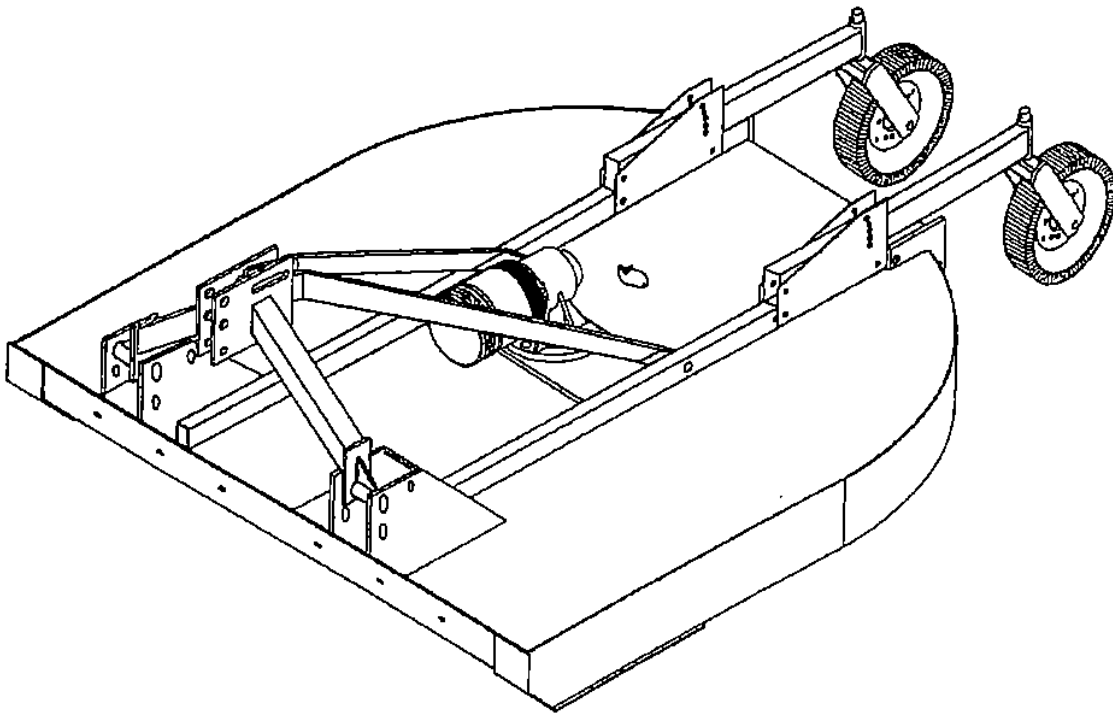




TAYLOR PITTSBURGH MFG., INC.
P.O. BOX 1866
ATHENS, TN 37371
423-745-3110

SERIES 487 ROTARY CUTTER



OWNER'S MANUAL

FORM 5-487-07
JANUARY 2008

TO THE DEALER:

The cutter assembly and proper installation to the tractor is the responsibility of the TAYLOR PITTSBURGH dealer. Read manual instructions and safety rules. Make sure all items on the Pre-delivery and Delivery Check Lists are completed before releasing equipment to the owner.

TO THE OWNER:

Read this manual before operating your TAYLOR PITTSBURGH cutter. The information presented will prepare you to do a better and safer job. Keep this manual handy for ready reference. Require all operators to read this manual carefully and become acquainted with all the adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your dealer or by calling 1-423-745-3110, in the USA and Canada only.

The cutter you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety decals on the cutter and tractor.

For service, your authorized TAYLOR PITTSBURGH dealer has trained mechanics, genuine TAYLOR PITTSBURGH service parts, and the necessary tools and equipment to handle all your needs.

Provide your model number and serial number to your dealer to obtain correct repair parts.

LIMITED WARRANTY

TAYLOR PITTSBURGH MFG., INC., the manufacturer, warrants only to the Original Purchaser that this equipment, under normal use and service, will be free from defects in material and workmanship for one (1) year from date of purchase providing this equipment is purchased for individual and not for commercial use. Warranty for commercial usage is 90 days. This warranty does not apply to any equipment which has been damaged or which has been subjected to abuse, misuse, negligence, abnormal wear and tear, alterations, tampering, or failure to follow operating instructions. This warranty does not cover any product or parts not manufactured by Taylor Pittsburgh Mfg., Inc.

Under this warranty, the manufacturer will repair or replace any part which the manufacturer determines has failed during the period of the warranty due to defects in material or workmanship. After approval by the manufacturer, the equipment or defective part must be returned to Taylor Pittsburgh Mfg., Inc., Athens, Tennessee 37371.

PURCHASER'S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY, OTHER DEFECT, OR CONDUCT GIVING RISE TO LIABILITY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT SOLD, AND THE MANUFACTURER UNDER NO CIRCUMSTANCES SHALL BE LIABLE FOR ECONOMIC LOSS OR INCIDENTAL OR CONSEQUENTIAL DAMAGES, THE MANUFACTURER DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR PURPOSE.

Taylor Pittsburgh Mfg., Inc. reserves the right to make improvements and changes in specifications without notice or obligation to modify previously sold units.

This manual describes the proper assembly procedures for your cutter and furnishes operating and maintenance recommendations to help you obtain long and satisfactory service.



TAYLOR PITTSBURGH MFG.

FIVE YEAR LIMITED GEARBOX WARRANTY

Taylor Pittsburgh warrants to the original purchaser of any new Taylor Pittsburgh product equipped with a Gearbox, a Gearbox only limited Five (5) year warranty, for non-commercial, non-state, non-municipalities, and non-rental use and for 90 days for commercial non-rental use or a 30-day warranty is offered for rental use.

Under no circumstances will this Warranty apply in the event that the product, in good faith opinion of Taylor Pittsburgh, has been subjected to improper operation, improper maintenance, misuse, fire or an accident. This Warranty does not apply in the event that the product has been materially modified or repaired by someone not authorized prior to repair by Taylor Pittsburgh. This Warranty does not cover normal wear or tear, or normal maintenance items. This Warranty also does not cover repairs made with parts other than those obtainable through Taylor Pittsburgh.

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

Taylor Pittsburgh's obligation under this Warranty is limited to, at Taylor Pittsburgh's option, the repair or replacement of the product if Taylor Pittsburgh in its sole discretion, deems it to be defective or in noncompliance with this Warranty. **The product must be returned to Taylor Pittsburgh with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid.** THERE ARE NO OTHER REMEDIES UNDER THIS WARRANTY. THE REMEDY OF REPAIR OR REPLACEMENT IS THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY.

THERE ARE NO WARRANTIES, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. TAYLOR PITTSBURGH MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND TAYLOR PITTSBURGH SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND/OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Taylor Pittsburgh shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory.

Without limiting the generality of the foregoing, Taylor Pittsburgh specifically disclaims any damages relating to lost profits, business revenues or goodwill, loss of crops, loss of delay in harvesting; any expense or loss incurred for labor, supplies, substitute machinery or rental; or any other type of damage to property or economic loss.

Any and ALL repairs must be pre-approved by Taylor Pittsburgh prior to any repairs being made and subject to all conditions, restrictions, and purchaser obligations as stated within this warranty.

P.O. Box 1866 • 7 Rocky Mount Road • Athens, TN 37371 • (423) 745-3110 • Fax (423) 744-9662



Five (5) Year Limited Gearbox Warranty is a variable warranty based on purchase date, within one year from original purchase date, to the original owner. Warranty would include parts and labor based on all restrictions and limits as stated above. Taylor Pittsburgh reserves the right to limit labor in hours and hourly charges. All repairs must be pre-approved prior to work being done. Years 2 through 5 are parts only warranty. **NO LABOR WILL BE PAID.** Taylor Pittsburgh reserves the right to ask and inspect all parts prior to a warranty decision being made. Incidental expenses such as lubricants and transportation to and from the dealer are not covered by warranty.

It is the original purchaser's burden and obligation to maintain proof of purchase, a copy of which must accompany any and all warranty claims.

No agent, representative, dealer, distributor, serviceperson, salesperson, or employee of any company, including without limitation, Taylor Pittsburgh, its authorized dealers, distributors, and service centers, is authorized to alter, modify or enlarge this Warranty.

