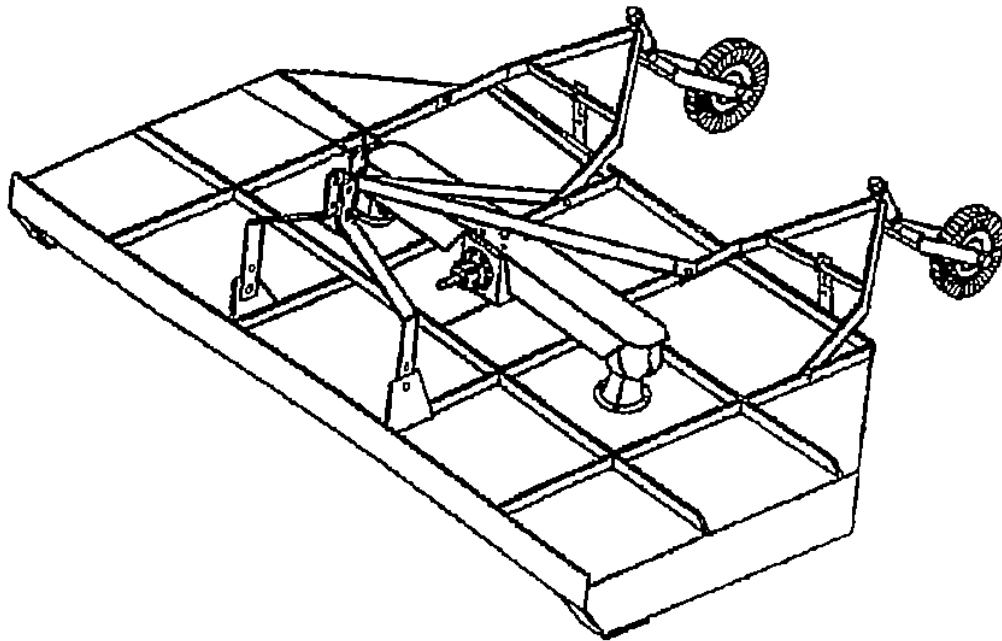




TAYLOR PITTSBURGH MFG., INC.  
P.O. BOX 1866  
ATHENS, TN 37371  
423-745-3110

# FIELD GENERAL

## 7 & 10-ft ROTARY CUTTERS



### OWNER'S MANUAL

Form 233/120/09  
January 2009

**TO THE DEALER:**

The rotary 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 rotary 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 rotary 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 rotary tiller 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 this information 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 Manufacturing, 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 rotary tiller and furnishes operating and maintenance recommendations to help you obtain long and satisfactory service.

## 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 safety and optimum performance.

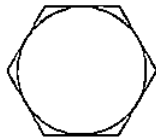
## **WARNING**

- Some illustrations in this manual show the cutter with safety components removed to provide a better view. The cutter should never be operated with any safety components removed.

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

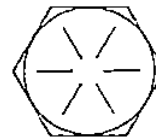
GRADE 2



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

Cutter Size	7 Foot	10 Foot
Cutting Height Range	2 to 10"	2 to 10"
Cutting Width (Inches)	84	120
Overall Width (Inches)	86-1/2	125
Overall Length (Inches)	111-1/4	94-1/8
Gearbox Rating (HP)	75	100
Tractor PTO RPM	540	540
Tractor HP	35	50
Driveline Size	Cat 4	Cat 4
Driveline Protection	Slip Clutch	Slip Clutch
Number of Blades	2	4
Blade Size	3/8 x 4"	3/8 x 4"
Blade Overlap (Inches)	----	4
Blade Tip Speed (Feet per Minute)	14,077	15,305
Brush Diameter Cut	Up to 1"	Up to 1"
Cutter Frame Thickness		
Deck	10 gauge	10 gauge
Sideframe	7 gauge	7 gauge
Side Frame Depth (Inches)	8-1/2	8-1/2
Tailwheel(s)	Laminated	Laminated
3 Point Hitch Category	Cat II	Cat II
Weight w/o Shields (lbs)	950	1540

## **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.

### **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 dealer or call 1-800-456-7929.) 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.**
    - **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 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.**
  - **Ensure cutter is properly mounted, adjusted and in good operating condition.**
  - **Tighten all nuts and bolts, 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 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/rubber shielding before each use. Replace if damaged.**
  - **Ensure shields and guards are properly installed and in good condition. Replace if damaged.**

## SAFETY RULES



**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



*(Safety Rules continued from previous page)*

- 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 operator's 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.

- 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.

- Look 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.

### 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 component failures.

- 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.



## SAFETY RULES



**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



*(Safety Rules continued from previous page)*

- 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 when transporting the cutter.
- Do not road the cutter over 20 mph (30 kph) on the best surface conditions. Reduce speed when going up or down hills and when approaching ditches or corners.
- Do not operate tractor PTO during transport.
- Always comply with all state and local lighting and marking requirements.

### STORAGE

- Block cutter securely for storage.
- 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!**

<span style="font-size: 1.5em; font-weight: bold; margin-left: 10px;">CAUTION</span>
<p>USE ONLY GRADE 2 SHEARBOLT OR SERIOUS DAMAGE MAY RESULT. USE OF A SHEARBOLT OTHER THAN GRADE 2 Voids THE MANUFACTURER WARRANTY.</p>

*On front gearbox stiffener next to gearbox-shearbolt models only.*

<span style="font-size: 1.5em; font-weight: bold; margin-left: 10px;">WARNING</span>
<p>PTO SPEEDS HIGHER THAN 540 RPM CAN CAUSE EQUIPMENT FAILURE AND PERSONAL INJURY</p> <p><b>OPERATE PTO AT 540 RPM.</b></p>

*On front of deck near left deck rail.*

<span style="font-size: 1.5em; font-weight: bold; margin-left: 10px;">DANGER</span>
<p><b>ROTATING BLADES AND THROWN OBJECTS</b></p> <ul style="list-style-type: none"> <li>■ KEEP AWAY</li> <li>■ DO NOT OPERATE IN VICINITY OF OTHER PERSONS</li> <li>■ CLEAR MOVING AREA OF DEBRIS.</li> <li>■ FULL CHAIN OR RUBBER SHIELDING MUST BE USED TO COMPLY WITH OSHA AGRICULTURAL STANDARD 1929.57, SAE J232 AND ANSI B71.4 UNLESS IT INTERFERES SUBSTANTIALLY WITH MOWER FUNCTION DURING AGRICULTURAL USE. IF NOT FULLY SHIELDED, STOP OPERATION WHEN ANYONE COMES WITHIN SEVERAL HUNDRED FEET.</li> </ul> <p>BLADES CONTACT OR THROWN OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH</p>

*On right front outer corner of deck.*

<span style="font-size: 1.5em; font-weight: bold; margin-left: 10px;">WARNING</span>
<p>TO AVOID SERIOUS INJURY OR DEATH</p> <ul style="list-style-type: none"> <li>□ READ OPERATORS MANUAL (AVAILABLE FROM DEALER) AND FOLLOW ALL SAFETY PRECAUTIONS</li> <li>□ KEEP ALL SHIELDS IN PLACE AND IN GOOD CONDITION</li> <li>□ OPERATE MOWER FROM TRACTOR SEAT ONLY</li> <li>□ LOWER MOWER STOP ENGINE REMOVE KEY BEFORE DISMOUNTING TRACTOR</li> </ul> <p>ALLOW NO CHILDREN OR UNTRAINED PERSONS TO OPERATE EQUIPMENT</p> <p>FAILURE TO OPERATE SAFELY CAN RESULT IN INJURY OR DEATH</p>

*On left front of deck next to.*

<span style="font-size: 1.5em; font-weight: bold; margin-left: 10px;">WARNING</span>
<p>FALLING OFF TRACTOR CAN RESULT IN BEING RUN OVER.</p> <p>USE TRACTOR WITH ROPS CAB. WEAR SEAT BELT. ALLOW NO RIDERS</p>

*On left front corner of deck*

<span style="font-size: 1.5em; font-weight: bold; margin-left: 10px;">DANGER</span>
<p><b>ROTATING DRIVELINE</b></p> <ul style="list-style-type: none"> <li>□ KEEP AWAY</li> <li>□ KEEP ALL DRIVE SHIELDS AND GUARDS IN PLACE AND IN GOOD CONDITION.</li> </ul> <p>ENTANGLEMENT CAN CAUSE SERIOUS INJURY OR DEATH</p>

*On PTO driveline outer shield*

## INTRODUCTION

---

This manual covers the assembly, operation, and maintenance of your Field General Rotary Cutters. 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 implement with original repair parts to insure safety and 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 cutter sold previously.

## ASSEMBLY

---

### General

Your Field General Rotary Cutters is shipped in bundles for assembly. 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 ensure 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**

The manufacturer strongly recommends installation of deflector shields. A rotary cutter without deflector shields can discharge large objects at high speeds which could seriously injure bystanders or the operator. Check local laws governing the operation of equipment without shields.

### **A-Frame 7' & 10' Models refer to Figs. 2 & 3**

1) Attach A-frame to cutter using 7/8" x 3" bolts with lockwashers, flatwashers and hex nuts. Be sure A-frame legs are on the outside of the hitch braces. Do not torque bolt as A-Frame must pivot.

2) Bolt each end of chain to deck rails using 7/16" x 1-1/2" bolts with flatwashers and locknuts.

