# **Operator's Manual and Parts List**

# **TD65**

# **Rotary Finish Mowers**

Serial No. 13651442 and up



# **TD65-2**

# **Rotary Finish Mowers**

Serial No. 1365-21376 and up



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

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P.N.120512



The Better Built Choice. www.progressiveturfequip.com

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#### INTRODUCTION

Thank you for purchasing a TD65 series mower. This product is designed and manufactured to allow safe and productive mowing of contoured areas. A well-maintained machine will provide years of reliable service.

#### **FOREWORD**

This is the Operator's Manual for the TD65 and TD65-2 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 TD65 series are contour turf grass finishing mowers with a 12 (TD65-2) or 15.5 (TD65) foot cutting width, and are designed to be pulled by a 25-50 PTO horsepower utility tractor. High blade tip speed give these versatile mowers the ability to mow both 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:

- Golf course roughs
- Turf grass farms
- · Corporate and industrial campuses
- Park lands and recreational areas
- · Sports venues
- Landscaped venues

OSHA Training Requirements (USA)

The following training requirements have been taken from Title 29, Code of Federal Regulations Part 1928.57 (a)(6). www.osha.gov

Operator Instructions: At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all covered equipment with which he is or will be involved, including at least the following safe operating practices.

In other jurisdictions

It is good practice, following the initial instruction and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all covered equipment with which he is or will be involved, including at least the following safe operating practices.

#### **ITEMS INCLUDED WITH TD65 MOWER**

TD65 Operator's Manual

Service instructions for PTO drive shafts and safety clutches

Mower parts book

Blade balancer tool

#### SERIAL NUMBER LOCATION

The serial number plate for the machine is located on the left-hand front frame.

For quick reference, record the following information:				
Model:	TD65 or TD65-2			
Serial Number:				
Date purchased:				

NOTE: The last digit in each TD65 serial number is a letter. This letter denotes the geographic destination of the mower.

D EU Regulatory Region

B Non- EU Regulatory Region

There are differences in the parts required to service your mower based on this geographic code as are referred to throughout the parts lists. Always state this information when contacting your selling dealer and when ordering spare parts.

#### REPLACEMENT PARTS INFORMATION

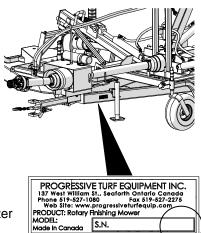
Use only Genuine Original Equipment Manufacturers (O.E.M.) replacement parts. The use of "will fit" parts may reduce machine performance, void machine warranties and present a safety hazard. Use Genuine OEM parts.



#### **UNAUTHORIZED MODIFICATION**

Modifications to the original design of the TD65 mower, including the use of unauthorized accessories or non-genuine OEM parts, may affect the reliability of the machine or make it unstable or unsafe to operate and perform as originally designed and intended. Persons or organizations that make unapproved modifications (including operation without provided guards and shields) assume all liability arising from or related to the modification including any adverse effect on the machine.

No modification can be made to the original design or assembly of the TD65 mower (including any and all attachments, safety or control devices) without the prior written consent of the Progressive Turf Equipment Inc.'s Engineering Manager (see contact information below). Progressive Turf Equipment Inc. retains the right to reject all claims which arise from or are related to unauthorized modifications.



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 TD65 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 TD65 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 TD65 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.

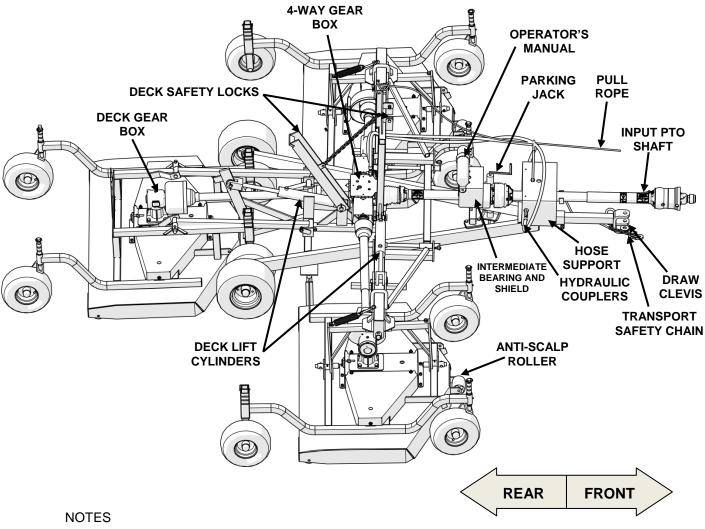
\*For clarity, some illustrations used in this manual show depictions with certain components removed. Never operate the machine with any component or guard removed.

# **SPECIFICATIONS**

		TD65-2	TD65
Tractor Requirement Size (hp) PTO Input Speed (rpm) Max. Hydraulic Pressure (ps	i)	25-40540 540 2500	
Machine Specifications			
Cutting Width (ft) No. of Blades		12 7	
Turning Radius (uncut circle	, in)	24	0
Ground Pressure (psi)		7	8
Cutting Height (in)	Minimum Maximum Increment	1 5 3/8.	
Transport Features	Max. Speed Safety	20 mp .SMV Sign & Sa	
Mower Decks			
Configuration Suspension Construction Spindles Blades Blade Mounting Blade Speed Tires Anti Scalp	3 deck staggered inde 4-way floatation 3/16 in. (7 ga) thk with 30mm shaft, double be 23" diameter, 5/16" the Two bolts/nuts per bla 3040 rpm / 18287 sfpr (10) 15x6-6, 4 ply, 5 B Impact Resistant Rolle	reinforced welded tub all bearing /w integral l c. (high-lift std., low-lift de (No internal thread n olt /w tapered roller be	blade stiffener & mulching optional) s) earing support
Power Transmission			
Input Shaft Deck Drive Shafts Gearboxes Deck Drive Belt Tensioning	1 3/8 dia – 6 Spline, 8 Cat. 2 1 3/8 dia – 6 sp (4) Cast Iron Housing Fiber reinforced V-Bel Positive draw bolt tens	line /w quick connect y /w Bevel gears ts	
Transport Tires	(2) Heavy Duty 18.5 x	9.5 – 8, 4 ply, 5 bolt.	
Productivity (acres/hr*)	2 mph 4 mph 6 mph	2.9 5.8 8.7	7.5
Transport Dimensions (ft)	Width Height Length	7.5 5.514 .	7.5
Weight (lb)	Machine Tongue (transport) Tongue (mowing)	2380 445 235	580
Optional	Low-Lift Blades Mulching kit (incl. blad Discharge deflector kit		
*assumes no stopping or overla	р		

<sup>\*</sup>assumes no stopping or overlap

#### **COMPONENT IDENTIFICATION**



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**

# **A**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. Electrocution 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**

# **A** 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.

#### **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



Risk of personal injury! Wear safety WARNING! 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.







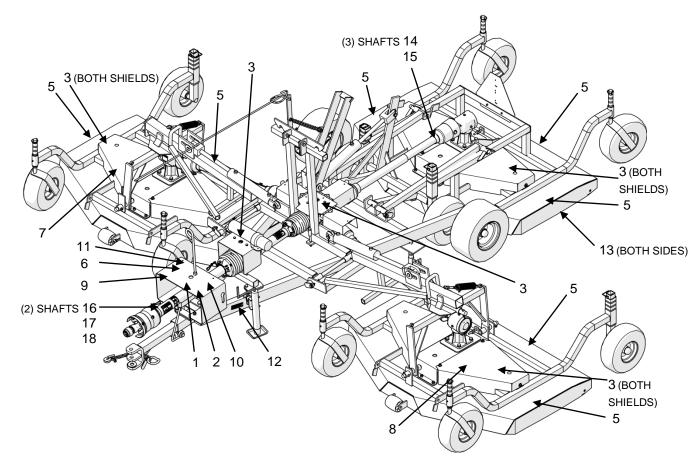
## **SAFETY DECALS**

#### **DECAL LOCATIONS**



If decals become faded, damaged, or lost, replace immediately. TD65-2 Order Decal Kit 522302 TD65 Order Decal Kit 522303

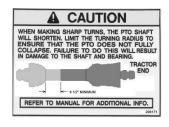
ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY
1	DANGER – READ MANUAL	1	11	BLADE HARDWARE	1
2	CAUTION - TURNING	1	12	SERIAL PLATE	1
3	CAUTION – REPLACE SHIELDS	8	13	MOWER MODEL	1
4	COMPANY NAME	1	14	DANGER – OUTER TUBE	3
5	DANGER - BLADE HAZARD	7	15	CE WARNING DECAL	1
6	WARNING – OEM PARTS	1	16	SAFETY SIGN – INNER GUARD	2
7	CAUTION – DISENGAGE PTO	1	17	SAFETY SIGN – OUTER GUARD	2
8	GREASING SCHEDULE	1	18	DANGER – INNER SHIELD	3
9	PTO GREASING	1	19	GREASE POINT	20
10	NOTICE – HITCH SETUP	2			



#### **DECAL LISTING**



ITEM 1 (209175)



ITEM 2 (209171)

## CAUTION

**REPLACE ALL SHIELDS BEFORE OPERATING THE MOWER** 

Progressive TURF EQUIPMENT INC 137 WEST WILLIAM ST.

ITEM 4

(521817)

**A** CAUTION

DISENGAGE PTO SHAFT

**BEFORE RAISING** 

**MOWER** 

ITEM7

(521820)

ROTATING BLADE HAZARD Mowers can throw objects up to 300 feet.

TO AVOID SERIOUS INJURY OR DEATH to operator and TO AVOID SERROUS muvon.

TO AVOID SERROUS muvon.

DO NOT OPERATE with deflectors removed.

DO NOT OPERATE with deflectors removed.

NOT OPERATE with deflectors removed animals, buildings or verholds.

INSPECT area for potential mower thrown object hazards before mowing.

REMOVE AND / OR AVOID objects such as wire, cable, metal objects and all other foreign matter! solid objects.

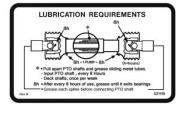
DO NOT PLACE HANDS OR FEET under cutting deck when operating or when tractor engine is running. 2001

ITEM 3 (209113)

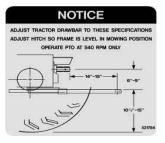
#### WARNING

USE ONLY GENUINE O.E.M. REPLACEMENT PARTS - ESPECIALLY CRITICAL ON THE CUTTING BLADES -

ITEM 6



(209115)

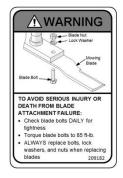


ITEM9 (521119) ITEM 10 (521784)

ITEM 5 (209173)



ITEM 8 (526003)



**ITEM 11** (209182)

# PROGRESSIVE 65-2 TRI-DECK

ITEM 13 - TD65-2 (521837)

# PROGRESSIVE 65" TRI-DECK

ITEM 13 - TD65 (521838)



ITEM 14 (521455)



ITEM 15 (521451)



ITEM 16 (210239)



ITEM 17 (210237)



ITEM 18 (210238)



ITEM 19 (521014)

## ASSEMBLY INSTRUCTIONS





#### **SET-UP**

The mower is shipped partially assembled to facilitate shipment in enclosed vans. The rear mower deck and various smaller components must be assembled at the dealer prior to pre-delivery inspection and delivery to the customer. Approximately 1 1/2 hours are required to complete the mower to field ready condition.

