



JACOBSEN[®]

A Textron Company

4189623-Rev C



Parts & Maintenance Manual

Tri King[®] Triplex Mower with ROPS

67069 – Kubota D722-E3B Engine

 **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

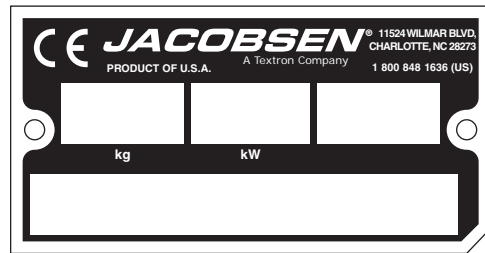
FOREWORD

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

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

If additional information is needed, contact your Jacobsen Dealer.

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



Suggested Stocking Guide

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

To order any of the following material:

1. Write your full name and complete address on your order form.

2. Explain where and how to make shipment:

- 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
	550489	Fuel Filter, Diesel Engine		549579	Hydraulic Oil Filter (2 Req'd)
	5000913	Air Filter, Diesel Engine		3001950	Pump Drive Belt
	502644	Oil Filter, Diesel Engine		1001958	Ignition Key Switch

Service Support Material

Qty.	Part No.	Description
	4189624	Safety & Operation Manual
	4189623	Parts & Maintenance
	4189622	Engine Parts Catalog
	4191622	DVD, Operator Training

Qty.	Part No.	Description
	4171674	Service Manual

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

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Proposition 65 Warning

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

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1 SAFETY

1.1 OPERATING SAFETY



WARNING

EQUIPMENT OPERATED IMPROPERLY OR BY UNTRAINED PERSONNEL CAN BE DANGEROUS.

Familiarize yourself with the location and proper use of all controls. Inexperienced 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 and 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.
24. Disconnect battery and controller electrical connectors before performing any welding on this mower.

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

1.2 IMPORTANT SAFETY NOTES



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

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

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

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

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

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



WARNING

The Interlock System on this mower prevents the mower from starting unless the brake lever is engaged, reel 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 reel 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.

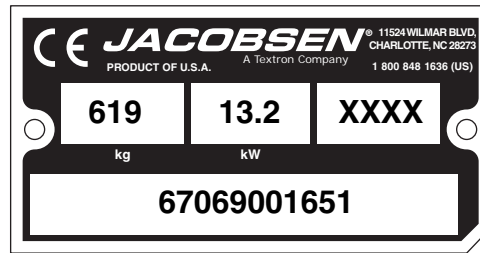
If additional information or service is needed, contact your Authorized Jacobsen Dealer who is kept informed of the latest methods to service this equipment and can provide prompt and efficient service.

2 SPECIFICATIONS

2.1 PRODUCT IDENTIFICATION

67069..... Tri-King Mower, 3-WD, 17.7 hp diesel engine with ROPS. Without front lift arms or mowers.

Serial Number An identification plate, like the one shown, listing the serial number, is attached to the frame of the mower and is located to the operator's left just behind the front wheel motor. Always provide the serial number of the unit when ordering replacement parts or requesting service information.



Product	EEC Sound Power	Sound Pressure Level Operator Ear	Vibration M/S ²	
			Arms	Body
67069	99 dba	86 dba	3.78	0.016

2.2 ENGINE

Make Kubota
 Model D722-E3B
 Horsepower..... 17.7 hp (13.2 kW) @ 3200 rpm
 Note: *Actual sustained horsepower will likely be lower than listed in specifications due to operating limitations and environmental factors*

Displacement 43.88 cu. in. (719 cc)
 Torque 26 ft. lbs. (35 Nm) @ 2600 rpm
 Fuel:
 Type No. 2 Low or Ultra-Low Sulfur Diesel
 Rating Min. Cetane rating 45

Capacity..... 6.5 U.S. Gal. (24.6 liters)
 Governor..... Ball Type Governor
 Low Idle 1450 RPM
 High Idle 3400 RPM
 Lubrication:
 Capacity..... 3.4 quarts (3.2 liter) with filter
 Type SAE 20W, SAE 30W
 API Classification CD, CE
 Air Filter Dry type with evacuator valve and service indicator
 Alternator..... 40 amp

2.3 CUTTING UNITS:

Reel 3 Reels, 26 in. (660 mm) wide or, 3 Reels, 30 in. (762 mm) wide.
 Reel Diameter 7 in. (178 mm)
 Bearings..... Self adjusting tapered roller bearings
 Blade Options 7 blades
 Cutting Width:

26 in. Reels..... 72 in. (1828 mm)
 30 in. Reels..... 84 in. (2134 mm)
 Overall Width:
 26 in. Reels..... 78.5 in. (1994 mm)
 30 in. Reels..... 90.5 in. (2298 mm)
 Cutting Frequency:
 7 Blade 0.151 in./mph (3.8 mm/kph)

2.4 MOWER

Tires:
 Front 20 x 10 - 10 tubeless
 Rear 20 x 10 - 8 tubeless
 Pressure:
 Front..... 10-12 psi (0.69-0.82 BAR)
 Rear 8-10 psi (0.55-0.69 BAR)
 Battery:
 Type 12 Volt Lead/Acid
 Group..... 22 NF
 Parking Brake Mechanical front wheel disk Hand lever actuated

Speed:
 Mow 0 - 5 mph (8 kph)
 Transport 0 - 8.5 mph (13.7 kph)
 Reverse 0 - 2.3 mph (3.7 kph)

Hydraulic System:
 Capacity..... 5.5 U.S. gal. (20.8 liters) System
 Fluid Type GreensCare 68 Biodegradable
 Charge Filter..... 10 micron
 Return Line Filter..... 10 micron
 Steering Hydrostatic power steering

2.5 WEIGHTS AND DIMENSIONS

Dimensions:	Inches	(mm)	Weights:	Lbs.	(kg)
Length	99	(2519)	67069 (Base Mower, No Reels)	1445	(655)
Height	51.5	(1308)			
Width - Wheel	64.5	(1638)			

2.6 ACCESSORIES & SUPPORT LITERATURE

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



CAUTION

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

Accessories

Air Blow Gun	JAC5098
Orange Touch-up Paint (12 oz. spray)	554598
2-Post ROPS with Seat Belt.....	69157
Light Kit	69149
Arm Rest	4139431
Grass Catchers for 26 in. Reel.....	69151
Grass Catchers for 30 in. Reel.....	69150
600 RPM Reel Kit (Diesel Units).....	5003062
Down Pressure Kit	1002588

Reels

7 Blade, 26 in. Left Hand Reel	67114
7 Blade, 26 in. Right Hand Reel.....	67115
7 Blade, 26 in. Center Reel.....	67116
7 Blade, 30 in. Left Hand Reel	67123
7 Blade, 30 in. Right Hand Reel.....	67124
7 Blade, 30 in. Center Reel.....	67125
Vertical Mower, 26 in. Left Hand	67139
Vertical Mower, 26 in. Right Hand.....	67140
Vertical Mower, 26 in. Center	67141

Rollers

Grooved Front Roller (Steel) for 26 in. Reel.....	67731
Grooved Front Roller (Steel) for 30 in. Reel.....	67729
Solid Roller for 26 in. Reel	132639
Solid Roller for 30 in. Reel	132640
Grooved Front Roller Scraper for 26 in. Reel.....	69147
Grooved Front Roller Scraper for 30 in. Reel.....	69148
Rear Roller Scraper for 26 in. Reel.....	67909
Rear Roller Scraper for 30 in. Reel.....	67910

Support Literature


Safety & Operation Manual.....	4189624
Parts & Maintenance Manual.....	4189623
Diesel Engine Parts Catalog.....	4189622
Operator Training DVD.....	4191622
Service & Repair Manual.....	4171674

2 SPECIFICATIONS

2.7 DECLARATION OF CONFORMITY

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

Business name and full address of the manufacturer • Търговско име и пълен адрес на производителя • Obchodní jméno a plná adresa výrobce • Producentens firmanavn og fulde adresse • Bedrijfsnaam en volledig adres van de fabrikant • Tootja ärinimi ja täielik address • Valmistajan toiminimi ja täydellinen osoite • Nom commercial et adresse complète du fabricant • Firmenname und vollständige Adresse des Herstellers • Επωνυμία 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 kummerçjali u indirizz sñih 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 nastov proizvajalca • Nombre de la empresa y dirección completa del fabricante • Tillverkarens företagsnamn och kompletta adress	Jacobsen, A Textron Company 11524 Wilmar Blvd. Charlotte, NC 28273, USA
Product Code • Код на продукта • Kód výrobku • Produktkode • Productcode • Toote kood • Tuotekoodi • Code produit • Produktcode • Κωδικός προϊόντος • Termékkód • Codice prodotto • Produkta kods • Produktu kodas • Kodići tal-Prodott • Kod produktu • Código do Produto • Cod produs • Kód výrobku • Označka proizvoda • Código de producto • Produktkod	67069
Machine Name • Наименование на машината • Název stroje • Maskinnavn • Machinenaam • Masina nimi • Laitteen nimi • Nom de la machine • Maschinenbezeichnung • Ονομασία μηχανήματος • Gèrnen • Denominazione della macchina • Iekārtas nosaukums • Mašinos pavadinimas • Isem tal-Magna • Nazwa urządzenia • Nome da Máquina • Numele echipamentului • Názov stroja • Naziv stroja • Nombre de la máquina • Maskinens namn	Tri-King 3WD
Designation • Предназначение • Označení • Betegnelse • Benaming • Nimetus • Tuupimerkintä • 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 • Seriennummer • Seerianumber • Valmistusnumero • Numéro de série • Seriennummer • Σειριακός αριθμός • Sorozatszám • Numero di serie • Sérijas numurs • Sérijos numeris • Numru Serjali • Numer seryjny • Número de Série • Număr de serie • Sériové číslo • Serijska številka • Número de serie • Serienummer	6706901651-6706902500
Engine • Двигател • Motor • Motor • Motor • Mootor • Moottori • Moteur • Motor • Μηχανή • Modulnėv • Motore • Dzinējs • Variklis • Saħħa Netta Installata • Silnik • Motor • Motor • Motor • Motor • Motor • Motor	Kubota D722-E3B Diesel
Net Installed Power • Нетна инсталирана мощност • Čistý instalovaný výkon • Installeret nettoeffekt • Netto geïnstalleerd vermogen • Installeeritud netovõimsus • Asennettu nettoteho • Puissance nominale nette • Installierte Nettoleistung • Καθαρή εγκατεστημένη ισχύς • Nettó beép tett teljesítmény • Potenza netta installata • Paredzētā tīkla jauda • Grynoji galia • Wisa' tal-Qtugh • Moc zainstalowana netto • Potência instalada • Puterea instalată netă • Čistý inštalovaný výkon • Neto vgrajena moč • Nettoeffekt	13,2 kW @ 3200 RPM
Cutting Width • Широчина на рязане • Šírka fezu • Skærebredde • Maabreedte • Löikelaius • Leikkuuleveys • Largeur de coupe • Schnittbreite • Μήκος ισιώνιζός • Vágási szélesség • Larghezza di taglio • Griešanas platumis • Pjovimo plotis • Tikkonforma mad-Direttivi • Szerokosc cęcia • Largura de Corte • Lățimea de tăiere • Širka záberu • Širina reza • Anchura de corte • Klippbredd	83 / 213 cm
Largura de Directives • В съответствие с директивите • Splūuje podmiņky smērnio • Er i overensstemmelse med direktiver • Voldoet aan de richtlijnen • Vastab direktiividele • Direktiivien mukainen • Conforme aux directives • Entspricht Richtlinien • Ακολουθήστε πιστά τις Οδηγίες • Megfelel az irányelveknek • Conforme alle Direttive • Atbilst direktīvām • Atitinka direktīvų reikalavimus • Valutazzjoni tal-Konformità • Dyrektywy związane • Cumpre as Directivas • Respectă Directivile • Je v súlade so smernicami • Skladnost z direktivami • Cumple 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 • Overensstemmelsesvurdering • Conformiteitsbeoordeling • Vastavushindamine • Vaatimustenmukaisuuden arviointi • Evaluation de conformité • Konformitätsbeurteilung • Διαπίστωση Συμμόρφωσης • Megfelelőség-értékelés • Valutazione della conformità • Atbilstības novērtējums • Atitikties įvertinimas • Livell tal-Qawwa tal-Floss Imkejjel • Ocena zgodności • Avaliação de Conformidade • Evaluarea conformității • Vyhodnotenie zhodnosti • Ocena skladnosti • Evaluación de conformidad • Bedömnng 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 • Mitattu äänitehotaso • Niveau de puissance sonore mesuré • Gemessener Schalldruckpegel • Σταθμισμένο επίπεδο ηχητικής ισχύος • Mért hangteljesítményszint • Livello di potenza sonora misurato • Izmērtais skaņas jaudas līmenis • Išmatuotas garso stiprumo lygis • Livell tal-Qawwa tal-Floss Iggarantit • Moc akustyczna mierzona • Nivel sonor medido • Nivelul măsurat al puterii acustice • Nameraná hladina akustického výkonu • Izmerjena raven zvočne moči • Nivel de potencia sonora medido • Uppmätt ljudeffektsnivå	99 dB(A) LWA
Guaranteed Sound Power Level • Гарантирано ниво на звукова мощност • Garantovaný akustický výkon • Garanteret lydstyrkeniveau • Geargardeerd geluidsniveau • Garanteeritud helivõimsuse tase • Taattu äänitehotaso • Niveau de puissance sonore garanti • Garantierter Schalldruckpegel • Εγγυημένο επίπεδο ηχητικής ισχύος • Szavatolt hangteljesítményszint • Livello di potenza sonora garantito • Garantētais skaņas jaudas līmenis • Garantuotas garso stiprumo lygis • Livell tal-Qawwa tal-Floss Iggarantit • Moc akustyczna gwarantowana • Nivel sonor garantido • Nivelul garantat al puterii acustice • Garantovaná hladina akustického výkonu • Zajamčena raven zvočne moči • Nivel de potencia sonora garantizado • Garanterad ljudeffektsnivå	99 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 (múra) • Vaatimustenmukaisuuden arviointimenetely (Melu) • Procédure d'évaluation de conformité (bruit) • Konformitätsbeurteilungsverfahren (Geräusch) • Διαδικασία Αξιολόγησης Συμμόρφωσης (Θόρυβος) • Megfelelőség-értékelési eljárás (Zaj) • Procedura de valutatezione della conformità (rumore) • Atbilstības novērtējuma procedūra (troksnis) • Atitikties įvertinimo procedūra (garsas) • Procedura tal-Valutazzjoni tal-Konformità (Foss) • Procedura ocen y zgodności (poziom hałas) • Processo de avaliação de conformidade (nível sonoro) • Procedura de evaluare a conformității (zgomot) • Postup vyhodnocovania zhodnosti (hluk) • Postopek za ugotavljanje skladnosti (hrup) • Procedimiento de evaluación de conformidad (ruido) • Procedur för bedömnng 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 • Organs adviesorgaan voor 2000/14/EG • Ühendkuningriigi teavitatud asutus direktiivi 2000/14/EÜ mõistes • Direktiivin 2000/14/EY mukainen ilmoitettu tarkastuslaitos Isossa-Britanniassa • Organisme notifié concernant la directive 2000/14/CE • Britische benannte Stelle für 2000/14/EG • Κοινοποιημένος Οργανισμός Ηνωμένου Βασιλείου για 2000/14/EK • 2000/14/EK – egyesült királyságbeli bejelentett szervezet • Organismo Notificato in GB per 2000/14/CE • 2000/14/EK AK reģistrētā organizācija • JK notifikuotais istaigas 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 královstva pre smernicu 2000/14/ES • Britanski prijavljeni organ za 2000/14/ES • Cuerpo notificado en el Reino Unido para 2000/14/CE • Anmält organ för 2000/14/EG i Storbritannien	Number: 1088 Sound Research Laboratories Limited Holbrook House, Little Walsingham Sudbury, Suffolk CO10 0TH
Operator Ear Noise Level • Оператор на нивото на доловим от ухото шум • Hladina hluku v oblasti uší operátora • Støjniveau i førers ørehøjde • Geluidsniveau op bestuurder • Műratase operátori kórvas • Melutasa káyttäjän korvan kohdalla • Niveau de bruit à hauteur des oreilles de l'opérateur • Schallpegel am Bedienerohr • Επίπεδο θορύβου σε λειτουργία • A kezelő füleinél mért zajszint • Livello di potenza sonora all'orecchio dell'operatore • Trokšņa līmenis pie operatora auss • Dirbančiojo su mašina patiriamas triukšmo lygis • Livell tal-Foss fil-Widna tal-Operatur • Dopuszczalny poziom hałasu dla operatora • Nivel sonor nos ouvidos do operador • Nivelul zgomotului la urechea operatorului • Hladina hluku pôsobiaci na sluch operátora • Raven hrupa pri užesu upravljavca • Nivel sonor en el oído del operador • Ljudnivå vid förarens öra	86 dB(a) Leq (2006/42/EC)

<p>Harmonised standards used • Използвани хармонизирани стандарти • Použité harmonizované normy • Brugte harmoniserede standarder • Gebuikte 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 • Standardi armonizzati usati • Normy spójne powiązane • Normas harmonizadas usadas • Standardele armonizate utilizate • Použité harmonizované normy • Uporabljeni usklajeni standardi • Estándares armonizados utilizados • Harmoniserede standarder som används</p>	<p>BS EN ISO 20643 BS EN ISO 5349-1 BS EN ISO 5349-2 BS EN 836</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 tač-Certifikat • Numer certyfikatu • Número do Certificado • Număr certificat • Číslo osvedčenia • Številka certifikata • Número de certificado • Certifikatsnummer</p>	<p>4189623 Rev C</p>

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

CAUTION

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

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

3.2 FAN BELT

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

1. Adjust alternator pulley so belt (**B**) deflects 9/32 to 11/32 in. (7 to 9 mm) with a 22 lb. (10 kg) push at midspan between pulleys.
2. If tension is incorrect, loosen alternator mounting bolts (**A**), and adjust alternator until proper belt tension is achieved. Tighten hardware (**A**).

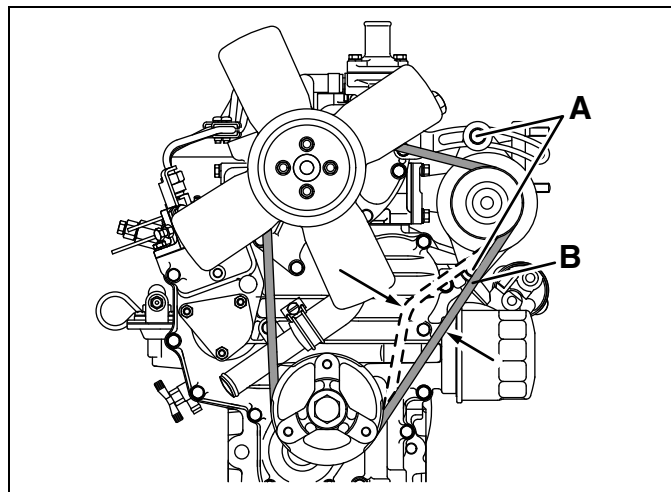


Figure 3A

3.3 PUMP DRIVE BELT

Adjust reel pump belt (**C**) to deflect 1/4 in. (6 mm) with a force of 5-7 lb. (2-3 kg) applied at midspan.

1. Loosen hardware (**D** and **E**).
2. Move pump/clutch assembly down to increase tension on belt (**C**) then tighten hardware (**D** and **E**).
3. Torque hardware (**D** and **E**) to 27 - 33 ft. lb. (37-45 Nm).

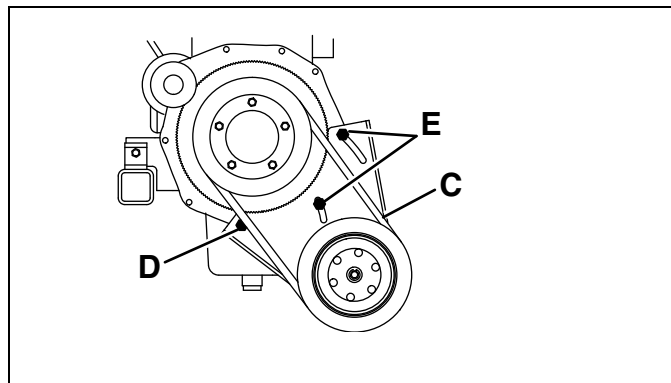


Figure 3B

3.4 NEUTRAL AND 3WD SWITCHES

1. Check traction pedal adjustment.
2. Use a volt/ohm meter to determine when switch opens or closes.
 - a. Adjust switch **(G)** so “finger” of actuating arm **(F)** is centered over sensing portion of switch. Switch contacts should be closed with traction pedal in neutral and open with minimal pedal travel in forward or reverse direction.
 - b. Adjust 3WD switch **(H)** so contacts are open with traction pedal in neutral, and contacts close with minimal pedal travel in forward direction.

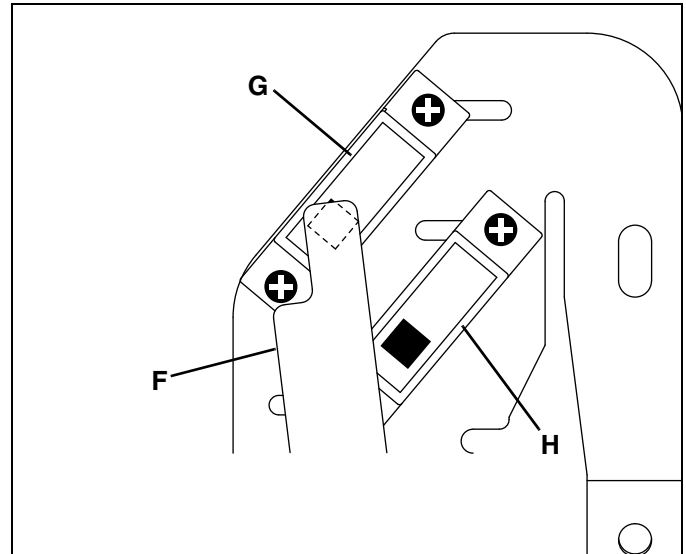


Figure 3C

3.5 PARKING BRAKE SWITCHES

Loosen screws **(K)** and adjust both switches so contacts just close as the brake lever is moved to the engaged position then tighten screws.

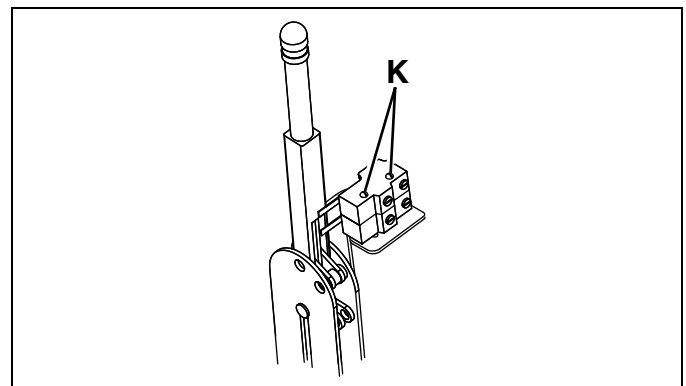


Figure 3D

3.6 LIFT LIMIT SWITCH

The lift limit switch must be adjusted so the reels stop turning before the cutting plane between the reel and ground reach 15-3/4 in. (400 mm). To adjust, loosen screw **(L)**, and adjust arm **(M)**.

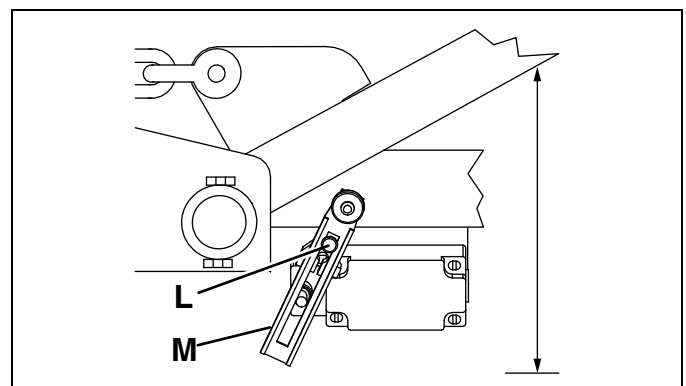


Figure 3E

3 ADJUSTMENTS

3.7 TRACTION PEDAL NEUTRAL

1. If the mower “creeps” in either direction when the engine is running, but the traction pedal is not depressed, adjust spring tension so that the pedal always returns to neutral when released.

Note: The mower may “creep” when the hydraulic oil is cold. Operate the mower for 15 minutes before determining if adjustment is required.

2. Use extreme caution when making this adjustment as the wheels will be off the ground and the engine will be running.
3. Engage parking brake, stop the engine, open hoods, then lubricate all linkage pivot points.
4. Chock the rear wheel, and place the front of the mower on jackstands.
5. Loosen all nuts (**N**) and adjust rear spring to position traction arm in neutral.

- a. Lock rear nuts and adjust front nuts (**N**) to maintain 3/8 in. (9 mm) of extension in spring (**O**).
- b. Start the engine and check for “creep” then repeat the process if necessary.

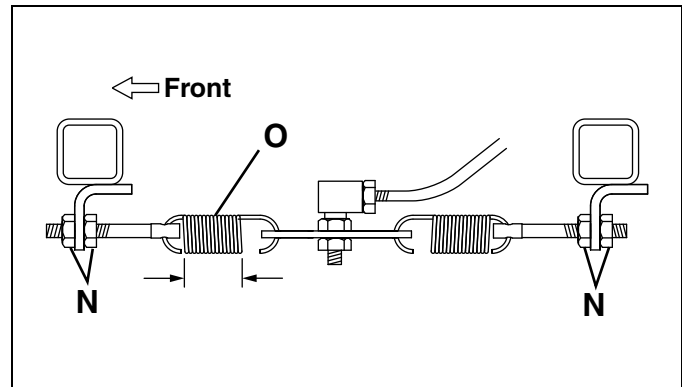


Figure 3F

3.8 TRACTION PEDAL FORWARD STOP

Loosen nuts (**P**) move the traction pedal to its maximum forward position. Adjust screw (**Q**) until the head just touches the traction pedal arm. Return traction pedal to neutral and turn screw (**Q**) out one full turn. Tighten nuts (**P**).

Important: Screw (**Q**) must stop traction pedal before the internal stops in the hydrostatic transmission are contacted.

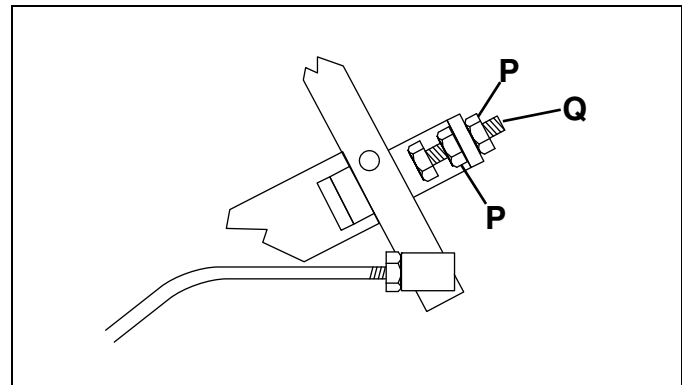


Figure 3G

3.9 LIFT / LOWER PEDAL STOP

Adjust bolts (**R** and **S**) to stop spool valve from hitting the internal stops, while maintaining the full stroke of the spool.

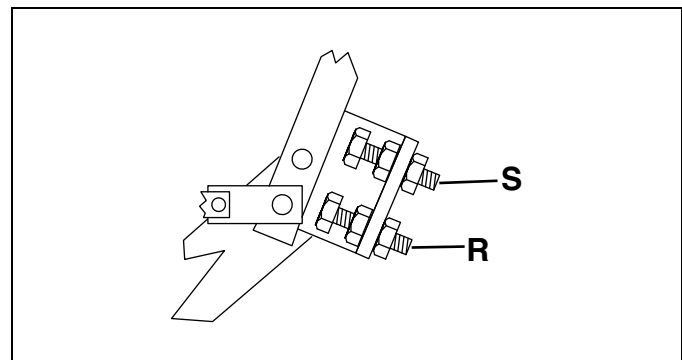


Figure 3H

3.10 PARKING BRAKE

1. Check linkage cables and pivots to ensure they are operating smoothly.
2. Park the mower on a 30% slope (16.7°) near the bottom of the hill, with the front of the mower facing downhill. Engage the parking brake and stop the engine.
 - a. The mower should stay on the hill without creeping.
 - b. If the brakes do not hold, start the engine, disengage the brake, and drive to the bottom of the hill.



DO NOT disengage the brakes with the engine off.

3. With parking brake disengaged, turn adjusting knob in a clockwise direction, applying and releasing brake every quarter turn, until a definite “snap over center” action is achieved.
4. Repeat the test on the hill if required.

Note: Over adjustment causes hard lever action, but does not increase brake efficiency.

3.11 REAR LIFT ARM

1. Rear lift arm position is properly adjusted when the rear mower bumpers are putting slight pressure against the underside of the foot rests.
2. Disconnect lift chain (T) from crank and adjust ball joint (U) as required.

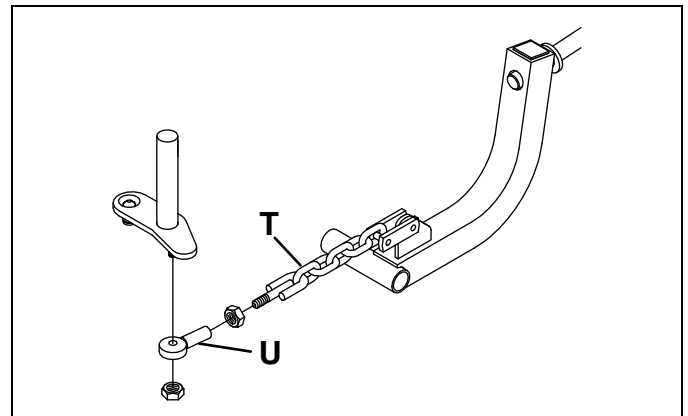


Figure 3I

3.12 DOWN PRESSURE

1. Place mowers in the Fixed Mode (**Section 3.18**) and lower the mowers onto a scale, capable of weighing 250 lb. (113 kg). The rear roller of the mower must rest on the scale.
2. To adjust pressure on rear mower loosen nuts (V) and adjust to obtain the desired pressure.
3. To adjust pressure on front mowers, loosen nut (W) and adjust bolt (X). Minimum thread engagement should be 1/2 in. (13 mm).
4. To maintain a consistent height of cut, the down pressure should be adjusted evenly on all three mowers.
5. Jacobsen, recommends the mower weight for Floating Mode at 60 lb. (27 kg), and for Fixed Mode at 90 lb. (41 kg).

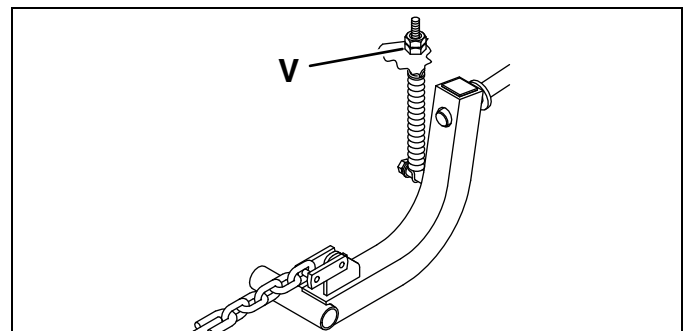


Figure 3J

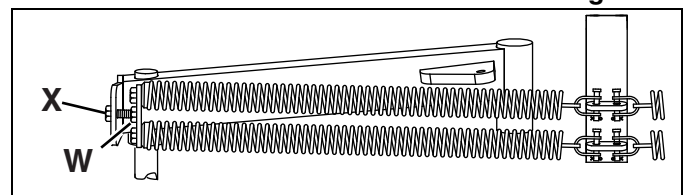


Figure 3K

3 ADJUSTMENTS

3.13 REEL TO BEDKNIFE

(Pre-adjustment Check)

1. Check the reel bearings for end play or radial play. If there is any abnormal movement of the reel, up and down or side to side, adjust or replace components as needed.



CAUTION

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

2. Inspect the reel blades and bedknife to insure good sharp edges without bends or nicks.
 - a. The cutting edges of the reel blades and bedknife 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 5/32 in. (4 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).