3) Align chain clip with lower holes in top of A-frame and install a 5/8" x 4" bolt through clip and A-frame. Secure with lockwasher and hex nut.

4) Align middle link of chain with chain clip and attach using a 7/16" x 1-1/2" bolt with locknut. If chain is slack on one side, twist the chain on slack side until they are equal length.

### **Tailwheel 7' & 10' Models refer to Figs. 2 & 3**

1) Align tailwheel bracket between deck ribs as shown.

2) Align holes in tailwheel bracket with holes in deck ribs. Secure with 1/2" x 1-1/2" bolts and locknuts.

3) Place one 1-1/4" flatwasher on stem of wheel fork. Install fork stem up through sleeve on tailwheel bracket. Install remaining 1-1/4" flatwasher onto stem and secure fork using 5/16" x 1-3/4" cotter pin.

4) Align wheel with fork and install 1" x 7-1/2" bolt. Secure with locknut.

5) Attach cutter to tractor but **DO NOT** attach drive line at this time. **SEE ATTACHING.**

6) Position cutter at desired cutting height. Be sure front of cutter is approximately 1" lower than the rear. Shorten or lengthen tractor top link as necessary.

7) With cutter in operating position, be sure tailwheel is resting on ground. Install adjustment bracket to cutter using one 1/2" x 1-1/2" bolt, then bolt adjustment bracket to tailwheel bracket using 1/2" x 1-1/2" bolt. Secure with lockwashers and nuts.

8) Check over cutter to see that all hardware is tight and in place.

## INSTALLING DRIVE LINE

### 7' & 10' Models (Slip Clutch)

1) Remove tapered bolt from driveline clutch yoke.

2) Slide yoke of driveline clutch onto the splined input shaft of the gearbox until hole in yoke lines up with groove in the shaft.

3) Install tapered bolt and tighten nut.

## BEFORE OPERATION

1) Tighten all loose hardware using the bolt 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 cutter as recommended. **SEE MAINTENANCE.**

4) Refer to your Tractor's Owner's Manual for recommended adjustments and weight distribution.

5) Check gearbox oil level, it should be midway up horizontal shaft.

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 using click pins.

3) Attach top link between tractor and cutter. Secure with click pins.

4) Attach driveline 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 driveline into place.

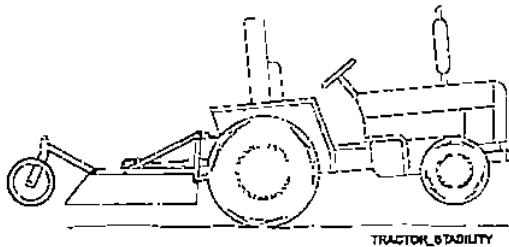
5) Attach shield retaining chain included with driveline to driveline shield and to cross member on A-frame. The chain keeps the driveline shield from rotating when the PTO is engaged. Make sure the chain is installed properly at all times to prevent rotation of shield.

## TRACTOR STABILITY

---

### **▲ WARNING**

A minimum 20% of a 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. The weight may be attained with front wheel weights, ballast in tires or front tractor weights. Weigh the tractor and cutter. Do not estimate.



TRACTOR\_STABILITY

## OPERATION

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### First Time Out

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 540 RPM PTO 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 may 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 your cutter.

### Front to Rear Leveling

1) Using the tractor's three point lift, position the cutter at the desired cutting height.

2) Adjust the top link in or out so that the front of the cutter is about 1" lower than the rear. At this slight angle, the cutter does not require as much power. Fuel efficiency and cutter performance are thereby improved.

3) Check the tailwheel to see that it contacts the ground. If it does not, lower the bolt to next hole in adjustment bracket to lower tailwheel as needed to meet the ground.

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

#### **Driveline Interference Check**

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

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

3) Be sure the driveline clears the cutter deck when the cutter is raised. Raise the cutter while observing the clearance between front of deck and driveline shield. Stop when clearance is at 1.00" Adjust tractor 3 point quadrant upper stop now. Lower and raise cutter to ensure clearance.

4) If the drive line proves to be too short or too long, see your dealer about getting the correct length shaft. This is not a frequent problem, but shaft length should be correct to prevent damage to the PTO shaft or other components.

## **TRANSPORTING**

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1) Disengage PTO and allow all moving parts to completely stop.

2) Lift cutter to fully raised position.

3) Transport at speeds compatible with safety and no more than 20 MPH.

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. Comply with all local and state 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 every 8 hours of operation. Fill to side level port using only SAE 90EP gear oil.

2) Check mount bolts before each use to be sure they are tight.

### Slip Clutch 7' & 10' Models 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" = 1.16" for Bondioli clutches & Dim "A" = 1.28" for Comer clutches.

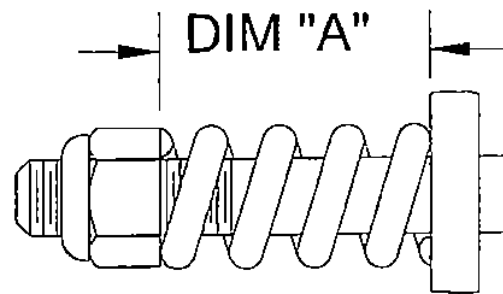
### **⚠ WARNING**

Failure to retighten nuts may cause damage to cutter 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 clutch slips too much (i.e. smoke appears around clutch), 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" increments until clutch performs properly.
- 3) If excessive adjustment is necessary, consult your dealer.



SLIP CLUTCH SPRING ADJUSTMENT

### Blade Inspection and Replacement

Inspect blades before each use. Remove blades to sharpen.

Always sharpen blades at the same time to maintain balance. Follow original sharpening pattern. Do not sharpen blade to razor edge. Leave from a 1/16" to 1/8" blunt edge. Do not sharpen back side of blade.

Replace blades 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.

### Lubrication Schedule

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

### Before Each Use

Tailwheel -- Apply grease at wheel hub fitting.

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

### Every 8 Hours

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

Gearbox -- Use SAE 90EP Gear oil if needed.

### 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 driveline is locked in place and shield retaining chain is properly attached.

### STORAGE

- 1) Clean all debris from cutter deck and driveline.
- 2) Store cutter on a level surface sheltered from the weather.
- 3) Store cutter supported on blocks to allow air circulation beneath cutter.
- 4) Support tractor end of driveline to keep off the ground.

MISCELLANEOUS HARDWARE BY SIZE				
Size	Part Number By Item			
	Lockwasher	Flatwasher	Regular Hex Nut	Hex Locknut
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	304013	304026



## 7', & 10' ASSEMBLE FIGURES

Figure 2. Assembly of A-frame and tailwheel 7' Model

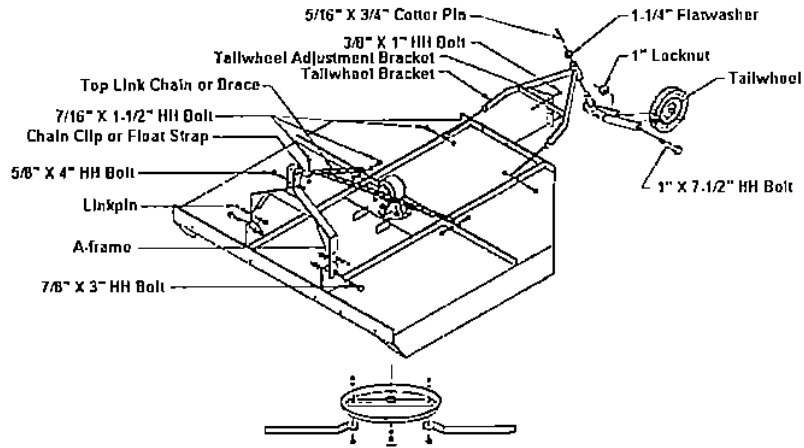
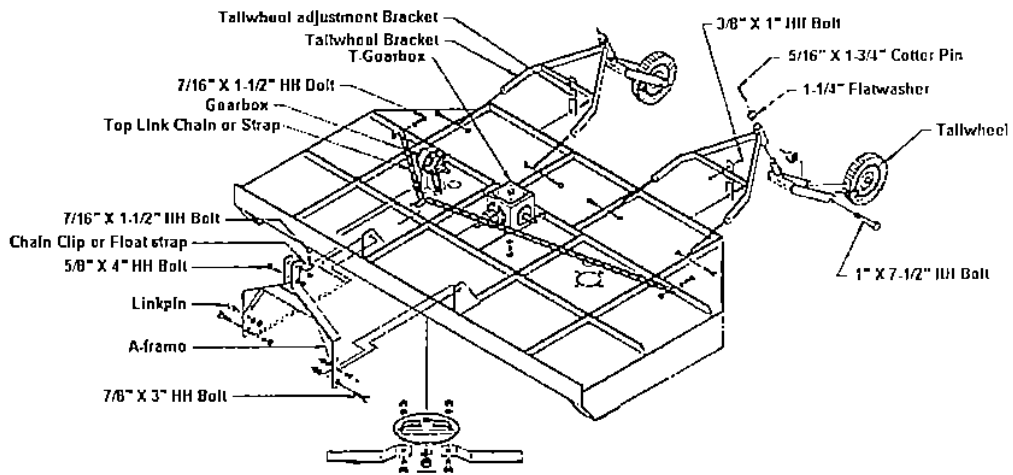


