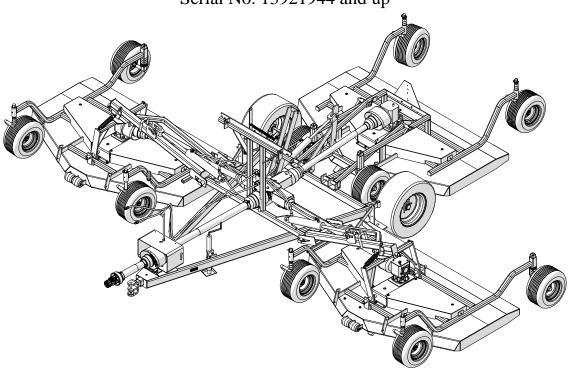


# Operator's Manual and Parts List Progressive TD 92 Tri-Deck

Rotary Finishing Mower Serial No. 13921944 and up



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Si No Lee Ingles, Pida Ayuda a Alguien Que Se Lo Lea Para Que le Traduzca Las Medidas de Seguridad P.N.120513

# **DECLARATION OF CONFORMITY**

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

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

#### **Progressive Rotary Finishing Mowers**

Models:	Part Number	<u>Description</u>
TD65-2	526512D	3.66m Tri-Deck Finishing Mower
TD65	526515D	4.72m Tri-Deck Finishing Mower
TD92	529222E	6.70m Tri-Deck Finishing Mower
PM-36	529236E	10.97m Pro-Max 36 Mowing System
PF-120	601205D	3.05m Pro-Flex Contour Mower
PFR-120	601205RD	3.05m Pro-Flex Roller Contour Mower
TDR-12	528712D	3.65m Tri-Deck Roller Mower
TDR-15	528750D	4.72m Tri-Deck Roller Mower
TDR-22	526822C	6.70m Tri-Deck Roller Mower
SDR-65	531965C	165cm Three Point Hitch Roller Mower
SDR-90	531990C	228.6cm Three Point Hitch Roller Mower

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

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

Dated at Seaforth, Ontario Canada the 24<sup>th</sup> day of November, 2014.

Luke Janmaat

President

Progressive Turf Equipment Inc.

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#### TO THE OWNER:

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

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

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



**ATTENTION** - This safety symbol means

Your personal safety is involved. Be sure to observe and follow these instructions.



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



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



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

## **GENERAL INFORMATION:**

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

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

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

For quick reference, record the following information.

MODEL:	TD92		
DATE PURC	HASED:	 	
SERIAL NUN	MBER:		

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

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

TD92 MACHINE SPECIFICATIONS				
Cutting Width	22 feet	Ground Pressure	7 pounds per square inch	
Cutting Height	<sup>3</sup> / <sub>4</sub> " to 5"	Deck Flexibility	25° up, 15° down	
Recommended HP	40 Min – 70 Max	Tire To Ground	630 square inches on contact	
Hydraulics	Requires 1 double acting outlet, all hoses supplied to tractor	Numbers of Tires	10 on decks, 2 on main frame	
Transport Width	9 ½ ft.	Mowing Capacity	MPH 2 4 6 7-1/2 Acres per hour 5.4 10.7 16 20 Assumes no stops or overlap.	
Height	10 ft.	Paint Finish	Electro-statically painted with oven baked finish.	
Length	16 ft.	SMV Sign	Located at back of mower for safety	
Ground Clearance	9 1/4"	Weight	Total 4100 lbs.	

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

#### **SAFETY**

#### WORK SAFELY ---- FOLLOW THESE RULES



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

# A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT

# BEFORE HANDLING ANY EQUIPMENT READ THE OPERATOR'S MANUAL.

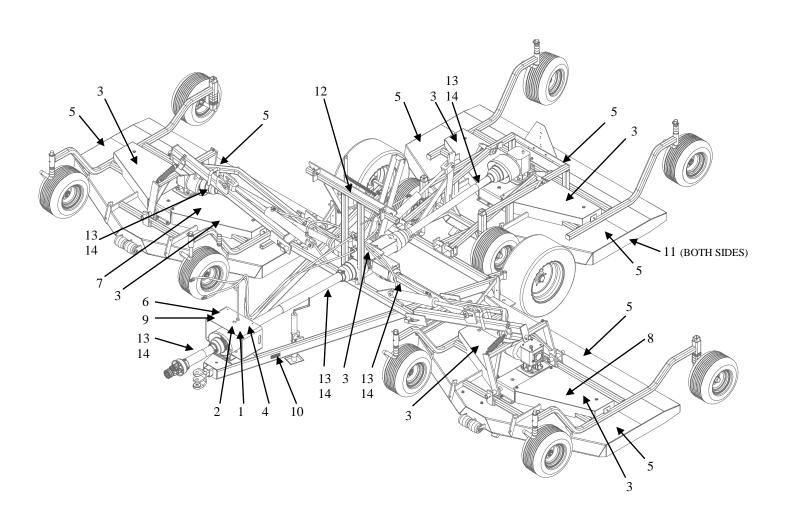
- ❖ To avoid accident or injury, do not allow anyone to operate this equipment without proper instructions. Any person who operates this equipment must be instructed in and be capable of the safe operation of the unit.
- ❖ Know your controls and how to stop tractor, engine, and mower quickly in an emergency.

#### **OPERATING SAFELY:**

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

# **SAFETY & MAINTENANCE DECAL LOCATIONS**

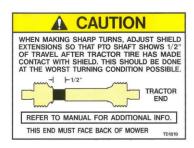
ITEM			ITEM		
NO.	DESCRIPTION	QTY	NO.	DESCRIPTION	QTY
1	CAUTION - TURNING	1	8	GREASING SCHEDULE	1
2	DANGER – READ MANUAL	1	9	PTO GREASING	1
3	CAUTION – REPLACE SHIELDS	7	10	SERIAL PLATE	1
4	NOTICE – HITCH SETUP	1	11	MOWER MODEL	2
5	DANGER - BLADE HAZARD	7	12	COMPANY NAME	1
6	WARNING – OEM PARTS	1	13	DANGER – OUTER TUBE	5
7	CAUTION – DISENGAGE PTO	2	14	DANGER – OUTER SHIELD	5



#### **TD92 DECAL LISTING:**

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

#### TD 92 DECAL KIT - 522002







ITEM 1 (521819)



ITEM 3 (209113)



ITEM 4 (521784)



ITEM 5 (209173)



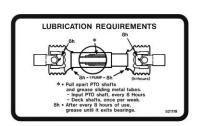
ITEM 6 (209115)



ITEM 7 (521820)



ITEM 8 (521199)



ITEM 9 (521119)

PROGRESSIVE 92" TRI-DECK

ITEM 11 (521816)



ITEM 12 (521817)





ITEM 13 (521451)

ITEM 14 (521455)



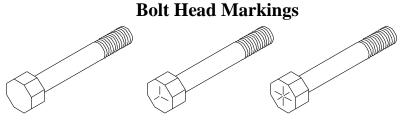
GREASE POINT DECAL (521014)

## **MAINTENANCE SAFETY:**

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

#### PROPER TORQUE FOR FASTENERS:

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



SAE Grade 2 (No Dashes)

SAE Grade 5 (3 Dashes) SAE Grade 8 (6 Dashes)

Recommended Torque in Foot Pounds (Newton-Meters)

<b>Bolt Diameter (in.)</b>	SAE Grade 5
5/16	21 (28)
3/8	38 (52)
7/16	55 (75)
1/2	85 (115)
9/16	125 (170)
5/8	175 (240)
3/4	300 (410)
7/8	450 (610)
1	680 (925)
1" L.H. Spindle Nut	60 (82)

#### **ASSEMBLY INSTRUCTIONS:**

#### **SET - UP INSTRUCTIONS:**

The mower is shipped partially assembled. Assembly will be easier if components are aligned and loosely assembled before tightening hardware. Recommended torque values for hardware are located on page 11.



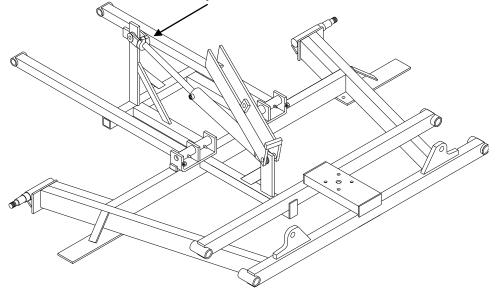
**CAUTION** - Always use personal protection devices such as eye and ear protection during assembly.

