



JACOBSEN[®]

A Textron Company

4160164-Rev C



Parts & Maintenance Manual

Super LF 1880[™] Fairway Mower with ROPS

67955 – Kubota[®] D1105-E3B, 2WD

67956 – Kubota[®] D1105-E3B, 4WD

67957 – Kubota[®] D1105-T-E3B, 4WD



WARNING

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



JACOBSEN[®]
A Textron Company

When Performance Matters.™

GB

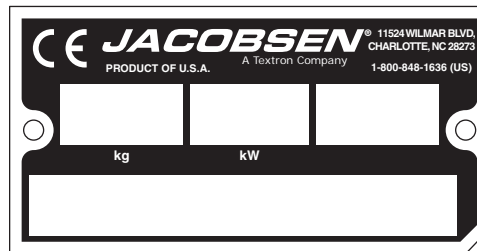
FOREWORD

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

Before you operate your mower, 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 mower and maintain its maximum efficiency.

If additional information is needed, contact your Jacobsen Dealer.

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



Suggested Stocking Guide

To Keep your mower 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:

- UPS Regular Mail
 Overnight 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
	2810346	Engine Oil Filter		5002892	Hydraulic Return Filter
	5000919	Element, Engine Air Filter		2811255	Hydraulic Charge Filter
	550489	Element, Engine Fuel Filter			

Service Support Material

Qty.	Part No.	Description
	4160165	Safety & Operation Manual
	4160164	Parts & Maintenance
	4102141	Video, Operator Training
	4160162	Diesel Engine Parts Manual

Qty.	Part No.	Description
	4171721	Service Manual

Proposition 65 Warning

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

These are the original instructions verified by Jacobsen, A Textron Company

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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 operators should receive instruction from someone familiar with the equipment before being allowed to operate the machine.

1. Safety is dependent upon the awareness, concern, and prudence of those who operate or service the equipment. Never allow minors to operate any equipment.
2. It is your responsibility to read this manual and all publications associated with this equipment (Safety & Operation Manual, Engine Manual, and attachments/accessories instruction sheets). If the operator cannot read English it is the owner's responsibility to explain the material contained in this manual to them.
3. Learn the proper use of the machine, the location and purpose of all the controls and gauges, before you operate the equipment. Working with unfamiliar equipment can lead to accidents.
4. Never allow anyone to operate or service the machine or its attachments without proper training and instructions; or while under the influence of alcohol or drugs.
5. Wear all the necessary protective clothing and personal safety devices to protect your head, eyes, ears, hands, and feet. Operate the machine only in daylight or in good artificial light.
6. Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by Jacobsen.
7. Stay alert for holes in the terrain and other hidden hazards.
8. Inspect the area where the equipment will be used. Pick up all the debris you can find before operating. Beware of overhead obstructions (low tree limbs, electrical wires, etc.) and also underground obstacles (sprinklers, pipes, tree roots, etc.). Enter a new area cautiously. Stay alert for hidden hazards.
9. Never direct discharge of material toward bystanders, nor allow anyone near the machine while in operation. The owner/operator can prevent and is responsible for injuries inflicted to themselves, to bystanders, and damage to property.
10. Do not carry passengers. Keep bystanders and pets a safe distance away.
11. Never operate equipment that is not in perfect working order or is without decals, guards, shields, discharge deflectors, or other protective devices securely fastened in place.
12. Never disconnect or bypass any switch.
13. Do not change the engine governor setting or overspeed the engine.
14. Carbon monoxide in the exhaust fumes can be fatal when inhaled. Never operate the engine without proper ventilation or in an enclosed area.
15. Fuel is highly flammable; handle with care.
16. Keep the engine clean. Allow the engine to cool before storing and always remove the ignition key.
17. Disengage all drives and engage parking brake before starting the engine (motor). Start the engine only when sitting in operator's seat, never while standing beside the unit.
18. Equipment must comply with the latest federal, state, and local requirements when driven or transported on public roads. Watch out for traffic when crossing or operating on or near roads.
19. Local regulations may restrict the age of the operator.
20. Operate the machine up and down the face of slopes (vertically), not across the face (horizontally).
21. To prevent tipping or loss of control, do not start or stop suddenly on slopes. Reduce speed when making sharp turns. Use caution when changing directions.
22. Always use the seat belt when operating mowers equipped with a Roll Over Protective Structure (ROPS).
Never use a seat belt when operating mowers without a ROPS.

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.

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 lever 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.

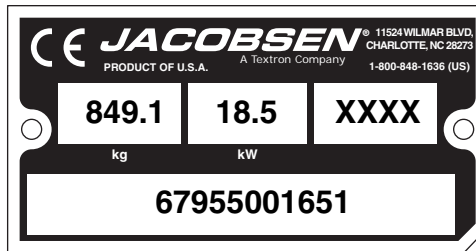
2 SPECIFICATIONS

2.1 PRODUCT IDENTIFICATION

67955 Super LF 1880 2WD with ROPS
 67956 Super LF 1880 4WD with ROPS
 67957 Super LF 1880 Turbo 4WD with ROPS

Serial Number An identification plate, like the one shown, listing the serial number, is attached to the left rear frame of rail of the mower.

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



Product	EEC Sound Power	Vibration M/S ²	
		Arms	Body
67955	<105 dba	3.578	0.0246
67956	<105 dba	3.578	0.0246
67957	<105 dba	2.758	0.0318

2.2 KUBOTA D1105-E ENGINE

Make Kubota
 Model D1105-E3B
 Horsepower 24.8 hp (18.5 kW) @3000 RPM

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

Displacement 68.5 cu. In. (1123 cc)
 Torque 52.7 ft lbs. (71.5 Nm) @ 2200 RPM

Fuel:
 Type No. 2 Low or Ultra Low Sulfur Diesel

Rating Cetane Rating-45
 Capacity 12 U.S. Gal. (45.4 liters)
 High speed - rpm 3150 no load
 Low Idle - rpm 1750 no load
 Lubrication:
 Capacity 5.4 qt (5.1 liters)
 Type SAE 10W30
 API Classification CD,CE
 Air Filter Dry type with service indicator
 Alternator 40 amp
 Cooling System Liquid Cooled

2.3 KUBOTA D1105-TE ENGINE

Make Kubota
 Model D1105-T-E3B
 Horsepower 32.9 hp (24.5 kW) @3000 RPM

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

Displacement 68.5 cu. In. (1123 cc)
 Torque 65 ft. lbs. (88.1 Nm) @ 2200 RPM
 Fuel:

Type No. 2 Low or Ultra Low Sulfur Diesel

Rating Cetane Rating-45
 Capacity 12 U.S. gal. (45.4 liters)

High speed - rpm 3150 no load
 Low Idle - rpm 1750 no load

Lubrication:

Capacity 5.4 qt. (5.1 liters)
 Type SAE 10W30

API Classification CD,CE
 Air Filter Dry type with service indicator
 Alternator 40 amp
 Cooling System Liquid Cooled

2.4 CUTTING UNITS

Reel.....	5 Reels, 18 in. (457 mm) wide	Cutting Width	82 in. (2032 mm)
Reel Diameter	5 in. (127 mm)	Cutting Frequency:	
Blade Options	8 or 11 blades	8 Blade.....	0.067 in./mph (1.06 mm/kph)
Cutting Height	0.30 to 0.70 in. (7.6 to 18 mm)	11 Blade.....	0.049 in./mph (0.77 mm/kph)

2.5 MOWER

Tires		Parking Brake	Mechanical front wheel disc
Front.....	24 x 13-12 2 Ply	Hydraulic System:	
Rear	18 x 9.5-8 2 Ply	Capacity.....	8 U.S. gal. (30.28 liters) System
Pressure:.....	10-12 psi (0.69 - 0.83 BAR)	Fluid Type	GreensCare™ 68
Battery:		Return Filter.....	Full Flow 10 micron
Type	12 Volt Lead/Acid	Charge Filter.....	Full Flow 10 micron
Group.....	45 GMF	Steering	Hydrostatic Power Steering
Speed:		Mower Lift	Hydraulic Double Acting Cylinders
Mow (4 WD)	0 - 6 mph (9.6 kph)		
Transport (2 WD).....	0 - 10.5 mph (16.9 kph)		
Reverse.....	0 - 4 mph (6.4 kph)		

2.6 WEIGHTS AND DIMENSIONS

Dimensions:	Inches	(mm)	Weights:	Lbs.	(kg)
Length - Grass Catchers On	106	(2692)	Working Weight Less Operator		
Height - Top of Steering Wheel	56	(1422)	67955	2205	(1000)
Wheel Base.....	59.1	(1501)	67956	2280	(1034)
Width - Transport Position	88.5	(2248)	67957	2330	(1057)
Width - Mowing Position.....	88.5	(2248)			
Width - Wheel	74.25	(1886)			
Turning Radius	18	(457)			

2.7 ACCESSORIES & SUPPORT LITERATURE

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



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

Accessories

Air Blow Gun	JAC5098
Orange Touch-up Paint (12 oz. spray)	554598
Arm Rest.....	4139431
Grass Catcher.....	67930
Powered Rear Roller Cleaner Brush.....	67929
Turf Groomer 1/2 in. Spacing	67926
2 Post ROPS.....	66194
Canopy (Requires 2 Post ROPS).....	68095
4WD Field Conversion Kit.....	67931
Vertical Mower Lift Yoke Kit.....	67934
High Cut Roller Kit 15/16 in.....	68634
Vertical Mower	67928
MAGSystem™ Kit.....	4161022

Reels

11 Blade Reel	67932
8 Blade Reel	67933

Rollers

3 in. dia. Grooved Front Roller with Scraper.....	67925
2-3/16 in. Solid Front Roller with Scraper	68626
2-3/16 in. Grooved Front Roller	68616
2-3/16 in. Full Width Solid Rear Roller with Scraper....	68674

Support Literature

Safety & Operation Manual.....	4160165
Parts & Maintenance Manual.....	4160164
Diesel Engine Parts Catalog.....	4160162
Operator Training Video.....	4102141
Service & Repair Manual.....	4171721

2 SPECIFICATIONS

2.8 DECLARATION OF CONFORMITY

ΤΑΧΥΔΕΚΛΑΡΩΣΗ ΟΜΟΛΟΓΗΣΗΣ • 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 • ΑΤΙΤΙΚΤΕΣ ΔΕΚΛΑΡΑΚΙJA • DIKJARAZZJONI TAL-KONFORMITÀ • DEKLARACJA ZGODNOŚCI •
 DECLARAÇÃO DE CONFORMIDADE • DECLARAȚIE DE CONFORMITATE • VYHLÁŠENIE O ZHODE • IZJAVA O
 SKLADNOSTI • DECLARACIÓN DE CONFORMIDAD • DEKLARATION OM ÖVERENSSTÄMMELSE

Business name and full address of the manufacturer • Търговско име и пълен адрес на производителя • Obchodní jméno a plná adresa výrobce • Producentens firmanavn og fulde adresse • Bedrijfsnaam en volledig adres van de fabrikant • Toetja ärinimi ja täielik aadress • Valmistajan toiminimi ja täydellinen osoite • Nom commercial et adresse complète du fabricant • Firmenname und vollständige Adresse des Herstellers • Εταιρεία και ταχυδρομική διεύθυνση κατασκευαστή • A gyártó üzleti neve és teljes címe • Ragione sociale e indirizzo completo del fabbricante • Uzņēmuma nosaukums un pilna ražotāja adrese • Verslo pavadinimas ir pilnas gamintojo adresas • Isem kummerčjali u indirizz sħiħ tal-fabrikant • 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 • Kódici tal-Prodott • Kod produktu • Código do Produto • Cod produs • Kód výrobku • Oznaka proizvoda • Código de producto • Produktkod	67955 67956 67957
Machine Name • Наименование на машината • Název stroje • Maskinnavn • Machinenam • Masina nimi • Laitteen nimi • Nom de la machine • Maschinenbezeichnung • Овојнасиа машинијатос • Gébrnév • Denominazione della macchina • Iekárta nosaukums • Mašinos pavadinimas • Isem tal- Magna • Nazwa urzãdzenia • Nome da Máquina • Numele echipamentului • Názov stroja • Naziv stroja • Nombre de la máquina • Maskinens namn	SLF 1880 2WD SLF 1880 4WD SLF 1880 4WD Turbo
Designation • Предназначение • Označení • Betegnelse • Benaming • Nimetus • Түпперикитã • Pažymėjimas • Bezeichnung • Χαρακτηρισμός • Megnevezés • Funzione • Apzīmējums • Lithuanian • Denominazzjoni • Oznaczenie • Designação • Specificație • Označenie • Namen stroja • Descripción • Beteckning	Lawnmower, Article 12, Item 32
Serial Number • Сериен номер • Sériové číslo • Seriennummer • Serienummer • Seerianumber • Valmistusnumero • Numéro de série • Seriennummer • Σειριακός αριθμός • Sorozatszám • Numero di serie • Sērijas numurs • Serijos numeris • Numru Serjali • Numer seryjny • Número de Série • Numãr de serie • Sériové číslo • Serijska številka • Número de serie • Seriennummer	6795501651-6795502500 6795501651-6795502500 6795501651-6795502500
Engine • Двигател • Motor • Motor • Motor • Mootor • Moottori • Moteur • Motor • Μηχανή • Modulnėv • Motore • Dzinējs • Variklis • Saħna Netta Installata • Silnik • Motor • Motor • Motor • Motor • Motor • Motor	Kubota D1105-E3B Diesel Kubota D1105-E3B Diesel Kubota D1105-T-E3B Diesel
Net Installed Power • Нетна инсталирана мощност • Cistý 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 • Paredzētã tikla jauda • Grynoji galia • Wisa' tal-Qtugh • Moc zainstalowana netto • Potência instalada • Puterea instalatã netã • Cistý inštalovaný výkon • Neto vgrajena moč • Potencia instalada neta • Nettoeffekt	18,5 kW @ 3000 RPM 18,5 kW @ 3000 RPM 24,5 kW @ 3000 RPM
Cutting Width • Широчина на рязане • Šírka řezu • Skærebredde • Maabreedte • Lõikelaius • Leikkuuleveys • Largeur de coupe • Schnittbreite • Μηκος μισινέας • Vágási szélesség • Larghezza di taglio • Griēšanas platums • Pjovimo plotis • Tikkonforma mad-Direttivi • Szerokosc cięcia • Largura de Corte • Lãtjmea de tãiere • Šírka zãberu • Širina reza • Anchura de corte • Klippbredd	203 cm
Conforms to Directives • В съответствие с директивите • Spilfulje podmínky směrnic • Er i overensstemmelse med direktiver • Voldoet aan de richtlijnen • Vastab direktiividele • Direktiivien mukainen • Conforme aux directives • Entspricht Richtlinien • Ακολουθώτε πιστά τις Οδηγίες • Megfelel az irányelveknek • Conforme alle Direttive • Atbilst direktivã • Atitinka direktivų reikalavimus • Valutazzjoni tal-Konformità • Dyrektyvy zwiãzane • Cumpre as Directivas • Respectã Directivele • Je v sùlãde so smernicami • Skladnost z direktivami • Cuple 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 • Överensstemmelsesvurdering • Conformiteitsbeoordeling • Vastavushindamine • Vaatimustenmukaisuuden arviointi • Evaluation de conformité • Konformitätsbeurteilung • Διαπίστωση Συμμόρφωσης • Megfelelőség-értékelés • Valutazione della conformità • Atbilstības novērtējums • Atitiktības įvertinimas • Livell tal-Qawwa tal-Foss Imkejjel • Ocena zgodności • Avaliação de Conformidade • Evaluarea conformității • Vyhodnotenie zhodnosti • Ocena skladnosti • Evaluación de conformidad • Bedömning av överensstämmelse	2006/42/EC Annex VIII
Measured Sound Power Level • Измерено ниво на звукова мощност • Naměřený akustický výkon • Målte lydstyrkeniveau • Gemeten geluidsniveau • Mõõdetud helivõimsuse tase • Mittattu äänitehotaso • Niveau de puissance sonore mesuré • Gemessener Schalldruckpegel • Στοιχισμένο επίπεδο ηχητικής ισχύος • Mért hangteljesítményszint • Livello di potenza sonora misurato • Izmērtais skaņas jaudas līmenis • Išmatuotas garso stiprumo lygis • Livell tal-Qawwa tal-Foss Iggarrantit • Moc akustyczna mierzona • Nivel sonoro medido • Nivelul măsurat al puterii acustice • Nameranã hladina akustického výkonu • Izmerjena raven zvočne moči • Nivel de potencia sonora medido • Uppmãtt ljudeffektsnivã	102 dB(A) LWA
Guaranteed Sound Power Level • Гарантирано ниво на звукова мощност • Garantovaný akustický výkon • Garanteret lydstyrkeniveau • Gegarandeerd geluidsniveau • Garanteeritud helivõimsuse tase • Taattu äänitehotaso • Niveau de puissance sonore garanti • Garantiertes Schalldruckpegel • Εγγυημένο επίπεδο ηχητικής ισχύος • Szavatolt hangteljesítményszint • Livello di potenza sonora garantito • Garantētais skaņas jaudas līmenis • Garantuotas garso stiprumo lygis • Livell tal-Qawwa tal-Foss Iggarrantit • Moc akustyczna gwarantowana • Nivel sonoro fantido • Nivelul garantat al puterii acustice • Garantovaná hladina akustického výkonu • Zajamčena raven zvočne moči • Nivel de potencia sonora garantizado • Garanterad ljudeffektsnivã	103 dB(A) LWA
Conformity Assessment Procedure (Noise) • Оценка за съответствие на процедурата (Шум) • Postup hodnocení plnění podmínek (hluk) • Procedure for overensstemmelsesvurdering (Støj) • Procedure van de conformiteitsbeoordeling (geluid) • Vastavushindamismenetlus (müra) • Vaatimustenmukaisuuden arviointimenetely (Melu) • Procédure d'évaluation de conformité (bruit) • Konformitätsbeurteilungsverfahren (Geräusch) • Διαδικασία Αξιολόγησης Συμμόρφωσης (Θόρυβος) • Megfelelőség-értékelési eljárás (Zaj) • Procedura di valutazione della conformità (rumore) • Atbilstības novērtējuma procedūra (troksnis) • Atitiktības įvertinimo procedūra (garsas) • Procedura tal-Valutazzjoni tal-Konformità (Foss) • Procedura 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 Iossaa-Britanniassa • Organisme notifié concernant la directive 2000/14/CE • Britische benannte Stelle für 2000/14/EG • Κοινοποιημένος Οργανισμός Ηνωμένου Βασιλείου για 2000/14/EK • 2000/14/EK – egyesült királyságbeli bejelentett szervezetei • Organismo Notificato in GB per 2000/14/CE • 2000/14/EK AK registrētã organizãcija • JK notifikuotostais iстаigost 2000/14/EC • Korp Notifikat tar-Renju Unit għal 2000/14/KE • Dopuszczona jednostka badawcza w Wielkiej Brytanii wg 2000/ 14/WE • Entidade notificada no Reino Unido para 2000/14/CE • Organism notificat în Marea Britanie pentru 2000/14/CE • Notifikovaný orgán Spojeného krãlovstva pre smernicu 2000/14/ES • Britanski priglašeni organ za 2000/14/ES • Cuerpo notificado en el Reino Unido para 2000/14/CE • Anmãlt organ för 2000/14/EG i Storbritannien	Number: 1088 Sound Research Laboratories Limited Holbrook House, Little Walsingham Sudbury, Suffolk CO10 0TH

<p>Operator Ear Noise Level • Оператор на нивото на доловим от ухото шум • Hladina hluku v oblasti uši operátora • Støjniveau i førers ørehøjde • Geluidsniveau oor bestuurder • Múratase operátori kórvas • Melutaso käyttäjän korvan kohdalla • Niveau de bruit à hauteur des oreilles de l'opérateur • Schallpegel am Bedienerohr • Επίπεδο θορύβου σε λειτουργία • A kezelő felületén mért zajszint • Livello di potenza sonora all'orecchio dell'operatore • Τρόσση λιμενίσ πλε operatora auss • Dirbančiojo su mašina patiriama triukšmo lygis • Livell tal-Foss fil-Widna tal-Operatur • Dopuszczalny poziom hałas u operatora • Nivel sonoro nos ouvidos do operador • Nivelul zgomotului la urechea operatorului • Hladina hluku pôsobiaci na sluch operátora • Raven hrupa pri ušesu upravljavca • Nivel sonoro en el oído del operador • Ljudnivå vid förarens öra</p>	<p>86 dB(a) Leq (2006/42/EC)</p>
<p>Harmonised standards used • Използвани хармонизирани стандарти • Použité harmonizované normy • Brugte harmoniserede standarder • Gebruikte geharmoniseerde standaards • Kasutatud ühtlustatud standardid • Käytetyt yhdenmukaistetut standardit • Normes harmonisées utilisées • Angewandte harmonisierte Normen • Εναρμονισμένα πρότυπα που χρησιμοποιήθηκαν • Harmonizált szabványok • Standard armonizzati applicati • Izmantotie saskaņotie standarti • Panaudoti 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</p>	<p>BS EN ISO 20643 BS EN ISO 5349-1 BS EN ISO 5349-2 BS EN 836</p>
<p>Technical standards and specifications used • Използвани технически стандарти и спецификации • Použité technické normy a specifikace • Brugte tekniske standarder og specifikationer • Gebruikte technische standaards en specificaties • Kasutatud tehnilised standardid ja spetsifikatsioonid • Käytetyt tekniset standardit ja eritelmät • Spécifications et normes techniques utilisées • Angewandte technische Normen und Spezifikationen • Τεχνικά πρότυπα και προδιαγραφές που χρησιμοποιήθηκαν • Műszaki szabványok és specifikációk • Standard tecnici e specifiche applicati • Izmantotie tehniskie standarti un specifikacijas • Panaudoti techniniai standartai ir techninė informacija • Standards u specifikaacijonijiet techni 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</p>	<p>B71.4 ISO 2631-1 SAE J1194</p>
<p>The place and date of the declaration • Място и дата на декларацията • Místo a datum prohlášení • Sted og dato for erklæringen • Plaats en datum van de verklaring • Deklaratsiooni väljastamise koht ja kuupäev • Vakuutuksen paikka ja päivämäärä • Lieu et date de la déclaration • Ort und Datum der Erklärung • Τόπος και ημερομηνία δήλωσης • A nyilatkozat kelte (hely és idő) • Luogo e data della dichiarazione • Deklarācijas vieta un datums • Deklaracijos vieta ir data • Il-post u d-data tad-dikjarazzjoni • Miejsce i data wystawienia deklaracji • Local e data da declaração • Locul și data declarației • Miesto a dátum vyhlásenia • Kraj in datum izjave • Lugar y fecha de la declaración • Plats och datum för deklarationen</p>	<p>Jacobsen, A Textron Company 11524 Wilmar Blvd. Charlotte, NC 28273, USA January 1, 2011</p>
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<p>Certificate Number • Номер на сертификат • Číslo osvědčení • Certifikatnummer • Certificaatnummer • Sertifikaadi number • Hyväksyntänumero • Numéro de certificat • Bescheinigungsnummer • Αριθμός Πιστοποιητικού • Hitelesítési szám • Numero del certificato • Sertifikata numurs • Sertifikato numeris • Numru tac-Certifikat • Numer certyfikatu • Número do Certificado • Număr certificat • Číslo osvědčenia • Številka certifikata • Número de certificado • Certifikatsnummer</p>	<p>4160164 Rev C</p>



3 ADJUSTMENTS

3.1 GENERAL

WARNING

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

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

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

1. Adjustments and maintenance should always be performed by a qualified technician. If proper

adjustment cannot be made, contact an authorized Jacobsen dealer.

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

CAUTION

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

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

3.2 ENGINE BELT

Inspect and adjust new belt after first 50 hours of operation. Check and adjust annually thereafter.

1. Adjust alternator pulley so belt deflects 1/4 to 5/16 in. (6 to 8 mm) with a 20 lb. (9 kg) push at midpoint between pulleys. See Engine Owner's Manual.
2. To adjust, loosen alternator mounting bolts (**A**), and adjust alternator until proper belt tension is achieved, then retighten belts.

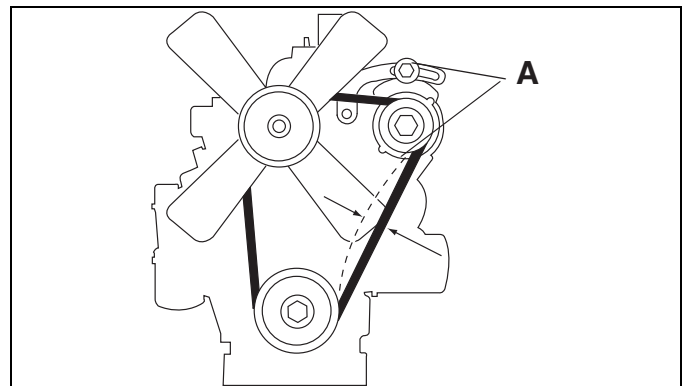


Figure 3A

3.3 THROTTLE

Check throttle adjustment, if engine runs below recommended RPM with throttle lever in its high speed position.

For all other engine adjustments refer to the Engine Owner's Manual supplied by the engine manufacturer.

1. Remove side cover from instrument panel.
2. Position throttle lever in its high speed position so that 1/16 - 1/4 in. (2-6 mm) gap exists between lever and panel (**D**).
3. With throttle lever on engine against max speed stop, adjust throttle cable nuts (**C**) so that eyelet (**B**) on cable fits over pin as shown.
4. Install push nut.

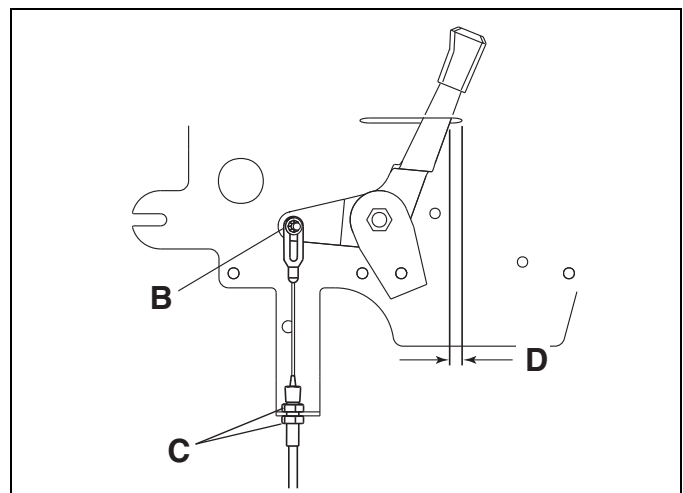


Figure 3B

3.4 NEUTRAL SWITCH AND 4WD CUT-OUT SWITCH

The traction pedal is designed to return to Neutral whenever the Forward or Reverse foot pedals are released. If the mower continues to creep after the traction pedal is released, check neutral adjustment and adjust traction pedal linkage.

1. Disconnect pump linkage from traction pedal.
2. With linkage disconnected, check position of return arm on drive pump. Pointer (E) on arm should be centered in the sensing area of switch (F).

Note: This switch forms part of the Interlock System and senses when the traction pedal is in Neutral. If the Interlock System fails to operate properly, have the switch checked and replaced before operating mower.

3. To adjust pointer, loosen nuts (G) and adjust screw (H) in or out as required to obtain correct adjustment.
4. Check Interlock System and operation of traction pedal after adjustment is made.

Machines equipped with four wheel drive include a switch to prevent operation of four wheel drive in Reverse. This switch is located on the same bracket as the neutral switch.

1. Loosen switch mounting hardware.

2. Adjust switch (I) as required to position the sensing area under the return arm as shown with pump in Neutral.

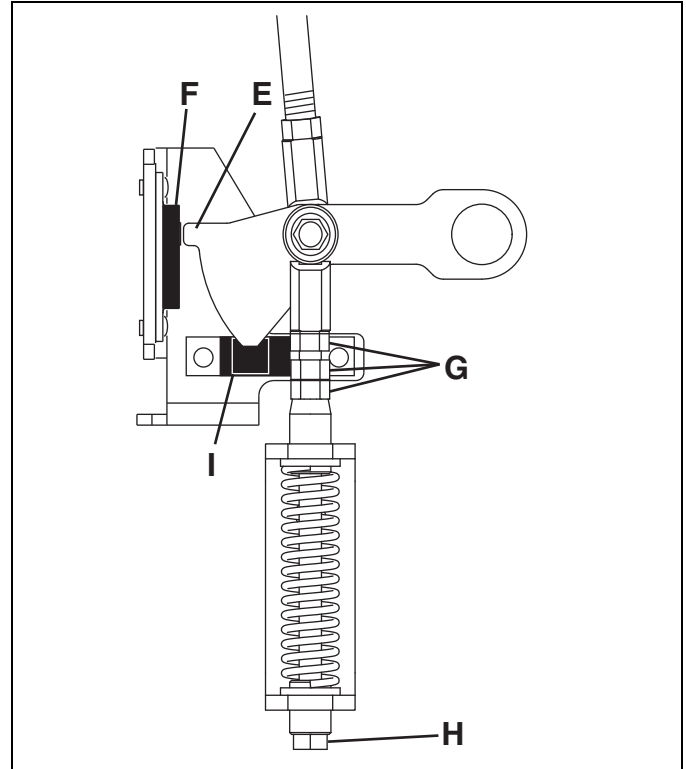


Figure 3C

3.5 TRANSPORT SPEED

Before making any speed adjustment at pump, check that the engine is running at full rpm under load and throttle lever is adjusted correctly (Section 3.3).

Note: This adjustment is only for adjusting forward transport speed. To adjust mowing speed, see Section 3.6.

1. Check Neutral adjustment and adjust if required.
2. Disconnect rod end (M) from traction pedal.
3. Push traction pedal (N) forward until it touches the floor panel.
4. Push return arm (K) on drive pump back until it hits the internal stop on pump housing, then pull slightly forward off the internal stop. In this position the pump is at full stroke.

Note: The return arm must not contact the internal stop on the pump housing during full stroke, or damage could occur to the pump or control linkage.

5. With both the pump and traction pedal at full forward stroke, adjust rod end (M) at pedal in or out as required so it aligns directly with hole (L) in link arm.

Note: Additional adjustment can be made on rod end at pump if necessary.

6. Connect rod end to pedal and tighten jam nut on rod to secure adjustment.
7. Check Interlock system for proper operation after adjustment has been made.

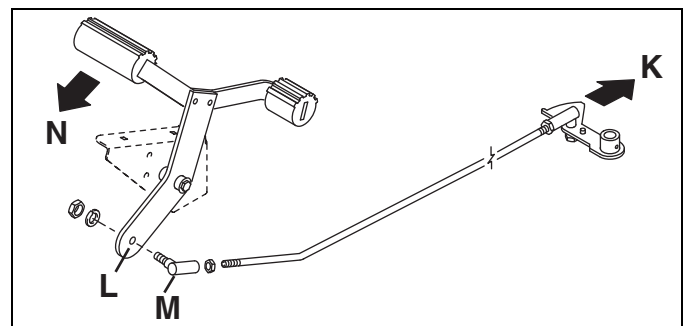


Figure 3D

3 ADJUSTMENTS

3.6 TRACTION PEDAL SPEED LIMITER

Cutting quality is better at speeds well below the transport speed of the mower. An initial mow speed of 6 mph is set at the factory and should be satisfactory for most cutting conditions. Local turf conditions however may respond better to a different speed.

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

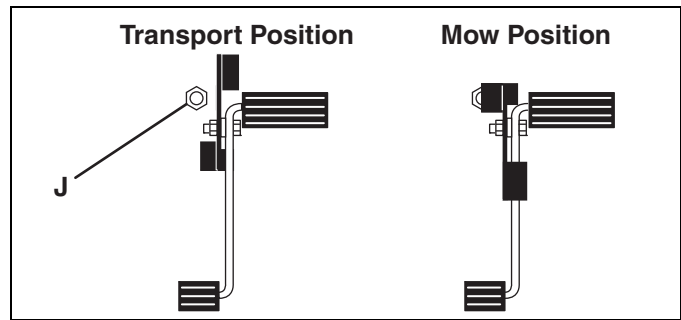


Figure 3E

3.7 PARKING BRAKE

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

1. When installing new brake pads, burnish pads by driving mower at mowing speed while applying a slight pressure on brake pedal for about 5 seconds. Release and repeat five times before making the final adjustment.
2. Fully loosen adjusting nut (**O**).
3. Disconnect brake return spring at caliper.
4. By hand, pull cable behind adjusting nut (**P**) away from pedal until brake pads just contact brake disk. Thread adjusting nut (**P**) up until it contacts the mounting plate. Tighten nut (**O**) to lock adjustment in place. Torque nut (**O**) to 20 ft. lb. (27 Nm). Do not over torque or turn cable.
5. Connect brake return spring. Repeat for second cable.

Start mower and check operation of brakes. Park mower on an incline (approx. 16.7° slope) and engage parking brake. Brake must prevent mower from rolling. Adjust nut (**P**) as required.

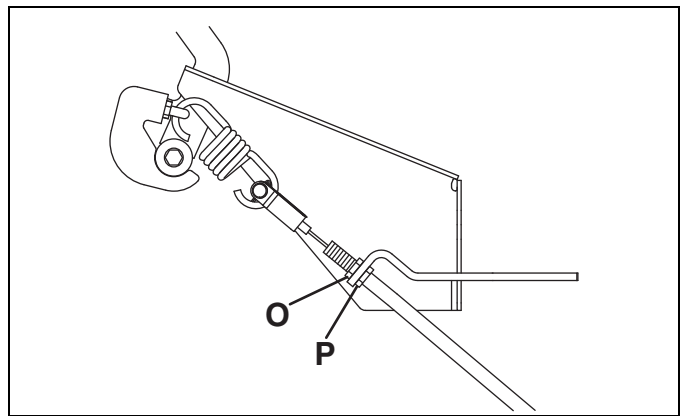


Figure 3F

3.8 BRAKE SWITCH

1. Use a volt/ohm meter to determine when switch contacts open or close.
2. Engage parking brake and adjust brake switch (**U**) as required to close contacts. Switch contacts should open when parking brake is disengaged.
3. Add or remove shims as required to obtain air gap of 3/32 to 1/8 in. (2 to 3 mm) is maintained between sensing surface of switch and brake arm.

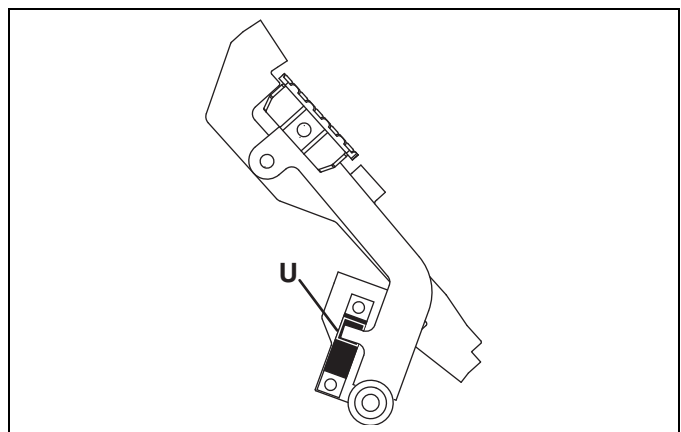


Figure 3G

3.9 STEERING ADJUSTMENTS

1. Turn wheels to straight ahead position.
2. Loosen jam nuts (**Q**) on both sides of tie rod (**R**).
3. Turn tie rod (**R**) to provide proper toe-in. Toe-in must not exceed +1/16 in. (1.5 mm) (**S**). Align ball joints and tighten jam nuts.
4. After adjusting tie rod, adjust steering cylinder by threading ball joint (**T**) in or out so spindle arm clears the stop on the axle by 1/16 to 1/8 in. (1.5 to 3 mm) when cylinder is fully extended.

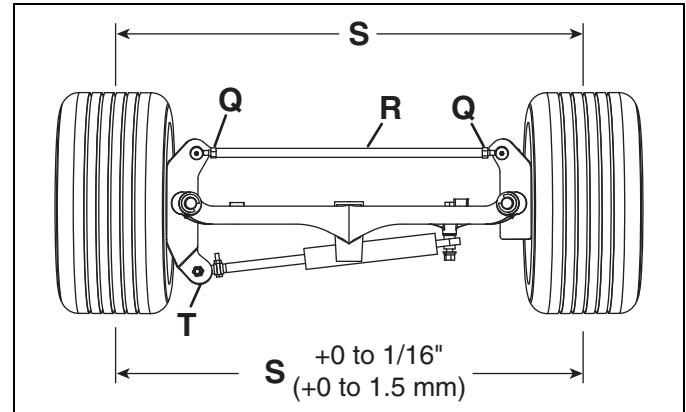


Figure 3H

3.10 LIFT LIMIT SWITCH

The center lift arm is equipped with a proximity switch which turns off the reels. The switch is mounted to the front axle directly behind the lift arms. If reels continue to run when lifted, or do not run when lowered inspect switch. Adjust or replace switch as needed.

To adjust switch:

1. Park mower on a flat, level surface.
2. Remove reel from lift arm.
3. Turn ignition switch to the OFF position and remove key.
4. Add or remove shims as required to obtain air gap between switch and arm of 0.090 to 0.120 in. (2 to 3 mm).
5. Use a volt/ohm meter to determine when switch contacts open or close.
6. Raise lift arm (**Z**) manually until it is at an angle of 30° above horizontal.
7. With lift arm (**Z**) at 30°, adjust switch (**Y**) as required, until switch contacts open. Secure switch in this position.
8. Manually lower lift arm. Switch contacts should close when arm lowers below 30°.

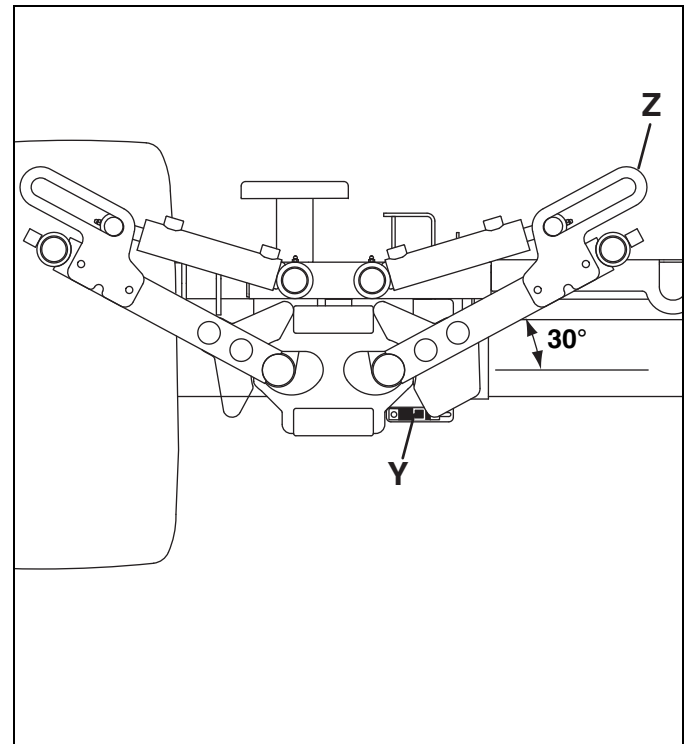


Figure 3I

Note: The switch sets the point where the reels turn off, not how high they will raise. The reels will actually raise to a position slightly above 30°.

3 ADJUSTMENTS

3.11 BEDKNIFE-TO-REEL

(Pre-adjustment Check)

1. Check the reel bearings for end play or radial play. There should be no end play or radial play. See **Section 3.14**.

CAUTION

To prevent personal injury and damage to the cutting edges, wear gloves and handle the reel and bedknife with extreme care.

2. Inspect the reel blades and bedknife to insure good sharp edges without bends or nicks.
 - a. The leading edge of the reel blades (**A**) must be sharp, free of burrs, and show no signs of rounding off.
 - b. The bedknife and bedknife backing must be securely tightened. The bedknife must be straight and sharp.
 - c. A flat surface of at least 1/16 in. (1.5 mm) minimum must be maintained on the front face of the bedknife. Use a standard flat file to dress the bedknife.
3. If wear or damage is beyond the point where the reel or bedknife can be corrected by the lapping process, they must be reground.
4. Proper reel-to-bedknife adjustment is critical. A gap of 0.001 to 0.003 in. (0.025 to 0.076 mm) must be maintained across the entire length of the reel and bedknife.

5. The reel must be parallel to the bedknife. An improperly adjusted reel will lose its sharp edges prematurely and may result in serious damage to the reel and bedknife.
6. Grass conditions will also affect the adjustment.
 - a. Dry, sparse conditions will require a wider gap to prevent heat buildup and damage to the reel and bedknife.
 - b. High quality grass with a good moisture content requires a closer gap (near zero).

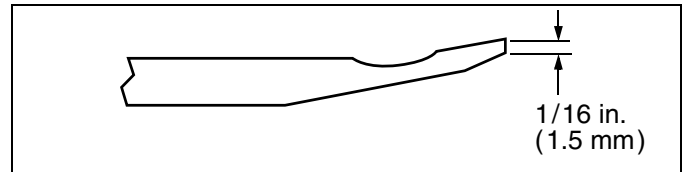


Figure 3J

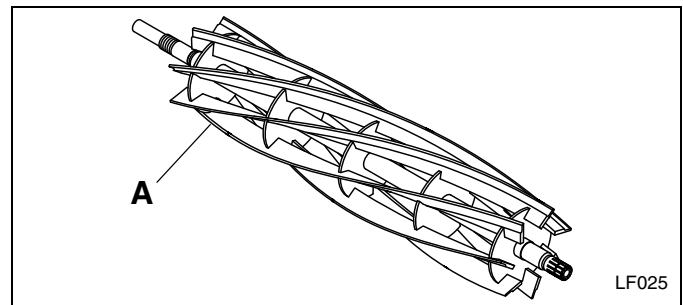


Figure 3K

3.12 BEDKNIFE ADJUSTMENT

1. Read **Section 3.11** before making the adjustment.
2. Start adjustment at the leading end of the reel, followed by the trailing end. *The leading end of the reel blades is that end which passes over the bedknife first during normal reel rotation.*
3. Use adjusters (**B** and **C**) to adjust gap. Loosen bottom adjuster (**C**) and turn top adjuster (**B**) down (clockwise) to close gap.
 - a. Slide a feeler gauge or shim stock 0.001 - 0.003 in. (0.025 - 0.075 mm) between the reel blade and the bedknife. *Do not turn the reel.*
 - b. Adjust the trailing end of the reel to the same gap in a similar manner then recheck the adjustment at the leading end.
 - c. When the reel is properly adjusted to the bedknife, the reel will spin freely, and you should be able to cut a piece of newspaper, along the

full length of the reel, when the paper is held at 90° to the bedknife.

