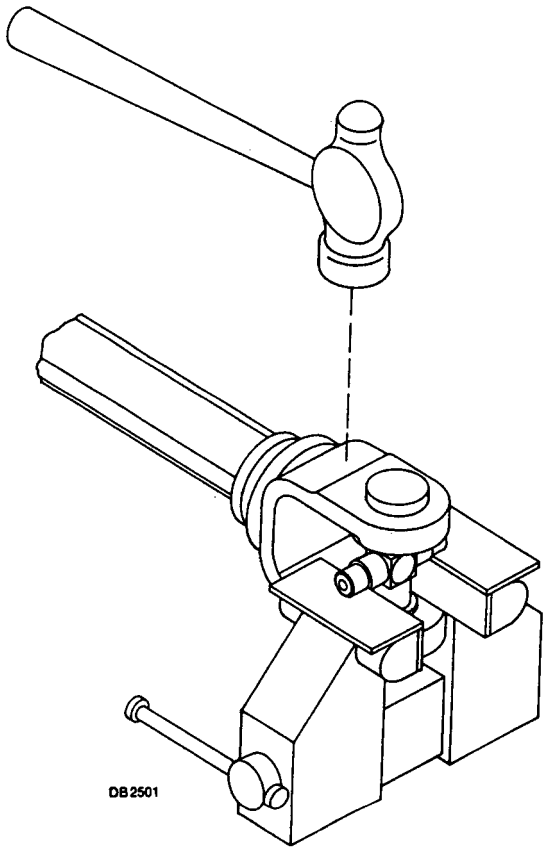


Figure 22

Assembly

1. Place seals securely on bearing cups. Insert cup into yoke from outside and press in with hand pressure as far as possible. Insert journal cross into bearing cross with grease fitting away from shaft. Be careful not to disturb needle bearings. Insert another bearing cup across from first cup and press in as far as possible with hand pressure.

Trap cups in **a** vise and apply pressure. Be sure journal cross is started into bearings and continue pressure with vise, squeezing in as far as possible. Tap yoke to aid in process.

2. Seat cups **by** placing a drift (slightly smaller than the cup) on cup and rapping with hammer. (See figure **23.)** Install snap ring and repeat on opposite cup.

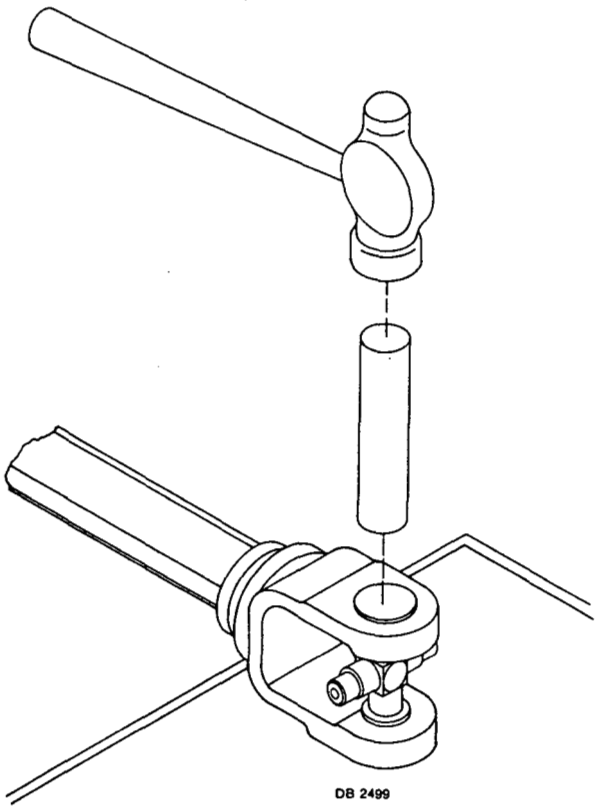


Figure 23

3. Repeat assembly steps one and *two* to install remaining cups in remaining yoke.

Move both yokes in all directions to check for free movement. Should movement be restricted, rap on yokes sharply with a hammer to relieve any tension, Repeat until **both** yokes move in all directions without restriction.

⚠ WARNING

Make sure tractor PTO spring-activated locking collar slides freely and is seated firmly in mower driveline spilne groove.

