

Operator's Manual

60" Mid Mount Mower Deck Model MM60RS

Yanmar America Corporation
101 International Parkway
Adairsville, GA 30103

Printed In USA

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Mfd by MTD

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Finding Model Number



Before you start assembling your new equipment, please locate the model plate on the equipment and copy the information from it in the space provided below. The information on the model plate is very important if you need help from our Customer Support Department or an authorized dealer.

- You can locate the model number by looking on the top surface of the deck assembly. A sample model plate is shown below. For future reference, please copy the model number and the serial number of the equipment in the space below.

MODEL NUMBER	SERIAL NUMBER
59A40XXX727	*XXXXXXXXXX*
MM60RS	
CUSTOMER SUPPORT 1-855-416-7091 CS_SUPPORT@YANMAR.COM	
MFG BY MTDPRODUCTS, Inc Valley City, OH 44280	

Copy the model number here: _____

Copy the serial number here: _____

Calling Customer Support

If you have difficulty with this mower deck; have any questions regarding the controls, operation or maintenance of this equipment; or desire additional information not found in this manual, contact your nearest authorized Yanmar dealer. If you need assistance in locating a dealer in your area, contact the Customer Dealer Referral Line. Call 1-855-416-7091 to reach the Customer Dealer Referral Line. Please have your tractor's model number and serial number, and the mower deck model number, ready when you call. See your tractor operator's manual to locate this information. For more details about your unit, visit our website at www.yanmar.com. For warranty information, please refer to the Yanmar Limited Warranty included with your tractor.

SECTION 1: SAFE OPERATION PRACTICES



WARNING! This symbol points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate this machine. Failure to comply with these instructions may result in personal injury. When you see this symbol—HEED ITS WARNING.



WARNING! This mower deck was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in injury. This mower deck is capable of amputating hands and feet or throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

GENERAL OPERATION

1. Read, understand and follow all instructions in the manual and on the machine before starting. Keep this manual in a safe place for future and regular reference and for ordering replacement parts
2. Only allow responsible individuals familiar with the instructions to operate the machine. Know the controls and how to stop the machine quickly.
3. Do not put hands or feet under the cutting deck or near rotating parts.
4. Clear the area of objects such as rocks, toys, wire, etc. which could be picked up and thrown by the blades. A small object may have been overlooked and could be accidentally thrown by the mower in any direction and cause injury to you or a bystander. To help avoid a thrown objects injury, keep children, animals, bystanders and helpers at least 75 feet from the mower while it is in operation. Always wear safety glasses with side shields or safety goggles during operation or while performing an adjustment or repair, to protect eyes from foreign objects. Stop the blades when crossing gravel drives, walks or roads.
5. Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
6. Never carry passengers.
7. Disengage the blades before shifting into reverse and backing up. Always look down and behind before and while backing.
8. Be aware of the mower and attachment discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the chute guard in place.
9. Slow down before turning. Operate the machine smoothly. Avoid erratic operation and excessive speed.
10. Never leave a running machine unattended. Always turn off the blades, place the transmission in neutral, set the parking brake, stop the engine and remove key before leaving the area.
11. Turn off blades when not mowing.
12. Stop the engine and wait until the blades come to a complete stop before (a) removing the grass catcher or unclogging chute, or (b) making any repairs, adjusting or removing any grass or debris.
13. Mow only in daylight or good artificial light.
14. Do not operate the machine while under the influence of alcohol or drugs.
15. Watch for traffic when operating near or crossing roadways.
16. Use extra care when loading or unloading the machine onto a trailer or truck. Be sure truck is wide enough and on a firm, level surface. Use loading ramps and attach them properly to the truck bed. Use a heavy-duty trailer to transport the tractor.
17. Never make a cutting height adjustment while the engine is running if the operator must dismount to do so.
18. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Do not wear loose fitting clothes or jewelry. They can be caught in moving parts. Never operate a unit in bare feet, sandals or sneakers.
19. Check overhead clearance carefully before driving under power lines, wires, bridges or low hanging tree branches, before entering or leaving buildings, or in any other situation where the operator and/or roll bar may be struck, which could result in serious injury.
20. Disengage the power take-off, set the parking brake and shift into neutral before attempting to start the engine.
21. Your mower is designed to cut normal residential grass. Do not attempt to mow through unusually tall, dry grass (e.g. pasture) or piles of dry leaves. Debris may build up on the mower deck, presenting a potential fire hazard.
22. Use only accessories approved for the machine by Yanmar. Read, understand and follow all instructions provided with approved accessories.

SLOPE OPERATION

1. Slopes are a major factor related to loss of control and tip-over accidents, which can result in severe injury or death. All slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it.
2. For your safety, use the slope gauge (provided in tractor Operator's Manual) to measure slopes before operating the unit on a sloped or hilly area. If the slope is greater than 15 degrees, as shown by the slope gauge, do not operate the unit on that area or serious injury could result.

DO:

Mow up and down slopes, not across.

Remove obstacles such as rocks, limbs, etc.

Watch for holes, ruts or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.

Use slow speeds. Choose a low enough gear so that you will not have to stop or shift while on the slope. Always keep the machine in gear when going down slopes to take advantage of engine braking action.

Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.

Use extra care with grass catchers or other attachments. These can change the stability of the machine.

Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction. Rapid engagement or braking could cause the front of the machine to lift and rapidly flip over backwards which could cause serious injury.

Avoid starting or stopping on a slope. If the tires lose traction, disengage the blades and proceed slowly straight down the slope.

DO NOT:

DO NOT turn on slopes unless absolutely necessary. If necessary, turn slowly and gradually across and down slope, if possible.

DO NOT mow near drop-offs, ditches or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.

DO NOT mow on wet grass. Reduced traction could cause sliding.

DO NOT try to stabilize the machine by putting your foot on the ground.

CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them.

1. Keep children out of the mowing area and in watchful care of an adult other than the operator.
2. Be alert and turn the machine off if children enter the area.
3. Before and when backing up, look behind and down for small children.
4. Never carry children, even with the blades off. They may fall off and be seriously injured or may interfere with safe machine operation.

5. Never allow children under 14 years old to operate the machine. Children 14 years and older should only operate the machine under close parental supervision and proper instruction.
6. Use extra care when approaching blind corners, shrubs, trees or other objects that may obscure your vision of a child or other hazard.
7. Remove the key when the machine is left unattended to prevent unauthorized operation.

SERVICE

1. Use extreme care in handling gasoline and other fuels. They are extremely flammable and the vapors are explosive.
 - a. Use only an approved container.
 - b. Never remove fuel cap or add fuel with the engine hot or running. Allow the engine to cool at least two minutes before refueling.
 - c. Replace the fuel cap securely and wipe off any spilled fuel before starting the engine as it may cause a fire or explosion.
 - d. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
 - e. Never refuel the machine indoors because fuel vapors will accumulate in the area.
 - f. Never store the fuel container or machine inside where there is an open flame or spark, such as a gas hot water heater, space heater or furnace.
2. Never run a machine inside a closed area. Engine exhaust fumes can be lethal.
3. To reduce fire hazard, keep the machine free of grass, leaves or other debris build-up. Clean up oil or fuel spillage. Allow the machine to cool at least 5 minutes before storing.
4. Before cleaning, repairing or inspecting, stop the engine and remove key. Make certain the blades and all moving parts have stopped.
5. Frequently check all nuts, bolts and screws for proper tightness to ensure the equipment is in safe working condition, especially the blade nuts. Also visually inspect blades for damage (e.g., excessive wear, bent, cracked). Replace only with blades that meet original equipment specifications.
6. Never tamper with safety devices. Check their proper operation regularly. Use all guards as instructed in this manual.
7. After striking a foreign object, stop the engine and thoroughly inspect the mower for any damage. Repair the damage before restarting and operating the mower.
8. Mower blades are sharp and can cut. Wrap the blades or wear gloves, and use extra caution when servicing blades.
9. Check brake operation frequently. Adjust and service as required.
10. Muffler and engine become hot during operation and can cause a burn. Allow to cool down before touching.
11. Do not change the engine governor settings or overspeed the engine. Excessive engine speeds are extremely dangerous.
12. If the machine should begin to vibrate abnormally, stop the engine

and check immediately for the cause. Abnormal vibration is a warning of trouble.

13. Observe proper disposal laws and regulations. Improper disposal of fluids and materials can harm the environment and the ecology.

- a. Prior to disposal, contact your local Environmental Protection Agency to determine the proper method for disposing of the waste. Recycling centers are established to properly dispose of materials in an environmentally safe fashion.
- b. Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them. Properly dispose of the containers immediately following the draining of fluids.
- c. DO NOT pour oil or other fluids into the ground, down a drain or into a stream, pond, lake, or other body of water.

Observe Environmental Protection Agency regulations when disposing of oil, fuel, coolant, brake fluid, filters, batteries, tires and other harmful waste.

14. We do not recommend the use of a pressure washer or garden hose to clean your unit. They may cause damage to electrical components; spindles; pulleys; bearings; or the engine. The use of water will result in shortened life and reduce serviceability.



WARNING! YOUR RESPONSIBILITY

Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine

SAFETY SYMBOLS

This page depicts and describes safety symbols that may appear on this product. Read, understand, and follow all instructions on the machine before attempting to assemble and operate.

Symbol	Description
	READ THE OPERATOR'S MANUAL(S) Read, understand, and follow all instructions in the manual(s) before attempting to assemble and operate
	WARNING— ROTATING BLADES Do not put hands or feet near rotating parts or under the cutting deck. Contact with the blade(s) can amputate hands and feet.
	WARNING—THROWN OBJECTS This machine may pick up and throw and objects which can cause serious personal injury.
	WARNING— SLOPE OPERATION Do not operate this machine on a slope greater than 15 degrees.
	WARNING— SLOPE OPERATION Do not operate this machine on a slope greater than 11 degrees.
	WARNING—THROWN OBJECTS This machine may pick up and throw and objects which can cause serious personal injury.
	DANGER — ROTATING BLADES To reduce the risk of injury, keep hands and feet away. Do not operate unless discharge cover or grass catcher is in its proper place. If damaged, replace immediately.
	WARNING— ROTATING BLADES Keep hands out of inlet and discharge openings while machine is running. There are rotating blades inside
	WARNING— ROTATING AUGER Do not put hands or feet near rotating parts, in the auger/impeller housing or chute assembly. Contact with the rotating parts can amputate hands and feet.
	BYSTANDERS Keep bystanders, helpers, children and pets at least 75 feet from the machine while it is in operation.

SECTION 4: TO THE DEALER

The initial assembly and proper installation of this attachment is the responsibility of the Yanmar dealer. Read the instructions and safety precautions found in this manual carefully.

SECTION 5: TO THE OWNER

This Operator's Manual is an important part of your new Mid Mount 60" Mower Deck. Contained in this manual are instructions covering installation, safe operation, and maintenance of the Model MM60RS 60 inch mower deck. Please read and understand what it says.

The Model MM60RS Mid Mount 60" Mower Deck is designed for use ONLY with certain Yanmar tractor models. It will NOT fit nor operate safely or properly on or with any other tractor.

References to LEFT and RIGHT indicate the left and right sides of the tractor when facing forward in the operator's position. Reference to the FRONT indicates the grille end; to the REAR the drawbar end.

SECTION 6: CONTENTS

The deck attachment components are listed below along with their part numbers. Assemblies are made up of more than one part and do not have a part number. Before beginning installation, lay all components out on a flat surface to assure everything is present. Throughout the manual the parts in the hardware pack will be identified by name, followed by their callout number in parenthesis, to aid in installation.