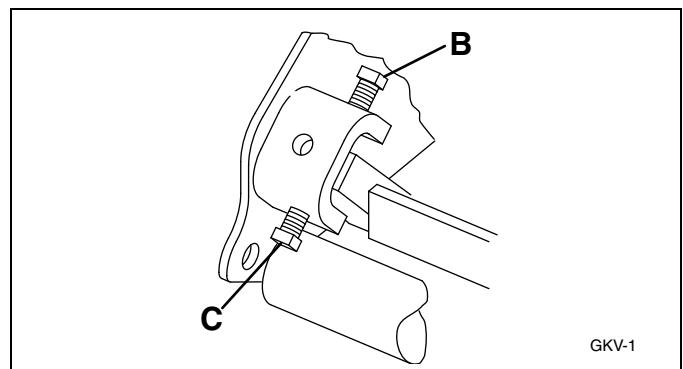


Figure 3L

Note: Avoid excessive tightening or serious damage may result to bedknife and reel blades. Reels must turn freely.

3.13 CUTTING HEIGHT

Note: Always make the reel to bedknife adjustment before adjusting height of cut. (**Sections 3.11 and 3.12**).

1. Raise mowers to transport position then engage the parking brake, stop engine, and remove key from ignition switch.
2. Set desired cutting height on the gauge (**D**).
 - a. Measure distance between the underside of screw head and gauge block surface (**E**).
 - b. Adjust screw (**F**) to obtain desired height then tighten the wing nut.
3. Loosen the nuts (**G**) on the front roller brackets just enough to allow the adjuster knob (**I**) to raise or lower the front roller.
4. Place gauge (**D**) across bottom of front and rear rollers near one end of roller.
5. Slide the head of gauge screw (**F**) over the bedknife (**H**) and adjust the knob (**I**) to close the gap between the screw head and bedknife. Then tighten locknut (**G**).

6. Repeat Steps 4 and 5 on opposite end. Complete adjustment to one end before adjusting opposite end.
7. Tighten nuts (**G**) and recheck each end.

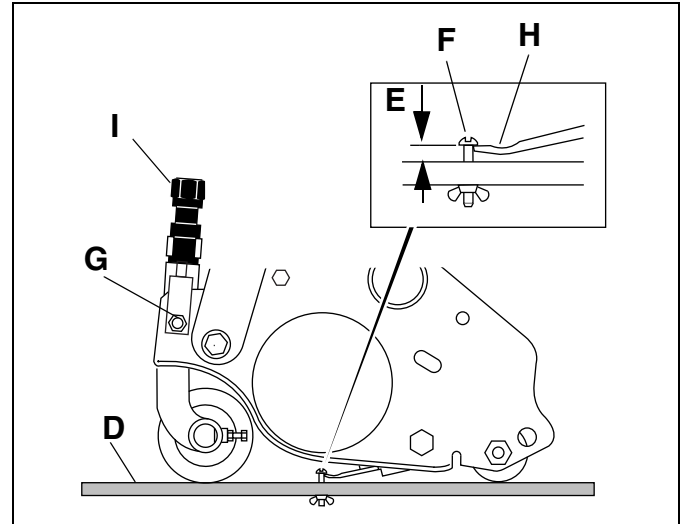
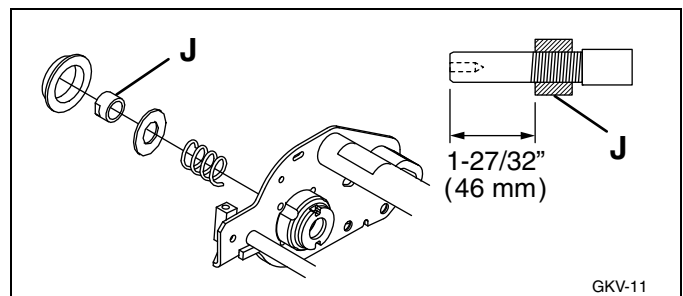


Figure 3M

3.14 REEL BEARING

Any end play or radial play indicates bad bearings, a weak tension spring, or a backed-off nut.

1. Check bearing housing mounting hardware. Tighten or replace components as required. Carefully clean threads with degreaser.
2. Apply a medium strength grade of Loctite to nut (**J**), then thread nut onto the reel shaft until the nut is 1-27/32 in. (46 mm) from the end of the reel shaft.
3. Fill reel bearing housings with NLGI - Grade O grease after adjusting spring.



GKV-11

Figure 3N

3 ADJUSTMENTS

3.15 FLASH ATTACH

Installing Cutting units

1. Place each cutting unit in front of its respective lift arm. Raise lift arm and position cutting unit so that yoke (**R**) is in line with swivel housing (**Q**). Carefully lower arm onto yoke. Insert pin (**L**) through hole in yoke, fasten retaining clip (**K**), and install cap (**M**).
2. Assemble motors (**N**) with hoses attached to the cutting units. Clean motor splines and coupling. Apply Moly 2 EP grease to the female spline on reel. Thoroughly clean the motor mounting surface. Slide motor into bearing housing. Lock motor in place by inserting two motor clips (**O**) with loops facing center of motor, into mounting pins (**P**).
3. Raise reels and install down pressure spring pins (**T**, **Figure 3P**). If cutting height has not changed, set pins in same position they were in when reels were removed.

Removing Cutting Units

1. Lower reels to the ground and remove down pressure spring pins (**T**, **Figure 3P**). Make note of where springs are set.
2. Remove motor clips (**O**). Pull motor straight out from cutting unit.
3. Carefully place motor and its hoses away from the cutting unit. To prevent contamination and damage to internal components cover or cap off bearing housing cavity.

4. Remove cap (**M**) on lift arm. Unfasten retaining clip (**K**) from pin (**L**) and remove pin.
5. Carefully raise arm until cutting unit can be removed.

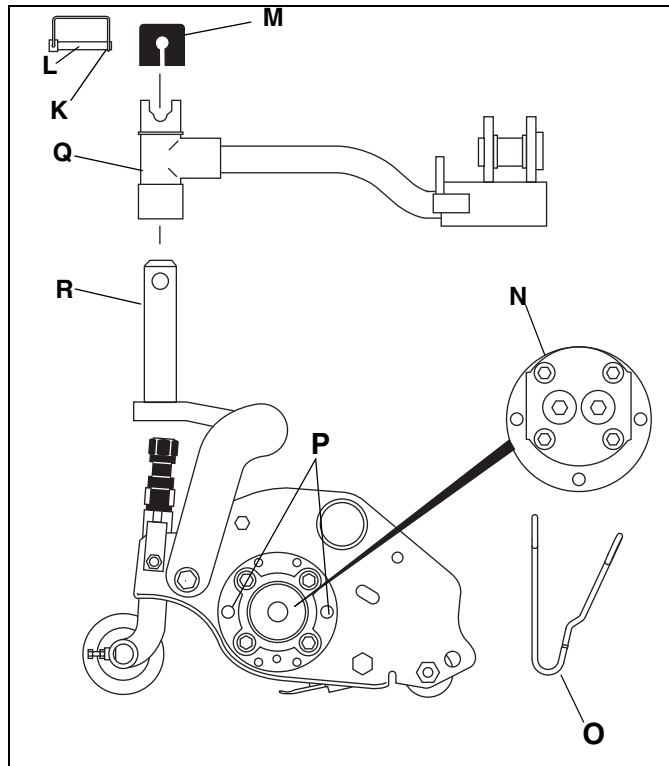


Figure 30

3.16 DOWN PRESSURE

Each reel is equipped with a down pressure spring. Down pressure improves cutting quality by ensuring consistent contact between the reel and ground. Check and adjust down pressure any time cutting height has been changed or to optimize the cut for best performance.

1. With reels raised, place pin (**T**) in 4th hole from ball joint. Lower reels onto a flat surface before measuring down pressure.
2. Initially set distance between ball joint center and rod cross pin center to 8-15/16 in. \pm 1/16 in. (227 mm \pm 2 mm). To adjust length, loosen lock nut (**S**) and turn rod (**U**) in or out of ball joint.
3. Measure length of spring as shown on all five reels. Record the shortest spring dimension and set the other springs by adjusting rods (**U**) to that dimension \pm 1/16 in. (2 mm). The rod cross pin must be horizontal, then tighten locknut (**S**).
4. To adjust down pressure, move pin one hole towards spring to increase pressure, or one hole away from spring to decrease pressure on rear roller.

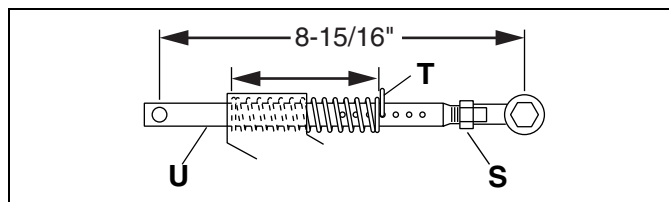


Figure 3P



3.17 TORQUE SPECIFICATION



NOTICE






All torque values included in these charts are approximate and are for reference only. Use of these torque values is at your sole risk. Jacobsen is not responsible for any loss, claim, or damage arising from the use of these charts.

Extreme caution should always be used when using any torque value.

Jacobsen uses Grade 5 bolts as standard, unless otherwise noted.

AMERICAN NATIONAL STANDARD FASTENERS			
SIZE	UNITS		
		GRADE 5	GRADE 8
#6-32	in-lbs (Nm)	20 (2.3)	–
#8-32	in-lbs (Nm)	24 (2.7)	30 (3.4)
#10-24	in-lbs (Nm)	35 (4.0)	45 (5.1)
#10-32	in-lbs (Nm)	40 (4.5)	50 (5.7)
#12-24	in-lbs (Nm)	50 (5.7)	65 (7.3)
1/4-20	in-lbs (Nm)	95 (10.7)	125 (14.1)
1/4-28	in-lbs (Nm)	95 (10.7)	150 (17.0)
5/16-18	in-lbs (Nm)	200 (22.6)	270 (30.5)
5/16-24	in-lbs (Nm)	240 (27.1)	300 (33.9)
3/8-16	ft-lbs (Nm)	30 (40.7)	40 (54.2)
3/8-24	ft-lbs (Nm)	35 (47.5)	45 (61.0)

AMERICAN NATIONAL STANDARD FASTENERS			
SIZE	UNITS		
		GRADE 5	GRADE 8
7/16-14	ft-lbs (Nm)	50 (67.8)	65 (88.1)
7/16-20	ft-lbs (Nm)	55 (74.6)	70 (94.9)
1/2-13	ft-lbs (Nm)	75 (101.7)	100 (135.6)
1/2-20	ft-lbs (Nm)	85 (115.3)	110 (149.2)
9/16-12	ft-lbs (Nm)	105 (142.4)	135 (183.1)
9/16-18	ft-lbs (Nm)	115 (155.9)	150 (203.4)
5/8-11	ft-lbs (Nm)	150 (203.4)	195 (264.4)
5/8-18	ft-lbs (Nm)	160 (217.0)	210 (284.8)
3/4-10	ft-lbs (Nm)	170 (230.5)	220 (298.3)
3/4-16	ft-lbs (Nm)	175 (237.3)	225 (305.1)
7/8-14	ft-lbs (Nm)	300 (406.8)	400 (542.4)

METRIC FASTENERS							
SIZE	UNITS						Non Critical Fasteners into Aluminum
M4	Nm (in-lbs)	1.2 (11)	1.7 (15)	2.9 (26)	4.1 (36)	5.0 (44)	2.0 (18)
M5	Nm (in-lbs)	2.5 (22)	3.2 (28)	5.8 (51)	8.1 (72)	9.7 (86)	4.0 (35)
M6	Nm (in-lbs)	4.3 (38)	5.7 (50)	9.9 (88)	14.0 (124)	16.5 (146)	6.8 (60)
M8	Nm (in-lbs)	10.5 (93)	13.6 (120)	24.4 (216)	33.9 (300)	40.7 (360)	17.0 (150)
M10	Nm (ft-lbs)	21.7 (16)	27.1 (20)	47.5 (35)	66.4 (49)	81.4 (60)	33.9 (25)
M12	Nm (ft-lbs)	36.6 (27)	47.5 (35)	82.7 (61)	116.6 (86)	139.7 (103)	61.0 (45)
M14	Nm (ft-lbs)	58.3 (43)	76.4 (55)	131.5 (97)	184.4 (136)	219.7 (162)	94.9 (70)

3.18 SPECIFIC TORQUE

1. Ball joints: 30-35 ft-lb (40.5 - 47.2 Nm).
2. Bedknife shoe: 25 - 37 ft-lb (34 - 50 Nm).
3. Steering wheel nut: 25 - 30 ft-lb (34 - 41 Nm).
4. Wheel Bolts: 85-95 ft-lbs (115-128 Nm).

4 MAINTENANCE

4.1 GENERAL



WARNING

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

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

1. Adjustment and maintenance should always be performed by a qualified technician. If proper adjustments cannot be made, contact an Authorized Jacobsen Dealer.
2. Inspect the equipment on a regular basis. establish a maintenance schedule, and keep detailed records.
 - a. Keep the equipment clean.

- b. Keep all moving parts properly adjusted and lubricated.
- c. Replace worn or damaged parts before operating the machine.
- d. Keep all fluids at their proper levels.
- e. Keep shields in place and all hardware securely fastened.
- f. Keep tires properly inflated.

3. Long hair, jewelry or loose fitting clothing may get tangled in moving parts.
4. Use the illustrations in the Parts Catalog as reference for the disassembly and reassembly of components.
5. Recycle or dispose of all hazardous materials (batteries, fuel, lubricants, anti-freeze, etc.) according to federal, state, and local regulations.

4.2 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.

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.*

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.
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 break-in period.
3. Change engine oil and oil filter element after first 50 hours of operation.
4. Check and adjust fan and alternator belts.
5. Refer to **Section 6.3** and **Engine Manual** for specific maintenance intervals.

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

4.3 ENGINE OIL

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

Perform initial oil change after first 50 hours of operation and every 200 hours thereafter. See **Engine Manual**.

Use only engine oils with API classification CD/CE.

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

4.4 AIR FILTER

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

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

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

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

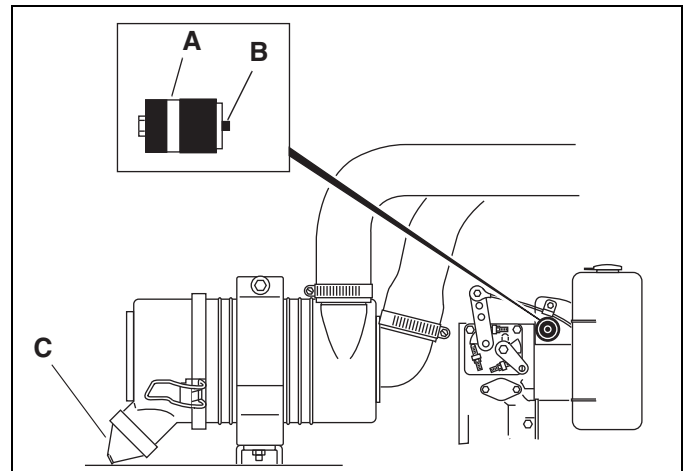


Figure 4A

4.5 FUEL

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

WARNING

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

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

Do not spill fuel and clean spilled fuel immediately.

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

Be sure to reinstall and tighten fuel cap securely.

- Fill the fuel tank to full mark on fuel gauge.
- Store fuel according to local, state, or federal ordinances and recommendations from your fuel supplier.
- Never overfill or allow the tank to become empty.
- Check fuel lines and clamps every 50 hours. Replace fuel lines and clamps at the first sign of damage.
- Use clean, fresh, #2, Low or Ultra Low Sulfur Diesel fuel. Minimum Cetane rating 45. Refer to Engine Manual for additional information.

4.6 FUEL SYSTEM

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

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

Turn the key switch to the ON position to start the fuel pump and bleed the fuel system if the fuel filter and lines have been removed or the fuel tank has become empty. See **Engine Manual**.

4 MAINTENANCE

4.7 BATTERY

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



CAUTION

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

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

Always disconnect battery cables from battery before performing any welding operation on the mower.

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

Verify battery polarity before connecting or disconnecting the battery cables.

4.8 JUMP STARTING

Before attempting to jump start the mower, check the condition of the discharged battery. **See Section 4.7.**



WARNING

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

4.9 CHARGING BATTERY



WARNING

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

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

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



WARNING

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

When connecting jumper cables:

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

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

1. Refer to **Section 4.7.** 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.

4.10 HYDRAULIC HOSES

WARNING

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

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

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

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

- a. Before disconnecting any hydraulic component, tag or mark the location of each hose then clean the area around the fittings.
- b. As you disconnect the component be prepared to assemble plugs or caps to the hose ends and open ports. This will keep impurities out of the hydraulic system and also prevent oil spills.
- c. Make sure O-rings are clean and hose fittings are properly seated before tightening.
- d. Keep the hoses from twisting. Twisted hoses can cause couplers to loosen as the hoses flex 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.

4.11 HYDRAULIC OIL AND FILTERS

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

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

Always replace the hydraulic filter when changing oil.

To change hydraulic oil:

1. Clean the area around the oil cap to prevent impurities from entering and contaminating the system.
2. Remove drain plug from bottom of main tank.
3. After oil has drained install drain plug and fill with Jacobsen GreensCare 68.
4. Purge air from system.
 - a. To prevent reels from overheating, disconnect motors from reels.
 - b. Operate all mower functions for about 5 minutes to purge air out of the system and stabilize the oil level.
 - c. Once the level has stabilized and the air is purged, fill tank to Full mark on gauge.

The hydraulic system is protected by two 10 micron filters. The return filter is located under the frame near the hydraulic oil tank. The charge filter is located on the right side of the front axle mount.

To replace hydraulic oil filter:

1. Remove the old filter.
2. Fill new filter with oil then install new filter. Hand tighten only.
3. Operate engine at idle speed with hydraulic system in Neutral for five minutes.
4. Check hydraulic oil level and fill to Full mark on gauge.

4 MAINTENANCE

4.12 ELECTRICAL SYSTEM

CAUTION

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

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

1. Make certain all terminals and connections are clean and properly secured.
2. Check the Interlock System and fuses regularly.
If the Interlock System does not function properly and the problem cannot be corrected, contact an authorized Jacobsen Dealer.
3. Keep the wire harness and all individual wires away from moving parts to prevent damage.
4. Make sure the seat switch harness is connected to the main wire harness.
5. Check the battery and battery charging circuit.
6. Do not wash or pressure spray around electrical connections and components.

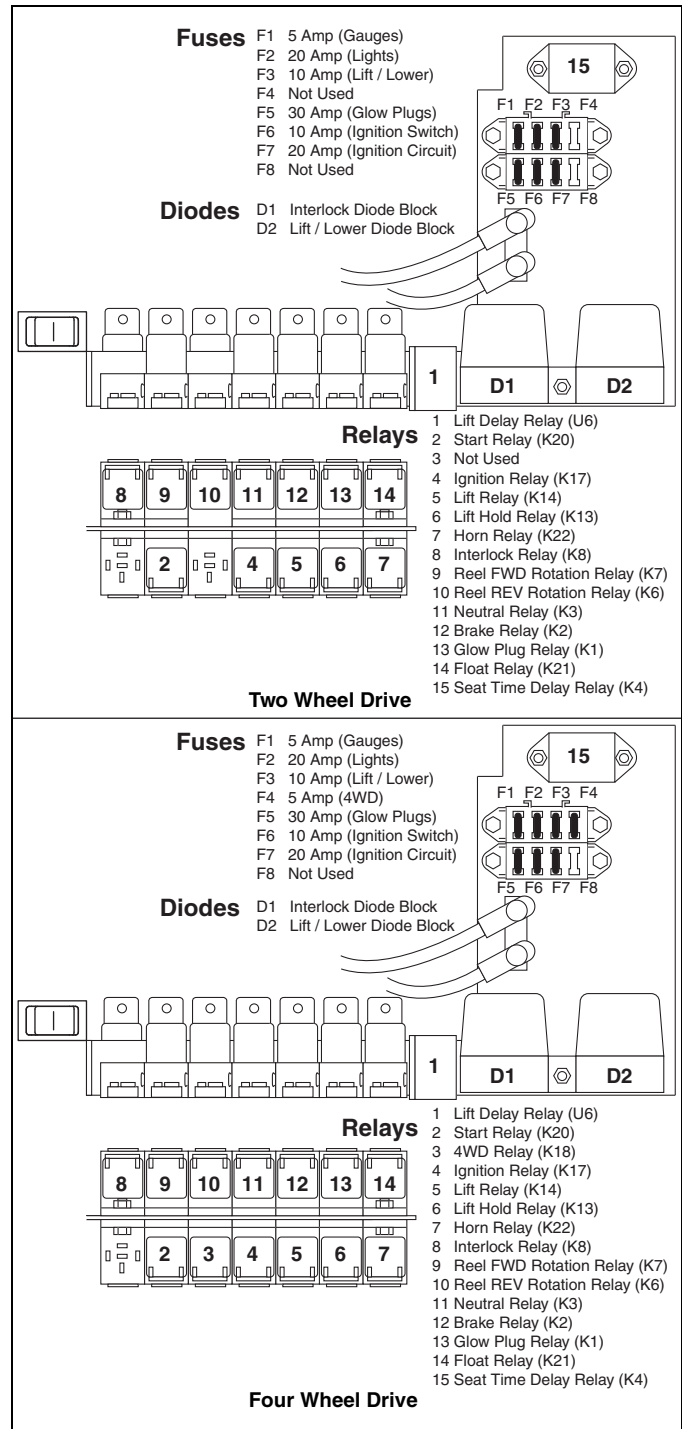


Figure 4B

4.13 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 leaking exhaust clamps.

4.14 TIRES

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

4. Check the pressure with an accurate, low pressure tire gauge.

5. Keep tires inflated to:

Front : 10-12 psi (0.69 - 0.83 BAR)

Rear: 8-10 psi (0.55 - 0.69 BAR)

CAUTION

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

4.15 WHEEL MOUNTING PROCEDURE

WARNING

Make sure the mower is parked on a solid and level surface. Never work on a mower that is supported only by a 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 ensure full contact between mounting surface of wheel and hub or brake drum.

3. Finger tighten all hardware, then torque hardware in criss-cross order. Always tighten nuts in the top (12 o'clock) position.

4. Check and torque daily until 85-95 ft-lbs (115-128 Nm) torque is maintained.

4.16 ROLL OVER PROTECTIVE STRUCTURE (ROPS)

A ROPS has been installed on this mower at the factory. Inspect it periodically and follow operating procedures described in the **Safety & Operation Manual**.

CAUTION

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

1. Regularly inspect the seat, seat belt, mounting hardware, and any accessories within the ROPS. *Replace all damaged parts immediately.*

2. Once the ROPS has been subjected to any form of impact it should be replaced.

3. Check and retorque all hardware. All replacement components used for the ROPS must be as specified in the parts list.

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 mower while mower 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 effluent 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.

4.18 RADIATOR



WARNING

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



CAUTION

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

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

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

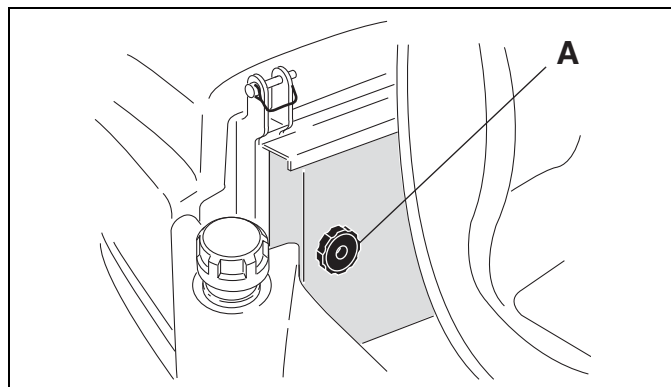
Mix clean water with ethylene glycol based antifreeze for the coldest ambient temperature. Read and follow the instructions on the antifreeze container and **Engine Manual**.

Check and tighten the fan belt annually. Replace clamps and hoses every two years.

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

To clean radiator

1. Remove knobs **(A)** securing screen to oil cooler and remove screen. Pull oil cooler forward to provide access to radiator.
2. Use a blow gun to clean screen, oil cooler, and radiator.



4.19 BACKLAPPING



WARNING

To prevent injury, keep hands, feet, and clothing away from rotating reels.

When the backlap switch is in the Reverse position, the reels will turn whether the operator is on or off the seat.

Carbon Monoxide in exhaust fumes can be fatal when inhaled, never operate an engine without proper ventilation.

Check the reel and bedknife to determine if backlapping or grinding will restore the cutting edge.

If wear or damage is beyond the point where the cutting edges can be corrected by the lapping process, they must be reground.

To Backlap:

1. Adjust reel to bedknife as described in **Sections 3.11** and **3.12**.
2. Lower the reels to the ground.

3. Open the hood and turn the backlap switch to Reverse rotation. Close hood.
 - a. Make absolutely certain your feet and clothing are far away from the reel.
 - b. Make sure the parking brake is engaged, reel switch is Off, and the traction pedal is in Neutral.
 - c. Start the engine. Adjust throttle just above minimum RPM and place the reel switch in On position.
4. Adjust the reel valves located under the operator platform, to the desired speed.
5. Apply lapping compound with a long handle brush to high spots first then along entire length of the reel.
6. Continue lapping and at the same time make a slight adjustment on the reel until there is a uniform clearance along the full length of the cutting edges.
7. When the blades have been evenly honed, carefully and thoroughly clean off the remaining lapping compound.
8. Disengage reel switch and stop the engine. Open the hood and return backlap switch to Forward

4 MAINTENANCE

4.20 STORAGE

General

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

Battery

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

Engine (General)

1. While the engine is warm, remove the drain plug, drain the oil from the crankcase, and change oil filter. Install drain plug and refill with fresh oil. Let engine cool before storing.
2. Clean exterior of engine. Paint exposed metal or apply a light coat of rust preventative oil.
3. Add a fuel conditioner or biocide to prevent gelling or bacterial growth in fuel. See your local fuel supplier.
4. If storing indoors, drain fuel from tank.
5. Close fuel shut off valve.

Cutting Units

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



CAUTION

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

After Storage

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



WARNING

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

5.1 GENERAL TROUBLESHOOTING

The troubleshooting chart below lists basic problems that may occur during start-up and operation. For more detailed information regarding the hydraulic and electrical systems contact your area Jacobsen Dealer.

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

6 MAINTENANCE & LUBRICATION CHARTS

6.1 GENERAL

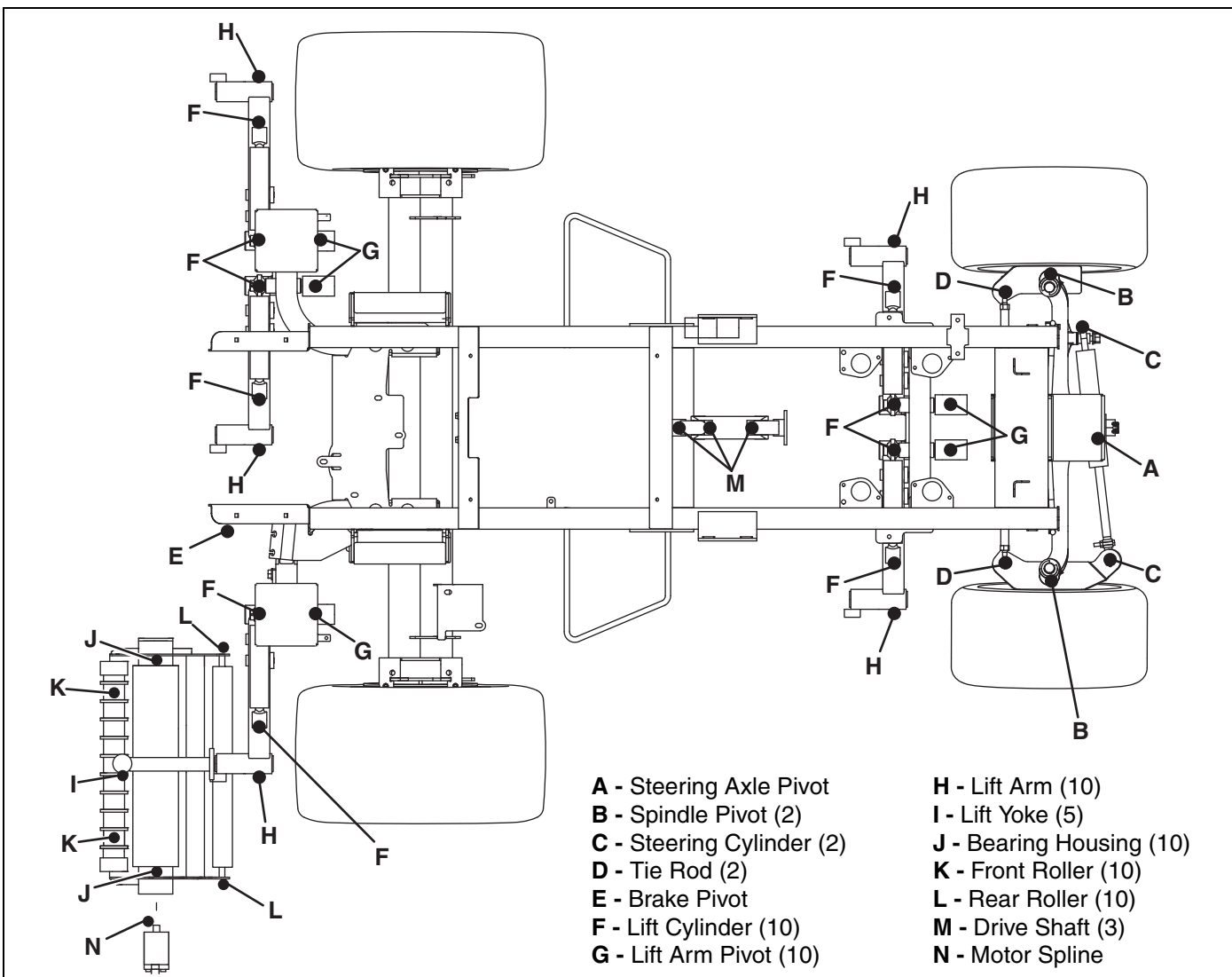
WARNING

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

1. Always clean the grease fitting before and after lubricating.

2. Lubricate with grease that meets or exceeds NLGI Grade 2 LB specifications. Apply grease with a manual grease gun and fill slowly until grease begins to seep out. *Do not use compressed air guns.*
3. Periodically apply a small amount of lithium based grease to the seat runners.
4. For smooth operation of all levers, pivot points, and other friction points that are not shown on the lubrication chart apply several drops of SAE 30 oil every 40 hours or as necessary.
5. Grease fittings (**A - I**) every 50 hours, fittings (**J - M**) every 100 hours and (**N**) every 250 hours.

6.2 LUBRICATION CHART



MAINTENANCE & LUBRICATION CHARTS 6

6.3 MAINTENANCE CHARTS

Recommended Service and Lubrication Intervals

	Every 8-10 Hours	Every 50 Hours	Every 100 Hours	Every 200 Hours	Every 400 Hours	Every 500 Hours	Every 1000 Hours	Yearly	See Section	Lubricant Type
Air Filter	I		AR					R	4.4	
Battery Charge			I-C						4.7	
Belts	I-A*		I-A			R			3.2	
Brake		I-A*		A					3.7	
Cooling System	I-C-A							R**	4.18	IV
Electrical System	I			I					4.12	
Engine Oil	I	R*		R					4.3	II
Engine Oil Filter		R*		R						
Fuel System		I							4.6	
Fuel Filter					R				4.6	
Grease Fittings - All		L	L			L			6.2	I
Hydraulic Hoses and Tubes	I***			I					4.10	
Hydraulic Oil	I-A					R**			4.11	III
Hydraulic Oil Return Filter	I	R*				R			4.11	
Hydraulic Oil Charge Filter	I	R*				R			4.11	
Muffler and Exhaust	I			I					4.13	
Radiator Screens	I-C/AR								4.18	
Tires	I	I-A							4.14	

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

* Indicates initial service for new machines.

** Or every two years whichever comes first.

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

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

II - Engine Oil - See Section 4.3.

III - Use Jacobsen GreensCare 68 hydraulic fluid: Capacity: 8 gallons (30 Liters). Order Part No. 5003102, containing 55 gal. (208 liter) drum or Part No. 5003103 containing 5 gal. (19 liters), pail.

IV - 50/50 water ethylene glycol mix.

7 PARTS CATALOG

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 ●, 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	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.

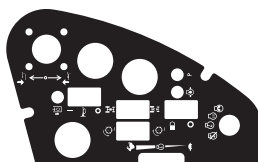
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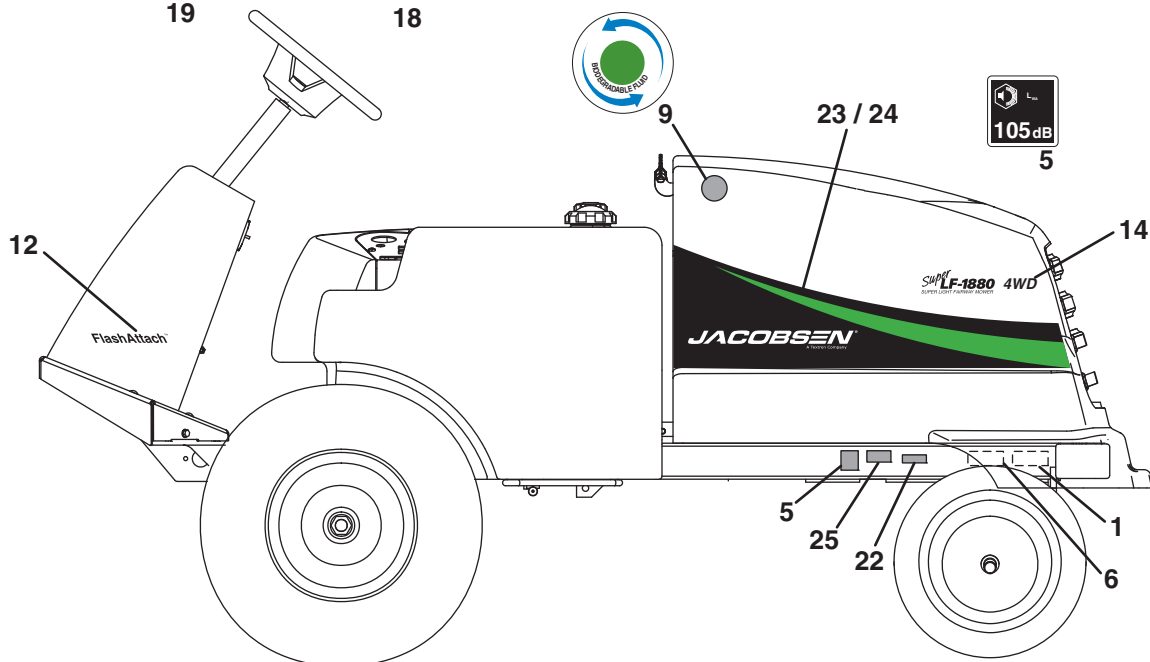
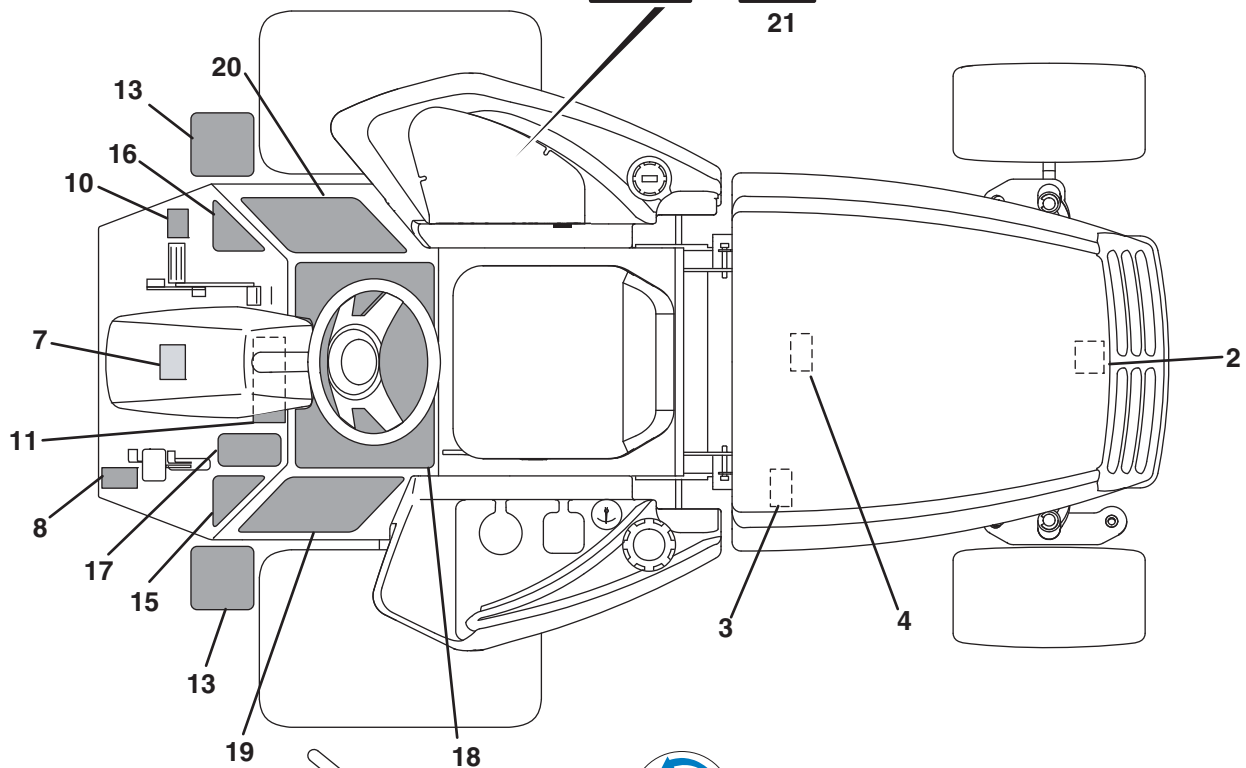
1.1 Decals



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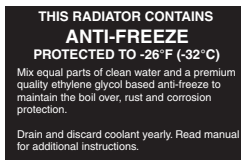




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2



3



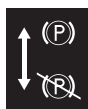
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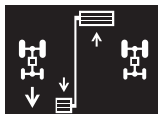
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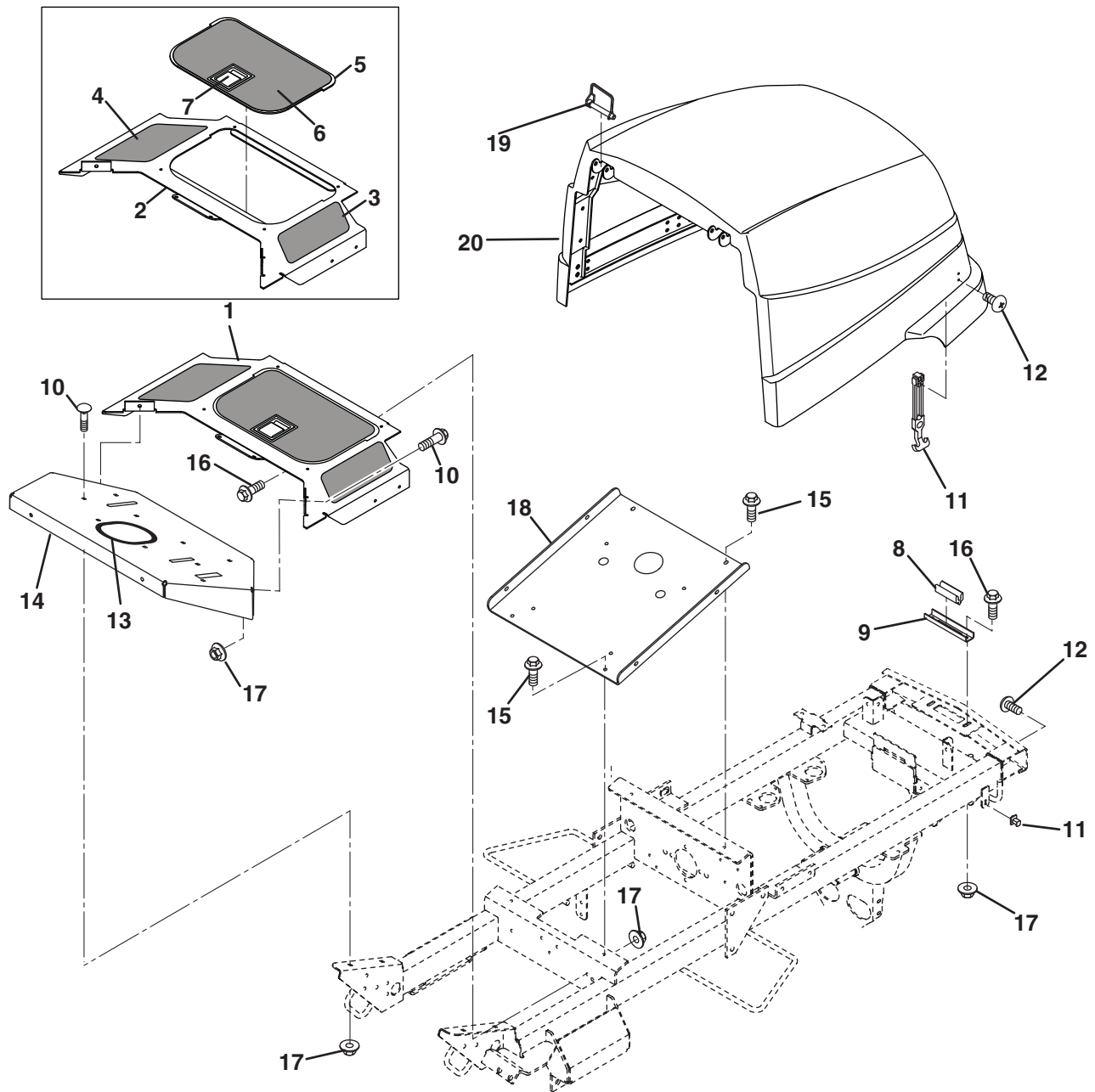


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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4181861	1	Decal, Starting Fluids	Located on frame near air cleaner
2	4181864	1	Decal, Battery Danger	Located on battery strap
3	363995	1	Decal, Anti-Freeze	Located on left side of radiator
4	4181862	1	Decal, Radiator Warning	Located on top of radiator
5	4117468	1	Decal, Noise 105 Db	
6	4181860	2	Decal, Read Manual	
7	4182386	1	Emblem, Jacobsen	
8	3008004	1	Decal, Brake	
9	4111408	2	Decal, 2-1/2" Biofluid	
10	3008521	1	Decal, Traction Pedal	
11	4181865	1	Decal, Instruction	
12	3008930	2	Decal, Flash Attach	
13	4117791	2	Pad, Step	
14	4118842	2	Decal, Super LF 1880 4WD	Remove 4WD Portion for 2WD Units
15	3006516	1	Pad, L.H. Platform	
16	3006517	1	Pad, R.H. Platform	
17	3006515	1	Pad, Center Platform	
18	4197482	1	Pad, Center Floorboard	
19	3006513	1	Pad, L.H. Floorboard	
20	3006514	1	Pad, R.H. Floorboard	
21	4101284	1	Decal, Instrument Panel	
22	REF	1	Serial Plate	
23	4218280	1	Decal, LH Stripe	Included with Hood
24	4218281	1	Decal, RH Stripe	Included with Hood
25	4194324	1	Decal, Patent	