This Warranty is effective on any Taylor Pittsburgh product purchased January 1, 2008 and after and is subject to change without notice.

Answers to any questions regarding warranty service may be obtained by contacting:

Taylor Pittsburgh
7 Rocky Mount
Athens, TN 37308

800-456-7929(tel)
423-744-9662(fax)

Taylor Pittsburgh Manufacturing, Inc., Athens, TN, is a manufacturer of quality agricultural and rural lifestyle equipment, and is a division of King Kutter Inc. Taylor Pittsburgh Manufacturing, Inc. offers a full line of three-point mounted and pull type implements including rotary cutters, rotary tillers, estate groomers, landscape equipment, and specialty equipment. For more information please contact Taylor Pittsburgh Manufacturing, Inc. at (423) 745-3110.

P.O. Box 1866 • 7 Rocky Mount Road • Athens, TN 37371 • (423) 745-3110 • Fax (423) 744-9662

SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



SAFETY ALERT SYMBOL


FIG. 1: This is the safety alert symbol. It means **ATTENTION: BECOME ALERT! YOUR SAFETY IS INVOLVED!** Look for it, both in this manual and on safety decals on the equipment. It will direct your attention to information that involves your safety and the safety of others.




Figure 1

SIGNAL WORDS

FIG. 2: The words **DANGER**, **WARNING** or **CAUTION** are used with the safety alert symbol. Learn to recognize these safety alerts, and follow the recommended precautions and safe practices.

 **DANGER:** The safety alert symbol, with the word **DANGER**, indicates an imminently hazardous situation that, if not avoided, will cause **DEATH OR VERY SERIOUS INJURY**.

 **WARNING:** The safety alert symbol, with the word **WARNING**, indicates a potentially hazardous situation that, if not avoided, could cause **DEATH OR SERIOUS INJURY**.


 **CAUTION:** The safety alert symbol, with the word **CAUTION**, indicates a potentially hazardous situation that, if not avoided, may cause a **MINOR INJURY**.



Figure 2

Replace any **DANGER**, **WARNING**, **CAUTION** or instructional decal that is not readable or is missing. The location and part number of these decals is identified later in the section of the manual.

IMPORTANT: The word **IMPORTANT** is used to identify special instructions or procedures which, if not strictly observed could result in damage to, or destruction of the machine, process or its surroundings.

GENERAL INFORMATION

INTRODUCTION

READ THIS MANUAL carefully to learn how to operate and service your cutter correctly. Failure to do so could result in personal injury or equipment damage.

Throughout this manual, references are made to right and left direction. **RIGHT - HAND AND LEFT - HAND** sides are determined by standing behind the cutter facing the direction the cutter will travel when going forward.

The purpose of this manual is to assist you in operating and maintaining your cutter. 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.

Maintain your cutter with original repair parts to insure optimum performance.

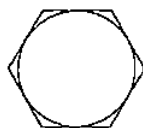
WARNING

Some illustrations in this manual show the cutter with shields removed to provide a better view. The cutter should never be operated without guards or shields.

The illustrations and data used in this manual were current at the time of printing, but due to possible production changes, your cutter may vary slightly in detail. We reserve the right to redesign and change the cutters as may be necessary without notification.

BOLT TORQUE CHART

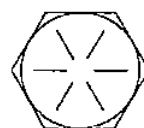
GRADE 2



GRADE 5



GRADE 8



TORQUE IN FOOT POUNDS (NEWTON METERS)

BOLT SIZE	3/8	1/2	5/8	3/4	7/8	1	
HEX HEAD	9/16	3/4	15/16	1-1/8	1-5/16	1-1/2	
GRADE	2	18 (24.4)	45 (61.0)	89 (120.7)	160 (216.9)	252 (341.6)	320 (433.9)
	5	30 (40.6)	68 (92.2)	140 (189.8)	240 (325.4)	360 (488.1)	544 (737.5)
	8	40 (54.2)	100 (135.6)	196 (265.7)	340 (460.9)	528 (715.1)	792 (1073.8)

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SPECIFICATIONS	
MODEL	487
CUTTING WIDTH - in. (mm)	84 (2134)
GEAR BOX	90 HP
P.T.O. RPM	540
BLADE TIP SPEED (FPM)	14,394
BLADES - in. (mm)	1/2" x 4" (12.7 x 101.6)
STUMP JUMPER	ROUND STD.
CUTTING HEIGHT RANGE - in. (mm)	2" TO 12" (50.8 - 304.8)
CUTTING CAPACITY	BRUSH UP TO 2" (50.8)
SLIP CLUTCH	STANDARD
DECK THICKNESS	7 GA (4.56)
SIDE SKIRT THICKNESS - in. (mm)	1/4" (6.35)
SIDE SKIRT DEPTH - in. (mm)	10 (254)
TIRE - LAMINATED - in. (mm)	(2) - 16" (406.4)
HITCH	CAT I or II
DRIVE LINE	CAT 4
WEIGHT - lbs. (kg)	1,550 (702.9)
P.T.O. HP REQUIREMENTS	40 - 90

SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



Your personal 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 design of this equipment depends on it being operated within the limitations as explained in this manual.

TRAINING

- **Safety Instructions are important!** Read this manual and the tractor manual; follow all safety rules and safety decal information. (Replacement manuals are available from your dealer.) Failure to follow instructions or safety rules can result in serious injury or death.
- If you do not understand any part of this manual and need assistance, see your dealer.
- Know your controls and how to stop engine and cutter quickly in an emergency.
- The operator must be instructed in and be capable of the proper 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 untrained persons to operate equipment.

PREPARATION

- Always wear close fitting clothing and personal protection equipment called for by the job conditions. These items may include a hard hat, safety glasses, goggles or face shield, hearing protection and safety boots. DO NOT wear loose clothing, jewelry or any other items that may be entangled in moving parts. Tie up long hair.

- Ensure cutter is properly mounted, adjusted and in good operating condition.
- Tighten all bolts and nuts, and check that all cotter pins are installed securely to ensure equipment is properly assembled before operating.
- Make sure spring-activated locking pin or collar slides freely on driveline and is seated firmly in tractor PTO spline groove.
- Tractor must be equipped with ROPS FRAME or ROPS CAB and seat belt. Keep seat belt securely fastened. Falling off tractor can result in death from being run over or crushed. Keep foldable ROPS systems in "locked up" position at all times.
- Remove accumulated debris from this cutter, tractor and engine to avoid fire hazard.
- Ensure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)
- Inspect chain/deflector shielding before each use. Replace if damaged.
- Ensure shields and guards are properly installed and in good condition. Replace if damaged.
- A minimum 20% of the combined tractor and cutter weight must be on tractor front wheels with cutter in transport position. Without this weight, tractor could tip over causing personal injury or death. See your tractor operators manual for information regarding adding weights.
- Inspect and clear area of stones, branches or other hard objects that might be thrown, causing injury or damage.

OPERATIONAL SAFETY

- Keep bystanders away from cutter while it is in operation.
- Never direct discharge toward anyone.
- Operate only in daylight or good artificial light.
- Always comply with all state and local lighting and marking requirements.

(Safety Rules continued on next page)

SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



(Safety Rules continued from previous page)

- Do not allow other people in the area when operating, attaching, removing, assembling, or servicing cutter.
- Make certain all movement of cutter components has stopped before opening blade access cover.
- No riders are allowed on equipment.
- Always sit in tractor seat with seat belt fastened when operating controls or starting engine. Place transmission in park or neutral, engage brake and ensure all other controls are disengaged before starting tractor engine.
- Operate tractor PTO at 540 rpm. Do not exceed.
- Do not operate tractor PTO during transport.
- Lock down and to the rear and make sure area 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 tractor and implement immediately upon striking an obstruction. Turn off engine, remove key, inspect and repair any damage before resuming operation.
- When performing any service or maintenance, disengage power to cutter. Lower all raised components to the ground. Operate valve levers to release any hydraulic pressure. Stop engine, set parking brake and remove key before dismounting tractor.
- Keep all persons away from operator control area while performing adjustments, service or maintenance.

MAINTENANCE SAFETY

- Before performing any service or maintenance, disconnect driveline from tractor.
- Before working underneath, raise cutter to highest position, install transport locks, and block

securely. Blocking up prevents cutter dropping from hydraulic leak down, hydraulic system failures, or mechanical failure on the tractor.

