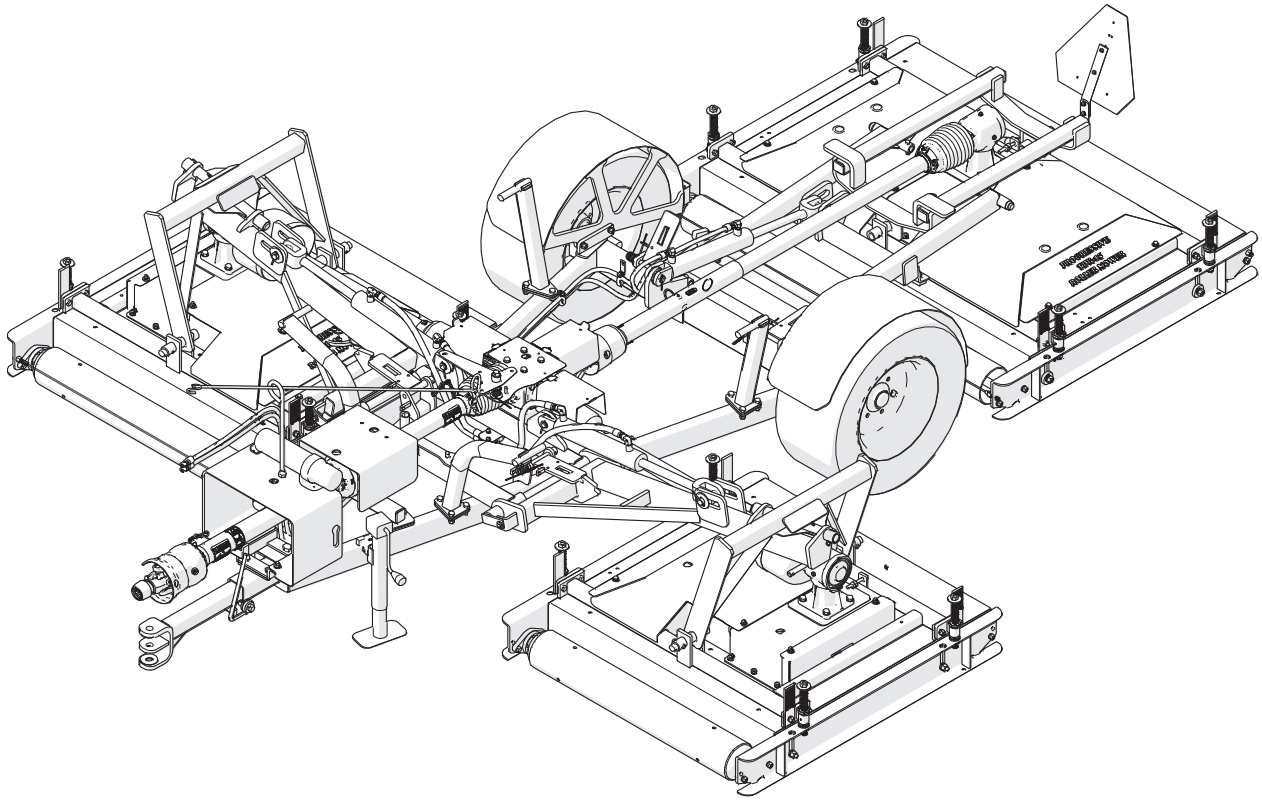
PROGRESSIVE TURF EQUIPMENT INC.

Operator's Manual and Parts List

TDR-12 TRI-DECK

Roller Rotary Finishing Mower

Up to Serial No. 1212029



PROGRESSIVE TURF EQUIPMENT INC.
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SEAFORTH, ONTARIO
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SERIAL # _____

WEB: www.progressiveturfequip.com

ISSUE DATE: April 2013

P.N.120527

DANGER!

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

DECLARATION OF CONFORMITY

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

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

Progressive Rotary Finishing Mowers

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

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

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

Dated at Seaforth, Ontario Canada the 28th day of February 2013.

Luke Janmaat
President
Progressive Turf Equipment Inc.

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TO THE OWNER:

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

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

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

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

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

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

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

GENERAL INFORMATION:

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

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

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

For quick reference, record the following information.

MODEL: _____

DATE PURCHASED: _____

SERIAL NUMBER: _____

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

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

WARRANTY POLICY

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

ProFlex 120, ProFlex 120R, TD65-2, TD65, TD92, Pro-Max 36 TDR-15, TDR-12, TDR-22, SDR-65, SDR-90

Basic Mower: 24 months
Gear Boxes: 36 months

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

This warranty will not cover any components which, in the opinion of the company, have been subjected to negligent use, alteration, and accident, damage due to lack of maintenance or use of wrong lubricants, or if parts supplied by others have been used in repairs of any product manufactured by Progressive Turf Equipment Inc. Items such as blades, belts, tires, wheels and batteries are considered consumable wear items and are excluded from Progressive Turf Equipment Inc.'s warranty coverage. Warranty coverage on these items is limited to what is provided by the OEM of the applicable part, if any.

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

The sole liability of Progressive Turf Equipment Inc. under this warranty or any implied warranty, shall be limited as set forth herein. The customer agrees that Progressive Turf shall not in any event be obligated to reimburse, or pay the customer for any expense, loss or any direct, incidental or consequential damages to any person or property for any reason or caused by reason of Progressive Turf Equipment Inc., negligence, or otherwise in connection with the sale, delivery, installation, training or use of the equipment. The customer shall indemnify and hold Progressive Turf Equipment Inc. harmless against all such liability. PROGRESSIVE TURF EQUIPMENT INC. DISCLAIMS ANY EXPRESS (EXCEPT AS SET FORTH HEREIN) AND IMPLIED WARRANTIES WITH RESPECT TO THE GOODS INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND MAKES NO WARRANTY AS TO THE DESIGN, CAPABILITY, CAPACITY, OR SUITABILITY FOR USE OF THE GOODS.

Progressive Turf Equipment Inc. reserves the right to make improvements to the design or changes to the specifications at any time without prior notice or any obligation or duty to inform current owners or modify units previously sold.

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

KEEP FOR YOUR RECORDS: Purchaser should fill in the blanks below for his reference when buying repair parts and/or for proper machine identification when applying for warranty.

Model_____ Serial Number_____

Date Purchased_____ Dealer _____

Read your Operator's Manual

This warranty coverage supersedes all written warranties, effective November 1, 2012.

TDR-12 MACHINE SPECIFICATIONS

Cutting Width	12 feet		
Cutting Height	½" to 4"	Deck Flexibility	25" up, 15 degree down
Recommended HP	25 Min – 40 Max		
Hydraulics	Requires 1 double acting outlet, all hoses supplied to tractor	Numbers of wheels	2 on main frame
Transport Width	84"	Mowing Capacity	MPH 2 4 6 Acres per hour 2.9 5.8 8.75 Assumes no stops or overlap.
Height	89".	Paint Finish	Electrostatically painted with oven baked finish.
Length	14 ft.	SMV Sign	Located at back of mower for safety
Ground Clearance	9 1/4" Cutting	Weight	Total 3500 lbs.

DECK

Drive	PTO shaft to right angle gear box driving a B" section belt to 2 heavy-duty spindles.
Belt Adjustment	Easily made by loosening four bolts at gear box base and adjusting the slide plate forward or backward and retightening.
Deck Construction	3/16" steel plate formed and welded with supporting members at high stress areas to achieve maximum strength. Deck is 7" deep.
Cutting Height	Easy and accessible screw mechanism. Infinite number of adjustments from ½" to 4"
Spindles	7 spindles, 3-30mm spindles per deck are each carried in 2 re-grease able ball bearings, which are housed, in a precision machined hub.
Blade Support	¾" x 2-1/2" x 8" long bar welded to spindle and machined. ½" bolts hold blade rigid to provide clean level cut.
Blades	High lift, heat treated, alloy steel blades 5/16" x 2 ½" x 23" per deck.
Speeds	Tractor PTO – 540 RPM Blades – 3040 RPM Blade Tip Speed 18,287 FPM
Rollers	6" diameter with 1.88 wall thickness. Supported by (2) 1.25" two bolt ductile bearings

FRAME

"A" Frame	Hollow structural steel tubing with supports at high stress areas to achieve maximum strength.
Wheels	5 bolt, 41/2" bolt circle
Tires	2- 20.5X8-10ply Turf Tires
Hitch	4 positions, with height settings from 10-1/2" to 15". Safety chain with hook according to Dept. of Transport regulations.
Tongue Weight	Transport position – 1100 lbs. Mowing position – 560 lbs.
Cylinders	Rear deck:1-2.5" x 12" double acting Wing deck: 2-2.5" x 12" double acting
Screw Jack	Side wind jack for easy hookup.
Main Gear Box	4 shaft gear box with 1 3/8-6 spline shafts, delivering power to decks.
PTO Shafts	Deck Drive telescoping agricultural PTO Drive shafts, with proper safety shields. 1-3/8-6 spline quick-disconnect yokes on both ends.
	Input PTO…Category # 6. Deck PTO…Category # 4

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 reads and understands all 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.

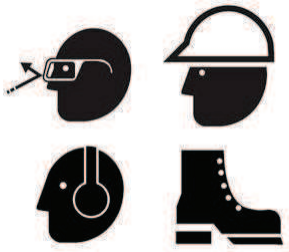
WARNING! – Hazards or unsafe practices that COULD result in severe personal or death.

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

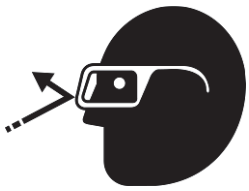
⚠ WARNING!

- Operator must have sufficient knowledge in the care and operation of the power unit (tractor) before connecting power unit to 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.

OPERATING EQUIPMENT SAFELY

⚠ WARNING!

- Never allow persons to stand between power unit and mower while backing power unit up to hitch the mower.
- Before hitching mower to power unit, place transmission in neutral, set park brake, and turn engine off. Remove the ignition key.
- Make sure locking collar on PTO shaft is properly locked. If the PTO shaft comes off during operation, personal injury or equipment damage could result.
- Always install safety chains properly when hitching mower to power unit.
- 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.



- Ensure that no bystanders are within 25 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 of 300 ft from personnel, other equipment, or vehicles.
- Never operate the mower with deflectors or guards removed. 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.
- Never tamper with safety devices or operate the mower with them removed. Check proper operation regularly.
- Always disengage PTO, turn power unit off 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.
- 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.
- 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.
- 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 transport locks are securely engaged before transporting mower with wings in raised position.

- Clean reflectors, Slow Moving Vehicle sign and lights before transporting. Use power unit hazard lights.
- Before disconnecting from power unit, always lower equipment to the ground, 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 tongue jack is securely fastened to mower frame with supplied pin before removing hitch draw pin.

MAINTENANCE SAFETY PRECAUTIONS

⚠ WARNING!

- Never make adjustments or repairs with the engine running. Always disengage PTO, 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.

WELDING AND GRINDING WORK PRECAUTIONS

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

- Welding repairs are to be performed by a trained welder with proper service instructions. Know the material to be welded and select the correct welding procedure and materials (electrodes, rods, wire) that will provide a weld metal strength equivalent to the parent material.
- Move the machine to a clean, safe area before welding, grinding or using a cutting torch on it. This type of work should only be done in a clean area and not in places that contain combustible liquids, such as fuel tanks, hydraulic pipes or similar.
- Connect arc welder ground as close as possible to work area.
- Work with extra care when welding, grinding or torch cutting near flammable objects.

WORKING ON PAINTED SURFACES

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

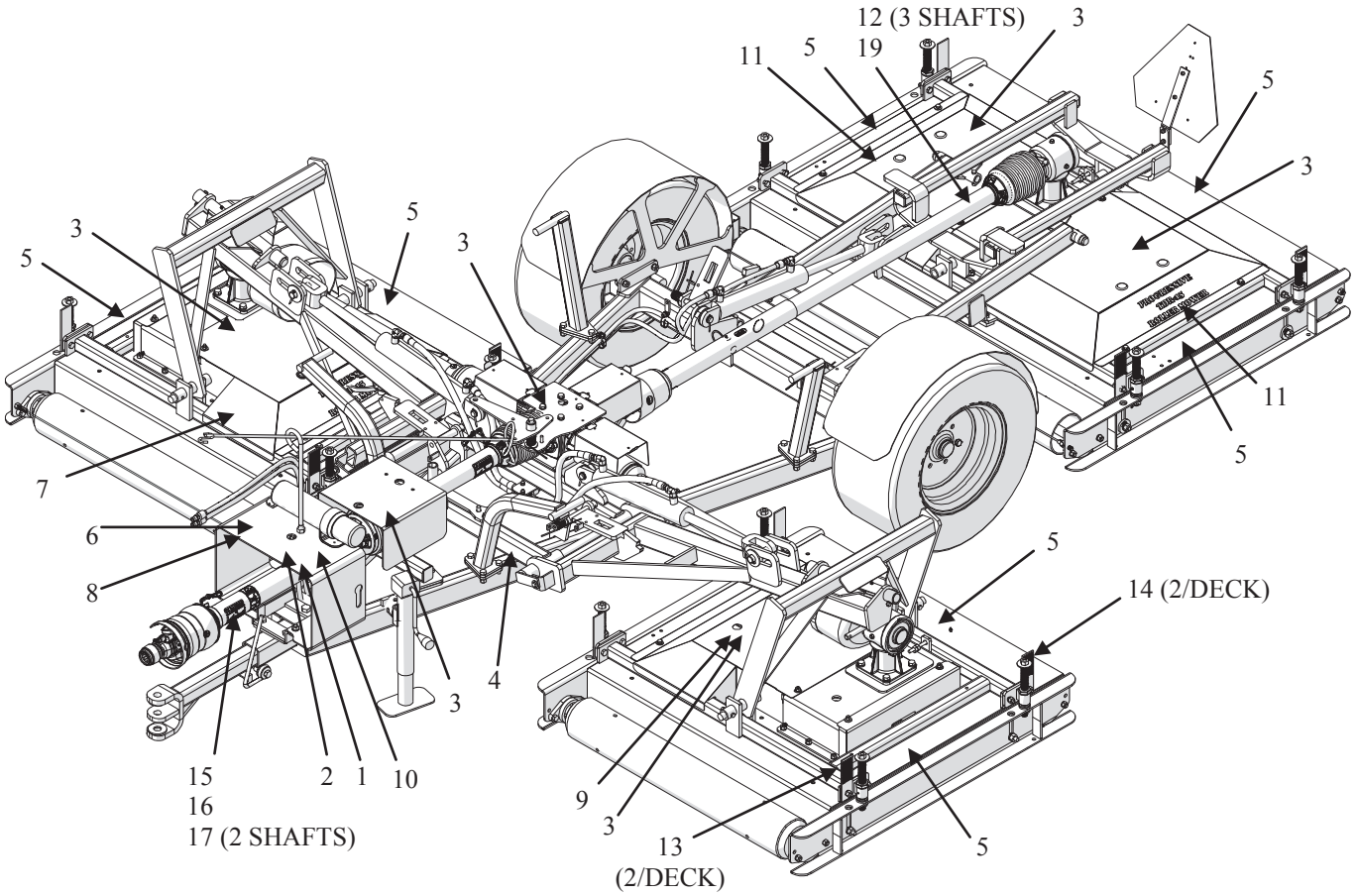
Methods and precautionary measures when removing paint:

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

SAFETY & MAINTENANCE DECAL LOCATIONS ON MACHINE:

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

ITEM NO.	DESCRIPTION	QTY
11	MOWER MODEL	2
12	DECAL – DANGER – OUTER TUBE	3
13	FRONT DECK HEIGHT	6
14	REAR DECK HEIGHT	6
15	SAFETY SIGN - OUTER GUARD	2
16	CE WARNING DECAL	2
17	SAFETY SIGN – INNER GUARD	2
18	DECAL – DANGER – OUTER SHIELD	3
	GREASE POINT	25

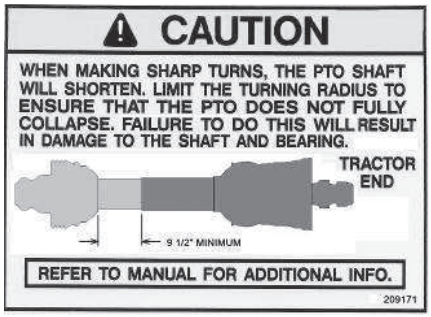


TDR-12 DECAL LISTING

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

TDR-12 DECAL KIT – 524002

ITEM 1
(209175)



ITEM 2
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ITEM 3
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ITEM 4
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ITEM 5
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ITEM 6
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ITEM 7
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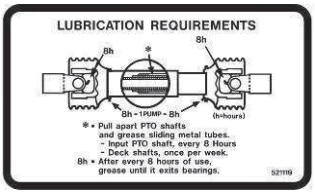

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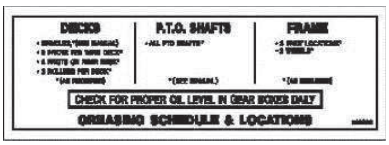
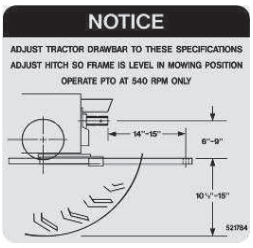


ITEM 9
(526003)



ITEM 10
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ITEM 11
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ITEM 12
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ITEM 14
(209139)

ITEM 15
(209123)

ITEM 16
(210237)

ITEM 17
(210238)

ITEM 18
(210239)

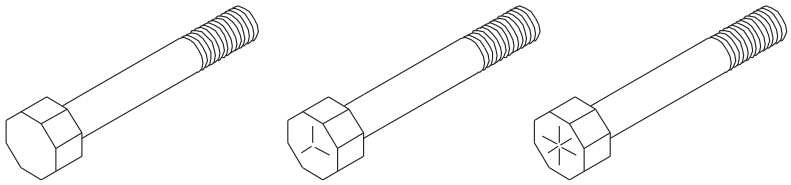
ITEM 19
(521455)

GREASE POINT DECAL
(521014)

PROPER TORQUE FOR FASTENERS:

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

Bolt Head Markings



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

Bolt Diameter (in.) (SAE Grade 5 Bolts)	Recommended Torque in Foot Pounds (Newton-Meters)
5/16	21 (28)
3/8	38 (52)
7/16	55 (75)
½	85 (115)
9/16	125 (170)
5/8	175 (240)
¾	300 (410)
7/8	450 (610)
1	680 (925)
1” LH Spindle Nut	60 (82)

OPERATING THE MOWER:

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

Allow no riders on any equipment.

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

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

DAILY CHECK LIST:

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

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

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

4. Check condition of blades and security of attachment.

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

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

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

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

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

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

HITCHING MOWER TO TRACTOR:

CAUTION!

Attach mower to drawbar only.

DRAWBAR SETUP

- Drawbar should be adjusted so that the input pto shaft is not extended too far during operation and pull the shaft apart. This is critical for proper PTO shaft operation.

- Adjust hitch or drawbar so mower frame is at the most level position in relation with the ground. This will ensure proper flotation of the wing decks.

CAUTION!

Safety chain must always be attached to towing vehicle.

CAUTION!

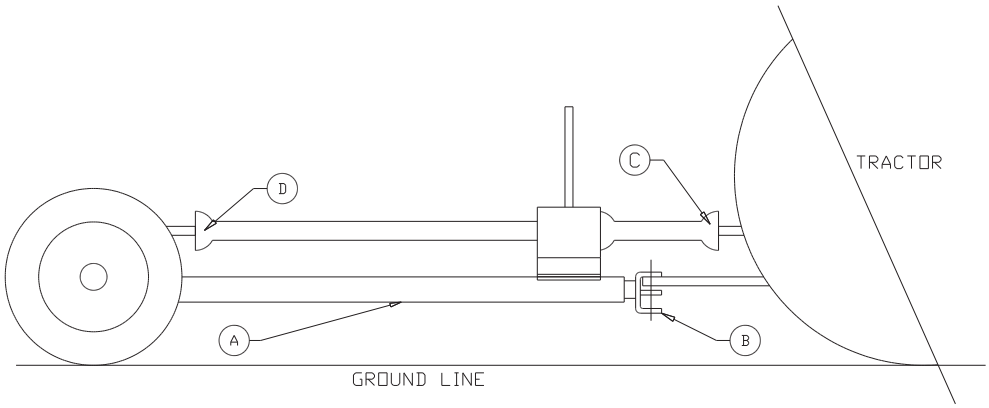
When towing mower on any roadways, lock brakes together. Use proper lighting and marking devices according to the local regulations.

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

LEVELLING THE MOWER & PTO:

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

a) When the mower is connected to the tractor, the mower hitch frame “A”, should be as close to level with the ground as possible.
b) The connecting hitch “B” can be removed and turned over to give more height adjustments. Set in the best position for the mower frame to be as level as possible.
c) To ensure proper life of the PTO shaft, the driveline from the mower gear box “D” to the PTO shaft “E” on the tractor should be in a straight line.



CONNECTING THE PTO SHAFT:

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

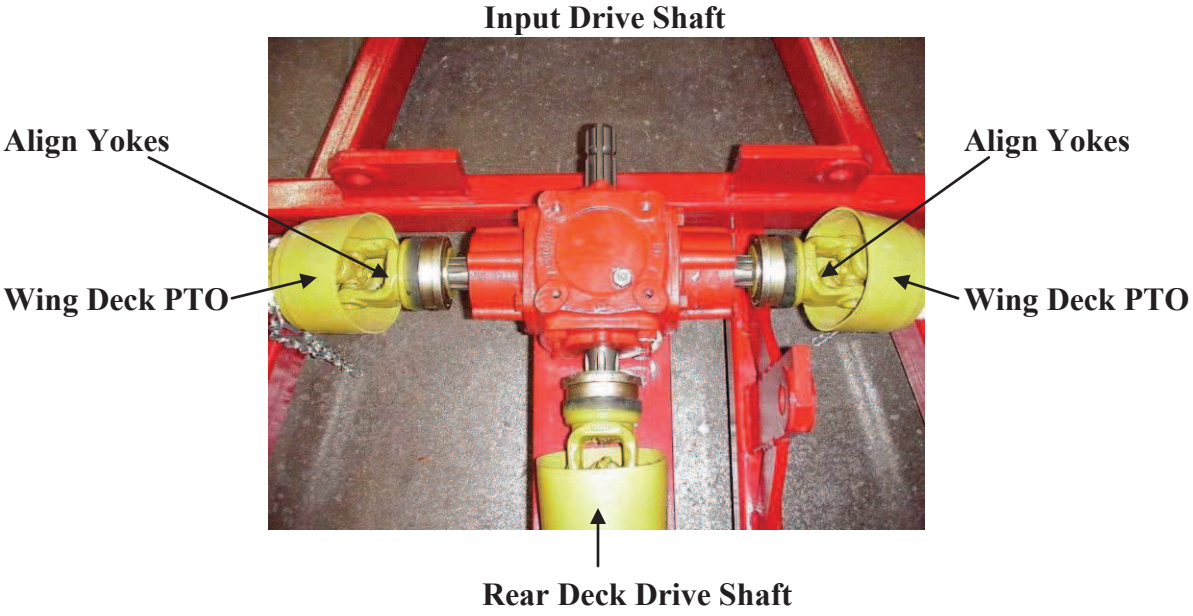
⚠ CAUTION!

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

INSTALLING PTO SHAFTS:

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

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



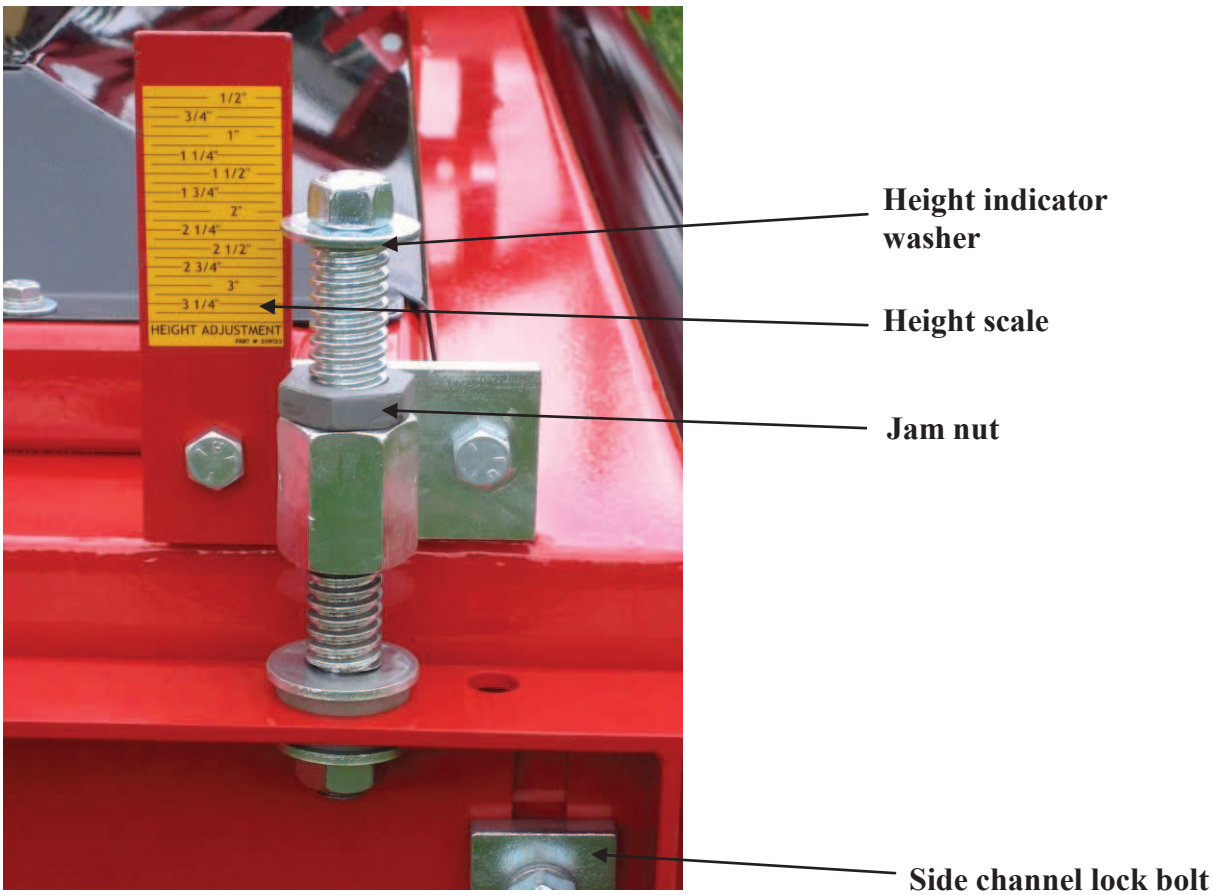
All PTO shafts have a short chain attached on both ends. Find a location to wrap or hook on short chain. Be sure that when decks are brought into transport position, the safety chain will not bind or pull PTO shield.

The Intermediate shaft is installed with the large bell end onto the main gear box. The PTO mount bracket is then installed by sliding the PTO end through the flange bearing, leaving the mounting bolts loose. Do not forget to install the PTO spacers to level the driveline. See section on “Hitching to the Tractor”.

CUTTING HEIGHT ADJUSTMENT:

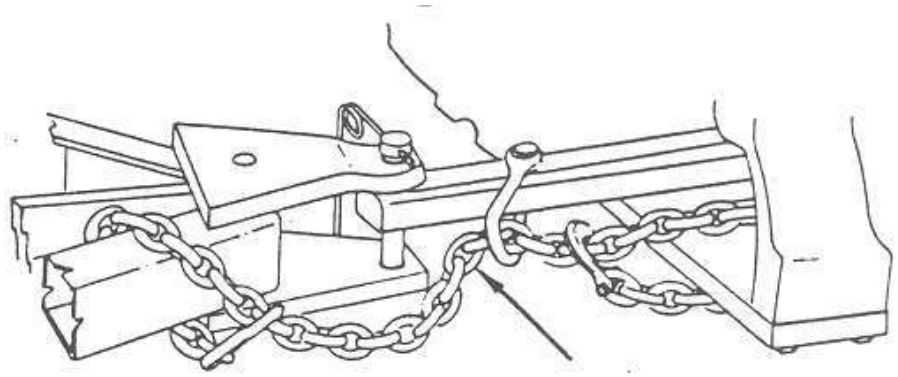
There are four height adjusters per mowing deck. Each adjuster (located in each corner of the deck) must be adjusted to the same height to ensure a smooth even cut. A wrench for this purpose is provided. In addition, each deck must be adjusted the same so that a level cut is obtained across the whole cutting width of the mower. Mower cutting height adjustment is made by turning a 5/8" nut on top of an acme threaded rod which makes up the height adjuster. A washer under the nut indicates the height against the decal. There are an infinite number of adjustments available from ½" to 4". Moving the adjuster up and down moves a side channel that mounts the front and rear rollers. Before attempting to make height adjustments, the locking bolt on the side channel adjacent to the adjuster must be loosened. When the desired adjustment is made, be sure to tighten the locking bolt and adjuster jam nut to maintain the adjusted height. The height decals at the back of the deck are set 1/4" lower, so that the back actually cuts 1/4" higher, this will provide a better but, prolong the life of the blades, and reduce horsepower requirement. This will also make the side channel look uneven, but this is correct.

TDR-12 HEIGHT ADJUSTMENT



SAFETY CHAIN:

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



SAFETY CHAIN

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

TRANSPORTING MOWERS:

⚠ CAUTION!

