



**OPERATOR'S MANUAL
AND PARTS LIST
TDR-15 TRI-DECK
ROTARY ROLLER MOWER
15 FT. ROTARY FINISHING MOWER
SERIAL NO. UP TO 1315120**



SERIAL # _____

Website: www.progressiveturfequip.com

Email : info@progressiveturfequip.com

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

<u>Models:</u>	<u>Part Number</u>	<u>Description</u>
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	529236C	10.97m Pro-Max 36 Mowing System
TDR-22	526924C	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	524010C	165cm Three Point Hitch Roller Mower
SDR-90	526010C	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 2010.



Luke Janmaat
President
Progressive Turf Equipment Inc.

TABLE OF CONTENTS

PAGE

INTRODUCTION

TO THE OWNER	3
GENERAL INFORMATION	4
WARRANTY	5
SPECIFICATIONS	6
SAFETY INSTRUCTIONS	7
SAFETY DECAL LOCATIONS	8
SAFETY DECALS	9
MAINTENANCE SAFETY	10

OPERATION OF THE MOWER

DAILY CHECK LIST	11
HITCHING MOWER TO TRACTOR	12
LEVELING THE MOWER & PTO	13
INSTALLING PTO SHAFTS	14
CHECKING PTO LENGTH DURING TURNS	15
CUTTING HEIGHT ADJUSTMENT	16
SAFETY CHAIN	17
TRANSPORTING MOWER	17
TIRES	18
POWER TAKE-OFF	18
GREASE COMPATIBILITY.....	19
LUBRICATION	20
GEARBOX OIL LEVEL	21

MAINTENANCE

MOWER BLADE SERVICING	22
BLADE REMOVAL & INSTALLATION	23
BLADE SHARPENING	23
SPINDLE INSPECTION	24
SPINDLE ASSEMBLY REMOVAL	24
SPINDLE ASSEMBLY INSTALLATION	24
ASSEMBLY OF SPINDLES	25
“V” BELT ADJUSTMENT	26
“V” BELT TENSION	26
HYDRAULICS	27
TROUBLE SHOOTING	28

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. Their 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 serious 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: _____

DATE PURCHASED: _____

SERIAL NUMBER: _____

For additional information, assistance during assembly, or operation of this mower, contact the dealer from whom the machine was purchased, 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, Pro-Max 36, TDR-22, TDR-15, TDR-12
SDR-90, SDR-65.**

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, or 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 labor 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.

TDR-15 MACHINE SPECIFICATIONS

Cutting Width	15 ½ feet	Deck Flexibility	25" up, 15 degree down
Cutting Height	½" to 4"	Numbers of wheels	2 on main frame
Recommended HP	30 Min – 50 Max	Mowing Capacity	MPH 2 4 6 Acres per hour 3.75 7.5 11.3
Hydraulics	Requires 1 double acting outlet, all hoses supplied to tractor	Paint Finish	Electrostatically painted with oven baked finish.
Transport Width	84"	SMV Sign	Located at back of mower for safety
Height	94".	Weight	Total 3725 lbs.
Length	14 ft.		
Ground Clearance	9 1/4" Cutting		

	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 bolts at gear box base and adjusting the slide plate forward or backward and retightening.	Wheels 5 bolt, 4 1/2" bolt circle Tires 2- 20.5X8-10ply Turf Tires
Deck Construction	3/16" steel plate formed and welded with supporting members at high stress areas to achieve maximum strength. Deck is 7" 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 and accessible screw mechanism. Infinite number of adjustments from ½" to 4"	Tongue Weight Transport position – 800 lbs. Mowing position – 340 lbs.
Spindles	9 spindles, 3-30mm spindles per deck are each carried in 2 re-grease able ball bearings, which are housed, in a precision machined hub.	Cylinders Rear deck: 1-2.5" x 12" double acting Wing deck: 2-2.5" x 12" double acting
Blade Support	3/4" x 2-1/2" x 8" long bar welded to spindle and machined. ½" bolts hold blade rigid to provide clean level cut.	Screw Jack Side wind jack for easy hookup.
Blades	High lift, heat treated, alloy steel blades 5/16" x 2 ½" x 23" per deck. Tractor PTO – 540 RPM	Main Gear Box 4 shaft gear box with 1 3/8-6 spline shafts, delivering power to decks.
Speeds	Blades – 3040 RPM Blade Tip Speed 18,287 FPM	PTO Shafts Deck Drive telescoping agricultural PTO Drive shafts, with proper safety shields. 1-3/8-6 spline quick-disconnect yokes on both ends.
Rollers	6" diameter with 1.88 wall thickness. Supported by (2) 1.25" two bolt ductile bearings	Input PTO... Category # 6. Deck PTO... Category # 4

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.

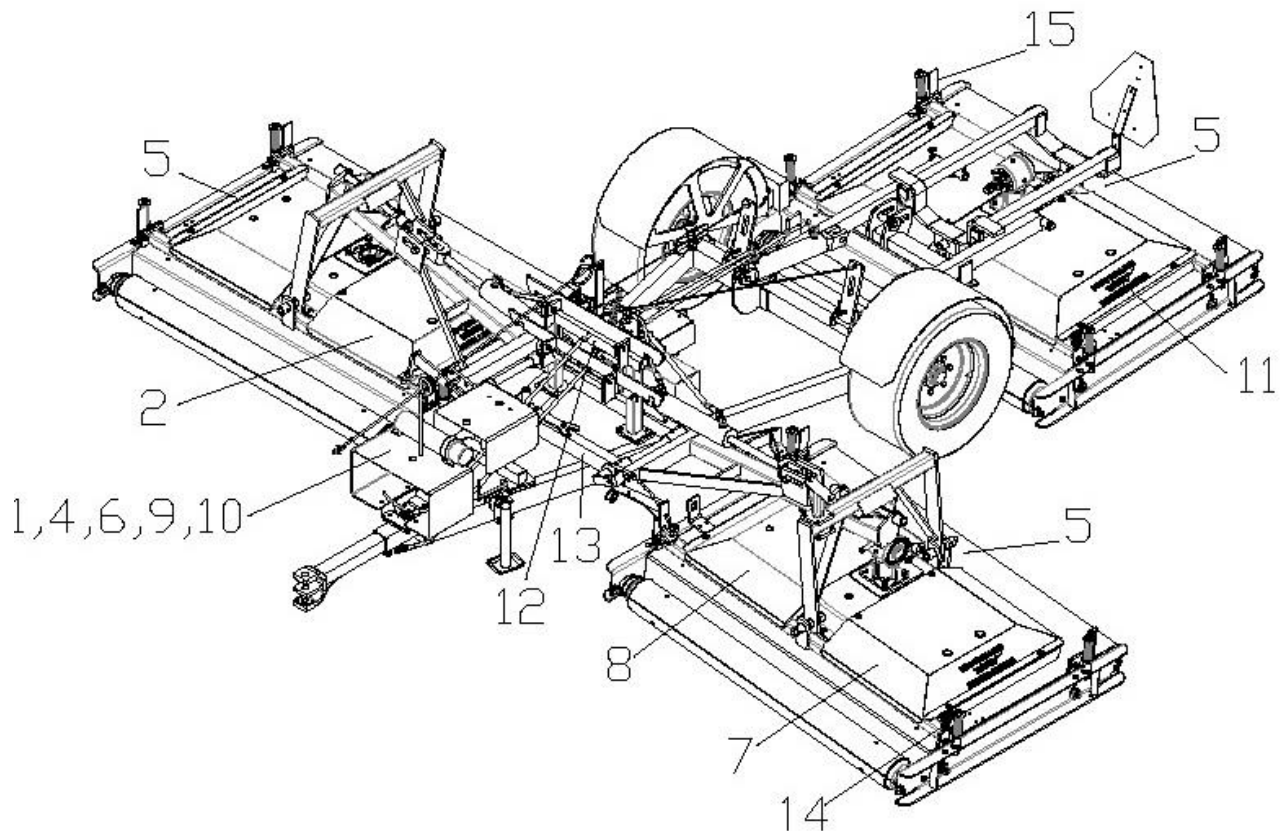
OPERATING SAFELY:

- ❖ 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	QTY
1	CAUTION - TURNING	1
2	CAUTION - READ MANUAL	1
3	CAUTION - REPLACE SHIELDS	8
4	DANGER - PTO SHIELDS	1
5	WARNING - BLADE HAZARD	7
6	WARNING - OEM PARTS	1
7	CAUTION - DISENGAGE PTO	1
8	GREASING SCHEDULE	1

ITEM NO.	DESCRIPTION	QTY
9	PTO GREASING	1
10	NOTICE - HITCH SETUP	1
11	MOWER MODEL	2
12	COMPANY NAME	1
13	SERIAL PLATE	1
14	FRONT DECK HEIGHT	4
15	REAR DECK HEIGHT	2
	GREASE POINT	25



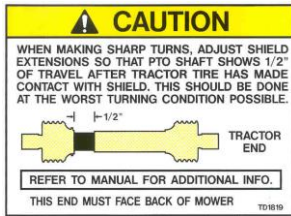
X 25

(521014)

❖ TDR-15 DECAL LISTING

**ITEM 1
(521819)**

(A&C models only)



**ITEM 2
(521108)**



**ITEM 3
(209113)**



**ITEM 4
(521451)**



**ITEM 5
(521043)**



**ITEM 6
(209115)**



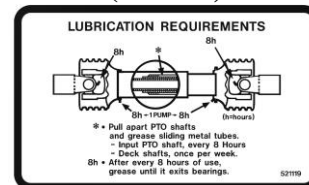
**ITEM 7
(521820)**



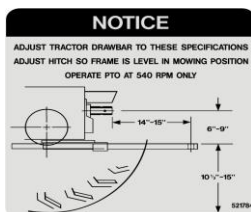
**ITEM 8
(526003)**



**ITEM 9
(521119)**



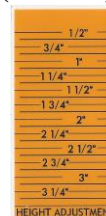
**ITEM 10
(521784)**



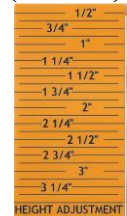
**ITEM 12
(521817)**



**ITEM 14
(209139)**



**ITEM 15
(209123)**



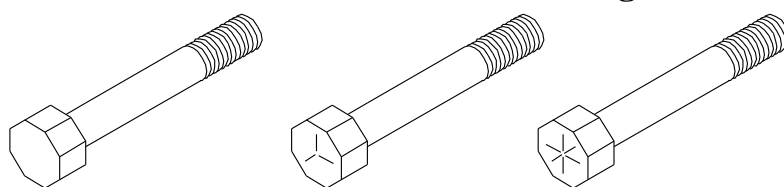
MAINTENANCE SAFETY:

- ❖ 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 all bolts are tight and that all nuts, screws and cotter pins are properly installed to ensure that the 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)
1/2	85 (115)
9/16	125 (170)
5/8	175 (240)
3/4	300 (410)
7/8	450 (610)
1	680 (925)
1" L.H. Spindle Nut	60 (82)

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:

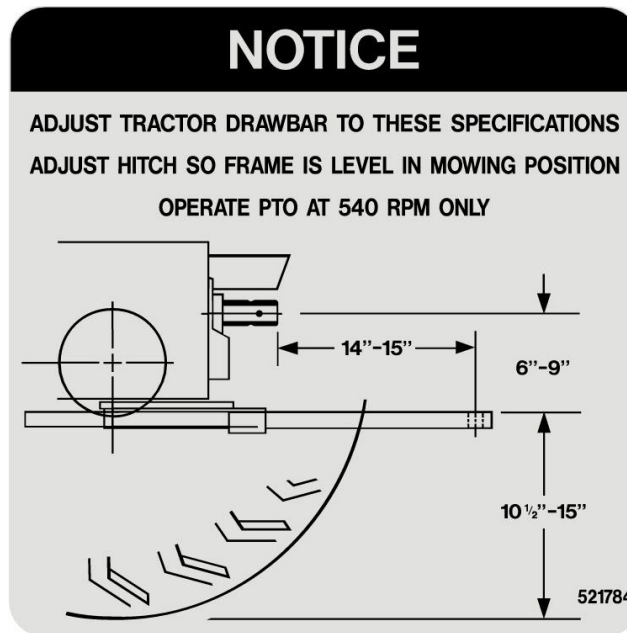
1. Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough soled work shoes. Never operate tractor or implements in bare feet, sandals or sneakers.
2. Check that mower is properly and securely attached to tractor with a safety chain.
3. Ensure all safety shielding is properly installed and check that all nuts and bolts are secure and pins are properly cotterpinned.
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 center line 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 #1, Page 33) 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.



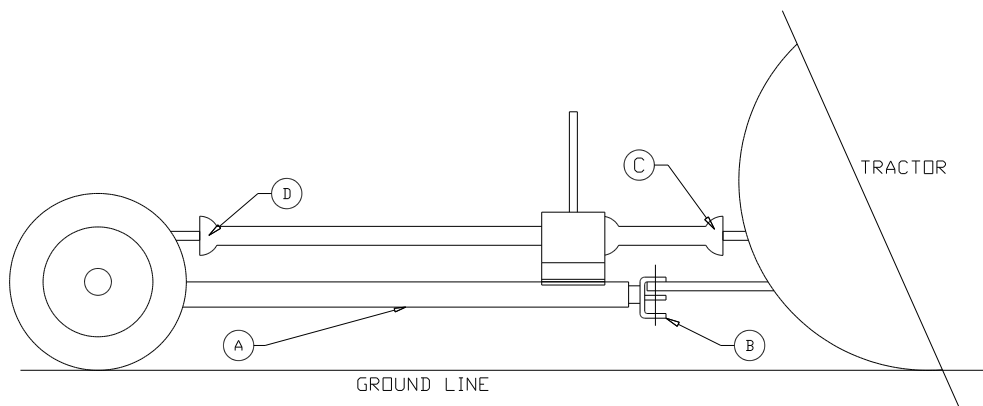
CAUTION - When towing mower on any roadways, lock brakes together. Use proper lighting and marking devices according to the local regulations.

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 setup 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.



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 on.
- 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.

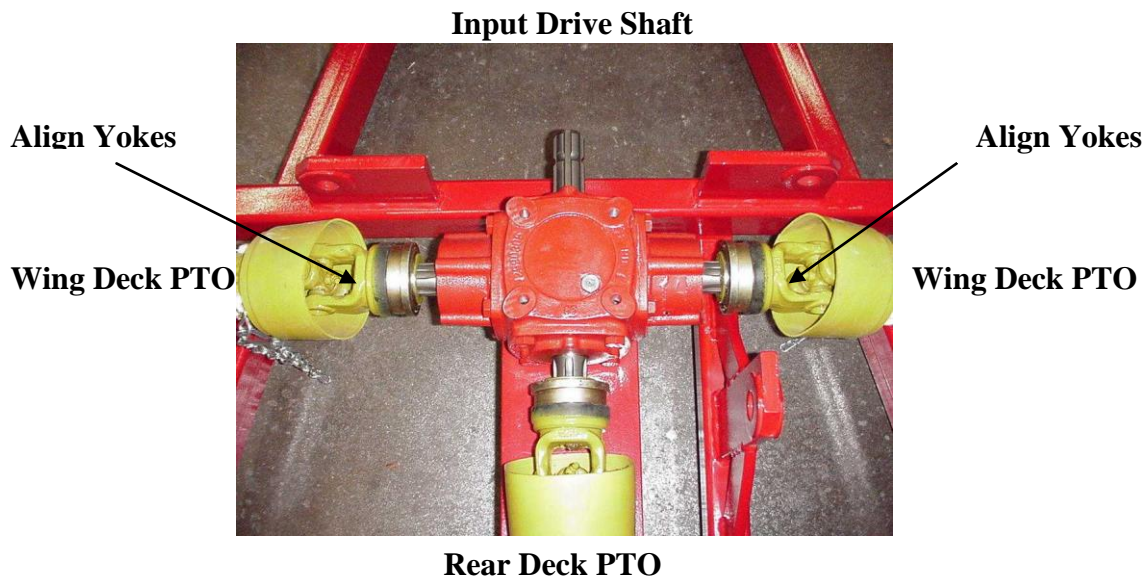


CAUTION - If the PTO shaft comes off during operation, it may cause personal injury and damage to the PTO shaft and tractor PTO. When checking, make sure the locking collar is locked, and that the shaft is not just jammed against the end of the tractor PTO shaft.

