



OPERATOR MANUAL & ILLUSTRATED PARTS LIST

MODEL :

970473 BOSS-VAC PRO™, 12 BUSHEL DFS, COLLECTION SYSTEM

970499 KIT -DECK, 52IN 12 BUSHEL COLLECTION SYSTEM

970500 KIT -DECK, 61IN 12 BUSHEL COLLECTION SYSTEM

970501 KIT -DECK, 72IN 12 BUSHEL COLLECTION SYSTEM

Manual 4170512
Rev. A 03/21/2014



WARNING: If incorrectly used this machine can cause severe injury. Those who use and maintain this machine should be trained in its proper use, warned of its dangers and should read the entire manual before attempting to set up, operate, adjust or service the machine.

 **SCHILLER** GROUND CARE

**CALIFORNIA
Proposition 65 Warning**

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

 **WARNING**

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

**Californie Proposition 65
Avertissement**

Les échappements des moteurs diesel et certains de leurs composés sont reconnus par l'Etat de Californie pour être cancérigènes, provoquer des défauts congénitaux et d'autres dangers en matière de reproduction.

 **AVERTISSEMENT**

L'émission du moteur de ce matériel contient des produits chimiques que l'Etat de Californie considère être cancérigènes, provoquer des défauts congénitaux et d'autres dangers en matière de reproduction.

**California Advertencia
de la Proposicion 65**

El estado de California hace saber que los gases de escape de los motores diesel y algunos de sus componentes producen cáncer, defectos de nacimiento y otros daños en el proceso de reproducción humana.

 **ADVERTENCIA**

El estado de California hace saber que los gases de escape de este producto contienen productos químicos que producen cáncer, defectos de nacimiento y otros daños en el proceso de reproducción humana.

**CALIFORNIA
Proposition 65 Warning**

Battery posts, terminals, wiring insulation, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
WASH HANDS AFTER HANDLING.

DFS COLLECTION SYSTEM

IMPORTANT MESSAGE

Thank you for purchasing this Schiller Grounds Care Inc. product. You have purchased a world class product, one of the best designed and built anywhere.

This product comes with an Owner / Operator's Manual. The useful life and good service you receive from product depends to a large extent on how well you read and understand this manual. Take care of this product properly and adjust it as instructed, and it will give you many years of reliable service. This manual provided to assist you in the safe operations and servicing of this attachment.

See a Schiller Grounds Care, Inc. dealer for any service or parts needed. Schiller Grounds Care, Inc ensures that you continue to receive the best results possible from Schiller Grounds Care, Inc. products. You can trust Schiller Grounds Care, Inc. replacement parts because they are manufactured with the same high precision and quality as the original parts.

Schiller Grounds Care, Inc. designs and builds its equipment to serve many years in a safe and productive manner. For longest life, use this product only as directed in the manual, keep it in good repair a warnings and instructions. You'll always be glad you did.

NOTE: All photographs and illustrations in the manual may not necessarily depict the actual models or attachment, but are intended for reference only and are based on the publication.

Familiarize yourself fully with the safety recommendations and operating procedures before putting the machine to use. Carefully read, understand and follow these recommendations and insist that they be followed by those who will use this attachment.

This manual should be kept for future reference.
Please check if you have received all the parts for your kit with the list of the bag and the list of the box.

Schiller Grounds Care, Inc.
One Bob Cat Lane
Johnson Creek, WI 53038-0469

TABLE OF CONTENTS

PAGE

DESCRIPTION / SPECIFICATION.....	2
SAFETY.....	3
SAFETY DECALS	6
ASSEMBLY INSTRUCTIONS	7
VEHICLE PREPARATION.....	11
INSTALLATION	16
ADJUSTMENTS & REMOVAL	22
OPERATION.....	23
SERVICE.....	24
TROUBLESHOOTING	26
WIRING DIAGRAM	28
DOUBLE PULLEY TABLE	29
PARTS SECTION.....	30
TORQUE SPECIFICATION TABLE.....	48
OPTIONS	49

DFS COLLECTION SYSTEM

DESCRIPTION / SPECIFICATIONS

DESCRIPTION

Rear mount 12 bushel collection system dump from seat.

SPECIFICATIONS

Capacity: 12 Bushel (BU)
Dump from Seat: Yes
Dump operation: Electric
Number of bags: n/a
Fan Diameter: 15.31 in
Number of fan blades: 4
Thickness of blades: 3/16 in
Impellar Axis: Horizontal
Impellar Housing Thickness: 11 ga
Impellar Bearing size: 1 in

Blower Tube-Dia.: 6 in
Adds Length: 23.75 in back
Adds Width on deck: 8.75 in
Rear collector width (excluding blower): 60.25 in
Rear mount collection system weight : 303 lbs
Blower mounted on deck weight : 84 lbs
Four front weights: 200 lbs
Total collection system weight including crate: 823 lbs

NOTE: Specifications are subject to change without notice.

Record your attachment's serial number and purchase date in the section reserved below. Your dealer requires this information to give you prompt, efficient service when ordering replacement parts. Use only genuine parts when replacements are required.

If warranty repairs are required please present this registration booklet and original sales invoice to your selling dealer for warranty service.

SERIAL NUMBER : _____
(IF APPLICABLE)

MODEL NUMBER: _____

PURCHASE DATE : _____

NOTICE !!!!

Unauthorized modifications may present extreme safety hazards to operators and bystanders and could also result in product damage.

Schiller Grounds Care, Inc. strongly warns against, rejects and disclaims any modifications, add-on accessories or product alterations that are not designed, developed, tested and approved by Schiller Grounds Care, Inc. Engineering Department. Any Schiller Grounds Care, Inc. product that is altered, modified or changed in any manner not specifically authorized after original manufacture-including the addition of "after market" accessories by Schiller Grounds Care, Inc. will result in the Schiller Grounds Care, Inc. Warranty being voided.

Any and all liability for personal injury and/or property damage caused by any unauthorized modifications, add-on accessories or products not approved by Schiller Grounds Care, Inc. will be considered the responsibility of the individual(s) or company designing and/or making such changes. Schiller Grounds Care, Inc. will vigorously pursue full indemnification and costs from any party responsible for such unauthorized post-manufacture modifications and/or accessories should personal injury and/or property damage result.



This symbol means:
ATTENTION !
BECOME ALERT!

Your safety and the safety of others is involved.

Signal word definitions:

The signal words below are used to identify level hazard seriousness. These words appear in this manual and on the safety labels attached to Schiller Grounds Care, Inc. machines. For your safety and the safety of others, read and follow the information given with these signal words and/or the symbols shown above. Regardless of the hazard be extremely careful.

 DANGER

DANGER Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

 WARNING

WARNING Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

 CAUTION

CAUTION Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices or property damage.

CAUTION

CAUTION Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **MAY** result in property damage.

GLOSSARY:

In this manual, right and left sides are determined by sitting on the seat of the vehicle facing forward.

In this manual, "accessories" means attachments that you install on the vehicle.

TRAINING:

1. Read this owner's manual carefully. Be thoroughly familiar with the controls and proper use of vehicle and accessory. Know how to stop the unit and disengage the controls quickly.
2. Never allow children to operate the vehicle nor the accessory. Never allow adults to operate the vehicle nor the accessory without proper instructions.
3. No one should operate the vehicle nor the accessory while intoxicated or while taking medication that impairs the senses or reactions.
4. Keep the area of operation clear of all particularly small children and pets.

PREPARATION:

1. Thoroughly inspect the area where the accessory is to be used and remove door mats, all foreign objects and the like.
2. Disengage all clutches and shift into neutral before starting engine.
3. Do not operate the accessory without wearing adequate garments. Avoid loose fitting clothing that can get caught in moving parts. Wear footwear that will improve footing on slippery surfaces.
4. Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by manufacturer).
5. Let the vehicle and accessory adjust to outdoor temperatures before using.
6. Never use and accessory without proper guards, plates, or other safety protective devices in place.
7. Always make sure to wear the appropriate safety equipment required (glasses, muffs, mask...) for each type of product. See Operation section.
8. Always make sure of having safe traction on the vehicle by using the recommended accessories.

OPERATION:

1. Do not put hands or feet near, under or inside rotating parts.
2. Exercise extreme caution when operating on or crossing gravel drives, walks or roads. Stay alert for hidden hazards or traffic. Do not carry passengers.
3. After striking a foreign object, stop the engine (motor), disconnect the wire from the spark plug(s) and keep wire away to prevent accidental starting. Thoroughly inspect the accessory for any damage and repair damage before restarting and using the accessory.
4. If the unit should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
5. Take all possible precautions when leaving the vehicle unattended. Disengage the power take off, lower the attachment, place the transmission into neutral, set the parking brake, stop the engine and remove the contact key.
6. Never use the accessories across the face of slopes, go from top to bottom. Exercise extreme caution when using equipment on slopes. Do not attempt to clear a steep slope.
7. Never tolerate bystanders in the working zone. Never use an accessory in the direction of bystanders, it might throw gravel or debris that can hurt people or damage property.
8. Never operate the accessory at high transport speeds on slippery surfaces. Use care when backing up.
9. Do not carry passengers.
10. Disengage power to the accessory when it is transported or not in use.
11. Never operate the accessory without good visibility or light.

MAINTENANCE AND STORAGE

1. When cleaning, repairing or inspecting the vehicle and accessory, make certain that all moving parts have stopped. Disconnect wire from the plug(s) and keep wire away to prevent accidental starting.
2. Check all the bolts and components at frequent intervals to make sure that they are properly tightened.
3. Always refer to the owner's manual when store the accessory and vehicle for a prolonged or an unspecified length of time.
4. Maintain or replace safety and instruction labels, as necessary.
5. Let the engine run for a few minutes after cleaning snow in order to prevent the rotary from freezing.

**REPLACE IF DECALS ARE DAMAGED
SEE PARTS BREAKDOWN FOR DECAL LOCATION**

DECAL #4164269



To avoid serious injury from Rotating Blades

- Keep hands and feet away
- Stop engine and let blades stop before removing grass collector or unclogging.

To avoid injury from thrown objects

- Keep area clear of people and pets.
- Remove objects blade may strike and throw.
- Stop blades to cross gravel areas.
- Do not operate without chute, mulcher or entire grass collector in place.

DECAL #2000735



Before installing or using:

- Locate, read and make sure to understand all of the owner's manual.

DECAL #4165975



To avoid serious injury from fan blades

Fan blades can cut/crush

- Keep hands and feet away.
- Stop engine and remove spark plug wire before servicing.
- Do not operate without guards in place.

To avoid injury from thrown objects

- Keep bystanders away.
- Do not blow toward people or pets.
- Do not blow toward items that may be damaged by flying debris.

DECAL #4137371



To avoid injury from machine movement
Machine can crush.

- Movement can occur unexpectedly.
- Stay clear while engine is running.
- Stop engine to clean or service.

DECAL #2000577



To avoid injury from rotating parts

- Do not operate with cover removed.

DECAL #107172



To avoid injury from throw objects.

- Do not raise cover while unit is running.

DFS COLLECTION SYSTEM**Tools Required:**

Wrench : 10mm, 7/16, 1/2, 9/16, 3/4" Ratchet

Socket : 3/8, 10mm, 7/16, 1/2, 9/16, 3/4"

Drill bits : 13/64, 9/32, 13/32"

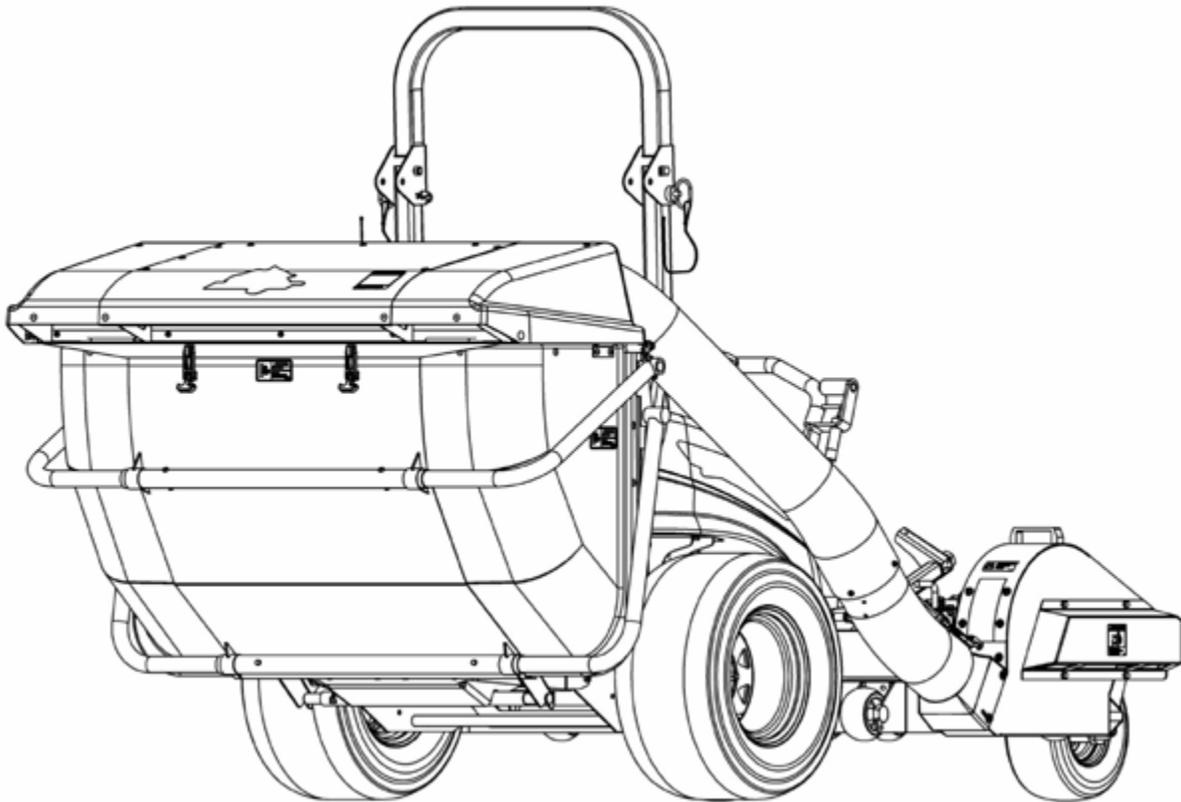
Drill

Small Cross head (Phillips Drive) screwdriver

Small Screw driver with Bit "T25 Torx drive"

Pliers

Refer to parts breakdown section for parts identification



Fully assembled view

DFS COLLECTION SYSTEM

STEP 1: GRASS COLLECTOR PREPARATION:

Chute :

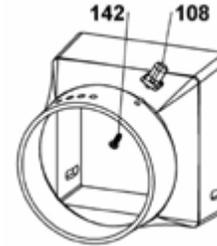
Remove chute (item #116) from bag in shipping crate .

Using the dimpled marks as a guide:

- Drill four holes 9/32" (item a)
- Drill two holes 13/64" (item b)



Install Keeper plate (item 108) on chute with one Tapping screw "T25 Torx drive" (item 142).

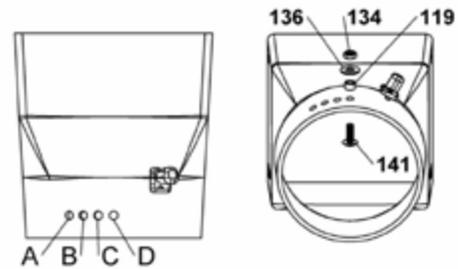


On chute, choose hole corresponding to your deck size.

Deck size	Recommended hole
52 in	C
61 in	C
72 in	C

*This chosen hole can be changed depending of vehicle and discharge tube adjustment.

Install sleeve (item 119) this chosen hole (on chute) with one Machine screw T.H. 1/4 x 3/4 (item 141), one flat washer 5/16 (item 136) and one nylon insert lock nut 1/4 thin (item 134).

