



4227700-GB-Rev A



Parts & Maintenance Manual

R-311T™ Rotary Mower with folding ROPS

69171 – Kubota® V2403-M-T

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



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GB

United
Kingdom

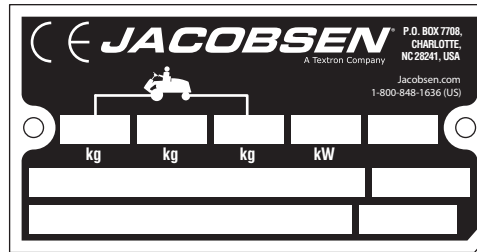
FOREWORD

This manual contains adjustment, maintenance, troubleshooting instructions, and parts list for your new Jacobsen machine. This manual should be stored with the equipment for reference during operation.

Before you operate your machine, you and each operator you employ should read the manual carefully in its entirety. By following the safety, operating, and maintenance instructions, you will prolong the life of your equipment and maintain its maximum efficiency.

If additional information is needed, contact your Jacobsen Dealer.

The serial plate is located on the right frame rail. Jacobsen recommends you record these numbers below for easy reference.



Suggested Stocking Guide

To Keep your Equipment fully operational and productive, Jacobsen suggests you maintain a stock of the more commonly used maintenance items. We have included part numbers for additional support materials and training aids.

To order any of the following material:

1. Write your full name and complete address on your order form.
2. Explain where and how to make shipment:
 - q UPS
 - q Regular Mail
 - q Overnight
 - q 2nd Day

3. Order by the quantity desired, the part number, and the description of the part.
4. Send or bring the order to your authorized Jacobsen Dealer.

Service Parts

Qty.	Part No.	Description	Qty.	Part No.	Description
	4113986	Engine Oil Filter		555771	Hydraulic Return Oil Filter
	549633	Engine Air Filter		2811255	Hydraulic Charge Oil Filter
	557619	Engine Fuel Filter			

Service Support Material

Qty.	Part No.	Description
	4192120	Safety & Operation Manual
	4192121	Parts & Maintenance
	4192126	Kubota Engine Parts Manual
	4219160	Operator Training Video (DVD)

Qty.	Description
	Service Manual

2006/42/EC

These are the Original instructions verified by Jacobsen A Texttron Company.

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Proposition 65 Warning

This product contains or emits chemicals known to State of California to cause cancer and birth defects or other reproductive harm.

1	Safety		4	4	Maintenance		
1.1	Operating Safety	4		4.1	General	16	
1.2	Important Safety Notes	5		4.2	Inspecting Blades	16	
2	Specifications			4.3	Sharpening Blades	17	
2.1	Product Identification	6		4.4	Engine	18	
2.2	Engine	6		4.5	Engine Oil	18	
2.3	Mower	6		4.6	Air Filter	19	
2.4	Cutting Units	7		4.7	Fuel	19	
2.5	Weights And Dimensions	7		4.8	Fuel System	19	
2.6	Accessories And Support Literature	7		4.9	Battery	20	
3	Adjustments			4.10	Jump Starting	20	
3.1	General.....	8		4.11	Charging Battery	20	
3.2	Ball Joints	8		4.12	Hydraulic Hoses	21	
3.3	Engine Alternator Belt	8		4.13	Hydraulic Oil	21	
3.4	Brake Pedal	9		4.14	Hydraulic Oil Filters	22	
3.5	Parking Brake Switch	9		4.15	Electrical System	22	
3.6	Cruise Control Switch	10		4.16	Muffler And Exhaust	22	
3.7	Mow Speed	10		4.17	Tires	22	
3.8	Weight Transfer	10		4.18	Wheel Mounting Procedure	23	
3.9	Hydro Neutral	11		4.19	Care And Cleaning	23	
3.10	Reverse Sensing Switch	11		4.20	Rollover Protection Structure (ROPS)	23	
3.11	Steering Toe In	12		4.21	Radiator And Oil Cooler	24	
3.12	Turning Radius	12		4.22	Storage	25	
3.13	Steering Stop Bolts	12		5	Troubleshooting		
3.14	Cutting Height	13		5.1	General	26	
3.15	Leveling Front Mower	14		6	Maintenance & Lubrication Charts		
3.16	Servicing Front Deck	14		6.1	General	27	
3.17	Torque Specification	15		6.2	Lubrication Chart	27	
3.18	Specific Torque	15		6.3	Maintenance Charts	28	
				7	Notes		
				8	Parts List		
				8.1	How To Use The Parts Catalog	30	
				8.2	How To Order Parts	30	
				8.3	Table Of Contents	31	

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 operators 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 & Operation Manual, Engine Manual, and attachments/accessories instruction sheets). If the operator cannot 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. Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by Jacobsen.
7. Stay alert for holes in the terrain and other hidden hazards.
8. 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.
9. 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.
10. Do not carry passengers. Keep bystanders and pets a safe distance away.
11. 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.
12. Never disconnect or bypass any switch.
13. Do not change the engine governor setting or overspeed the engine.
14. Carbon monoxide in the exhaust fumes can be fatal when inhaled. Never operate the engine without proper ventilation or in an enclosed area.
15. Fuel is highly flammable; handle with care.
16. Keep the engine clean. Allow the engine to cool before storing and always remove the ignition key.
17. 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.
18. Equipment must comply with the latest federal, state, and local requirements when driven or transported on public roads. Watch out for traffic when crossing or operating on or near roads.
19. Local regulations may restrict the age of the operator.
20. Operate the machine up and down the face of slopes (vertically), not across the face (horizontally).
21. To prevent tipping or loss of control, do not start or stop suddenly on slopes. Reduce speed when making sharp turns. Use caution when changing directions.
22. Always use the seat belt when operating mowers equipped with a Roll Over Protective Structure (ROPS).
Never use a seat belt when operating mowers without a ROPS or with the ROPS folded.
23. Keep legs, arms, and body inside the seating compartment while the vehicle is in motion.
24. Disconnect battery cables before performing any welding on this mower.

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.

NOTICE - Indicates a potentially hazardous situation which, if not avoided, **MAY** result in 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 mower prevents the mower from starting unless the brake pedal is engaged, PTO 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 or setting the PTO switch off.

NEVER operate mower 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 Jacobsen Dealer who is kept informed of the latest methods to service this equipment and can provide prompt and efficient service.

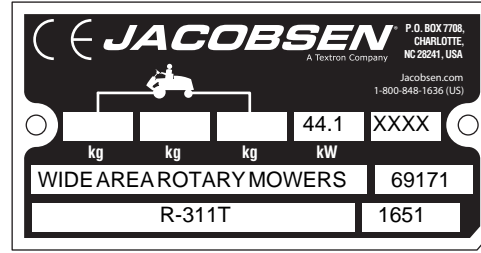
2 SPECIFICATIONS

2.1 PRODUCT IDENTIFICATION

69171 R-311T with folding ROPS.

Serial Number An identification plate, like the one shown, listing the serial number, is attached to the frame of the mower near the center lift arm mount.

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



Product	EEC Sound Power	Sound Pressure Level Operator Ear	Vibration M/S ²	
			Arms	Body
69171	105 dBa	88 dBa	4.97	0.138

2.2 ENGINE

Make Kubota
 Model V2403-M-T-E3B
 Horsepower 55.9 hp (44.1 kW) @2600 rpm

Note: Actual sustained horsepower will likely be lower than listed in specifications due to operating limitations and environmental factors

Displacement 148 cu. in. (2434 cc)
 Bore and Stroke 3.43 x 4.03 in. (87 x 102.4 mm)
 Compression Ratio 23.8:1
 Torque 120.7 ft. lbs. (163.6 Nm) @ 1800 rpm

Fuel:
 Type No. 2 Low or Ultra Low Sulfur Diesel
 Rating Min. Cetane rating 45
 Capacity 20 U.S. Gal. (75.7 liters)

Fuel Injection Pump Bosch K type Mini Pump
 Ignition Timing 19° before TC
 Governor Centrifugal ball mechanical
 Low Idle 900 RPM
 High Idle 2850 RPM
 Lubrication:
 Capacity 10 quarts (9.5 liter) with filter
 Type 10W30
 API Classification CD, CE
 Air Filter Dry type with evacuator valve and service indicator
 Alternator 45 amp
 Cooling System Liquid Cooled
 Capacity 8 qt. (7.6 l) 50/50 water / ethylene glycol mix
 Thermostat 185° F (95° C)

2.3 MOWER

Tires:
 Front 26x12-12, 6 Ply
 Rear 23x10.5-12, 4 Ply
 Pressure:
 Front 16-20 psi (1.10-1.38 BAR)
 Rear 10-12 psi (0.69-0.83 BAR)
 Battery:
 Type 12 Volt Lead/Acid
 Group AABM#75NF
 Rating 750 CCA at 0° F (-18° C)
 Service Brake Pedal operated disc brakes
 Parking Brake Pedal operated disc brakes
 Differential Single speed, limited slip

Speed:
 Forward (2WD) 0- 14.9 mph (0- 24.0 km/h)
 Forward (4WD) 0- 7.8 mph (0- 12.5 km/h)
 Mow 0- 7.7 mph (0- 12.4 km/h)
 Reverse 0- 6 mph (0- 9.6 km/h)
 Hydraulic System:
 Capacity 17 U.S. gal. (64.3 liters)
 Fluid Type 10W30
 Return Filter Full Flow 10 micron
 Charge Filter Full Flow 10 micron
 Steering Power steering, rear wheels
 Mower Lift 3 spool manual valve and single acting cylinders
 PTO Drive Fixed Flow Hydraulic

2.4 CUTTING UNITS

Type	Three Fully Floating Decks	Cutting Width:	
Width:		Front and both Wings .	134 in. (3403 mm)
Front Deck	64 in. (1625 mm)	Front and one wing.....	99 in. (2514 mm)
Wing Decks	42 in. (1067 mm)	Front only	64 in. (1625 mm)
		Drive	Hydraulic Motors
		Cutting Height	1.00-5.5 in. (25-140 mm)

2.5 WEIGHTS AND DIMENSIONS

Dimensions:	Inches	(mm)	Width - Mowing Position	139	(3530)
Length	144	(3657)	Ground Clearance	8	(203)
Height (ROPS).....	84	(2134)	Turning Radius	33	(838)
Height (ROPS with Canopy)	92	(2337)	Weights:		
Height (ROPS Folded)	63.5	(1613)	Fuel tank filled and cutting units installed. Less Operator		
Wheel Base	67.8	(1722)	69166	3974	(1803)
Width - Transport Position	93.5	(2375)			

2.6 ACCESSORIES AND SUPPORT LITERATURE

Contact your area Jacobsen Dealer for a complete listing of accessories and attachments.



Use of other than Jacobsen authorized parts and accessories may cause personal injury or damage to the equipment.

Accessories

Air Blow Gun	JAC5098
Orange Touch-up Paint (12 oz. spray)	554598
Mulcher Kit.....	69123
High Lift Blade Kit	970198
Care Free Tire Kit	2811453
Canopy / Sunshade.....	68095
Light Kit.....	4194160
Blade Balancer	JAC5016
Cab/Cab Accessories	l
Brush/Sweeper	u
Snow Blower.....	s

Support Literature

Safety & Operation Manual	4192120
Parts & Maintenance Manual	4192121
Diesel Engine Parts Catalog	4192126
Operator Training Video (DVD)	4219160

l Contact: Jodale Perry Corporation
 Box 990, 300 Route 100
 Morden, Manitoba, Canada R6M 1A8
 Phone: (204) 822-9100
 Fax: (204) 822-9111

s Contact: M-B Companies, Inc.
 1200 S. Park Street, Box 148
 Chilton, WI 53014
 Phone: (888) 558-5801
 Fax: (414) 849-2109

u Contact: Loftness Specialized Equipment, Inc.
 South Highway 4
 Hector, MN 55342
 Phone 800.848.7624
 ATTN Doug Haley

2 SPECIFICATIONS

2.7 DECLARATION OF CONFORMITY

DECLARATION OF CONFORMITY • ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ • PROHLÁŠENÍ O SHODĚ • OVERENSSTEMMELSESERKLÆRING • CONFORMITEITSVERKLARING • VASTAVUSDEKLARATSIOON • VAATIMUSTENMUKAISUUSVAKUUTUS • DECLARATION DE CONFORMITE • KONFORMITÄTSEKTLÄRUNG • ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ • MEGFELELŐSÉGI NYILATKOZAT • DICHIARAZIONE DI CONFORMITÀ • ATBILSTĪBAS DEKLARĀCIJA • ΑΤΙΤΙΚΤΙΕΣ ΔΕΚΛΑΡΑΚΙJA • ΔΙΚJΑΡΑΖΖJONΙ ΤΑΛ-ΚΟΝΦΟΜΙΤĀ • DEKLARACJA ZGODNOŚCI • DECLARAÇÃO DE CONFORMIDADE • DECLARAȚIE DE CONFORMITATE • VYHLÁŠENIE O ZHODE • IZJAVA O SKLADNOSTI • DECLARACIÓN DE CONFORMIDAD • DEKLARATION OM ÖVERENSSTÄMMELSE

Business name and full address of the manufacturer • Търговско име и пълен адрес на производителя • Obchodní jméno a plná adresa výrobce • Producentens firmanavn og fulde adresse • Bedrijfsnaam en volledig adres van de fabrikant • Tootja ärinimi ja täielik address • Valmistajan toiminimi ja täydellinen osoite • Nom commercial et adresse complète du fabricant • Firmenname und vollständige Adresse des Herstellers • Εταιρεία και ταχυδρομική διεύθυνση κατασκευαστή • A gyártó üzleti neve és teljes címe • Ragione sociale e indirizzo completo del fabbricante • Uzhņēmuma nosaukums un pilna ražotāja adrese • Verslo pavadinimas ir pilnas gamintojo adresas • Isem kummerčjalni u indirizz sñih tal-fabbrikant • Nazwa firmy i pełny adres producenta • Nome da empresa e endereço completo do fabricante • Denumirea comercială și adresa completă a producătorului • Obchodný názov a úplná adresa výrobcu • Naziv podjetja in polni naslov proizvajalca • Nombre de la empresa y dirección completa del fabricante • Tillverkarens företagsnamn och kompletta adress	Jacobsen, A Textron Company 11524 Wilmar Blvd. Charlotte, NC 28273, USA
Product Code • Код на продукта • Kód výrobku • Produktkode • Productcode • Toote kood • Tuotekoodi • Code produit • Produktcode • Κωδικός προϊόντος • Termékkód • Codice prodotto • Produkta kods • Produktu kodas • Kodici tal-Prodott • Kod produktu • Código do Produto • Cod produs • Kód výrobku • Oznaka proizvoda • Código de producto • Produktkod	69171
Machine Name • Наименование на машината • Název stroje • Maskinnavn • Machinenaam • Masina nimi • Laitteen nimi • Nom de la machine • Maschinenbezeichnung • Ονομασία μηχανήματος • Gépnév • Denominazione della macchina • Iekārtas nosaukums • Mašinos pavadinimas • Isem tal-Magna • Nazwa urządzenia • Nome da Máquina • Numele echipamentului • Názov stroja • Nombre de la máquina • Maskinens namn	R-311T
Designation • Предназначение • Označení • Betegnelse • Benaming • Nimetus • Tuypimerkintä • Pažymėjimas • Bezeichnung • Χαρακτηρισμός • Megnevezés • Funzione • Apzīmējums • Lithuanian • Denominazzjoni • Oznaczenie • Designação • Specificație • Označenje • Namen stroja • Descripción • Beteckning	Lawnmower, Article 12, Item 32
Serial Number • Серийн номер • Sériové číslo • Seriennummer • Seriennummer • Seerianumber • Valmistusnumero • Numéro de série • Seriennummer • Σειριακός αριθμός • Sorozatszám • Numero di serie • Sērijas numurs • Serijos numeris • Numru Serjali • Numer seryjny • Número de Série • Număr de serie • Sériové číslo • Serijska številka • Número de serie • Seriennummer	6917101651-6917103000
Engine • Двигател • Motor • Motor • Motor • Mootor • Mootort • Moteur • Motor • Μηχανή • Modulnėv • Motore • Dzinējs • Variklis • Sahha Netta Installata • Silnik • Motor • Motor • Motor • Motor • Motor • Motor	Kubota V2403-M-T-E3B Diesel
Net Installed Power • Нетна инсталирана мощност • Čistý instalovaný výkon • Installeret nettoeffekt • Netto geïnstalleerd vermogen • Installeeritud netovõimsus • Asennettu nettoteho • Puissance nominale nette • Installierte Nettoleistung • Καθαρή εγκατεστημένη ισχύς • Nettó beépített teljesítmény • Potenza netta installata • Paredzētā tīkla jauda • Grynoji galia • Wisa' tal-Qtugh • Moc zainstalowana netto • Potência instalada • Puterea instalată netă • Čistý inštalovaný výkon • Neto vgrajena moč • Potencia instalada neta • Nettoeffekt	44,1 kW @ 2600 RPM
Cutting Width • Широчина на рязане • Šírka fezu • Skærebredde • Maaibreedte • Lõikelaius • Leikkuleveys • Largeur de coupe • Schnittbreite • Μήκος μισάντζας • Vágási szélesség • Larghezza di taglio • Griešanas platumas • Pjovimo plotis • Tikkonforma mad-Direttivi • Szerokość cięcia • Largura de Corte • Lățimea de tăiere • Šírka záberu • Širina reza • Anchura de corte • Klippbredd	340 cm
Conforms to Directives • В съответствие с директивите • Splūņe podminky smērnīc • Er i overensstemmelse med direktiver • Voldoet aan de richtlijnen • Vastab direktiividele • Direktiivien mukainen • Conforme aux directives • Entspricht Richtlinien • Ακολουθεί τις προδιαγραφές • Megfelel az irányelveknek • Conforme alle Direttive • Atbilst direktīvām • Atitinka direktyvų reikalavimus • Valutazzjoni tal-Konformità • Dyrektyvy związane • Cumpre as Directivas • Respectă Directivale • Je v súlade so smernicami • Skladnost z direktivami • Cumple con las Directivas • Uppfyller direktiv	2004/108/EC 2006/42/EC 2004/14/EC, 2005/88/EC 2006/66/EC
Conformity Assessment • Оценка за съответствие • Hodnocení plnění podmínek • Overensstemmelsesvurdering • Conformiteitsbeoordeling • Vastavushindamine • Vaatimustenmukaisuuden arviointi • Evaluation of conformity • Konformitätsbeurteilung • Διαπίστωση Συμμόρφωσης • Megfelelőség-értékelés • Valutazione della conformità • Atbilstības novērtējums • Atitiktības įvertinimas • Livell tal-Qawwa tal-Foss Imkejjel • Ocena zgodności • Avaliação de Conformidade • Evaluarea conformității • Vyhodnotenie zhodnosti • Ocena skladnosti • Evaluación de conformidad • Bedømming av overensstammelse	2006/42/EC Annex VIII
Measured Sound Power Level • Измерено ниво на звукова мощност • Naměřený akustický výkon • Målte lydstyrkeniveau • Gemeten geluidsniveau • Mõõdetud helivõimsuse tase • Mitattu äänitehotaso • Niveau de puissance sonore mesuré • Gemessener Schalldruckpegel • Στραβισμένο επίπεδο ηχητικής ισχύος • Mért hangteljesítményszint • Livello di potenza sonora misurato • Izmērtais skaņas jaudas līmenis • Išmatuotas garso stiprumo lygis • Livell tal-Qawwa tal-Foss Iggarrantit • Moc akustyczna mierzona • Nivel sonoro medido • Nivelul măsurat al puterii acustice • Nameranā hladina akustiského výkonu • Izmerjena raven zvočne moči • Nivel de potencia sonora medido • Uppmätt ljudeffektsnivå	104 dB(A) LWA
Guaranteed Sound Power Level • Гарантирано ниво на звукова мощност • Garantovaný akustický výkon • Garanteret lydstyrkeniveau • Gegarandeerd geluidsniveau • Garantieitud helivõimsuse tase • Taattu äänitehotaso • Niveau de puissance sonore garanti • Garantierter Schalldruckpegel • Εγγυημένο επίπεδο ηχητικής ισχύος • Szavatolt hangteljesítményszint • Livello di potenza sonora garantito • Garantētais skaņas jaudas līmenis • Garantuotas garso stiprumo lygis • Livell tal-Qawwa tal-Foss Iggarrantit • Moc akustyczna gwarantowana • Nivel sonoro garantido • Nivelul garantat al puterii acustice • Garantovaná hladina akustického výkonu • Zajamčena raven zvočne moči • Nivel de potencia sonora garantizado • Garanterad ljudeffektsnivå	105 dB(A) LWA
Conformity Assessment Procedure (Noise) • Оценка за съответствие на процедурата (Шум) • Postup hodnocení plnění podmínek (hluk) • Procedure for overensstemmelsesvurdering (Støj) • Procedure van de conformiteitsbeoordeling (geluid) • Vastavushindamismenetlus (müra) • Vaatimustenmukaisuuden arviointimenetely (Melu) • Procédure d'évaluation de conformité (bruit) • Konformitätsbeurteilungsverfahren (Geräusch) • Διαδικασία Αξιολόγησης Συμμόρφωσης (Θόρυβος) • Megfelelőség-értékelési eljárás (Zaj) • Procedura di valutazione della conformità (rumore) • Atbilstības novērtējuma procedūra (troksnis) • Atitiktības įvertinimo procedūra (garsas) • Procedura tal-Valutazzjoni tal-Konformità (Foss) • Procedura ocenę zgodności (poziom hałas) • Processo de avaliação de conformidade (nivel sonoro) • Procedura de evaluare a conformității (zgomot) • Postup vyhodnocovania zhodnosti (hluk) • Postopek za ugotavljanje skladnosti (hrup) • Procedimiento de evaluación de conformidad (ruido) • Procedur för bedömning av överensstammelse (buller)	2000/14/EC Annex VI, Part 1
UK Notified Body for 2000/14/EC • Нотифициран орган в Обединеното кралство за 2000/14/EO • Úřad certifikovaný podle směrnice č. 2000/14/EC • Det britiske bemyndigede organ for 2001/14/EF • Engels adviesorgaan voor 2000/14/EG • Uhendkuningriigi teavitatud asutus direktiivi 2000/14/EÜ mõistes • Direktiivin 2000/14/EY mukainen ilmoitettu tarkastuslaitos Iossaa-Britanniassa • Organisme notifié concernant la directive 2000/14/CE • Britische benannte Stelle für 2000/14/EG • Κοινοποιημένος Οργανισμός Ηνωμένου Βασιλείου για 2000/14/EK • 2000/14/EK – egyesült királyságbeli bejelentett szervezet • Organismo Notificato in GB per 2000/14/CE • 2000/14/EK AK registrētā organizācija • JK notifikuotojos istaigos 2000/14/EC • Korp Notifikat tar-Renju Unit għal 2000/14/KE • Dopuszczona jednostka badawcza w Wielkiej Brytanii wg 2000/14/WE • Entidade notificada no Reino Unido para 2000/14/CE • Organism notificat in Marea Britanie pentru 2000/14/CE • Notifikovaný orgán Spojeného královstva pre smernicu 2000/14/ES • Britanski prijavljeni organ za 2000/14/ES • Cuerpo notificado en el Reino Unido para 2000/14/CE • Anmält organ för 2000/14/EG i Storbritannien	Number: 1088 Sound Research Laboratories Limited Holbrook House, Little Walsingham Sudbury, Suffolk CO10 0TH
Operator Ear Noise Level • Оператор на нивото на доловим от ухото шум • Hladina hluku v oblasti uší operátora • Støjniveau i førers ørehøjde • Geluidsniveau oor bestuurder • Müratase operatoori kõrvas • Melutaso käyttäjän korvan kohdalla • Niveau de bruit à hauteur des oreilles de l'opérateur • Schallpegel am Bedienerohr • Επίπεδο θορύβου σε λειτουργία • A kezelő fülénél mért zajszint • Livello di potenza sonora all'orecchio dell'operatore • Trokšņa līmenis pie operatora auss • Dirbančiojo su mašina patiriamio triukšmo lygis • Livell tal-Foss fil-Widna tal-Operator • Dopuszczalny poziom hałasu dla operatora • Nivel sonoro nos ovidos do operador • Nivelul zgomotului la urechea operatorului • Hladina hluku pôsobiac na sluch operátora • Raven hrupa pri užesu upravljavca • Nivel sonoro en el oído del operador • Ljudnivå vid förarens öra	88 dB(a) Leq (2006/42/EC)

<p>Harmonised standards used • Използвани хармонизирани стандарти • Použité harmonizované normy • Brugte harmoniserede standarder • Gebruikte geharmoniseerde standaards • Kasutatud ühtlustatud standardid • Käytetyt yhdenmukaistetut standardit • Normes harmonisées utilisées • Angewandte harmonisierte Normen • Εναρμονισμένα πρότυπα που χρησιμοποιήθηκαν • Harmonizált szabványok • Standard armonizzati applicati • Izmantotie saskaņotie standarti • Panaudoti suderinami standartai • Standards armonizzati usati • Normy spójne powiązane • Normas harmonizadas usadas • Standardele armonizate utilizate • Použité harmonizované normy • Uporabljeni usklajeni standardi • Estándares armonizados utilizados • Harmoniserade standarder som används</p>	<p>BS EN ISO 20643 BS EN ISO 5349-1 BS EN ISO 5349-2 BS EN 836</p>
<p>Technical standards and specifications used • Използвани технически стандарти и спецификации • Použité technické normy a specifikace • Brugte tekniske standarder og specifikationer • Gebruikte technische standaards en specificaties • Kasutatud tehnilised standardid ja spetsifikatsioonid • Käytetyt tekniset standardit ja eritelmät • Spécifications et normes techniques utilisées • Angewandte technische Normen und Spezifikationen • Τεχνικά πρότυπα και προδιαγραφές που χρησιμοποιήθηκαν • Műszaki szabványok és specifikációk • Standard tecnici e specifiche applicati • Izmantotie tehniskie standarti un specifیکācijas • Panaudoti techniniai standartai ir techninė informacija • Standards u specifikacijonijiet techniki užati • Normy i specyfikacje techniczne powiązane • Normas técnicas e especificações usadas • Standardele tehnice și specificațiile utilizate • Použité technické normy a specifikácie • Uporabljeni tehnični standardi in specifikacije • Estándares y especificaciones técnicas utilizadas • Tekniska standarder och specifikationer som används</p>	<p>B71.4 ISO 2631-1 ISO 21299</p>
<p>The place and date of the declaration • Место и дата на декларацията • Místo a datum prohlášení • Sted og dato for erklæringen • Plaats en datum van de verklaring • Deklaratsiooni väljastamise koht ja kuupäev • Vakuutuksen paikka ja päivämäärä • Lieu et date de la déclaration • Ort und Datum der Erklärung • Τόπος και ημερομηνία δήλωσης • A nyilatkozat kelte (hely és idő) • Luogo e data della dichiarazione • Deklarācijas vieta un datums • Deklaracijos vieta ir data • Il-post u d-data tad-dikjarazzjoni • Miejsce i data wystawienia deklaracji • Local e data da declaração • Locul și data declarației • Miesto a dátum vyhlásenia • Kraj in datum izjave • Lugar y fecha de la declaración • Plats och datum för deklarationen</p>	<p>Jacobsen, A Textron Company 11524 Wilmar Blvd. Charlotte, NC 28273, USA April 19th, 2010</p>
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<p>Certificate Number • Номер на сертификат • Číslo osvědčení • Certifikatnummer • Certificaatnummer • Sertifikaadi number • Hyväksyntänumero • Numéro de certificat • Bescheinigungsnummer • Αριθμός Πιστοποιητικού • Hitelesítési szám • Numero del certificato • Certificata numurs • Sertifikato numeris • Numru ta-Certifikat • Numer certyfikatu • Número do Certificado • Număr certificat • Číslo osvedčenia • Številka certifikata • Número de certificado • Certifikatsnummer</p>	<p>4227700 Rev A</p>

GB	BG	CZ	DK	NL	EE	FI	FR	DE	GR	HU
English	български	čeština	dansk	Nederlands	eesti	suomi	français	Deutsch	Ελληνικά	magyar
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italiano	latviešu valoda	lietuvių kalba	Malki	polski	português	Română	slovenčina	slovenščina	Ελληνικά	Svenska

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

If only the front or rear of the mower 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 Jacobsen Dealer.

2. Replace, do not adjust, worn or damaged components.
3. Long hair, jewelry, or loose fitting clothing may get tangled in moving parts.



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 BALL JOINTS

When adjusting ball joints, be sure cut-out in ball joint is parallel to the mounting bracket, then secure in place.

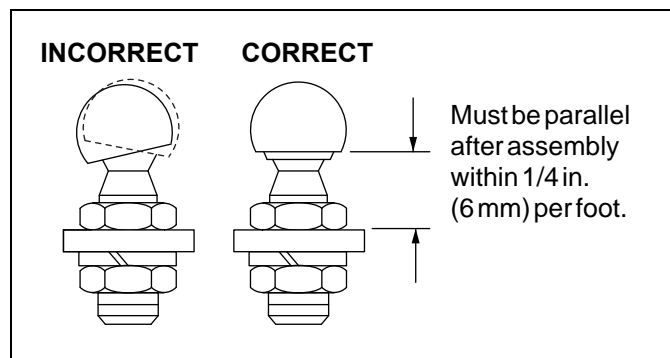


Figure 3A

3.3 ENGINE ALTERNATOR BELT

1. Inspect and adjust new alternator belt after the first 10 hours of operation. Check and adjust every 100 hours thereafter.
2. Adjust the alternator pulley so the belt deflects 9/32 to 11/32 in. (7 - 9 mm) with 22 lb. (10 kg) push at midpoint between pulleys. Refer to your engine manual.
3. To adjust, loosen alternator mounting bolts (**A**), and adjust alternator until the proper belt tension is achieved.

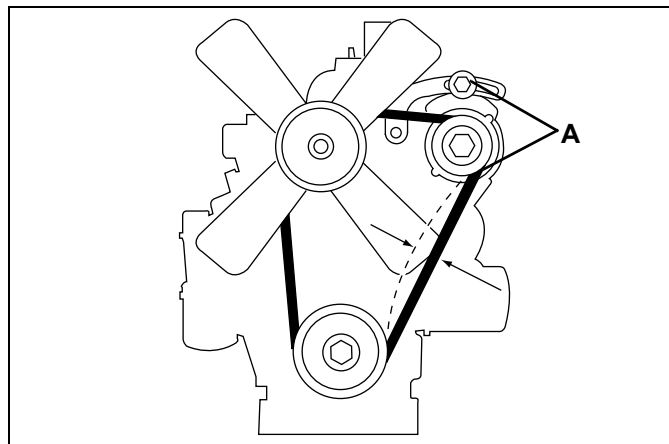


Figure 3B

3.4 BRAKE PEDAL

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

1. When installing new brake pads, burnish pads by driving mower at mowing speed while applying a slight pressure on brake pedal for about 5 seconds. Release and repeat five times before making the final adjustment.
2. Fully loosen adjusting nut **(C)**.
3. By hand, pull cable behind adjusting nut **(B)** away from pedal until brake pads just contact brake disk. Thread adjusting nut **(B)** up until it contacts the mounting plate. Tighten nut **(C)** up to lock adjustment in place. Torque nut **(C)** to 20 ft. lb. (27 Nm). Do not over torque or turn cable.
4. Repeat for second cable.
5. Start mower and check operation of brakes. Park mower on an incline (approx. 16.7° slope) and engage parking brake. Brake must prevent mower from rolling. Adjust nut **(B)** as required.

With parking brake engaged, and properly adjusted, mower should not be able to drive through brakes.

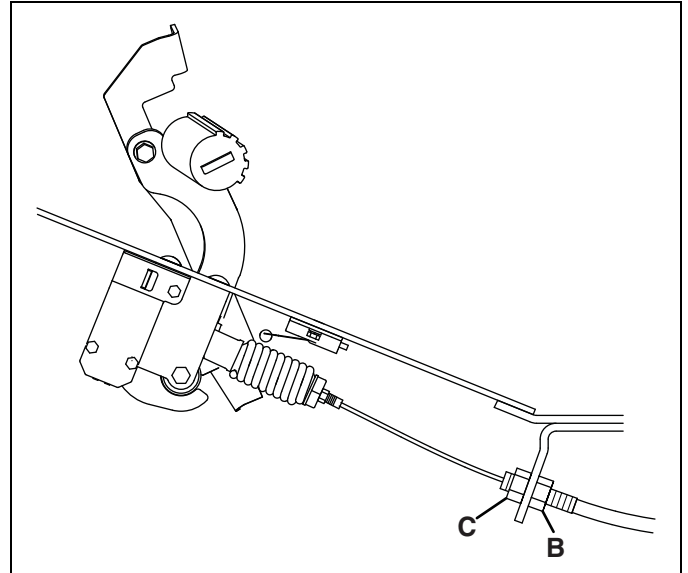


Figure 3C

3.5 PARKING BRAKE SWITCH

Check parking brake switch adjustment whenever Interlock System is not operating correctly. Switch contacts should be closed with parking brake engaged and should open when parking brake is disengaged.

1. Loosen parking brake switch hardware **(D)**.
2. Adjust switch **(E)** as required so switch contacts close with the parking brake engaged, and open when parking brake is disengaged.

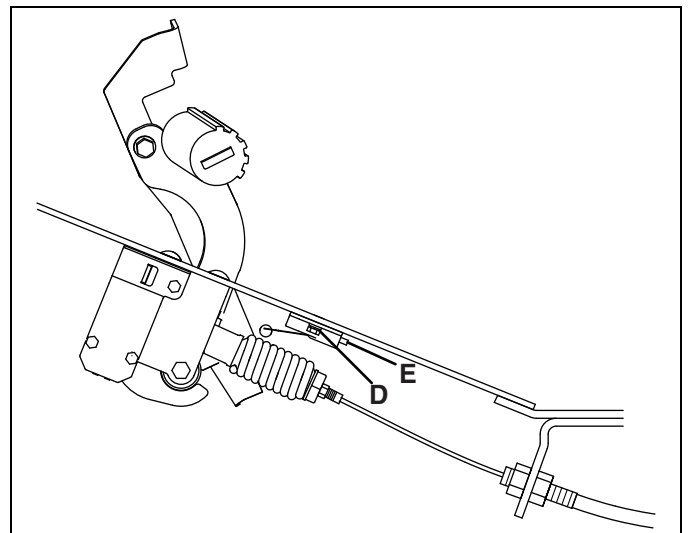


Figure 3D

3 ADJUSTMENTS

3.6 CRUISE CONTROL SWITCH

If the cruise control does not disengage when brake pedal is depressed, cruise control switch must be adjusted.

1. Loosen hardware (F).
2. Adjust switch (G) so contacts are closed with the brake disengaged and open as soon as the brake pedal is pressed.
3. Tighten hardware to secure switch and recheck switch operation.

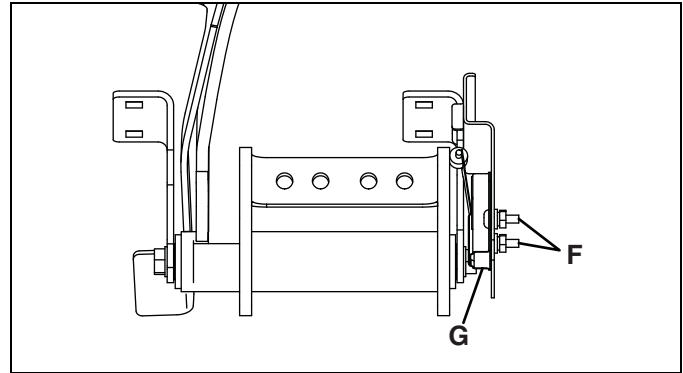


Figure 3E

3.7 MOW SPEED

Cutting quality is better at speeds well below the transport speed of the mower. An initial mow speed of seven to eight mph is set at the factory and should be satisfactory for most cutting conditions. Local turf conditions however may respond better to a different speed.

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

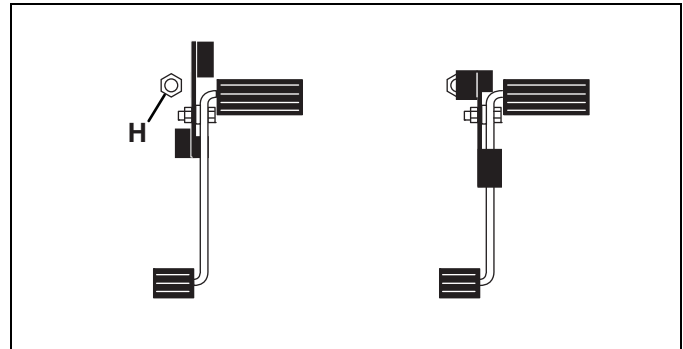


Figure 3F

3.8 WEIGHT TRANSFER

1. Adjusting weight transfer knob affects lowering time of the lift arms and also affects ground pressure at each tire.
2. Loosen thin knob (J), and adjust large knob (K) to increase or decrease cutting unit weight. Knob adjusts all three mowers simultaneously.
 - a. Increasing cutting unit weight allows mowers to follow contours of ground better and reduces mower ground pressure.
 - b. Decreasing cutting unit weight increases mower weight, which increases traction on slopes.
 - c. Once desired ground pressure has been obtained, tighten thin knob (J).

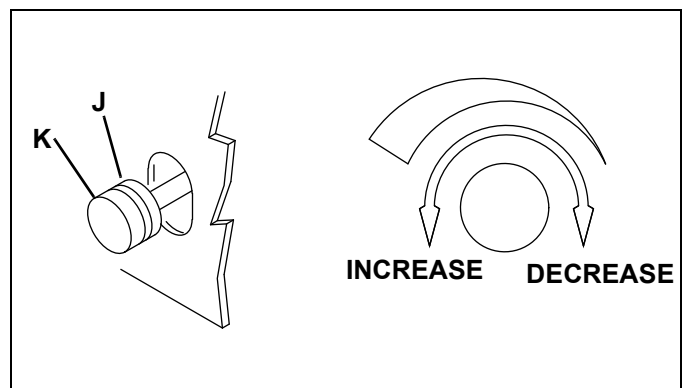


Figure 3G

NOTICE

If cutting unit weight is set too low, wing cutting units will not lower to the ground from transport position.

3.9 HYDRO NEUTRAL

If the mower “creeps” in either direction, the Neutral position must be adjusted. The mower may tend to “creep” if the hydraulic oil is cold. Operate mower for 15 minutes before determining if adjustment is needed.

WARNING

Carbon monoxide in the exhaust fumes can be fatal when inhaled. Any adjustments or repairs performed while the engine is running must be made with ample ventilation.

Never work on a mower that is supported only by the jack. Always use jack stands.

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

1. Place a small amount of lubricating oil on all linkage pivot points.
2. Hoist mower so all four tires are off the ground and place jack stands under the frame to prevent accidental lowering of the mower during adjustment.
3. Start engine and set throttle to full speed.
4. Disengage parking brake and place 2WD/4WD Switch in 2WD position.
5. Check rotation of drive tires and adjust traction return control (L) with the engine running.

- a. To adjust for forward creep, loosen nut (M), and turn nut (N) in until tires stop rotating. Hold nut (N) in place and tighten nut (M).
 - b. To adjust for reverse creep, loosen nut (M), and turn nut (N) out until tires stop rotating. Hold nut (N) in place and tighten nut (M).
6. If mower continues to creep, check position of traction return control (L).
 - a. The return control (L) must be parallel to traction arm (O).
 - b. Loosen hardware (P) and adjust bracket (Q) until control is parallel to arm.

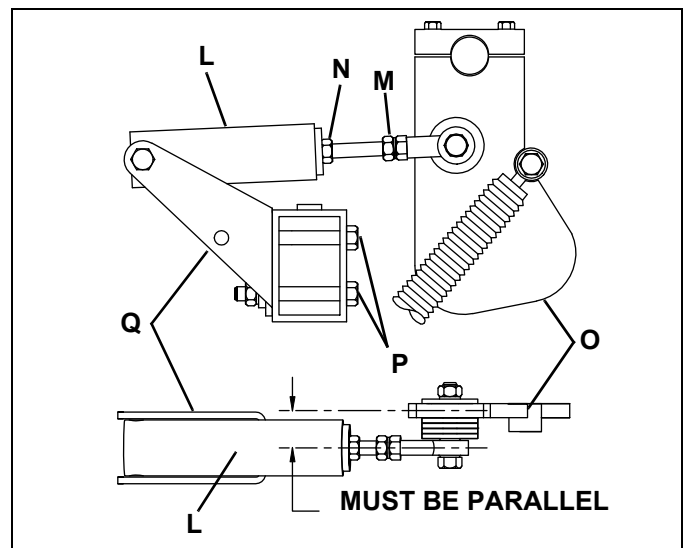


Figure 3H

3.10 REVERSE SENSING SWITCH

1. Loosen switch hardware (R).
2. Adjust switch (S) so switch contacts are open with switch roller contacting the adjustment block (T) and the traction pedal in Neutral and close when pedal is moved in the forward direction.
3. Secure switch adjustment and test operation.
4. If adjustment cannot be made, contact your authorized Jacobsen Dealer.

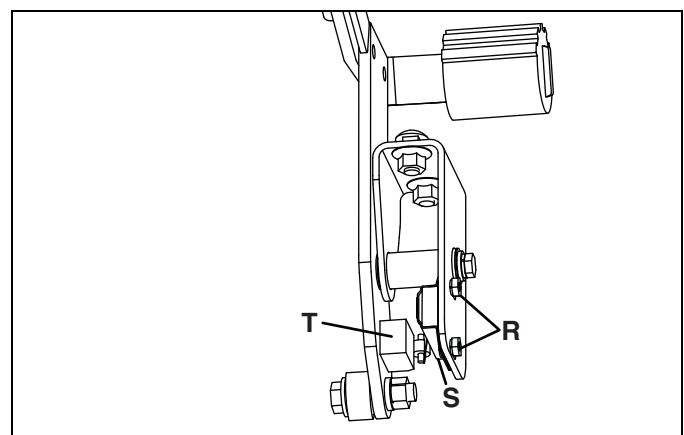


Figure 3I

3 ADJUSTMENTS

3.11 STEERING TOE IN

"Toe in" should be adjusted from $X + 1/16$ in. (1.5 mm).

1. Turn wheels to straight ahead position.
2. Loosen tie rod jam nuts (**U**).
3. Adjust tie rod and retighten jam nuts.
4. After adjusting "Toe in" it may be necessary to re-adjust steering stop bolts.

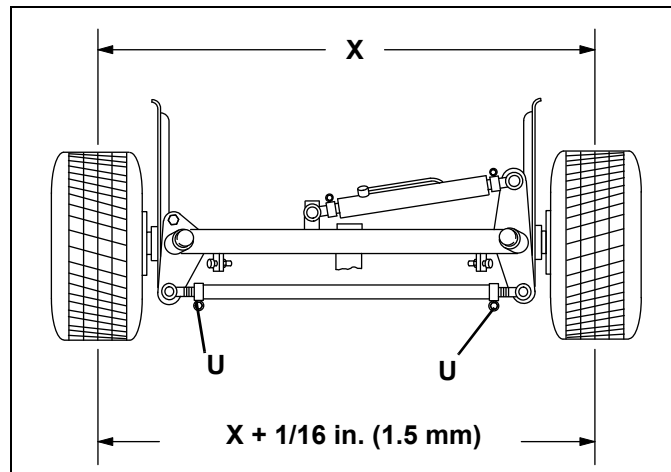


Figure 3J

3.12 TURNING RADIUS

1. Adjust steering cylinder (**V**) for equal angle steering in both directions. Check that ball joints are threaded equally into both ends.
2. Loosen both nuts (**Y**) and turn bolts completely in against mounting block.
3. Loosen screw and nut (**W**) on locking clamp. Turn cylinder rod to obtain desired length then retighten hardware.
4. Fully extend and retract steering cylinder and readjust steering stop bolts.

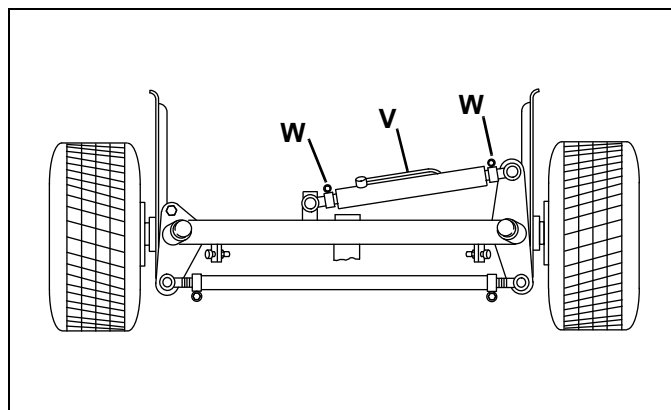


Figure 3K

3.13 STEERING STOP BOLTS

Do not adjust the stop bolts until the "Toe in" and steering cylinder have been adjusted.

1. Loosen both nuts (**Y**) and turn bolts completely in against mounting block.
2. Fully retract steering cylinder. Adjust left side stop bolt until it just touches steering arm. Tighten left side nut (**Y**).
3. Fully extend steering cylinder. Adjust right side stop bolt until it just touches steering arm. Tighten right side nut (**Y**).

NOTE: *Steering stop bolts must not limit the travel of the steering cylinder rod stroke.*

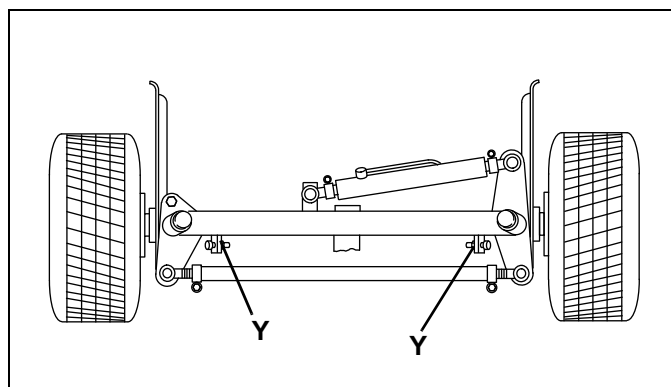


Figure 3L

3.14 CUTTING HEIGHT

Level the front mower before setting the cutting height for the first time. Do not remove the cutting units from the mower to change cutting height.

Cutting height for decks can be adjusted from 1 to 5-1/2 in. (25-140 mm) in 1/2 in. (13 mm) increments. Actual cutting height may vary somewhat from the heights given depending on turf conditions, tire variances and other factors.

NOTICE

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

1. Park the mower 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 3M** shows the height adjustment decal for the casters.

Column 1 - Height of Cut

Column 2 - Arrangement of Spacers

Column 3 - Arm Position

Column 4 - Wing Mower Mounting Location

Column 5 - Front Mower Mounting Location

3. Adjust spacers in quantity listed. Store extra spacers on top of spindle. Always leave one thin spacer above and below caster arm.
4. For cutting heights 3 in. (76 mm) and below, caster arms should be assembled to upper set of holes (**A**). For cutting heights above 3 in. (76 mm), caster arms should be assembled to lower set of holes (**B**).

NOTICE

After setting cutting height, fully lower cutting units onto a flat, hard surface, stop engine, and measure the distance from the blade tips to the ground. If the distance is different from the desired cutting height, make adjustments as necessary. Cut in a small test area and make any final adjustments for desired turf appearance.

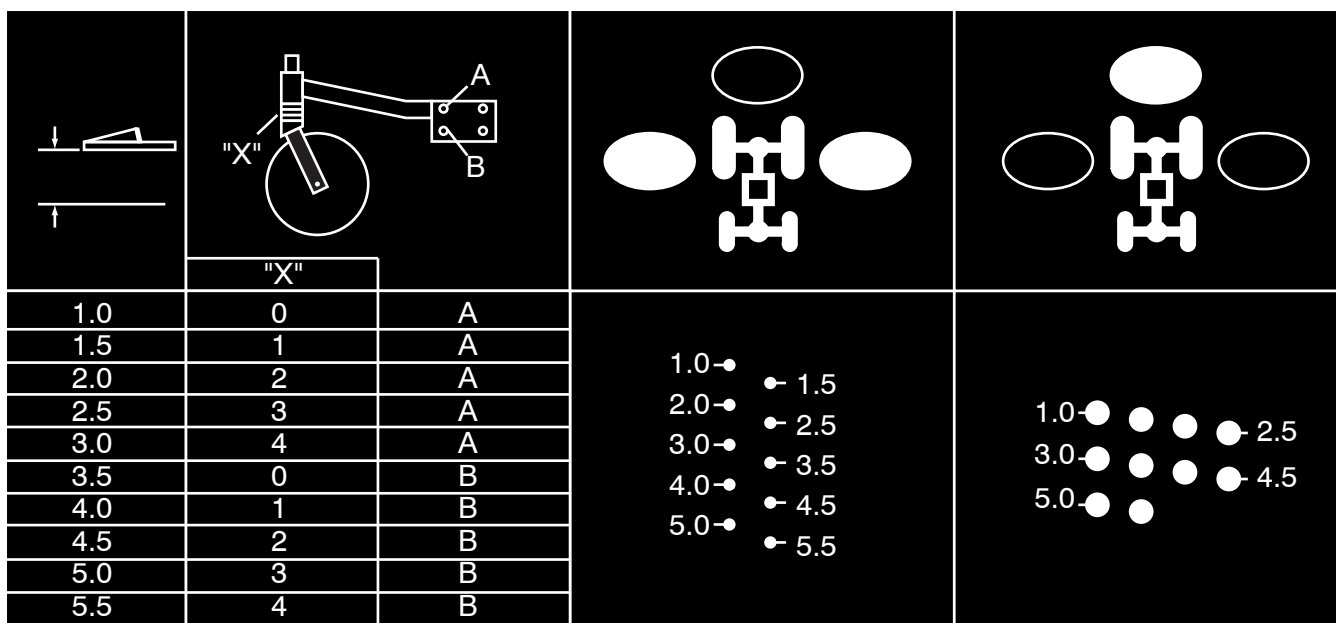


Figure 3M

3 ADJUSTMENTS

3.15 LEVELING FRONT MOWER

1. Before leveling the front deck, the mower tires, and caster wheels must be properly inflated. The cutting height is directly related to the radius of the tire.
2. Set the cutting height of the front mower to 5-1/2 in. (140 mm).
3. Rotate all blades so that one end of the blade (**A**) is pointing forward.
4. Fully lower front deck. Measure from the ground to point (**A**) and from the ground to point (**B**). Point (**B**) must be 1/8 in. (3 mm) higher than point (**A**).
5. Add or remove shims (**C**) as required between bumper pad (**D**) and lift arm (**E**).
6. Once the front mower has been properly leveled, the cutting height may be readjusted without changing the shims. It may be necessary to re-level the deck if there is a change to the tires.

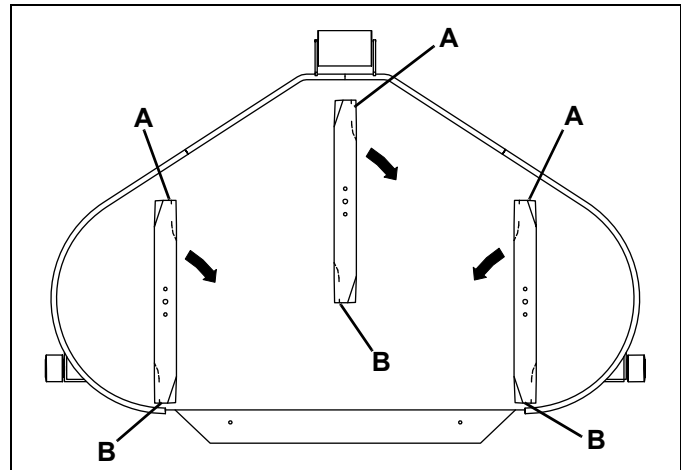


Figure 3N

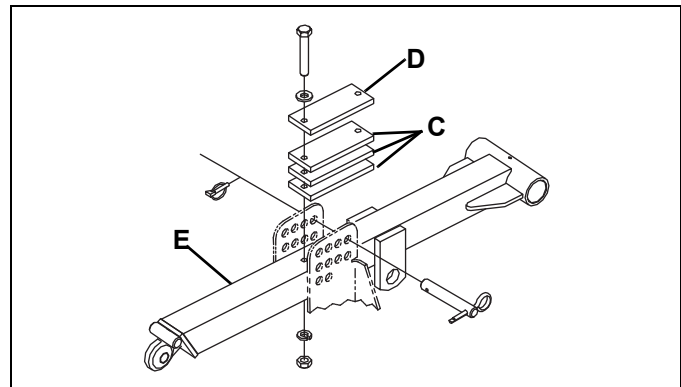


Figure 3O

3.16 SERVICING FRONT DECK

The front deck can be raised and tilted up to improve access to the cutting unit and blades for service and cleaning. Be sure to disengage all drives, engage parking brake, stop engine and remove ignition key before working around deck.

