OPERATOR'S MANUAL & PARTS LIST

RIDING MOWER MODELS

524V/42
526V/52

THE GRASSHOPPER COMPANY
Moundridge, Kansas 67107 U.S.A.
(620) 345-8621
GRASSHOPPERMOWER.COM

Price $7.00

Form 172088-190618
Printed in U.S.A.

INTRODUCTION

Congratulations on your selection of Grasshopper equipment. We believe you have exercised excellent judgment in the purchase of Grasshopper equipment. We are most appreciative of your patronage.

We recommend that you carefully read this entire manual before operating the unit. Time spent becoming fully acquainted with its performance features, adjustments and maintenance will add a longer and more satisfactory life to your Grasshopper.

The Grasshopper equipment you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products it will require cleaning and upkeep. Lubricate it as specified in the manual. Observe all safety information in this manual and all safety decals on the tractor and attachments.

The illustrations and data used in this manual were current at the time of printing, but due to possible in-line production changes your machine may vary slightly in detail. The manufacturer reserves the right to make changes or add improvements to its products at any time without incurring any obligation to make such changes to products manufactured previously.

As with all lawn and grounds equipment, if handled carelessly this machine is a dangerous piece of equipment. **If used incorrectly this machine can cause severe injury.** You, the operator, are responsible when operating it. Therefore, safety is of the utmost importance.

Safety & Operation video

To view the video, scan the QR code or enter the web address

English **Spanish**

English www.grasshoppermower.com/safeops

Spanish ww.grasshoppermower.com/safeops_span

"EMISSION CONTROL INFORMATION"

THIS EQUIPMENT MEETS 2018 U.S.
EPA EVAP STANDARDS: 40 CFR PART 1060
FOR NONROAD EQUIPMENT.

EVAPORATIVE EMISSIONS FAMILY: JMRMPNHEQGH1

MFG'D BY: MORIDGE MANUFACTURING INC.

JAN	FEB	MAR	APR	MAY	JUN	2018
JUL	AUG	SEP	OCT	NOV	DEC	

165310

Part No. 165310

ATTENTION:

- **Read the instructions and warnings carefully before using this machine.**
- **Read your Grasshopper warranty enclosed with the tractor manual. To validate warranty, fill in the required information and return the warranty form within 10 days of purchase to:**

THE GRASSHOPPER CO.
P.O. Box 637
Moundridge, Kansas 67107

Use only genuine Grasshopper service parts. Substitute parts will void the warranty and may not meet standards required for safe and satisfactory operation. Record the model and serial number of your mower.

MODEL:_____

SERIAL NUMBER: _____
(Serial tag is located tractor frame bottom, left of engine.)

Provide this information to your dealer to obtain correct repair parts.

FindAGrasshopperDealer.com

IMPORTANT: This equipment is equipped with an evaporative emission control system (EECS) as required by the US Environmental Protection Agency (EPA). The EECS includes the carburetor, fuel tank(s), fuel hoses, fuel cap(s), valve(s), vapor hoses, filters, clamps, and connectors. These parts should be maintained properly and replaced as needed. DO NOT remove, or modify any part of the EECS.

IMPORTANT: This equipment DOES NOT meet the requirements of the California Air Resources Board (CARB) for evaporative emissions. DO NOT operate this equipment in the State of California.

IMPORTANT: This engine is not equipped with a spark arrester muffler. It is a violation of California Public Resource Code Section 4442 to use or operate the engine on any forest-covered, brush-covered or grass-covered land. Other states or federal areas may have similar laws.

The enclosed *Engine Owner's Manual* is supplied for information regarding the US Environmental Protection Agency (EPA) and the California Emission Control Regulation of exhaust emission systems, maintenance and warranty. Replacements may be ordered through the engine manufacturer.

⚠ WARNING

Engine exhaust, and certain components of this product contain or emit chemicals known to the state of California to cause cancer, birth defects and other reproductive harm. www.P65Warnings.ca.gov

TABLE OF CONTENTS

(continued)

TABLE OF CONTENTS - (CONTINUED)

SPECIFICATIONS

	524V/42	526V/52
Engine	Briggs & Stratton two cylinder, 4 cycle, air cooled	Vanguard two cylinder, 4 cycle, air cooled
Horsepower (G.I.H.P.) *	24 (17.9 kw)	26 (19.4 kw)
Displacement	44.2 cu. in. (724 cc)	49.4 cu. in. (810 cc)
No-load r.p.m.	3600	3600
Charging System	12VDC 16 amp. negative ground	12VDC 16 amp. negative ground
Starter	Electric	Electric
Electrical System	Safety interlocked	Safety interlocked
* Engine Manufacturer's Gross Hp Rating		
Deck Drive	Electric clutch	Electric clutch
Drive System	Dual path hydrostatic direct drive	Dual path hydrostatic direct drive
Steering	Dual levers independently control speed and direction of travel. Zero turning radius	Dual levers independently control speed and direction of travel. Zero turning radius
Speed		
Forward (variable)	0-8mph (12.9km/h)	0-8mph (12.1km/h)
Reverse (variable)	0-5.5mph (9.6km/h)	0-5.5mph (9.6km/h)
Fuel Tank Capacity	4.0 U.S. gal. (15.1 L)	4.0 U.S. gal. (15.1 L)
Tire Sizes		
Drive Wheels - 4 ply rated	20 x 8 x 10	20 x 8 x 10
Tail Wheel(s) - 4 ply rated	13 x 6.5 x 6 rib (Single)	13 x 6.5 x 6 rib (Wide Stance Single)
Dimensions of Tractor		
Seat Back Height	45" (1.14 m)	45" (1.14 m)
Seat Cushion Height	28" (0.71 m)	28" (0.71 m)
Tractor Width	42" (1.07 m)	42" (1.07 m)
Tractor Length	74" (1.88 m)	74" (1.88 m)
Wheel Base	48" (1.22 m)	48" (1.22 m)
OAL Length (Tractor & Deck)	104" (2.64 m)	107" (2.72 m)
Tractor only:		
Weight - Uncrated	650 lbs (295 kg)	650 lbs (295 kg)
Tractor& Deck:		
Weight - Uncrated	935 lbs (424 kg)	1025 lbs (465 kg)
Weight - Crated	1195 lbs (542 kg)	1290 lbs (585 kg)
Hour Meter	Standard	Standard

SAFETY SYMBOLS

This Safety Alert Symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**

Throughout this manual the term **IMPORTANT** is used to indicate that failure to observe can cause damage to equipment. The terms **CAUTION, WARNING** and **DANGER** are used in conjunction with the Safety Alert Symbol [a triangle with an exclamation mark] to indicate the degree of hazard for items of personal safety.

⚠ CAUTION

Is used for general reminders of good safety practices or to direct attention to unsafe practices.

⚠ WARNING

Denotes a specific potential hazard.

⚠ DANGER

Denotes the most serious specific potential hazard.

SAFETY DECALS

Replace Immediately If Damaged

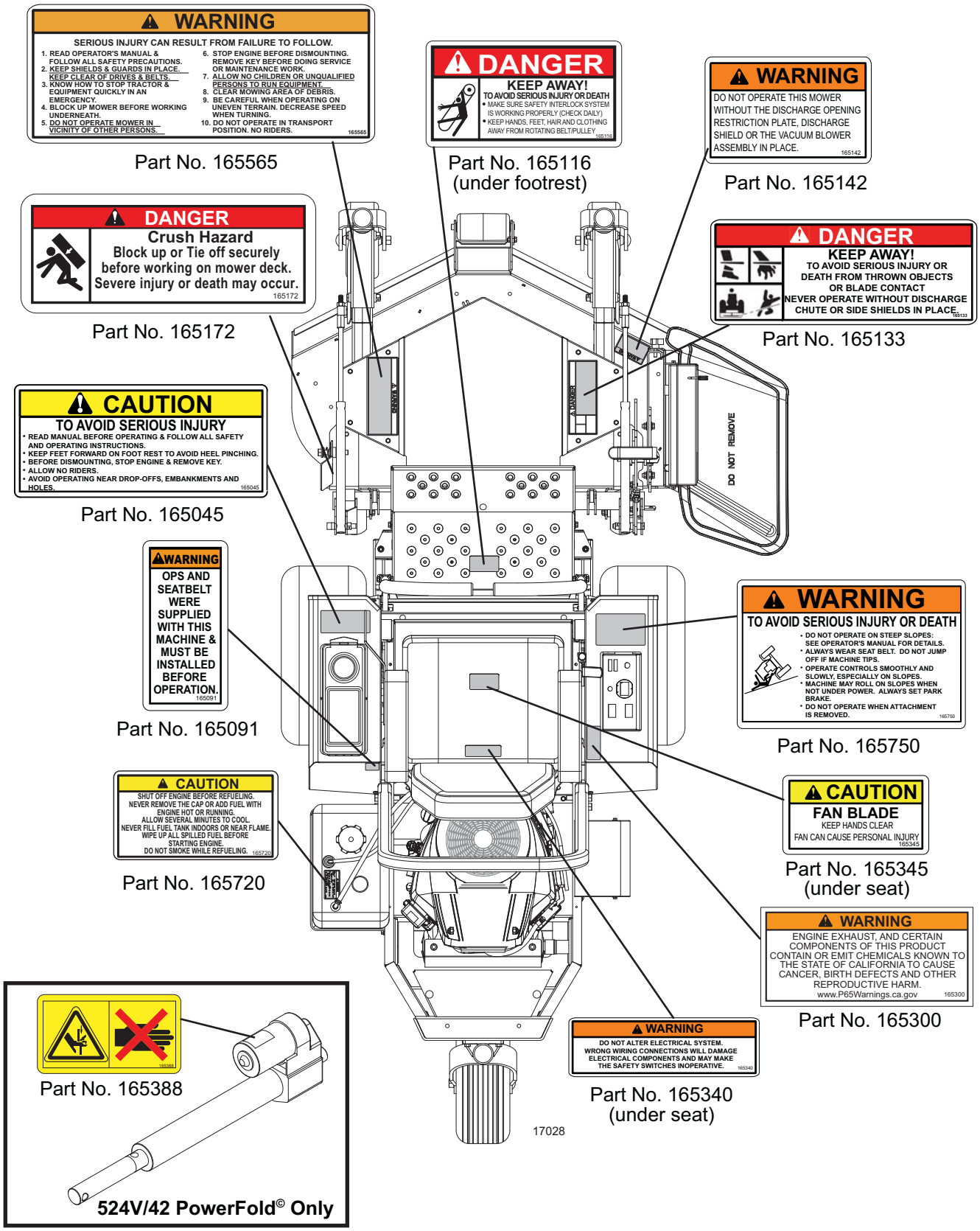


Fig. 1

WORK SAFELY - FOLLOW THESE RULES

⚠ CAUTION

The designed and tested safety of this equipment depends on it being operated within the limitations as explained in this manual. Read manual before operating.

TRAINING

- Safety instructions are important! **READ THIS MANUAL AND ALL SAFETY RULES.**
- Know your equipment's controls and how to stop tractor, engine and attachments quickly in an emergency.
- To avoid accident or injury, do not allow anyone to operate this equipment without proper instruction. Any person who operates this equipment **MUST** be instructed in and capable of the safe operation of the unit, its attachments and all controls.
- Do not allow children or unqualified individuals to operate equipment.

PREPARATION

- 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.
- This machine produces sound levels in excess of 85 dBA at the operator ear and can cause hearing loss through extended periods of exposure. Wear hearing protection when operating this machine.
- Walk around machine and visually inspect for damaged, loose, or missing components. Do not operate unless all components are properly mounted, adjusted and in good working condition.
- Ensure attachments are properly mounted, adjusted and in good operating condition.
- Ensure OPS is in good condition and installed properly. Never modify OPS with holes, notches or welding. If OPS is damaged, it must be replaced.
- Check brake action before you operate. Adjust or service brakes as necessary.
- Ensure all safety switches function properly. See Operation section for details.
- Remove accumulated debris from attachment and tractor to avoid fire hazard.
- Ensure all safety shielding is in good condition and properly installed.
- Ensure either the discharge shield, restriction plate, or complete vacuum attachment is installed.
- Ensure all safety decals are installed and in good condition.
- Use correct counterweights when certain attachments are installed (see specific accessory installation instructions).
- Inspect area to be cut removing stones, branches and other debris that might be thrown causing injury or damage.
- Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job.
- Low-hanging branches and similar obstacles can injure the operator or interfere with mowing operation. Before mowing, identify potential obstacles such as low-hanging branches, and trim or remove those obstacles.
- Never permit any person, other than the operator, to ride or board the tractor or implements at any time.
- Operate only in daylight or good artificial light.

FUEL HANDLING SAFETY

- In certain conditions, gasoline, ethanol, diesel and other types of fuel are extremely flammable and highly explosive. A fire or explosion from fuel can burn you and others and can damage property.
- Fill the fuel tank outdoors, in an open area, when the engine is cold. Wipe up any fuel that spills.
- Do not remove the fuel cap if the engine or fuel tank is hot. Allow several minutes to cool.
- Remove the fuel cap slowly to release any pressure from the fuel tank.
- Do not fill the fuel tank completely full. Add fuel to the fuel tank until the level is .25" to .5" (6 mm to 13 mm) below the bottom of the filler neck. This empty space in the

tank allows fuel to expand.
- Never smoke when handling fuel, and stay away from an open flame or where fuel fumes may be ignited by a spark.
- Store fuel in an approved container and keep it out of the reach of children. Never buy more than a 30-day supply of fuel.
- Never store antifreeze or oil in the fuel container.
- Always place fuel containers on the ground away from your vehicle before filling.
- Do not fill fuel containers inside a vehicle or on a truck or trailer bed because interior carpets or plastic truck bed liners may insulate the container and slow the loss of any static charge.
- When practical, remove equipment from the truck or trailer and refuel the equipment with its wheels on the ground.
- If this is not possible, then refuel such equipment on a truck or trailer from a portable container, rather than from a fuel dispenser nozzle.
- If a fuel dispenser nozzle must be used, keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete.
- Never use cellular phones or other portable electronic devices when handling fuel.

FILLING THE FUEL TANK

- Always fill the fuel tank with the machine parked on a hard LEVEL surface with the engine stopped, the park brake set, and the key removed from the ignition.
- Do not fill the fuel tank completely full. Air space is required in the full tank to allow the fuel to expand and contract with temperature changes. A valve is located in the top center of the tank to allow air to enter and exit the tank.
- Never remove the fuel cap or fill the fuel tank when the engine is hot. Allow several minutes to cool.
- Filling the fuel tank, with the machine parked on a slope, can cause you to over fill the tank.

OPERATIONAL SAFETY

- Read “Operation” section of this manual before attempting to operate this unit.
- This machine is equipped with an Operator Protective Structure (OPS) and a seat belt. Do not operate this machine without the OPS installed and in good condition.
- Always wear the seat belt.
- Fenders serve as shields. Do not operate without them.
- Keep bystanders away from equipment while it is in operation.
- Keep children and pets a safe distance away. Never direct discharge toward anyone.
- Start engine from operator’s seat after disengaging PTO and placing steering levers into the neutral swing-out position.
- Keep hands and feet away from underneath mower while engine is running. Stay clear of all moving parts on tractor and attachments.
- Wear suitable hearing protection when operating this machine.
- Never allow anyone behind tractor or in front of implements when operating.
- Do not operate in reverse unless absolutely necessary and then only after careful observation of the entire area behind you.
- If operator must dismount to make adjustments the engine must not be running.
- Do not move steering levers from forward to reverse or reverse to forward position rapidly. The sudden change could cause loss of control especially on slopes.
- Do not operate on steep slopes.
- Do not stop, start or change directions suddenly on slopes.
- Use extreme care and maintain minimum ground speed when traveling or operating on a hillside, over rough ground, or when operating close to ditches and fences.
- Reduce speed on slopes and sharp turns to minimize tipping and avoid loss of control. Be careful when changing directions on slopes.
- Stay alert for holes, rocks, roots and other hidden hazards in the terrain. Keep away

from drop-offs and soft embankments.
- Stop mower or other attachment and tractor immediately upon striking an obstruction. Turn engine off, inspect attachment and tractor. Repair any damage before resuming operation.
- Disengage power to attachment, stop engine, remove key and wait for all movement to stop before dismounting, making adjustments, cleaning, or unclogging the machine.
- Never transport attachments with PTO running. Disengage PTO before crossing streets, sidewalks, driveway, etc.
- Watch for traffic when operating near or crossing roadways.
- This unit is not equipped for highway use, especially when safety lighting and marking is required. It is not a recreational vehicle.
- This unit is not equipped with a drawbar. Do not pull loads.
- Take all possible precautions when leaving tractor unattended: disengage PTO, lower attachment, place controls in neutral, set parking brake, stop engine and remove key from ignition.
- Move very slowly when attachment is removed. Never carry passengers.
- Do not run engine in an enclosed area without adequate ventilation. Exhaust gases contain carbon monoxide, an odorless and deadly poison.

MAINTENANCE SAFETY

- Always perform maintenance with the machine parked on a hard level surface; with the engine stopped and the PTO disengaged; with the park brake set; and with the key removed from the ignition.
- Always remove the grounded (-) clamp from the battery when performing maintenance on the engine, clutch, or any other electrical system.
- Never work under the machine without jack stands or other equivalent safety blocks. Do NOT rely solely on mechanical or hydraulic jacks or lifts for support. Always use adequate wheel chocks on tires remaining on the ground.
- Never work under the attachment without holding it in the upright position with chains or straps or blocking underneath the deck. Do NOT rely solely on the electric or hydraulic system.
- Hydraulic hoses can fail due to physical damage, kinks, age, and exposure. Check hoses regularly. Replace damaged hoses.
- Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.
- Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.
- If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension. If an exhaust pipe extension is not available, work near open doors and get outside air into the area.
- Waste products such as used oil, fuel, coolant, and batteries can harm the environment and people. Dispose of waste products properly.
- Never attempt to disconnect or alter any part of the safety interlock systems.
- Keep engine free of grass, leaves, or excess grease to reduce fire hazard and minimize engine overheating.
- Do not change engine governor settings.
- Keep tractor and attachments in good operating condition and all safety devices in place.
- Periodically tighten all bolts, nuts and screws. Check that all locking pins are properly installed to ensure equipment is in a safe condition.
- Check brake operation frequently. Adjust and service as required.

STORING SAFELY

- Never store equipment with fuel in the tank inside a building where fumes may reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer, or other gas appliance. Allow engine to cool before storing in an enclosure.
- If engine is to be unused for 30 days or more, add a fuel stabilizer to the fuel system. Fuel stabilizer (such as STA·BIL®) is an acceptable additive in minimizing the formation of fuel gum deposits during storage. Add stabilizer to fuel in fuel tank or storage container. Always follow mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow it to reach the carburetor or injectors.
- If draining fuel tank, drain fuel into an approved container outdoors and away from open flame.
- Always provide adequate ventilation when running engine indoors. Exhaust gases contain carbon monoxide, an odorless and deadly poison.
- Remove attachments from tractor.
- Never store an attachment in the raised position without securing the attachment with chains or straps or blocking underneath the attachment. It is best to remove attachment from tractor. Remove all accumulated debris from attachments and tractor.
- Clean machine with air or cloths. DO NOT high pressure wash. Never clean hot components with cold water.
- Sand areas where paint is chipped and repaint to prevent rust. Lubricate all locations to prevent moisture damage during storage.
- Remove all accumulated debris from the tractor, mower deck or attachment.

GENERAL INFORMATION

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

These operating and maintenance instructions have been compiled from extensive field experience and engineering data. Some information may be general in nature due to unknown and varying conditions. However, through practice and these instructions you should be able to develop operating procedures suitable to your particular situation.

The illustrations and data used in this manual were current at the time of printing, but due to possible in-line production changes, your machine may vary slightly in detail. **GRASSHOPPER** reserves the right to redesign and change the machine as necessary without notification.

⚠ WARNING

Some illustrations in this manual show the machinery with safety shields removed to provide a better view. The machine should never be operated with any safety shielding removed.

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.

Mower blade rotation is clockwise as viewed from the top of mower.

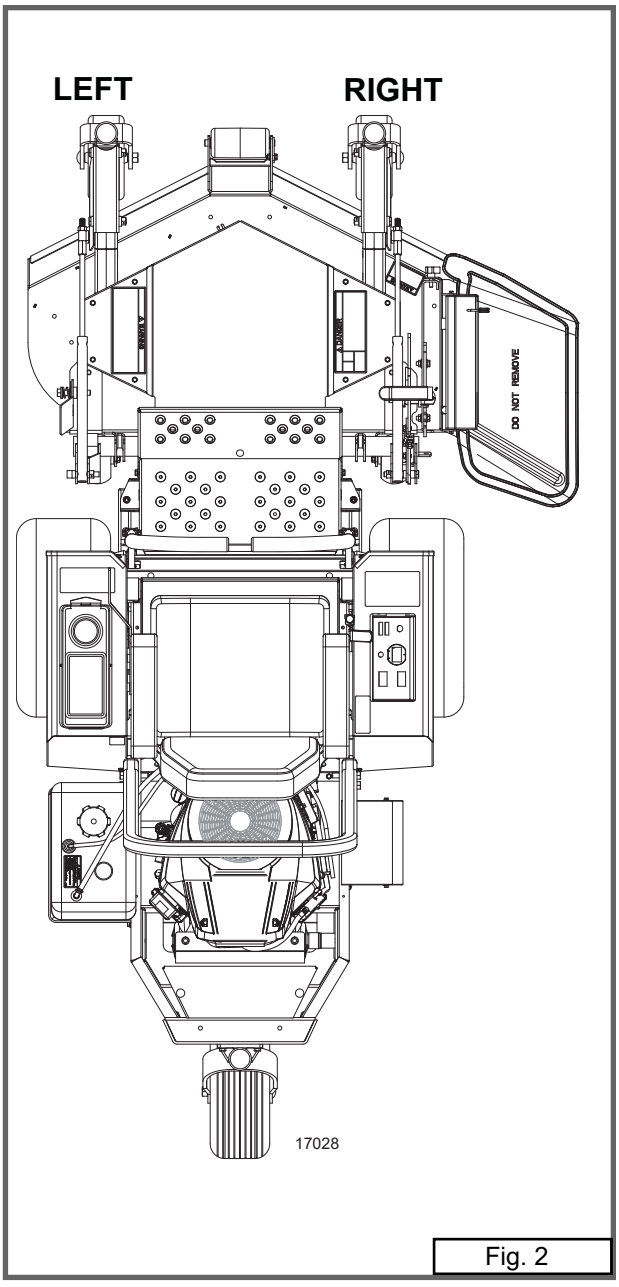


Fig. 2

MEASUREMENT CONVERSION

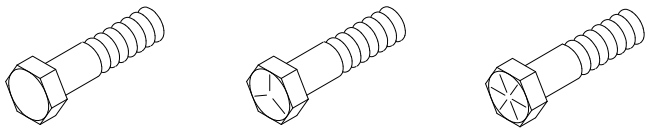
Measurements expressed in this manual are decimal values. Use the chart below if you are unsure of a measurement to obtain the fractional equivalent.

Conversion Table - Inches			
Decimal	Fraction	Decimal	Fraction
0.062	1/16	0.562	9/16
0.125	1/8	0.625	5/8
0.187	3/16	0.687	11/16
0.250	1/4	0.750	3/4
0.312	5/16	0.812	13/16
0.375	3/8	0.875	7/8
0.437	7/16	0.937	15/16
0.500	1/2	1.000	1

BOLT SIZE AND TIGHTENING RECOMMENDATIONS

The chart below lists the correct tightening torque for bolts used on Grasshopper machinery. When bolts are to be tightened or replaced refer to this chart to determine the grade of bolt and proper torque (*except when specific torque values are assigned in the manual text*).

Bolt Head Markings



SAE Grade 2 (no dashes) | **SAE Grade 5 (3 radial dashes)** | **SAE Grade 8 (6 radial dashes)**

Recommended Torque in Foot Pounds				
Bolt Diameter in Inches				
Decimal	Fraction	SAE Grade 2	SAE Grade 5	SAE Grade 8
0.250	1/4	6	11	14
0.312	5/16	13	21	25
0.375	3/8	23	38	55
0.437	7/16	37	55	80
0.500	1/2	57	85	120
0.562	9/16	82	125	180
0.625	5/8	111	175	230
0.750	3/4	200	300	440
0.875	7/8	280	450	720
1.000	1	350	680	1035

The safe operation of this machine is the responsibility of the operator. Any person who operates the machine MUST be instructed in and capable of the safe operation of the machine and all controls. Read all safety information on pages 6 through 11.

CONTROLS AND SWITCHES

(Refer to Fig. 3)

Know your controls and how to stop the machine, engine, and mower deck quickly in an emergency. Do not operate this machine until you are completely familiar with the controls and comfortable with your ability. We recommend you practice in a flat open area at half throttle until you are comfortable with all the controls.

The two **Steering Levers** control speed, motion, and direction of the machine and are located on each side of the seat. The left lever controls flow of hydraulic oil from the left pump to the left drive wheel motor. The right lever controls flow of hydraulic oil from the right pump to the right drive wheel motor. This allows left and right drive wheels to turn independently, which provides the “zero turn” ability. Each lever has two positions: The swung “out” neutral lock position, where the lever will not activate the pump; and the swung “in” operation position, where the lever will activate the pump. For details of steering lever operation, refer to the “Steering Lever Operation” section, page 18-19.

The following controls are located on or beside the Operator’s Console which is located to the right side of the seat.

- The **Ignition Switch** (A) is the key switch located on the console. The ignition switch is used to start and stop the engine. The switch has three positions OFF, RUN, and START. Insert the key into the switch and rotate clockwise to the RUN position. The **Brake Light** (B) should be on at this point. Rotate the switch clockwise to the next (START) position to engage the engine starter (key must be held against spring pressure in this position).
- The **Oil Light** (C) is the indicator light located in the console below the ignition key and labeled "OIL". This light is connected to the engine oil sender and comes on when oil pressure is below engine's manufacturer specified level. The oil light comes on when ignition switch is in RUN and START positions and should go off when engine starts and oil pressure reaches specified level.
- The **Choke Control** (D) is the small black push/pull knob located on the throttle. The choke is used to aid in starting a cold engine. Pull the choke knob "up" to activate the choke on the engine. Push the choke knob "down" for the choke to be off. DO NOT run a warm engine with the choke on.
- The **Throttle Control** (E) is the large black lever located beside the console to the right of the seat. The throttle is used to control engine speed. Move the throttle lever forward to increase engine speed and rearward to decrease engine speed.
- The **PTO switch** (F) is the red push/pull knob located on the console. Pull PTO knob “up” to engage the electric clutch that drives the belt connected to the mower deck that drives the cutting blades. Push the PTO knob “down” to disengage the electric clutch that stops the blades from turning within a few seconds.
- The **Hour Meter** (G) is the number indicator located on the console. The electric hour meter is connected to the ignition circuit and is provided to record the number of hours the engine runs. If the ignition switch is left on, without the engine running, the hour meter will continue to record.