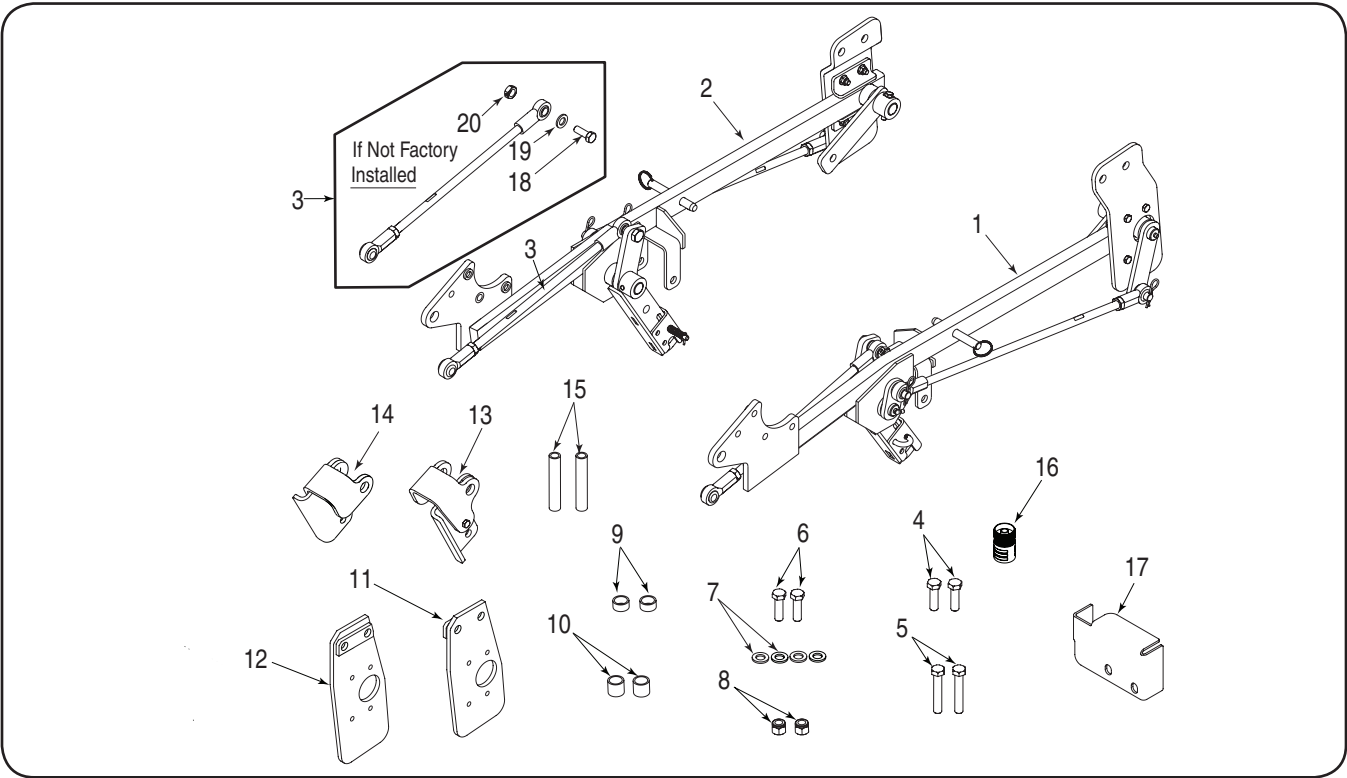


Figure 1

1. RH Sub-frame Assembly	N/A	1 pc.	11. RH Loader Adapter Bracket.....	603-04441	2 pc.
2. LH Sub-frame Assembly	N/A	1 pc.	12. LH Loader Adapter Bracket	603-04440	2 pc.
3. Rear Lift Rod Assembly	N/A	2 pc.	13. RH Lift Bracket Assembly	N/A	1 pc.
(May have been factory installed)			14. LH Lift Bracket Assembly	N/A	1 pc.
4. Hex Cap Screw M16-20 x 35	710-04697	2 pc.	15. Spacer .625 ID x 4.95 Lg	750-04858	2 pc.
5. Hex Cap Screw, M16-2.0 x 60	710-04700	2 pc.	16. Nozzle Adapter	721-04041	1 pc.
6. Hex Cap Screw, 5/8-11 x 2.5	710-04129	2 pc.	17. Mid PTO Cover	703-06201	1 pc.
7. Flat Washer, .64 x 1.12 x .125	736-0366	4 pc.	18. Hx Cp Scrw - May be factory installed..	710-04706	2 pc.
8. Hex Lock Nut, 5/8-11	712-3016	2 pc.	19. Flat Washer - May be factory installed..	736-0290	2 pc.
9. Spacer 1.25 OD x .625	750-04877	2 pc.	20. Hx Lck Nut - May be factory installed ...	712-0261	2 pc.
10. Spacer 1.25 OD x 1.25	750-04878A	2 pc.	Not Shown - Complete Deck Assembly.....		1 pc.

SECTION 7: INSTALLATION, MOWING AND REMOVAL

Unpacking the Mower Deck

Move the tractor and mower deck to a firm flat area large enough to accommodate both. Allow enough room to slide the deck underneath the tractor from the right side.

To uncrate the mower deck and all components, refer to Figure 1 and proceed as follows:

- Carefully remove the top of the shipping crate. Cut the ties and remove the sub-frame assemblies from the packaging shelf. Set the sub-frame assemblies aside.
- Support the sub-frame shelf and carefully remove the sides of the crate. Cut or fold down the plastic bag.
- Remove the hardware pack from the shipping pallet. Check the contents of the hardware pack against the list on page 8.

NOTE: Some hardware pack components may have been stored in their mating parts for shipping purposes, and may not be in the hardware pack.

- Carefully remove and discard any banding wire, strapping, or tie straps securing the components to the shipping pallet.
- Carefully roll the deck off of the shipping pallet and remove any ties and padding material.

PREPARING SUB-FRAME ASSEMBLY

Install Rear Lift Rods (if not already assembled)

NOTE: The rear lift rod may have been connected to the rear lift arm of the each sub-frame assembly at the factory. If the rods are connected, disregard the following instructions and skip to the next subsection.

- Insert the hex screw (18) through the hole at the top of the sub-frame rear lift arm on either the RH or LH sub-frame assemblies (1 or 2, Figure 1). Slide the flat washer (19) onto the screw.

- Looking at either of the rear lift rod assemblies, locate the flattened areas on the rod near the RH threaded end of the rod. Position the rear lift rod assembly (3, See inset box of Figure 1) so that the flats of the rod, and RH threaded ball joint, are toward the rear of the sub-frame assembly. Refer to Figure 2.

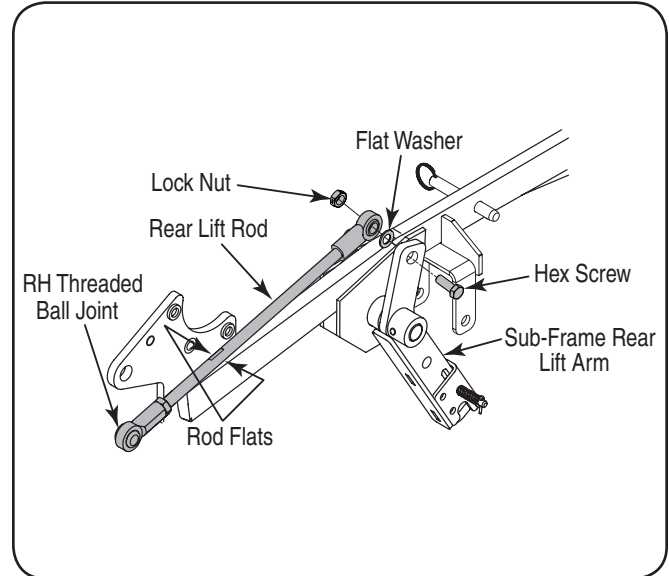


Figure 2

- Position the LH threaded ball joint at the other end of the rear lift rod assembly between the top of the sub-frame rear lift arm and the sub-frame rail. See Figure 2.
- Insert the hex screw through the ball joint and fasten with the hex lock nut (20). Tighten the hex lock nut until almost snug against the ball joint. Do not overtighten. Refer to Figure 2.

Repeat the above procedure to install the other rear lift rod assembly on the other sub-frame assembly.

Changing the Sub-Frame Mounting Brackets

If a front loader is installed, or to be installed, on the tractor, the sub-frame mounting brackets must be removed from the sub-frame and replaced with the loader adapter brackets. If no front loader is installed, or to be installed, skip to the following sub section.

- Remove the hex screw fastening the LH front sub-frame link on the sub-frame pivot shaft, and slide the sub-frame link off of the shaft. Refer to Figure 3.

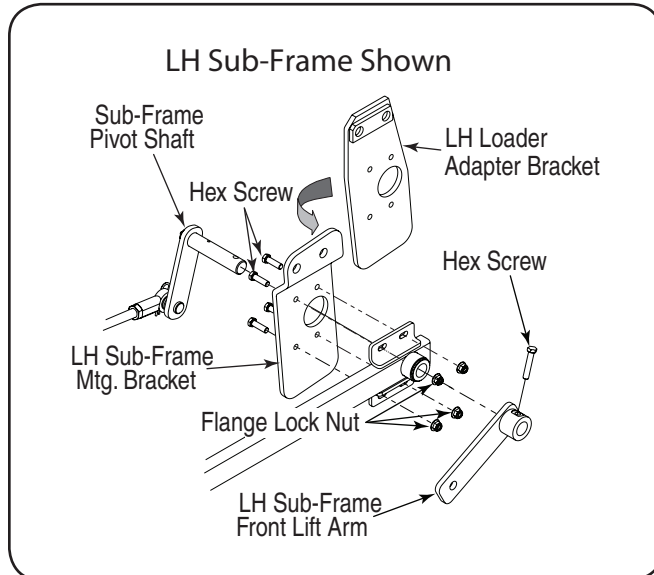


Figure 3

- Withdraw the pivot shaft from the bearings in the sub-frame rail. See Figure 3.
- Remove the four hex flange lock nuts and screws securing the LH sub-frame mounting bracket to the sub-frame rail to remove the mounting bracket. See Figure 3.
- Position the LH loader adapter bracket (12) to align its four holes with the four holes in the plate on the sub-frame rail. Refer to Figure 3. Insert the four hex screws and thread the hex flange lock nuts onto the screws. Tighten the flange lock nuts until almost snug. Do not fully tighten the fasteners.
- Insert the sub-frame pivot shaft through the sub-frame rail and slide the LH front sub-frame link onto the end of the shaft. Align the holes in the sub-frame link with the hole in the pivot shaft and insert the hex screw removed earlier. Fully tighten the hex screw. Refer to Figure 3.
- Repeat the above procedure to install the RH loader adapter bracket (11) onto the RH sub-frame assembly (16).
- If not already installed, install the RH and LH loader mounts on the tractor now by following the instructions in the front loader operator's manual.

PREPARING THE TRACTOR



WARNING! Engage the tractor parking brake, stop the tractor engine and remove the key to safely install the mower deck.

Installing Sub-Frame and Lift Bracket Assemblies

NOTE: The RH and LH sub-frame assemblies can be installed without removing the rear wheels. But limited space to remove and reinstall fasteners makes it more difficult and increases the possibility of an improper installation. It is recommended that the respective rear wheel be removed from that side of the tractor when installing the RH or LH sub-frame assembly.



WARNING! When raising any part of the tractor from the ground, use appropriate jack stands to support the tractor. Do not work on the tractor when supported only by a lifting jack.

Installing RH Sub-Frame and RH Lift Bracket Assemblies

- Use a jack to raise the right rear of the tractor so that the tire is off of the ground. Position a jack stand to support the tractor. Remove the right rear tire from the tractor and roll aside.
- If a lower hitch link sway spring is installed between the two lift links of the 3-point hitch, unhook the chain from the links.
- Remove the klik pin from the end of lower hitch link pin. While supporting the sway chain clevis links, slide the link pin inward (to the left) to disengage the pin from the two clevis links and the hitch link pin support bracket. See Figure 4.

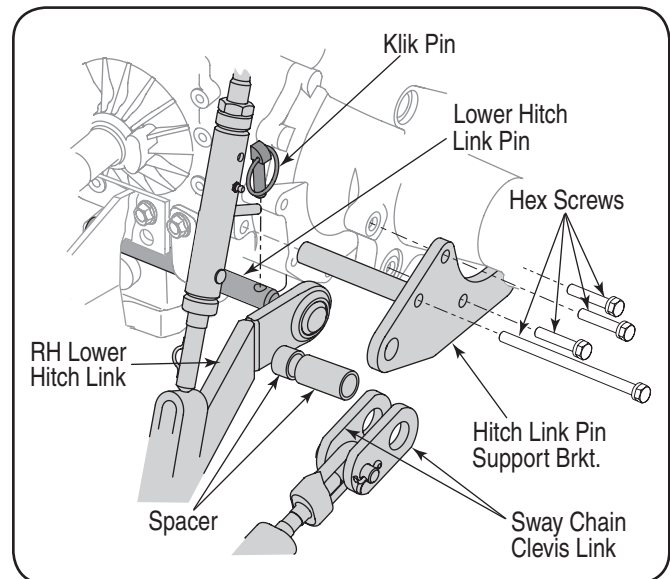


Figure 4

- Continue to slide the hitch link pin to the left to remove the spacers and disengage the RH lower hitch link. See Figure 4.
- Remove the four screws (3 short and 1 long) securing the hitch link pin support bracket to the tractor's RH rear axle housing and remove the support bracket. Retain the four screws and discard (or store) the bracket and spacers.

- Position the RH sub-frame assembly (1) along the right side of the tractor.
- Loosen, but do not remove the four hex flange lock nuts and screws securing the sub-frame mounting bracket to the plate on the front of the sub-frame rail. Refer to Figure 5.