Assembly will be easier if components are aligned and loosely assembled before tightening hardware. Recommended torque values are found on page Error! Bookmark not defined.. Select a suitable working area. A tractor or portable hydraulic supply is necessary to complete assembly. Refer to the mower parts list for component location reference.



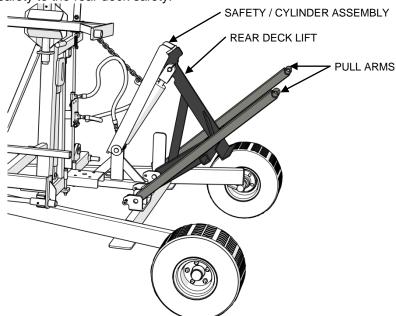
Assembly should be completed by a competent individual who has an understanding of safe machinery operation practices and tool operation. CAUTION! Always use personal protection devices such as eye and ear protection during assembly. Ensure the area is free of hazards and can accommodate the assembly of the mower

Remove all components that are tied to the mower for shipping before beginning the assembly process. These include: (2) square casters, hitch assembly, rear deck lock / cylinder assembly, rear cylinder hoses, PTO support, hose support and input shaft.

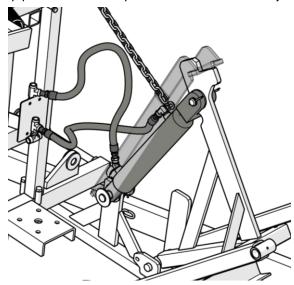
#### REAR DECK

- 1) The TD65 rear deck must be lifted from the frame for final assembly.
  - Ensure proper devices are used to lift deck (approximate deck weight 600lb).
  - Securely fasten lifting device to deck assembly and lift sufficiently to take the weight of the deck assembly.
  - Remove the (2) shipping brackets securing the deck to the upright frame and cut the banding securing the deck to the main frame.
- 2) Lift the rear deck away from the machine and install the square castor wheels. Lower the deck to the ground so that it rests on its wheels.
- 3) Unwrap the tractor connection hoses and pull rope. Connect the hydraulic hoses to a hydraulic power source. Disengage transport lock and lower wings to the ground.
- Remove the line pressure in the hydraulic hoses.

- 5) Manually lower the rear deck lift and pull arms.
- 6) Install the rear deck safety / cylinder assembly 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 & cylinder ports facing up. Connect the pull chain from the deck safety to the rear deck safety.



- 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.
- 8) Install the 45 degree hydraulic adapter in the base end of the cylinder. The adapter port should face UP when the cylinder is in the raised position.
  - \*NOTE all connections are pipe thread and require thread sealant on all joints at assembly



- 9) Connect the hydraulic hoses to the rear deck cylinder. The long hose (31") connects the bottom tee on the wing lock frame to the 90 degree adapter at the rod end of the cylinder. The short hose (24") is connects the top tee on the wing lock frame to the 45 degree adapter at the base end of the cylinder.
- 10) Using the hydraulic power source, cycle the lift cylinders up and down fully 3 or 4 times to remove all entrapped air from the system.

- 11) Roll the rear deck into place. Install lift arms with pins & fasteners supplied (shipped fastened to the deck).
- 12) Install rear deck PTO shaft. (The end with the small bell marked with a tractor goes on the fourway gear-box). Ensure shafts are phased properly (see Page 19)

#### **INPUT SHAFT AND HITCH**

- 13) Remove intermediate bearing shield and remove spacer bushing warning tag attached to intermediate shaft stub. Be sure that the small spacer bushing is in place.
- 14) To install the input shaft:
  - Remove ½" UNC retaining bolt/nut from input shaft.
  - Remove notification tag from intermediate shaft hanger bearing, ensure gold coloured spacer ring is present against bearing inner race.
  - 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).
  - 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.
  - Reinstall ½" UNF retaining bolt in input shaft yoke, torque to 85 ft-lb.
  - Reinstall input shaft shield per input shaft service instructions.
  - Fasten input shaft guard retaining chain to mower main frame.
- 15) Re-install intermediate bearing shield.
- 16) Install hose support assembly. Run the safety pull rope and hydraulic lines through the eye of the hose support rod.
- 17) Install the front hitch & PTO support with the bolt provided.
- 18) Grease the intermediate support bearing and the rear deck lift arm pivots, and check over mower to find any other spots that missed greasing (All other pivots and wheels are greased before shipping)

#### TRANSPORT TIRES

1) Check air pressure in the tires and adjust according to specifications on Page 40.

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 contact between the mower and PTO shaft, causing damage to the shaft.

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 TD65 features an adjustable height hitch; the adjacent figure shows the bolt-on hitch that can be turned to give a total of 3" in height adjustment.
- 4) The position of the hose support and hose guide rod may need to be adjusted to provide clearance to the PTO shaft.

#### INSTALLING DECK PTO SHAFTS

Each deck on the TD65 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.

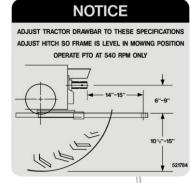


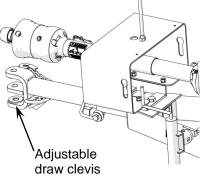
#### **CAUTION!**

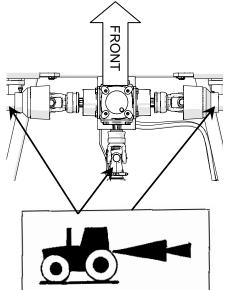
Failure to install deck PTO shafts with proper phasing can lead to failure of PTO shaft yoke(s) and/or the gear box when decks are raised into transport position.

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

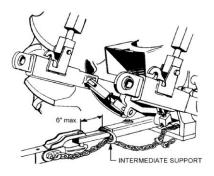
- 1) Ensure that the tractor engine is shut off, the parking brake is engaged and the mower is securely hitched to the tractor.
- 2) Apply a light coat of grease to the Tractor PTO splines.
- 3) Lift mower input shaft from PTO support, ensuring that PTO support swings down and rests on frame tube.
- 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.

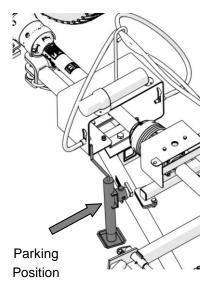


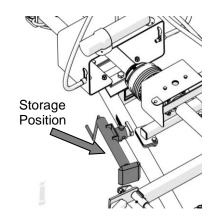
## **WARNING!**

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

- 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 TD65 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.

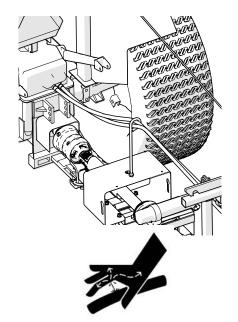
In order to lower the wings:

- 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 TD65 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:

- 5) With the tractor in the lowest gear and travelling very slowly, make a sharp turn to the right.
- 6) 2) Watch the driveline shielding to make sure the input shaft does not totally collapse. There should be a minimum of 9 ½" of the inner black shielding exposed at maximum turn.
- 7) 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 of 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.

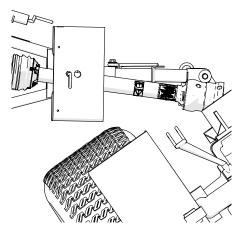
#### **CHECK TIRE CONTACT DURING TURNS**

The TD65 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.



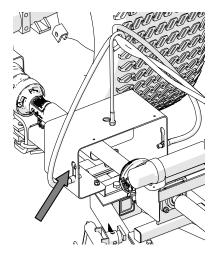
#### DISCONNECTING THE MOWER

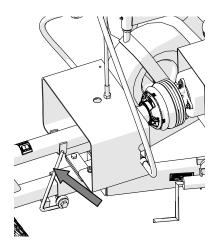
In order to prevent collection of rain water on the mower decks, the mower should be stored with the decks in the raised position. Ensure the safety locks are securely engaged before disconnecting the mower from the tractor.

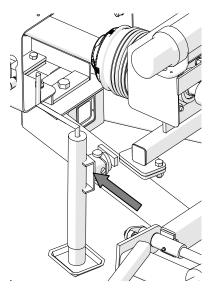
- 1) Place mower on a level surface for storage.
- 2) Ensure that the tractor engine is shut off and the parking brake is engaged.
- 3) Inspect deck safety locks to ensure they are properly engaged (if in the raised position).
- 4) Relieve pressure in the hydraulic hoses per tractor manufacturer's instructions (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 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.
- 9) Remove input shaft from tractor (collapsing sliding shaft) and stow on PTO support bracket.
- 10) 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
- 11) Remove draw pin from hitch.
- 12) 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 on page 40.







#### OPERATING THE MOWER

#### **DAILY CHECK LIST**

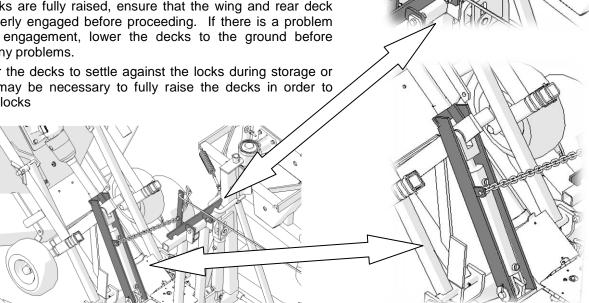
- 1. Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough soled work shoes. Never operate tractor or implements in bare feet, sandals or sneakers. Ensure other required PPE is in good condition.
- 2. Ensure all safety shielding is properly installed and check that all nuts and bolts are secure and pins are properly cotter
- 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

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 1" to 5" in 3/8" increments.



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

**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.

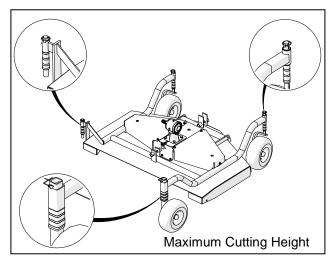
Follow these steps to adjust the cutting height:

- 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 position and set the parking brake.
  - 3) Remove retaining pin from the top of the deck tire assembly or corner pin.
- 4) Remove the remove the tire assembly.
- 5) Adjust the number of spacers between the caster tire and mower frame to achieve the desired cutting height.
- Install castor tire assembly on mower deck and place extra spacers on portion of castor assembly protruding from mower deck.
- 7) Install retaining pin.

