



# Parts & Maintenance Manual

---

## HR 4600 Turbo™ Rotary Mower

67862 – Kubota V1505-TE, 2WD

67863 – Kubota V1505-TE, 4WD



*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.*

# To Order Parts

---

1. Write your **full** name and **complete** address on the order.
2. Explain where and how to make shipment.
3. Give product number, name and serial number that is stamped on the name plate or serial plate of your product.
4. Order by the quantity desired, the part number, paint code, and description of the part as given in the parts list.
5. Send or bring the order to an authorized Textron Turf Care And Specialty Products Dealer.
6. Inspect all shipments on receipt. If any parts are damaged or missing, file a claim with the carrier before accepting.
7. Do not return material without a letter of explanation, listing the parts being returned. Transportation charges must be prepaid.

**Use of other than authorized parts will void the warranty.**

## Table of Contents

### Safety

- 1.1 Operating Safety ..... 4
- 1.2 Important Safety Notes ..... 5

### SpecificationS

- 2.1 Product Identification ..... 6
- 2.2 Engine ..... 6
- 2.3 Tractor ..... 6
- 2.4 Weights and Dimensions ..... 7
- 2.5 Cutting Units ..... 7
- 2.6 Accessories ..... 7
- 2.7 Support Literature ..... 7

### Adjustments

- 3.1 General ..... 8
- 3.2 Mow Speed ..... 8
- 3.3 Belt ..... 8
- 3.4 Brakes ..... 9
- 3.5 Neutral Adjustment ..... 9
- 3.6 Forward / Reverse Speed ..... 10
- 3.7 Mower Limit Switch ..... 10
- 3.8 Cutting Height ..... 11
- 3.9 Steering Tow-In ..... 12

### Maintenance

- 4.1 General ..... 13
- 4.2 Engine ..... 13
- 4.3 Engine Oil ..... 13
- 4.4 Air filter ..... 14
- 4.5 Fuel ..... 14
- 4.6 Fuel System ..... 14
- 4.7 Battery ..... 15
- 4.8 Jump Starting ..... 15
- 4.9 Charging Battery ..... 15

### Maintenance (Continued)

- 4.10 Hydraulic Hoses .....16
- 4.11 Hydraulic Oil .....16
- 4.12 Hydraulic Filters .....17
- 4.13 Electrical System .....17
- 4.14 Muffler and Exhaust .....18
- 4.15 Radiator .....18
- 4.16 Rollover Protection Structure (ROPS) .....19
- 4.17 Tires .....19
- 4.18 Wheel Mounting Procedure .....19
- 4.19 Care and Cleaning .....20
- 4.20 Inspecting Blades .....20
- 4.21 Sharpening Blades .....21
- 4.22 Storage .....22

### Troubleshooting

- 5.1 General .....23
- 5.2 Controller Lamps .....24
- 5.3 Electrical Circuits .....24

### Maintenance & Lubrication charts

- 6.1 General .....25
- 6.2 Maintenance Chart .....25
- 6.3 Lubrication Chart .....26

**This manual is designed for the Maintenance and Adjustment of this equipment.**

Use the maintenance and adjustment instructions included in this manual and the operating instructions included in the **Safety and Operation Manual** to service the machine.

The **Safety and Operation Manual** must be kept in the pouch on the back of the seat at all times for reference by the operator.

*Copyright 2000 Textron Inc. "All rights reserved, including the right to reproduce this material or portions thereof in any form."*

# Suggested Stocking Guide

To Keep your Equipment fully operational and productive, maintain a stock of the more commonly used maintenance items. We have included part numbers for additional support materials and training aids. A more complete listing of accessories and attachments can be found in the Specifications Section

## Service Parts

Qty.	Part No.	Description	Qty.	Part No.	Description
	557759	Engine Oil Filter		556418	Charge Filter
	555405	Engine Fuel Filter		557772	Return Filter
	5000919	Engine Air Filter		5002785	Engine Fan Belt
	5002692	5 Gallon Hyd. #10 Fluid		558015	Ignition Switch Key
	5002696	2.5 Gallon Hyd. #10 Fluid		3010550	L.H. Mower Blade (Left Wing and Center Mowers)
	3004894	Pin, Klick Type		3010551	R.H. Mower Blade (Right Wing Mower)

## Service Support Material

Qty.	Part No.	Description
	3009160	Safety & Operation Manual
	3009161	Parts & Maintenance Manual
	3008923	Engine Parts Catalog
	5003748	Operator Training Video

Qty.	Description
	Service Manual

## How To Use This Manual

### Abbreviations

**N/S** - Not serviced separately, can only be obtained by ordering main component or kit.

**AR** -Variable quantity or measurement is required to obtain correct adjustment.

**Symbols** such as ▲, next to the item number, indicate that a note exists which contain additional information important in ordering that part.

### Indented Items

Bulleted items indicate component parts that are included as part of an assembly or another component. These parts can be ordered separately or as part of the main component.

Item	Part No.	Qty	Description	Serial Numbers/Notes
▲ 1	123456	1	Mount, Valve	Indicates a piece part
2	789012	1	Valve, Lift	Includes Items 2 and 3
3	345678	1	• Handle	Serviced part included with Item 2
4	N/S	1	• Seal Kit	Non serviced part included with Item 2
5	901234.6	1	Screw, 1/4-20 x 2" Hex Head	Indicates a part painted Jacobsen Orange

# 1 SAFETY

## 1.1 OPERATING SAFETY

### **WARNING**

#### **EQUIPMENT OPERATED IMPROPERLY OR BY UNTRAINED PERSONNEL CAN BE DANGEROUS.**

Familiarize yourself with the location and proper use of all controls. Inexperienced operator's should receive instruction from someone familiar with the equipment before being allowed to operate the machine.

1. Safety is dependent upon the awareness, concern and prudence of those who operate or service the equipment. Never allow minors to operate any equipment.
2. It is your responsibility to read this manual and all publications associated with this equipment (Safety and operation manual, engine manual, accessories and attachments). If the operator can not read English it is the owner's responsibility to explain the material contained in this manual to them.
3. Learn the proper use of the machine, the location and purpose of all the controls and gauges before you operate the equipment. Working with unfamiliar equipment can lead to accidents.
4. Never allow anyone to operate or service the machine or its attachments without proper training and instructions; or while under the influence of alcohol or drugs.
5. Wear all the necessary protective clothing and personal safety devices to protect your head, eyes, ears hands and feet. Operate the machine only in daylight or in good artificial light.
6. Inspect the area where the equipment will be used. Pick up all the debris you can find before operating. Beware of overhead obstructions (low tree limbs, electrical wires, etc.) and also underground obstacles (sprinklers, pipes, tree roots, etc.) Enter a new area cautiously. Stay alert for hidden hazards.
7. Never direct discharge of material toward bystanders, nor allow anyone near the machine while in operation. The owner/operator can prevent and is responsible for injuries inflicted to themselves, to bystanders and damage to property.
8. Never operate equipment that is not in perfect working order or is without decals, guards, shields, discharge deflectors or other protective devices securely fastened in place.
9. Never disconnect or bypass any switch.
10. Carbon monoxide in the exhaust fumes can be fatal when inhaled. Never operate the engine without proper ventilation.
11. Fuel is highly flammable, handle with care.
12. Keep the engine clean. Allow the engine to cool before storing and always remove the ignition key.
13. Disengage all drives and engage parking brake before starting the engine (motor). Start the engine only when sitting in operator's seat, never while standing beside the unit.
14. Equipment must comply with the latest federal, state, and local requirements when driven or transported on public roads.
15. Never use your hands to search for oil leaks. Hydraulic fluid under pressure can penetrate the skin and cause serious injury.
16. Operate the machine up and down the face of the slopes (vertically), not across the face (horizontally).
17. To prevent tipping or loss of control, do not start or stop suddenly; reduce speed when making sharp turns. Use caution when changing direction on slopes.
18. Always use the seat belt when operating tractors equipped with a ROPS.  
*Never use a seat belt when operating tractors without a ROPS.*
19. Keep legs, arms and body inside the seating compartment while the vehicle is in motion.

***This machine is to be operated and maintained as specified in this manual and is intended for the professional maintenance of specialized turf grasses. It is not intended for use on rough terrain or long grasses.***

## 1.2 IMPORTANT SAFETY NOTES



This safety alert symbol is used to alert you to potential hazards.

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

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

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

*For pictorial clarity, some illustrations in this manual may show shields, guards or plates open or removed. Under no circumstances should this equipment be operated without these devices securely fastened in place*



### WARNING

The Interlock system on this tractor prevents the tractor from starting unless the brake pedal is engaged, mower switch is off and traction pedal is in neutral. The system will stop the engine if the operator leaves the seat without engaging the parking brake and setting the mower switch off.

NEVER operate tractor unless the Interlock system is working.



### WARNING

1. Before leaving the operator's position for any reason:
  - a. Return traction pedal to neutral.
  - b. Disengage all drives.
  - c. Lower all implements to the ground.
  - d. Engage parking brake.
  - e. Stop engine and remove the ignition key.
2. Keep hands, feet, and clothing away from moving parts. Wait for all movement to stop before you clean, adjust or service the machine.
3. Keep the area of operation clear of all bystanders and pets.
4. Never carry passengers, unless a seat is provided for them.
5. Never operate mowing equipment without the discharge deflector securely fastened in place.

By following all instructions in this manual, you will prolong the life of your machine and maintain its maximum efficiency. Adjustments and maintenance should always be performed by a qualified technician.

If additional information or service is needed, contact your Authorized Textron Turf Care And Specialty Products Dealer who is kept informed of the latest methods to service this equipment and can provide prompt and efficient service. **Use of other than original or authorized Textron Turf Care And Specialty Products parts and Accessories will void the warranty.**

## 2 SPECIFICATIONS

### 2.1 PRODUCT IDENTIFICATION

67862..... HR 4600 Turbo, 2 Wheel Drive  
 67863..... HR 4600 Turbo, 4 Wheel Drive

Always provide the serial number of the unit when ordering replacement parts or requesting service information.

Serial Number ..... An identification plate, like the one shown, listing the serial number, is attached to the frame of the tractor and is located on the operator's right just over the rear axle.

Product	EEC Sound Power	Sound Pressure Level Operator Ear	Vibration M/S <sup>2</sup>	
			Arms	Body
67862	105 dba	88 dba	> 2.5	> 0.5
67863	105 dba	88 dba	> 2.5	> 0.5



### 2.2 ENGINE

Make ..... Kubota  
 Model ..... V-1505TE Diesel, 4 cycle, Liquid Cooled  
 Horsepower ..... 44.2 Hp (33.0 Kw) @ 3000 rpm  
 Displacement ..... 91.4 in.<sup>3</sup> (1498 cm<sup>3</sup>)  
 Torque ..... 93 ft. lbs. (1357 Nm)  
 Fuel:  
     Type ..... No. 2 Diesel  
     Rating ..... Min. cetane rating 45  
     Capacity ..... 17 U.S. gal. (64.3 liters)

Governor Setting:  
     High Idle ..... 3150 rpm  
     Low Idle ..... 1200 rpm  
 Lubrication:  
     Capacity..... 5.5 U.S. qts. (5.2 liter)  
     Type..... SAE 10W30  
     API Classification..... CD/CE  
 Air Filter ..... Donaldson, dry type with evacuator valve and service indicator.  
 Alternator ..... 40 Amp

### 2.3 TRACTOR

Tires:  
     Front ..... 26 x 12 - 12: (6 ply)  
     Rear ..... 20 x 10 - 8: (4 ply)  
     Pressure ..... 10-12 psi (69 - 83 kPa)  
 Battery:  
     Type ..... 12V, 600 Cold Cranking Amps  
     Group ..... BCI 24  
 Brakes:  
     Service ..... Dynamic braking through traction circuit.  
     Parking..... 9.25 in. (235 mm) front disc

Speed:  
     2 WD..... 0 - 15 mph (24.1 km/h)  
     4WD..... 0 - 7.5 mph (12 km/h)  
     Reverse ..... 0 - 5.0 mph (8 km/h)  
 Production ..... 7.0 acres/hr. @ 7.5 mph  
**Hydraulic System:**  
     Capacity..... 14 U.S. gal. (53 liter)  
     Fluid Type ..... 10W-30  
     Cooling ..... Oil Cooler  
     Charge Filter..... 10 micron  
     Return Line Filter ..... 10 micron  
     Steering ..... Hydrostatic power steering

## 2.4 WEIGHTS AND DIMENSIONS

---

Dimensions:	Inches	(mm)	Weight (2 WD Tractor):	Lbs.	(kg)
Length - .....	133	(3378)	Overall (less operator) .....	2930	(1329)
Height - Top of Steering Wheel .....	58.7	(1491)			
Height - Top of ROPS.....	80.5	(2045)			
Width - Mow .....	93.6	(2377)			
Width - Transport.....	60	(1524)			

## 2.5 CUTTING UNITS

---

Overall cutting Width .....	92 in. (2336 mm)	Blade Size.....	18 in. (457 mm)
Width		Tip Speed.....	16,500 ft/min. (5030 m/min.)
Wing Decks .....	35 in. (889 mm)	Tires	
Center Deck .....	35 in. (889 mm)	Size .....	9 x 3.5 - 4 pneumatic
Uncut Circle.....	42 in. (1067 mm)	Pressure.....	22 - 24 psi (152 - 165 kPa)
Cutting Height.....	1 - 4 in. (25 - 102 mm)		

## 2.6 ACCESSORIES

---

Contact your area Textron Turf Care And Specialty Products dealer for a complete listing of accessories and attachments.

2-Post ROPS with Seat Belt.....	67844	4WD Conversion Kit (Field Installed) .....	67860
Canopy / Sunshade.....	67857	Standard Seat Suspension .....	66170
Hood Locking Latch.....	1004049	Deluxe Seat Suspension.....	66171
Cruise Control .....	67846	One Piece High Backed Seat .....	66172
Work Light Kit.....	67884	Air Blow Gun .....	JAC5098
Leaf Mulcher Kit .....	67882	Orange Touch-up Paint (12 oz. spray) .....	554598
Grass Mulcher Kit.....	67883		

## 2.7 SUPPORT LITERATURE

---

Contact your Textron Turf Care And Specialty Products dealer for a complete listing of literature.

Safety & Operation Manual .....	3009160
Parts & Maintenance Manual .....	3009161
Engine Parts Catalog .....	3008923
Operator Training Video .....	5003748
Service & Repair Manual	

## 3 ADJUSTMENTS

### 3.1 GENERAL

#### **WARNING**

To prevent injury, lower implements to the ground, disengage all drives, engage parking brake, stop engine and remove key from ignition switch before making any adjustments or performing maintenance.

Make sure the tractor is parked on a solid and level surface. Never work on a tractor that is supported only by the jack. Always use jack stands.

If only the front or rear of the tractor is raised, place chocks in front of and behind the wheels that are not raised.

1. Adjustments and maintenance should always be performed by a qualified technician. If proper adjustment cannot be made, contact an authorized Textron Turf Care And Specialty Products dealer.

2. Replace, do not adjust, worn or damaged components.
3. Do not wear jewelry or loose fitting clothing when making adjustments or repairs.

#### **CAUTION**

Be careful to prevent entrapment of the hands and fingers between moving and fixed components of the machine.

4. Do not change governor settings or overspeed the engine.

### 3.2 MOW SPEED

Cutting quality is better at speeds well below the transport speed of the tractor. An initial mow speed of 7.5 mph (12 kph) is set at the factory and should be satisfactory for most cutting conditions. Local turf conditions however may respond better to a slower speed.

To set mow speed, loosen jam nut **(A)** and adjust stop screw up to reduce speed, down to increase speed. Tighten nut to hold adjustment in place.

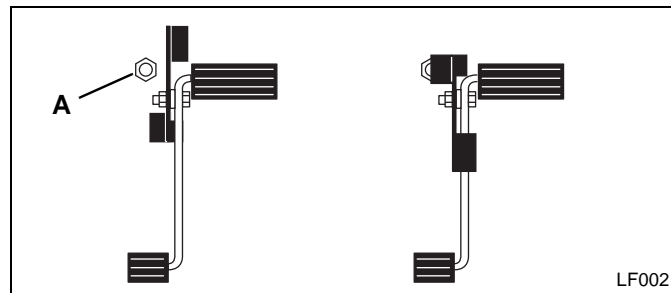


Figure 3A

### 3.3 BELT

Inspect and adjust new belt after first ten hours of operation. Adjust every 100 hours thereafter.

Adjust alternator pulley so belt deflects 1/4" to 5/16" (6 -8 mm) with a 20 lb. push at midpoint between pulleys. See engine manual.

If tension is incorrect, loosen alternator mounting bolts **(B)** and adjust alternator until proper belt tension is achieved.

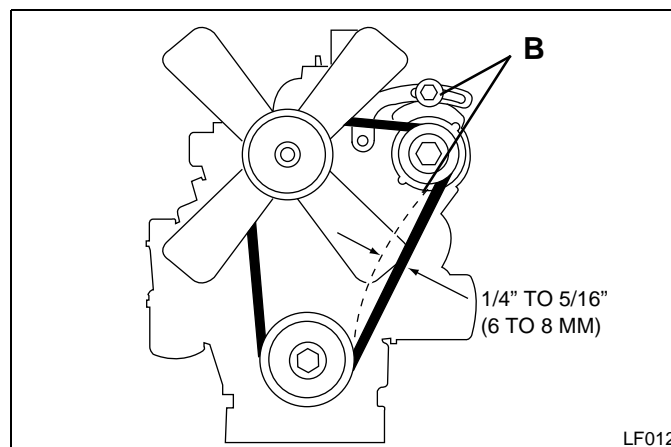


Figure 3B



### 3.4 BRAKES

Adjust brakes after replacing or servicing brake assembly, or if pedal travel becomes excessive.

1. Loosen adjusting nuts (**C**).
2. Adjust cable so brake pedal has 1 in. (25 mm) free travel (**E**) before brake pads engage brake disk. Tighten nut (**C**) to lock adjustment in place.
3. If brakes wear beyond point where they can be adjusted by the cable, move brake bracket into second set of holes provided (**D**) and complete adjustment procedure.
4. Start tractor and check operation of brakes. Park tractor on an incline (approx. 16.7° slope) and engage parking brake. Brake must prevent tractor from rolling.

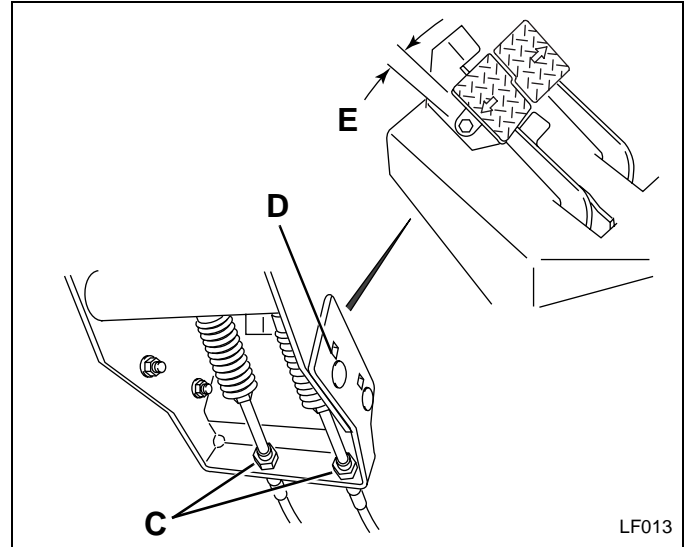


Figure 3C

### 3.5 NEUTRAL ADJUSTMENT

Neutral adjustment can only be made at the drive pump.

The neutral adjustment is preset at the factory on all new tractors and replacement pumps. Further adjustment is not required unless the pump has been disassembled for repair or service.

**To adjust neutral:**

1. Disconnect traction pedal linkage from pump.
2. Place tractor securely on jack stands so **All** wheels are raised off ground.
3. Check that tow valve (**H**) is closed
4. Engage parking brake and set mow switch to neutral. Make sure neutral switch at traction pedal is closed. (Figure 3E - **M**)
5. Loosen screws (**G**) holding pump lever bracket just enough so it can be moved. Start engine and observe wheels. Adjust bracket (**F**) in slotted holes until wheels do not turn. Turn off engine and tighten bracket in place.
6. Connect traction linkage. When connecting linkage at traction pedal make sure pointer on traction pedal bracket is centered over neutral switch (**M** -Figure 3E).
7. Start engine and check operation of traction pedal. Wheels must not turn when pedal returns to neutral and lamp 5 on controller should light, see Section 5.2.

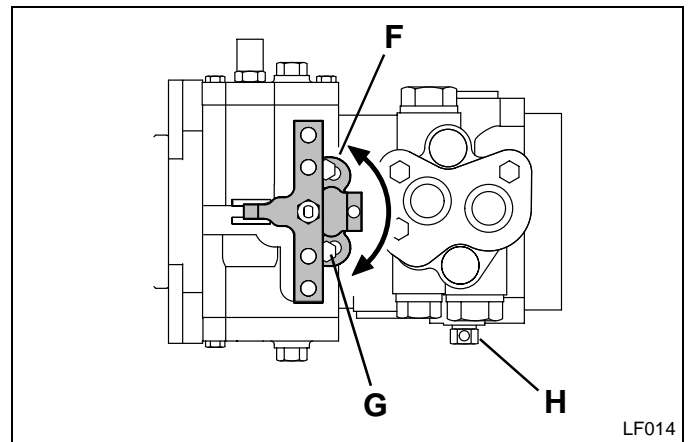


Figure 3D

## 3 ADJUSTMENTS

### 3.6 FORWARD / REVERSE SPEED

Forward and reverse speeds are adjusted at the traction pedal. Set forward speed before adjusting reverse.

#### To adjust forward speed:

1. Make sure drive pump has been set to neutral and engine throttle is adjusted correctly.
2. Start engine and check forward travel speed with engine at full throttle and tractor in two wheel drive (2WD). Forward transport speed should measure 15 mph (24 kph)
3. Stop engine. To adjust speed, disconnect eye bolt (**K**) from pedal and loosen jam nut (**J**). Turn eye bolt in to reduce speed, out to increase speed. Tighten jam nut to hold adjustment in place and connect eye bolt.
4. With traction pedal in neutral, check position of neutral switch (**I**). Adjust switch up or down so pointer (**M**) on traction pedal bracket is centered over it. When adjusted correctly lamp 5 on controller will light when ignition switch is turned to on.
5. Start engine and check speed. Repeat procedure until 15 mph (19 kph) forward transport speed is attained.

#### To adjust reverse speed:

1. Set forward speed.

2. Start engine and check reverse travel speed with engine at full throttle. Reverse speed should measure 5-6 mph (8-9 kph)
3. Stop engine. To adjust speed, loosen nut on reverse travel stop bolt (**L**). Slide bolt forward in slotted hole to increase speed, back to reduce speed. Tighten nut to hold adjustment in place.
4. Start engine and check speed. Repeat procedure until 5-6 mph (8-9 kph) reverse speed is attained.

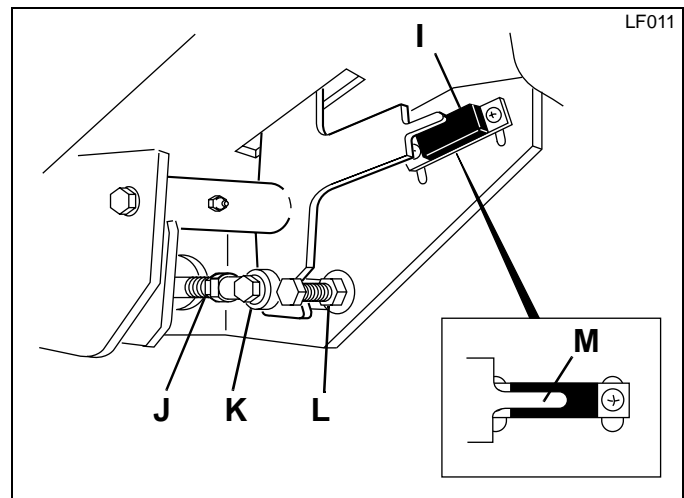


Figure 3E

### 3.7 MOWER LIMIT SWITCH

The left and right wing lift arms are equipped with proximity switches which signal the controller to turn off the mowers. The switches are mounted to the tractor frame directly behind or in front of the lift arms. If mowers continue to run when lifted, or do not run when lowered inspect switch. Adjust or replace switch as needed.

#### To adjust switch:

1. Park tractor on a flat, level surface.
2. Remove wing mowers from lift arm.
3. Turn ignition key to the RUN position to activate controller. Do not start engine.
4. Raise lift arm manually approximately 10 in. (250 mm) and support with a block..
5. With lift arm supported, loosen hardware (**P**) and adjust switch bracket (**Q**) up or down, until corresponding lamp on controller goes out (#16 for L.H, #19 for R.H.). Tighten Hardware (**P**).
6. Repeat procedure for lift arm on opposite side.
7. Assemble mowers to lift arms

8. Start engine and turn mower switch to mow.
  9. Lift and lower the wing mowers, checking that mowers shut off when raised and turn on when lowered.
- Note:** The proximity switches set the point where the wing mowers turn off, not how high they will raise.

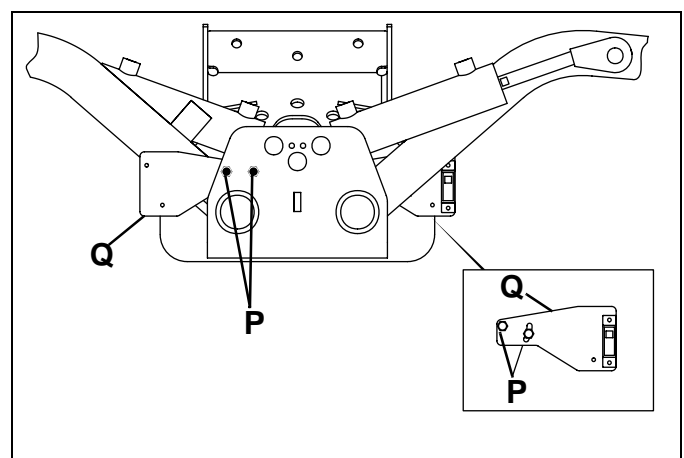



Figure 3F

### 3.8 CUTTING HEIGHT

Cutting height for decks can be adjusted from 1 to 4 in. (25-100 mm) in 1/2 in. (13 mm) increments. Actual cutting height may vary somewhat from the heights given depending on turf conditions and other factors.

**Note:** When cutting undulating areas, lower cutting heights may cause scalping. Adjust height accordingly to prevent turf damage.

1. Park the tractor on a flat, level surface. Raise the decks until the caster wheels are raised off the ground enough so caster wheels can be removed from deck. Place blocks under decks so they are supported on all sides.


**WARNING**

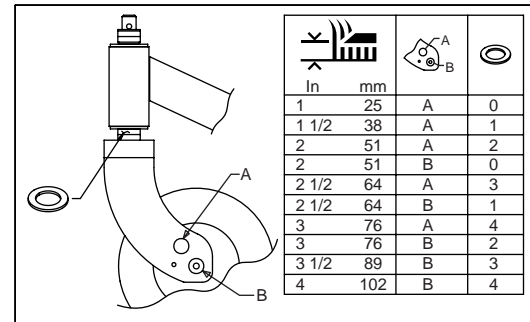
To prevent serious injury, lower deck until it is resting completely on the supports. This will prevent it from accidentally lowering while making adjustments. Disengage all drives, engage parking brake, stop engine and remove ignition key.

2. **Figure 3G** shows the height adjustment decal for the casters.

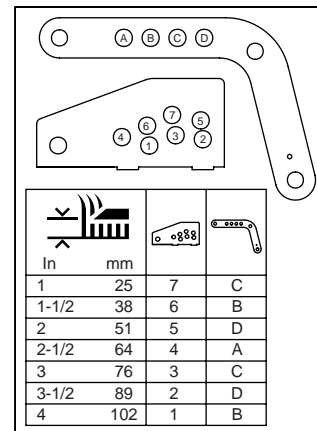
Column 1 - Height of cut  
 Column 2 - Mount Location  
 Column 3 - Arrangement of spacers

Adjust spacers in quantity listed. Store extra spacers on top of spindle. If necessary, reposition wheel mount in holes indicated for height of cut.

3. To adjust rear gauge wheels on front deck refer to **Figure 3H**. Raise wing decks approximately 12" and support underneath with blocks. Lower deck so it is completely resting on blocks
4. Remove pin from rear gauge wheel yoke and reposition in bracket for desired height of cut.



**Figure 3G**



**Gauge Wheel Adjustment for Wing Decks**

**Figure 3H**

#### Tire pressure

Check air pressure in caster tires, while tires are cool. Maintain air pressure between 20-25 psi (138-173 kPa) to improve accuracy of cutting height.

**Note:** It is important to keep inflation pressures on all caster and gauge tires equal, within the range specified, to ensure an accurate, level cut.

## 3 ADJUSTMENTS

### 3.9 STEERING TOE-IN

1. Turn wheels to straight ahead position.
2. Loosen jam nuts (**J**) on both sides of tie rod (**M**).
3. Turn tie rod (**M**) to provide proper toe-in. Toe-in must not exceed  $+1/16''$  (1.5 mm) (**K**). Retighten jam nuts.
4. After adjusting tie rod, adjust steering cylinder by threading the rod (**N** in or out of ball joint so spindle arm (**L**) clears the stop on the axle by  $1/32$  to  $3/32$ in. (0.8 to 2 mm) (**O**) when cylinder is fully extended.

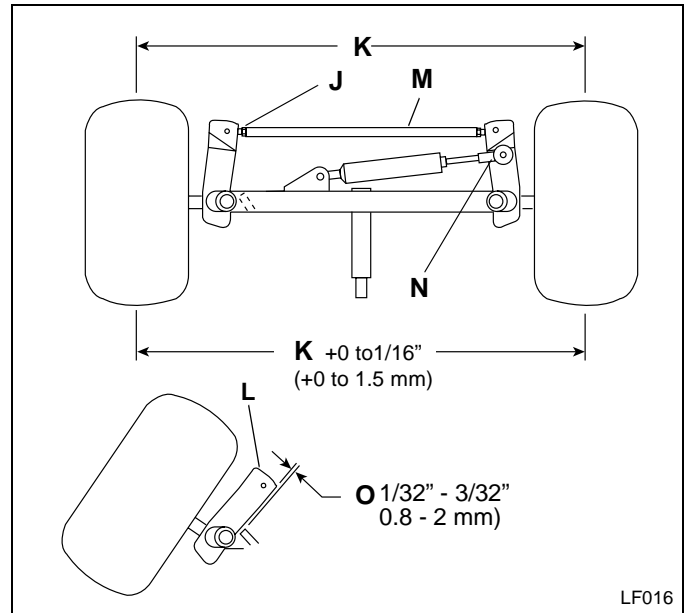






Figure 3I





3.10 TORQUE SPECIFICATION

**CAUTION**

All torque values included in these charts are approximate and are for reference only. Use of these torque values is at your sole risk. Textron Turf Care And Specialty Products is not responsible for any loss, claim, or damage arising from the use of these charts. **Extreme caution should always be used when using any torque value.**

Textron Turf Care And Specialty Products uses Grade 5 Plated bolts as standard, unless otherwise noted. For tightening plated bolts, use the value given for lubricated.

AMERICAN NATIONAL STANDARD FASTENERS											
SIZE	UNITS					SIZE	UNITS				
		Lubricated	Dry	Lubricated	Dry			Lubri-cated	Dry	Lubri-cated	Dry
#6-32	in-lb (Nm)	-	20 (2.3)	-	-	7/16-14	ft-lb (Nm)	37 (50.1)	50 (67.8)	53 (71.8)	70 (94.9)
#8-32	in-lb (Nm)	-	24 (2.7)	-	30 (3.4)	7/16-20	ft-lb (Nm)	42 (56.9)	55 (74.6)	59 (80.0)	78 (105)
#10-24	in-lb (Nm)	-	35 (4.0)	-	45 (5.1)	1/2-13	ft-lb (Nm)	57 (77.2)	75 (101)	80 (108)	107 (145)
#10-32	in-lb (Nm)	-	40 (4.5)	-	50 (5.7)	1/2-20	ft-lb (Nm)	64 (86.7)	85 (115)	90 (122)	120 (162)
#12-24	in-lb (Nm)	-	50 (5.7)	-	65 (7.3)	9/16-12	ft-lb (Nm)	82 (111)	109 (148)	115 (156)	154 (209)
1/4-20	in-lb (Nm)	75 (8.4)	100 (11.3)	107 (12.1)	143 (16.1)	9/16-18	ft-lb (Nm)	92 (124)	122 (165)	129 (174)	172 (233)
1/4-28	in-lb (Nm)	85 (9.6)	115 (13.0)	120 (13.5)	163 (18.4)	5/8-11	ft-lb (Nm)	113 (153)	151 (204)	159 (215)	211 (286)
5/16-18	in-lb (Nm)	157 (17.7)	210 (23.7)	220 (24.8)	305 (34.4)	5/8-18	ft-lb (Nm)	128 (173)	170 (230)	180 (244)	240 (325)
5/16-24	in-lb (Nm)	173 (19.5)	230 (26.0)	245 (27.6)	325 (36.7)	3/4-10	ft-lb (Nm)	200 (271)	266 (360)	282 (382)	376 (509)
3/8-16	ft-lb (Nm)	23 (31.1)	31 (42.0)	32 (43.3)	44 (59.6)	3/4-16	ft-lb (Nm)	223 (302)	298 404	315 (427)	420 (569)
3/8-24	ft-lb (Nm)	26 (35.2)	35 (47.4)	37 (50.1)	50 (67.8)	7/8-14	ft-lb (Nm)	355 (481)	473 (641)	500 (678)	668 (905)

METRIC FASTENERS										
SIZE	UNITS									Non Critical Fasteners into Aluminum
		Lubricated	Dry	Lubricated	Dry	Lubricated	Dry	Lubricated	Dry	
M4	Nm (in-lb)	-	-	-	-	-	-	3.83 (34)	5.11 (45)	2.0 (18)
M5	Nm (in-lb)	1.80 (16)	2.40 (21)	4.63 (41)	6.18 (54)	6.63 (59)	8.84 (78)	7.75 (68)	10.3 (910)	4.0 (35)
M6	Nm (in-lb)	3.05 (27)	4.07 (36)	7.87 (69)	10.5 (93)	11.3 (102)	15.0 (133)	13.2 (117)	17.6 (156)	6.8 (60)
M8	Nm (in-lb)	7.41 (65)	9.98 (88)	19.1 (69)	25.5 (226)	27.3 (241)	36.5 (323)	32.0 (283)	42.6 (377)	17.0 (150)
M10	Nm (ft-lb)	14.7 (11)	19.6 (14)	37.8 (29)	50.5 (37)	54.1 (40)	72.2 (53)	63.3 (46)	84.4 (62)	33.9 (25)
M12	Nm (ft-lb)	25.6 (19)	34.1 (25)	66.0 (48)	88.0 (65)	94.5 (70)	125 (92)	110 (81)	147 (108)	61.0 (45)
M14	Nm (ft-lb)	40.8 (30)	54.3 (40)	105 (77)	140 (103)	150 (110)	200 (147)	175 (129)	234 (172)	94.9 (70)

## 4 MAINTENANCE

---

### 4.1 GENERAL

---



#### WARNING

Before you clean, adjust, or repair this equipment, disengage all drives, lower implements to the ground, engage parking brake, stop engine and remove key from ignition switch to prevent injuries

Make sure the tractor is parked on a solid and level surface. Never work on a tractor that is supported only by the jack. Always use jack stands.

1. Adjustment and maintenance should always be performed by a qualified technician. If proper adjustments cannot be made, contact an Authorized Textron Turf Care And Specialty Products dealer.
2. Inspect the equipment on a regular basis, establish a maintenance schedule and keep detailed records.
  - a. Keep the equipment clean.
  - b. Keep all moving parts properly adjusted and lubricated.
  - c. Replace worn or damaged parts before operating the machine.
  - d. Keep all fluids at their proper levels.
  - e. Keep shields in place and all hardware securely fastened.
  - f. Keep tires properly inflated.
3. Do not wear jewelry or loose fitting clothing when making adjustments or repairs.
4. Use the illustrations in the Parts Catalog as reference for the disassembly and reassembly of components.
5. Recycle or dispose of all hazardous materials (batteries, fuel, lubricants, anti-freeze, etc.) according to local, state or federal regulations.

### 4.2 ENGINE

---

**IMPORTANT: A separate Engine Manual, prepared by the engine manufacturer, is supplied with this tractor. Read the engine manual carefully until you are familiar with the operation and maintenance of the engine. Proper attention to the engine manufacturer's directions will assure maximum service life of the engine. To order replacement engine manuals contact the engine manufacturer.**

The proper break-in of a new engine can make a considerable difference to the performance and life of the engine.

During the break-in period, Textron Turf Care And Specialty Products recommends the following:

1. During the first 50 hours of operation, a new engine should be allowed to reach an operating temperature of at least 140°F (60°C) prior to operation at full load.

2. Check the engine oil level twice daily during the first 50 hours of operation. Higher than normal oil consumption is not uncommon during the initial break-in period.
3. Change engine oil and oil filter element after first 50 hours of operation.
4. Check and adjust fan and alternator belts.
5. Refer to Section 6.2 and Engine Manual for specific maintenance intervals.

If the injection pump, injectors or the fuel system require service, contact an authorized Textron Turf Care And Specialty Products dealer.

**Note:** *The tractor is designed to operate and cut most efficiently at the preset governor setting. Do not change the engine governor settings or overspeed the engine.*

### 4.3 ENGINE OIL

---

Check the engine oil at the start of each day, before starting the engine. If the oil level is low, remove oil filler cap and add oil as required.

Perform initial oil change after first 50 hours of operation and every 100 hours thereafter. See Engine Manual.

Use only engine oils with API classification CD/CE.

Above 77°F (25°C)	SAE 30W or SAE10W30/10W40
32 to 77°F (0 to 25°C)	SAE 20W or SAE 10W30/10W40
Below 32° (0°C)	SAE10W or SAE 10W30/10W40

### 4.4 AIR FILTER

Check the service indicator daily. If red band appears in the window **(B)** replace the element.

**Do not remove the element for inspection or cleaning.** Unnecessary removal of the filter increases the risk of injecting dust and other impurities into the engine.

When service is required, first clean the outside of the filter housing; then remove the old element as gently as possible and discard.

1. Carefully clean the inside of the filter housing without allowing dust into the air intake.
2. Inspect the new element. Do not use a damaged element and never use an incorrect element.
3. Assemble the new element and make sure it seats properly. Reset the indicator by depressing button **(A)**.

4. Reassemble cap making sure it seals completely around the filter housing. Dust evacuator must be facing down.
5. Check all hoses and air ducts. Tighten hose clamps.

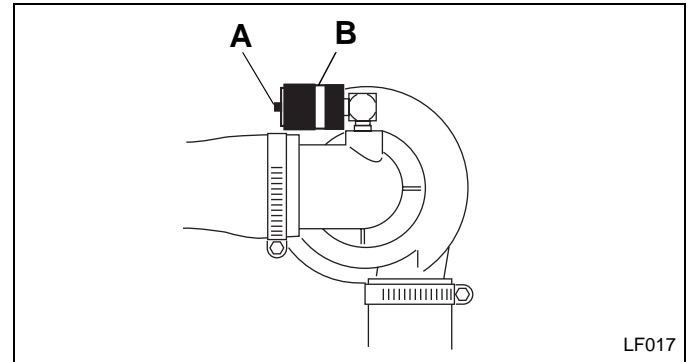



Figure 4A

### 4.5 FUEL

**Handle fuel with care - it is highly flammable.** Use an approved container, the spout must fit inside the fuel filler neck. Avoid using cans and funnels to transfer fuel.

 <b style="font-size: 1.2em; margin-left: 10px;">WARNING</b>
<p>Never remove the fuel cap from the fuel tank, or add fuel, when the engine is running or while the engine is hot.</p> <p>Do not smoke when handling fuel. Never fill or drain the fuel tank indoors.</p> <p>Do not spill fuel and clean spilled fuel immediately.</p> <p>Never handle or store fuel containers near an open flame or any device that may create sparks and ignite the fuel or fuel vapors.</p> <p>Be sure to reinstall and tighten fuel cap securely.</p>

- Fill the fuel tank to within 1 in. (25 mm) below the filler neck.
- Use clean, fresh, #2 Diesel fuel. Minimum Cetane Rating 45. Refer to Engine Manual for additional information.
- Check fuel lines and clamps every 50 hours. Replace fuel lines and clamps at the first sign of damage.
- Store fuel according to local, state or federal ordinances and recommendations from your fuel supplier.
- Never overfill or allow the tank to become empty.

### 4.6 FUEL SYSTEM

Refer to Section 6.2 for specific maintenance intervals.

Before replacing any filter, thoroughly clean the filter housing and the area around the filter. Dirt must not be allowed to enter into fuel system.

Bleed the fuel system after the fuel filter and lines have been removed, or the fuel tank has become empty. See Engine Manual.

**To change fuel filter:**

1. Close fuel valve on tank; then remove and discard the existing filter.
2. Apply a light coat of oil to the gasket and hand tighten new filter.
3. Fill fuel tank. Open fuel valve on tank and bleed the filter. See Engine Manual.

## 4 MAINTENANCE

---

### 4.7 BATTERY

---

Make absolutely certain the ignition switch is “Off” and the key has been removed before servicing the battery.

#### CAUTION

Always use insulated tools, wear protective glasses or goggles and protective clothing when working with batteries. You must read and obey all battery manufacturer’s instructions.

Tighten cables securely to battery terminals and apply a light coat of silicone dielectric grease to terminals and cable ends to prevent corrosion. Keep vent caps and terminal covers in place

Check the electrolyte level every 100 hours. Keep the cable ends, battery and battery posts clean.

Verify battery polarity before connecting or disconnecting the battery cables.

