OPERATOR'S MANUAL
AND PARTS LIST

PROGRESSIVE TD92 TRI-DECK

SERIAL NO: UP TO 13921943

22 FT. ROTARY FINISHING MOWER

PROGRESSIVE TURF EQUIPMENT INC.
137 WEST WILLIAM STREET
SEAFORTH, ONTARIO
CANADA N0K 1WO

PHONE: 519-527-1080
FAX: 519-527-2275
WATTS: 1-800-668-8873

SERIAL # _____

120513

DECLARATION OF CONFORMITY

According to Annex 11 A of the European Community Regulation for Machines

We, Progressive Turf Equipment Inc. 137 West William Street, Box 940, Seaforth Ontario, Canada declare under our sole responsibility that:

Progressive Rotary Finishing Mowers

Models:	Part Number	Description
TD65-2	526512C, 526512D	3.66m Tri-Deck Finishing Mower
TD65	526515C, 526515D	4.72m Tri-Deck Finishing Mower
TD92	529222C	6.70m Tri-Deck Finishing Mower
PF-120	601205C, 601205D	3.05m Pro-Flex Contour Mower
PM-36	529236E	10.97m Pro-Max 36 Mowing System
TDR-22	526924E	6.70m Tri-Deck Roller Mower
TDR-15	528750C, 528750D	4.72m Tri-Deck Roller Mower
TDR-12	528712D	3.65m Tri-Deck Roller Mower
SDR-65	531965C	165cm Three Point Hitch Roller Mower
SDR-90	531990C	228.6cm Three Point Hitch Roller Mower

are in conformity with Directive 98/37/EC of the European Parliament and of the Council of 22 June, 1998 on the approximation of the laws of the member states relating to Machinery.

The Technical Construction File is maintained at the corporate offices of Progressive Turf Equipment Inc. at the address listed above.

Dated at Seaforth, Ontario Canada the 25th day of January 2011.

Luke Janmaat
President
Progressive Turf Equipment Inc.

TABLE OF CONTENTS

TO THE OWNER:

Before you operate this mower, study this manual carefully. It has been prepared to help you do a better and safer job of maintaining your mower.

Use only genuine Progressive Turf Equipment Inc. replacement parts. Substitute parts will void the warranty and may not meet the standards required for safe and satisfactory operation of this equipment.

Blades are especially important. The manufacturing process is a very exacting one and only a handful of blade producers are capable of this process. Always insist on purchasing and using OEM blades for your own protection and that of your employees.

ATTENTION - This safety symbol means
Your personal safety is involved. Be sure to observe and follow these instructions.

DANGER - An extreme intrinsic hazard exists which would result in high probability of death or irreparable injury if proper precautions are not taken.

WARNING - A hazard exists which can result in injury or death if proper precautions are not taken.

CAUTION - A reminder about safety practices, or directs attention to unsafe practices, which could result in personal injury if proper precautions are not taken.

GENERAL INFORMATION:

The purpose of this manual is to assist the operator in maintaining and operating Progressive Turf Equipment mowers. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance.

Some information may be general in nature due to unknown and varying conditions. However, through experience and these instructions you should be able to develop operating procedures suitable to your particular situation.

Throughout this manual, references are made to right and left directions. These are determined by standing at the rear of the equipment and facing the direction of forward travel. Blade rotation is counter-clockwise as viewed from the top of the mower.

For quick reference, record the following information.

MODEL: **TD92**

DATE PURCHASED: _____

SERIAL NUMBER: _____

For additional information, assistance during assembly, or operation of this mower contact Dealer machine was purchased from, or call Progressive Turf Equipment Inc.

PHONE: 519-527-1080 1-800-668-8873 FAX: 519-527-2275

WARRANTY POLICY

(To validate warranty, the Delivery and Warranty Registration form must be completely filled out & mailed to Progressive Turf Equipment Inc.)

Progressive Turf Equipment Inc. warrants each new product to be free of defects in material and workmanship to the original purchaser. Warranty will be applicable, from the original date of purchase.

Pro-Flex 120, TD65-2, TD65, TD92, TDR-15, TDR-12, TDR-22, SDR-65, SDR-90, Pro-Max 36
FOR ALL APPLICATIONS - 24 MONTHS

This warranty coverage supersedes all written warranties, effective June 2007.

This warranty will not cover any components which, in the opinion of the company, have been subjected to negligent use, alteration, and accident, or if parts supplied by others have been used in repairs of any product manufactured by Progressive Turf Equipment Inc.

Our obligation, in the event that any Progressive Turf Equipment Inc. product warranted, shall become defective or fail, will be limited to repairing or replacing free of charge, or provide labour and materials for the repair of, any defective part, subject to company approval. All defective parts must be retained for 60 days after applying for warranty. Any parts to be returned to Progressive Turf Equipment Inc. for inspection will be issued an RGA number and must be returned within 14 days, transportation charges prepaid. This warranty will not provide for service calls to customer location or for transportation of equipment to dealer location if such servicing is required.

The sole liability of Progressive Turf Equipment Inc. under this warranty or any implied warranty, shall be limited as set forth herein. The customer agrees that Progressive Turf shall not in any event be obligated to reimburse, or pay the customer for any expense, loss or any direct, incidental or consequential damages to any person or property for any reason or caused by reason of Progressive Turf Equipment Inc., negligence, or otherwise in connection with the sale, delivery, installation, training or use of the equipment. The customer shall indemnify and hold Progressive Turf Equipment Inc. harmless against all such liability.

This warranty is not subject to change or modification by anyone, including dealers, and no one is authorized to make any representation on behalf of Progressive Turf Equipment Inc.

TD92 MACHINE SPECIFICATIONS

Cutting Width	22 feet	Ground Pressure	7 pounds per square inch
Cutting Height	¾" to 5"	Deck Flexibility	25° up, 15° down
Recommended HP	40 Min – 70 Max	Tire To Ground	630 square inches on contact
Hydraulics	Requires 1 double acting outlet, all hoses supplied to tractor	Numbers of Tires	10 on decks, 2 on main frame
Transport Width	9 ½ ft.	Mowing Capacity	MPH 2 4 6 7-1/2 Acres per hour 5.4 10.7 16 20 Assumes no stops or overlap.
Height	10 ft.	Paint Finish	Electro-statically painted with oven baked finish.
Length	16 ft.	SMV Sign	Located at back of mower for safety
Ground Clearance	9 ¼"	Weight	Total 4100 lbs.

DECK		**FRAME**	
Drive	PTO shaft to right angle gear box driving 2-"B" section belts to 3 heavy-duty spindles.	"A" Frame	Hollow structural steel tubing with supports at high stress areas to achieve maximum strength.
Belt Adjustment	Easily made by loosening four belts at gear box base and adjusting the slide plate forward or backward and retightening.	Axles	Rated at 4000 lbs. each
		Wheels	6 bolt, 6" bolt circle
		Tires	2 P275/60SR 15" automotive radials
Deck Construction	3/16" steel plate formed and welded with supporting members at high stress areas to achieve maximum strength. Deck is 5" deep.	Hitch	4 positions, with height settings from 10-1/2" to 15". Safety chain with hook according to Dept. of Transport regulations.
Cutting Height	Easy to use spacer bushings allow adjustment from ¾" to 5" in 3/8" increments.	Tongue Weight	Transport position – 965 lbs. Mowing position – 360 lbs.
Spindles	3-1 3/8" (35mm) spindles are each carried in 2 regreaseable ball bearings, which are housed, in a precision machined hub.	Cylinders	1-2 ½" x 16"+ 2-3" x 16" double acting
		Screw Jack	2000 lbs. top wind jack for easy hookup.
Blade Support	1/4" x 2-1/2" x 11-1/2" long bar welded to spindle and machined. ½" bolts hold blade rigid to provide clean level cut.	Main Gear Box	4 shaft gear box with 1-3/8-6 spline shafts, delivering power to decks.
Blades	High lift, heat treated, alloy steel blades 5/16" x 2 1/2" x 32" per deck.	PTO Shafts	Deck Drive…telescoping agricultural PTO Drive shafts, with proper safety shields. 1-3/8-6 spline quick-disconnect yokes on both ends.
Speeds	Tractor PTO – 540 RPM Blades – 2215 RPM Blade Tip Speed 18, 547 FPM		Input PTO…rated at 85 HP at 540 RPM.
Castors	18 X 9.50 X 8 NHS, 4 ply pneumatic tires mounted on 5 bolt wheels. All hubs are replaceable and interchangeable.		

SAFETY

WORK SAFELY ---- FOLLOW THESE RULES

Instructions given with this symbol are for personal safety. Be sure you and your workers follow them.

A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT

BEFORE HANDLING ANY EQUIPMENT READ THE OPERATOR'S MANUAL.

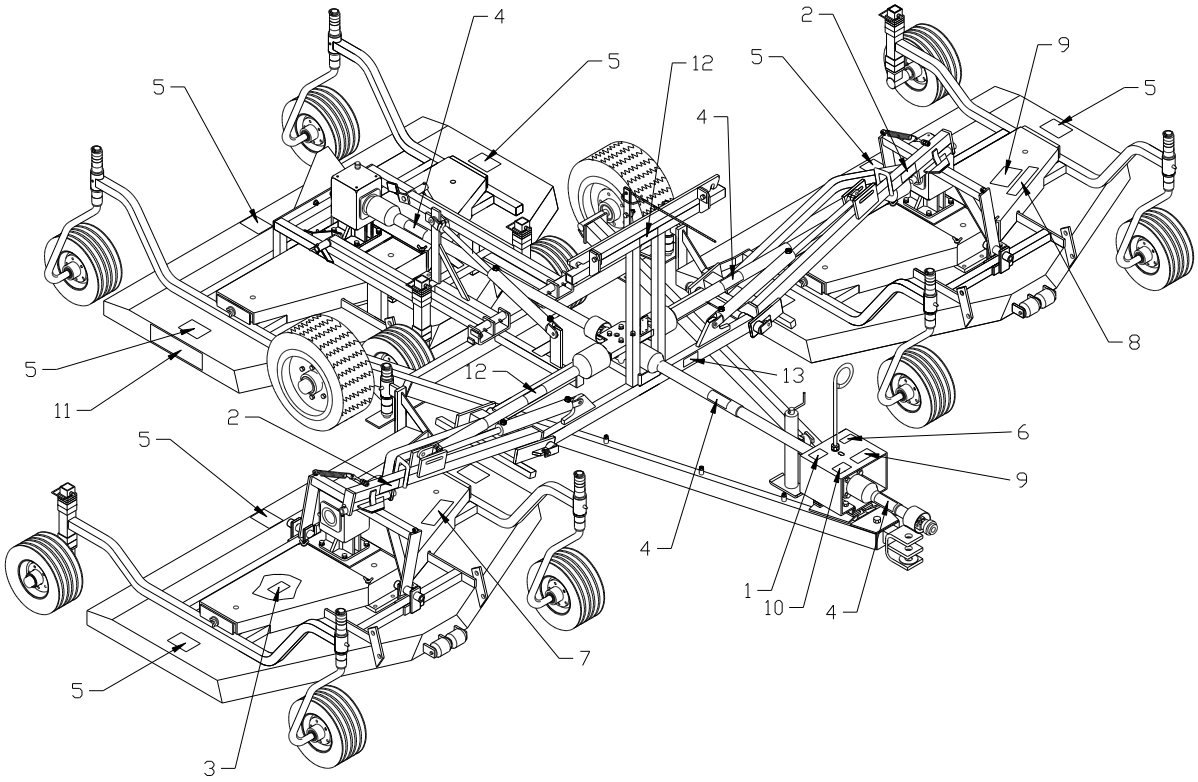
- To avoid accident or injury, do not allow anyone to operate this equipment without proper instructions. Any person who operates this equipment must be instructed in and be capable of the safe operation of the unit.
- Know your controls and how to stop tractor, engine, and mower quickly in an emergency.

OPERATING SAFELY:

- Shift tractor into neutral and disengage power take-off before starting tractor.
- Never allow riders on tractor or equipment.
- Use extreme care when operating on uneven terrain.
- Immediately stop mower and shut off tractor upon striking any object. Inspect mower and repair any damage before you continue mowing.
- Always turn off tractor before making any adjustments to mower, if operator has to dismount tractor.
- If mower becomes clogged, disengage power to mower and turn off tractor before dismounting.
- Always disengage PTO and be sure driveline has stopped rotating before raising decks into transport position.
- Always obey all local and state regulations when operating on public roadways and highways.
- Reduce speed while operating during wet conditions on slopes, especially when making sharp turns.

SAFETY & MAINTENANCE DECAL LOCATIONS ON MACHINE:

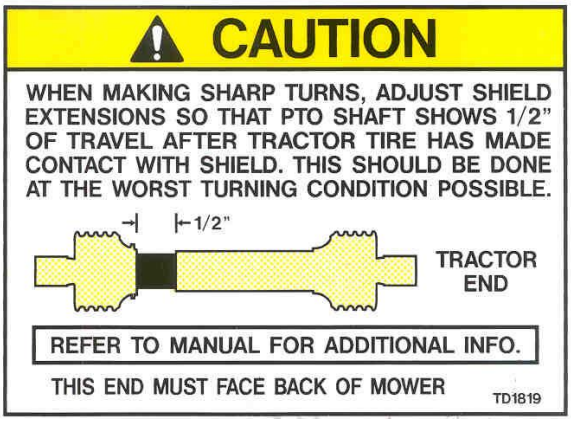
ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION
1	CAUTION - TURNING	8	GREASING SCHEDULE
2	CAUTION – READ MANUAL	9	PTO GREASING
3	CAUTION – REPLACE SHIELDS	10	NOTICE – HITCH SETUP
4	DANGER – PTO SHIELDS	11	MOWER MODEL
5	WARNING - BLADE HAZARD	12	COMPANY NAME
6	WARNING – OEM PARTS	13	SERIAL PLATE
7	CAUTION – DISENGAGE PTO		



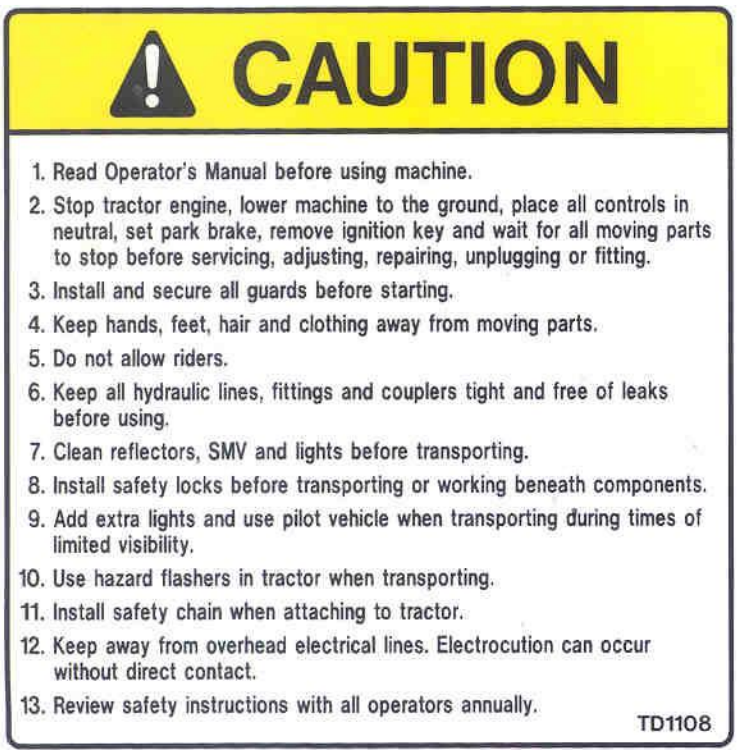
OBEY THESE SAFETY DECALS:

- If decals become faded, damaged, or lost, replace immediately. Order Decal Kit, Part # 522002. Safety Decals shown below are located on machine as illustrated on sketch.

ITEM 1



ITEM 2



ITEM 3

ITEM 4

ITEM 5

ITEM 6

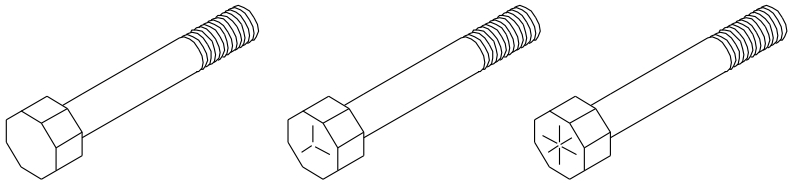
MAINTENANCE SAFETY:

- ❖ Never work on mower without safety locks in place, if decks are in raised position.
- ❖ Keep tractor and mower in good operating condition and all safety devices in place.
- ❖ Frequently check blade mounting bolts for tightness.
- ❖ Periodically check to ensure that all bolts are tight and that all nuts, screws and cotter pins are properly installed to ensure mower is in a safe condition.