Minimum Cutting Height



Cutting Height Settings (inches)					
			No. of 1" Spacers		
		0	1	2	3
Spacers	0	1	2	3	4
	1	1 3/8	2 3/8	3 3/8	4 3/8
No. of 3/8"	2	1 3/4	2 3/4	3 3/4	4 3/4
ě	3	2 1/8	3 1/8	4 1/8	5 1/8



#### **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.

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#### MOWING

The TD65 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.



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 TD65 from site to site, ensure the wings are in the raised position and deck safety locks are engaged (Page 24). Ensure the transport safety chain is properly fastened to the tractor (Page 20).

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		
2720lb / 1234kg or more	up to 20 mph (32 km/h)		
1360 – 2719lb / 617 – 1233kg	up to 10 mph (16 km/h)		



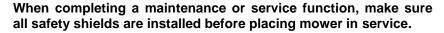
Use an appropriate sized vehicle to tow the TD65 mower. Do not tow with vehicles that are less than 1360lb / 1233kg, vehicle handling and braking characteristics will be diminished.

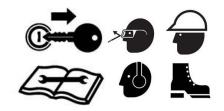
#### **MAINTENANCE**



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.





#### **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.

			Maint	enance In	tervals	
	Service	Initial Run - 50h	Daily	As Req'd	100h / Monthly	600h / Yearly
	Intermediate Hanger Bearing	-	Х	-	-	-
	Wing PTO Shaft (3 locn's each)	-	Χ	-	-	-
0	Deck Pivots	-	-	Х	-	-
Grease	Deck Wheels	-	-	Х	-	-
้	Transport Wheels	-	-	Х	-	-
	Wing Pivots	-	-	Х	-	-
	Input PTO Shaft (7 locn's)	-	-	-	Х	-
	Intermediate PTO Shaft (2 locn's)	-	ı	-	Х	-
	Inspect Gearbox	-	Х	-	-	-
Ö	Check Gearbox Oil	-	<u>-</u>	<u>-</u> 	Х	-
	Change Gearbox Oil	Х	-	-	-	Х

The TD-65 blade spindles are factory equipped with maintenance free sealed bearings as original equipment. The blade spindles do not require manual greasing.



Never direct high pressure water spray at the blade spindles (top or bottom). Water may enter the bearings and lead to premature failure.



#### **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:

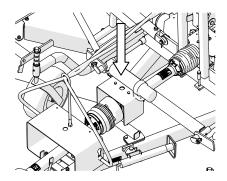
- 1) If a thickener other than lithium is used (including lithium complex), the existing grease will be contaminated and the lubrication properties may be lost leading to component damage.
- 2) Molybdenum Disulfide (Moly) is an additive used in slow moving, extreme load applications. The particles in the "Moly" will actually <u>increase</u> 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.



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.

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

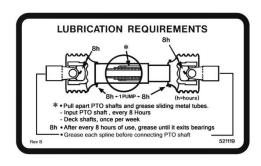




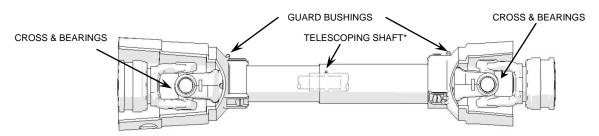
Use only manual pump-style grease guns for lubricating driveline components. Use of power greasing equipment can induce excessive pressure into the component, compromising sealing components and leading to premature wear and component failure.

#### **DRIVELINE GREASING**

Driveline shafts on the TD65 mower feature varying grease intervals. The following decal located on the hose support shield as a reminder of the minimum requirement.

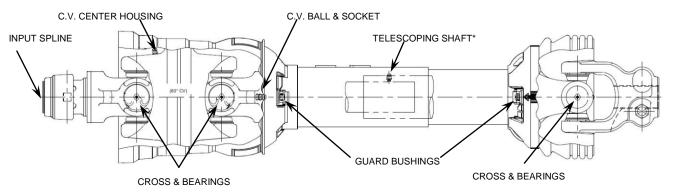


#### DECK SHAFT - 8h / Daily (5 Locations per Shaft / 3 Shafts)



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

#### INPUT SHAFT - 100h / Monthly (9 Locations)



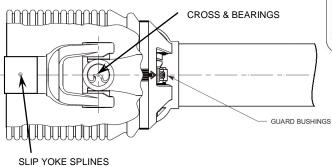
NOTE\* Shaft must be disconnected from tractor & collapsed for greasing telescoping section. Inner & outer guards must be rotated to align holes for accessing grease fitting.

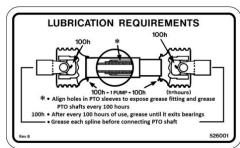


# **CAUTION!**

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 (3 Locations)







## **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 as required.

#### **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

<u>DO NOT OVERFILL!</u> Gearbox may over-heat causing premature component damage.

#### **DECK GEAR BOX**

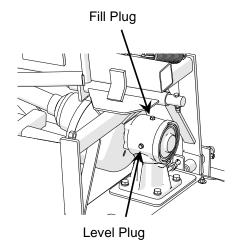
#### Checking Level - 100h / Monthly

A level indicator plug is located on the side of the gearbox. Proper oil level is set when oil starts to flow from this hole. If the level is low, add oil through top plug until correct level is attained. Replace and tighten plugs.

#### 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 – 0.52 Qt (0.5 Litres)



#### **4-WAY GEAR BOX**

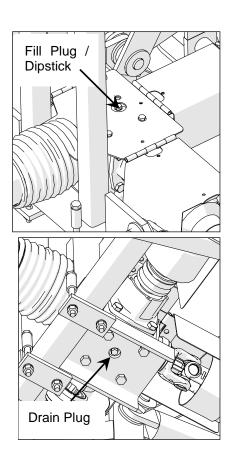
#### Checking Level - 100h / Monthly

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)



#### "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.

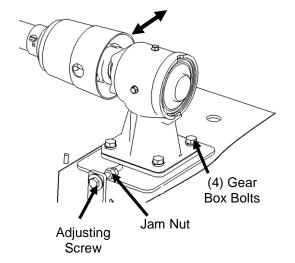
# Span Length (T) Deflection Force (t)

#### "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.

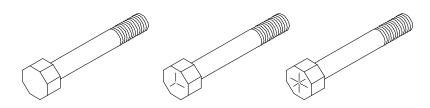


#### **FASTENER INSTALLATION TORQUE**

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	SAE Grade 5	SAE Grade 8
(No Dashes)	(3 Dashes)	(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)

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

#### **BLADE SERVICING**



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 and 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.



Use only original equipment blades 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 specifications and MAY BE DANGEROUS.

# USE ONLY GENUINE O.E.M. REPLACEMENT PARTS -ESPECIALLY CRITICAL ON THE CUTTING BLADES - 200115

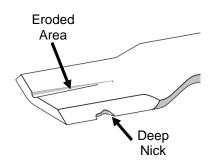
#### **BLADE REMOVAL AND INSTALLATION**

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 34.

Replace any blade that is bent, nicked deeper than  $\frac{1}{4}$ ", 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





#### **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 mulching

When paired with the optional mulching hoop kit, these blades feature the same high tip speed as the high lift blades with the added feature of re-cutting the clippings for faster decomposition of the clipping into the soil.

# 0 0 2 0

#### **BLADE SHARPENING**



#### **WARNING!**

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.

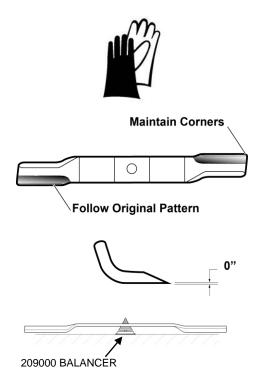


Failure to properly balance blades after sharpening can cause vibration leading to premature component damage.



# WARNING!

Wear appropriate eye and face protection when sharpening blades.



#### 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



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.

Remove LH Nut (1), lock washer (2), pulley (3), and spacer
 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.
- Remove bottom bearing from spindle and top bearing from housing

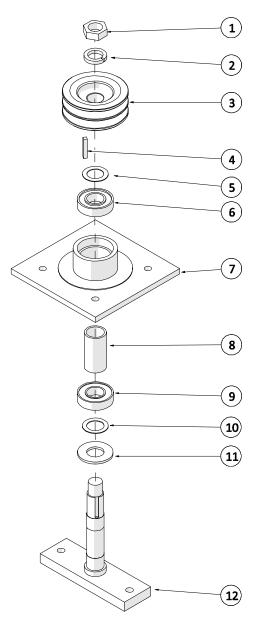
IMPORTANT! Removing bearings from spindle / housing causes permanent damage to the bearings. New bearing <u>must</u> be used in re-assembling the spindle.

- 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.
- 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**



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

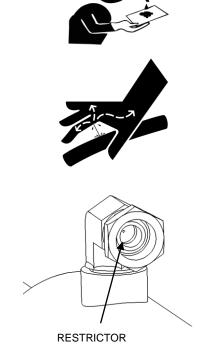
Hydraulic fluid escaping under pressure can penetrate the skin causing serious injury. If skin penetration occurs, seek medical attention immediately.

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 TD65 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.

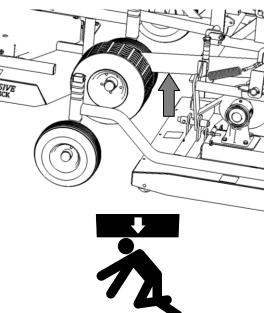


#### **WARNING!**

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.



#### **TIRES**

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

Tire Type	Recommended Pressure (PSI)
Mower Deck Tires (Castors)	24
Transport Tires	32





## **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:

- 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 loosening draw bolt & sliding gearbox forward.
- 5) Inspect all drive belts & pulleys.
- 6) Inspect all blade spindle bearings for excessive play.
- 7) Inspect all blades for serviceable condition.

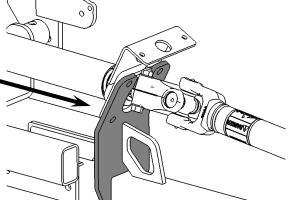
When returning the mower to service after long-term storage:

- 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.