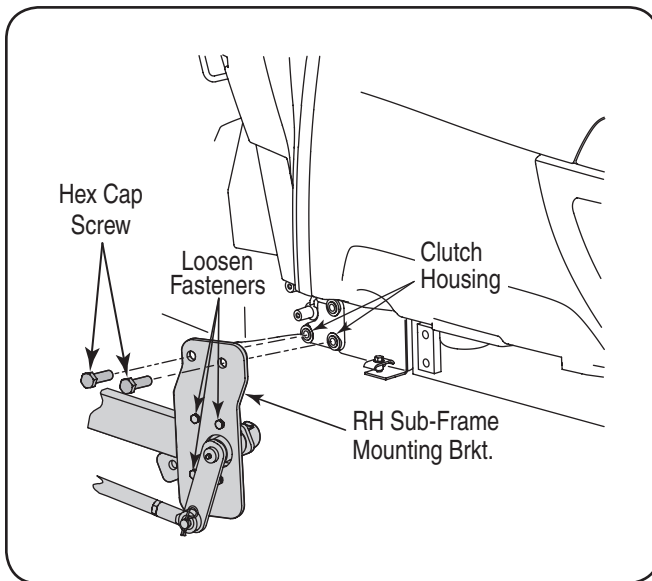


Figure 5

- Locate the three holes in a triangular pattern on the tractor's clutch housing. Remove the protective plugs from the lower two holes. Refer to Figure 5.
- Raise the front of the RH sub-frame assembly and align its two upper holes with the two lower holes of the clutch housing. Insert the two hex cap screws(4) and thread into the clutch housing. Do not fully tighten now. Refer to Figure 5.
- **ONLY If the RH Loader Mount is installed.** Remove the two lower screws fastening the rear of the loader mount to the tractor clutch housing. Align the upper holes of the RH loader adapter bracket (installed on RH sub-frame assembly earlier) with the loader mount holes. Insert the longer hex screws(5) and thread into the clutch housing. Do not fully tighten now. Scrap (or store for possible future use) the screws removed from the loader mount.

- Lift the rear of the RH sub-frame assembly and align the three holes in the rear sub-frame mtg./link pin support bracket with the three holes in the RH rear axle housing. Insert the shorter hex screws removed earlier and thread partially into the axle housing holes. Do not tighten the screws now. See Figure 6.

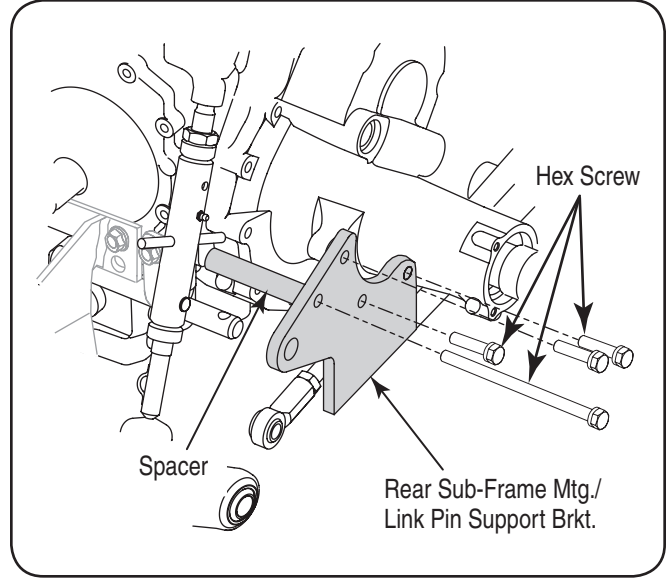


Figure 6

- Place a 4.95" long spacer (15) between the rear sub-frame mtg./link pin support bracket and the transmission housing, and align with the holes in both as shown in Figure 6. Insert the long hex screw removed earlier through the bracket and spacer and thread into the transmission housing, but do not fully tighten.
- Working from the rear of the tractor, slide the RH lower hitch link pin almost fully to the left.
- Hold the RH lift bracket assembly (13) so that its shorter side is to the left (toward transmission housing) and pointing downward. Slide the shorter side of the lift bracket just onto the hitch link pin. See Figure 7.

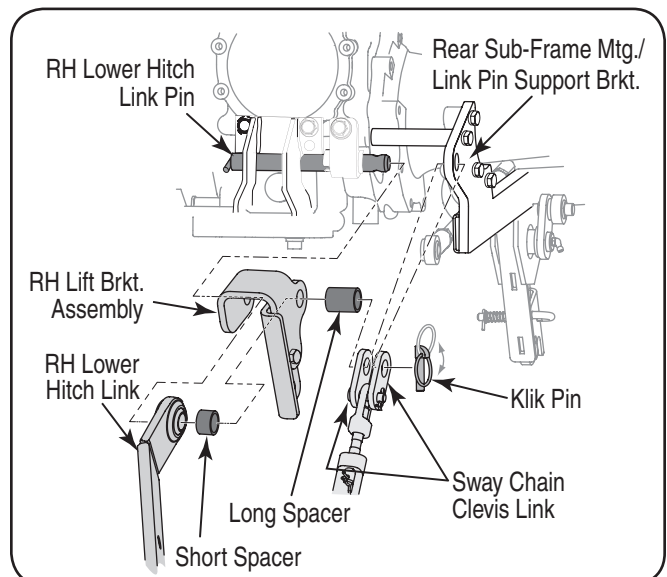


Figure 7

- Pivot the forward end of the RH lower 3-point hitch link upward between the two sides of the lift bracket and align with the hitch link pin. Slide the hitch link pin to the right until just through the hitch link. Refer to Figure 7.
- Place the short spacer (.625" long) between the lower 3-point hitch link and the longer side of the lift bracket; then slide the hitch link pin to the right through the spacer and fully through the lift bracket. Refer to Figure 7.
- While continuing to slide the hitch link pin to the right, slide the long spacer (1.125" long) onto the pin. Refer to Figure 7.
- Lift the sway chain assembly and separate the two sway chain clevis links to position a link on the inside and outside of the rear sub-frame mtg./link pin support bracket. Align the holes of the clevis links with the hole in the mounting bracket; then slide the hitch link pin toward the right through the clevis links and mounting bracket. Refer to Figure 7.
- Make sure the dowel pin on the left end of the hitch link pin aligns with the slot in the hub of the retainer bracket on the transmission housing and slide the pin fully to the right.
- Fully insert the klik pin (removed earlier) into the hole of the RH lower hitch link pin, and pivot the klik pin ring over the end of the hitch link pin to lock in position. Refer to Figure 7.
- Evenly tighten all the screws fastening both the front and rear sub-frame mounting brackets to secure the RH sub-frame assembly to the tractor. Re-tighten the four hex screws and flange lock nuts to secure the front sub-frame mounting bracket to the sub-frame rail.
- Reinstall the right rear tire, raise the tractor and remove the jack stand, and lower the tractor to the ground.

Installing LH Sub-Frame and LH Lift Bracket Assemblies

- Use a jack to raise the left rear of the tractor so that the left rear tire is off the ground. Position a jack stand to support the tractor and remove the left rear wheel.
- To install the LH sub-frame assembly (2), refer to Figures 4 through 7 and follow the instructions for installing the RH sub-frame, adapting the instructions to the left side of the tractor.
- The LH lift bracket assembly (14) is installed in the same manner as the RH lift bracket assembly. Refer to Figure 7 and adapt the previous instructions to the left side of the tractor to install the LH lift bracket assembly.
- Evenly tighten all the screws fastening both the front and rear sub-frame mounting brackets to secure the LH sub-frame assembly to the tractor. Re-tighten the four hex screws and flange lock nuts to secure the front sub-frame mounting bracket to the sub-frame rail.

NOTE: If the sway spring was removed from the tractor's 3-point hitch lower hitch links, reconnect the spring to the lower hitch links now.

Installing Mid PTO Cover

- From the rear of the tractor, locate the two rearmost hex screws in the bottom/left of the transmission housing. Remove the two screws. Refer to Figure 8.

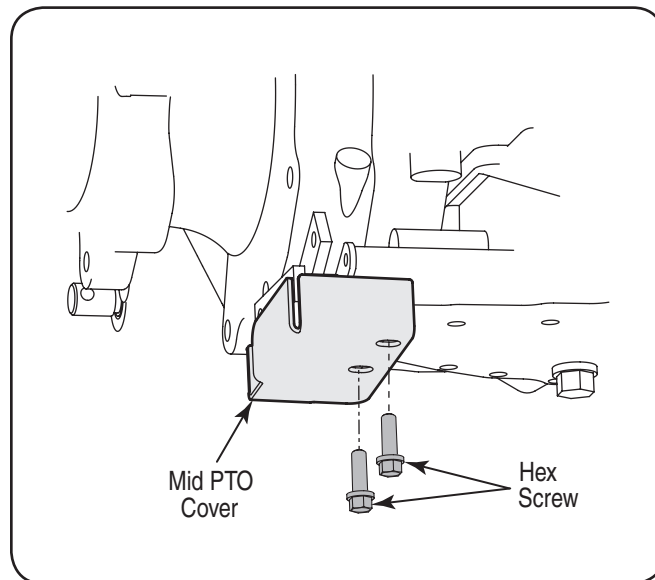


Figure 8

- Position the mid PTO cover so that it cups the mid PTO linkage at the left lower/rear of the transmission, and align its two mounting holes with the holes in the bottom of the transmission housing. See Figure 8.
- Reinstall the two hex screws and fully tighten to secure the mid PTO cover on the transmission housing.

Attaching Rear Lift Rod Assembly

NOTE: The forward end of the rear lift rod assemblies should already have been attached to the sub-frame lift arms. If not yet attached, refer to the instructions at the beginning of this section to attach the forward ends of the rod assemblies.

The rearward end of the rear lift rod assemblies must be connected to the just installed RH and LH lift bracket assemblies. The lift rod assemblies were pre-adjusted at the factory, but will require additional adjustment after installation.

To connect the lift rod assemblies to the lift bracket assemblies, proceed as follows:

- Check that the LH and RH sub-frame rear lift arms are pinned up in their respective lockout brackets on the sub-frame assemblies (Refer to Figure 9). If the lift arms are not locked in the up position, manually pivot the rear lift arms forward and upward until each arm is up inside the lockout bracket on the sub-frame. Remove the lockout pin from the storage holes in each sub-frame assembly and insert the lockout pin fully through the lockout bracket, beneath the rear lift arm, to secure the lift arm in the up position. See Figure 9.

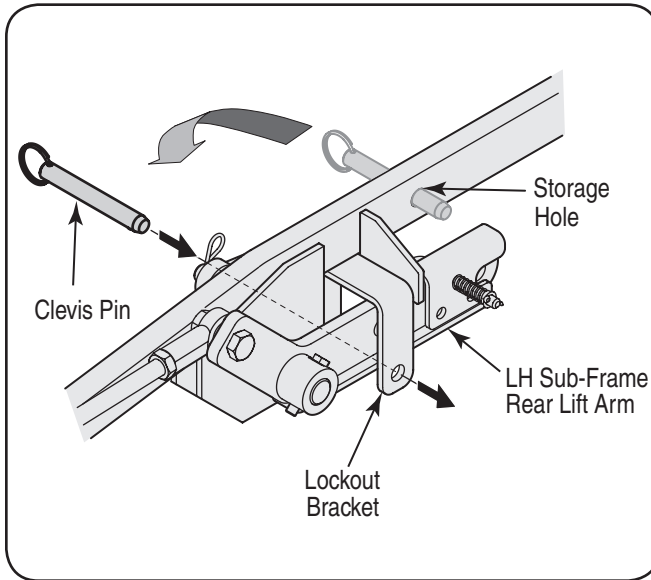


Figure 9

- From the back of the tractor, check that the two lower 3-point hitch links are level side to side and that both are held inward by the sway chains and spring. If the hitch links are not level, follow the instructions in the tractor operator's manual to adjust the RH lift link to level the hitch links.



WARNING! Follow all warnings and procedures provided in the tractor operator's manual for safely starting the tractor engine.

- Start the tractor engine and use the 3-point hitch control lever (refer to the tractor operator's manual) to raise the lower 3-point hitch links to their **HIGHEST POSITION**. Stop the engine.

NOTE: If the 3-point hitch links move very slowly, refer to the tractor operator's manual and check the tractor hydraulic flow control/stop knob adjustment.

- Working at either the right, or left, rear of the tractor, grasp the rear lift rod assembly and pull the rod as necessary to align the ball joint hole with the hole at the bottom of the lift bracket. Refer to Figure 10.

