

# Operator's Manual and Parts List

## TD92

### Rotary Finish Mowers

Serial No. 16941001 and up



PROGRESSIVE TURF EQUIPMENT INC.  
137 WEST WILLIAM STREET  
SEAFORTH, ONTARIO  
CANADA N0K 1W0  
TOLL FREE: 800 668-8873  
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**PROGRESSIVE**  
TURF EQUIPMENT INC.

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<b>TABLE OF CONTENTS</b>	<b>PAGE</b>
<b>INTRODUCTION</b> .....	<b>3</b>
<b>FOREWORD</b> .....	<b>3</b>
ITEMS INCLUDED WITH TD92 MOWER .....	4
SERIAL NUMBER LOCATION .....	4
REPLACEMENT PARTS INFORMATION .....	4
UNAUTHORIZED MODIFICATION .....	4
MISUSE OF EQUIPMENT .....	5
NOTIFICATION OF UNAUTHORIZED MODIFICATION OR MISUSE .....	5
PRODUCT DESIGN .....	5
<b>SPECIFICATIONS</b> .....	<b>6</b>
<b>COMPONENT IDENTIFICATION</b> .....	<b>7</b>
<b>SAFETY RULES</b> .....	<b>8</b>
SAFETY ALERT SYMBOL .....	8
HAZARD SERIOUSNESS LEVEL .....	8
GENERAL SAFETY PRECAUTIONS .....	9
POWER UNIT SAFETY .....	9
OPERATING EQUIPMENT SAFELY .....	10
MAINTENANCE SAFETY PRECAUTIONS .....	11
<b>SAFETY DECALS</b> .....	<b>14</b>
DECAL LOCATIONS .....	14
DECAL LISTING .....	15
<b>ASSEMBLY INSTRUCTIONS</b> .....	<b>17</b>
<b>MOWER SETUP FOR OPERATION</b> .....	<b>19</b>
HITCH ADJUSTMENT .....	19
INSTALLING DECK PTO SHAFTS .....	20
HITCHING THE MOWER TO THE TRACTOR .....	21
CONNECTING THE PTO DRIVELINE .....	21
CONNECTING THE HYDRAULICS .....	22
CONNECTING THE PULL ROPE .....	22
MOWER SAFETY LOCKS .....	22
CHECK PTO DRIVELINE DURING MANEUVERS .....	23
CHECK TIRE CONTACT DURING TURNS .....	23
DISCONNECTING THE MOWER .....	24
LONG-TERM STORAGE .....	24
<b>OPERATING THE MOWER</b> .....	<b>25</b>
DAILY CHECK LIST .....	25
RAISING AND LOWERING THE DECKS .....	25
SETTING THE CUTTING HEIGHT .....	26
ENGAGING THE MOWER .....	26
MOWING .....	27
<b>TRANSPORTING THE MOWER</b> .....	<b>28</b>
<b>MAINTENANCE</b> .....	<b>29</b>
LUBRICATION .....	30
"V" BELT DRIVE .....	34
FASTENER INSTALLATION TORQUE .....	35
BLADE SERVICING .....	36
SPINDLE SERVICE .....	39
HYDRAULICS .....	41

SUPPORTING MACHINE FOR SERVICE.....41  
TRANSPORT TIRES.....42  
LONG-TERM STORAGE .....42  
**TROUBLE SHOOTING.....43**  
**NOTES .....44**

## INTRODUCTION

Thank you for purchasing a TD92 series mower. This product is designed and manufactured to allow safe and productive mowing of large areas. A well-maintained machine will provide years of reliable service.

## FOREWORD

This is the Operator's Manual for the TD92 mower. Keep it with the mower at all times. This manual is intended as a guide to the safe use and maintenance of the machine, so before you operate this machine, study this manual carefully.

**Replace this manual immediately if it becomes lost.**

This manual is not considered all-inclusive, so for further information on specific components, e.g. PTO shafts etc refer to the respective documents included with the manual set for this machine.

The TD92 series is a production turf grass finishing mower with a 22 foot cutting width, and is designed to be pulled by a 45-70 PTO horsepower tractor. High blade tip speed gives this versatile mower the ability to mow both slightly contoured and flat terrain that requires a high quality after-cut appearance

### Features:

- Three independent, fully floating decks
- Low power input per cutting width
- Cut height can be set on each deck between 1 inch and 5 inches
- Combination of swivelling and rigid castor wheels ensures true straight line tracking and easy turning without scuffing
- Automatic mechanical deck locks for transport

### Applications:

- Turf grass farms
- Park lands and recreational areas
- Grass runways



Modifications are officially approved if at least one of the following conditions is met:

- i. The attachment, accessory or part is distributed by Progressive Turf Equipment Inc. and is intended for a TD92 mower application and installed in an approved manner as described in Progressive Turf Equipment Inc.'s provided instructions; or
- ii. The modification has been approved in writing by the Progressive Turf Equipment Inc.'s Engineering Manager.

No other entity is authorized by Progressive Turf Equipment Inc. to provide such approval.

## **MISUSE OF EQUIPMENT**

It is incumbent upon the owner and selling dealer along with their respective employees to warn and discourage users about the misuse of the equipment whenever knowledge of misuse becomes known, whether the act has, is or could occur. Such acts include, but not limited to: riding upon, use of non-OEM parts, operation on unstable or steeper slopes than specified, operating in explosive or fire-hazard areas, modifications that alter the original machine specifications or use other than originally intended, etc.

## **NOTIFICATION OF UNAUTHORIZED MODIFICATION OR MISUSE**

If any person, employee, agent, dealer or distributor becomes aware of any Unauthorized Modification or Misuse of a TD92 mower, either past or intended, it is the responsibility of that person to ensure that Progressive Turf Equipment Inc.'s Engineering Manager is notified of the occurrence promptly. That person shall provide; the facts of the occurrence, location, machine serial number, name and contact information of the persons involved.

Send correspondence regarding Unauthorized Modification or Misuse to:

Progressive Turf Equipment Inc.  
Box 940, 137 West William St.  
Seaforth, Ontario, N0K 1W0  
Canada  
Attn: Engineering Manager

## **PRODUCT DESIGN**

The TD92 mower has been designed and produced using generally acceptable manufacturing processes as is standard in the industry for the type of equipment that is similar to the machine. As such, the useful life of the machine is ten (10) years from the date of manufacture.

### **The official language of the manufacturer is English.**

No responsibility is assumed for translations in other languages, which do not correspond to the original meaning.

Under our policy of continuous improvement, we reserve the right to change specifications and designs without prior notice. The illustrations shown do not necessarily represent the standard version of product offered by Progressive Turf Equipment Inc.

# SPECIFICATIONS

## TD92

### Tractor Requirement

Size (hp)	.....	40-70	.....
PTO Input Speed (rpm)	.....	540	.....
Max. Hydraulic Pressure (psi)	.....	2500	.....

### Machine Specifications

Cutting Width (ft)	.....	22	.....
No. of Blades	.....	9	.....
Turning Radius (uncut circle, in)	.....	0	.....
Ground Pressure (psi)	.....	7	.....
Cutting Height (in)	Minimum	.....	3/4
	Maximum	.....	5
Transport Features	Max. Speed	.....	20 mph
	Safety	.....	SMV Sign & Safety Chain

### Mower Decks

Configuration	3 deck staggered independent
Suspension	4-way floatation
Construction	Replaceable 3/16 in thk skin with reinforced welded tube frame
Spindles	35mm shaft, double ball bearing /w integral blade stiffener
Blades	32" diameter, 5/16" thk. (high-lift std., low-lift & Pro EZ-Change optional)
Blade Mounting	Two bolts/nuts per blade (No internal threads)
Blade Speed	2215 rpm / 18557 sfpm
Tires	(10) 18x9.5-8, 4 ply, 5 Bolt /w tapered roller bearing support
Anti Scalp	Impact Resistant Rollers (front of each wing deck, option on rear)

### Power Transmission

Input Shaft	Cat. 6 1 3/8 dia – 6 Spline, /w auto locking collar
Deck Drive Shafts	Cat. 3 1 3/8 dia – 6 spline /w quick connect yokes
Gearboxes	(4) Cast Iron Housing /w Bevel gears
Deck Drive	Fiber reinforced V-Belts
Belt Tensioning	Positive draw bolt tensioner (1 per deck)

Transport Tires (2) Heavy Duty P275/60R, 6 bolt.

Productivity (acres/hr*)	2 mph	.....	5.4	.....
	4 mph	.....	10.7	.....
	6 mph	.....	16	.....

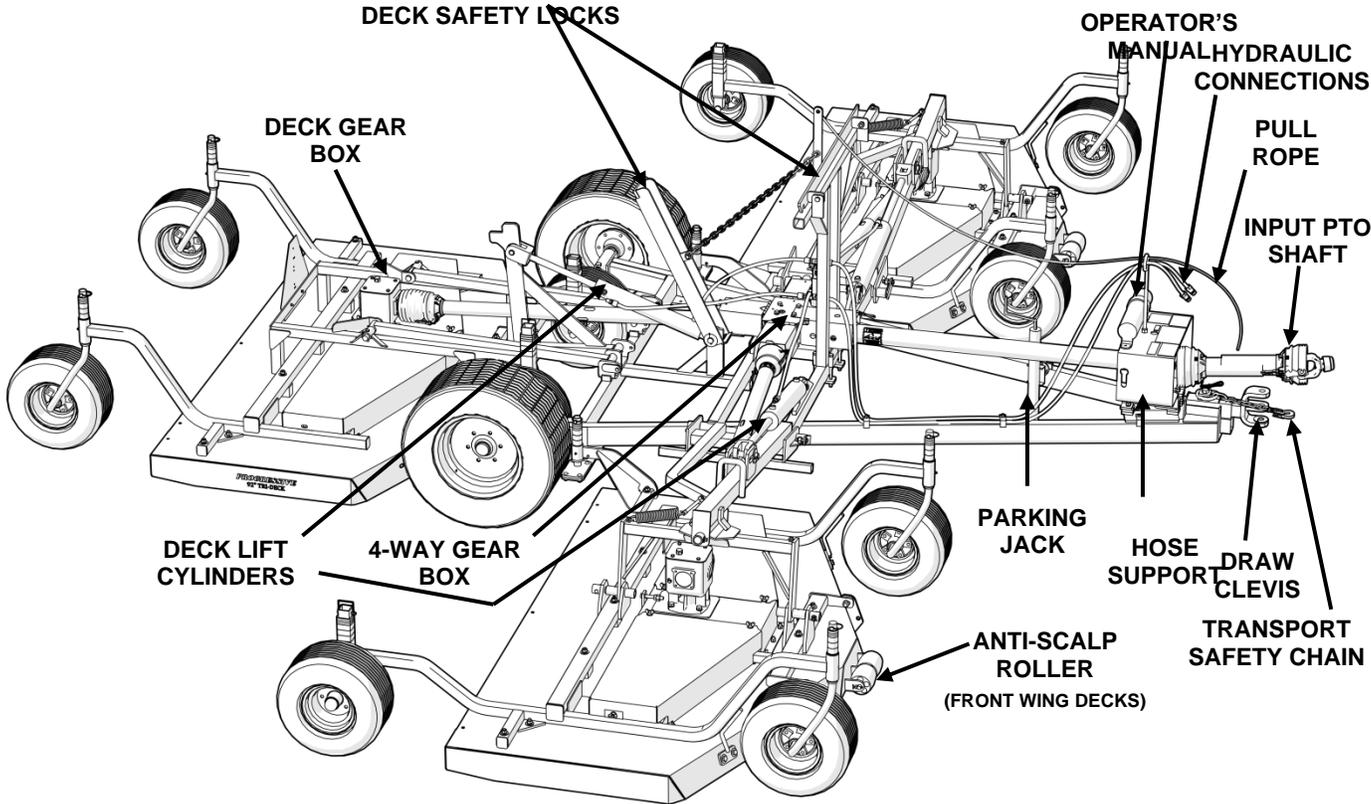
Transport Dimensions (ft)	Width	.....	9.5	.....
	Height	.....	10	.....
	Length	.....	16	.....

Weight (lb)	Machine	.....	4300	.....
	Tongue (transport)	.....	610	.....
	Tongue (mowing)	.....	350	.....

Optional  
 Low-Lift Blades, Pro EZ-Change Blades (Std. & Low Lift)  
 Rear Anti-Scalp Rollers  
 Discharge deflector kit  
 Spare Deck Tire & Carrier

\*assumes no stopping or overlap

# COMPONENT IDENTIFICATION



### NOTES

- 1) 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.

## SAFETY RULES

All rotary mowers are potentially dangerous machines; this mower has been designed to minimize the safety risks to the operator, bystanders and property. This section of the Operator's Manual details a number of safety rules pertaining to the operation and maintenance of Progressive Turf Equipment mowers. In order to minimize risks and promote safety at all times, these rules must always be followed and obeyed.

Further safety rules and warning texts are given within the respective sections of this manual.

**IMPORTANT! - When it comes to safety, nothing will ever replace a careful operator.**

It is imperative that the operator and safety personnel read and understand all of the safety information in this manual before proceeding. Failure to follow the instructions or heed the warnings could result in injury or death.

Proper care is your responsibility.

The manufacturer cannot anticipate every possible circumstance that might involve a hazard. The hazard alerts in this publication and on the product, are therefore not all inclusive. If a tool, procedure, work method, or operating technique not specifically recommended by the manufacturer is used, it is your responsibility to ensure that it is safe for you and others. You should also ensure the machine will not be damaged or made unsafe by the operation, maintenance, or repair procedures you choose. Modifications or adaptations to the machine are not allowed.

Various jurisdictions have specific requirements for work zone safety. Know and adhere to your local requirements. Treat the instructions in this manual as minimum requirements for safe operation.

## SAFETY ALERT SYMBOL

This symbol appears at various points in the manual together with a signal word and warning text. It means – Be alert! Your safety is involved. This symbol is used throughout the manual to call attention to areas in which carelessness or failure to follow specific procedures may result in personal injury or component damage / malfunction or both.

## HAZARD SERIOUSNESS LEVEL

The following signal words are found throughout the manual together with the safety alert symbol to indicate the seriousness level of identified hazards. Their selection is based on the consequence of human interaction with a hazard.

**DANGER!** – Hazards or unsafe practices which WILL result in severe personal injury or death.

**WARNING!** – Hazards or unsafe practices that COULD result in severe personal or death.

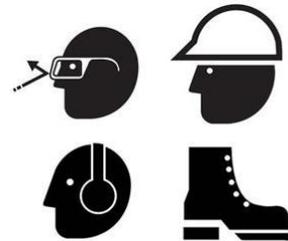
**CAUTION!** – Hazards or unsafe practices that COULD result in minor personal injury or product or property damage



## GENERAL SAFETY PRECAUTIONS

### WARNING!

- The operator of this machine must have sufficient knowledge and instructions in the care and operation of this mower and the power unit being used before he / she uses the machine. Do not allow unauthorized persons or children to operate the machine. Do not allow riders on the machine.
- It is the obligation of the operator to make sure that all guards and shields are in place on the machine. Safety decals must be in place and be readable – accidents may otherwise occur. Contact your dealer or the manufacturer for replacement manuals or decals.
- Never use a machine that does not have an operator's manual available. Learn and understand the safety signs and symbols on the machine and the operator instructions before you begin to use the machine.
- Wear personal protective equipment. Know and use the protective equipment that is to be worn when operating or servicing the machine. Hard hats, protective glasses and face shields, protective shoes, gloves, reflector type vests, and ear protection are types of equipment that may be required. Prolonged exposure to loud noise can cause hearing damage.
- Never operate a mower while under the influence of drugs or alcohol. These make reflexes slow and put you and others in grave danger. Always make sure you have full concentration while mowing.
- Adhere strictly to all regulations at the worksite pertaining to the operation of this equipment.
- Always disengage power takeoff (PTO) when transporting or traveling between work sites.
- Be prepared for emergencies. Have a first aid kit, fire extinguisher and emergency contact information available at the work site.



## POWER UNIT SAFETY

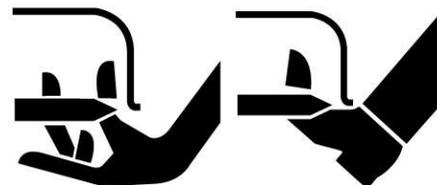
### WARNING!

- The operator must have sufficient knowledge in the care and operation of the power unit (tractor) before connecting power unit to mower. Read and understand power unit operator's manual before connecting mower.
- Power unit must be equipped with ROPS and seat belt. Foldable ROPS must be secured in the upright position. Follow recommendations of power unit manufacturer. Seat belt must be worn at all times.
- Power unit must be equipped with a 1-3/8" 6 spline 540 RPM PTO connection. Never use PTO adapters to connect implements. Never connect mower driveline to 1000 RPM PTO.
- Hydraulic circuits to control mower functions must be set to 2500 psi maximum working pressure.

## OPERATING EQUIPMENT SAFELY

### WARNING!

- Never allow persons to stand between power unit and mower while backing power unit up to hitch the mower.
- Before hitching mower to power unit, place transmission in neutral, set park brake, and turn engine off. Remove the ignition key.
- Make sure locking collar on PTO shaft is properly locked. If the PTO shaft comes off during operation, personal injury or equipment damage could result.
- Tall grass can hide obstacles. Carefully walk the entire area to be mowed beforehand. Look for debris, rocks, tree limbs etc. that will damage or be thrown by the mower blades. Identify objects that cannot be removed. Set mower cutting height to avoid contact.
- Disengage the PTO when crossing gravel areas or roadways.
- Disengage the PTO and turn power unit off upon striking any object. Inspect mower and repair any damage before continuing. Mower blades can cause small objects and debris to be thrown from under the mower deck at high speeds, up to 300 ft away. Objects ejected by the mower blades can cause severe injury.
- If the equipment should start to vibrate abnormally during operation, stop the mower, shut down power unit, and immediately check for the cause. Excess vibration is generally an indication of a problem. Replace bent or damaged parts, do not attempt to straighten a bent blade.
- Ensure that no bystanders are within 10 ft of mower when wing transport locks are released.
- Keep all bystanders well away from the machine when it is operating. Always maintain a safe operating distance from personnel, other equipment, or vehicles.
- Never operate the mower with shields or guards removed.
- Never tamper with safety devices or operate the mower with them removed. Check proper operation regularly.
- Always disengage PTO, place all controls in neutral, turn power unit off, set parking brake, and remove key before dismounting, for any reason.
- Never place hands or feet under mower deck when the mower is operating or power unit engine is running.
- Use extreme care when operating on uneven terrain.
- Reduce speed when operating on slopes during wet conditions, especially when making sharp turns.
- Do not use the mower in limited visibility (e.g. at dusk, in fog, heavy rain etc.). Mow only in daylight or good artificial light.
- Disengage PTO and ensure blades are completely stopped before raising wings.
- Ensure deck safety locks are securely engaged before transporting mower with wings in raised position.
- Be aware of over-head obstacles such as trees, building overhangs when transporting mower.



- Keep away from overhead electrical lines. Electrocutation can occur without direct contact
- Clean reflectors, Slow Moving Vehicle sign and lights before transporting. Use power unit hazard lights.
- Before disconnecting from power unit, always place controls in neutral, set park brake, turn engine off, and wait for all moving parts to stop. Relieve hydraulic pressure per power unit manufacturer's instructions.
- Ensure mower parking jack is securely fastened to mower frame with supplied pin before removing hitch draw pin.

## MAINTENANCE SAFETY PRECAUTIONS

### WARNING!

- Never make adjustments or repairs with the engine running. Always disengage PTO, engage parking brake, turn engine off, lower wings to cutting position and relieve hydraulic pressure before performing any maintenance.
- Observe and perform proper lock-out procedures for power unit if attached to mower during service.
- Keep nuts and bolts tight and properly torqued, especially blade attachment bolts. Check that all cotter pins are properly installed. Keep equipment in good condition.
- Keep mower free of grass, leaves, or other debris build-up.
- Never work on raised mower decks without safety locks in place.
- Periodically check condition of safety devices, guards, and deflectors. Replace only with manufacturer's recommended parts.
- Inspect and replace damaged blades. Use only original OEM parts. Blades can fail from poor maintenance practices.
- Handle mower blades carefully. They are sharp and can cut unprotected skin. Use caution and wear gloves when handling them.
- Check to make sure hydraulic hoses are not worn or damaged, and are routed to avoid chafing.
- Immediately replace any hydraulic hose that shows signs of swelling, wear, leaks or damage so it does not burst.
- Do not use your hand to check for hydraulic oil leaks. Use a piece of cardboard instead.
- Hydraulic fluid escaping under pressure can penetrate the skin causing serious injury. If skin penetration occurs, seek medical attention immediately. Relieve all pressure before disconnecting hoses.
- Do not bend or strike hydraulic lines, tubes or hoses, or reinstall them in a bent or damaged condition.
- Inspect tires daily for wear or damage. Check tire pressures weekly with an accurate pressure gauge. Do not inflate tires beyond 35 psi.
- Mounting and dismounting tires from rims can be dangerous and should be performed by trained personnel using correct tools, equipment and procedures.



- Never perform service on a machine that is supported solely by a jack. Always ensure proper blocking is placed to support load during service. **Do not support the machine on cinder blocks, hollow tiles or other members that may fail under continuous load.**



### WELDING AND GRINDING WORK PRECAUTIONS

**IMPORTANT! A fire extinguisher should be easily accessible during all welding work.**

Welding repairs are to be performed by a trained welder with proper service instructions. Know the material to be welded and select the correct welding procedure and materials (electrodes, rods, wire) that will provide a weld metal strength equivalent to the parent material.

Move the machine to a clean, safe area before welding, grinding or using a cutting torch on it. This type of work should only be done in a clean area and not in places that contain combustible liquids, such as fuel tanks, hydraulic pipes or similar.

Connect arc welder ground as close as possible to work area.

Work with extra care when welding, grinding or torch cutting near flammable objects.

### WORKING ON PAINTED SURFACES

Heated paint gives off poisonous gases. Therefore, paint must be removed from an area with a radius of at least 4 in (10 cm) before carrying out welding, grinding, or gas cutting. In addition to the health hazard, the weld will be of inferior quality and strength if the paint is not removed.

Methods and precautionary measures when removing paint:

Blasting – use respiratory protective equipment and protective goggles.

Paint remover or other chemicals – use a portable air extractor, respiratory protective equipment, and protective gloves.

Grinding – use a portable air extractor, respiratory protective equipment, and protective gloves and goggles.



### WORKING ON GALVANIZED / PLATED SURFACES

Only qualified welders should attempt a weld repair on galvanized or plated components. Proper pre-welding surface preparation is required.

Always ensure proper ventilation, wear proper respiratory protective equipment and avoid direct contact with smoke emitted from welding process.

**HYDRAULIC SYSTEM SERVICE PRECAUTIONS**

**! WARNING!** Risk of personal injury! Wear safety glasses and use protective gloves.

Relieve all trapped pressure before performing any service to the hydraulic system. Pressure can be maintained in the hydraulic circuits long after the power source and pump have been shut down.

Relieve all pressure before disconnecting hoses or tubes.

Tighten all connections before applying pressure.

It is important that each person who comes in contact with the machine be alert to any faults.

Follow these basic precautions:

- Never adjust a pressure relief valve or other pressure-limiting device to a higher pressure than specified.
- Check to make sure hydraulic hoses are not worn or damaged, and are routed to avoid chafing.
- When connecting mower to tractor ensure hydraulic hoses have sufficient slack for negotiating turns and uneven terrain.
- Immediately replace any hydraulic hose that shows signs of swelling, wear, leaks or damage so it does not burst.
- Do not use your hand to check for hydraulic oil leaks. Use a piece of cardboard instead. Hydraulic fluid escaping under pressure can penetrate the skin causing serious injury. If skin penetration occurs, seek medical attention immediately. Relieve all pressure before disconnecting hoses.
- Do not bend or strike high-pressure lines, tubes or hoses, or reinstall them in a bent or damaged condition.



**HYDRAULIC OIL HANDLING PRECAUTIONS**

Oils can irritate and damage the eyes, throat, and sensitive skin. Avoid contact.

Petroleum based oils are hazardous to the environment. Take special care not to spill or discharge these fluids. Use approved containers and methods to handle and dispose of them.

Use an authorized disposal and recycling company.