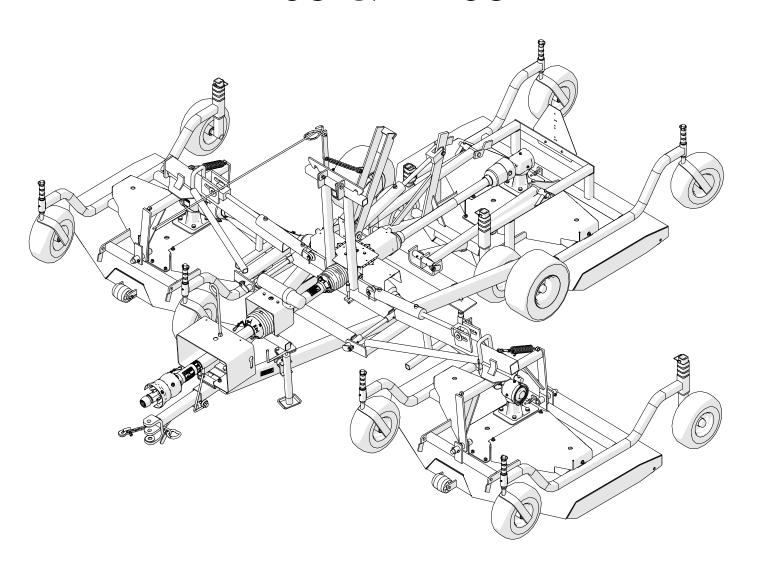
## **TROUBLESHOOTING**

PROBLEM	CAUSE	REMEDY	
Uneven Cutting	Improper Height Setting	Ensure that cutting height is set properly at all 4 corners of each deck (Page 25)	
g	Damaged Blades	Inspect blades for damage, replace as required	
	Lack of tension	Inspect & adjust tension as required	
Belt slippage	Grease contamination	Clean drive	
	Over Loading	Increase cutting height or reduce ground speed	
	Belt slippage	See Above	
Rapid belt wear	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	
Belt squeal	Belt slippage	See Above	
Over-heated	Belt slippage	See Above	
bearings	Insufficient Cooling	Ensure decks are free from clipping build-up	
	Over-heating	See Above	
Premature spindle	Improper rebuild procedure	See specific instructions in manual	
bearing failure	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	
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.	

Damage indicative of insufficient input shaft spline lubrication.



# Parts List TD65 & TD65-2





Si No Lee Ingles, Pida Ayuda a Alguien Que Se Lo Lea Para Que le Traduzca Las Medidas de Seguridad Effective serial numbers: TD65 - 14651472 and up TD65-2 - 146521417 and up PN 120536

Issue Date: August 2018

#### **Serial Number Location**

The serial number plate for the machine is located on the left-hand front frame.

For quick reference, record the following information:

Model:

Serial Number:

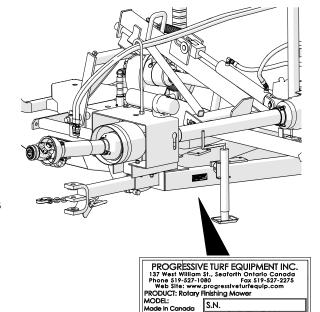
Date purchased:

NOTE: The last digit in each TD65/TD65-2 serial number is a letter. This letter denotes the geographic destination of the mower.

D EU Regulatory Country

B Non- EU Regulatory Country

There are differences in the parts required to service your mower based on this geographic code as are referred to throughout the parts lists. 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

#### 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.
- 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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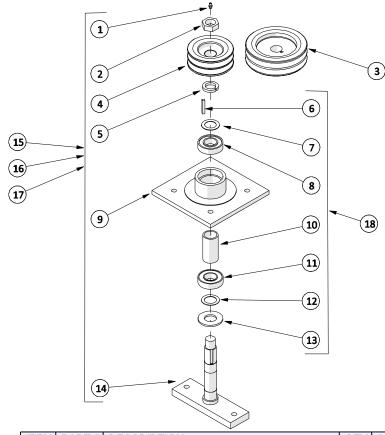
SE	RIAL N	UMBER LOCATION		
1	DEC	K ASSEMBLY	2	
	1.1	BLADE SPINDLE ASSEMBLY – GREASABLE	2	
	1.2	BLADE SPINDLE ASSEMBLY – MAINTENANCE FREE	3	
	1.3	BLADE OPTIONS	4	
	1.4	DECK GEARBOX ASSEMBLY	5	
	1.5	WING DECK ASSEMBLY – TD65	6	
	1.6	WING DECK ASSEMBLY – TD65-2	7	
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2	FRA	ME ASSEMBLY	9	
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3	HYD	PRAULICS	11	
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4	DRIN	VELINE	12	
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	4.4	Intermediate PTO Shaft	15	
	4.5	DECK PTO SHAFT	16	
	4.6	DECK GEARBOX	17	
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5	ОРТ	NUMBER LOCATION.  II  CK ASSEMBLY  2  BLADE SPINDLE ASSEMBLY — GREASABLE  2.  BLADE SPINDLE ASSEMBLY — MAINTENANCE FREE  3.  BLADE OPTIONS  4  DECK GEARBOX ASSEMBLY  55  WING DECK ASSEMBLY — TD65  66  WING DECK ASSEMBLY — TD65-2  7  REAR DECK ASSEMBLY  9  FRAME ASSEMBLY  9  FRAME ASSEMBLY  9  FRAME ASSEMBLY  10  TORAULICS  11  HYDRAULICS  11  HYDRAULICS  12  DRIVELINE  12  DRIVELINE  12  DRIVELINE  13  INPUT PTO SHAFT — B MODEL  13  INPUT PTO SHAFT — B MODEL  13  INPUT PTO SHAFT — D MODEL  14  INTERMEDIATE PTO SHAFT  15  DECK PTO SHAFT  16  DECK PTO SHAFT  17  4 WAY GEARBOX  18  PTIONAL EQUIPMENT  19  FFETY DECALS  20		
6	SAFI	ETY DECALS	20	
	Notes.		22	

# **DECK ASSEMBLY**

# 1.1 Blade Spindle Assembly - Greasable

TD65 up to Serial # 14651478

TD65-2 up to Serial # 1465-21416



ITEM	PART#	DESCRIPTION		SN
1	O.L.	GREASE FITTING 1/4 - 28,	1	
2	521003	HEX NUT- L.H.	1	
3	521790	PULLEY - 5.95"	1	1
4	521773	PULLEY - 4.4"	1	2
5	521002	L.H. LOCKWASHER KIT (3PCS)	1	
6	•	KEY - 1/4" X 1.50"	1	
7	•	SHIM WASHER - 1.125"	1	
8	-	BEARING - TOP	1	
9	521700	SPINDLE HOUSING	1	
10	•	SPACER TUBE	1	
11	•	EARING - BOTTOM		
12	-	SHIM WASHER 1.188"	1	
13		SPINDLE DIRT SHIELD	1	
14	521307	BLADE SPINDLE W/GREASE FITTING	1	
15	521340	BLADE SPINDLE ASSEMBLY - W/O PULLEY	1	
16	521776	BLADE SPINDLE ASSEMBLY - 4.4" PULLEY	1	2
17	521792	BLADE SPINDLE ASSEMBLY - 5.9" PULLEY	1	1
18	600620	SPINDLE REBUILD KIT (W/GREASE FITTING)	1	

O.L. - OBTAIN LOCALLY

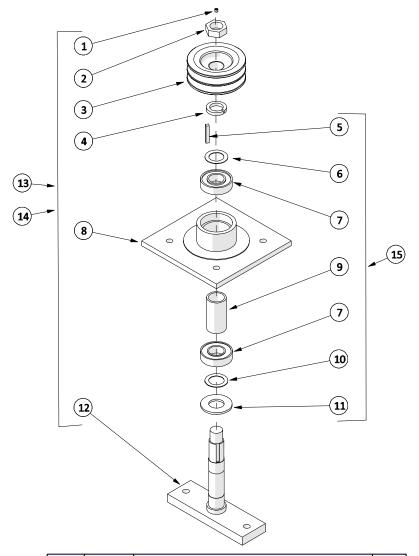
**SERIAL NUMBER RANGE** 

1 - TD65 D UP TO SN#14651472 TD65-2 D UP TO SN#1465-21416 2 - TD65/65-2 B ALL TD65 D SN#14651473 TO 14651478

# 1.2 Blade Spindle Assembly - Maintenance Free

TD 65 Serial # 14651479 & Up

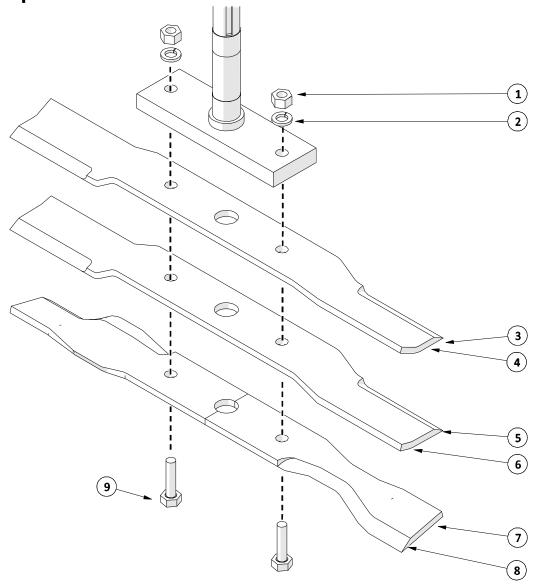
TD65-2 Serial # 1465-21417 & Up



ITEM	PART#	DESCRIPTION	QTY
1	Ŀ Ö	SET SCREW - 1/4-28 X 1/4	1
2	521003	HEX NUT- L.H.	1
3	521773	PULLEY - 4.4"	1
4	521002	L.H. LOCKWASHER (3 PC KIT)	1
5	•	KEY KIT - 1/4" X 1.50"	1
6	•	SHIM WASHER - 1.125"	1
7	-	BEARING - SEALED	2
8	521700	SPINDLE HOUSING	1
9	•	SPACER TUBE	1
10	•	SHIM WASHER 1.188"	1
11	1	SPINDLE DIRT SHIELD	1
12	521307	BLADE SPINDLE W/ SET SCREW	1
13	521640	BLADE SPINDLE ASSEMBLY - W/O PULLEY	1
14	521876	BLADE SPINDLE ASSEMBLY - 4.4" PULLEY	1
15	600720	SPINDLE REBUILD KIT	1