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

## **START WITH ASSEMBLY OF MAIN FRAME:**

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

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



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

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

Hook frame to tractor drawbar and adjust hitch so frame is level. The front

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

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

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

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

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

## **INSTALLING PTO SHAFTS:**

The three identical PTO shafts are used to drive the mower decks. Each PTO shaft will have one end designated a tractor end. This end should be hooked up to the main gear box.

<u>IMPORTANT</u>: The PTO shafts from the two wing decks must be timed when mounted to the gear box. See photo below. Mount the one side first with the yoke laying flat. The opposite side must be mounted with the yoke laying as flat as possible. ie. Timed.



**Rear Deck Drive Shaft** 

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

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

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



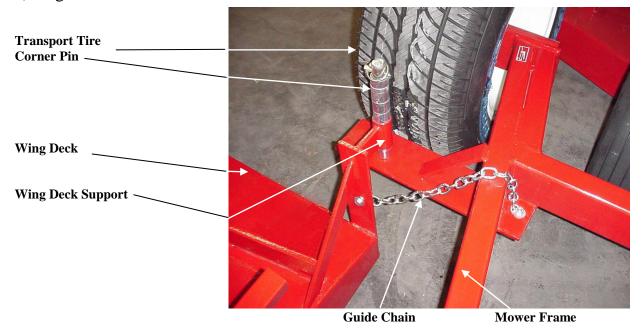
#### WING GUIDING CHAIN:

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

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

# ASSEMBLY INSTRUCTIONS: (See photos below)

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



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

#### **OPERATING THE MOWER:**

A careful and knowledgeable operator is the best insurance against an accident.

Allow no riders on any equipment.

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

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

#### **DAILY CHECK LIST:**

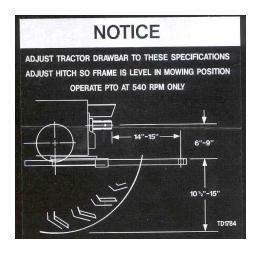
- 1. Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough soled work shoes. Never operate tractor or implements in bare feet, sandals or sneakers
- 2. Check that mower is properly and securely attached to tractor with a safety chain.
- 3. Ensure all safety shielding is properly installed and check that all nuts and bolts are secure and pins are properly cotter-pinned.
- 4. Check condition of blades and security of attachment.
- 5. Ensure mower is properly mounted, adjusted and in good operating condition.
- 6. Clear area of stones, branches or other debris that might be thrown causing injury or damage.
- 7. Never permit any person other than the operator to ride or board the tractor at any time.
- 8. Check that all lubrication points with grease fittings have been lubricated as per schedule.
- 9. Check all gearboxes for proper amount of gear oil. Mower must be on level surface when this is done.

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

#### HITCHING MOWER TO TRACTOR:



**NOTICE** - Attach mower to drawbar only.



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

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



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



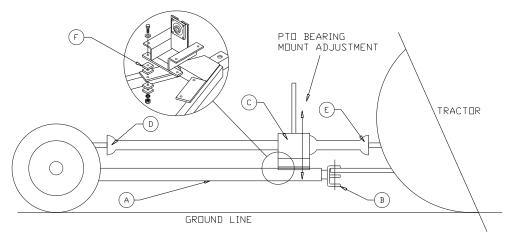
**CAUTION** - When towing mower on any roadways, lock brakes together. Use proper lighting and marking devices according to the local regulations.

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

#### **LEVELLING THE MOWER & PTO:**

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

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



# **CONNECTING THE PTO SHAFT:**

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

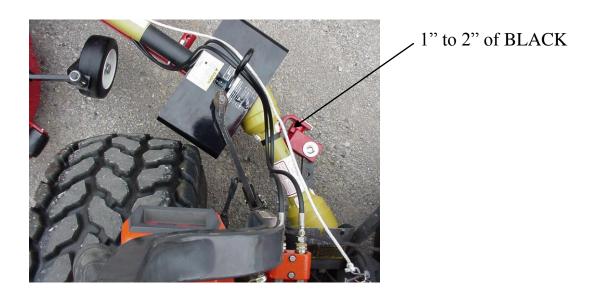


**CAUTION** - If the PTO shaft comes off during operation, it may cause personal injury and damage to the PTO shaft and tractor PTO. When checking, make sure the locking collar is locked, and that the shaft is not just jammed against the end of the tractor PTO shaft.

## **CHECK PTO LENGTH DURING TURNS:**

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

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



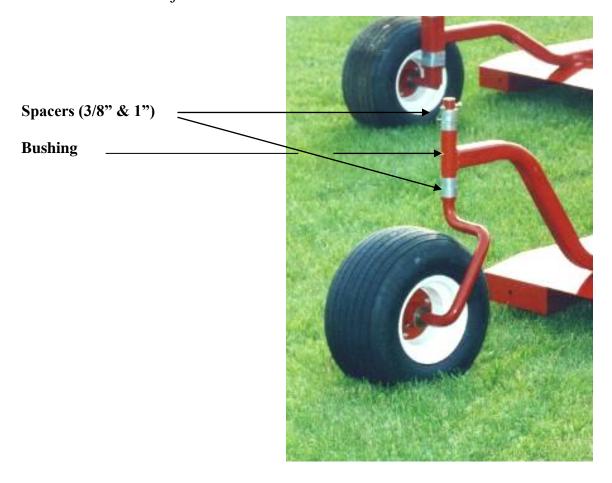
**NOTE:** This is not the worst condition. Making turns while the tractor is angling up a hill will cause the PTO shaft to collapse even more. The operator should avoid making sharp turns on uneven ground.

# **CUTTING HEIGHT ADJUSTMENT:**

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

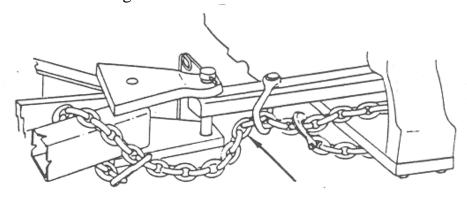
**NOTE**: Cutting height starts at 3/4", with no spacers under the bushing. Increments are then 3/8" using 3/8" and 1" spacers.

Be sure all adjustments are set the same.



#### **SAFETY CHAIN:**

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



#### SAFETY CHAIN

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

## **TRANSPORTING MOWERS:**



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

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



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

WEIGHT OF
TOWING VEHICLE
4500# or more
Less than 4500# but
More than 2300#
Less than 2300#

MAXIMUM ALLOWABLE
ROAD SPEED
Up to 20 mph (32km/h)
Up to 10 mph (16km/h)

DO NOT TOW



**CAUTION** - Always have safety chain attached to towing vehicle.

#### TIRES:

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

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



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

# **POWER TAKE-OFF:**



**CAUTION** - Keep all safety shields in place.



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



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



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

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

# **An Important Word On Grease Compatibility**

#### What Grease Is:

- -Grease is essentially a distilled petroleum product in the form of mineral oil (or a synthetic) which has a thickening agent such as lithium, calcium, barium, sodium, or aluminum.
- -Many of the thickeners will work for similar situations, but **when mixing greases with different thickeners, one must review compatibility**. Grease incompatibility will actually decrease the lubrication ability of the grease, and cause premature part failure.
- -There may be other additives in the grease that impart special properties. These properties may be "high temperature", "extreme pressure", etc.

#### What We Use:

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

#### Note:

- -If a thickener other than lithium is used, the existing grease will be contaminated and the lubrication properties may be lost.
- -If a synthetic base oil is used rather than a mineral base oil, the grease will again be contaminated and the lubrication properties may be lost
- -Molybdenum Disulfide (Moly) is an additive used in slow moving, extreme load applications. The particles in the "Moly" will actually <u>increase</u> bearing wear in a mower spindle.Our grease does not contain Moly.
- -The blade spindle temperature should never go above 120°F if properly greased; we do not recommend high temperature grease.