PROPER TORQUE FOR FASTENERS:

The chart lists the correct tightening torque for fasteners on Progressive Turf Equipment mowers. When bolts are to be tightened or replaced, refer to this chart to determine the proper torque except when specific torque values are assigned in the manual. Only SAE Grade 5 fasteners are to be used in the assembly of this machine, or as otherwise specified in this manual.

Bolt Head Markings



SAE Grade 2 (No Dashes) **SAE Grade 5** (3 Dashes) **SAE Grade 8** (6 Dashes)

Recommended Torque in Foot Pounds (Newton-Meters)

Bolt Diameter (in.)	SAE Grade 5
5/16	21 (28)
3/8	38 (52)
7/16	55 (75)
½	85 (115)
9/16	125 (170)
5/8	175 (240)
¾	300 (410)
7/8	450 (610)
1	680 (925)
1” L.H. Spindle Nut	60 (82)

ASSEMBLY INSTRUCTIONS:

SET - UP INSTRUCTIONS:

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 11.

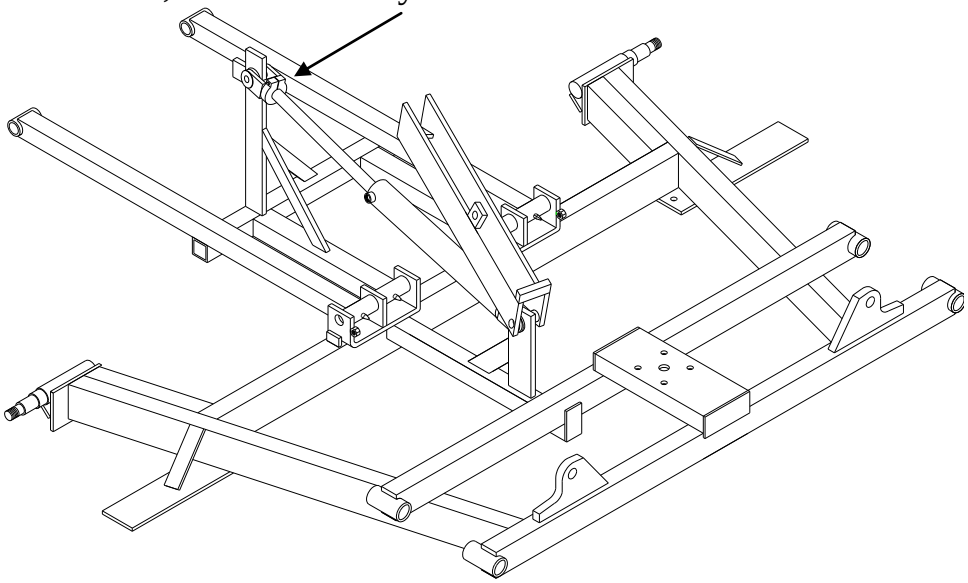
CAUTION - Always use personal protection devices such as eye and ear protection during assembly.

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

START WITH ASSEMBLY OF MAIN FRAME:

Install tires, hitch, deck swivels and assembled hanger bearing support bracket. Install deck swivel with grease fitting in the high position.

Next, install rear cylinder and rear deck safety lock. Be sure bolt-on clevis end of cylinder is in the upward position. If not, it will bind on arm it is attached to, and bend the cylinder rod.



Install pull chain between the rear deck safety and the wing safety lock, being sure it is not twisted to get maximum length.

Install hydraulic hoses to their proper location. The top hose (31") on the wing lock frame fastens to the butt end of the rear cylinder, and the lower hose (43") attaches to rod end of the cylinder with a 90° adaptor.
Hook frame to tractor drawbar and adjust hitch so frame is level. The front

hitch can be unbolted and rotated 180° to provide different heights.
Frame must be level to provide proper flotation. Refer to "Hitching mower to tractor" for more information.

Activate hydraulics and cycle a couple times to be sure safety locks work correctly.

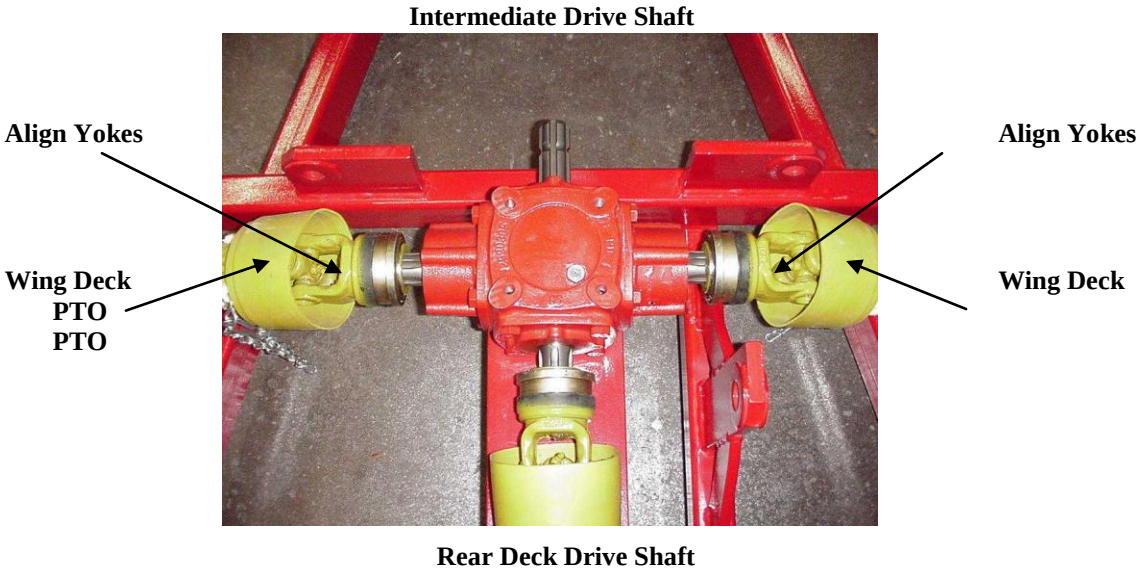
Be sure to check fluid level in your tractor after this has been done.

Now, remove mower decks from shipping brackets and set them in their respective positions. Lower wings, install pins, and bolt them in place.

Once the entire machine has been assembled, and sitting on a level floor, measure to see that the front sides of all decks are close to the same height. The rear of the decks should be slightly higher than the front. This will require less power than if the back is lower and cutting the grass twice. If this is all correct, tighten all hardware and recheck.

INSTALLING PTO SHAFTS:

The three identical PTO shafts are used to drive the mower decks. Each PTO shaft will have one end designated a tractor end. This end should be hooked up to the main gear box.
IMPORTANT: The PTO shafts from the two wing decks must be timed when mounted to the gear box. See photo below. Mount the one side first with the yoke laying flat. The opposite side must be mounted with the yoke laying as flat as possible. ie. Timed.



All PTO shafts have a short chain attached on both ends. Find a location to

wrap or hook on short chain. Be sure that when decks are brought into transport position, the safety chain will not bind or pull PTO shield.

The Intermediate shaft is installed with the large bell end onto the main gear box. The PTO mount bracket is then installed by sliding the PTO end through the flange bearing, and leaving the mounting bolts loose. Do not forget to install the PTO mount bracket spacers to level the driveline. Next, install the PTO spacer, and then the input PTO shaft and locking it in place with the bolt end of the PTO shaft. See section on “Hitching Mower to Tractor” for additional information.

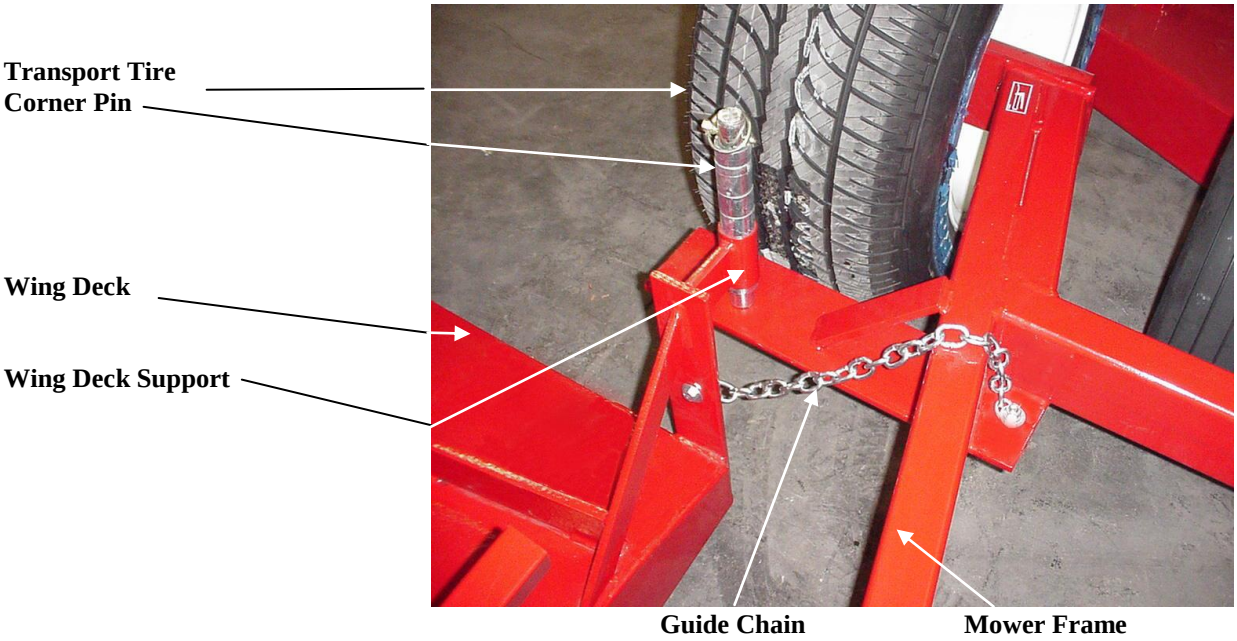
WING GUIDING CHAIN:

In some conditions during the unfolding of the mower wings before operating, the wing deck corner pin contacts the end of the supporting plate and does not come to rest on the top of the plate. This is mainly caused by either inadequate lubrication of the wing deck PTO shaft tubes or lowering of decks while not stationary, on level ground.

The mowers make use of a guide chain connecting the wing deck and the transport frame. This will ensure that the deck corner pin will not interfere with the support plate and land on top of the plate.

ASSEMBLY INSTRUCTIONS: (See photos below)

a) After the decks have been assembled to the frame, locate the guide chain on the back corners of the wing decks closest to the transport tires.
b) Remove the bolt from the end of the chain.
c) Remove all twists from the chain. It must be straight or the total length of chain will be too short.
d) With the bolt passing through the last link of the chain, and passing it over the frame, mount it to the hole in the deck pin support plate on the inside of the frame.
e) Tighten all bolts.



Once the decks and chains are on, raise the decks and fasten all 9 blades to the bottom of the decks.

OPERATING THE MOWER:

A careful and knowledgeable operator is the best insurance against an accident.
Allow no riders on any equipment.

If tractor is equipped with R.O.P.S., use the seat belt for maximum protection.

Make sure that everyone is clear of the tractor and mower before starting the engine or operating.

DAILY CHECK LIST:

1. Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough soled work shoes. Never operate tractor or implements in bare feet, sandals or sneakers

2. Check that mower is properly and securely attached to tractor with a safety chain.

3. Ensure all safety shielding is properly installed and check that all nuts and bolts are secure and pins are properly cotter-pinned.

4. Check condition of blades and security of attachment.

5. Ensure mower is properly mounted, adjusted and in good operating condition.

6. Clear area of stones, branches or other debris that might be thrown causing injury or damage.

7. Never permit any person other than the operator to ride or board the tractor at any time.

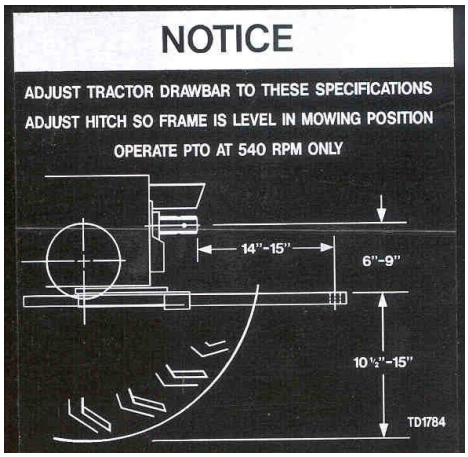
8. Check that all lubrication points with grease fittings have been lubricated as per schedule.

9. Check all gearboxes for proper amount of gear oil. Mower must be on level surface when this is done.

Be sure actuator pull rope is properly secured and will not become entangled in PTO shaft.

HITCHING MOWER TO TRACTOR:

NOTICE - Attach mower to drawbar only.



Drawbar should be adjusted so it is 14" to 15" from the centerline of the draw-pin hole to end of PTO shaft. This is critical for proper PTO shaft operation.

Adjust hitch or drawbar so mower frame (Item #30, Page 8) is at the most level position in relation with the ground. This will ensure proper flotation of the wing decks.

CAUTION - Safety chain must always be attached to towing vehicle.

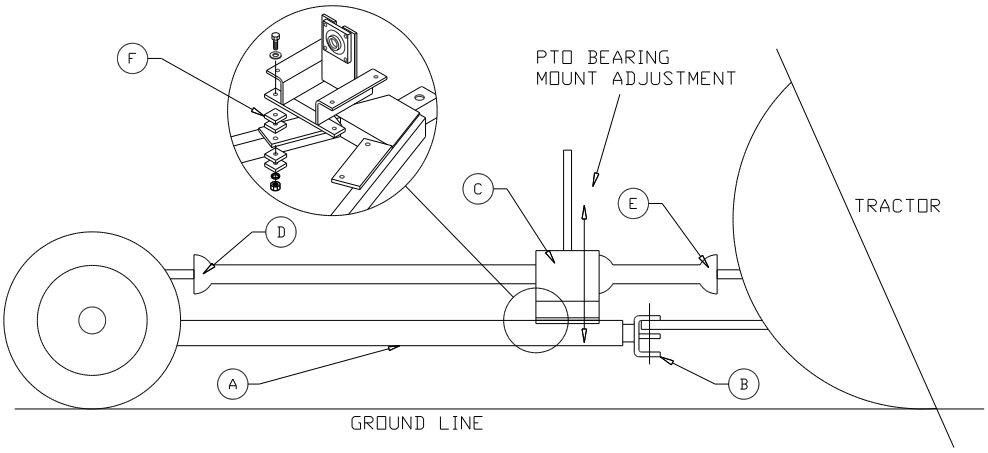
CAUTION - When towing mower on any roadways, lock brakes together. Use proper lighting and marking devices according to the local regulations.

NOTE: If the three-point hitch is attached to tractor, be sure it will not contact any part of the mower when making sharp turns. Mount the hose support bracket so the large access hole is directly over the grease fitting on the hanger bearing. The hose support rod may have to be bent back slightly to clear the three point hitch arms.

LEVELLING THE MOWER & PTO:

For proper mower operation and maximum PTO life, the mower hitch and PTO driveline must be set up correctly.

a) When the mower is connected to the tractor, the mower hitch frame "A", should be as close to level with the ground as possible.
b) The connecting hitch "B" can be removed and turned over to give more height adjustments. Set in the best position for the mower frame to be as level as possible.
c) To ensure proper life of the PTO shaft, the driveline from the mower gear box "D" to the PTO shaft "E" on the tractor should be in a straight line.
d) Spacers "F" are provided under the hose support "C", to allow adjustment up or down. Each spacer is ½" high. Sixteen are provided, for a 2" total adjustment, four on each corner.



CONNECTING THE PTO SHAFT:

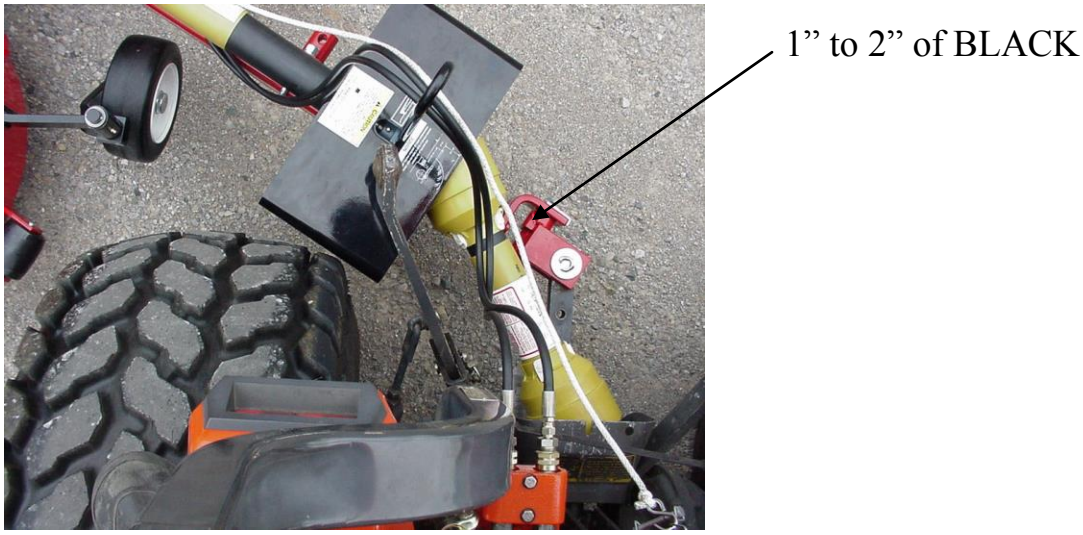
a) Ensure that the tractor engine is shut off and the parking brake is locked.
b) Holding the PTO against the end of the tractor PTO shaft, rotate the tractor PTO by hand until the shaft slides on slightly.
c) Slide the locking collar on the PTO backwards, releasing the locking mechanism. Hold and slide the PTO shaft yoke onto the tractor PTO stub.
d) Release the locking ring and pull the PTO shaft backwards until the locking mechanism snaps into place.
e) Push the shaft forward and backwards to ensure that this is securely locked in place.