O.L. - OBTAIN LOCALLY

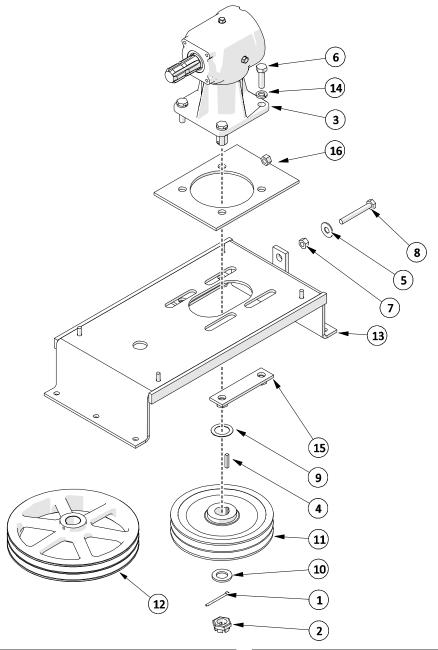
# 1.3 Blade Options



ITEM	PART#	DESCRIPTION	QTY
1	O.L.	HEX NUT - 1/2NC GR5 PL	2
2	O.L.	LOCK WASHER- 1/2 PL	2
3	522603	TD 65 STANDARD BLADE KIT (9PCS)	1
4	522604	TD65-2 STANDARD BLADE KIT (7PCS)	1
5	522606	TD65 LOW LIFT BLADE KIT (9 PCS)	1
6	522607	TD65-2 LOW LIFT BLADE KIT (7 PCS)	1
7	522611	TD65 MULCH BLADE KIT (9 PCS)	1
8	522612	TD65-2 MULCH BLADE KIT (7 PCS)	1
9	O.L.	HEX BOLT- 1/2 X 1.75 NC GR5 PL	2

O.L. - OBTAIN LOCALLY

# 1.4 Deck Gearbox Assembly



ITEM	PART#	DESCRIPTION	QTY	SN
1	O.L.	3/16" x 1-1/2" COTTER PIN	1	
2	521130	CASTLE NUT - M24	1	
3	521012	GEAR BOX (SEE SECT. 4.6)	1	
4	521390	KEY KIT (3 PER KIT)	1	
5	O.L.	FLAT WASHER- 1/2 PL	1	
6	O.L.	HEX BOLT- 9/16 X 2.00 NC GR5 PL	4	
7	O.L.	HEX NUT - 1/2NC GR5 PL	1	
8	521020	TAP BOLT KIT - (3PCS)	1	
9	521004	SHIM WASHER KIT (9 PCS)	1	

ITEM	PART#	DESCRIPTION	QΤΥ	SN			
10	521129	WASHER (3PCS)	1				
11	521774	DRIVE PULLEY - 8.70"	1	1			
12	212021	DRIVE PULLEY - 11.25"	1	2			
13	521019	GEAR BOX MOUNT	1				
14	O.L.	LOCK WASHER- 9/16 PL	4				
15	521018	STIFFENER NUT BRACKET	2				
16	521013	SLIDE PLATE	1				
$\overline{}$	01 0071011004111/						

O.L. - OBTAIN LOCALLY

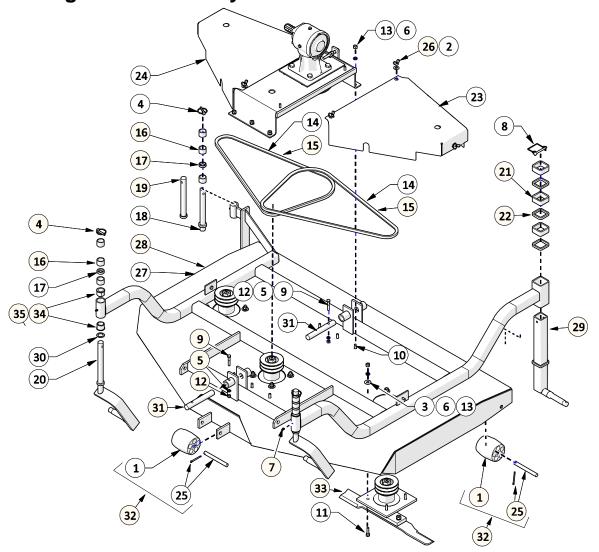
SERIAL NUMBER RANGE

1 - TD65 B ALL TD65-2 B ALL TD65 D SN#14651473 & UP TD65-2 D SN#1465-21417 & UP

2 - TD65 D UP TO SN#14651472 TD65-2 D UP TO SN#1465-21416

08/2014 5

# 1.5 Wing Deck Assembly – TD65



ITEM	PART#	DESCRIPTION	QTY	SN
1	209001	ANTISCALP ROLLER	3	
2	O.L.	FLAT WASHER- 3/8 PL	6	
3	O.L.	FLAT WASHER- 7/16 PL	12	
4	521038RD	LYNCH PIN KIT (4 PCS)	1	
5	O.L.	LOCK WASHER- 3/8 PL	2	
6	O.L.	LOCK WASHER- 7/16 PL	18	
7	522020	GREASE FITTING KIT (20 PCS)	1	
8	521038	CLIP PIN KIT (5 PCS)	1	
9	O.L.	HEX BOLT- 3/8 X 2 NC GR5 PL	2	
10	O.L.	HEX BOLT- 7/16 X 1 NC GR5 PL	6	
11	O.L.	CARR.BOLT- 7/16 X 1.75 NC GR5 PL	12	
12	O.L.	HEX NUT - 3/8NC GR5 PL	2	
13	O.L.	HEX NUT - 7/16NC GR5 PL	18	
14	521315	BELT - B69	2	-
15	212040	BELT - B75	2	2
16	521021	ROUND SPACER KIT - 1" (6 PCS)	1	
17	521022	ROUND SPACER KIT - 3/8" (6 PCS)	2	
18	522312	CORNER PIN	1	3

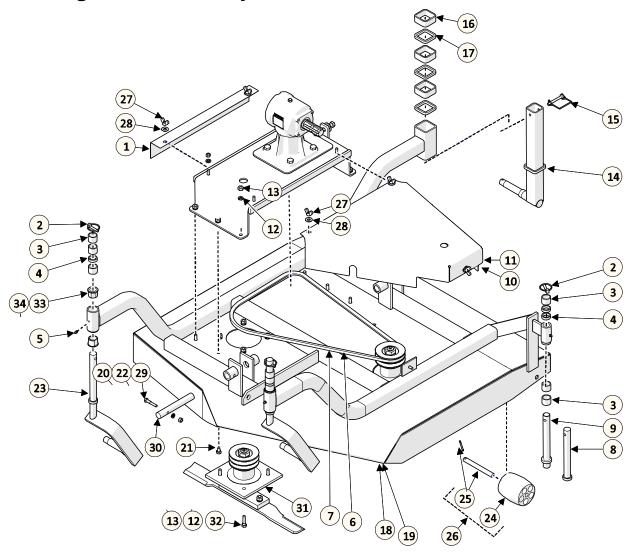
ITEM	PART #	DESCRIPTION	QTY	SN
19	526472	CORNER PIN	1	4
20	522313	SWIVEL CASTER	2	
21	521039	SPACER KIT - 1" (6 PCS)	1	
22	521040	SPACER KIT - 3/8"(6 PCS)	1	
23	521704	BELT GUARD - L.H.	1	
24	521705	BELT GUARD - R.H.	1	
25	521750	ANTISCALP PIN W/COTTER PIN	3	
26	O.L.	WING NUT - 3/8 NC	6	
27	521313	MOWER DECK - LH (SHOWN)	1	
28	521314	MOWER DECK - RH	1	
29	522314	SQUARE CASTER	1	
30	521320	SHIM WASHER KIT (10 PC)	1	
31	521337	DECK LIFT PIN	2	
32	521749	ANTI SCALP ROLLER W/PIN	2	
33	SEE SECT 1.1 & 1.2	BLADE SPINDLE ASSEMBLY	3	
34	521818	PRESS IN BUSHING - CASTOR	1	
35	521818.10	BUSHING BULK PACK (10 PCS)	1	

O.L. - OBTAIN LOCALLY

#### **SERIAL NUMBER RANGE**

1 - TD65 B ALL TD65 D SN#14651473 & UP 2 - TD65 D UP TO SN#14651472 3 - FOR USE WITH 18 X 9.5 TRANSPORT TIRE 4 - FOR USE WITH 20.5 X 8 TRANSPORT TIRE

# 1.6 Wing Deck Assembly - TD65-2



ITEM	PART#	DESCRIPTION	QTY	SN
1	521703	BELT GUARD - SMALL	1	
2	521038RD	LYNCH PIN KIT - (4 PCS)	2	
3	521021	ROUND SPACER KIT - 1" (6 PCS)	3	
4	521022	ROUND SPACER KIT - 3/8" (6 PCS)	1	
5	522020	GREASE FITTING KIT (20 PCS)	1	
6	521315	BELT - B69	1	1
7	212040	BELT - B75	1	2
8	526472	CORNER PIN	1	3
9	522312	CORNER PIN	1	4
10	521704	BELT GUARD - LH (SHOWN)	1	
11	521705	BELT GUARD - RH	1	
12	O.L.	LOCK WASHER- 7/16 PL	14	
13	O.L.	HEX NUT - 7/16NC GR5 PL	14	
14	522314	SQUARE CASTER	1	
15	521038	CLIP PIN KIT (5 PCS)	1	
16	521039	SPACER KIT - 1" (6 PCS)	1	
17	521040	SPACER KIT - 3/8" (6 PCS)	1	
18	521707	MOWER DECK - R.H. (SHOWN)	1	

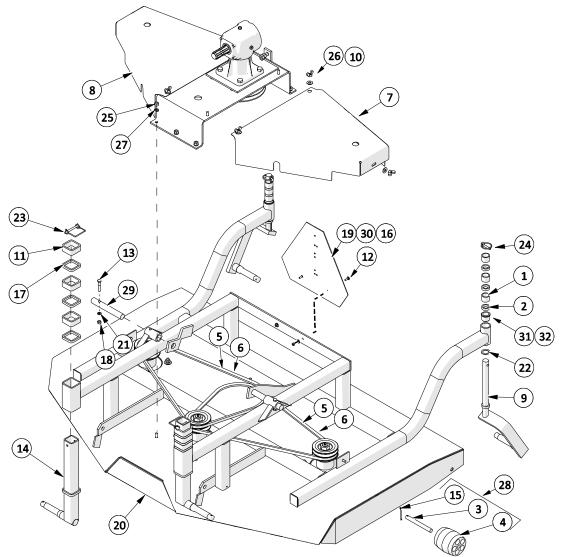
O.L. - OBTAIN LOCALLY

ITEM	PART#	DESCRIPTION	QTY	SN
19	521706	MOWER DECK - L.H.	1	
20	O.L.	HEX NUT - 3/8NC GR5 PL	2	
21	O.L.	HEX BOLT- 7/16 X 1 NC GR5 PL	6	
22	O.L.	LOCKWASHER - 3/8" PL	2	
23	522313	SWIVEL CASTER	2	
24	209001	ANTISCALP ROLLER	2	
25	521750	ANTISCALP PIN W/COTTER PIN	2	
26	521749	ANTI SCALP ROLLER KIT	1	
27	O.L.	WING NUT - 3/8 NC	5	
28	O.L.	FLAT WASHER- 3/8 PL	5	
29	O.L.	HEX BOLT- 3/8 X 2 NC GR5 PL	2	
30	521337	DECK LIFT PIN	2	
31	SEE SECT 1.1 & 1.2	BLADE SPINDLE ASSEMBLY	2	
32	O.L.	CARR. BOLT- 7/16 X 1.75 NC GR5 PL	8	
33	521818.01	PRESS IN BUSHING - CASTER	1	
34	521818.10	BUSHING BULK PACK (10 PCS)	1	

