



4136607-Rev.F-GB



Parts & Maintenance Manual

HR 9016 Turbo™ Rotary Mower

70528 – Kubota V3300-DI TEB, 4WD*
70529 – Kubota V3300-DI TEB, 4WD with ROPS
70530 – Kubota V3300-DI TEB, 4WD EC with ROPS
70531 – Kubota V3300-DI TEB, 4WD EC*

**- These units must have a certified ROPS/cab installed by the Dealer before the mower can be put into service and registered for warranty coverage.*

WARNING

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.



When Performance Matters.™



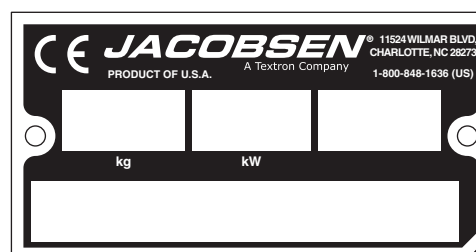
FORWORD

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 left 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
	4137894	Engine Oil Filter		5002892	Hydraulic Oil Filter
	5003370	Engine Air Filter			
	557619	Engine Fuel Filter			
	5003691	Hydraulic Charge Filter			
	5002693	Hydraulic Return Filter			

Service Support Material

Qty.	Part No.	Description
	4136606	Safety and Operation Manual
	4136607	Parts and Maintenance Manual
	4136876	Engine Parts Catalog

Qty.	Description
	Service Manual

These are the original instructions verified by
Jacobsen A Textron Company

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right to reproduce this material or portions thereof in any form."

Proposition 65 Warning

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

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1 SAFETY

1.1 OPERATING SAFETY



WARNING

EQUIPMENT OPERATED IMPROPERLY OR BY UNTRAINED PERSONNEL CAN BE DANGEROUS.

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

1. Safety is dependent upon the awareness, concern, and prudence of those who operate or service the equipment. Never allow minors to operate any equipment.
2. It is your responsibility to read this manual and all publications associated with this equipment (Safety and Operation Manual, Engine Manual, accessories and attachments). If the operator can not read English, it is the owner's responsibility to explain the material contained in this manual to them.
3. Learn the proper use of the machine, the location and purpose of all the controls and gauges before you operate the equipment. Working with unfamiliar equipment can lead to accidents.
4. Never allow anyone to operate or service the machine or its attachments without proper training and instructions, or while under the influence of alcohol or drugs.
5. Wear all the necessary protective clothing and personal safety devices to protect your head, eyes, ears, hands, and feet. Operate the machine only in daylight or in good artificial light.
6. 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.

Accessory operator protective structures will continue to be offered for all equipment currently covered. This allows for the outfitting of any machines without previous ROPS installations or replacement of damaged structures.
23. Keep legs, arms, and body inside the seating compartment while the vehicle is in motion.
24. Disconnect batteries 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, mower switch is OFF, and traction pedal is in Neutral. The system will stop the engine if the operator leaves the seat without engaging the parking brake or setting the mower 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. **Use of other than original or authorized Jacobsen parts and accessories will void the warranty.**

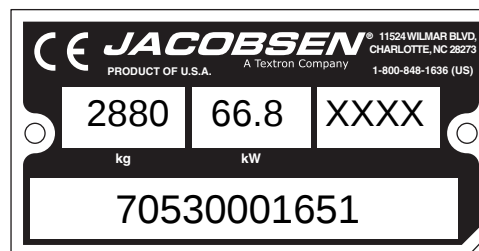
2 SPECIFICATIONS

2.1 PRODUCT IDENTIFICATION

70528H HR 9016 Turbo, 4 Wheel Drive
70529 HR 9016 Turbo, 4 Wheel Drive
with ROPS
70530H HR 9016 Turbo, 4 Wheel Drive EC
70531 HR 9016 Turbo, 4 Wheel Drive EC
with ROPS
H These units must have either a
certified cab or ROPS installed by
the Dealer before the mower can
be put into service.

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

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
70530	105 dba	90 dba	.755	.026
70531	105 dba	90 dba	.755	.026

* With engine at 2400 RPM (No Load)

2.2 CUTTING UNITS

Width
Front Deck 92 in. (2336 mm)
Side Decks 59 in. (1499 mm)
Number of Blades
Front Deck 5
Side Decks 3
Overall Cutting Width 16 ft. (2.4 m)

Cutting Height 1-5.5 in. (25 - 140 mm)
Blade size 21 in. (533 mm)
Tip speed 16,500 ft./min. (5029 m/min.)
Tires
Size Ten 11 x 4.00 - 5.0 (4 ply)
Two 13 x 6.50 - 6.0 (4 ply)
Pressure 20-25 psi (138-173 kPa)

2.3 MOWER

Tires:
Front 29 x 14 - 15: 12 ply
Rear 24 x 12 -12: 6 ply
Pressure 20-22 psi (138-152 kPa)
Battery:
Type One Maintenance Free 12 Volt
Battery
600 CCA @ 0°F (-18°C)
Group 75DT
Brakes:
Service Dynamic braking through traction
circuit.
Parking Mechanical front wheel drum
Hand lever actuated
Turn-assist Mechanical front wheel drum
Two pedal actuation

Speed:
Mow 0 - 8.5 mph (13.6 kph)
Transport - 2 WD 0-20 mph (29 kph)
Reverse - 2WD 0-5.5 mph (8.9 kph)
Reverse - 4 WD 0 - 3 mph (4.8 kph)
Production 16.5 acres per hour @ 8.5 mph

Hydraulic System:

Capacity 55 U.S. gal. (208 liters) System
Reservoir 33 U.S. gal. (125 liters)
Fluid Type ISO VG 68
Cooling Hydraulic Oil Cooler
Charge Filter 10 micron
Return Line Filter 10 micron
Steering Hydrostatic power steering

2.4 ENGINE

Make	Kubota
Model	V3300 DI-T-E2B
Horsepower.....	90 hp (67 kW) @ 2600 rpm
Note: <i>Actual sustained horsepower will likely be lower than listed in specifications due to operating limitations and enviromental factors.</i>	
Displacement	202 cu. In. (3.32 liter)
Torque	210 ft. lbs. (285 Nm) @ 1600 rpm
Fuel:	
Type	No. 2 Diesel (CUNA NC 630.01)
Rating.....	Min. cetane rating 45
Capacity	35 U.S. Gal. (151 liters)

Governor Setting:

Throttle Stop ON.....	2400 rpm (70528 & 70529)
	2100 rpm (70530 & 70531)
Throttle Stop OFF	2750 rpm (Non EU only)
Low Idle	950 rpm

Lubrication:

Capacity.....	14 qts.
Type	SAE 15 W40
API Classification	CF 4, CD-II, CE

Air Filter

Dry type with evacuator valve and service indicator

Alternator

55 amp

2.5 WEIGHTS AND DIMENSIONS

Dimensions:	Inches	(mm)	Weights:	Lbs.	(kg)
Length - Front deck down	174	(4420)	Overall (less operator)		
Height - Top of Steering Wheel	60	(1524)	70528	6385	(2880)
Height - Top of ROPS	94	(2388)	70529	6600	(2994)
Width - Mow	198	(5029)	70530	6385	(2880)
Width - Transport	95	(2413)	70531	6600	(2994)

2.6 ACCESSORIES & SUPPORT LITERATURE

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

CAUTION

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

Air Blow Gun	JAC5098	Carefree Tire Kit	2811453
Orange Touch-up Paint (12 oz. spray)	554598	Hood Locking Latch	1004049
2-Post ROPS with Seat Belt	78138	Cold Start / Preheat Timer Kit	4137294
1 All Weather Cab w ROPS and Seat Belt.....	See Below	Cruise Control.....	67888
1 Air Conditioner Kit	See Below	u Snowthrower	See Below
Leaf Mulching Kit	71055	s Rotary Broom	See Below
High Lift Blade Kit	4116825	Service and Support Literature	
Light Harness Kit.....	5003564	Safety and Operation Manual	3010791
Road Light Kit (Requires 5003564)	78154	Parts and Maintenance Manual	2810223
Work Light Kit (Requires 5003564)	78155	Operator Training Video.....	5003465
Canopy / Sunshade	67857	Service & Repair Manual	
Rear Steering Wheel Weight Kit	2812307		

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

u Contact: Loftness Specialized Equipment, Inc.
South Highway 4
Hector, MN 55342
Phone 800-828-7624
Fax (320) 848-6269
ATTN Doug Haley

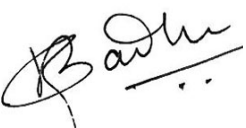
s Contact: M-B Companies, Inc.
1200 S. p Street, Box 148
Chilton, WI 53014
Phone: (888) 558-5801
Fax: (920) 898-4588

2 SPECIFICATIONS

2.7 CE 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 • ATITIKTIES DEKLARACIJA • DIKJARAZZJONI TAL-KONFORMITÀ • DEKLARACJA ZGODNOŚCI •
DECLARAÇÃO DE CONFORMIDADE • DECLARAȚIE DE CONFORMITATE • VYHLÁSENIE 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 • Εταιρική και ταχυδρομική διεύθυνση κατασκευαστή • A gyártó üzleti neve és teljes címe • Ragione sociale e indirizzo completo del fabbricante • Uzņēmuma nosaukums un pilna ražotāja adrese • Verslo pavadinimas ir pilnas gamintojo adresas • Isem kummerčali u indirizz shih 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 kodus • Kodići tal-Prodott • Kod produktu • Código do Produto • Cod produs • Kód výrobku • Oznaka proizvoda • Código de producto • Produktkod	70530 70531
Machine Name • Наименование на машината • Název stroje • Maskinnavn • Machinenam • 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 • Naziv stroja • Nombre de la máquina • Maskinens namn	HR 9016 4WD with ROPS HR 9016 4WD
Designation • Предназначение • Označení • Betegnelse • Benaming • Nimetus • Tyypimerkintä • Pažymėjimas • Bezeichnung • Χαρακτηρισμός • Megnevezés • Funzione • Arzīmējums • Lithuanian • Denominazzjoni • Oznaczenie • Designação • Specificație • Označenie • Namen stroja • Descripción • Beteckning	Lawnmower, Article 12, Item 32
Serial Number • Сериен номер • Sériové číslo • Seriennummer • Seriennummer • Seerianumber • Valmistusnumero • Numéro de série • Seriennummer • Σειριακός αριθμός • Sorozatszám • Numero di serie • Sérijas numurs • Serijos numeris • Numur Serjali • Numer seryjny • Número de Série • Număr de serie • Sériové číslo • Serijska številka • Número de serie • Seriennummer	7053001651-7053002500 7053101651-7053102500
Engine • Двигател • Motor • Motor • Motor • Mootor • Moottori • Moteur • Motor • Μηχανή • Modulnėv • Motore • Dzinējs • Variklis • Sahha Netta Installata • Silnik • Motor • Motor • Motor • Motor • Motor	Kubota V3300-Ti-T-E2B 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 • Nettoeffect	66 kW @ 2400 RPM
Cutting Width • Ширина на рязане • Šírka řezu • Skærebredde • Maaibreedte • Lõikelaius • Leikkuleveys • Largeur de coupe • Schnittbreite • Μήκος μιονίζουσ • Vágási szélesség • Larghezza di taglio • Griešanas plātums • Pjovimo plotis • Tikkonforma mad-Direttivi • Szerokość cięcia • Largura de Corte • Lățimea de tăiere • Šírka záberu • Širina reza • Anchura de corte • Klippbredd	488 cm
Conforms to Directives • В съответствие с директивите • Splňuje podmínky směrnic • Er i overensstemmelse med direktiver • Voldoet aan de richtlijnen • Vastab direktiivide • Direktiivien mukainen • Conforme aux directives • Entspricht Richtlinien • Ακολουθεί πιστά τις Οδηγίες • Megfelel az irányelveknek • Conforme alle Direttive • Atbilst direktīvām • Atitinka direktyvų reikalavimus • Valutazzjoni tal-Konformità • Dyrektywy związane • Cumpre as Directivas • Respectă Directivile • Je v súlade so smernicami • Skladnost z direktivami • Cumples con las Directivas • Uppfyller direktiv	2004/108/EC 2006/42/EC 2000/14/EC, 2005/88/EC 2006/66/EC
Conformity Assessment • Оценка за съответствие • Hodnocení plnění podmínek • Överensstemmelsestvärdering • Conformiteitsbeoordeling • Vastavushindamine • Vaatimustenmukaisuuden arviointi • Evaluation de conformité • Konformitätsbeurteilung • Διαπίστωση Συμμόρφωσης • Megfelelőség-értékelés • Valutazione della conformità • Atbilstības novērtējums • Atitikties įvertinimas • Livell tal-Qawwa tal-Hoss Imkeijel • Ocena zgodności • Avaliação de Conformidade • Evaluarea conformității • Vyhodnotenie zhodnosti • Ocena skladnosti • Evaluación de conformidad • Bedömning av överensstämmelse	2006/42/EC Annex VIII
Measured Sound Power Level • Измерено ниво на звукова мощност • Naměřený akustický výkon • Målte lydstrykeniveau • Gemeten geluidsniveau • Mõõdetud helivõimsuse tase • Mitattu äänitehotaso • Niveau de puissance sonore mesuré • Gemessener Schalldruckpegel • Σταθμισμένο επίπεδο ηχητικής ισχύος • Mért hangteljesítményszint • Livello di potenza sonora misurato • Izmērtais skaņas jaudas līmenis • Išmatuotas garso stiprumo lygis • Livell tal-Qawwa tal-Hoss Iggarantit • Moc akustyczna mierzona • Nivel sonoro medido • Nivelul măsurat al puterii acustice • Nameranā hlada akustického výkonu • Izmerjena raven zvočne moči • Nivel de potencia sonora medido • Uppmätt ljudeffektsnivå	105 dB(A) LWA
Guaranteed Sound Power Level • Гарантирано ниво на звукова мощност • Garantovaný akustický výkon • Garanteret lydstrykeniveau • Gegarandeerd geluidsniveau • Garanteeritud helivõimsuse tase • Taattu äänitehotaso • Niveau de puissance sonore garanti • Garantierter Schalldruckpegel • Εγγυημένο επίπεδο ηχητικής ισχύος • Szavatolt hangteljesítményszint • Livello di potenza sonora garantito • Garantėtais skaņas jaudas līmenis • Garantuotas garso stiprumo lygis • Livell tal-Qawwa tal-Hoss Iggarantit • Moc akustyczna gwarantowana • Nivel sonoro farantido • Nivelul garantat al puterii acustice • Garantovanā hlada 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 overensstemmelsestvärdering (Støj) • Procedure van de conformiteitsbeoordeling (geluid) • Vastavushindamisemenetus (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) • Atitikties įvertinimo procedūra (garsas) • Procedura tal-Valutazzjoni tal-Konformità (Hoss) • Procedura oceny 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 överensstämmelse (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 • Ühendkuningriigi teavitatud asutus direktiivi 2000/14/EÜ mõistes • Direktiivin 2000/14/EY mukainen ilmoitettu tarkastuslaitos Isonsa-Britanniassa • Organisme notifié concernant la directive 2000/14/CE • Britische benannte Stelle für 2000/14/EG • Κοινοποιημένος Οργανισμός Ηνωμένου Βασιλείου για 2000/14/ΕΚ • 2000/14/EK – egyesült királyságbeli bejelentett szervezet • Organismo notificato in GB per 2000/14/CE • 2000/14/EK AK registrētā organizācija • JK notifikuotošais ištastogs 2000/14/EC • Korp Notifikat tar-Renju Unit ghal 2000/14/KE • Dopuszczona jednostka badawcza w Wielkiej Brytanii wg 2000/14/WE • Entidade notificada no Reino Unido para 2000/14/CE • Organism notificat în 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 • Mūratase operatori kōrvas • Melutaso käyttäjän korvan kohdalla • Niveau de bruit à hauteur des oreilles de l'opérateur • Schalpegel 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 patiriamas triukšmo lygis • Livell tal-Hoss fil-Widna tal-Operatur • Dopuszczalny poziom hałasu dla operatora • Nivel sonoro nos ouvidos do operador • Nivelul zgomotului la urechea operatorului • Hladina hluku pôsobiaci na sluch operátora • Raven hrupa pri užesu upravljanca • Nivel sonoro en el oído del operador • Ljudnivå vid förarens öra	87 dB(a) Leq (2006/42/EC)

Harmonised standards used • Използвани хармонизирани стандарти • Použité harmonizované normy • Brugte harmoniserede standarder • Gebruikte geharmoniseerde standaards • Kasutatud ühtlustatud standardid • Käytetyt yhdenmukaistettut standardit • Normes harmonisées utilisées • Angewandte harmonisierte Normen • Εναρμονισμένα πρότυπα που χρησιμοποιήθηκαν • Harmonizált szabványok • Standard armonizzati applicati • Izmatotie saskapotie standarti • Panaudoti suderinti standartai • Standards armonizzati uzati • Normy spójne powiązane • Normas harmonizadas usadas • Standardele armonizate utilizate • Použité harmonizované normy • Uporabljeni usklajeni standardi • Estándares armonizados utilizados • Harmoniserade standarder som används	BS EN ISO 20643 BS EN ISO 5349-1 BS EN ISO 5349-2 BS EN 836
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 • Izmatotie tehnikiskie standarti un specififikācijas • Panaudoti techniniai standartai ir techninė informacija • Standards u specifikkazzjonijiet tehnici uzati • 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	B71.4 ISO 2631-1 SAE J1194
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GB English	BG български	CZ čeština	DK dansk	NL Nederlands	EE eesti	FI suomi	FR français	DE Deutsch	GR Ελληνικά	HU magyar
IT italiano	LV latviešu valoda	LT lietuvių kalba	MT Malki	PL polski	PT português	RO Română	SK slovenčina	SI slovenščina	ES Ελληνικά	SE Svenska

3 ADJUSTMENT

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. Do not wear jewelry or loose fitting clothing when making adjustments or repairs.

CAUTION

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

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

3.2 LEVELING DECKS

If the decks or casters have been removed for service or cutting height appears uneven, it may be necessary to level decks. **Adjust casters so cutting heights of outer blades are within 1/8 in. (3 mm) of each other.**

1. Position mower and decks on a hard, flat, level surface. Position blades parallel to mower as shown.
2. Check that air pressure in all caster tires is adjusted **equally**.

3. Set desired cutting height of deck using the 1/2 in. (13 mm) spacers (**E**) provided. See **Section 3.5**.
4. Measure the height from the ground surface to the front edge (**B**) of the two outer blades for the wing decks and the center section of the front deck. Position the 1/8 in. (3 mm) leveling washers (**C**) above or below caster pivot as needed to obtain an even cutting height across decks. Keep the 1/16 in. (1.5 mm) thrust washers (**D**) positioned as shown, one above and one below caster pivot.

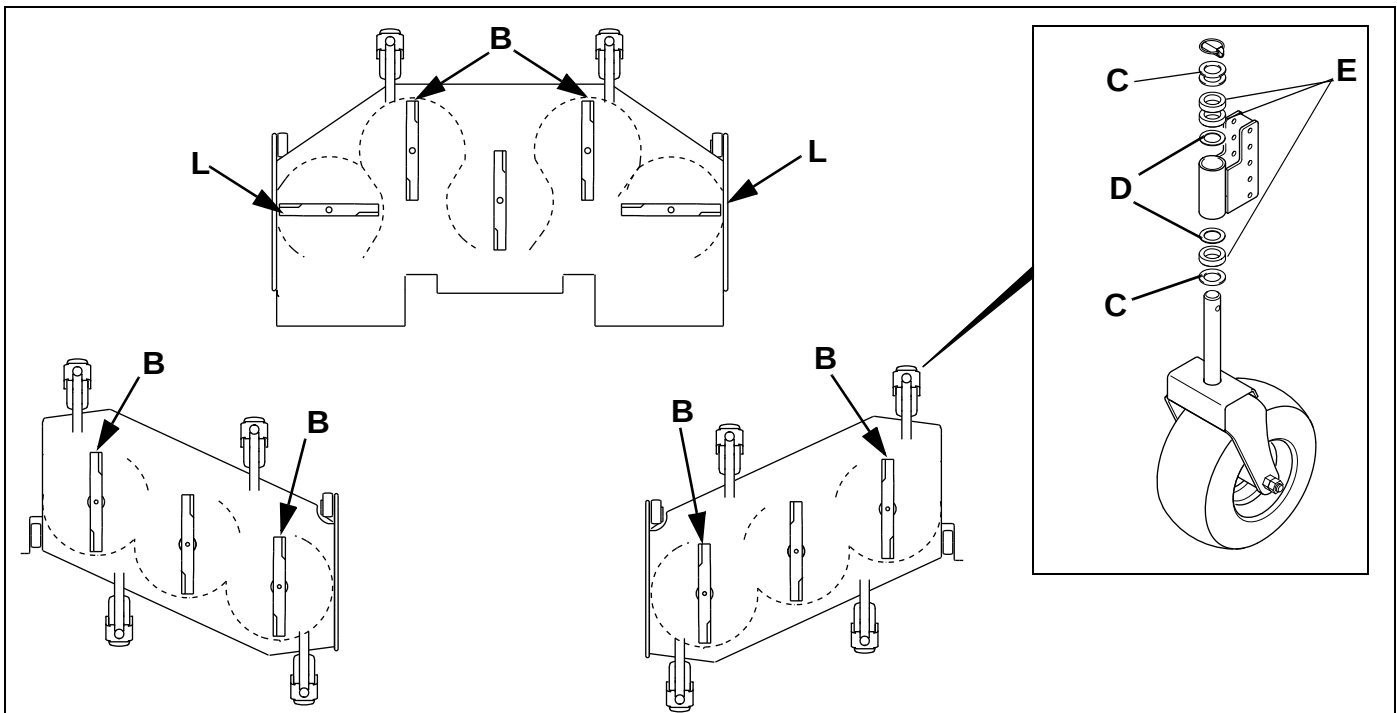


Figure 3A

3.3 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. Rotate anti-sway mechanism **(F)**, located under left side floor panel, to Service position. **Figure 3C**
2. Start engine and raise deck until rear gauge wheels are off ground. Stop engine.
3. Remove cut height adjustment pins from gauge wheel bracket so yoke assembly floats freely.
4. Start engine and raise deck to full up position. Stop engine.
5. Manually lift and rotate front of deck up until it is securely latched.

WARNING

The front deck is heavy and could cause serious injury or damage if dropped. Always use proper lifting techniques when lifting or lowering the front deck to the service position.

When lowering deck, pulling latch out will release the full weight of the deck. Make sure anyone assisting in this procedure is made aware of this before the latch is released.

To lower deck after servicing:

1. Lift up on deck and pull locking latch **(A)** out. Manually lower and pivot deck until supported by lift

3.4 WINGLET ADJUSTMENT

1. Winglets must be adjusted to front deck to prevent scalping and possible damage to deck winglets.
2. Rotate front deck blades to positions shown in **Figure 3A**.
3. Measure the height from the ground to the front edge of the center front deck blade **(B)** and the outside edges of winglet blades **(L)**. Add or remove shims **(G)** as required between pad **(H)** and support bracket of winglets, until all front deck blades are at the same height.
4. Store excess shims **(G)** above support bracket.
5. Adjust front winglet support arms **(J)** up or down as required until arm is resting against stop **(K)**.

arms. To prevent personal injury or damage to deck or lift arms, **DO NOT** allow deck to drop from service position.

2. Start engine and lower deck until it is level and caster wheels are just above ground. Stop engine.
3. Insert height adjustment pin for rear casters to match cutting height. **Figure 3F**
4. Rotate anti-sway mechanism **(F)** to it's operating position. **Figure 3C**

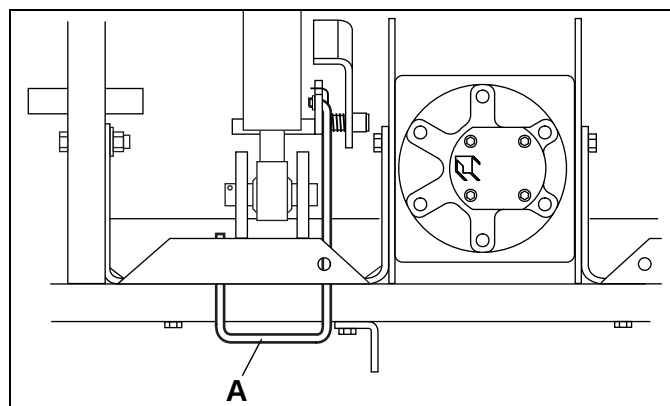


Figure 3B

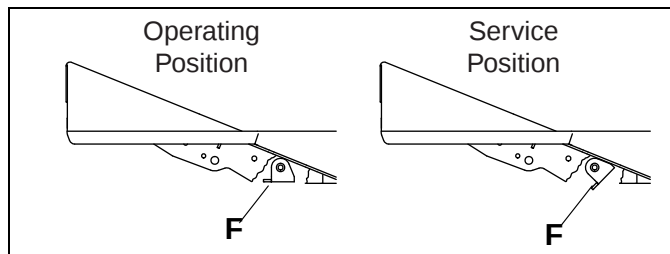


Figure 3C

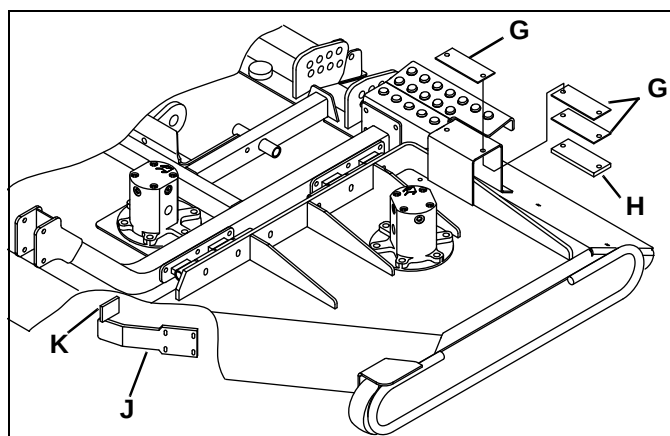


Figure 3D

3 ADJUSTMENT

3.5 CUTTING HEIGHT

Cutting height for decks can be adjusted from 1 to 5-1/2 in. (25-125 mm) in 1/2 in. (13 mm) increments. Actual cutting height may vary somewhat from the heights given depending on turf conditions and other factors.

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

1. Park the 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.

To remove inside front caster from side decks, raise the decks to their full upright position and lock in the transport position.

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

Column 1 - Height of cut

Column 2 - Mount Location

Column 3 - Arrangement of spacers

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

IMPORTANT: Do not reposition the thin thrust washers (1/16 in.) and leveling washers (1/8 in.) on the spindle. These washers should remain in the same position and quantity they were originally installed. They need only be repositioned if needed to level new casters or decks, **Section 3.2**.

3. To adjust rear gauge wheels on front deck, refer to Figure 3F. Raise front deck approximately 12 in. and support underneath with blocks. Lower deck so it is completely resting on blocks
4. Remove pin from rear gauge wheel yoke and reposition in bracket for desired height of cut. When setting cutting height at 5-1/2 in., gauge wheel must be repositioned in arm. Follow wheel mounting instructions on decal, **Figure 3F**.

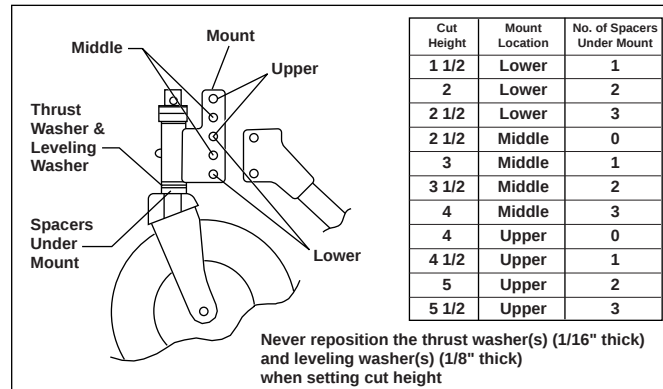
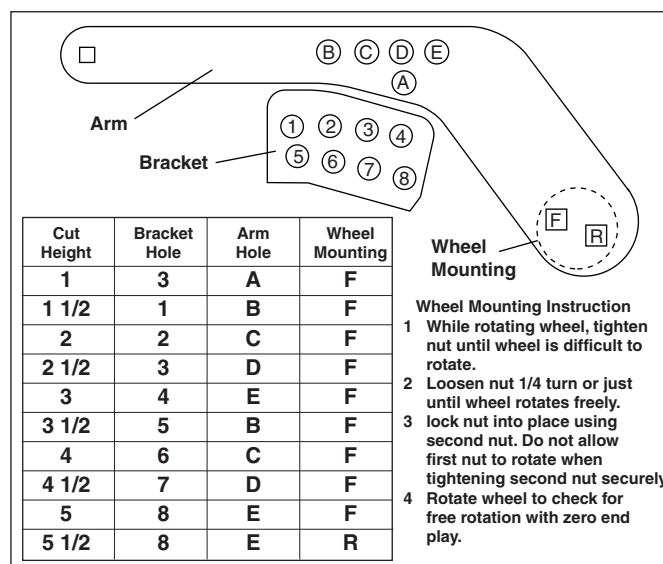


Figure 3E



Gauge Wheel Adjustment for Front Deck

Figure 3F

Tire pressure

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

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

3.6 PARKING BRAKE

The brake switch is part of the Interlock System and senses when the parking brake is engaged. If this switch fails, the machine may not start and the Interlock System will not operate correctly.

To adjust switch:

1. Place the parking brake in its full upright (engaged) position.
2. Adjust switch (C) by pivoting switch mounting bracket (B). Align sensing area on switch with brake handle (D).
3. Adjust gap between sensing area on switch and brake lever to 1/16 - 1/8 in. (1.5 - 3 mm). To adjust gap use shims (E) or #10 washers (F) as required between switch and switch mount.

4. When properly installed, the switch will be closed when the parking brake is engaged and open when the brake is disengaged.

Important: Always check Interlock System after replacing or adjusting switch. (See Safety and Operation Manual)

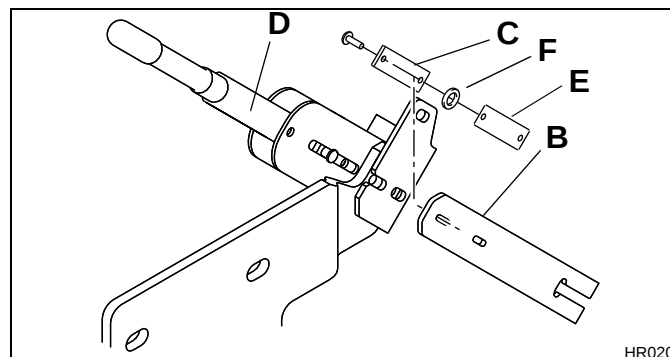


Figure 3G

3.7 NEUTRAL ADJUSTMENT

Important: The neutral adjustment on the drive pump is preset at the factory on all new mowers and replacement pumps. Further adjustment is required **only** if the pump has been disassembled for service or neutral lever bracket (F) has become loose.

To adjust neutral on pump:

1. Disconnect traction pedal linkage from pump. Remove switch mounting bracket from pump.
2. Place mower securely on jack stands so **All** wheels are raised off ground.
3. Check that tow valve (H) is completely closed.
4. Loosen screws (G) holding pump return arm bracket just enough so it can be moved.
5. Engage parking brake and set PTO switch to neutral.

The neutral sensing switch must be closed in order to start the mower. At this point the switch may not yet be assembled to pump. To close switch so engine can be started, place it face down on metal frame.

6. Start engine and observe wheels. Rotate bracket (F) in slotted holes until wheels do not turn. Turn OFF engine and tighten bracket in place.
7. Connect traction pedal linkage, **Section 3.11**, and install and adjust switches, **Sections 3.8 and 3.9**.
8. Start engine and check operation of traction pedal. Wheels must not turn when pedal returns to Neutral.

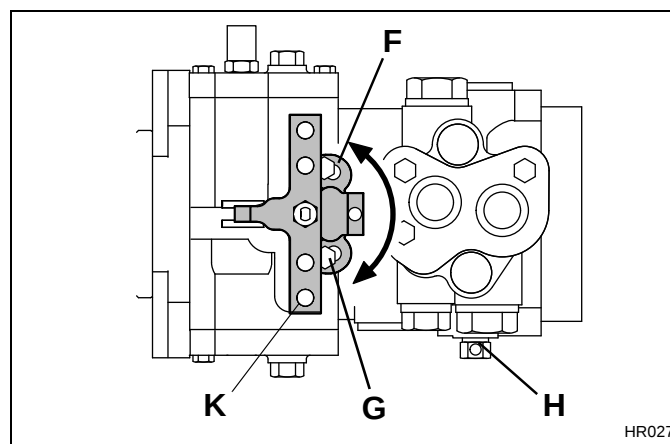


Figure 3H

3 ADJUSTMENT

3.8 NEUTRAL SENSING SWITCH

The neutral sensing switch is part of the operator backup system. It is designed to prevent the mower from starting unless the traction pedal is in Neutral. If this switch fails or is out of adjustment, the mower will not start.

1. Make sure drive pump and traction pedal linkage are adjusted to neutral. **Sections 3.7 and 3.11.**
2. Position switch so pointer **(A)** on activator plate is centered over sensing area on switch.
3. Adjust switch so gap between sensing surface on switch and end of pointer is between 1/16 - 1/8 in. (1.5 - 3 mm). Secure switch in this position.
4. After adjustment check operation of operator backup system.

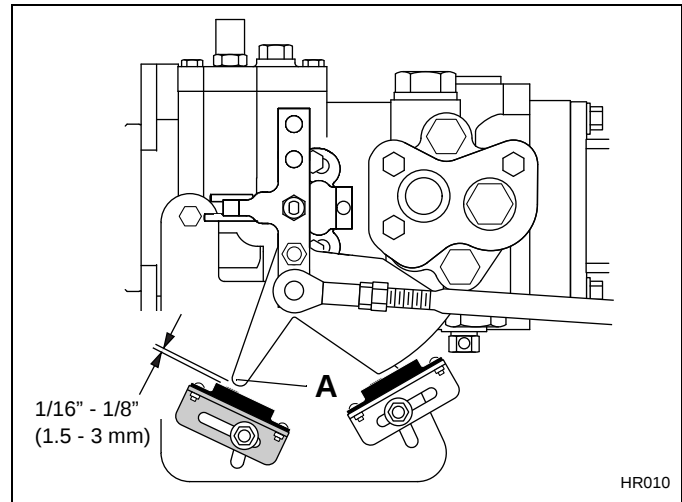


Figure 3I

3.9 FORWARD SENSING SWITCH

The forward sensing switch allows the mower to operate in four wheel drive only with the traction pedal in its forward position. When operating in reverse the switch opens and returns the mower to two wheel drive. If four wheel drive fails to operate, check adjustment and operation of sensing switch.

1. Make sure drive pump, traction pedal linkage, and neutral sensing switch are adjusted to neutral, **Sections 3.7, 3.11, and 3.8.**
2. Adjust switch so gap between sensing surface on switch and edge of activator plate is between 1/16 - 1/8 in. (1.5 - 3 mm).
3. Disconnect switch from wiring harness and connect a continuity meter across switch leads **(B)**. With traction pedal in neutral, slide switch back until it opens, then forward until it closes. Secure switch in this position.
4. With continuity meter still attached check adjustment by pressing traction pedal.

Switch closed - traction pedal in neutral and during full forward range of pedal.

Switch open - Full reverse range of pedal.

5. Connect switch to wiring harness and check operation of four wheel drive.

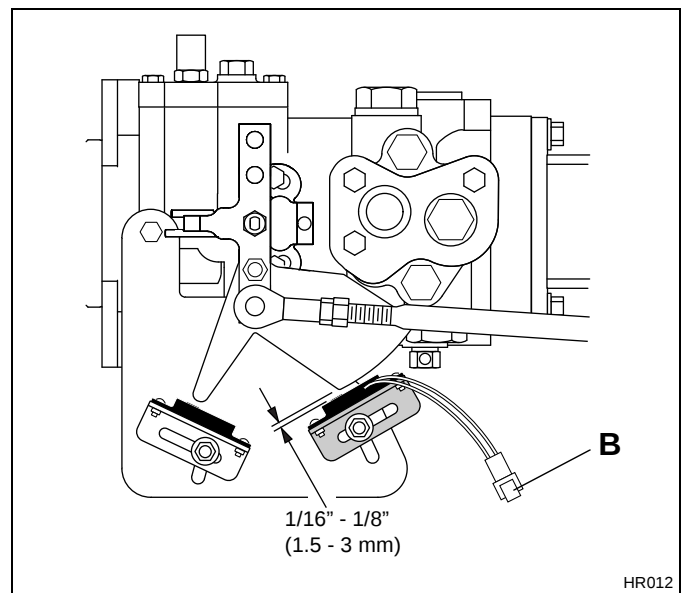


Figure 3J

3.10 LIFT LIMIT SWITCHES

The rotation of the cutting blades is controlled by limit switches positioned on the mower frame near the lift arms for each deck. When a deck is raised the switch opens and automatically disengages the cutting blades. As the deck is lowered, the switch closes and the blades engage. If a switch fails, the cutting blades will not engage when lowered.

To adjust limit switches:

1. Park mower on a level surface.
2. Start mower and raise or lower decks until the highest point on the top corner of the deck reaches the height shown in **Figure 3K**.

3. Shut OFF engine and remove key. Support decks using blocks. This will prevent them from accidentally lowering while making adjustments.
4. Position switch so sensing area **(C)** on switch is centered over leading edge **(A)** of activator plate on lift arm.
5. Adjust gap between sensing area on switch and activator plate on lift arm to 1/16 - 1/8 in. (1.5 - 3 mm). To adjust gap for front lift arm use shims **(D)** or #10 flat washers **(B)** between switch and switch mount.

Check operation of limit switches. Blades must stop rotating as decks are raised above heights shown.

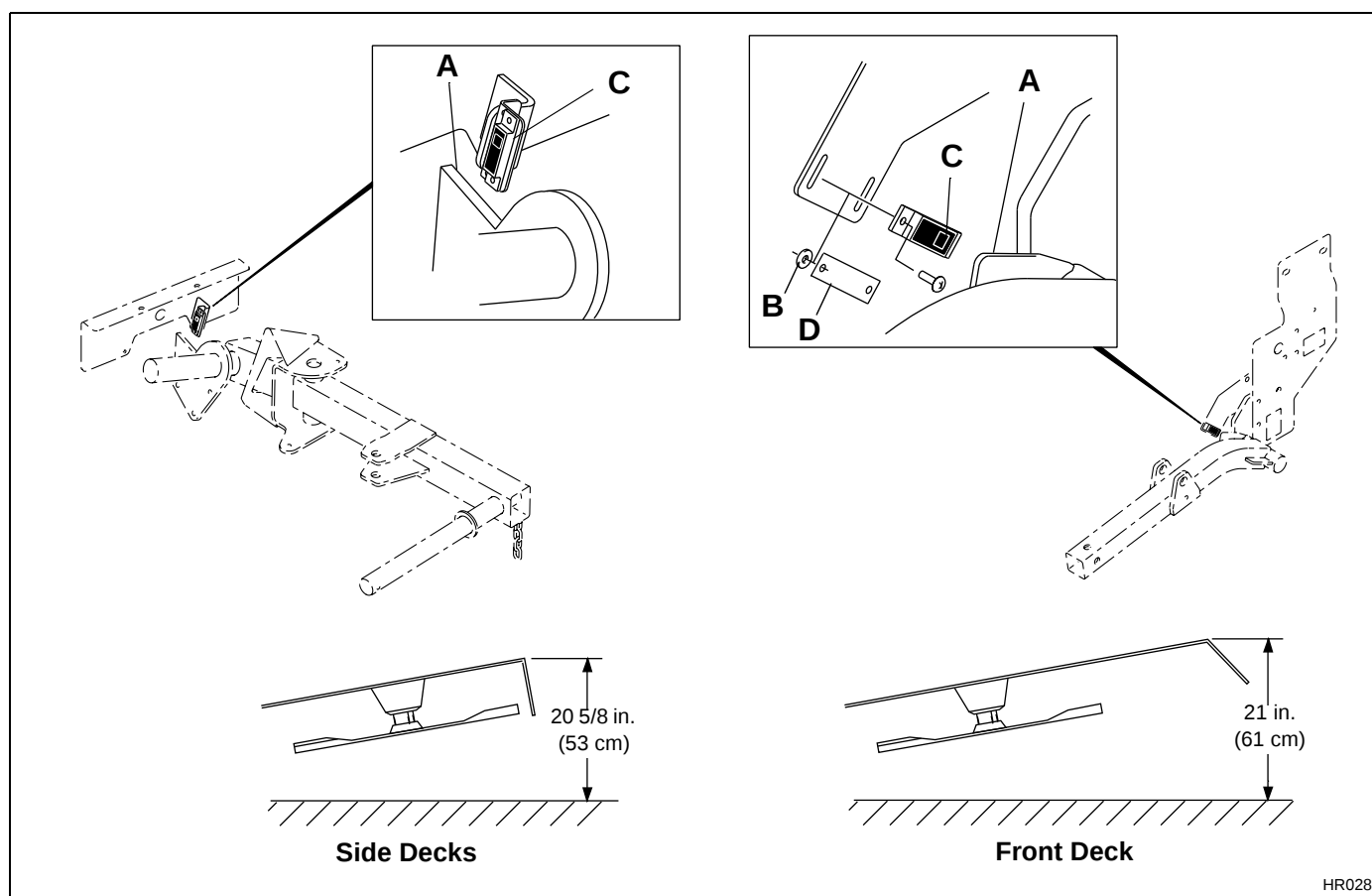


Figure 3K

3 ADJUSTMENT

3.11 TRACTION PEDAL

The traction pedal must be adjusted so the pump is at full stroke when the pedal is fully depressed in the forward position.

1. Make sure return arm (**K-Figure 3H**) on pump is adjusted to neutral, **Section 3.7**.
2. Push traction pedal forward (**I**) until it touches floor panel and hold in this position.
3. Adjust turn buckle (**J**) until you feel the return arm hit the internal stop in pump. Backoff rod 2-3 turns from this position. This ensures that the traction pedal bottoms out before the return arm.

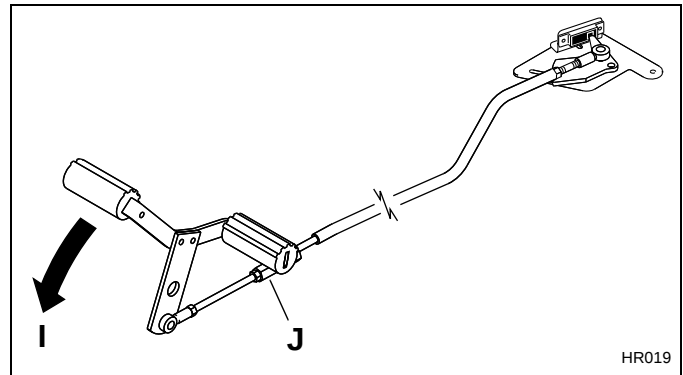


Figure 3L

3.12 STEERING TOE-IN

1. Turn wheels to straight ahead position.
2. Loosen jam nuts (**M**) on both ends of tie rod (**N**).
3. Turn tie rod (**N**) to provide proper toe-in. Toe-in must not exceed $X + 1/4$ in. (6.3 mm). Tighten jam nuts (**M**).

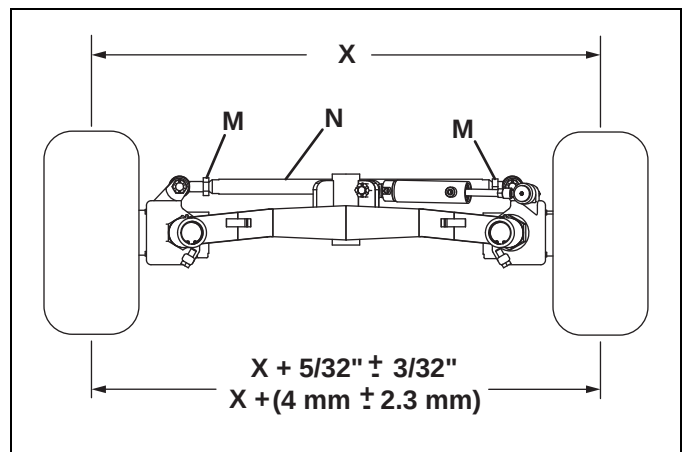


Figure 3M

3.13 STEERING STOP BOLTS

1. Steering toe-in must be set before adjusting stop bolts. If toe-in is changed, stop bolts must be re-adjusted.
2. Turn stop bolts (**P and Q**) out as far as possible without removing them.
3. Turn steering wheel to the right until right rear tire is at a 45° angle to steering axle. Thread stop bolt (**P**) in until bolt touches axle.
4. Turn steering wheel to the left until left rear tire is at a 45° angle to steering axle. Thread stop bolt (**Q**) in until bolt touches axle.

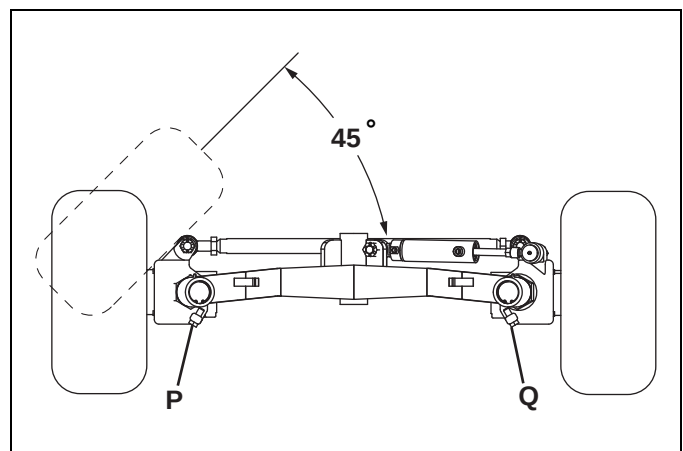


Figure 3N

3.14 TORQUE SPECIFICATION

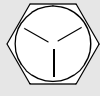
NOTICE

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	 GRADE 5		 GRADE 8		SIZE	UNITS	 GRADE 5		 GRADE 8	
		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	 4.6		 8.8		 10.9		 12.9		Non Critical Fasteners into Aluminum
		Lubricated	Dry	Lubricated	Dry	Lubricated	Dry	Lubricated	Dry	
M4	Nm (in-lb)	–	–	–	–	–	–	3.83 (34)	5.11 (45)	2.0 (18)
M5	Nm (in-lb)	1.80 (16)	2.40 (21)	4.63 (41)	6.18 (54)	6.63 (59)	8.84 (78)	7.75 (68)	10.3 (910)	4.0 (35)
M6	Nm (in-lb)	3.05 (27)	4.07 (36)	7.87 (69)	10.5 (93)	11.3 (102)	15.0 (133)	13.2 (117)	17.6 (156)	6.8 (60)
M8	Nm (in-lb)	7.41 (65)	9.98 (88)	19.1 (69)	25.5 (226)	27.3 (241)	36.5 (323)	32.0 (283)	42.6 (377)	17.0 (150)
M10	Nm (ft-lb)	14.7 (11)	19.6 (14)	37.8 (29)	50.5 (37)	54.1 (40)	72.2 (53)	63.3 (46)	84.4 (62)	33.9 (25)
M12	Nm (ft-lb)	25.6 (19)	34.1 (25)	66.0 (48)	88.0 (65)	94.5 (70)	125 (92)	110 (81)	147 (108)	61.0 (45)
M14	Nm (ft-lb)	40.8 (30)	54.3 (40)	105 (77)	140 (103)	150 (110)	200 (147)	175 (129)	234 (172)	94.9 (70)

4 MAINTENANCE

4.1 GENERAL

WARNING

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

Make sure the 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. Do not wear jewelry or loose fitting clothing when making adjustments or repairs.
4. Use the illustrations in the Parts List 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 mower is 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 hurled from the mower, causing very serious injury to bystanders or property damage.
3. A bent blade could have a microscopic crack (**G**) that can grow and allow a piece of the blade to break. Bent blades will also create vibration and other stress on the machinery.
4. Dust or sand particles can wear a dangerous groove in the blade (**H**) between the air vanes and the flat portion of the blade that will rapidly grow and produce a crack (**J**), permitting a piece of the vane to break off.

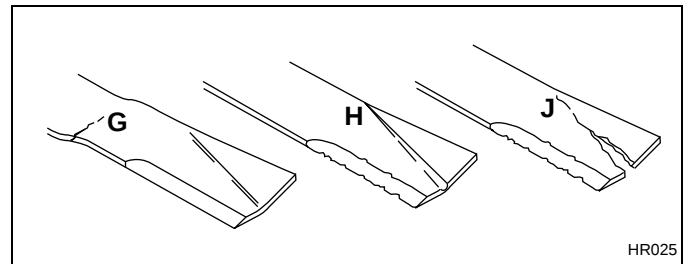


Figure 4A

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 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 to check the blade after sharpening.
5. Attach blade to mower. Install blades so cutting edges (C) face the direction of rotation as shown in **Figure 4C**. Beveled cutting edge of blade must face in toward deck housing.

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

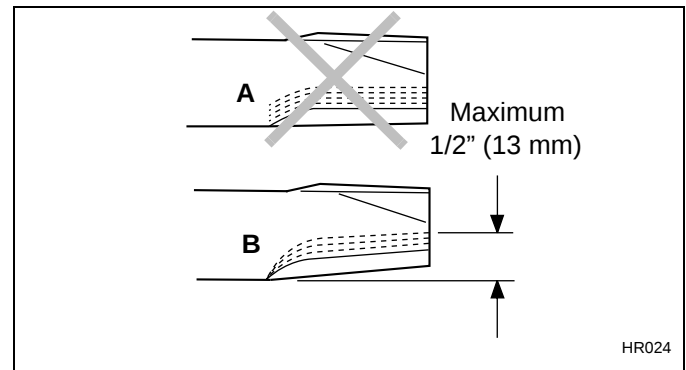


Figure 4B

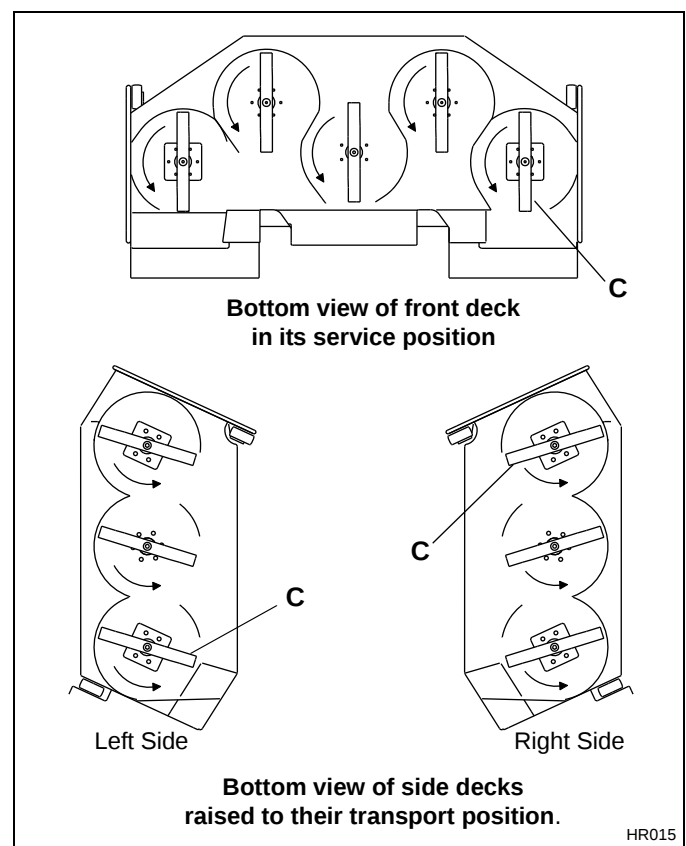


Figure 4C

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.