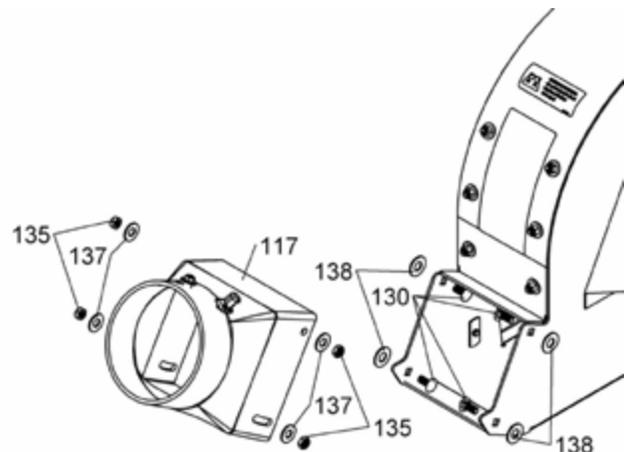


Take the blower from the shipping crate.

Chute Installation:

Install the chute (item 117) on the blower as shown. Tighten just enough so that the chute rotates freely.

REF.	ENGLISH DESCRIPTION	QTY.
117	Chute	1
130	Carriage bolt 5/16" n.c. x 3/4 " GR5	4
135	Nylon insert lock nut 5/16" n.c. (thin)	4
137	Flat washer 3/8" hole	4
138	Flat washer 7/16" hole	4



DFS COLLECTION SYSTEM

BLOWER ASSEMBLY:

Take deck kit corresponding to mower deck size.

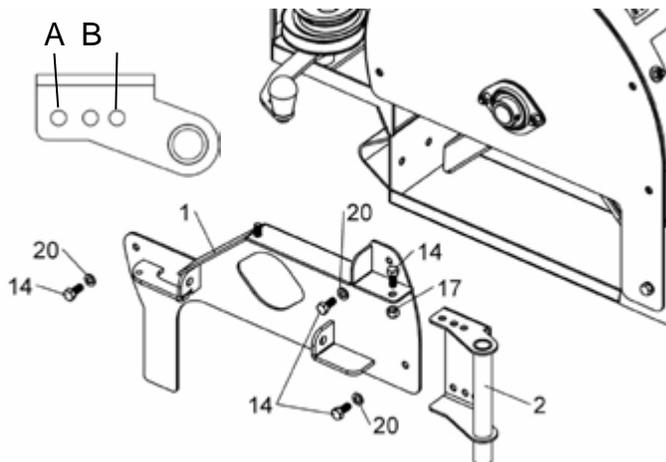
For 52" and 61" deck:
Use deck kit #970499 and #970500.

Choose one set of holes (A or B) corresponding to your deck size.

Deck Size	Set of holes
52 in	A
61 in	B

Install link tube to blower using corresponding holes.
 Install blower hitch to blower, as shown.

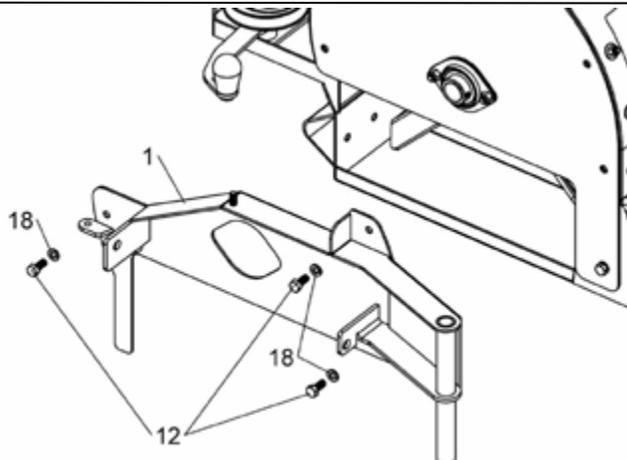
REF.	ENGLISH DESCRIPTION	QTY.
1	Blower hitch Link tube	1
2		1
14	Hex. bolt 5/16" n.c. x 3/4" GR5	4
17	Nylon Insert lock Nut 5/16" n.c.	1
20	Lock washer 5/16"	3



For 72" deck:
Use deck kit #970501.

Install blower hitch to blower as shown.

REF.	ENGLISH DESCRIPTION	QTY.
1	Blower hitch	1
12	Hex. bolt 5/16" n.c. x 1/2" GR5	3
18	Lock washer 5/16"	3



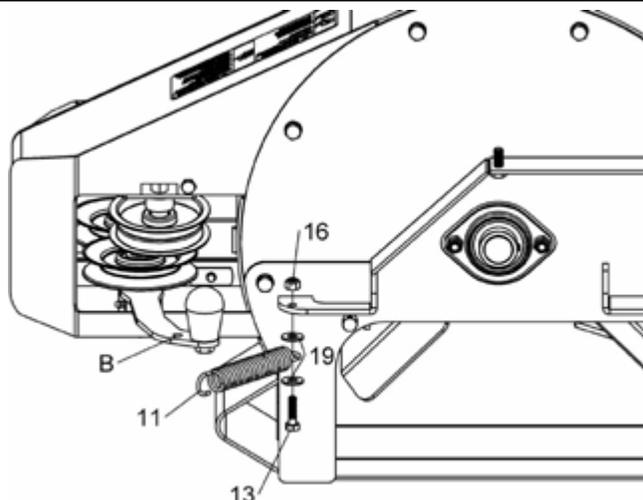
Spring installation:

For 52" and 61" deck:
Use deck kits #970499 and #970500.



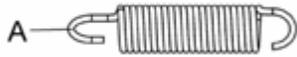
Insert spring longer end (item A) on tensioner's hole (item B). Bolt other end in the hole on the blower hitch as shown.

REF.	ENGLISH DESCRIPTION	QTY.
11	Spring	1
13	Hex. bolt 1/4" n.c. x 1" GR5	1
16	Nylon Insert lock Nut 1/4"	1
19	Flat washer 5/16" hole	2

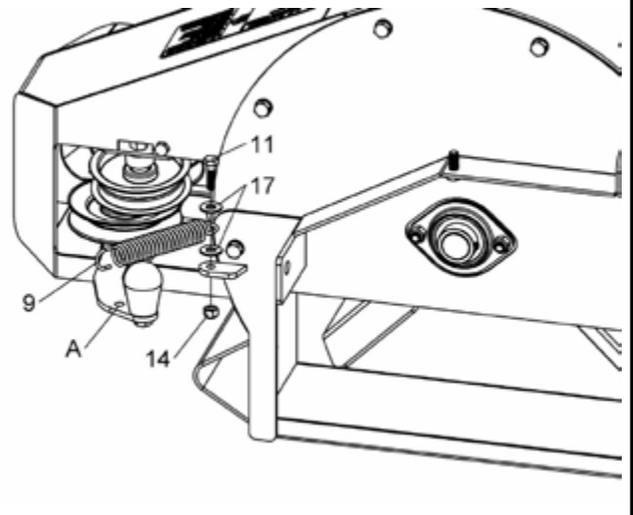


DFS COLLECTION SYSTEM

For 72" deck:
Use deck kit #970504.



Insert spring longer end (item A) on tensioner's hole (item B). Bolt other end in the hole on the blower hitch as shown.



REF.	ENGLISH DESCRIPTION	QTY.
9	Spring	1
11	Hex. bolt 1/4" n.c. x 1" GR51	1
14	Nylon Insert lock Nut 1/4"	1
17	Flat washer 5/16" hole	2

DFS COLLECTION SYSTEM

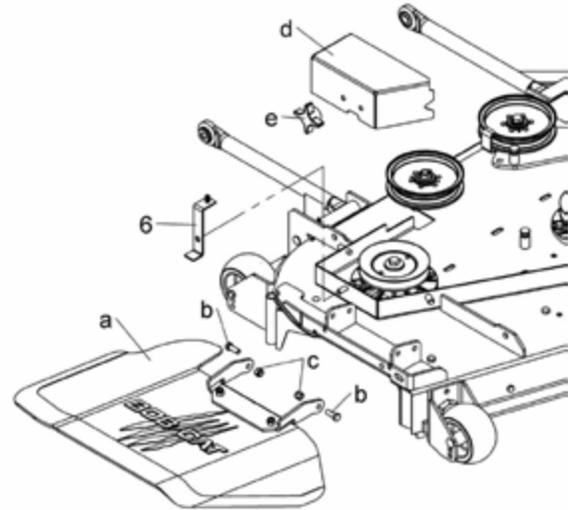
STEP 2: VEHICLE PREPARATION

Removing parts and bracket installation:

For 52" deck

From mower deck, remove chute (item a), its hardware (items b & c) and belt guard (item d).

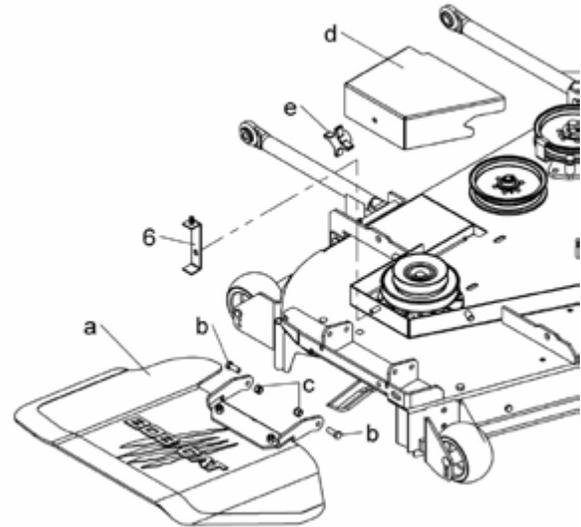
By using same knob (item e), install bracket (item 6) from deck kit #970499 on mower deck.



For 61" deck

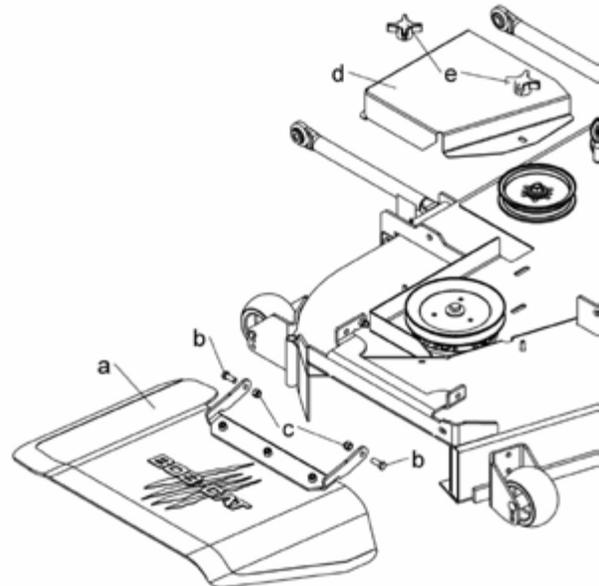
From mower deck, remove chute (item a), its hardware (items b & c) and belt guard (item d).

By using same knob (item e), install bracket (item 6) from deck kit #970500 on mower deck.



For 72" deck:

From mower deck, remove chute (item a), its hardware (items b & c) and belt guard (item d).



DFS COLLECTION SYSTEM

Baffle and pulley installation:

*Refer to double pulley table to select the correct double pulley and spacer.

For 52" deck, use deck kit #970499.

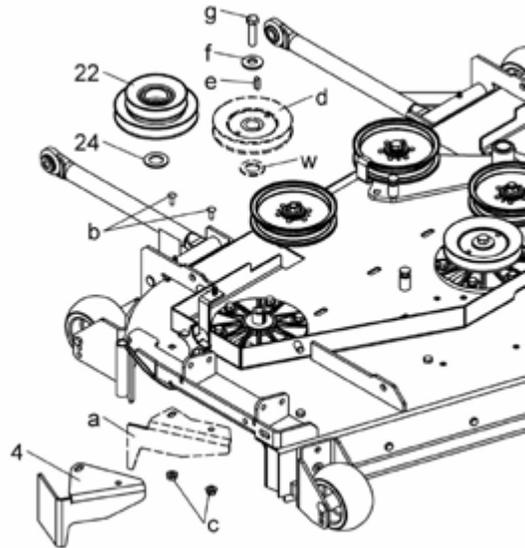
From mower deck, remove current discharge baffle (item a).

By using same hardware (items b & c), install discharge baffle supplied (item 4) on mower deck.

From mower deck, release tension on spindle drive belt and remove current pulley (item d). Remove existing stock washer (item w) from spindle drive. Install correct spacer (item 24).

By using same hardware (items e, f & g), install double pulley (item 22) on mower deck.

Re-install belt from mower deck on bottom pulley.



For 61" deck, use deck kit #970500.

From mower deck, remove current discharge baffle (item a). Keep hardware.

Select set of holes matching with current discharge baffle removed.

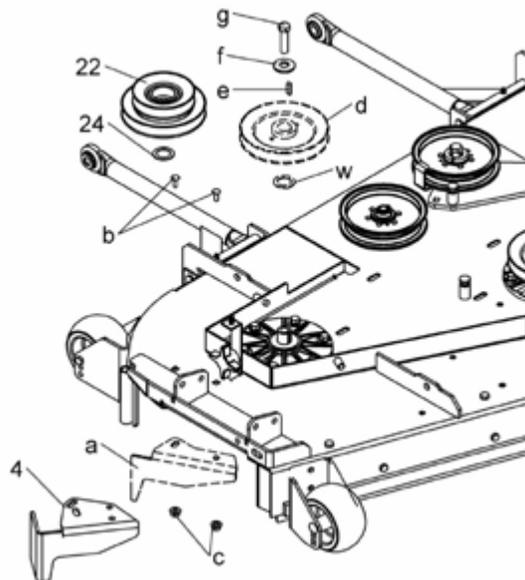
By using same hardware (items b & c), install discharge baffle supplied (item 4) on mower deck matching holes.

From mower deck, release tension on spindle drive belt and remove current pulley (item d).

Remove existing stock washer (item w) from spindle drive. Install correct spacer (item 24).

By using same hardware (items e, f & g), install double pulley (item 22) on mower deck.

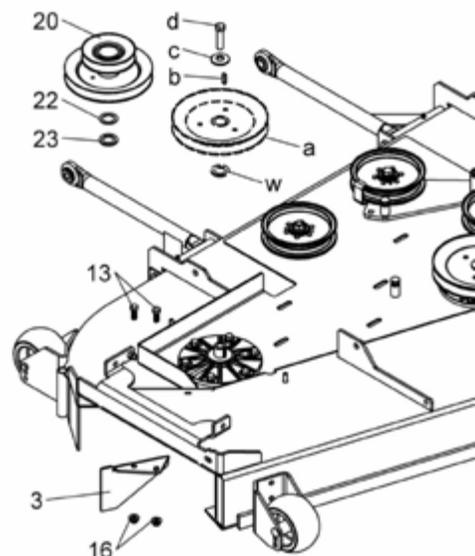
Re-install belt from mower deck on bottom pulley.



For 72" deck, use deck kit #970501.

Using drilling template supplied, drill two holes (13/32") indicated on mower deck. Install discharge baffle (item 3) on mower deck with two hex. bolts 3/8" n.c. x 1" (item 13) and two nylon insert flange lock nuts 3/8" n.c. (item 16)

From mower deck, release tension on spindle drive belt and remove current pulley (item a). Remove existing stock washer (item w) from spindle drive. Install correct spacers (item 22 & 23). By using same hardware (items b, c & d), install double pulley (item 20) on mower deck. Re-install belt from mower deck on bottom pulley.



DFS COLLECTION SYSTEM

Mounting pins installation:

Install mounting pins on left and right side of vehicle's rear bumper as indicated.