NOTES

NOTES

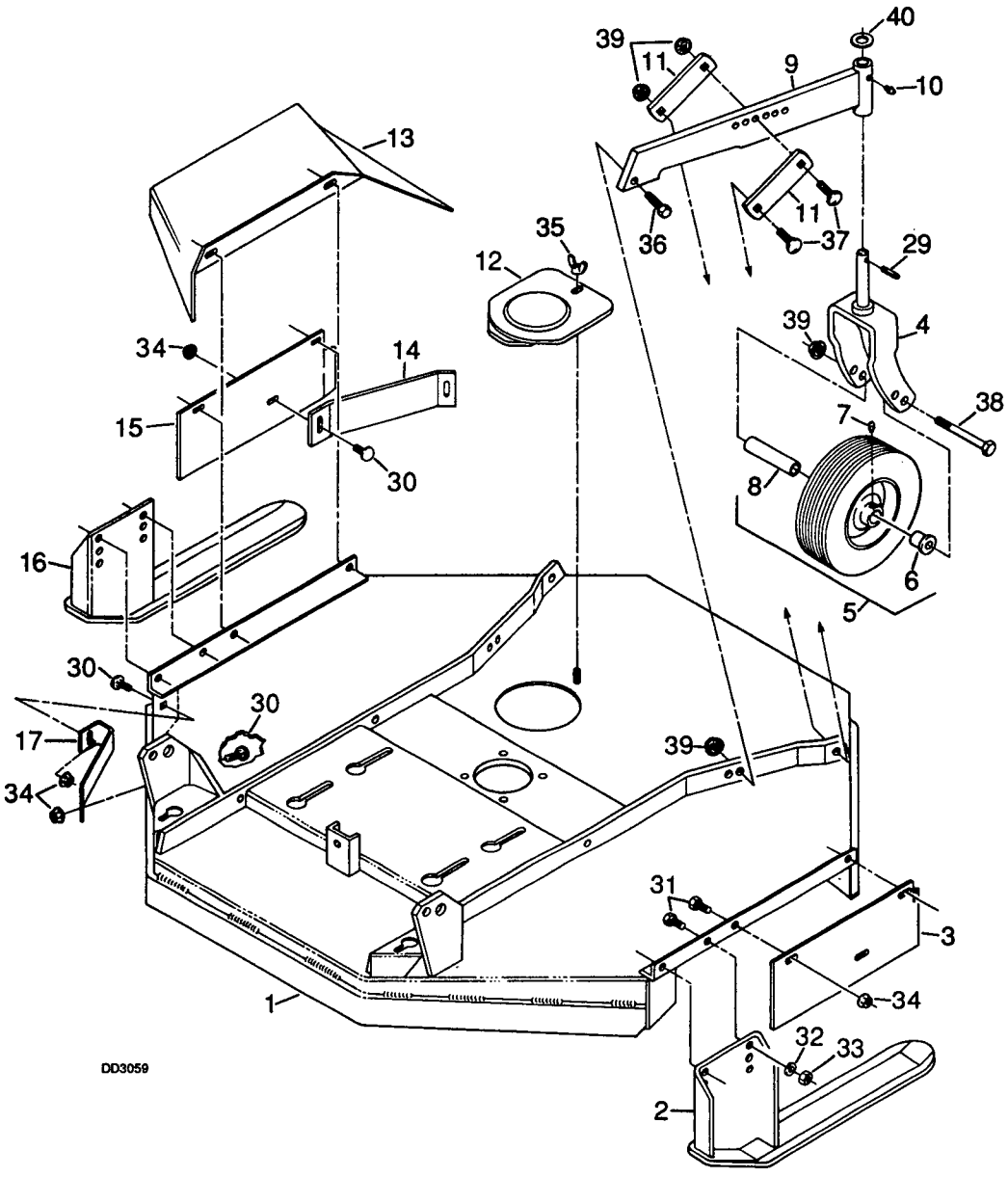
TROUBLE SHOOTING

MOWING CONDITIONS

Problem	Possible Cause	Solution
Grass cut lower in center of swath than at edge	Height of mower lower at rear or front	Adjust mower height and attitude so that mower rear and front are within 1/2" of same height. See instructions on page 14.
Streaking conditions in swath	Conditions too wet for mowing	Allow grass to dry before mowing.
	Blades unable to cut that part of grass pressed down by path of tractor tires	Slow ground speed of tractor but keep engine running at full PTO rpm. Cutting lower will help.
	Dull blades	Sharpen or replace blades.
Material discharges from mower unevenly; bunches of material along swath	Material too high and too much material	Reduce ground speed but maintain 2,000 rpm at tractor PTO, or make *two* passes over material. Raise the mower for the first pass and lower to desired height for the second and cut at 90° to first pass. Raise rear of mower high enough to permit material to discharge, but not so high that conditions listed above occur.
	Grass wet	Allow grass to dry before mowing. Slow ground speed of tractor but keep engine running at full PTO rpm. Cutting lower will help.
	Rear of mower too low, trapping material under mower	Adjust mower height and attitude. See instructions on page 14.