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

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

⚠ WARNING!

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

WEIGHT OF TOWING VEHICLE	MAXIMUM ALLOWABLE ROAD SPEED
4500 LBS OR MORE	UP TO 20 MPH (32 KM/H)
2300 LBS – 4500 LBS	UP TO 10 MPH (16 KM/H)
2300 LBS OR LESS	DO NOT TOW

⚠ CAUTION!

Always have safety chain attached to towing vehicle.

TIRES:

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

Main Frame Tires – 32 PSI

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

POWER TAKE-OFF:

CAUTION!

Keep all safety shields in place.

CAUTION!

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

WARNING!

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

CAUTION!

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

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

GREASE COMPATIBILITY

What Grease Is:

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

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

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

What We Use:

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

Note:

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

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

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

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

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

Our Recommendation for Grease Compatibility:

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

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

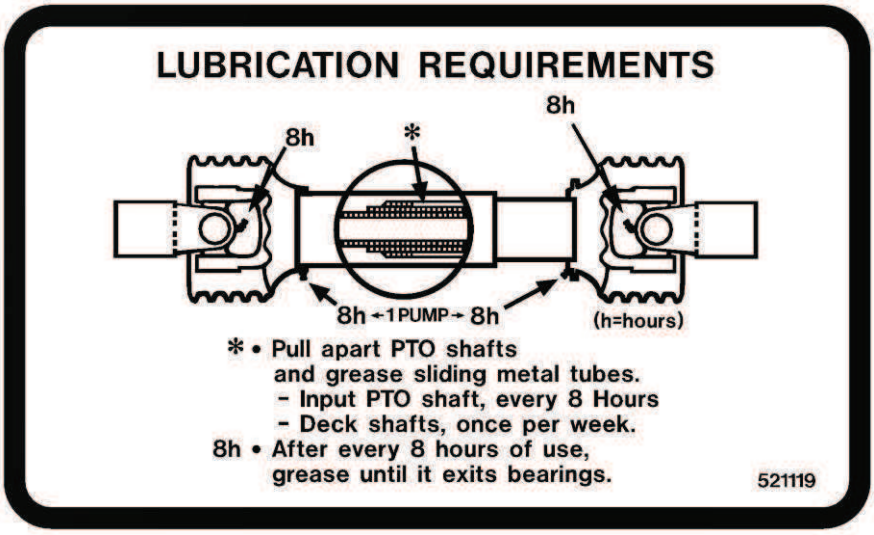
GREASING:

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

DECKS	P.T.O. SHAFTS	FRAME
• Spindles* (See Manual) • 3 Pivots per Wing Deck* • 4 Pivots on Rear Deck* • *As Required	• Main Input*(See Below) • Deck Drive, 4 Locations per Shaft* • Pull Apart Sliding Tubes once per week and lubricate • *As Required	• 6 Pivot Locations* • 2 Wheels* *As Required

CHECK FOR PROPER OIL LEVEL IN GEARBOXES DAILY

GREASING SCHEDULE & LOCATION



BLADE SPINDLE GREASING:

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

GEARBOX OIL LEVELS:

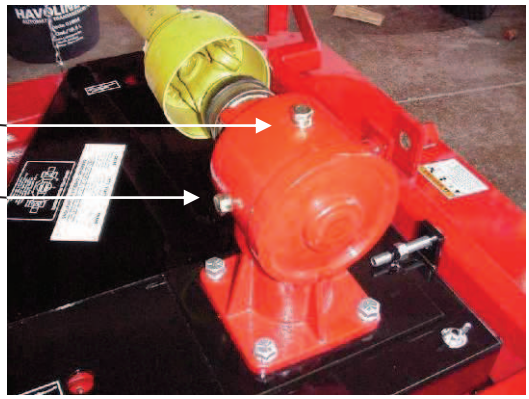
IMPORTANT! DO NOT OVERFILL! MOWER MUST BE LEVEL WHEN CHECKING GEARBOX OIL LEVEL

DECK GEARBOXES:

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

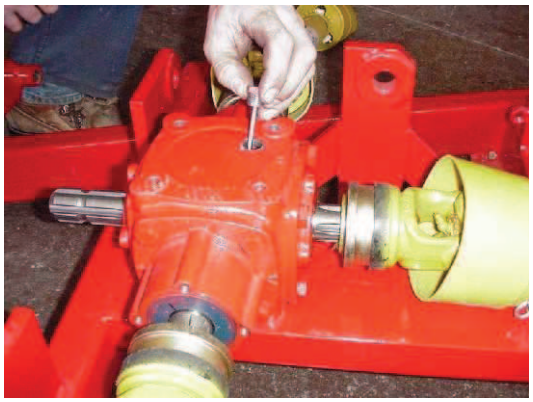
Filler Plug

Level Plug



MAIN GEAR BOX:

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



MAINTENANCE:

WARNING!

Turn tractor engine off before performing any maintenance.

CAUTION!

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

CAUTION!

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

BLADE SERVICING:

WARNING!

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

CAUTION!

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

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

WARNING!

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

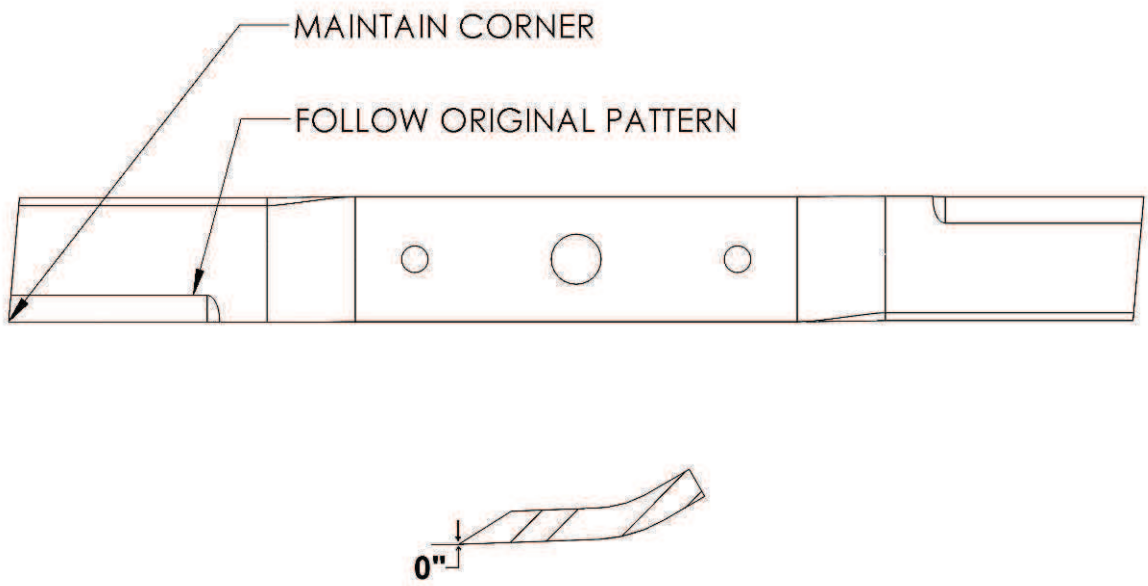
BLADE REMOVAL AND INSTALLATION:

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

BLADE SHARPENING:

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

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



BLADE SHARPENING

SPINDLE SERVICE:

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

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

SPINDLE ASSEMBLY REMOVAL:

1. Remove blade from spindle.

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

3. Remove belt.

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

SPINDLE ASSEMBLY INSTALLATION:

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

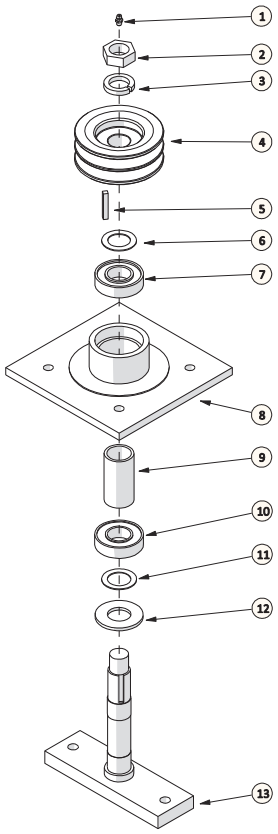
SPINDLE REPAIR:

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

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

ASSEMBLY OF SPINDLE:

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



ITEM	DESCRIPTION
1	GREASE FITTING 1/4 - 28
2	HEX NUT- L.H.
3	L.H. LOCKWASHER
4	PULLEY
5	KEY - 1/4" X 1-1/16"
6	SHIM WASHER
7	TOP BEARING
8	SPINDLE HOUSING
9	SPACER TUBE
10	BOTTOM BEARING
11	SHIM WASHER
12	SPINDLE DIRT SHIELD
13	BLADE SPINDLE

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

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

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

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

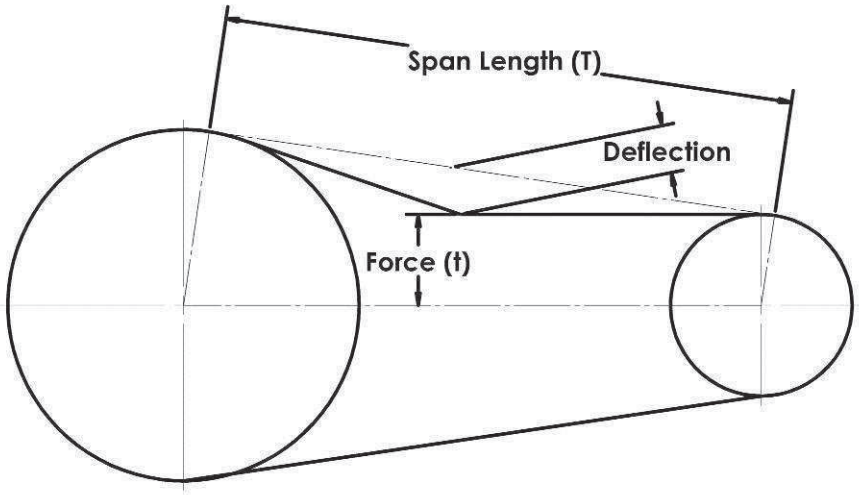
“V” BELT ADJUSTMENT:

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

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

“V” BELT TENSION:

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



CHECKING BELT TENSION

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

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

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

HYDRAULICS:

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

Restrictor Orifice

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

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

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

TROUBLE SHOOTING:

PROBLEM	CAUSE	REMEDY
Belt slippage	Lack of tension oily drive conditions	Increase tension Clean up drive
Rapid belt wear	Belt slippage belt not in proper groove	Increase tension Place in proper groove
Belt squeal	Belt slippage	Increase tension
Over-heated bearings	Belt slippage excessive drive tension	Increase Tension Tension drive properly
Wing deck, corner support bent	Insufficient spring tension	Increase Tension by adjusting eye bolt
Wing locks hard to disengage	Cylinder not pulling wing up all the way	Adjust clevis on end of cylinder
Mower deck will not lower	Orifice in line throttle valve plugged	Remove line throttle valve, Remove obstruction from orifice and reassemble
Vibration on turning.	Draw bar length incorrect	Adjust drawbar length To specification
Input shaft does not collapse easily on turning.	Lack of grease at intermediate location of drive shaft	Remove driveshaft and pull apart. Grease splines. Grease every 8 hours.
Premature spindle bearing failure.	Lack of lubrication or grease is contaminated	See grease information and ensure grease being used is compatible. Grease per instructions