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 gearbox.

IMPORTANT: The PTO shafts from the two wing decks must be timed when mounted to the gearbox. 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, leaving the mounting bolts loose. Do not forget to install the PTO spacers to level the driveline. See section on “Hitching to the Tractor”.

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. (A&C models only)



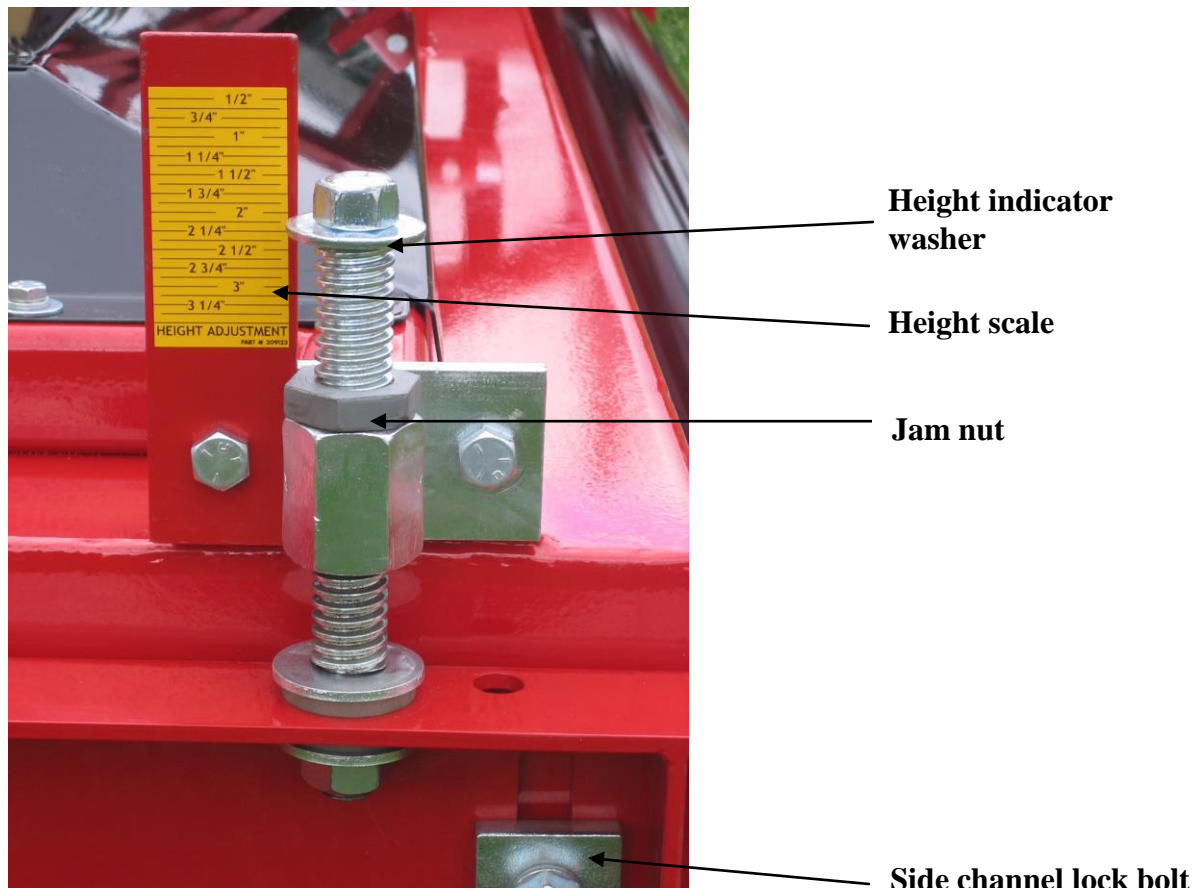
1" to 2" of BLACK

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:

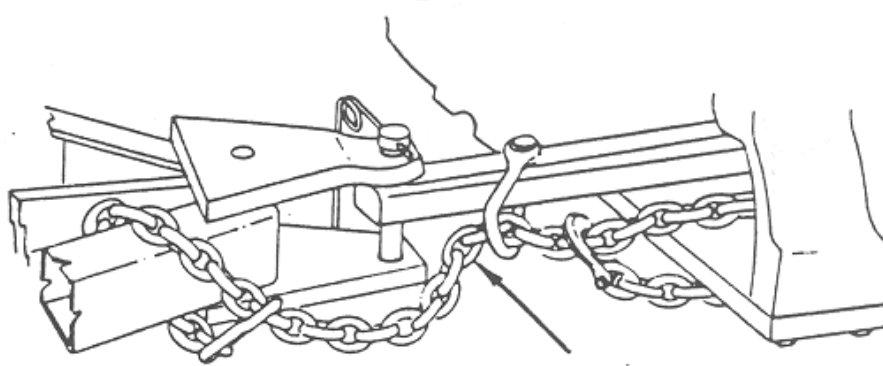
There are four height adjusters per mowing deck. Each adjuster (located in each corner of the deck) must be adjusted to the same height to ensure a smooth even cut. A wrench for this purpose is provided. In addition, each deck must be adjusted the same so that a level cut is obtained across the whole cutting width of the mower. Mower cutting height adjustment is made by turning a 5/8" nut on top of an acme threaded rod which makes up the height adjuster. A washer under the nut indicates the height against the decal. There are an infinite number of adjustments available from 1/2" to 4". Moving the adjuster up and down moves a side channel that mounts the front and rear rollers. Before attempting to make height adjustments, the locking bolt on the side channel adjacent to the adjuster must be loosened. When the desired adjustment is made, be sure to tighten the locking bolt and adjuster jam nut to maintain the adjusted height. The height decals at the back of the deck are set 1/4" lower, so that the back actually cuts 1/4" higher, this will provide a better cut, prolong the life of the blades, and reduce horsepower requirement. This will also make the side channel look uneven, but this is correct.

TDR-15 HEIGHT ADJUSTER



SAFETY CHAIN:

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



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

4500# or more
Less than 4500# but
More than 2300#
Less than 2300#

MAXIMUM ALLOWABLE ROAD SPEED

Up to 20 mph (32km/h)
Up to 10 mph (16km/h)

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 (PSI) 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 driveline, with the potential for future failure.

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

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:

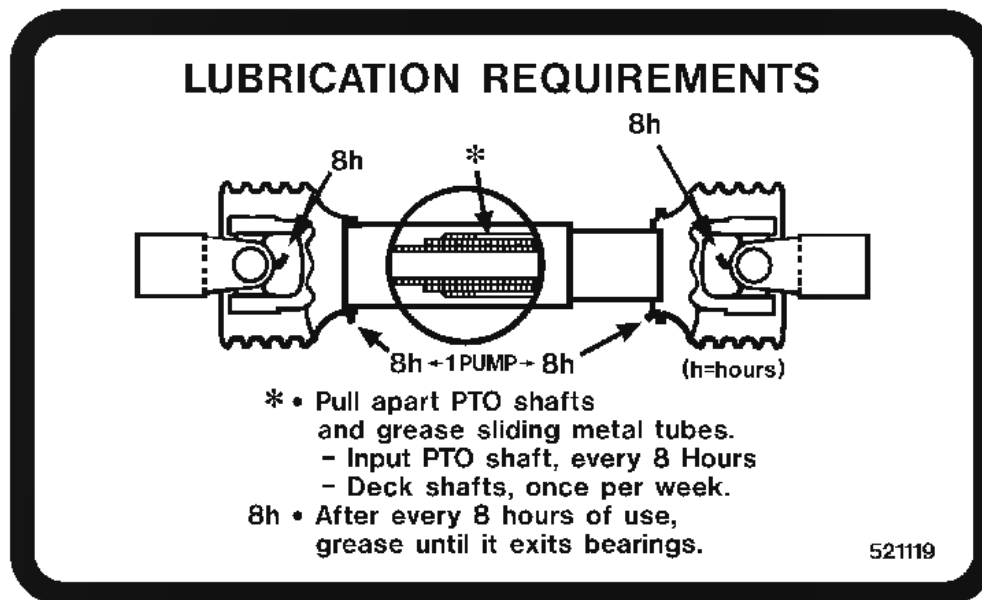
The grease you use for the blade spindle assemblies must have these properties:

- 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
<ul style="list-style-type: none"> • Spindles* (See Manual) • 3 Pivots per Wing Deck* • 2 Pivots on Rear Deck* • *As Required 	<ul style="list-style-type: none"> • Main Input*(See Below) • Deck Drive, 4 Locations per Shaft* • Pull Apart Sliding Tubes once per week and lubricate • *As Required 	<ul style="list-style-type: none"> • 8 Pivot Locations* • 2 Wheels* <p style="text-align: center;">*As Required</p>
<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>CHECK FOR PROPER OIL LEVEL IN GEARBOXES DAILY</p> <p>GREASING SCHEDULE & LOCATION</p> </div>		



BLADE SPINDLE GREASING:

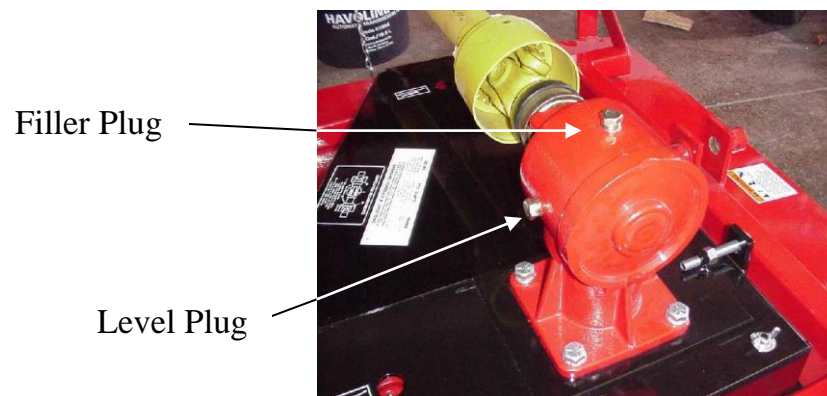
The top bearing on all spindle assemblies has a shield only. This allows grease to exit and relieves any pressure build up inside spindle housing, when greasing. Greasing of blade spindles should continue until grease can be seen exiting between the top bearing. Some working conditions will require this 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 GEAR BOX:

The main gearbox has a combination filler plug and dipstick. Remove the plug, dry off the dipstick and replace to check oil level. It must touch the oil in the gear box. 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**.

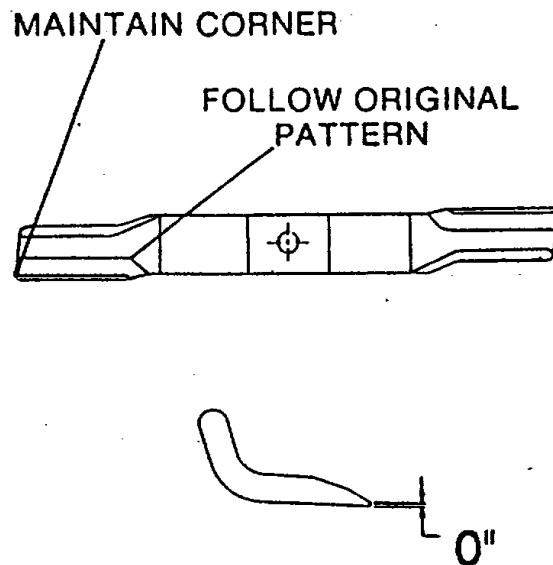
BLADE REMOVAL AND INSTALLATION:

Two, 1/2" X 1 3/4" grade 5 bolts with lock washers 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 spindle 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.

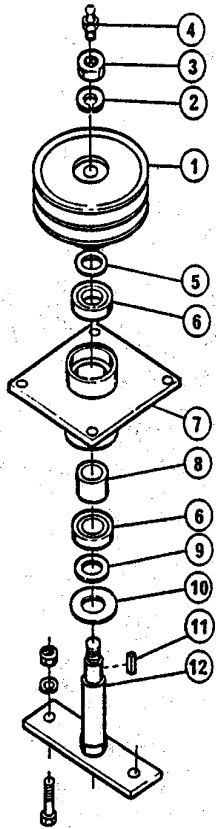
SPINDLE REPAIR:

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. LOCKWASHER
- 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, onto 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, onto 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.

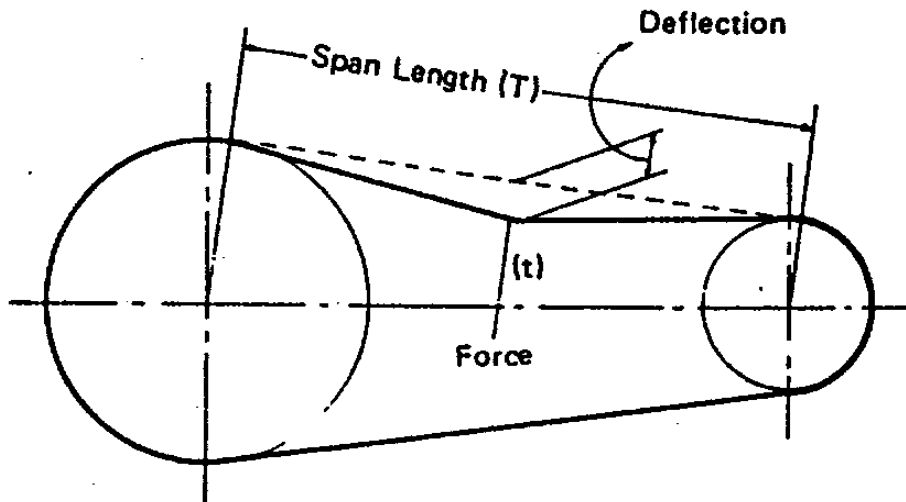
“V” BELT ADJUSTMENT:

Begin by loosening 4 bolts at the base of the gearbox. Adjusting long threaded bolt slides the gearbox back, tightening belt. After proper tension is achieved, tighten 4 bolts at base of gearbox. You may have to place a ½” 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 the 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:

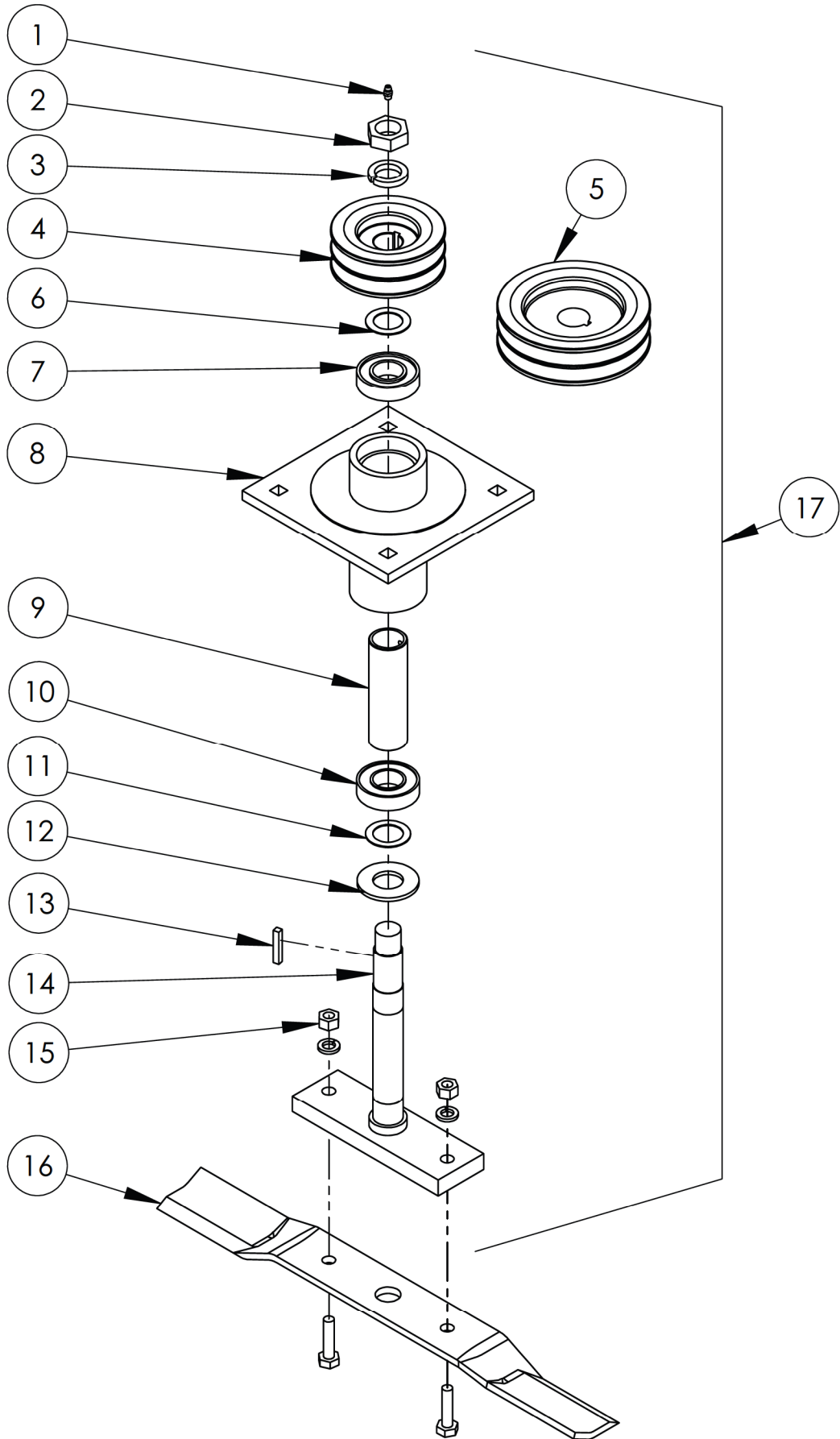
PROBLEM	CAUSE	REMEDY
Belt slippage	Lack of tension oily drive conditions	Increase tension Clean up drive
Rapid belt wear	Belt slippage belt not in proper groove	Increase tension Place in proper groove
Belt squeal	Belt slippage	Increase tension
Over-heated bearings	Belt slippage excessive drive tension	Increase Tension Tension drive properly
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 drawbar 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

TDR-15 FINISHING MOWER
PARTS MANUAL
TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE</u>
BLADE SPINDLE ASSEMBLY	2
DECK ASSEMBLY	4
GEARBOX MOUNT ASSEMBLY	6
WING ASSEMBLY	8
REAR LIFT ASSEMBLY	10
MAIN FRAME	12
HYDRUALICS ASSEMBLY	14
DRIVELINE COMPONENTS B & D MODELS	16
DRIVELINE COMPONENTS A & C MODELS	18
REAR & RIGHT DECK GEARBOX ASSEMBLY	20
LEFT DECK GEARBOX ASSEMBLY	22
4-WAY GEARBOX ASSEMBLY	24
WING DECK PTO SHAFT	26
REAR DECK PTO SHAFT	27
INPUT PTO SHAFT A & C MODELS	28
INTERMEDIATE PTO SHAFT A & C MODELS	29
INPUT PTO SHAFT B MODEL	30
INPUT PTO SHAFT D MODEL	32
INTERMEDIATE PTO SHAFT B & D MODELS	33

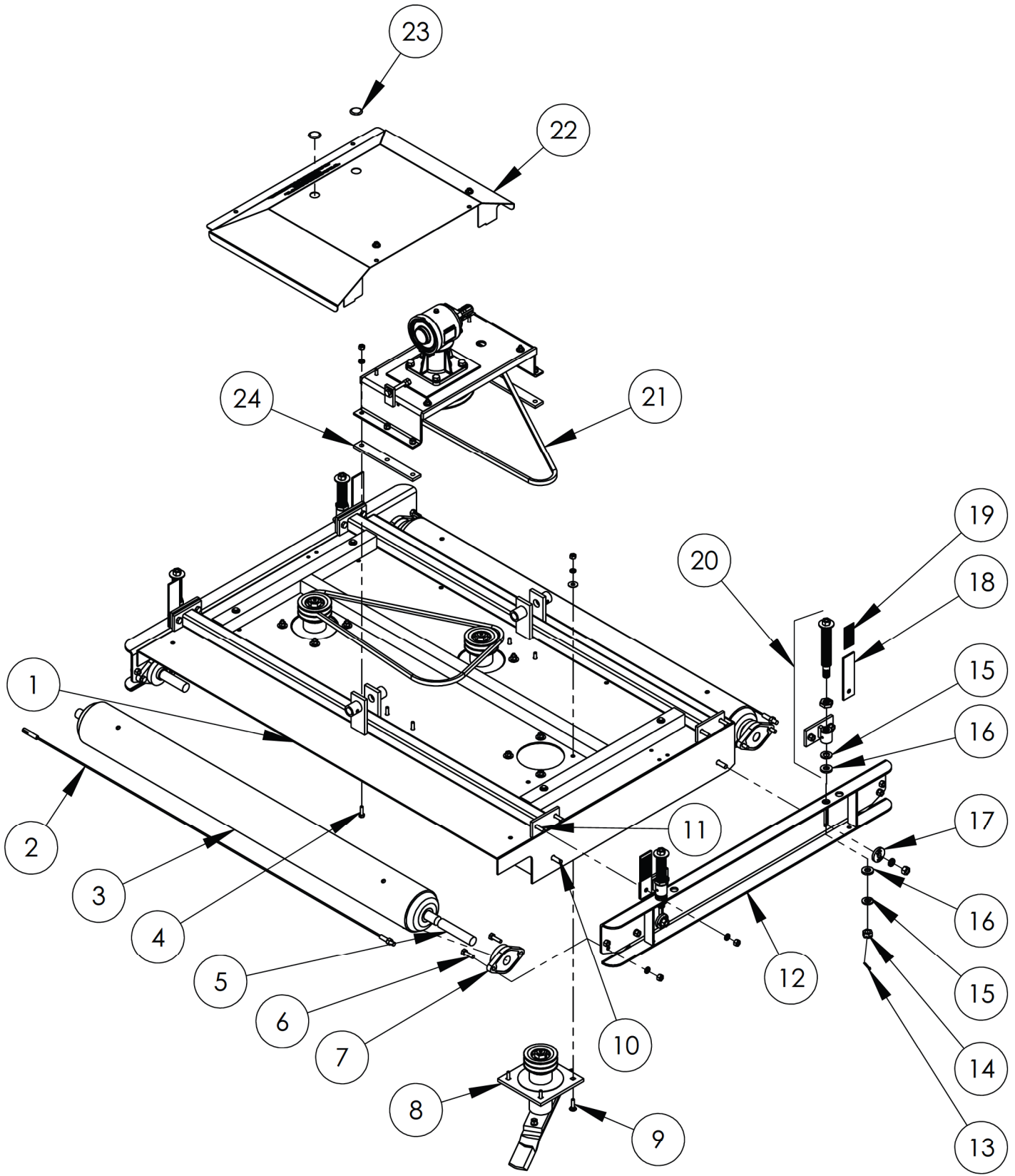


BLADE SPINDLE ASSEMBLY



BLADE SPINDLE ASSEMBLY			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	O.L.	GREASE FITTING 1/4 - 28, STR	1
2	521003	HEX NUT- L.H.	1
3	521002	L.H. LOCKWASHER (3PER KIT)	1
4	521773	4.4" BLADE SPINDLE PULLEY A,B,C MODELS ONLY	1
5	521790	5.9" BLADE SPINDLE PULLEY D MODELS ONLY	1
6	521301	1.125" SHIM WASHER (9PCS)	1
7	521302	BEARING - TOP	1
8	524220	TDR-15 BLADE SPINDLE HUB	1
9	524222	BEARING SPACER TUBE	1
10	521701	BOTTOM BEARING	1
11	521305	SHIM WASHER 1.188" (9PCS)	1
12	521306	SPINDLE DIRT SHIELD (3PCS)	1
13	O.L.	1/4" SQ. x 1 9/16" KEY	1
14	524224	TDR-15 BLADE SPINDLE	1
15	O.L.	1/2" x 1 3/4" GR5 HEX BOLT, LOCKWASHER AND NUT	2
16	522619	BLADE KIT 6 L.H. 3 R.H.	1
17	524232	COMPLETE BLADE SPINDLE ASSEMBLY 5.9" PULLEY	9
	524230	COMPLETE BLADE SPINDLE ASSEMBLY 4.4" PULLEY	9
NOTE: QUANTITIES ARE FOR ONE COMPLETE SPINDLE ASSEMBLY			
O.L. - OBTAIN LOCALLY			

DECK ASSEMBLY

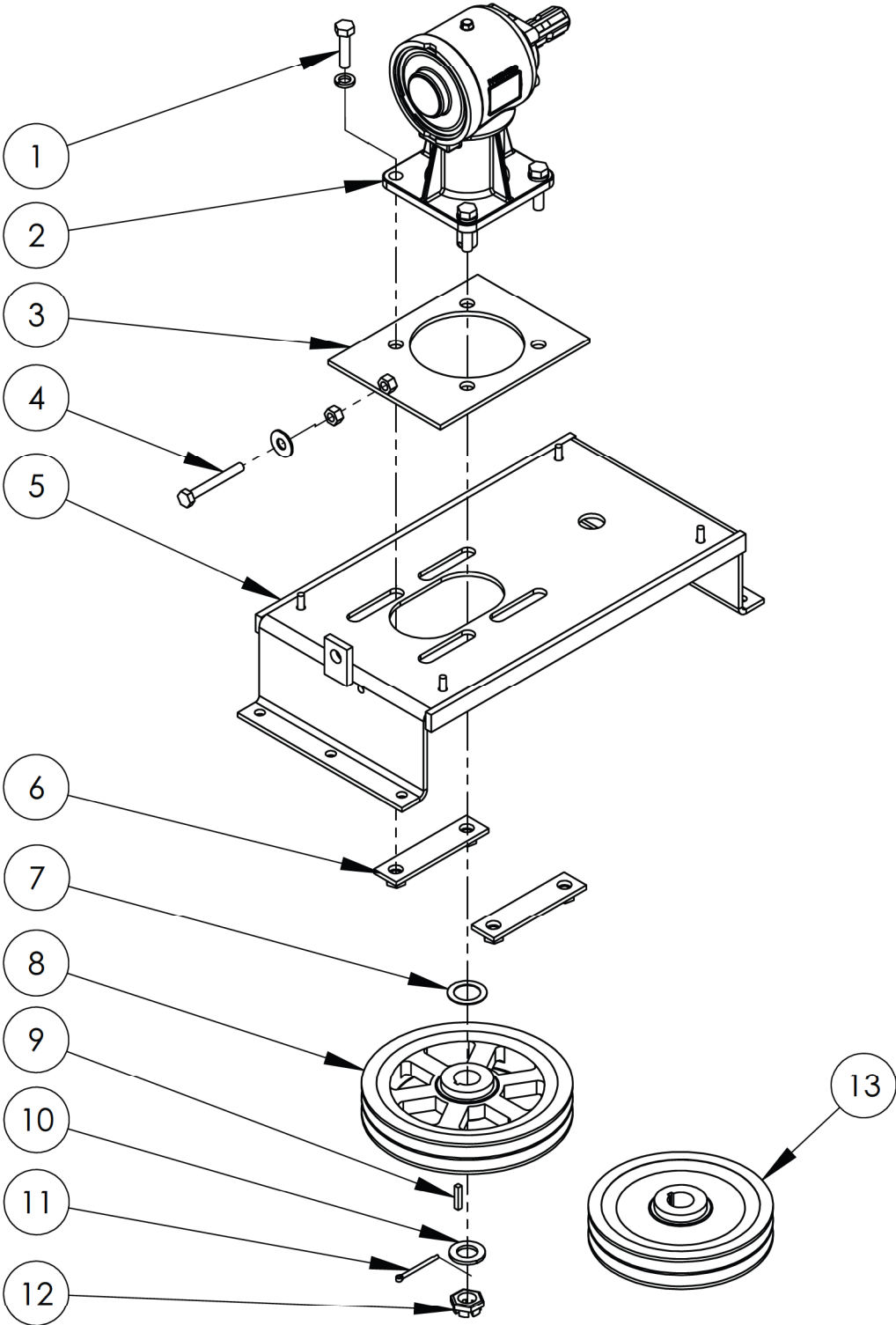


DECK ASSEMBLY			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	524178	DECK - TDR-15	1
2	524221	TDR15 ROLLER WIPER ASSEMBLY	2
3	524216	DECK ROLLER WITH SHAFTS	2
4	O.L.	7/16" x 1-1/2" GR5 HEX BOLT WITH LOCKWASHER AND NUT	6
5	526494	1 1/4" ROLLER SHAFT	4
6	O.L.	1/2" x 1 1/2" GR5 HEX BOLT, LOCKWASHER AND NUT	8
7	213019	1 1/4" FLANGE BEARING 2 BOLT	4
8	524232	COMPLETE BLADE SPINDLE ASSEMBLY 5.9" PULLEY	3
	524230	COMPLETE BLADE SPINDLE ASSEMBLY 4.4" PULLEY	3
9	O.L.	7/16" x 1 1/2" GR5 CARRIAGE BOLT, LOCKWASHER AND NUT	12
10	O.L.	5/8" x 2" GR5 CARRIAGE BOLT, LOCKWASHER AND NUT	4
11	O.L.	1/2" x 1 3/4" GR5 HEX BOLT, LOCKWASHER AND NUT	8
12	524190	TDR-15 DECK CHANNEL	2
13	O.L.	5/32" x 1 1/2" COTTER PIN	4
14	305715	3/4" SLOTTED HEX NUT	4
15	526365	3/4" FLAT WASHER(8 PER KIT)	1
16	526137	DECK ADJ. NYLON WASHER (8 PER KIT)	1
17	526148	CHANNEL CLAMP WASHER (4 PER KIT)	1
18	526125	HEIGHT DECAL PLATE	4
19	526491	TDR HEIGHT DECAL KIT (6PCS)	1
20	526252	HEIGHT ADJUSTMENT KIT (8PC KIT) COMES WITH ITEMS 13,14 AND 15.	1
21	521315	BELT - B69 (A,B,C MODELS)	2
	212039	BELT - B74 (D MODELS)	2
22	524154	TDR-15 DECK SHIELD	2
23	526492	SNAP IN HOLE PLUG (12 PER KIT)	1
24	524247	GEARBOX MOUNT SPACER (D MODELS ONLY)	2