To tilt front deck up to its service position:

1. Fully raise front and right wing deck. Stop engine.
2. Remove height of cut pins from front deck and carefully lift deck to a perpendicular position.
3. Use height of cut pin on left front lift arm to pin deck in service position.
4. Start engine and lower front deck to the ground. Stop engine and remove ignition key.

To return deck to service:

1. Start engine and fully raise front deck. Stop engine. Remove pin from left front lift arm and slowly lower front deck.
2. Install height of cut pins in correct set of holes. Start engine and lower front deck.

3.17 TORQUE SPECIFICATION

NOTICE

All torque values included in these charts are approximate and are for reference only. Use of these torque values is at your sole risk. Jacobsen 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.**

Jacobsen 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 (91)	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)

3.18 SPECIFIC TORQUE

Tie Rod Ball Joints (2): 30 ft lb. (40 Nm).
 Steering Cylinder Ball Joints (2): 40 ft lb (54 Nm).
 Blade Adapter Bolts (14): 35 - 40 ft lb (47 - 54 Nm).
 Center Blade Bolts (7): 67-83 ft lb (91-112 Nm).
 Rear Wheel Bolts (10): 40 - 50 ft lb (54 - 68 Nm).

Front Wheel Bolts (10): 85-95 ft lb (115 - 129 Nm)

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 mower is parked on a solid and level surface. Never work on a mower 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 Jacobsen 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. Long hair, jewelry, or loose fitting clothing may get tangled in moving parts.
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 INSPECTING BLADES

1. Every 50 hours of operation or whenever blades are removed from mower, 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 checking 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 thrown 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.

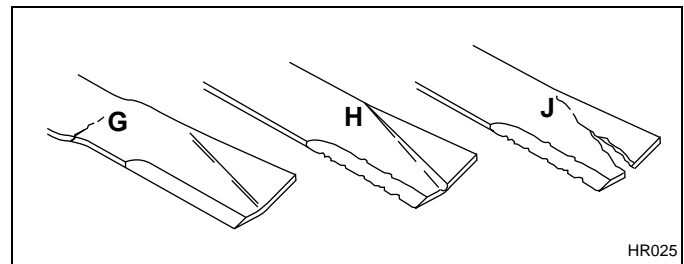


Figure 4A

4.3 SHARPENING BLADES

1. Place a wooden block between the blade and mower housing to stop the blade from moving. To remove blade, turn screw holding blade counterclockwise.



WARNING

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

2. 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.

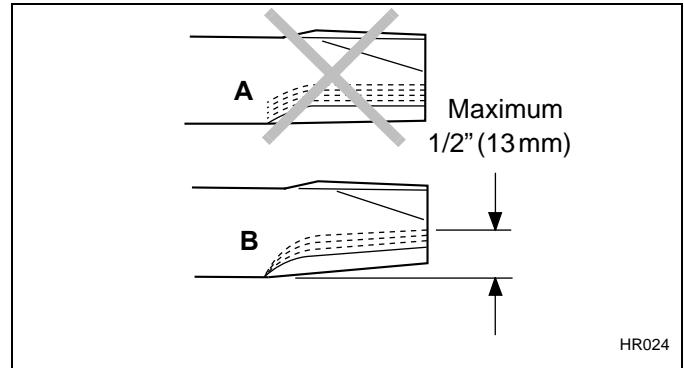


WARNING

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

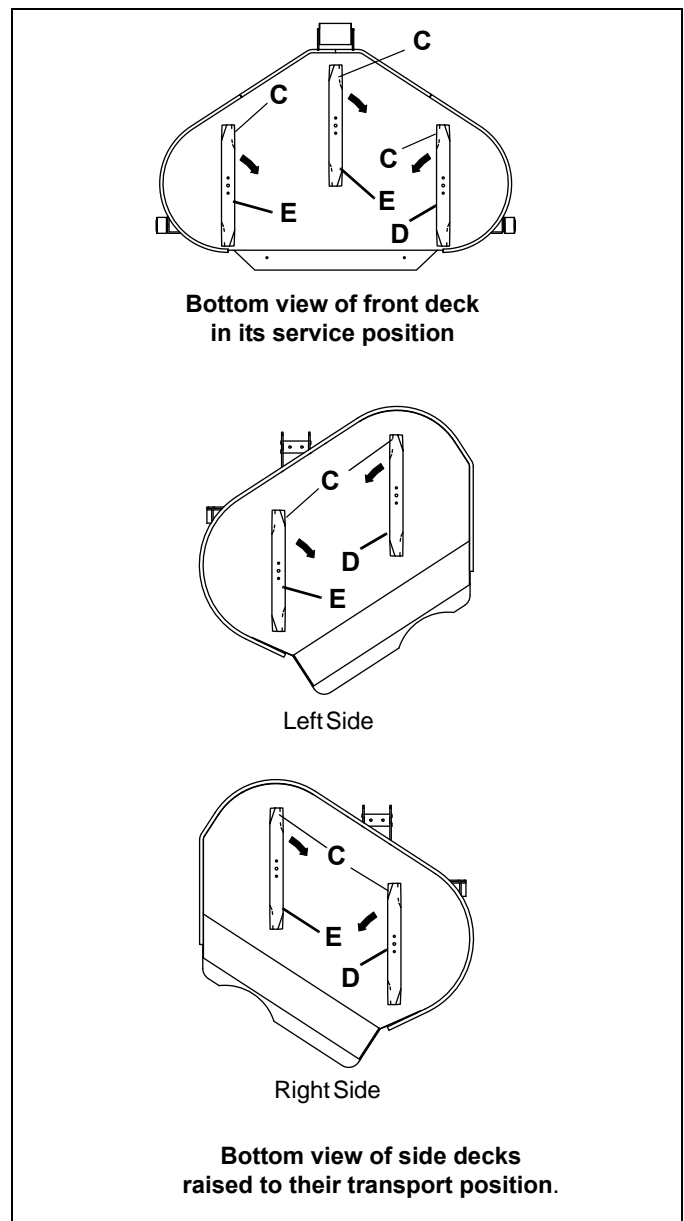
3. Make sure an equal amount of material is removed from both sides of blade to prevent having an unbalanced blade. An unbalanced blade will cause excessive vibration and may damage the mower.
4. Use a blade balancer (JAC 5016) to check the blade after sharpening.
5. Identify the three clockwise rotation (D) and four counter-clockwise rotation (E) blades. The blades for clockwise rotation are installed on the left front deck motor, the outside left wing deck motor, and the inside right wing deck motor. (Rotation is determined by normal motor rotation viewed from top of deck).
6. Install blades so cutting edges (C) face the direction of rotation as shown in **Figure 4C**. Air vane of blade must face in toward deck housing.

Torque center mounting screw holding blade to 75 ft. lb. (102 Nm).



HR024

Figure 4B



Bottom view of front deck in its service position

Left Side

Right Side

Bottom view of side decks raised to their transport position.

Figure 4C

4 MAINTENANCE

4.4 ENGINE

IMPORTANT: A separate Engine Manual, prepared by the engine manufacturer, is supplied with this mower. 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.

NOTICE

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

During the break-in period, Jacobsen 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.

4.5 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 25 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 SAE 10W30/10W40
32 to 77°F (0 to 25°C)	SAE 20W or SAE 10W30/10W40
Below 32° (0°C)	SAE 10W or SAE 10W30/10W40

See the engine manufacturer's Engine Manual for detailed service information.

After adding or changing oil, start and run engine at idle with all drives disengaged for 30 seconds. Shut engine off. Wait 30 seconds and check oil level. Add oil to bring up to FULL mark on dipstick.

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 25 hours of operation.
4. Check and adjust fan and alternator belts.
5. Refer to **Section 6.3** and Engine Manual for specific maintenance intervals.

If the injection pump, injectors, or the fuel system require service, contact an authorized Jacobsen Dealer.

Important: *The normal engine operating temperature is less than 220° F (104° C). If the engine temperature rises by more than 10° F (6° C) above normal, there is an indication that the cooling system may not be functioning properly.*

The warning horn will sound when the temperature reaches 230° F (110° C). To prevent damage to the engine, never allow the engine to operate above 230° F. Stop the machine, disengage all drives and operate the engine at low idle for 5 minutes.

4.6 AIR FILTER

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.

Air cleaner servicing is required when air cleaner service light (F) comes on during normal operation. Empty dust cup daily.

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.
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.

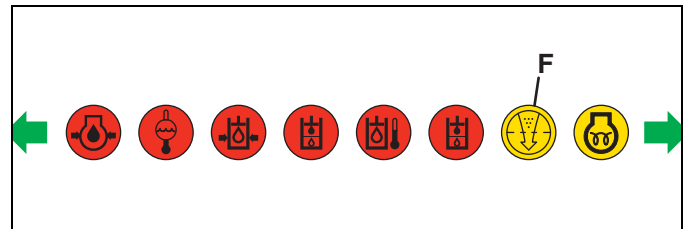



Figure 4D

4.7 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.


WARNING

Never remove the fuel cap from the fuel tank or add fuel when the engine is running or while the engine is hot.

Do not smoke when handling fuel. Never fill or drain the fuel tank indoors.

Do not spill fuel. Clean spilled fuel immediately.

Never handle or store fuel containers near an open flame or any device that may create sparks and ignite the fuel or fuel vapors.

Be sure to reinstall and tighten fuel cap securely.

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

4.8 FUEL SYSTEM

Refer to **Section 6.3** 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.

For diesel engines, turn the key switch to the ON position to start the fuel pump, and bleed the fuel system if the fuel filter and lines have been removed or the fuel tank has become empty. See Engine Manual.

4 MAINTENANCE

4.9 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.

4.10 JUMP STARTING

Before attempting to "jump start" the mower check the condition of the discharged battery. See **Section 4.9**

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 mower with the discharged battery away from the battery.

4.11 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.

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.

WARNING

Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. **Wash your hands after handling.**

When connecting jumper cables:

1. Stop the engine on the vehicle with a 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 the mower with the discharged battery.

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

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 4.9**. Read the Battery and Charger's manual for specific instructions.
2. Whenever possible, remove the battery from the mower before charging. If battery is not sealed, check that the electrolyte covers the plates in all the cells.

4.12 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.

NOTICE

Care must be used at all times to avoid any contamination of the hydraulic system. Follow recommended maintenance practices and adhere to scheduled intervals for hydraulic oil and filter changes. Introduction of any type of contamination may result in operating issues by causing valves to stick or leak internally.

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, or 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.

4.13 HYDRAULIC OIL

Refer to **Section 6.3** for specific maintenance intervals.

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

Always replace the hydraulic filter when changing oil.

To change hydraulic oil:

1. Clean the area around the oil cap to prevent impurities from entering and contaminating the system.
 - a. Oil temperature should be between 60° to 90°F (16° to 32°C). Do not check oil level when oil is hot.
 - b. The main oil tank level should be 2 inches below filler neck. Do not overfill.
2. Drain and replace the hydraulic oil yearly or after a major component failure, or if you notice the presence of water, foam, or a rancid odor.

3. Remove drain plug from bottom of main tank and loosen or remove breather cap. Check and clean the breather cap, replace as necessary.
4. After oil has drained install drain plug and fill with Jacobsen Hydraulic oil.
5. Purge air from system.
6. Operate all mower functions for about 5 minutes to purge air out of the system and stabilize the oil level. Fill tank to full level.

4 MAINTENANCE

4.14 HYDRAULIC OIL FILTERS

The hydraulic system is protected by two 10 micron filters.



WARNING

Charge filter is under pressure. Remove filter slowly to prevent personal injury.

To replace hydraulic oil filter:

1. Remove the old filter.
2. Fill new filter with oil then install new filter. Hand tighten only.
3. Operate engine at idle speed with hydraulic system in neutral for five minutes.
4. Check hydraulic oil level and fill as required.

4.15 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 Interlock System, and circuit breakers regularly.

If the Interlock System does not function properly and the problem cannot be corrected contact an authorized Jacobsen 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.

4.16 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.

4.17 TIRES

1. Keep tires properly inflated to prolong tire life. Check inflation pressure while the tires are cool. Inspect tread wear.
1. Check the pressure with an accurate, low pressure tire gauge.
2. Keep tires inflated to:
Front - 16-20 psi - (1.10-1.38 BAR)
Rear - 10-12 psi (0.69-0.83 BAR)

Casters - 20-25 psi (1.38-1.72 BAR)



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.

4.18 WHEEL MOUNTING PROCEDURE

WARNING

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

If only the front or rear of the mower 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.
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. See **Section 3.18**.

4.19 CARE AND CLEANING

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

NOTICE

Do not wash any portion of the equipment while it is hot or with engine running. 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 your Jacobsen Dealer.
2. Use only fresh water for cleaning your equipment.

NOTICE

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 and rubber trim with a mild soap solution or use commercially available vinyl/rubber cleaners.

Repair damaged metal surfaces and use Jacobsen 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 ROLLOVER PROTECTION STRUCTURE (ROPS)

A Rollover Protection System (ROPS) is included with this mower. Inspect it periodically and follow operating procedures described in Safety and 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 Jacobsen Parts List.
4. Only operate the mower with the ROPS folded when absolutely necessary. **There is no roll over protection with the ROPS folded.**
5. Seat belts must be worn whenever operating the mower with the ROPS in the raised and locked position. Always keep seat belt snugly adjusted. **DO NOT** use seat belts with the ROPS folded.

4 MAINTENANCE

4.21 RADIATOR AND OIL COOLER



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.

1. Check coolant level daily. Radiator should be full and recovery bottle should be up to the **cold** mark.
2. Drain and refill annually. Remove the radiator cap, open the engine block drain and the radiator drain. Empty and clean the recovery bottle.
3. 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.
4. Keep the hood and screen clean. Remove leaves or grass clippings from screen daily.
5. Loosen wing nuts on side of oil cooler and tilt oil cooler back to cleaning position.
6. Open trap door under the radiator and oil cooler, then place a piece of cardboard, to act as a deflector, between the radiator and oil cooler.



WARNING

To prevent burns, do not touch muffler or muffler shield when opening trap door. Surface temperatures may exceed 150° F (66° C).

7. Use compressed air, up to 30 psi (2.06 BAR), to clean the radiator and oil cooler fins. A special blow gun (JAC 5098) is available through an Authorized Jacobsen Dealer.
8. Direct air through the engine side of radiator towards rear of mower and through rear of oil cooler towards the front of mower.
9. Remove cardboard and return oil cooler to its upright position. Tighten wing nuts. Clean the entire compartment underneath the radiator and close trap door.

10. Check and tighten the fan belt. Replace clamps and hoses every two years.
11. If you continue to experience engine or hydraulic system overheating, have to add coolant more than once a month, or add more than one quart at a time, have a authorized Jacobsen Dealer check the cooling system.

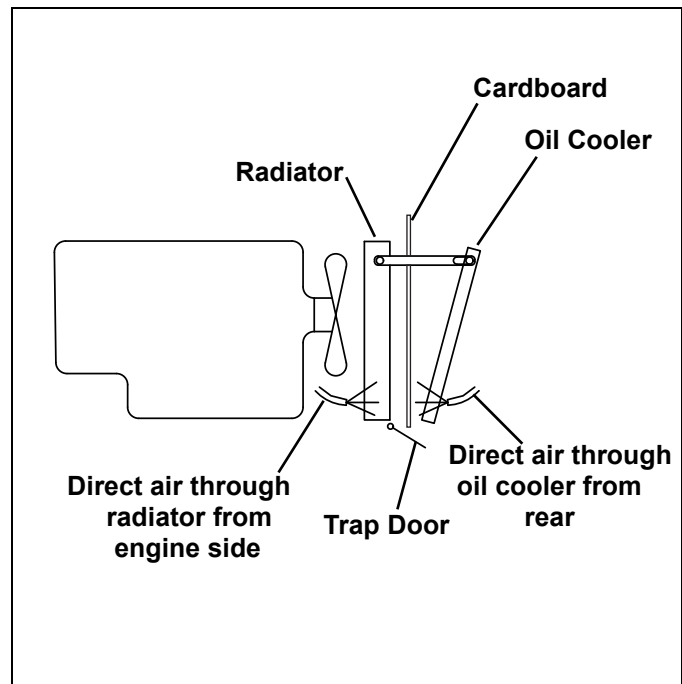


Figure 4E

4.22 STORAGE

General

1. Wash the mower thoroughly and lubricate. Repair and paint damaged or exposed metal.
2. Inspect the mower, tighten all hardware, replace worn or damaged components.
3. Drain and refill radiator.
4. Clean the tires thoroughly and store the mower so the load is off the tires. If mower 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 (General)

1. While the engine is warm, remove the drain plug, drain the oil from the crankcase, and change oil filter. Install drain plug and refill with fresh oil. Let engine cool before storing.
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.

4. If storing indoors, drain fuel from tank.

5. Close fuel shut off valve.

Cutting Units

1. Wash the cutting units thoroughly, then repair and paint any damaged or exposed metal.
2. Lubricate all fittings and friction points.



CAUTION

To prevent personal injury and damage to the cutting edges, handle the blades with extreme care.

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. Open fuel shut off valve and bleed the fuel system.
6. Make certain that the tires are properly inflated.
7. Remove all oil from the reels and bedknife. Adjust bedknife and 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 TROUBLESHOOTING

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 Jacobsen Dealer.

Symptoms	Possible Causes	Action
Engine will not start.	<ol style="list-style-type: none"> 1. Parking brake disengaged, traction pedal not in neutral or PTO switch on. 2. Battery low on charge or defective. 3. Fuel tank empty or dirty. Fuel shut off valve closed. 4. Circuit breaker blown. 	<ol style="list-style-type: none"> 1. Check Interlock system and start-up procedure. 2. Inspect condition of battery and battery connections. 3. Fill with fresh fuel. Change fuel filter. Bleed fuel lines. Open fuel shut off valve. 4. Reset circuit breaker.
Engine hard to start or runs poorly.	<ol style="list-style-type: none"> 1. Fuel level low, fuel or fuel filter dirty. 2. Air cleaner dirty. 3. Injectors, fuel pump. 4. Engine problem. 	<ol style="list-style-type: none"> 1. Fill with fresh fuel. Change fuel filter. Bleed fuel lines. 2. Inspect and replace air filter. 3. Consult engine manual. 4. Consult engine manual.
Engine stops.	<ol style="list-style-type: none"> 1. Fuel tank empty. 2. Interlocks not set before leaving operator's seat. 	<ol style="list-style-type: none"> 1. Fill with fresh fuel and bleed fuel lines. 2. Engage parking brake, set reel switch to OFF and traction pedal in Neutral.
Engine overheating.	<ol style="list-style-type: none"> 1. Coolant level low. 2. Air intake restricted. 3. Water pump belt broken or loose. 4. Engine overload. 	<ol style="list-style-type: none"> 1. Inspect and add coolant. 2. Clean cooling air intake. 3. Tighten or replace belt. 4. Reduce forward speed.
Battery not holding charge.	<ol style="list-style-type: none"> 1. Loose or corroded battery terminals. 2. Low electrolyte. 3. Alternator belt loose or broken. 4. Charging system defective. 	<ol style="list-style-type: none"> 1. Inspect and clean terminals. 2. Refill to correct level. 3. Tighten or replace belt. 4. See engine manual.
Mowers do not cut or cut unevenly.	<ol style="list-style-type: none"> 1. Cutting units not fully lowered. 2. Engine speed too low. 3. Low hydraulic oil. 	<p>Lower cutting units to ground.</p> <p>Check engine speed. Run engine at full throttle.</p> <p>Check reservoir level and fill if needed.</p>
Mower does not react to traction pedal.	<ol style="list-style-type: none"> 1. Parking brake engaged. 2. Tow Valve Open. 3. Low hydraulic oil. 	<p>Disengage parking brake.</p> <p>Close Tow Valve.</p> <p>Check reservoir level and fill if needed.</p>
Implement does not raise or lower.	<ol style="list-style-type: none"> 1. Low hydraulic oil. 	<p>Check reservoir level and fill as needed.</p>
Gauges/Indicator not operating.	<ol style="list-style-type: none"> 1. Circuit Breaker blown. 2. Loose wiring. 	<p>Reset circuit breaker, check bulb.</p> <p>Check electrical connections.</p>

6.1 GENERAL

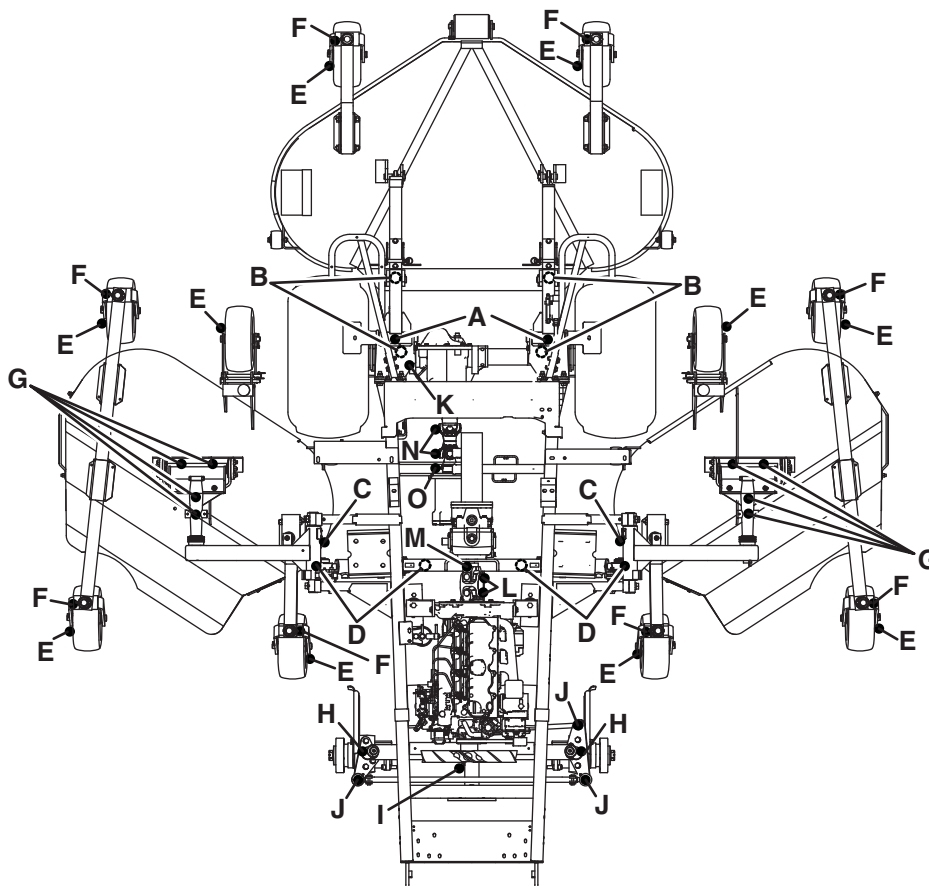
WARNING

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 the grease fitting before and after lubricating.

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 guns.
3. Periodically apply a small amount of lithium based grease to the seat runners.
4. For smooth operation of all levers, pivot points and other friction points that are not shown on the lubrication chart apply several drops of SAE 30 oil every 40 hours or as required.
5. Grease fittings every 25 hours.

6.2 LUBRICATION CHART



Description

- A** Front mower arm pivot
- B** Front lift cylinders
- C** Wing mower arm pivot
- D** Wing mower lift cylinders
- E** Caster Wheels
- F** Caster Arms
- G** Deck Pivot Housing

Fittings

- (2)
- (4)
- (2)
- (4)
- (10)
- (8)
- (8)

- H** Steering Axle Spindle Housing (2)
- I** Steering Axle Pivot (1)
- J** Steering Axle Ball Joints (4)
- K** Brake Pedal Pivot (1)
- L** Pump Drive Shaft Crosses (2)
- M** Pump Drive Shaft Spline (2)
- N** Axle Drive Shaft Crosses (2)
- O** Axle Drive Shaft Spline (1)

6 MAINTENANCE & LUBRICATION CHARTS

6.3 MAINTENANCE CHARTS

Recommended Service and Lubrication Intervals

	Every 8-10 Hours	Every 25 Hours	Every 100 Hours	Every 250 Hours	Every 400 Hours	Every 500 Hours	Every 1000 Hours	Yearly	See Section	Lubricant Type
Air Filter (Cab)	I			R						
Air Filter (Engine)	I							R****	4.6	
Battery Charge		I							4.9	
Belts	I-A*	I-A				R			4., 3.2	
Brake		I-A	A						3.4	
Cooling System	I-C-A							R	4.21	IV
Electrical System		I*	I						4.15	
Engine Oil	I	R*	R						4.5	II
Engine Oil Filter		R*	R							
Front Axle	I-A							R		V
Fuel System		I							4.8	
Fuel Filter								R	4.8	
Grease Fittings - All	L	L	L			L			6.2	I
Hydraulic Hoses and Tubes	I***			I					4.12	
Hydraulic Oil	I-A			R**					4.13	III
Hydraulic Oil Filter (2)		R*		R****					4.14	
Muffler and Exhaust		I							4.16	
Radiator Screens	I-C/AR								4.21	
Tires	I-A	A							4.17	

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.

**** Or when service indicator light comes on.

I - Manual grease gun with NLGI Grade 2 (Service Class LB).

II - Engine Oil - See Section 4.5.

III - Use Jacobsen hydraulic fluid: Capacity: 5 gallons (19 Liters). Order Part No. 2500548 carton, containing two 2-1/2 gal. (9.5 liter) bottles or Part No. 2500546 containing 5 gal. (19 liters), pail.

IV - Capacity: 3qt. (2.8 l) 50/50 water ethylene glycol mix.

V - Capacity 2 Quarts 80W-90 gear lube with 5 oz. of limited slip additive.

8 PARTS LIST

8.1 HOW TO USE THE PARTS CATALOG

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 I, next to the item number, indicate that a note exists which contains additional information important in ordering that part.

Indented Items

Indented 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	
I	1	123456	1	Mount, Valve	<i>Indicates a piece part</i>
	2	789012	1	Valve, Lift	<i>Includes Items 2 and 3</i>
	3	345678	1	• Handle	<i>Serviced part included with Item 2</i>
	4	N/S	1	• Seal Kit	<i>Non serviced part included with Item 2</i>
	5	901234	1	Screw, 1/4-20x2" Hex Head	

8.2 HOW TO ORDER PARTS

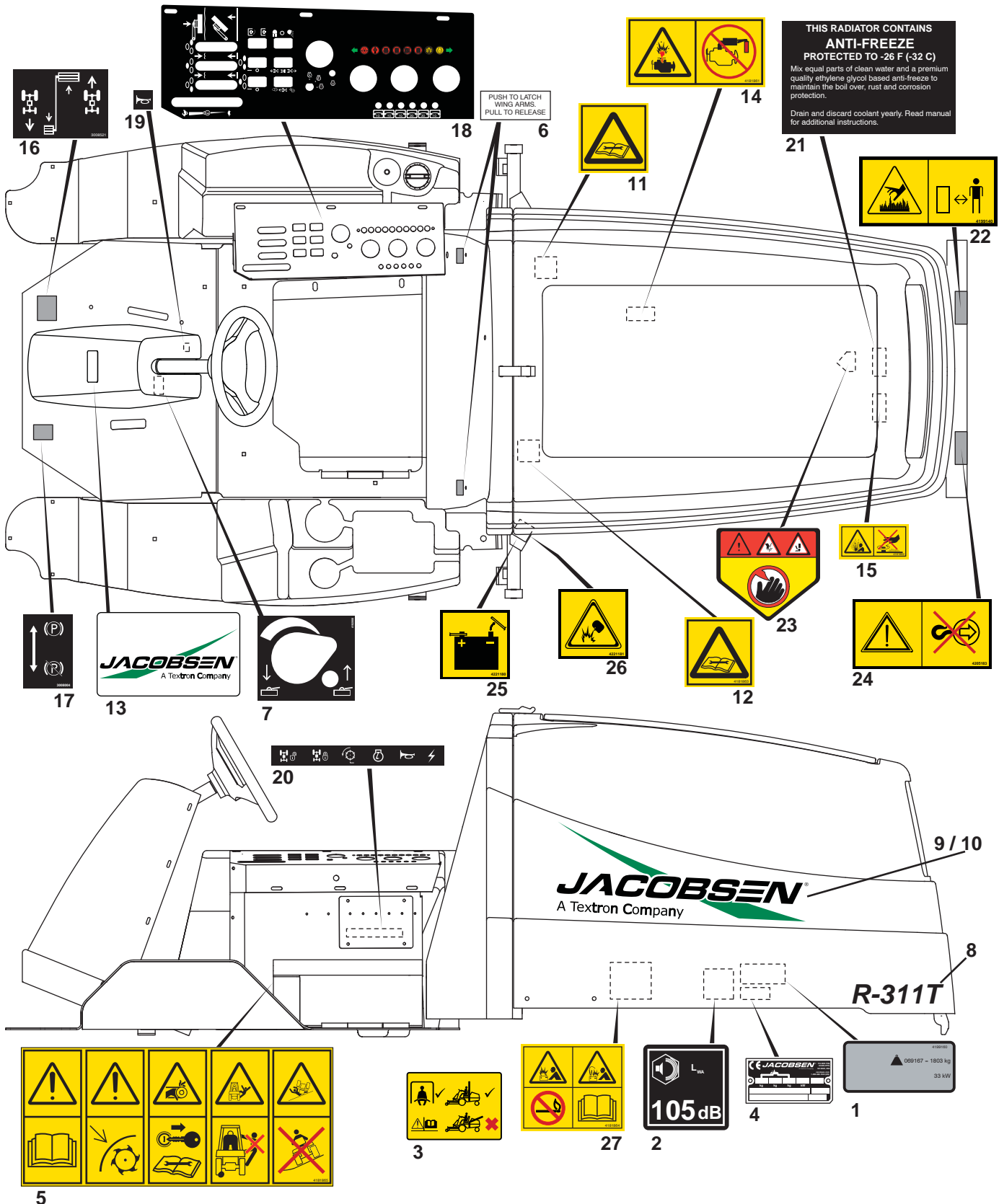
1. Write your **full** name and **complete** address on the order.
2. Explain where and how to make shipment.
3. Give product number, name and serial number that is stamped on the name plate or serial plate of your product.
4. Order by the quantity desired, the part number, and description of the part as given in the parts list.
5. Send or bring the order to an authorized Jacobsen Distributor.
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 Jacobsen authorized parts will void the warranty.

8.3 TABLE OF CONTENTS

1.1.....	Decals	34	60.1.....	Seat	130
2.1.....	Hood and Front Cowling	36	61.1.....	Front Axle	132
3.1.....	Hood.....	38	62.1.....	Electrical Schematic.....	134
4.1.....	Floorboard Platform	40	63.1.....	Hydraulic Schematic.....	138
5.1.....	Utility Box	42	64.1.....	O-Ring Chart.....	140
6.1.....	Console Support	44			
7.1.....	Seat and Seat Base	46			
8.1.....	Control Panel.....	48			
9.1.....	Lift Valve	50			
10.1.....	Throttle.....	51			
11.1.....	Traction Pedal Linkage.....	52			
12.1.....	Traction Linkage	54			
13.1.....	Brake Pedal	56			
14.1.....	Brake Caliper	58			
15.1.....	Frame and Front Axle	60			
16.1.....	Steering Axle	62			
17.1.....	Steering Tower	64			
18.1.....	Air Cleaner	66			
19.1.....	Radiator and Oil Cooler	68			
20.1.....	Engine	70			
21.1.....	Engine Mounts	72			
22.1.....	Engine Fuel Control.....	74			
23.1.....	Muffler	75			
24.1.....	Fuel Tank	76			
25.1.....	Hydraulic Tank Support	78			
26.1.....	Hydraulic Tank	80			
27.1.....	Pumps and Control Valve	82			
28.1.....	Traction Hydraulics	84			
29.1.....	Gear Pump Hydraulics	86			
30.1.....	Control Valve Hydraulics	87			
31.1.....	Steering Hydraulics	88			
32.1.....	Lift Hydraulics	89			
33.1.....	Lift Return Hydraulics	90			
34.1.....	Motor Return Hydraulics	91			
35.1.....	Charge Hydraulics	92			
36.1.....	Oil Cooler Hydraulics	93			
37.1.....	Return Hydraulics	94			
38.1.....	Front Deck Hydraulics	95			
39.1.....	Left Wing Deck Hydraulics.....	96			
40.1.....	Right Wing Deck Hydraulics	97			
41.1.....	Hydraulic Clamping	98			
42.1.....	Electrical Components	100			
43.1.....	Electrical Routing	102			
44.1.....	Harness	104			
45.1.....	Front Lift Arms	106			
46.1.....	Wing Lift Arms	108			
47.1.....	Wing Deck Latch	110			
48.1.....	Deck Mounting	112			
49.1.....	Front Deck	114			
50.1.....	Wing Deck.....	116			
51.1.....	Caster Wheels	118			
52.1.....	Deck Bumper	120			
53.1.....	Deck Valve	121			
54.1.....	Lift Valve	122			
55.1.....	Control Valve	124			
56.1.....	4WD Valve.....	125			
57.1.....	Traction Pump.....	126			
58.1.....	Rear Wheel Motor	128			
59.1.....	ROPS.....	129			

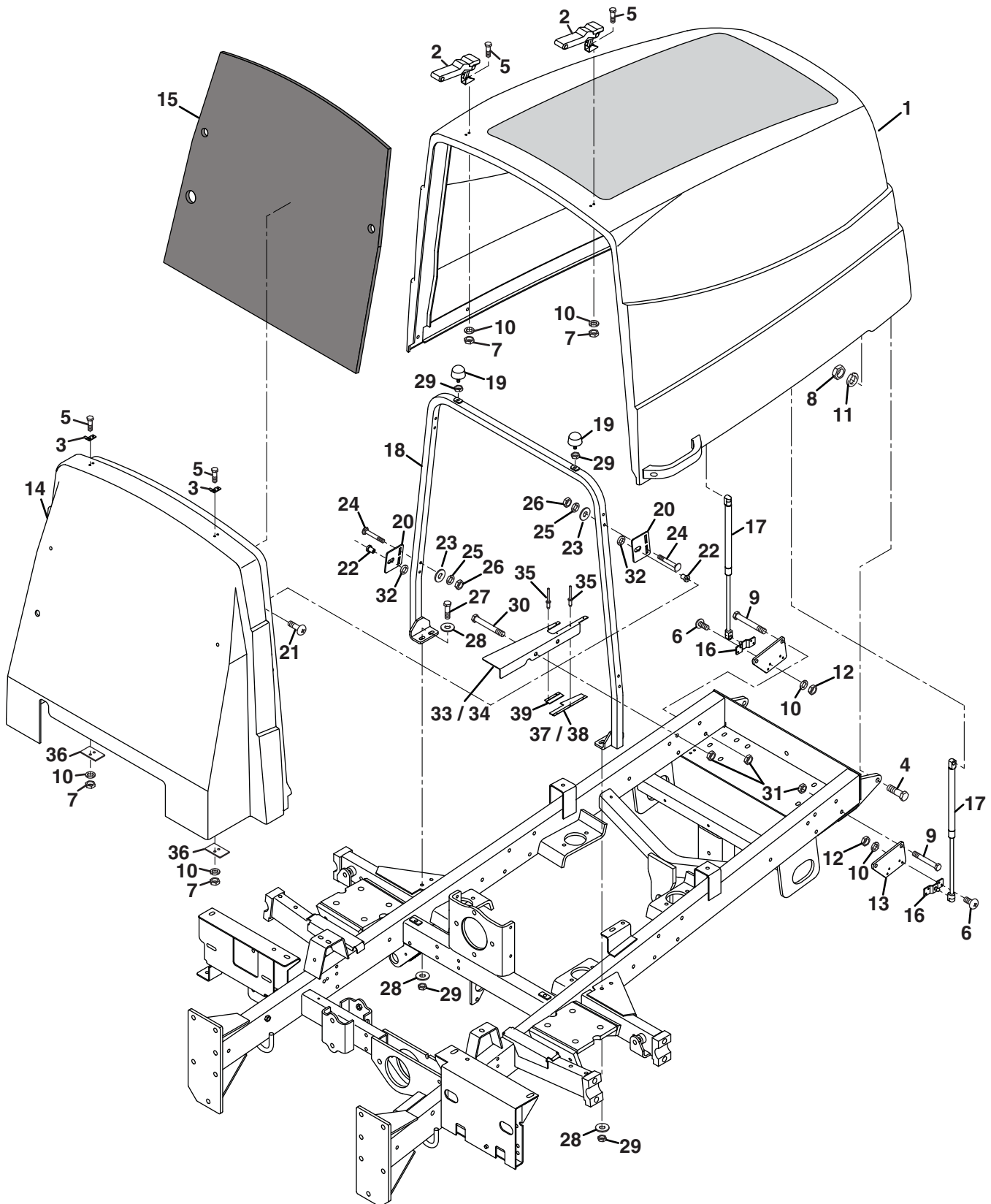
1.1 Decals



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4199160	1	Decal, R-311 Weight	Located on right frame rail
2	4117468	1	Decal, 105 dB Noise	Located on right frame rail
3	4194260	2	Decal, ROPS Deployment	Located on ROPS folding section
4	REF	1	Serial Plate	Located on right frame rail
5	4181865	1	Decal, Warning	
6	366608	2	Decal, Wing Transport Lock Cable	
7	4192000	1	Decal, Weight Transfer	
8	4211460	2	Decal, R-311T	
9	4187680	1	Decal, Left Side Stripe	
10	4187681	1	Decal, Right Side Stripe	
11	4181863	1	Decal, See Manual for Maintenance	Located on Charge Filter Bracket
12	4181863	1	Decal, See Manual for Maintenance	Located on Hydraulic Tank
13	4182386	1	Emblem, Jacobsen	
14	4181861	1	Decal, Start Assist	Located on Air Cleaner
15	4181862	1	Decal, Radiator Warning	Located on Radiator
16	3008521	1	Decal, Accelerator	
17	3008004	1	Decal, Brake	
18	4170760	1	Decal, Instrument Panel	
19	366866	1	Decal, Symbol	Use Horn Portion of Decal Only
20	3002565	1	Decal, Relay Identification	Located on inside of relay cover
21	363995	1	Decal, Antifreeze	Located on Radiator
22	4199140	1	Decal, Heat Warning	
23	4164381	1	Decal, Danger	Located on Fan Shroud
24	4205183	1	Decal, Towing Warning	
25	4221180	1	Decal, Battery Terminal	
26	4221181	1	Decal, Spark Warning	
27	4181864	1	Decal, Battery	

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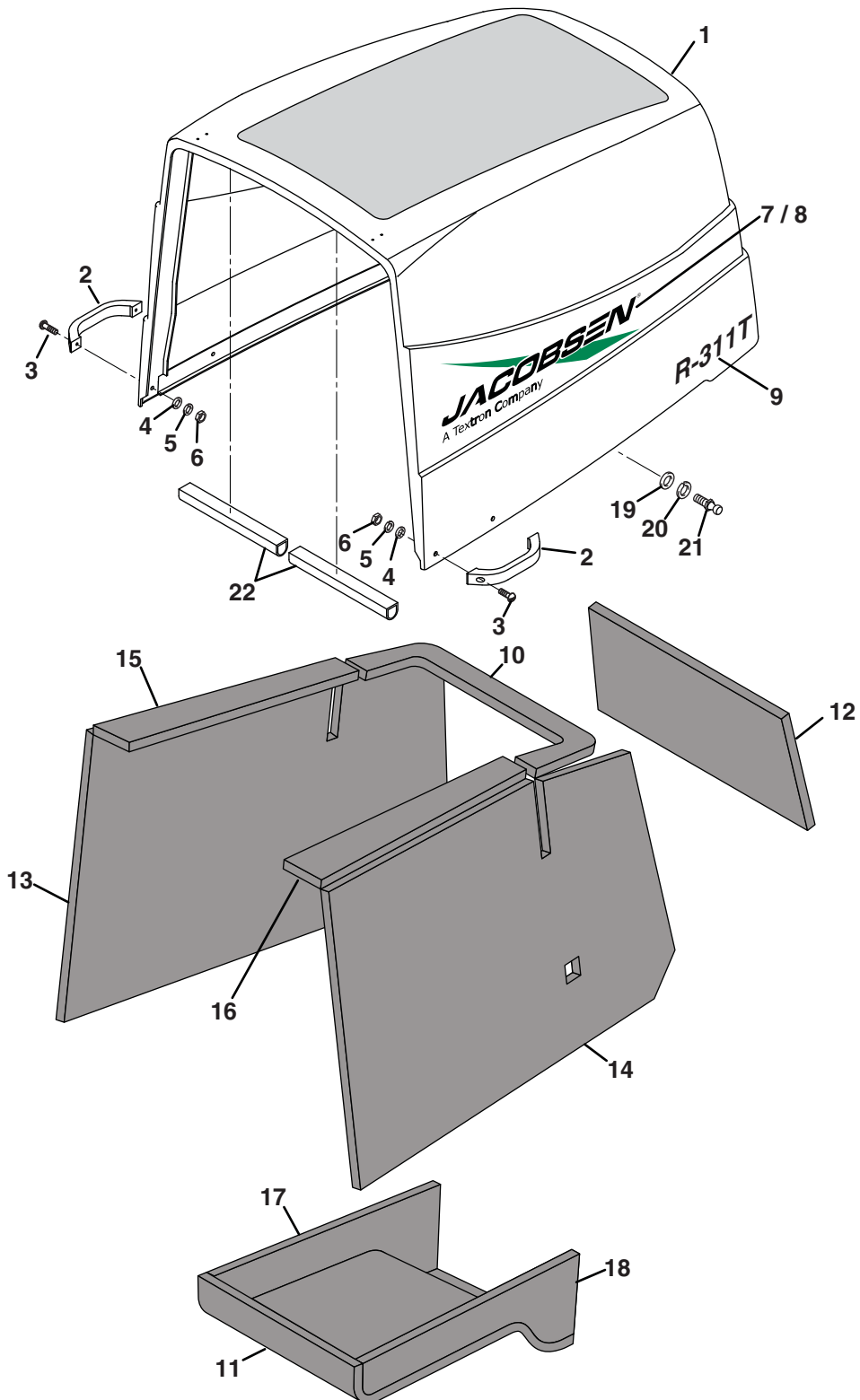
2.1 Hood and Front Cowling



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4211440	1	Hood, R-311	See 3.1
2	4212423	2	Latch, Overcenter	
3	NS	2	• Keeper	
4	400408	2	Screw, 1/2-13 x 1-1/2" Hex Head	
5	450152	8	Screw, M5-0.8 x 20 mm Hex Head	
6	403912	8	Screw, #10-24 x 5/8" Truss Head	
7	450322	8	Nut, M5-0.8 Hex	
8	444758	2	Locknut, 1/2-13 Hex	
9	400276	4	Screw, 3/8-16 x 3" Hex Head	
10	446118	16	Lockwasher, #10	
11	453017	2	Flat Washer, 1/2	
12	444310	8	Nut, #10-24 Hex	
13	4197282	2	Plate, Hood Mount	
14	4182025	1	Front Cowling	
15	4189009	1	• Foam, Cowling	
16	4188780	2	Bracket, Ball Stud	
17	4197420	2	Spring, Gas	
18	4196223	1	Hood Support	
19	523126	2	Bumper, Rubber	
20	4195783	2	Plate, Cowling	
21	404022	4	Screw, 1/4-20 x 3/4" Truss Head	
22	522516	4	Mount, Isolation	
23	452004	8	Flat Washer, 1/4	
24	440052	8	Carriage Bolt, 1/4-20 x 1-3/4"	
25	446130	8	Lockwasher, 1/4 Heavy	
26	443102	8	Nut, 1/4-20 Hex	
27	400188	4	Screw, 5/16-18 x 1" Hex Head	
28	452006	8	Flat Washer, 5/16	
29	443106	6	Nut, 5/16-18 Hex	
30	400286	4	Screw, 3/8-16 x 2-3/4" Hex Head	
31	445806	8	Nut, 3/8-16 Hex Nylock	
32	455012	4	Flat Washer, 1/2	
33	4207781	1	Hood Support, Right Side	
34	4207780	1	Hood Support, Left Side	
35	4211280	10	Pop Rivet, 3/32 x 1/4"	
36	4212820	2	Backer, Latch	
37	4207783	1	Brush, Right Side Debris Shield	
38	4207782	1	Brush, Left Side Debris Shield	
39	4207784	2	Brush, Debris Shield	

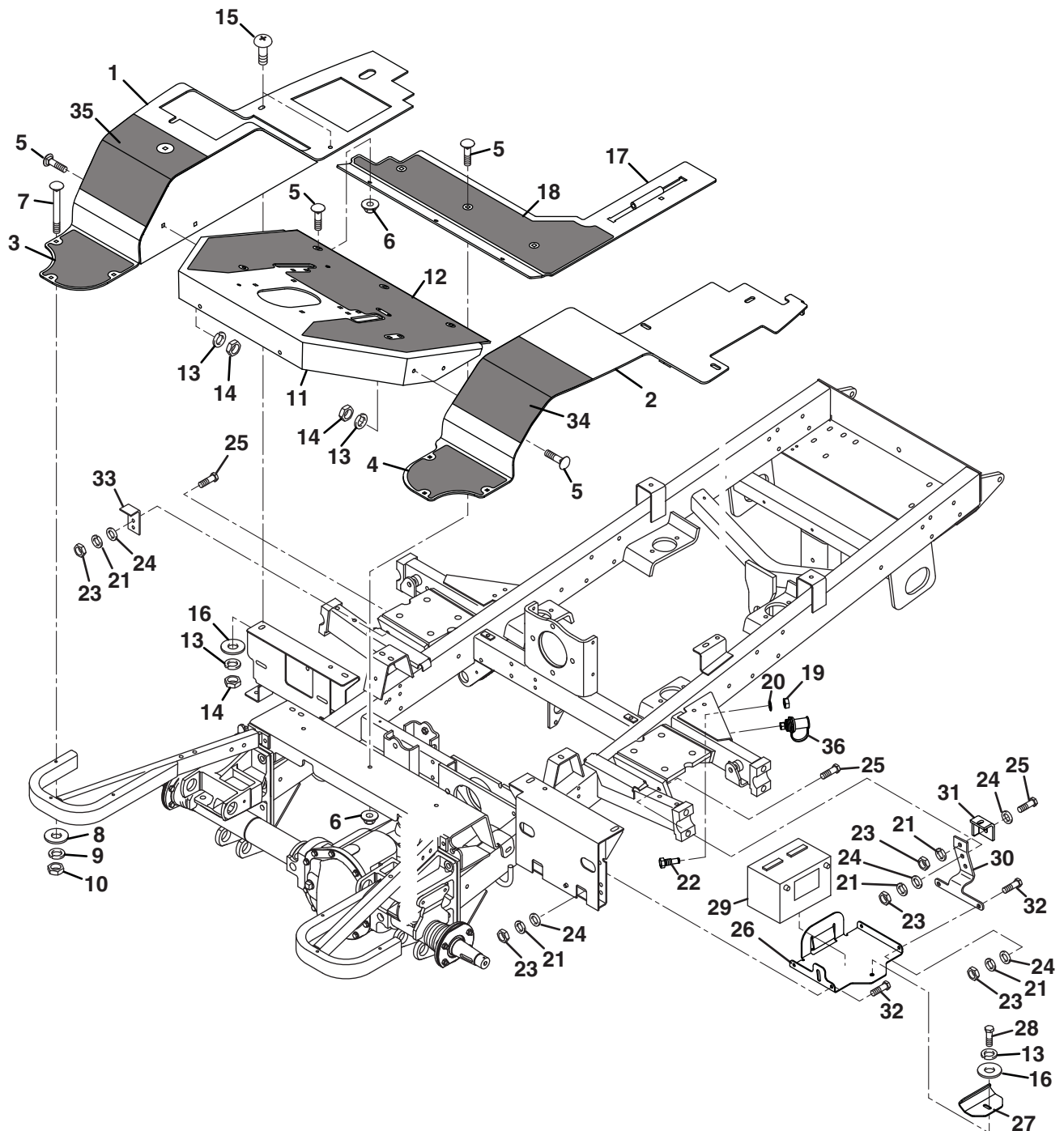
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3.1 Hood



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4211440	1	Hood Assembly	
2	340795	2	• Handle, Hood	
3	402230	4	• Screw, 1/4-20 x 1" Slotted	
4	453023	4	• Flat Washer, 1/4	
5	446130	4	• Lockwasher, 1/4 Heavy	
6	443102	4	• Nut, 1/4-20 Hex	
7	4187680	1	• Decal, Left Side Jacobsen	
8	4187681	1	• Decal, Right Side Jacobsen	
9	4211460	2	• Decal, R-311T	
10	4189000	1	• Foam, Top Rear	
11	4189001	1	• Foam, Top Front	
12	4189002	1	• Foam, Lower Rear	
13	4189003	1	• Foam, Right Side	
14	4189004	1	• Foam, Left Side	
15	4189005	1	• Foam, Top Right	
16	4189006	1	• Foam, Top Left	
17	4189007	1	• Foam, Right Under Side	
18	4189008	1	• Foam, Left Under Side	
19	453009	2	• Flat Washer, 5/16	
20	446134	2	• Lockwasher, 5/16	
21	4201080	2	• Threaded Ball Stud	
22	4201100	2	• Seal	