TDR-12 FINISHING MOWER
PARTS MANUAL
TABLE OF CONTENTS

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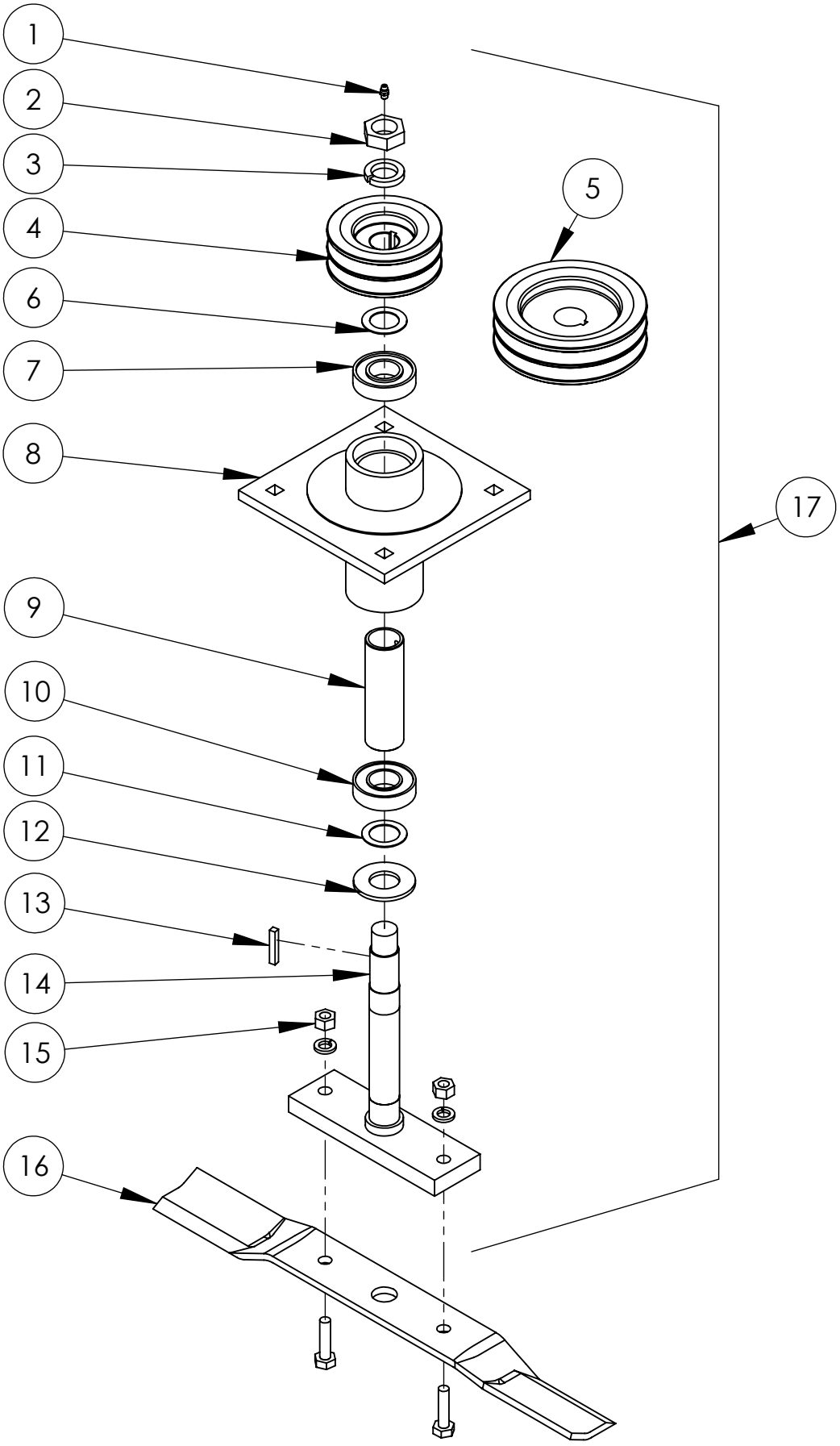
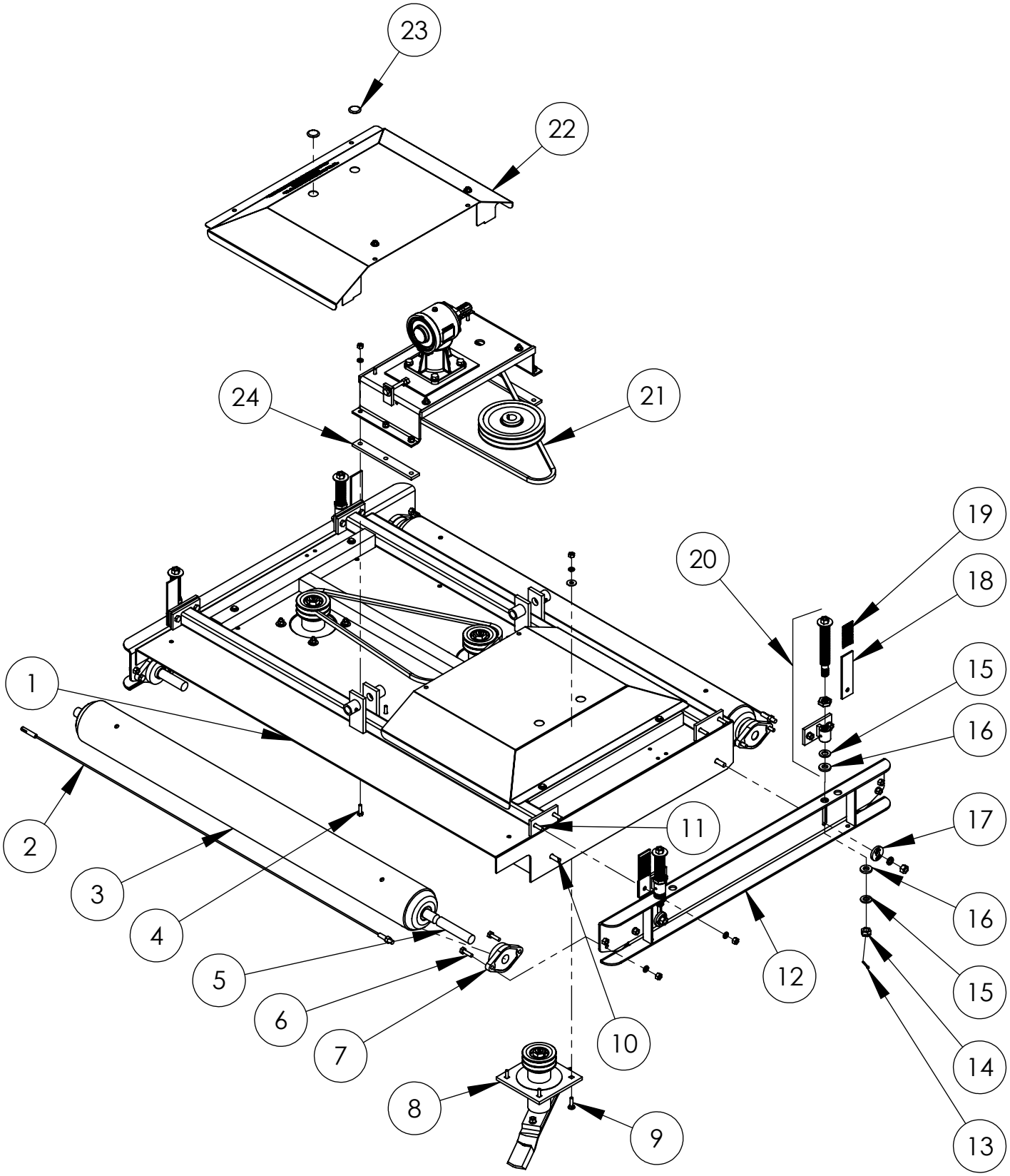
ISSUE DATE: JAN 2010

BLADE SPINDLE ASSEMBLY



BLADE SPINDLE ASSEMBLY			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	O.L.	GREASE FITTING 1/4 - 28, STR	1
2	521003	HEX NUT- L.H.	1
3	521002	L.H. LOCKWASHER (3PER KIT)	1
4	521773	4.4" BLADE SPINDLE PULLEY B MODELS ONLY	1
5	521790	5.9" BLADE SPINDLE PULLEY D MODELS ONLY	1
6	521301	1.125" SHIM WASHER (9PCS)	1
7	521302	BEARING - TOP	1
8	524220	TDR-15 BLADE SPINDLE HOUSING	1
9	524222	BEARING SPACER TUBE	1
10	521701	BOTTOM BEARING	1
11	521305	SHIM WASHER 1.188" (9PCS)	1
12	521306	SPINDLE DIRT SHIELD (3PCS)	1
13	O.L.	1/4" SQ. x 1 9/16" KEY	1
14	524224	TDR-15 BLADE SPINDLE	1
15	O.L.	1/2" x 1 3/4" GR5 HEX BOLT, LOCKWASHER AND NUT	2
16	522615	BLADE KIT 6 L.H. 3 R.H.	1
17	524232	COMPLETE BLADE SPINDLE ASSEMBLY 5.9" PULLEY	9
	524230	COMPLETE BLADE SPINDLE ASSEMBLY 4.4" PULLEY	9
NOTE: QUANTITIES ARE FOR ONE COMPLETE SPINDLE ASSEMBLY			
O.L. - OBTAIN LOCALLY			

REAR DECK ASSEMBLY

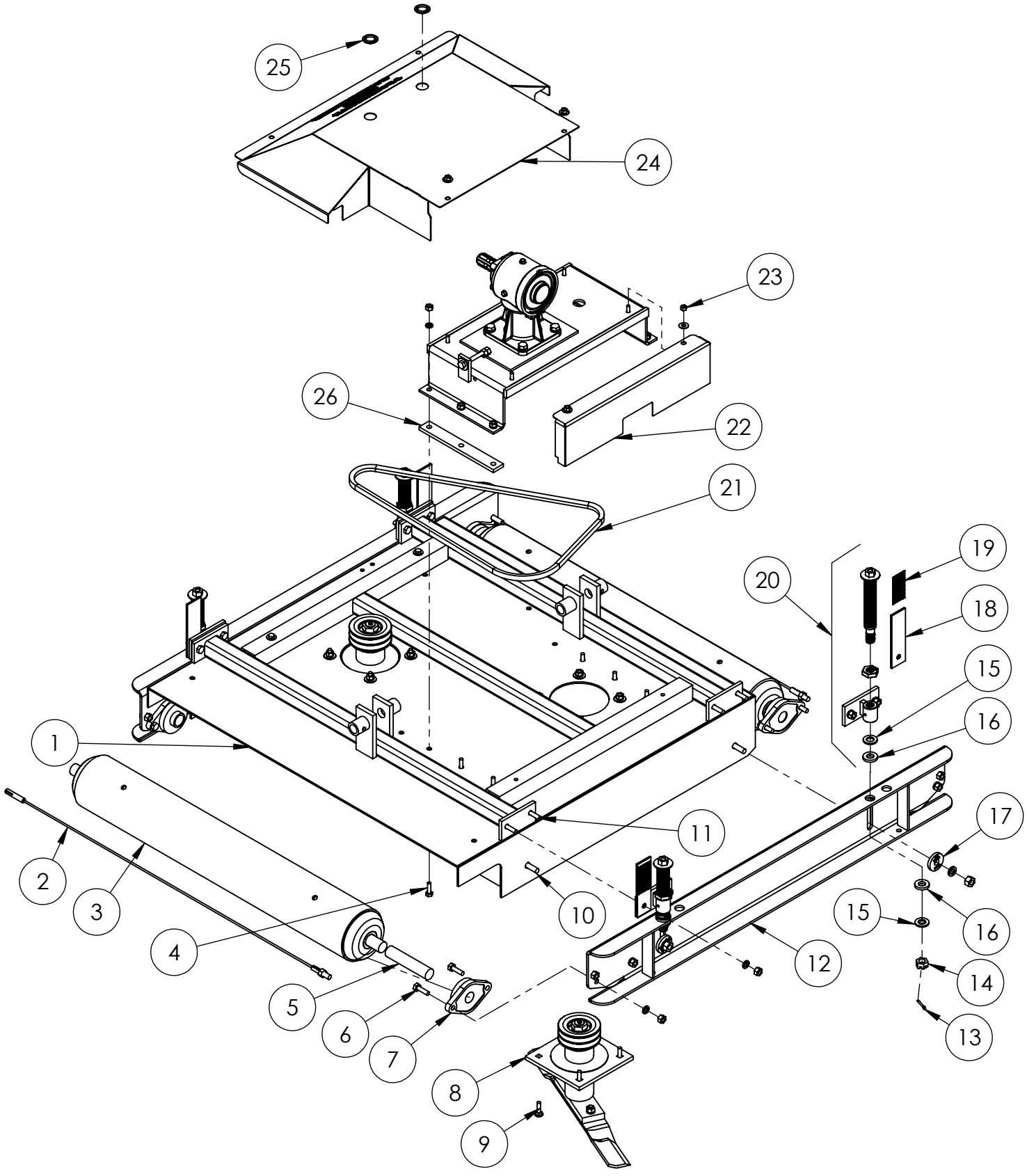


REAR DECK ASSEMBLY			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	524178	DECK - TDR-15	1
2	524221	TDR15 ROLLER WIPER ASSEMBLY	2
3	524216	DECK ROLLER WITH SHAFTS	2
4	O.L.	7/16" x 1" GR5 HEX BOLT WITH LOCKWASHER AND NUT	6
5	526494	1 1/4" ROLLER SHAFT	4
6	O.L.	1/2" x 1 1/2" GR5 HEX BOLT, LOCKWASHER AND NUT	8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

NOTE: QUANTITIES ARE FOR ONE DECK

O.L. - OBTAIN LOCALLY

WING DECK ASSEMBLY



WING DECK ASSEMBLY			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	528204	DECK - TDR-12 R.H.	1
	528214	DECK - TDR-12 L.H. (NOT SHOWN)	1
2	528208	TDR12 ROLLER WIPER ASSEMBLY	2
3	528206	DECK ROLLER WITH SHAFTS	2
4	O.L.	7/16" x 1" GR5 HEX BOLT WITH LOCKWASHER AND NUT	6
5	526494	1 1/4" ROLLER SHAFT	4
6	O.L.	1/2" x 1 1/2" GR5 HEX BOLT, LOCKWASHER AND NUT	8
7	213019	1 1/4" FLANGE BEARING 2 BOLT	4
8	524232	COMPLETE BLADE SPINDLE ASSEMBLY 5.9" PULLEY (D MODELS)	2
	524230	COMPLETE BLADE SPINDLE ASSEMBLY 4.4" PULLEY (B MODELS)	2
9	O.L.	7/16" x 1 1/2" GR5 CARRIAGE BOLT, LOCKWASHER AND NUT	8
10	O.L.	5/8" x 2" GR5 CARRIAGE BOLT, LOCKWASHER AND NUT	4
11	O.L.	1/2" x 1 3/4" GR5 HEX BOLT, LOCKWASHER AND NUT	8
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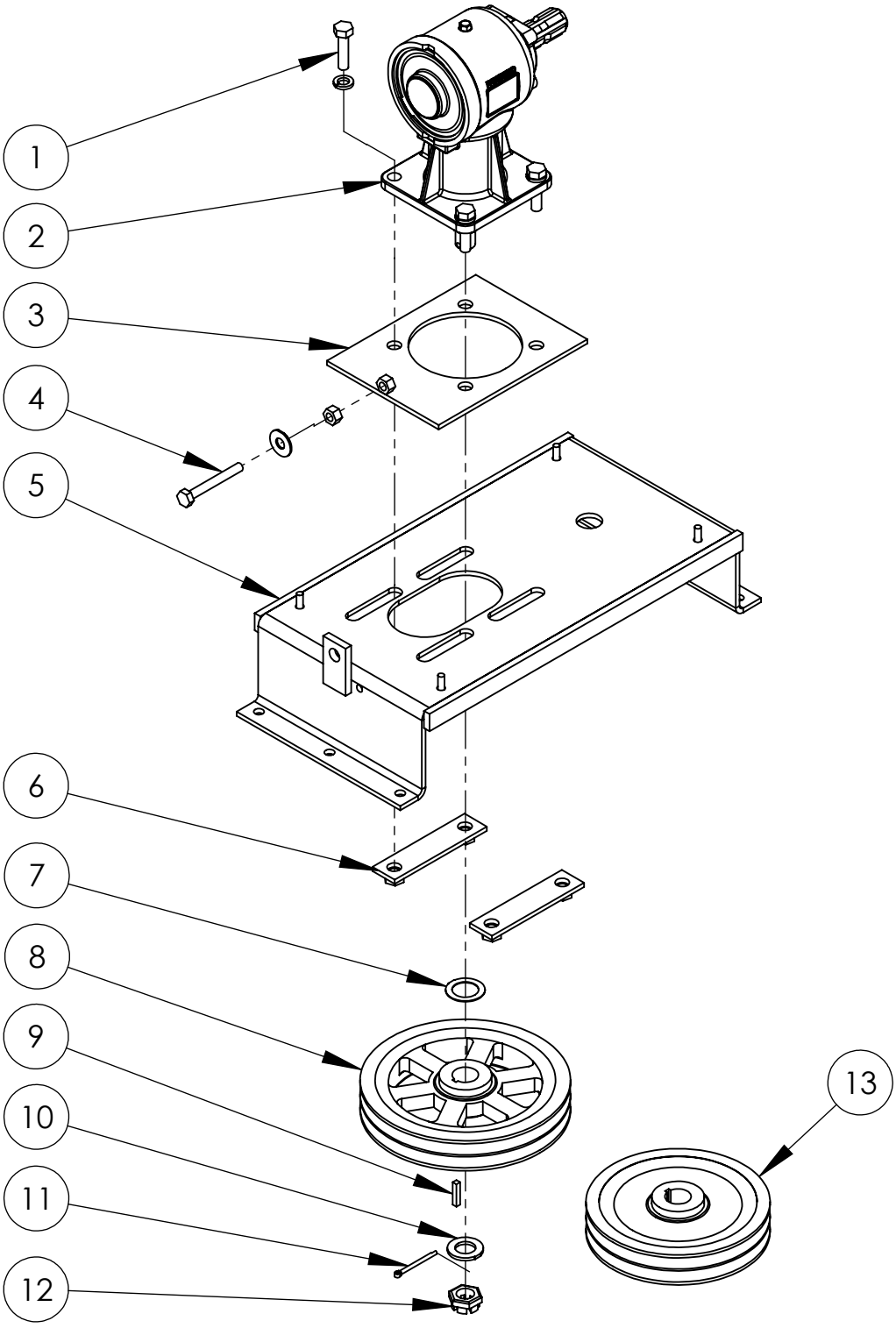
19	526491	TDR HEIGHT DECAL KIT (6PCS)	1
20	526252	HEIGHT ADJUSTMENT KIT (8PC KIT) COMES WITH ITEMS 13,14 AND 15.	1
21	521315	BELT - B69 (B MODELS)	2
	212039	BELT - B74 (D MODELS)	2
22	528220	DECK SHIELD - OUTSIDE (D MODELS)	2
	528222	DECK SHIELD - OUTSIDE (B MODELS)	2
23	O.L.	3/8" HEX NUT, FLATWASHER	4
24	528212	TDR-12 DECK SHIELD	2
25	526492	SNAP IN HOLE PLUG (12 PER KIT)	1
26	524247	GEARBOX MOUNT SPACER (D MODELS ONLY)	2