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

#### **Our Recommendation for Grease Compatibility:**

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

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

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

#### **LUBRICATION:**

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

#### **DECKS**

- Spindles\* (See Manual)
- 3 Pivots per Wing Deck\*
- 2 Pivots on Rear Deck\*
- Castor Wheel & Swivels\*
- \*As Required

#### P.T.O. SHAFTS

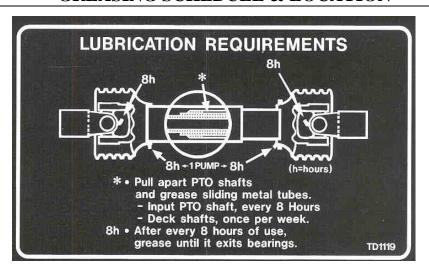
- Main Input\*(See Below)
- Deck Drive, 4 Locations per Shaft\*
- Pull Apart Sliding Tubes once per week and lubricate
- \*As Required

#### **FRAME**

- 8 Pivot Locations\*
- 2 Wheels\*
- \*As Required

CHECK FOR PROPER OIL LEVEL IN GEAR BOXES DAILY

GREASING SCHEDULE & LOCATION



# **BLADE SPINDLE GREASING:**

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

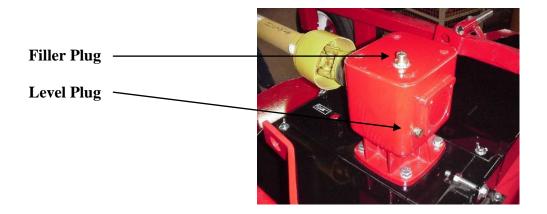
only be determined by operator, depending on working conditions in your particular area.

# **GEARBOX OIL LEVELS:**

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

#### **DECK GEARBOXES**:

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



#### **MAIN GEARBOX:**

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

and tighten the plug.



#### **MAINTENANCE:**



**WARNING** - Turn tractor engine off before performing any maintenance.



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



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

# **BLADE SERVICING:**



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

- ❖ Do not handle mower blades with bare hands. Careless or improper handling may result in serious injury.
- ❖ Inspect blades before each use to determine that they are mounted tightly and are in good condition. Replace any blade that is bent, excessively nicked, worn or has any other damage. Small nicks can be ground out when sharpening.



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

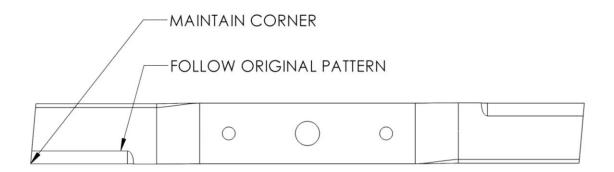
## **BLADE REMOVAL AND INSTALLATIONS:**

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

# **BLADE SHARPENING:**

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

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



0"-

**BLADE SHARPENING** 

#### **SPINDLE INSPECTION:**

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

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

#### **SPINDLE ASSEMBLY REMOVAL:**

Remove blade from spindle.

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

Remove belt.

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

#### **SPINDLE ASSEMBLY INSTALLATION:**

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

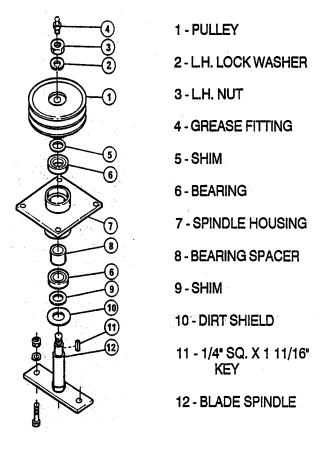
# **SPINDLE REPAIR:**

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

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

#### **ASSEMBLY OF SPINDLE:**

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



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

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

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

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

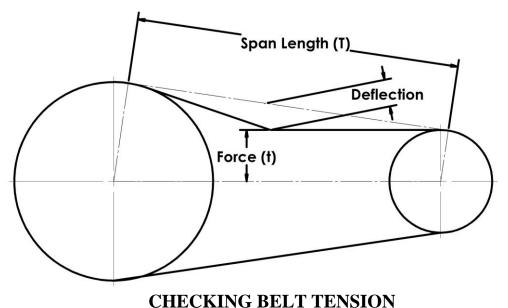
#### "V" BELT ADJUSTMENT:

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

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

## **"V" BELT TENSION:**

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



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

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

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

## **HYDRAULICS:**

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



**Restrictor Orifice** 

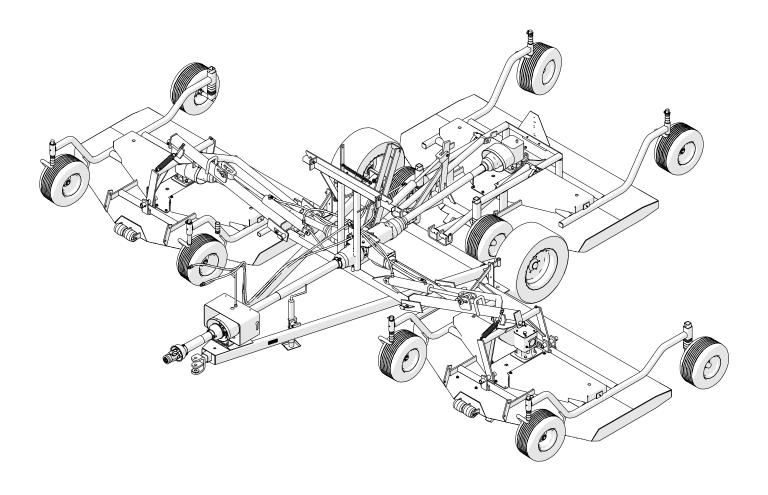
When reconnecting the quick disconnects to the tractor, be sure that both ends are clean. Dirt in the hydraulic system can block the orifice in the line throttle valve or even score the cylinder tubes.

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

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

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

# Parts List TD-92



Effective serial number: 14921923 and up.

PN 120513

Issue Date: October 2014



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

#### **Serial Number Location**

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

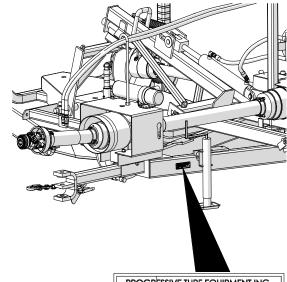
For quick reference, record the following information:

Model:	 
Serial Number: _	
Date purchased:	

Always state this information when contacting youselling 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 \$1., Seaforth Ontario Canada
Phone \$19-527-1080

Web Site: www.progressiveturfequip.com
PRODUCT: Rotary Finishing Mower
MODEL:
Mode in Canada

S.N.

#### **Progressive Turf Equipment Inc.**

137 West William Street Seaforth, Ontario Canada **N0K 1W0** 

Phone: 800-668-8873 Fax: 519-527-2275

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.

- 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.
- 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.

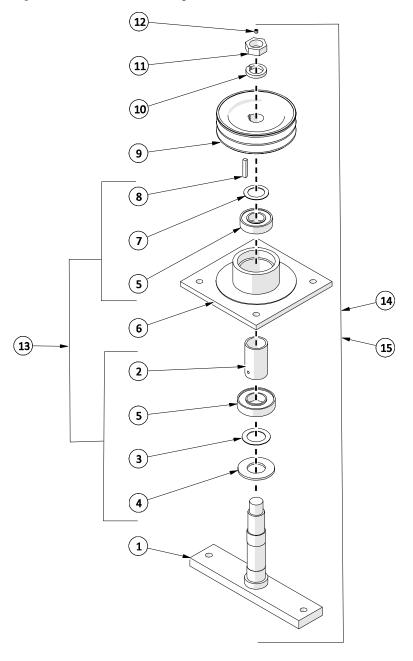


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### 1 DECK ASSEMBLY

### 1.1 Blade Spindle Assembly



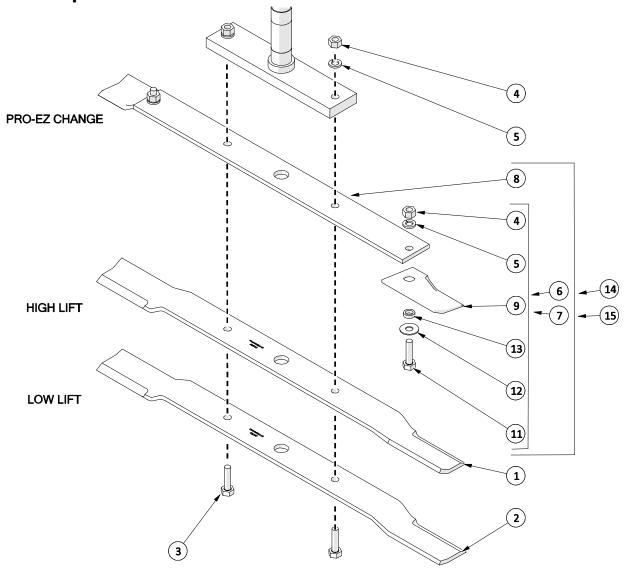
ITEM	PART#	DESCRIPTION	QTY
1	521010	BLADE SPINDLE	1
2	-	BEARING SPACER TUBE	1
3	-	1-3/8" SHIM WASHER	1
4	-	DIRT SHIELD	1
5	-	BEARING	2
6	521006	SPINDLE HOUSING	1
7	-	SHIM WASHER - 1.25"	1
8	O.L.	KEY - 1/4" X 1.50"	1