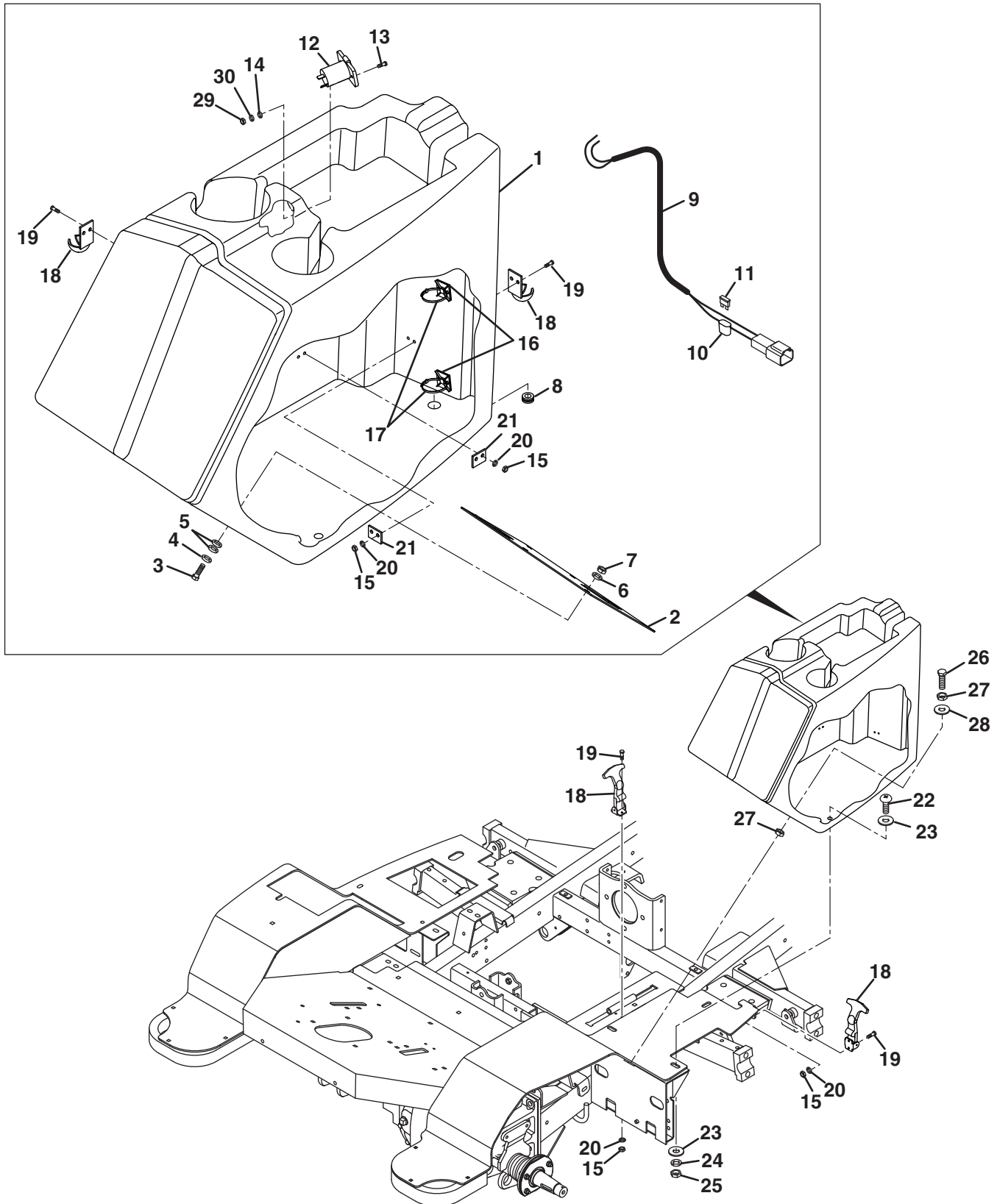
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4185961	1	Right Side Fender	
2	4208122	1	Left Side Fender	
3	4185981	1	Pad, Right Side Step	
4	4185980	1	Pad, Left Side Step	
5	441614	11	Carriage Bolt, 5/16-18x1"	
6	445781	7	Nut, 5/16-18 Whizlock Flange	
7	441669	6	Carriage Bolt, 1/4-20x2-3/4"	
8	452004	6	Flat Washer, 1/4	
9	446128	6	Lockwasher, 1/4	
10	444708	6	Locknut, 1/4-20	
11	4184649	1	Floor, Foot Rest	
12	4185983	1	Pad, Footrest	
13	446134	7	Lockwasher, 5/16	
14	443106	6	Nut, 5/16-18 Hex	
15	404072	2	Screw, 5/16-18x1" Truss Head	
16	452006	3	Flat Washer, 5/16	
17	4185923	1	Floor Board	
18	4185982	1	Pad, Floor	
19	443828	1	Nut, 5/8-11 Hex Jam	
20	447224	1	Lockwasher, 5/8 Internal Tooth	
21	446142	9	Lockwasher, 3/8 Heavy	
22	2811559	1	Bolt, Negative Battery	
23	443110	11	Nut, 3/8-16 Hex	
24	453011	9	Flat Washer, 3/8	
25	400264	5	Screw, 3/8-16x1-1/4" Hex Head	
26	4196122	1	Tray, Battery	
27	4196121	1	Clamp, Battery Retaining	
28	400188	1	Screw, 5/16-18x1" Hex Head	
29	N/S	1	Battery, 12V Group #75NF	REFERENCE B1, See 62.1
30	2242036	1	Bracket, Battery Tray Support	
31	4188920	1	Bracket, LH Rear Fender Support	
32	400262	4	Screw, 3/8-16x1" Hex Head	
33	2242037	1	Bracket, RH Rear Fender Support	
34	4207562	1	Pad, Left Fender	
35	4207563	1	Pad, Right Fender	
36	4208040	1	Terminal, Positive Remote Battery	REFERENCE U11, See 62.1

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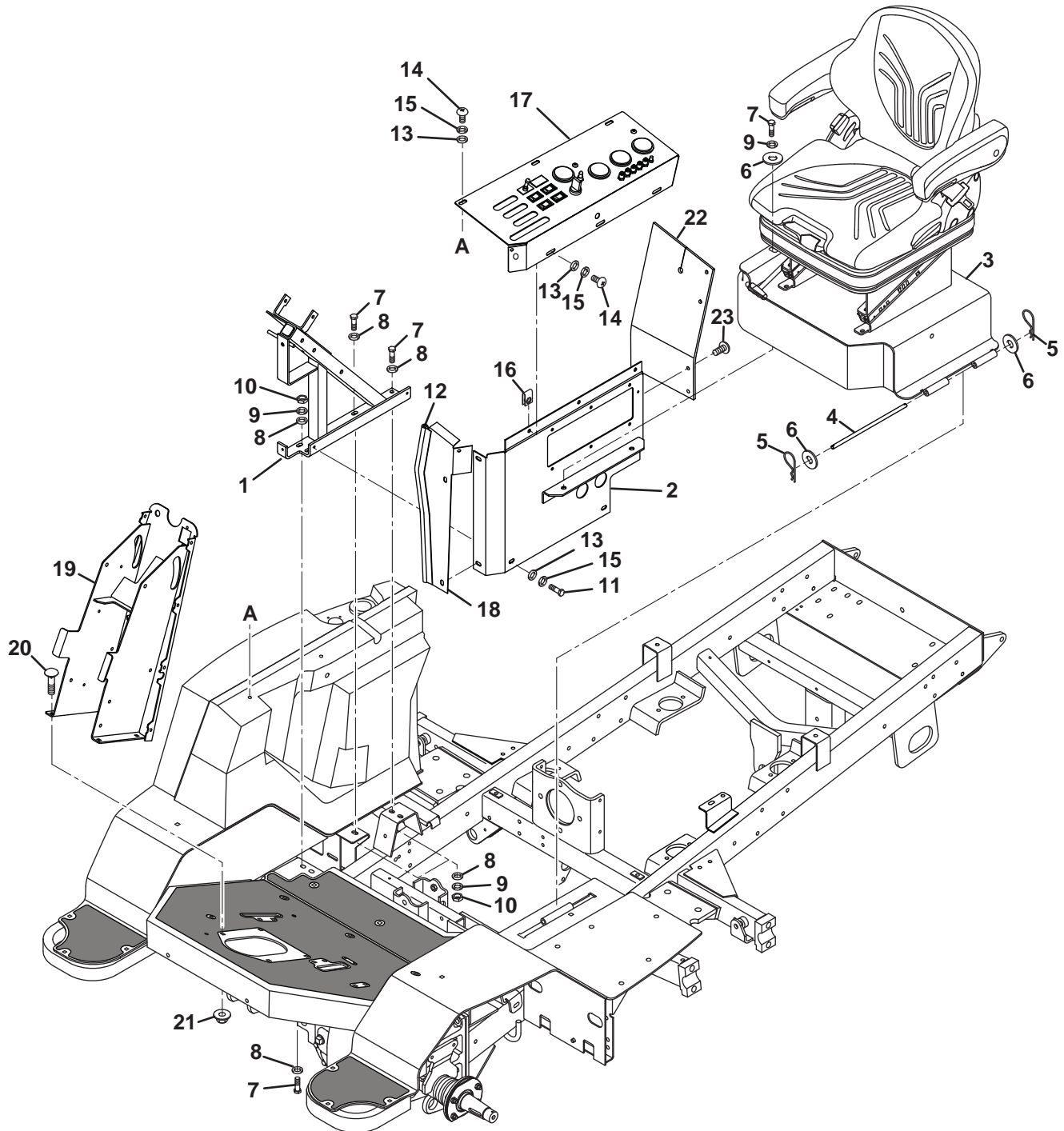
5.1 Utility Box



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4208120	1	Utility Box	
2	4208121	1	• Plate, Support	
3	400188	4	• Screw, 5/16-18x 1" Hex Head	
4	453009	4	• Flat Washer, 5/16	
5	473211	8	• Washer, Neoprene	
6	446134	4	• Lockwasher, 5/16	
7	443106	4	• Nut, 5/16-18 Hex	
8	4194660	1	Grommet	
9	4175664	1	Harness, 12V Accessory Plug	
10	4131299	1	• Fuse Holder	
11	836892	1	• Fuse, 10 Amp	
12	843942	1	• Accessory Plug	
13	4207861	2	Screw, #8-32 x 3/4" Flat Head	
14	308087	2	Flat Washer, #8	
15	444310	8	Nut, #10-24 Hex	
16	4200540	3	Adhesive Mount, Cable Tie	Accessory Harness to Utility Box
17	320107	3	Tie Strap	Accessory Harness to Utility Box
18	1004686	2	Latch, Flexible	Includes latch and keeper
19	403745	8	Screw, #10-24 x 3/4" Hex Head	
20	446118	8	Lockwasher, #10	
21	4212040	2	Plate, Latch Support	
22	404072	2	Screw, 5/16-18 x 1" Truss Head	
23	452006	4	Flat Washer, 5/16	
24	446134	2	Lockwasher, 5/16	
25	443106	2	Nut, 5/16-18 Hex	
26	401220	2	Screw, 3/8-16 x 1-1/2" Hex Head	Full Thread
27	443810	4	Nut, 3/8-16 Hex Jam	
28	358794	2	Washer	
29	444306	2	Nut, #8-32 Hex	
30	446112	2	Lockwsher, #8 Heavy	

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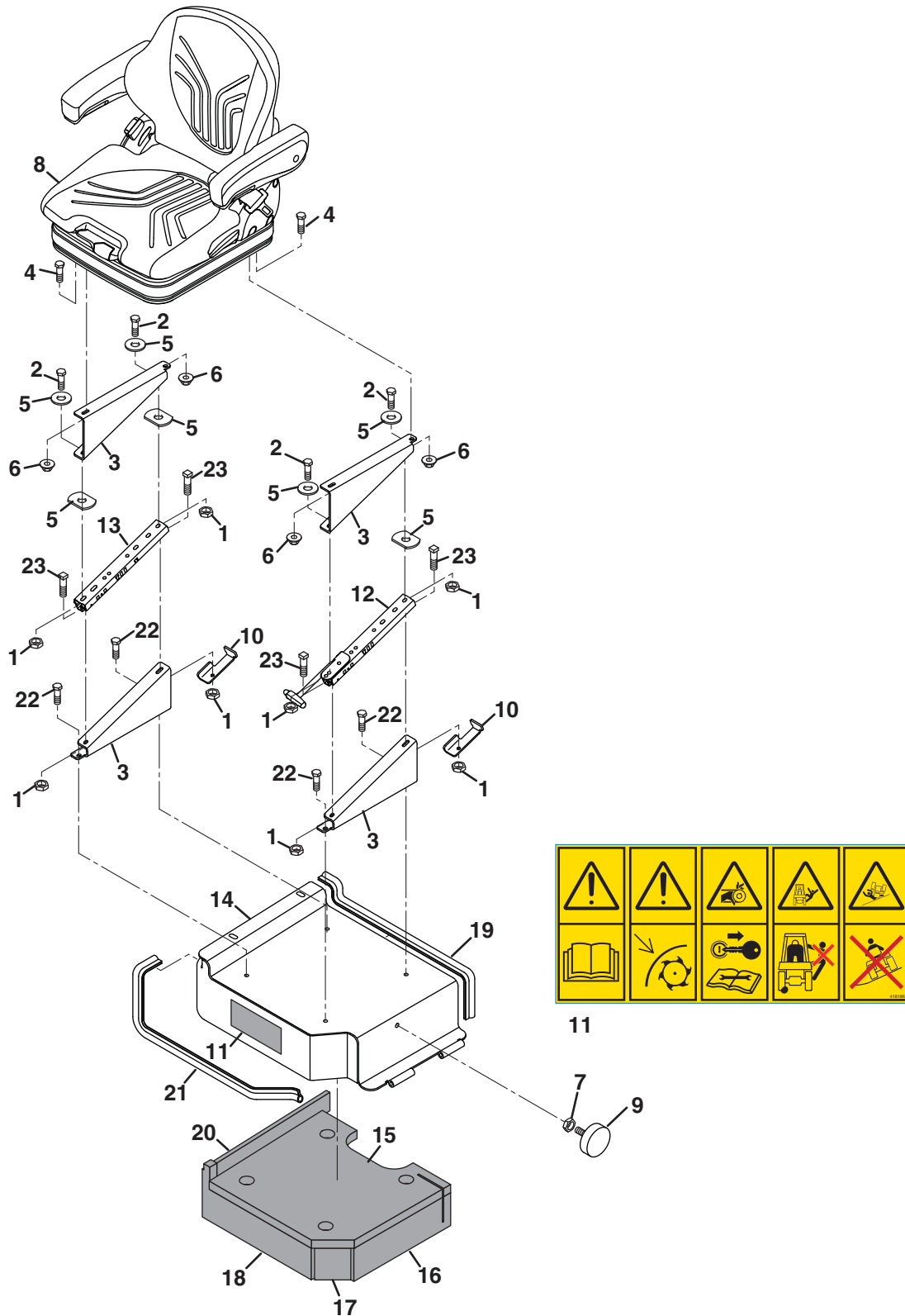
6.1 Console Support



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4168044	1	Support, Console	
2	4227180	1	Console Wall	
3	REF	1	Seat and Seat Base	See 7.1
4	4185864	1	Rod, Seat Pivot	
5	821164	2	Hair Pin, 1/16x1-1/4x1/4"	
6	452007	4	Flat Washer, 3/8	
7	400264	7	Screw, 3/8-16x1-1/4" Hex Head	
8	453011	10	Flat Washer, 3/8	
9	446142	7	Lockwasher, 3/8 Heavy	
10	443110	5	Nut, 3/8-16 Hex	
11	400184	4	Screw, 5/16-18x3/4" Hex Head	
12	4185903	1	Trim Seal	
13	452006	10	Flat Washer, 5/16	
14	403760	6	Screw, 5/16-18x3/4" Truss Head	
15	446134	10	Lockwasher, 5/16 Special	
16	445278	3	Nut, Tinnerman	
17	REF	1	Control Panel	See 8.1
18	4186141	1	Bracket, Seal	
19	REF	1	Steering Tower	See 17.1
20	441614	4	Carriage Bolt, 5/16-18x1"	
21	445795	4	Nut, 5/16-18 Spirallock Flange	
22	4195920	1	Panel, Closeout	
23	408851	4	Screw, 1/4-20x3/4" Self Tapping	

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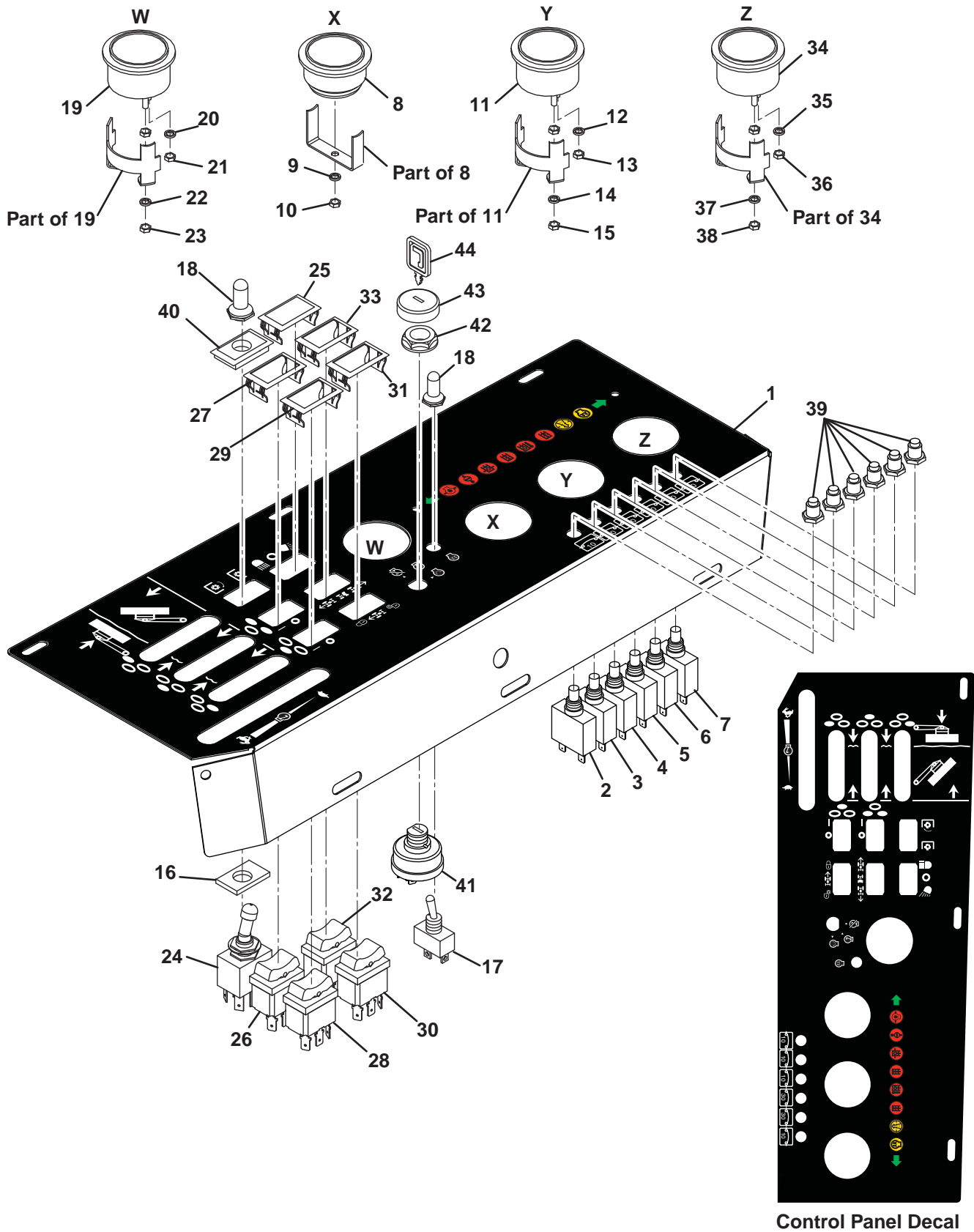
7.1 Seat and Seat Base



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	450453	4	Locknut, M8-1.25 Center	<p>See 60.1 REFERENCE SW3, See 62.1</p>
2	452388	4	Screw, M8-1.25x20mm Hex Head	
3	4185860	4	Seat Riser	
4	400186	4	Screw, 5/16-18 x 7/8" Hex Head	
5	4198581	3	Spacer	
6	445795	4	Nut, 5/16-18 Spirallock Flange	
7	443110	1	Nut, 3/8-16 Hex	
8	4185878	1	Seat	
	4173566	1	• Switch, Seat	
9	361723	1	Stop, Rubber	
10	4192160	2	Stop, Rear Seat	
11	4181865	1	Decal, Warning	
12	4193341	1	Seat Rail	
13	4193344	1	Seat Rail with Handle	
14	4185927	1	Seat Base	
15	4185871	1	Insulation, Seat Base	
16	4185872	1	Insulation, Left Side	
17	4185873	1	Insulation, Seat Base Corner	
18	4185874	1	Insulation, Front Side	
19	4185875	1	Trim Seal	
20	4185870	1	Insulation, Right Side	
21	4185868	1	Trim Seal	
22	403770	4	Screw, 5/16/18 x 3/4" Hex Flange	
23	4203220	4	Screw, M8-1.25 x 20 mm Square Hd	

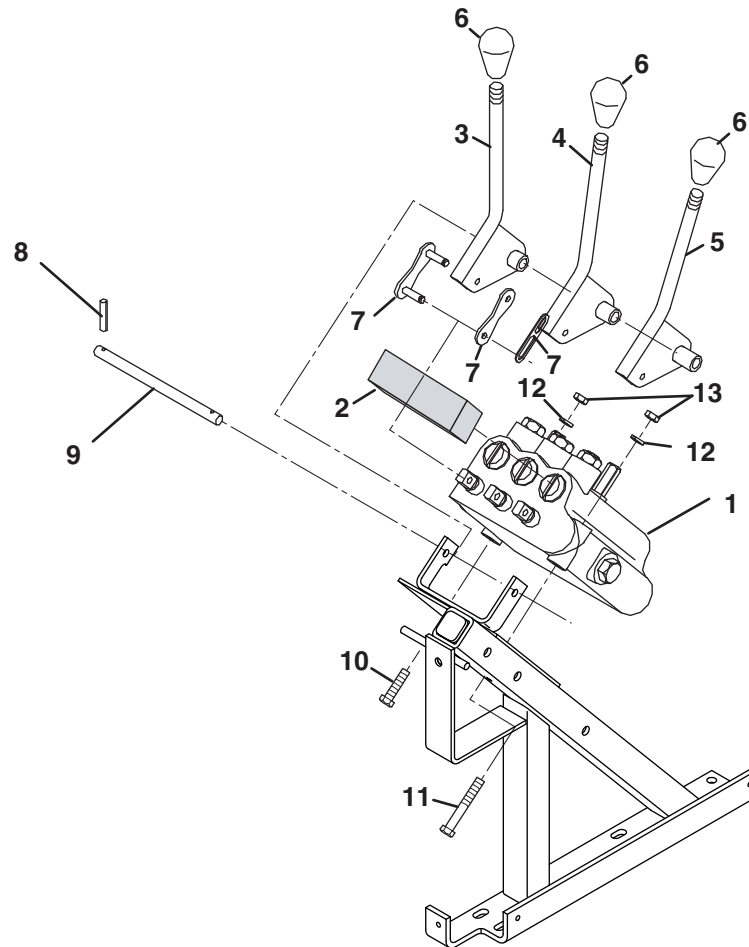
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8.1 Control Panel



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4193340	1	Control Panel	
	4170760	1	• Decal, Control Panel	
2	338601	1	Circuit Breaker, 10 Amp	REFERENCE CB1, See 62.1
3	338601	1	Circuit Breaker, 10 Amp	REFERENCE CB2, See 62.1
4	338601	1	Circuit Breaker, 10 Amp	REFERENCE CB3, See 62.1
5	338558	1	Circuit Breaker, 30 Amp	REFERENCE CB4, See 62.1
6	338558	1	Circuit Breaker, 30 Amp	REFERENCE CB5, See 62.1
7	338601	1	Circuit Breaker, 10 Amp	REFERENCE CB8, See 62.1
8	162723	1	Hour Meter	REFERENCE U5, See 62.1
9	447006	2	• Lockwasher, #10 External Tooth	
10	444310	1	• Nut, #10-24 Hex	
11	162721	1	Volt Meter	REFERENCE U4, See 62.1
12	447002	3	• Lockwasher, #6 External Tooth	
13	444304	3	• Nut, #6-32 Hex	
14	447206	2	• Lockwasher, #8 Internal Tooth	
15	444306	2	• Nut, #8-32 Hex	
16	1000588	1	Plug, Upper Panel	
17	365043	1	Switch, Glow Plug	REFERENCE SW5, See 62.1
18	363962	2	Switch Boot	
19	3005121	1	Water Temperature Gauge	REFERENCE U6, See 62.1
20	447002	3	• Lockwasher, #6 External Tooth	
21	444304	3	• Nut, #6-32 Hex	
22	447206	2	• Lockwasher, #8 Internal Tooth	
23	444306	2	• Nut, #8-32 Hex	
24	3001372	1	Switch, PTO	REFERENCE SW4, See 62.1
25	366932	1	Plug, Panel	
26	3001374	1	Switch, Wing Decks	REFERENCE SW6, See 62.1
27	5003490	1	• Mounting Bezel	
28	3001373	1	Switch, Front Deck	REFERENCE SW7, See 62.1
29	5003490	1	• Mounting Bezel	
30	3001371	1	Switch, Cruise Control	REFERENCE SW22, See 62.1
31	5003490	1	• Mounting Bezel	
32	3001370	1	Switch, 4WD	REFERENCE SW19, See 62.1
33	5003490	1	• Mounting Bezel	
34	365943	1	Gauge, Fuel	REFERENCE U7, See 62.1
35	447002	3	• Lockwasher, #6 External Tooth	
36	444304	3	• Nut, #6-32 Hex	
37	447206	2	• Lockwasher, #8 Internal Tooth	
38	444306	2	• Nut, #8-32 Hex	
39	364774	6	Boot, Protective	
40	3001386	1	Plug, Lower Panel	
41	5002503	1	Ignition Switch	REFERENCE SW1, See 62.1
42	5002102	1	• Nut, Black Nylon Face	
43	5002101	1	• Bezel Slotted Rubber	
44	5000039	1	• Ignition Key	

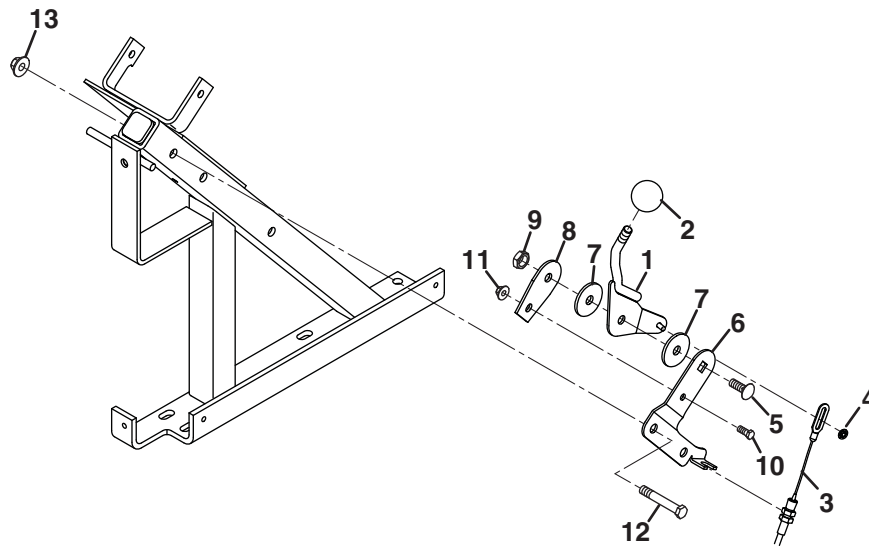
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1001802	1	Lift Valve	See 54.1
2	366150	1	Weather Strip	
3	132473	1	Right Wing Lift Lever	
4	132472	1	Center Lift Lever	
5	132471	1	Left Wing Lift Lever	
6	366522	3	Knob, Lift Lever	
7	366133	3	Chain Link	
8	461356	2	Roll Pin, 3/32 x 1/2"	
9	361833	1	Pin, Lift Lever	
10	400124	1	Screw, 1/4-20 x 2-1/2" Hex Head	
11	400128	1	Screw, 1/4-20 x 3-1/2" Hex Head	
12	446130	2	Lockwasher, 1/4 Heavy	
13	443102	2	Nut, 1/4-20 Hex	

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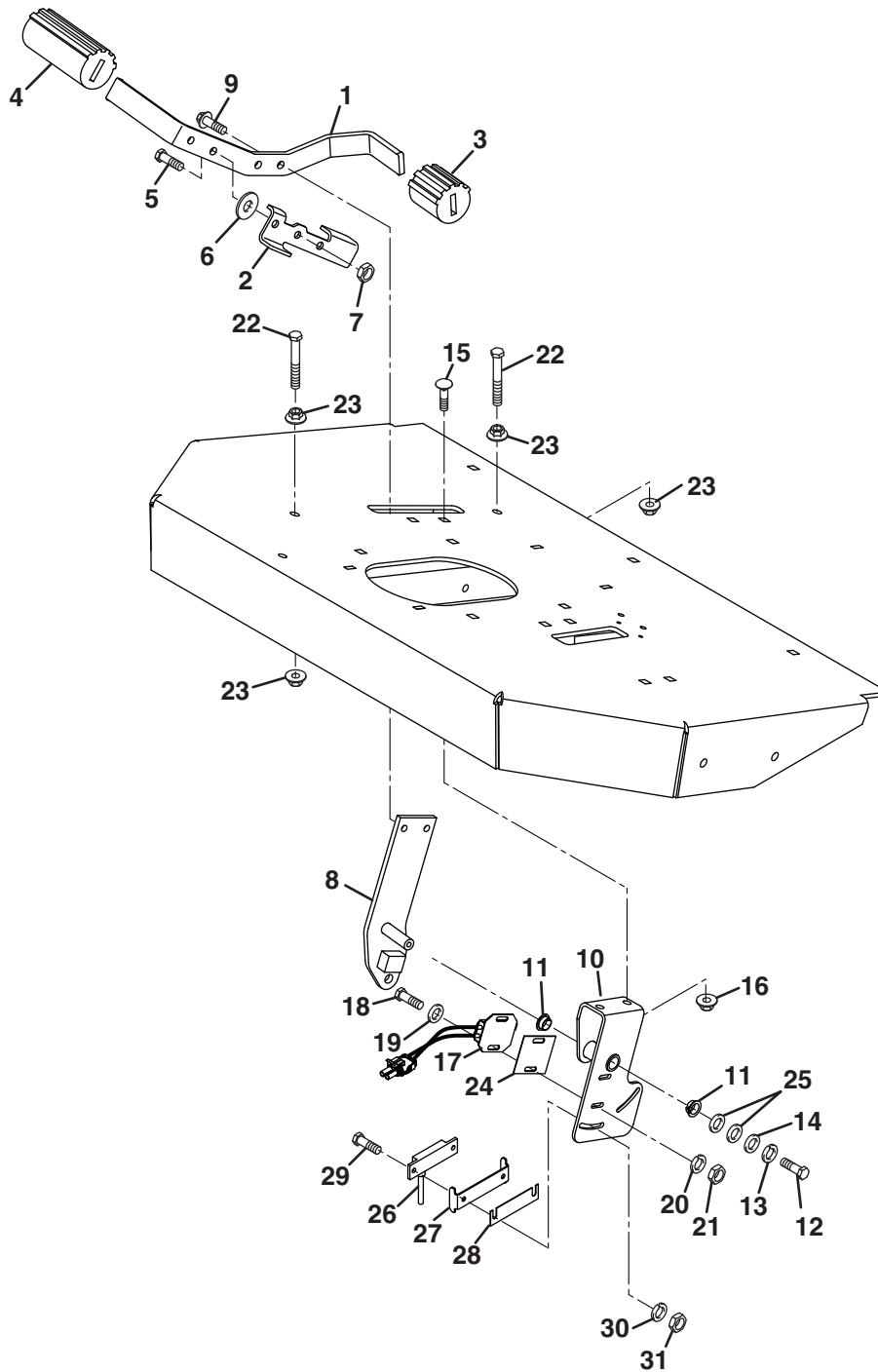
10.1 Throttle



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4172944	1	Throttle Handle	See 22.1 for Engine Connection
2	326731	1	Knob, Throttle	
3	4177920	1	Cable, Throttle	
4	445800	1	Palnut, 3/16	
5	440116	1	Carriage Bolt, 3/8-16x7/8"	
6	4178004	1	Bracket, Throttle Lever Mounting	
7	360885	2	Disc, Friction	
8	3009153	1	Plate, Friction	
9	444850	1	Locknut, 3/8-16 Hex Jam	
10	400110	1	Screw, 1/4-20x7/8" Hex Head	
11	444708	1	Locknut, 1/4-20 Hex Center	
12	400272	2	Screw, 3/8-16x2-1/4 Hex Head	
13	445783	2	Nut, 3/8-16 Whizlock Flange	

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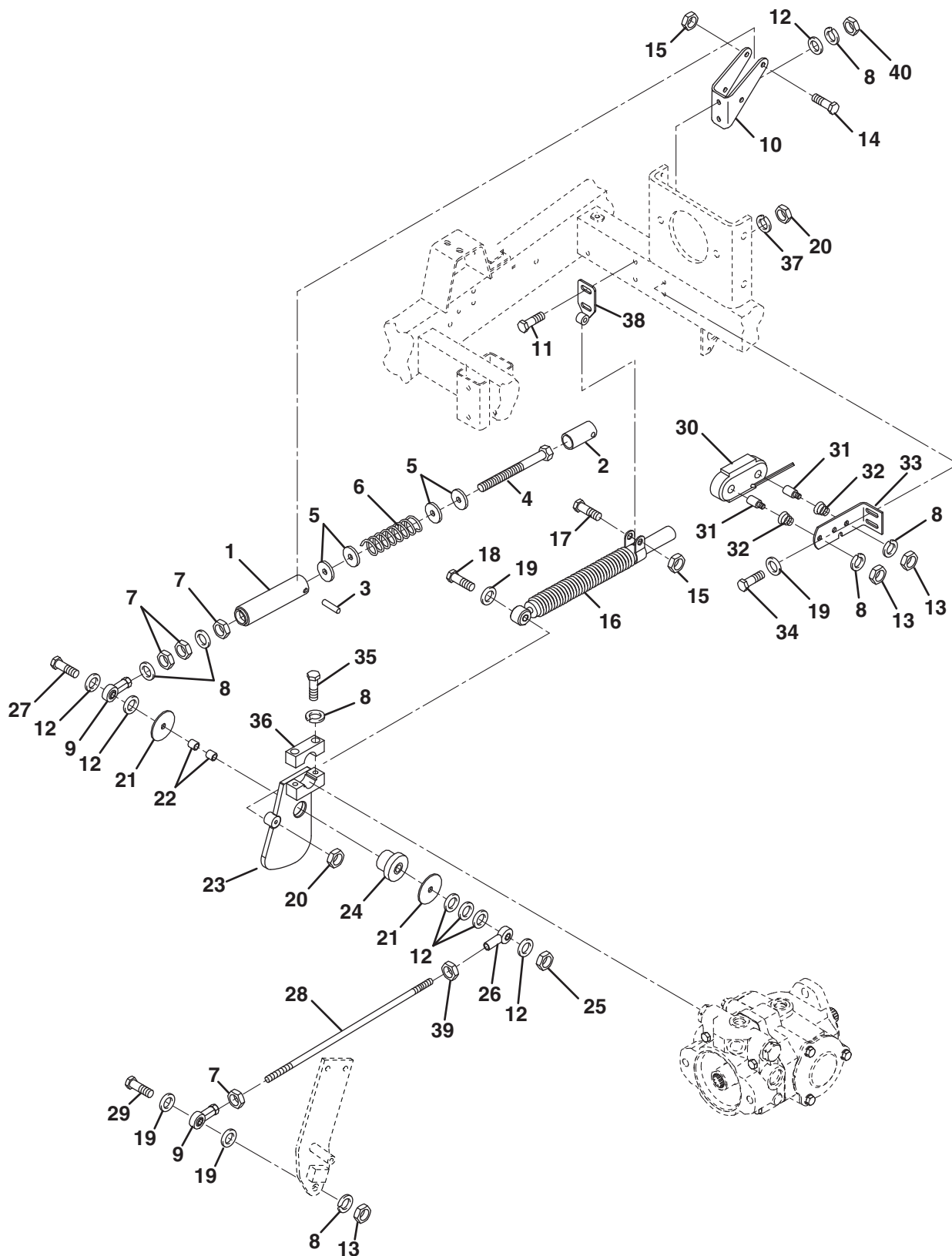
11.1 Traction Pedal Linkage



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4116048	1	Pedal, Hydro	
2	3007230	1	Stop, Mow Speed	
3	3003474	1	Grip, Reverse Pedal	
4	3003475	1	Grip, Forward Pedal	
5	400188	1	Screw, 5/16-18 x 1" Hex Head	
6	3002695	1	Flat Washer, 5/16	
7	444718	1	Locknut, 5/16-18 Center	
8	4183720	1	Arm, Pedal	
9	409812	2	Screw, 5/16-18 x 3/4" Thread Cutting	
10	4224560	1	Bracket, Pedal Support	
11	366877	2	Bearing, Nylon	
12	400146	1	Screw, 1/4-28 x 3/4" Hex Head	
13	446130	1	Lockwasher, 1/4 Heavy	
14	453023	1	Flat Washer, 1/4	
15	441602	2	Carriage Bolt, 5/16-18 x 3/4"	
16	445781	2	Nut, 5/16-18 Whizlock Flange	
17	1000649	1	Switch, Reverse Sensing	REFERENCE SW23, See 62.1
18	403746	2	Screw, #10-24 x 3/4" Hex Head	
19	64251-001	6	Flat Washer, #10	
20	446116	2	Lockwasher, #10	
21	444310	2	Nut, #10-24 Hex	
22	400272	2	Screw, 3/8-16 x 2-1/4" Hex Head	
23	445796	4	Nut, 3/8-16 Spiralock Flange	
24	4185902	AR	Shim, Switch	
25	455066	AR	Washers, 1/4"	
26	4140149	1	Switch, Neutral Start	REFERENCE SW24, See 62.1
27	4182720	1	Guard, Switch	
28	3009193	AR	Shim, Switch	
29	402066	2	Screw, #8-32 x 1" Hex Head	
30	446110	2	Lockwasher, #8	
31	444306	2	Nut, #8-32 Hex	

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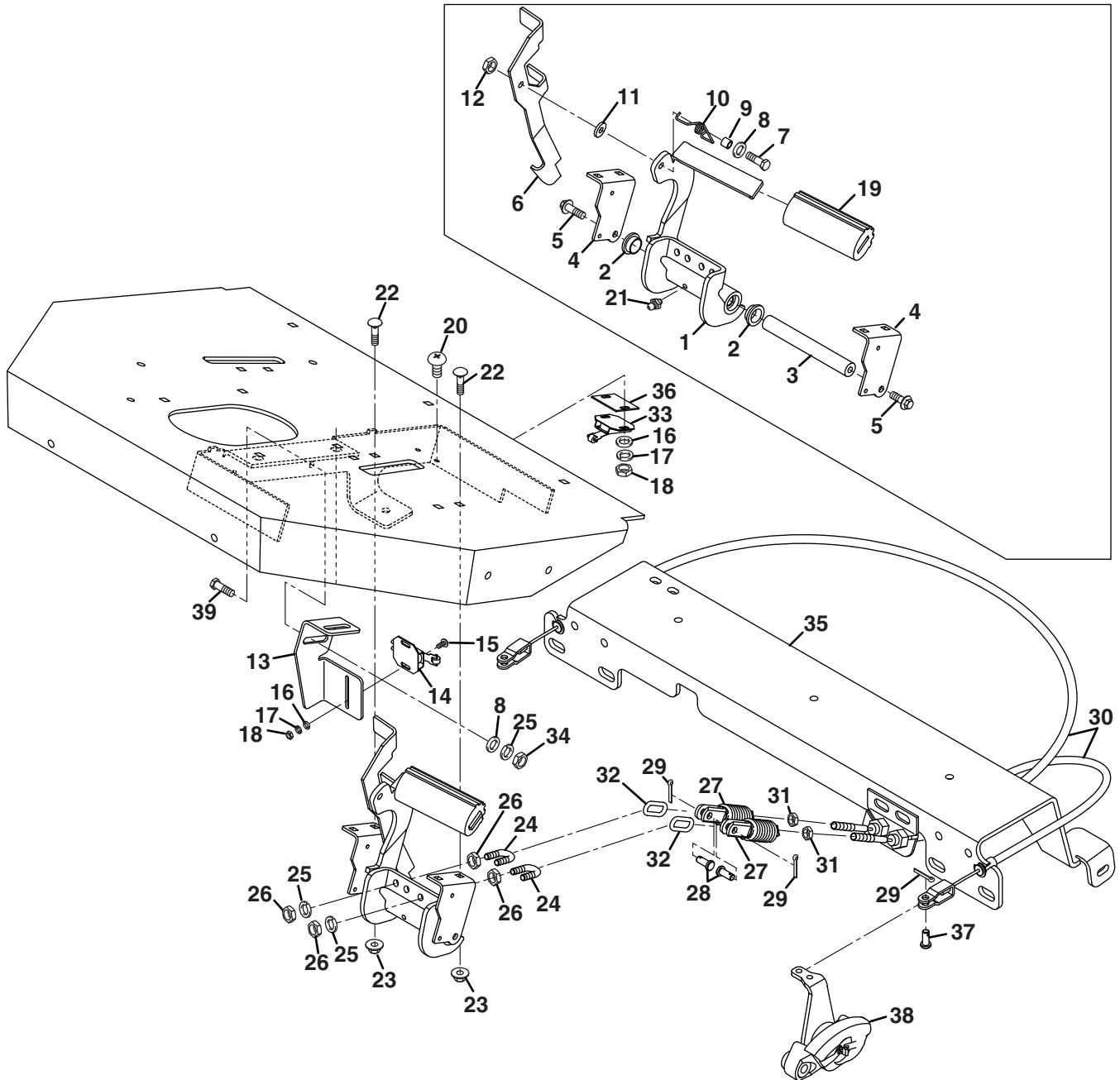
12.1 Traction Linkage



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2500257	1	Tube, Traction Return	
2	3007095	1	Stop, Rear Pivot	
3	3000593	1	Spacer, Traction Control	
4	358795	1	Screw, 3/8-24x5-1/2" Special	
5	358794	4	Washer	
6	364970	1	Spring, Compression	
7	443812	4	Nut, 3/8-24 Hex Jam	
8	446142	9	Lockwasher, 3/8 Heavy	
9	360893	2	Rod End	
10	3000594	1	Bracket, Traction Return	
11	400276	2	Screw, 3/8-16x3" Hex Head	
12	453011	10	Flat Washer, 3/8	
13	443110	3	Nut, 3/8-16 Hex	
14	400200	1	Screw, 5/16-18x2-1/4" Hex Head	
15	444718	2	Locknut, 5/16-18 Center	
16	2500175	1	Traction Damper	
17	400190	1	Screw, 5/16-18x1-1/4" Hex Head	
18	400194	1	Screw, 5/16-18x1-3/4" Hex Head	
19	452006	5	Flat Washer, 5/16	
20	443106	3	Nut, 5/16-18 Hex	
21	362819	2	Washer	
22	304718	2	Bushing	
23	4158183	1	Traction Arm	
24	359949	1	Rubber Mount, Traction Arm	
25	444762	1	Locknut, 3/8-16 Center	
26	366317	1	Rod End	
27	401028	1	Screw, 3/8-16x3-1/4" Hex Head	
28	4183001	1	Rod, Traction Pump Adjusting	
29	400268	1	Screw, 3/8-16x1-1/2" Hex Head	
30	340783	1	Magnet, Cruise Control	REFERENCE K16, See 62.1
31	367456	2	Pin, Magnet Support	
32	363771	2	Spring	
33	367457	1	Bracket, Cruise Control Magnet	
34	400202	2	Screw, 5/16-18x3" Hex Head	
35	400268	2	Screw, 3/8-16x1-3/4" Hex Head	
36	2243002	2	Block, top	
37	446136	2	Lockwasher, 5/16 Heavy	
38	4158187	1	Damper Mount	
39	445785	1	Nut, 3/8-24 LH Hex	
40	445806	2	Nut, 3/8-16 Hex Nylock	

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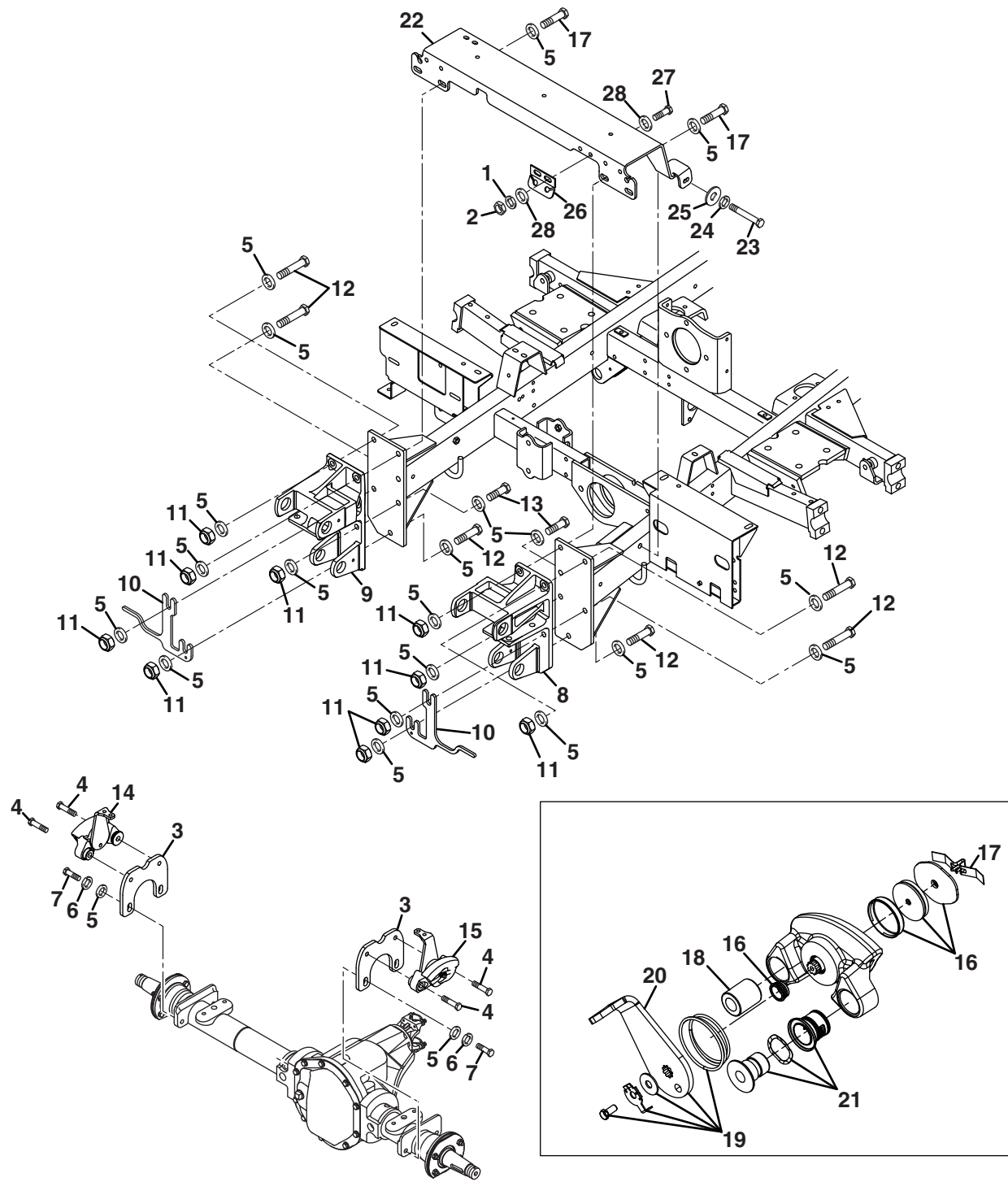
13.1 Brake Pedal



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4183261	1	Brake Pedal	
2	352726	2	• Bushing	
3	3006327	1	Shaft, Brake Pedal	
4	4100460	2	Arm, Brake	
5	403770	2	Screw, 5/16-18x3/4" Hex Flange	
6	4183260	1	Lever, Parking Brake	
7	400190	1	Screw, 5/16-18x1-1/4 Hex Head	
8	453009	2	Flat Washer, 5/16	
9	3007941	1	Spacer	
10	3007942	1	Spring, Torsion	
11	3002695	1	Flat Washer, 5/16	
12	444718	1	Locknut, 5/16-18 Center	
13	4217460	1	Bracket, Cruise Control Switch	
14	1000649	1	Switch, Cruise Control Cut-out	REFERENCE SW21, See 62.1
15	403860	2	Screw, #8-32x5/8" Truss Head	
16	453004	4	Flat Washer, #8	
17	446110	4	Lockwasher, #8	
18	444306	4	Nut, #8-32 Hex	
19	3003475	1	Grip, Pedal	
20	4207861	2	Screw, #8-32x3/4" Flat Head	
21	471217	1	Fitting, 5/16 Straight	
22	441602	4	Carriage Bolt, 5/16-18x3/4"	
23	445781	4	Nut, 5/16-18 Hex Flange	
24	362744	2	U-Bolt	
25	446134	5	Lockwasher, 5/16	
26	443806	8	Nut, 5/16-18 Hex Jam	
27	4108161	2	Spring, Brake	
28	461451	2	Clevis Pin, 5/16x15/16"	
29	460014	4	Cotter Pin, 3/32x3/4"	
30	4213263	2	Cable, Brake	
31	443812	2	Nut, 3/8-24 Hex Jam	
32	4213262	2	Link, Chain	
33	1000649	1	Switch, Parking Brake	REFERENCE SW2, See 62.1
34	443106	1	Nut, 5/16-18 Hex	
35	4213480	1	Floor Support	
36	4185902	1	Shim, Switch	
37	461493	2	Clevis Pin, 5/16x3/4"	
38	REF	1	Brake Caliper Assembly	See 14.1
39	400186	1	Screw, 5/16-18x7/8" Hex Head	

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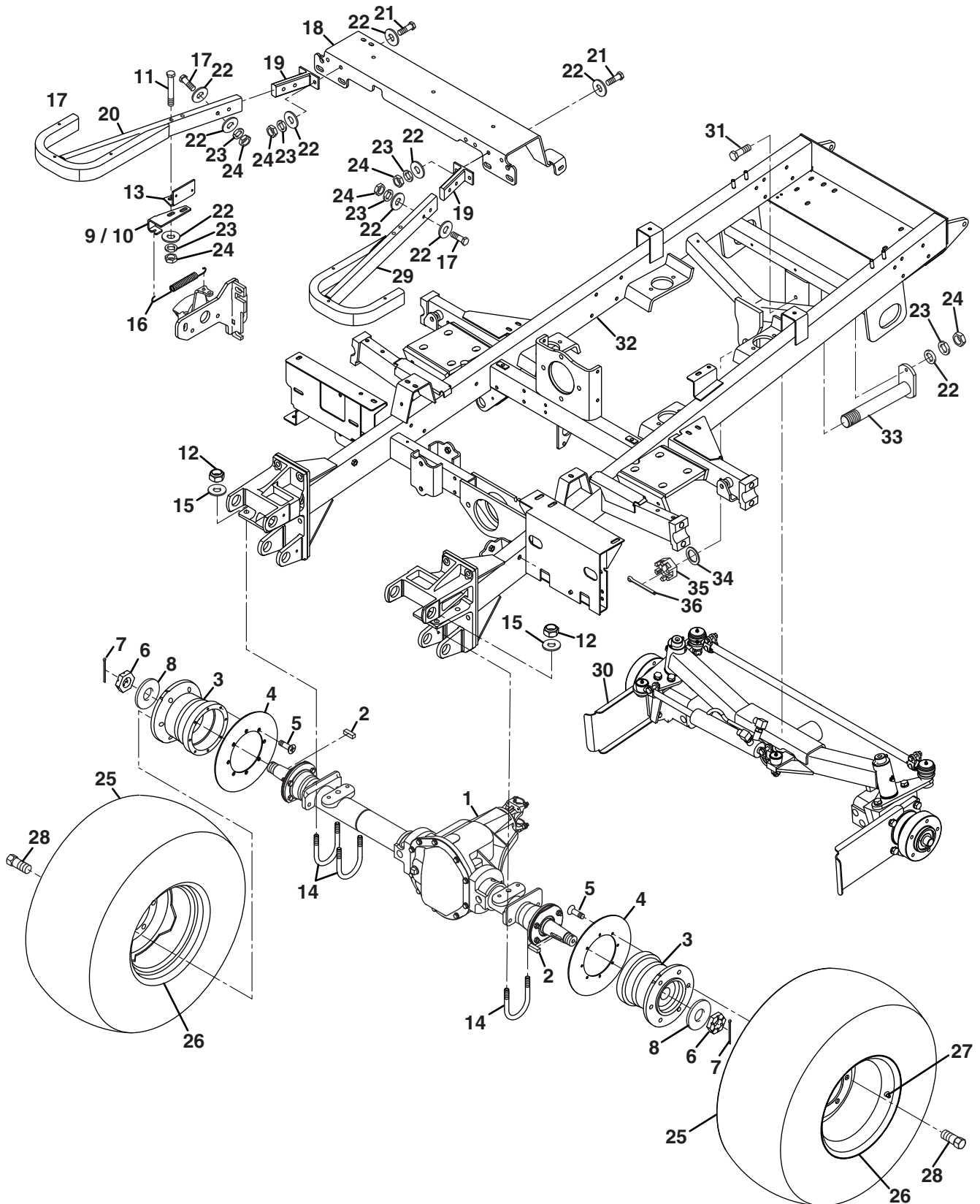
14.1 Brake Caliper