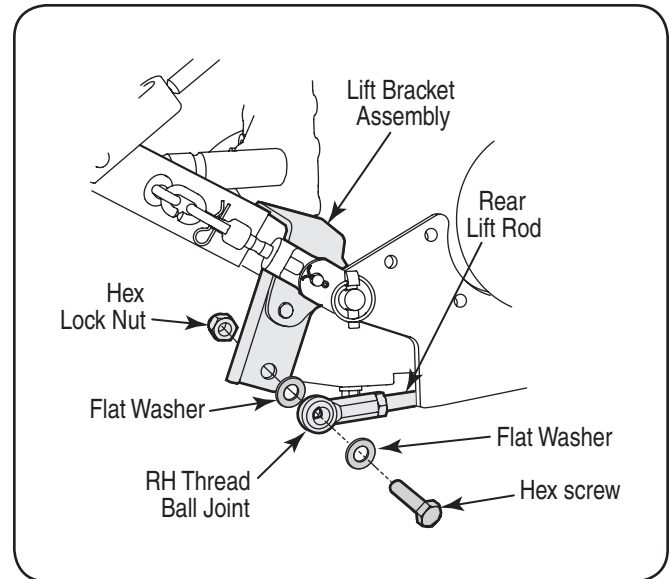


Figure 10

NOTE: If a lift rod assembly is too short to align the ball joint and lift bracket holes, refer to "Adjusting the Rear Lift Rod Assemblies" below and turn the rod as shown in Figure 11 to lengthen the rod assembly as needed to connect to the lift bracket.

- Slide a flat washer (7) onto the hex screw (6) and insert the hex screw through the ball joint. Slide a second flat washer (7) onto the hex screw, and insert the screw through the lift bracket. Secure with the hex lock nut (8). See Figure 10.
- Move to the other side of the tractor and repeat the previous instructions to connect the rear lift rod to the lift bracket on the other side of the tractor.

Adjusting the Rear Lift Rod Assemblies

Proper adjustment of the lift rod assemblies is attained when, with the deck NOT installed and the tractor 3-point hitch links raised to their highest position, the sub-frame rear lift arms almost contact the upper surface of their respective sub-frame lockout brackets (Refer to Figure 9). To correctly adjust the rear lift rods, proceed as follows:

- Make certain the tractor 3-point hitch arms are raised to their highest position.
- Working from the rear of the tractor, loosen the jam nut from against the *right hand thread* ball joint by turning the jam nut clockwise as shown in Figure 11. Turn the nut away from the ball joint.

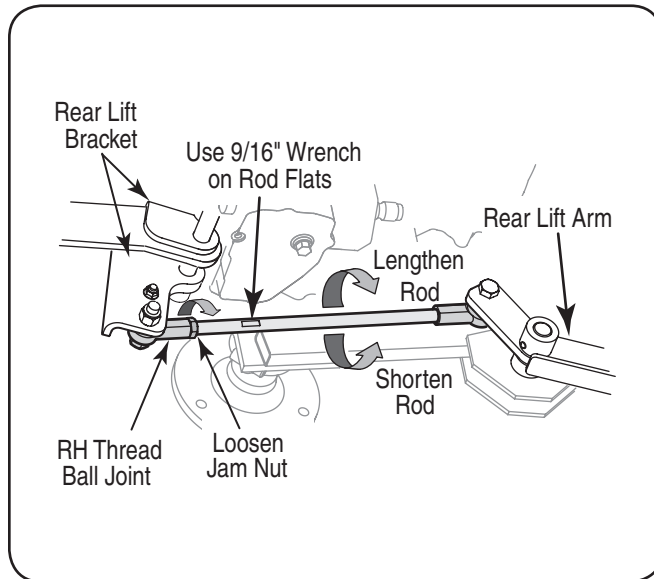


Figure 11

- Use a 9/16" open end wrench on the flats of the lift rod to turn the lift rod in the direction shown in Figure 11 to shorten the lift rod assembly.
- While observing the position of the rear lift arm in the lockout bracket, continue to turn the lift rod until the rear lift arm almost contacts the upper surface of the lockout bracket (Refer to Figure 9). When the lift rod is properly adjusted, tighten the jam nut against the ball joint. Refer to Figure 11.
- Move to the lift rod on the other side of the tractor and repeat the previous instructions to properly adjust the other lift rod assembly.

NOTE: Improper adjustment of the rear lift rods could result in breakage of the shear bolts fastening the lift bracket assemblies. If the deck will not raise correctly, check the lift bracket assembly hex bolts and replace the hex bolt(s) as necessary.

- Remove the clevis pins holding the sub-frame lift arms up in the lockout brackets on both sub-frame assemblies. Re-install the clevis pin in the storage hole of each sub-frame. Refer to Figure 9.

INSTALLING THE MOWER DECK

Connecting Mower Deck to Sub-Frame

The mower deck should be installed from the right hand side of the tractor. To install the deck onto the tractor, proceed as follows:



WARNING! Follow all warnings and procedures provided in the tractor operator's manual for safely starting the tractor engine.

- If the rear lift arms of the sub-frame assemblies are raised to their highest position, start the tractor engine and use the 3-point hitch control lever (refer to the tractor operator's manual) to lower the lift arms.
- From the right side of the tractor, pull the release pin of the rear lift arm assembly out of the upper hole in the lock bracket; then slightly pivot the pin so that it is held outward against the side of the lock bracket. Refer to Figure 12.

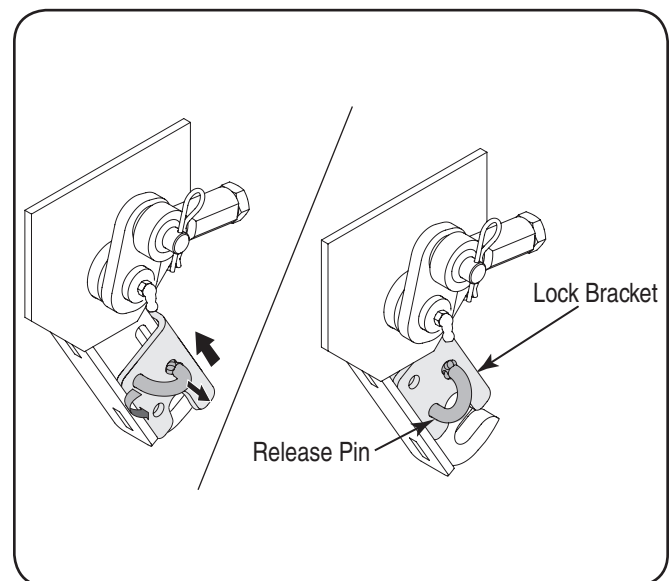


Figure 12

- Slide the lock bracket up the lift arm until the lower hole in the lock bracket aligns with the pin hole in the lift arm. Pivot the release pin down to the lower hole and release so that the pin goes through the lock bracket and lift arm to fix the lock bracket in the raised (unlocked) position. See Figure 12.
- Repeat the procedure on the left side of the tractor to fix the lock bracket of the LH rear lift arm assembly in the raised (unlocked) position.
- Start the tractor engine and use the 3-point hitch control lever (refer to the tractor operator's manual) to raise the lift arms to their highest position. Stop the engine.
- Remove the internal cotter pins and clevis pins and raise the front caster wheels to their highest position (lowest deck height setting).

NOTE: Refer to the Adjustments section later in this manual for instructions on adjusting the position of the deck caster wheels.

- Remove the internal cotter pin and withdraw the clevis pin from

the rear gauge wheel adjustment handle and index bracket. Move the gauge wheels to their highest position (lowest deck height setting).

- Use the tractor steering wheel to turn the front wheels of the tractor all the way to the left.

NOTE: It may be necessary to momentarily start the tractor to fully turn the front wheels. Stop the engine after turning wheels.

- From the right side of the tractor, maneuver the deck underneath the tractor. Slide the deck under the tractor until the hitch brackets on the back of the deck approximately align with the rear lift arms.
- Slide the deck forward, then use the 3-point hitch control lever to lower the rear lift arms until the receiver slots of the arms align with pins in the hitch brackets on the rear the deck. Refer to Figure 13.

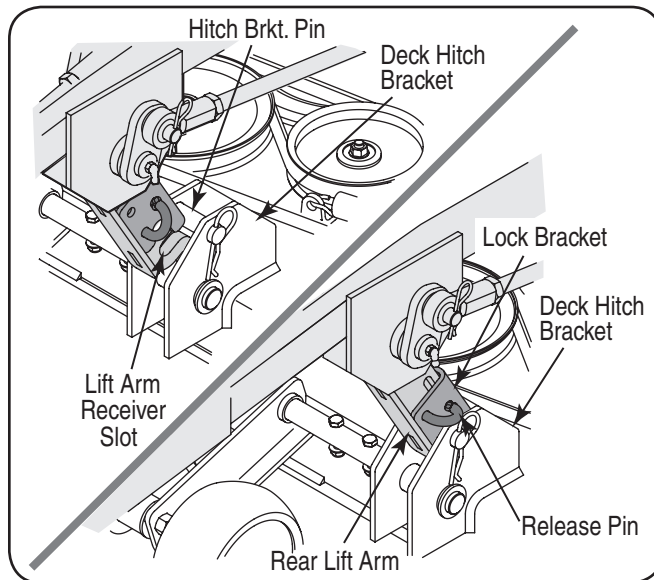


Figure 13

- Roll the deck rearward to fully engage the deck hitch bracket pins in the receiver slots of the RH and LH rear lift arms. Refer to Figure 13.
- From either side of the tractor, pull the rear lift arm release pin out of the lower hole in the lock bracket and slide the lock bracket downward to straddle the deck hitch bracket pin. Align the upper hole in the lock bracket with the lift arm hole. Pivot the release pin upward to the upper hole and release so that the pin goes fully through the lock bracket and lift arm to fix the lock bracket in the locked position. See Figure 13.
- Move to the other side of the tractor and repeat the above procedure to capture the deck hitch bracket pin in the rear lift link on the other side of the tractor. Refer to Figure 13.

- From either side of the tractor, remove internal cotter pin and withdraw the clevis pin from the front lift link on the deck. Refer to Figure 14.

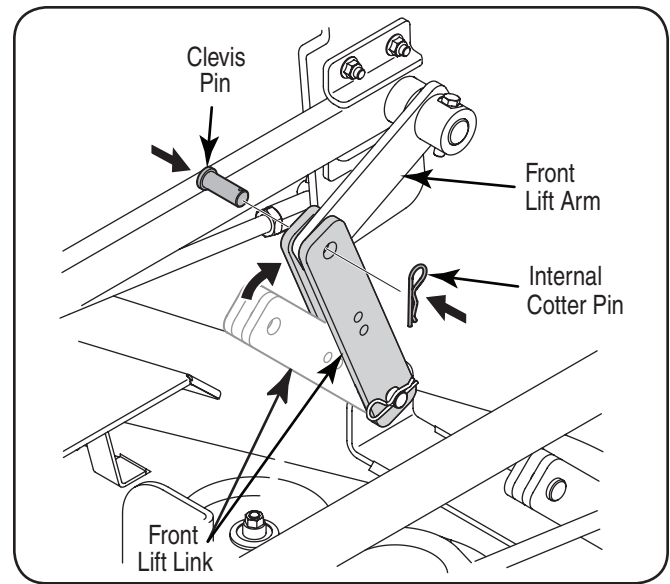


Figure 14

- Pivot the lift link upward so that it straddles the sub-frame front lift arm. Align the holes and insert the clevis pin. Secure with the internal cotter pin. See Figure 14.
- Move to the other side of the tractor and connect the other deck front lift link to the sub-frame lift arm as described in the previous two steps.

Connecting Deck Drive Shaft



WARNING! Do not attempt to connect the drive shaft when the tractor engine is running. Stop the tractor engine, disengage all PTO controls, engage the parking brake, and wait for all movement to stop before connecting the deck drive shaft.

The deck drive shaft must be securely connected to the mid-PTO shaft at the lower/front of the tractor's transmission housing.

NOTE: The deck, sub-frame, and rear tires limit access to the mid-PTO shaft. If you cannot connect deck drive shaft from the side of the tractor, you will have to access the mid-PTO shaft from the rear of the tractor, between the rear tires. Some 3-point hitch attachments may have to be temporarily removed to allow you to connect the deck drive shaft.



WARNING! Never position any part of your body beneath tractor implements held in the raised position only by the tractor's hydraulic system. A sudden loss of pressure could cause the implement to fall and could result in severe injury.

- Position the deck drive shaft so that it faces rearward from the deck gear box.

- Align the locking collar of the drive shaft with the mid - PTO shaft and slide the drive shaft fully onto the PTO shaft. If necessary, compress the locking collar of the drive shaft to ease connecting the shaft. See Figure 15.