1. When installing the battery, always assemble the RED, positive (+) battery cable first and the ground, BLACK, negative (-) cable last.
2. When removing the battery, always remove the ground, BLACK, negative (-) cable first and the RED, positive (+) cable last.
3. Make sure battery is properly installed and secured to the battery tray.

### 4.8 JUMP STARTING

---

Before attempting to “jump start” the tractor, check the condition of the discharged battery. Section 4.7

#### WARNING

Batteries generate explosive hydrogen gas. To reduce the chance of an explosion, avoid creating sparks near battery. Always connect the negative jumper cable to the frame of the tractor with the discharged battery, away from the battery.

#### When connecting jumper cables:

1. Stop the engine on vehicle with good battery.
2. Connect RED jumper cable to the positive (+) terminal on the good battery and to the positive (+) terminal on the “discharged” battery.
3. Connect the BLACK jumper cable from the negative (-) terminal on the good battery to the **frame** of tractor with discharged battery.

After cables have been connected, start the engine on the vehicle with the good battery then start the tractor.

### 4.9 CHARGING BATTERY

---

#### WARNING

Charge battery in a well ventilated area. Batteries generate explosive gases. To prevent an explosion, keep any device that may create sparks or flames away from the battery.

To prevent injury, stand away from battery when the charger is turned on. A damaged battery could explode.

3. Make sure the charger is “Off”, then connect the charger to the battery terminals as specified in the charger’s manual.
4. Always turn the charger “Off” before disconnecting charger from the battery terminals.

1. Refer to Section 4.7. Read the Battery and Charger’s manual for specific instructions.
2. Whenever possible, remove the battery from the tractor before charging. If battery is not sealed, check that the electrolyte covers the plates in all the cells.



### 4.10 MUFFLER AND EXHAUST

 **WARNING**

Exhaust fumes contain carbon monoxide that is toxic and can be fatal when inhaled.

**NEVER** operate an engine without proper ventilation.

To protect from carbon monoxide poisoning, inspect the complete exhaust system regularly and always replace a defective muffler.

If you notice a change in the color or sound of the exhaust, stop the engine immediately. Identify the problem and have the system repaired.

Torque all exhaust manifold hardware evenly. Tighten or replace exhaust clamps.

### 4.11 HYDRAULIC HOSES

 **WARNING**

To prevent serious injury from hot, high pressure oil, never use your hands to check for oil leaks, use paper or cardboard.

Hydraulic fluid escaping under pressure can have sufficient force to penetrate skin. If fluid is injected into the skin it must be surgically removed within a few hours by a doctor familiar with this form of injury or gangrene may result.

1. Always lower implements to ground, disengage all drives, engage parking brake, stop engine and remove key before inspecting or disconnecting hydraulic lines or hoses.
2. Check visible hoses and tubes daily. Look for wet hoses or oil spots. Replace worn or damaged hoses and tubes before operating the machine.
3. The replacement tube or hoses must be routed in the same path as the existing hose, do not move clamps, brackets and ties to a new location.
4. Thoroughly inspect all tubes, hoses and connections every 250 hours.

**IMPORTANT:** The hydraulic system can be permanently damaged if the oil becomes contaminated. Before disconnecting any hydraulic component, clean the area around the fittings and the hose ends to keep impurities out of the system.

- a. Before disconnecting any hydraulic component, tag or mark the location of each hose then clean the area around the fittings.
- b. As you disconnect the component, be prepared to assemble plugs or caps to the hose ends and open ports. This will keep impurities out of the hydraulic system and also prevent oil spills.
- c. Make sure "O" rings are clean and hose fittings are properly seated before tightening.
- d. Keep the hose from twisting. Twisted hoses can cause couplers to loosen as the hose flexes during operation resulting in oil leaks.
- e. Kinked or twisted hoses can restrict the oil flow causing the system to malfunction and the oil to overheat and also lead to hose failure.

### 4.12 HYDRAULIC OIL

Refer to Section 6.2 for specific maintenance intervals.

Drain and replace the hydraulic oil after a major component failure, or if you notice the presence of water or foam in the oil, or a rancid odor (indicating excessive heat).

Always replace both hydraulic filters when oil filter light stays on or when changing oil.

**To change hydraulic oil:**

1. Clean the area around the oil cap to prevent impurities from entering and contaminating the system.
2. Remove drain plug from bottom of tank.

3. After oil has drained install drain plug and fill with Textron Turf Care And Specialty Products Hydraulic oil.
4. Purge air from system.
  - a. Operate all tractor functions for about 5 minutes to purge air out of the system and stabilize the oil level. During this time, the oil level alarm may sound.
  - b. Once the level has stabilized and the air is purged, fill the tank to the full mark on dipstick. Start engine and check that oil alarm remains off.

## 4 MAINTENANCE

### 4.13 HYDRAULIC FILTERS

The hydraulic system is protected by two 10 micron filters; a charge filter (**B**) and return line filter (**A**). Flow through the filters is monitored during operation. When pressure drop across the filters is too high the hydraulic oil filter warning light will come on. To ensure continued protection to the hydraulic system, replace filters as soon as possible after light comes on.

**Note:** During cold weather the warning light may come on until oil has warmed up to operating temperature. Wait until oil has warmed up and light goes out before operating tractor.

#### To replace hydraulic filters:

1. Remove the old filters.
2. Install new filters. Hand tighten only.
3. Operate engine at idle speed with hydraulic system in neutral for five minutes. The oil level alarm may sound during this time.

4. Check hydraulic oil level in reservoir and fill to full mark on dipstick.

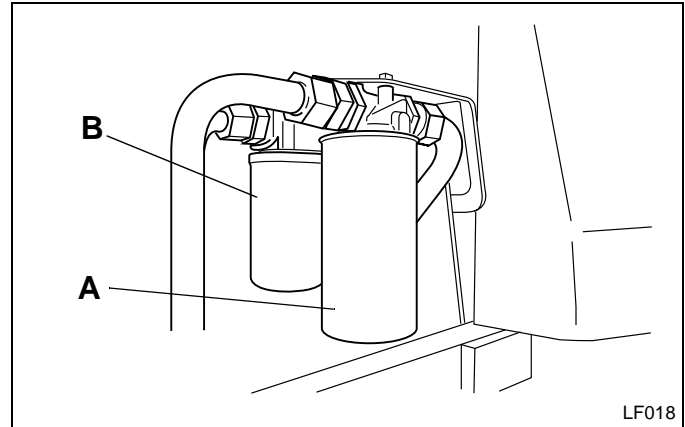


Figure 4B

### 4.14 ELECTRICAL SYSTEM

#### CAUTION

Always turn the ignition switch off and remove the negative battery cable (Black) before inspecting or working on the electrical system.

General precautions that can be taken to reduce electrical problems are listed below.

1. Make certain all terminals and connections are clean and properly secured.
2. Check the operator backup system, fuses and circuit breakers regularly.

If the operator backup does not function properly and the problem cannot be corrected, contact an authorized Textron Turf Care And Specialty Products dealer.

3. Keep the wire harness and all individual wires away from moving parts to prevent damage.
4. Make sure the seat switch harness is connected to the main wire harness.
5. Check the battery and battery charging circuit.
6. Do not wash or pressure spray around electrical connections and components.

The electrical system is monitored and controlled by the electronic controller (**C**) located behind the operator's area. The controller is equipped with four banks of LED's which can be used when troubleshooting the electrical system, see Section 5.2

Circuits are protected by a circuit breaker, fuses and relays mounted next to the controller.

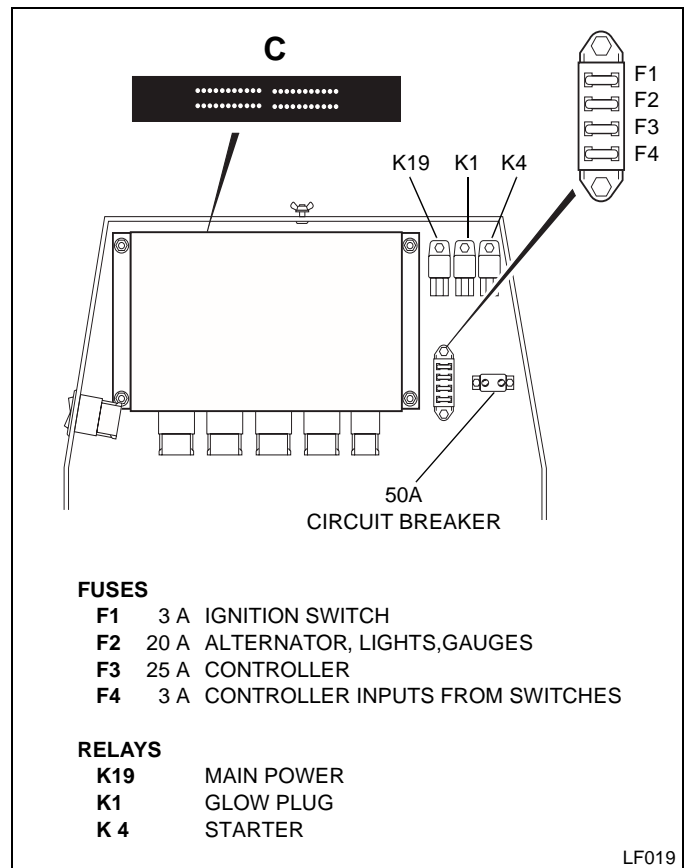


Figure 4C

### 4.15 RADIATOR

**⚠ WARNING**

To prevent serious bodily injury from hot coolant or steam blow-out, never attempt to remove the radiator cap while the engine is running. Stop the engine and wait until it is cool. Even then, use extreme care when removing the cap.

**⚠ CAUTION**

Do not pour cold water into a hot radiator. Do not operate engine without a proper coolant mixture. Install cap and tighten securely.

Check coolant level daily. Radiator should be full and recovery bottle should be up to the **cold** mark.

Drain and refill annually. Remove the radiator cap, open the engine block drain and the radiator drain. Empty and clean the recovery bottle.

Mix clean water with ethylene glycol based anti-freeze for the coldest ambient temperature. Read and follow the instructions on the anti-freeze container and engine manual.

Keep radiator and hydraulic oil cooler air passages clean. Use compressed air (30 psi maximum) to clean the fins.

**To clean radiator:**

1. Turn out thumb screws **(A)** securing hydraulic oil cooler to the radiator and tip cooler away from radiator as shown.

2. Use a blow gun to clean the radiator and oil cooler fins.

**Note:** A sliding panel located under the frame can be loosened and pulled back to allow dirt and debris to fall through frame.

3. Fasten oil cooler to radiator.
4. Check and tighten the fan belt. Replace clamps and hoses every two years.
5. If you have to add coolant more than once a month, or add more than one quart at a time, have a Textron Turf Care And Specialty Products dealer check the cooling system.

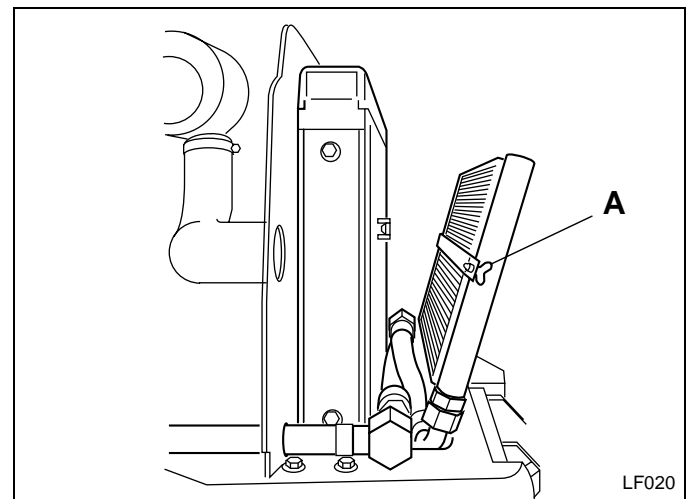


Figure 4D

### 4.16 ROLLOVER PROTECTION STRUCTURE (ROPS)

A Rollover Protection System (ROPS), designed for this tractor, is available as an optional accessory. If your tractor is equipped with this device, inspect it periodically and follow operating procedures described in the **Safety & Operation Manual**

**⚠ CAUTION**

Do not loosen or remove bolts, do not weld, drill, modify, bend or straighten a damaged structure.

1. The seat, the seat belt, mounting hardware and any accessories within the ROPS, should be inspected regularly and all damaged parts replaced immediately.
2. Once the ROPS has been subjected to any form of impact it should be replaced.
3. Check and retorque all hardware. All replacement components used for the ROPS must be as specified in the Parts Catalog.

### 4.17 TIRES

1. Keep tires properly inflated to prolong tire life. Check inflation pressure while the tires are cool. Inspect tread wear.
2. Check pressure every 50 hours or once a month. Use an accurate, low pressure tire gauge.
3. Keep tires inflated to 10-12 psi (69 -87 kPa).

**⚠ CAUTION**

Unless you have the proper training, tools and experience, **DO NOT** attempt to mount a tire on a rim. Improper mounting can produce an explosion which may result in serious injury.

## 4 MAINTENANCE

### 4.18 WHEEL MOUNTING PROCEDURE

#### WARNING

Make sure the tractor is parked on a solid and level surface. Never work on a tractor that is supported only by the jack. Always use jack stands.

If only the front or rear of the tractor is raised, place chocks in front of and behind the wheels that are not raised.

1. Remove dirt, grease and oil from stud thread. Do not lubricate threads.
2. Position wheel on hub and inspect to insure full contact between mounting surface of wheel and hub or brake drum.
3. Finger tighten all hardware then torque hardware in criss-cross order; always tighten nuts in the top position.
4. Check and retorque daily until torque is maintained, 85-95 ft.lbs. (115-128 Nm)

### 4.19 CARE AND CLEANING

Wash the tractor and implements after each use. Keep the equipment clean.

**Note:** Do not wash any portion of the equipment while it is hot. Do not use high pressure spray or steam. Use cold water and automotive cleaners.

1. Use compressed air to clean engine and radiator fins. A special blow gun is available through Textron Turf Care And Specialty Products Dealer.

2. Use only fresh water for cleaning your equipment.

**Note:** Use of salt water or affluent water has been known to encourage rust and corrosion of metal parts resulting in premature deterioration or failure. Damage of this nature is not covered by the factory warranty.

3. Do not spray water directly at the instrument panel, ignition switch, controller or any other electrical components, or at bearing housings and seals.

4. Clean all plastic or rubber trim with a mild soap solution or use commercially available vinyl/rubber cleaners.

Repair damaged metal surfaces and use Textron Turf Care And Specialty Products touch-up paint. Wax the equipment for maximum paint protection.

#### CAUTION

Clean grass and debris from cutting units, drives, muffler and engine to prevent fires.

#### WARNING

**NEVER** use your hands to clean cutting units. Use a brush to remove grass clippings from blades. Blades are extremely sharp and can cause serious injuries.

### 4.20 INSPECTING BLADES

1. Every 50 hours of operation or whenever mower is removed from tractor, carefully examine the blades to make sure they are in good operating condition. Blades showing any bends (**G**), grooves (**H**) or cracks (**J**) must be replaced.

#### CAUTION

Use care when chacking blades to avoid pinching hands and fingers between blade ends.

#### WARNING

Never attempt to straighten, weld or repair a damaged blade. Always replace a damaged blade.

2. Any of the above conditions can cause a piece of the blade to break away and be hurled from the mower; causing very serious injury to bystanders or property damage.

3. A bent blade could have a microscopic crack (**G**) that can grow and allow a piece of the blade to break. Bent blades will also create vibration and other stress on the machinery.
4. Dust or sand particles can wear a dangerous groove in the blade (**H**) between the air vanes and the flat portion of the blade that will rapidly grow and produce a crack (**J**), permitting a piece of the vane to break off.

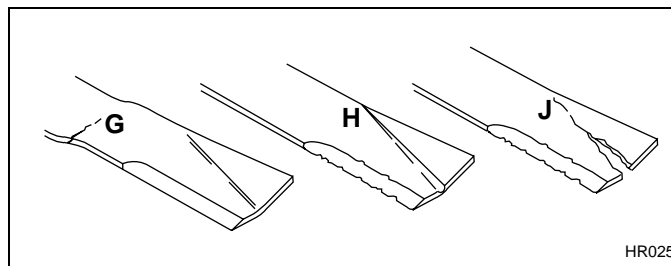


Figure 4E

### 4.21 SHARPENING BLADES

- Place a wooden block between the blade and mower housing to stop the blade from moving. To remove blade on left wing and center decks, turn screw holding blade counterclockwise. To remove blade on right hand deck, turn screw holding blade clockwise.

**WARNING**

The mower blades can develop sharp edges. Use caution whenever servicing and handling.

- When dressing or sharpening the blade, do not follow the original pattern of grind as shown in (A). Grind new cutting edges at an angle as shown in (B).

If the maximum total loss of the blade reaches 1/2 in., (13 mm), do not sharpen further, replace blade.

**WARNING**

Resharpener the blade beyond the allowable 1/2 in., (13 mm) may allow blade tip break off and be thrown from the mower. Such an incident can cause very serious injury to bystanders and/or property damage.

- Make sure an equal amount of material is removed from both sides of blade to prevent having an unbalanced blade. An unbalanced blade will cause excessive vibration and may damage the mower.
- Use a blade balancer to check the blade after sharpening.
- Attach blade to mower. Install blades so cutting edges (C) face the direction of rotation as shown in Figure 4G. Beveled cutting edge of blade must face in toward deck housing.

**IMPORTANT:** The two right hand blades (D) must be installed on the right wing deck using left hand threaded hardware. The remaining left hand blades (E) are mounted on the left wing and the center deck using right hand thread hardware.

Torque center mounting screw holding blade to 75 to 90 ft. lb. (100 to 120 Nm).

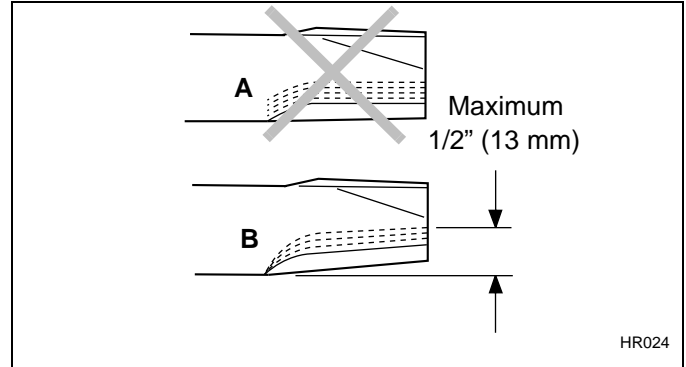


Figure 4F

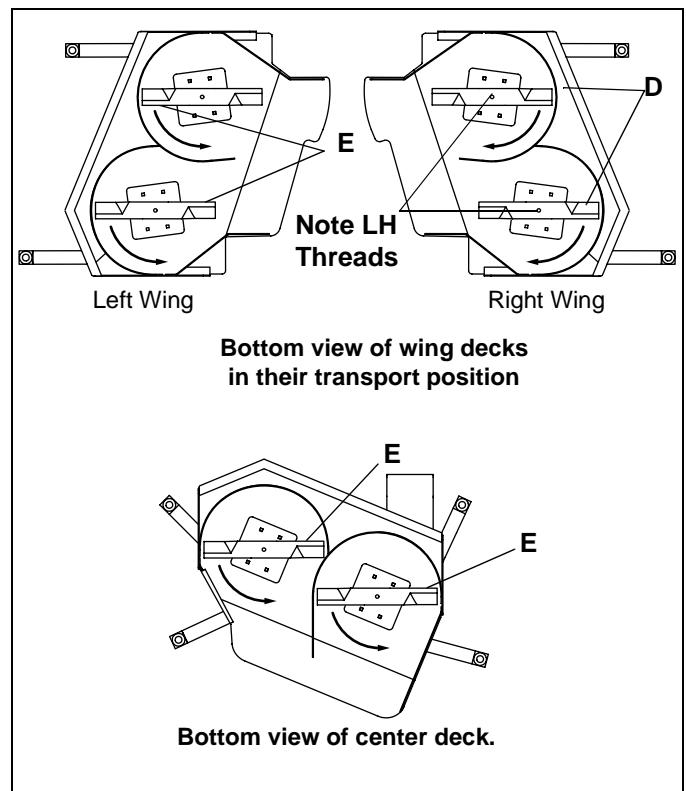


Figure 4G

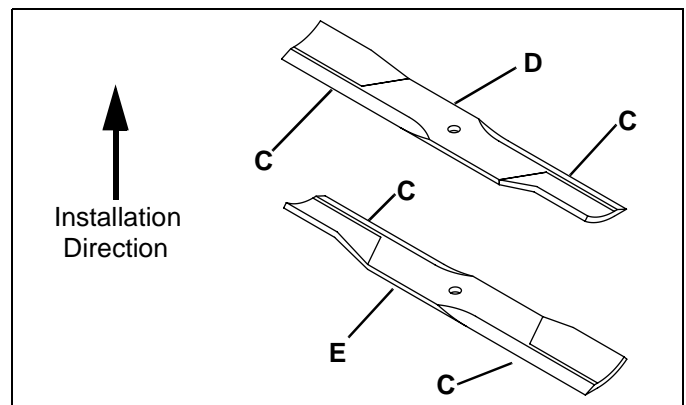


Figure 4H

## 4 MAINTENANCE

---

### 4.22 STORAGE

---

1. Wash the tractor thoroughly and lubricate. Repair and paint damaged or exposed metal.
2. Inspect the tractor, tighten all hardware, replace worn or damaged components.
3. Drain and refill radiator.
4. Clean the tires thoroughly and store the tractor so the load is off the tires. If tractor is not on jack stands, check tires at regular intervals and reinflate as necessary.
5. Keep the machine and all its accessories clean, dry and protected from the elements during storage. Never store equipment near an open flame or spark which could ignite fuel or fuel vapors.

#### Battery

1. Remove, clean and store battery in upright position in a cool, dry place.
2. Check and recharge battery every 60 to 90 days while in storage.
3. Store batteries in a cool, dry place. To reduce the self discharge rate, room temperature should not be above 80°F (27°C) or fall below 20°F (-7°C) to prevent electrolyte from freezing.

#### Engine

1. While the engine is warm, remove drain plug, drain the oil from the crankcase and change oil filter. Install drain plug and refill with fresh oil. Torque drain plug to 22 ft. lb. (30 Nm).
2. Clean exterior of engine. Paint exposed metal or apply a light coat of rust preventative oil.
3. Add a fuel conditioner or biocide to prevent gelling or bacterial growth in fuel. See your local fuel supplier.

#### Cutting Units

1. Wash the cutting units thoroughly, then repair and paint any damaged or exposed metal.
2. Lubricate all fittings and friction points.
3. Resharpen and balance the cutting blades. Apply a light coat of oil on blades to prevent rust.

#### After Storage

1. Check and reinstall battery
2. Check or service fuel filter and air cleaner.
3. Check the radiator coolant level.
4. Check oil level in the engine crankcase and hydraulic system.
5. Fill the fuel tank with fresh fuel. Bleed the fuel system.
6. Make certain that the tires are properly inflated.
7. Remove all oil from the cutting blades. Readjust cutting height.
8. Start and operate the engine at 1/2 throttle. Allow enough time for the engine to become properly warmed and lubricated.



### WARNING

Never operate the engine without proper ventilation; exhaust fumes can be fatal when inhaled.

## 5.1 GENERAL

The troubleshooting chart below lists basic problems that may occur during start-up and operation. For more detailed information regarding the hydraulic and electrical systems contact your area Textron Turf Care And Specialty Products dealer.

Symptoms	Possible Causes	Action	Section Ref.
Engine will not start.	<ol style="list-style-type: none"> <li>1. Parking brake disengaged, traction pedal not in neutral or mow switch on.</li> <li>2. Glow plug has not timed out.</li> <li>3. Battery low on charge or defective.</li> <li>4. Fuel tank empty or dirty.</li> <li>5. Fuse blown.</li> <li>6. Relay defective</li> <li>7. Neutral switch on traction pedal out of adjustment or defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check Interlock system and start-up procedure.</li> <li>2. Reset ignition switch and allow glow plug to time out before cranking engine.</li> <li>3. Inspect condition of battery and battery connections.</li> <li>4. Fill with fresh fuel. Change fuel filter. Bleed fuel lines.</li> <li>5. Replace fuse.</li> <li>6. Test and replace relay.</li> <li>7. Adjust or replace switch.</li> </ol>	<p>4.7, 4.9</p> <p>4.5, 4.6</p> <p>4.14</p> <p>4.14</p> <p>3.5</p>
Engine hard to start or runs poorly.	<ol style="list-style-type: none"> <li>1. Fuel level low, fuel or fuel filter dirty.</li> <li>2. Air cleaner dirty.</li> <li>3. Injectors, fuel pump</li> <li>4. Engine problem.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill with fresh fuel. Change fuel filter. Bleed fuel lines.</li> <li>2. Inspect and replace air filter.</li> <li>3. Consult engine manual.</li> <li>4. Consult engine manual</li> </ol>	<p>4.5, 4.6</p> <p>4.4</p>
Engine stops.	<ol style="list-style-type: none"> <li>1. Fuel tank empty.</li> <li>2. Interlocks not set before leaving operator's seat.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill with fresh fuel and bleed fuel lines.</li> <li>2. Engage parking brake and set mow switch to OFF.</li> </ol>	<p>4.5, 4.6</p>
Engine overheating	<ol style="list-style-type: none"> <li>1. Coolant level low.</li> <li>2. Air intake restricted.</li> <li>3. Water pump belt broken or loose.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inspect and add coolant.</li> <li>2. Clean air intake at radiator.</li> <li>3. Tighten or replace belt.</li> </ol>	<p>4.15</p> <p>4.15</p> <p>3.3</p>
Battery not holding charge. Battery light on.	<ol style="list-style-type: none"> <li>1. Loose or corroded battery terminals.</li> <li>2. Low electrolyte.</li> <li>3. Alternator belt loose or broken.</li> <li>4. Charging system defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inspect and clean terminals</li> <li>2. Refill to correct level.</li> <li>3. Tighten or replace belt</li> <li>4. See engine manual</li> </ol>	<p>4.7</p> <p>4.7</p> <p>3.3</p>
Cutting units not cutting evenly	<ol style="list-style-type: none"> <li>1. Cutting heights not set evenly.</li> <li>2. Engine speed too low.</li> <li>3. Mow speed not adjusted for turf conditions.</li> <li>4. Air pressure in caster wheels not adjusted correctly</li> <li>5. Blades installed incorrectly</li> </ol>	<ol style="list-style-type: none"> <li>1. Check and adjust cutting height.</li> <li>2. Check engine speed. Run engine at full throttle.</li> <li>3. Adjust mow speed for best cut.</li> <li>4. Check tires and adjust to correct pressure</li> <li>5. Check that blades are installed facing the correct direction, and blades are installed on correct decks.</li> </ol>	<p>3.8</p> <p>3.2</p> <p>3.8</p> <p>4.21</p>

# 5 TROUBLESHOOTING

## 5.2 CONTROLLER LAMPS

The controller is a solid state device that monitors and controls electrical functions. The controller receives input signals from various switches and sensors throughout the machine and transmits output signals to operate relays, solenoids and warning lights. It controls and resets timers and contains built in logic to control certain machine functions.

Each input and output signal is displayed through lamps located on top of the controller. A closed input switch

indicates an active circuit and will turn an input lamp on, an open switch indicates an inactive circuit and will turn a lamp off. Outputs are active when their lights are on.

It is important to note that in some cases a lamp or group of lamps must be on or off for a condition to be true. For example, to start the tractor the Mow Switch must be off (lamps 25, 37, 38 and 39 off) while the Neutral Start Switch (lamp 5), Brake Switch (lamp 6) and Fuel Hold coil (lamp 34) must be on.

### Controller Functions by Lamp Number

Lamp On - Circuit is active

Lamp Off - Circuit is inactive

INPUTS		OUTPUTS	
Lamp	Circuit	Lamp	Circuit
3	Program active - indicates controller has power	31	Glow Plug Relay & Indicator - Glow Plug On
4	Key Switch "Start" Post	32	Light Test
5	Neutral Start Switch - Traction Pedal in Neutral	33	Start Relay and Indicator
6	Brake Switch - Brake On	34	Fuel Hold Coil
7	Seat Switch - Operator Seated	35	Warning Horn
9	Cruise Control Switch - Off - Pin 1 (Option)	36	Hydraulic Oil Level Light
10	Cruise Control Switch - On - Pin 2 (Option)	37	Mow Switch - Left Wing Mower Active
11	Hydraulic Oil Level Float Switch	38	Mow Switch - Center Mower Active
12	Hydraulic Oil Level Alarm Switch	39	Mow Switch - Right Wing Mower Active
13	Engine Oil Pressure Switch	40	Cruise Control Valve / Light (Option)
16	Lift Limit Switch, Left Wing	41	Lift Valve - Pressure
19	Lift Limit Switch - Right Wing	42	Lift Valve - Raise Left Wing Mower
20	Joystick - Left Mower- Pin 4	43	Lift Valve - Raise Center Mower
21	Joystick - Right Mower- Pin 5	44	Lift Valve - Raise Right Wing Mower
22	Joystick - Lower- Pin 3	45	Lift Valve - Lower Left Wing Mower
23	Joystick - Raise - Pin 2	46	Lift Valve - Lower Center Mower
25	Mow Switch Engaged- Pin 1	47	Lift Valve - Lower Right Wing Mower

Inactive lamps - 1,2, 8, 14, 15, 17, 18, 24, 26, 27, 29, 30, 48 (not used)

## 5.3 ELECTRICAL CIRCUITS

When troubleshooting the machine using the controller always check that lamp 3 is on. This lamp indicates that the controller has power and the program is active.

**Note:** *The controller requires a minimum of six volts to operate.*

Individual circuits can be tested by operating an input switch, checking for the required input signal and looking for a corresponding output. Keep in mind that not all switches are located on the instrument panel. The traction pedal, lift

limit and brakes are controlled by small proximity switches mounted on the frame of the tractor.

If an input lamp does not light an inactive condition is indicated. This could be caused by a fuse, faulty switch, a switch that needs adjustment or poor connection.

The electrical connections to the solenoids on the hydraulic valves are also equipped with small indicator lamps. When lit these lamps indicate that the output signal has reached the connection. If lamps do not come on, check wires to and from connector.



6.1 GENERAL

 **WARNING**

Before you clean, adjust, or repair this equipment, disengage all drives, lower implements to the ground, engage parking brake, stop engine and remove key from ignition switch to prevent injuries.

1. Always clean grease fittings before and after lubrication.

2. Lubricate with grease that meets or exceeds NLGI Grade 2 LB specifications. Apply grease with a manual grease gun and fill slowly until grease begins to seep out. Do not use compressed air.
3. For smooth operation of pivot points and other friction points, apply several drops of SAE 30 oil every 50 hours or as required.
4. Remove wheels and repack bearings once a year.

6.2 MAINTENANCE CHART

Recommended Service and Lubrication Intervals

	Every 8-10 Hours	Every 50 Hours	Every 100 Hours	Every 250 Hours	Every 400 Hours	Every 500 Hours	Every 1000 Hours	Yearly	See Section	Lubricant Type
Air Cleaner			AR					R	4.4	
Battery Charge			I						4.9	
Belt	I-A*		I-A			R			3.3	
Brake		I-A*		A					3.4	
Cooling System	I-C-A							R	4.15	
Engine Oil		R*	R						4.2	III
Engine Oil Filter		R*	R						4.3	
Fuel Lines and Clamps		I								
Fuel Filter					R				4.6	
Grease Fittings - F1		L							6.3	II
Grease Fittings - F2			L						6.3	II
Grease Fittings - F3				L					6.3	II
Hydraulic Hoses and Tubes	I***			I					4.10	
Hydraulic Oil		I-A					R**		4.12	IV
Hydraulic Oil Filters		R*				R-AR			4.13	
Muffler and Exhaust				I					4.10	
Radiator Screens	I-C/AR								4.15	
Tires		I-A							4.17	
Steering System		I*		I-A						
Wheel Bearings								L		I
Wiring		I*		I					4.14	

**A - Add or Adjust    C - Clean    I - Inspect    L - Lubricate    R - Replace    AR - As Required**

\* Indicates initial service for new machines.

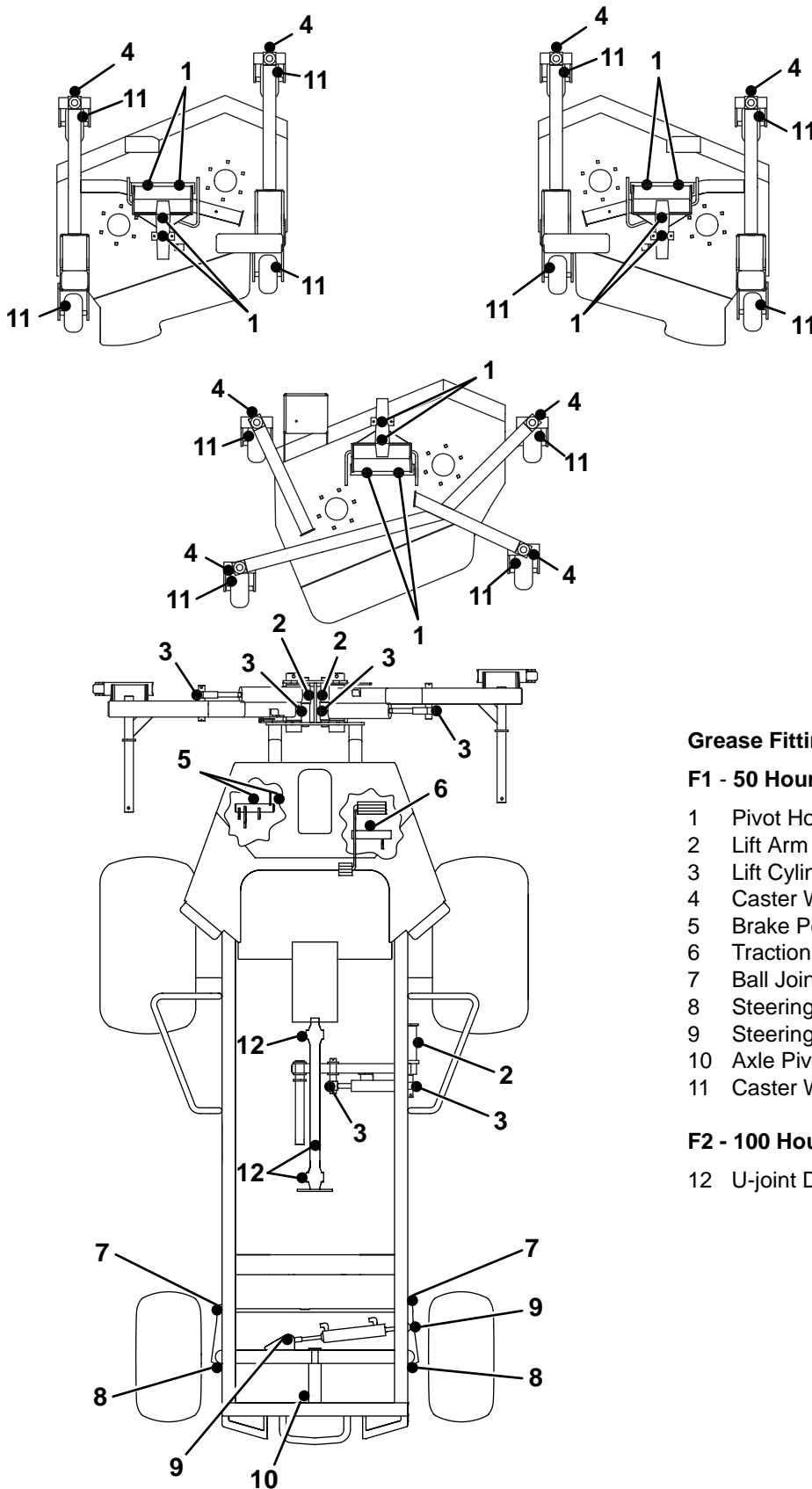
\*\* Or every two years whichever comes first.

\*\*\* Inspect visible hoses and tubes for leaks or oil marks.

- I Pack bearings with NLGI Grade 2 (Service Class GB)
- II Manual grease gun with NLGI Grade 2 (Service Class LB).
- III Engine Oil - See Section 4.3
- IV Textron Turf Care And Specialty Products Hydraulic Oil - SAE 10W30

# 6 MAINTENANCE & LUBRICATION CHARTS

## 6.3 LUBRICATION CHART



### Grease Fittings

#### F1 - 50 Hours (Every Week)

- 1 Pivot Housing (12 Fittings)
- 2 Lift Arm (3 Fittings)
- 3 Lift Cylinders (6 Fittings)
- 4 Caster Wheel Spindles (8 Fittings)
- 5 Brake Pedal Pivot (2 Fittings)
- 6 Traction Pedal Pivot (1 Fitting)
- 7 Ball Joint (2 Fittings)
- 8 Steering Pivot (2 Fittings)
- 9 Steering Cylinder (2 Fittings)
- 10 Axle Pivot (1 Fitting)
- 11 Caster Wheel Axle (12 Fittings)

#### F2 - 100 Hours

- 12 U-joint Driveshaft (3 Fittings)

## 7.1 TABLE OF CONTENTS

1.1	Decals	28	26.1	Lift Hydraulics	68
2.1	Hood	30	27.1	Hydraulic Clamps	70
3.1	Seat Pan	32	28.1	Front Wheel Motor and Deck Motor Drains	71
4.1	Instrument Panel	34	29.1	Wing Deck Control Valves	72
5.1	Traction Pedal	36	30.1	Center Deck Control Valve	73
6.1	Brake Pedal	38	31.1	Wing Deck Hydraulics	74
7.1	Frame and Front Axle	40	32.1	Center Deck	75
8.1	2 Wheel Drive Steering	42	33.1	Wire Harness and Controller Box	76
9.1	4 Wheel Drive Steering	44	34.1	Lift Valve	78
10.1	Tilt Steering	46	35.1	4WD Valve	79
11.1	Radiator and Air Cleaner	48	36.1	Steering Valve	80
12.1	Engine Assembly	50	37.1	Front Wheel Motor	82
13.1	Engine Exhaust	52	38.1	Rear Wheel Motor	83
14.1	Pump Mounting	53	39.1	Brake Assemblies	84
15.1	Wing Lift Arms	54	40.1	Deck Valve	85
16.1	Center Lift Arm	56	41.1	ROPS	86
17.1	Wing Proximity Switches	58	42.1	Decals, Deck	87
18.1	Wing Deck Guide	59	43.1	Wing Decks	88
19.1	Fuel and Hydraulic Tanks	60	44.1	Wing Decks (Continued)	90
20.1	2WD Traction Hydraulics	62	45.1	Rear Deck	92
21.1	4WD Traction Hydraulics	63	46.1	Caster Wheels	94
22.1	Charge Pressure and Steering Hydraulics	64	47.1	Electrical Schematic	96
23.1	Gear Pump Hydraulics	65	48.1	Hydraulic Schematic	98
24.1	Return Hydraulics	66	49.1	O-Ring Chart	100
25.1	Lift Valve and Filter Mounting	67			

## 1.1 Decals

OPERATION	
READ MANUAL BEFORE OPERATING. REPLACEMENT MANUAL AVAILABLE FROM: TEXTRON TIRE CARE AND SPECIALTY PRODUCTS, RACINE, WI.	
<b>To Start</b>	<b>To Stop/Park</b>
1. Parking Brake.....On	1. Traction Pedal.....Neutral
2. Traction Pedal.....Off	2. Mower Switch.....Off
3. Mower Switch.....Off	3. Parking Brake.....On
4. Throttle.....Half	4. Throttle.....Slow
5. Ignition.....On	5. Ignition.....Off
6. Glow Plug Light.....Off	6. Remove Key
7. Ignition.....Start	
<b>To Drive/Transport</b>	<b>To Mow</b>
1. Follow "To Start" instructions.	1. Follow "To Start" instructions.
2. Mower Switch.....Off	2. Throttle.....Fast
3. Cutting Blade.....Raise	3. Mower Switch.....Mow
4. Parking Brake.....Off	4. Parking Brake.....Off
5. Throttle.....Fast	5. Cutting Blade.....Lower
6. Slowly depress traction pedal	6. Slowly depress traction pedal

LF-3400: Engine Power: 22.0 kW @ 3000 rpm.  
Vehicle Mass: 1150 kg (2535 lb) (4WD)

LF-3800: Engine Power: 26.5 kW @ 3000 rpm.  
Vehicle Mass: 1250 kg (2755 lb) (4WD)

HR-4600: Engine Power: 33.0 kW @ 3000 rpm.  
Vehicle Mass: 1225 kg

**STARTING THE TRACTOR**

THE FOLLOWING LAMPS MUST BE ON WHEN THE IGNITION KEY IS IN THE "RUN" POSITION:

**LAMP:**

- PROGRAM ACTIVE (INDICATES CONTROLLER HAS POWER)
- NEUTRAL START SWITCH (TRANSPORT PEDAL)
- GLOW PLUG RELAY AND INDICATOR (DURATION THE LAMP IS LIT DEPENDS ON ENGINE TEMPERATURE)

THE FOLLOWING LAMPS MUST BE OFF WHEN THE IGNITION KEY IS IN THE "RUN" POSITION:

- KEY SWITCH-START POST
- REEL SWITCH-FORWARD DIRECTION-PIN 1
- START RELAY AND INDICATOR
- REEL SWITCH-LEFT WING ACTIVE SIGNAL
- REEL SWITCH-CENTER ACTIVE SIGNAL-PIN 5
- REEL SWITCH-RIGHT WING ACTIVE SIGNAL

ALL OTHER LAMPS DO NOT AFFECT THE STARTING OF THIS MACHINE.