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	446142	2	Lockwasher, 3/8 Heavy	
2	443110	2	Nut, 3/8-16 Hex	
3	4215701	2	Plate, Caliper Mounting	
4	400411	4	Screw, 1/2-13 x 1-3/4" Hex Head	Grade 8
5	4212780	28	Hardened Washer, 1/2"	
6	446154	4	Lockwasher, 1/2 Heavy	
7	4134825	4	Screw, 1/2-13 x 1-1/4" Hex Head	Grade 8
8	4172601	1	Left Side Axle Support	
9	4172600	1	Right Side Axle Support	
10	4213280	2	Rim Scraper	
11	64229-05	12	Nut, 1/2-13 Nylock Hex	
12	400412	8	Screw, 1/2-13 x 2" Hex Head	
13	400410	4	Screw, 1/2-13 x 1-3/4" Hex Head	
14	4217740	1	Caliper, Right Side	
15	4217741	1	Caliper, Left Side	
16	4225660	1	• Kit, Brake Pads	
17	4225661	1	• Kit, Brake Pad Retainer	
18	4225662	1	• Kit, Metal Bushing	
19	4225663	1	• Kit, Lever Kit	
20	4213301	1	• • Lever, Brake	
21	4225664	1	• Kit, Composite Bushing	
22	4213480	1	Bracket, Floor Support	
23	400276	2	Screw, 3/8-16 x 3" Hex Head	
24	446140	2	Lockwasher, 3/8	
25	452008	2	Flat Washer, 3/8	
26	4213261	1	Bracket, Brake Cable	
27	400264	2	Screw, 3/8-16 x 1-1/4" Hex Head	
28	453011	4	Flat Washer, 3/8	

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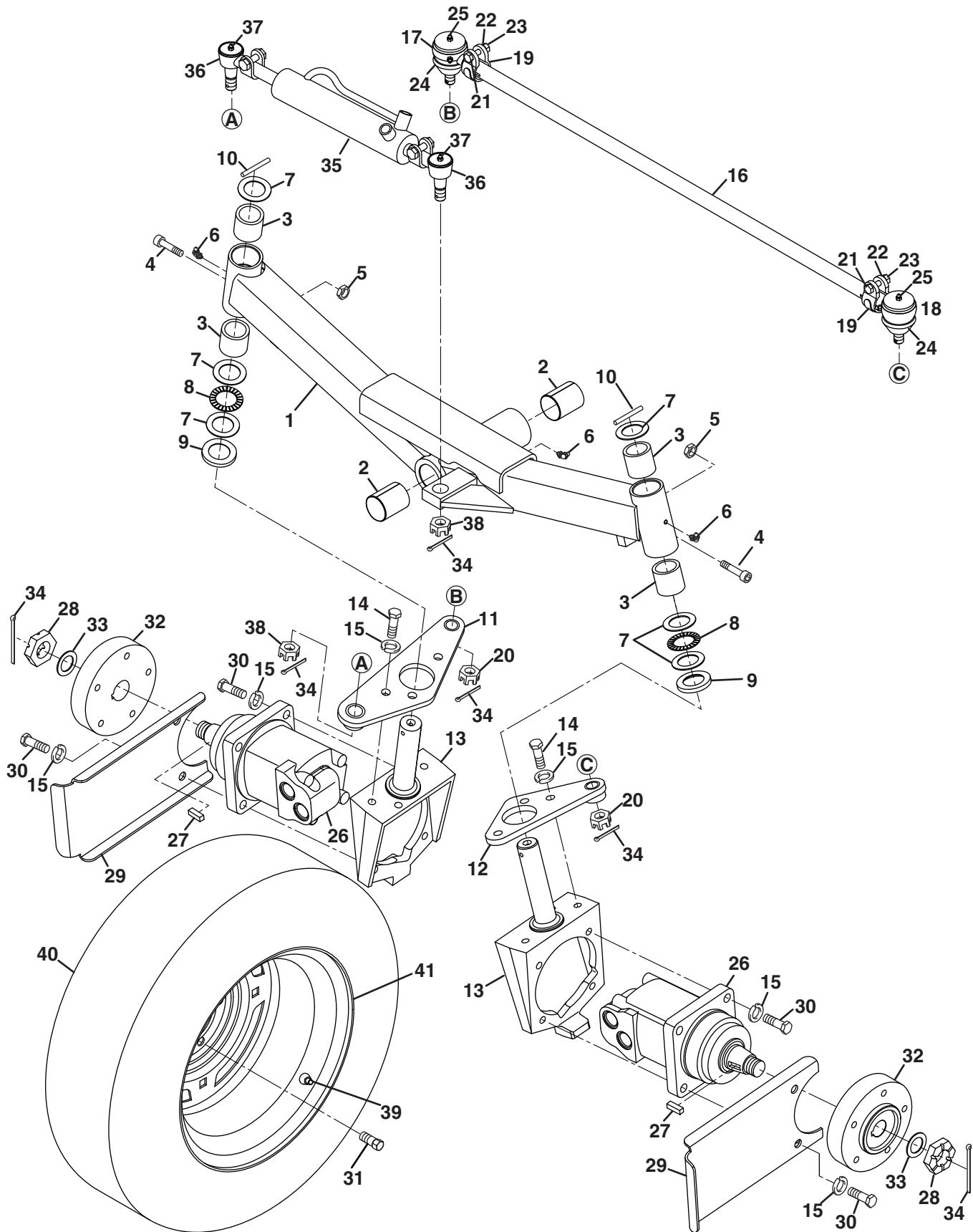
15.1 Frame and Front Axle



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4223140	1	Front Axle	
2	4207700	2	Key	
3	4213320	2	Hub, Wheel	
4	4212741	2	Disc, Brake	
5	442423	16	Screw, 1/4-20 x 5/8" Torx Flat Head	
6	557624	2	Nut	
7	460093	2	Cotter Pin, 1/8 x 2-1/2"	
8	453030	2	Flat Washer, 1-1/8"	
9	4213264	1	Bracket, Right Side Return Spring	
10	4213300	1	Bracket, Left Side Return Spring	Not Shown
11	440134	4	Carriage Bolt, 3/8-16 x 3"	
12	4204160	6	Nut, 1/2-13 Nylock Hex	
13	4198920	1	Bracket, Front Lift Arm Limit Switch	See 45.1
14	4204140	3	U-Bolt	
15	4212780	6	Hardened Washer, 1/2	
16	319212	2	Spring, Extension	
17	400268	4	Screw, 3/8-16 x 1-3/4" Hex Head	
18	4213480	1	Bracket, Floor Support	See 14.1
19	4190242	2	Mount, Step Support	
20	4201700	1	Step Support, Right Side	
21	400264	4	Screw, 3/8-16 x 1-1/4" Hex Head	
22	452008	21	Flat Washer, 3/8	
23	446142	13	Lockwasher, 3/8 Heavy	
24	443110	13	Nut, 3/8-16 Hex	
25	366292	2	Tire, 26 x 12 - 12, 6 Ply Multi-Trac	
26	5002574	2	Wheel Rim, 12 x 10.5	
27	360111	2	Inflation Valve	
28	353914	12	Wheel Bolt, 1/2-20 x 3/4"	
29	4201701	1	Step Support, Left Side	
30	REF	1	Steering Axle	See 16.1
31	400266	1	Screw, 3/8-16 x 1-1/2" Hex Head	
32	N/S	1	Frame	
33	163927	1	Pivot, Steering Axle	
34	364830	3	Washer	
35	445642	1	Nut, 1-1/2-12 Slotted Hex	
36	460072	1	Cotter Pin, 1/4 x 2-1/2"	

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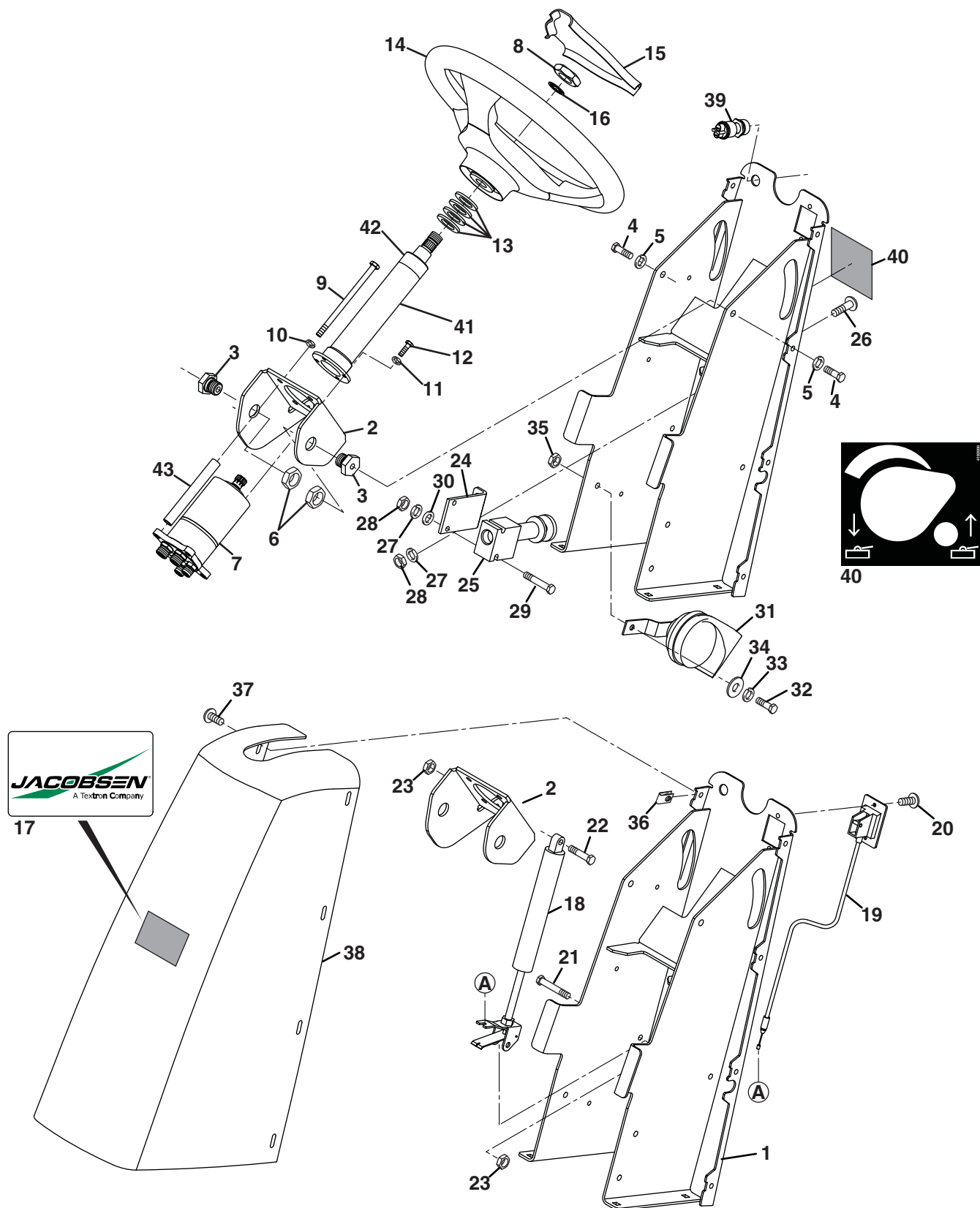
16.1 Steering Axle



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2720313	1	Steering Axle	
2	2720298	2	• Bushing, Axle Pivot	
3	3010489	4	• Bushing, Mount Pivot	
4	4121827	2	Screw, 1/2-20x 1-3/4" Socket Head	
5	443820	2	Nut, 1/2-20 Hex Jam	
6	471221	3	Grease Fitting, 90°	
7	361648	6	Washer, Thrust	
8	361647	2	Thrust Bearing	
9	367350	2	Washer, Thrust	
10	461393	2	Roll Pin, 1/4 x 2"	
11	4121825	1	Right Side Steering Arm	
12	4121826	1	Left Side Steering Arm	
13	2000057	2	Motor Mount	
14	401226	6	Screw, 1/2-13 x 1" Hex Grade 8	
15	446154	14	Lockwasher, 1/2 Heavy	
16	4121946	1	Tie Rod	
17	4121829	1	• Tie Rod End, Right Side	
18	4121828	1	• Tie Rod End, Left Side	
19	322847	2	• Clamp	
20	4124204	2	• Nut, 9/16-18 Slotted Hex	
21	400228	2	• Screw, 5/16-24 x 1-1/4" Hex Head	
22	446136	2	• Lockwasher, 5/16 Heavy	
23	443108	2	• Nut, 5/16-24 Hex	
24	4121986	2	• Cover, Dust	
25	471214	2	• Grease Fitting	
26	4178560	2	Rear Wheel Motor	See 58.1
27	554780	1	• Key	
28	554779	1	• Nut	
29	339092	2	Guard, Wheel Motor Hose	
30	400410	8	Screw, 1/2-13 x 1-3/4" Hex Head	
31	315298	10	Bolt, Wheel	
32	2720841	2	Hub, Wheel	
33	361451	2	Washer	
34	460032	6	Cotter Pin, 1/8 x 1-1/2"	
35	4138510	1	Steering Cylinder	
	4137139	1	• Seal Kit	
36	503095	2	• Ball Joint	
37	471216	2	• Grease Fitting, Straight	
38	445672	2	Nut, 5/8-18 Slotted Hex	
39	360111	2	Valve, Inflation	
40	366310	2	Tire, 23x 10.5-12.4 Ply	
41	5002894	2	Rim, 12x 8.5	

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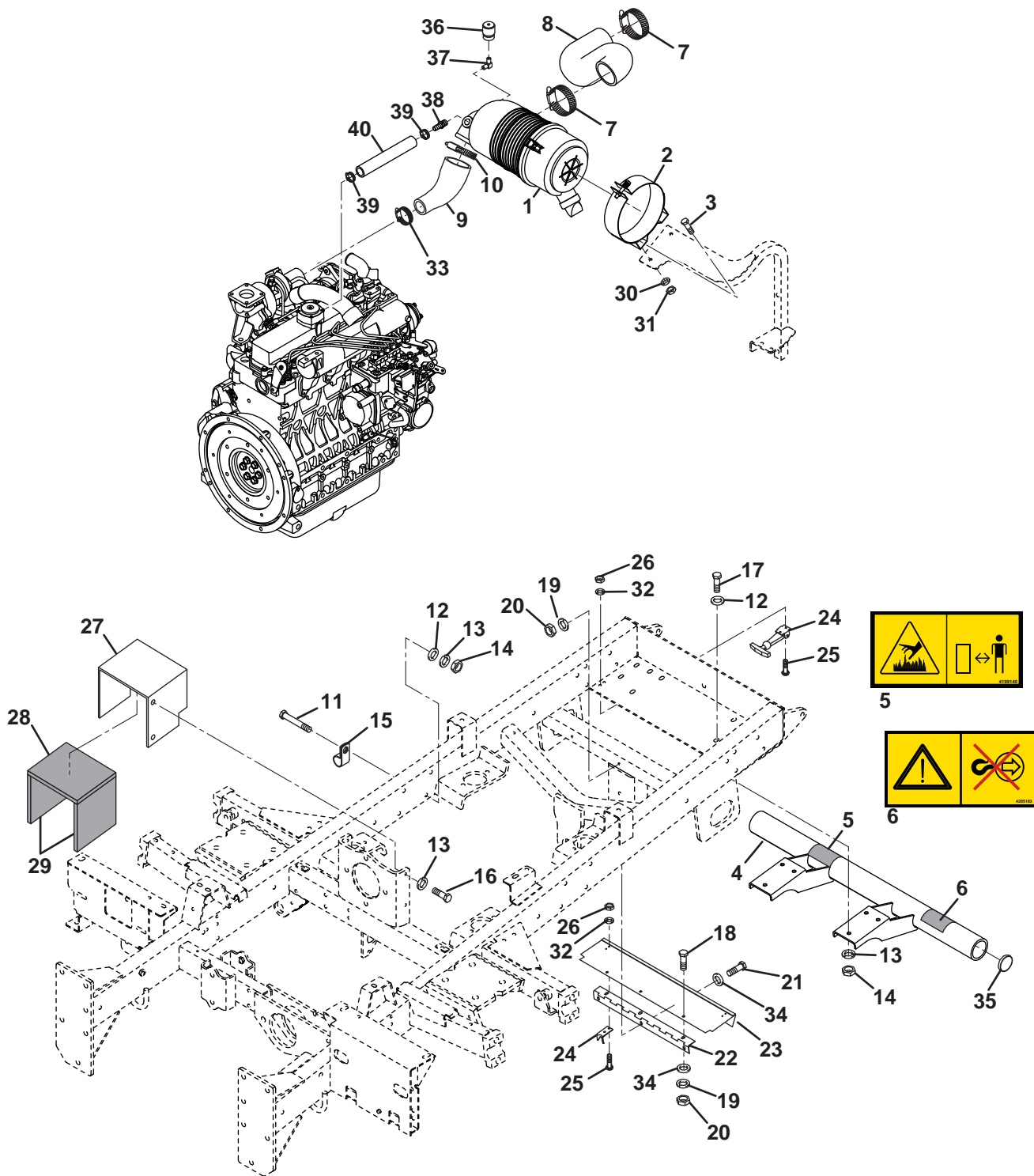
17.1 Steering Tower



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4185325	1	Steering Tower	
2	4211760	1	Bracket, Steering Pump	
3	4205980	2	Shoulder Bolt, 3/4-10	
4	400258	2	Screw, 3/8-16 x 3/4" Hex Head	
5	446142	2	Lockwasher, 3/8-16 Heavy	
6	444849	2	Locknut, 3/4-10 Center	
7	4197880	1	Steering Valve	
	4197940	1	• Seal Kit	
8	443828	1	Nut, 5/8-18 Hex Jam	
9	4224460	4	Screw, M8-1.25 x 125 mm Hex Head	
10	450411	4	Lockwasher, M8	
11	450410	4	Lockwasher, M6	
12	450168	4	Screw, M6-1 x 12 mm Hex Head	
13	2811547	4	Washer, Steering Wheel	
14	2811364	1	Steering Wheel	
15	2811365	1	• Cover, Steering Wheel	
16	447224	1	Lockwasher, 5/8 Internal Tooth	
17	4182386	1	Decal, Jacobsen Emblem	
18	5002918	1	Gas Spring	
19	5002919	1	Cable, Actuator	
20	416911	2	Screw, #10-24 x 1/2" Thread Cutting	
21	400216	1	Screw, 5/16-18 x 2-3/4" Hex Head	
22	400192	1	Screw, 5/16-18 x 1-1/2" Hex Head	
23	444718	2	Locknut, 5/16-18 Center	
24	367465	1	Bracket, Valve Mounting	
25	132523	1	Valve, Weight Transfer	
	555862	1	• Cartridge, Valve	
	5003579	1	• Seal Kit	
26	404022	2	Screw, 1/4-20 x 1" Truss Head	
27	446130	4	Lockwasher, 1/4 Heavy	
28	443102	4	Nut, 1/4-20 Hex	
29	400120	2	Screw, 1/4-20 x 2" Hex Head	
30	453023	2	Flat Washer, 1/4	
31	5000917	1	Horn	REFERENCE U9, See 62.1
32	400184	1	Screw, 5/16-18 x 3/4" Hex Head	
33	446136	1	Lockwasher, 5/16 Heavy	
34	452006	1	Flat Washer, 5/16	
35	443106	1	Nut, 5/16-18 Hex	
36	445245	8	Tinnerman Nut	
37	404016	8	Screw, 1/4-20 x 5/8" Truss Head	
38	4184622	1	Cover, Steering Tower	
39	162739	1	Switch, Horn	REFERENCE SW20, See 62.1
40	4192000	1	Decal, Weight Transfer	
41	4210420	1	Shaft, Steering	
42	4201840	1	• Seal, Shaft	
43	4211400	4	Spacer, Steering Valve	

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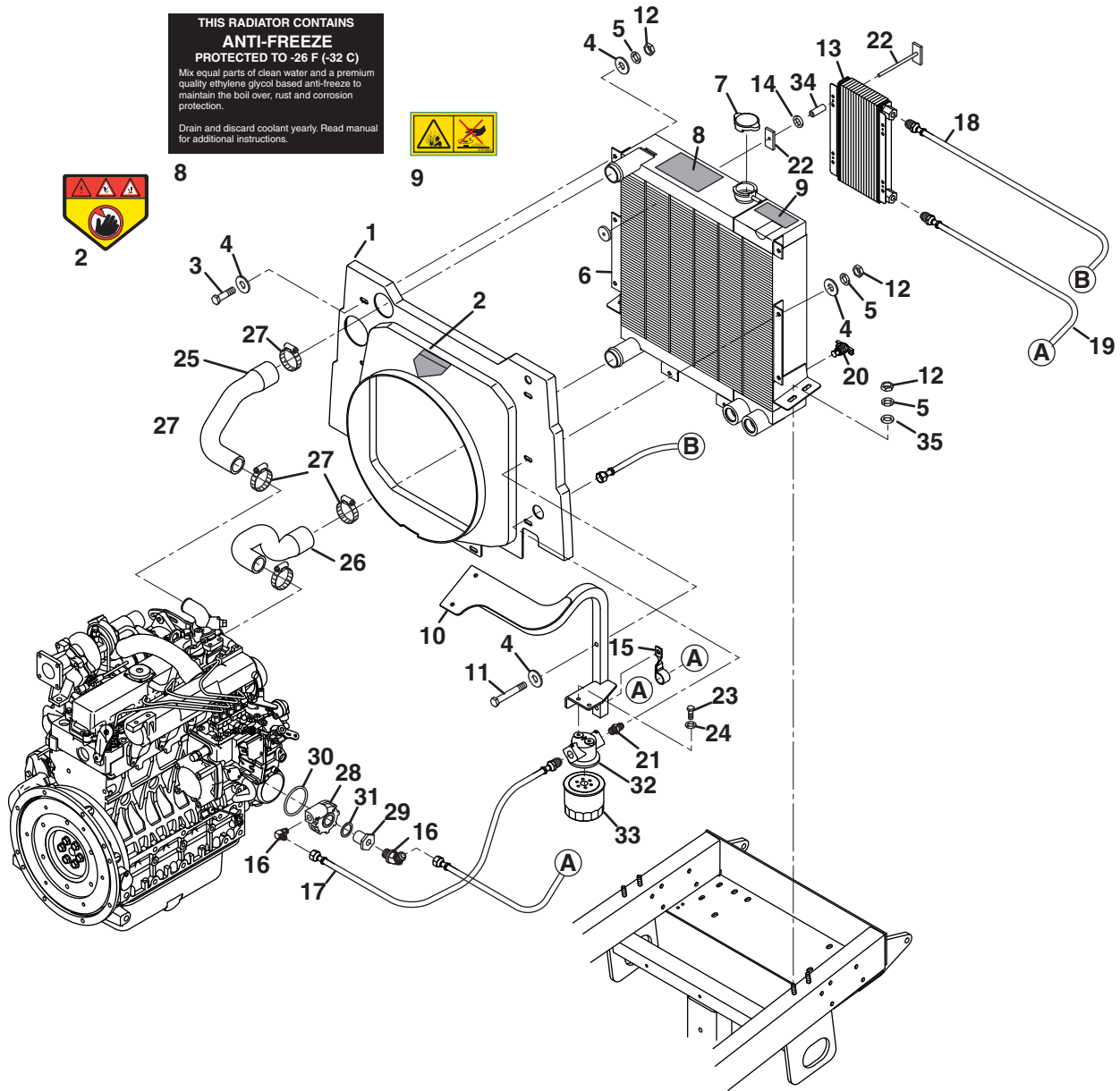
18.1 Air Cleaner



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	4227441	1	Air Cleaner	Includes Decal	
	4133818	1	• Cover, Air Cleaner		
	4133820	1	• Filter, Primary Air Cleaner		
	4133821	1	• Filter, Safety Air Cleaner		
	5003373	1	• Vactuato Valve		
2	4128084	1	Clamp, Air Cleaner Mounting		
3	400184	2	Screw, 5/16-18 x 3/4" Hex Head		
4	4193342	1	Rear Bumper		
5	4199140	1	• Decal, Heat Warning		
6	4205183	1	• Decal, Towing Warning		
7	359615	2	Clamp, Hose		
8	4204720	1	Hose, Air Intake		
9	4120976	1	Hose, Air Cleaner to Engine		
10	337229	1	Clamp, Hose		
11	400276	1	Screw, 3/8-16 x 3" Hex Head		
12	453011	7	Flat Washer, 3/8		
13	446142	11	Lockwasher, 3/8 Heavy		
14	445806	7	Nut, 3/8-16 Hex Nylock		
15	364190	1	Clamp		Steering Cylinder Hoses
16	400258	4	Screw, 3/8-16 x 3/4" Hex Head		
17	400262	6	Screw, 3/8-16 x 1" Hex Head		
18	404014	3	Screw, 1/4-20 x 1/2" Truss Head		
19	446130	6	Lockwasher, 1/4 Heavy		
20	443102	6	Nut, 1/4-20 Hex		
21	400124	3	Screw, 1/4-20 x 2-1/2" Hex Head		
22	3004588	1	Hinge, Drain Panel		
23	3004563	1	Drain Panel		
24	161688	2	Latch		
25	402006	8	Screw, #6-32 x 1/2" Slotted		
26	444304	8	Nut, #6-32 Hex		
27	366352	1	Cover, Drive Shaft		
28	366368	1	Foam, Top		
29	366369	2	Foam, Side		
30	446134	2	Lockwasher, 5/16		
31	443106	2	Nut, 5/16-18 Hex		
32	446116	8	Lockwasher, #6		
33	326112	1	Clamp, Hose		
34	453023	6	Flat Washer, 1/4		
35	366403	2	Plug, Tube		
36	364883	1	Switch, Air Cleaner Service	REFERENCE SW11, See 62.1	
37	3002195	1	Elbow, 90° 1/8-27 NPT		
38	4190020	1	Fitting, Straight 1/8 NPT x 1/2" Barb		
39	7332	AR	Hose, 7/16	Cutto 10"	
40	830930	2	Clamp, Hose		

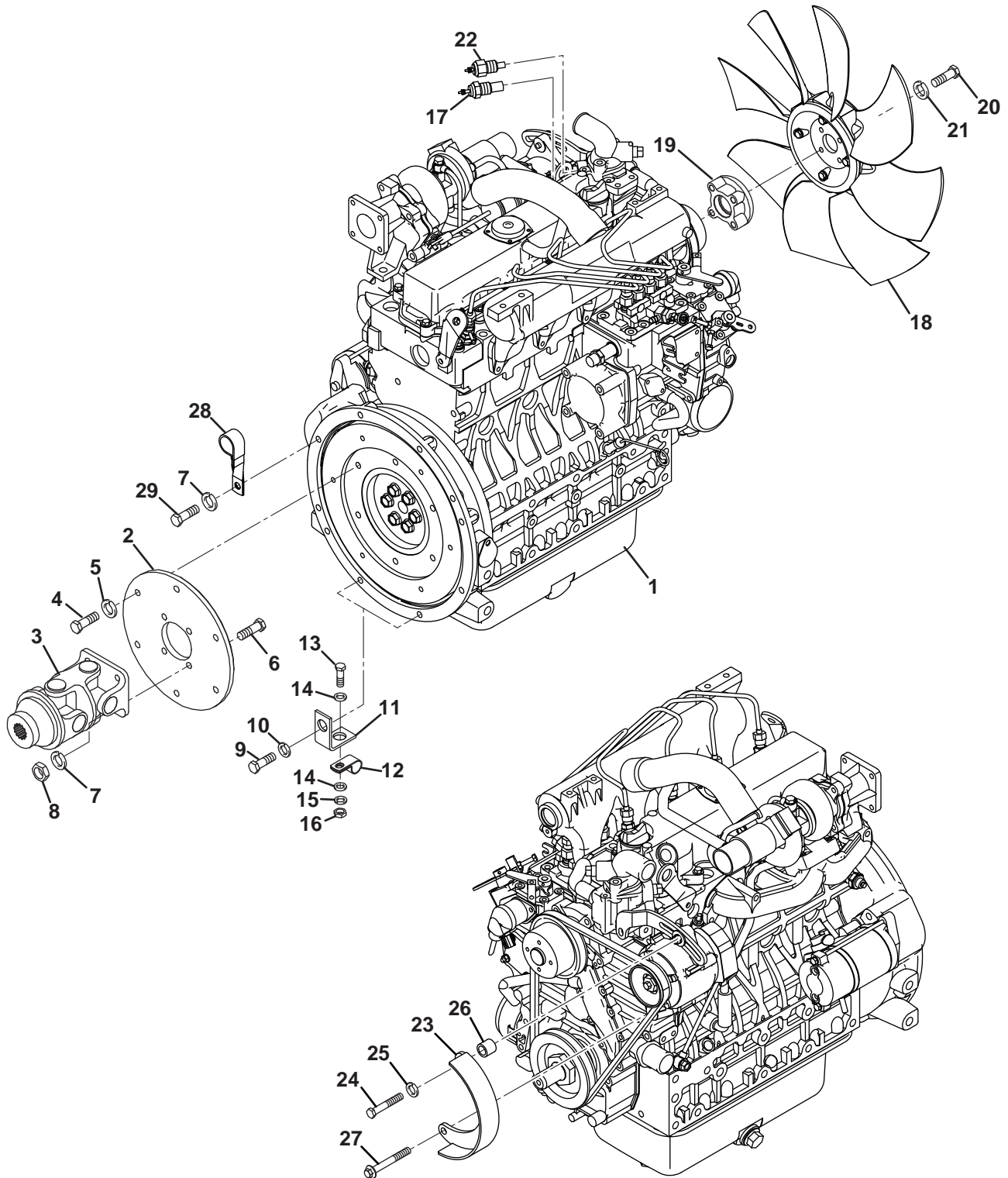
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19.1 Radiator and Oil Cooler



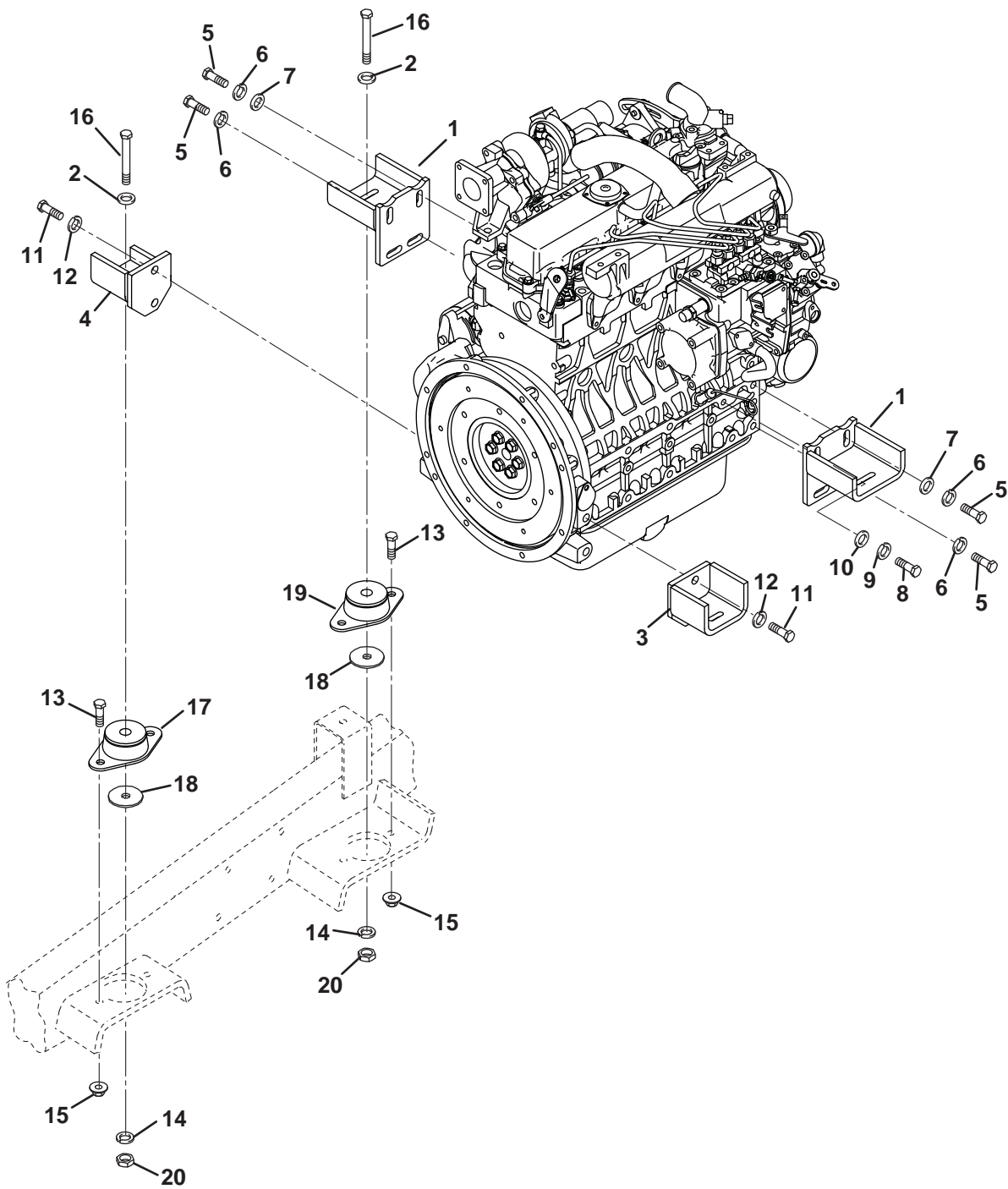
Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	4227440	1	Radiator Shroud	Includes Decals	
2	4164381	1	• Decal, Danger		
3	400264	6	Screw, 3/8-16 x 1-1/4" Hex Head		
4	452008	16	Flat Washer, 5/16		
5	446142	12	Lockwasher, 3/8 Heavy		
6	4227420	1	Radiator		
7	550863	1	• Radiator Cap		
8	363995	1	• Decal, Antifreeze		
9	4181862	1	• Decal, Radiator Cap Warning		
10	4207600	1	Mount, Air Cleaner		
11	400272	2	Screw, 3/8-16 x 2-1/4" Hex Head		
12	443110	12	Nut, 3/8-16 Hex		
13	4182460	1	Engine Oil Cooler		
14	452004	4	Flat Washer, 1/4		
15	3006296	1	Clamp, Hose - Twisted		
16	4137099	2	Adapter, 3/8 NPT x 13/16 ORFS 90°		
17	4203240	1	Hose, Filter Adapter to Filter Head		
18	4230361	1	Hose, Filter Head to Cooler		
19	4230632	1	Hose, Cooler to Engine Oil Adapter		
20	162479	1	Draincock		
21	4186441	1	Adapter, 1/2 NPT x 13/16 ORFS		
22	4133252	4	Tie, 3 Piece Oil Cooler Mounting		
23	450190	2	Screw, M8-1.25 x 16 mm Hex Head		
24	446136	2	Lockwasher, 5/16 Heavy		
25	4196341	1	Hose, Upper Radiator		
26	4199221	1	Hose, Lower Radiator		
27	326112	4	Hose Clamp		
	4133238	1	Kit, Remote Oil Filter		Included with Engine
28	4133239	1	• Adapter, Engine Oil Filter		
29	4133240	1	• Plug, Engine Oil Filter		
30	4133241	1	• O-Ring		
31	4133242	1	• Washer		
32	4133243	1	• Head, Engine Oil Filter		
33	4113986	1	Engine Oil Filter		Included with Engine
34	4197640	4	Spacer, Oil Cooler		
35	453011	4	Flat Washer, 3/8		

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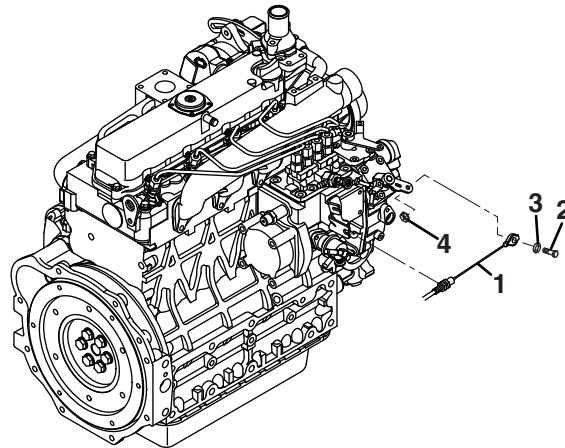
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4196741	1	Engine, Kubota V2403-M-T-E3B	For complete listing of engine service parts, See Engine Parts Manual
	4113986	1	• Engine Oil Filter	
	557619	1	• Cartridge, Fuel Filter	
	5000938	1	• Alternator	
	556988	1	• Starter	
	554018	1	• Engine Oil Pressure Switch	
	556996	4	• Glow Plug	
	4134270	1	• Fuel Solenoid	
2	338991	1	Pump Drive Flange	REFERENCE U1, See 62.1 REFERENCE M1, See 62.1 REFERENCE SW17, See 62.1 REFERENCE R1, See 62.1 REFERENCE K13, See 62.1 Metric Grade 8.8 Fuel Pump to Fuel Filter Hose REFERENCE SW16, See 62.1 REFERENCE U10, See 62.1 Included with Engine
3	163916	1	U-Joint	
	4113644	1	• Yoke, Engine Side Flange	
	500562	2	• Cross Kit	
4	362263	6	Screw, M10-1.25 x 25 mm	
5	363485	6	Lockwasher, M10	
6	400264	4	Screw, 3/8-16 x 1-1/4" Hex Head	
7	446142	5	Lockwasher, 3/8 Heavy	
8	443110	4	Nut, 3/8-16 Hex	
9	450213	2	Screw, M10-1.5 x 20 mm Hex Head	
10	446146	2	Lockwasher, 7/16	
11	4199600	2	Bracket, Angle	
12	365566	2	Clamp, Hose	
13	400188	2	Screw, 5/16-18 x 1" Hex Head	
14	453009	4	Flat Washer, 5/16	
15	446136	2	Lockwasher, 5/16 Heavy	
16	443106	2	Nut, 5/16-18 Hex	
17	367551	1	Switch, Temperature	
18	4205620	1	Fan, 8 Blade Suction	
19	553174	1	Spacer, Fan	
20	450003	4	Screw, M6-1 x 40 mm Flange	
21	450410	4	Lockwasher, M6	
22	364501	1	Temp Sender	
23	4210304	1	Belt Guard	
24	450197	1	Screw, M8-1.25 x 50 mm Hex Head	
25	450422	1	Lockwasher, M8	
26	3007787	1	Spacer	
27	4134320	1	Bolt, Flange	
28	3009269	1	Clamp, Hose - Twisted	
29	400258	1	Screw, 3/8-16 x 3/4" Hex Head	

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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4207484	2	Mount, Rear Engine	
2	358794	4	Washer	
3	4207482	1	Mount, Left Front Engine	
4	4207483	1	Mount, Right Front Engine	
5	365979	7	Screw, M12-1.25x25 mm	Metric Grade 8.8
6	446154	7	Lockwasher, 1/2 Heavy	
7	453017	7	Flat Washer, 1/2	
8	362263	1	Screw, M10-1.25x25 mm	Metric Grade 8.8
9	363485	1	Lockwasher, M10	
10	453013	1	Flat Washer, 7/16	
11	365981	4	Screw, M14-1.5x25 mm	Metric Grade 8.8
12	446160	4	Lockwasher, 9/16 Heavy	
13	400190	4	Screw, 5/16-18x 1-1/4" Hex Head	
14	446142	8	Lockwasher, 3/8 Heavy	
15	445795	8	Nut, 5/16-18 Spirallock Flange	
16	400276	4	Screw, 3/8-16x3" Hex Head	
17	4209701	2	Isolator, Engine	
18	367031	4	Washer, Isolator	
19	4209700	2	Isolator, Engine	
20	443110	4	Nut, 3/8-16 Hex	

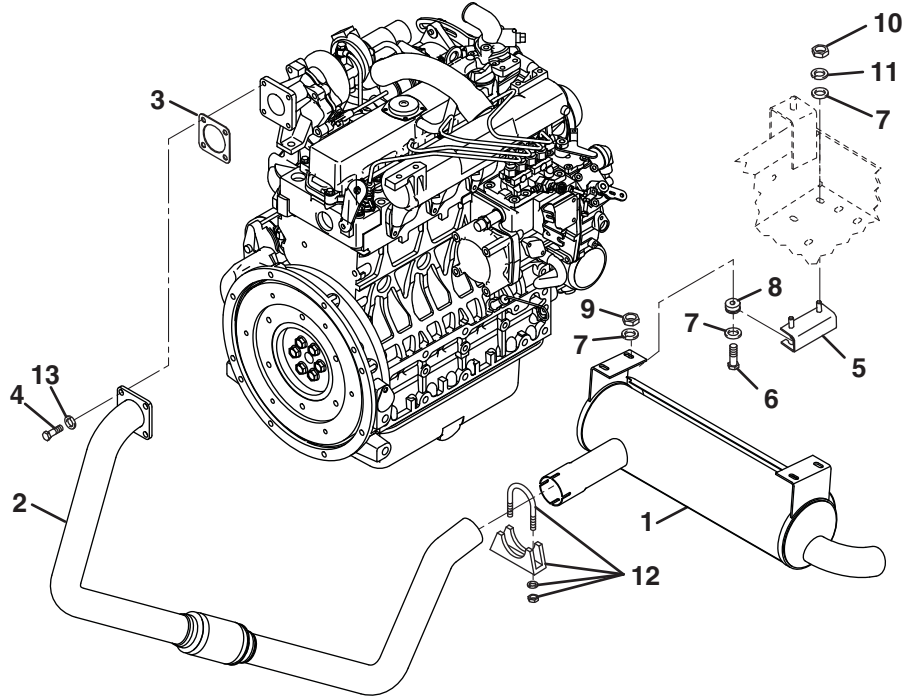
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4177920	1	Throttle Cable	See 10.1
2	400108	1	Screw, 1/4-20x3/4" Hex Head	
3	453023	1	Flat Washer, 1/4	
4	444708	1	Locknut, 1/4-20 Center	

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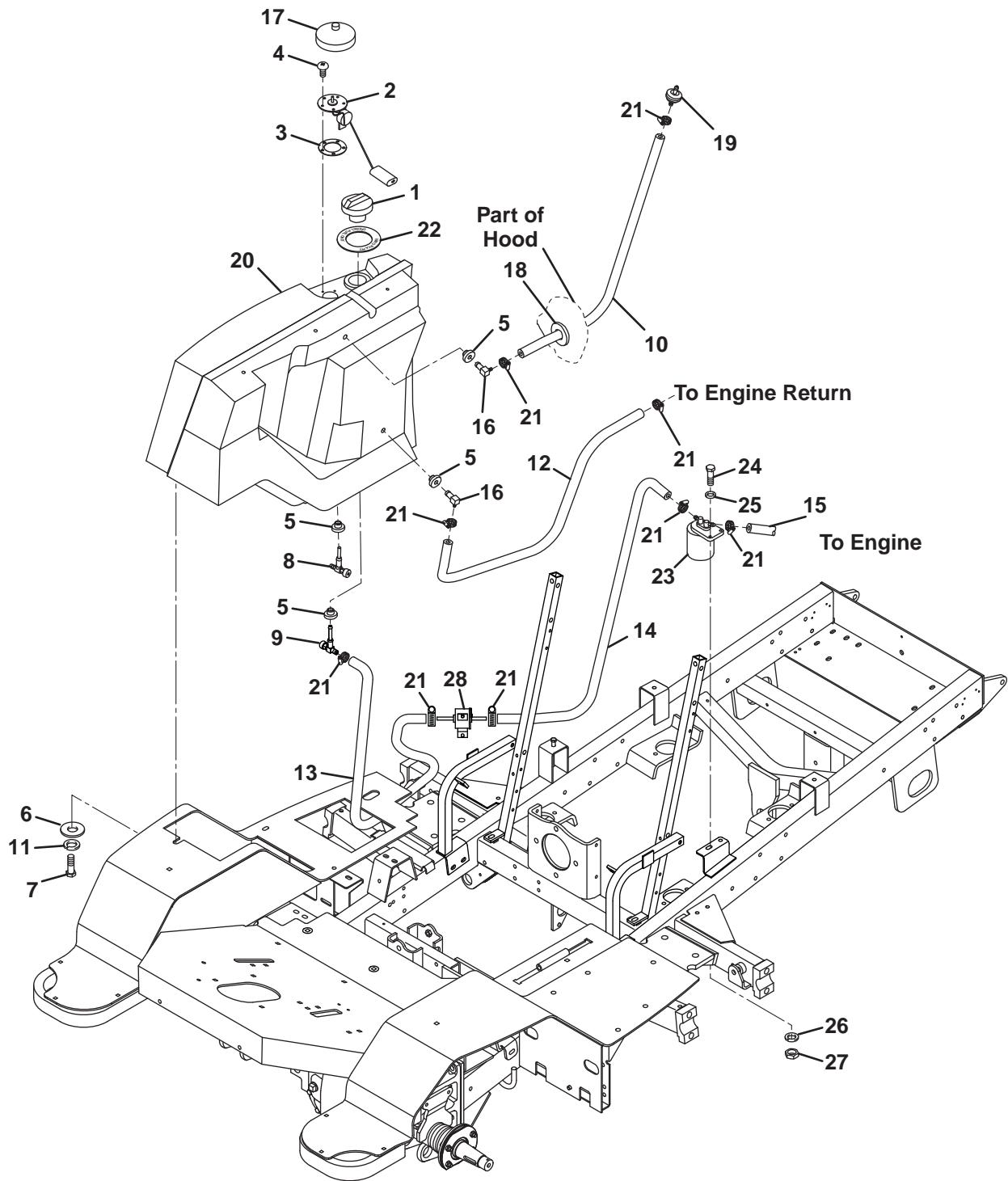
23.1 Muffler

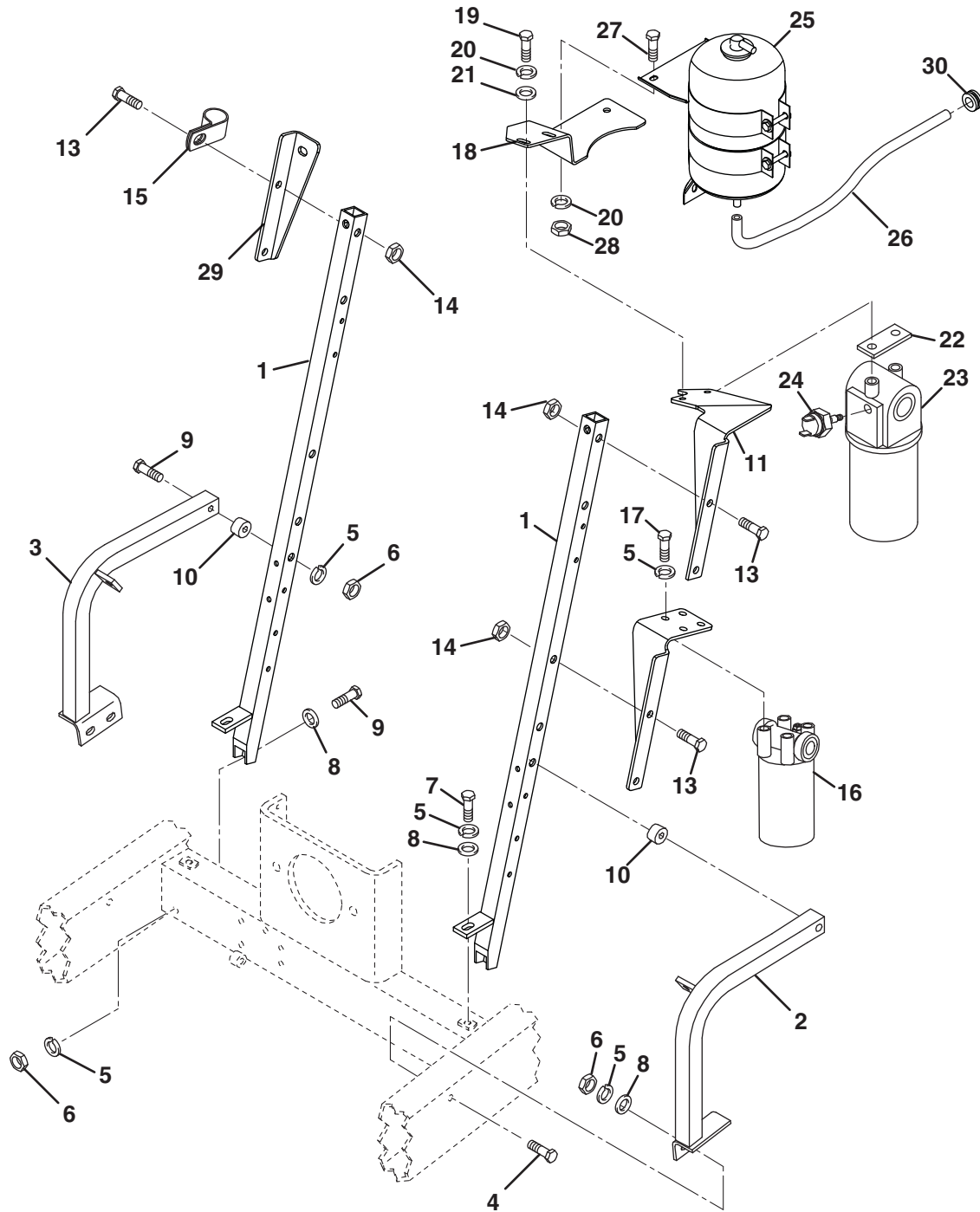


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4196900	1	Muffler	Included with Engine
2	4196780	1	Exhaust Pipe	
3	553020	1	Gasket, Exhaust	
4	363586	4	Screw, M8-1.25 x 20 mm Hex Head	
5	1000050	2	Muffler Bracket	
6	400188	4	Screw, 5/16-18 x 1" Hex Head	
7	452006	12	Flat Washer, 5/16	
8	3000098	4	Mount, Isolation	
9	444718	4	Locknut, 5/16-18 Center	
10	443106	4	Nut, 5/16-18 Hex	
11	446136	4	Lockwasher, 5/16 Heavy	
12	162236	1	Clamp, 2-1/8" Muffler	
13	450411	4	Lockwasher, M8	

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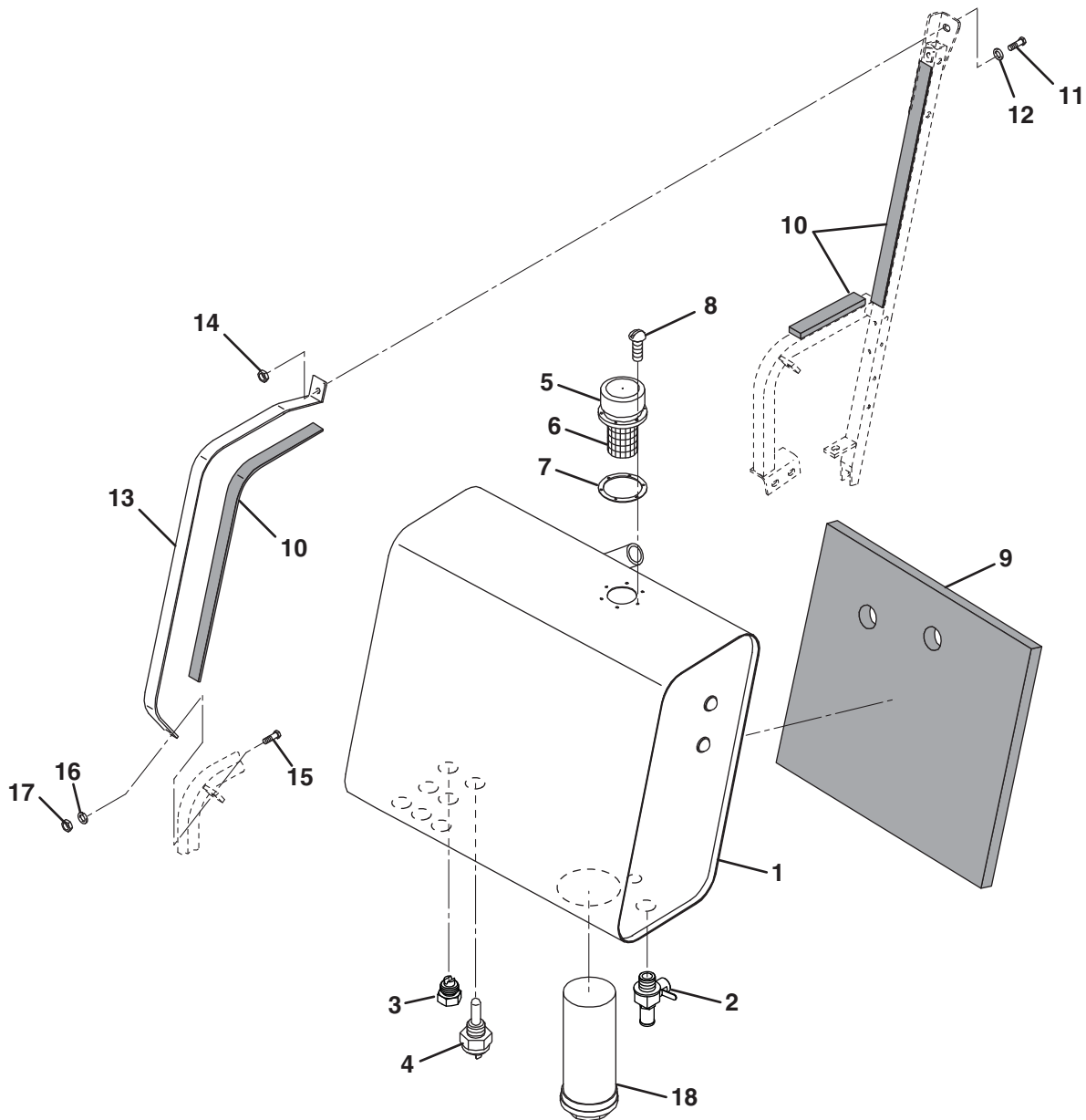
24.1 Fuel Tank





Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4175121	2	Support, Rear Tank	
2	132432	1	Support, Left Side Tank	
3	132431	1	Support, Right Side Tank	
4	400286	2	Screw, 3/8-16x2-3/4"	
5	446142	12	Lockwasher, 3/8 Heavy	
6	445806	6	Nut, 3/8-16 Hex Nylock	
7	400262	2	Screw, 3/8-16x1" Hex Head	
8	453011	8	Flat Washer, 3/8	
9	400278	4	Screw, 3/8-16x3-1/2" Hex Head	
10	350685	2	Spacer, Tank Support	
11	4200143	1	Bracket, Return Filter	
12	4203443	1	Bracket, Charge Filter	
13	400268	6	Screw, 3/8-16x1-3/4" Hex Head	
14	444762	6	Locknut, 3/8-16 Center	
15	366424	1	Clamp, Fuel Tank Breather Hose	
16	123015	1	Charge Filter	
	2811255	1	• Filter Element	
	556417	1	• Head, Filter	
	556419	1	• Switch, Charge Filter Service	REFERENCE SW14, See 62.1
17	400258	4	Screw, 3/8-16x3/4" Hex Head	
18	3008126	1	Bracket, Recovery Bottle	
19	400192	2	Screw, 5/16-18x1-1/2" Hex Head	
20	446136	4	Lockwasher, 5/16 Heavy	
21	452006	2	Flat Washer, 5/16	
22	3007980	1	Bar, Spacer	
23	132381	1	Return Filter	
	555771	1	• Filter	
24	365974	1	Switch, Return Filter Service	REFERENCE SW12, See 62.1
25	5002444	1	Recovery Bottle	
26	N/S	1	• Hose, Radiator to Overflow	
27	400184	2	Screw, 5/16-18x3/4" Hex Head	
28	443106	2	Nut, 5/16-18 Hex	
29	4203444	1	Bracket, Tank Strap	
30	303567	1	Grommet	Upper right corner of fan shroud

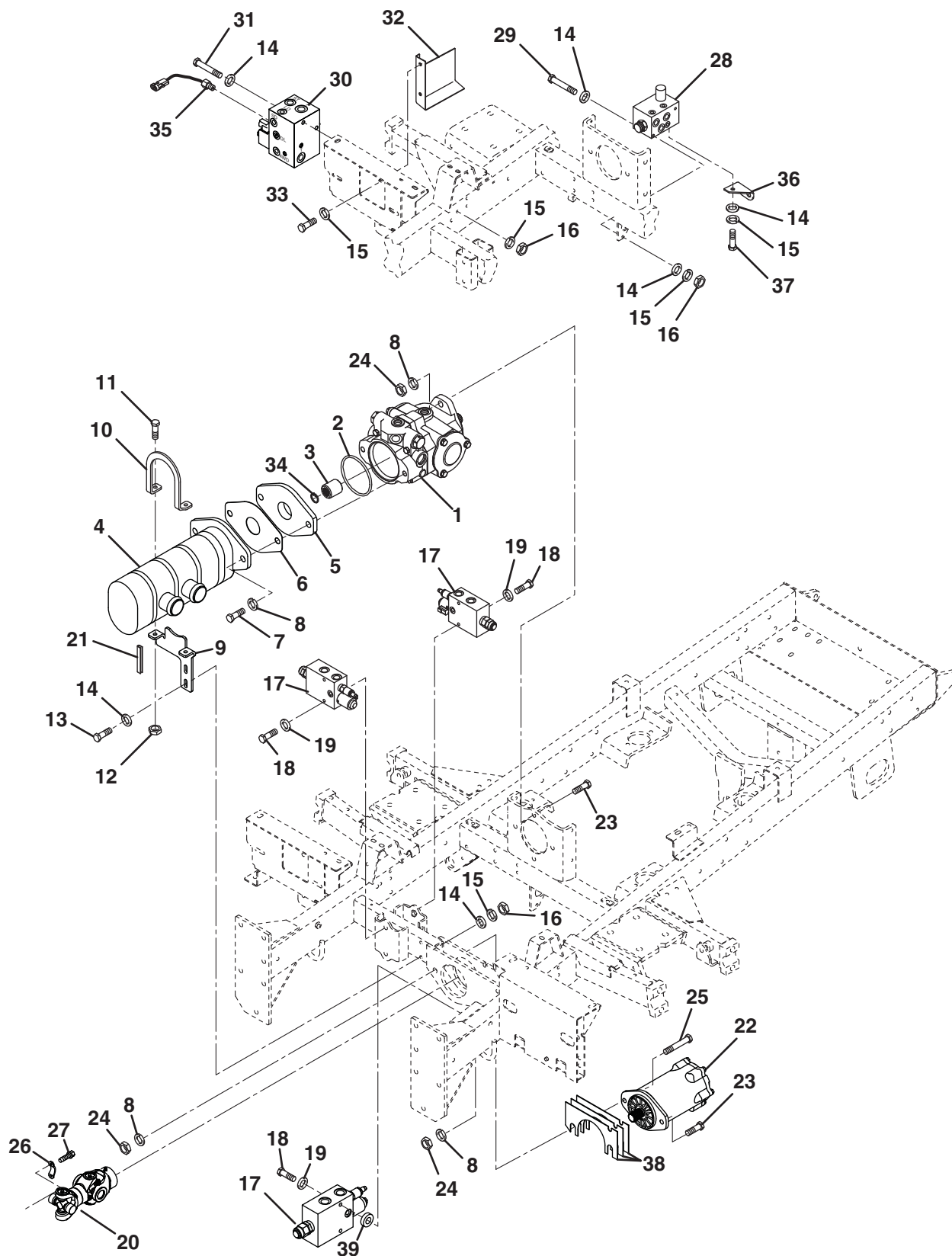
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Item	Part No.	Qty.	Description	Serial Numbers/Notes	
	1	4227460	1	Hydraulic Oil Tank	Includes Decals
	2	4211081	1	Valve, Oil Drain	
	3	3002397	1	Plug, Magnetic	
	4	367551	1	Switch, Hydraulic Oil Temperature	
H	5	163915	1	Breather, Tank	REFERENCE SW13, See 62.1
H	6	557680	1	• Screen	Important note located below
H	7	557681	2	• Gasket, Rubber	
H	8	402120	6	Screw, #10-24 x 5/8" Slotted	
	9	4202380	1	Foam, Tank	10 Foot Roll
	10	558012	AR	Pad, Tank (Cut to Fit)	
	11	400268	2	Screw, 3/8-16 x 1-3/4" Hex Head	
	12	453011	2	Flat Washer, 3/8	
	13	3001409	2	Strap, Oil Tank	
	14	444762	2	Locknut, 3/8-16 Center	
	15	400264	2	Screw, 3/8-16 x 1-1/4" Hex Head	
	16	446142	2	Lockwasher, 3/8 Heavy	
	17	443110	2	Nut, 3/8-16 Hex	
	18	365959	1	Strainer, 100 Mesh Screen	
		2812075	1	• O-Ring	
H	<p>IMPORTANT: Discard the six #10-32 x 1/2" self threading screws included with Tank Breather Assembly. Using self threading screws will cause damage to hydraulic tank. Use #10-24 x 5/8" Slotted Head screws (Item 8) to secure breather to tank.</p>				

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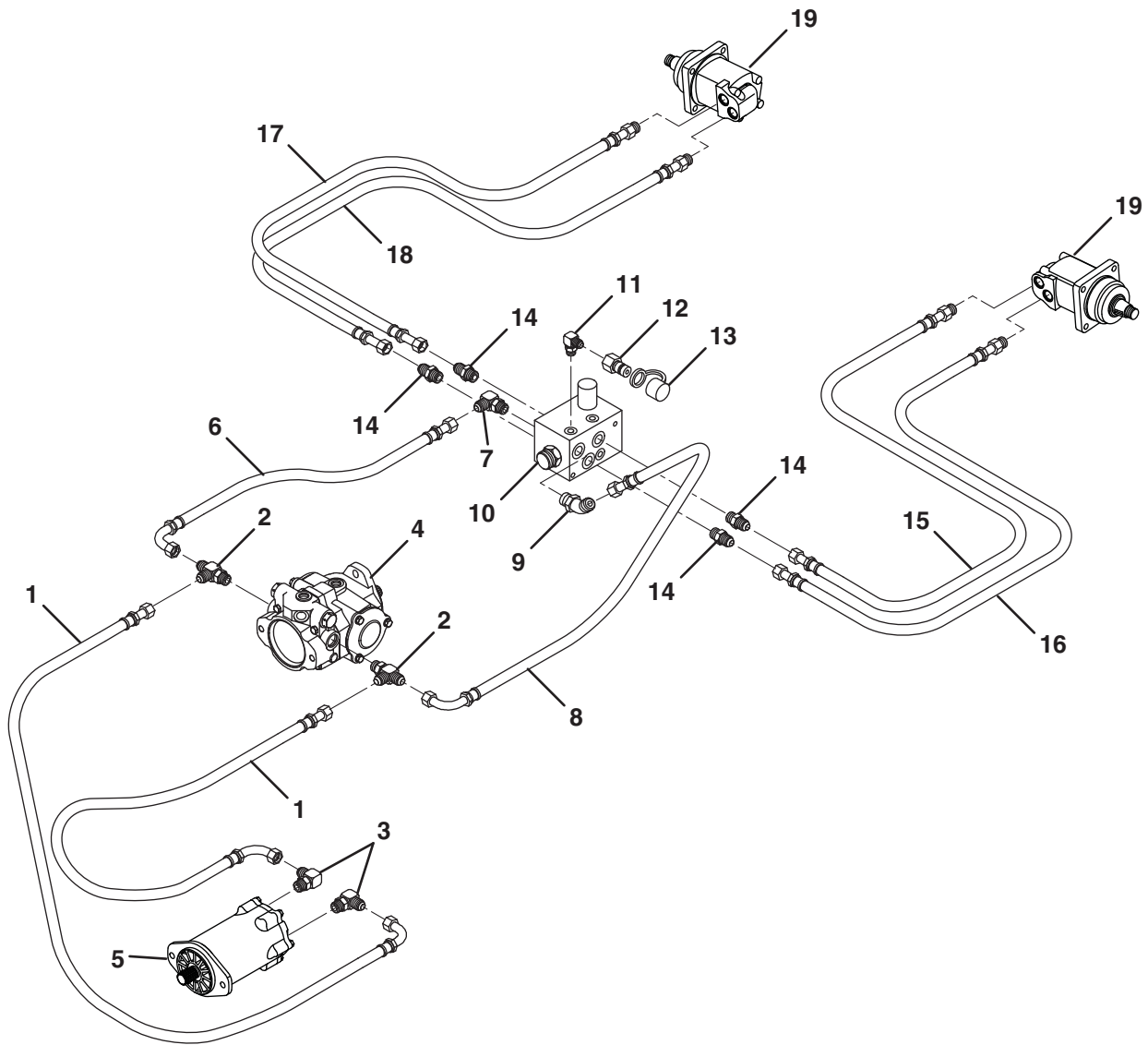
27.1 Pumps and Control Valve



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	4153880	1	Pump, Traction	See 57.1	
2	557447	1	• O-Ring		
3	338938	1	• Pump Coupler		
4	4138342	1	Pump, 4 Section Gear		
	4138341	1	• Seal Kit		
5	557417	1	• Pump Adapter		
6	557418	1	• Gasket		
7	400412	2	Screw, 1/2-13x2" Hex Head		
8	446154	6	Lockwasher, 1/2 Heavy		
9	2721522	1	Support, Gear Pump		
10	2721523	1	Strap, Gear Pump		
11	400262	2	Screw, 3/8-16x1" Hex Head		
12	444762	2	Locknut, 3/8-16 Center		
13	400274	2	Screw, 3/8-16x2-1/2" Hex Head		
14	453011	12	Flat Washer, 3/8		
15	446142	10	Lockwasher, 3/8 Heavy		
16	443110	6	Nut, 3/8-16 Hex		See 53.1
17	4135582	3	Valve, Deck Control		
18	400278	6	Screw, 3/8-16x3-1/2" Hex Head		
19	452008	6	Flat Washer, 3/8		
20	4173300	1	U-Joint, Front Axle		
	4200220	2	• Cross and Bearing Kit		
	4200260	1	• Center Yoke		
	4200280	1	• Yoke		
21	557620	AR	Trim	10 Foot Roll, Cut to Length	
22	4170780	1	Motor, Front Axle Drive		
	4197221	1	• Seal Kit		
23	400410	3	Screw, 1/2-13x1-3/4" Hex Head		
24	443118	4	Nut, 1/2-13 Hex		
25	400420	1	Screw, 1/2-13x3-1/2" Hex Head		
26	4178400	2	Strap, U-Joint		
27	4178401	4	• Bolt, 1/4-20x3/4" U-Joint Strap		
28	4135555	1	Valve, 4WD Control		See 56.1
29	400476	2	Screw, 3/8-16x6" Hex Head		See 55.1
30	4174300	1	Valve, Main Control		
31	401225	2	Screw, 3/8-16x6-1/2" Hex Head		
32	1002475	1	Shield, Valve Guard		
33	400258	2	Screw, 3/8-16x3/4" Hex Head		
34	458103	1	Snap Ring		
35	132380	1	Switch, Charge Pressure	REFERENCE SW15, See 62.1	
36	3001523	1	Plate, Bulkhead		
37	400260	2	Screw, 3/8-16x7/8" Hex Head		
38	4203520	AR	Shim, Motor		
39	358794	2	Washer		

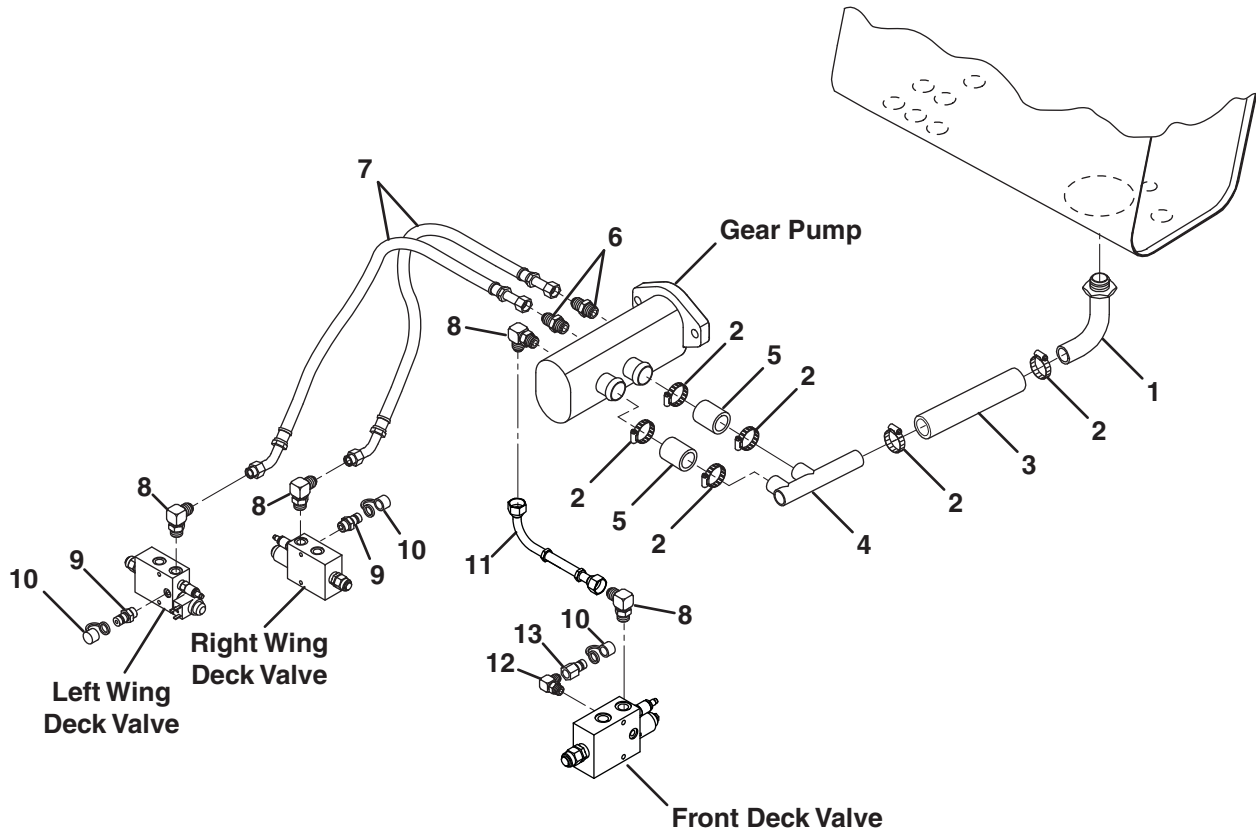
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28.1 Traction Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	132417	2	Hose, Traction Pump to Axle Motor	
2	340269	2	Adapter, Tee	
3	340074	2	Adapter, 90°	
4	4153880	1	Traction Pump	See 27.1 for component mounting
5	4170780	1	Front Axle Motor	See 27.1 for component mounting
6	132446	1	Hose, Pump to 4WD Valve Port B	
7	340070	1	Adapter, 90°	
8	132484	1	Hose, Pump to 4WD Valve Port A	
9	340033	1	Adapter, 45°	
10	4135555	1	4WD Valve	See 27.1 for component mounting
11	340065	2	Adapter, 90°	
12	364945	2	Adapter, Diagnostic Port	
13	363030	2	Dust Cover	
14	339989	4	Adapter, Straight	
	1000843	1	Hose Assembly, Left Wheel Motor	
	1000700	1	• Hose, Motor Drain (Not Shown)	See 34.1
15	132448	1	• Hose, 4WD Valve to Motor	4WD Valve Port L2, Motor Port A
16	132448	1	• Hose, 4WD Valve to Motor	4WD Valve Port L1, Motor Port B
	1000843	1	Hose Assembly, Right Wheel Motor	
	1000700	1	• Hose, Motor Drain (Not Shown)	See 34.1
17	132448	1	• Hose, 4WD Valve to Motor	4WD Valve Port R2, Motor Port B
18	132448	1	• Hose, 4WD Valve to Motor	4WD Valve Port R1, Motor Port A
19	4178560	2	Rear Wheel Motor	See 16.1 for component mounting

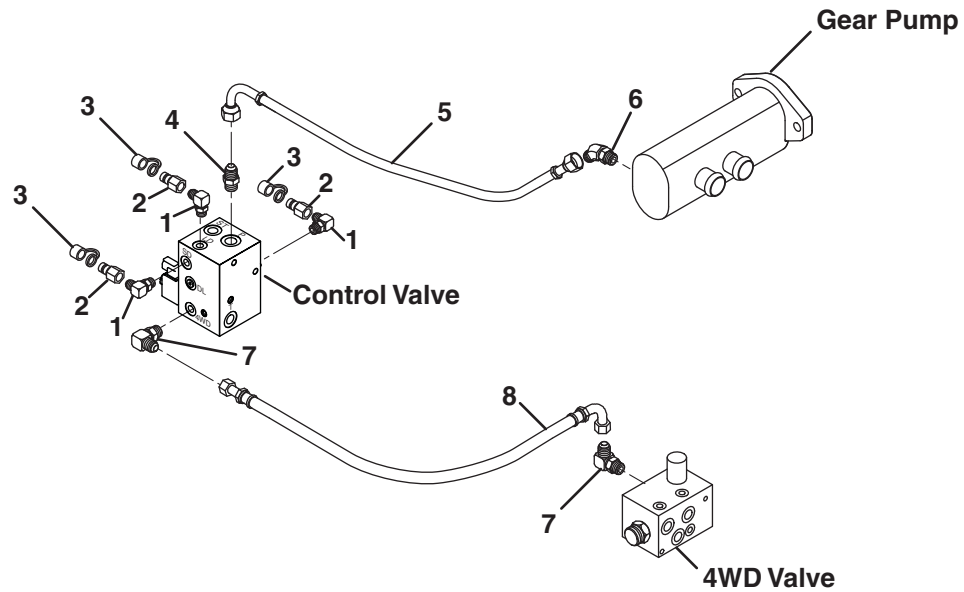
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	338946	1	Adapter, 90° Beaded	
	339903	1	• O-Ring	
2	326112	6	Clamp, Hose	
3	4148898	1	Hose, Pump Suction	
4	339113	1	Manifold, Pump Suction	
5	4148899	2	Hose, Pump Suction	
6	339989	2	Adapter, Straight	
7	1003104	2	Hose, Pump to Deck Valve P Port	
8	340070	4	Adapter, 90°	
9	365466	2	Adapter, Diagnostic Port	
10	363030	3	Dust Cover	
11	4179761	1	Hose, Front Deck Valve	
12	340065	1	Adapter, 90°	
13	364945	1	Adapter, Diagnostic Port	

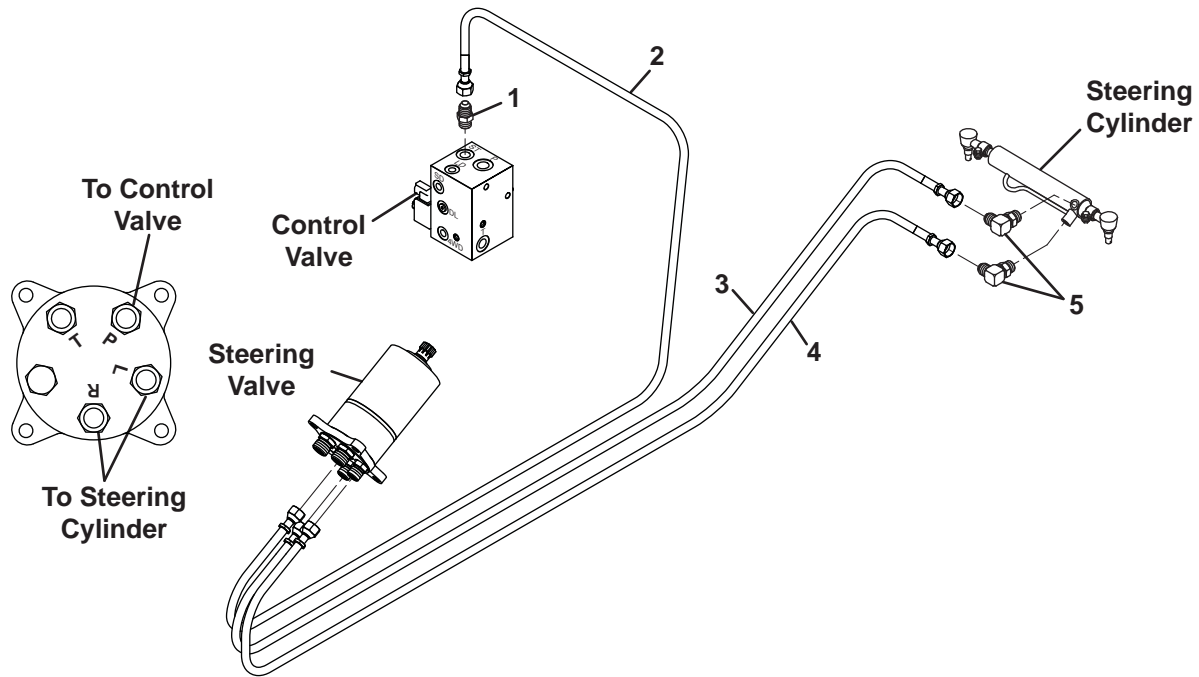
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30.1 Control Valve Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340065	3	Adapter, 90°	Control Valve Port P
2	364945	3	Adapter, Diagnostic Port	
3	363030	3	Dust Cover	
4	339989	1	Adapter, Straight	
5	1003105	1	Hose, Pump to Control Valve	Control Valve Port 4WD
6	340033	1	Adapter, 45°	
7	340061	1	Adapter, 90°	
8	132447	1	Hose, Control Valve to 4WD Valve	

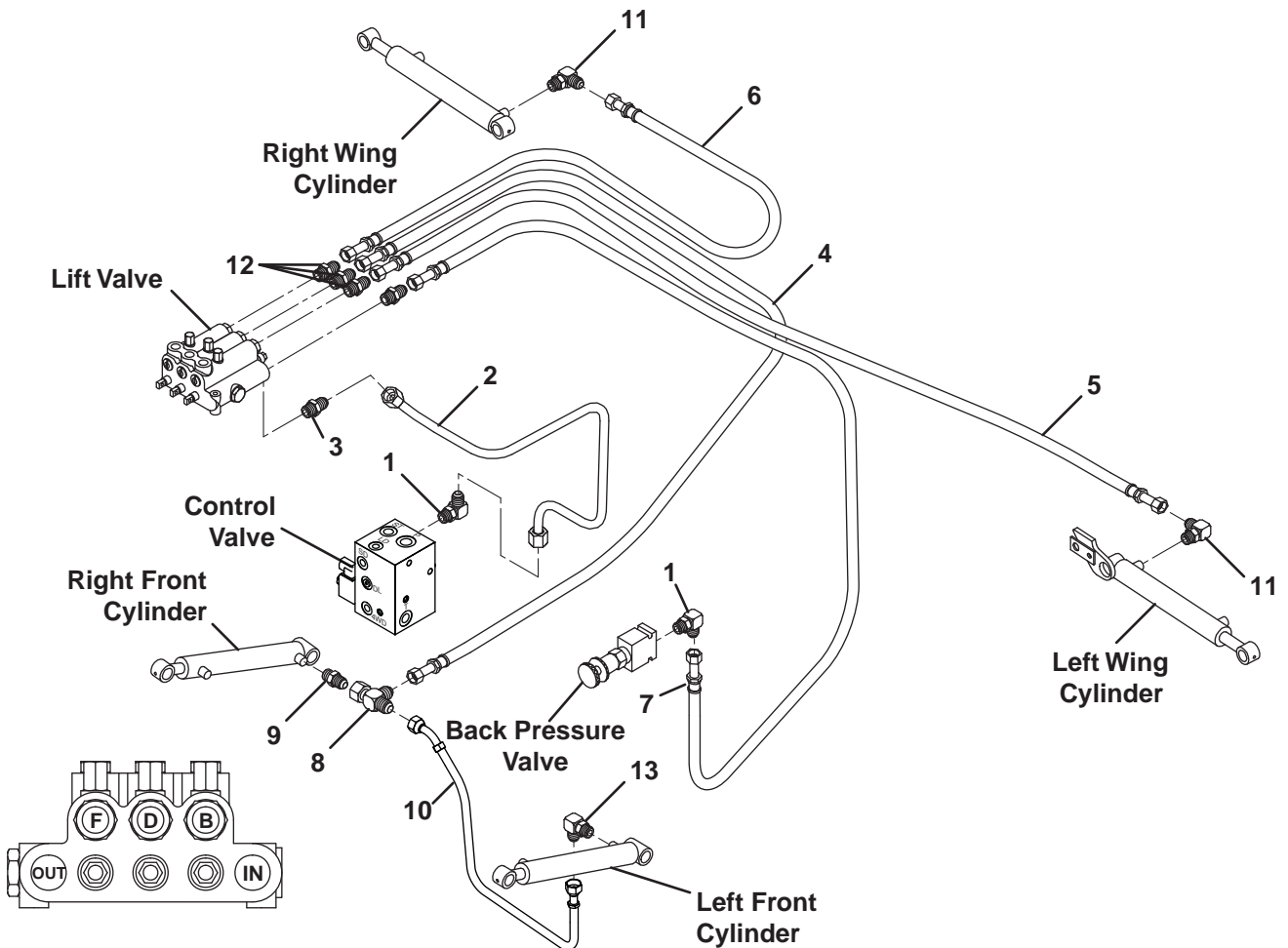
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	339984	1	Adapter, Straight	Control Valve Port ST
2	4185401	1	Hose, Control Valve to Steering	Steering Valve Port P
	4232920	1	Hose Assembly, Steering Cylinder	
3	4189080	1	• Hose, Steering Valve to Cylinder	Steering Valve Port L, Base Port
4	4189080	1	• Hose, Steering Cylinder to Valve	Steering Valve Port R, Rod Port
5	340061	2	Adapter, 90°	

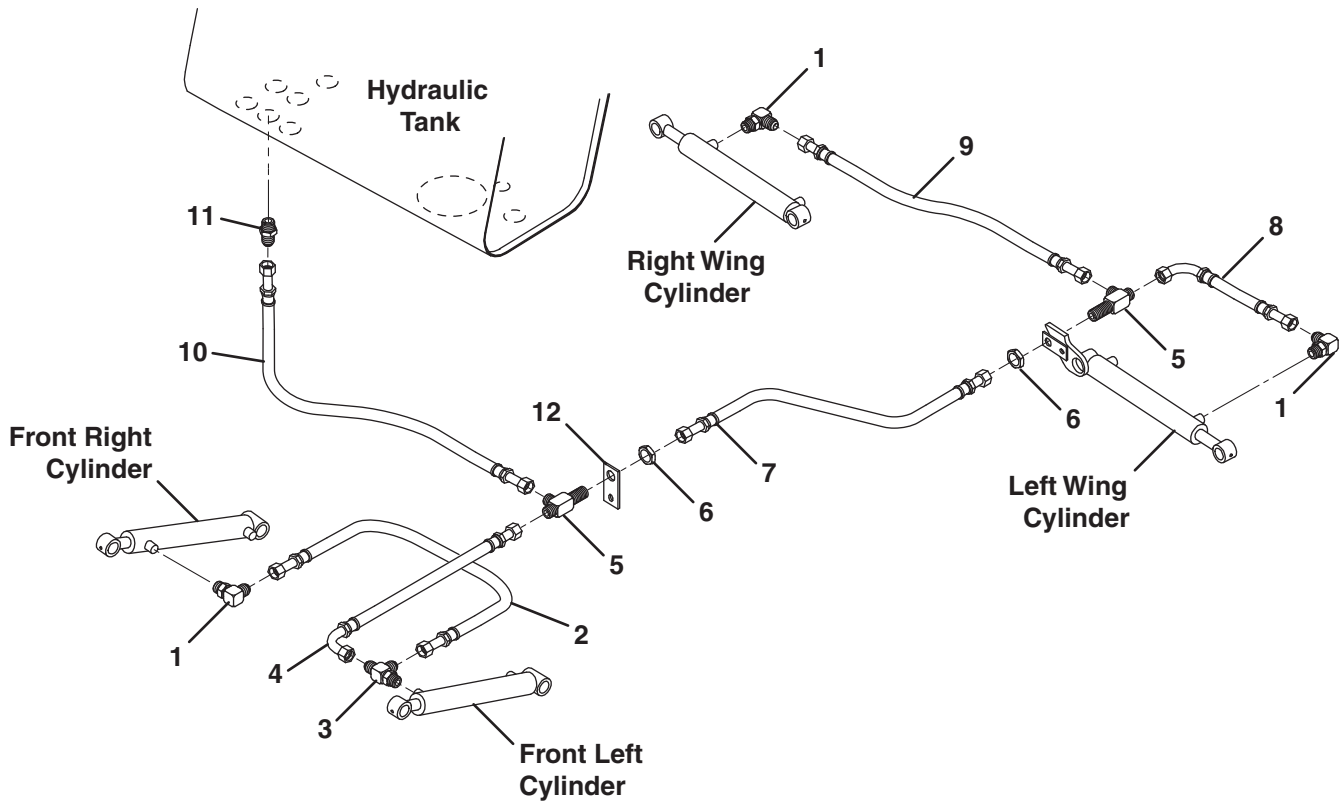
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32.1 Lift Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340066	2	Adapter, 90°	Back Pressure Valve Port A Control Valve Port L
2	123222	1	Tube, Control Valve to Lift Valve	Lift Valve Port IN
3	339984	2	Adapter, Straight	
4	132571	1	Hose, Lift Valve to Front Cylinders	Lift Valve Port D
5	132571	1	Hose, Lift Valve to Left Cylinder	Lift Valve Port F
6	132573	1	Hose, Lift Valve to Right Cylinder	Lift Valve Port B
7	4188043	1	Hose, Lift to Backpressure Valve	Lift Valve Port OUT
8	340119	1	Adapter, Tee	
9	340003	1	Adapter, Straight	
10	4193301	1	Hose, Cylinder to Cylinder	
11	340078	2	Adapter, 90°	
12	339979	3	Adapter, Straight	
13	340088	1	Adapter, 90°	

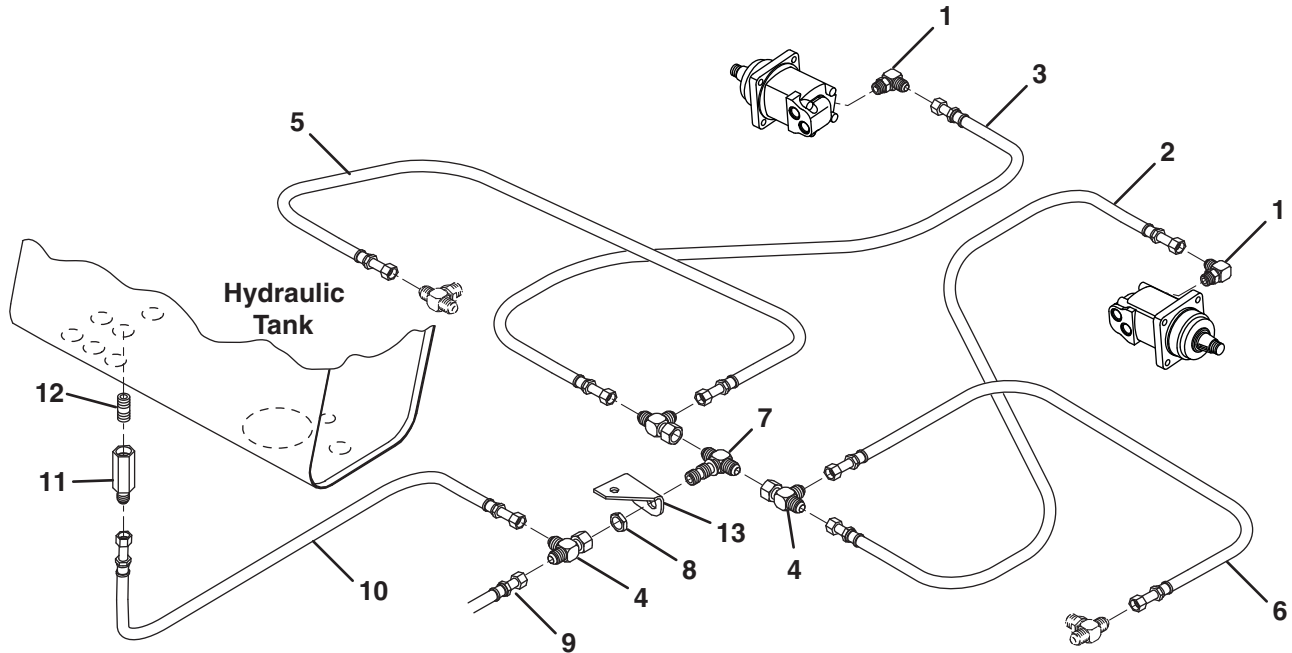
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340061	3	Adapter, 90°	
2	1003595	1	Hose, Cylinder to Cylinder	
3	340263	1	Adapter, Tee	
4	4197560	1	Hose, Front Cylinder to Bulkhead	
5	340215	2	Adapter, Bulkhead Tee	
6	339961	2	• Nut, Bulkhead	
7	4193300	1	Hose, Tee to Tee	
8	132569	1	Hose, Left Cylinder to Bulkhead	
9	132568	1	Hose, Right Cylinder to Bulkhead	
10	132583	1	Hose, Tee to Tank	
11	351124	1	Adapter, Straight	
12	366437	1	Bracket, Bulkhead	See 45.1

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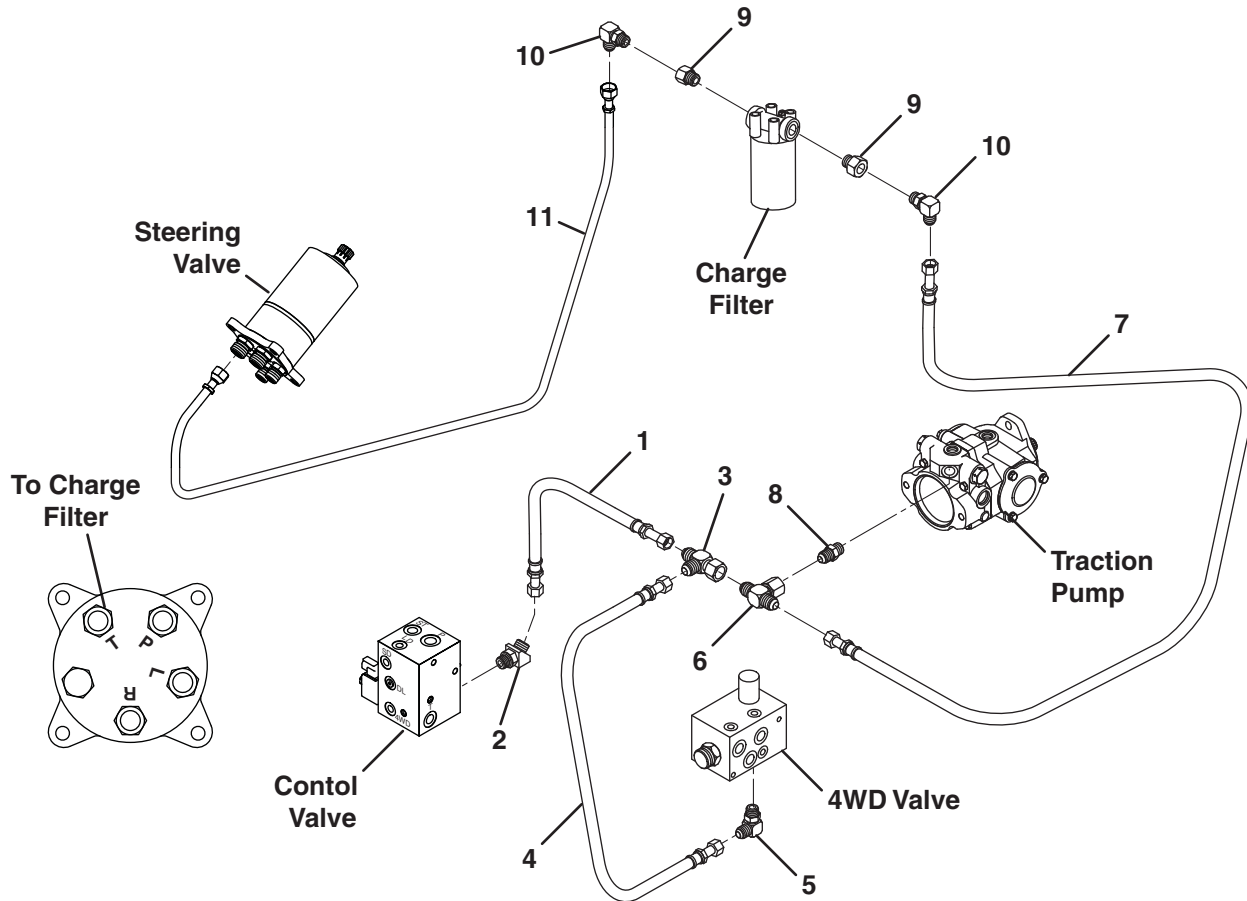
34.1 Motor Return Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340055	2	Adapter, 90°	
2	1000700	1	Hose, Left Wheel Motor Drain	See 28.1
3	1000700	1	Hose, Right Wheel Motor Drain	See 28.1
4	359186	3	Adapter, Tee	
5	1003138	1	Hose, Right Wing Deck Drain	See 40.1
6	1003138	1	Hose, Left Wing Deck Drain	See 39.1
7	360566	1	Adapter, Bulkhead Tee	
8	339960	1	• Nut, Bulkhead	
9	4192360	1	Front Deck Motor Drain Hose	See 38.1
10	132561	1	Hose, Tee to Tank	
11	365966	1	Valve, Check	
12	324943	1	Nipple, Pipe	
13	3001523	1	Plate, Bulkhead	See 27.1

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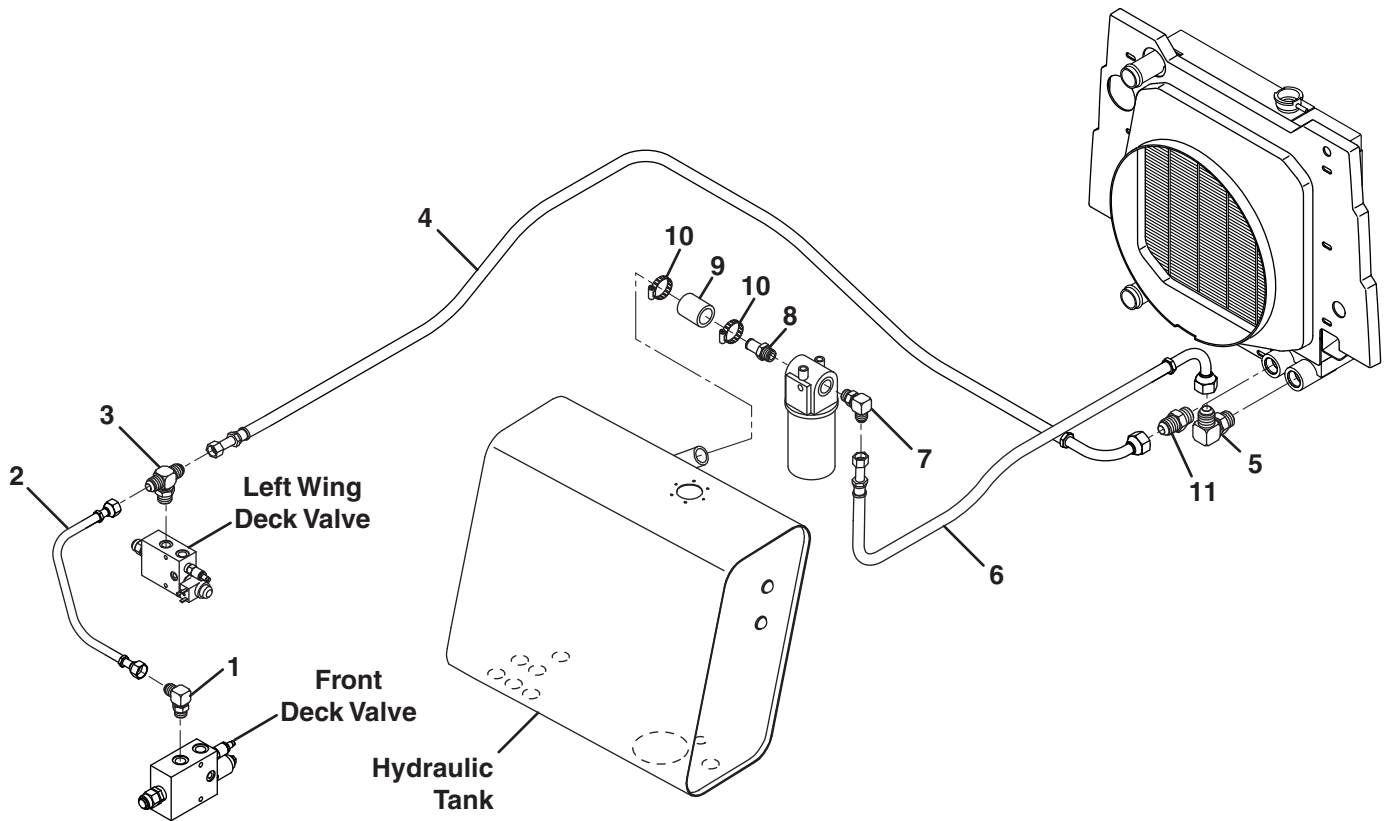
35.1 Charge Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	132540	1	Hose, Control Valve to Tee	
2	340029	1	Adapter, 45°	Control Valve Port F
3	340120	1	Adapter, Tee	
4	132864	1	Hose, 4WD Valve to Tee	
5	340061	1	Adapter, 90°	4WD Valve Port C
6	340144	1	Adapter, Tee	
7	4204220	1	Hose, Tee to Charge Filter	
8	339984	1	Adapter, Straight	
9	366430	2	Reducer	
10	340066	2	Adapter, 90°	
11	4204221	1	Hose, Steering Valve to Filter	Steering Valve Port T

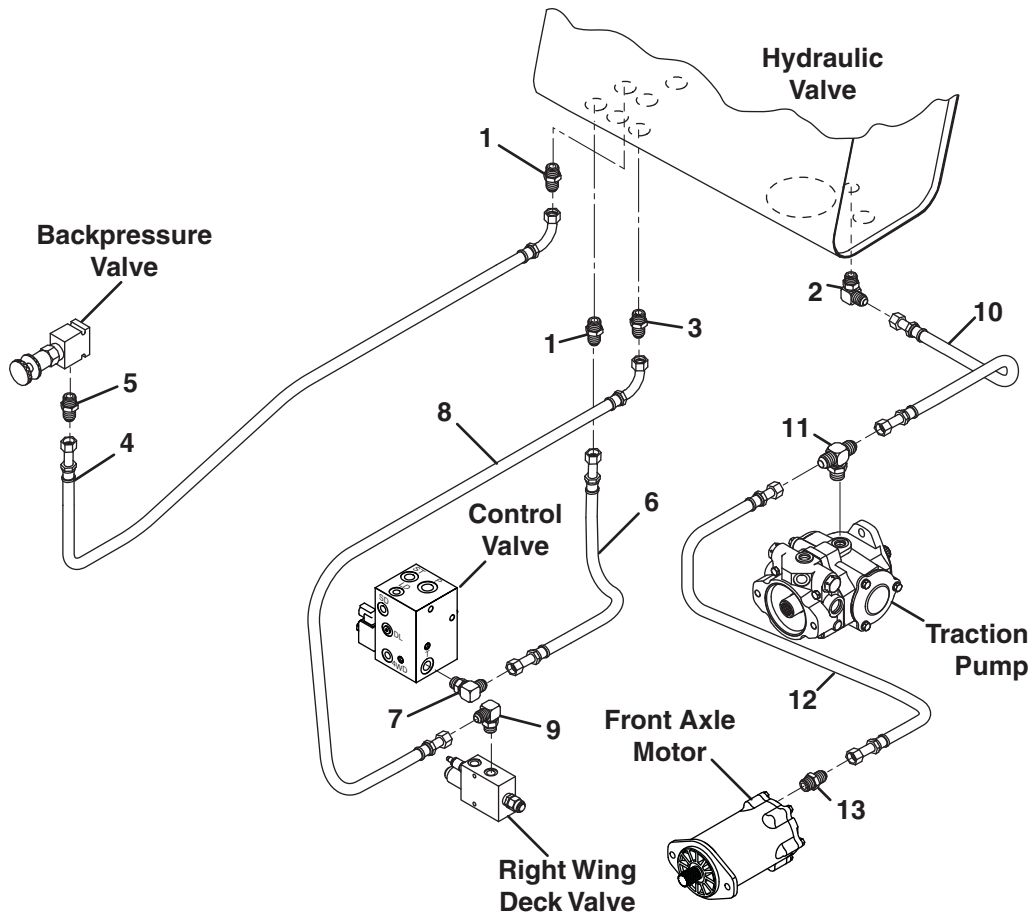
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36.1 Oil Cooler Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340070	1	Adapter, 90°	
2	4192440	1	Hose, Front to Left Wing Deck Valve	
3	2720559	1	Adapter, Tee	
4	4199222	1	Hose, Left Valve to Oil Cooler	
5	340077	1	Adapter, 90°	
6	4195621	1	Hose, Oil Cooler to Return Filter	
7	340089	1	Adapter, 90°	
8	163917	1	Adapter, Beaded	
9	4148897	1	Hose, Return Filter to Tank	
10	326112	2	Clamp, Hose	
11	339999	1	Adapter, Straight	

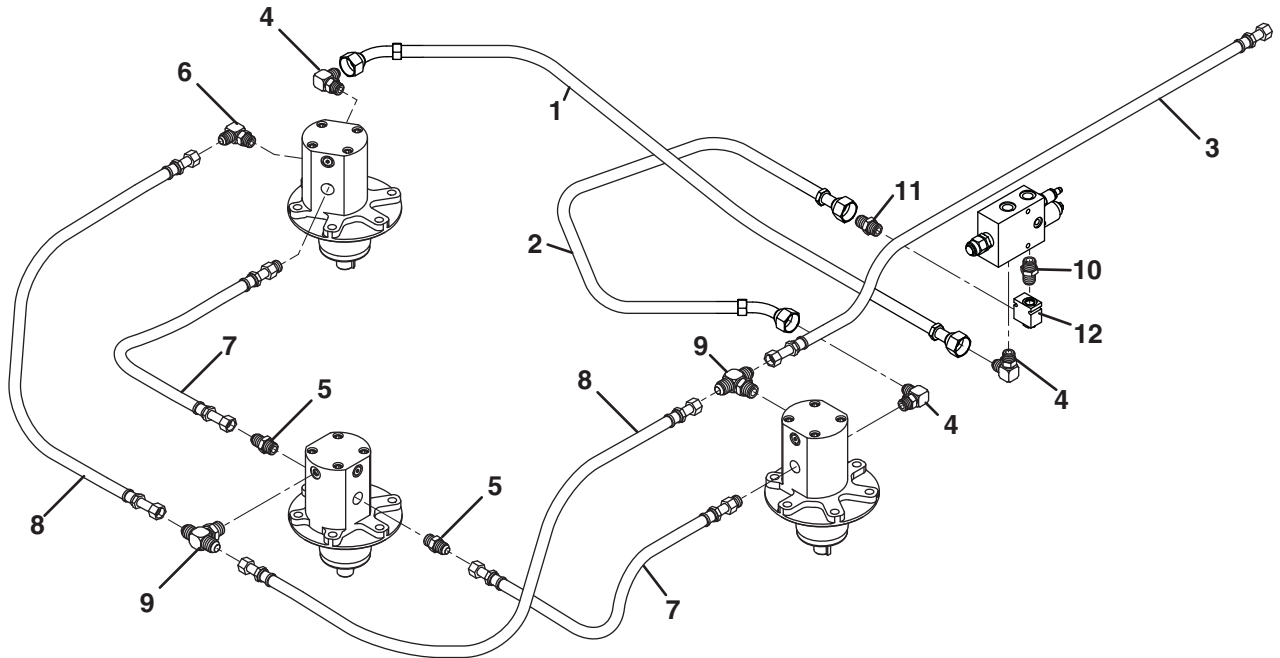
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	351124	2	Adapter, Straight	Control Valve Port T
2	358949	1	Adapter, 90°	
3	357613	1	Adapter, Straight	
4	4188620	1	Hose, Backpressure Valve to Tank	
5	351108	1	Adapter, Straight	
6	132579	1	Hose, Control Valve to Tank	
7	340066	1	Adapter, 90°	
8	132580	1	Hose, Right Deck Valve to Tank	
9	354065	1	Adapter, 90°	
10	4173221	1	Hose, Traction Pump to Tank	
11	4173200	1	Adapter, Tee	
12	4173220	1	Hose, Axle Motor to Traction Pump	
13	351109	1	Adapter, Straight	