INDEX TO PARTS LISTS

MAIN FRAME ASSEMBLY



18 - COMPLETE ENGLISH DECAL SET
19 - ENGLISH SAFETY DECAL **SET**
20 - FRENCH SAFETY DECAL SET

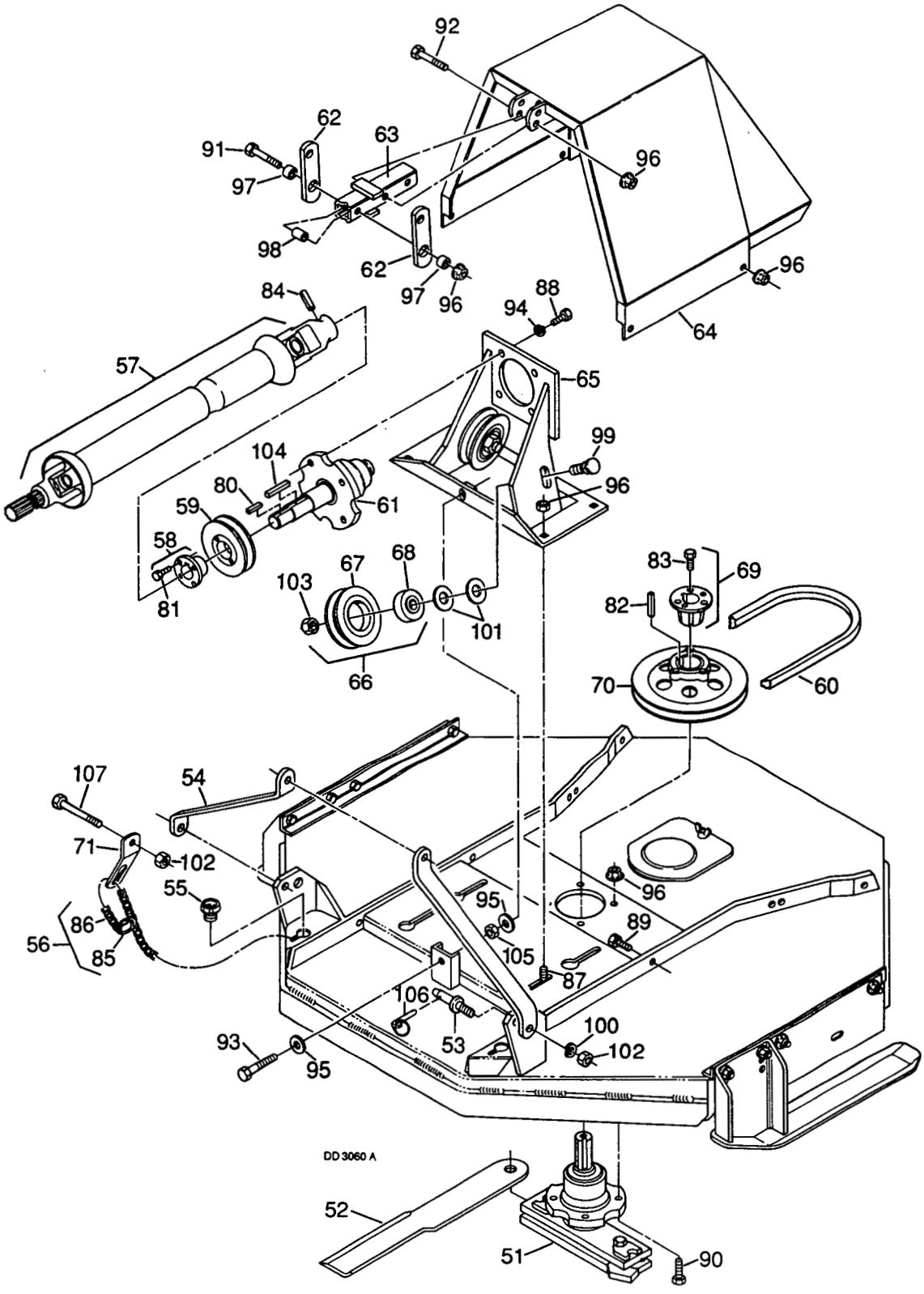
MAIN FRAME ASSEMBLY

Ref No	No. Used	Description
1	1	Mower frame
2	1	Left side skid
3	1	Left side shield
4	2	Caster wheel yoke assembly
5	2	10-1/4 Caster wheel with sleeve
6	2	5/8 ID Flange bearing for 1-1/8 bore wheel
		-or-
6	2	3/4 ID Flange bearing for 1-1/8 bore wheel
		-or-
6	2	5/8 ID Flange bearing for 1-3/8 bore wheel
		-or-
6	2	3/4 ID Flange bearing with groove for 1-3/8 bore polyethylene wheel
7	2	Straight 1/4 self-tap grease fitting (for steel wheel)
		-or-
7	2	Straight 1/8 pipe thread grease fitting (for polyethylene wheel)
8	2	1/2 x 3/4 x 3-3/8 Sleeve
		-or-
8	2	17 GA Wall x 5/8 x 3-3/8 sleeve
9	2	Caster arm assembly
10	2	1/4 - 28 Tapered thread grease fitting
11	4	Caster arm adjustment bracket
12	1	Access hole cover assembly
13	1	Discharge chute (for use on mowers with CW blade rotation)
14	1	Side shield baffle
15	1	Right side shield
16	1	Right side skid
17	1	Front corner baffle
18	1	Complete English decal set
19	1	English safety decal set
20	1	French safety decal set

HARDWARE

Ref No	Description