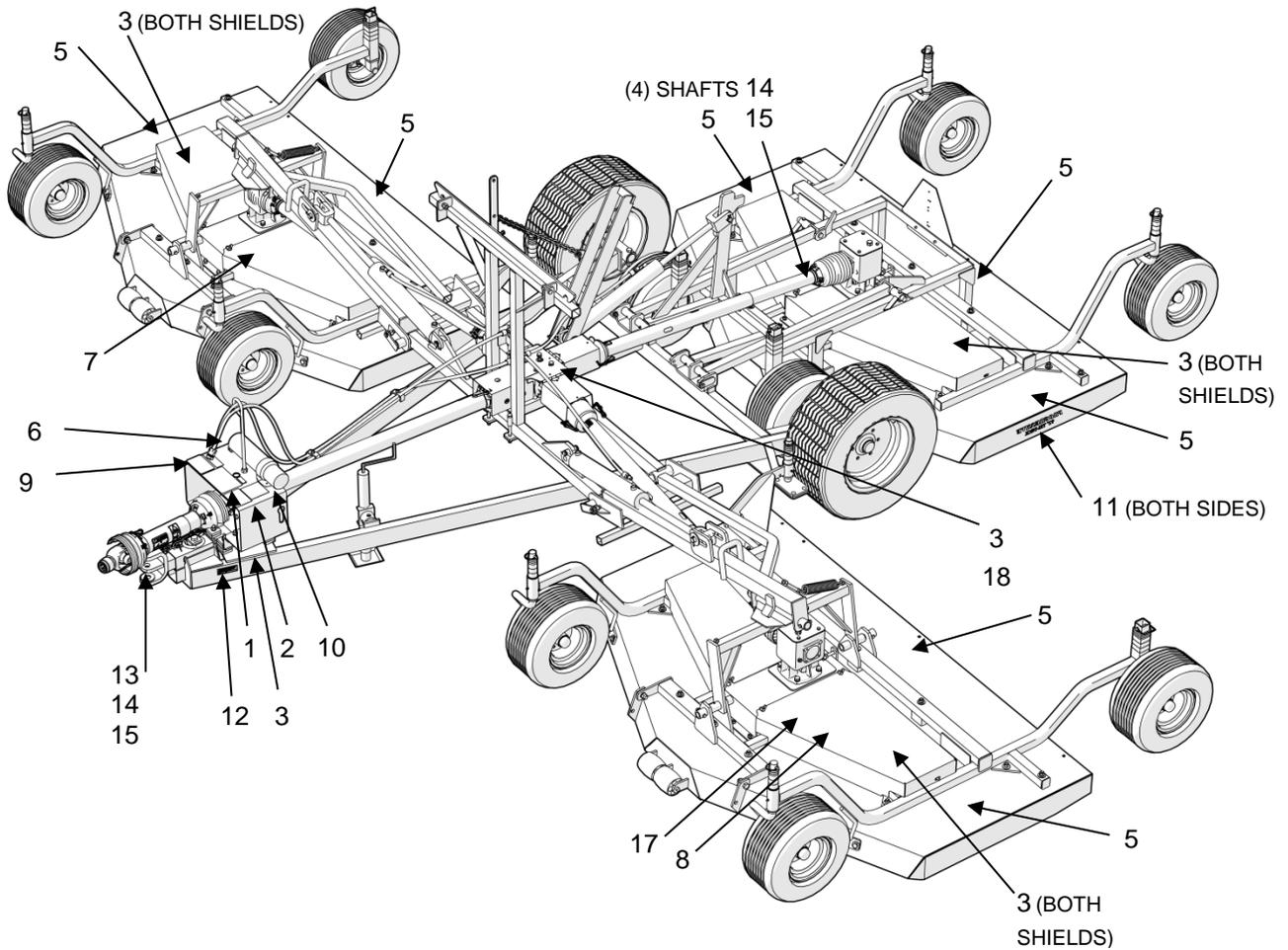
# SAFETY DECALS

## DECAL LOCATIONS

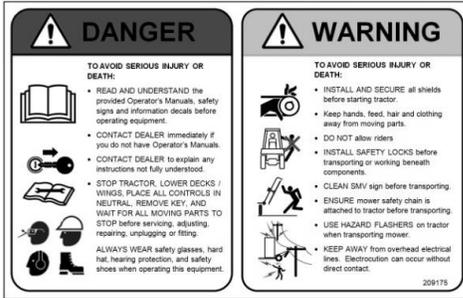


If decals become faded, damaged, or lost, replace immediately.  
 TD92 Order Decal Kit 522002

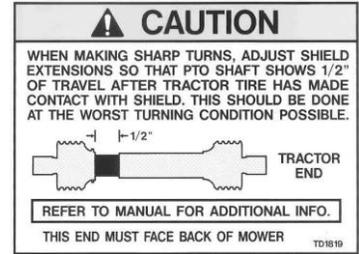
ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY
1	DANGER – READ MANUAL	1	10	NOTICE – HITCH SETUP	2
2	CAUTION - TURNING	1	11	MOWER MODEL	1
3	CAUTION – REPLACE SHIELDS	8	12	SERIAL PLATE	1
4	COMPANY NAME	1	13	SAFETY SIGN – INNER GUARD	2
5	DANGER - BLADE HAZARD	7	14	SAFETY SIGN – OUTER GUARD	2
6	WARNING – OEM PARTS	1	15	DANGER – INNER SHIELD	3
7	CAUTION – DISENGAGE PTO	1	16	GREASE POINT	20
8	GREASING SCHEDULE	1	17	BLADE HARDWARE	1
9	PTO GREASING	1	18	CAUTION - PTO ALIGNMENT	1



# DECAL LISTING



ITEM 1  
(209175)



ITEM 2  
(209171)



ITEM 3  
(209113)



ITEM 4  
(521817)



ITEM 5  
(209173)



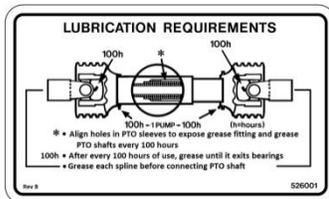
ITEM 6  
(209115)



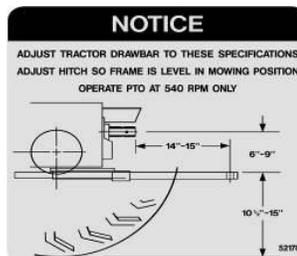
ITEM 7  
(521820)



ITEM 8  
(526003)



ITEM 9  
(526001)



ITEM 10  
(521784)

**PROGRESSIVE**  
**92" TRI-DECK**

ITEM 11  
521816



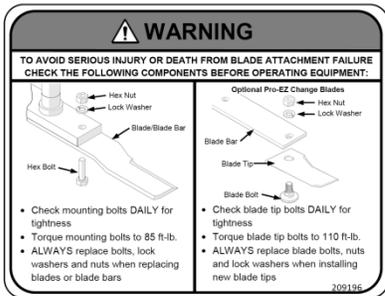
ITEM 13  
(210238)



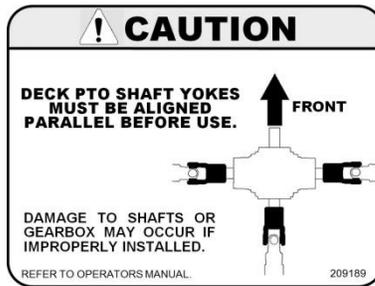
ITEM 14  
(210239)



ITEM 15  
(210237)



ITEM 17  
(209196)



ITEM 18  
(209189)



GREASE POINT DECAL  
(521014)

## ASSEMBLY INSTRUCTIONS

The TD92 mower is partially assembled as delivered. The mower decks are shipped stacked on steel legs, all other components are packaged with the main frame. The machine parts list can be used as a graphical reference for assembly.

- 1) Remove all strapped components from the main frame assembly. (hose support, rear deck safety / cylinder assembly, hitch, transport tires, deck swivels, hardware box).
- 2) Remove all strapped components from the deck stack (PTO shafts, PTO hanger bearing mount)
- 3) Raise rear of frame and install transport tires.
- 4) Raise front of frame and install parking jack.
- 5) The rear deck safety / cylinder assembly is then installed with the supplied pins. The assembly is installed on the cylinder mount in the same orientation as packaged. The rod-end of the cylinder is fastened to the rear-lift mechanism with the lock bar. The cylinder ports facing to the right hand side of the machine.
- 6) Connect the pull chain from the deck safety to the rear deck safety. Ensure there are no twists in chain which can affect operation of the lock release.
- 7) Install the 90 degree hydraulic adapter in the rod end of the cylinder. The adapter port should face toward the front of the machine when the cylinder is in the lowered position.  
\*NOTE - all connections are pipe thread and require thread sealant on all joints at assembly
- 8) Connect the hydraulic hoses to the rear deck cylinder. The long hose (43") connects the bottom tee on the wing lock frame to the 90 degree adapter at the rod end of the cylinder. The short hose (31") is connects the top tee on the wing lock frame to the base end of the cylinder.
- 9) Unwrap the tractor connection hoses and pull rope. Connect the hydraulic hoses to a hydraulic power source. Disengage transport lock and cycle the lift cylinders up and down fully 3 or 4 times to remove all entrapped air from the system. Raise wings to the transport position.
- 10) Remove red pins in from wing bushings and install deck swivels (grease fitting on pinned joint should point to the outside of the machine when wings are lowered).
- 11) The TD92 decks must be lifted from the stand for final assembly.
  - Ensure proper devices are used to lift deck (approximate deck weight 850lb).
  - Securely fasten lifting device to deck assembly and ensure deck assembly is supported by the lifting device before removing fasteners securing deck assembly to legs.
- 12) Lift the decks away and install castor wheels as required. Place the mower deck in the appropriate position at the mower.
- 13) Using the hydraulic power source, lower the wings / rear lift so that the deck pivot pins can be installed.
- 14) Connect wing decks to swivels (pins & fasteners shipped with deck assembly).
- 15) Install the balance springs to the deck swivels (shipped attached to wing).
- 16) Install (3) deck PTO shafts. Be sure that the end with no bell shaped guard is attached to the four-way gear-box (see Page 20).
- 17) Install intermediate PTO shaft & hanger bearing assembly.
- 18) Install hose support shield. Make sure that the grease fitting on the hanger bearing is visible through the hole in the shield for greasing. Run the safety pull rope and hydraulic lines through the eye of the hose support rod.
- 19) Install the front hitch with the bolt provided (see Page 19).
- 20) Grease the intermediate PTO bearing, rear deck lift arms, deck swivels, and check over mower to find any other spots that missed greasing (All wheels are greased before shipping)

### INPUT SHAFT

- 1) Remove ½" UNC retaining bolt/nut from input shaft.
- 2) Remove notification tag from intermediate shaft hanger bearing, ensure gold coloured spacer ring is present against bearing inner race.

- 3) Disconnect input shaft shield at clamp yoke end and slide shield exposing the clamp yoke (see input shaft service instructions in mower manual storage tube).
- 4) Install input shaft clamp yoke on intermediate shaft, ensuring gold coloured spacer ring is in place between the input shaft yoke and hanger bearing race.
- 5) Reinstall ½" UNF retaining bolt in input shaft yoke, torque to 85 ft-lb.
- 6) Reinstall input shaft shield per input shaft service instructions.
- 7) Fasten input shaft guard retaining chain to mower main frame.

**TRANSPORT TIRES**

- 1) Check air pressure in the tires and adjust according to specifications

**Transport Tires – 32 PSI**

**BLADE INSTALLATION**

Blades & attaching hardware for the TD92 mower are shipped loose with the machine and must be installed before use. Blades must be installed in accordance with instructions on page 36 of this manual.

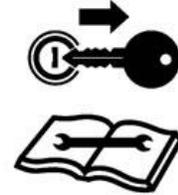
The mower is now ready for pre-delivery inspection and lubrication prior to first use.

## MOWER SETUP FOR OPERATION

### WARNING!

Always refer to tractor operator's manual for specific detailed information regarding operation of equipment.

Always ensure the tractor controls are in the park position, the engine is turned off, the parking brake is engaged and hydraulic pressure to the tractor remote connectors has been relieved when working around tractor during setup procedures.

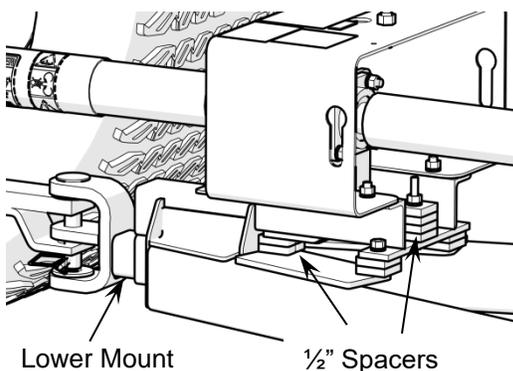
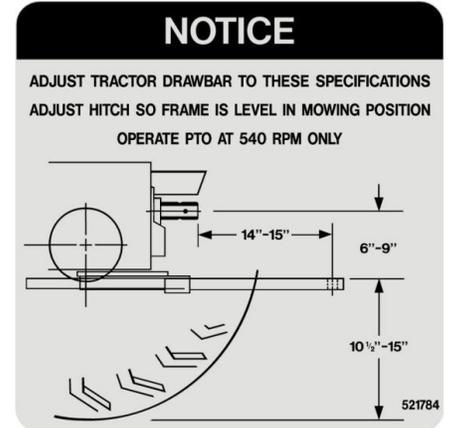


### HITCH ADJUSTMENT

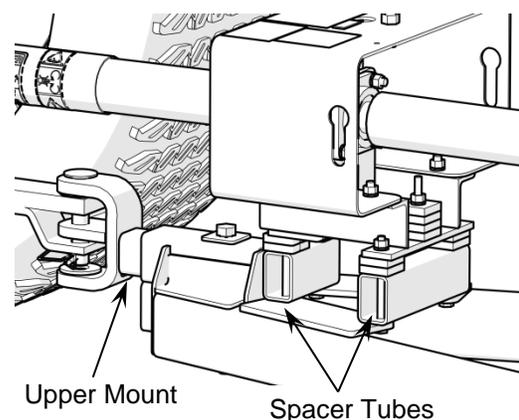
Before hitching the mower to the tractor, ensure tractor drawbar is set properly. Having the proper hitching dimensions for the tractor drawbar and the PTO, will ensure long and trouble free hours of operation. **Incorrect setup may lead to driveline vibration and reduced component life.**

The decal shown is mounted to the machine and indicates these important hitch dimensions.

- 1) The drawbar length must be adjusted so it is 14" to 15" from the end of the PTO shaft to the center of the draw pin.
- 2) The top of the drawbar must be adjusted so it is 6" to 9" from the center of the PTO shaft to the top of the drawbar.
- 3) The main frame of the mower should be level when hitched to the tractor. The TD92 features an adjustable height hitch. There are (2) mounting positions to attach the mower hitch depending on the height of the tractor drawbar:
  - a. 10 ½ - 15" height – use lower hitch mounting location. Adjust input pto alignment using supplied ½" spacers under hanger bearing mount.
  - b. 15 - 19½" height – use upper hitch mounting location WITH 3" spacer tubes AND ½" spacers under hanger bearing mount.
- 4) The hitch can also be mounted in 2 positions (flip over) within each mounting location for further adjustability.
- 5) Using the supplied ½" spacers, adjust the height of the hanger bearing mount so that the input PTO shaft is in-line with the tractor PTO.



10 ½ - 15" Drawbar Height



15 - 19 ½" Drawbar Height

## INSTALLING DECK PTO SHAFTS

Each deck on the TD92 mower is driven by a dedicated PTO shaft from the 4-way gearbox centrally located on the machine frame. Each deck PTO shaft has one end marked "tractor end"; this end must be connected to the 4-way gear box.

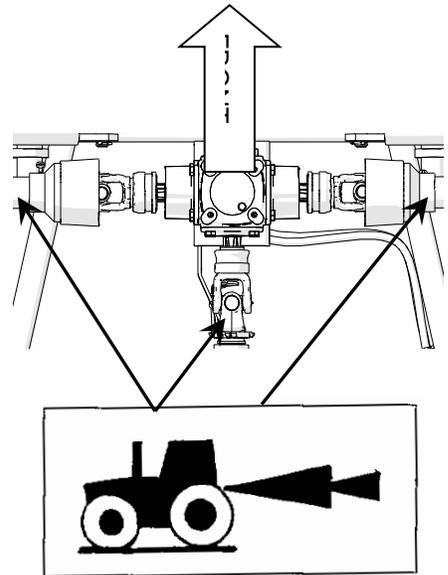
The deck pto shaft yokes must be properly phased (timed) when connected to the 4-way gear box. As shown in the illustration to the right; install all deck shaft yokes in the same orientation (shown with yokes installed "flat").

**\*NOTE – Some guards have been removed in illustration for better clarity. Ensure all guards are reinstalled before operating mower.**

### CAUTION!

Failure to install deck PTO shafts with proper phasing can lead to failure of PTO shaft yoke(s) and/or the gear box when decks are raised into transport position.

All PTO shafts feature non-rotating guards that require proper tethering to the machine. Ensure the tether chains at each end of PTO shaft are securely fastened to the mower framework in a manner that will not bind or pull as the decks are raised and lowered.

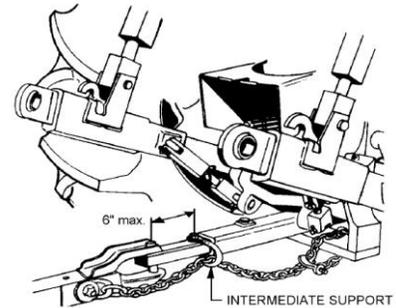


## HITCHING THE MOWER TO THE TRACTOR

### WARNING!

Crushing Hazard between tractor and mower. Never allow anyone to stand between tractor and mower while backing-up to the mower

- 1) Back the tractor to the hitch clevis.
- 2) When the draw pin holes are aligned, place the tractor controls in the park position, shut the engine off and engage the parking brake.
- 3) Place the draw pin in the draw pin hole connecting the mower to the tractor.
- 4) Connect the transport safety chain to the tractor. The chain must pass through the tractor intermediate support and be attached securely to the frame of the tractor (see illustration). Ensure there is no more slack in the safety chain than necessary
- 5) Raise parking jack fully and place in storage position. Remove the parking jack attachment pin and rotate jack 90° to storage position and insert attachment pin.



### CAUTION!

Replace safety chain if one or more links or end fitting is broken, stretched or otherwise damaged or deformed.

## CONNECTING THE PTO DRIVELINE

- 1) Ensure that the tractor engine is shut off, the parking brake is engaged and the mower is securely hitched to the tractor.
- 2) Apply a light coat of grease to the Tractor PTO splines.
- 3) Lift mower input shaft from PTO support, ensuring that PTO support swings down and rests on frame tube.
- 4) Slide the input shaft locking collar backwards, opening the locking mechanism. Locking collar should remain in an open position
- 5) Hold the splined input yoke against the end of the tractor PTO shaft; rotate either the tractor PTO or input driveline by hand until the shaft slides on slightly.
- 6) Slide the yoke fully onto the tractor's PTO, the locking collar should automatically engage when the yoke is properly engaged with the tractor PTO.
- 7) Attempt to move the shaft forward and backwards to ensure that it is securely locked in place.
- 8) Attach the PTO cover safety chain to the tractor. Ensure cover is properly retained by the chain on the mower end.

### WARNING!

If the PTO driveline becomes detached during operation, it may cause personal injury and damage to the driveline and tractor PTO. Always ensure the locking collar is properly engaged.

## CONNECTING THE HYDRAULICS

- 1) Ensure the tractor controls are in the park position, the engine is turned off, the parking brake is engaged and hydraulic pressure to the tractor remote connectors has been relieved per the tractor operator's manual instructions.
- 2) When connecting the hydraulic couplers to the tractor, be sure that both ends are clean. Dirt in the hydraulic system can block the orifice in the cylinder and cause premature wear of hydraulic components on the mower and tractor.
- 3) Ensure the hoses are free to move, between the tractor and mower. During operation of the mower going up and down the hills, the distance between the tractor and mower will change.

### **WARNING!**

Hydraulic fluid escaping under pressure can penetrate the skin causing serious injury. If skin penetration occurs, seek medical attention immediately.

## CONNECTING THE PULL ROPE

The TD92 mower is equipped with a nylon pull rope that is connected to the wing deck release mechanism, used for locking the mower decks into transport position. Connect it to the tractor in a position that is easily accessible to the operator and will release easily if the mower should ever become disconnected.

## MOWER SAFETY LOCKS

Safety locks are provided on for each deck to prevent each from unexpectedly lowering from the transport position in the event of a failure in the hydraulic system.

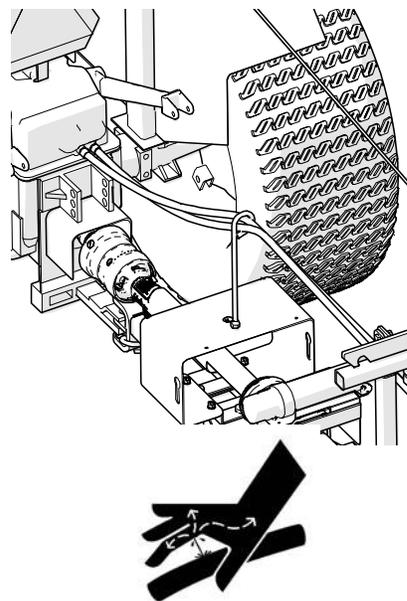
Each deck features an automatically activated safety lock located on the center support structure of the mower.

In order to lower the wings:

- 1) Fully raise the wings (they may have settled against the lock during transport or storage).
- 2) From the operator station in the tractor, pull and hold the pull rope to disengage the locks.
- 3) Lower the wings to the working position using the tractor hydraulic control.
- 4) Release the pull rope when the wings are lowered.

### **WARNING!**

Ensure safety locks are properly engaged before attempting to transport or service mower.



## CHECK PTO DRIVELINE DURING MANEUVERS

The TD92 mower is designed for mowing of uneven, contoured landscape. When negotiating turns, the input PTO shaft will change in length. During mowing of steep contoured conditions, when the tractor starts up a hill the input shaft will collapse and when cresting the hill, it will extend. It is important to make sure that the input shaft does not fully collapse, over-extend or contact the hose support or hose support rod during turns or when travelling over hills.

To ensure proper setup check the following conditions:

- 1) With the tractor in the lowest gear and travelling very slowly, make a sharp turn to the right.
- 2) Watch the driveline shielding to make sure the input shaft does not totally collapse. There should be a minimum of 1/2" of the inner black shielding exposed at maximum turn.
- 3) Ensure input shaft shielding does not come in contact with hose support or hose support rod.

**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. Likewise, traveling straight up or down a hill will either extend or collapse the PTO shaft. The operator should avoid making sharp turns on uneven terrain.

### WARNING!

If the PTO over extends, it will come apart and can cause injury to the operator or damage to the mower or tractor.

### CAUTION!

If the input PTO shaft collapses fully, it will force the shaft back against the hanger bearing. This will cause damage and premature failure of the bearing.

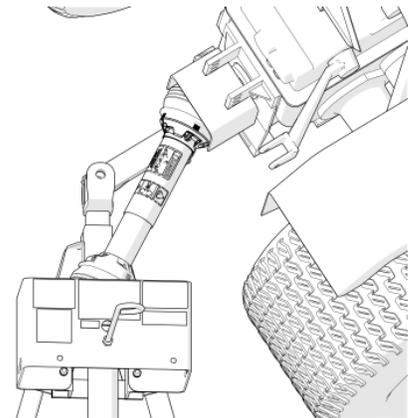
## CHECK TIRE CONTACT DURING TURNS

The TD92 mower features a hose support which also serves the function to limit the steering angle of the mower without damage to components. In proper operation, the tractor tire should contact the hose support first if the operator attempts to turn too sharp without damage to the drive-line.

To check tire contact:

- 1) With the tractor in the lowest gear and travelling very slowly, make a sharp turn.
- 2) As you turn, watch closely to make sure the tractor tires contact the hose support. (not other parts of the mower)
- 3) If the tires do not contact the hose support, adjust tractor tire width (if possible), so they contact the hose support. Contact us for a modified guard.

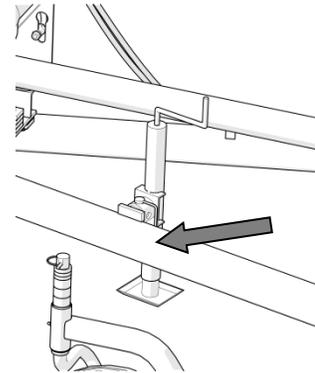
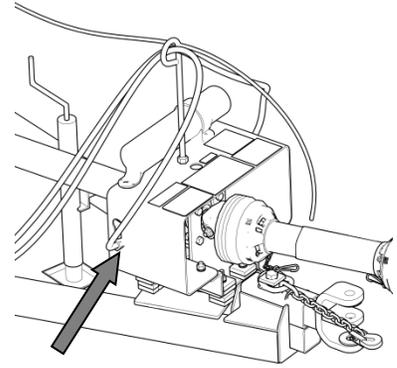
**NOTE:** With proper adjustment, the tire will contact the hose support and will not allow the tractor to turn any further. It will either, prevent the contacted tire from turning, spin the opposite tire, or push the front of the tractor around. This guard will not work with lug style tires.