NOTE: QUANTITIES ARE FOR ONE DECK

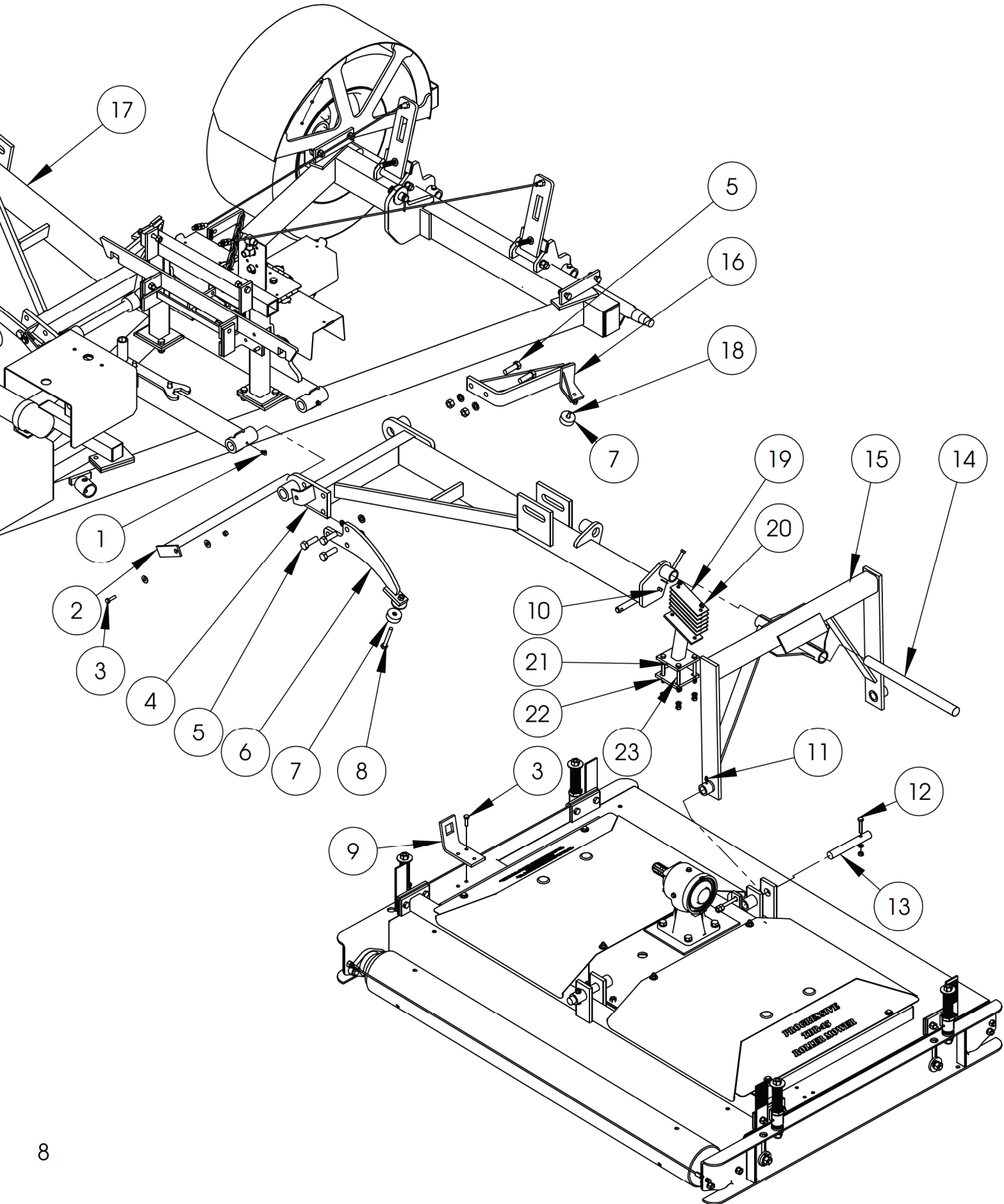
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GEARBOX MOUNT ASSEMBLY



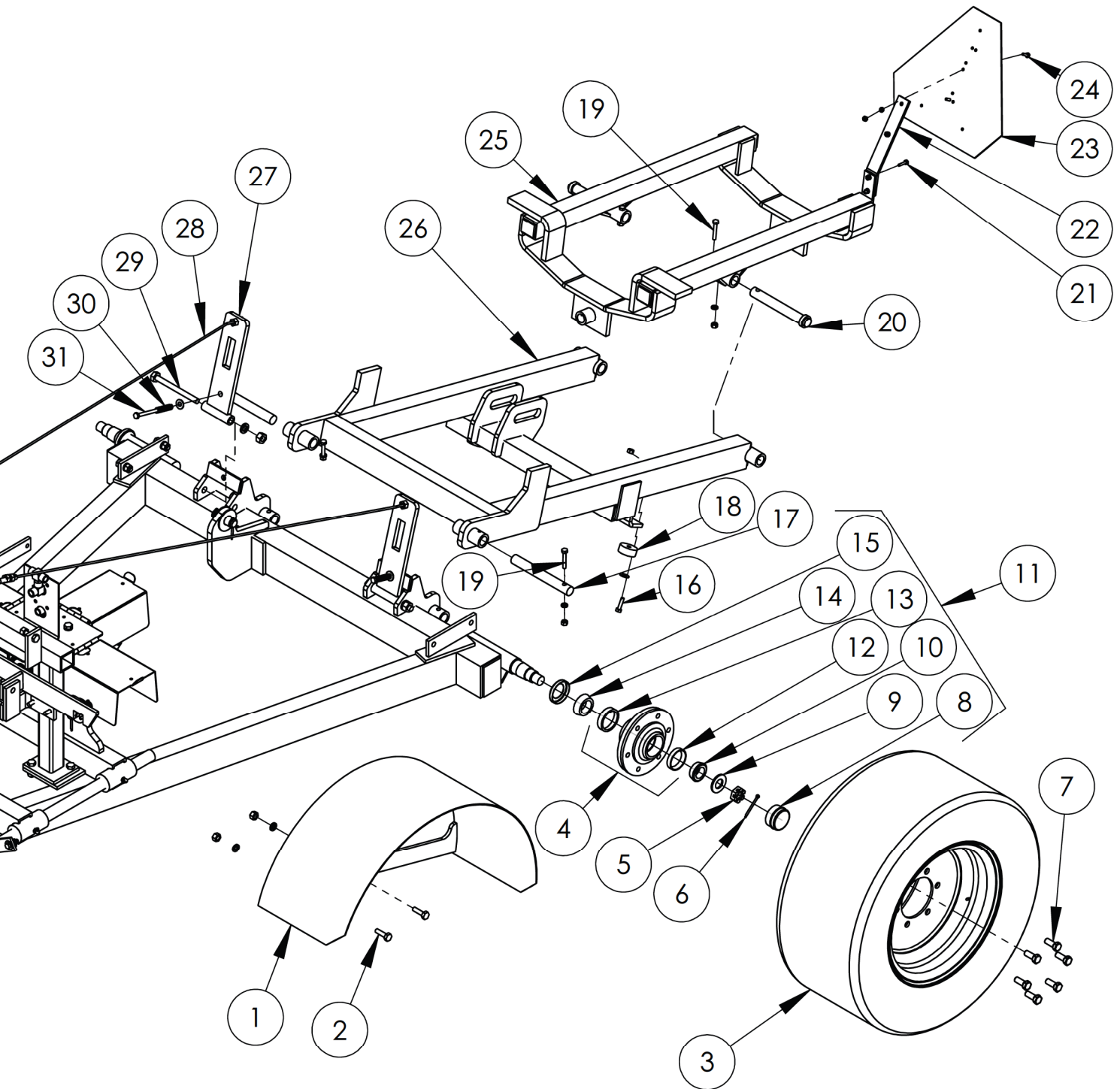
GEARBOX MOUNT ASSEMBLY			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	O.L.	9/16" x 2" GR5 HEX BOLT & LOCK WASHER	4
2	521012	DECK GEARBOX (REAR DECK & RIGHT WING DECK)	1
	521033	DECK GEARBOX L.H. DRIVE (LEFT WING DECK)	1
3	521013	SLIDE PLATE	1
4	521020	1/2" x 3 1/2" GR5 TAP BOLT, (FLATWASHER AND NUT-O.L.)	1
5	521019	GEARBOX MOUNT	1
6	521018	STIFFENER NUT BRACKET	2
7	521004	SHIM WASHER - 1.250" (9PC KIT)	1
8	212021	MAIN DRIVE PULLEY 11 1/4" (D MODELS ONLY)	1
9	521390	KEY 1/4" x 1 5/16 (3 PER KIT)	1
10	521129	WASHER - (3 PC KIT)	1
11	O.L.	3/16" x 1 1/2" COTTER PIN	1
12	521130	CASTLE NUT - M24	1
13	521774	MAIN DRIVE PULLEY 8.7" (A, B, C MODELS ONLY)	1
NOTE: QUANTITIES ARE FOR ONE DECK			
O.L. - OBTAIN LOCALLY			

WING ASSEMBLY



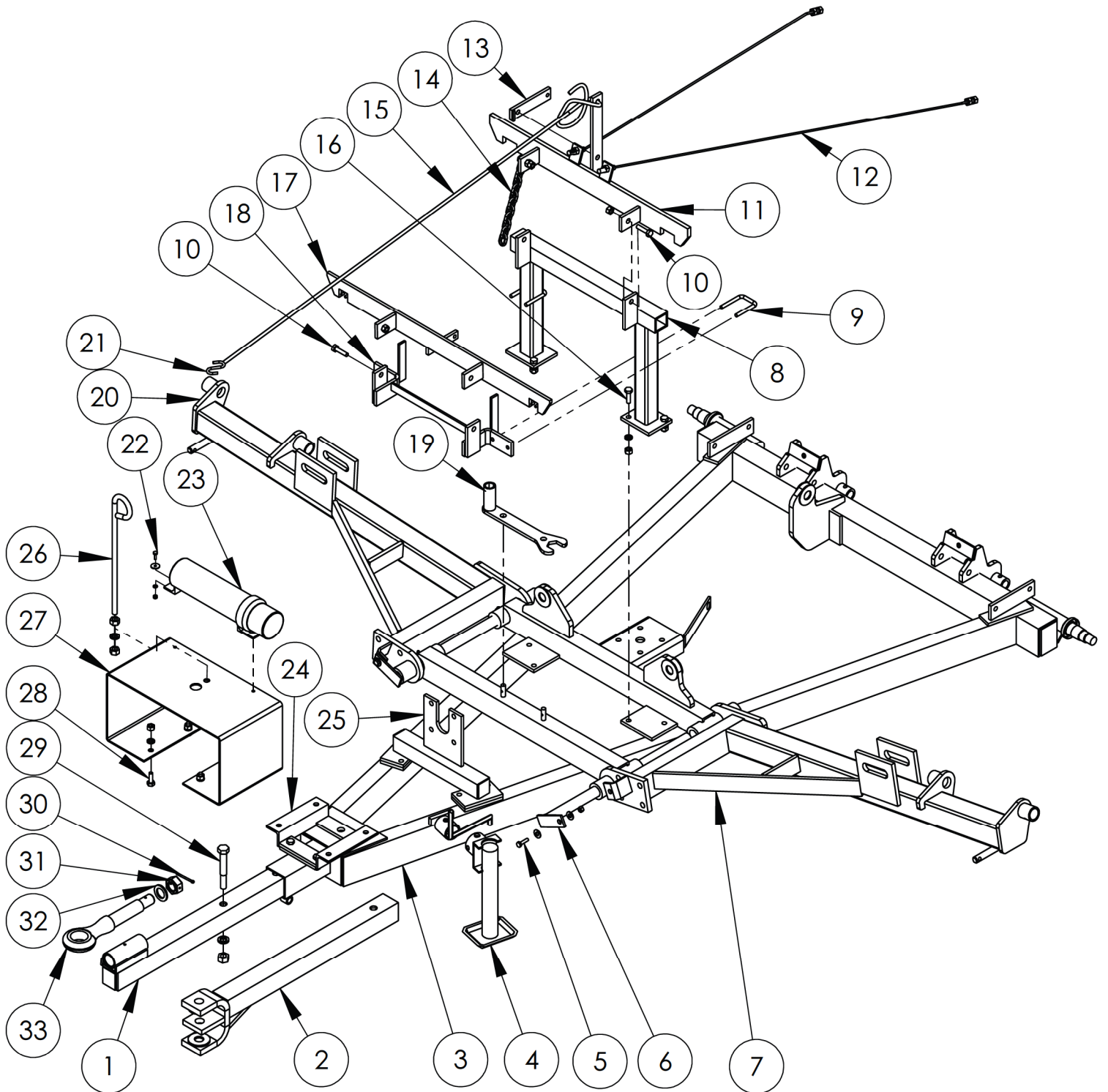
WING ASSEMBLY				
ITEM NO.	PART #	DESCRIPTION	QTY.	SERIAL #
1	O.L.	90 DEGREE GREASE FITTING	4	
2	523155	WING PIVOT PIN	2	
3	O.L.	3/8" x 1-1/4" BOLT, 2 FLAT WASHERS AND LOCKNUT	2	
4	528110	L.H. WING	1	
5	O.L.	5/8" x 2" BOLT, LOCKWASHER AND NUT	8	
6	528202	FRONT STANDOFF (R.H. & L.H.)	2	0915038 & ABOVE
	528146	FRONT STANDOFF (R.H. & L.H.)	2	0767003 - 0915037
7	528275	DECK STANDOFF BUMPER	6	
8	O.L.	1/2" X 3 1/2" TAP BOLT, FLATWASHER, 3 HEX NUTS	2	
9	528341	DECK LOCK BRACKET (C&D MODELS ONLY)	2	
10	O.L.	3/8" x 2 1/4" BOLT, 2 FLAT WASHER AND NUT	22	
11	O.L.	1/4" UNF STRAIGHT GREASE FITTING	6	
12	O.L.	3/8" x 2" BOLT, 2 FLAT WASHER AND NUT	4	
13	521337	DECK LIFT PIN	2	
14	521338	WING SWIVEL PIN 16 3/4"	2	
15	528114	WING SWIVEL	2	
16	528150	REAR LEFT STANDOFF	1	
	528144	REAR RIGHT STANDOFF (NOT SHOWN)	1	
17	528112	R.H. WING	1	
18	305060	HEX BOLT - 3/8 X 1 NC GR5 PL	2	
19	528491	WING BUMPER PAD	12	
20	O.L.	3/8 LOCK NUT	4	
21	528224	WING BUMPER	2	
22	528226	WING BUMPER BACK PLATE	2	
23	O.L.	HEX BOLT-3/8 X 4 NC GR5 PL, LOCK WASHER AND NUT	8	
NOTE: QUANTITIES ARE FOR ONE COMPLETE MOWER				
O.L. - OBTAIN LOCALLY				