NOTE: QUANTITIES ARE FOR ONE DECK

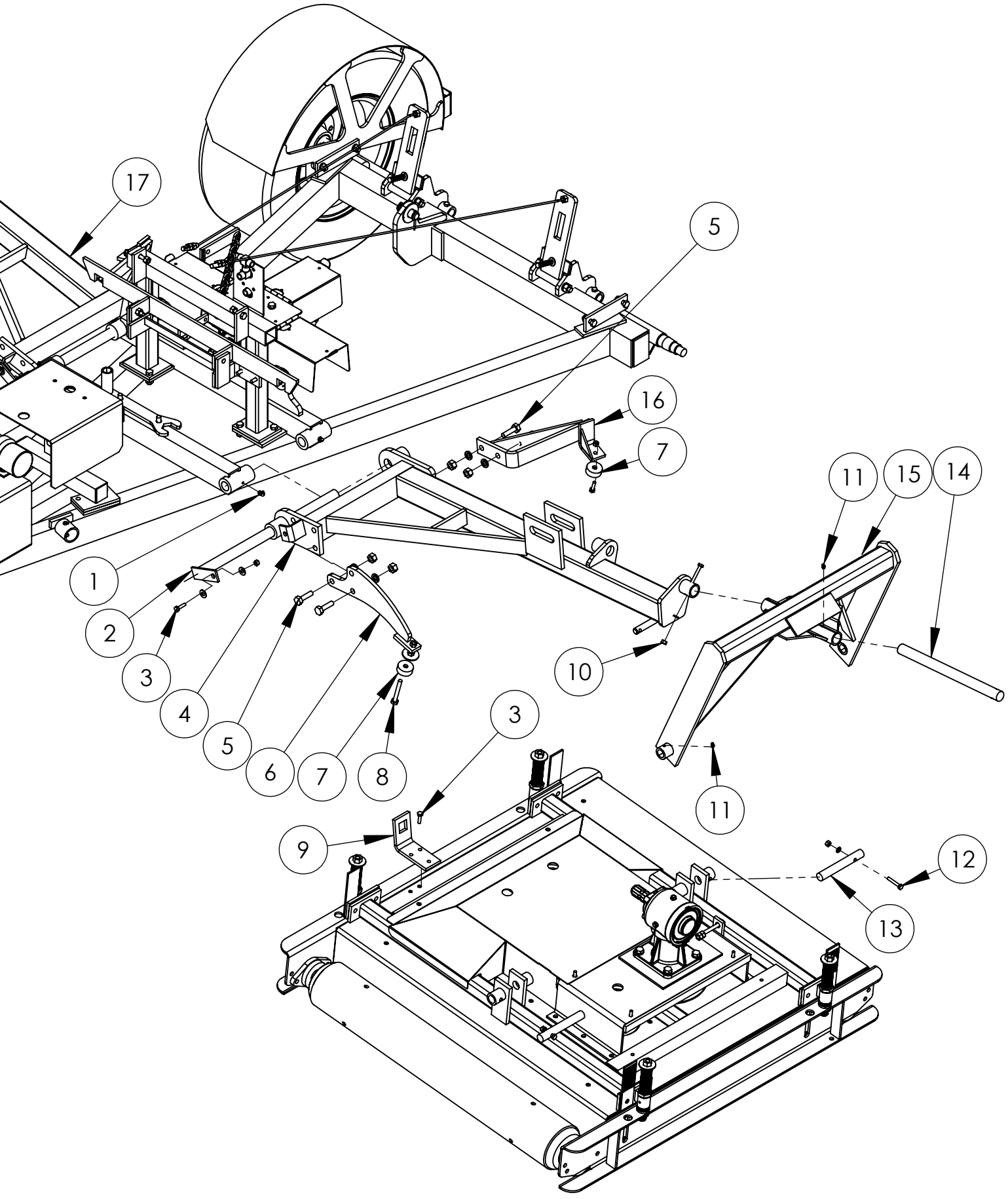
O.L. - OBTAIN LOCALLY

GEARBOX MOUNT ASSEMBLY



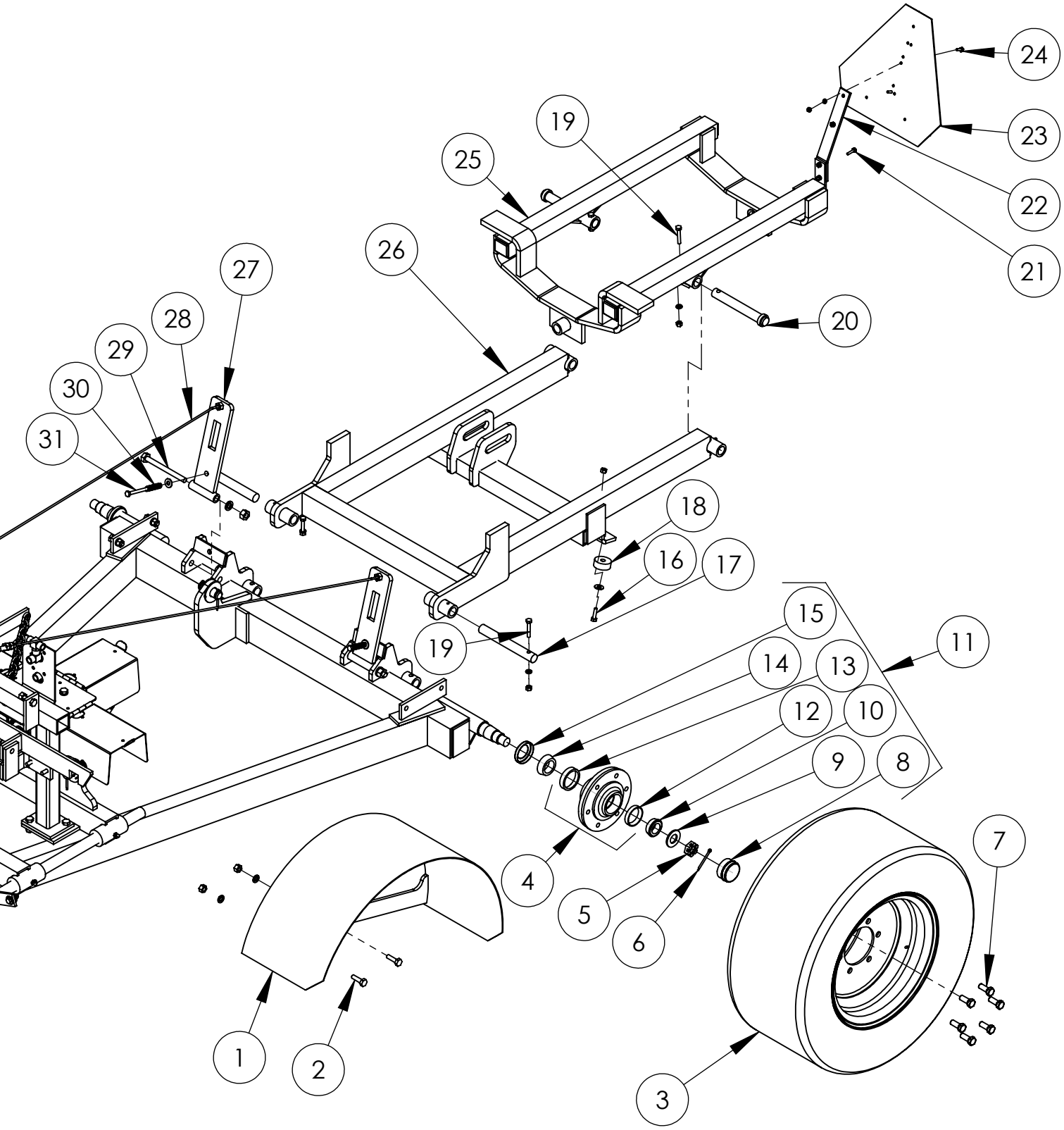
GEARBOX MOUNT ASSEMBLY			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	O.L.	9/16" x 2" GR5 HEX BOLT & LOCK WASHER	4
2	521012	DECK GEARBOX (REAR DECK & RIGHT WING DECK)	1
	521033	DECK GEARBOX L.H. DRIVE (LEFT WING DECK)	1
3	521013	SLIDE PLATE	1
4	521020	1/2" x 3 1/2" GR5 TAP BOLT, (FLATWASHER AND NUT-O.L.)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

WING ASSEMBLY



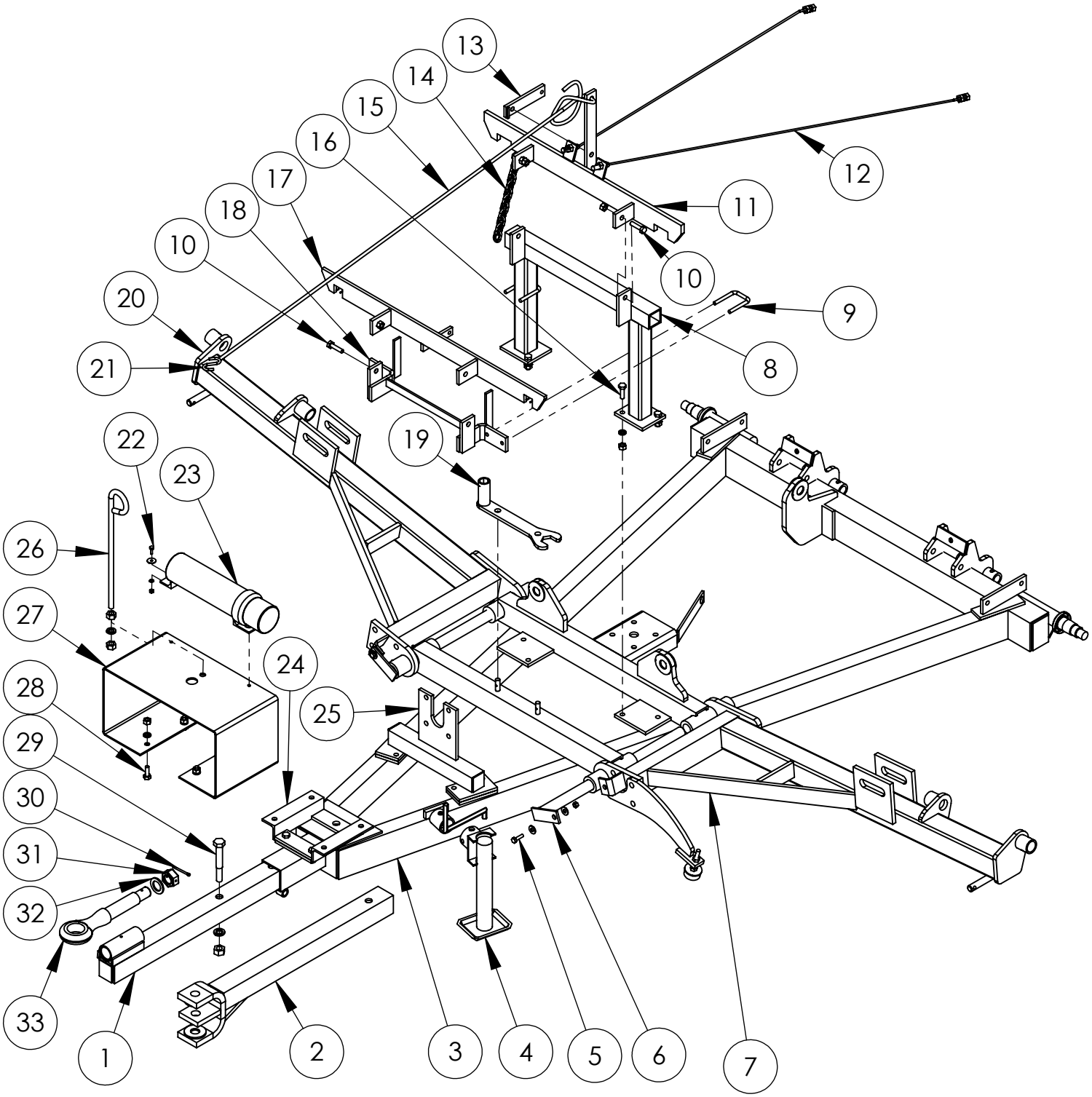
WING ASSEMBLY			
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	O.L.	90 DEGREE GREASE FITTING	4
2	523155	WING PIVOT PIN	2
3	O.L.	3/8" x 1-1/4" BOLT, 2 FLAT WASHERS AND LOCKNUT	2
4	528110	L.H. WING	1
5	O.L.	5/8" x 2" BOLT, LOCKWASHER AND NUT	10
6	528202	FRONT STANDOFF (R.H. & L.H.)	2
7	528275	DECK STANDOFF BUMPER	6
8	O.L.	1/2" X 3 1/2" TAP BOLT, FLATWASHER, 3 HEX NUTS	2
9	528341	DECK LOCK BRACKET (D MODELS ONLY)	2
10	O.L.	3/8" x 2 1/4" BOLT, 2 FLAT WASHER AND NUT	2
11	O.L.	1/4" UNF STRAIGHT GREASE FITTING	6
12	O.L.	3/8" x 2" BOLT, LOCKWASHER AND NUT	4
13	521337	DECK LIFT PIN	4
14	521338	WING SWIVEL PIN 16 3/4"	2
15	528210	DECK SWIVEL	2
16	528150	REAR LEFT STANDOFF	1
	528144	REAR RIGHT STANDOFF (NOT SHOWN)	1
17	528112	R.H. WING	1
NOTE: QUANTITIES ARE FOR ONE COMPLETE MOWER			
O.L. - OBTAIN LOCALLY			