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 up to MAX mark on dipstick.

Perform initial oil change after first 25 hours of operation and every 250 hours thereafter. See Engine Manual.

2. Check the engine oil level twice daily during the first 50 hours of operation. Higher than normal oil consumption is not uncommon during the initial break-in period.
3. Change engine oil and oil filter element after first 50 hours of operation.
4. Check and adjust fan and alternator belts.
5. Refer to **Section 4.23** and Engine Manual for specific maintenance intervals and procedures.

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

Note: 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.

Use engine oil with API classification CD-II, CE, CF-4. See Engine Manual for complete specifications.

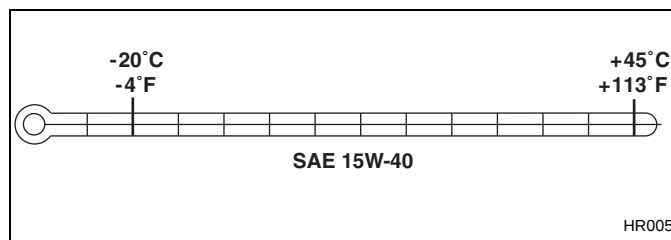


Figure 4D

4.6 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.

4.7 AIR FILTER

Check the service indicator daily. Replace air cleaner element immediately when red band becomes visible **(A)**

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

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

1. Carefully clean the inside of the filter housing without allowing dust into the air intake.
2. Inspect the new element. Do not use a damaged element and never use an incorrect element.
3. Assemble the new element and make sure it seats properly. Reset the indicator by depressing button **(B)**.
4. Reassemble cap making sure it seals completely around the filter housing. Dust evacuator **(C)** must be facing down.

5. Check all hoses and air ducts. Tighten hose clamps.

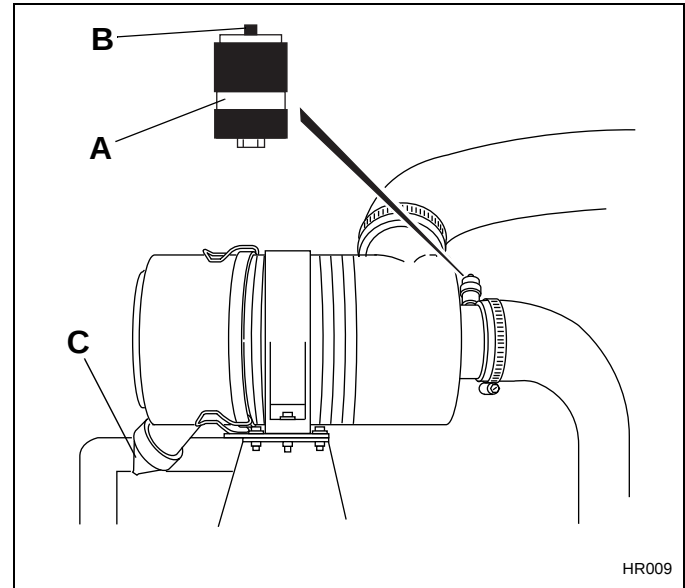


Figure 4E

4.8 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.

Use care to avoid spilling fuel. If fuel is spilled, clean it up 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.

- Replace fuel lines and clamps at the first sign of damage.
- Store fuel according to local, state, or federal ordinances and recommendations from your fuel supplier.
- Never overfill or allow the tank to become empty.

Read Engine Owner's Manual for additional fueling information.

- Fill the fuel tank to within 1 in. (25 mm) below the filler neck.
- Use clean, fresh, #2 Diesel fuel. Minimum Cetane Rating 45. Refer to Engine Manual for additional information.

4 MAINTENANCE

4.9 FUEL SYSTEM

Refer to Section 4.23 for specific maintenance intervals.

See Engine Manual for detailed procedures.

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

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

To change fuel filter:

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

4.10 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

Keep the cable ends, battery, and battery posts clean.

Verify battery polarity before connecting or disconnecting the battery cables.

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

HR022



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.**

4.11 JUMP STARTING

Before attempting to "jump start" the mower, check the condition of the discharged battery. **Section 4.10**



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.

When connecting jumper cables:

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

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

4.12 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. Refer to **Section 4.10**. 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.
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.

4.13 HYDRAULIC HOSES

WARNING

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

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

1. Always lower implements to ground, disengage all drives, engage parking brake, stop engine, and remove key before inspecting or disconnecting hydraulic lines or hoses.
2. Check visible hoses and tubes daily. Look for wet hoses or oil spots. Replace worn or damaged hoses and tubes before operating the machine.
3. The replacement tube or hoses must be routed in the same path as the existing hose. Do not move clamps, brackets, and ties to a new location.
4. Thoroughly inspect all tubes, hoses, and connections every 300 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 MAINTENANCE

4.14 HYDRAULIC OIL

Refer to **Section 4.24** for specific maintenance intervals.

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

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

To change hydraulic oil:

1. Clean the area around the oil cap to prevent impurities from entering and contaminating the system.
2. Remove drain plug from bottom of tank.
3. After oil has drained install drain plug and fill with Jacobsen Hydraulic Oil.
4. Purge air from system.
 - a. Operate all mower functions for about 5 minutes to purge air out of the system and stabilize the oil level. During this time, the oil level alarm may sound.
 - b. Once the level has stabilized and the air is purged, fill the tank to the full mark on dipstick. Start engine and check that oil alarm remains off.

4.15 HYDRAULIC FILTERS

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

Note: *The warning light will normally come on immediately after starting mower and remain on until oil has warmed to operating temperature. Wait until oil has warmed up and light goes out before operating mower.*

To replace hydraulic filters:

Replace filters once a year when changing hydraulic fluid, or when filter warning light on instrument panel remains on.

The return line filter is mounted to the left side of the oil cooler. The charge filter is mounted to the lower part of the mower frame behind the left side lift arm.

1. Remove the old filters.

Note: *Some hydraulic fluid will drain when removing the lower charge filter. Place a drip pan under filter before removing.*

2. Install new filters. Hand tighten only.
3. Operate engine at idle speed with hydraulic system in neutral for five minutes. The oil level alarm may sound during this time.
4. Check hydraulic oil level in reservoir and fill to full mark on dipstick.

4.16 RADIATOR & 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.

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

If you have to add coolant more than once a month, or add more than one quart at a time, have a Jacobsen Dealer check the cooling system.

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

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

Keep screen, oil cooler, and radiator air passages clean. Use compressed air (30 psi (206 kPa) maximum) to clean the fins.

Front Screen

Inspect front screen **(B)** daily and clean as required to remove grass clippings, leaves and other debris that may restrict air flow through oil cooler and radiator.

To remove screen, remove end cap **(A)** from left side of oil cooler. Slide screen out from side and blow out from back side using compressed air.

Oil Cooler and Radiator

Inspect oil cooler and radiator daily and clean as required to maintain good air flow.

1. Remove screen **(B)** from front of oil cooler.
2. Unfasten knobs **(C)** located on top of oil cooler and remove plastic shield from front of oil cooler.

3. Release prop rod **(D)** at bottom of cooler and position hydraulic line to the front of it so hose can move freely. Swing cooler up and away from radiator as shown **(E)**. Insert prop rod into hole in frame to hold oil cooler in its service position.
4. Use a blow gun to clean the radiator and oil cooler fins.
5. After cleaning, swing cooler back in place in front of radiator. Secure prop rod **(D)** down so it holds hydraulic line running behind it in place.
6. Replace front screen and shields, and install knobs on top of oil cooler to secure assembly in place.

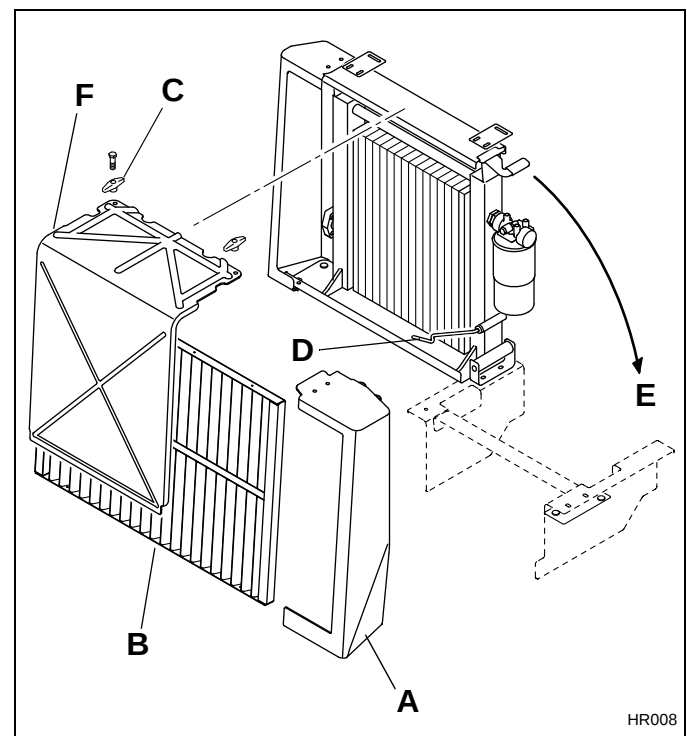


Figure 4F

4 MAINTENANCE

4.17 CARE AND CLEANING

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

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

1. Use compressed air to clean engine and radiator fins. A special blow gun is available through your Jacobsen Dealer.
2. Use only fresh water for cleaning your equipment.

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

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

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

Repair damaged metal surfaces and use 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.



CAUTION

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

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

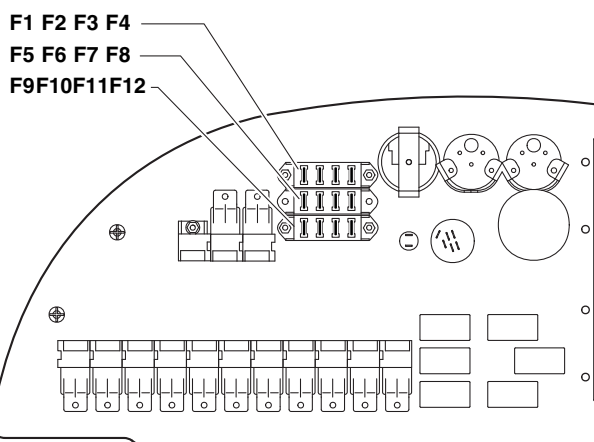
1. Make certain all terminals and connections are clean and properly secured.
2. Check the operator backup system, fuses, and circuit breakers regularly.

If the operator backup 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.

Circuits are protected by a circuit breaker (located above batteries), plus fuses and relays mounted under the instrument panel (See **Figure 4G** and table of next page).

The table on the next page identifies the location and basic functions of the electrical relays located under the control panel. For more detailed information refer to the electrical schematic in this manual.



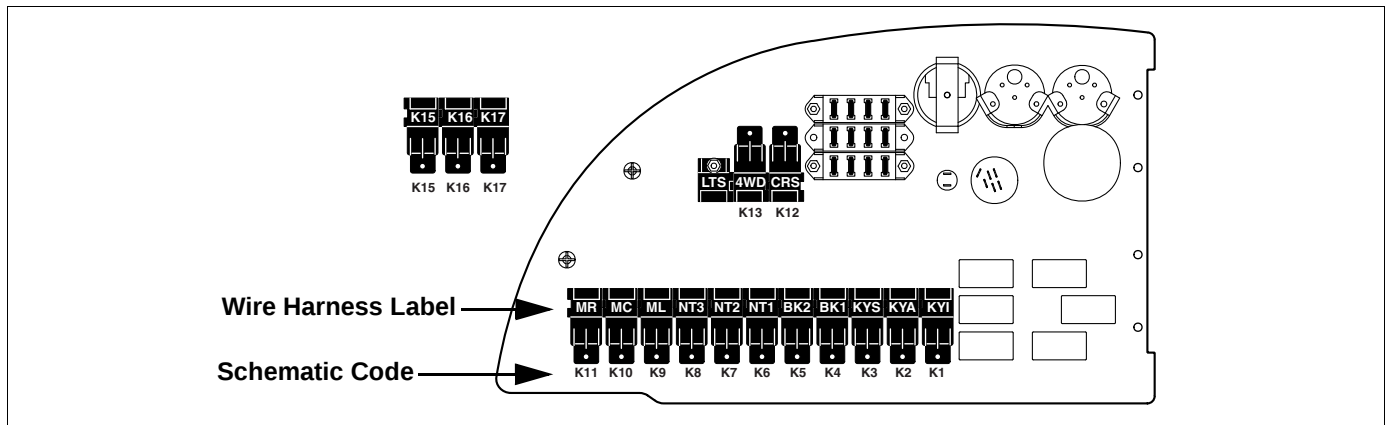
FUSES

F1	5A	Spare
F2	5A	Spare
F3	15A	Spare
F4	15A	Spare
F5	5A	Ignition
F6	5A	Gauges
F7	5A	Fuel solenoid, Glow Plugs
F8	15A	Seat air system
F9	5A	Cruise Control
F10	5A	4-WD Solenoid
F11	5A	Deck Limit Switches
F12	15A	Deck Valves

HR006

Figure 4G

Always check Interlock System after servicing the electrical system!



Relay	Description	Function
KYA / K2	Key Switch "A"	Holds fuel stop solenoid valve open when ignition switch is in the RUN position and operator is seated. Activates glow plug timer if engine isn't running.
KYI / K1	Key Switch "I"	Opens fuel stop solenoid valve when ignition switch is in the START position, power take-off switch is OFF, parking brake and neutral switches are closed.
KYS / K3	Key Switch "S"	Cranks starter motor when ignition switch is in the START position, power take-off switch is OFF, parking brake and neutral switches are closed.
BK1 / K4	Brake -Start	Part of starting circuit. Relay closes when parking brake is engaged.
BK2 / K5	Brake-Run	Disconnects power to cruise control relay (CRS) with parking brake engaged. Disconnects power to the fuel valve when the operator leaves seat with parking brake disengaged.
NT1 / K6	Neutral-Start	Part of starting circuit. Relay closes when traction pedal is in Neutral.
NT2 / K7	Neutral-Run	Disconnects power to the fuel stop solenoid valve when operator leaves seat with neutral switch still open (traction pedal pressed).
NT3 / K8	Neutral-Cruise	Disconnects power to cruise control when neutral switch is closed (traction pedal in Neutral).
ML / K9	Mow -Left Deck	Energizes solenoid to left side deck valve when deck is lowered and power take-off switch is ON.
MC / K10	Mow-Center Deck	Energizes solenoid to front deck valve when deck is lowered and power take-off switch is ON.
MR / K11	Mow-Right Deck	Energizes solenoid to right side deck valve when deck is lowered and power take-off switch is ON.
CRS / K12	Cruise Control	Activates cruise control when cruise control switch is closed, traction pedal is pressed and parking brake is disengaged.
4WD / K13	Four Wheel Drive	Energizes solenoid to four wheel drive valve when four wheel drive switch on instrument panel and forward sensing switch on traction pump are closed.
LTS	Lights	Included with light harness kit 5003564. Controls operation of lights.
K15	Run Circuit Cutout	Disables run circuit when keyswitch is turned to START position.
K16	Auxilliary	Provides power to ignition circuit with keyswitch in RUN position. Disables ignition circuit in START position.
K17	Ignition	Provides power to gauges, mow circuit, 4WD circuit and seat switch circuit.

4 MAINTENANCE

4.19 TIRES

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.

1. Keep tires properly inflated to prolong tire life. Check inflation pressure while the tires are cool. Inspect tread wear.

2. Check pressure yearly. Use an accurate, low pressure tire gauge.

3. Keep tires inflated to proper pressure

Mower: 20-22 psi (138 -152kPa)

Decks: 20-25 psi (138 -173 kPa)

4.20 WHEEL MOUNTING PROCEDURE

Mower Wheels

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 or brake drum.
3. Finger tighten all hardware, then torque hardware in crisis-cross order. Always tighten nuts in the top position.

NOTE: Check and torque lug bolts daily for the first 100 hours of operation.

4. After receiving new unit, or if tires were removed, check and torque lug bolts daily until torque is maintained, 65-75 ft.lbs. (88-102 Nm).

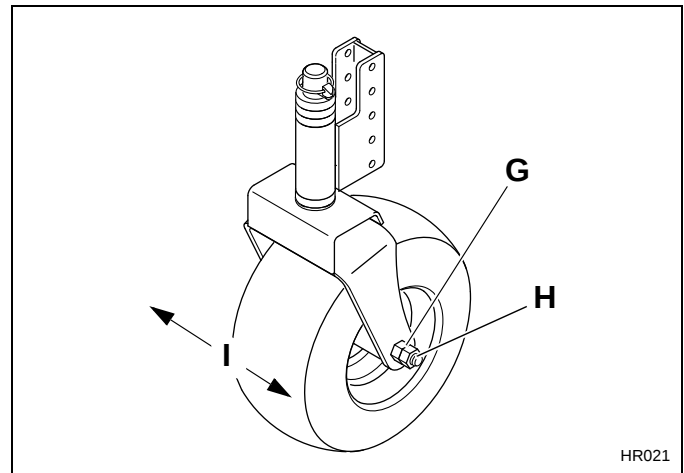
Caster Wheels

To extend bearing life check and adjust caster and gauge wheels every year. Lubricate bearings every 100 hours using NLGI Grade 2 grease.

1. Raise deck so wheels are off ground and can be rotated freely by hand.
2. Check wheels for end play (**I**). Wheels should rotate freely with zero end play.
3. To eliminate end play, tighten inner nut (**G**) until wheel just begins to bind then loosen it 1/4 turn.

Lock inner nut in position using outer nut (**H**). Do not allow inner nut to rotate while tightening outer nut.

4. Repeat step 2 and check for end play.



HR021

Figure 4H

4.21 ROLLOVER PROTECTION STRUCTURE (ROPS)

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



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.

4.22 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

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

Cutting Units

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

After Storage

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



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

4 MAINTENANCE

4.23 MAINTENANCE CHART



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.

For smooth operation of pivot points and other friction points, apply several drops of SAE 30 oil every 50 hours or as required.

Remove wheels and repack bearings once a year.

Recommended Service and Lubrication Intervals

	Daily Before Starting	Every 25 Hours	Every 50 Hours	Every 100 Hours	Every 250 Hours	Every Year	See Section	Lubricant Type
Air Cleaner Indicator	I						4.7	
Air Cleaner Element	R-AR					R	4.7	
Battery				I-C		I-C	4.10	
Caster Wheel Bearings		A*		L		I-A	4.20	I
Engine Fan Belt		I*		I-A			**	
Engine Oil	I-A	R*			R		4.5	III
Engine Oil Filter		R*			R		4.5	
Fuel Filter						R	4.9	
Drain Water from Fuel Filter				C			**	
Grease Fittings - F1			L				4.24	II
Grease Fittings - F2				L			4.24	II
Hydraulic Fluid	I-A					R	4.14	IV
Hydraulic Fluid Filters	R-AR					R	4.15	
Oil Cooler	I-C***						4.16	
Parking Brake			I-A*		A			
Radiator Screen	I-C						4.16	
Radiator Coolant	I-A					R	4.16	
Steering Assist Brakes			I-A*		A			
Tires	I****					I-A	4.19	

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

* Indicates initial service for new machines

** See Engine Manual

*** Clean as Required

**** Check lug bolt torque daily for first 100 hours of operation

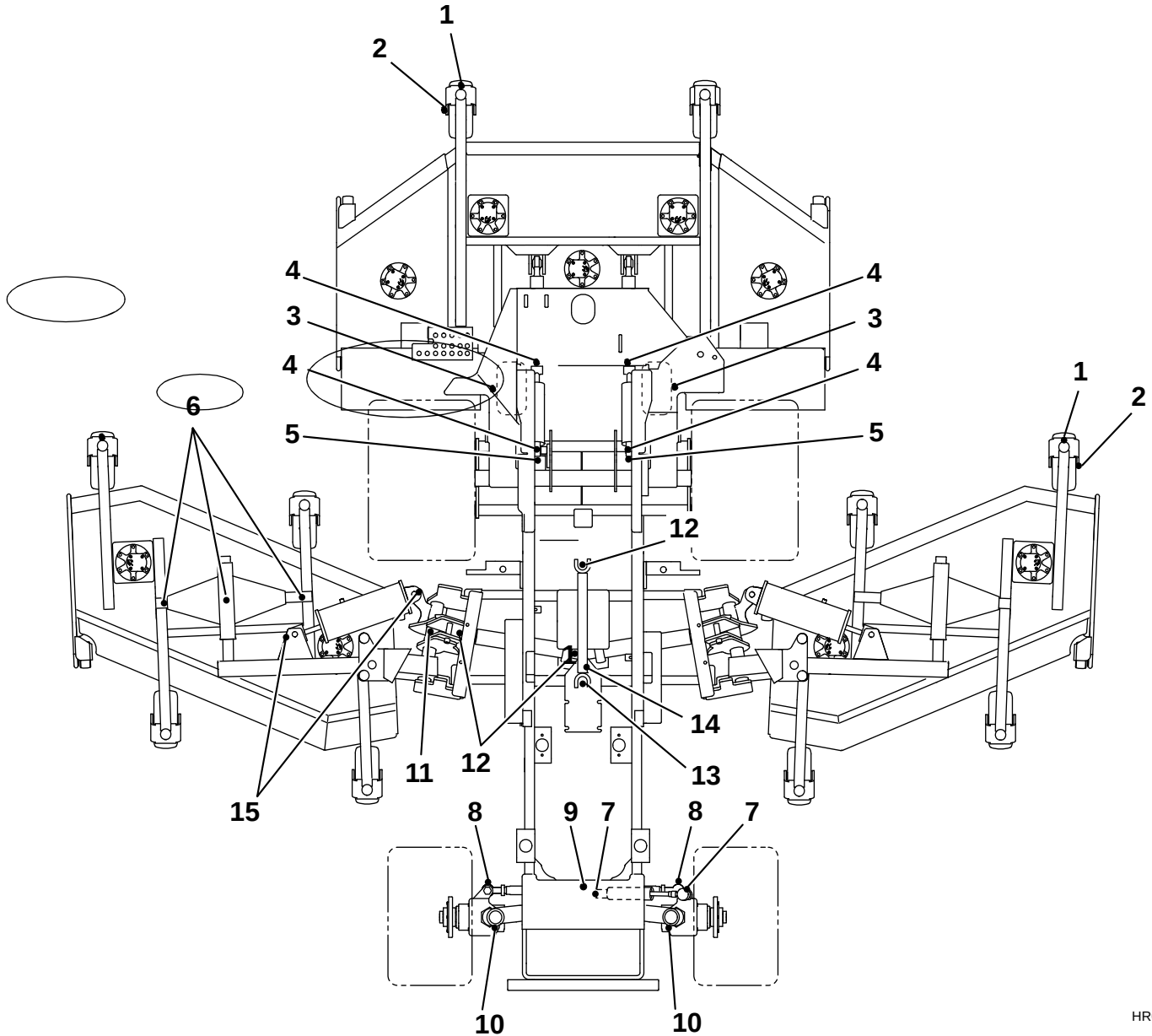
I Pack bearings with NLGI Grade 2 (Service Class GB)

II Manual grease gun with NLGI Grade 2 (Service Class LB)

III Engine Oil - See Section 4.5

IV Jacobsen Hydraulic Oil - VG ISO 68

4.24 LUBRICATION CHART



HR014

Grease Fitting Locations

F1 - 50 Hours (Every Week)		Qty	F2 - 150 Hours		Qty
1	Caster Spindles	(10)	13	Drive Shaft U-Joint	(2)
2	Caster Wheel Axles	(10)	14	Drive Shaft Slip Joint	(1)
3	Gauge Wheel Axles	(2)	15	Return Canister Pivot	(6)
4	Lift Cylinder - Front Deck	(4)			
5	Lift Arm - Front Deck	(2)			
6	Side Deck Pivots	(6)			
7	Steering Cylinder	(2)			
8	Tie Rod	(2)			
9	Axle Pivot	(1)			
10	Wheel Pivot	(2)			
11	Lift Arm - Side Deck	(2)			
12	Lift Cylinder - Side Deck	(4)			

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.	1. Parking brake disengaged or power take-off switch ON. 2. Glow plug has not timed out. 3. Battery low on charge or defective. 4. Fuel tank empty or dirty. 5. Fuse blown. 6. Relay(s) defective. 7. Traction pedal not in Neutral. 8. Neutral switch on drive pump not working. 9. Forward sensing switch on drive pump not working.	1. Check Interlock System and start-up procedure. 2. Reset ignition switch and allow glow plug to time out before cranking engine. 3. Inspect condition of battery and battery connections. 4. Fill with fresh fuel. Change fuel filter. Bleed fuel lines. 5. Replace fuse. 6. Test and replace relay. 7. Check position of pedal. Adjust Linkage. 8. Test, adjust, or replace switch. 9. Test, adjust, or replace switch.
Engine hard to start or runs poorly.	1. Fuel level low, fuel or fuel filter dirty. 2. Air cleaner dirty. 3. Injectors, fuel pump. 4. Engine problem.	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.	1. Fuel tank empty. 2. Interlocks not set before leaving operator's seat.	1. Fill with fresh fuel and bleed fuel lines. 2. Engage parking brake and set power take-off switch to OFF.
Engine overheating.	1. Coolant level low. 2. Air intake restricted. 3. Water pump belt broken or loose.	1. Inspect and add coolant. 2. Clean air intake at radiator. 3. Tighten or replace belt. See engine manual.
Battery not holding charge. Battery light on.	1. Loose or corroded battery terminals. 2. Low electrolyte. 3. Alternator belt loose or broken. 4. Charging system defective.	1. Inspect and clean terminals. 2. Refill to correct level. 3. Tighten or replace belt. See engine manual. 4. See engine manual.
Cutting units not cutting evenly	1. Cutting heights not set evenly. 2. Engine speed too low. 3. Mow speed not adjusted for turf conditions. 4. Air pressure in caster tires not adjusted correctly.	1. Check that decks are level. Check and adjust cutting height. 2. Check engine speed with throttle in its fast position. 3. Adjust mow speed for best cut. 4. Check tires and adjust to correct pressure.

7 PARTS LIST

7.1 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 1, next to the item number, indicate that a note exists which contain 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	
1	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, 1/4-20 x 2" Hex Head	

7.2 TO ORDER PARTS

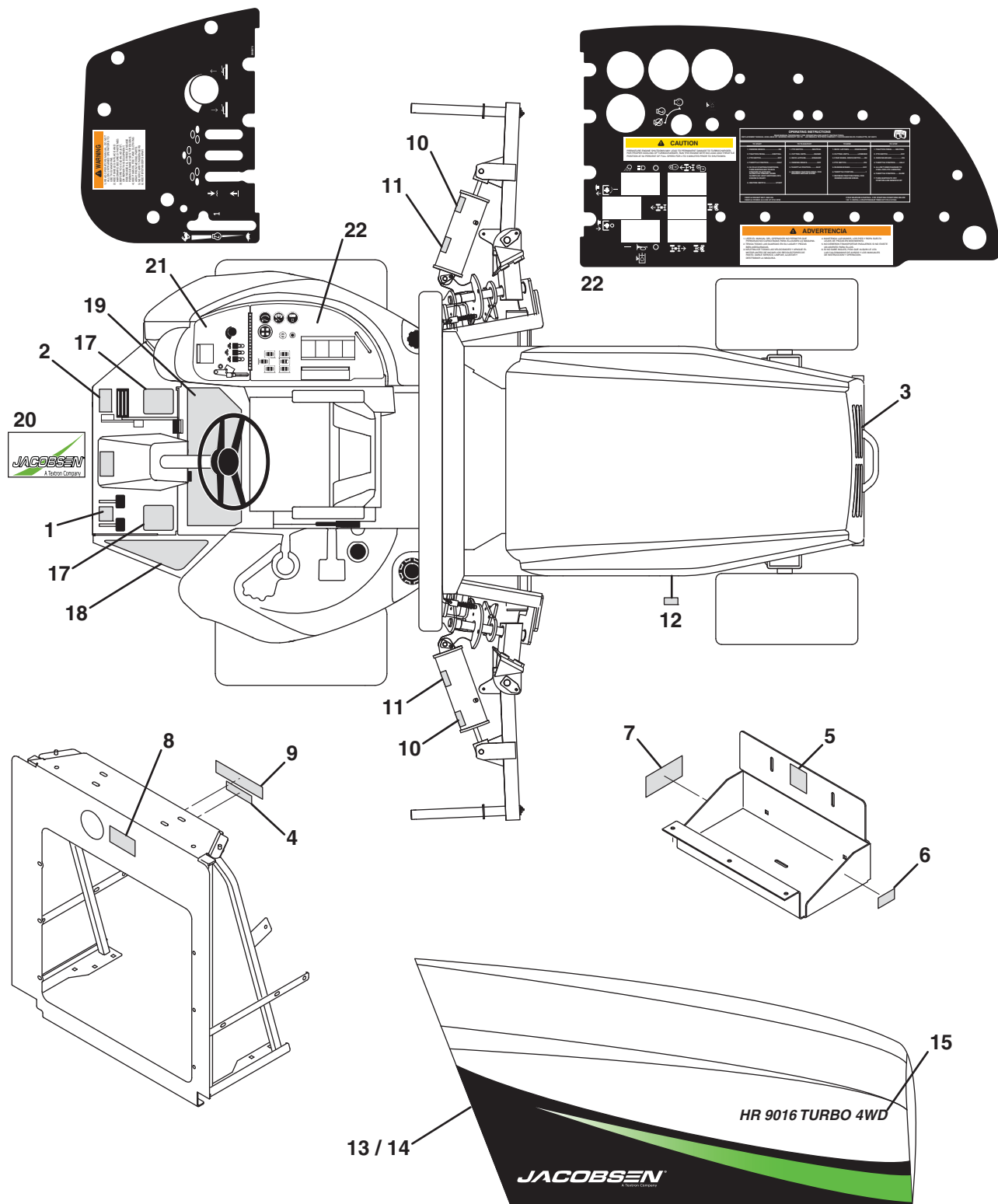
1. Write your **full** name and **complete** address on the order.
2. Explain where and how to make shipment.
3. Give product number, name and serial number that is stamped on the name plate or serial plate of your product.
4. Order by the quantity desired, the part number, and description of the part 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.

7.3 PARTS CATALOG TABLE OF CONTENTS

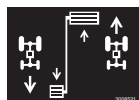
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1.1 Decals-Tractor





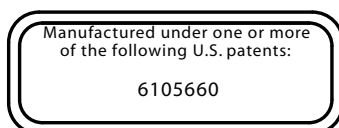
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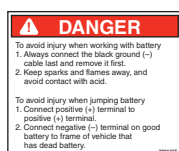
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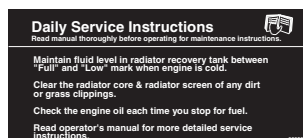
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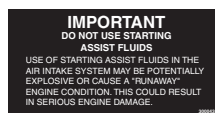
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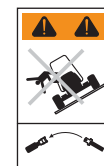
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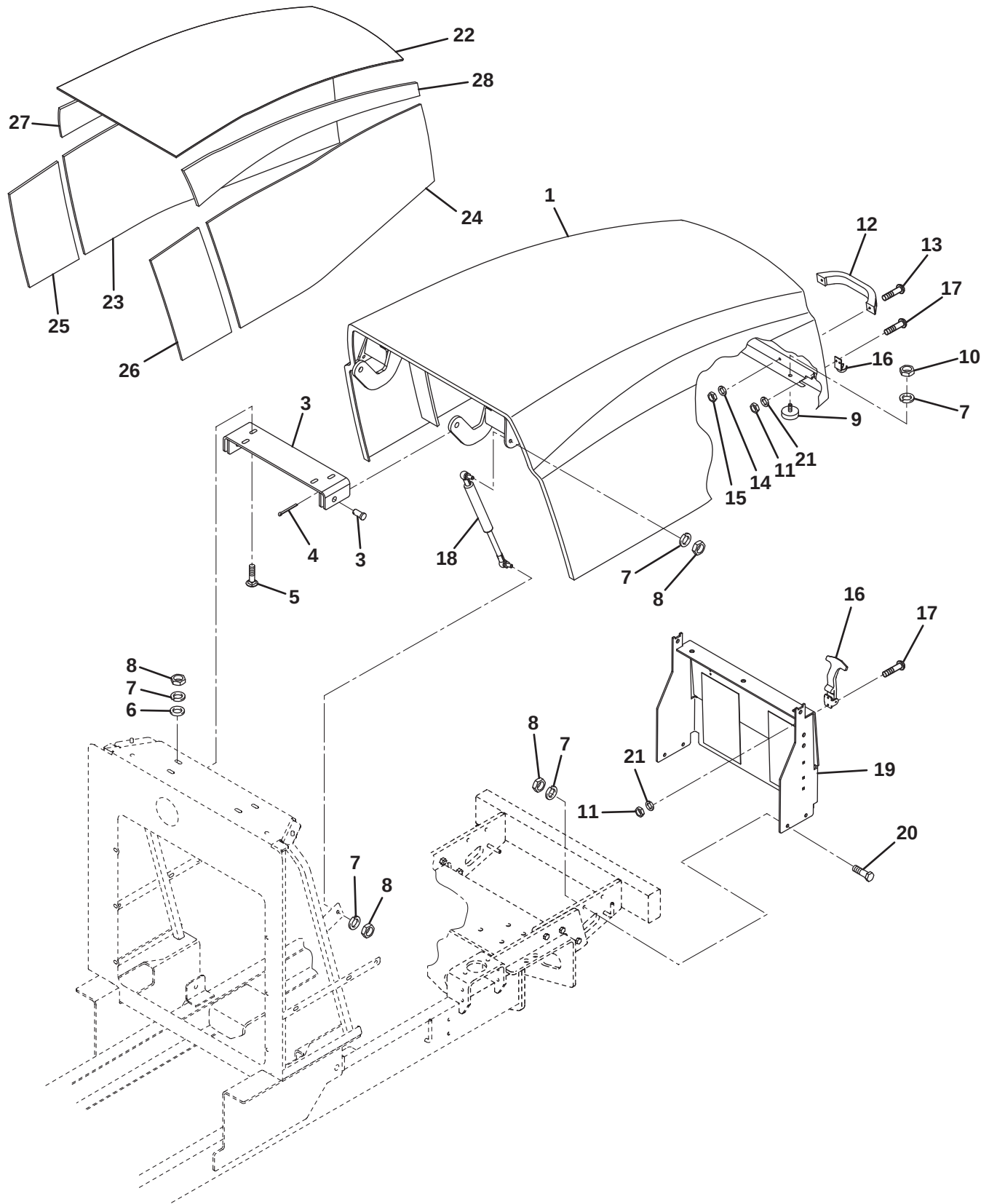
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	360053	1	Decal, Brake	
2	3008521	1	Decal, Traction	
3	2812396	1	Decal, Towing Caution	
4	365956	1	Decal, Radiator Cap Warning	
5	3001435	1	Decal, Battery Danger	
6	339237	1	Decal, Heat Warning	
7	363994	1	Decal, Daily Service	
8	3000435	1	Decal, Start Assist Fluids	
9	363995	1	Decal, Antifreeze	
10	363704	2	Decal, Latch Pin Warning	
11	3009266	2	Decal, Stored Energy Warning	
12	4125771	1	Decal, Patent	
13	4122243	1	Decal, Left Side Stripe	
14	4122244	1	Decal, Right Side Stripe	
15	4124692	2	Decal, HR-9016 Turbo 4WD	
16	557844	1	Decal, ROPS Structure	
17	3004287	2	Pad, Center Panel	
18	3009268	1	Pad, Step	
19	3009267	1	Pad, Floorboard	
20	4182386	1	Emblem, Jacobsen	
21	3009073	1	Decal, Control Panel	
22	4137295	1	Decal, Instrument Panel	
23	5002952	1	Decal, ROPS Seat Belt	
24	4138762	1	Decal, Warning	

> Change from previous revision

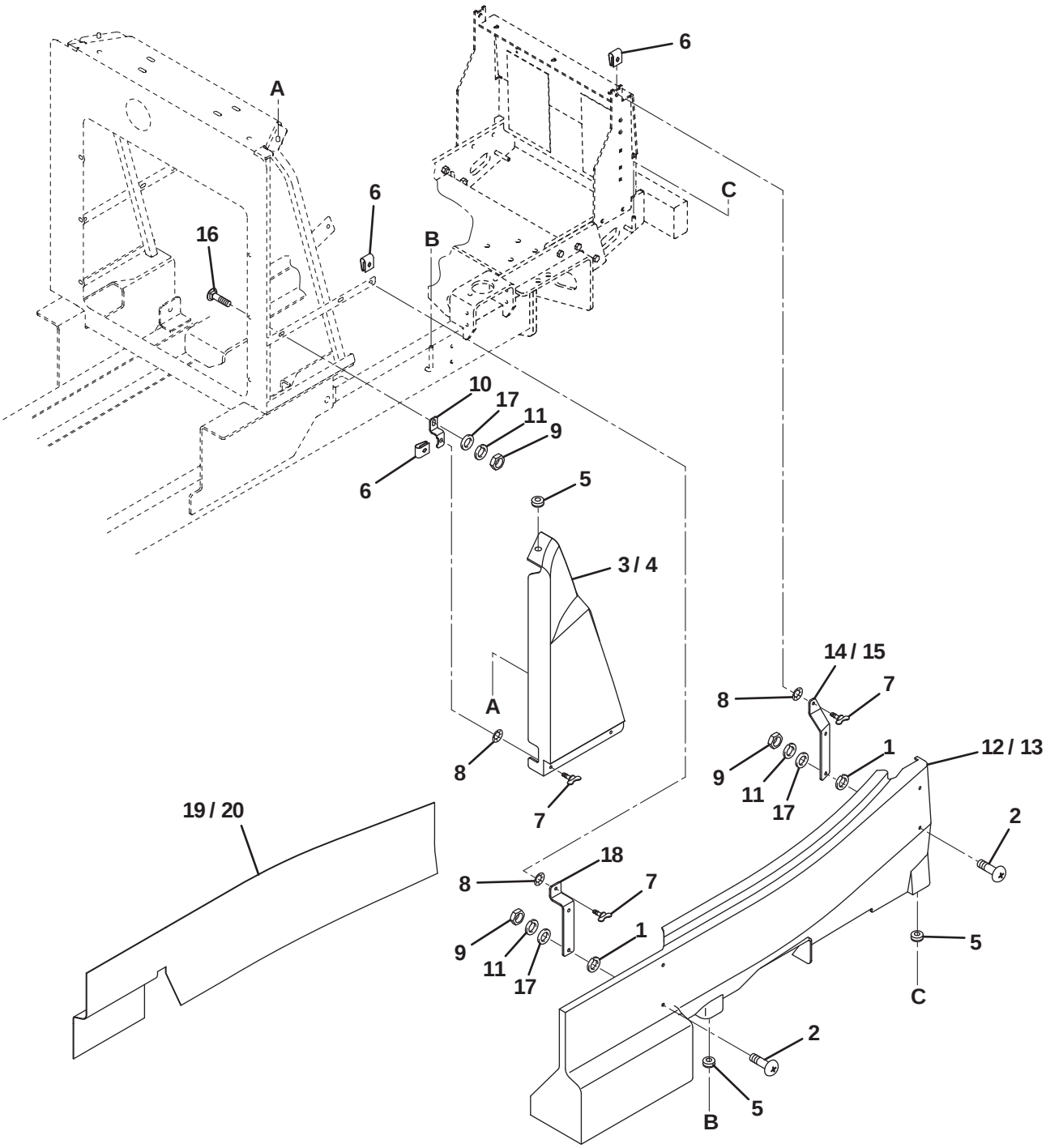
1.1 Hood



	Item	Part No.	Qty.	Description	Serial Numbers/Notes
>	1	4126099	1	Hood	
	2	1003679	1	Pivot, Hood	
	3	3006644	2	Pin, Special Clevis	
	4	460028	2	Cotter pin, 1/8 x 1"	
	5	440120	4	Carriage Bolt, 3/8-16 x 1-1/4"	
	6	452008	4	Flat Washer, 3/8	
	7	446142	8	Lockwasher, 3/8 Heavy	
	8	443110	6	Nut, 3/8-16 Hex	
	9	354989	2	Stop, Rubber	
	10	443112	2	Nut, 3/8-24 Hex	
	11	444310	8	Nut, #10-24 Hex	
	12	340795	1	Handle, Hood	
	13	402230	2	Screw, 1/4-20 x 1" Slotted	
	14	446128	2	Lockwasher, 1/4	
	15	443102	2	Nut, 1/4-20 Hex	
>	16	1004686	2	Latch, Flexible Draw	
	17	403920	8	Screw, #10-24 x 1-1/4" Truss Head	
	18	3009793	2	Spring, Gas	Model 70528 and 70529
	18	3009793	1	Spring, Gas (One Side Only	Model 70530 and 70531
>	18	2809834	1	Spring, Gas (One Side Only)	Model 70530 and 70531
	19	4136563	1	Support, Rear Hood	
	20	800709	4	Screw, 3/8-16 x 1" Flanged Head	
	21	446116	8	Lockwasher, #10	
	22	4119015	1	Foam, Top Hood	
	23	4119016	1	Foam, Lower Rear Side Hood-Left	Model 70530 and 70531
	24	4119017	1	Foam Lower Rear Side Hood-Right	Model 70530 and 70531
	25	4119018	1	Foam, Lower Front Hood-Left	Model 70530 and 70531
	26	4119019	1	Foam, Lower Front Hood-Right	Model 70530 and 70531
	27	4119020	1	Foam, Upper Hood-Left	Model 70530 and 70531
	28	4119021	1	Foam, Upper Hood-Right	Model 70530 and 70531

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1.1 Cowlings and Skirts

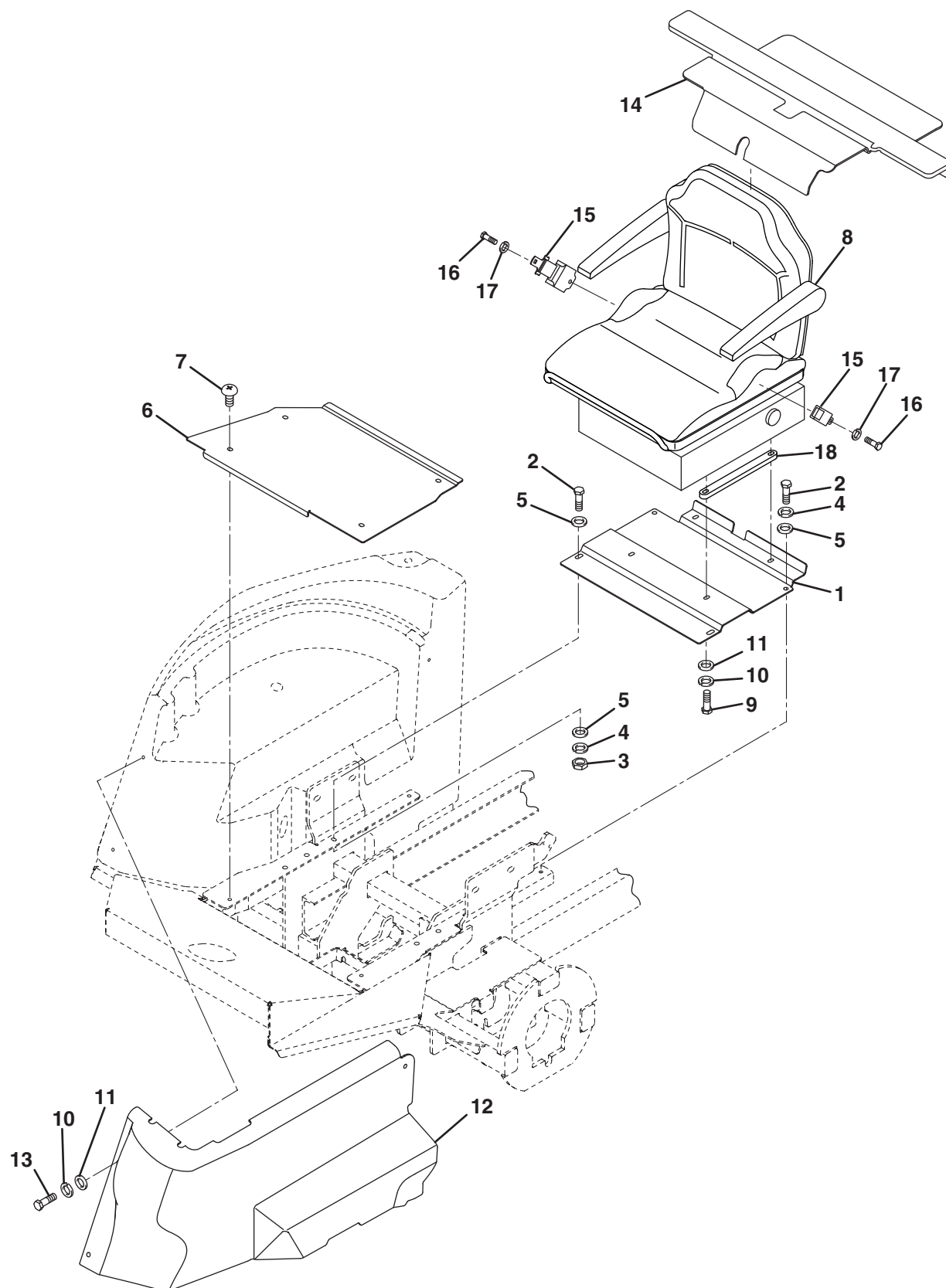


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	447414	8	Lockwasher, 3/8 External Tooth	
2	404118	8	Screw, 3/8-16 x 7/8" Truss Head	
3	3006663	1	Left Side Cowling	
4	3006664	1	Right Side Cowling	
5	352604	6	Grommet	
6	3005604	8	Receptacle, #85 1/4 Turn	
7	3007704	8	Stud, #85 1/4 Turn	
8	3005603	8	Retainer	
9	443110	12	Nut, 3/8-16 Hex	
10	3006915	4	Bracket, Cowling Mounting	
> 11	446142	12	Lockwasher, 3/8 Heavy	
12	3006723	1	Left Side Skirt	
13	3006724	1	Right Side Skirt	
14	3007099	1	Bracket, Left Side Skirt Mounting	
15	3007100	1	Bracket, Right Side Skirt Mounting	
16	440120	4	Carriage Bolt, 3/8-16 x 1-1/4"	
17	452008	12	Flat Washer, 3/8	
18	3008015	2	Bracket, Front Skirt	
19	4119022	1	Foam, Side Skirt-Right	Model 70530 and 70531
20	4119023	1	Foam, Side Skirt-Left	Model 70530 and 70531

> Change from previous revision

1.1 Seat Pan and Heat Shield

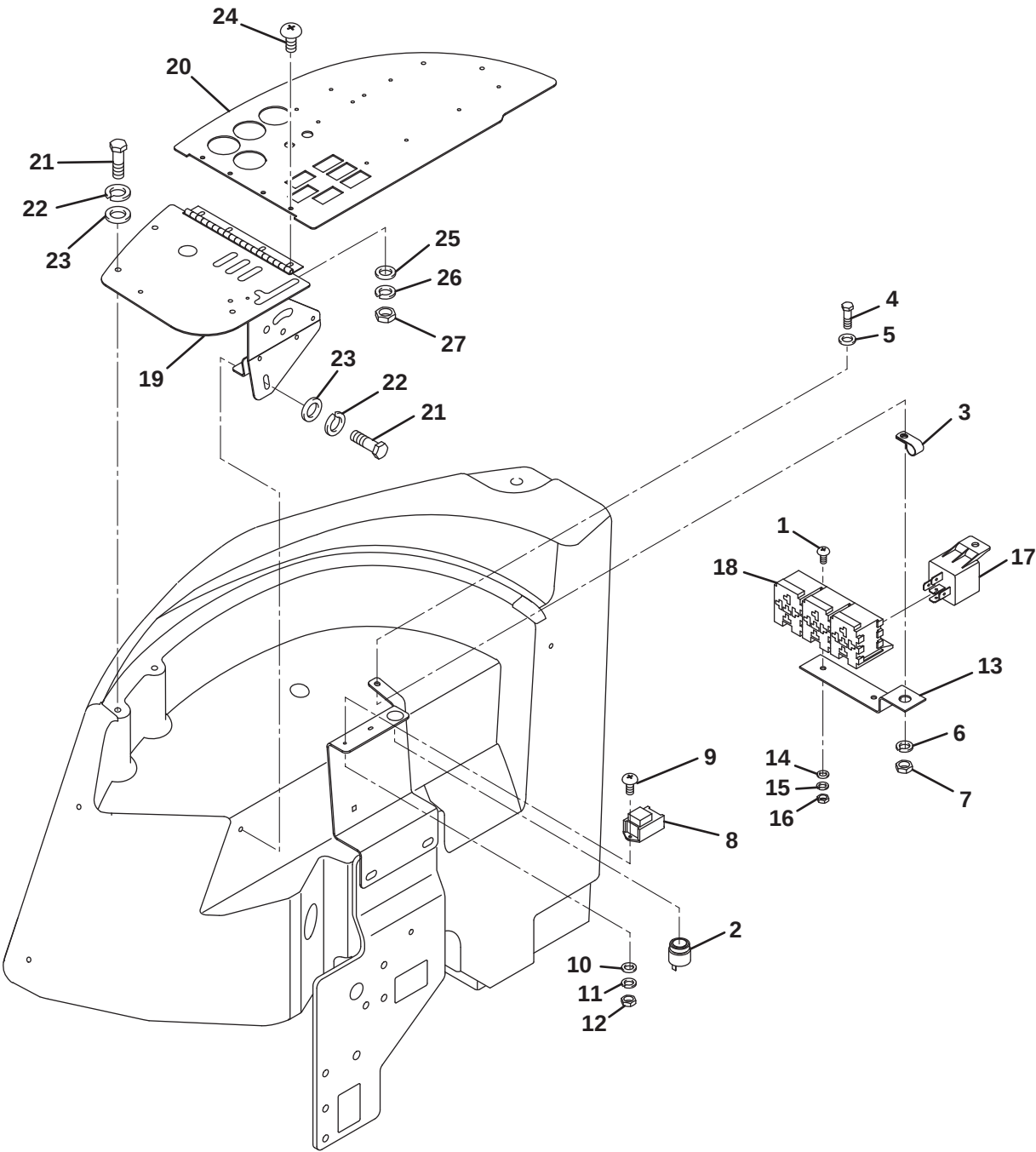
Serial No. All



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3007032	1	Seat Pan	See 47.1 See 48.1 Reference SW2, See 67.1 Used On 70528 and 70530 Used On 70529 and 70531 Used On 70529 and 70531 Used On 70529 and 70531 Used On 70529 and 70531
2	400264	4	Screw, 3/8-16 x 1-1/4" Hex Head	
3	443110	2	Nut, 3/8-16 Hex	
4	446142	4	Lockwasher, 3/8 Heavy	
5	452008	6	Flat Washer, 3/8	
6	5003457	1	Plate, Floorboard	
7	404118	4	Screw, 3/8-16 x 7/8" Truss Head	
8	—	1	Seat with Air Suspension	
	5003625	1	• Air Ride Suspension	
	4185932	1	• Seat Assembly	
	4139450	1	• • Seat Switch	
9	450016	4	Screw, M8-1.25 x 40mm Hex Head	
10	446136	7	Lockwasher, 5/16 Heavy	
11	452006	7	Flat Washer, 5/16	
12	3006880	1	Heat Shield	
13	400182	3	Screw, 5/16-18 x 5/8" Hex Head	
14	3010013	1	Shield, Floor	
14	3010789	1	Shield, ROPS Floor	
15	5003617	1	Seat Belt Assembly	
16	400370	2	Screw, 7/16-20 x 1" Hex Head	
17	446148	2	Lockwasher, 7/16 Heavy	
18	4186600	2	Spacer, Seat	