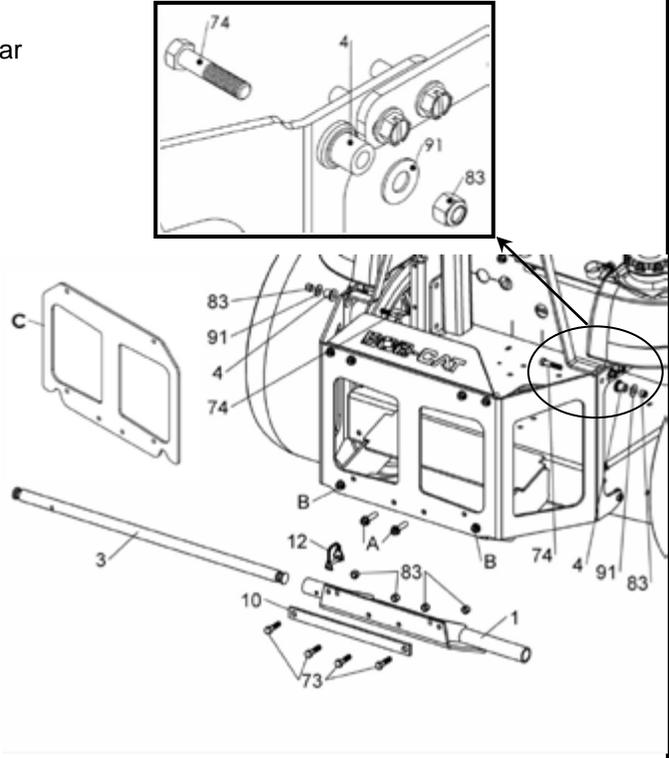
Note: For vehicles with 72" mower deck, remove rear weight plates (item C) from bumper. Remove two bolts (item A) and nuts from vehicle. They will be replaced by new ones.

CAUTION

Do not remove two lower bolts (item B)

Install shim and mounting hitch from inside vehicle's rear bumper as indicated. Secure pin on mounting hitch with lock pin.

REF.	ENGLISH DESCRIPTION	QTY.
1	Mounting hitch	1
3	Pin	1
4	Mounting pin	2
10	Shim	1
12	Lock pin	1
73	Hex. bolt 3/8" n.c. x 1 1/2" GR5	4
74	Hex. bolt 3/8" n.c. x 1 3/4" GR5	2
83	Nylon Insert lock Nut 3/8" n.c.	6
91	Flat washer 7/16" hole	2



Counterweight installation:

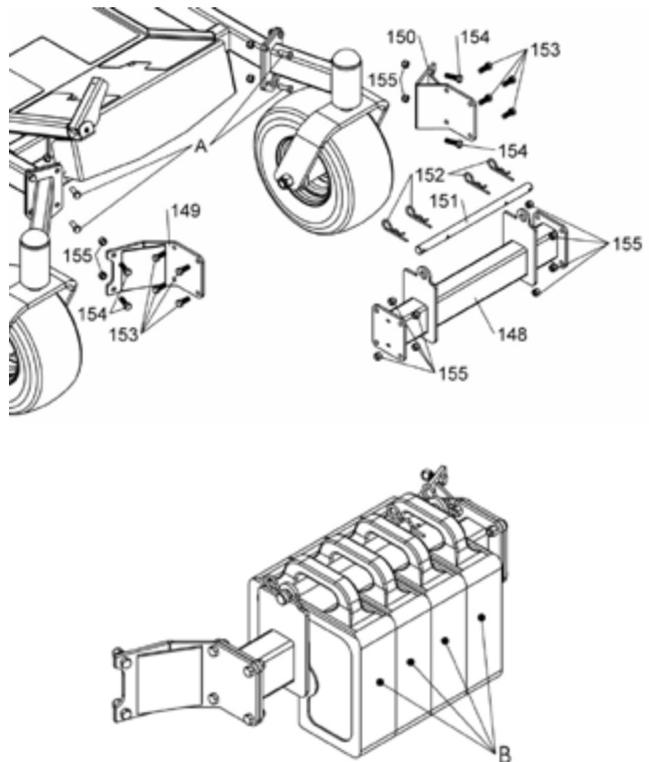
Remove bolts (item A) and nuts from vehicle. They will be replaced by new ones.

Install counterweight brackets as indicated. Install four counterweights (item B) on its bracket.

REF.	ENGLISH DESCRIPTION	QTY.
148	Counterweight bracket	1
149	Right bracket	1
150	Left bracket	1
151	Pivot pin	1
152	Hair pin 4mm	4
153	Hex. bolt 3/8" n.c. x 1" GR5	8
154	Hex. bolt 3/8" n.c. x 1 1/4" GR5	4
155	Nylon Insert lock Nut 3/8" n.c.	12

Note : Counterweights are supplied separately.

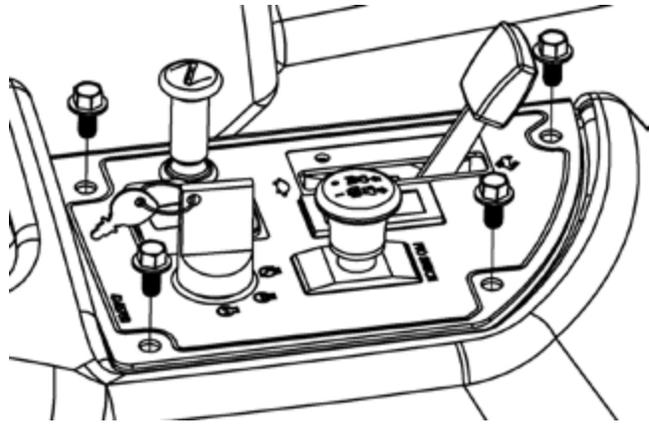
Secure with pivot pin and hair pins.



DFS COLLECTION SYSTEM

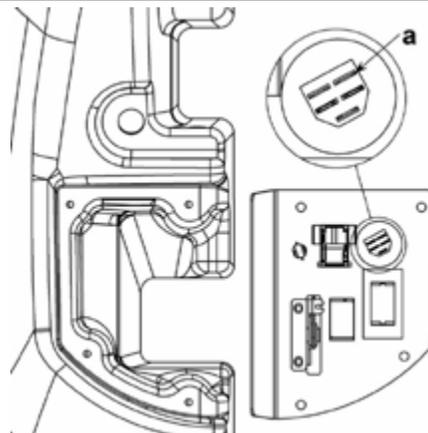
Control panel:

Remove the four bolts from control panel and keep them aside.



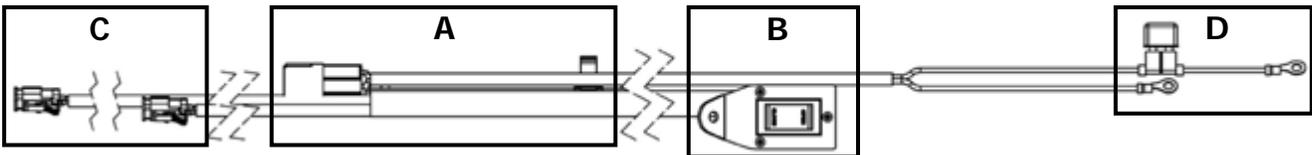
Identify the orange wire for auxiliary electrical connection:

Rotate the control panel and locate the orange wire (item a) from ignition switch. This wire leads to vehicle's auxiliary electrical connection.



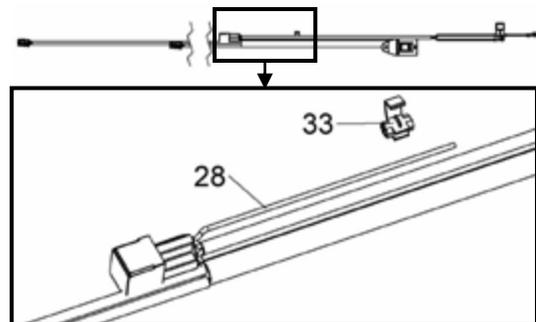
Identify wire assembly (item 28) sections to install.

- A) Orange wire for ignition switch.
- B) Control box for control panel.
- C) Two connectors for actuators.



A) Connect the orange wire :

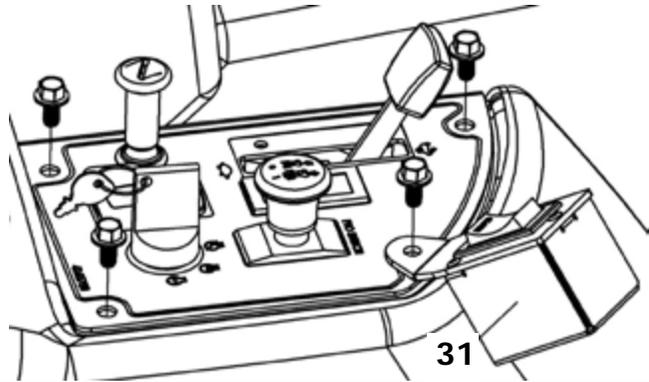
By using pliers, join this orange wire (located before) and the orange wire from the wire assembly (item 28) with the instant connector (item 33).



DFS COLLECTION SYSTEM

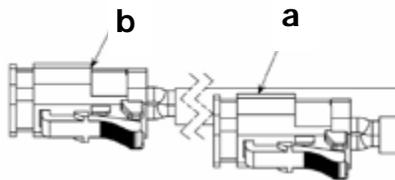
B) Install the control box :

Replace the control panel with its four bolts, installing the control box of the wire assembly (item 31) on the panel next to the PTO switch as illustrated.



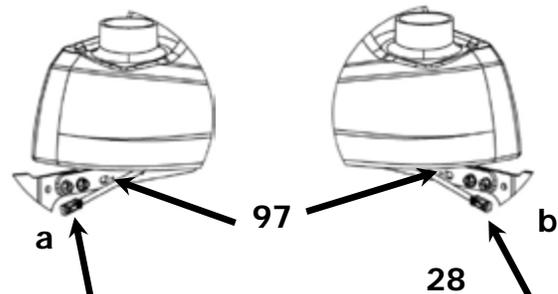
C) Route and tie all wire ends :

Route wire (item 28) from control box as shown and use tie wrap (item 97) with current wire harness to hold tight around fuel tank and avoid interference with vehicle seat assembly in all its movements.



Route the **short** actuator connector (item a) wire to the back of the vehicle, from the **right side** of the vehicle.

Route the **long** actuator connector (item b) wire to the back of the vehicle, from the **left side** of the vehicle.



IMPORTANT: Make sure none of the wire (item 28) interfere with anything on the tractor nor come into contact with any heating, electrical, moving parts or removable elements of the tractor.

Where needed, tie the wires with other nylon tie wraps 8" (item 97) included in the kit.

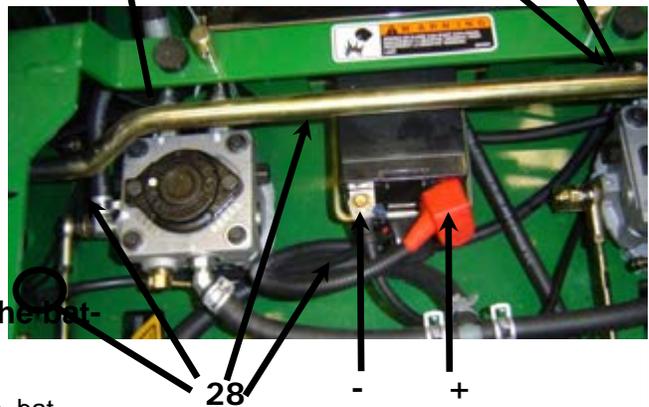
D) Install ring terminals to the vehicle's battery:



Read and follow the safety precautions for the battery in the vehicle's manual.

The red or white wire (+) on the positive post of the battery (item +).

The black wire (-) on the negative post of the battery (item -).
Make sure to tighten the nuts on the battery posts.



DFS COLLECTION SYSTEM

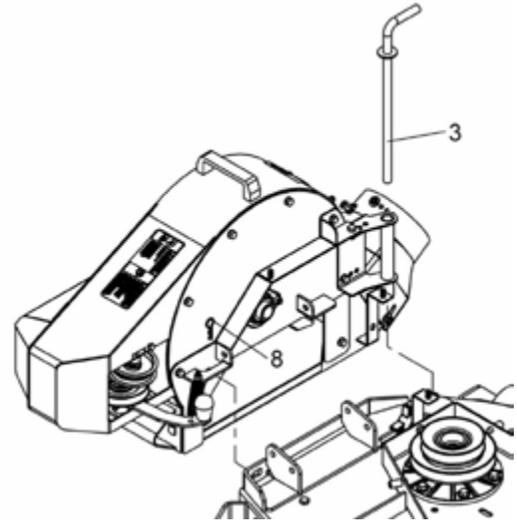
STEP 3: COLLECTION SYSTEM INSTALLATION:

THE BLOWER:

For 52" and 61" decks:
Use deck kits #970499 and #970500.

Install blower on deck with mounting pin (item 3).

Secure with hair pin (item 8).



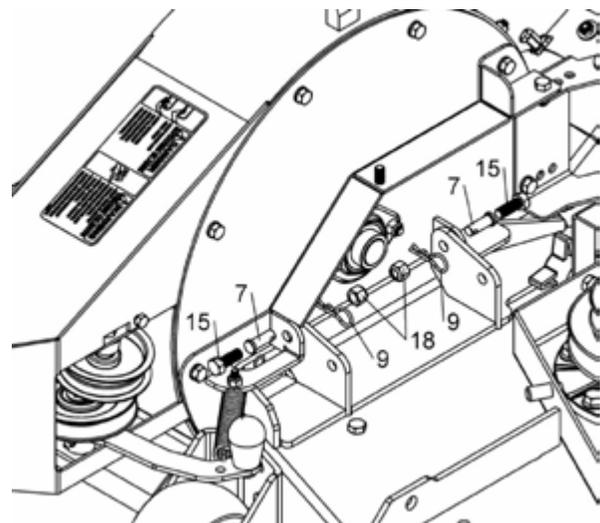
Choose between A or B installation

A) Bolts (items 15)
⇒ Longer to install and remove but hold tighter.

Secure blower on deck with two bolts (items 15) and nuts (items 18).

B) Pins (items 7)
⇒ Faster to install and remove but hold less tight.

Secure blower on deck with two pins (items 7) and hair pins (items 9).

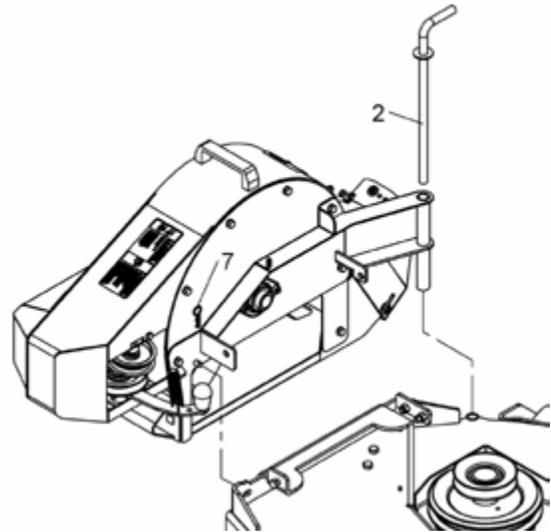


DFS COLLECTION SYSTEM

For 72" deck, use deck kit #970501 :

Install blower on deck with mounting pin (item 2).

Secure with hair pin (item 7).



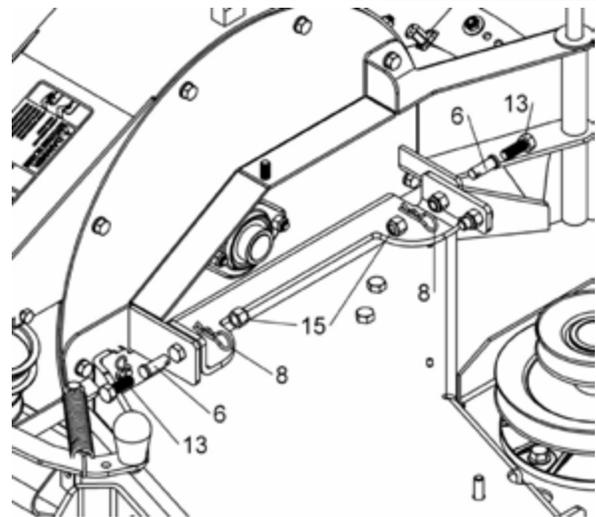
Choose between A or B installation

A) Bolts (items 13)
 ⇒ Longer to install and remove but hold tighter.

Secure blower on deck with two bolts (items 13) and nuts (items 15).

B) Pins (items 6)
 ⇒ Faster to install and remove but hold less tight.