29	1/4 x 1-1/4 Spirol pin
30	3/8 NC x 3/4 Carriage bolt
31	3/8 NC x 1 Hex head cap screw GR5
32	3/8 Standard lockwasher
33	3/8 NC Hex nut, plated
34	3/8 NC Flanged hex locknut
35	3/8 NC Wing nut
36	1/2 NC x 1-1/2 Hex head cap screw GR5
37	1/2 NC x 1-3/4 Carriage bolt HT
38	1/2 NC x 5 Hex head cap screw GR5
39	1/2 NC Flanged hex locknut
40	3/4 SAE Flat washer

MOUNTING FRAME ASSEMBLY



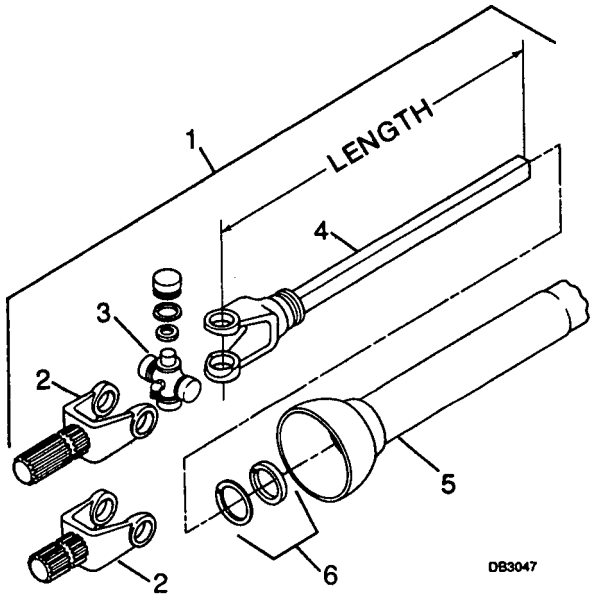
MOUNTING FRAME ASSEMBLY

Ref No	No. Used	Description
51	1	CW Blade spindle (see page 35)
52	2	Twisted QD blade (for right hand rotation)
		-or-
52	2	CW Welded fin blade (for right hand rotation)
53	2	Mounting pin - Category 0, 3-7/8 long
54	2	A-Frame bar
55	2	1-1/16 - 121 D SAE Thread plastic caplug
56	2	Check chain with hardware
57	--	Front & rear drives (see page 34)
58	1	H 1-3/8 Straight bore bushing (includes item #104)
59	1	1 BK, 3.9 H Sheave
60	1	W44 V-Belt
61	1	Drive spindle assembly (see page 35)
62	2	Top pivot link
63	1	Top link tube assembly
64	1	Drive shield
65	1	Idler bracket assembly
66	2	V-Groove idler with bearing
67	2	4.50 OD V-Groove idler less bearing
68	2	.626 ID x 1.85 OD Ball bearing
69	1	P1 1-1/4 Straight bore bushing
70	1	1 TB, 7.25 Sheave P
71	2	Check chain bracket