- Keep all persons away from operator control area while performing adjustments, service or maintenance.
- Frequently check blades. They should be sharp, free of nicks and cracks and securely fastened.
- Do not handle blades with bare hands. Careless or improper handling may result in serious injury.
- Your dealer can supply genuine replacement cutter blades. Substitute blades may not meet original equipment specifications.

TRANSPORTING SAFETY

- Use a Slow - Moving - Vehicle (SMV) emblem and proper lighting on the tractor when transporting the cutter.
- Do not road the cutter over 20 MPH (30KPH) on the best surface conditions. Reduce speed when going up or down hills and when approaching ditches or corners.
- Raise cutter to highest position for transport.
- Check condition of hitch pins and bolts before transporting.
- Do not operate tractor PTO during transport.
- Always comply with all state and local lighting and marking requirements.
- Watch low hanging Overhead Power Lines during transport. Avoid contact as this can cause serious injury or death.

STORAGE

- Lower equipment to the ground and block to prevent rolling.
- Keep playing children and bystanders away from storage area.
- Store on a level surface sheltered from the weather.

SAFETY DECALS



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!




Replace Immediately If Damaged!

The following safety decals are located on your cutter. Read them and follow their instructions. Keep all decals in place and legible. Replace worn or missing decals. Replacement safety decals are available through your dealer. Order by number listed.

ROTARY CUTTERS P/N 815997


WARNING



MOVING PART HAZARD
To prevent serious injury or death from moving parts:

- Close and secure guards and shields before starting.
- Keep hands, feet, hair and clothing away from moving parts.
- Disconnect and lockout power source before adjusting or servicing.
- Do not stand or climb on machine when operating.


WARNING



TO PREVENT SERIOUS INJURY OR DEATH

- Keep hands and body out of hitch area when attaching mower to tractor.
- Keep body clear of crush point between tractor and mower.

DANGER




ROTATING DRIVELINE HAZARD
KEEP AWAY

To prevent serious injury or death from rotating driveline:

- Keep all guards in place when operating.
- Operate only at 540 RPM
- Keep hands, feet, clothing and hair away from moving parts.
- Do not operate without driveline securely attached at both ends.
- Do not operate without driveline shields that turn freely on driveline.

DANGER



THROWN OBJECT HAZARD
To prevent serious injury or death:

- Do not operate unless all guards are installed and in good condition.
- Stop blade rotation if bystanders come within several hundred feet.

WARNING

To prevent serious injury or death:

- Read and understand Operator's Manual before using. Review annually.
- Do not permit riders on the tractor or mower, including children.
- Do not allow children to operate mower.
- Operate only with guards installed and in good working condition.
- Keep away from moving parts.
- Operate only with tractor equipped with ROPS and seatbelt.
- Before mowing, clear debris from mowing area.
- Do not operate in the raised position.
- Stop engine, lower mower, set brakes and wait for all moving parts to stop before dismounting.
- Support mower securely before working beneath unit.
- Transport with clean reflectors, BMY and working lights as required by federal, state, and local laws.
- Keep yourself, others, and clothing away from the rotating PTO.
- Keep others away from area to be mowed to avoid injury from flying objects.
- Do not stand between tractor and cutter.
- Be careful on uneven terrain. Decrease speed when turning.
- Do not exceed a safe transport speed.

DANGER




PINCH POINT-KEEP CLEAR

DANGER



PINCH POINT-KEEP CLEAR

DANGER



ROTATING BLADES-KEEP AWAY

To prevent serious injury or death when the engine is running and the blades are rotating:

- Never allow riders, especially children, on tractor or mower.
- Do not operate with bystanders in mowing area.
- Do not operate with deflections/guards removed.
- Do not place hands or feet under deck.
- Do not stand on or near implement at any time.
- Do not stand between tractor and implements.
- Operate only with tractor equipped ROPS and seatbelt.

CAUTION

Use only grade 2 shearbolt or serious damage may result. Use of a shearbolt other than a grade 2 voids the manufacturer warranty.

Replacement Operators Manuals are available from your dealer

FOR MULTI SPINDLE CUTTERS, CONSULT OWNERS MANUAL FOR BLADE ROTATION INFORMATION

INTRODUCTION

This manual covers the assembly, operation, and maintenance of your Series 487 Rotary Cutter. Studying and obeying these instructions will insure optimum product performance and longevity. Be sure to read all instructions carefully. Read all safety precautions prior to operation.

Maintain your rotary cutter with original repair parts to insure optimum performance.

MODIFICATIONS

It is the policy of the manufacturer to improve its products whenever possible and practical. We reserve the right to make changes, improvements, and modifications at any time without incurring the obligation to make such changes, improvements, and modifications on any implement sold previously.

ASSEMBLY

General

Your Series 487 Rotary Cutter is shipped with the three point hitch components knocked down and the deflector shields in a separate bundle. Remove all wiring from bundles as they are called for. Choose a level area to arrange the parts conveniently. Assemble parts for each step loosely to insure fit. Use flatwashers with slotted holes. Always use lockwashers unless a lock nut is called for. Tighten hardware after parts are installed according to the torque chart given. Unless otherwise stated, all hardware is grade 5. The following assembly steps are given to minimize the need for adjustment after assembly. Remember that **LEFT** and **RIGHT** are determined by standing at the rear of the cutter and facing it.

WARNING

It is strongly recommended that the installation of deflector shields or chain shielding be installed. A rotary cutter without deflector shields can discharge large objects at high speeds which could seriously injure bystanders or the operator.

Deflector Shields or Chain Shielding

Shields are shipped fully assembled and need only be mounted to cutter deck.

- 1) Arrange shields on ground to be sure of placement on your cutter.
- 2) Attach deflector shields to cutter using hardware supplied in the shield bundle.

- 3) Check and tighten nuts after all hardware is installed.

7' LIFT TYPE CUTTER

A-Frame & Braces (Refer to Figure 3)

1) Install A-frame in hitch brackets and align with rear set of holes. Secure with 1" x 8" bolt and locknut. Do not torque nut. A-frame must be free to rotate.

2) Install lower link pins in bottom hole of hitch brackets. Secure with click pin and spring pin.

3) Position A-frame braces with end having two holes toward the hitch (front).

4) With one brace on each side of A-frame, insert a 1" x 5-1/2" bolt through braces and A-frame using the end hole in the braces. Secure with locknut.

5) Install another 1" x 5-1/2" bolt through remaining hole with a bushing between the braces. Secure with locknut.

6) Attach other end of braces to deck using a 3/4" x 3-1/2" bolt with bushing, flat washer, and locknut.

7' MODEL Wheel Arms (Refer to Fig. 3)

1) Attach tailwheel plates to deck rail using 5/8" x 3-1/2" bolt. Secure with lockwashers and nuts.

2) Align holes in tailwheel arm with holes in plates and secure with 5/8" x 3-1/2" bolt with flatwashers, lockwashers and nuts. Do the same for the opposite tailwheel arm.

Installing Drive Line

Slip Clutch Models:

WARNING

Keep drive line shields in place at all times and in good repair. Replace broken shields.

- 1) Depress push button on yoke of driveline while sliding it onto the splined input shaft of the gearbox.
- 2) With the driveline fed onto the input shaft, release the push button. Slide the drive line further onto the shaft until the push button releases, locking the driveline onto the shaft.