IGNITION SWITCH POSITIONS LOCATED ON THE INSTRUMENT PANEL:

"RUN" POSITION

"START" POSITION

"OFF" POSITION

LAMP ON = CIRCUIT IS ACTIVE  
LAMP OFF = CIRCUIT IS INACTIVE

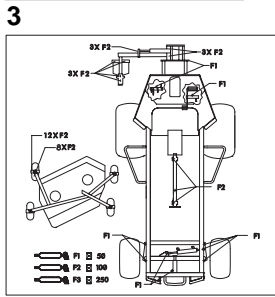
SEE OPERATOR'S MANUAL FOR MORE DETAILED INSTRUCTIONS.

**CONTROLLER FUNCTIONS BY LAMP NUMBER**

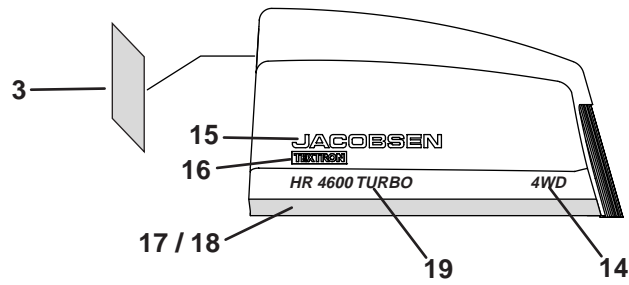
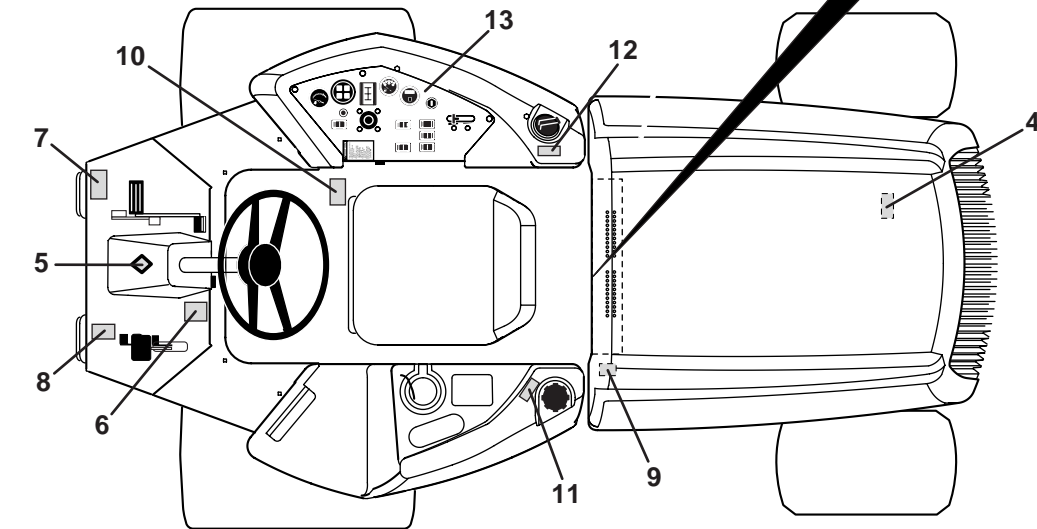
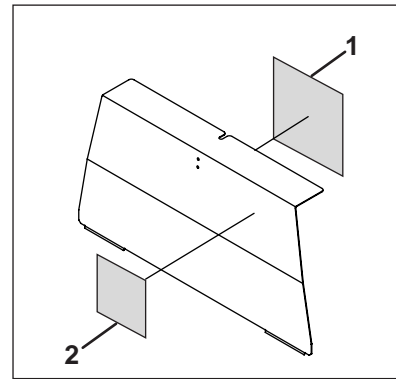
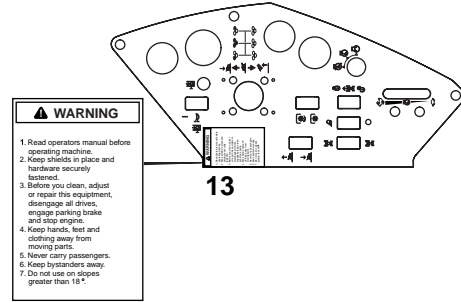
LAMP SIGNAL - SIGNAL

- INPUT - PROGRAM ACTIVE (INDICATES CONTROLLER HAS POWER)
- INPUT - KEY SWITCH-START POST
- INPUT - NEUTRAL START SWITCH
- INPUT - BRAKE SWITCH
- INPUT - SEAT SWITCH
- INPUT - CRUISE CONTROL SWITCH-OFF-PIN 1
- INPUT - CRUISE CONTROL SWITCH-ON-PIN 6
- INPUT - HYDRAULIC OIL LEVEL FLOAT SWITCH
- INPUT - HYDRAULIC OIL LEVEL ALARM SWITCH-PIN 3
- INPUT - ENGINE OIL PRESSURE SWITCH
- INPUT - LEFT LIMIT SWITCH-LEFT WING
- INPUT - LEFT LIMIT SWITCH-RIGHT WING
- INPUT - JOYSTICK-LEFT-PIN 4
- INPUT - JOYSTICK-RIGHT-PIN 5
- INPUT - JOYSTICK-LOWER-PIN 3
- INPUT - JOYSTICK-RAISE-PIN 2
- INPUT - DECK SWITCH-FORWARD DIRECTION-PIN 1
- OUTPUT - GLOW PLUG RELAY AND INDICATOR
- OUTPUT - LIGHT TEST
- OUTPUT - START RELAY AND INDICATOR
- OUTPUT - FUEL INJECTOR
- OUTPUT - WARNING HORN
- OUTPUT - HYDRAULIC OIL LEVEL LIGHT
- OUTPUT - DECK SWITCH-CENTER ACTIVE SIGNAL-PIN 5
- OUTPUT - DECK SWITCH-RIGHT WING ACTIVE SIGNAL-PIN 5
- OUTPUT - CRUISE CONTROL COLLIGHT(OPTION)
- OUTPUT - VALVE-LIFT PRESSURE
- OUTPUT - VALVE-RAISE-LEFT WING
- OUTPUT - VALVE-RAISE-RIGHT WING
- OUTPUT - VALVE-LOWER-LEFT WING
- OUTPUT - VALVE-LOWER-RIGHT WING
- OUTPUT - VALVE-LOWER-CENTER
- OUTPUT - VALVE-LOWER-RIGHT WING

LAMPS NOT USED: 1,2,4,14,15,17,18,24,26,27,28,29,30,48

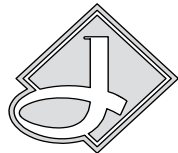


2

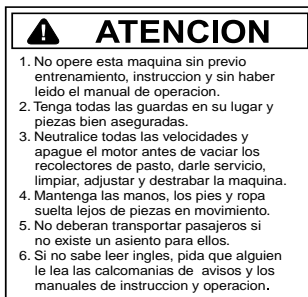




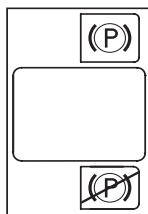
4



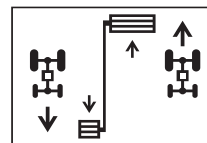
5



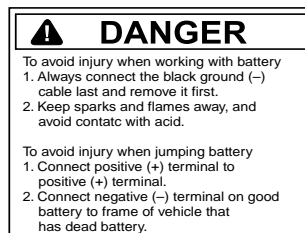
6



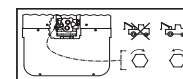
8



7



9



10



11



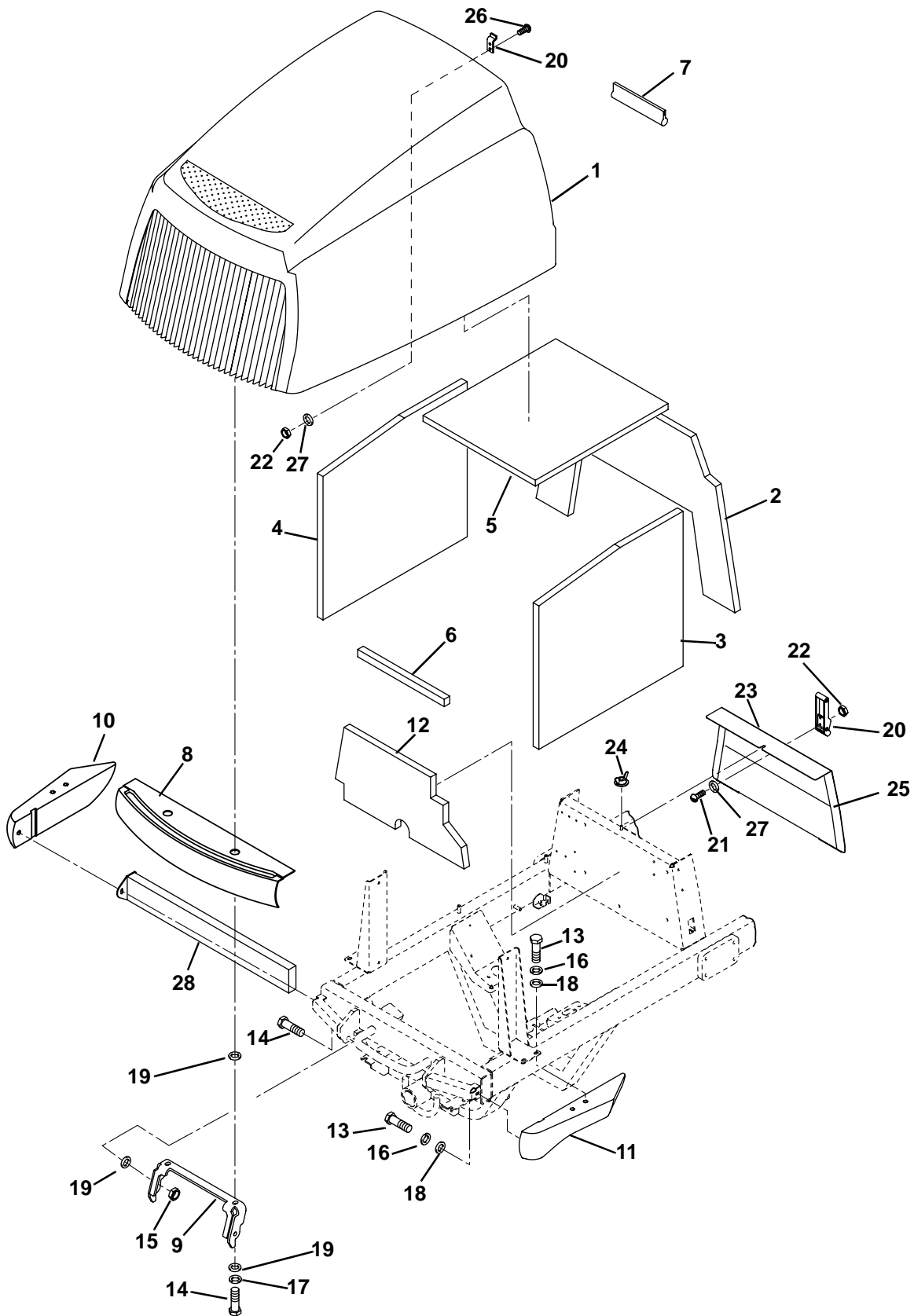
12

Decals1.eps

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3009435	1	Decal, Controller	
2	3009431	1	Decal, Service	
3	2809927	1	Decal, Operating Instructions	
4	365956	1	Decal, Radiator Warning	
5	3007129	1	Emblem, Diamond J	
6	340830	1	Decal, Spanish Caution	
7	3008521	1	Decal, Traction Pedal	
8	3008522	1	Decal, Brake	
9	3001435	1	Decal, Battery Danger	
10	3008682	1	Decal, Tow Valve	
11	3008577	1	Decal, Hydraulic Oil	
12	3008576	1	Decal, Diesel Fuel	
13	3010226	1	Decal, Instrument Panel	
14	3008327	2	Decal, 4WD	4WD Only
15	3007505	2	Decal, Jacobsen	
16	3007514	2	Decal, Textron	
17	3007750	1	Decal, Left Side Blue Stripe	
18	3007751	1	Decal, Right Side Blue Stripe	
19	3009164	2	Decal, HR 4600 TURBO	

> Change from previous revision

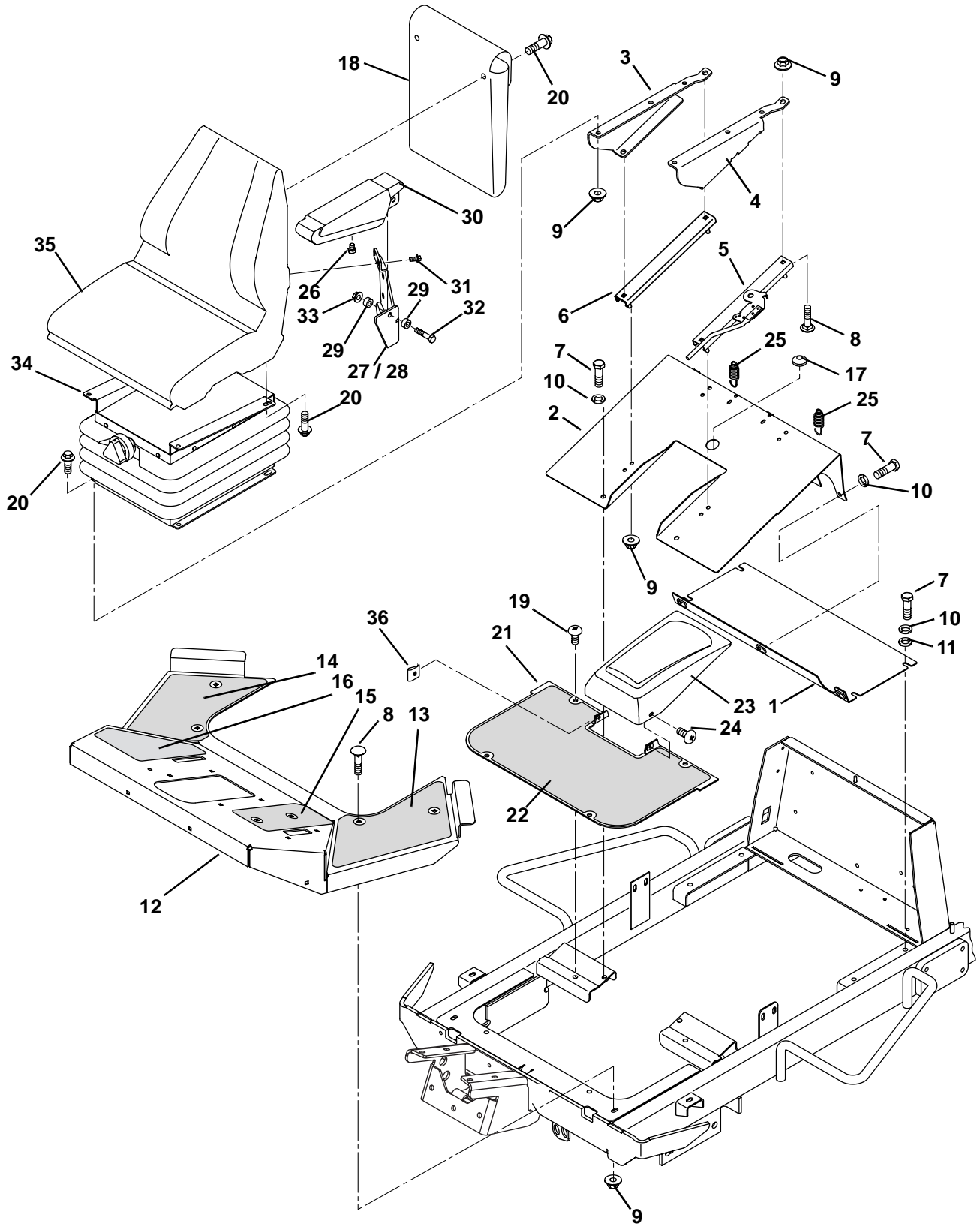
## 2.1 Hood



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1004981	1	Hood Assembly	Includes Items 16 ~ 20 on Illustration 1.1
2	3007549	1	• Foam, Front	
3	3007550	1	• Foam, Right Side	
4	3007551	1	• Foam, Left Side	
5	3007552	1	• Foam, Top	
6	3007661	1	• Seal, Rear	
7	557620	AR	• Molding	
8	3006615	1	Shell, Bumper	
9	3006840	1	Bracket, Hood Hinge	
10	3007315	1	Seal, Left Side Air	
11	3007316	1	Seal, Right Side Air	
12	3007548	1	Foam, Control Module	
13	400182	6	Screw, 5/16-18 x 5/8" Hex Head	
14	400408	4	Screw, 1/2-13 x 1-1/2" Hex Head	
15	444758	2	Locknut, 1/2-13 Center	
16	446136	6	Lockwasher, 5/16 Heavy	
17	446154	2	Lockwasher, 1/2 Heavy	
18	452006	6	Flat Washer, 5/16	
19	453017	6	Flat Washer, 1/2	
20	366883	1	Over Center Latch	
21	402056	2	Screw, #8-32 x 3/8" Slotted Head	
22	444306	4	Nut, #8-32 Hex	
23	5003217	1	Cover, Front Mount	
24	3008195	1	Wing Nut, 1/4-20 Steel	
25	3009210	1	Foam (Cut To Length)	
26	403741	2	Screw, #8-32 x 5/8" Hex Head	
27	446110	4	Lockwasher, #8	
28	1005002	1	Bumper, Weight	

> Change from previous revision

## 3.1 Seat Pan

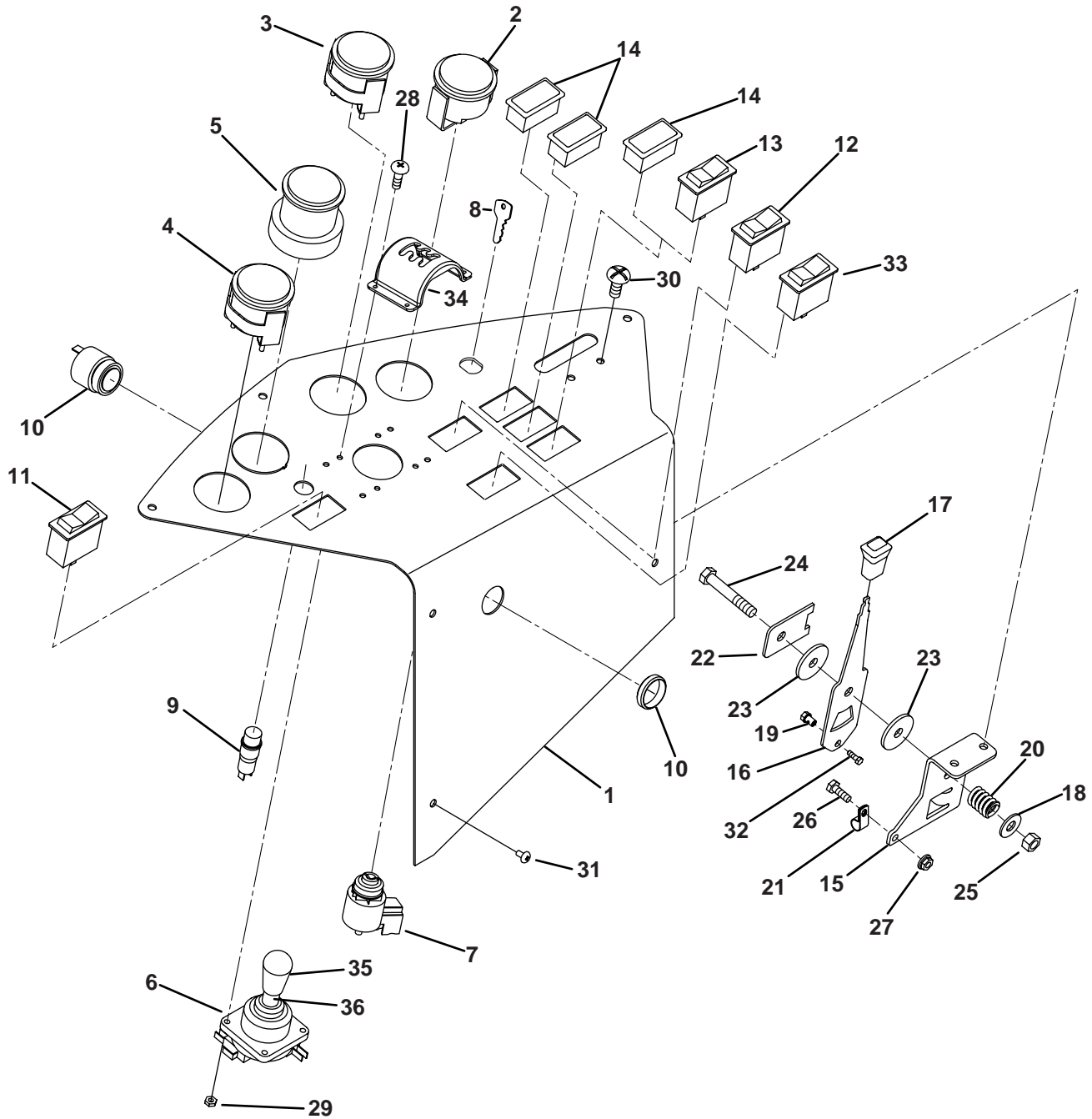




Item	Part No.	Qty.	Description	Serial Numbers/Notes	
	1	1004279	1	Floorpan	
	2	3009292	1	Seat Pan	
	3	3006909	1	Support, Right Seat	
	4	3006910	1	Support, Left Seat	
	5	3009995	1	Adjuster, Latching	
	6	3006988	1	Adjuster, Slave	
	7	400258	9	Screw, 3/8-16 x 3/4" Hex Head	
	8	441602	8	Carriage Bolt, 5/16-18 x 3/4"	
>	9	445795	16	Nut, 5/16-18 Spiralock Flange	
	10	446142	9	Lockwasher, 3/8 Heavy	
	11	452008	9	Flat Washer, 3/8	
	12	5003162	1	Platform	
	13	3007609	1	• Pad, Left Floorboard	
	14	3007610	1	• Pad, Right Floorboard	
	15	3009158	1	• Pad, Left Foot	
	16	3007612	1	• Pad, Right Foot	
	17	315387	1	Grommet	
	18	3003928	1	Pouch, Literature	
	19	404118	4	Screw, 3/8-16 x 7/8" Truss Head	
	20	3001328	10	Screw, 5/16-18 x 5/8" Hex Washer	
	21	5003191	1	Floorboard	
	22	3007608	1	• Pad, Center Floorboard	
	23	3008218	1	Cover, Hydro	
	24	404016	2	Screw, 1/4-20 x 5/8" Truss Head	
	25	3008374	2	Spring, Extension	
		66156	1	Arm Rest Kit	
	26	400254	2	• Screw, 3/8-16 x 1/2" Hex Head	
	27	554737	1	• Bracket, Left Side Arm	
	28	554740	1	• Bracket, Right Side Arm	
	29	554738	4	• Spacer	
	30	554739	2	• Arm Rest, Black	
	31	3001328	6	• Screw, 5/16-18 x 5/8" Hex Wshr	
	32	400268	2	• Screw, 3/8-16 x 1-3/4" Hex Head	
	33	445783	2	• Nut, 3/8-16 Flange	
	34	66171	1	Suspension, Heavy Duty Seat	
		5003568	1	• Knob Kit	
		5003569	1	• Damper Kit	
		5003567	1	• Boot Kit	
		5003468	1	• Wire, Seat Extension	
	35	66172	1	Seat, One Piece 21"	
		434011	2	• Screw, 1/4-20 x 5/8" Socket Head	
		446130	2	• Lockwasher, 1/4 Heavy	
		554390	1	• Switch, Seat	
		163583	1	• Wire Harness, Seat Switch	
		445245	2	Tinnerman Nut	

> Change from previous revision

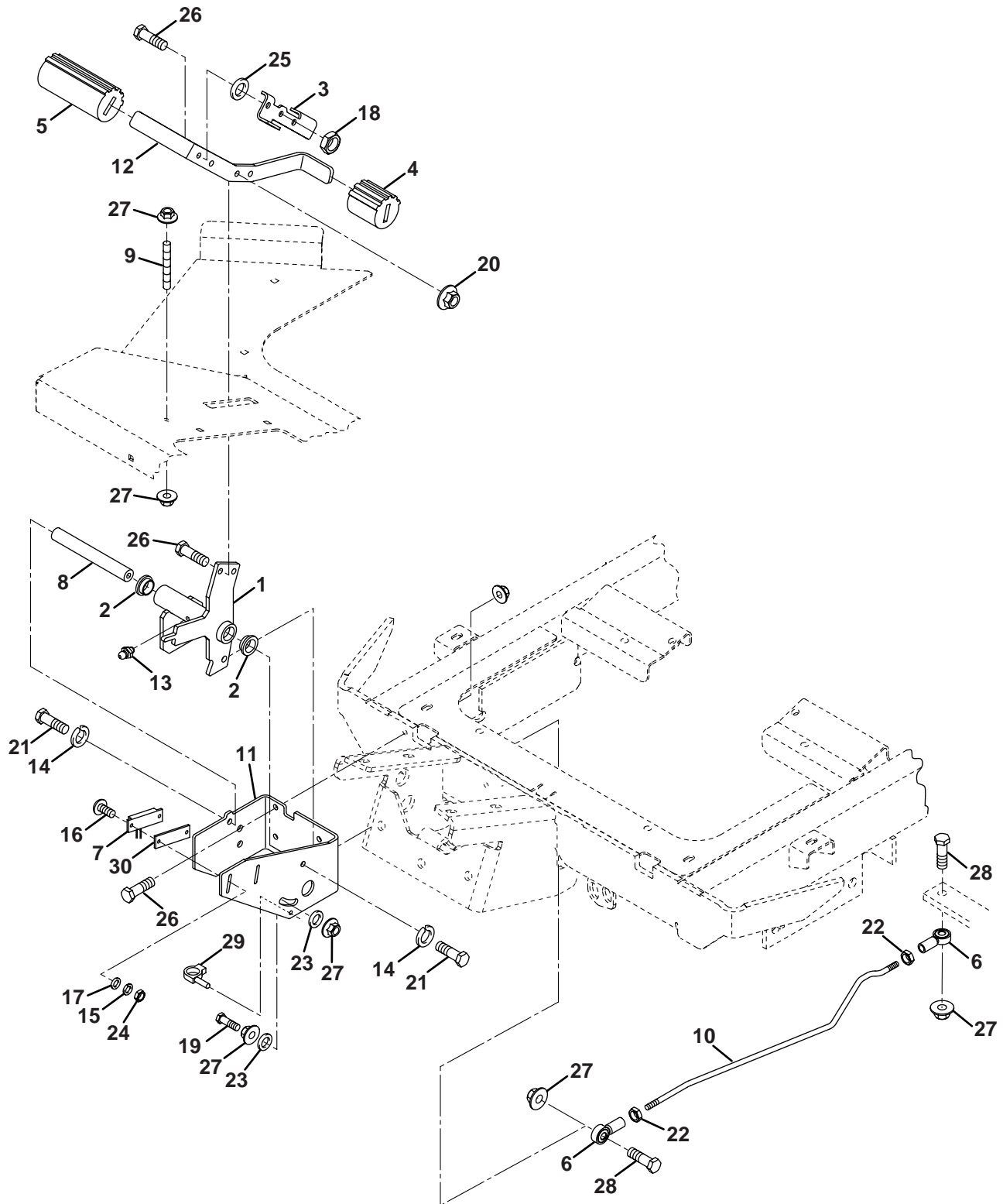
## 4.1 Instrument Panel



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2811508	1	Panel, Instrument	4WD Only
2	162723	1	Meter, Hour	
	447006	1	• Lockwasher, #10	
	444310	1	• Nut, #10	
3	365943	1	Gauge, Fuel	
4	3005121	1	Gauge, Water Temperature	
	447002	3	• Lockwasher, #6 External Tooth	
	444302	3	• Nut, #6-32 Hex	
	447206	2	• Lockwasher, #8 Internal Tooth	
	444306	2	• Nut, #8-32 Hex	
5	1002679	1	Light Cluster	
	5003091	4	• Light Bulb and Socket	
6	1002954	1	Joystick	
7	2811488	1	Switch, Ignition	
8	5000039	1	Key	
9	366751	1	Light, Indicator, Yellow	
10	366670	1	Horn	
11	3006434	1	Switch, Rocker	
12	3006440	1	Switch, PTO, Locking	
13	3006436	1	Switch, Rocker	
14	3006509	3	Plug, Hole	
15	1002810	1	Bracket, Throttle	
16	3006036	1	Lever, Throttle	
17	366768	1	Knob	
18	452008	1	Washer, 3/8 Flat	
19	558020	1	Swivel	
20	351956	1	Spring , Compression	
21	558021	1	Clip, Conduit	
22	3006035	1	Plate, Friction	
23	360885	2	Washer, Friction	
24	400272	1	Screw, 3/8-16 x 2-1/4" Hex Head	
25	444762	1	Locknut, 3/8-16 Center	
26	400108	1	Screw, 1/4-20 x 3/4" Hex Head	
27	445794	1	Nut, 1/4-20 Spiralock Flange	
28	403912	4	Screw, #10-24 x 5/8" Truss Head	
29	444310	4	Nut, #10-24 Hex	
30	404016	2	Screw, 1/4-20 x 5/8" Truss Head	
31	403908	6	Screw, #10-24 x 3/8" Truss Head	
32	403740	1	Screw, #8-32 x 1/2" Hex Hd	
33	3006448	1	Switch, Rocker	
34	3010546	1	Cover, Joystick	
35	2809790	1	Handle, Joystick	

> Change from previous revision

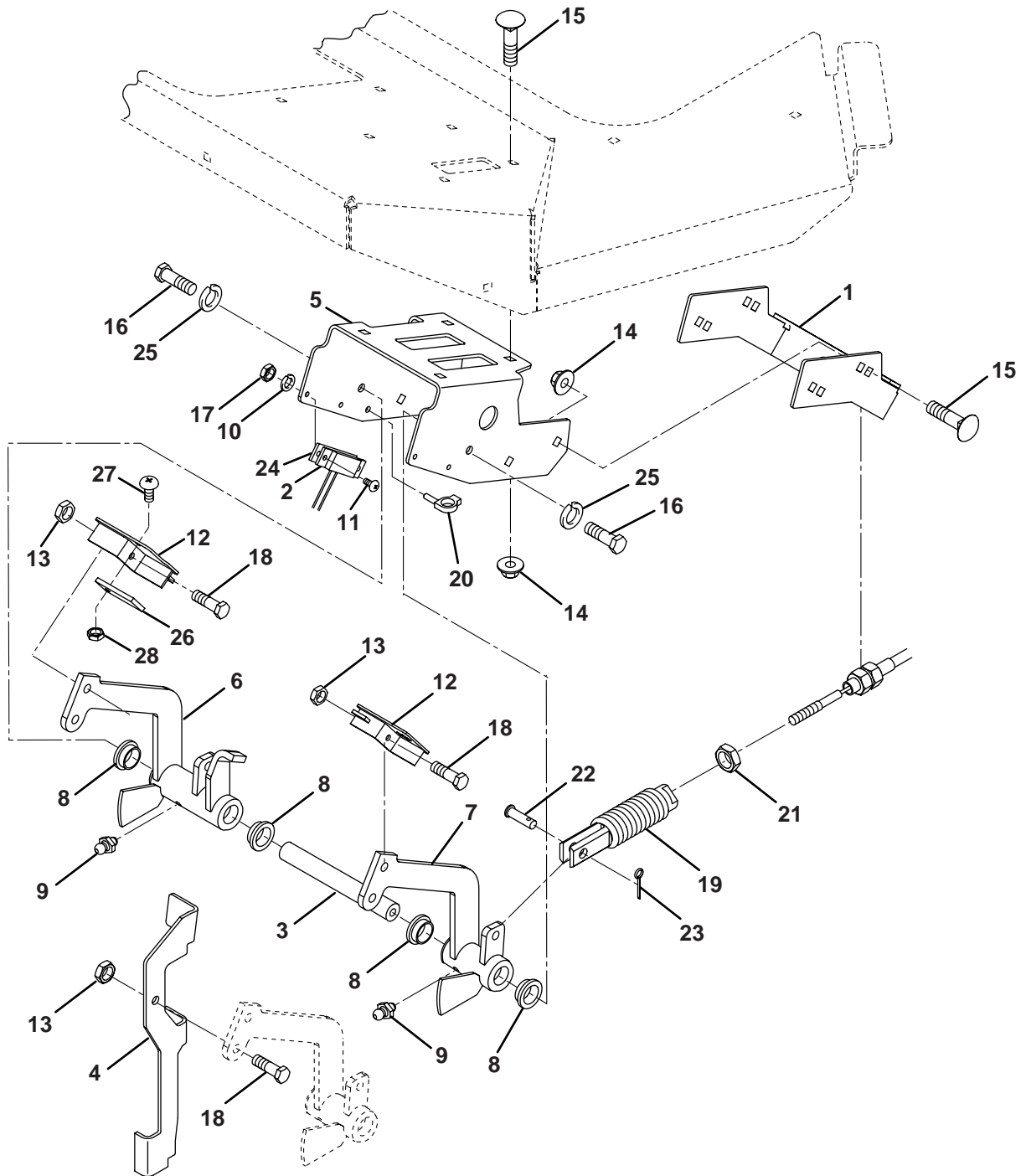
## 5.1 Traction Pedal



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003288	1	Treadle Pivot	
2	352726	2	• Bushing	
3	3007230	1	Stop, Mow Speed	
4	3003474	1	Grip, Pedal	
5	3003475	1	Grip, Pedal	
6	366974	2	Rod End	
7	3007392	1	Switch, Proximity	
8	3006327	1	Shaft, Turn Assist	
9	333542	1	Tie Stud	
10	3006998	1	Rod, Hydro	
11	3006999	1	Bracket, Hydro Mount	
12	3007001	1	Pedal, Hydro	
13	471214	1	Fitting, Grease	
14	446136	2	Lockwasher, 5/16 Heavy	
15	446110	2	Lockwasher, #8	
16	403860	2	Screw, #8-32 x 5/8" Truss Head	
17	453004	2	Washer, #8 Flat	
18	444718	1	Locknut, 5/16-18 Center	
19	400272	1	Screw, 3/8-16 x 2-1/4" Hex Head	
20	445795	6	Nut, 5/16-18 Spiralock Flange	
21	400182	4	Screw, 5/16-18 x 5/8" Hex Head	
22	443112	2	Nut, 3/8-24 Hex	
23	452008	2	Washer, 3/8 Flat	
24	444306	2	Nut, #8-32 Hex	
25	3002695	1	Washer	
26	400188	7	Screw, 5/16-18 x 1" Hex Head	
27	445796	6	Nut, 3/8-16 Spiralock Flange	
28	400264	2	Screw, 3/8-16 x 1-1/4" Hex Head	
29	3008383	1	Clip, Wire Harness	
30	3009193	AR	Shim, Switch	

> Change from previous revision

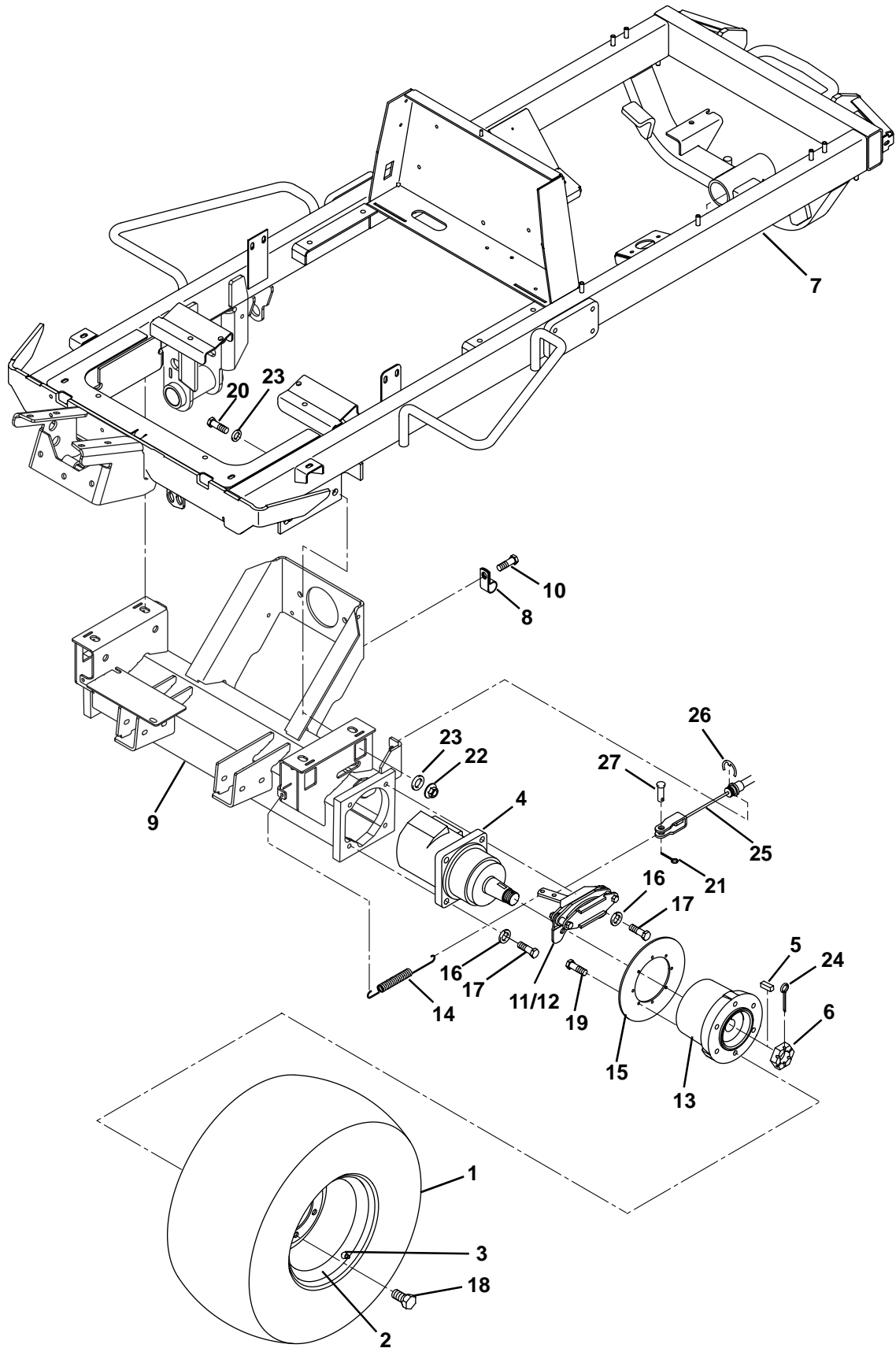
## 6.1 Brake Pedal



<b>Item</b>	<b>Part No.</b>	<b>Qty.</b>	<b>Description</b>	<b>Serial Numbers/Notes</b>
1	3006838	1	Bracket, Brake	
2	3007392	2	Switch, Proximity	
3	3006327	1	Shaft, Turn Assist	
4	3007606	1	Lever, Parking Brake	
5	3006997	1	Mount, Brake	
6	1003074	1	Turn Asst. - R.H.	
7	1002549	1	Turn Asst. - L.H.	
8	352726	4	• Bushing	
9	471214	2	Grease Fitting	
10	446110	4	Lockwasher, #8	
11	403860	4	Screw, #8-32 x 5/8" Truss Head	
12	1002984	2	Pedal, Turn Asst.	
13	444718	4	Locknut, 5/16-18 Center	
14	445795	8	Nut, 5/16-18 Spirallock Flange	
15	441602	8	Bolt, 5/16-18 x 3/4" Carriage	
16	400182	2	Screw, 5/16-18 x 5/8" Hex Head	
17	444306	4	Nut, #8-32 Hex	
18	400188	2	Screw, 5/16-18 x 1" Hex Head	
19	1003504	2	Brake Spring Assembly	
20	3008383	1	Clip, Wire Harness	
21	443812	2	Nut, 3/8-24 Hex Jam	
22	461451	2	Clevis Pin, 5/16 x 15/16"	
23	460014	2	Cotter Pin, 3/32 x 3/4"	
24	3009193	AR	Shim	
25	446136	2	Lockwasher, 5/16 Heavy	
26	3009716	1	Bar, Brake Lock	
27	404016	1	Screw, 1/4-20 x 5/8" Truss Hd	
28	444708	1	Locknut, 1/4-20 Center	