HARDWARE

Ref No	Description
80	1/4 x 1/4 x 1-1/4 Key
81	1/4 NC x 3/4 Hex head cap screw GR5
82	1/4 x 3/8 x 2 Key
83	5/16 NC x 1 Hex head cap screw GR5
84	5/16 x 1-34 Spirol pin
85	Link, screw type
86	4/0 Twisted link chain, 27"
87	1/2 NC x 1 Carriage bolt
88	1/2 NF x 1-1/4 Hex head cap screw GR5
89	1/2 NC x 1-1/4 Hex head cap screw GR5
90	1/2 NC x 1-3/4 Hex head cap screw GR5
91	1/2 NC x 2-3/4 Hex head cap screw GR5
92	1/2 NC x 3-3/4 Hex head cap screw GR5
93	1/2 NC x 4-1/2 Hex head cap screw, full thread
94	1/2 Extra-heavy lockwasher
95	1/2 Standard flat washer
96	1/2 NC Flanged hex locknut
97	1/2 x 3/4 x 3/8 Sleeve, HT
98	17 GA Wall x 5/8 x 1-3/16 Sleeve
99	5/8 NC x 2-1/4 Carriage bolt
100	5/8 Heavy lockwasher
101	5/8 Standard flat washer
102	5/8 NC Hex nut
103	5/8 NC Hex locknut
104	5/16 x 5/16 x 2-1/4 Key (furnished with item #58 - not sold separately)
105	1/2 NC Heavy hex nut
106	3/16 x 1 Klik pin
107	5/8 NC x 3 Hex head cap screw GR5

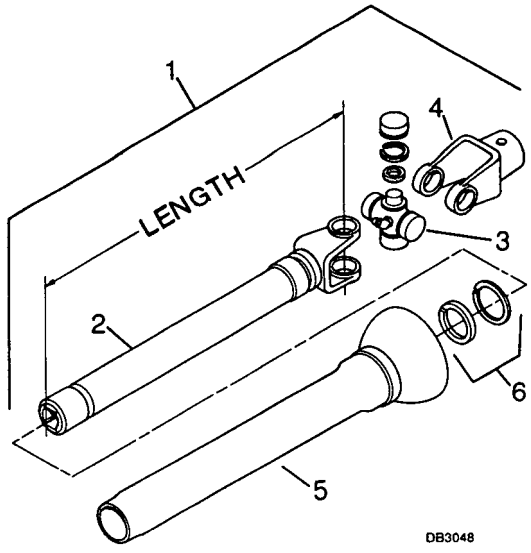
FRONT DRIVE & SHIELD ASSEMBLY



Ref No	No. Used	Description
1	1	Front drive and shield L6W complete, 13" long
		-or-
1	1	Front drive and shield 6W complete, 11-1/2" long
2	1	1" 15-Tooth splined male yoke, 3-1/4" long splined shaft L6W
		-or-
2	1	1" 15-Tooth splined male yoke, 1-58" long splined shaft L6W
3	1	U-Joint repair kit 6RW
4	1	3/4 x 7/8 x 13 Shaft and welded yoke 6W
		-or-
4	1	3/4 x 7/8 x 11-1/2 Shaft and welded yoke 6W
5	1	Outer U-joint shield, 10-1/4" long 6W
		-or-
5	1	Outer U-joint shield, 8-1/2" long L6W
6	1	Integral shield attaching kit 6W