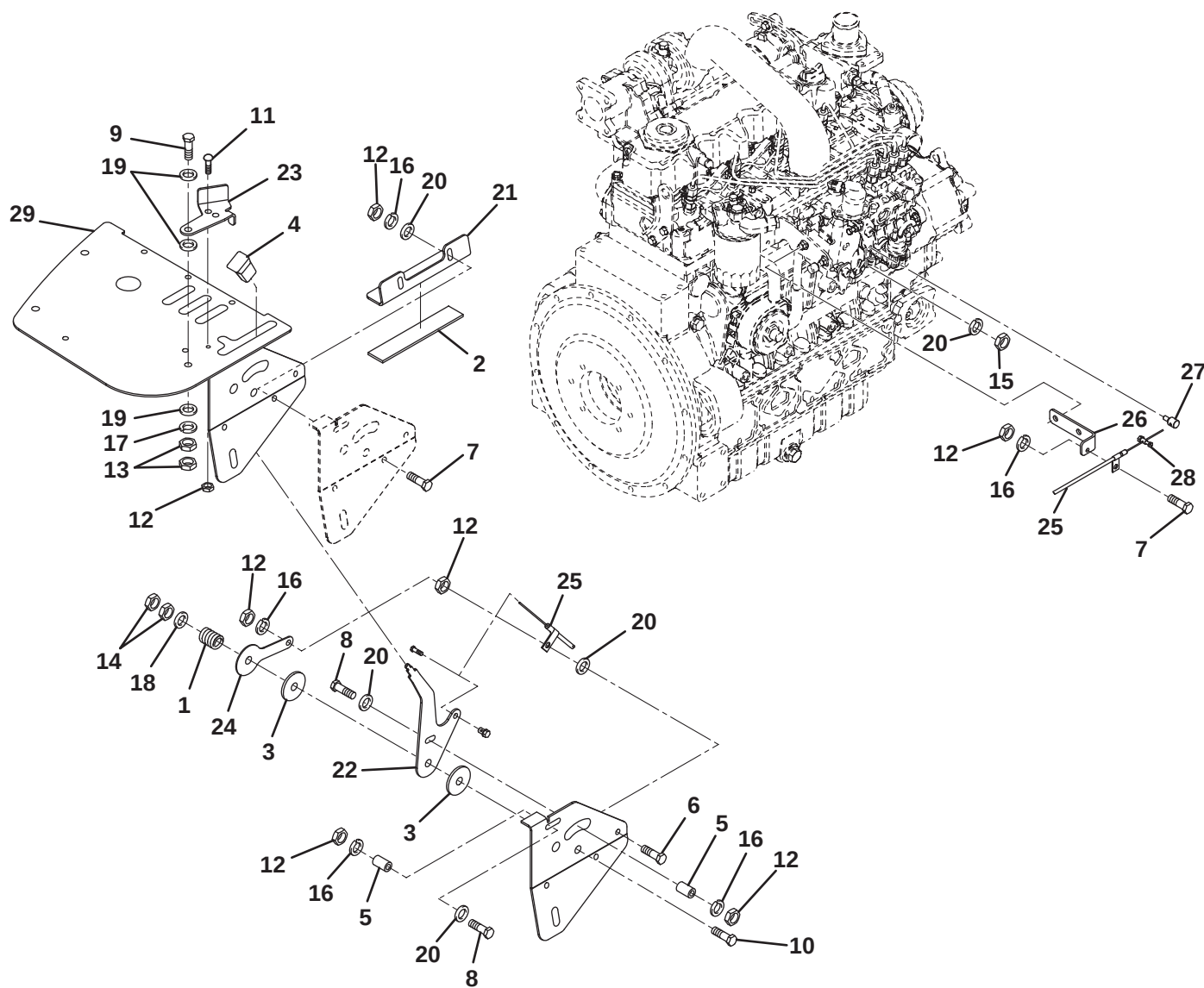
> Change from previous revision

1.1 Control Panel Mounting



Item	Part No.	Qty.	Description	Serial Numbers/Notes
>	1	2	Screw, #10-32 x 1/2" Truss Head	REFERENCE U11, See 67.1
	2	1	Horn	
	3	1	Clip-Insulated, 1.75 Cable	
	4	1	Screw, 3/8-16 x 7/8" Hex Head	REFERENCE U2, See 67.1
	5	1	Flat Washer, 3/8	
	6	1	Lockwasher, 3/8	
	7	1	Nut, 3/8-16 Hex	
	8	1	Relay, Time Delay	
	9	2	Screw, #8-32 x 5/8" Truss Head	
	10	3	Flat Washer, #8	
	11	2	Lockwasher, #8 Heavy	
	12	2	Nut, #8-32 Hex	
	13	1	Bracket, Relay	
	14	2	Flat Washer, #10	
	15	2	Lockwasher, #10	
	16	2	Nut, #10-24 Hex	
	17	3	Relay, SPDT with Resistor	REFERENCE K15, K16, K17, See 67.1 See 45.1 See 6.1 and 8.1 See 7.1
	18	1	Harness, Kubota Key Switch	
	19	1	Control Panel	
	20	1	Instrument Panel	
	21	3	Screw, 5/16-18 x 5/8" Hex Head	
	22	3	Lockwasher, 5/16	
	23	3	Flat Washer, 5/16	
	24	4	Screw, 1/4-20 x 1" Truss Head	
	25	4	Flat Washer, 1/4	
	26	5	Lockwasher, 1/4	
	27	5	Nut, 1/4-20 Hex	

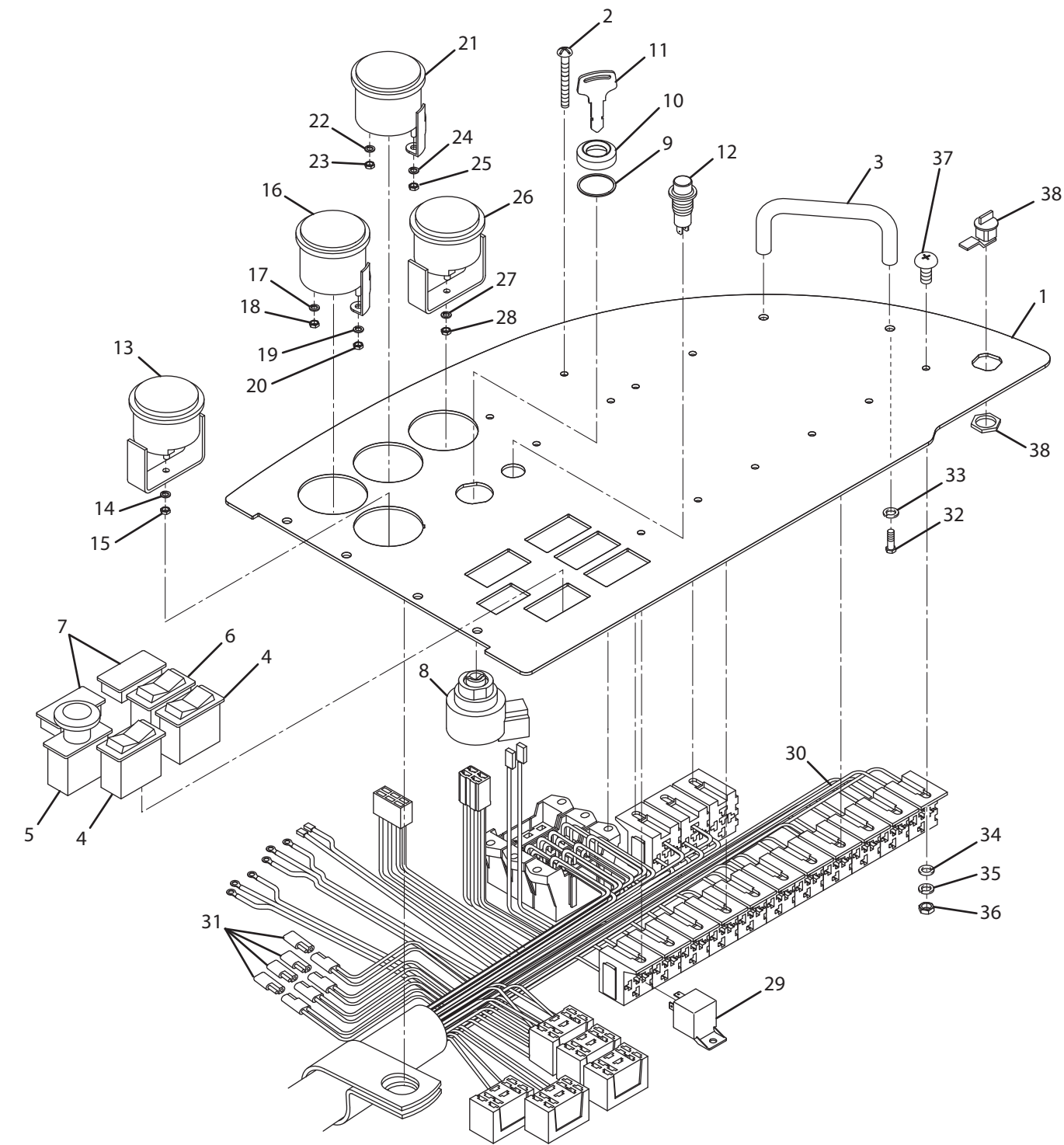
> Change from previous revision



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	351956	1	Spring, Compression	
2	558012	1	Pad, Cork/Rubber, Bulk	
3	360885	2	Disc, Friction	
4	366768	1	Knob, Throttle	
5	367176	2	Spacer	
6	400108	1	Screw, 1/4-20 x 3/4" Hex Head	
7	400110	2	Screw, 1/4-20 x 7/8" Hex Head	
8	400116	2	Screw, 1/4-20 x 1-1/2" Hex Head	
9	400188	1	Screw, 5/16-18 x 1" Hex Head	
10	400274	1	Screw, 3/8-16 x 2-1/2" Hex Head	
11	440040	1	Bolt, Carriage 1/4-20 x 5/8"	
12	443102	6	Nut, 1/4-20 Hex	
13	443106	2	Nut, 5/16-18 Hex	
14	443110	2	Nut, 3/8-16 Hex	
15	444708	1	Locknut, 1/4-20 Center	
16	446130	5	Lockwasher, 1/4" Heavy	
17	446134	1	Lockwasher, 5/16"	
18	452008	1	Flat Washer, 3/8"	
19	453009	3	Flat Washer, 5/16"	
20	453023	5	Flat Washer, 1/4"	
21	3006729	1	Tab, Throttle Support	
22	3006730	1	Lever, Throttle	
23	3008738	1	Stop, Throttle Control	
24	3008901	1	Plate, Back-up	
25	4136191	1	Throttle Cable Assembly	
26	4132650	1	Bracket, Throttle Linkage	
27	554988	1	Pivot, Throttle Cable	
28	303962	1	Throttle Linkage Catch	
29	5003425	1	Panel, Assembly, Control	

> Change from previous revision

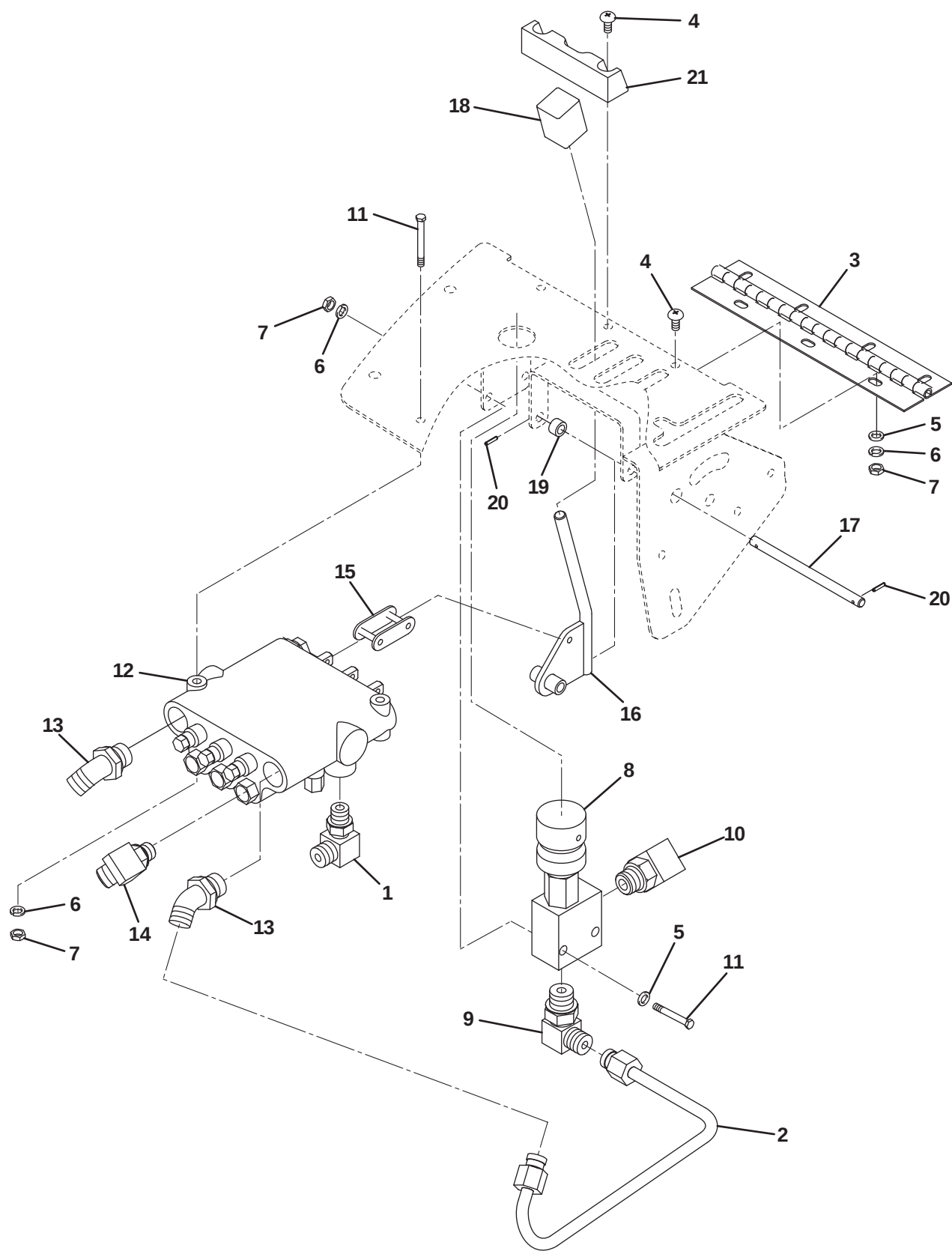
1.1 Instrument Panel



	Item	Part No.	Qty.	Description	Serial Numbers/Notes
>	1	4116910	1	Panel, Dash	
	2	403920	4	Screw, #10-24 x 2-1/2" Truss Head	
	3	366283	1	Handle	
	4	3006446	2	Switch, Test / 4WD-Reverse	REFERENCE SW12 & SW14, See 67.1
	5	2721505	1	Switch, PTO	REFERENCE SW3, See 67.1
	6	3006436	1	4WD Switch	REFERENCE SW13, See 67.1
	7	3006509	2	Hole Plug	
	8	2810269	1	Switch, Ignition	REFERENCE SW1, See 67.1
	9	N/S	1	• Lockwasher	
	10	N/S	1	• Nut	
>	11	2811020	2	• Key	
	12	366751	1	Indicator Light, Yellow	REFERENCE U8, See 67.1
	13	1002679	1	Gauge, Warning Light	REFERENCE U5, See 67.1
>		5003091	1	• Light Bulb and Socket	
	14	447006	1	• Lockwasher, #10 External Tooth	
	15	444310	1	• Nut, #10-24 Hex	
	16	3005121	1	Gauge, Water Temperature	REFERENCE U10, See 67.1
	17	447002	3	• Lockwasher, #6 External Tooth	
	18	444304	3	• Nut, #6-32 Hex	
	19	447206	2	• Lockwasher, #8 Internal Tooth	
	20	444306	2	• Nut, #8-32 Hex	
	21	365943	1	Gauge, Fuel Level	REFERENCE U9, See 67.1
	22	447002	3	• Lockwasher, #6 External Tooth	
	23	444304	3	• Nut, #6-32 Hex	
	24	447206	2	• Lockwasher, #8 Internal Tooth	
	25	444306	2	• Nut, #8-32 Hex	
	26	162723	1	Gauge, Hour Meter	REFERENCE U3, See 67.1
	27	447006	1	• Lockwasher, #10 External Tooth	
	28	444310	1	• Nut, #10-24 Hex	
>	29	3001307	13	Relay, SPDT With Resistor	REFERENCE K1 ~ K13, K15 ~ 17, See 67.1
	30	REF	1	Wire harness, Console	See 45.1
		5003278	8	• Fuse, 5 Amp (Tan)	REFERENCE F1, F2, F5 ~ F7, F9 ~ F11 See 67.1
		5003281	4	• Fuse, 15 Amp (Light Blue)	REFERENCE F3, F4, F8, F12, See 67.1
	31	555846	3	• Diode	REFERENCE D1 ~ 4, See 67.1
	32	400106	2	Screw, 1/4-20 x 5/8" Hex Head	
	33	446128	2	Lockwasher, 1/4	
>	34	452002	12	Flat Washer, #10	
>	35	446118	12	Lockwasher, #10 Heavy	
>	36	444310	12	Nut, #10-24 Hex	
>	37	403910	8	Screw, #10-24 x 1/2" Truss Head	
>	38	1004992	1	Latch, Panel	
	39	473208	1	Cable Tie #18 x 4	Not Shown

> Change from previous revision

1.1 Lift Valve and Controls

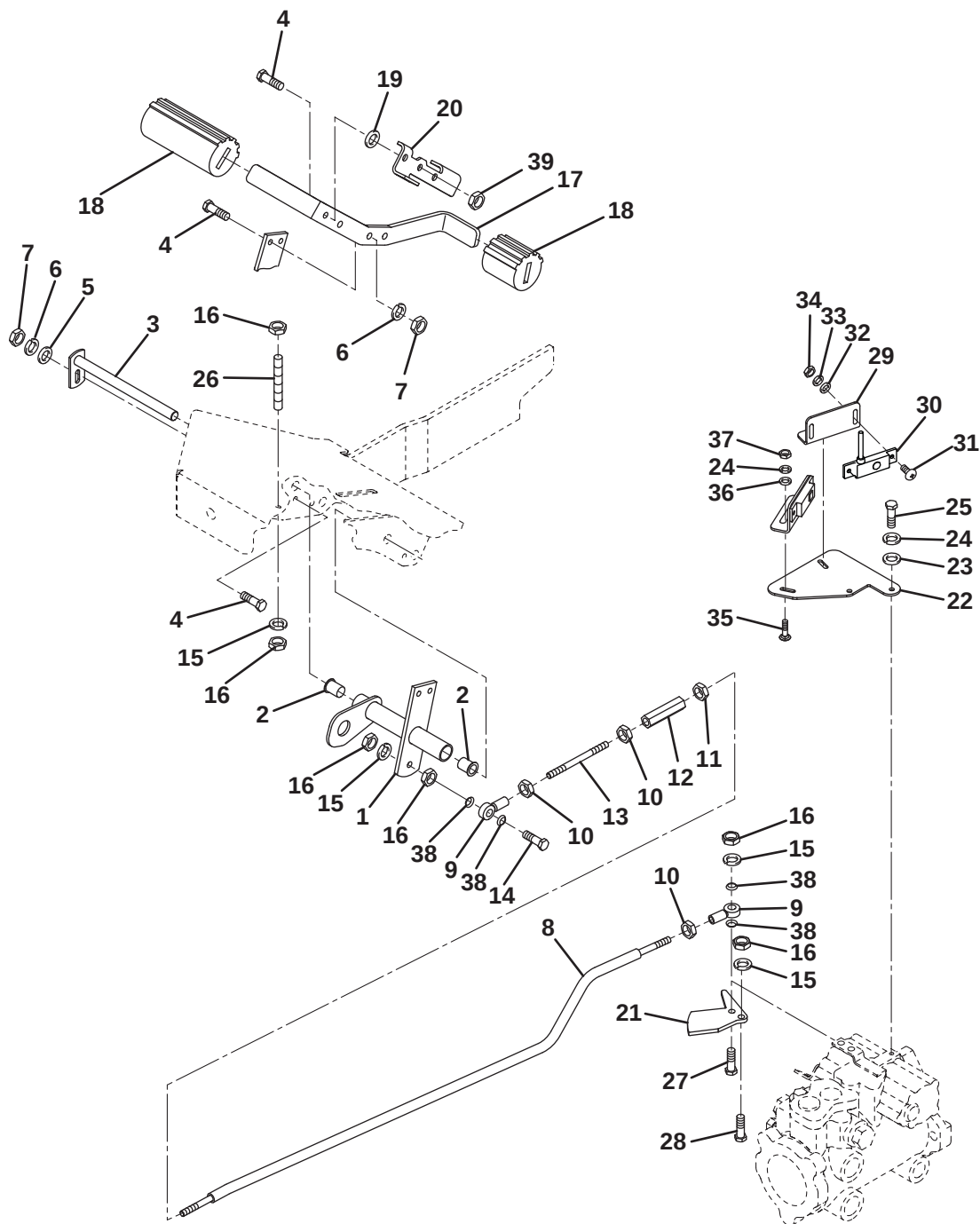


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340061	2	Adapter, 90°	See 8.1
2	1003611	1	Tube, Lift Valve to Backpressure	
3	3006737	1	Hinge, Control Panel	
4	404022	3	Screw, 1/4-20 x 1" Truss Head	
5	453023	5	Flat Washer, 1/4	
6	446128	7	Lockwasher, 1/4	
7	443102	7	Nut, 1/4-20 Hex	
> 8	1004584	1	Backpressure Valve	
	5003539	1	• Seal Kit	
	5003538	1	• Adjusting Knob	
9	340062	1	Adapter, 90°	
10	340029	1	Adapter, 45°	
11	400120	4	Screw, 1/4-20 x 2" Hex Head	
12	1001802	1	Lift Valve	
13	340027	2	Adapter, 45°	
> 14	340026	3	Adapter, 45°	
15	366133	3	Chain, Master Link With Clip	
16	1003100	3	Lever, Lift	
17	361833	1	Pin	
18	3005157	3	Knob	
19	367631	2	Spacer	
20	461356	2	Roll Pin, 3/32 x 1/2"	
21	3010082	1	Stop, Dash Panel	

> Change from previous revision

1.1 Accelerator Pedal

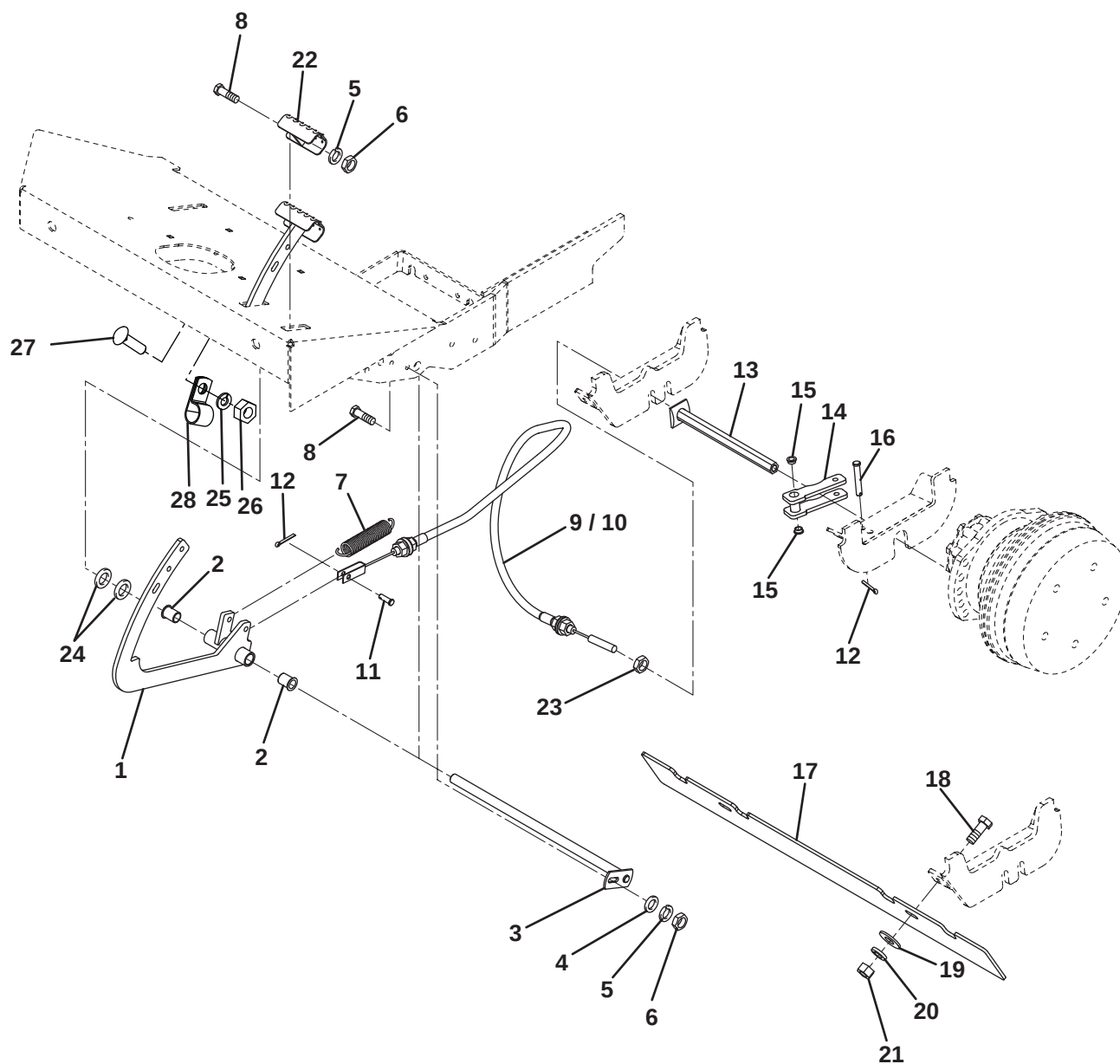
Serial No. All



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003244	1	Arm, Hydro Pedal	REFERENCE SW6 & SW 10, See 67.1
	471214	1	• Grease Fitting (Not Shown)	
2	3010305	2	• Bushing	
3	1003071	1	Shaft	
4	400190	4	Screw, 5/16-18 x 1-1/4" Hex Head	
5	453009	1	Flat Washer, 5/16	
6	446134	3	Lockwasher, 5/16	
7	443106	3	Nut, 5/16-18 Hex	
8	1003145	1	Link, Hydro Control	
9	366974	2	Rod End	
10	443112	3	Nut, 3/8-24 Hex	
11	445785	1	Nut, 3/8-24 Hex Left Hand	
12	3006889	1	Turnbuckle	
13	3006886	1	Threaded Rod	
14	400268	1	Screw, 3/8-16 x 1-3/4" Hex Head	
15	446140	4	Lockwasher, 3/8	
16	443110	6	Nut, 3/8-16 Hex	
17	3006888	1	Pedal, Hydro	
18	3003475	2	Grip, Pedal	
19	3002695	1	Washer	
20	3007230	1	Stop, Mow Speed	
21	3007228	1	Plate, Activator	
22	3007220	1	Plate, Switch	
23	452004	2	Flat Washer, 1/4	
24	446128	4	Lockwasher, 1/4	
25	400106	2	Screw, 1/4-20 x 5/8" Hex Head	
26	333542	1	Tie Stud	
27	400266	1	Screw, 3/8-16 x 1-1/2" Hex Head	
28	400262	1	Screw, 3/8-16 x 1" Hex Head	
29	3009026	2	Angle, Switch	
30	4140149	2	Switch, Proximity	
31	403746	4	Screw, #10-24 x 5/8" Truss Head	
32	452002	4	Flat Washer, #10	
33	446118	4	Lockwasher, #10 Heavy	
34	444310	4	Nut, #10-24 Hex	
35	441606	2	Carriage Bolt, 1/4-20 x 3/4"	
36	453023	2	Flat Washer, 1/4	
37	443102	2	Nut, 1/4-20 Hex	
38	3004385	4	Seal, Rod End	
39	444718	1	Locknut, 5/16-18 Center	

> Change from previous revision

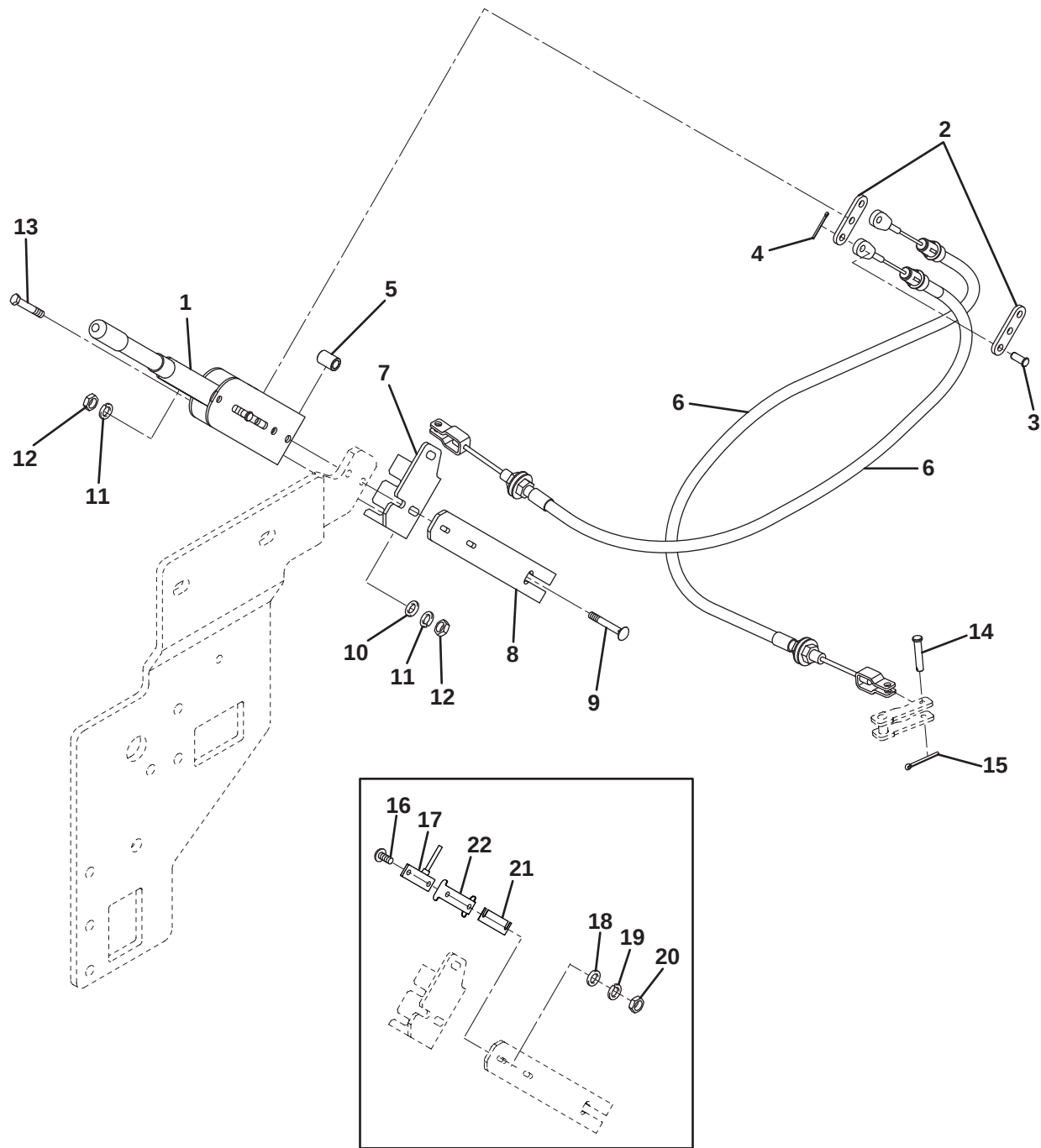
1.1 Steering Assist



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003794	2	Steering Assist Pedal	
	471214	1	• Grease Fitting (Not Shown)	
2	3010305	4	• Bushing	
3	1003245	1	Shaft	
4	452006	1	Flat Washer, 5/16	
5	446134	3	Lockwasher, 5/16	
6	443106	3	Nut, 5/16-18Hex	
7	3006107	2	Spring, Pedal Return	
8	400188	3	Screw, 5/16-18 x 1" Hex Head	
9	3008342	1	Cable, Right Turn Assist	
10	3008343	1	Cable, Left Turn Assist	
11	461453	2	Clevis Pin, 5/16 x 1"	
12	460028	4	Cotter Pin, 1/8 x 1"	
13	1003825	2	Connector, Brake	
14	1003824	2	Pivot, Brake Lever	
15	364154	4	• Bushing	
16	3008344	2	Pin, Clevis	
17	3008907	1	Shield, Cable	
18	400262	2	Screw, 3/8-16 x 1" Hex Head	
19	452008	2	Flat Washer, 3/8	
20	446142	2	Lockwasher, 3/8 Heavy	
21	443110	2	Nut, 3/8-16 Hex	
22	1006812	2	Pad, Pedal	
23	3009607	2	Nut, M12-1.75 Hex Jam	
24	455048	2	Flat Washer, 3/4	
>	25	446128	1 Lockwasher, 1/4	
>	26	443102	1 Nut, 1/4-20 HEX	
>	27	440042	1 Bolt Carriage 1/4-20 X 3/4 SN	
>	28	360970	1 Clamp-Open	

> Change from previous revision

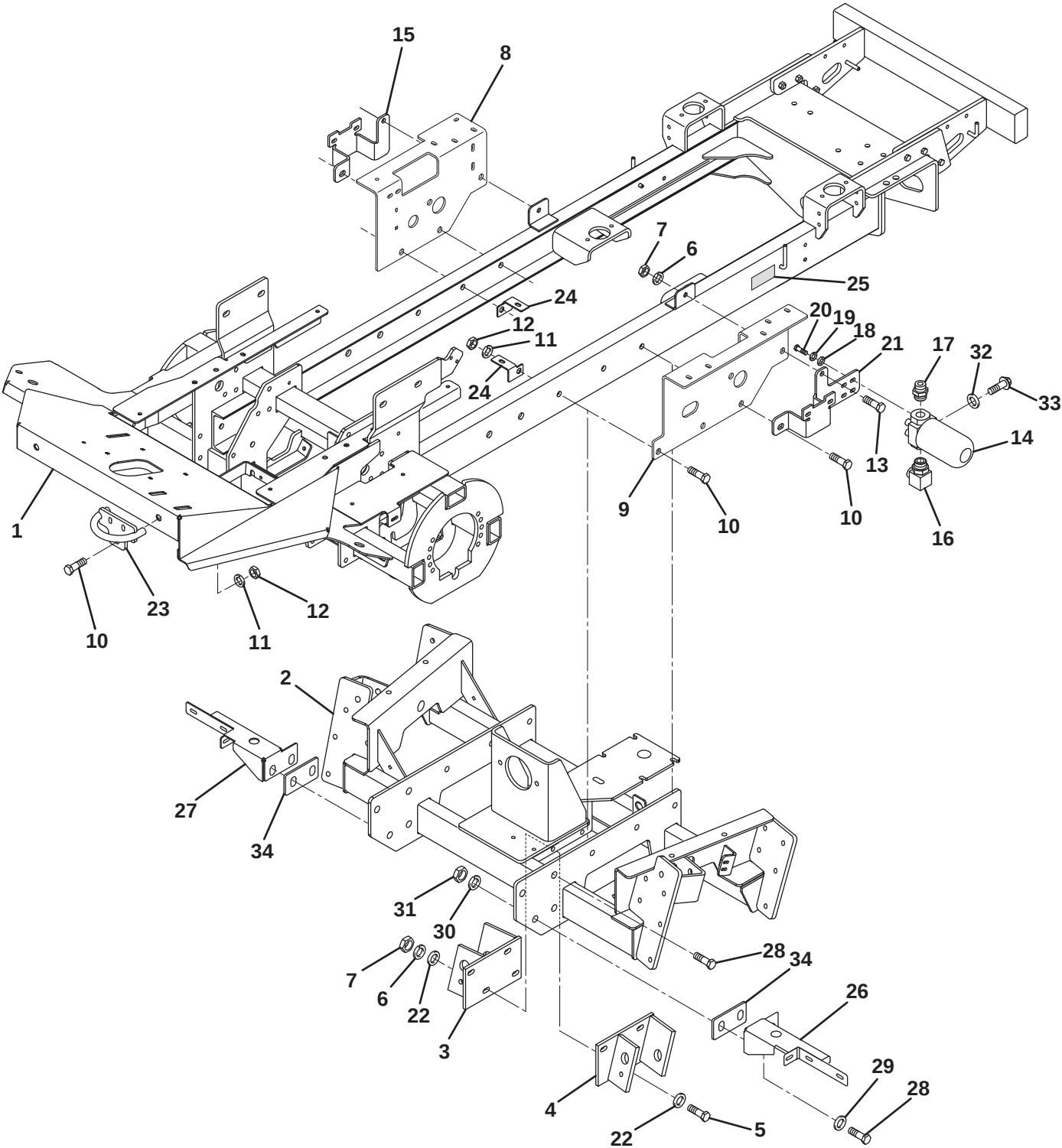
1.1 Parking Brake



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003838	1	Parking Brake Lever	REFERENCE SW7, See 67.1
2	N/S	2	• Stabilizer Bar	
3	545234	2	• Clevis Pin	
4	460004	2	• Cotter Pin	
5	545237	2	• Spacer	
6	3006108	2	Cable, Parking Brake	
7	3008548	1	Mount, Brake Lever	
8	3008874	1	Plate, Switch Mount	
9	441672	2	Carriage Bolt, 5/16-18 x 2-1/2"	
10	453009	2	Flat Washer, 5/16	
11	446134	4	Lockwasher, 5/16	
12	443106	5	Nut, 5/16-18 Hex	
13	400188	2	Screw, 5/16-18 x 1" Hex Head	
14	461456	2	Clevis Pin, 5/16 x 1-5/8" Hex Head	
15	460016	2	Cotter Pin, 3/32 x 1"	
16	403746	2	Screw, #10-24 x 3/4" Hex Head	
> 17	4140149	1	Switch, Proximity	
18	452002	2	Flat Washer, #10	
19	446118	2	Lockwasher, #10 Heavy	
20	444310	2	Nut, #10-24 Hex	
> 21	3009193	AR	Shim, Switch	
22	4182720	1	Guard, Proximity Switch	

> Change from previous revision

1.1 Frame

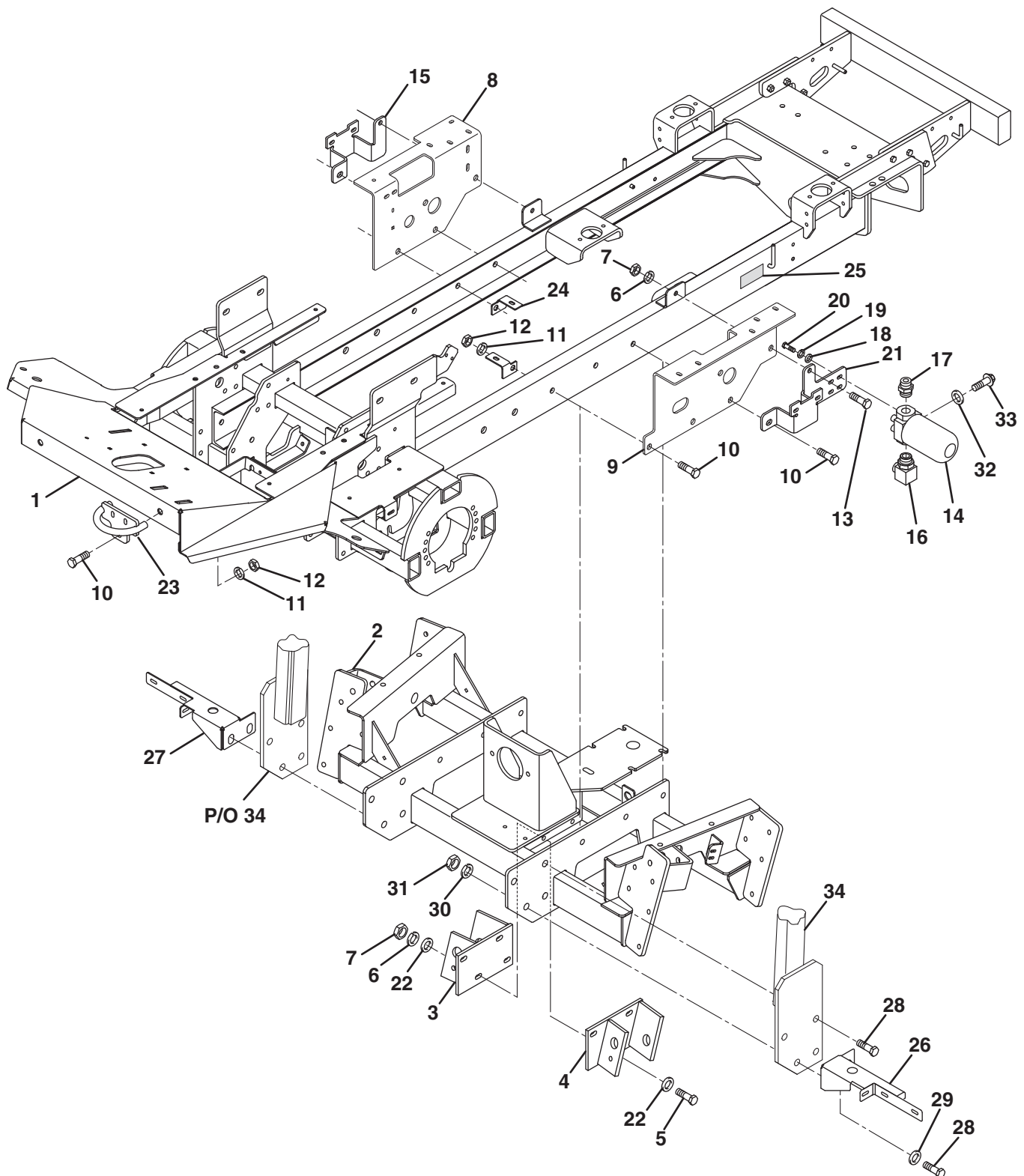


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	N/S	1	Frame	REFERENCE SW15, See 67.1
2	1002889	1	Cross Frame	
3	1002895	1	Cylinder Mount, Right	
4	1002896	1	Cylinder Mount, Left	
5	400416	4	Screw, 1/2-13 x 2-1/2" Hex Head	
6	446154	6	Lockwasher, 1/2 Heavy	
7	443118	6	Nut, 1/2-13 Hex	
8	3006814	1	Bracket, Right Radiator	
9	3006815	1	Bracket, Left Radiator	
10	400616	8	Screw, 5/8-11 x 2" Hex Head	
11	446166	8	Lockwasher, 5/8 Heavy	
12	443126	8	Nut, 5/8-11 Hex Head	
13	400406	2	Screw, 1/2-13 x 1-1/4" Hex Head	
14	1004938	1	Charge Filter Assembly	
	556417	1	• Head	
	5003691	1	• Oil Filter Cartridge	
	556419	1	• Charge Pressure Switch	
15	3007919	1	Bracket, Valve Mounting	
16	340075	1	Adapter, 90°	
17	339996	1	Adapter, Straight	
18	452008	4	Flat Washer, 3/8	
19	446140	4	Lockwasher, 3/8	
20	400260	4	Screw, 3/8-16 x 7/8" Hex Head	
21	3007920	1	Bracket, Deck Valve Mounting	
22	453017	8	Flat Washer, 1/2	
23	1004691	2	Tie Down	
24	3009197	2	Bracket, Hose	
25	REF	1	Plate, Serial Number	
26	1004308	1	Mount, Fuel Tank Rear	
27	1004309	1	Mount, Hydraulic Tank Rear	
28	400778	8	Screw, 3/4-10 x 2-1/2" Hex Head	
29	452018	4	Flat Washer, 3/4	
30	446178	8	Lockwasher, 3/4 Heavy	
31	443130	8	Nut, 3/4-10 Heavy	
32	453004	1	Flat Washer, #8	
33	409701	1	Screw, #8-18 x 3/8" Thread Form	
34	3010035	2	Plate	

> Change from previous revision

1.1 Frame With ROPS

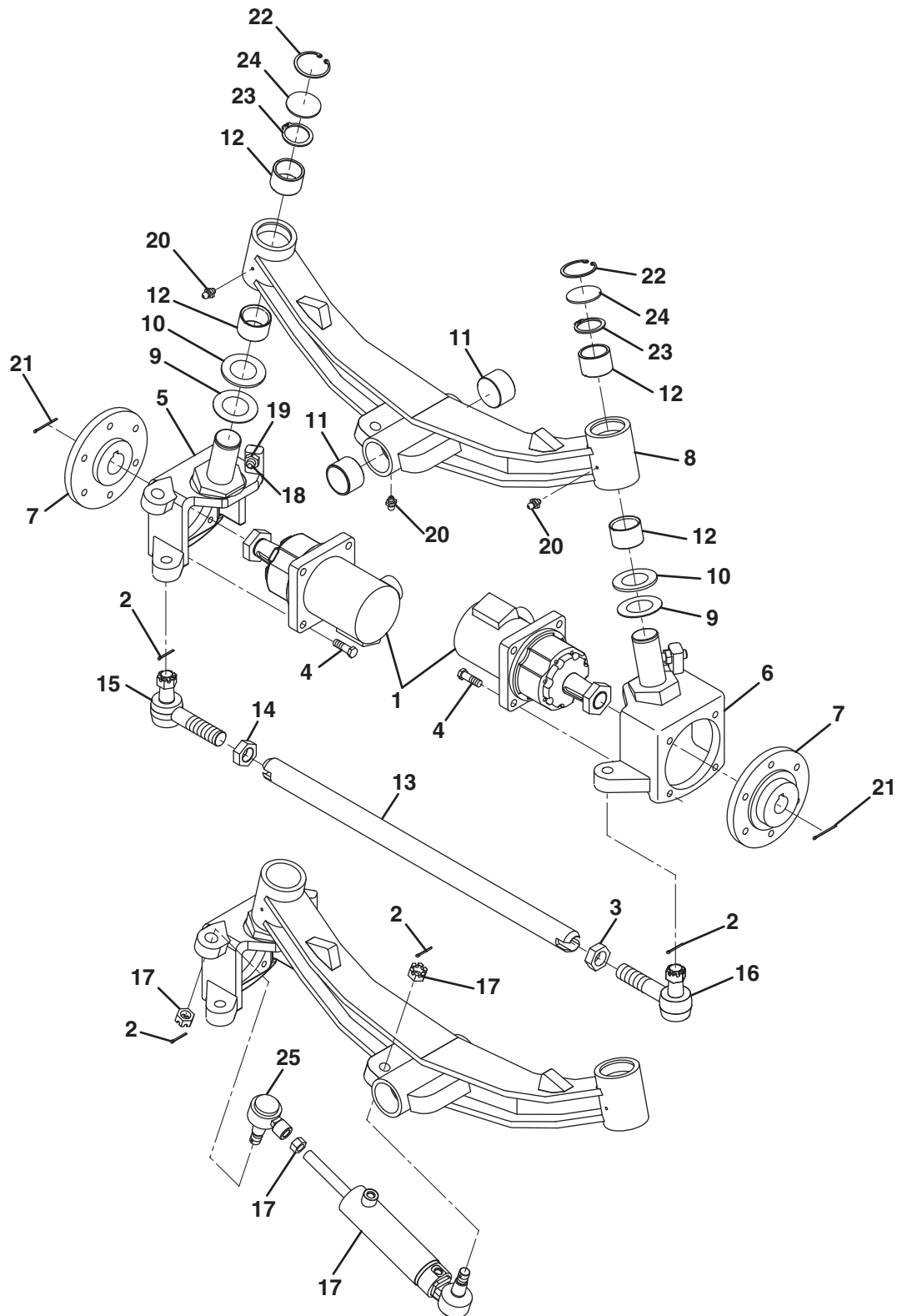
Serial No. 70529 All
Serial No. 70531 All



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	N/S	1	Frame	REFERENCE SW15, See 67.1 Includes Decals and Seat Belt
2	1002889	1	Cross Frame	
3	1002895	1	Cylinder Mount, Right	
4	1002896	1	Cylinder Mount, Left	
5	400416	4	Screw, 1/2-13 x 2-1/2" Hex Head	
6	446154	6	Lockwasher, 1/2 Heavy	
7	443118	6	Nut, 1/2-13 Hex	
8	3006814	1	Bracket, Right Radiator	
9	3006815	1	Bracket, Left Radiator	
10	400616	8	Screw, 5/8-11 x 2" Hex Head	
11	446166	8	Lockwasher, 5/8 Heavy	
12	443126	8	Nut, 5/8-11 Hex Head	
13	400406	2	Screw, 1/2-13 x 1-1/4" Hex Head	
14	1004938	1	Charge Filter Assembly	
	556417	1	• Head	
	5003691	1	• Oil Filter Cartridge	
	556419	1	• Charge Pressure Switch	
15	3007919	1	Bracket, Valve Mounting	
16	340075	1	Adapter, 90°	
17	339996	1	Adapter, Straight	
18	452008	4	Flat Washer, 3/8	
19	446140	4	Lockwasher, 3/8	
20	400260	4	Screw, 3/8-16 x 7/8" Hex Head	
21	3007920	1	Bracket, Deck Valve Mounting	
22	453017	8	Flat Washer, 1/2	
23	1004691	2	Tie Down	
24	3009197	2	Bracket, Hose	
25	REF	1	Plate, Serial Number	
26	1004308	1	Mount, Fuel Tank Rear	
27	1004309	1	Mount, Hydraulic Tank Rear	
28	400778	8	Screw, 3/4-10 x 2-1/2" Hex Head	
29	452018	4	Flat Washer, 3/4	
30	446178	8	Lockwasher, 3/4 Heavy	
31	443130	8	Nut, 3/4-10 Heavy	
32	453004	1	Flat Washer, #8	
33	409701	1	Screw, #8-18 x 3/8" Thread Form	
34	1002893	1	ROPS	