> Change from previous revision

## 7.1 Frame and Front Axle

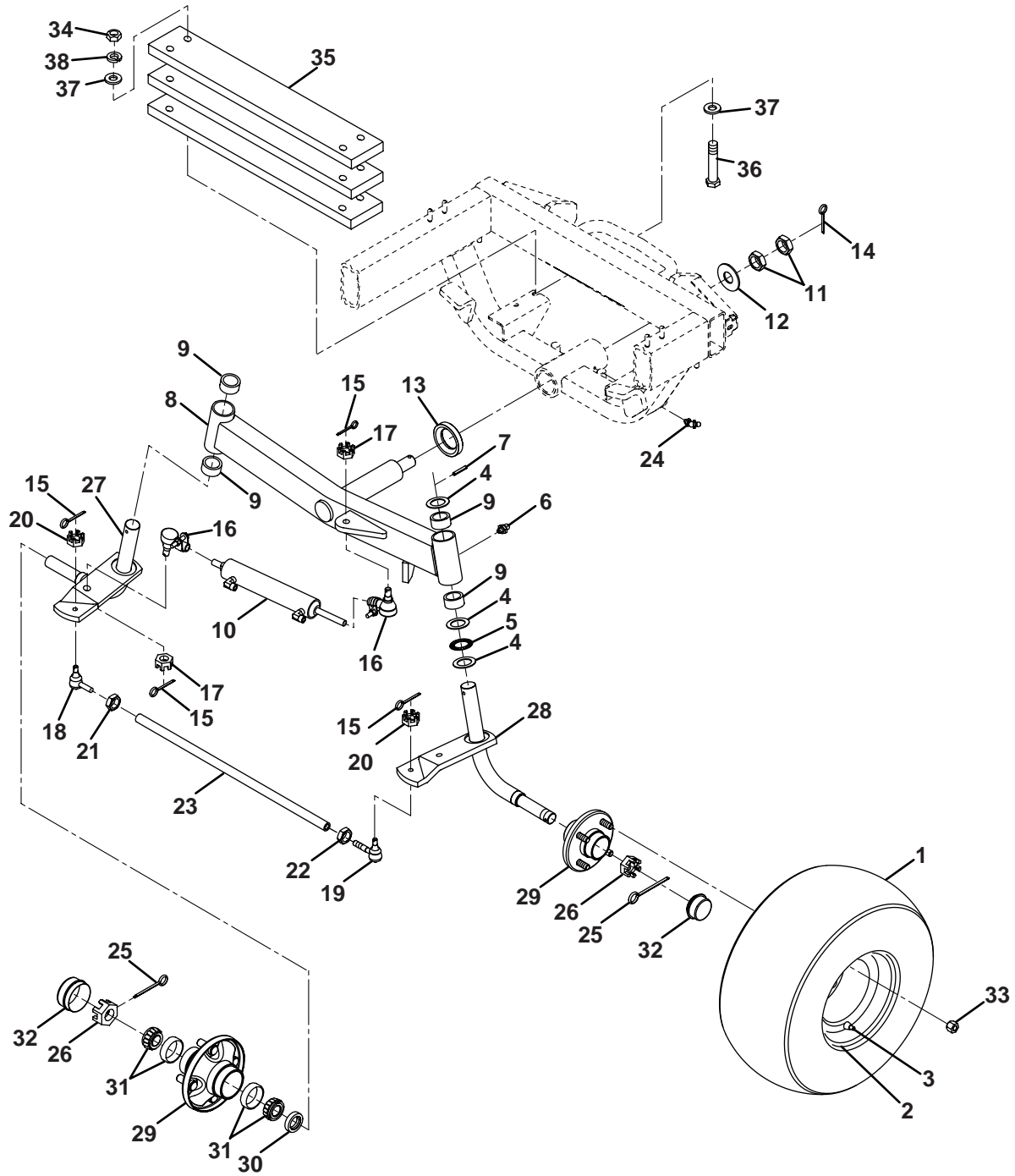




Item	Part No.	Qty.	Description	Serial Numbers/Notes	
	1	366292	2	Tire	
	2	5002909	2	Rim	
	3	360111	2	Valve, Inflation	
	4	1001757	2	Motor, Wheel	See Illustration 35.1
	5	554780	2	• Key	
	6	554779	2	• Nut, Hex	
	7	5003161	1	Frame	
	8	345666	2	Clamp	
	9	1002862	1	Axle, Front	
>	10	409811	2	Screw, 5/16-18 x 5/8" Thread Cutting	
	11	-	1	Brake Assembly	See Illustration 33.1
	12	-	1	Brake Assembly	See Illustration 33.1
	13	2000141	2	Hub, Wheel	
	14	3007862	2	Spring, Extension	
	15	340486	2	Brake, Disk	
	16	446154	8	Lockwasher, 1/2 Heavy	
	17	400410	8	Screw, 1/2-13 x 1-3/4" Hex Head	
	18	353914	12	Bolt, Wheel	
>	19	400108	16	Screw, 1/4-20 x 3/4" Hex Head	
>	20	400642	4	Screw, 5/8-18 x 1-1/2" Hex Head	
>	21	460014	2	Pin, 3/32 x 3/4" Cotter	
>	22	445817	4	Nut, 5/8-18 Spiralock Flange	
>	23	453020	8	Washer, 5/8 Flat	
	24	460093	2	Pin, 1/8 x 2-1/2" Cotter	
	25	1003047	2	Cable, Brake	
	26	557771	2	• Clip, Brake Cable	
>	27	461493	2	Pin, 5/16 x 3/4" Clevis	

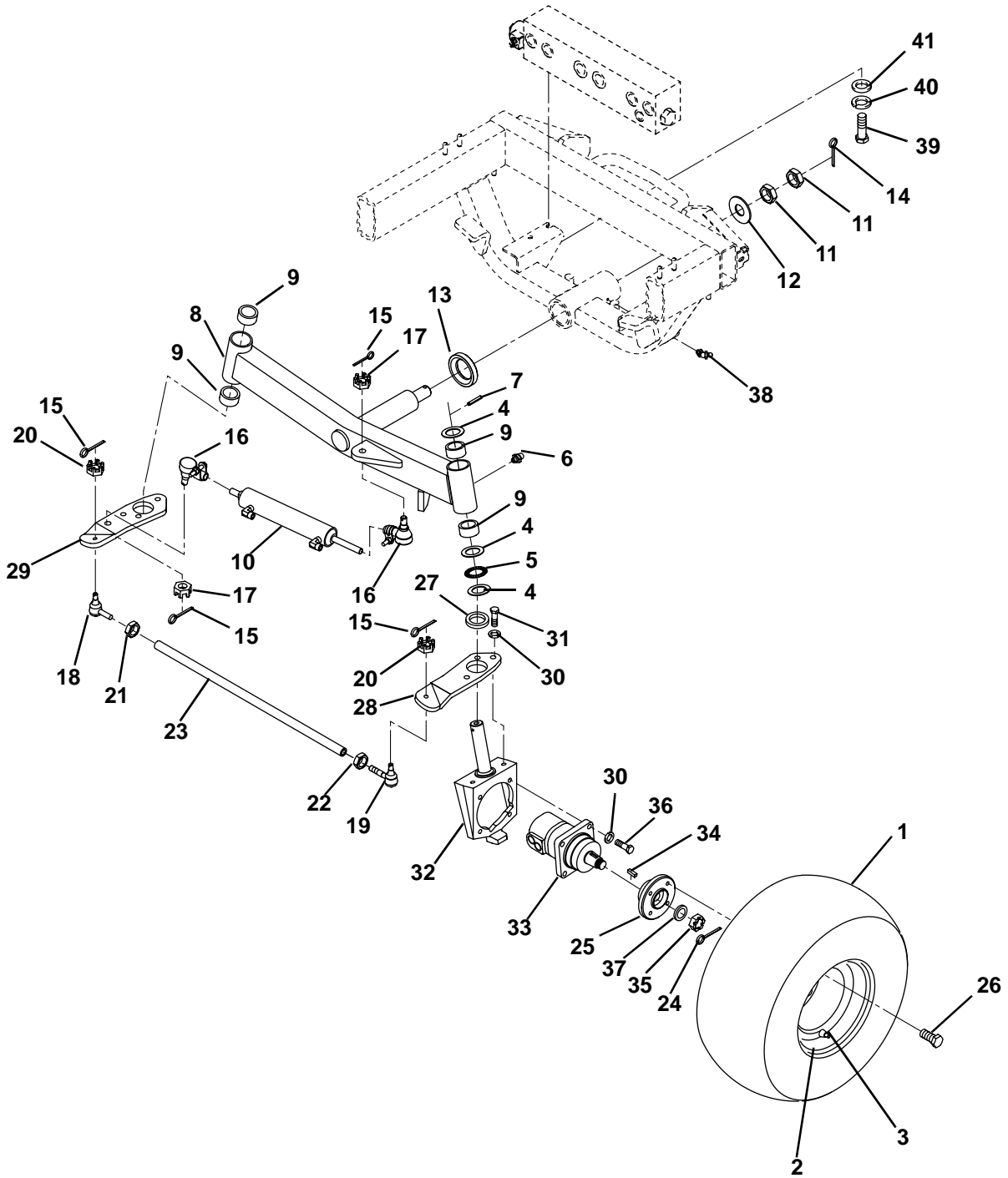
> Change from previous revision

## 8.1 2 Wheel Drive Steering



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	3006981	2	Tire		
2	1003638	2	Rim		
3	360111	2	Inflation Valve		
4	361648	6	Washer, Thrust		
5	361647	2	Bearing, Thrust		
6	471214	2	Fitting, Grease		
7	461393	2	Pin, Spring 1/4 x 2"		
8	117139	1	Steering Axle		
9	363562	4	• Bushing		
10	340491	1	Cylinder, Steering		
	557621	1	• Seal Kit (Gold Star)		
	5003638	1	• Seal Kit (HDM)		
11	443840	2	Nut, 1-12 Hex Jam		
12	452022	1	Flat Washer, 1		
13	366789	1	Spacer, Axle		
14	460064	1	Cotter Pin, 1/4 x 1-1/2"		
15	460026	4	Cotter Pin, 1/8 x 3/4"		
16	153234	2	Ball Joint		
	400194	2	• Screw, 5/16-18 x 1-3/4"		
	444718	2	• Locknut, 5/16-18 Hex		
	471214	2	• Grease Fitting		
17	445666	2	• Nut, 1/2-20 Slotted Hex		
18	1002032	1	Ball Joint, Right Hand		
19	1002031	1	Ball Joint, Left Hand		
	471214	2	• Grease Fitting		
20	445647	2	• Nut, 3/8-24 Slotted Hex		
21	443120	1	Nut, 1/2-20 Hex		
22	445664	1	Nut, 1/2-20 Hex Left Hand Thread		
23	3009378	1	Tie Rod		
24	471227	1	45° Grease Fitting		
25	460050	2	Cotter Pin, 3/16 x 1-1/4"		
26	445710	2	Nut, 1-14 Slotted Hex		
27	1004855	1	Spindle, Right		
28	1004856	1	Spindle, Left		
29	5002910	2	Wheel Hub		
30	554329	2	• Seal, Grease		
31	500596	2	• Bearing, Cup and Cone		
32	545692	2	• Dust Cap		
33	354807	8	• Wheel Nut		
>	34	443110	4	Nut, 3/8-16 Hex	
>	35	3010781	3	Weight, Rear	
>	36	400284	4	Screw, 3/8-16 x 5" Hex Hd	
>	37	452008	8	Washer, 3/8 Flat	
>	38	446142	4	Lockwasher, 3/8 Hvy	

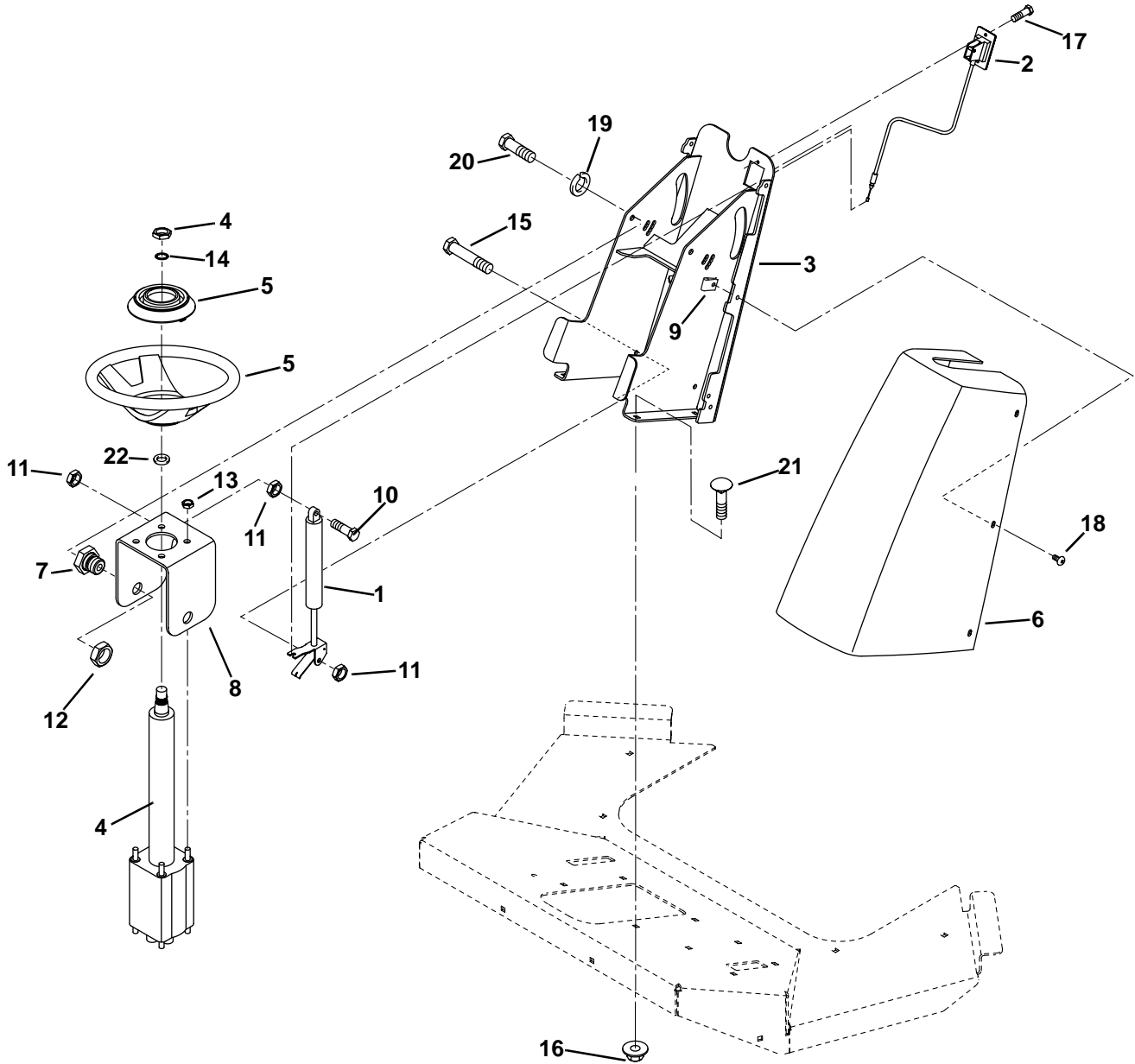
> Change from previous revision



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3006981	2	Tire	See Illustration 36.1
2	1003638	2	Rim	
3	360111	2	Inflation Valve	
4	361648	6	Washer, Thrust	
5	361647	2	Bearing, Thrust	
6	471214	2	Fitting, Grease	
7	461393	2	Pin, Spring 1/4 x 2"	
8	117139	1	Steering Axle	
9	363562	4	• Bushing	
10	340491	1	Cylinder, Steering	
	557621	1	• Seal Kit (Gold Star)	
	5003658	1	• Seal Kit (HDM)	
11	443840	2	Nut, 1-12 Hex Jam	
12	452022	1	Flat Washer, 1	
13	366789	1	Spacer, Axle	
14	460064	1	Cotter Pin, 1/4 x 1-1/2"	
15	460026	4	Cotter Pin, 1/8 x 3/4"	
16	153234	2	Ball Joint	
	400194	2	• Screw, 5/16-18 x 1-3/4"	
	444718	2	• Locknut, 5/16-18 Hex	
17	445666	2	• Nut, 1/2-20 Slotted Hex	
18	1002032	1	Ball Joint, Right Hand	
19	1002031	1	Ball Joint, Left Hand	
	471214	4	• Grease Fitting	
20	445647	2	• Nut, 3/8-24 Slotted Hex	
21	443120	1	Nut, 1/2-20 Hex	
22	445664	1	Nut, 1/2-20 Hex Left Hand Thread	
23	3009378	1	Tie Rod	
24	460032	2	Cotter Pin, 1/8 x 1-1/2"	
25	2000012	2	Hub, Wheel	
26	353914	8	Wheel Bolt	
27	367350	2	Washer, Thrust	
28	3010415	1	Arm, Left Steering	
29	3010414	1	Arm, Right Steering	
30	446154	14	Lockwasher, 1/2 Heavy	
31	400406	6	Screw, 1/2-13 x 1-1/4" Hex Head	
32	2000057	2	Motor Mount	
33	5003218	2	Wheel Motor	
34	554780	2	• Key	
35	554779	2	• Nut	
36	400410	8	Screw, 1/2-13 x 1-3/4" Hex Head	
37	361451	2	Washer, Thrust	
38	471227	1	45° Grease Fitting	
39	400258	4	Screw, 3/8-16 x 3/4" Hex Head	
40	446142	4	Lockwasher, 3/8 Heavy	
41	452008	4	Flat Washer, 3/8	

> Change from previous revision

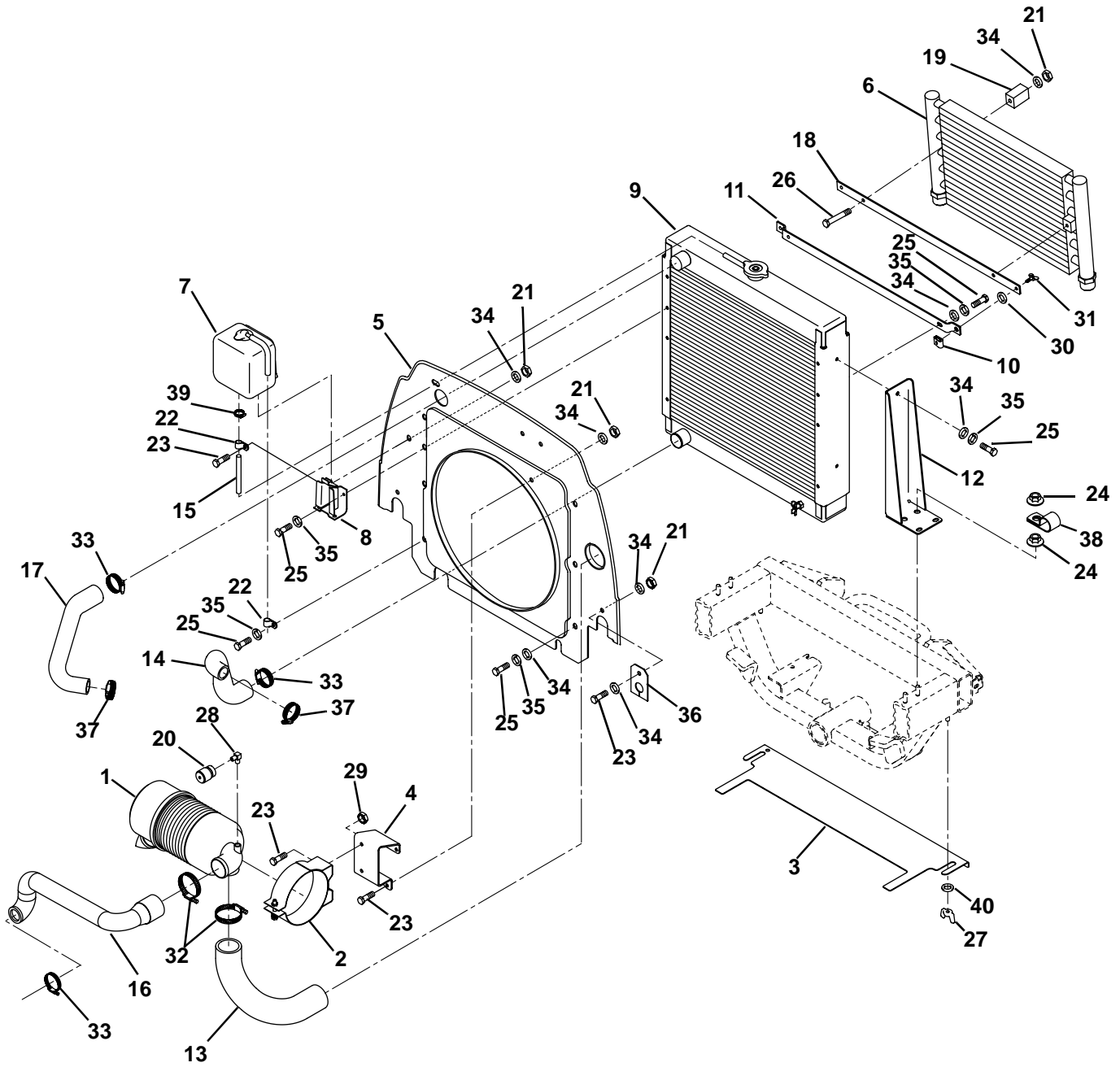
## 10.1 Tilt Steering



<b>Item</b>	<b>Part No.</b>	<b>Qty.</b>	<b>Description</b>	<b>Serial Numbers/Notes</b>
1	5002918	1	Actuator, Gas Spring	
2	5002919	1	• Cable, Actuator	
3	2811346	1	Tower, Steering	
4	1003458	1	Valve, Steering	See Illustration 39.1
	339979	3	• Adapter, Straight	
	339974	2	• Adapter, Straight	
5	2611365	1	Wheel, Steering	Includes Cap
6	3010651	1	Cover, Steering Tower	
7	3005934	2	Bolt, Shoulder	
8	3005981	1	Bracket, Steering Pump	
9	445245	6	Tinnerman Nut	
10	400192	1	Screw, 5/16-18 x 1-1/2" Hex Head	
11	444718	3	Locknut, 5/16-18 Center	
12	444849	2	Locknut, 3/4-10 Center Jam	
13	444754	4	Locknut, 5/16-24 Center	
14	447224	1	Lockwasher, 5/8 Internal	
15	400216	1	Screw, 5/16-18 x 2-3/4" Hex Head	
16	445795	6	Nut, 5/16-18 Spiralock Flange	
17	416911	2	Screw, #10-24 x 1/2" Thread Cutting	
18	404016	6	Screw, 1/4-20 x 5/8: Truss Head	
19	446142	2	Lockwasher, 3/8 Heavy	
20	400258	2	Screw, 3/8-16 x 3/4" Hex Head	
21	441614	6	Bolt, 5/16-18 x 1" Carriage	
22	2811547	1	Special Washer	

> Change from previous revision

## 11.1 Radiator and Air Cleaner

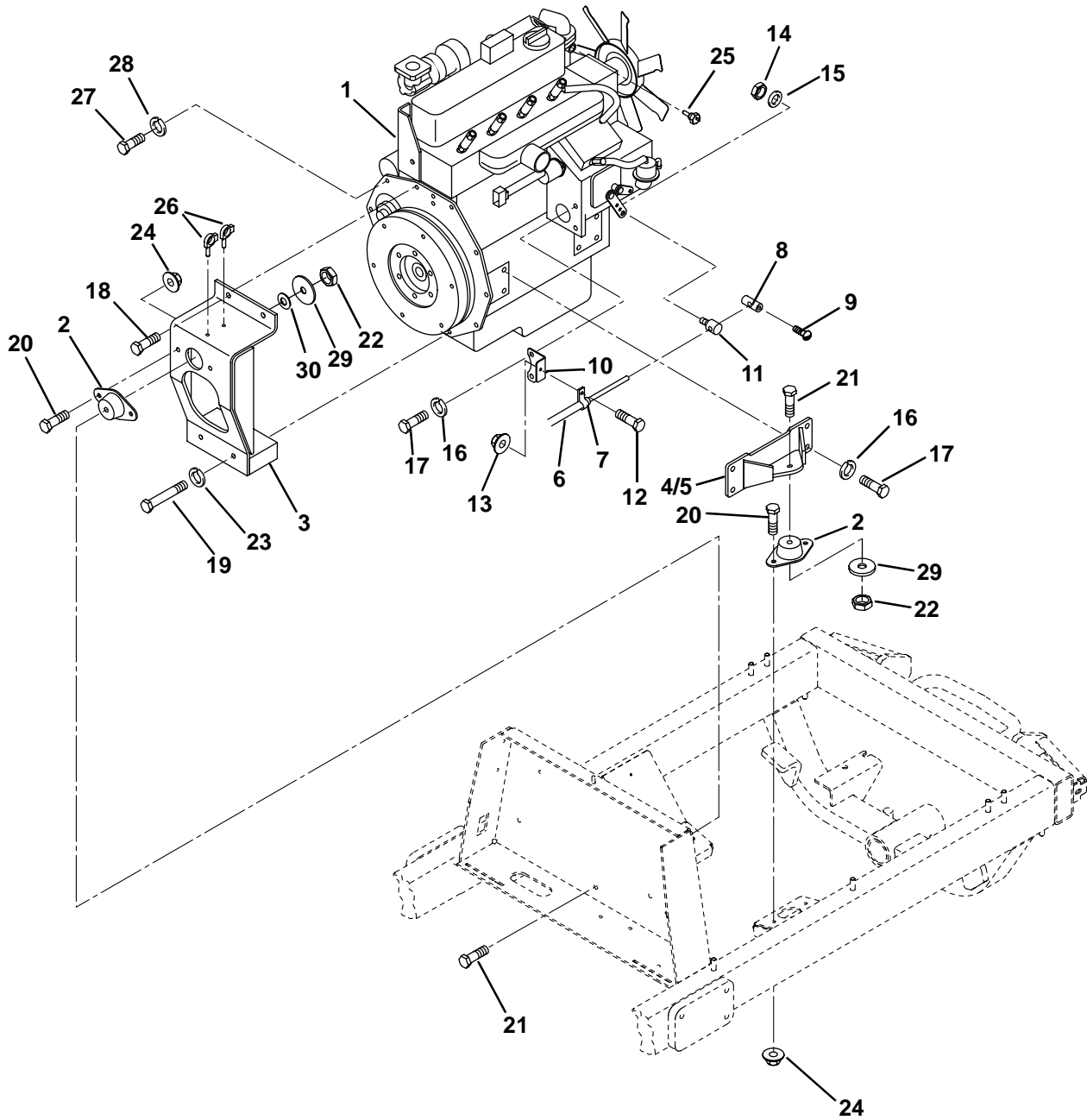




Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3001965	1	Filter, Air	Includes Decal 365956
	5000919	1	• Element, Air Cleaner	
	5000920	1	• Cover	
	5000921	1	• Valve	
2	3001388	1	Bracket, Air Filter	
3	3006094	1	Shroud, Rear Frame	
4	3006583	1	Bracket, Air Cleaner Mounting	
5	3006585	1	Shroud, Radiator Fan	
6	3005607	1	Oil Cooler	
7	557367	1	Recovery Tank	
8	557374	1	Tank, Stay	
9	5003077	1	Radiator	
	550863	1	• Cap, Radiator	
10	3005604	2	Receptacle, #85 1/4 Turn	
11	3005608	1	Mount, Radiator	
12	3006026	2	Bracket, Radiator	
13	3006584	1	Hose, Air Cleaner Intake	
14	3006633	1	Hose, Radiator Outlet	
15	5003447	1	Hose, Radiator Overflow, Bulk	
16	3006634	1	Hose, Air Cleaner to Engine	
17	3006632	1	Hose, Radiator Inlet	
18	3005609	1	Mount, Oil Cooler	
19	358971	2	Block, Rubber Mounting	
20	365398	1	Indicator, Air Cleaner	
21	444718	1	Locknut, 5/16-18 Center	
22	345666	2	Clamp	
23	400188	8	Screw, 5/16-18 x 1" Hex Head	
24	445796	6	Nut, 3/8-16 Spirallock Flange	
25	400182	13	Screw, 5/16-18 x 5/8" Hex Head	
26	400200	2	Screw, 5/16-18 x 2-1/2" Hex Head	
27	445640	2	Nut, 3/8-16 Steel Wing	
28	3002195	1	Elbow, 90°	
29	445795	2	Nut, 5/16-18 Spirallock Flange	
30	3005603	2	Retainer	
31	3005605	2	Stud, #85 1/4 Turn	
32	359615	2	Clamp, Hose	
33	326112	3	Clamp, Hose	
34	452006	21	Washer, 5/16 Flat	
35	446136	13	Lockwasher, 5/16 Heavy	
36	3008132	2	Seal, Tube	
37	367458	2	Clamp, Hose	
38	3008474	2	Clamp, Tube	
39	366526	1	Clamp, Hose	
40	452008	2	Washer, 3/8 Flat	

> Change from previous revision

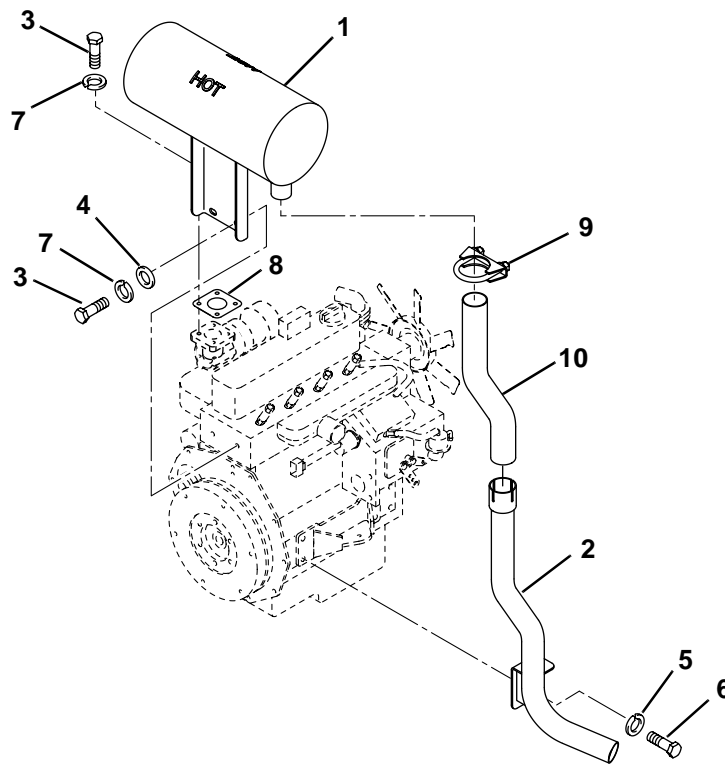
## 12.1 Engine Assembly



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	1002857	1	Engine, Kubota V1505-TE		
	557759	1	• Engine Oil Filter		
2	366879	3	Isolator, Engine		
3	1003239	1	Front Engine Mount		
4	1003260	1	Left Side Engine Mount		
5	1003261	1	Right Side Engine Mount		
6	164102	1	Cable, Throttle		
7	558021	1	• Clip		
8	303962	1	• Wire Stop		
9	403740	1	• • Screw, #8-32 x 1/2" Hex Head		
10	3006797	1	Bracket, Cable Mounting		
11	3007719	1	Pivot, Throttle Cable		
12	400108	1	Screw, 1/4-20 x 3/4" Hex Head		
13	445794	1	Nut, 1/4-20 Spirallock Flange		
14	444718	1	Locknut, 5/16-18 Center		
15	452006	3	Flat Washer, 5/16		
16	363485	10	Lockwasher, M10 Heavy		
17	366884	9	Screw, M10-1.25 x 20mm Hex Head		
18	362263	2	Screw, M10-1.25 x 25mm Hex Head		
19	361695	2	Screw, M80-1.25 x 110mm Hex Hd		
>	20	400188	6	Screw, 5/16-18 x 1" Hex Head	
	21	400272	3	Screw, 3/8-16 x 2-1/4" Hex Head	
	22	444762	3	Locknut, 3/8-16 Center	
	23	446136	2	Lockwasher, 5/16 Heavy	
>	24	445795	6	Nut, 5/16-18 Spirallock Flange	
	25	364501	1	Temperature Sender	
	26	3008383	2	Clip, Wire Harness	
	27	363586	1	Screw, M8-1.25 x 20 mm Hex Head	
	28	446134	1	Lockwasher, 5/16	
	29	367031	3	Washer, Isolator	
	30	3010575	1	Spacer, Isolator	

> Change from previous revision

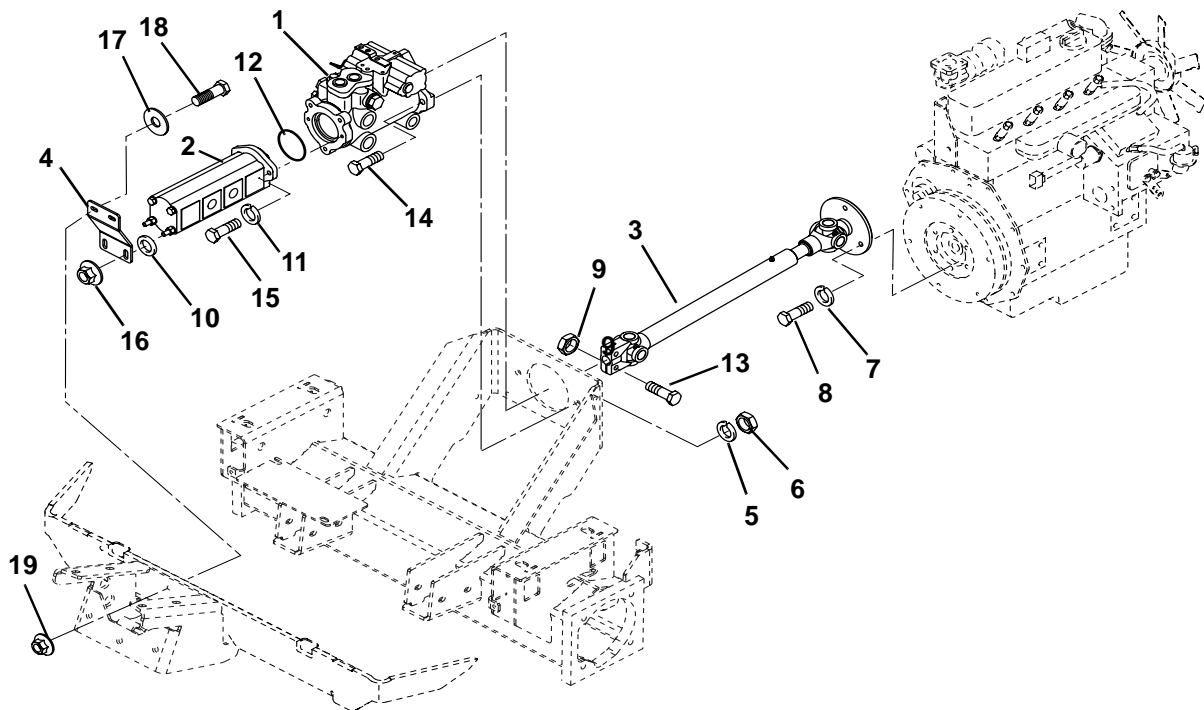
## 13.1 Engine Exhaust



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1002931	1	Muffler	
2	1004598	1	Tailpipe	
3	363586	6	Screw, M8-1.25 x 20mm Hex Head	
4	452006	2	Flat Washer, 5/16	
5	363485	2	Lockwasher, M10 Heavy	
6	362263	2	Bolt, M10-1.25 x 25mm Hex Head	
7	446136	6	Lockwasher, 5/16 Heavy	
8	553020	1	Gasket, Exhaust	
9	348856	1	Clamp, Exhaust	
10	3007889	1	Sleeve Insulating	

> Change from previous revision

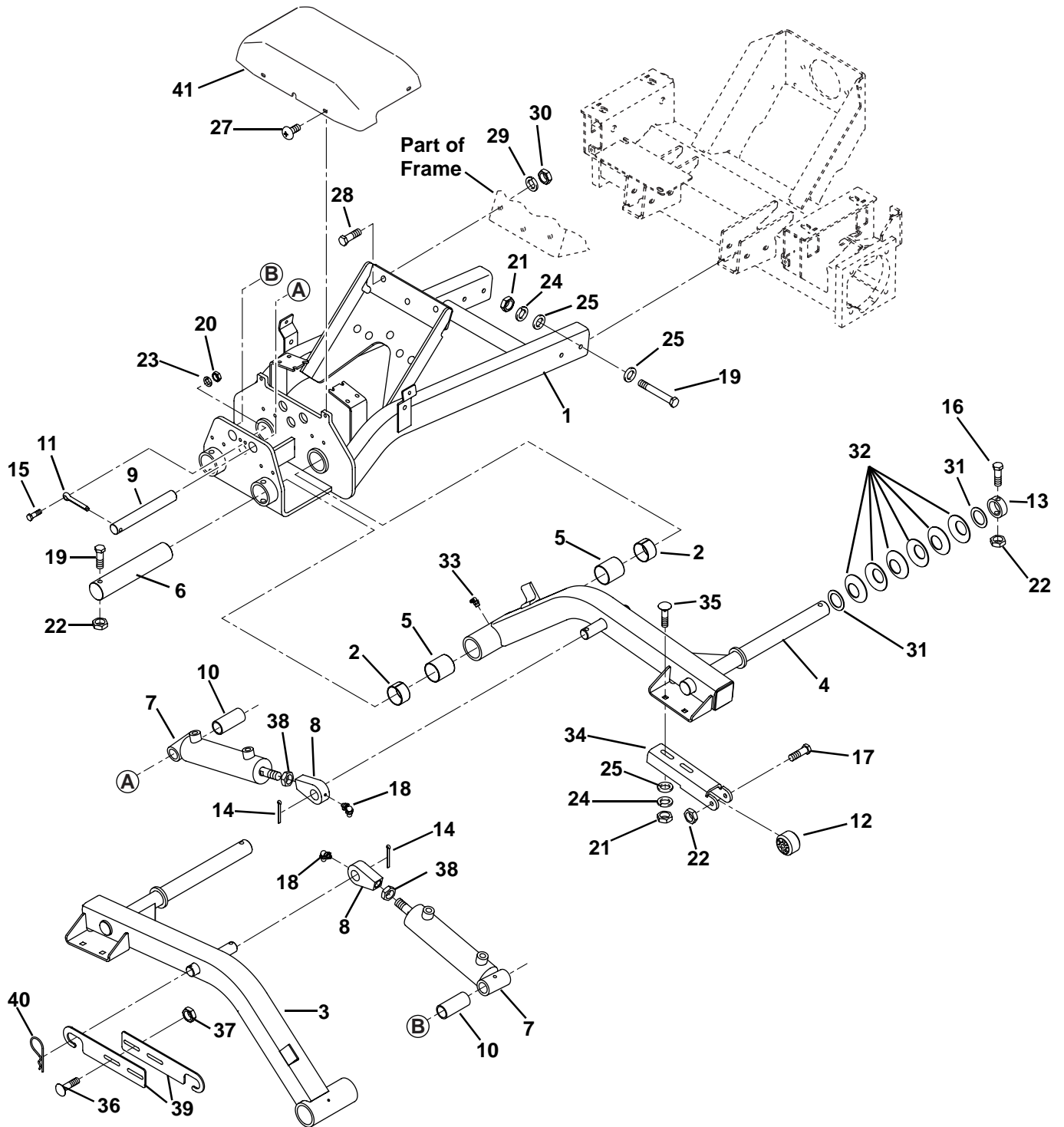
### 14.1 Pump Mounting



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
>	1	2810006	1	Pump, Traction	
		5003034	1	• Seal Kit	
		5003432	1	• Control Kit	
		5003433	1	• Shaft Seal Kit	
		5003434	1	• System Relief Kit	
2	1004002	1	Pump, Gear		
	5003173	1	• Seal Kit		
3	1002854	1	Driveshaft		
	554663	2	• Cross and Bearing Kit		
4	3007169	1	Mount, Gear Pump		
5	446154	2	Lockwasher, 1/2 Heavy		
6	443118	2	Nut, 1/2-13 Hex		
7	363485	3	Lockwasher, M10 Heavy		
8	362263	3	Screw, M10-1.25 x 25mm Hex Head		
9	444762	5	Locknut, 5/16-18 Center		
10	452008	2	Flat Washer, 3/8		
11	446142	2	Lockwasher, 3/8 Heavy		
12	362743	1	O-Ring Seal		
13	400266	2	Screw, 3/8-16 x 1-1/2" Hex Head		
14	400410	2	Screw, 1/2-13 x 1-3/4" Hex Head		
15	400264	2	Screw, 3/8-16 x 1-1/4" hex Head		
16	2809907	2	Nut, M10 Spirallock Flange		
17	452006	2	Washer, 5/16 Flat		
18	400188	2	Screw, 5/16-18 x 1" Hex Hd		
19	445795	2	Nut, 5/16-18 Spirallock Flange		