Fig. 3 Assembly of A-frame and tailwheel 10' Model



## 7' HITCH COMPONENTS

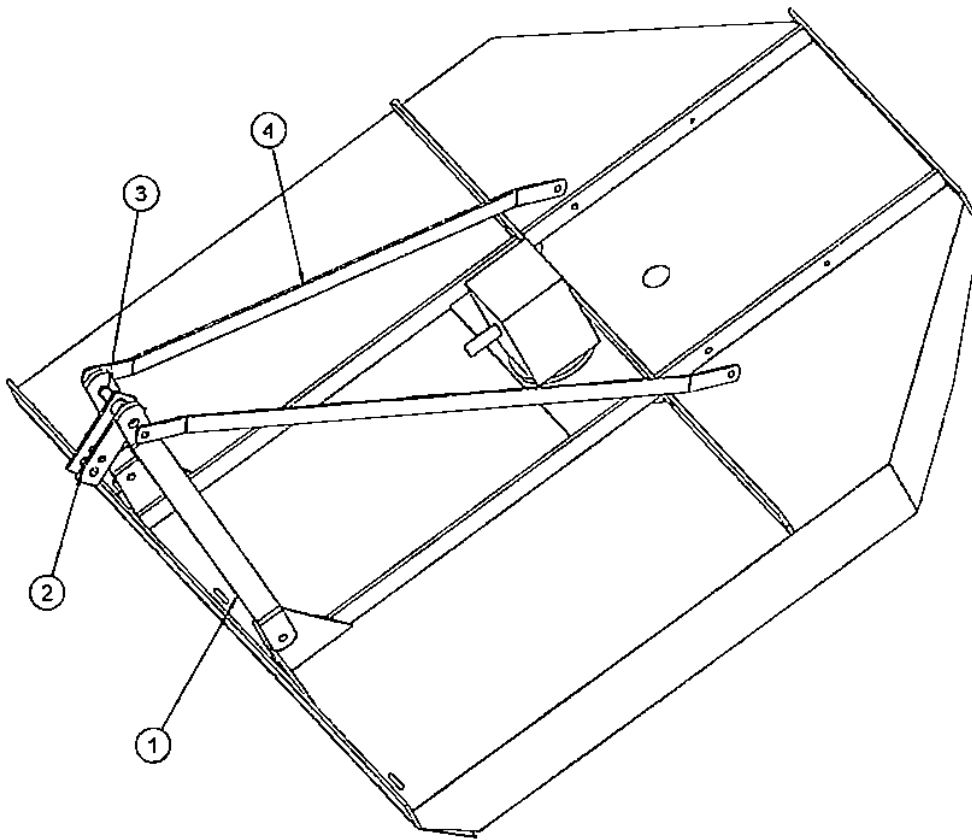


FIGURE 1 - HITCH COMPONENTS 7' MODEL (After September 2000)

ITEM	PART #	DESCRIPTION	QTY
1	813931	A-FRAME UP	2
	009596	PIN - CAT 11	1
2	811715	TOP LINK ASSY	1
3	813934	TUBE/PIVOT	1
	303710	HHCS 3/4 X 6-1/2 GR5	1
	304022	NUT/HEX LOCK 3/4 NC	1
4	813930	TOP LINK STRAP	2
	303699	HHCS 3/4 X 2 GR5	2
	303973	WASHER/FLAT 3/4	2
	304022	NUT/HEX LOCK 3/4 NC	2

## 7' CUTTER COMPONENTS

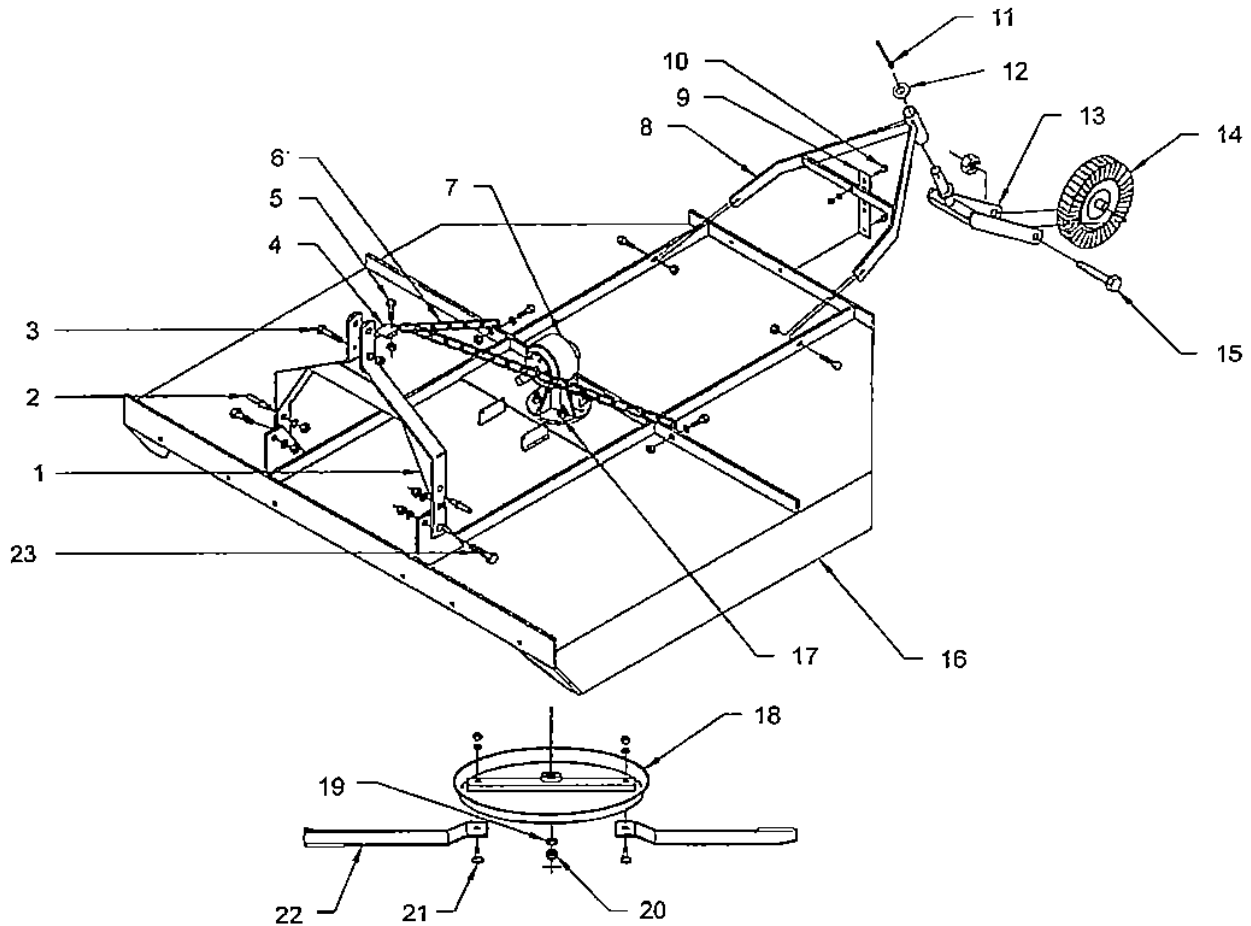


FIGURE 2 - DECK COMPONENTS 7' MODEL

ITEM	PART #	DESCRIPTION	QTY	ITEM	PART #	DESCRIPTION	QTY
1	809345	A-FRAME	1		NA	RIM SET	NA
2	009596	CAT II LINKPIN w/HDWR	2	15	303766	HHCS 1" x 7-1/2" GR5	1
3	303682	HHCS 5/8" x 4" GR5	1		304024	NUT/HEX LOCK 1"	1
4	809245	CHAIN CLIP	1	16	809190	DECK ASSY. - 84"	1
5	303632	HHCS 7/16" x 1-1/2" GR5	5	17	303699	HHCS 3/4" x 2" GR5	4
6	809243	TOP LINK CHAIN	1		304074	NUT/FLANGE LOCK 3/4"	4
7	608450	GEARBOX/OMNI RC-70	1	18	811589	STUMP JUMPER	1
8	809163	TAILWHEEL BRKT	1	19	809288	WASHER/BLADE HUB	1
9	809167	TAILWHEEL ADJT BRKT	1	20	809318	NUT/FLANGED 1"	1
10	303614	HHCS 3/8" x 1-1/2" GR5	2		809286	PIN/COTTER	1
11	304260	PIN/ROLL 3/8" x 2"	1	21	80918101	BLADE BOLT	2
12	303977	WASHER/FLAT 1-1/4"	2		303960	WASHER/LOCK 1-1/8"	2
13	505191	FORK ASSY	1		304766	NUT/HEX JAM 1-1/8" GR8	2
14	505138	TAILWHEEL	1	22	809178	BLADE - 84" CUTTER	2
	505139	TAILWHL HUB w/BUS INGS	1	23	303730	HHCS 7/8" x 3" GR5	2
	NA	BUSHING/HUB	NA		505253	SPACER	2
	303649	HHCS 1/2" x 1" GR5	4				