> Change from previous revision

1.1 Steering Axle

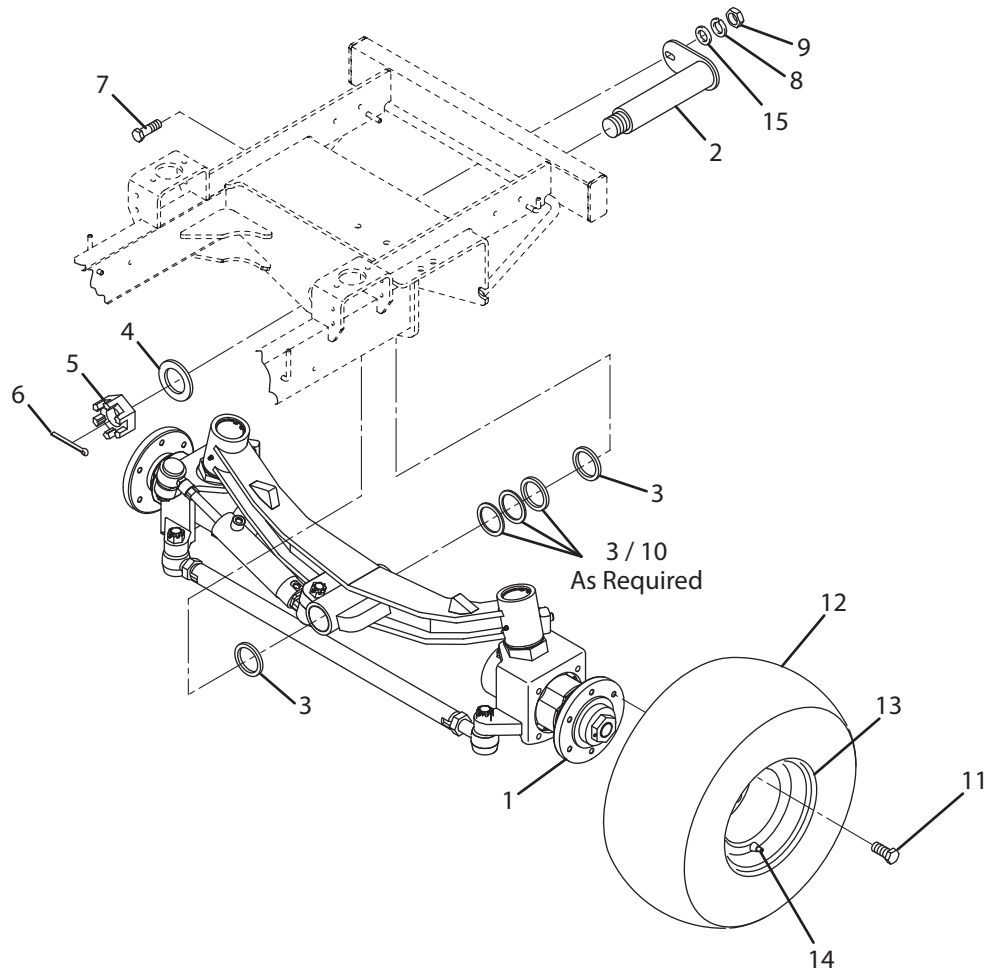


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4178563	2	Wheel Motor	See 49.1
2	460030	4	Cotter Pin, 1/8 x 1-1/4"	
3	443842	1	Nut, 1-1/8 -12 Hex Jam	
4	401208	8	Screw, 1/2-13 x 1-3/4" Grade 8	
5	5003530	1	Frame, RH Wheel Motor	
6	5003529	1	Frame, LH Wheel Motor	
7	5003521	2	Hub, Wheel	
8	5003526	1	Axle, Center Section	
9	5003518	2	Washer, Thrust	
10	5003515	2	Washer, Thrust	
11	5003528	2	Bushing, Bronze	
12	5003527	4	Bushing, Bronze	
13	5003522	1	Tie Rod	
14	5003519	1	Nut, 1-1/8 -12 Left Hand Thread	
15	5003523	1	Tie Rod End, Left Hand Thread	
16	5003524	1	Tie Rod End, Right Hand Thread	
17	4113656	1	Cylinder, Steering	See 48.1
	4113655	1	• Seal Kit	
18	5003562	2	Screw, 5/8-11 Socket Head Set	
19	443826	2	Nut, 5/8-11 Hex Jam	
20	471214	3	Grease Fitting	
21	460035	2	Cotter Pin, 1/8 x 2"	
22	458126	2	Snap Ring	
23	5003520	2	Snap Ring, External	
24	5003531	2	Plug, Expansion	
25	5003543	1	Socket Assembly	

> Change from previous revision

1.1 Steering Axle Installation

Serial No. All

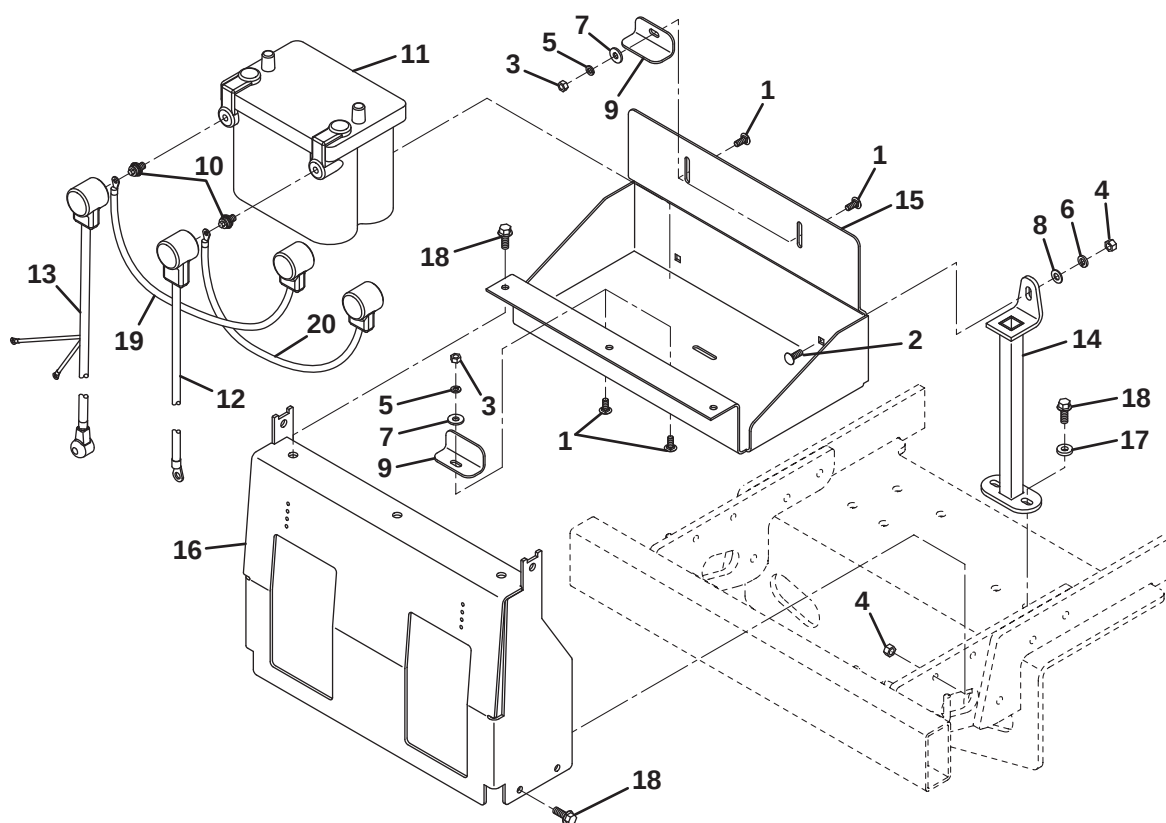


9016-36

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	—	1	Steering Axle	See 14.1
2	1003001	1	Pivot Shaft	
3	3006475	AR	Washer, 3/32" Thick Thrust	
4	363766	1	Washer	
5	445642	1	Nut, 1-1/2 -12 Slotted Hex	
6	460072	1	Cotter Pin, 1/4 x 2-1/2"	
7	400408	1	Screw, 1/2-13 x 1-1/2" Hex Head	
8	446152	1	Lockwasher, 1/2	
9	443118	1	Nut, 1/2-13 Hex	
10	3003101	AR	Washer, 1/32" Thick Thrust	
11	3007683	12	Wheel Bolt, 1/2-20	
12	5003419	2	Tire, 24 x 12-12 Turf Trac	
13	5003420	2	Wheel	
14	360111	2	Valve, Inflation	
15	453017	1	Flat Washer, 1/2	

> Change from previous revision

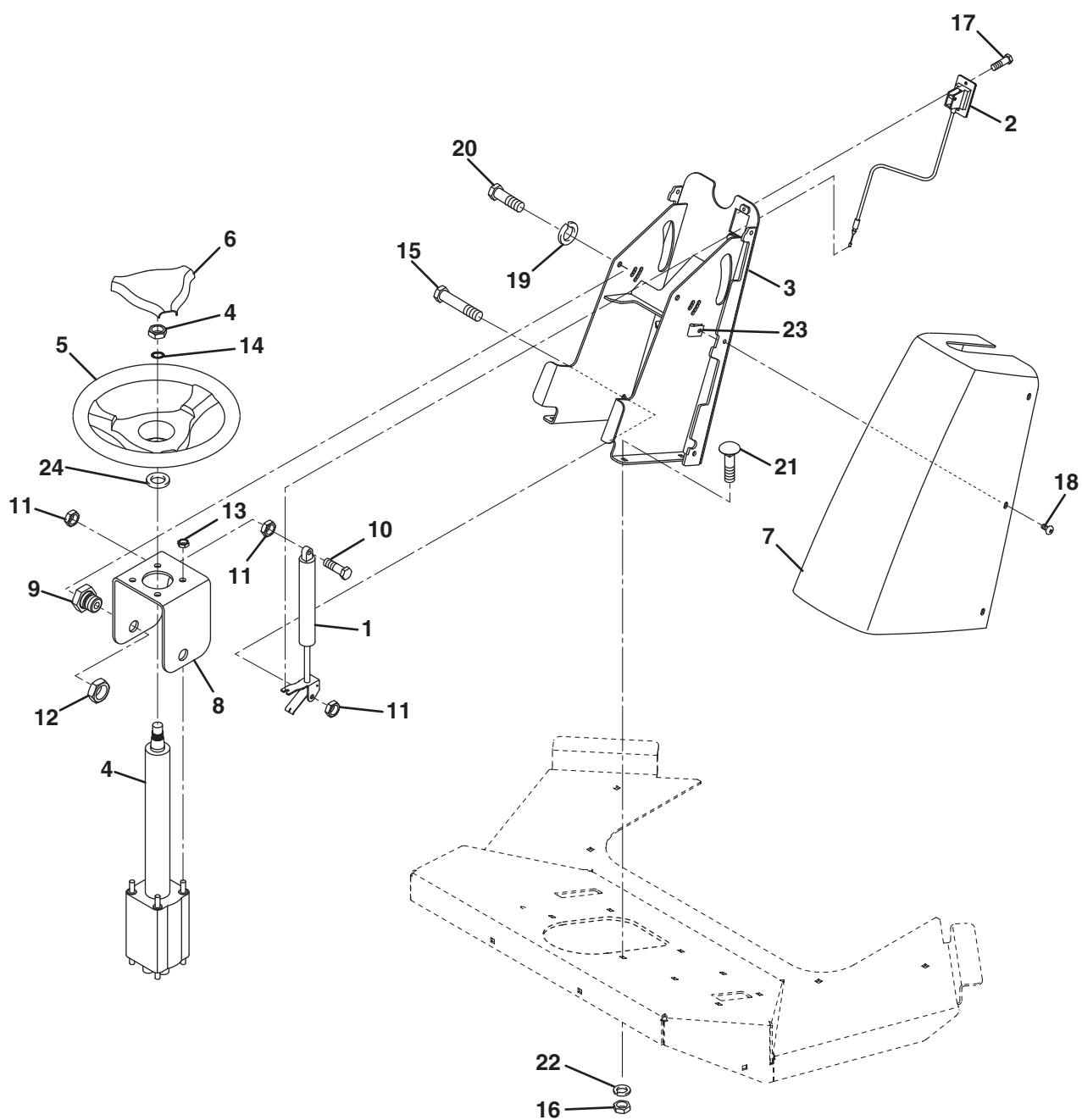
2.1 Battery Tray



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	440078	4	Bolt, Carriage 5/16-18 x 3/4"	REFERENCE B1, See 67.1
2	440118	2	Bolt, Carriage 3/8-16 x 1"	
3	443106	4	Nut, 5/16-18 Hex	
4	443110	6	Nut, 3/8-16 Hex	
5	446134	4	Lockwasher, 5/16	
6	446142	2	Lockwasher, 3/8 Heavy	
7	452006	4	Flat Washer, 5/16	
8	453011	2	Flat Washer, 3/8	
9	3008461	4	Angle, Battery Clamp	
10	3010346	4	Terminal Bolt, Side	
11	4108140	2	Battery	
12	4133043	1	Cable, Negative Battery	
13	4133044	1	Cable, Positive Battery	
14	4133224	2	Support, Weldment	
15	4136131	1	Tray, Battery	
16	4136563	1	Support Bracket, Hood Rear Assy	
17	64163-46	4	Washer, .388 x .880	
18	800709	11	Bolt, Flange Head 3/8-16 x 1-1/4:	
19	4138647	1	Battery Cable, Pos	
20	4138648	1	Battery Cable, Neg	

>

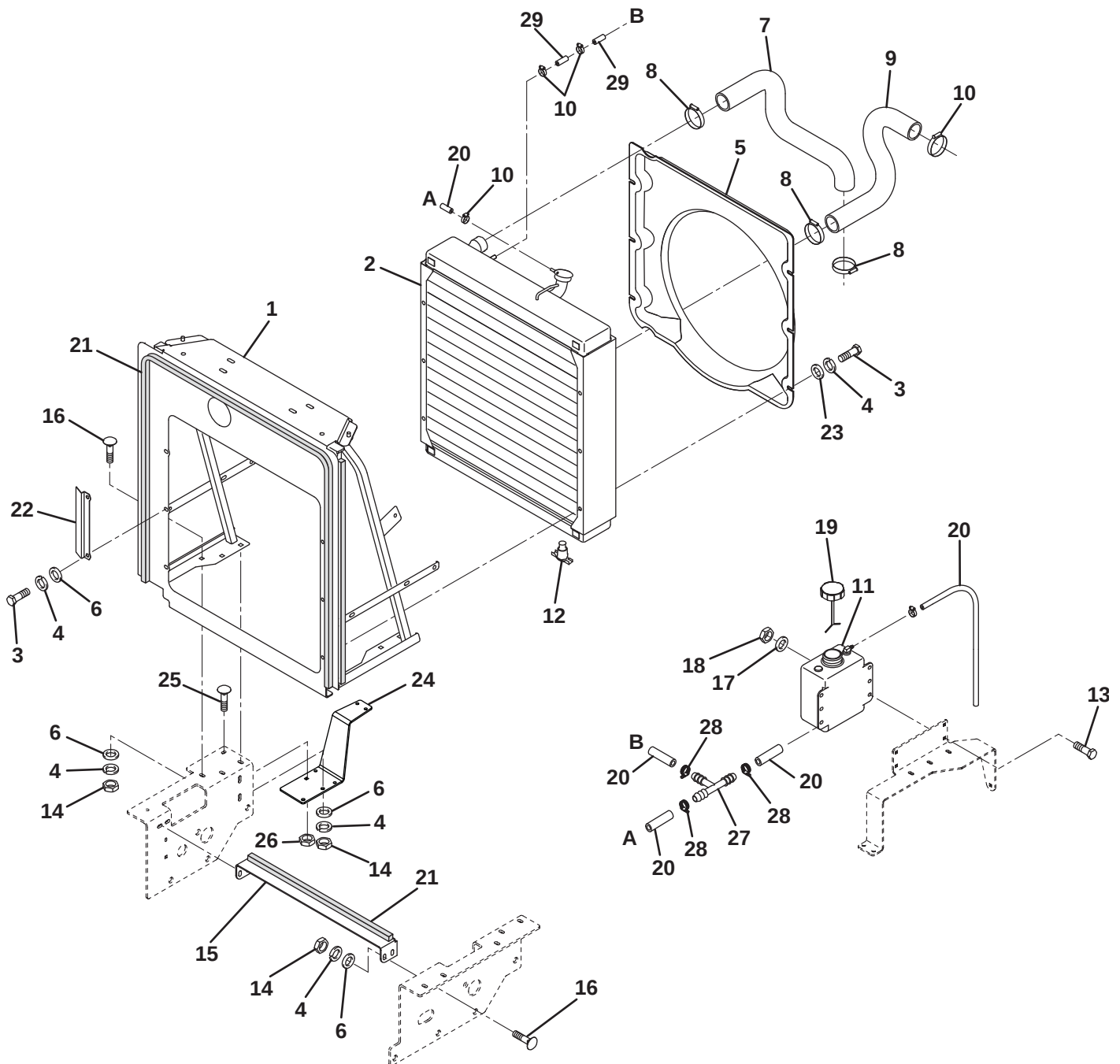
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5002918	1	Actuator, Gas Spring	See 46.1
2	5002919	1	Cable, Actuator	
3	2811346	1	Tower, Steering	
4	1002800	1	Pump, Steering	
	339979	5	• Adapter, Straight	
5	2811364	1	Steering Wheel	
6	2811365	1	• Cap, Steering Wheel	
7	3010651	1	Cover, Steering Tower	
8	3005981	1	Bracket, Steering Pump	
9	3005934	2	Bolt, Shoulder	
10	400192	1	Screw, 5/16-18 x 1-1/2" Hex Head	
11	444718	3	Locknut, 5/16-18 Center	
12	444849	2	Locknut, 3/4-10 Center Jam	
13	444754	4	Locknut, 5/16-24 Center	
14	447224	1	Lockwasher, 5/8 Internal	
15	400216	1	Screw, 5/16-18 x 2-3/4" Hex Head	
16	443106	4	Nut, 5/16-18 Hex	
17	416911	2	Screw, #10-24 x 1/2" Thread Cutting	
18	404016	6	Screw, 1/4-20 x 5/8: Truss Head	
19	446142	2	Lockwasher, 3/8 Heavy	
20	400258	2	Screw, 3/8-16 x 3/4" Hex Head	
21	441602	4	Carriage Bolt, 5/16-18 x 3/4"	
>	22	446136	4 Lockwasher, 5/16 Heavy	
>	23	445245	6 Tinnerman Nut	
>	24	2811547	1 Washer	

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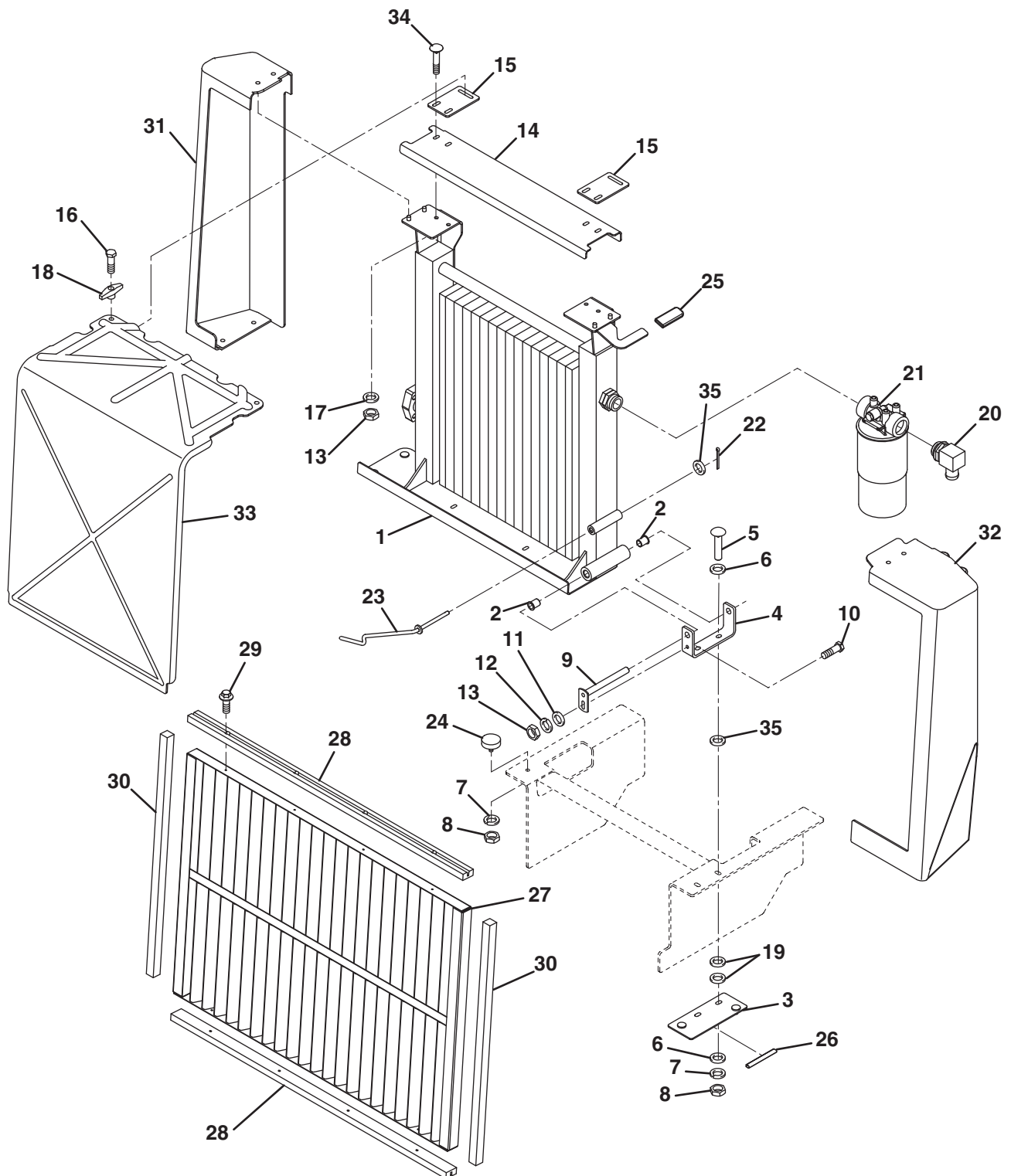
1.1 Radiator



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5003355	1	Radiator Firewall	
2	1002953	1	Radiator	
	555867	1	• Radiator Cap	
3	400258	12	Screw, 3/8-16 x 3/4" Hex Head	
4	446142	22	Lockwasher, 3/8 Heavy	
5	4132213	1	Radiator Fan Shroud	
6	452008	10	Flat Washer, 3/8	
7	4132168	1	Hose, Upper Radiator	
8	326799	4	Clamp, Hose	
9	4132169	1	Hose, Lower Radiator	
10	366526	3	Clamp, Hose	
11	3007731	1	Reserve Tank	
> 12	162479	1	Drain Cock	
13	440080	4	Carriage Bolt, 5/16-18 x 7/8"	
14	443110	10	Nut, 3/8-16 Hex	
15	3008885	1	Brace, Cooler	
16	440120	10	Carriage Bolt, 3/8-16 x 1-1/4"	
17	453009	4	Flat Washer, 5/16	
18	444718	4	Locknut, 5/16-18 Center	
19	3009537	1	Cap, Reserve Tank	
20	554748	AR	Hose, 5/16 I.D.	
21	5003216	AR	Seal (10 Foot Roll)	
22	2810492	1	Plate, Indent	
23	3006233	6	Washer, Isolator	
> 24	4139109	1	Bracket, Remote Engine Oil Filter	
25	440080	1	Carriage Bolt, 5/16-18 x 3/4"	
26	445781	1	Nut, 5/16-18 Whiz Lock	
27	366354	1	Tee, Nylon	
28	48540-01	5	Hose Clamp-Worm Gear	
29	361437	1	Pin, Dowel	
30	473142	3	Cable Tie .19 x 14-16 UV Black	Not Shown

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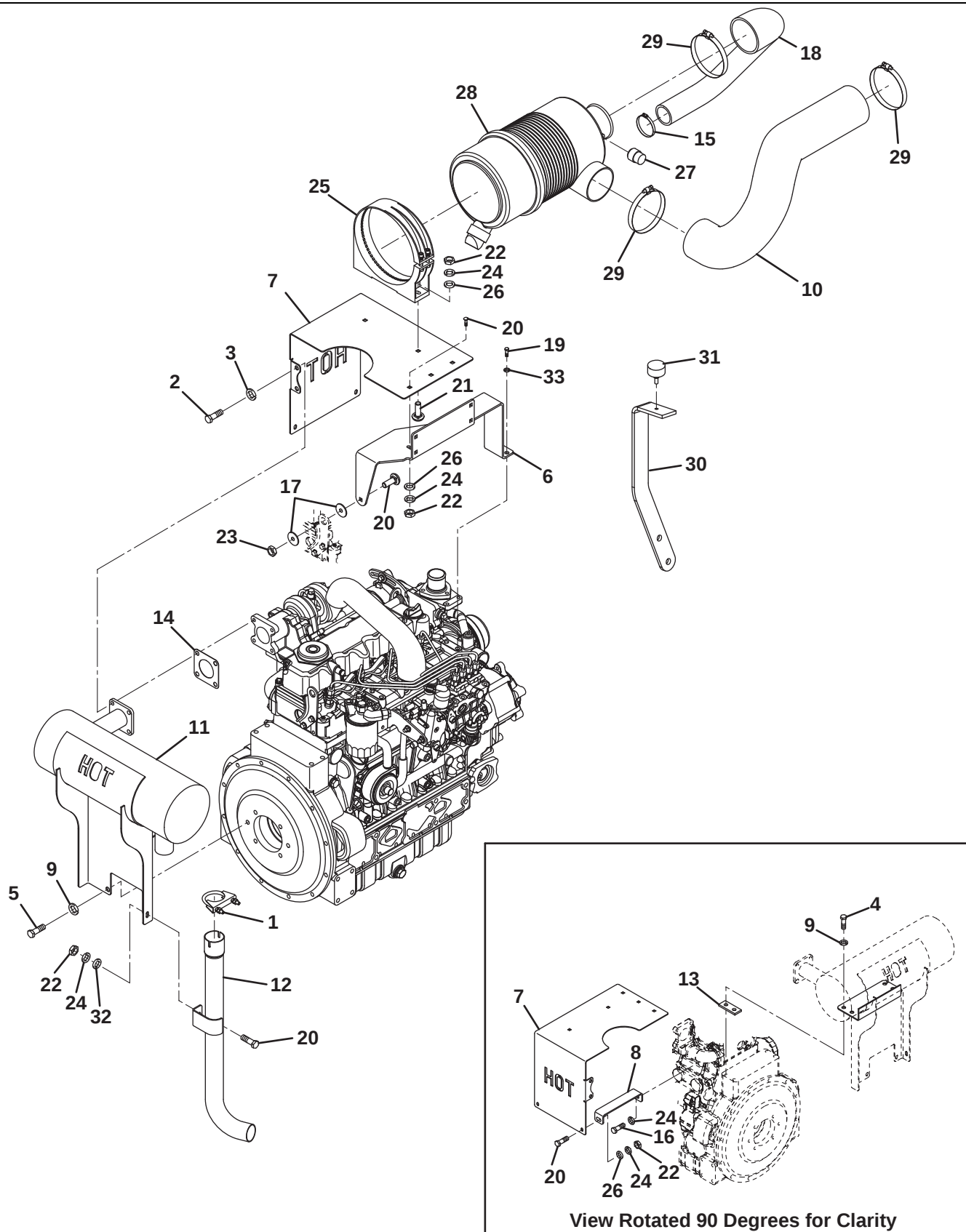
1.1 Oil Cooler



	Item	Part No.	Qty.	Description	Serial Numbers/Notes
> >	1	1002952	1	Oil Cooler	
	2	3004113	2	Bushing	
	3	2810633	1	Plate, Cap Mounting	
	4	3007011	1	Bracket, Cooler Pivot	
	5	440124	2	Carriage Bolt, 3/8-16 x 1 3/4"	
	6	452008	4	Flat Washer, 3/8	
	7	446142	3	Lockwasher, 3/8 Heavy	
	8	443110	3	Nut, 3/8-16 Hex	
	9	1004028	1	Pin, Cooler Pivot	
	10	400186	1	Screw, 5/16-18 x 7/8" Hex Head	
	11	452006	1	Flat Washer, 5/16	
	12	446134	1	Lockwasher, 5/16	
	13	443106	5	Nut, 5/16-18 Hex	
	14	3008562	1	Angle, Cooler Top	
	15	3008563	2	Plate, Cooler Lock	
	16	400190	2	Screw, 5/16-18 x 1-1/4" Hex Head	
	17	446136	4	Lockwasher, 5/16 Heavy	
	18	362008	2	Knob	
	19	358794	4	Washer	
	20	3007674	1	Fitting, 90°	
	21	1003011	1	Return Filter	
		5002693	1	• Return Filter Cartridge	
		556419	1	• Switch	
	22	460016	1	Cotter Pin, 3/32 x 1"	
	23	1004172	1	Stand, Cooler Pivot	
	24	361723	1	Stop, Rubber	
	25	351491	1	Grip	
	26	551651	AR	Molding	
	27	1003942	1	Screen	
	28	3008561	2	Guide, Screen	
	29	409804	8	Screw, #10-24 x 1/2" Thread Cut	
	30	3009095	2	Seal, Neoprene	
	31	3008554	1	Cap, Right Side	
	32	2810634	1	Cap, Left Side	
	33	3010014	1	Shield, Screen	
	34	440082	4	Carriage Bolt, 5/16-18 x 1"	
35	453011	3	Flat Washer, 3/8		
>	36	400124	2	Screw, 1/4-20 UNC x 2.5 Hex Head	

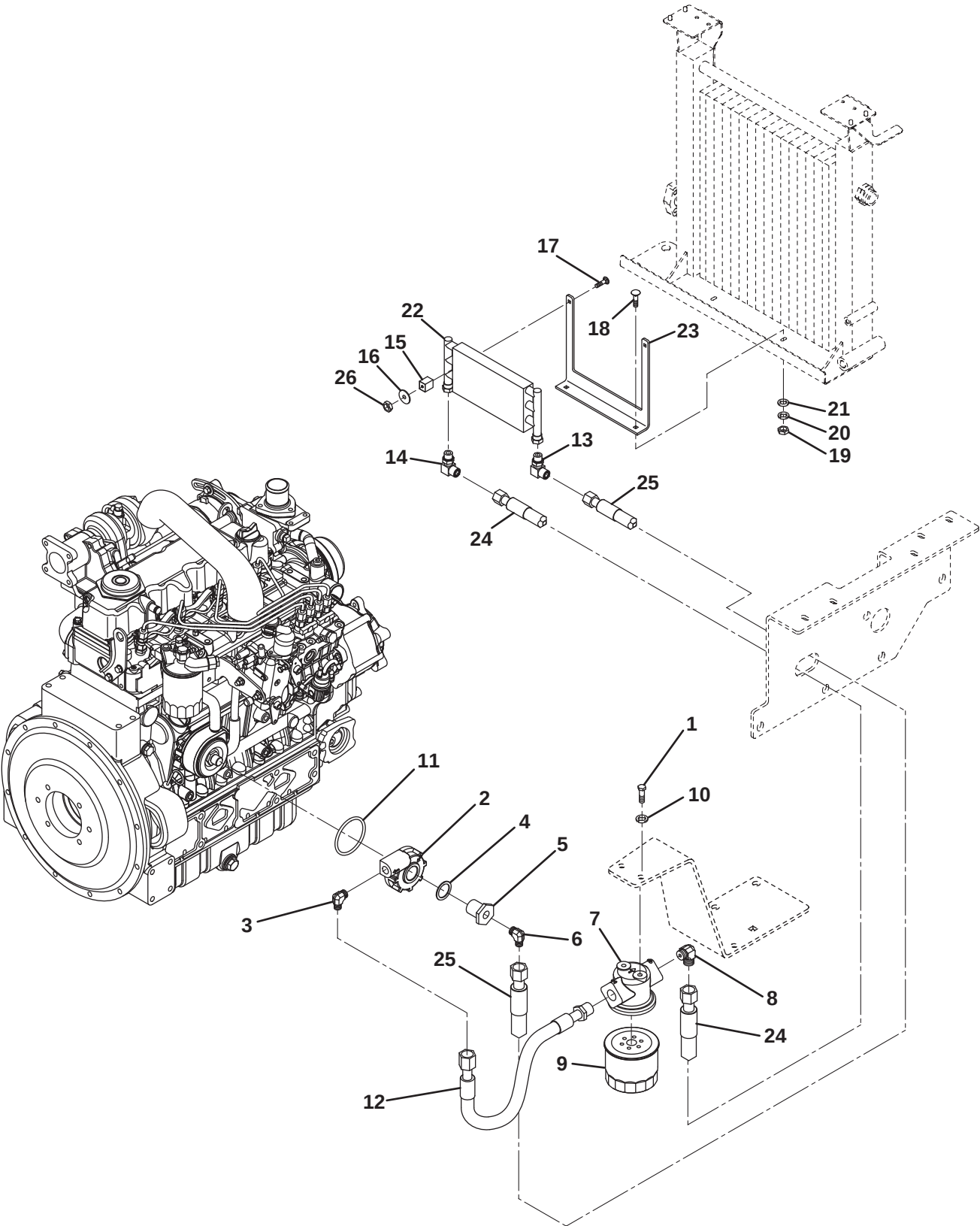
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1.1 Air Cleaner and Muffler



	Item	Part No.	Qty.	Description	Serial Numbers/Notes
	1	162236	1	Clamp	
	2	3002042	4	Screw, M10-1.25 x 22 SHCS	
>	3	363485	4	Lockwasher, M10 Heavy	
	4	365979	4	Bolt, M12-1.25 x 25	
	5	400404	2	Screw, 1/2-13 X 1" Hex Head	
	6	4135602	1	Bracket, Support	
	7	4135603	1	Bracket, Air Filter/Heat Shield	
	8	4136469	2	Bracket, Heat Shield	
	9	446154	6	Lockwasher, 1/2 Heavy	
	10	4132212	1	Hose, Air Intake	
	11	4132214	1	Muffler, Weldment Assembly	
	12	4132420	1	Tailpipe Assembly	
	13	4136616	2	Isolator, Muffler	
	14	4135922	1	Gasket, Exhaust Flange	
	15	359615	1	Clamp, Hose	
	16	361898	2	Screw, M8-1.25 x 16MM	
>	17	362615	AR	Flat Washer	
	18	4132211	1	Hose, Turbo Filter Assembly	
	19	366884	2	Bolt, M10-1.25 x 20 Hex Head	
	20	440080	6	Carriage Bolt 5/16-18 x 7/8"	
	21	440082	2	Carriage Bolt, 5/16-18 x 1"	
	22	443106	8	Nut, 5/16-18 Hex	
	23	444718	1	Locknut, 5/16-18 Center	
>	24	446136	10	Lockwasher, 5/16 Heavy	
	25	3009505	1	Clamp, Air Cleaner Mount	
>	26	453009	7	Flat Washer, 5/16	
	27	1001752	1	Indicator, Mini Kit	
	28	1004417	1	Air Cleaner Assembly	
	29	813689	3	Clamp, Hose	
	30	4137244	1	Bracket, Air Filter Support	
	31	554714	1	Pad	
>	32	452006	1	Washer, Flat 5/16	
>	33	363385	2	Lock Washer	

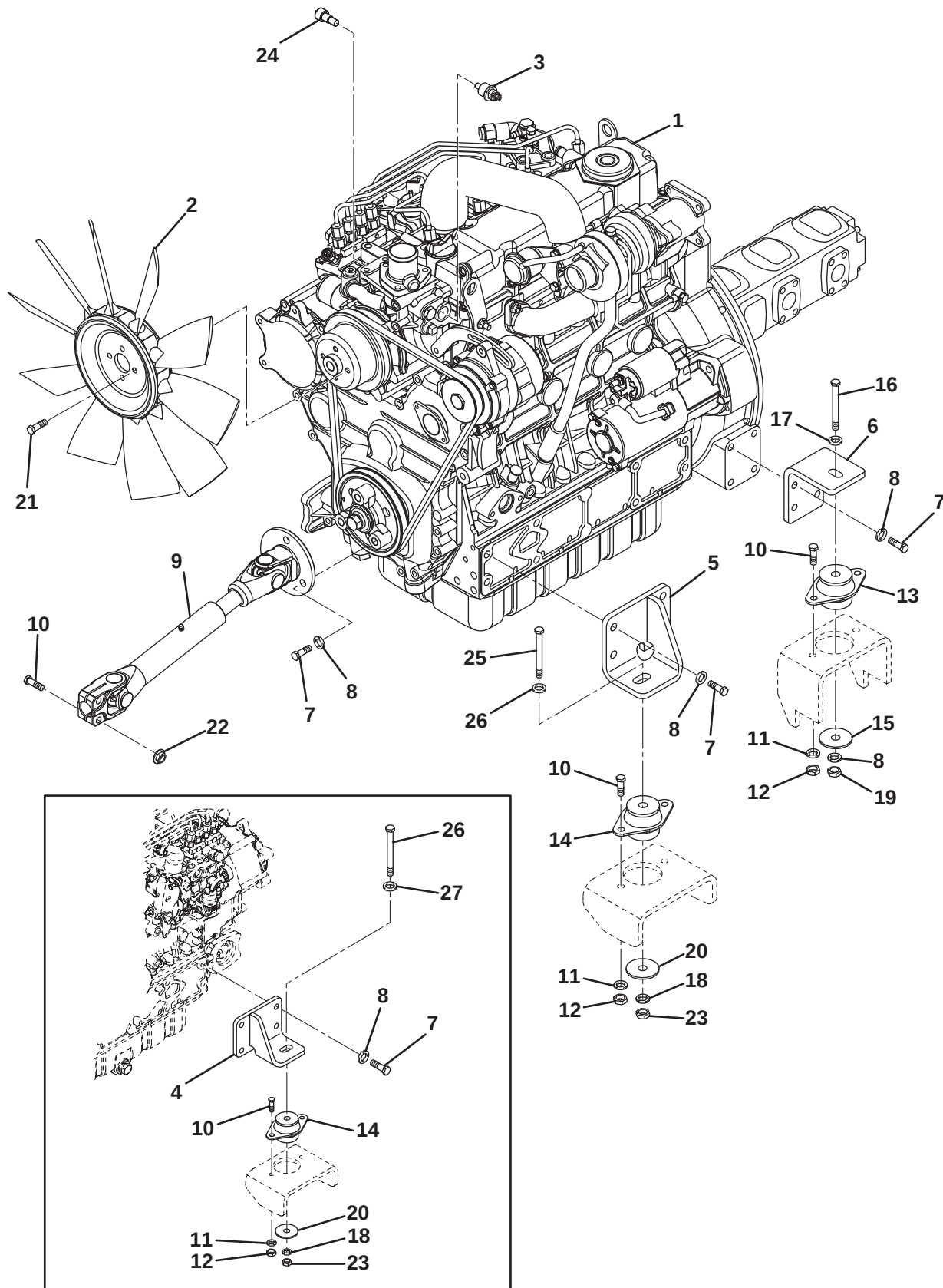
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	450190	2	Screw, M8-1.25 x 16 Hex Head	Part of Engine
2	4136120	1	Adaptor, Oil Filter	
3	4137099	1	Adaptor, 90°, 3/8-18 x 13/16	Part of Engine
4	181916	1	O Ring	
5	4133240	1	Plug, Oil Filter	Part of Engine
6	4137101	1	Adaptor, 90° 3/8-18 x 11/16	Part of Engine
7	4133243	1	Cover, Oil Filter	
8	4137100	1	Adaptor, 90° 1/2 x 13/16	Part of Engine
9	4137189	1	Filter	
10	446140	2	Lockwasher, 3/8 Reg	Part of Engine
11	4133241	1	O Ring	
12	4135261	1	Hose, Pump Right Side Tube	
13	340063	1	Elbow, 90°	
14	340070	1	Elbow, 90°	
15	4137611	2	Mounting Block, Rubber	
16	367559	2	Washer, Oil Cooler Mounting	
17	441618	2	Bolt, Carriage 5/16-18 x 2"	
18	440118	2	Bolt, Carriage 3/8-16 x 7/8"	
19	443110	2	Nut, 3/8-16 Hex	
20	446142	2	Lockwasher, 3/8	
21	452008	2	Flat Washer, 3/8	
22	3009860	1	Cooler, 3 Row	
23	4135761	1	Bracket, Engine Oil Cooler	
24	4136646	1	Hose Assembly, Inlet	
25	4136647	1	Hose Assembly, Return	
26	444718	2	Locknut, 5/16-18 Center	

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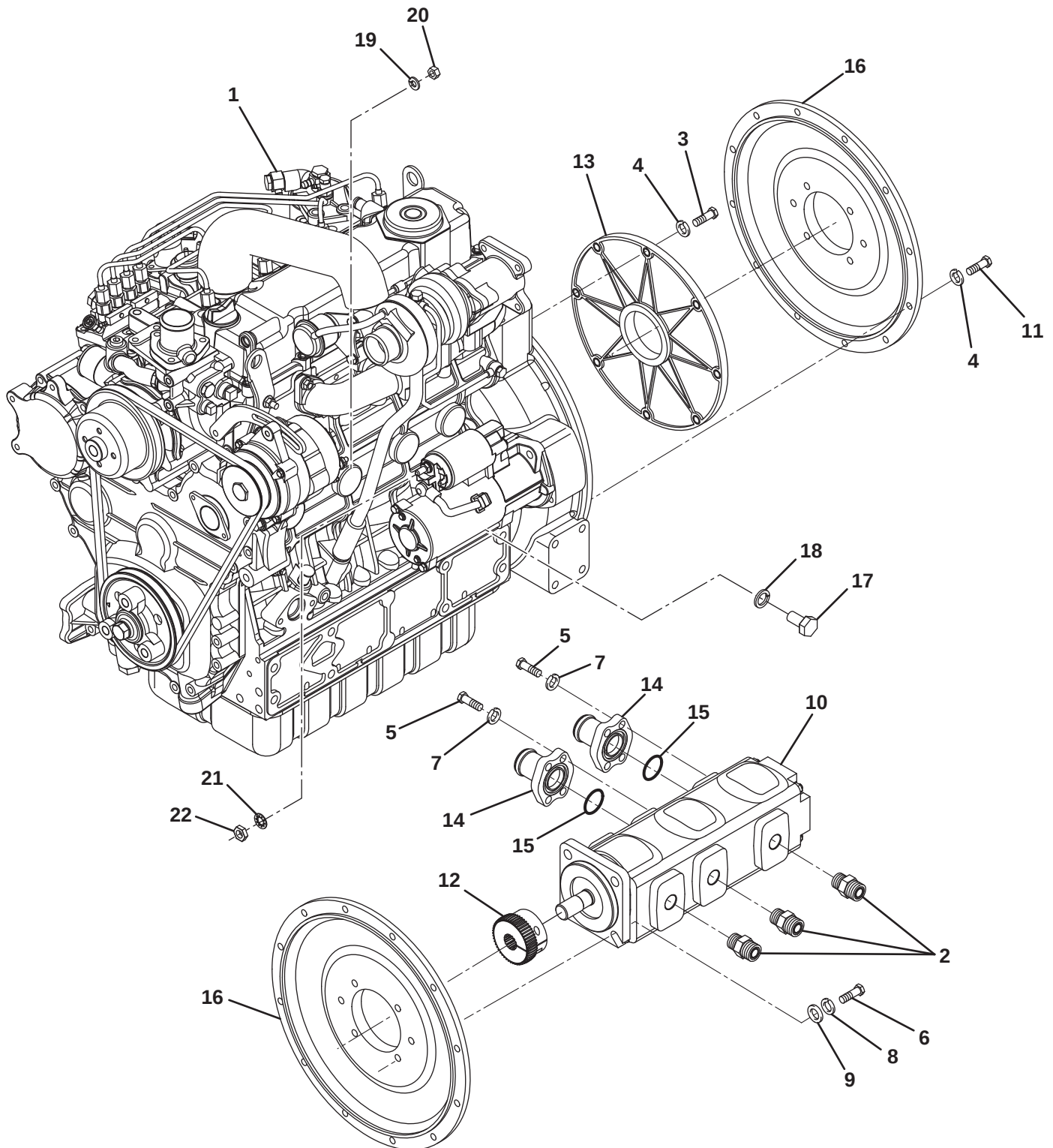
1.1 Engine Mounting



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	—	1	Engine and Pump Assembly	See 23.1
2	4136298	1	Fan	Mounting Hardware Part of Engine
3	3008821	1	Temperature Sender	REFERENCE U6, See 67.1
4	4136286	1	Engine Mount, Right Hand	
5	4136285	1	Engine Mount, Left Hand	
6	4132013	2	Engine Mount, Rear	
7	365979	19	Screw, M12-1.25 x 25mm Hex Head	
8	446154	21	Lockwasher, 1/2 Heavy	
9	4134448	1	Drive Shaft	
10	400266	10	Screw, 3/8-16 x 1-1/2" Hex Head	
11	446142	8	Lockwasher, 3/8 Heavy	
12	443110	8	Nut, 3/8-16 Hex	
> 13	4137616	2	Isolator, Rear	
> 14	4136227	2	Isolator, Front	
15	323943	2	Washer, 2"O.D. x 17/32" I.D.	
16	400422	2	Screw, 1/2-13 x 4" Hex Head	
17	452012	2	Flat Washer, 1/2	
18	446166	2	Lockwasher, 5/8" Heavy	
19	443118	2	Nut, 1/2-13 Hex	
20	361071	2	Flat Washer, Isolator	
21	362978	4	Screw, M8-1.25 x 50mm Hex Flange	
22	444762	2	Locknut, 3/8-16 Center	
23	443128	2	Nut, 5/8-18 Hex	
24	363996	1	Switch, Temperature Warning	REFERENCE SW17, See 67.1
25	446154	2	Lockwasher, 1/2" Heavy	
26	400656	2	Screw, 5/8-18 x 4" Hex Head	
27	452016	2	Flat Washer, 5/8	

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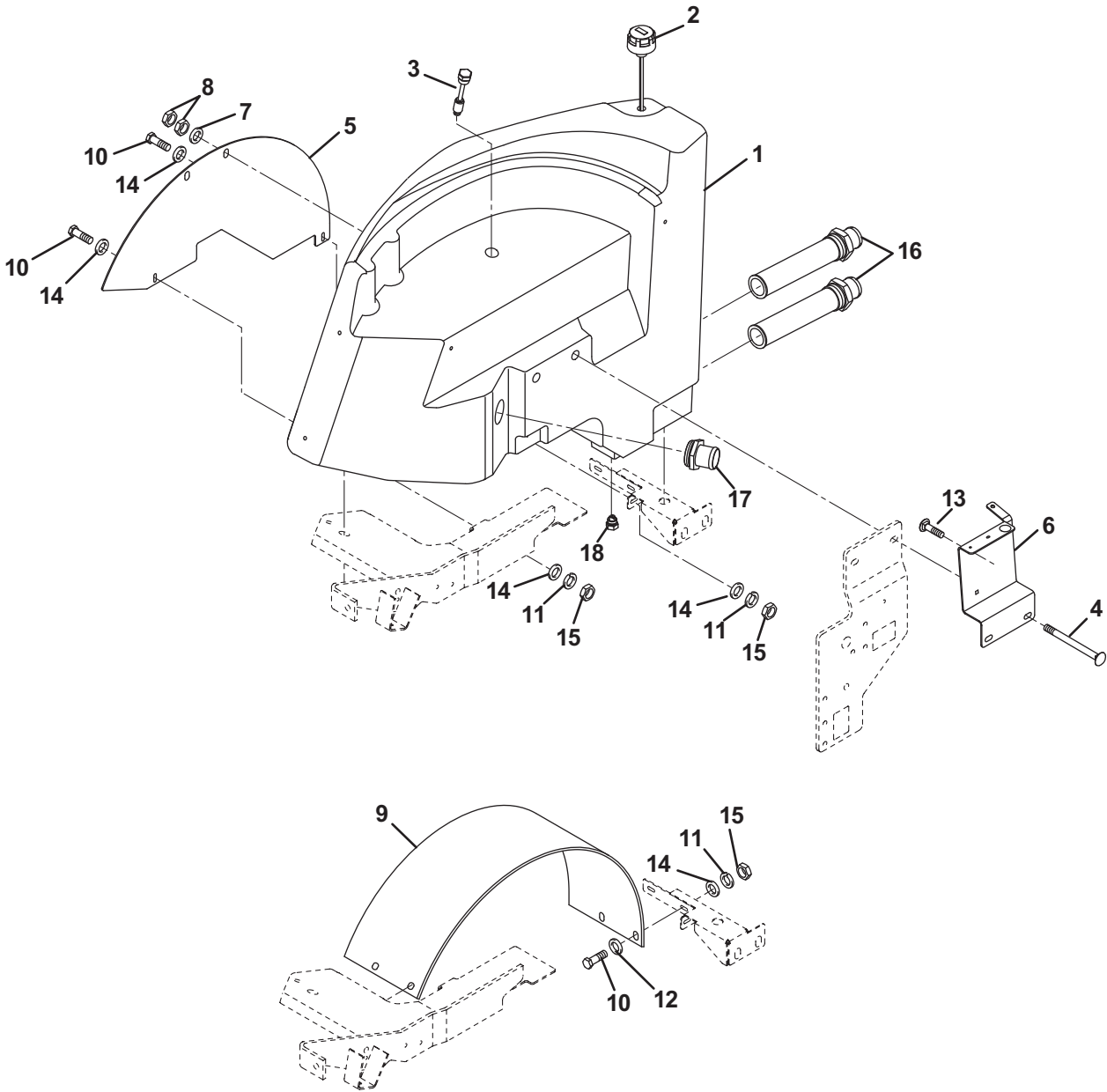
1.1 Engine and Pump Assembly



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	REF	1	Kubota Engine Assembly	One kit required for each section
		1	• Engine Oil Filter	
		1	• Fan Belt	
		1	• Fuel Filter	
2	339989	3	Connector, Straight Thread	
3	362263	8	Bolt, M10-1.25 X 25 Hex Head	
4	363485	20	Lockwasher, M10 Heavy	
5	400336	8	Screw, 7/16-14 X 1-1/4" Hex Head	
6	400406	4	Screw, 1/2-13 X 1-1/4" Hex head	
7	446148	8	Lockwasher, 7/16 Heavy	
8	446154	4	Lockwasher, 1/2 Heavy	
9	453017	4	Flat Washer, 1/2	
10	1003247	1	Pump, Triple	
	5003163	1	• Seal Kit, Front Section	
	5003164	1	• Seal Kit, Section	
11	3002042	12	Bolt, M10-1.25 X 22 Socket Head	
12	3006238	1	Hub	
13	3006240	1	Flange, 10"	
14	3006829	2	Fitting, 4-Bolt Flange	
15	3006835	2	O-Ring, 1.750 O.D. X 1.500 I.D.	
16	4132016	1	Flywheel Cover, Rear	
17	366884	1	Screw, M 10-1.25 x mm Hex Head	
18	363385	1	Lockwasher, 1/4 Heavy	
19	446130	1	Lockwasher, 1/4 Heavy	
20	361001	1	Nut, M6-1 Hex	
21	447214	1	Lockwasher, 5/16 Internal Tooth	
22	362539	1	Nut, M8-1.25 Hex	

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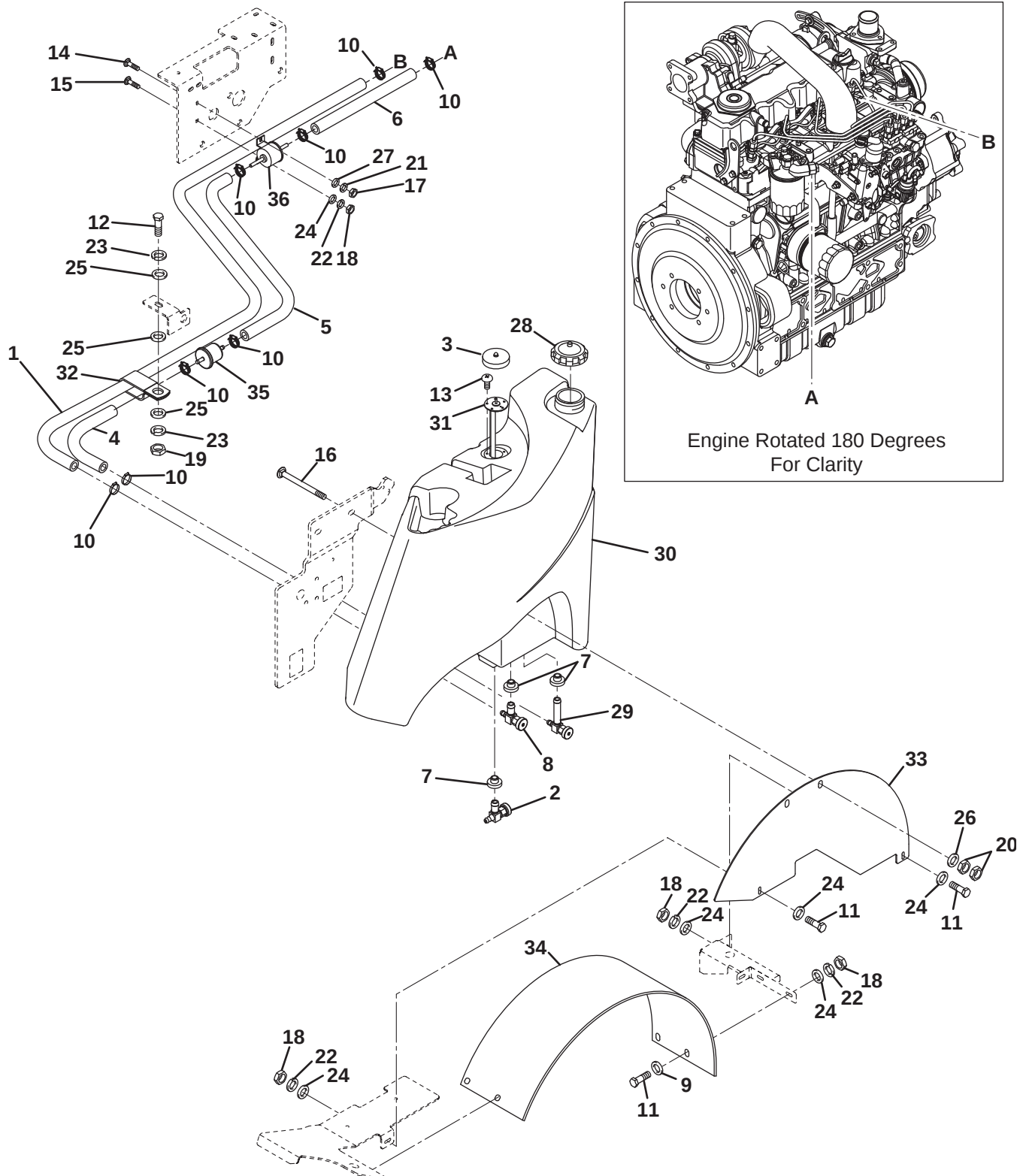
1.1 Tank Mounting