REAR LIFT ASSEMBLY



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

MAIN FRAME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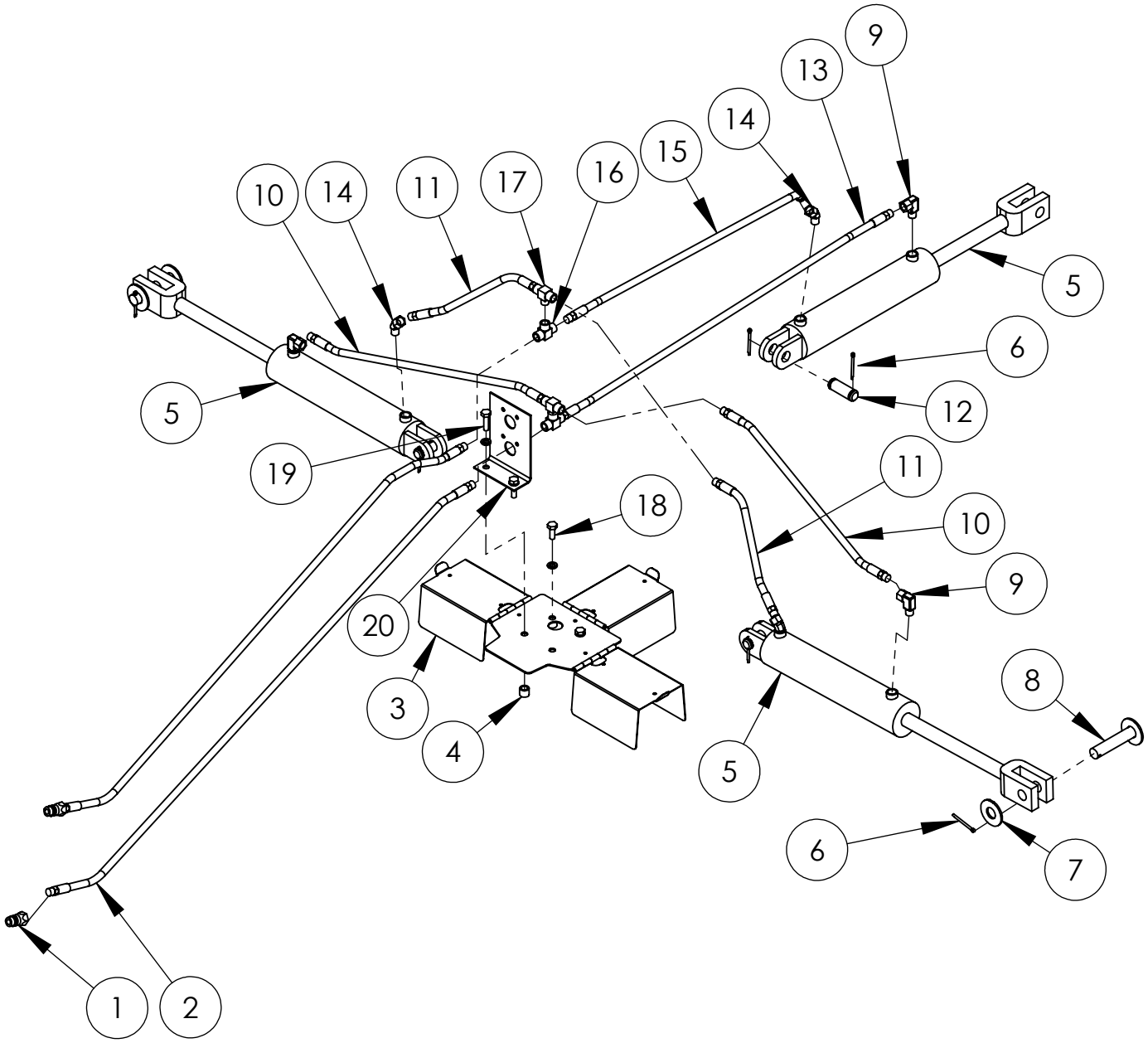
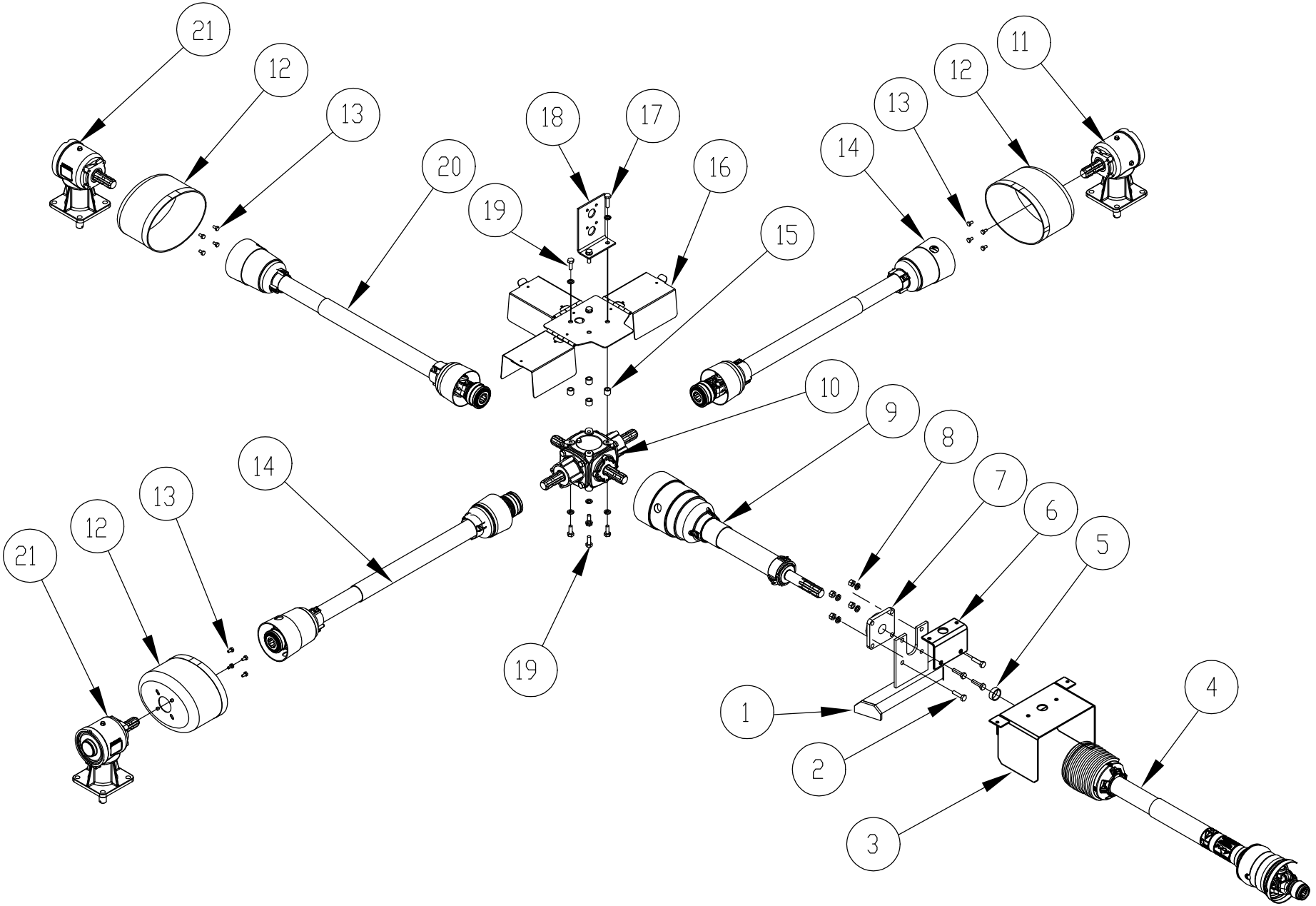
MAIN FRAME			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	528148	FRONT HITCH (D MODELS)	1
2	521322	4 POSITION HITCH (B MODELS)	1
3	528134	MAIN FRAME	1
4	219005	SCREW JACK	1
5	O.L.	3/8" x 1-1/4" GR5 HEX BOLT ,LOCKNUT	2
6	523155	WING PIVOT PIN	2
7	528110	L.H. WING	1
8	528140	WING LOCK FRAME	1
9	304205	U-BOLT 2" x 2" (D MODELS ONLY)	2
10	O.L.	1/2" x1-3/4" GR5 HEX BOLT, HEX NUT	2
11	528142	WING LOCK	1
12	528158	REAR LOCK CABLE, WITH (4) 1/2" NUTS	2
13	528186	DECK CHAIN LOCK TAB (D MODELS ONLY)	1
14	115011	DECK LOCK CHAIN	1
15	521331	PULL ROPE 10'	1
16	O.L.	1/2" x 1-1/2" GR5 HEX BOLT WITH LOCKWASHER & NUT	6
17	528182	DECK LOCK (D MODELS ONLY)	1
18	528184	DECK LOCK MOUNTING BRACKET (D MODELS ONLY)	1
19	526094	TDR HEIGHT ADJ WRENCH	1
20	528112	R.H. WING	1
21	521062	S HOOK	1
22	O.L.	1/4" x 3/4" GR5 CARRIAGE BOLT, LOCKWASHER AND NUT	2
23	120519	MANUAL TUBE HOLDER	1
24	528192	FRONT SHIELD MOUNT (B & D MODELS)	1
25	528190	INTERMEDIATE MOUNT	1
26	522413	HOSE GUIDE W/ HARDWARE	1
27	522308	HOSE SUPPORT SHIELD (B MODELS)	1
	522447.95	HOSE SUPPORT SHIELD W/ NOTCH (NOT SHOWN D MODELS)	1
28	O.L.	1/2" x 1-1/4" GR5 HEX BOLT, LOCKWASHER AND NUT	4
29	O.L.	3/4" x 5" HEX BOLT, LOCK AND & NUT	1
30	O.L.	3/16" x 2" COTTER PIN (D MODELS)	1
31	528313	HITCH NUT (D MODELS)	1
32	528315	HITCH FLAT WASHER (D MODELS)	1
33	528311	PINTLE HITCH (D MODELS)	1
NOTE: QUANTITY IS FOR COMPLETE MOWER			
O.L. OBTAIN LOCALLY			

HYDRAULICS ASSEMBLY



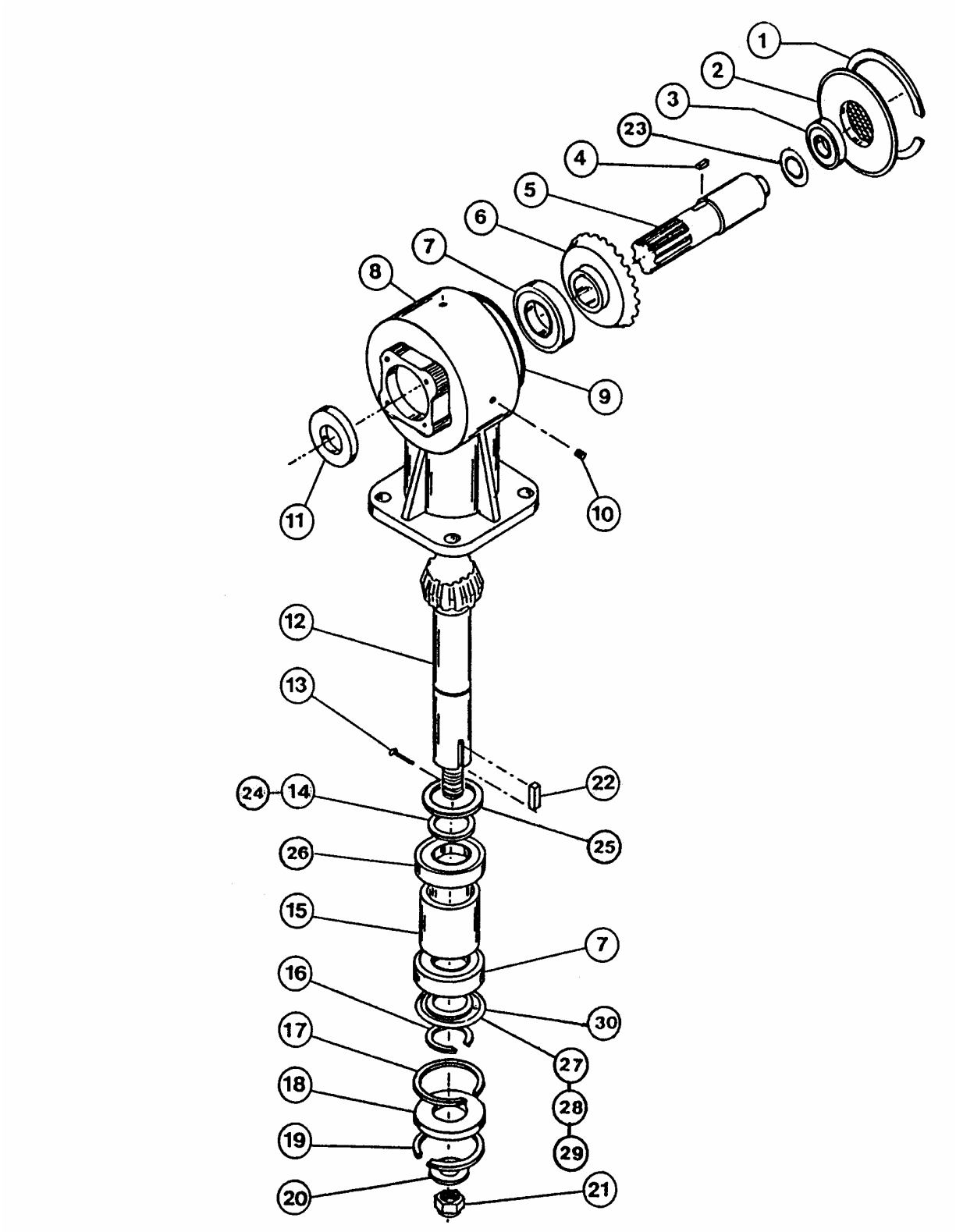
HYDRAULICS ASSEMBLY			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	222006	HOSE END KIT 1/2" (2 PCS/KIT)	1
2	521334	HYDRAULIC HOSE 122"	2
3	522463	4-WAY GEARBOX COVER	1
4	521197	GEARBOX COVER SPACER	4
5	522300	2 1/2" HYDRAULIC CYLINDER	3
6	521752	COTTER PIN (6PCS/KIT)	3
7	O.L.	1" FLAT WASHER	3
8	521103	WING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