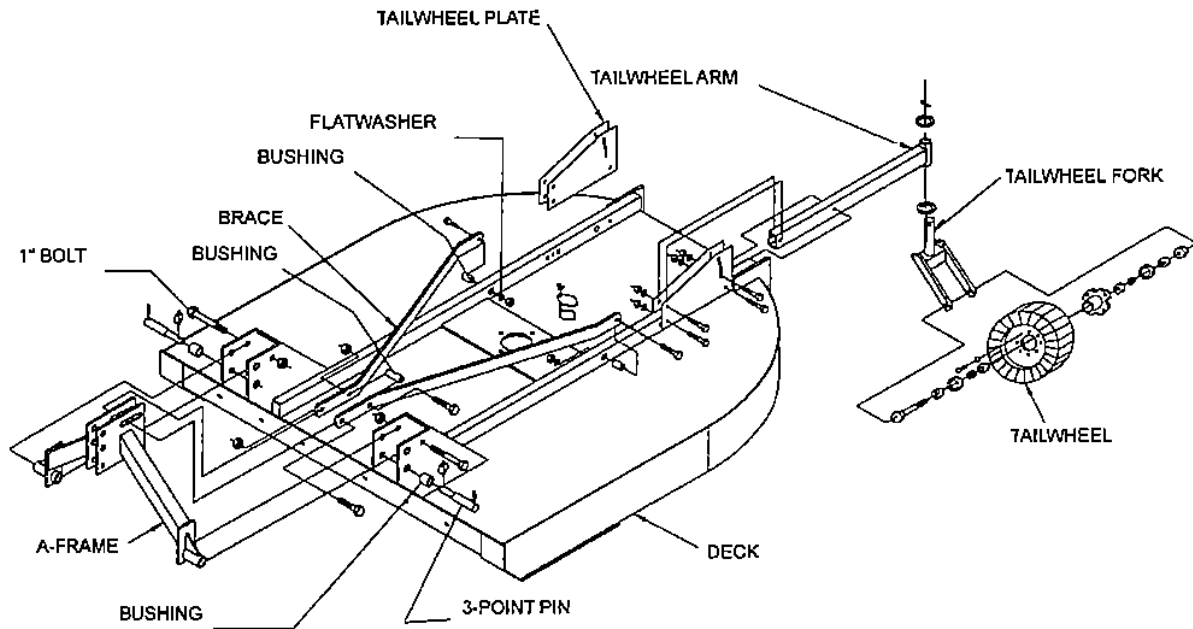


FIGURE 3 - 7 FOOT DECK COMPONENTS

- 3) Push and pull the driveline to insure it is locked in place.
- 4) Attach shield retaining chain included with drive line to shield and A-frame. The chain keeps the driveline shield from rotating when the PTO is engaged. Make sure the chain is installed properly at all times to prevent rotation of shield.

BEFORE OPERATION

- 1) Tighten all loose hardware using the torque chart. **SEE ASSEMBLY.** Replace any missing hardware. On new machines, all hardware must be rechecked after first few hours of operation.
- 2) Replace any bent or broken parts.
- 3) Perform lubrication on implement as recommended. **SEE MAINTENANCE.**
- 4) Refer to your Tractor's Owner's Manual for recommended adjustments and weight distribution.
- 5) Check the cutter's gearbox oil level by removing pipe plug on rear of housing. Add oil using SAE 90EP gear oil as required. **DO NOT** overfill.

- 6) Check gearbox mount bolts to see that they are tight.
- 7) Check all shields and make sure they are in place.
- 8) Check blades for signs of wear or damage. Sharpen dull blades and replace bent or broken blades. **SEE BLADE REPLACEMENT.**
- 9) Read the **SAFETY** section of this manual to be sure of all precautions.

ATTACHING

- 1) Back tractor to align three point hitch.

⚠ WARNING

Be sure bystanders are clear. Do not stand between implement and tractor. Shut off tractor and engage parking brake prior to dismounting.

- 2) Attach tractor lower link arms to cutter. Secure with click pins.
- 3) Attach top link between tractor and cutter. Secure with click pins.

4) Attach drive line to tractor by pushing in on push button and sliding the yoke onto the tractor's PTO shaft. Make sure the push button releases and locks the drive line in place.

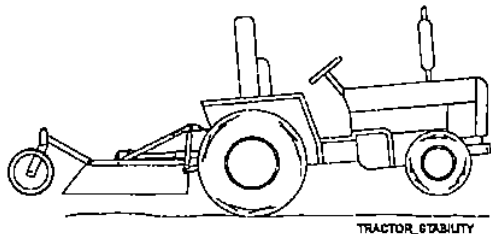
5) Attach shield retaining chain included with driveline to shield and A-frame. The chain keeps the driveline shield from rotating when the PTO is engaged. Make sure the chain is installed properly at all times to prevent rotation of shield.

This cutter is designed for brush up to 2" (50.8mm) diameter. **DO NOT** use in brush larger than 2" (50.8mm) diameter.

TRACTOR STABILITY

⚠ WARNING

A minimum 20% of the combined tractor and cutter weight must be on tractor front wheels with attachment in transport position. Without this weight, tractor could tip over causing personal injury or death. See your tractor operators manual for information regarding adding weights.



OPERATION

1) With tractor at a slow idle, engage the PTO slowly and let the cutter run for several seconds.

2) Gradually increase throttle speed until operating speed is obtained. Listen for unusual noises or vibration. Shut the tractor off immediately if excessive noise or vibration occurs. Allow all moving parts to come to a complete stop and investigate cause.

3) A new gearbox will sound noisy in the first few hours of operation until the gears mesh.

4) Get to know the feel of your new cutter on familiar ground that is free of obstacles.

ADJUSTMENTS

⚠ WARNING

Do not make any adjustments while cutter is in motion or when PTO is engaged.

Side to Side Leveling:

1) Your cutter should be level from side to side. With the cutter and tractor on level ground, use the tractor's link arm crank to adjust the lower link arm up or down as needed to level cutter.

Front to Rear Leveling:

1) Adjust rear tailwheel to desired cutting height. Using the tractor's three point lift, position the front of cutter 1" lower than rear. At this slight angle, the cutter does not require as much power. Fuel efficiency and cutter performance are thereby improved.

2) Adjust the top link in or out so the brace bolt is centered in A-frame slot.

3) Check the tailwheel to see that it contacts the ground. If it does not, reposition the rear tailwheel arm bolt to lower the tailwheel as needed to contact the ground.

4) If the tailwheel is too low causing too much front to rear tilt, adjust the tailwheel up by moving the rear bolt to the next hole. Readjust the top link to properly position deck with slight tilt forward.

Drive Line Interference:

1) Start the tractor engine and slowly lift cutter until the drive line is at its shortest position. At this point, the two telescoping shafts should lack two inches (50.8mm) from touching.

2) Now lower the cutter until the drive line is extended to its longest position. At this point, the two shafts should engage at least six inches (152mm).

3) Be sure the drive line clears the cutter deck when the cutter is raised. If it does not, readjust the top link on the hitch to correct the problem or set lift quadrant stop on tractor lever. The tailwheel may then have to be adjusted so the cutter can be properly positioned for operation.

TRANSPORTING

- 1) Disengage PTO and allow all moving parts to completely stop.
- 2) Raise cutter to fully raised position.
- 3) Transport at no more than 20 MPH (30KPH).
- 4) Use care when transporting on rough terrain.
- 5) When traveling on public roads, always have a slow moving vehicle (SMV) emblem mounted to the tractor such that it is visible from the rear.
- 6) Avoid travel on public roads at night. Check local laws governing lighting requirements in addition to SMV emblem.

MAINTENANCE

WARNING

Do not perform any maintenance while tractor is running or when cutter is in motion.

Gearbox:

- 1) Check oil level in gearbox about every 40 hours of use by removing pipe plug on rear of housing. Fill to side port using only SAE 90EP gear oil.
- 2) Check mount bolts before each use to be sure they are tight.

Blade Inspection and Replacement:

Inspect blades before each use. Sharpen worn blades and replace in pairs if blades are damaged. To replace blades, follow the steps below:

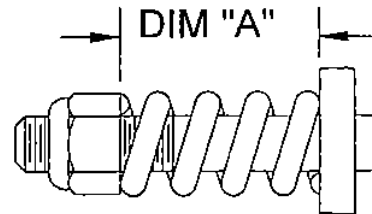
- 1) **Support cutter from below on all sides. DO NOT** rely on tractor's hydraulic lift alone to support cutter. Be sure cutter is stable before proceeding.
- 2) Remove each blade nut and lockwasher through the hole in the cutter deck behind gearbox.
- 3) Using a punch, drive the blade bolts out of the blade holder.
- 4) Insert blade bolts in new blades so that flare in blade tip is up. Insert bolt with blade onto blade holder by aligning notch in hole with shoulder on bolt.
- 5) Replace lockwashers and nuts on bolts and tighten. Torque to 650 ft-lbs (881 N.m).