CAUTION - If the PTO shaft comes off during operation, it may cause personal injury and damage to the PTO shaft and tractor PTO. When checking, make sure the locking collar is locked, and that the shaft is not just jammed against the end of the tractor PTO shaft.

CHECK PTO LENGTH DURING TURNS:

During the mowing operation the tractor should be able to make turns without damage to the driveline. To ensure proper setup check the following conditions:

a) With the tractor and mower aligned, and the input PTO straight, turn the shields on the input PTO to check that the holes line up for greasing the input shaft tubes. If not, you will have to lengthen or shorten the drawbar. It should be 14" to 15" from the end of the PTO shaft to the center of the draw pin hole.
b) With the tractor in the lowest gear and traveling very slowly, make a sharp turn to the right as required for mowing.
c) Watch the PTO shielding to make sure the PTO shaft does not totally collapse. There should be 1" to 2" of black PTO shielding left at maximum turn. See picture below.



NOTE: This is not the worst condition. Making turns while the tractor is angling up a hill will cause the PTO shaft to collapse even more. The operator should avoid making sharp turns on uneven ground.

CUTTING HEIGHT ADJUSTMENT:

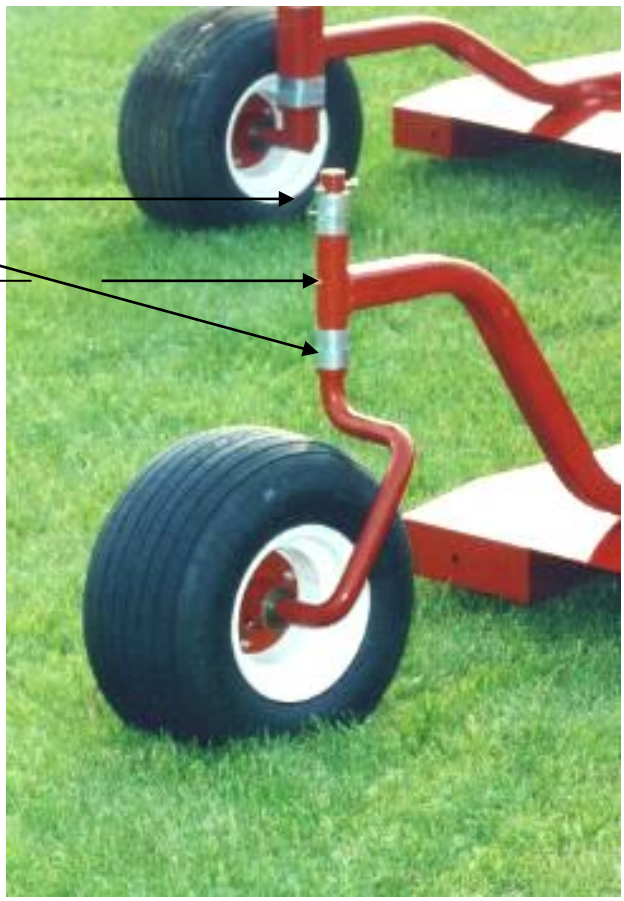
Mower cutting height adjustment is made by removing lynch pin from the top of each castor stem (square or round) and corner support and moving the spacers either above or below support tube as required for your selected cutting height.

NOTE: Cutting height starts at 3/4", with no spacers under the bushing. Increments are then 3/8" using 3/8" and 1" spacers.

Be sure all adjustments are set the same.

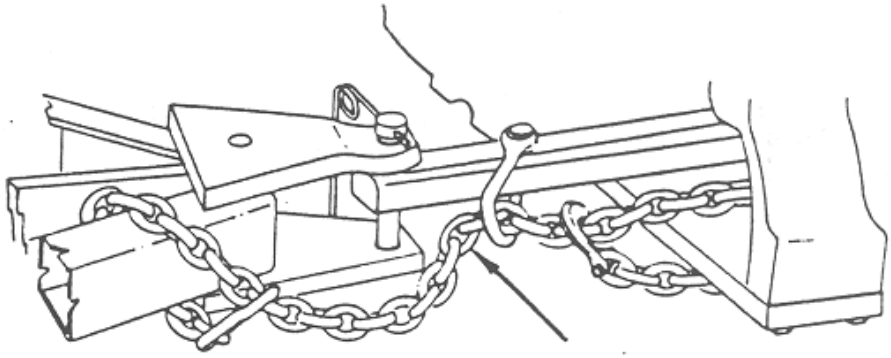
Spacers (3/8" & 1")

Bushing



SAFETY CHAIN:

It is recommended that the safety chain provided with this mower be attached to the towing vehicle at all times.



SAFETY CHAIN

Install a safety chain as shown. After attaching the safety chain, make a test run to the left and right for a short distance to check for proper adjustment. Readjust to eliminate a loose or tight chain.

TRANSPORTING MOWERS:

CAUTION - When traveling on public roadways, use flashing amber lights and S.M.V. emblem on rear of mower to provide greater visibility to other traffic.

Once mower is in the raised position, activate tractor hydraulic control valve slightly so that the cylinders will extend and allow the locks to be totally engaged. This way there will be no sudden surges on the hydraulic system when traveling over tough terrain.

WARNING - When towing this mower the following information concerning road speed should be strictly adhered to.

WEIGHT OF TOWING VEHICLE	MAXIMUM ALLOWABLE ROAD SPEED
4500# or more	Up to 20 mph (32km/h)
Less than 4500# but More than 2300#	Up to 10 mph (16km/h)
Less than 2300#	DO NOT TOW

CAUTION - Always have safety chain attached to towing vehicle.

TIRES:

Upon receiving your mower, check air pressure in the tires and adjust according to specifications.

Mower Deck Tires – 24 PSI
Main Frame Tires – 32 PSI

CAUTION - Never inflate tires beyond 35 pounds per square inch to seat beads. Inflation beyond 35 PSI pressure before seating the bead may break the bead or even the rim with an explosive force. If beads have not seated by the time the pressure has reached 35 PSI, deflate the assembly, move tire to another position on the rim and re-lubricate. Inflate tire and inspect both sides of the tires to be sure beads are seated properly. If not, deflate tire, unseat beads and repeat the above mounting procedure. After properly seating beads adjust to pressure recommended.

POWER TAKE-OFF:

CAUTION - Keep all safety shields in place.

CAUTION - When operating the power take-off, be sure the tractor shield is always in place, covering the exposed power take-off shaft.

WARNING - Before dismounting from the tractor, stop the power take-off, put tractor in neutral, set brakes in lock position and shut off engine.

CAUTION When ready to engage PTO shaft, be sure engine RPM is at idle speed. Engaging PTO at full throttle will cause high shock loads to drive line, with the potential for future failure.

NOTE: Do not exceed the recommended PTO speed of 540 RPM**.**

An Important Word On Grease Compatibility

What Grease Is:

-Grease is essentially a distilled petroleum product in the form of mineral oil (or a synthetic) which has a thickening agent such as lithium, calcium, barium, sodium, or aluminum.

-Many of the thickeners will work for similar situations, but **when mixing greases with different thickeners, one must review compatibility**. Grease incompatibility will actually decrease the lubrication ability of the grease, and cause premature part failure.

-There may be other additives in the grease that impart special properties. These properties may be "high temperature", "extreme pressure", etc.

What We Use:

- Our bearing supplier uses Shell Alvania 2
- Progressive uses Texaco Multifak EP 2
- EP means extreme pressure
- Both greases have:
  - A mineral oil base
  - A lithium thickener
  - The mineral oil has a NLGI Grade 2
  - Both greases are compatible with each other

Note:

-If a thickener other than lithium is used, the existing grease will be contaminated and the lubrication properties may be lost.

-If a synthetic base oil is used rather than a mineral base oil, the grease will again be contaminated and the lubrication properties may be lost

-Molybdenum Disulfide (Moly) is an additive used in slow moving, extreme load applications. The particles in the "Moly" will actually increase bearing wear in a mower spindle.Our grease does not contain Moly.

-The blade spindle temperature should never go above 120°F if properly greased; we do not recommend high temperature grease.

A grease with these features is considered to be a "General Purpose Grease". Use on all grease point locations on your Progressive Mower.

Our Recommendation for Grease Compatibility:

The grease you use for the blade spindle assemblies must have these properties:

- NLGI grade 2
- Lithium thickener (NOT LITHIUM COMPLEX OR LITHIUM 12-HYDROXY)
- Kinematic Viscosity at 40°C is no greater than 190 cSt
- Dropping Point Less than 400° F
- General Purpose Grease, Not Heavy Duty
- No MOLY (molybdenum disulphide) additives in the grease
- No synthetic grease
- No High Temperature Grease

- Check the properties of the grease you wish to use with your supplier prior to use.

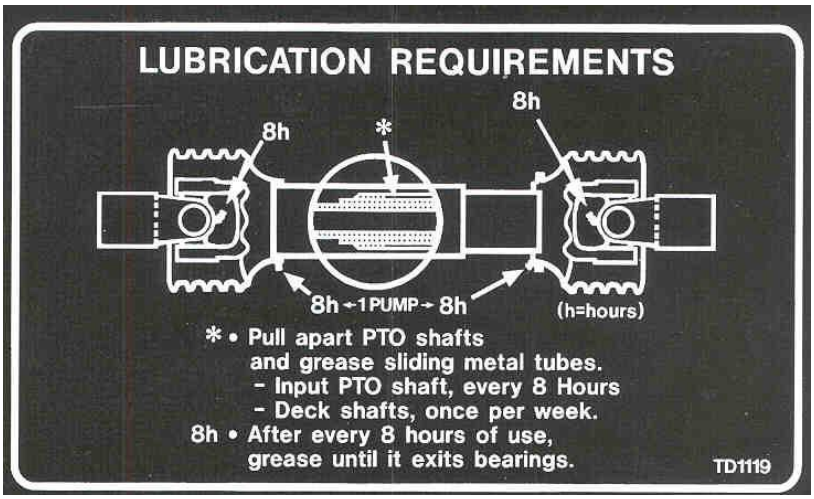
LUBRICATION:

A properly maintained lubrication schedule will provide a smooth running machine for many years. All pivot locations have grease fittings. The following information shows and describes where all lubrication points are located. .

DECKS	P.T.O. SHAFTS	FRAME
• **Spindles* (See Manual)** • **3 Pivots per Wing Deck*** • **2 Pivots on Rear Deck*** • **Castor Wheel & Swivels***	• **Main Input*(See Below)** • **Deck Drive, 4 Locations per Shaft*** • **Pull Apart Sliding Tubes once per week and lubricate**	• 8 **Pivot Locations*** • **2 Wheels***
***As Required**	***As Required**	***As Required**

CHECK FOR PROPER OIL LEVEL IN GEAR BOXES DAILY

GREASING SCHEDULE & LOCATION



BLADE SPINDLE GREASING:

The top bearing on all spindle assemblies has a shield only. This allows grease to exit and relieves any pressure build up inside spindle housing, when greasing. Greasing of blade spindles should continue until grease can be seen exiting between the top bearing and the bottom of hub on pulley. Some working conditions will require this operation to take place every 4 to 5 running hours because of hot working areas. Cooler working areas will only require greasing every 8 to 10 hours. A proper greasing schedule can

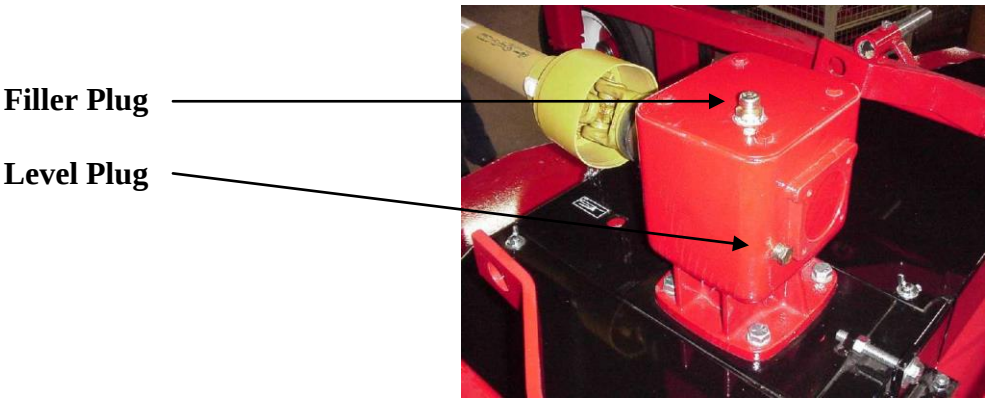
only be determined by operator, depending on working conditions in your particular area.

GEARBOX OIL LEVELS:

IMPORTANT! DO NOT OVERFILL! MOWER MUST BE LEVEL WHEN CHECKING GEARBOX OIL LEVEL

DECK GEARBOXES:

Gearboxes all have an oil level plug located on the side of the gearbox. Oil should reach the bottom of this hole. If oil level is low, add oil through top plug hole of casing until oil just starts to flow out of side oil level hole. Replace and tighten plugs. Use 80W90-gear oil or equivalent.



MAIN GEARBOX:

The main gearbox has a combination filler plug and dip stick. Remove the plug, dry off the dip stick and replace to check oil level. It must touch the oil in the gearbox. Add oil as required. Use 80W90 gear oil or equivalent. Replace and tighten the plug.

MAINTENANCE:

WARNING - Turn tractor engine off before performing any maintenance.

CAUTION - Always use personal protection devices such as eye and ear protectors when performing maintenance functions.

WARNING - When completing a maintenance or service function, make sure all safety shields are installed before placing mower in service.

BLADE SERVICING:

WARNING - Be sure safety locks are in place when working on decks in the raised position. The tractor hydraulic system could fail, causing decks to fall and crush anything under them.

- Do not handle mower blades with bare hands. Careless or improper handling may result in serious injury.

- Inspect blades before each use to determine that they are mounted tightly and are in good condition. Replace any blade that is bent, excessively nicked, worn or has any other damage. Small nicks can be ground out when sharpening.

WARNING - Only original equipment blades should be used when replacing worn out mower blades. They are made of special steel alloys and subjected to rigid heat-treat and inspection requirements. Substitute blades may not meet these rigid specifications and MAY BE DANGEROUS.

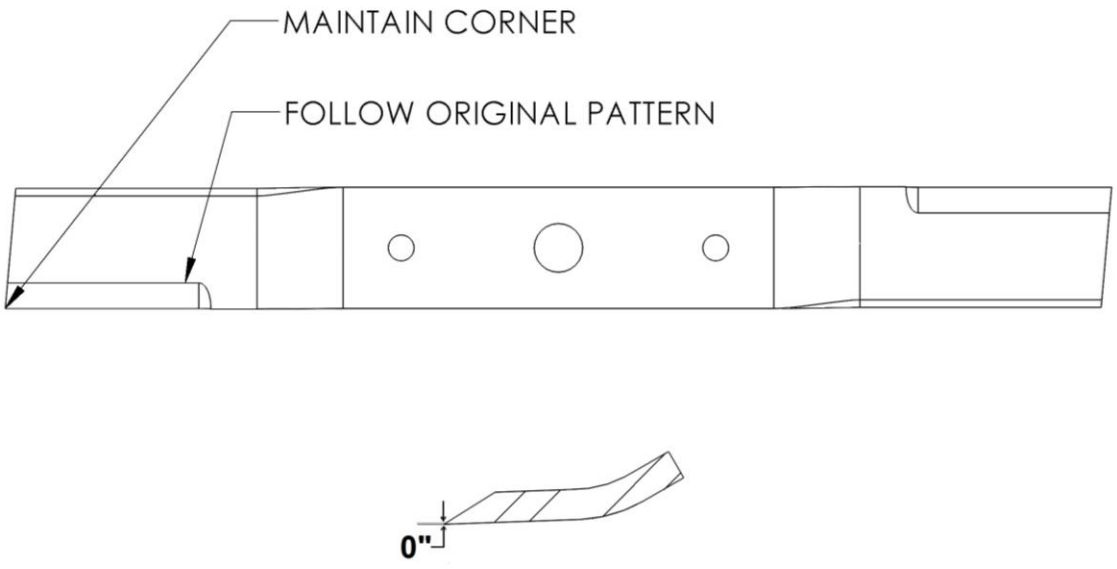
BLADE REMOVAL AND INSTALLATIONS:

Two, 1/2" X 1 3/4" Grade 5 bolts with lockwashers and nuts hold blade to blade spindle support bar. When changing blades, be sure that these fasteners are in good condition so they will not come loose during operation.