The **Park Brake Lever** is the lever located on the left side of the footrest. The brake lever engages compression style parking brakes on the drive tires. Pull the brake lever up and rearward until the lever over centers and locks to set the brakes “on”. Push the brake lever forward and down to release the brakes “off”.

Several **Safety Switches** are incorporated in this machine’s design to prevent the engine

from being started in certain conditions and to kill the running engine in certain conditions. These circuits should be checked before each operation to ensure they are working properly. See page 16 for check list on these circuits.

The **Start Circuits** will keep engine from starting unless:

- Both steering levers are swung out in their neutral locked position, and
- The PTO switch is down in it's disengaged position.

The **Kill Circuits** will stop the running engine if:

- The operator raises off the seat any time during operation of the machine with PTO engaged or steering levers in operating position.
- The steering levers are in their operating position and the park brake lever is moved into engaged locked (up) position.
- The park brake is set and the steering levers are moved into their operating position.
- The operator is off the seat and the steering levers are moved into their operating position.
- The operator is off the seat and the PTO switch knob is pulled up to its engaged position.

⚠ WARNING

Do not operate this machine unless all safety systems are working properly as described above.

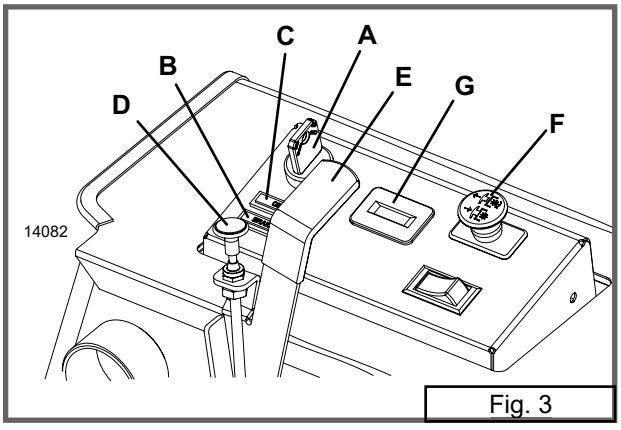


Fig. 3

PRE-START CHECK LIST

Maintain desirable operational standards and help ensure the safety of the operator by routinely checking the following on a daily basis:

- Walk around the machine and visually check for loose or missing components. Make sure all components are mounted properly and are in good working condition.
- Make sure all fenders, guards and shields are safely and securely attached.
- Make sure the discharge shield or restriction plate is installed at the discharge opening on the mower deck.
- Make sure all safety decals are clearly readable (see page 7).
- Check hydrostatic transmission fluid level. DO NOT operate machine with low fluid. Low fluid could cause damage to transmission and loss of control of the machine.
- Check engine oil level (refer to "Engine Manual" for proper level and type of oil used).

⚠ CAUTION

Never attempt to check oil while engine is running.

- Check for oil and fuel leaks.
- Clean rotating air intake screen on engine. When mowing in dusty conditions, dry grass or long grass, it may be necessary to frequently clean rotating air intake screen to prevent engine overheating.

⚠ WARNING

Never attempt to clean rotating air intake screen while engine is running.

- Check air cleaner (refer to "Engine Manual"). When mowing in dusty conditions, dry grass or long grass, it may be necessary to frequently clean the foam pre-cleaner and paper cartridge.
- Make sure the engine is free of dirt and debris.
- Check fuel level. Refer to "Engine Manual" for correct fuel for your requirements.

- For best results, use only clean, fresh, unleaded gasoline with an octane rating of 87 or higher ((R+M)/2 rating method).
- **Do Not** use ethanol blends of gasoline (such as E15 or E85) with more than 10% ethanol by volume. Performance problems and/or engine damage may result which may not be covered under warranty.
- **Do Not** use gasoline containing methanol.

⚠ DANGER

Do not fill fuel tank while engine is running. Allow engine to cool several minutes before adding fuel. If fuel is spilled, do not start engine and avoid creating a source of ignition until the fuel is wiped clean and evaporated.

- Check tire pressure (see page 28). Improper pressure will adversely affect traction, steering and level cutting height.
- Check tires for damage or cracking.
- Check hydrostatic pump drive belt for damage or cracking.
- Check mower deck belt for damage or cracking.
- Check mower deck level.
- Check to ensure blades are sharp and secure; the cutting edge should be positioned in the direction of blade rotation (clockwise as viewed from top of mower deck).
- Adjust cutting height if necessary.
- Check operation of park brake.
- Remove grass and debris from machine.
- Test safety interlock systems (see chart below). Perform these tests in a clear open area and keep bystanders away. If there is a malfunction during one of these procedures, DO NOT operate machine. (See your Grasshopper dealer).

Test Safety Interlock System Daily

Action	Left Steering Lever	Right Steering Lever	PTO Switch	Parking Brake	Proper Result
Start Circuits					
Try starting engine	Out	Out	Off	On	Engine Cranks
Try starting engine	**In**	Out	Off	On	**Engine will not crank**
Try starting engine	Out	**In**	Off	On	**Engine will not crank**
Try starting engine	Out	Out	**On**	On	**Engine will not crank**
Kill Circuits (with engine running at 1/2 throttle)					
Raise off seat	Out	Out	Off	On	Engine does not stop
Raise off seat	**In**	Out	Off	Off	**Engine Stops**
Raise off seat	Out	**In**	Off	Off	**Engine Stops**
Raise off seat	Out	Out	**On**	On	**Engine Stops**
Move left steering lever in		Out	Off	On	**Engine Stops**
Move right steering lever in	Out		Off	On	**Engine Stops**

MOUNTING AND DISMOUNTING THE TRACTOR - WITH MOWER DECK

Always mount and dismount the mower from the left side, with the brake on, the PTO disengaged (down), the engine off, and the steering levers in their swung out (neutral lock) position. Mount the mower by stepping from the ground to the left side of the deck with your left foot, then step over the deck frame to the footrest with your right foot. Wait for all moving parts to stop before dismounting. Dismount the mower by standing up on the footrest, then turn to the left and step from the footrest, over the deck frame, to the left side of the deck with your right foot, and then step to the ground with your left foot. The left steering lever can be used to stabilize your movement; however, it is not strong enough to support all your weight. Never leave the mower unattended with the key in the ignition.

MOUNTING AND DISMOUNTING THE TRACTOR - WITH ALL OTHER ATTACHMENTS

Always mount and dismount the mower from the left side, with the brake on, the PTO disengaged (down), the engine off, and the steering levers in their swung out (neutral lock) position. Mount the mower by stepping from the ground to the footrest with your right foot. Wait for all moving parts to stop before dismounting. Dismount the mower by standing up on the footrest, then turn to the left, and step from the footrest to the ground with your right foot. The left steering lever can be used to stabilize your movement; however, it is not strong enough to support all your weight. Never leave the mower unattended with the key in the ignition.

STARTING THE ENGINE

⚠ DANGER

Never start the engine in confined rooms. Exhaust gases contain carbon monoxide, an odorless and deadly poison.

Do not allow children to approach the machine while the engine is running.

Do not operate the machine around open flames such as trash fires.

Do not operate the engine when an odor of fuel is present or other explosive conditions exist.

- Position yourself on the tractor seat.
- Engage the park brake.
- Place both steering levers in swing-out neutral position.
- Place electric clutch switch in “OFF” (down) position.
- Set the throttle at 1/3 open.
- Insert the key into the ignition switch and turn to “RUN” position.
- Check to see that the brake lamp is on.
- Turn the key to “START” position. Choke as necessary to start. When engine starts, release key immediately. Push choke knob down gradually until choke is completely off and engine is running smoothly.
- Warm the engine up at medium speed for several minutes.

You will enhance the starter life by using short starting cycles of several seconds. Engaging starter motor more than 15 seconds per minute can result in damage to starter.

COLD WEATHER STARTING TIPS

Use proper viscosity oil for temperature expected (see “Engine Manual”).

Set throttle at half open.

A warm battery has better starting capacity than a cold one.

Use fresh winter grade fuel. It is better for winter starting than leftover summer grade fuel.

STEERING LEVER OPERATION

(Refer to Fig. 4)

⚠ WARNING

Do not move steering levers from forward to reverse or reverse to forward position rapidly. Sudden direction changes could cause loss of control or damage the machine.

⚠ CAUTION

Help prevent personal injury. Learn use of the steering levers and practice at half throttle until becoming proficient and comfortable with the operation of the machine.

The steering levers control speed, motion and direction of the machine. The steering levers have two positions: (1) **Neutral Lock**, where the lever(s) are swung completely outward and cannot be moved fore and aft; (2) **Operating**, where the lever(s) are swung in and can be moved fore and aft.

Neutral Lock Position:

- Forward and reverse movement of the motion control levers is prevented when levers are in the swung out (neutral lock) position. Machine should not move with the steering levers in the swung out (neutral lock) position and the park brake released.
- Steering levers must be in the swung out (neutral lock) position to start the engine.
- Steering levers must be in the swung out (neutral lock) position to safely enter and exit the operator seat.
- Operator can exit mower with the engine running when the steering levers are in the swung out (neutral lock) position, PTO switch is disengaged, and the park brake is engaged.

Operating Position:

- Machine speed, motion and direction can be controlled when the engine is running, park brake is released, and steering levers are in the swung in (operating) position.

Neutral

- When the steering levers are swung in and centered fore and aft, they are in operating (neutral). In operating (neutral), the hydrostatic pumps do not deliver fluid to the wheel motors.

Forward and Reverse Motion:

- Pushing both levers forward at the same time will move the machine forward.
- Pulling both levers to the rear at the same time will move the machine in reverse.
- The further forward or rearward the steering levers are moved, the faster the machine will move in that direction.

Turning:

- While moving forward, turn gently right by pushing the left lever further forward than the right.
- While moving forward, turn gently left by pushing the right lever further forward than the left.
- Make a sharp turn right by pushing the left lever forward and pulling the right lever rearward at the same time.
- Make a sharp turn left by pushing the right lever forward and pulling the left lever rearward at the same time.
- DO NOT turn the machine by leaving one lever in neutral and moving the other lever. This will cause damage to the turf under the tire that is not rotating.

Stopping:

- To stop motion, move both steering levers back to neutral. Machine is equipped with springs to automatically return both levers to neutral. If levers do not automatically return to neutral, see your authorized Grasshopper dealer for adjustment.

IMPORTANT

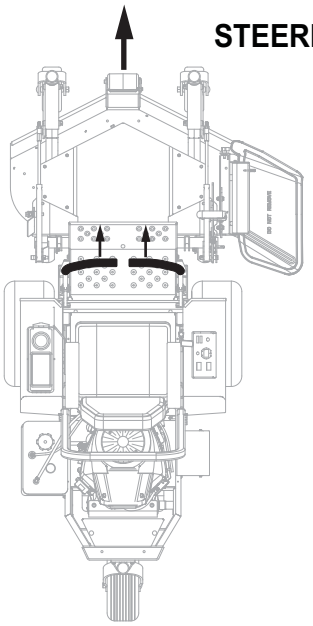
If you become confused during operation, release both steering levers. They will automatically return to the centered neutral position and the machine will stop.

IMPORTANT

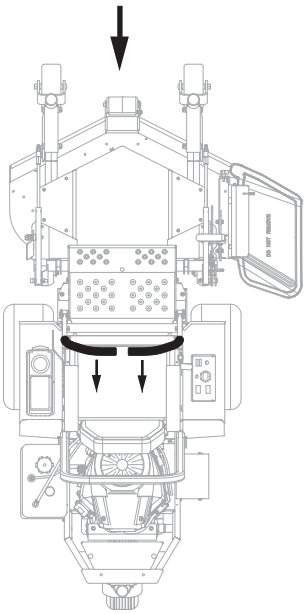
Inspect hydrostatic drive belt(s) daily. DO NOT operate on steep

STEERING LEVER OPERATION

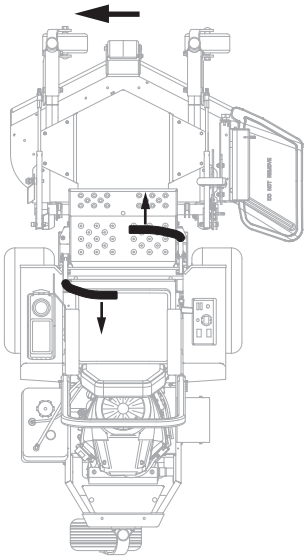
FORWARD



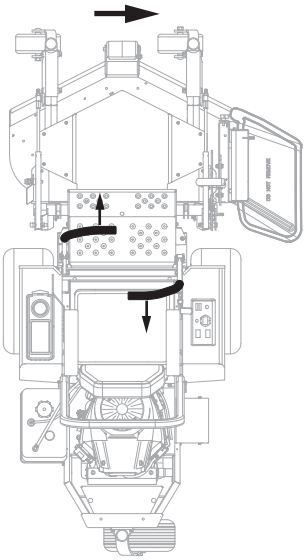
REVERSE



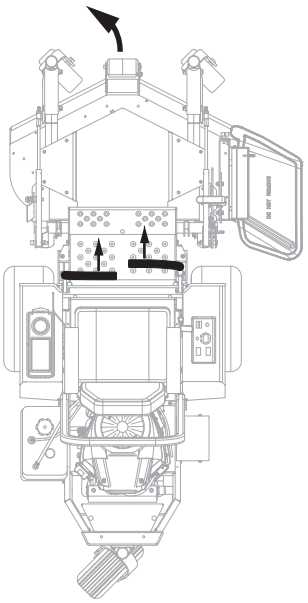
SHARP LEFT



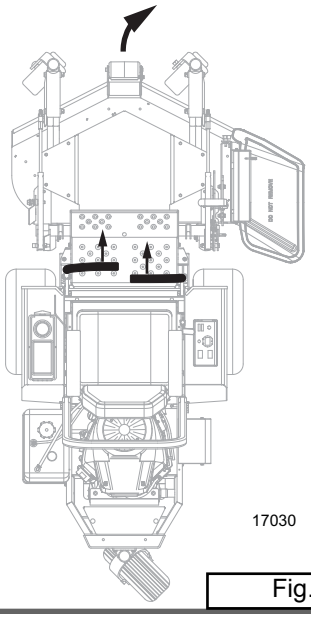
SHARP RIGHT



GENTLE LEFT



GENTLE RIGHT



17030

Fig. 4

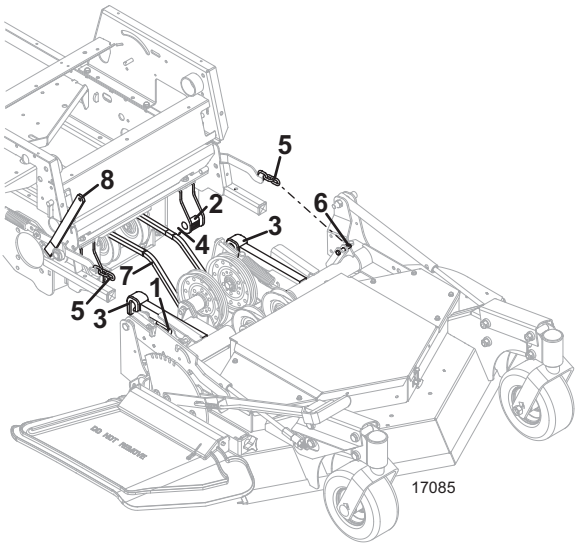
slopes. DO NOT operate near drop offs or embankments.

Since hydrostatic drive systems are a direct, hydraulic connection to the drive wheels, they provide a means of braking during operation. If the hydrostatic drive system belt breaks or comes off, the system no longer provides any control. In this condition, return steering levers to the swing out, neutral position and apply the parking brake. The pumps (in the neutral position) will provide the most resistance to the drive wheels. Do not move the steering levers from the swung out, neutral position, as this will open passage ways in the pumps and freewheeling can occur.

ATTACHING MOWER WITH MANUAL LIFT TO TRACTOR:

(Refer to Fig. 5)

- Place tractor and mower on a level surface. Lower deck height lever to its lowest horizontal position, so that deck is resting on the floor. Roll deck toward tractor.
- Manually raise the deck arm mount clevises (item 3). Pull out on the spring loaded deck mount latch pins (item 1) and rotate 90° so that they are in an open position.
- Attach mower to tractor by placing the deck arm mount clevises (item 3) over the attachment mount bushings (item 2) bolted in the attachment brackets (item 4).
- Rotate the deck mount latch pins 90° to a closed position to lock the deck arm mount clevises in place.
- Now raise deck height lever to its highest position.
- Attach the lift chains (item 5), from the traction kit, to the .375 x 2 clevis pins (item 6) install on deck. Use the traction kit tool to extend the traction spring for easy installation.
- Slide the end of the traction kit tool into the slot on the side of the rocker.
- Apply forward pressure on the upper end of the traction kit tool and attach lift chains to deck.
- To install mule belt refer to “To Install Mule Belt” section. (page 23)



1. Deck Mount Latch Pin
2. Attachment Mount Bushing
3. Deck Arm Mount Clevis
4. Attachment Bracket
5. Lift Chain
6. Mounting Pin
7. Mule Belt
8. Traction Kit Tool

Fig. 5

ATTACHING MOWER WITH ELECTRIC POWERFOLD® ACTUATOR TO TRACTOR:

- Place tractor and mower on a level surface. Roll deck toward tractor.
- Route the deck wiring harness with the 6-way connector between the seat and the left fender. Connect it to the 6-way connector from the universal wiring harness.
- Using a snap clip, as shown in photo below, secure the wiring harness to the tractor frame. The wiring harness must have freedom to hinge when the switch mount is raised.

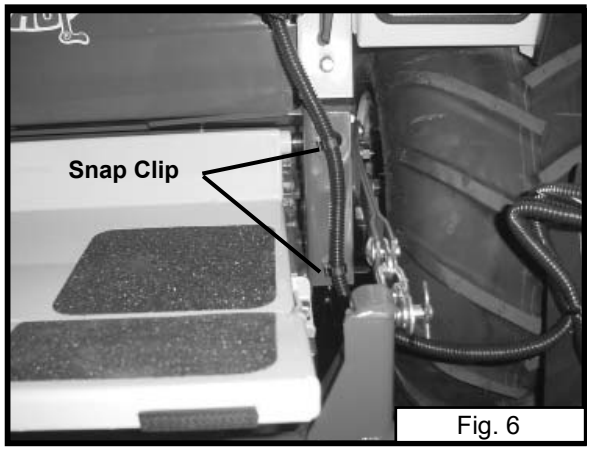


Fig. 6

- Place the deck arm mount clevises above the attachment mount bushings bolted in the attachment brackets. Operate switch inward to rotate lift arm assembly downward and over the mount bushings. Rotate the deck mount latch pins 90° to a closed position to lock the deck arm mount clevises in place.
- Operate electric actuator switch inward to raise deck to maximum height. Adjust height indicator by adjusting bolt in indicator slot to match deck height. (refer to Fig. 7)

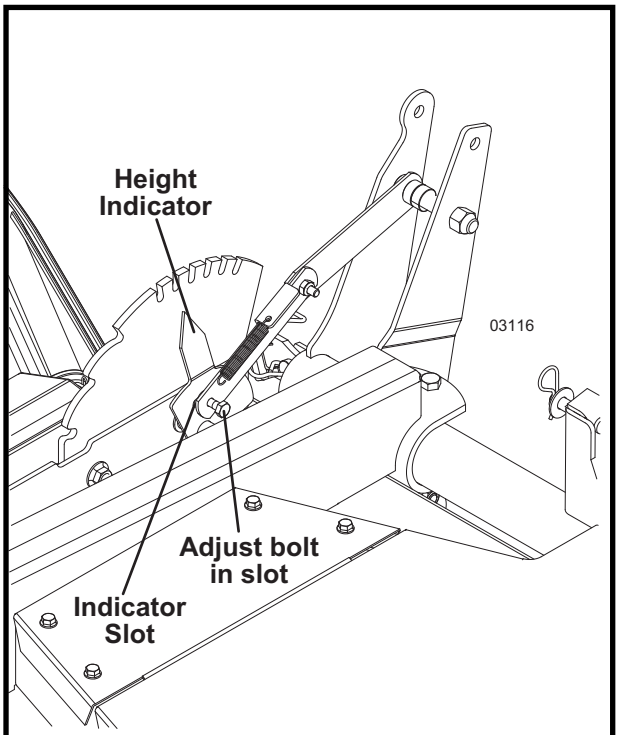


Fig. 7

⚠ CAUTION

Do not use PowerFold® Deck without lift chains attached.

- For tractors equipped with PowerFold® Deck refer to Fig. 5 on page 20 and follow steps below:
- Slide the end of the traction kit tool into the slot on the side of the rocker.
- Apply forward pressure on the upper end of the traction kit tool and attach lift chains to deck.

CUTTING HEIGHT ADJUSTMENT – 524V/42 MOWER

Cutting height is changed by moving the lever forward to lower the cut and backward to raise the cut

CUTTING HEIGHT ADJUSTMENT – 524V/42PF & 526V/52 MOWER

Cutting height is changed by moving the electric actuator switch left (outward) to lower the cut and right (inward) to raise the cut (see PowerFold® instructions on page 63 or 65).

FOOTREST BLOCK INSTALLATION

(Refer to Fig. 8)
Install the foot rest blocks with wide end of block toward the front (refer to Fig. 8).

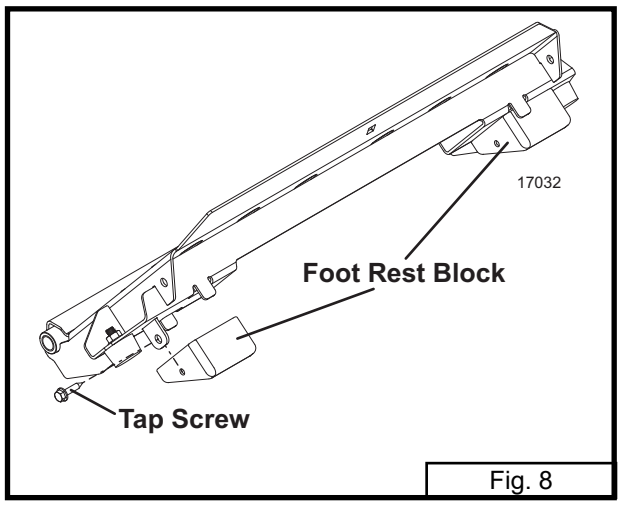


Fig. 8

TO MOVE MANUAL FOLD DECK TO UPRIGHT POSITION

- Disengage PTO, stop engine and remove key.
- Raise foot rest to upright locked position.
- Lower height adjustment lever to the lowest horizontal position.
- Lift up front of deck until vertical latch is engaged.

⚠ CAUTION

Be sure vertical latch is securely engaged before releasing deck.

- To lower deck, move vertical latch outward to disengage and carefully return deck to horizontal position.

⚠ CAUTION

When lowering deck to horizontal position do not allow deck to drop on feet.

- Raise lift lever to engage in mount plate notches and adjust to desired cutting height.

TO MOVE POWERFOLD® DECK TO UPRIGHT POSITION.

- Disengage PTO, stop engine and dismount from tractor.
- Raise foot rest to upright locked position.
- Rotate Control Box to vertical position.
- Operate switch to the left to fold up deck. The deck will first lower to it's lowest cutting height before it begins to fold up.
- To fold down deck, operate switch to the right.

TO REMOVE DECK FROM TRACTOR

(refer to Fig. 9)

- Place tractor and mower on a level surface, stop engine and remove key from the ignition.
- Fold up deck to release belt tension.
- Remove two belt retainers (item 6) from engine clutch.
- Remove belt from clutch.
- Fold deck back down.
- Remove belt retainer plate (item 5) from the front of the tractor.
- Disconnect traction kit chains with the deck in the highest cut setting.
- Pull out on the deck mount latch pins and rotate 90°.
- **On a manual lift deck,** lower deck height lever to its lowest horizontal position so the deck is resting on the floor.
- Manually raise the deck arm mount clevises to disengage from the mount bushings.
- Now pull deck and mule belt forward from

under the tractor.

- **On a PowerFold® deck,** raise the actuator switch mount and operate switch outward to rotate lift arm assembly upward to disengage from mount bushings.
- Disconnect electric wiring harness from tractor.
- Now pull deck and mule belt forward from under the tractor.

TO REMOVE MULE BELT

(refer to Fig. 9)

- Loosen bolt on deck front spindle belt retainer (item 1).
- Loosen bolts on belt retainer shield (item 2) on rear of the deck and move upward to gain clearance to remove belt.
- Remove belt retainer on lift arm right fixed idler pulley (item 3).
- Remove belt retainer on lift arm tension idler (item 4).
- Remove belt retainer plate (item 5) from front of tractor.
- Remove two belt retainers (item 6) from engine clutch.
- Fold deck up to release belt tension.
- Remove mule belt from the front deck spindle.
- Fold deck back down.
- Manually lift up on the left tension idler on the lift arm to remove belt.

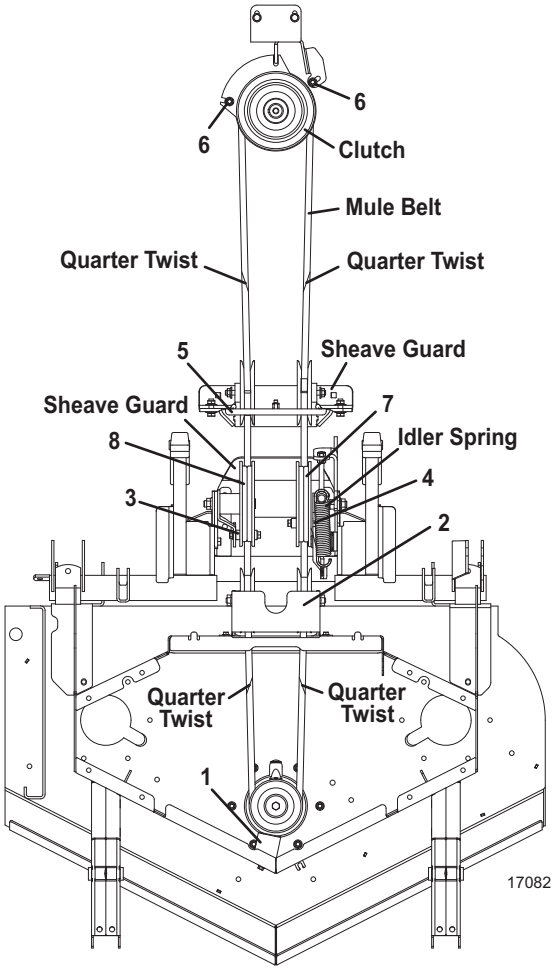


Fig. 9

TO INSTALL MULE BELT

(refer to Fig. 9)

- Route belt through the front of tractor and underneath. Place belt around engine clutch.
- Position belt on top of the front pulleys on tractor. Belt will have a quarter twist between clutch and front pulleys.
- Now position belt under fixed idler (item 8) on lift arm.
- Manually lift up on tension idler (item 7) to route belt underneath idler pulley.
- Route the belt over the rear deck pulleys and extend belt toward front spindle.
- Fold deck up to allow belt to be installed on front spindle sheave. Belt will have a quarter twist between rear deck pulleys and front spindle sheave.
- Fold deck down.
- Install all belt retainers and adjust belt retainer shield on the rear of the deck with .125 inch clearance between pulleys and shield.
- Adjust the two belt retainers (item 6) on the engine clutch having .125 inch clearance between clutch sheave and retainers.