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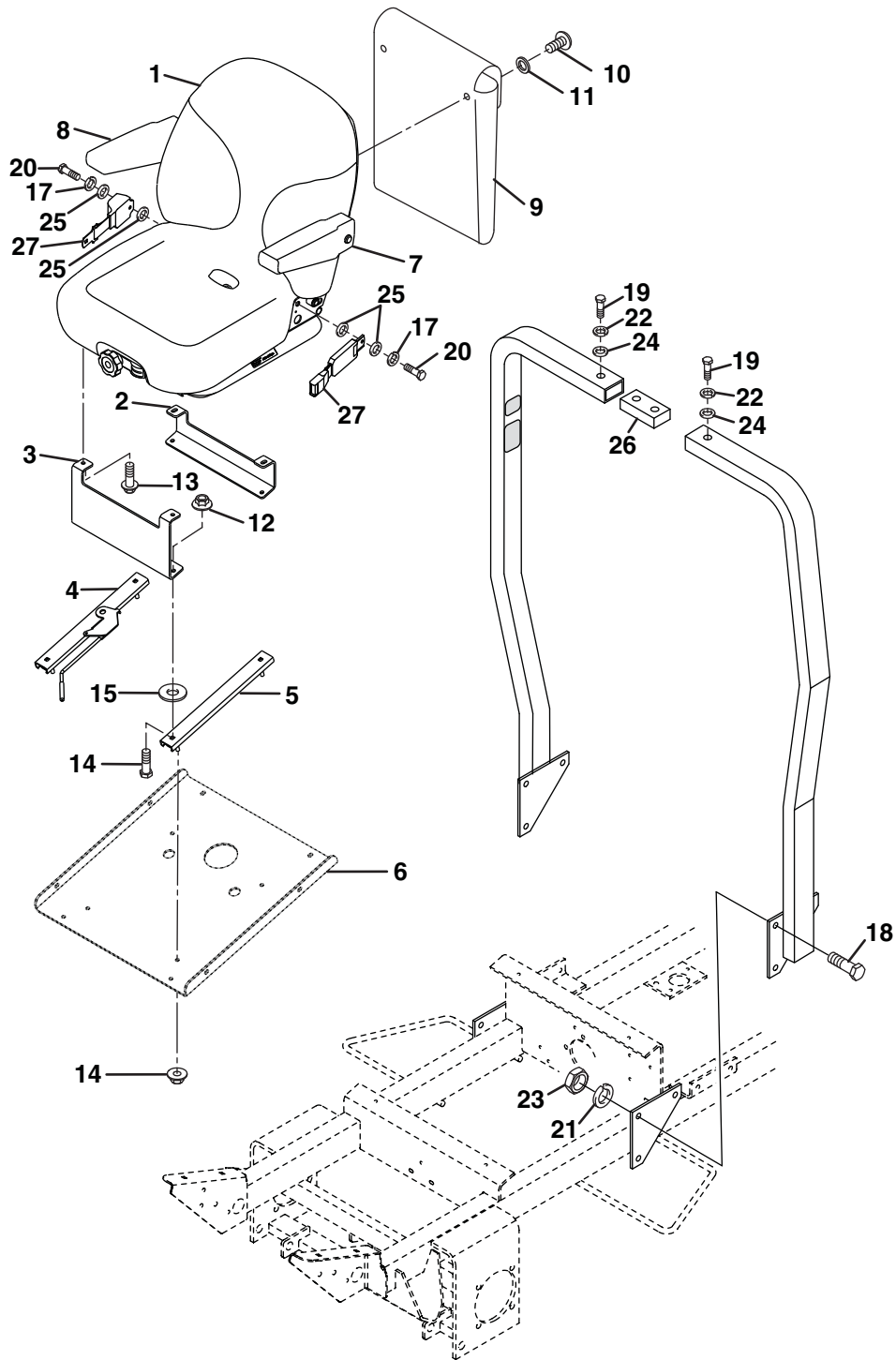
2.1 Body Components



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4205760	1	Floorboard Assembly	
2	4205780	1	• Floorboard	
3	3006513	1	• • Pad, Left Side Floorboard	
4	3006514	1	• • Pad, Right Side Floorboard	
5	4197483	1	• Floor Plate	
6	4123723	1	• • Latch	
7	4197482	1	• • Pad, Floor Plate	
8	3006571	1	Extrusion, Hood Closure	
9	4116780	1	Channel, Mounting	
10	441602	6	Carriage Bolt, 5/16-18 x 3/4"	
11	1001758	2	Latch, Flexible Draw	
12	403910	6	Screw, #10-24 x 1/2" Truss Head	
13	557620	AR	Molding (Cut to 9 in.)	
14	4102681	1	Platform	
15	409812	4	Screw, 5/16-18 x 3/4" Thread Cut	
16	403770	2	Screw, 5/16-18 x 3/4" Hex Flange	
17	445781	8	Nut, 5/16-18 Whiz-Lock	
18	3005650	1	Seat Pan	
19	3007798	2	Lock Pin	
20	4212240	1	Hood Assembly	

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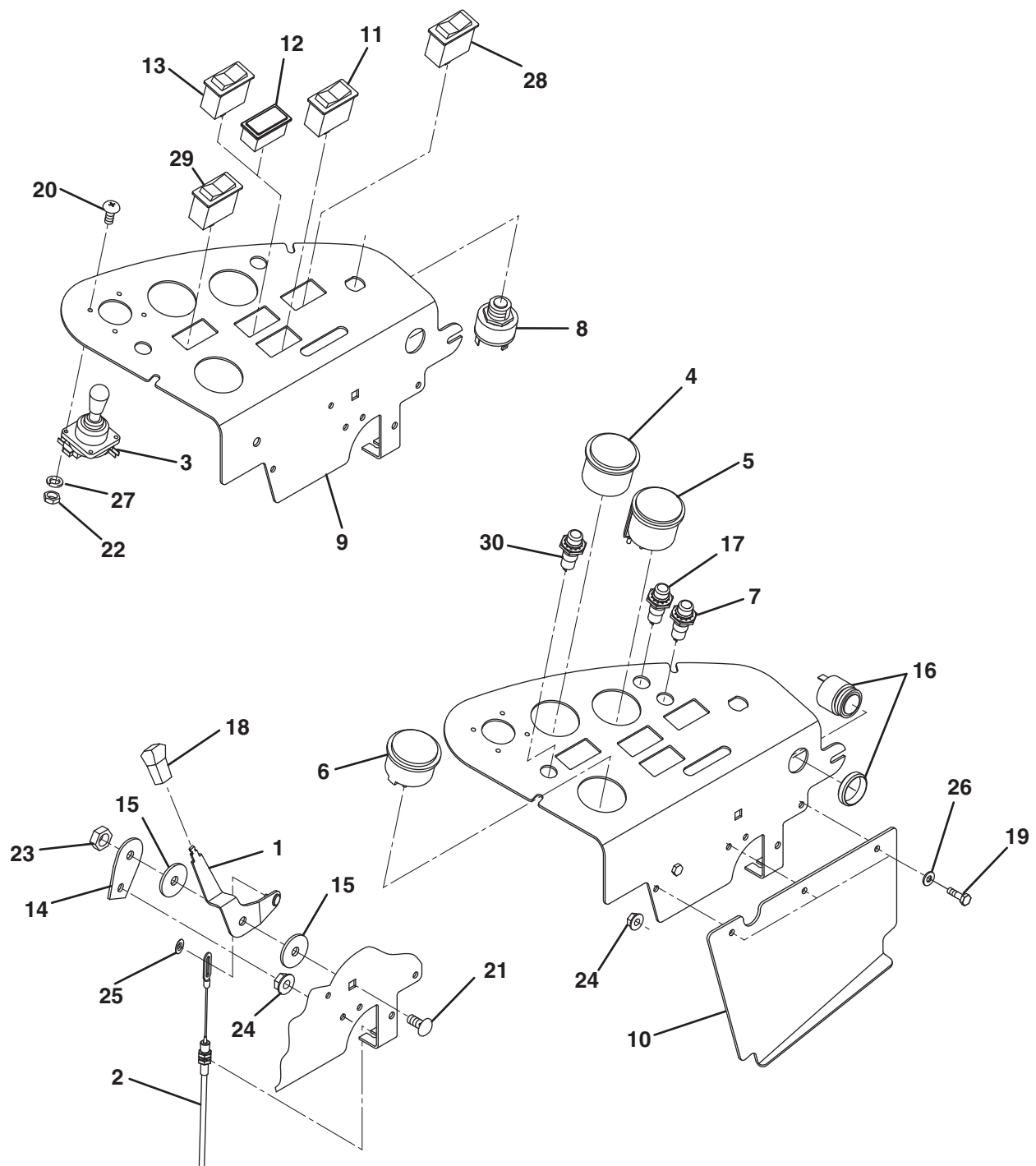
3.1 Seat and ROPS



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4139433	1	Seat Assembly Suspension	REFERENCE SW5, See 46.1
	4139450	1	• Switch, Seat	
	5003769	1	• Wire Assembly	
2	4139169	1	Bracket, Rear Seat	See 2.1
3	4139170	1	Bracket, Front Seat	
4	523356	1	Adjuster, Latching	
5	523357	1	Adjuster, Slave	
6	3005650	1	Seat Pan	
	4139436	1	Kit, Arm Rest (V5300)	
7	4139434	1	• Kit, Arm Rest LH	
8	4139435	1	• Kit, Arm Rest RH	
9	3003928	1	Pouch, Literature	
10	800943	2	T-Screw, #10-16 x 3/4 BS PR Plastic	
11	452004	2	Flat Washer, 1/4"	
12	445781	8	Nut, 5/16-18 Spirallock Flange	
13	409812	4	Screw, 5/16-18 x 3/4" Thread Cutting	
14	400188	4	Screw, 5/16-18 x 1" Hex Head	
15	831053	4	Spacer, Seat	
16	66194	1	ROPS	
17	446148	2	• Lockwasher, 7/16	
18	400408	6	• Screw, 1/2-13 x 1-1/2 Hex Hd	
19	400262	2	• Screw, 3/8-16 x 1" Hex Hd	
20	400370	2	• Screw, 7/16-20 x 1" Hex Hd	
21	446154	6	• Lockwasher, 1/2	
22	446142	2	• Lockwasher, 3/8	
23	443118	6	• Nut, 1/2-13 Hex	
24	452008	2	• Flat Washer, 3/8	
25	452010	4	• Flat Washer, 7/16	
26	N/S	1	• Connecting Tube	
27	4139437	1	• Seat Belt	

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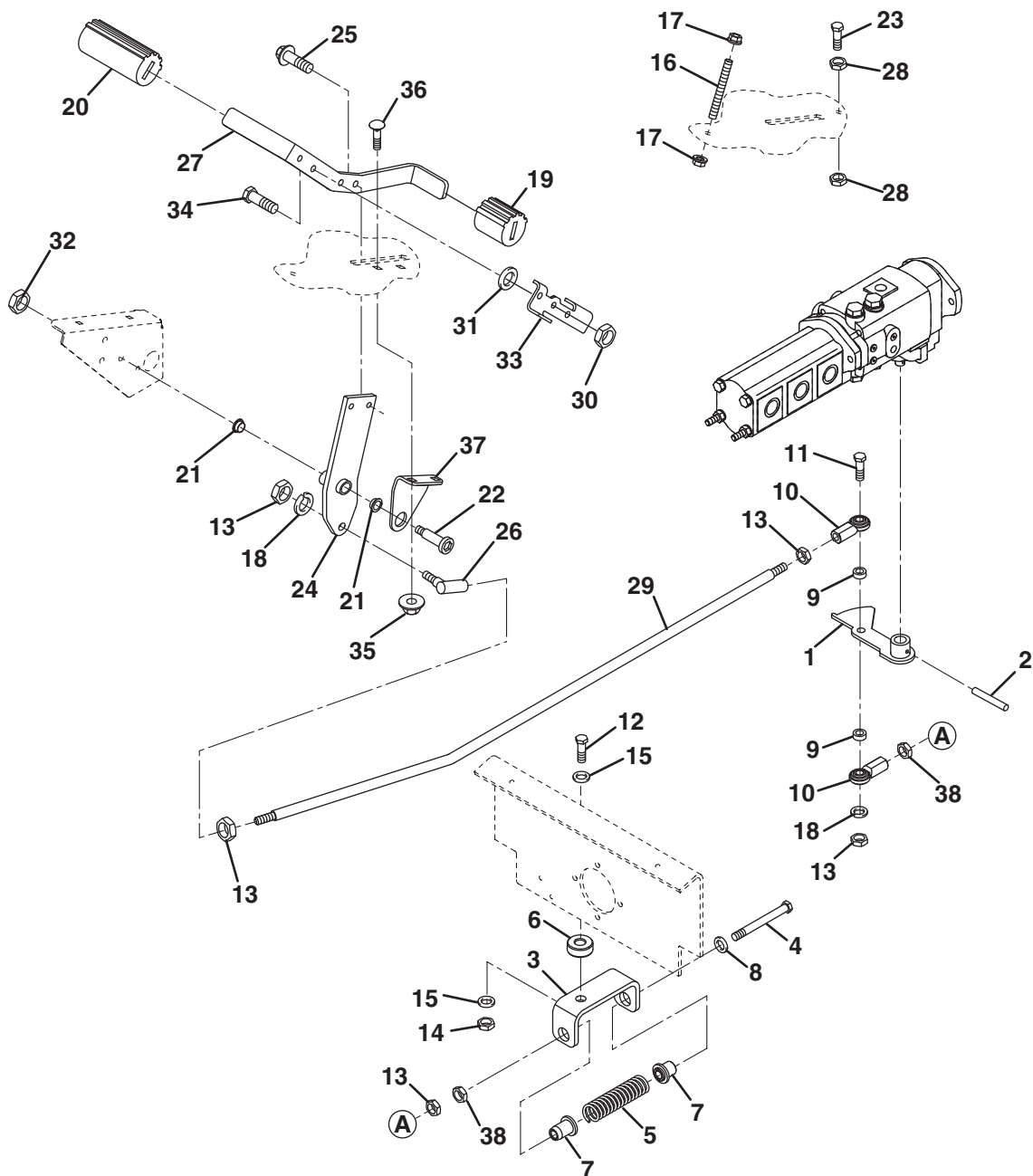
4.1 Instrument Panel



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1002677	1	Throttle Handle	
2	1002858	1	Throttle Cable	
3	1004290	1	Joystick, 1 Axis	REFERENCE SW12, See 46.1
4	162720	1	Temperature Gauge	REFERENCE U4, See 46.1
	447002	3	• Lockwasher, #6 External Tooth	
	444304	3	• Nut, #6-32	
	447206	2	• Lockwasher, #8 Internal Tooth	
	444306	2	• Nut, #8-32 Hex	
5	162721	1	Volt Meter	REFERENCE U5, See 46.1
	447002	3	• Lockwasher, #6 External Tooth	
	444304	3	• Nut, #6-32	
	447206	2	• Lockwasher, #8 Internal Tooth	
	444306	2	• Nut, #8-32 Hex	
6	162723	1	Hour Meter	REFERENCE U3, See 46.1
	447006	1	• Lockwasher, #10 External Tooth	
	444310	2	• Nut, #10-24 Hex	
7	164194	1	Light, Engine Oil	REFERENCE L1, See 46.1
	557761	1	• Lens, Red	
	558195	1	• Bulb	
8	2810269	1	Key Switch	REFERENCE SW1, See 46.1
	2811020	1	• Key, Replacement	
9	2811847	1	Instrument Panel	
10	3006054	1	Cover, Tank	
11	3006449	1	Switch, Reel	REFERENCE SW6, See 46.1
12	3006509	1	Plug, Panel (2WD Units)	
13	3006436	1	Switch, 4WD (4WD Units)	REFERENCE SW9, See 46.1
14	3009153	1	Plate, Friction	
15	360885	2	Washer, Friction	
16	366670	1	Horn	REFERENCE U2, See 46.1
17	366751	1	Light, Parking Brake	REFERENCE L2, See 46.1
18	366768	1	Knob, Throttle	
19	400110	3	Screw, 1/4-20 x 7/8" Hex Head	
20	403912	4	Screw, #10-24 x 5/8" Truss Head	
21	440116	1	Carriage Bolt, 3/8-16 x 7/8"	
22	444310	4	Nut, #10-24 Hex	
23	444850	1	Locknut, 3/8-16 Hex Jam	
24	445784	3	Nut, 1/4-20 Whizlock	
25	445800	1	Palnut, 3/16 rod	
26	453023	3	Flat Washer, 1/4	
27	446116	4	Lockwasher, #10	
28	3006436	1	Switch, Light	REFERENCE SW11, See 46.1
29	3006447	1	Switch, Horn	REFERENCE SW13, See 46.1
30	366751	1	Light, Hydraulic Oil	REFERENCE L5, See 46.1

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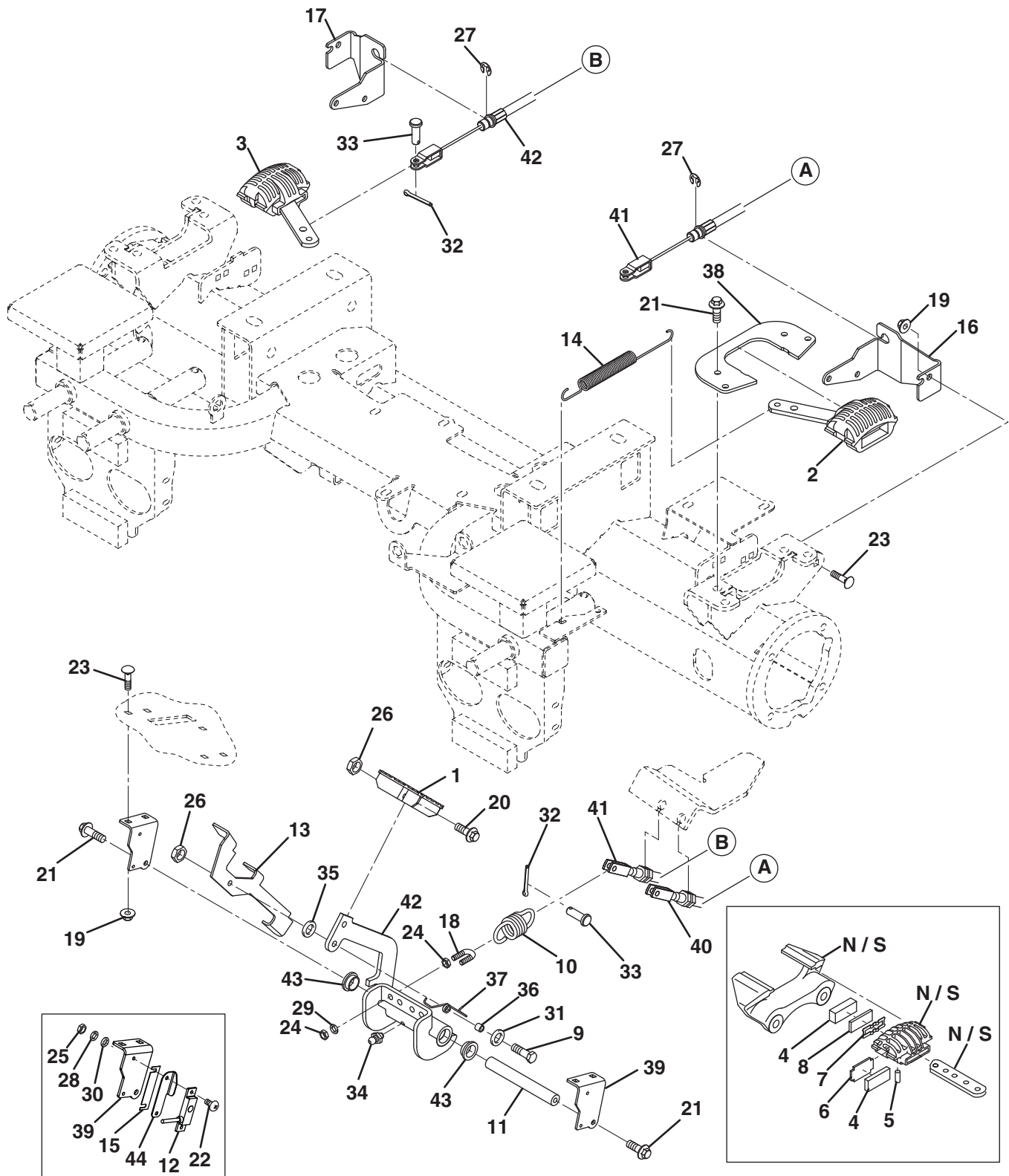
5.1 Traction Pedal and Linkage



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2810214	1	Arm, Neutral Return	
2	4236162	1	Groove Pin, 3/16 x 1"	
3	2809632	1	Bracket, Neutral Return	
4	4121563	1	Rod, Neutral Return	
5	2809634	1	Spring, Compression	
6	2809635	1	Spacer	
7	2809856	2	Guide, Spring	
8	452008	1	Flat Washer, 3/8	
9	3005971	2	Spacer	
10	366974	2	Rod End, 3/8-24	
11	400308	1	Screw, 3/8-24 x 2-1/4" Hex Head	
12	400410	1	Screw, 1/2-13 x 1-3/4" Hex Head	
13	443112	5	Nut, 3/8-24 Hex	
14	444758	1	Locknut, 1/2-13 Center	
15	453017	2	Flat Washer, 1/2	
16	333542	1	Threaded Rod, 3/8-16 x 3-1/4"	
17	445796	2	Nut, 3/8-16 Spiralock Flange	
18	446142	2	Lockwasher, 3/8 Heavy	
19	3003474	1	Grip, Pedal	
20	3003475	1	Grip, Pedal	
21	366877	2	Bearing, Nyliner	
22	352901	1	Shoulder Bolt, 3/8-16	
23	400264	1	Screw, 3/8-16 x 1-1/4" Hex Head	
24	4107921	1	Arm, Traction Pedal	
25	409812	2	Screw, 5/16-18 x 3/4" Thread Cut	
26	310089	1	Ball Joint, 3/8-24	
27	4116048	1	Pedal, Traction	
28	443810	2	Nut, 3/8-16 Hex Jam	
29	4107640	1	Rod, Traction	
30	444718	1	Locknut, 5/16-18 Center	
31	3002695	1	Washer	
32	444744	1	Locknut, 3/8-24 Center	
33	3007230	1	Stop, Mow Speed	
34	400188	1	Screw, 5/16-18 x 1" Hex Head	
35	445781	2	Nut, 5/16-18 Whizlock	
36	441602	2	Carriage Bolt, 5/16-18 x 3/4"	
37	4101420	1	Bracket, Pedal Support	
38	443812	2	Nut, 3/8-24 Hex Jam	

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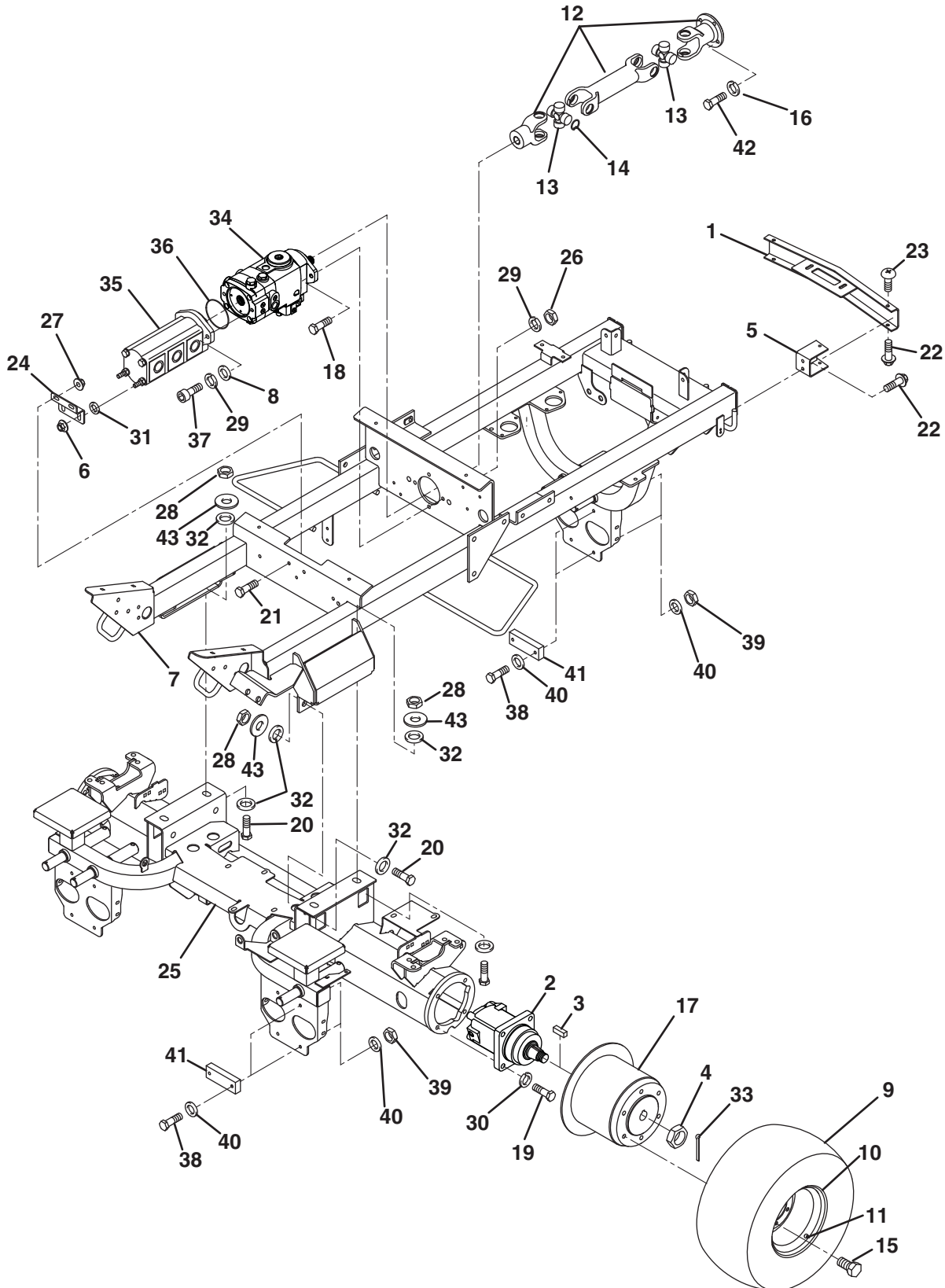
6.1 Parking Brake



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003872	1	Pedal, Brake	REFERENCE SW2, See 46.1
2	2811143	1	Brake Caliper, Left Side	
3	2811144	1	Brake Caliper, Right Side	
4	503660	1	• Replacement Pad Set	
5	557823	1	• Pivot Pin	
6	557824	1	• Pad, Support	
7	557825	1	• Spring, Lever Retainer	
8	557826	1	• Pad, Support	
9	400190	1	Screw, 5/16-18 x 1-1/4" Hex Head	
10	4100464	2	Spring, Extension	
11	3006327	1	Shaft, Turn Assist	
12	4140149	1	Switch, Proximity	
13	3007606	1	Lever, Parking Brake	
14	319212	2	Spring, Caliper Return	
15	3009193	AR	Shim, Switch	
16	4103033	1	Bracket, Left Side Brake Cable	
17	4103034	1	Bracket, Right Side Brake Cable	
18	362744	2	U-Bolt, 5/16-18	
19	445781	10	Nut, 5/16-18 Whizlock	
20	400188	1	Screw, 5/16-18 x 1" Hex Head	
21	403770	10	Screw, 5/16-18 x 3/4" Hex Flange	
22	403862	2	Screw, #8-32 x 3/4" Truss Head	
23	441602	10	Carriage Bolt, 5/16-18 x 3/4"	
24	443806	8	Nut, 5/16-18 Hex Jam	
25	444306	2	Nut, #8-32 Hex	
26	444718	2	Locknut, 5/16-18 Center	
27	557771	2	Snap Ring	
28	446110	2	Lockwasher, #8	
29	446134	4	Lockwasher, 5/16	
30	453004	2	Flat Washer, #8	
31	453009	1	Flat Washer, 5/16	
32	460014	4	Cotter Pin, 3/32 x 3/4"	
33	461493	4	Clevis Pin, 5/16 x 3/4"	
34	471217	1	Grease Fitting, Straight	
35	3002695	1	Washer, Spacer	
36	3007941	1	Spacer	
37	3007942	1	Spring, Torsion	
38	2811351	2	Bracket, Brake	
39	4100460	2	Arm, Brake	
40	4103038	1	Cable, Left Side Brake	
41	4103039	1	Cable, Right Side Brake	
42	4100461	1	Pedal, Brake Assembly	
43	352726	2	• Bushing	
44	4186100	1	Bracket, Switch Guard	

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7.1 Frame and Front Axle



Item	Part No.	Qty.	Description	Serial Numbers/Notes		
1	1003536	1	Channel, Bumper	See 37.1		
2	4182425	2	Motor, Front Wheel			
3	554780	1	• Key			
4	554779	1	• Nut			
5	1004245	2	Mount, Bumper			
6	2809907	2	Nut, M10 Spirallock Flange			
7	2811692	1	Frame			
8	453011	2	Flat Washer, 3/8			
9	4108620	1	Tire, 24x13-12 Softrac			
10	4235020	1	Rim, 12x10.5			
11	360111	1	Inflation Valve			
12	4137529	1	U-Joint			
13	554663	2	• Cross and Bearing Kit			
14	N/S	4	• • Snap Rings			
15	353914	12	Wheel Bolt, 1/2-20 x 3/4"			
16	363485	3	Lockwasher, M10 Heavy			
17	2811085	2	Hub			
18	400266	2	Screw, 3/8-16 x 1-1/2" Hex Head			
19	400408	8	Screw, 1/2-13 x 1-1/2" Hex Head		Grade 8	
20	4113047	6	Screw, 5/8-18 x 1-1/2" Hex Head			
21	403770	2	Screw, 5/16-18 x 3/4" Hex Flange			
22	409812	4	Screw, 5/16-18 x 3/4" Self Thread			
23	403760	4	Screw, 5/16-18 x 3/4" Truss Head			
24	4101320	1	Bracket, Pump Support			
25	4103021	1	Axle, Front			
26	443110	2	Nut, 3/8-16 Hex			
27	445781	2	Nut, 5/16-18 Whiz Lock			
28	443128	4	Nut, 5/8-18 Hex			
29	446142	4	Lockwasher, 3/8 Heavy			
30	446154	4	Lockwasher, 1/2 Heavy			
31	452008	2	Flat Washer, 3/8			
32	453020	12	Flat Washer, 5/8			
33	460034	2	Cotter Pin, 1/8 x 1-5/8"			
34	4238422	1	Pump, Hydrostatic Traction			See 43.1
35	2811736	1	Pump, Reel			
	5003036	1	• Seal Kit			
36	363034	1	"O" Ring			
37	434013	2	Screw, 3/8-16 x 1" Socket Head			
38	400410	12	Screw, 1/2-13 x 1-3/4" Hex Head			
39	444758	12	Locknut, 1/2-13 Center			
40	453017	24	Flat Washer, 1/2			
41	2811204	6	Stop, Lift Arm			
42	3002042	3	Bolt, M10-1.25 x 22 mm Hex Head			
43	4140094	6	Flat Washer, 5/8 Hardened			
44						

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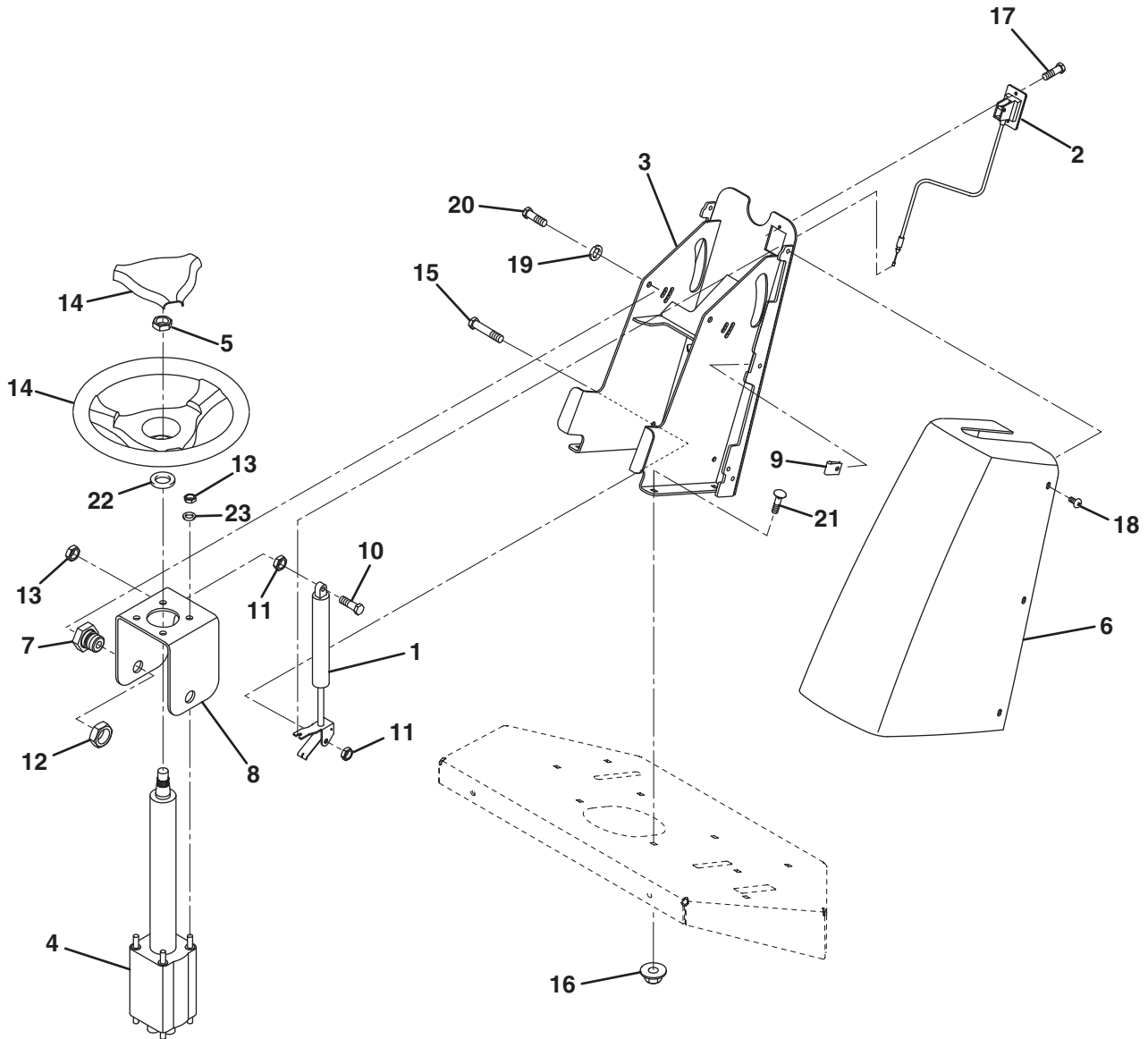
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8.1 Steering Tower

Serial No. 67955 - 1651 ~ 1866

Serial No. 67956 - 1651 ~ 1810

Serial No. 67957 - 1651 ~ 1737

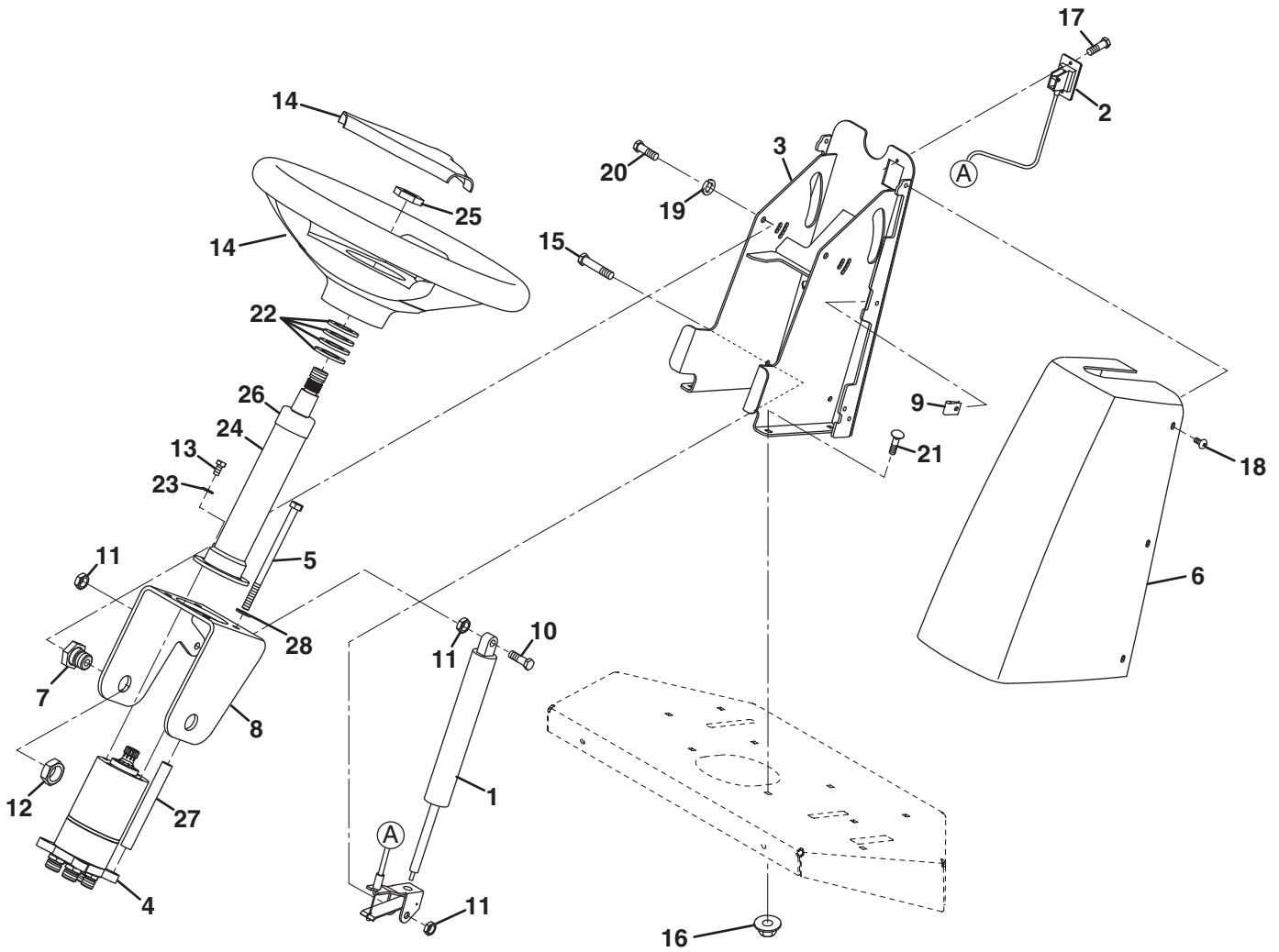


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5002918	1	Actuator, Gas Spring	See 39.1
2	5002919	1	Cable, Actuator	
3	2811346	1	Tower, Steering	
4	4101283	1	Valve, Steering	
5	443828	1	• Nut, 5/8-18 Hex Jam	
6	3010651	1	Cover, Steering Tower	
7	3005934	2	Bolt, Shoulder	
8	3005981	1	Bracket, Steering Pump	
9	445245	6	Tinnerman Nut	
10	400192	1	Screw, 5/16-18 x 1-1/2" Hex Head	
11	444718	3	Locknut, 5/16-18 Center	
12	444849	2	Locknut, 3/4-10 Center Jam	
13	444754	4	Locknut, 5/16-24 Center	
14	2811364	1	Steering Wheel	
	2811365	1	• Steering Wheel Cap	
15	400216	1	Screw, 5/16-18 x 2-3/4" Hex Head	
16	445781	4	Nut, 5/16-18 Whiz-Lock	
17	416911	2	Screw, #10-24 x 1/2" Thread Cutting	
18	404016	9	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	2811547	1	Washer	
23	453009	4	Flat Washer, 5/16	

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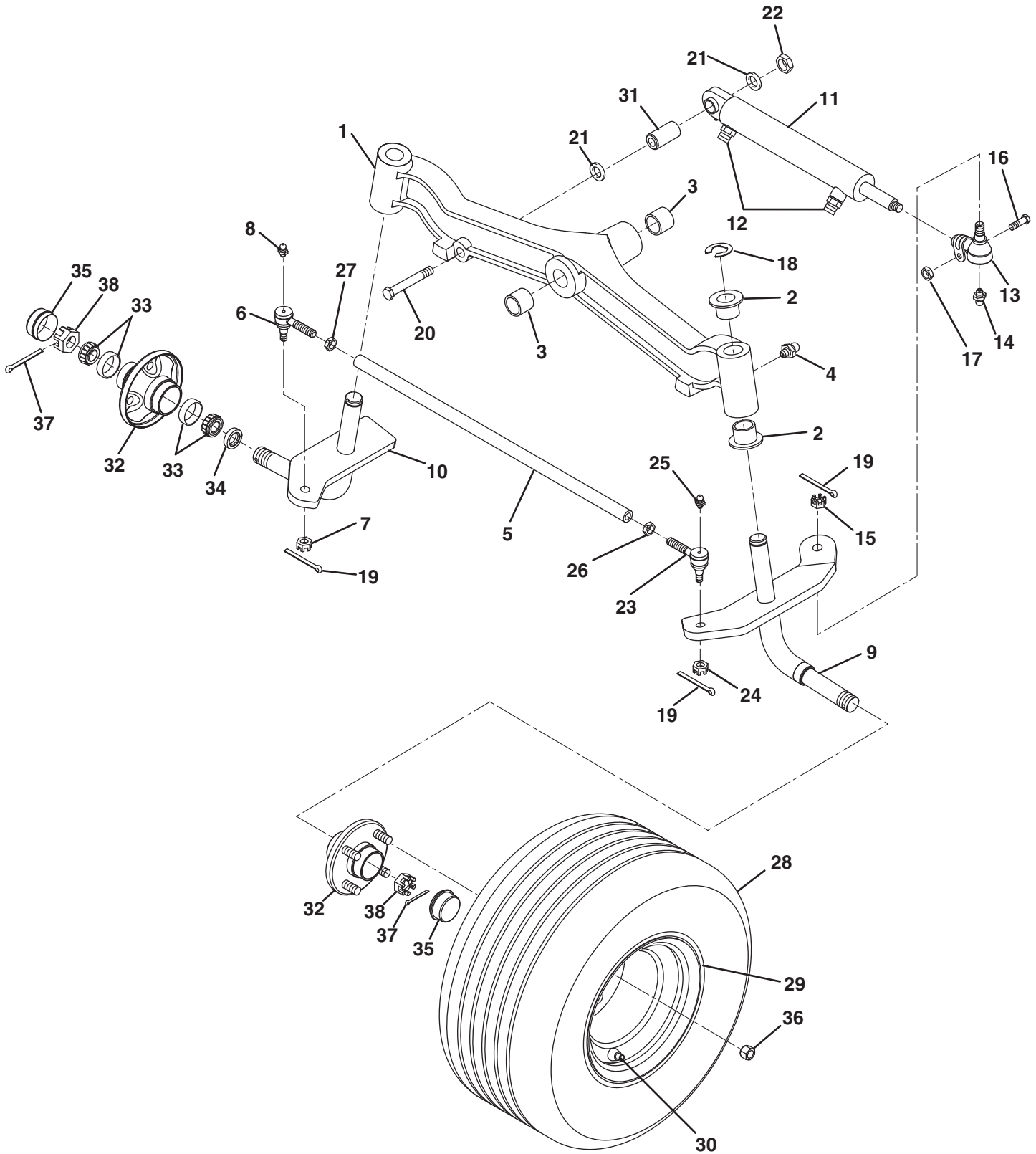
8.2 Steering Tower