DRIVELINE ASSEMBLY



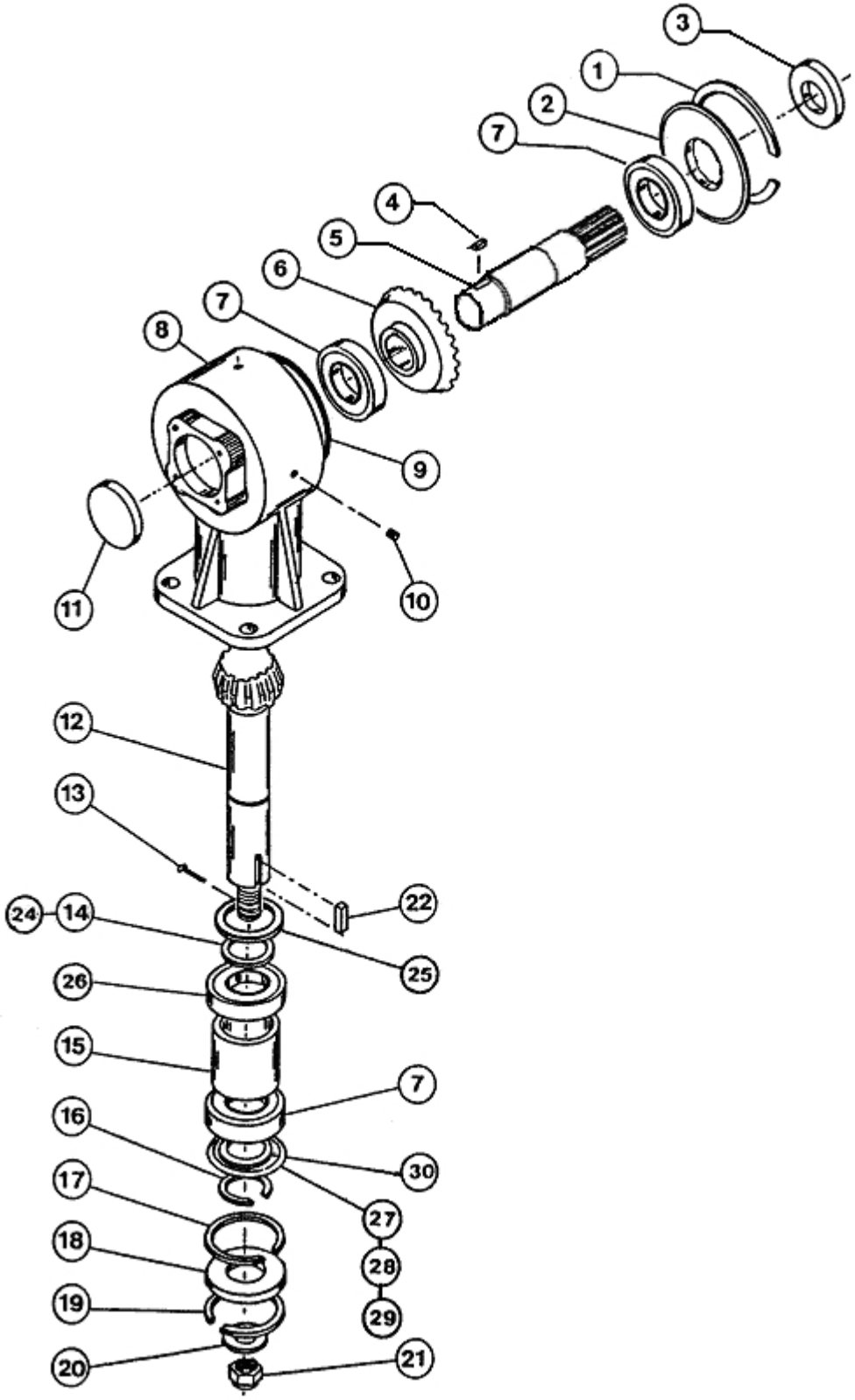
DRIVELINE ASSEMBLY			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	528190	INTERMEDIATE MOUNT	1
2	O.L.	1/2" x 2" GR5 HEX BOLT	1
3	600430	INTERMEDIATE SHIELD C.V.	1
4	210230	INPUT PTO SHAFT, CV (B MODELS)	1
5	521789	PTO SPACER - 0.400"	4
6	528439	INTERMEDIATE SHIELD BRACKET	1
7	521323	HOUSED FLANGE BEARING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

DECK GEARBOX
REAR DECK AND RIGHT DECK



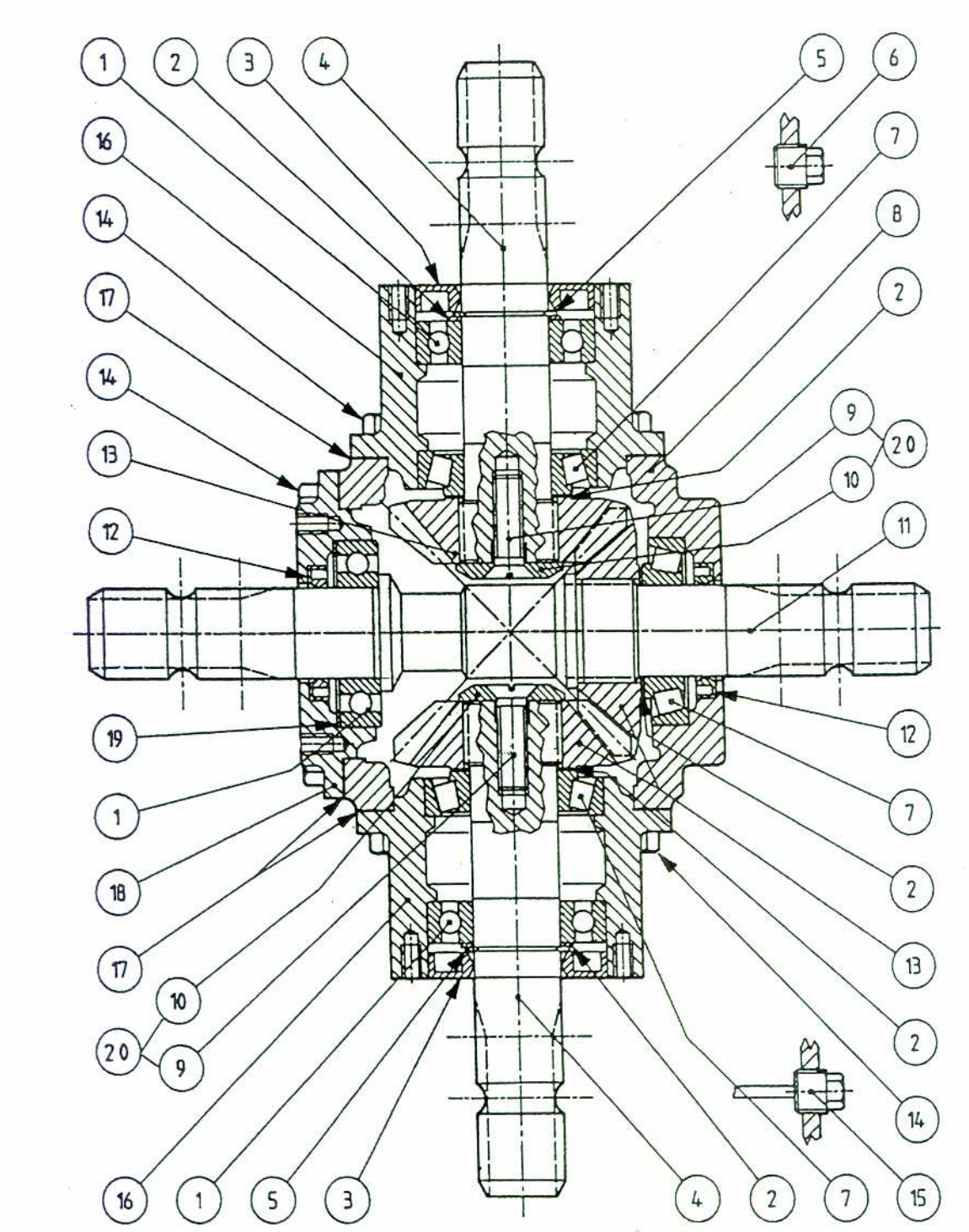
DECK GEARBOX REAR DECK AND RIGHT DECK			
ITEM	PART #	DESCRIPTION	QTY
1	521110	SNAP RING	1
2	521111	COVER PLATE	1
3	521112	BEARING - 6205	1
4	521113	KEY - 10 X 8 X 30	1
5	521114	SHAFT - 1 3/8" X 6 SPLINE	1
6	521115	GEAR	1
7	521116	BEARING - 6207	2
8	521117	CASING	1
9	521118	O - RING	1
10	521482	3/8" PIPE PLUG	2
11	521120	OIL SEAL - 35 X 52 X 7	1
12	521121	PINION SHAFT	1
13	521122	COTTERPIN - B5 X 50	1
14	521123	SHIM - 259.7504 AR (3PC/KIT)	2
15	521124	SPACER TUBE	1
16	521125	SNAP RING - 35 UNI 7435 (3PC/KIT)	1
17	521126	SNAP RING - 72 UNI 7437 (3PC/KIT)	1
18	521127	DOUBLE LIP SEAL - 35 X 72 X 10/8	1
19	521128	SNAP RING - SB72	1
20	521129	WASHER 25 X 44 X 4 (3PC/KIT)	1
21	521130	CASTALATED NUT M24 X 2	1
22	521390	KEY - 1/4" X 1/4" X 1 5/16"	1
23	521359	SHIM	1
24	521360	SHIM 259.7503 AR	1
25	521361	SPACER RING TAPERED	1
26	521362	BEARING TAPERED (30207A)	1
27	521491	SHIM - 248.7505 (KIT) AR	1
28	521491	SHIM - 248.7504 (KIT) AR	1
29	521491	SHIM - 248.7503 (KIT) AR	1
30	521366	SHIM - 259.7505 AR	1
	521012	**COMPLETE DECK GEARBOX**	**1**
-	-	**NOTE: QUANTITIES ARE FOR ONE COMPLETE MOWER**	-
-	-	**O.L. - OBTAIN LOCALLY**	-

LEFT DECK GEARBOX



LEFT DECK GEARBOX			
ITEM	PART #	DESCRIPTION	QTY
1	521110	SNAP RING	1
2	521203	OUTPUT SHAFT COVER PLATE	1
3	521120	OIL SEAL - 35 X 52 X 7	1
4	521113	KEY - 10 X 8 X 30	1
5	521201	OUTPUT SHAFT - 1 3/8" X 6 SPLINE	1
6	521115	GEAR	1
7	521116	BEARING - 6207	2
8	521117	CASING	1
9	521118	O - RING	1
10	521482	3/8" PIPE PLUG	2
11	521149	CASE PLUG	1
12	521121	PINION SHAFT	1
13	521122	COTTERPIN - B5 X 50	1
14	521123	SHIM - 259.7504 AR (3PC/KIT)	2
15	521124	SPACER TUBE	1
16	521125	SNAP RING - 35 UNI 7435 (3PC/KIT)	1
17	521126	SNAP RING - 72 UNI 7437 (3PC/KIT)	1
18	521127	DOUBLE LIP SEAL - 35 X 72 X 10/8	1
19	521128	SNAP RING - SB72	1
20	521129	WASHER 25 X 44 X 4 (3PC/KIT)	1
21	521130	CASTALATED NUT M24 X 2	1
22	521390	KEY - 1/4" X 1/4" X 1 5/16"	1
24	521360	SHIM 259.7503 AR	1
25	521361	SPACER RING TAPERED	1
26	521362	BEARING TAPERED (30207A)	1
27	521491	SHIM - 248.7505 (KIT) AR	1
28	521491	SHIM - 248.7504 (KIT) AR	1
29	521491	SHIM - 248.7503 (KIT) AR	1
30	521366	SHIM - 259.7505 AR	1
	521033	**COMPLETE DECK GEARBOX**	**1**
-	-	**NOTE: QUANTITIES ARE FOR ONE COMPLETE MOWER**	-
-	-	**O.L. - OBTAIN LOCALLY**	-