ITEM	PART#	DESCRIPTION	QTY
9	521775	PULLEY - 5.9"	1
10	521002	LOCKWASHER L.H. (3 PCS)	1
11	521003	HEX NUT- L.H.	1
12	O.L.	SET SCREW - 1/4-28 X 0.25"	1
13	521980	SPINDLE REBUILD KIT	1
14	521959	BLADE SPINDLE ASSEMBLY (COMPLETE)	1
15	521960	SPINDLE ASSEMBLY W/O PULLEY	1

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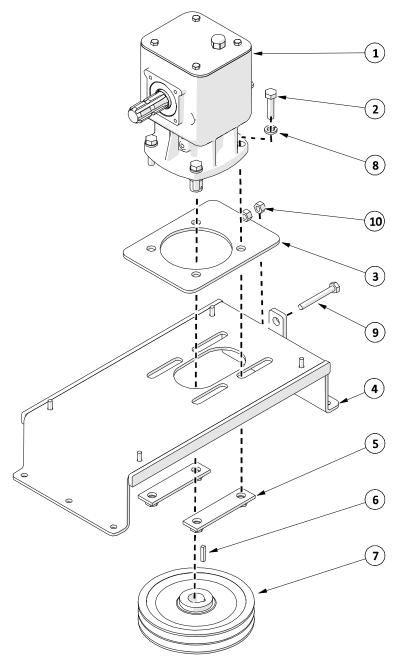
### 1.2 Blade Options



ITEM	PART#	DESCRIPTION	QTY
1	522605	BLADE KIT - STANDARD LIFT (9 PCS)	1
2	522608	LOW LIFT BLADE KIT (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	526596	HIGH LIFT TIP KIT W/HW (50 TIPS) (ITEMS 4, 5, 9, 11, 12, 13)	1
7	526636	LOW LIFT TIP KIT W/HW (50 TIPS) (ITEMS 4, 5, 9, 11, 12, 13)	1
8	ı	BLADE BAR (SEE ITEM 10)	1
9	•	BLADE TIP	1
10	526662	BLADE BAR KIT (9 PCS)	1
11	O.L.	HEX BOLT- 1/2" X 1.25 NC GR8 PL	2
12	526588	7/16 HARDENED FLAT WASHER KIT (25 PCS)	1
13	SEE ITEM 16	SWING BLADE SPACER	2
14	526586	SINGLE HIGH LIFT BLADE ASSEMBLY	1
15	526634	SINGLE LOW LIFT BLADE ASSEMBLY	1
16	526590	SWING BLADE SPACER KIT (25 PCS)	1

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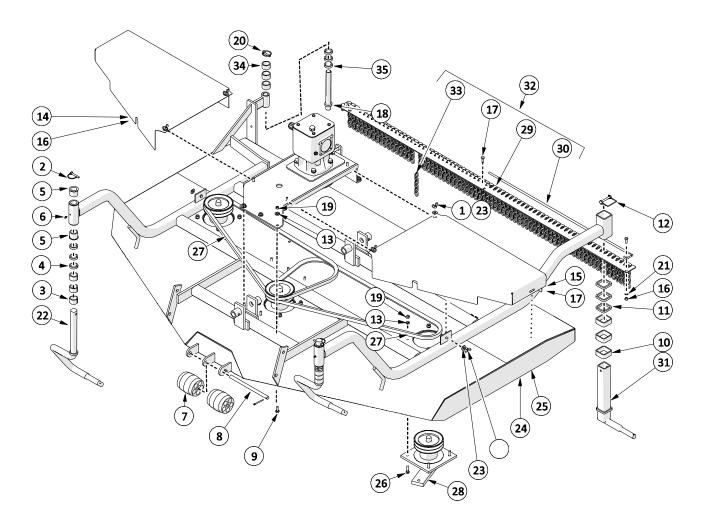
### 1.3 Gearbox Assembly



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

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### 1.4 Wing Deck Assembly



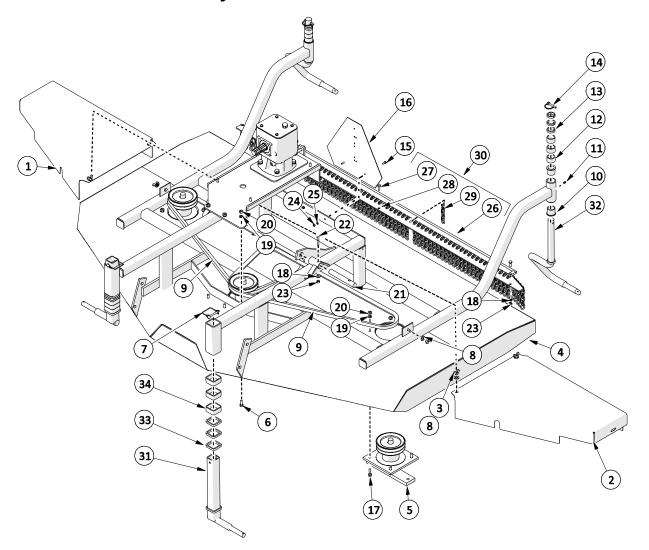
ITEM	PART#	DESCRIPTION	QTY
1	O.L.	WING NUT - 3/8 NC	6
2	521844	LYNCH PIN KIT (6 PCS)	1
3	521030	SPACER KIT - 1" (6 PCS)	1
4	521029	SPACER KIT - 3/8" (6 PCS)	1
5	521831	PRESS IN BUSHING - 1-1/4"	4
6	522020	GREASE FITTING KIT (20 PCS)	3
7	209001	ANTISCALP ROLLER	2
8	522400	ANTISCALP PIN - LONG	1
9	O.L.	HEX BOLT- 7/16 X 1 NC GR5 PL	6
10	521039	SPACER KIT - 1" (6 PCS)	1
11	521040	SPACER KIT - 3/8" (6 PCS)	1
12	521038	CLIP PIN KIT (5 PCS)	1
13	O.L.	LOCK WASHER- 7/16 PL	18
14	521400	BELT GUARD - R.H.	1
15	521401	BELT GUARD - LH	1
16	O.L.	HEX NUT - 3/8NC GR5 PL	4
17	O.L.	HEX BOLT - 3/8 X 1.25 NC GR5 PL	4
18	522312	CORNER PIN	1

ITEM	PART#	DESCRIPTION	QTY
19	O.L.	HEX NUT - 7/16 NC GR5 PL	18
20	521038RD	LYNCH PIN KIT (4 PCS)	1
21	O.L.	LOCK WASHER- 3/8 PL	4
22	521404	SPINDLE - 1 1/4" RD SW. CASTER	2
23	O.L.	FLAT WASHER- 3/8 PL	6
24	521402	MOWER DECK - L.H. (SHOWN)	1
25	521403	MOWER DECK - R.H.	1
26	O.L.	HEX BOLT- 7/16 X 1.5 NC GR5 PL	12
27	521034	BELT - B90	2
28	521959	BLADE SPINDLE ASSEMBLY	3
29	521636	CHAIN GUARD PLT - WING	1
30	521627	CHAIN GUARD ROD - WING	2
31	521406	SQUARE CASTER - SHORT	1
32	521631	TD92 CHAIN GUARD KIT	1
33	521618	REPLC. CHAIN KIT (20 PCS)	1
34	521021	SPACER KIT - 1" X 1" (6 PCS)	1
35	521022	SPACER KIT - 1" X 3/8" (6 PCS)	1
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# 1.5 Rear Deck Assembly