## DISCONNECTING THE MOWER

In order to prevent collection of rain water on the mower decks, the mower should be stored with the decks in the raised position. Ensure the safety locks are securely engaged before disconnecting the mower from the tractor.

- 1) Place mower on a level surface for storage.
- 2) Ensure that the tractor engine is shut off and the parking brake is engaged.
- 3) Inspect deck safety locks to ensure they are properly engaged (if in the raised position).
- 4) Relieve pressure in the hydraulic hoses per tractor manufacturer's instructions (normally cycling the tractor control valve in both directions is sufficient).
- 5) Chock mower transport tires to ensure mower does not roll unexpectedly when hitch pin is removed.
- 6) Disconnect pull rope from rear of tractor and hook on hose support rod.
- 7) Disconnect hydraulic couplers from tractor & stow in supplied locations in the sides of the tire guard.
- 8) Disconnect the transport safety chain from the tractor.
- 9) Disconnect input shaft guard chain from tractor. Slide the mower input shaft locking collar backwards, opening the locking mechanism. Locking collar should remain in an open position.
- 10) Remove input shaft from tractor (collapsing sliding shaft).
- 11) Rotate the parking jack from the storage position to the parking position. Raise the parking jack sufficiently to remove all mower weight from the tractor drawbar. **Ensure mower parking jack is securely fastened to mower frame with supplied pin before removing hitch draw pin**
- 12) Remove draw pin from hitch.
- 13) Ensure drain holes in deck surface are free from grass clippings or other debris.



## LONG-TERM STORAGE

If the mower will not be used for an extended period, certain activities must be performed. See "Long-Term Storage" in the Maintenance section.

## OPERATING THE MOWER

### DAILY CHECK LIST

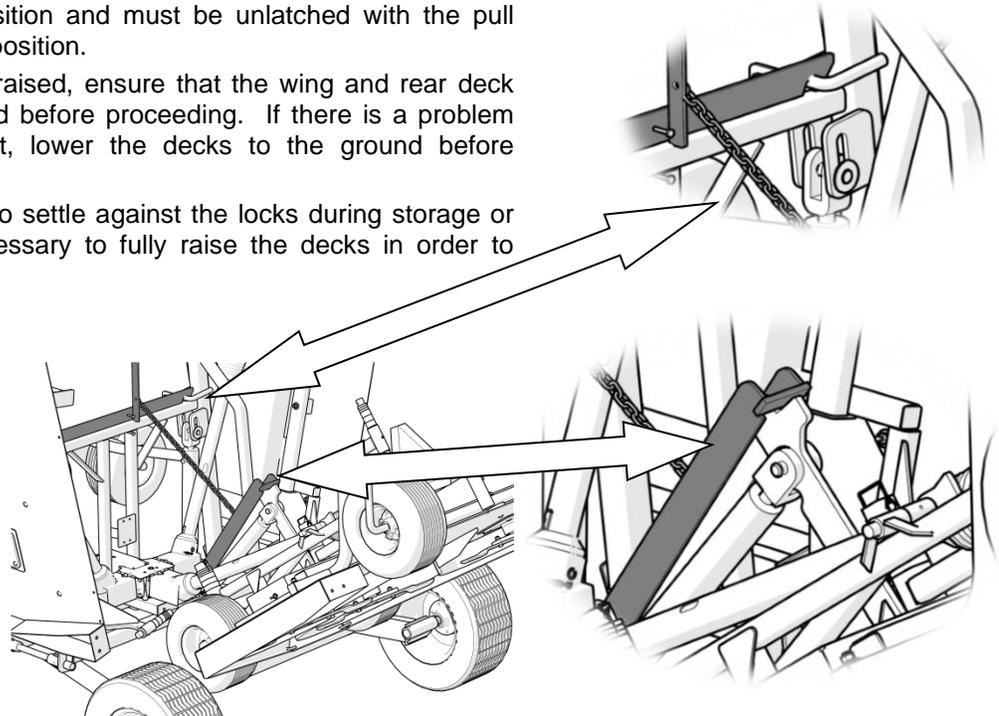
1. Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough soled work shoes. Never operate tractor or implements in bare feet, sandals or sneakers. Ensure other required PPE is in good condition.
2. Ensure all safety shielding is properly installed and check that all nuts and bolts are secure and pins are properly cotter pinned.
3. Check condition of blades and security of attachment.
4. Ensure mower is properly connected to the tractor, adjusted and in good operating condition.
5. Tall grass can hide obstacles. Carefully walk the entire area to be mowed beforehand. Look for debris, rocks, tree limbs etc. that will damage or be thrown by the mower blades. Identify objects that cannot be removed. Set mower cutting height to avoid contact.
6. Never permit any person other than the operator to ride or board the tractor at any time.
7. Check that all lubrication points with grease fittings have been lubricated as per schedule.
8. Check the gearbox for possible oil leaks.
9. Be sure wing release pull rope and hydraulic hoses are properly secured and will not become entangled in PTO shaft.

### RAISING AND LOWERING THE DECKS

The mower decks are raised into transport position by the hydraulic cylinders via the tractor control valve. When raised, the wings will automatically lock into position and must be unlatched with the pull rope to lower into working position.

When the decks are fully raised, ensure that the wing and rear deck locks are properly engaged before proceeding. If there is a problem with the lock engagement, lower the decks to the ground before investigating any problems.

It is normal for the decks to settle against the locks during storage or transport. It may be necessary to fully raise the decks in order to disengage the locks



## SETTING THE CUTTING HEIGHT

### **WARNING!**

Ensure safety locks are properly engaged before attempting to service mower.



Each of the three independent mower decks has its own cutting height adjustment. Cutting height is set by adjusting number of spacers between the castor tires and mower deck. Height adjustment is made with the mower in the transport position.

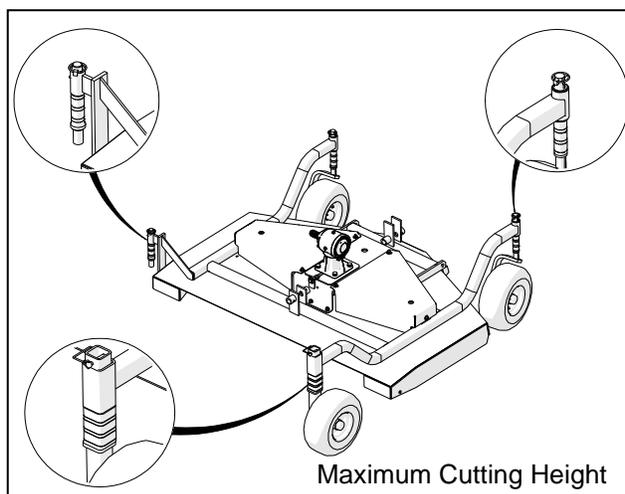
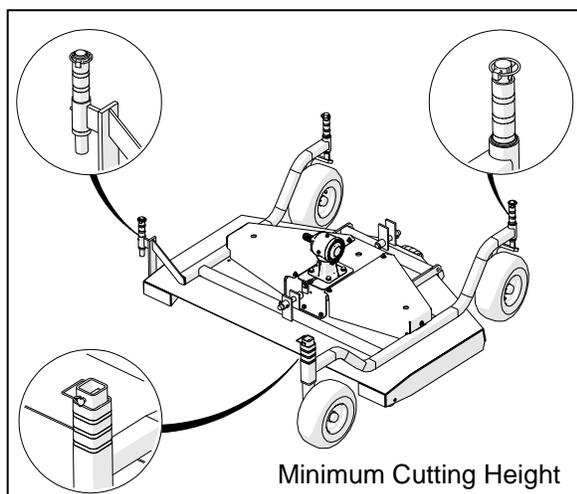
Please note that the rear, inside corner of each wing deck is supported by pin which must be adjusted in the same manner as the castor tires to achieve the proper cutting height.

Spacers are provided with a 3/8" and 3/4" thickness for cutting height adjustment from 3/4" to 5".

**NOTE:** For optimal cutting results, the mower should be set to remove not more than 1/3 of the total grass height. This will result in the best cutting performance while minimizing stress to the grass.

Follow these steps to adjust the cutting height:

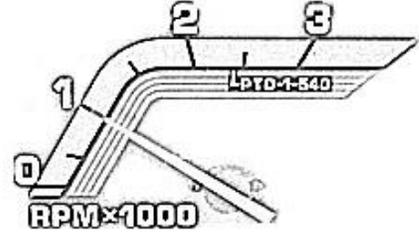
- 1) Raise the mower decks into the transport (raised) position. Ensure the deck safety locks are properly engaged.
- 2) Turn the engine off on the tractor, place all controls in neutral
- 3) position and set the parking brake.
- 4) Remove retaining pin from the top of the deck tire assembly or corner pin.
- 5) Remove the remove the tire assembly.
- 6) Adjust the number of spacers between the caster tire and mower frame to achieve the desired cutting height.
- 7) Install castor tire assembly on mower deck and place extra spacers on portion of castor assembly protruding from mower deck.
- 8) Install retaining pin.



## ENGAGING THE MOWER

When engaging the mower, it is important to follow this procedure:

- 1) Lower the decks into the working position.
- 2) Ensure all deck cylinders are FULLY EXTENDED during mowing (pins should be in center of slot on wings).
- 3) Set the tractor engine speed at 1000 rpm maximum.
- 4) Ensure that everyone is clear of the mower.
- 5) Engage the tractor PTO clutch.
- 6) Select the proper ground speed gear and slowly engage the tractor ground drive.
- 7) Once the mower has come up to speed, slowly increase the tractor throttle to desired rpm.



## MOWING

The TD92 mower is a very versatile cutting machine that allows the operator to maintain turf on undulating terrain in a productive manner. Drive safely, cut safely. Be sure to idle the tractor back before engaging the PTO, and shut the tractor off before leaving the tractor.

**NOTE:** Under normal cutting conditions, it may be desirable to operate the tractor at less than 540 rpm PTO speed, reducing fuel consumption and the noise level. Select a suitable ground speed gear to maintain proper cutting.

## OPERATING ON HILLY TERRAIN

When operating on hilly terrain, proceed with caution and drive carefully. If the tractor has four wheel drive, make sure it is engaged. On two wheel drive tractors equipped with a differential lock, apply while driving straight on the hills, disengage to allow for normal turning.

### **WARNING!**

**Use care while turning on hillsides in wet conditions. The weight of the mower behind the tractor may push the tractor unexpectedly.**

## TRANSPORTING THE MOWER

When transporting the TD92 from site to site, ensure the wings are in the raised position and deck safety locks are engaged (Page 25). Ensure the transport safety chain is properly fastened to the tractor (Page 21).

Ensure SMV is clean and all loose debris has been removed from the mower before transporting.

Observe the maximum allowable transport speed dependent on towing vehicle weight:

Towing Vehicle Weight	Maximum Allowable Road Speed
4300lb / 1950kg or more	up to 20 mph (32 km/h)
2150-4299lb / 975 – 1949kg	up to 10 mph (16 km/h)

### **WARNING!**

Use an appropriate sized vehicle to tow the TD92 mower. Do not tow with vehicles that are less than 2150lb / 975kg, vehicle handling and braking characteristics will be diminished.

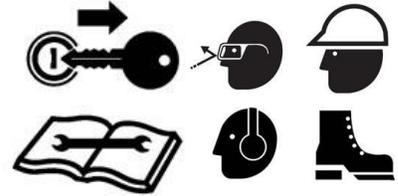
## MAINTENANCE

### WARNING!

Ensure the tractor controls are in the park position, the engine is turned off, the parking brake is engaged and hydraulic pressure has been relieved before performing service or maintenance.

Always use personal protection devices such as protective glasses and face shields, protective shoes, gloves, hard hats, and ear protection when performing service or maintenance functions.

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



		Maintenance Intervals				
Service		Initial Run - 50h	Daily	As Req'd	100h / Monthly	600h / Yearly
<b>Grease</b>	Intermediate Hanger Bearing	-	X	-	-	-
	Deck Pivots	-	-	X	-	-
	Deck Wheels	-	-	X	-	-
	Transport Wheels	-	-	X	-	-
	Wing Pivots	-	-	X	-	-
	Wing PTO Shaft (7 locn's each)	-	-	-	X	-
	Input PTO Shaft (7 locn's)	-	-	-	X	-
	Int. PTO Shaft (2 locn's)	-	-	-	X	-
<b>Oil</b>	Inspect Gearbox	-	X	-	-	-
	Check Gearbox Oil	-	-	-	X	-
	Change Gearbox Oil	X	-	-	-	X

## LUBRICATION

A properly maintained lubrication schedule will provide a smooth running machine for many years. Some pivot locations have grease fittings. The following information shows and describes where lubrication points are located and what types of lubricant are required.

### GREASE SPECIFICATIONS

**All greases are not compatible. Grease incompatibility will decrease the lubrication ability of the grease, and can cause premature part failure.**

Grease can have mineral or synthetic base oils and thickening agents such as lithium, calcium, barium, sodium, or aluminum

What We Use:

- Progressive uses Shell Gadus S2 V220 2
- This grease has:
  - A mineral oil base
  - A lithium-12 hydroxy thickener ("lithium" thickener)
  - Extreme Pressure additives (EP)
  - An NLGI Grade 2

### Recommended Grease Properties

The grease you use for this machine must have these properties:

- NLGI grade 2
- Lithium thickener (NOT LITHIUM COMPLEX)<sup>1</sup>
- Kinematic Viscosity at 40°C is no greater than 220 cSt
- Dropping Point Less than 400° F
- General Purpose Grease, Not Heavy Duty
- **No MOLY (molybdenum disulphide) additives in the grease<sup>2</sup>**
- **No synthetic grease<sup>3</sup>**
- **No High Temperature Grease<sup>4</sup>**

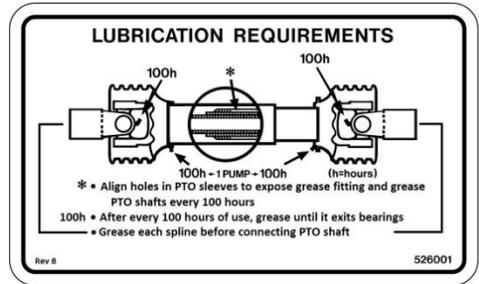
Notes on grease compatibility:

- 1) If a thickener other than lithium is used (including lithium complex), the existing grease will be contaminated and the lubrication properties may be lost leading to component damage.
- 2) 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 high speed mower application. Generally speaking Moly based greases will be grey in colour.
- 3) If synthetic base oil is used rather than mineral base oil, the grease will be contaminated; the lubrication properties may be lost leading to component damage.
- 4) We do not recommend the use of "High Temperature" greases, mower component temperature should never reach temperatures above the level at which general purpose greases can operate. "High Temperature" greases may contain thickeners that are not compatible with Lithium-12 Hydroxy based thickeners.

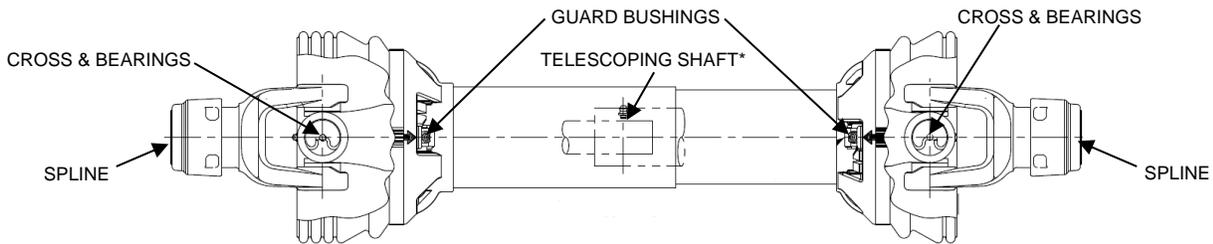
Grease with these features is considered to be a "General Purpose Grease". Use on all grease point locations on your Progressive Mower. Check the properties of the grease you wish to use with your supplier prior to use.

**DRIVELINE GREASING**

Driveline shafts on the TD92 mower feature a 100 hour grease interval. The following decal located on the hose support shield as a reminder of the minimum requirement.



**INPUT & DECK SHAFTS – 100h / Monthly (7 / Shaft - 4 Shafts)**

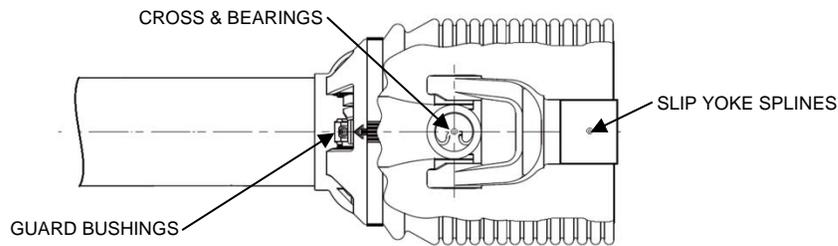


\* Inner & outer guards must be rotated to align holes for accessing telescoping shaft grease fitting.

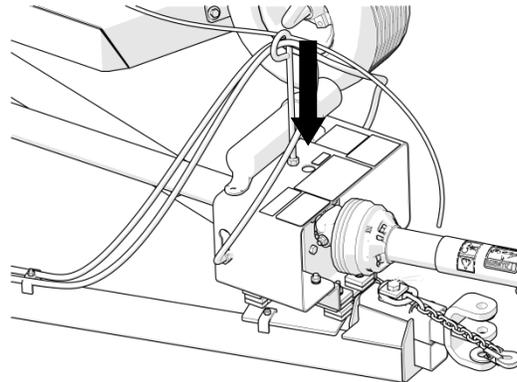
**! CAUTION!**

Failure to properly lubricate the telescoping shaft sections will lead to binding of the shaft and damage to the mower or tractor driveline.

**INTERMEDIATE SHAFT – 100h / Monthly (2 Locations)**



**INTERMEDIATE BEARING – 8h / Daily (1 Location)**



**! CAUTION!**

When performing daily greasing routine, ensure all grass clippings are removed from the mower decks. Clipping build-up can cause overheating of the bearings and belts leading to premature wear and subsequent failure.

**DECK WHEELS & PIVOTS: As Required**

The deck wheels have greaseable tapered roller bearings, and all pivot points on the deck floatation have grease fittings. They should be greased frequently as required.

**TRANSPORT HUBS & OTHER LOCATIONS: As Required**

All pivot locations have grease fittings. These include the wing hinge pivots, the transport wheel hubs, the rotating hitch and the hitch clevis. Lubricate these areas per the recommended schedule

**GEARBOX OIL:**

Recommended Oil: SAE 90 EP or SAE 80W90 EP  
 Factory Fill: Shell Spirax HD SAE 80W90



**MOWER MUST BE LEVEL** when checking oil level

**DO NOT OVERFILL!** Gearbox may over-heat causing premature component damage.

**DECK GEAR BOX**

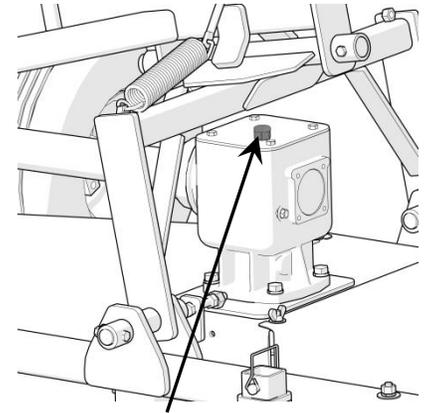
**Checking Level – 100h / Monthly**

A threaded dipstick is located on the top of the gearbox. Proper oil level is set when oil is between (2) lines on dipstick. Proper level is taken *without* threading dipstick into gearbox. If the level is low, add oil through dipstick port until correct level is attained. Replace and tighten dipstick.

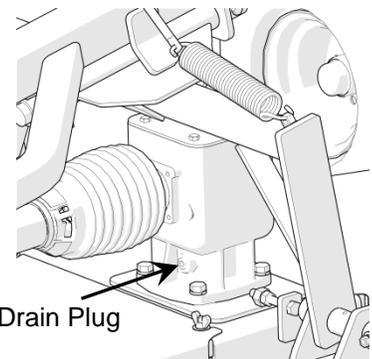
**Changing Oil - 600h / Yearly**

The gearbox oil should be changed after the first 50 hours of operation and every 600 hours or yearly afterwards.

Oil change quantity – 1.37 Qt (1.3 Litres)



Fill Plug / Dipstick



Drain Plug

**4-WAY GEAR BOX**

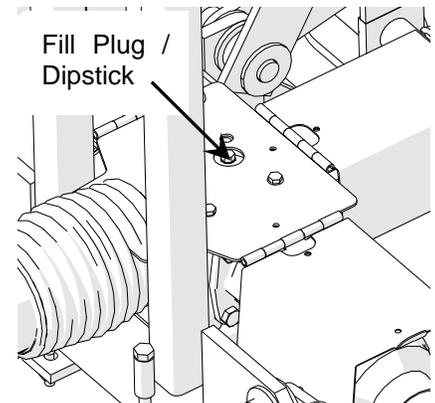
**Checking Level – 100h / Monthly**

A screw-in dipstick is provided on the top of the gear box. Proper oil level is set when oil is between the marks on the dipstick. If the level is low, add oil through top plug until correct level is attained. Replace and tighten plug.

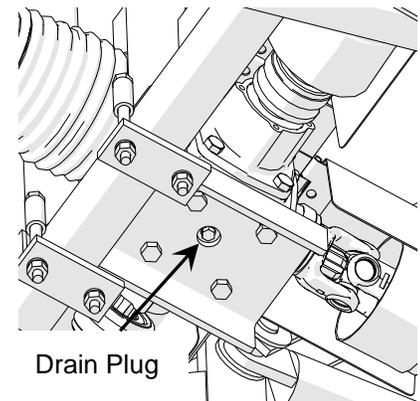
**Changing Oil - 600h / Yearly**

The gearbox oil should be changed after the first 50 hours of operation and every 600 hours or yearly afterwards.

Oil change quantity – 1.48 Qt (1.4 Litres)



Fill Plug / Dipstick



Drain Plug

## “V” BELT DRIVE

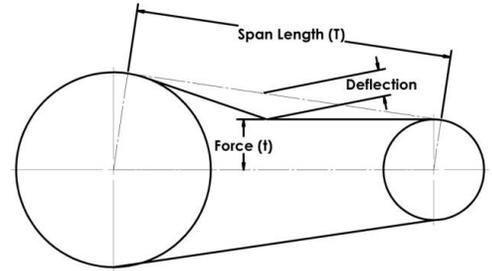
### “V” BELT TENSION - 100h / Monthly

Proper belt tension 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. To assess the condition of the automatic tensioner, the following procedure is recommended.

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 5 lbs. to a maximum of 7 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.

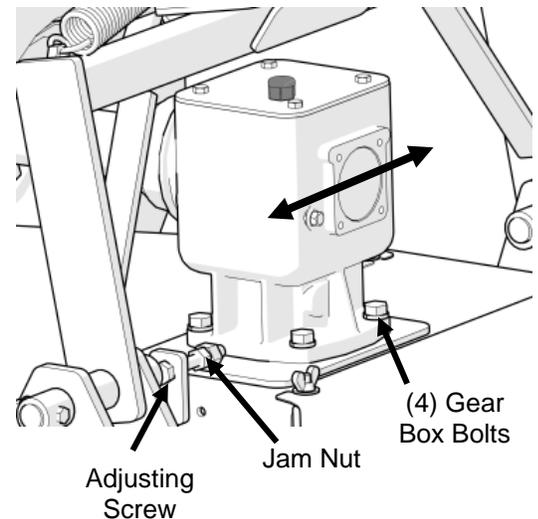


### “V” BELT ADJUSTMENT

All deck drive belts utilize a threaded adjuster connected through the deck gear box mount. Tension of both drive belts per deck is set with one adjustment.

In the event that belt adjustment must be made, follow these steps:

- 1) Loosen the jam nut on the adjusting screw.
- 2) Loosen the (4) bolts fastening the gear box to the mower deck.
- 3) Set desired belt tension by turning the adjusting screw
  - Clock Wise to tighten belts
  - Counter Clock Wise to loosen belts
- 4) Tighten the (4) bolts fastening the gear box to the mower deck.
- 5) Tighten jam nut on the adjusting screw.
- 6) Verify proper tension is achieved per “V” Belt Tension section above.

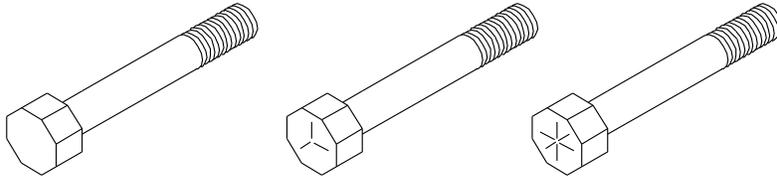


## FASTENER INSTALLATION TORQUE

The chart below lists the proper installation 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 (unless otherwise specified in this manual).