Serial No. 67955-1867 and Up
Serial No. 67956-1811 and Up
Serial No. 67957-1738 and Up



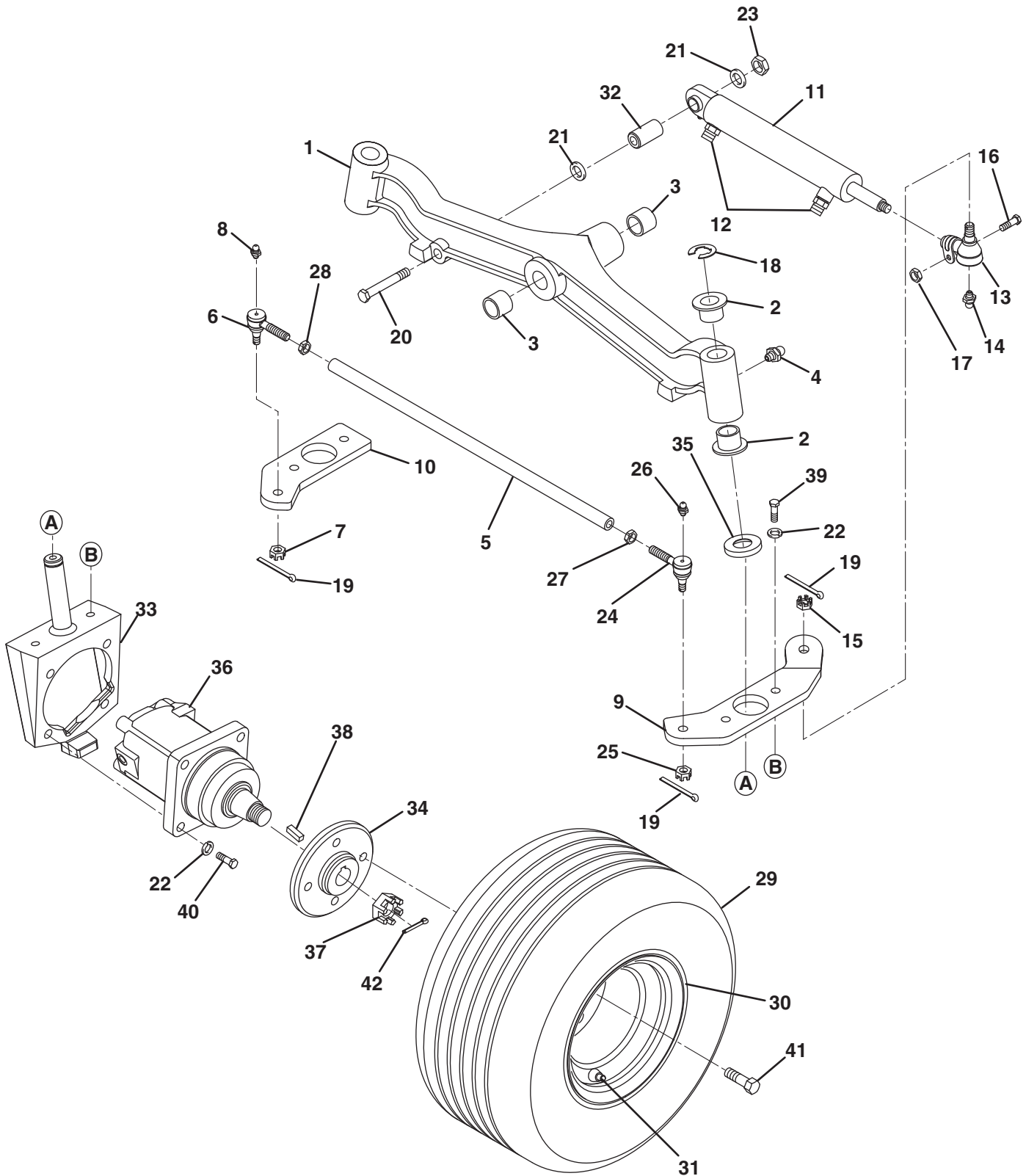
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5002918	1	Actuator, Gas Spring	
2	5002919	1	Cable, Actuator	
3	2811346	1	Tower, Steering	
4	4247250	1	Valve, Steering	
	4197940	1	• Seal Kit	
5	64205-054	4	M8-1.25 x 130 mm Hex Head	
6	3010651	1	Cover, Steering Tower	
7	3005934	2	Bolt, Shoulder	
8	4211401	1	Bracket, Steering Pump	
9	445245	6	Tinnerman Nut	
10	400192	1	Screw, 5/16-18 x 1-1/2" Hex Head	
11	444718	3	Locknut, 5/16-18 Center	
12	444849	2	Locknut, 3/4-10 Center Jam	
13	450168	4	Screw, M6-1 x 12 mm Hex Head	
14	2811364	1	Steering Wheel	
	2811365	1	• Steering Wheel Cap	
15	400216	1	Screw, 5/16-18 x 2-3/4" Hex Head	
16	445781	4	Nut, 5/16-18 Whiz-Lock	
17	416911	2	Screw, #10-24 x 1/2" Thread Cutting	
18	404016	9	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	2811547	4	Washer	
23	450410	4	Lockwasher, M6	
24	4210420	1	Steering Column	
25	443828	1	• Nut, 5/8-18 Hex Jam	
26	4201840	1	• Seal, Column	
27	4211400	4	Spacer, Steering Valve	
28	450411	4	Lockwasher, M8	

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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003027	1	Axle, Steering	
2	3005596	4	• Bushing	
3	319867	2	• Bushing	
4	471226	3	• Grease Fitting	
5	4100800	1	Tie Rod	
6	1002031	1	Ball Joint, L.H. Threaded Tie Rod	
7	445647	1	• Nut, 3/8-24 Slotted Hex	
8	471214	1	• Grease Fitting, Straight	
9	4100641	1	Steering Arm, Left Side	
10	4100643	1	Steering Arm, Right Side	
11	4137469	1	Steering Cylinder	
	4137139	1	• Seal Kit	
12	339974	1	• Adapter, 4-6 Straight	
13	153234	1	• Ball Joint	
14	471214	1	• Grease Fitting	
15	443666	1	• Nut, 1/2-20 Slotted Hex	
16	400194	1	• Screw, 5/16-18 x 1-3/4" Hex	
17	444718	1	• Locknut, 5/16-18 Center	
18	458008	2	External Snap Rng	
19	460026	3	Cotter Pin, 1/8 x 3/4"	
20	400424	1	Screw, 1/2-13 x 4-1/2" Hex Head	
21	453017	2	Flat Washer, 1/2	
22	444758	1	Nut, 1/2-13 Hex	
23	1002032	1	Ball Joint, R.H. Threaded Tie Rod	
24	445647	1	• Nut, 3/8-24 Slotted Hex	
25	471214	1	• Grease Fitting, Straight	
26	443120	1	Nut, 1/2-20 Hex	
27	445664	1	Nut, 1/2-20 L.H. Thread	
28	4229440	2	Tire, 18 x 9.50 - 8	
29	1003638	2	Wheel	
30	360111	2	Valve, Inflation	
31	3009887	1	Spacer	
32	5002910	2	Hub, 4 Bolt	
33	500596	2	• Bearing, Cup and Cone	
34	554329	1	• Seal	
35	545692	1	• Hub, Cap	
36	345807	4	• Wheel Lug Nut, 1/2-20	
37	460050	2	Cotter pin, 3/16 x 1-1/4"	
38	445710	2	Nut, 1-14 Slotted Hex	

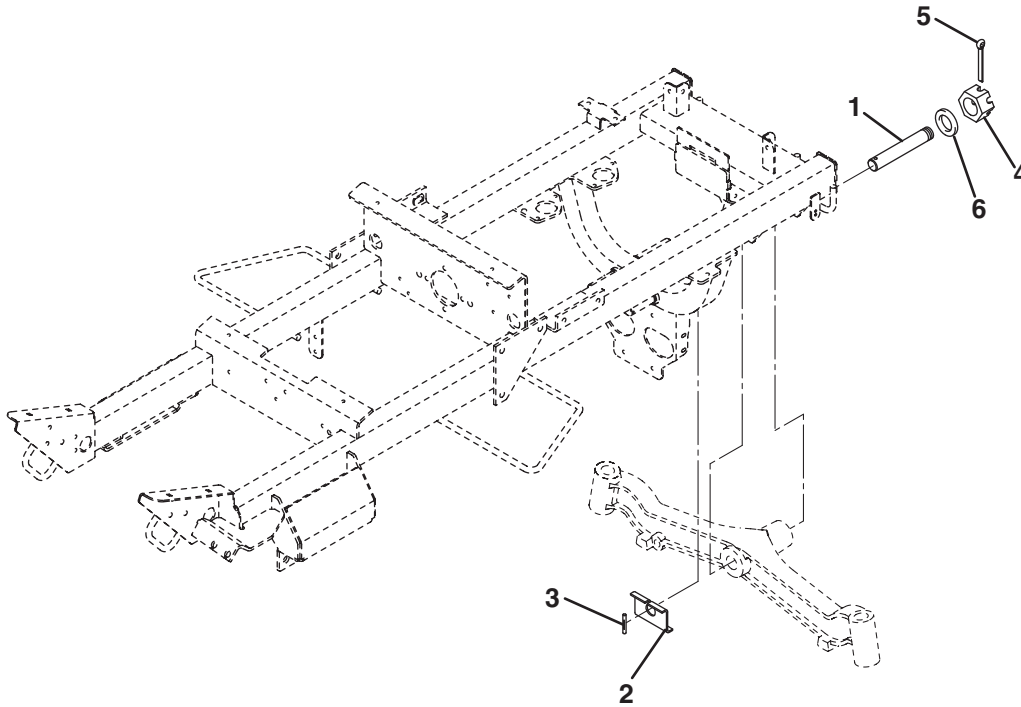
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1003027	1	Axle, Steering	
2	3005596	4	• Bushing	
3	319867	2	• Bushing	
4	471226	3	• Grease Fitting	
5	4100800	1	Tie Rod	
6	1002031	1	Ball Joint, L.H. Threaded Tie Rod	
7	445647	1	• Nut, 3/8-24 Slotted Hex	
8	471214	1	• Grease Fitting, Straight	
9	4100840	1	Steering Arm, Left Side	
10	4100647	1	Steering Arm, Right Side	
11	4137469	1	Steering Cylinder	
	4137139		• Seal Kit, HDM	
12	339974	1	• Adapter, 4-6 Straight	
13	153234	1	• Ball Joint	
14	471214	1	• Grease Fitting	
15	445666	1	• Nut, 1/2-20 Slotted Hex	
16	400194	1	• Screw, 5/16-18 x 1-3/4" Hex	
17	444718	1	• Locknut, 5/16-18 Center	
18	458008	2	External Snap Rng	
19	460026	3	Cotter Pin, 1/8 x 3/4"	
20	400424	1	Screw, 1/2-13 x 4-1/2" Hex Head	
21	453017	2	Flat Washer, 1/2	
22	446154	8	Lockwasher, 1/2 Heavy	
23	444758	1	Locknut, 1/2-13 Center	
24	1002032	1	Ball Joint, R.H. Threaded Tie Rod	
25	445647	1	• Nut, 3/8-24 Slotted Hex	
26	471214	1	• Grease Fitting, Straight	
27	443120	1	Nut, 1/2-20 Hex	
28	445664	1	Nut, 1/2-20 L.H. Thread	
29	4229440	2	Tire, 18 x 9.50 - 8	
30	1003638	2	Rim, 8 x 7	
31	360111	2	Valve, Inflation	
32	3009887	1	Spacer	
33	2000129	2	Mount, Motor	
34	220299	2	Hub, Wheel	
35	3006255	2	Spacer, motor Support	See 38.1
36	4181920	2	Motor, Rear Wheel	
37	554779	1	• Nut	
38	554780	1	• Key	
39	400406	4	Screw, 1/2-13 x 1-1/4" Hex Head	
40	400408	8	Screw, 1/2-13 x 1-1/2" Hex Head	
41	353914	8	Wheel Bolt, 1/2-20 x 3/4"	
42	460032	2	Cotter Pin, 1/8 x 1-1/2"	

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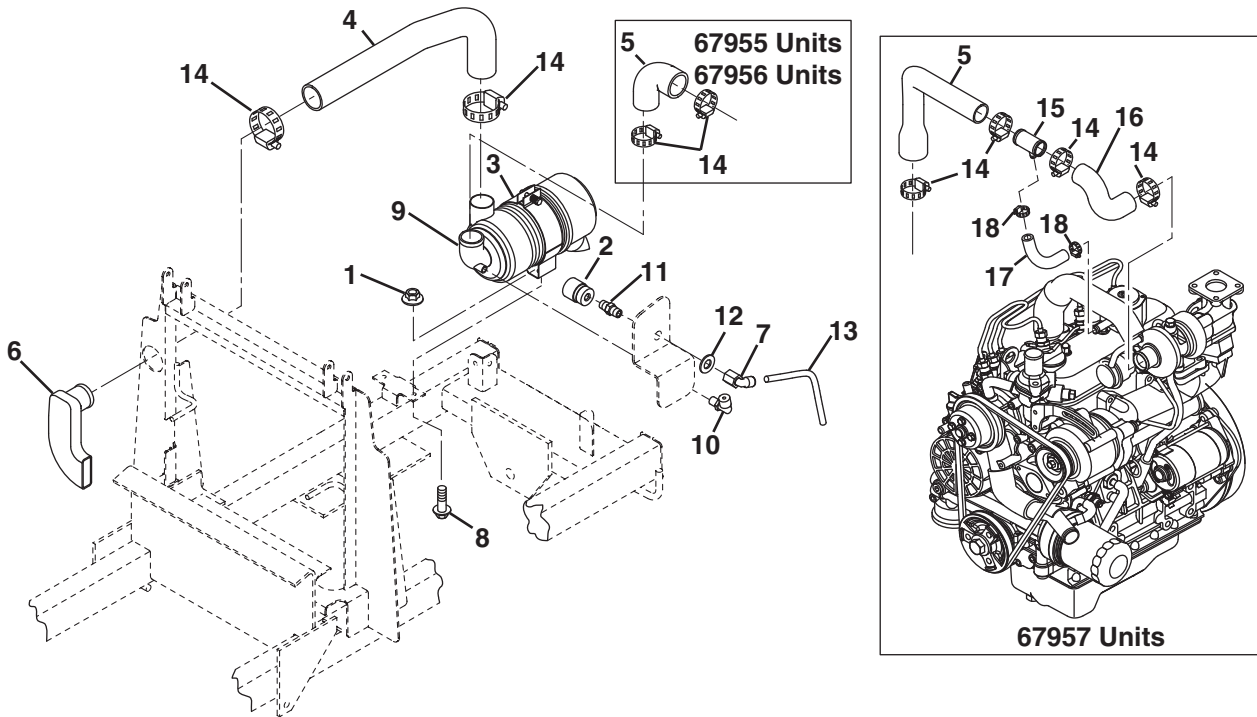
11.1 Steering Axle Mounting



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3005667	1	Shaft, Steering Axle Mount	
2	3005668	1	Plate, Mounting	
3	316945	1	Spirol Pin, 1/4 x 1-3/4"	
4	445710	1	Nut, 1-14 Slotted Hex	
5	460068	1	Cotter Pin, 1/4 x 2"	
6	452022	1	Flat Washer, 1"	

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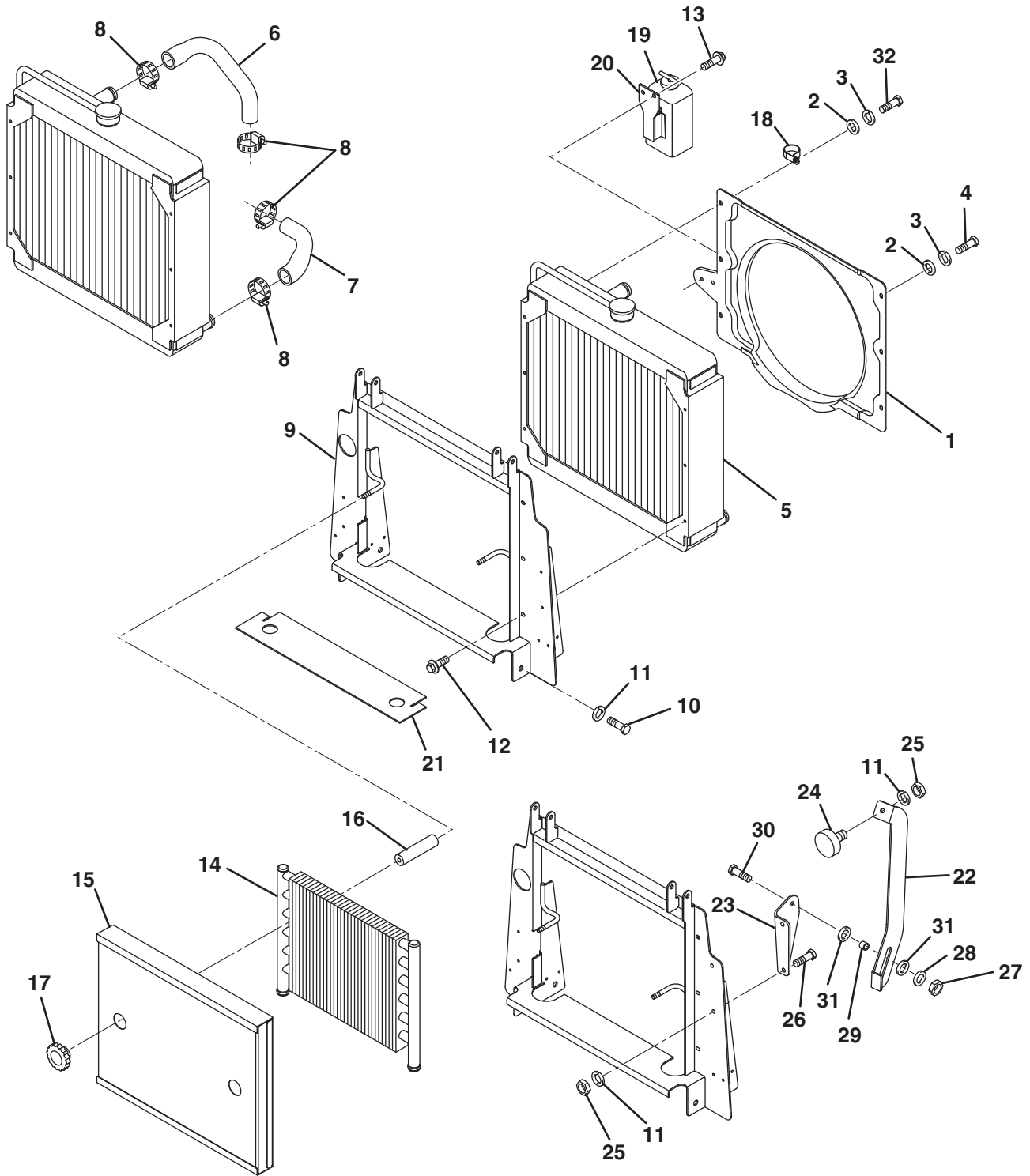
12.1 Air Cleaner



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	445781	2	Nut, 5/16-18 Whiz-Lock	
2	365398	1	Indicator, Air Cleaner Service	
3	3001388	1	Bracket, Air Filter	
4	3006096	1	Hose, Air Cleaner Inlet	
5	3006097	1	Hose, Engine Air Intake	67955 and 67956
5	4166481	1	Hose, Turbo Engine Air Intake	67957
6	3006091	1	Plenum, Air Cleaner	
7	3007958	1	Elbow, Female	
8	403751	2	Screw, 5/16-18 x 3/4" Serr Washer	
9	3001965	1	Air Cleaner Assembly	
	5000919	1	• Air Cleaner Element	
	5000920	1	• Air Cleaner Cover	
	5000921	1	• Valve	
10	3004253	1	Elbow, Male	
11	3008144	1	Adapter	
12	453011	1	Flat Washer, 3/8	
13	5002126	9.5"	Tube, Nylon	
14	326799	AR	Clamp, Hose	
15	4168440	1	Hose Connection	67957 Only
16	4166480	1	Hose, Turbo Engine Air Intake	67957 Only
17	4201661	4"	Hose, 7/16" Fuel	67957 Only
18	830930	2	Clamp	67957 Only

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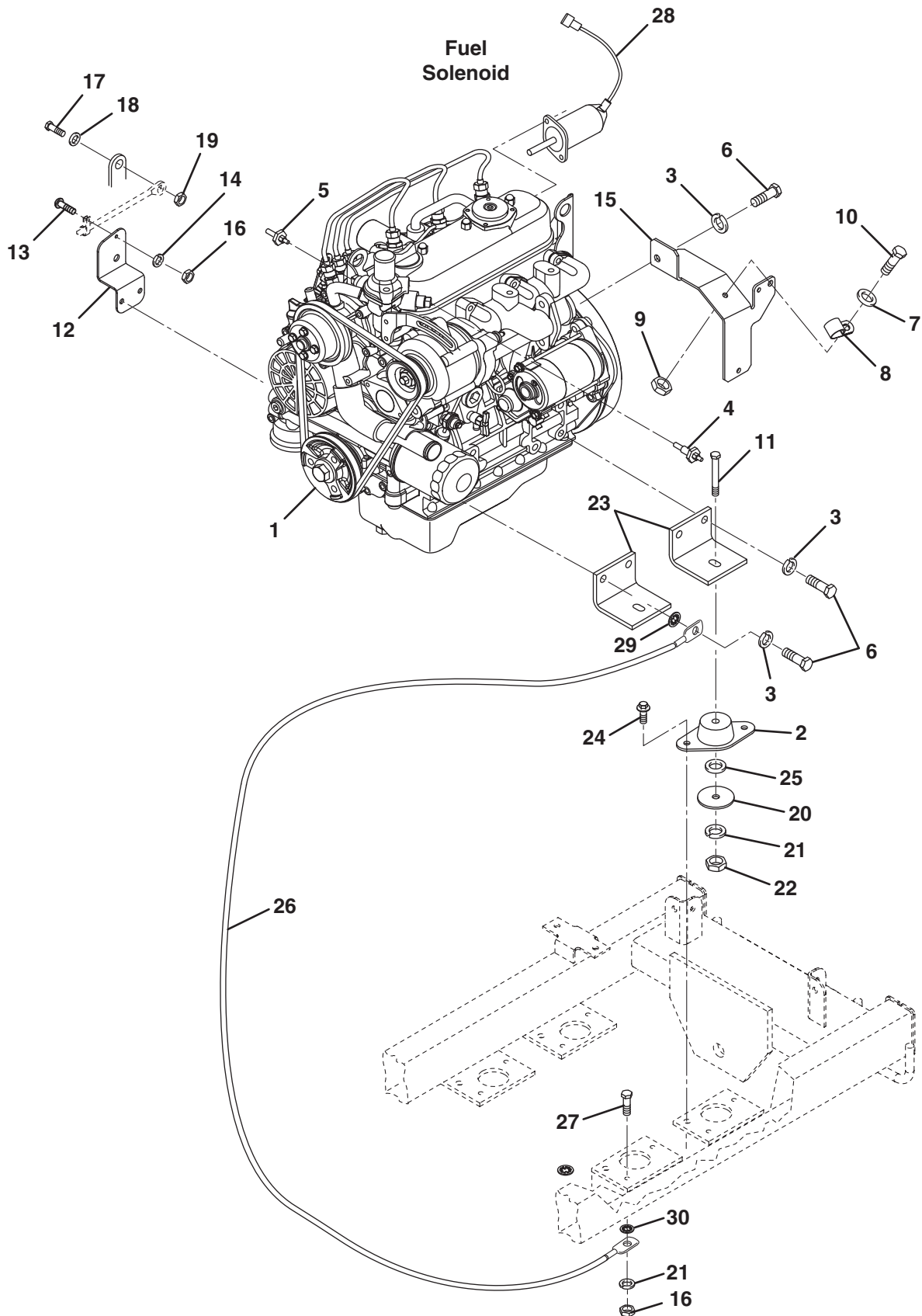
13.1 Radiator and Oil Cooler



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1002547	1	Shroud, Fan	
2	452004	6	Flat Washer, 1/4	
3	446130	6	Lockwasher, 1/4 Heavy	
4	400106	5	Screw, 1/4-20 x 5/8" Hex Head	
5	1002548	1	Radiator	
	550863	1	• Radiator Pressure Cap	
	162479	1	• Drain Cock	
6	3006257	1	Hose, Upper Radiator	
7	3006258	1	Hose, Lower Radiator	
8	367458	4	Clamp, Hose	
9	4142451	1	Radiator Support	
10	400262	4	Screw, 3/8-16 x 1" Hex Head	
11	446142	7	Lockwasher, 3/8 Heavy	
12	403769	6	Screw, 1/4-20 x 1/2" Hex Flange	
13	403751	2	Screw, 5/16-18 x 3/4" Serr Washer	
14	3005948	1	Oil Cooler	
15	1002655	1	Screen	
16	358971	2	Iso Mount, Oil Cooler	
17	3006431	2	Knob	
18	345666	1	Hose Clamp	
19	554231	1	Stay, Reserve Tank	
20	553926	1	Reserve Tank	
21	3010078	1	Seal, Radiator	
22	3010350	1	Bracket, Prop	
23	3010351	1	Bracket	
24	361723	1	Stop, Rubber	
25	443110	3	Nut, 3/8-16 Hex	
26	400258	2	Screw, 3/8-16 x 3/4" Hex Head	
27	444718	1	Locknut, 5/16-18 Center	
28	453009	1	Flat Washer, 5/16	
29	3007941	1	Spacer	
30	400188	1	Screw, 5/16-18 x 1" Hex Head	
31	453017	2	Flat Washer, 1/2	
32	400108	1	Screw, 1/4-20 x 3/4" Hex Head	

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14.1 Engine

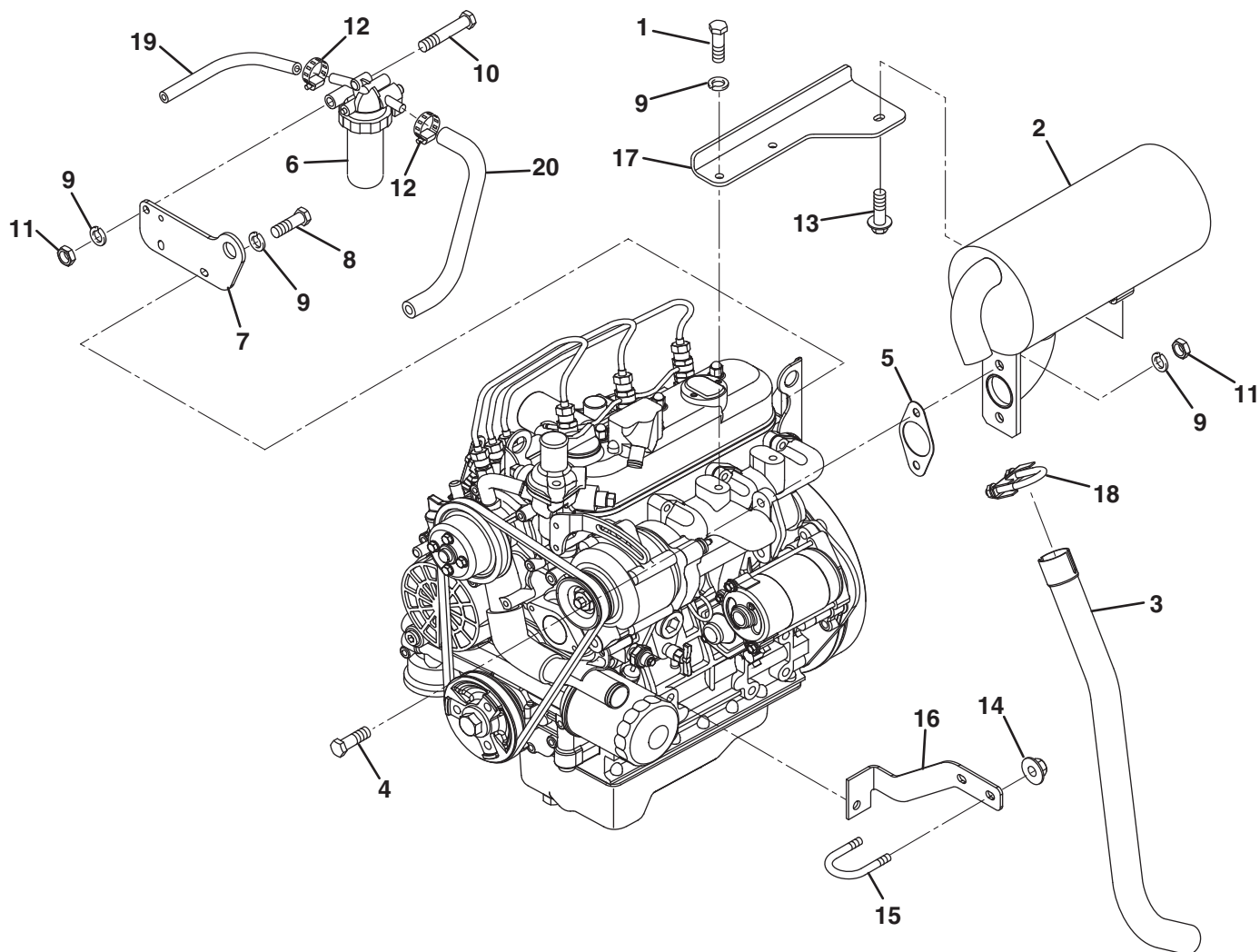


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	REF	1	Kubota D1105-E	67955 and 67956
1	REF	1	Kubota D1105-TE	67957
	2810346	1	• Engine Oil Filter	
2	366879	4	Isolator, Engine	
3	446146	10	Lockwasher, 7/16	
4	363996	1	Switch, Temp Warning	REFERENCE SW4, See 46.1
5	364501	1	Temp Sender	REFERENCE U7, See 46.1
6	362263	10	Screw, M10-1.25 x 25 MM Hex Head	
7	452004	2	Flat Washer, 1/4	
8	345671	2	Clamp, Hose	
9	445794	2	Nut, 1/4-20 Spirallock Flange	
10	400108	2	Screw, 1/4-20 x 3/4" Hex Head	
11	400274	4	Screw, 3/8-16 x 2-1/2" Hex Head	
12	3005384	1	Bracket, Throttle Cable	
13	402118	1	Screw, #10-24 x 1/2" Slotted Head	
14	446116	1	Lockwasher, #10	
15	3007756	1	Bracket, Fuel Line	
16	444310	1	Nut, #10-24 Hex	
17	400184	1	Screw, 5/16-18 x 3/4" Hex Head	
18	453009	1	Flat Washer, 5/16	
19	444718	1	Locknut, 5/16-18 Center	
20	362819	4	Washer, Isolator	
21	446140	5	Lockwasher, 3/8	
22	443110	5	Nut, 3/8-16 Hex	
23	3008339	4	Bracket, Engine Mount	
24	409812	8	Screw, 5/16-18 x 3/4" Thread Cut	
25	452008	12	Flat Washer, 3/8	
26	2810424	1	Cable, Black	
27	400262	1	Screw, 3/8-16 x 1" Hex Head	
28	2811022	1	Adapter, Fuel Solenoid Harness	
29	447218	2	Lockwasher, 7/16 Internal Tooth	
30	447216	2	Lockwasher, 3/8" Internal Tooth	

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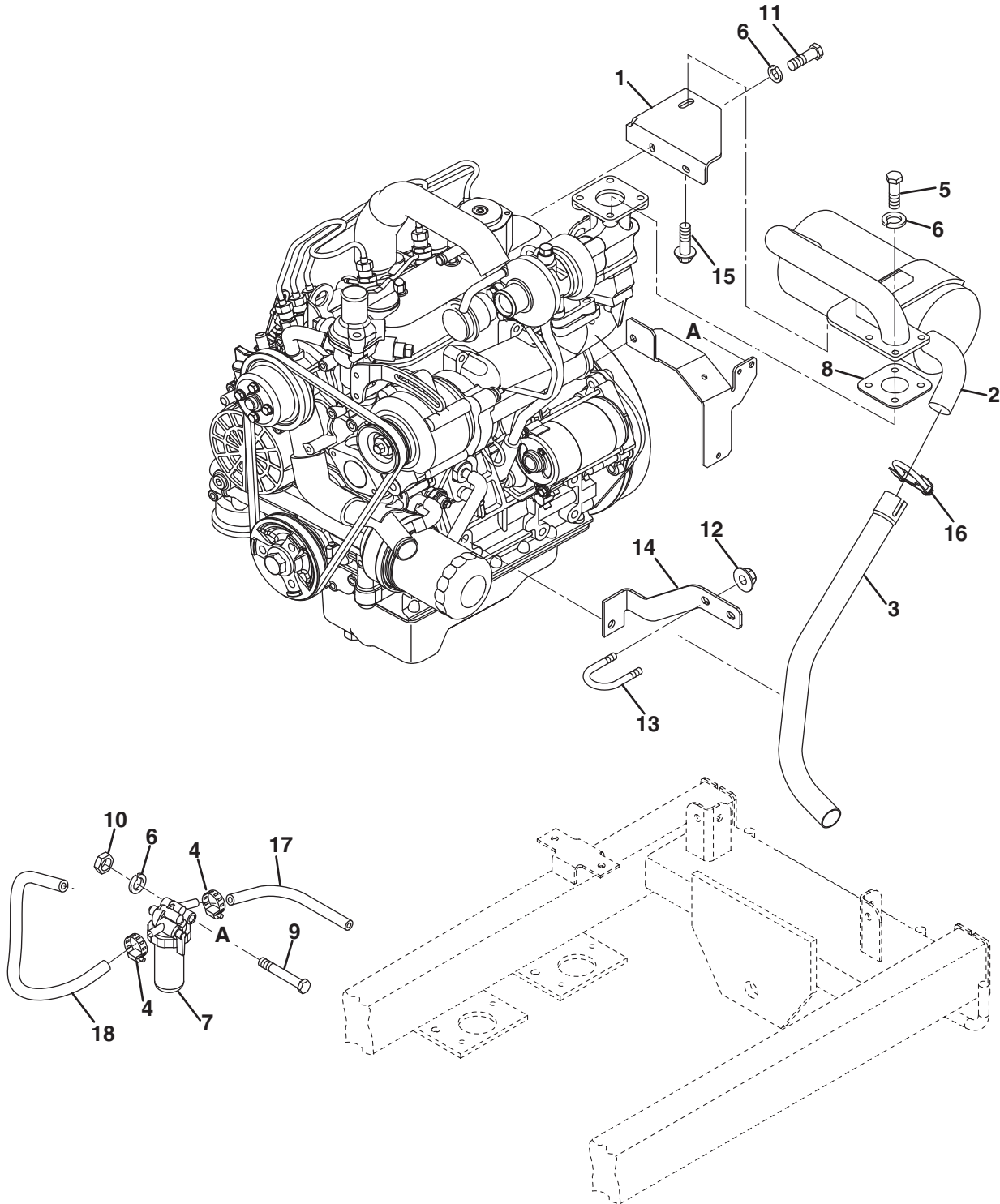
15.1 Engine Exhaust

Serial No. 67955 - All
Serial No. 67956 - All



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	363586	2	Screw, M8-1.25 x 20 MM Hex Head	
2	3005936	1	Muffler	
3	3006027	1	Tail Pipe	
4	400192	2	Screw, 5/16-18 x 1-1/2" Hex Head	
5	5003476	1	Gasket, Exhaust	Included with Engine
6	5001947	1	Fuel Filter	Included with Engine
	550489	1	• Element, Fuel Filter	
7	3006121	1	Bracket, Fuel Filter	
8	361898	2	Screw, M8-1.25 x 16 MM Hex Head	
9	446136	7	Lockwasher, 5/16 Heavy	
10	400202	1	Screw, 5/16-18 x 3" Hex Head	
11	443106	3	Nut, 5/16-18 Hex	
12	48540-01	4	Clamp, Hose	
13	403770	1	Screw, 5/16-18 x 3/4" Hex Flange	
14	445781	2	Nut, 5/16-18 Whiz-Lock	
15	3008385	1	U-Bolt	
16	3008386	1	Bracket, Exhaust	
17	3008120	1	Bracket, Support	
18	1002033	1	Muffler Clamp	
19	554748	15"	Fuel Line (Filter To Engine)	
20	554748	54"	Fuel Line (Fuel Pump to Filter)	

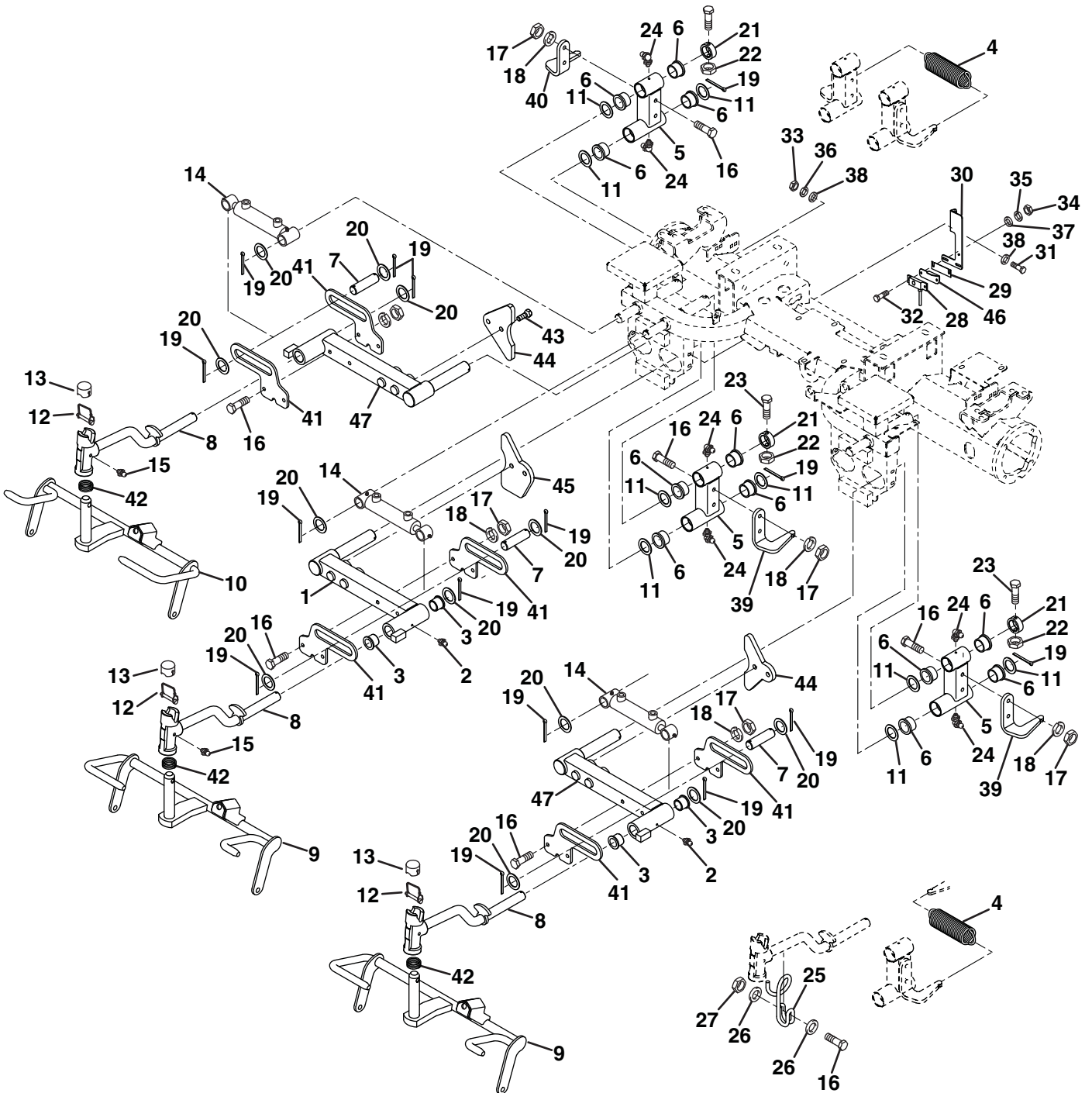
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4179760	1	Bracket, Muffler Support	
2	4182220	1	Muffler, Turbo Engine	
3	3008221	1	Tail Pipe, Turbo Engine	
4	48540-01	4	Clamp, Hose	
5	363586	5	Screw, M8-1.25 x 20 mm Hex Head	
6	446136	7	Lockwasher, 5/16 Heavy	
7	5001947	1	Fuel Filter	Included with Engine
	550489	1	• Element, Fuel Filter	Included with Engine
8	553020	1	Gasket, Exhaust	Included with Engine
9	400202	1	Screw, 5/16-18 x 3" Hex Head	
10	443106	1	Nut, 5/16-18 Hex	
11	361898	2	Screw, M8-1.25 x 16 MM Hex Head	
12	445781	2	Nut, 5/16-18 Hex Whiz-Lock	
13	3008385	1	U-Bolt	
14	3008386	1	Bracket, Exhaust	
15	403751	1	Screw, 5/16-18 x 3/4" Serr Washer	
16	1002033	1	Clamp, Exhaust	
17	554748	38"	Fuel Line (Filter To Engine)	
18	554748	45"	Fuel Line, (Fuel Pump to Filter)	