REAR LIFT ASSEMBLY



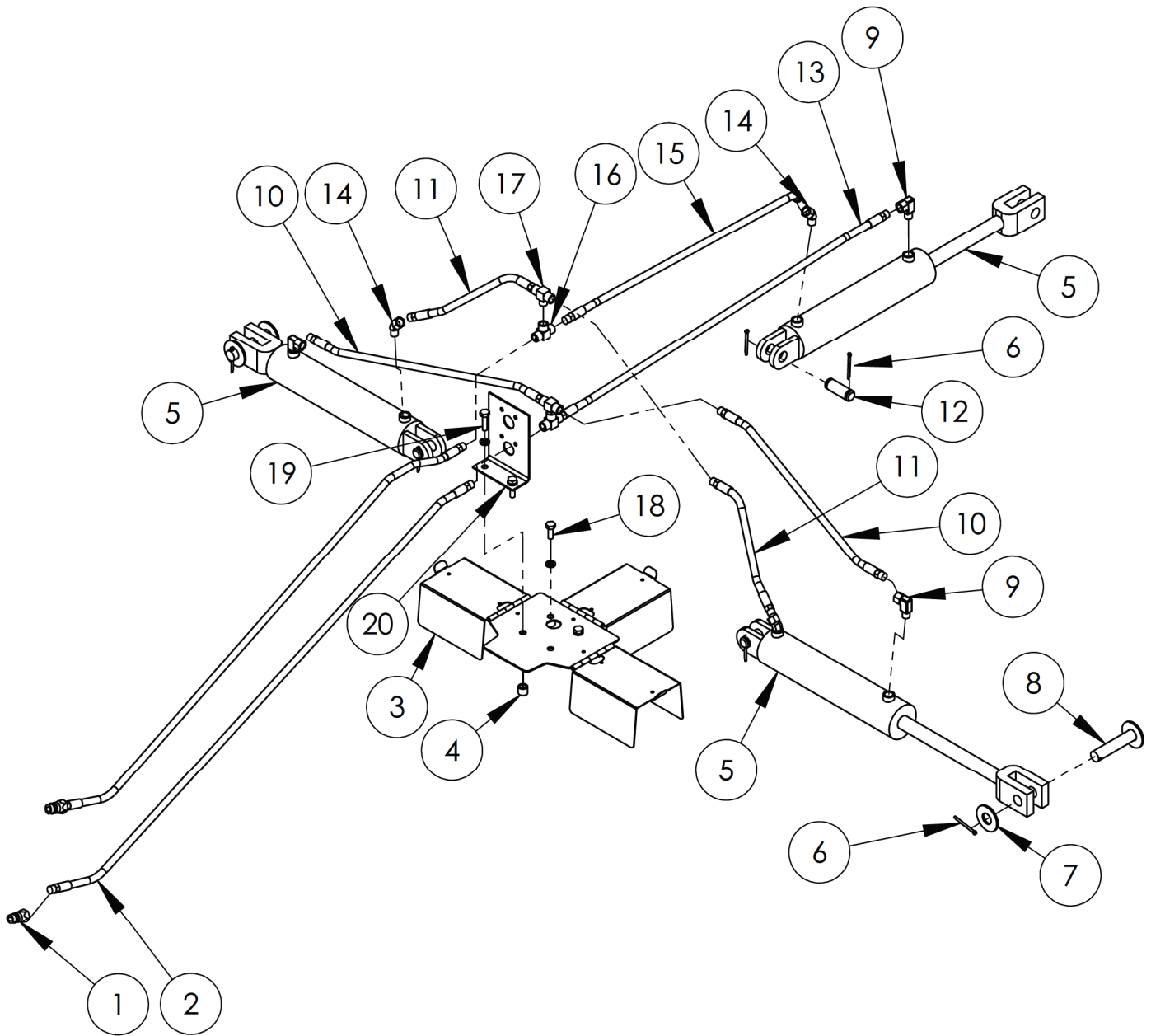
REAR LIFT ASSEMBLY			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	528154	FENDER - LEFT(C& D MODELS ONLY)	1
	528152	FENDER - RIGHT (C & D MODELS ONLY)	1
2	O.L.	1/2" x 1-1/2" BOLT, LOCKWASHER AND NUT	4
3	521084	TRANSPORT TIRE AND RIM	2
	521084R	TRANSPORT RIM 15 x 10 x 6	2
4	521758	TRANSPORT HUB 4000#	2
5	521747	HEX NUT - CASTELATED (2 PCS)	2
6	521752	COTTER PIN (6 PC/KIT)	9
7	521083	WHEEL STUD (6PC/KIT)	12
8	521762	DUST CAP	2
9	521761	WASHER (2PC/KIT)	2
10	521760	BEARING - OUTSIDE	2
11	521085	HUB ASSEMBLY COMPLETE	2
12	521759	BEARING RACE - OUTER	2
13	521757	BEARING RACE - INNER	2
14	521756	BEARING - INSIDE	2
15	521741	GREASE SEAL	2
16	O.L.	3/8" x 1-1/4" BOLT, FLATWASHER AND LOCKNUT	3
17	526445	PULL TUBE FRAME PIN	2
18	528275	DECK STANDOFF BUMPER	2
19	O.L.	3/8" x 2" BOLT, LOCKWASHER AND NUT	4
20	526254	REAR SWIVEL PIN	2
21	O.L.	1/4" x 1" BOLT, LOCKWASHER AND NUT	2
22	524217	SMV BRACKET	1
23	521353	S.M.V SIGN	1
24	O.L.	1/4" x 3/4" BOLT, LOCKWASHER AND NUT	2
25	524168	TDR-15 REAR SWIVEL	1
26	528118	REAR LIFT	1
27	528136	REAR LOCK	2
28	528158	REAR LOCK CABLE, (4) 1/2" NUTS	2
29	O.L.	5/8" x 6" BOLT, LOCKWASHER AND NUT	2
30	214004	SPRING- 0.080	2
31	O.L.	3/8" x 4" BOLT, FLAT WASHER AND LOCKNUT	2
NOTE: QUANTITIES ARE FOR ONE COMPLETE MOWER			
O.L. - OBTAIN LOCALLY			

MAIN FRAME



MAIN FRAME			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	528148	FRONT HITCH (C&D MODELS)	1
2	521322	4 POSITION HITCH (A&B MODELS)	1
3	528134	MAIN FRAME	1
4	219005	SCREW JACK	1
5	O.L.	3/8" x 1-1/4" GR5 HEX BOLT ,LOCKNUT	2
6	523155	WING PIVOT PIN	2
7	528110	L.H. WING	1
8	528140	WING LOCK FRAME	1
9	304205	U-BOLT 2" x 2" (C&D MODELS ONLY)	2
10	O.L.	1/2" x 1-3/4" GR5 HEX BOLT, HEX NUT	2
11	528142	WING LOCK	1
12	528158	REAR LOCK CABLE, (USES (4) 1/2" NUTS)	2
13	528186	DECK CHAIN LOCK TAB (C&D MODELS ONLY)	1
14	115011	DECK LOCK CHAIN	1
15	521331	PULL ROPE 10'	1
16	O.L.	1/2" x 1-1/2" GR5 HEX BOLT WITH LOCKWASHER & NUT	6
17	528182	DECK LOCK (C&D MODELS ONLY)	1
18	528184	DECK LOCK MOUNTING BRACKET (C&D MODELS ONLY)	1
19	526094	TDR HEIGHT ADJ WRENCH	1
20	528112	R.H. WING	1
21	521062	S HOOK	1
22	O.L.	1/4" x 3/4" GR5 CARRIAGE BOLT, LOCKWASHER AND NUT	2
23	120519	MANUAL TUBE HOLDER	1
24	528192	FRONT SHIELD MOUNT (B & D MODELS)	1
	528196	FRONT SHIELD/PTO MOUNT (A & C MODELS) NOT SHOWN (SEE PG 18)	1
25	528190	INTERMEDIATE MOUNT	1
26	522413	HOSE GUIDE W/ HARDWARE	1
27	522308	HOSE SUPPORT SHIELD (A& B MODELS)	1
	522447.95	HOSE SUPPORT SHIELD W/ NOTCH (NOT SHOWN C&D MODELS)	1
28	O.L.	1/2" x 1-1/4" GR5 HEX BOLT, LOCKWASHER AND NUT	4
29	O.L.	3/4" x 5" HEX BOLT, LOCK AND & NUT	1
30	O.L.	3/16" x 2" COTTER PIN (C&D MODELS)	1
31	528313	HITCH NUT (C&D MODELS)	1
32	528315	HITCH FLAT WASHER (C&D MODELS)	1
33	528311	PINTLE HITCH (C&D MODELS)	1
NOTE: QUANTITY IS FOR COMPLETE MOWER			
O.L. OBTAIN LOCALLY			

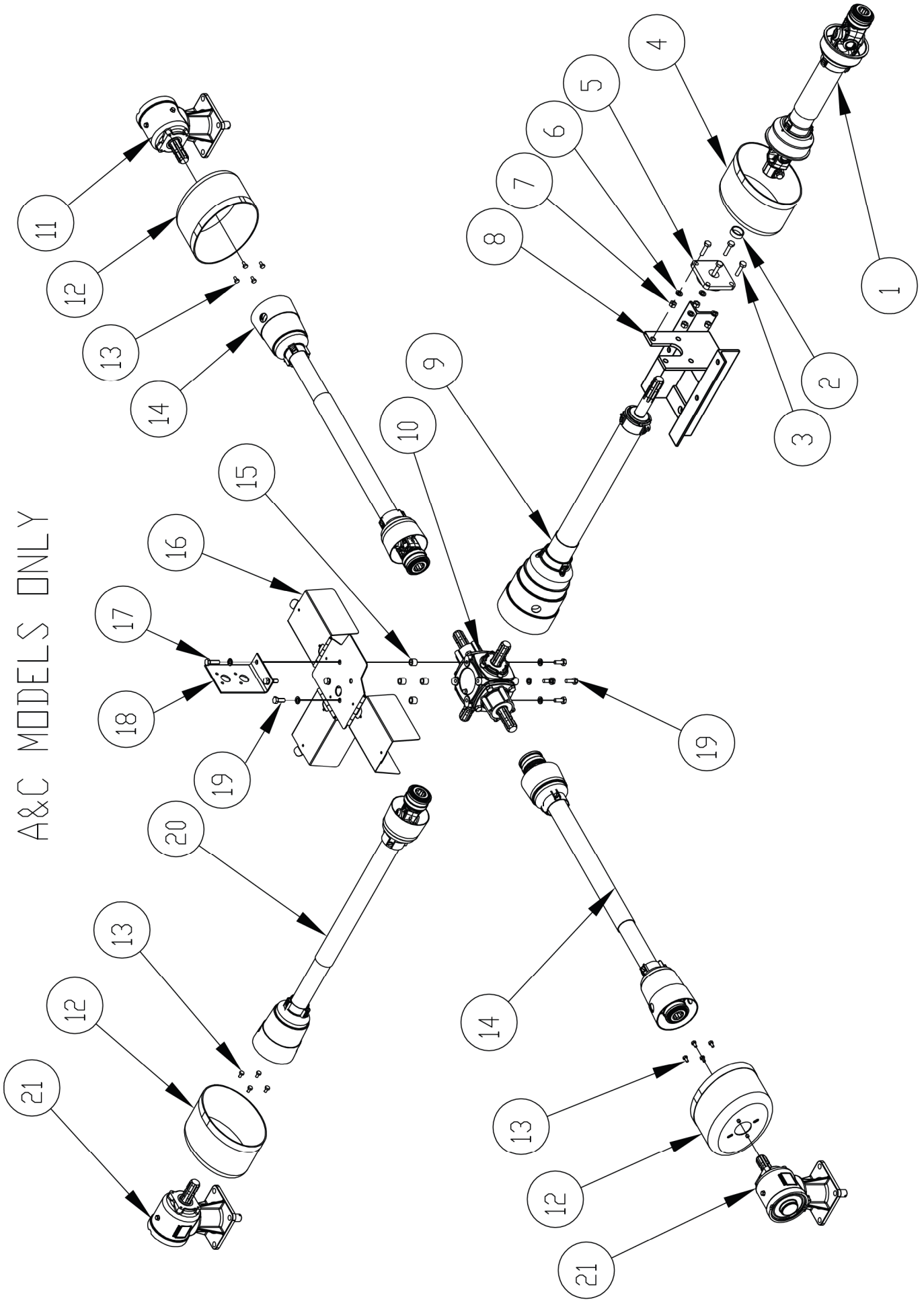
HYDRAULICS ASSEMBLY



HYDRAULICS ASSEMBLY			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	222006	HOSE END KIT 1/2" (2 PCS/KIT)	1
2	521334	HYDRAULIC HOSE 122"	2
3	522463	4-WAY GEARBOX COVER	1
4	521197	GEARBOX COVER SPACER	4
5	522300	2 1/2" HYDRAULIC CYLINDER	3
6	521752	COTTER PIN (6PCS/KIT)	3
7	O.L.	1" FLAT WASHER	3
8	521103	WING CYLINDER PIN	3
9	521336	90 DEGREE RESTRICTOR	3
10	521769	HYDRAULIC HOSE 31"	2
11	521335	HYDRAULIC HOSE 24"	2
12	521345	1 x 3 5/16" PIN	3
13	521427	HYDRAULIC HOSE 52"	1
14	521063	HYD ELBOW 45 DEG	3
15	521415	HYDRAULIC HOSE 43"	1
16	521770	3/8" TEE	2
17	521416	MALE BRANCH TEE	2
18	O.L.	M12 x 30" BOLT, & LOCKWASHER	2
19	O.L.	M12 x 40" BOLT, & LOCKWASHER	2
20	528287	HOSE MOUNT BRACKET	1
NOTE:QUANTITIES ARE FOR ONE COMPLETE MACHINE			
O.L. - OBTAIN LOCALLY			

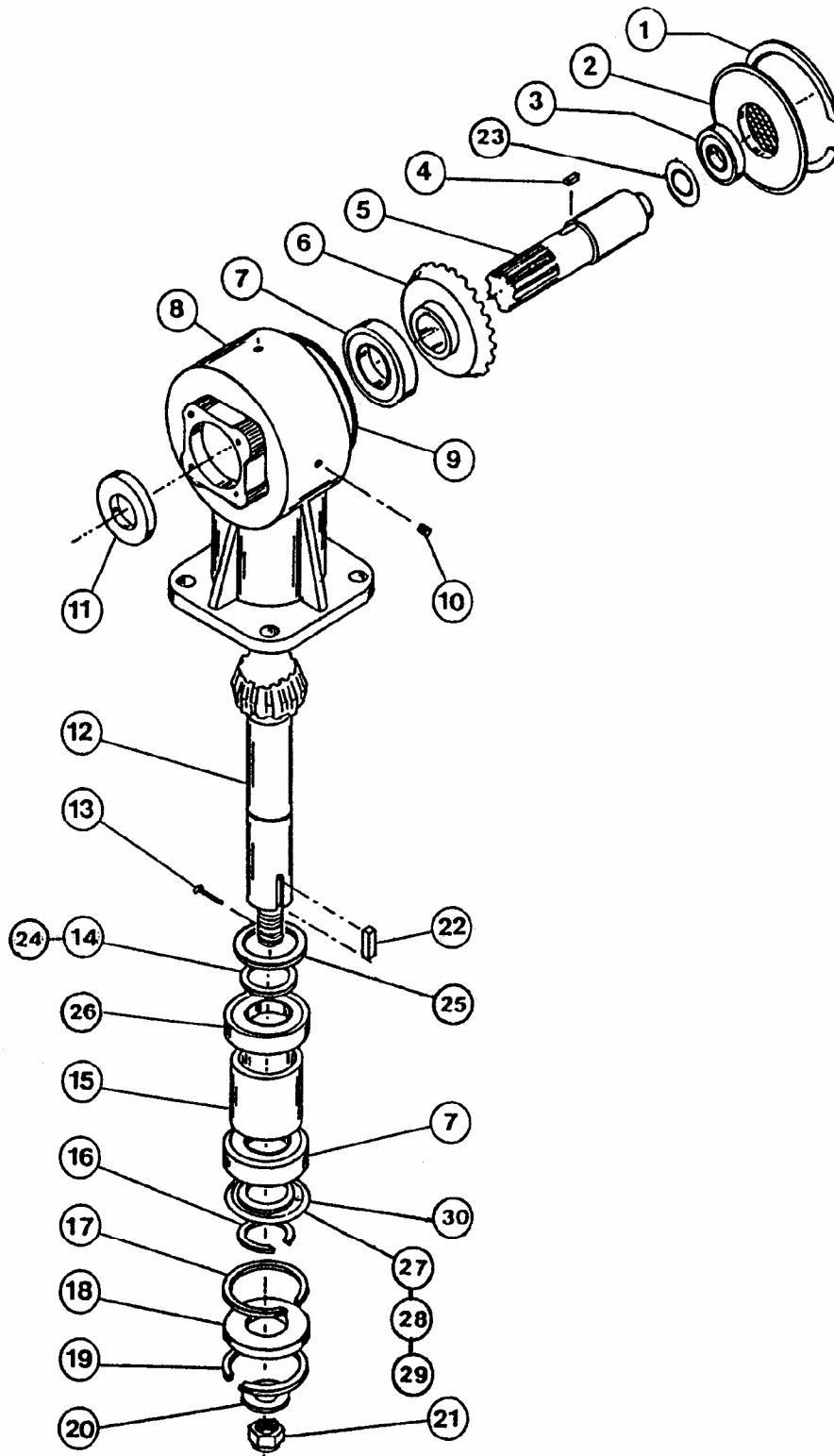
DRIVELINE ASSEMBLY B&D MODELS ONLY			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	528190	INTERMEDIATE MOUNT	1
2	O.L.	1/2" x 2" GR5 HEX BOLT	1
3	528194	INTERMEDIATE SHIELD, C.V. ,CLUTCH	1
4	210250	INPUT PTO SHAFT, CV, CLUTCH	1
5	210230	INPUT PTO SHAFT, CV (B MODELS)	1
6	600430	INTERMEDIATE SHIELD C.V.	1
7	521789	PTO SPACER - 0.400"	4
8	528439	INTERMEDIATE SHIELD BRACKET	1
9	521323	HOUSED FLANGE BEARING 1 3/8"	4
10	O.L.	1/2" GR5 NUT & LOCKWASHER	4
11	210210	INTERMEDIATE PTO SHAFT	1
12	521497	4-WAY GEARBOX	1
13	521033	DECK GEAR BOX (LEFT WING DECK)	1
14	210061	GEARBOX COUNTER CONE (D MODELS)	3
15	O.L.	M8 x 1.25 x 14mm (D MODELS)	12
16	521718	WING DECK PTO SHAFT	2
17	521197	GEARBOX COVER SPACER	4
18	522463	4-WAY GEARBOX COVER	1
19	O.L.	M12 x 40mm GR 8.8 HEX BOLT, LOCKWASHER	2
20	528287	HOSE MOUNT BRACKET	1
21	O.L.	M12 x 30mm GR 8.8 HEX BOLT, LOCKWASHER	2
22	210190	REAR DECK PTO SHAFT	1
23	521012	DECK GEAR BOX (REAR DECK, & RIGHT WING DECK)	2
NOTE: QUANTITIES ARE FOR ONE COMPLETE MOWER			
O.L. - OBTAIN LOCALLY			