SAE Grade 5 fasteners are to be used in the assembly of this machine, unless otherwise specified in this manual.

### Bolt Grade Identification



SAE Grade 2  
(No Dashes)

SAE Grade 5  
(3 Dashes)

SAE Grade 8  
(6 Dashes)

Bolt Diameter	Recommended Torque in Foot Pounds (Newton-Meters)
5/16 UNC	21 (28)
3/8 UNC	38 (52)
7/16 UNC	55 (75)
1/2 UNC	85 (115)
9/16 UNC	125 (170)
5/8 UNC	175 (240)
3/4 UNC	300 (410)
7/8 UNC	450 (610)
1 UNC	680 (925)
1-14 LH Spindle Nut	60 (82)
M12x1.5 (Note)	55 (75)
Pro-EZ Change Bolt	110 (150)

**NOTE:** 4-Way gearbox mounting bolts are M12

## BLADE SERVICING

### WARNING!

Always observe proper lock-out procedures when performing any maintenance work including changing or servicing the blades. Always remove and retain the ignition switch key, ensure parking brake is engaged, and block and or support machine using equipment designed for the task.

Be sure deck safety locks are engaged when working on decks in the raised position.

Use gloves when handling mower blades. Blades can be very sharp.

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!

Use only original equipment blades when replacing worn or damaged mower blades. They are made of special steel alloys and subjected to rigid heat-treat and inspection requirements. Substitute blades may not meet these specifications and **MAY BE DANGEROUS**.

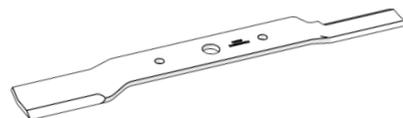


## BLADE SELECTION

We offer four blade styles for use with this mower:

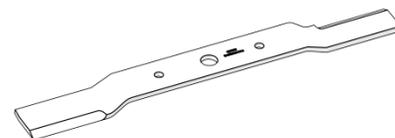
### Fixed high lift

Combined with Progressive's high tip speed, the fixed High-Lift blade 'stands' grass blades up for a clean cut, even in damp conditions or at high mowing speeds.



### Fixed low lift

Developing less lift than the High-Lift blade, Progressive's Low-Lift fixed blade is ideal for both new growth or sandy soils where abrasion is a concern but superior cut quality can never be sacrificed. Also requires less tractor horse-power.

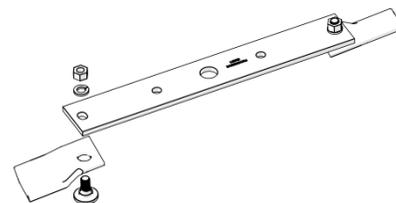


### Pro-EZ Change System (Available in high or low lift)

Developed with turf professionals in mind:

- Economical as only the tips are changed
- Flat profile fastener extends life, reduces cost
- Standard hand-tools are used for reduced cost and easy change out
- Lower start-up torque requirement reduces stress on the complete drive train
- Thinner profile than a standard blade means the tips retain their sharpness after the equivalent number of mowing hours

Pro-Ez Change Blade System installs on the same blade support bar as a fixed blade. This allows users to easily swap blade types as growing conditions or mowing requirements change.



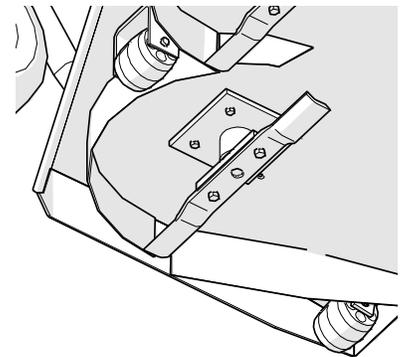
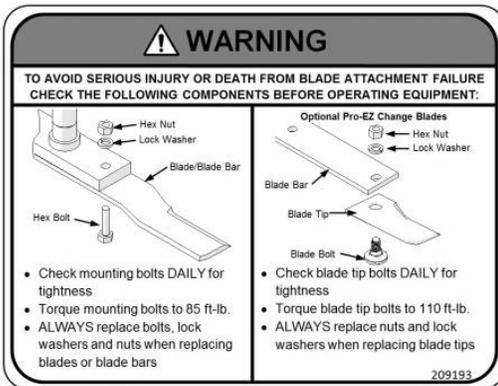
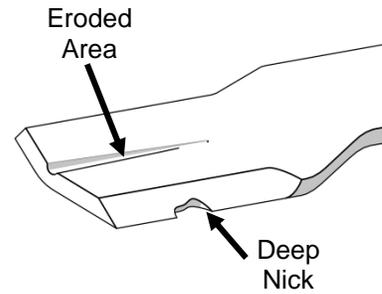
### FIXED BLADE REMOVAL AND INSTALLATION

A 1" diameter pilot centers the blade on the spindle with two 1/2" grade 5 fasteners. When changing blades, be sure that pilot is properly seated in the blade and the blade lies flat on the spindle bar.

Always replace bolts, lock washers and nuts when replacing blades. Tighten bolts to proper torque as listed on Page 35.

Replace any blade that is bent, nicked deeper than 1/4", excessively worn or has any other damage. Small nicks can be ground out during sharpening. Always balance blades before use.

In abrasive soil conditions, monitor condition of the blade wing. If erosion of the steel is evident at the base of the wing, replace blade.



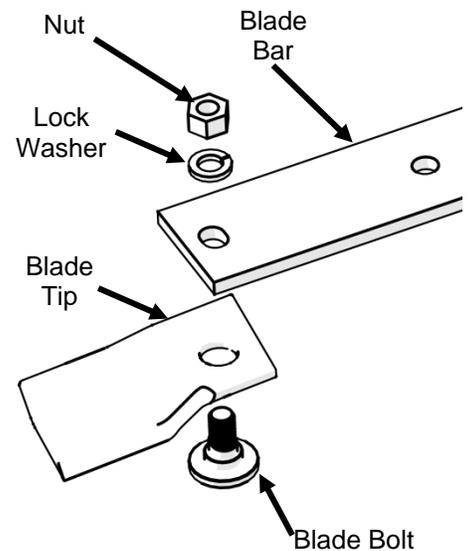
### Pro-EZ CHANGE BLADE REMOVAL AND INSTALLATION

#### Blade Bar

A 1" diameter pilot centers the blade bar on the spindle with two 1/2" grade 5 fasteners. When changing blades, be sure that pilot is properly seated in the blade bar and the blade bar lies flat on the spindle.

Always replace bolts, lock washers and nuts when replacing blade bars. Tighten bolts to proper torque as listed on Page 35.

Replace any blade bar that is bent, worn or has any other damage.



**Blade Tip**

The Pro-EZ change blade tips are serviceable with a single wrench. An anti-rotation slot engaging the blade bolt to the blade bar allows for installation and removal of the nut from one side without having to hold the bolt.

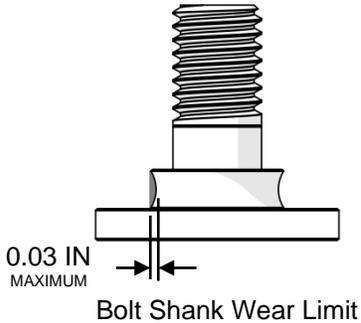
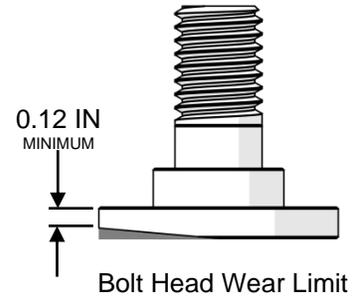
When removing blade tips, inspect the tips and blade bolts for wear and damage.

Replace any tip that is bent, nicked deeper than 1/4", excessively worn or has any other damage. Small nicks can be ground out during sharpening. Always balance Pro-EZ blades as an assembled unit.

Replace any blade bolts that have the head or blade shank worn beyond the limits shown in the accompanying illustrations.

Always install new blade bolts, lock washers and nuts when installing new blade tips. Tighten bolts to proper torque as listed on Page 35. **DO NOT OPERATE WITH ONLY ONE BLADE TIP INSTALLED.**

Grass build-up between the tip and blade bar may prevent the tip from pivoting properly at start-up or during mowing. Ensure all tips are free to rotate prior to operation.



**BLADE SHARPENING**



**Use gloves when handling mower blades. Blades can be very sharp.**

When sharpening blades, be sure material removed is equal on both sides of the blade. Unbalanced blades will cause excessive vibration leading to cracks in machine components.

- Clean all material from the blade prior to sharpening and balancing.
- Grind or file blades following original pattern as shown.
- Sharpen to a razor edge. Do not sharpen back side of blade.

Use the supplied cone balancer (pn 209000) to verify blade balance. When the blade is correctly balanced, the blade will remain horizontal.



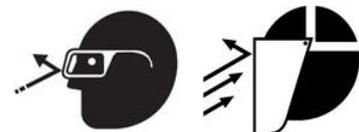
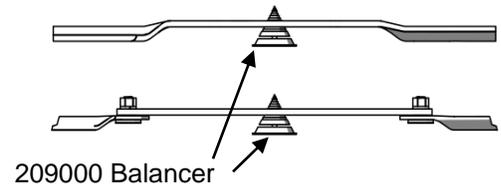
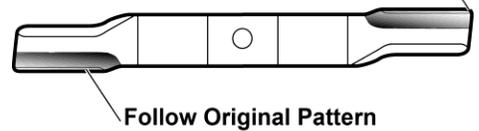
**Failure to properly balance blades after sharpening can cause vibration leading to premature component damage. Pro-EZ Change blades must be balanced as a complete assembly (blade bar, blade tips & blade tip hardware).**



**Wear appropriate eye and face protection when sharpening blades.**



Maintain Corners



## **SPINDLE SERVICE**

Each spindle is supported by two ball bearings. No adjustment of clearance is required. Running clearance is pre-set during assembly by tightening the 1" NF left hand nut on top of the pulley.

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

### **SPINDLE ASSEMBLY REMOVAL**

- 1) Relieve tension from belt, and remove belt from the spindle pulley.
- 2) Raise the mower decks into the service position and ensure the deck safety locks are secure
- 3) Remove blade from spindle.
- 4) From under the deck, loosen the four bolts that hold the spindle assembly to the deck.
- 5) Remove the complete spindle assembly and pulley 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 ASSEMBLY REPAIR

Note: A video showing this rebuild procedure is available on our website: <http://www.progressiveturfequip.com/service>

### CAUTION!

Spindle repair requires special skills and tools, a shop press is required. If your shop is not properly equipped or your mechanics are not properly trained in this type of repair, complete spindle assemblies are available as service parts.

- 1) Remove LH Nut (1), lock washer (2), pulley (3), and spacer (5) from spindle assembly. **The spindle nut is left-hand thread.**

### CAUTION!

Make sure that the press ram and bed 100% square to each other. If bearings are not square in housing, bearings will wear out prematurely.

- 2) Place assembly in shop press with support under spindle housing flange and press spindle down through housing.
- 3) Remove bottom bearing from spindle and top bearing from housing

**IMPORTANT! Removing bearings from spindle / housing causes permanent damage to the bearings. New bearing must be used in re-assembling the spindle.**

- 4) Inspect bearing (8) spacer for wear. If any wear is present, replace spacer with new.

**IMPORTANT! Failure to replace a worn or damaged spacer will lead to premature top bearing wear.**

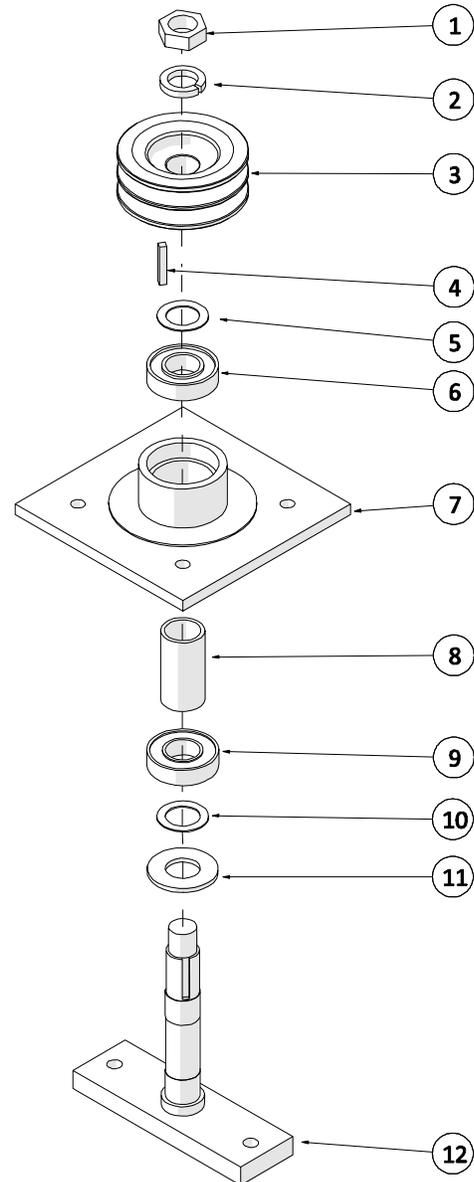
- 5) Place housing (7) in press (upside down). **Pressing on outer race**; install bottom bearing (9) into housing.
- 6) Place spindle (12) in press. Place dirt shield (11) and shim (10) on spindle.
- 7) **Pressing on inner race** of bottom bearing, press housing / bearing on to spindle. A steel tube will be required to slide over the spindle and press on inner race.
- 8) Install bearing spacer (8) with hole end up.
- 9) Set top bearing (6) on to spindle. **Pressing on inner race**, press top bearing on to spindle (may be a loose fit in housing).

- 10) Install shim washer (5), key (4) and pulley (3) on to spindle.

- 11) Install lock washer (2) and nut (1) and torque to 60 ft-lb.

Rotate the housing six revolutions by hand to check for free movement.

The assembly is now ready for installation into the mower deck.



## HYDRAULICS

### WARNING!

Do not use your hand to check for hydraulic oil leaks. Use a piece of cardboard instead.

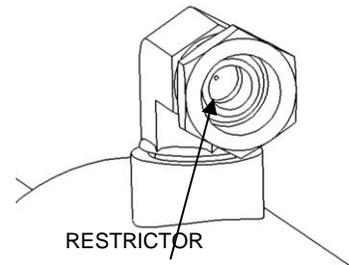
Hydraulic fluid escaping under pressure can penetrate the skin causing serious injury. If skin penetration occurs, seek medical attention immediately.

Relieve all pressure from hydraulic system before disconnecting hoses.

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.

The hydraulic system on the TD92 mower is a simple cylinder system used to raise and lower the cutting decks into position. Each cylinder is equipped with a .032 diameter restrictor orifice in the rod-end elbow adapter to throttle the speed of travel.

When reconnecting to the tractor, be sure that both connector ends are clean. Dirt in the hydraulic system can block the orifice in the line throttle valve or cause premature wear & failure of hydraulic components on the mower or tractor.



## SUPPORTING MACHINE FOR SERVICE

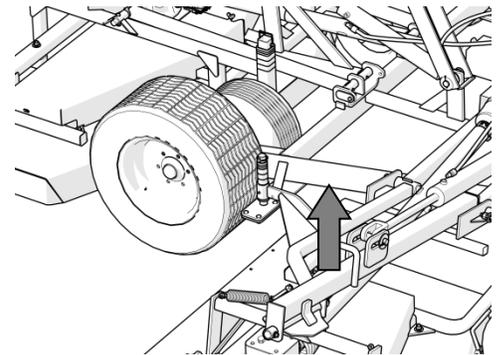
(2) Points are available to lift the mower off of the ground for servicing the transport tires / wheels / bearings at the main frame rail between the transport tire and deck corner pin support plate (as shown in the accompanying illustration.) Use a bottle or service jack to raise the wheel from the ground and place a wooden block or other suitable support under the rectangular tube.

### WARNING!

Do not support the machine on cinder blocks, hollow tiles or other members that may fail under continuous load.

Never perform service on a machine that is supported solely by a jack. Always ensure proper blocking is placed to support load during service.

Transport tires must be changed with the wings in the raised position. Ensure the machine is on a flat, level surface and the wing locks are fully engaged before attempting to lift the machine.



## TRANSPORT TIRES

Inspect tires daily for wear or damage. Check tire pressures weekly with an accurate pressure gauge. Do not inflate tires beyond 35 psi.

### **WARNING!**

**Mounting and dismounting tires from rims can be dangerous and should be performed by trained personnel using correct tools, equipment and procedures.**



## LONG-TERM STORAGE

If the mower is not to be used for an extended period of time (4 months or longer) it is recommended that the following maintenance steps are followed:

- 1) Thoroughly wash mower, removing all grass clipping residue from deck undersides & mower framework. Ensure deck drain holes are free from debris.
- 2) Add grease to all grease points.
- 3) Check gearbox oil for proper level.
- 4) Relieve tension on all V-belts by removing belt from tensioner pulley.
- 5) Inspect all drive belts & pulleys.
- 6) Inspect all blade spindle bearings for excessive play.
- 7) Inspect all blades for serviceable condition.

When returning the mower to service after long-term storage:

- 8) Check tightness of all blade fasteners.
- 9) Add grease to all grease points.
- 10) Re-install all V-belts on tensioner pulleys.
- 11) Ensure all pivot points move freely.
- 12) Change gearbox oil.

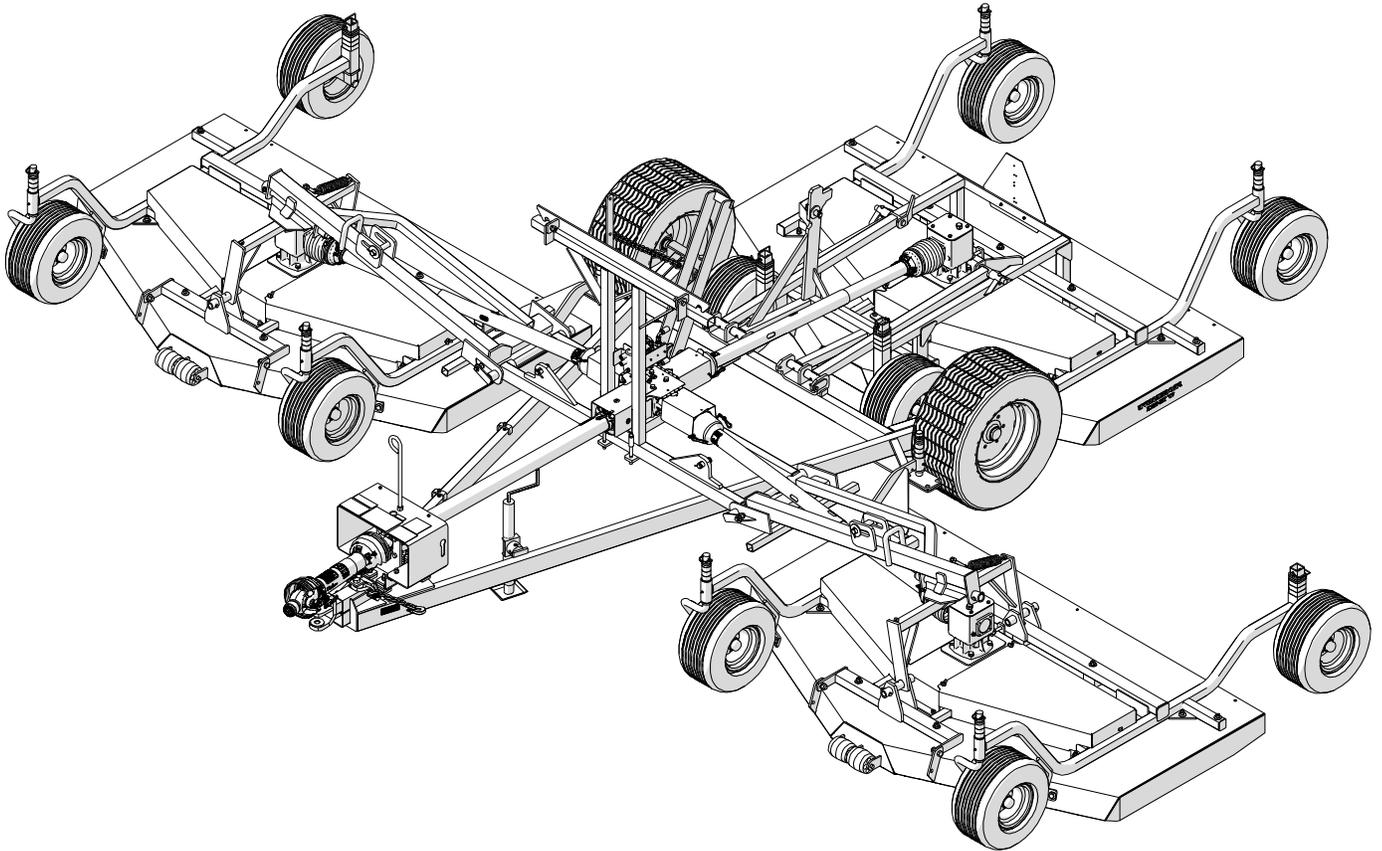
## TROUBLE SHOOTING

PROBLEM	CAUSE	REMEDY
Uneven Cutting	Incorrect tire pressure	Check that all deck tires and transport tires are set at correct pressure
	Improper Hitch Set-up	Check that mower hitch is installed such that mower frame is level to ground (see Page 19)
	Improper Height Setting	Ensure that the same number of spacers are present on the deck tires and corner pins.
Belt slippage / Squeal	Lack of tension	Inspect & adjust tension as required
	Over Loading	Increase cutting height or reduce ground speed
Rapid belt wear	Belt slippage	See Above
	Belt not aligned properly	Check belt alignment. Ensure belts are running in proper groove on pulley.
	Over heating	Ensure decks are free from clipping build-up
Over-heated bearings	Belt slippage	See Above
	Insufficient Cooling	Ensure decks are free from clipping build-up
Premature spindle bearing failure	Over-heating	See Above
	Improper rebuild procedure	See specific instructions in manual
	Improper bearings	Use only OEM bearings
	Water Ingress	-Avoid direct spray on bearing during washing -Ensure drain holes on decks are not clogged
Deck safety locks will not engage	Wing not raising fully to release lock	Decrease center distance of cylinder with adjustable clevis on cylinder rod.
Mower Deck will not lower.	Orifice in cylinder plugged	Remove orifice and remove obstruction and reassemble
Vibration on turning	Drawbar length incorrect.	Adjust drawbar to specification (see Page 19)
Damaged intermediate bearing or tractor PTO shaft	Input shaft does not collapse easily under power	Remove input shaft, pull apart and deburr / grease splines Grease at proper interval.



# Parts Manual

## TD92



Model TD92

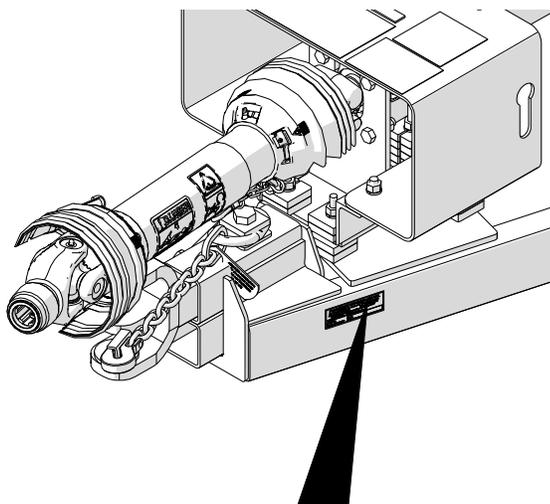
Effective serial number: 941001 and up.

May 2022

 **DANGER!**

Si No Lee Ingles, Pida Ayuda a Alguien Que Se Lo Lea  
Para Que le Traduzca Las Medidas de Seguridad





**PROGRESSIVE TURF EQUIPMENT INC.**  
 137 West William St., Seaforth Ontario Canada  
 Phone 519-527-1080 Fax 519-527-2275  
 Web Site: www.progressiveturfequip.com  
**PRODUCT: Rotary Finishing Mower**  
**MODEL:** \_\_\_\_\_  
 Made In Canada **S.N.** \_\_\_\_\_

### Serial Number Location

The serial number plate for the machine is located on the left side of the main frame tube at the front

For quick reference, record the following information:

Model: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Date purchased: \_\_\_\_\_

Always state this information when contacting your selling dealer and when ordering spare parts.

### Parts Information

Use only Genuine Original Equipment Manufacturers (O.E.M.) replacement parts. The use of "will fit" parts may reduce machine performance, void machine warranties and present a safety hazard. Use Genuine OEM parts.