## 7' CHAIN SHIELD COMPONENTS

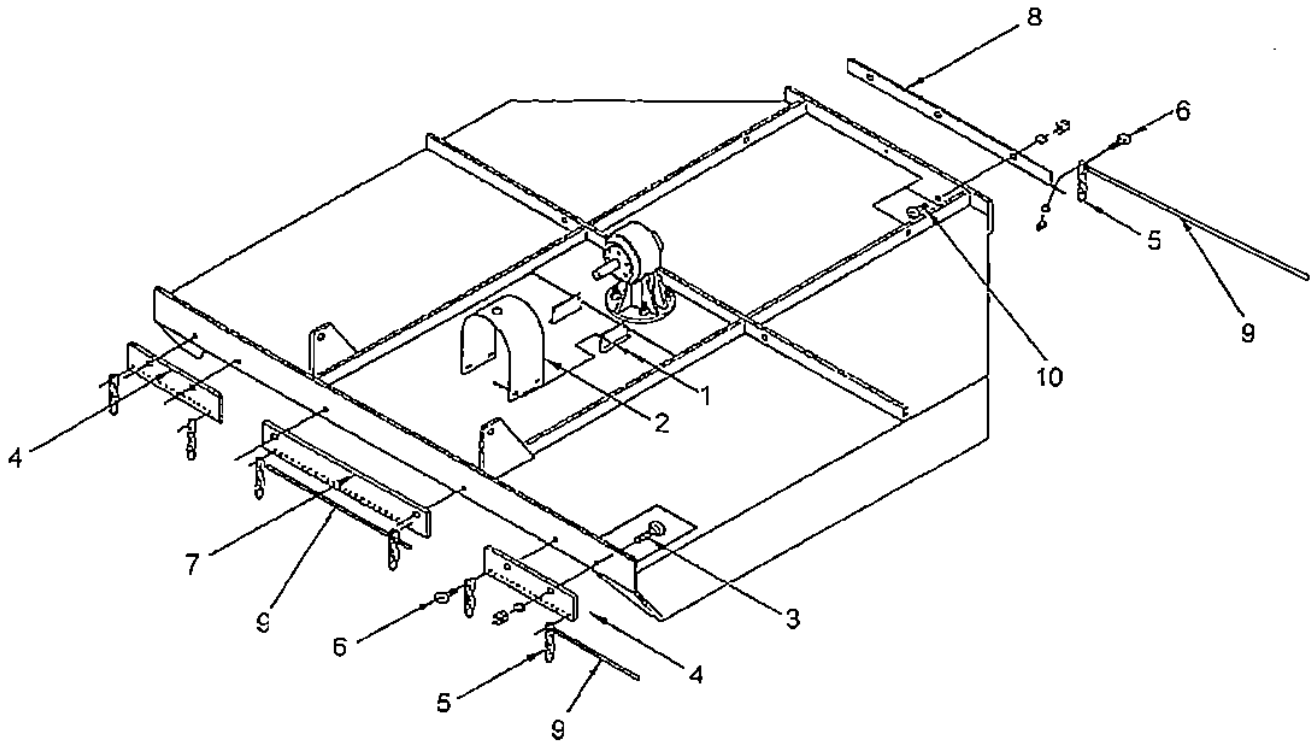


FIGURE 3 - CHAIN SHIELD COMPONENTS & KITS 7' MODEL

ITEM	PART #	DESCRIPTION
1	303612	HHCS 3/8" x 1" GR5
	303969	WASHER/FLAT 3/8
	303953	WASHER/LOCK 3/8
	304005	NUT/HEX 3/8 NC
2	809246	CLUTCH SHIELD
3	303674	BOLT HH 5/8" x 1-1/2"
4	507544	SIDE SHIELD STRAP
5	805325	CHAIN 4 LINKS
6	303840	BOLT/CARR 3/8" x 1" GR5
7	507535	CENTER SHIELD STRAP
8	504550	REAR SHIELD STRAP
9	806724	REAR CHAIN ROD 38-1/2"
	806720	CENTER CHAIN ROD 32-7/8"
	806719	SIDE CHAIN ROD 29-1/2"
10	303616	BOLT/CARR 3/8" x 2" GR5
	599029	KIT/REAR CHAIN GUARD
	599030	KIT/Front CHAIN GUARD

## 10' CUTTER HITCH COMPONENTS

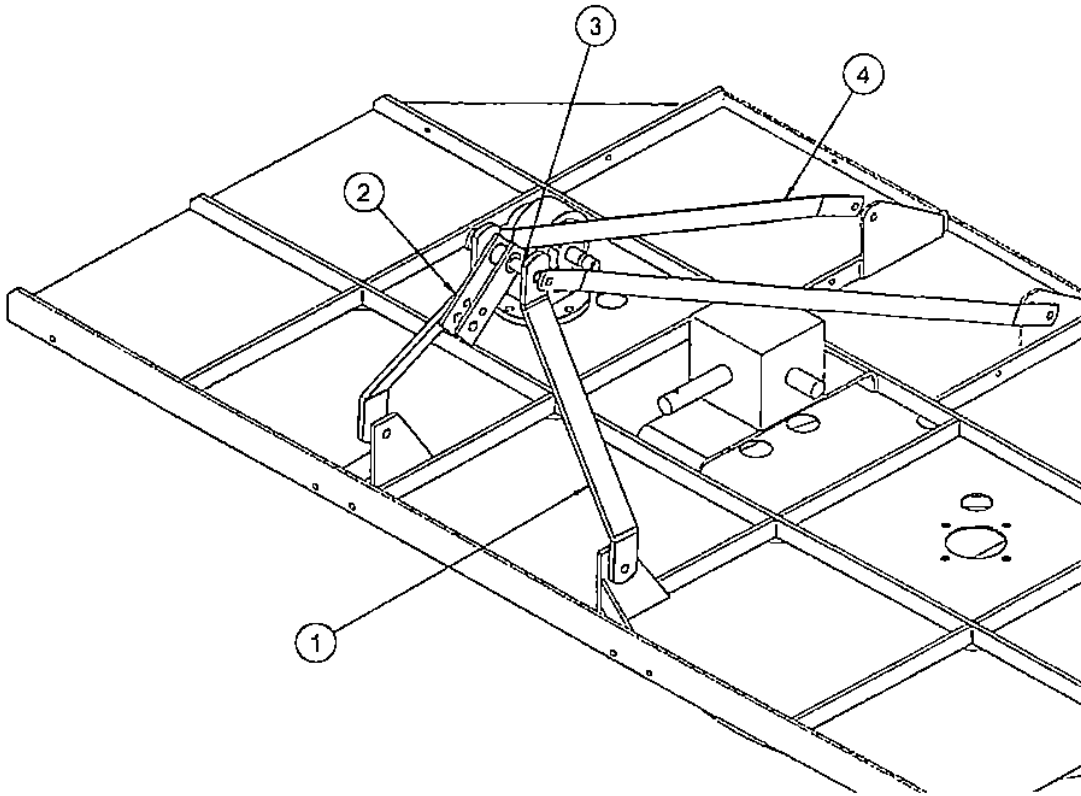


FIGURE 4 - HITCH COMPONENTS 10' MODEL (After September 2000)

ITEM	PART #	DESCRIPTION	QTY
1	813931	A-FRAME UP	2
	009596	PIN - CAT II	2
2	811715	TOP LINK ASSY	1
3	813934	TUBE/PIVOT	1
	303710	HHCS 3/4 X 6-1/2 GR5	1
	304022	NUT/HEX LOCK 3/4 NC	1
4	813933	TOP LINK STRAP	2
	303699	HHCS 3/4 X 2 GR5	2
	303973	WASHER/FLAT 3/4	2
	304022	NUT/HEX LOCK 3/4 NC	2