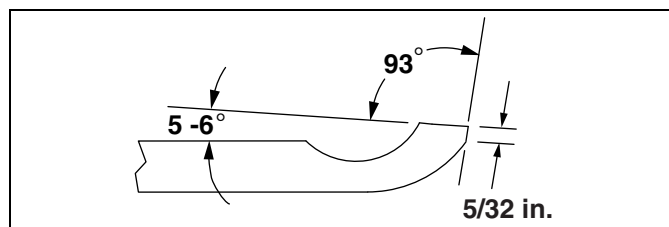
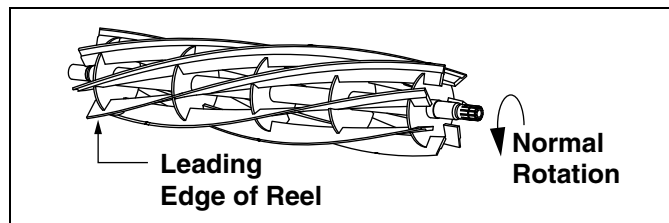


Figure 3L



3.14 REEL TO BEDKNIFE ADJUSTMENT

1. Read **Section 3.13** before making the adjustment.
2. Start adjustment at the leading edge of the reel, followed by the trailing end. *The leading end of the blade is the end that passes over the bedknife first during normal rotation.*
3. Loosen nut (C) 1/4 turn on both ends of the cutting unit.
 - a. Turn adjuster (A) in 1/16 to 1/8 turn increments.
 - b. Slide a feeler gauge or shim stock .001 in. (.025 mm) between the reel blade and the bedknife. Do not turn reel.
 - c. Adjust the trailing end of the reel in the same manner then recheck the adjustment at the leading end.
 - d. Tighten all hardware and recheck the adjustment.

- e. When properly adjusted, 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°.

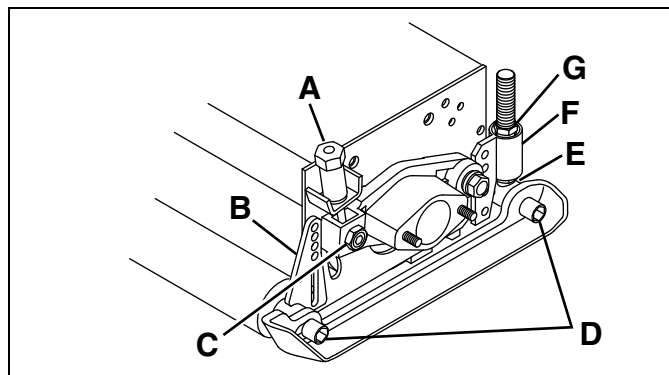


Figure 3N

3.15 CUTTING MODES

1. The mower may be operated in the Fixed Mode or the Floating Mode.
2. Fixed Mode is generally used for cutting heights greater than 1 in. (25 mm) and the mower does not require a front roller unless the terrain is rough and uneven.

If a front roller is required, the roller should be raised 1/4 in. (6 mm) higher than the rear roller and used for anti-scalp purposes only.

3. Floating Mode is generally used for cutting heights less than one inch (25 mm) and a front roller is required.

If a 2-1/2 in. (63 mm) solid front roller is used, the cutting height will range from 3/8 to 2-1/8 in. (9 to 54 mm).

If a 3 in. (76 mm) grooved front roller is used, the cutting height will range from 3/8 to 2-1/4 in. (9 to 57 mm).

4. To convert the mower from Fixed to Floating Mode, remove hardware (H) from each side of the three mower frames.

Install a front roller and store hardware (H) for future conversion to fixed mode.

5. To convert the mower from Floating to Fixed Mode, assemble hardware (H) as shown and remove or raise the front roller.

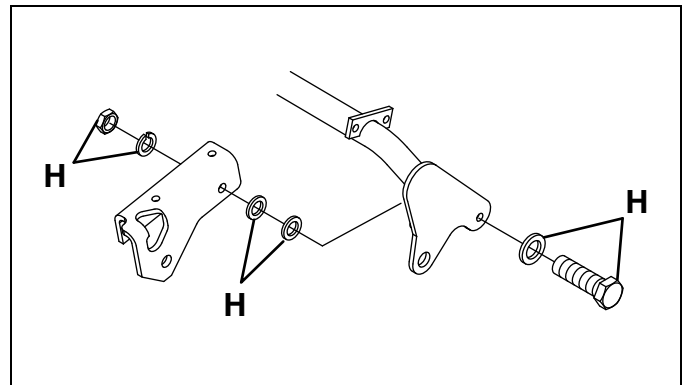


Figure 30

3.16 CUTTING HEIGHT ADJUSTMENT

1. Raise and lock the lift arms in transport mode.
2. For easier access to the height adjusters on the motor end of the front reels, Jacobsen recommends raising the front end of the mower just a few inches off the ground then, being careful not to damage the hydraulic hoses, tilt the front mowers 90 degrees, and tether the mowers together.
3. On the rear mower (center) remove the pin and collar on the shaft and slide the mower backwards.
4. Always make the reel-to bedknife adjustment (**Sections 3.13 and 3.14**) before making the cutting height adjustment.
5. Select Fixed or Floating Mode and convert the mower accordingly.
6. Loosen skid mounting hardware (D - **Figure 3N**) then adjust the cutting height. (A special tool is provided with the mowers. A 5/8 in. socket and ratchet are required).

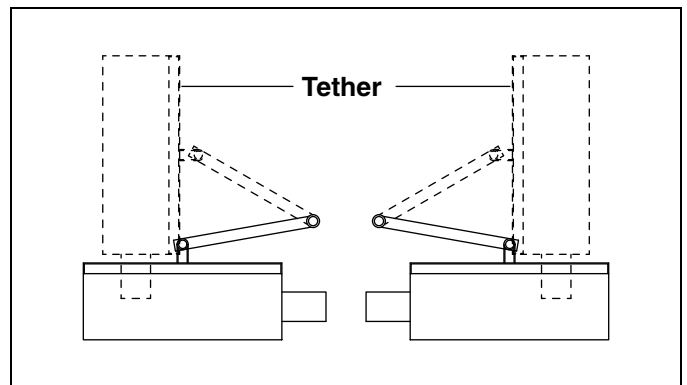


Figure 3P

3 ADJUSTMENTS

3.17 REMOVING THE CUTTING UNIT

1. To prevent contamination of the hydraulic system, as well as loss of oil, do not disconnect the hoses from the motor.



CAUTION

Disconnect lift springs before removing mowers.

2. Raise and lock the lift arms in transport mode (**Section 3.4**) and disconnect the down pressure springs.
3. Remove transport pin then lower the lift arms to the ground.
4. Remove hardware securing motor to drive housing and carefully pull the motor away.
5. Place motor in a clean plastic bag and cover the opening in the gear box.
6. Remove pin and collar from center (rear) lift arm and pull the center cutting unit away from the mower.
7. Remove the hardware securing the front lift arms to the cutting units, and slide the mowers out of the way.

3.18 CUTTING HEIGHT - FIXED MODE

Follow the procedures outlined in **Section 3.16**.

1. Reposition the rear roller adjuster.
 - a. For cutting heights from 3/8 to 1-3/4 in. (9 to 44 mm), use holes (**M**) on the mower frame, and two holes (shown in black) of the height adjuster (**F**) as shown.
 - b. For cutting heights greater than 1-3/4 inches (44 mm), disassemble adjuster (**F**) and turn the mounting bracket upside down; then use holes (**N**) of the frame, and the two holes (shown in black) of the adjuster (**F**).
2. Remove the tether, and lower the cutting units to the ground.
3. Place spacers of the desired height (**J**) under each end of the reel, adjacent to the front edge of the bedknife.
4. Loosen nut (**G**) and lower rear roller to the ground. Tighten nut (**E**) against the adjuster then recheck the setting on both side of the reel. Readjust if necessary.
5. Assemble the front roller adjuster (**B**) (If a roller is required) to holes number 2 and 4 only of the mower frame. Do not use holes number 1 and 3. Set roller to 1/4 in. (6 mm) above rear roller.

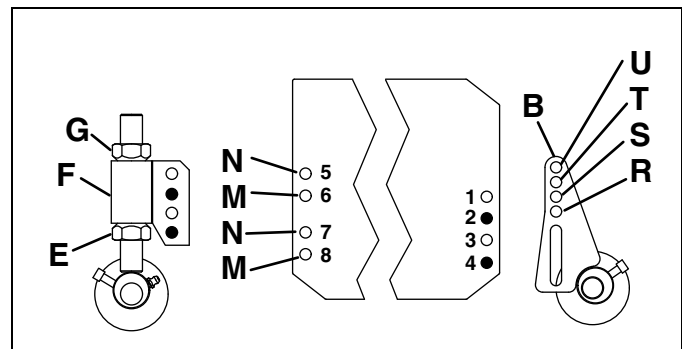


Figure 3Q

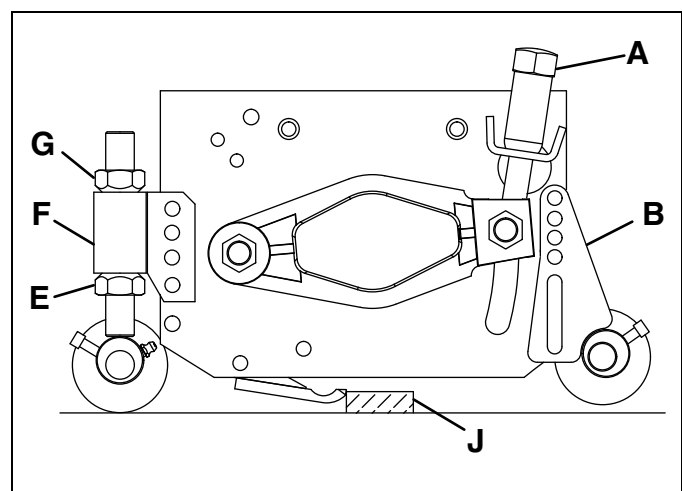


Figure 3R

3.19 CUTTING HEIGHT - FLOATING MODE

Follow the procedures outlined in Section 3.16.

1. Assemble the front roller adjuster (B) to holes number 2 and 4 only of the mower frame. Do not use hole numbers 1 and 3. Refer to the chart below for correct hole of front roller adjuster to use.
2. Reposition the rear roller adjusters (F).
 - a. For cutting heights from 3/8 to 1-3/4 in. (9 to 44 mm), use holes (M) on the mower frame, and two holes (shown in black) of adjuster (F) as shown.
 - b. For cutting heights greater than 1-3/4 in. (44 mm), disassemble adjuster (F) and turn the mounting bracket upside down; then use holes (N) of the frame, and the two holes (shown in black) of adjuster (F).
3. Loosen nut (L) and adjust screw (K) to obtain desired cutting height (X) then lock nut (L) against gauge (P).
4. Place one end of the gauge under the front roller at either end of the reel, and slide the head of screw (K) over the bedknife.
 - a. Adjust nut (G) to lower the rear roller to the gauge, then tighten nut (E) against the adjuster.
 - b. Move the gauge to the other end of the reel and repeat Steps 4a and 4b.

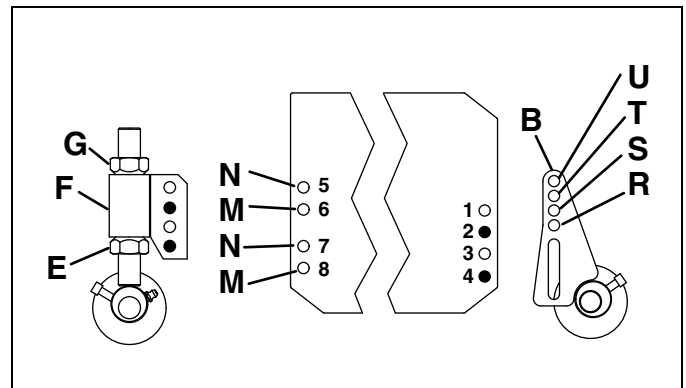


Figure 3S

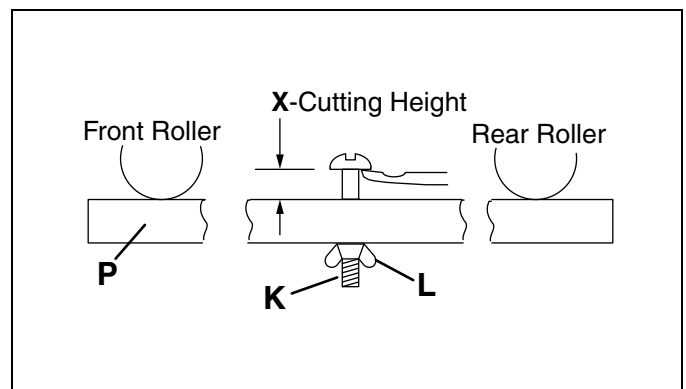


Figure 3T

Range of Cut					
Grooved Roller		Solid Roller		Front	Rear
Inches	Millimeters	Inches	Millimeters		
3/8 - 3/4	10 - 19	3/8 - 5/8	10 - 16	R	M
3/4 - 1-1/4	19 - 32	5/8 - 1-1/8	16 - 29	S	M
1-1/4 - 1-3/4	32 - 44	1-1/8 - 1-5/8	29 - 41	T	M
1-3/4 - 2-1/4	44 - 57	1-5/8 - 2-1/8	41 - 54	U	N





3 ADJUSTMENTS





3.20 TORQUE SPECIFICATION

NOTICE

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

Jacobsen uses Grade 5 Plated bolts as standard, unless otherwise noted. For tightening plated bolts, use the value given for lubricated.

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

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

3.21 SPECIFIC TORQUE

1. Tie rod ball joints: (2) 30 - 35 ft. lb. (41 - 47 Nm)
2. Engine drain plugs: 22 ft. lb. (30 Nm)
3. Steering ball joints: 50 - 55 ft. lb. (68 - 75 Nm)
4. Steering wheel nut: 30-40 ft. lb (41 - 51 Nm)
5. Wheel hardware: 65 - 85 ft. lb. (88 - 116 Nm)

4.1 GENERAL

WARNING

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

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

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

- b. Keep all moving parts properly adjusted and lubricated.
 - c. Replace worn or damaged parts before operating the machine.
 - d. Keep all fluids at their proper levels.
 - e. Keep shields in place and all hardware securely fastened.
 - f. Keep tires properly inflated.
3. Do not wear jewelry or loose fitting clothing when making adjustments or repairs.
4. Use the illustrations in the Parts Catalog as reference for the disassembly and reassembly of components.
5. Recycle or dispose of all hazardous materials (batteries, fuel, lubricants, anti-freeze, etc.) according to local, state, or federal regulations.

4.2 ENGINE

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

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

NOTICE

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

During the break-in period, Jacobsen recommends the following:

1. During the first 50 hours of operation, a new engine should be allowed to reach an operating temperature of at least 140°F (60°C) prior to operation at full load.
2. Check the engine oil level twice daily during the first 50 hours of operation. Higher than normal oil consumption is not uncommon during the initial break-in period.
3. Change engine oil and oil filter element after first 50 hours of operation.
4. Check and adjust fan and alternator belts.

5. Refer to **Section 6.3** and Engine Manual for specific maintenance intervals.

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

4 MAINTENANCE

4.3 ENGINE OIL

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

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

Use only engine oils with API classification CD/CE.

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

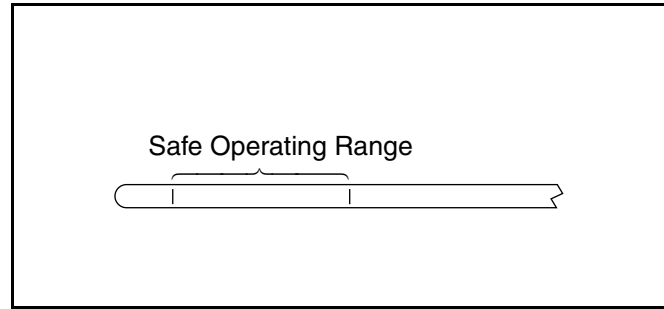


Figure 4A

4.4 AIR FILTER

Check the service indicator daily. If red band appears in the window (C) 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 (D).
4. Reassemble cap making sure it seals completely around the filter housing. Dust evacuator (E) must be facing down.
5. Check all hoses and air ducts. Tighten hose clamps.

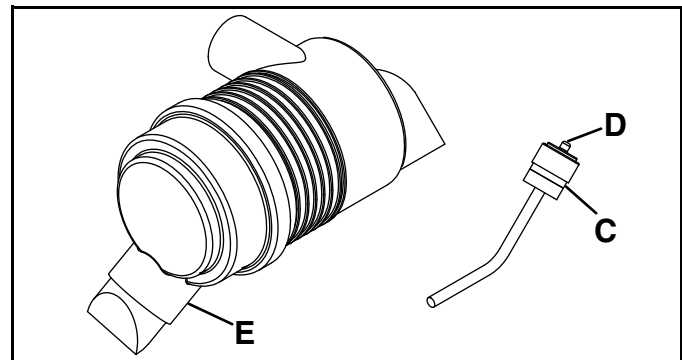


Figure 4B

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 within 1 in. (25 mm) of the bottom of the filler neck.
- Store fuel according to local, state, or federal ordinances and recommendations from your fuel supplier.
- Never overfill or allow the tank to become empty.
- Check fuel lines and clamps every 50 hours. Replace fuel lines and clamps at the first sign of damage.
- Use clean, fresh, #2 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.

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

4.7 BATTERY

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

CAUTION

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

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

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

Verify battery polarity before connecting or disconnecting the battery cables.

1. When installing the battery, always assemble the RED, positive (+) battery cable first, and the ground, BLACK, negative (-) battery cable last.

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

WARNING

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

4 MAINTENANCE

4.8 JUMP STARTING

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



WARNING

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

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.

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. 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.

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

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

4.11 HYDRAULIC OIL

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

The hydraulic reservoir on this machine is filled with Jacobsen Greens Care 68 Biodegradable fluid.

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

Always replace the hydraulic filter when changing oil.

To change hydraulic oil:

1. Clean the area around the oil cap to prevent impurities from entering and contaminating the system.
 - a. Oil temperature should be at 60° to 90°F (16° - 32°C). Do not check oil level when oil is hot.

- b. The hydraulic oil level should never fall below the lower line on the dipstick or be above the top line on dipstick.
2. Remove drain plug from bottom of tank and loosen or remove breather cap on top of tank. Check and clean the breather cap, replace as necessary.
3. After oil has drained install drain plug and fill with Jacobsen GreensCare 68 Biodegradable Fluid.
4. Purge air from system.
 - a. Operate all mower functions for about 5 minutes to purge air out of the system and stabilize the oil level.
 - b. Once the level has stabilized and the air is purged, fill the tank to the full mark on dipstick.

4.12 HYDRAULIC OIL FILTERS


The hydraulic system is protected by two 10 micron filters.

To replace hydraulic oil filter:

1. Remove the old filters.
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 in reservoir and fill to full mark on dipstick.

4.13 ELECTRICAL SYSTEM

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

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

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

If the operator backup does not function properly and the problem cannot be corrected, contact an authorized Jacobsen Dealer.
3. Keep the wire harness and all individual wires away from moving parts to prevent damage.
4. Make sure the seat switch harness is connected to the main wire harness.
5. Check the battery and battery charging circuit.

6. Do not wash or pressure spray around electrical connections and components.

4 MAINTENANCE

4.14 MUFFLER AND EXHAUST



WARNING

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

NEVER operate an engine without proper ventilation.

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

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

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

4.15 TIRES

1. Keep tires properly inflated to prolong tire life. Check inflation pressure while the tires are cool. Inspect tread wear.
2. Check the pressure with an accurate, low pressure tire gauge.
3. 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.

4.16 WHEEL MOUNTING PROCEDURE



WARNING

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

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

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

4.17 CARE AND CLEANING

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

NOTICE

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

NOTICE

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

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

4. Clean all plastic or rubber trim with a mild soap solution or use commercially available vinyl/rubber cleaners.
5. To maintain the original high luster of the fiberglass, periodically wax with a good grade of One-Step cleaner wax.

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 blow-out, never attempt to remove the radiator cap while the engine is running. Stop the engine and wait until it is cool. Even then, use extreme care when removing the cap.

CAUTION

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

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

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

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

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

Check and tighten the fan belt. 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 a authorized Jacobsen Dealer check the cooling system.

4 MAINTENANCE

4.19 BACKLAPPING



WARNING

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

When the backlap switch is in the BACKLAP position, the reels will turn without the operator in 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 3.13 and 3.14**.
2. Obtain and engage the mechanics (backlap) key.
 - 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, backlap switch is Off, and the traction pedal is in Neutral.
 - c. Start the engine, turn the mechanics key to Backlap then engage the reel switch. If any of the reels turn, adjust nut **(A)** to stop the reel.

3. Turn nut **(A)** on the reel to be backlapped so the reel turns in reverse. Adjust the reel speed to 100-150 RPM.
 - a. Apply lapping compound with a long handle brush to high spots first then along entire length of the reel.
 - b. 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.
 - c. When the blades have been evenly honed, turn adjusting nut **(A)** to neutral. Carefully and thoroughly remove all lapping compound from reels and bedknife before running the reel in forward direction.
 - d. Disengage reel switch and turn backlap switch to Off.
4. Reset reel motors to forward rotation. If reel speeds vary, check nut **(A)** to insure it is turned completely to full forward rotation.
5. Remove and store the backlap key.

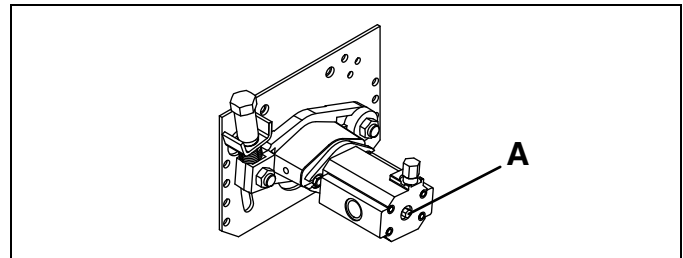


Figure 4C

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 starting.
2. Clean exterior of engine. Paint exposed metal, or apply a light coat of rust preventative oil.
3. Add a fuel conditioner or biocide to prevent gelling or bacterial growth in fuel. See your local fuel supplier.

Cutting Units

1. Wash the cutting units thoroughly, then repair and paint any damaged or exposed metal.
2. Lubricate all fittings and friction points.
3. 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 reinstall battery.
2. Check or service fuel filter and air cleaner.
3. Check the radiator coolant level.
4. Check oil level in the engine crankcase and hydraulic system.
5. Fill the fuel tank with fresh fuel. Bleed the fuel system.
6. Make certain that the tires are properly inflated.
7. Remove all oil from the reels and bedknife. Adjust bedknife and cutting height.
8. Start and operate the engine at 1/2 throttle. Allow enough time for the engine to become properly warmed and lubricated.



WARNING

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

5 TROUBLESHOOTING

5.1 GENERAL

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

Symptoms	Possible Causes	Action
Engine will not start.	<ol style="list-style-type: none"> 1. Parking brake disengaged, traction pedal not in Neutral or reel/3WD switch on. 2. Battery low on charge or defective. 3. Fuel tank empty or dirty. 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. 4. Replace fuse.
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, move traction lever to "N" and set reel control to OFF.
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. 	<p>Inspect bedknife-to-reel adjustment.</p> <p>Check engine speed. Run engine at full throttle.</p> <p>Check reservoir level and fill if needed.</p>
Mower does not react to traction pedal.	<ol style="list-style-type: none"> 1. Parking brake engaged. 2. Tow Valve Open. 3. Low hydraulic oil. 	<p>Disengage parking brake.</p> <p>Close Tow Valve.</p> <p>Check reservoir level and fill if needed.</p>
Implement does not raise or lower.	<ol style="list-style-type: none"> 1. Low hydraulic oil. 	<p>Check reservoir level and fill as needed.</p>
Gauges/Indicator not operating.	<ol style="list-style-type: none"> 1. Circuit Breaker. 2. Loose wiring. 	<p>Reset circuit breaker, check bulb.</p> <p>Check electrical connections.</p>

6.1 GENERAL

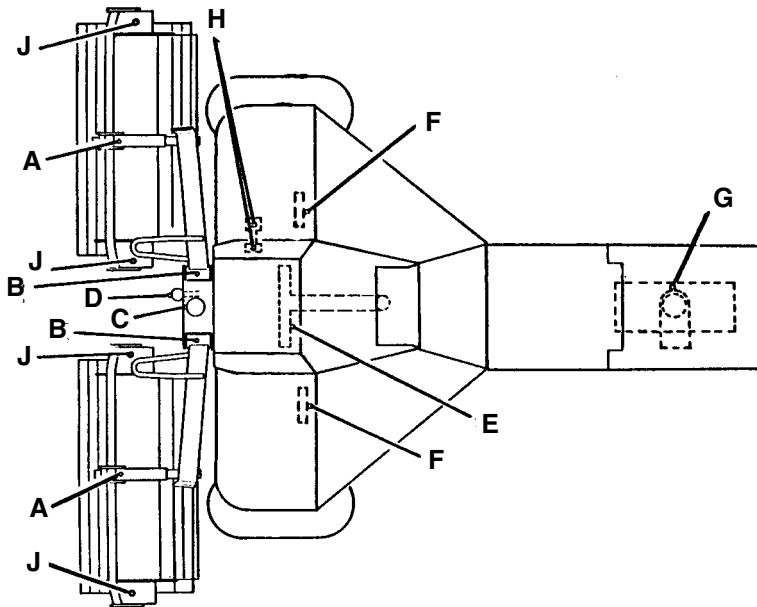
WARNING

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

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

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

6.2 LUBRICATION CHART



- | | |
|--|---|
| <p>A. Mower Pivot (3 Fittings)</p> <p>B. Front Lift Arms (2 Fittings)</p> <p>C. Crank Hub</p> <p>D. Hydraulic Cylinder</p> <p>E. Center Lift Arm</p> | <p>F. Control Pedal Pivot (2 Fittings)</p> <p>G. Steering Yoke</p> <p>H. Drive Shaft Bearings (2 Fittings)</p> <p>J. Reel Bearings (6 Fittings)</p> <p>K. Rollers (As Required)</p> |
|--|---|

6 MAINTENANCE & LUBRICATION CHARTS

6.3 MAINTENANCE CHARTS

Recommended Service and Lubrication Intervals

	Every 8-10 Hours	Every 50 Hours	Every 100 Hours	Every 250 Hours	Every 400 Hours	Every 500 Hours	Every 1000 Hours	Yearly	See Section	Lubricant Type
Air Filter	I		AR					R	4.4	
Battery Charge			I						4.7	
Belts	I-A*		I-A			R			3.2, 3.3	
Brake		I-A*		A					3.10	
Cooling System	I-C-A							R	4.18	IV
Electrical System		I*		I					4.13	
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			L			6.2	I
Hydraulic Hoses and Tubes	I***			I					4.10	
Hydraulic Oil	I-A			R**				R**	4.11	III
Hydraulic Oil Filter	I	R*	R						4.12	
Muffler and Exhaust	I			I					4.14	
Radiator Screens	I-C/AR								4.18	
Tires		I-A							4.15	

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

* Indicates initial service for new machines.

** Every 250 hours, or yearly 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 Biodegradable fluid: Capacity: 5 gallons (19 Liters). Order Part No. 5003103 containing 5 gal. (19 l), pail or Part No. 5003102, 55 gal. (208 l) Drum.

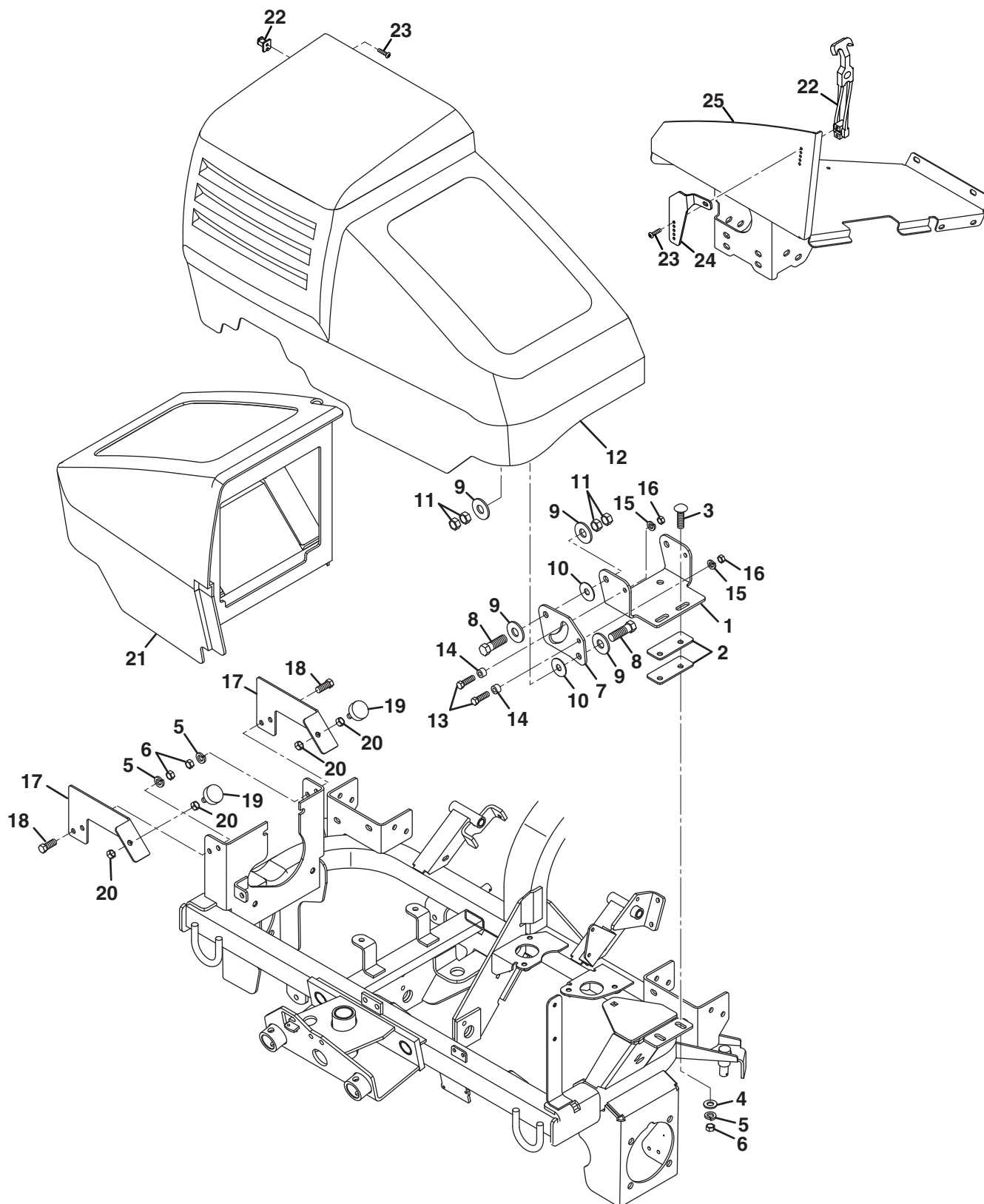
IV - Capacity: 3qt. (2.8 l) 50/50 water ethylene glycol mix.