## Progressive Turf Equipment Inc.

137 West William Street  
 Seaforth, Ontario  
 Canada  
 N0K 1W0

Phone: 800-668-8873

Fax: 519-527-2275

[www.progressiveturfequip.com](http://www.progressiveturfequip.com)

## Maintenance

Maintenance should always be performed by a qualified service technician familiar with servicing similar equipment, using good safety and workmanship practices.

**Always observe proper lock-out procedures when performing any maintenance work.** Other than maintaining the blade spindles or blades, always lower all decks before performing maintenance. Block and or support machine using equipment designed for the task. When maintaining blades or spindles, always ensure locks are seated correctly in place. When performing hydraulic maintenance, ensure that pressure has been released.

It is imperative that the operator or qualified service technician reads and understands all the safety information in the Operator's Manual before proceeding. Failure to follow the instructions or heed the warnings could result in injury or death. **Proper care is your responsibility.**



## PARTS ORDERING GUIDE

The following instructions are offered to help eliminate needless delay and error in processing purchase orders for the equipment in this manual.

1. The Parts Section is prepared in logical sequence and grouping of parts that belong to the basic machine featured in this manual. Part Numbers and Descriptions are given to help locate the parts and quantities required.
2. The Purchase Order must indicate the Name and Address of the person or organization ordering the parts, who should be charged, and if possible the serial number of the machine for which the parts are being ordered.
3. The purchase order must clearly list the quantity of each part, the complete and correct part number, and the basic name of the part.
4. The manufacturer reserves the right to substitute parts where applicable.
5. Some parts may be unlisted items which are special production items not normally stocked and are subject to special handling. Request a quotation for such parts before sending purchase order.
6. The manufacturer reserves the right to change prices without notice.



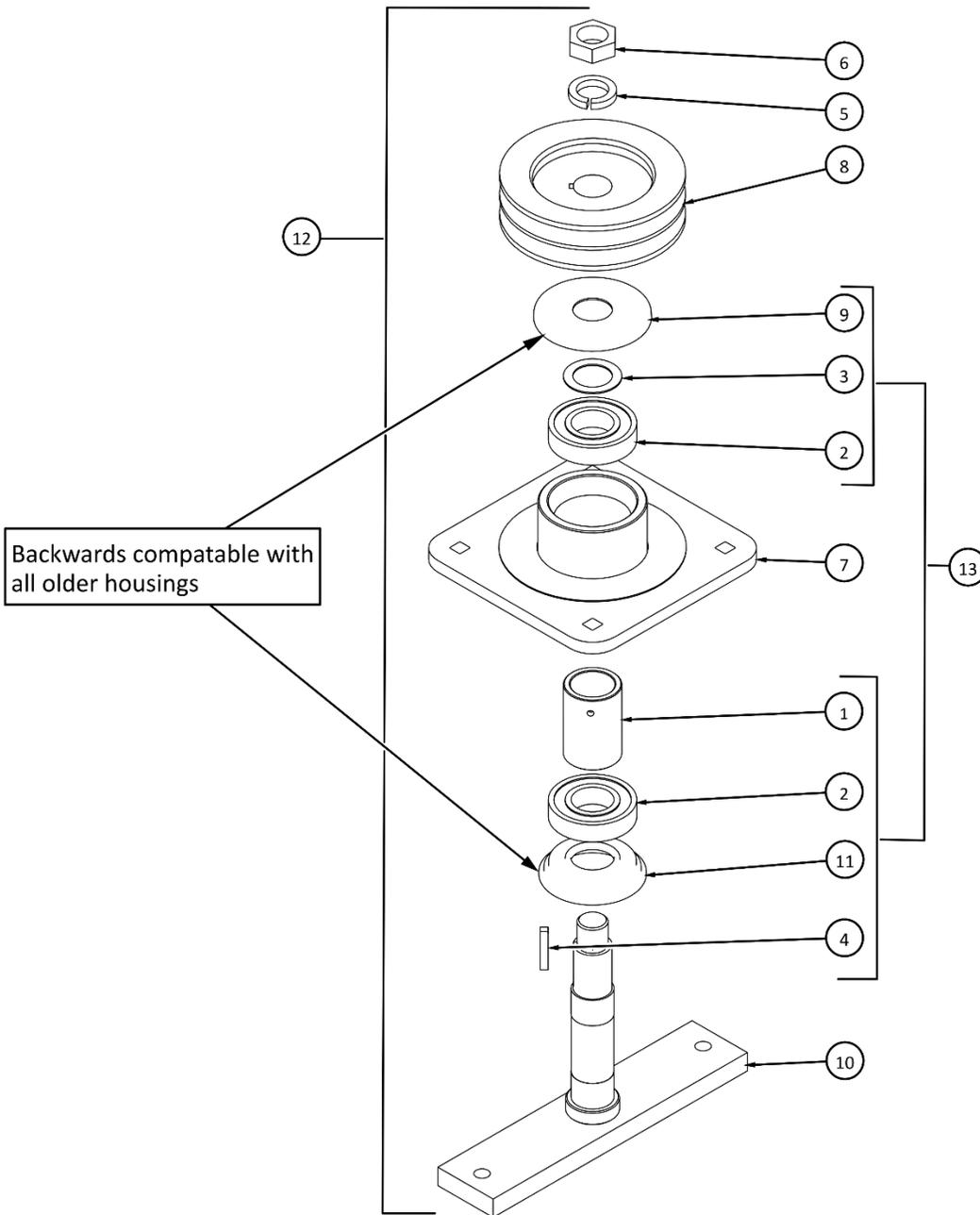


# Table of Contents

<b>SERIAL NUMBER LOCATION.....</b>	<b>III</b>
<b>1 DECK ASSEMBLY .....</b>	<b>2</b>
1.1 BLADE SPINDLE ASSEMBLY.....	2
1.2 BLADE OPTIONS .....	3
1.3 GEARBOX ASSEMBLY .....	4
1.4 WING DECK ASSEMBLY.....	5
1.5 REAR DECK ASSEMBLY .....	6
<b>2 FRAME ASSEMBLY .....</b>	<b>7</b>
2.1 FRAME ASSEMBLY.....	7
2.2 WING LIFT ASSEMBLY.....	8
2.3 TIRE ASSEMBLIES .....	9
2.4 SPARE TIRE CARRIER – OPTIONAL .....	10
<b>3 HYDRAULICS .....</b>	<b>11</b>
3.1 HYDRAULICS .....	11
3.2 HYDRAULIC STABILIZER VALVES - OPTIONAL.....	12
<b>4 DRIVELINE.....</b>	<b>13</b>
4.1 DRIVELINE .....	13
4.2 INPUT PTO SHAFT .....	14
4.3 INTERMEDIATE PTO SHAFT.....	15
4.4 DECK PTO SHAFT .....	16
4.5 DECK GEARBOX – OPTION #1 - 521432 .....	17
4.6 DECK GEARBOX – OPTION #2 - 215180 .....	18
4.7 4 WAY GEARBOX – OPTION#1 - 521497.....	19
4.8 4 WAY GEARBOX – OPTION #2 - 215150 .....	20
<b>5 DECALS .....</b>	<b>21</b>
5.1 SAFETY .....	21
5.2 NOTES.....	23

# 1 DECK ASSEMBLY

## 1.1 Blade Spindle Assembly



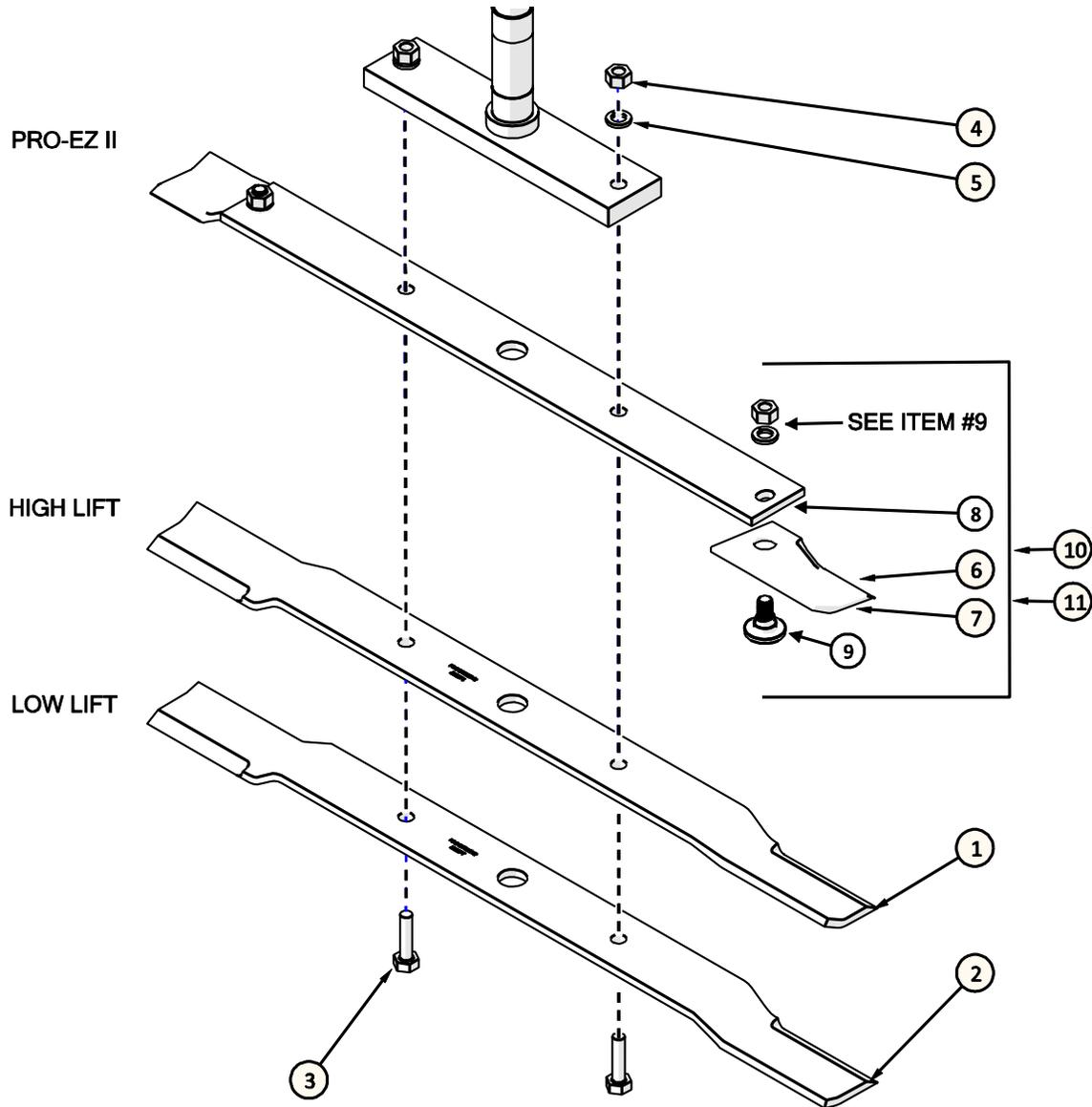
Backwards compatible with all older housings

ITEM	PART #	DESCRIPTION	QTY
1	521007	BEARING SPACER TUBE	1
2	213052	BEARING - MAINTENANCE FREE	2
3	521004	SHIM WASHER - 1.25 (9 PCS)	1
4	O.L.	KEY - 1/4" X 1.50"	1
5	521002	LOCKWASHER L.H. (3 PCS)	1
6	521003	HEX NUT - L.H.	1
7	527554	SPINDLE HOUSING - TD92	1

ITEM	PART #	DESCRIPTION	QTY
8	521775	5.9" PULLEY- 1-1/4" BORE	1
9	522557	SHIELD - SPINDLE TOP	1
10	522568	BLADE SPINDLE MAIN FREE - TD92	1
11	527550	HOUSING BOTTOM CAP	1
12	527560	BLADE SPINDLE ASSY COMPLETE	1
13	527549	SPINDLE REBUILD KIT MFREE-TD92	1

O.L. - OBTAIN LOCALLY

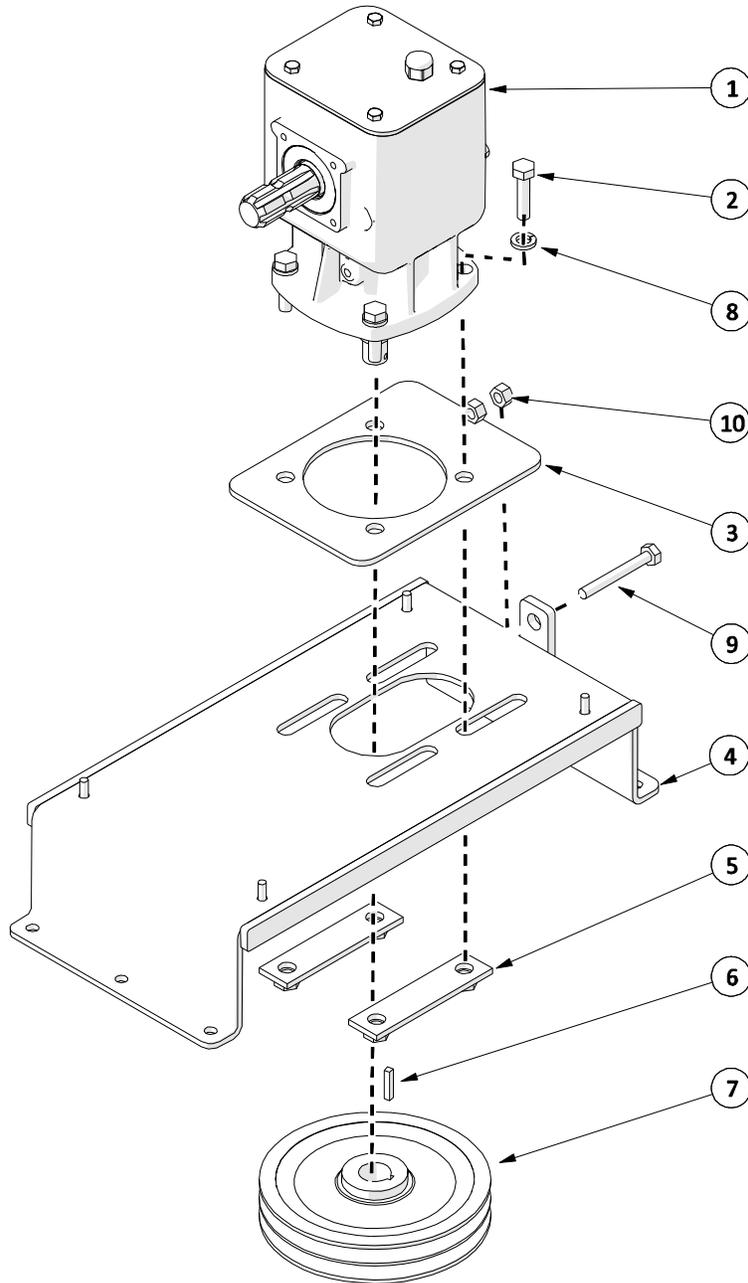
## 1.2 Blade Options



ITEM	PART #	DESCRIPTION	QTY
1	522605	BLADE KIT - STANDARD LIFT (9 PCS)	1
2	522608	BLADE KIT - LOW LIFT (9 PCS)	1
3	O.L.	HEX BOLT- 1/2" X 1.75 NC GR5 PL	2
4	O.L.	HEX NUT - 1/2"NC GR5 PL	4
5	O.L.	LOCK WASHER- 1/2 PL	4
6	526594	HIGH LIFT TIP KIT (50 PC)	1
7	526648	LOW LIFT TIP KIT (50 PC)	1
8	526780	BLADE BAR KIT (9 PCS)	1
9	526866	BLADE BOLT KIT(25 PC) WITH 1/2" HARDWARE	1
10	526786	SINGLE HIGH LIFT BLADE ASSEMBLY (FOR 1 SPINDLE)	1
11	526788	SINGLE LOW LIFT BLADE ASSEMBLY (FOR 1 SPINDLE)	1

O.L. - OBTAIN LOCALLY

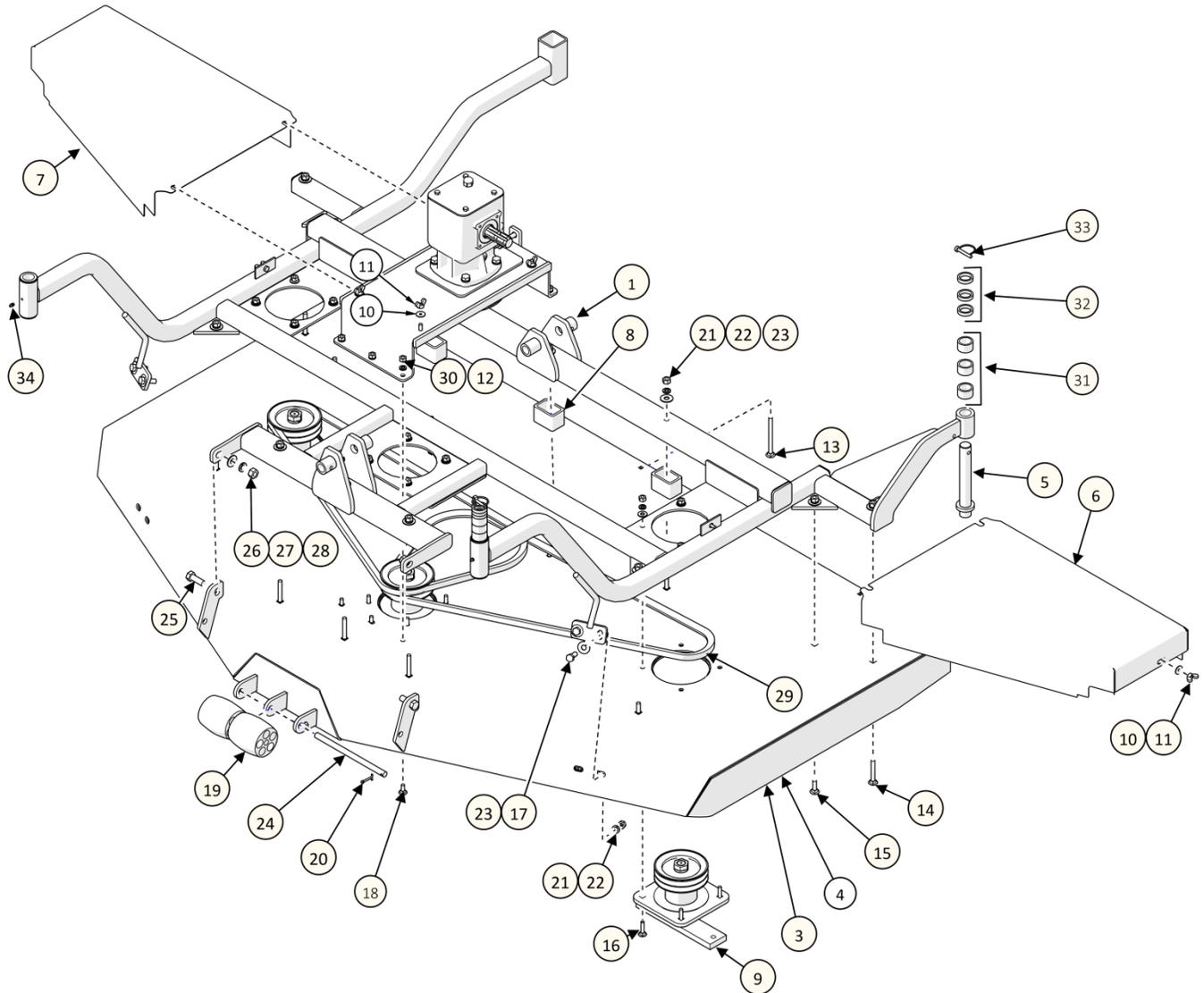
# 1.3 Gearbox Assembly



ITEM	PART #	DESCRIPTION	QTY
1	521432	DECK GEARBOX	1
2	O.L.	HEX BOLT- 9/16 X 2 NC GR5 PL	4
3	521013	SLIDE PLATE	1
4	521019	GEAR BOX MOUNT	1
5	521018	STIFFENER NUT BRACKET	2
6	521390	KEY KIT (3 PCS)	1
7	521774	MAIN DRIVE PULLEY - 8.7"	1
8	O.L.	LOCK WASHER- 9/16 PL	4
9	521020	TAP BOLT KIT (3 PCS)	1
10	O.L.	HEX NUT - 1/2NC GR5 PL	1

O.L. - OBTAIN LOCALLY

# 1.4 Wing Deck Assembly

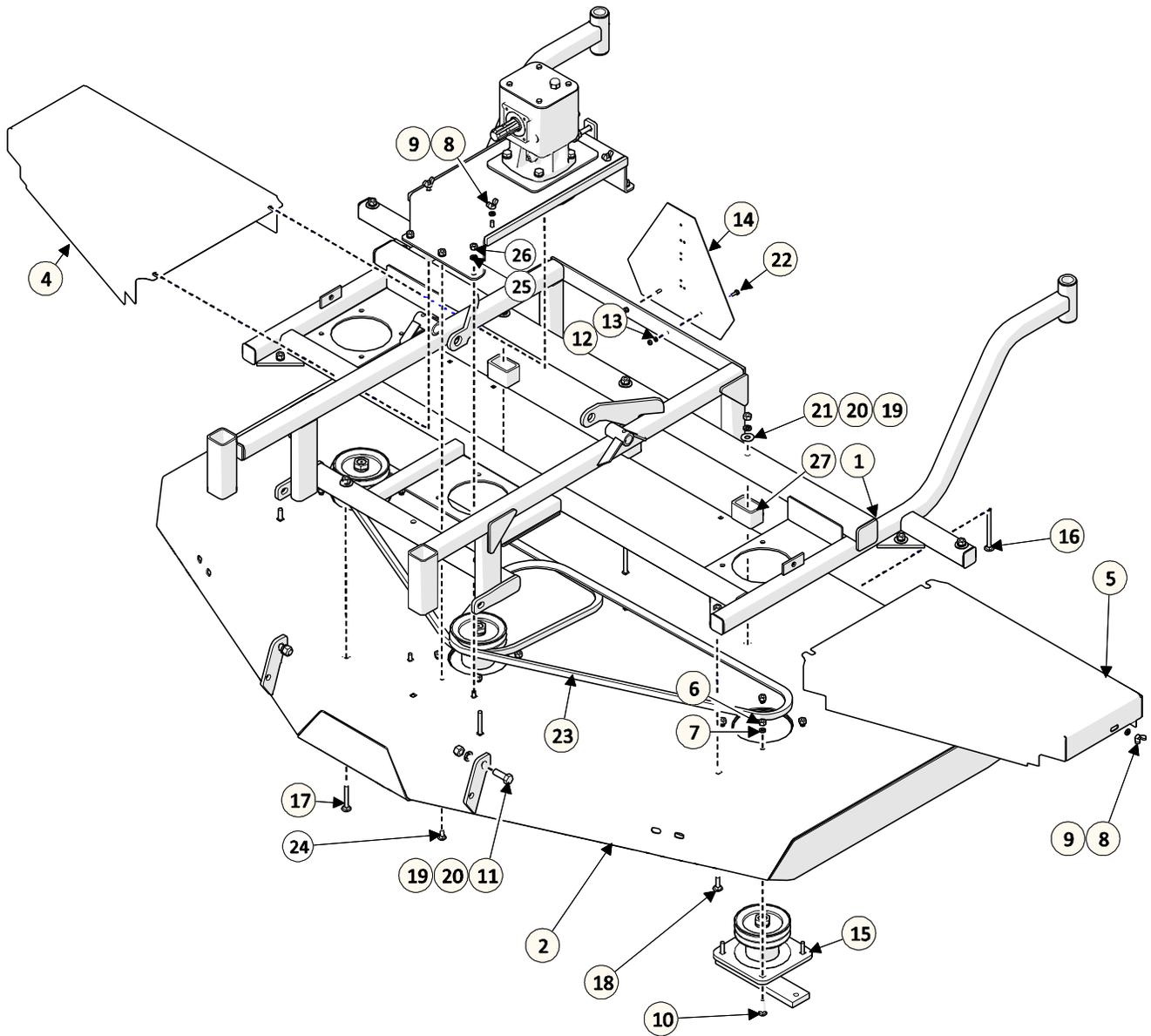


ITEM	PART #	DESCRIPTION	QTY
1	525102	DECK FRAME - RH (SHOWN)	1
2	525104	WING DECK FRAME - LH (NOT SHOWN)	1
3	525126	DECK - GALVANIZED	1
4	629124	DECK - PAINTED	1
5	525134	CORNER PIN	1
6	525147	DECK SHIELD - LH	1
7	525149	DECK SHIELD - RH	1
8	525141	DECK FRAME SPACER TUBE	3
9	521959	BLADE SPINDLE ASSEMBLY	3
10	O.L.	FLAT WASHER - 3/8" PL	6
11	O.L.	WING NUT - 3/8NC	6
12	O.L.	LOCK WASHER - 7/16" PL	6
13	O.L.	CARRIAGE BOLT - 1/2" X 5.00" GR5 PL	3
14	O.L.	CARRIAGE BOLT - 1/2" X 3.00" GR5 PL	5
15	O.L.	CARRIAGE BOLT - 1/2" X 1.50" GR5 PL	4
16	O.L.	CARRIAGE BOLT - 7/16 X 1.75" GR5 PL	12
17	O.L.	HEX BOLT - 1/2" X 1.50" GR5 PL	4
18	O.L.	CARR. BOLT- 7/16 X 1 NC GR5 PL	6