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3006264	1	Tank, Hydraulic oil	REFERENCE SW11, See 67.1
2	3008808	1	Cap, Breather Filler	
3	3009203	1	Sensor, Oil Level	
4	441689	2	Carriage Bolt, 1/2-13 x 8-1/2"	
5	3009236	1	Wall, Fender	
6	3008219	1	Bracket, Hose Retainer	
7	452012	2	Flat Washer, 1/2	
8	443118	4	Nut, 1/2-13 Hex	
9	3009980	1	Fender, Right Side	
10	400188	6	Screw, 5/16-18 x 1" Hex Head	
11	446136	6	Lockwasher, 5/16 Heavy	
12	362615	4	Washer, Special	
13	440088	2	Carriage Bolt, 5/16-18 x 1-3/4"	
14	452006	8	Flat Washer, 5/16	
15	443106	6	Nut, 5/16-18 Hex	
16	3006566	2	Strainer	
	339904	2	• O-Ring SAE -32	
17	3006847	1	Fitting, Beaded	
	339904	1	• O-Ring SAE -32	
18	3002397	1	Plug, Magnetic	

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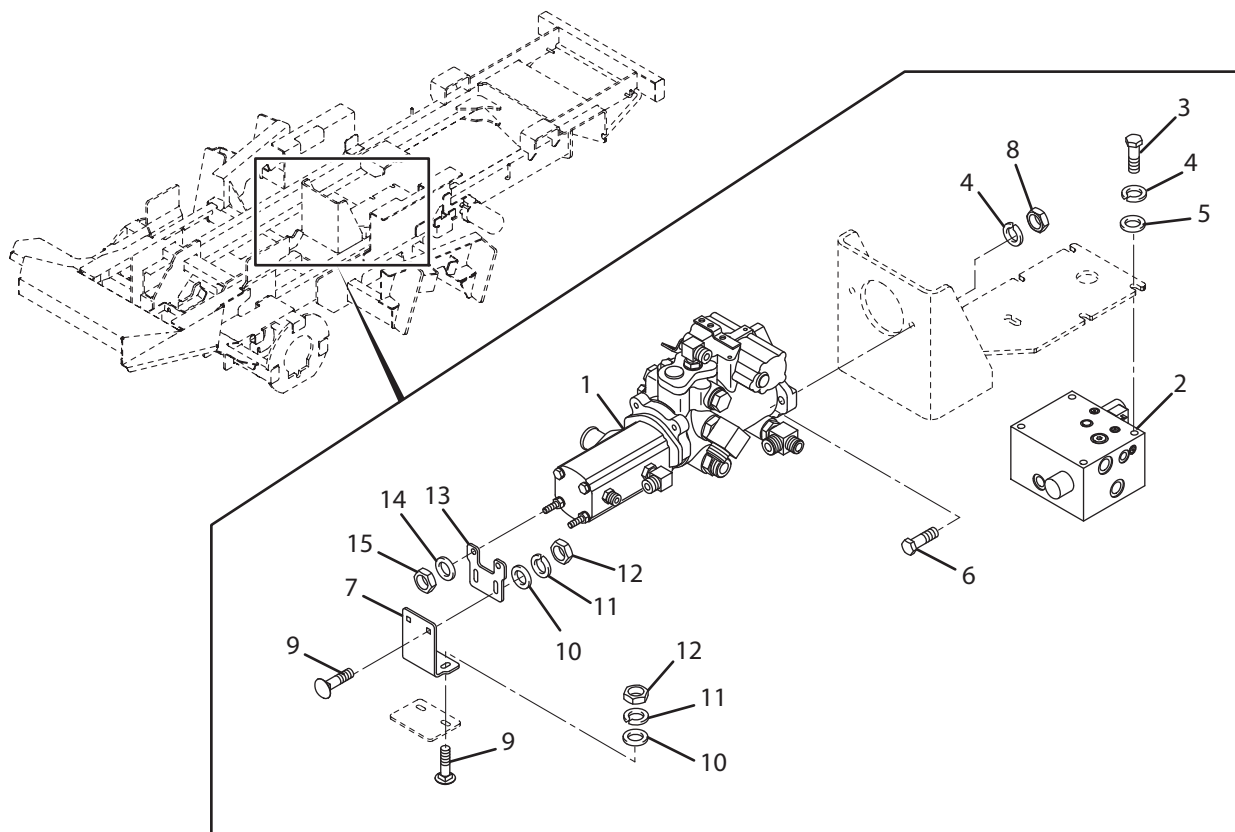
1.1 Fuel Tank



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	554752	1	Fuel Line, Engnie Overflow Return	Cut to 82", 3/16" I.D.
2	132647	1	Fuel Shutoff	
3	340481	1	Cover, Sender	
4	554748	1	Fuel Line, Tank to Pre-Filter	Cut to xx", 5/16" I.D. Approx. 24"
5	554748	1	Fuel Line, Pre-Filter to Fuel Pump	Cut to xx", 5/16" I.D. Approx. 24"
6	554748	1	Fuel Line, Fuel Pump to Fuel Filter	Cut to xx", 5/16" I.D. Approx. 57"
7	361117	3	Bushing	
8	361748	1	Valve, Overflow	
9	362615	4	Washer, Special	
10	48540-01	8	Clamp, Hose	
11	400188	6	Screw, 5/16-18 x 1" Hex Head	
> 12	400262	1	Screw, 3/8-16 x 1" Hex Head	
13	403910	5	Screw, #10-24 x 1/2" Truss Head	
14	441606	1	Bolt, Carriage 1/4-20 x 3/4"	
15	441614	1	Bolt, Carriage 5/16-18 x 1"	
16	441689	2	Carriage Bolt, 1/2-13 x 8-1/2"	
17	443102	1	Nut, 1/4-20 Hex	
18	443106	7	Nut, 5/16-18 Hex	
> 19	443110	1	Nut, 3/8-16 Hex	
20	443118	4	Nut, 1/2-13 Hex	
21	446130	1	Lockwasher, 1/4 Heavy	
22	446136	7	Lockwasher, 5/16 Heavy	
23	446140	2	Lockwasher, 3/8	
24	452006	9	Flat Washer, 5/16	
> 25	452008	3	Flatwasher, 3/8	
> 26	452012	2	Flat Washer, 1/2	
27	453023	1	Flat Washer, 1/4	
28	2721806	1	Cap, Fuel	
29	2810702	1	Valve, Needle	
30	3006265	1	Tank, Fuel	
31	3006639	1	Sender, Fuel	REFERENCE U4, See 67.1
32	3008820	1	Clamp, Double Hose (5/8" O.D.)	
33	3009236	1	Wall, Fender	
34	3009979	1	Fender	
35	5001182	1	Filter, Pre Fuel	
36	4135918	1	Pump, Fuel	

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1.1 Pump and 4WD Valve Mounting

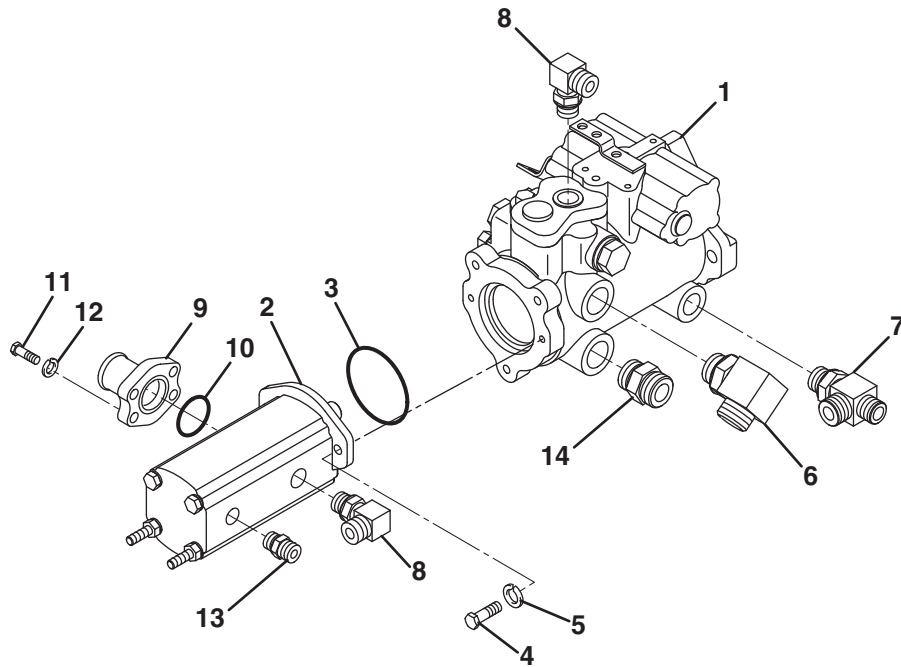


9016-06

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	—	1	Pump Assembly	See 27.1 See 55.1
2	4135556	1	4WD Valve with Oil Shuttle	
3	400406	4	Screw, 1/2-13 x 1-1/4" Hex Head	Included with Pump Included with Pump
4	446154	6	Lockwasher, 1/2 Heavy	
5	453017	4	Flat Washer, 1/2	
6	400412	2	Screw, 1/2-13 x 2" Hex Head	
7	3006658	1	Bracket, Pump Support	
8	443118	2	Nut, 1/2-13 Hex	
9	440082	4	Carriage Bolt, 5/16-18 x 1"	
10	452006	4	Flat Washer, 5/16	
11	446136	4	Lockwasher, 5/16 Heavy	
12	443106	4	Nut, 5/16-18 Hex	
13	3006913	1	Bracket, Pump Support	
14	446140	2	Lockwasher, 3/8	
15	443110	2	Nut, 3/8-16 Hex	

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2.1 Pump Assembly

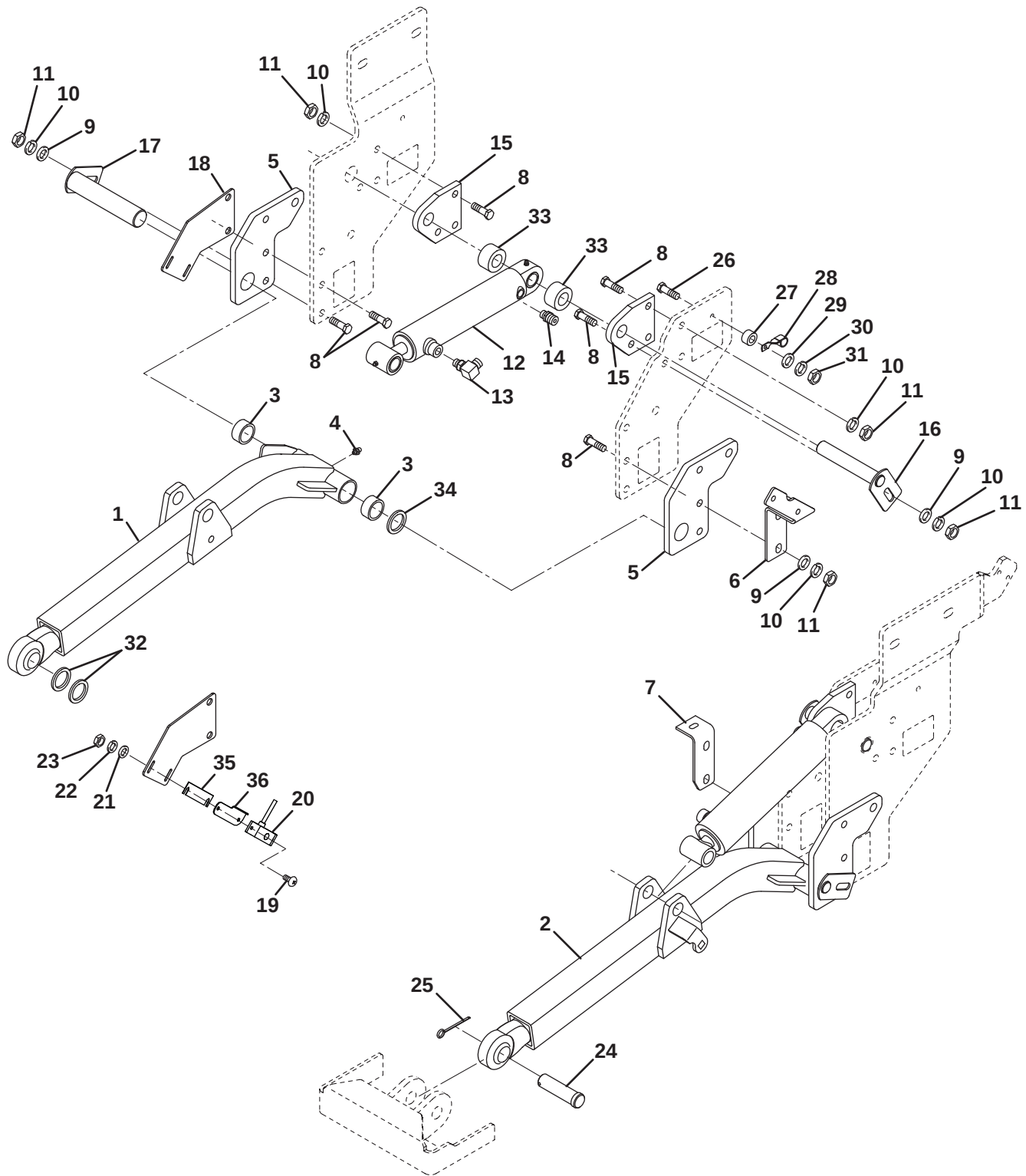


9016-07

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1002927	1	Pump, Traction	
	5003034	1	• Seal Kit	
	5003432	1	• Control Kit	
	5003433	1	• Shaft Seal Kit	
	5003544	1	• System Relief Kit	
2	1003248	1	Pump, Double	
	5003165	1	• Seal Kit, Front Section	
	5003166	1	• Seal Kit, Rear Section	
3	362743	1	O-Ring	
4	400262	2	Screw, 3/8-16 x 1" Hex Head	
5	446142	2	Lockwasher, 3/8 Heavy	
6	340077	1	Adapter, 90°	
7	340269	1	Adapter, Tee	
8	340070	2	Adapter, 90°	
9	3006829	1	Fitting, 4 Bolt Flange	
10	3006835	1	O-Ring, 1-3/4" O.D. x 1-1/2" I.D.	
11	400336	4	Screw, 7/16-14 x 1-1/4" Hex Head	
12	446148	4	Lockwasher, 7/16 Heavy	
13	339984	1	Adapter, Straight	
≥ 14	339999	2	Adapter, Straight	

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1.1 Front Lift Arms and Cylinders

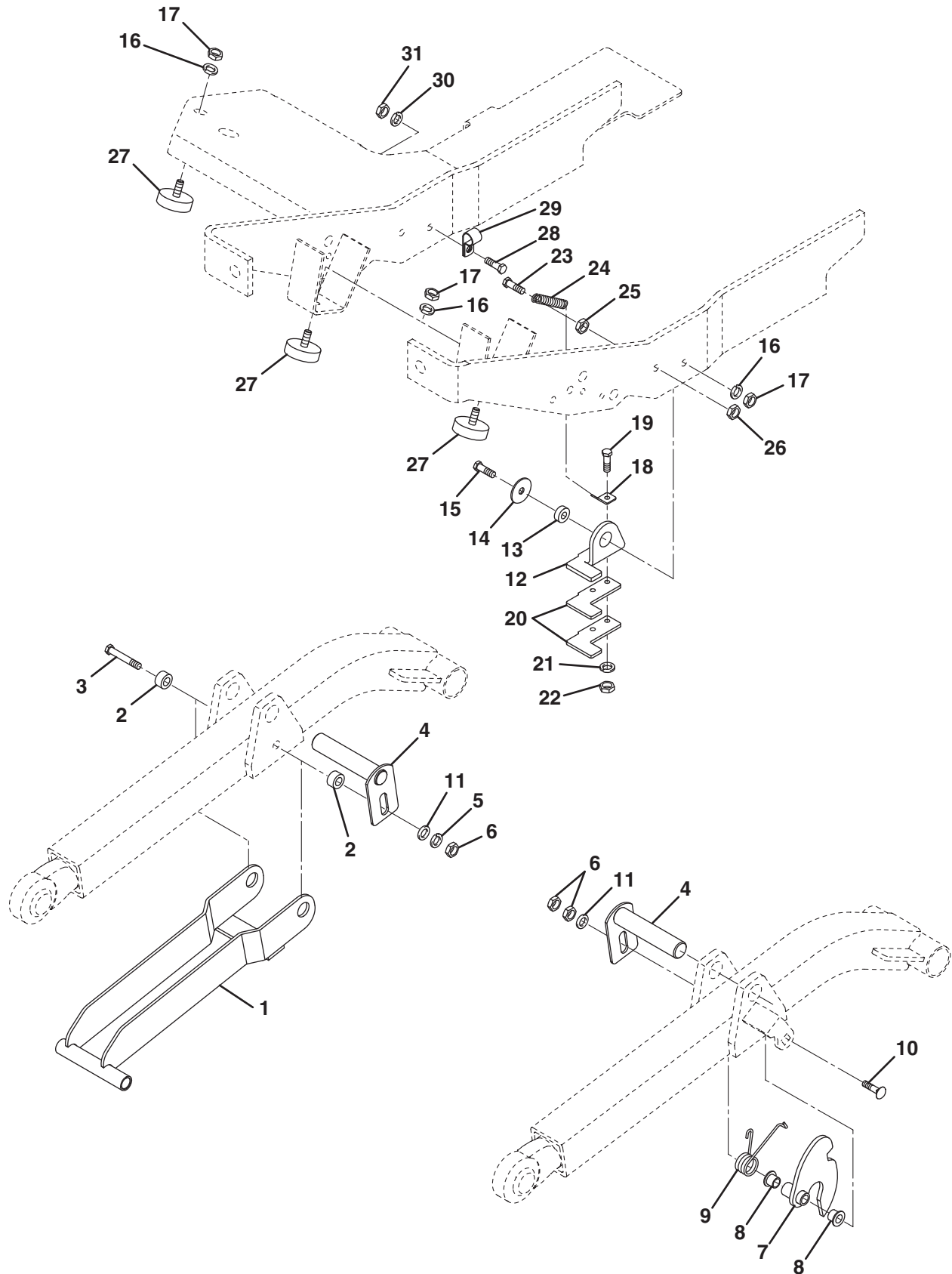


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1002785	1	R.H. Front Lift Arm	See 52.1 REFERENCE SW8, See 67.1
2	1003900	1	L.H. Front Lift Arm	
3	342033	4	• Bushing	
4	471214	2	• Grease Fitting	
5	3006490	4	Bracket, Front Deck Pivot	
6	3007091	1	Angle, R.H. Valve Mount	
7	3007092	1	Angle, L.H. Valve Mount	
8	400412	28	Screw, 1/2-13 x 2" Hex Head	
9	453017	4	Flat Washer, 1/2	
10	446154	28	Lockwasher, 1/2 Heavy	
11	443118	28	Nut, 1/2-13 Hex	
12	4138587	2	Front Lift Cylinder	
13	340061	2	Adapter, 90°	
14	339979	2	Adapter, Straight	
15	3006491	4	Bracket, Front Cylinder Pivot	
16	1003274	2	Pin, Front Cylinder	
17	1003275	2	Pin, Front Lift Arm Pivot	
18	3007468	1	Bracket, Switch	
19	403578	2	Screw, #10-24 x 1" Hex Head	
20	4140149	1	Switch, Proximity	
21	452002	2	Flat Washer, #10	
22	446118	2	Lockwasher, #10 Heavy	
23	444310	2	Nut, #10-24 Hex	
24	3007680	2	Pin, Front Deck Mounting	
25	460054	2	Cotter Pin, 3/16 x 1-3/4"	
26	400192	2	Screw, 5/16-18 x 1-1/2" Hex Head	
27	3004410	2	Spacer	
28	3009269	2	Clamp, Wire Harness Twisted	
29	452006	2	Flat Washer, 5/16	
30	446134	2	Lockwasher, 5/16	
31	443106	2	Nut, 5/16-18 Hex	
32	455004	2	Flat Washer, 1"	
33	3010015	4	Spacer	
34	364830	AR	Thrust Washer	
35	3009193	AR	Shim, Switch	
36	4177701	1	Bracket, Switch Guard	

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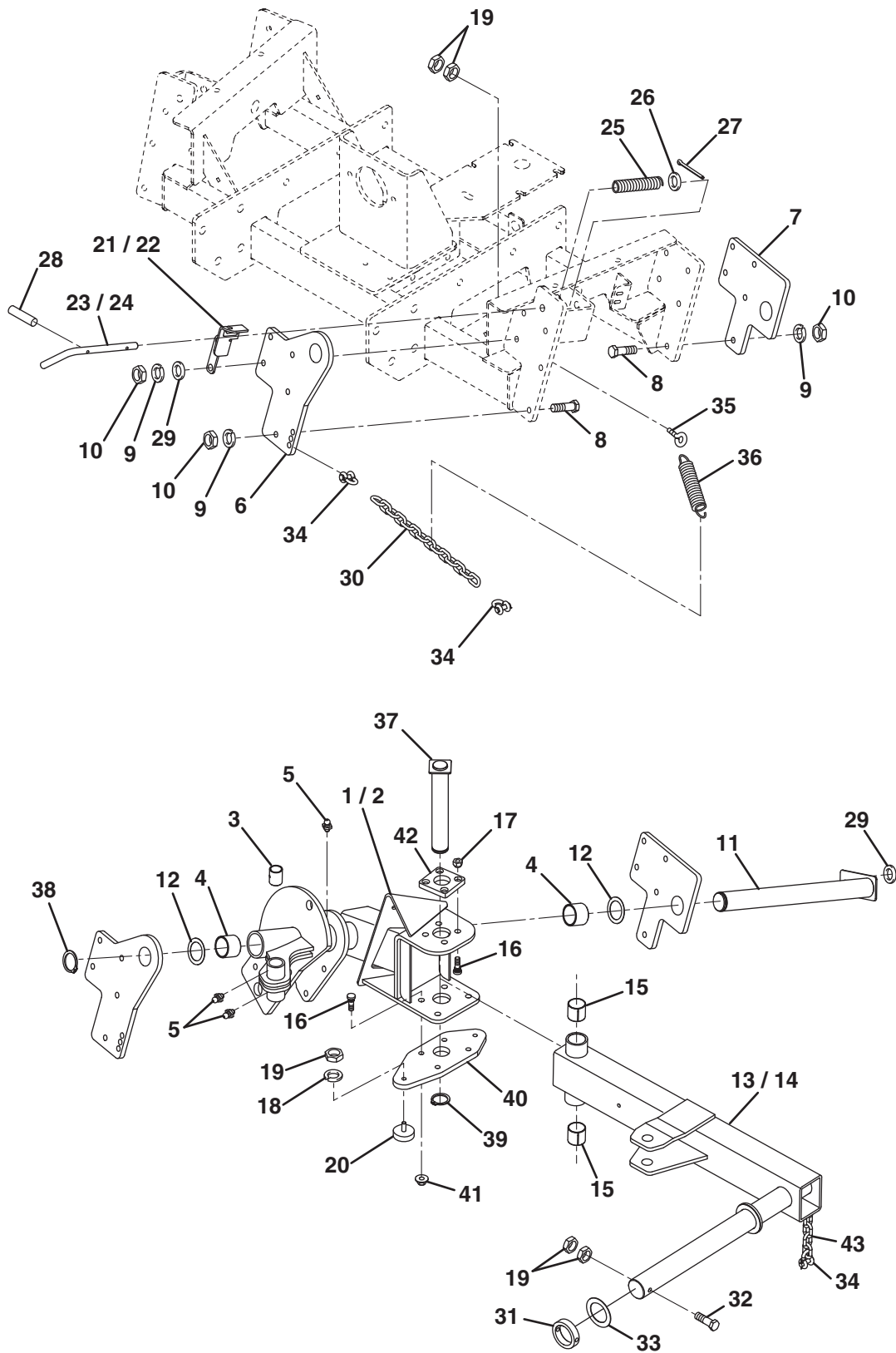
1.1 Front Deck Latch



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003483	1	Brace, Stand Up	
2	365826	2	Spacer	
3	400430	1	Screw, 1/2-13 x 5-1/2" Hex Head	
4	1003277	2	Pin, Cylinder Rod End	
5	446154	1	Lockwasher, 1/2 Heavy	
6	443118	3	Nut, 1/2-13 Hex	
7	1003484	1	Latch, Front Deck	
8	352936	2	• Bushing	
9	3008472	1	Spring, Torsion	
10	441690	1	Carriage Bolt, 1/2-13 x 7"	
11	453017	2	Flat Washer, 1/2	
12	3008453	1	Stop, Anti Sway Latch	
13	352435	1	Spacer	
14	319755	1	Washer	
15	400264	1	Screw, 3/8-16 x 1-1/4" Hex Head	
16	446142	4	Lockwasher, 3/8 Heavy	
17	443110	4	Nut, 3/8-16 Hex	
18	3007297	1	Tab, Spring	
19	400114	2	Screw, 1/4-20 x 1-1/4" Hex Head	
20	3007712	2	Shim	
21	446128	2	Lockwasher, 1/4	
22	443102	2	Nut, 1/4-20 Hex	
23	400194	1	Screw, 5/16-18 x 1-3/4" Hex Head	
24	346802	1	Spring, Extension	
25	443806	1	Nut, 5/16-18 Hex Jam	
26	444718	1	Locknut, 5/16-18 Center	
27	361723	3	Stop, Rubber	
28	400186	1	Screw, 5/16-18 x 7/8" Hex Head	
29	354081	1	Clamp, Wire Harness	
30	446134	1	Lockwasher, 5/16	
31	443106	1	Nut, 5/16-18 Hex	

> Change from previous revision

1.1 Side Lift Arms

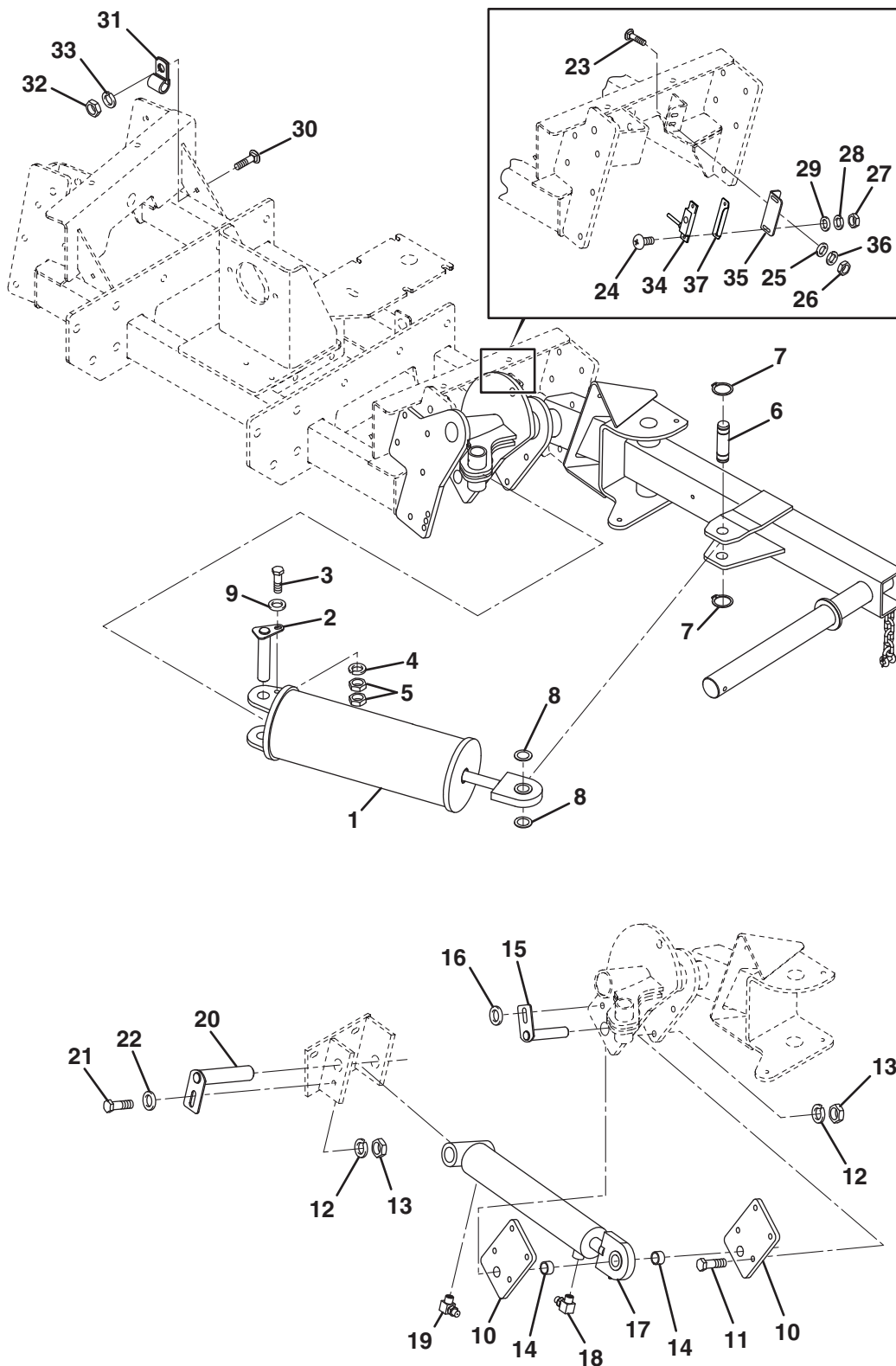


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1005016	1	Pivot, Left Side Arm	
2	1005017	1	Pivot, Right Side Arm	
3	304569	4	• Bushing	
4	332351	4	• Bushing	
5	471214	6	• Grease Fitting	
6	3006294	2	Plate, Side Arm Pivot	
7	3006295	2	Plate, Side Arm Pivot	
8	400412	20	Screw, 1/2-13 x 2" Hex Head	
9	446154	20	Lockwasher, 1/2 Heavy	
10	444758	20	Locknut, 1/2-13 Center	
11	2809628	2	Pin, Side Arm Pivot	
12	3006727	4	Washer, Thrust	
13	1002885	1	Left Side Lift Arm	
14	1002886	1	Right Side Lift Arm	
	471214	2	• Grease Fitting	
15	350800	4	• Bushing	
16	362464	16	Wheel Bolt	
17	346294	8	Wheel Nut	
18	446142	8	Lockwasher, 3/8 Heavy	
19	443110	16	Nut, 3/8-16 Hex	
20	361723	8	Stop, Rubber	
21	3007897	1	Bracket, Left Side Deck Latch	
22	3007896	1	Bracket, Right Side Deck Latch	
23	3009163	1	Bolt, Left Side Deck Latch	
24	3009162	1	Bolt, Right Side Deck Latch	
25	3009309	2	Spring, Compression	
26	453020	2	Flat Washer, 5/8	
27	460052	2	Cotter Pin, 3/16 x 1-1/2"	
28	461408	2	Spring Pin, 1/4 x 1-1/2"	
29	452012	6	Flat Washer, 1/2	
>	30	2	Chain, Dump Box	
	31	2	Collar	
	32	2	Screw, 3/8-16 x 3-3/4" Hex Head	
	33	AR	Washer	
>	34	8	Shackle, Chain	
	35	2	Eyebolt	
	36	2	Spring, Extension	
	37	2	Pin, Lift Arm	
	38	2	Retaining Ring, Side Arm Pivot	
	39	2	Retaining Ring, Lift Arm	
>	40	2	Plate, Left Side Bottom	
	41	8	Locknut, 7/16-20 Hex	
	42	2	Collar	
>	43	2	Chain	

> Change from previous revision

1.1 Side Lift Cylinders and Return Canisters

Serial No. All

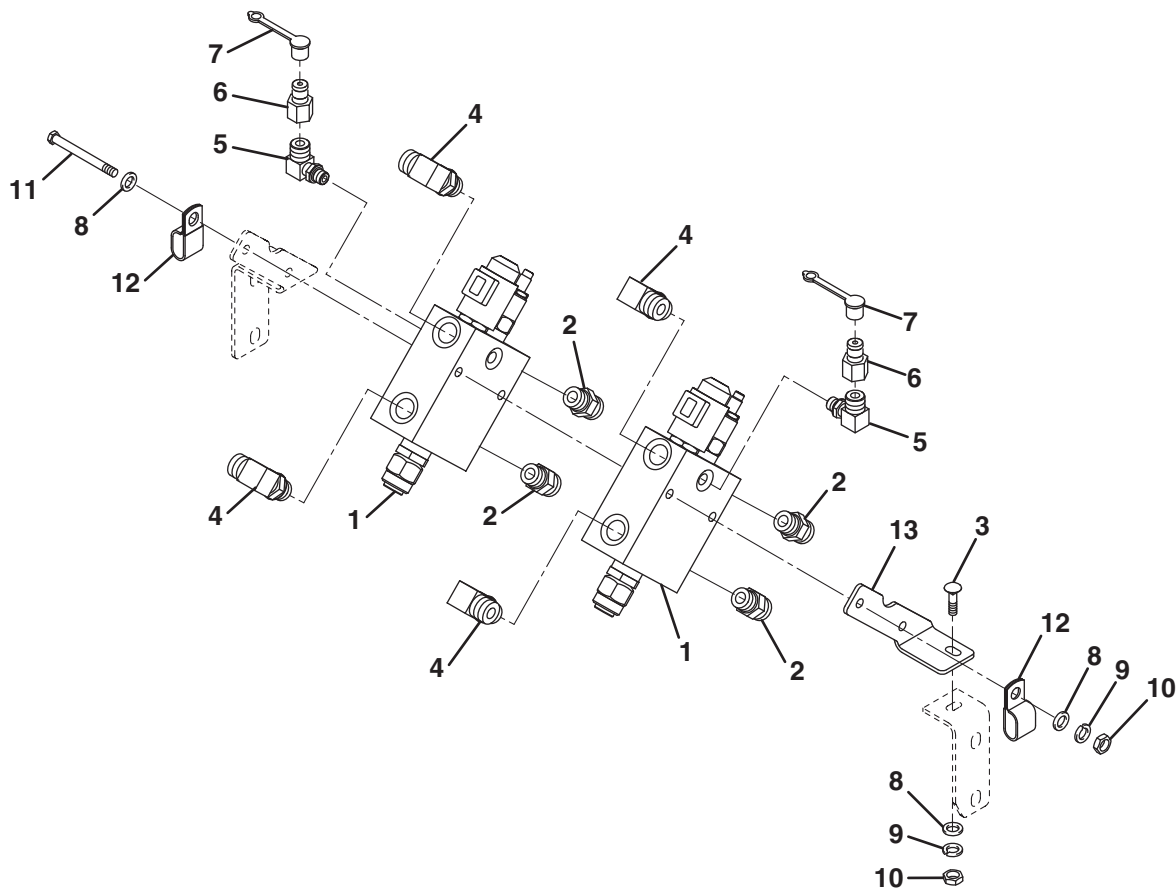


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5003371	2	Canister, Deck Return	See 50.1
2	1003823	2	Pin, Canister Mount	
3	400266	2	Screw, 3/8-16 x 1-1/2" Hex Head	
4	446140	2	Lockwasher, 3/8	
5	443110	4	Nut, 3/8-16 Hex	
6	3009535	2	Pin, Shear	
7	458039	4	Retaining Ring	
8	455004	4	Flat Washer	
9	453011	2	Flat Washer, 3/8	
10	3006293	4	Plate, Side Cylinder Mounting	
11	400412	14	Screw, 1/2-13 x 2" Hex Head	
12	446154	14	Lockwasher, 1/2 Heavy	
13	444758	14	Locknut, 1/2-13 Center	
14	3004092	4	Spacer	
15	1003277	2	Pin, Cylinder Rod End Mounting	
16	452012	2	Flat Washer, 1/2	See 53.1
> 17	4138521	2	Cylinder, Rear Lift	
18	340061	2	Adapter, 90°	
19	340078	2	Adapter, 90°	
20	1003272	2	Pin, Side Cylinder Mounting	
21	400408	2	Screw, 1/2-13 x 1-1/2" Hex Head	
22	453017	2	Flat Washer, 1/2	
23	441606	2	Carriage Bolt, 1/4-20 x 3/4"	
24	403578	4	Screw, #10-24 x 1" Hex Head	
25	453023	2	Flat Washer, 1/4	
26	443102	2	Nut, 1/4-20 Hex	
27	444310	2	Nut, #10-24 Hex	
28	446118	2	Lockwasher, #10 Heavy	
29	452002	2	Flat Washer, #10	REFERENCE SW4 & SW9, See 67.1
30	441614	2	Carriage Bolt, 5/16-18 x 1"	
31	354081	2	Clamp, Wire Harness	
32	443106	2	Nut, 5/16-18 Hex	
> 33	446134	2	Lockwasher, 5/16	
34	4140149	2	Switch, Proximity	
35	3009026	2	Angle, Switch	
36	446128	2	Lockwasher, 1/4	
37	4182420	2	Bracket, Switch Guard	

> Change from previous revision

1.1 Front Deck Valves

Serial No. All



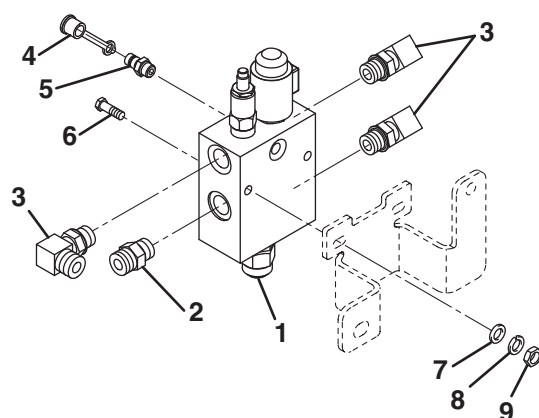
9016-22

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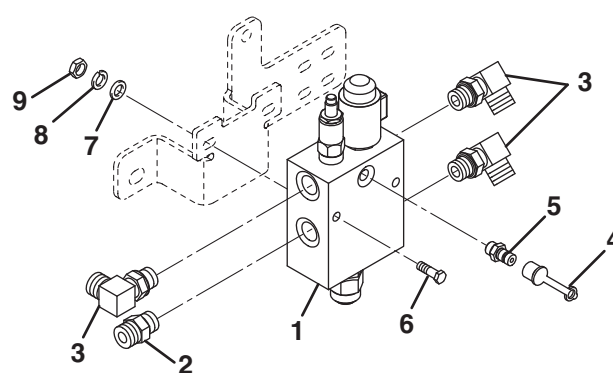
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4135582	2	Valve, Deck	See 54.1
2	339989	4	Adapter, Straight	
3	441624	1	Carriage Bolt, 3/8-16 x 1"	
4	340070	4	Adapter, 90°	
5	340065	2	Adapter, 90°	
6	364945	2	Fitting, Diagnostic	
7	363030	2	Cover, Dust	
8	452008	3	Flat Washer, 3/8	
9	446142	3	Lockwasher, 3/8 Heavy	
10	443110	3	Nut, 3/8-16 Hex	
11	401225	2	Screw, 3/8-16 x 6-1/2" Hex Head	
12	3008820	2	Clamp, Double Hose	
13	3008357	1	Angle, L.H. Valve Mount	

> Change from previous revision

2.1 Wing Deck Valves



Right Wing Valve



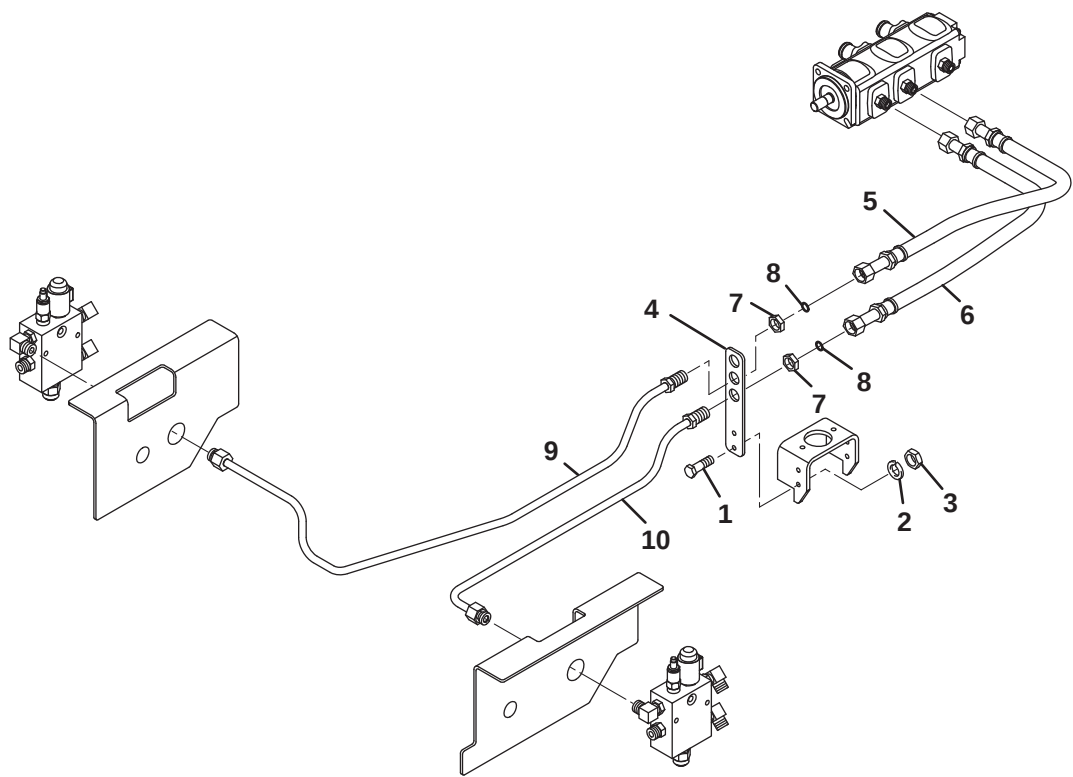
Left Wing Valve

9016-23

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4135582	2	Valve, Deck	See 54.1
2	339989	2	Adapter, Straight	
3	340070	6	Adapter, 90°	
4	363030	2	Cover, Dust	
5	365466	2	Fitting, Diagnostic	
6	401028	4	Screw, 3/8-16 x 3-1/4" Hex Head	
7	452008	4	Flat Washer, 3/8	
8	446142	4	Lockwasher, 3/8 Heavy	
9	443110	4	Nut, 3/8-16 Hex	

> Change from previous revision

1.1 Side Deck Valve Supply

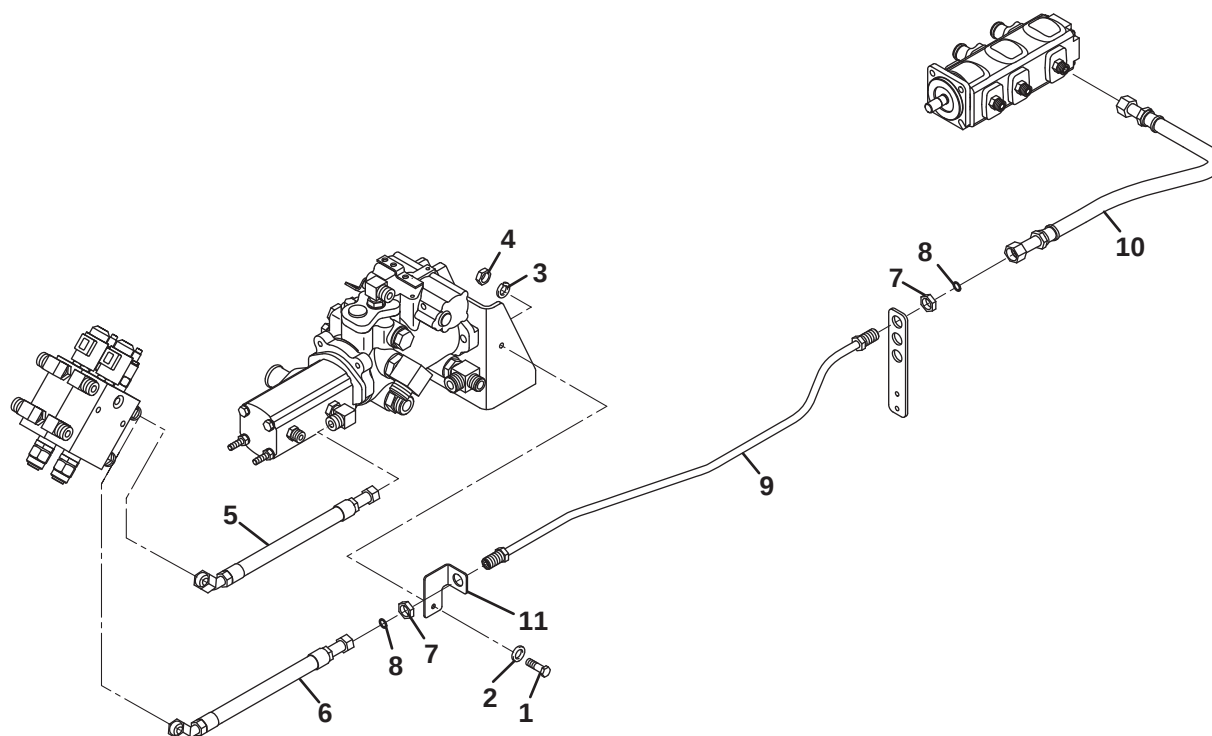


9016-31

Item	Part No.	Qty.	Description	Serial Numbers/Notes
	1	2	Screw, 3/8-16 x 1-1/4" Hex Head	
	2	2	Lockwasher, 3/8 Heavy	
	3	2	Nut, 3/8-16 Hex	
	4	1	Plate, Tube Mounting	
>	5	1	Hose, Pump to left Side	
>	6	1	Hose, Pump to Bracket	
	7	2	Locknut, Bulkhead	
	8	2	O-Ring, SAE #10	
	9	1	Tube, Right Side Deck Valve Supply	
	10	1	Tube, Left Side Deck Valve Supply	

> Change from previous revision

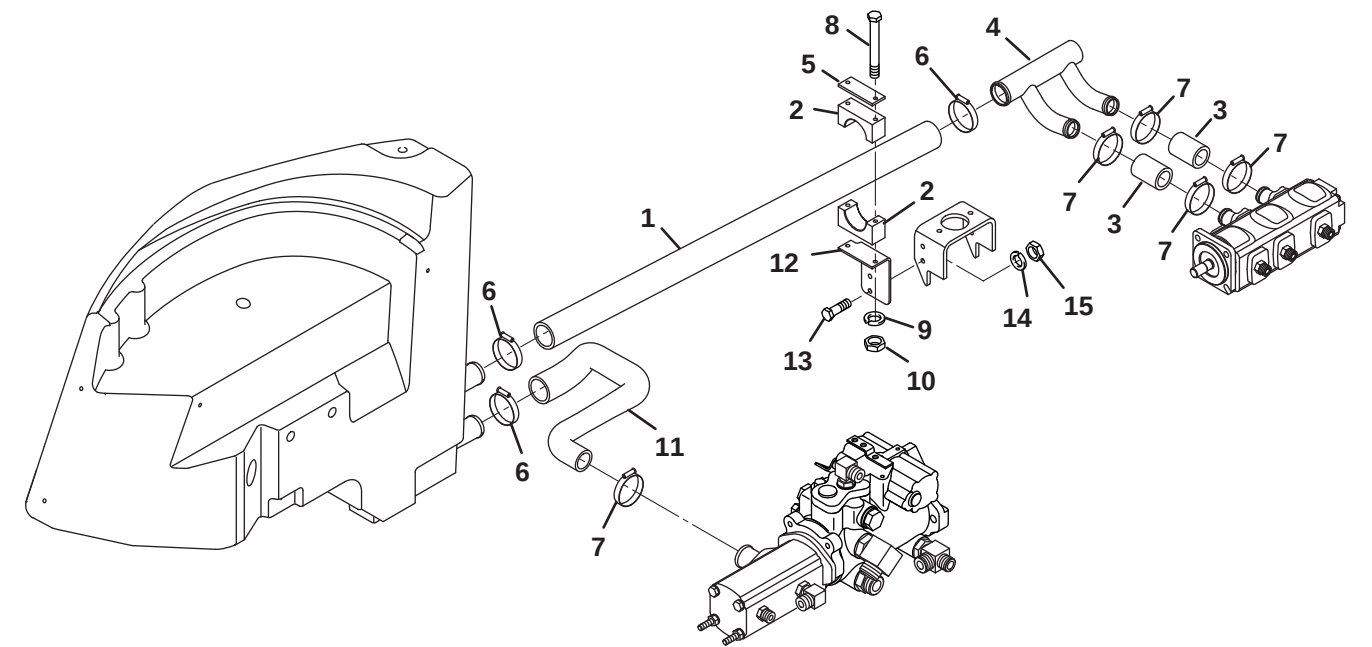
2.1 Front Deck Valve Supply



9016-32

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	400264	1	Screw, 3/8-16 x 1-1/4" Hex Head	
2	452008	1	Flat Washer, 3/8	
3	446142	1	Lockwasher, 3/8 Heavy	
4	443110	1	Nut, 3/8-16 Hex	
5	1003607	1	Hose, Pump to Left Front Valve	
6	4135589	1	Hose, Pump to Right Front Valve	
7	339963	2	Locknut, Bulkhead	
8	339911	2	O-Ring, SAE #10	
9	4135409	1	Tube, Right Front Valve	
10	1003587	1	Hose, Pump to Tube	
11	4135425	1	Bracket, Tube	
12	473144	1	Tie Wrap (Not Shown)	