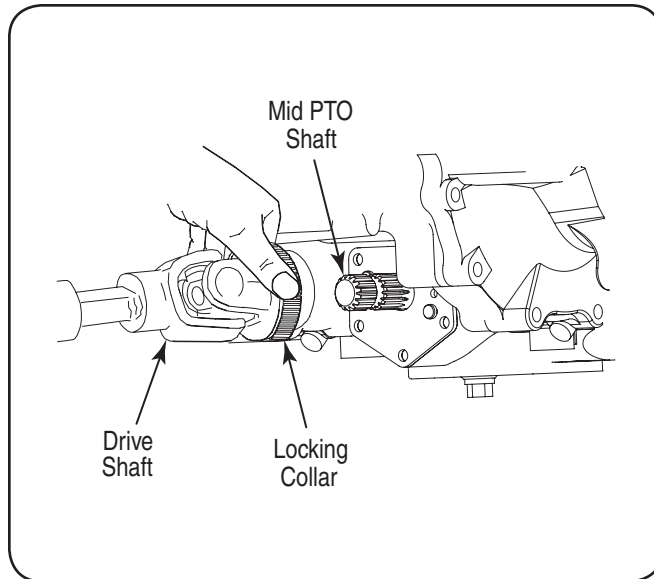


Figure 15

NOTE: It may be necessary to turn the pulleys on the deck slightly to align the splines of the drive shaft with those of the PTO shaft.

- Pull the drive shaft to make sure it is locked onto the PTO shaft. The drive shaft must not pull off of the mid - PTO shaft.

MOWING



WARNING! To avoid possible injury, never direct the discharge of material toward bystanders or allow anyone near the machine while in operation. Although the area has been supposedly cleared of foreign objects, small objects may be picked up and discharged by the mower.

NOTE: Prior to using the mower deck after installation, refer to the adjustment and leveling instructions in Section 8 "Adjustments."

For best results it is recommended that the first two laps should be cut with the discharge thrown towards the center. After the first two laps, reverse the direction to throw the discharge to the outside for the balance of cutting. This will give a better appearance to the lawn.

Do not cut the grass too short. Short grass invites weed growth and yellows quickly in dry weather.

Mowing should be done with the engine operating at the RPM recommended for the PTO powering the deck. Do not mow at high ground speed.

During certain times of the year and under some conditions, the mower may leave streaks of uncut grass.

Streaking may occur when attempting to mow heavy weeds and tall grass. Under these conditions it may be necessary to go back over the cut area a second time to get a clean cut.

The following practices will help eliminate streaking:

- Mow the area more often so the grass doesn't get too tall and heavy.
- Operate the tractor at the recommended RPM and at a slower forward speed.
- Keep the blades sharp and replace the blades when worn.

USING SUB-FRAME LOCK OUT

Removal of the mower deck is not necessary to utilize implements attached to the 3-point hitch. The sub-frame lock feature allows the 3-point hitch links to be raised and lowered without also raising and lowering the mower deck.

To engage the deck lock out feature, proceed as follows:

- On each side of the tractor, withdraw the clevis pin from the storage hole at the middle of the RH and LH sub-frame assemblies. Refer to Figure 9.
- Start the tractor engine and use the 3-point hitch control lever (refer to the tractor operator's manual) to raise the lift arms to their highest position. Stop the engine.
- From either side of the tractor, insert the clevis pin through the lockout bracket, beneath the rear lift arm, to secure the lift arm in the up position. See Figure 16.

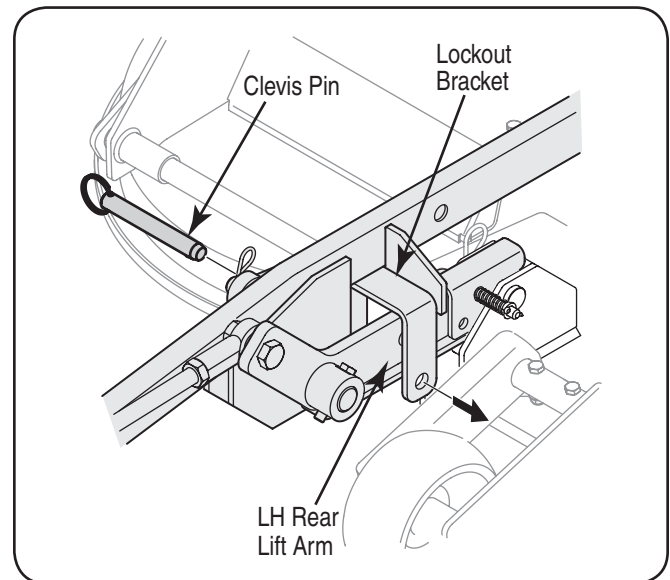


Figure 16

- Move to the other side of the tractor and insert the other clevis pin through the lockout bracket to secure the lift arm in the up position. Refer to Figure 16.

REMOVING THE MOWER DECK

If you choose to remove the mower deck from the tractor, proceed as follows:



WARNING! Do not attempt to disconnect the drive shaft when the tractor engine is running. Stop the tractor engine, disengage all PTO controls, engage the parking brake, and wait for all movement to stop before disconnecting the deck drive shaft.

- Adjust the front caster wheels and rear gauge wheels to their highest position (lowest deck position) and use the tractor 3-point hitch control lever to lower the deck to the ground. Refer to “Adjustments” later in this manual.



WARNING! Never position any part of your body beneath tractor implements held in the raised position only by the tractor’s hydraulic system. A sudden loss of pressure could cause the implement to fall and could result in severe injury.

NOTE: If accessing the deck drive shaft from the rear of the tractor, it may be necessary to temporarily remove some 3-hitch attachments.

- Accessing the drive shaft from either the side or the rear of the tractor, grasp the drive shaft locking collar and compress toward the body of the shaft to release and slide the shaft from the tractor’s mid-PTO shaft. Pivot the drive shaft to the side so that it rests on top of the deck housing. Refer to Figure 15.
- From each side of the tractor, remove the internal cotter pin and withdraw the clevis pin to disconnect the front lift links from the sub-frame front lift arms. Refer to Figure 14. Reinsert the clevis pins into the deck front lift links and secure with the internal cotter pins to store with the deck.
- From either side of the tractor, pull the release pin of the rear lift arm assembly out of the upper hole in the lock bracket; then slightly pivot the pin so that it is held outward against the side of the lock bracket. Refer to Figure 12.

- Slide the lock bracket up the lift arm until the lower hole in the lock bracket aligns with the pin hole in the lift arm. Pivot the release pin down to the lower hole and release so that the pin goes through the lock bracket and lift arm to fix the lock bracket in the raised (unlocked) position. See Figure 12.
- Repeat the procedure on the other side of the tractor to fix the lock bracket of the rear lift arm assembly in the raised (unlocked) position.
- Roll the deck forward to disengage the deck hitch bracket pins from the receiver slots of the RH and LH rear lift arms. Refer to Figure 13.
- Start the tractor engine and use the 3-point hitch control lever (refer to the tractor operator’s manual) to raise the lift arms to their highest position, and turn the front wheels of the tractor all the way to the left. Stop the engine.
- From the right side of the tractor, maneuver the deck out from underneath the tractor.
- The sub-frame front and rear lift arms should be secured in the locked out position when not in use. On each side of the tractor, withdraw the clevis pin from the storage hole at the middle of the RH and LH sub-frame assemblies. Refer to Figure 9.
- From either side of the tractor, insert the clevis pin through the lockout bracket, beneath the rear lift arm, to secure the lift arm in the up position. See Figure 15.
- Move to the other side of the tractor and insert the other clevis pin through the lockout bracket and rear lift arm. Secure with the internal cotter pin. Refer to Figure 16.

Follow the instructions from the subsection “Installing the Mower Deck” on page 11 to reinstall the mower deck after the initial installation has been completed.

SECTION 8: ADJUSTMENTS

ADJUSTING DECK GAUGE WHEELS

The 60" mower deck is equipped with ground following front caster wheels and is designed to be operated with the front caster wheels and rear gauge wheels on the ground. Consequently, the adjusted position of the front caster wheels and rear gauge wheels determine the cutting height.

There are six cutting height positions ranging from 1-1/4" to 5". Adjust the front caster wheels and rear gauge wheels to the desired cutting height before starting the engine to begin mowing.



WARNING! Stop the tractor engine, disengage all PTO controls, engage the parking brake, and wait for all movement to stop before adjusting the deck wheels.

Adjusting the Front Caster Wheels

There six index holes in the caster wheel shafts that are approximately 3/4" apart. Consequently, each index hole adjustment will raise, or lower, the mower deck approximately 3/4 of an inch. To adjust the front gauge wheels, determine your desired cutting height and proceed as follows:

- Use the tractor 3-point hitch control lever to raise the mower deck off of the ground.

- Working at the front caster wheel on either side of the deck, remove the internal cotter pin from the clevis pin securing the caster wheel shaft in the caster bracket. See Figure 17.

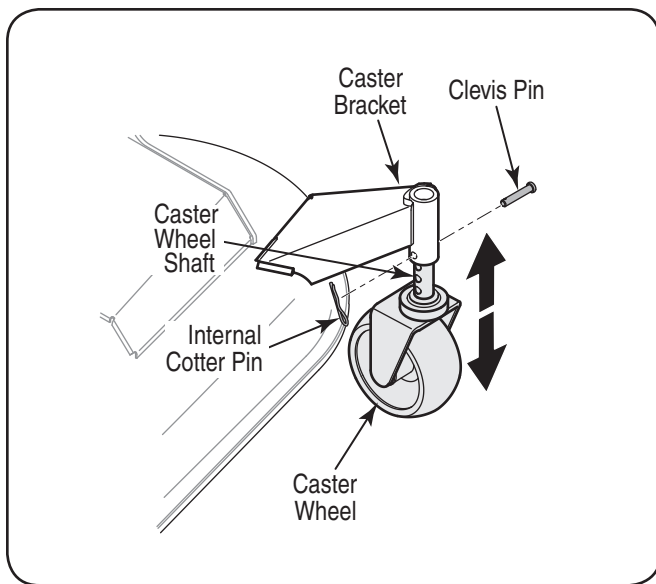


Figure 17

- Support the caster wheel and withdraw the clevis pin.
- Slide the caster wheel shaft up or down in the caster bracket to the desired height setting and align the index hole with the hole in the castor bracket. See Figure 17.
- Insert the clevis pin through the caster bracket and shaft, and secure with the internal cotter pin.
- Note the index hole used for the just adjusted caster wheel, and repeat the above procedure to adjust the other caster wheel to the same position.

Adjusting the Rear Gauge Wheels

The height adjustment handle on the left side of the deck is used to adjust the position of the rear gauge wheels. The rear gauge wheel index bracket on the deck also has six index holes, which correspond to the six index holes of the caster wheel shaft.

When adjusting the rear gauge wheels, the height setting should correspond to the selected setting for the front caster wheels. For example, if the front caster wheels were adjusted to their lowest index hole (lowest deck setting), the rear gauge wheels should be adjusted to their highest setting (lowest deck setting). Adjust the rear gauge wheels as follows:

- Use the tractor 3-point hitch control lever to raise the mower deck so that the rear gauge wheels are off the ground.
- Note which of the six shaft index holes the front caster wheels are set in.
- Remove the internal cotter pin from the clevis pin in the height adjust handle.

- Grasp the height adjust handle and withdraw the clevis pin. See Figure 18.

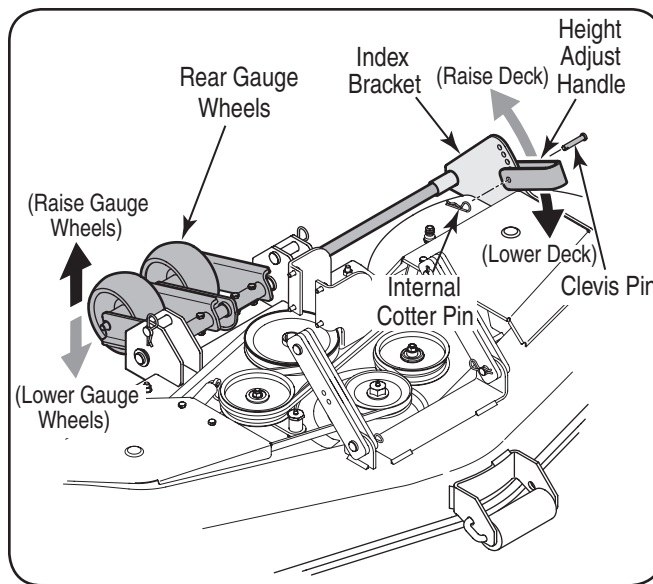


Figure 18

- Move the height adjust handle to the hole in the index bracket that corresponds to the index hole used to adjust the front caster wheels (the lower index bracket holes correspond to the lower caster wheel shaft holes - higher index bracket holes to higher caster wheel shaft holes). See Figure 18.
- Align the height adjust handle hole with the appropriate index bracket hole and re-insert the clevis pin through the handle and index bracket. Secure with the internal cotter pin. Refer to Figure 18.