MOWING

⚠ WARNING

Walk area before mowing, picking up all rocks, twigs and other debris. Enter new areas carefully. Cut grass higher the first time to allow mower to clear unseen objects. Never assume an area is clear - always check!

Clear mowing area of all people when operating mower. Thrown objects could injure bystanders.

⚠ WARNING

Before starting to mow, position the machine in the area to be mowed with the mower deck set at the desired cutting height. With the engine at full throttle, pull up on the PTO switch knob to start the blades turning.

⚠ DANGER

To avoid serious injury or death from thrown objects or contact with blades, NEVER operate mower without discharge shield or restriction plate installed.

Keep hands and feet away from discharge opening.

Before mowing, analyze the area to determine the best mowing procedure. Consider height, type of grass and terrain type (rolling, level or rough).

Proper ground speed for mowing will depend on the height, type and density of grass to be cut. Normally, ground speed will range from three to six miles per hour. Tall dense grass should be mowed at a low speed, while thin medium height grass can be cut at a faster ground speed. Always operate engine at full governed rpm when mowing. This is necessary to maintain proper blade speed to produce a clean cut.

Follow local recommendations for the suitable cutting height in your area. Avoid mowing grass too short to increase mowing intervals. This may stress the grass during hot weather and encourage weed growth during the growing season.

Mow with uncut grass to the left. This will distribute the clippings over the cut area. Discharging clippings over the uncut area will cause a grass buildup and may prevent uniform cutting.

Remember that sharp blades produce cleaner cuts and use less power.

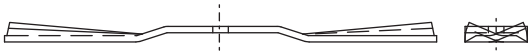
Extremely tall grass should be mowed twice. Cut grass higher on first pass. Cut the second time at desired height and 90° to the first pass.

BLADES

HI-LOW MULCHING BLADE

Hi-Low mulching blades are recommended with the discharge restriction plate and front shrouds installed (down discharge mulching option).

MEDIUM LIFT BLADE

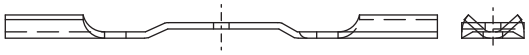


Medium lift blades are recommended when the optional vacuum attachment is installed.

CONTOUR BLADE

Contour blades are designed for operation with the side discharge shield and may be used when the optional vacuum attachment is installed.

HIGH LIFT NOTCHED BLADE



High lift notched blades should be used when the side discharge shield has been installed. These blades are recommended for mowing tall and/or lush areas.

Fig. 10

UNEVEN TERRAIN

⚠ WARNING

Do not operate on steep slopes. Operation on a steep slope could cause loss of control, machine to overturn and personal injury or death.

- Do not operate on steep slopes. This machine was not specifically designed to operate on steep slopes.
- The operator is responsible for safe operation on slopes. Only the operator can determine the stability of the machine on a given slope based on existing conditions like: machine speed and direction, slope variation, slipperiness, drop-offs, holes, obstacles, etc.
- To determine stability on a slope, start at the bottom and try to drive the machine up the slope slowly. If you cannot drive up the slope or if you feel uneasy on it, do not operate on it.
- Always start mowing at the bottom of slopes. Traveling up slopes, this machine has more traction traveling in reverse than forward. Be careful on slopes to avoid driving into a position where there is not enough traction to enable driving out or stopping.
- Tires may lose traction on slopes even though the brakes are functioning properly.
- Avoid sudden stops and deceleration when traveling forward downhill as mower may tip forwards.
- Do not mow slopes when grass is wet because slippery conditions will reduce traction and braking which in turn affects steering.
- Use caution when making turns. Slow the mower down before making sharp turns. Unit can spin very rapidly by positioning one lever too much ahead or behind the other.
- Look around you to be sure the area is clear before turning or backing up.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.
- Keep all movement on slopes slow and gradual. Do not make sudden changes in speed or direction.
- Pass diagonally through sharp dips and avoid sharp drops.
- Follow manufacturer's recommendation for counterweights for added stability when operating on slopes or using front or rear mounted attachments. Remove weights when not required.
- Use extra care with grass catchers or other attachments. These can change the stability of the machine. Do not use grass catcher on steep slopes.
- Check carefully for overhead clearances such as, branches, doorways, or electrical wires, before driving under any objects and do not contact them.

STOPPING THE ENGINE

- Set the throttle at 1/3 open. Allow engine to idle at this setting for several minutes.
- Move ignition switch to "OFF" position (upright) and remove key.
- Never use carburetor choke to stop engine.

⚠ CAUTION

Always remove key from ignition switch when leaving machine unattended or when not in use.

MOVING MACHINE WITHOUT POWER

(Refer to Fig. 11)
The integrated transmissions are equipped with a bypass valve that allows the machine to be moved without power by deactivating the transmission. With the bypass valve in normal operating position, the fluid in the transmission will make it difficult to move the unit (even with the steering levers in neutral position). The bypass valve is located on the rear of each transmission. Before activating the bypass valve, set the park brake. Lay down behind the drive tire and activate the bypass valve by rotating lever toward the right side of unit. When BOTH transmissions are deactivated, the unit becomes “freewheeling”, allowing it to be moved. Before the transmissions become operational, the bypass valves must be returned to their normal operating position.

⚠ WARNING

Be careful activating bypass valves when machine is on a slope. Machine could “freewheel” out of control causing serious injury or damage to equipment.

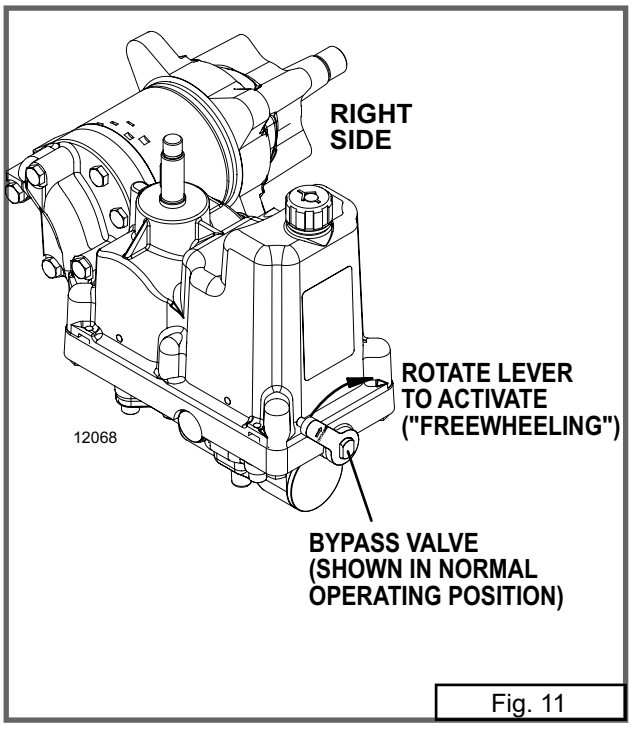


Fig. 11

LOADING / TRANSPORTING MACHINE

⚠ WARNING

Loading a machine onto a trailer or truck increases the possibility of tip-over and could cause serious injury or death.

Use a heavy-duty trailer to transport your machine. Trailer rating must exceed combined weight of machine and attachments. Trailer must have the necessary lights and signs required by law.

1. Park trailer on a hard level surface.
2. Push PTO switch down to the "OFF" position.
3. Drive FORWARD onto trailer with attachment raised.

- Use extreme caution when operating machine on a ramp. Move Slowly.
- Avoid sudden acceleration and deceleration when operating machine on a ramp.
- Drive machine forward up ramp and reverse down ramp. **DO NOT** attempt to turn machine while on a ramp.
- Use only a single, full width ramp; **AVOID** individual ramps for each side of the machine.
- If it is not possible to use one full width ramp, use enough individual ramps tied together to simulate a full width continuous ramp.
- **DO NOT** exceed a 15 degree angle between ramp and ground or between ramp and trailer or truck.

4. Position machine on trailer for optimal weight distribution (generally slightly forward of trailer axle). Follow tow vehicle and trailer manufacturer guidelines.
5. Lower attachment down to trailer platform.
6. Stop the engine, engage the park brake and remove the key.
7. Securely fasten machine to trailer with heavy-duty straps, chains or cables. Both front and rear straps must be directed down and outward from machine.

STORING SAFELY

⚠ CAUTION

Never store machine with gasoline in the tank inside a building where fumes may reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer, or other gas appliance. Allow engine to cool before storing in an enclosure.

⚠ CAUTION

Never run engine indoors or in an enclosed area, unless exhaust gases are safely removed to the outdoors with an exhaust pipe extension/hose combination. Exhaust gases contain carbon monoxide, an odorless and deadly poison

- If engine is to be unused for 30 days or more, add a fuel stabilizer to the fuel system. Fuel stabilizer (such as STA·BIL®) is an acceptable additive in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow it to reach the carburetor.
- Remove all accumulated debris from mower deck and tractor.
- Sand areas where paint is chipped and repaint to prevent rust. Lubricate all locations to prevent moisture damage during storage.

LUBRICATION AND MAINTENANCE

⚠ CAUTION

Always perform maintenance with the machine parked on a hard level surface; with the engine stopped and the PTO disengaged; with the park brake set; and with the key removed from the ignition.

⚠ CAUTION

Always remove the grounded (-) clamp from the battery when performing maintenance on the engine, clutch, or any other electrical system. Battery is located under the right fender.

⚠ CAUTION

Always wear safety glasses and ear protection when performing any maintenance function that could cause injury to eyes or ears.

Read all safety information on pages 6 through 11.

LUBRICATION

Do not let excess grease collect on or around parts, particularly when operating in sandy areas. See accompanying chart for lubrication frequency points. Severe or unusual conditions may require more frequent lubrication.

In addition to these lubrication points, lightly oil all linkage pivot points.

Use SAE multipurpose type grease for all locations shown. Be sure to clean fitting thoroughly before using grease gun.

Apply 1/2 to 1 Stroke Every 8 Hours of Usage
Tail Wheel Bearings 524V (one fitting) 526V (two fittings)

CAPACITIES

Fuel Tank.....4.0 U.S. gal. (15.1 liter)
Drive System.....3.0 U.S. qt. (2.88 liter)
(Each Transmission).....1.5 U.S. qt (1.42 liter)

TIRE AIR PRESSURE

Drive Tires 20 x 8 x 10.....8 psi (55kPa)
(Refer to decal on wheel for correct tire air pressure)
Rear Tires 13 x 6.5 x 6.....12 psi (83 kPa)

DRIVE SYSTEM

Fluid Change.....300 hours
Filter Change.....300 hours

CRANKCASE OIL AND AIR FILTER

Refer to the “Engine Manual” for the timetable for changing or service.

COOLING SYSTEM

Inspect the engine cooling fins periodically for buildup of grass and debris. Buildup on the cooling fins will cause the engine to overheat.

Removal of engine cowling may be required to clean the fins, especially if cleaned infrequently.

⚠ CAUTION

Do not use high-pressure water or steam to clean the engine or drive compartment. Water and cleaning detergent may damage electrical components and terminals, possibly leading to component and safety circuit failure.

Use a vacuum cleaner or air blower to remove foreign material from the engine and drive compartment.

BATTERY MAINTENANCE

Battery is located under the right fender. Follow the procedure below for battery maintenance.

- Clean battery.
- Inspect cables for loose connection.
- Clean terminals.
- Inspect battery tray and hold-down.
- Inspect battery case for cracks or leaks.

⚠ WARNING

Batteries contain sulfuric acid. Avoid contact with skin, eyes and clothing. Batteries produce a highly explosive hydrogen gas while being charged. Always keep cigarettes, sparks, open flame and other sources of ignition away from battery. Always shield eyes and face from battery. In the event of accident, flush with water and call a physician immediately. Keep batteries and acid out of the reach of children.

CHECKING DRIVE SYSTEM FLUID LEVEL

Check fluid level with the engine turned off and fluid at normal operating temperature. The transmission fluid reservoirs are located at the rear of each transmission. To check the fluid level, raise the seat and remove the breather/dipstick from the reservoir. The fluid level should be equal to the "hot" mark on the dipstick (Refer to Fig. 12). If fluid is required, use CoolTemp Hydro-Max™ Extended-Life Hydrostatic Fluid (Grasshopper part no. 345044 for 1 quart [.94 l] container).

DRIVE SYSTEM FLUID AND FILTER MAINTENANCE

For Drive System, use CoolTemp Hydro-Max™ Extended-Life Hydrostatic Fluid, part no. 345044 for 1 quart (.94 l) container or part no. 345046 for 2 gallon (7.52 l) container. Use part no. 130605 high efficiency oil filter.

CHANGING DRIVE SYSTEM FLUID

(Refer to Fig. 12)
Place a drip pan under the transmission reservoir and filter (at the rear of the transmission). Remove plug and filter and drain fluid into the pan. Allow transmission to drain completely. Install a new fluid filter. Torque plug to 115-135 in. lbs. Fill reservoir with fluid. Let engine idle a few minutes. Check fluid level and refill if needed. Repeat procedure for other transmission.

⚠ WARNING

DO NOT operate machine with low fluid. Low fluid could cause damage to drive system and loss of control of the machine.

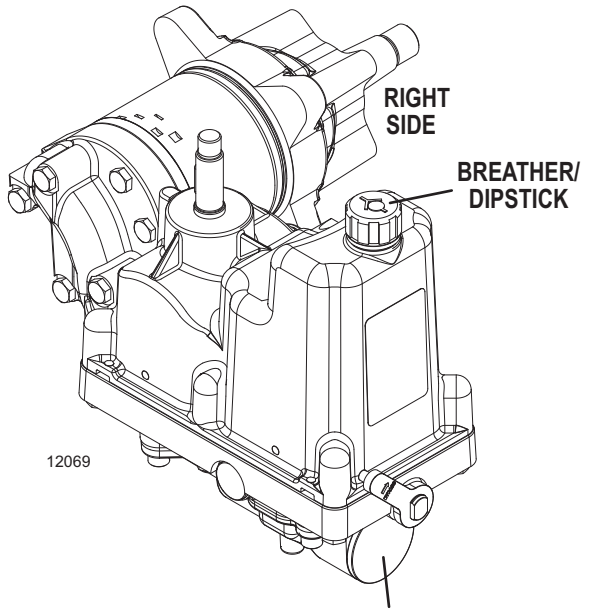


Fig. 12

DECK CLEANING

IMPORTANT

After each use remove grass buildup from under the mower deck. Excessive grass buildup will interfere with the operation and performance of the mower deck. Excessive grass buildup may also cause component failure.

1. Park machine on hard level surface, stop engine and set the park brake. Remove key from the ignition switch.
2. Lift mower deck to the folded up position, as described in the Operation section.
3. Use a long flat bar to clean under the deck, to avoid positioning yourself under the machine.
4. Clean out all grass and debris build-up from the underside of the deck, around blade spindles and the deck discharge chute.

BLADE INSPECTION

⚠ WARNING

Do not handle mower blades with bare hands. Use heavy leather gloves or wrap blade with protective material and block securely when removing blades. Careless or improper handling may result in serious injury.

Inspect blades before each use to determine that they are mounted securely 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.

BLADE SHARPENING

IMPORTANT

When sharpening blades, be sure to balance them. Unbalanced blades will cause excessive vibration that can damage blade spindle bearings. Vibrations may also cause structural cracks in mower housings.

Follow original sharpening pattern. Do not sharpen backside of blade. Do not sharpen blade to a razor edge, but leave approximately .016 inch (.4 mm) blunt edge.

BLADE REMOVAL

(Refer to Fig. 13)

Remove bolt (A), which has right hand threads. Remove washer (B), flat washer (C), fiber washer (D), and blade.

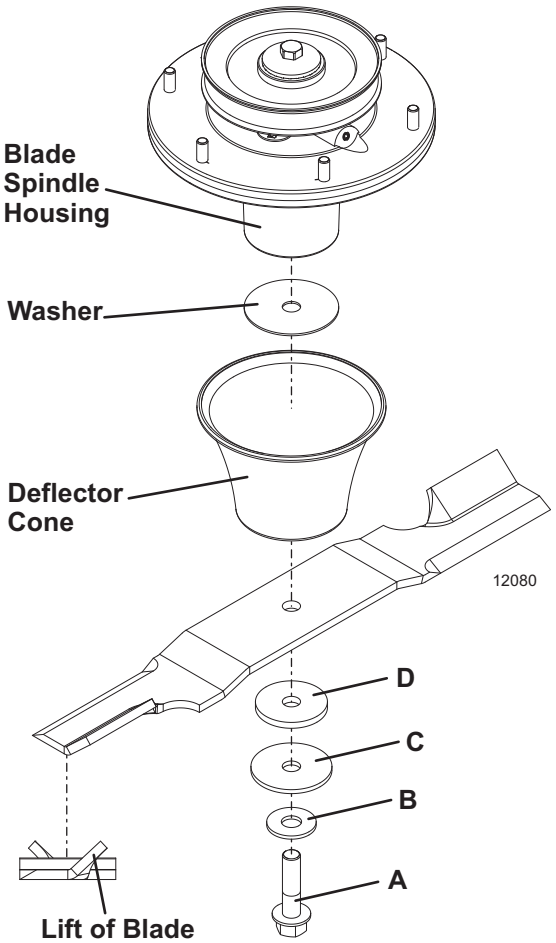


Fig. 13

BLADE INSTALLATION

⚠ WARNING

Your dealer can supply Grasshopper replacement 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.

Reverse the removal procedure. Be sure fiber washer and cone are installed as shown.

IMPORTANT

When installing a blade, the lift of the blade must be toward blade spindle housing (refer to Fig. 13). Lubricate bolt threads lightly with a copper based anti-seize. Tighten bolt (item A, Fig. 13) into blade spindle housing to 50-55 ft lbs (68-75Nm).

⚠ CAUTION

Always make adjustments with the machined parked on a hard level surface; with the engine stopped and the PTO disengaged; with the park brake set; and with the key removed from the ignition.

⚠ CAUTION

Always remove the grounded (-) clamp from the battery when performing maintenance on the engine, clutch, or any other electrical system. Battery is located under the right fender.

LOSS OF POWER IN THE DRIVE SYSTEM

Check the fluid level and make sure the proper amount of fluid is in the reservoir. Make sure all hydraulic connections are tight and not leaking. Make sure drive belt is tight and not slipping. Check park brake adjustment. Make sure pump bypass valve is tight so pump does not freewheel.

NO POSITIVE NEUTRAL POSITION

If drive wheels travel forward or backward when the steering lever is in swing-out position (neutral), adjustment is required.

NEUTRAL ADJUSTMENT

(Refer to Fig.14)

- Block up under tractor frame so both drive wheels are off the ground.
- Make sure parking brake is released.
- Remove linkage rods (A) from transmission control lever (B).
- Place steering levers in the neutral swing-out position and start engine.
- If either of the drive wheels turn, proceed with the following adjustment.
- With a .25″ allen wrench loosen the socket head cap screw (C) directly below the control lever (B). Rotate the neutral return assembly left or right until neutral is achieved. Tighten socket head cap screw.
- Repeat procedure for transmission on the other side.
- Reinstall linkage rod (A) in control lever (B). If ball joint does not reinstall into neutral return arm without moving the return arm, adjust length of linkage rod until it does to assure neutral adjustment will be maintained when linkage is connected.
- Test-drive machine for straight-line travel with both levers full forward. If travel is not in a straight line, adjust the steering lever stop on the side that is the fastest, i.e., if machine goes to the left, adjust the right steering stop to slow down the right transmission until travel is straight ahead.

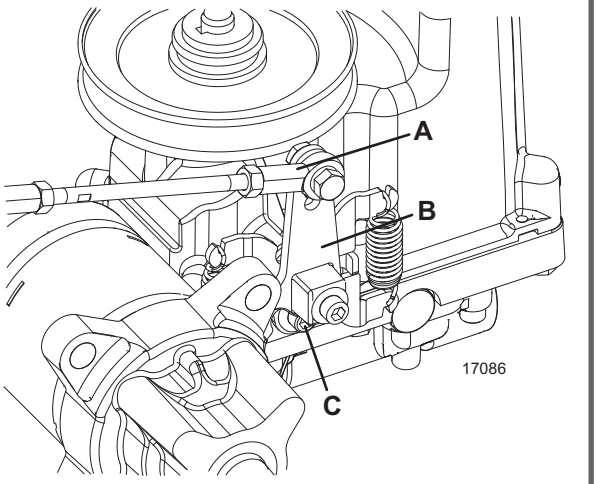


Fig. 14

STEERING LEVER ADJUSTMENT

(Refer to Fig. 15)

Steering levers are secured to the lever mount blocks with mounting bolts and nuts. A .5 inch wrench is required to adjust the levers.

To adjust steering lever position, loosen nut on the top mounting bolt. In the swung in (neutral) position, the lever can now move forwards and backwards without moving the lever mount. If the lever mount moves with the steering lever, the bottom mounting bolt may need to be loosened. Set both levers in line and in a comfortable position for the operator. Move levers to the swung out (neutral lock) position and tighten top nuts and bottom nuts if loosened. Both mounting bolts MUST be tight to assure steering lever control of the machine.

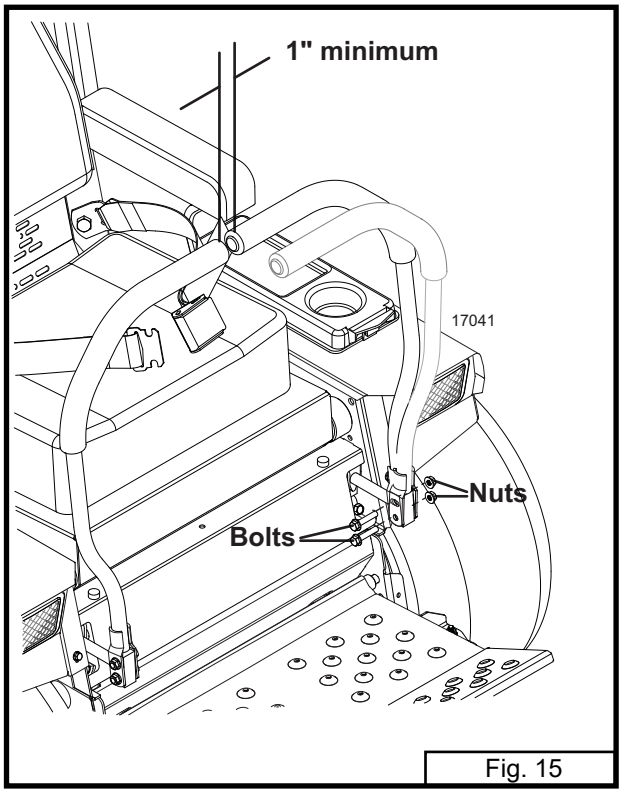


Fig. 15

Steering levers must line up in the swung in (neutral) position. Maintain one inch minimum clearance between ends of levers. If the levers are allowed to lean toward the center when the mounting bolts are tightened, free play in the mounting holes may allow the levers to hit each other.

⚠ WARNING

When completing a maintenance function, make sure all shields are in good condition and are installed before placing unit back into use.

ENGINE TROUBLESHOOTING

Should you experience trouble in starting the engine, use the following guide to locate possible causes.

Engine will not crank:

- Battery is discharged.
- Blown starter fuse.
- PTO switch in “ON”.
- Steering levers are not out in neutral.
- Steering lever switches are out of adjustment (listen for the switch “click”).
- A loose wire or connection.

Engine cranks, but will not start:

- Fuel tank is empty.
- Restricted fuel line or fuel filter.
- A loose wire or connection.

If the above points do not locate the problem, contact your authorized Grasshopper dealer for repair.

PARK BRAKE ADJUSTMENT

(Refer to illustration on page 45 and Fig. 16)

- To adjust brakes remove control rod (A) from brake lever (B).
- Loosen jam nut (C) at bottom clevis.
- Rotate control rod clockwise to shorten linkage, only a couple of turns at a time.
- Reinstall control on brake lever and test brakes.
- Do Not over adjust, as this could cause brakes to drag.
- If necessary individual brakes can be adjusted by loosening jam nuts (D) on linkage rod (E) and rotating rod to shorten length.
- When finished tighten jam nuts.

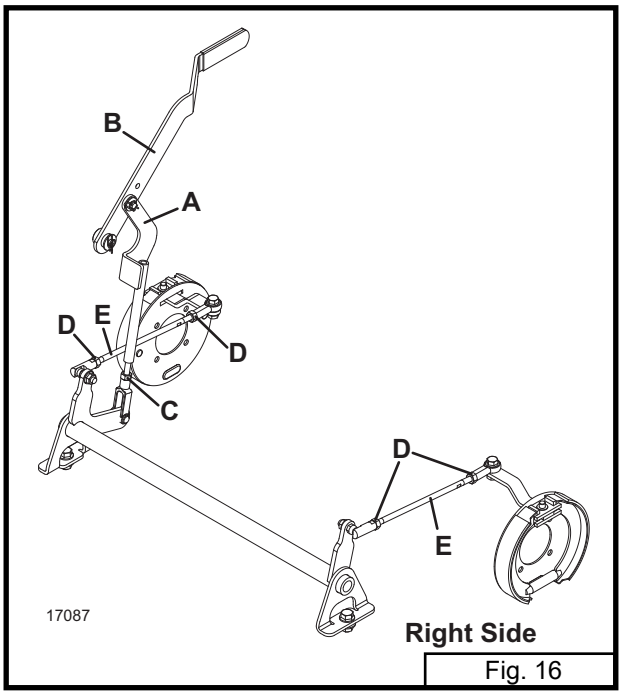


Fig. 16

CLUTCH/BRAKE BURNISHING

IMPORTANT

A new clutch, or one that has not been used for three months, will require burnishing to dress drive surfaces. The clutch could fail if you do not accomplish the following procedure.

Place tractor in neutral, start engine and run at half throttle. Turn clutch switch on 30 seconds and off 30 seconds, five times at half-throttle and repeat five times at full throttle. The time interval allows the clutch surface to cool.

CLUTCH REMOVAL/REPLACEMENT

(Refer to Fig. 17)

1. Remove the deck belt (A) as described in “Deck Belt Replacement” section (see below).
2. Remove the center bolt (B) and slide the clutch (C) off the engine crankshaft.
3. To install clutch, reverse order and install deck belt.
4. Tighten center bolt (B) to 50 ft lbs. After 15 minutes of clutch usage retighten the bolt to 50 ft lbs.