ITEM	PART#	DESCRIPTION	QTY
1	521400	BELT GUARD - R.H.	1
2	521401	BELT GUARD - LH	1
3	O.L.	WING NUT - 3/8 NC	6
4	521847	REAR DECK	1
5	521959	BLADE SPINDLE ASSEMBLY	3
6	O.L.	HEX BOLT- 7/16 X 1 NC GR5 PL	6
7	521038	CLIP PIN KIT (5 PCS)	1
8	O.L.	FLAT WASHER- 3/8 PL	6
9	521034	BELT - B90	2
10	521831	PRESS IN BUSHING	4
11	522020	GREASE FITTING KIT (20 PCS)	2
12	521030	SPACER KIT - 1" (6 PCS)	2
13	521029	SPACER KIT - 3/8" (6 PCS)	2
14	521844	LYNCH PIN - 6PC KIT	1
15	O.L.	HEX BOLT - 1/4 x .75 NC GR5 PL	2
16	521353	S.M.V. SIGN	1
17	O.L.	HEX BOLT- 7/16 X 1.5 NC GR5 PL	12
18	O.L.	LOCKWASHER - 3/8 PL	5

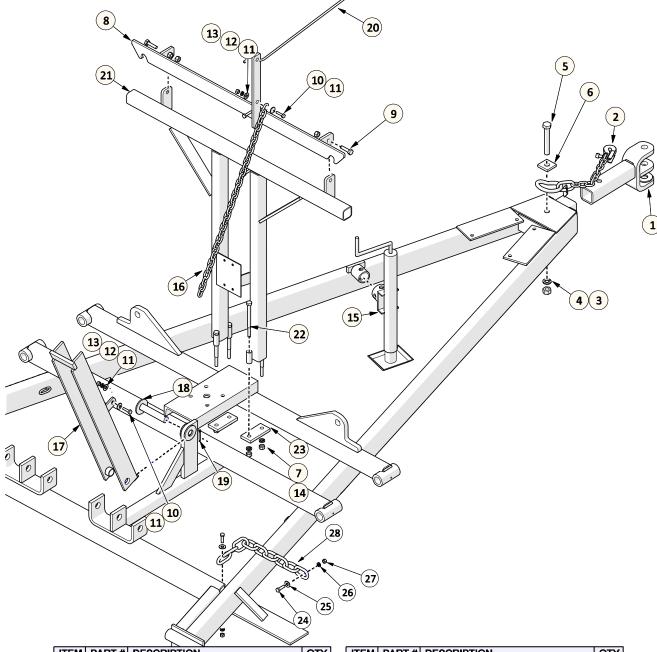
ITEM	PART#	DESCRIPTION	QTY
19	O.L.	LOCK WASHER- 7/16 PL	18
20	O.L.	HEX NUT - 7/16NC GR5 PL	18
21	521337	DECK LIFT PIN	2
22	O.L.	HEX BOLT- 3/8 X 2 NC GR5 PL	2
23	O.L.	HEX NUT - 3/8NC GR5 PL	5
24	O.L.	HEX NUT - 1/4NC GR5 PL	2
25	O.L.	LOCK WASHER- 1/4 PL	2
26	521629	CHAIN GUARD ROD	1
27	O.L.	HEX BOLT - 3/8 X 1.25 NC GR5 PL	3
28	521633	CHAIN GUARD PLATE	1
29	521628	CHAIN KIT - TD92 (ONE DECK)	1
30	521631	TD92 CHAIN GUARD KIT (3 GUARDS)	1
31	521478	CASTER - SQ LONG	2
32	521404	SPINDLE - 1 1/4" RD	2
33	521040	SPACER KIT - 3/8 (6 PCS)	1
34	521039	SPACER KIT - 1" (6 PCS)	1

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### **2 FRAME ASSEMBLY**

### 2.1 Frame Assembly



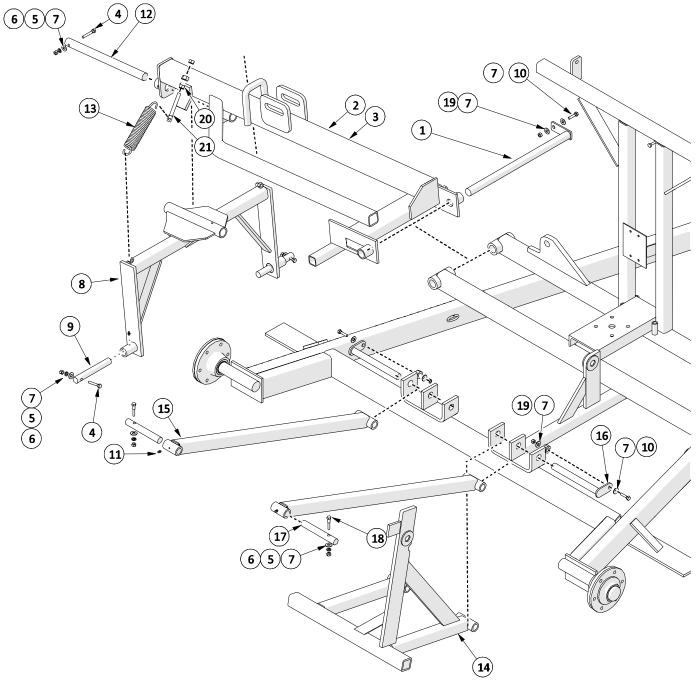
ITEM	PART#	DESCRIPTION	QTY
1	521047	4 POSITION HITCH	1
2	521048	SAFETY CHAIN	1
3	O.L.	HEX NUT - 3/4NC GR5 PL	1
4	O.L.	LOCK WASHER- 3/4 PL	1
5	O.L.	HEX BOLT- 3/4 X 5 NC GR5 PL	1
6	521857	SAFETY CHAIN FLAT WASHER	1
7	O.L.	HEX NUT - 1/2NC GR5 PL	4
8	521409	WING SAFETY LOCK	1
9	O.L.	HEX BOLT- 1/2 X 1.75 NC GR5 PL	2
10	O.L.	HEX BOLT - 3/8 x 1.25 NC GR5 PL	2
11	O.L.	FLAT WASHER- 3/8 PL	4
12	O.L.	LOCK WASHER- 3/8 PL	2
13	O.L.	HEX NUT - 3/8NC GR5 PL	4
14	O.L.	LOCK WASHER- 1/2 PL	4
15	219001	IMPLEMENT JACK	1

ITEM	PART#	DESCRIPTION	QTY
16	521411	PULL CHAIN	1
17	522310	REAR DECK SAFETY	1
18	521081	REAR CYLINDER PIN	1
19	O.L.	COTTER PIN - 3/16 X 1.5	1
20	521410	PULL ROPE	1
21	521408	WING LOCK FRAME	1
22	O.L.	HEX BOLT- 1/2 X 6 NC GR5 PL	4
23	521325	WING LOCK FRAME MTG. BRACKET	2
24	O.L.	HEX BOLT - 3/8 x 1.25 NC GR5 PL	2
25	O.L.	FLAT WASHER- 3/8 PL	2
26	O.L.	LOCK WASHER- 3/8 PL	2
27	O.L.	HEX NUT - 3/8NC GR5 UPL	2
28	522410	WING CHAIN KIT (2 CHAINS & HW)	1

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# 2.2 Wing Lift Assembly



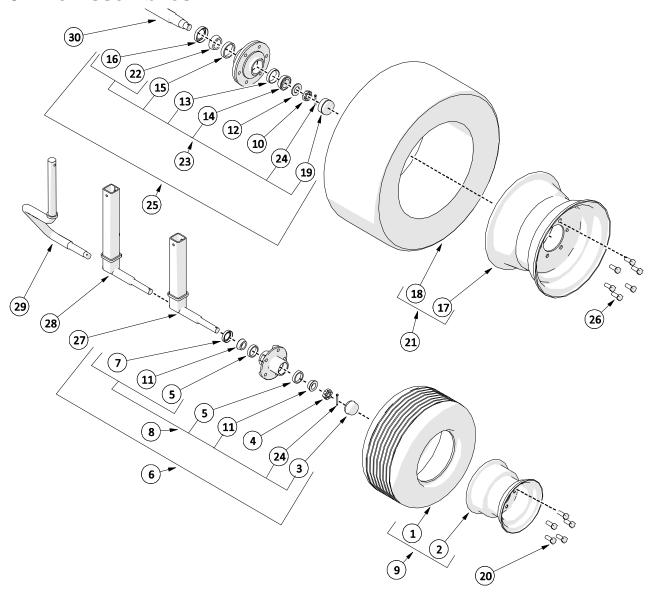
ITEM	PART#	DESCRIPTION	QTY
1	521096	WING PIN	1
2	521421	WING - LH (SHOWN)	1
3	521423	WING - RH	1
4	O.L.	HEX BOLT- 3/8 X 2.25 NC GR5 PL	3
5	O.L.	LOCKWASHER - 3/8" PL	5
6	O.L.	HEX NUT - 3/8NC GR5 PL	5
7	O.L.	FLAT WASHER - 3/8 PL	12
8	521422	DECK SWIVEL	1
9	521346	DECK LIFT PIN	2
10	O.L.	HEX BOLT - 3/8" X 1.50 NC GR5 PL	5
11	522020	GREASE FITTING KIT (20 PCS)	1