Slip Clutch

Operational Check:

On a new unit or one that has been stored between seasons, perform the following check:

- 1) Loosen all spring retaining nuts until springs can be turned with fingers.
- 2) With tractor at idle speed, engage PTO for 2--3 seconds. Clutch should slip without turning blades. If not, contact your dealer.
- 3) Retighten nuts to compress springs according to diagram. **Dim "A" = 1.28" (32.5mm)** for Comer clutches.



IMPORTANT

Failure to retighten nuts can cause damage to implement and/or tractor due to improper slip clutch torque setting.

Adjustment:

The slip clutch is designed to slip when blades encounter heavy brush or solid permanent objects. If this is not occurring or if the clutch slips too much (i.e. the clutch begins to smoke), adjustment should be made as follows.

- 1) Check to be sure that all springs are compressed to the correct length. Adjust spring length by tightening or loosening retaining nut.
- 2) If clutch still performs improperly, tighten or loosen all nuts in 1/32" (0.81mm) increments until clutch performs properly.
- 3) If excessive adjustment is necessary, consult your dealer.

LUBRICATION SCHEDULE

Clean grease fittings before applying grease. Use multipurpose lithium base grease.

Before Each Use

Tailwheel -- Apply grease at arm fitting and hub fitting.

Driveline -- Lubricate universal joints at fittings and shield at fittings.

Every 8 Hours

Driveline -- Lubricate universal joints at fittings and shield at fittings.

Every 16 Hours

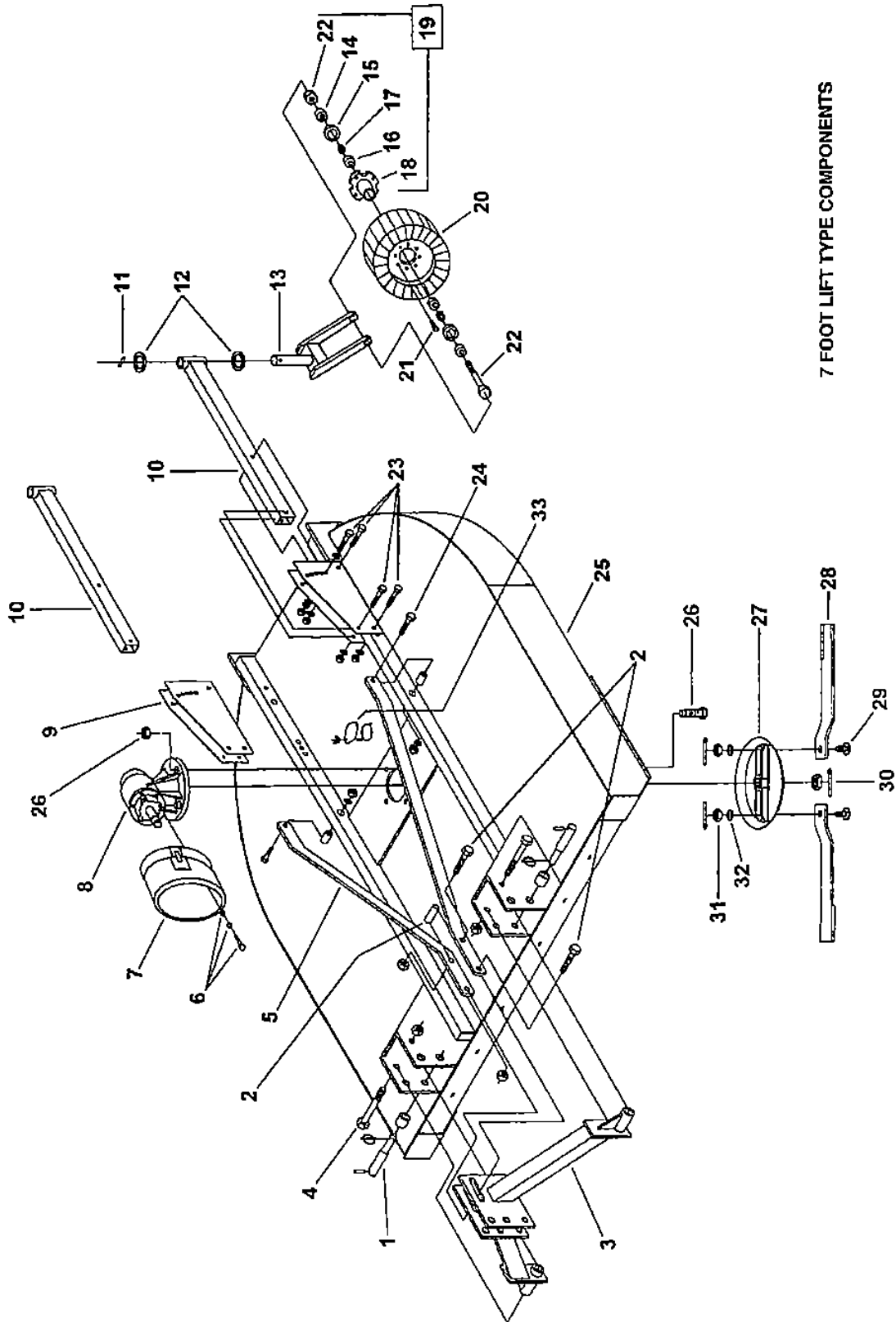
Driveline -- Lubricate push buttons with oil.

Disconnect driveline and separate sections. Apply a thin coat of grease to outside of male shaft. Reassemble driveline and install. Be sure drive line is locked in place and shield retaining chain is properly attached.

Gearboxes -- Use SAE EP90 Gear oil if needed.

STORAGE

- 1) Clean all debris from cutter deck and drive line.
- 2) Store cutter on a level surface sheltered from the weather.
- 3) Lower cutter to ground for storage and block to prevent rolling.
- 4) Store cutter supported on blocks to allow air circulation beneath cutter.
- 5) Support tractor end of driveline to keep off the ground.
- 6) Keep playing children and bystanders away from storage area.



7 FOOT LIFT TYPE COMPONENTS

7 DECK COMPONENTS

Item	Part #	Description	Qty
1	42137	LINK PIN Cat. II Stepped	2
	607079	BUSHING	2
	304264	ROLL/PIN 7/16" X 2"	2
	303113	CLICK PIN 3/8"	2
2	303762	HHCS 1" X 5-1/2"-NC Gr.5	2
	810684	SPACER	1
3	810675	A-FRAME	1
4	303767	HHCS 1" X 8"-NC Gr.5	2
	304024	NUT/HEX LOCK 1"-NC	2
5	811796	REAR A-FRAME BRACE	2
6	303590	HHCS 5/16" 5/8"	4
	303952	LOCKWASHER 5/16"	4
	303968	FLATWASHER 5/16"	4
7	814595	CLUTCH SHIELD	1
8	815391	COMPLETE GEARBOX	1
9	505680	TAILWHEEL PLATE	4
10	811620	TAILWHEEL ARM	2
	304194	ALEMITE 1/8"-ST	2
11	304260	ROLL/PIN 3/8" X 2"	2
12	303977	FLATWASHER 1-1/4"	4
13	505191	WHEEL FORK	2
14	505285	BRG. SPACER	4
15	505284	SEAL	4
16	505282	BRG. CUP L44610)	4
17	505283	CONE BRG. (L44643)	4
18	505279	HUB (Comes with cups only)	2
19	505291	HUB COMPLETE Comes with items 14,15,16,17,18	---
20	505138	LAMINATED TAILWHEEL	2
21	304561	HHCS 1/2"-20 UNF X 1" Gr.5	8
22	303767	HHCS 1" X 8"-NC Gr.5	2
	304024	HEX NUT/LOCK 1"-NC	
23	303681	HHCS 5/8" X 3-1/2"-NC Gr.5	4
	303956	LOCKWASHER 5/8"	4
	304008	HEX NUT 5/8"-NC	4
24	303704	HHCS 3/4" X 3-1/2"-NC Gr.5	2
	304022	HEX NUT/LOCK 3/4"-NC	2
	303973	FLATWASHER 3/4"	2
25	811794	DECK WELDMENT	1
26	303701	HHCS 3/4" X 2-1/2"-NC Gr.5	4
	303957	LOCKWASHER 3/4"	4
	304009	HEX NUT 3/4"-NC	4