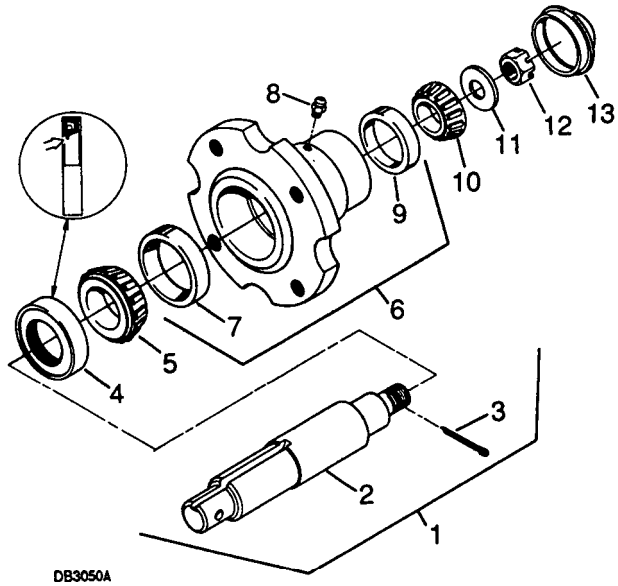
REAR DRIVE & SHIELD ASSEMBLY

Ref No	No. Used	Description
1	1	Rear drive and shield L6W complete, 10" long
2	1	10" Tubular shaft and welded yoke 6W
3	1	U-Joint repair kit 6RW
4	1	1" Straight bore yoke L6R
5	1	Inner U-joint, 9-1/4 long L6W
6	1	Integral shield attaching kit 6W

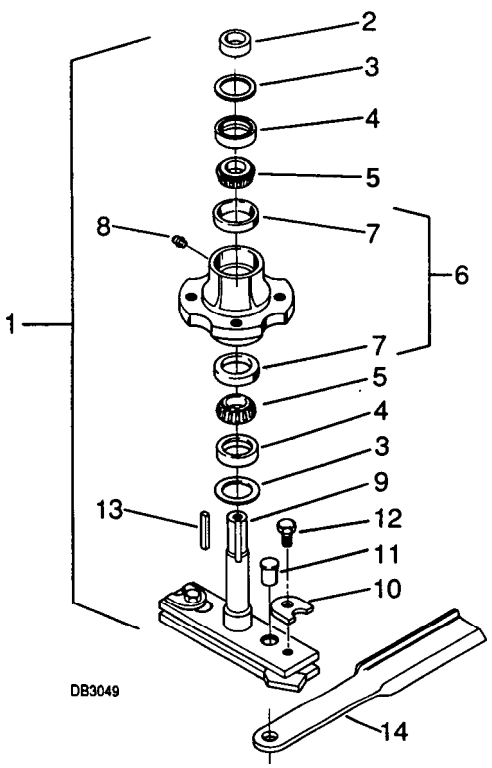


DRIVE SPINDLE ASSEMBLY

Ref No	No. Used	Description
1	1	Drive spindle assembly complete
2	1	Drive spindle shaft
3	1	**3116** x **1** Cotter pin
4	1	Seal for **1-112** shaft
5	1	Bearing cone **#LM67048**
6	1	Hub with cups
7	2	Bearing cup **#LM67010**
8	1	**114 - 28** Tapered thread grease fitting
9	1	Bearing cup **#LM11910**
10	1	Bearing cone **#LM11949**
11	1	**3/4 SAE** Flat washer
12	1	**3/4** NF **Slotted** hex nut
13	1	Hub cap



CW BLADE SPINDLE ASSEMBLY



Ref No	No. Used	Description
1	1	CW Blade spindle
2	1	**1-318** x **1-314** x **518** Sleeve
3	2	**1-314** x **2-3/8** x **13 GA** Flat washer
4	2	Seal **for 1-3/4** shaft
5	2	Bearing cone **#LM48548**
6	1	Spindle housing with cups
7	2	Bearing cup **#LM48510**
8	1	Straight **118** pipe thread grease fitting
9	1	Spindle shaft and crossbar
10	2	Blade pin retainer washer
11	2	**QD** Blade pin
12	2	**112** NC x **314** Nylok hex head cap screw
13	2	**114** x **318** x **2** Key
14	2	Twisted QD blade
		-or-
14	2	Welded fin CW blade

INDEX

WARRANTY SERVICE

Your satisfaction and goodwill are important to your dealer and to us. All Honda warranty details are explained in the Distributor's Limited Warranty. Normally, any problems concerning the product will be handled by your dealer's service department. If you have a warranty problem that has not been handled to your satisfaction, we suggest you take the following action:

- Discuss your problem with a member of dealership management. Often complaints can be quickly resolved at that level. If the problem has already been reviewed with the Service Manager, contact the owner of the dealership or the General Manager.