ITEM	PART#	DESCRIPTION	QTY
12	521338	SWIVEL PIN	1
13	521431	DECK SWIVEL SPRING	1
14	522004	REAR DECK PICK UP FRAME	1
15	521418	REAR DECK LIFT ARM	2
16	521094	LIFT ARM PIVOT PIN	2
17	521337	DECK LIFT PIN	2
18	O.L.	HEX BOLT- 3/8 X 2 NC GR5 PL	2
19	O.L.	HEX LOCK NUT - 3/8"NC GR5 PL	4
20	O.L.	HEX NUT - 1/2NC GR5 PL	2
21	521102	SPADE BOLT - 1/2" X 3 1/2"	1

O.L. - OBTAIN LOCALLY

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### 2.3 Tire Assemblies



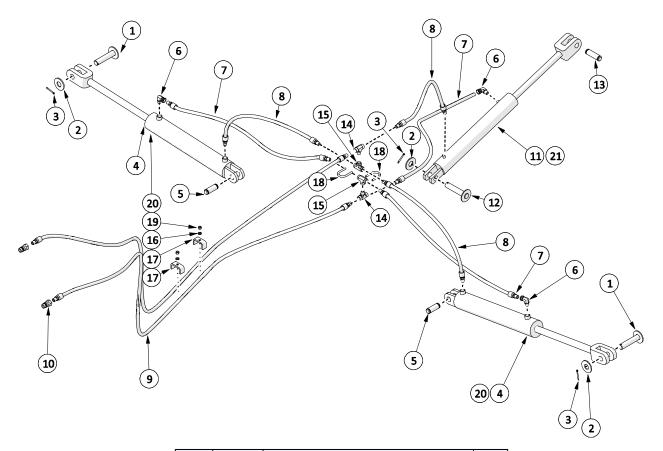
ITEM	PART#	DESCRIPTION	QTY
1	521052	TIRE - 18 X 9.5	1
2	521398	RIM - 8 X 7	1
3	521748	DUST CAP	1
4	521747	HEX NUT - SLOTTED (2 PCS)	1
5	-	BEARING RACE - OUTER	2
6	521405	HUB ASSEMBLY	2
7	521493	GREASE SEAL	1
8	521500	BEARING KIT - CASTER	2
9	521028	TIRE & RIM - 18 - 9.50 X 8	2
10	521747	HEX NUT - SLOTTED (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

PART#	DESCRIPTION	QTY
521084R	RIM - 15 X 10	1
O.L.	TIRE - P275/60 SR15	1
521762	DUST CAP	1
521093	WHEEL STUD KIT - CASTER (6 PCS)	1
521084	TIRE & RIM - P275/60 SR15	1
-	BEARING - INNER	1
521046	BEARING KIT - WHEEL	1
521752	COTTER PIN KIT (6 PCS)	2
521085	HUB ASSEMBLY	1
521083	WHEEL STUD KIT - TRANSPORT (6PCS)	1
521406	CASTER- SQ SHORT	1
521478	CASTOR - SQ LONG	1
521404	SPINDLE - 1-1/4" RD	1
521059	WELD ON SPINDLE - TRANSPORT TIRES	1
	521084R O.L. 521762 521093 521084 - 521046 521752 521085 521083 521406 521478 521404	521084R         RIM - 15 X 10           O.L.         TIRE - P275/60 SR15           521762         DUST CAP           521093         WHEEL STUD KIT - CASTER (6 PCS)           521084         TIRE & RIM - P275/60 SR15           -         BEARING - INNER           521046         BEARING KIT - WHEEL           521752         COTTER PIN KIT (6 PCS)           521085         HUB ASSEMBLY           521083         WHEEL STUD KIT - TRANSPORT (6PCS)           521406         CASTER- SQ SHORT           521478         CASTOR - SQ LONG           521404         SPINDLE - 1-1/4" RD

O.L. - OBTAIN LOCALLY

### 3 HYDRAULICS

### 3.1 Hydraulics

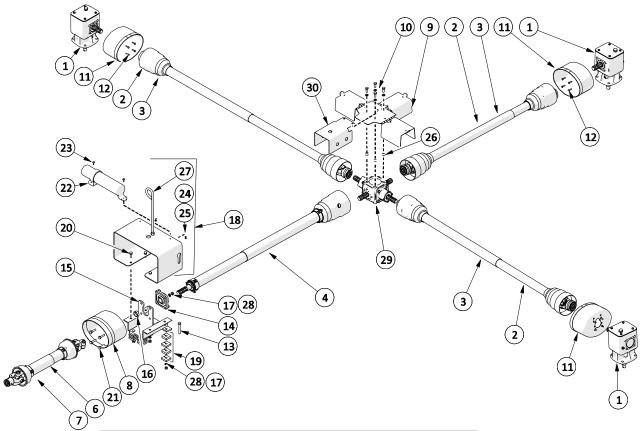


ITEM	PART#	DESCRIPTION	QTY
1	521103	WING CYLINDER LIFT PIN	2
2	O.L.	FLAT WASHER- 1 PL	3
3	O.L.	COTTER PIN - 3/16 X 1.5	3
4	522009	HYDRAULIC CYLINDER - WING	2
5	521345	WING CYLINDER PIN	2
6	521336	RESTRICTOR FITTING 90	3
7	521415	HYDRAULIC HOSE - 43"	3
8	521414	HYDRAULIC HOSE - 31"	3
9	521413	HYDRAULIC 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	521843	SEAL KIT - (WING CYLINDER 522005)	1
21	521814	SEAL KIT - (REAR CYLINDER 522003)	1

O.L. - OBTAIN LOCALLY

#### 4 DRIVELINE

### 4.1 Driveline



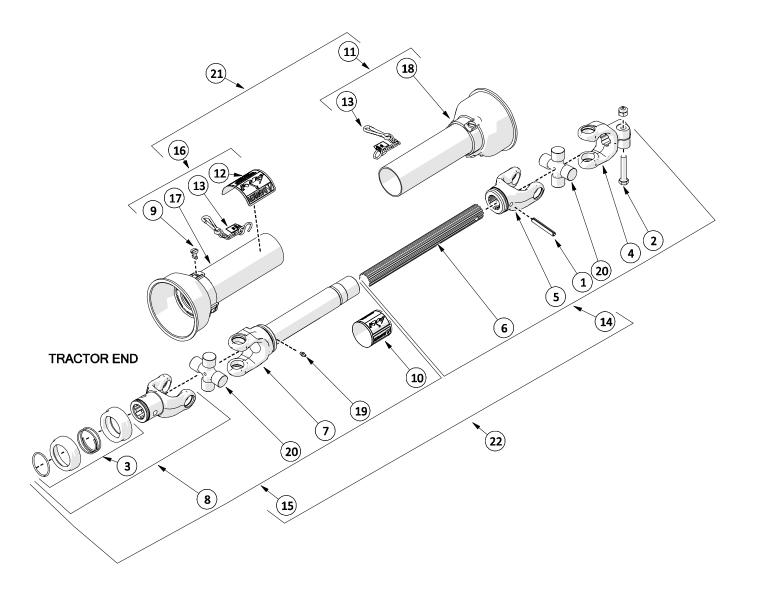
ITEM	PART #	DESCRIPTION	QTY	SN
1	521432	DECK GEARBOX	3	
2	521474	DECK PTO SHAFT - UP TO SERIAL #13921943	3	1
3	210190	DECK SHAFT - SERIAL #13921949 & UP	3	2
4	210002	INTERMEDIATE PTO SHAFT - UP TO SERIAL #13921943	1	1
5	210170	INTERMEDIATE PTO SHAFT - SERIAL #13921949 & UP	1	2
6	210003	INPUT PTO SHAFT - UP TO SERIAL # 13921935	1	3
7	210150	INPUT PTO SHAFT- SERIAL # 13921936 & UP	1	4
8	210062	COUNTER CONE - INPUT SHAFT (EXPORT ONLY)	1	
9	522463	4-WAY G-BOX SHIELD	1	
10	521764	BOLT KIT - M12X30 W/ LOCKWASHERS (16 PCS)	1	
11	210061	COUNTER CONE - DECK GEARBOX (EXPORT ONLY)	3	
12	O.L.	HEX BOLT - M8 X 14MM GR8.8	12	
13	O.L.	HEX TAP BOLT- 1/2 X 4 NC GR5 PL	4	
14	521323	4 BOLT FLANGE BEARING	1	
15	522402	PTO MOUNTING BRKT	1	
16	521789	PTO SPACER	1	
17	O.L.	HEX NUT - 1/2" NC GR5 PL	12	
18	522408	HOSE SUPPORT - COMPLETE	1	
19	522414	PTO BRACKET 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	O.L.	LOCK WASHER- 1/4 PL	2	
26	521197	GEAR BOX COVER SPACER	4	
27	522413	HOSE GUIDE - C/W HARDWARE	1	
28	O.L.	LOCK WASHER- 1/2 PL	8	
29	521497	GEARBOX - 4 SHAFT	1	
30	522709	INTERMEDIATE SHIELD	1	5