NOTE: Whenever the front caster wheel position is changed, the rear gauge wheel position should also be adjusted.

LEVELING THE MOWER DECK

Although the mower deck is designed to operate with the front caster wheels and rear gauge wheels on the ground, some mowing conditions may require the mower deck to be operated with the deck wheels off the ground. To assure a quality cut in those situations, the deck should be properly leveled. Correct adjustment of the mower deck will level the deck from side to side, and provide the correct front to back pitch of the mower deck.

The mower deck should be leveled during the initial installation of the deck, and then periodically checked and re-adjusted as necessary.



WARNING! Before leveling the mower deck, position the tractor on a hard level surface, engage the parking brake lever and turn ignition key to the "OFF" position. ALWAYS stop the engine after utilizing the tractor hydraulic lift system. When handling the mower deck, be careful not to cut yourself on the sharp blades.

Side to Side Leveling

Most of the side to side leveling of the mower deck is accomplished with minor adjustment of one of the rear lift rod assemblies. However, the initial front to back adjustment of the front lift rod assemblies may affect the side to side leveling. For the initial leveling of the deck, perform the side to side leveling described below, adjust the front to back pitch of the deck, then recheck the side to side level and adjust as necessary.

NOTE: Check for proper tire inflation before checking and/or making a leveling adjustment.

When the deck is properly leveled, the left and right blades will have corresponding cutting-edge-to-ground measurements within 1/16 inch of each other.

- Use the tractor hydraulic lift system to raise the deck so that its wheels are off the ground. Stop the engine.
- Carefully rotate the outer cutting blades so that they are positioned perpendicular to the tractor frame. See Figure 19.

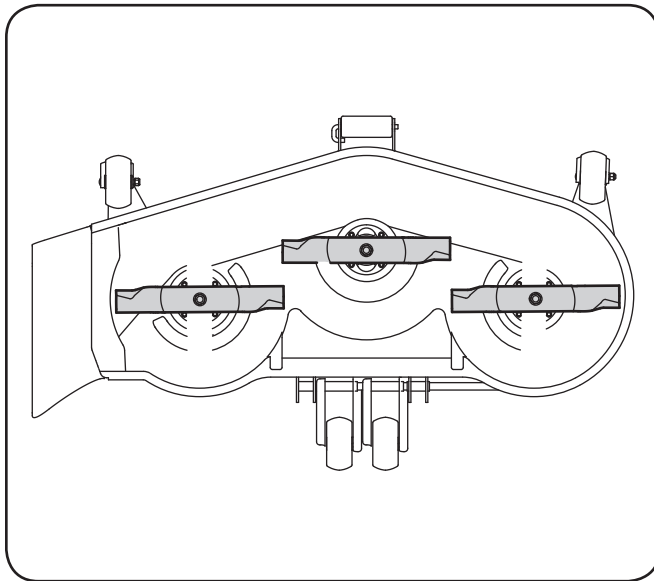


Figure 19

- Measure and record the distance from the level surface to the outer-most cutting edge of the right blade. Repeat this measurement for the left blade. If the two blade heights are not within 1/16 inch, the deck must be leveled. **Note which blade had the larger distance between the cutting edge and level surface.**
- From the rear of the tractor, work on the rear lift rod assembly on the side of the tractor with the LARGER ground to blade cutting edge measurement.

- Loosen the jam nut from against the ball joint on the rear of the rod assembly. See Figure 20.

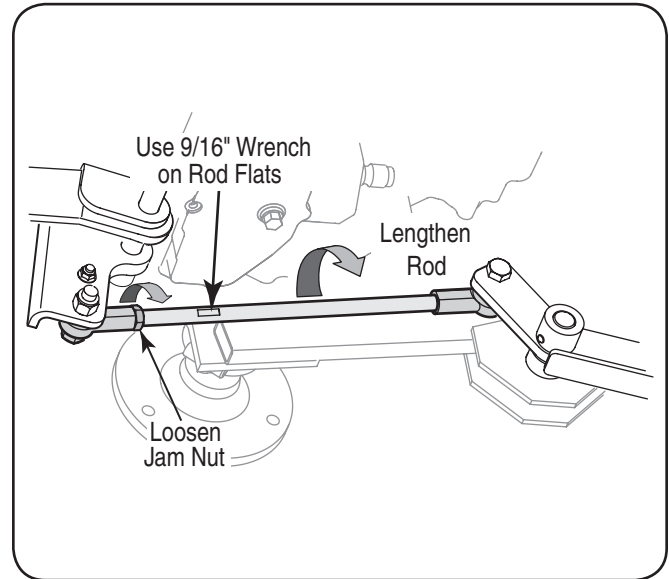


Figure 20

- Use a 9/16" wrench on the flats of the lift rod to turn the lift rod in the direction shown in Figure 19 to lengthen the rod. Turn the rod only in small increments, while continuing to measure the outer blade tip heights.
- When the blade tip heights are within 1/16" of each other, re-tighten the jam nut against the ball joint.

Front to Back Leveling

The front of the mower deck should be approximately 1/4" lower than the rear of the deck when hanging from the sub-frame with the front caster wheels and rear gauge wheels off the ground.

The front lift rods are adjusted at the factory, but may require additional adjustment when performing the initial installation of the mower deck onto the tractor.



WARNING! Engage the parking brake and turn ignition key to the "OFF" position. ALWAYS stop the engine after utilizing the tractor hydraulic lift system. When handling the mower deck, be careful not to cut yourself on the sharp blades.

- Start the tractor engine and use the 3-point hitch control lever (refer to the tractor operator's manual) to raise the mower deck so that its wheels are off the ground. Stop the engine.

- Carefully turn the outer blades of the mower deck so that the ends of the blades point to the front and rear of the deck. See Figure 21.

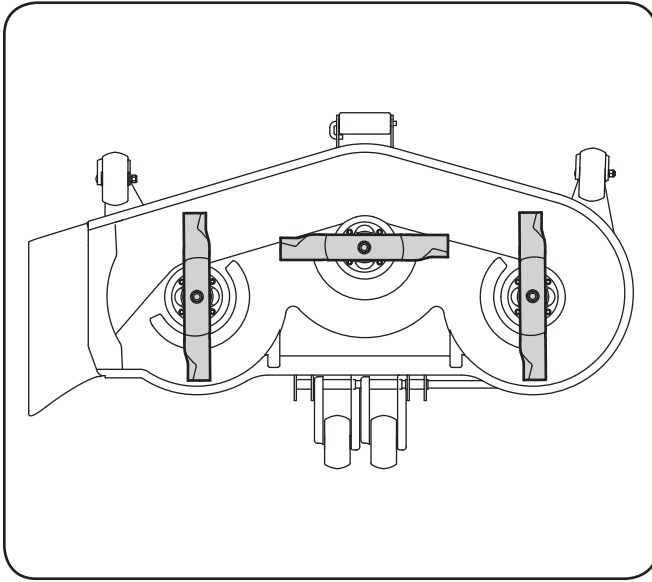


Figure 21

- Measure the distance from the front cutting edge tip of the blade to the ground. Then measure the distance from the rear cutting edge tip to the ground. Repeat to measure the outer blade on the other side of the deck. The front blade tip measurement should be approximately 1/4" less than the rear measurement, and the measurements should be approximately equal from side to side.
- If the difference between the front and rear blade tip heights is greater than 1/4 inch, the front lift rods assemblies should be shortened. If less than 1/4 inch, the rod assemblies should be lengthened.

- If adjustment is necessary, loosen the jam nuts and turn them away from the ball joints on the front end of the front lift rod assembly on each side of the tractor. See Figure 22.

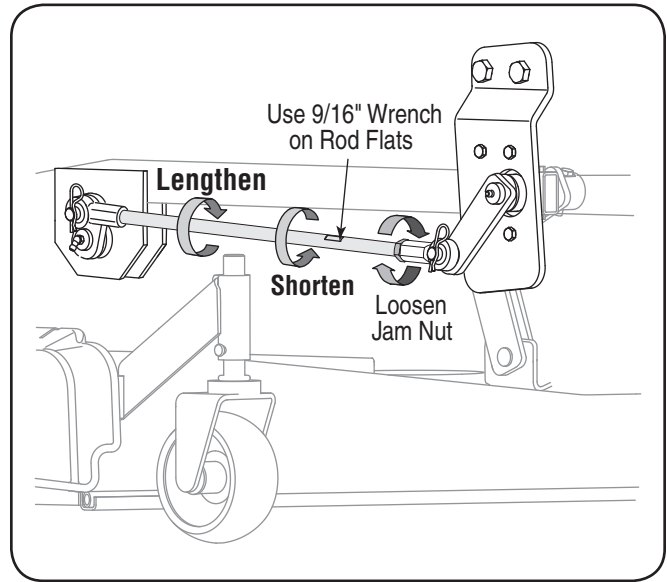


Figure 22

- On each side of the tractor, use a 9/16" wrench on the flats of each rod to turn the rod. Turn each rod as shown in Figure 22 to shorten the rod and raise the front of the deck, or to lengthen the rod and lower the front of the deck.
- Adjust both front lift rods in small increments, while continuing to re-measure the front and rear blade heights. When the deck is approximately 1/4" lower in the front, re-tighten the jam nuts against the front ball joints.
- If performing the initial leveling of the mower deck, re-position the blades and re-check the side to side level of the deck as described in the previous sub section "Side to Side Leveling."

SECTION 9: DECK MAINTENANCE

BLADE CARE



WARNING! Stop the tractor engine, disengage all PTO controls, engage the parking brake, and wait for all movement to stop before adjusting the deck wheels.

The cutting blades must be kept sharp at all times. Inspect and sharpen, or replace, the cutting blades as follows:

NOTE: Sharpen the cutting edges of the blades evenly so that the blades remain balanced and the same angle of sharpness is maintained.

- Remove the mower deck from the tractor as described earlier in this manual. Carefully tip the deck upward to access the bottom of the mower deck.
- To remove the blades, use a 1-1/8 inch wrench to hold the hex head of the spindle bolt, while using a second 1-1/8 inch wrench to loosen the hex flange nut securing the blade.

NOTE: A block of wood may be placed between the deck housing and the cutting edge of the blade to help in breaking loose the hex flange lock nut securing the blade.

- Inspect each blade. The cutting blades should be kept sharp at all times.
- Sharpen the cutting edges of the blades evenly so that the blades remain balanced and the same angle of sharpness is maintained.
- If the cutting edge of a blade has already been sharpened many times, or if any metal separation is present, it is recommended that a new blade be installed. New blades are available at your authorized dealer.
- When replacing the blades, be sure they are installed so that the wind wings are pointing upward toward the top of the deck housing. Secure the hex head of the spindle bolt and tighten the hex flange nuts to 90 to 110 ft-lbs. (122 to 149 N-m).
- After replacing the blades, apply grease the exposed threads at the bottom of the spindle bolts to prevent rust buildup.

CLEANING THE MOWER DECK

Using The Deck Wash System



WARNING! When using the deck wash system, never engage the deck from any position other than the operator's seat of the tractor. Do not engage the deck if bystanders are in the area.

- Attach the nozzle adapter (16) to a standard garden hose connected to a water supply.
- Move the tractor to an area within reach of the hose where the dispersal of wet grass clippings is not objectionable to you. Disengage the PTO, engage the parking brake, and stop the engine.
- Pull back the lock collar of the nozzle adapter and push the adapter onto the deck wash nozzle at the left end of the mower deck. Release the lock collar to lock the adapter on the nozzle. Refer to Figure 23.

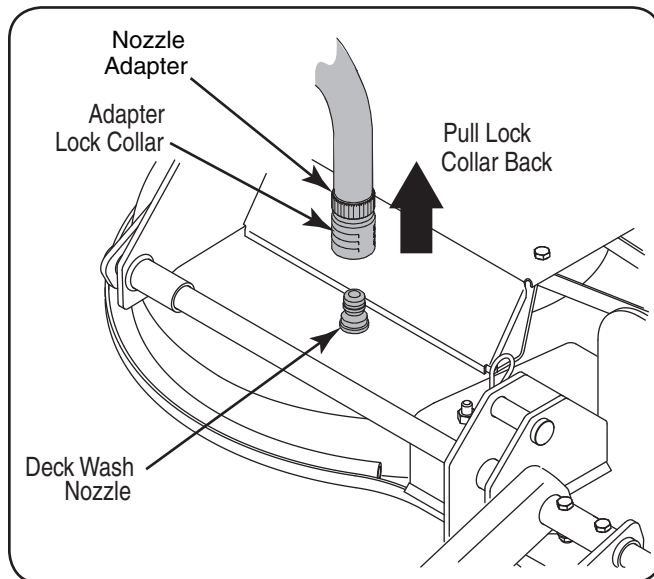


Figure 23

- Turn on the water supply.
- From the tractor operator's seat, start the engine and engage the mid - PTO. Allow to run as needed. Disengage the PTO and stop the engine.
- Turn off the water supply.
- Pull back the lock collar of the nozzle adapter to disconnect the adapter from the nozzle.
- Connect the nozzle adapter and hose to the deck wash nozzle on the right side of the deck, and repeat the previous steps to clean the mower deck.