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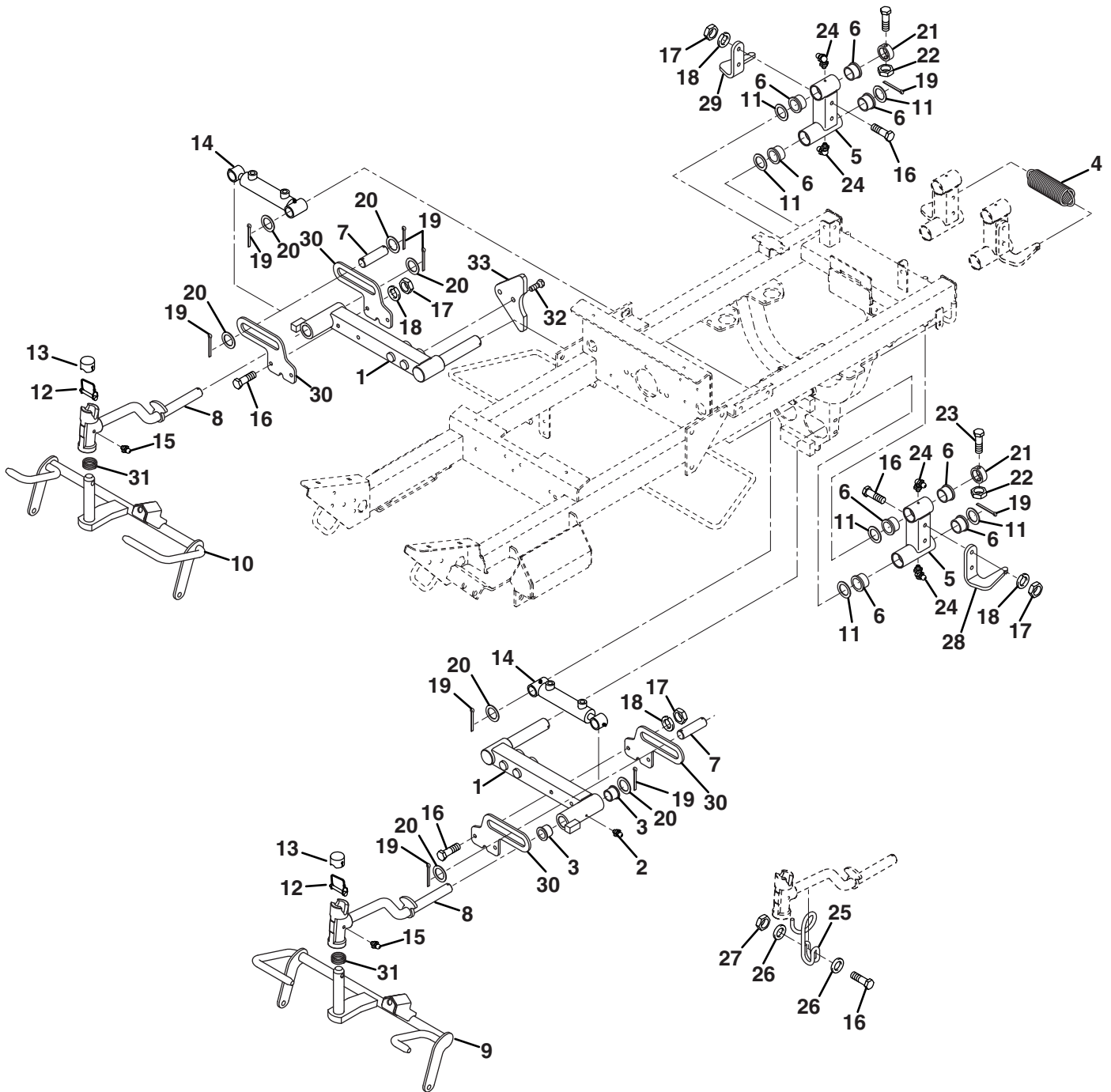
17.1 Front Lift Arms



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
>	1	2811191	1	Lift Arm	
	2	471214	1	• Grease Fitting	
	3	2811198	2	• Bushing	
	4	4174061	2	Spring, Extension	
	5	4116814	3	Spring Arm	
	6	363539	4	• Bushing	
	7	2811203	3	Pin, Cylinder Float	
	8	2811244	3	Yoke, Pivot	
	9	2811246	2	Yoke, Lift	Front Left and Center
	10	2811247	1	Yoke, Lift	Front Right
	11	2500477	9	Machinery Bushing	
	12	3007798	3	Lock Pin	
	13	3008432	3	Cap, Swivel Housing	
	14	4172140	3	Lift Cylinder	
		4137139	1	• Seal Kit	
	15	471214	3	Grease Fitting, Straight	
	16	400276	15	Screw, 3/8-16 x 3" Hex Head	
	17	443110	12	Nut, 3/8-16 Hex	
	18	446140	12	Lockwasher, 3/8	
	19	460054	15	Cotter Pin, 3/16 x 1-3/4"	
	20	455004	12	Flat Washer, 1"	
	21	4100341	3	Collar, Retaining	
	22	444718	3	Locknut, 5/16-18 Center	
	23	400196	3	Screw, 5/16-18 x 2" Hex Head	
	24	471221	6	Grease Fitting, 90°	
	25	4100340	3	Support, Hose	
	26	358794	6	Washer, Flat	
	27	444762	3	Locknut, 3/8-16 Center	
	28	4140149	1	Switch, Reel Position Proximity	REFERENCE SW8, See 46.1
	29	3009193	AR	Shim, Proximity Switch	
	30	4177700	1	Bracket, Switch	
	31	400108	2	Screw, 1/4-20 x 3/4" Hex Head	
	32	403746	2	Screw, #10-24 x 3/4" Hex Head	
	33	443102	2	Nut, 1/4-20 Hex	
	34	444310	2	Nut, #10-24 Hex	
	35	446116	2	Lockwasher, #10	
	36	446128	2	Lockwasher, 1/4	
	37	452002	2	Flat Washer, #10	
	38	453023	4	Flat Washer, 1/4	
	39	4105680	2	Arm, Spring	
	40	4105681	1	Arm, Spring	
	41	4111620	6	Plate, Float	
	42	2811195	3	Spring, Compression	
	43	4118048	6	Wheel Bolt, 1/2-20 x 1-1/8	
	44	4118081	2	Stop, Lift Arm	
	45	4119909	1	Stop, Switch Activating Lift Arm	
	46	4177701	1	Bracket, Switch Guard	
>	47	4146862	2	Lift Arm	Includes Items 2 & 3

> Change from previous revision

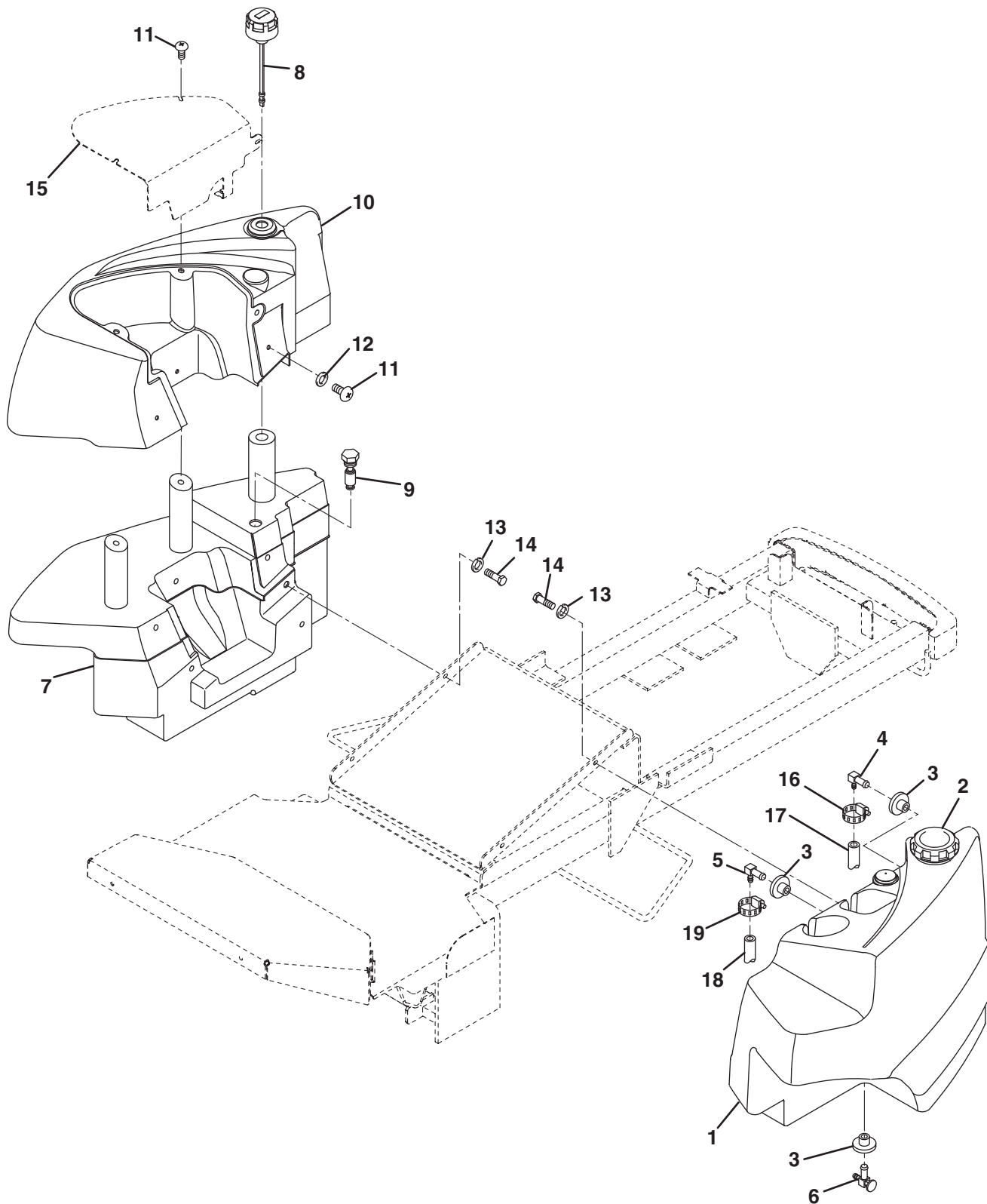
18.1 Rear Lift Arms



Item	Part No.	Qty.	Description	Serial Numbers/Notes
> 1	4146861	2	Lift Arm	
2	471214	1	• Grease Fitting	
3	2811198	2	• Bushing	
4	4174061	1	Spring, Extension	
5	4116814	2	Spring Arm	
6	363539	4	• Bushing	
7	2811203	2	Pin, Cylinder Float	
8	2811244	2	Yoke, Pivot	
9	2811246	1	Yoke, Lift	Rear Left
10	2811247	1	Yoke, Lift	Rear Right
11	2500477	6	Machinery Bushing	
12	3007798	2	Lock Pin	
13	3008432	2	Cap, Swivel Housing	
14	4172140	2	Lift Cylinder	
	4137139	1	• Seal Kit, HDM Cylinder	
15	471214	2	Grease Fitting, Straight	
16	400276	10	Screw, 3/8-16 x 3" Hex Head	
17	443110	8	Nut, 3/8-16 Hex	
18	446140	8	Lockwasher, 3/8	
19	460054	10	Cotter Pin, 3/16 x 1-3/4"	
20	455004	8	Flat Washer, 1"	
21	4100341	2	Collar, Retaining	
22	444718	2	Locknut, 5/16-18 Center	
23	400196	2	Screw, 5/16-18 x 2" Hex Head	
24	471221	4	Grease Fitting, 90°	
25	4100340	2	Support, Hose	
26	358794	4	Washer, Flat	
27	444762	2	Locknut, 3/8-16 Center	
28	4105680	1	Arm, Spring	
29	4105681	1	Arm, Spring	
30	4241763	4	Plate, Float	
31	2811195	2	Spring, Compression	
32	4118048	4	Wheel Bolt, 1/2-20 x 1-1/8	
33	4118081	2	Stop, Lift Arm	

> Change from previous revision

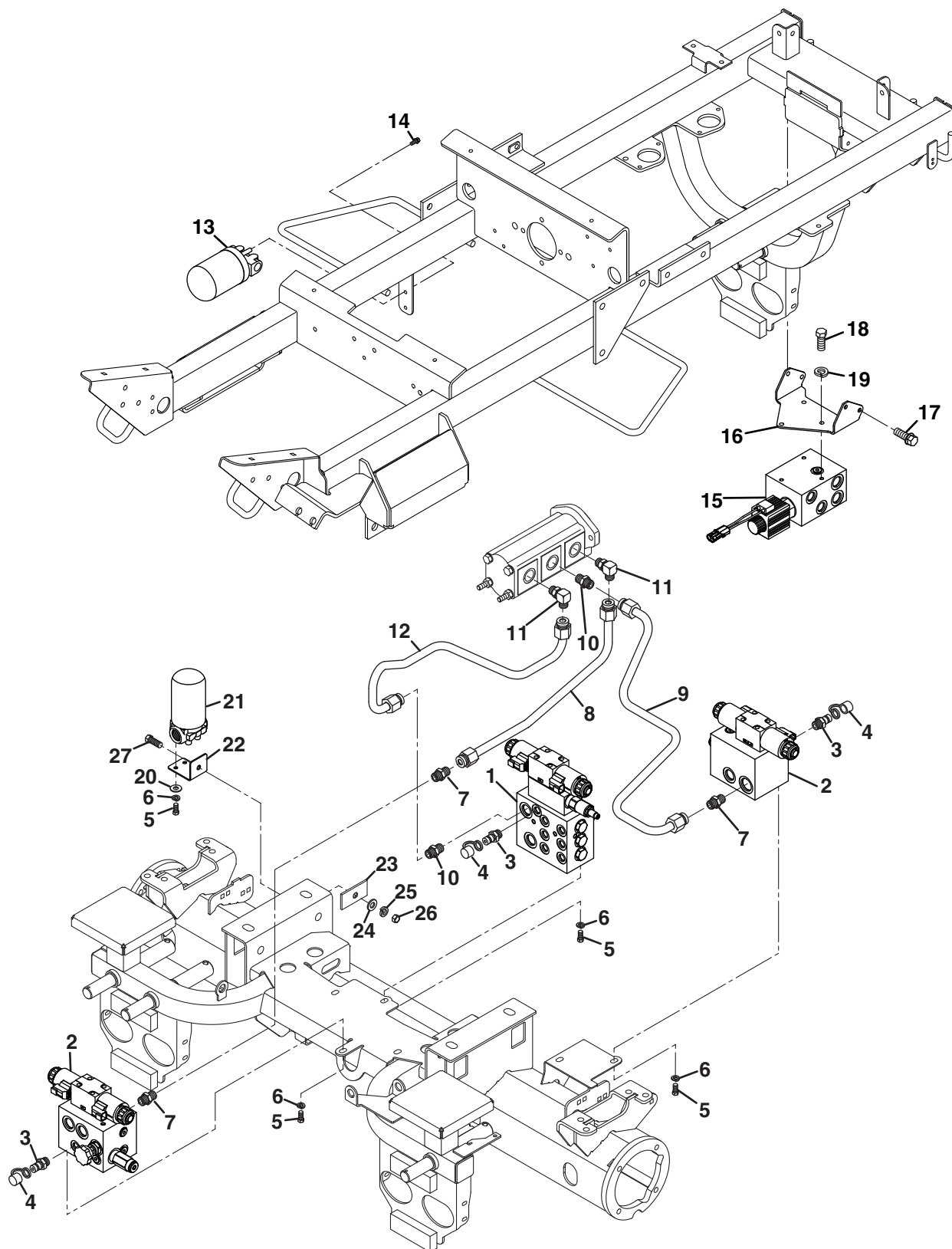
19.1 Hydraulic and Fuel Tanks



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	N/S	1	Fuel Tank Assembly, Diesel	
	1004265	1	• Fuel Tank	
	3007111	1	• Drop Tube	
	3005996	1	• Float, Fuel Level	
	5000869	1	• • Bushing	
2	4177480	1	• Cap, Diesel Fuel	
3	361117	3	• Bushing	
4	361748	1	• Valve, Overflow	
5	3003704	1	• Elbow, Fuel	
6	132647	1	• Valve, Shutoff	
7	4118397	1	Hydraulic Tank	
8	4139842	1	Cap, Filler/Breather	
9	3001279	1	Switch, Oil Lever	REFERENCE SW14, See 46.1
10	4118398	1	Cover, Tank	
11	404016	7	Screw, 1/4-20 x 5/8" Truss Head	
12	452004	4	Flat Washer, 1/4	
13	446136	4	Lockwasher, 5/16 Heavy	
14	400184	4	Screw, 5/16-18 x 3/4" Hex Head	
15	REF	1	Instrument Panel	See 4.1
16	48540-01	6	Clamp, Hose	
17	554752	70"	Fuel Line (Engine Return to Tank)	
18	554748	15"	Fuel Line (Tank To Fuel Pump)	
19	359611	1	Clamp, Hose	

> Change from previous revision

20.1 Hydraulic Filters and Valves



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4195080	1	Lift Valve	See 41.1
2	4195040	2	Reel Valve	See 40.1
3	365466	3	Fitting, Diagnostic	
	339897	1	• O-Ring, -6 ORB	
4	363030	3	Cover, Dust	
5	400258	8	Screw, 3/8-16 x 3/4" Hex Head	
6	446142	8	Lockwasher, 3/8 Heavy	
7	339990	2	Fitting, -10 ORFS x -12 ORB Straight	
	339911	1	• O-Ring, -10 ORFS	
	339900	1	• O-Ring, -12 ORB	
8	4101029	1	Tube, Front Reel Valve Pressure	
9	4101030	1	Tube, Rear Reel Valve Pressure	
10	339989	2	Fitting, -10 ORFS x -10 ORB Straight	
	339911	1	• O-Ring, -10 ORFS	
	339899	1	• O-Ring, -10 ORB	
11	340070	2	Fitting, -10 ORFS x -10 ORB 90°	
	339911	1	• O-Ring, -10 ORFS	
	339899	1	• O-Ring, -10 ORB	
12	4100222	1	Tube, Lift Valve Pressure	
13	1002807	1	Filter, Return	
	5002892	1	• Element, Filter	
14	403769	2	Screw, 1/4-20 x 1/2" Hex Flange	
15	1003142	1	4WD Valve	See 42.1
16	2811860	1	Bracket, 4WD Valve mounting	
17	408858	4	Screw, 5/16-18 x 3/4 Thread Form	
18	400184	3	Screw, 5/16-18 x 3/4" Hex Head	
19	446134	3	Lockwasher, 5/16	
20	452008	2	Flat Washer, 3/8	
21	4232560	1	Filter, Charge	
	4232561	1	• Filter Head	
	2811255	1	• Cartridge, Filter Element	
22	4232560	1	Bracket, Filter	S/N 67955-1837 and Up
23	4232580	1	Plate, Washer	S/N 67956-1797 and Up
24	452012	1	Flat Washer, 1/2	S/N 56957-1716 and Up
25	446153	1	Lockwasher, 1/2 Heavy	
26	443118	1	Nut, 1/2-13 Hex	
27	400404	1	Screw, 1/2-13 x 1-1/4" Hex Head	

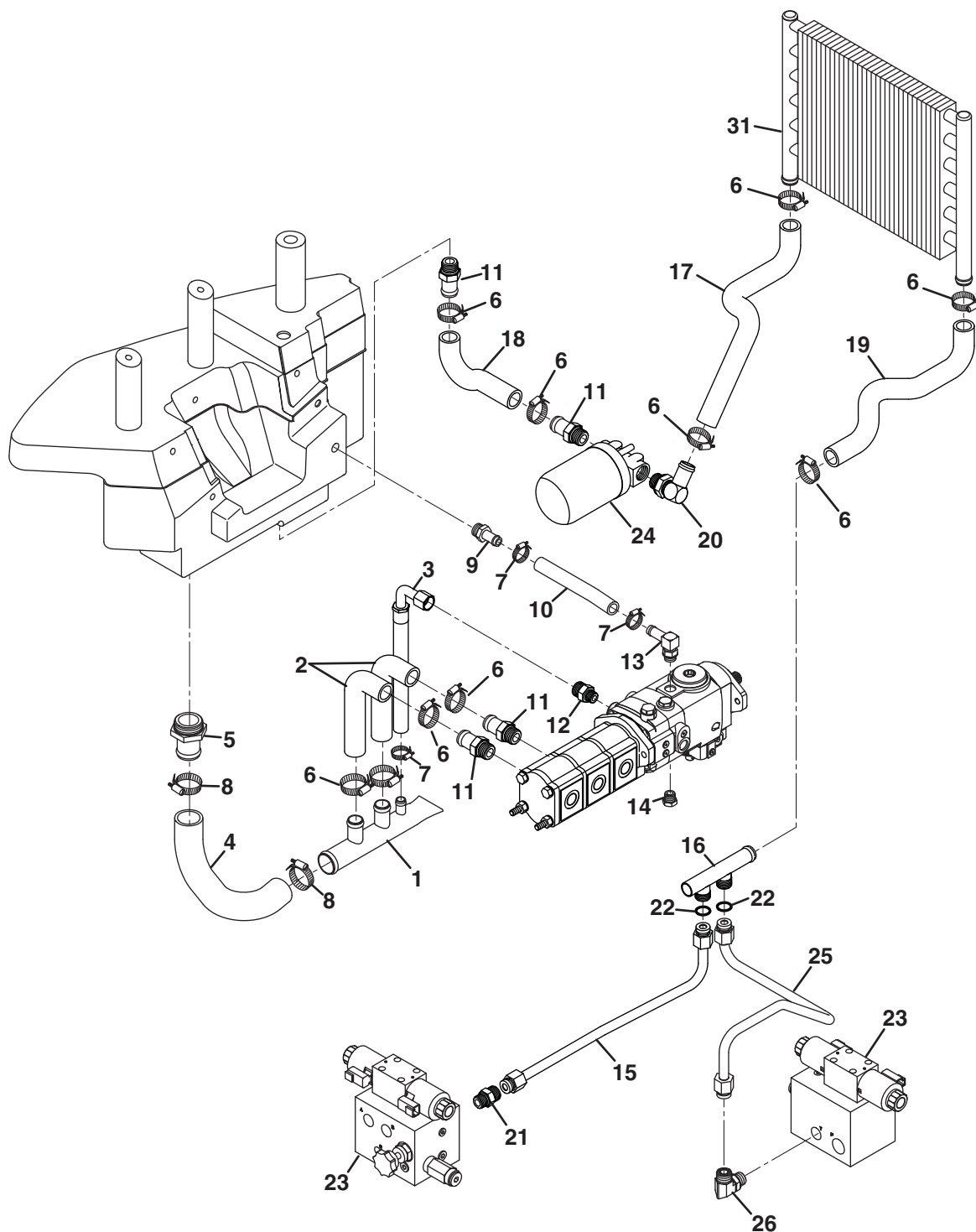
> Change from previous revision

21.1 Tank and Filter Hydraulics

Serial No. 67955-1601-1836

Serial No. 67956-1601-1796

Serial No. 67957-1601-1715



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4100773	1	Tube, Manifold	
2	4100765	2	Hose, Formed Gear Pump Suction	
3	4100766	1	Hose, Charge Pump Suction	
4	4100764	1	Hose, Suction	
5	4100763	1	Fitting, -24 ORB Straight Beaded	
	339903	1	• O-Ring, -24 ORB	
6	367458	10	Clamp, Hose	
7	108094-02	3	Clamp, Hose	
8	326799	2	Clamp, Hose	
9	3007699	1	Fitting, -8 ORB Straight Beaded	
	339898	1	• O-Ring, -8 ORB	
10	3006600	1	Hose, Traction Pump Drain	
11	3001296	4	Fitting, -12 ORB Straight Beaded	
	339900	1	• O-Ring, -12 ORB	
12	339988	1	Fitting, -10 ORFS x -8 ORB Straight	
	339911	1	• O-Ring, -10 ORFS	
	339898	1	• O-Ring, -8 ORB	
13	362090	1	Fitting, -8 ORB 90° Beaded	
	339898	1	• O-Ring, -8 ORB	
14	351127	1	Plug, #8 ORB	
	339898	1	• O-Ring, -8 ORB	
15	4100778	1	Tube, Front Reel Valve Return	
16	4100777	1	Tube, Return Manifold	
17	4100768	1	Hose, Formed Cooler Outlet	
18	4100767	1	Hose, Formed Filter to Tank	
19	4100769	1	Hose, Cooler Inlet	
20	3005602	1	Fitting, -12 ORB 90° Beaded	
	339900	1	• O-Ring, -12 ORB	
21	339989	1	Fitting, -10 ORFS x -10 ORB Straight	
	339911	1	• O-Ring, -10 ORFS	
	339899	1	• O-Ring, -10 ORB	
22	339911	2	O-Ring, -10	
23	4195040	2	Reel Valve	See 20.1 for Valve Mounting
24	1002807	1	Filter, Return	See 20.1 for Filter Mounting
	5002892	1	• Element, Filter	
25	4100776	1	Tube, Rear Reel Valve Return	
26	340070	1	Fitting, -10 ORFS x -10 ORB 90°	
	339911	1	• O-Ring, -10 ORFS	
	339899	1	• O-Ring, -10 ORB	

> Change from previous revision

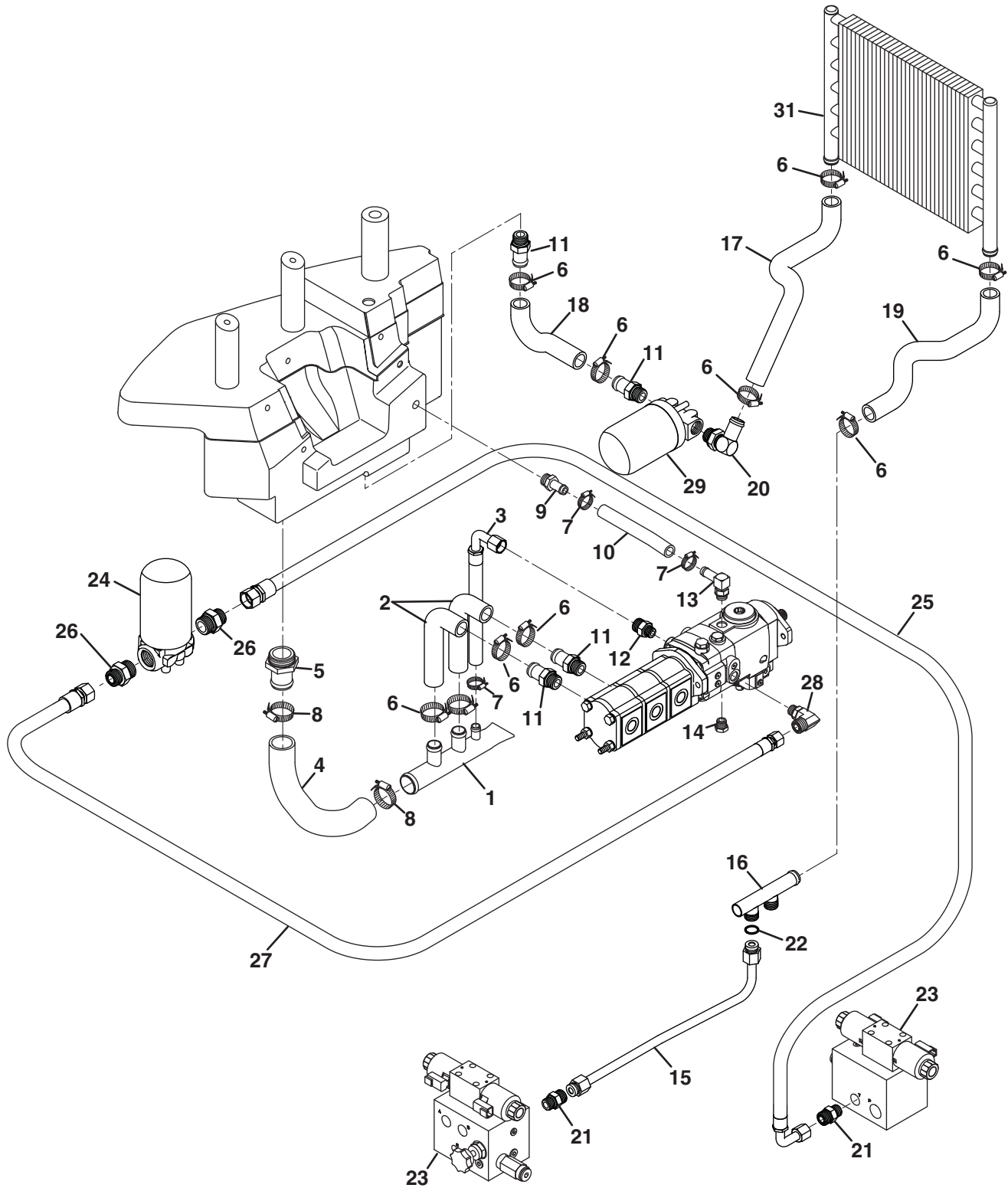
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21.2 Tank and Filter Hydraulics

Serial No. 67955-1837and Up

Serial No. 67956-1797and Up

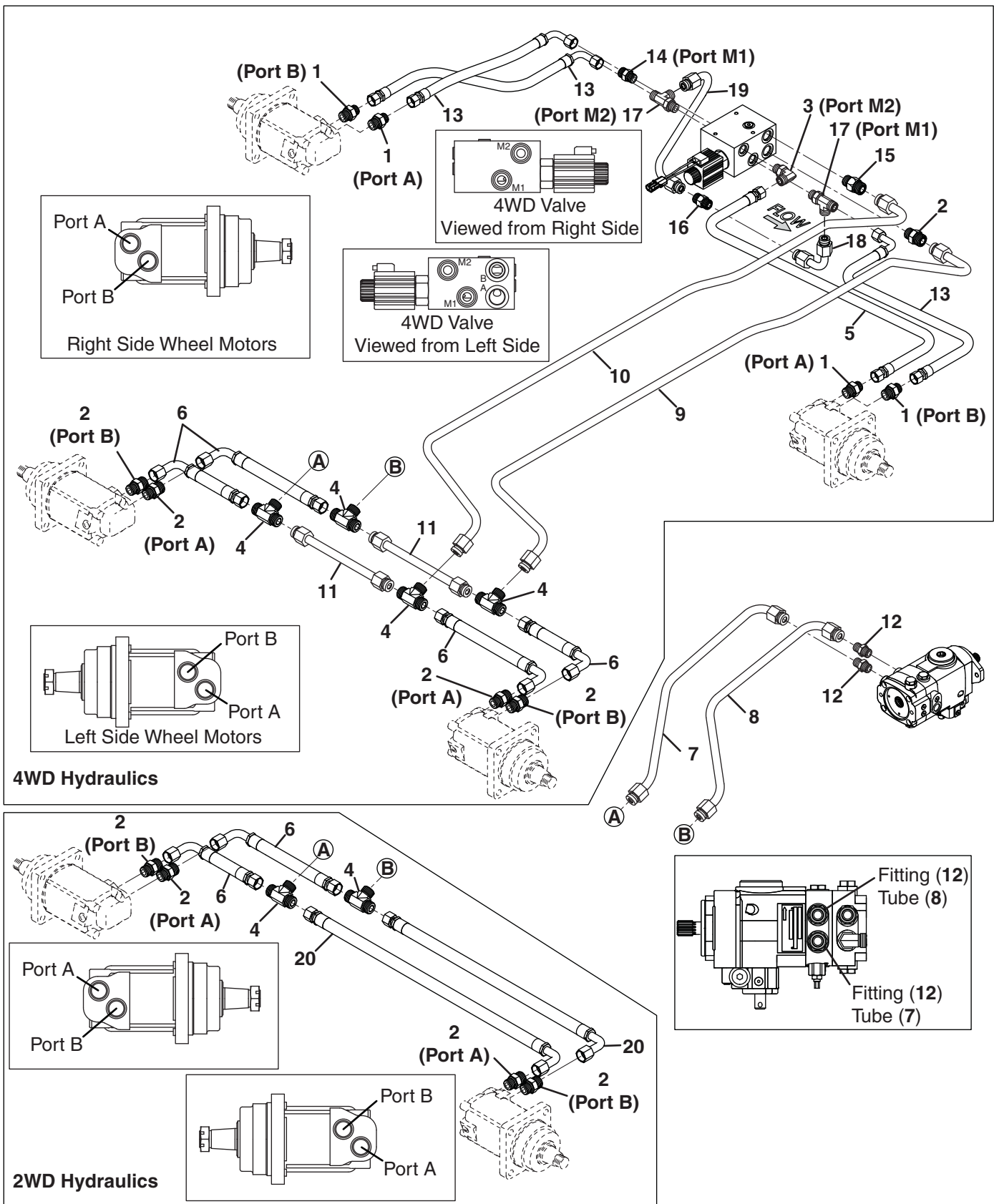
Serial No. 67957-1716and Up



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4100773	1	Tube, Manifold	
2	4100765	2	Hose, Formed Gear Pump Suction	
3	4100766	1	Hose, Charge Pump Suction	
4	4100764	1	Hose, Suction	
5	4100763	1	Fitting, -24 ORB Straight Beaded	
	339903	1	• O-Ring, -24 ORB	
6	367458	10	Clamp, Hose	
7	108094-02	3	Clamp, Hose	
8	326799	2	Clamp, Hose	
9	3007699	1	Fitting, -8 ORB Straight Beaded	
	339898	1	• O-Ring, -8 ORB	
10	3006600	1	Hose, Traction Pump Drain	
11	3001296	4	Fitting, -12 ORB Straight Beaded	
	339900	1	• O-Ring, -12 ORB	
12	339988	1	Fitting, -10 ORFS x -8 ORB Straight	
	339911	1	• O-Ring, -10 ORFS	
	339898	1	• O-Ring, -8 ORB	
13	362090	1	Fitting, -8 ORB 90° Beaded	
	339898	1	• O-Ring, -8 ORB	
14	351127	1	Plug, #8 ORB	
	339898	1	• O-Ring, -8 ORB	
15	4100778	1	Tube, Front Reel Valve Return	
16	4100777	1	Tube, Return Manifold	
17	4100768	1	Hose, Formed Cooler Outlet	
18	4100767	1	Hose, Formed Filter to Tank	
19	4100769	1	Hose, Cooler Inlet	
20	3005602	1	Fitting, -12 ORB 90° Beaded	
	339900	1	• O-Ring, -12 ORB	
21	339989	2	Fitting, -10 ORFS x -10 ORB Straight	
	339911	1	• O-Ring, -10 ORFS	
	339899	1	• O-Ring, -10 ORB	
22	339911	2	O-Ring, -10	
23	4195040	2	Reel Valve	See 20.1 for Valve Mounting
24	4232560	1	Filter, Charge	See 20.1 for Filter Mounting
	2811255	1	• Cartridge, Filter Element	
25	4232820	1	Hose, Rear Reel Valve to Filter	
26	339996	2	Fitting, -12 ORFS x -16 ORB Straight	
	339912	1	• O-Ring, -12 ORFS	
	339901	1	• O-Ring, -16 ORB	
27	4232800	1	Hose, Charge Filter to Traction Pump	
28	340069	1	Fitting, -10 ORFS x -8 ORB 90°	
	339911	1	• O-Ring, -10 ORFS	
	339898	1	• O-Ring, -8 ORB	
29	1002807	1	Filter, Return	See 20.1 for Filter Mounting
	5002892	1	• Element, Filter	

> Change from previous revision

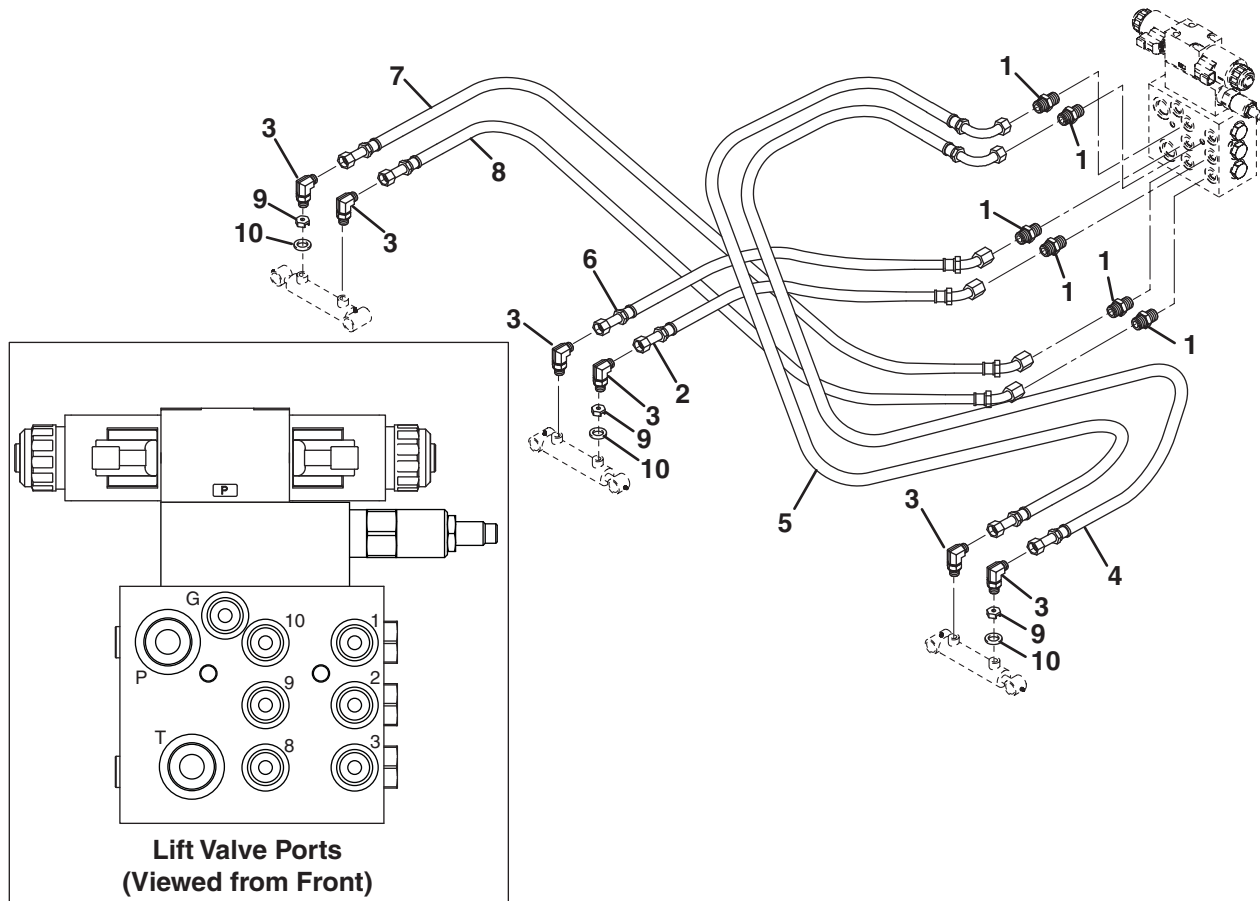
22.1 Traction Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	339985	4	Fitting, -8 ORFS x -10 ORB Straight	4WD Units Only
	339910	1	• O-Ring, -8 ORFS	
	339899	1	• O-Ring, -10 ORB	
2	339989	4	Fitting, -10 ORFS x -10 ORB Straight	2WD Units
2	339989	6	Fitting, -10 ORFS x -10 ORB Straight	4WD Units
	339911	1	• O-Ring, -10 ORFS	
	339899	1	• O-Ring, -10 ORB	
3	340066	1	Fitting, -8 ORFS x -8 ORB 90°	4WD Units Only
	339910	1	• O-Ring, -8 ORFS	
	339898	1	• O-Ring, -8 ORB	
4	340337	2	Fitting, -10 ORFS Union Tee	2WD Units
4	340337	4	Fitting, -10 ORFS Union Tee	4WD Units
	339911	3	• O-Ring, -10 ORFS	
5	4101032	1	Hose, Rear Wheel Motor	4WD Only, 4WD Valve Port M2
6	4101033	2	Hose, Front Wheel Motor	2WD Units
6	4101033	4	Hose, Front Wheel Motor	4WD Units
7	4108361	1	Tube, Traction Pump	
8	4108360	1	Tube, Traction Pump	
9	4101036	1	Tube, 4WD Valve	4WD Units Only
10	4101037	1	Tube, 4WD Valve	4WD Units Only
11	4101038	2	Tube, Front Motor	4WD Units Only
12	339988	2	Fitting, -10 ORFS x -8 ORB Straight	
	339911	1	• O-Ring, -10 ORFS	
	339898	1	• O-Ring, -8 ORB	
13	4119082	3	Hose, Rear Wheel Motor	4WD Only, 4WD Valve Port M1
14	339984	1	Fitting, -8 ORFS x -8 ORB Straight	4WD Units Only
	339910	1	• O-Ring, -8 ORFS	
	339898	1	• O-Ring, -8 ORB	
15	4191000	1	Valve, In-line Check	4WD Units Only
	339911	1	• O-Ring, -10 ORFS	
	339899	1	• O-Ring, -10 ORB	
16	4191001	1	Valve, In-line Check	4WD Units Only
	339910	2	• O-Ring, -8 ORFS	
17	340264	2	Tee, -8 ORFS Straight Thread Run	4WD Units Only
	339910	2	• O-Ring, -8 ORFS	
	339898	1	• O-Ring, -8 ORB	
18	4188681	1	Tube Assembly	4WD Units Only
19	4188680	1	Tube Assembly	4WD Units Only
20	4101040	2	Hose, Left Motor	2WD Units Only

> Change from previous revision

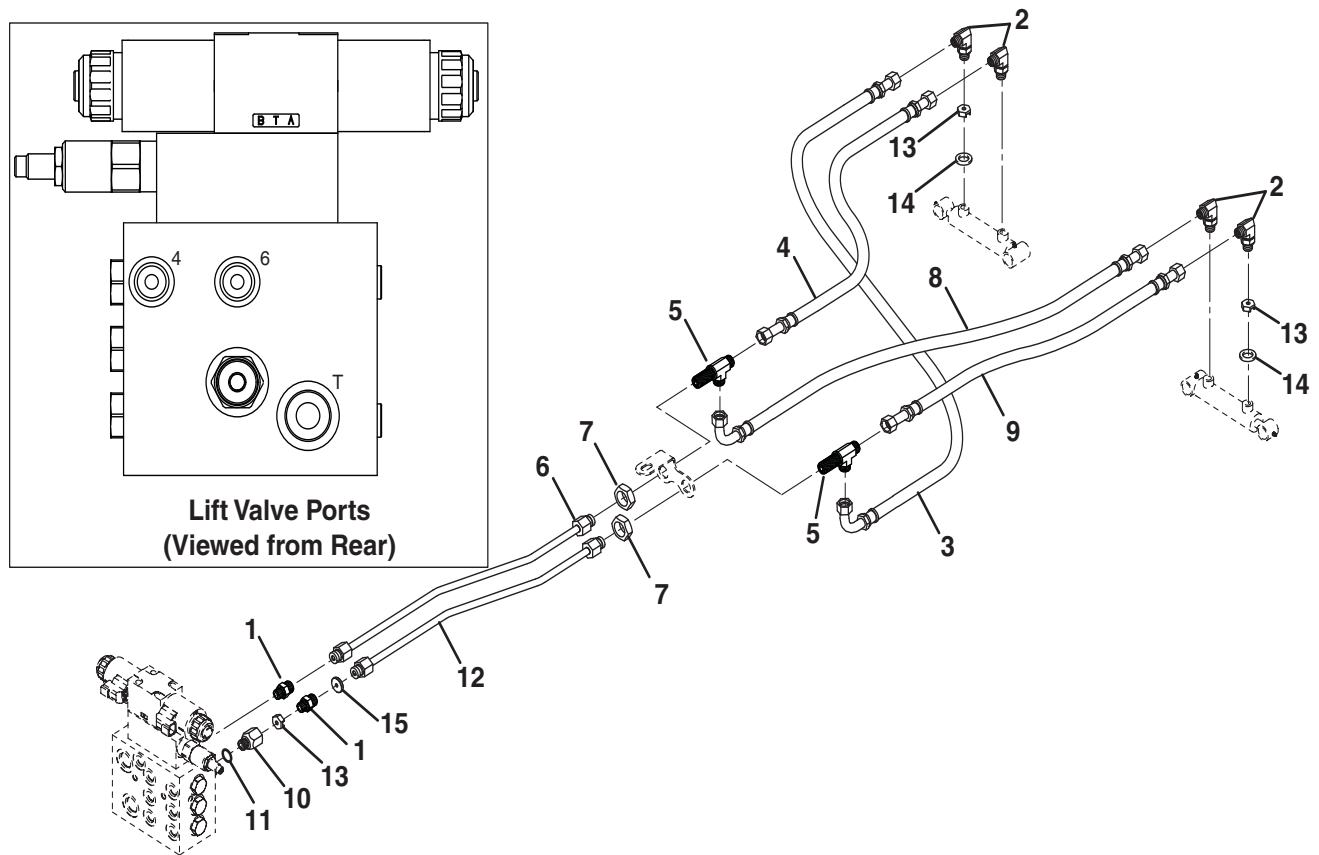
23.1 Front Lift Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	339974	6	Fitting, -4 ORFS x -6 ORB Straight	
	339908	1	• O-Ring, -4 ORFS	
	339896	1	• O-Ring, -6 ORB	
2	4100225	1	Hose, Center Cylinder to Valve	Lift Valve Port 2
3	340057	6	Fitting, -4 ORFS x -6 ORB 90°	
	339908	1	• O-Ring, -4 ORFS	
	339896	1	• O-Ring, -6 ORB	
4	4108182	1	Hose, Left Cylinder to Valve	Lift Valve Port 3
5	4100224	1	Hose, Valve to Left Cylinder	Lift Valve Port 10
6	4100225	1	Hose, Valve to Center Cylinder	Lift Valve Port 9
7	4100226	1	Hose, Valve to Right Cylinder	Lift Valve Port 8
8	4108183	1	Hose, Right Cylinder to Valve	Lift Valve Port 1
9	4121052	3	Orifice Plate, 0.032	
10	4121248	3	Washer, Orifice	