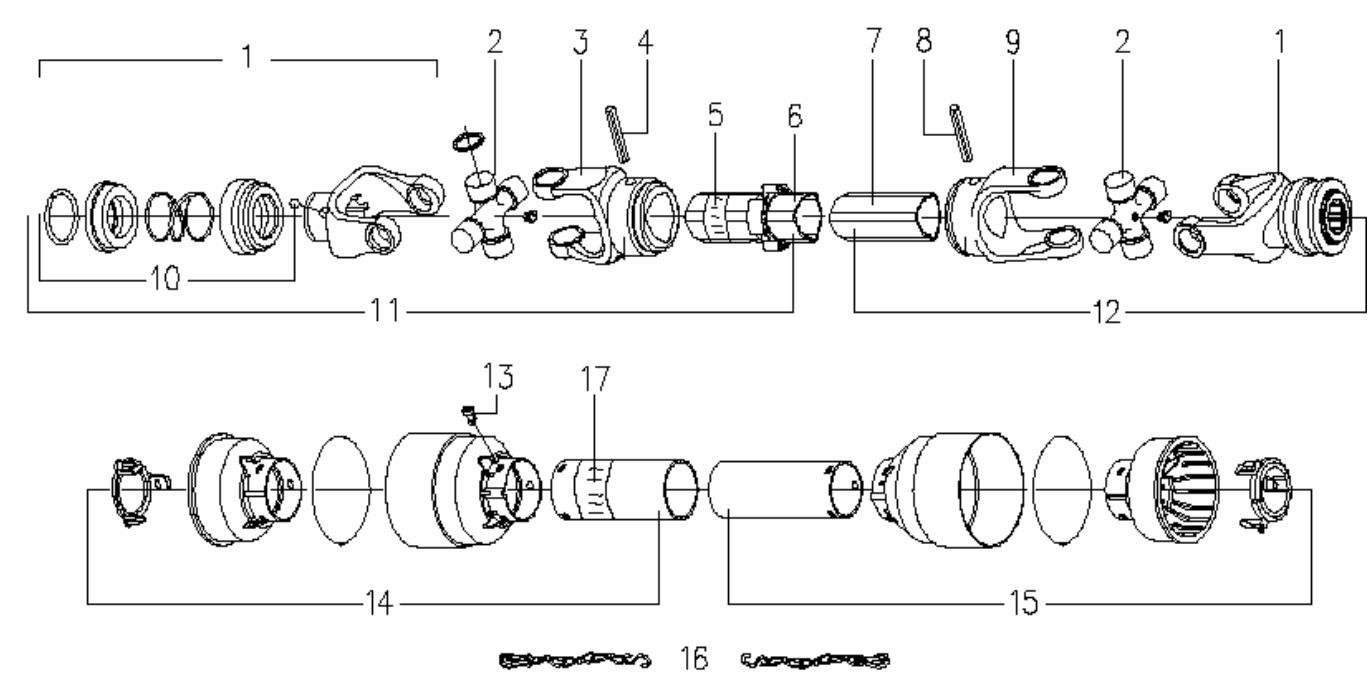
4 – WAY GEARBOX ASSEMBLY



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

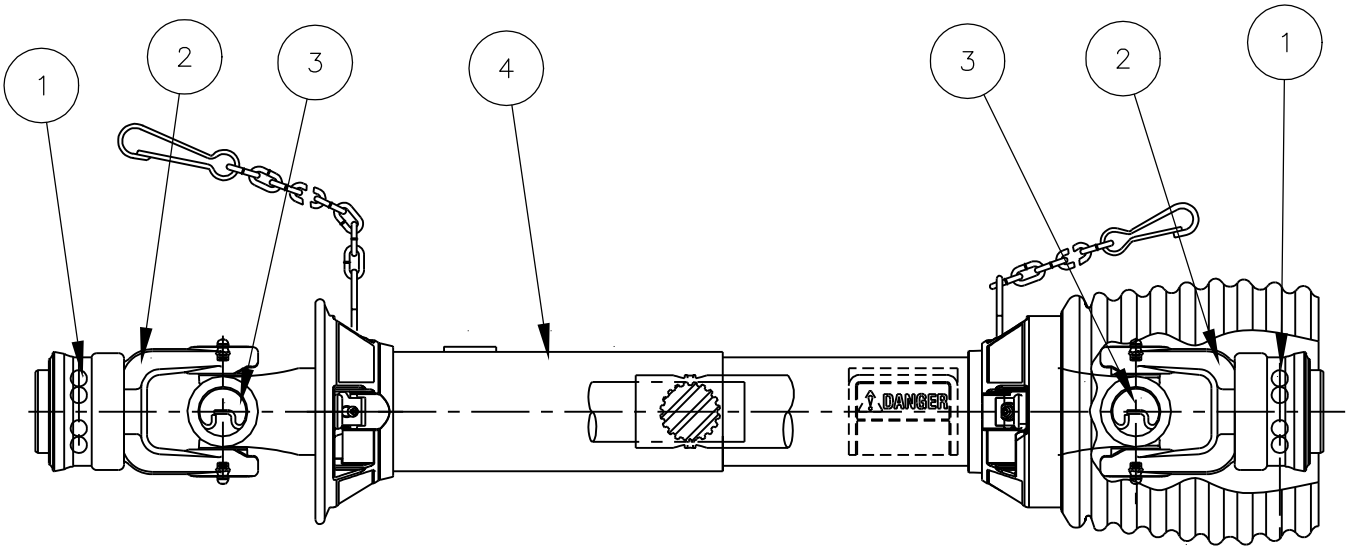
WING DECK PTO ASSEMBLY

4-WAY GEARBOX END DECK GEARBOX END



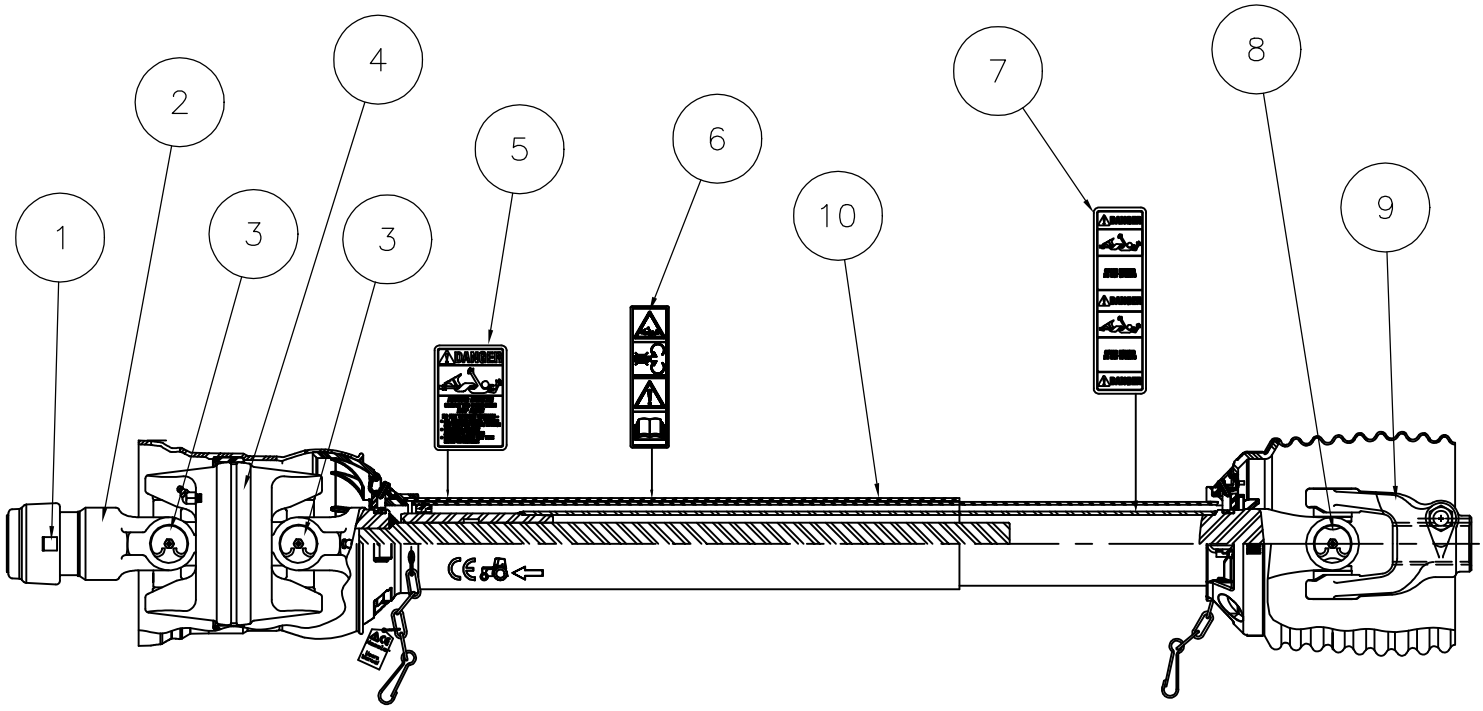
ITEM	PART #	DESCRIPTION	QTY.
1	521778	QD. YOKE 1 3/8" - 6 SPLINE (CO2)	2
2	521779	CROSS & BEARING KIT	2
3	521780	OUTER TUBE YOKE	1
4	521781	ROLL PIN FOR OUTER TUBE	1
5	521451	"DANGER" LABEL FOR OUTER TUBE	1
6	521712	OUTER TUBE	1
7	521713	INNER TUBE	1
8	521782	ROLL PIN FOR INNER TUBE	1
9	521783	INNER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

REAR DECK PTO SHAFT



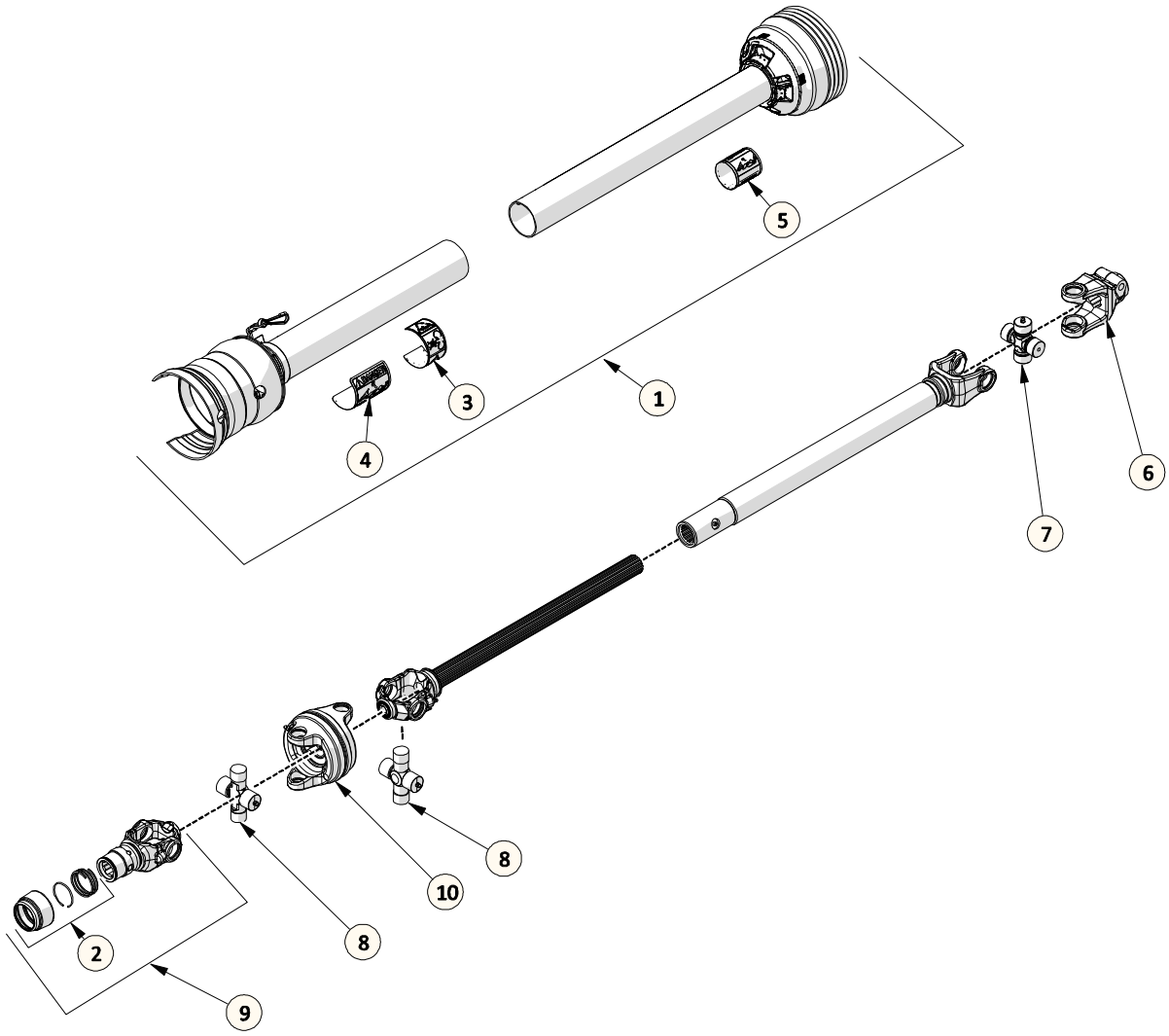
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	210196	SPRING-LOK REPAIR KIT	2
2	210192	SPRING-LOK YOKE ASSEMBLY	2
3	210191	CROSS & BEARING KIT	2
4	210195	COMPLETE GUARD SET	1
-	210190	COMPLETE PTO SHAFT	
		QUANTITY IS FOR ONE COMPLETE PTO SHAFT	

INPUT PTO SHAFT



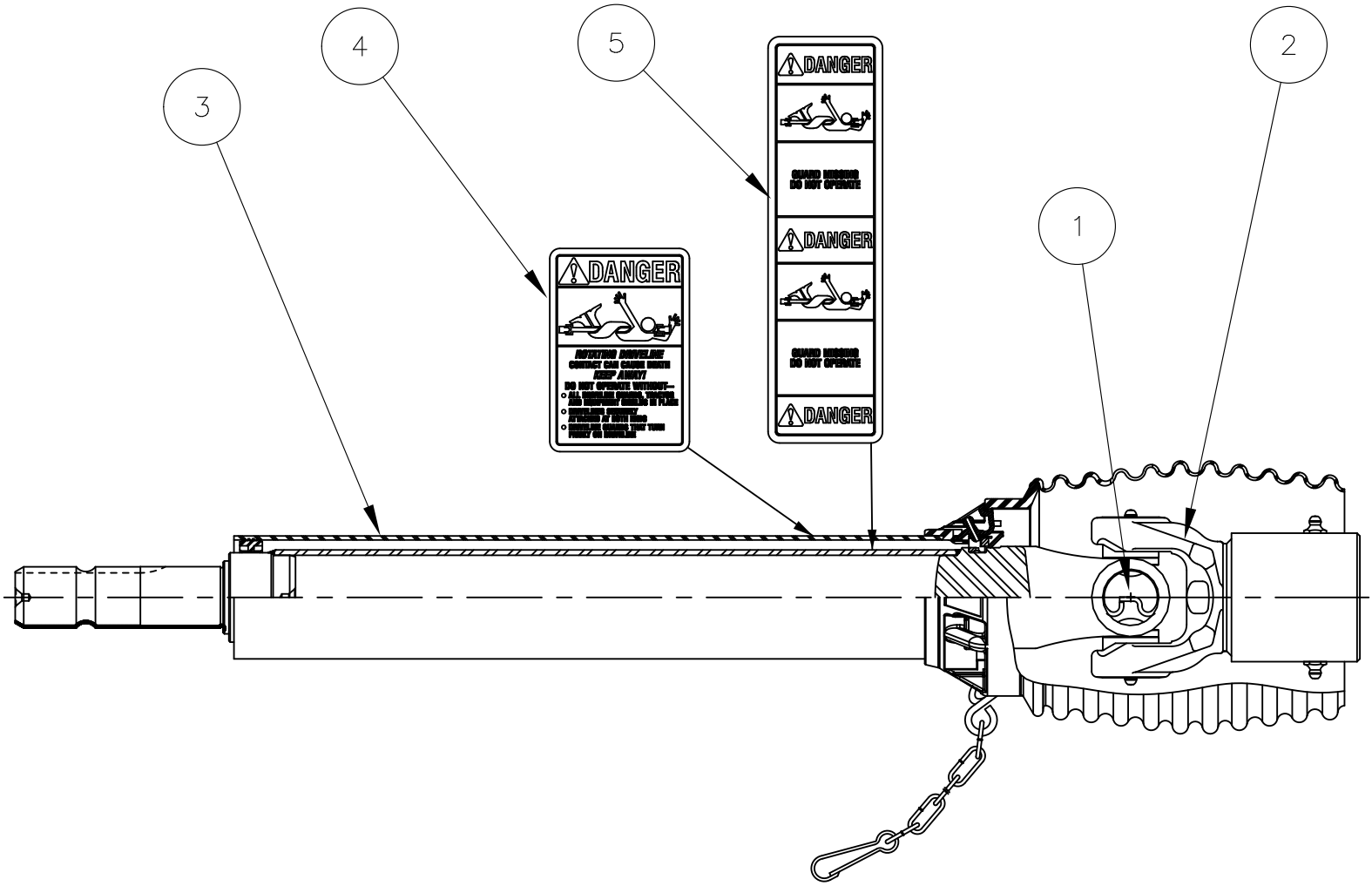
	PART NUMBER	DESCRIPTION	QTY.
1	210179	SSL/AUTO-LOK REPAIR KIT	1
2	210231	SAFETY SLIDE LOCK YOKE ASM.	1
3	210232	CAT 4 80° E2BL CROSS & BEARING KIT	2
4	210233	CENTER HOUSING	1
5	210237	GUARD SAFETY SIGN	1
6	210238	CE WARNING DECAL	1
7	210239	SHAFT SAFETY SIGN	1
8	210234	35E2BL CROSS & BEARING KIT	1
9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

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



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

INTERMEDIATE SHAFT



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