Cleaning the Spindle Pulleys

Periodically remove the belt covers and remove any accumulated grass clippings from around the spindle pulleys and the deck belt.

- Remove the three hex screws fastening the RH belt cover. Refer to Figure 24.

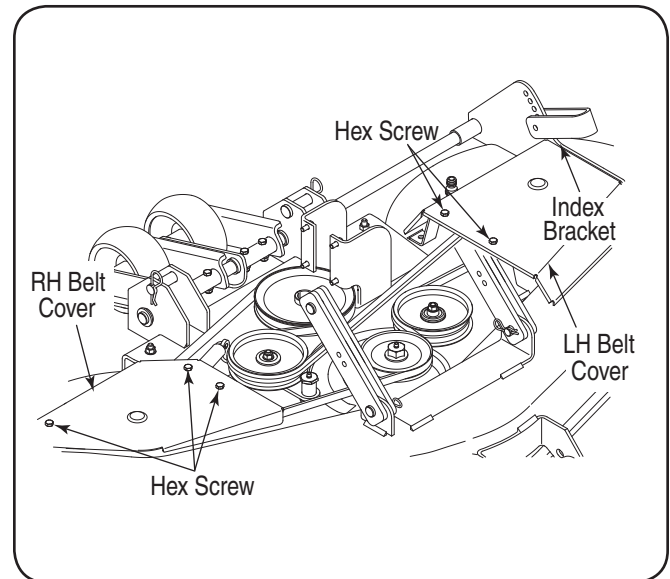


Figure 24

- Remove the two hex screws fastening the LH belt cover. Slide the belt inward to disengage its tabs from the slots in the index bracket on the deck. Refer to Figure 24.
- Clean away any grass clippings and debris that may have collected around spindle pulleys and belt.
- Align the LH belt cover tabs with the slots in the index bracket and push the cover outward so that the tabs are fully engaged in the slots and the cover holes align with the speed nuts on the cover brackets. Install the two hex screws and fully tighten.
- Position the RH belt cover to align its three holes with the speed nuts on the cover brackets. Install the three hex screws and fully tighten.

LUBRICATION

Lubricating the Mower Deck

Always lubricate the deck thoroughly before taking it to the field. Use a pressure lubricating gun to apply grease to the deck lube fittings.

- After every 10 hours of operation and/or before putting the deck into winter storage, lubricate the spindle assemblies and the idler bracket with 251H EP grease or an equivalent No. 2 multipurpose lithium grease. Remove the plugs from the RH and LH belt covers to access the two outer spindle lube fitting. Refer to Figure 25.

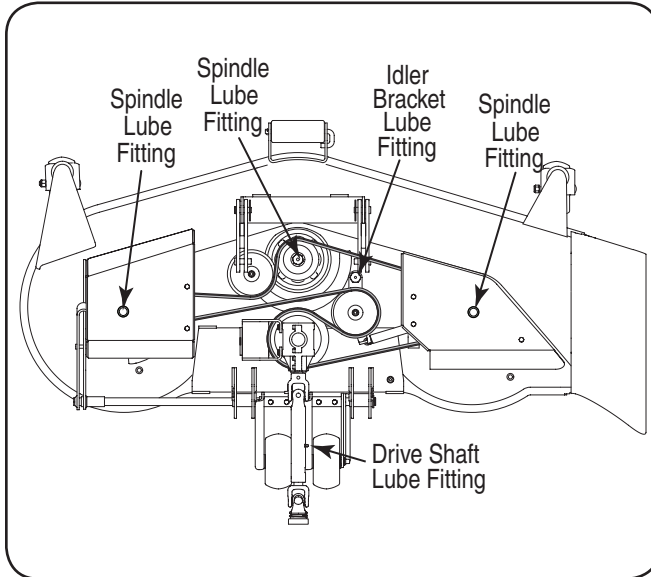


Figure 25

- After every 50 hours of operation and/or before putting the deck into winter storage, lubricate the drive shaft with 251HEP grease or an equivalent No. 2 multipurpose lithium grease. Refer to Figure 25.
- The deck gear box is lubricated and sealed, and does not require additional lubrication.
- Periodically lubricate the pivot hubs of the rear gauge wheel adjustment shaft with a good grade of lubricating oil.

Lubricating the Sub-Frame

The lift shafts of both the RH and LH sub-frame assemblies are equipped with lube fittings.

- After every 10 hours of operation, lubricate the two lift shafts on both the RH and LH sub-frame assemblies with 251H EP grease or an equivalent No. 2 multipurpose lithium grease. See Figure 26.

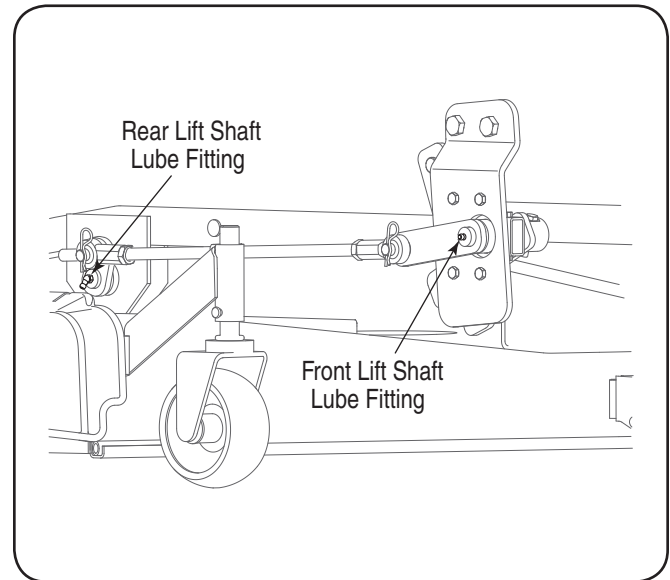


Figure 26

SPINDLE BELT REPLACEMENT

A worn spindle belt will affect the quality of cut from the mower deck and should be replaced. Referring to Figure 27, replace the spindle belt as follows:

Remove Spindle Belt

- Remove the two hex screws securing the LH belt cover to the deck. Slide the belt cover tabs from the slots of the deck index bracket to remove the cover. Refer to Figure 27

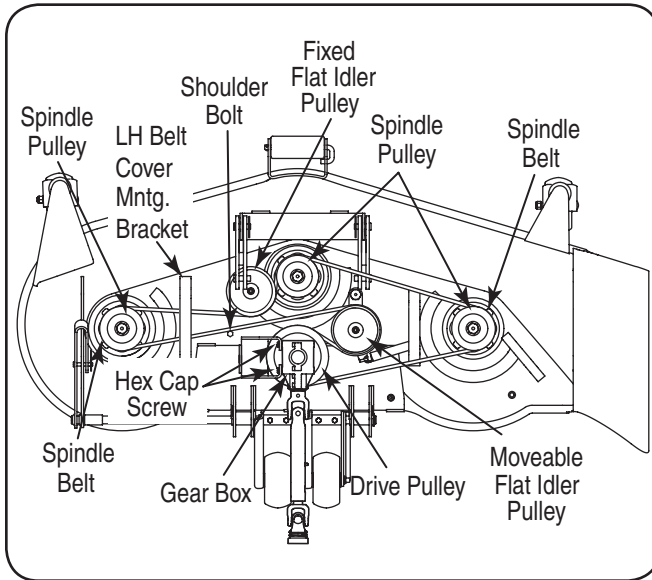


Figure 27

- Remove the three hex cap screws securing the RH belt cover and remove the belt cover.
- Observe the routing of the spindle belt to help ensure proper installation of the new belt.



WARNING! The idler arm and movable flat idler pulley are under spring tension. Use caution when handling the idler pulley.

- Push the movable flat idler pulley toward the left side of the deck to relieve belt tension. Slip the spindle belt up and off the movable flat idler pulley, then carefully release the flat idler

pulley.

- Slide the belt off and over the LH spindle pulley, then pull the belt under the LH belt cover mounting bracket. See Figure 27.
- Slip the belt off the fixed flat idler pulley, center spindle pulley, and RH spindle pulley.
- Remove the four hex cap screws securing the gear box to the gear box mounting bracket on the deck.
- Lift the gear box, slip the belt off and underneath the drive pulley, and remove the belt from the deck.

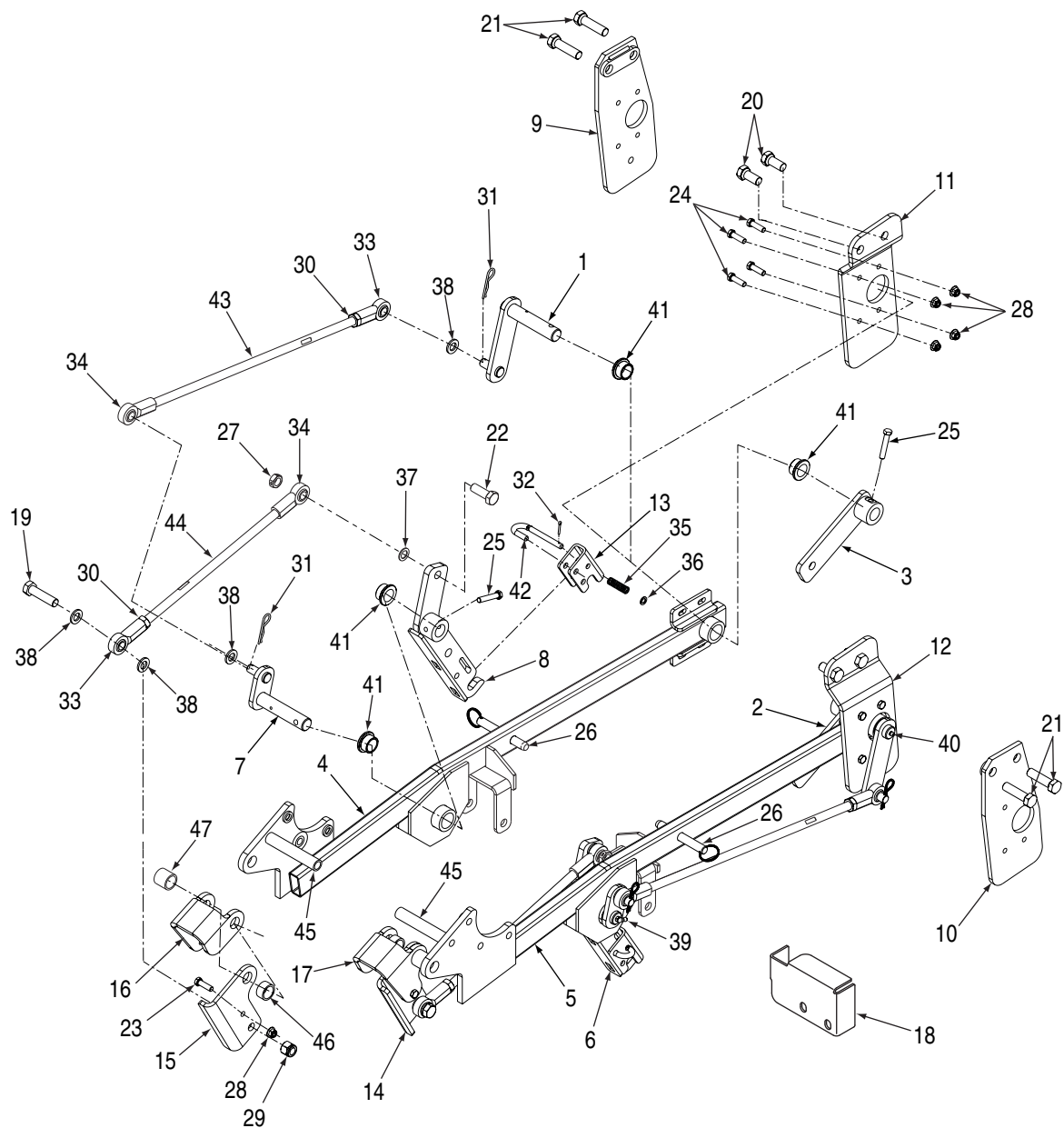
Install New Spindle Belt

- Lift the gear box assembly to install the belt around the drive pulley.
- Position the gear box to align its four screw holes with the gear box mounting bracket holes. Secure with the four hex cap screws removed earlier.
- Route the backside of the belt around the back and right of the movable flat idler pulley as shown in Figure 27.
- Loop the belt and route in front of the shoulder bolt toward the left side of the deck. Slide the loop of the belt underneath the LH belt cover mounting bracket, and place the belt in the groove of the LH spindle pulley. See Figure 27.
- Then route the belt as follows:
 - Around the rear of the fixed flat idler pulley
 - Around the front of the center spindle pulley
 - To the right spindle pulley
- After making certain the spindle belt is properly engaged in each pulley and that the backside of the belt is against the shoulder bolt, pivot the movable flat idler pulley toward the left side of the deck to relieve tension and to allow the belt to be rolled onto the right hand spindle pulley.
- Install the belt covers and secure with the hex cap screws.