> Change from previous revision

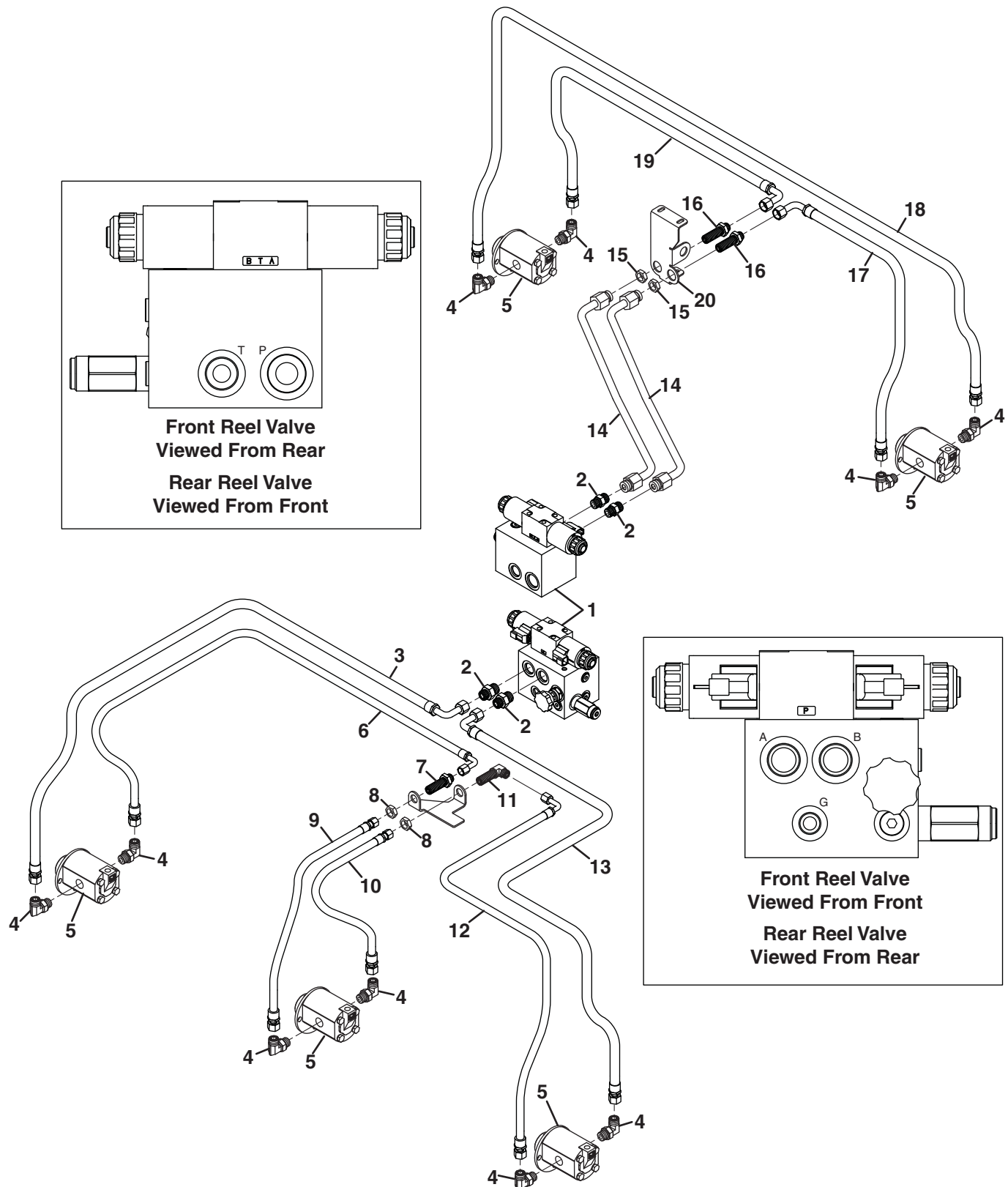
24.1 Rear Lift Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	339979	2	Fitting, -6 ORFS x -6 ORB Straight	
	339909	1	• O-Ring, -6 ORFS	
	339896	1	• O-Ring, -6 ORB	
2	340057	4	Fitting, -4 ORFS x -6 ORB 90°	
	339908	1	• O-Ring, -4 ORFS	
	339896	1	• O-Ring, -6 ORB	
3	4100223	1	Hose, Right Cylinder to Left Tee	
4	4110942	1	Hose, Right Tee to Right Cylinder	
5	340215	2	Tee, -6 Bulkhead Run	
	339909	1	• O-Ring, -6 ORFS	
6	4108600	1	Tube, Lift Valve to Right Tee	Lift Valve Port 6
7	339961	2	Locknut, 11/16-16 Bulkhead	
8	4110943	1	Hose, Right Tee to Left Cylinder	
9	4110942	1	Hose, Left Cylinder to Left Tee	
10	337317	1	Fitting, One way Restrictor	
11	339897	1	O-Ring, ORS System	
12	4110960	1	Tube, Left Tee to Lift Valve	Lift Valve Port 4
13	353190	3	Orifice Plate, 0.026	
14	4121248	2	Washer, Orifice	
15	3000953	1	Orifice Disc, 0.040	

> Change from previous revision

25.1 Reel Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4195040	2	Reel Valve	See 20.1 For Valve Mounting
2	339985	4	Fitting, -8 ORFS x -10 ORB Straight	
	339910	1	• O-Ring, -8 ORFS	
	339899	1	• O-Ring, -10 ORB	
3	4101002	1	Hose, Reel Valve to Right Motor	
4	340066	10	Fitting, -8 ORFS x -8 ORB 90°	
	339910	1	• O-Ring, -8 ORFS	
	339898	1	• O-Ring, -8 ORB	
5	2822505	3	Motor, Reel	
	5001068	1	• O-Ring, Mount	
	5002651	1	• Seal Kit	
	5003688	1	• Kit, Front Cover	
6	4101003	1	Hose, Right Motor to Bulkhead	
7	340239	1	Fitting, -6 ORFS Straight Bulkhead	
	339909	1	• O-Ring, -8 ORFS	
8	339961	2	Locknut, 11/16-16 Bulkhead	
9	4101004	1	Hose, Bulkhead to Center Motor	
10	4108180	1	Hose, Center Motor to Bulkhead	
11	340167	1	Fitting, -6 ORFS 90° Bulkhead	
	339909	1	• O-Ring, -8 ORFS	
12	4101005	1	Hose, Bulkhead to Left Motor	
13	4101020	1	Hose, Left Motor to Reel Valve	
14	4108601	2	Tube, Reel Valve to Bulkhead	
15	339962	2	Locknut, 13/16-16 Bulkhead	
16	340240	2	Fitting, -8 ORFS Straight Bulkhead	
	339910	1	• O-Ring, -8 ORFS	
17	4101027	1	Hose, Bulkhead to Left Motor	
18	4101025	1	Hose, Left Motor to Right Motor	
19	4110920	1	Hose, Right Motor to Bulkhead	
20	4101001	1	Bracket, Clamp	See 28.1

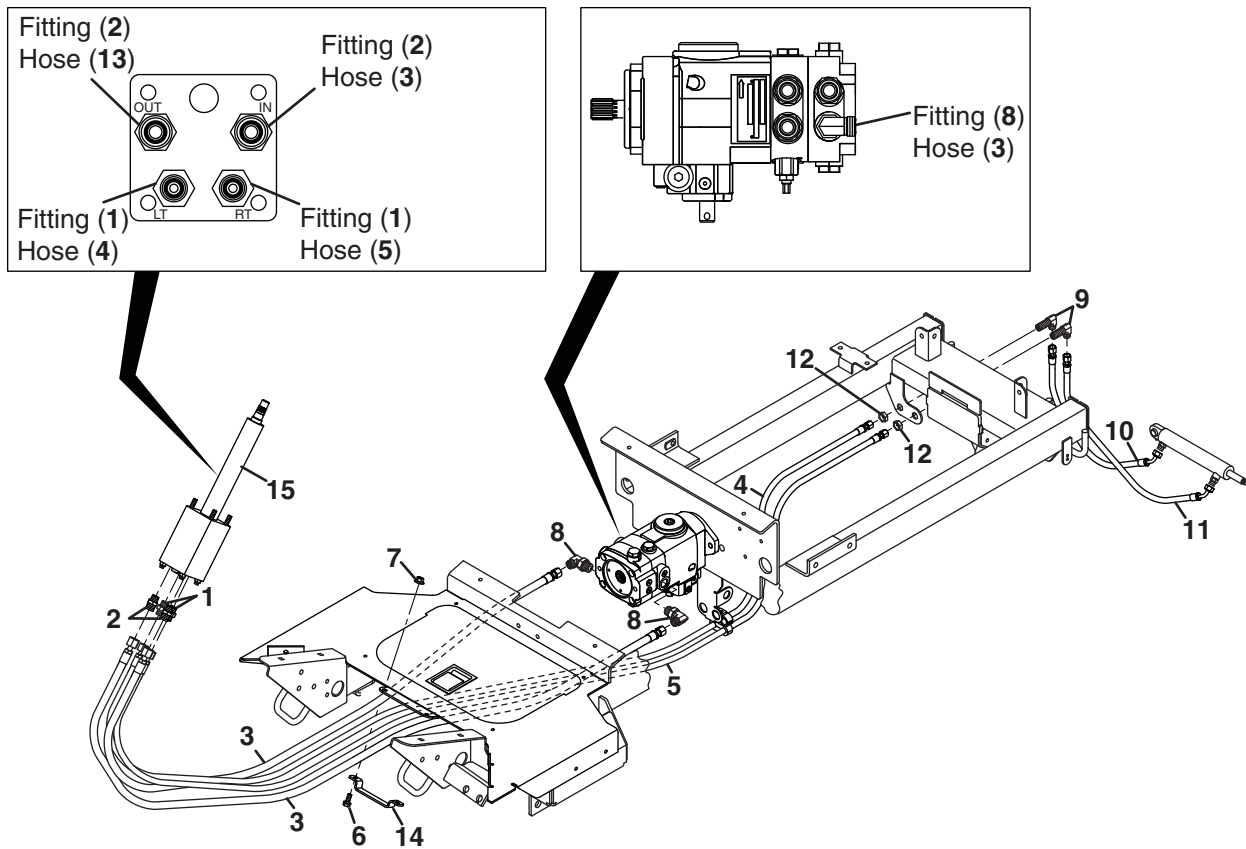
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26.1 Steering Hydraulics

Serial No. 67955-1601~1836

Serial No. 67956-1601~1796

Serial No. 67957-1601~1715

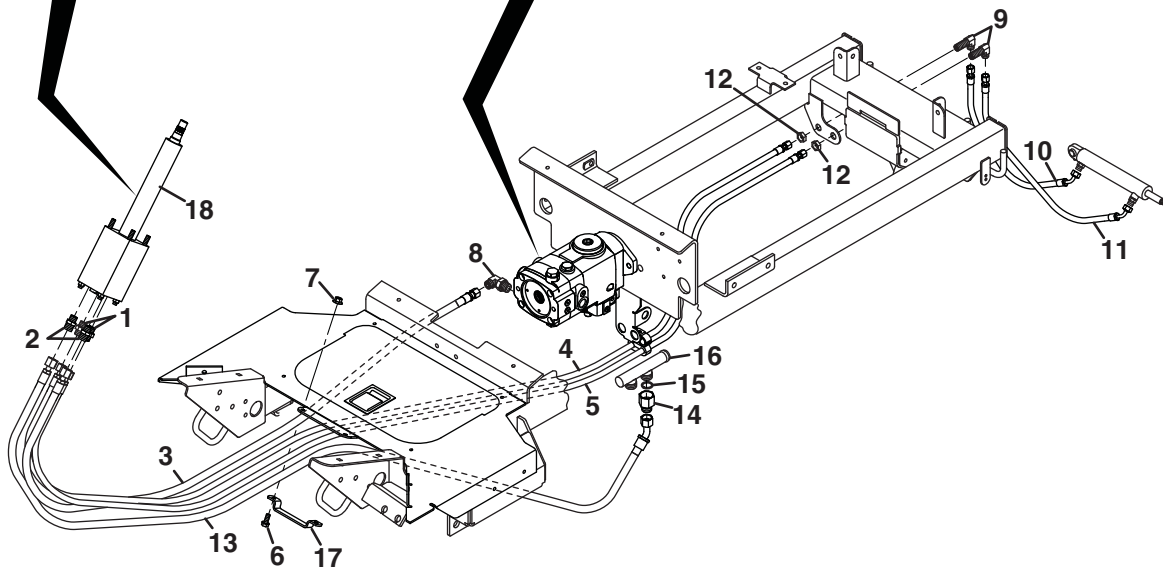
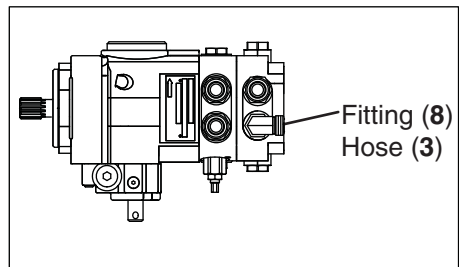
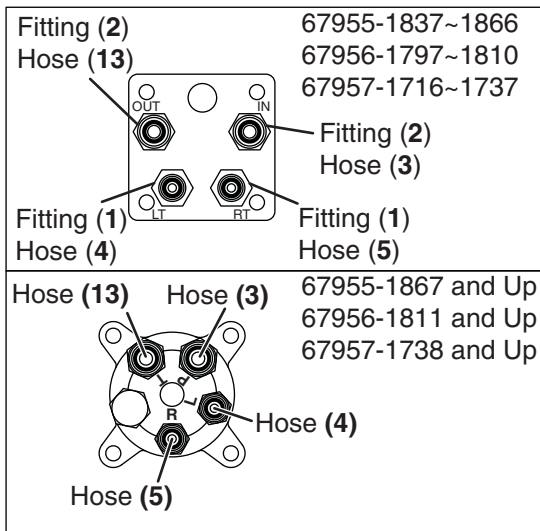


Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	339974	2	Fitting, -4 ORFS x -6 ORB Straight		
	339908	1	• O-Ring, -4 ORFS		
	339897	1	• O-Ring, -6 ORB		
2	339979	2	Fitting, -6 ORFS x -6 ORB Straight		
	339909	1	• O-Ring, -6 ORFS		
	339897	1	• O-Ring, -6 ORB		
3	4100844	1	Hose, Pump to Steering Valve		Steering Valve IN Port
4	4100845	1	Hose, Valve to Outside Bulkhead		Steering Valve LT Port
5	4100845	1	Hose, Valve to Inside Bulkhead		Steering Valve RT Port
6	403770	2	Screw, 5/16-18 x 3/4" Hex Flange		
7	445781	2	Nut, 5/16-18 Whiz Lock		
8	340062	2	Fitting, -6 ORFS x -8 ORB 90°		Charge Pump Outlet Port
	339909	1	• O-Ring, -6 ORFS		
	339898	1	• O-Ring, -8 ORB		
9	340166	2	Fitting, -6 ORFS 90° Bulkhead		
	339909	2	• O-Ring, -6 ORFS		
10	4119084	1	Hose, Outside Bulkhead to Cylinder	Cylinder Base Port	
11	4119085	1	Hose, Inside Bulkhead to Cylinder	Cylinder Rod Port	
12	339960	2	Locknut, Bulkhead		
13	4100844	1	Hose, Steering Valve to Pump	Steering Valve OUT Port	
14	1004541	1	Bracket, Hose Retaining		
15	4101283	1	Valve, Steering	See 8.1	

> Change from previous revision

26.2 Steering Hydraulics

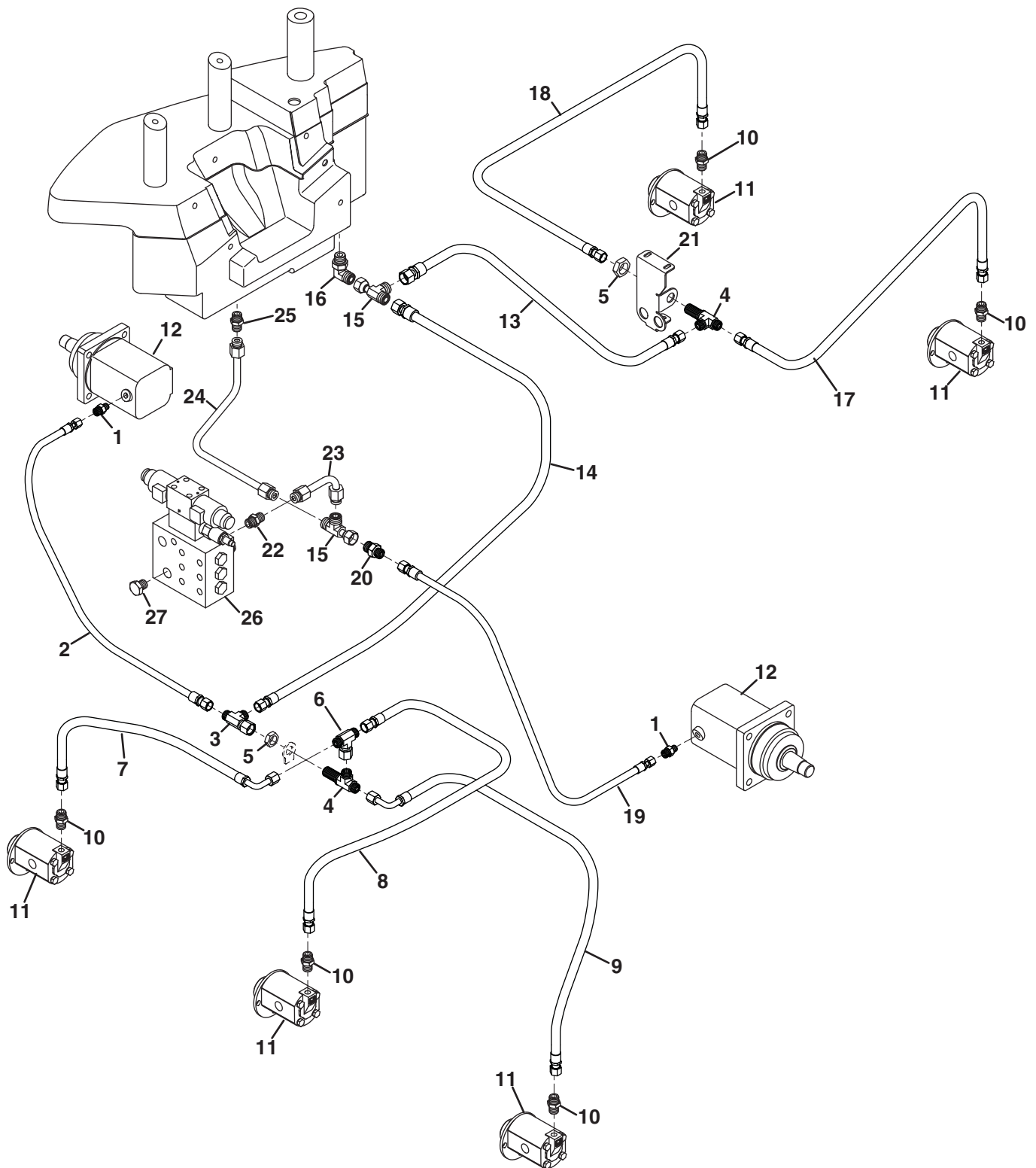
Serial No. 67955-1837 and Up
 Serial No. 67956-1797 and Up
 Serial No. 67957-1716 and Up



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	339974	2	Fitting, -4 ORFS x -6 ORB Straight	
	339908	1	• O-Ring, -4 ORFS	
	339897	1	• O-Ring, -6 ORB	
2	339979	2	Fitting, -6 ORFS x -6 ORB Straight	
	339909	1	• O-Ring, -6 ORFS	
	339897	1	• O-Ring, -6 ORB	
3	4100844	1	Hose, Pump to Steering Valve	Steering Valve IN Port
4	4100845	1	Hose, Valve to Outside Bulkhead	Steering Valve LT Port
5	4100845	1	Hose, Valve to Inside Bulkhead	Steering Valve RT Port
6	403770	2	Screw, 5/16-18 x 3/4" Hex Flange	
7	445781	2	Nut, 5/16-18 Whiz Lock	
8	340062	1	Fitting, -6 ORFS x -8 ORB 90°	Charge Pump Outlet Port
	339909	1	• O-Ring, -6 ORFS	
	339898	1	• O-Ring, -8 ORB	
9	340166	2	Fitting, -6 ORFS 90° Bulkhead	
	339909	2	• O-Ring, -6 ORFS	
10	4119084	1	Hose, Outside Bulkhead to Cylinder	Cylinder Base Port
11	4119085	1	Hose, Inside Bulkhead to Cylinder	Cylinder Rod Port
12	339960	2	Locknut, Bulkhead	
13	4233080	1	Hose, Valve to Cooler Manifold	Steering Valve OUT Port
14	4237704	1	Fitting, -10 to -8 ORFS Reducer	
	339910	1	• O-Ring, -8 ORFS	
15	339911	1	O-Ring, -10 ORFS	
16	4100777	1	Tube, Return Manifold	See 21.1
17	1004541	1	Bracket, Hose Retaining	
18	4101283	1	Valve, Steering	See 8.1
18	4247250	1	Valve, Steering	See 8.2

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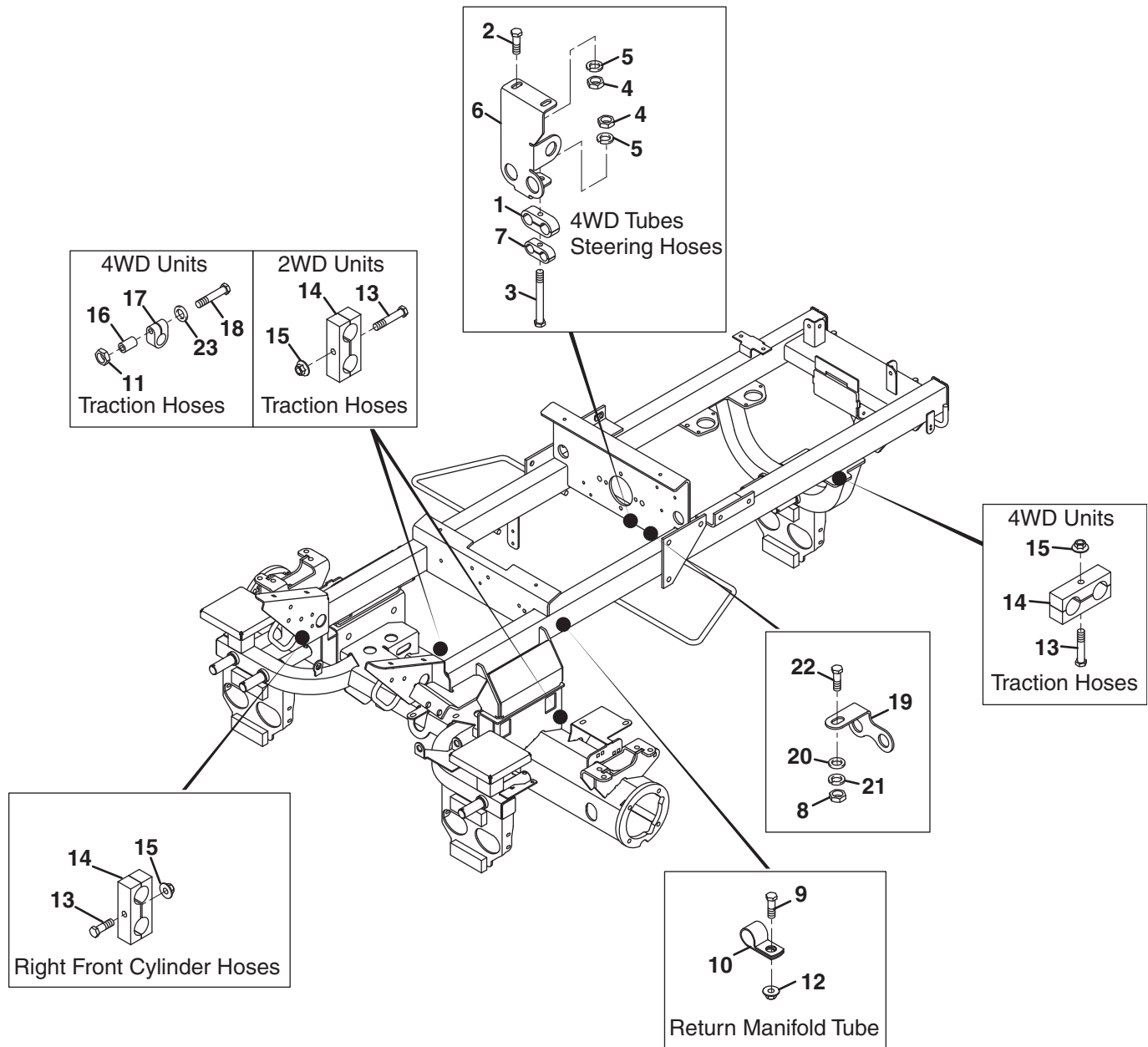
27.1 Return Hydraulics



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	339972	2	Fitting, -4 ORFS x -4 ORB Straight		
	339908	1	• O-Ring, -4 ORFS		
	339896	1	• O-Ring, -4 ORB		
2	4110942	1	Hose, Right Wheel Motor Drain		
3	340119	1	Fitting, -6 ORFS Swivel Run Tee		
	339909	2	• O-Ring, -6 ORFS		
4	340215	2	Fitting, -6 ORFS Bulkhead Run Tee		
	339909	3	• O-Ring, -6 ORFS		
5	339961	1	Locknut, 11/16-16 Bulkhead		
6	340143	1	Fitting, -6 ORFS Swivel Branch Tee		
	339909	2	• O-Ring, -6 ORFS		
7	4153477	1	Hose, Front Right Reel Motor Drain		
8	4153478	1	Hose, Center Reel Motor Drain		
9	4153479	1	Hose, Front Left Reel Motor Drain		
10	339977	5	Fitting, -6 ORFS x -4 ORB Straight		
	339909	1	• O-Ring, -6 ORFS		
	339897	1	• O-Ring, -6 ORB		
11	2822505	5	Motor, Reel		
12	4182425	2	Motor, Front Wheel		See 7.1 For Motor Mounting
13	4177881	1	Hose, Rear Return Tee to Tank Tee		
14	4177880	1	Hose, Front Return Tee to Tank Tee		
15	340120	1	Fitting, -8 ORFS Swivel Run Tee		
	339910	2	• O-Ring, -8 ORFS		
16	340066	1	Fitting, -8 ORFS x -8 ORB 90°		
	339910	1	• O-Ring, -8 ORFS		
	339898	1	• O-Ring, -8 ORB		
17	4153480	1	Hose, Left Rear Reel Motor Drain		
18	4153481	1	Hose, Right Rear Reel Motor Drain		
19	4180800	1	Hose, Left Wheel Motor Drain		
20	340289	1	Fitting, -6 x -8 ORFS Straight Union		
	339909	1	• O-Ring, -6 ORFS		
	339910	1	• O-Ring, -8 ORFS		
21	4101001	1	Bracket, Clamp	See 28.1	
22	339985	1	Fitting, -8 ORFS x -10 ORB Straight		
	339910	1	• O-Ring, -8 ORFS		
	339899	1	• O-Ring, -10 ORB		
23	4100774	1	Tube, Lift Valve to Tee		
24	4100775	1	Tube, Tee to Tank		
25	339984	1	Fitting, -8 ORFS x -8 ORB Straight		
	339910	1	• O-Ring, -8 ORFS		
	339898	1	• O-Ring, -8 ORB		
26	4195080	1	Lift Valve	See 20.1 For Valve Mounting	
27	360651	1	Plug, -10 ORB Hex		
	339899	1	• O-Ring, -10 ORB		

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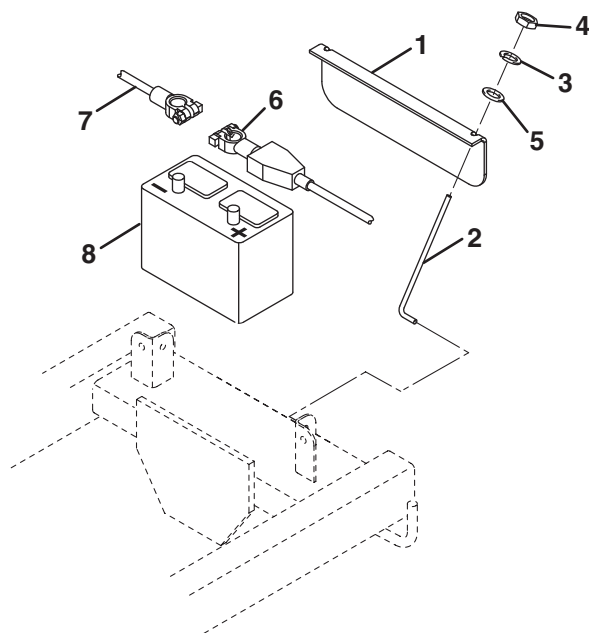
28.1 Hydraulic Clamping



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3003110	1	Clamp, Double 5/8" Hose	
2	400108	2	Screw, 1/4-20 x 3/4" Hex Head	
3	400124	1	Screw, 1/4-20 x 2-1/2" Hex Head	
4	443102	3	Nut, 1/4-20 Hex	
5	446128	3	Lockwasher, 1/4	
6	4101001	1	Bracket, Clamp	
7	364741	2	Clamp, Double 1/2" Hose	
8	443110	1	Nut, 3/8-16 Hex	
9	403770	1	Screw, 5/16-18 x 3/4" Hex Flange	
10	3008474	1	Clamp, 1" P Hose	
11	444708	1	Locknut, 1/4-20 Center	2WD Units
11	444708	5	Locknut, 1/4-20 Center	4WD Units
12	445781	1	Nut, 5/16-18 Whizlock	
13	400200	2	Screw, 5/16-18 x 2-1/2" Hex Head	
14	4107860	2	Clamp, Double 1" Hose	
15	445795	3	Nut, 5/16-18 Spiralock Flange	
16	367176	4	Spacer, 13/16"	4WD Units Only
17	4107680	5	Clamp, Single 5/8" Hose	4WD Units Only
18	400122	4	Screw, 1/4-20 x 2-1/4" Hex Head	4WD Units Only
19	4108720	1	Bracket, Bulkhead	
20	453011	1	Flat Washer, 3/8	
21	446142	1	Lockwasher, 3/8 Heavy	
22	400262	1	Screw, 3/8-16 Heavy	
23	453009	4	Flat Washer, 5/16	4WD Units Only

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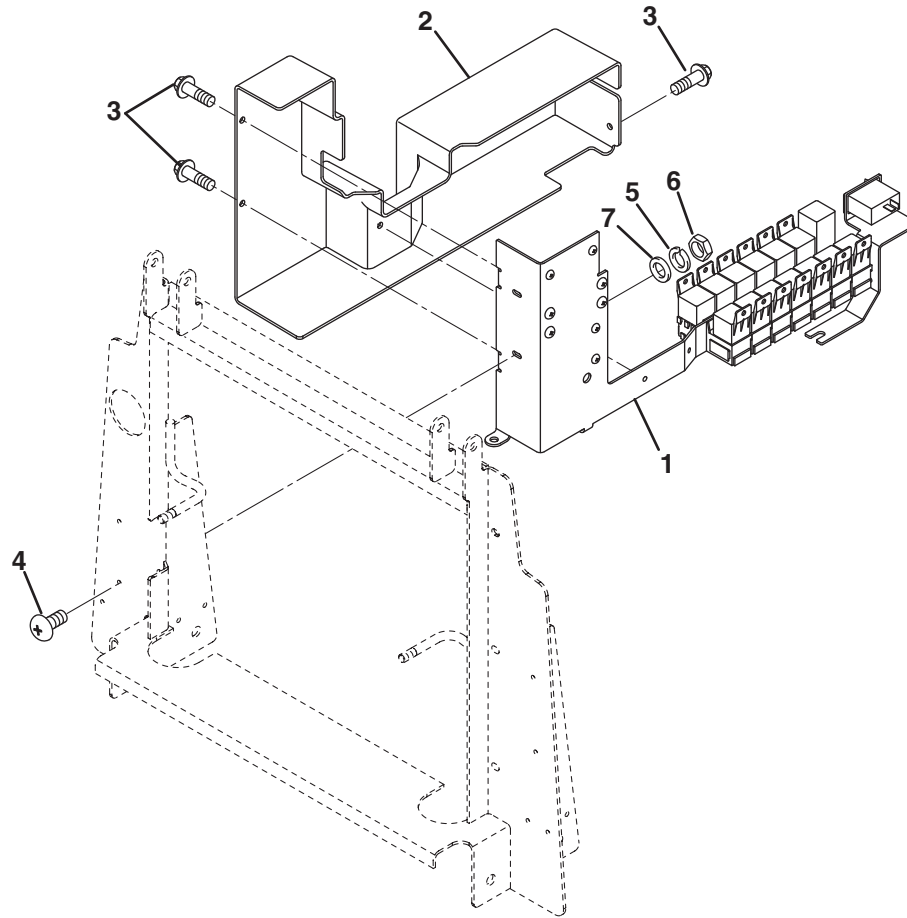
29.1 Battery Tray



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3000525	1	Bracket, Battery	
2	3005750	2	Rod, J Hook	
3	446130	2	Lockwasher, 1/4 Heavy	
4	443102	2	Nut, 1/4-20 Hex	
5	452004	2	Flat Washer, 1/4	
6	131076	1	Cable, Positive Battery	
7	153244	1	Cable, Negative Baattery	
8	N/S	1	Battery	

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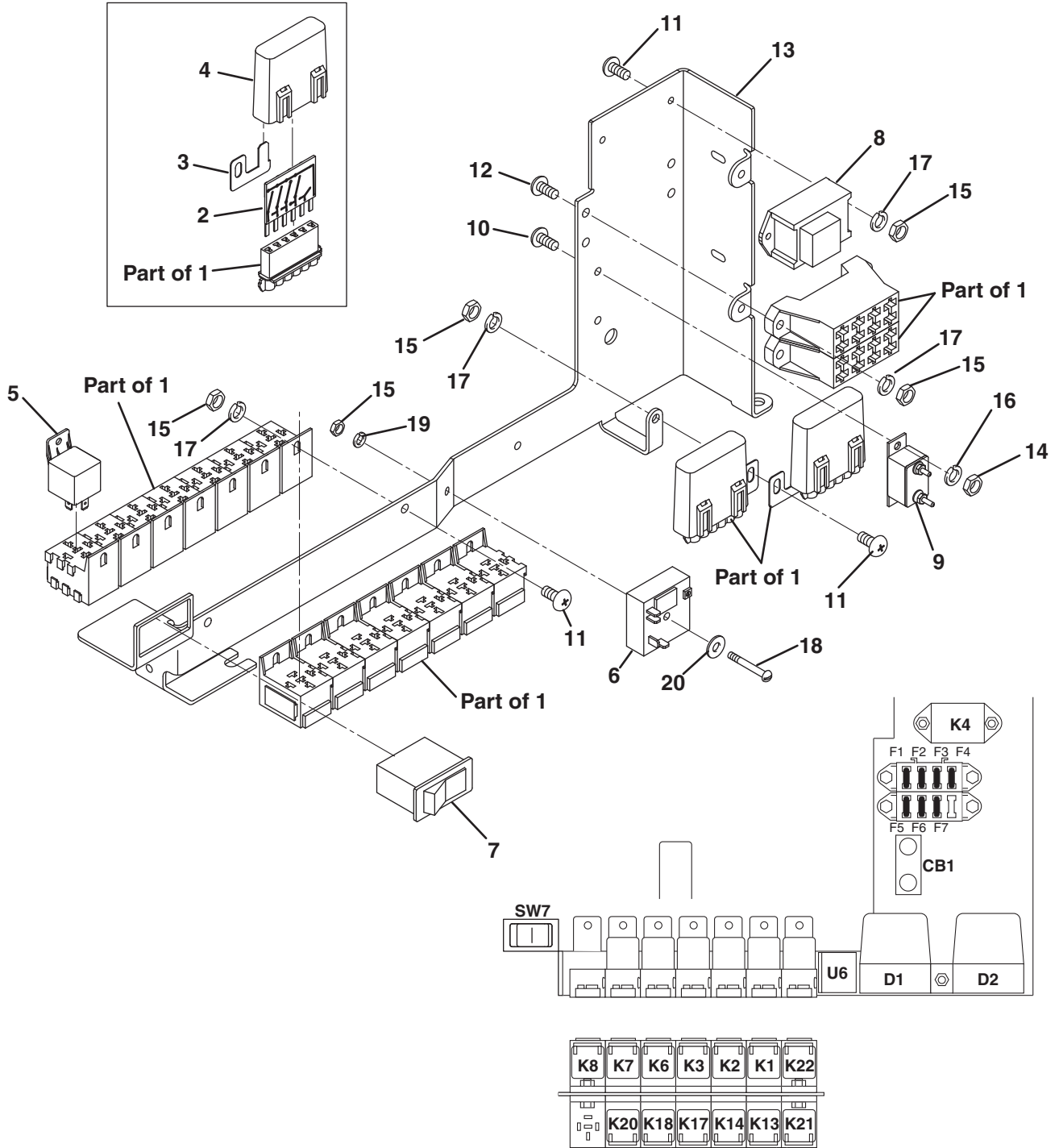
30.1 Electrical Box Mounting



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	REF	1	Electrical Box	See 31.1
2	4139099	1	Cover, Electrical Box	
3	409807	4	Screw, 1/4-20 x 3/4" Thread Cut	
4	403910	2	Screw, #10-24 x 1/2" Truss Head	
5	446116	2	Lockwasher, #10	
6	444310	2	Nut, #10-24 Hex	
7	452002	2	Flat Washer, #10	

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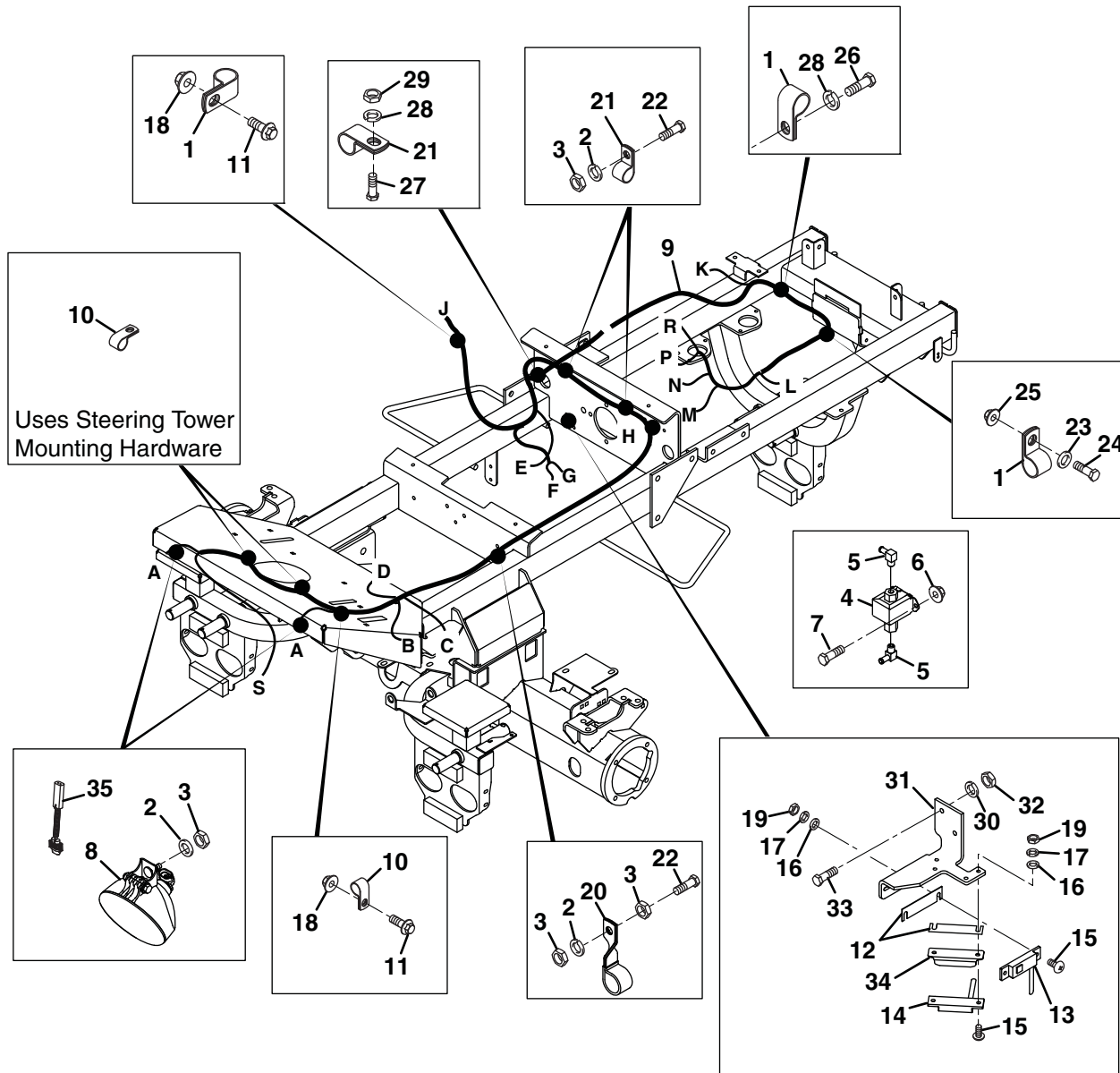
31.1 Electrical Box