#### **SERIAL NUMBER RANGE**

- 1 ALL TD65-2 A ALL TD65-2 B ALL TD65-2 B TD65-2 D SN#1465-21417 & UP 2 TD65-2 D UP TO SN#1465-21416 3 FOR USE WITH 20.5 X 8 TRANSPORT TIRE 4 FOR USE WITH 18 X 9.5 TRANSPORT TIRE

# 1.7 Rear Deck Assembly



ITEM	PART#	DESCRIPTION	QTY	SN
1	521021	ROUND SPACER - 1" (6 PCS)	3	
2	521022	ROUND SPACER - 3/8" (6PCS)	3	
3	521750	ANTISCALP PIN W/ COTTER PIN	2	
4	209001	ANTISCALP ROLLER	2	
5	521315	BELT - B69	2	1
6	212040	BELT - B75	2	2
7	521704	BELT GUARD - L.H.	1	
8	521705	BELT GUARD - R.H.	1	
9	522313	SWIVEL CASTER - ROUND	2	
10	O.L.	FLAT WASHER- 3/8 PL	6	
11	521039	SPACER KIT - 1" - (6 PCS)	1	
12	O.L.	CARR BOLT - 1 X 3/4 NC GR5 PL	2	
13	O.L.	HEX BOLT- 3/8 X 2 NC GR5 PL	2	
14	522314	SQUARE CASTER	2	
15	O.L.	3/16 X 1-1/2" COTTER PIN	2	
16	O.L.	HEX NUT - 3/8NC GR5 PL	2	
17	521040	SPACER KIT - 3/8" - (6 PCS)	1	

8

ITEM	PART#	DESCRIPTION	QTY	SN
18	O.L.	HEX NUT - 1/4NC GR5 PL	4	
19	521353	SMV SIGN	1	
20	521354	MOWER DECK - REAR	1	
21	O.L.	LOCK WASHER- 3/8 PL	4	
22	521320	SHIM WASHER KIT (10 PCS)	1	
23	521038	CLIP PIN KIT (5 PCS)	1	
24	521038RD	LYNCH PIN KIT (4 PCS)	1	
25	O.L.	HEX NUT - 7/16NC GR5 PL	6	
26	O.L.	WING NUT - 3/8 NC	6	
27	O.L.	LOCKWASHER- 7/16 PL	6	
28	521749	ANTI SCALP ROLLER KIT	1	
29	521337	DECK LIFT PIN	2	
30	O.L.	LOCK WASHER- 1/4 PL	1	
31	521818	PRESS IN BUSHING - CASTER	1	
32	521818.10	BUSHING BULK PACK (10 PCS)	1	

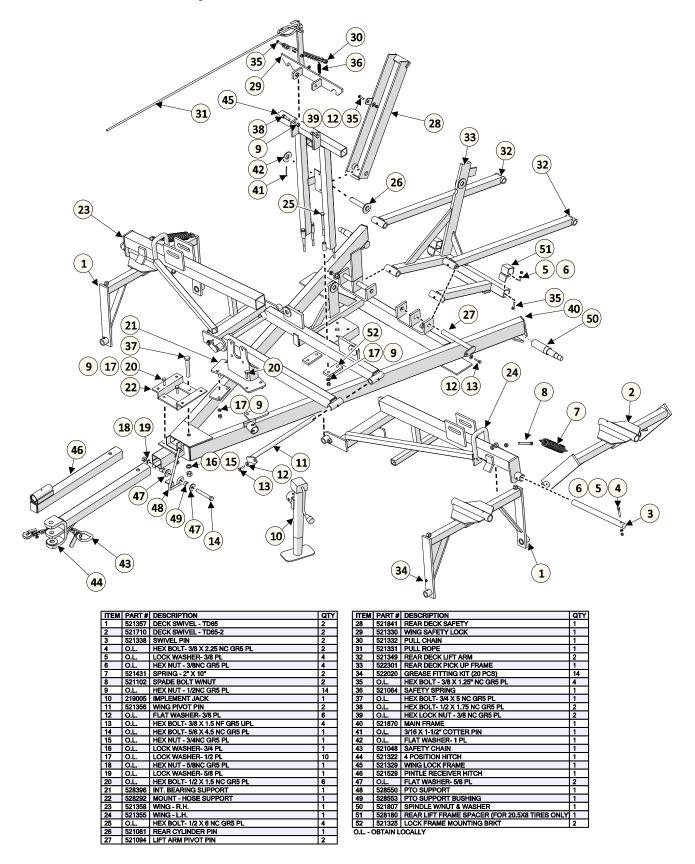
O.L. - OBTAIN LOCALLY

**SERIAL NUMBER RANGE** 

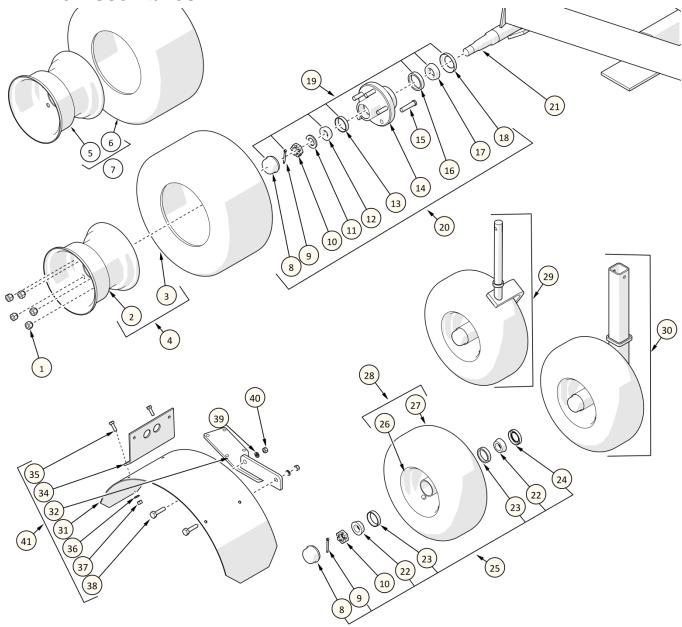
1 - TD65 A ALL TD65 B ALL TD65 C ALL TD65 C SN#14651472 & UP 2 - TD65 D UP TO SN#14651471

#### **2 FRAME ASSEMBLY**

# 2.1 Frame Assembly



# 2.2 Tire Assemblies



ITEM	PART #	DESCRIPTION	QTY
1	521327	WHEEL NUT KIT (5 PCS)	1
2	521398	RIM - 8 X 7.00 (B MODEL)	1
3	522306	TIRE - 18 X 9.50-8 (B MODEL)	1
4	522305	TRANS. TIRE & RIM (B MODEL)	1
5	230062	RIM - 10 X 6.00 (OPT & D MODEL)	1
6	521858	TIRE - 20.5 X 8.00-10 (OPT & D MODEL)	1
7	522305	TRANS. TIRE AND RIM (OPT & D MODEL)	1
8	521748	DUST CAP	2
9	O.L.	COTTER PIN - 3/16" x 1-1/2"	2
10	521747	HEX NUT - SLOTTED #4000 (2 PCS)	2
11	521746	WASHER (2 PCS)	1
12	-	BEARING - OUTER	1
13		BEARING RACE - OUTER	1
14	-	HUB #3500 - TRANSPORT	1
15	521755	PRESS IN WHEEL STUD KIT (5 PCS)	1
16		BEARING RACE - INNER	1
17		BEARING - INNER	1
18	521741	GREASE SEAL	1
19	230028	WHEEL BEARING KIT - TRASNPORT TIRE	1
20	521328	HUB ASSEMBLY - COMPLETE	1
21	521807	WELD ON SPINDLE (W/NUT & WASHER)	1

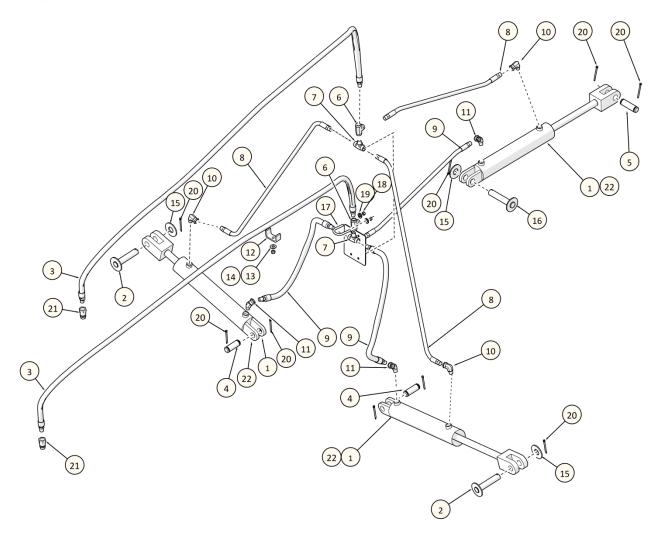
ITEM	PART #	DESCRIPTION	QTY
22	-	BEARING - INNER	2
23	-	BEARING RACE - OUTER	2
24	521493	GREASE SEAL	1
25	521500	WHEEL BEARING KIT - CASTER TIRE	1
26	522315	CASTER RIM	1
27	522316	CASTER TIRE	1
28	522317	CASTER RIM & TIRE	1
29	522319	ROUND CASTER ASSEMBLY - COMPLETE	1
30	522320	SQUARE CASTER ASSEMBLY - COMPLETE	1
31	524246	FENDER	2
32	521198	FENDER BRACKET - LH	1
33	521200	FENDER BRACKET - RH (NOT SHOWN)	1
34	528447	LIGHT BRACKET	2
35	O.L.	HEX BOLT- 5/16 X 0.75 NC GR5 PL	2
36	O.L.	LOCK WASHER- 5/16 PL	3
37	O.L.	HEX NUT - 5/16NC GR5 PL	3
38	O.L.	HEX BOLT- 1/2 X 1.50 NC GR5 PL	2
39	O.L.	LOCK WASHER- 1/2 PL	1
40	O.L.	HEX NUT - 1/2NC GR5 PL	1
41	524300	COMPLETE FENDER KIT (OPT & D MODEL)	1