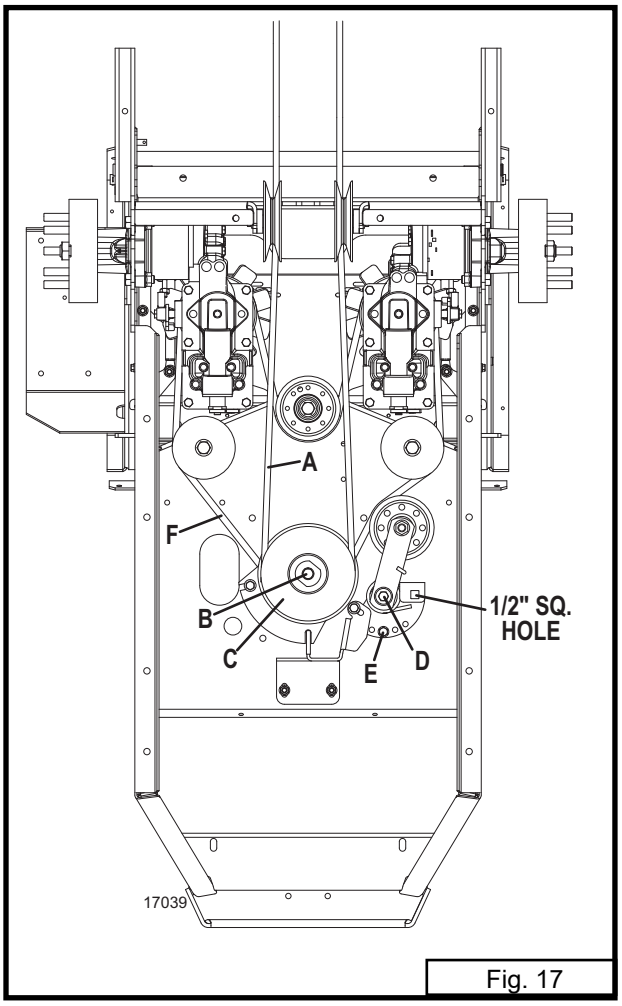


Fig. 17

DRIVE BELT REPLACEMENT

(Refer to Fig. 17)

- Remove the mule belt (A) from the clutch as described in “To Remove Mule Belt” section (page 23).
- Remove the clutch center bolt (B) and slide the clutch (C) off the engine’s crankshaft.
- Loosen the .375″ idler arm pivot bolt (D) and remove the .312″ bolt (E) securing belt tensioner bracket in place. Using a half inch drive break-over bar or racket, inserted in half inch square hole, rotate idler pulley away from belt, relieving belt tension.
- Remove the belt (F) from pulleys.
- Install the new belt with the idler tension bracket loose. Using the break-over bar, reinstall the .312″ bolt (E) (normally in center hole) in the idler tensioner bracket and secure. Do not over tighten belt. Belt should only be tight enough to prevent belt from slipping. Retighten .375 idler arm pivot bolt (D).
- Install the mule belt as described in “To Install Mule Belt” section (page 23).

DECK & MULE BELT ADJUSTMENTS

(Refer to Fig. 18)
The belt tension is set at the factory, but may need adjustment after the first hour of initial use. Periodically belt should be checked for proper tension, following the procedure below:

- Position the mower deck in the lowest (1.5 inch) cut height setting
- Loosen the lock nut (A) and adjust the draw nut (B) to change belt tension.
- Increase belt tension by turning the draw nut (B) clockwise and decrease belt tension by turning the draw nut counter-clockwise.
- The idler spring (C) body length should measure approximately 5.25 inches on a 42" deck and 5.75 inches on a 52" deck for proper belt tension (see Fig 18 chart).
- Tighten the lock nut (A) when the proper belt tension is achieved.
- To adjust mule belt tension loosen the lock nut (D) and adjust the .375 inch bolt (E) to change belt tension.
- Increase belt tension by turning the bolt (E) clockwise and decrease belt tension by turning the bolt counter-clockwise.
- The idler spring (F) body length should measure approximately 6.25 inches, at the highest cut setting, for proper belt tension. The fixed idler can be adjusted downward in the slot (I) to maintain proper belt tension.
- Tighten the lock nut (D) when the proper belt tension is achieved.

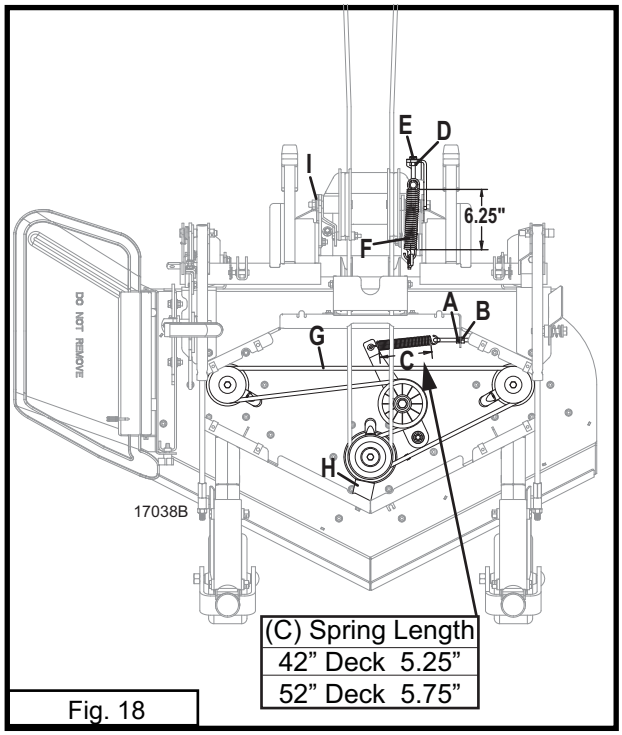


Fig. 18

DECK BELT REPLACEMENT

(Refer to Fig. 18)
Major causes of belt failure are improper installation and tension. Before installing a new belt, check spindle shafts and bearings for excessive endplay and wear by moving each spindle shaft side to side and up and down. Be sure they turn smoothly and freely. **Make sure idler is still aligned with spindle sheaves.** Check sheave grooves for cleanliness and wear. If grooves require cleaning, use a cloth moistened with a nonflammable nontoxic degreasing agent or commercial detergent and water. Avoid excessive force during installation. Do not use tools to pry belt on or roll belt over sheaves. This can cause hidden damage and premature belt failure.
Position the mower deck in the lowest (1.5 inch) cut height setting and remove the left and right belt shields.

- Loosen bolt on deck front spindle belt retainer.
- Fold deck up to release mule belt tension.
- Remove mule belt from front deck spindle.
- Fold deck back down.
- Loosen the lock nut (A) and back off (counterclockwise) the draw nut (B) until tension is released from the old belt (G) and it can be lifted off the deck sheaves.
- Install the new belt following Fig. 18 for proper belt routing.
- Reset the belt tension using the procedure in the “Deck Belt Adjustment” (previous section).
- Fold deck up and reinstall mule belt on front deck spindle.
- Fold deck back down. Reposition front spindle belt retainer (H) and tighten bolt.
- Check belt tension on mule belt and make necessary adjustments.
- Re-install the left and right belt shields.

ADJUSTING SLANT OF DECK

(refer to Fig. 19)

- With the deck attached to the tractor it is desirable to obtain a .125 to .25 inch (3 to 6mm) slant from rear to front of deck. It is important to have the rear of the deck slightly higher than the front.
- Deck leveling or side to side adjustment can be made by lengthening or shortening the round head bolt (item 28, page 55 & 59 or item 58, page 61 & 65) on the left side of the deck. Lengthen the bolt to lower left side of deck. Shorten the bolt to raise left side of deck.

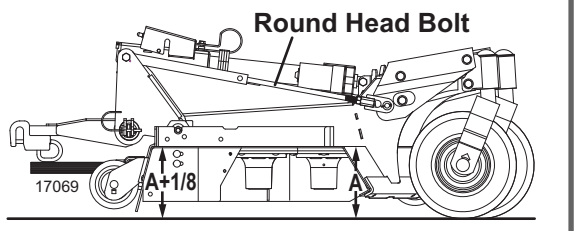


Fig. 19

BLADE SPINDLE ASSEMBLY REMOVAL

(Refer to Fig. 20)

1. It is not necessary to raise machine to remove the blade spindle assembly.
2. Raise the mower deck to the highest position.
3. Remove blade. Be careful handling sharp blades. Use protective material and block securely when removing blades.
4. Lower mower deck to the lowest (1.5 inch) cut height.
5. Remove belt shields.
6. Remove deck belt. See Deck Belt Replacement section above.
7. Remove the top bolt (2) and cup washer (3) from the spindle sheave (1).
8. Mark spindle sheave (1) on the topside so it will not be installed upside down on re-assembly.
9. Remove the spindle sheave (1) with a wheel puller. Make note if you remove any spacers or washers not shown in the illustration, as they will need to be reinstalled as they were removed. Spindle shaft (9) may fall out of the spindle assembly to the ground after removing sheave.
10. Remove square key (16) and bearing shield (4 - 526V/52 only) and save for re-assembly.
11. Remove spindle assembly by removing the six bolts or nuts (17 or 18) that attach the spindle housing (7) to the mower deck. Spindle assembly will fall to the ground if not supported. Protect spindle housing as necessary.

BLADE SPINDLE ASSEMBLY REPAIR/REPLACEMENT

(Refer to Fig. 20)

1. Remove blade spindle assembly as described previously.
2. Press spindle shaft (9) down through bearings (6) and spindle housing (7).
3. Press bearings (6) out of housing (7) or remove from shaft (9) as necessary.
4. Visually inspect parts for excessive wear, corrosion, or damage. Feel parts and rotate bearing races to check for rough spots or excessive wear.
5. Replace with new parts as necessary.
6. Install lower bearing (6) on spindle shaft (9).
7. Install bearing spacer (8) on shaft.
8. Install this assembly into housing (7).
9. Press top bearing (6) onto shaft (9) down against bearing spacer (8).
10. Rotate assembly to make sure shaft moves freely.
11. Secure spindle assembly to the mower deck with the six nuts or bolts (17 or 18). Torque to 21 ft lbs.
12. Install bearing shield (4 - 526V/52 only), square key (16), sheave (1), cup washer (3) and bolt (2) in same sequence as removed. Place a block under the spindle shaft (9) if necessary to hold it up in the spindle housing.
13. Make sure the concave side of the cup washer (3) is down toward the sheave and torque top bolt (2) to 38 ft lbs.
14. Rotate assembly to check for free movement.
15. Install deck belt and belt shields.
16. Install blade and tighten bolt (15) to 50-55 ft lbs.

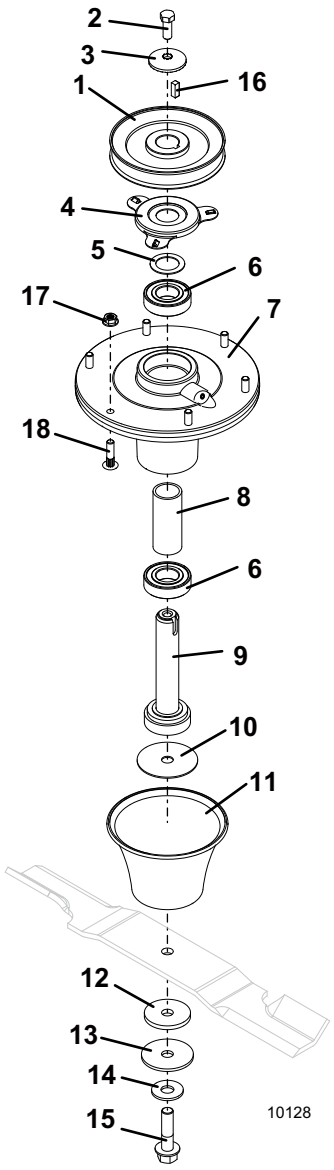


Fig. 20

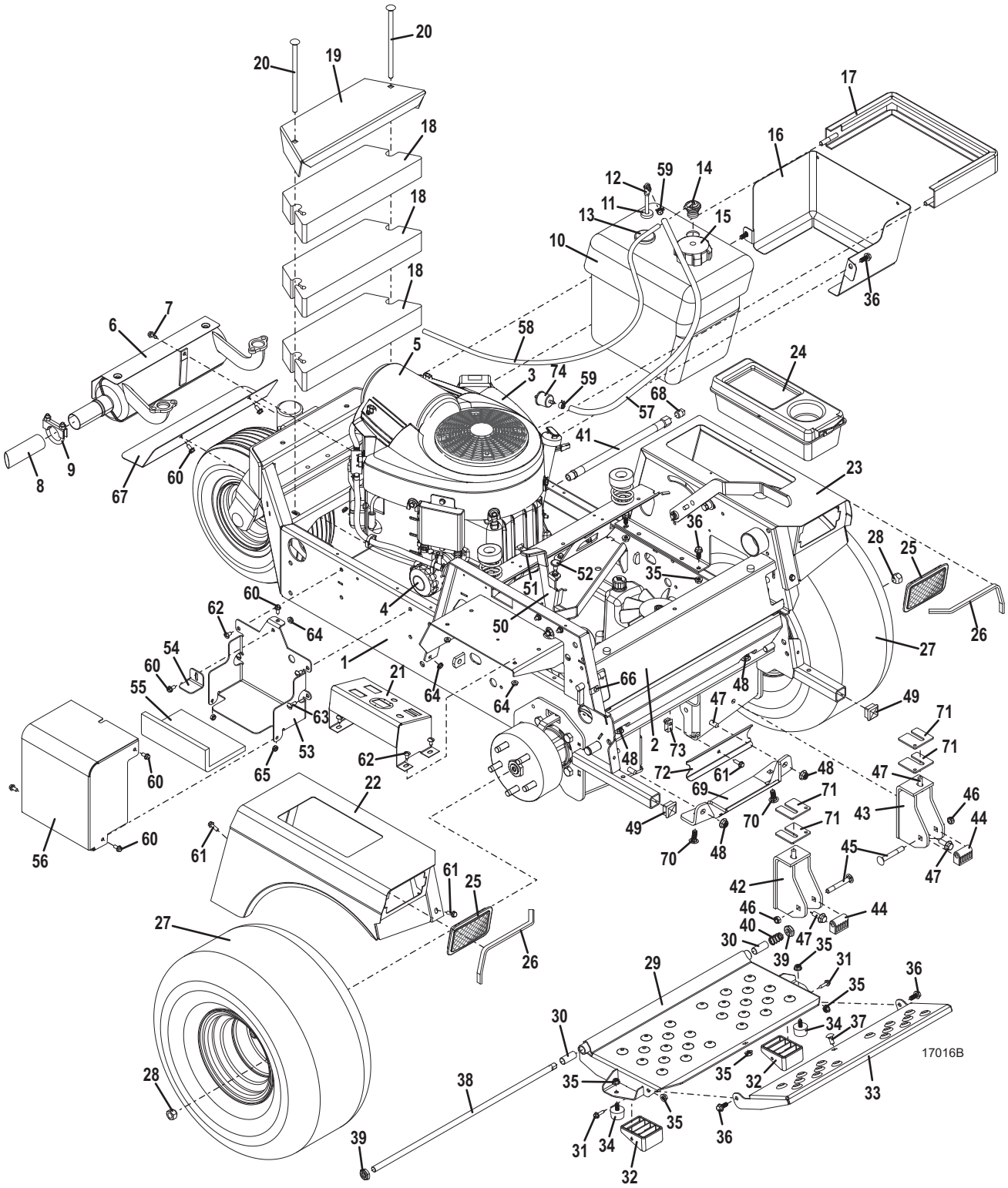
TRACTOR ASSEMBLY - 524V

Item No.	Order No.	Description
1	643877	Frame – Lower
2	643879	Frame – Upper
3	100151	Engine – 24 HP Briggs
4	100803	Oil Filter
5	100919	Air Filter
6	101197	Muffler
	101043	Gasket – Muffler
7	243016	Tap Screw .25 x .625
8	942409	Exhaust Extension
9	101356	Exhaust Clamp
10	605792	Fuel Tank Assembly
		(includes item 11-15)
	165720	Decal – Refueling Warning
11	101875	Bushing – Fuel Tube
12	363925	Fuel Tube .25 Barb x 11.5
13	141142	Gauge – Fuel
	424275	Grommet – Fuel Gauge Mount
14	606830	Valve Kit – Fuel Tank
15	100212	Fuel Cap – Sealed Tether
16	751351	Shield – Heat
17	645826	Tank Mount
18	323933	Counterweight – 34#
		3 Weights required on 524V
19	729514	Weight Cover
20	247335	Carriage Bolt .375 x 7.5
21	693118	Console Panel w/Decal
22	693196	Fender w/Decal Rt.
23	693197	Fender w/Decal Lt.
24	422040	Tool Box
25	422079	Hole Plug – Work Lamp
26	822632	Trim – Fender Edge
27	483923	Wheel & Tire 20 x 8 x 10
	483419	Wheel Without Tire 10 x 7
	482462	Tire 20 x 8 x 10
28	254472	Lug Nut .5-20
29	604349	Foot Rest Assembly
		(includes items 30-32)
30	422615	Nylon Bearing
31	243026	Tap Screw .25 x 1
32	424100	Isolator Block
33	643306	Extension – Foot Platform
34	424052	Rubber Bumper
35	253035	Whiz Nut .312-18
36	253192	Whiz Bolt .312-18 x .75
37	247130	Carriage Bolt .312 x .75
38	780655	Pivot Rod – Footrest
39	253470	Nut .5-13 Nylon Insert
40	283312	Compression Spring
41	424319	Hose Assembly - Drain
42	643100	Deck Mount Rt.
43	643101	Deck Mount Lt.
44	282575	Bushing – Deck Mount
45	247280	Carriage Bolt .375 x 2.75
46	253460	Nut .375-16 x Nylon Insert
47	253203	Whiz Bolt .375-16 x 1
48	253043	Whiz Nut .375-16
49	422065	Square Plug
50	605823	Throttle/Choke Mount Assembly
		(includes item 51)
	323643	Cable Assembly – Throttle
	722736	Throttle Stop – Heavy Duty
51	422150	Handle Grip
52	142247	Mechanical Choke
53	644099	Battery Box
54	729001	Battery Clamp
55	427273	Pad – Battery Tray
56	644162	Cover – Battery
57	821770	Fuel Hose .25 ID x 32″
58	821764	Fuel Hose .187 ID x 38″
59	280260	Hose Clamp .25
60	253173	Whiz Bolt .25-20 x .5 Hex
61	253175	Whiz Bolt .25-20 x .75 Hex
62	253176	Whiz Bolt .25-20 x .5 Truss
63	253177	Whiz Bolt .25-20 x .75 Truss
64	253025	Whiz Nut .25-20
65	253440	Nut .25-20 Nylon Insert
66	254431	Speed Nut .25-20
67	751040	Shield – Heat
68	365515	Plug .375
69	645399	Guard – Front Sheave
70	247253	Carriage Bolt .375 x 1
71	783284	Spacer – Deck Mount
72	722136	Bracket – Belt Retainer
73	254435	Speed Nut .25-20 x .312
74	366560	Fuel Filter

Item not pictured:

605387	Decal Set – 524V Mower

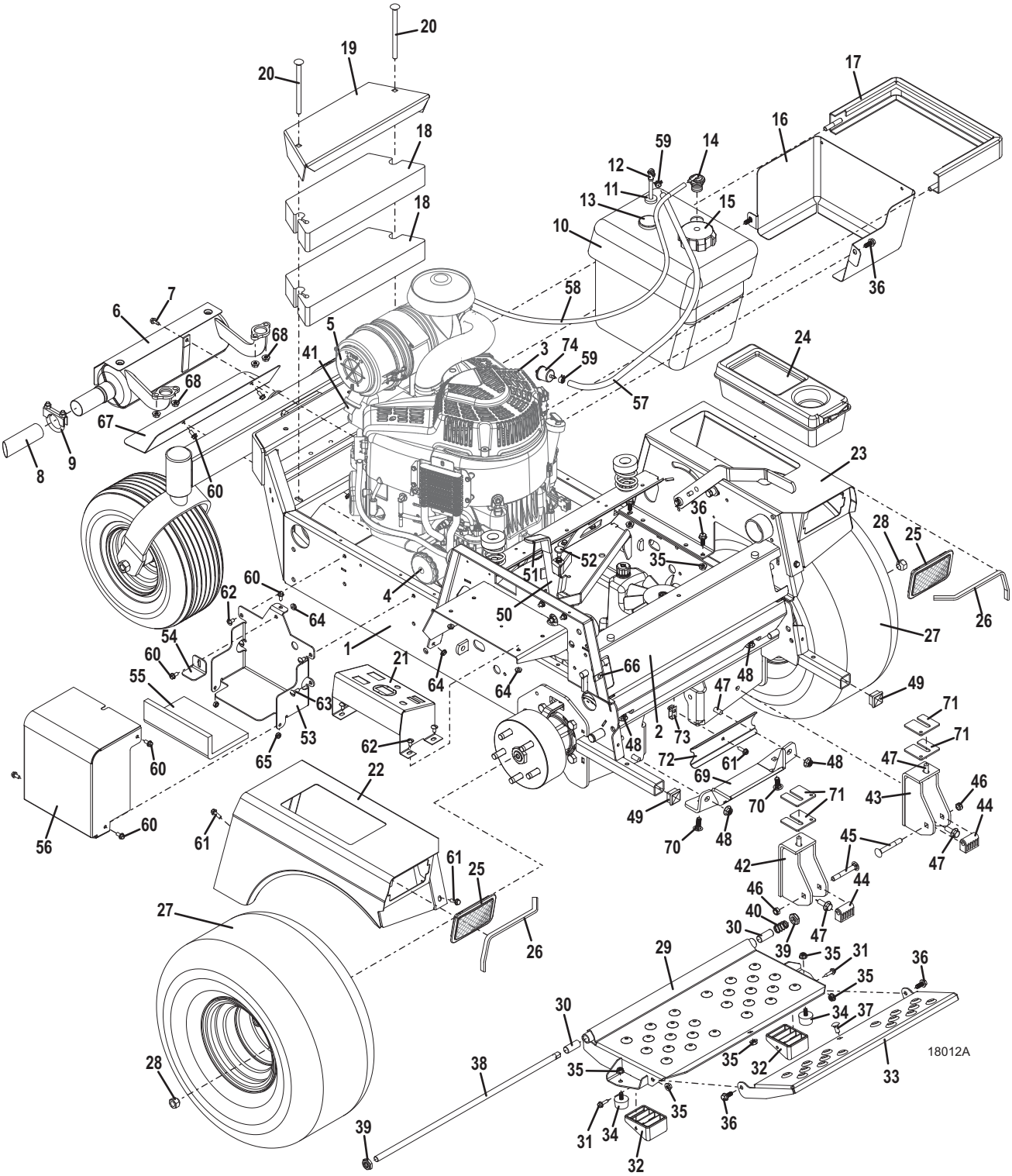
TRACTOR ASSEMBLY - 524V



TRACTOR ASSEMBLY - 526V

Item No.	Order No.	Description
1	643877	Frame – Lower
2	643879	Frame – Upper
3	100155	Engine – 26 HP Vanguard
4	100803	Oil Filter
5	100936	Air Filter - Outer
	100937	Air Filter - Inner
6	101197	Muffler
	101043	Gasket – Muffler
7	243016	Tap Screw .25 x .625
8	942409	Exhaust Extension
9	101356	Exhaust Clamp
10	605792	Fuel Tank Assembly
		(includes item 11-15)
	165720	Decal – Refueling Warning
11	101875	Bushing – Fuel Tube
12	363925	Fuel Tube .25 Barb x 11.5
13	141142	Gauge – Fuel
	424275	Grommet – Fuel Gauge Mount
14	606830	Valve Kit – Fuel Tank
15	100212	Fuel Cap – Sealed Tether
16	751351	Shield – Heat
17	645826	Tank Mount
18	323933	Counterweight – 34#
		2 Weights required on 526V
19	729514	Weight Cover
20	247325	Carriage Bolt .375 x 5.5
21	693118	Console Panel w/Decal
22	693196	Fender w/Decal Rt.
23	693197	Fender w/Decal Lt.
24	422040	Tool Box
25	422079	Hole Plug – Work Lamp
26	822632	Trim – Fender Edge
27	483923	Wheel & Tire 20 x 8 x 10
	483419	Wheel Without Tire 10 x 7
	482462	Tire 20 x 8 x 10
28	254472	Lug Nut .5-20
29	604349	Foot Rest Assembly
		(includes items 30-32)
30	422615	Nylon Bearing
31	243026	Tap Screw .25 x 1
32	424100	Isolator Block
33	643306	Extension – Foot Platform
34	424052	Rubber Bumper
35	253035	Whiz Nut .312-18
36	253192	Whiz Bolt .312-18 x .75
37	247130	Carriage Bolt .312 x .75
38	780655	Pivot Rod – Footrest
39	253470	Nut .5-13 Nylon Insert
40	283312	Compression Spring
41	100204	Dust Ejector
42	643100	Deck Mount Rt.
43	643101	Deck Mount Lt.
44	282575	Bushing – Deck Mount
45	247280	Carriage Bolt .375 x 2.75
46	253460	Nut .375-16 x Nylon Insert
47	253203	Whiz Bolt .375-16 x 1
48	253043	Whiz Nut .375-16
49	422065	Square Plug
50	605823	Throttle/Choke Mount Assembly
		(includes item 51)
	323643	Cable Assembly – Throttle
	722736	Throttle Stop – Heavy Duty
51	422150	Handle Grip
52	142247	Mechanical Choke
53	644099	Battery Box
54	729001	Battery Clamp
55	427273	Pad – Battery Tray
56	644162	Cover – Battery
57	821770	Fuel Hose .25 ID x 32″
58	821764	Fuel Hose .187 ID x 38″
59	280260	Hose Clamp .25
60	253173	Whiz Bolt .25-20 x .5 Hex
61	253175	Whiz Bolt .25-20 x .75 Hex
62	253176	Whiz Bolt .25-20 x .5 Truss
63	253177	Whiz Bolt .25-20 x .75 Truss
64	253025	Whiz Nut .25-20
65	253440	Nut .25-20 Nylon Insert
66	254431	Speed Nut .25-20
67	751040	Shield – Heat
68	274146	Whiz Nut M8 x 1.25
69	645399	Guard – Front Sheave
70	247253	Carriage Bolt .375 x 1
71	783284	Spacer – Deck Mount
72	722136	Bracket – Belt Retainer
73	254435	Speed Nut .25-20 x .312
74	366560	Fuel Filter
Item not pictured:		
	605392	Decal Set – 526V Mower