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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4181864	1	Decal, Battery Warning	
2	4141266	1	Decal, Oil	
3	2812032	1	Decal, Hydraulic Fluids	
4	4181863	1	Decal, See Manual for Service	
5	4124357	1	Decal, Left Side Stripe	
6	4124358	1	Decal, Right Side Stripe	
7	4124790	1	Decal, Jacobsen 12"	
8	4124789	1	Decal, Jacobsen 10"	
9	4181865	1	Decal, Warning	
10	3002053	1	Decal, Backlap Switch	
11	4124721	1	Decal, GreensCare	
12	3003349	1	Decal, Lift/Lower Pedal	
13	2811597	1	Decal, Parking Brake Light	
14	3003348	1	Decal, Forward/Reverse Pedal	
15	3003350	1	Decal, Dash Overlay	
16	3003606	1	Decal, Fuse Panel	On right side steering column
17	363995	1	Decal, Antifreeze	
18	4199140	1	Decal, Heat Warning	On Hood Pivot
19	4181862	1	Decal, Radiator Warning	On Radiator Shroud
20	4182386	1	Decal, Jacobsen Emblem	
21	4111408	1	Decal, Biodegradable Fluid	
22	4189581	2	Decal, Tri-King	
23	3004207	1	Decal, Opening Hood	
24	REF	1	Serial Plate	On left front wheel motor mount
25	4194328	1	Decal, Patent	On left front wheel motor mount
26	4117468	1	Decal, 105 dB Noise	On left front wheel motor mount

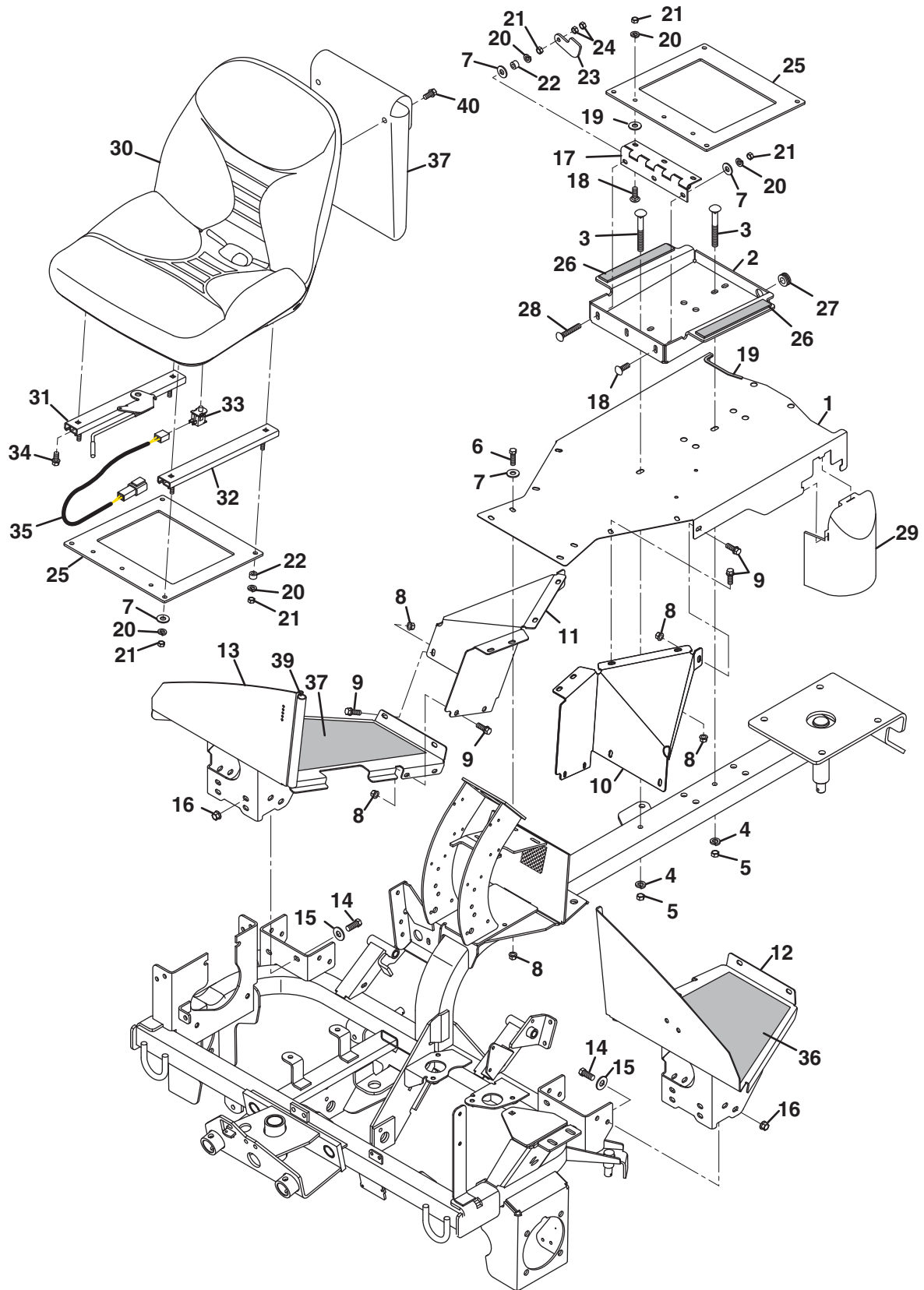
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2810064	1	Pivot Bracket	
2	2811139	AR	Shim, Hood	
3	441676	2	Carriage Bolt, 3/8-16 x 1-1/4"	
4	453011	2	Flat Washer, 3/8	
5	446142	6	Lockwasher, 3/8 Heavy	
6	443110	6	Nut, 3/8-16 Hex	
7	2811495	2	Pivot Link	
8	400408	4	Screw, 1/2-13 x 1-1/2" Hex Head	
9	452012	8	Flat Washer, 1/2	
10	3000576	4	Washer, Nylon	
11	443818	8	Nut, 1/2-13 Hex Jam	
12	4201302	1	Hood, Left Side	
13	400188	3	Screw, 5/16-18 x 1" Hex Head	
14	3004410	3	Spacer	
15	446136	3	Lockwasher, 5/16 Heavy	
16	443106	3	Nut, 5/16-18 Hex	
17	3002673	2	Bracket, Hood Stop	
18	400260	4	Screw, 3/8-16 x 7/8" Hex Head	
19	354989	2	Stop, 3/8-24 Rubber	
20	443812	4	Nut, 3/8-24 Hex Jam	
21	2810029	1	Hood, Right Side	
22	1001758	1	Rubber Latch and Keeper	
23	403912	3	Screw, #10-24 x 5/8" Truss Head	
24	4199660	1	Bracket, Upper Radiator	See 13.1
25	2810413	1	Right Foot Rest	See 3.1

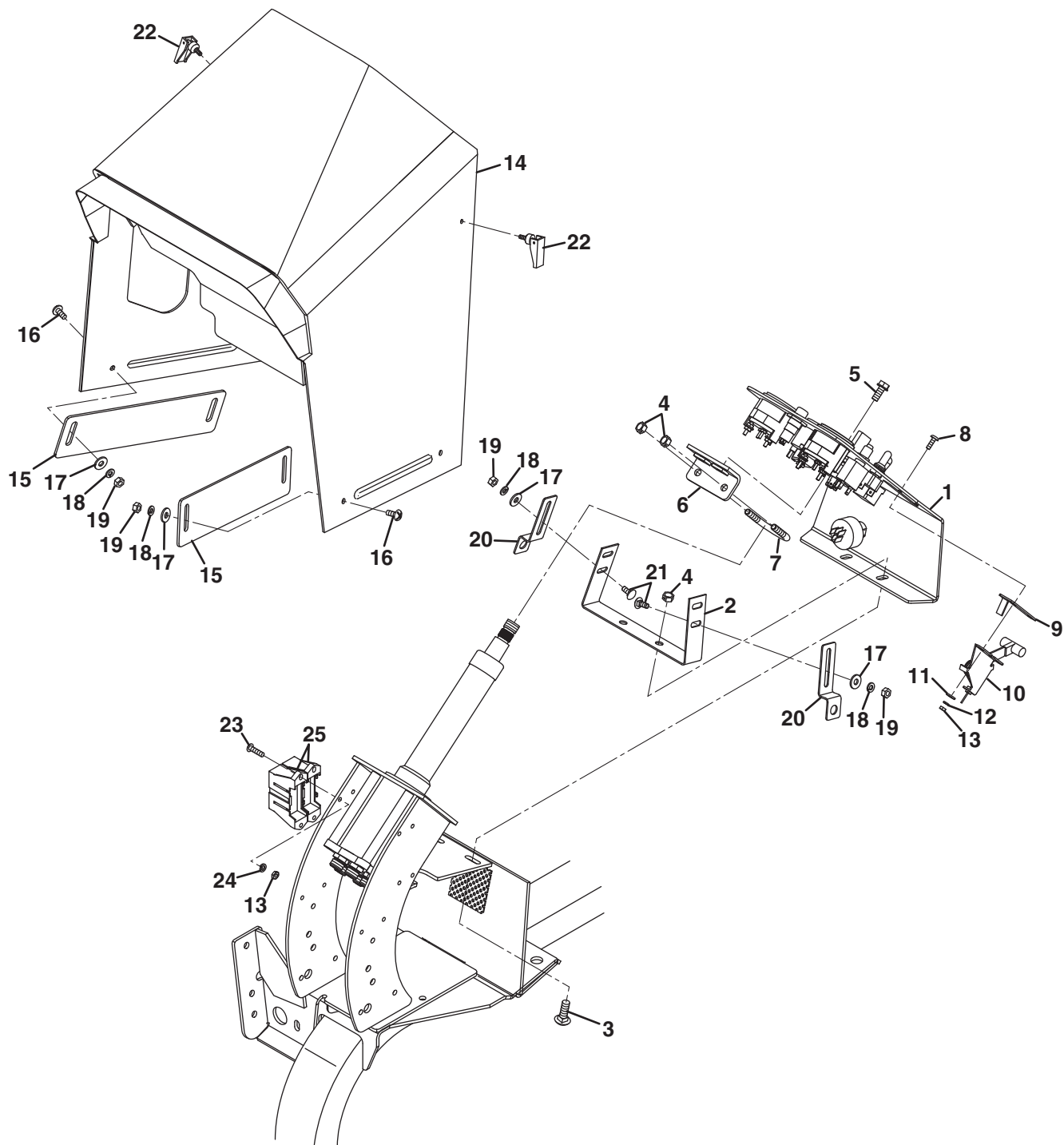
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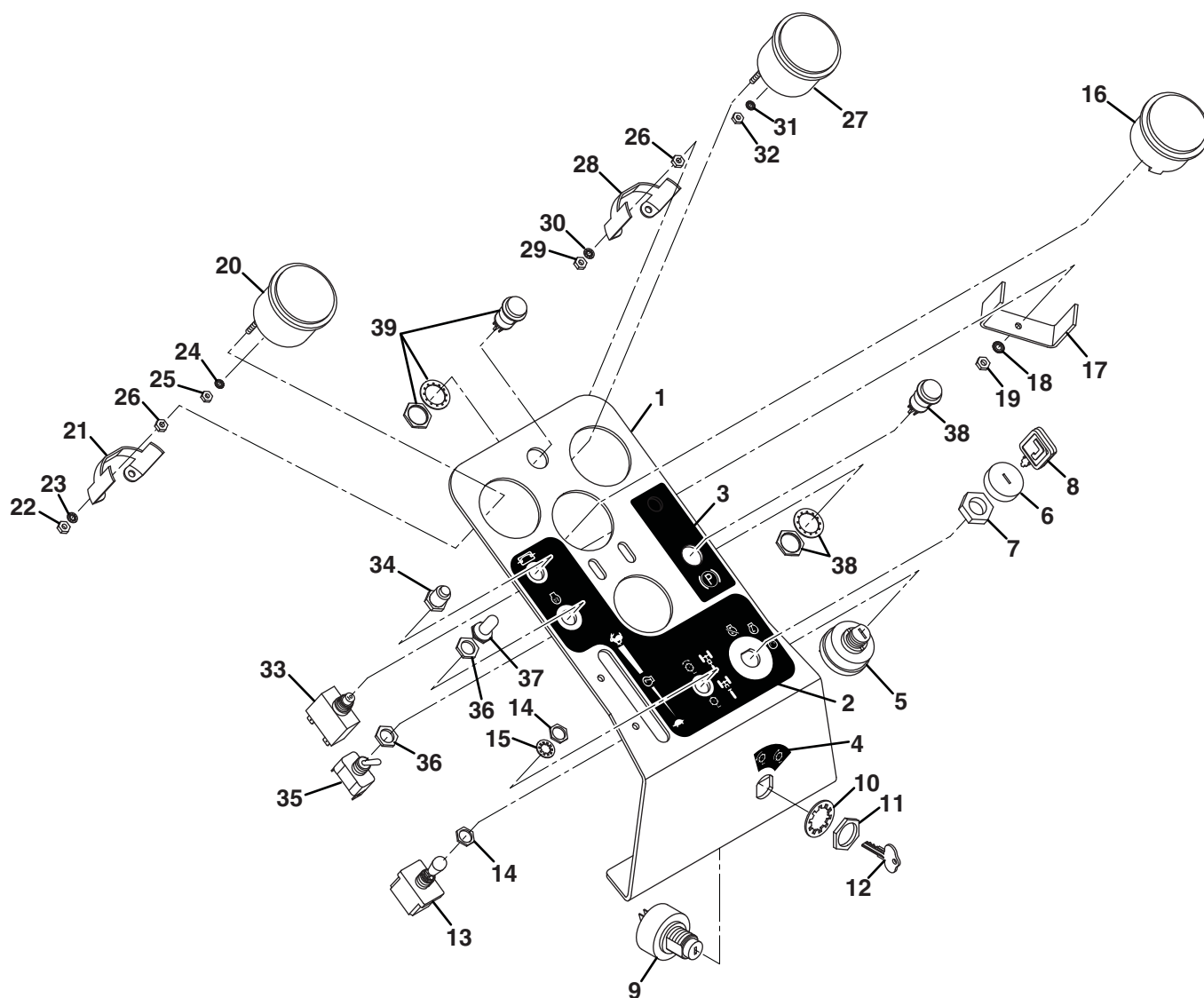
3.1 Seat Pan and Foot Rest



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	5001665	1	Seat Pan	Includes Decals	
2	3003301	1	Seat Base		
3	440134	2	Carriage Bolt, 3/8-16 x 3"		
4	446142	2	Lockwasher, 3/8 Heavy		
5	443110	2	Nut, 3/8-16 Hex		
6	400188	4	Screw, 5/16-18 x 1" Hex Head		
7	452006	12	Flat Washer, 5/16		
8	445795	18	Nut, 5/16-18 Spiralock Flange		
9	403770	14	Screw, 5/16-18 x 3/4" Hex Flange		
10	3002803	1	Left Side Transition		
11	3002804	1	Right Side Transition		
12	2810411	1	Left Foot Rest		
13	2810413	1	Right Foot Rest		
14	400260	12	Screw, 3/8-16 x 7/8" Hex Head		
15	452008	12	Flat Washer, 3/8		
16	445796	12	Nut, 3/8-16 Spiralock Flange		
17	3003299	1	Hinge, Seat Plate		
18	440078	5	Carriage Bolt, 5/16-18 x 3/4"		
19	551651	1	Moulding		10 Foot Length, Cut to 7 in.
20	446136	10	Lockwasher, 5/16 Heavy		
21	443106	10	Nut, 5/16-18 Hex		
22	3004410	3	Spacer		
23	3003402	1	Seat Latch		
24	443806	2	Nut, 5/16-18 Hex Jam		
25	3003368	1	Plate, Seat		
26	558012	2	Pad, Cork		10 Foot Length, Cut to 8 in.
27	303567	1	Grommet		
28	440088	1	Carriage Bolt, 5/16-18 x 1-3/4"		
29	3003968	1	Cover, Filter		
30	4139430	1	Seat		
31	523356	1	• Seat, Adjuster with Handle		REFERENCE SW6, See 42.1
32	523357	1	• Seat Adjuster		
33	4139450	1	• Seat Switch		
34	3001328	6	• Screw, 5/16-18 x 5/8" Washer Head		
35	5003769	1	Harness, Seat Switch		
36	2810062	1	Pad, Left Foot Rest		
37	2810061	1	Pad, Right Foot Rest		
38	3003928	1	Literature Pouch		
39	844945	AR	Trim, Seal		30 Ft. Length, Cut to 11"
40	3001328	2	Screw, 5/16-18 x 5/8" Washer Head		

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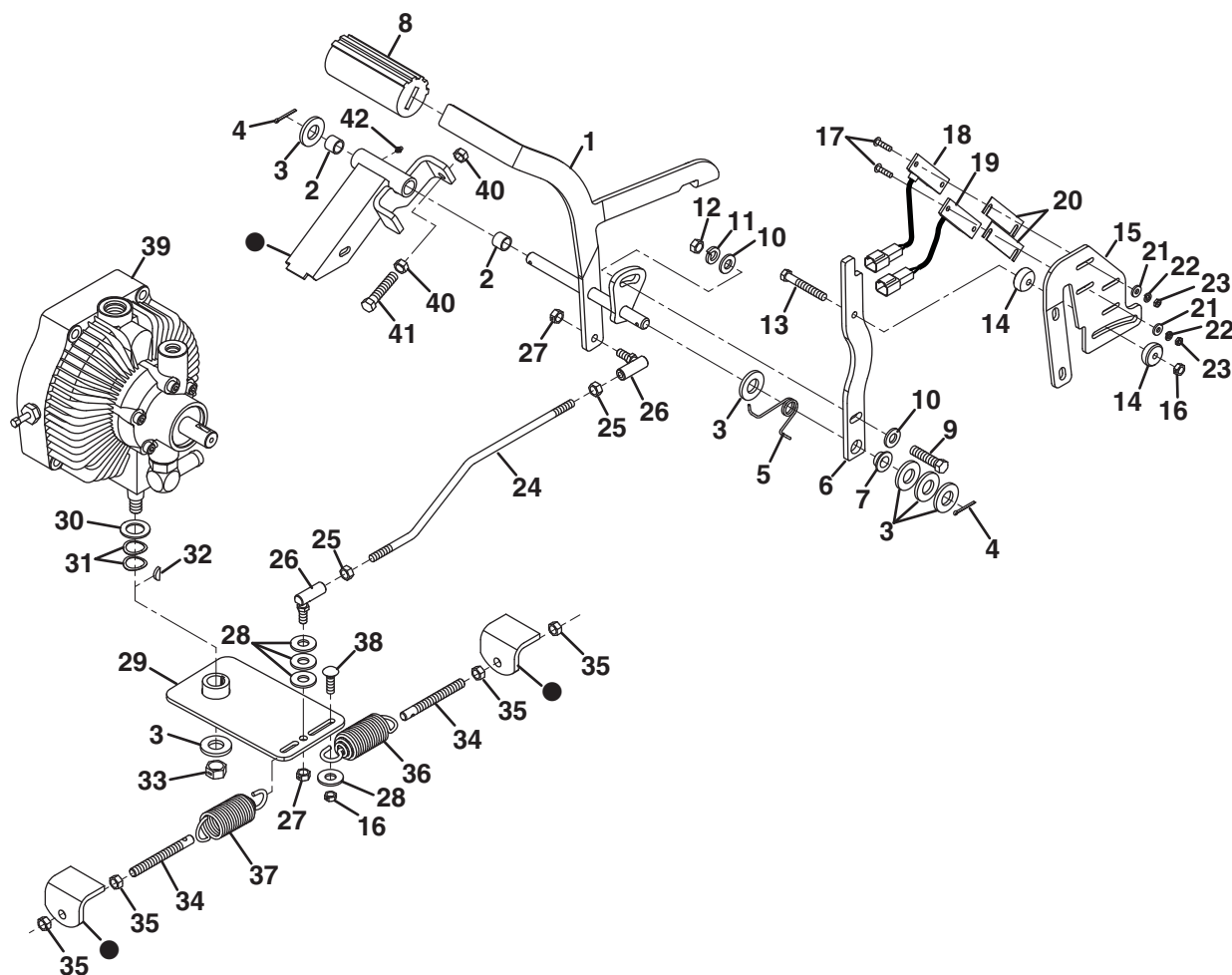




Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2811437	1	Instrument Panel	
2	3003350	1	• Decal, Panel Overlay	
3	2811597	1	• Decal, Parking Brake	
4	3002053	1	• Decal, Backlap Switch	
5	1001958	1	Ignition Switch	REFERENCE SW9, See 42.1
6	5002101	1	• Bezel, Slotted Rubber	
7	5002102	1	• Nut, 5/8-32 Black Nylon	
8	5000039	2	• Key, Ignition Switch	
9	1001010	1	Switch, Backlap Lockout	REFERENCE SW10, See 42.1
10	558036	2	• Nut, 13/16-20 Hex Panel	
11	N/S	1	• Lockwasher, 13/16 Internal Tooth	
12	5001428	1	• Key, Backlap Lockout Switch	
13	3001780	1	Switch, Reel / 3WD	REFERENCE SW2, See 42.1
14	N/S	1	• Nut, 15/32-32 Hex Panel	
15	447220	2	• Lockwasher, 1/2 Internal Tooth	
16	162723	1	Gauge Hour Meter	REFERENCE U3, See 42.1
17	N/S	1	• Bracket, Gauge	
18	447006	1	• Lockwasher, #10 External Tooth	
19	444310	1	• Nut, #10-24 Hex Nut	
20	162721	1	Gauge, Volt Meter	REFERENCE U2, See 42.1
21	N/S	1	• Bracket, Gauge	
22	444306	2	• Nut, #8-32 Hex	
23	447206	2	• Lockwasher, #8 External Tooth	
24	447002	2	• Lockwasher, #6 Internal Tooth	
25	444304	2	• Nut, #6-32	
26	444306	4	Nut, #8-32 Hex	
27	162720	1	Gauge, Water Temperature	REFERENCE U4, See 42.1
28	N/S	1	• Bracket, Gauge	
29	444306	2	• Nut, #8-32 Hex	
30	447206	2	• Lockwasher, #8 External Tooth	
31	447002	3	• Lockwasher, #6 Internal Tooth	
32	444304	3	• Nut, #6-32	
33	338601	1	Circuit Breaker, 10 Amp	REFERENCE CB2, See 42.1
34	364774	1	Boot, 15/32-32 Circuit Breaker	
35	363961	1	Switch, Glow Plug Toggle	REFERENCE SW1, See 42.1
36	N/S	2	• Nut, 15/32-32 Hex Panel	
37	363962	1	Boot, 15/32-32 Toggle Switch	
38	366751	1	Light, Parking Brake	REFERENCE L4, See 42.1
39	164194	1	Light, Oil Pressure	REFERENCE L3, See 42.1

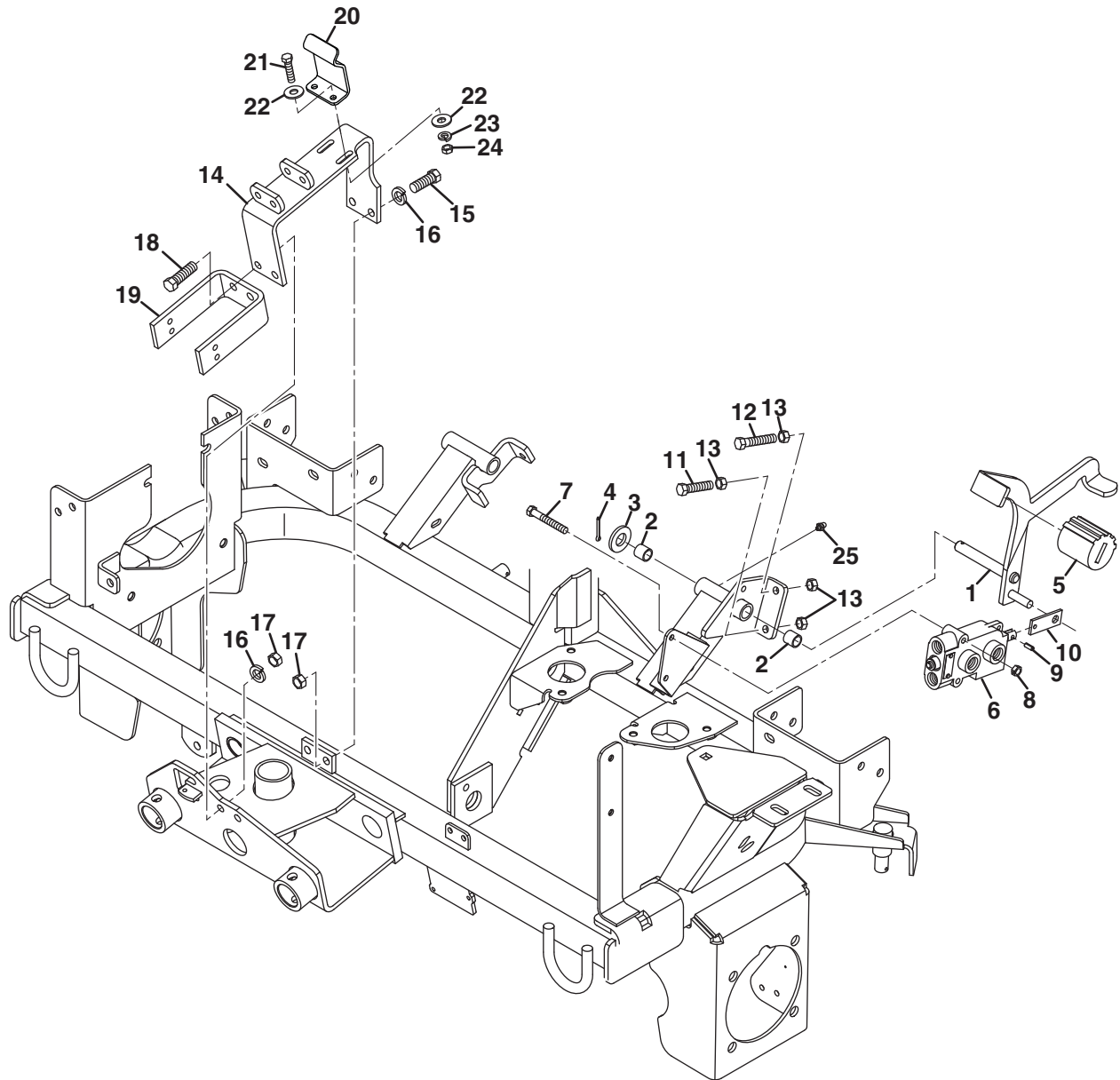
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6.1 Traction Pedal Linkage



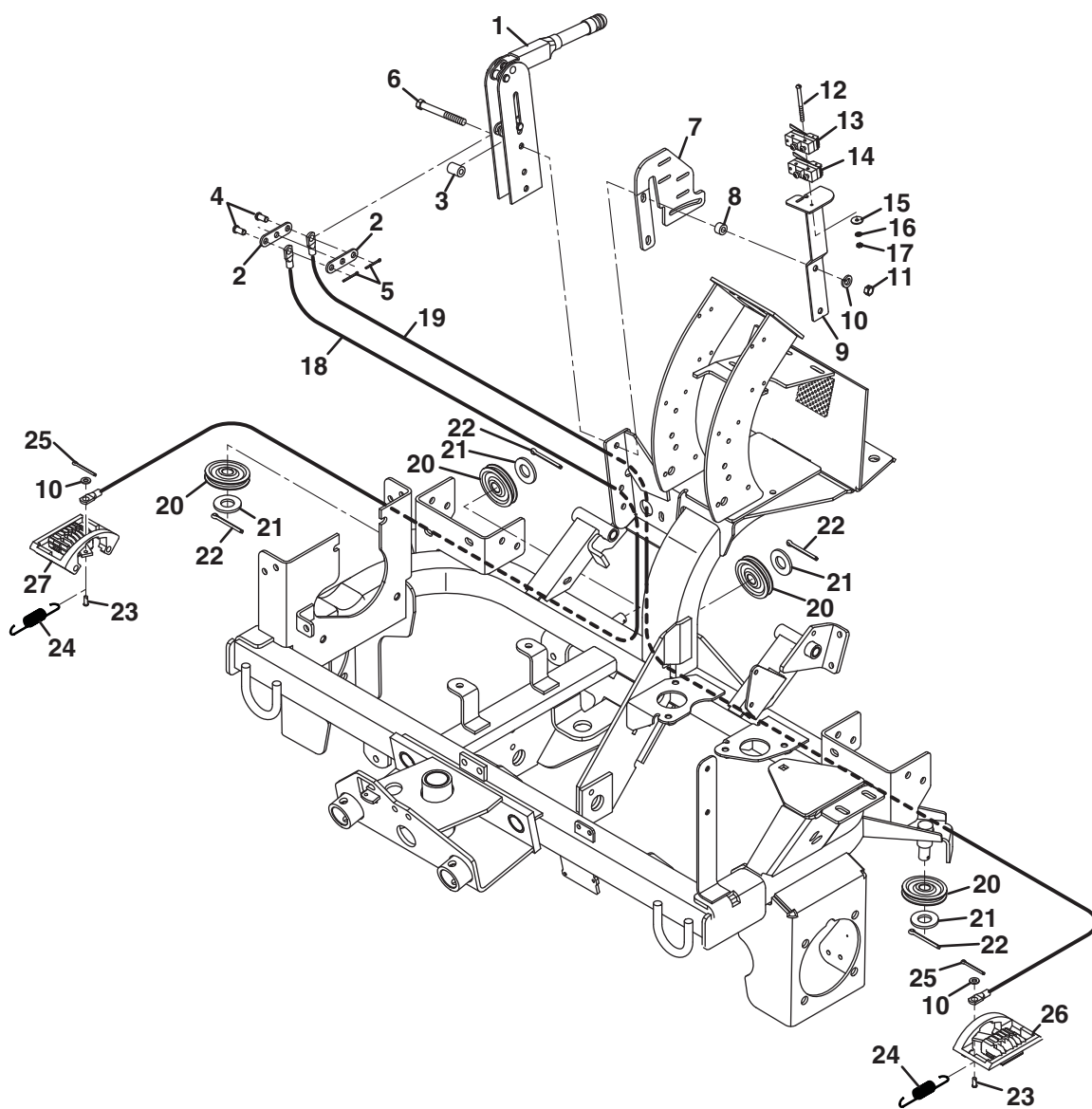
Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	2811387	1	Traction Pedal	Included with frame	
2	328133	2	Bushing		
3	453017	6	Flat Washer, 1/2		
4	460028	1	Cotter Pin, 1/8 x 1"		
5	2811390	1	Spring, Torsion		
6	2811654	1	Arm, Switch Actuating		
7	352936	1	• Bushing		
8	3003475	1	Pedal, Grip		
9	400190	1	Screw, 5/16-18 x 1-1/4" Hex Head		
10	453009	2	Flat Washer, 5/16		
11	446136	1	Lockwasher, 5/16 Heavy		
12	443806	1	Nut, 5/16-18 Hex Jam		
13	400118	1	Screw, 1/4-20 x 1-3/4" Hex Head		
14	2811659	2	Spacer, Nylon		
15	2812215	1	Plate, Switch Mounting		See 8.1 for plate mount.
16	444708	2	Locknut, 1/4-20 Hex Center		
17	403860	4	Screw, #8-32 x 5/8" Truss Head		
18	3007392-1	1	Switch, Neutral Proximity		REFERENCE SW7, See 42.1
19	4140149	1	Switch, 3WD Proximity		REFERENCE SW5, See 42.1
20	3009193	AR	Shim, Proximity Switch		
21	453004	4	Flat Washer, #8		
22	446110	4	Lockwasher, #8		
23	444306	4	Nut, #8-32 Hex		
24	3002399	1	Rod, Traction Linkage		
25	443108	2	Nut, 5/16-24 Hex		
26	343398	2	Ball Joint		
27	444754	2	Locknut, 5/16-24 Hex Center		
28	452006	4	Flat Washer, 5/16		
29	1004900	1	Traction Arm		
30	307374	1	Washer		
31	454001	2	Spring Washer		
32	463005	1	Key, 1/8 x 5/8" Woodruff		
33	444758	1	Locknut, 1/2-13 Center		
34	3002372	2	Bolt, 3/8-16 Spring		
35	443110	4	Nut, 3/8-16 Hex		
36	3006746	1	Sping, Extension		Reverse Return
37	3006745	1	Spring, Extension		Forward Return
38	441606	1	Carriage BOlt, 1/4-20 x 3/4"		
39	4129590	1	Pump, Hydraulic Traction		See 20.1 for pump mounting.
40	443106	2	Nut, 5/16-18 Hex		
41	400192	1	Screw, 5/16-18 x 1-1/2" Hex Head		
42	471214	1	Grease Fitting, 1/4-28 Straight		
●	Frame Components				

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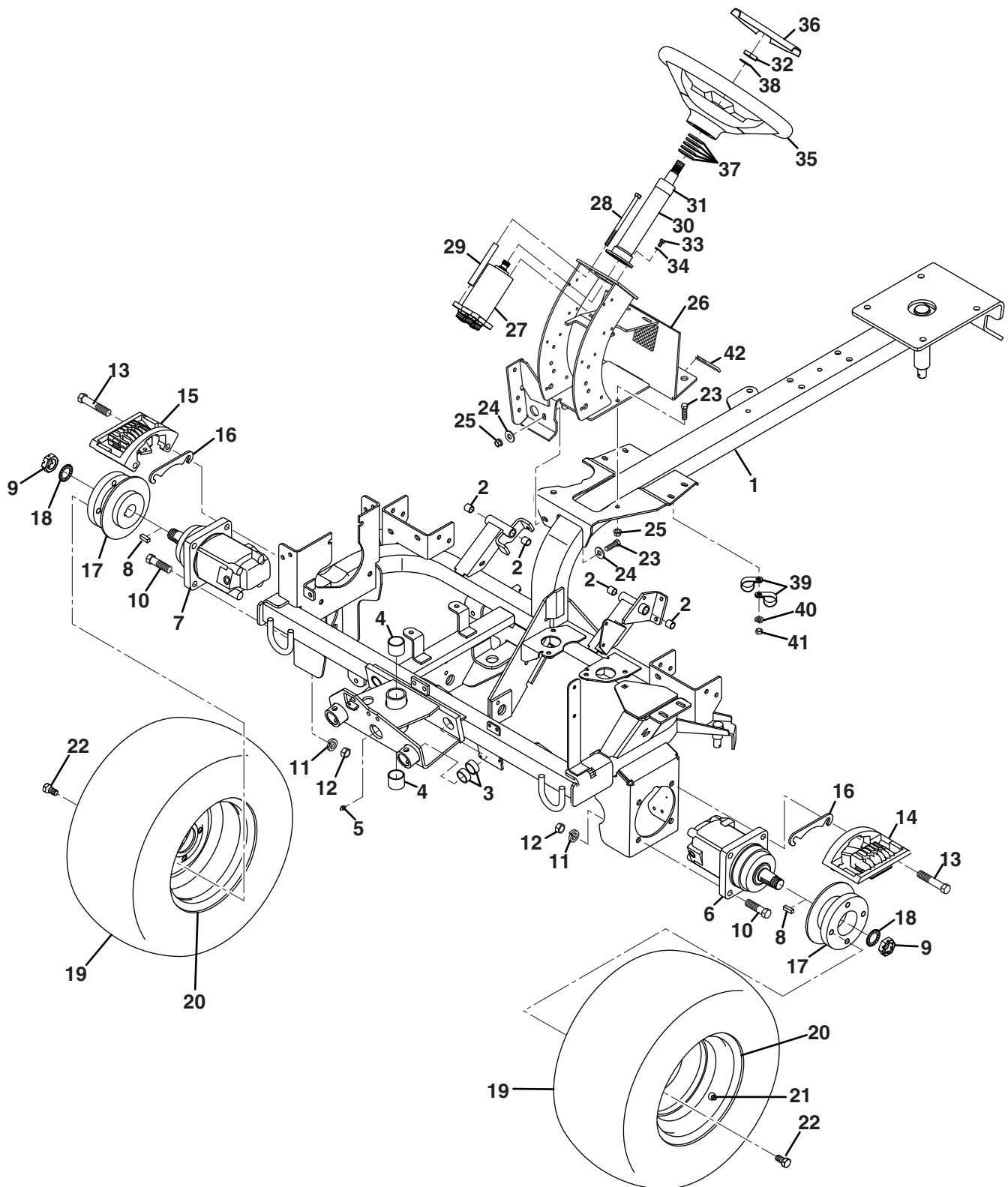
Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	1002606.7	1	Lift Pedal	Included with frame	
2	328133	2	Bushing, Pedal		
3	453017	1	Flat Washer, 1/2		
4	460028	1	Cotter Pin, 1/8 x 1"		
5	3003474	1	Grip, Pedal		
6	4240904	1	Lift Valve		
	4240905	1	• Seal Kit		
7	400118	2	Screw, 1/4-20 x 1-3/4" Hex Head		
8	444708	2	Locknut, 1/4-20 Hex Center		
9	461379	1	Roll Pin, 3/16 x 1/2"		
10	3002234.7	1	Plate, Link		
11	400190	1	Screw, 5/16-18 x 1-1/4" Hex Head		Lower Stop
12	400192	1	Screw, 5/16-18 x 1-1/2" Hex Head		Lift Stop
13	443106	4	Nut, 5/16-18 Hex		
14	1001176.7	1	Bracket, Spring Tab		
15	400262	2	Screw, 3/8-16 x 1" Hex Head		
16	446142	4	Lockwasher, 3/8 Heavy		
17	443110	4	Nut, 3/8-16 Hex		
18	400264	2	Screw, 3/8-16 x 1-1/4" Hex Head		
19	3002630.7	1	Bracket, Hose Support		
20	3004679	1	Bracket, Hood Centering		
21	400112	2	Screw, 1/4-20 x 1" Hex Head		
22	452004	4	Flat Washer, 1/4		
23	446130	2	Lockwasher, 1/4 Heavy		
24	443102	2	Nut, 1/4-20 Hex		
25	471214	1	Grease Fitting, 1/4-28 Straight		