## 10' CUTTER COMPONENTS

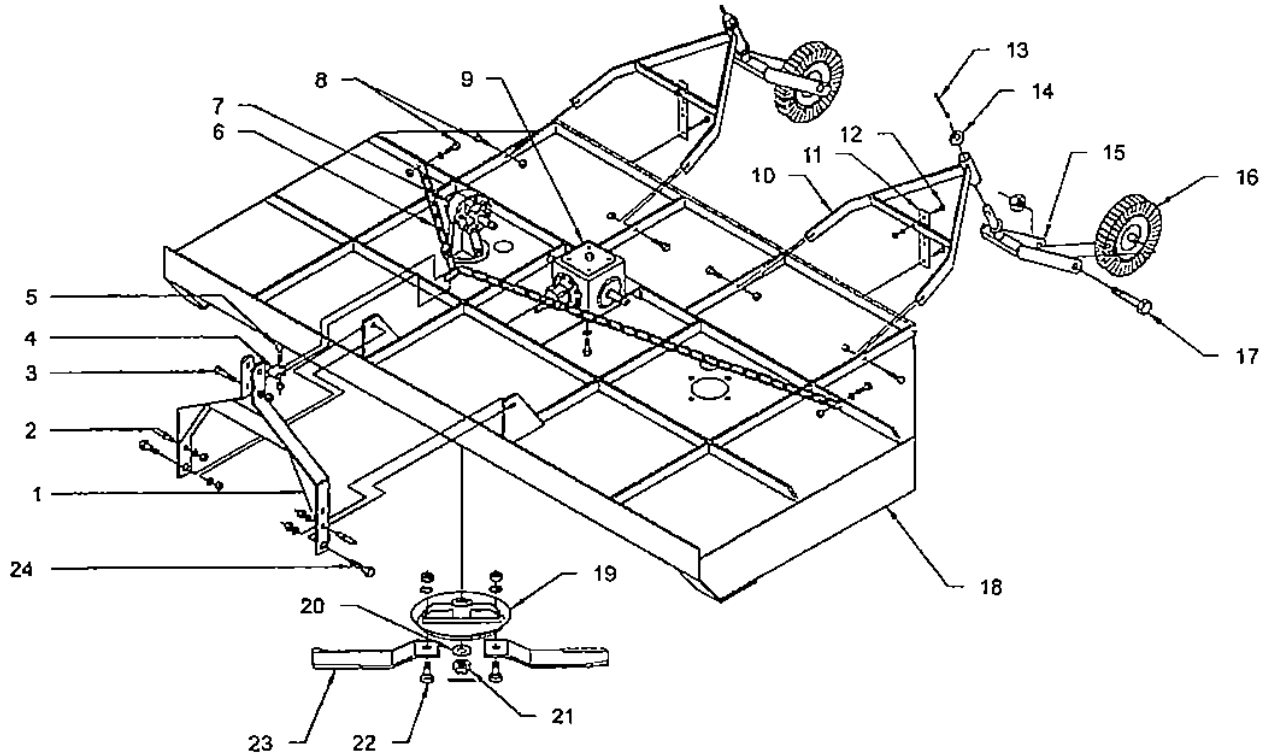


FIGURE 5 - DECK COMPONENTS 10' MODEL

ITEM	PART #	DESCRIPTION	QTY	ITEM	PART #	DESCRIPTION	QTY
1	809345	A-FRAME	1	16	505138	TAILWHEEL	2
2	009596	CAT II LINKPIN w/HDWR	2		505139	TAILWHL HUB w/BUSH	2
3	303682	HHCS 5/8" x 4" GR5	1		NA	BUSH/TAILWHEEL	NA
4	809245	CHAIN CLIP	1		303649	HHCS 1/2" x 1" GR5	8
5	303632	HHCS 7/16" x 1-1/2" GR5	1		NA	RIM SET	NA
6	809244	TOP LINK CHAIN	1	17	303766	HHCS 1" x 7-1/2" GR5	2
7	608400	GEARBOX/OMNI RC-71	2		304024	NUT/HEX LOCK 1"	2
	303699	HHCS 3/4" x 2" GR5	8	18	809215	DECK ASSY. - 120"	1
	304074	NUT/HEX FLANGE LK 3/4"	8	19	809236	STUMP JUMPER	2
	303957	WASHER/LOCK 3/4"	8	20	809288	WASHER/BLADE HUB	2
8	303632	HHCS 7/16" x 1-1/2" GR5	6	21	809318	NUT/FLANGED SLOTTED 1"	2
9	608303	T-GEARBOX	1		809286	PIN/COTTER	2
	303652	HHCS 1/2" x 1-1/2" GR5	4	22	80918101	BLADE BOLT KIT	4
	303955	WASHER/LOCK 1/2"	4		303960	WASHER/LOCK 1-1/4"	4
10	809163	TAILWHL BRKT	2		304766	NUT/HEX JAM 1-1/8" GR8	4
11	809167	TAILWHL ADJT BRKT	2	23	809179	R.H. BLADE (shown)	2
12	303614	HHCS 3/8" x 1-1/2" GR5	4		809180	L.H. BLADE (not shown)	2
13	304280	PIN/ROLL 3/8" x 2"	2	24	303730	HHCS 7/8" x 3" GR5	2
14	303977	WASHER/FLAT 1-1/4"	4		505253	SPACER	2
15	505191	FORK ASSY	2				

## 10' CHAIN SHIELD COMPONENTS

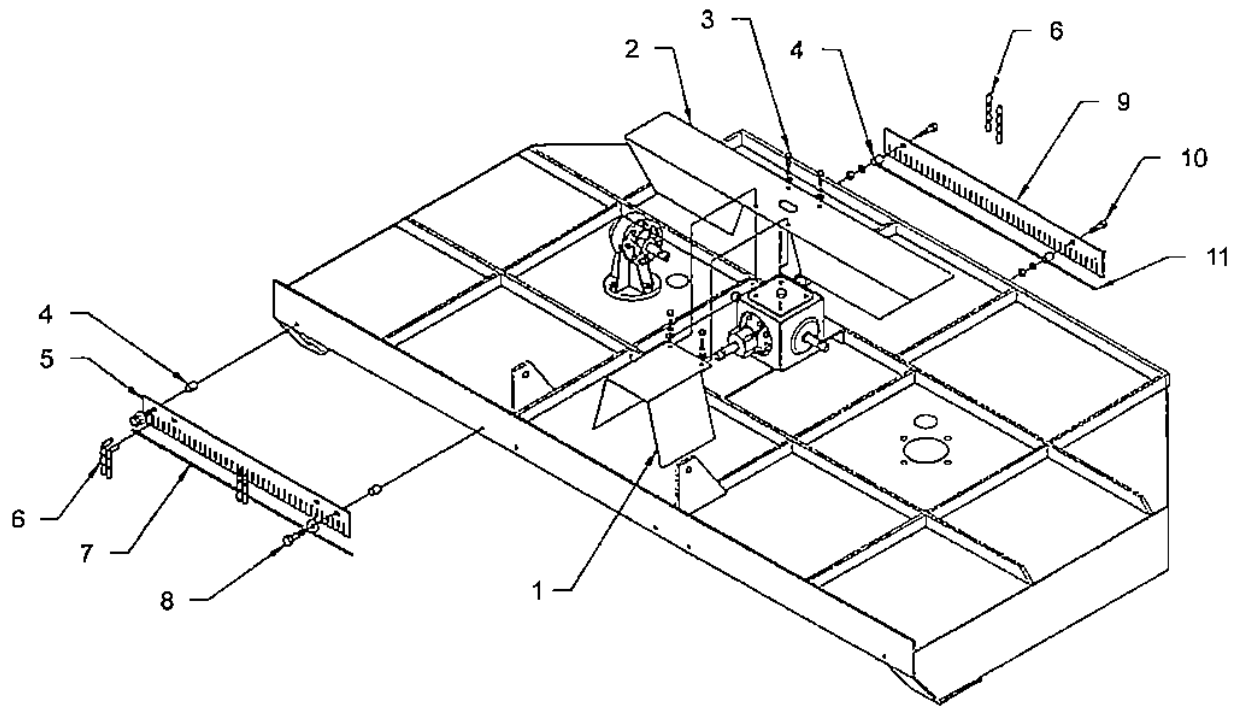
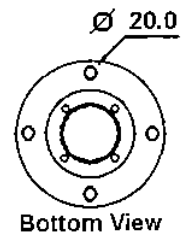
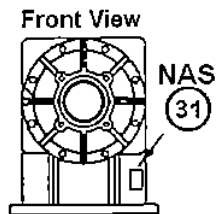
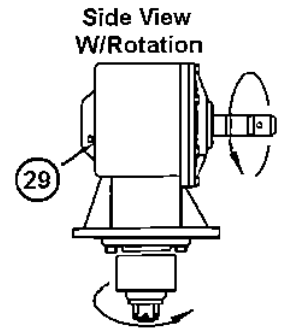
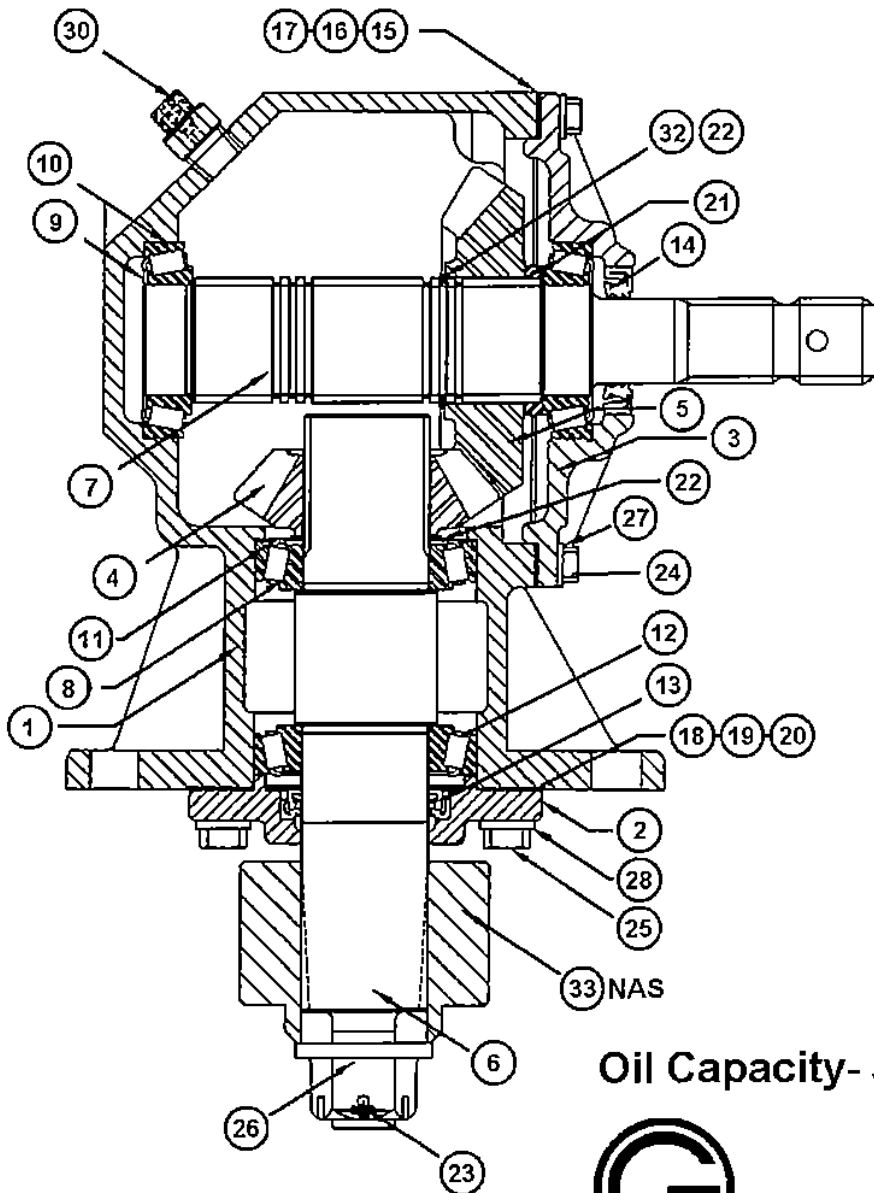