> Change from previous revision

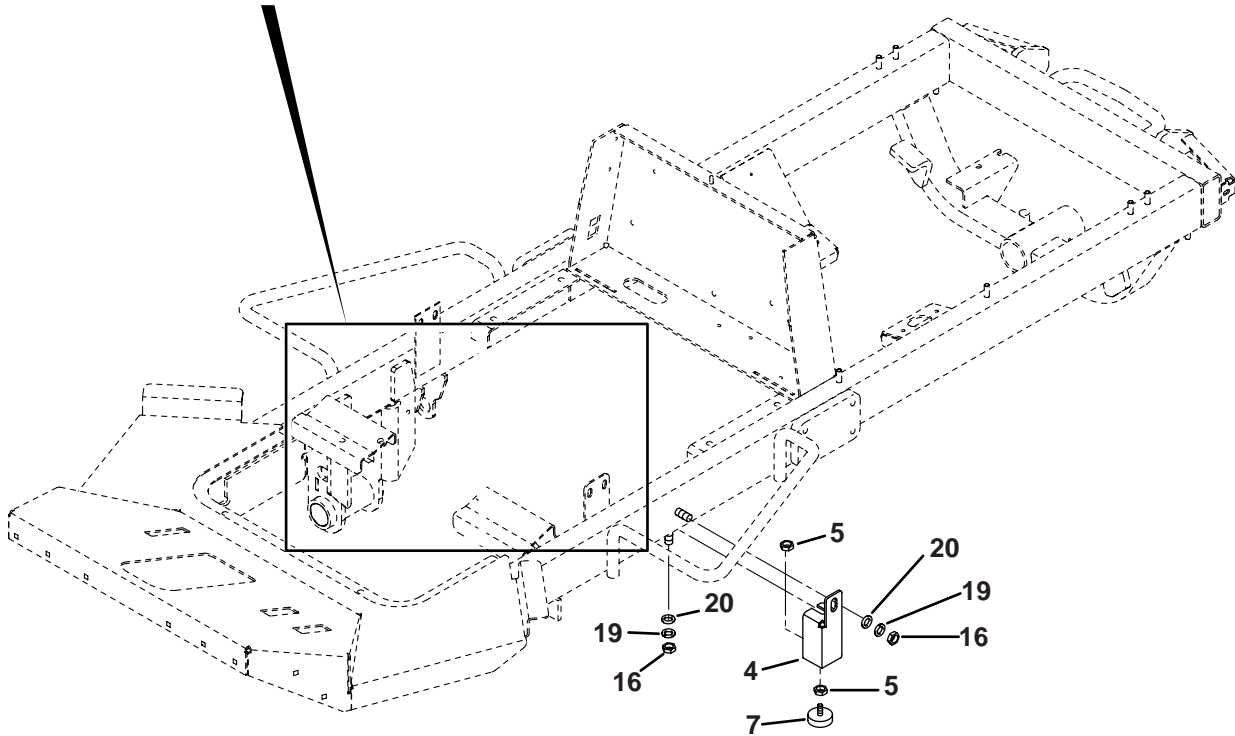
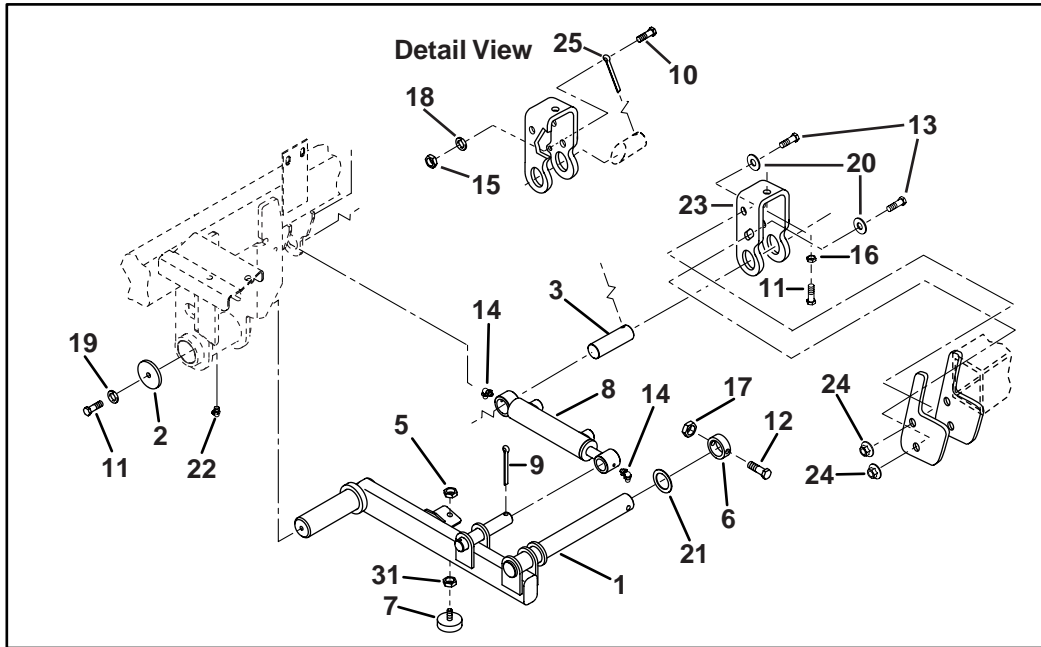
## 15.1 Wing Lift Arms



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
	1	1003006	1	Wing Lift Frame	
	2	2809794	4	• Bushing	
	3	1003531	1	Right Wing Lift Arm	
	4	1003532	1	Left Wing Lift Arm	
	5	342049	4	• Bushing	2 Per Lift Arm
	6	3006882	2	Pin, Lift Arm Pivot	
	7	3009078	2	Cylinder, Wing Lift	
		5003664	1	• Seal Kit	
	8	3008614	2	Cylinder End	
	9	3007722	2	Pin, Cylinder	
	10	3007765	2	Spacer, 3"	
>	11	357998	2	Retaining Pin	
>	12	2810674	2	Wheel, Guide	
	13	364248	2	Collar, Lift Arm	
>	14	460068	2	Cotter Pin, 1/4 x 2"	
>	15	400110	2	Screw, 1/4-20 x 7/8" Hex Head	
	16	400272	2	Screw, 3/8-16 x 2-1/4" Hex Head	
	17	400274	2	Screw, 3/8-16 x 2-1/2" Hex Head	
	18	471214	2	Fitting, Straight Grease	
	19	401028	6	Screw, 3/8-16 x 3-1/4" Hex Head	
>	20	443102	2	Nut, 1/4-20 Hex	
	21	443110	8	Nut, 3/8-16 Hex	
	22	444762	6	Locknut, 3/8-16 Center	
>	23	446130	2	Lockwasher, 1/4 Heavy	
	24	446142	8	Lockwasher, 3/8 Heavy	
	25	452008	12	Flat Washer, 3/8	
	26	452004	4	Flat Washer, 1/4	
>	27	404016	4	Screw, 1/4-20 x 5/8" Truss Head	
>	28	400406	3	Screw, 1/2-13 x 1-1/4" Hex Head	
>	29	446154	3	Lockwasher, 1/2 Heavy	
>	30	443118	3	Nut, 1/2-13 Hex	
	31	362824	4	Spacer, Lift Arm	
	32	366517	12	Belleville Washer	
>	33	471210	2	Fitting, 45° Grease	
	34	340525	2	Bracket, Guide Wheel	
	35	441676	4	Carriage Bolt, 3/8-16 x 1-1/4"	
	36	440078	2	Carriage Bolt, 5/16-18 x 3/4"	
	37	445795	2	Nut, 5/16-18 Spiralock Flange	
>	38	443832	2	Nut, 3/4-16 Hex Jam	
	39	3010772	2	Bar, Transport	
	40	460316	2	Hair Pin	
	41	3010290	1	Cover, Wing Deck Valve	

> Change from previous revision

## 16.1 Center Lift Arm

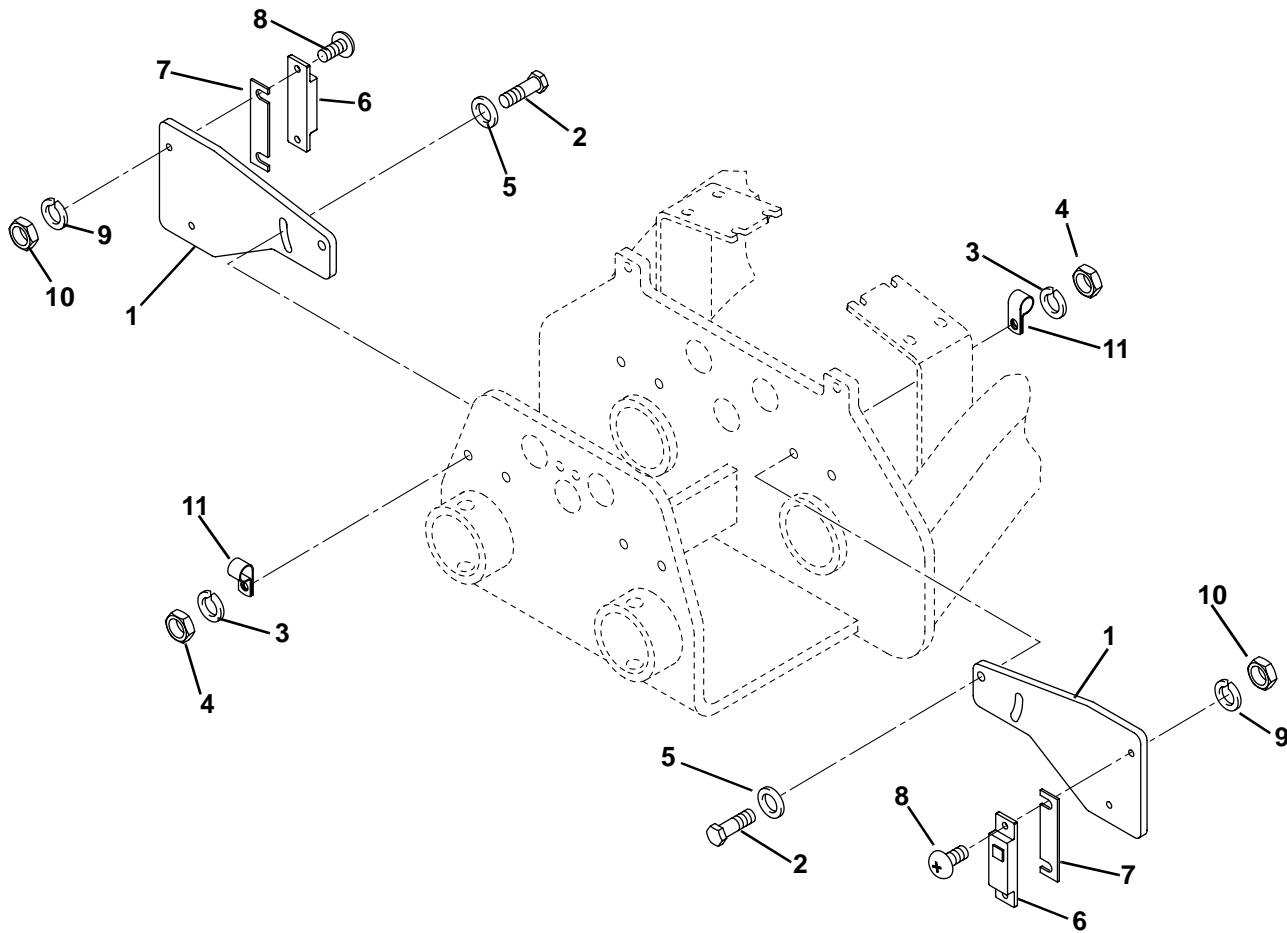




Item	Part No.	Qty.	Description	Serial Numbers/Notes	
	1	1004499	1	Lift Arm, Center	
	2	3007963	1	Washer, Lift Arm	
	3	3009798	1	Pin, Center Lift Cylinder Mounting	
	4	3009698	1	Bracket, Stop	
>	5	443812	4	Nut, 3/8-24 Hex Jam	
	6	364248	1	Collar, Lift Arm	
>	7	354989	2	Stop, Rubber	
	8	132871	1	Center Lift Cylinder	
		558016	1	• Seal Kit	
	9	460068	2	Cotter Pin, 1/4 x 2"	
>	10	400110	1	Screw, 1/4-20 x 7/8" Hex Head	
	11	400264	2	Screw, 3/8-16 x 1-1/4" Hex Head	
	12	400272	1	Screw, 3/8-16 x 2-1/4" Hex Head	
>	13	400262	4	Screw, 3/8-16 x 1" Hex Head	
>	14	471214	2	Fitting, Straight Grease	
	15	443102	4	Nut, 1/4-20 Hex	
>	16	443110	3	Nut, 3/8-16 Hex	
>	17	444762	1	Locknut, 3/8-16 Center	
>	18	446130	1	Lockwasher, 1/4 Heavy	
>	19	446142	3	Lockwasher, 3/8 Heavy	
>	20	452008	4	Flat Washer, 3/8 Heavy	
	21	362824	1	Spacer, Lift Arm	
>	22	471219	1	Fitting, Straight Grease	
>	23	2810010	1	Center Pivot	
>	24	445796	4	Nut, 3/8-16 Spiralock Flange	
>	25	357998	1	Retainer	
>					
>					
>					
>					
>					
>					

> Change from previous revision

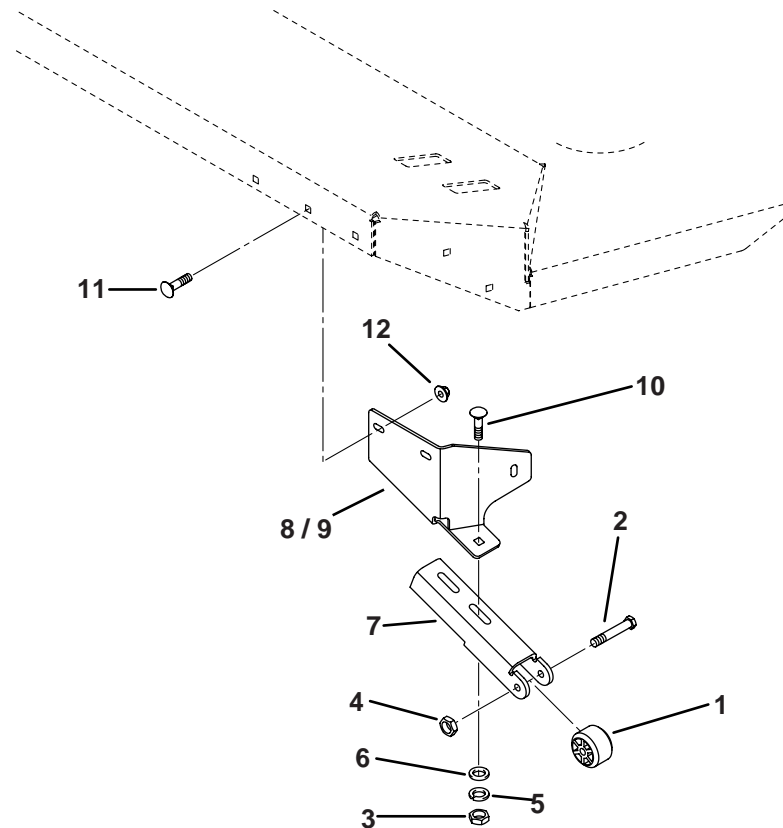
## 17.1 Wing Proximity Switches



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
>	1	3008605	2	Bracket, Proximity Switch	
>	2	400114	4	Screw, 1/4-20 x 1-1/4" Hex Head	
>	3	443102	4	Nut, 1/4-20 Hex	
>	4	446130	4	Lockwasher, 1/4 Heavy	
>	5	452004	4	Flat Washer, 1/4	
>	6	3007392	2	Proximity Switch	
>	7	3009193	AR	Shim, Proximity Switch	
>	8	403862	4	Screw, #8-32 x 3/4" Truss Head	
>	9	446110	4	Lockwasher, #8	
>	10	444306	4	Nut, #8-32 Hex	
>	11	354081	2	Clamp, Hose	

> Change from previous revision

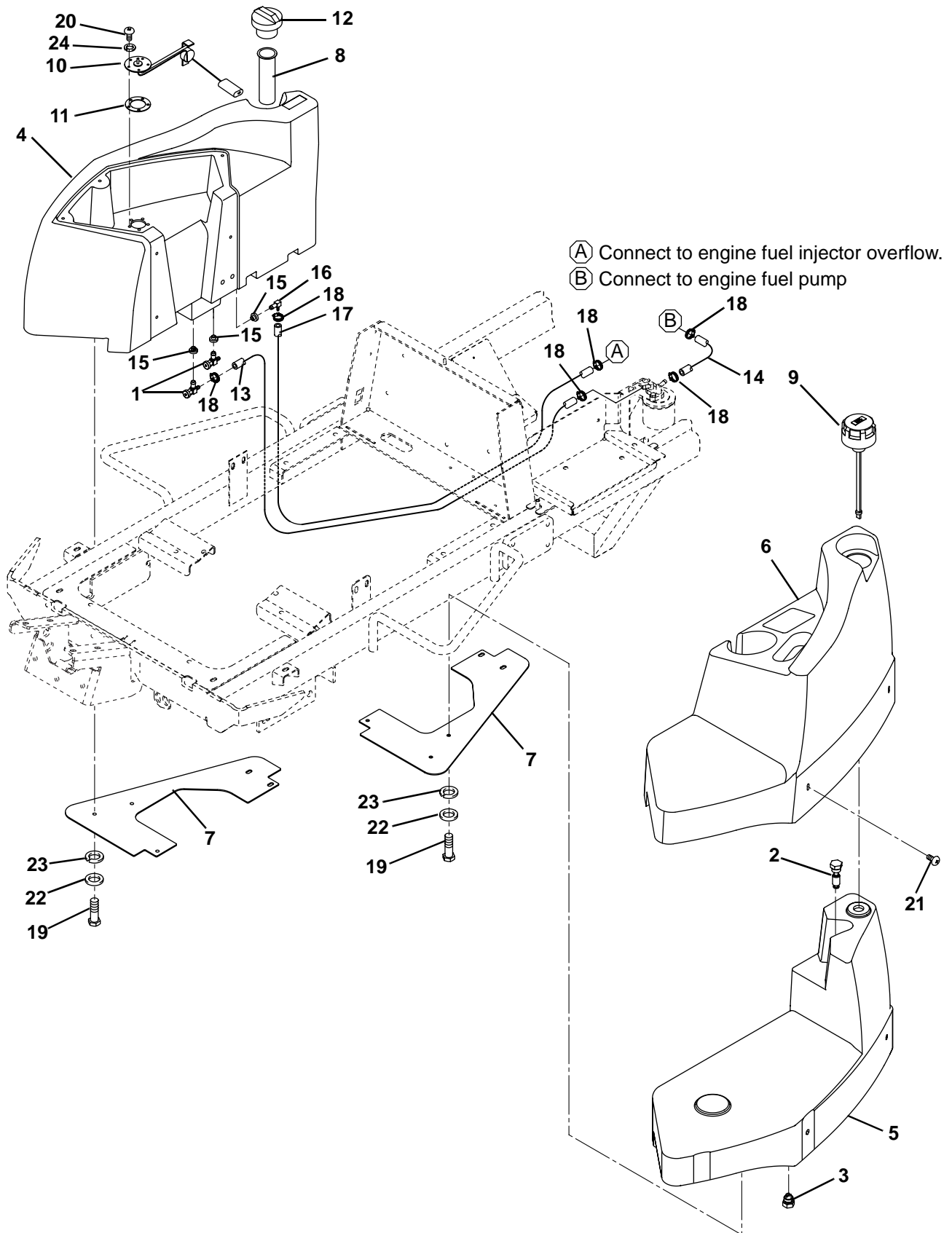
18.1 Wing Deck Guide



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
>	1	2810674	2	Wheel, Guide	
>	2	400274	2	Screw, 3/8-16 x 2-1/2" Hex Head	
>	3	443110	4	Nut, 3/8-16 Hex	
>	4	444762	2	Locknut, 3/8-16 Center	
>	5	446142	4	Lockwasher, 3/8 Heavy	
>	6	452008	4	Flat Washer, 3/8 Heavy	
>	7	340525	2	Bracket, Guide Wheel	
>	8	3010653	1	Bracket, Left Side Guide Wheel	
>	9	3010654	1	Bracket, Right Side Guide Wheel	
>	10	441676	4	Carriage Bolt, 3/8-16 x 1-1/4"	
>	11	440078	6	Carriage Bolt, 5/16-18 x 3/4"	
>	12	445795	6	Nut, 5/16-18 Spirallock Flange	

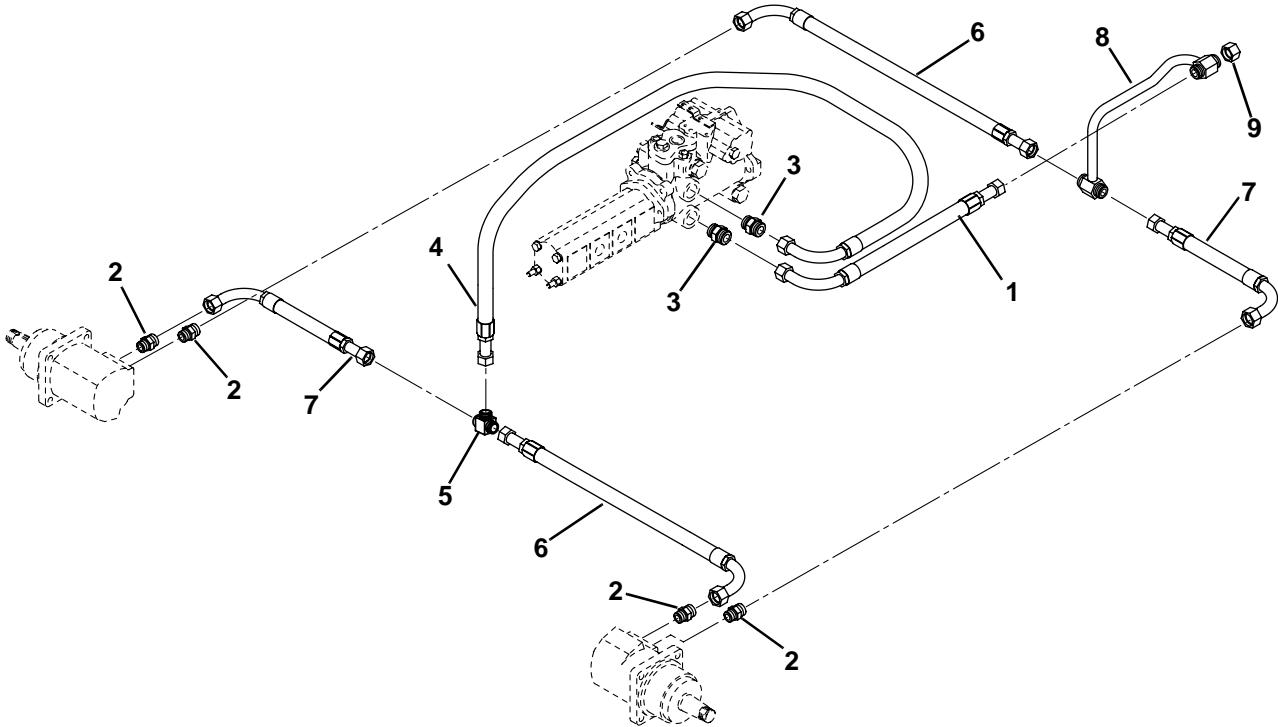
> Change from previous revision

## 19.1 Fuel and Hydraulic Tanks



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	132647	2	Valve, Shut Off	
2	3001279	1	Switch, Float	
3	3002397	1	Plug, Magnetic	
	339899	1	• O-Ring	
4	3009204	1	Tank, Fuel	
5	3005871	1	Tank, Hydraulic	
6	3005872	1	Shell, Tank Cover	
7	3006243	2	Plate, Tank Mounting	
8	3009347	1	Strainer, Fuel Filler	
9	3006332	1	Filter, Breather	
10	3006337	1	Sender, Fuel	
11	5003374	1	• Gasket	
12	3006067	1	Cap, Fuel Tank	
13	554748	1	Line, 5/16" I.D. Fuel	Cut to 65 Inches
14	554748	1	Line, 5/16" I.D. Fuel	Cut to 18 Inches
15	361117	3	Bushing, Fuel Tank	
16	361748	1	Valve, Overflow	
17	554752	1	Line, 3/16 I.D. Fuel	Cut to 65 Inches
18	366526	6	Clamp, Hose	
19	400106	14	Screw, 1/4-20 x 5/8" Hex Head	
20	403910	5	Screw, #10-24 x 1/2" Truss Head	
21	404016	5	Screw, 1/4-20 x 5/8" Truss Head	
22	446130	14	Lockwasher, 1/4 Heavy	
23	452004	14	Washer, 1/4 Flat	
24	446118	5	Lockwasher, #10 Heavy	

> Change from previous revision

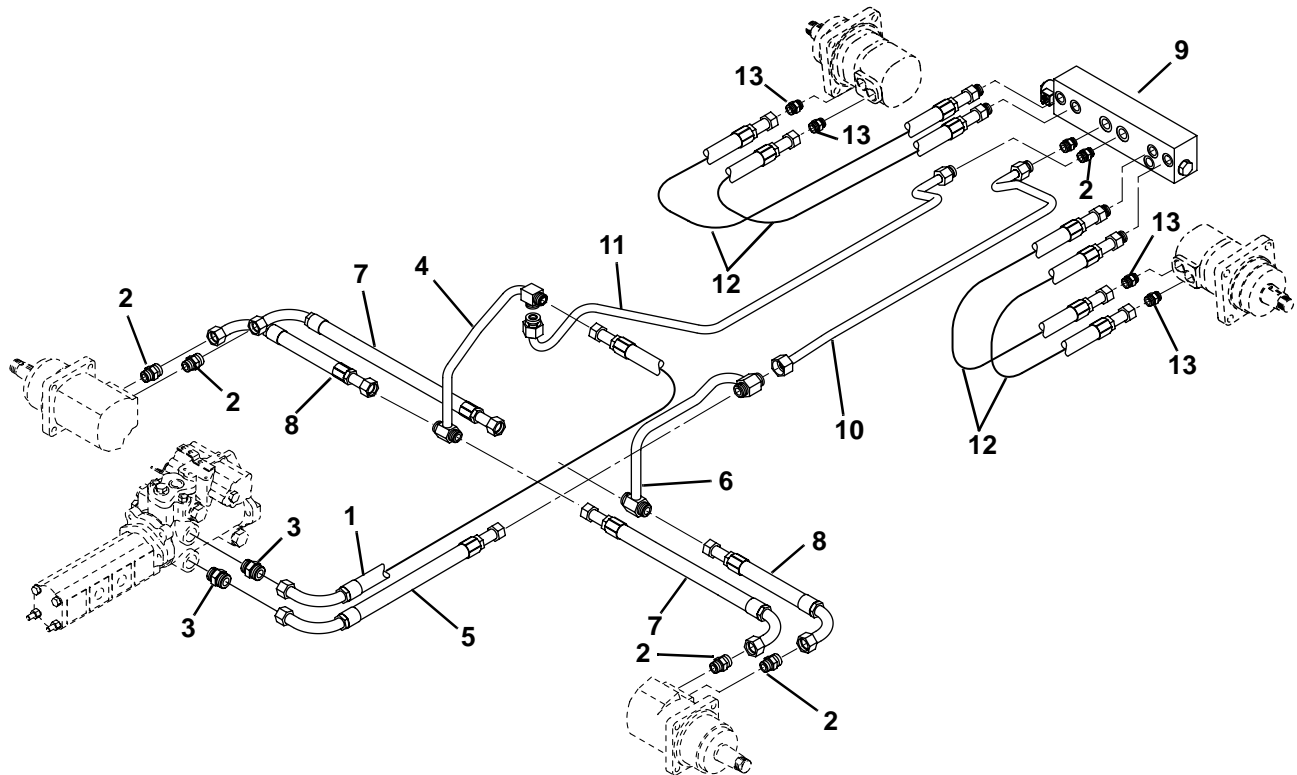


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003439	1	Hose, Pump To Upper Traction Tube	
2	339994	4	Adapter, Straight	
3	339999	2	Adapter, Straight	
4	1004445	1	Hose, Pump To Lower Traction Tee	
5	340339	1	Tee, Union	
6	1003810	2	Hose, Motor Port To Tee	
7	1003812	2	Tube, Motor Port To Tee	
8	1003814	1	Tube, Upper Traction Tee	
9	339925	1	Cap, Tube	

> Change from previous revision

## 21.1 4WD Traction Hydraulics

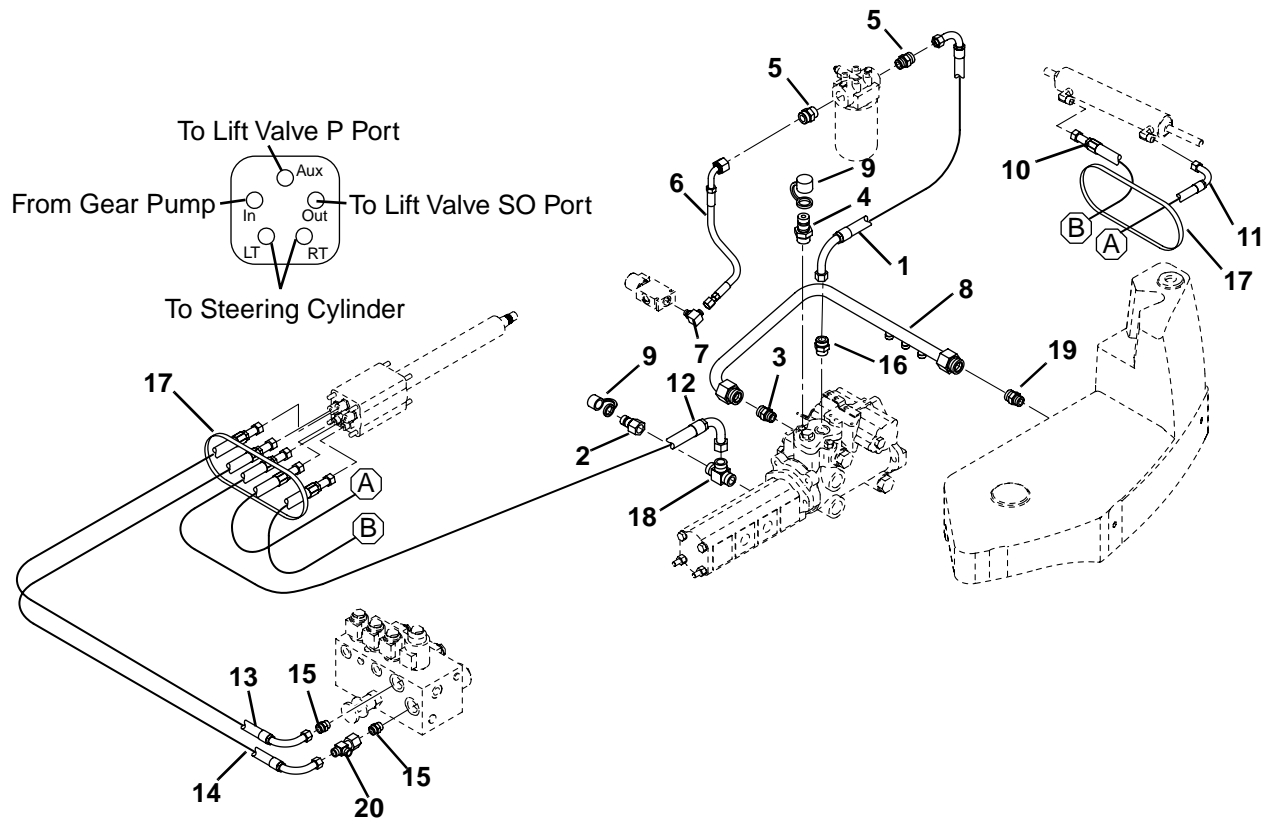
Serial No. 67838-1601 and Up  
Serial No. 67840-1601 and Up



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003440	1	Hose, Pump To Reverse 4WD Tee	See Illustration 38.1
2	339994	2	Adapter, Straight	
3	339999	2	Adapter, Straight	
4	1003813	1	Tube, Reverse 4WD Tee	
5	1003439	1	Hose, Pump To Forward 4WD Tee	
6	1003814	1	Tube, Forward 4WD Tee	
7	1003810	2	Hose, Tee To Wheel Motor	
8	1003812	2	Tube, Tee To Wheel Motor	
9	1002622	1	Valve, 4WD	
10	1003094	1	Tube, Forward 4WD Tee To Valve	
11	1003095	1	Tube, Reverse 4WD Tee To Valve	
12	1003455	4	Hose, 4WD Valve To Motors	
13	339989	4	Adapter, Straight	

> Change from previous revision

## 22.1 Charge Pressure and Steering Hydraulics

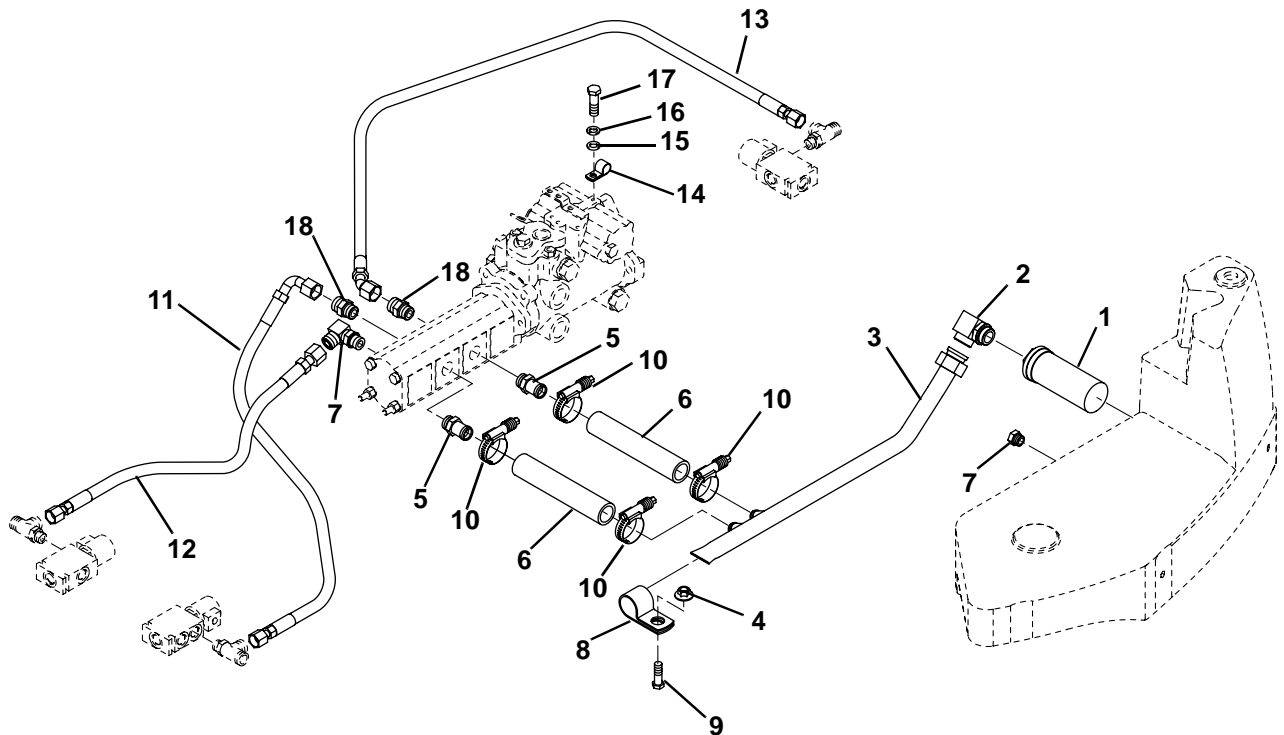


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003461	1	Hose, Charge Pressure Inlet	
2	364945	1	Fitting, Diagnostic	
3	339998	1	Adapter, Straight	
4	365466	2	Fitting, Diagnostic	
5	339996	2	Adapter, Straight	
>	6	2810255	Hose, Center Deck Valve to Filter	
>	7	340069	Adapter, 90°	
8	1004103	1	Tube, Case Drain	
9	363030	3	Cover, Dust	
10	1003342	1	Hose, LT Port To Steering Cylinder	
11	1003341	1	Hose, RT Port To Steering Cylinder	
12	1004112	1	Hose, Gear Pump To In Port	
13	1004111	1	Hose, Aux Port To Lift Valve P Port	
14	1004110	1	Hose, Out Port To Lift Valve T Port	
>	15	339984	Adapter, Straight	
16	339989	1	Adapter, Straight	
17	473142	2	Tie Wrap	
18	340274	1	Adapter, Tee	
19	339999	1	Adapter, Straight	
20	340120	1	Adapter, Tee	

> Change from previous revision



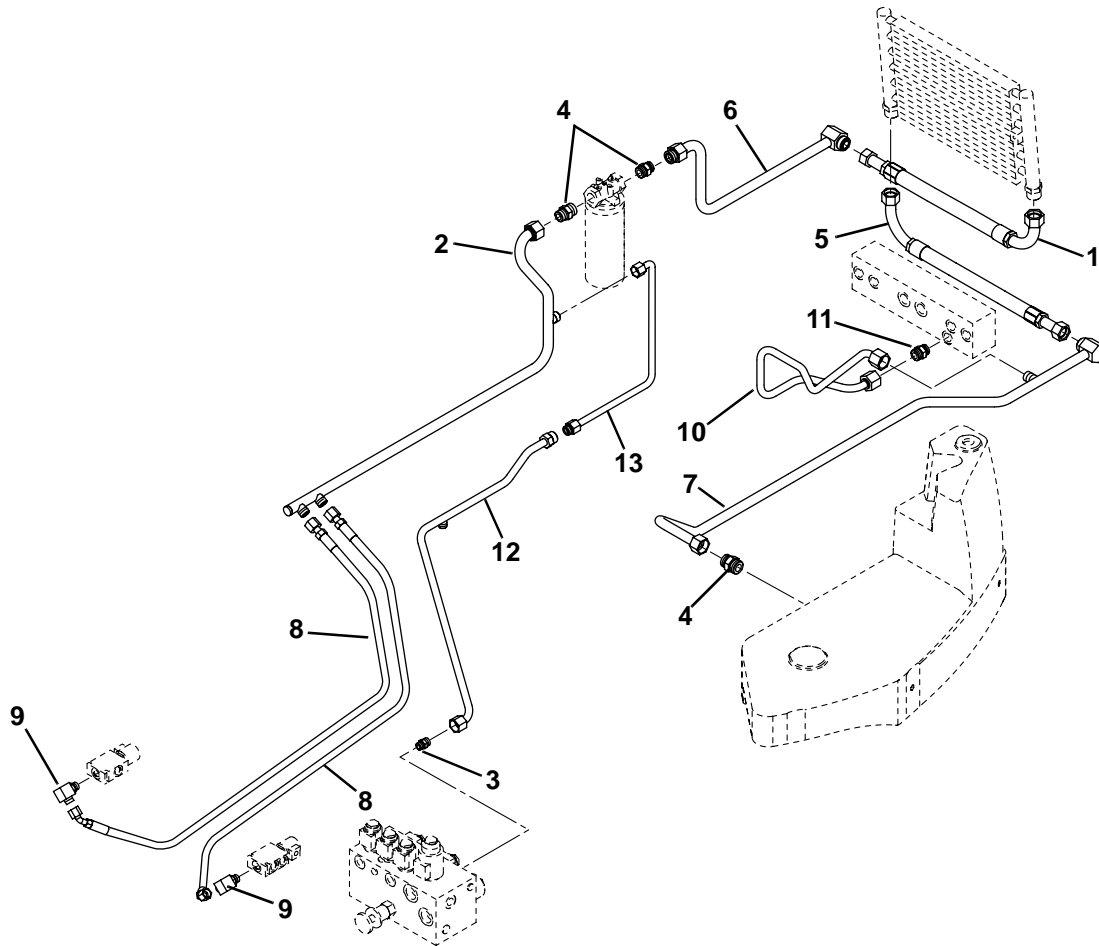
23.1 Gear Pump Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	365959	1	Strainer, Tank Mounted	
2	340090	1	Adapter, 90°	
3	1003992	1	Tube, Gear Pump Inlet	
4	445796	1	Nut, 3/8-16 Spirallock Flange	
5	3001296	2	Fitting, Beaded Insert	
6	3008745	2	Hose, Gear Pump Inlet	
7	340070	1	Adapter, 90°	
8	364190	1	Clamp, 1-1/2 I.D.	
9	400264	1	Screw, 3/8-16 x 1-1/4" Hex Head	
10	3008673	4	Clamp, Constant Torque	
11	1004116	1	Hose, Pump to Left Deck Valve	
12	1004119	1	Hose, Pump to Right Deck Valve	
13	1004128	1	Hose, Pump to Center Deck Valve	
14	345666	1	Clamp, 1/2" I.D.	
15	453023	1	Flat Washer, 1/4	
16	446128	1	Lockwasher, 1/4	
17	400104	1	Screw, 1/4-20 x 1/2" Hex Head	
18	339989	2	Adapter, Straight	

> Change from previous revision

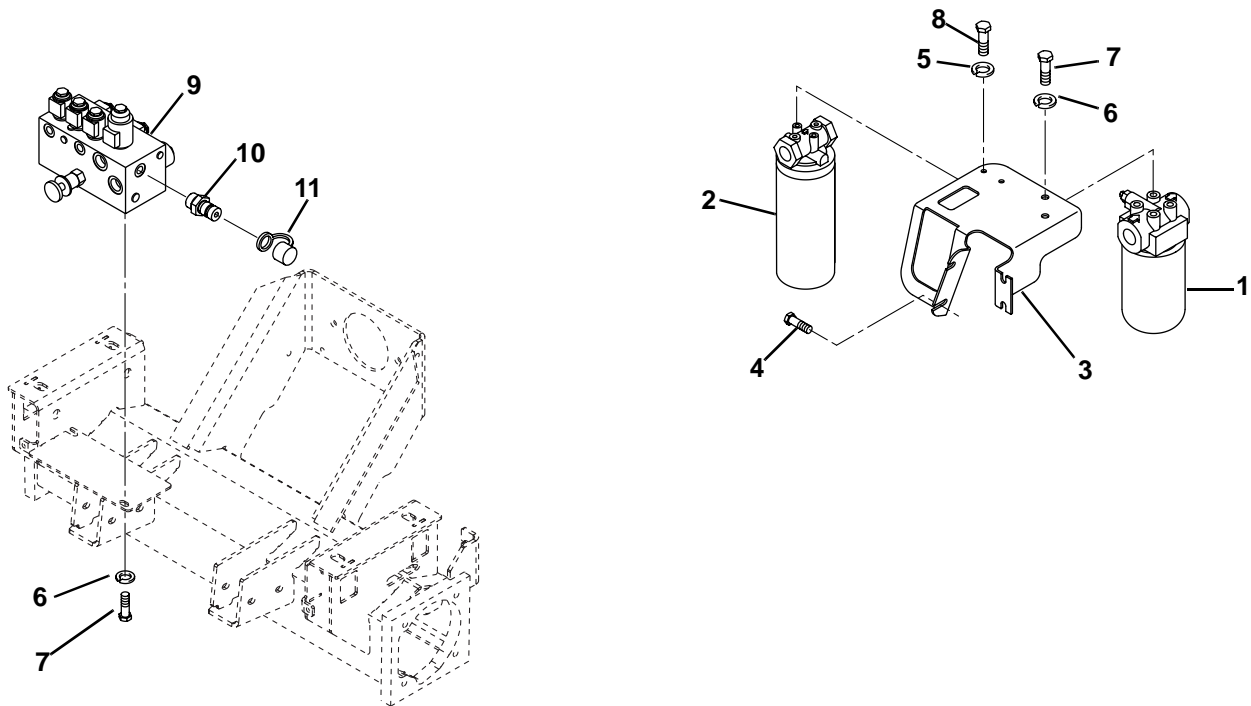
## 24.1 Return Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
	1	1	Hose, Oil Cooler	
	2	1	Tube, Return Filter	
>	3	1	Adapter, Straight	
	4	3	Adapter, Straight	
	5	1	Hose, Oil Cooler	
	6	1	Tube, Oil Cooler	
	7	1	Tube, Return	Requires 339921 for 2WD Units
	8	2	Hose, Wing Deck Valve Return	
>	9	2	Adapter, 90°	
	10	1	Tube, 4WD Valve Drain	4WD Only
	11	1	Adapter, Straight	4WD Only
>	12	1	Tube, Lift Valve To Junction	
>	13	1	Tube, Junction to Return Filter Tube	