BLADE SHARPENING:

IMPORTANT - When sharpening blades be sure to balance them. Unbalanced blades will cause excessive vibration, which can damage blade spindle bearings. Vibration may also cause structural cracks in mower housing.

Follow original sharpening pattern as shown. Sharpen blade to a razor edge. Protect hands when sharpening. Do not sharpen backside of blade.



BLADE SHARPENING

SPINDLE INSPECTION:

Spindles are equipped with two roller ball bearings. Adjustment is set by tightening the 1" left hand nut to 60 ft-lbs. torque for proper setting.

Periodically inspect blade spindles by grasping blade, and moving from side to side. If any free play is noted, replace or repair.

SPINDLE ASSEMBLY REMOVAL:

Remove blade from spindle.

Remove belt shield. Loosen 4 bolts that hold gearbox to mount. Loosen 1/2" x 3 1/2" tap bolts and slide gearbox toward front until belt is easy to remove.

Remove belt.

Remove 4 bolts attaching spindle assembly to mower frame and remove as a unit, since pulley will come out through the hole in the deck.

SPINDLE ASSEMBLY INSTALLATION:

Reverse above procedure. Be sure spindle mounting area of deck is clean of any foreign material before attaching spindle assembly.

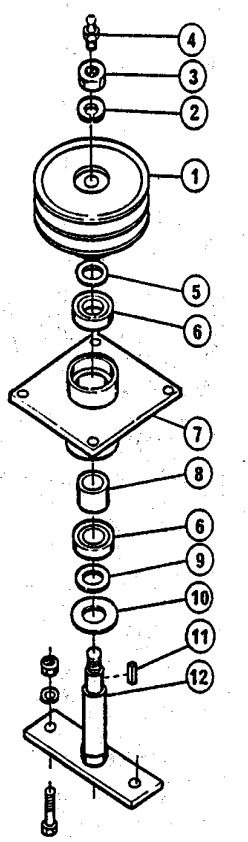
SPINDLE REPAIR:

Spindle repair requires special skills and tools. If your shop is not properly equipped or your mechanics are not properly trained in this type of repair, you may be time and money ahead to use a new spindle assembly.

Remove pulley from spindle assembly. Place assembly in press and force spindle down through housing. Once pressed apart, replace bearings, as removal will have damaged bearings internally.

ASSEMBLY OF SPINDLE:

Only use a press that has the ram and bed 100% square to each other. If bearings are not square in housing, bearings will wear out prematurely. Press on outer race when inserting into hub and press on inner race when installing on spindle.



1 - PULLEY

2 - L.H. LOCK WASHER

3 - L.H. NUT

4 - GREASE FITTING

5 - SHIM

6 - BEARING

7 - SPINDLE HOUSING

8 - BEARING SPACER

9 - SHIM

10 - DIRT SHIELD

11 - 1/4" SQ. X 1 11/16" KEY

12 - BLADE SPINDLE

If bearings are being changed, be sure to check bearing spacer for wear. If wear is noticed, insert new spacer. This is critical because if spacer is short by only .010", the top bearing will start to bind and will result in premature failure.

Bearing with seal and shield combination will be pressed into the blade side of the hub first with the seal side facing out. Next, set spindle on press bed, install dirt shield and shim first (as per diagram) set hub, bearing end down, on to spindle. You must use a tube (Note: both ends must be square) which will slide over spindle and press on inner race of bearing, until seated against shim.

Insert bearing spacer tube with hole end up. Set remaining bearing with shield side up, open side on first, on to spindle. Press on inner race (this bearing will be a loose fit in the hub so it will seat itself properly).

When all parts have been installed on spindle, torque left hand nut to 60 ft-lbs. and then tighten set screws in pulley. Once the assembly is complete, fill with quality grease until it can be seen exiting the top bearing. Rotate the housing six revolutions by hand so the bearings will have the grease worked into them, and at the same time check for free movement. The assembly is now ready for installation into the mower deck.

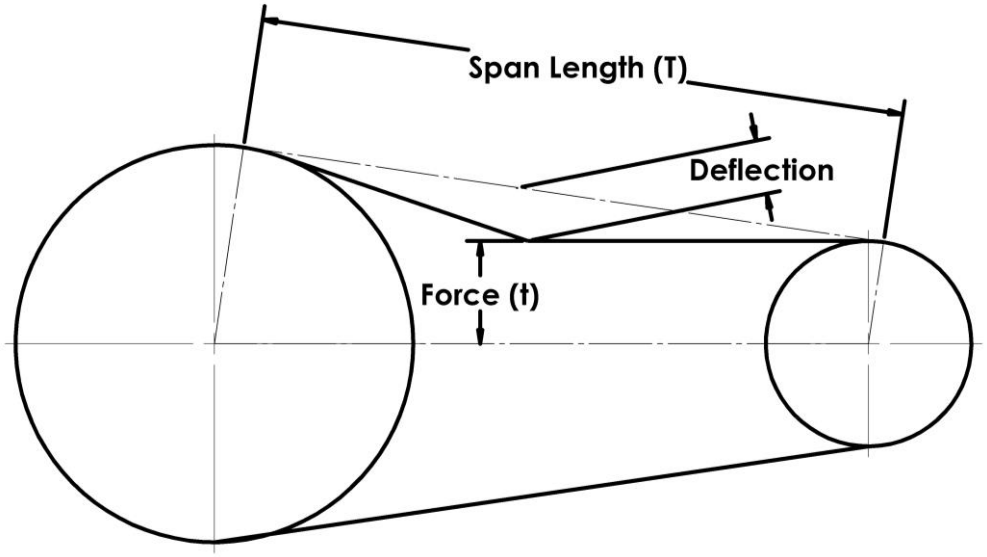
“V” BELT ADJUSTMENT:

Begin by loosening 4 bolts at the base of the gearbox. By adjusting long threaded bolt, this will slide the gearbox back, tightening the belt. After proper tension is achieved, tighten 4 bolts at base of gearbox. You may have to place a 1/2” nut under the head of the long threaded bolt to increase your adjustment length.

When changing belts, removal of grease fitting from the top of the center spindle will make installation easier. Be sure belts run in proper groove.

“V” BELT TENSION:

Proper belt tensioning is a fundamental factor in successful V-belt operation. Lack of tension will cause slippage, and too much tension will cause excessive belt stretch as well as damage to the drive components, such as bearings and shafts. Therefore, to ensure proper belt tension, the following procedure is recommended.



CHECKING BELT TENSION

At the mid-point of the span, apply a deflection force with a spring scale in the direction perpendicular to the span until the belt is deflected the 3/8”.

The recommended force to deflect the belt is a minimum of 4.9 lbs. to a maximum of 7.3 lbs.

The first 24 to 48 hours of operation is the belt “run in” period. To ensure satisfactory belt performance, belt tension should be checked during this time period.

HYDRAULICS:

The hydraulic system on your Progressive mower is a simple cylinder system used to raise and lower the cutting decks into position. Each cylinder contains a .035 diameter restrictor orifice, which is located on the rod end to slow the speed of travel.

Restrictor Orifice

When reconnecting the quick disconnects to the tractor, be sure that both ends are clean. Dirt in the hydraulic system can block the orifice in the line throttle valve or even score the cylinder tubes.

Hydraulic fluid escaping under pressure has enough force to penetrate the skin. Seek medical attention at once if injured by escaping fluid. During your daily inspection repair all leaks before they create a major problem. Relieve all pressure before working on, or disconnecting the line in the hydraulic system.

If crimp-on hose ends are ever changed, be sure they are compatible with the hose, to provide the proper crimping pressure.

TROUBLE SHOOTING:

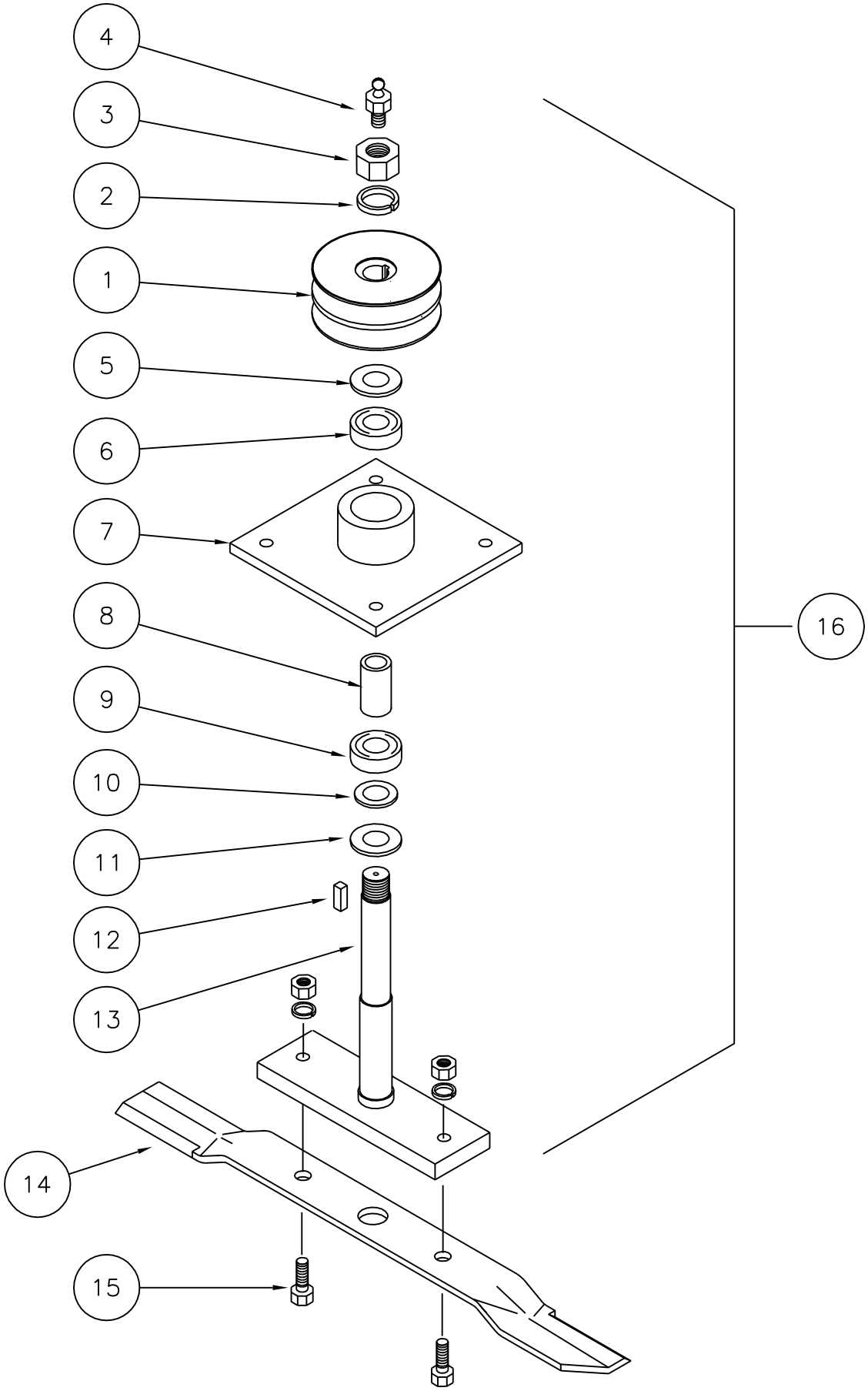
PROBLEM	CAUSE	REMEDY
Belt Slippage	Lack of tension Oily Drive Conditions	Increase tension Clean up drive
Rapid Belt Wear	Belt slippage Belt not in proper groove	Increase tension Place in proper groove
Belt Squeal	Belt Slippage	Increase tension
Over-heated Bearings	Belt Slippage Excessive Drive Tension	Increase Tension Loosen 1/2” tap bolt
Wing Deck, Corner Support Bent	Insufficient spring tension	Increase tension by adjusting Eye Bolt
Wing Locks Hard to Disengage	Cylinder not pulling wing up all the way	Adjust clevis on end of cylinder
Mower Deck will not Lower	Orifice in line throttle valve plugged	Remove line throttle valve, Remove obstruction from orifice and reassemble
Vibration on turning.	Draw bar length incorrect	Adjust draw bar length to specification
Input shaft does not collapse easily on turning.	Lack of grease at intermediate location of drive shaft	Remove driveshaft and pull apart. Grease splines. Grease every 8 hours.
Premature spindle bearing failure.	Lack of lubrication or grease is contaminated	See grease information and ensure grease being used is compatible. Grease per instructions

TD92 ROTARY FINISHING MOWER
PARTS MANUAL
TABLE OF CONTENTS

Revision Level: 2

Issue Date: Jan-06

TD 92 BLADE SPINDLE ASSEMBLY



BLADE SPINDLE ASSEMBLY

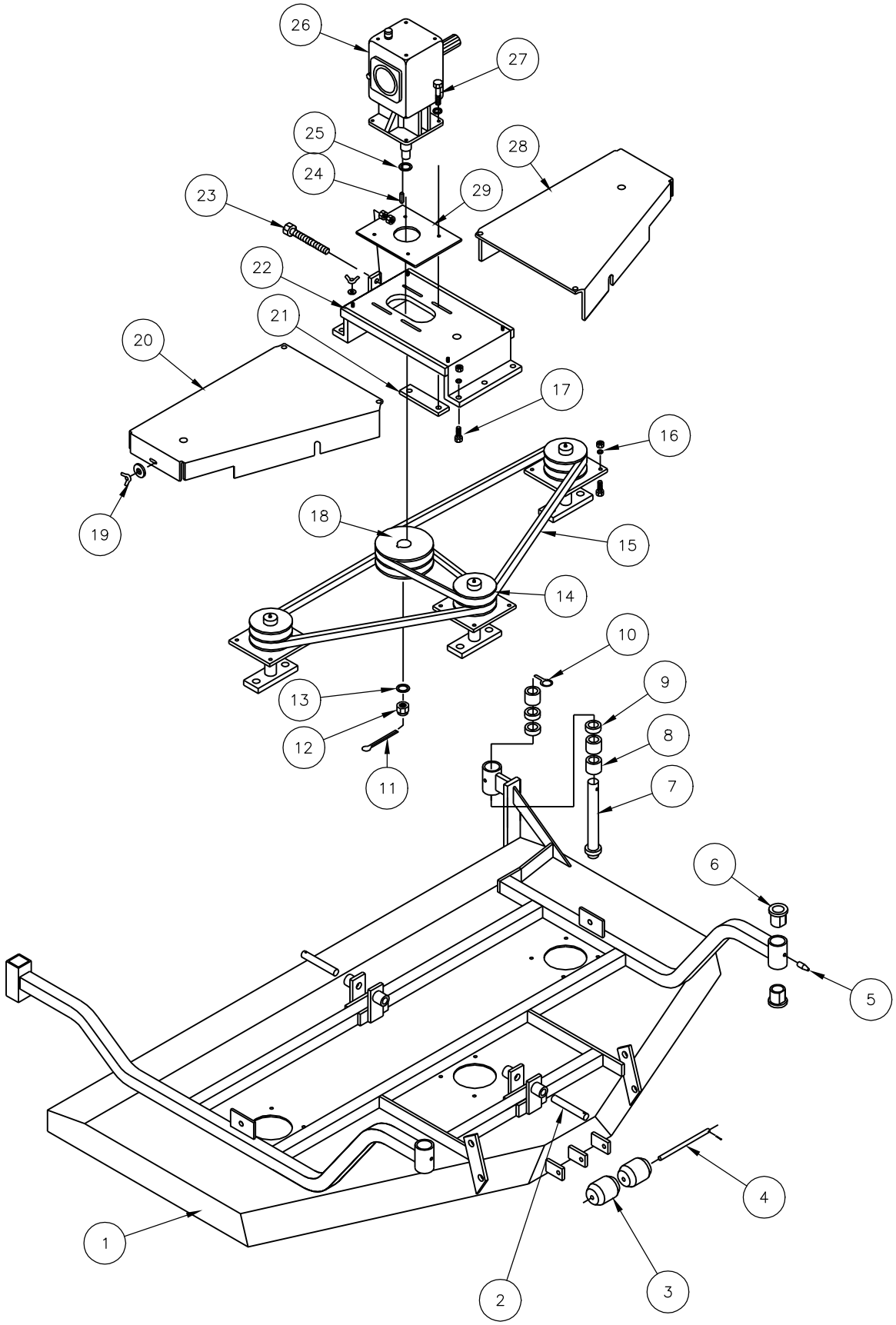
DATE: JAN 2006

REVISION No.: 2

ITEM	PART #	DESCRIPTION	SERIAL NUMBERS	QTY
1	521775	2HB 5.9 X 1 1/4" PULLEY (RED)	9492166 & ABOVE	9
	521001	2HB 5.9 X 1 1/4" PULLEY (BLACK)	9092001 TO 9492165	9
2	521002	LEFT HAND LOCK WASHER (3 PC/KIT)		3 KITS
3	521003	LEFT HAND NUT		9
4	OL	1/4 - 28 GREASE FITTING		9
5	521004	1 1/4" SHIM WASHER (9 PC/KIT)		1 KIT
6	521005	6207ZC3 TOP BEARING, STEEL SHIELD UP		9
7	521006	SPINDLE HOUSING (RED)		9
8	521007	BEARING SPACER		9
9	521445	6207LBZC3 BOTTOM BRG, STEEL SHIELD UP		9
10	521008	1 3/8" SHIM WASHER (9 PC/KIT)		1 KIT
11	521009	DIRT SHIELD (3 PC/KIT)		3 KITS
12	OL	1/4" SQ. X 1 11/16" KEY		9
13	521010	BLADE SPINDLE		9
14	522605	5/16" X 2 1/2" X 32" - O.E.M.		9
	522608	5/16" X 2 1/2" X 32" - LOW LIFT		9
15	OL	1/2" X 1 3/4" BOLT, LOCK WASHER, NUT		18
16	521777	COMPLETE SPINDLE ASSEMBLY	9492166 & ABOVE	9
	521109	COMPLETE SPINDLE ASSEMBLY	9092001 TO 9492165	9
	521438	SPINDLE ASSEMBLEY LESS PULLEY		9
17		SPACER WASHER - SUPPLIED WITH BLACK PULLEY	9092001 TO 9492165	

OL - Obtain Locally AR - As Required QTY - Total Number Required for all spindles.