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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2500127	1	Parking Brake Lever	
2	N/S	2	• Stabilizer Plate	
3	545237	2	• Spacer	
4	545234	2	• Clevis Pin	
5	460002	2	• Cotter Pin, 1/16 x 1/2"	
6	400216	2	Screw, 5/16-18 x 2-3/4" Hex Head	
7	2812215	1	Plate, Switch Mounting	
8	3004410	2	Spacer	
9	3002788	1	Bracket, Parking Brake Switch	
10	453009	4	Flat Washer, 5/16	
11	444718	2	Locknut, 5/16-18 Hex Center	
12	402022	2	Screw, #6-32 x 2" Slotted Round	
13	3002056	1	Switch, Parking Brake Light	REFERENCE SW12, See 42.1
14	3002056	1	Switch, Parking Brake	REFERENCE SW8, See 42.1
15	453005	2	Flat Washer, #6	
16	447204	2	Lockwasher, #6 Internal Tooth	
17	444304	2	Nut, #6-32 Hex	
18	3002627	1	Brake Cable, Left Side	
19	3002628	1	Brake Cable, Right Side	
20	338383	4	Pulley, Brake Cable	
21	453020	4	Flat Washer, 5/8	
22	460028	4	Cotter Pin, 1/8 x 1"	
23	346771	2	Clevis Pin, 5/16 x 3/4"	
24	352204	2	Spring, Brake Return	
25	460008	2	Cotter Pin, 5/64 x 3/4"	
26	1001634	1	Caliper, Left Side	See 9.1
27	1001635	1	Caliper, Right Side	See 8.1

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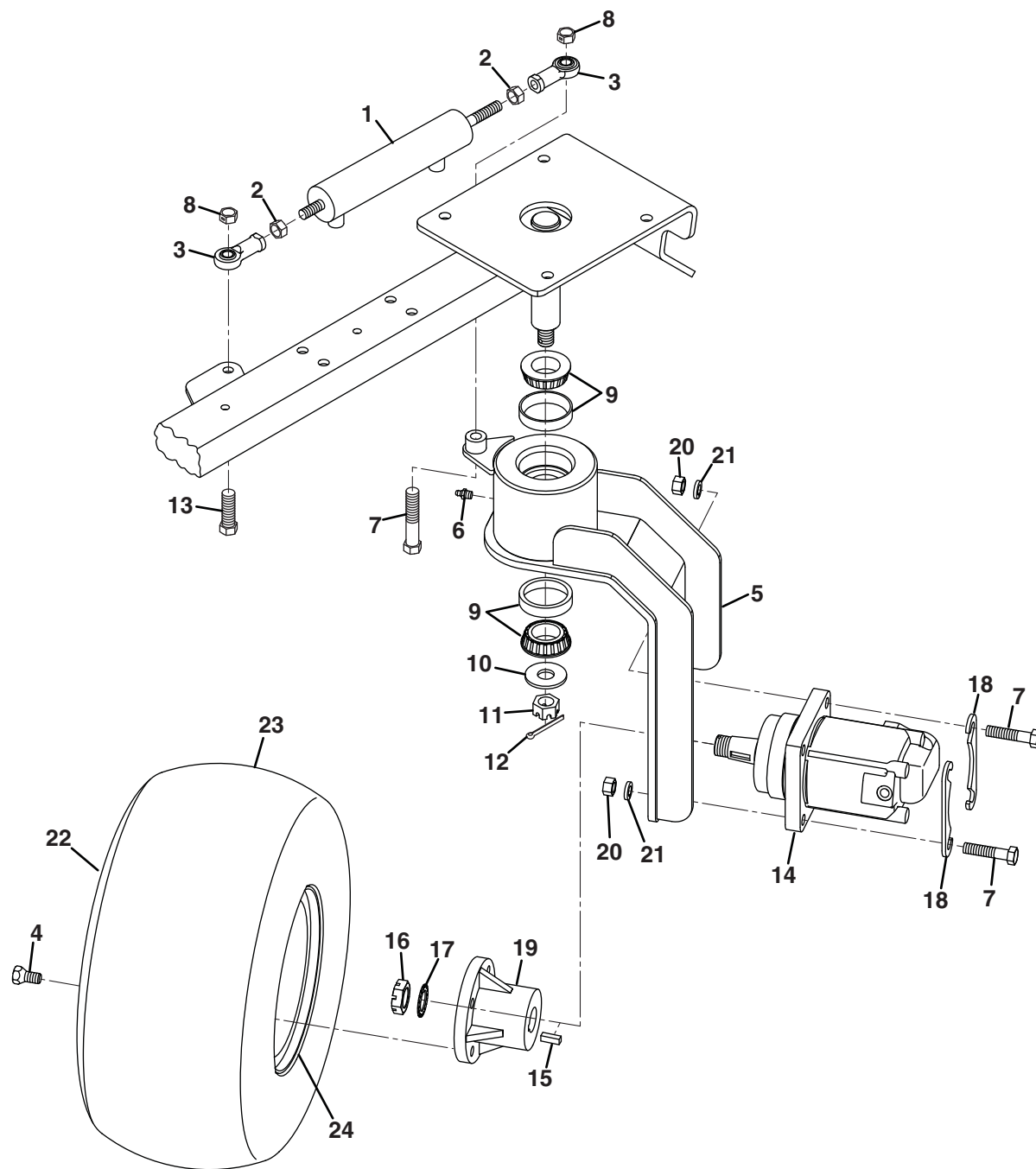


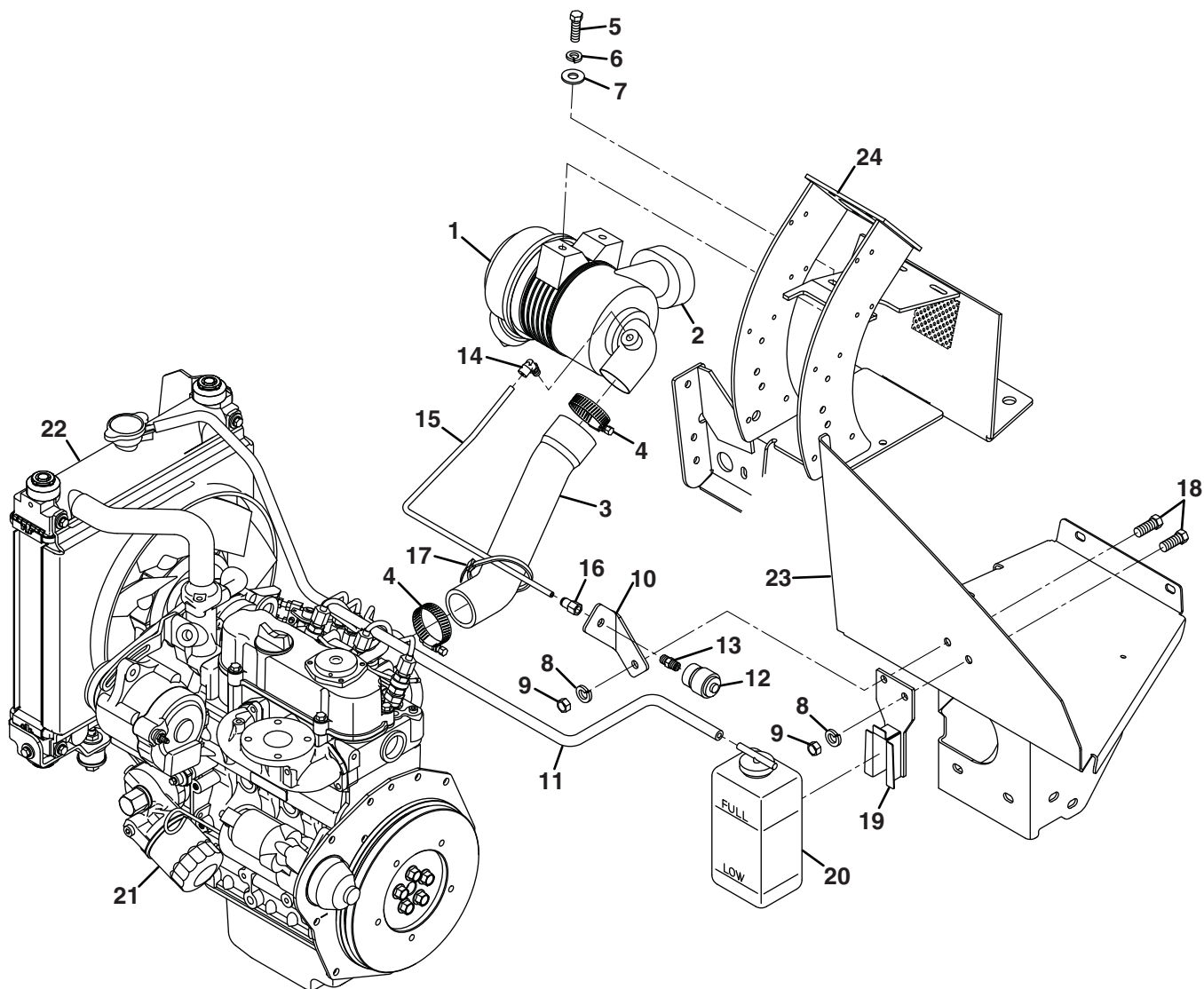
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	N/S	1	Frame Assembly	
2	328133	4	• Bushing, Pedal Pivot	
3	3002170	4	• Bushing, Lift Arm Pivot	
4	365106	2	• Bushing, Lift Crank	
5	471216	1	• Grease Fitting, 1/4-28	
6	4182425	1	Wheel Motor, 11.9 in ³ Front Left	See 40.1
7	4189920	1	Wheel Motor, 9.6 in ³ Front Right	See 41.1
8	554780	1	• Key	
9	554779	1	• Nut, 1-20 Slotted Hex	
10	400410	4	Screw, 1/2-13 x 1-3/4" Hex Head	
11	446154	8	Lockwasher, 1/2 Heavy	
12	443118	8	Nut, 1/2-13 Hex	
13	400414	4	Screw, 1/2-13 x 2-1/4" Hex Head	
14	1001634	1	Caliper, Left Side	See 39.1
15	1001635	1	Caliper, Right Side	See 39.1
16	3008482	2	Spacer	
17	395388	2	Hub, Wheel	
18	447030	2	Lockwasher, 1" External Tooth	
19	4242563	2	Tire, 20 x 10 - 10 Grassmaster	
20	4242564	2	Rim, 10 x 7	
21	360111	1	Valve, Inflation	
22	353914	8	Wheel Bolt, 1/2-20 x 3/4"	
23	400188	2	Screw, 5/16-18 x 1" Hex Head	
24	452006	2	Flat Washer, 5/16	
25	445781	2	Nut, 5/16-18 Whizlock Flange	
26	4197061	1	Frame, Steering Column	
27	4196485	1	Valve, Steering	
	4197940	1	• Seal Kit	
28	64205-054	4	Screw, M8-1.25 x 130 mm Hex Head	
29	4211400	4	Spacer	
30	4210420	1	Shaft, Steering	
31	4201840	1	• Seal, Steering Shaft	
32	443828	1	• Nut, 5/8-18 Hex Jam	
33	450168	4	Screw, M6-1 x 12 mm Hex Head	
34	450410	4	Lockwasher, M6	
35	2811364	1	Steering Wheel	
36	2811365	1	• Cap, Steering Wheel	
37	2811547	5	Washer	
38	447224	1	Lockwasher, 5/8 Internal Tooth	
39	354080	2	Clamp, Hose	
40	446136	1	Lockwasher, 5/16 Heavy	
41	443106	1	Nut, 5/16-18 Hex	
42	3003748	2	Edging	

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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	69157	1	ROPS Assembly	
2	N/S	1	• Base, ROPS	
3	5003595	1	• Plate, Rear Backing	
4	5003596	1	• Bracket, Seat Belt	
5	5000629	1	• Seat Belt, 60"	
6	400370	2	• Screw, 7/16-20 x 1" Hex Head	
7	452010	2	• Flat Washer, 7/16	
8	444730	2	• Locknut, 7/16-20 Hex Center	
9	400408	8	• Screw, 1/2-13 x 1-1/2" Hex Head	
10	446154	12	• Lockwasher, 1/2 Heavy	
11	443118	12	• Nut, 1/2-13 Hex	
12	400420	4	• Screw, 1/2-13 x 3-1/2" Hex Head	
13	5003598	1	• Decal, Seat Belt Warning	
14	5003597	1	• Decal, Structure Warning	
15	4111942	1	3WD Valve	See 39.1
16	400124	1	Screw, 1/4-20 x 2-1/2" Hex Head	
17	452004	3	Flat Washer, 1/4	
18	444708	2	Locknut, 1/4-20 Hex Center	
19	400126	1	Screw, 1/4-20 x 3" Hex Head	
20	360343	1	Clamp, Harness	Seat Switch Harness
21	354080	1	Clamp, Hose	Return Hose
22	345671	1	Clamp, Hose	Reel Return Tube

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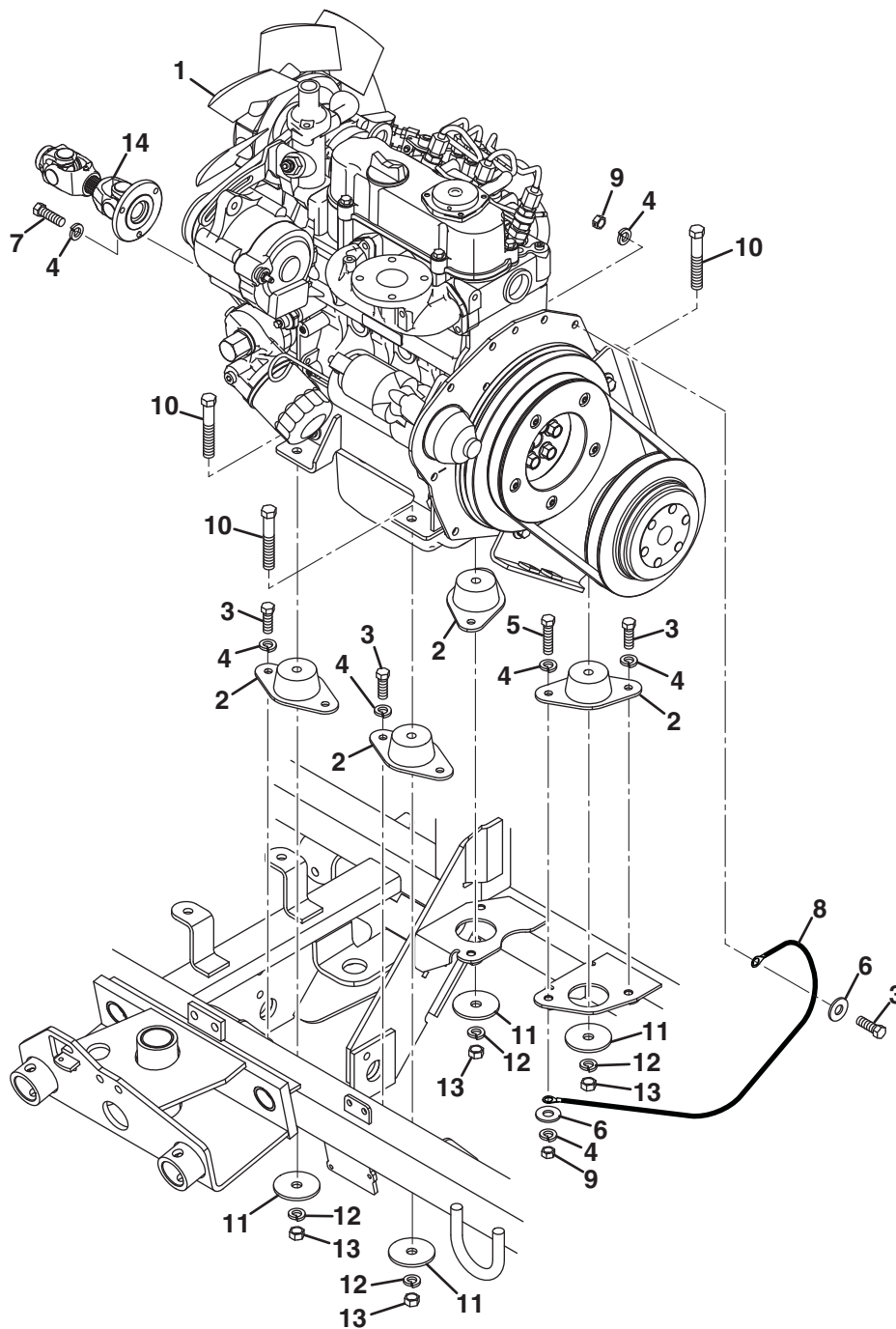


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1001354	1	Air Cleaner	
	5000913	1	• Element, Air Cleaner	
	5000912	1	• Cover	
	5000914	1	• Valve, Vactuato	
2	3002862	1	Foam Ring	
3	3002863	1	Hose, Engine Air Intake	
4	326112	2	Clamp, Hose	
5	361005	2	Screw, M8-1.25 x 25 mm Hex Head	
6	446136	2	Lockwasher, 5/16 Heavy	
7	452006	2	Flat Washer, 5/16	
8	446142	2	Lockwasher, 3/8 Heavy	
9	443110	2	Nut, 3/8-16 Hex	
10	3004256	1	Bracket, Air Cleaner Indicator	
11	364703	1	Overflow Hose, 30" Long	
12	1001752	1	Air Cleaner Indicator	
13	N/S	1	• Adapter, 1/8 NPT	
14	3004253	1	Elbow, 1/8 NPT	
15	5002126	1	Tube	
16	3004333	1	Fitting, 1/8 NPT Bulkhead	
17	473142	1	Cable Tie	
18	400260	2	Screw, 3/8-16 x 7/8" Hex Head	
19	557580	1	Support, Tank	
20	553926	1	Tank, Reserve	
21	4189580	1	Engine, Kubota D722-E3B	See 15.1
22	REF	1	Radiator Assembly	See 13.1
23	2810411	1	Left Foot Rest	See 3.1
24	4197061	1	Frame, Steering Column	See 9.1

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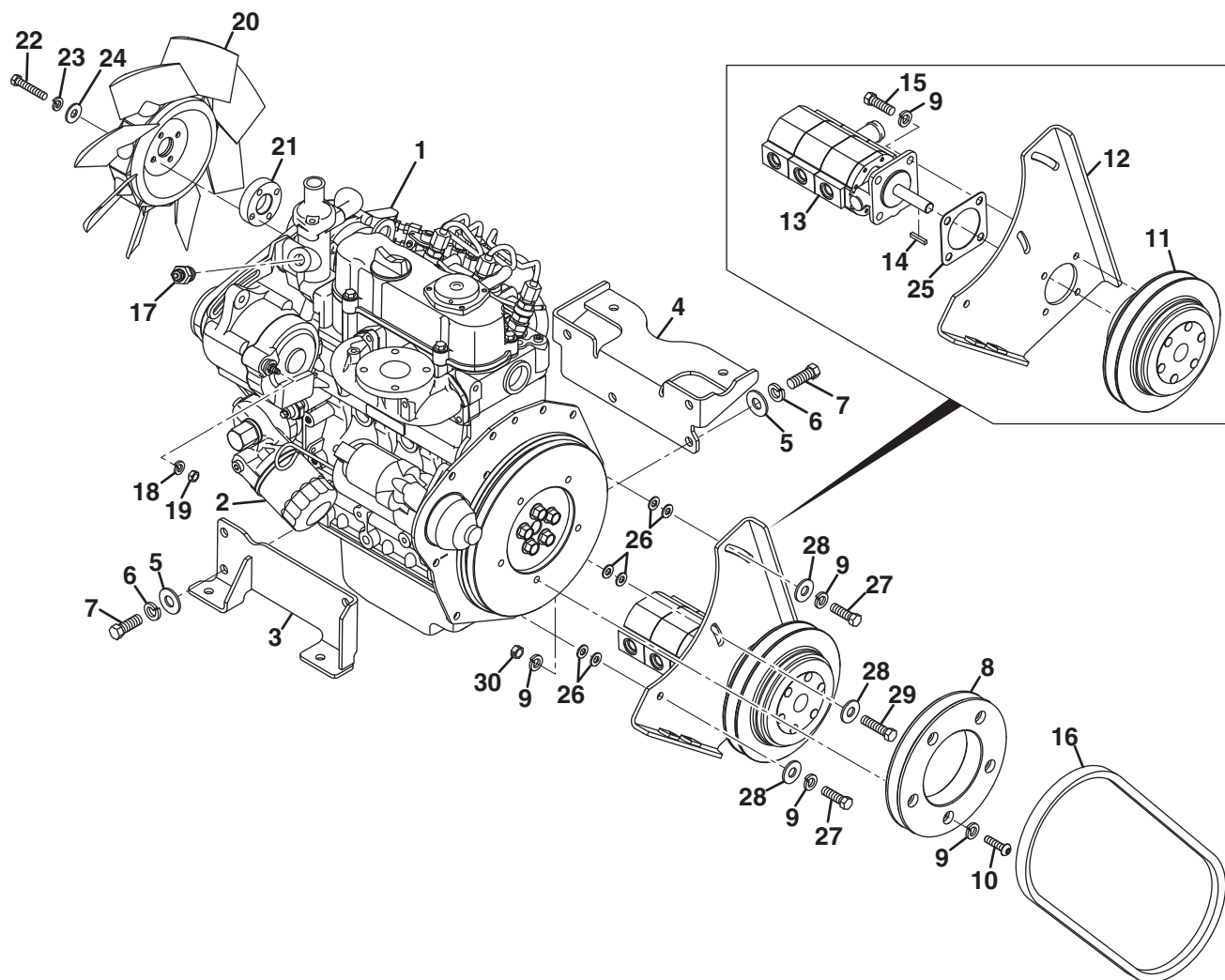
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4141036	1	Radiator	
2	4150717	1	Bracket, Front Radiator Mount	
3	4140846	1	Shroud, Fan	
4	362535	9	Screw, M6-1 x 16 mm Hex Head	
5	446128	9	Lockwasher, 1/4	
6	452004	9	Flat Washer, 1/4	
7	452008	6	Flat Washer, 3/8	
8	4197181	2	Weater Strip	
9	4150418	1	Bracket, Rear adiator Mount	
10	4197180	2	Weather Strip	
11	4199660	1	Bracket, Upper Radiator	
12	553887	4	Washer, Cup	
13	443810	2	Nut, 3/8-16 x 3/8"	
14	460312	2	Hair Pin	
15	4150598	2	Screw, 3/8-16 x 2" Special	
16	553886	2	Cushion, Radaitor	
	4141392	1	Radiator Hose Kit	
17	319914	4	• Clamp, Hose	
18	N/S	1	• Hose, Lower Radiator	
19	N/S	1	• Hose, Upper Radiator	
20	844945	AR	Trim, Seal	30 Ft. Length, Cut to 11"

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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	REF	1	Engine and Pump Assembly	See 15.1
2	3004523	4	Mount, Isolation	
3	400186	8	Screw, 5/16-18 x 7/8" Hex Head	
4	446136	12	Lockwasher, 5/16 Heavy	
5	400190	1	Screw, 5/16-18 x 1-1/4" Hex Head	
6	452006	2	Flat Washer, 5/16	
7	361005	3	Screw, M8-1.25 x 25 mm Hex Head	
8	346006	1	Cable, Engine Ground	
9	444718	2	Locknut, 5/16-18 Hex Center	
10	400272	4	Screw, 3/8-16 x 2-1/4" Hex Head	
11	3004526	4	Washer, Isolation Mount	
12	446142	4	Lockwasher, 3/8 Heavy	
13	443110	4	Nut, 3/8-16 Heavy	
14	4129589	1	Universal Joint	
	554663	2	• Cross and Bearing Kit	

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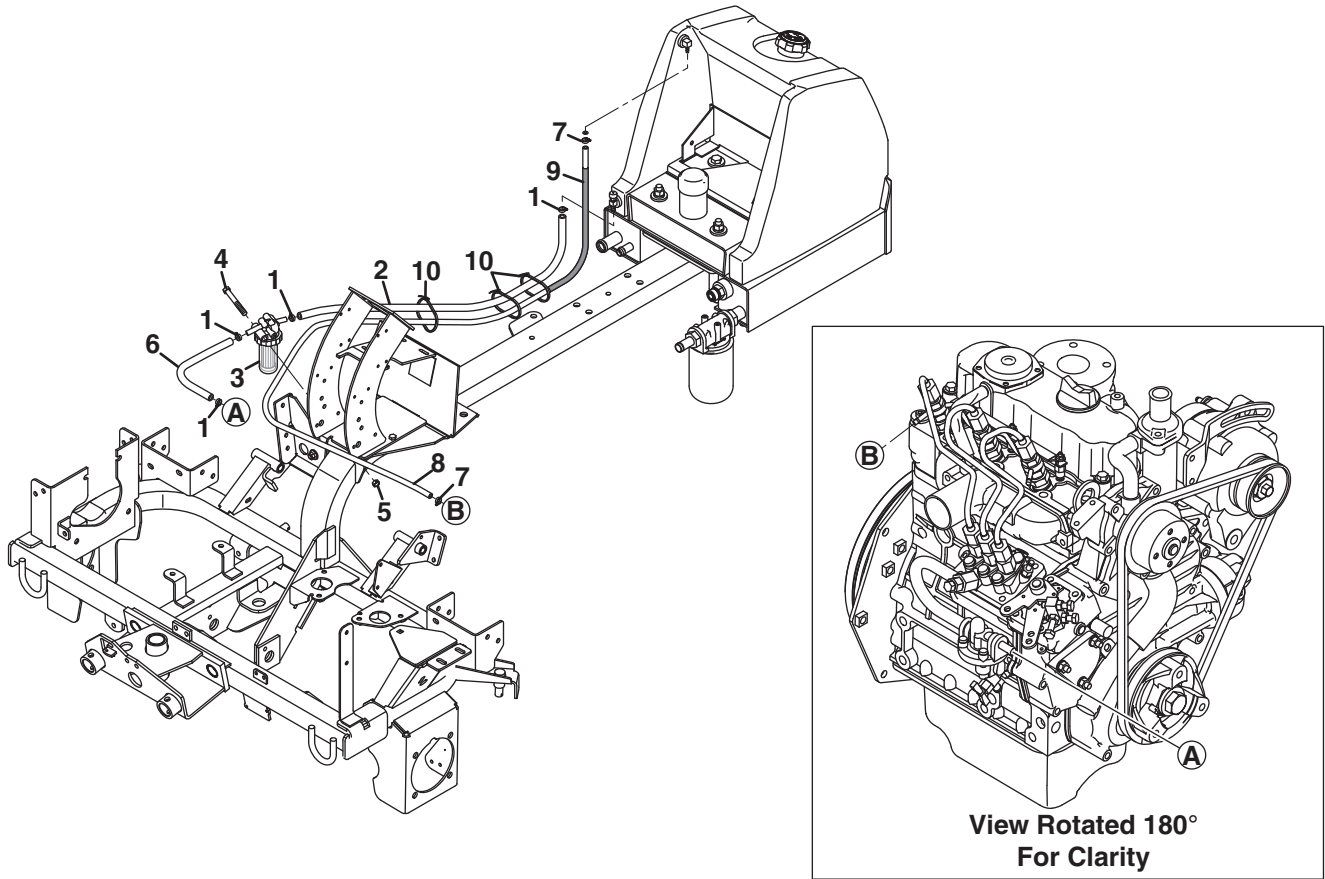
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4189580	1	Engine, Kubota D722-E3B	
2	5002644	1	• Cartridge, Engine Oil Filter	
3	4127309.7	1	Bracket, Front Engine Mount	
4	2811637.7	1	Bracket, Rear Engine Mount	
5	452008	8	Flat Washer, 3/8	
6	363485	8	Lockwasher, M10	
7	362263	8	Screw, M10-1.25 x 25 mm Hex Head	
8	2810499.7	1	Pulley, Reel Pump Drive	
9	446136	12	Lockwasher, 5/16 Heavy	
10	2810545	5	Screw, M8-1.25 x 30 mm Button Hd	
11	2809727	1	Clutch, Reel Pump	REFERENCE K2, See 42.1
12	4130754.7	1	Bracket, Pump Pivot	
13	4174020	1	Pump, 3 Section Gear	See 35.1
14	5001437	1	Key, 5/32 x 3/4" Square	
15	400226	4	Screw, 5/16-24 x 1" Hex Head	
16	3001950	1	V-Belt, Reel Pump	
17	364501	1	Temperature Sender	REFERENCE U5, See 42.1
18	446128	1	Lockwasher, 1/4	
19	361001	1	Nut, M6-1 Hex	
20	4141024	1	Fan, Engine Cooling	
21	4125492	1	Spacer, Fan	
22	363448	4	Screw, M6-1 x 35 mm Hex Head	
23	446130	4	Lockwasher, 1/4 Heavy	
24	452004	4	Flat Washer, 1/4	
25	4210160	1	Spacer, Pump Mount	
26	457016	6	Spacer, Pump Pivot	
27	361005	2	Screw, M8-1.25 x 25 mm Hex Head	
28	452006	3	Flat Washer, 5/16	
29	400190	1	Screw, 5/16-18 x 1-1/4" Hex Head	
30	443106	1	Nut, 5/16-18 Hex	

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Item	Part No.	Qty.	Description	Serial Numbers/Notes	
	1	4121920	1	Muffler	
●	2	553020	1	Gasket, Muffler	
●	3	594331	4	Bolt, Muffler	
	4	452006	6	Flat Washer, 5/16	
	5	400264	1	Screw, 3/8-16 x 1-1/4" Hex Head	
	6	452008	2	Flat Washer, 3/8	
	7	4121007.7	1	Bracket, Muffler	
	8	446142	1	Lockwasher, 3/8 Heavy	
●	9	550376	1	Bolt	
	10	363586	1	Screw, M8-1.25 x 20 mm Hex Head	
	11	446136	10	Lockwasher, 5/16 Heavy	
●	12	553934	1	Hook, Engine	
	13	4130755	1	Bracket, Muffler	
	14	361005	1	Screw, M8-1.25 x 25 mm Hex Head	
●	15	550383	2	Bolt, Starter	
●	16	550409	2	Washer, Spring	
●	17	550398	2	Nut	
	18	4123003	1	Pipe, Exhaust	
	19	1002033	2	Clamp, Exhaust	
	20	4130753	1	Bracket, Lower Exhaust	
	21	441602	2	Carriage Bolt, 5/16-18 x 3/4"	
	22	445795	2	Nut, 5/16-18 Spirallock Flange	
	23	4130757	1	Bracket, Tailpipe	
	24	400186	2	Screw, 5/16-18 x 7/8" Hex Head	
	25	4208820	1	Shield, Muffler	
	26	400106	4	Screw, 1/4-20 x 5/8" Hex Head	
	27	446130	6	Lockwasher, 1/4 Heavy	
	28	452004	4	Flat Washer, 1/4	
	29	4121872.7	1	Bracket, Heat Shield	
	30	400108	2	Screw, 1/4-20 x 3/4" Hex Head	
	31	443102	2	Nut, 1/4-20 Hex	
	32	4130756	1	Bar, Engine Stay	
	33	441630	1	Carriage Bolt, 3/8-16 x 2"	
	34	4124806	2	Mount, Bonded Tube Isolator	
	35	319755	2	Washer	
	36	444762	3	Locknut, 3/8-16 Hex Center	
	37	400270	1	Screw, 3/8-16 x 2" Hex Head	
	38	3000359	1	Circuit Breaker, 50 Amp	REFERENCE CB1, See 42.1
	39	364774	1	Boot, Circuit Breaker	
●	Included with Engine				