O.L. - OBTAIN LOCALLY

#### **SERIAL NUMBER RANGE**

- 1 TD 92 UP TO SERIAL #13921943 2 TD 92 SERIAL #13921949 & UP 3 TD 92 UP TO SERIAL #13921935 4 TD 92 SERIAL #13921936 & UP 5 TD 92 SERIAL #14921966 & UP

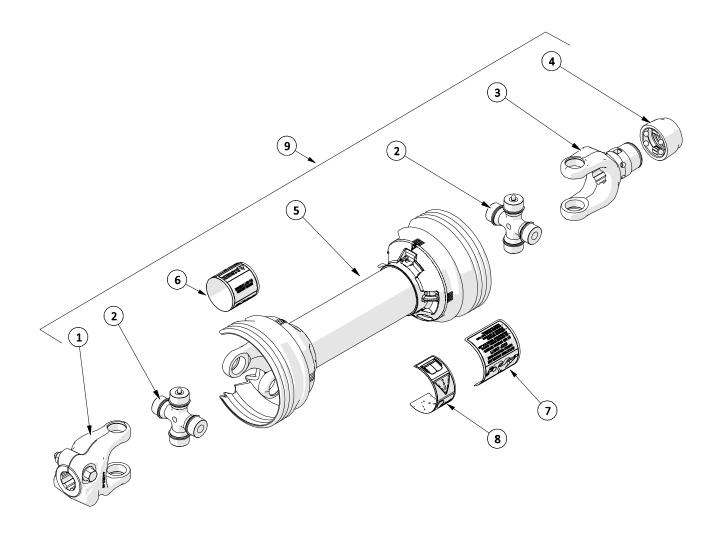
# 4.2 Input PTO Shaft – Up to Serial #13921935



ITEM	PART#	DESCRIPTION	QTY
1	521722	ROLL PIN - OUTER TUBE	1
2	521729	BOLT - M12 X 65MM W/NUT	1
3	210017	SLIDE COLLAR KIT	1
4	210007	YOKE - INTERFERING BOLT	1
5	210006	YOKE - INNER W/O PIN	1
6	210005	SPLINED SHAFT	1
7	210004	YOKE & OUTER TUBE (W/DECAL)	1
8	521461	YOKE ASSEMBLY	1
9	521463	PLASTIC SHIELD BOLT 6 PC KIT	1
10	521455	DECAL - DANGER - OUTER SHIELD	1
11	210016	PTO SHIELD - 1/2 MALE W/DECAL	1
12	521451	DECAL - DANGER - OUTER TUBE	1

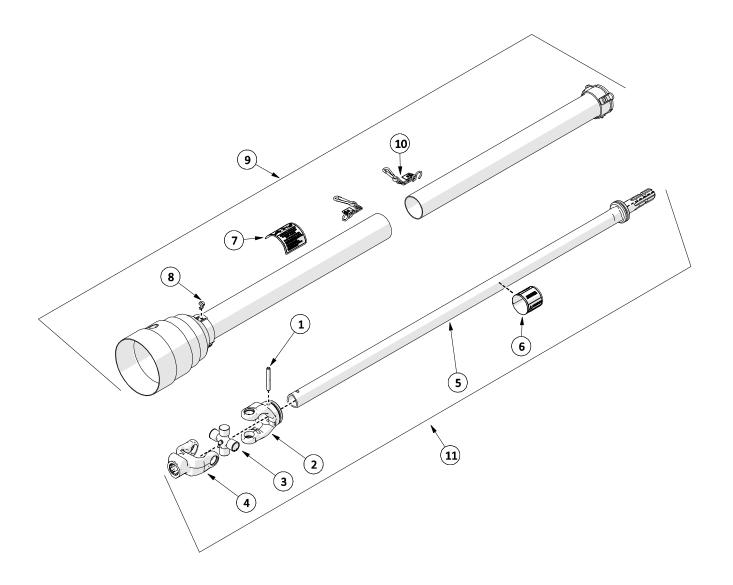
ITEM	PART#	DESCRIPTION	QTY
13	521467	SAFETY CHAIN	2
14	210013	PTO SHAFT - 1/2 MALE W/SHIELD	1
15	210012	PTO SHAFT - 1/2 FEMALE W/SHIELD	1
16	210015	PTO SHIELD - 1/2 FEMALE W/DECAL	1
17	-	PTO SHIELD - 1/2 FEMALE	1
18		PTO SHIELD - 1/2 MALE	1
19	521821	GREASE FITTING- M6 STRAIGHT	1
20	521460	UNIVERSAL JOINT KIT - E + Z 60	2
21	210008	PTO SHIELD COMPLETE	1
22	210003	TD92 INPUT PTO - COMPLETE W/GUARDS	1

### 4.3 Input PTO Shaft - Serial # 13921936 & Up



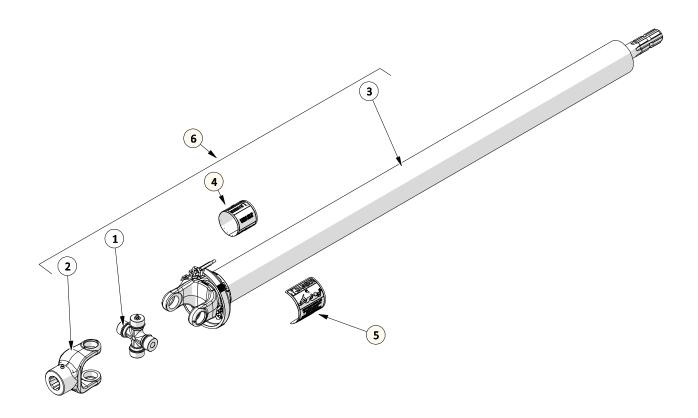
ITEM	PART#	DESCRIPTION	QTY
1	210174	CLAMP YOKE	1
2	210171	CROSS AND BEARING KIT	2
3	210175	SLIDE LOCK YOKE ASSEMBLY	1
4	210179	SLIDE LOCK REPAIR KIT	1
5	210178	COMPLETE GUARD SET	1
6	210239	SAFETY SIGN - INNER GUARD	1
7	210237	SAFETY SIGN - OUTER GUARD	1
8	210238	CE WARNING DECAL	1
9	210150	INPUT PTO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

# 4.4 Intermediate PTO Shaft – Up to Serial # 13921943



ITEM	PART#	DESCRIPTION	QTY
1	521450	ROLL PIN - OUTER TUBE	1
2	210014	YOKE - OUTER Z60 W/O PIN	1
3	521460	UNIVERSAL JOINT KIT	1
4	210011	YOKE - SPLINED W/O PUSH PIN	1
5	210009	OUTER TUBE - SPLINED SHAFT	1
6	521451	DECAL - DANGER - OUTER TUBE	1
7	521455	DECAL - DANGER - OUTER SHIELD	1
8	521463	PLASTIC SHIELD BOLT KIT (6PC/KIT)	1
9	210010	PTO SHIELD COMPLETE	1
10	521467	SAFETY CHAIN	2
11	210002	COMPLETE INTERMEDIATE PTO (W/ GUARDS)	1