DRIVELINE ASSEMBLY
A&C MODELS ONLY



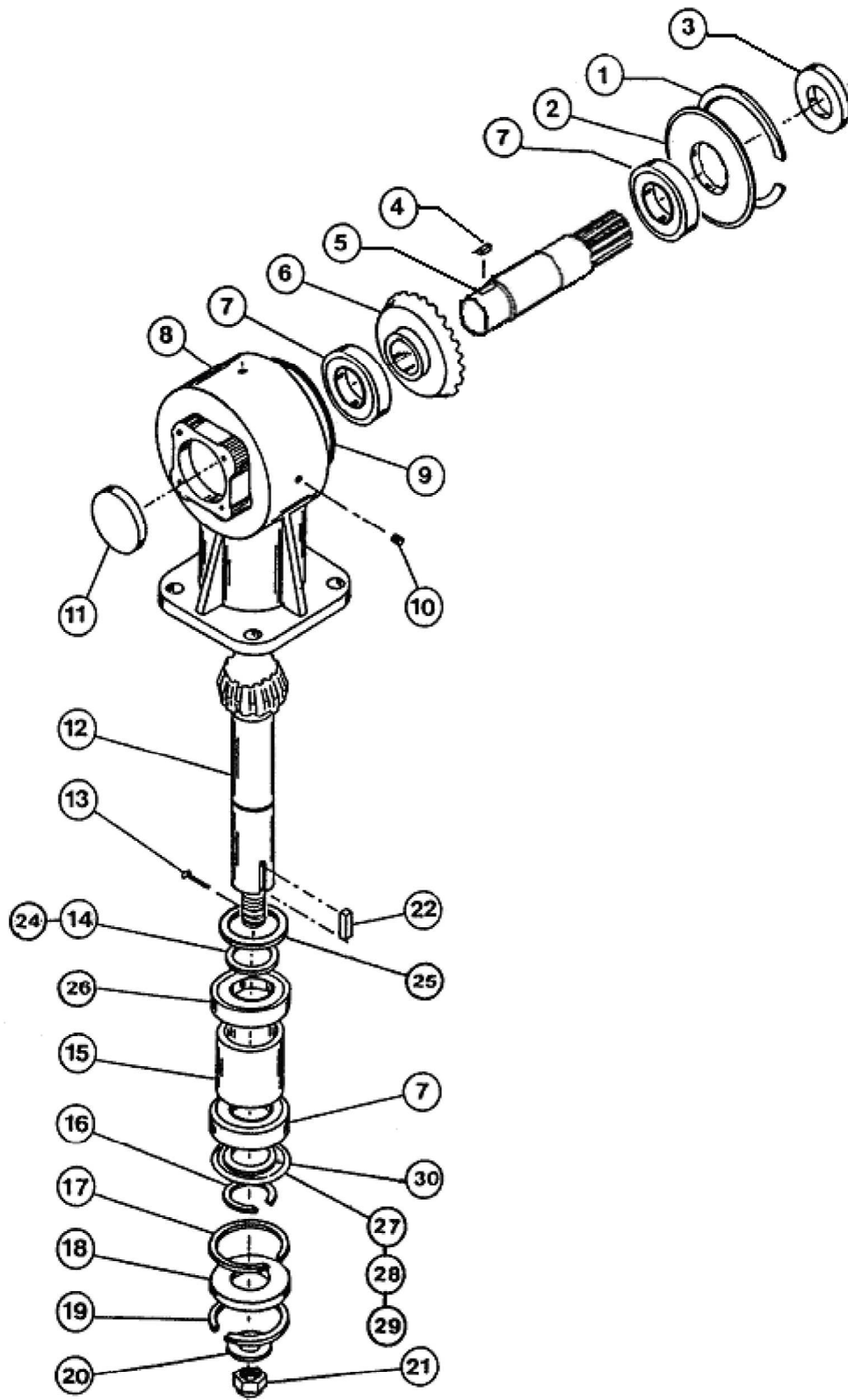
DRIVELINE ASSEMBLY A&C MODELS ONLY			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	521738	INPUT PTO SHAFT, CV, CLUTCH	1
2	521789	PTO SPACER - 0.400"	1
3	O.L.	1/2" x 1 3/4" GR5 HEX BOLT	4
4	210062	COUNTER CONE (C MODEL ONLY)	1
5	521323	HOUSED FLANGE BEARING 1 3/8"	1
6	O.L.	1/2" LOCKWASHER	4
7	O.L.	1/2" GR5 NUT	4
8	528196	FRONT SHIELD/PTO MOUNT	1
9	521725	INTERMEDIATE PTO SHAFT	1
10	521497	4-WAY GEARBOX	1
11	521033	DECK GEAR BOX (LEFT WING DECK)	1
12	210061	GEARBOX COUNTER CONE (C MODELS)	3
13	O.L.	M8 x 1.25 x 14mm (D MODELS)	12
14	521718	WING DECK PTO SHAFT	2
15	521197	GEARBOX COVER SPACER	4
16	522463	4-WAY GEARBOX COVER	1
17	O.L.	M12 x 40mm GR 8.8 HEX BOLT, LOCKWASHER	2
18	528287	HOSE MOUNT BRACKET	1
19	O.L.	M12 x 30mm GR 8.8 HEX BOLT, LOCKWASHER	2
20	210190	REAR DECK PTO SHAFT	1
21	521012	DECK GEAR BOX (REAR DECK, & RIGHT WING DECK)	2
NOTE: QUANTITIES ARE FOR ONE COMPLETE MOWER			
O.L. - OBTAIN LOCALLY			

DECK GEARBOX REAR DECK AND RIGHT DECK



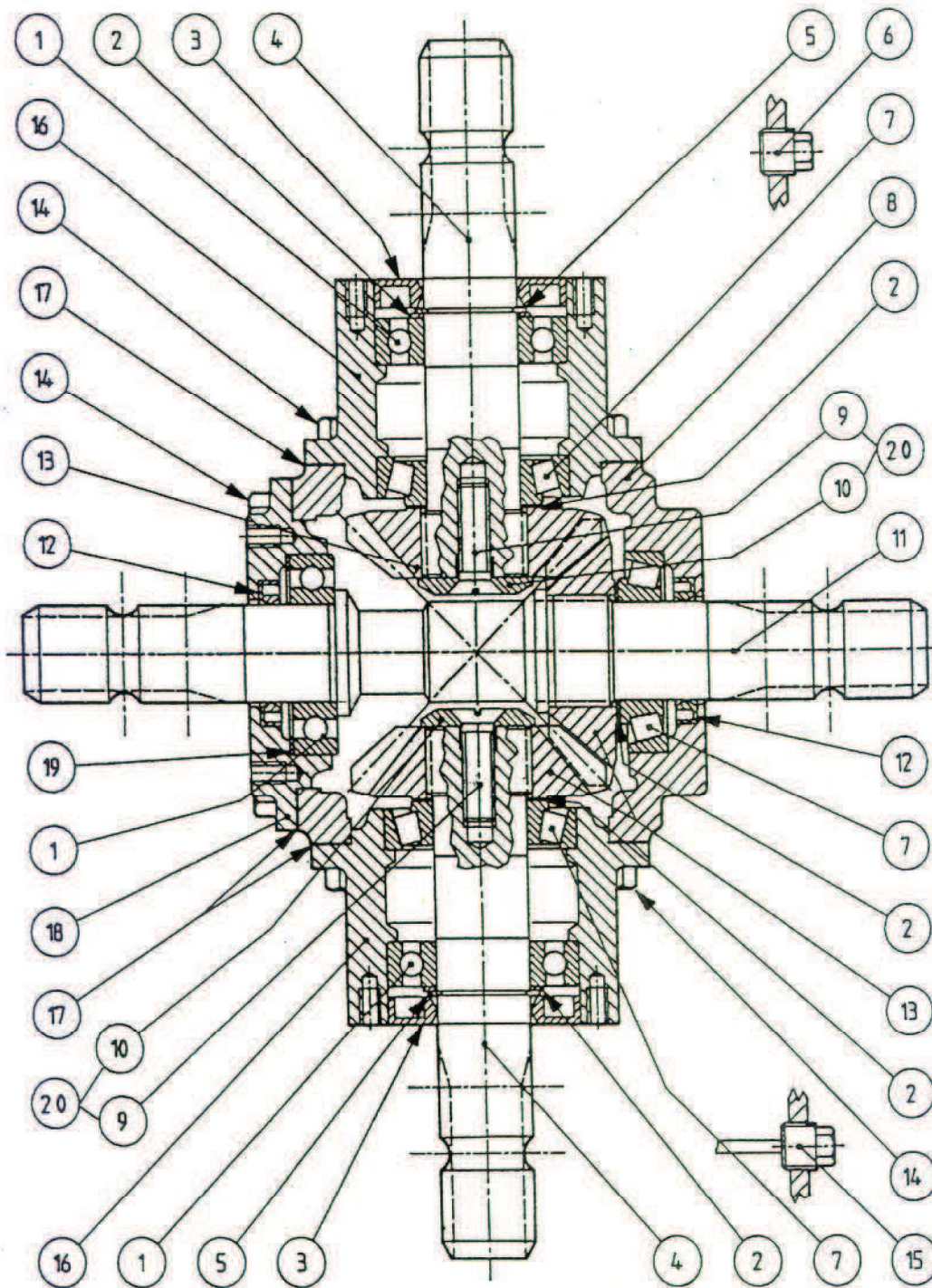
DECK GEARBOX REAR DECK AND RIGHT DECK			
ITEM	PART #	DESCRIPTION	QTY
1	521110	SNAP RING	1
2	521111	COVER PLATE	1
3	521112	BEARING - 6205	1
4	521113	KEY - 10 X 8 X 30	1
5	521114	SHAFT - 1 3/8" X 6 SPLINE	1
6	521115	GEAR	1
7	521116	BEARING - 6207	2
8	521117	CASING	1
9	521118	O - RING	1
10	521482	3/8" PIPE PLUG	2
11	521120	OIL SEAL - 35 X 52 X 7	1
12	521121	PINION SHAFT	1
13	521122	COTTERPIN - B5 X 50	1
14	521123	SHIM - 259.7504 AR (3PC/KIT)	2
15	521124	SPACER TUBE	1
16	521125	SNAP RING - 35 UNI 7435 (3PC/KIT)	1
17	521126	SNAP RING - 72 UNI 7437 (3PC/KIT)	1
18	521127	DOUBLE LIP SEAL - 35 X 72 X 10/8	1
19	521128	SNAP RING - SB72	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	521359	SHIM	1
24	521360	SHIM 259.7503 AR	1
25	521361	SPACER RING TAPERED	1
26	521362	BEARING TAPERED (30207A)	1
27	521491	SHIM - 248.7505 (KIT) AR	1
28	521491	SHIM - 248.7504 (KIT) AR	1
29	521491	SHIM - 248.7503 (KIT) AR	1
30	521366	SHIM - 259.7505 AR	1
	521012	COMPLETE DECK GEARBOX	1
-	-	NOTE: QUANTITIES ARE FOR ONE COMPLETE MOWER	-
-	-	O.L. - OBTAIN LOCALLY	-

LEFT DECK GEARBOX



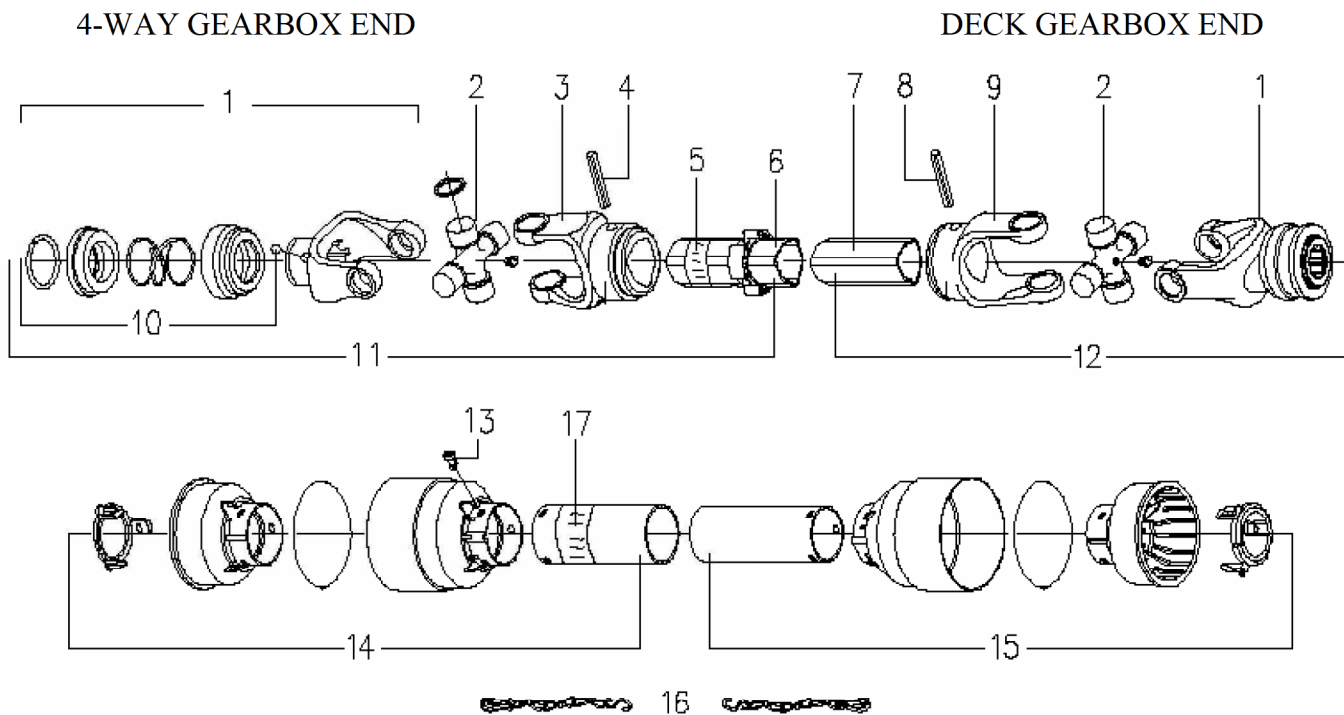
LEFT DECK GEARBOX			
ITEM	PART #	DESCRIPTION	QTY
1	521110	SNAP RING	1
2	521203	OUTPUT SHAFT COVER PLATE	1
3	521120	OIL SEAL - 35 X 52 X 7	1
4	521113	KEY - 10 X 8 X 30	1
5	521201	OUTPUT SHAFT - 1 3/8" X 6 SPLINE	1
6	521115	GEAR	1
7	521116	BEARING - 6207	2
8	521117	CASING	1
9	521118	O - RING	1
10	521482	3/8" PIPE PLUG	2
11	521149	CASE PLUG	1
12	521121	PINION SHAFT	1
13	521122	COTTERPIN - B5 X 50	1
14	521123	SHIM - 259.7504 AR (3PC/KIT)	2
15	521124	SPACER TUBE	1
16	521125	SNAP RING - 35 UNI 7435 (3PC/KIT)	1
17	521126	SNAP RING - 72 UNI 7437 (3PC/KIT)	1
18	521127	DOUBLE LIP SEAL - 35 X 72 X 10/8	1
19	521128	SNAP RING - SB72	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
24	521360	SHIM 259.7503 AR	1
25	521361	SPACER RING TAPERED	1
26	521362	BEARING TAPERED (30207A)	1
27	521491	SHIM - 248.7505 (KIT) AR	1
28	521491	SHIM - 248.7504 (KIT) AR	1
29	521491	SHIM - 248.7503 (KIT) AR	1
30	521366	SHIM - 259.7505 AR	1
	521033	COMPLETE DECK GEARBOX	1
-	-	NOTE: QUANTITIES ARE FOR ONE COMPLETE MOWER	-
-	-	O.L. - OBTAIN LOCALLY	-