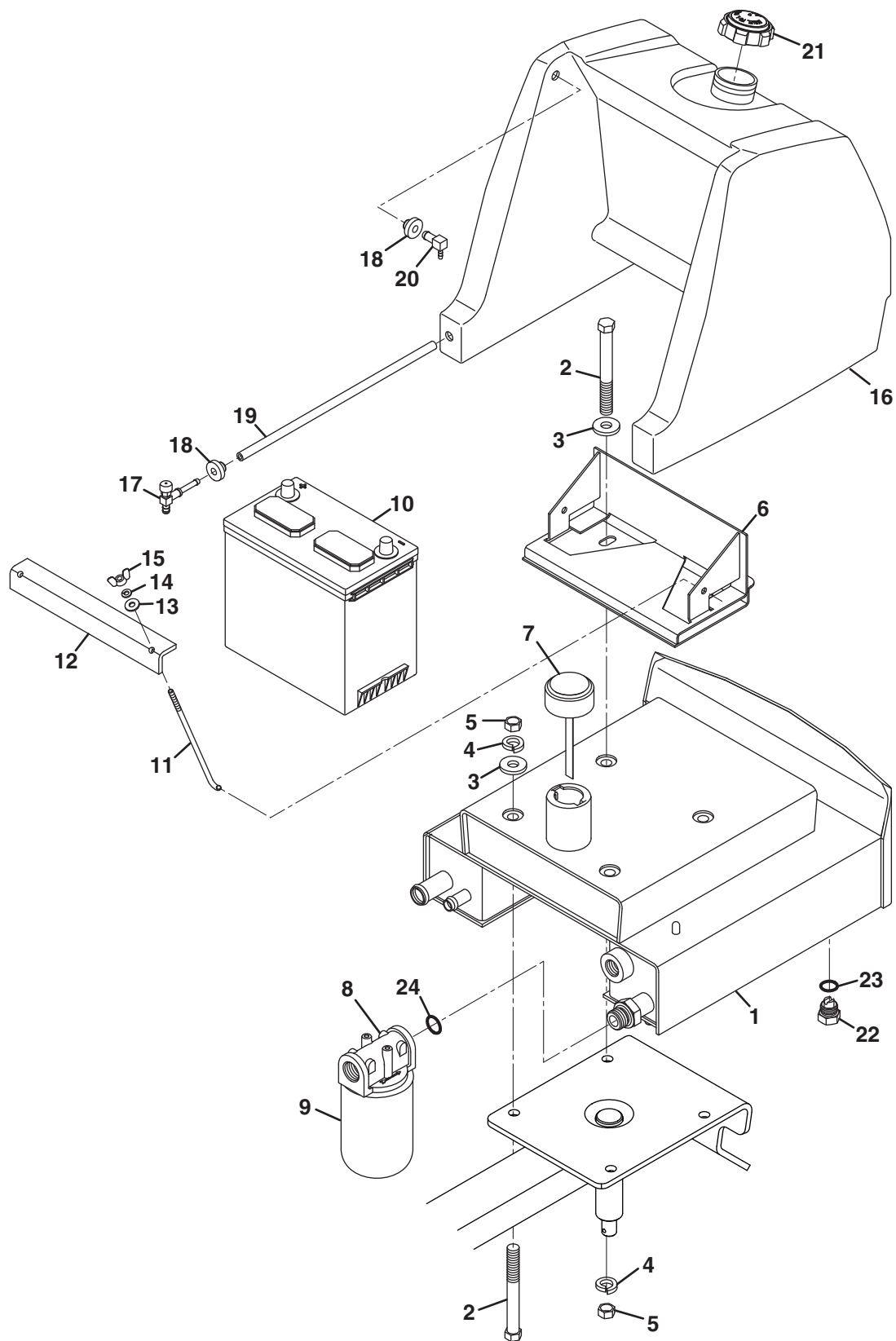
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18.1 Fuel Hose Routing



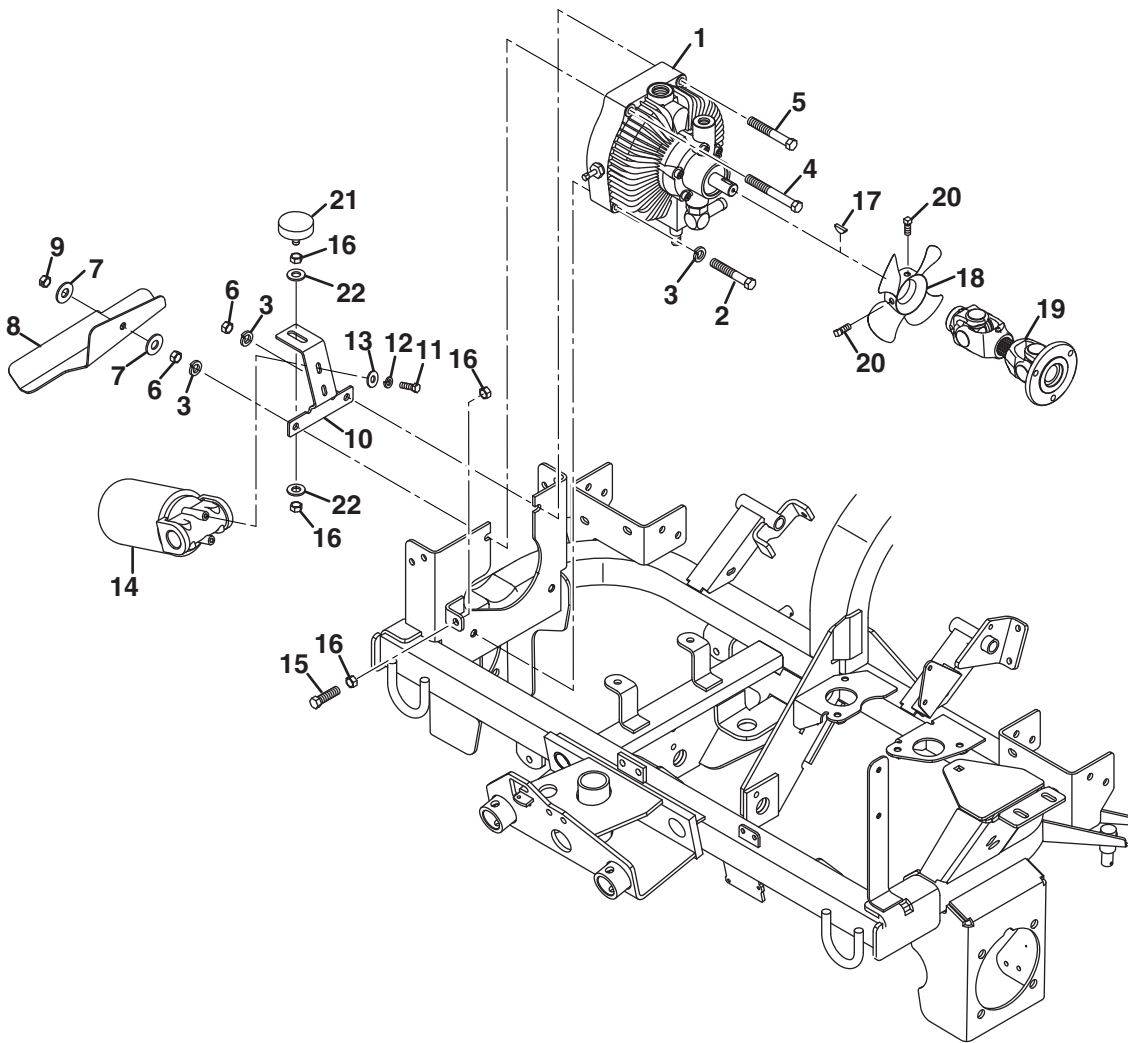
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	366526	4	Clamp, Hose	
2	554748	AR	Hose, 5/16 I.D. Tank to Fuel Filter	10 Foot Length, Cut to 37"
3	550553	1	Filter, Fuel	
	550489	1	Element, Fuel Filter	
4	400200	1	Screw, 5/16-18 x 2-1/2" Hex Head	
5	444718	1	Locknut, 5/16-18 Hex Center	
6	554748	AR	Hose, 5/16 I.D. Fuel Filter To Engine	10 Foot Length, Cut to 13"
7	366526	2	Clamp, Hose	
8	554752	AR	Hose, 3/16 I.D. Fuel Return	10 Fot Length, Cut to 88"
9	3003764	1	Convolutd Conduit, 1/2" I.D.	22"
10	473142	4	Cable Tie	

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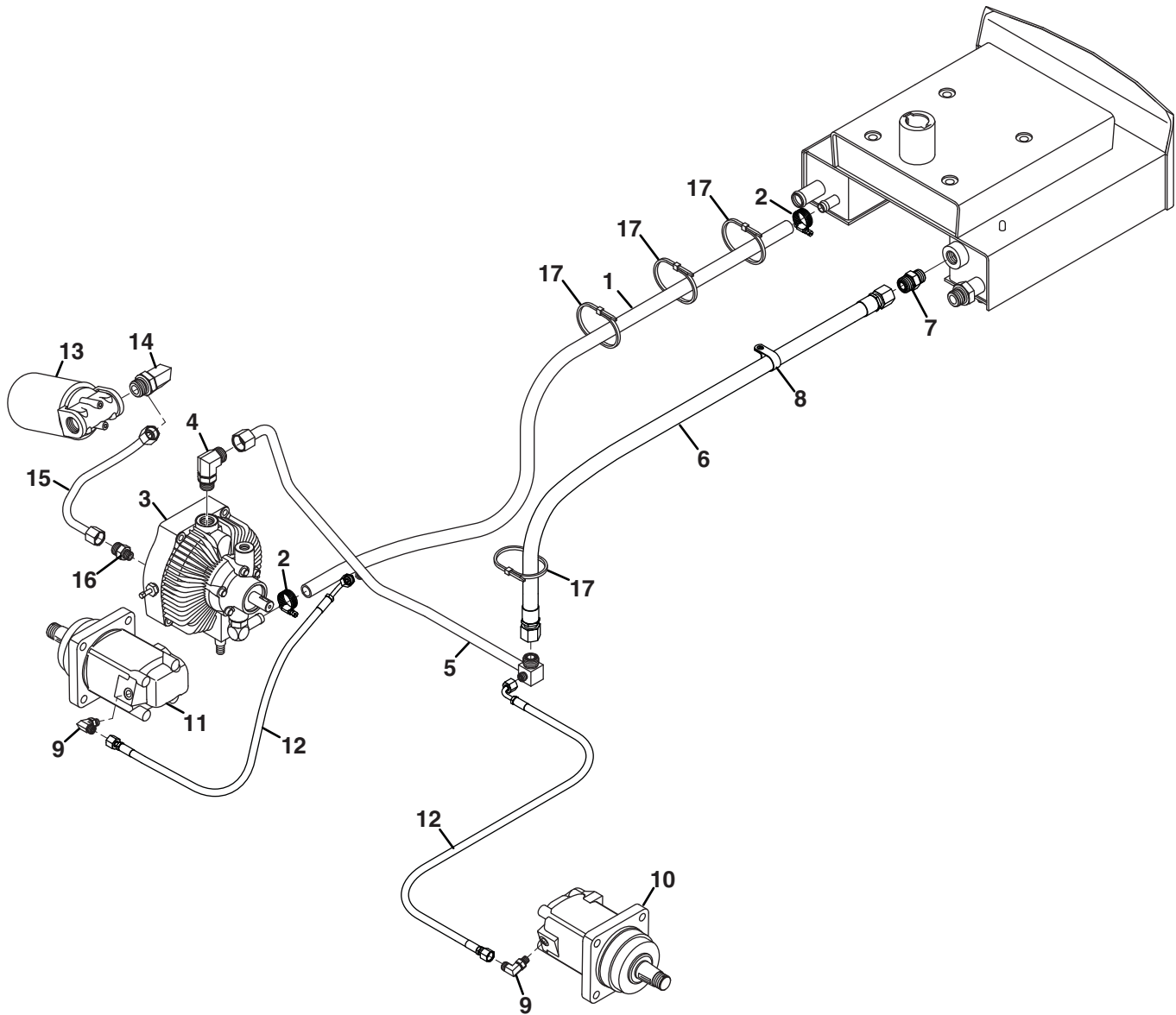
Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	1002019.6	1	Tank, Hydraulic Oil	Approximately 4.5 Gallons	
2	400424	4	Screw, 1/2-13 x 4-1/2" Hex Head		
3	344132	4	Washer		
4	446154	4	Lockwasher, 1/2 Heavy		
5	443118	4	Nut, 1/2-13 Hex		
6	1000973	1	Bracket, Battery		
7	2809688	1	Cap, Tank Breather		
	5003624	1	• Gasket		
8	1001148	1	Filter Assembly		
9	549597	1	• Cartridge, Filter		
10	N/S	1	Battery, 12V Group 22NF		REFERENCE B1, See 42.1
11	346361	2	Hook, 1/4-20 J		
12	3003444	1	Retainer, Battery		
13	452004	2	Flat Washer, 1/4		
14	446130	2	Lockwasher, 1/4 Heavy		
15	445612	2	Nut, 1/4-20 Wing		
16	1001134	1	Fuel Tank		Approximately 6.5 Gallons
17	1001311	1	Fuel Shut Off Valve		
18	361117	2	Bushing, Fuel Tank		
19	325822	1	Hose, 1/4 x 14" Fuel		
20	361748	1	Valve, Overflow		
21	4179802	1	Cap, Fuel Tank		
22	3002397	1	Plug, -10 ORB Magnetic Drain		
23	339899	1	• O-Ring, -10 ORB		
24	339900	1	O-Ring, -12 ORB		

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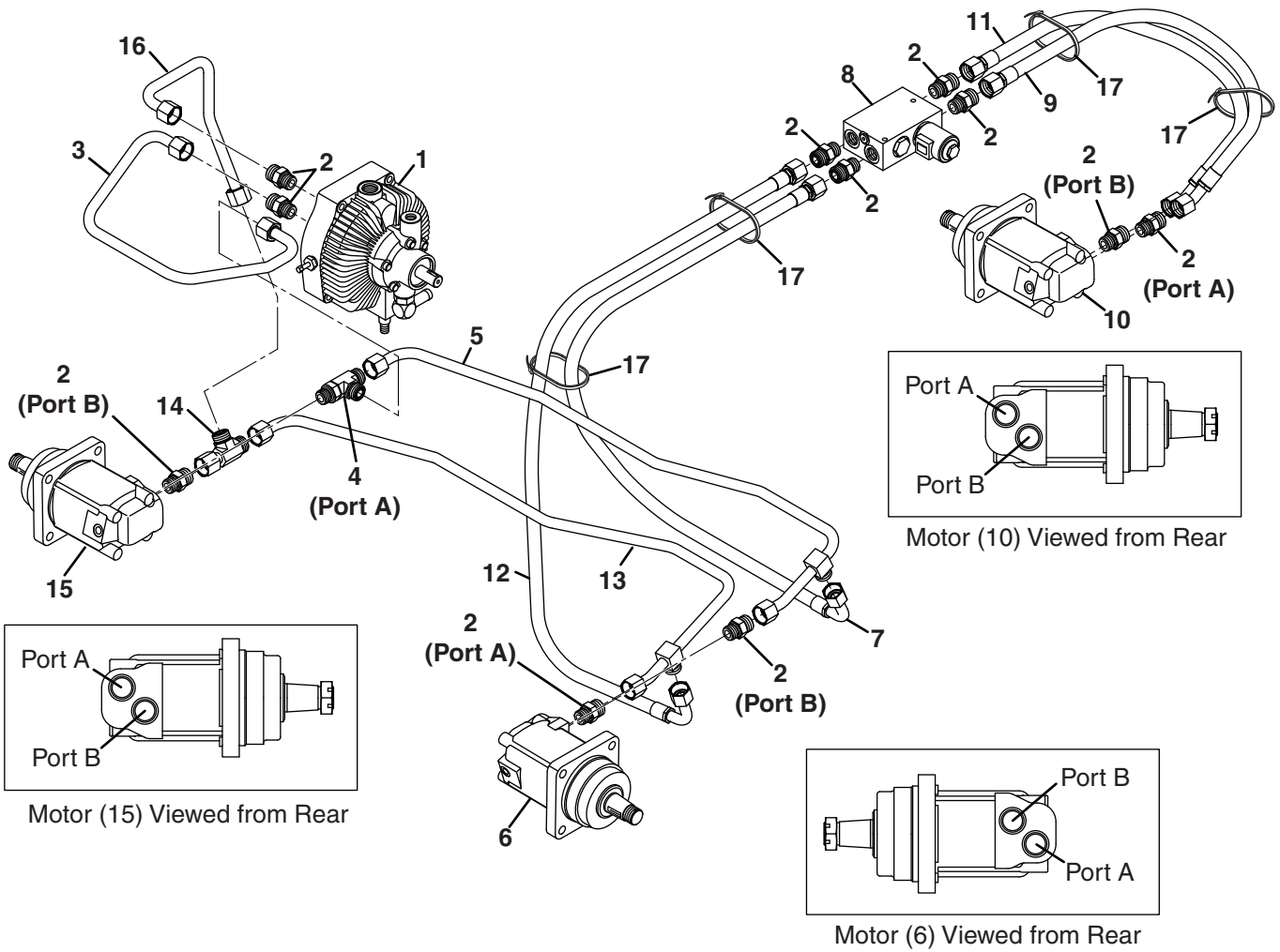
Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	4129590	1	Pump, Hydraulic Traction	See 37.1	
2	400272	2	Screw, 3/8-16 x 2-1/4" Hex Head		
3	446142	4	Lockwasher, 3/8 Heavy		
4	400276	1	Screw, 3/8-16 x 3" Hex Head		
5	400274	1	Screw, 3/8-16 x 2-1/2" Hex Head		
6	443110	2	Nut, 3/8-16 Hex		
7	452008	2	Flat Washer, 3/8		
8	3003223	1	Shield, Filter Drain		
9	444762	1	Locknut, 3/8-16 Hex Center		
10	2810439	1	Bracket, Charge Filter		
11	400108	2	Screw, 1/4-20 x 3/4" Hex Head		
12	446130	2	Lockwasher, 1/4 Heavy		
13	452004	2	Flat Washer, 1/4		
14	1001148	1	Charge Filter Assembly		
	549597	1	• Cartridge, Charge Filter		
15	400264	1	Screw, 3/8-16 x 1-1/4" Hex Head		
16	443810	4	Nut, 3/8-16 Hex Jam		
17	463113	1	Key, 3/16 x 3/4" Morton		
18	4129588	1	Fan, Pump Cooling		
19	4129589	1	Universal Joint		See 14.1 For Engine Connection
	554663	2	• Cross and Bearing Kit		
20	412020	2	Screw, 5/16-18 x 1" Square Head Set		
21	361723	1	Stop, Rubber		
22	453011	2	Flat Washer, 3/8		

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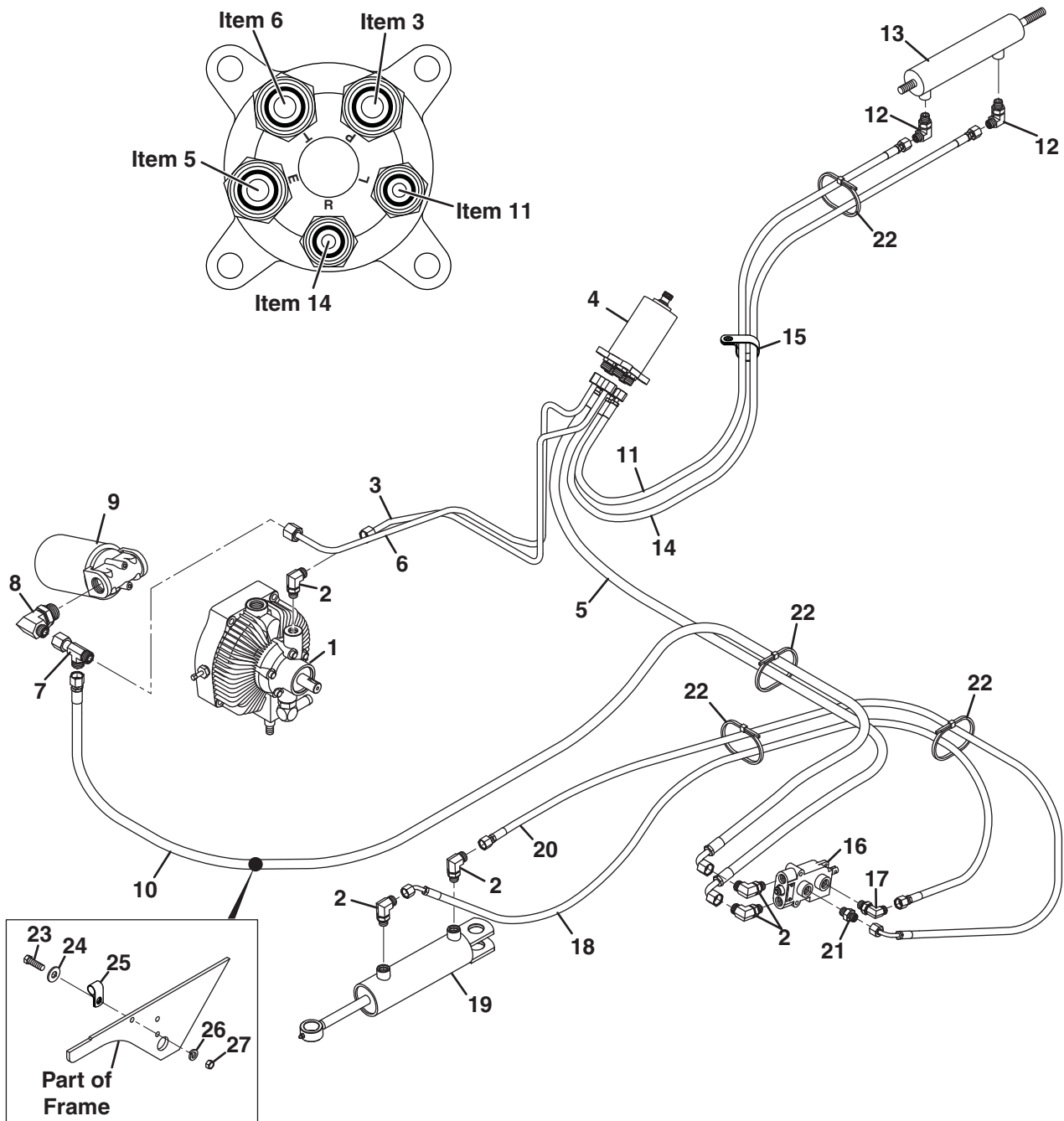
Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	3003219	1	Hose, Charge Pump Suction	See 20.1 for Pump Mounting	
2	108094-02	2	Clamp, Hose		
3	4129590	1	Pump, Hydraulic Traction		
4	340070	1	Fitting, -10 ORFS x -10 ORB 90°		
	339911	1	• O-Ring, -10 ORFS		
	339899	1	• O-Ring, -10 ORB		
5	2809725	1	Tube, Traction Pump Return		
	339911	1	• O-Ring, -10 ORFS		
	339908	2	• O-Ring, -4 ORFS		
6	1001503	1	Hose, Traction Pump Return		
7	339989	1	Fitting, -10 ORFS x -10 ORB Straight		
	339911	1	• O-Ring, -10 ORFS		
	339899	1	• O-Ring, -10 ORB		
8	354080	1	Clamp, Hose		See 22.1 for Mounting
9	340055	2	Fitting, -4 ORFS x -4 ORB 90°		
	339908	1	• O-Ring, -4 ORFS		
	339896	1	• O-Ring, -4 ORB		
10	4182425	1	Wheel Motor, 11.9 in ³ Front Left	See 9.1 for Motor Mounting	
11	4189920	1	Wheel Motor, 9.6 in ³ Front Right	See 9.1 for Motor Mounting	
12	1001488	2	Hose, Wheel Motor Case Drain	See 20.1 for Filter Mounting	
13	1001148	1	Charge Filter Assembly		
	549597	1	• Cartridge, Charge Filter		
14	340068	1	Fitting, -8 ORFS x -12 ORB 90°		
	339910	1	• O-Ring, -8 ORFS		
	339900	1	• O-Ring, -12 ORB		
15	1001372	1	Tube, Charge Filter to Pump		
16	339983	1	Fitting, -8 ORFS x -6 ORB Straight		
	339910	2	• O-Ring, -8 ORFS		
	339897	1	• O-Ring, -6 ORB		
17	473142	4	Cable Tie		

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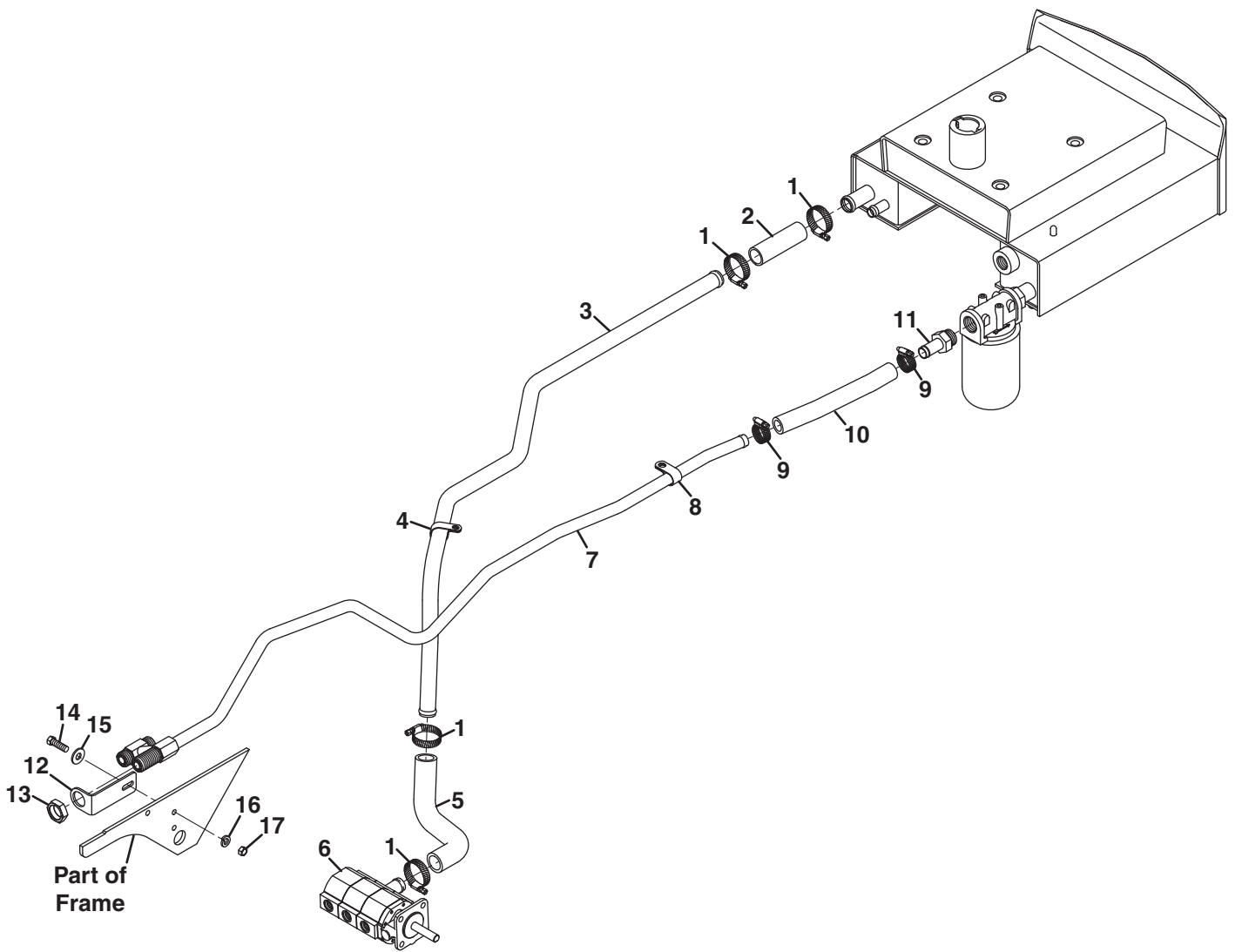
Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	4129590	1	Pump, Hydraulic Traction	See 20.1 For Pump Mounting	
2	339989	11	Fitting, -10 ORFS x -10 ORB Straight		
	339911	1	• O-Ring, -10 ORFS		
	339899	1	• O-Ring, -10 ORB		
3	2810603	1	Tube, Pump to Upper Motor Port		
4	340265	1	Tee, -10 ORFS x -10 ORB Run		
	339911	2	• O-Ring, -10 ORFS		
	339899	1	• O-Ring, -10 ORB		
5	2810602	1	Tube, Upper Motor Ports		
6	4182425	1	Wheel Motor, 11.9 in ³ Front Left		See 9.1 For Motor Mounting
7	1001495	1	Hose, Upper Tube to 3WD Valve		
8	4111942	1	3WD Valve		See 10.1 For Valve Mounting
9	1001496	1	Hose, 3WD Valve to Motor		Wheel Motor Port (A)
10	4182425	1	Wheel Motor, 11.9 in ³ Rear		See 11.1 For Motor Mounting
11	1001496	1	Hose, Motor to 3WD Valve		Wheel Motor Port (B)
12	1001495	1	Hose, 3WD Valve to Lower Tube		
13	2810601	1	Tube, Lower Motor Ports		
14	340121	1	Tee, -10 ORFS Swivel Run		
	339911	2	• O-Ring, -10 ORFS		
15	4189920	1	Wheel Motor, 9.6 in ³ Front Right	See 9.1 For Motor Mounting	
16	2810604	1	Tube, Lower Motor Port to Pump		
17	473142	3	Cable Tie		