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4135544	1	Harness, Wire	REFERENCE D1 and D2, See 46.1 REFERENCE K1-K3, K6-K8, K13, K14, K17, K18, K20-K22, See 46.1 REFERENCE U6, See 46.1 REFERENCE SW7, See 46.1 REFERENCE K4, See 46.1 REFERENCE CB1, See 46.1 REFERENCE F1 and F4, See 46.1 REFERENCE F3 and F6, See 46.1 REFERENCE F2 and F7, See 46.1 REFERENCE F5, See 46.1
2	2811376	2	• Card, 4 Diode	
3	2811358	2	• Clip, Mounting	
4	2811608	2	• Cover, Diode	
5	4193880	13	Relay, SPDT with Diode	
6	4137399	1	Relay, Time Delay	
7	3006447	1	Switch, DPST Backlap	
8	3009544	1	Relay, Seat Time Delay	
9	361439	1	Circuit Breaker, 50A	
10	403860	2	Screw, #8-32 x 5/8" Truss Head	
11	403910	5	Screw, #10-24 x 1/2" Truss Head	
12	403912	4	Screw, #10-24 x 5/8" Truss Head	
13	4108200	1	Bracket, Electrical Box	
14	444306	2	Nut, #8-32 Hex	
15	444310	10	Nut, #10-24 Hex	
16	446110	9	Lockwasher, #8	
17	446116	9	Lockwasher, #10	
	5003278	2	Fuse, 5 Amp (Not Shown)	
	5003280	2	Fuse, 10 Amp (Not Shown)	
	5003282	2	Fuse, 20 Amp (Not Shown)	
	5003284	1	Fuse, 30 Amp (Not Shown)	
18	402128	1	Screw, #10-24 x 1-1/4" Slotted	
19	446114	1	Lockwasher, #10 Light	
20	452002	2	Flat Washer, #10	

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32.1 Harness Routing



Harness Connections

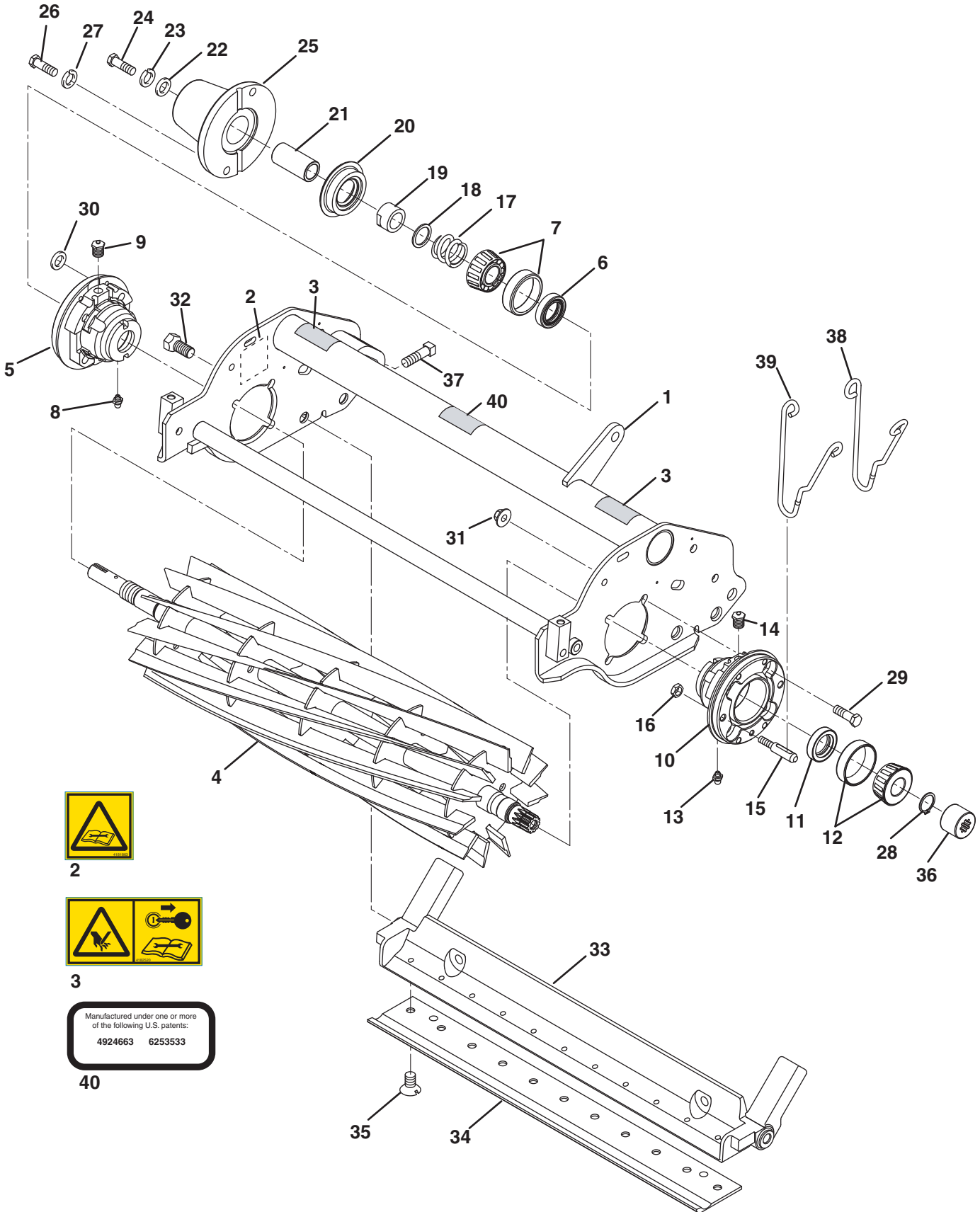
- | | |
|-----------------------------|---------------------------------|
| A - Head Lights | J - Instrument Panel |
| B - Front Reel Valve | K - Glow Plugs |
| C - Rear Reel Valve | L - Starter |
| D - Lift Valve | M - Oil Pressure Switch |
| E - Seat Switch | N - Alternator |
| F - Neutral Switch | P - Temperature Sender |
| G - 4WD Switch | R - Temperature Switch |
| H - Fuel Pump | S - Reel Position Switch |

Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	345671	3	Clamp, 13/16" Wire Harness	<p>REFERENCE M2, See 46.1</p> <p>REFERENCE L3 and L4, See 46.1</p> <p>REFERENCE R2, See 46.1</p> <p>REFERENCE SW3, See 46.1</p> <p>REFERENCE SW10, See 46.1</p>
2	446140	5	Lockwasher, 3/8	
3	443110	6	Nut, 3/8-16 Hex	
4	1004465	1	Pump, Fuel	
5	365976	2	Elbow, 90° Fuel	
6	445784	2	Nut, 1/4-20 Whiz Lock	
7	400108	2	Screw, 1/4-20 x 3/4" Hex Head	
8	4122840	2	Headlight	
	4123183	1	• Bulb, Replacement	
9	1003655	1	Harness, Engine Wire	
	558019	1	• Resistor, 75 Ohm 1 Watt	
10	345666	3	Clamp, 1/2" Wire Harness	
11	403770	2	Screw, 5/16-18 x 3/4" Hex Flange	
12	3009193	AR	Shim, Switch	
13	4140149	1	Switch, Neutral Proximity	
14	4140149	1	Switch, 4WD Drop Out Proximity	
15	403862	4	Screw, #8-32 x 3/4" Truss Head	
16	453004	4	Flat Washer, #8	
17	446110	4	Lockwasher, #8	
18	445795	2	Nut, 5/16-18 Spiralock Flange	
19	444306	4	Nut, #8-32 Hex	
20	3009269	1	Clamp, 15/16" Twisted Harness	
21	3008474	3	Clamp, 1" Wire Harness	
22	400264	3	Screw, 3/8-16 x 1-1/4" Hex Head	
23	452004	1	Flat Washer, 1/4	
24	400108	1	Screw, 1/4-20 x 3/4" Hex Head	
25	445784	1	Nut, 1/4-20 Whizlock	
26	355174	1	Screw, M6-1 x 12mm Hex Head	
27	400184	1	Screw, 5/16-18 x 5/8" Hex Head	
28	446134	2	Lockwasher, 1/4	
29	443106	1	Nut, 5/16-18 Hex	
30	446128	2	Lockwasher, 1/4	
31	3007482	1	Bracket, Switch	
32	443102	2	Nut, 1/4-20 Hex	
33	400110	2	Screw, 1/4-20 x 7/8" Hex Head	
34	4182420	1	Bracket, Switch Guard	
35	4200360	2	Harness, Headlight Adapter	

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33.1 Reel

Reel Drive

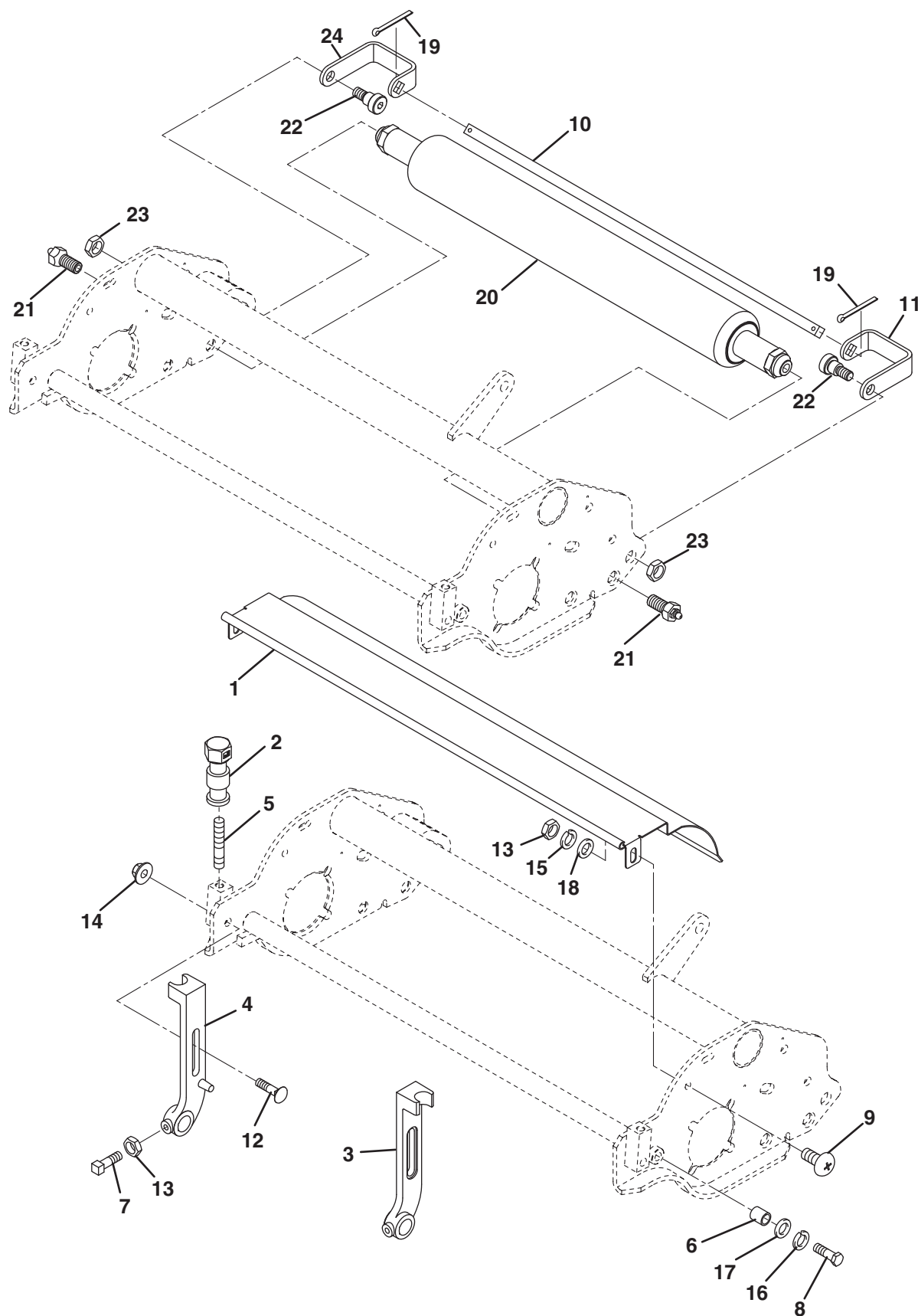


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4119514	1	Frame, 18" Reel	
2	4182520	1	• Decal, Groomer Warning	
3	4181863	2	• Decal, Danger	
4	4119513	1	Reel, 11 Blade	Used on 67932 Only
4	4119512	1	Reel, 8 Blade	Used on 67933 Only
5	1000480	1	Housing, Bearing	
6	336962	1	• Seal, Grease	
7	500534	1	• Bearing, Cup and Cone	
8	471214	1	• Grease Fitting, Straight	
9	471242	1	• Fitting, 1-5 psi Relief	
10	1004786	1	Housing, Bearing	
11	336962	1	• Seal, Grease	
12	500534	1	• Bearing, Cup and Cone	
13	471216	1	• Grease Fitting, Straight	
14	471242	1	• Fitting, 1-5 psi Relief	
15	3010296	2	• Pin, Motor Mounting	
16	444708	2	• Locknut, 1/4-20 Center	
17	5002151	1	Spring, Compression	
18	304745	1	Washer	
19	364900	1	Nut, Reel	
20	163892	1	Seal, Grease	
21	367164	1	Spacer, 7/8 x 1-13/16"	
22	453011	1	Flat Washer, 3/8	
23	446142	1	Lockwasher, 3/8 Heavy	
24	400294	1	Screw, 3/8-24 x 3/4" Hex Head	
25	2000065	1	Casting, Counterweight	
26	400110	2	Screw, 1/4-20 x 7/8" Hex Head	
27	446130	2	Lockwasher, 1/4 Heavy	
28	458013	1	Snap Ring	
29	400192	8	Screw, 5/16-18 x 1-1/2" Hex Head	
30	453009	4	Flat Washer, 5/16	
31	445795	8	Nut, 5/16-18 Spiralock Flange	
32	315298	2	Bolt, Wheel	
33	2811055	1	Backing, Bedknife	
34	4118902	1	Bedknife	
35	3009138	11	Screw, 1/4-20 Special Flat Head	
36	4247911	1	Coupler, Motor	Included with Mower
37	412503	4	Set Screw, 3/8-16 x 1-1/4" Sq Head	
38	2810165	1	Clip, Motor	
39	2810166	1	Clip, Motor	
40	4125770	1	Decal, Patent	

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34.1 Reel

Shield and Rollers

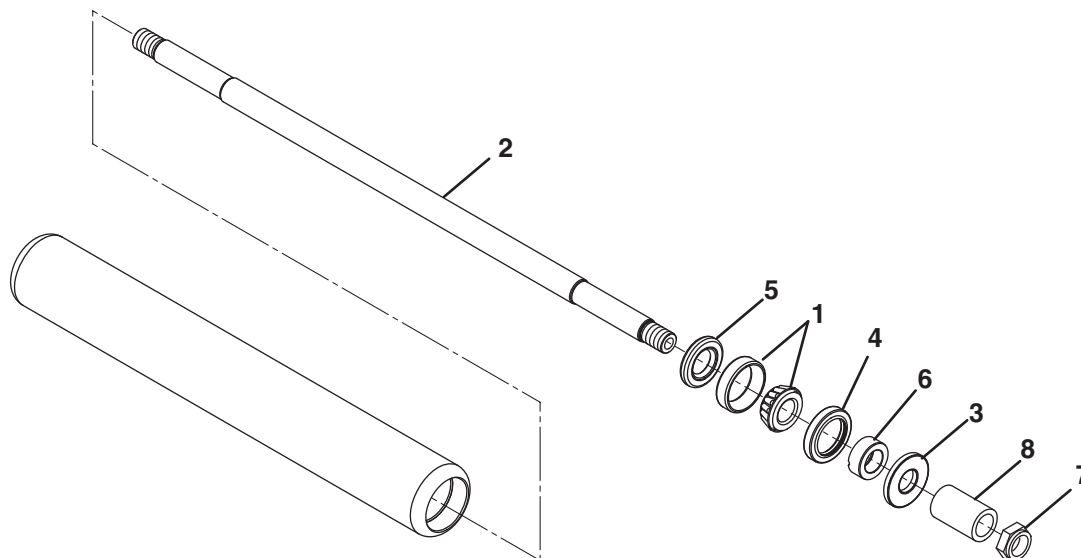


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2811027	1	Shield, Reel	
2	3005692	2	Knob, Front Roller Adjusting	
3	3008438	1	Bracket, Roller	
4	3008439	1	Bracket, Roller	
5	343616	2	Stud, Front Roller Adjusting	
6	345510	2	Spacer, Lift Yoke	
7	352737	2	Set Screw, Special	
8	400264	2	Screw, 3/8-16 x 1-1/4" Hex Head	
9	403782	2	Screw, 1/4-20 x 3/4" Truss Head	
10	4118379	1	Rod, Scraper	
11	4121861	1	Bracket, Left Side Scraper	
12	441674	2	Carriage Bolt, 5/16-18 x 1-3/4"	
13	443102	4	Nut, 1/4-20 Hex	
14	445795	2	Nut, 5/16-18 Spiralock Flange	
15	446130	2	Lockwasher, 1/4 Heavy	
16	446142	2	Lockwasher, 3/8 Heavy	
17	453011	2	Flat Washer, 3/8	
18	453023	2	Flat Washer, 1/4	
19	460026	2	Cotter Pin, 1/8 x 3/4"	
20	4115860	1	Rear Roller Assembly	See 35.1
21	1002224	2	Bolt, Zerk	
22	365246	2	Bolt, Shoulder	
23	443110	2	Nut, 3/8-16 Hex	
24	4121862	1	Bracket, Right Side Scraper	

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35.1 Rear Roller

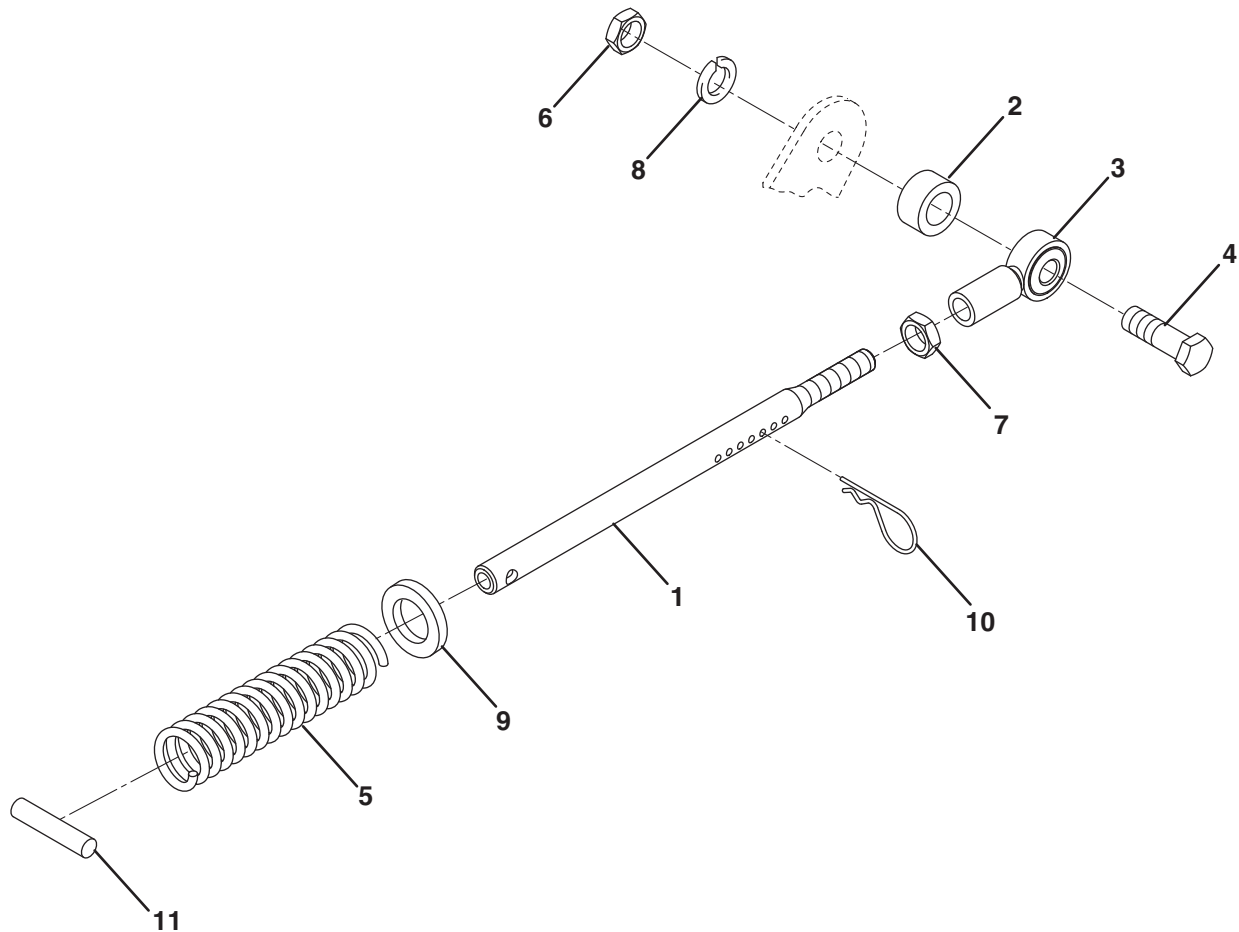
Part Number 4115860



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5000625	2	Bearing, Cup and Cone	
2	2811039	1	Shaft, Roller	
3	4115557	2	Washer	
4	3000983	2	Oil Seal	
5	3001656	2	Seal, Oil	
6	3001762	2	Sleeve, Wear	
7	445801	2	Nut, 5/8-18 Hex Jam Nylon Insert	
8	4115523	2	Spacer	

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36.1 Down Pressure



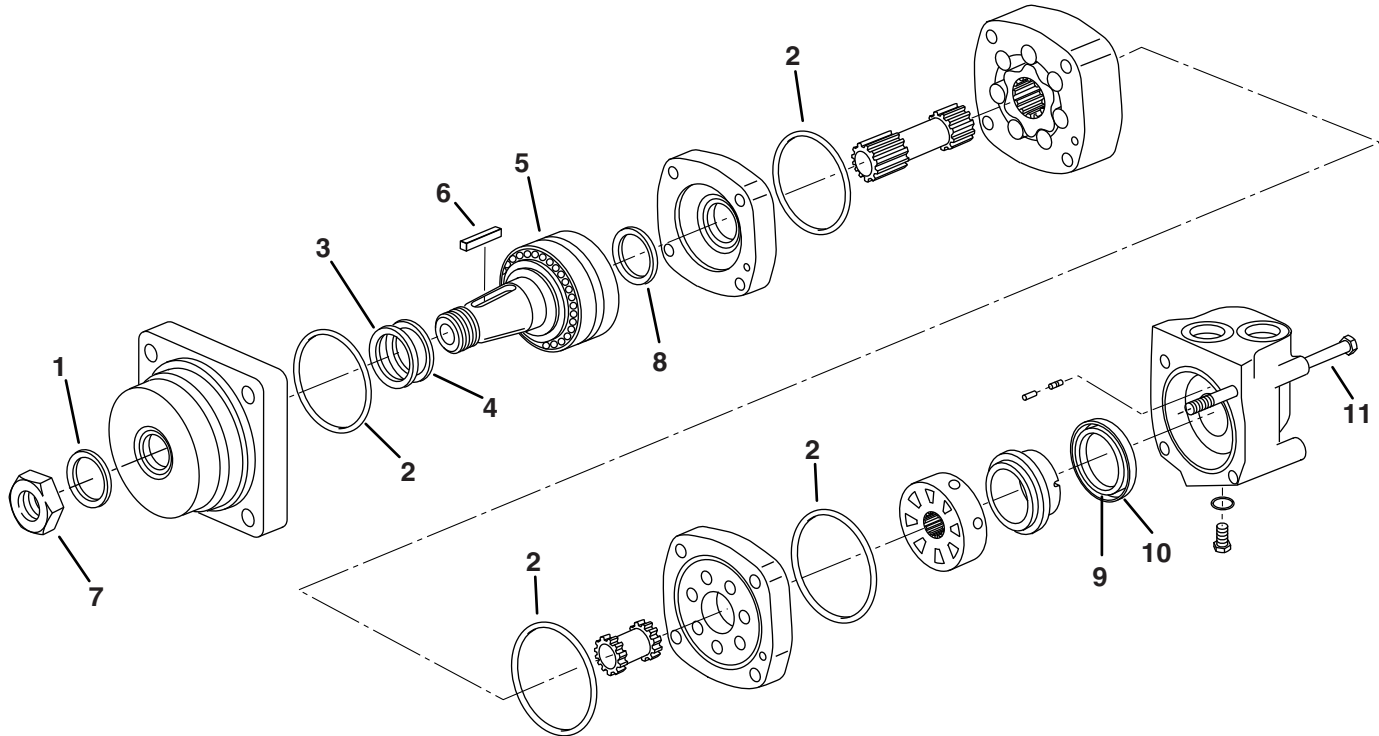
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3008593	1	Tube, Down Pressure	
2	352435	1	Spacer	
3	366974	1	Rod End	
4	400268	1	Screw, 3/8-16 x 1-3/4" Hex Head	
5	4113001	1	Spring, Down Pressure	
6	443110	1	Nut, 3/8-16 Hex	
7	443812	1	Nut, 3/8-24 Hex Jam	
8	446142	1	Lockwasher, 3/8 Heavy	
9	453017	1	Flat Washer, 1/2	
10	460312	1	Hairpin	
11	461397	1	Roll Pin, 1/4 x 1-1/4"	

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37.1 Front Wheel Motor

Serial No. All

Part Number 4182425

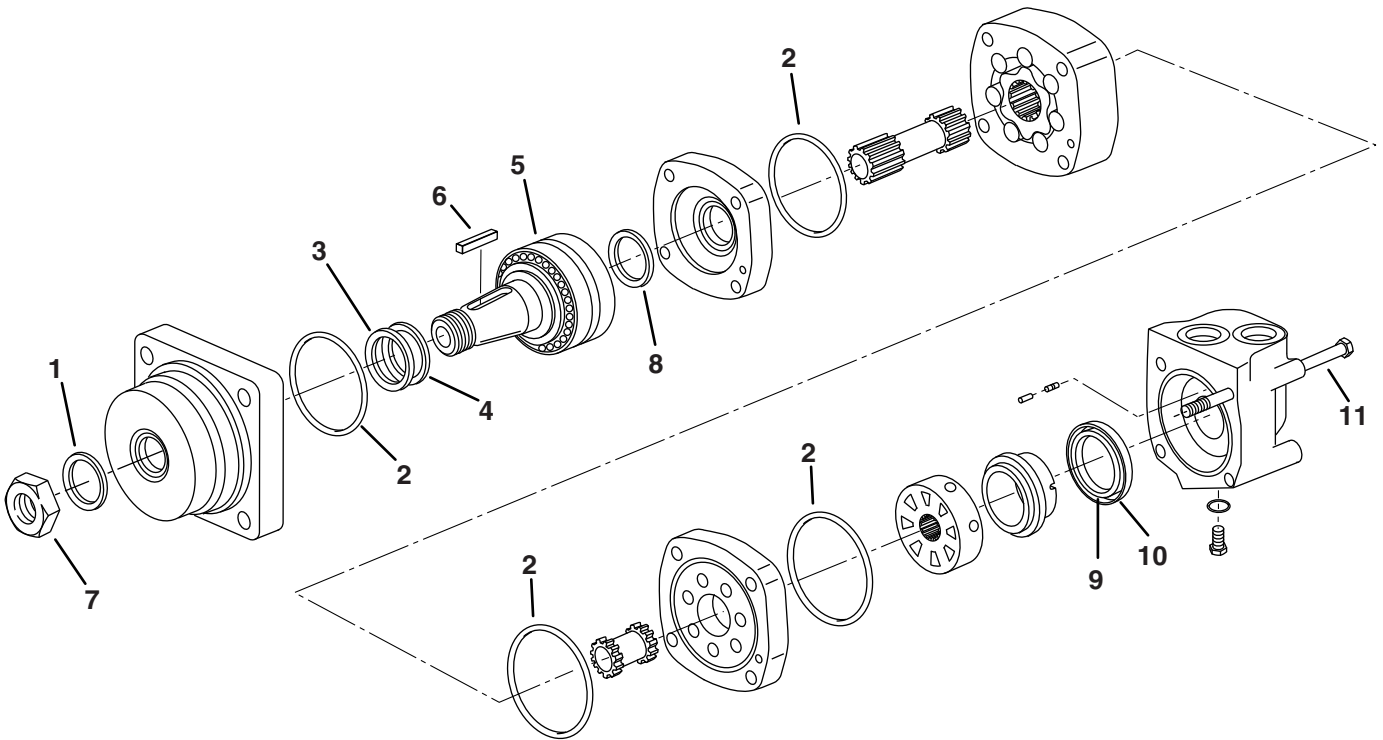


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	A	1	Seal Exclusion	
2	A	4	Seal, 3" I.D.	
3	B	1	Back Up Ring	
4	B	1	Shaft Seal	
5	5003384	1	Shaft and Bearing Kit	
6	554780	1	Key	
7	554779	1	Hex Nut	
8	A	1	Shaft Face Seal	
9	A	1	Inner Face Seal	
10	A	1	Outer Face Seal	
11	556450	4	Bolt	
	4178561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

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38.1 Rear Wheel Motor

Part Number 4181920

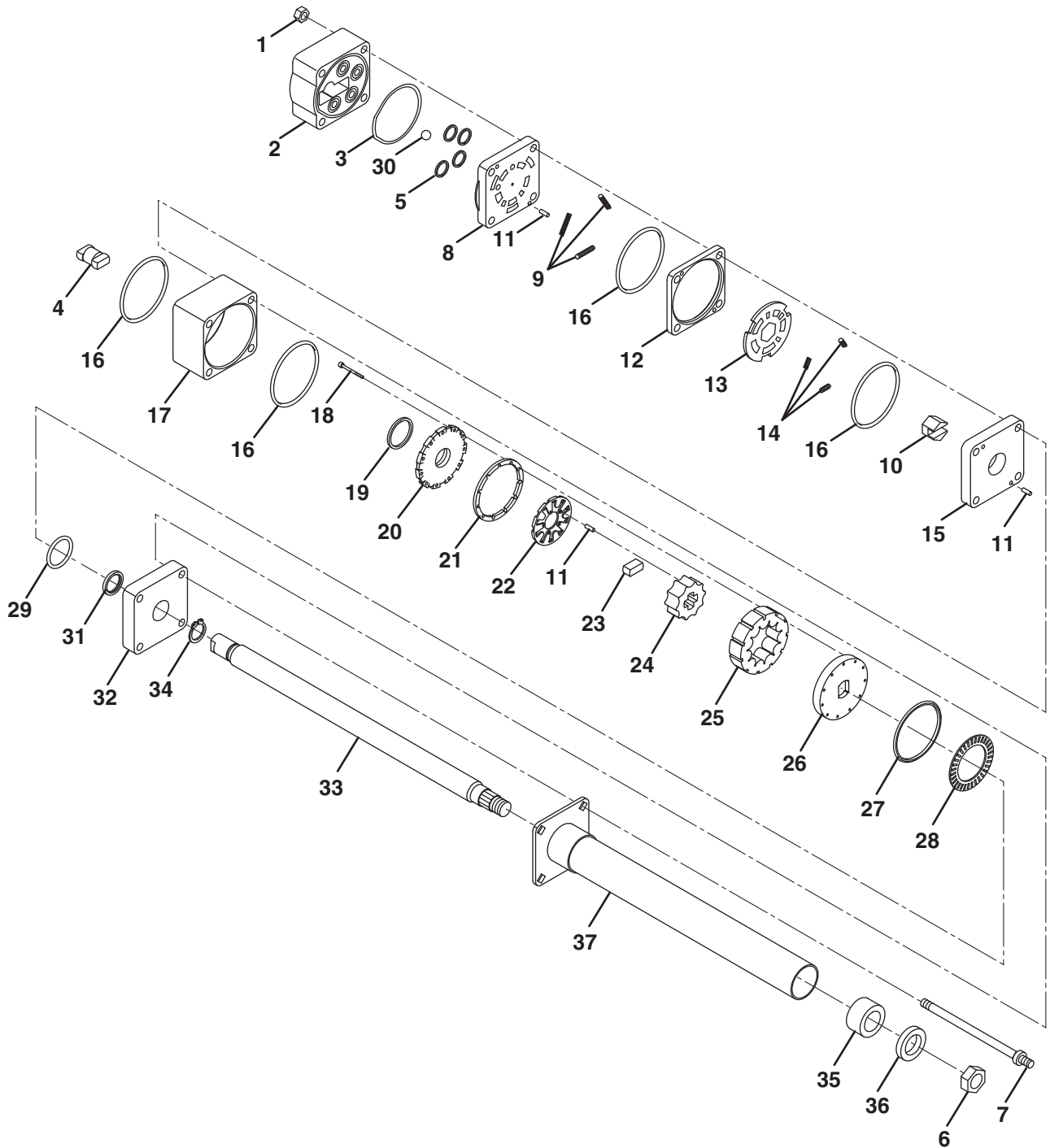


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	A	1	Seal Exclusion	
2	A	4	Seal, 3" I.D.	
3	B	1	Back Up Ring	
4	B	1	Shaft Seal	
5	554781	1	Shaft and Bearing Kit	
6	554780	1	Key	
7	554779	1	Hex Nut	
8	A	1	Shaft Face Seal	
9	A	1	Inner Face Seal	
10	A	1	Outer Face Seal	
11	554782	4	Bolt	
	4178561	1	Rear Seal Kit	Includes Items Marked A
	4178562	1	Front Seal Kit	Includes Items Marked B

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39.1 Steering Valve

Part Number 4101283



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	551105	1	Drive Link	
5	C	4	Seal, O-Ring	
6	443828	1	Nut, 5/8-18 Hex Jam	
7	5002056	4	Special Bolt	
8	5002060	1	Port Manifold	
9	B	3	• Spring, Port Side	
10	N/S	1	• Hex Drive	
11	A and E	9	• Needle Roller	
12	503398	1	• Valve Ring	
13	503398	1	• Valve Plate	
14	B	3	• Spring, Shaft Side	
15	N/S	1	• Isolation Manifold	
16	C	4	• Seal, O-Ring	
17	5002051	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, 7/32"	
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	
Service Kits				
A	5002059	1	Metering Assembly Kit	
B	502924	1	Spring Kit	
C	557738	1	Seal Kit	
D	2811361	1	Jacket Tube Kit	
E	502925	1	Needle Roller Kit	

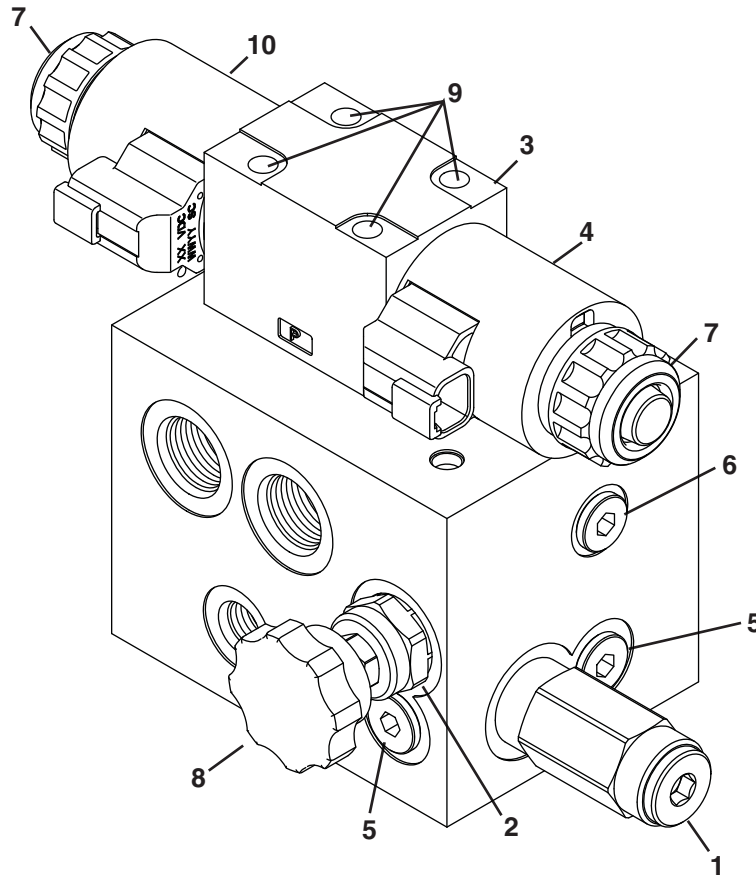
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SLF 1880

Serial No. All

40.1 Reel Valve

Part Number 4195040

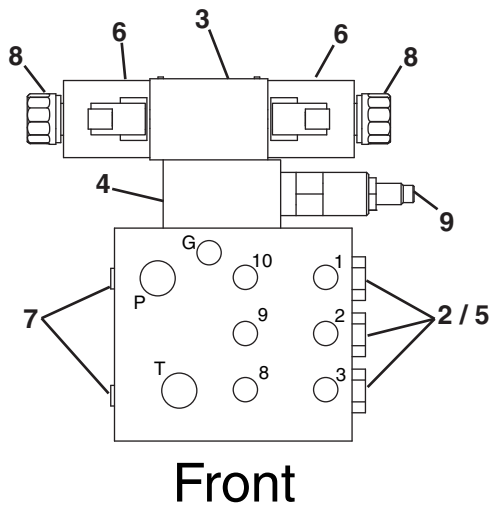
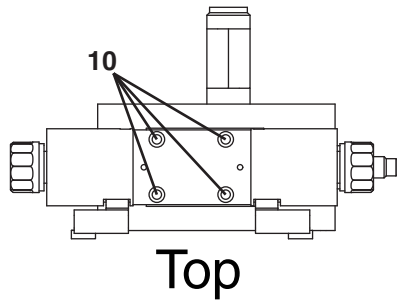


Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	4143172	1	Valve, Relief	REFERENCE K9, K11 See 46.1	
	5003579	1	• Seal Kit		
2	5003080	1	Flow Control		
	5003579	1	• Seal Kit		
3	4136815	1	Solenoid Valve		
	339909	4	• O-Ring		
4	4135552	1	Coil, Solenoid		REFERENCE K10, K12 See 46.1
5	5001065	3	Plug, Port		
6	5002157	3	Plug, Port		
7	4136814	2	Nut, Coil		
8	4105980	1	Knob, Flow Control		
9	4143527	4	Bolt, D03 Service Short		
10	4200060	1	Coil, Solenoid		

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41.1 Lift Valve

Part Number 4195080

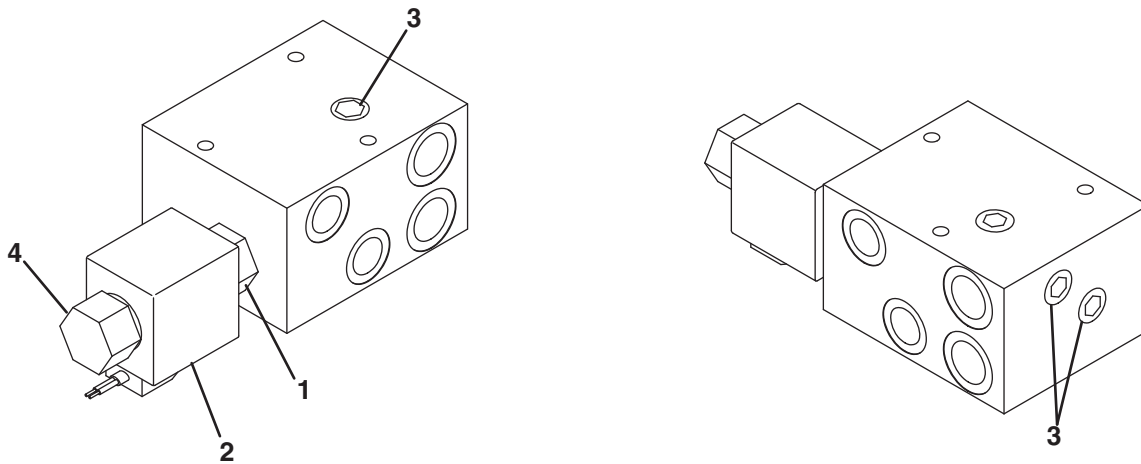


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5003144	1	Relief Valve	Reference K15 and K16, See 46.1
	5003579	1	• Seal Kit	
2	5001355	3	Pilot Operated Check Valve	
	5003578	1	• Seal Kit	
3	4136815	1	Solenoid Valve	
	339909	4	• O-Ring	
4	4108340	1	Sandwich, Pressure Control	
5	4154700	3	Pilot Piston	
6	4135552	2	Coil	
7	5002157	4	Plug, Port	
8	4136814	2	Nut, Coil	
9	4191281	1	Relief, Pilot Operated Spool	
10	4143526	4	Bolt, D03 Service Long	