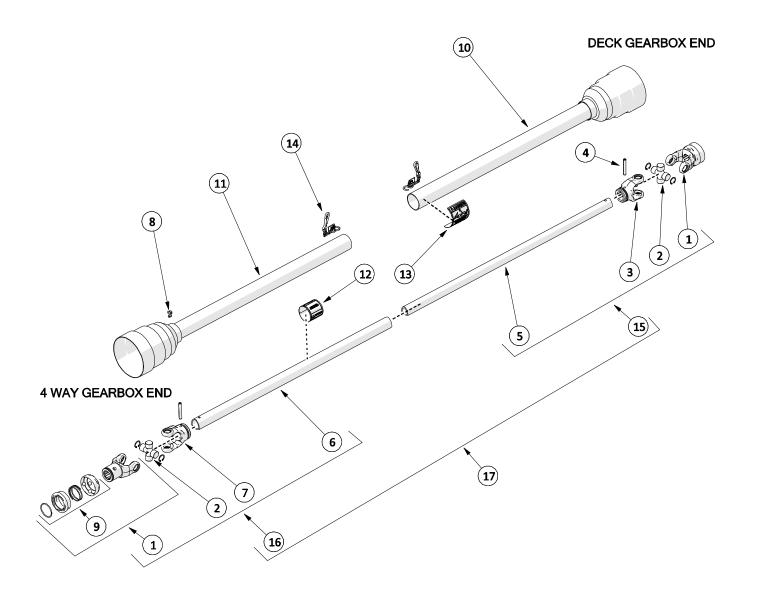
# 4.5 Intermediate PTO Shaft - Serial # 13921949 & Up



ITEM	PART#	DESCRIPTION	QTY
1	210171	CROSS AND BEARING 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	_

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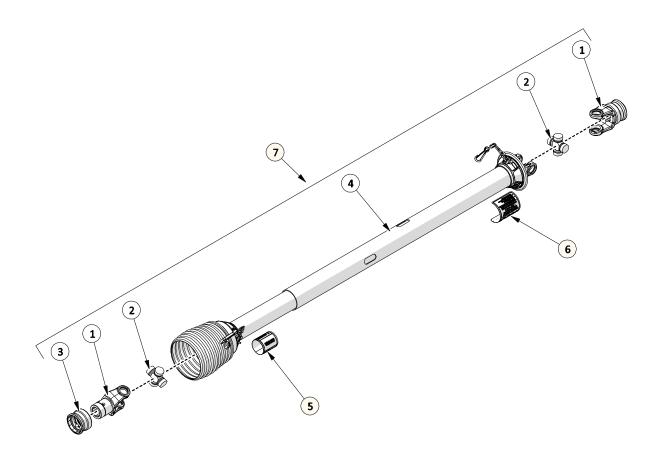
# 4.6 Deck PTO Shaft - Up to Serial # 13921943



ITEM	PART#	DESCRIPTION	QTY
1	521800	SLIDE LOCK YOKE ASSEMBLY	2
2	521801	UNIVERSAL JOINT KIT	2
3	521805	INNER TUBE YOKE W/O PIN	1
4	521781	ROLL PIN	2
5	521469	INNER TUBE	1
6	521468	OUTER TUBE	1
7	521802	YOKE - OUTER TUBE W/O PIN	1
8	521463	PLASTIC SHIELD BOLT - 6 PC KIT	1
9	210017	SLIDE COLLAR KIT - METALLIC	1

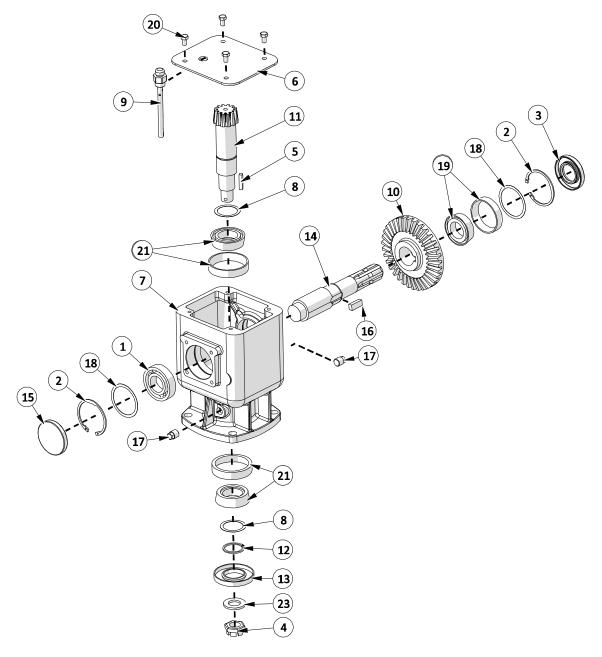
ITEM	PART#	DESCRIPTION	QTY
10	521473	PTO 1/2 SHIELD - OUTER	1
11	521472	PTO - 1/2 SHIELD -INNER (W/LABEL)	1
12	521451	DANGER DECAL - OUTER TUBE	1
13	521455	DANGER DECAL - OUTER SHIELD	1
14	521467	SAFETY CHAIN	2
15	521471	PTO - 1/2 M SHAFT W/SHIELD	1
16	521470	PTO 1/2 F SHAFT W/SHIELD	1
17	521474	DECK PTO SHAFT - COMPLETE	1

# 4.7 Deck PTO Shaft - Serial # 13921949 & Up



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

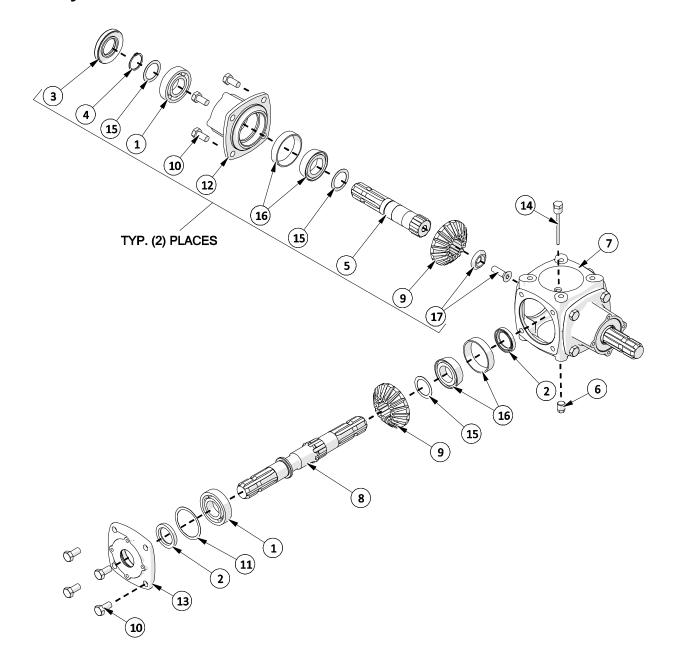
### 4.8 Deck Gearbox



ITEM	PART#	DESCRIPTION	QTY
1	521116	BEARING	1
2	521126	SNAP RING - 3 PC KIT	2
3	521127	OIL SEAL	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	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 - 30208	2
23	521129	WASHER KIT (3 PCS)	1
24	521432	GEAR BOX - DECK - COMPLETE	1

### 4.9 4 Way Gearbox



ITEM	PART#	DESCRIPTION	QTY
1	521116	BEARING	3
2	521120	OIL SEAL	2
3	521127	OIL SEAL	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	2
17	522426	<b>BOLT AND WASHER KIT (4 PCS)</b>	2
18	521497	COMPLETE GEARBOX	1

#### 5 DECALS

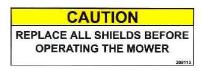
#### 5.1 Safety

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







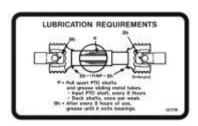
521784 DECAL - NOTICE

209173 209115

DECAL – ROTATING BLADE DANGER DECAL – OEM PARTS







521820 DECAL -CAUTION

521199 DECAL – GREASING SCHEDULE

521119 8HR DECAL – PTO GREASE

#### **PROGRESSIVE**

92" TRI-DECK 521816



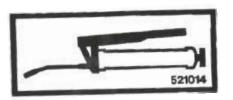
521817 DECAL – PROGRESSIVE TURF





521451 DECAL – DANGER – OUTER TUBE

521455 DECAL – DANGER – OUTER SHIELD



521014 DECAL – GREASE GUN

### 5.2 General Info