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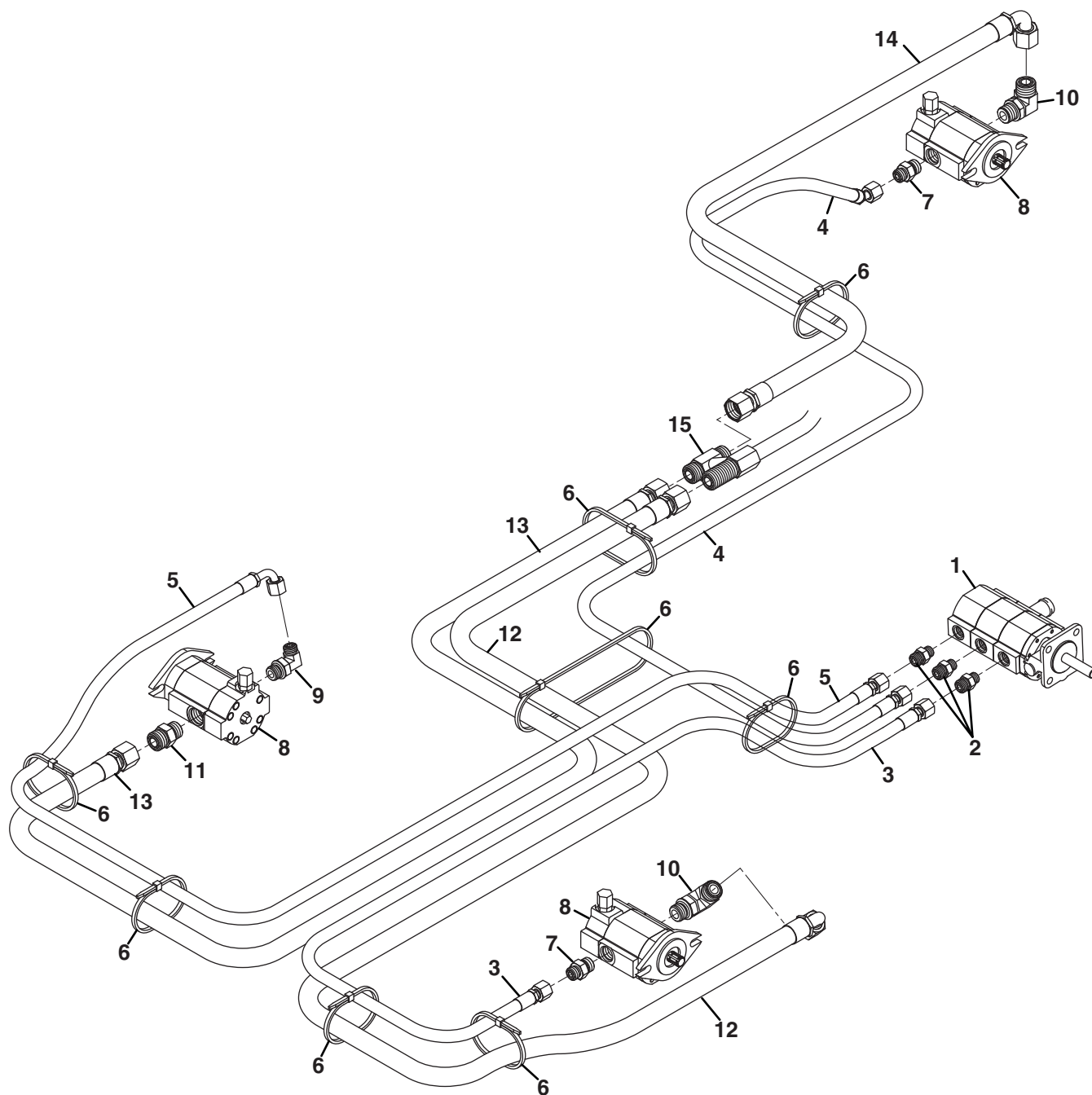
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4129590	1	Pump, Hydraulic Traction	See 20.1 for Pump Mounting
2	340061	5	Fitting, -6 ORFS x -6 ORB 90°	
	339909	1	• O-Ring, -6 ORFS	
	339897	1	• O-Ring, -6 ORB	
3	4223520	1	Tube, Pump to Steering Valve	Steering Valve Port P
4	4196485	1	Valve, Steering	See 20.1 for Valve Mounting
	4197940	1	• Seal Kit	
5	4218141	1	Hose, Steering Valve to Lift Valve	Steering Port Port E
6	4203100	1	Tube, Steering Valve to Charge Filter	Steering Valve Port T
7	340120	1	Tee, -8 ORFS Swivel Run	
	339910	2	• O-Ring, -8 ORFS	
8	340068	1	Fitting, -8 ORFS x -12 ORB 90°	
	339910	1	• O-Ring, -8 ORFS	
	339900	1	• O-Ring, -12 ORB	
9	1001148	1	Charge Filter Assembly	See 20.1 for Filter Mounting
	549597	1	• Cartridge, Charge Filter	
10	1001500	1	Hose, Lift Valve to Charge Filter	
11	1002942	1	Hose, Steering Valve to Cylinder	Steering Valve Port L
12	340057	2	Fitting, -4 ORFS x -6 ORB 90°	
	339908	1	• O-Ring, -4 ORFS	
	339897	1	• O-Ring, -6 ORB	
13	4138501	1	Steering Cylinder	See 11.1 for Cylinder Mounting
	4137139	1	• Seal Kit	
14	1002941	1	Hose, Steering Valve to Cylinder	Steering Valve Port R
15	354080	1	Clamp, Hose	See 9.1 for clamp mounting
16	4240904	1	Lift Valve	
	4240905	1	• Seal Kit	
17	340088	1	Fitting, -4 ORFS x -6 ORB 90° Orifice	0.0595 Orifice
	339908	1	• O-Ring, -4 ORFS	
	339897	1	• O-Ring, -6 ORB	
18	1001501	1	Hose, Lift Valve to Cylinder	
19	122759	1	Cylinder, Hydraulic Lift	See 28.1 for Cylinder Mounting
	554331	1	• Seal Kit	
20	1001502	1	Hose, Cylinder to Lift Valve	
21	339974	1	Fitting, -4 ORFS x -6 ORB Orifice	
	339908	1	• O-Ring, -4 ORFS	
	339897	1	• O-Ring, -6 ORB	
22	473142	4	Cable Tie	
23	400188	1	Screw, 5/16-18 x 1" Hex Head	
24	452006	1	Flat Washer, 5/16	
25	361064	1	Clamp, Hose	
26	446136	1	Lockwasher, 5/16 Heavy	
27	443106	1	Nut, 5/16-18 Hex	

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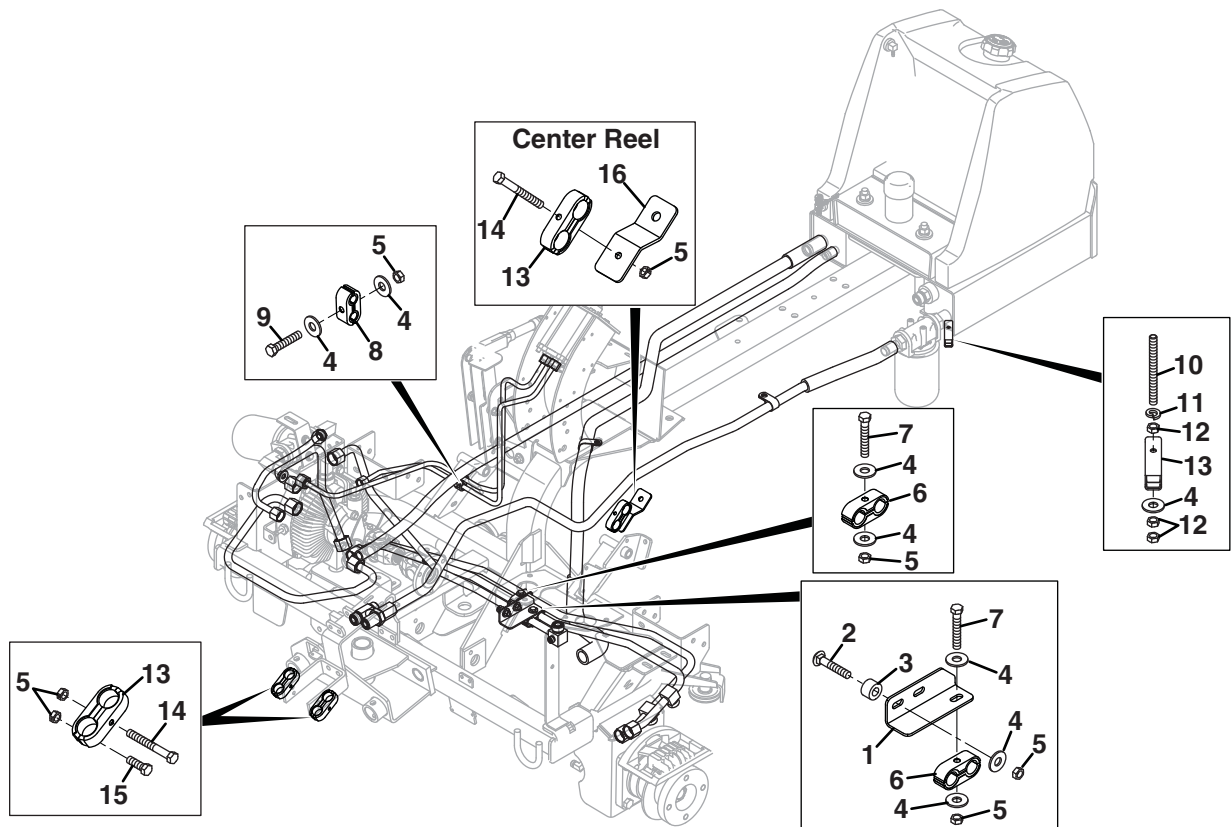
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	367458	4	Clamp, Hose	
2	3003113	1	Hose, Suction	
3	3003115	1	Tube, Gear Pump Suction	
4	354080	1	Clamp, Hose	See 9.1
5	3003114	1	Hose, Formed Suction	
6	4174020	1	Pump, 3 Section Gear	See 15.1
7	1001147	1	Tube, Reel Motor Return	
8	345671	1	Clamp, Hose	See 10.1
9	108094-02	2	Clamp, Hose	
10	3003218	1	Hose	
11	3003256	1	Fitting, -12 ORB Beaded Tube	
	339900	1	• O-Ring, -12 ORB	
12	3004182	1	Angle, Bulkhead	
13	339963	1	Nut, -10 ORFS Bulkhead	
14	400188	1	Screw, 5/16-18 x 1" Hex Head	
15	452006	1	Flat Washer, 5/16	
16	446136	1	Lockwasher, 5/16 Heavy	
17	443106	1	Nut, 5/16-18 Hex	

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Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	4174020	1	Pump, 3 Section Gear	See 15.1	
2	339979	3	Fitting, -6 ORFS x -6 ORB Straight		
	339909	1	• O-Ring, -6 ORFS		
	339897	1	• O-Ring, -6 ORB		
3	1001492	1	Hose, Pump to Left Motor		Pump Section 1
4	1001493	1	Hose, Pump to Center Motor		Pump Section 2
5	1001494	1	Hose, Pump to Right Motor		Pump Section 3
6	473142	8	Cable Tie		
7	339980	2	Fitting, -6 ORFS x -8 ORB		
	339909	1	• O-Ring, -6 ORFS		
	339898	1	• O-Ring, -6 ORB		
8	1002603	3	Motor, Reel		
9	340062	1	Fitting, -6 ORFS x -8 ORB 90°		
	339909	1	• O-Ring, -6 ORFS		
	339898	1	• O-Ring, -6 ORB		
10	340070	2	Fitting, -10 ORFS x -10 ORB 90°		
	339911	1	• O-Ring, -10 ORFS		
	339899	1	• O-Ring, -10 ORB		
11	339989	1	Fitting, -10 ORFS x -10 ORB Straight		
	339911	1	• O-Ring, -10 ORFS		
	339899	1	• O-Ring, -10 ORB		
12	1001489	1	Hose, Left Motor to Return Tube		
13	1001490	1	Hose, Right Motor to Return Tube		
14	1001491	1	Hose, Center Motor to Return Tube		
15	1001147	1	Tube, Reel Return	See 24.1	

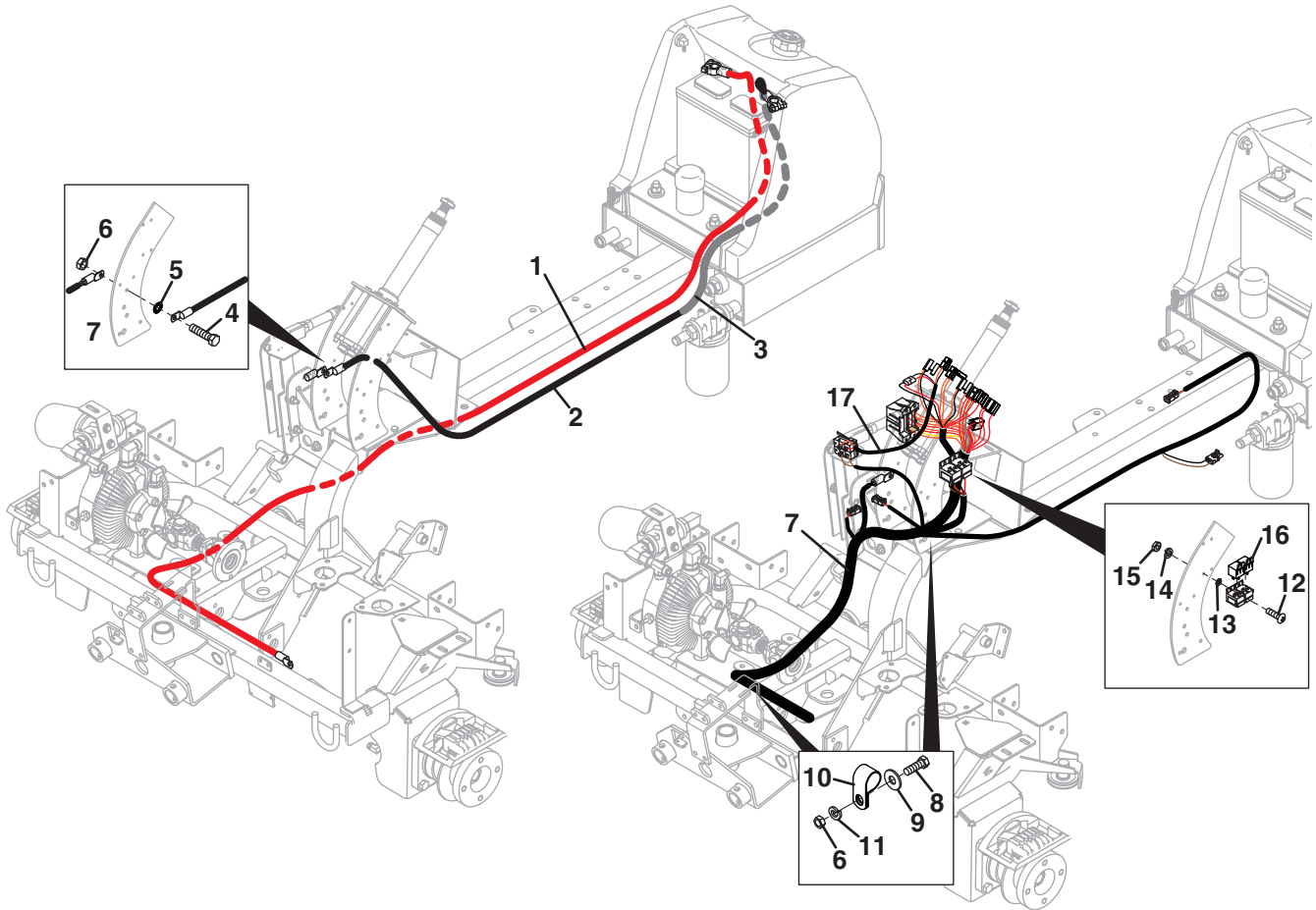
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Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3003242	1	Bracket, Tube Clamp	
2	441668	2	Carriage Bolt, 1/4-20 x 1-1/4"	
3	3004410	2	Spacer	
4	452004	8	Flat Washer, 1/4	
5	444708	10	Locknut, 1/4-20 Hex Center	
6	3003110	2	Clamp, Double Tube	
7	400116	2	Screw, 1/4-20 x 1-1/2" Hex Head	
8	364221	1	Clamp, Double Tube	
9	400114	1	Screw, 1/4-20 x 1-1/4" Hex Head	
10	3003665	1	Stud, 1/4-20 x 2-3/4"	
11	446130	1	Lockwasher, 1/4 Heavy	
12	443102	3	Nut, 1/4-20 Hex	
13	3003473	4	Clamp, Double Hose	
14	400120	3	Screw, 1/4-20 x 2" Hex Head	
15	400108	2	Screw, 1/4-20 x 3/4" Hex Head	
16	3003323	1	Bracket, Center Reel Hose Clamp	

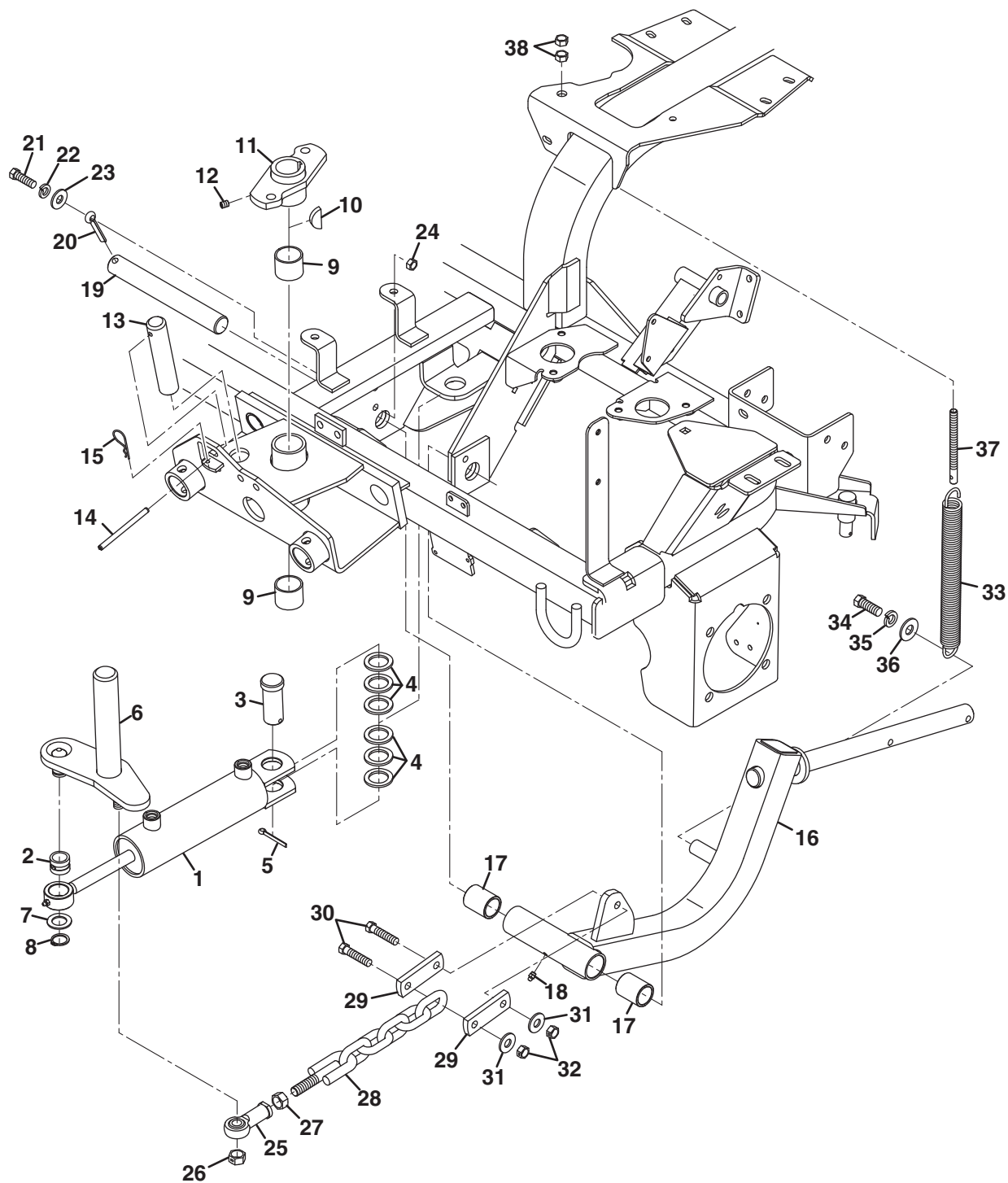
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27.1 Electrical Routing



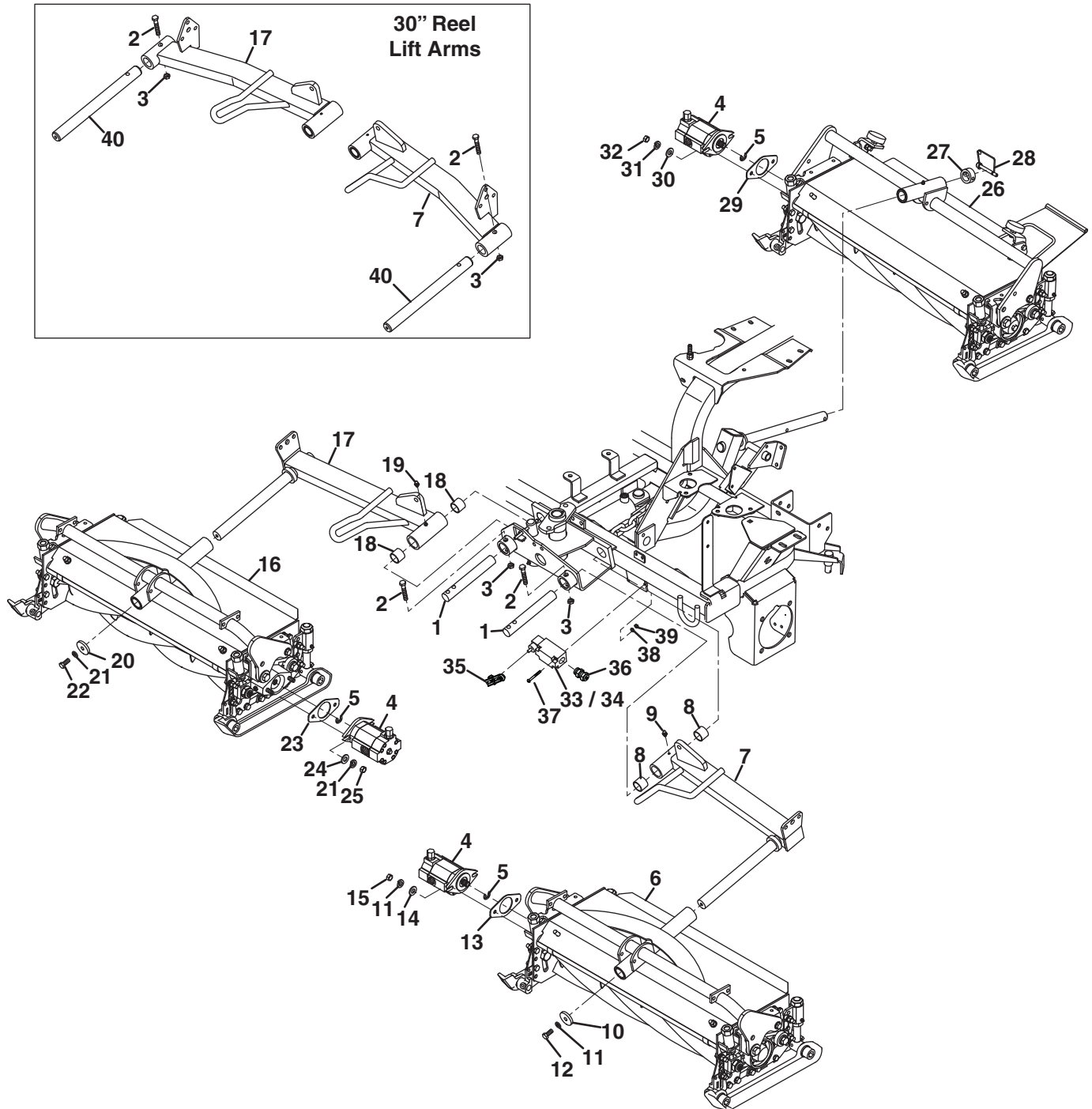
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2810624	1	Cable, Positive Battery	
2	3003523	1	Cable, Negative Battery	
3	3004539	1	Convoluted Conduit	
4	400112	1	Screw, 1/4-20 x 1" Hex Head	
5	447010	1	Lockwasher, 1/4 External Tooth	
6	443102	3	Nut, 1/4-20 Hex	
7	1004795	1	Wire Harness, Main	
8	400108	2	Screw, 1/4-20 x 3/4" Hex Head	
9	452004	2	Flat Washer, 1/4	
10	345671	2	Clamp, Harness	
11	446128	2	Lockwasher, 1/4	
12	403912	1	Screw, #10-24 x 5/8" Truss Head	
13	447006	1	Lockwasher, #10 External Tooth	
14	446118	1	Lockwasher, #10 Heavy	
15	444310	1	Nut, #10-24 Hex	
16	3001307	2	Relay, SPDT with Resistor	REFERENCE K4 and K5, See 42.1
17	2811632	1	Harness, Brake Light	

> Change from previous revision



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
1	122759	1	Cylinder, Hydraulic Lift	Included with Frame	
	554331	1	• Seal Kit		
2	554330	1	• Bushing, Bronze		
3	364238	1	Pin, Cylinder		
4	345700	6	Washer, Shim		
5	460052	1	Cotter Pin, 3/16 x 1-1/2		
6	1001258.7	1	Crank Bottom		
7	307374	1	Washer		
8	458038	1	Retaining Ring		
9	365106	2	Bushing, Lift Crank		
10	463040	1	Key, 1/4 x 1-1/4" Woodruff		
11	1001259.7	1	Crank Top		
12	415519	1	Set Screw, 5/16-18 x 3/8"		
13	3003035	1	Pin, Transport Lock		
14	461418	1	Roll Pin, 1/4 x 3-1/2"		
15	460335	1	Pin, 1/8 Spring Clip		
16	1001271.7	1	Rear Lift Arm		
17	3007694	2	• Bushing		
18	471216	1	Grease Fitting, Straight		
19	2809741	1	Pin, Pivot		
20	460096	1	Cotter Pin, 5/16 x 1-3/4"		
21	400188	1	Screw, 5/16-18 x 1" Hex Head		
22	446136	1	Lockwasher, 5/16 Heavy		
23	452006	1	Flat Washer, 5/16		
24	443106	1	Nut, 5/16-18 Hex		
25	364234	1	Ball Joint, Rod End		
26	444780	1	Locknut, 1/2-20 Hex Center		
27	443820	1	Nut, 1/2-20 Hex Jam		
28	1000956.7	1	Chain, Lift		
29	3001905.7	2	Plate		
30	3006409	2	Screw, 3/8-16 x 1-1/2" Gr 8 Hex Head		
31	452006	2	Flat Washer		
32	445799	2	Locknut, 3/8-16 Hex Center		For Grade 8 Bolt
33	364149.7	1	Spring, Extension		
34	400262	1	Screw, 3/8-16 x 1" Hex Head		
35	446142	1	Lockwasher, 3/8 Heavy		
36	452008	1	Flat Washer, 3/8		
37	3003754	1	Bolt, 3/8-16 Spring		
38	443110	2	Nut, 3/8-16 Hex		

> Change from previous revision



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3002430	2	Pin, Lift Arm	<p>See 36.1</p> <p>Includes Items 2, 3, and 40</p> <p>Used with 67114, Includes Decal</p> <p>Used with 67123, Includes 2, 3, 40</p> <p>Includes Items 2, 3, and 40</p> <p>Used with 67115, Includes Decal</p> <p>Used with 67124, Includes 2, 3, 40</p> <p>REFERENCE SW4, See 42.1</p> <p>Used with 67123 and 67124</p>
2	400272	AR	Screw, 3/8-16 x 2-1/4" Hex Head	
3	444762	AR	Locknut, 3/8-16 Hex Center	
4	1002603	3	Motor, Reel	
5	2810171	3	Snap Ring	
6	67114	1	26" 7 Blade Left Reel Assembly	
6	67123	1	30" 7 Blade Left Reel Assembly	
7	2811281	1	• Lift Arm, Left Side 26" Reel	
7	2811279	1	• Lift Arm, Left Side 30" Reel	
8	3007694	2	• • Bushing	
9	471214	1	• Grease Fitting, 1/4-28 Straight	
10	364781	1	• Washer, Retaining	
11	446142	3	• Lockwasher, 3/8 Heavy	
12	400260	1	• Screw, 3/8-16 x 7/8" Hex Head	
13	364777	1	• Gasket, Motor	
14	453011	2	• Flat Washer, 3/8	
15	443110	2	• Nut, 3/8-16 Hex	
16	67115	1	26" 7 Blade Right Reel Assembly	
16	67124	1	30" 7 Blade Right Reel Assembly	
17	2811280	1	• Lift Arm, Right Side 26" Reel	
17	2811278	1	• Lift Arm, Right Side 30" Reel	
18	3007694	2	• • Bushing	
19	471214	1	• Grease Fitting, 1/4-28 Straight	
20	364781	1	• Washer, Retaining	
21	446142	3	• Lockwasher, 3/8 Heavy	
22	400260	1	• Screw, 3/8-16 x 7/8" Hex Head	
23	364777	1	• Gasket, Motor	
24	453011	2	• Flat Washer, 3/8	
25	443110	2	• Nut, 3/8-16 Hex	
26	67116	1	26" 7 Blade Center Reel Assembly	
26	67125	1	30" 7 Blade Center Reel Assembly	
27	3002718	1	• Collar	
28	3005435	1	• Pin, Spring Lock	
29	364777	1	• Gasket, Motor	
30	453011	2	• Flat Washer, 3/8	
31	446142	2	• Lockwasher, 3/8 Heavy	
32	443110	2	• Nut, 3/8-16 Hex	
33	5000183	1	Limit Switch	
34	5000184	1	Operator Head	
35	3001078	1	Actuator Head	
36	364694	1	Cable Connector	
37	402132	2	Screw, #10-24 x 1-3/4" Slotted Round	
38	446118	2	Lockwasher, #10	
39	444310	2	Nut, #10-24 Hex	
40	3003041	2	Shaft, Lift Arm	

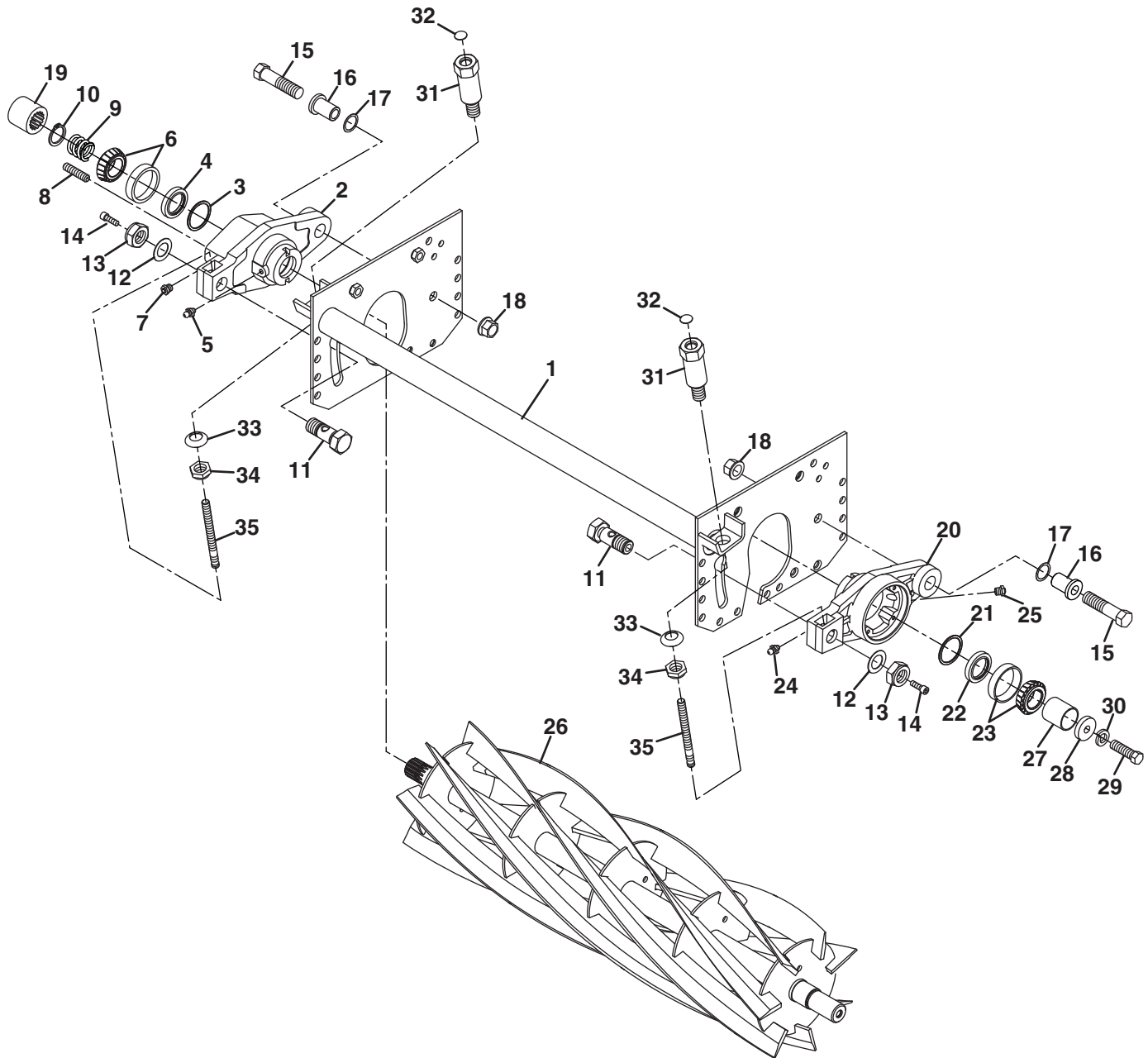
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30.1 Inner Reel Assembly

Left and Center Reel Shown, Right Opposite.