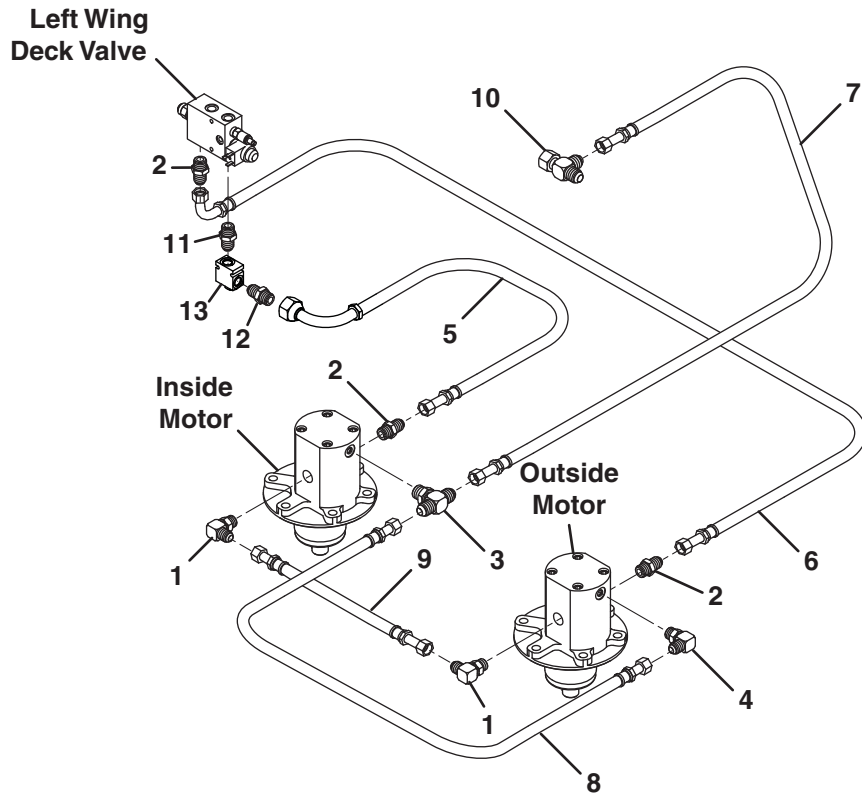
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38.1 Front Deck Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003584	1	Hose, Motor to Front Valve	Front Deck Valve Port B
	4192362	1	Front Deck Hose Assembly	
2	1003584	1	• Hose, Front Valve to Motor	Front Deck Valve Port A
3	4192360	1	• Hose, Front Deck to Bulkhead	
4	340070	4	Adapter, 90°	
5	339989	2	Adapter, Straight	
6	362288	1	Adapter, 90°	
	132591	2	Motor Hose Assembly	
7	132562	1	• Hose, Motor Outlet to Motor Inlet	
8	132563	1	• Hose, Motor Drain	
9	366445	2	Adapter, Tee	
10	4202340	1	Adapter, 10-8 Reducer Union	
11	339988	1	Adapter, Straight	
12	4202120	1	Check Valve	
	4201921	1	• Body, Check Valve	
	4201920	1	• Cartridge, Check Valve	

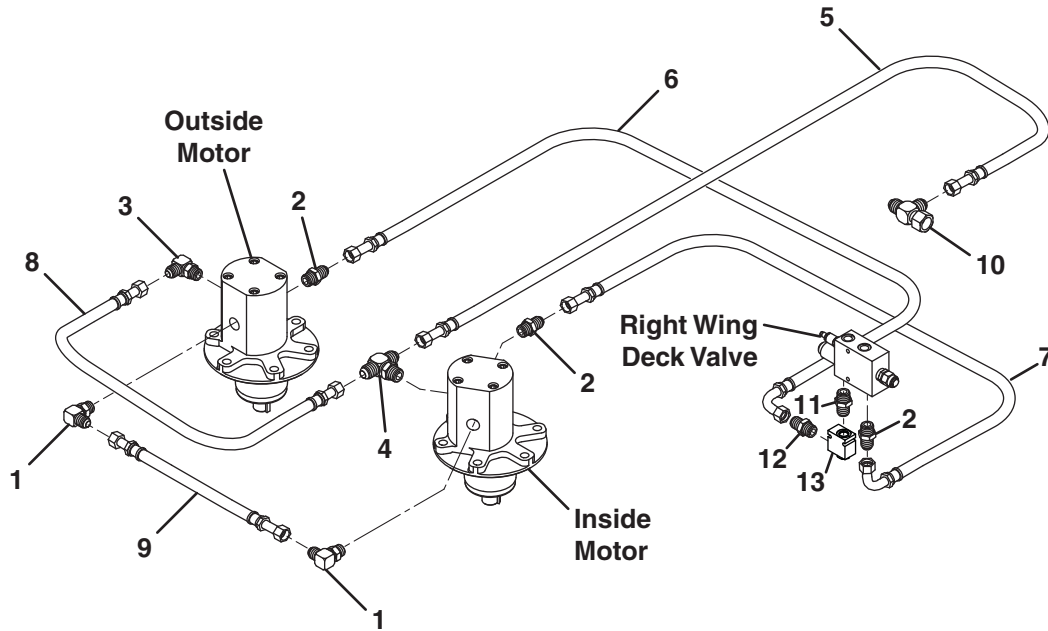
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340070	2	Adapter, 90°	
2	339989	4	Adapter, Straight	
3	366445	1	Adapter, Tee	
4	362288	1	Adapter, 90°	
	1003134	1	Left Wing Deck Hose Assembly	
5	132575	1	• Hose, Left Valve to Motor	Left Wing Deck Valve Port A
6	132576	1	• Hose, Motor to Left Valve	Left Wing Deck Valve Port B
7	1003138	1	• Hose, Left Deck Drain	
	132594	1	Motor Hose Assembly	
8	132595	1	• Hose, Motor Drain	
9	132596	1	• Hose, Motor Outlet to Motor Inlet	
10	359186	1	Adapter, Tee	See 34.1
11	4202340	1	Adapter, 10-8 Reducer Union	
12	339988	1	Adapter, Straight	
13	4202120	1	Check Valve	
	4201921	1	• Body, Check Valve	
	4201920	1	• Cartridge, Check Valve	

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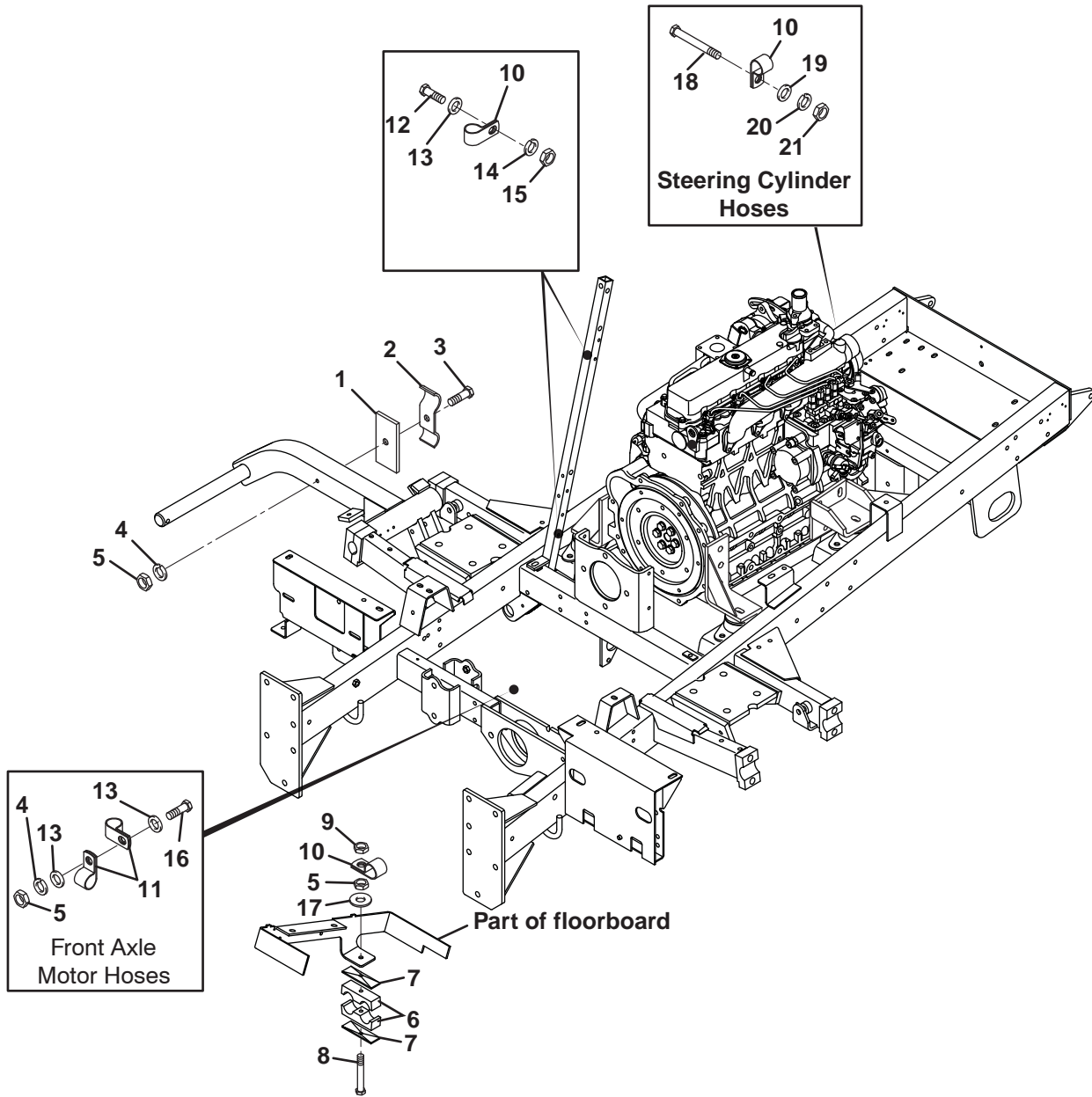
40.1 Right Wing Deck Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340070	2	Adapter, 90°	
2	339989	4	Adapter, Straight	
3	362288	1	Adapter, 90°	
4	366445	1	Adapter, Tee	
	1003133	1	Right Wing Deck Hose Assembly	
5	1003138	1	• Hose, Right Wing Deck Drain	
6	1003137	1	• Hose, Right Valve to Motor	Right Wing Deck Valve Port A
7	1003136	1	• Hose, Motor to Right Valve	Right Wing Deck Valve Port B
	132594	1	Motor Hose Assembly	
8	132596	1	• Hose, Motor Drain	
9	132595	1	• Hose, Motor Outlet to Motor Inlet	
10	359186	1	Adapter, Tee	See 34.1
11	4202340	1	Adapter, 10-8 Reducer Union	
12	339988	1	Adapter, Straight	
13	4202120	1	Check Valve	
	4201921	1	• Body, Check Valve	
	4201920	1	• Cartridge, Check Valve	

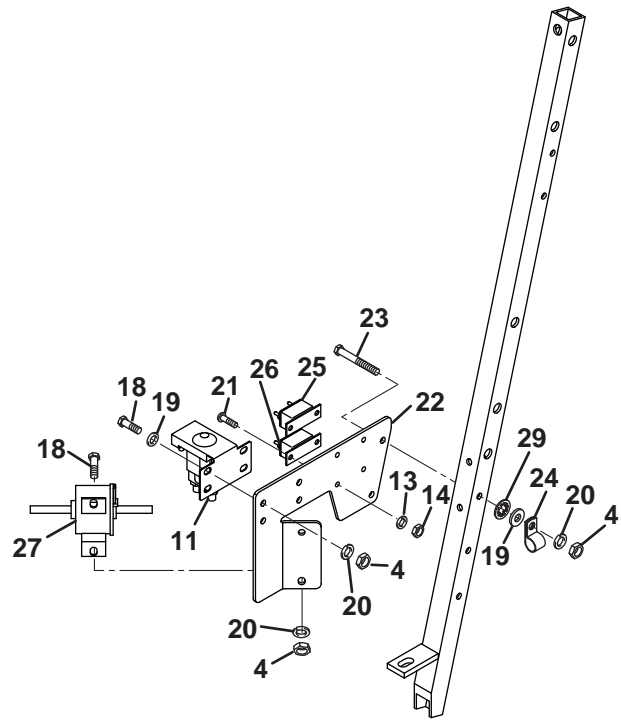
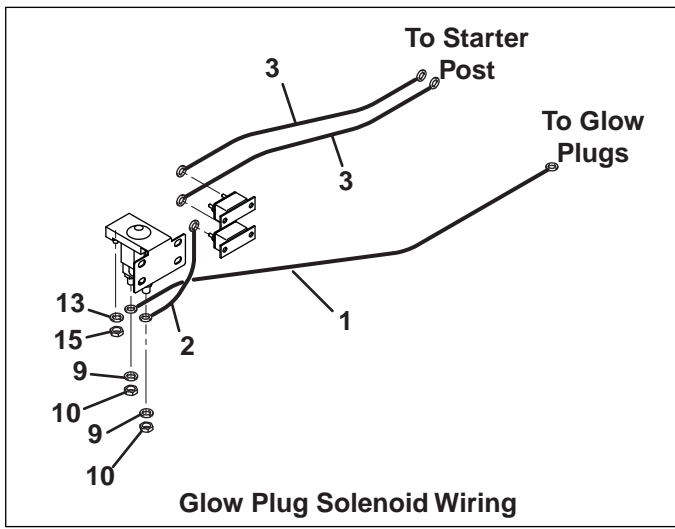
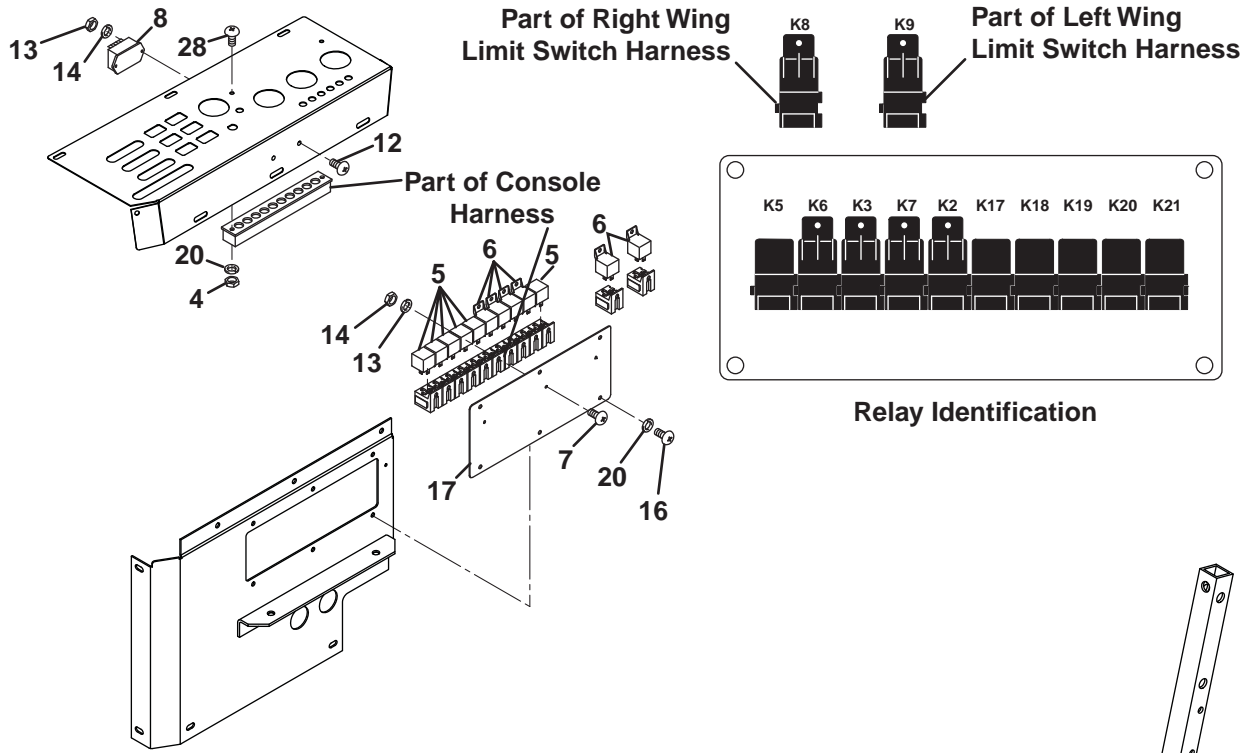
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41.1 Hydraulic Clamping



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	366607	2	Spacer, Hose	Front Deck Motor Hoses
2	359860	2	Clamp, 2 Hose	
3	400204	2	Screw, 5/16-18 x 3-1/2"	
4	446136	2	Lockwasher, 5/16 Heavy	
5	443106	4	Nut, 5/16-18 Hex	
6	3008793	2	Clamp, Hose	
7	3008792	2	Spacer, Plate	
8	400210	1	Screw, 5/16-18 x 5" Hex Head	
9	444718	1	Locknut, 5/16-18 Center	
10	345666	3	Clamp, Hose	
11	364190	3	Clamp	
12	400116	2	Screw, 1/4-20 x 1-1/2" Hex Head	
13	452004	4	Flat Washer, 1/4	
14	446130	2	Lockwasher, 1/4 Heavy	
15	443102	2	Nut, 1/4-20 Hex	
16	400188	1	Screw, 5/16-18 x 1" Hex Head	
17	452006	1	Flat Washer, 5/16	
18	400286	1	Screw, 3/8-16 x 2-3/4" Hex Head	
19	453011	1	Flat Washer, 3/8	
20	446142	1	Lockwasher, 3/8 Heavy	
21	443110	1	Nut, 3/8-16 Hex	
	473142	2	Cable Tie	Front Cylinder Return Hose (1) Deck Valve Hose to Tube (1)
	473144	1	Cable Tie, 5/16 x 16" (Not Shown)	Steering Hoses to Console Support
	473137	5	Cable Tie, 5/16 x 9" (Not Shown)	Front Lift Cylinder Hoses (2) Front Deck Motor Hoses (1) Control Valve Hoses (1) Wing Deck Motor Hoses (1)

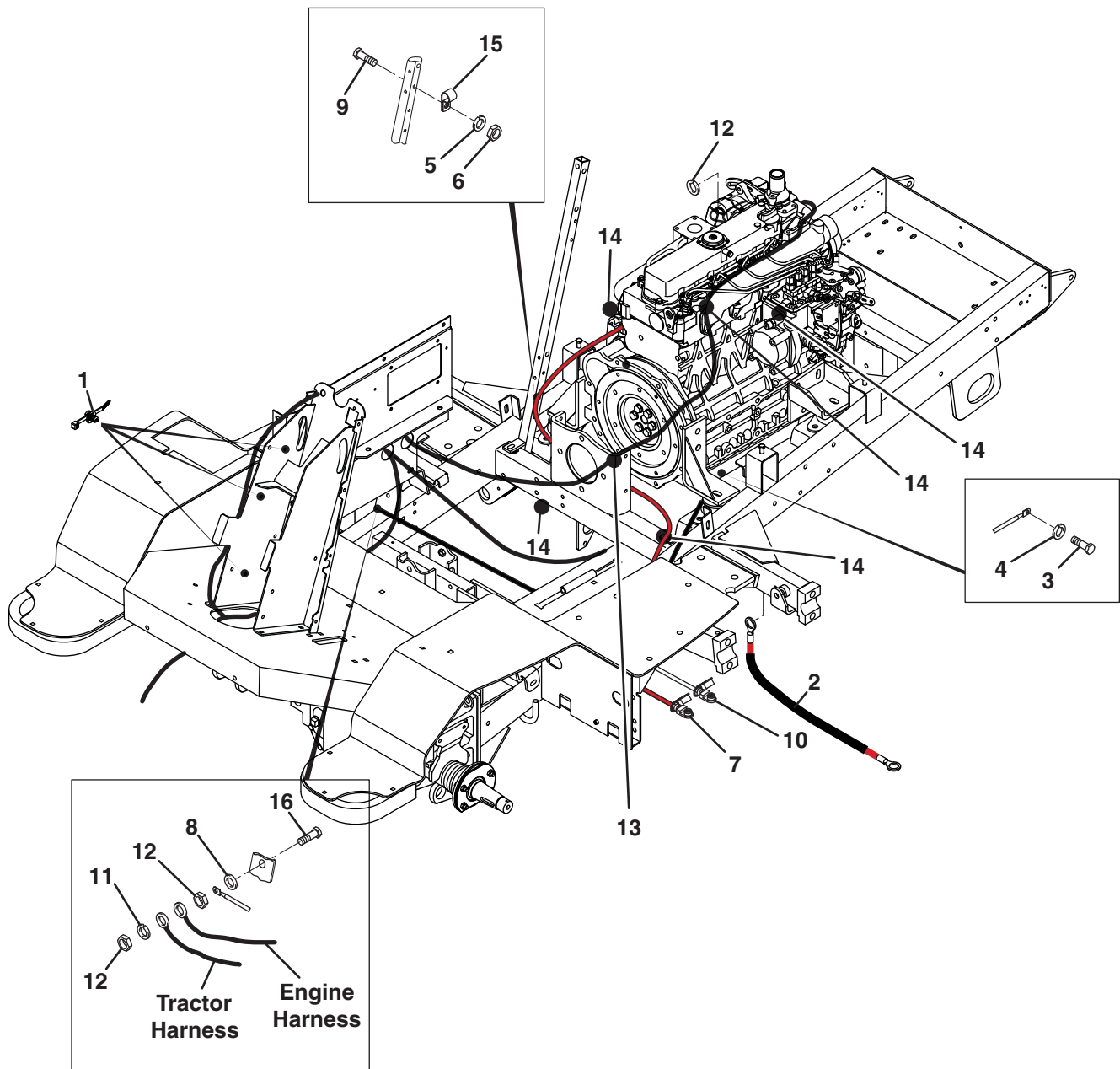
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4210661	1	Wire, Solenoid to Glow Plug	
2	4210660	1	Wire, Circuit Breaker to Solenoid	
3	4210662	2	Wire, Starter to Circuit Breaker	
4	443102	6	Nut, 1/4-20 Hex	
5	4193880	6	Relay SPDT	REFERENCE K5, K17, K18, K19, K20, K21, See 62.1
6	365963	6	Relay, SPST	REFERENCE K2, K3, K6, K7, K8, K9, See 62.1
7	403908	3	Screw, #10-24 x 3/8" Truss Head	
8	3003036	1	Relay, Seat Time Delay	REFERENCE K4, See 62.1
9	446136	2	Lockwasher, 5/16 Heavy	
10	443808	2	Nut, 5/16-24 Hex Jam	
11	131905	1	Solenoid, Glow Plug	REFERENCE K1, See 62.1
12	403910	2	Screw, #10-24 x 1/2" Truss Head	
13	446118	10	Lockwasher, #10	
14	444310	8	Nut, #10-24 Hex	
15	444312	2	Nut, #10-32 Hex	
16	404016	4	Screw, 1/4-20 x 5/8" Truss Head	
17	4227140	1	Plate	
18	400108	4	Screw, 1/4-20 x 3/4" Hex Head	
19	453023	5	Flat Washer, 1/4	
20	446130	8	Lockwasher, 1/4 Heavy	
21	402120	4	Screw, #10-24 x 5/8" Slotted Round	
22	4210821	1	Plate, Fuel Pump	
23	400118	2	Screw, 1/4-20 x 1-3/4" Hex Head	
24	345671	1	Clamp	
25	361439	1	Circuit Breaker, 50 Amp Main	REFERENCE CB6, See 62.1
26	361439	1	Circuit Breaker, 50 Amp Alternator	REFERENCE CB7, See 62.1
27	4132489	1	Fuel Pump	REFERENCE U9, See 62.1
28	403759	2	Screw, 1/4-20 x 5/8" Truss Head	
29	447214	1	Lockwasher, 5/16 Internal Tooth	

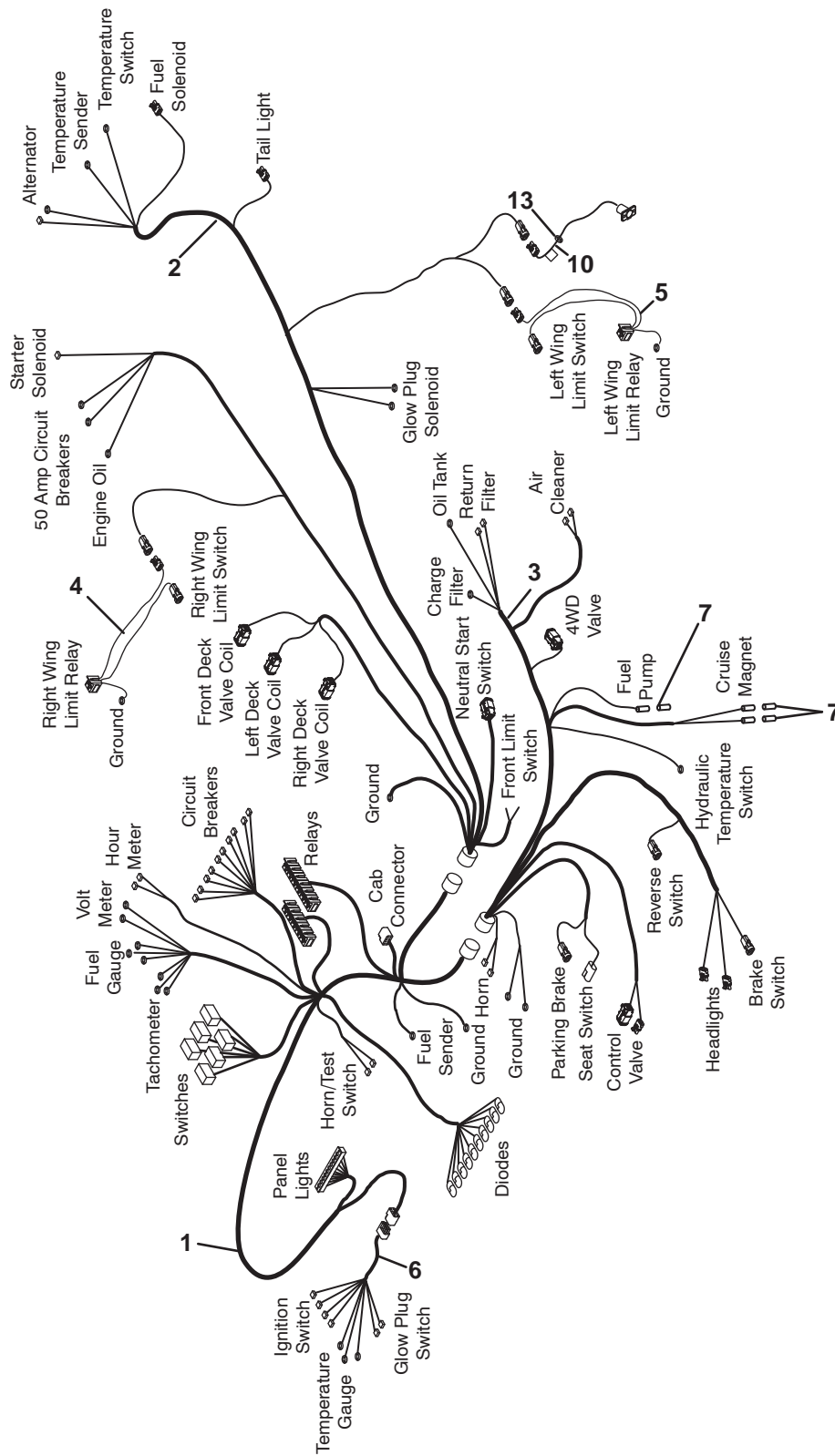
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43.1 Electrical Routing



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4167640	3	Cable Tie, Fir Tree	Remote Terminal to Starter. See 4.1 for Terminal Battery to Remote Terminal. See 4.1 for Terminal
2	4211620	1	Positive Remote Terminal Cable	
3	365980	1	Screw, M12-1.25 x 20 mm	
4	446154	1	Lockwasher, 1/2 Heavy	
5	446130	1	Lockwasher, 1/4 Heavy	
6	443102	1	Nut, 1/4-20 Hex	
7	4232041	1	Positive Battery Cable	
8	452006	1	Flat Washer, 5/16	
9	400118	1	Screw, 1/4-20 x 1-3/4"	
10	2720726	1	Negative Battery Cable	
11	446136	1	Lockwasher, 5/16 Heavy	
12	443106	1	Nut, 5/16-18 Hex	
13	473144	2	Cable Tie	
14	473137	4	Cable Tie	
15	345671	2	Clamp	
16	400190	1	Screw, 5/16-18 x 1-1/4" Hex Head	

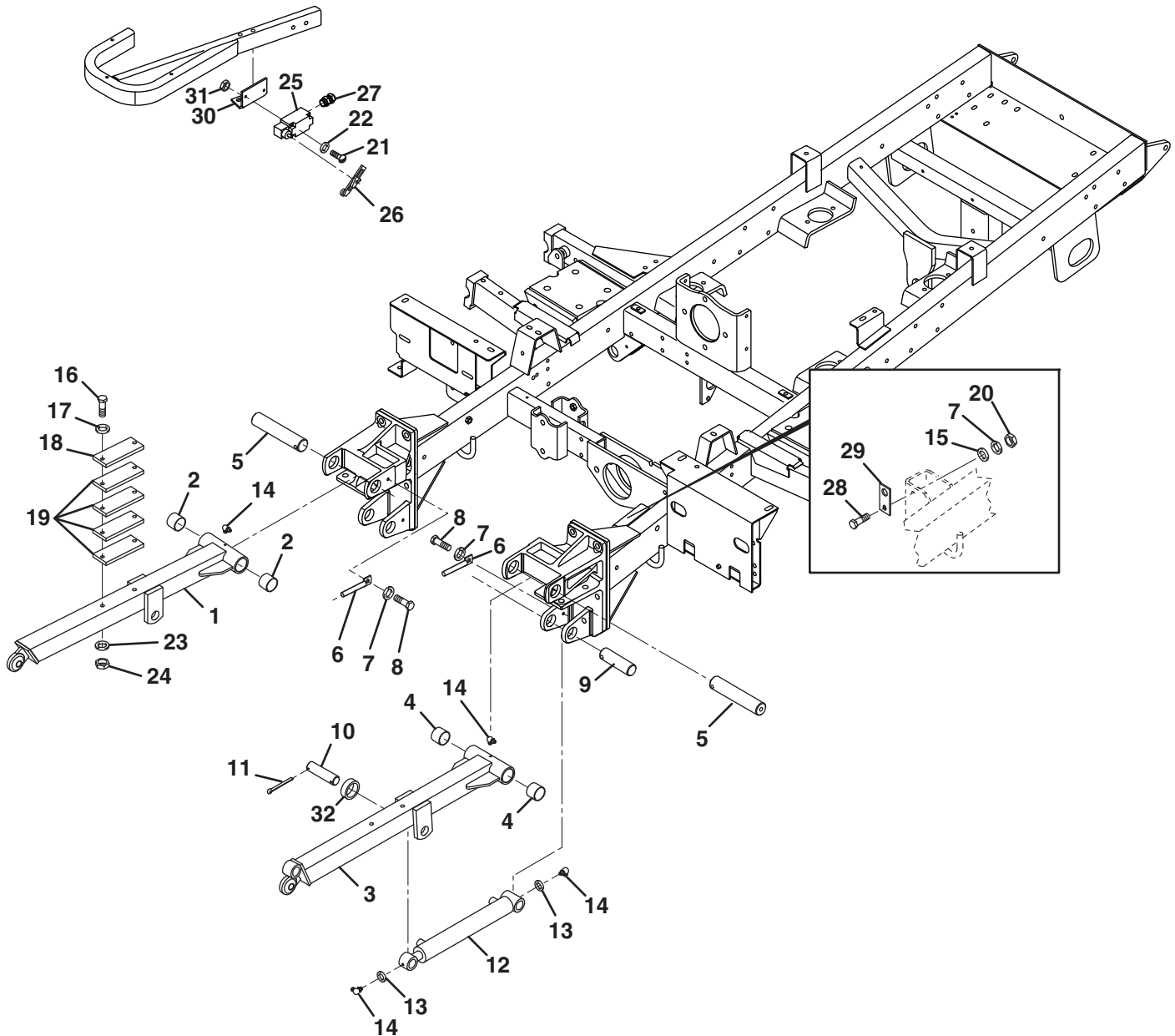
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4218120	1	Wire Harness, Console	
	554492	2	• Lockwasher, Size 24	
	554493	2	• Panel Nut, Size 24	
	555845	10	• Light Bulb	
	555846	10	• Diode	
	555847	1	• Light Strip	
	2	4211640	1	
3	4201161	1	Wire Harness, Mower	
4	4155085	1	Wire Harness, Right Wing Limit	
5	4155085	1	Wire Harness, Left Wing Limit	
6	1001963	1	Wire Harness, Ignition	
7	473108	3	Insulated Bullet Connector	Cruise Control Magnet Wires Front Lift Arm Limit Switch Not Shown
	554748	2	Tube, Wire Protector (Not Shown)	
8	473137	5	Tie, Nylon	Not Shown
9	473144	2	Tie, Nylon	Not Shown
10	4175664	1	Harness, 12V Accessory Plug	Routed inside Utility Box, See 5.1
	4131299	1	• Fuse Holder	REFERENCE F1, See 62.1 REFERENCE U3, See 62.1
	836892	1	• Fuse, 10 Amp	
	843942	1	• Accessory Plug	

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45.1 Front Lift Arms

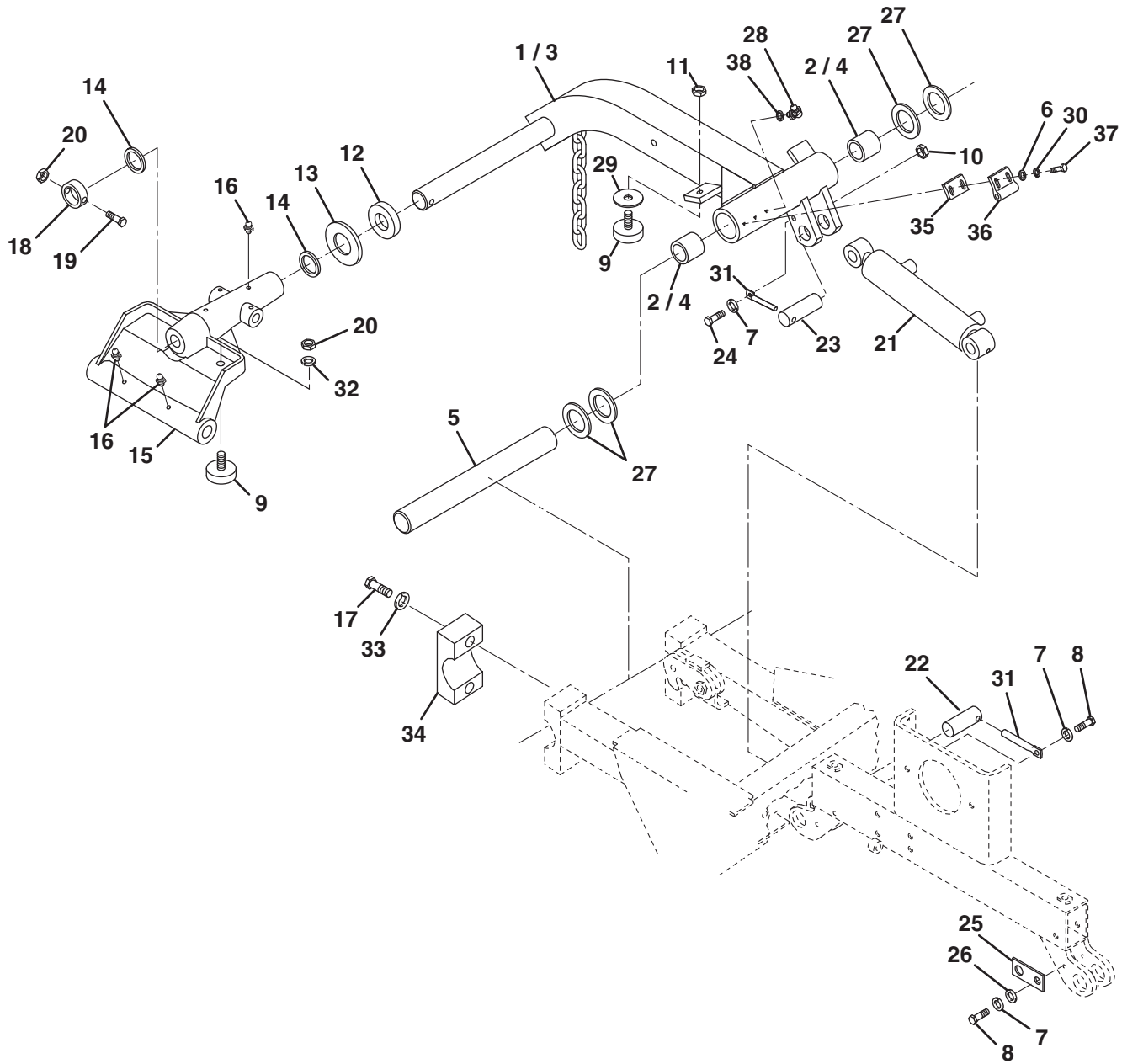


Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	2720206	1	Right Front Lift Arm		
2	342033	2	• Bushing		
3	2720207	1	Left Front Lift Arm		
4	342033	2	• Bushing		
5	4184641	2	Shaft, Lift Arm Pivot		
6	346091	4	Pin, Retaining		
7	446136	5	Lockwasher, 5/16 Heavy		
8	400184	4	Screw, 5/16-18 x 3/4" Hex Head		
9	366045	2	Pin, Lift Cylinder		
10	359549	2	Pin, Lift Cylinder		
11	460052	4	Cotter Pin, 3/16 x 1-1/2"		
12	4203422	2	Front Arm Lift Cylinder		
	4137138	1	• Seal Kit		
13	453023	4	Flat Washer, 1/4		
14	471221	6	Grease Fitting, 90°		
15	452006	1	Flat Washer, 5/16		
16	400280	4	Screw, 3/8-16 x 3-1/2" Hex Head		
17	453011	4	Flat Washer, 3/8		
18	366473	2	Bumper, Lift Arm		
19	366610	AR	Shim, 0.26" Thick		Add or remove shims as required to level front deck. See Adjustment section for details.
19	366611	AR	Shim, 0.1975" Thick		
19	366612	AR	Shim, 0.135 Thick		
19	366613	AR	Shim, 0.105 Thick		
20	443106	1	Nut, 5/16-18 Hex		<p>REFERENCE SW10, See 62.1</p> <p>See 15.1 for mounting</p>
21	402132	2	Screw, #10-24 x 1-3/4" Slotted		
22	446118	2	Lockwasher, #10 Medium		
23	446142	4	Lockwasher, 3/8 Heavy		
24	443110	4	Nut, 3/8-16 Hex		
25	3001079	1	Switch, Front Limit		
	5000183	1	• Basic Switch		
	5000184	1	• Operator Head		
26	3001078	1	Actuator Arm		
27	364694	1	Connector		
28	400188	1	Screw, 5/16-18 x 1" Hex Head		
29	366437	1	Bracket, Bulkhead		
30	4198920	1	Bracket, Front Lift Arm Limit Switch		
31	444782	2	Locknut, #10-24 Hex Center		
32	3010125	AR	Thrust Washer		

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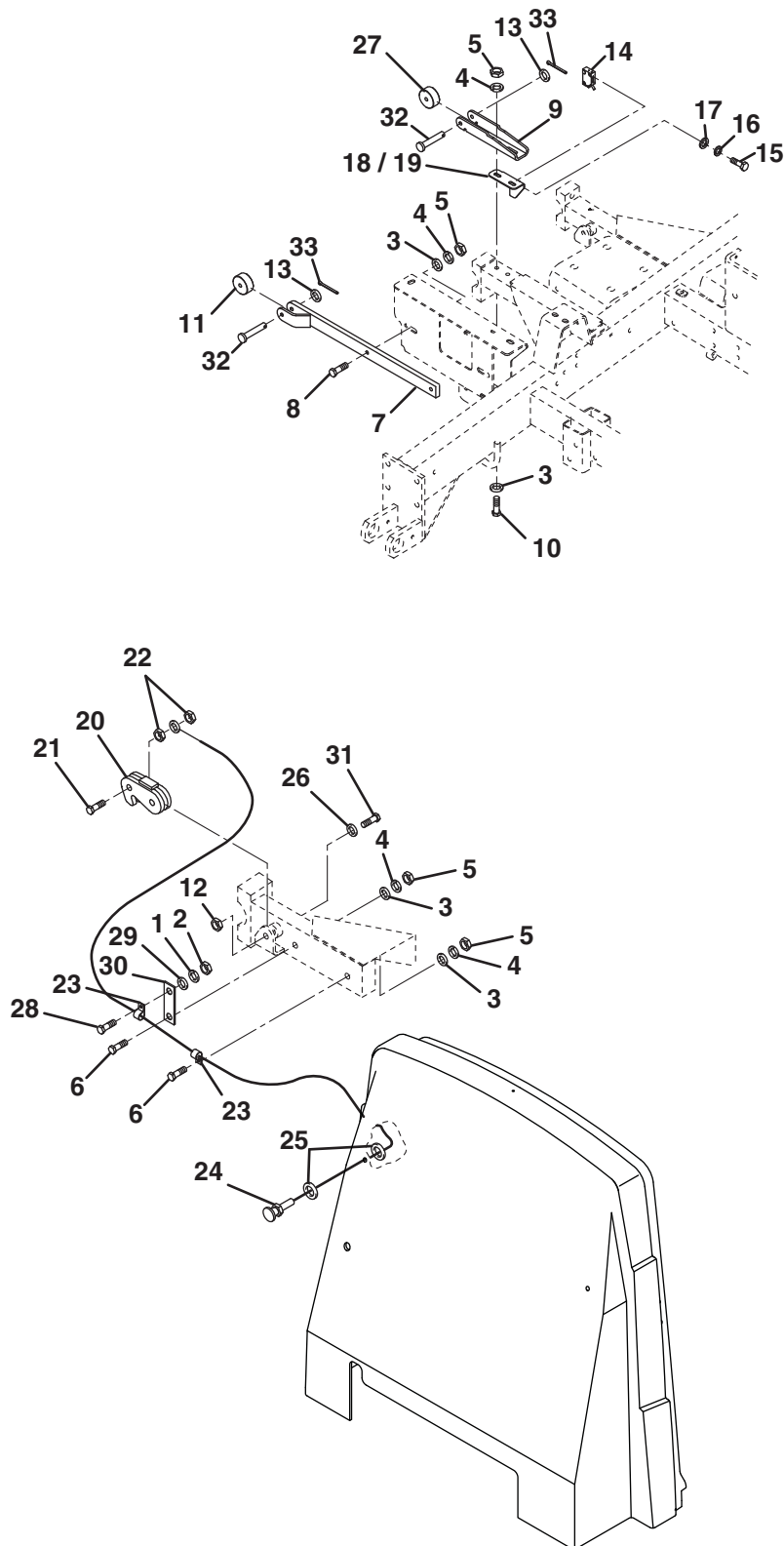
46.1 Wing Lift Arms

Right Wing Shown



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4222365	1	Right Wing Arm	
2	2720298	2	• Bushing	
3	4222366	1	Left Wing Arm (Not Shown)	
4	2720298	2	• Bushing	
5	2248004	2	Shaft, Pivot Arm	
6	64251-001	4	Flat Washer, M5	
7	446136	5	Lockwasher, 5/16 Heavy	
8	400184	3	Screw, 5/16-18 x 3/4" Hex Head	
9	361723	6	Stop, Rubber	
10	443106	2	Nut, 5/16-18 Hex	
11	443810	2	Nut, 3/8-16 Hex Jam	
12	366506	2	Washer, Thrust	
13	366517	12	Washer, Belleville	
14	362824	4	Spacer	
15	503553	2	Casting, Pivot	
16	471216	3	• Grease Fitting, Straight	
17	400650	8	Screw, 5/8-18 x 2-1/2" Hex Head	
18	364248	2	Collar	
19	400272	2	Screw, 3/8-16 x 2-1/4" Hex Head	
20	444762	6	Locknut, 3/8-16 Center	
21	4222363	2	Lift Cylinder	
	4138589	1	• Seal Kit	
22	366483	2	Pin, Wing Cylinder	
23	4222364	2	Pin, Cylinder	
24	400188	2	Screw, 5/16-18 x 1: Hex Head	
25	366437.7	1	Bracket, Bulkhead	
26	452006	3	Flat Washer, 5/16	
27	364830	AR	Washer, Shim	
28	471221	2	Grease Fitting, 90°	
29	4197702	AR	Shim, Stop	
30	446118	4	Lockwasher, #10 Medium	
31	346091	4	Pin, Retaining	
32	453011	4	Flat Washer, 3/8	
33	446166	8	Lockwasher, 5/8 Heavy	
34	2242015	4	Block, Shaft	
35	3007568	2	Shim	
36	4157000	2	Plate, Switch Actuator	
37	402118	4	Screw, #10-24 x 1/2" Slotted	
38	453023	2	Flat Washer, 1/4	

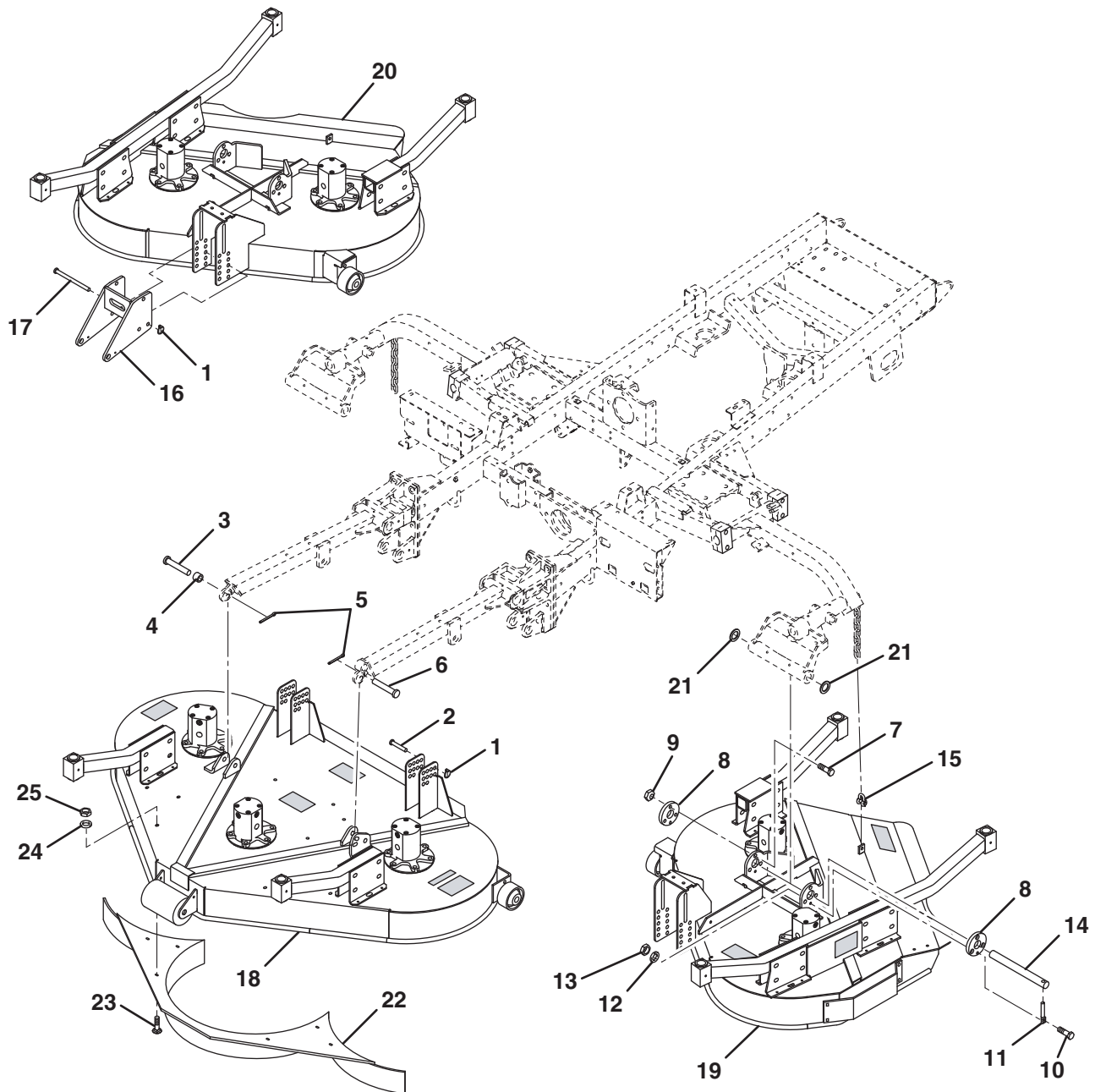
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	446136	2	Lockwasher, 5/16 Heavy	REFERENCE SW8 & SW9, See 62.1
2	443106	2	Nut, 5/16-18 Hex	
3	453011	12	Flat Washer, 3/8	
4	446142	12	Lockwasher, 3/8 Heavy	
5	445806	14	Nut, 3/8-16 Hex	
6	400272	4	Screw, 3/8-16 x 2-1/4" Hex Head	
7	132601	2	Bracket, Deck Roller	
8	400264	4	Screw, 3/8-16 x 1-1/4" Hex Head	
9	340525	2	Bracket, Deck Roller	
10	400280	4	Screw, 3/8-16 x 4" Hex Head	
11	3005677	2	Roller, Front Wing Deck	
12	444758	2	Locknut, 1/2-13 Center	
13	358794	2	Washer	
14	4125831	2	Switch, Deck Limit	
15	4131768	4	Screw, M3-0.5 x 8 mm Phillips	
16	446102	4	Lockwasher, #4	
17	308404	4	Flat Washer, #4	
18	4155082	1	Bracket, Right Side Switch	
19	4155081	1	Bracket, Left Side Switch	
20	4206820	2	Hook, Deck Latch	
21	400120	2	Screw, 1/4-20 x 2" Hex Head	
22	444708	4	Locknut, 1/4-20 Center	
23	324887	4	Clip, Deck Latch Cable	
24	366566	2	Cable, Deck Latch	
25	452008	4	Flat Washer, 3/8	
26	453017	2	Flat Washer, 1/2	
27	3005678	2	Rear Wing Deck Roller	
28	400184	2	Screw, 5/16-18 x 3/4" Hex Head	
29	452006	2	Flat Washer, 5/16	
30	366929	2	Plate, Clip Mounting	
31	400422	2	Screw, 1/2-13 x 4" Hex Head	
32	461457	4	Clevis Pin, 3/8 x 2-1/4"	
33	460014	4	Cotter Pin, 3/32 x 3/4"	