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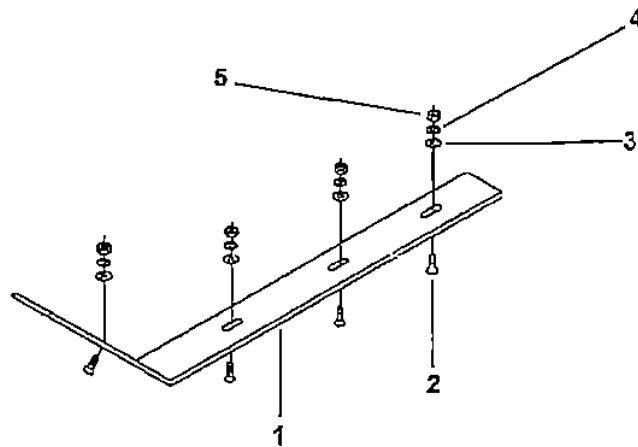
7 DECK COMPONENTS

(Continued from previous page)

Item	Part #	Description	Qty
27	815396	STUMP JUMPER	1
28	811410	BLADE CCW	2
* 29	50573901	BLADE BOLT KIT (BB70)	2
30	505310	COTTER PIN M6 X 60	1
31	304765	CASTLE NUT 1-1/8"-NF Gr.8	2
	304111	COTTER PIN	2
32	303960	LOCKWASHER 1-1/8"	2
33	811650	ACCESS HOLE COVER	1
	304214	NUT/WING 3/8"	1

* BLADE BOLT KIT COMES W/NUT, WASHER, COTTER PIN

SKID SHOES

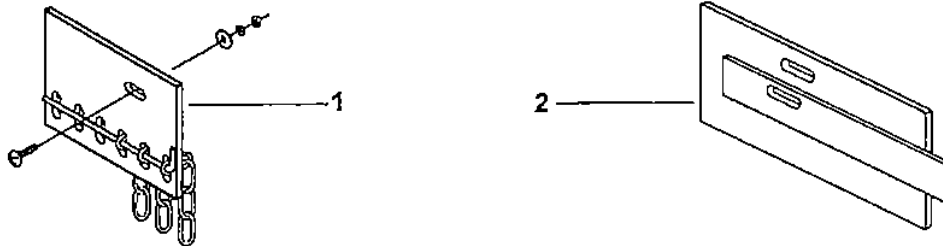


Item	Part #	Description	Qty
1	812011	SKID SHOE KIT	1
2	303911	BOLT/FLAT HEAD COUNTER SUNK 1/2" X1-1/4	8
3	303971	FLATWASHER 1/2"	8
4	303955	LOCKWASHER 1/2"	8
5	304007	NUT/HEX 1/2" -NC	8

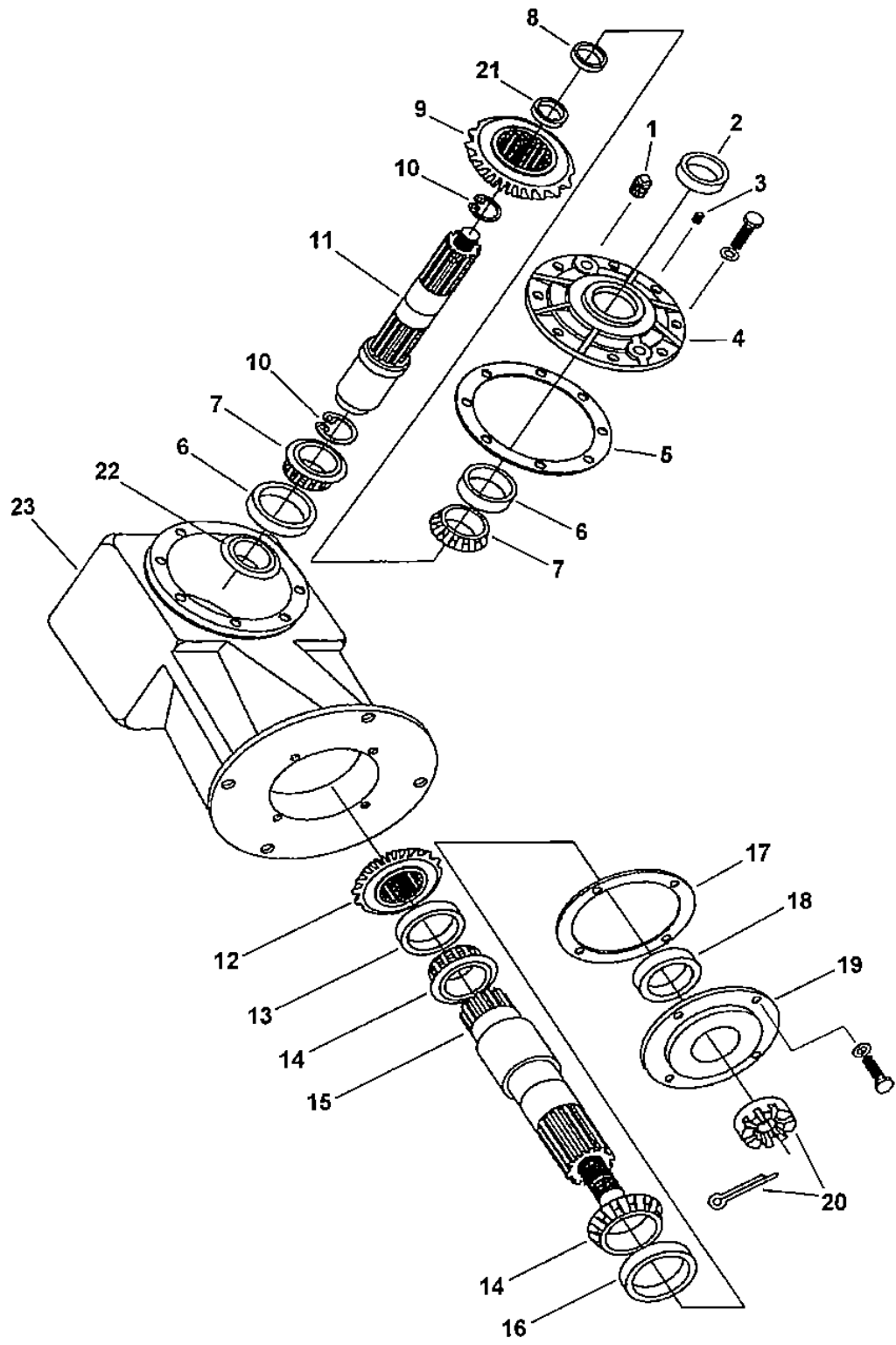
Miscellaneous Hardware by Size				
Size	Part Number by Item			
	Lockwasher	Flatwasher	Nut/Hex-NC	Nut/Hex Lock-NC
1/4"	303951	---	304003	---
5/16"	303952	303968	304004	---
3/8"	303953	303969	304005	304018
7/16"	303954	303970	304006	304019
1/2"	303955	303971	304007	304020
5/8"	303956	303972	304008	304021
3/4"	303957	303973	304009	304022
7/8"	303958	303974	304010	304023
1"	303959	303975	304011	304024
1-1/8"	303960	303976	304012	304025
1-1/4"	303961	303977	303161	304026

SHIELD COMPONENTS

Item	Part #	Description	Qty
1	806701	REAR CHAIN PLATE 7'	1
	805325	CHAIN - 5/16" 4 LINK	28
	806720	REAR CHAIN ROD 1/4" X 32-7/8"	1
	303839	CARRIAGE BOLT 3/8" X 1-1/2"-NC Gr.5	3
	303969	FLATWASHER 3/8"	3
	303953	LOCKWASHER 3/8"	3
	304005	HEX NUT 3/8"-NC	3
1A	815484	FRONT CHAIN PLATE 7'	2
	805325	CHAIN - 5/16" 4 LINK	68
	806725	FRONT CHAIN ROD 1/4" X 40-3/4"	2
	303839	CARRIAGE BOLT 3/8" X 1-1/2"-NC Gr.5	6
	303969	FLATWASHER 3/8"	6
	303953	LOCKWASHER 3/8"	6
	304005	HEX NUT 3/8"-NC	6
	599023	REAR CHAIN GUARD COMPLETE Includes All Items 1	1
	599025	FRONT CHAIN GUARD COMPLETE Includes All Items 1A	2