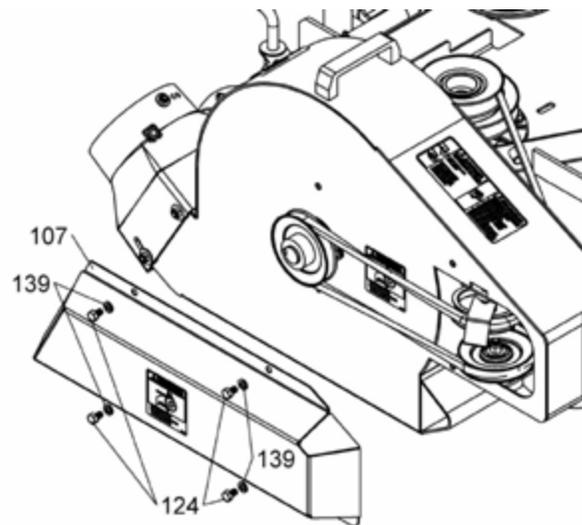
Secure blower on deck with two pins (items 6) and hair pins (items 8).



Belt installation installation:

For 52", 61" and 72" deck:

Remove belt cover (item 107) from blower.
 Keep hardware (item 124 & 139).



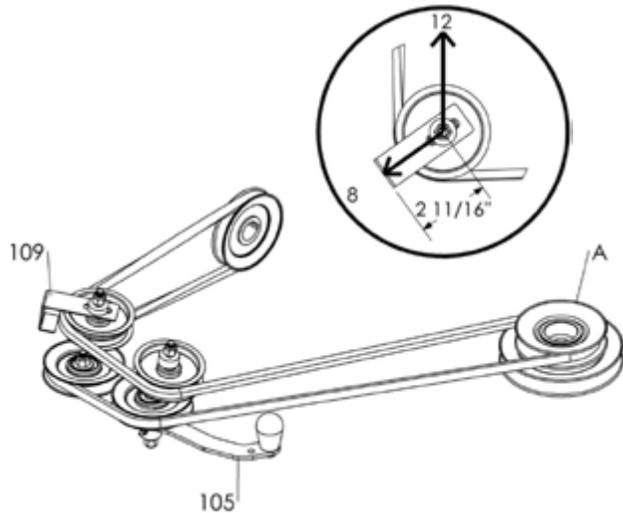
DFS COLLECTION SYSTEM

Loose bolt and nut holding belt guide (item 109)

Install belt on all blower pulleys as shown.

Position belt guide at approximately the 8 o'clock position and $2 \frac{11}{16}$ " as shown to make sure it doesn't interfere with belt or pulley. Tighten bolt and nut loosen before.

By pulling on tensioner (item 105), install belt on top pulley (item A) (from double pulley previously installed).

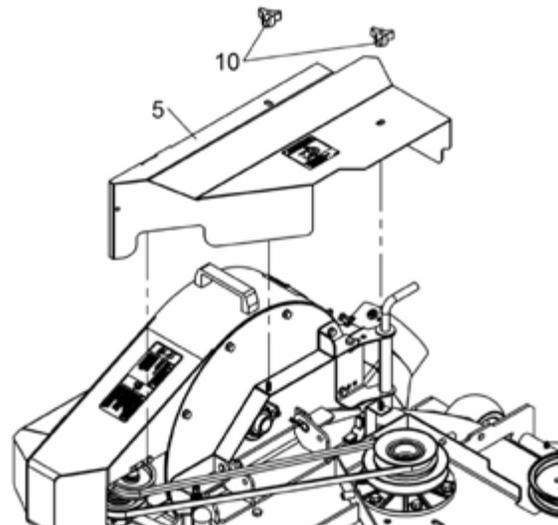


Belt guard installation:

For 52" and 61" deck :

Use deck kits #970499 and #970500.

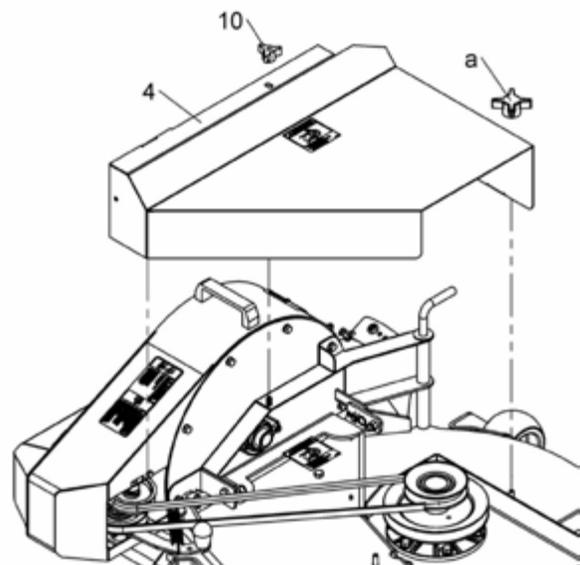
As shown, install belt guard (item 5) on deck and blower using two knobs (item 10).



For 72" deck :

Use deck kit #970501.

As shown, install belt guard (item 4) on deck and blower using one knob (item 10) from 72" deck kit and one knob previously removed from deck (item a).

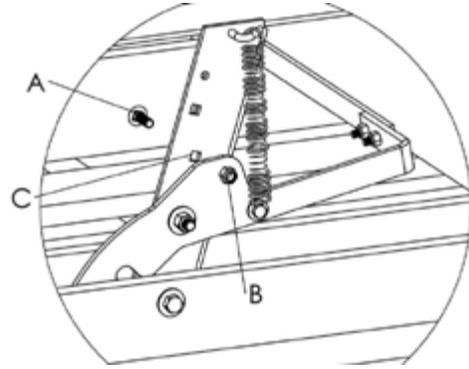


DFS COLLECTION SYSTEM

COLLECTION SYSTEM ASSEMBLY:

Before to remove collection system from crate, remove two carriage bolts (item A) and nylon lock nuts (item B) from two latches. Release latches.

Tip : install carriage bolt on hole (item C) to keep latches opened during pallet removal only.

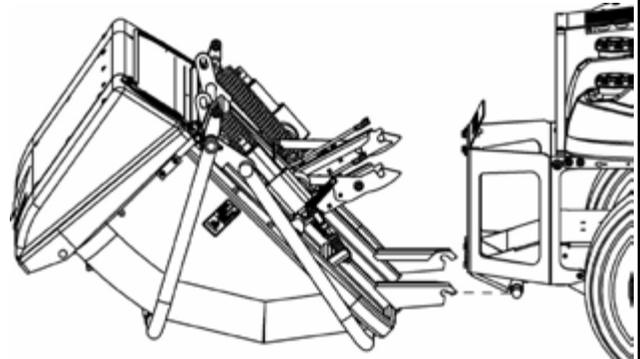


⚠ WARNING

COLLECTION SYSTEM IS HEAVY!

To avoid risk of strain injury, NEVER lift the collection system by hand alone when handling the components or assembly. Use proper lifting device or seek assistance. NEVER be underneath the collection system when it is off the ground. Serious injury including possibility of death could occur if collection system were to drop suddenly. Always wear protective shoes and appropriate gloves when manipulating or using this equipment.

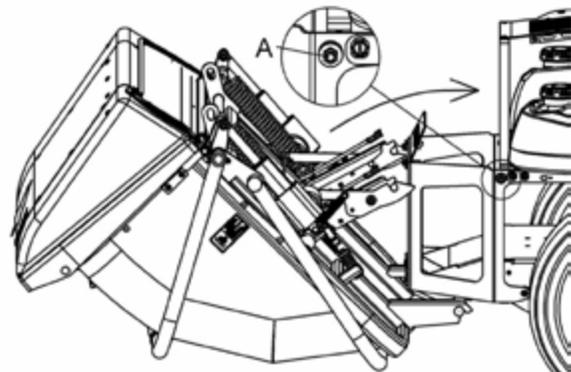
Take collection system from crate and install it on bottom pin already installed on vehicle.



Rotate collector toward vehicle to clip it on top latch (item A).

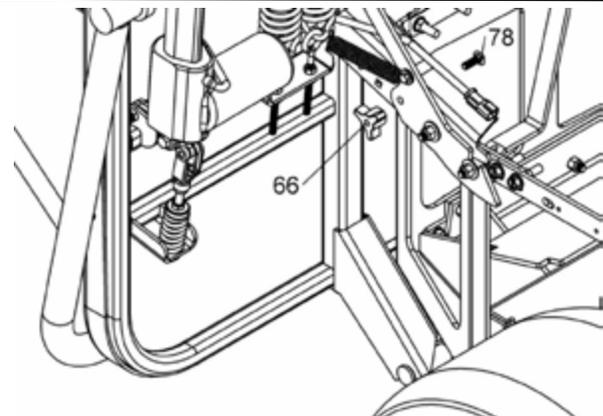
⚠ WARNING

Use latches with extra care! When it is released or not properly installed, the collector will dangerously fall down. Use proper lifting device or seek assistance.



IMPORTANT:

Secure collector's latch with two carriage bolts 5/16" n.c. x 3/4" (item 78) and two knobs (item 66). (Install one on each side).



DFS COLLECTION SYSTEM

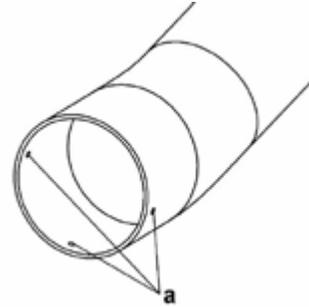
Discharge tube :

Remove discharge tube (item 36) from shipping crate .

Using the dimpled marks (item a) as a guide:

- Drill three holes 9/32".

Adjustment tube :



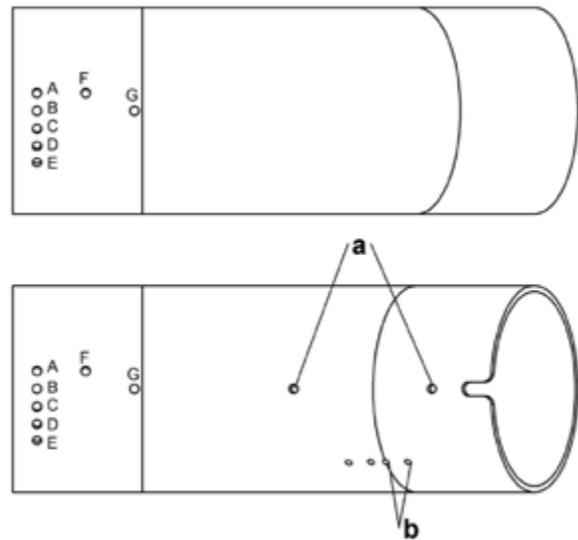
Remove adjustment tube from shipping crate .
Choose one set of holes (from A to G) corresponding to your deck size.

Deck size	Recommended hole
52 in	A
61 in	B
72 in	D

*This chosen set of holes can be changed depending of vehicle and discharge tube adjustment.

Using the dimpled marks as a guide:

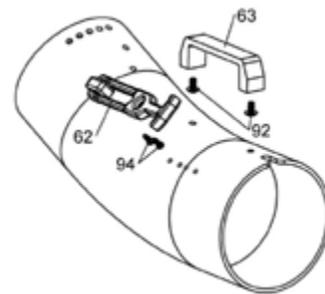
- Drill two holes chosen 9/32".
- Drill two holes 9/32" for handle (item a).
- Two holes 13/64" (item b) are already drilled for latch.



Adjustment tube :

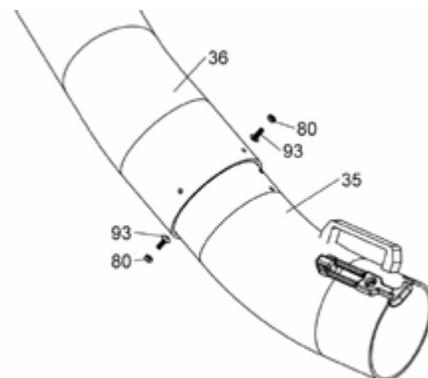
Install latch and handle on adjustment tube .

REF.	ENGLISH DESCRIPTION	QTY.
62	Rubber hitch	1
63	Handle	1
92	Machine screw T.H. 1/4" n.c. x 1/2"	2
94	Tapping screw M5 x 12mm "T25 Torx drive"	2



Assemble both tubes together:

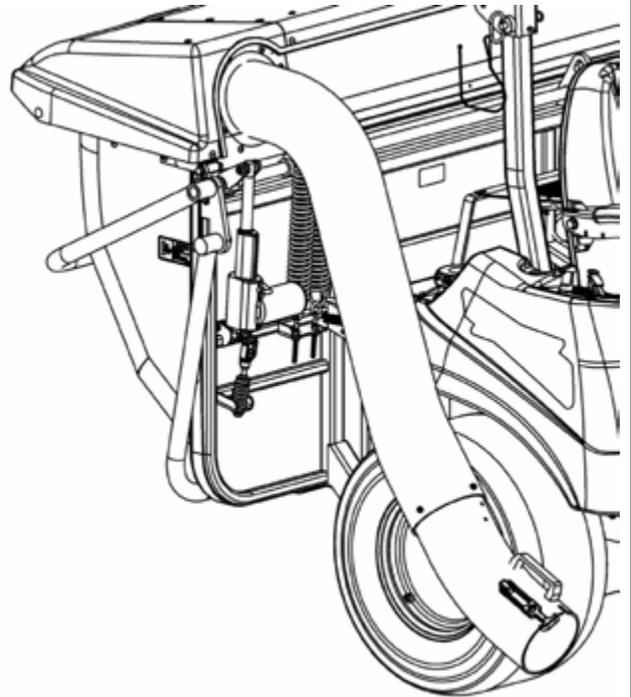
Install adjustment tube (item 35) on discharge tube (item 36) with two machine screws T.H. 1/4" x 3/4" (item 93) and two nylon insert lock nuts 1/4" n.c. (thin) (item 80).



DFS COLLECTION SYSTEM

Discharge tube top:

Rotate discharge tube's elbow counter clockwise into grass collector's Rubber seal.



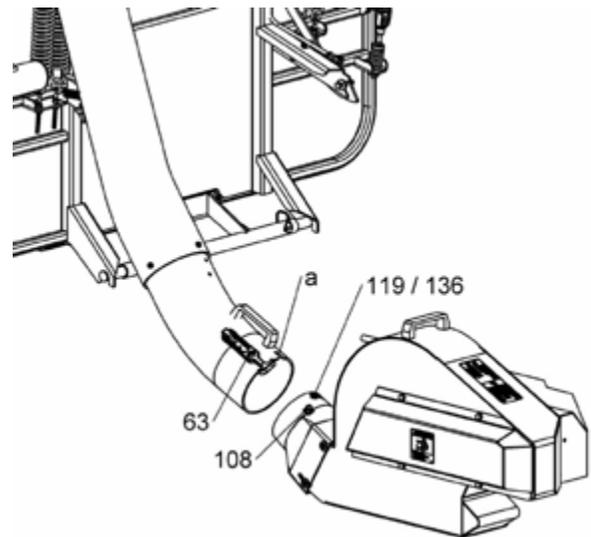
Discharge tube bottom:

TIP: Position mower deck's height at mid range position to ease tubing assembly.

By using handle, install bottom portion of discharge tube assembly on chute (previously installed on blower).

Make sure slot (item a) is going over sleeve (item 119) and under flat washer (item 136).

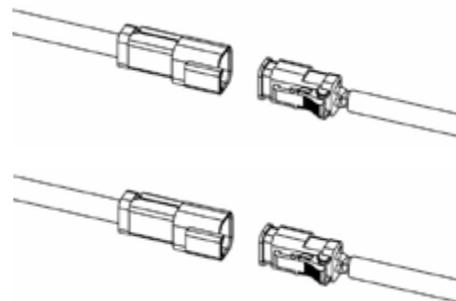
Latch discharge tube on chute by stretching rubber hitch (item 63) over keeper (item 108).



Connect Actuators

Connect both actuator connectors to corresponding connector previously installed on vehicle.

CAUTION Make sure connections are completed. If not, this MAY result in actuator damage.