TD92 WING DECK ASSEMBLY



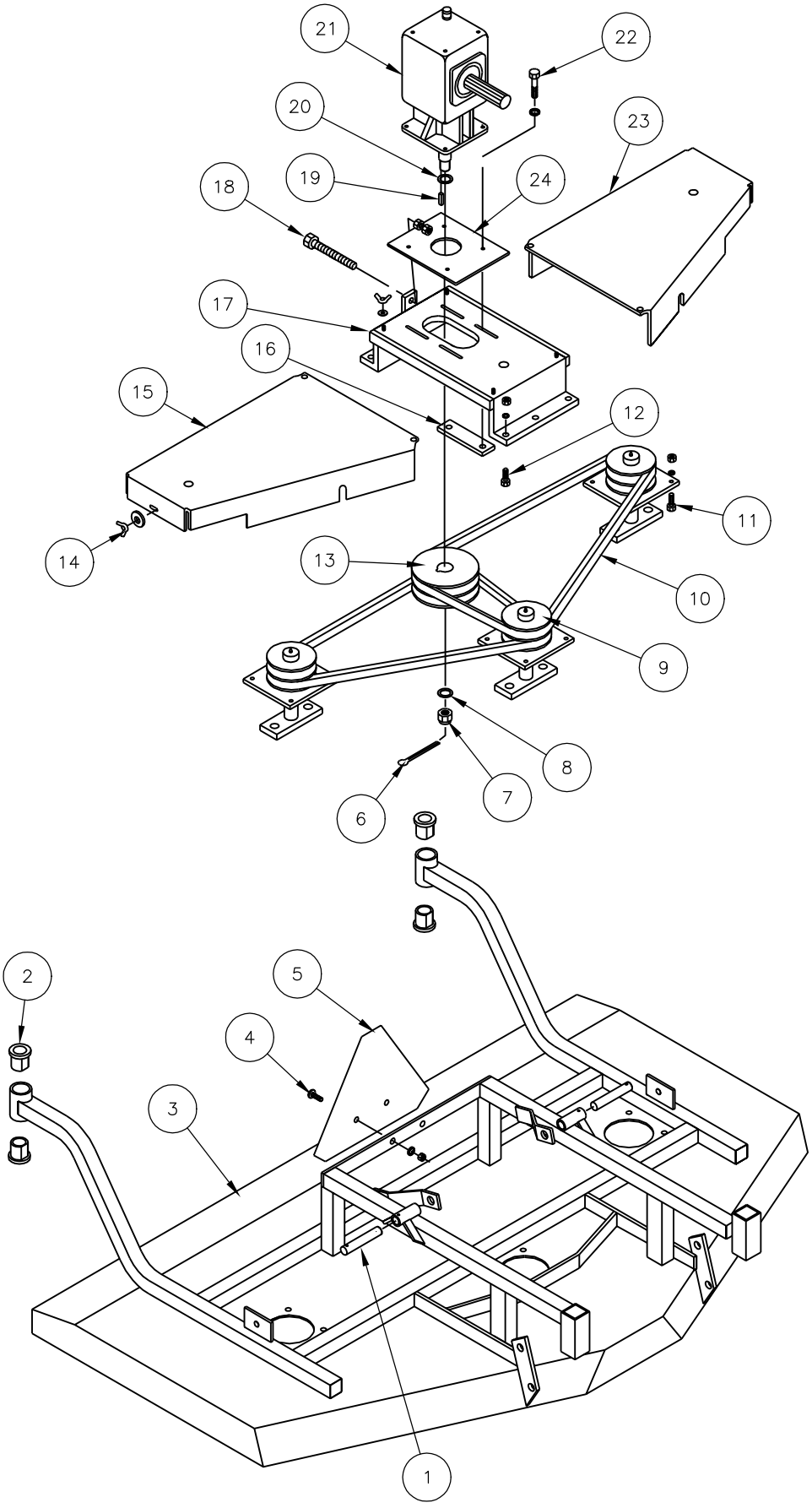
WING DECK ASSEMBLY

DATE: JAN 2006
REVISION No.: 2

ITEM	PART #	DESCRIPTION	SERIAL NUMBERS	QTY.
1	521403	92" RIGHT HAND WING DECK		1
	521402	92" LEFT HAND WING DECK		1
2	521346	1" X 7 1/4" WING DECK PIN LONG	9492166 & ABOVE	4
	521419	1" X 7" PIVOT PIN	9292060 TO 9492165	6
3	209001	4 1/4" ANTI-SCALP ROLLER	0092688 & ABOVE	4
	521026	4" X 6" ANTI-SCALP ROLLER	9092001 TO 0092687	2
4	522400	5/8" X 10 5/8" PIN, AND COTTER PIN		2
	521316	5/8" X 7 1/2" PIN, AND COTTER PIN	9092001 TO 0092687	
5	O.L.	1/4" - 28 GREASE FITTING		20
6	521831	CASTOR ARM, PIVOT BUSHING		12
7	522312	1" X 9 3/8" CORNER PIN	9492166 & ABOVE	2
	521312	1" X 9" CORNER PIN	9292001 TO 9492165	2
8	521021	1" X 1" RD SPACER (6 PC/KIT)		3 KITS
9	521022	3/8" 1" RD SPACER (6 PC/KIT)		3 KITS
10	521038RD	5/16" LYNCH PIN (4PC/KIT)		1 KIT
11	O.L.	3/8" X 2 1/4" COTTER PIN		3
12	521130	CASTALATED NUT M24 X 2		3
13	521129	WASHER - 25 X 44 X 4 (3 PC/KIT)		1 KIT
14	521777	COMPLETE SPINDLE ASSEMBLY	9492166 & ABOVE	9
	521109	COMPLETE SPINDLE ASSEMBLY	9092001 TO 9492165	9
	521438	SPINDLE ASSEMBLEY LESS PULLEY		9
15	521034	B90 BELT		6
16	O.L.	7/16" X 1 1/2" BOLT, LOCK, NUT		36
17	O.L.	7/16" X 1" BOLT, LOCK, NUT		18
18	521774	MAIN DRIVE PULLEY	9492166 & ABOVE	3
	521035	MAIN DRIVE PULLEY (BLACK)	9092001 TO 9492165	3
19	O.L.	3/8" WING NUT		18
20	521400	R.H. BELT GUARD		3
21	521018	STIFFENER, NUT BRACKET	`	6
22	521019	GEAR BOX MOUNT		3
23	521020	1/2" X 3 1/2" TAP BOLT (3 PC/KIT)		1 KIT
24	521390	KEY - 1/4" X 1/4" X 1 5/16" (3 PC/KIT)		1 KIT
25	521004	1 1/4" SHIM WASHER (9 PC KIT)		1 KIT
26	521432	DECK GEAR BOX LF151A	9492166 & ABOVE	3
	521012	DECK GEAR BOX LF141A	9292001 TO 9492165	3
27	O.L.	9/16" X 2" BOLT AND LOCKWASHER		12
28	521401	L.H. BELT GUARD		3
29	521013	SLIDE PLATE		3

OL - Obtain Locally AR - As Required
QTY - Total Number Required for Complete Machine

TD92 REAR DECK ASSEMBLY



REAR DECK ASSEMBLY

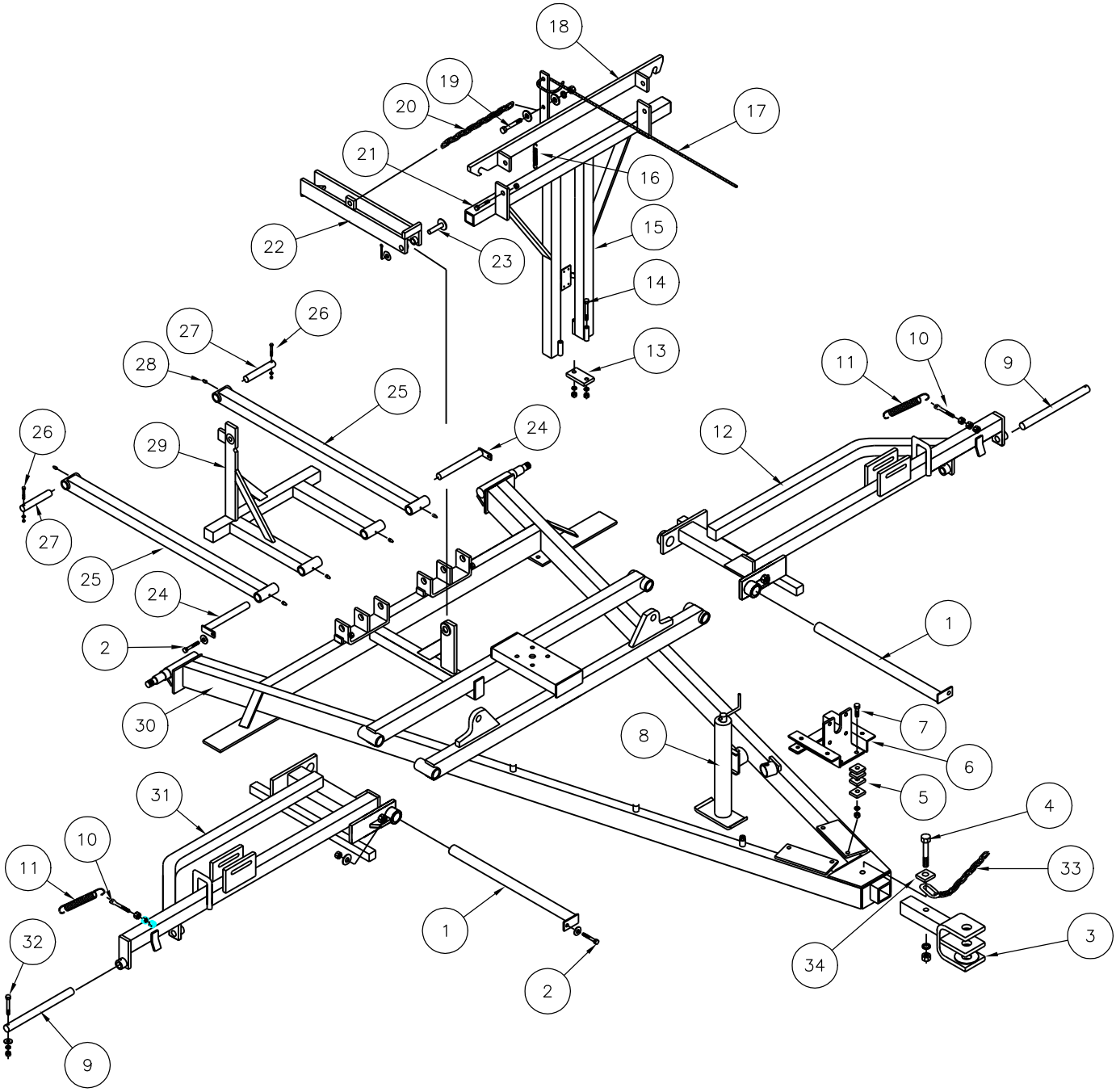
DATE: JAN 2006
REVISION No.: 2

ITEM	PART #	DESCRIPTION	SERIAL NUMBERS	QTY.
1	521337	1" X 6 1/4" DECK LIFT PIN - SHORT	9492166 & ABOVE	2
	521419	1" X 7" WING DECK PIN LONG	9292060 TO 9492165	6
2	521831	PRESS IN BUSHINGS -RD CASTORS 1 1/4"		12
3	521847	92" REAR MOWER DECK	9492166 & ABOVE	1
	N.A.	92" REAR MOWER DECK	9292060 TO 9492165	1
4	O.L.	1/4" X 3/4" BOLT, LOCK, NUT		2
5	521353	S.M.V. SIGN		1
6	O.L.	3/16" X 2 1/4" COTTER PIN		3
7	521130	CASTALATED NUT M24 X 2		3
8	521129	WASHER - 25 X 44 X 4 (3 PC/KIT)		1 KIT
9	521777	BLADE SPINDLE ASSEMBLY	9492166 & ABOVE	9
	521109	BLADE SPINDLE ASSEMBLY	9092001 TO 9492165	9
	521438	SPINDLE ASSEMBLEY LESS PULLEY		9
10	521034	B90 BELT		6
11	O.L.	7/16" X 1 1/2" BOLT, FLAT, LOCK, NUT		36
12	O.L.	7/16" X 1" BOLT, LOCK, NUT		18
13	521774	MAIN DRIVE PULLEY	9492166 & ABOVE	3
	521035	MAIN DRIVE PULLEY (BLACK)	9092001 TO 9492165	3
14	O.L.	3/8" WING NUT, FLAT WASHER		18
15	521400	R.H. BELT GUARD		3
16	521018	STIFFENER, NUT BRACKET		6
17	521019	GEAR BOX MOUNT		3
18	521020	1/2" X 3 1/2" TAP BOLT (3 PC/KIT)		1 KIT
19	521390	KEY - 1/4" X 1/4" X 1 5/16" (3 PC/KIT)		1 KIT
20	521004	1 1/4" SHIM WASHER (9 PC/KIT)		1 KIT
21	521432	DECK GEAR BOX LF151A	9492166 & ABOVE	3
	521012	DECK GEAR BOX LF141A	9292001 TO 9492165	3
22	O.L.	9/16" X 2" BOLT AND LOCKWASHER		12
23	521401	L.H. BELT GUARD		3
24	521013	SLIDE PLATE		3