> Change from previous revision

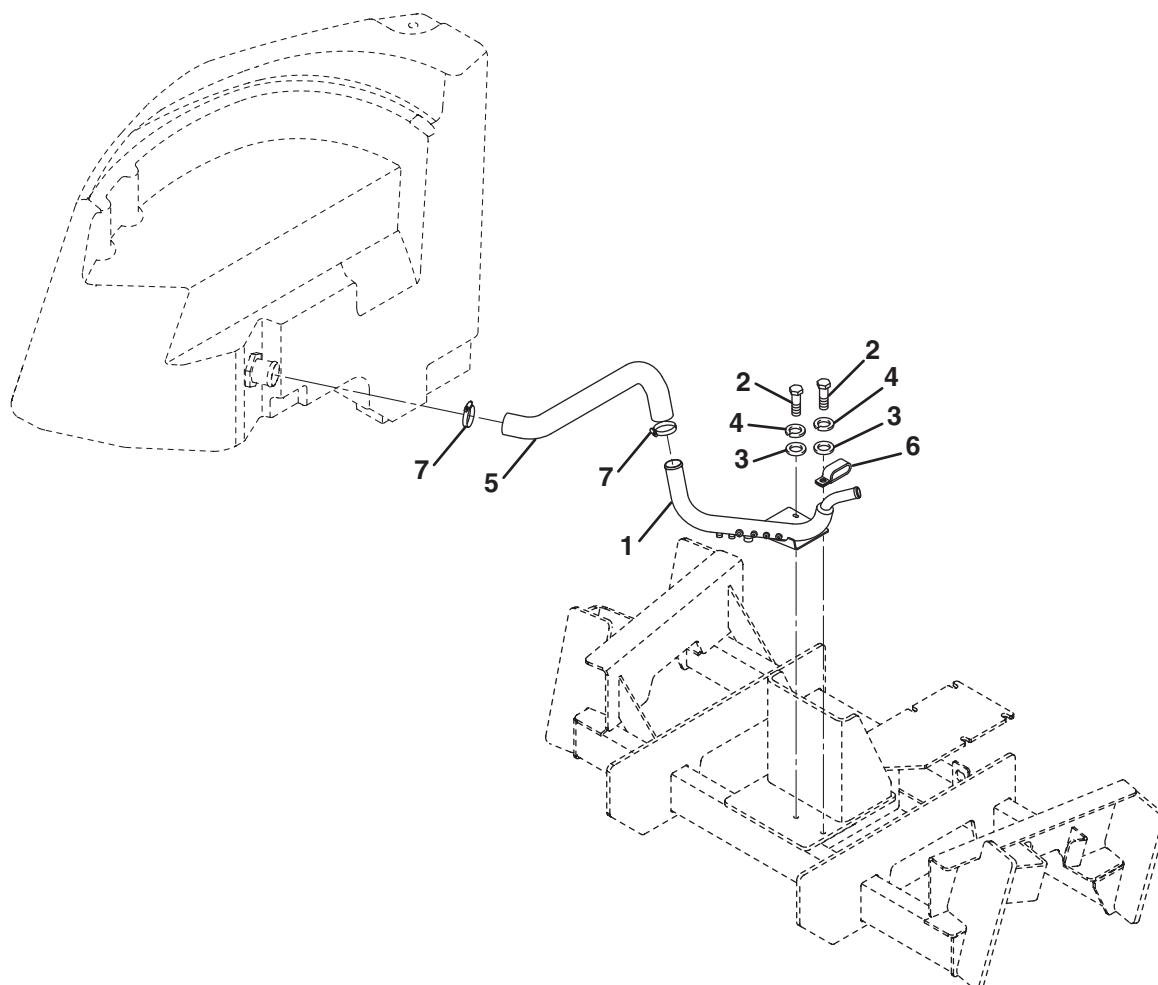


9016-30

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4135240	1	Hose, Rear Pump Suction	
2	4136342	6	Clamp	
3	4148900	2	Hose, Rear Pump Inlet	
4	4135233	1	Manifold, Rear Pump Suction	
5	4136343	3	Plate, Clamp	
6	359615	3	Clamp, Hose	
7	326112	5	Clamp, Hose	
8	400208	6	Screw, 5/16-18 x 4-1/2" Hex Head	
9	446136	6	Lockwasher, 5/16 Heavy	
10	443106	6	Nut, 5/16-18 Hex	
11	3007060	1	Hose, Front Pump Inlet	
12	4136341	1	Bracket, Rear Plumbing	
13	400264	2	Screw, 3/8-16 x 1-1/4" Hex Head	
14	446142	2	Lockwasher, 3/8 Heavy	
15	443110	2	Nut, 3/8-16 Hex	

> Change from previous revision

2.1 Return Manifold

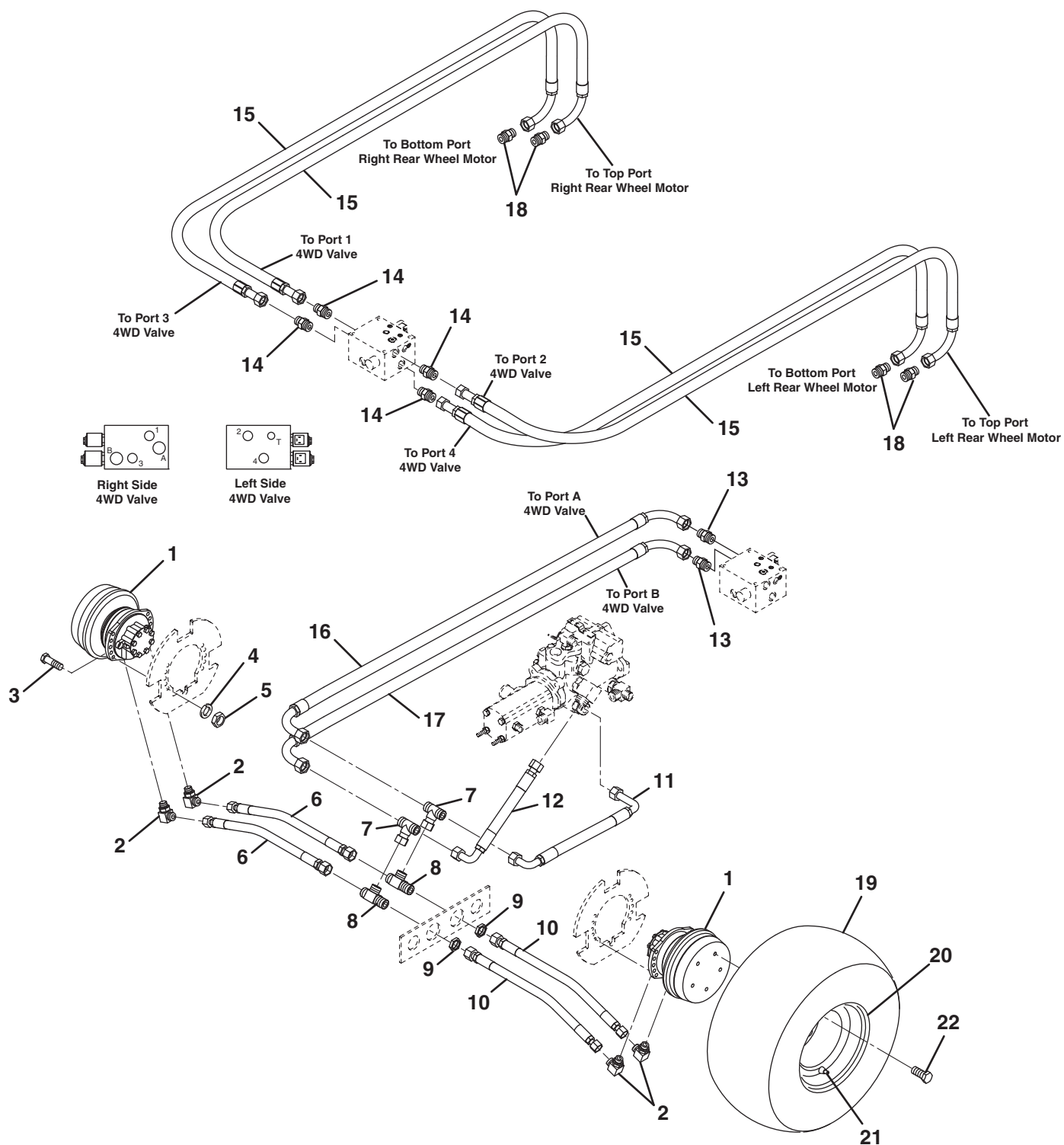


9016-39

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003891	1	Return Manifold	
2	400266	2	Screw, 3/8-16 x 1-1/2" Hex Head	
3	452008	2	Flat Washer, 3/8	
4	446140	2	Lockwasher, 3/8	
5	3007061	1	Hose, Return	
6	3008820	1	Clamp, Double Hose	
7	359615	2	Clamp, Hose	

> Change from previous revision

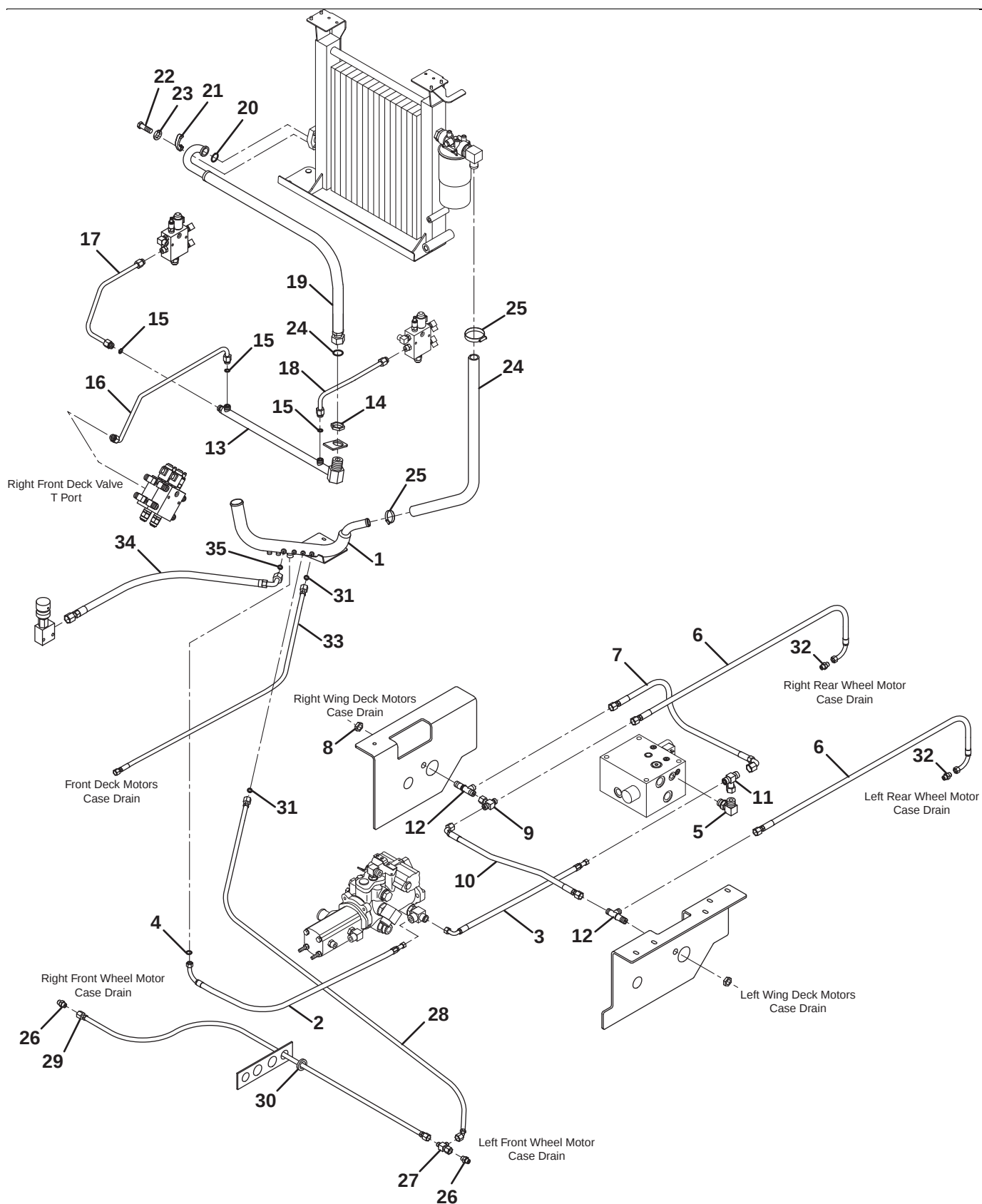
1.1 Traction Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1002769	2	Wheel Motor, Front	
	5003641	1	• Brake Shoe Kit	
	5003642	1	• Mechanical Control Kit	
	5003643	1	• Adjusting System Kit	
	5003651	1	• Motor Seal Kit	
2	340074	4	Adapter, 90°	
3	400410	20	Screw, 1/2-13 x 1-3/4" Hex Head	
4	446154	20	Lockwasher, 1/2 Heavy	
5	443118	20	Nut, 1/2-13 Hex	
6	1003307	2	Hose, Tee to Right Wheel Motor	
7	340147	2	Adapter, Tee	
8	340219	2	Adapter, Bulkhead Tee	
9	339965	2	Nut, Bulkhead	
10	1003308	2	Hose, Tee to Left Wheel Motor	
11	1003310	1	Hose, Traction Pump to Front Tee	
12	1003309	1	Hose, Traction Pump to Rear Tee	
13	339994	2	Adapter, Straight	
14	339989	4	Adapter, Straight	
15	1003313	4	Hose, 4WD Valve to Rear Motors	
16	1003311	1	Hose, Rear Tee to 4WD Valve	
17	1003312	1	Hose, Front Tee to 4WD Valve	
18	339990	4	Adapter, Straight	
19	5003421	2	Tire, 29 x 14-15 Ultra Trac TL	
20	5003422	2	Wheel	
21	363233	2	Inflation Valve	
22	3007683	12	Wheel Bolt, 1/2-20	

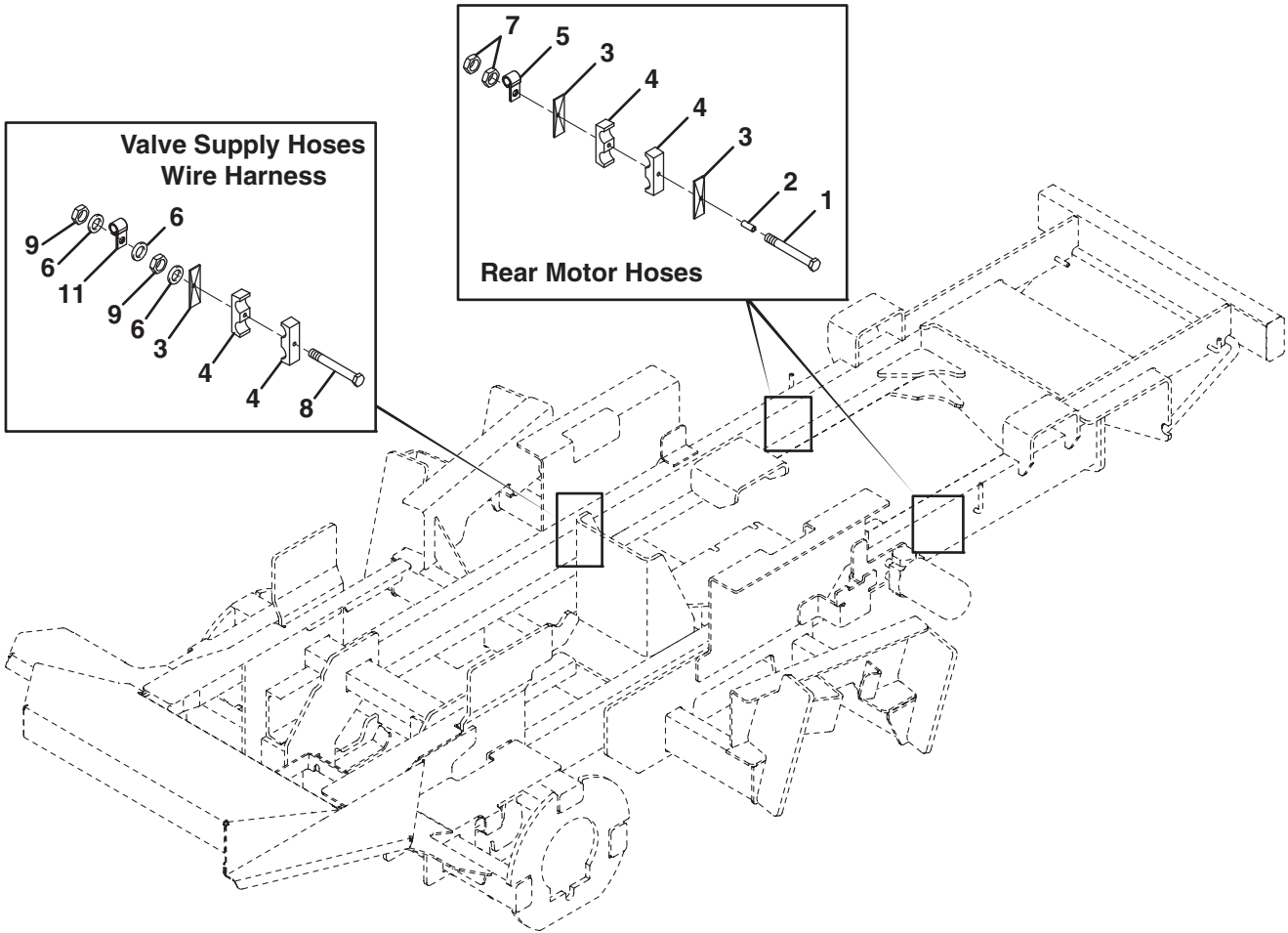
> Change from previous revision

1.1 Return Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	—	1	Return Manifold	See 37.1
2	1003573	1	Hose, Pump to Return Manifold	
3	1003575	1	Hose, 4WD Valve to Pump	
4	339911	1	O-Ring, SAE #10 Face Seal	
5	340065	1	Adapter, 90°	
6	1003604	2	Hose, Rear Wheel Motor Drain	
7	1003577	1	Hose, Right Tee to 4WD Valve	
8	339961	2	Locknut, Bulkhead	
9	340143	1	Adapter, Tee	
10	1003574	1	Hose, Right Tee to Left Tee	
11	340144	1	Adapter, Tee	
12	340215	2	Adapter, Bulkhead Tee	
13	1003988	1	Manifold, Cooler Inlet	
14	339966	1	Locknut, Bulkhead	
> 15	339911	3	O-ring, SAE #10	
16	1003862	1	Tube, Right Front Valve to Inlet	
17	1003860	1	Tube, Right Side Valve to Inlet	
18	1003861	1	Tube, Left Side Deck to Inlet	
> 19	1004226	1	Hose, Cooler Inlet to Cooler	
20	3006835	1	O-Ring, 1-3/4" O.D. x 1-1/2" I.D.	
21	3009496	2	Flange Half, 1-1/4 SAE #20	
22	400336	4	Screw, 7/16-14 x 1-1/4 Hex Head	
23	446148	4	Lockwasher, 7/16 Heavy	
24	3007767	1	Hose, Cooler to Return Manifold	
25	3008673	2	Clamp, Constant Torque	
26	339974	2	Adapter, Straight	
27	340118	1	Adapter, Tee	
28	1003592	1	Hose, Tee to Return Manifold	
29	1003603	1	Hose, Right Motor to Left Motor	
30	365660	1	Grommet	
31	339909	2	O-Ring, SAE #6 Face Seal	
32	339972	2	Adapter, Straight	
33	2810188	1	Hose, Front Deck Motor Case Drain	
34	1003608	1	Hose, Back Pressure Valve Return	
35	339910	1	O-Ring, SAE #8 Face Seal	
36	473144	2	Tie, Wire Heavy	Not Shown

> Change from previous revision

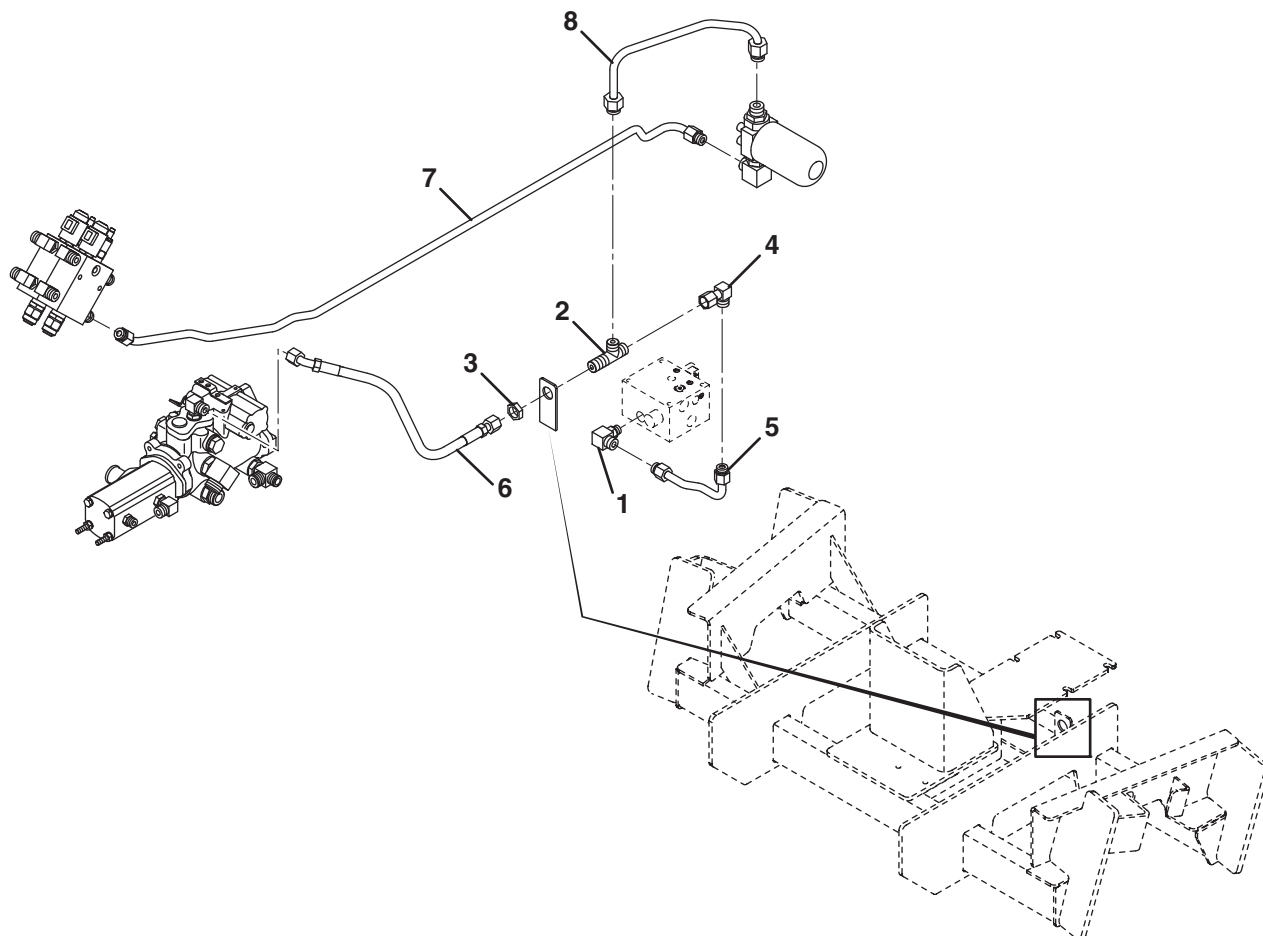


9016-41

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	400210	2	Screw, 5/16-18 x 5" Hex Head	Used on rear motor hoses after clamp.
2	366114	2	Spacer	
3	3008792	5	Spacer Plate	
4	3008793	6	Clamp, Double Hose	
5	366424	2	Clamp, Hose	
6	452006	3	Flat Washer, 5/16	
7	443106	4	Nut, 5/16-18 Hex	
8	400204	1	Screw, 5/16-18 x 3-1/2" Hex Head	
9	444718	2	Nut, 5/16-18 Center	
10	473144	2	Tie Wrap (Not Shown)	
11	365566	1	Clamp, Wire Harness	

> Change from previous revision

2.1 Charge Pressure

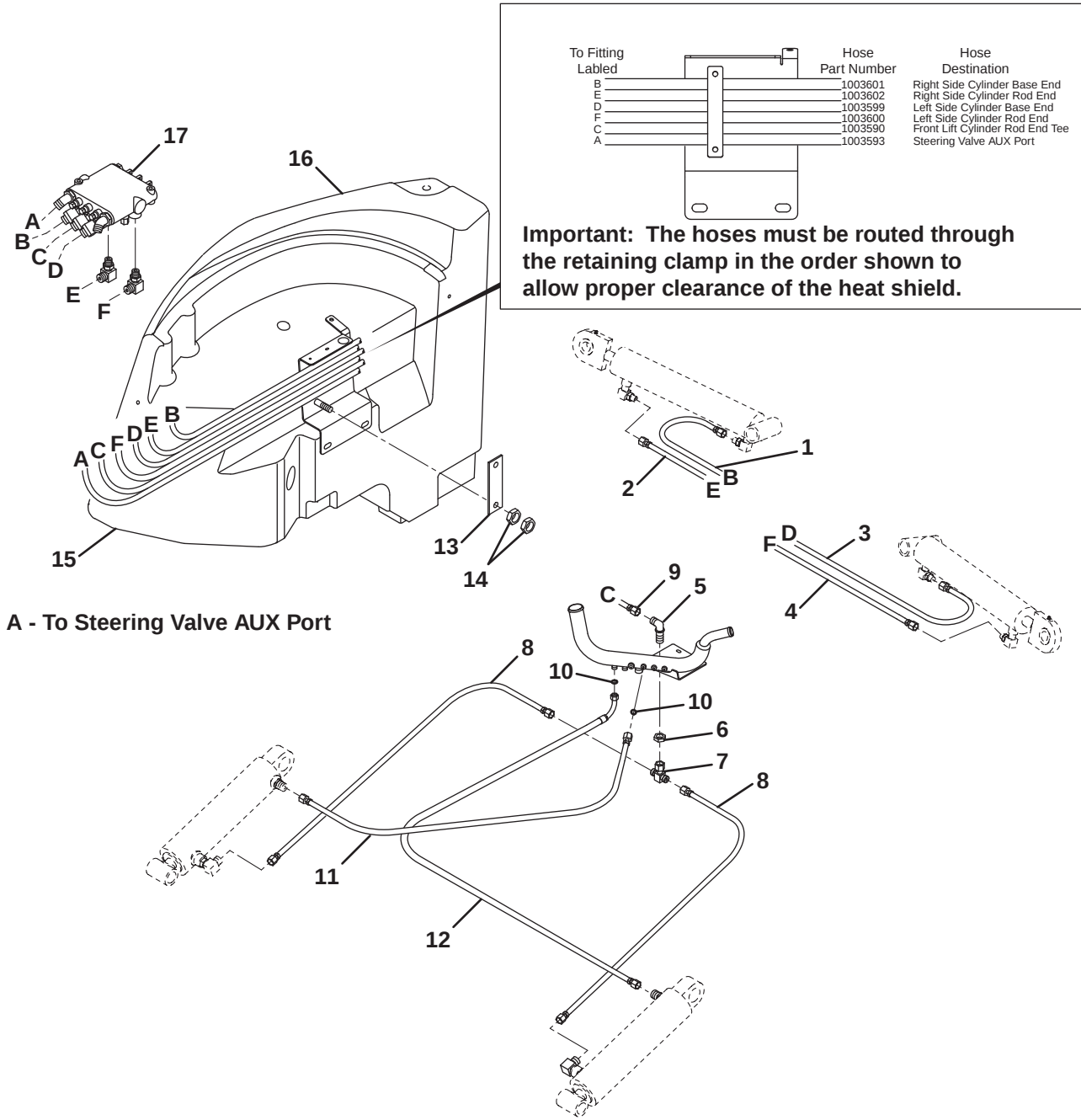


9016-40

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340069	1	Adapter, 90°	
2	340217	1	Adapter, Tee	
3	339963	1	Locknut, Bulkhead	
4	340377	1	Adapter, 90°	
5	1003878	1	Tube, 4WD Valve to Tee	
6	1003605	1	Hose, Tee to Pump	
7	1003865	1	Tube, Lift Valve to Filter	
8	1003864	1	Tube, Filter to Tee	

> Change from previous revision

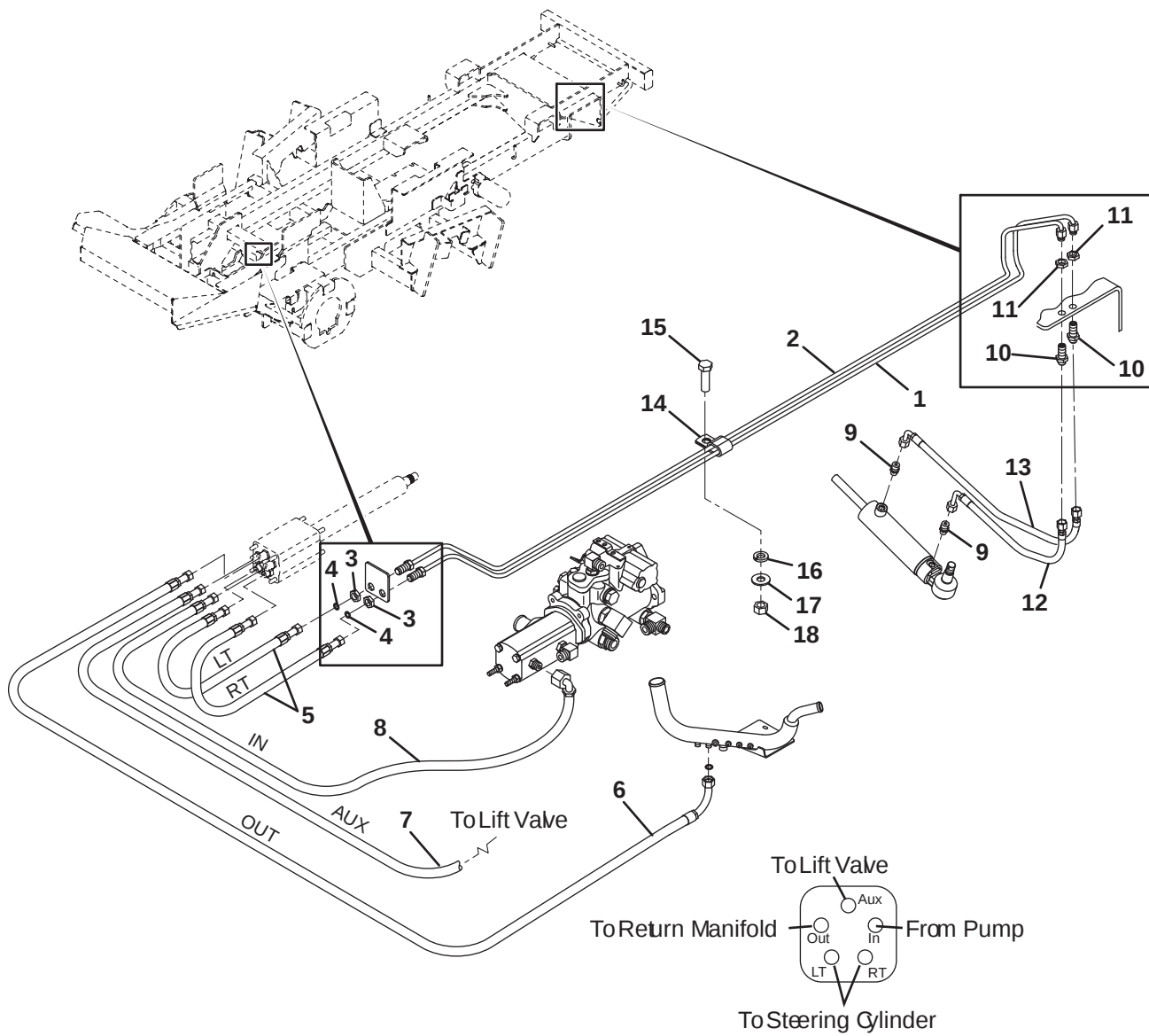
1.1 Lift Valve Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003599	1	Hose, Right Side Cylinder Base End	
2	1003600	1	Hose, Right Side Cylinder Rod End	
3	1003601	1	Hose, Left Side Cylinder Base End	
4	1003602	1	Hose, Left Side Cylinder Rod End	
5	340167	1	Adapter, 90° Bulkhead	
6	339961	1	Nut, Bulkhead	
7	340143	1	Adapter, Tee	
8	1003591	2	Hose, Front Cylinders Rod End	
9	1003590	1	Hose, Lift Valve to Tee	
10	339909	2	O-Ring, SAE #6 Face Seal	
> 11	132568	1	Hose, Right Front Cylinder Rod End	
12	1002940	1	Hose, Left Front Cylinder Rod End	
13	3008459	1	Plate, Hose Retaining Clamp	
14	443106	4	Nut, 5/16-18 Hex	
15	1003594	1	Hose, Steering Valve to Lift Valve	
> 16	—	1	Hydraulic Tank	See 24.1
17	—	1	Lift Valve	See 8.1

> Change from previous revision

1.1 Power Steering Hoses

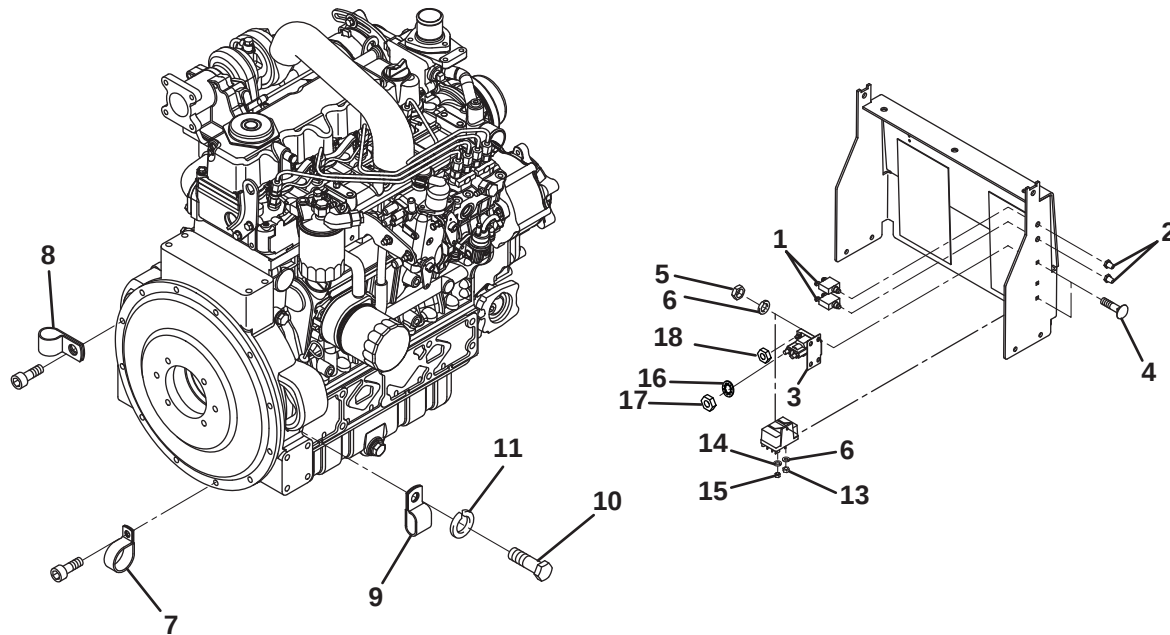


	Item	Part No.	Qty.	Description	Serial Numbers/Notes
>	1	1003876	1	Tube, RT Hose to Rod End Hose	See 42.1
	2	1003875	1	Tube, LT Hose to Base End Hose	
	3	339961	2	Locknut, Bulkhead	
	4	339909	2	O-Ring, SAE #6 Face Seal	
	5	1003606	2	Hose, Valve to Cylinder Tubes	
	6	1003593	1	Hose, Valve to Return Manifold	
	7	—	1	Hose, Steering Valve to Lift Valve	
	8	1003596	1	Hose, Gear Pump to Valve	
	9	339979	2	Adapter, Straight	
	10	340239	2	Adapter, Straight Bulkhead	
	11	339961	2	Locknut, Bulkhead	
	12	1003597	1	Hose, LT Tube to Cylinder Base End	
	13	1003595	1	Hose, RT Tube to Cylinder Rod End	
	14	3009272	1	Clamp, Double Hose	
	15	400264	1	Screw, 3/8-16 UNC x 1.250 Hex	
	16	446142	1	Lockwasher, 3/8 Heavy	
	17	452008	1	Flat Washer, 3/8	
	18	443110	1	Nut 3/8-16 Hex	

> Change from previous revision

1.1 Engine Compartment Clamps

Serial No. All



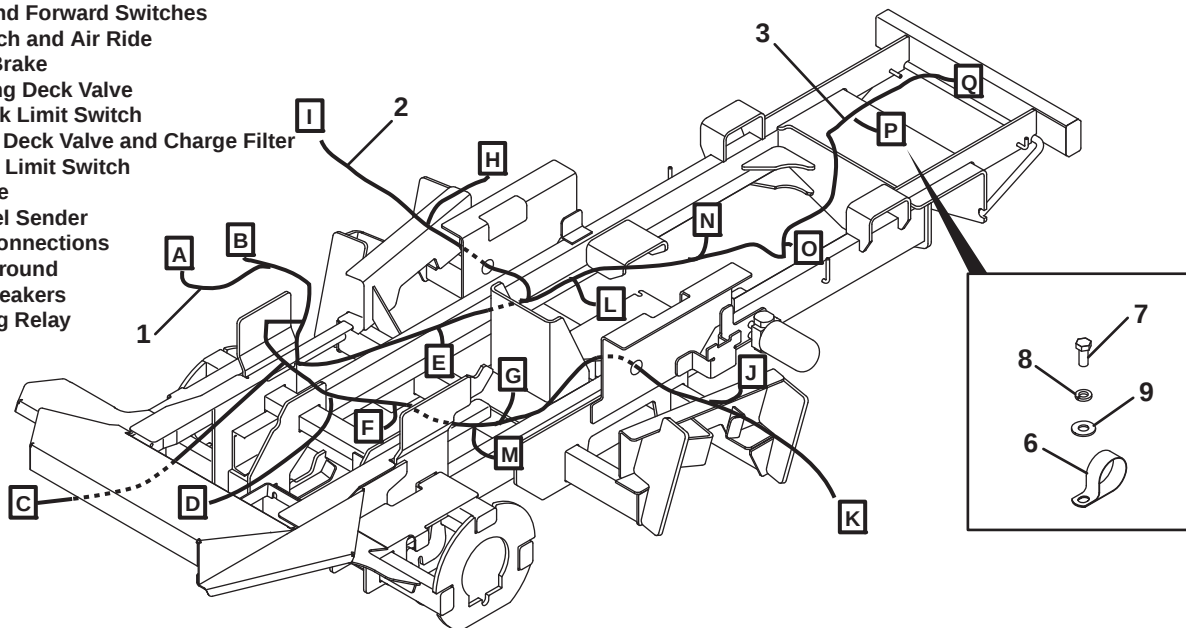
9016-43

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3000359	2	Breaker, Circuit-50 Amp	REFERENCE CB1 & CB2, See 67.1
2	364774	2	Boot, Protective	
3	131905	1	Solenoid	
4	441606	3	Bolt, Carriage 1/4-20 x 3/4"	
5	443102	3	Nut, 1/4-20 Hex	
6	446130	5	Lockwasher, 1/4 Heavy	
7	364190	1	Clamp, 1-1/2"	
8	333801	1	Clamp, Hose	
9	3008820	1	Clamp, Double Hose	
10	365980	1	Bolt, M12 x 1.25 x 18 Hex Head	
11	446152	1	Lockwasher, 1/2	
12	4136564	1	Timer, Relay	
13	361001	2	Nut, M6-1 Hex	
> 14	446118	3	Lockwasher, #10	
> 15	64237-01	1	Nut, M5 Nylon Insert	
> 16	447214	2	Lockwasher, 5/16 Internal Tooth	
> 17	443808	2	Nut, 5/16-18 Hex Jam	
> 18	444312	2	Nut, #10-32 Hex	

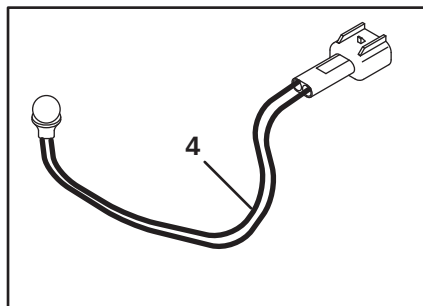
> Change from previous revision

2.1 Wire Harness Routing

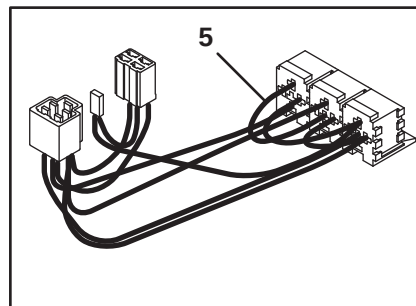
- A - Instrument Panel
 B - Oil Level, Horn and Seat Relay
 C - Front Limit Switch and Cruise Magnet
 D - Front Deck Valves
 E - Neutral and Forward Switches
 F - Seat Switch and Air Ride
 G - Parking Brake
 H - Right Wing Deck Valve
 I - Right Deck Limit Switch
 J - Left Wing Deck Valve and Charge Filter
 K - Left Deck Limit Switch
 L - 4WD Valve
 M - Fuel Level Sender
 N - Engine Connections
 O - Engine Ground
 P - Circuit Breakers
 Q - Glow Plug Relay



Glow Plug Light Adapter
Located under Instrument Panel



Kubota Key Switch Adapter
Located under Instrument Panel



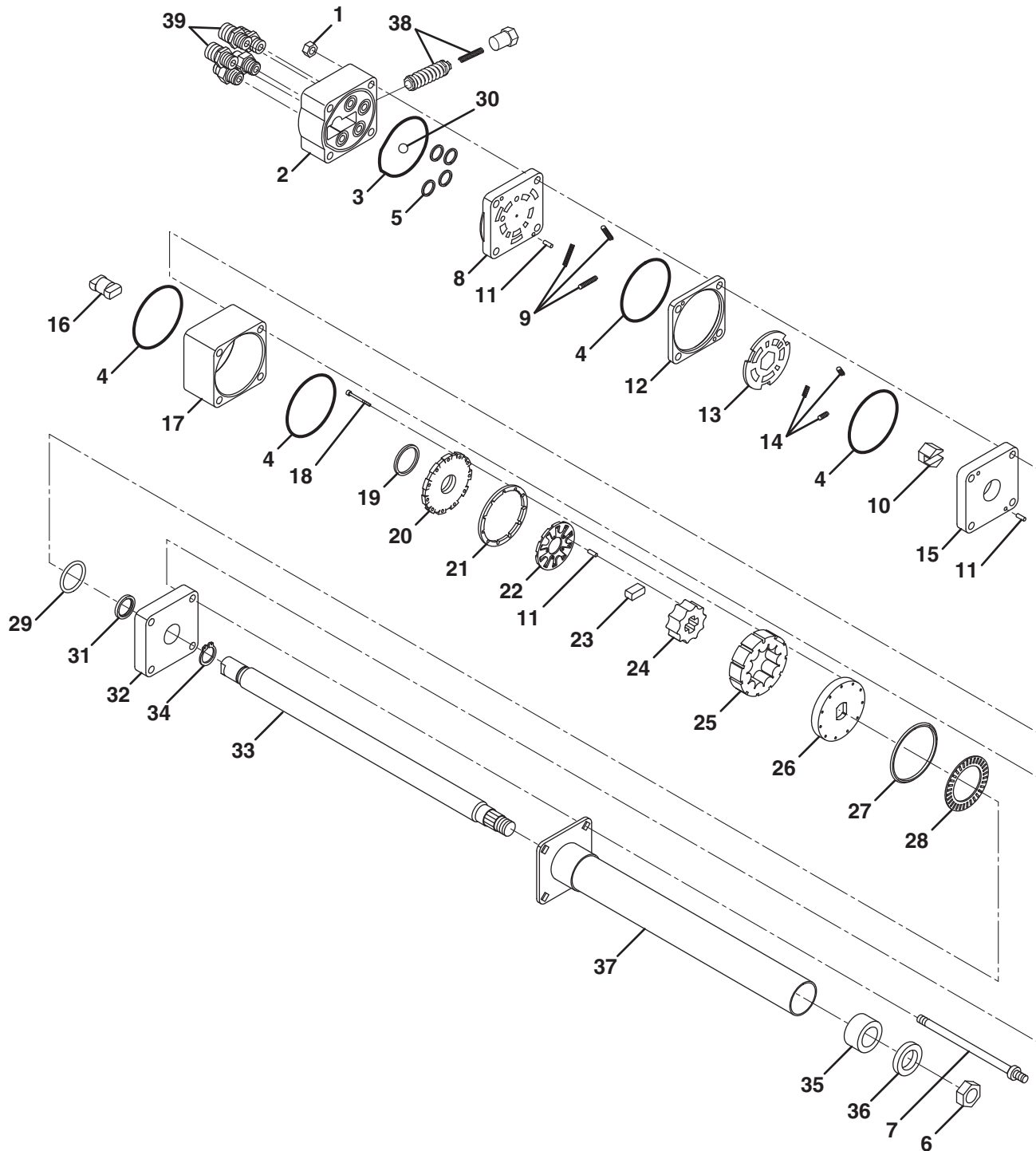
9016-44

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4116909	1	Wire Harness, Console	REFERENCE U5.2, See 67.1
2	4135549	1	Wire Harness, Chassis	
3	4133830	1	Wire Harness, Engine	
4	1004931	1	Wire Harness, Glow Plug Light	
5	4166721	1	Wire Harness, Kubota Keyswitch	
6	364973	1	Clamp, Harness	
7	400260	1	Screw, 3/8-16 x 7/8" Hex Head	
8	446142	1	Lockwasher, 3/8 Heavy	
9	452008	1	Flat Washer, 3/8	
10	473142	4	Cable Tie	
				Starter and Engine Harness

> Change from previous revision

1.1 Steering Valve

Part Number 1002800



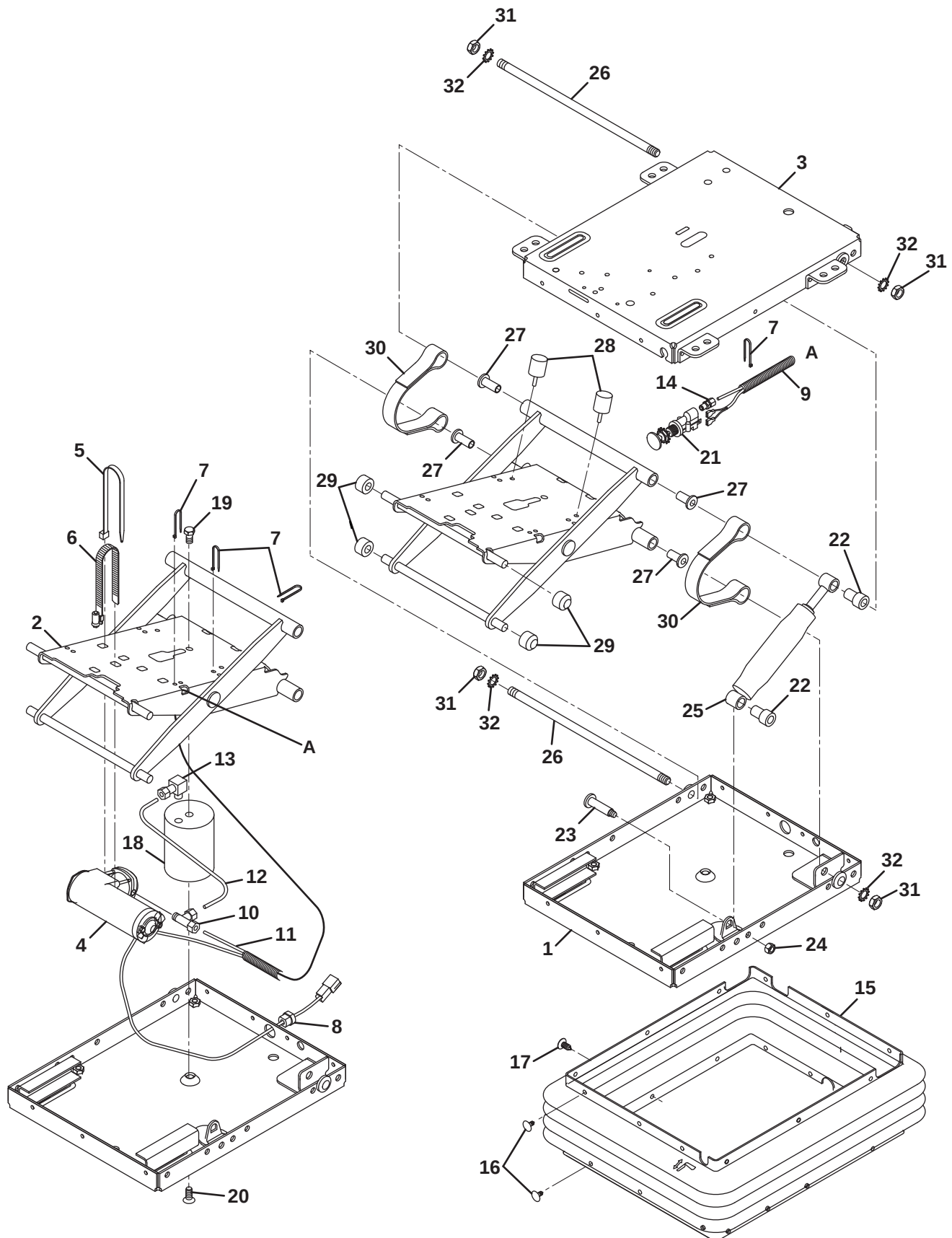
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	443108	4	Locknut, 5/16-18 Center	
2	N/S	1	Port Cover	
3	C	1	Seal, O-Ring	
4	C	4	Seal, O-Ring	
5	C	4	Seal, O-Ring	
6	443828	1	Nut, 5/8-18 Hex Jam	
7	N/S	4	Special Bolt	
8	N/S	1	Port Manifold	
9	B	3	Spring, Port Side	
10	503387	1	Hex Drive	
11	A and E	9	Needle Roller	
12	503398	1	Valve Ring	
13	503398	1	Valve Plate	
14	B	3	Spring, Shaft Side	
15	554854	1	Isolation Manifold	
16	551105	1	Drive Link	
17	N/S	1	Metering Ring	
18	A	11	Screw, Socket Head	
19	C	1	Seal, Commutator	
20	A	1	Commutator Cover	
21	A	1	Commutator Ring	
22	A	1	Commutator	
23	A	1	Spacer	
24	A	1	Rotor	
25	A	1	Stator	
26	A	1	Drive Plate	
27	554855	1	Spacer	
28	554856	1	Thrust Bearing	
29	C	1	Face Seal	
30	N/S	1	Ball, 9/32"	
31	554857	1	Seal, Spacer	
32	N/S	1	Upper Cover Plate	
33	D	1	Shaft	
34	D	1	Retaining Ring	
35	D	1	Bushing	
36	D	1	Seal	
37	D	1	Jacket	
38	557733	1	Relief Valve Cartridge	
39	339979	5	Adapter, Straight	
Service Kits				
A	5003548	1	Metering Assembly Kit	
B	502924	1	Spring Kit	
C	557738	1	Seal Kit	
D	5003219	1	Jacket Tube Kit	
E	502925	1	Needle Roller Kit	