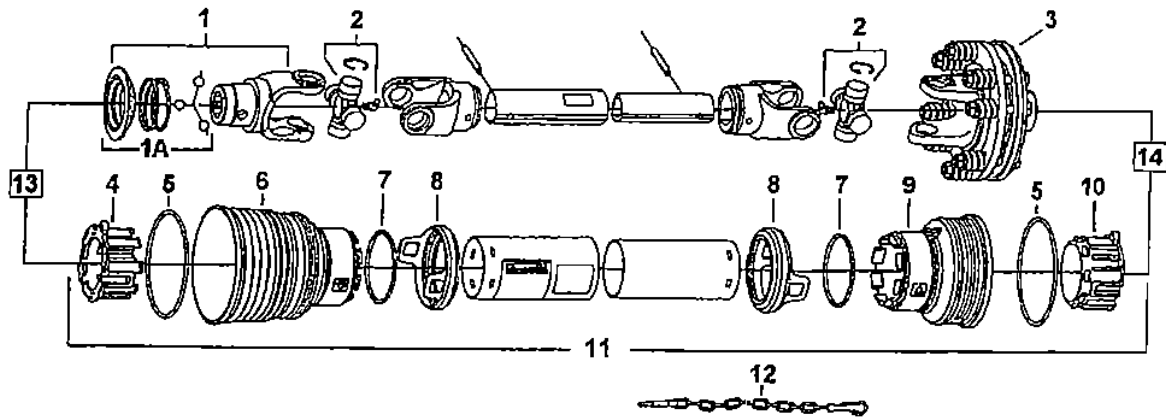
Item	Part #	Description	Qty
2	815539	REAR BELT GUARD 7'	1
	815540	REAR BELT HOLD DOWN	1
	303840	CARRIAGE BOLT 3/8" X 1"-NC Gr.5	3
	303969	FLATWASHER 3/8"	3
	303953	LOCKWASHER 3/8"	3
	304005	HEX NUT 3/8"-NC	3
2A	815537	FRONT BELT GUARD 7'	2
	815538	FRONT BELT HOLD DOWN	2
	303840	CARRIAGE BOLT 3/8" X 1"-NC Gr.5	6
	303969	FLATWASHER 3/8"	6
	303953	LOCKWASHER 3/8"	6
	304005	HEX NUT 3/8"-NC	6
	815560	REAR BELT GUARD COMPLETE Includes All Items 2	
	815559	FRONT BELT GUARD COMPLETE Includes All Items 2A	



7 FOOT GEARBOX COMPONENTS

Item	Part #	Description	Qty
1	607489	VENTED PIPE PLUG (1/2"-14NPT)	1
2	607529	INPUT SEAL (35 X 60 X 10)	1
3	813710	PIPE PLUG SQ. HEAD (1/8"-27NPT)	1
4	607499	INPUT CAP (8-bolt)	1
	809329	HHCS M10 X 30	8
	607484	LOCKWASHER M10	8
5	607535	INPUT GASKET - 0.10	Var
	607534	INPUT GASKET - 0.15	Var
	607533	INPUT GASKET - 0.30	Var
6	809300	BRG. CUP (LM603014)	2
7	809299	CONE BRG. (LM603049)	2
8	607544	SPACER	1
9	607509	INPUT GEAR 17-TOOTH	1
10	607490	RETAINING RING	1
11	607519	INPUT SHAFT	1
12	607510	OUTPUT GEAR 14-TOOTH	1
13	607523	BRG. CUP (362A)	1
14	607522	CONE BRG. (368)	2
15	607516	OUTPUT SHAFT	1
16	607524	BRG. CUP (362)	1
17	607538	OUTPUT GASKET - 0.10	Var
	607537	OUTPUT GASKET - 0.15	Var
	607536	OUTPUT GASKET - 0.30	Var
18	607528	OUTPUT SEAL	1
19	607498	OUTPUT CAP (4-BOLT)	1
	607483	HHCS M14 X 35	4
	607485	LOCKWASHER M14	4
20	809318	FLANGED CASTLE NUT 1"-14UNS	1
	505129	COTTER PIN M5 X 50	1
21	607546	SHIM - 0.10	Var
	607547	SHIM - 0.20	Var
	607548	SHIM - 0.30	Var
22	607549	SHIM - 0.10 (66 X 79)	Var
	607550	SHIM - 0.15 (66 X 79)	Var
	607551	SHIM - 0.30 (66 X 79)	Var
23	607494	GEARBOX HOUSING	1
	815391	COMPLETE GEAR BOX OMNI-80SC 1:1.21 Ratio	

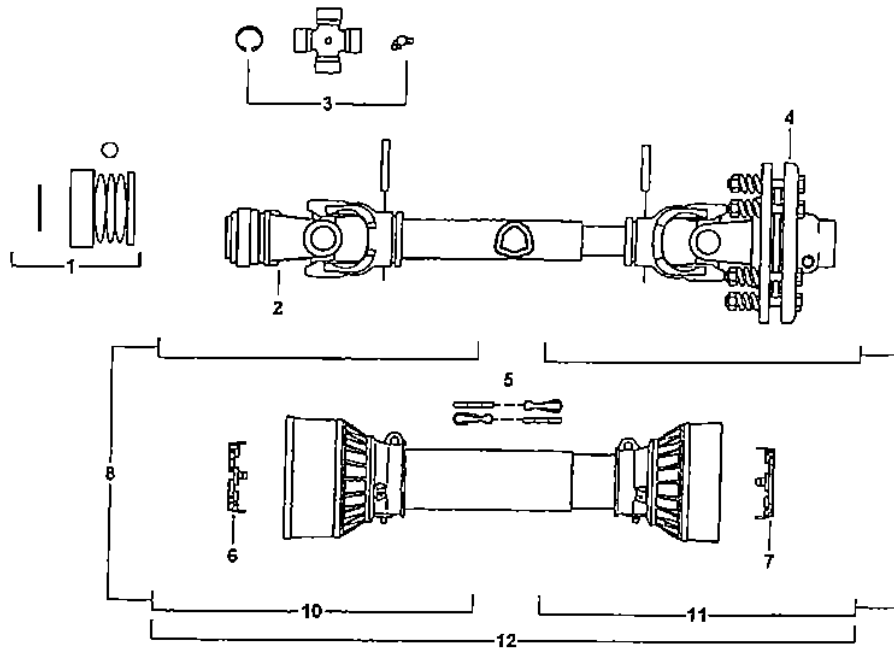
7 FOOT DRIVELINE COMPONENTS



Eurocardan Driveline Usage Began MAY – 2005

Item	Part #	Description	Qty
1	813898	TRACTOR YOKE W/COLLAR	1
1A	699526	PULL COLLAR KIT	1
2	505872	CROSS KIT	2
3	699503	COMPLETE SLIPCLUTCH	1
4	699563	OUTER SHIELD BRG.	1
5	699570	STIFFENING RING	2
6	699553	OUTER CONE (Standard)	1
7	699572	STOP RING	2
8	699593	SAFETY SLEEVE	2
9	699550	INNER CONE (Standard)	1
10	699558	INNER SHIELD BRG.	1
11	699581	COMPLETE SHIELD (Both Halves)	1
12	505103	SAFETY CHAIN	2
13	699600	TRACTOR HALF SHAFT	1
14	699612	IMPLEMENT HALF SHAFT W/SLIPCLUTCH	1
	810410	COMPLETE DRIVELINE W/SLIPCLUTCH	