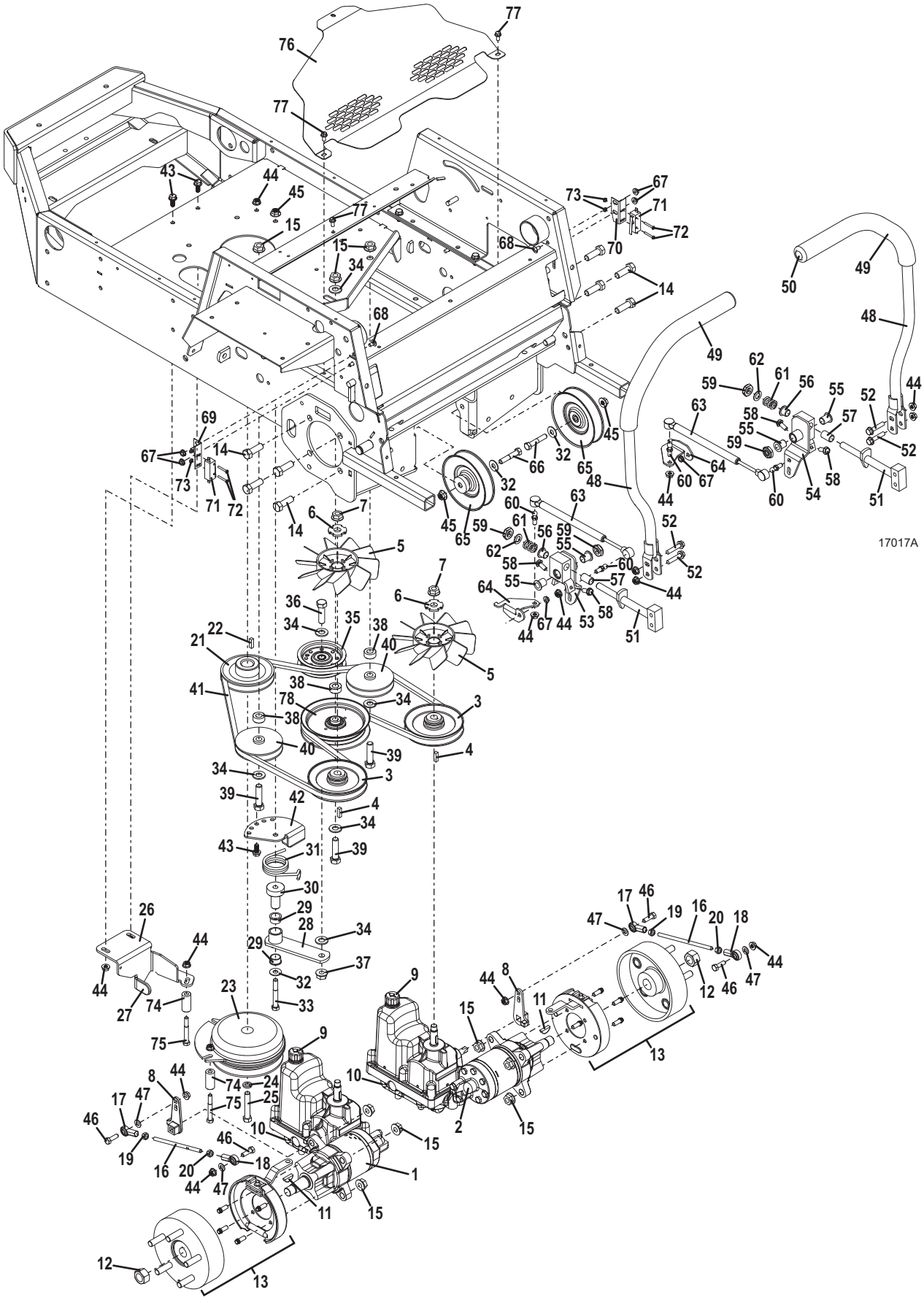
TRACTOR ASSEMBLY - 526V



DRIVE & STEERING ASSEMBLY

Item No.	Order No.	Description
1	391490	Integrated Transmission Rt. (includes items 3-12)
2	391491	Integrated Transmission Lt. (includes items 3-12)
3	130630	Pulley 5″
4	281668	Square Key 5mm x 20mm
5	130431	Fan 7″
6	130632	Fan Spacer
7	253070	Whiz Nut .5-20
8	130618	Control Lever
	130619	Spring – Return
9	130610	Breather/Dipstick
10	130605	Filter HTE/HTJ
	130606	Filter Plug
11	281845	Woodruff Key #15
12	253992	Lock Nut .75-16
13	481147	Brake Assembly
14	243570	Bolt .5-13 x 1.5
15	253067	Flange Nut .5-13 Spiral Loc
16	780151	Rod – Steering
17	265650	Rod End .312-24 Rt. Female
18	265651	Rod End .312-24 Lt. Female
19	254441	Nut .312-24
20	254444	Nut .312-24 LH
21	415545	Sheave 4.5 x 1
22	281582	Square Key .25 x .875
23	388750	Clutch 1″
24	257422	Lock Washer .437
25	243470	Bolt .437-20 x 2.5
26	725658	Bracket – Anti Rotation
27	422088	Cover – Clutch Bracket
28	824478	Idler Arm Assembly (includes items 29 & 30)
29	121756	Oilite Bearing
30	121650	Bearing Pedestal
31	284428	Spring – Torsion LH
32	257040	Washer .375
33	243360	Bolt .375-16 x 2.75
34	257062	Washer .5 SAE
35	393195	Idler 3.46 x .5 x .781
36	243580	Bolt .5-13 x 1.75
37	253066	Whiz Nut .5-13
38	902313	Spacer .430 x .531 x 1
39	243580	Bolt .5-13 x 2
40	393325	Idler 4.0 x .5 x A Groove
41	381930	Belt – 80.25
42	729733	Bracket – Belt Tensioner
43	253192	Whiz Bolt .312-18 x .75
44	253035	Whiz Nut .312-18
45	253043	Whiz Nut .375-16
46	243205	Bolt .312-18 x 1
47	257032	Washer .312 SAE
48	604778	Steering Lever Assembly (includes items 49 & 50)
49	422179	Handle Grip – Foam
50	422095	Cap – Vinyl
51	643926	Mount – Steering Lever
52	253195	Whiz Bolt .312-18 x 1.5
53	604771	Steering Pivot Rt. (includes items 55-58)
54	604772	Steering Pivot Lt. (includes items 55-58)
55	422559	Sleeve Bearing w/Flange .5 x .875
56	422556	Sleeve Bearing w/Flange .5 x .562
57	422557	Sleeve Bearing .5 x .622 x 1
58	243197	Bolt .312-18 x .75
59	253470	Nut .5-13 Nylon Insert
60	265680	Ball Stud
61	283324	Spring Compression
62	257063	Nylon Washer
63	285032	Damper w/Ball Socket
64	766172	Bracket – Damper Mount
65	393376	Idler 4.0 x .375 BC Grv w/Hub
66	243352	Bolt .375-16 x 2
67	253025	Whiz Nut .25-20
68	253176	Whiz Bolt .25-20 x .5 Truss
69	720160	Mount – Steering Switch Rt.
70	720161	Mount – Steering Switch Lt.
71	183860	Safety Switch
72	250318	Machine Screw 6-32 x 1
73	254400	Nut 6-32
74	902336	Spacer
75	243235	Bolt .312-18 x 2.5
76	751054	Shield – Fan
77	253173	Whiz Bolt .25-20 x .5
78	393231	Idler 5 x .5 x .75

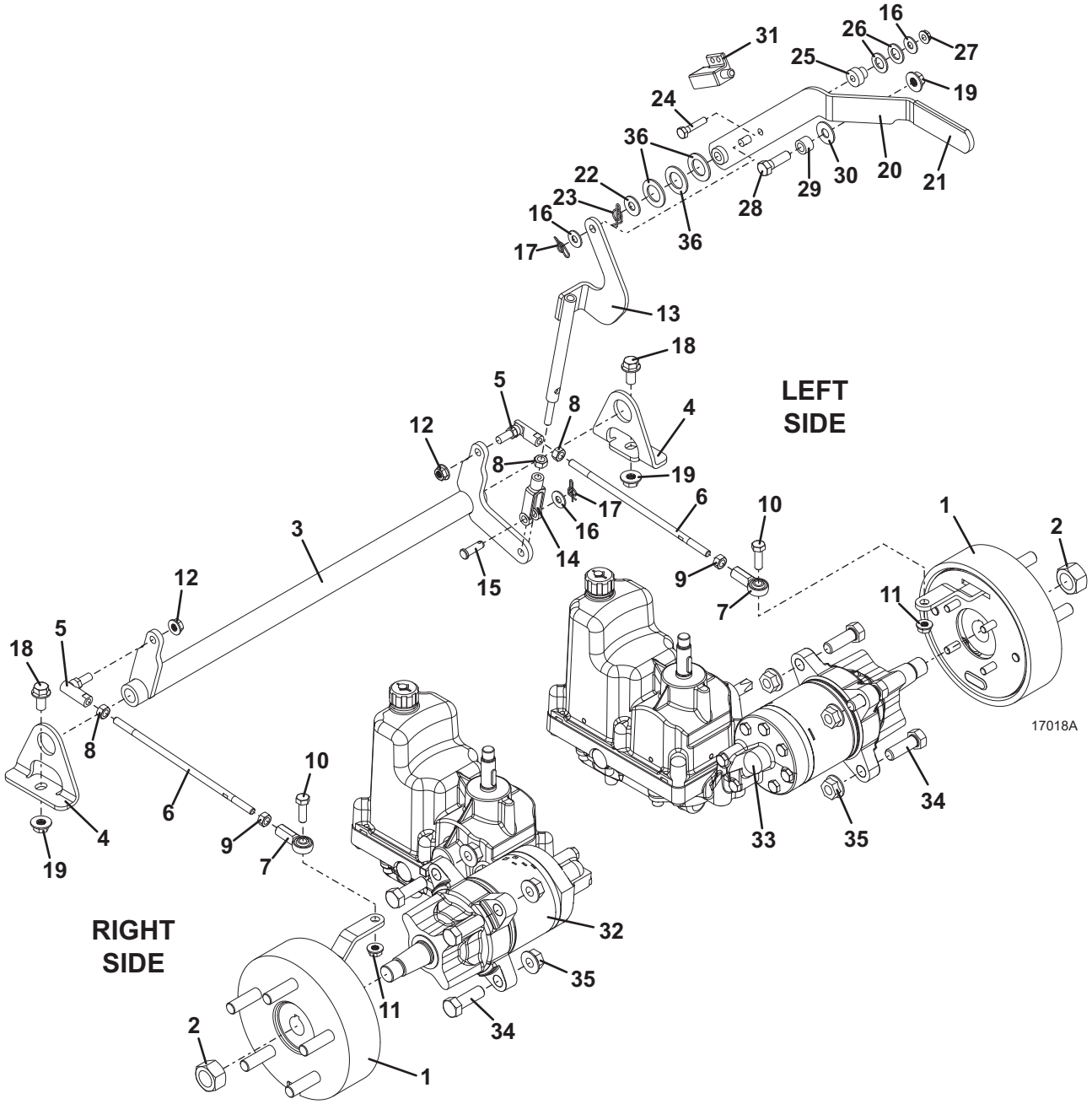
DRIVE & STEERING ASSEMBLY



BRAKES & LINKAGE ASSEMBLY

Item No.	Order No.	Description	Item No.	Order No.	Description
1	481147	Brake Assembly - HTE	19	253043	Whiz Nut .375-16
2	253992	Lock Nut .75-16	20	644035	Brake Lever
3	644593	Brake Pivot Tube	21	422150	Handle Grip
4	725584	Mount – Brake Pivot	22	257030	Washer .312
5	265615	Ball Joint .312-24 Thread	23	260608	Ring Cotter .054 x .375
6	780176	Rod – Brake Linkage	24	243030	Bolt .25-20 x 1.25
7	265651	Rod End .312-24 Lt. Female	25	881130	Spacer – Brake Lever
8	254441	Nut .312-24	26	257063	Nylon Washer .5 ID
9	254444	Nut .312-24 Lt. Hand	27	253025	Whiz Nut .25
10	243205	Bolt .312-18 x 1	28	243335	Bolt .375-16 x 1.25
11	253035	Whiz Nut .312-18	29	902280	Spacer
12	253038	Whiz Nut .312-24	30	257040	Washer .375
13	645009	Arm – Brake Linkage	31	183894	Brake Switch
14	265537	Clevis Yoke .312-24 x 2.5	32	391490	Integrated Transmission Rt.
15	261284	Clevis Pin .312 x 1	33	391491	Integrated Transmission Lt.
16	257020	Washer .25	34	243570	Bolt .5-13 x 1.5
17	260606	Ring Cotter .047 x .312	35	253067	Flange Nut .5-13 Spiral Loc
18	253200	Whiz Bolt .375-16 x .75	36	257091	Washer .75 x 14 Ga.

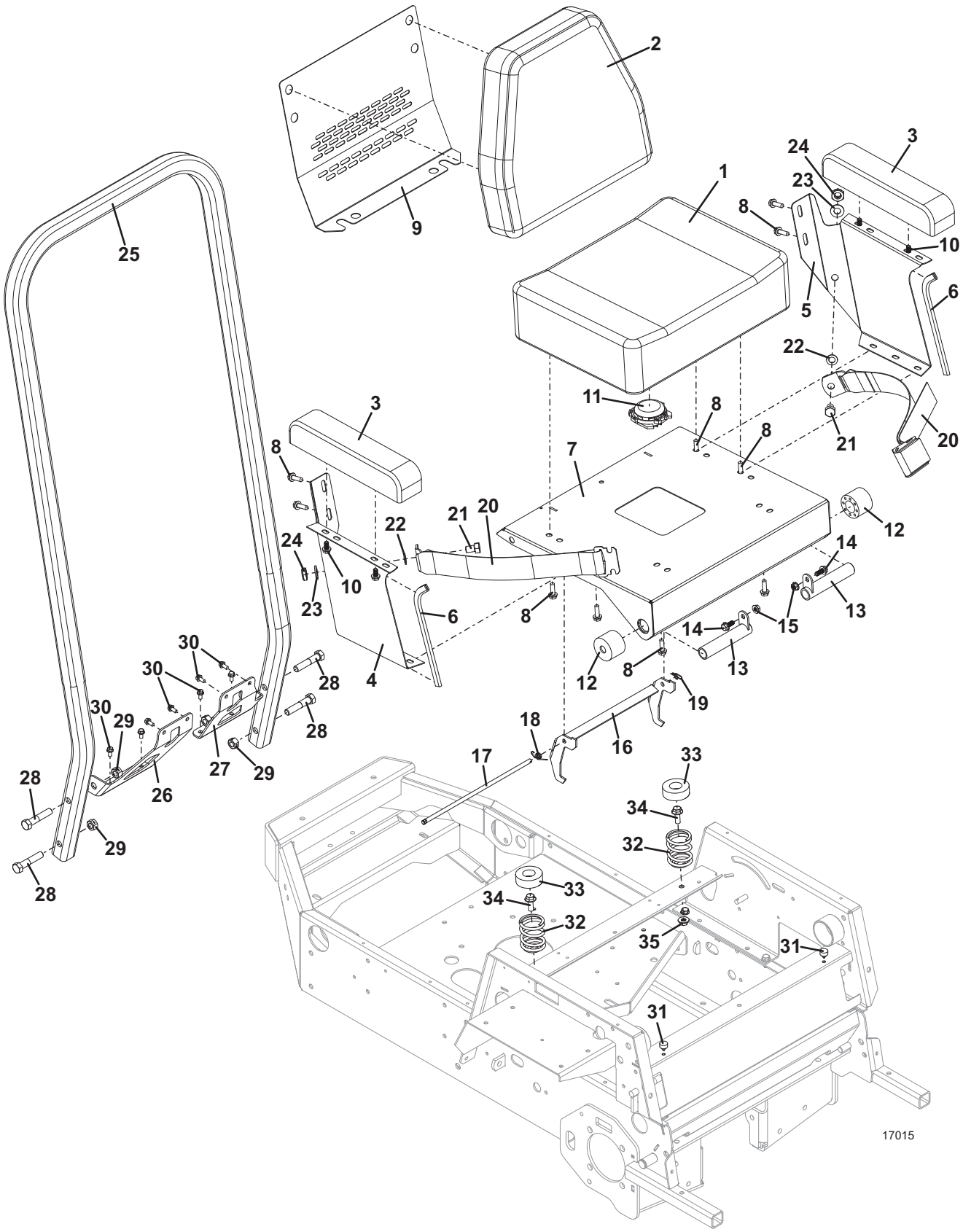
BRAKES & LINKAGE ASSEMBLY



OPS & SEAT ASSEMBLY

Item No.	Order No.	Description
1	321529	Seat Cushion
2	321530	Back Cushion
3	321523	Arm Rest
4	723433	Seat Side Raised – Rt.
5	723434	Seat Side Raised – Lt.
6	822630	Seat Edge Trim
7	644872	Seat Mount
8	253193	Whiz Bolt .312-18 x 1
9	722884	Seat Reinforcement – Raised
10	253191	Whiz Bolt .312-18 x .625
11	183871	Seat Switch – Twist
12	424095	Seat Isolator
13	644618	Seat Hinge Pin
14	253192	Whiz Bolt .312-18 x .75
15	253035	Whiz Nut .312-18
16	754234	Dual Latch – Seat
17	730230	Pivot Pin – Seat
18	284408	Torsion Spring
19	260606	Ring Cotter .047 x .312
20	324200	Seat Belt – Non Retractable
21	243551	Bolt .5-13 x .75
22	257063	Nylon Washer .5
23	257062	Washer .5 SAE
24	253470	Nut .5-13 Nylon Insert
25	324107	OPS Tube
26	729306	Gusset – OPS Rt.
27	729307	Gusset – OPS Lt.
28	243591	Bolt .5-13 x 2.5
29	253930	Lock Nut .5-13
30	253176	Whiz Bolt .25-20 x .5 Hex
31	424015	Rubber Bumper
32	283516	Spring Compression
33	422127	Cap – Seat Spring
34	253203	Whiz Bolt .375-16 x 1
35	253043	Whiz Nut .375-16

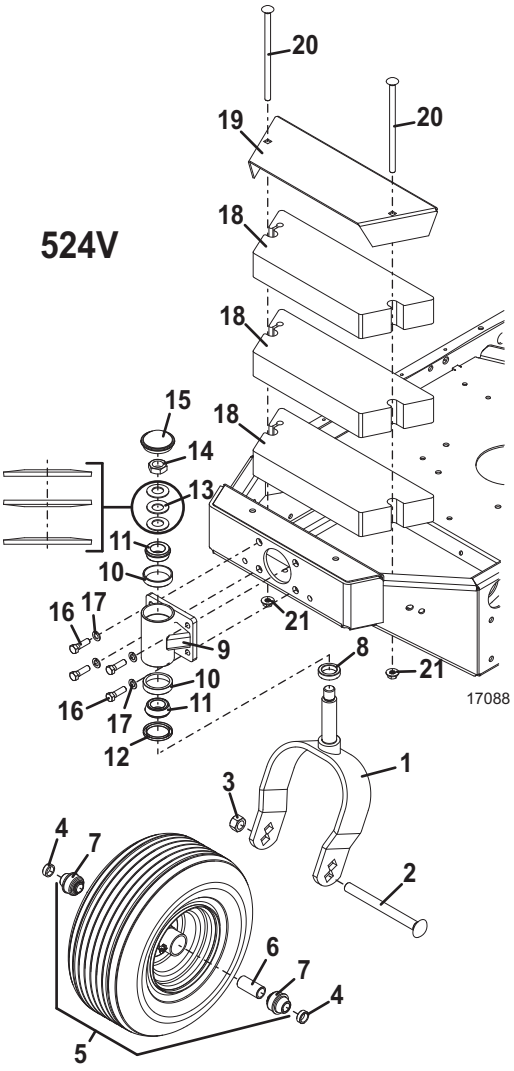
OPS & SEAT ASSEMBLY

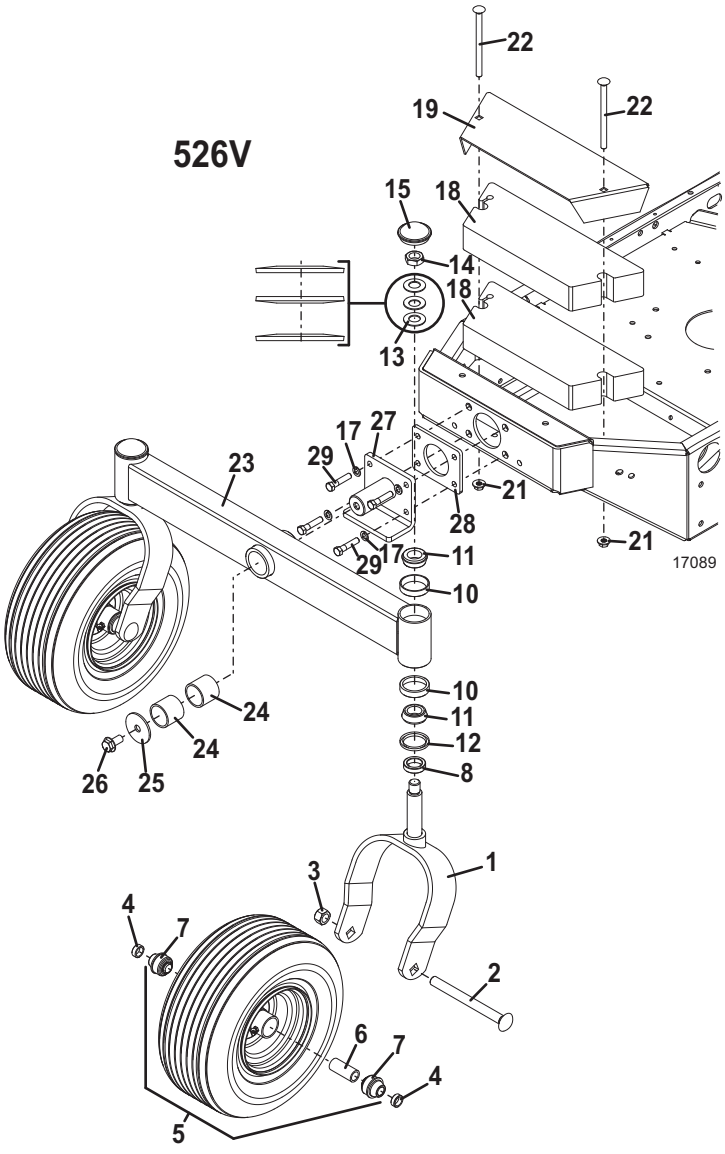


TAIL WHEEL & WEIGHTS

Item No.	Order No.	Description
1	645221	Rear Fork
2	247726	Carriage Bolt .625 x 7
3	253970	Lock Nut .625-11
4	902422	Axle Spacer
5	603975	Wheel & Tire Assembly 13 x 6.5 x 6 w/Bearing & Spacer (includes items 6 & 7)
6	423750	Bearing Spacer
7	120048	Wheel Bearing
8	282615	Spacer .375 x 1
9	604596	Pivot Housing Assembly (includes item 10)
10	123522	Bearing Cup
11	122522	Bearing – Taper
12	125855	Seal
13	257320	Washer – Spring
14	254505	Jam Nut .75-16 Nylon Toplock
15	481434	Dust Cap – Domed
16	243334	Bolt .375-16 x 1.25 Grade 8
17	257412	Lock Washer .375
18	323933	Counterweight – 34#
19	729514	Weight Cover
20	247335	Carriage Bolt .375 x 7.50
21	253043	Whiz Nut .375-16
22	247325	Carriage Bolt .375 x 5.50
23	824510	Axle Beam (includes items 10 & 24)
24	833275	Oilite Bearing – Reamed
25	257061	Washer .5 x 2.25
26	253243	Whiz Bolt .5-13 x 1
27	604597	Rear Axle Pivot
28	776233	Plate – Tail Wheel Spacer
29	243342	Bolt .375-16 x 1.75 Grade 8