OL - Obtain Locally AR - As Required

QTY - Total Number Required for Complete Machine

TD92 MAIN FRAME ASSEMBLY



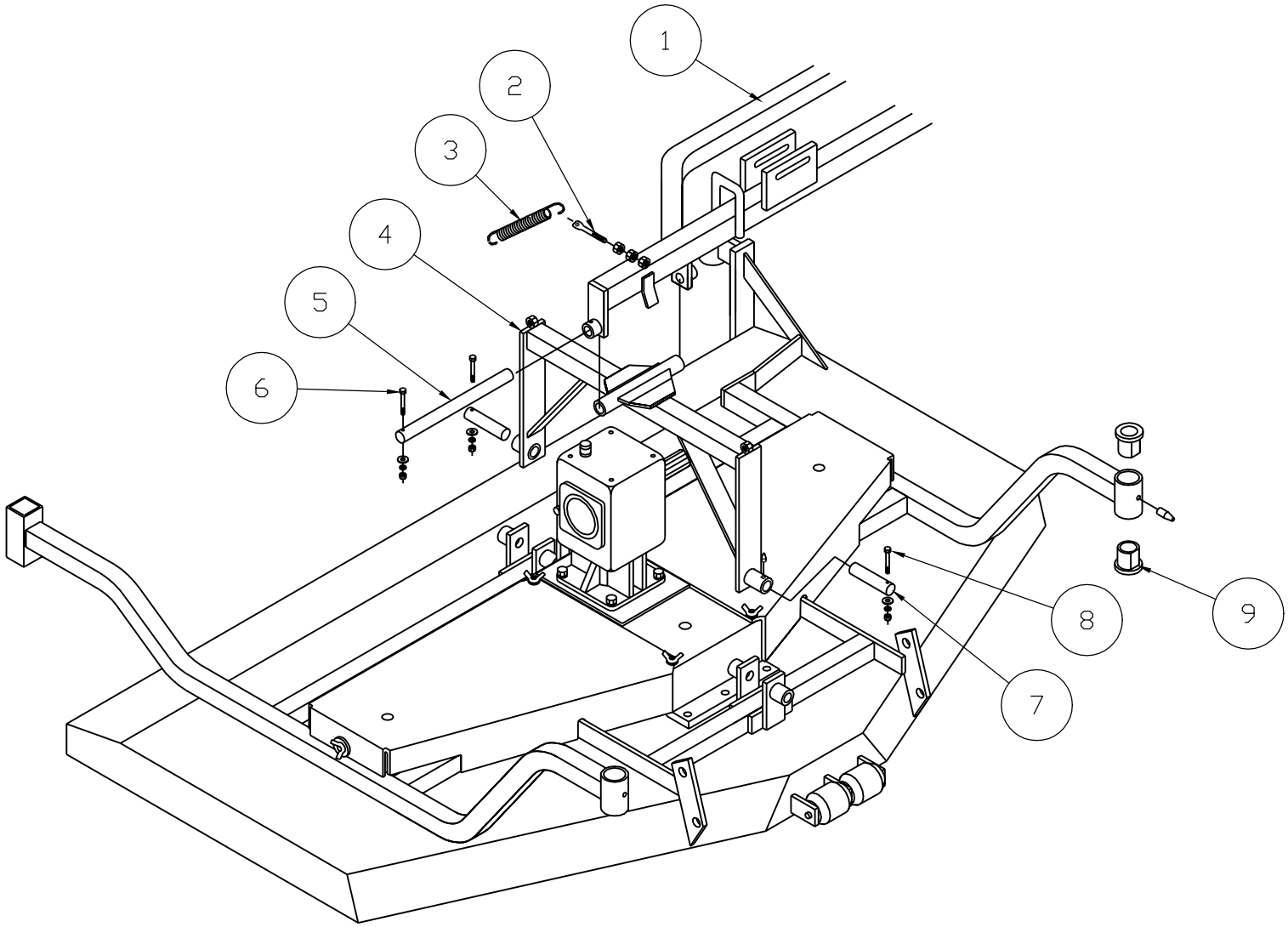
MAIN FRAME ASSEMBLY

DATE: JAN 2006
REVISION No.: 2

ITEM	PART #	DESCRIPTION	SERIAL NUMBERS	QTY.
1	521096	1 1/4" X 21 1/2" WING PIN		2
2	O.L.	3/8" X 1 1/2" BOLT, FLAT WASHERS, LOCK NUT		4
3	521047	4 POSITION HITCH		1
4	O.L.	3/4" X 5 BOLT, 3/4" NUT, LOCK		1
5	522406	1/2" SPACER BLOCKS	0092688 AND ABOVE	16
6	522402	PTO MOUNTING BRACKET	0092688 AND ABOVE	1
7	O.L.	1/2" X 3 1/2" HEX BOLT, NUT, LOCKWASHER		4
8	219001	IMPLEMENT JACK		1
	521049	IMPLEMENT JACK	REPLACED WITH 219001	1
9	521338	1 1/4" X 16 3/4" SWIVEL PIN	9492166 AND ABOVE	2
	521097	1 1/4" X 17" SWIVEL PIN (WITH TAB)	9092001 TO 9492165	2
10	521102	1/2" X 3 1/2" SPADE BOLT, C/W 1/2" NUTS		2
11	521431	2" X 10" SPRING		2
12	521421	L.H. WING		1
13	521325	WING LOCK FRAME MT BRACKETS		2
14	O.L.	1/2" X 6" BOLT, W/. NUT AND LOCK WASHER		4
15	521408	WING LOCK FRAME		1
16	521064	SAFETY SPRING		1
17	521410	PULL ROPE (11 FT.)		1
18	521409	WING SAFETY LOCK		1
19	O.L.	3/8" X 1 1/4" W/ FLAT WASHERS, NUT, LOCK		2
20	521411	PULL CHAIN		1
21	O.L.	1/2" X 1 3/4" BOLT, W/ NUT		2
22	522310	REAR DECK SAFETY	9492166 AND ABOVE	1
	521417	REAR DECK SAFETY (HOOK LATCH)	9092060 TO 9492165	1
	521066	REAR DECK SAFETY (HOOK LATCH)	REPLACED WITH 521417	1
23	521081	1" X 5 5/16" REAR CYLINDER PIN		1
24	521094	1" X 9 3/4" LIFT ARM PIVOT PIN		2
25	521418	REAR DECK LIFT ARM		2
26	O.L.	3/8" X 2" BOLT, LOCK, NUT		6
27	521337	1" X 6 1/4" LIFT PIN SHORT	9492166 AND ABOVE	2
	521419	1" X 7" WING DECK PIN LONG	9292060 TO 9492165	6
28	O.L.	1/4" - 28 GREASE FITTING		20
29	522004	REAR DECK PICK-UP FRAME (WITH NOTCH)	9892470 AND ABOVE	1
	521479	REAR DECK PICK-UP FRAME	REPLACED WITH 522004	1
	521088	REAR DECK PICK-UP FRAME (HOOK LATCH)	9092001 TO 9492165	1
30	521407	MAIN FRAME		1
31	521423	R.H. WING		1
32	O.L.	3/8" X 2 1/4" BOLT, NUT, AND LOCK		2
33	521048	SAFETY CHAIN		1
34	521857	SAFETY CHAIN WASHER		1

OL - Obtain Locally AR - As Required
QTY - Total Number Required for Complete Machine

TD92 WING DECK LIFT



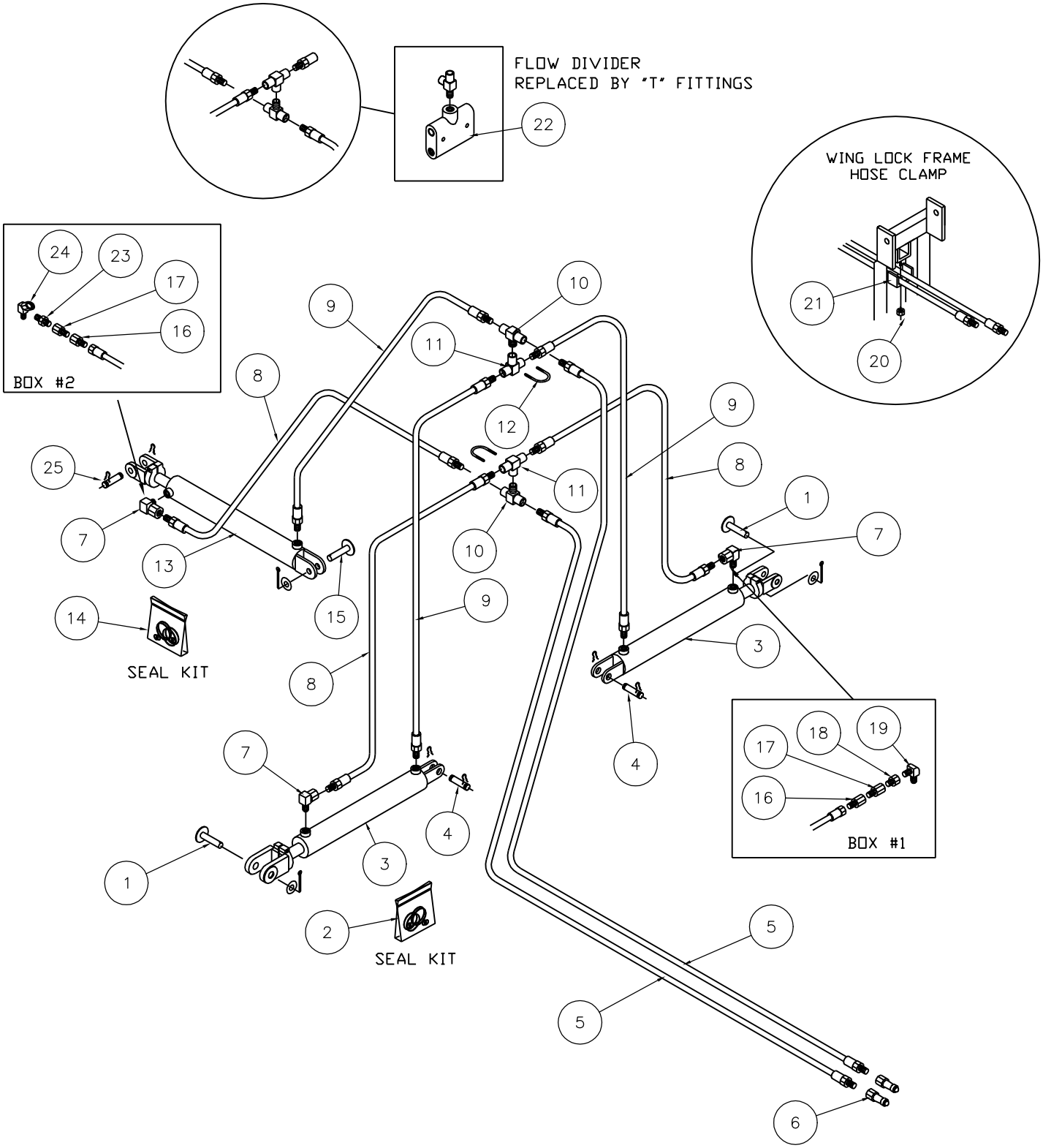
WING DECK LIFT

DATE: JAN 2006
REVISION No.:2

ITEM	PART #	DESCRIPTION	SERIAL NUMBERS	QTY.
1	521423	RIGHT HAND WING (SHOWN)		1
	521421	LEFT HAND WING		1
2	521102	1/2" X 3 1/2" SPADE BOLT, C/W 1/2" NUTS		2
3	521431	2" X 10" SPRING		2
4	521422	DECK SWIVEL		2
5	521338	1 1/4" X 16 3/4" SWIVEL PIN	9492166 AND ABOVE	2
	521097	1 1/4" X 17" SWIVEL PIN (WITH TAB)	9092001 TO 9492165	2
6	O.L.	3/8" X 2 1/4" BOLT, NUT, AND LOCK		2
7	521346	1" X 7 1/4" WING DECK PIN LONG		4
8	O.L.	3/8" X 2" BOLT, NUT, AND LOCK		6
9	521831	PRESS IN BUSHINGS -RD CASTORS 1 1/4"	9892470 AND ABOVE	12

OL - Obtain Locally AR - As Required QTY - Total Number Required for Complete Machine

TD92 HYDRAULIC ASSEMBLY



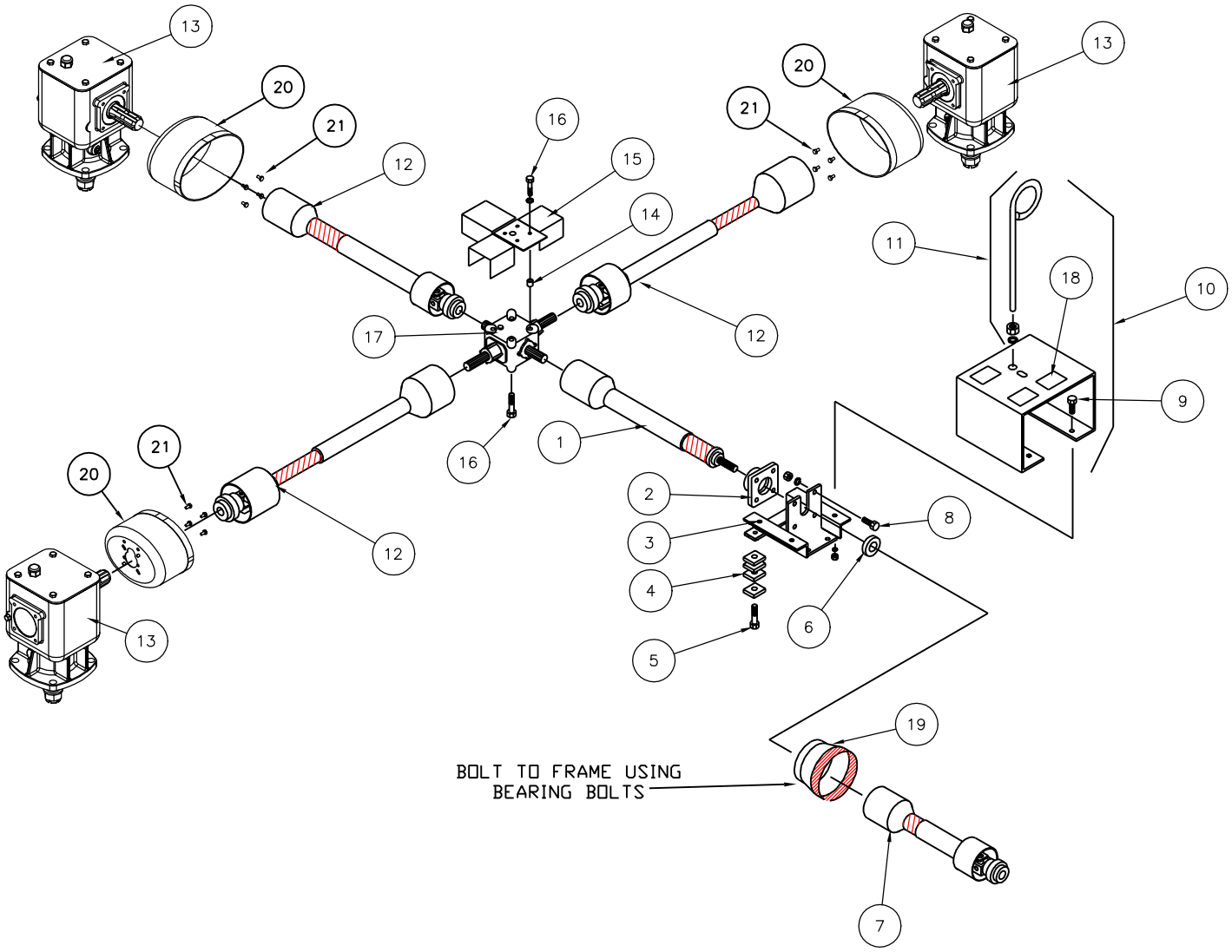
HYDRAULIC ASSEMBLY

DATE: JAN 2006
REVISION No.: 2

ITEM	PART #	DESCRIPTION	SERIAL NUMBERS	QTY.
1	521103	1" X 4 3/4" WING CYLINDER PIN		2
2	521843	SEAL KIT FOR 3" CYLINDER		-
3	522005	3" X 16" HYDRAULIC CYLINDER (WINGS)	9492166 AND ABOVE	2
	521412	2 1/2" X 16" HYDRAULIC CYLINDER	9292060 TO 9492165	3
	521054	3" X 16" HYDRAULIC CYLINDER	9292001 TO 9092059	3
4	521345	1" X 2.938" PIN		2
5	521413	152" HYDRAULIC LINE		2
6	222006	HOSE END KIT (2PCS/KIT)		1 KIT
7	521336	90 DEG X 3/8" RESTRICTOR (0.35 ORIFICE)	9492166 AND ABOVE	3
	521180	90 DEG X 3/8" RESTRICTOR (0.4 - WING DECK)	9492166 TO 9892566	2
	222051	RESTRICTOR KIT (W/ 31" HOSE - EXTRA)	9092060 TO 9492165	2 KITS
8	521415	43" HYDRAULIC LINE	9492166 AND ABOVE	3
	521415	40" HYDRAULIC LINE	9292060 TO 9492165	3
9	521414	31" HYDRAULIC LINE		3
10	521416	MALE BRANCH TEE	9492166 AND ABOVE	2
	521063	3/8" NPT SWIVEL ADAPTOR, 90 DEG	9092001 TO 0092688	1
	521070	3/8" NPT CROSS	9092001 TO 0092688	1
11	521770	3/8" TEE	9492166 AND ABOVE	2
12	521071	"U" BOLT, NUTS, AND LOCKS		2
13	522003	2 1/2" X 16" HYDRAULIC CYLINDER (REAR)	9492166 AND ABOVE	1
14	521814	SEAL KIT FOR 2 1/2" CYLINDER		-
15	521081	1" X 5 1/4" REAR CYLINDER PIN		1
16	521342	1/2" NPT TO JIC ADAPTOR	REPLACED WITH 222051	2
17	521077	LINE THROTTLE VALVE	REPLACED WITH 222051	2
18	521343	REDUCING BUSHING	REPLACED WITH 222051	1
19	521344	90 DEG. ELBOW, MALE TO MALE	REPLACED WITH 222051	1
20	O.L.	3/8" LOCK NUT		1
21	521051	HYDRAULIC HOSE CLAMP		1
22	222016	FLOW DIVIDER KIT (REPLACED BY #'s 10 AND 11)	9092001 TO 9492165	1
	521073	FLOW DIVIDER	REPLACED WITH 222016	1
23	521391	3/8" TO 1/2" MALE NIPPLE	REPLACED WITH 222051	1
24	521392	45 DEG STREET ELBOW	REPLACED WITH 222051	1
25	521350	1" x 3.563" PIN		1