ITEM	PART #	DESCRIPTION	QTY
19	209001	ANTI SCALP ROLLER	2
20	O.L.	COTTER PIN - 3/16 X 1.5	1
21	O.L.	HEX NUT - 1/2NC GR5 PL	15
22	O.L.	LOCK WASHER - 1/2" PL	16
23	O.L.	FLAT WASHER - 1/2" PL	16
24	522400	ANTI-SCALP PIN	1
25	O.L.	HEX BOLT - 5/8" X 1.75" GR5 PL	2
26	O.L.	HEX NUT - 5/8NC GR5 PL	2
27	O.L.	LOCK WASHER - 5/8" PL	2
28	O.L.	FLAT WASHER - 5/8" PL	2
29	521034	BELT - B90	2
30	O.L.	HEX NUT - 7/16NC GR5 PL	6
31	521030	SPACER KIT - 1.00" (6 PCS)	1
32	521029	SPACER KIT - 3/8" (6 PCS)	1
33	521844	HALF ROUND LYNCH PIN (6 PC KIT)	1
34	O.L.	GREASE FITTING - 1/4-20 STRAIGHT	3

O.L. - OBTAIN LOCALLY

# 1.5 Rear Deck Assembly



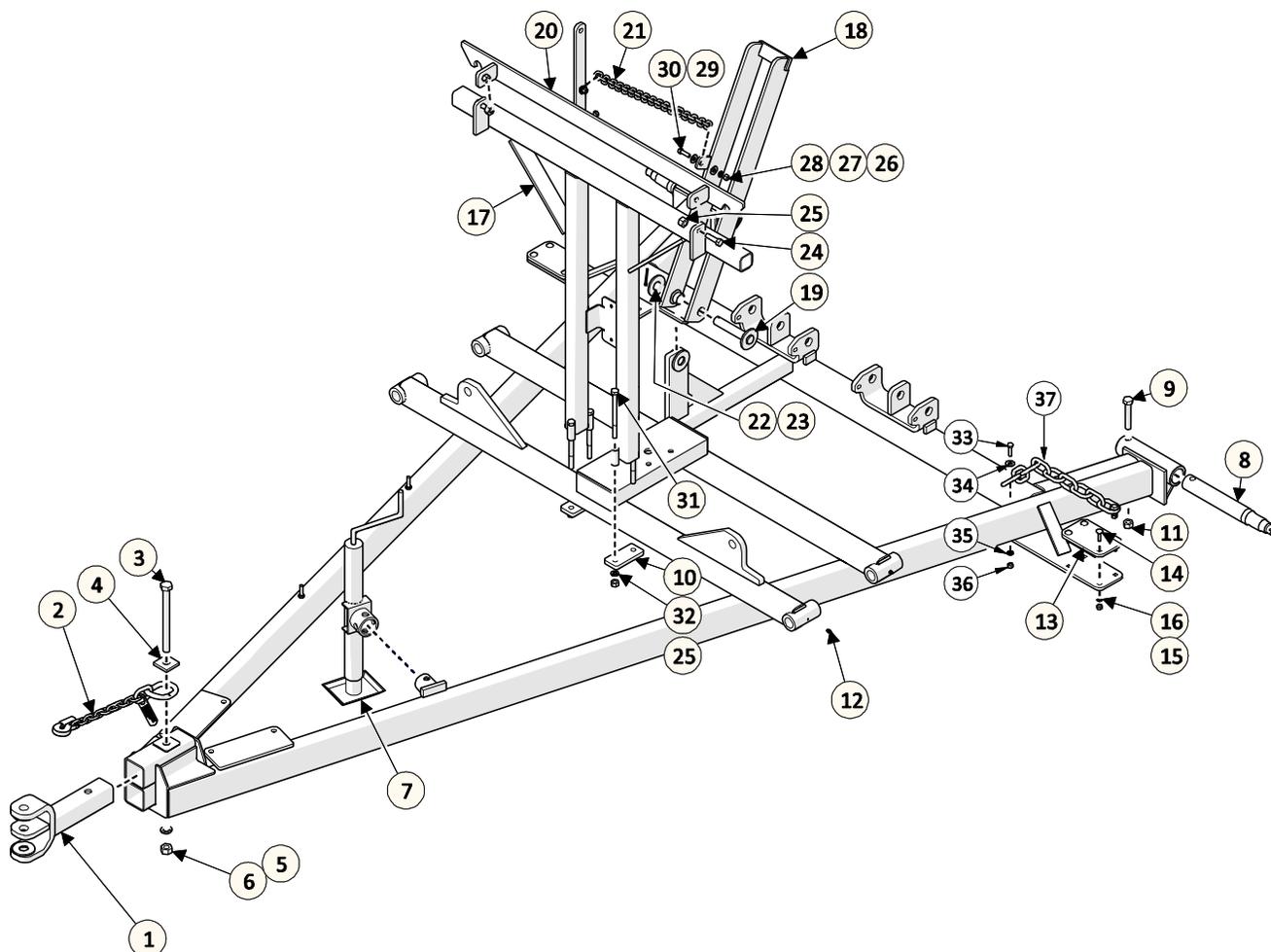
ITEM	PART #	DESCRIPTION	QTY
1	525106	DECK FRAME - REAR	1
2	525136	REAR DECK - GALVANIZED	1
3	629116	REAR DECK - PAINTED	1
4	525149	DECK SHIELD - RH	1
5	525147	DECK SHIELD - LH	1
6	O.L.	HEX NUT - 7/16" NC GR5 PL	12
7	O.L.	LOCK WASHER - 7/16" PL	12
8	O.L.	WING NUT - 3/8" NC	6
9	O.L.	LOCK WASHER - 3/8" PL	6
10	O.L.	HEX BOLT - 7/16" X 1.50" NC GR5 PL	8
11	O.L.	HEX BOLT - 1/2" X 1.75" NC GR5 PL	2
12	O.L.	HEX NUT - 1/4" NC GR5 PL	2
13	O.L.	LOCK WASHER - 1/4" PL	2
14	521353	SMV SIGN	1

ITEM	PART #	DESCRIPTION	QTY
15	521959	BLADE SPINDLE ASSEMBLY	3
16	O.L.	CARRIAGE BOLT - 1/2" X 5.00" NC GR5 PL	3
17	O.L.	CARRIAGE BOLT - 1/2" X 3.00" NC GR5 PL	2
18	O.L.	CARRIAGE BOLT - 1/2" X 1.50" NC GR5 PL	4
19	O.L.	HEX NUT - 1/2" NC GR5 PL	13
20	O.L.	LOCK WASHER - 1/2" PL	13
21	O.L.	FLAT WASHER - 1/2" PL	9
22	O.L.	HEX BOLT - 1/4" X 0.75" NC GR5 PL	2
23	521034	BELT - B90	2
24	O.L.	CARRIAGE BOLT - 7/16 X 1.00" NC GR5 PL	6
25	O.L.	LOCKWASHER - 7/16" PL	6
26	O.L.	HEX NUT - 7/16" NC GR5 PL	6
27	525141	DECK FRAME SPACER TUBE	3

O.L. - OBTAIN LOCALLY

## 2 FRAME ASSEMBLY

### 2.1 Frame Assembly

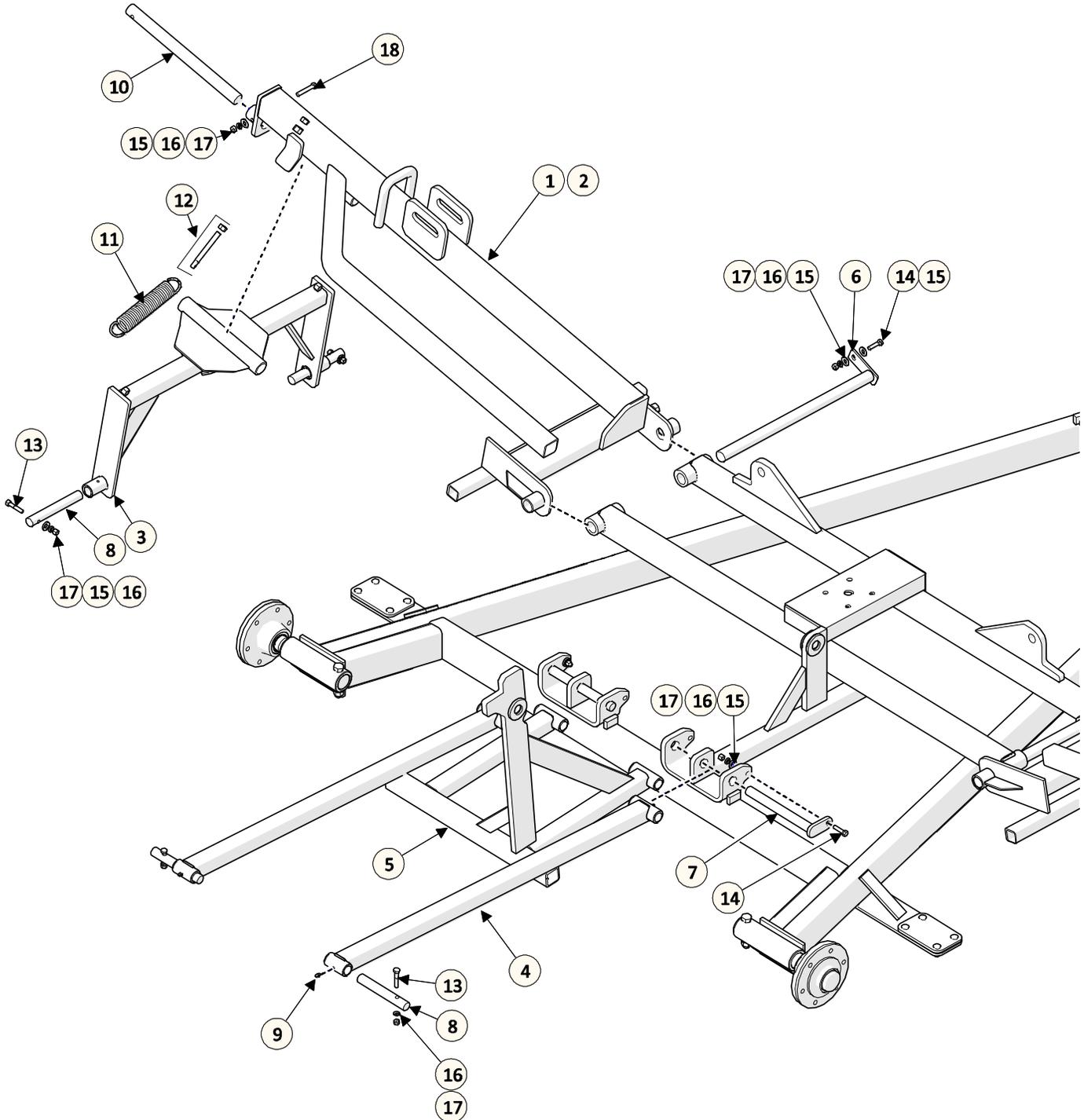


ITEM	PART #	DESCRIPTION	QTY
1	521047	4 POSITION HITCH	1
2	521048	SAFETY CHAIN	1
3	O.L.	HEX BOLT - 3/4" X 8.50" NC GR5 PL	1
4	521857	SAFETY CHAIN FLAT WASHER	1
5	O.L.	LOCK WASHER - 3/4" PL	1
6	O.L.	HEX NUT - 3/4" NC GR5 PL	1
7	219008	IMPLEMENT JACK	1
8	523219	CASTER AXLE	2
9	O.L.	HEX BOLT - 5/8" X 3.50" NC GR8 PL	2
10	521325	WING LOCK FRAME MTG. BRACKET	2
11	O.L.	LOCK NUT - 5/8" NC GR5 PL	2
12	O.L.	GREASE FITTING - 1/4-20 STRAIGHT	4
13	525140	CORNER PIN BEARING PLATE KIT (2 PCS)	1
14	O.L.	CARRIAGE BOLT - 3/8" X 1.25" NC GR5 PL	8
15	O.L.	HEX NUT - 3/8" NC GR5 PL	8
16	O.L.	LOCK WASHER - 3/8" PL	5
17	521408	WING LOCK FRAME	1
18	522310	REAR DECK SAFETY	1
19	521081	REAR CYLINDER PIN	1

ITEM	PART #	DESCRIPTION	QTY
20	521409	WING SAFETY LOCK	1
21	521411	PULL CHAIN	1
22	O.L.	FLAT WASHER - 1.00" PL	1
23	O.L.	COTTER PIN - 3/16" X 1.50"	1
24	O.L.	HEX BOLT - 1/2" X 1.75" NC GR5 PL	2
25	O.L.	HEX NUT - 1/2" NC GR5 PL	6
26	O.L.	FLAT WASHER - 3/8" PL	2
27	O.L.	LOCK WASHER - 3/8" PL	2
28	O.L.	HEX NUT - 3/8" NC GR5 PL	2
29	O.L.	FLAT WASHER - 3/8" PL	2
30	O.L.	HEX BOLT - 3/8" X 1.25" NC GR5 PL	2
31	O.L.	HEX BOLT - 1/2" X 6.00" NC GR5 PL	4
32	O.L.	LOCK WASHER - 1/2" PL	4
33	O.L.	HEX BOLT - 3/8" X 1.25" NC GR5 PL	2
34	O.L.	FLAT WASHER - 3/8" PL	2
35	O.L.	LOCK WASHER - 3/8" PL	2
36	O.L.	HEX NUT - 3/8" NC GR5 UPL	2
37	522410	WING CHAIN KIT (2 CHAINS & HW)	1

O.L. - OBTAIN LOCALLY

## 2.2 Wing Lift Assembly

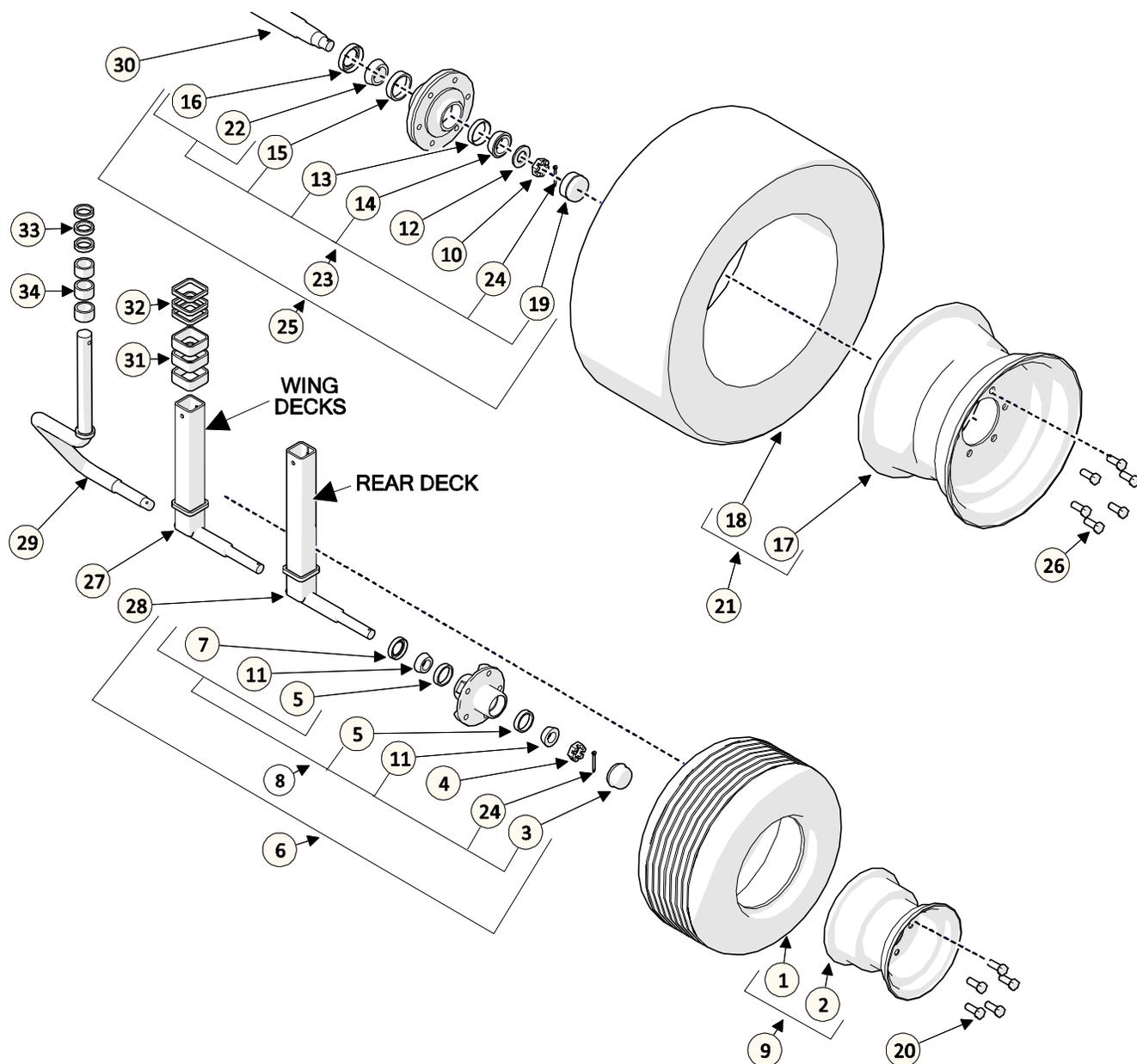


ITEM	PART #	DESCRIPTION	QTY
1	521421	WING - LH	1
2	521423	WING - RH (NOT SHOWN)	1
3	525128	DECK SWIVEL	2
4	521418	REAR DECK LIFT ARM	2
5	522004	REAR DECK PICK UP FRAME	1
6	521096	WING PIN	2
7	521094	LIFT ARM PIVOT PIN	2
8	521346	DECK LIFT PIN	4
9	522020	GREASE FITTING KIT (20 PCS)	1
10	521338	SWIVEL PIN	2

ITEM	PART #	DESCRIPTION	QTY
11	521431	DECK SWIVEL SPRING	2
12	521102	SPADE BOLT KIT	1
13	O.L.	HEX BOLT - 3/8" X 2.00" NC GR5 PL	6
14	O.L.	HEX BOLT - 3/8" X 1.50" NC GR5 PL	4
15	O.L.	FLAT WASHER - 3/8" PL	10
16	O.L.	LOCK WASHER - 3/8" PL	11
17	O.L.	HEX NUT - 3/8" NC GR5 PL	11
18	O.L.	HEX BOLT - 3/8" X 2.25" NC GR5 PL	2

O.L. - OBTAIN LOCALLY

## 2.3 Tire Assemblies

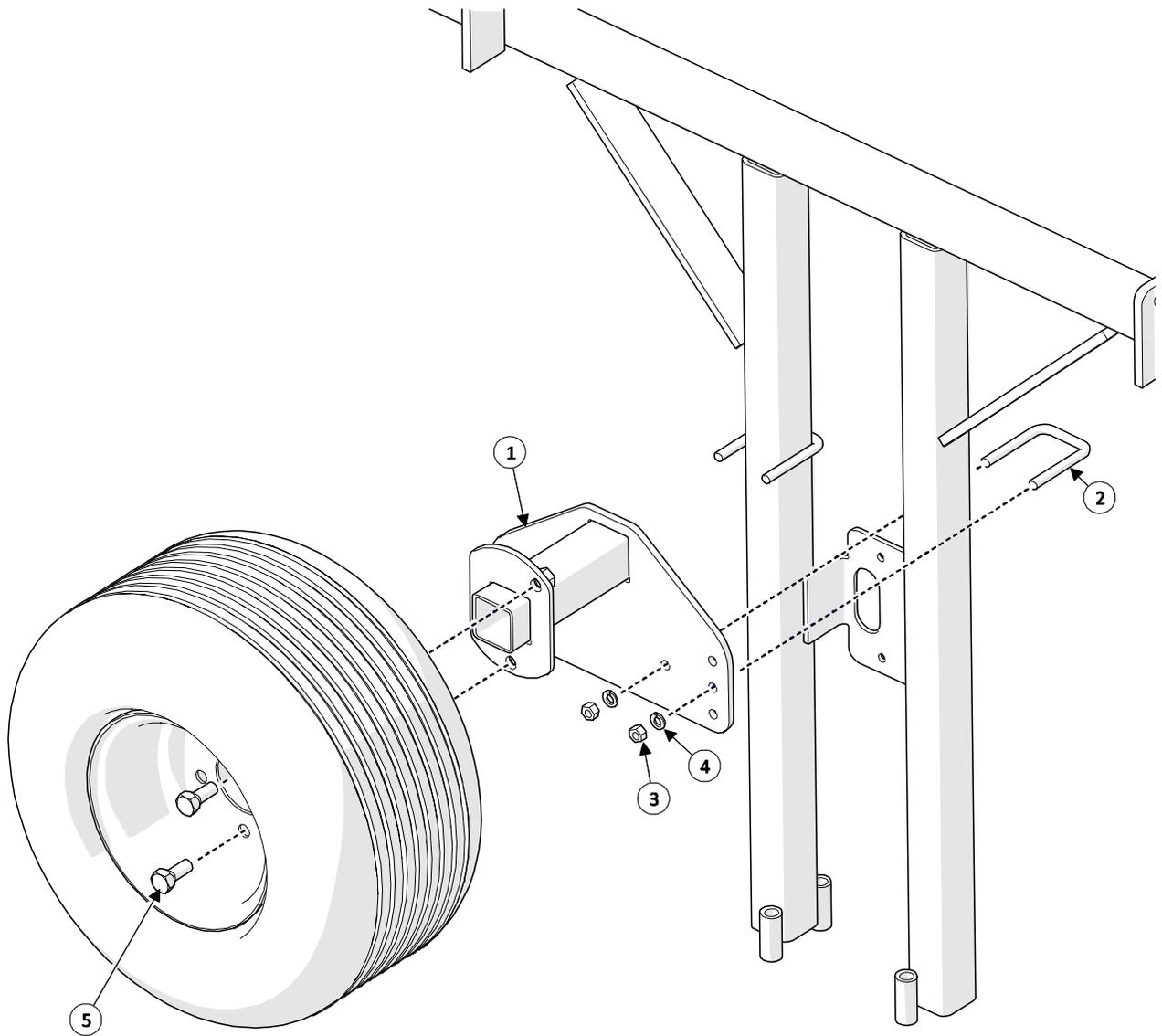


ITEM	PART #	DESCRIPTION	QTY
1	521052	TIRE - 18 X 9.5	1
2	521398	RIM - 8 X 7	1
3	521748	DUST CAP	1
4	521747	HEX NUT - SLOTTED (2 PCS)	1
5	-	BEARING RACE - OUTER	2
6	521405	HUB ASSEMBLY	1
7	521493	GREASE SEAL	1
8	521500	BEARING KIT - CASTER	1
9	521028	TIRE & RIM - 18-9.50 X 8	1
10	521747	HEX NUT - SLOTTED (2 PCS)	1
11	-	BEARING	2
12	521761	WASHER (2 PCS)	1
13	-	BEARING RACE - OUTER	1
14	-	BEARING - OUTER	1
15	-	BEARING RACE - INNER	1
16	521741	GREASE SEAL	1
17	521084R	RIM - 15 X 10	1
18	O.L.	TIRE - P275/60 SR15	1

ITEM	PART #	DESCRIPTION	QTY
19	521762	DUST CAP	1
20	521093	WHEEL STUD KIT - CASTER (6 PCS)	1
21	521084	TIRE & RIM - P275/60 SR15	1
22	-	BEARING - INNER	1
23	521046	BEARING KIT - WHEEL	1
24	521752	COTTER PIN KIT (6 PCS)	2
25	521085	HUB ASSEMBLY	1
26	521083	WHEEL STUD KIT - TRANSPORT (6PCS)	1
27	521406	CASTER- SQ SHORT	1
28	521478	CASTOR - SQ LONG	1
29	521404	SPINDLE - 1-1/4" RD	1
30	523219	CASTER AXLE	1
31	521039	SPACER KIT - 1.00" (6 PCS)	1
32	521040	SPACER KIT - 3/8" (6 PCS)	1
33	521029	SPACER KIT - 3/8" (6 PCS)	1
34	521030	SPACER KIT - 1.00" (6 PCS)	1