FIGURE 6 - CHAIN SHIELD COMPONENTS & KITS 10' MODEL

ITEM	PART #	DESCRIPTION
1	809254	CLUTCH SHIELD
2	813233	SHIELD/CENTER CROSS
3	303649	HHCS 1/2" x 1" GR5
	303955	WASHER/LOCK 1/2"
4	035563	SPACER
5	806675	FRONT CHAIN PLATE
6	806669	CHAIN SEGMENT
7	806726	FRONT CHAIN ROD
8	303677	HHCS 5/8" x 2-1/4" GR5
9	806674	REAR CHAIN PLATE
10	303654	HHCS 1/2" x 2-1/4" GR5
11	806726	REAR CHAIN ROD
599035		KIT/FRONT CHAIN GUARD
599036		KIT/REAR CHAIN GUARD

# Outboard Gearbox



Oil Capacity- 35 oz. (1.04 liters)



To properly identify brand of gearbox, this symbol will be on top of gearbox housing.

**608400 RC 70 #250492 (1:1.46) used on 10-ft.**

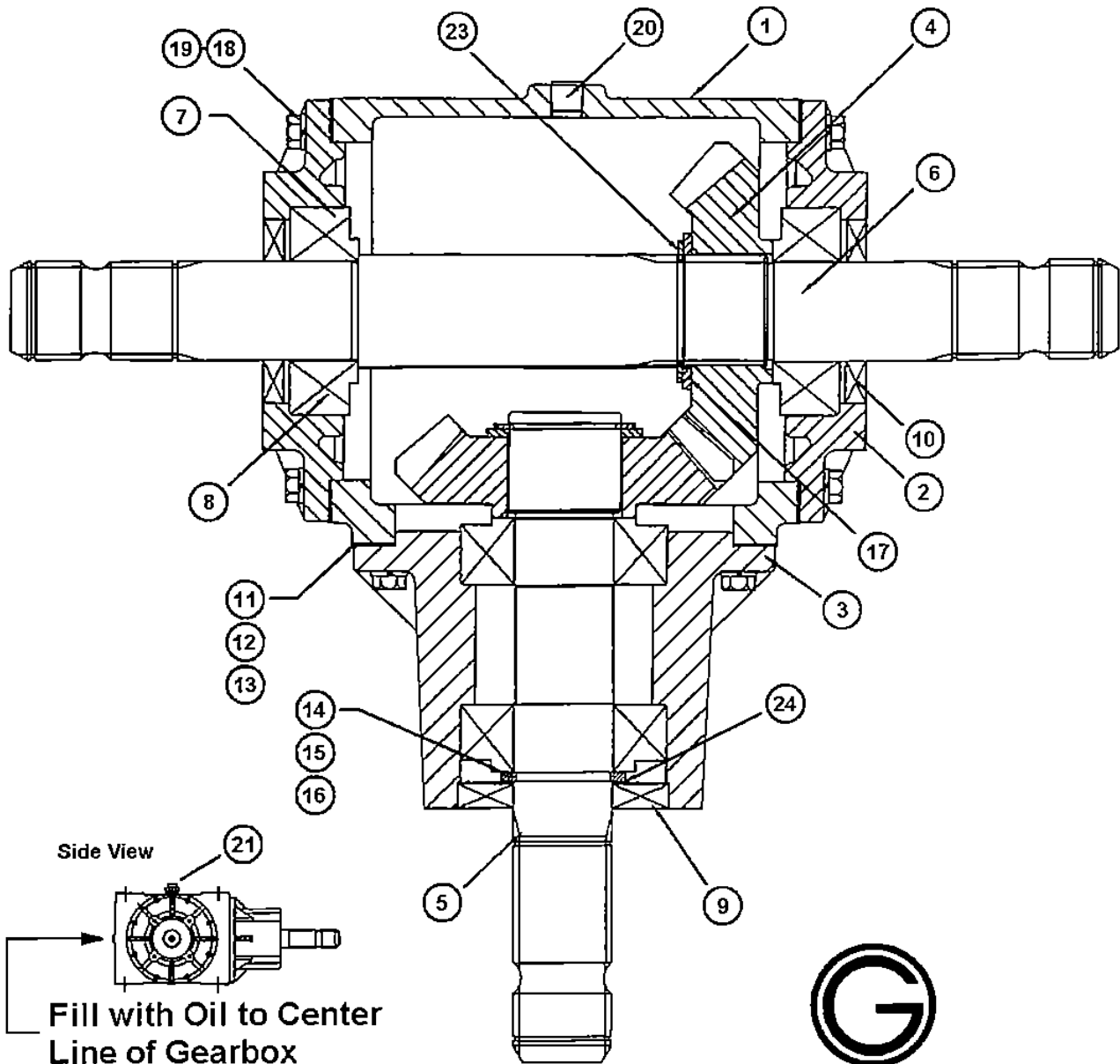
**608450 RC 71 #250493 (1:1.21) used on 7-ft.**



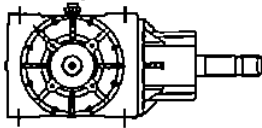
## 608400 (10ft. 1:1.46) -- 608450 (7ft. 1:1.21)

Item	Part # 10 Foot	Part # 7 Foot	Description	Qty
1	608401	608401	Housing RC-71	1
2	607498	607498	Output Cap	1
3	607499	607499	Input Cap	1
4	608404	-----	Output Pinion 13-T (1:1.46) 10ft	1
	-----	607510	Output Pinion 14-T (1:1.21) 7ft	1
5	608405	-----	Input Gear 19-T (1:1.46) 10ft	1
	-----	607509	Input Gear 17-T (1:1.21) 7ft	1
6	607517	607517	Output Shaft	1
7	607518	607518	Input Shaft 1-3/8" - 6 Spline	1
8	607522	607522	Cone Bearing 368	2
9	809299	809299	Cone Bearing LM603049	2
10	809300	809300	Bearing Cup LM603014	2
11	607523	607523	Bearing Cup 362A	1
12	607524	607524	Bearing Cup 362	1
13	607528	607528	Output Seal National-471883	1
14	607529	607529	Input Seal National-473215	1
15	608311	608311	Input Gasket 0.30	Kit
16			Input Gasket 0.15	Kit
17			Input Gasket 0.10	Kit
18	608312	608312	Output Gasket 0.30	Kit
19			Output Gasket 0.15	Kit
20			Output Gasket 0.10	Kit
21	608406	608402	Spacer	1
22	608403	608403	Shim .25	varies
23	505129	505129	Cotter Pin M5 X 50	1
24	303613	303613	Hex Cap Screw 3/8"-16UNC Gr.5	8
25	303651	303651	Hex Cap Screw 1/2"-13UNC Gr.5	4
26	809318	809318	Slotted Nut 1" - 14 UNC	1
27	303953	303953	Lockwasher 3/8"	8
28	303955	303955	Lockwasher 1/2"	4
29	813710	813710	SQ. Head Plug 1/8"-27NPTF	1
30	608350	608350	Pressure Relief Plug 1/2"-14NPT	1
31	-----	-----	I.D.Tag"NOT A SERVICE PART"	-----
32	608353	608353	Retaining Ring 50mm	1
33	-----	-----	Hub "NOT A SERVICE PART"	-----
	608400	608450	COMPLETE GEARBOX	