DFS COLLECTION SYSTEM

STEP 4 :
ADJUSTMENTS

ADJUST DISCHARGE TUBE:

It's possible to adjust tube positioning by using another set of holes. If no set of holes corresponds to the need, make sure it is well installed. If it is well installed, it is possible to adjust tube to a proper fit (verify and down position). A proper fit corresponds to the tube exiting elbow to be horizontal (from back view) deck's height is at mowing position.

Fix discharge tube assembly :

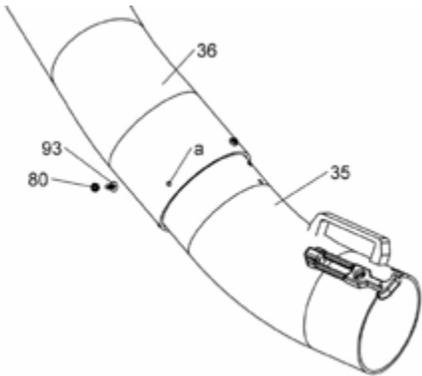
Note: Drill free hole (item a) when discharge tube assembly is mounted to vehicle. This will allow adequate tire clearance.

By using free hole (item a) on discharge tube (item 36) as drilling template, drill one hole 9/32" on adjustment tube (item 35).

Unlatch and remove discharge tube assembly from chute (previously installed on blower).

Using this new hole, install one machine screw T.H. 1/4" x 3/4" (item 93) and one nylon insert lock nut 1/4" n.c. (thin) (item 80).

As described before, reinstall bottom portion of discharge tube assembly on chute.



ADJUST CORRECT CLAMPING FORCE.

Collection system DFS is equipped with an adjustable spring clamping force mechanism. This system is designed to allow variation from collection system's components used for lifting device. When properly adjusted, this clamping force keeps collector closed while running. To adjust the correct clamping force, refer to service section.

STEP 5
COLLECTION SYSTEM REMOVAL INSTRUCTIONS:

- 1. Close collection system (refer to operation section).



TO PREVENT INJURIES: STOP THE MOTOR. APPLY PARKING BRAKE. REMOVE THE IGNITION KEY. DISCONNECT THE WIRE FROM THE SPARK PLUG(S) AND KEEP AWAY FROM SPARK PLUG(S) TO PREVENT ACCIDENTAL STARTING.



- 2. Using same sections,
- 3. Follow reversed procedure in **STEP 3 : COLLECTION SYSTEM INSTALLATION.**

DFS COLLECTION SYSTEM

STEP 6

OPERATING INSTRUCTIONS:

The collection system is started at the same time as the mower deck. Refer to the mower deck and the vehicle owner's manuals to familiarize yourself with the controls and safety precautions.

Using collection system

1. Start the tractor engine.
2. Engage mower deck.
3. Follow mowing instructions.

CONTROLS

Important: In order to avoid draining the battery of the vehicle, always use electric device when engine is running.

Emptying collection system

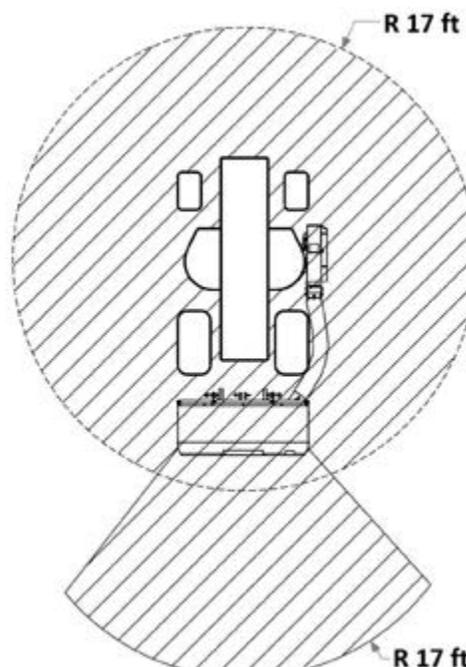
1. Press and hold control switch to "OPEN" position.

Closing collection system

1. When emptied, press and hold control switch to "CLOSE" position until actuators are fully extended.

▲ WARNING

**HAZARDOUS AREA !
MAKE SURE THAT NOBODY IS WITHIN A 17 FT
RADIUS WHEN THE TRACTOR IS IN OPERATION.**



▲ WARNING

READ THE TRACTOR OWNER'S MANUAL CAREFULLY. BE THOROUGHLY FAMILIAR WITH THE CONTROLS & PROPER USE OF THE ATTACHMENT. KNOW HOW TO STOP THE ATTACHMENT & DISENGAGE THE CONTROLS QUICKLY.

USE EXTRA CARE IN OPERATION. THIS ATTACHMENT CAN CHANGE THE STABILITY OF THE VEHICLE IN OPERATION AND IN STATIC CONDITIONS. CHECK BRAKE OPERATION PRIOR TO ANY USE. ADJUST AND REPAIR ANY PROBLEM BEFORE USING. NEVER OPERATE IN SLOPE MORE THAN 10°.

▲ CAUTION

Use care while operating near obstacles. This attachment adds width and length to vehicle and mower deck. Familiarize yourself with the new vehicle's dimensions.

▲ WARNING

- Always wear protective ear muffs, safety mask and safety glasses when operating the accessory.
- Never use the grass collector without all the guards and the discharge tube correctly installed. The collector and the cover must be in closed position.
- If during the operation, an anomaly occurs (loss of part, breakage, tube stands, etc.); STOP the vehicle immediately and rectify the situation.

▲ WARNING

CLEARING A CLOGGED DISCHARGE CHUTE:

Hand contact with the rotating impeller inside the discharge chute is a common cause of injury. Never use your hand to clean out the discharge chute.

To clear the chute: NEVER USE YOUR HAND

1. Disengage the clutch.
2. Lower mower deck to the ground and set parking brake.
3. SHUT THE ENGINE OFF & REMOVE KEY!
4. Wait 10 seconds to be sure that **all moving parts** such as the impeller blades have stopped moving.
5. Disconnect wire from the spark plug(s) and keep wire away to prevent accidental starting.
5. Always use a clean out tool (a wooden stick that is at least 3 feet long minimum).

DFS COLLECTION SYSTEM

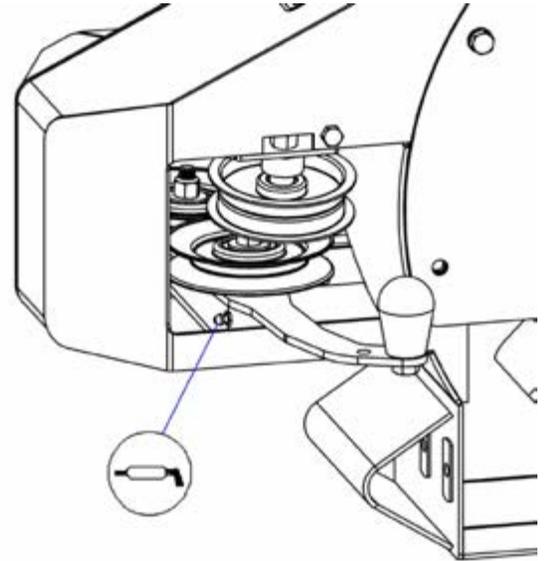
SERVICE SCHEDULE

▲ WARNING

**TO PREVENT INJURIES: STOP THE MOTOR. APPLY PARKING BRAKE. REMOVE THE IGNITION KEY. DISCONNECT THE WIRE FROM THE SPARK PLUG(S) AND KEEP AWAY FROM SPARK PLUG(S) TO PREVENT ACCIDENTAL STARTING.
NEVER GET UNDER THE GRASS COLLECTOR WHEN IT IS RAISED OFF THE GROUND.**

Daily:

- Clean collection system thoroughly and repaint all parts from which paint has worn.
- Check for any signs of loose bolts and tighten as needed. Check mounting bolts at frequent intervals for proper tightness in order to prevent costly repairs. Make sure your grass collector is in safe working condition.
- Check for any signs of damaged components. Repair or replace if needed.
- Verify the wear on the chute, the flexible tube, grass filter, the deflector, the belt and the rubber joint. Repair or replace if needed.
- Check actuators before each use. If only one of the two works, refer to TROUBLESHOOTING section.



50 Hours:

- Check drive belts for proper tension and signs of cracking.
- Always clean the grease fitting before inserting any grease.
- **Lubricate** tensioner's pivot with an all purpose
- Lubricate all the other pivoting points.

DFS COLLECTION SYSTEM

ACTUATOR SH EAR BOLT REPLACEMENT

Shear bolts are to be considered a preventive measure and is required. Thoroughly inspect the areas where the col operation nearby any obstacles.

To avoid damage to the collection system:

Use only the original shear bolts (grooved bolts). One spare set is provided with this manual. The use of any

ACTUATOR REPLACEMENT

1. Disconnect actuator.
2. Remove broken shear bolt and its hardware (item 18)
3. If needed, remove hair pin (item 74) and loose tension by unscrewing adjusting rod (item 50).
4. Remove bottom bolt and nut (item 64).
5. Replace actuators with new shear bolt kit and same bottom bolt and nut.
6. Adjust correct clamping force.

ADJUST CORRECT CLAMPING FORCE.

1. Connect both actuators.
2. Fully extend actuators to collector in closed position.
3. Remove hair pin (item 64) (keep it aside)
4. Screw or Unscrew adjusting rod until "GAP" is a bit more than 0. Use spacer #107223 as a guide. (The lesser the gap, the higher the "OPENED" position for collector dumping may be.)

1. Make sure both side have the same gap.

CAUTION

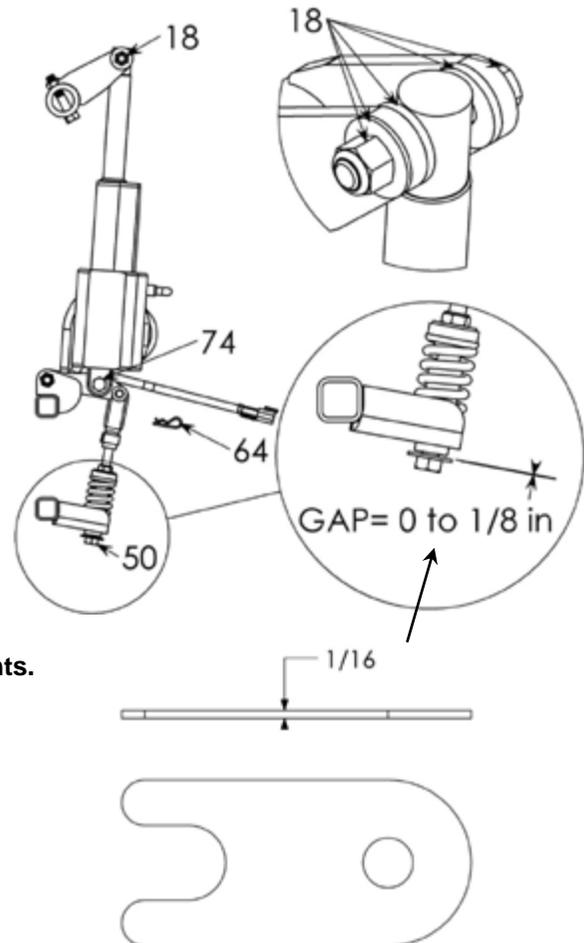
Keep "GAP" less than 1/8 in. If "GAP" is more than 1/8", it may reduce the lifetime of actuators or cause other damages to the collection system's components. Both sides must be the same.

BELT REPLACEMENT

1. To remove and replace belt, follow reversed belt installation procedure in **STEP 3 : "COLLECTION SYSTEM INSTALLATION."**

END OF SEASON STORAGE

1. Clean collection system thoroughly and repaint all parts from which paint has worn.
2. List the replacement parts that will be needed for the next season.
3. Store the collection system in a dry place.
4. Follow the instructions in the service schedule set



Spacer #107223

DFS COLLECTION SYSTEM

* Please refer to parts breakdown section for parts identification .

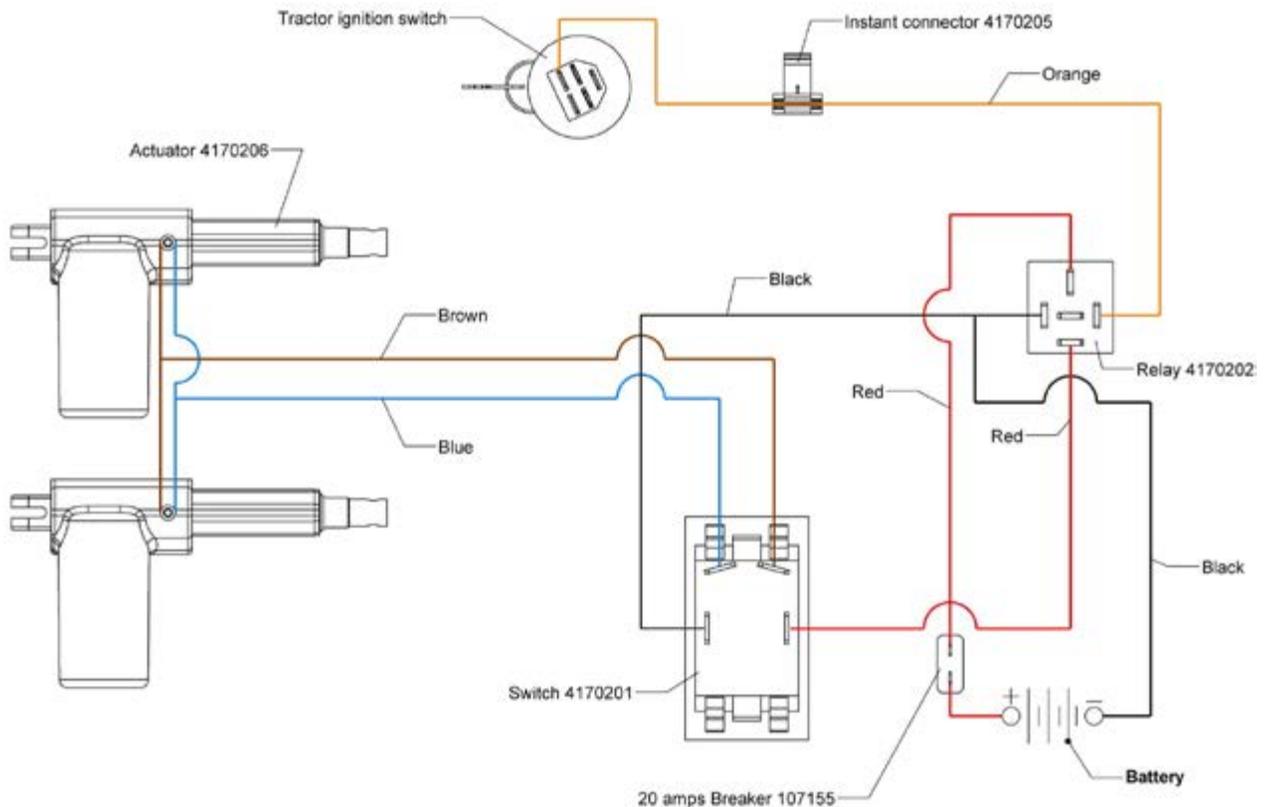
TROUBLESHOOTING		
PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
Blower vibrates or is abnormally noisy .	Damaged pulley	Replace pulley
	Damaged bearing	Replace the bearing
	Fan is damaged	Remove and straighten or replace the fan.
	Belt is damaged	Replace the belt.
Collection system is banging in operation even in closed position.	Clamping force is not enough.	Adjust correct clamping force. (refer to service section)
Container doesn't raise enough in opened position.	Clamping force is too much.	Adjust correct clamping force (refer to service section.)
The blower does not push the grass towards the collection system.	The chute, the fan or discharge tube are blocked.	Dislodge the obstruction with the help of a stick.
Belt shows premature wear	Not enough tension on the belt.	Make sure the spring is in good condition.
	Not the original belt installed.	Install an original belt.
Belt is snapping, shredding, burning or worn in a specific place.	There is not enough tension on the belt: -the belt is worn which is causing a slack. -the spring is worn out -the tensioner's pivot is not well lubricated.	Replace the belt or the spring. Grease all the pivoting points.
	Imperfections in the pulleys	Replace the pulleys.
	The belt rubs on a belt guide	Reposition the belt guide.
The chute blocks easily	The grass is cut too long.	Adjust the mower deck to the highest position for the first cut, then lower the second cut.
	The grass is too humid.	Wait for the grass to dry out.
Tube in contact with tire	Not good set of holes used.	Change set of holes to rotate tube, in order to clear tire.