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48.1 Deck Mounting



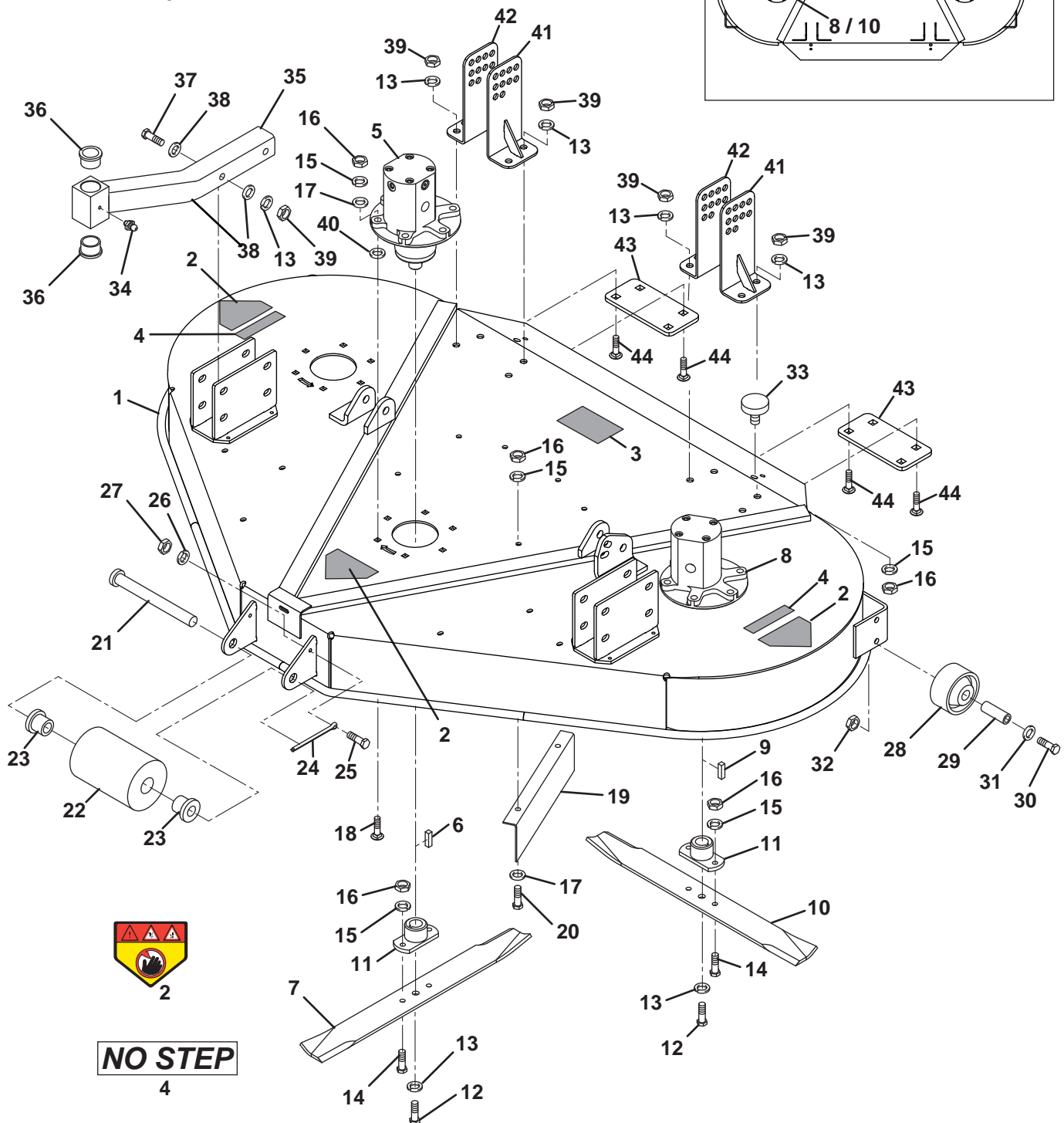
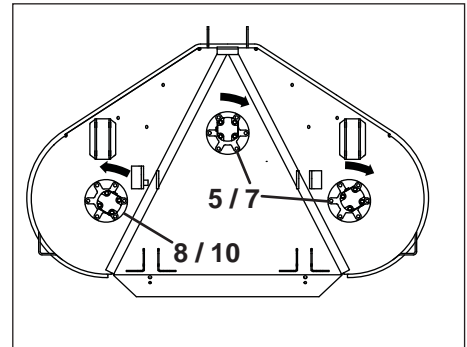
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	64173-02	6	Pin, Snap Ring	
2	3000439	2	Clevis Pin, 1/2 x 3-3/4"	
3	3000487	1	Clevis Pin, 5/8 x 3"	
4	346913	2	Spacer	
5	460050	2	Cotter Pin, 3/16 x 1-1/4"	
6	3006300	1	Clevis Pin, 5/8 x 3-5/16"	
7	362464	12	Wheel Bolt, 7/16-20	
8	340433	4	Ring Shaft	
9	346294	12	Nut, 7/16-20 Wheel Lug	
10	400192	2	Screw, 5/16-18 x 1-1/2" Hex Head	
11	366520	2	Retainer Pin	
12	446136	2	Lockwasher, 5/16 Heavy	
13	443106	2	Nut, 5/16-18 Hex	
14	366484	2	Shaft, Pivot	
15	162716	2	Shackle	
16	132600	2	Caster Support	
17	163995	4	Pin	
18	REF	1	Front Deck Assembly	See 49.1
19	REF	1	Left Wing Deck Assembly	See 50.1
20	REF	1	Right Wing Deck Assembly	See 50.1
21	367601	4	Washer, Thrust	
22	2246003	1	Baffle	
23	441602	6	Carriage Bolt, 5/16-18 x 3/4"	
24	452006	6	Flat Washer, 5/16	
25	445802	6	Nut, 5/16-18 Flex Lock	

> Change from previous revision

49.1 Front Deck

1.0	0	A	
1.5	1	A	
2.0	2	A	
2.5	3	A	
3.0	4	A	
3.5	0	B	
4.0	1	B	
4.5	2	B	
5.0	3	B	
5.5	4	B	

3



NO STEP

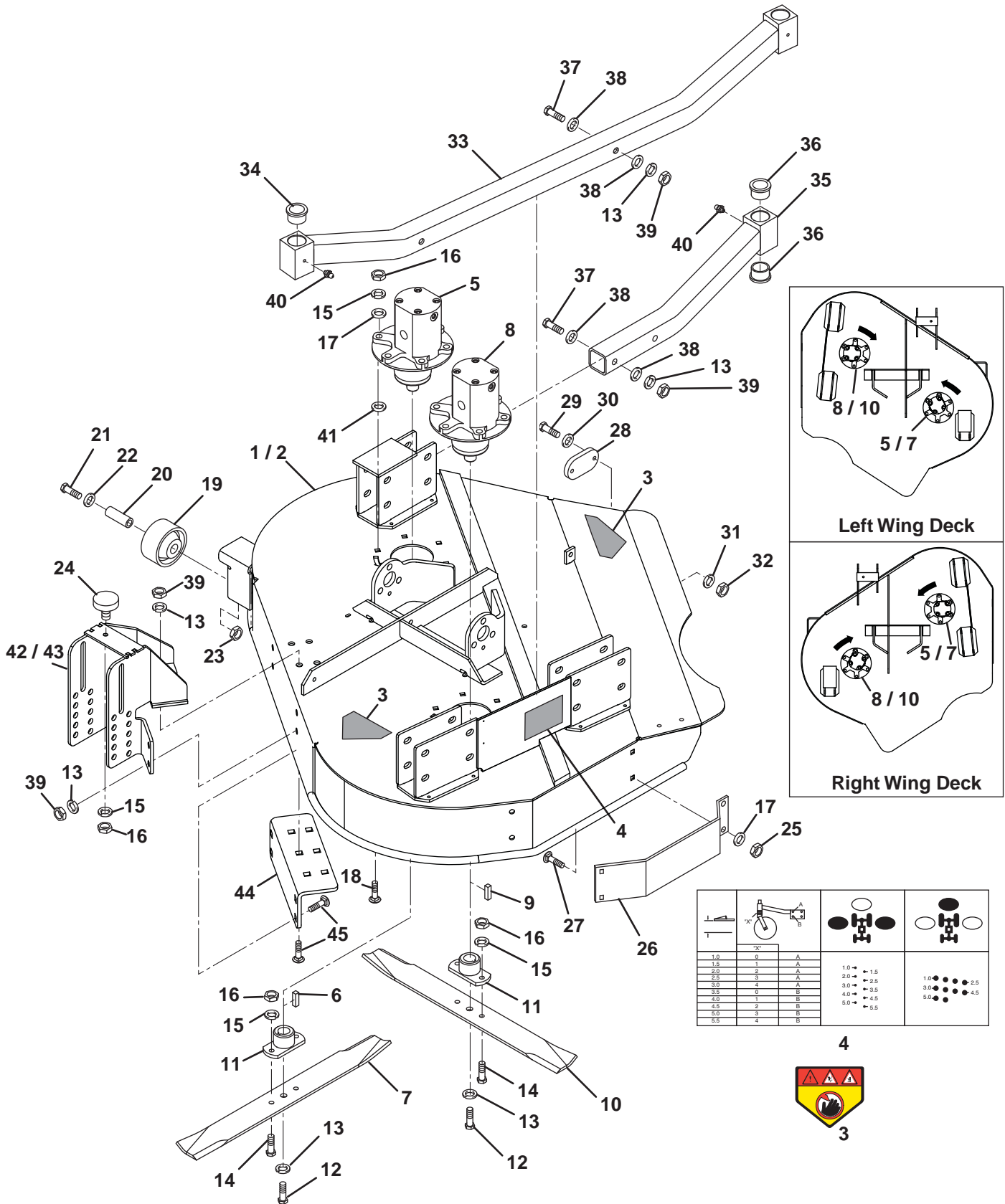
4

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4212580	1	Front Deck	
2	4164381	3	• Decal, Blade Contact Danger	
3	3002676	1	• Decal, Cutting Height	
4	366609	2	• Decal, No Step	
5	2721180	2	Motor, Deck	Counter-Clockwise Rotation
6	557523	1	• Key	
7	4186581	2	Blade, Couter-Clockwise Rotation	
8	2721181	1	Motor, Deck	Clockwise Rotation
9	557523	1	• Key	
10	4186582	1	Blade, Clockwise Rotation	
11	1001885	3	Adapter, Blade	
12	400410	3	Screw, 1/2-13 x 1-3/4" Hex Head	
13	446154	15	Lockwasher, 1/2 Heavy	
14	400264	6	Screw, 3/8-16 x 1-1/4" Hex Head	
15	446142	28	Lockwasher, 3/8 Heavy	
16	443110	28	Nut, 3/8-16 Hex	
17	453011	20	Flat Washer, 3/8	
18	440124	18	Carriage Bolt, 3/8-16 x 1-3/4"	
19	367461	1	Plate, Deck Baffle	
20	400262	2	Screw, 3/8-16 x 1" Hex Head	
21	3002737	1	Shaft, Roller	
22	163425	1	Roller	
23	552824	2	• Bushing	
24	460076	1	Cotter Pin, 1/4 x 3-1/2"	
25	400108	1	Screw, 1/4-20 x 3/4" Hex Head	
26	446130	1	Lockwasher, 1/4 Heavy	
27	443102	1	Nut, 1/4-20 Hex	
28	366562	2	Wheel, Deck	
29	367140	2	Spacer, Wheel	
30	400348	2	Screw, 7/16-14 x 3" Hex Head	
31	453013	2	Flat Washer, 7/16	
32	444753	2	Locknut, 7/16-14 Center	
33	361723	2	Stop, Rubber	
34	471214	2	Grease Fitting, Straight	
35	2720171	2	Caster Arm	
36	363539	2	• Bushing, Caster	
37	400420	4	Screw, 1/2-13 x 3-1/2" Hex Head	
38	453017	8	Flat Washer, 1/2	
39	443118	12	Nut, 1/2-13 Hex	
40	4167200	AR	Shim, 10 GA Motor	
41	4205221	3	Left Cutting Height Bracket	
42	4205223	2	Right Cutting Height Bracket	
43	4205185	2	Support, Deck	
44	440194	8	Carriage Bolt, 1/2-13 x 1-1/2"	

> Change from previous revision

50.1 Wing Deck

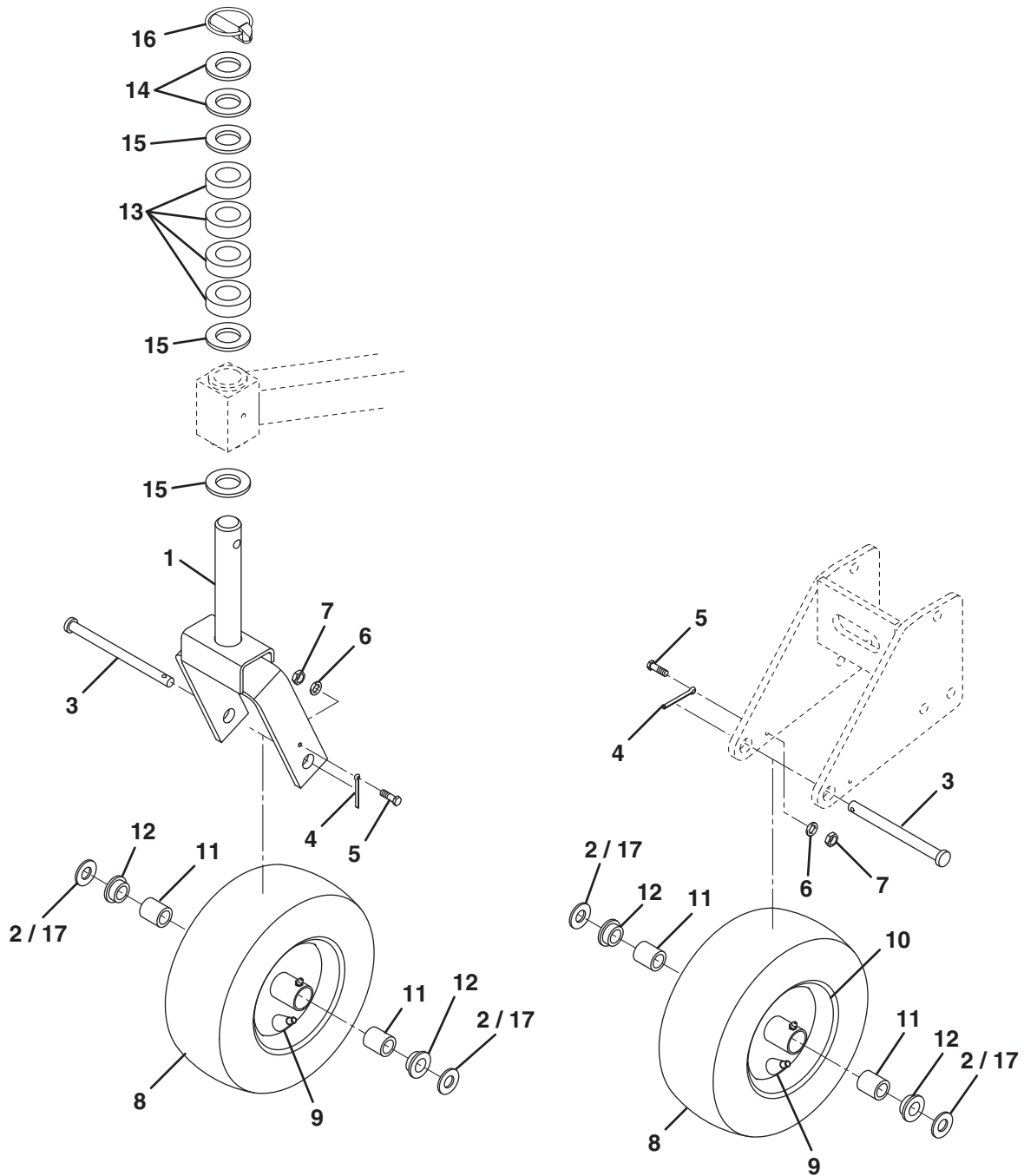
Left Wing Deck Shown (Right Opposite)



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4212600	1	Left Wing Deck	Includes Items 3 and 4
2	4212601	1	Right Wing Deck (Not Shown)	
3	4164381	2	• Decal, Blade Contact Danger	Outside motor on Right Deck
4	3002676	1	• Decal, Cutting Height	
5	2721180	2	Motor, CCW Rotation Deck	
6	557523	1	• Key	
7	4186581	2	Blade, Couter-Clockwise Rotation	
8	2721181	2	Motor, CW Rotation Deck	Inside Motor on Right Deck
9	557523	1	• Key	
10	4186582	2	Blade, Clockwise Rotation	
11	1001885	4	Adapter, Blade	
12	400410	4	Screw, 1/2-13 x 1-3/4" Hex Head	
13	446154	28	Lockwasher, 1/2 Heavy	
14	400264	8	Screw, 3/8-16 x 1-1/4" Hex Head	
15	446142	34	Lockwasher, 3/8 Heavy	
16	443110	34	Nut, 3/8-16 Hex	
17	453011	32	Flat Washer, 3/8	
18	440124	24	Carriage Bolt, 3/8-16 x 1-3/4"	
19	366562	2	Wheel, Deck	
20	367140	2	Spacer, Wheel	
21	400348	2	Screw, 7/16-14 x 3" Hex Head	
22	453013	2	Flat Washer, 7/16	
23	444753	2	Locknut, 7/16-14 Center	
24	361723	2	Stop, Rubber	
25	444762	8	Locknut, 3/8-16 Center	
26	340429	2	Bumper, Deck	
27	441624	8	Carriage Bolt, 3/8-16 x 1"	
28	365991	2	Reflector	
29	403746	4	Screw, #10-24 x 3/4" Hex Head	
30	452002	4	Flat Washer, #110	
31	446116	4	Lockwasher, #10	
32	444310	4	Nut, #10-24 Hex	
33	2720170	2	Arm, Outside Caster	
34	363539	4	• Bushing	
35	2720171	2	Arm, Inside Caster	
36	363539	4	• Bushing	
37	400420	8	Screw, 1/2-13 x 3-1/2" Hex Head	
38	453017	16	Flat Washer, 1/2	
39	443118	24	Nut, 1/2-13 Hex	
40	471214	6	Grease Fitting, Straight	
41	4167200	AR	Shim, 10 GA Motor	
42	4205962	1	Height Adjust Bracket, Left Deck	
43	4205963	1	Height Adjust Bracket, Right Deck	
44	4205964	2	Support, Deck	
45	440194	16	Carriage Bolt, 1/2-13 x 1-1/2"	

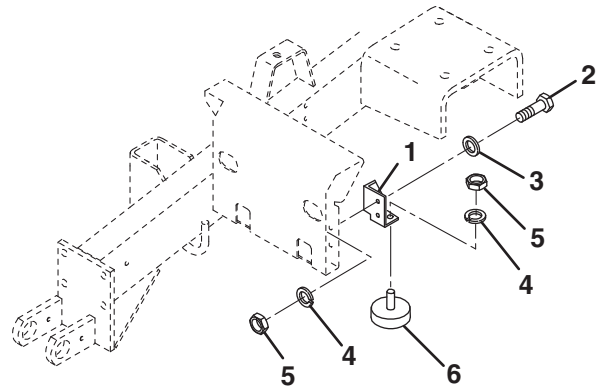
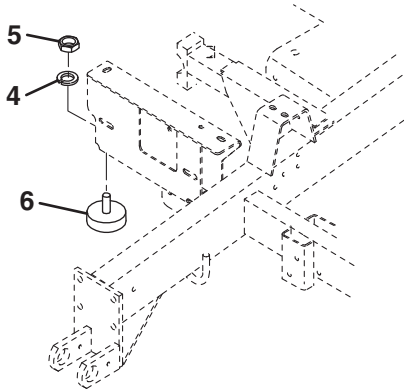
> Change from previous revision

51.1 Caster Wheels



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	131717	8	Yoke, Caster Wheel Spindle	
2	453022	AR	Flat Washer, 3/4 x 1/8 Thick	
3	3003207	10	Shaft, Caster Wheel	
4	460056	10	Cotter Pin, 3/16 x 2"	
5	403578	10	Screw, #10-24 x 1" Hex Head	
6	446118	10	Lockwasher, #10	
7	444310	14	Nut, #10-24 Hex	
	4185640	10	Caster Wheel, 11 x 4 x 5	
8	148049	1	• Tire, 11 x 4 -5NHS 4 Ply	
9	363233	1	• Valve Stem	
10	4185641	1	• Wheel and Bearing	
	4187500	1	• • Kit, Bearing & Bushing	
11	4185642	2	• • • Bearing, 1-3/8" OD Roller	
12	4185643	2	• • • Bushing, 1-3/8" Flanged	
13	365772	32	Spacer, Cutting Height	
14	361648	AR	Washer	
15	366593	24	Spacer, Caster Wheel	
16	3004894	10	Pin, Klick Type	
17	307374	AR	Flat Washer, 3/4 x 5/64 Thick	

> Change from previous revision

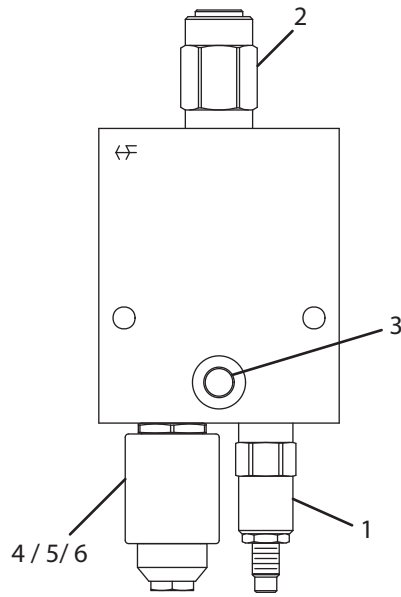


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3003427	1	Bracket, Deck Bumper	
2	400262	2	Screw, 3/8-16 x 1" Hex Head	
3	453011	2	Flat Washer, 3/8	
4	446142	4	Lockwasher, 3/8 Heavy	
5	445806	4	Nut, 3/8-16 Hex Nylock	
6	361723	2	Stop, Rubber	

> Change from previous revision

53.1 Deck Valve

Part Number 4135582

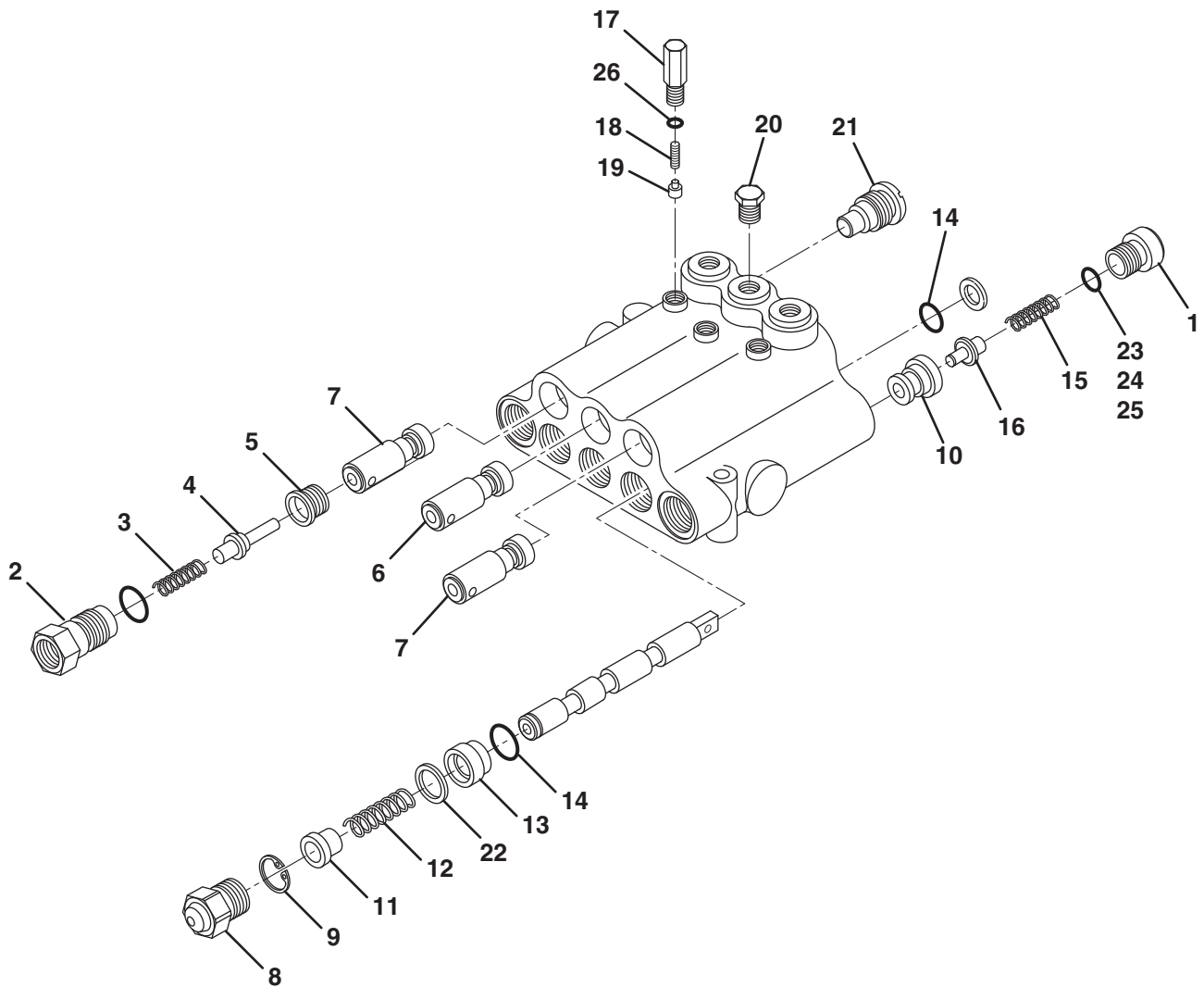


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5002911	1	Relief Valve	REFERENCE K10, K11, K12, See 62.1
	5003579	1	• Seal Kit	
2	5002912	1	Relief Valve	
	5003554	1	• Seal Kit	
3	3010199	1	Plug, SAE #6	
	339897	1	• O-Ring	
4	5002913	1	Solenoid Valve	
	5003579	1	• Seal Kit	
5	4134530	1	Coil, 12 Volt DC	
6	2811269	1	Nut, coil w/o-Rings	

> Change from previous revision

54.1 Lift Valve

Part Number 1001802

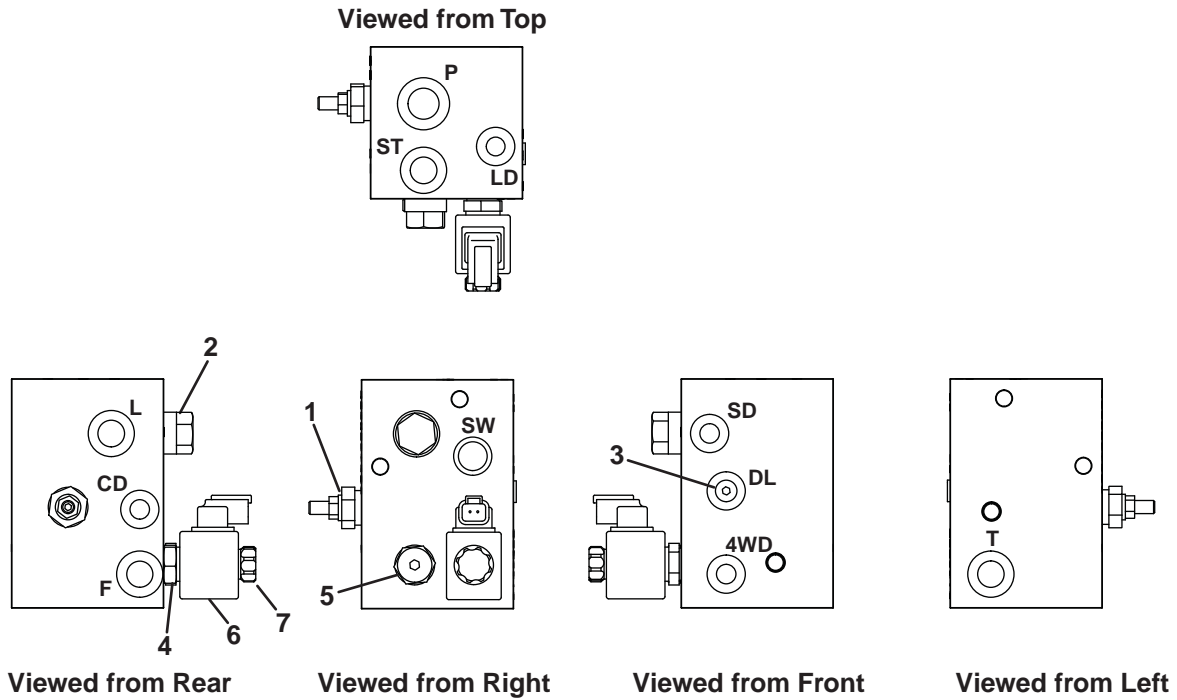


Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	1	558005	1	Plug	
	2	500745	3	Plug	
	3	4113978	3	Spring	
	4	N/S	3	Poppet	
	5	500746	3	Seat	
	6	5001599	1	Plunger	
	7	5001603	2	Plunger	
	8	558004	3	Cap	
	9	558007	3	Retaining Ring	
	10	N/S	1	Seat	
	11	558011	3	Spacer	
	12	5001616	3	Spring	
	1	13	4113979	3	Bushing
14		N/S	6	O-Ring	
15		5001614	1	Spring	
16		5001615	1	Poppet	
		5001612	3	Detent Repair Kit	
17		N/S	1	• Plug, Plunger Detent	
18		N/S	1	• Spring, Detent	
19		N/S	1	• Plunger, Detent	
20		351122	3	Plug	
21		500750	3	Plug	
22	558008	3	Washer		
23	545925	AR	Shim		
24	4113981	AR	Shim		
25	4113982	AR	Shim		
26	546112	AR	Disc		
1	558010	1	Seal Repair Kit		

> Change from previous revision

55.1 Control Valve

Part Number 4174300

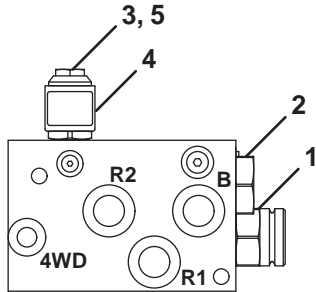


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5003510	1	Relief Valve, 200 psi	REFERENCE K14, See 62.1
	5003579	1	• Seal Kit	
2	556845	1	Flow Control Valve, 4.5 GPM	
	5003579	1	• Seal Kit	
3	3010199	1	Plug	
4	4199500	1	Solenoid Valve, 4WD	
	5003578	1	• Seal Kit	
5	4199520	1	Plug, Cavity	
	4199521	1	• Seal Kit	
6	4134532	1	Coil, 4WD	
7	2811253	1	Nut, Coil	

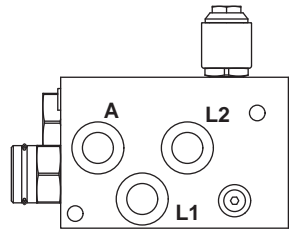
> Change from previous revision

56.1 4WD Valve

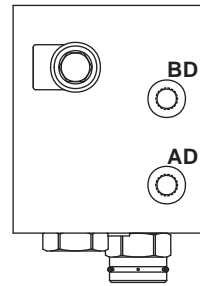
Part Number 4135555



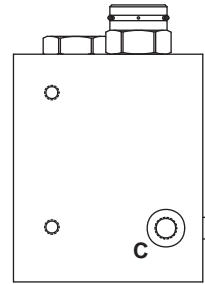
Viewed from Right



Viewed from Left



Viewed from Top



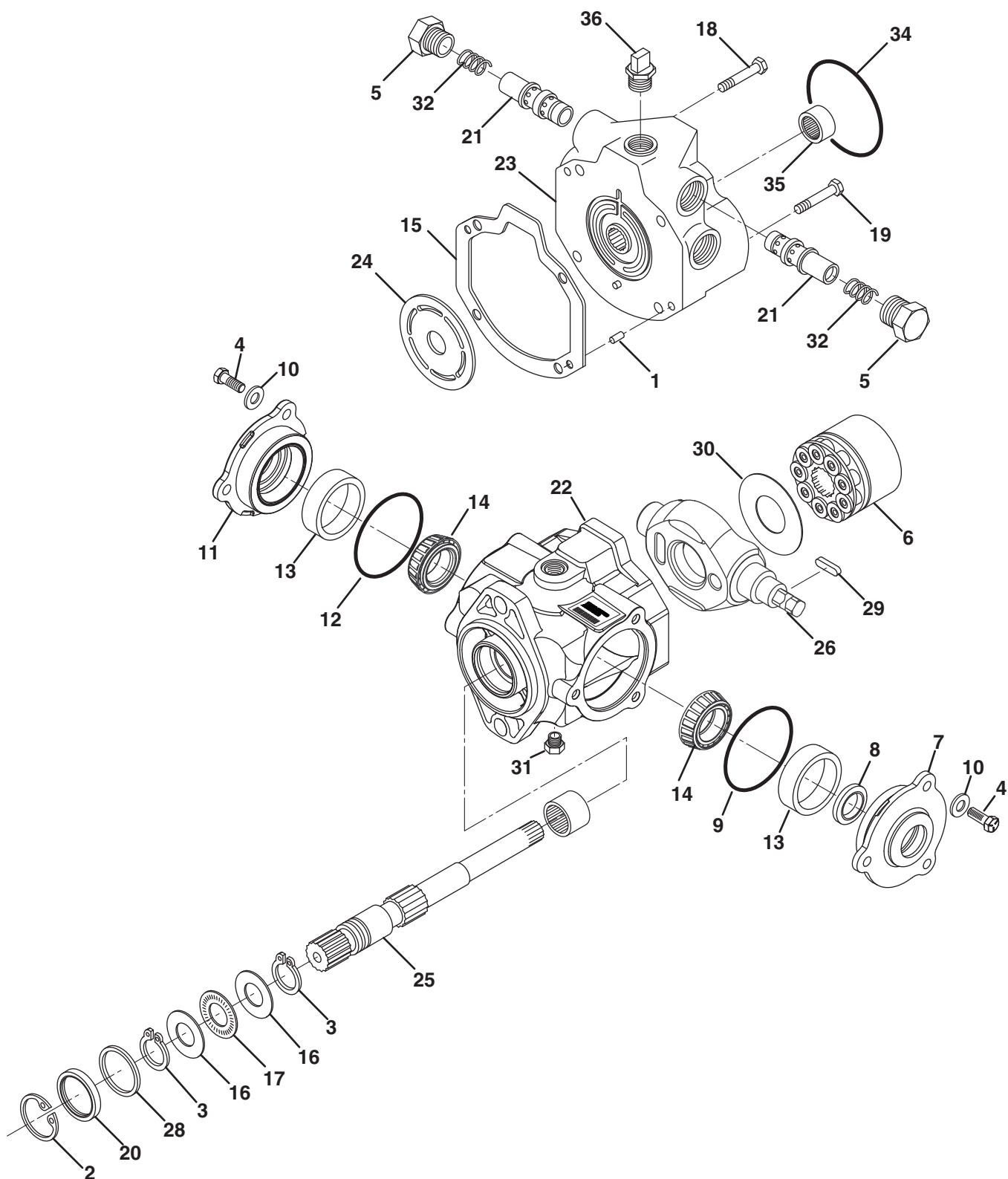
Viewed from Bottom

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	556897	1	Spool Valve	REFERENCE K16, See 62.1
	5003581	1	• Seal Kit	
2	558038	1	Check Valve	
	5003581	1	• Seal Kit	
3	556847	1	Solenoid Valve, 4WD Reverse	
	5003578	1	• Seal Kit, Solenoid Valve	
4	4134532	1	Coil	
5	2811253	1	Nut, Coil	

> Change from previous revision

57.1 Traction Pump

Part Number 4153880



Item	Part No.	Qty.	Description	Serial Numbers/Notes
	1 557454	2	Dowel Pin	
1	2 N/S	1	Retaining Ring	
1	3 N/S	2	Retaining Ring	
	4 4162501	6	Screw, Cap	
	5 557444	2	Plug	
	6 557442	1	Rotating Kit	
	7 4162502	1	Plate, Control Arm Cover	
	8 4162503	1	• Seal, Control Arm Shaft	
1	9 N/S	1	O-Ring	
	10 4162504	6	Washer	
	11 4162505	1	Plate, Cover	
1	12 N/S	1	O-Ring	
	13 4162506	2	Cup, Bearing	
	14 4162508	2	Cone, Bearing	
1	15 N/S	1	Gasket, Housing	
	16 557426	2	Thrust Race	
	17 557425	1	Thrust Bearing	
	18 4162509	2	Screw, Top	
	19 4162510	2	Screw, Bottom	
	20 557656	1	Shaft Seal, Viton	
	21 557445	2	Relief Valve	
	22 N/S	1	Housing	
	23 557440	1	Backplate	
	24 557441	1	Valve Plate	
	25 557433	1	Drive Shaft	
	26 N/S	1	Cam Plate	
	27 4162513	1	O-Ring Molded	Not Shown
	28 557430	1	Washer	
	29 557450	1	Key, Trunnion	
	30 4162514	1	Insert, Camplate	
	31 4162515	1	Plug	
	32 557448	2	Spring	
1	33 N/S	2	O-Ring	Not Shown
	34 557447	1	O-Ring	
	35 338938	1	Coupler	
	36 557666	1	Tow Valve	
1	4162516	1	Seal Kit	

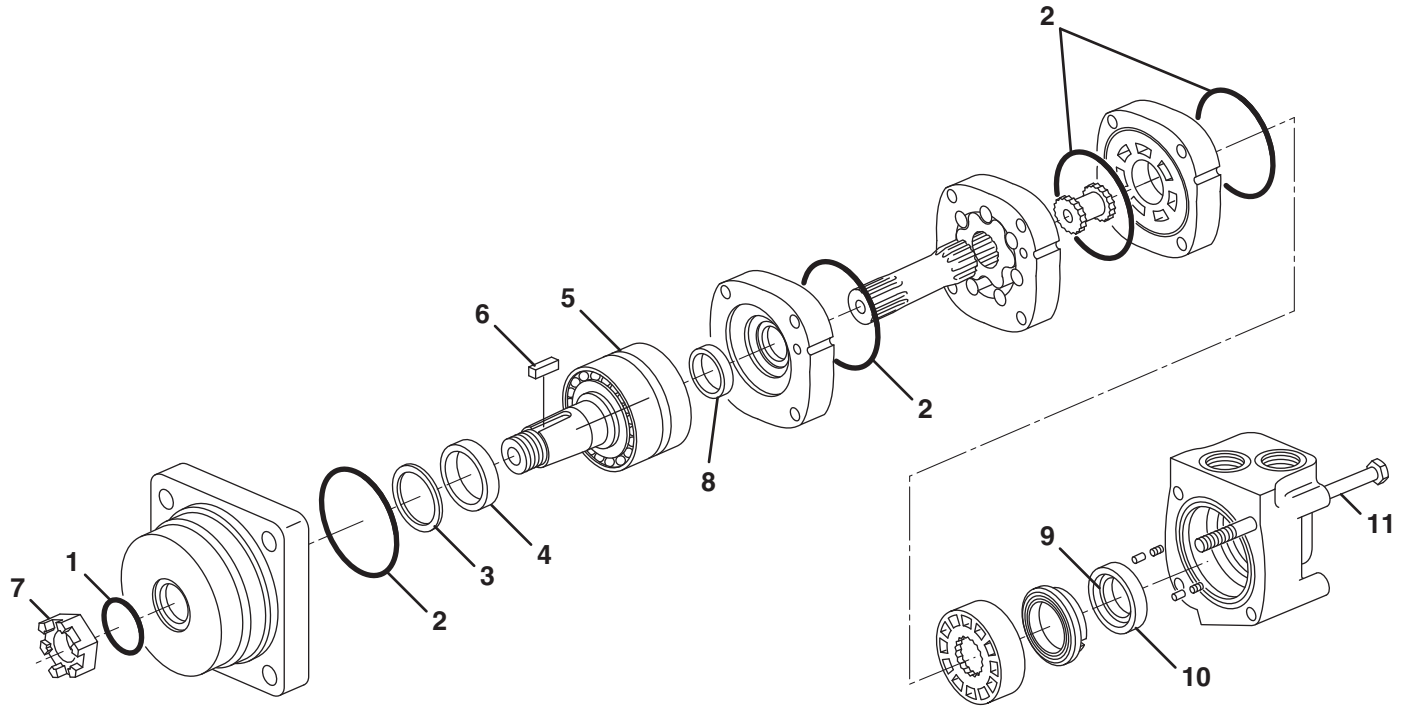
> Change from previous revision

R-311T

58.1 Rear Wheel Motor

Part Number 4178560

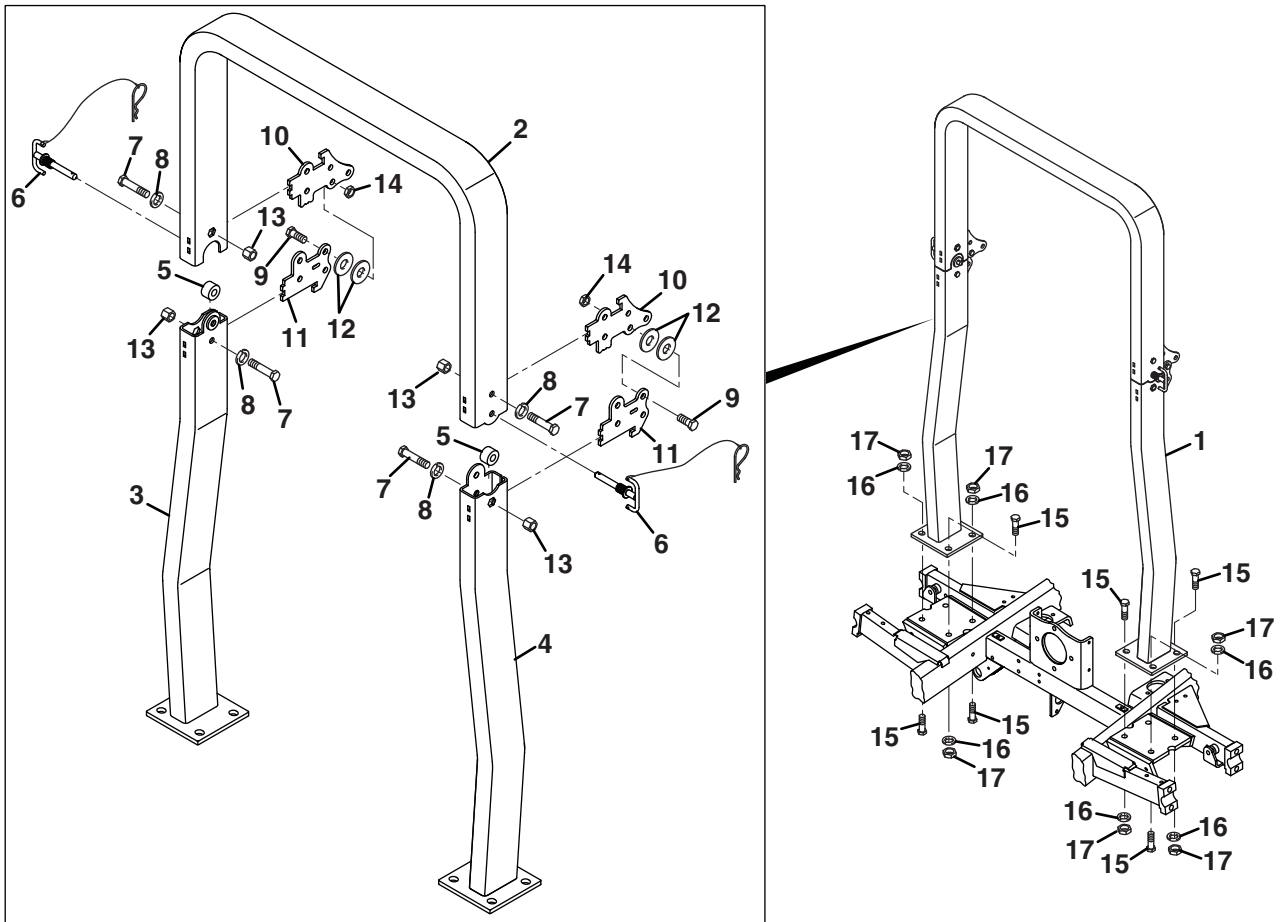
Serial No. All
Serial No. All



Item	Part No.	Qty.	Description	Serial Numbers/Notes
l	1	N/S	1 Seal Exclusion	
l	2	N/S	4 Seal, 3" I.D.	
t	3	N/S	1 Back-Up Ring	
t	4	N/S	1 Shaft Seal	
	5	5003384	1 Shaft and Bearing Kit	
	6	554780	1 Key	
	7	554779	1 Nut	
l	8	N/S	1 Shaft, Face Seal	
l	9	N/S	1 Inner Face Seal	
l	10	N/S	1 Outer Face Seal	
	11	556450	4 Bolt	
l	4178561	1	Rear Seal Kit	
t	4178562	1	Front Seal Kit	

> Change from previous revision

59.1 ROPS

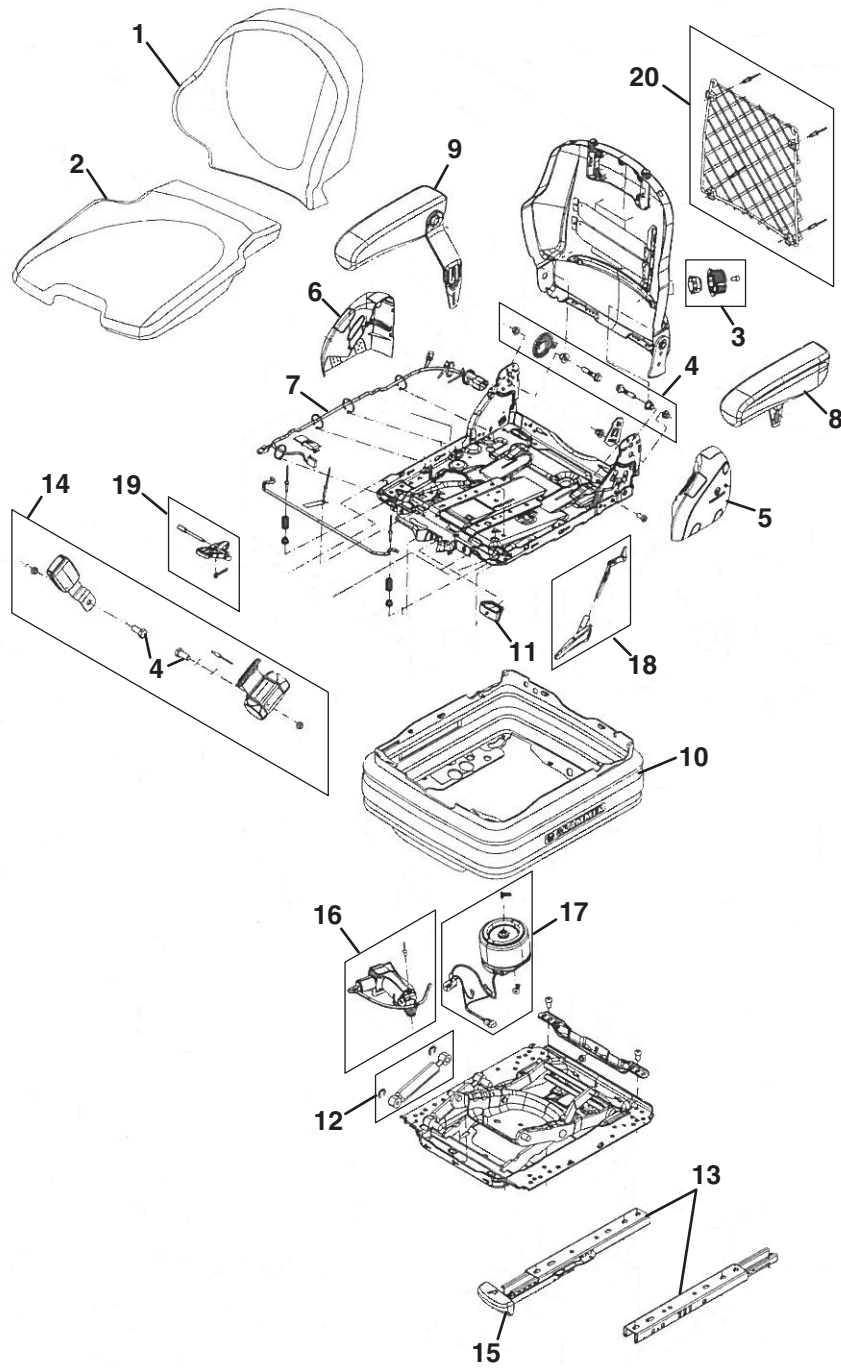


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4179004	1	ROPS	
2	N/S	1	• Upper ROPS	
3	N/S	1	• Right Lower ROPS	
4	N/S	1	• Left Upper ROPS	
5	4193120	2	• Tube, Polyurethane	
6	4192460	2	• Pull Pin Assembly	
7	800788	4	• Screw, 1/2-120x2-1/4" Hex Head	
8	446152	4	• Lockwasher, 1/2	
9	400406	2	• Screw, 1/2-13x1-1/4" Hex Head	
10	N/S	2	• Plate, Upper Hinge	
11	N/S	2	• Plate, Lower Hinge	
12	4193184	4	• Washer	
13	4193200	4	• Nut, 1/2-20 Long Hex	
14	64151-5	2	• Nut	
15	400616	8	Screw, 5/8-11x2" Hex Head	
16	446166	8	Lockwasher, 5/8 Heavy	
17	443126	8	Nut, 5/8-11 Hex	

> Change from previous revision

60.1 Seat

Part Number 4185878

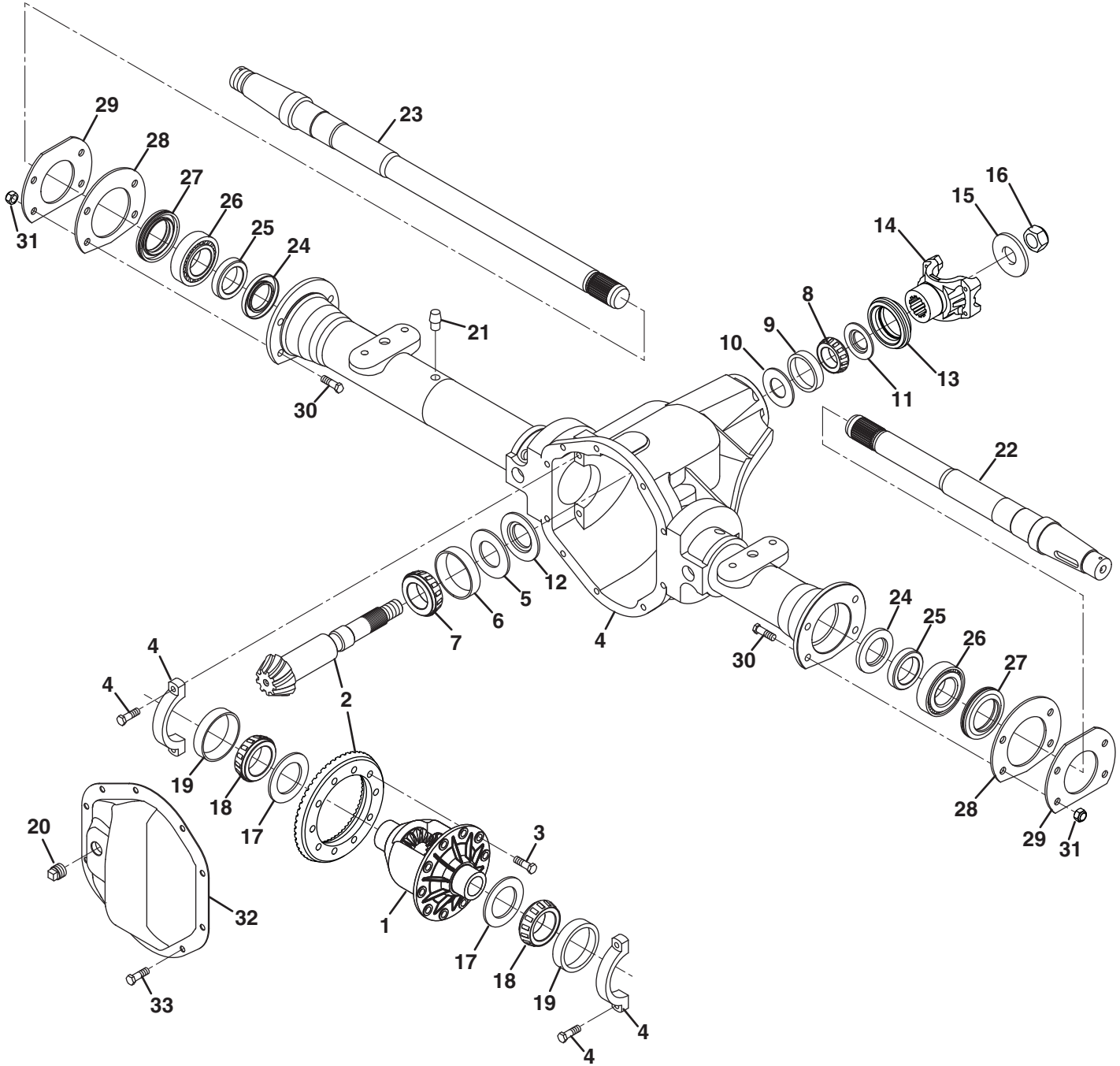


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4200240	1	Backrest Cushion	
2	4200241	1	Seat Cushion	
3	4173562	1	Lumbar Handle Kit	
4	4173563	1	Wear Parts Kit, Backrest Attachment	
5	4200244	1	Cover, Left Side	
6	4200245	1	Cover, Right Side	
7	4173566	1	OPS Switch Kit	
8	4173567	1	Left Side Adjustable Armrest Kit	
9	4173568	1	Right Side Adjustable Armrest Kit	
10	4200249	1	Bellows	
11	4200250	1	Weight Adjust Handle	
12	4173573	1	Shock Absorber Kit	
13	4200251	1	Adjuster Rails	Does not include lever.
14	4173575	1	Seat Belt	
15	4200253	1	Lever Kit, Slide Rail	
16	4200254	1	Compressor, 12V	
17	4200255	1	Air Spring Kit	
18	4173579	1	Backrest Adjustment Kit	
19	4200257	1	Lever, Weight Adjust Kit	
20	4200258	1	Document Net Kit	