> Change from previous revision

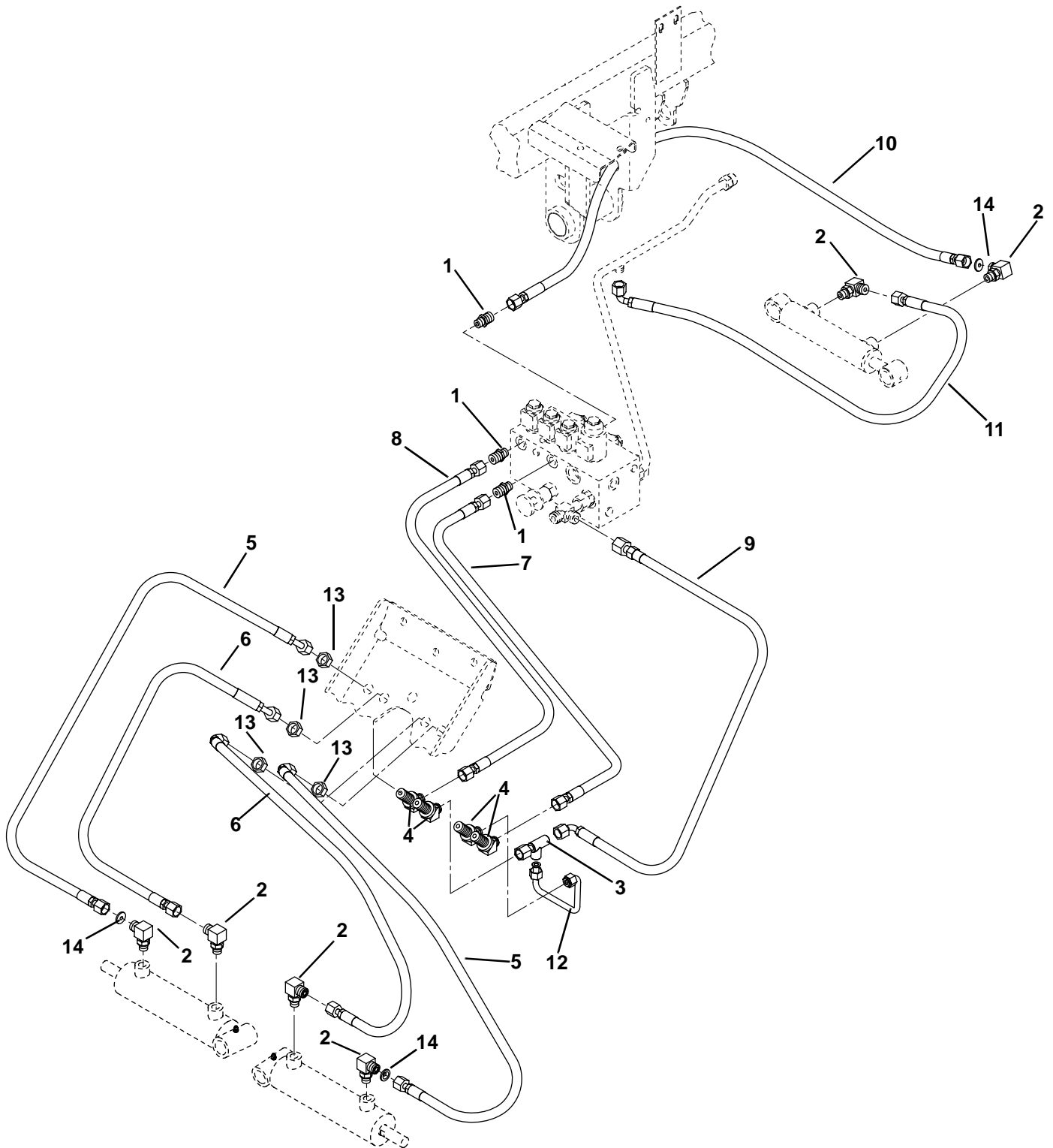
## 25.1 Lift Valve and Filter Mounting



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	123015	1	Charge Filter	See 34.1
	556417	1	• Head	
	556418	1	• Oil Filter Cartridge	
	556419	1	• Charge Pressure Switch	
2	132704	1	Return Filter	
	557772	1	• Oil Filter Cartridge	
3	3007290	1	Bracket, Filter	
4	409811	4	Screw, 5/16-18 x 5/8" Thread Cutting	
5	446130	2	Lockwasher, 1/4 Heavy	
6	446142	4	Lockwasher, 3/8 Heavy	
7	400258	4	Screw, 3/8-16 x 3/4" Hex Head	
8	400108	2	Screw, 1/4-20 x 3/4" Hex Head	
9	1003612	1	Lift Valve	
10	365466	1	Fitting, Diagnostic	
11	363030	1	Cover, Dust	

> Change from previous revision

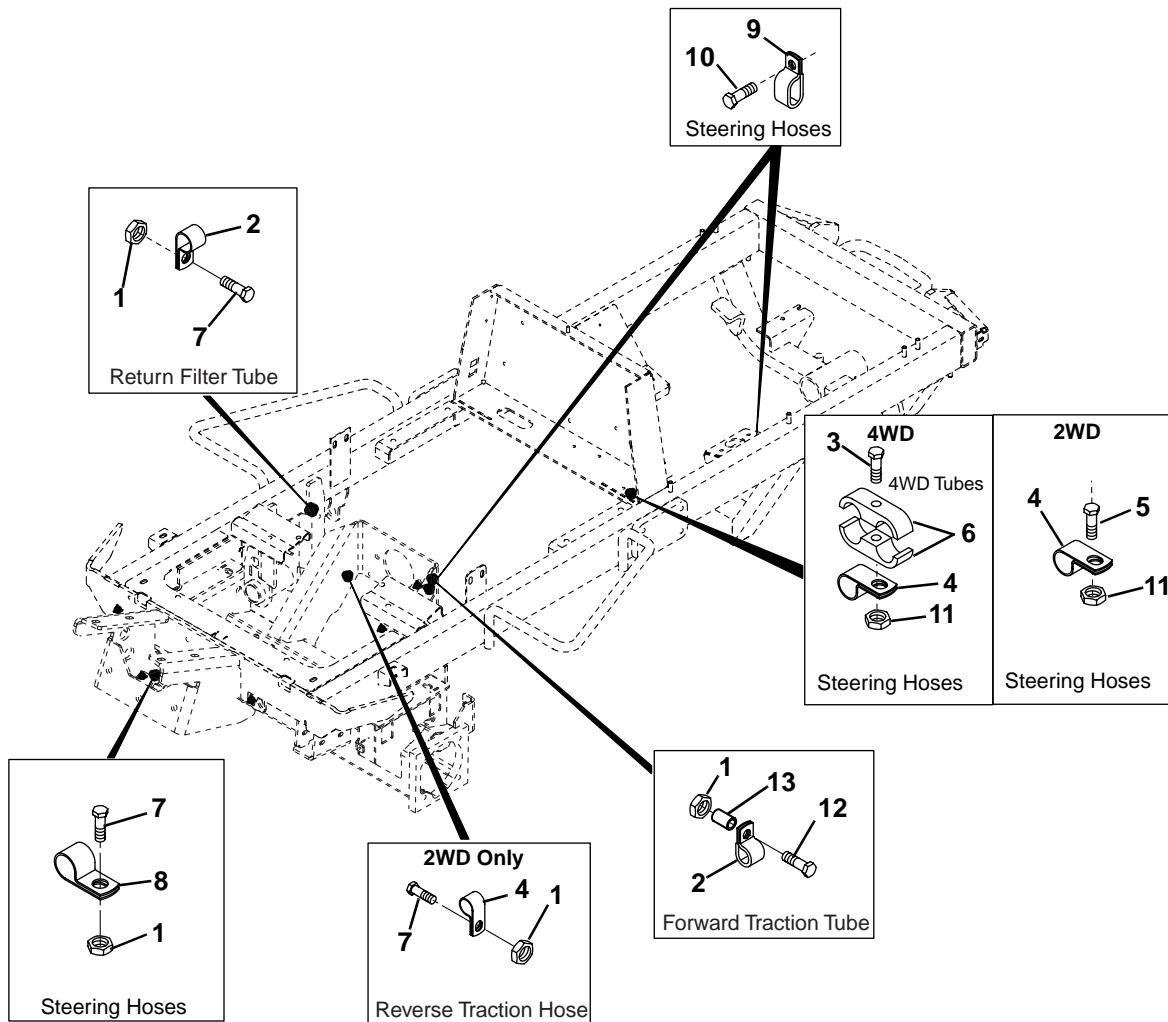
## 26.1 Lift Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	339979	3	Adapter, Straight	
2	340061	6	Adapter, 90°	
3	340119	1	Adapter, Tee	
4	340191	4	Adapter, 45° Bulkhead	
5	1004104	2	Hose, Bulkhead to Wing Cylinder	
6	1004105	2	Hose, Bulkhead to Wing Cylinder	
7	1004108	1	Hose, Lift Valve to Bulkhead	Left Wing
8	1004109	1	Hose, Lift Valve to Bulkhead	Right Wing
9	1004124	1	Hose, Return Tube to Lift Valve	
10	1004133	1	Hose, Lift Valve to Center Cylinder	
11	1004135	1	Hose, Center Cylinder to Return	
12	1004246	1	Tube, Bulkhead to Bulkhead	
13	339961	4	Nut, Bulkhead	
14	3000953	3	Disc, Orifice	

> Change from previous revision

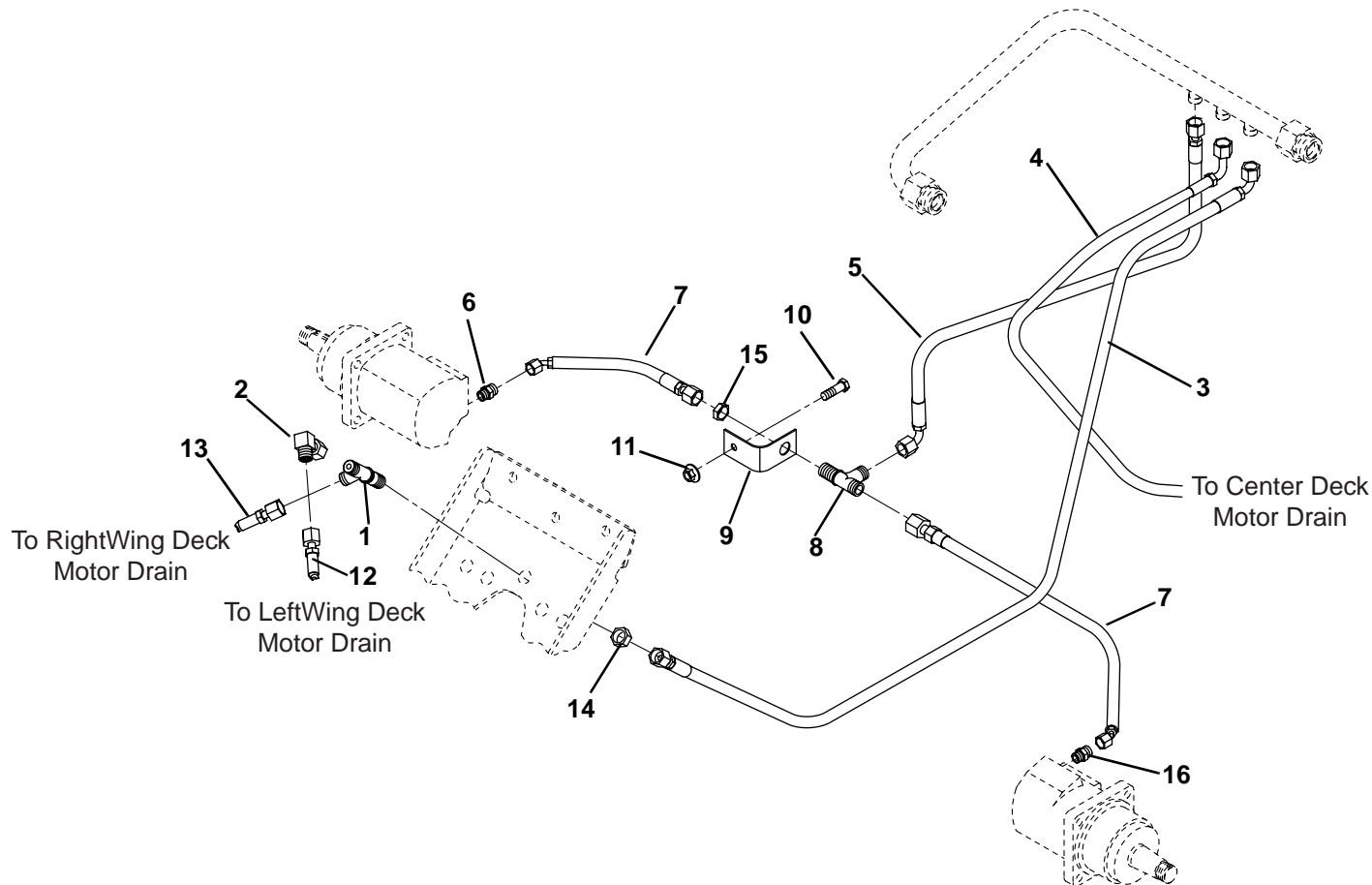
## 27.1 Hydraulic Clamps



Item	Part No.	Qty.	Description	Serial Numbers/Notes
	1	4	Nut, 5/16-18 Spirallock Flange	
	2	2	Clamp, 1" I.D.	
	3	1	Screw, 1/4-20 x 2-1/4" Hex Head	4WD Only
	4	2	Clamp, 1-1/4" I.D.	
	5	1	Screw, 1/4-20 x 3/4" Hex Head	2WD Only
	6	1	Clamp, Double Tube	
>	7	3	Screw, 5/16-18 x 1" Hex Head	
>	8	1	Clamp, 1-1/2" I.D.	
>	9	2	Clamp, Double Hose	
>	10	2	Screw, 5/16-18 x 5/8" Thread Cutting	
>	11	1	Locknut, 1/4-20 Center	
>	12	1	Screw, 5/16-18 x 1-3/4" Hex Head	
>	13	1	Tube, Spacer	

> Change from previous revision

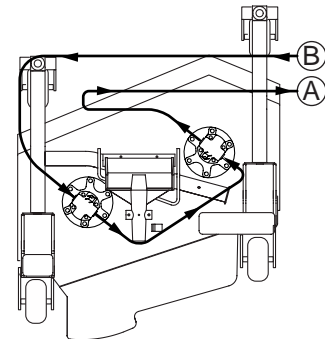
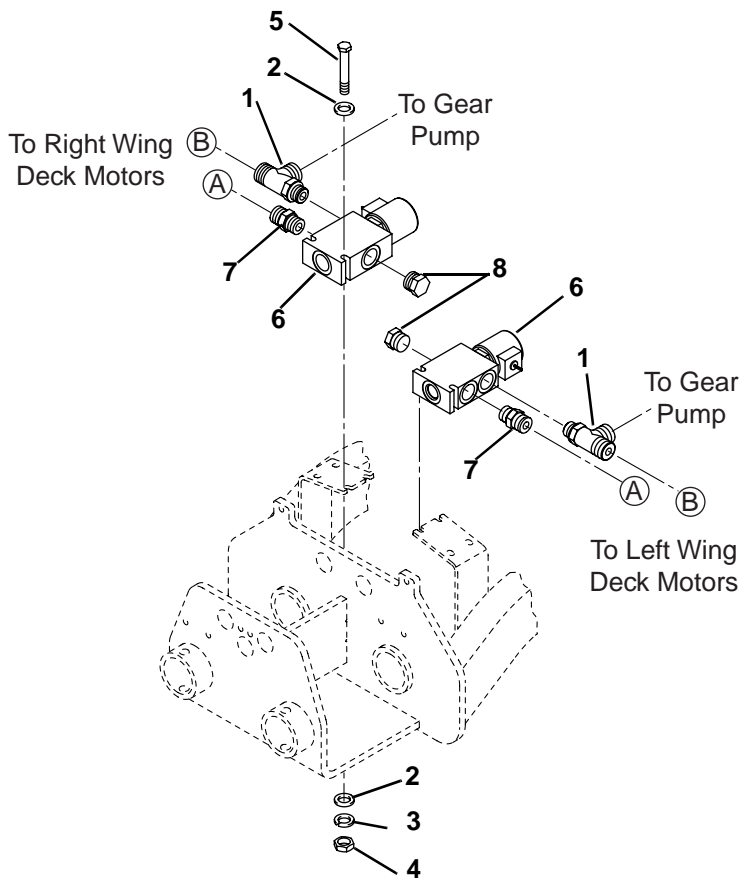
28.1 Front Wheel Motor and Deck Motor Drains



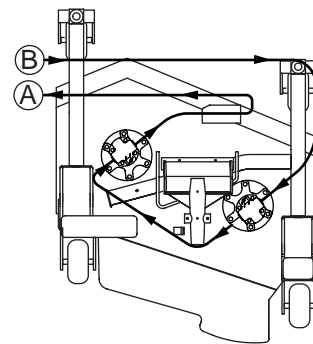
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340215	1	Adapter, Bulkhead Tee	
2	340375	1	Adapter, 90°	
3	1004132	1	Hose, Lift Bulkhead to Drain Tube	
4	REF	1	Hose, Center Deck Motor Drain	See 32.1
5	1004123	1	Hose, Motor Bulkhead to Drain Tube	
6	339972	1	Adapter, Straight	
7	1004122	2	Hose, Motor Drain to Motor Bulkhead	
8	340214	1	Adapter, Bulkhead Tee	
9	3009804	1	Bracket, Motor Drain Bulkhead	
10	400188	1	Screw, 5/16-18 x 1" Hex Head	
11	445795	1	Nut, 5/16-18 Spiralock Flange	
12	REF	1	Hose, Left Wing Deck Motor Drain	See 31.1
13	REF	1	Hose, Right Wing Deck Motor Drain	See 31.1
14	339961	1	Nut, Bulkead	
15	339960	2	Nut, Bulkhead	
16	340008	1	Adapter, Straight	

> Change from previous revision

## 29.1 Wing Deck Control Valves



Direction of Flow  
Left Wing Deck



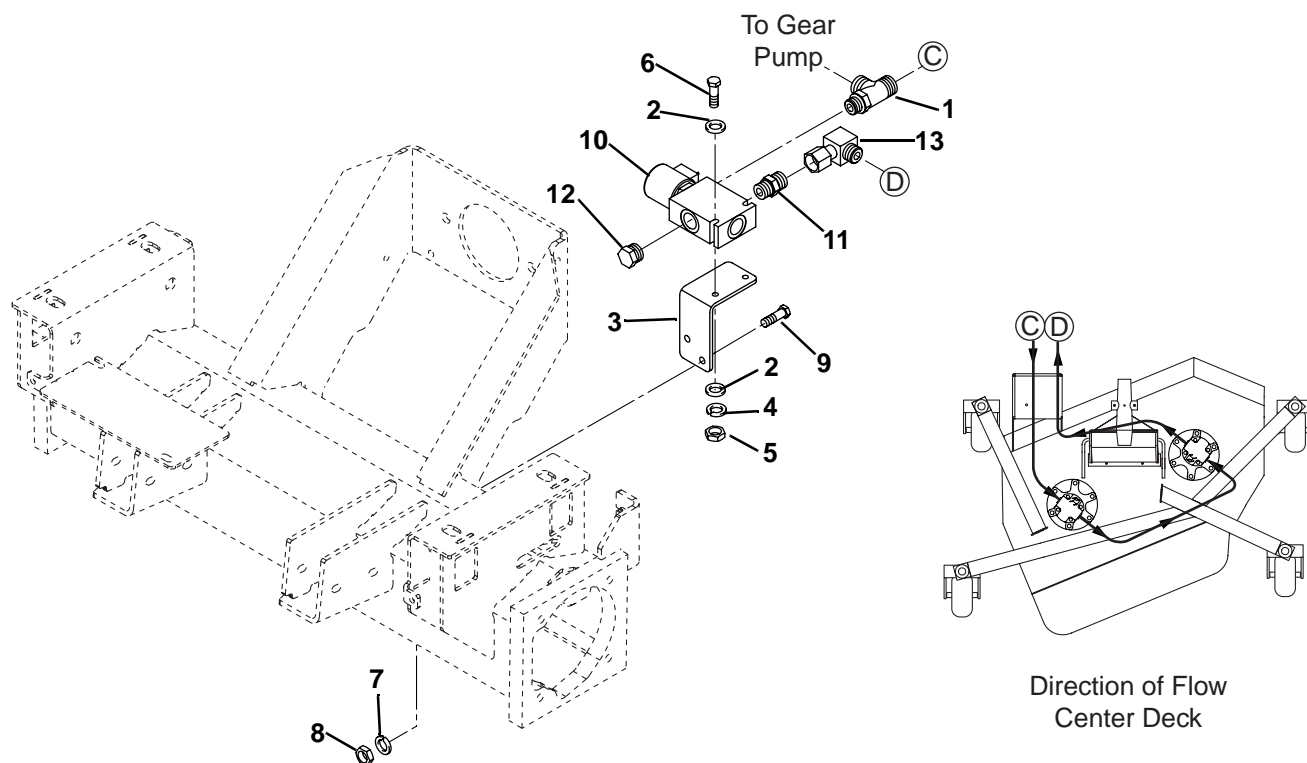
Direction of Flow  
Right Wing Deck

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340264	2	Adapter, Tee	
2	452004	8	Flat Washer, 1/4	
3	446128	4	Lockwasher, 1/4	
4	443102	4	Nut, 1/4-20 Hex	
5	400122	4	Screw, 1/4-20 x 2-1/4" Hex Head	
6	1004137	2	Valve, Deck Control	
7	339984	2	Adapter, Straight	
8	351127	2	Plug	

> Change from previous revision



30.1 Center Deck Control Valve

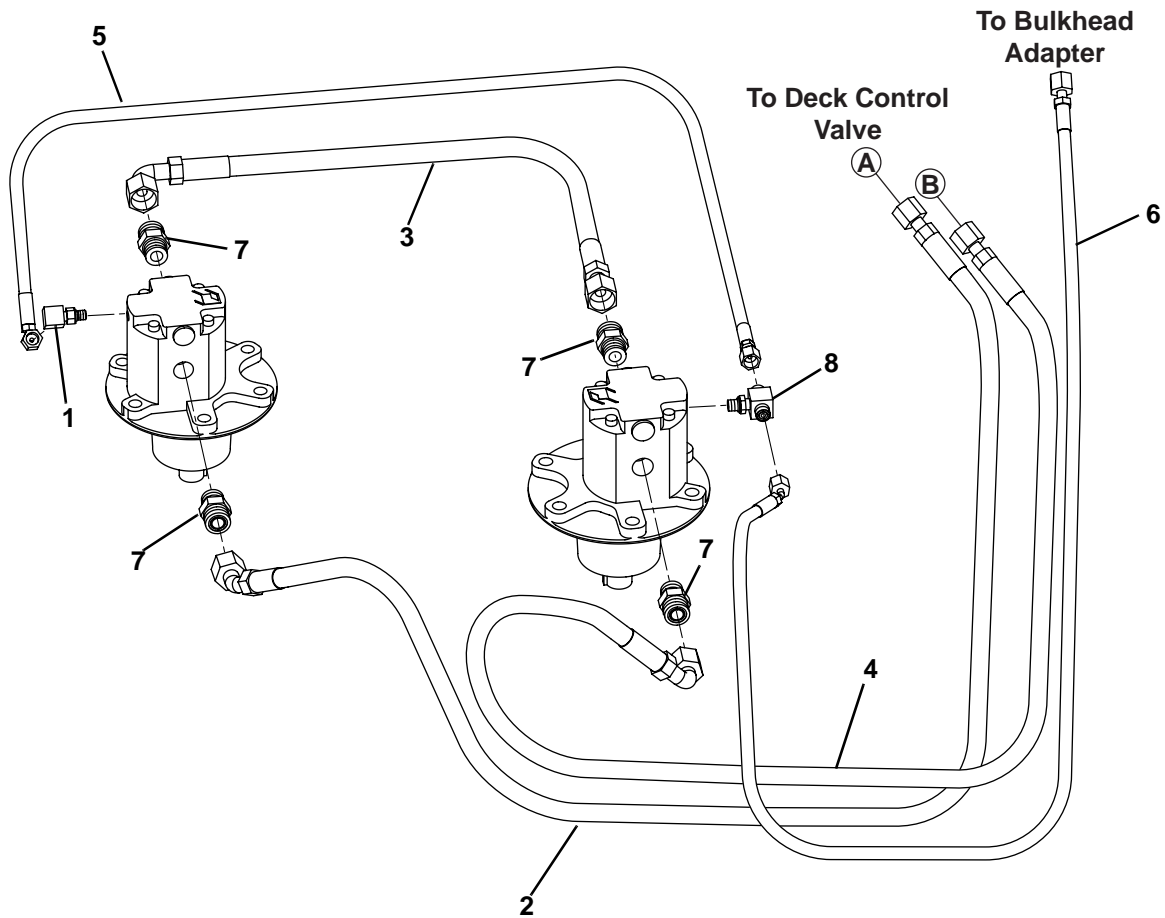


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340264	1	Adapter, Tee	
2	452004	4	Flat Washer, 1/4	
3	3008508	1	Bracket, Valve Mount	
4	446128	2	Lockwasher, 1/4	
5	443102	2	Nut, 1/4-20 Hex	
6	400122	2	Screw, 1/4-20 x 2-1/4" Hex Head	
7	446134	2	Lockwasher, 5/16	
8	443106	2	Nut, 5/16-18 Hex	
9	400184	2	Screw, 5/16-18 x 3/4" Hex Head	
10	1004137	1	Valve, Deck Control	
11	339984	1	Adapter, Straight	
12	351127	1	Plug	
13	340376	1	Adapter, 90°	
14				
15				

> Change from previous revision

## 31.1 Wing Deck Hydraulics

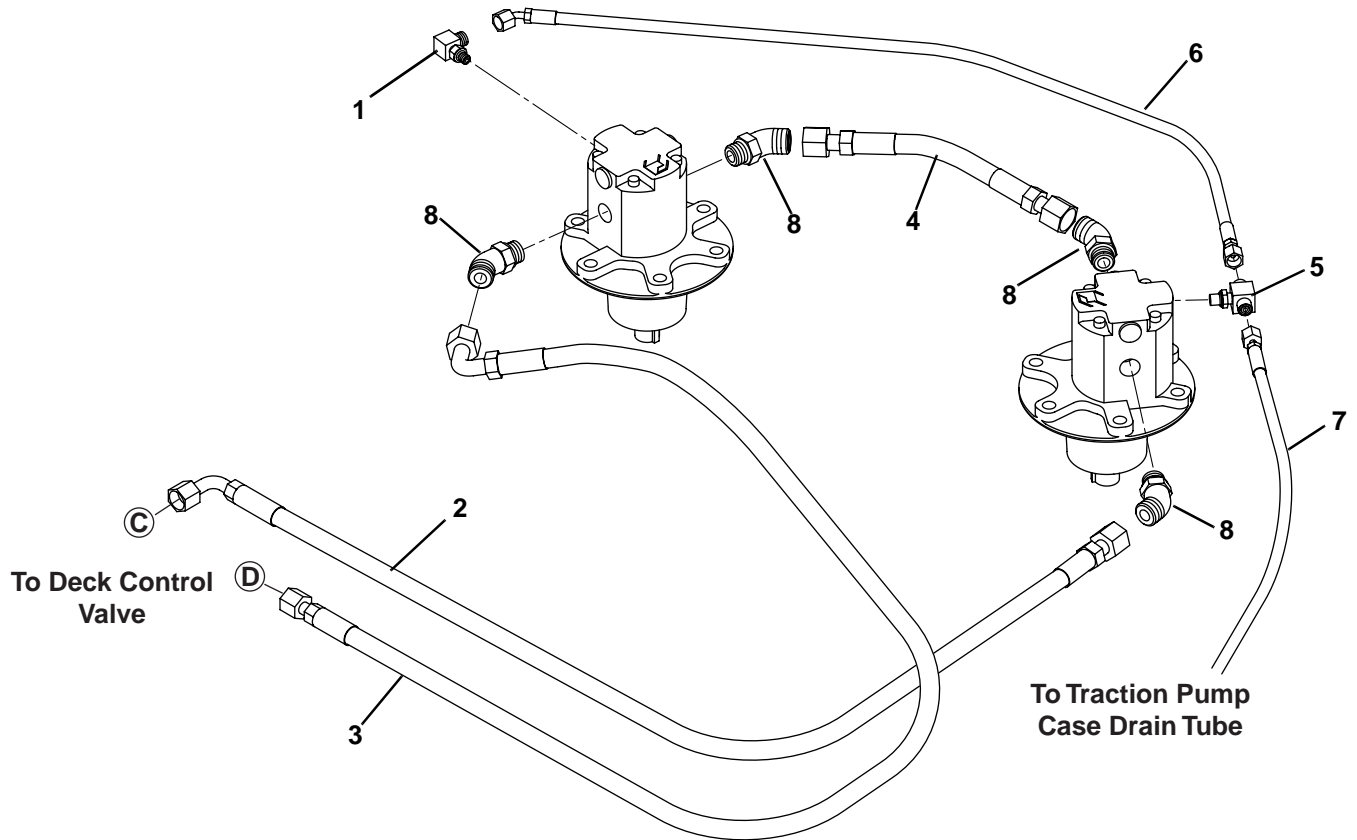
Left Deck Shown



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340055	2	Adapter, 90°	
2	1004113	2	Hose, Deck Valve to Inside Motor	<b>REFERENCE A, See 29.1</b>
3	1004114	2	Hose, Inside Motor to Outside Motor	
4	1004115	2	Hose, Deck Valve to Outside Motor	<b>REFERENCE B, See 29.1</b>
5	1004120	2	Hose, Inside Motor to Outside Motor	
6	1004121	2	Hose, Wing Deck Motor Drain	
7	339989	8	Adapter, Straight	
8	340095	2	Adapter, Tee	
9	473142	AR	Cable Tie	

> Change from previous revision

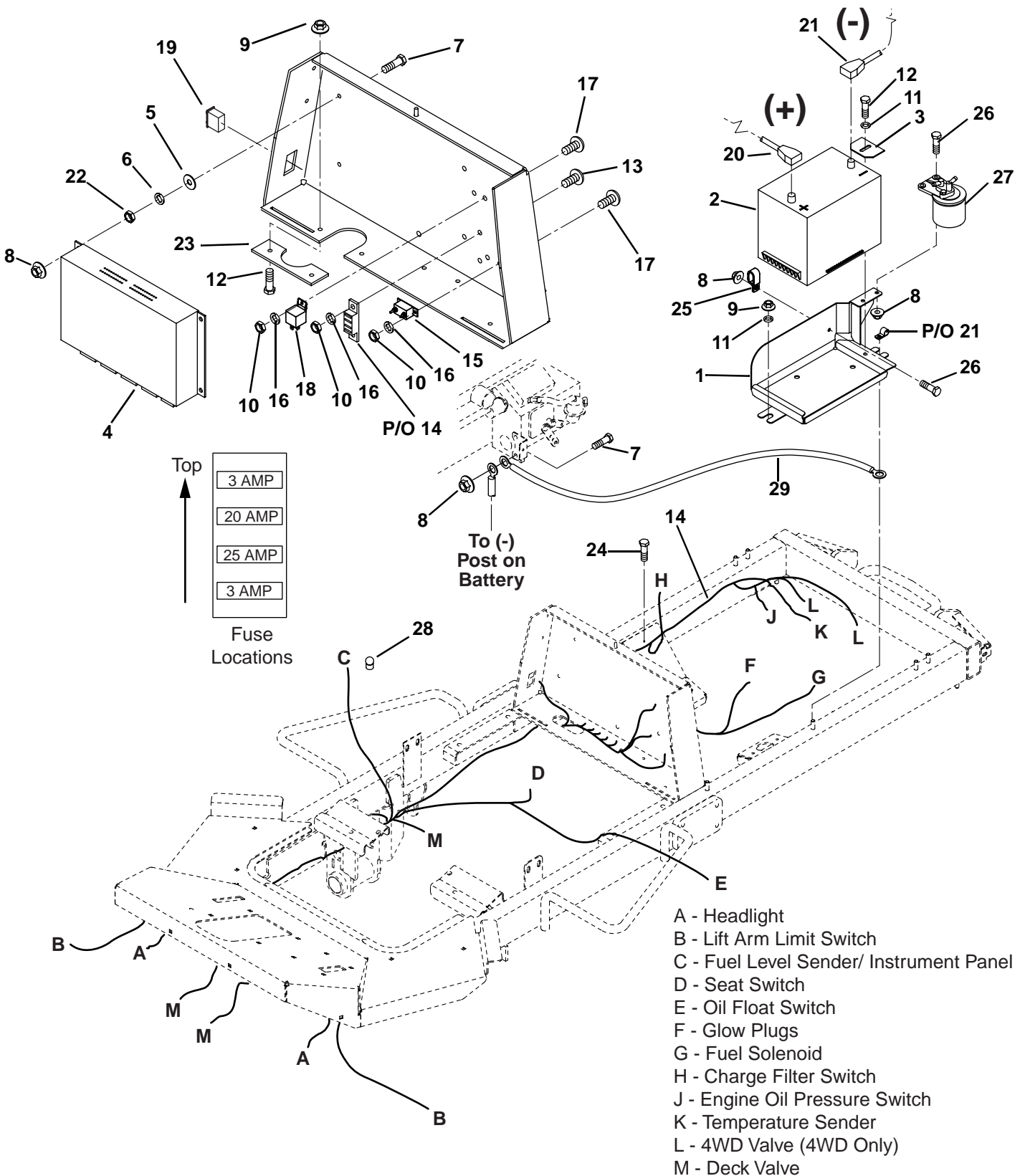
32.1 Center Deck



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340055	1	Adapter, 90°	
2	1004642	1	Hose, Deck Valve to Left Motor	<b>REFERENCE C, See 30.1</b>
3	1004643	1	Hose, Deck Valve to Right Motor	
4	1004644	1	Hose, Left Motor to Right Motor	<b>REFERENCE D, See 30.1</b>
5	340095	1	Adapter, Tee	
6	1004648	1	Hose, Left Motor to Right Motor	
7	1004131	1	Hose, Center Deck Case Drain	
8	340033	4	Adapter, 45°	
9	473142	AR	Cable Tie	

> Change from previous revision

## 33.1 Wire Harness and Controller Box

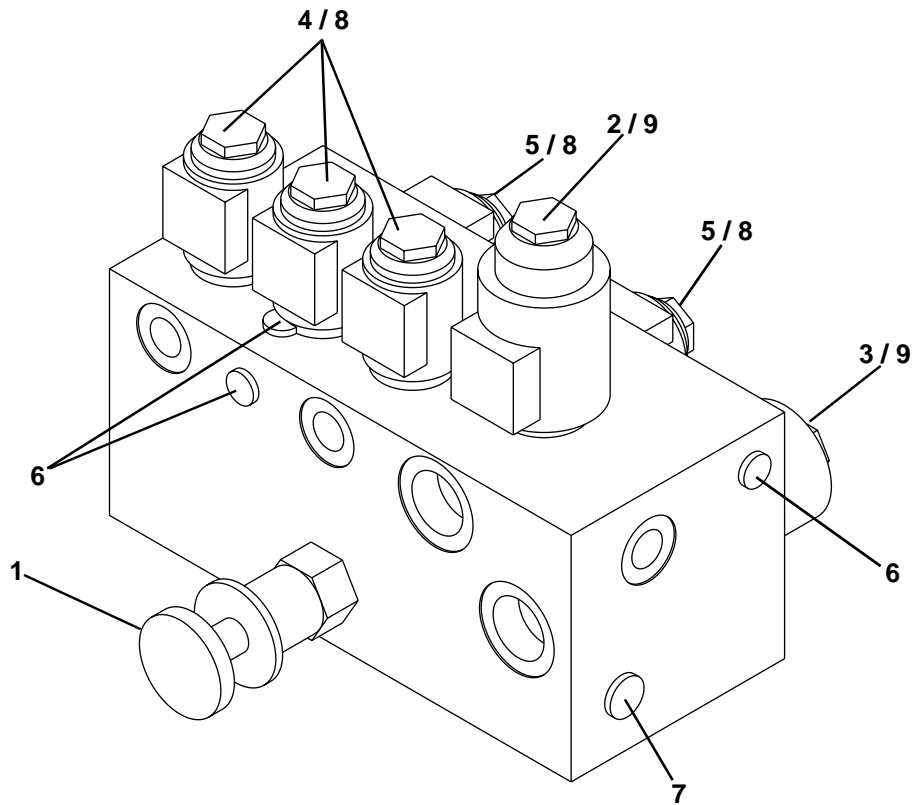


Item	Part No.	Qty.	Description	Serial Numbers/Notes	
	1	1003264	1	Tray, Battery	
	2	366931	1	Battery	
	3	3006799	1	Clamp, Battery	
	4	3006344	1	Controller, HR/TR	
	5	453009	4	Washer, 5/16 Flat	
	6	446134	4	Lockwasher, 5/16	
>	7	400190	5	Screw, 5/16-18 x 1-1/4" Hex Head	
>	8	445795	5	Nut, 5/16-18 Spiralock Flange	
	9	445796	5	Nut, 3/8-16 Spiralock Flange	
	10	444310	7	Nut, #10-24 Hex	
	11	452008	4	Flat Washer, 3/8	
	12	400258	3	Screw, 3/8-16 x 3/4" Hex Head	
	13	403914	2	Screw, #10-24 x 3/4" Truss Head	
	14	2811513	1	Body Wire Harness, HR	
		555486	1	• 3A Diode	
		5003276	2	• 3 Amp Fuse	
		5003282	1	• 20 Amp Fuse	
		5003283	1	• 25 Amp Fuse	
		3009728	8	Harness, Solenoid	(Not Shown)
	15	361439	1	Circuit Breaker, 12V 50A	
	16	446118	7	Lockwasher, #10	
	17	403910	5	Screw, #10-24 x 1/2" Truss Head	
	18	3001307	3	Relay-SPDT With Resistor	
	19	3006509	1	Plug, Hole	
	20	3007777	1	Cable, Positive Battery	
>	21	2810213	1	Cable, Negative Battery	
	22	443106	4	Nut, 5/16-18 Hex	
	23	3009251	1	Tab, Wire Harness	
	24	409804	2	Screw, #10-24 x 1/2" Thread Cutting	
	25	3007558	1	Clamp, Double Tube	
	26	400188	3	Screw, 5/16-18 x 1" Hex Head	
	27	555406	1	Fuel Filter Assembly	Included With Engine
		555405	1	• Fuel Filter Element	
		555645	1	• Filter Cover	
		555646	1	• Filter Breather Plug	
		555647	1	• O-Ring	
		555648	1	• Form, Mark	
	28	3001376	2	Bulb, Gauge	Fuel Gauge and Temperature Gauge
>	29	2810424	1	Cable, Engine Ground to Frame	

> Change from previous revision

## 34.1 Lift Valve

Part Number 1003612

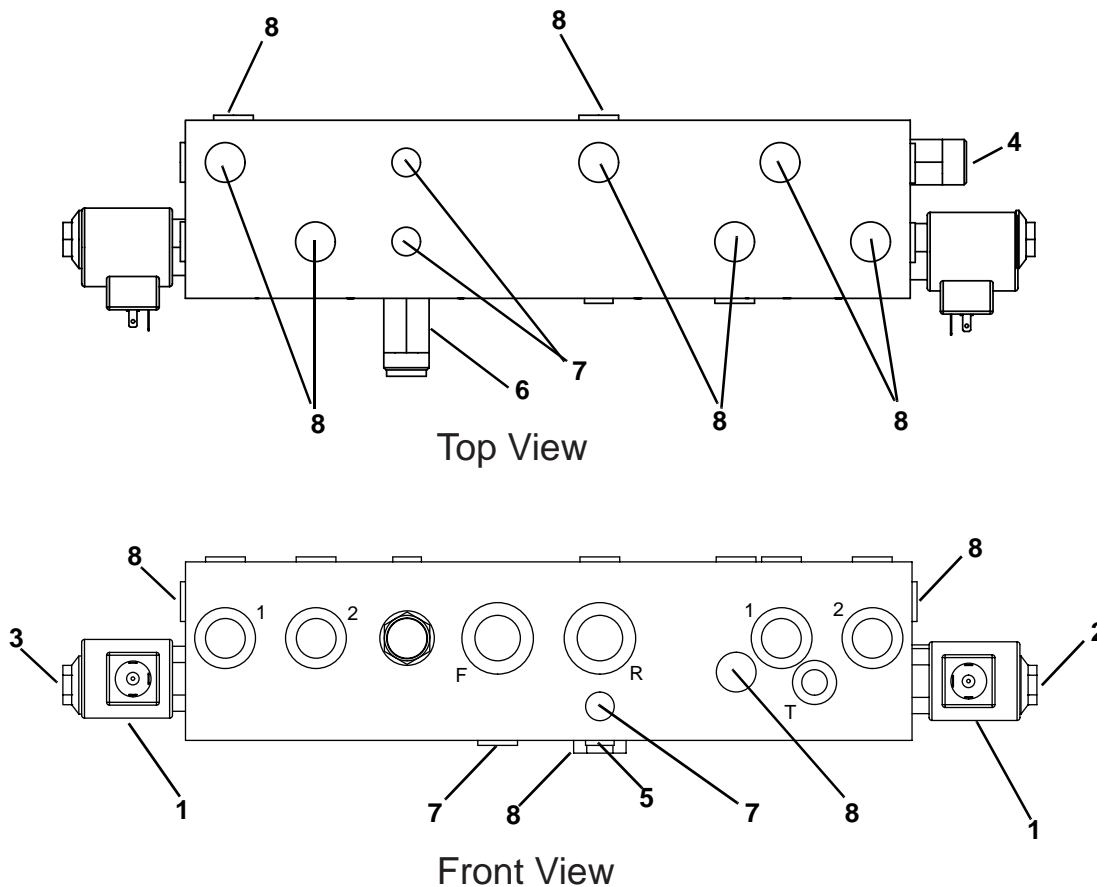


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5003757	1	Relief Valve	
2	5002913	1	Solenoid Valve	
3	5001353	1	Solenoid Valve	
4	5003758	3	Solenoid Valve	
5	5003759	3	Solenoid Valve	
6	5002157	5	Plug, Port	
7	5001065	2	Plug, Port	
8	5003508	6	Coil	
9	5003507	2	Coil	