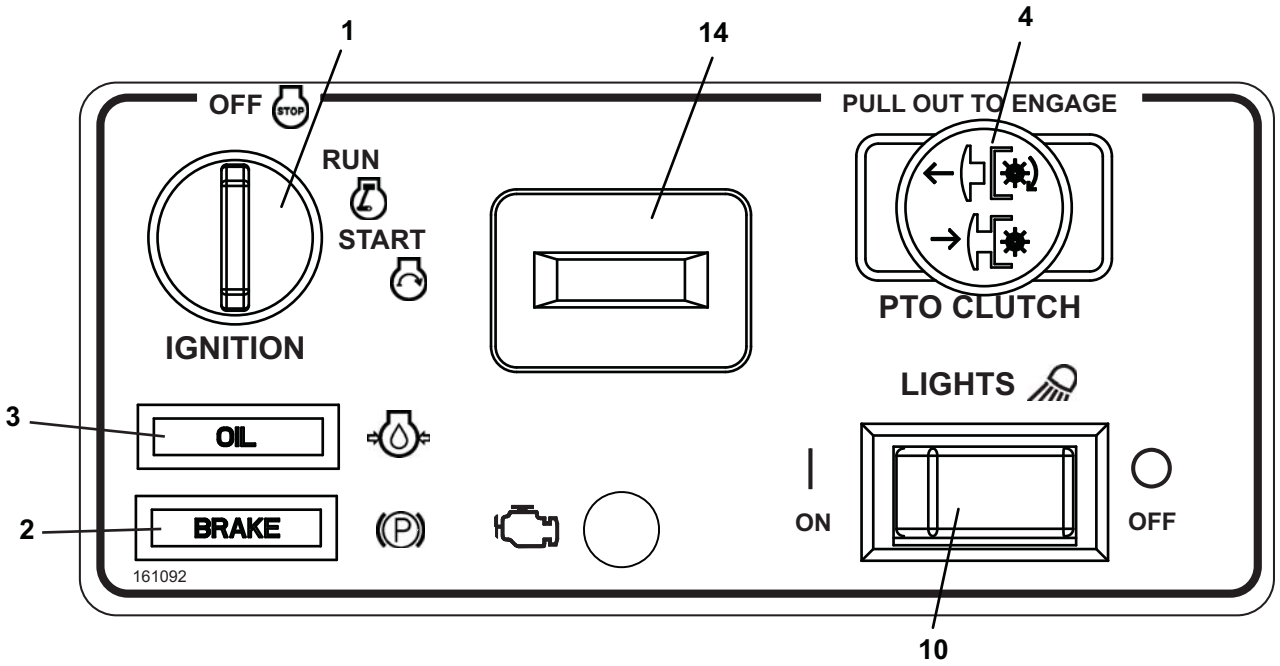
TAIL WHEEL & WEIGHTS



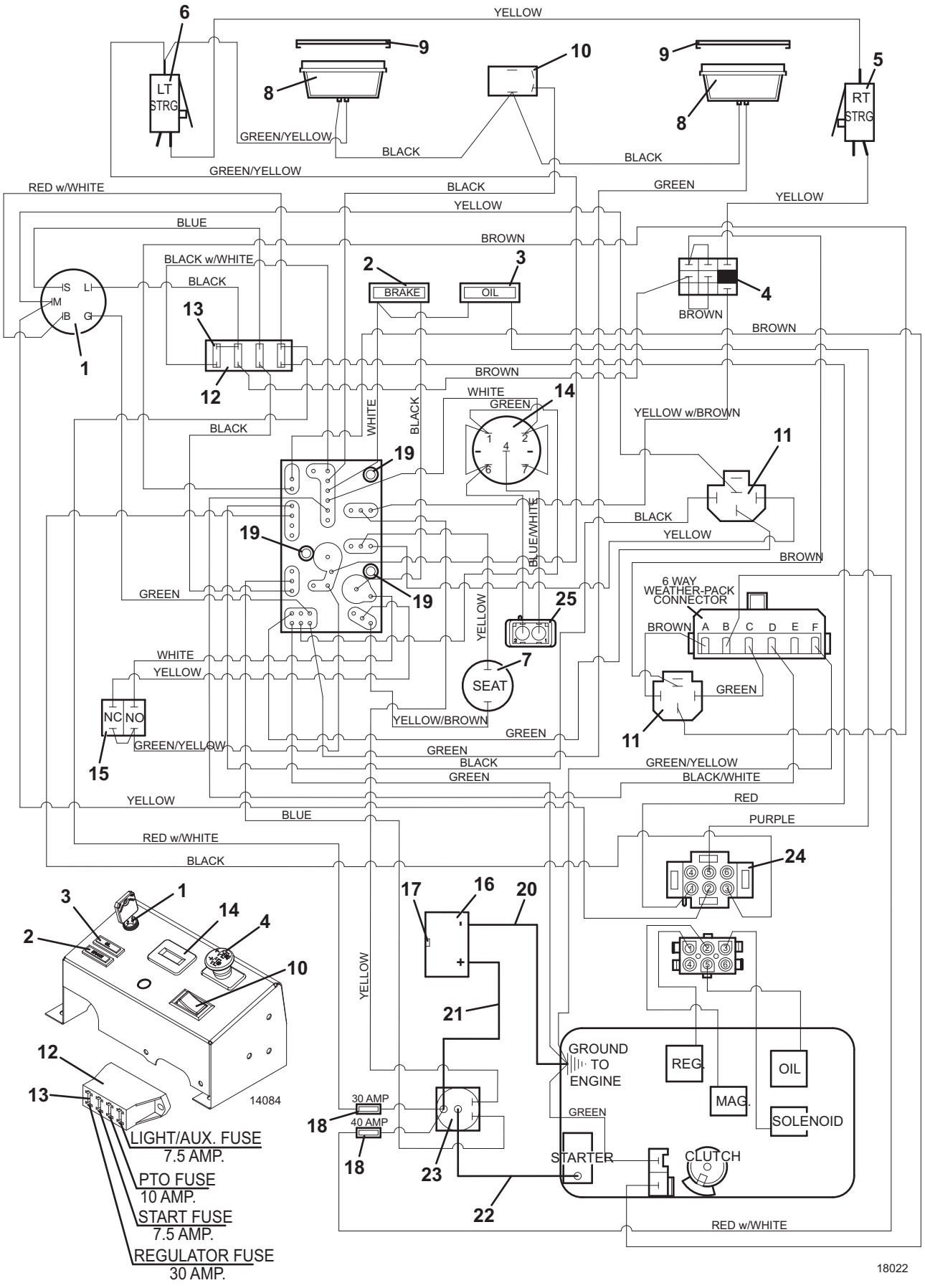


WIRING DIAGRAM - 524V

Item No.	Order No.	Description	Item No.	Order No.	Description
	606860	Wiring Assembly	13	181470	Fuse 30 Amp Auto
	161092	Decal – Console		181462	Fuse 10 Amp Auto
1	183806	Ignition Switch		181460	Fuse 7.5 Amp Auto
	254498	Nylon Nut – Ignition Switch	14	141551	Hour Meter
2	182326	Indicator Light – Brake	15	183894	Brake Switch
3	182327	Indicator Light – Oil	16	180125	Battery 12 Volt
	183770	Oil Sender		644099	Battery Box
4	183925	Clutch Switch		644162	Cover – Battery
5	183860	Safety Switch – Rt. Steering	17	729001	Clamp – Battery
	720160	Rt. Steering Switch Mount	18	181735	Fuse Holder
6	183860	Safety Switch – Lt. Steering		181470	Fuse 30 Amp Auto ATC
	720161	Lt. Steering Switch Mount		181475	Fuse 40 Amp Auto ATC
7	183871	Seat Safety Switch	19	423690	Spacer – PC Board Support
8	182261	Work Lamp LED Flood (optional)	20	180277	Battery Cable 16” Black
		(includes item 9)	21	180322	Battery Cable 24” Red
9	182251	Bezel (optional)	22	180309	Battery Cable 11” Red
10	184179	Light Switch (optional)	23	184251	Solenoid Switch - 4 Post
11	184271	Relay w/Mount	24	184911	Connector – 6 Way
12	181720	Fuse Block ATC 4-Way	25	184907	2 Terminal Connector
	162320	Fuse I.D. Decal		141235	Fuel Sender - Electric

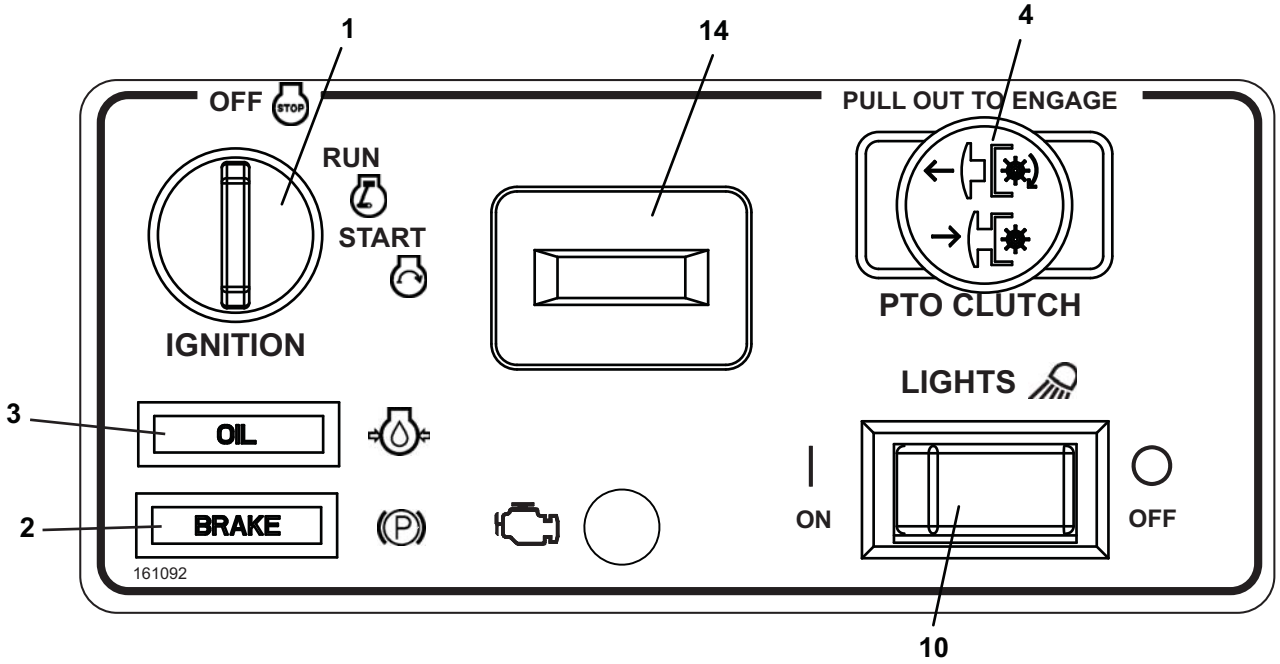


WIRING DIAGRAM - 524V

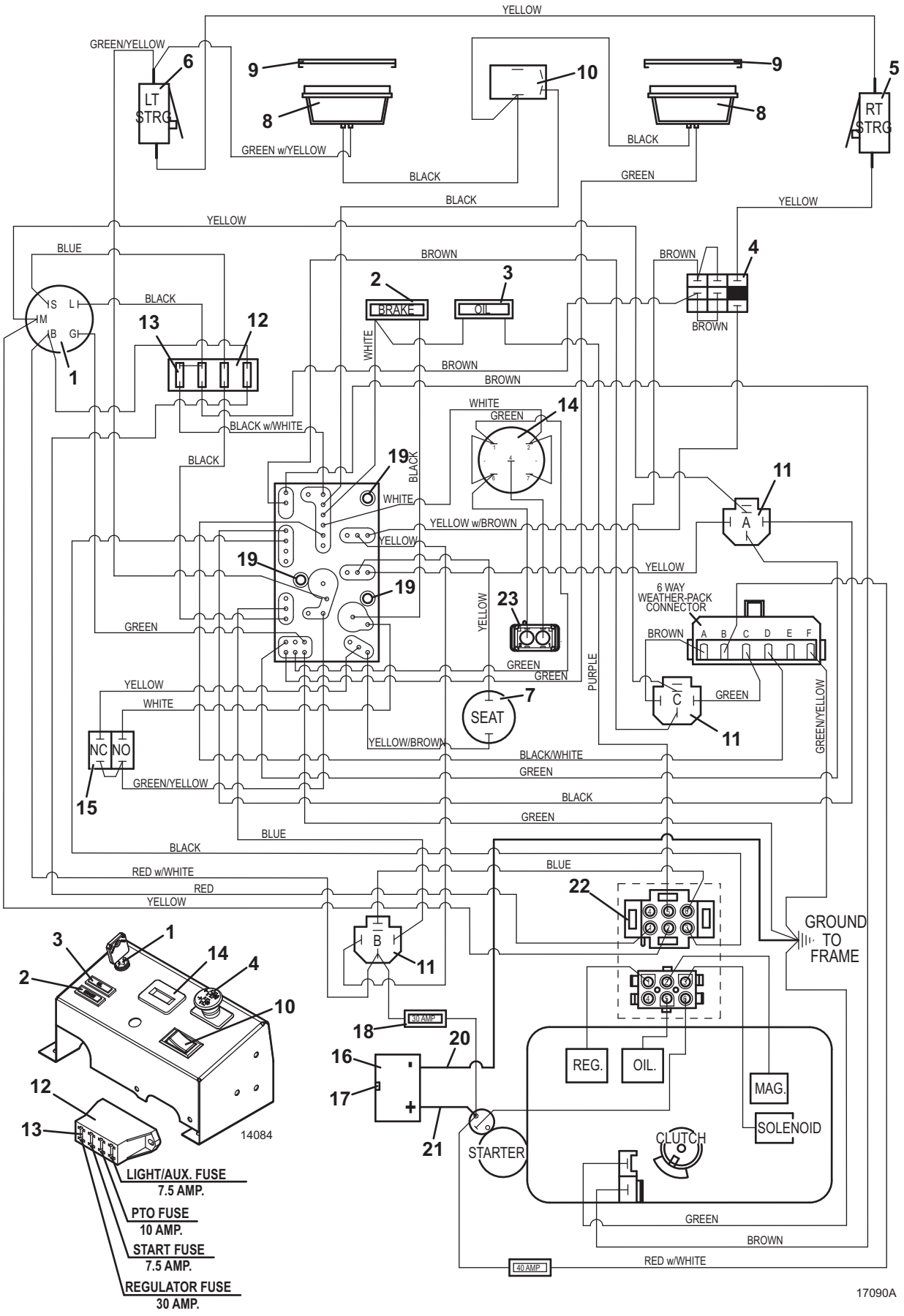


WIRING DIAGRAM - 526V

Item No.	Order No.	Description
	606858	Wiring Assembly
	161092	Decal - Console
1	183806	Ignition Switch
	254498	Nylon Nut – Ignition Switch
2	182326	Indicator Light – Brake
3	182327	Indicator Light – Oil
4	183925	Clutch Switch
5	183860	Safety Switch – Rt. Steering
	720160	Rt. Steering Switch Mount
6	183860	Safety Switch – Lt. Steering
	720161	Lt. Steering Switch Mount
7	183871	Seat Switch - Twist
8	182261	Work Lamp LED Flood (optional) (includes item 9)
9	182251	Bezel (optional)
10	184179	Light Switch (optional)
11	184271	Relay w/Mount
12	181720	Fuse Block
	162320	Fuse I.D. Decal
13	181470	Fuse 30 Amp Auto
	181462	Fuse 10 Amp Auto
	181460	Fuse 7.5 Amp Auto
14	141551	Hour Meter
15	183894	Brake Switch
16	180125	Battery 12 Volt
	644099	Battery Box
	644162	Cover – Battery
17	729001	Clamp – Battery
18	181735	Fuse Holder
	181470	Fuse 30 Amp Auto
19	423690	Spacer – PC Board Support
20	180277	Battery Cable 16” Black
21	180335	Battery Cable 35” Red
	425219	Battery Terminal Boot
	425215	Alternator Terminal Boot
22	184911	Connector – 6 Way
23	184907	2 Terminal Connector
	141235	Fuel Sender - Electric



WIRING DIAGRAM - 526V



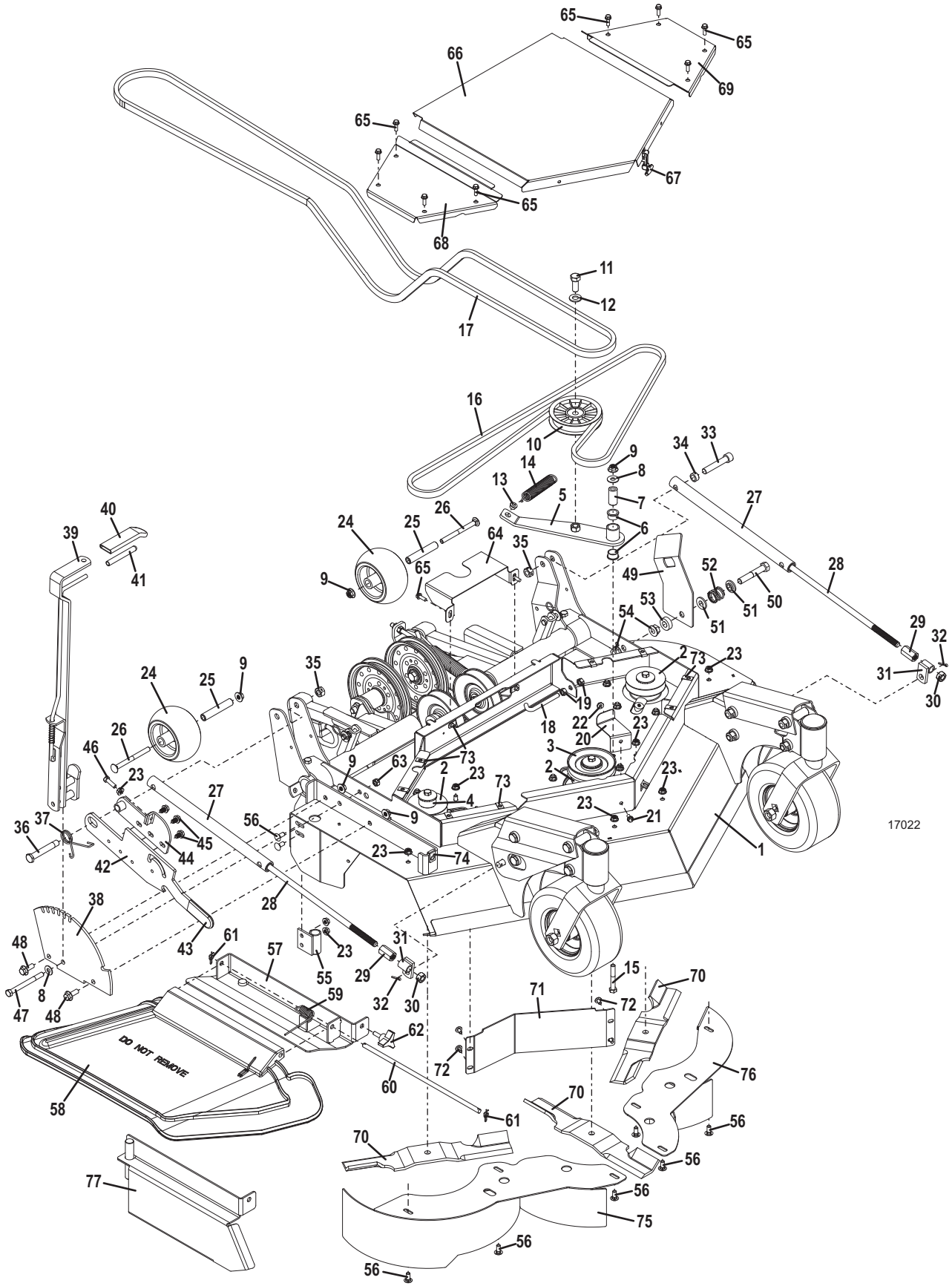
DECK ASSEMBLY - MODEL 524V/42

Item No.	Order No.	Description
1	645246	Deck - 524V/42
2	414675	Sheave – B Groove
3	415870	Sheave
4	282630	Spacer .75 x 1 x 1.5
5	824461	Idler Arm Assembly (includes items 6 & 7)
6	121756	Bearing – Oilite
7	881105	Pivot Shaft – Bearing
8	257040	Washer .375
9	253043	Whiz Nut .375-16
10	393225	Idler 4.75
11	243565	Bolt .5-13 x 1.25
12	257062	Washer .5 SAE
13	422520	Nylon Bearing
14	283842	Spring – Extension
15	243355	Bolt .375-16 x 2.5
16	382990	Belt
17	382077	Belt BK – 133.5 EL
18	730391	“J” Bolt – Idler Adjustment
19	254450	Nut .375-16
20	722137	Bracket - Belt Retainer Front
21	253173	Whiz Bolt .25-20 x .5 Hex
22	253025	Whiz Nut .25-20
23	253035	Whiz Nut .312-18
24	484230	Wheel – Anti-Scalp
25	942137	Bearing Tube
26	247310	Carriage Bolt .375 x 4.25
27	644506	Lift Tube
28	243670	Round Head Bolt .5-13 x 15
29	321185	Sleeve Nut – Height Adjustment
30	254470	Nut .5-13
31	644072	Bracket – Lift Rod
32	260650	Cotter Pin .125 x .75
33	259640	Socket Head Screw .5-13 x 2.75
34	902282	Spacer
35	253930	Lock Nut .5-13
36	243609	Bolt .5-13 x 3.312
37	284423	Torsion Spring
38	726037	Lever Mount
39	644475	Lift Lever
40	422155	Handle Grip – Black .25 x 1.25
41	422158	Handle Grip – Black .312 x 3.5
42	824174	Connecting Arm
43	422153	Handle Grip – Black .25 x 1.25 x 3
44	824566	Adjustment Bracket
45	253189	Whiz Bolt .312-18 x .5
46	243205	Bolt .312-18 x 1
47	243385	Bolt .375-16 x 4
48	253203	Whiz Bolt .375-16 x 1
49	729231	Deck Latch
50	243600	Bolt .5-13 x 3
51	257067	Step Washer .531
52	283332	Spring – Compression
53	902292	Spacer – Tilt Latch
54	253067	Flange Nut .5-13
55	643632	Pivot Mount
56	247130	Carriage Bolt .312 x .75
57	644567	Mount – Discharge Shield
58	422042	Shield – Flex Discharge
59	284406	Torsion Spring
60	780650	Pin – Discharge Shield
61	260608	Ring Cotter .054 x .375
62	252821	3-Prong Stud .312-18 x 1.25
63	253890	Lock Nut .375-16
64	751374	Shield – Belt Rear
65	253175	Whiz Bolt .25-20 x .75 Hex
66	751371	Shield – Belt Center
67	281300	Rubber Draw Latch
68	751372	Shield – Belt Right
69	751373	Shield – Belt Left
70	320234	Blade – 15” Hi Lift Notch
71	724584	Auxiliary Front Shroud
72	253176	Whiz Bolt .25-20 x .5 Truss
73	254431	Speed Nut .25-20
74	254448	Speed Nut .312-18 x .25
75	645598	Mulch Plate Rt. (optional)
76	645599	Mulch Plate Lt. (optional)
77	644175	End Cap – Mulch (optional)

Item not pictured:

605388	Decal Set – 524V/42 Deck

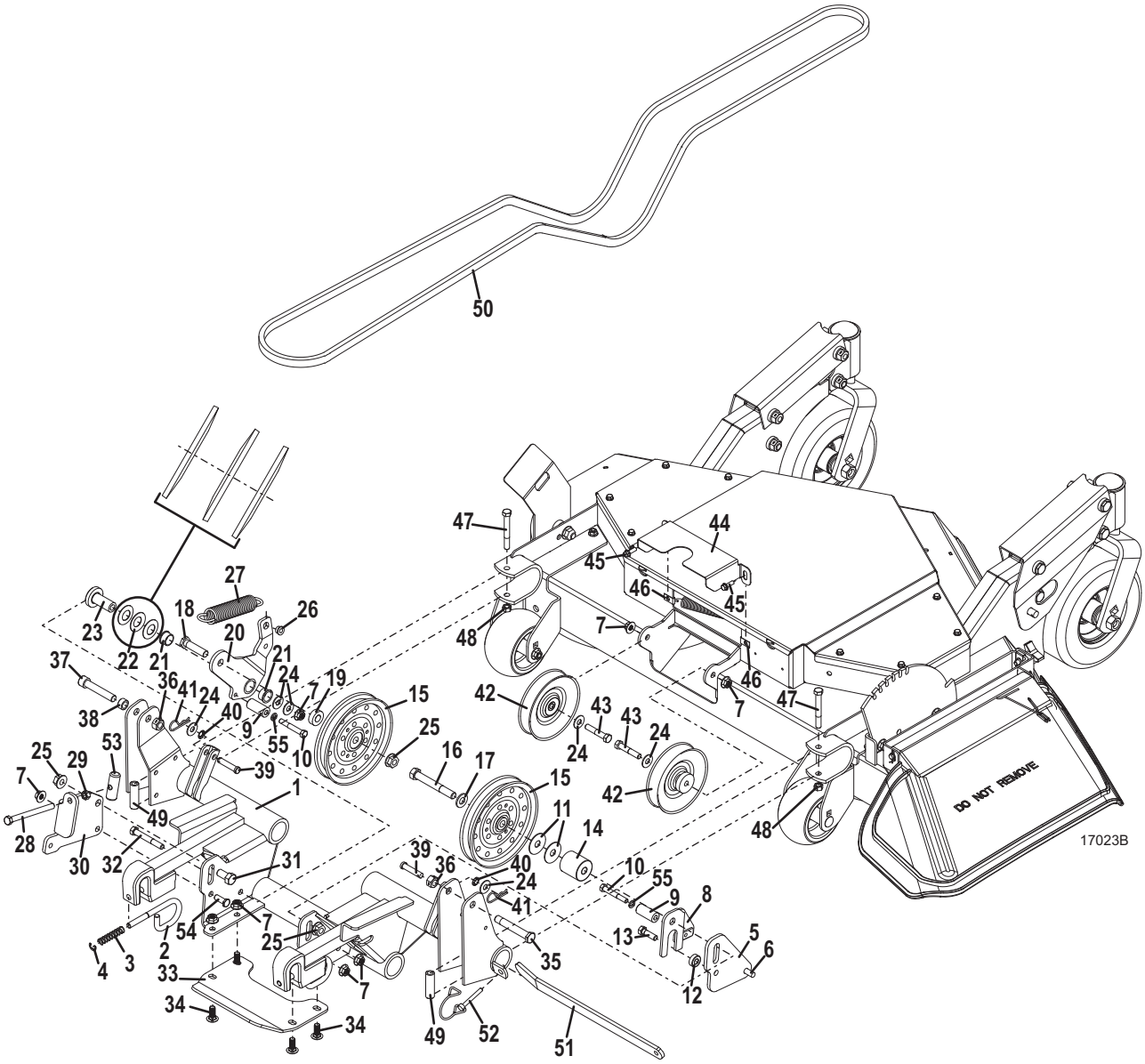
DECK ASSEMBLY - MODEL 524V/42



LIFT ARM ASSEMBLY - MODEL 524V/42

Item No.	Order No.	Description
1	604541	Lift Arm Assembly (includes items 2-4)
2	730433	Latch Pin
3	283285	Compression Spring
4	263490	External Retainer
5	776101	Plate – Idler Reinforcement
6	253203	Whiz Bolt .375-16 x 1
7	253043	Whiz Nut .375-16
8	645116	Bracket – Belt Retainer
9	902336	Spacer
10	243230	Bolt .312-18 x 2.25
11	257072	Washer .515 x 1.625 x 16Ga.
12	902318	Spacer – Coupling
13	243335	Bolt .375-16 x 1.25
14	884307	Spacer – Idler 1.875
15	393250	Idler 6 x .5 x .75
16	243615	Bolt .5-13 x 3.75
17	257062	Washer .5 SAE
18	830065	Thin Head Bolt .5-13 x 2
19	902292	Spacer – Tilt Latch
20	824475	Idler Arm Assembly (includes items 21-23)
21	121756	Oilite Bearing
22	257319	Spring Washer
23	121651	Pedestal Bearing
24	257040	Washer .375
25	253067	Flange Nut .5-13 Spiral Loc
26	422520	Nylon Bearing
27	283848	Extension Spring
28	243395	Bolt .375-16 x 4.5 Full Thread
29	254450	Nut .375-16
30	726316	Bracket – Belt Idler Spring
31	243560	Bolt .5-13 x 1
32	243360	Bolt .375-16 x 2.75
33	725240	Guard – Sheave
34	247253	Carriage Bolt .375 x 1
35	243609	Bolt .5-13 x 3.312
36	253930	Lock Nut .5-13
37	259640	Socket Head Screw .5-13 x 2.75
38	902282	Spacer
39	261362	Clevis Pin .375 x 1.75
40	262950	Retainer – Push-On .375
41	260523	Hair Pin .094 x 2
42	393376	Idler 4 x .375 BC Groove w/Hub
43	243352	Bolt .375-16 x 2
44	751374	Shield – Belt Rear
45	253175	Whiz Bolt .25-20 x .75 Hex
46	254431	Speed Nut .25-20
47	243365	Bolt .375-16 x 3
48	253890	Lock Nut .375-16
49	902284	Spacer – Roller Mount
50	382077	Mule Belt Bk-133.5
51	726122	Lever - Traction Tool
52	261624	Linch Pin .25 x 1.75
53	881925	Shaft – Idler Spring Adjustment
54	243329	Bolt .375-16 x 1 Thin Head
55	257402	Lock Washer .312