> Change from previous revision

42.1 4WD Valve

Part Number 1003142

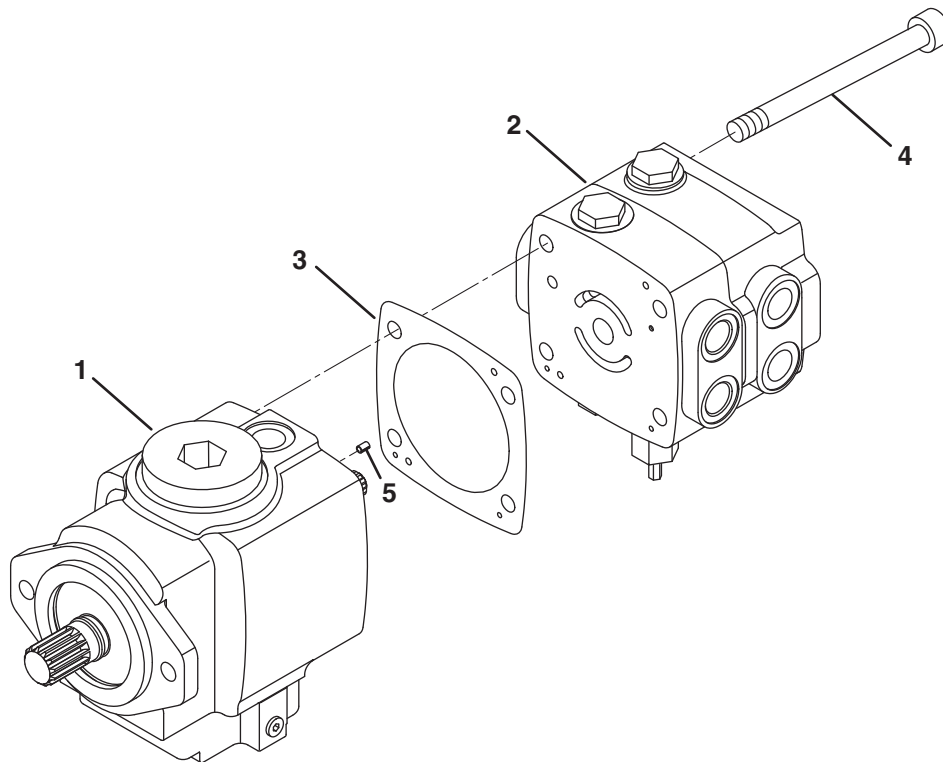


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5002944	1	2 Position, 3 Way Solenoid Valve	
2	5002945	1	Coil	
3	5001065	3	Hex Plug	
4	5003195	1	Nut, Coil	
	5002947	1	Seal Kit	

> Change from previous revision

43.1 Traction Pump

Part Number 4238422

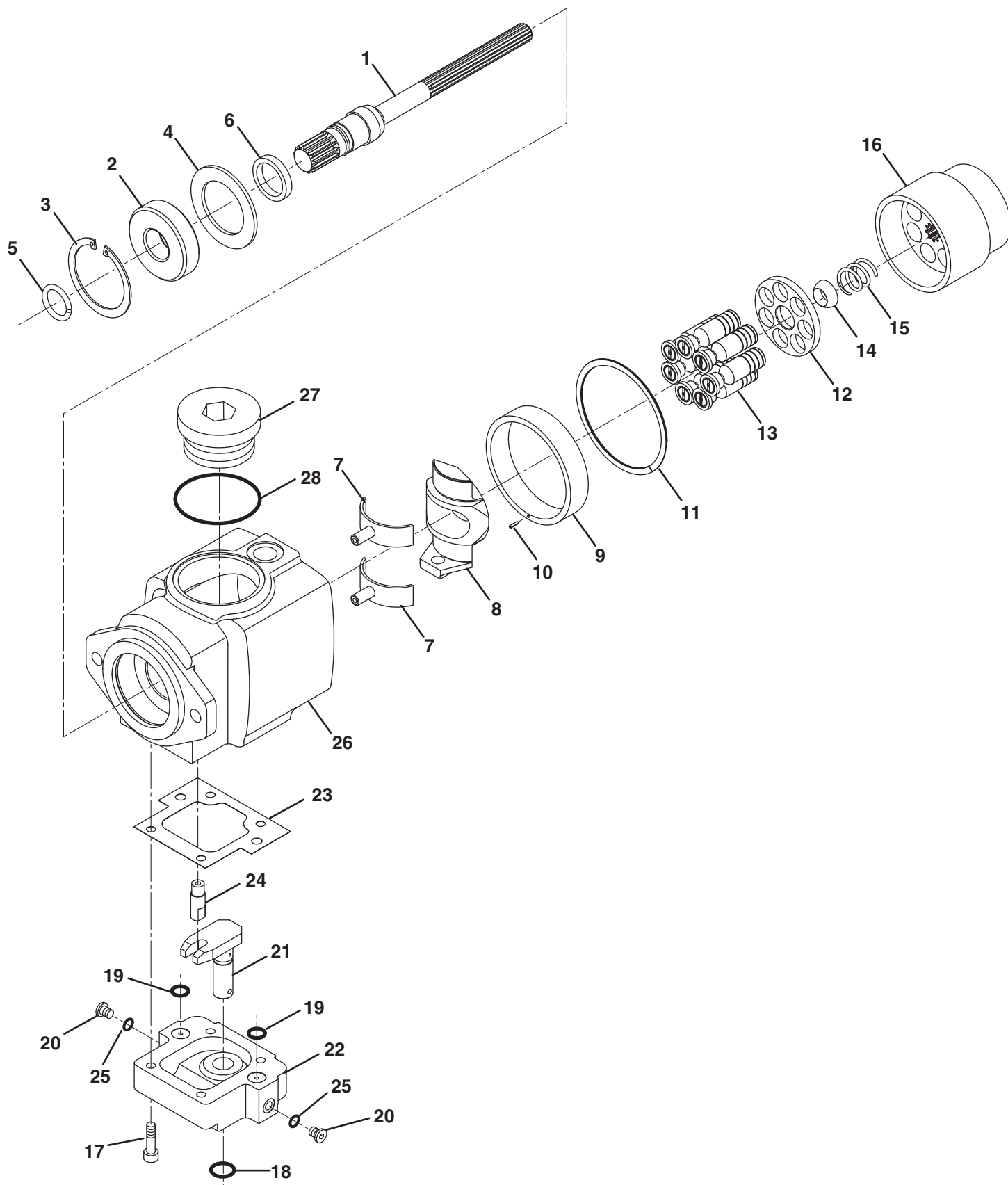


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	N/S	1	Main Case and Input Shaft	See 44.1
2	N/S	1	Valve Plate and Charge Pump	See 45.1
● 3	N/S	1	Gasket, Valve Plate	
4	N/S	4	Screw, 3/8-16 x 3-1/2" Socket Head	
5	N/S	2	Pin, Alignment	
●	Included in Seal Kit 4119859			

> Change from previous revision

44.1 Main Case and Input Shaft

Part Number 4238422 (Continued)

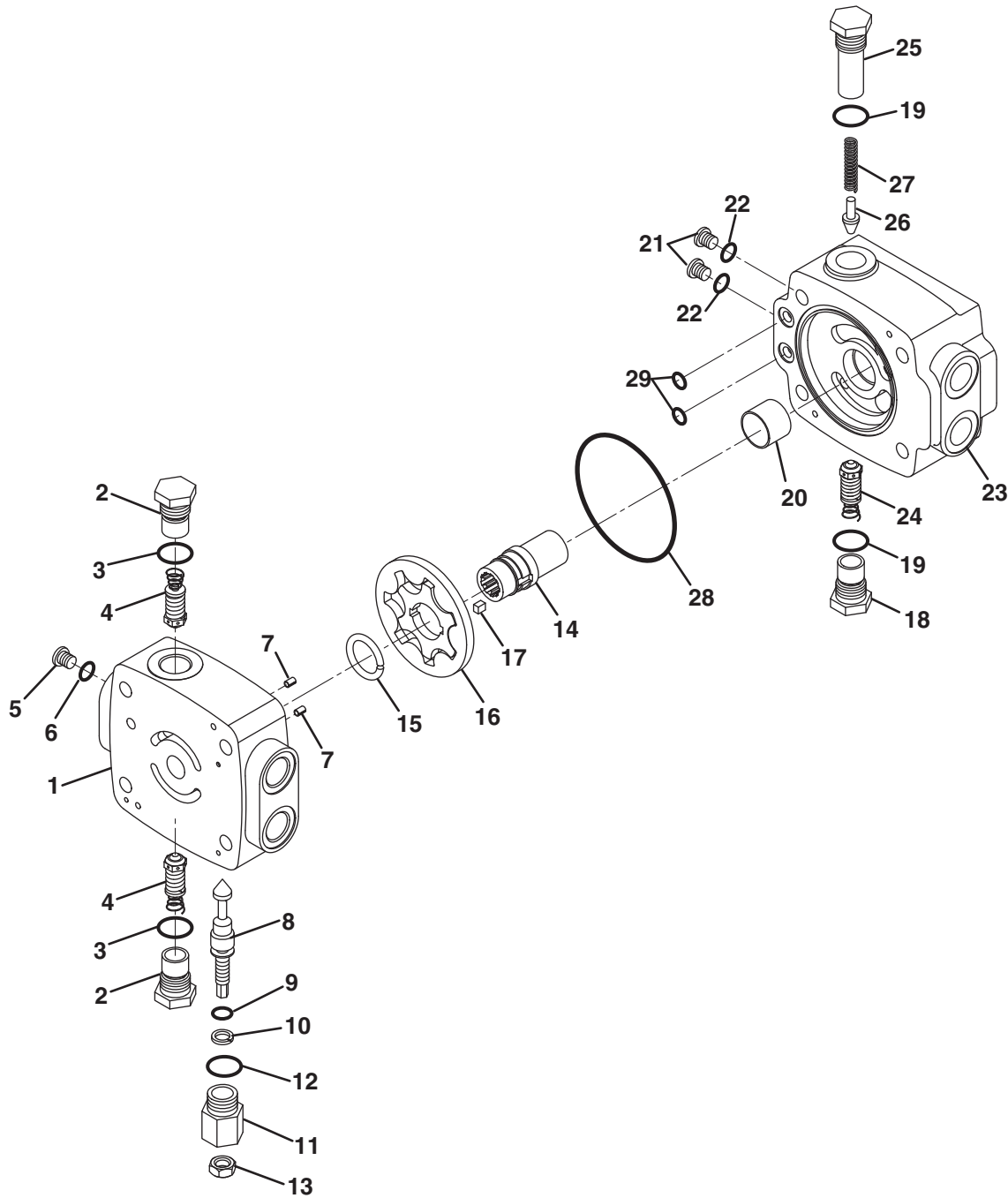


Item	Part No.	Qty.	Description	Serial Numbers/Notes
	4119328	1	Shaft and Bearing Assembly	
1	N/S	1	• Driveshaft with SAE Spline	
2	N/S	1	• Bearing, Front Driveshaft	
3	N/S	1	• Ring, Retaining	
4	N/S	1	• Retainer, Seal	
5	N/S	1	• Ring, Bearing Retaining	
● 6	N/S	1	Seal, Shaft	
	4119336	1	Kit, Saddle Bearing	
7	N/S	2	• Bearing, Saddle	
8	4119331	1	Swashblock	
	4119335	1	Rotating Group Bearing Assembly	
9	N/S	1	• Bearing, Cylinder Hydrodynamic	
10	N/S	1	• • Pin, Roll	
11	N/S	1	• Ring, Retainer	
	4119334	1	Rotating Group	
12	N/S	1	• Retainer, Shoe	
13	N/S	7	• Assembly, Piston and Shoe	
14	N/S	1	• Ball, Fulcrum	
15	N/S	1	• Spring, Shoe Retainer	
16	N/S	1	• Barrel, Cylinder	
	4260510	1	Control Housing Assembly	
17	N/S	4	• Screw, 1/4-20 x 1" Socket Head	
● 18	N/S	1	• O-Ring	
● 19	N/S	2	• O-Ring	
20	N/S	2	• Plug, #2 HP	
21	N/S	1	• Assembly, Arm and Pintle	
22	N/S	1	• Housing, Control	
● 23	N/S	1	• Gasket, Control Housing	
24	N/S	1	• Pin, Control	
● 25	N/S	2	• O-Ring	
26	N/S	1	Main Case	
27	2721564	1	• Plug, Access	
● 28	N/S	1	• O-Ring	
●	Included in Seal Kit 4149859			

> Change from previous revision

45.1 Valve Plate and Charge Pump

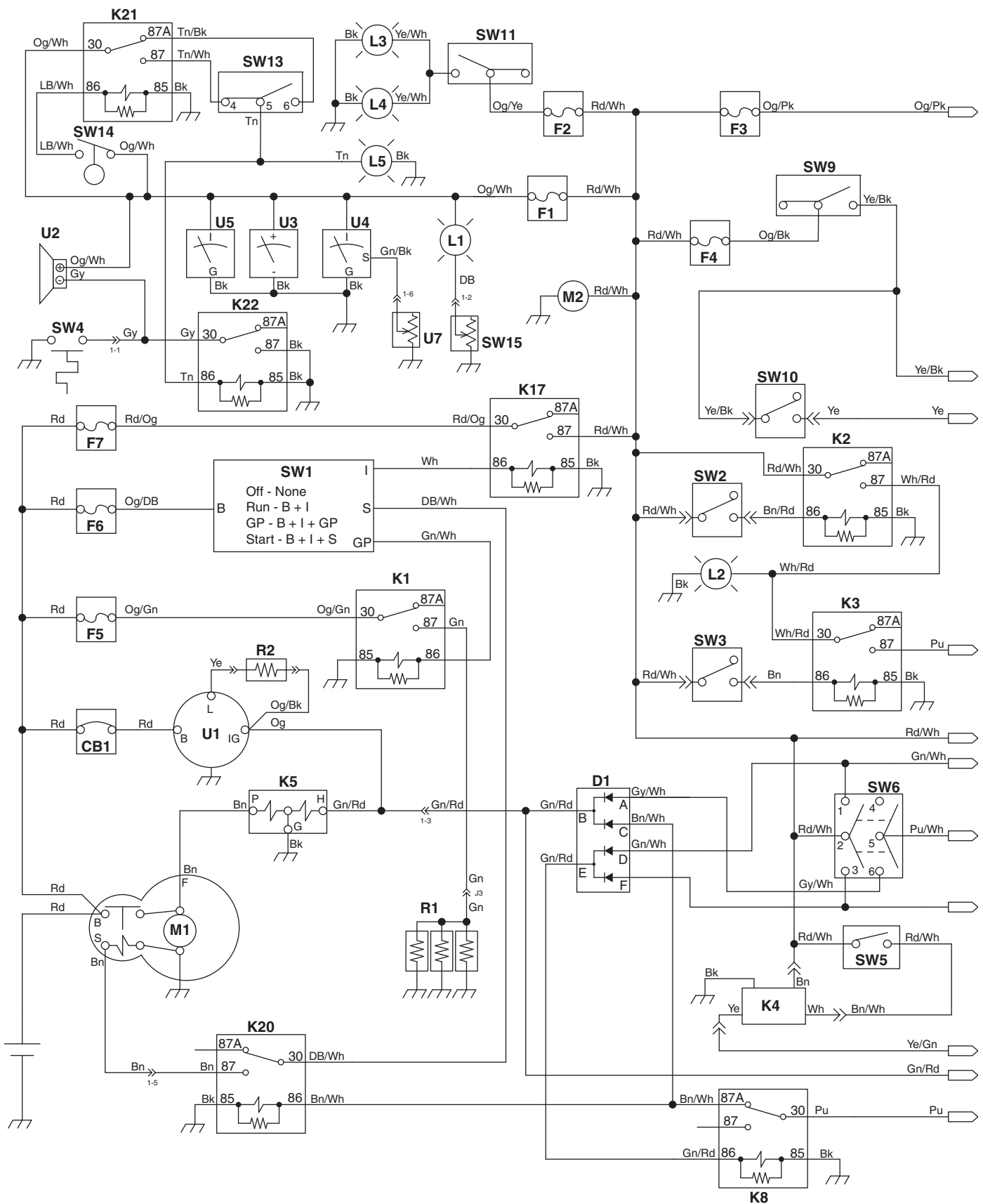
Part Number 4238422 (Continued)

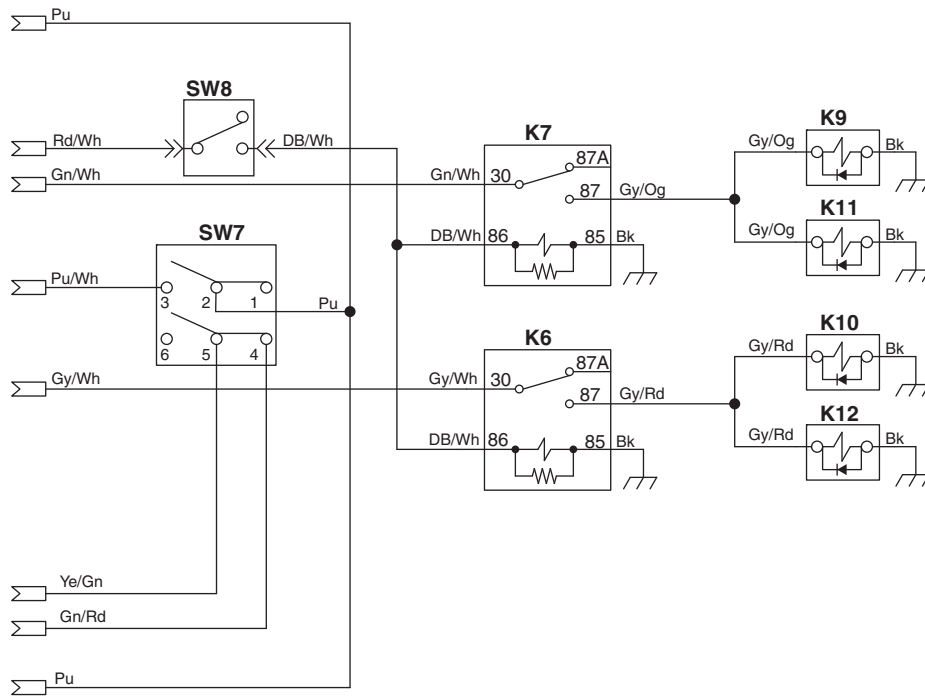
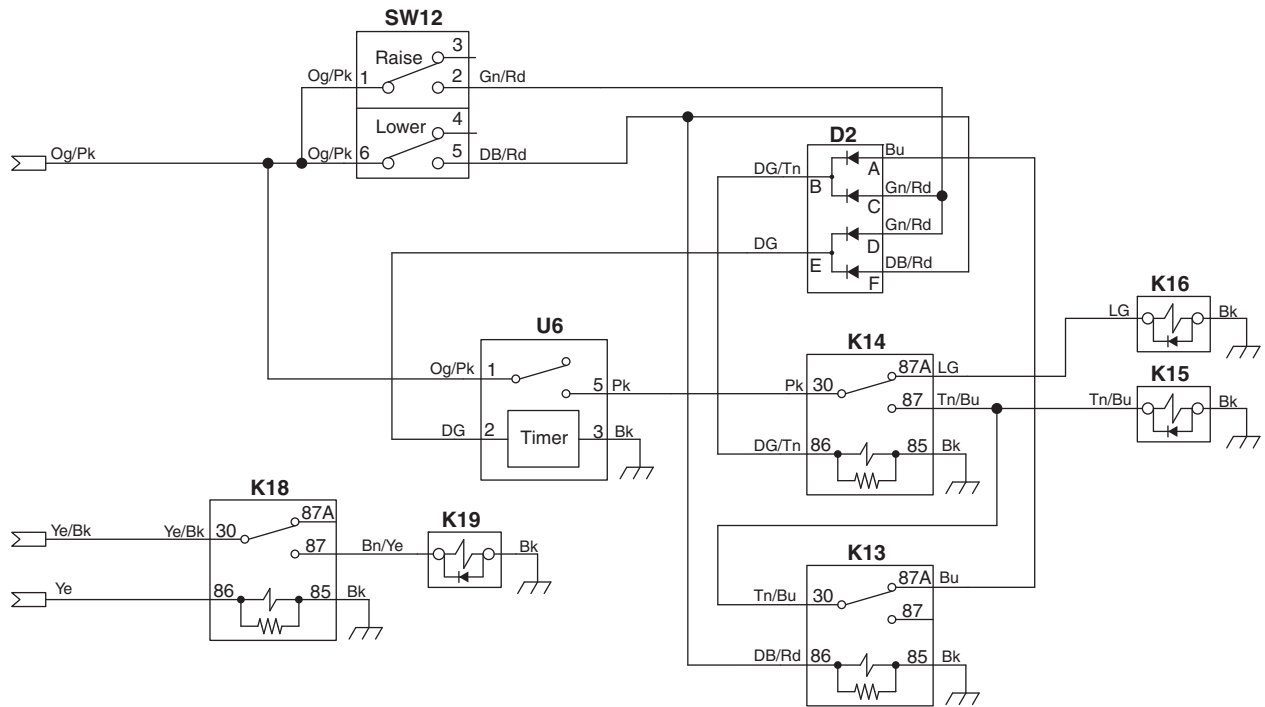


Item	Part No.	Qty.	Description	Serial Numbers/Notes
	4119330	1	Front Valve Plate Assembly	
1	N/S	1	• Valve Plate	
2	N/S	2	• Cap, Relief Valve	
● 3	N/S	2	• O-Ring	
4	4230500	2	• Relief Valve, 3045 psi	
5	N/S	1	• Plug, #3	
● 6	N/S	1	• O-Ring	
7	N/S	2	• Pin, Locating	
	5003497	1	• Tow Valve Assembly	
8	N/S	1	• • Stem, Tow Valve	
● 9	N/S	1	• • O-Ring	
● 10	N/S	1	• • Backup Ring	
11	N/S	1	• • Bonnet, Tow Valve	
● 12	N/S	1	• • O-Ring	
13	N/S	1	• • Nut, 3/8-24 Hex Jam	
	4215102	1	Gerotor and Coupling	
14	N/S	1	• Coupling, Gerotor	
15	N/S	1	• Ring, Retaining	
16	N/S	1	• Assembly, Gerotor Pump	
17	N/S	1	• Key, Gerotor Pump	
	4236702	1	Gerotor Housing	
18	N/S	1	• Cap, Relief Valve	
● 19	N/S	2	• O-Ring	
20	N/S	1	• Bushing, Coupling	
21	N/S	2	• Plug, #3	
● 22	N/S	2	• O-Ring	
23	N/S	1	• Rear Plate	
24	4230520	1	• Relief Valve, 1160 psi Implement	
25	N/S	1	• Cap, BPRV	
	4238943	1	• Valve, Charge Relief	
26	4230501	1	• • Poppet, Relief Valve	
27	4238942	1	• • Spring, 203 psi Charge Relief	
● 28	N/S	1	• O-Ring	
● 29	N/S	2	• O-Ring	
●	Included in Seal Kit 4149859			

> Change from previous revision

46.1 Electrical Schematic





SLF 1880

Item	Reference Illustration	Part Number	Description	Serial Numbers/Notes
B1		365099	Battery	
CB1	See 31.1	361439	50 Amp Circuit Breaker (Alternator)	
D1	See 31.1	2811376	Diode Block (Interlock)	Included in Main Harness
D2	See 31.1	2811376	Diode Block (Lift/Lower)	Included in Main Harness
F1	See 31.1	5003278	5 Amp Fuse (Guages)	Included in Main Harness
F2	See 31.1	5003282	20 Amp Fuse (Lights)	Included in Main Harness
F3	See 31.1	5003280	10 Amp Fuse (Lift/Lower)	Included in Main Harness
F4	See 31.1	5003278	5 A Fuse (4WD)	Included in Main Harness
F5	See 31.1	5003284	30 Amp Fuse (Glow Plugs)	Included in Main Harness
F6	See 31.1	5003280	10 Amp Fuse (Ignition Switch)	Included in Main Harness
F7	See 31.1	5003284	20 Amp Fuse (Ignition Circuit)	Included in Main Harness
K1	See 31.1	4126082	Glow Plug Relay	
K2	See 31.1	4126082	Brake Relay	
K3	See 31.1	4126082	Neutral Relay	
K4	See 31.1	3009544	Seat Time Delay Relay	
K5	See 14.1	2500867	Fuel Solenoid	Included in Engine
K6	See 31.1	4126082	Reel REV Roatation Relay	
K7	See 31.1	4126082	Reel FWD Rotation Relay	
K8	See 31.1	4126082	Interlock Relay	
K9	See 40.1	4135552	Front Reel Valve FWD Solenoid	Included in Front Reel Valve
K10	See 40.1	4135552	Front Reel Valve REV Solenoid	Included in Front Reel Valve
K11	See 40.1	4135552	Rear Reel Valve FWD Solenoid	Included in Rear Reel Valve
K12	See 40.1	4135552	Rear Reel Valve REV Solenoid	Included in Rear Reel Valve
K13	See 31.1	4126082	Lift Hold Relay	
K14	See 31.1	4126082	Lift Relay	
K15	See 41.1	4135552	Lift Solenoid	Included in Lift Valve
K16	See 41.1	4135552	Lower Solenoid	Included in Lift Valve
K17	See 31.1	4126082	Ignition Relay	
K18	See 31.1	4126082	4WD Relay	4WD Units Only
K19	See 42.1	5002945	4WD Solenoid	Included in 4WD Valve
K20	See 31.1	4126082	Start Relay	
K21	See 31.1	4126082	Float Relay	
K22	See 31.1	4126082	Horn Relay	
L1	See 4.1	164194	Engine Oil Light	
L2	See 4.1	366751	Parking Brake Light	
L3	See 32.1	1004776	Work Light (Right Side)	
L4	See 32.1	1004776	Work Light (Left Side)	
L5	See 4.1	366751	Hydraulic Oil Warning Light	
M1	Not Shown	N/S	Starter Motor	Included in Engine
M2	See 32.1	1004465	Fuel Pump	
R1	Not Shown	5000899	Glow Plugs	Included in Engine
R2	See 32.1	558019	Alternator Resistor, 75 Ohm 1 Watt	
SW1	See 4.1	2810269	Ignition Switch	
SW2	See 6.1	4140149	Parking Brake Proximity Switch	

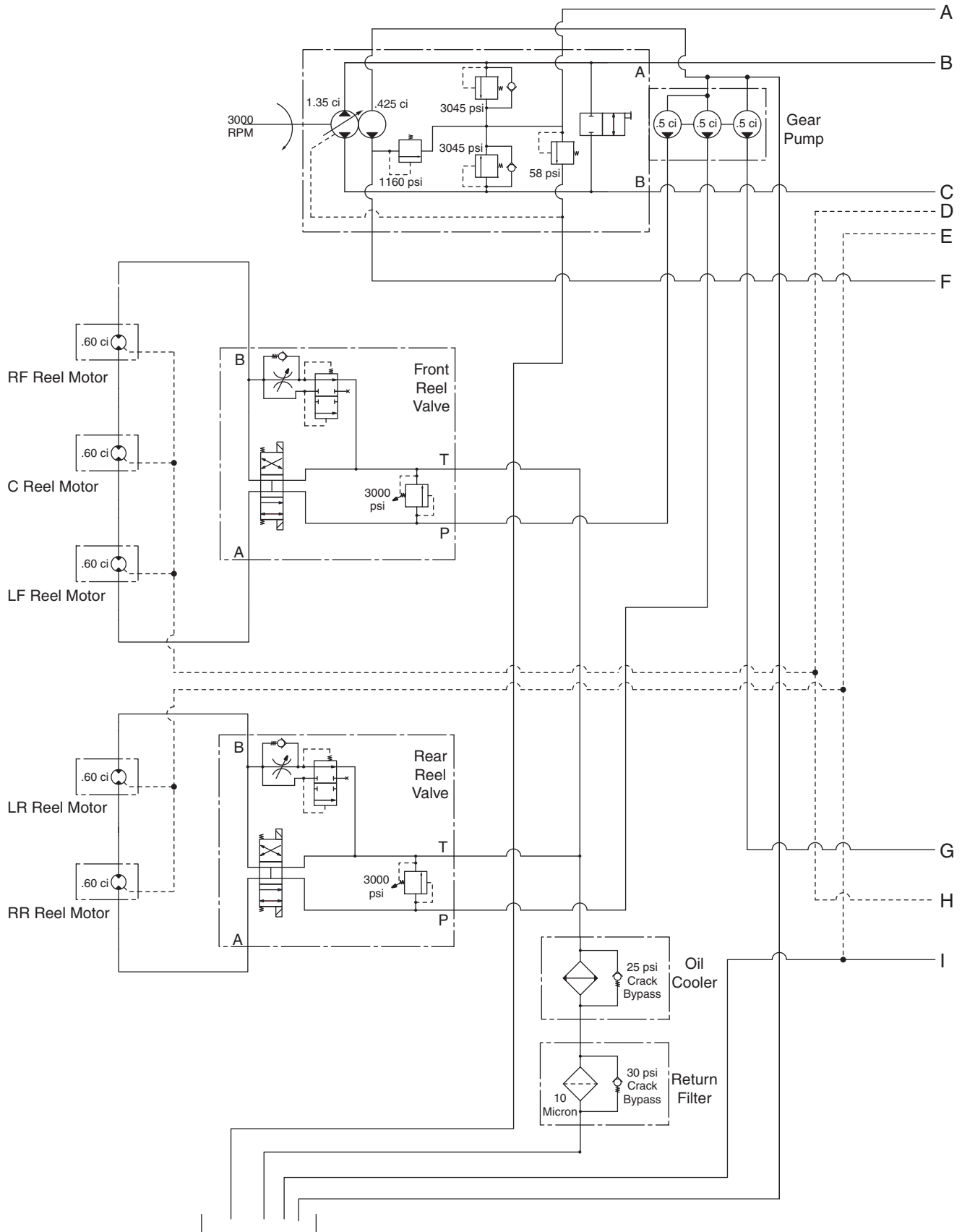
Item	Reference Illustration	Part Number	Description	Serial Numbers/Notes
SW3	See 32.1	4140149	Neutral Proximity Switch	
SW4	See 14.1	363996	Water Temperature Switch	
SW5	See 3.1	554390	Seat Switch	
SW6	See 4.1	3006449	Reel Switch	
SW7	See 31.1	3006447	Back Lap Switch	
SW8	See 17.1	4140149	Reel Position Proximity Switch	
SW9	See 4.1	3006436	4WD Switch	4WD Units Only
SW10	See 32.1	4140149	4WD Drop Out Proximity Switch	4WD Units Only
SW11	See 4.1	3006436	Light Switch	
SW12	See 4.1	1004290	Joystick	
SW13	See 4.1	3006447	Horn Switch	
SW14	See 19.1	3001279	Float Switch	
SW15	Not Shown	554018	Engine Oil Pressure Switch	Included in Engine
U1	Not Shown	N/S	Alternator	Included in Engine
U2	See 4.1	366670	Horn	
U3	See 4.1	162723	Hour Meter	
U4	See 4.1	162720	Temperature Gauge	
U5	See 4.1	162721	Volt Meter	
U6	See 31.1	4137399	Lift Timer Relay	
U7	See 14.1	364501	Temperature Sender	

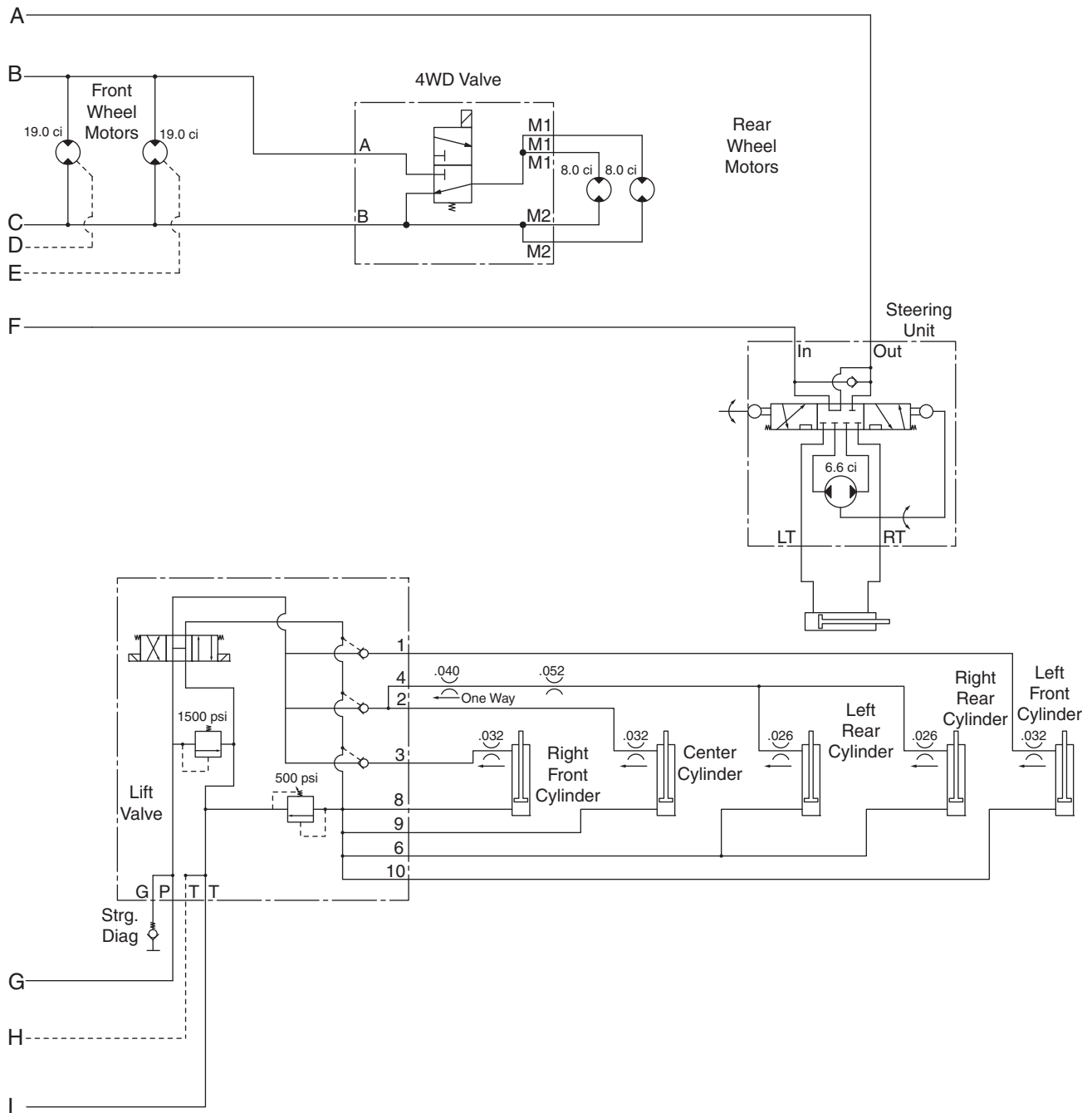
47.1 Hydraulic Schematic

Serial No. 67955-1601~1836

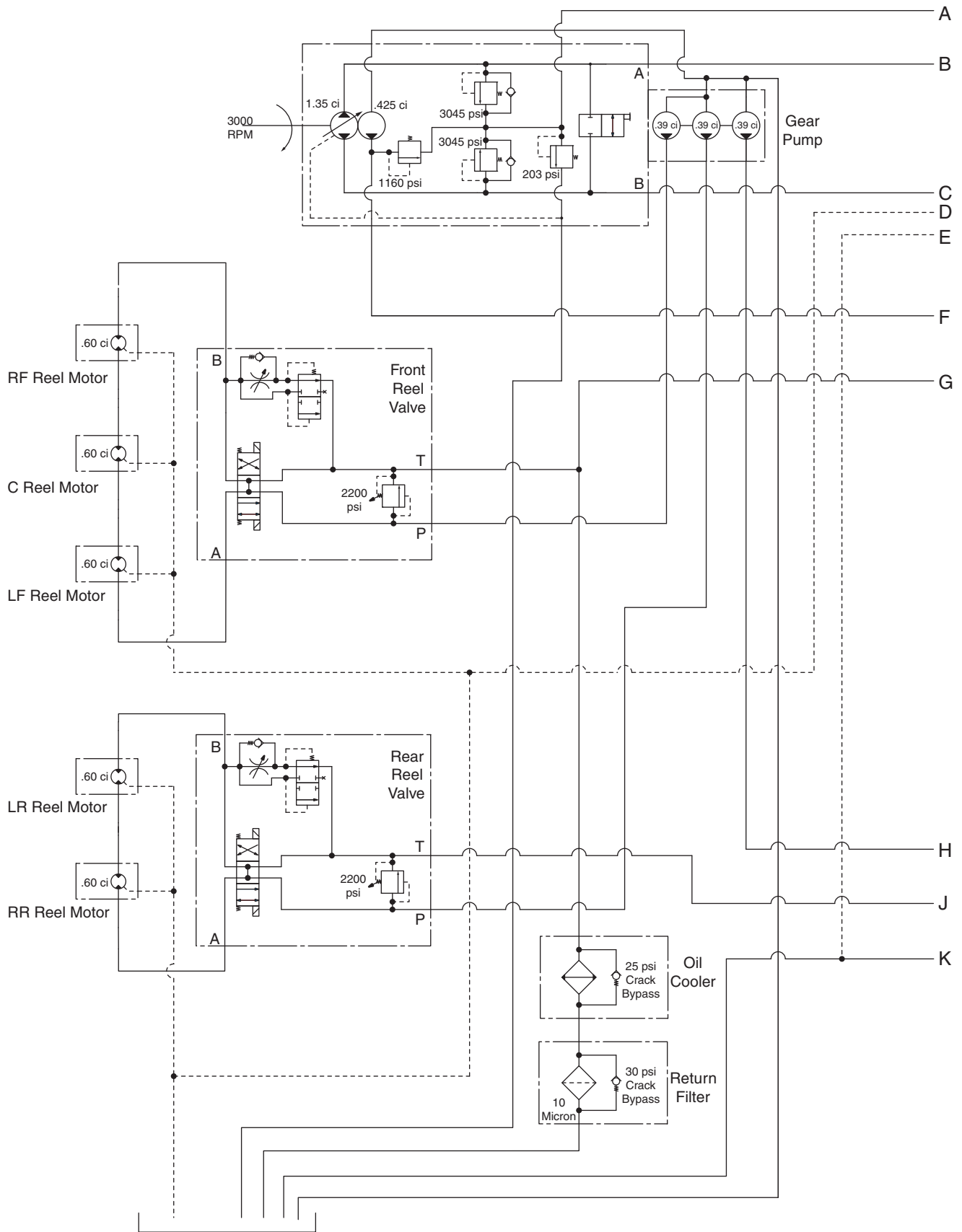
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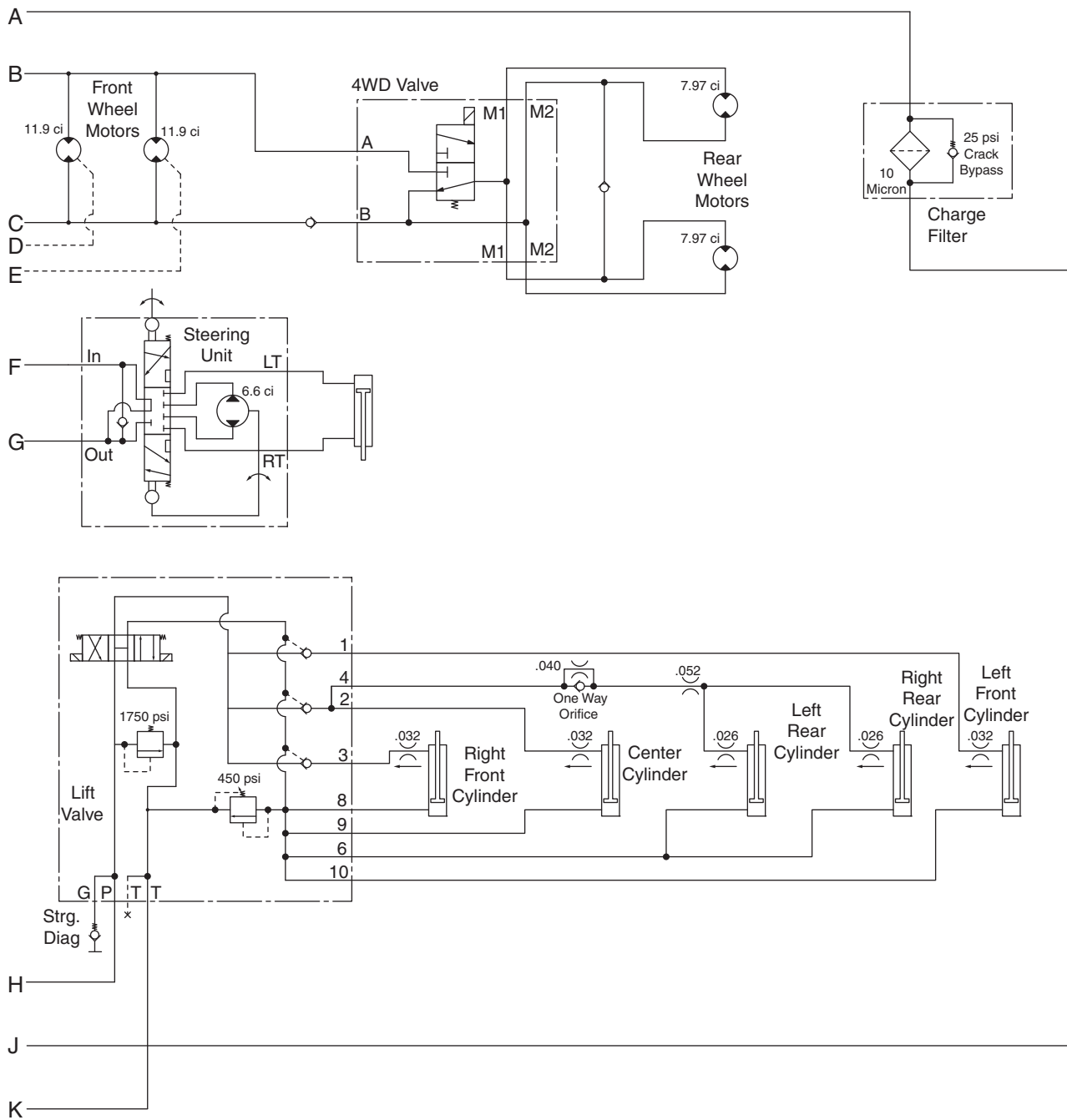
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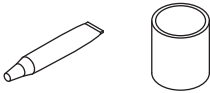
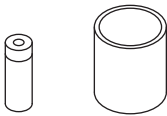

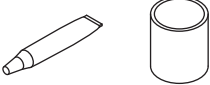


> Change from previous revision





> Change from previous revision

Fluids and Compounds

<p align="center">Hydraulic Fluid*</p>		
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	
<p align="center">2-Cycle Oil</p>		
554599	Twenty Four 8 Ounce Plastic Container	
<p align="center">Grease</p>		
5000067	One 5 Gallon Pail OO-Grease	
5000068	Twenty Four 8 Ounce Tube OO-Grease	
<p align="center">Paint</p>		
4184140	12 Ounce Orange Aerosol Can	
2500789	Twelve 1 Quart Can Orange	
546409	Two 1 Gallon Can Orange	
5002631	Hunter Green Aerolol Can	
838140	16 Ounce Ransomes Green Aerosol Can	
4112764	1 Quart Can Ransomes Green	
<p align="center">Lapping Compound</p>		
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	
<p align="center">Specialty Compound</p>		
365422	5.3 Ounce Tube of Electrical Insulating Gel	
5001581	14 Ounce Can of Lubriplate Multi Lube A	
523248	Chain Lubricant	
4136736	Zinc Spray Corrosion Protection	
<p align="center">Biodegradable Hydraulic Fluid*</p>		
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	
4114701	GreensCare Bio-Flush	
5003106	Twenty Four 14 Ounce Tube Greens Care Grease	
<p align="center">O-Ring Kit</p>		
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)	
<p align="center">Right Start Kit for New Machines</p> <p align="center">See your local Jacobsen Dealer</p>		
<p align="center">On-Time Maintenance Kit</p> <p align="center">See your local Jacobsen Dealer</p>		

* 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.

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