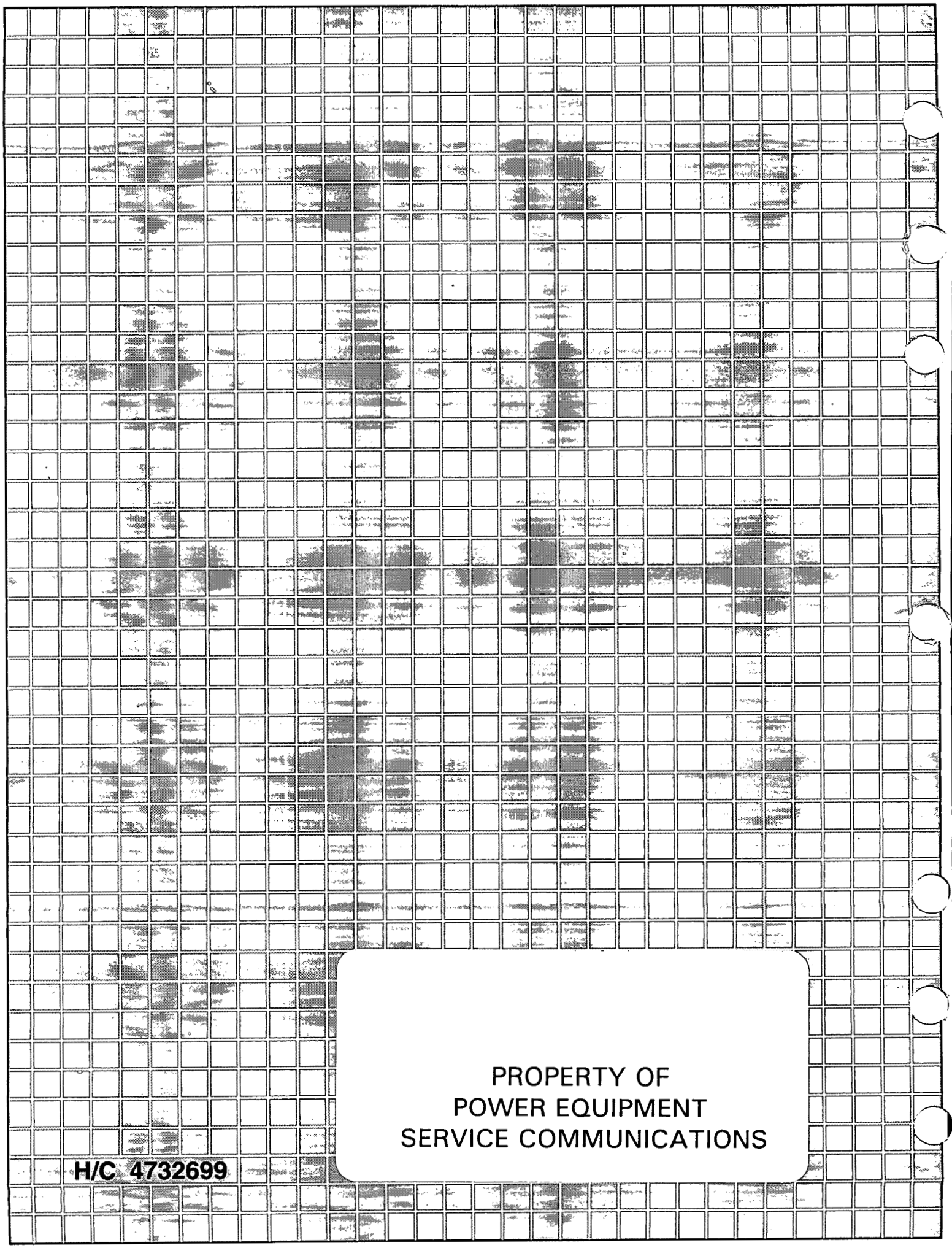
- If your problem still has not been resolved to your satisfaction, contact the Power Equipment Customer Service Department of American Honda Motor Co., Inc:

American Honda Motor Co., Inc.
Power Equipment Customer Service
Duluth, Georgia 30136-9421
Telephone: (404) 497-6400

We will need the following in order to assist you:
—Your name, address, and telephone number
—Product model and serial number
—Date of purchase
—Dealer name and address
—Nature of the problem

After reviewing all the facts involved, you will be advised of what action can be taken. Please bear in mind that your problem will likely be resolved at the dealership, using the dealer's facilities, equipment, and personnel. so it is very important that your initial contact be with the dealer.

Your purchase of a Honda product is greatly appreciated by both your dealer and American Honda Motor Company. We want to assist you in every way possible to assure your satisfaction with your purchase.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