Serial No. 67114 - All
 Serial No. 67115 - All
 Serial No. 67116 - All

Serial No. 67123 - All
 Serial No. 67124 - All
 Serial No. 67125 - All



Number of Reel Blades	26 in. (660 mm) Reels			30 in. (762 mm) Reels		
	Left	Center	Right	Left	Center	Right
5 Blade Reel (Optional)	2500712	2500712	2500713	503359	503359	503360
7 Blade Reel (Standard)	5002087	5002087	5002088	5002089	5002089	5002090
10 Blade Reel (Optional)	2500714	2500714	2500715	503361	503361	503362

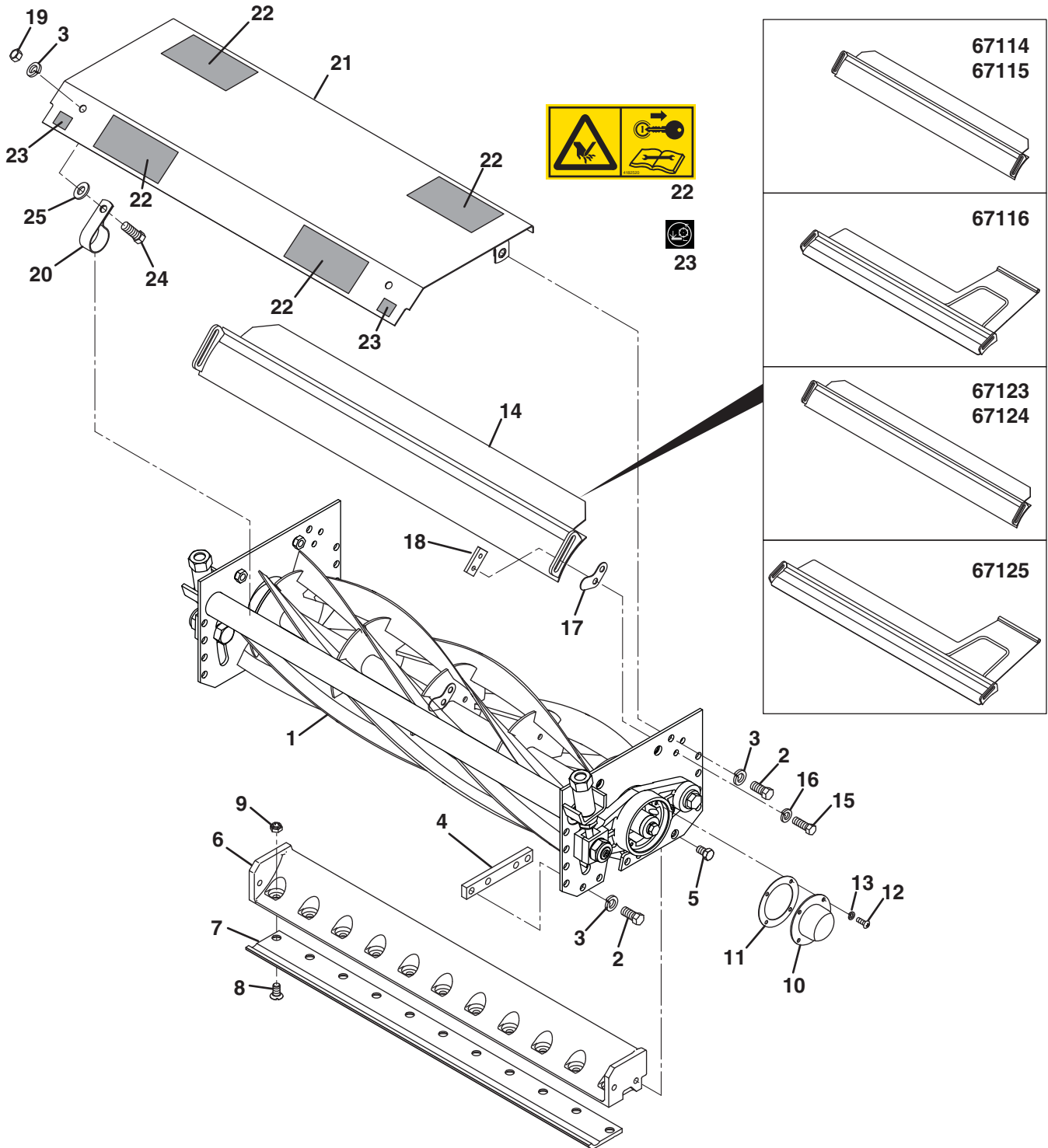
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1001643	1	26" Reel Mower Frame	Used on 67114, 67115, and 67116
1	1001642	1	30" Reel Mower Frame	Used on 67123, 67124, and 67125
2	5001607	1	Bearing Housing, Reel Motor	
3	3001152	1	• Washer	
4	3000983	1	• Oil Seal	
5	471214	1	• Grease Fitting, 1/4-28 Straight	
6	500596	1	• Bearing, Cup and Cone	
7	471242	1	• Relief Fitting, 1/8 NPTF Grease	
8	3003086	2	• Stud, 3/8-16 x 5/8"	
9	364148	1	Spring, Compression	
10	458039	1	Snap Ring	
11	3003517	2	Shoulder Bolt, 3/4-16 Special	
12	306828	2	Washer	
13	3004370	2	Locknut, 3/4-16 Thin Security	
14	434031	2	Screw, 1/4-20 x 3/4" Hex Socket Head	
15	400446	2	Screw, 1/2-20 x 2" Hex Head	
16	3003389	2	Bushing, Housing Pivot	
17	364151	2	Washer, Wave	
18	445789	2	Nut, 1/2-20 Spiralock Flange	
19	503684	1	Coupler, Motor	
20	5001606	1	Bearing Housing	
21	3001152	1	• Washer	
22	3000983	1	• Oil Seal	
23	500596	1	• Bearing, Cup and Cone	
24	471214	1	• Grease Fitting, 1/4-28 Straight	
25	471242	1	• Relief Fitting, 1/8 NPTF Grease	
26	See Chart	1	Reel	
27	364283	1	Spacer, Tube	
28	364259	1	Washer, Bearing Retainer	
29	400264	1	Screw, 3/8-16 x 1-1/4" Hex Head	
30	446142	1	Lockwasher, 3/8 Heavy	
31	3003611	2	Nut, Reel Adjuster	
32	472519	2	Plug	
33	365995	2	Washer, Spherical	
34	445718	2	Locknut, 5/8-18 Hex Stover	
35	3004189	2	Screw, Reel Adjuster	

> Change from previous revision

31.1 Outer Reel

Serial No. 67114 - All
 Serial No. 67115 - All
 Serial No. 67116 - All

Serial No. 67123 - All
 Serial No. 67124 - All
 Serial No. 67125 - All



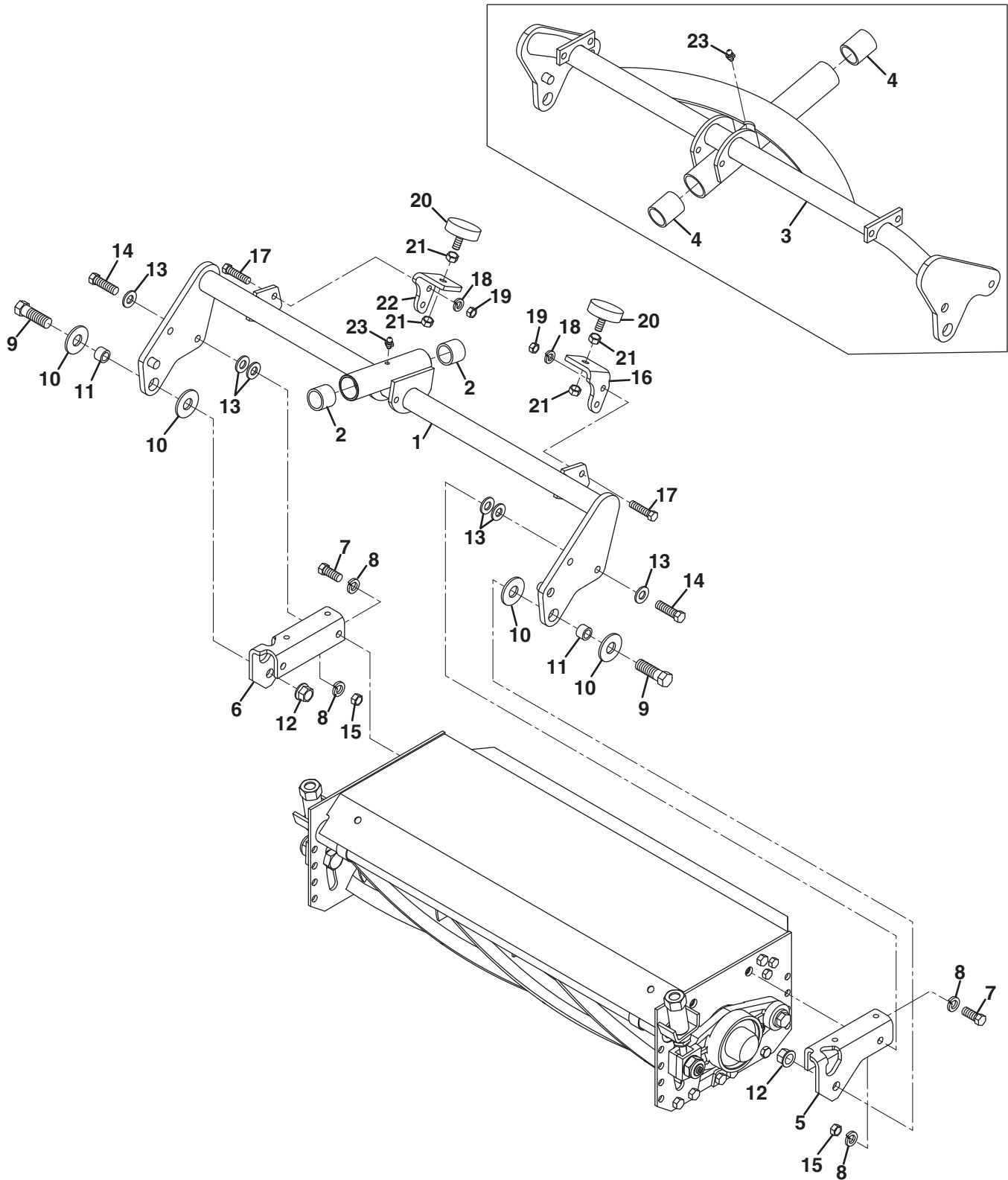
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	REF	1	Inner Reel	See 30.1
2	400258	6	Screw, 3/8-16 x 3/4" Hex Head	
3	446142	8	Lockwasher, 3/8 Heavy	
4	364282	1	Plate, Support	
5	3005890	4	Wheel Bolt, 3/8-16	
6	5000616	1	Bedknife Backing, 26"	Used on 67114, 67115, 67116
6	5000617	1	Bedknife Backing, 30"	Used on 67123, 67124, 67125
7	554284	1	Bedknife, 26"	Used on 67114, 67115, 67116
7	503550	1	Bedknife, 30"	Used on 67123, 67124, 67125
8	3007308	11	Screw, 3/8-24 x 3/4" Flat Head	Used on 67114, 67115, 67116
8	3007308	13	Screw, 3/8-24 x 3/4" Flat Head	Used on 67123, 67124, 67125
9	4184653	11	Locknut, 3/8-24 Expanding	Used on 67114, 67115, 67116
9	4184653	13	Locknut, 3/8-24 Expanding	Used on 67123, 67124, 67125
10	338585	1	Cover, Bearing Housing	
11	364147	1	Gasket, Cover	
12	434038	4	Screw, #10-24 x 1/2" Truss Head	
13	446116	4	Lockwasher, #10	
14	122875.6	1	Rear Shield	Used on 67114 and 67115
14	1003056.6	1	Rear Shield	Used on 67116
14	122769.6	1	Rear Shield	Used on 67123 and 67124
14	1003057.6	1	Rear Shield	Used on 67125
15	400186	4	Screw, 5/16-18 x 7/8" Hex Head	
16	446136	4	Lockwasher, 5/16 Heavy	
17	3000718	AR	Shim, Shield	
18	364281	2	Backup Nut, 5/16-18	
19	443110	2	Nut, 3/8-16 Hex	
20	364150	1	Clamp, Tube	
21	5003650	1	Shield, 26" Reel	Used on 67114, 67115, 67116
21	5003648	1	Shield, 30" Reel	Used on 67123, 67124, 67125
22	4182520	4	• Decal, Shield	
23	3002379	2	• Decal, Tight	
24	400260	2	Screw, 3/8-16 x 7/8" Hex Head	
25	453011	2	Flat Washer, 3/8	

> Change from previous revision

32.1 Pivot Arms

Serial No. 67114 - All
Serial No. 67115 - All
Serial No. 67116 - All

Serial No. 67123 - All
Serial No. 67124 - All
Serial No. 67125 - All



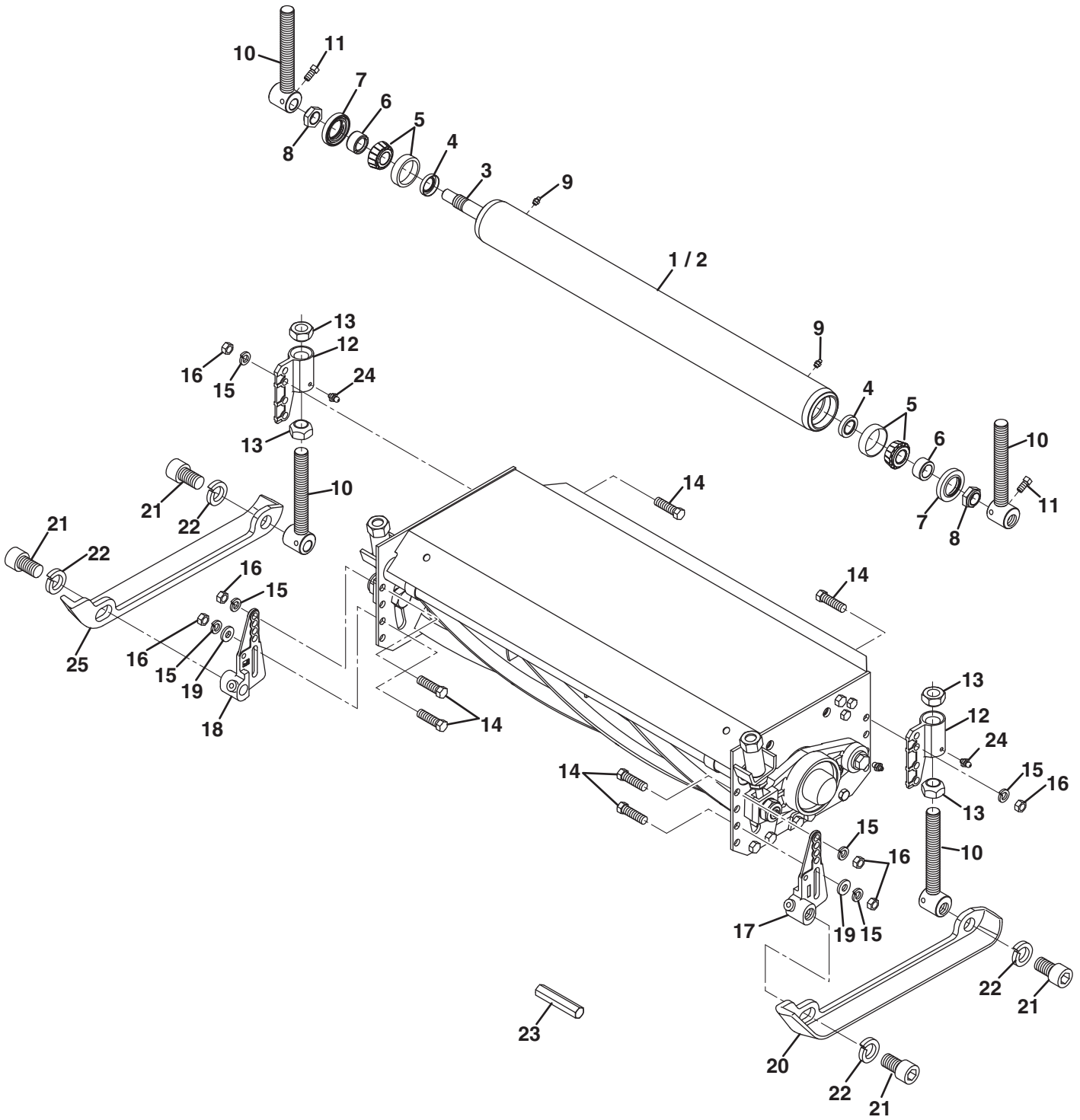
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4113759	1	26" Center Pivot Arm	Used on 67116
1	4113756	1	30" Center Pivot Arm	Used on 67125
2	364140	2	• Bushing	
3	4113758	1	26" Left Pivot Arm	Used on 67114
3	4113757	1	26" Right Pivot Arm	Used on 67115
3	4113755	1	30" Left Pivot Arm	Used on 67123
3	4113754	1	30" Right Pivot Arm	Used on 67124
4	364156	2	• Bushing	
5	338561	1	Pivot Bracket, Left Side	
6	338562	1	Pivot Bracket, Right Side	
7	400260	4	Screw, 3/8-16 x 7/8" Hex Head	
8	446142	4	Lockwasher, 3/8 Heavy	
9	400442	2	Screw, 1/2-20 x 1-1/2" Hex Head	
10	452012	4	Flat Washer, 1/2	
11	366827	2	Spacer, Pivot	
12	445789	2	Nut, 1/2-20 Spirallock Flange	
13	453011	6	Flat Washer, 3/8	
14	400264	2	Screw, 3/8-16 x 1-1/4" Hex Head	
15	443110	2	Nut, 3/8-16 Hex	
16	3002813	1	Bracket, Left Side Reel Bumper	Used on 67116 and 67125 Only
17	400190	4	Screw, 5/16-18 x 1-1/4" Hex Head	Used on 67116 and 67125 Only
18	446136	4	Lockwasher, 5/16 Heavy	Used on 67116 and 67125 Only
19	443106	4	Nut, 5/16-18 Hex	Used on 67116 and 67125 Only
20	361723	2	Rubber Bumper	Used on 67116 and 67125 Only
21	443810	4	Nut, 3/8-16 Hex Jam	Used on 67116 and 67125 Only
22	3002814	1	Bracket, Right Side Reel Bumper	Used on 67116 and 67125 Only
23	471214	1	Grease Fitting	

> Change from previous revision

33.1 Roller Brackets and Skids

Serial No. 67114 - All
Serial No. 67115 - All
Serial No. 67116 - All

Serial No. 67123 - All
Serial No. 67124 - All
Serial No. 67125 - All



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	132639	1	Roller, 26" Reel Rear	Used on 67114, 67115, and 67116
1	132640	1	Roller, 30" Reel Rear	Used on 67123, 67124, and 67125
2	5002831	1	• Tube, 26" Reel Roller	Used on 67114, 67115, and 67116
2	5002832	1	• Tube, 30" Reel Roller	Used on 67123, 67124, and 67125
3	3003415	1	• Shaft, 26" Reel Roller	Used on 67114, 67115, and 67116
3	3003414	1	• Shaft, 30" Reel Roller	Used on 67123, 67124, and 67125
4	338647	2	• Seal, Inner Oil	
5	500534	2	• Bearing, Cup and Cone	
6	3005156	2	• Wear Sleeve	
7	3004882	2	• Seal, Outer Oil	
8	367029	2	• Locknut, 3/4-16 Hex Jam	
9	471214	2	• Grease Fitting, 1/4-28 Straight	
10	132680	2	Rear Roller Adjuster	
11	412015	2	Set Screw, 5/16-18 x 5/8" Square Hd	
12	3007673	2	Housing, Roller Adjuster	
13	3000313	4	Nut, 3/4-16 Hex Adjuster	
14	400264	8	Screw, 3/8-16 x 1-1/4" Hex Head	
15	446142	8	Lockwasher, 3/8 Heavy	
16	443110	8	Nut, 3/8-16 Hex	
17	3008359	1	Bracket, Left Side Front Roller	
18	3008360	1	Bracket, Right Side Front Roller	
19	366653	2	Washer	
20	207474	1	Shoe, Left Side Reel Skid	
21	434002	4	Screw, 3/4-16 x 1-1/2" Hex Socket	
22	446174	4	Lockwasher, 3/4 Light	
23	554723	1	Wrench, 5/8" Hex Skid Shoe	
24	471214	2	Grease Fitting, 1/4-28 Straight	
25	207473	1	Shoe, Right Side Reel Skid	

> Change from previous revision

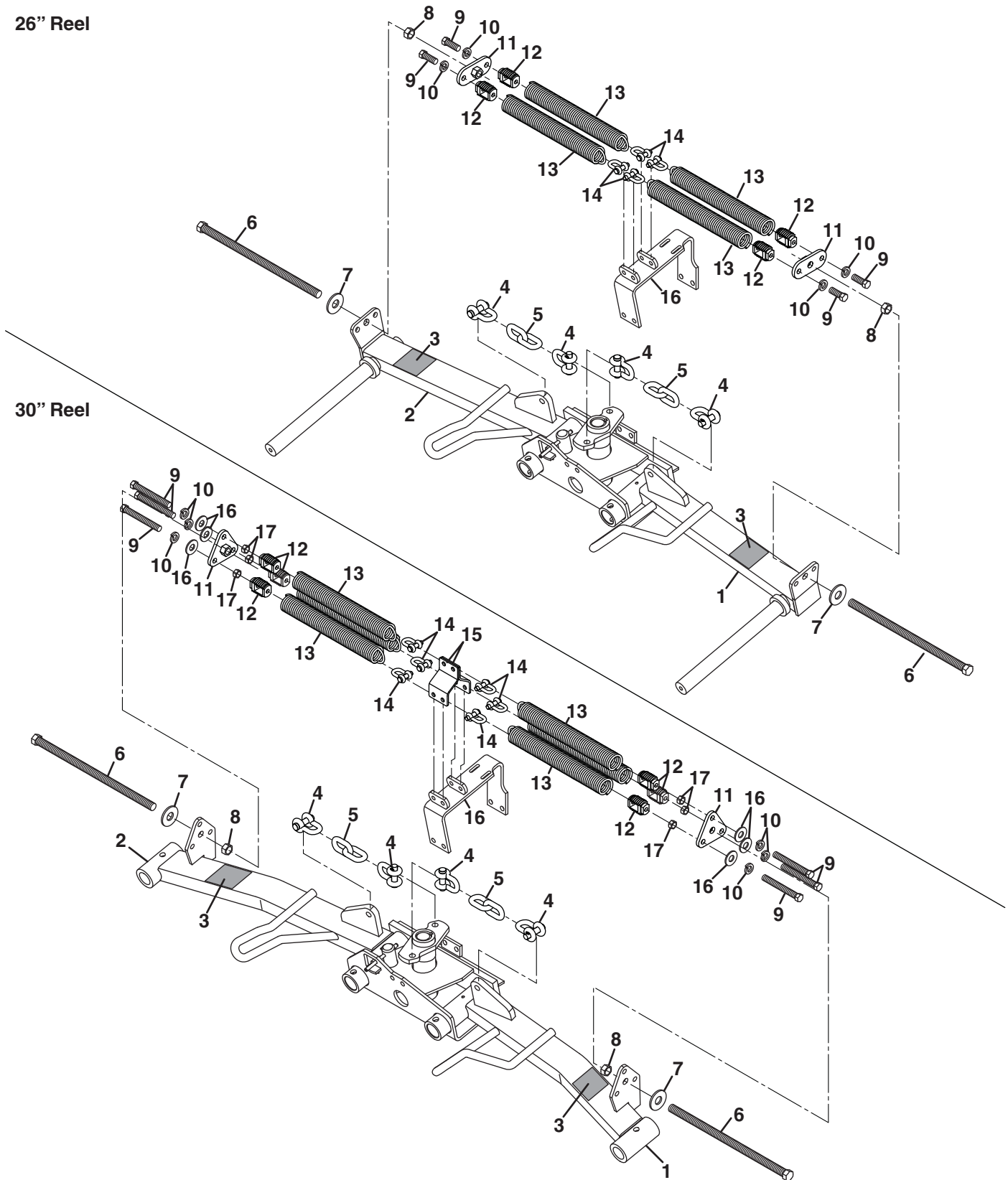
34.1 Down Pressure Springs

Serial No. 67114 - All
Serial No. 67115 - All
Serial No. 67116 - All

Serial No. 67123 - All
Serial No. 67124 - All
Serial No. 67125 - All

26" Reel

30" Reel



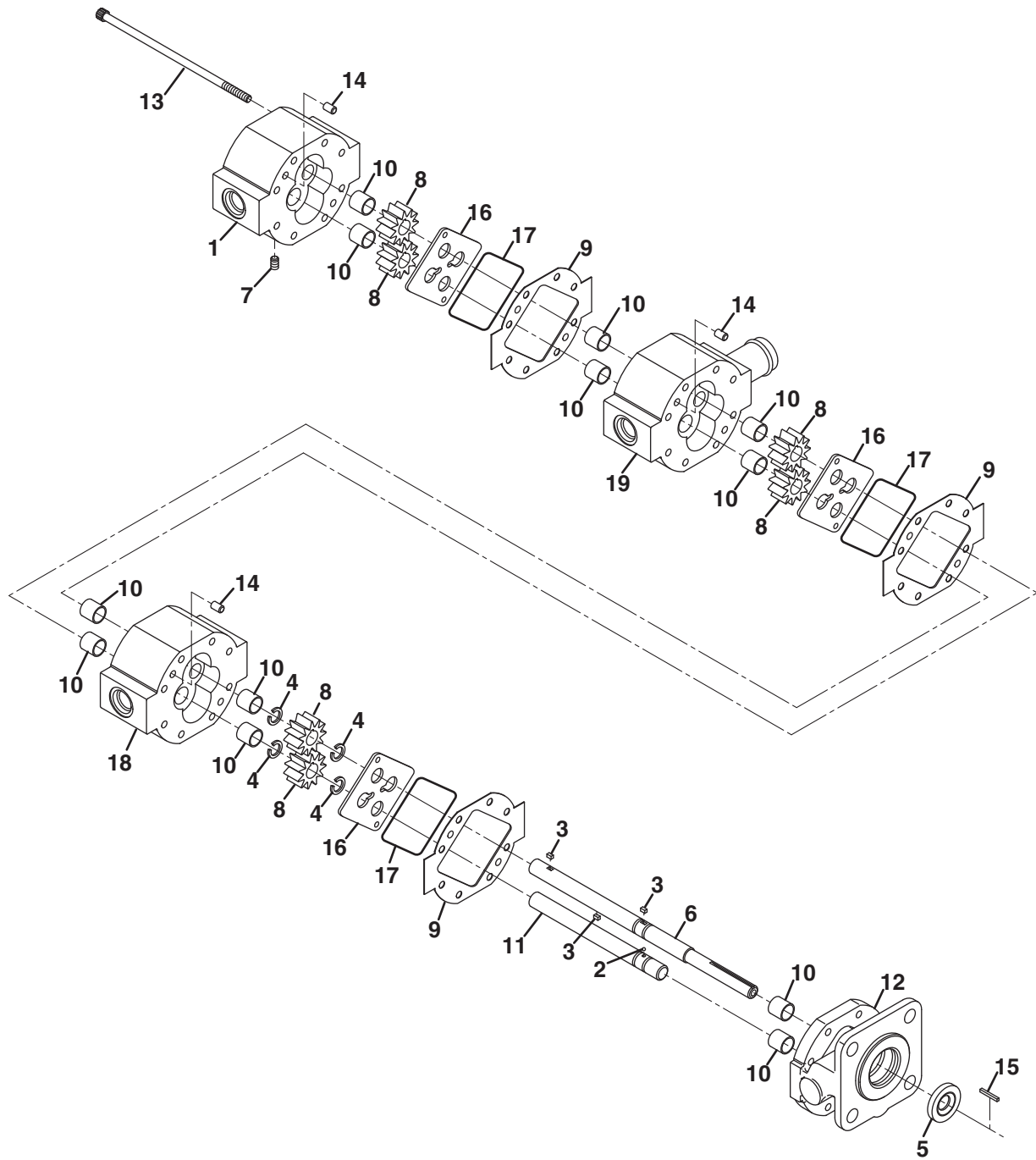
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2811281	1	Lift Arm, Left Side 26" Reel	Used with 67114, See 29.1
1	2811279	1	Lift Arm, Left Side 30" Reel	Used with 67123, See 29.1
2	2811280	1	Lift Arm, Right Side 26" Reel	Used with 67115, See 29.1
2	2811278	1	Lift Arm, Right Side 30" Reel	Used with 67124, See 29.1
3	4181863	1	• Decal, Read Manual for Service	
4	1001854	4	Shackle, Chain	
5	3004065	2	Lift Chain	
6	441904	2	Screw, 1/2-13 x 10" Hex Head	Full Thread
7	452012	2	Flat Washer, 1/2	
8	443118	2	Nut, 1/2-13 Hex	
9	400262	4	Screw, 3/8-16 x 1" Hex Head	Used with 67114 and 67115
9	401213	6	Screw, 3/8-16 x 4-1/2" Hex Head	Used with 67123 and 67124
10	446142	4	Lockwasher, 3/8 Heavy	Used with 67114 and 67115
10	446142	6	Lockwasher, 3/8 Heavy	Used with 67123 and 67124
11	2811128	2	Plate, Spring Mounting	Used with 67114 and 67115
11	2811127	2	Plate, Spring Mounting	Used with 67123 and 67124
12	3007908	4	Plug, Spring	Used with 67114 and 67115
12	3007908	6	Plug, Spring	Used with 67123 and 67124
13	364157	4	Spring, Down Pressure	Used with 67114 and 67115
13	364157	6	Spring, Down Pressure	Used with 67123 and 67124
14	364160	4	Shackle, Spring	Used with 67114 and 67115
14	364160	6	Shackle, Spring	Used with 67123 and 67124
15	3005219	2	Bracket, Spring	Used with 67123 and 67124 Only
16	452008	6	Flat Washer, 3/8	Used with 67123 and 67124 Only
17	443110	6	Nut, 3/8-16 Hex	Used with 67123 and 67124 Only

> Change from previous revision

35.1 Reel Pump

Part No. 4174020

Serial No. All



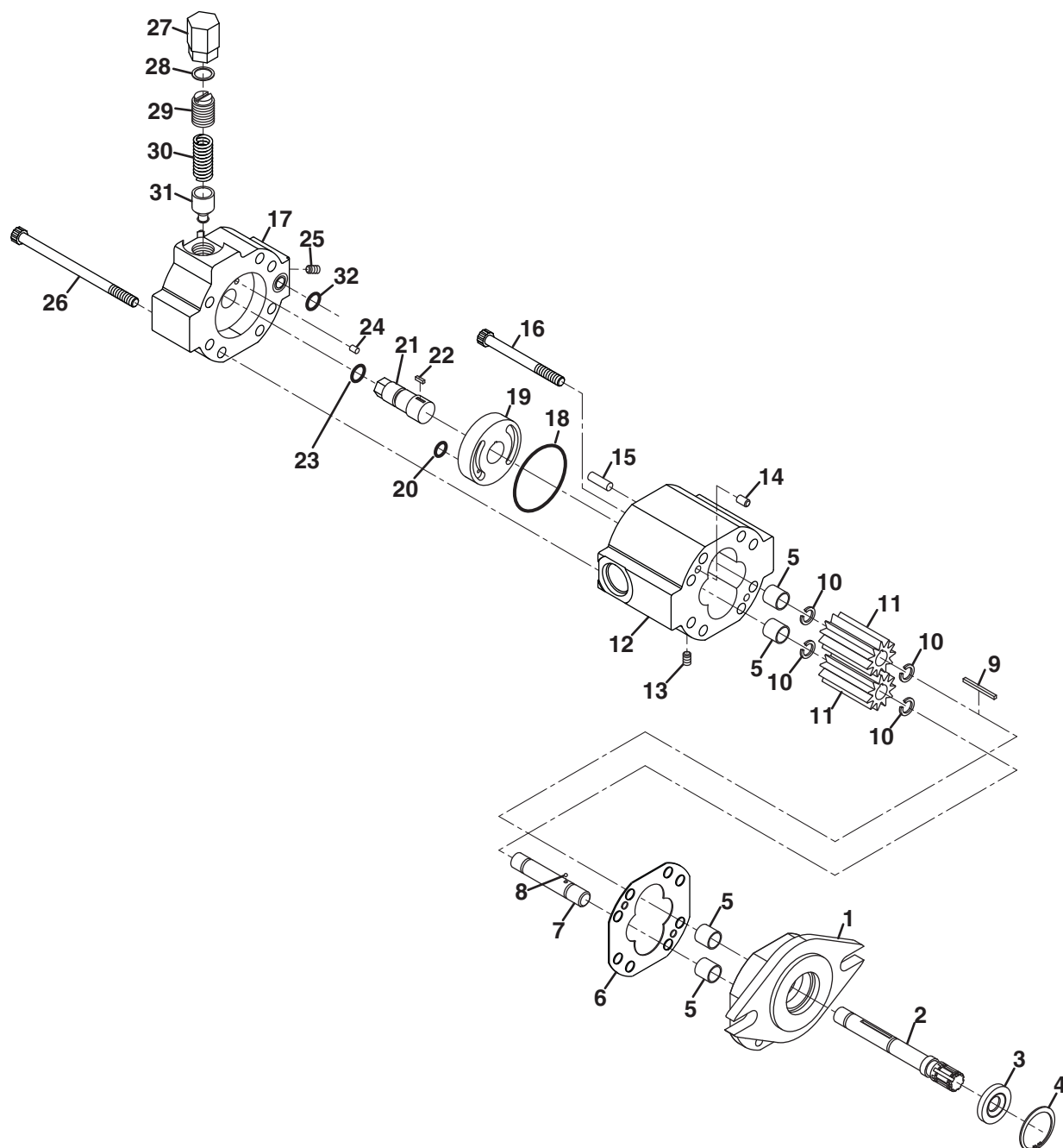
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	N/S	1	Gear Housing, Section 3	
2	N/S	1	Ball, Steel	
● 3	N/S	3	Shear Pin	
● 4	5001442	4	Snap Ring	
● 5	N/S	1	Oil Seal	
6	5001435	1	Driveshaft	
7	5001444	1	Plug, Lee	
8	N/S	6	Gear, 7/16" Wide	0.226 in ³ /rev
● 9	N/S	3	Seal Plate	
10	5001446	12	Sleeve, Bearing	
11	N/S	1	Idler Shaft	
12	N/S	1	Stator	
13	N/S	8	Screw, 1/4-20	
14	5001449	6	Pin, Alignment	
15	5001437	1	Drive Key	
● 16	N/S	3	Wear Plate	
● 17	N/S	3	O-Ring, Diamond	
18	N/S	1	Gear Housing, Section 1	
19	N/S	1	Gear Housing, Section 2	
	5001436	1	Repair Kit	Includes Items marked ●