O.L. - OBTAIN LOCALLY

## 2.4 Spare Tire Carrier – Optional

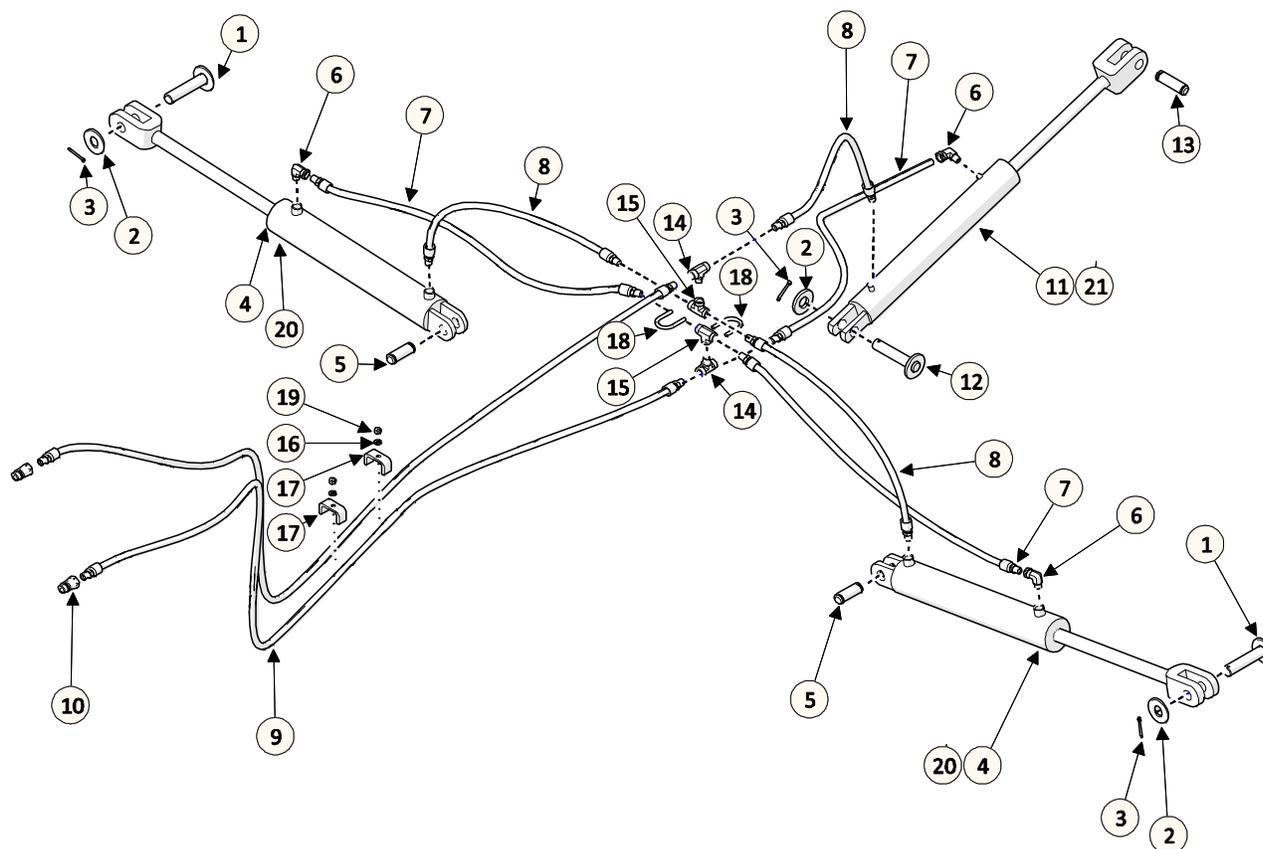


ITEM	PART #	DESCRIPTION	QTY
1	629108	MOUNT - SPARE TIRE	1
2	304205	U BOLT SQUARE 3/8" x 3.125"	2
3	O.L.	HEX NUT - 3/8NC GR5 PL	4
4	O.L.	LOCK WASHER- 3/8 PL	4
5	521093	WHEEL BOLT KIT (6 PCS)	1

O.L. - OBTAIN LOCALLY

## 3 HYDRAULICS

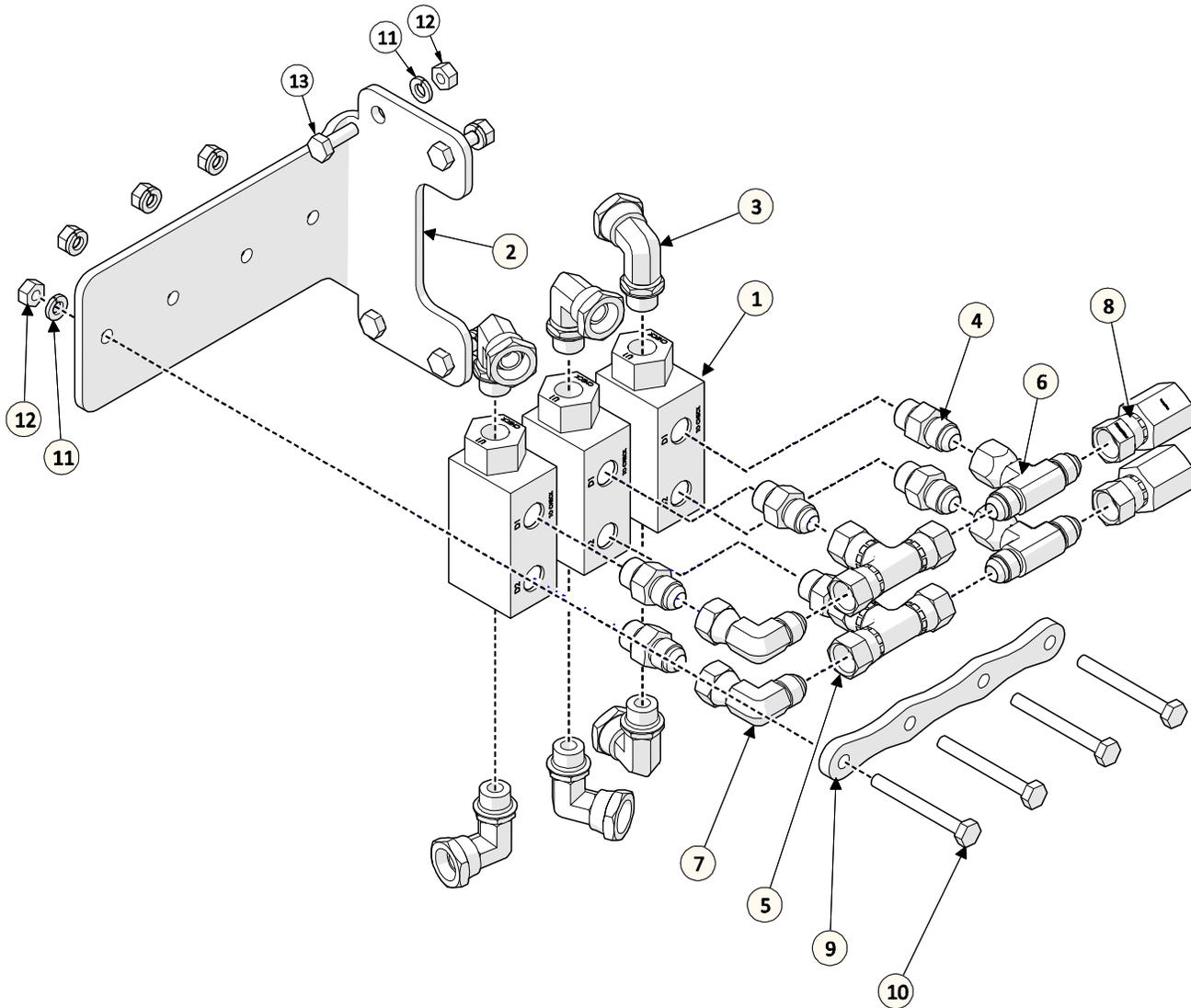
### 3.1 Hydraulics



ITEM	PART #	DESCRIPTION	QTY
1	521103	WING CYLINDER LIFT PIN	2
2	O.L.	FLAT WASHER- 1 PL	3
3	O.L.	COTTER PIN - 3/16 X 1.5	3
4	522009	HYDRAULIC CYLINDER - WING	2
5	521345	WING CYLINDER PIN	2
6	521336	RESTRICTOR FITTING 90	3
7	521415	HYDRAULIC HOSE - 43"	3
8	521414	HYDRAULIC HOSE - 31"	3
9	521413	HYDRAULIC HOSE - 152"	2
10	222006	HOSE END KIT (2 PCS)	2
11	522012	HYDRAULIC CYLINDER - REAR	1
12	521081	REAR CYLINDER PIN	1
13	521350	REAR CYLINDER LIFT PIN	1
14	521416	TEE - BRANCH	2
15	521770	HYDRAULIC TEE	2
16	O.L.	LOCK WASHER- 3/8 PL	2
17	521051	HYDRAULIC HOSE CLAMP	2
18	521071	U BOLT - 1"	2
19	O.L.	HEX NUT - 3/8NC GR5 PL	2
20	522040	SEAL KIT - WING CYLINDER (522009)	1
21	522013	SEAL KIT - REAR CYLINDER (522012)	1

O.L. - OBTAIN LOCALLY

### 3.2 Hydraulic Stabilizer Valves - Optional

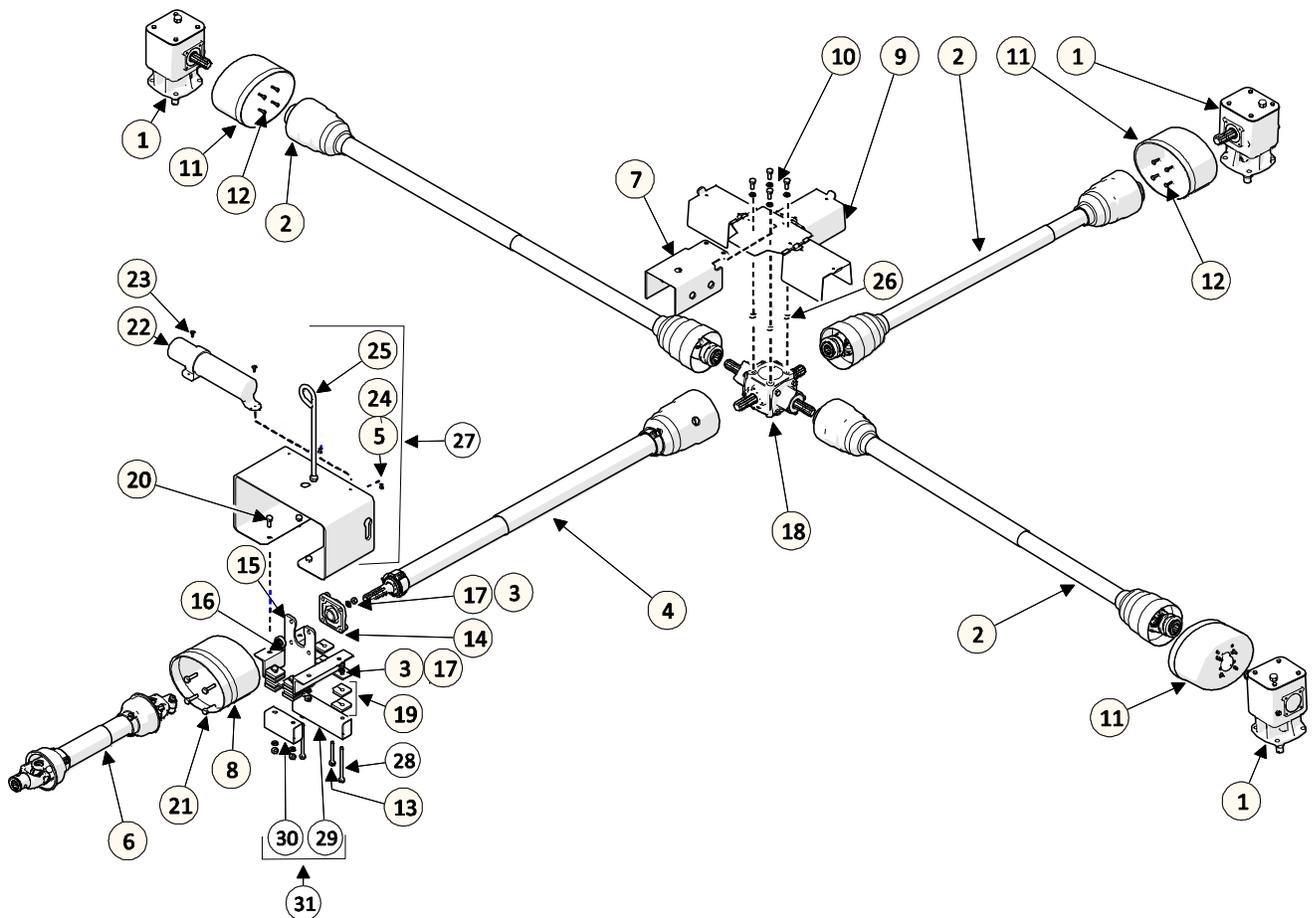


ITEM	PART #	DESCRIPTION	QTY
1	629101	CHECK VALVE ASSEMBLY	3
2	629103	BRACKET - CHECK VALVES	1
3	221099	90 EL ADAPTER -6ORB X -6NPT SWVL	6
4	221094	STR ADAPTER - -6 JIC X -6 ORB	6
5	221137	TEE - -6 JIC SWVL	2
6	221138	TEE - -6 JICM X -6 JIC SWVL BRANCH	2
7	221136	ELBOW ADAPTER - -6 JICM X -6 JICF SWVL	2
8	221139	ADAPTER - -6 JICF X 3/8 NPTF	2
9	629105	CLAMP PLATE - CHECK VALVES	1
10	O.L.	HEX BOLT - 1/4 x 2.5 NC GR5 PL	4
11	O.L.	LOCK WASHER - 1/4" PL	8
12	O.L.	HEX NUT - 1/4NC GR5 PL	8
13	O.L.	HEX BOLT - 1/4 x .75 NC GR5 PL	4

O.L. - OBTAIN LOCALLY

# 4 DRIVELINE

## 4.1 Driveline

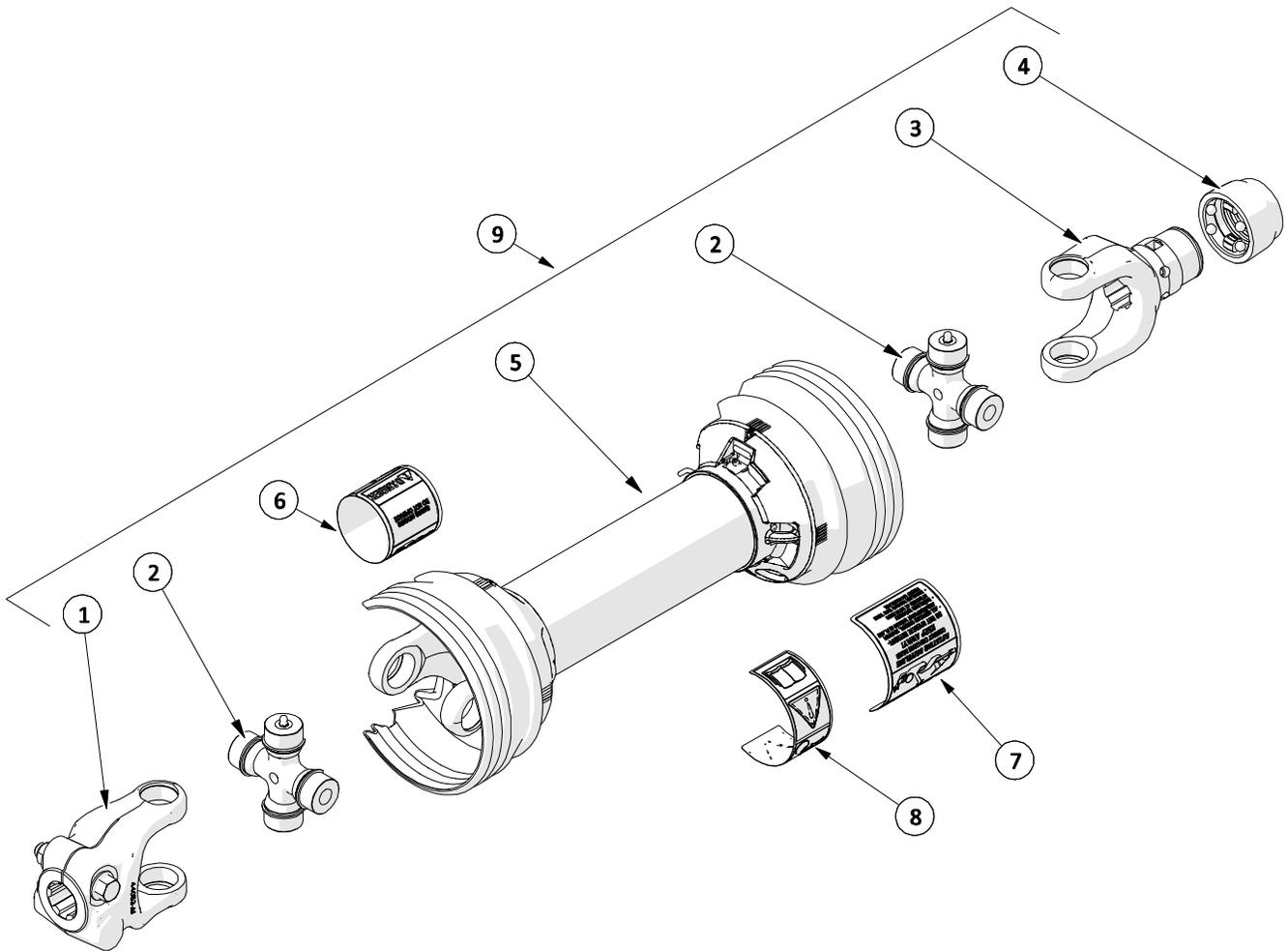


ITEM	PART #	DESCRIPTION	QTY
1	521432	DECK GEARBOX	3
2	210190	DECK PTO SHAFT	3
3	O.L.	LOCK WASHER- 1/2 PL	8
4	210170	INTERMEDIATE PTO SHAFT	1
5	O.L.	LOCK WASHER- 1/4 PL	2
6	210150	INPUT PTO SHAFT	1
7	522709	INTERMEDIATE SHIELD	1
8	210062	CONE-INPUT(EXPORT ONLY)	1
9	522463	4-WAY G-BOX SHIELD	1
10	521764	BOLT KIT-M12X30 W/ LW(16 PCS)	1
11	210061	CONE-GEARBOX(EXPORT ONLY)	3
12	O.L.	HEX BOLT - M8 X 14MM GR8.8	12
13	O.L.	HEX TAP BOLT-1/2X4 NC GR5 PL	4
14	521323	4 BOLT FLANGE BEARING	1
15	522402	PTO MOUNTING BRKT	1
16	521789	PTO SPACER	1

ITEM	PART #	DESCRIPTION	QTY
17	O.L.	HEX NUT - 1/2" NC GR5 PL	12
18	521497	GEARBOX - 4 SHAFT	1
19	522414	PTO BRKT SPACER KIT (4 PCS)	4
20	O.L.	HEX BOLT- 1/2 X 1.25 NC GR5 PL	4
21	O.L.	HEX BOLT- 1/2 X 1.75 NC GR5 PL	4
22	120519	MANUAL HOLDER TUBE	1
23	O.L.	CARR BOLT - 1/4 X 3/4 NC GR5 PL	2
24	O.L.	HEX NUT - 1/4NC GR5 PL	2
25	522413	HOSE GUIDE - C/W HARDWARE	1
26	521197	GEAR BOX COVER SPACER	4
27	526438	HOSE SUPPORT ASSEMBLY	1
28	O.L.	HEX TAP BOLT- 1/2 X 5.50 NC GR5 PL	4
29	SEE ITEM #31	SPACER TUBE - REAR	1
30	SEE ITEM #31	SPACER TUBE - FRONT	1
31	525558	PTO BEARING SPACER TUBE KIT	1

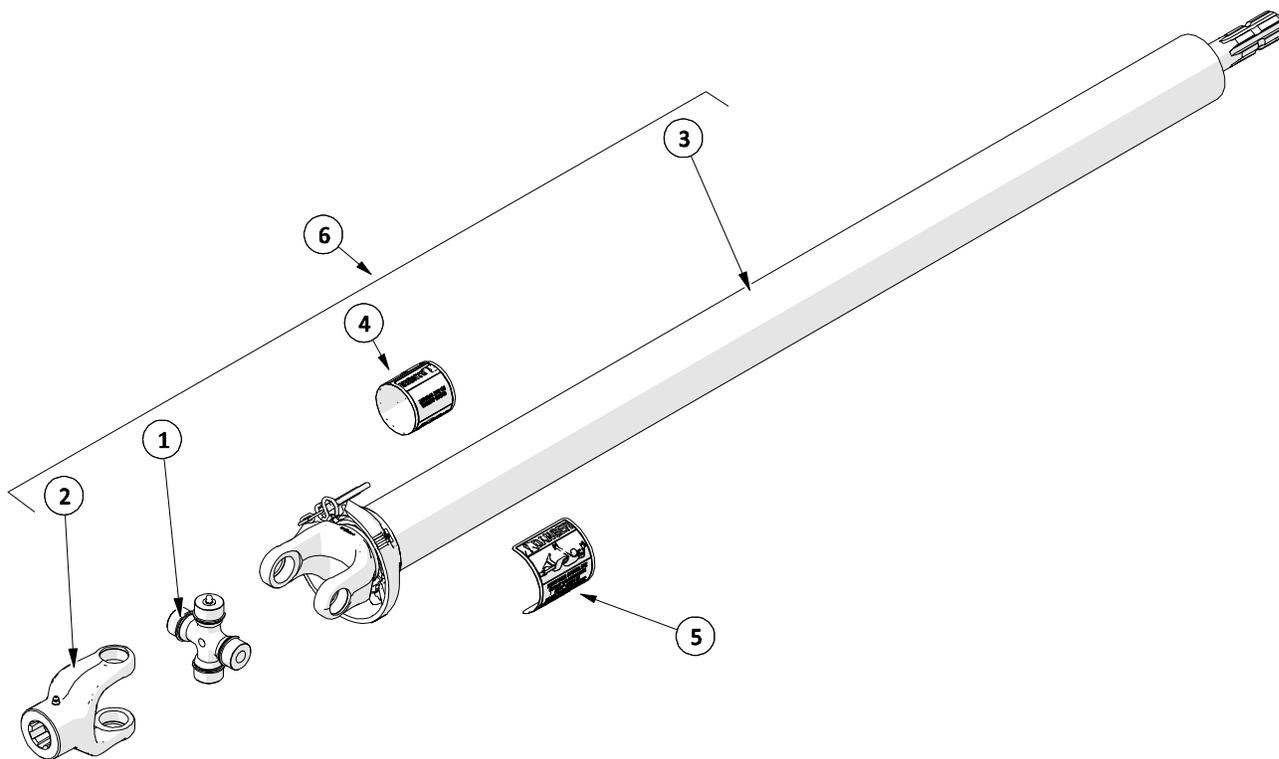
O.L. - OBTAIN LOCALLY

## 4.2 Input PTO Shaft



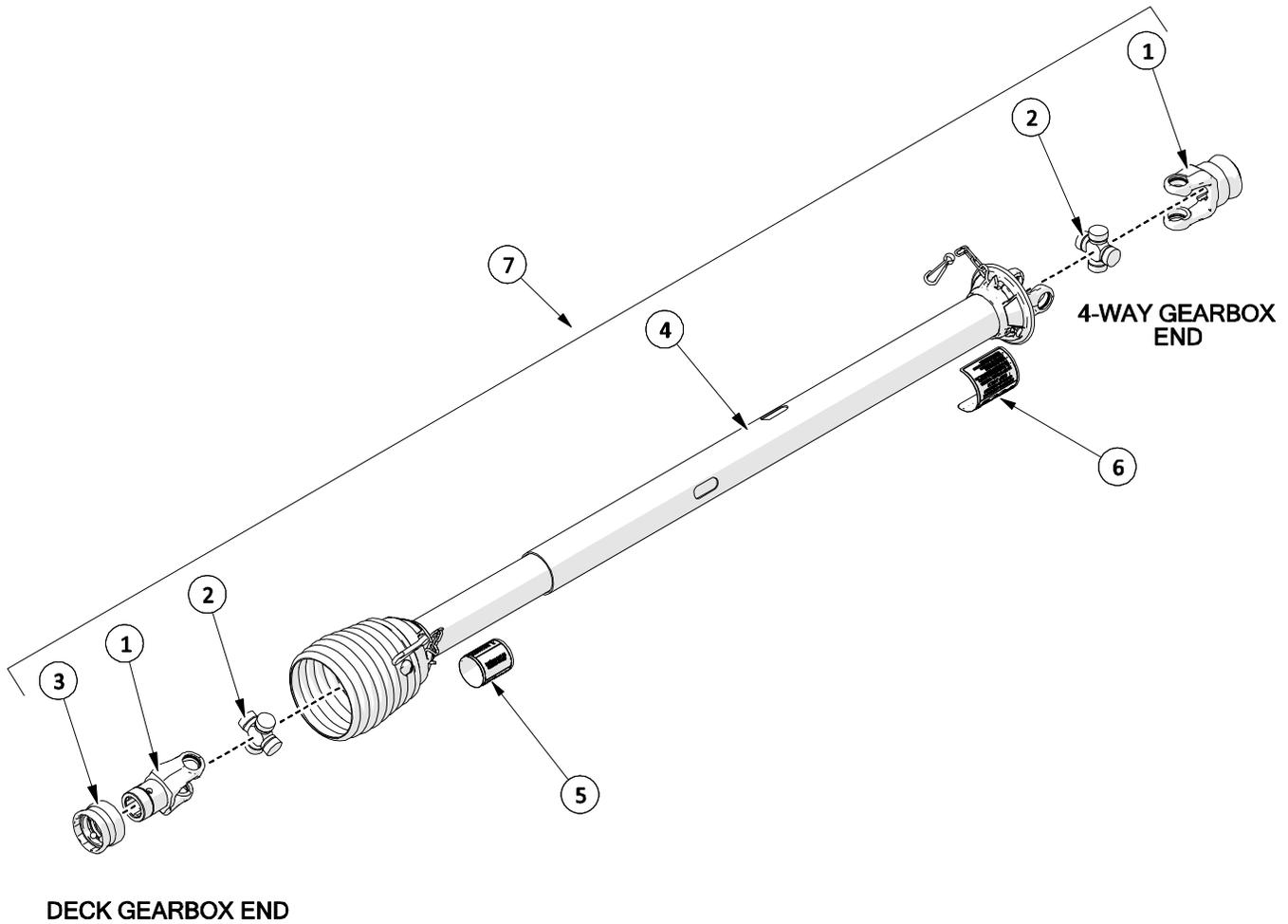
ITEM	PART #	DESCRIPTION	QTY
1	210174	CLAMP YOKE	1
2	210171	CROSS AND BEARING KIT	2
3	210175	SLIDE LOCK YOKE ASSEMBLY	1
4	210179	SLIDE LOCK REPAIR KIT	1
5	210178	COMPLETE GUARD SET	1
6	210239	SAFETY SIGN - INNER GUARD	1
7	210237	SAFETY SIGN - OUTER GUARD	1
8	210238	CE WARNING DECAL	1
9	210150	INPUT PTO SHAFT - COMPLETE	1