DFS COLLECTION SYSTEM

* Please refer to parts breakdown section for parts identification .

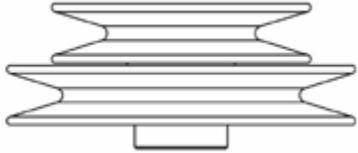
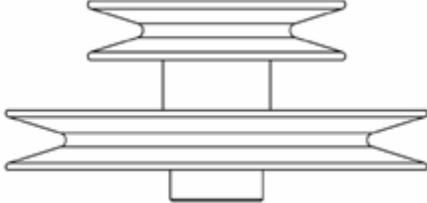
TROUBLESHOOTING		
PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
Actuators don't hold charge.	Actuators overloaded (too much weight).	Remove weight (too much heavy grass accumulated).
	New actuators.	It may be necessary to 100-200 lifts before the actuators hold their charge due to internal lubrication
	Only one actuator runs.	See section on this problem.
Actuators run backwards	Switch wires reversed.	Recheck wiring.
	Battery wires reversed.	Recheck wiring.
Actuators (or one) will not operate	Vehicle's ignition switch is at OFF-position.	Turn vehicle's ignition switch at ON position.
	Broken wires or bad connection.	Check for poor connections.
	Control switch is inoperative.	Replace control switch.
	Relay or breaker is damaged.	Replace the relay or breaker.
	Actuators are damaged.	Replace or repair actuators.
Actuators run but with insufficient power or line speed.	Weak battery.	Recharge or replace batter Check charging system.
	Poor battery connection.	Check battery terminals for corrosion. Clean when required.
	Actuators are damaged.	Replace or repair actuators.
	Too much weight.	Remove weight.
	Very low temperature.	Enable actuators a few times to heat the components or allow the actuators to be heated by the tractor.
	Tractor engine is not running.	Start tractor engine before using actuators to avoid battery loss.
	Four springs are loaded enough.	Increase springs load with eye bolt's nuts for all fours springs.
Grass is escaping	One seal is damaged.	Replace broken seal.
	Collection system is not fully installed (discharge baffle is missing for example).	Recheck installation. (Refer to collection system and deck kit owner's manuals.).
	Lid is not closed properly.	Close the lid and latch properly.
Discharge tube escape from chute when mower deck is lowered.	Latch is broken or not installed at full tension.	Replace latch or install it at full tension.

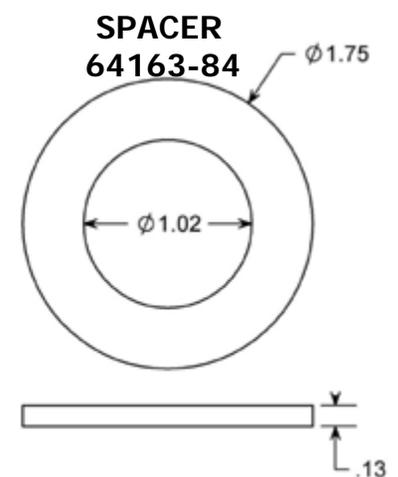
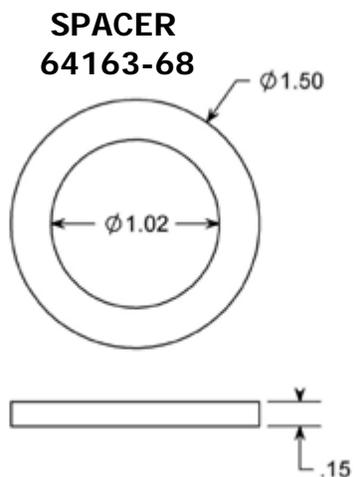
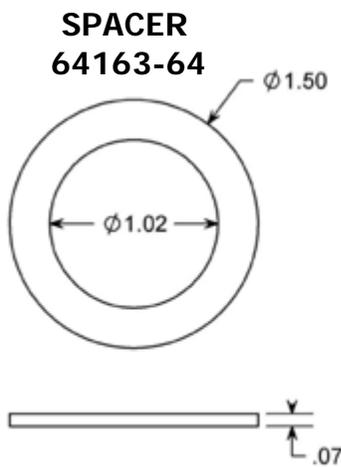
TROUBLESHOOTING		
PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
Collector doesn't clip on vehicle easily	Collector slots are not well installed on both sides grooves from bottom pin.	Make sure both sides are well installed on bottom pin.
	Mounting pins are not installed exactly at the right position.	Loose mounting bolts until collector clip easily on place. Then, retighten mounting bolts.
	Latch is still secured in place by knobs and carriage bolts.	Remove two knobs and carriage bolts. (one on each side)
	Too much friction on latch.	Lubricate latch pivot point.
HOW TO KNOW	POINTS TO CHECK	
Poor connections.	Recheck wiring with the owner's manual.	
Actuators are damaged.	The ultimate test is to connect the actuators directly to the battery and reverse the wires to test both directions. If the actuators don't work, they are damaged.	
The breaker is damaged.	Check the resistance with multimeter on both terminals of the breaker. If no contact, replace the breaker. (Sometimes, it could take a few minutes for the breaker to automatically reset itself).	



DFS COLLECTION SYSTEM

DOUBLE PULLEY TABLE

Double Pulley				Double Pulley			
							
4169425				4169426			
Use on		with Spacer		Use on		with Spacer(s)	
942302H	42	FCA	-	942508J	72	ZT2	(1) 64163-64 & (1) 64163-68
942311H	42	FCA	-	942509J	61	ZT2	-
942298H	48	FCA	-	942511J	72	ZT2	64163 -64
942501J	52	ZT2	64163 -84	942516J	72	ZT2	(1) 64163-64 & (1) 64163-68
942502J	61	ZT2	64163 -64	942519J	72	ZT2	(1) 64163-64 & (1) 64163-68
942504J	61	ZT2	64163 -64				
942506J	52	ZT2	64163 -84				
942514J	61	ZT2	64163 -64				
942515J	61	ZT2	64163 -64				
942520J	52	ZT2	64163 -84				
942521J	61	ZT2	64163 -64				
942522J	52	ZT2	64163 -84				
942523J	61	ZT2	64163 -64				
942525J	52	ZT2	64163 -84				
942526J	61	ZT2	64163 -64				
942704J	61	ZT2	64163 -64				
942706J	52	ZT2	64163 -84				
942722J	52	ZT2	64163 -84				

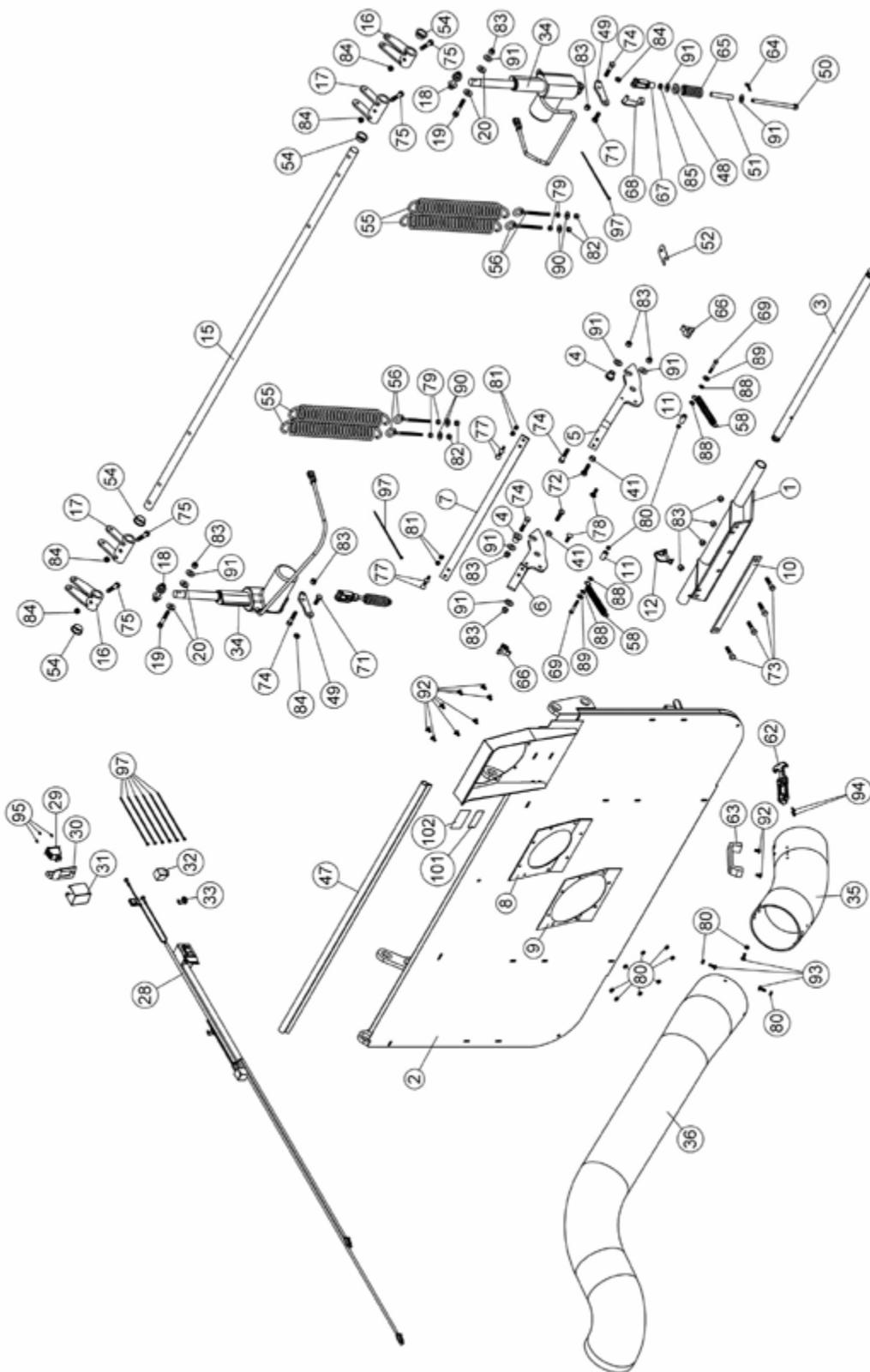




PARTS SECTION

DFS COLLECTION SYSTEM

PARTS BREAKDOWN COLLECTION SYSTEM



DFS COLLECTION SYSTEM

PARTS LIST COLLECTION SYSTEM

Ref.	English description	Qty	. Part #
1	Mounting hitch	1	4170158.7
2	Frame	1	4170159.7
3	Pin	1	4170160
4	Mounting pin	2	4170161
5	Right latch	1	4170162.7
6	Left latch	1	4170163.7
7	Link	1	4170164.7
8	Rubber seal	1	4170165
9	Bracket	1	4170169.7
10	Shim	1	4170418.7
11	Sleeve	2	4170177
12	Lock pin	1	4170176
13	Top arm	2	4170186.7
14	Link tube	2	4170187.7
15	Shaft	1	4170188
16	Lift lever	2	4170189.7
17	Spring lever	2	4170190.7
18	Shear bolt with hardware	2	4170191
19	Shear bolt	2	4170192
20	Washer	4	106982
21	Bottom arm	2	4170193.7
22	Container's frame	1	4170194.7
23	Bracket	2	4170195.7
24	Lid's frame	1	4170196.2
25	Bracket	2	4170197.7
26	Filter	1	4170199
27	Bracket	2	4170198.7
28	Wire assembly	1	4170200
29	Switch	1	4170201
30	Box cover	1	4170203.7

O/L = Obtain Locally

DFS COLLECTION SYSTEM

PARTS LIST COLLECTION SYSTEM

Ref.	English description	Qty	. Part #
31	Box	1	4170204.7
32	Relay	1	4170202
33	Instant connector	1	4170205
34	Electric actuator	2	4170206
35	Adjustment tube	1	4170208
36	Discharge tube	1	4170209
37	Left cover	1	4170210
38	Right cover	1	4170211
39	Left container	1	4170212
40	Right container	1	4170213
41	Sleeve	2	4170214
42	Flat washer	2	106444
43	Keeper plate	2	4170215
44	Rubber hitch	2	4170216
45	Seal	1	4170217
46	Seal	2	4170218
47	Seal	1	4170219
48	Spring holder	2	4170220
49	Bracket	2	4170221.7
50	Adjusting rod	2	4170222
51	Sleeve	2	4170223
52	Spacer	1	107223
53	Bushing	4	4170224
54	Bushing	6	4170225
55	Spring	4	4170226
56	Eye bolt	4	4170227
57	Gas spring	2	4170228
58	Spring	2	4170229
59	Square plug	2	4170230
60	Plug for hole 11/16"	4	4170231

O/L = Obtain Locally

DFS COLLECTION SYSTEM

PARTS LIST COLLECTION SYSTEM

Ref.	English description	Qty	Part #
61	Black plastic rivet	11	4170232
62	Rubber hitch	1	4170233
63	Handle	1	4170234
64	Hair pin 2mm	2	64168 -2
65	Spring	2	4170235
66	Knob	2	4170236
67	Fork	2	4170237
68	Pin	2	4170238
69	Hex. bolt 1/4" n.c. x 1 3/4" GR5	2	64123 -283
70	Hex. bolt 1/4" n.c. x 2" GR5	4	64123 -60
71	Hex. bolt 3/8" n.c. x 1" GR5	2	64123 -50
72	Hex. bolt 3/8" n.c. x 1 1/4" GR5	2	64123 -16
73	Hex. bolt 3/8" n.c. x 1 1/2" GR5	4	64123 -70
74	Hex. bolt 3/8" n.c. x 1 3/4" GR5	4	64123 -87
75	Hex. bolt 3/8" n.c. x 2" GR5	6	64123 -67
76	Hex. bolt 3/8" n.c. x 2 1/2" GR5	2	64123 -82
77	Carriage bolt 1/4" n.c. x 1 " GR5	4	64123 -114
78	Carriage bolt 5/16" n.c. x 1 " GR5	2	64018 -15
79	Hex. nut 5/16" n.c.	4	64025 -02
80	Nylon insert lock nut 1/4" n.c. (thin)	31	64151 -38
81	Nylon Insert lock Nut 1/4" n.c.	4	64229 -01
82	Nylon Insert lock Nut 5/16" n.c. GR5	4	64229 -02
83	Nylon Insert lock Nut 3/8" n.c.	12	64229 -03
84	Nylon insert lock nut 3/8" n.c. (thin)	10	64229 -34
85	Nylon insert lock nut 3/8" n.f. (thin)	2	336NF.P -3/8
86	Nylon insert lock nut 3/4" n.c. (thin) GR5	2	6451 -36
87	Flat washer #10 hole	10	360.P_#10T
88	Flat washer 1/4" hole	4	360.P_1 -4T
89	Flat washer 5/16" hole	2	360.P_5 -16T
90	Flat washer 3/8" hole	8	64163 -61