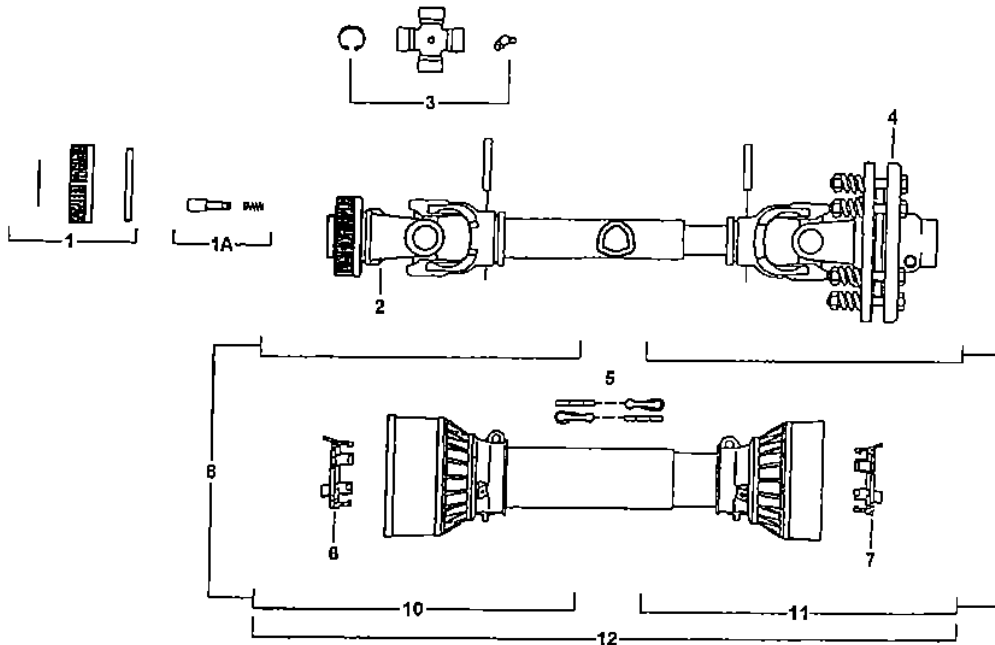
7 FOOT DRIVELINE COMPONENTS



COMER Driveline Usage Prior to MAY – 2005

Item	Part #	Description	Qty
1	813831	LOCK SLEEVE	1
2	813898	TRACTOR YOKE	1
3	807059	CROSS KIT	2
4	812224	COMPLETE CLUTCH	1
5	505103	SAFETY CHAIN	2
6	807064 505432	OUTER SHIELD BRG. NYLON LOCK SCREW	1 3
7	807069 505432	INNER SHIELD BRG. NYLON LOCK SCREW	1 3
8	813905	OUTER HALF SHAFT W/SHIELD Replace with complete driveline 810410	N/A
9	813906	INNER HALF SHAFT W/SHIELD Replace with complete driveline 810410	N/A
10	813903	OUTER SHIELD HALF	1
11	813904	INNER SHIELD HALF	1
	810410	COMPLETE DRIVELINE W/SLIPCLUTCH	

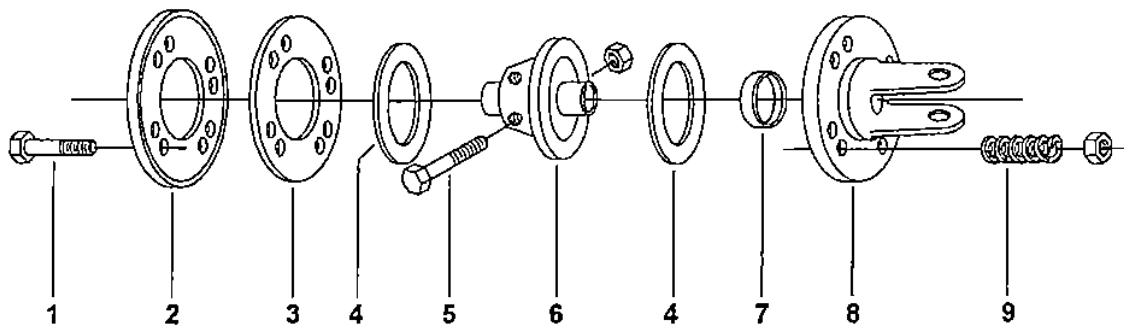
7 FOOT DRIVELINE COMPONENTS



Bondioli Driveline Usage Prior to MAY - 2005

Item	Part #	Description	Qty
1	810239	LOCK SLEEVE	1
1A	505058	PUSH PIN KIT	1
2	812223	TRACTOR YOKE	1
3	505821	CROSS KIT	2
4	812224	COMPLETE CLUTCH	1
5	505103	SAFETY CHAIN	2
6	505842	OUTER SHIELD BRG.	1
7	505843	INNER SHIELD BRG.	1
8	812225	OUTER HALF SHAFT W/SHIELD Replace with complete driveline 810410	N/A
9	812226	INNER HALF SHAFT W/SHIELD Replace with complete driveline 810410	N/A
10	812227	OUTER SHIELD HALF	1
11	812228	INNER SHIELD HALF	1
12	812229	COMPLETE SHIELD (Both Halves)	1
	810410	COMPLETE DRIVELINE W/SLIPCLUTCH	

SLIPCLUTCH COMPONENTS



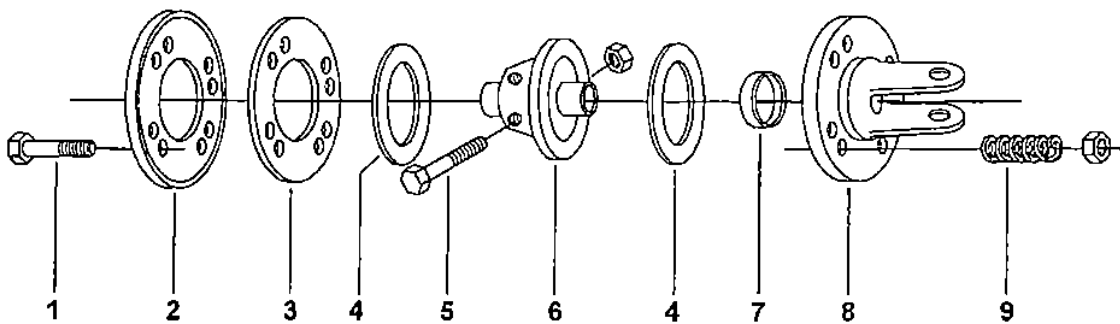
**Eurocardan Slipclutch
Usage Began MAY – 2005**

Item	6-foot	7-foot	Description	Qty
1	699533	---	HHCS M10 X 85	8
	---	699534	HHCS M10 X 90	8
	699537	699537	HEX NUT M10	8
2	699516	699516	PRESSURE PLATE	1
3	699514	699514	INNER PLATE	1
4	699520	699520	FRICTION DISC	2
5	699530	---	CONICAL BOLT KIT	1
	---	699531	HH BOLT M12 X 70	2
	---	699538	HEX NUT M12	2
	---	699536	LOCKWASHER M12	2
6	699506	699511	HUB	1
7	699592	699592	BUSHING	1
8	699508	699509	FLANGE WITH YOKE	1
9	699517	699518	SPRING	8
	699501	---	COMPLETE CLUTCH FOR 6-ft	
	---	699503	COMPLETE CLUTCH FOR 7-ft	

SLIPCLUTCH COMPONENTS

Bondioli Slipclutch Usage Prior to MAY - 2005

Item	6-foot	7-foot	Description	Qty
1	505356	505356	HHCS W/NUT M10 X 86	8
2	699516	699516	PRESSURE PLATE	1
3	699514	699514	INNER PLATE	1
4	699520	699520	FRICTION DISC	2
5	806656	806656	CONICAL BOLT KIT	1
6	809979	809979	HUB	1
7	505221	505221	BUSHING	1
8	505477	505830	FLANGE WITH YOKE	1
9	505829	505829	SPRING	8
	812126	---	COMPLETE CLUTCH FOR 6-ft	
	---	812224	COMPLETE CLUTCH FOR 7-ft	



COMER Slipclutch Usage Prior to MAY - 2005

Item	6-foot	7-foot	Description	Qty
1	813891	813891	HHCS W/NUT M10 X 85	8
2	505466	807659	PRESSURE PLATE	1
3	807658	807658	INNER PLATE	1
4	505467	505467	FRICTION DISC	2
5	813889	---	TAPERED PIN KIT 1-3/8"	1
	---	813900	HHCS W/NUT M12 X 65	1
6	813890	505468	FRICTION BODY	1
7	505469	505469	SLEEVE	1
8	505470	505875	FLANGED YOKE	1
9	505471	505471	SPRING	8
	505464	---	COMPLETE SLIPCLUTCH 6-ft	
	---	812224	COMPLETE SLIPCLUTCH 7-ft	

NOTES

A series of 35 horizontal dashed lines for writing notes.