### 4.3 Intermediate PTO Shaft



ITEM	PART #	DESCRIPTION	QTY
1	210171	U-JOINT KIT	1
2	210172	SLIDE YOKE	1
3	210173	GUARD SET	1
4	210239	SAFETY SIGN - INNER GUARD	1
5	210237	SAFETY SIGN - OUTER GUARD	1
6	210170	INTERMEDIATE SHAFT - COMPLETE	1

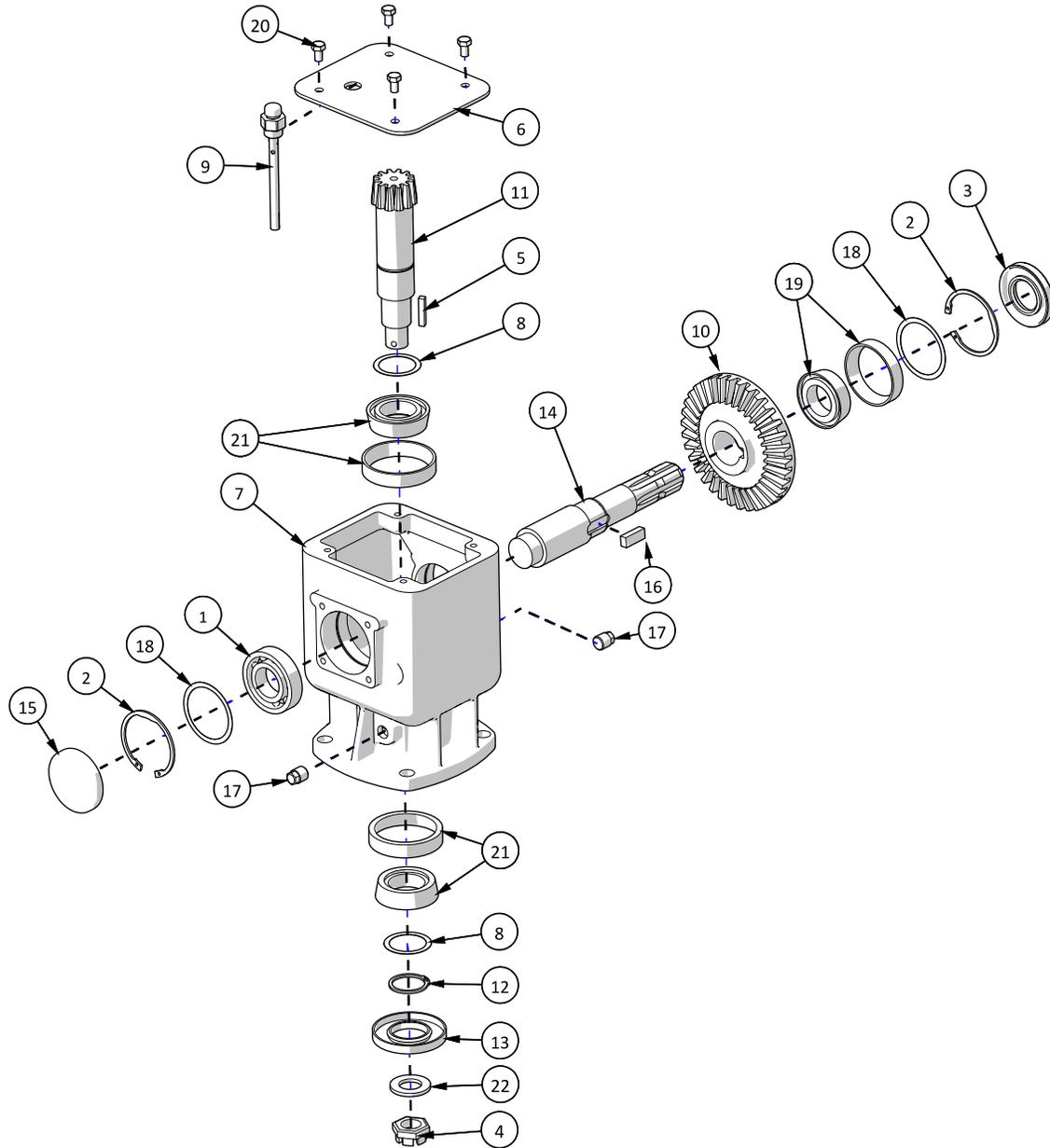
## 4.4 Deck PTO Shaft



ITEM	PART #	DESCRIPTION	QTY
1	210192	SPRING-LOK YOKE ASSM.	2
2	210191	CROSS AND BEARING KIT	2
3	210196	SPRING-LOK REPAIR KIT	2
4	210195	COMPLETE GUARD SET	1
5	210239	SAFETY SIGN - INNER GUARD	1
6	210237	SAFETY SIGN - OUTER GUARD	1
7	210190	DECK SHAFT - COMPLETE W/GUARDS	1

## 4.5 Deck Gearbox – Option #1 - 521432

Internal parts are not interchangeable with 215180 gearbox

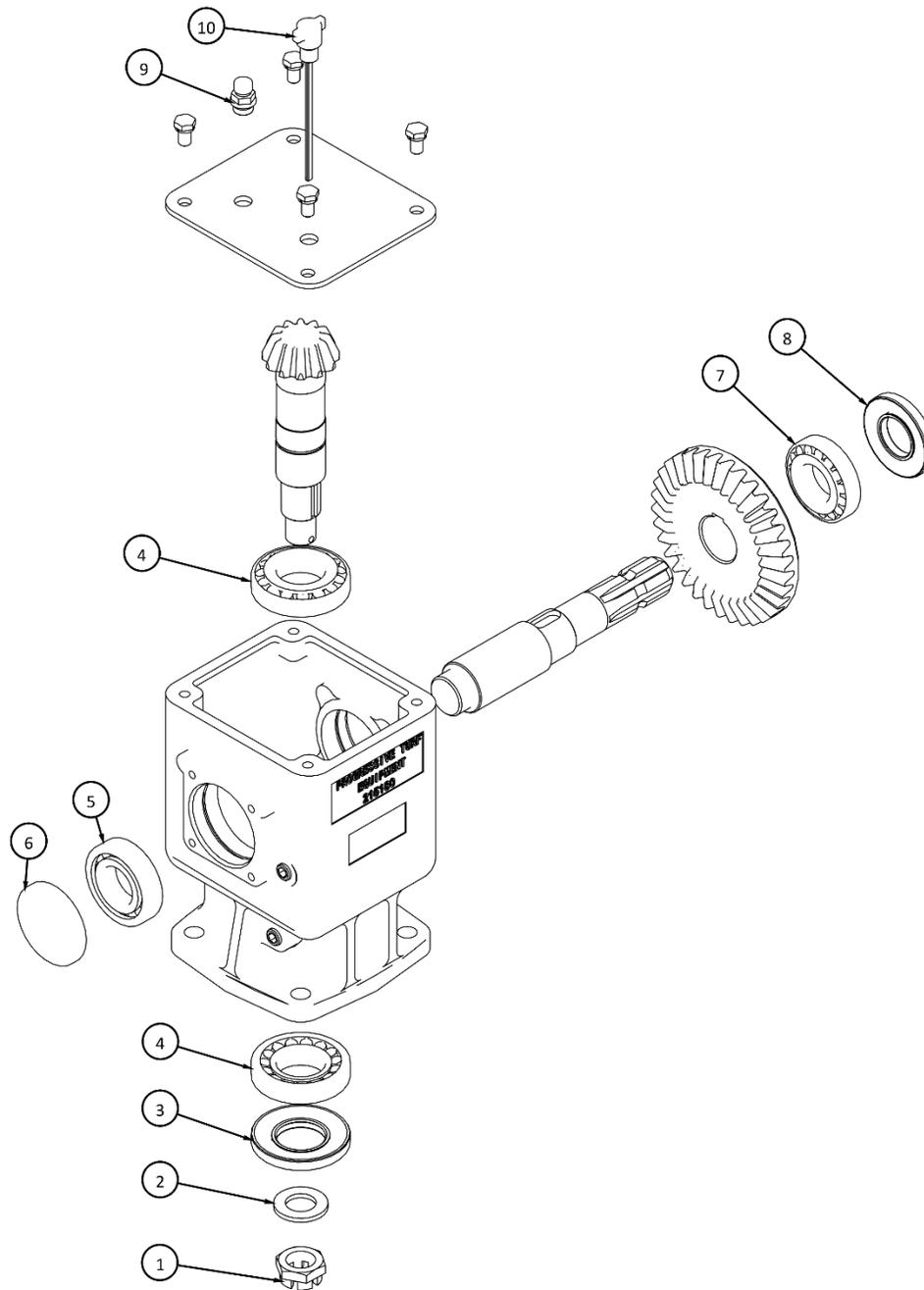


ITEM	PART #	DESCRIPTION	QTY
1	521116	BEARING - 6207	1
2	521126	SNAP RING - 3 PC KIT	2
3	521127	OIL SEAL - 35 X 72 X 10	1
4	521130	CASTLE NUT - M24	1
5	521390	DECK GEARBOX KEY (3 PCS)	1
6	521420	COVER PLATE	1
7	521428	CASING	1
8	521436	SHIM KIT (2 PCS)	2
9	521433	OIL LEVEL DIPSTICK	1
10	521434	GEAR	1
11	521435	PINION SHAFT	1
12	521439	SNAP RING - 3 PC KIT	1

ITEM	PART #	DESCRIPTION	QTY
13	521440	OIL SEAL - 40 X 80 X 10	1
14	521441	INPUT SHAFT	1
15	521443	CAP	1
16	521444	KEY - 12 X 8 X 30	1
17	521482	HEX PIPE PLUG	2
18	521491	SHIM KIT	2
19	521362	BEARING - TAPERED ROLLER	1
20	521399	BOLT - M8 X 14 - 8.8	4
21	521442	BEARING - TAPERED ROLLER	2
22	521129	WASHER KIT (3 PCS)	1
23	521432	DECK GEARBOX COMPLETE	1

## 4.6 Deck Gearbox – Option #2 - 215180

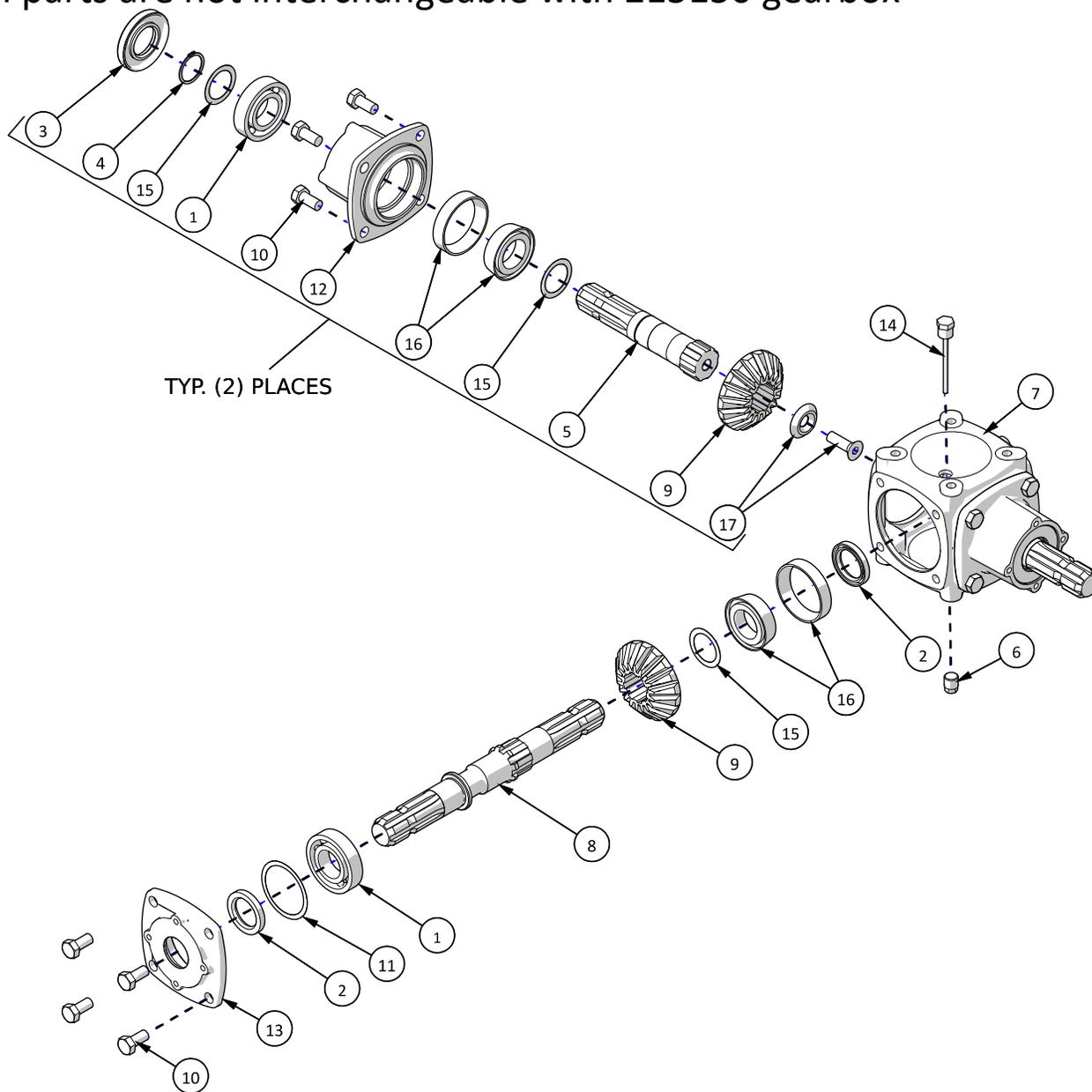
Internal parts are not interchangeable with 521432 gearbox



ITEM	PART #	DESCRIPTION	QTY
1	521130	CASTLE NUT - M24	1
2	521129	WASHER KIT (3PCS)	1
3	521440	OIL SEAL BOTTOM	1
4	521442	BEARING - TAPERED	2
5	521116	BEARING - ROLLER	1
6	521443	CAP	1
7	521362	BEARING - TAPERED	1
8	521127	OIL SEAL	1
9	215182	BREATHER	1
10	215181	DIPSTICK	1
11	215180	GEAR BOX DECK	1

### 4.7 4 Way Gearbox – Option#1 - 521497

Internal parts are not interchangeable with 215150 gearbox

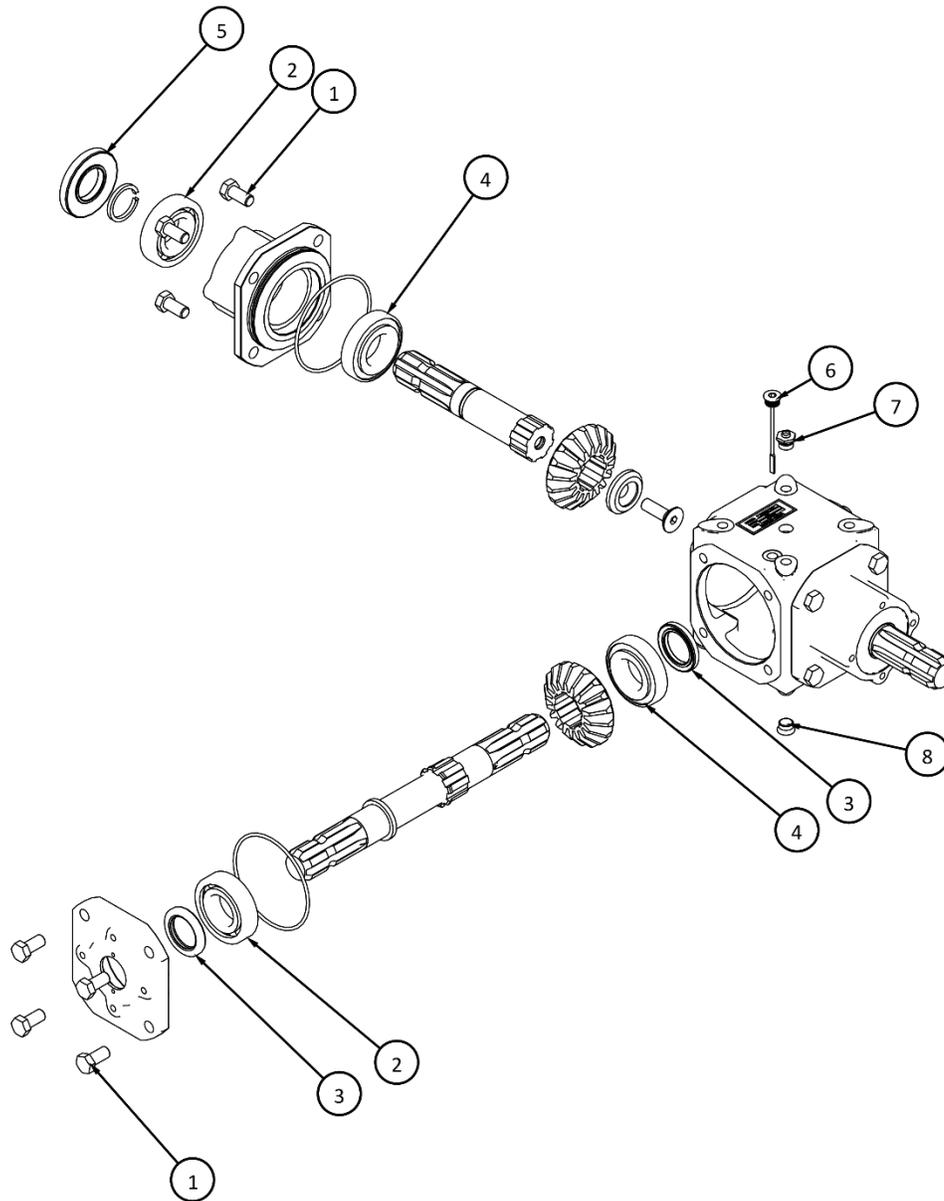


ITEM	PART #	DESCRIPTION	QTY
1	521116	BEARING - 6207	3
2	521120	OIL SEAL - 35 X 52 X 10	2
3	521127	OIL SEAL - 35 X 72 X 10	2
4	521137	SNAP RING	2
5	521481	STUB SHAFT	2
6	521482	HEX PIPE PLUG	1
7	521483	HOUSING	1
8	521486	THRU SHAFT	1
9	521487	GEAR	3
10	521488	BOLT - M12 X 25 - 8.8 (6 PCS)	12

ITEM	PART #	DESCRIPTION	QTY
11	521491	SHIM KIT	1
12	521796	EXTENSION HOUSING	2
13	521797	COVER	1
14	521489	OIL LEVEL DIPSTICK	1
15	521794	SHIM KIT	5
16	521362	BEARING - TAPERED	3
17	522426	BOLT AND WASHER KIT (4 PCS)	2
18	521497	COMPLETE GEARBOX	1

## 4.8 4 Way Gearbox – Option #2 - 215150

Internal parts are not interchangeable with 521497 gearbox



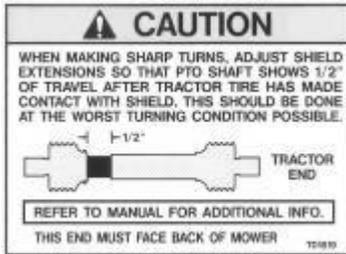
ITEM	PART #	DESCRIPTION	QTY
1	521488	BOLT - M12 X 25 8.8 (6PCS)	12
2	521116	BEARING	3
3	215151	OIL SEAL	2
4	521362	BEARING - CUP & CONE	3
5	521127	OIL SEAL	2
6	215152	DIPSTICK	1
7	215153	BREATHER	1
8	215154	PLUG 9/16 UNF	1
9	215150	GEAR BOX 4 WAY	1

# 5 DECALS

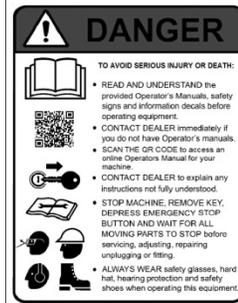
## 5.1 Safety

If decals become faded, damaged, or lost, replace immediately. Order decal according to corresponding Part # below. Complete decal kits are also available.

### TD-92 DECAL KIT – 522002



**521819**  
DECAL - CAUTION



**209175**  
DECAL – GENERAL SAFETY



**209113**  
DECAL – REPLACE SHIELDS



**521784**  
DECAL - NOTICE



**209173**  
DECAL – ROTATING BLADE DANGER



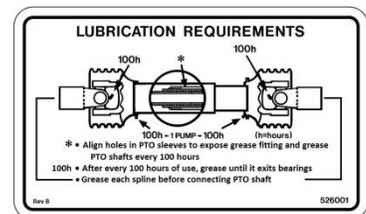
**209115**  
DECAL – OEM PARTS



**521820**  
DECAL - CAUTION



**521199**  
DECAL – GREASING SCHEDULE



**526001**  
100HR DECAL – PTO GREASE

**PROGRESSIVE**

**92" TRI-DECK**

**521816**

DECAL – TD-92



**521817**

DECAL – PROGRESSIVE TURF



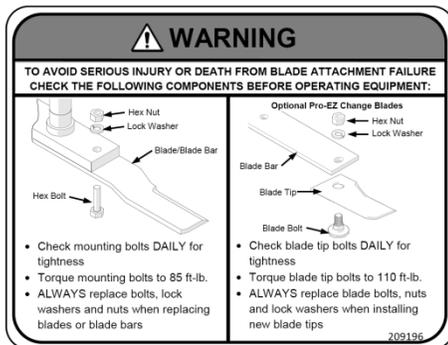
521451

DECAL – DANGER – OUTER TUBE



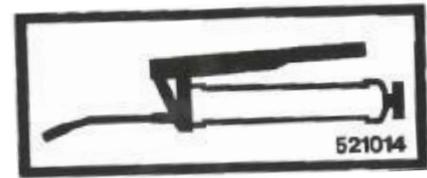
521455

DECAL – DANGER – OUTER SHIELD



209196

DECAL – BLADE HARDWARE



521014

DECAL – GREASE GUN