> Change from previous revision

35.1 4WD Valve

Part Number 1002622

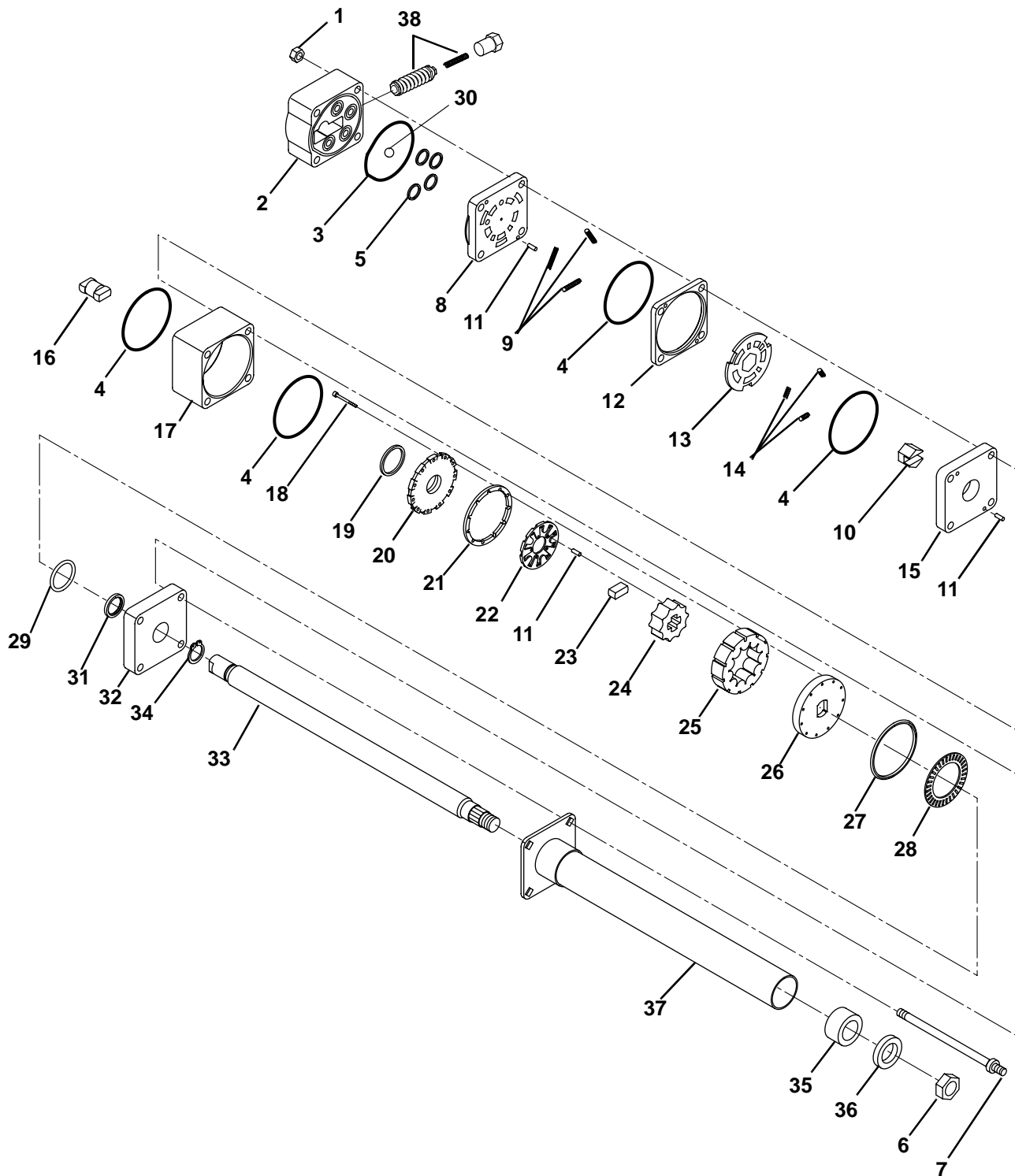


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5001354	2	Coil	
2	5003096	1	Solenoid Valve	
	5003578	1	• Solenoid Valve Seal Kit	
3	5003121	1	Solenoid Valve	
	5003554	1	• Solenoid Valve Seal Kit	
4	5003097	1	Pilot Operated 2-Way	
	5003580	1	• 2-Way Seal Kit	
5	5003098	1	Check Valve	
	5003579	1	• Seal Kit	
6	5003099	1	Relief Valve	
	5003579	1	• Seal Kit	
7	5001065	4	Plug, Port	
8	5002541	15	Plug, Port	

> Change from previous revision

## 36.1 Steering Valve

Part Number 1003458



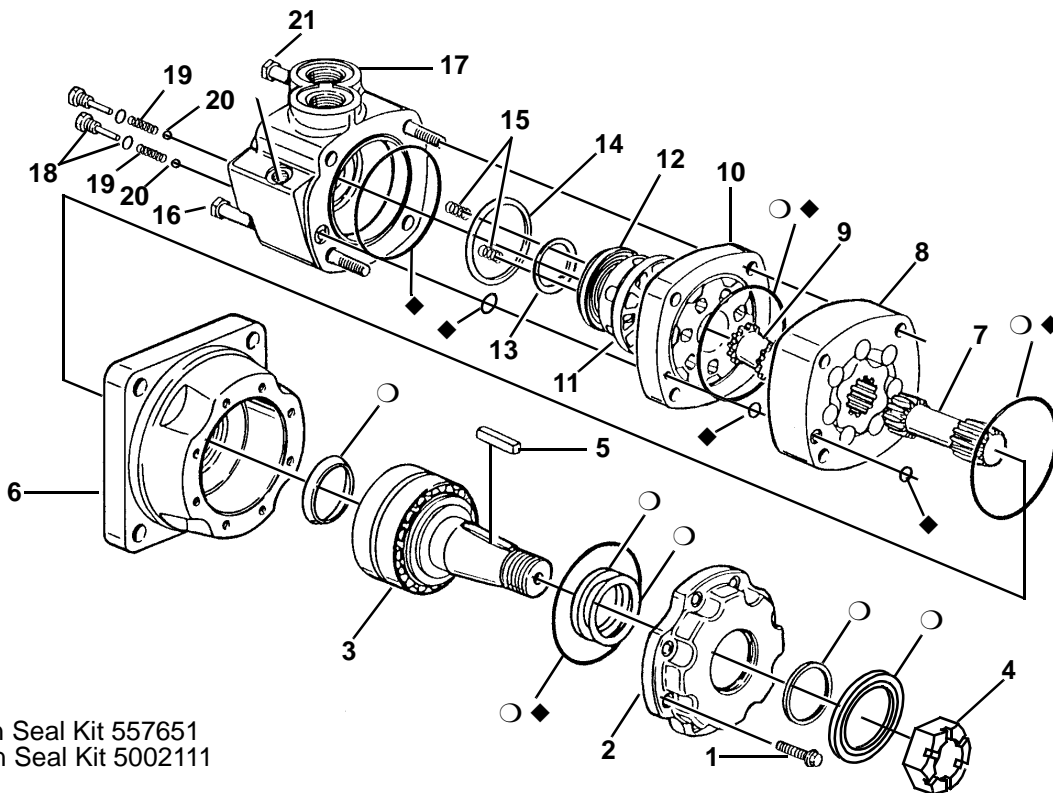


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	443108	4	Locknut, 5/16-18 Center	
2	N/S	1	Port Cover	
3	C	1	Seal, O-Ring	
4	C	4	Seal, O-Ring	
5	C	4	Seal, O-Ring	
6	443828	1	Nut, 5/16-18 Hex Jam	
7	N/S	4	Special Bolt	
8	N/S	1	Port Manifold	
9	B	3	Spring, Port Side	
10	N/S	1	Hex Drive	
11	A and E	9	Needle Roller	
12	503398	1	Valve Ring	
13	503398	1	Valve Plate	
14	B	3	Spring, Shaft Side	
15	N/S	1	Isolation Manifold	
16	N/S	1	Drive Link	
17	N/S	1	Metering Ring	
18	A	11	Screw, Socket Head	
19	C	1	Seal, Commutator	
20	A	1	Commutator Cover	
21	A	1	Commutator Ring	
22	A	1	Commutator	
23	A	1	Spacer	
24	A	1	Rotor	
25	A	1	Stator	
26	A	1	Drive Plate	
27	554855	1	Spacer	
28	554856	1	Thrust Bearing	
29	C	1	Face Seal	
30	N/S	1	Ball, 9/32"	
31	554857	1	Seal, Spacer	
32	N/S	1	Upper Cover Plate	
33	D	1	Shaft	
34	D	1	Retaining Ring	
35	D	1	Bushing	
36	D	1	Seal	
37	D	1	Jacket	
38	557733	1	Relief Valve Cartridge	
<b>Service Kits</b>				
A	5003220	1	Metering Assembly Kit	
B	502924	1	Spring Kit	
C	557738	1	Seal Kit	
D	5003219	1	Jacket Tube Kit	
E	502925	1	Needle Roller Kit	

> Change from previous revision

## 37.1 Front Wheel Motor

Part Number 1001757



- ◆ Included In Seal Kit 557651
- Included In Seal Kit 5002111

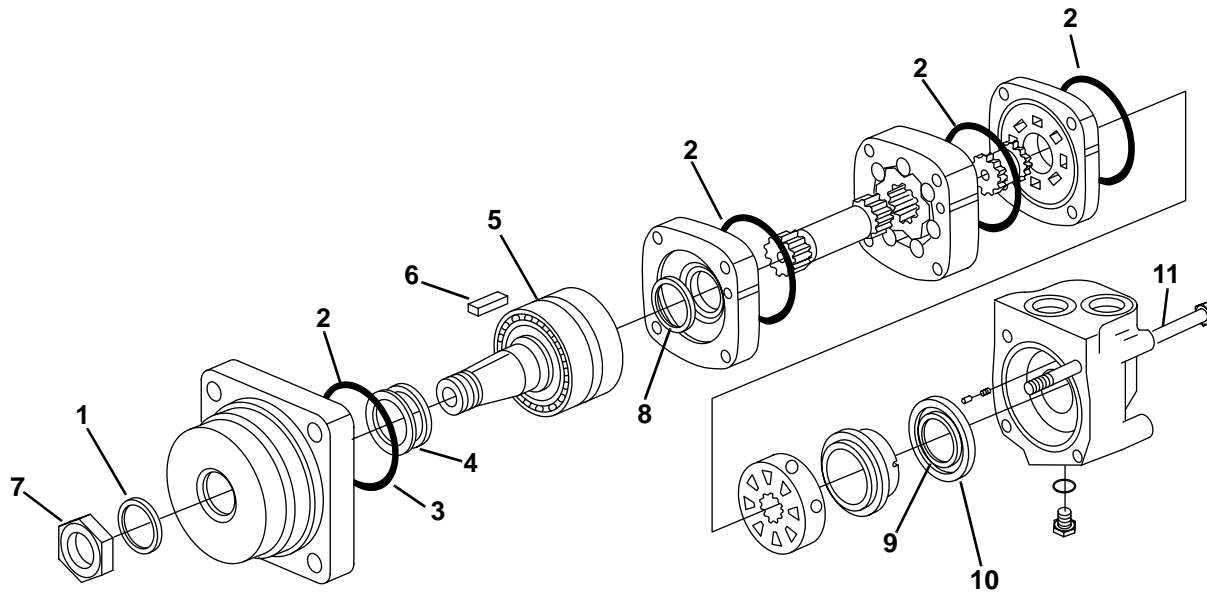
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	558066	8	Screw, Torx	
2	5002110	1	Front Retainer	
3	558063	1	Shaft and Bearing Kit	
4	554779	1	Nut, Hex	
5	554780	1	Key	
6	558064	1	Bearing Housing	
7	557629	1	Drive	
8	557630	1	Geroler	
9	557632	1	Drive, Valve	
10	557631	1	Plate, Valve	
11	557633	1	Valve	
12	557637	1	Balance Ring and Pins	
◆ 13	557634	1	Seal, Inner Face	
◆ 14	557635	1	Seal, Outer Face	
15	557636	2	Spring	
16	557650	3	Bolt, 5-3/4"	
17	557638	1	Housing, Valve	
18	557639	2	Check Plug Assembly	
19	557642	2	Spring	
20	557640	2	Ball, Steel	
21	5000318	1	Bolt	

> Change from previous revision

**38.1 Rear Wheel Motor**

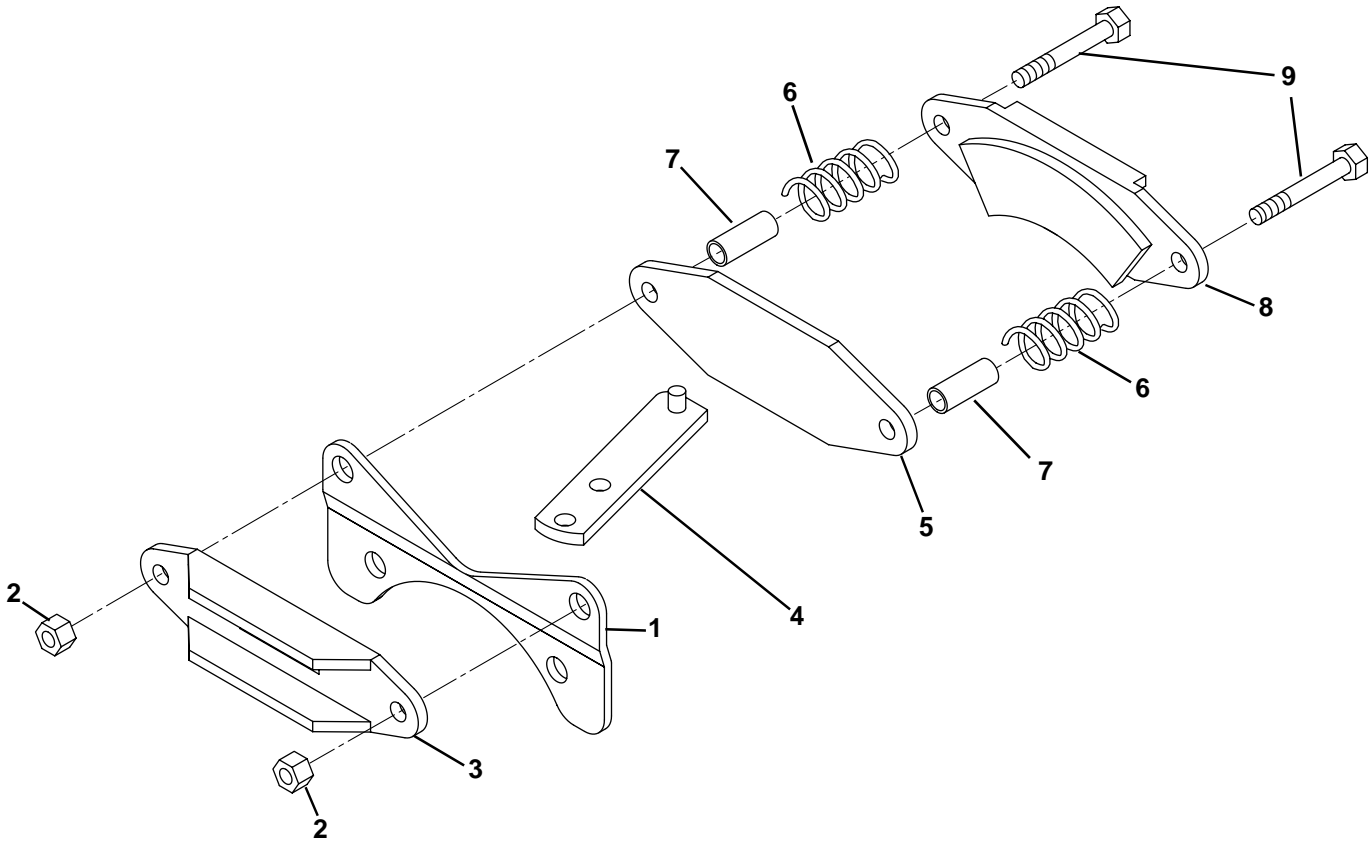
Part Number 5003218

Serial No. 67838-1601 and Up  
Serial No. 67840-1601 and Up



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	A	1	Seal Exclusion	
2	A	4	Seal, 3" I.D.	
3	A	1	Back Up Ring	
4	A	1	Shaft Seal	
5	5003384	1	Shaft and Bearing Kit	
6	554780	1	Key	
7	554779	1	Hex Nut	
8	A	1	Shaft Face Seal	
9	A	1	Inner Face Seal	
10	A	1	Outer Face Seal	
11	556450	4	Bolt	
	5003385	1	Seal Kit	Includes Items Marked A

> Change from previous revision

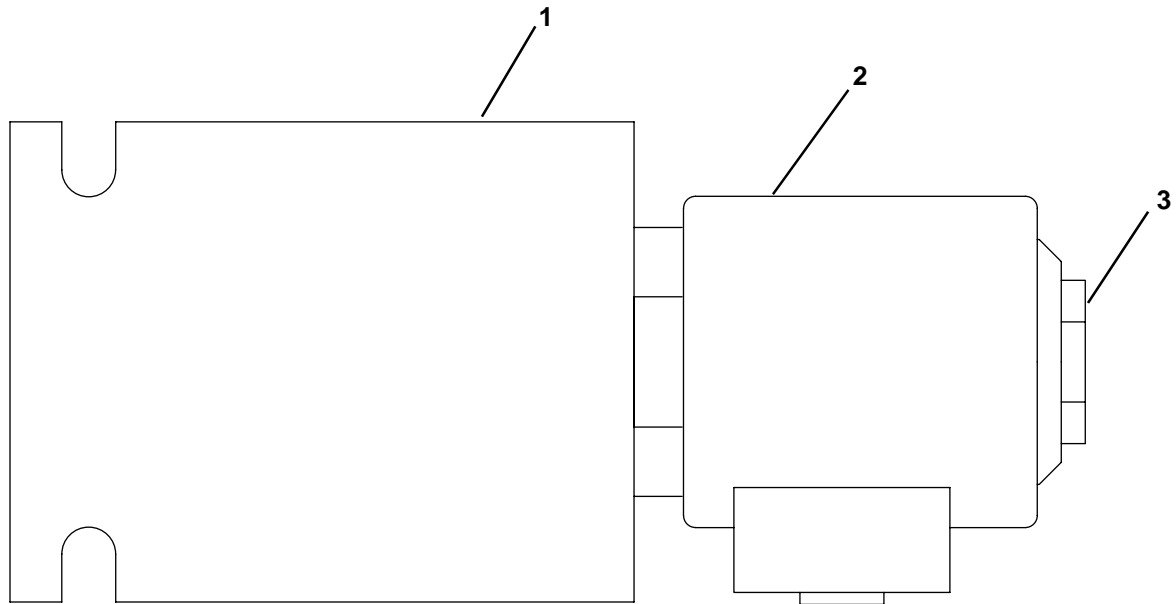


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340603	2	Bracket, Brake Mounting	
	503308	1	Disk Brake, R.H.	
	503309	1	Disk Brake, L.H.	
2	590259	4	• Nut, 3/8-24	
3	549441	2	• V-Plate	
4	503306	1	• Cam Lever	Used on 503308 Only
4	502517	1	• Cam Lever	Used on 503309 Only
5	503296	2	• Stud Plate with Lining	
6	546131	4	• Spring	
7	554579	4	• Spacer, Brake	
8	503295	2	• Rib Plate with Lining	
9	590260	4	• Screw, 3/8-24 x 2-1/4"	

> Change from previous revision

**40.1 Deck Valve**

Part Number 1004137



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	N/S	1	Manifold	
2	5003508	1	Coil	
3	5003747	1	Solenoid Valve	
	5002540	1	Seal Kit, Deck Valve	

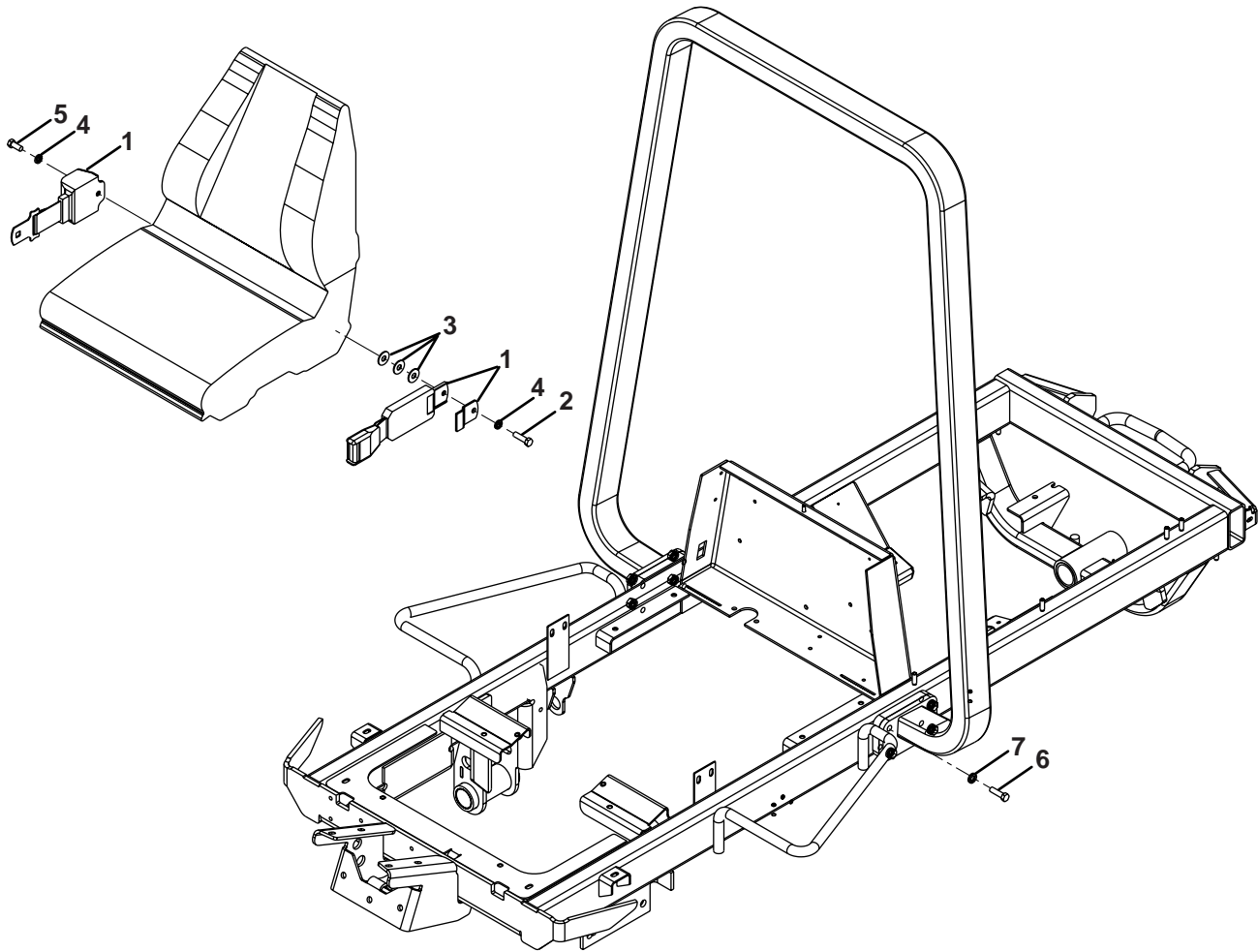
> Change from previous revision

# HR-4600

Serial No. All

## 41.1 ROPS

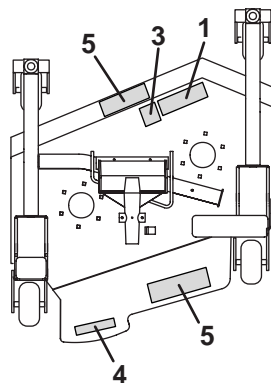
Optional Kit 67844



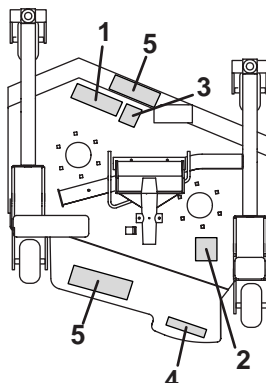
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	555892	1	Seat Belt Assy.	
2	400374	1	Screw, 7/17-20 x 1-1/2" Hex Hd	
3	452010	3	Washer, 7/16 Flat, Wide	
4	446148	2	Lockwasher, 7/16 Hvy	
5	400370	1	Screw, 7/16-20 x 1" Hex Hd	
6	5000465	8	Screw, GR8, Hex Cap	
7	446154	8	Lockwasher, 1/2 Hvy	

> Change from previous revision

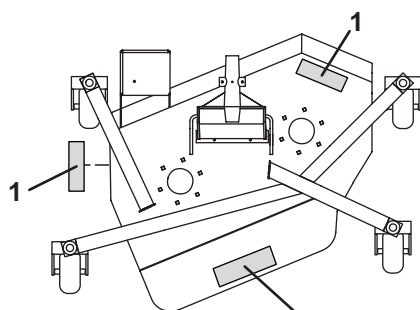
## 42.1 Decals, Deck



Left Wing Deck



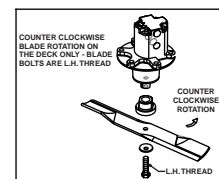
Right Wing Deck



Center Deck

	In	mm		
1	25	A	0	
1-1/2	38	A	1	
2	51	A	2	
2	51	B	0	
2-1/2	64	A	3	
2-1/2	64	B	1	
3	76	A	4	
3	76	B	2	
3-1/2	89	B	3	
4	102	B	4	

1



3

	In	mm		
1	25	7	C	
1-1/2	38	6	B	
2	51	5	D	
2-1/2	64	4	A	
3	76	3	C	
3-1/2	89	2	D	
4	102	1	B	

2

NO STEP

4

<b>⚠ DANGER</b>		
<p>Serious injury or death can result from blade contact or from objects being thrown very long distances</p> <ul style="list-style-type: none"> <li>Do not operate machine with discharge chute or guards flipped up or removed.</li> <li>Do not operate machine with bent components or with implement in raised position.</li> <li>Keep yourself and others away from the mower when in operation.</li> </ul>		

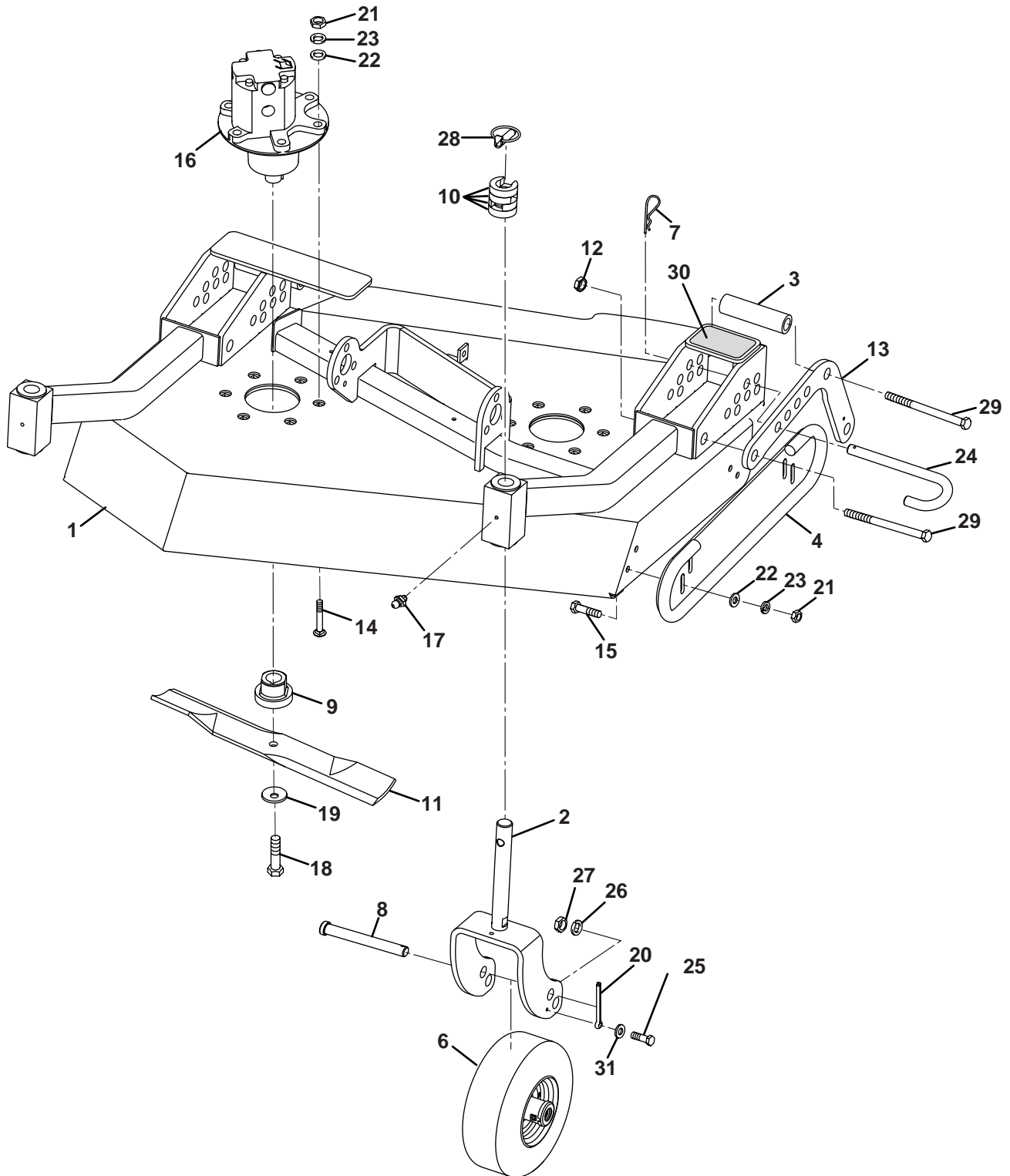
5

Item	Part No.	Qty.	Description	Serial Numbers/Notes	
>	1	2810034	4	Decal, Caster Wheel Height of Cut	
>	2	2810038	2	Decal, Gauge Wheel Height of Cut	
	3	3010773	1	Decal, Right Wing Deck	
	4	366609	2	Decal, No Step	
	5	3002502	5	Decal, Danger	

> Change from previous revision

## 43.1 Wing Decks

Left Wing Shown



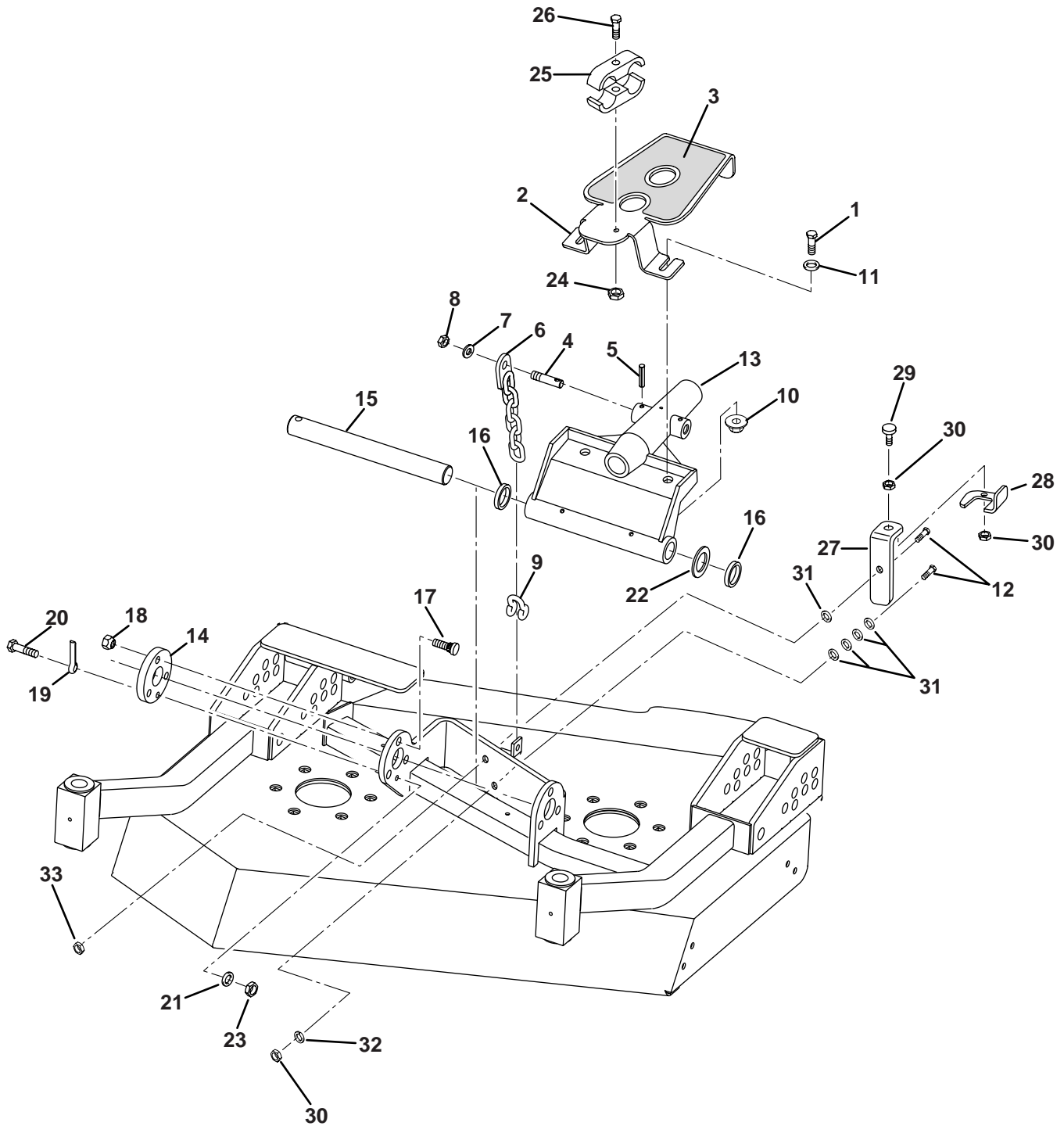


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5003770	1	Deck, Left Wing	Left Wing Deck Only
1	5003774	1	Deck, Right Wing	Right Wing Deck Only
2	1003403	2	Spindle, Caster Wheel	
3	3010390	2	Tube	
4	1003386	2	Skid Assembly	
5	443106	1	Nut, 5/16-18 Hex	
6	1003999	4	Caster Wheel Assembly	
7	460335	2	Hairpin	
8	3003209	4	Shaft, Caster Wheel	
9	3008388	2	Adapter, Blade	
10	PJH1054	8	Spacer	
11	3010550	2	Bar, L.H. Rotary Mower Cutter	Left Wing Deck Only
11	3010551	2	Bar, R.H. Rotary Mower Cutter	Right Wing Deck Only
12	444742	4	Locknut, 3/4-16 Hex Jam UNF	
13	3010387	4	Plate, Caster Fork	
14	440124	12	Carriage Bolt, 3/8-16 x 1-3/4"	
15	400260	8	Screw, 3/8-16 x 7/8" Hex Hd	
16	1004926	2	Motor, Spindle L.H.	Left Wing Deck Only
16	1004925	2	Motor, Spindle R.H.	Right Wing Deck Only
	5003763	1	• Kit, Seal	
17	471214	2	Fitting, Grease	
18	400410	2	Screw, 1/2-13 x 1-3/4 Hex Hd	Left Wing Deck Only
18	401237	2	Screw, 1/2-13 x 1-3/4 Hex Hd L.H.	Right Wing Deck Only
19	3007764	2	Washer, Blade	
20	460068	4	Pin, Cotter 1/4 x 2"	
21	443110	20	Nut, 3/8-16 Hex	
22	453011	20	Washer, 3/8 Flat	
23	446142	20	Lockwasher, 3/8 Hvy	
24	3010512	2	Rod, Ht. Adj	
25	403578	4	Screw, #10-24 x 1" Hex Hd	
26	446118	4	Lockwasher, #10 Hvy	
27	444310	4	Nut, #10-24 Hex	
28	3004894	2	Pin, Klik type	
29	400760	4	Screw, 3/4-16 x 6" Hex Hd	
30	3010800	1	Pad, Step	
> 31	452004	4	Flat Washer, #10	

> Change from previous revision

## 44.1 Wing Decks (Continued)

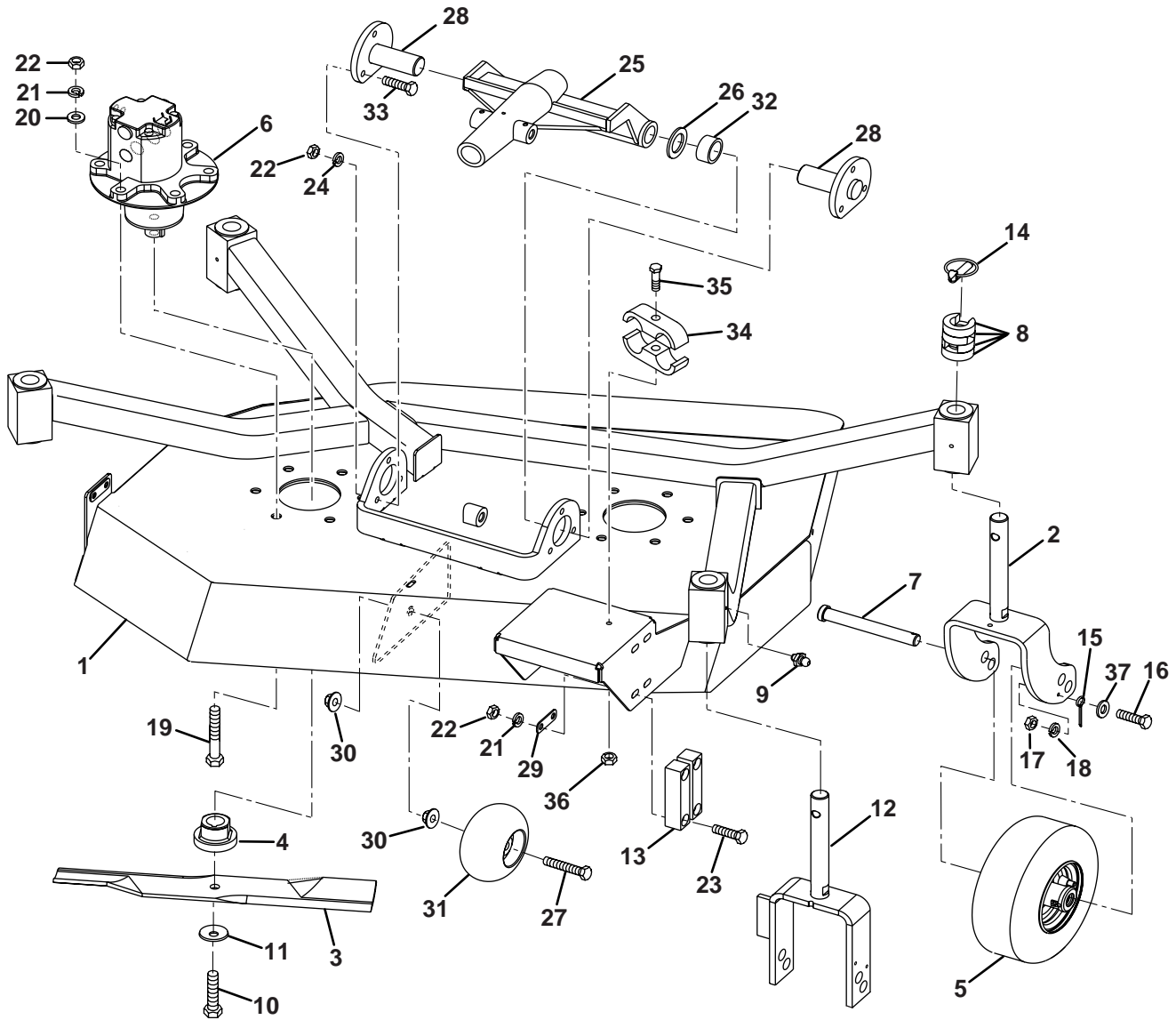
Left Wing Shown



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
	1	400264	2	Screw, 3/8-16 x 1-1/4" Hex Hd	
	2	5003777	1	Step	
	3	3010730	1	• Pad, Step	
	4	366007	1	Stud, Reel Pivot	
	5	461385	1	Pin, 3/16 x 1-1/4" Roll	
	6	1004751	1	Assembly, Chain Bracket	
	7	452012	1	Washer, 1/2 Flat	
	8	444816	1	Nut, 1/2-20 Flex-Loc	
	9	162716	1	Shackle	
			1	• Pin, Roll	
			1	• Pin, Cotter	
>	10	445783	2	Nut, 3/8-16 Whizlock	
	11	453011	2	Washer, 3/8 Flat	
	12	400264	4	Screw, 3/8-16 x 1-1/4 " Hex Head	
	13	207485	1	Housing, Pivot	
		471216	4	• Fitting, Grease	
	14	340433	2	Ring Shaft	
	15	366484	1	Shaft, Pivot Mounting	
	16	367601	2	Washer, Thrust	
	17	362464	6	Bolt, Wheel	
	18	346294	6	Nut, Wheel	
	19	460084	1	Cotter Pin, 3/8 x 1-1/2"	
	20	400194	1	Screw, 5/16-18 x 1-3/4" Hex Head	
	21	446136	1	Lockwasher, 5/16	
	22	366593	AR	Spacer	
	23	443106	1	Nut, 5/16-18 Hex	
	24	444708	1	Locknut, 1/4-20 Center	
	25	367186	1	Clamp, 2 Hose	
	26	400122	1	Screw, 1/4-20 x 2-1/4" Hex Head	
	27	2810008	1	Bracket, Stop	
	28	2810009	1	Plate, Stop	
	29	354989	1	Stop, Rubber	
>	30	443110	25	Nut, 3/8-16 Hex	
	31	453011	27	Flat Washer, 3/8	
>	32	446142	23	Lockwasher, 3/8 Heavy	
	33	444762	1	Nut, 3/8-16 Lock	