O/L = Obtain Locally

DFS COLLECTION SYSTEM

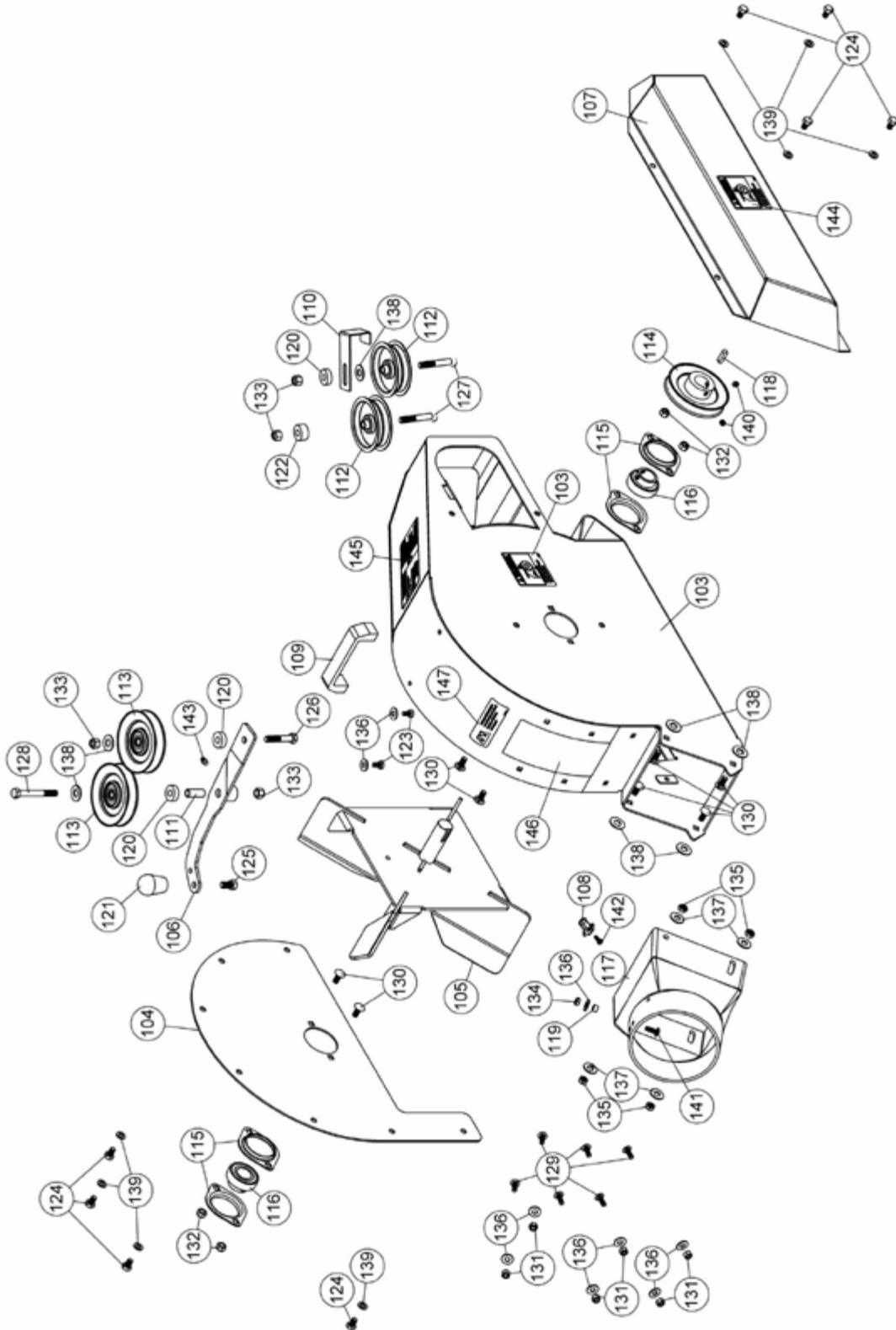
PARTS LIST COLLECTION SYSTEM

Ref.	English description	Qty	Part #
91	Flat washer 7/16" hole	10	360.P_7 -16T
92	Machine screw T.H. 1/4" n.c. x 1/2"	21	394.P -1/4X1/2
93	Machine screw T.H. 1/4" n.c. x 3/4"	12	394.P -1/4X3/4
94	Tapping screw M5 x 12mm "T25 Torx drive"	8	408.P -T25-M5x12
95	Pop -rivet 1/8" x 3/16" no.AD-43BS	3	415-1/8X3/16
96	Pop -rivet 3/16" LF x 3/8" no AD-66ABSLF	42	415-3/16LFX3/8
97	Tie wrap 8"	8	426-8
98	Decal BobCat	1	4158401
99	Caution decal projection	1	4170258
100	Decal pinch point	3	4137371
101	Patent decal	1	4169490
102	Serial number	1	REF

O/L = Obtain Locally

DFS COLLECTION SYSTEM

PARTS BREAKDOWN COLLECTION SYSTEM



DFS COLLECTION SYSTEM

PARTS LIST COLLECTION SYSTEM

Ref.	English description	Qty	Part #
103	Frame with safety decals	1	4170239.7
104	Mounting plate	1	4170240.7
105	Fan	1	4170241.7
106	Tensioner	1	4170242.7
107	Belt guard with safety decal	1	4170243.7
108	Keeper plate	1	4170215
109	Handle	1	4170234
110	Belt guide	1	4170244.7
111	Spacer	1	4170245
112	Flat pulley	2	4170246
113	V pulley	2	4170247
114	V pulley with set screws	1	4170248
115	Flangette	4	4170249
116	Bearing with set screw	2	4170250
117	Chute	1	4170251
118	Key 1/4" x 1/4" x 1.000"	1	64164 -12
119	Sleeve	1	4170252
120	Spacer	3	4170253
121	Knob	1	4170254
122	Spacer	1	4170255
123	Hex. bolt 1/4" n.c. x 1/2" GR5	2	64123 -49
124	Hex. bolt 5/16" n.c. x 1/2" GR5	8	64123 -92
125	Hex. bolt 3/8" n.c. x 3/4" GR5	1	64123 -15
126	Hex. bolt 3/8" n.c. x 2" GR5	1	64123 -67
127	Hex. bolt 3/8" n.c. x 2 1/4" GR5	2	64123 -100
128	Hex. bolt 3/8" n.c. x 3" GR5	1	64123 -75
129	Carriage bolt 1/4" n.c. x 3/4 " GR5	6	64018 -02
130	Carriage bolt 5/16" n.c. x 3/4 " GR5	8	64018 -01
131	Nylon Insert lock Nut 1/4" n.c.	6	64229 -01
132	Nylon Insert lock Nut 5/16" n.c.	4	64229 -02

DFS COLLECTION SYSTEM

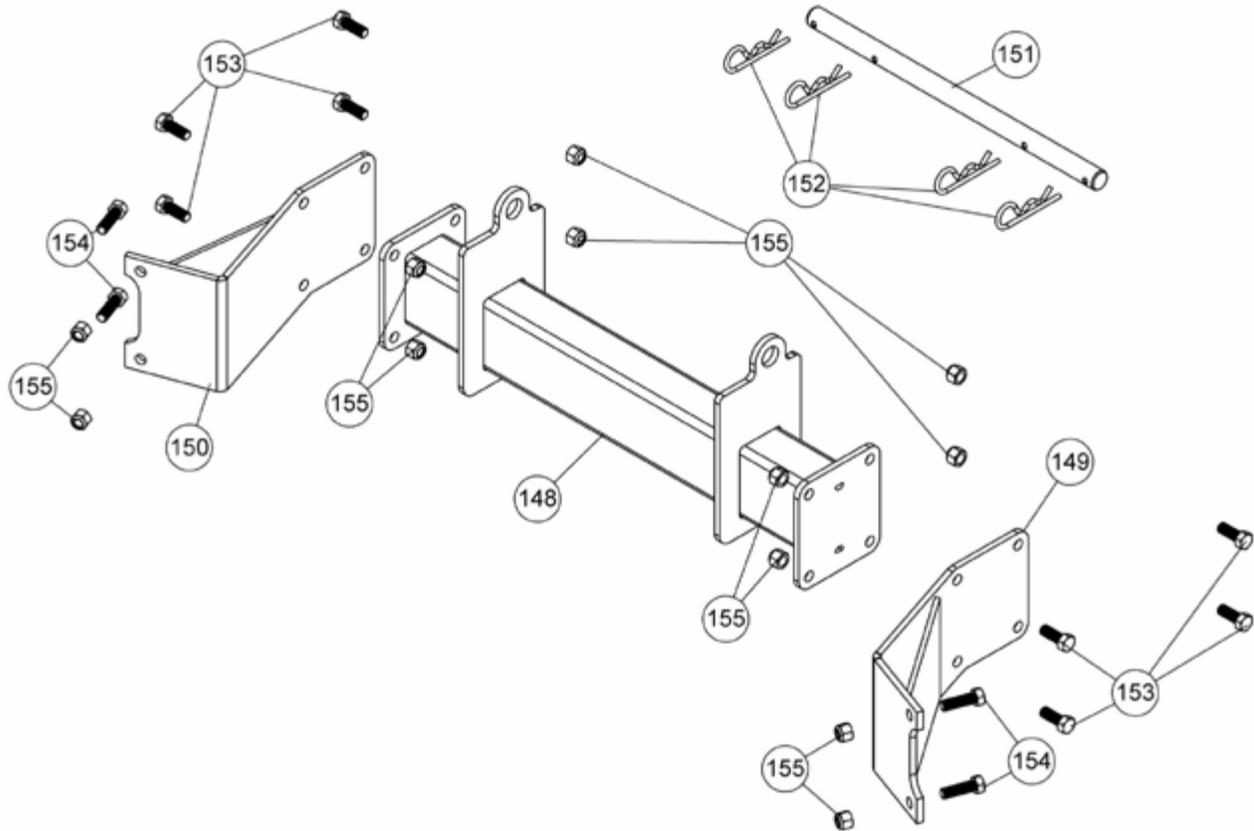
PARTS LIST COLLECTION SYSTEM

Ref.	English description	Qty	Part #
133	Nylon Insert lock Nut 3/8" n.c.	4	64229 -03
134	Nylon insert lock nut 1/4" n.c. (thin)	1	64151 -38
135	Nylon insert lock nut 5/16" n.c. (thin)	4	336NC.P -5/16
136	Flat washer 5/16" hole	9	360.P_5 -16T
137	Flat washer 3/8" hole	4	64163 -61
138	Flat washer 7/16" hole	7	360.P_7 -16T
139	Lock washer 5/16"	8	64006 -02
140	Socket head set screw 5/16" n.c. x 5/16"	2	391NC.N - 5/16X5/16
141	Machine screw T.H. 1/4" n.c. x 3/4"	1	394.P -1/4X3/4
142	Tapping screw M5 x 12mm "T25 Torx drive"	1	408.P -T25- M5x12
143	Grease fitting 1/4" n.f.	1	85010N
144	Warning decal belt	2	2000577
145	Decal danger mower	1	4164269
146	Danger decal chute	1	4165975
147	Decal read instructions	1	200735

O/L = Obtain Locally

DFS COLLECTION SYSTEM

PARTS BREAKDOWN COLLECTION SYSTEM

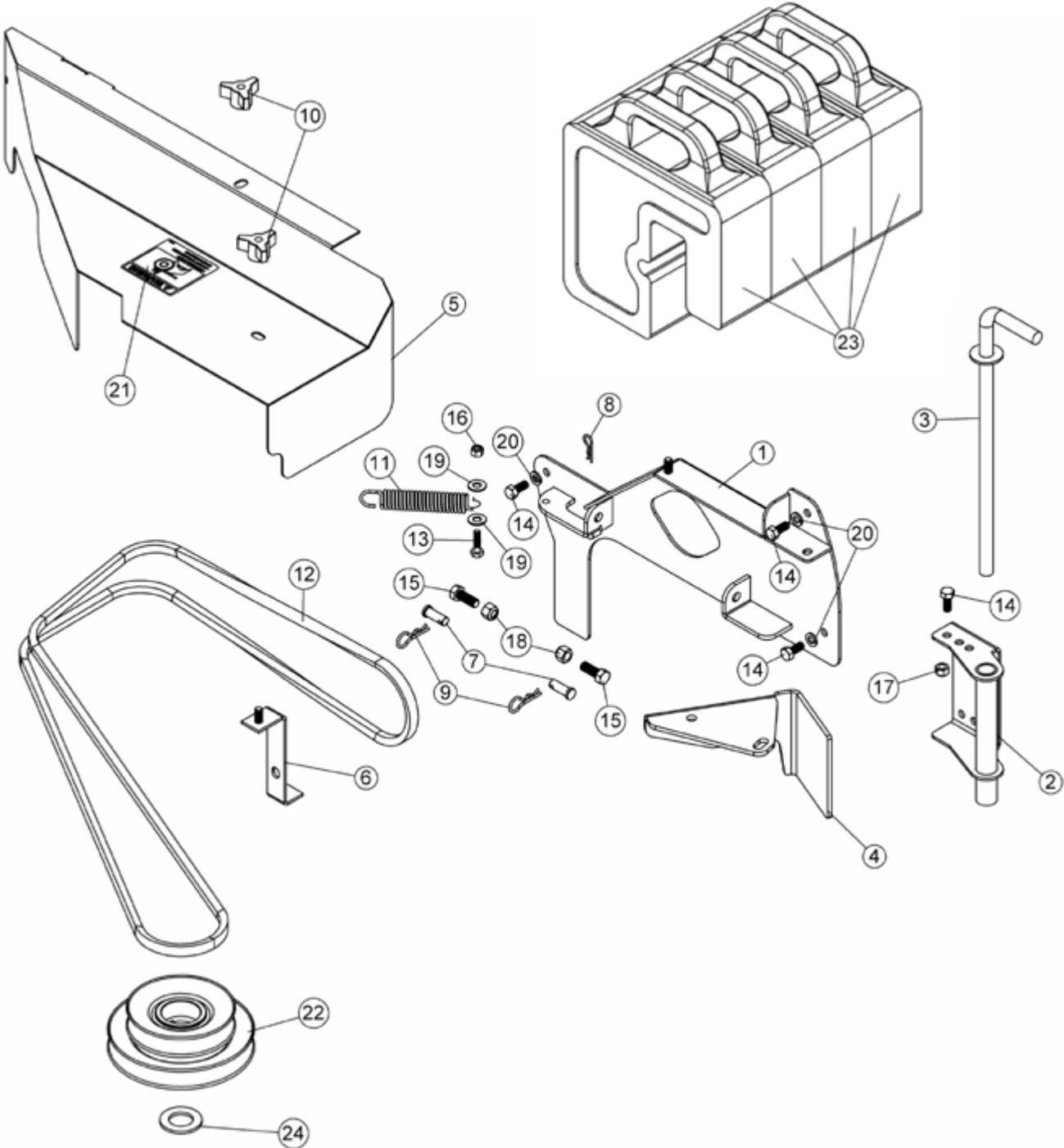


PARTS LIST COLLECTION SYSTEM

Ref.	English description	Qty	Part #
148	Counterweight bracket	1	4170151.7
149	Right bracket	1	4170152.7
150	Left bracket	1	4170153.7
151	Pivot pin	1	4170154
152	Hair pin 4mm	4	102054
153	Hex. bolt 3/8" n.c. x 1" GR5	8	64123 -50
154	Hex. bolt 3/8" n.c. x 1 1/4" GR5	4	64123 -16
155	Nylon Insert lock Nut 3/8" n.c.	12	64229 -03