> Change from previous revision

1.1 Air Suspension

Part No. 5003625

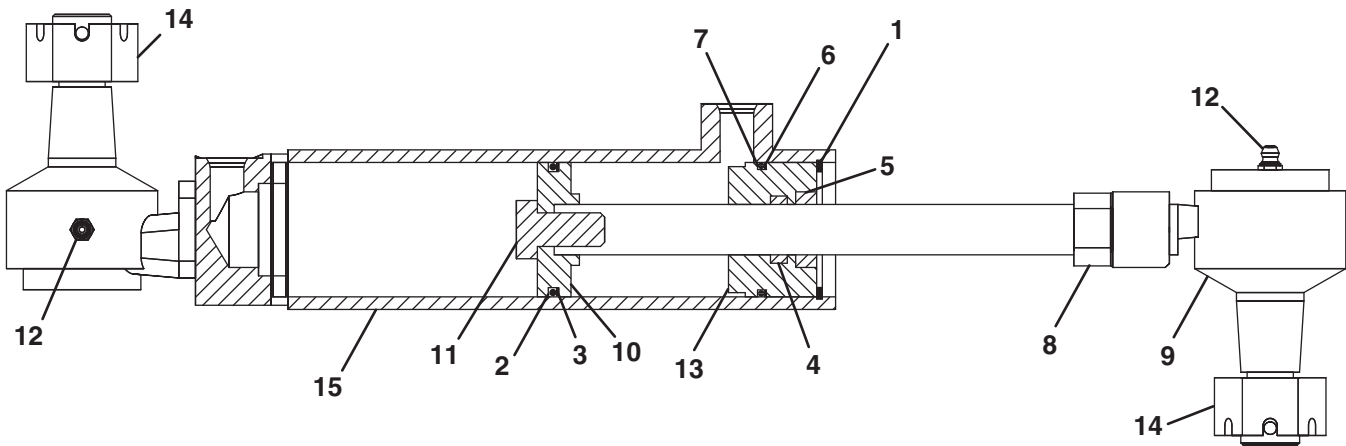
Serial No. All



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	N/S	1	Lower Housing	
2	N/S	1	Scissors	
3	N/S	1	Upper Housing	
	5003627	1	Compressor Kit	
4	N/S	1	• Compressor	
5	N/S	1	• Tie Wrap	
6	N/S	1	• Clamp, Compressor	
7	N/S	4	• Tie Wrap	
8	N/S	1	• Bushing, Strain	
	5003628	1	Air Fitting/Tubing Kit	
9	N/S	1	• Braided Sleeve	
10	N/S	1	• Fitting, Tee	
11	N/S	1	• 3/16 O.D. Tubing	
12	N/S	1	• 3/16 O.D. Tubing	
13	N/S	1	• Fitting, 90°	
14	N/S	1	• Fitting, Straight	
	5003629	1	Boot and Clip Kit	
15	N/S	1	• Boot with Label	
16	N/S	21	• Clip, Christmas Tree	
17	N/S	6	• Clip, Christmas Tree	
	5003630	1	Airspring Kit	
18	N/S	1	• Airspring	
19	N/S	1	• Cap Screw	
20	N/S	1	• Cap Screw	
21	5003631	1	Valve Kit	
	5003632	1	Damper Kit	
22	N/S	2	• Bearing, Flanged	
23	N/S	1	• Threaded Pin	
24	N/S	1	• Nut, Hex Lock	
25	N/S	1	• Damper	
	5003633	1	Miscellaneous Kit	
26	N/S	2	• Shaft, Threaded	
27	N/S	4	• Bearing, Flanged	
28	N/S	2	• Bumper	
29	N/S	4	• Roller	
30	N/S	2	• Tether	
31	N/S	4	• Jam Nut	
32	N/S	4	• Lockwasher	

> Change from previous revision

2.1 Steering Cylinder
Part No. 4113656



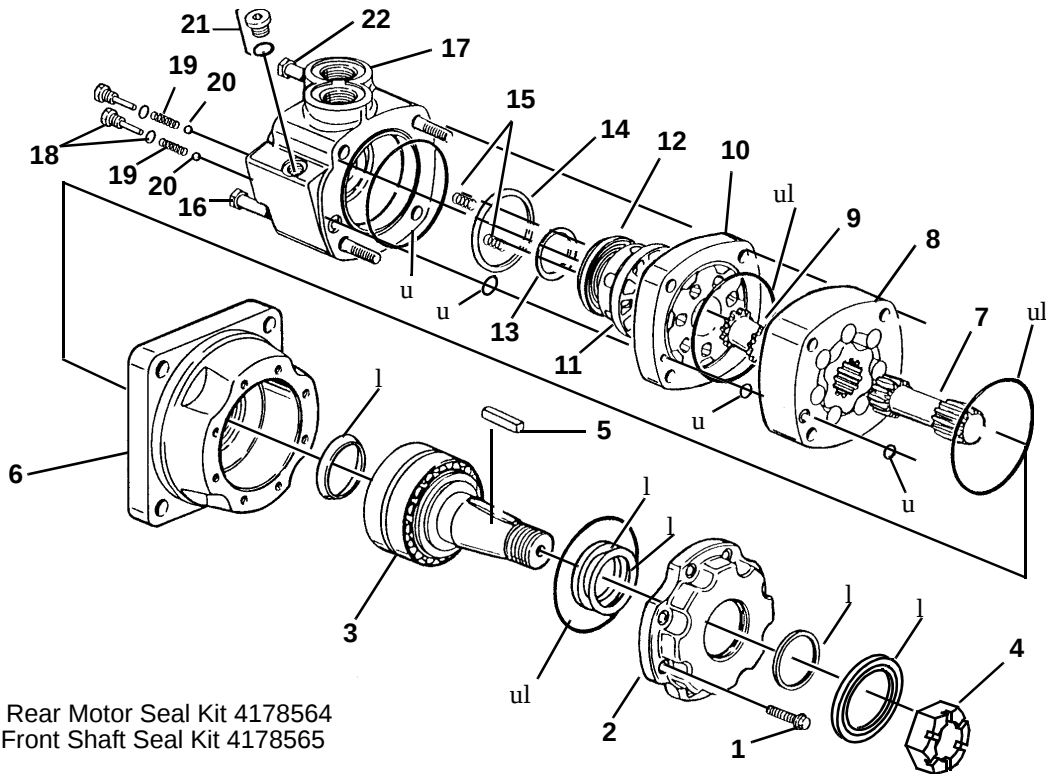
Item	Part No.	Qty.	Description	Serial Numbers/Notes
	4113655	1	Seal Kit	
1	N/S	1	• Retaining Ring	
2	N/S	1	• O-Ring, Piston	
3	N/S	1	• Seal, Piston	
4	N/S	1	• Seal, Rod	
5	N/S	1	• Wiper	
6	N/S	1	• Backup Ring, Gland	
7	N/S	1	• O-Ring, Gland	
8	443126	1	Nut, 5/8-11 Hex	
9	5003543	1	Socket Assembly	
10	4115591	1	Piston and Rod	
11	N/S	1	Screw, Piston	
12	471214	2	Grease Fitting	
13	N/S	1	Gland	
14	N/S	2	Nut, 7/8-14 Castle	
15	4115590	1	Barrel Assembly	

> Change from previous revision

1.1 Rear Wheel Motor

Part Number 4178563

Serial No. All
Serial No. All



u Included In Rear Motor Seal Kit 4178564
l Included In Front Shaft Seal Kit 4178565

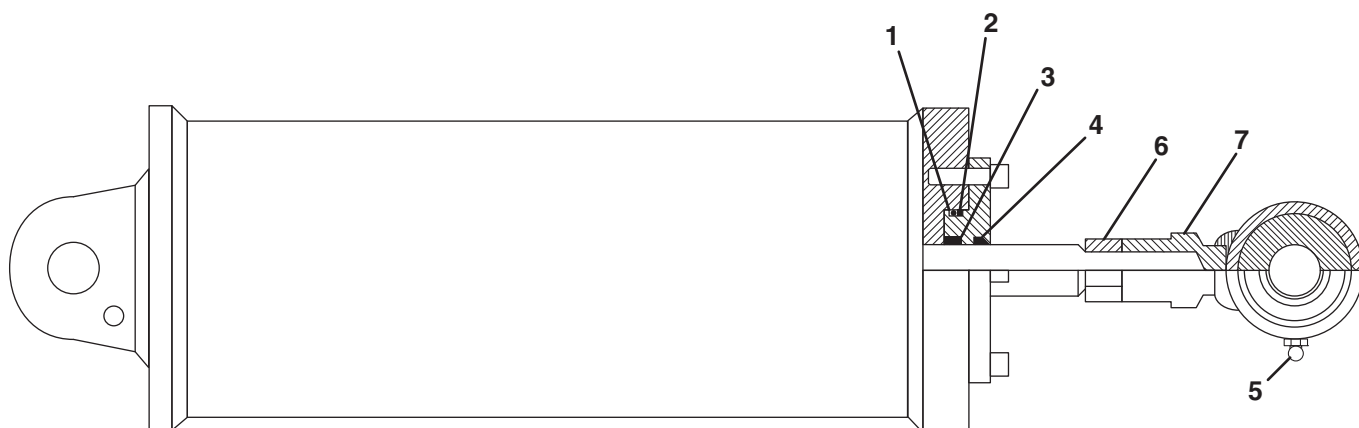
9016-46

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	558066	8	Screw, Torx	
2	5002110	1	Front Retainer	
3	558063	1	Shaft and Bearing Kit	
4	557624	1	Nut, Hex	
5	557623	1	Key	
6	558064	1	Bearing Housing	
7	557629	1	Drive	
8	5003590	1	Geroler	
9	557632	1	Drive, Valve	
10	557631	1	Plate, Valve	
11	557633	1	Valve	
12	557637	1	Balance Ring and Pins	
u 13	557634	1	Seal, Inner Face	
u 14	557635	1	Seal, Outer Face	
15	557636	2	Spring	
16	557650	3	Bolt, 5-3/4"	
17	5003591	1	Housing, Valve	
18	557639	2	• Check Plug Assembly	
19	557642	2	• Spring	
20	557640	2	• Ball, Steel	
21	557641	1	• Plug	
22	5000318	1	Bolt	

> Change from previous revision

2.1 Deck Return Canister

Part Number 5003371

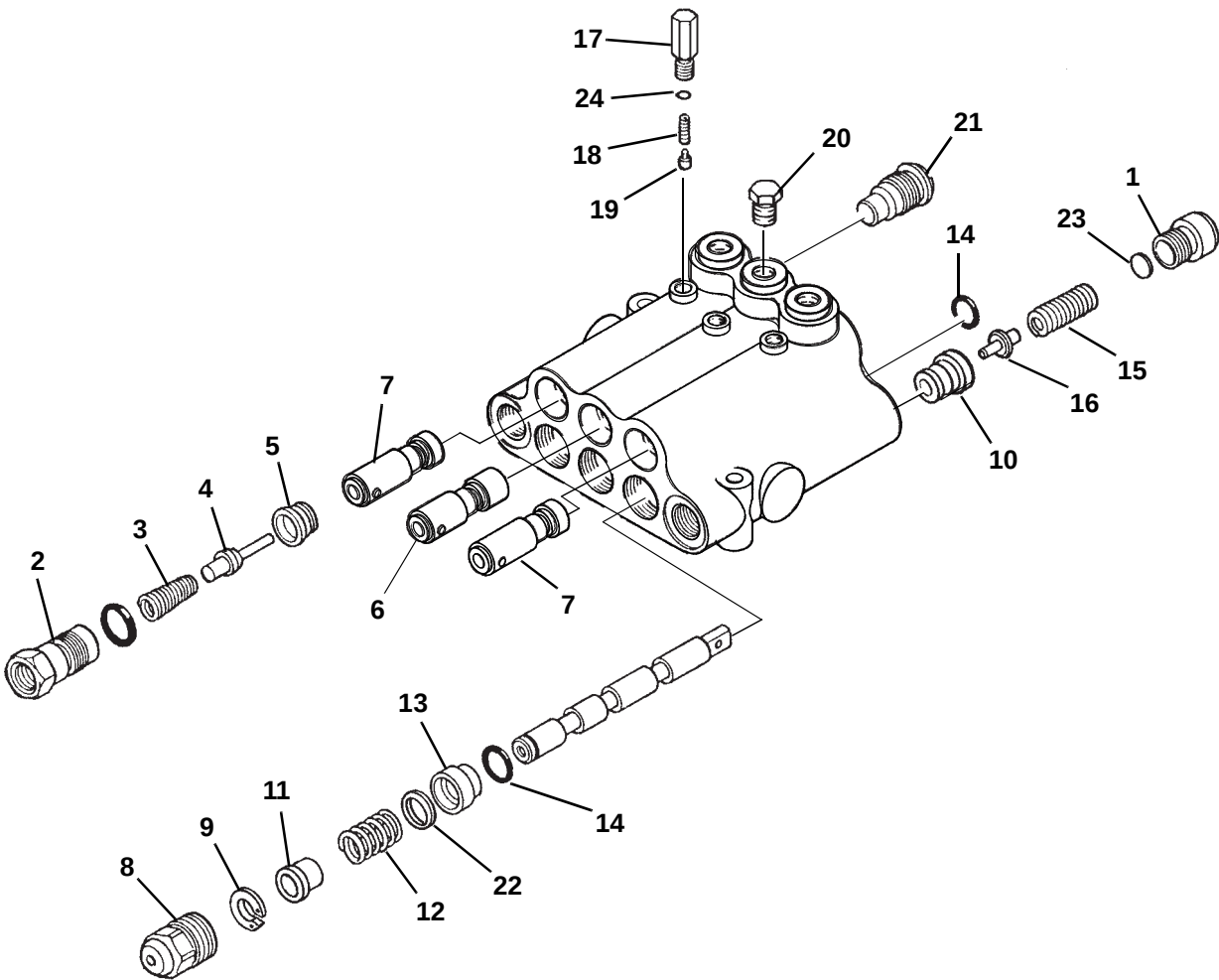


9016-47

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1	1	O-Ring	
2	1	1	Back Up Ring	
3	1	1	Loaded U-Cup	
4	1	1	Rod Wiper	
5	471214	1	Grease Fitting	
6	443132	1	Nut, 3/4-16 Hex	
7	5003428	1	Collar Assembly	
●	5003427	1	Seal Kit	Gold Star Return Canisters HDM Return Canisters Energy Return Canisters
●	5003662	1	Seal Kit	
> ●	4129285	1	Seal Kit	

> Change from previous revision

1.1 Lift Valve
Part Number 1001802



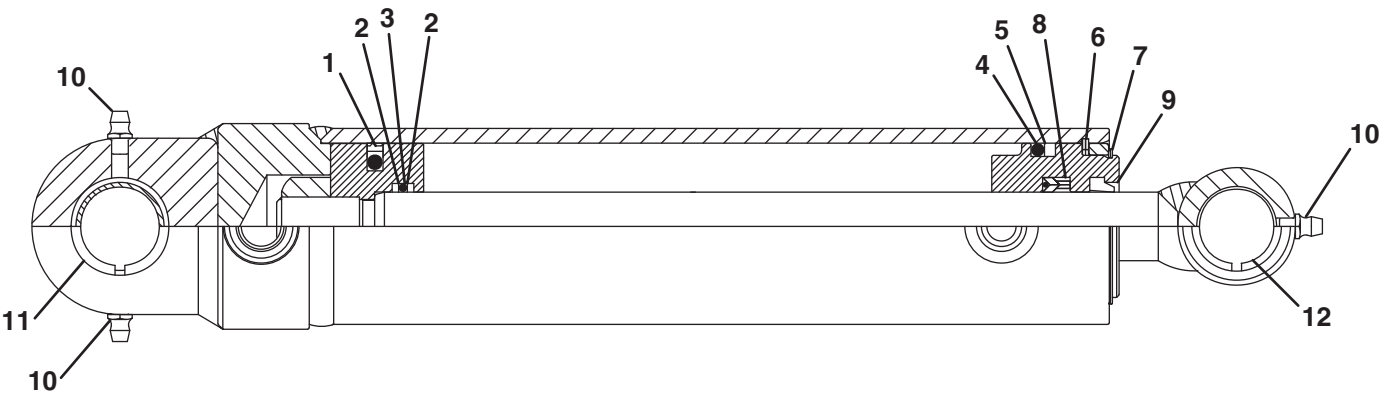
	Item	Part No.	Qty.	Description	Serial Numbers/Notes
>	1	558005	1	Plug Assembly, Relief Valve	
	2	500745	3	Plug Assembly, Port Adapter	
	3	545914	3	Spring, Lockout	
	4	n	3	Poppet Assembly	
	5	500746	3	Seat Assembly	
	6	5001599	1	Plunger, Lockout	
	7	5001603	2	Plunger, Lockout	
	8	558004	3	Cap Assembly	
	9	558007	3	Retaining Ring	
	10	5001613	1	Seat	
	11	558011	3	Spacer	
	12	5001616	3	Spring, Spool Centering	
	13	545921	3	Bushing	
	14	n	6	O-Ring	
	15	5001614	1	Spring Relief Valve (Yellow)	
	16	5001615	1	Poppet, Relief Valve	
	17	u	3	Plug Assembly, Plunger Detent	
	18	u	3	Spring, Detent	
	19	u	3	Plunger, Detent	
	20	351122	3	Hex Plug Assembly	
	21	500750	3	Plug Assembly	
	22	558008	3	Washer	
	23	545925	AR	Shim (.015 Thick)	
		545926	AR	Shim (.010 Thick)	
	545927	AR	Shim (.035 Thick)		
24	546112	AR	Disc, Plain		
◆	5001612	1	Detent Reapir Kit		
■	558010	1	Seal Kit		

> Change from previous revision

1.1 Front Lift Cylinder

Part Number 4138587

Serial No. All



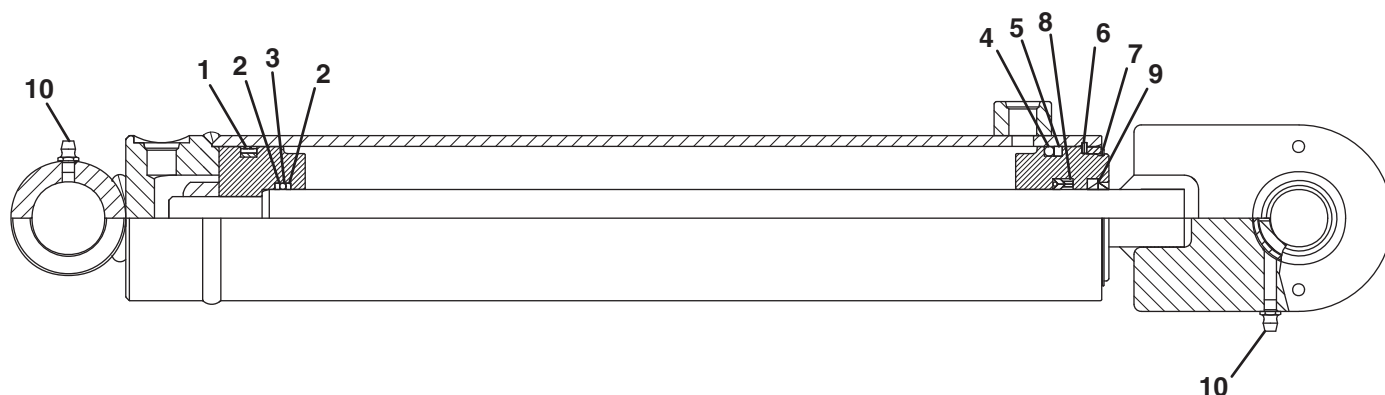
9016-49

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1	1	PSP Seal	
2	1	2	Back Up Ring	
3	1	1	O-Ring	
4	1	1	O-Ring	
5	1	1	Back Up Ring	
6	1	1	Internal Snap Ring	
7	1	1	External Snap Ring	
8	1	1	Loaded U-Cup	
9	1	1	Rod Wiper	
10	471214	3	Grease Fitting	
11	5003415	1	Bushing	
12	5003566	2	Bushing	
●	4138621	1	Seal Kit	

> Change from previous revision

2.1 Wing Lift Cylinders

Part Number 4138521



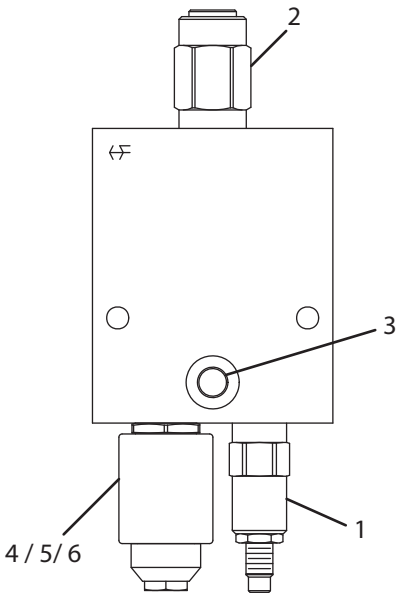
9016-50

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1	1	PSP Seal	
2	1	2	Back Up Ring	
3	1	1	O-Ring	
4	1	1	O-Ring	
5	1	1	Back Up Ring	
6	1	1	Internal Snap Ring	
7	1	1	External Snap Ring	
8	1	1	Loaded U-Cup	
9	1	1	Rod Wiper	
10	471214	2	Grease Fitting	
●	4138592	1	Seal Kit	

> Change from previous revision

1.1 Deck Valve
Part Number 4135582

Serial No. All



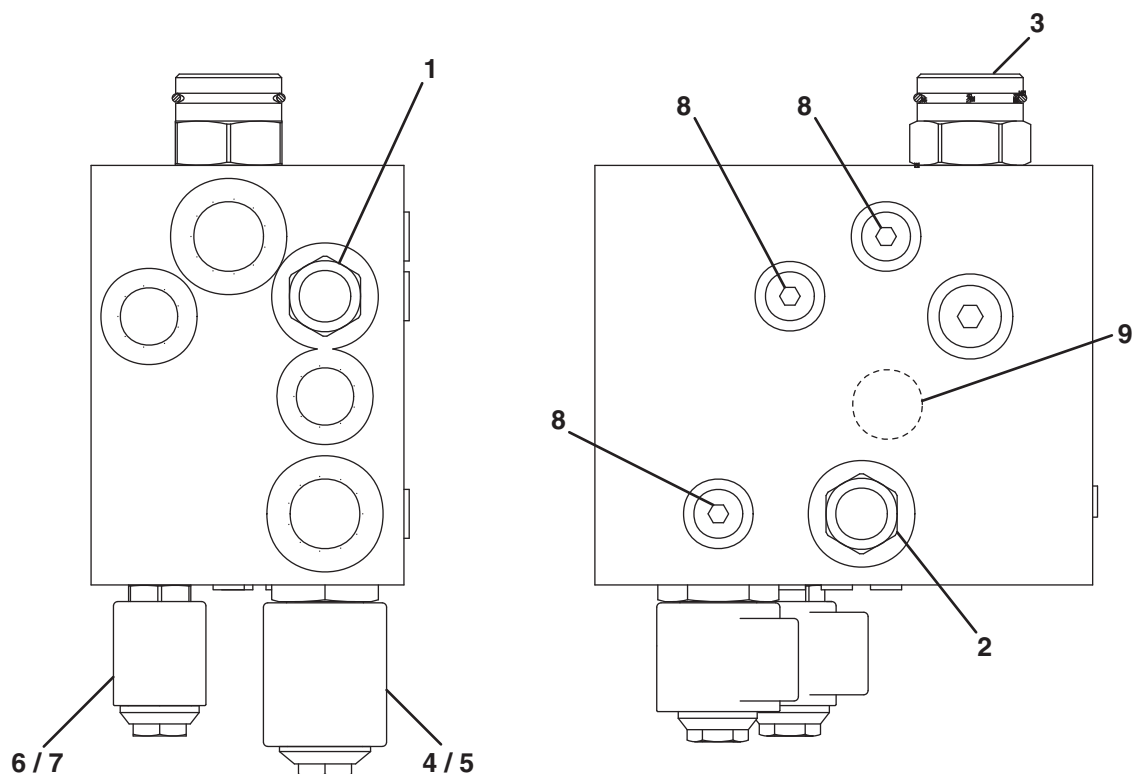
9016-51

Item	Part No.	Qty.	Description	Serial Numbers/Notes
>	1 5002911	1	Relief Valve	Located opposite Diagnostic port REFERENCE SOL2, SOL3, SOL4, SOL8, See 67.1
	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

2.1 4WD Valve

Part Number 4135556



					9016-52
Item	Part No.	Qty.	Description	Serial Numbers/Notes	
	1	5003342	1	Check Valve	REFERENCE SOL6 See 67.1
		5003582	1	• Seal Kit	
	2	5003344	1	Shuttle, Hot Oil	
		5003582	1	• Seal Kit	
	3	5003346	1	3-Way Spool	
		5003583	1	• Seal Kit	
	4	5003348	1	Solenoid Valve	
		5003583	1	• Seal Kit	
>	5	4134530	1	Coil, 12 Volt DC	
	6	556847	1	Solenoid Valve	
>		5003578	1	• Seal Kit	REFERENCE SOL7 See 67.1
	7	4134532	1	Coil, 12 Volt DC	
	8	3010199	3	Plug, SAE #6	
		339897	3	• O-ring	
	9	5003353	1	Plug, Orifice	

> Change from previous revision

1.1 Decals - Decks



DANGER



Serious injury or death can result from blade contact or from objects being thrown very long distances

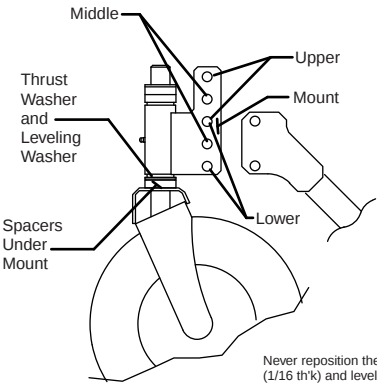
- Do not operate machine with discharge chute or guards flipped up or removed.
- Do not operate machine with bent components or with implement in raised position.
- Keep yourself and others away from the mower when in operation

Deck Flip Up Procedure

- Rotate anti-sway mechanism downward. (Located under tractor floorboard)
- Start tractor engine and raise deck until gage wheels are off the ground.
- Remove cut height adjustment pins from rear gage wheel arms.
- Raise deck to full raised position.
- Turn tractor engine off.
- Rotate front of deck upward until support is securely latched.

5

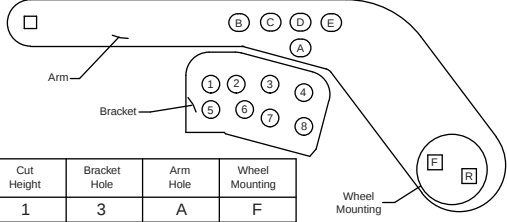
3



Cut Height	Mount Location	Number of Spacers Under Mount
1	Lower	0
1-1/2	Lower	1
2	Lower	2
2-1/2	Lower	3
2-1/2	Middle	0
3	Middle	1
3-1/2	Middle	2
4	Middle	3
4	Upper	0
4-1/2	Upper	1
5	Upper	2
5-1/2	Upper	3

Never reposition the thrust washer(s) (1/16 th"K) and leveling washer(s) (1/8 th"K) when setting cut height

1



Cut Height	Bracket Hole	Arm Hole	Wheel Mounting
1	3	A	F
1-1/2	1	B	F
2	2	C	F
2-1/2	3	D	F
3	4	E	F
3-1/2	5	B	F
4	6	C	F
4-1/2	7	D	F
5	8	E	F
5-1/2	8	E	R

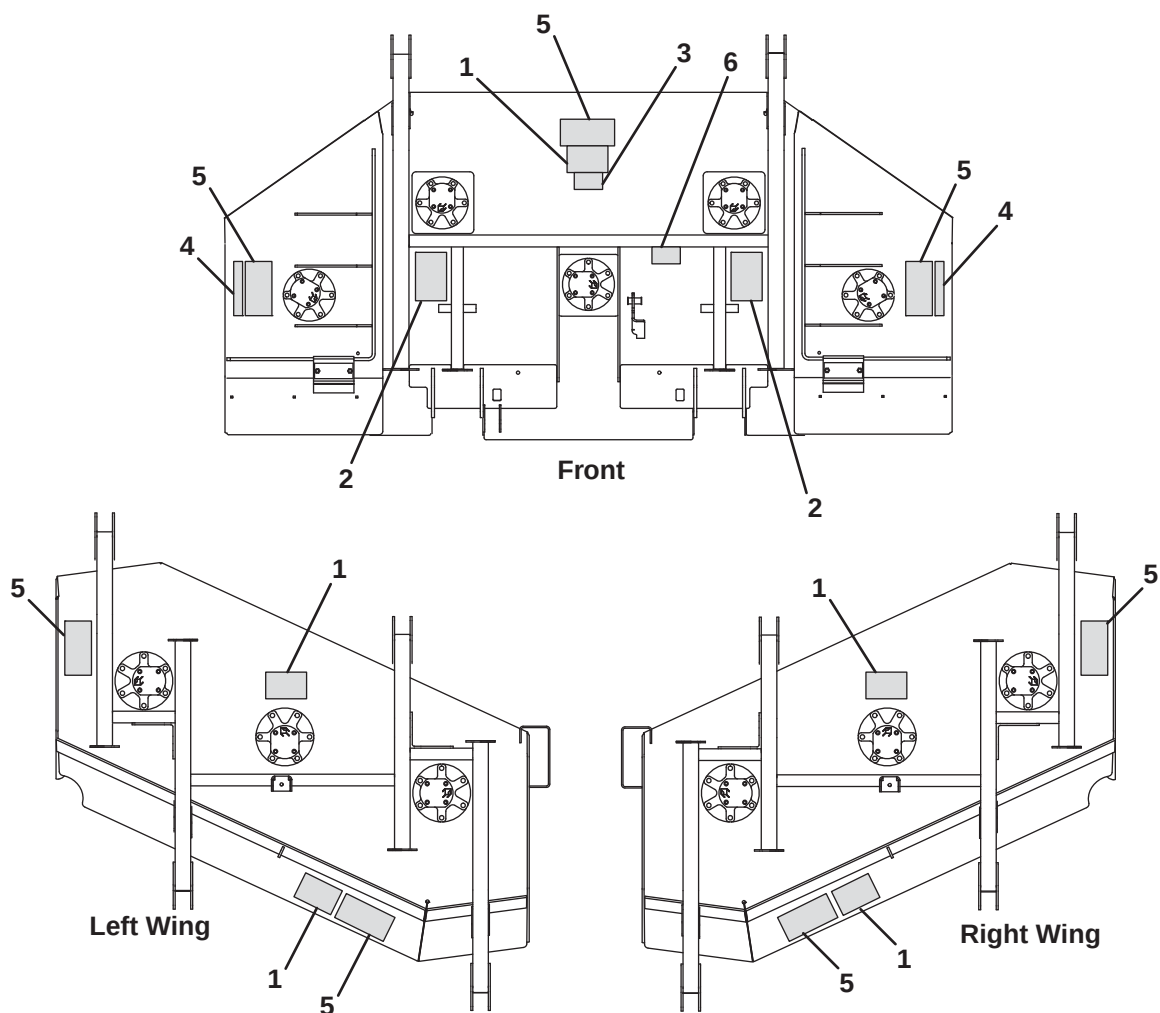
Wheel Mounting Instructions

- While Rotating wheel, tighten nut until wheel is difficult to rotate.
- Loosen nut 1/4 turn or just until wheel rotates freely.
- Lock nut into place using second nut. Do not allow first nut to rotate when tightening second nut securely.
- Rotate wheel to check for free rotation with zero end play.

2

NO STEP

4

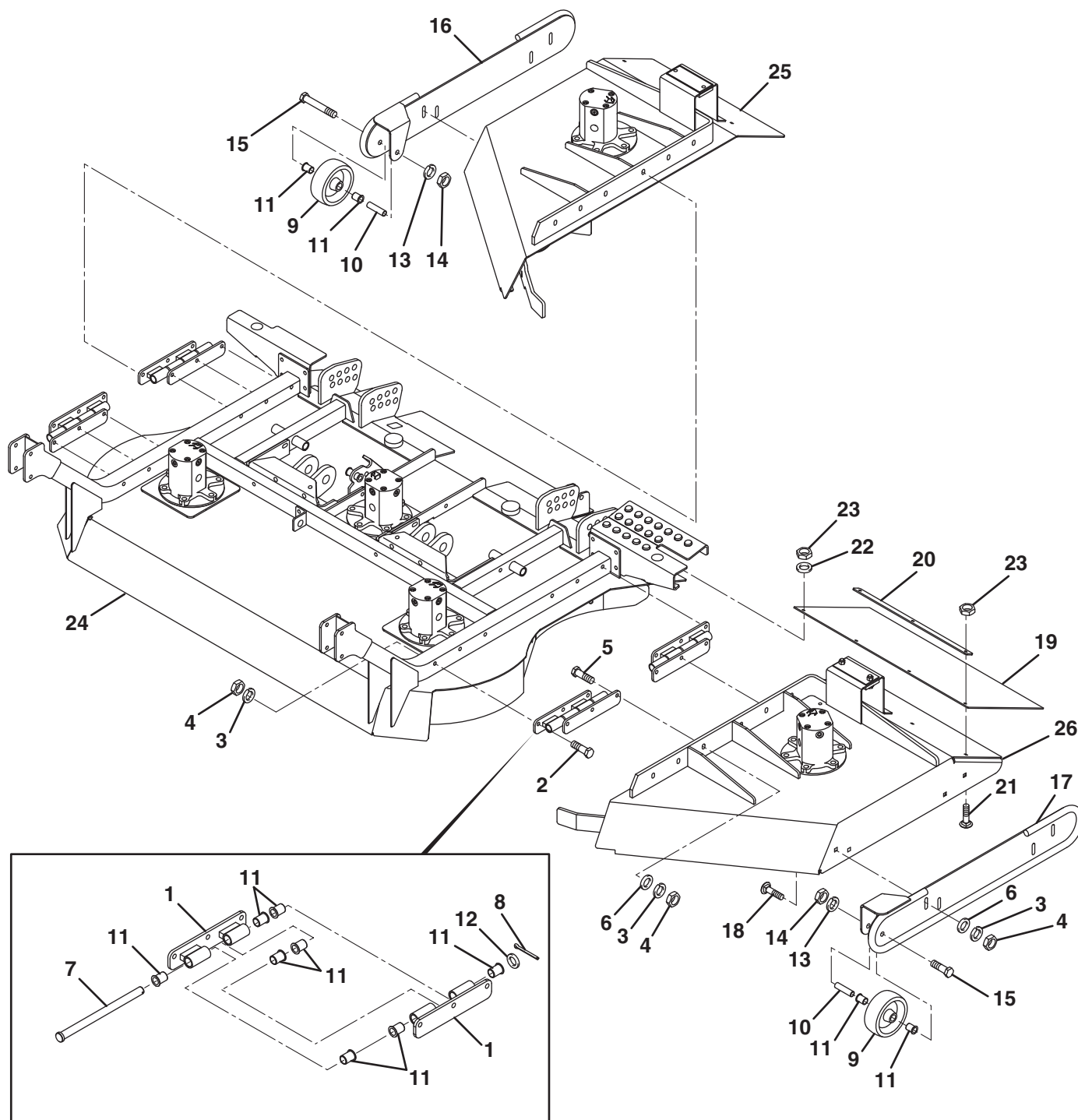


9016-63

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3009317	5	Decal, Caster Cut Height	
2	3009318	2	Decal, Gage Wheel Cut Height	
3	3009319	1	Decal, Flip Up Deck	
4	366609	2	Decal, No Step	
5	3002502	7	Decal, Danger	
6	4138762	1	Decal, Warning	

> Change from previous revision

1.1 Front Deck

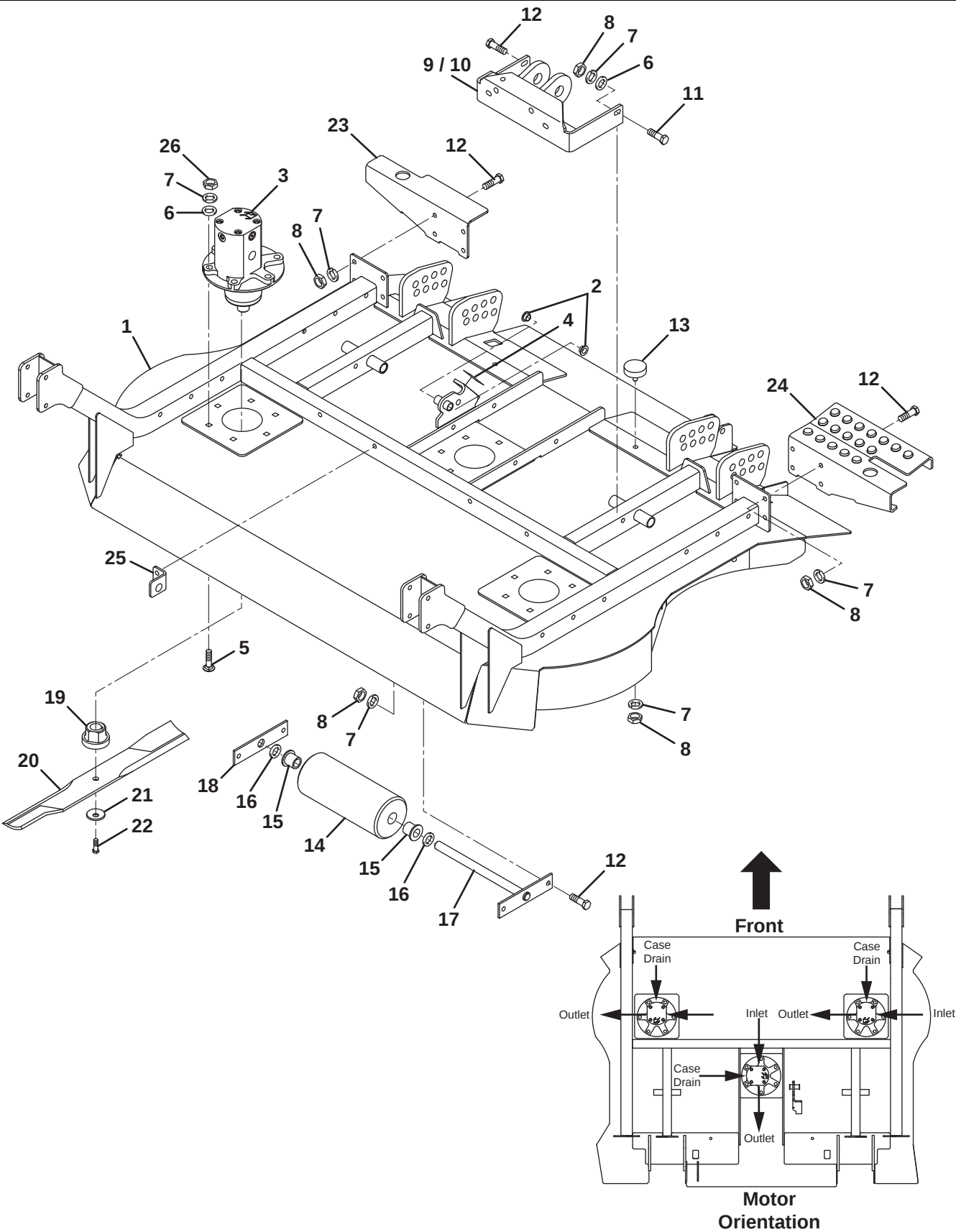


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003430.6	8	Hinge Assembly	
2	400286	12	Screw, 3/8-16 x 2-3/4" Hex Head	
3	446142	32	Lockwasher, 3/8 Hvy	
4	444762	32	Locknut, 3/8-16 Center	
5	400264	12	Screw, 3/8-16 x 1-1/4" Hex Hd	
6	453011	20	Flat Washer, 3/8	
7	3007678	4	Pin, Clevis	
8	460050	4	Cotter Pin, 3/16 x 1-1/4"	
9	3003939	2	Wheel, Deck	
10	3003714	2	Spacer, Wheel	
11	3004113	36	Bushing	
12	453020	4	Flat Washer, 5/8	
13	446152	2	Lockwasher, 1/2	
14	444758	2	Locknut, 1/2-13 Center	
15	400420	2	Screw, 1/2-13 x 3-1/2" Hex Head	
16	1003325.6	1	Skid Assembly, Anti Scalp	
17	1003321.6	1	Skid Assembly, Anti Scalp	
18	441624	8	Carriage Bolt, 3/8-16 x 1"	
19	3008840	2	Flap, Rear	
20	3009175	2	Hold Down, Drag Flap	
21	441606	8	Carriage Bolt, 1/4-20 x 3/4"	
22	452004	2	Flat Washer, 1/4	
23	444708	8	Locknut, 1/4-20 Center	
24	—	1	Front Deck Center Section	See 58.1
25	—	1	Right Side Winglet	See 59.1
26	—	1	Left Side Winglet	See 59.1

> Change from previous revision

1.1 Front Deck Center Section

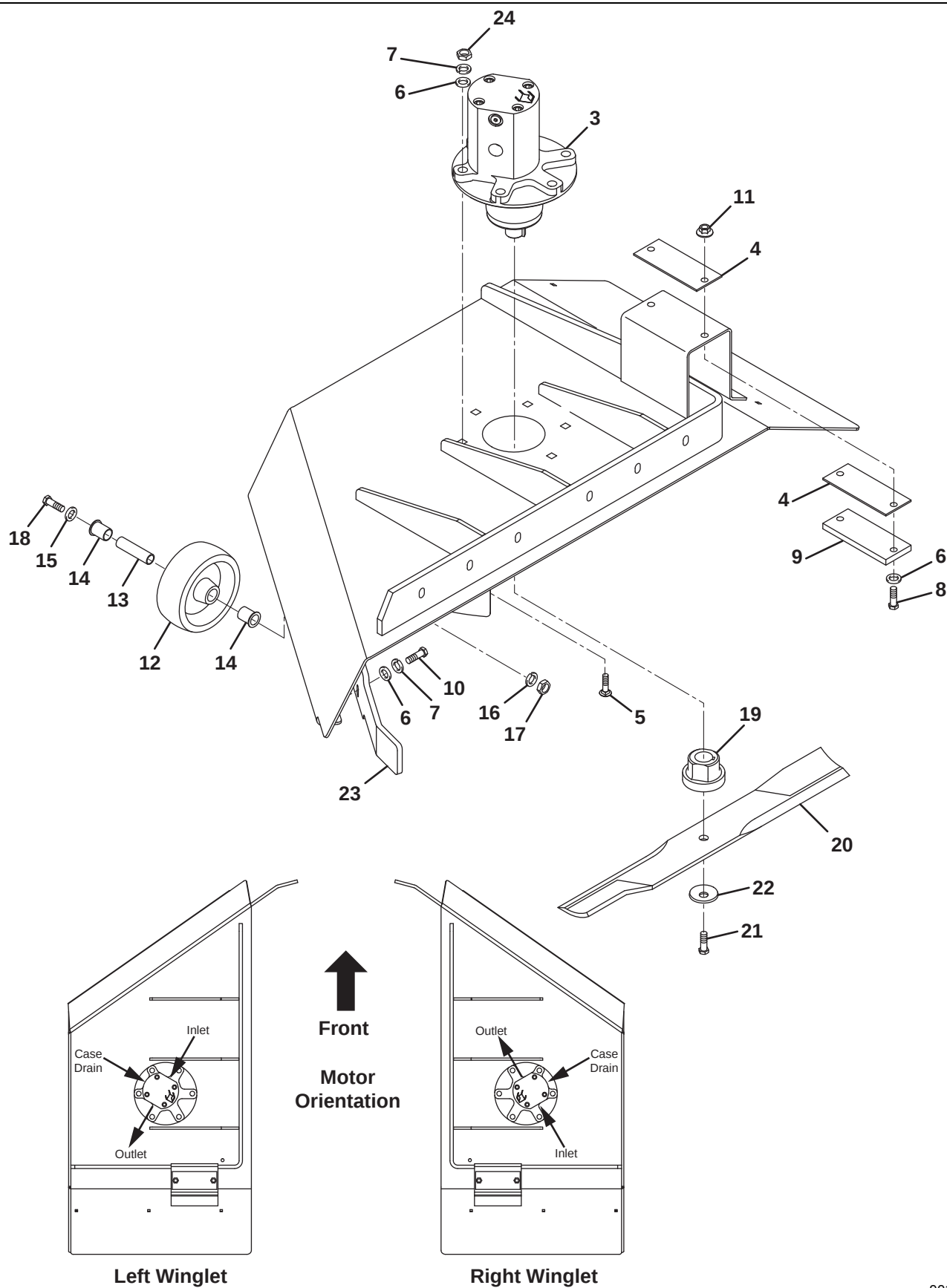
Serial No. All



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5003188	1	Deck, Front Assembly	
2	352936	2	• Bushing	
3	2810069	3	Motor, Spindle Assembly	
	5003763	1	• Seal Kit	
	2811954	1	• Bushing	
4	REF	1	Serial Plate, Front Deck	
5	440124	18	Carriage Bolt, 3/8-16 x 1-3/4"	
6	453011	26	Flat Washer, 3/8	
7	446142	40	Lockwasher, 3/8 Hvy	
8	444762	22	Locknut, 3/8-16 Center	
9	1003424.6	1	Bracket Assembly, RH	
10	1003425.6	1	Bracket Assembly, LH	
11	400274	6	Screw, 3/8-16 x 2-1/2" Hex Head	
12	400262	14	Screw, 3/8-16 x 1" Hex Head	
13	361723	2	Stop, Rubber	
14	163302	1	Roller	
15	552824	2	• Bushing	
16	455048	2	Flat Washer, 3/4	
17	1003429	1	Shaft Assembly, Roller	
18	3007374.6	1	Plate, Shaft Support	
19	3008388	3	Adapter, Blade	
20	2810030	3	Bar, Rotary Mower Cutter	Models 70528 and 70529
20	4119024	3	Bar, Rotary Mower Cutter	Models 70530 and 70531
21	3007764	3	Washer, Blade	
22	400410	3	Screw, 1/2-13 x 1-3/4" Hex Head	
23	3007368.6	1	Arm, Winglet Support	
24	3007369.6	1	Arm, Winglet Support	
25	2810195	1	Angle, Bulkhead	
26	443110	18	Nut, 3/8-16 Hex	

> Change from previous revision

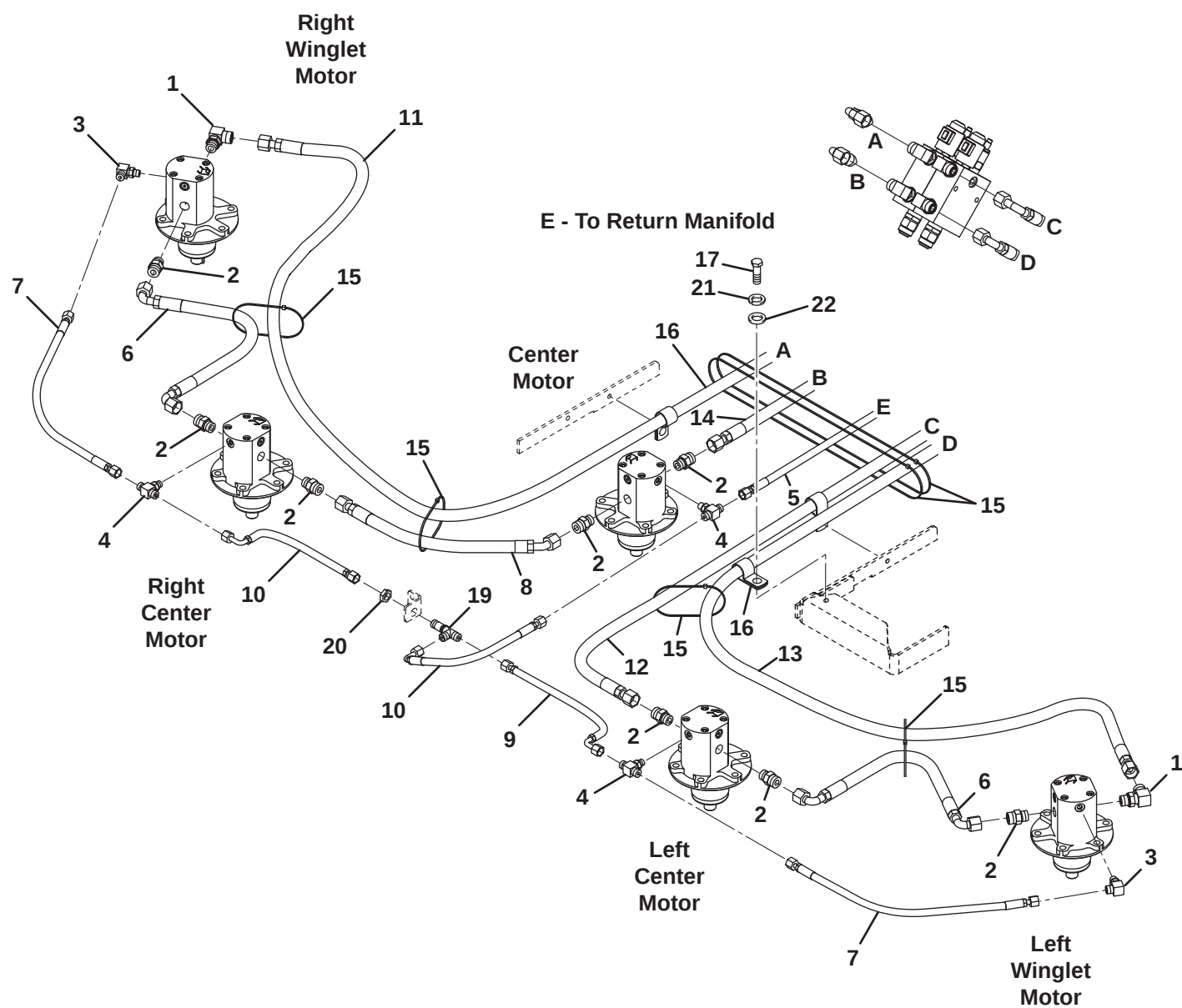
1.1 Front Deck Winglets (Right Winglet Shown)



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
>	1	5003186	1	Deck, RH Winglet	
	2	5003187	1	Deck, LH Winglet	
	3	2810069	2	Motor, Spindle Assembly	
		5003763	1	• Seal Kit	
		2811954	1	• Bushing	
	4	366613	4	Shim	
	5	440124	12	Carriage Bolt, 3/8-16 x 1-3/4"	
	6	453011	24	Flat Washer, 3/8	
	7	446142	20	Lockwasher, 3/8 Hvy	
	8	400264	4	Screw, 3/8-16 x 1-1/4" Hex head	
	9	366473	2	Bumper, Arm	
	10	400262	8	Screw, 3/8-16 x 1" Hex Head	
	11	444762	4	Locknut, 3/8-16 Center	
	12	3003939	2	Wheel, Deck	
	13	3003714	2	Spacer, Wheel	
	14	3004113	4	Bushing	
	15	455012	2	Flat Washer, 1/2	
	16	446152	2	Lockwasher, 1/2	
	17	444758	2	Locknut, 1/2-13 Center	
	18	400420	2	Screw, 1/2-13 x 3-1/2" Hex Head	
	19	3008388	2	Adapter, Blade	
	20	2810030	2	Bar, Rotary Mower Cutter	
	20	4119024	2	Bar, Rotary Mower Cutter	
	21	400410	2	Screw, 1/2-13 x 1-3/4"Hex Head	
22	3007764	2	Washer, Blade		
23	3007376.6	2	Arm, Winglet Support, Front		
24	443110	12	Nut, 3/8-16 Hex		