LIFT ARM ASSEMBLY - MODEL 524V/42



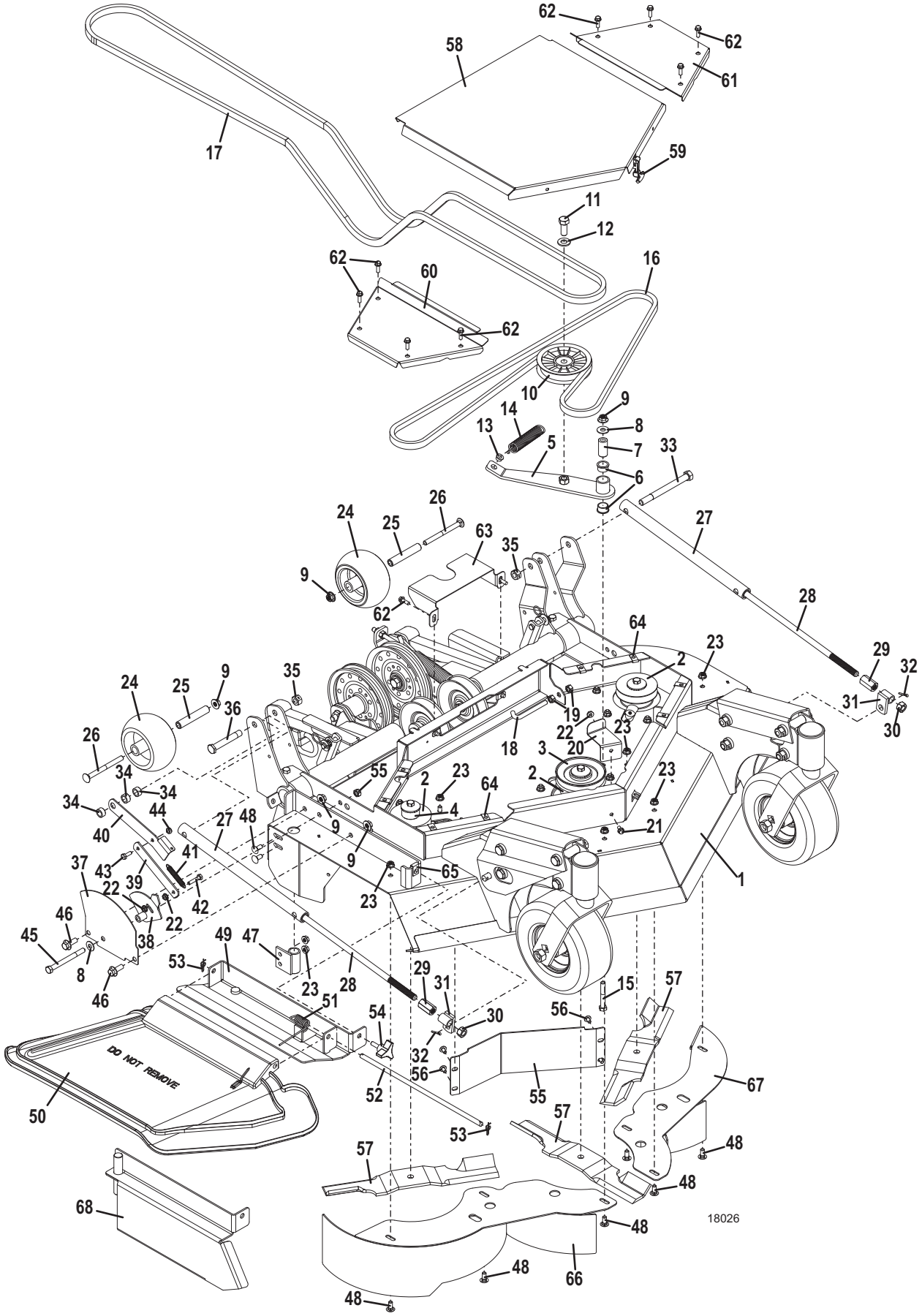
DECK ASSEMBLY - MODEL 524V/42PF

Item No.	Order No.	Description
1	645246	Deck – 524V42
2	414675	Sheave – B Groove
3	415891	Sheave
4	282630	Spacer .75 x 1 x 1.5
5	824461	Idler Arm Assembly (includes items 6 & 7)
6	121756	Bearing – Oilite
7	881105	Pivot Shaft – Bearing
8	257040	Washer .375
9	253043	Whiz Nut .375-16
10	393225	Idler 4.75
11	243565	Bolt .5-13 x 1.25
12	257062	Washer .5 SAE
13	422520	Nylon Bearing
14	283842	Spring – Extension
15	243355	Bolt .375-16 x 2.5
16	382990	Belt L585
17	382077	Belt BK – 133.5 EL
18	730391	“J” Bolt – Idler Adjustment
19	254450	Nut .375-16
20	722137	Bracket – Belt Retainer Front
21	253173	Whiz Bolt .25-20 x .5 Hex
22	253025	Whiz Nut .25-20
23	253035	Whiz Nut .312-18
24	484230	Wheel – Anti-Scalp
25	942137	Bearing Tube
26	247310	Carriage Bolt .375 x 4.25
27	644506	Lift Tube
28	243670	Round Head Bolt .5-13 x 15
29	321185	Sleeve Nut – Height Adjustment
30	254470	Nut .5-13
31	644072	Bracket – Lift Rod
32	260650	Cotter Pin .125 x .75
33	243635	Bolt .5-13 x 5.5
34	902282	Spacer
35	253930	Lock Nut .5-13
36	243609	Bolt .5-13 x 3.312
37	773141	Plate – Cutting Height
38	644319	Height Indicator – Electric Lift
39	729331	Strap – Indicator Electric Lift
40	729332	Linkage – Indicator Electric Lift
41	283762	Spring – Extension
42	243030	Bolt .25-20 x 1.25
43	243018	Bolt .25-20 x .75
44	253440	Nut .25-20 Nylon Insert
45	243385	Bolt .375-16 x 4
46	253203	Whiz Bolt .375-16 x 1
47	643632	Pivot Housing
48	247130	Carriage Bolt .312 x .75
49	644567	Mount – Discharge Shield
50	422042	Shield – Flex Discharge
51	284406	Torsion Spring
52	780650	Pin – Discharge Shield
53	260608	Ring Cotter .054 x .375
54	252821	3-Prong Stud .312-18 x 1.25
55	724584	Auxiliary Front Shroud
56	253176	Whiz Bolt .25-20 x .5 Truss
57	320234	Blade – 15” Hi Lift Notch
58	751371	Shield – Belt Center
59	281300	Rubber Draw Latch
60	751372	Shield – Belt Right
61	751373	Shield – Belt Left
62	253175	Whiz Bolt .25-20 x .75 Hex
63	751374	Shield – Belt Rear
64	254431	Speed Nut .25-20
65	254448	Speed Nut .312-18 x .25
66	645598	Mulch Plate Rt. (optional)
67	645599	Mulch Plate Lt. (optional)
68	644175	End Cap – Mulch (optional)

Item not pictured:

605389	Decal Set – 524V/42PF Deck

DECK ASSEMBLY - MODEL 524V/42PF



LIFT ARM ASSEMBLY - MODEL 524V/42PF

Item No.	Order No.	Description
1	604539	Lift Arm Assembly (includes items 2-4)
2	730433	Latch Pin
3	283285	Compression Spring
4	263490	External Retainer
5	776101	Plate – Idler Reinforcement
6	253203	Whiz Bolt .375-16 x 1
7	253043	Whiz Nut .375-16
8	645116	Bracket – Belt Retainer
9	902336	Spacer
10	243230	Bolt .312-18 x 2.25
11	253035	Nut .312-18
12	902318	Spacer – Coupling
13	243335	Bolt .375-16 x 1.25
14	884307	Spacer – Idler 1.685
15	393250	Idler 6.0 x .50 x .75
16	243615	Bolt .5-13 x 3.75
17	257062	Washer .5 SAE
18	243580	Bolt .5-13 x 2
19	902292	Spacer – Tilt Latch
20	824475	Idler Arm Assembly (includes items 21-23)
21	121756	Oilite Bearing
22	257319	Washer Spring
23	121651	Pedestal Bearing
24	257040	Washer .375
25	253067	Flange Nut .5-13 Spiral Lock
26	422520	Nylon Bearing
27	283848	Extension Spring
28	243395	Bolt .375-16 x 4.5 Full Thread
29	254450	Nut .375-16
30	726316	Bracket – Belt Idler Spring
31	243560	Bolt .5-13 x 1
32	243360	Bolt .375-16 x 2.75
33	725240	Guard – Sheave
34	247253	Carriage Bolt .375 x 1”
35	243609	Bolt .5-13 x 3.312
36	253930	Lock Nut .5-13
37	243635	Bolt .5-13 x 5.5
38	257072	Washer .515 x 1.625 16 Ga.
39	261362	Clevis Pin .375 x 1.75
40	262950	Retainer – Push-On .375
41	260523	Hair Pin .094 x 2
42	393376	Idler 4 x .375 BC Groove w/Hub
43	243352	Bolt .375-16 x 2
44	732315	Spacer Mount
45	423697	Spacer – Height Adjustment
46	902297	Spacer
47	243365	Bolt .375-16 x 3
48	253890	Lock Nut .375-16
49	902284	Spacer – Roller Mount
50	382077	Mule Belt BK 133.5
51	726122	Lever – Traction Tool
52	261624	Linch Pin
53	881925	Shaft – Idler Spring Adjustment
54	243329	Bolt .375-16 x 1 Thin Head
55	257402	Lock Washer .312
56	902282	Spacer – Actuator Stop
57	644506	Lift Linkage Tube
58	243670	Round Head Bolt .5-13 x 15
59	644072	Bracket – Lift Rod
60	254470	Nut .5-13
61	321185	Sleeve Nut – Height Adjustment
62	260650	Cotter Pin .125 x .75
63	645590	Mount – Actuator
64	729919	Gusset – Actuator Mount
65	243560	Bolt .5-13 x 1
66	253192	Whiz Bolt .312-18 x .75
67	180033	Actuator
68	644805	Switch Mount
69	184084	Toggle Switch
70	425200	Boot – Toggle Switch
71	722005	Shield – Switch Mount
72	165430	Decal - PowerFold® Instructions
73	250169	Screw 10-24 x .5
74	183867	Switch – Plunger – Snap Mount
75	424056	Bumper 1.25 x .75
76	284423	Torsion Spring 1.05 x .110

LIFT ARM ASSEMBLY - MODEL 524V/42PF

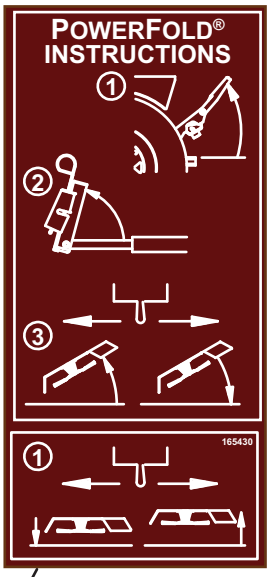
POWERFOLD® Instructions

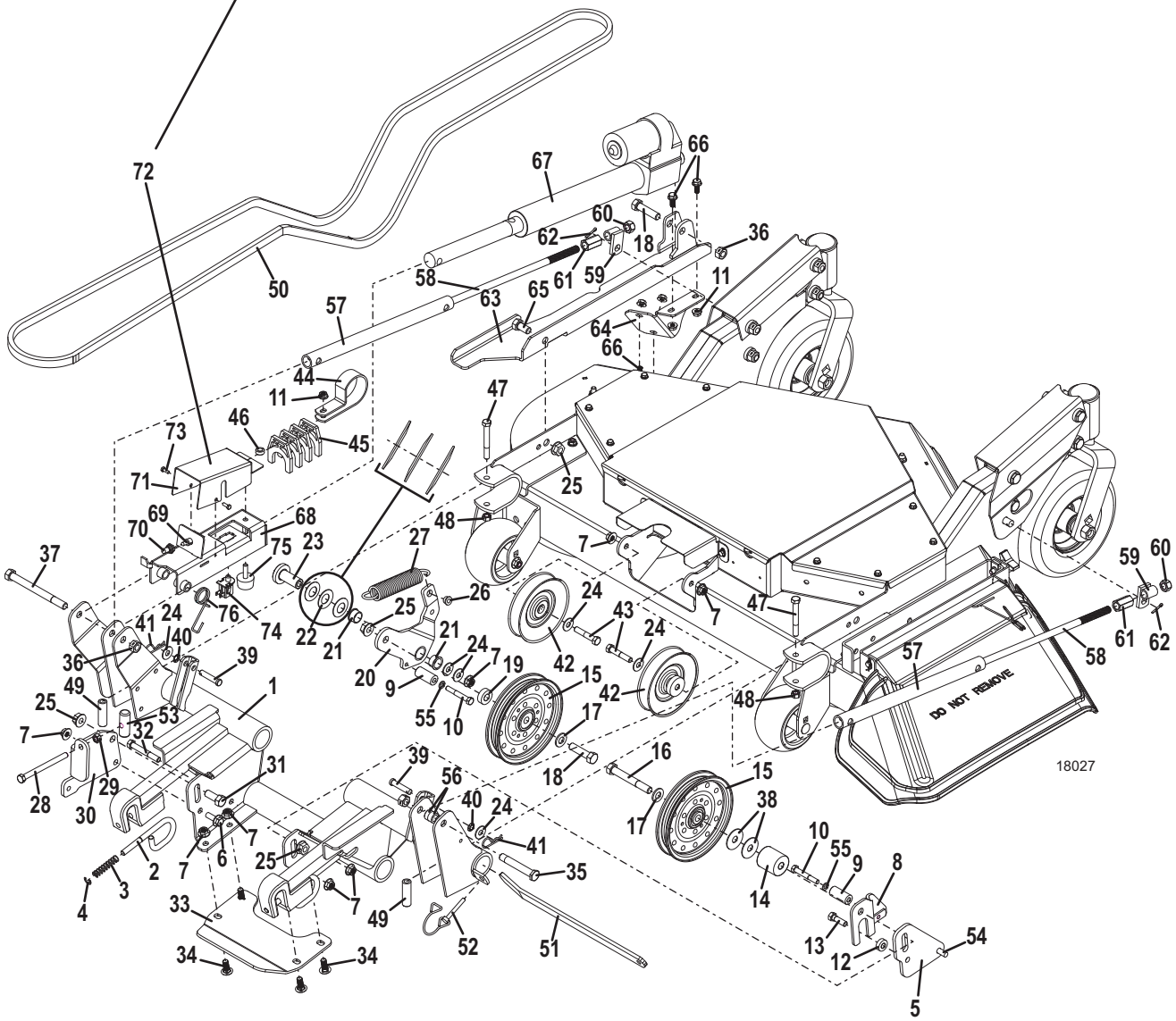
Fold Deck:

1. Raise foot rest to upright locked position.
2. Rotate and hold control box in vertical position.
3. Move switch left to fold up or move switch right to fold down.

Cutting Height:

1. Move switch left to lower deck or move switch right to raise deck.





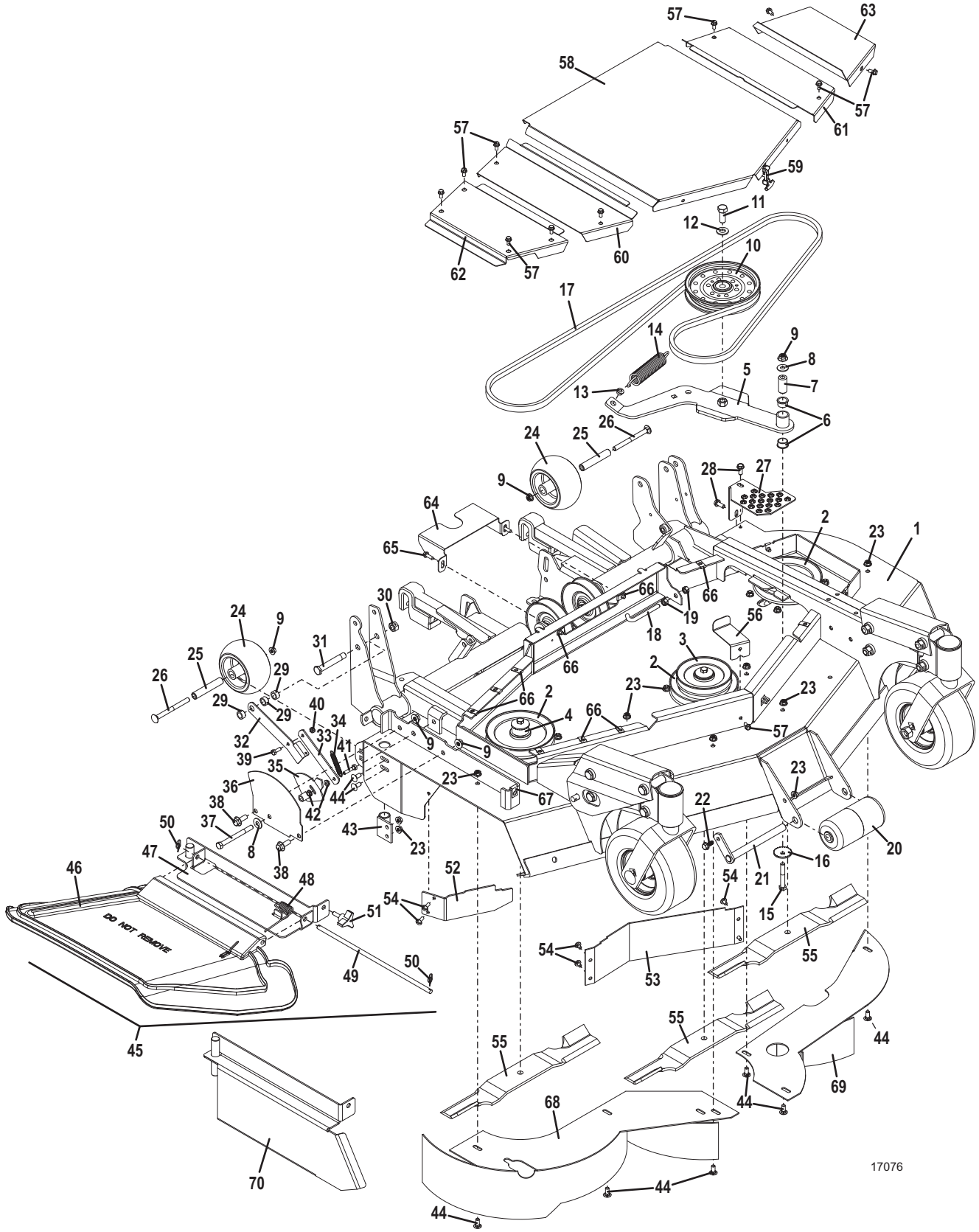
DECK ASSEMBLY - MODEL 526V/52

Item No.	Order No.	Description
1	645247	Deck - 526V/52
2	415892	Sheave – B Groove 6 x 25mm
3	415902	Sheave – B Groove 5 x 25mm
4	282630	Spacer .75 x 1 x 1.5
5	824460	Idler Arm Assembly (includes items 6 & 7)
6	121756	Bearing – Oilite
7	881105	Pivot Shaft – Bearing
8	257040	Washer .375
9	253043	Whiz Nut .375-16
10	393250	Idler 6 x .5
11	243565	Bolt .5-13 x 1.25
12	257062	Washer .5 SAE
13	422520	Nylon Bearing
14	283848	Spring – Extension
15	243355	Bolt .375-16 x 2.5
16	257041	Cupped Washer .375
17	382082	Belt 120.5
18	730391	“J” Bolt – Idler Adjustment
19	254450	Nut .375-16
20	603725	Center Roller Assembly
21	644512	Lock Pin – Roller
22	253192	Whiz Bolt .312-18 x .75
23	253035	Whiz Nut .312-18
24	484230	Wheel – Anti-Scalp
25	942137	Bearing Tube
26	247310	Carriage Bolt .375 x 4.25
27	724113	Tread Plate
28	243197	Bolt .312-18 x .75
29	902282	Spacer
30	253930	Lock Nut .5-13
31	243609	Bolt .5-13 x 3.312
32	729332	Linkage – Indicator Electric Lift
33	729331	Strap – Indicator Electric Lift
34	283762	Spring – Extension
35	644319	Height Indicator – Electric Lift
36	773141	Plate – Cutting Height
37	243385	Bolt .375-16 x 4
38	253203	Whiz Bolt .375-16 x 1
39	243018	Bolt .25-20 x .75
40	253440	Nut .25-20 Nylon Insert
41	243030	Bolt .25-20 x 1.25
42	253025	Whiz Nut .25-20
43	643632	Pivot Housing
44	247130	Carriage Bolt .312 x .75
45	604317	Discharge Shield Assembly (includes items 46-50)
46	422042	Shield – Flex Discharge
47	644570	Mount – Discharge Shield
48	284406	Torsion Spring
49	780650	Pin – Flex Discharge
50	260608	Ring Cotter .054 x .375
51	252821	3-Prong Stud .312-18 x 1.25
52	729686	Shroud – Discharge Deflector
53	724588	Auxiliary Front Shroud
54	253177	Whiz Bolt .25-20 x .75 Hex
55	320239	Blade 18″ High Lift Notched (3 required)
	320236	Blade 18″ Med Lift (3 required)
	320238	Blade 18″ Contour (3 required)
	320240	Blade 18″ Hi-Low Mulching (3 required)
	320241	Blade 18″ HD High Lift Notched (3 required)
56	722138	Bracket – Belt Retainer
57	253173	Whiz Bolt - .25-20 x .5 Hex
58	751375	Shield – Belt Center
59	281300	Draw Latch – Rubber
60	751376	Shield – Belt Right
61	751377	Shield – Belt Left
62	722702	Belt Shield – Right
63	722703	Belt Shield – Left
64	751374	Shield – Belt Center Rear
65	253175	Whiz Bolt .25-20 x .75 Hex
66	254431	Speed Nut .25-20
67	254448	Speed Nut .312-18 x .25
68	644608	Mulch Plate Rt. (Optional)
69	644609	Mulch Plate Lt. (Optional)
70	644058	End Cap

Item not pictured:

605393	Decal Set – 526V/52 Deck

DECK ASSEMBLY - MODEL 526V/52



LIFT ARM ASSEMBLY - MODEL 526V/52

Item No.	Order No.	Description
1	604542	Lift Arm Assembly (includes items 2-4)
2	730433	Latch Pin
3	283285	Compression Spring
4	263490	External Retainer
5	776101	Plate – Idler Reinforcement
6	253203	Whiz Bolt .375-16 x 1
7	253043	Whiz Nut .375-16
8	645116	Bracket – Belt Retainer
9	902336	Spacer
10	243230	Bolt .312-18 x 2.25
11	253035	Whiz Nut .312-18
12	902318	Spacer – Coupling
13	243335	Bolt .375-16 x 1.25
14	884307	Spacer – Idler 1.875
15	393250	Idler 6 x .5 x .75
16	243615	Bolt .5-13 x 3.75
17	257062	Washer .5 SAE
18	830065	Thin Head Bolt .5-13 x 2
19	902292	Spacer – Tilt Latch
20	824475	Idler Arm Assembly (includes items 21-23)
21	121756	Oilite Bearing
22	257319	Spring Washer
23	121651	Pedestal Bearing
24	257040	Washer .375
25	253067	Flange Nut .5-13 Spiral Loc
26	422520	Nylon Bearing
27	283848	Extension Spring
28	243395	Bolt .375-16 x 4.5 Full Thread
29	254450	Nut .375-16
30	726316	Bracket – Belt Idler Spring
31	243560	Bolt .5-13 x 1
32	243360	Bolt .375-16 x 2.75
33	725240	Guard – Sheave
34	247253	Carriage Bolt .375 x 1
35	243609	Bolt .5-13 x 3.312
36	253930	Lock Nut .5-13
37	243635	Bolt .5-13 x 5.5
38	257072	Washer .515 x 1.625 16 Ga.
39	261362	Clevis Pin .375 x 1.75
40	262950	Retainer – Push-On .375
41	260523	Hair Pin .094 x 2
42	393376	Idler 4 x .375 BC Groove w/Hub
43	243352	Bolt .375-16 x 2
44	285040	Damper – Belt Tension
45	902328	Spacer .375 x .725
46	243220	Bolt .312-18 x 1.75
47	243365	Bolt .375-16 x 3
48	253890	Lock Nut .375-16
49	902284	Spacer – Roller Mount
50	382103	Mule Belt Bk-136.5
51	726124	Lever - Traction Tool
52	261624	Linch Pin .25 x 1.75
53	881925	Shaft – Idler Spring Adjustment
54	243329	Bolt .375-16 x 1 Thin Head
55	257402	Lock Washer .312
56	644472	Lift Linkage Tube – Right
57	644547	Lift Linkage Tube – Left
58	243667	Round Head Bolt .5-13 x 11.75
59	644068	Bracket – Lift Rod
60	254470	Nut .5-13
61	257063	Washer .5 ID x .875 OD
62	260650	Cotter Pin .125 x .75
63	644056	Mount – Actuator
	776089	Threaded Plate
64	900142	Spacer – Actuator Mount
65	243580	Bolt .5-13 x 2
66	253193	Whiz Bolt .312-18 x 1
67	180035	Actuator
68	644805	Switch Mount
69	184084	Toggle Switch
70	425200	Boot – Toggle Switch
71	722005	Shield – Switch Mount
72	165430	Decal – PowerFold® Instructions
73	250169	Screw 10-24 x .5
74	732315	Spacer Mount
75	423697	Spacer – Height Adjustment
76	902297	Spacer
77	243205	Bolt .312-18 x 1
78	257032	Washer .312 SAE
79	183867	Switch - Plunger
80	424056	Bumper

LIFT ARM ASSEMBLY - MODEL 526V/52

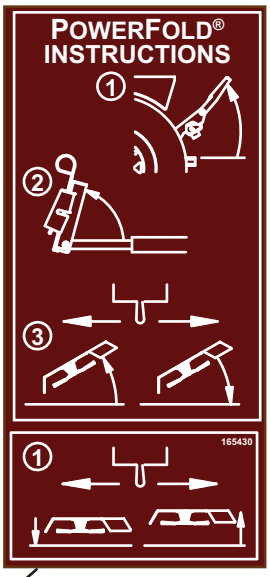
POWERFOLD® Instructions

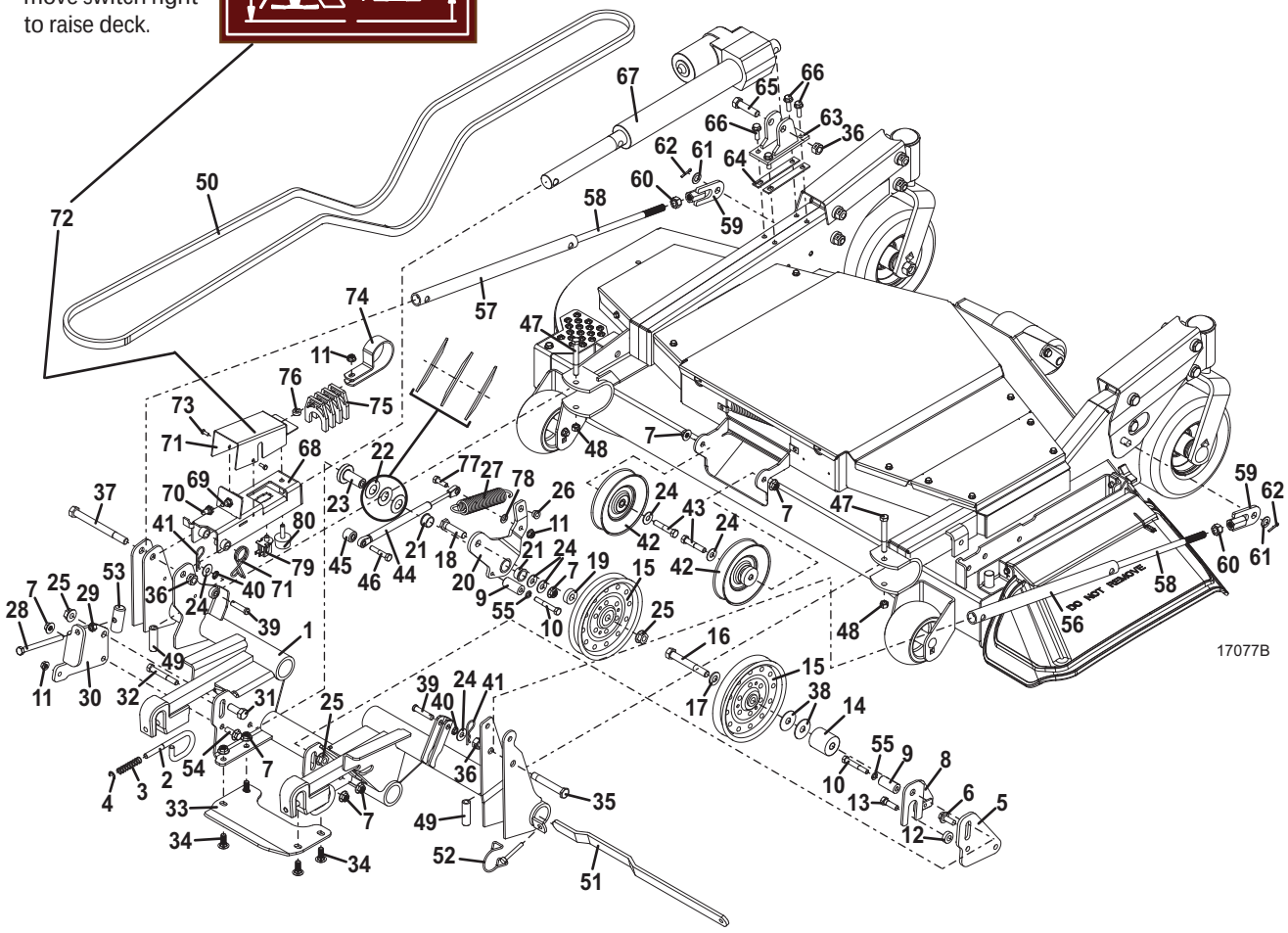
Fold Deck:

1. Raise foot rest to upright locked position.
2. Rotate and hold control box in vertical position.
3. Move switch left to fold up or move switch right to fold down.