> Change from previous revision

36.1 Reel Motor

Part No. 1002603

Serial No. All



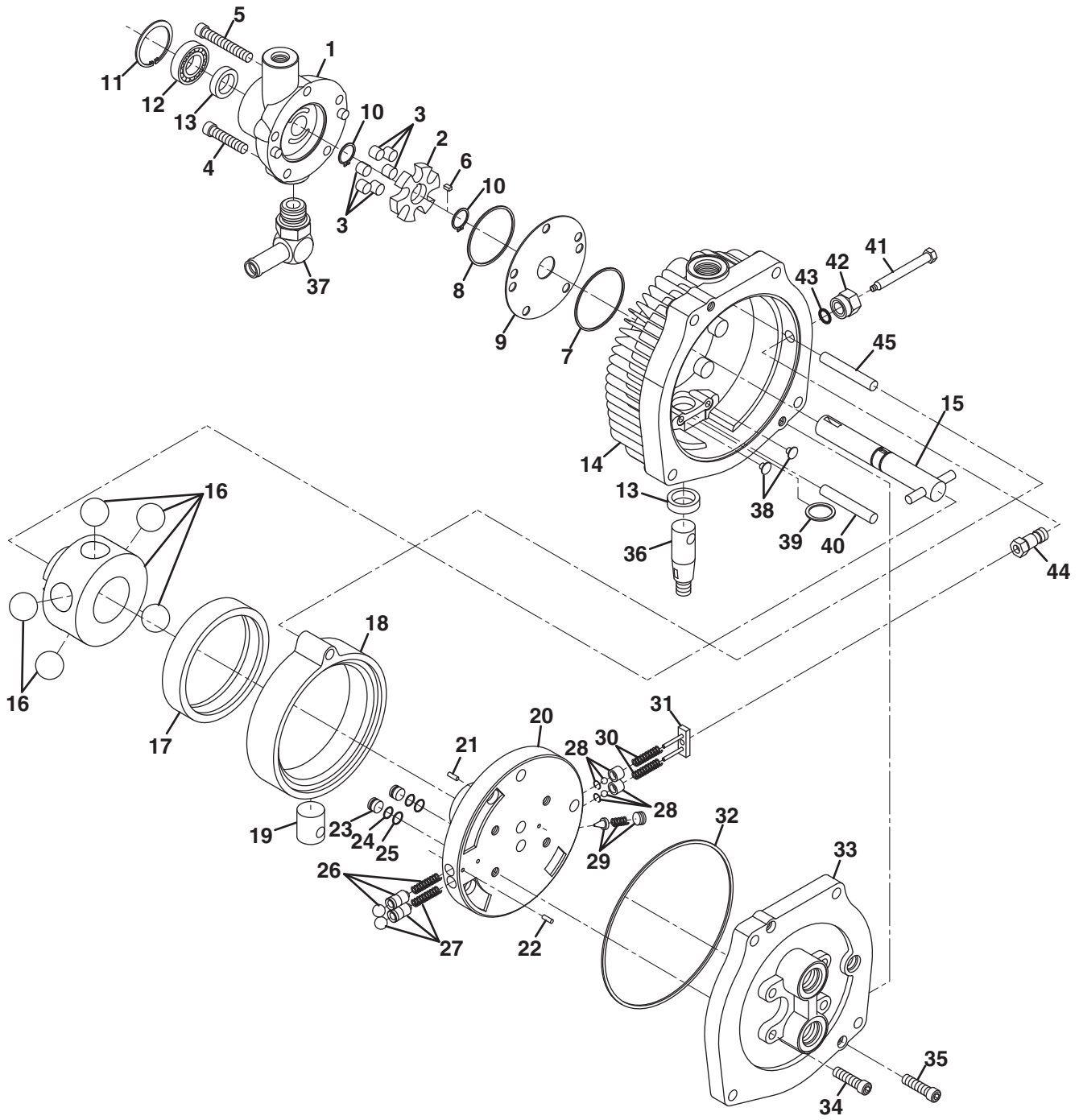
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	5001448	1	Stator	
2	5001443	1	Drive Shaft	
● 3	N/S	1	Oil Seal	
● 4	N/S	1	Retaining Ring	
5	5001446	4	Sleeve, Bearing	
● 6	N/S	1	Gasket, 0.00050 (Silver)	Use gasket same color as original gasket.
● 6	N/S	1	Gasket, 0.00100 (Amber)	
● 6	N/S	1	Gasket, 0.00075 (Gold)	
7	5001447	1	Idler Shaft	
8	N/S	1	Steel Ball	
9	5001441	1	Shear Pin	
10	5001442	4	Snap Ring	
11	5001445	2	Gear, 1-3/8" Wide	
12	N/S	1	Housing, Gear	
13	5001444	1	Lee Plug	
14	5001449	2	Alignment Pin	
15	N/S	1	Dowel Bushing	
16	555828	1	Screw, 1/4-20	
17	N/S	1	Housing, Valve	
● 18	N/S	1	O-Ring	
19	2501165	1	Valve Plate	
● 20	N/S	1	O-Ring	
	503504	1	Valve Stem Kit	
21	N/S	1	• Valve Stem	
22	N/S	1	• Shear Pin	
● 23	N/S	1	• O-Ring	
24	N/S	1	Roll Pin	
25	N/S	1	Plug, 1/16 NPTF	
26	N/S	7	Screw, 1/4-20	
	503503	1	Relief Valve Kit	
	503502	1	• Relief Valve Cap	
27	N/S	1	• • Cap	
● 28	N/S	1	• • Copper Gasket	
29	N/S	1	• Adjustment Screw	
30	N/S	1	• Spring	
31	N/S	1	• Poppet	
● 32	N/S	1	O-Ring	
	5002657	1	Seal Kit	Includes Items marked ●

> Change from previous revision

37.1 Traction Pump

Part No. 4129590

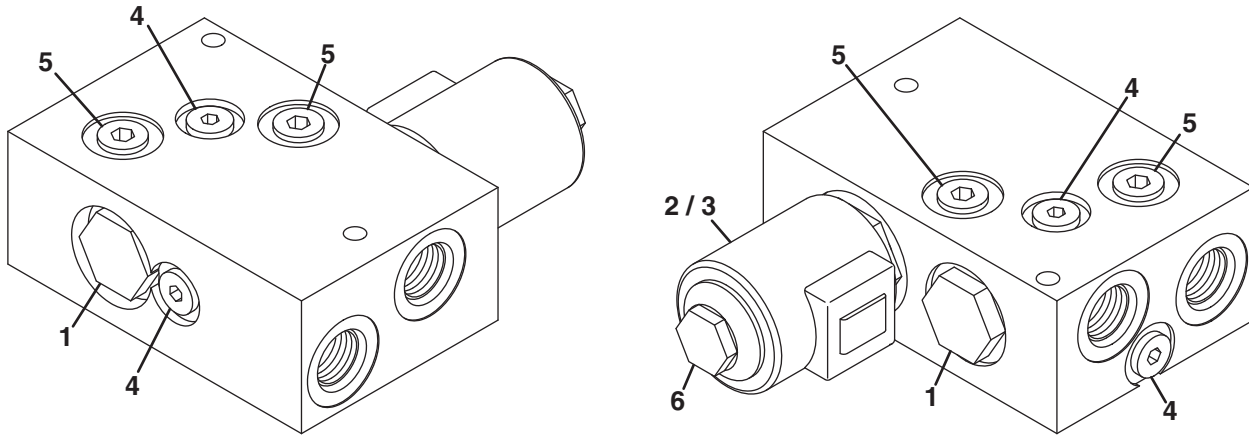
Serial No. All



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4132078	1	Charge Pump Kit	
2	4120216	1	• Carrier	
3	N/S	6	• Roller	
4	N/S	4	• Screw, 5/16-18 x 1-1/4" Hex Socket	
5	N/S	1	• Screw, 5/16-18 x 1-3/4" Hex Socket	
6	4120217	1	• Pin, Drive	
● 7	549354	1	• Seal, Square Cut Ring	
● 8	549380	1	• Seal, Square Cut Ring	
9	549609	1	• Plate, Pump	
10	546437	2	• Snap Ring	
11	N/S	1	Retaining Ring	
12	4195121	1	Bearing, Ball	
● 13	546415	2	Oil Seal	
14	N/S	1	Cover, Pump	
15	4195120	1	Input Shaft	
16	502459	1	Pump, Ball Rotor	
17	N/S	1	Pump Race	
18	N/S	1	Cam Ring	
19	N/S	1	Insert, Cam Ring	
20	N/S	1	Pintle Assembly	
21	N/S	1	• Coil Pin	
22	N/S	1	• Dowel	
23	N/S	2	• Piston, Dampening	
● 24	N/S	2	• Backup Ring	
● 25	N/S	2	• O-Ring	
26	N/S	1	• Upper Acceleration Valve	
27	N/S	1	• Lower Acceleration Valve	
28	N/S	2	• Check Valve	
29	N/S	1	• Charge Pressure Relief Valve	
30	549365	2	Spring, Tow Valve	
31	N/S	1	Bracket, Pins	
● 32	549376	1	Seal, Square Cut Ring	
33	554377	1	Cover, Pintle	
34	N/S	4	Screw, 5/16-18 x 1" Hex Socket	
35	N/S	2	Screw, 5/16-18 x 1" Torx Socket	
36	N/S	1	Control Shaft	
37	361631	1	Fitting, -10 ORB Barbed	
	339899	1	• O-Ring, -10 ORB	
38	549379	2	Button	
39	N/S	1	Washer, Control Shaft	
40	N/S	1	Pin, Dowel	
41	N/S	1	Shaft, Tow Valve	
42	N/S	1	Nut, Gasket	
43	N/S	1	O-Ring	
44	N/S	1	Fitting, O-Ring Guide	
45	N/S	1	Pin, Dowel	
	2500620	1	Seal Kit	Includes Items marked ●

38.1 3WD Valve

Part No. 4111942

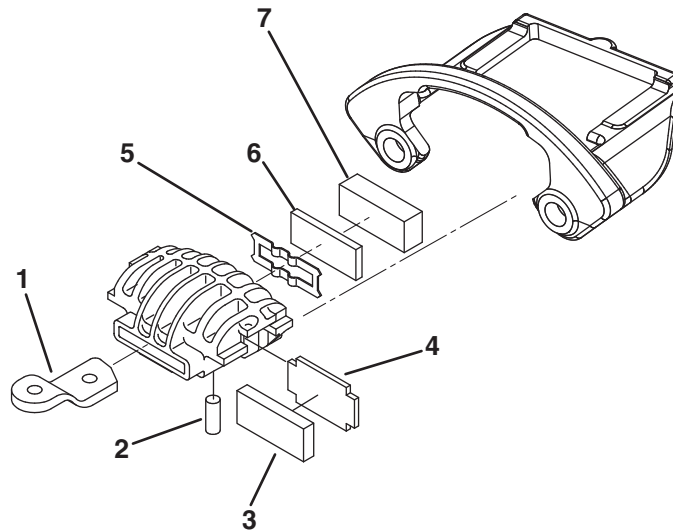


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4113025	2	Check Valve	REFERENCE K3, See 42.1
	5003578	1	• Seal Kit, Check Valve	
2	4113026	1	Spool Valve	
	5003579	1	• Seal Kit, Spool Valve	
3	4113027	1	Coil, Solenoid	
4	5002157	3	Port Plug, -4 ORB	
	339896	1	• O-Ring, -4 ORB	
5	5001065	1	Port Plug, -6 ORB	
	339897	1	• O-Ring, -6 ORB	
6	4113028	1	Nut, Coil	

> Change from previous revision

39.1 Brake Calipers

Part No. 1001634 (Left Side) and 1001635 (Right Side)

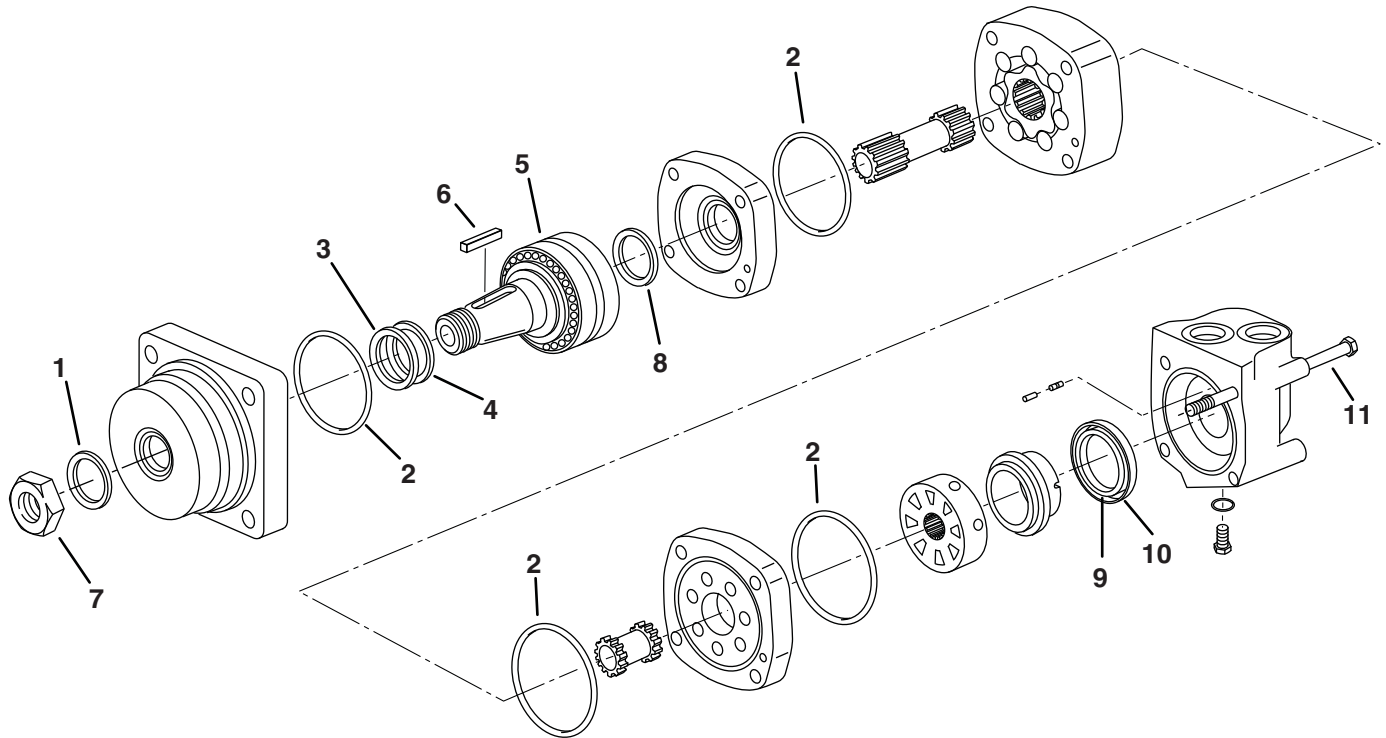


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	N/S	1	Cam	Left Side
1	N/S	1	Cam	Right Side
2	557823	1	Pivot Pin	
3	503660	1	Carrier, Side Pad	
4	557824	1	Pad, Support	
5	557825	1	Lever Retainer Spring	
6	557826	1	Pad, Support	
7	503660	1	Cam Side Pad	

> Change from previous revision

40.1 Wheel Motor, 11.9 in³

Part No. 4182425

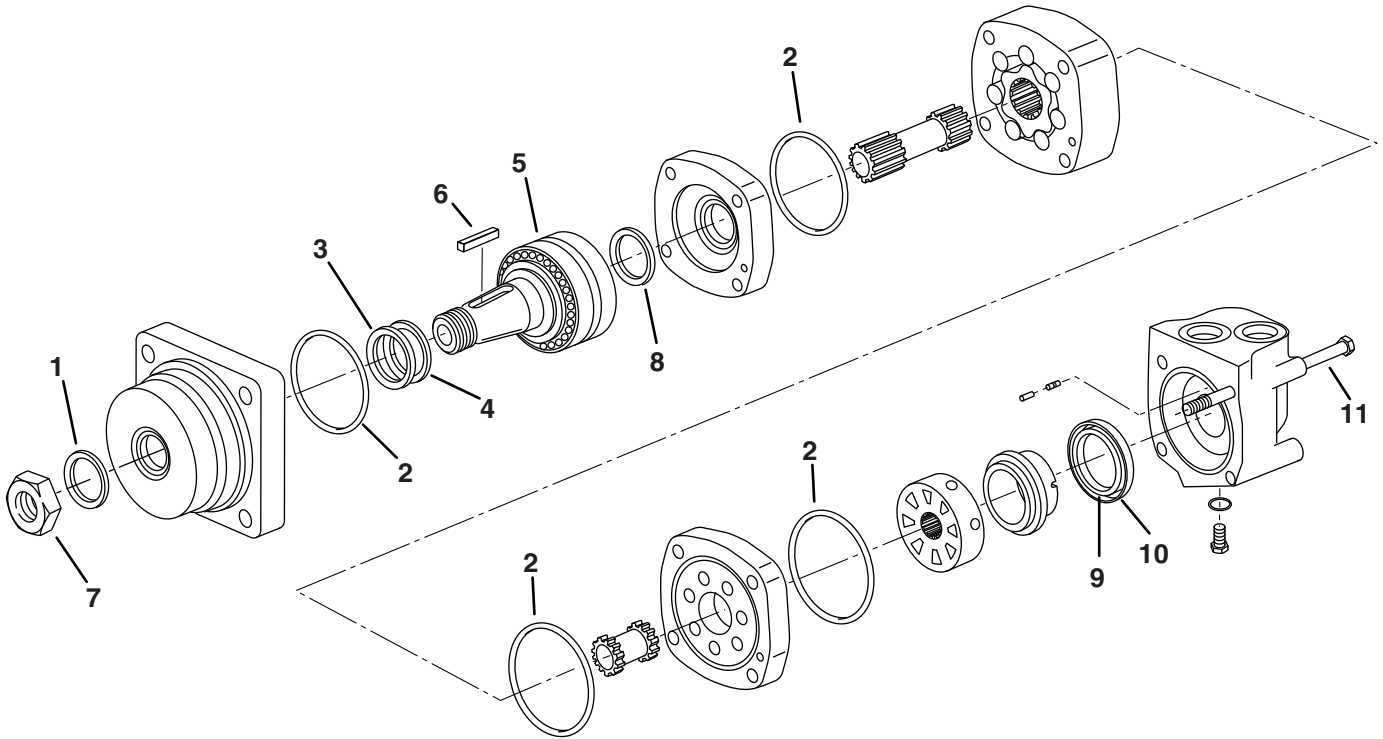


Item	Part No.	Qty.	Description	Serial Numbers/Notes
◆	1	N/S	1 Seal Guard	
●	2	N/S	4 Seal, 3" I.D.	
●	3	N/S	1 Back Up Ring	
●	4	N/S	1 Shaft Seal	
	5	5003384	1 Shaft and Bearing Kit	
	6	554780	1 Key	
	7	554779	1 Hex Nut	
◆	8	N/S	1 Shaft Face Seal	
●	9	N/S	1 Inner Face Seal	
●	10	N/S	1 Outer Face Seal	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

> Change from previous revision

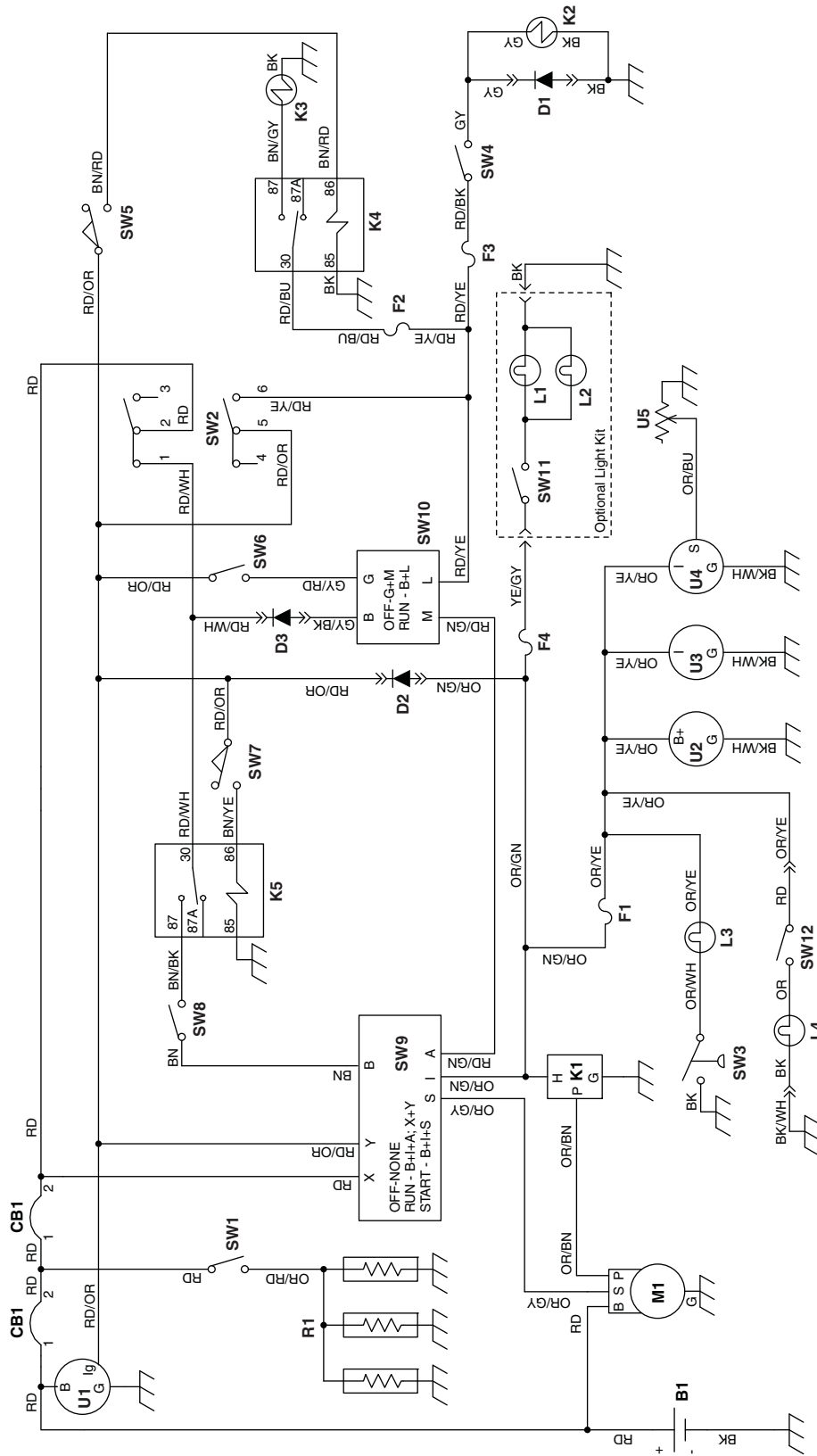
41.1 Wheel Motor, 9.6 in³

Part No. 4189920



Item	Part No.	Qty.	Description	Serial Numbers/Notes	
◆	1	N/S	1	Seal Guard	
●	2	N/S	4	Seal, 3" I.D.	
●	3	N/S	1	Back Up Ring	
●	4	N/S	1	Shaft Seal	
	5	5003384	1	Shaft and Bearing Kit	
	6	554780	1	Key	
	7	554779	1	Hex Nut	
◆	8	N/S	1	Shaft Face Seal	
●	9	N/S	1	Inner Face Seal	
●	10	N/S	1	Outer Face Seal	
	11	554782	4	Bolt	
	4178561	1	Rear Seal Kit	Includes Items marked ●	
	4178562	1	Front Seal Kit	Includes Items marked ◆	

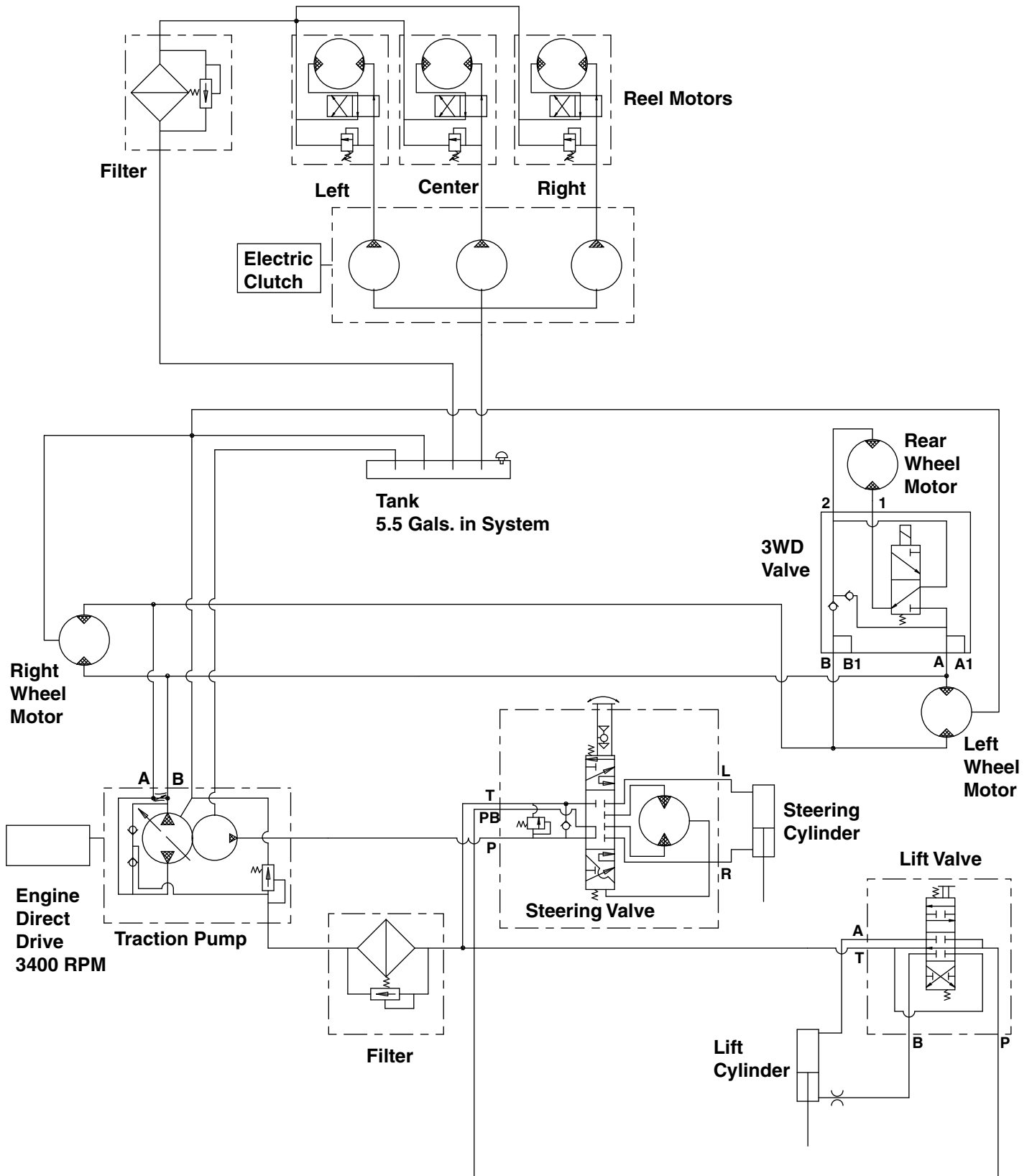
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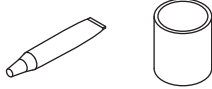
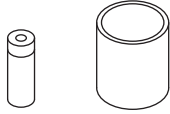

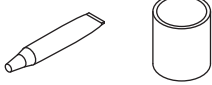

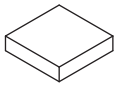
Item	Reference Illustration	Part Number	Description	Serial Numbers/Notes
B1	See 19.1	NS	Battery	
CB1	See 16.1	3000359	50 Amp Circuit Breaker	
CB2	See 5.1	338601	10 Amp Circuit Breaker	
D1	Not Shown	555846	Clutch Diode	Included in Wire Harness
D2	Not Shown	555846	Seat Switch Diode	Included in Wire Harness
D3	Not Shown	555846	Backlap Diode	Included in Wire Harness
F1	See 4.1	5003276	Gauge Circuit, 3 Amp Fuse	Installed in Fuse Block
F2	See 4.1	5003276	3WD Circuit, 3 Amp Fuse	Installed in Fuse Block
F3	See 4.1	5003279	Clutch Circuit, 7.5 Amp Fuse	Installed in Fuse Block
F4	See 4.1	5003279	Light Circuit, 7.5 Amp Fuse	Optional, Installed in Fuse Block
K1	See 17.1	338289	Fuel Solenoid	
K2	See 15.1	2809727	Reel Pump Clutch Solenoid	
K3	See 38.1	5001354	3WD Solenoid	
K4	See 27.1	3001307	3WD Relay	
K5	See 27.1	3001307	Neutral Relay	
L1	Not Shown	NS	Optional Light	Included in Product 69149
L2	Not Shown	NS	Optional Light	Included in Product 69149
L3	See 5.1	164194	Oil Pressure Warning Light	
L4	See 5.1	366751	Parking Brake Light	
M1	Not Shown	NS	Starter Motor	Included in Engine
R1	Not Shown	NS	Glow Plugs	Included in Engine
SW1	See 5.1	363961	Glow Plug Switch	
SW2	See 5.1	3001780	Reel Control/3WD Switch	
SW3	Not Shown	554018	Engine Oil Pressure Switch	Included in Engine
SW4	See 29.1	5000183	Reel Limit Switch	
SW5	See 6.1	3007392	3WD Proximity Switch	
SW6	See 3.1	4139450	Seat Switch	
SW7	See 6.1	3007392	Neutral Proximity Switch	
SW8	See 8.1	3002056	Parking Brake Switch	
SW9	See 5.1	1001958	Ignition Switch	
SW10	See 5.1	1001010	Backlap Switch	
SW11	Not Shown	NS	Optional Light Switch	Included in Product 69149
SW12	See 8.1	3002056	Parking Brake Light Switch	
U1	Not Shown	NS	Alternator	Included in Enigne
U2	See 5.1	162721	Volt Meter	
U3	See 5.1	162723	Hour Meter	
U4	See 5.1	162720	Temperature Gauge	
U5	See 15.1	364901	Temperature Sender	

> Change from previous revision

43.1 Hydraulic Schematic



Fluids and Compounds

Hydraulic Fluid*		
5001405	Two 2-1/2 Gallon Container of ISO VG68 Oil	
5001404	One 5 Gallon Pail of ISO VG68 Oil	
2500548	Two 2-1/2 Gallon Container of 10W30 Oil	
2500546	One 5 Gallon Pail of 10W30 Oil	
503409	Two 2-1/2 Gallon Container of ATF Fluid	
503407	One 5 Gallon Pail of ATF Fluid	
2-Cycle Oil		
554599	Twenty Four 8 Ounce Plastic Container	
Grease		
5000067	One 5 Gallon Pail OO-Grease	
5000068	Twenty Four 8 Ounce Tube OO-Grease	
Paint		
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	
Lapping Compound		
5002488	One 10 Pound Pail of 80 Grit	
5002490	One 25 Pound Pail of 80 Grit	
5002489	One 10 Pound Pail of 120 Grit	
5002491	One 25 Pound Pail of 120 Grit	
Specialty Compound		
365422	5.3 Ounce Tube of Electrical Insulating Gel	
5001581	14 Ounce Can of Lubriplate Multi Lube A	
523248	Chain Lubricant	
4136736	Zinc Spray Corrosion Protection	
Biodegradable Hydraulic Fluid*		
5003102	One 55 Gallon Drum Jacobsen GreensCare 68	
5003103	One 5 Gallon Pail Jacobsen GreensCare 68	
5003105	One 55 Gallon Drum Jacobsen GreensCare 46	
5003104	One 5 Gallon Pail Jacobsen GreensCare 46	
4115976	One 55 Gallon Drum Jacobsen GreensCare 32	
4115977	One 5 Gallon Pail Jacobsen Greens Care 32	
4114701	GreensCare Bio-Flush	
5003106	Twenty Four 14 Ounce Tube Greens Care Grease	
O-Ring Kit		
5002452	SAE O-Ring Boss (3/32 ~ 2" Tube O.D.)	
5002453	Common O-Ring Kit	
5002454	O-Ring Face Seal ORFS (-4 ~ -24 ORS Tube Size)	
Right Start Kit for New Machines		
See your local Jacobsen Dealer		
On-Time Maintenance Kit		
See your local Jacobsen Dealer		

* Refer to the Operator's manual or 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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