4 - WAY GEARBOX ASSEMBLY



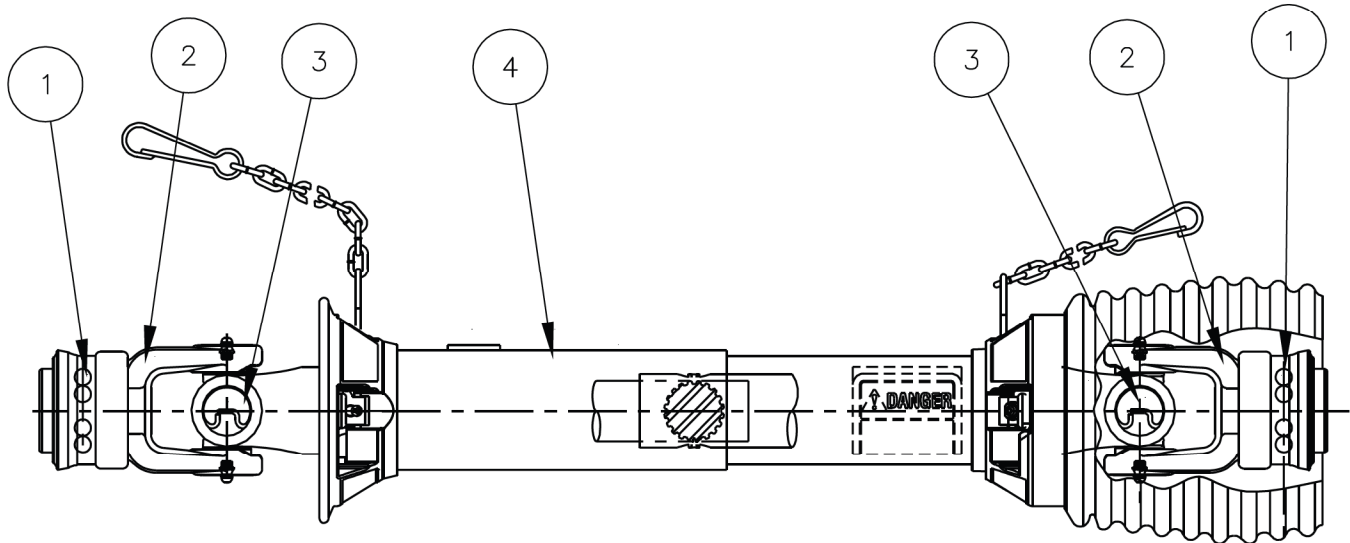
4-WAY GEARBOX ASSEMBLY			
ITEM	PART NO.	DESCRIPTION	QTY
1	521116	BEARING 6207	3
2	521794	SHIM KIT - 48.0	6
3	521127	OIL SEAL - 35 X 72 X 10/7	2
4	521481	STUB SHAFT - 1 3/8" SPLINE	2
5	521137	SNAP RING - 35 UNI 7435	4
6	521482	3/8" PIPE PLUG	2
7	521362	BEARING - 30207	3
8	521483	HOUSING	1
9	ITEM 20	BOLT - 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
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
20	522426	BOLT KIT - ITEMS 9 (2) & 10 (2)	1
*****	521497	COMPLETE GEAR BOX	1
QUANTITIES ARE FOR ONE COMPLETE MOWER			
O.L. - OBTAIN LOCALLY			

WING DECK PTO ASSEMBLY



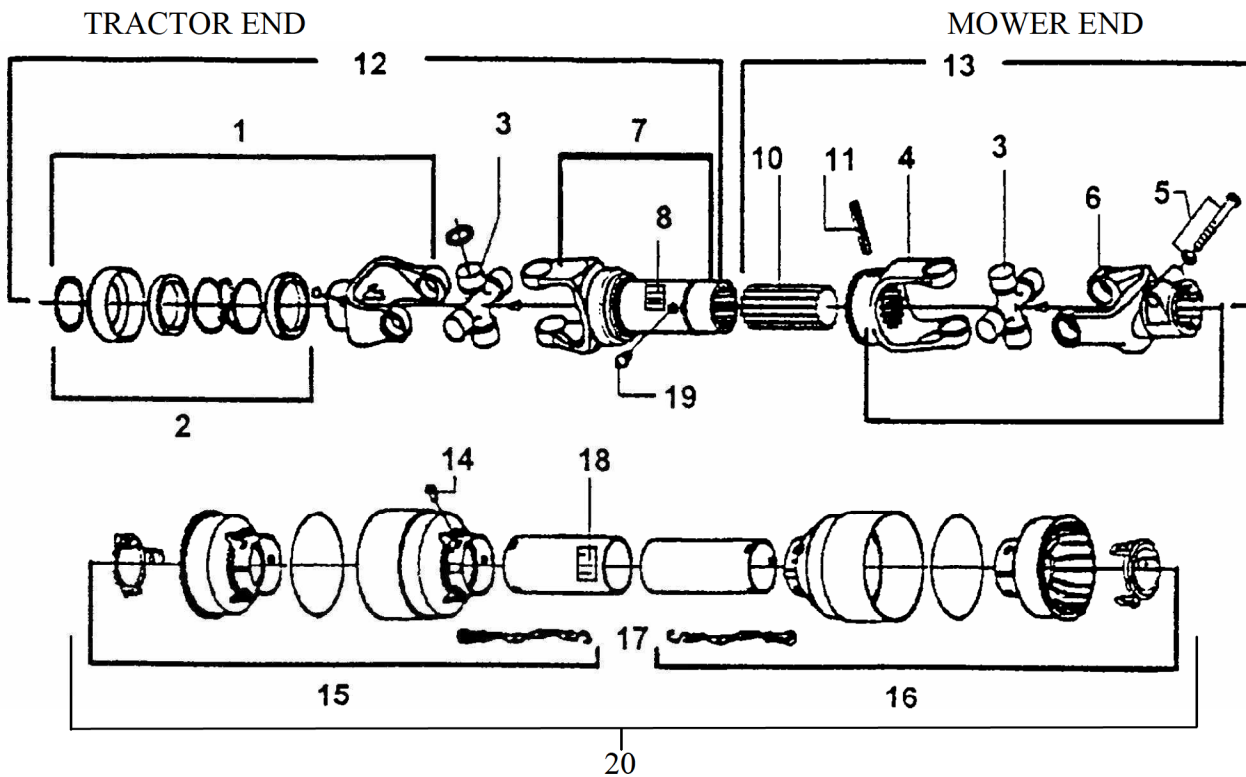
ITEM	PART #	DESCRIPTION	QTY.
1	521778	QD. YOKE 1 3/8" - 6 SPLINE (CO2)	2
2	521779	CROSS & BEARING KIT	2
3	521780	OUTER TUBE YOKE	1
4	521781	ROLL PIN FOR OUTER TUBE	1
5	521451	"DANGER" LABEL FOR OUTER TUBE	1
6	521712	OUTER TUBE	1
7	521713	INNER TUBE	1
8	521782	ROLL PIN FOR INNER TUBE	1
9	521783	INNER TUBE YOKE	1
10	210017 521727	COLLAR KIT (STEEL) COLLAR KIT (PLASTIC)	1
11	521714	1/2 FEMALE SHAFT WITH SHIELDING	1
12	521715	1/2 MALE SHAFT WITH SHIELDING	1
13	521463	PLASTIC SHIELD BOLT (6PC/KIT)	6
14	521716	1/2 FEMALE SHIELD WITH LABEL	1
15	521717	1/2 MALE SHIELD	1
16	521467	SAFETY CHAIN	2
17	521455	"DANGER" LABEL FOR OUTER SHIELD	1
****	521718	COMPLETE PTO SHAFT	2/ MACH
-	-	QUANTITY IS FOR ONE COMPLETE SHAFT	-

REAR DECK PTO SHAFT



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	210196	SPRING-LOK REPAIR KIT	2
2	210192	SPRING-LOK YOKE ASSEMBLY	2
3	210191	CROSS & BEARING KIT	2
4	210195	COMPLETE GUARD SET	1
-	210190	COMPLETE PTO SHAFT	
		QUANTITY IS FOR ONE COMPLETE PTO SHAFT	

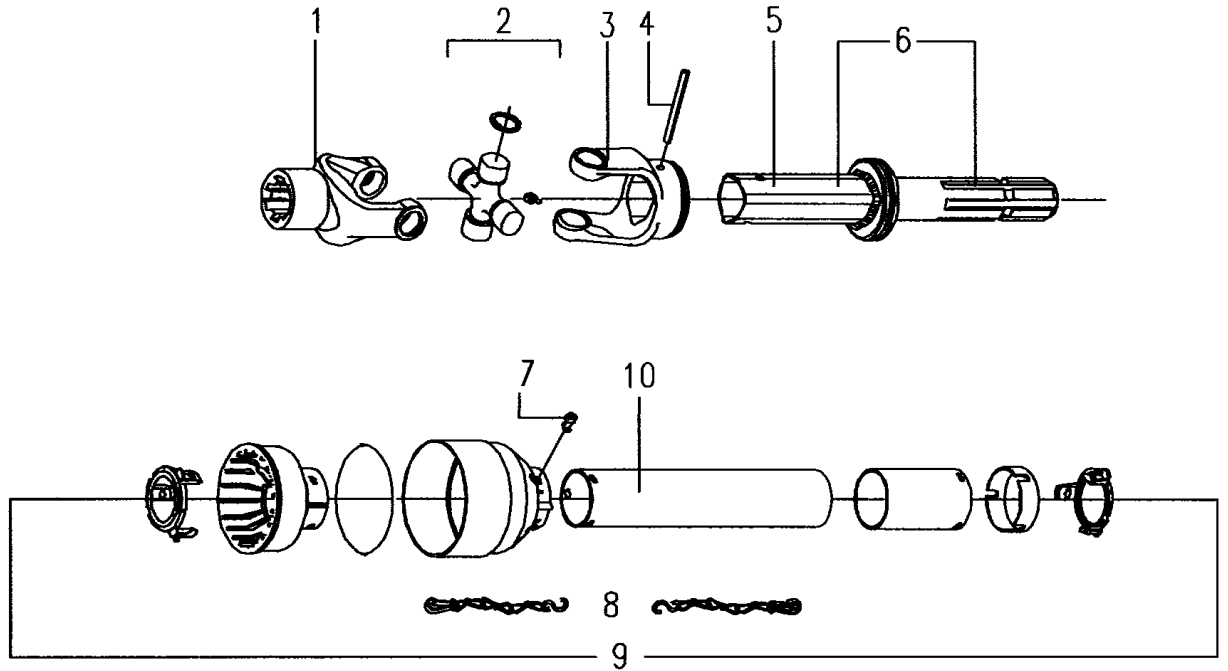
INPUT PTO SHAFT A & C MODELS ONLY



ITEM	PART #	DESCRIPTION	QTY.
1	521726	QD YOKE 1 3/8" - 6 SPLINE (CO2)	1
2	210017	COLLAR KIT - STEEL	1
	521727	COLLAR KIT - PLASTIC	
3	521720	CROSS & BEARING KIT	2
4	521728	INNER TUBE YOKE	1
5	521729	BOLT M12 X 1.25 X 65 NUT	1
6	521730	INTERFERING BOLT CLAMP YOKE	1
7	521731	OUTER TUBE & YOKE WITH LABEL	1
8	521451	"DANGER" DECAL	1
10	521732	SPLINED SHAFT	1
11	521733	ROLL PIN FOR INNER TUBE	1
12	521734	1/2 FEMALE SHAFT WITH SHIELDING	1
13	521735	1/2 MALE SHAFT WITH SHIELDING	1
14	521463	PLASTIC SHIELD BOLT (6PC/KIT)	6
15	521736	1/2 FEMALE SHIELD WITH LABEL	1
16	521737	1/2 MALE SHIELD	1
17	521467	SAFETY CHAIN	2
18	521455	"DANGER" LABEL FOR OUTER SHIELD	1
19	521821	GREASE FITTING	2
20	521768	COMPLETE SHIELD KIT	1
****	521738	COMPLETE PTO SHAFT	1

QTY.- REPRESENTS TOTAL NUMBER REQUIRED FOR ONE INPUT PTO ASSEMBLY ONLY.

INTERMEDIATE PTO SHAFT A & C MODELS ONLY

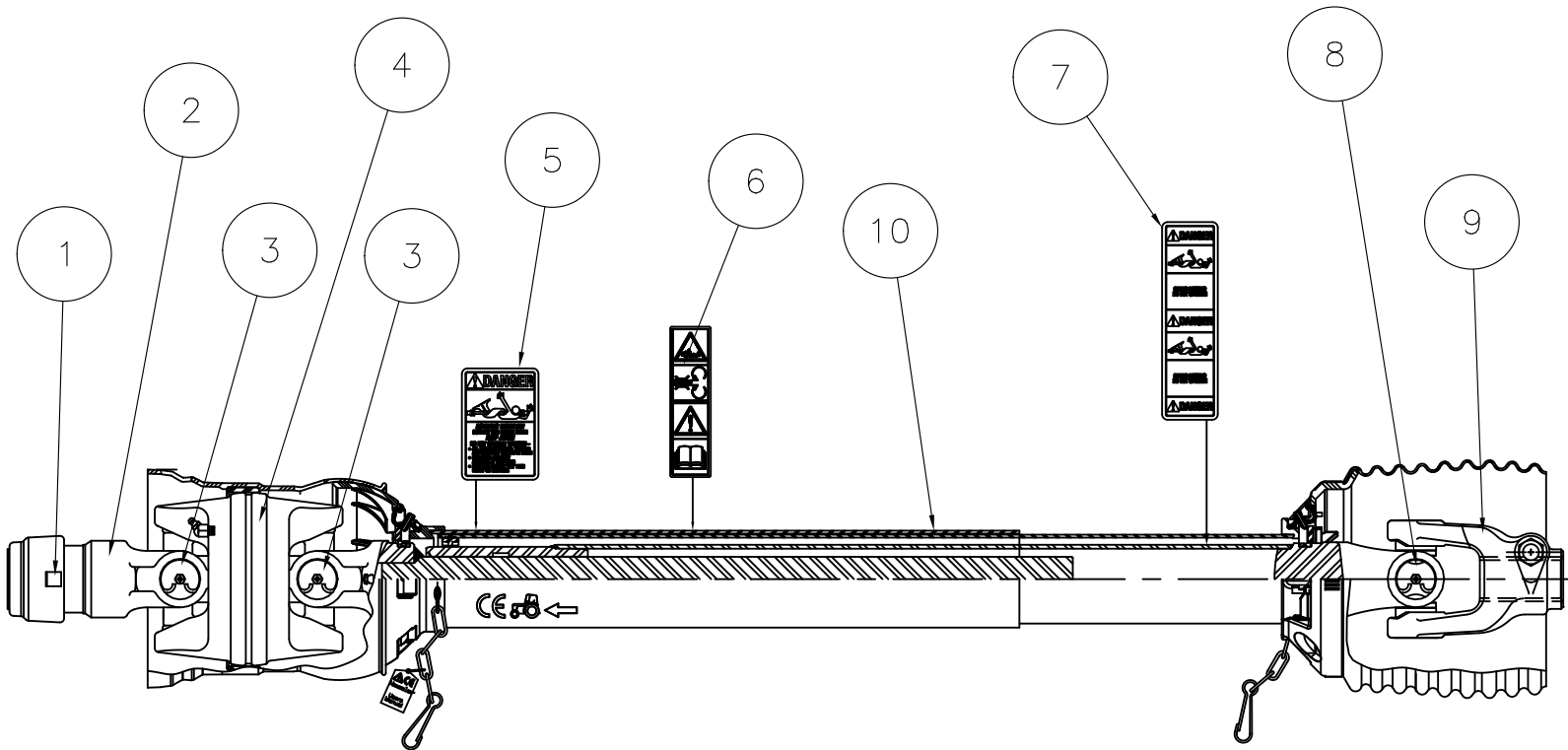


ITEM	PART #	DESCRIPTION	QTY.
1	521719	SPLINED YOKE	1
2	521720	CROSS & BEARING KIT	1
3	521721	YOKE FOR OUTER TUBE	1
4	521722	ROLL PIN FOR OUTER TUBE	1
5	521451	"DANGER" LABEL FOR TUBE	1
6	521723	OUTER TUBE WITH SPLINED SHAFT	1
7	521463	PLASTIC SHIELD BOLT (6PC/KIT)	6
8	521467	SAFETY CHAIN	2
9	521724	COMPLETE SHIELD TYPE "P" WITH LABEL	1
10	521455	"DANGER" LABEL FOR OUTER SHIELD	1
****	521725	COMPLETE PTO ASSEMBLY	1

QTY.- REPRESENTS TOTAL NUMBER REQUIRED FOR ONE INTERMEDIATE PTO ASSEMBLY ONLY.