> Change from previous revision

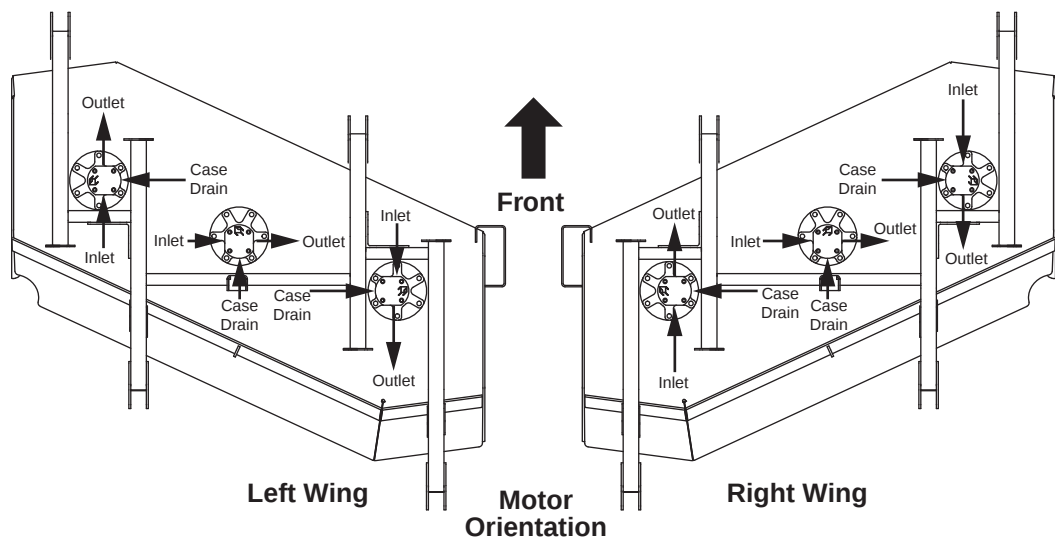
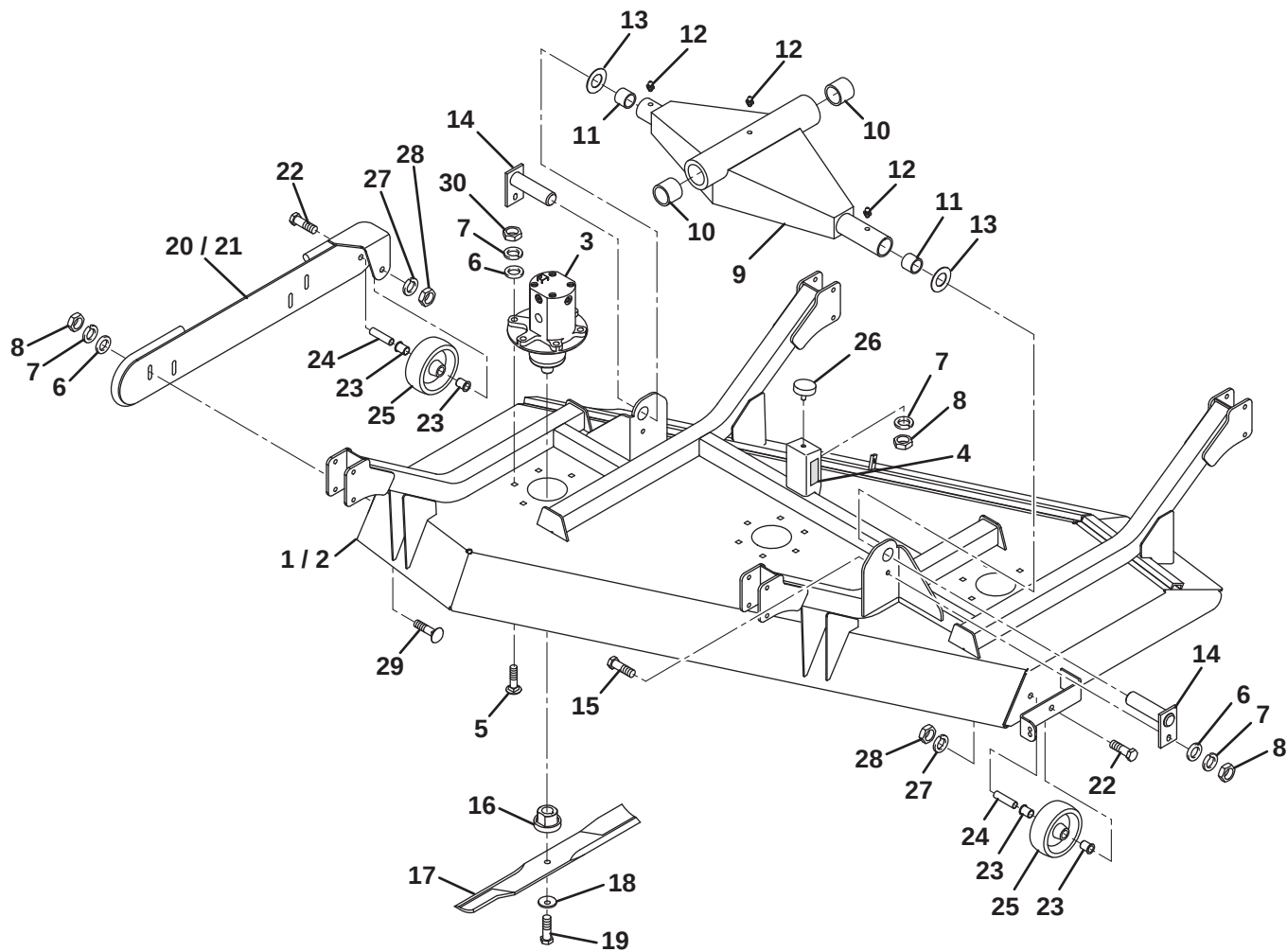
1.1 Front Deck Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340070	2	Adapter, 90°	See 39.1
2	339989	8	Adapter, Straight	
3	340055	2	Adapter, 90°	
4	340095	3	Adapter, Tee	
5	REF	1	Hose, Front Deck Motor Case Drain	
6	1003557	2	Hose, Winglet	
7	2810190	2	Hose, Winglet Motor Drain	
8	1003607	1	Hose, Left Center to Center Motor	
9	2810189	1	Hose, Tee to Left Center Motor Drain	
10	2810191	2	Hose, Right Center and Center Drain	
11	1003559	1	Hose, Right Valve to Right Winglet	
12	1003556	1	Hose, Left Valve to Left Center	
13	1003558	1	Hose, Left Winglet to Left Valve	
14	1003562	1	Hose, Center Motor to Right Valve	
15	473144	6	Tie Wrap	
16	363514	3	Clamp, 1-1/8" Diameter	
17	400188	3	Screw, 5/16-18 x 1" Hex Head	
18	443106	2	Nut, 5/16-18 Hex	
19	340214	1	Adapter, Bulkhead Tee	
20	339960	1	Locknut, Bulkhead	
21	446134	3	Lockwasher, 5/16	
22	453009	1	Flat Washer, 5/16	

> Change from previous revision

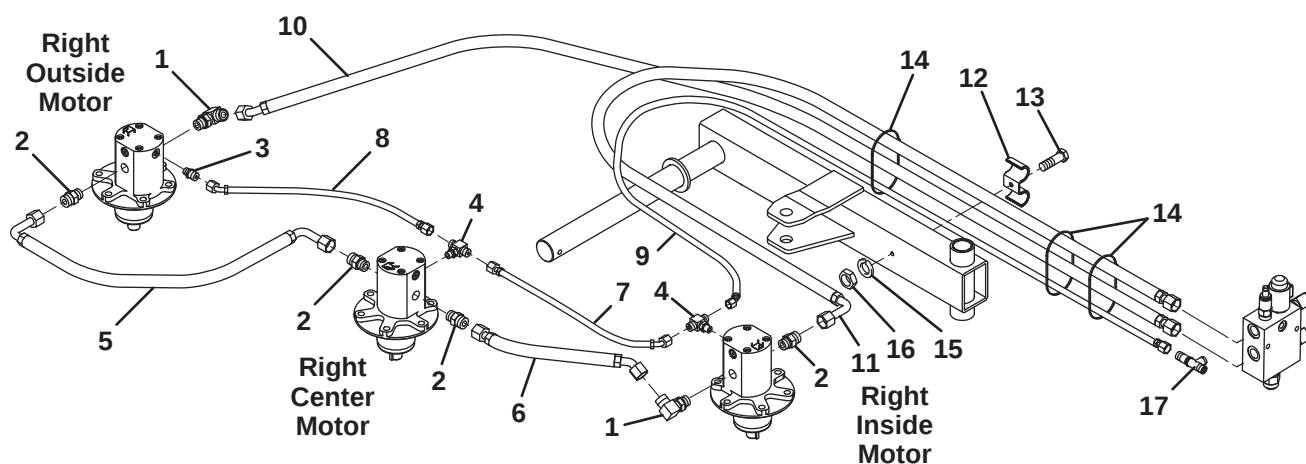
1.1 Wing Decks
Right Wing Shown



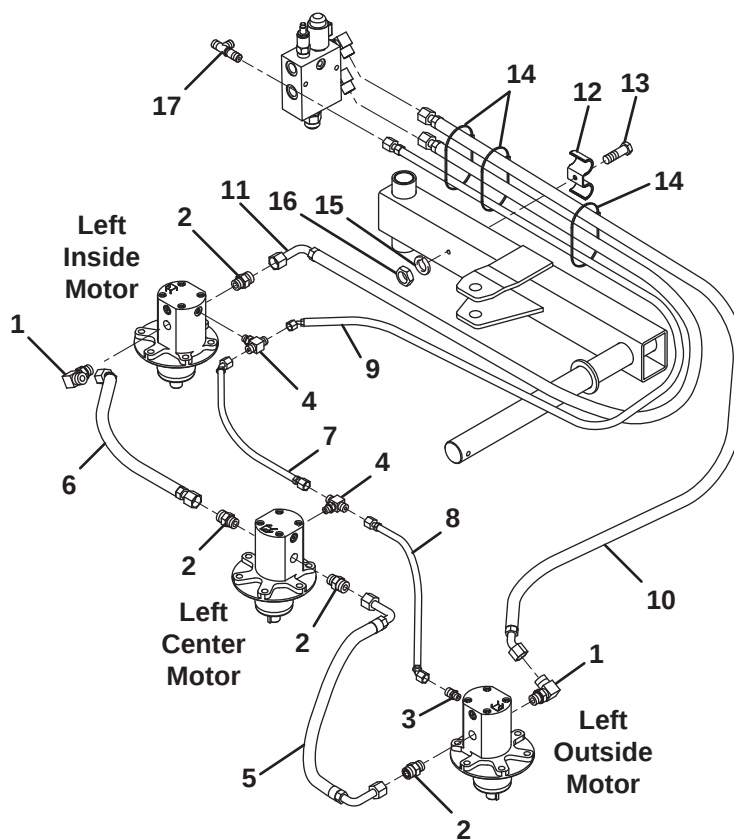
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5003190	1	Deck, Right Wing	
2	5003189	1	Deck, Left Wing	
3	2810069	6	Motor, Spindle Assembly	
	5003763	1	• Seal Kit	
	2811954	1	• Bushing	
4	REF	2	Wing Deck Serial Plate	
5	440124	36	Carriage Bolt, 3/8-16 x 1-3/4"	
6	453011	48	Flat Washer, 3/8	
7	446142	50	Lockwasher, 3/8 Hvy	
8	444762	14	Locknut, 3/8-16 Center	
9	116686.6	2	Deck Mount Assembly	
10	363574	2	• Bushing	
11	3010489	4	• Bushing	
12	471214	6	Fitting, Grease 1/4-28	
13	363568	4	Washer, Thrust	
14	163306	4	Pin Assembly	
15	400264	4	Screw, 3/8-16 x 1-1/4" Hex Head	
16	3008388	6	Adapter, Blade	
17	2810030	6	Bar, Rotary Mower Cutter	Models 70528 and 70529
17	4119024	6	Bar, Rotary Mower Cutter	Models 70530 and 70531
18	3007764	6	Washer, Blade	
19	400410	6	Screw, 1/2-13 x 1-3/4" Hex Head	
20	1003321.6	1	Skid, Right Wing Anti-Scalp	
21	1003325.6	1	Skid, Left Wing Anti Scalp	
22	400420	4	Screw, 1/2-13 x 3-1/2" Hex Head	
23	3004113	8	Bushing	
24	3003714	4	Spacer, Wheel	
25	3003939	4	Wheel, Deck	
26	361723	2	Stop, Rubber	
27	446152	4	Lockwasher, 1/2	
28	444758	4	Locknut, 1/2-13 Center	
29	441624	8	Carriage Bolt, 3/8-16 x 1"	
30	443110	36	Nut, 3/8-16 Hex	

> Change from previous revision

1.1 Wing Deck Hydraulics



Right Wing Deck Hydraulics



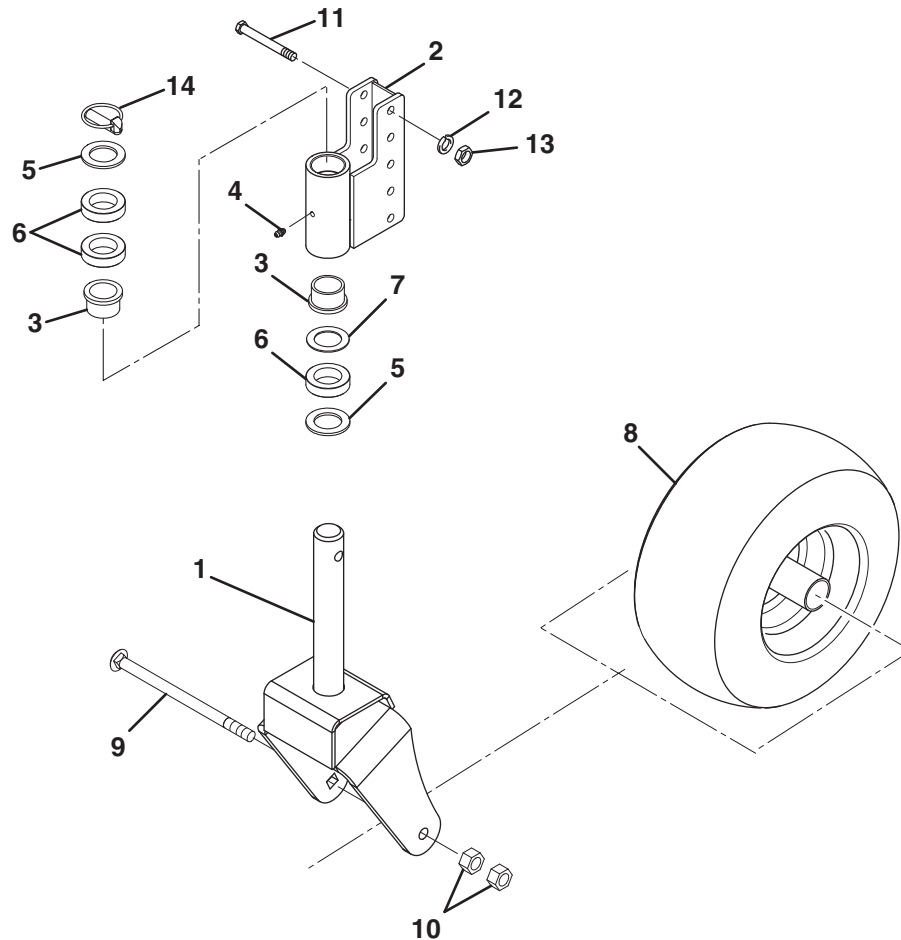
Left Wing Deck Hydraulics

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	340070	4	Adapter, 90°	See 39.1
2	339989	8	Adapter, Straight	
3	339972	2	Adapter, Straight	
4	340095	4	Adapter, Tee	
5	1003580	2	Hose, Outside to Center Motor	
6	1003579	2	Hose, Inside to Center Motor	
7	2810194	2	Hose, Center to Inside Motor Drain	
8	2810193	2	Hose, Outside to Center Motor Drain	
9	2810192	2	Hose, Wing Motor Drain to Tee	
10	1003584	2	Hose, Wing Motor Pressure	
11	1003583	2	Hose, Wing Motor Return	
12	359860	2	Clamp, Hose	
13	400206	2	Screw, 5/16-18 x 4" Hex Head	
14	473144	6	Tie Wrap	
15	446136	2	Lockwasher, 5/16 Heavy	
16	443106	2	Nut, 5/16-18 Hex	
17	REF	2	Adapter, Bulkhead Tee	

> Change from previous revision

1.1 Caster Assemblies

Serial No. All



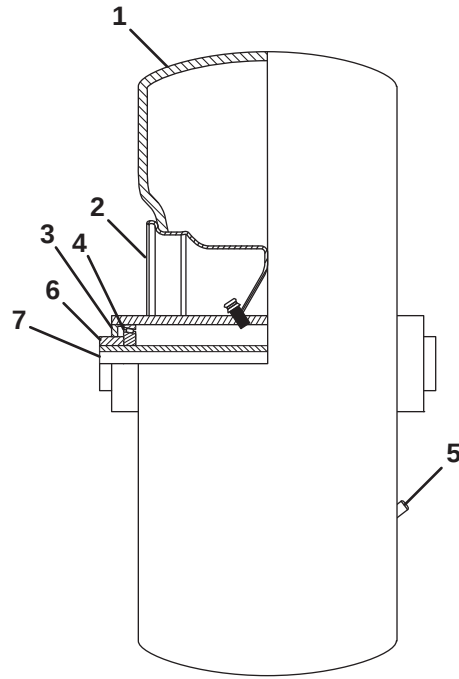
9016-62

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1004276	8	Yoke, 11" Tire	Wing Decks Only
1	1004275	2	Yoke, 13" Tire	Front Deck Only
2	1004277.6	10	Tube, Yoke Pivot	
3	363539	2	• Bushing	
4	471214	1	• Grease Fitting	
5	366593	20	Spacer, Caster Wheel	
6	365772	30	Spacer, Caster Wheel	
7	361648	10	Washer, Thrust	
8	1004023	8	Wheel and Tire, 11"	Wing Decks Only, See 64.1
8	1004024	2	Wheel and Tire, 13"	Front Deck Only, See 64.1
9	441690	8	Carriage Bolt, 1/2-13 x 7"	Wing Decks Only
9	441689	2	Carriage Bolt, 1/2-13 x 8-1/2"	Front Deck Only
10	443118	20	Nut, 1/2-13 Hex	
11	401028	20	Screw, 3/8-16 x 3-1/4" Hex Head	
12	446142	20	Lockwasher, 3/8 Heavy	
13	443110	20	Nut, 3/8-16 Hex	
14	3004894	10	Pin, Klik Type	

> Change from previous revision

2.1 Wheel and Tire Assemblies

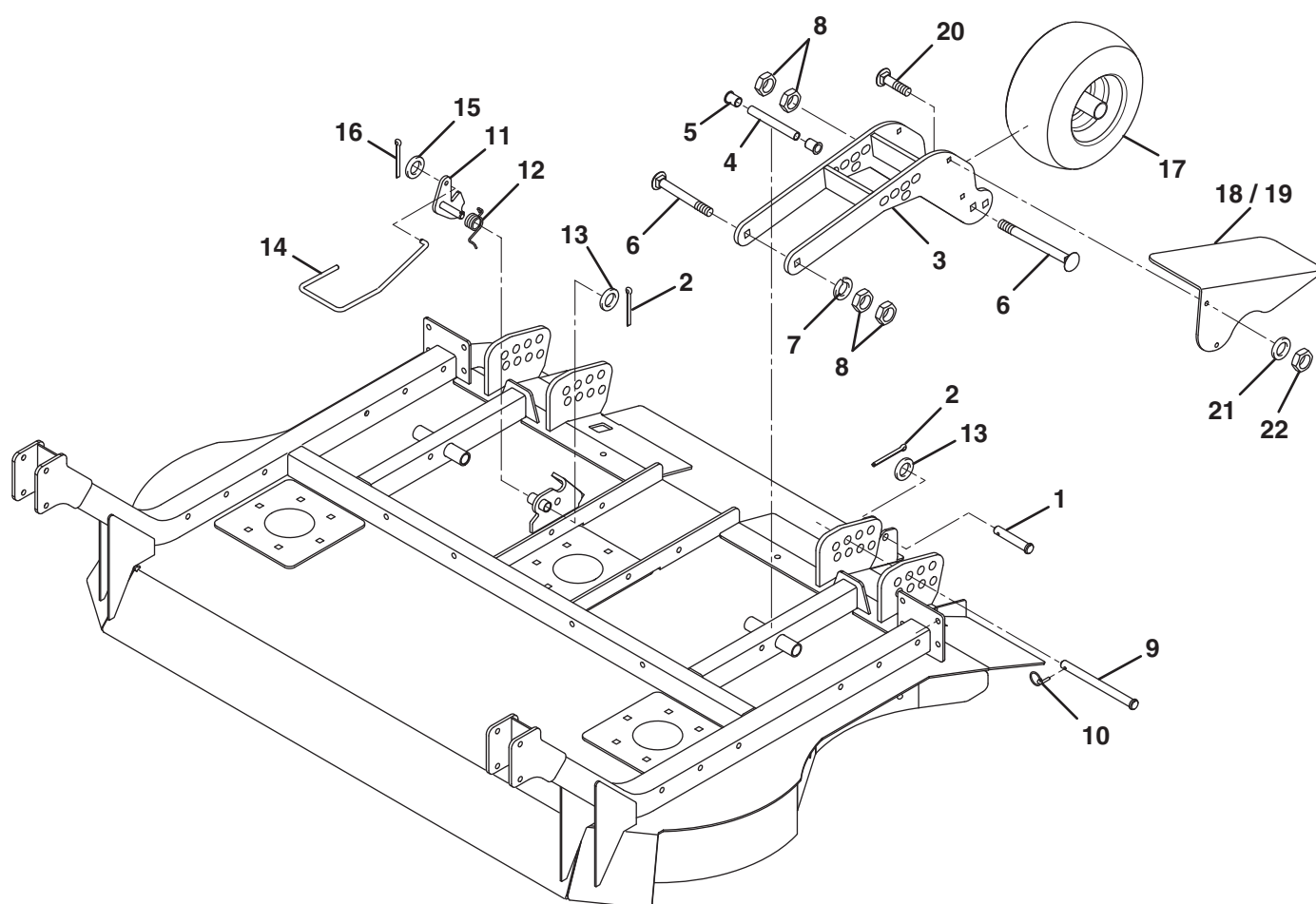
Part Numbers 1004023 and 1004024



9016-61

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	550346	1	Tire, 11 x 4-5 Smooth	1004023 Only
1	5003200	1	Tire, 13 x 6.5-6 Multi Rib	1004024 Only
2	5003196	1	Wheel	1004023 Only
2	5003201	1	Wheel	1004024 Only
3	5003197	2	Grease Seal	
4	5003198	2	Bearing Cone	
5	360111	1	Inflation Valve	
6	346883	2	Spacer	
7	5003199	1	Spacer	1004023 Only
7	5003202	1	Spacer	1004024 Only

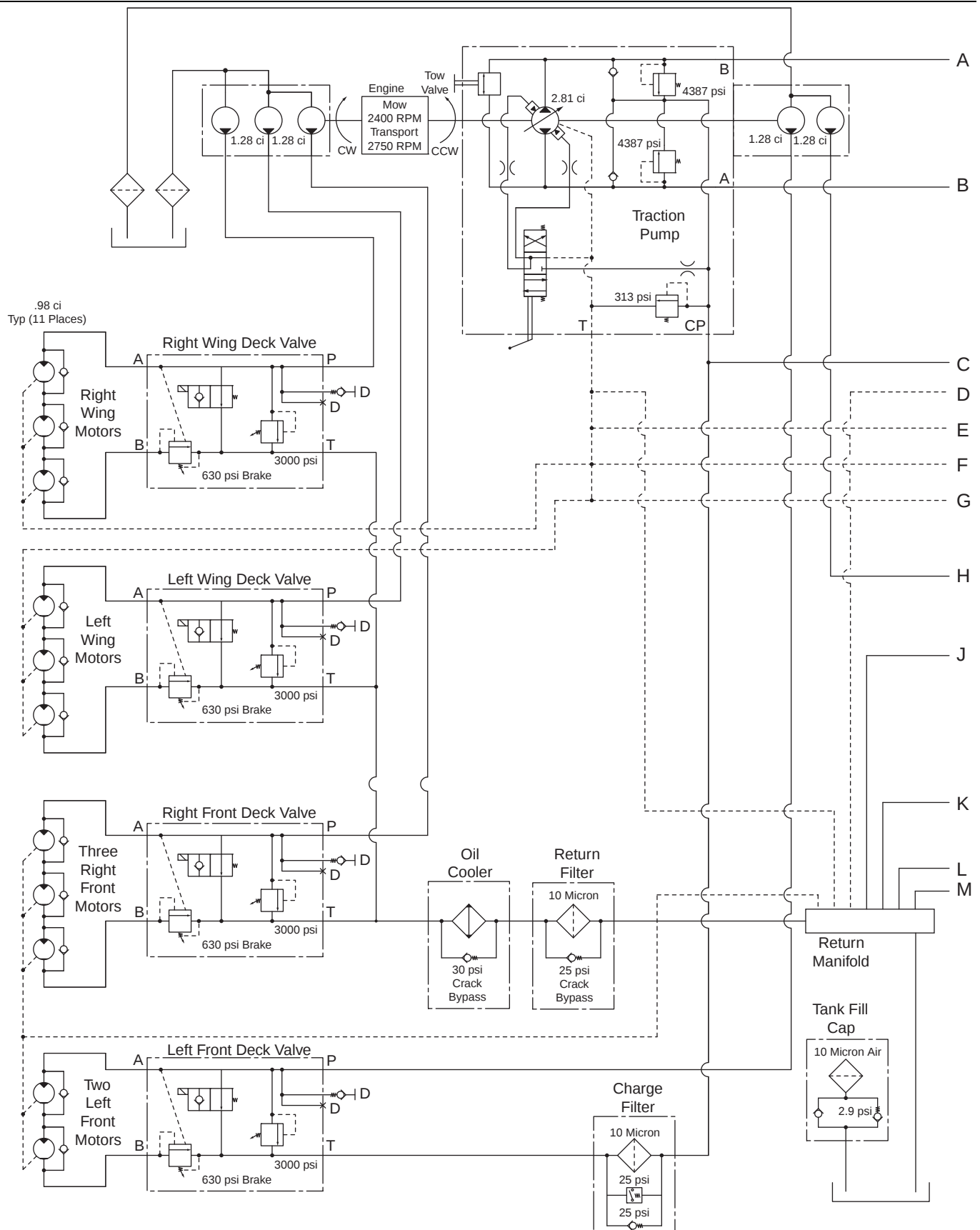
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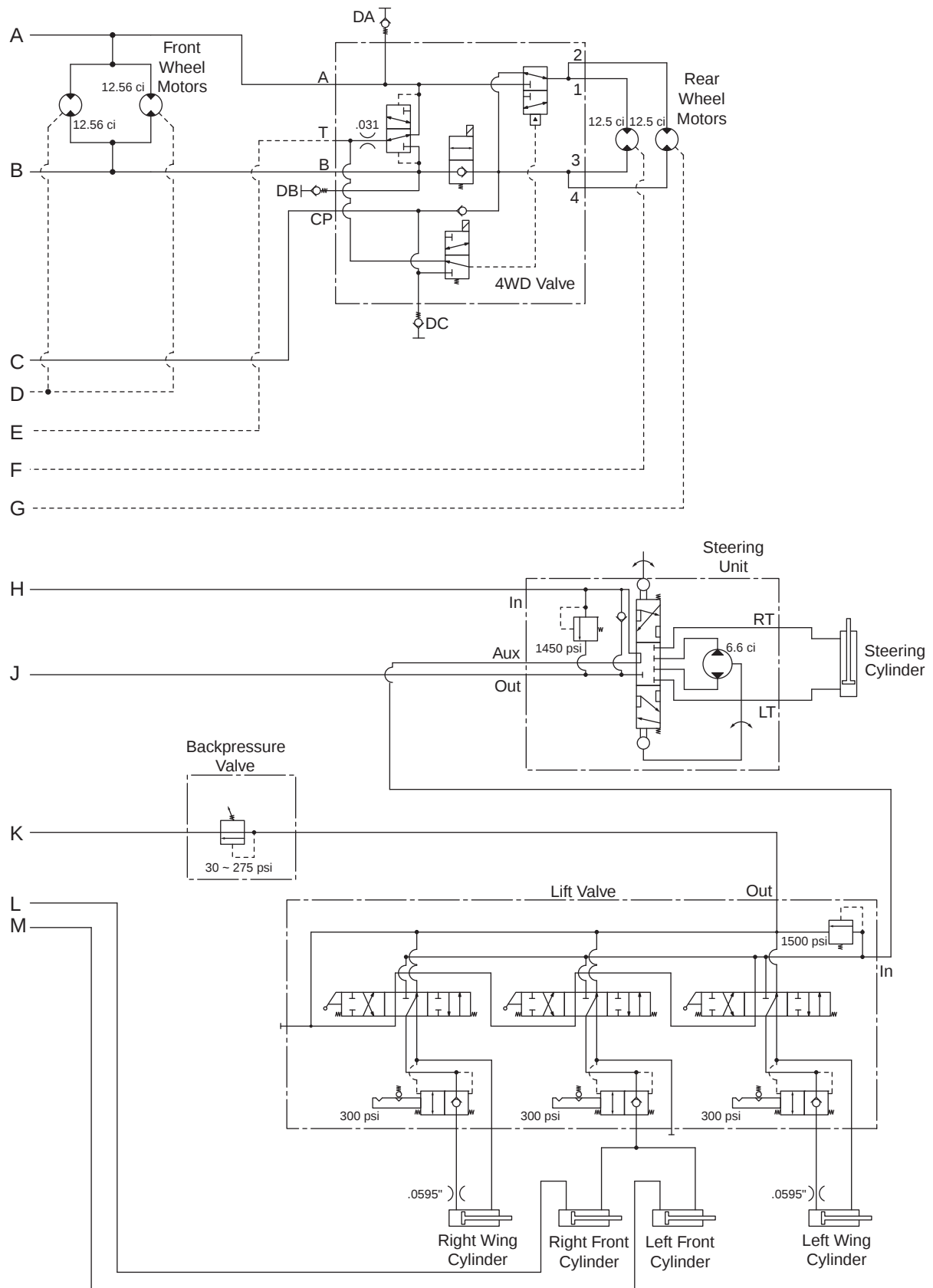


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	461495	1	Clevis pin, 1/2 x 2-1/2"	See 64.1
2	460028	2	Cotter Pin, 1/8 x 1"	
3	1003423.6	2	Yoke, Gage Wheel	
4	3007442	2	Spacer, Arm Pivot	
5	3004113	4	Bushing	
6	441690	4	Carriage Bolt, 1/2-13 x 7"	
7	446152	2	Lockwasher, 1/2	
8	443118	8	Nut, 1/2-13 Hex	
9	3007679	2	Clevis Pin, 5/8 x 9-5/16"	
10	342675	2	Snap Ring	
11	1003902	1	Latch, Standup	
12	3008471	1	Spring, Torsion	
13	453017	1	Flat Washer, 1/2	
14	3008478	1	Rod, Latch	
15	453009	1	Flat Washer, 5/16	
16	460014	1	Cotter Pin, 3/32 x 3/4"	
17	1004023	2	Wheel and Tire, 11"	
18	3010075	1	Deflector, Left Side Grass	
19	3010074	1	Deflector, Right Side Grass	
20	441614	4	Carriage Bolt, 5/16-18 x 1"	
21	452006	4	Flat Washer, 5/16	
22	444718	4	Locknut, 5/16-18 Center	

> Change from previous revision

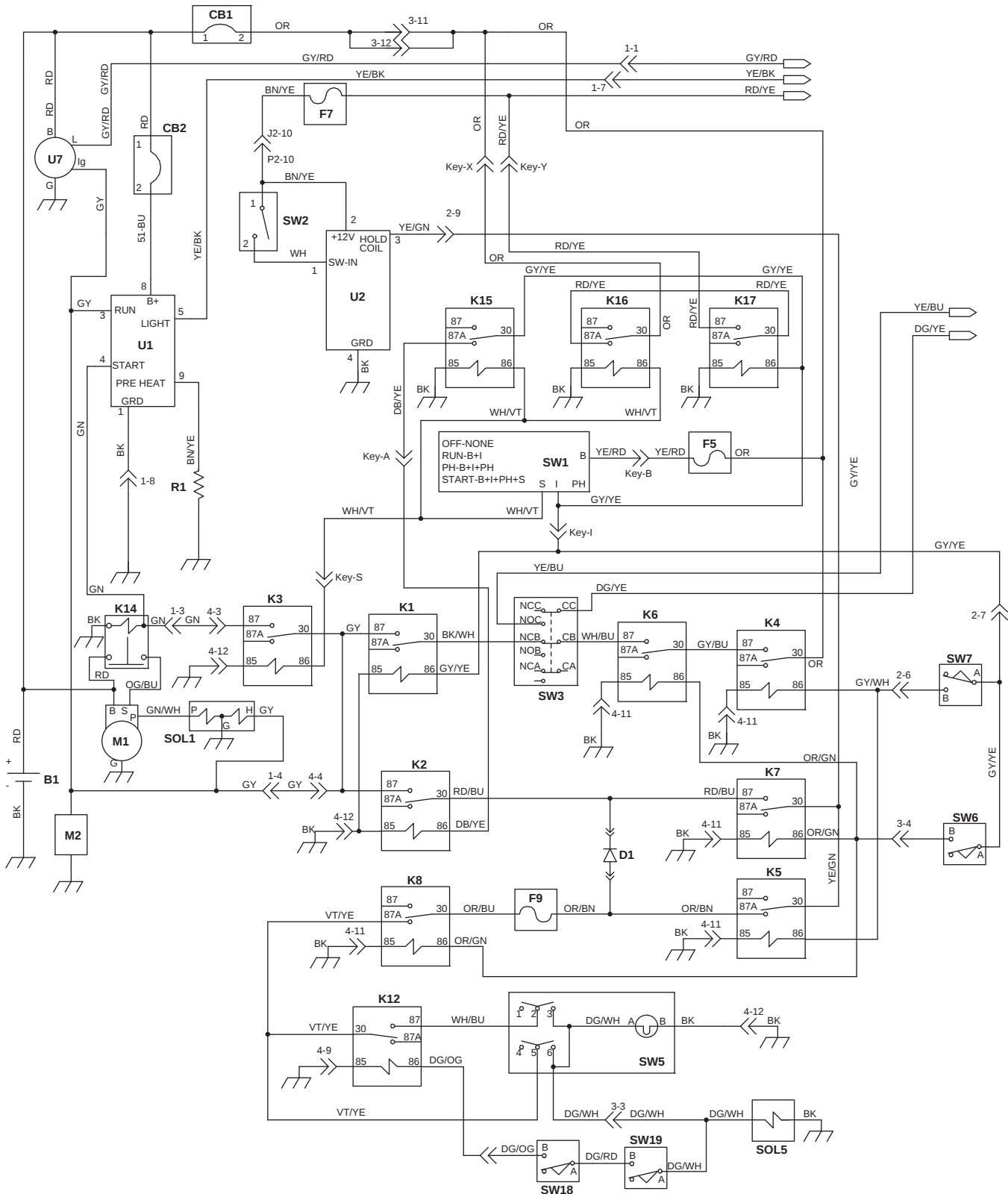
1.1 Hydraulic Schematic





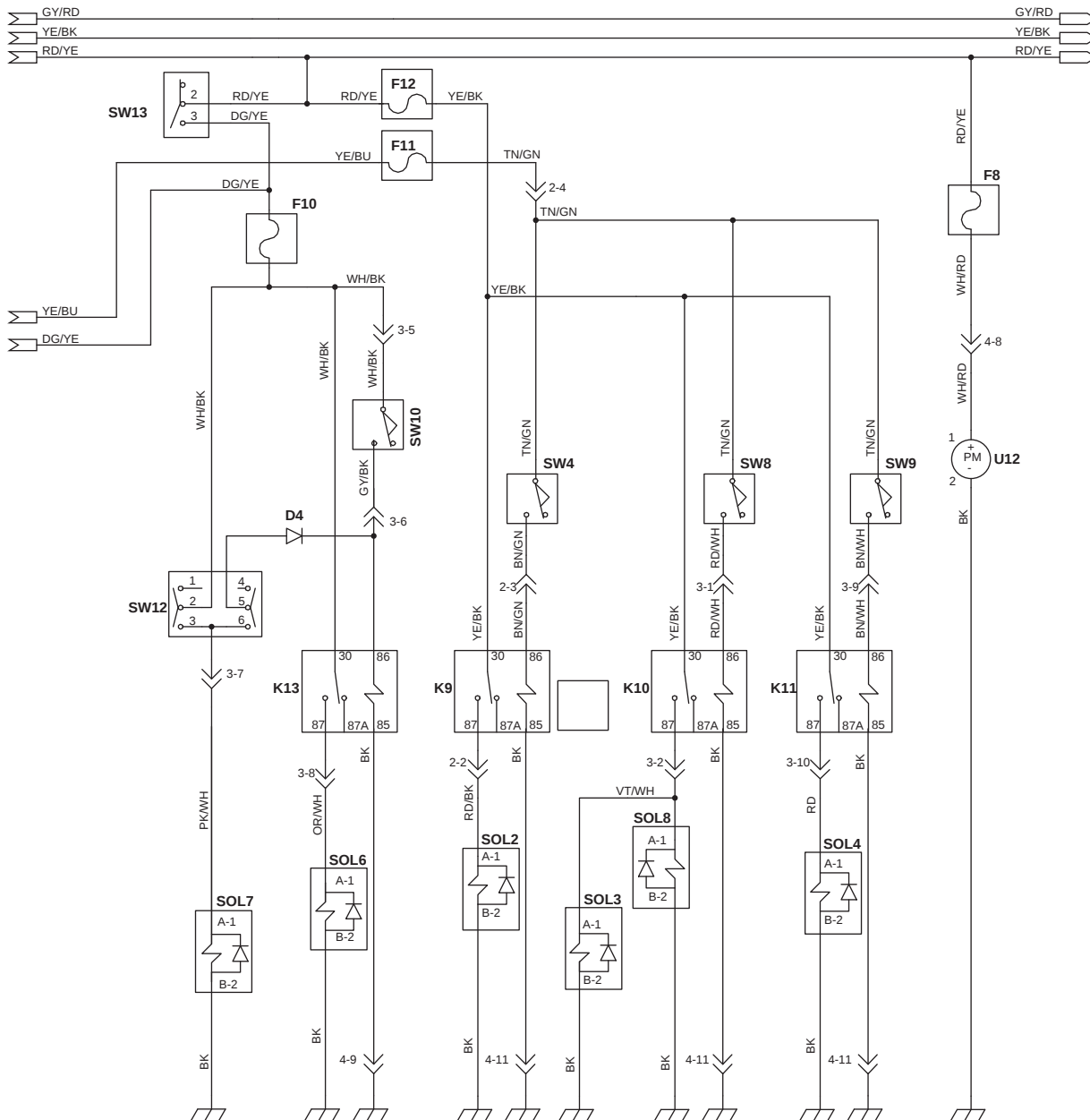
1.1 Electrical Schematic

Interlock, Starting, Charging and Cruise Control Circuits



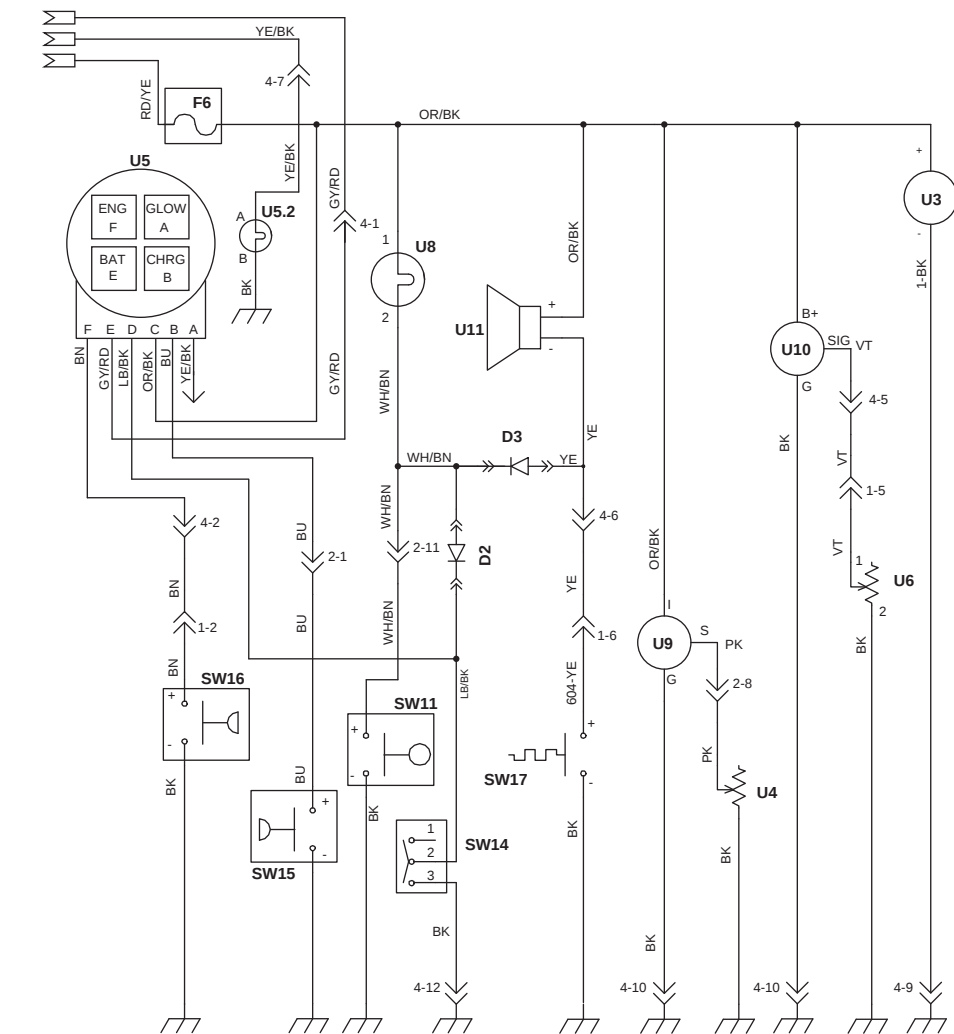
1.1 Electrical Schematic

4WD, Mow and Seat Control Circuits



1.1 Electrical Schematic

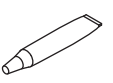
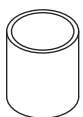
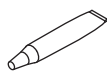
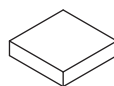
Gauges and Warning Lights



Item	Reference Illustration	Part Number	Description	Serial Numbers/Notes
B1	See 16.1	4108140	Battery	Optional Cruise Control Kit
CB1	See 44.1	3000359	50 Amp Circuit Breaker - Main	
CB-2	See 44.1	3000359	50 Amp Circuit Breaker - Pre Heat	
D1	See 7.1	555846	Interlock System Diode	
D2	See 7.1	555846	Test Diode	
D3	See 7.1	555846	Alarm Diode	
D4	See 7.1	555846	4WD Diode	
F1	See 7.1	5003278	Spare 5 Amp Fuse	
F2	See 7.1	5003278	Spare 5 Amp Fuse	
F3	See 7.1	5003281	Spare 15 Amp Fuse	
F4	See 7.1	5003281	Spare 15 Amp Fuse	
F5	See 7.1	5003278	5 Amp Fuse - Ignition Switch	
F6	See 7.1	5003278	5 Amp Fuse - Gauges	
F7	See 7.1	5003278	5 Amp Fuse - Interlock Circuit	
F8	See 7.1	5003281	15 Amp Fuse - Air Ride Seat	
F9	See 7.1	5003278	5 Amp Fuse - Cruise Control	
F10	See 7.1	5003278	5 Amp Fuse - 4WD	
F11	See 7.1	5003278	5 Amp Fuse - Deck Limit Switches	
F12	See 7.1	5003281	15 Amp Fuse - Mow Circuit	
K1	See 7.1	3001307	Interlock Relay	
K2	See 7.1	3001307	Run Circuit Relay	
K3	See 7.1	3001307	Start Circuit Relay	
K4	See 7.1	3001307	Brake (Start) Relay	
K5	See 7.1	3001307	Brake (Run) Relay	
K6	See 7.1	3001307	Neutral (Start) Relay	
K7	See 7.1	3001307	Neutral (Run) Relay	
K8	See 7.1	3001307	Neutral (Cruise Control) Relay	
K9	See 7.1	3001307	Left Mow Relay	
K10	See 7.1	3001307	Center Mow Relay	
K11	See 7.1	3001307	Right Mow Relay	
K12	See 7.1	3001307	Cruise Control Relay	
K13	See 7.1	3001307	4WD Relay	
K14		131905	Starter Solenoid	
K15	See 5.1	3001307	Run Circuit Cutout Relay	
K16	See 5.1	3001307	Auxiliary Circuit Relay	
K17	See 5.1	3001307	Ignition Circuit Relay	
M1	Not Shown		Starter Motor	Included with Engine
R1	Not Shown		Air Intake Pre Heat Timer	Optional Cold Start Kit
SOL1	Not Shown		Fuel Solenoid	Included with Engine
SOL2	See 54.1	4134530	Left Wing Mow Solenoid Coil	Included in 1004337 Deck Valve
SOL3	See 54.1	4134530	Center Mow Solenoid 1 Coil	Included in 1004337 Deck Valve
SOL4	See 54.1	4134530	Right Wing Mow Solenoid Coil	Included in 1004337 Deck Valve
SOL5	Not Shown	3008975	Cruise Control Magnet	Optional Cruise Control Kit
SOL6	See 55.1	4134530	4WD Solenoid Coil	Included in 1002977 4WD Valve

HR-9016

Item	Reference Illustration	Part Number	Description	Serial Numbers/Notes
SOL7	See 55.1	4134532	4WD Reverse Solenoid Coil	Included in 1002977 4WD Valve
SOL8	See 54.1	4134530	Center Mow Solenoid 2 Coil	Included in 1004337 Deck Valve
SW1	See 7.1	2810269	Ignition Switch	Optional Cruise Control Kit
SW2	See 4.1	4139450	Seat Switch	
SW3	See 7.1	2721505	PTO Switch	
SW4	See 31.1	4140149	Left Wing Limit Switch	
SW5	Not Shown	3006442	Cruise Control Switch	
SW6	See 9.1	4140149	Neutral Switch	
SW7	See 11.1	4140149	Parking Brake Switch	
SW8	See 28.1	4140149	Front Limit Switch	
SW9	See 31.1	4140149	Right Wing Limit Switch	
SW10	See 9.1	4140149	Forward Switch	
SW11	See 24.1	3009203	Hydraulic Level Switch	
SW12	See 7.1	3006446	4WD Reverse Switch	
SW13	See 7.1	3006436	4WD Switch	
SW14	See 7.1	3006446	Test Switch	
SW15	See 12.1	556419	Charge Filter Switch	
SW16	Not Shown		Engine Oil Switch	Included with Engine
SW17	See 22.1	363996	Temperature Switch	Optional Cruise Control Kit
SW18	Not Shown	3007392	Left Brake Pedal Switch	
SW19	Not Shown	3007392	Right Brake Pedal Switch	
U1	Not Shown		Pre Heat Timer Relay	
U2	See 5.1	3009544	Seat Time Delay Relay	
U3	See 7.1	162723	Hour Meter	Included with Engine
U4	See 25.1	3006639	Fuel Sender	
U5	See 7.1	1002679	Light Gauge	
U5.2	See 45.1	1004931	Glow Plug Light	
U6	See 22.1	3008821	Temperature Sender	
U7	Not Shown		Alternator	
U8	See 7.1	366751	Hydraulic Oil Light	
U9	See 7.1	365943	Fuel Gauge	
U10	See 7.1	3005121	Temperature Gauge	
U11	See 5.1	366670	Alarm	
U12	See 47.1	5003625	Air Ride Seat Suspension	

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 Jacobsen GreensCare 68	
5003103	One 5 Gallon Pail Jacobsen GreensCare 68	
5003105	One 55 Gallon Drum Jacobsen GreensCare 46	
5003104	One 5 Gallon Pail Jacobsen GreensCare 46	
4115976	One 55 Gallon Drum Jacobsen GreensCare 32	
4115977	One 5 Gallon Pail Jacobsen Greens Care 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 Jacobsen Dealer		
On-Time Maintenance Kit		
See your local Jacobsen Dealer		

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

Jacobsen offers a High Usage Parts Catalog illustrating commonly used Parts through easy to read line Drawings. See your local Jacobsen Dealer for a copy.

1.1 O-Ring Chart

O-Ring Face Seal Size — $\overline{\text{W-X}}$ — O-Ring Boss Dash Size	O-Ring Face Seal Size — $\overline{\text{W-X}}$ — O-Ring Boss Dash Size	O-Ring Face Seal Size — $\overline{\text{W-X}}$ — O-Ring Boss Dash Size
O-Ring Face Seal Size — $\overline{\text{W-X-Y}}$ — O-Ring Boss Dash Size	O-Ring Face Seal Size — $\overline{\text{W-X-Y}}$ — O-Ring Boss Dash Size	O-Ring Face Seal Size — $\overline{\text{W-X-Y}}$ — O-Ring Boss Dash Size
O-Ring Face Seal Size — $\overline{\text{W-X}}$ — O-Ring Face Seal Size	O-Ring Face Seal Size — $\overline{\text{W-X}}$ — O-Ring Face Seal Size	O-Ring Face Seal Size — $\overline{\text{W-X-Y}}$ — O-Ring Face Seal Size
O-Ring Face Seal Size — $\overline{\text{W-X}}$ — O-Ring Face Seal Size	O-Ring Face Seal Size — $\overline{\text{W-X-Y}}$ — O-Ring Boss Dash Size	O-Ring Face Seal Size — $\overline{\text{W-X}}$ — O-Ring Face Seal Size
O-Ring Face Seal Size — $\overline{\text{W-X}}$ — O-Ring Face Seal Size	O-Ring Face Seal Size — $\overline{\text{W-X-Y}}$ — O-Ring Boss Dash Size	O-Ring Face Seal Size — $\overline{\text{W-X}}$ — O-Ring Face Seal Size
O-Ring Face Seal Size — $\overline{\text{W-X-Y-Z}}$ — O-Ring Face Seal Size	O-Ring Face Seal Size — $\overline{\text{W-X-Y-Z}}$ — O-Ring Face Seal Size	O-Ring Face Seal Size — $\overline{\text{W-X}}$ — O-Ring Face Seal Size

Adapter Part Number.	Dash Size	Adapter Type	(W) O-Ring	(X) O-Ring	(Y) O-Ring	(Z) O-Ring
339972	4-4	Straight Adapter	339908	339896		
339974	4-6	Straight Adapter	339908	339897		
339979	6-6	Straight Adapter	339909	339897		
339984	8-8	Straight Adapter	339910	339898		
339989	10-10	Straight Adapter	339911	339899		
339990	10-12	Straight Adapter	339911	339900		
339994	12-12	Straight Adapter	339912	339900		
339996	12-16	Straight Adapter	339912	339901		
339999	16-16	Straight Adapter	339913	339901		
340026	6-6	45° Adapter	339909	339897		
340027	6-8	45° Adapter	339909	339898		
340029	8-8	45° Adapter	339910	339898		
340055	4-4	90° Adapter	339908	339896		
340061	6-6	90° Adapter	339909	339897		
340062	6-8	90° Adapter	339909	339898		
340065	8-6	90° Adapter	339910	339897		
340069	10-8	90° Adapter	339911	339898		
340070	10-10	90° Adapter	339911	339899		
340074	12-12	90° Adapter	339912	339900		
340075	12-16	90° Adapter	339912	339901		
340077	16-16	90° Adapter	339913	339901		
340078	6-6	90° Adapter	339909	339897		
340095	4-4-4	Straight Thread Branch Tee	339908	339908	339896	
340118	4-4-4	Swivel Run Tee	339908	339908		
340143	6-6-6	Swivel Branch Tee	339909	339909		
340144	8-8-8	Swivel Branch Tee	339910	339910		
340147	16-16-16	Swivel Branch Tee	339913	339913		
340167	6-6	90° Bulkhead Adapter	339909	339909		
340214	4-4-4	Bulkhead Run Tee	339908	339908	339908	
340215	6-6-6	Bulkhead Run Tee	339909	339909	339909	
340217	10-10-10	Bulkhead Run Tee	339911	339911	339911	
340219	16-16-16	Bulkhead Run Tee	339913	339913	339913	
340239	6-6	Union Bulkhead Adapter	339909	339909		
340269	10-12-12	Straight Thread Run Tee	339911	339899	339912	
340377	10-10	90° Swivel Adapter	339911			

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

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