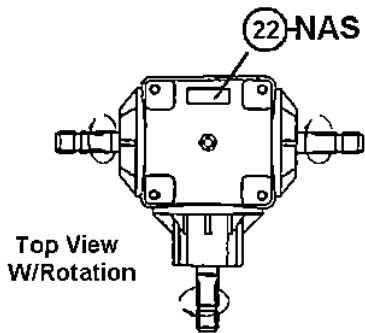
# 540-RPM T-BOX



Side View



Fill with Oil to Center Line of Gearbox



Top View  
W/Rotation

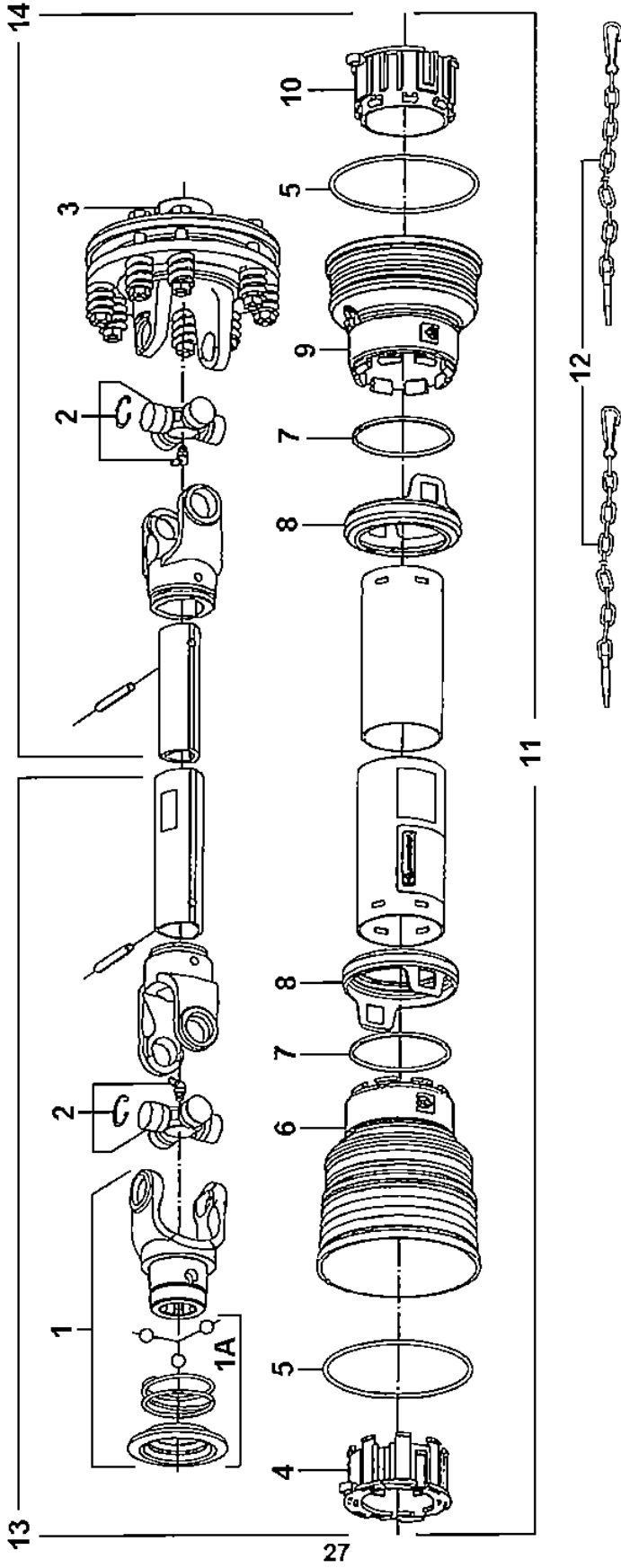


To properly identify brand of gearbox, this symbol will be on top of gearbox housing.  
**608303 (540-RPM)**  
**LR500 #250647**  
**Ratio 1:1**

## 608303 T-Gearbox

Item	Part #	Description	Qty
1	608359	Housing 500 Series	1
2	608360	Thru Cap	2
3	608361	Cantilevered Cap	1
4	608362	Gear 22-T (1:1)	2
5	608363	Input Shaft 1.75-20 Spline	1
6	608364	Cross Shaft 1.75-20 Spline	1
7	608365	Bearing Cup 33209	4
8	608366	Cone Bearing 33209	4
9	608367	Input Seal	1
10	608368	Cross Seal	2
11		Gasket 0.1mm	Kit
12	608316	Gasket 0.2mm	Kit
13		Gasket 0.5mm	Kit
14		Input Shim 0.1mm	Kit
15	608315	Input Shim 0.2mm	Kit
16		Input Shim 0.3mm	Kit
17	608375	Gear Spacer (1:1)	2
18	608376	Screw 3/8" - 16 UNC X 1-1/4"	24
19	303953	Lockwasher 3/8"	24
20	608377	Socket Head Plug 1/2"-14NPT	2
21	608350	Pressure Relief Plug 1/2"-14NPT	1
22	-----	I.D. Tag"NOT A SERVICE PART"	-----
23	608353	Retaining Ring 50	2
24	608378	Retaining Ring	1
	608303	COMPLETE T-GEARBOX	

# 810410 7ft Driveline Components

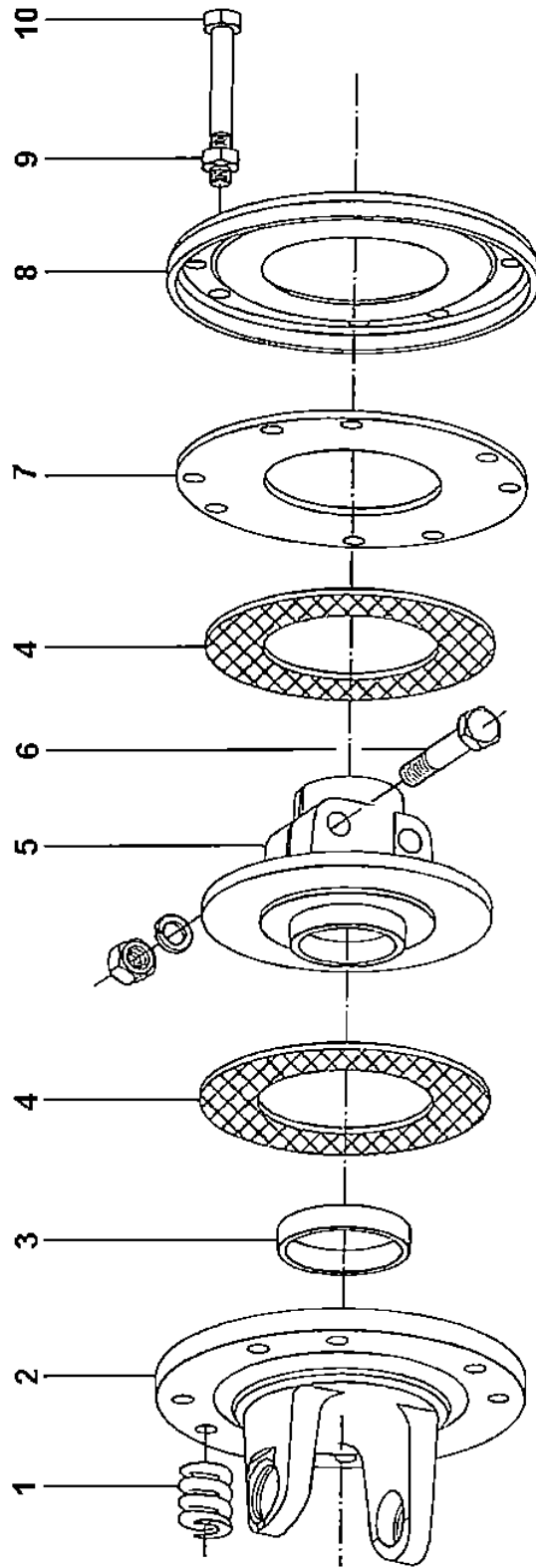


# 810410 7ft Driveline Components

Item	Part #	Description	Qty
1	813898	YOKE ASSEMBLY	1
1A	699526	PULL COLLAR KIT	1
2	807059	CROSS KIT 60	2
3	699503	SLIPCLUTCH (Complete)	1
4	699563	OUTER SHIELD BRG.	1
5	699570	STIFFENING RING	2
6	699553	STANDARD CONE	1
7	699572	STOP RING	2
8	699593	SAFETY SLEEVE	2
9	699550	SHORT CONE	1
10	699558	INNER SHIELD BRG.	1
11	699581	COMPLETE SHIELD	1
12	505103	SAFETY CHAIN	2
13	699600	TRACTOR HALF SHAFT W/SHIELD	1
14	699612	IMPLEMENT HALF SHAFT W/SHIELD	1
	810410	COMPLETE DRIVELINE W/CLUTCH	