See Service Bulletin 521725 PTO Shaft; Page 30

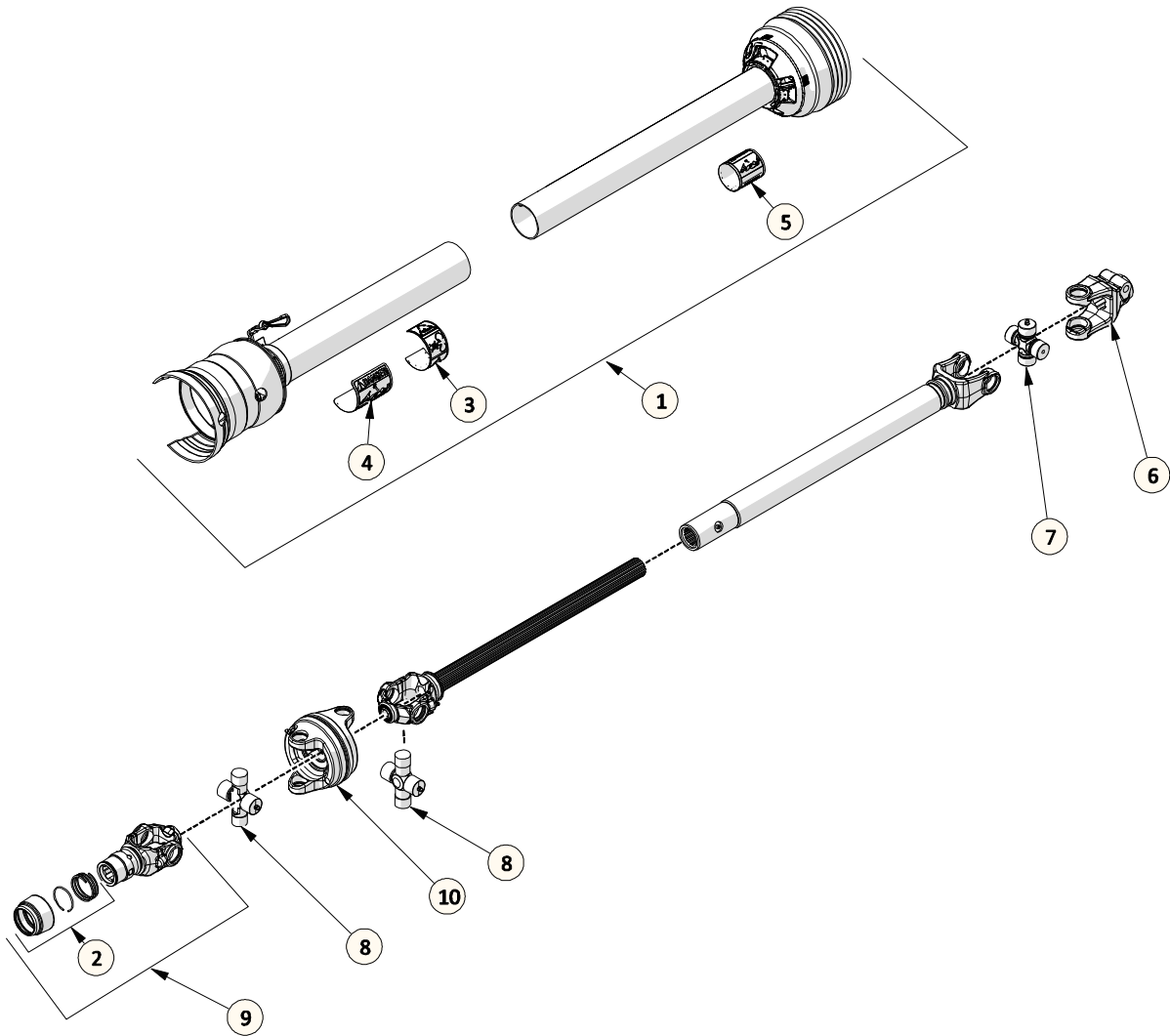
INPUT PTO SHAFT B MODEL ONLY



	PART NUMBER	DESCRIPTION	QTY.
1	210179	SSL/AUTO-LOK REPAIR KIT	1
2	210231	SAFETY SLIDE LOCK YOKE ASM.	1
3	210232	CAT 4 80° E2BL CROSS & BEARING KIT	2
4	210233	CENTER HOUSING	1
5	210237	GUARD SAFETY SIGN	1
6	210238	CE WARNING DECAL	1
7	210239	SHAFT SAFETY SIGN	1
8	210234	35E2BL CROSS & BEARING KIT	1
9	210235	YOKE	1
10	210236	COMPLETE GUARD SET	1
	210230	COMPLETE INPUT SHAFT	1
		QUANTITY IS FOR ONE COMPLETE SHAFT	

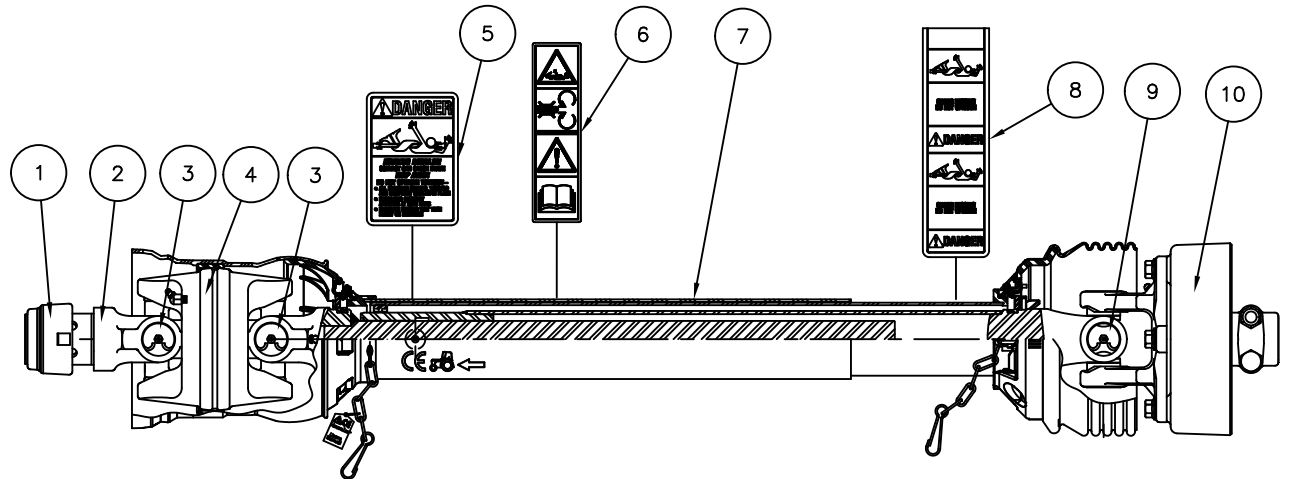
TDR 15: UP TO SERIAL #1115096B
TDR 12: UP TO SERIAL #1212028B

INPUT PTO SHAFT – B MODELS
TDR 15: SERIAL #1215102B AND UP
TDR 12: SERIAL #1312031B AND UP



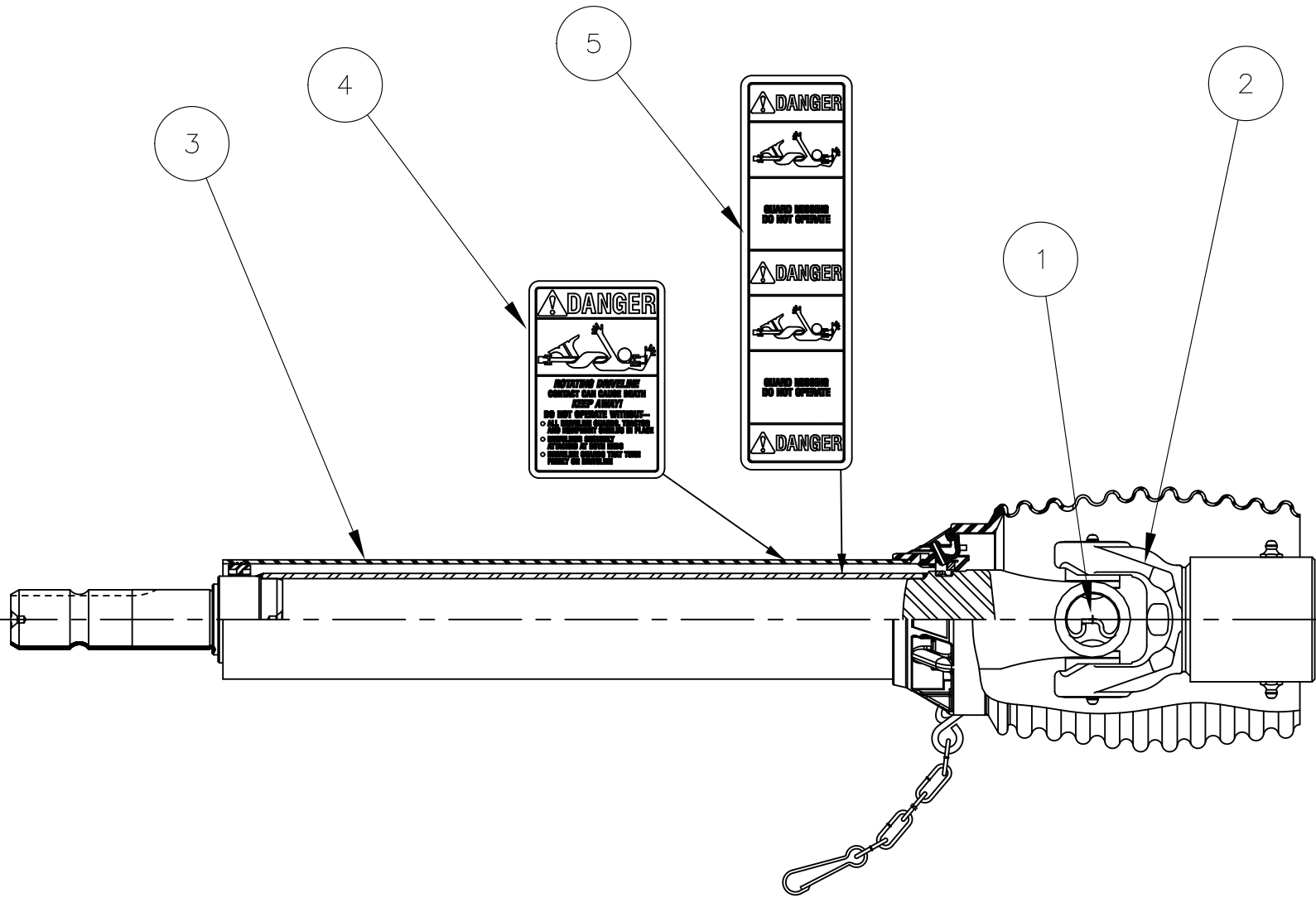
ITEM	PART #	DESCRIPTION	QTY
1	210286	COMPLETE GUARD SET	1
2	210179	SLIDE LOCK REPAIR KIT (44E)	1
3	210238	CE WARNING DECAL	1
4	210237	SAFETY SIGN - OUTER GUARD	1
5	210239	SAFETY SIGN - INNER GUARD	1
6	210235	35 SERIES CLAMP YOKE	1
7	210234	35E2BL CROSS KIT	1
8	210284	CAT 4 80 EBL CROSS & BRG KIT	2
9	210283	AUTO LOK YOKE ASSEMBLY	1
10	210281	CENTER HOUSING	1
11	210280	INPUT PTO CAT 4-80 DEG CV (COMPLETE)	1

INPUT PTO SHAFT D MODEL ONLY



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	210179	AUTO-LOK REPAIR KIT	1
2	210231	AUTO-LOK YOKE ASSEMBLY	1
3	210232	CROSS & BEARING KIT	2
4	210233	CENTER HOUSING	1
5	210237	GUARD SAFETY SIGN	1
6	210238	C.E. WARNING DECAL	1
7	210255	COMPLETE GUARD SET	1
8	210239	SHAFT SAFETY SIGN	1
9	210234	CROSS & BEARING KIT	1
10	210257	AUTOMATIC CLUTCH ASM.	1
-	210250	COMPLETE PTO SHAFT	
		QUANTITY IS FOR ONE COMPLETE PTO SHAFT	

INTERMEDIATE SHAFT B & D MODELS ONLY



ITEM	PART NUMBER	DESCRIPTION	QTY
1	210234	35E2BL CROSS & BEARING KIT	1
2	210212	OVERRUNNING CLUTCH ASM	1
3	210211	GUARD	1
4	210237	GUARD SAFETY SIGN	1
5	210239	SHAFT SAFETY SIGN	1
	210210	COMPLETE PTO SHAFT	1
		QUANTITY IS FOR ONE COMPLETE PTO SHAFT	

Service Bulletin: 521725 PTO Shaft

Part #521725, Intermediate Z50 shaft used on Pro-flex 120/TD65/TD65-2

For a period between 2003 and 2006, this PTO shaft was changed to one with a new shield. The shielding seen in "Diagram 1A" was used before this, and was changed to shielding seen in "Diagram 2B" for this period of time. See diagrams below on page.

If your Progressive Mower has an intermediate shaft with shielding as seen in "Diagram 2B", the parts breakdown listing for the inner yoke found in your machine parts book is incorrect. Part #521721 (Yoke - Outer Tube) must be changed to Part #521721.50 (Yoke - Inner Tube). The size of hole for mounting yoke on the shaft is different in each application.

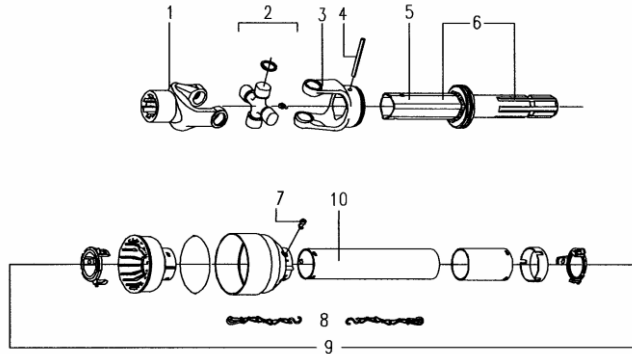
Diagram 1A



Diagram 2B



INTERMEDIATE PTOSHAFT A & C MODELS ONLY



INTERMEDIATE PTO SHAFT

	1A	2B		
ITEM	PN	PN	DESCRIPTION	QTY.
1	521719	521719	SPLINED YOKE	1
2	521720	521720	CROSS & BEARING KIT	1
3	521721	521721.50	YOKE FOR OUTER TUBE	1
4	521722	521722	ROLL PIN FOR OUTER TUBE	1
5	521451	521451	"DANGER" LABEL FOR TUBE	1
6	521723	522050	OUTER TUBE WITH SPLINED SHAFT	1
7	521463	521463	PLASTIC SHIELD BOLT (6PC/KIT)	6
8	521467	521467	SAFETY CHAIN	2
9	521724	522060	COMPLETE SHIELD TYPE "P" WITH LABEL	1
10	521455	521455	"DANGER" LABEL FOR OUTER SHIELD	1
****	521725		COMPLETED	1

**HIGHLIGHTED PARTS ARE REQUIRED FOR SHAFT 2B SERVICE PARTS
QTY.- REPRESENTS TOTAL NUMBER REQUIRED
FOR ONE INTERMEDIATE PTO ASSEMBLY ONLY**