> Change from previous revision

## 45.1 Rear Deck

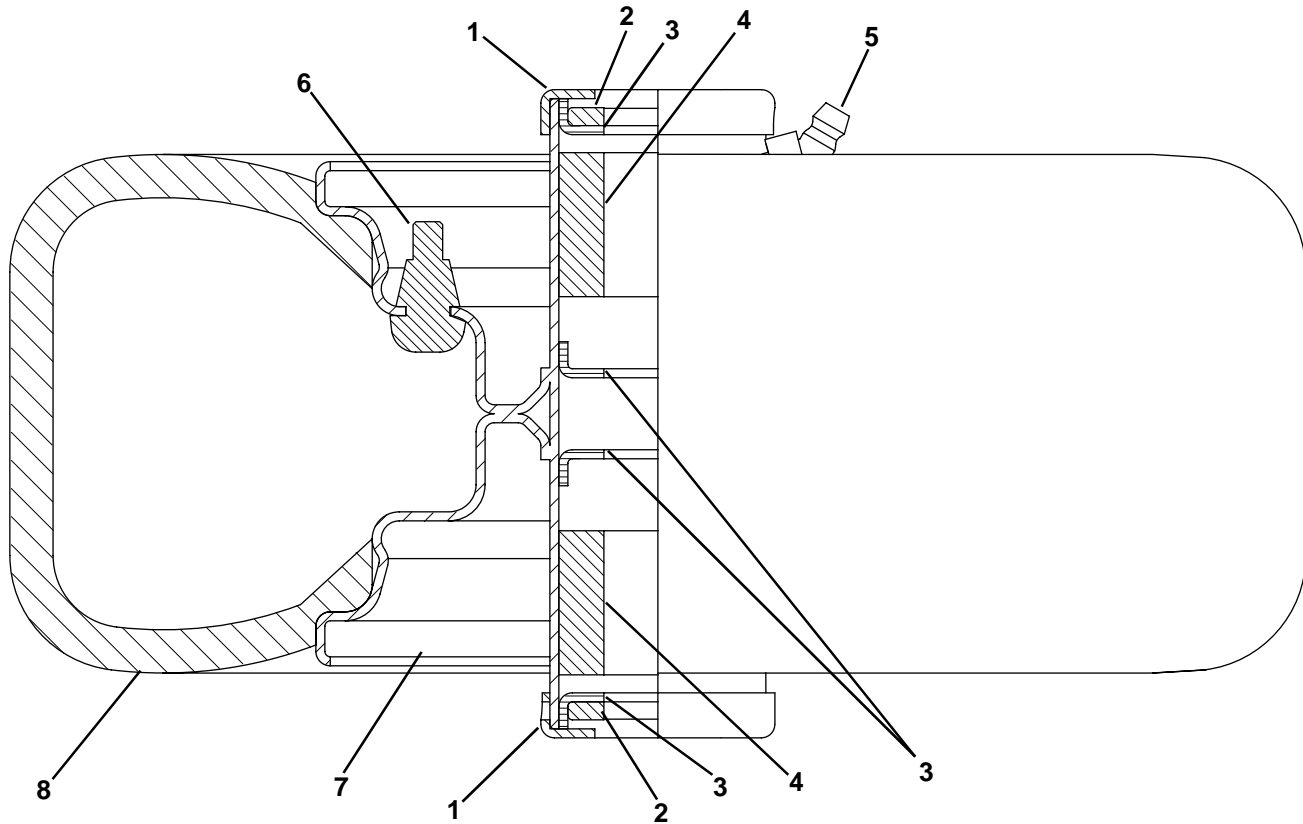


Item	Part No.	Qty.	Description	Serial Numbers/Notes	
	1	5003772	1	Deck Assembly	
>	2	1003403	2	Spindle, Caster Wheel	
	3	3010550	2	Bar, Rotary Mower Cutter	
	4	3008388	2	Adapter, Blade	
	5	131583	4	Caster Wheel Assembly	
	6	1004926	2	Motor, Spindle L.H.	
		5003763	1	• Kit, Seal	
	7	3003209	4	Shaft, Caster Wheel	
	8	PJH1054	16	Spacer	
	9	471214	4	Fitting, Grease	
	10	400410	2	Screw, 1/2-13 x 1-3/4 Hex Hd	
	11	3007764	2	Washer, Blade	
>	12	1003385	2	Spindle, Caster Wheel	
	13	3007434	4	Slide	
	14	3004894	4	Pin, Klik type	
>	15	460064	4	Pin, Cotter 1/4 x 1-1/2"	
	16	403578	4	Screw, #10-24 x 1" Hex Hd	
	17	444310	4	Nut, #10-24 Hex	
	18	446118	4	Lockwasher, #10 Hvy	
	19	440124	12	Bolt, 3/8-16 x 1-3/4" Carriage	
	20	453011	12	Washer, 3/8 Flat	
	21	446142	22	Lockwasher, 3/8 Hvy	
	22	443110	22	Nut, 3/8-16 Hex	
	23	402690	8	Screw, 3/8-16 x 1-3/4 SL FL Hd	
	24	446140	6	Lockwasher, 3/8	
	25	207485	1	Housing, Reel Pivot	
		471216	4	Grease Fitting, 45°	
	26	366593	1	Spacer, Caster Wheel	
	27	400420	1	Screw, 1/2-13 x 3-1/2" Hex Hd	
	28	1004667	2	Pin, Weldment	
	29	3009050	4	Plate, Holding	
>	30	444784	2	Locknut, 1/2-13 Center Jam	
	31	PL7540	1	Wheel	
	32	3010125	1	Washer, Thrust	
	33	400264	6	Screw, 3/8-16 x 1-1/4" Hex Hd	
	34	367186	1	Clamp, 2 Hose	
	35	400122	1	Screw, 1/4-20 x 2-1/2" Hex Head	
	36	444708	1	Locknut, 1/4-20 Center	
>	37	452004	4	Flat Washer, #10	

> Change from previous revision

## 46.1 Caster Wheels



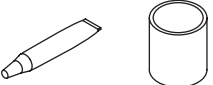
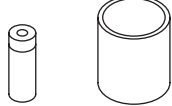
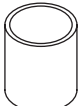
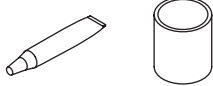

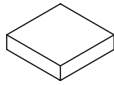
Part Number 1003999



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	551440	2	End Cap	
2	551439	2	Seal, Grease	
3	551437	4	Stop Washer	
4	551438	2	Roller Bearing	
5	471218	1	Grease Fitting, 45°	
6	360111	1	Valve, Inflation	
7	5003066	1	Wheel Rim	
8	551436	1	Tire, 9 x 3.5 - 4	

> Change from previous revision

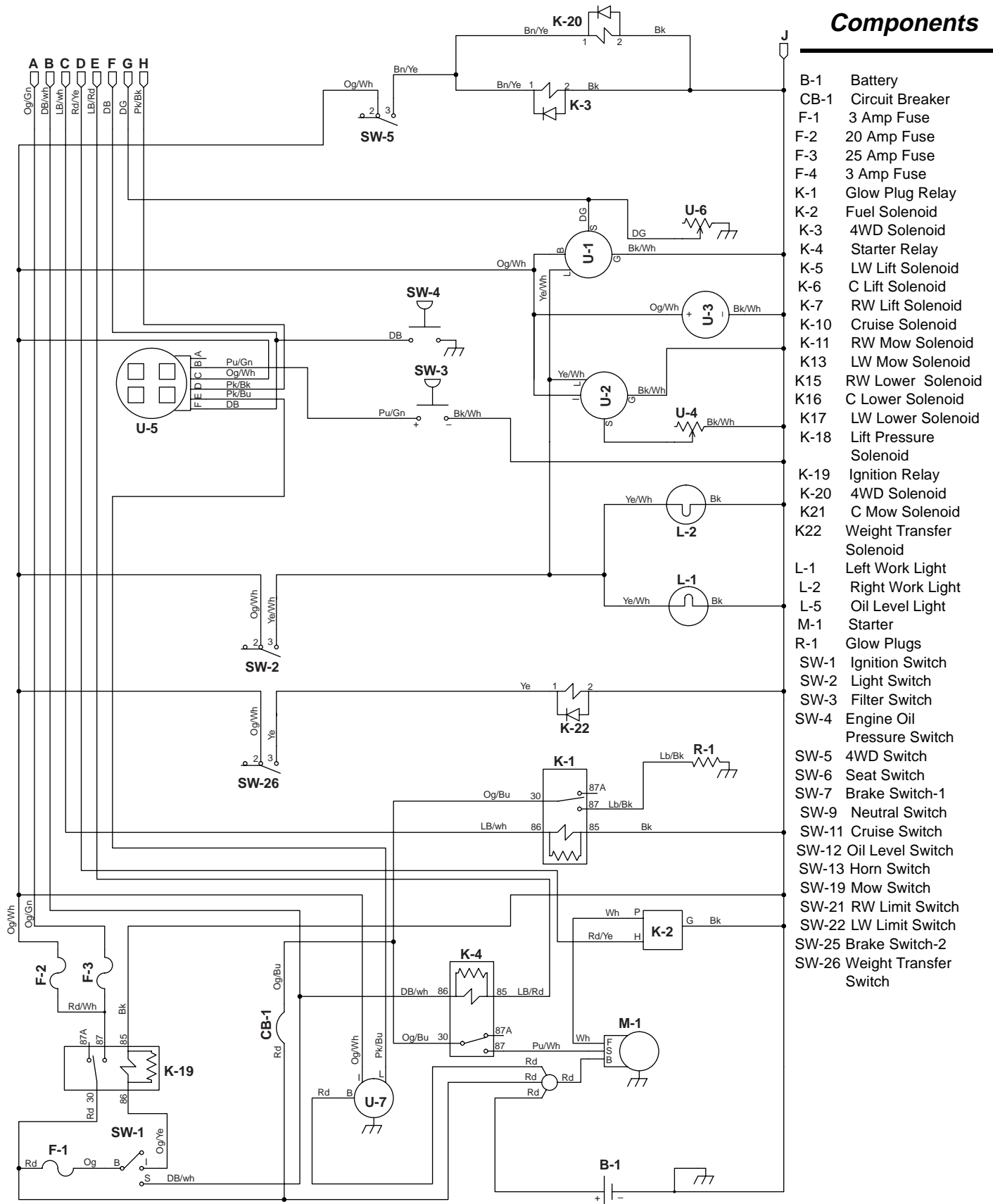
# Fluids and Compounds

<b>Hydraulic Fluid*</b>		
5001405	Two 2-1/2 Gallon Container of ISO VG68 Oil	
5001404	One 5 Gallon Pail of ISO VG68 Oil	
502696	Two 2-1/2 Gallon Container of 10W30 Oil	
502693	One 5 Gallon Pail of 10W30 Oil	
503409	Two 2-1/2 Gallon Container of ATF Fluid	
503407	One 5 Gallon Pail of ATF Fluid	
<b>2-Cycle Oil</b>		
554600	Twenty Four 16 Ounce Plastic Container	
554599	Twenty Four 8 Ounce Plastic Container	
<b>Grease</b>		
5000067	One 5 Gallon Pail OO-Grease	
5000068	Twenty Four 8 Ounce Tube OO-Grease	
<b>Paint</b>		
5003469	16 Ounce Gray Aerosol	
554598	Six 12 Ounce Orange Aerosol	
546408	Twelve 1 Quart Can Orange	
546409	Two 1 Gallon Can Orange	
<b>Lapping Compound</b>		
5002488	One 10 Pound Pail of 80 Grit	
5002490	One 25 Pound Pail of 80 Grit	
5002489	One 10 Pound Pail of 120 Grit	
5002491	One 25 Pound Pail of 120 Grit	
<b>Specialty Compound</b>		
365422	5.3 Ounce Tube of Electrical Insulating Gel	
5001581	14 Ounce Can of Lubriplate Multi Lube A	
<b>Biodegradable Hydraulic Fluid*</b>		
5003102	One 55 Gallon Drum TTCSP Greens Care 68	
5003103	One 5 Gallon Pail TTCSP Greens Care 68	
5003105	One 55 Gallon Drum TTCSP Greens Care 46	
5003104	One 5 Gallon Pail TTCSP Greens Care 46	
5003106	Twenty Four 14 Ounce Tube Greens Care Grease	
<b>O-Ring Kit</b>		
5002452	SAE O-Ring Boss (3/32 ~ 2" Tube O.D.)	
5002453	Common O-Ring Kit	
5002454	O-Ring Face Seal ORFS (-4 ~ -24 ORS Tube Size)	
<b>Fuel Cans</b>		
554948	One 2.5 Gallon Plastic	
554949	One 5 Gallon Plastic	
<b>Right Start Kit for New Machines</b>		
See your local TTCSP dealer		
<b>On-Time Maintenance Kit</b>		
See your local TTCSP dealer		

\* Refer to the Operator's manual or the Parts & Maintenance Manual for the correct hydraulic oil requirements for your machine. Textron Turf Care And Specialty Products offers a High Usage Parts Catalog illustrating commonly used Parts through easy to read line Drawings. See your local TTCSP dealer for a copy.

## 47.1 Electrical Schematic

### Components



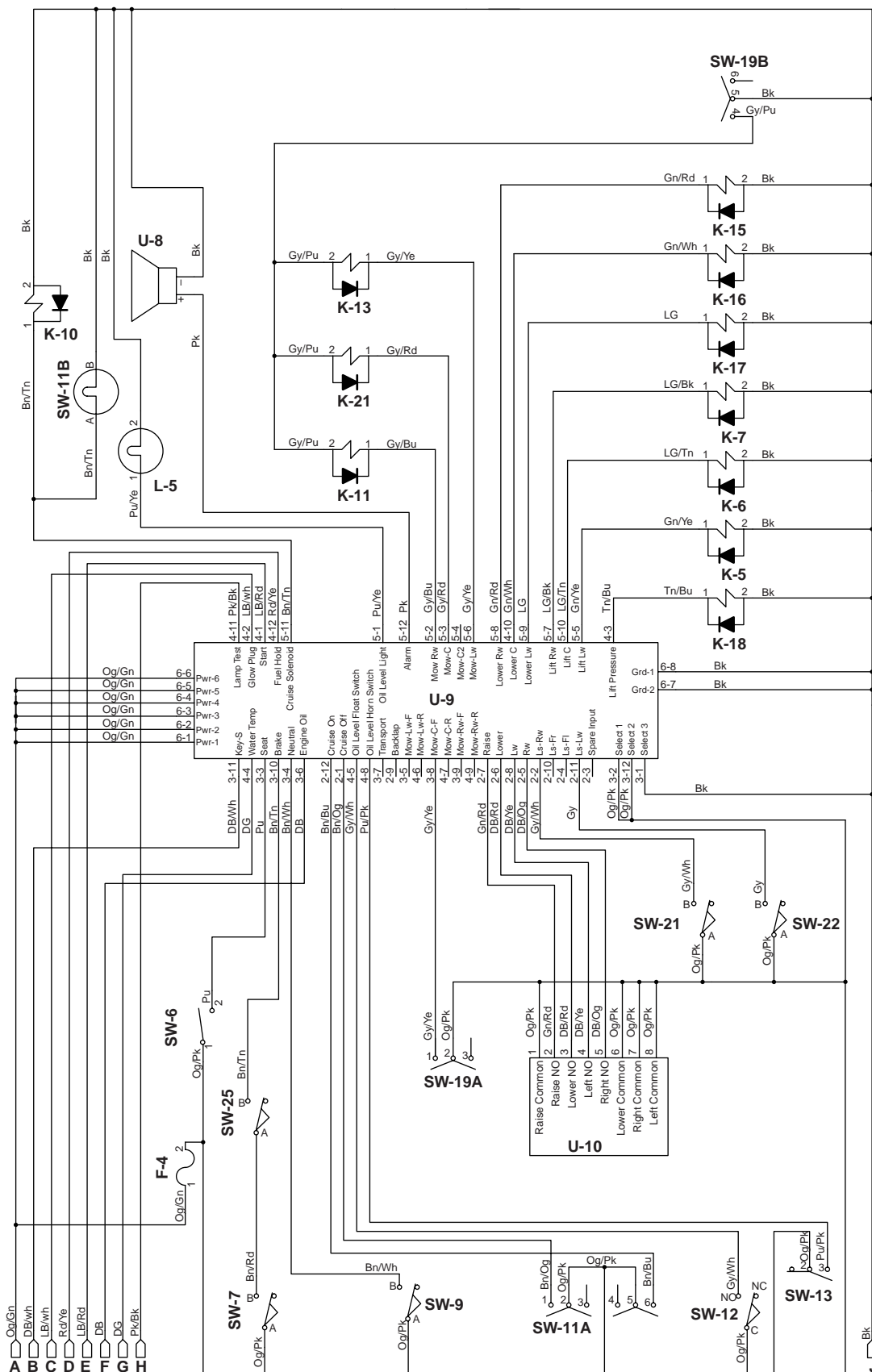


## Components

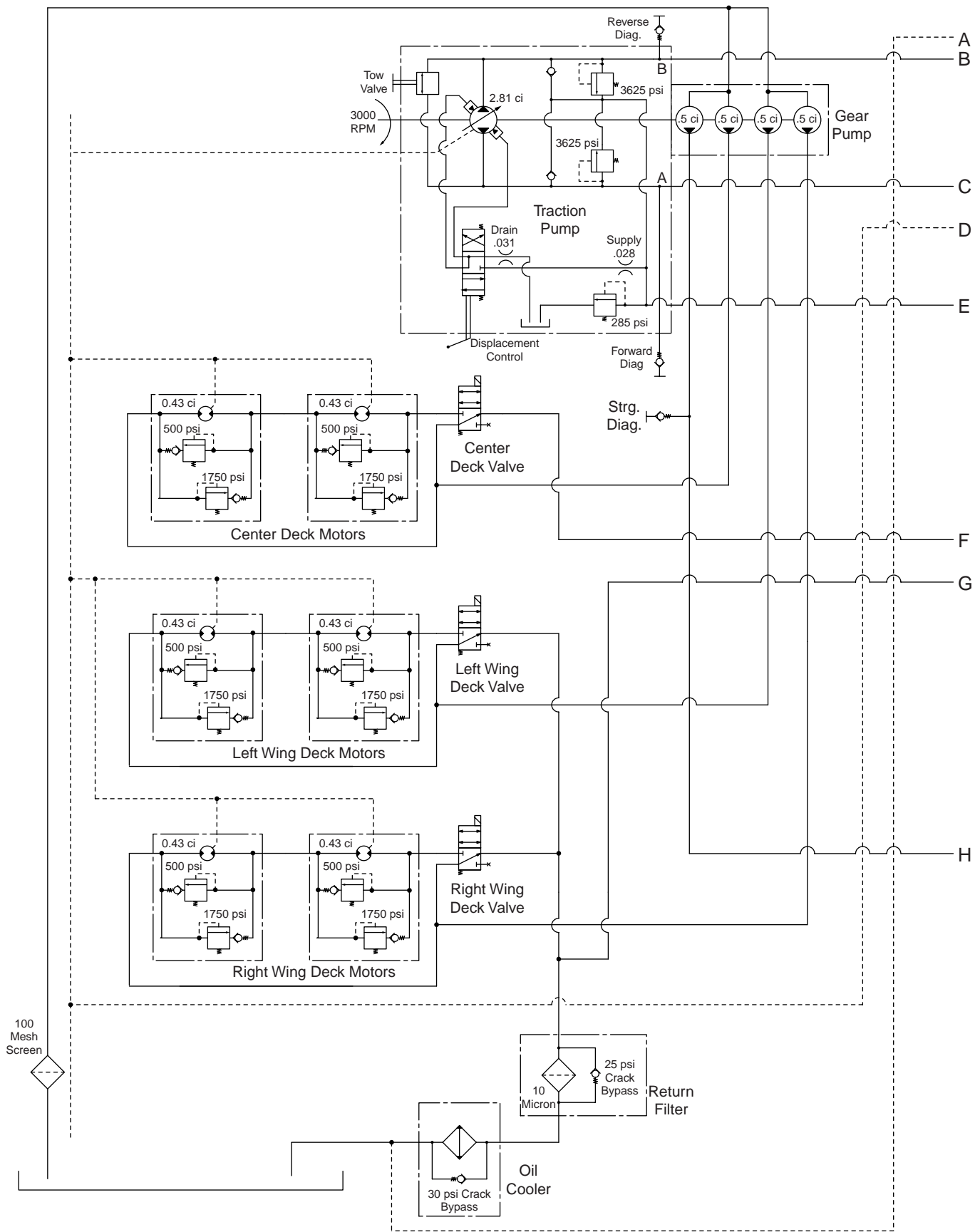
- U-1 Temp Gauge
- U-2 Fuel Gauge
- U-3 Hour Meter
- U-4 Fuel Sender
- U-5 Light Gauge
- U-6 Temp Sender
- U-7 Alternator
- U-8 Horn
- U-9 Controller
- U-10 Joystick

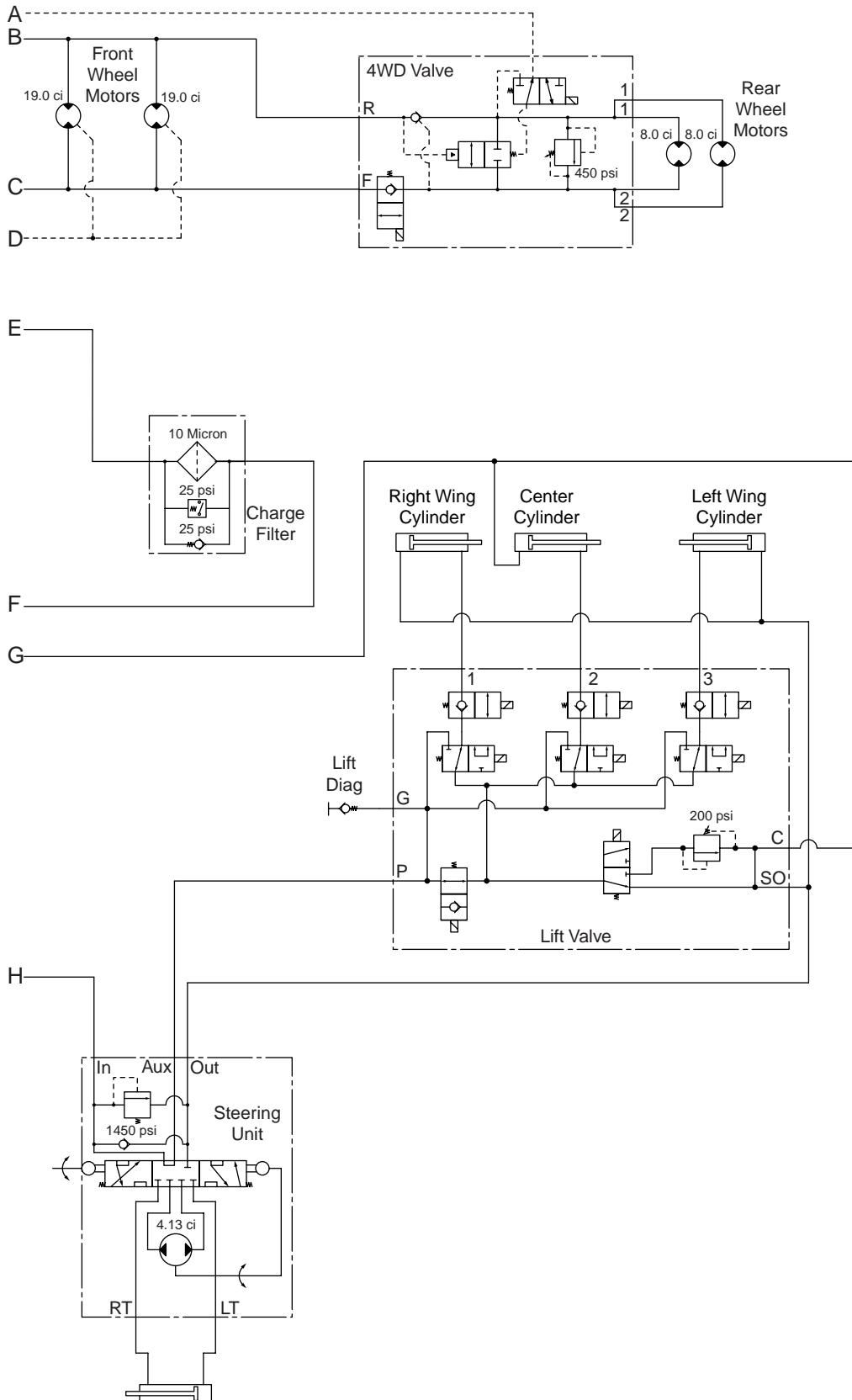
## Colors

- Bk Black
- Bn Brown
- Bu Blue
- DB Dark Blue
- DG Dark Green
- Gn Green
- Gy Gray
- LB Light Blue
- LG Light Green
- Og Orange
- Pk Pink
- Pu Purple
- Rd Red
- Tn Tan
- Wh White
- Ye Yellow



## 48.1 Hydraulic Schematic





## 49.1 O-Ring Chart

<p>O-Ring Face Seal Size — <math>W-X</math> — O-Ring Boss Dash Size</p>	<p>O-Ring Face Seal Size — <math>W-X</math> — O-Ring Boss Dash Size</p>	<p>O-Ring Face Seal Size — <math>W-X</math> — O-Ring Boss Dash Size</p>
<p>O-Ring Face Seal Size — <math>W-X-Y</math> — O-Ring Boss Dash Size</p>	<p>O-Ring Face Seal Size — <math>W-X-Y</math> — O-Ring Not Needed</p>	<p>O-Ring Face Seal Size — <math>W-X-Y</math> — O-Ring Not Needed</p>
<p>O-Ring Face Seal Size — <math>W-X</math> — O-Ring Face Seal Size</p>	<p>O-Ring Face Seal Size — <math>W-X</math> — O-Ring Face Seal Size</p>	<p>O-Ring Face Seal Size — <math>W-X-Y</math> — O-Ring Face Seal Size</p>
<p>O-Ring Face Seal Size — <math>W-X</math> — O-Ring Face Seal Size</p>	<p>O-Ring Face Seal Size — <math>W-X-Y</math> — O-Ring Boss Dash Size</p>	<p>O-Ring Face Seal Size — <math>W-X</math> — O-Ring Face Seal Size</p>
<p>O-Ring Face Seal Size — <math>W-X</math> — O-Ring Face Seal Size</p>	<p>O-Ring Face Seal Size — <math>W-X-Y</math> — O-Ring Face Seal Size</p>	<p>O-Ring Face Seal Size — <math>W-X</math> — O-Ring Not Needed</p>
<p>O-Ring Face Seal Size — <math>W-X-Y-Z</math> — O-Ring Face Seal Size</p>		<p>O-Ring Face Seal Size — <math>W-X</math> — O-Ring Not Needed</p>

Adapter Part Number.	Dash Size	Adapter Type	(W) O-Ring	(X) O-Ring	(Y) O-Ring	(Z) O-Ring
339972	4-4	Straight Adapter	339908	339896		
339974	4-6	Straight Adapter	339908	339897		
339979	6-6	Straight Adapter	339909	339897		
339984	8-8	Straight Adapter	339910	339898		
339989	10-10	Straight Adapter	339911	339899		
339990	10-12	Straight Adapter	339911	339900		
339994	12-12	Straight Adapter	339912	339900		
339996	12-16	Straight Adapter	339912	339901		
339998	16-12	Straight Adapter	339913	339900		
339999	16-16	Straight Adapter	339913	339901		
340008	4-4	Straight Adapter	339908	339896		
340033	10-10	45° Adapter	339911	339899		
340055	4-4	90° Adapter	339908	339896		
340061	6-6	90° Adapter	339909	339897		
340066	8-8	90° Adapter	339910	339898		
340069	10-8	90° Adapter	339911	339898		
340070	10-10	90° Adapter	339911	339899		
340090	24-24	90° Adapter	339915	339903		
340119	6-6-6	Swivel Run Tee	339909	339909		
340191	6-6	45° Bulkhead Adapter	339909	339909		
340214	4-4-4	Bulkhead Run Tee	339908	339908	339908	
340215	6-6-6	Bulkhead Run Tee	339909	339909	339909	
340264	8-8-8	Straight Thread Run Tee	339910	339898	339910	
340274	8-10-8	Straight Thread Run Tee	339910	339899	339910	
340339	16-16-16	Union Tee	339913	339913	339913	
340375	6-6	90° Swivel Adapter	339909			
340376	8-8	90° Swivel Adapter	339910			

SAE Boss O-Rings			ORS Face Seal O-Rings		
Dash Size	Thread Size	O-Ring	Tube Size	Thread Size	O-Ring
2	5/16-24	459290	4	9/16-18	339908
3	3/8-24	459291	6	11/16-16	339909
4	7/16-20	339896	8	13/16-16	339910
5	1/2-20	459293	10	1-14	339911
6	9/16-18	339897	12	1 3/16-12	339912
8	3/4-16	339898	16	1 7/16-12	339913
10	7/8-14	339899	20	1 11/16-12	339914
12	1 1/16-12	339900	24	2-12	339915
14	1 3/16-12	459296			
16	1 5/16-12	339901			
20	1 5/8-12	339902			
24	1 7/8-12	339903			
32	2 1/2-12	339904			

> Change from previous revision

# INDEX

1001757.....	41	1004109.....	69	2809790.....	35	3006436.....	35
1002031.....	43, 45	1004110.....	64	2809794.....	55	3006440.....	35
1002032.....	43, 45	1004111.....	64	2809907.....	53	3006448.....	35
1002549.....	39	1004112.....	64	2809927.....	29	3006509.....	35, 77
1002622.....	63	1004113.....	74	2810006.....	53	3006583.....	49
1002657.....	47	1004114.....	74	2810008.....	91	3006584.....	49
1002679.....	35	1004115.....	74	2810009.....	91	3006585.....	49
1002810.....	35	1004116.....	65	2810010.....	57	3006615.....	31
1002854.....	53	1004117.....	66	2810034.....	87	3006632.....	49
1002857.....	51	1004119.....	65	2810038.....	87	3006633.....	49
1002862.....	41	1004120.....	74	2810213.....	77	3006634.....	49
1002931.....	52	1004121.....	74	2810219.....	66	3006797.....	51
1002954.....	35	1004122.....	71	2810255.....	64	3006799.....	77
1002984.....	39	1004123.....	71	2810424.....	77	3006838.....	39
1003006.....	55	1004124.....	69	2810674.....	55, 59	3006840.....	31
1003047.....	41	1004128.....	65	2811547.....	47	3006882.....	55
1003074.....	39	1004131.....	75	3000953.....	69	3006909.....	33
1003094.....	63	1004132.....	71	3001279.....	61	3006910.....	33
1003095.....	63	1004133.....	69	3001296.....	65	3006981.....	43, 45
1003239.....	51	1004135.....	69	3001307.....	77	3006988.....	33
1003260.....	51	1004137.....	72, 73	3001328.....	33	3006997.....	39
1003261.....	51	1004246.....	69	3001376.....	77	3006998.....	37
1003264.....	77	1004279.....	33	3001388.....	49	3006999.....	37
1003288.....	37	1004445.....	62	3001435.....	29	3007001.....	37
1003341.....	64	1004499.....	57	3001965.....	49	3007129.....	29
1003342.....	64	1004598.....	52	3002195.....	49	3007169.....	53
1003385.....	93	1004642.....	75	3002397.....	61	3007230.....	37
1003386.....	89	1004643.....	75	3002502.....	87	3007290.....	67
1003389.....	66	1004644.....	75	3002695.....	37	3007315.....	31
1003403.....	89, 93	1004648.....	75	3003209.....	89, 93	3007316.....	31
1003439.....	62, 63	1004651.....	66	3003474.....	37	3007392.....	37, 39, 58
1003440.....	63	1004667.....	93	3003475.....	37	3007434.....	93
1003453.....	66	1004730.....	77	3003928.....	33	3007505.....	29
1003454.....	66	1004751.....	91	3004894.....	89, 93	3007514.....	29
1003455.....	63	1004855.....	43	3005121.....	35	3007548.....	31
1003458.....	47	1004856.....	43	3005603.....	49	3007549.....	31
1003461.....	64	1004925.....	89	3005604.....	49	3007550.....	31
1003504.....	39	1004926.....	89, 93	3005605.....	49	3007551.....	31
1003531.....	55	1004981.....	31	3005607.....	49	3007552.....	31
1003532.....	55	1005002.....	31	3005608.....	49	3007558.....	70, 77
1003612.....	67	117139.....	43, 45	3005609.....	49	3007606.....	39
1003638.....	43, 45	123015.....	67	3005871.....	61	3007608.....	33
1003785.....	66	123096.....	47	3005872.....	61	3007609.....	33
1003810.....	62, 63	131583.....	93	3005934.....	47	3007610.....	33
1003812.....	62, 63	132647.....	61	3005981.....	47	3007612.....	33
1003813.....	63	132704.....	67	3006026.....	49	3007661.....	31
1003814.....	62, 63	132871.....	57	3006035.....	35	3007719.....	51
1003992.....	65	153234.....	43, 45	3006036.....	35	3007722.....	55
1003999.....	89	162716.....	91	3006067.....	61	3007750.....	29
1004002.....	53	162723.....	35	3006094.....	49	3007751.....	29
1004011.....	66	163583.....	33	3006243.....	61	3007764.....	89, 93
1004018.....	66	164102.....	51	3006327.....	37, 39	3007765.....	55
1004103.....	64	2000012.....	45	3006332.....	61	3007777.....	77
1004104.....	69	2000057.....	45	3006337.....	61	3007862.....	41
1004105.....	69	2000141.....	41	3006344.....	77	3007889.....	52
1004108.....	69	207485.....	91, 93	3006434.....	35	3007963.....	57

# INDEX

3008132.....	49	303962.....	51	360111.....	41, 43, 45, 94	5001353.....	78
3008195.....	31	315387.....	33	360885.....	35	5001354.....	79
3008218.....	33	326112.....	49	361117.....	61	5002110.....	82
3008327.....	29	333542.....	37	361439.....	77	5002157.....	78
3008374.....	33	339899.....	61	361451.....	45	5002540.....	85
3008383.....	37, 39, 51	339925.....	62	361647.....	43, 45	5002541.....	79
3008388.....	89, 93	339960.....	71	361648.....	43, 45	5002910.....	43
3008474.....	49, 70	339961.....	69, 71	361695.....	51	5002913.....	78
3008508.....	73	339972.....	71	361748.....	61	5002918.....	47
3008521.....	29	339974.....	47	361831.....	70	5002919.....	47
3008522.....	29	339979.....	47, 66, 69	362263.....	51, 52, 53	5003034.....	53
3008576.....	29	339984.....	64, 72, 73	362464.....	91	5003066.....	94
3008577.....	29	339989.....	63, 64, 65, 66, 74	362743.....	53	5003077.....	49
3008605.....	58	339994.....	62, 63	362824.....	55, 57	5003091.....	35
3008614.....	55	339996.....	64	363030.....	64, 67	5003096.....	79
3008673.....	65	339998.....	64	363485.....	51, 52, 53	5003097.....	79
3008682.....	29	339999.....	62, 63, 64, 66	363562.....	43, 45	5003098.....	79
3008745.....	65	340008.....	71	363586.....	51, 52	5003099.....	79
3009050.....	93	340033.....	75	364190.....	65, 70	5003121.....	79
3009078.....	55	340055.....	74, 75	364248.....	55, 57	5003160.....	35
3009158.....	33	340061.....	69	364501.....	51	5003161.....	41
3009164.....	29	340066.....	66	364945.....	64	5003162.....	33
3009193.....	37, 39, 58	340069.....	64	365398.....	49	5003173.....	53
3009204.....	61	340070.....	65	365466.....	64, 67	5003191.....	33
3009210.....	31	340090.....	65	365566.....	70	5003217.....	31
3009251.....	77	340095.....	74, 75	365943.....	35	5003218.....	45
3009292.....	33	340119.....	69	365956.....	29	5003219.....	81
3009347.....	61	340120.....	64	365959.....	65	5003220.....	81
3009378.....	43, 45	340191.....	69	366007.....	91	5003276.....	77
3009431.....	29	340214.....	71	366484.....	91	5003282.....	77
3009435.....	29	340215.....	71	366517.....	55	5003283.....	77
3009698.....	57	340264.....	72, 73	366526.....	49, 61	5003374.....	61
3009716.....	39	340274.....	64	366593.....	91, 93	5003384.....	83
3009728.....	77	340339.....	62	366609.....	87	5003385.....	83
3009798.....	57	340375.....	71	366670.....	35	5003432.....	53
3009804.....	71	340376.....	73	366751.....	35	5003433.....	53
3009995.....	33	340433.....	91	366768.....	35	5003434.....	53
3010125.....	93	340486.....	41	366789.....	43, 45	5003447.....	49
3010226.....	29	340491.....	43, 45	366879.....	51	5003468.....	33
3010290.....	55	340525.....	55, 59	366883.....	31	5003507.....	78
3010387.....	89	340603.....	84	366884.....	51	5003508.....	78, 85
3010390.....	89	340830.....	29	366931.....	77	5003554.....	79
3010414.....	45	342049.....	55	366974.....	37	5003567.....	33
3010415.....	45	345666.....	41, 49, 65	367031.....	51	5003568.....	33
3010512.....	89	346294.....	91	367186.....	70, 91, 93	5003569.....	33
3010546.....	35	348856.....	52	367350.....	45	5003578.....	79
3010550.....	89, 93	351127.....	72, 73	367458.....	49	5003579.....	79
3010551.....	89	351956.....	35	367601.....	91	5003580.....	79
3010575.....	51	352726.....	37, 39	473142.....	64	5003638.....	43
3010653.....	59	353914.....	41, 45	5000039.....	35	5003658.....	45
3010654.....	59	354081.....	58	5000318.....	82	5003664.....	55
3010730.....	91	354807.....	43	5000465.....	86	5003747.....	85
3010772.....	55	354989.....	57, 91	5000919.....	49	5003757.....	78
3010773.....	87	357998.....	55, 57	5000920.....	49	5003758.....	78
3010781.....	43	358971.....	49	5000921.....	49	5003759.....	78
3010800.....	89	359615.....	49	5001065.....	78, 79	5003763.....	89, 93

# INDEX

---

5003765.....	35	557629.....	82
5003770.....	89	557630.....	82
5003772.....	93	557631.....	82
5003774.....	89	557632.....	82
5003777.....	91	557633.....	82
500596.....	43	557634.....	82
502517.....	84	557635.....	82
502924.....	81	557636.....	82
502925.....	81	557637.....	82
503295.....	84	557638.....	82
503296.....	84	557639.....	82
503306.....	84	557640.....	82
503308.....	84	557642.....	82
503309.....	84	557650.....	82
503398.....	81	557733.....	81
545692.....	43	557738.....	81
546131.....	84	557759.....	51
549441.....	84	557771.....	41
550863.....	49	557772.....	67
551436.....	94	558016.....	57
551437.....	94	558020.....	35
551438.....	94	558021.....	35, 51
551439.....	94	558063.....	82
551440.....	94	558064.....	82
553020.....	52	558066.....	82
554329.....	43	590259.....	84
554390.....	33	590260.....	84
554579.....	84	66156.....	33
554663.....	53	66171.....	33
554737.....	33	66172.....	33
554738.....	33	PJH1054.....	89, 93
554739.....	33	PL7540.....	93
554740.....	33		
554748.....	61		
554752.....	61		
554779.....	41, 45, 82, 83		
554780.....	41, 45, 82, 83		
554855.....	81		
554856.....	81		
554857.....	81		
555405.....	77		
555406.....	77		
555486.....	77		
555645.....	77		
555646.....	77		
555647.....	77		
555648.....	77		
555892.....	86		
556417.....	67		
556418.....	67		
556419.....	67		
556450.....	83		
557367.....	49		
557374.....	49		
557620.....	31		
557621.....	43, 45		





## **World Class Quality, Performance And Support**

Equipment from Textron Golf, Turf And Specialty Products is built to exacting standards ensured by ISO 9001 registration at all our manufacturing locations.

A worldwide dealer network and factory-trained technicians backed by Textron Parts Xpress provide reliable, high-quality product support.



**JACOBSEN**  
A Textron Company

---

**BOB CAT BUNTON CUSHMAN E-Z GO JACOBSEN RANSOMES RYAN STEINER**

Textron Golf, Turf & Specialty Products  
PO Box 7708, Charlotte, NC 28241-7708  
[www.ttcsp.com](http://www.ttcsp.com)