O.L. - OBTAIN LOCALLY

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# 3 HYDRAULICS

# 3.1 Hydraulics



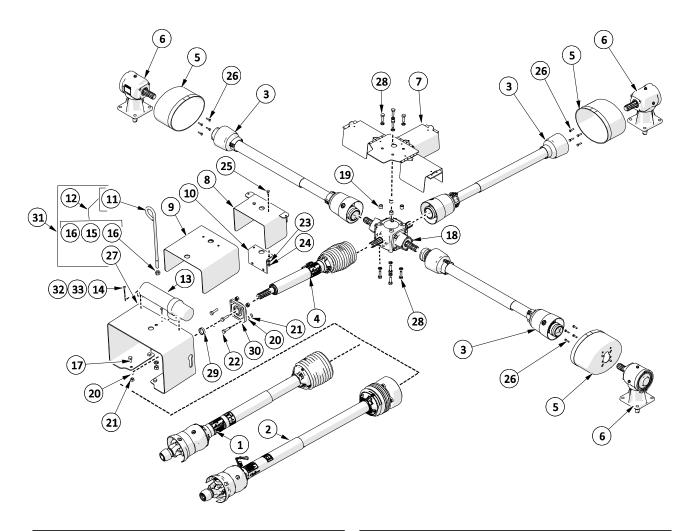
ITEM	PART#	DESCRIPTION	QTY
1	522011	HYDRAULIC CYLINDER	3
2	521103	WING CYLINDER PIN	2
3	521334	HYDRAULIC HOSE - 122"	2
4	521345	PIN - WING LIFT	2
5	521350	REAR CYLINDER PIN	1
6	521770	HYDRAULIC TEE	2
7	521416	TEE - MALE BRANCH	2
8	521769	HYDRAULIC HOSE 31"	3
9	521335	HYDRAULIC HOSE - 24"	3
10	521336	RESTRICTOR FITTING 90	3
11	521063	HYD ELBOW - 45 DEG	3
12	521051	HYDRAULIC HOSE CLAMP	1

ITEM	PART#	DESCRIPTION	QTY
13	O.L.	FLAT WASHER- 3/8 PL	1
14	O.L.	HEX LOCK NUT - 3/8NC GR5 PL	1
15	O.L.	FLAT WASHER- 1 PL	3
16	521081	PIN - REAR LIFT	1
17	521071	U BOLT	1
18	O.L.	HEX NUT - 5/16NC GR5 PL	2
19	O.L.	LOCK WASHER- 5/16 PL	2
20	O.L.	COTTER PIN - 3/16" X 1-1/2	9
21	222006	HOSE END KIT (2 PCS)	2
22	522013	CYLINDER SEAL KIT (FOR REBUILD)	1

O.L. - OBTAIN LOCALLY

# 4 DRIVELINE

# 4.1 Driveline

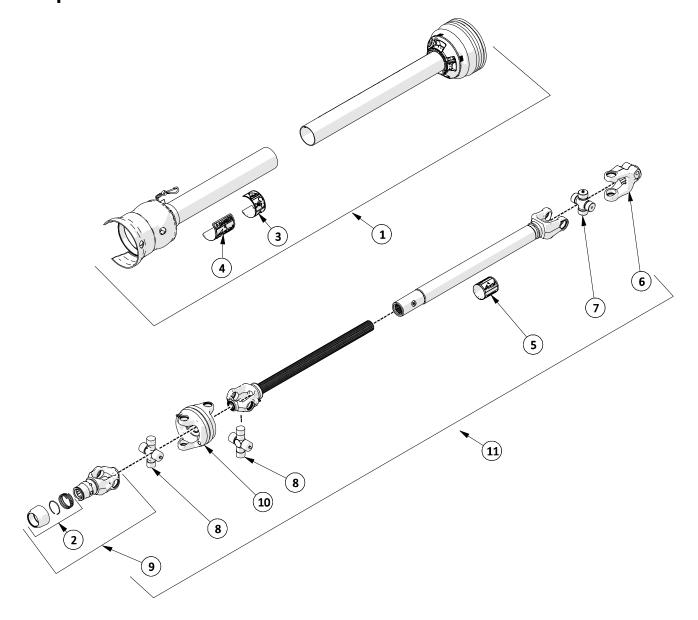


ITEM	PART#	DESCRIPTION	QTY
1	210280	INPUT PTO - B MODEL	1
2	210290	INPUT PTO - D MODEL (CLUTCH)	1
3	521718	DECK PTO SHAFT	3
4	210210	INTERMEDIATE PTO	1
5	210078	COUNTER CONE	3
6	521012	DECK GEAR BOX	3
7	522463	4-WAY GEARBOX SHIELD	1
8	600430	INTERMEDIATE SHIELD - B MODEL	1
9	528194	INTERMEDIATE SHIELD - D MODEL (CLUTCH)	1
10	528439	INTERMEDIATE SHIELD BRACKET	1
11	-	HOSE SUPPORT ROD	1
12	522413	HOSE GUIDE W/ HARDWARE	1
13	120519	MANUAL HOLDER TUBE	1
14	O.L.	CARR BOLT - 1 X 1 NC GR5 PL	2
15	O.L.	LOCK WASHER- 5/8 PL	1
16	O.L.	HEX NUT - 5/8NC GR5 PL	2
17	O.L.	HEX BOLT- 1/2 X 1 NC GR5 PL	1

ITEM	PART#	DESCRIPTION	QTY
18	521497	GEARBOX - 4 SHAFT	1
19	521197	GEARBOX COVER SPACER	4
20	O.L.	LOCK WASHER- 1/2 PL	8
21	O.L.	HEX NUT - 1/2NC GR5 PL	8
22	O.L.	HEX BOLT- 1/2 X 1.75 NC GR5 PL	4
23	O.L.	LOCK WASHER- 3/8 PL	2
24	O.L.	HEX NUT - 3/8NC GR5 PL	2
25	O.L.	HEX BOLT - 3/8 x 1.25 NC GR5 PL	2
26	O.L.	HEX BOLT - M8 X 1.25 NC GR5 PL	12
27	-	HOSE SUPPORT	1
28	521764	BOLT & LOCKWASHER KIT - M12 (16 PCS)	1
29	526013	INPUT PTO SPACER	1
30	521323	4 BOLT FLANGE BEARING	1
31	522708	HOSE SUPPORT & SHIELD (W/DECALS)	1
32	305700	HEX NUT - 1/4NC GR5 PL	2
33	301302	LOCK WASHER- 1/4 PL	2
25 26 27 28 29 30 31 32 33	O.L 521764 526013 521323 522708 305700	HEX BOLT - 3/8 x 1.25 NC GR5 PL HEX BOLT - M8 X 1.25 NC GR5 PL HOSE SUPPORT BOLT & LOCKWASHER KIT - M12 (16 PCS) INPUT PTO SPACER 4 BOLT FLANGE BEARING HOSE SUPPORT & SHIELD (W/DECALS) HEX NUT - 1/4NC GR5 PL LOCK WASHER- 1/4 PL	2 12 1 1 1 1 1 2

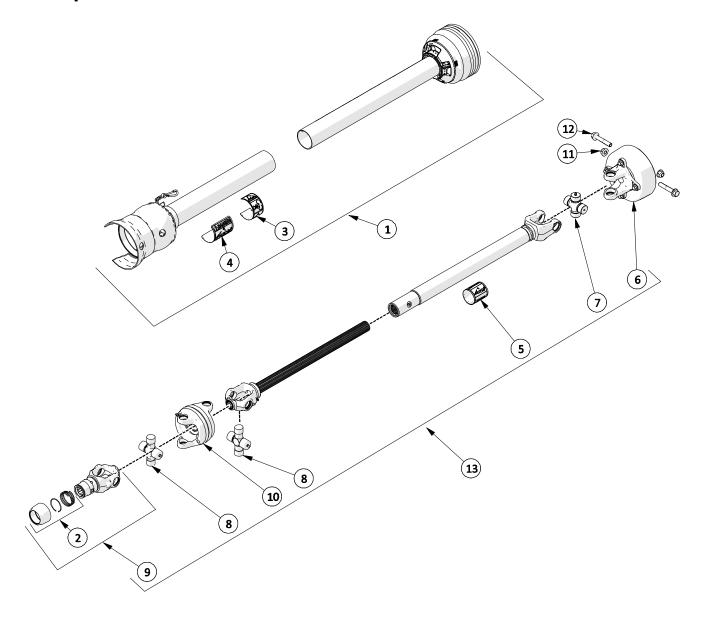
O.L. - OBTAIN LOCALLY

# 4.2 Input PTO Shaft – B Model



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

# 4.3 Input PTO Shaft – D Model

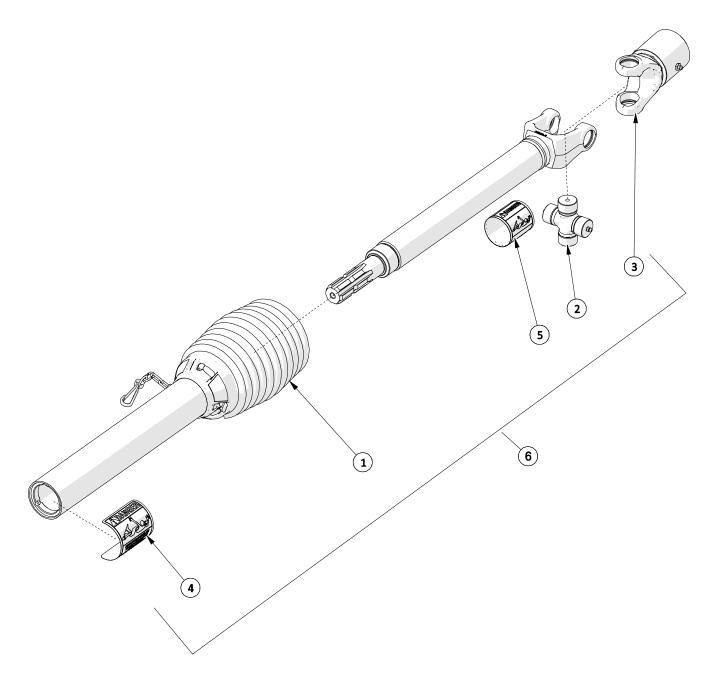


ITEM	PART#	DESCRIPTION	QTY
1	210286	COMPLETE GUARD SET 35E2BL	1
2	210179	SLIDE LOCK REPAIR KIT (44E)	1
3	210238	CE WARNING DECAL	1
4	210237	SAFETY SIGN - OUTER GUARD	1
5	210239	SAFETY SIGN - INNER GUARD	1
6	210257	AUTOMATIC CLUTCH ASSEMBLY	1
7	210234	35E2BL CROSS KIT	1
8	210284	CAT 4 80 EBL CROSS & BRG KIT	2
9	210283	AUTO LOK YOKE ASSEMBLY	1
10	210281	CENTER HOUSING	1
11	O.L.	HEX LOCK NUT - 1/2" NC GR8 PL	2
12	O.L.	HEX BOLT - 1/2 X 2.75" NC GR8 PL	2
13	210290	COMPLETE INPUT PTO SHAFT W/GUARDS	1