NOTES

SECTION 10: PARTS LIST

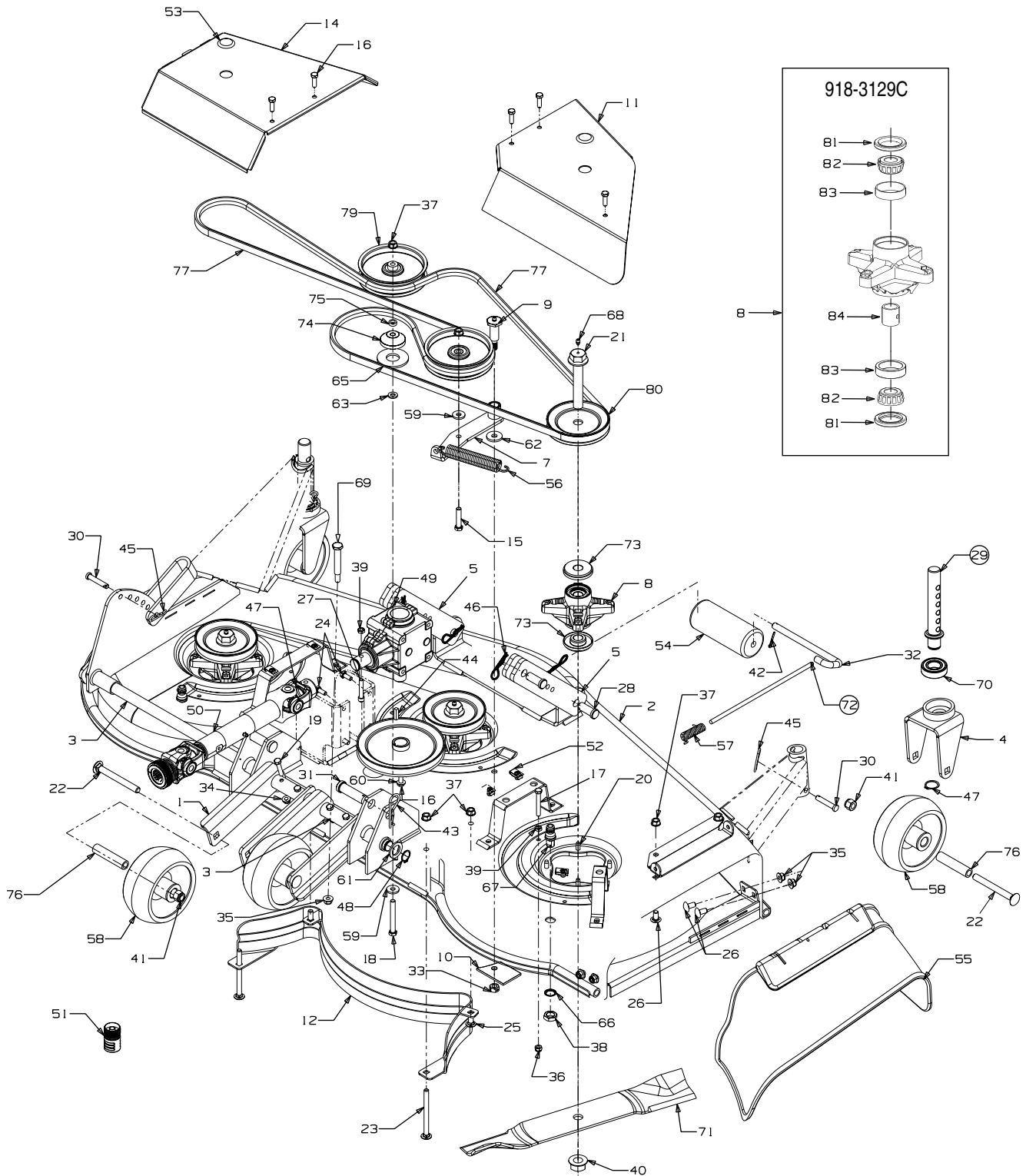
Sub-Frame



Ref. No.	Part Number	Description	Qty.
1	603-04420	Deck Sub-Frame Shaft	2
2	603-04421	Front Lift Arm, RH	1
3	603-04422	Front Lift Arm, LH	1
4	603-04423A	Sub-Frame Rail, LH	1
5	603-04424A	Sub-Frame Rail, RH	1
6	603-04425	Rear Lift Arm, RH	1
7	603-04426	Rear Lift Shaft	2
8	603-04427	Rear Lift Arm, LH	1
9	603-04440	Loader Adapter Bracket, LH	1
10	603-04441	Loader Adapter Bracket, RH	1
11	703-06026	Sub-Frame Mounting Bracket, LH	1
12	703-06027	Sub-Frame Mounting Bracket, RH	1
13	703-06095	Lock Pin Bracket	2
14	703-06162	Breakaway Lift Bracket, RH	1
15	703-06163	Breakaway Lift Bracket, LH	1
16	703-06164	Lift Bracket, LH	1
17	703-06165	Lift Bracket, RH	1
18	703-06201	Mid PTO Cover	1
19	710-04129	Hex Cap Screw, 5/8-11 x 2.5	2
20	710-04697	Hex Cap Screw, M16-2.0 x 35	4
21	710-04700	Hex Cap Screw, M16-2.0 x 60	4
22	710-04706	Hex Cap Screw, 5/8-11 x 1.75	2
23	710-04712	Hex Cap Screw, 3/8-16 x 1.25	2
24	710-3005	Hex Cap Screw, 3/8-16 x 1.25	8

Ref. No.	Part Number	Description	Qty.
25	710-3144	Hex Cap Screw, 3/8-16 x 2.0	4
26	711-04845	Pin, .625	2
27	712-0261	Jam Lock Nut, 5/8-16	2
28	712-04065	Hex Lock Nut, 3/8-16	10
29	712-3016	Hex Lock Nut, 5/8-11	2
30	712-3056	Hex Jam Nut, 5/8-18	4
31	714-04003	Internal Cotter Pin, .125 x 2.5	4
32	714-0474	Cotter Pin, .125 x .75	2
33	723-04050	Ball Joint, .625 x 5/8-18	4
34	723-04061	Ball Joint, .625 x 5/8-18	4
35	732-0306A	Compression Spring, .531 x 1.75	2
36	736-0140	Flat Washer, .385 x .62 x .063	2
37	736-0290	Flat Washer, .625 x 1.0 x .067	2
38	736-0366	Flat Washer, .64 x 1.12 x .125	8
39	737-04091	Lube Fitting	2
40	737-3000	Lube Fitting	2
41	741-0558	Flange Bearing, 1.0 x 1.125 x 1.62	8
42	747-04702	Deck Release Rod	2
43	747-04831	Rod, 23.735 Lg LH/RH Thrd.	2
44	747-04832	Rod, 15.25 Lg LH/RH Thrd.	2
45	750-04858	Spacer, .625 x 4.95	2
46	750-04877	Spacer, 1.25 x .625	2
47	750-04878A	Spacer, 1.25 x 1.25	2

Mower Deck



Ref. No.	Part Number	Description	Qty.	Ref. No.	Part Number	Description	Qty.
1	603-04413	Deck Wheel Bracket	2	43	714-0117	Internal Cotter Pin	2
2	603-04416	Deck Housing	1	44	714-0128	Square Key, 1/4 x 1.0	1
3	603-04418	Wheel Height Adjustment Handle	1	45	714-0147	Internal Cotter Pin	3
4	603-04419	Caster Wheel Yoke Bracket	2	46	714-04003	Internal Cotter Pin	4
5	603-04430	Front Lift Link	2	47	716-0102	Snap Ring	1
6	603-0662	Deck Guard	1	48	716-0111	External Retaining Ring	1
7	603-0848A	Idler Bracket	1	49	717-04415	Gearbox	1
8	918-3129C	Spindle Assembly	3	50	717-04422	Deck Drive Shaft	1
9	638-04012A	Shoulder Bolt Assembly	1	51	721-04041	Nozzle Adapter	1
10	703-05658	Idler Support Plate	1	52	726-0211	Speed Nut, 5/16-18	5
11	703-06199	Belt Cover, RH	1	53	726-3045	Plug Button	2
12	703-3248	Deck Baffle	1	54	731-3005	Front Roller	1
13	703-3250	Chute Deflector Bracket	1	55	731-3257	Chute Deflector	1
14	703-3273	Belt Cover, LH	1	56	732-0850	Extension Spring, 1.0 x 6.14	1
15	710-0347	Hex Cap Screw, 3/8-16 x 1.75	1	57	732-0939	Torsion Spring	1
16	710-0376	Hex Cap Screw, 5/16-18 x 1/0	6	58	734-04314	Caste Wheel	4
17	710-0395	Hex Cap Screw, 5/16-18 x 2.25	1	59	736-0258	Flat Washer, .385 x 1.0 x .135	2
18	710-0521	Hex Cap Screw, 3/8-16 x 3.0	1	60	736-0275	Flat Washer, .344 x .688 x .065	1
19	710-0805	Hex Cap Screw, 5/16-18 x 1.5	4	61	736-0291	Flat Washer, .88 x 1.38 x .125	1
20	710-1260A	Hex Washer Screw, 5/16-18 x .75	12	62	736-0322	Flat Washer, .45 x 1.25 x .164	1
21	710-1336A	Spindle Bolt, 3/4-16 x 4.25	3	63	736-0354	Flat Washer, .39 x .75 x .105	1
22	710-1638	Carriage Screw, 1/2-13 x 4.5	4	64	736-0362	Flat Washer, .33 x 1.25 x .06	1
23	710-1649	Carriage Screw, 3/8-16 x 4.25	2	65	736-04167	Flat Washer, 1.063 x 2.5 x .16	1
24	710-1880	Hex Screw, 5/16-18 x .75	4	66	736-0760	Lock Washer	1
25	710-3168	Carriage Bolt, 3/8-16 x 1.0	2	67	737-04003C	Deck Wash Nozzle	2
26	710-3178	Carriage Bolt, 3/8-16 x .75	6	68	737-3000	Lube Fitting	3
27	710-3251	Socket Screw, 5/16-18 x 1.75	1	69	738-03056	Shoulder Bolt, .496 x 2.5:3/8-16	1
28	711-04715	Clevis Pin, .625 x 1.5	4	70	741-0941	Ball Bearing	2
29	711-04729A	Gauge Wheel Shaft	2	71	759-04013	High Lift Blade	3
30	711-0679A	Clevis Pin, 3/8 x 2.015	3	72	747-3384	Chute Deflector Rod	1
31	711-1643	Clevis Pin, 3/4 x 2.5	2	73	748-3065A	Spindle Spacer	6
32	711-3314	Roller Pin, 1/2 x 7.31	1	74	748-3087	Idler Spacer	1
33	712-0290	Hex Lock Nut, 7/16-14	1	75	750-0535	Spacer, .38 x .625 x .21	1
34	712-04063	Hex Lock Nut, 5/16-18	4	76	750-3222	Caster Wheel Axle	4
35	712-04065	Hex Lock Nut, 3/8-16	5	77	754-3103	V-Belt	1
36	712-0429	Hex Lock Nut, 5/16-18	1	78	756-04292	Drive Pulley	1
37	712-0431	Hex Lock Nut, 3/8-16	7	79	756-3062	Idler Pulley, 5.0	2
38	712-0641	Hex Nut, M16 - 1.5	2	80	756-3096	Spindle Pulley	3
39	712-3046	Hex Lock Nut, 5/16-18	2	81	721-3018A	Oil Seal	6
40	712-3078	Hex Lock Nut, 3/4-16	2	82	741-04129	Cone Bearing	6
41	712-3083	Hex Lock Nut, 1/2-13	4	83	741-04130	Bearing Cup	6
42	714-0115	Cotter Pin, 1/8 x 1.0	1	84	750-04409	Bearing Spacer	3