O/L = Obtain Locally

**PARTS BREAKDOWN
KIT -DECK, 52IN 12BU COLL SYSTEM 970499**



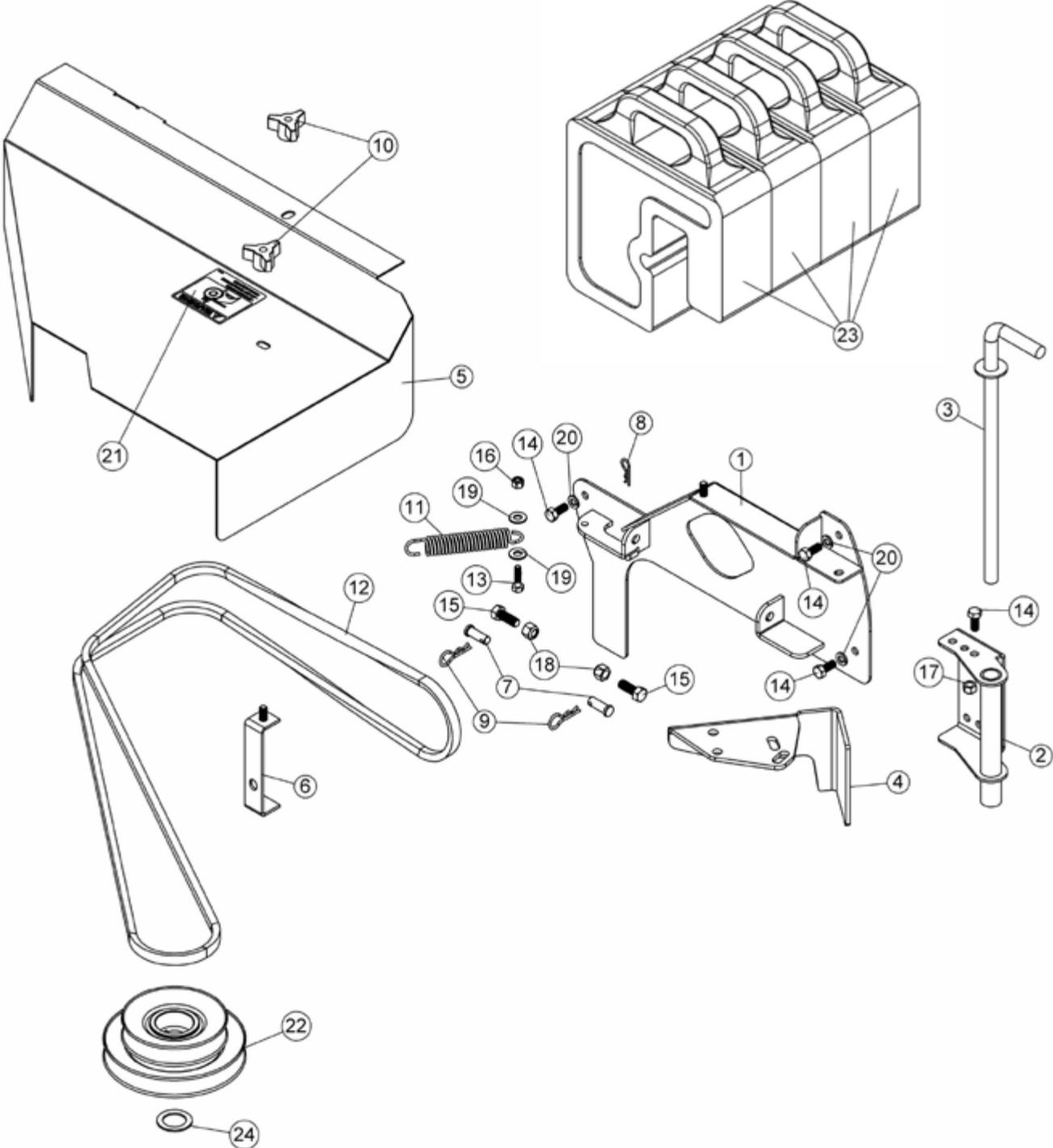
COLLECTION SYSTEM KIT-DECK

PARTS LIST KIT -DECK, 52IN 12BU COLL SYSTEM 970499

Ref.	English description	Qty	. Part #
1	Blower hitch	1	4170290.7
2	Link tube	1	4170291.7
3	Mounting pin	1	4170292.7
4	Baffle	1	4170293.7
5	Belt guard with safety decal	1	4170294.7
6	Bracket	1	4170295.7
7	Pin	2	64188 -33
8	Hair pin 2mm	1	64168 -2
9	Hair pin 2.5mm	2	64168 -7
10	Knob	2	4170236
11	Spring	1	4170296
12	V-Belt , A-93	1	4170297
13	Hex. bolt 1/4" n.c. x 1" GR5	1	64123 -114
14	Hex. bolt 5/16" n.c. x 3/4" GR5	4	64123 -54
15	Hex. bolt 3/8" n.c. x 1" GR5	2	64123 -50
16	Nylon Insert lock Nut 1/4" n.c.	1	64229 -01
17	Nylon Insert lock Nut 5/16" n.c. GR5	1	64229 -02
18	Nylon Insert lock Nut 3/8" n.c.	2	64229 -03
19	Flat washer 5/16" hole	2	360.P_5 -16T
20	Lock washer 5/16"	3	64006-02
21	Warning decal belt	1	2000577
22	Double Pulley	1	4169425
23	50lbs tractor ballast weight	4	62-540.7
24	Spacer 1.015X1.750X10GA	1	64163-84

O/L = Obtain Locally

**PARTS BREAKDOWN
KIT -DECK, 61IN 12BU COLL SYSTEM 970500**

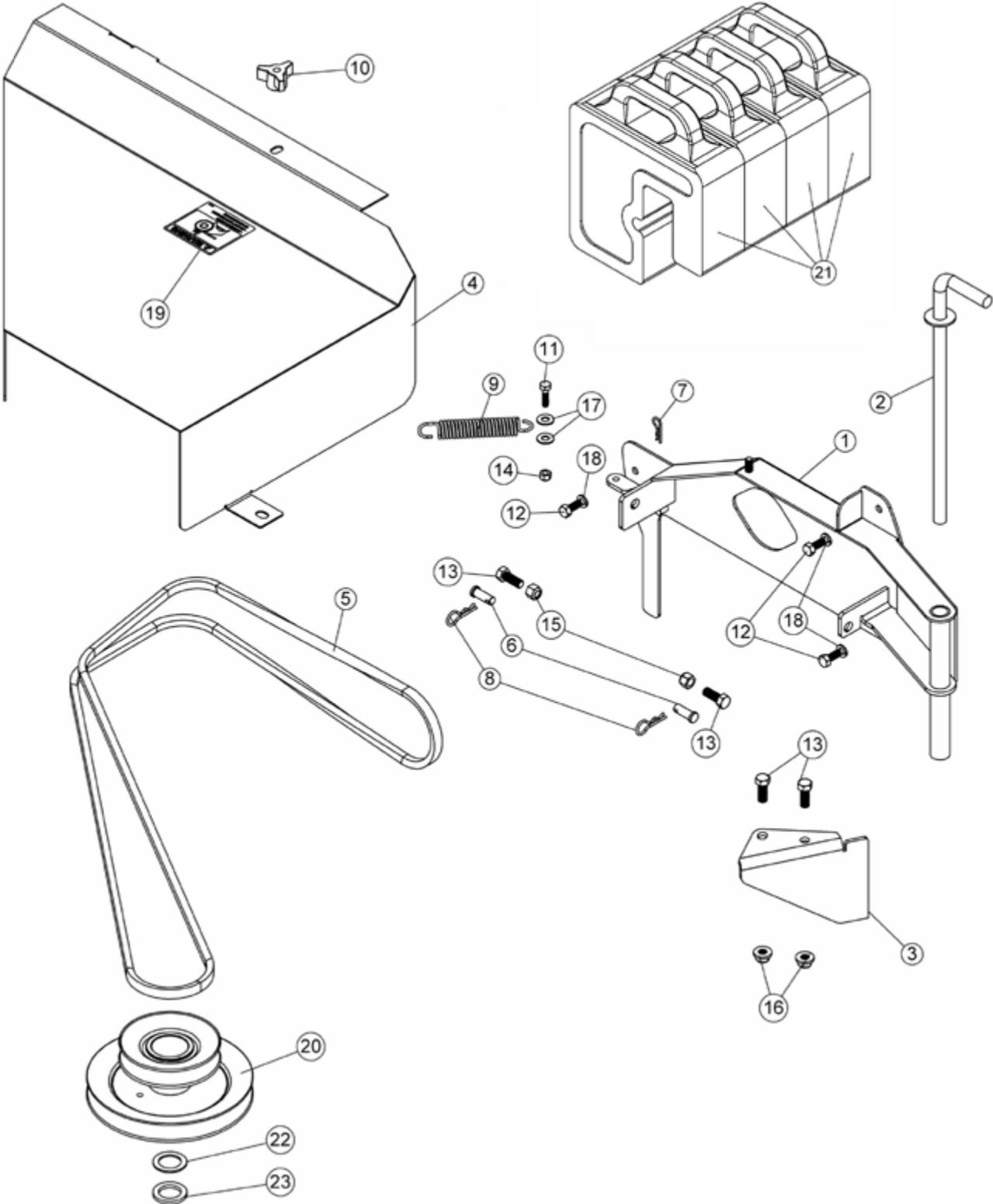


COLLECTION SYSTEM KIT-DECK

PARTS LIST KIT -DECK, 61IN 12BU COLL SYSTEM 970500			
Ref.	English description	Qty	. Part #
1	Blower hitch	1	4170290.7
2	Link tube	1	4170291.7
3	Mounting pin	1	4170292.7
4	Baffle	1	4170298.7
5	Belt guard with safety decal	1	4170299.7
6	Bracket	1	4170300.7
7	Pin	2	64188 -33
8	Hair pin 2mm	1	64168 -2
9	Hair pin 2.5mm	2	64168 -7
10	Knob	2	4170236
11	Spring	1	4170296
12	V-Belt , A-92	1	4170301
13	Hex. bolt 1/4" n.c. x 1" GR5	1	64123 -114
14	Hex. bolt 5/16" n.c. x 3/4" GR5	4	64123 -54
15	Hex. bolt 3/8" n.c. x 1" GR5	2	64123 -50
16	Nylon Insert lock Nut 1/4" n.c.	1	64229 -01
17	Nylon Insert lock Nut 5/16" n.c. GR5	1	64229 -02
18	Nylon Insert lock Nut 3/8" n.c.	2	64229 -03
19	Flat washer 5/16" hole	2	360.P_5 -16T
20	Lock washer 5/16"	3	64006-02
21	Warning decal belt	1	2000577
22	Double Pulley	1	4169425
23	50lbs tractor ballast weight	4	62-540.7
24	Spacer 1.015X1.500X14GA	1	64163-64

O/L = Obtain Locally

**PARTS BREAKDOWN
KIT -DECK, 72IN 12BU COLL SYSTEM 970501**



COLLECTION SYSTEM KIT -DECK

PARTS LIST KIT -DECK, 72IN 12BU COLL SYSTEM 970501

Ref.	English description	Qty	. Part #
1	Blower hitch	1	4170302.7
2	Mounting pin	1	4170292.7
3	Baffle	1	4170303.7
4	Belt guard with safety decal	1	4170304.7
5	V-Belt , A-96	1	4170305
6	Pin	2	64188 -33
7	Hair pin 2mm	1	64168 -2
8	Hair pin 2.5mm	2	64168 -7
9	Spring	1	4170296
10	Knob	1	4170236
11	Hex. bolt 1/4" n.c. x 1" GR5	1	64123 -114
12	Hex. bolt 5/16" n.c. x 3/4" GR5	3	64123 -54
13	Hex. bolt 3/8" n.c. x 1" GR5	4	64123 -50
14	Nylon Insert lock Nut 1/4" n.c.	1	64229 -01
15	Nylon Insert lock Nut 3/8" n.c.	2	64229 -03
16	Nylon insert flange lock nut 3/8" n.c. GR5	2	64229 -03
17	Flat washer 5/16" hole	2	360.P_5 -16T
18	Lock washer 5/16"	3	64006 -02
19	Warning decal belt	1	2000577
20	Double Pulley	1	4169426
21	50lbs tractor ballast weight	4	62-540.7
22	Spacer 1.015X1.500X14GA	1	64163-64
23	Spacer 1.015X1.500X9GA	1	64163-68

O/L = Obtain Locally

DFS COLLECTION SYSTEM

TORQUE SPECIFICATION TABLE

GENERAL TORQUE SPECIFICATION TABLE

USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

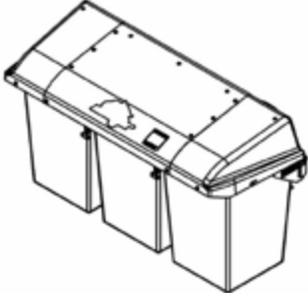
NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal oil. They do not apply special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

SEE Grade No.		2				5				8 *			
BOLT HEAD IDENTIFICATION MARKS AS PER GRADE NOTE MANUFACTURING		TORQUE				TORQUE				TORQUE			
BOLT SIZE		POUNDS FEET -METERS		NEWTON		POUNDS FEET -METERS		NEWTON		POUNDS FEET		NEWTON -METERS	
Inches	Millimetre	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1/4"	6.35	5	6	6.8	8.13	9	11	12.2	14.9	12	15	16.3	30.3
5/16"	7.94	10	12	13.6	16.3	17	20.5	23.1	27.8	24	29	32.5	39.3
3/8"	9.53	20	23	27.1	31.2	35	42	47.5	57	45	54	61	73.2
7/16"	11.11	30	35	40.7	47.4	54	64	73.2	86.8	70	84	94.9	113.9
1/2"	12.7	45	52	61	70.5	80	96	108.5	130.2	110	132	149.2	179
9/16"	14.29	65	75	88.1	101.6	110	132	149.2	179	160	192	217	260.4
5/8"	15.88	95	105	128.7	142.3	150	180	203.4	244.4	220	264	298.3	358
3/4"	19.05	150	185	203.3	250.7	270	324	366.1	439.3	380	456	515.3	618.3
7/8"	22.23	160	200	216.8	271	400	480	542.4	650.9	600	720	813.6	976.3
1"	25.4	250	300	338.8	406.5	580	696	786.5	943.8	900	1080	1220.4	1464.5

*Thick nuts must be used with grade 8 bolts

METRIC BOLT TORQUE SPECIFICATIONS							
COARSE THREAD					FINE THREAD		
Size Screw	Grade No.	Pitch (mm)	Pounds Feet	Newton -Meters	Pitch (mm)	Pounds Feet	Newton -Meters
M6	4T	1.00	3.6 - 5.8	4.9 - 7.9	-	-	-
	7T		5.8 - 9.4	7.9 - 12.7		-	-
	8T		7.2 - 10	9.8 - 13.6		-	-
M8	4T	1.25	7.2 - 14	9.8 - 19	1.00	12 - 17	16.3 - 23
	7T		17 - 22	23 - 29.8		19 - 27	25.7 - 36.6
	8T		20 - 26	27.1 - 35.2		22 - 31	29.8 - 42
M10	4T	1.50	20 - 25	27.1 - 33.9	1.25	20 - 29	27.1 - 39.3
	7T		34 - 40	46.1 - 54.2		35 - 47	47.4 - 63.7
	8T		38 - 46	51.5 - 62.3		40 - 52	54.2 - 70.5
M12	4T	1.75	28 - 34	37.9 - 46.1	1.25	31 - 41	42 - 55.6
	7T		51 - 59	69.1 - 79.9		56 - 68	75.9 - 92.1
	8T		57 - 66	77.2 - 89.4		62 - 75	84 - 101.
M14	4T	2.00	49 - 56	66.4 - 75.9	1.50	52 - 64	70.5 - 86.7
	7T		81 - 93	109.8 - 126		90 - 106	122 - 143.6
	8T		96 - 109	130.1 - 147.7		107 - 124	145 - 168
M16	4T	2.00	67 - 77	90.8 - 104.3	1.50	69 - 83	93.5 - 112.5
	7T		116 - 130	157.2 - 176.2		120 - 138	162.6 - 187
	8T		129 - 145	174.8 - 196.5		140 - 158	189.7 - 214.1
M18	4T	2.00	88 - 100	119.2 - 136	1.50	100 - 117	136 - 158.5
	7T		150 - 168	203.3 - 227.6		177 - 199	239.8 - 269.6
	8T		175 - 194	237.1 - 262.9		202 - 231	273.7 - 313
M20	4T	2.50	108 - 130	146.3 - 176.2	1.50	132 - 150	178.9 - 203.3
	7T		186 - 205	252 - 277.8		206 - 242	279.1 - 327.9
	8T		213 - 249	288.6 - 337.4		246 - 289	333.3 - 391.6

OPTIONS & ACCESSORIES



**970474 BOSS-VAC PRO™,
12 BUSHEL BAG, COL-
LECTION SYSTEM**

BobCat mowers ProCat,
52 -61 -72" model



4170501 Wrapper plate

Inner #11ga wrapper plate to bolt on
blower housing from collection system
#970473 or #970474.
For a repair or preventative measure.

These accessories may need other parts

SCHILLER GROUNDS CARE, INC.

**ONE BOB-CAT LANE
P.O. BOX 469
JOHNSON CREEK, WI 53038
920-699-2000
www.schillergc.com**



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