OL - Obtain Locally AR - As Required
QTY - Total Number Required for Complete Machine

DRIVE COMPONENTS



Drive Line Components

DATE: JAN 2008
REVISION No.: 3

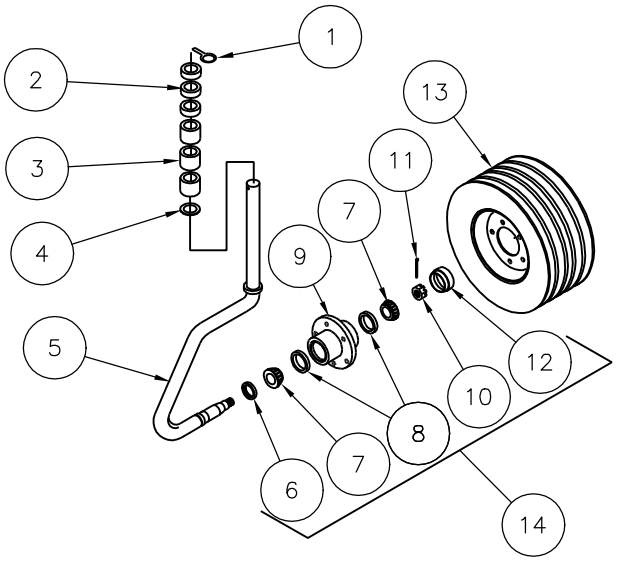
ITEM	PART #	DESCRIPTION	SERIAL NUMBERS	QTY.
1	210002	INTERMEDIATE PTO SHAFT	0092688 AND ABOVE	1
	521480	INPUT SHAFT - REPLACED BY 522407	UP TO 0092688	1
2	521323	HOUSED FLANGE BEARING - 1 3/8"	0092688 AND ABOVE	1
3	522402	PTO MOUNTING BRACKET	0092688 AND ABOVE	1
4	522414	1/2" SPACER BLOCK KIT (4PCS)	0092688 AND ABOVE	4 KITS
5	O.L.	1/2" X 3 1/2" HEX BOLT		4
6	521789	PTO SHAFT SPACER - 9/16"	0092688 AND ABOVE	1
7	210003	INPUT PTO SHAFT	0092688 AND ABOVE	1
	521480	INPUT SHAFT - REPLACED BY 522407	UP TO 0092688	1
8	O.L.	1/2" X 1 3/4" BOLT, LOCK, NUT		4
9	O.L.	1/2" X 1 1/4" BOLT, LOCK, NUT		4
10	522408	HOSE SUPPORT AND SHIELD		1
10	522447	HOSE SUPPORT AND SHIELD C.E. MODELS		1
11	522413	(2) 5/8" NUTS, LOCK, HOSE GUIDE ROD		1
12	521474	DECK PTO SHAFT	9492166 AND ABOVE	3
	521170	DECK PTO SHAFT	9092001 TO 9492165	3
13	521432	DECK GEAR BOX LF151A	9492166 & ABOVE	3
	521012	DECK GEAR BOX LF141A	9092001 TO 9492165	3
14	521197	GEAR BOX COVER SPACER	9294166 AND ABOVE	4
15	522463	4-WAY GEAR BOX COVER	06921637 AND ABOVE	1
	522448	GEAR BOX COVER	9294166 AND 06921637	1
16	521764	M12 X 30 8.8 METRIC BOLT, LOCK (8 PC/ KIT)		1 KIT
17	521497	4-WAY GEAR BOX	9492166 & ABOVE	1
	521082	4-WAY GEAR BOX	9092001 TO 9492165	1
18	522002	DECAL KIT - COMPLETE MOWER		1
19	210062	COUNTER CONE - INPUT SHAFT - C.E. MODELS		1
20	210061	COUNTER CONE - DECK GEARBOX C.E. MODELS		3
21	O.L.	M8 X 1.5 X 14MM HEX BOLT - C.E. MODELS		12

OL - Obtain Locally AR - As Required

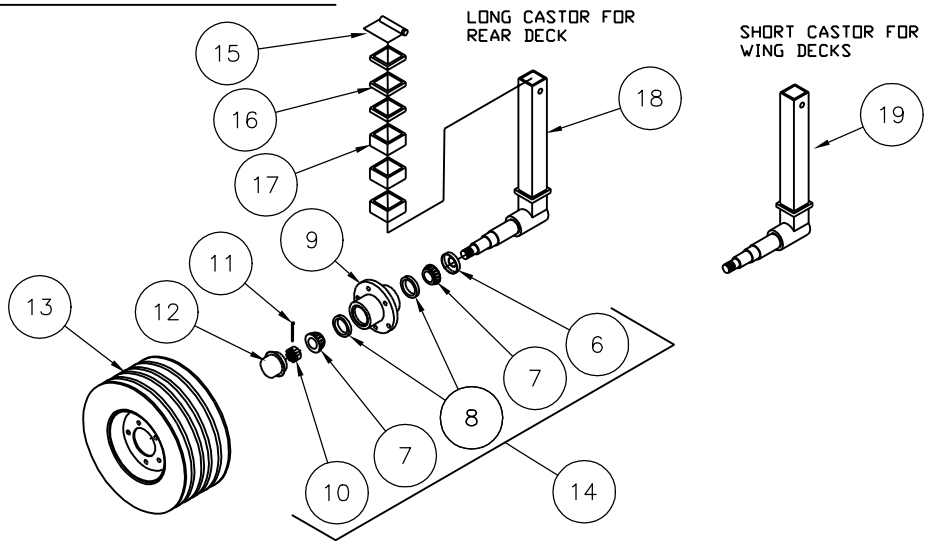
QTY - Total Number Required for Complete Machine

WHEEL ASSEMBLIES

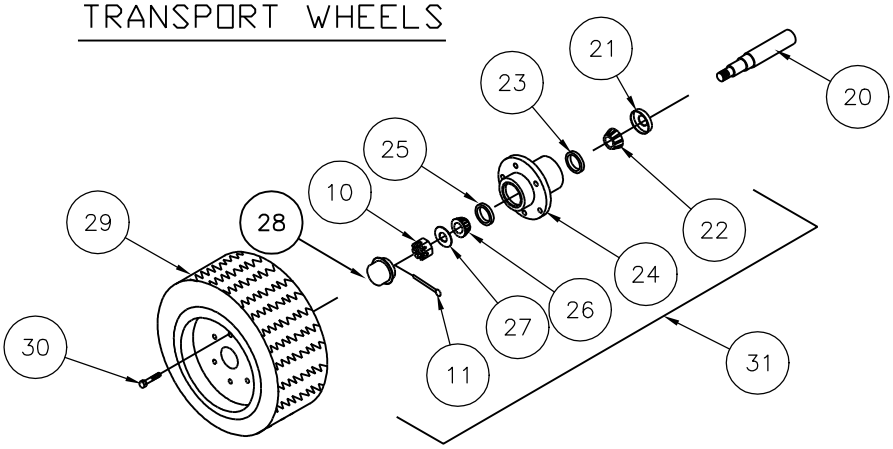
ROUND CASTOR WHEELS



SQUARE GAUGE WHEELS



TRANSPORT WHEELS



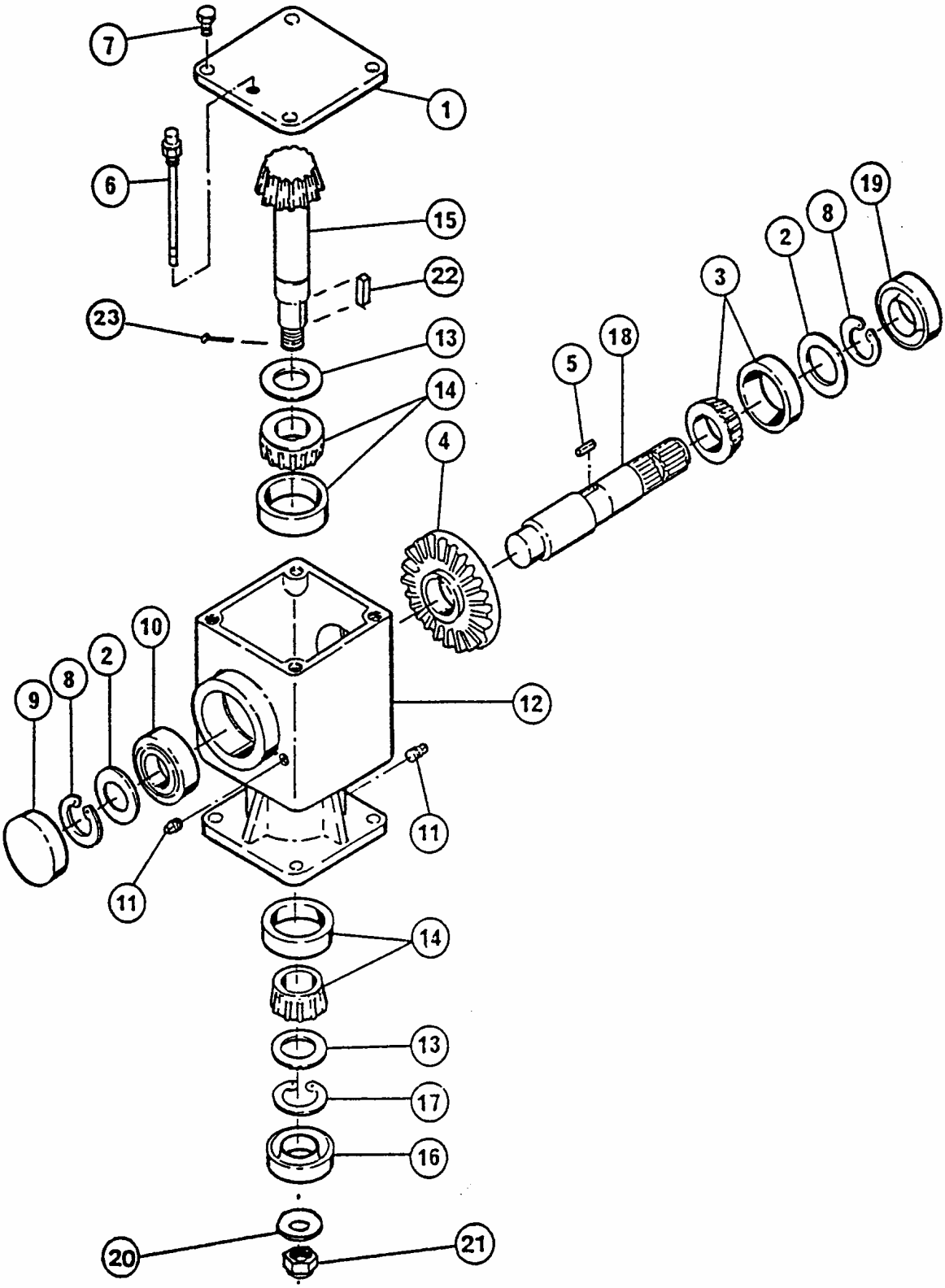
WHEEL ASSEMBLIES

DATE: JAN 2006
REVISION No.: 2

ITEM	PART #	DESCRIPTION	SERIAL NUMBERS	QTY.
1	521844	1/2" RD. LYNCH PIN (6PC/KIT)		1 KIT
2	521029	3/8" X 1 1/4" RD. SPACER (6PC/KIT)		3 KITS
3	521030	1" X 1 1/4" RD. SPACER (6PC/KIT)		3 KITS
4	521004	1 1/4" SHIM WASHER (9 PC/KIT)		1 KIT
5	521404	1 1/4" RD. SWIVEL CASTOR		6
6	521493	BEARING SEAL		10
7	521494	TAPERED ROLLER BEARING		20
8	521744	BEARING RACE		20
9	521495	HUB ONLY		10
10	521747	HEX NUT SLOTTED (2 PC/KIT)		6 KITS
11	521752	COTTER PIN (6 PC/KIT)		2 KITS
12	521748	HUB CAP		10
13	521028	18- 9.50 X 8 TIRE/WHEEL ASSEMBLY		10
	521052	18- 9.50 X 8 TIRE ONLY (CHARLISLE RIB)		10
	521398	WHEEL (RIM) ONLY FOR 521028		10
14	521405	B/T HUB ASSEMBLY		10
15	521038	SQ. QUICK CLIP (5 PC/KIT)		1 KIT
16	521040	3/8" X 2 1/2" SQ. SPACER (6PC/KIT)		2 KITS
17	521039	1" X 2 1/2" SQ. SPACER (6PC/KIT)		2 KITS
18	521478	SQUARE CASTOR - LONG - REAR DECK		2
19	521406	SQUARE CASTOR - SHORT - WING DECKS		2
20	521059	4000# SPINDLE - WELD ON		2
21	521741	GREASE SEAL		2
22	521756	TAPERED ROLLER BEARING		2
23	521757	BEARING RACE (INNER)		2
24	521758	HUB ONLY (MAIN FRAME)		2
25	521759	BEARING RACE (OUTER)		2
26	521760	TAPERED ROLLER BEARING LM67048		2
27	521761	WASHER (2PC/KIT)		1 KIT
28	521762	HUB CAP		2
29	521084	TRANSPORT TIRE ASSEMBLY		2
	521084R	15 X 10 X 6 BOLT AG RIM FOR ABOVE ASS.		2
30	521083	WHEEL STUD (6PC/KIT)		2 KITS
31	521085	4000#, 6-BOLT HUB ASSEMBLY		2

OL - Obtain Locally AR - As Required
QTY - Total Number Required for Complete Machine

DECK GEARBOX



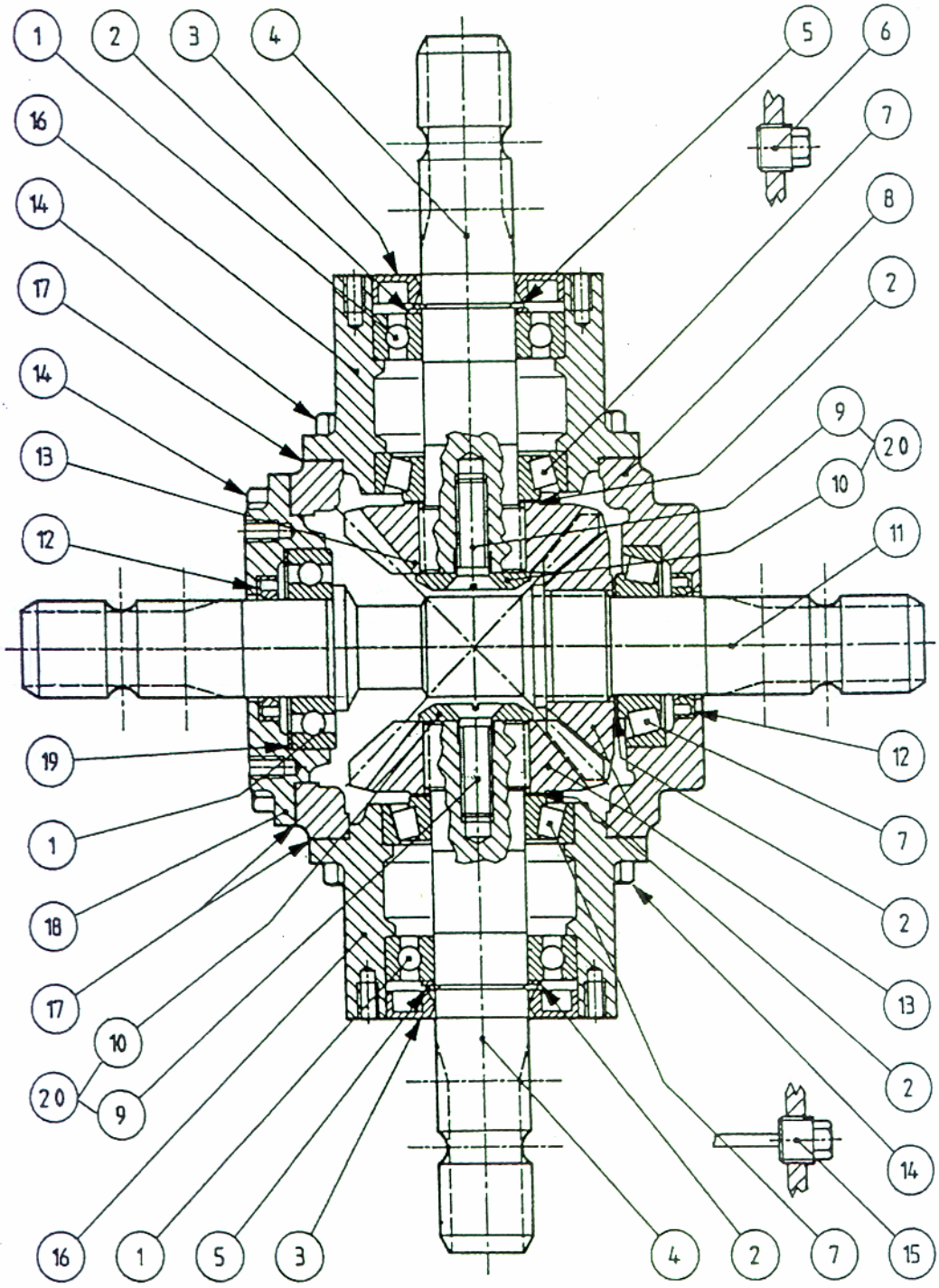
DECK GEAR BOX ASSEMBLY

DATE: JAN 2006
REVISION No.:2

ITEM	PART #	DESCRIPTION	SERIAL NUMBERS	QTY.
1	521420	COVER PLATE		1
2	521491	SHIM KIT 71.7		2
3	521362	BEARING - 30207		1
4	521434	GEAR - Z34		1
5	521444	KEY - 12 X 8 X 30		1
6	521433	OIL LEVEL DIPSTICK		1
7	521399	BOLT - M8 X 14 - 8.8		4
8	521126	SNAP RING - 72 UNI7437 (3PC/KIT)		2
9	521443	CAP - 72 X 10		1
10	521116	BEARING - 6207		1
11	521482	3/8 PIPE PLUG		1
12	521428	CASING		1
13	521436	SHIM KIT - 51.5		2
14	521442	BEARING - 30208		2
15	521435	PINION SHAFT		1
16	521440	OIL SEAL - 40 X 80 X 10		1
17	521439	SNAP RING - 40 UNI7436 (3PC/KIT)		1
18	521441	SHAFT - 1 3/8" - 6 SPLINE		1
19	521127	OIL SEAL - 35 X 72 X 10/7		1
20	521129	WASHER - 25 X 44 X 4 (3PC/KIT)		1
21	521130	CASTALATED NUT M24 X 2		1
22	521390	KEY - 1/4" X 1/4" X 1 5/16"		1
23	521122	COTTER PIN - B5 X 50 (3PC/KIT)		1
	521432	COMPLETE GEAR BOX LF151A	9492166 and Above	1