O.L. - OBTAIN LOCALLY

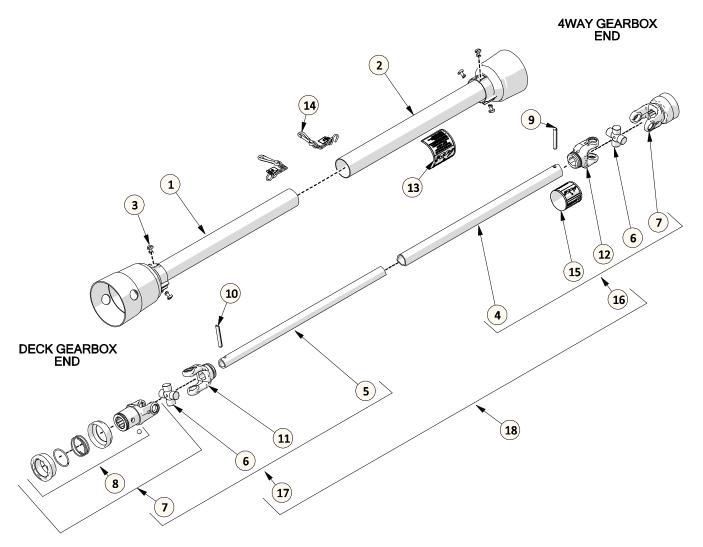
14 08/2014

# 4.4 Intermediate PTO Shaft



ITEM	PART#		QTY
1	210211	PTO GUARD	1
2	210234	35E2BL CROSS & BEARING KIT	1
3	210212	OVERRUNNING CLUTCH ASSEMBLY	1
4	210237	SAFETY SIGN - OUTER GUARD	1
5	210239	SAFETY SIGN - INNER GUARD	1
6	210210	COMPLETE PTO SHAFT ASSEMBLY	1

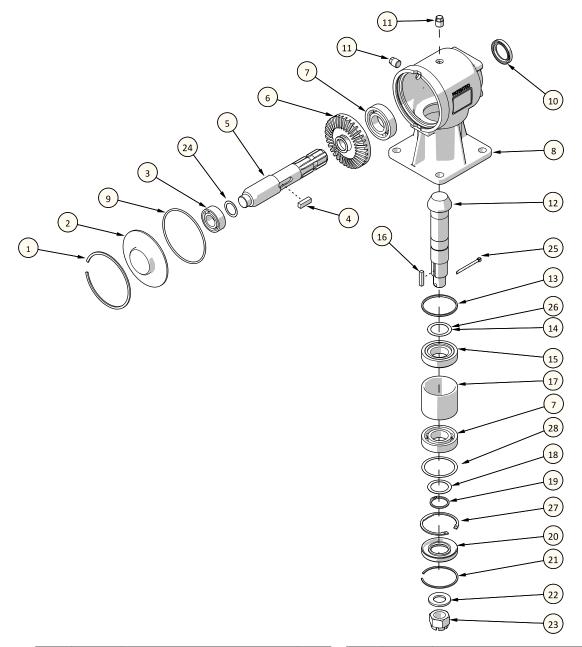
# 4.5 Deck PTO Shaft



ITEM	DADT#	DECODIBITION	OTV
ITEM	PART #	DESCRIPTION	QTY
1	521717	PTO - HALF MALE SHIELD	1
2	521716	PTO - 1/2 FEMALE SHIELD	1
3	521463	PLASTIC SHILED BOLT - 6 PC KIT	1
4	521712	PTO - OUTER TUBE - T20	1
5	521713	PTO - INNER TUBE - T20	1
6	521779	UNIVERSAL JOINT KIT - T20	2
7	521778	YOKE - QD 6 SPLINE	2
8	210017	SLIDE COLLAR KIT - METALLIC	1
9	521781	ROLL PINOUTER TUBE	1
10	521782	ROLL PIN - INNER TUBE	1
11	521783	YOKE - INNER TUBE	1
12	521780	YOKE - OUTER TUBE	1
13	521455	DECAL - DANGER - OUTER SHIELD	1
14	521467	SAFETY CHAIN	2
15	521451	DECAL - DANGER - OUTER TUBE	1
16	521714	PTO - 1/2 SHAFT - FEMALE W/SHIELD	1
17	521715	PTO - 1/2 SHAFT - MALE W/SHIELD	1
18	521718	COMPLETE DECK PTO SHAFT W/GUARDS	1

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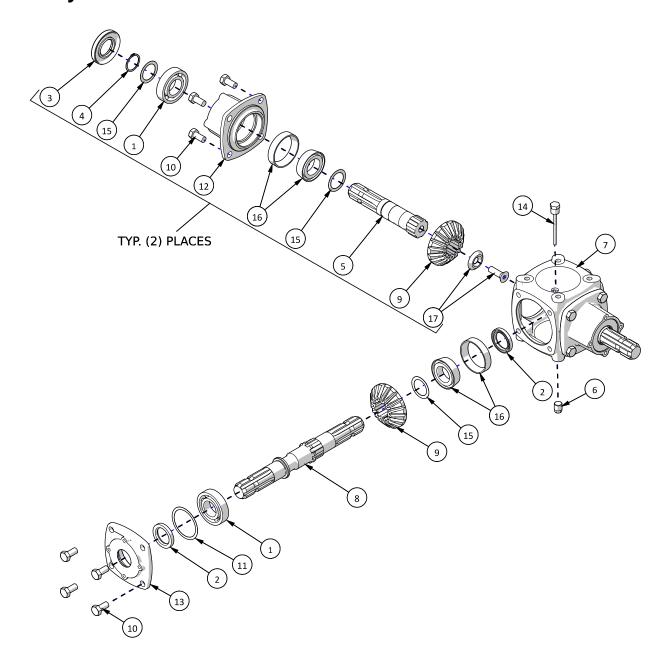
# 4.6 Deck Gearbox



ITEM	PART#	DESCRIPTION	QTY
1	521110	SNAP RING (3 PCS)	1
2	521111	COVER PLATE	1
3	521112	BEARING - 6205	1
4	521113	KEY KIT- 10 X 8 X 30 MM (3 PCS)	1
5	521114	INPUT SHAFT	1
6	521115	GEAR	1
7	521116	BEARING - 6207	2
8	521117	CASING	1
9	521118	O-RING	1
10	521120	OIL SEAL - 35 X 52 X 10	1
11	521482	HEX PIPE PLUG	2
12	521121	PINION SHAFT	1
13	521361	TAPERED SPACER RING	1
14	521123	SHIM - 40 X 52 X .4 (3 PCS)	1
15	521362	BEARING - TAPERED ROLLER	1

ITEM	PART#	DESCRIPTION	QTY
16	521390	KEY KIT- 1/4" X 1.25" (3 PCS) KIT	1
17	521124	SPACER TUBE	1
18	521366	SHIM KIT (3 PCS)	1
19	521125	SNAP RING (3 PCS)	1
20	521127	OIL SEAL - 35 X 72 X 10	1
21	521128	SNAP RING	1
22	521129	WASHER (3PC/KIT)	1
23	521130	CASTLE NUT	1
24	521359	SHIM KIT - (2PCS)	1
25	521122	COTTER PIN KIT (3 PCS)	1
26	521360	SHIM - 40 X 52 X .3 - (3PCS)	1
27	521126	SNAP RING KIT (3 PCS)	1
28	521491	SHIM KIT (3 PCS)	1
29	521012	GEARBOX - COMPLETE	1

# 4.7 4 Way 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		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
	11 12 13 14 15 16 17	11     521491       12     521796       13     521797       14     521489       15     521794       16     521362       17     522426	11 521491 SHIM KIT 12 521796 EXTENSION HOUSING 13 521797 COVER 14 521489 OIL LEVEL DIPSTICK 15 521794 SHIM KIT 16 521362 BEARING - TAPERED 17 522426 BOLT AND WASHER KIT (4 PCS)

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# **5 OPTIONAL EQUIPMENT** 8

				(
ITEM	PART#	DESCRIPTION	QTY	SN
1	522507	MULCH HOOP KIT - TD65 (COMPLETE MACHINE)	1	
2	522506	MULCH HOOP KIT - TD65-2 (COMPLETE MACHINE)	1	
3	O.L.	LOCK WASHER- 3/8 PL	3	
4	O.L.	HEX NUT - 3/8NC GR5 PL	3	
5	O.L.	HEX BOLT - 3/8 X 1.25 NC GR5 PL	3	
6	521604	CHAIN GUARD ROD - TD65	1	
7	521602	CHAIN GUARD ROD - TD65-2	1	
8	521608	CHAIN GUARD PLATE - TD65	1	
9	521617	CHAIN GUARD PLATE - TD65-2	1	
10	521553	TD65 CHAIN GUARD KIT (3 GUARDS)	1	
11	521555	TD65-2 CHAIN GUARD KIT (3 GUARDS)	1	
12	521618	CHAIN REPLACEMENT KIT - 20 PCS	1	

O.L. - OBTAIN LOCALLY

#### 6 SAFETY DECALS

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

TD 65 Decal Kit - 522303

TD 65-2 Decal Kit - 522302



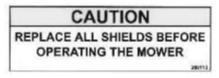
209175 DECAL – GENERAL SAFETY



209171 DECAL – PTO COLLAPSE



209173 DECAL – ROTATING BLADE DANGER



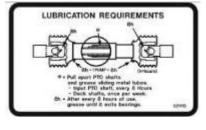
209113 DECAL –REPLACE SHIELDS



209115 DECAL – OEM PARTS



521820 DECAL – CAUTION



521119 DECAL – 8 HR PTO GREASE



521199 DECAL – GREASE SCHEDULE



521817 DECAL – PROGRESSIVE TURF (B MODELS)



521817DE DECAL – PROGRESSIVE TURF (D MODELS)



521784 DECAL – HITCH SETUP



209182 DECAL – BLADE HARDWARE

20 05/2017

# PROGRESSIVE 65-2 TRI-DECK

PROGRESSIVE 65" TRI-DECK

521837 DECAL – TD 65-2 521838 DECAL – TD 65



521451 DECAL – DANGER – OUTER TUBE



210238 DECAL – CE WARNING



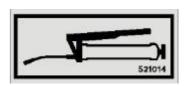
210239 DECAL – INNER GUARD



210237 DECAL – OUTER GUARD



521455 DECAL – OUTER SHIELD



521014 DECAL – GREASE GUN

Notes		