> Change from previous revision

61.1 Front Axle

Part Number 4163987

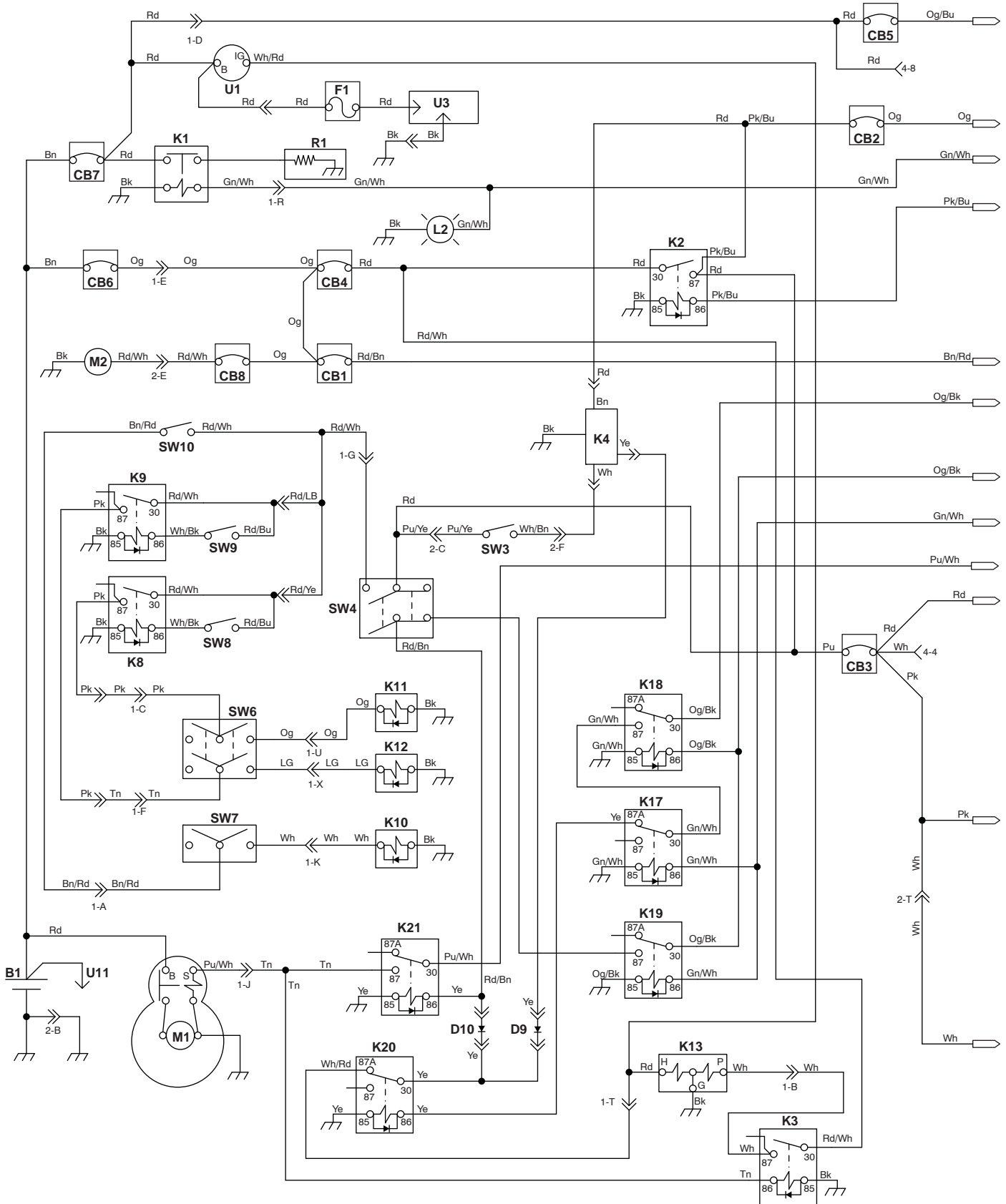


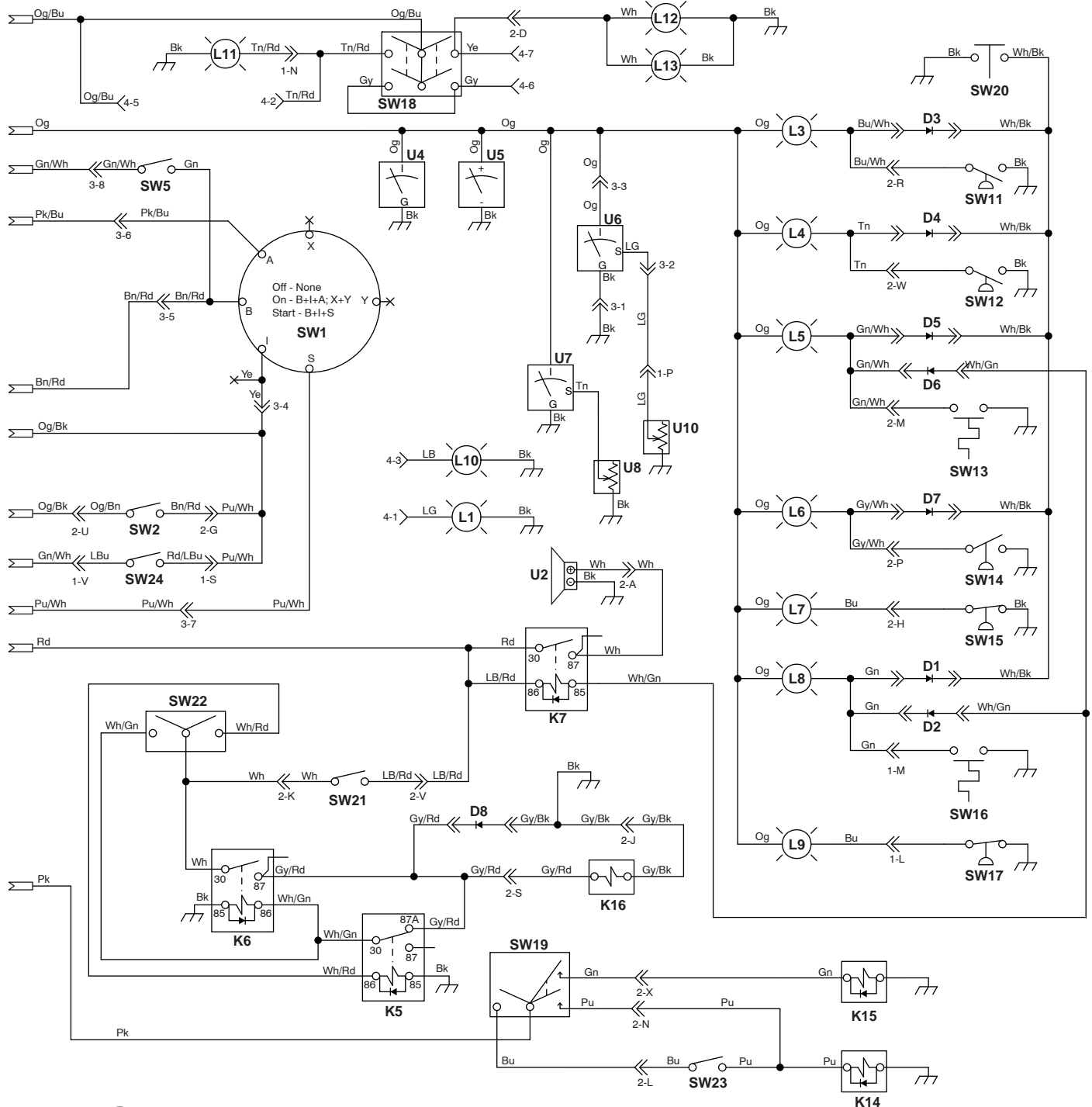
Item	Shim Thickness								
	0.010	0.011	0.012	0.013	0.014	0.015	0.016	0.017	0.018
10	4213621-1	4213621-2	4213621-3	4213621-4	4213621-5	4213621-6	4213621-7	4213621-8	4213621-9

Item	Shim Thickness (Continued)								
	0.019	0.020	0.021	0.022	0.023	0.024	0.025	0.05	
10	4213621-10	4213621-11	4213621-12	4213621-13	4213621-14	4213621-15	4213621-16	4213621-17	

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4201300	1	Case Assembly, Differential (T/L)	Includes bearing caps and screws
2	4201320	1	Gear and Pinion Assembly, Hypoid	
3	4201520	10	Screw, Gear Drive	
4	4220820	1	Carrier Sub Assembly	
5	4201580-1	AR	Shim, 0.003 Thick Adjustment	
5	4201580-2	AR	Shim, 0.005 Thick Adjustment	
5	4201580-3	AR	Shim, 0.010 Thick Adjustment	
6	4201600	1	Bearing Cup, Roller	
7	4201640	1	Bearing Cone, Roller	
8	4201641	1	Bearing Cone, Roller	
9	4201642	1	Bearing Cup, Roller	
10	See Chart	AR	Shim, Adjustment	
11	4201660	1	Slinger, Pinion Oil Seal	
12	4201760	1	Baffle, Pinion Oil	
13	4201762	1	Seal, Oil	
14	4201922	1	End Yoke	
15	4201961	1	Washer, Flat	
16	4202000	1	Nut, Pinion	
17	4202020-1	AR	Shim, 0.003 Thick Adjustment	
17	4202020-2	AR	Shim, 0.005 Thick Adjustment	
17	4202020-3	AR	Shim, 0.010 Thick Adjustment	
17	4202020-4	AR	Shim, 0.030 Thick Adjustment	
18	4202040	2	Bearing Cone, Roller	
19	4202060	2	Bearing Cup, Roller	
20	4203614	1	Plug, Oil Level/Fill	
21	4203615	1	Vent	
22	4203602	1	Left Side Axle Shaft	
23	4203603	1	Right Side Axle Shaft	
24	4203604	2	Inner Shaft Seal	
25	4203605	2	Collar	
26	4203606	2	Bearing	
27	4203607	2	Outer Shaft Seal	
28	4203608	2	Steel Spacer	
29	4203609	2	Plate, Retainer	
30	4203610	4	Screw, Machined	
31	4203611	4	Nut	
32	4203612	1	Cover, Differential	
33	4203613	10	Screw, Differential Cover	

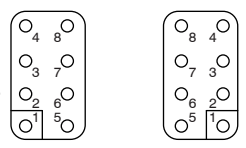
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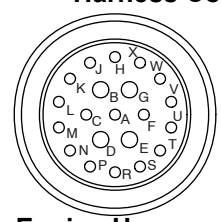


Harness Connectors 3 and 4

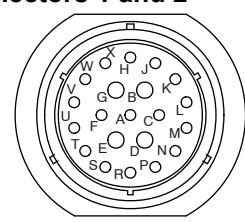
**Ignition Harness
Optional Cab Harness**



Console Harness



**Engine Harness
Mower Harness**

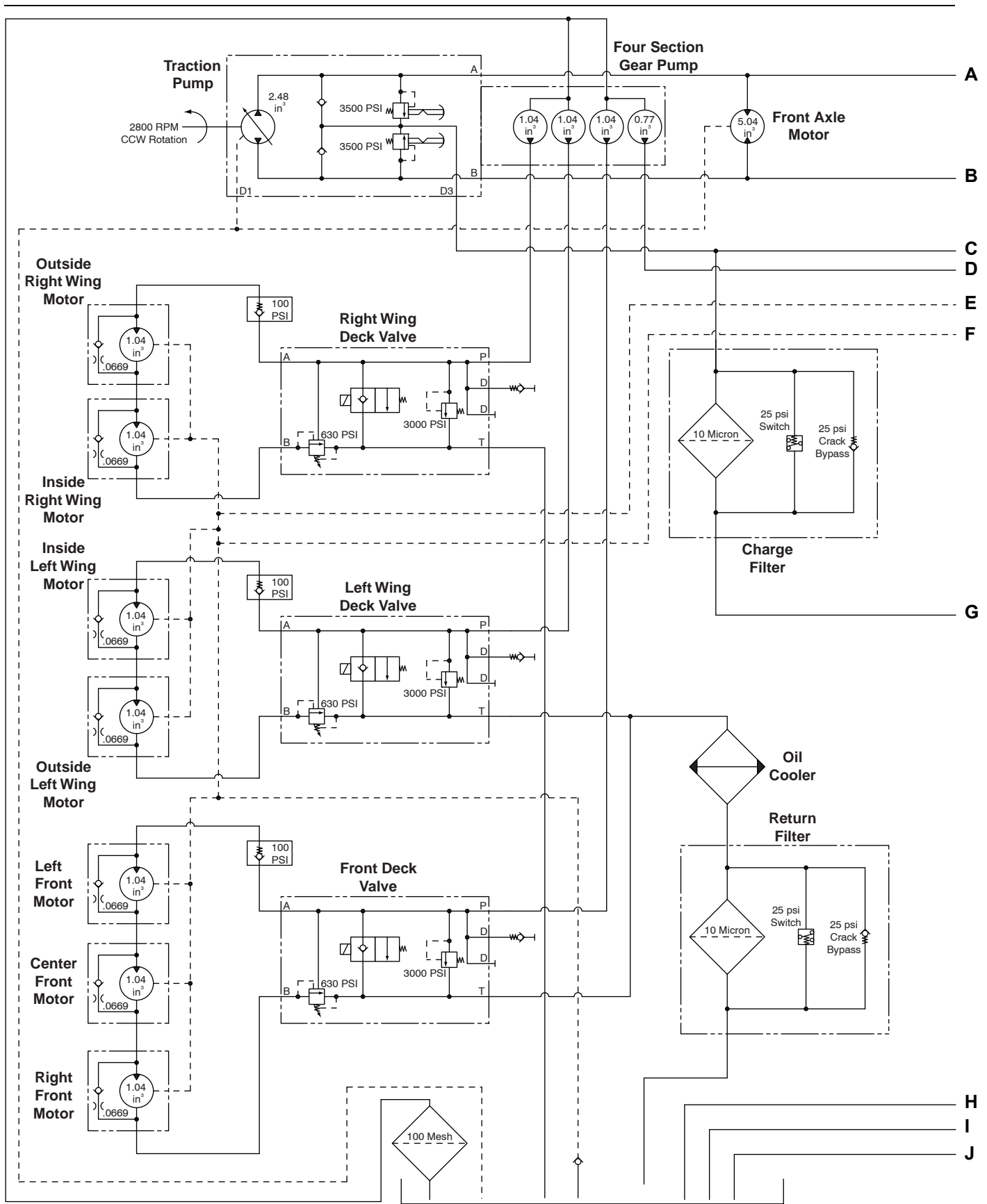


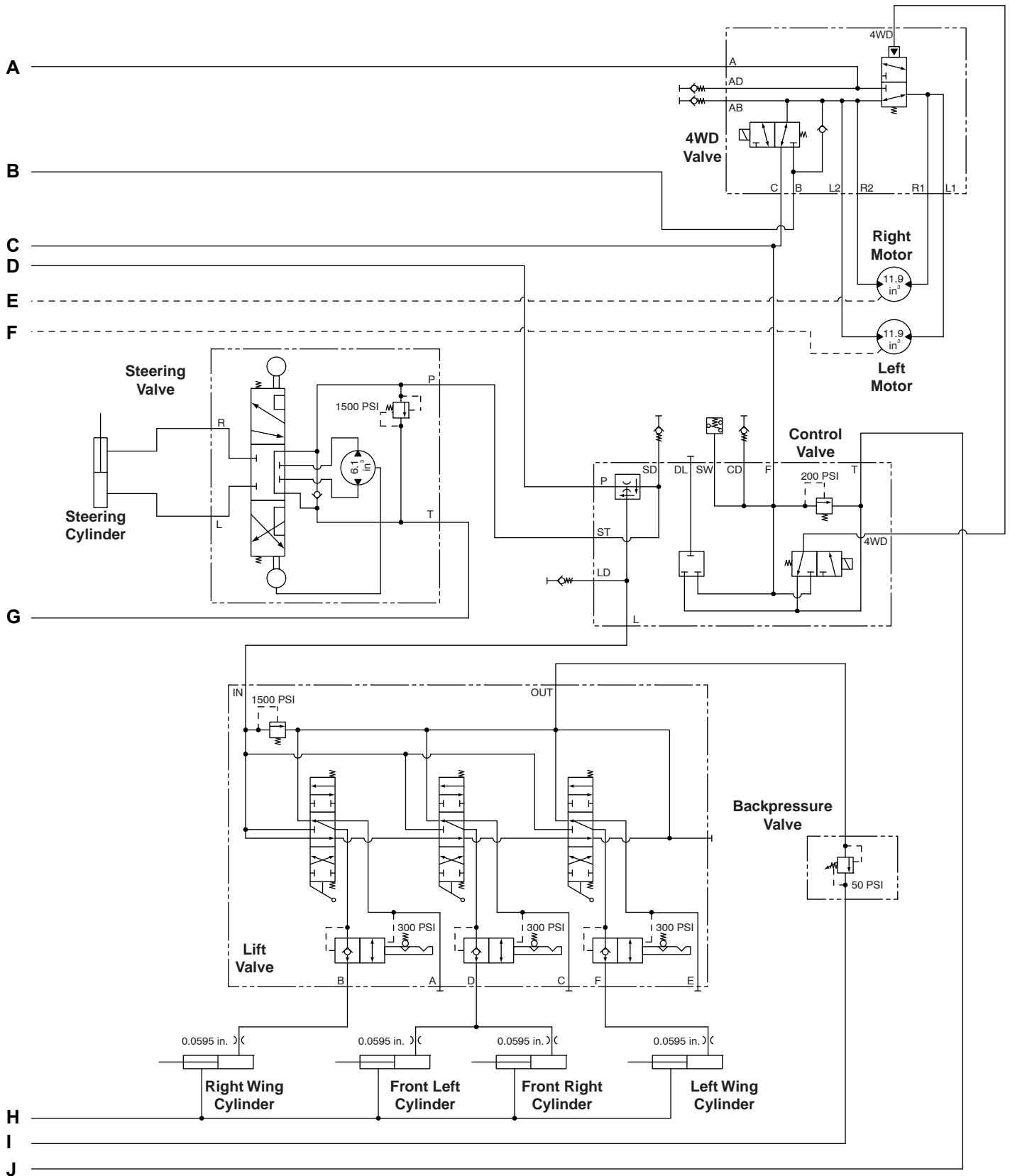
Console Harness

Item	Reference Illustration	Part Number	Description	Serial Numbers/Notes
B1	See 4.1	N/S	Battery	
CB1	See 8.1	338601	10 Amp Circuit Breaker (Interlock)	
CB2	See 8.1	338601	10 Amp Circuit Breaker (Instruments)	
CB3	See 8.1	338601	10 Amp Circuit Breaker (Cruise, 4WD)	
CB4	See 8.1	338558	30 Amp Circuit Breaker (Accessories)	
CB5	See 8.1	338558	30 Amp Circuit Breaker (Lights)	
CB6	See 42.1	361439	50 Amp Circuit Breaker (Main)	
CB7	See 42.1	361439	50 Amp Circuit Breaker (Alternator)	
CB8	See 8.1	338601	10 Amp Circuit Breaker (Air Ride Seat)	
D1	Not Shown	555846	Diode, 3 Amp (Water Temp-Test)	Labled A
D2	Not Shown	555846	Diode, 3 Amp (Water Temp-Horn)	Labled B
D3	Not Shown	555846	Diode, 3 Amp (Air Cleaner-Test)	Labled C
D4	Not Shown	555846	Diode, 3 Amp (Return Filter-Test)	Labled D
D5	Not Shown	555846	Diode, 3 Amp (Oil Temperature-Test)	Labled E
D6	Not Shown	555846	Diode, 3 Amp (Oil Temperature-Horn)	Labled F
D7	Not Shown	555846	Diode, 3 Amp (Charge Filter-Test)	Labled G
D8	Not Shown	555846	Diode, 3 Amp (Cruise Control)	Labled H
D9	Not Shown	555846	Diode, 3 Amp (Fuel Cut-Off, Seat)	Labled J
D10	Not Shown	555846	Diode, 3 Amp (Fuel Cut-Off, Interlock)	Labled K
F1	See 44.1	836892	10 Amp Fuse (Accessory Plug)	Included in Harness 4175664
K1	See 42.1	131905	Glow Plug Solenoid	
K2	See 42.1	365963	Accessory Relay	Labled 6
K3	See 42.1	365963	Fuel Solenoid Relay	Labled 4
K4	See 42.1	3003036	Seat Time Delay Relay	
K5	See 42.1	4193880	Brake Relay	Labled 1
K6	See 42.1	365963	Cruise Control Relay	Labled 2
K7	See 42.1	365963	Horn Relay	Labled 5
K8	See 42.1	365963	Right Wing Limit Switch Relay	
K9	See 42.1	365963	Left Wing Limit Switch Relay	
K10	See 53.1	4134530	Front Deck Valve Coil	Included in Part No. 4135582
K11	See 53.1	4134530	Right Wing Deck Coil	Included in Part No. 4135582
K12	See 53.1	4134530	Left Wing Deck Coil	Included in Part No. 4135581
K13	See 20.1	4134270	Fuel Solenoid	Included in Engine
K14	See 55.1	4134532	4WD Coil	Included in Part No. 4174300
K15	See 56.1	4134532	4WD Reverse Coil	Included in Part No. 4135555
K16	See 12.1	340783	Cruise Control Magnet	
K17	See 42.1	4193880	Neutral Switch Relay	
K18	See 42.1	4193880	Parking Brake Switch Relay	
K19	See 42.1	4193880	Interlock Relay	
K20	See 42.1	4193880	Fuel Cut-Off Relay	
K21	See 42.1	4193880	Starter Relay	
L1	Not Shown	555845	Right Turn Indicator Light	
L2	Not Shown	555845	Glow Plug Active Light	
L3	Not Shown	555845	Air Cleaner Service Light	
L4	Not Shown	555845	Return Filter Service Light	
L5	Not Shown	555845	Hydraulic Oil Temp Warning Light	
L6	Not Shown	555845	Charge Filter Service Light	
L7	Not Shown	555845	Low Charge Pressure Warning Light	


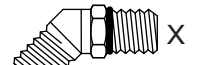

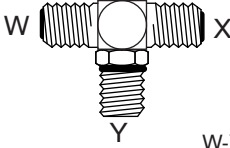
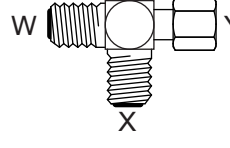
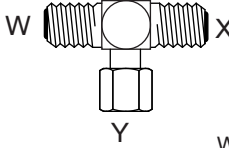
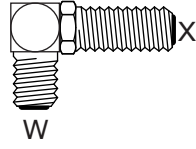
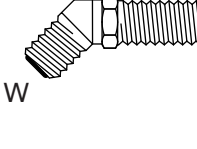
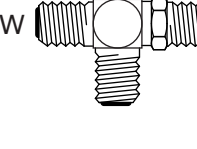

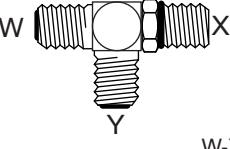
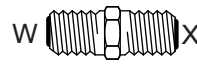
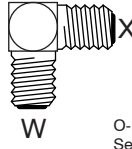
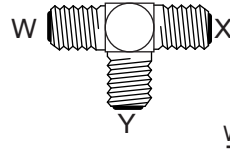
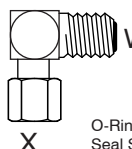
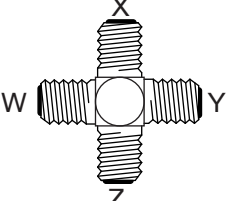

Item	Reference Illustration	Part Number	Description	Serial Numbers/Notes
L8	Not Shown	555845	Water Temp Warning Light	
L9	Not Shown	555845	Low Engine Oil Pressure Warning Light	
L10	Not Shown	555845	Left Turn Light	
L11	Optional		Tail Light	
L12	Optional		Head Light	Included in Kit 69128
L13	Optional		Head Light	Included in Kit 69128
M1	See 20.1	556988	Starter Motor	Included in Engine
M2	Optional		Air Ride Seat	
R1	See 20.1	556996	Glow Plugs	Included in Engine
SW1	See 8.1	5002503	Ignition Switch	
SW2	See 13.1	1000649	Parking Brake Switch	
SW3	See 7.1	4173566	Seat Switch	
SW4	See 8.1	3001372	PTO Switch	
SW5	See 8.1	365043	Glow Plug Switch	
SW6	See 8.1	3001374	Wing Mower Switch	
SW7	See 8.1	3001373	Front Mower Switch	
SW8	See 47.1	4125831	Right Wing Deck Limit Switch	
SW9	See 47.1	4125831	Left Wing Deck Limit Switch	
SW10	See 45.1	3001079	Front Deck Limit Switch	
SW11	See 18.1	364883	Air Cleaner Service Switch	
SW12	See 25.1	365974	Return Filter Service Switch	
SW13	See 26.1	367551	Hydraulic Oil Temperature Switch	
SW14	See 25.1	556419	Charge Filter Service Switch	
SW15	See 27.1	132380	Charge Pressure Switch	
SW16	See 20.1	367551	Water Temperature Switch	
SW17	See 20.1	554018	Oil Pressure Switch	Included in Engine
SW18	Optional	3001374	Light Switch	Included in 69129 and Kit 69128
SW19	See 8.1	3001370	4WD Switch	
SW20	See 17.1	162739	Horn / Warning Light Test Switch	
SW21	See 13.1	1000649	Brake Pedal Switch	
SW22	See 8.1	3001371	Cruise Control Switch	
SW23	See 11.1	1000649	Reverse Sensing Switch	
SW24	See 11.1	4140149	Neutral Start Switch	
U1	See 20.1	5000938	Alternator (Standard)	Included in Engine
U2	See 17.1	5000917	Horn	
U3	See 44.1	843942	Accessory Plug	Included in Harness 4175664
U4	See 8.1	162721	Volt Meter	
U5	See 8.1	162723	Hour Meter	
U6	See 8.1	3005121	Temperature Gauge	
U7	See 8.1	365943	Fuel Gauge	
U8	See 24.1	163986	Fuel Sender	
U9	See 24.1	4132489	Fuel Pump	
U10	See 20.1	364501	Temperature Sender	
U11	See 4.1	4208040	Remote Positive Battery Terminal	

63.1 Hydraulic Schematic





64.1 O-Ring Chart



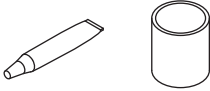
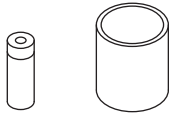

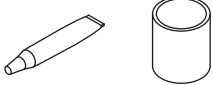

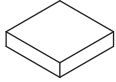
 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X</p> <p>O-Ring Boss <input type="checkbox"/> Dash Size</p>	 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X</p> <p>O-Ring Boss <input type="checkbox"/> Dash Size</p>	 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X</p> <p>O-Ring Boss <input type="checkbox"/> Dash Size</p>
 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X-Y</p> <p>O-Ring Boss <input type="checkbox"/> Dash Size</p> <p>O-Ring Face <input type="checkbox"/> Seal Size</p>	 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X-Y</p> <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>O-Ring Notch <input type="checkbox"/> Needed</p>	 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X-Y</p> <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>O-Ring Notch <input type="checkbox"/> Needed</p>
 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X</p> <p>O-Ring Face <input type="checkbox"/> Seal Size</p>	 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X</p> <p>O-Ring Face <input type="checkbox"/> Seal Size</p>	 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X-Y</p> <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>O-Ring Face <input type="checkbox"/> Seal Size</p>
 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X</p> <p>O-Ring Face <input type="checkbox"/> Seal Size</p>	 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X-Y</p> <p>O-Ring Boss <input type="checkbox"/> Seal Size</p> <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>Dash Size</p>	 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X</p> <p>O-Ring Face <input type="checkbox"/> Seal Size</p>
 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X</p> <p>O-Ring Face <input type="checkbox"/> Seal Size</p>	 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X-Y</p> <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>O-Ring Face <input type="checkbox"/> Seal Size</p>	 <p>O-Ring Face <input type="checkbox"/> Seal Size</p> <p>W-X</p> <p>O-Ring Notch <input type="checkbox"/> Needed</p>
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Adapter Part Number.	Dash Size	Adapter Type	(W) O-Ring	(X) O-Ring	(Y) O-Ring	(Z) O-Ring
339979	6-6	Straight Adapter	339909	339897		
339983	8-6	Straight Adapter	339910	339897		
339984	8-8	Straight Adapter	339910	339898		
339989	10-10	Straight Adapter	339911	339899		
340003	6-6	Straight Adapter	339906	339897		
340029	8-8	45° Adapter	339910	339898		
340033	10-10	45° Adapter	339911	339899		
340061	6-6	90° Adapter	339909	339897		
340065	8-6	90° Adapter	339910	339897		
340066	8-8	90° Adapter	339910	339898		
340070	10-10	90° Adapter	339911	339899		
340074	12-12	90° Adapter	339912	339900		
340077	16-16	90° Adapter	339913	339901		
340078	6-6	90° Adapter	339909	339897		
340089	16-20	90° Adapter	339913	339902		
340119	6-6-6	Swivel Run Tee	339909	339909		
340120	8-8-8	Swivel Run Tee	339910	339910		
340144	8-8-8	Swivel Branch Tee	339910	339910		
340215	6-6-6	Bulkhead Run Tee	339909	339909	339909	
340263	6-6-6	Straight Thread Run Tee	339909	339897	339909	
340269	10-12-12	Straight Thread Run Tee	339911	339899	339912	

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	13/16-12	339912
8	3/4-16	339898	16	17/16-12	339913
10	7/8-14	339899	20	1 11/16-12	339914
12	1 1/16-12	339900	24	2-12	339915
14	13/16-12	459296			
16	15/16-12	339901			
20	15/8-12	339902			
24	17/8-12	339903			
32	2 1/2-12	339904			

> Change from previous revision

Fluids and Compounds

Hydraulic Fluid*		
5001405	Two 2-1/2 Gallon Container of ISO VG68 Oil	
5001404	One 5 Gallon Pail of ISO VG68 Oil	
2500548	Two 2-1/2 Gallon Container of 10W30 Oil	
2500546	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	
2-Cycle Oil		
554600	Twenty Four 16 Ounce Plastic Container	
554599	Twenty Four 8 Ounce Plastic Container	
Grease		
5000067	One 5 Gallon Pail OO-Grease	
5000068	Twenty Four 8 Ounce Tube OO-Grease	
Paint		
5003469	16 Ounce Gray Aerosol	
554598	Six 12 Ounce Orange Aerosol	
2500789	Twelve 1 Quart Can Orange	
546409	Two 1 Gallon Can Orange	
Lapping Compound		
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	
Specialty Compound		
365422	5.3 Ounce Tube of Electrical Insulating Gel	
5001581	14 Ounce Can of Lubriplate Multi Lube A	
Biodegradable Hydraulic Fluid*		
5003102	One 55 Gallon Drum TGTSP GreensCare 68	
5003103	One 5 Gallon Pail TGTSP GreensCare 68	
5003105	One 55 Gallon Drum TGTSP GreensCare 46	
5003104	One 5 Gallon Pail TGTSP GreensCare 46	
4115976	One 55 Gallon Drum TGTSP GreensCare 32	
4115977	One 5 Gallon Pail TGTSP GreensCare 32	
5003106	Twenty Four 14 Ounce Tube Greens Care Grease	
O-Ring Kit		
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)	
Right Start Kit for New Machines		
See your local TGTSP Dealer		
On-Time Maintenance Kit		
See your local TGTSP Dealer		

* Refer to the Parts & Maintenance manual for the correct hydraulic oil requirements for your machine.

Textron Golf, Turf & Specialty Products offers a High Usage Parts Catalog illustrating commonly used Parts through easy to read line Drawings. See your local TGTSP Dealer for a copy.

INDEX

100050.....	75	132647.....	77	3001371.....	49	326112....	67, 69, 86, 93
1000588.....	49	132864.....	92	3001372.....	49	326731.....	51
1000649.....	53, 57	148049.....	119	3001373.....	49	337229.....	67
1000700.....	85, 91	148081.....	77	3001374.....	49	338558.....	49
1000843.....	85	161688.....	67	3001386.....	49	338601.....	49
1001311.....	77	162236.....	75	3001409.....	81	338938.....	83, 127
1001802.....	50	162479.....	69	3001523.....	83, 91	338946.....	86
1001885.....	115, 117	162716.....	113	3002195.....	67	338991.....	71
1001963.....	105	162721.....	49	3002397.....	81	339092.....	63
1002475.....	83	162723.....	49	3002565.....	35	339113.....	86
1003104.....	86	162739.....	65	3002676.....	115, 117	339897.....	121
1003105.....	87	163425.....	115	3002695.....	53, 57	339903.....	86
1003133.....	97	163915.....	81	3002737.....	115	339960.....	91
1003134.....	96	163916.....	71	3003036.....	101	339961.....	90
1003136.....	97	163917.....	93	3003207.....	119	339979.....	89
1003137.....	97	163927.....	61	3003427.....	120	339984.....	88, 89, 92
1003138.....	91, 96, 97	163986.....	77	3003474.....	53	339988.....	95, 96, 97
1003584.....	95	163987.....	77	3003475.....	53, 57	339989... 85, 86, 87, 95,	
1003595.....	90	163995.....	113	3004563.....	67	96, 97	
1004686.....	43	2000057.....	63	3004588.....	67	339999.....	93
123015.....	79	2242015.....	109	3004894.....	119	340003.....	89
123222.....	89	2242036.....	41	3005121.....	49	340029.....	92
131717.....	119	2242037.....	41	3005677.....	111	340033.....	85, 87
131905.....	101	2243002.....	55	3005678.....	111	340055.....	91
132380.....	83	2246003.....	113	3006296.....	69	340061.... 87, 88, 90, 92	
132381.....	79	2248004.....	109	3006300.....	113	340065.....	85, 86, 87
132417.....	85	2500175.....	55	3006327.....	57	340066.....	89, 92, 94
132431.....	79	2500257.....	55	3007095.....	55	340070... 85, 86, 93, 95,	
132432.....	79	2720170.....	117	3007230.....	53	96, 97	
132446.....	85	2720171.....	115, 117	3007568.....	109	340074.....	85
132447.....	87	2720206.....	107	3007787.....	71	340077.....	93
132448.....	85	2720207.....	107	3007941.....	57	340078.....	89
132471.....	50	2720298.....	63, 109	3007942.....	57	340088.....	89
132472.....	50	2720313.....	63	3007980.....	79	340089.....	93
132473.....	50	2720559.....	93	3008004.....	35	340119.....	89
132484.....	85	2720726.....	103	3008126.....	79	340120.....	92
132523.....	65	2720841.....	63	3008521.....	35	340144.....	92
132540.....	92	2721180.....	115, 117	3008792.....	99	340215.....	90
132561.....	91	2721181.....	115, 117	3008793.....	99	340263.....	90
132562.....	95	2721522.....	83	3009153.....	51	340269.....	85
132563.....	95	2721523.....	83	3009193.....	53	340429.....	117
132568.....	90	2811253.....	124, 125	3009269.....	71	340433.....	113
132569.....	90	2811255.....	79	3010125.....	107	340481.....	77
132571.....	89	2811269.....	121	3010199.....	121, 124	340525.....	111
132573.....	89	2811364.....	65	3010489.....	63	340783.....	55
132575.....	96	2811365.....	65	303567.....	79	340795.....	39
132576.....	96	2811547.....	65	304718.....	55	342033.....	107
132579.....	94	2812075.....	81	307374.....	119	345666.....	99
132580.....	94	3000098.....	75	308087.....	43	345671.....	101, 103
132583.....	90	3000439.....	113	308404.....	111	346091.....	107, 109
132591.....	95	3000487.....	113	315298.....	63	346294.....	113
132594.....	96, 97	3000593.....	55	319212.....	61	346913.....	113
132595.....	96, 97	3000594.....	55	320107.....	43	350685.....	79
132596.....	96, 97	3001078.....	107	322847.....	63	351108.....	94
132600.....	113	3001079.....	107	324887.....	111	351109.....	94
132601.....	111	3001370.....	49	324943.....	91	351122.....	123

INDEX

351124	90, 94	365959	81	400118	101, 103	403578	119
352604	77	365963	101	400120	65, 111	403745	43
352726	57	365966	91	400124	50, 67	403746	53, 117
353914	61	365974	79	400128	50	403759	101
354065	94	365979	73	400146	53	403760	45
357613	94	365980	103	400184	45, 65, 67, 79, 107, 109, 111	403770	47, 57
358794	43, 55, 73, 83, 111	365981	73	400186	47, 57	403860	57
358795	55	365991	117	400188	37, 41, 43, 53, 71, 75, 77, 99, 107, 109	403908	101
358949	94	366045	107	400190	57, 73, 103	403910	77, 101
359186	91, 96, 97	366133	50	400192	65, 79	403912	37
359549	107	366150	50	400204	99	404014	67
359615	67	366292	61	400210	99	404016	65, 101
359860	99	366310	63	400216	65	404022	37, 65
359949	55	366317	55	400228	63	404072	41, 43
360111	61, 63	366352	67	400258	65, 67, 71, 79, 83	408851	45
360566	91	366368	67	400260	83	409812	53
360885	51	366369	67	400262	41, 67, 79, 83, 115, 120	4100460	57
360893	55	366403	67	400264	41, 45, 59, 61, 69, 71, 77, 81, 111, 115, 117	4108161	57
361117	77	366424	79	400266	61	4113644	71
361439	101	366430	92	400268	61, 79, 81	4113978	123
361451	63	366437	90, 107	400272	51, 53, 69, 109, 111	4113979	123
361647	63	366437.7	109	400274	83	4113981	123
361648	63, 119	366445	95, 96, 97	400276	37, 55, 59, 67, 73	4113982	123
361723	47, 109, 115, 117, 120	366473	107	400278	79, 83	4113986	71
361748	77	366483	109	400280	107, 111	4116048	53
361833	50	366484	113	400286	37, 79, 99	4117468	35
362263	71, 73	366506	109	400348	115, 117	4120976	67
362288	95, 96, 97	366517	109	400406	129	4121825	63
362464	113	366520	113	400408	37	4121826	63
362744	57	366522	50	400410	59, 63, 83, 115, 117	4121827	63
362819	55	366562	115, 117	400411	59	4121828	63
362824	109	366566	111	400412	59, 83	4121829	63
363030	85, 86, 87	366593	119	400420	83, 115, 117	4121946	63
363233	119	366607	99	400422	111	4121986	63
363485	71, 73	366608	35	400476	83	4124204	63
363539	115, 117	366609	115	400616	129	4125831	111
363586	75	366610	107	400650	109	4128084	67
363771	55	366611	107	401220	43	4131299	43, 105
363962	49	366612	107	401225	83	4131768	111
363995	35, 69	366613	107	401226	63	4132489	77, 101
364190	67, 99	366866	35	402006	67	4133238	69
364248	109	366877	53	402066	53	4133239	69
364501	71	366929	111	402118	109	4133240	69
364694	107	366932	49	402120	81, 101	4133241	69
364774	49	367031	73	402122	63	4133242	69
364830	61, 109	367140	115, 117	402125	83	4133243	69
364883	67	367350	63	402126	63	4133252	69
364945	85, 86, 87	367456	55	402006	67	4133818	67
364970	55	367457	55	402066	53	4133820	67
365043	49	367461	115	402118	109	4133821	67
365466	86	367465	65	402120	81, 101	4134270	71
365566	71	367551	71, 81	402132	107	4134320	71
365772	119	367601	113	402230	39	4134530	121
365943	49	400108	74, 101, 115			4134532	124, 125
		400110	51			4134825	59
		400116	99			4135555	83, 85

INDEX

4135582.....	83	4175121.....	79	4188780.....	37	4199520.....	124
4137099.....	69	4175664.....	43, 105	4189000.....	39	4199521.....	124
4137138.....	107	4177920.....	51, 74	4189001.....	39	4199600.....	71
4137139.....	63	4178004.....	51	4189002.....	39	4200143.....	79
4138341.....	83	4178400.....	83	4189003.....	39	4200220.....	83
4138342.....	83	4178401.....	83	4189004.....	39	4200240.....	131
4138510.....	63	4178560.....	63, 85	4189005.....	39	4200241.....	131
4138589.....	109	4178561.....	128	4189006.....	39	4200244.....	131
4140149.....	53	4178562.....	128	4189007.....	39	4200245.....	131
4148897.....	93	4179004.....	129	4189008.....	39	4200249.....	131
4148898.....	86	4179761.....	86	4189009.....	37	4200250.....	131
4148899.....	86	4181262.....	77	4189080.....	88	4200251.....	131
4153880.....	83, 85	4181861.....	35	4190020.....	67	4200253.....	131
4155081.....	111	4181862.....	35, 69	4190242.....	61	4200254.....	131
4155082.....	111	4181863.....	35	4192000.....	35, 65	4200255.....	131
4155085.....	105	4181864.....	35	4192160.....	47	4200257.....	131
4157000.....	109	4181865.....	35, 47	4192360.....	91, 95	4200258.....	131
4158183.....	55	4182025.....	37	4192362.....	95	4200260.....	83
4158187.....	55	4182386.....	35, 65	4192440.....	93	4200280.....	83
4162501.....	127	4182460.....	69	4192460.....	129	4200540.....	43
4162502.....	127	4182720.....	53	4193120.....	129	4201080.....	39
4162503.....	127	4183001.....	55	4193184.....	129	4201100.....	39
4162504.....	127	4183260.....	57	4193200.....	129	4201161.....	105
4162505.....	127	4183261.....	57	4193300.....	90	4201300.....	133
4162506.....	127	4183635.....	69	4193301.....	89	4201320.....	133
4162508.....	127	4183720.....	53	4193340.....	49	4201520.....	133
4162509.....	127	4184622.....	65	4193341.....	47	4201580-1.....	133
4162510.....	127	4184641.....	107	4193342.....	67	4201580-2.....	133
4162513.....	127	4185325.....	65	4193344.....	47	4201580-3.....	133
4162514.....	127	4185401.....	88	4193880.....	101	4201600.....	133
4162515.....	127	4185640.....	119	4194260.....	35	4201640.....	133
4162516.....	127	4185641.....	119	4194660.....	43	4201641.....	133
4164381.....	35, 69, 115, 117	4185642.....	119	4195621.....	93	4201642.....	133
4167200.....	115, 117	4185643.....	119	4195783.....	37	4201660.....	133
4167640.....	103	4185860.....	47	4195920.....	45	4201700.....	61
4168044.....	45	4185864.....	45	4196223.....	37	4201701.....	61
416911.....	65	4185868.....	47	4196341.....	69	4201760.....	133
4170760.....	35, 49	4185870.....	47	4196741.....	71	4201762.....	133
4170780.....	83, 85	4185871.....	47	4196780.....	75	4201840.....	65
4172600.....	59	4185872.....	47	4196900.....	75	4201920.....	95, 96, 97
4172601.....	59	4185873.....	47	4197221.....	83	4201921.....	95, 96, 97
4172944.....	51	4185874.....	47	4197282.....	37	4201922.....	133
4173200.....	94	4185875.....	47	4197420.....	37	4201961.....	133
4173220.....	94	4185878.....	47	4197560.....	90	4202000.....	133
4173221.....	94	4185902.....	53, 57	4197640.....	69	4202020-1.....	133
4173300.....	83	4185903.....	45	4197702.....	109	4202020-2.....	133
4173562.....	131	4185927.....	47	4197880.....	65	4202020-3.....	133
4173563.....	131	4186141.....	45	4197940.....	65	4202020-4.....	133
4173566.....	47, 131	4186441.....	69	4198581.....	47	4202040.....	133
4173567.....	131	4186581.....	115, 117	4198820.....	77	4202060.....	133
4173568.....	131	4186582.....	115, 117	4198920.....	61, 107	4202120.....	95, 96, 97
4173573.....	131	4187500.....	119	4199140.....	35, 67	4202340.....	95, 96, 97
4173575.....	131	4187680.....	35, 39	4199160.....	35	4202380.....	81
4173579.....	131	4187681.....	35, 39	4199221.....	69	4203220.....	47
4174300.....	83	4188043.....	89	4199222.....	93	4203240.....	69
		4188620.....	94	4199500.....	124	4203422.....	107

INDEX

4203443.....	79	4211460.....	35, 39	4225664.....	59	444849.....	65
4203444.....	79	4211620.....	103	4227140.....	101	444850.....	51
4203520.....	83	4211640.....	105	4227180.....	45	445278.....	45
4203602.....	133	4211760.....	65	4227420.....	69	445642.....	61
4203603.....	133	4212040.....	43	4227440.....	69	445672.....	63
4203604.....	133	4212423.....	37	4227441.....	67	445781.....	41, 53, 57
4203605.....	133	4212580.....	115	4227460.....	81	445783.....	51
4203606.....	133	4212600.....	117	4230361.....	69	445785.....	55
4203607.....	133	4212601.....	117	4230632.....	69	445795.....	45, 47, 73
4203608.....	133	4212741.....	61	4232041.....	103	445796.....	53
4203609.....	133	4212780.....	59, 61	4232920.....	88	445800.....	51
4203610.....	133	4212820.....	37	440052.....	37	445802.....	113
4203611.....	133	4213261.....	59	440116.....	51	445806.....	37, 67, 79, 111, 120
4203612.....	133	4213262.....	57	440124.....	115, 117	446102.....	111
4203613.....	133	4213263.....	57	440134.....	61	446110.....	53, 57
4203614.....	133	4213264.....	61	440194.....	115, 117	446112.....	43
4203615.....	133	4213280.....	59	441602.....	53, 57, 113	446116.....	53, 67, 117
4204160.....	61	4213300.....	61	441614.....	41, 45	446118.....	37, 43, 101, 107, 109,..... 119
4204220.....	92	4213301.....	59	441624.....	117	446128.....	41
4204221.....	92	4213320.....	61	441669.....	41	446130.....	37, 39, 50, 53, 65, 67,..... 99, 101, 103,.... 115
4204720.....	67	4213480.....	57, 59, 61	442423.....	61	446134.....	39, 41, 43, 45, 57, 67,..... 77
4205183.....	35, 67	4213621-1.....	132	443102.....	37, 39, 50, 65, 67, 99,..... 103, 115	446136.....	63, 65, 69, 71, 75, 79,..... 99, 101, 103,.... 107, 109, 111,.... 113
4205185.....	115	4213621-10.....	132	443106.....	37, 41, 43, 57, 65, 67,.. 71, 75, 79,..... 99, 103, 107, 109,.... 111, 113	446140.....	59
4205221.....	115	4213621-11.....	132	443108.....	63	446142.....	41, 45, 55, 59, 61, 65,.. 67, 69, 71,.. 73, 77, 79, 81,..... 83, 99, 107, 111,.... 115, 117, 120
4205223.....	115	4213621-12.....	132	443110.....	41, 45, 47, 55, 59, 61,.. 69, 71, 73,.. 77, 81, 83, 99,.... 107, 115, 117	446146.....	71
4205620.....	71	4213621-13.....	132	443118.....	83, 115, 117	446152.....	129
4205962.....	117	4213621-14.....	132	443126.....	129	446154.....	59, 63, 73, 83, 103, 115,.... 117
4205963.....	117	4213621-15.....	132	443806.....	57	446160.....	73
4205964.....	117	4213621-16.....	132	443808.....	101	446166.....	109, 129
4205980.....	65	4213621-17.....	132	443810.....	43, 109	447002.....	49
4206820.....	111	4213621-2.....	132	443812.....	55, 57	447006.....	49
4207482.....	73	4213621-3.....	132	443820.....	63	447206.....	49
4207483.....	73	4213621-4.....	132	443828.....	41, 65	447214.....	101
4207484.....	73	4213621-5.....	132	444304.....	49, 67	447224.....	41, 65
4207600.....	69	4213621-6.....	132	444306.....	43, 49, 53, 57	450003.....	71
4207700.....	61	4213621-7.....	132	444310.....	37, 43, 49, 53, 101, 117,.... 119	450152.....	37
4207780.....	37	4213621-8.....	132	444312.....	101	450168.....	65
4207781.....	37	4213621-9.....	132	444708.....	41, 51, 74, 111	450190.....	69
4207782.....	37	4215701.....	59	444718.....	53, 57, 65, 75, 99	450197.....	71
4207783.....	37	4217460.....	57	444753.....	115, 117	450213.....	71
4207784.....	37	4217740.....	59	444758.....	37, 111	450322.....	37
4207861.....	43, 57	4217741.....	59	444762.....	79, 81, 83, 109, 117	450410.....	65, 71
4208120.....	43	4218120.....	105	444782.....	107		
4208121.....	43	4221180.....	35				
4209700.....	73	4221181.....	35				
4209701.....	73	4222363.....	109				
4210304.....	71	4222364.....	109				
4210420.....	65	4222365.....	109				
4210660.....	101	4222366.....	109				
4210661.....	101	4223140.....	61				
4210662.....	101	4224460.....	65				
4210821.....	101	4224560.....	53				
4211081.....	81	4225660.....	59				
4211280.....	37	4225661.....	59				
4211400.....	65	4225662.....	59				
4211440.....	37, 39	4225663.....	59				

INDEX

450411.....	65, 75	5000184.....	107	556417	79
450422.....	71	5000917.....	65	556419	79
450453.....	47	5000938.....	71	556450	128
452002.....	117	5001599.....	123	556845	124
452004... 37, 41, 69, 99		5001603.....	123	556847	125
452006... 37, 41, 43, 45,		5001612.....	123	556897	125
65, 75, ..77, 79,		5001614.....	123	556988	71
99,103, 107,		5001615.....	123	556996	71
109, 111, ... 113		5001616.....	123	557417	83
452007.....	45	5002101.....	49	557418	83
452008... 59, 61, 69, 83,		5002102.....	49	557425	127
111		5002444.....	79	557426	127
452388.....	47	5002503.....	49	557430	127
453004.....	57	5002574.....	61	557433	127
453009... 39, 43, 57, 71		5002894.....	63	557440	127
453011... 41, 45, 55, 59,		5002911.....	121	557441	127
67, 69, ..77, 79,		5002912.....	121	557442	127
81,83, 99,		5002913.....	121	557444	127
107, 109, ...111,		5002918.....	65	557445	127
115, 117, ... 120		5002919.....	65	557447	83, 127
453013.....	73, 115, 117	5003373.....	67	557448	127
453017... 37, 73, 111, 115,		5003384.....	128	557450	127
117		5003490.....	49	557454	127
453022.....	119	5003510.....	124	557523	115, 117
453023... 39, 53, 65, 67,		5003554.....	121	557619	71, 77
74, 101,107,		5003578.....	124, 125	557620	83
109		5003579....	65, 121, 124	557624	61
453030.....	61	5003581.....	125	557656	127
455012.....	37	500562.....	71	557666	127
455066.....	53	500745.....	123	557680	81
458103.....	83	500746.....	123	557681	81
460014.....	57, 111	500750.....	123	558004	123
460032.....	63	503095.....	63	558005	123
460050.....	113	503553.....	109	558007	123
460052.....	107	503626.....	77	558008	123
460056.....	119	522516.....	37	558010	123
460072.....	61	523126.....	37	558011	123
460076.....	115	545925.....	123	558012	81
460093.....	61	546112.....	123	558038	125
461356.....	50	550863.....	69	64151-5.....	129
461393.....	63	552824.....	115	64173-02.....	113
461451.....	57	553020.....	75	64229-05.....	59
461457.....	111	553174.....	71	64251-001	53, 109
461493.....	57	554018.....	71	7332.....	67
471214..... 63, 115, 117		554492.....	105	800788	129
471216.....	63, 109	554493.....	105	821164	45
471217.....	57	554596.....	77	830930	67
471221..... 63, 107, 109		554748.....	77, 105	836892	43, 105
473108.....	77, 105	554752.....	77	843942	43, 105
473137..... 99, 103, 105		554779.....	63, 128		
473142.....	99	554780.....	63, 128		
473144..... 99, 103, 105		555771.....	79		
473211.....	43	555845.....	105		
48540-01.....	77	555846.....	105		
5000039.....	49	555847.....	105		
5000183.....	107	555862.....	65		

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