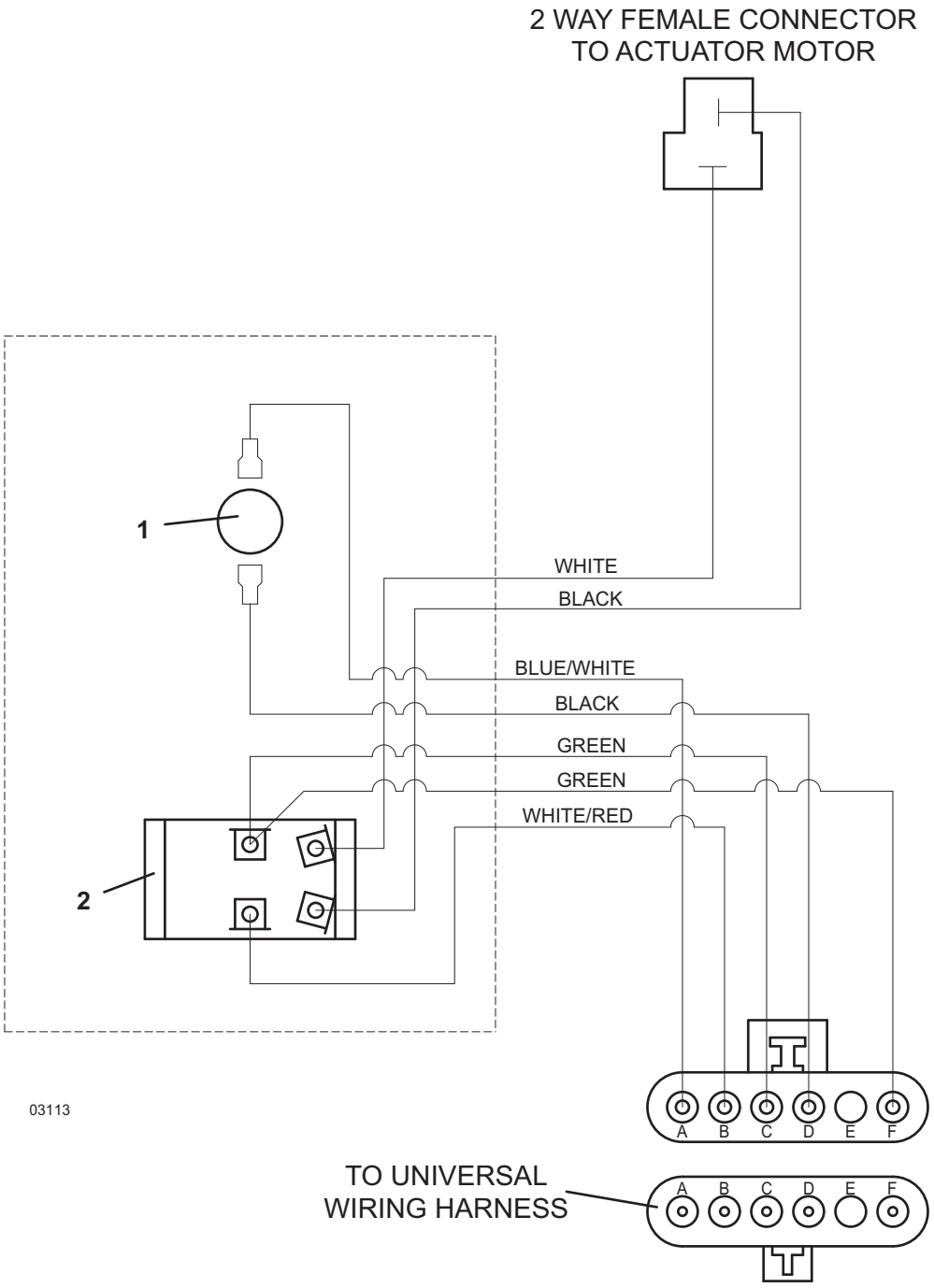
Cutting Height:

1. Move switch left to lower deck or move switch right to raise deck.



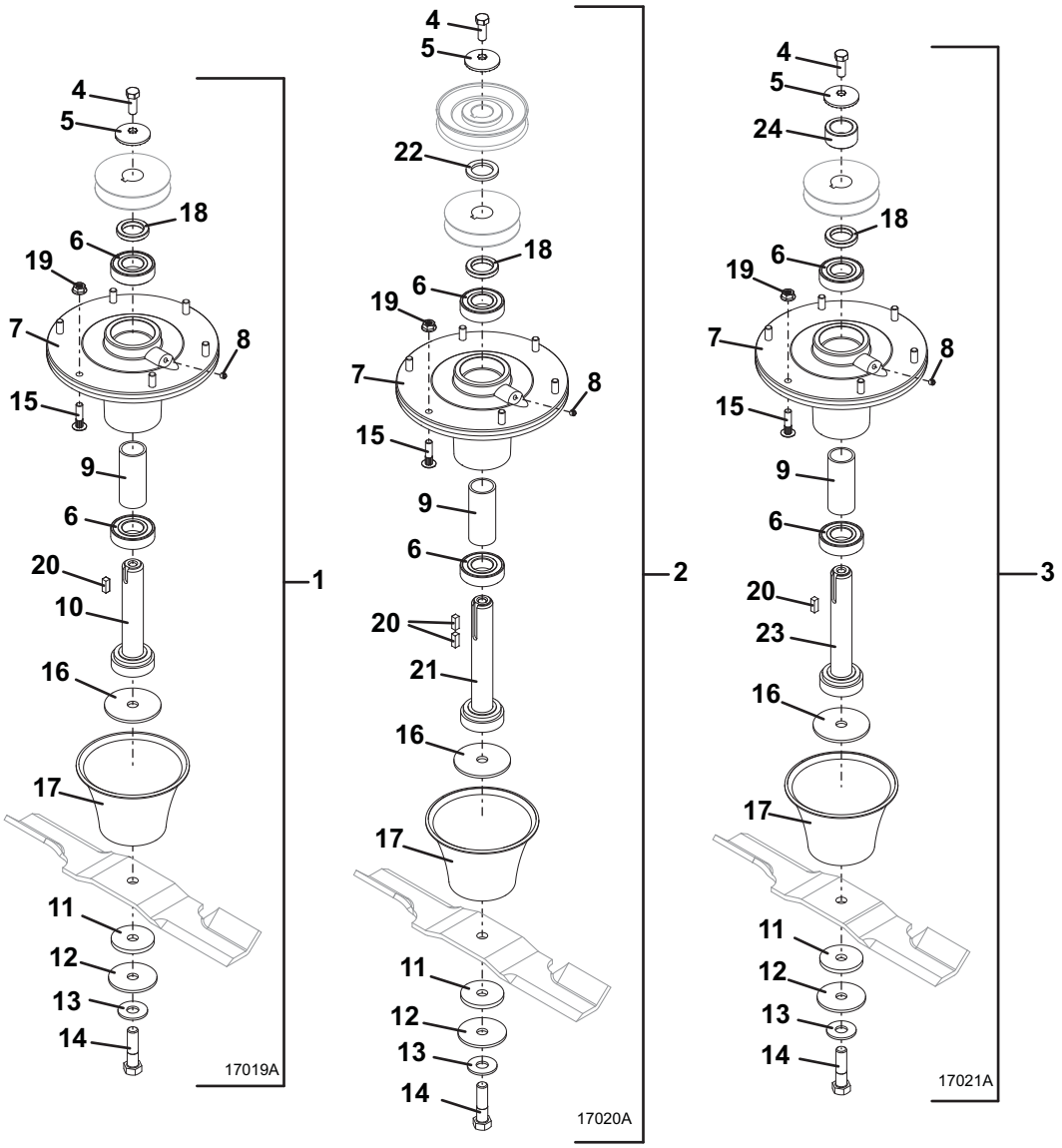


POWERFOLD® WIRING DIAGRAM



Item No.	Order No.	Description	Item No.	Order No.	Description
	605965	Wiring Harness Deck Tilt/ Height Adjust	1	183867	Switch - Plunger (not included in kit)
			2	184084	Toggle Switch

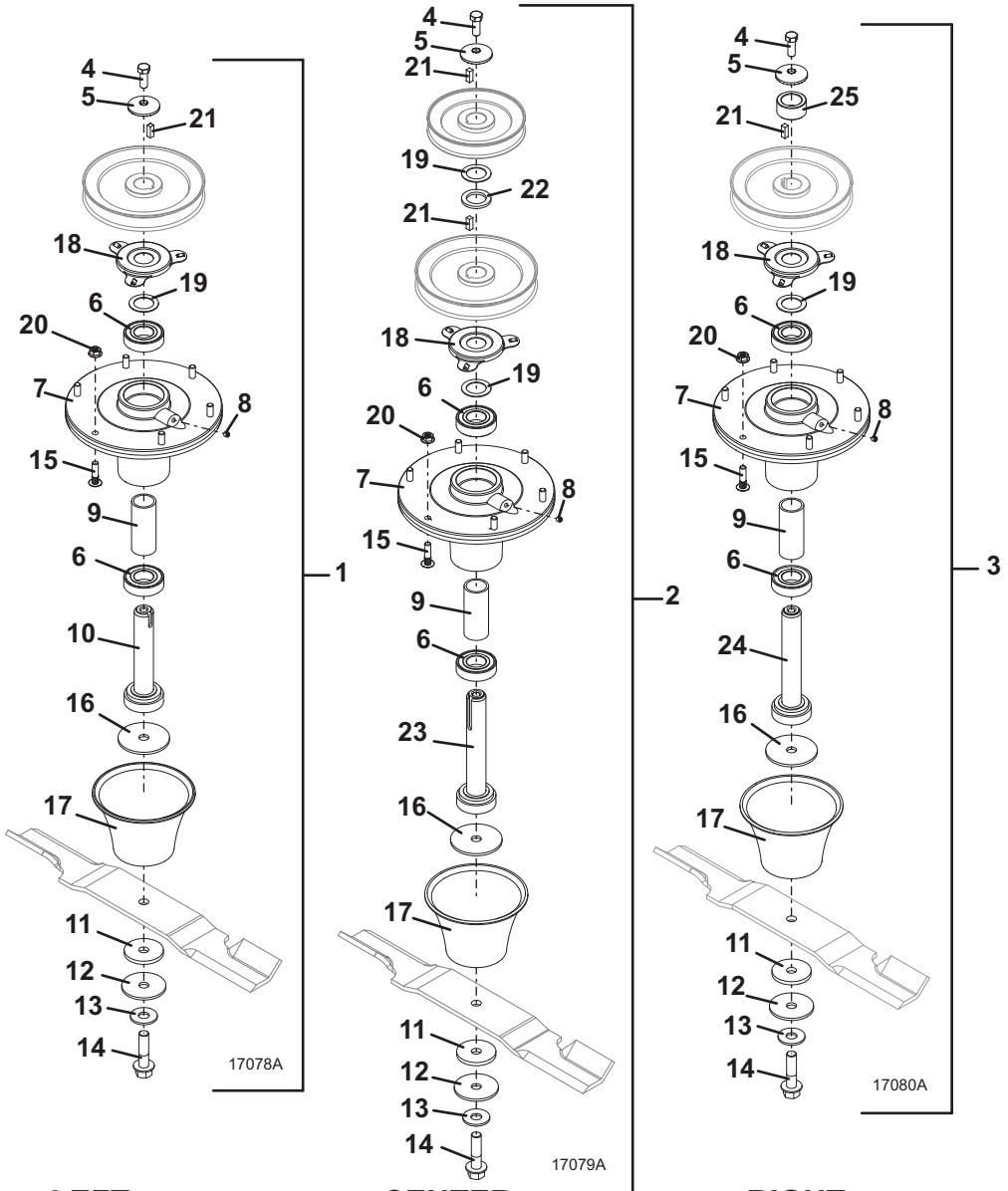
BLADE SPINDLE ASSEMBLY - 524V/42



LEFT **CENTER** **RIGHT**

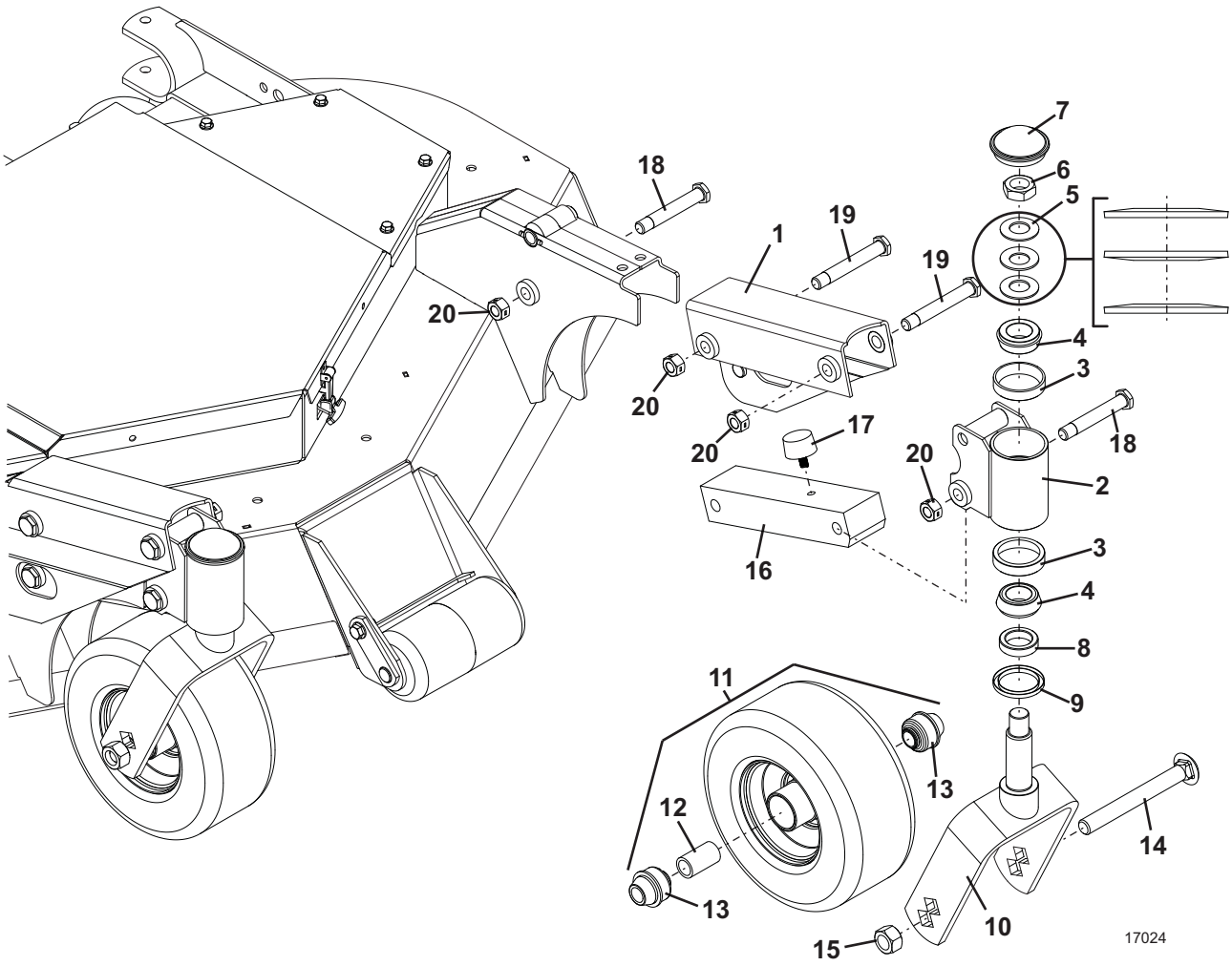
Item No.	Order No.	Description
1	623743	Blade Spindle Assembly Lt. (includes items 4-18)
2	623744	Blade Spindle Assembly Center (includes items 4-9, 11-18, 20 & 21)
3	623745	Blade Spindle Assembly Rt. (includes items 4-9, 11-18, 23 & 24)
4	243331	Bolt .375-24 x 1
5	257041	Cupped Washer .375 x 1.625
6	110081	Bearing 25mm
7	604413	Spindle Housing (includes item 15)
8	259305	Set Screw – Socket .25-28 x .25 Nylon
9	903643	Spacer – Bearing
10	604775	Spindle Shaft 25mm x 5.75
11	421200	Fiber Washer
12	257061	Flat Washer
13	257057	Washer .5 – Hardened
14	243581	Bolt .5-20 x 2 - Grade 5
15	247141	Stud Bolt .312-18 x 1.25
16	257055	Washer .510 x 2.625 x 10 Ga.
17	423680	Deflector Cone
18	282607	Spacer .25 x 1 x 1.5
19	253035	Whiz Nut .312-18
20	281580	Square Key .25 x .690
21	605771	Spindle Shaft 25mm x 6.812
22	257107	Spacer 10 Ga.
23	604774	Spindle Shaft 25mm x 6.5
24	282630	Spacer .75 x 1 x 1.5

BLADE SPINDLE ASSEMBLY - 526V/52



Item No.	Order No.	Description
1	623740	Blade Spindle Assembly Lt. (includes items 4-19)
2	623741	Blade Spindle Assembly Center (includes items 4-9, 11-19, 22 & 23)
3	623742	Blade Spindle Assembly Rt. (includes items 4-9, 11-19, 24 & 25)
4	243331	Bolt .375-24 x 1
5	257041	Cupped Washer .375 x 1.625
6	110081	Bearing 25mm
7	604413	Spindle Housing (includes items 16 & 19)
8	259305	Set Screw – Socket .25-28 x .25 Nylon
9	903643	Spacer – Bearing
10	604775	Spindle Shaft 25mm x 5.75
11	421200	Fiber Washer
12	257061	Flat Washer
13	257057	Washer .5 – Hardened
14	243581	Bolt .5-20 x 2 - Grade 5
15	247141	Stud Bolt .312-18 x 1.25
16	257055	Washer .510 x 2.625 x 10 Ga.
17	423680	Deflector Cone
18	721167	Bearing Shield
19	257106	Washer 1 x 18 Ga.
20	253035	Whiz Nut .312-18
21	281580	Square Key .25 x .690
22	257107	Washer 1 x 10 Ga.
23	605771	Spindle Shaft 25mm x 6.812
24	604774	Spindle Shaft 25mm x 6.5
25	282630	Spacer .75 x 1 x 1.5

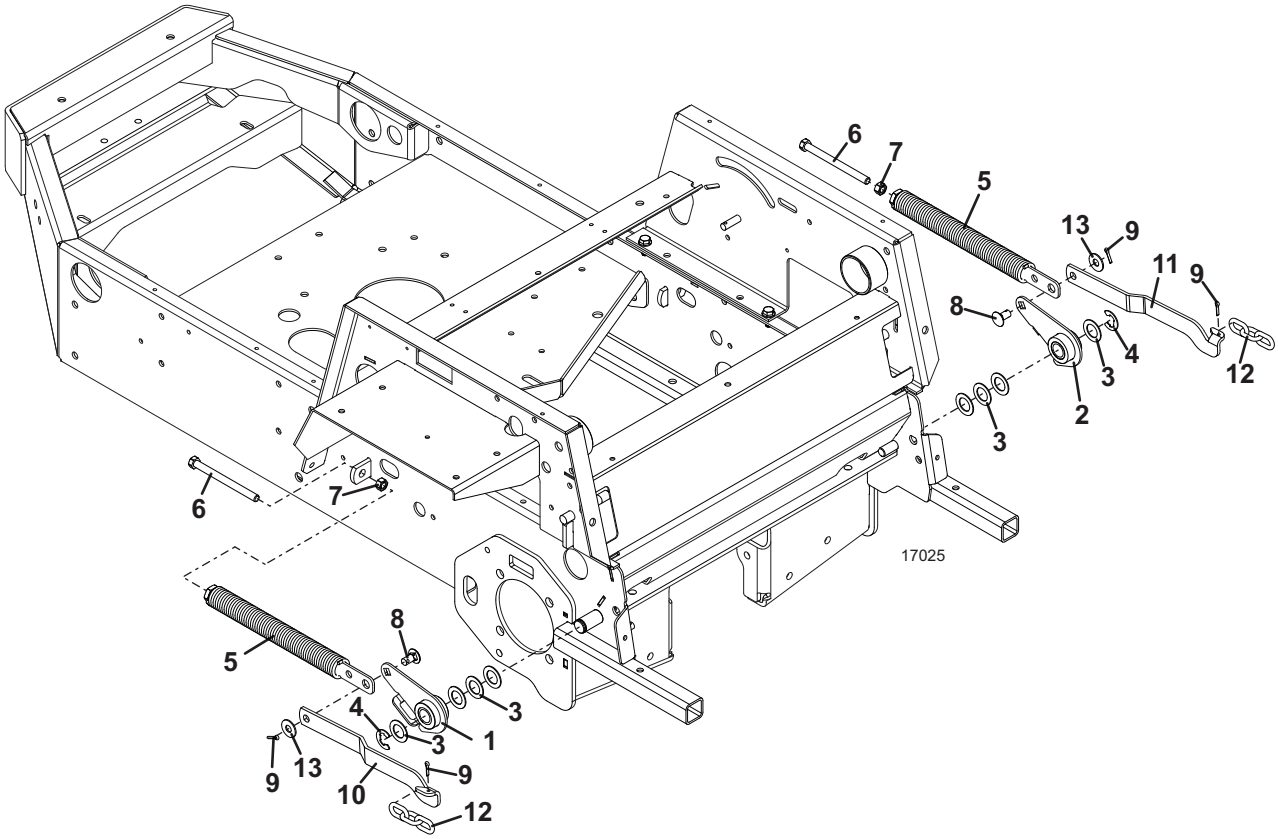
WHEEL LIFT ASSEMBLY



Item No.	Order No.	Description	Item No.	Order No.	Description
1	644461	Lift Channel Rt.	11	603973	Wheel Assembly
	644462	Lift Channel Lt.			(includes items 12 & 13)
2	824982	Fork Housing	12	423751	Spacer – Axle
		(includes item 3)	13	120048	Bearing
3	123522	Bearing Cup	14	247715	Carriage Bolt
4	122522	Tapered Bearing	15	253970	Lock Nut
5	257320	Washer – Spring	16	822312	Stabilizer w/Bumper
6	254505	Jam Nut – Nylon Toplock			(includes item 17)
7	481434	Dust Cap	17	424053	Rubber Bumper
8	282615	Spacer	18	243609	Bolt – Grade 5
9	125855	Seal	19	243614	Bolt – Grade 5
10	604368	Fork with Nut	20	253930	Lock Nut
		(includes item 6)			

17024

TRACTION KIT



Item No.	Order No.	Description	Item No.	Order No.	Description
1	603696	Rocker Rt.	7	254450	Nut .375-16
	121764	Oilite Bearing	8	261336	Clevis Pin .375 x .75 Sq. Shank
2	603697	Rocker Lt.	9	260648	Cotter Pin .125 x .5
	121764	Oilite Bearing	10	725492	Lift Strap Rt.
3	257092	Washer .75 x 18 Ga.	11	725493	Lift Strap Lt.
4	263529	External Retainer .75 x .050	12	820317	Lift Chain – 3 Links
5	604762	Spring & Plug Nut Assembly	13	257040	Washer .375
6	243395	Bolt .375-16 x 4.5 Full Thread			

17025