QTY. - REPRESENTS TOTAL NUMBER REQUIRED FOR ONE DECK GEAR BOX ONLY.

4 – WAY GEARBOX ASSEMBLY



MAIN 4 WAY GEARBOX

DATE: JAN 2006

REVISION No.: 2

ITEM	PART NO.	DESCRIPTION	SERIAL NUMBER	QTY
1	521116	BEARING 6207		3
2	521794	SHIM KIT - 48.0		6
3	521127	OIL SEAL - 35 X 72 X 10/7		2
4	521481	STUB SHAFT - 1 3/8" SPLINE		2
5	521137	SNAP RING - 35 UNI 7435		4
6	521482	3/8" PIPE PLUG		2
7	521362	BEARING - 30207		3
8	521483	HOUSING		1
9	ITEM 20	BOLT - M12 X 40 - 10.9		2
10	ITEM 20	WASHER BLANK		2
11	521486	THRU SHAFT 1 3/8" X 1 3/8"		1
12	521120	OIL SEAL - 35 X 52 X 7		2
13	521487	GEAR Z18 M5		3
14	521488	BOLT - M12 X 25 - 8.8 KIT (6 PCS)		2 KITS
15	521489	OIL LEVEL DIPSTICK		1
16	521796	EXTENSION HOUSING		2
17	521793	GASKET		3
18	521797	COVER		1
19	521491	WASHER - SHIM (60 X 72) (3 PCS)		1 KIT
20	522426	BOLT KIT - ITEMS 9 (2) & 10 (2)		1 KIT
******	**521497**	**COMPLETE GEAR BOX**	9492166 and Above	**1**

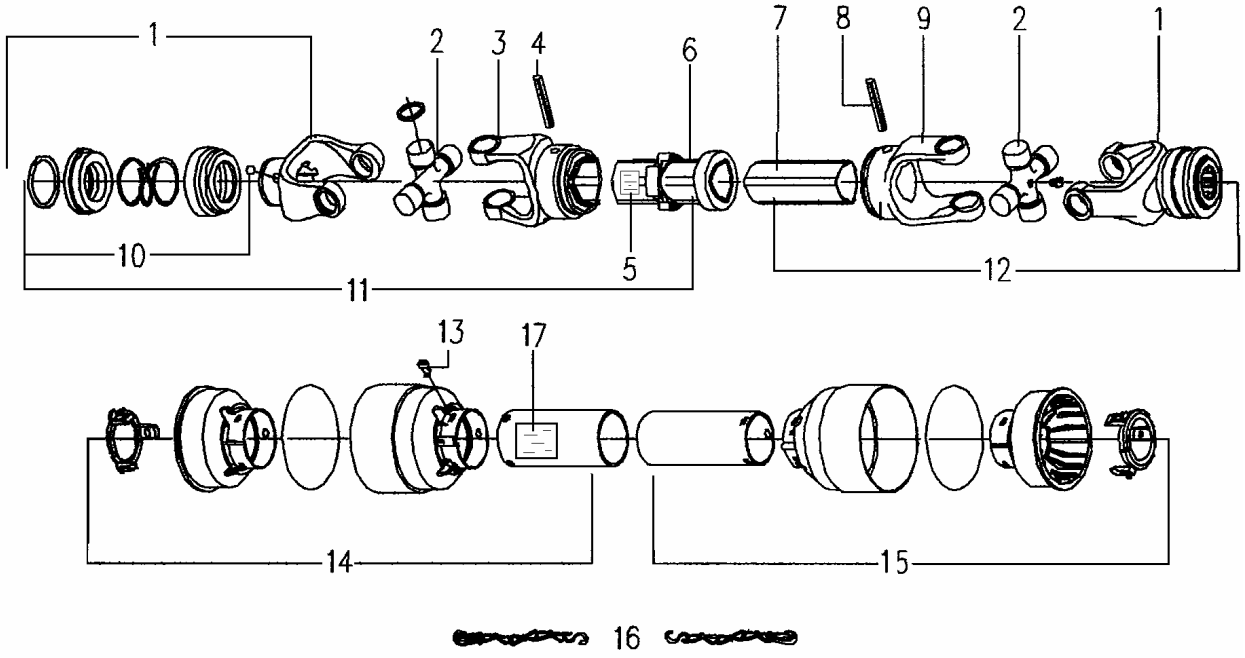
QTY. - REPRESENTS TOTAL NUMBER REQUIRED

FOR ONE DECK GEAR BOX ONLY.

DECK PTO SHAFT

4-WAY GEARBOX END

DECK GEARBOX END



DECK PTO SHAFT

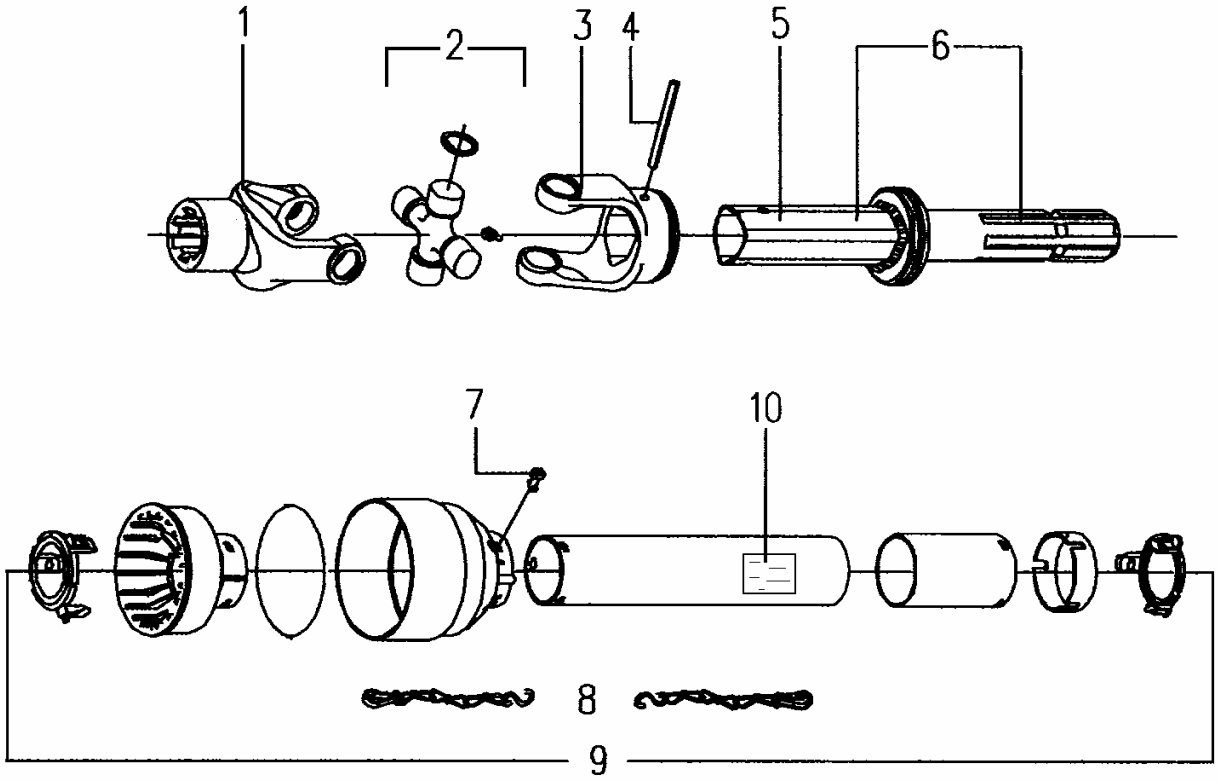
DATE: JAN 2006

REVISION No.: 2

ITEM	PART NO.	DESCRIPTION	SERIAL NUMBER	QTY
1	521800	QD. YOKE 1 3/8" - 6 SPLINE (CO2)		2
2	521801	CROSS & BEARING KIT		2
3	521802	OUTER TUBE YOKE		1
4	521803	ROLL PIN FOR OUTER TUBE		1
5	521451	"DANGER" LABEL FOR OUTER TUBE		1
6	521468	OUTER TUBE		1
7	521469	INNER TUBE		1
8	521804	ROLL PIN FOR INNER TUBE		1
9	521805	INNER TUBE YOKE		1
10	210017	SLIDE COLLAR KIT - GOLD METAL		1
	521727	COLLAR KIT (CO2) BLACK PLASTIC		1
11	521470	1/2 FEMALE SHAFT WITH SHIELDING		1
12	521471	1/2 MALE SHAFT WITH SHIELDING		1
13	521463	PLASTIC SHIELD BOLT (6PC/KIT)		1 KIT
14	521472	1/2 FEMALE SHIELD WITH LABEL		1
15	521473	1/2 MALE SHIELD		1
16	521467	SAFETY CHAIN		2
17	521455	"DANGER" LABEL FOR OUTER SHIELD		1
18	521821	M67 GREASE FITTING		2
	521474	COMPLETE PTO SHAFT		

QTY. - REPRESENTS TOTAL NUMBER REQUIRED FOR ONE DECK SHAFT ONLY.

INTERMEDIATE PTO SHAFT



INTERMEDIATE PTO SHAFT

DATE: JAN 2006

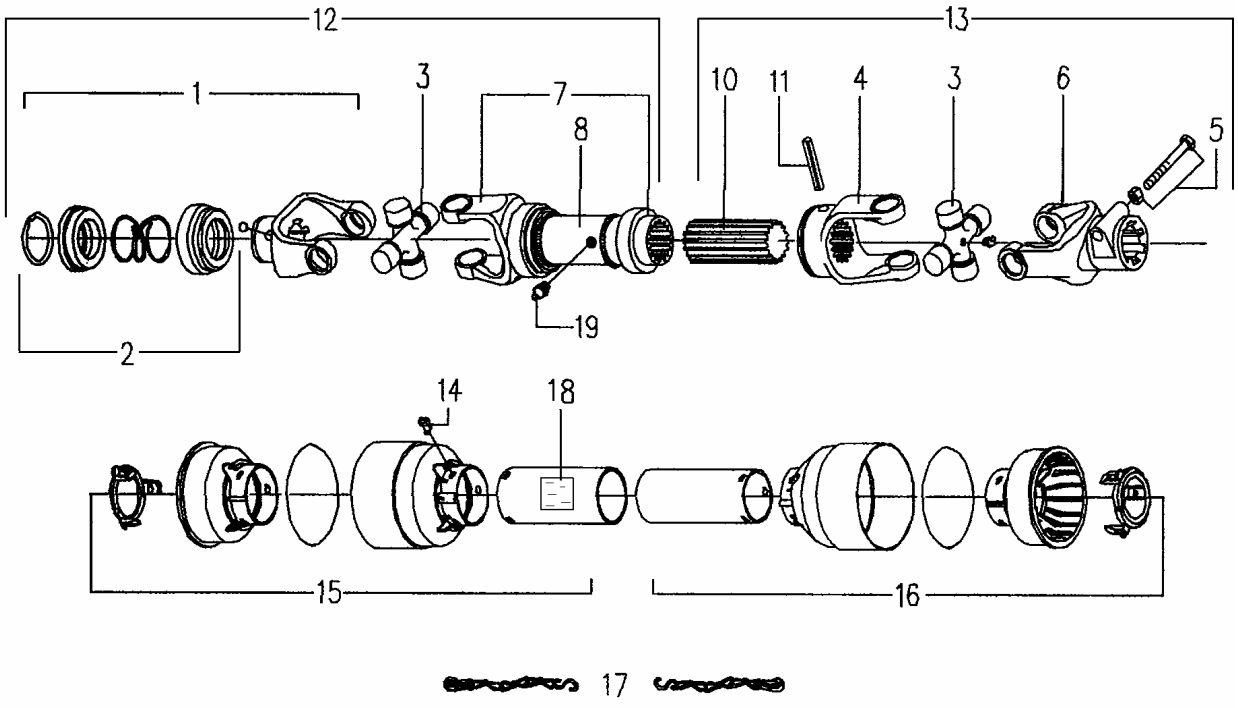
REVISION No.: 2

ITEM	PART NO.	DESCRIPTION	SERIAL NUMBER	QTY
1	210011	SPLINED YOKE		1
2	521460	CROSS & BEARING KIT		1
3	210014	YOKE FOR OUTER TUBE		1
4	521450	ROLL PIN FOR OUTER TUBE		1
5	521451	"DANGER" LABEL FOR TUBE		1
6	210009	OUTER TUBE WITH SPLINED SHAFT		1
7	521463	PLASTIC SHIELD BOLT (6PC/KIT)		1 KIT
8	521467	SAFETY CHAIN		2
9	210010	COMPLETE SHIELD TYPE "P" WITH LABEL		1
10	521455	"DANGER" LABEL FOR OUTER SHIELD		1
	210002	*COMPLETE PTO ASSEMBLY		1

QTY. - REPRESENTS TOTAL NUMBER REQUIRED FOR ONE INTERMEDIATE SHAFT ONLY.

INPUT PTO SHAFT

TRACTOR END MOWER END



INPUT PTO SHAFT

DATE: JAN 2006

REVISION No.: 2

ITEM	PART NO.	DESCRIPTION	SERIAL NUMBER	QTY
1	521461	QD YOKE 1 3/8" - 6 SPLINE (CO2)		1
2	210017	SLIDE COLLAR KIT - GOLD METAL		1
	521727	COLLAR KIT CO2 BLACK PLASTIC		1
3	521460	CROSS & BEARING KIT		2
4	210006	INNER TUBE YOKE		1
5	521729	BOLT M12 X 1.25 X 65 NUT		1
6	210007	YOKE - BOLT CLAMP - W/ BOLT		1
7	210004	OUTER TUBE & YOKE WITH LABEL		1
8	521451	"DANGER" DECAL		1
10	210005	SPLINED SHAFT		1
11	521722	ROLL PIN FOR INNER TUBE		1
12	210012	1/2 FEMALE SHAFT WITH SHIELDING		1
13	210013	1/2 MALE SHAFT WITH SHIELDING		1
14	521463	PLASTIC SHIELD BOLT (6PC/KIT)		1 KIT
15	210015	1/2 FEMALE SHIELD WITH LABEL		1
16	210016	1/2 MALE SHIELD		1
17	521467	SAFETY CHAIN		2
18	521455	"DANGER" LABEL FOR OUTER SHIELD		1
19	521821	GREASE FITTING		2
	210003	*COMPLETE PTO SHAFT		1

QTY. - REPRESENTS TOTAL NUMBER REQUIRED FOR ONE INPUT SHAFT ONLY.