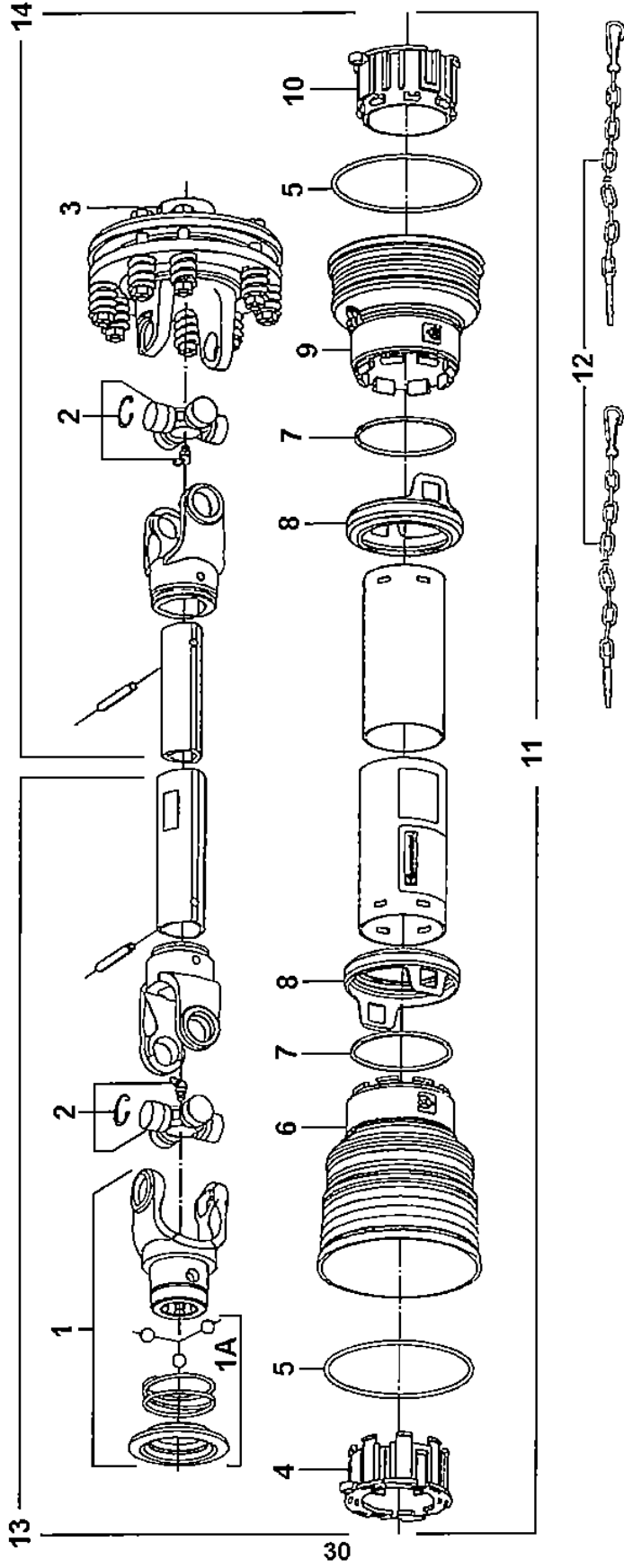
# 699503

## 7ft Slipclutch Components



Item	Part #	Description	Qty
1	699518	SPRING	8
2	699509	FLANGED YOKE	1
3	699592	SLEEVE	1
4	699520	LINING	2
5	699511	HUB W/FLANGE	1
6	699531	BOLT W/NUT & WASHER M12 X 70	2
7	699514	INNER PLATE	1
8	699516	PRESSURE PLATE	1
9	699537	M10 HEX NUT	8
10	699534	HH BOLT M10 X 90	8
	699503	COMPLET SLIPCLUTCH for 7ft	

# 812176 10ft Driveline Components



# 812176

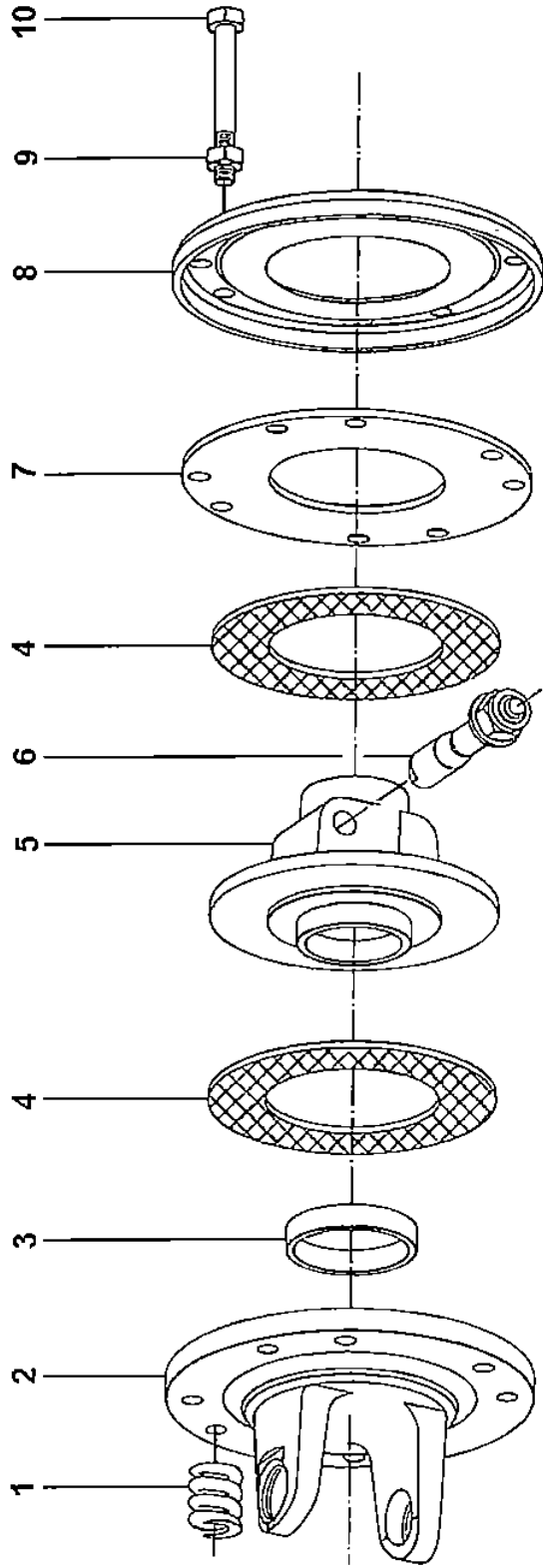
## 10ft Driveline Components

Item	Part #	Description	Qty
1	813898	YOKE ASSEMBLY	1
1A	699526	PULL COLLAR KIT	1
2	807059	CROSS KIT 60	2
3	699504	SLIPCLUTCH (Complete)	1
4	699563	OUTER SHIELD BRG.	1
5	699570	STIFFENING RING	2
6	699553	STANDARD CONE	1
7	699572	STOP RING	2
8	699593	SAFETY SLEEVE	2
9	699550	SHORT CONE	1
10	699558	INNER SHIELD BRG.	1
11	699580	COMPLETE SHIELD	1
12	505103	SAFETY CHAIN	2
13	699599	TRACTOR HALF SHAFT W/SHIELD	1
14	699611	IMPLEMENT HALF SHAFT W/SHIELD	1
	812176	COMPLETE DRIVELINE W/CLUTCH	



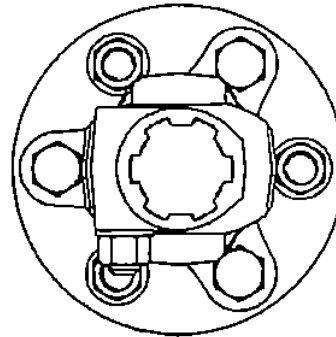
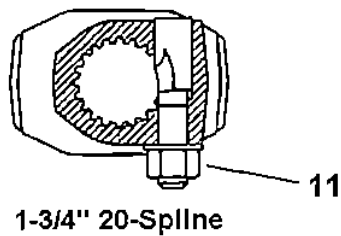
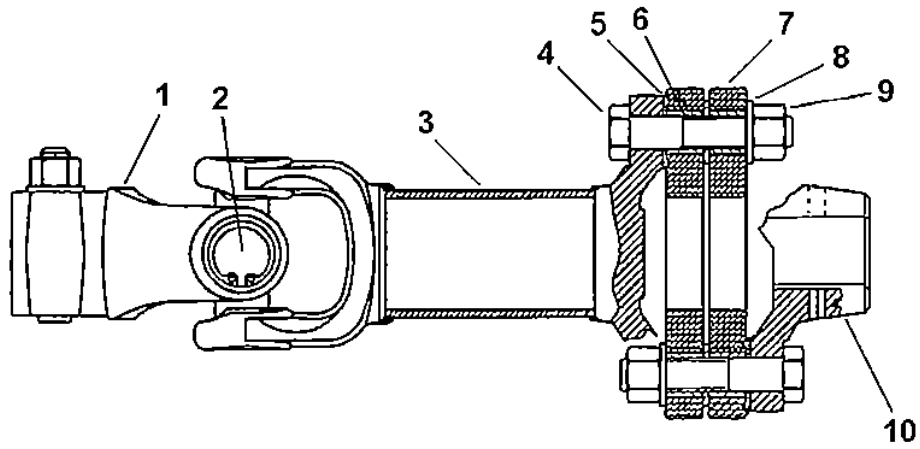
# 699504

## 10ft Slipclutch Components



Item	Part #	Description	Qty
1	699518	SPRING	8
2	699509	FLANGED YOKE	1
3	699592	SLEEVE	1
4	699520	LINING	2
5	699512	HUB W/FLANGE	1
6	699529	BOLT W/NUT & WASHER	2
7	699514	INNER PLATE	1
8	699516	PRESSURE PLATE	1
9	699537	M10 HEX NUT	8
10	699534	HH BOLT M10 X 90	8
	699504	COMPLET SLIPCLUTCH for 10ft	

# 800030 Connector Shaft



Item	Part #	Description	Qty
1	800032	YOKE 1-3/4" 20-Spline	1
2	810048	CROSS KIT	1
3	800031	TUBE YOKE	1
4	810041	HH BOLT M16 X 80 W/NUT	6
5	505960	FORMED WASHER	6
6	810042	BUSHING	6
7	810040	RUBBER DISC PAD	2
8	505959	FLATWASHER	12
9	304805	LOVKENUT M16	6
10	505948	FLANGED YOKE (Spider)	1
	800030	COMPLETE CONNECTOR	

